WESTMINSTER SCHOOL DISTRICT

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

DSA SUBMITTAL SET

03-31-2023



OWNER

WESTMINSTER SCHOOL DISTRICT
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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

COVER SHEET

G0.00

G0.01 - TITLE SHEET

DRAWING CONVENTIONS

- PROPERTY LINE
- AREA DRAIN
- NO. — EXISTING ELEVATION
- NO. — FINISH GRADE ELEVATION
- NORTH / TRUE NORTH — NORTH SYMBOL
- O — COLUMN LINE
- Name Elevation — FLOOR LINE
- MATCH LINE
- 1 / A101 — SECTION CALLOUT SYMBOL
- A1.01 12 — EXTERIOR ELEVATION SYMBOL
- 2 / 3 A1.01 1 / 4 — INTERIOR ELEVATION SYMBOL
- 101 — DOOR DESIGNATION
- A / 1t — WINDOW DESIGNATION
- 1i — PARTITION TYPE
- EXISTING PARTITION
- NEW PARTITION
- 1 — REVISION NUMBER
- 1 / A-100 — DETAIL ENLARGED
- 1 / A-100 — PLAN OR DETAIL ENLARGED
- 1 / A101 — DETAIL SECTIONS AND VERTICAL SECTIONS
- 6'-0" 4'-0" 10'-0" — DIMENSIONS

NOTE: all dimensions to face of wall unless otherwise noted

- 18'-6" — SPOT ELEVATION
- N - 58' 2" E - 150' 11" — SPOT COORDINATE
- MATCH LINE SEE XX/X-XXX — SHEET NUMBER ON WHICH CONTINUATION IS FOUND
- FENCING (WITH POSTS)
- BREAK LINE
- 12.34 — KEY NOTE
- **Room name** 101 150 SF — ROOM NAME AND NUMBER
- FHC FHC — FIRE HOSE CABINET (RECESSED AND SURFACE MOUNTED)
- FEC FEC — FIRE EXTINGUISHER CABINET (RECESSED AND SURFACE MOUNTED)
- 25C — EQUIPMENT DESIGNATION
- TA1 — TOILET ACCESSORY SYMBOL
- SHOWER HEAD
- F.S. — FLOOR SINK
- F.D. — FLOOR DRAIN
- OVERFLOW DRAIN / ROOF DRAIN — OVERFLOW DRAIN AND ROOF DRAIN
- RTU — ROOF TOP UNIT REFER TO MECHANICAL FOR TYPE
- 0 2' 4' 8' SCALE: 1" = 4'-0" — GRAPHIC SCALE

ABBREVIATIONS

A.D.	AREA DRAIN	EQUIP	EQUIPMENT	MEP	MECHANICAL, ELECTRICAL AND PLUMBING	S.D.	SOAP DISPENSER
A.D.A.	AMERICANS WITH DISABILITIES ACT	EXIST	EXISTING	MEZZ.	MEZZANINE	SCHED	SCHEDULE
A.F.F.	ABOVE FINISH FLOOR	EXP	EXPANSION	MFR.	MANUFACTURE (R)	SCPL	SOLID CORE PLASTIC LAMINATE
A.F.G.	ABOVE FINISH GRADE	EXT	EXTERIOR	MH.	MANHOLE	SECT	SECTION
A.H.J.	ATHORITY HAVING JURISDICTION	F.E.	FIRE EXTINGUISHER	MIN.	MINIMUM	SHT	SHEET
A/C	AIR CONDITIONING	F.E.C.	FIRE EXTINGUISHER CABINET	MISC.	MISCELLANEOUS	SIM	SIMILAR
ACP.	ACOUSTICAL PANEL	F.H.C.	FIRE HOSE CABINET	MOD	MODULAR	SPC	SPECIAL COATING SYSTEM
ACT.	ACOUSTICAL TILE	FB.	FACE BRICK	MTL	METAL	SPEC	SPECIFICATION (S)
ADJ.	ABADJUSTABLE	FD.	FLOOR DRAIN	MTP.	METAL TOILET PARTITION	SQ.	SQUARE
ALT.	ALTERNATE	FIN.	FINISH (ED)	N.D.	NAPKIN DISPOSAL	SS.	SOUND STRIP
ALUM.	ALUMINUM	FIXT.	FIXTURE	N.I.C.	NOT IN CONTRACT	SS. STL.	STAINLESS STEEL
ASPH.	ASPHALT	FLR.	FLOOR (ING)	N.R.	NOT RATED	STD	STANDARD
∠	ANGLE	FLSHG.	FLASHING	N.T.S.	NOT TO SCALE	STL	STEEL
B.U.R.	BUILT-UP ROOF	FLUOR	FLUORESCENT	N.V.	NAPKIN VENDOR	STRUC	STRUCTURAL
BD.	BOARD	G.B.	GRAB BAR	NO.	NUMBER	SUSP	SUSPENDED
BLDG.	BUILDING	G.I.	GALVANIZED IRON	O.C.	ON CENTER (S)	SVDF	SHEET VINYL DANCE FLOORING
BLK.	BLOCK	GA.	GAUGE	O.C.E.W.	ON CENTER EACH WAY	SYS	SYSTEM
BM.	BEAM	GALV.	GALVANIZED	O.D.	OUTSIDE DIAMETER	T.B.	TACK BOARD
C	CHANNEL	GCMU	GLAZED CONCRETE MASONRY UNIT	O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED	T.D.R.	TOWEL DISPENSER AND RECEPTACL
C.J.	CONTROL JOINT	GEN.	GENERAL	O.H.	OPPOSITE HAND	T.O.	TOP OF
C.M.U.	CONCRETE MASONRY UNIT	GEN.	GENERAL	OPNG.	OPENING	T.O.B.	TOP OF (WOOD) BLOCKING
C.W.	COLD WATER	GL.	GLASS / GLAZING	OPP.	OPPOSITE	T.O.M.	TOP OF MASONRY
CAB, CABT	CABINET	GL.	GLASS	P. LAM.	PLASTIC LAMINATE	T.O.S.	TOP OF STEEL
CFMF	COLD FORMED METAL FRAMING	GR.	GRADE	P.C.	PRECAST	T.T.D.	TOILET TISSUE DISPENSER
CL	CENTERLINE	GTP.	GLAZED TILE PAVER	P.H.	PAPER HOLDER	TCNA	TILE COUNCIL OF NORTH AMERICA
CLG.	CEILING	GYP.	GYPSUM DRYWALL	P.L.	PROPERTY LINE	TEL	TELEPHONE
CLR	CLEAR	H.W.	HOT WATER	P.P.	POWER POLE	TERR	TERRAZZO
COL.	COLUMN	HM	HOLLOW METAL FRAME	P.W.B.	PREFINISHED WALL BOARD	THK	THICK (NESS)
COMP.	COMPRESSIBLE	HORIZ.	HORIZONTAL	PL.	PLATE	TYP	TYPICAL
CONC.	CONCRETE	HT.	HEIGHT	PLUMB.	PLUMBING	U.N.O.	UNLESS NOTED OTHERWISE
COND.	CONDITION	I.D.	INSIDE DIAMETER	PLYWD.	PLYWOOD	UR.	URINAL
CORR.	CORRIDOR	I.P.S.	IRON PIPE SIZE	POL.	POLISHED	V	VENT
CPT.	CARPET (ED)	INSUL	INSULATE (ED), (ION)	PR.	PAIR	V.C.T.	VINYL COMPOSITION TILE
CT.	CERAMIC TILE	INT.	INTERIOR	PREFIN.	PRE-FINISHED	V.I.F.	VERIFY IN FIELD
CTG	CLEAR TEMPERED GLAZING	ISA	INTERNATIONL SYMBOL OF ACCESSIBILITY	PT.	POINT	VENT.	VENTILATING, VENTILATED
CTSK.	COUNTER SINK	JT.	JOINT	PTD.	PAINTED	VER.	VERIFY
D	DRYER	L.P.	LIGHT POLE	Q.T.	QUARRY TILE	VERT.	VERTICAL
D.F.	DRINKING FOUNTAIN	LAM.	LAMINATE (D)	R / RAD	RADIUS	VGB	(PREFINISHED) VINYL CLAD GYPSUM BOARD
D.P.	DAMPPROOFING	LAV.	LAVATORY	RD	ROOF DRAIN	VWC	VINYL WALL COVERING
D.S.	DOWN SPOUT	LT.	LIGHT	RE. , REF.	REFER TO / REFERENCE / SEE	W	WASHING MACHINE
DIA.	DIAMETER	LT. WT.	LIGHTWEIGHT	RECP.	RECEPTACLE	W.P.	WATER PROOFING
DIM.	DIMENSION	M.O.	MASONRY OPENING	REINF.	REINFORCE (D), (ING)	W.S.	WEATHERSTRIP
DTL.	DETAIL	MAS.	MASONRY	REQ'D.	REQUIRED	W.W.	WATER WELL
DWG.	DRAWING	MATL.	MATERIAL (S)	RES.	RESILIENT	W.W.F	WELDED WIRE FABRIC
E.J.	EXPANSION JOINT	MAX.	MAXIMUM	REV.	REVISION (S), REVISED	W/	WITH
E.Q.	EQUAL	MB.	MARKER BOARD	RF	RECREATIONAL RESILIENT FLOORING	WC	WATER CLOSET
EA.	EACH	MECH.	MECHANICAL	RPG.	RELOCATABLE PAINTED GYPSUM BOARD	WD	WOOD
EDF	ELECTRIC DRINKING FOUNTAIN	MEM	MEMBRANE	RSS.	ROD STOCK AND SEALANT	WDW	WINDOW
EL.	ELEVATION (HEIGHT)	MEM. WP.	MEMBRANE WATERPROOFING	S.C.	SEALED CONCRETE	WT	WEIGHT
ELECT.	ELECTRICAL						
ELEV	ELEVATION (DRAWING)						

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS (Application No. 04-121952 File No. 30-43)

[x] The drawings or sheets listed on the cover or index sheet (see 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.

The 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 certify that: [x] The drawings or sheets listed on the cover or index
[x] This drawing or page

[x] is/are in general conformance and	[ ] is/are in general conformance and
[x] have been coordinated	[ ] have been coordinated
Signature (signed) — Date 03/31/2023	Signature — Date
Architect or Engineer designated to be in general responsible charge	Architect or Engineer deligated responsibility for this portion of the work
Print Name: Yong Yoo	Print Name
License Number: C-31162 — Expiration Date: 10/31/2023	License Number — Expiration Date

DSA NOTES

1. ALL WORK SHALL CONFORM TO 2022 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
2. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY A CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART I, TITLE 24, CCR
3. A 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 4-32, PART 1, TITLE 24, CCR; CLASS 3

GENERAL NOTES

1. CONSTRUCTION DOCUMENTS DESCRIBE THE PRODUCTS, SYSTEMS, QUANTITIES, CONFIGURATION AND PERFORMANCE SPECIFICATIONS THAT DELIVER THE OVERALL DESIGN INTENT OF THE PROJECT.
2. THE CONSTRUCTION DOCUMENT DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY BOTH.
3. PERFORMANCE BY THE CONSTRUCTION TEAM SHALL BE CONSISTENT WITH THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS AS NECESSARY TO DELIVER THE INDICATED RESULTS OF THE DESIGN INTENT.
4. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL GOVERNING CODES, ORDINANCES, REGULATIONS AND LAWS.
5. THE DESIGN ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS AND SCAFFOLDING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
6. WHERE ANY CONFLICT OCCURS BETWEEN THE REQUIREMENTS OF LAWS, CODES, ORDINANCES, RULES AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
7. ENACT ALL MEASURES TO PROTECT AND SAFEGUARD ALL EXISTING ELEMENTS TO REMAIN FROM BEING DAMAGED. REPLACE OR REPAIR EXISTING ELEMENTS DAMAGED BY THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION.
8. CUTTING, BORING, SAWCUTTING OR DRILLING THROUGH THE EXISTING OR NEW STRUCTURAL ELEMENTS SHALL NOT BE STARTED UNTIL THE DETAILS HAVE BEEN REVIEWED AND APPROVED BY THE ARCHITECT, AND STRUCTURAL ENGINEER OF RECORD.
9. VERIFY DIMENSIONS AND EXISTING CONDITIONS BEFORE COMMENCING WORK. REPORT DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH AFFECTED WORK.
10. REFLECTED CEILING PLAN DIMENSIONS ARE REFERENCED FROM FINISHED SURFACES UNLESS NOTED OTHERWISE. CEILING HEIGHTS ARE DIMENSIONED FROM FLOOR TO FINISHED CEILING HEIGHT.
11. DIMENSIONS NOTED AS "FIELD VERIFY" SHALL BE CHECKED AT THE SITE BY THE CONTRACTOR AND REVIEWED WITH THE ARCHITECT BEFORE INCORPORATING INTO THE WORK.
12. DO NOT SCALE DRAWING. WRITTEN DIMENSIONS TAKE PRECEDENCE. IF CLARIFICATION IS REQUIRED IN ORDER TO DETERMINE THE INTENT OF THE CONTRACT DOCUMENTS, CONTACT THE ARCHITECT.
13. NOTES OR DIMENSIONS LABELED "TYPICAL" SHALL APPLY TO SITUATIONS THAT ARE THE SAME OR SIMILAR.
14. ALL DIMENSIONS ARE TO FACE OF STUD, UNLESS NOTED OTHERWISE.
15. ALL SPACES WITH FLOOR DRAINS TO HAVE FINISHED FLOORS SLOPED TO DRAIN NOT TO EXCEED ONE IN FIFTY.
16. ALL FLOORS FINISH CHANGES SHALL OCCUR AT THE CENTERLINE OF DOORS UNLESS NOTED OTHERWISE. ALL FLOOR FINISH CHANGES SHALL HAVE THRESHOLDS OR REDUCER STRIPS.
17. COORDINATE HOUSEKEEPING PAD DIMENSIONS AND LOCATIONS WITH EQUIPMENT TO BE INSTALLED.
18. ALL DOORS IN INTERIOR GYP. BD STUD WALLS SHALL BE SET 4" OFF THE PERP. ADJ. WALL ON THE HINGE SIDE OF THE DOOR UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL CONTACT THE ARCHITECT IF ANY CONFLICTS OCCUR.
19. ALUM. THRESHOLDS TO BE SET IN FULL BED OF SEALANT AT ALL EXT. DOORS.
20. COORDINATE ROOF DRAIN LEADER LOCATIONS WITH FLOOR PLAN PRIOR TO SLAB CONSTRUCTION.
21. PROVIDE VINYL REDUCER AT ALL DISSIMILAR FLOOR MATERIALS UNLESS OTHERWISE NOTED.
22. UNLESS OTHERWISE NOTED, ALL ELECTRICAL AND MECHANICAL OPERABLE DEVICES SHALL BE MOUNTED WITH THE HIGHEST OPERABLE CONTROL AT MAX. OF 42" AFF.
23. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE DSA APPROVED DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK, PER CAC, 2013, 4-317(c)
24. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
25. FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION SHALL COMPLY WITH CBC CHAPTER 33 AND CFC CHAPTER 33.
26. MAINTAIN THE INTEGRITY OF ALL EXISTING RATED ASSEMBLIES U.O.N.

THIS PROJECT SHALL NOT BE CLOSED AND CERTIFIED PRIOR TO THE CERTIFICATION OF A#04 121963 (SEQUOIA INTERIM HOUSING) FOR:

1. D.F AT BLDG #B3
2. TWO PEDESTRIAN GATES BETWEEN BLDG MP & ADMIN BLDG.
3. REVISION TO ACCESSIBLE PARKING LOTS 1 & 2

SCOPE OF WORK

BUILDING IMPROVEMENTS INCLUDE, BUT ARE NOT LIMITED TO;

FIRE ALARM AND ROOFING UPGRADE ONLY
- EXISTING RELOCATABLE CLASSROOMS CR# R1, R2, R3, R4, R5, R6, R7
- EXISTING MULTI PURPOSE

ADMIN BUILDING (EXISTING ADMINISTRATION BUILDING)
- (N) HVAC, CEILINGS, WINDOWS, DOORS, STOREFRONT, LIGHTS, FINISHES, MARKER/TACK BOARD.
- (N) BUILT-UP ROOFING MEMBRANE & ASSOCIATED ACCESSORIES ON (E) ROOF STRUCTURE
- TOILET MODERNIZATION
- FIRE ALARM UPGRADE

BUILDING K (EXISTING KINDERGARTEN CLASSROOM)
- (N) HVAC, CEILINGS, WINDOWS, DOORS, STOREFRONT, LIGHTS, FINISHES, MARKER/TACK BOARD
- (N) BUILT-UP ROOFING MEMBRANE & ASSOCIATED ACCESSORIES ON (E) ROOF STRUCTURE
- TOILET MODERNIZATION
- FIRE ALARM UPGRADE

BUILDING A1, A2, A3, B1, B2, B3, C, LAB/LIBRARY (EXISTING CLASSROOMS)
- (N) HVAC, CEILINGS, WINDOWS, DOORS, STOREFRONT, LIGHTS, FINISHES, MARKER/TACK BOARD
- (N) BUILT-UP ROOFING MEMBRANE & ASSOCIATED ACCESSORIES ON (E) ROOF STRUCTURE
- FIRE ALARM UPGRADE

EXISTING COVERED WALKWAYS
- (N) BUILT-UP ROOFING MEMBRANE & ASSOCIATED ACCESSORIES ON (E) ROOF STRUCTURE

NEW INTERIOR AND EXTERIOR PAINT IN ALL BUILDINGS AND STRUCTURES INCLUDING LUNCH SHELTER AND ALL RELOCATABLES.
NEW DOOR INFILL, WHERE OCCURS AS SHOWN ON PLAN.
NEW ALS LISTENING SYSTEM & SIGNAGES AS SHOWN ON PLAN.

** THE SCOPE PER SECTION 2 (ABOVE) SHALL BE CLEARLY SHOWN ON THE COVER SHEET OR INDEX SHEET OF THE PLANS. THE FOLLOWING DISCLOSURE STATEMENT SHALL ALSO BE SHOWN ON THE COVER SHEET OR INDEX SHEET:

"SCOPE OF A#04-121952 IS REQUIRED TO CERTIFY A#04-101501 TO COMPLETE POST CONSTRUCTION INSPECTION PROGRAM, REQUIRED UNCONSTRUCTED SCOPE, OR RESOLVE DEFICIENCY, SCOPE CANNOT BE REDUCED."

"DSA'S APPROVAL OF THESE PLANS AND THE CERTIFICATION OF COMPLIANCE SHALL BE CONTINGENT UPON COMPLETION OF POST CONSTRUCTION INSPECTION PROGRAM, REQUIRED SCOPE, OR SCOPE RESOLVING DEFICIENCY."

LIST OF ITEMS FROM APPLICATION DSA 312 [A#04-101501]

1. PIPE GUARDRAILS AT DRINKING FOUNTAINS
2. GROUND ROD REQUIRED AT EACH PANEL BOARD - NOTE 7*
3. NEW AUTONOMOUS PUBLIC ADDRESS SYSTEM
   AD1.1, AD1.2 & AD1.3 - [E] PA SYSTEM TO BE REMOVE & REINSTALL BELOW [N] CEILING HEIGHT.
4. FINISH INSTALLATION OF ACCESSIBLE SITE SIGNAGE
   A1.01, A1.02, A1.03 - ACCESSIBLE SIGNAGE ADDED TO ALL BUILDINGS.

CALIFORNIA ENERGY CODE NOTES

1. THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE.
2. LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT).
3. MECHANICAL SYSTEM ACCEPTANCE TEST MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021.
4. ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER / ARCHITECT OF RECORD OR THE OWNER'S AGENT.
5. A LISTING OF CERTIFIED ATT CAN BE FOUND AT: HTTPS.//WWW.ENERGY.CA.GOV/PROGRAMS-AND-TOPICSPROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE.
6. THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA.
7. PROJECT INSPECTORS WILL CORRECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.

DRAWING INDEX

GENERAL

G0.00	COVER SHEET
G0.01	TITLE SHEET
G0.02	ACCESSIBILITY SITE PLAN
G0.03	FIRE ACCESS SITE PLAN
G0.04	SITE DETAILS

DEMOLITION

AD0.1	ENLARGED DEMO SITE PLAN
AD1.1	DEMO FLOOR PLANS - ADMIN & BLDG A-1, A-2 & A-3
AD1.2	DEMO FLOOR PLANS - BLDG B-1, B-2, B-3 & BLDG LAB/LIBRARY
AD1.3	DEMO FLOOR PLANS - BLDG "C" & "K"
AD2.1	DEMO REFLECTED CEILING PLANS ADMIN & BLDG A-1, A-2 & A-3
AD2.2	DEMO REFLECTED CEILING PLANS BLDG B-1. B-2, B-3 & LAB/LIBRARY
AD2.3	DEMO REFLECTED CEILING PLAN BLDG "C" & "K"

ARCHITECTURAL

A1.01	FLOOR PLANS - ADMIN & BLDG A-1, A-2 & A-3
A1.02	FLOOR PLANS - BLDG B-1, B-2, B-3 & LAB/LIBRARY
A1.03	FLOOR PLANS - BLDG 'C' & 'K'
A2.01	REFLECTED CEILING PLANS - ADMIN & BLDG A-1, A-2 & A-3
A2.02	REFLECTED CEILING PLANS - BLDG' B-1, B-2, B-3 & LAB/LIBRARY
A2.03	REFLECTED CEILING PLANS - BLDG 'C' & 'K'
A3.01	GENERAL INFORMATION
A3.02	ENLARGED ROOF PLAN
A3.03	GENERAL ROOF DETAILS
A4.01	BLDG SECTIONS
A4.02	BLDG SECTIONS
A5.01	ENLARGED RESTROOM PLANS & INTERIOR ELEVATIONS
A5.02	ENLARGED RESTROOM PLANS & INTERIOR ELEVATIONS
A6.01	EXTERIOR ELEVATIONS
A6.02	EXTERIOR ELEVATIONS
A7.01	INTERIOR ELEVATIONS
A7.02	INTERIOR ELEVATIONS
A7.03	INTERIOR ELEVATIONS
A8.01	DOORS, WINDOW FRAME DETAILS
A8.02	PARTITION TYPES AND MISC. DETAILS
A8.03	CEILING DETAILS AND MISC. DETAILS
A9.01	DOOR SCHEDULE & WINDOW FRAMING ELEVATION
A10.01	FINISH PLANS & SCHEDULE

STRUCTURAL *

SN1	GENERAL NOTES
S1	FLOOR / ROOF PLANS - BLDG ADMIN & BLDG "A"
S2	FLOOR / ROOF PLANS - BLDG "B" & LAB / LIB"
S3	FLOOR / ROOF PLANS - BLDG "C" & "K"
SD1	CONCRETE DETAILS
SD2	RTU DETAILS
SD2A	RTU DETAILS
SD3	HUNG UNITS DETAILS

MECHANICAL *

M0.00	MECHANICAL SYMBOLS, LEGENDS & GENERAL NOTES
M0.01	MECHANICAL TITLE 24 ADMIN BLDG
M0.02	MECHANICAL TITLE 24 ADMIN BLDG
M0.03	MECHANICAL TITLE 24 BLDG A1
M0.04	MECHANICAL TITLE 24 BLDG A1
M0.05	MECHANICAL TITLE 24 BLDG A2
M0.06	MECHANICAL TITLE 24 BLDG A2
M0.07	MECHANICAL TITLE 24 BLDG A3
M0.08	MECHANICAL TITLE 24 BLDG A3
M0.09	MECHANICAL TITLE 24 BLDG B1
M0.10	MECHANICAL TITLE 24 BLDG B1
M0.11	MECHANICAL TITLE 24 BLDG B2
M0.12	MECHANICAL TITLE 24 BLDG B2
M0.13	MECHANICAL TITLE 24 BLDG B3
M0.14	MECHANICAL TITLE 24 BLDG B3
M0.15	MECHANICAL TITLE 24 BLDG B4
M0.16	MECHANICAL TITLE 24 BLDG B4
M0.17	MECHANICAL TITLE 24 BLDG C
M0.18	MECHANICAL TITLE 24 BLDG C
M0.19	MECHANICAL TITLE 24 BLDG K1
M0.20	MECHANICAL TITLE 24 BLDG K1
M1.01	MECHANICAL SITE PLAN
MD2.01	MECHANICAL FLOOR PLANS - DEMO
MD2.02	MECHANICAL FLOOR PLANS - DEMO
MD2.03	MECHANICAL FLOOR PLANS - DEMO
M2.01	MECHANICAL FLOOR PLANS
M2.02	MECHANICAL FLOOR PLANS
M2.03	MECHANICAL FLOOR PLANS
M4.01	MECHANICAL ROOF PLANS
M4.02	MECHANICAL ROOF PLANS
M4.03	MECHANICAL ROOF PLANS
M5.01	MECHANICAL SCHEDULES
M5.02	MECHANICAL SCHEDULES
M6.01	MECHANICAL DETAILS
M6.02	MECHANICAL DETAILS
M7.01	MECHANICAL CONTROLS

ELECTRICAL *

E0.00	ELECTRICAL SYMBOLS, LEGENDS & GENERAL NOTES
E0.01	ELECTRICAL TITLE 24
E0.02	ELECTRICAL TITLE 24
E1.01	ELECTRICAL SITE PLAN
ED2.01	ELECTRICAL FLOOR PLANS - DEMO
ED2.02	ELECTRICAL FLOOR PLANS - DEMO
ED2.03	ELECTRICAL FLOOR PLANS - DEMO
ED3.01	ELECTRICAL LIGHTING PLANS - DEMO
ED3.02	ELECTRICAL LIGHTING PLANS - DEMO
ED3.03	ELECTRICAL LIGHTING PLANS - DEMO
E2.01	ELECTRICAL FLOOR PLANS
E2.02	ELECTRICAL FLOOR PLANS
E2.03	ELECTRICAL FLOOR PLANS
E3.01	ELECTRICAL LIGHTING PLANS
E3.02	ELECTRICAL LIGHTING PLANS
E3.03	ELECTRICAL LIGHTING PLANS
E4.01	ELECTRICAL ROOF PLANS
E4.02	ELECTRICAL ROOF PLANS
E4.03	ELECTRICAL ROOF PLANS
E5.01	ELECTRICAL SCHEDULES & SINGLE LINE DIAGRAM
E5.02	ELECTRICAL SCHEDULES
E5.03	ELECTRICAL SCHEDULES
E6.01	ELECTRICAL DETAILS

PLUMBING *

P0.00	PLUMBING SHEET INDEX, LEGENDS, AND NOTES
P1.01	PLUMBING SITE PLAN
PD2.01	PLUMBING FLOOR PLANS - DEMO
PD2.02	PLUMBING FLOOR PLANS - DEMO
PD2.03	PLUMBING FLOOR PLANS - DEMO
P2.01	PLUMBING FLOOR PLANS
P2.02	PLUMBING FLOOR PLANS
P2.03	PLUMBING FLOOR PLANS
P4.01	PLUMBING ROOF PLANS
P4.02	PLUMBING ROOF PLANS
P4.03	PLUMBING ROOF PLANS
P5.01	PLUMBING SCHEDULE
P6.01	PLUMBING DETAILS

FIRE ALARM *

FA0.00	FIRE ALARM SYMBOLS, LEGENDS & GENERAL NOTES
FA1.01	FIRE ALARM SITE PLAN
FA2.01	FIRE ALARM FLOOR PLANS
FA2.02	FIRE ALARM FLOOR PLANS
FA2.03	FIRE ALARM FLOOR PLANS
FA2.04	FIRE ALARM FLOOR PLAN - BLDG M/P
FA5.01	FIRE ALARM RISER DIAGRAM
FA5.02	FIRE ALARM CALCULATIONS
FA6.01	FIRE ALARM DETAILS

TOTAL SHEET : 124

CODES & STANDARDS

PARTIAL LIST OF APPLICABLE CODES

- **2022 California Administrative Code (CAC)** .... (Part 1, Title 24, CCR)
- **2022 California Building Code (CBC)** .... (Part 2, Title 24, CCR)
- **2022 California Electrical Code (CEC)** .... (Part 3, Title 24, CCR)
- **2022 California Mechanical Code (CMC)** .... (Part 4, Title 24, CCR)
- **2022 California Plumbing Code (CPC)** .... (Part 5, Title 24, CCR)
- **2022 California Energy Code (CEC)** .... (Part 6, Title 24, CCR)
- **2022 California Fire Code (CFC)** .... (Part 9, Title 24, CCR)
- **2022 California Existing Building Code (CEBC)** .... (Part 10, Title 24, CCR)
- **2022 California Green Building Standards Code (CAL Green)** .... (Part 11, Title 24, CCR)
- **2022 California Referenced Standards Code** .... (Part 12, Title 24, CCR)
- **Title 19 CCR, Public Safety, State Fire Marshall Regulations**
- **2019 ASME A17.1/CSA B44-13 Safety Code For Elevators and Escalators (per 2022 CBC Part 2, Ch 35)**

Note: Cal/OSHA Elevator Unit enforces CCR Title 8 and uses the 2004 ASME A17.1 by adoption

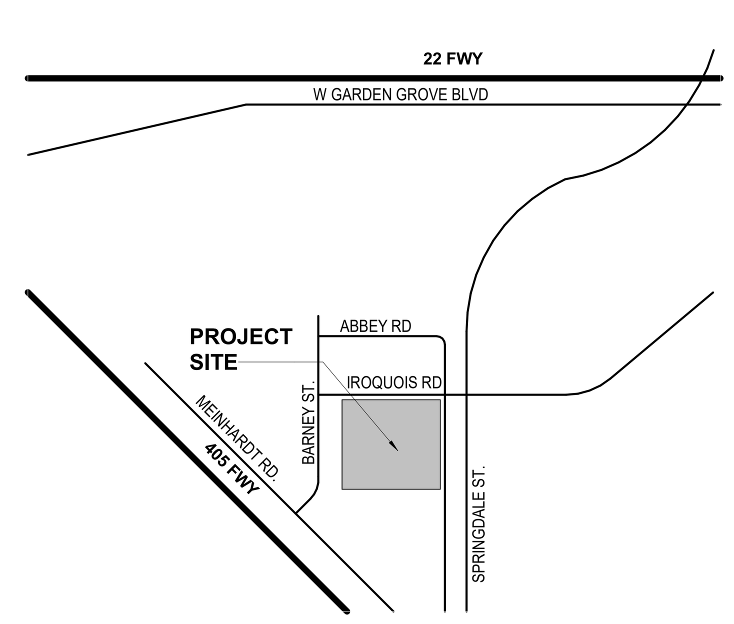
PARTIAL LIST OF APPLICABLE STANDARDS

- **NFPA 13** Automatic Fire Sprinkler Systems .... (2022 Edition)
- **NFPA 14** Standpipe and Hose Systems .... (2019 Edition)
- **NFPA 17** Dry Chemical Extinguishing Systems .... (2021 Edition)
- **NFPA 17a** Wet Chemical Extinguishing Systems .... (2021 Edition)
- **NFPA 20** Stationary Pumps for Fire Protection .... (2019 Edition)
- **NFPA 24** Standard for the Installation of Private Fire Service Mains & their Appurtenances (CA amended) .... (2019 Edition)
  Standard for Inspection, Testing and Maintenance of Water-Based Fire Protection Systems (CA amended) .... *(2013 Edition)*
- **NFPA 72** National Fire Alarm & Signaling Code (CA amended) .... (2022 Edition)
- **NFPA 80** Fire Doors and Other Opening Protectives .... (2019 Edition)
- **NFPA 92** Standard for Smoke Control Systems .... (2018 Edition)
- **NFPA 253** Critical Radiant Flux of Floor Covering Systems .... (2019 Edition)
- **NFPA 2001** Clean Agent Fire Extinguishing Systems (CA amended) .... (2018 Edition)
- **ICC 300** ICC Stds on Bleachers, Folding and Telescoping Seating and Grand stands .... (2017 Edition)
- **UL 300** Fire Testing of Fire Extinguishing Sys for Protection of Restaurant Cooking Areas.......... 2005 (R2010)
- **UL 464** Audible Signal Appliances .... (2003 Edition)
- **UL 521** Heat Detectors for Fire Protective Signaling Systems .... (1999 Edition)

For a complete list of applicable NFPA standards refer to 2022 CBC (SFM) Chapter 35 and California Fire Code Chapter 80

See California Building Code Chapter 35 for State of California amendments to the NFPA Standards.

VICINITY MAP



SHEET NUMBERING

SHEET NUMBER

A2.01

SEQUENCE (.01 - .99......etc.)
SHEET DISCIPLINE TYPE

DISCIPLINE

G	GENERAL
C	CIVIL
L	LANDSCAPE
A	ARCHITECTURAL
AD	ARCHITECTURAL DEMOLITION
AS	ARCHITECTURAL SITE
S	STRUCTURAL
M	MECHANICAL
MD	MECHANICAL DEMOLITION
E	ELECTRICAL
P	PLUMBING
PD	PLUMBING DEMOLITION

SHEET DISCIPLINE TYPE

0	GENERAL & LIFE SAFETY PLANS
1	SITE PLANS, FLOOR PLANS, & ENLARGED PLANS
2	WINDOWS, DOORS, FRAME ELEVATIONS & SCHEDULE
3	REFLECTED CEILING PLANS
4	ROOF PLANS
5	EXTERIOR ELEVATIONS
6	BUILDING SECTION & WALL SECTIONS
7	INTERIOR ELEVATIONS
8	DETAILS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

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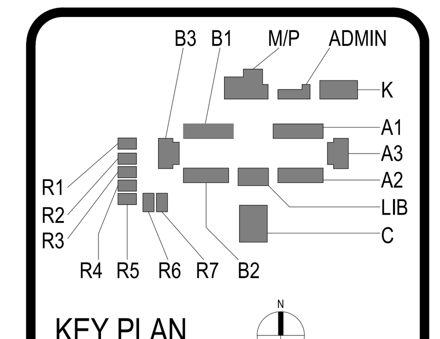
ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

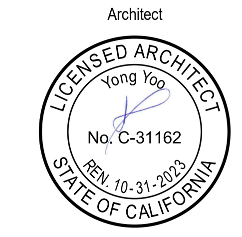
DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect



CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

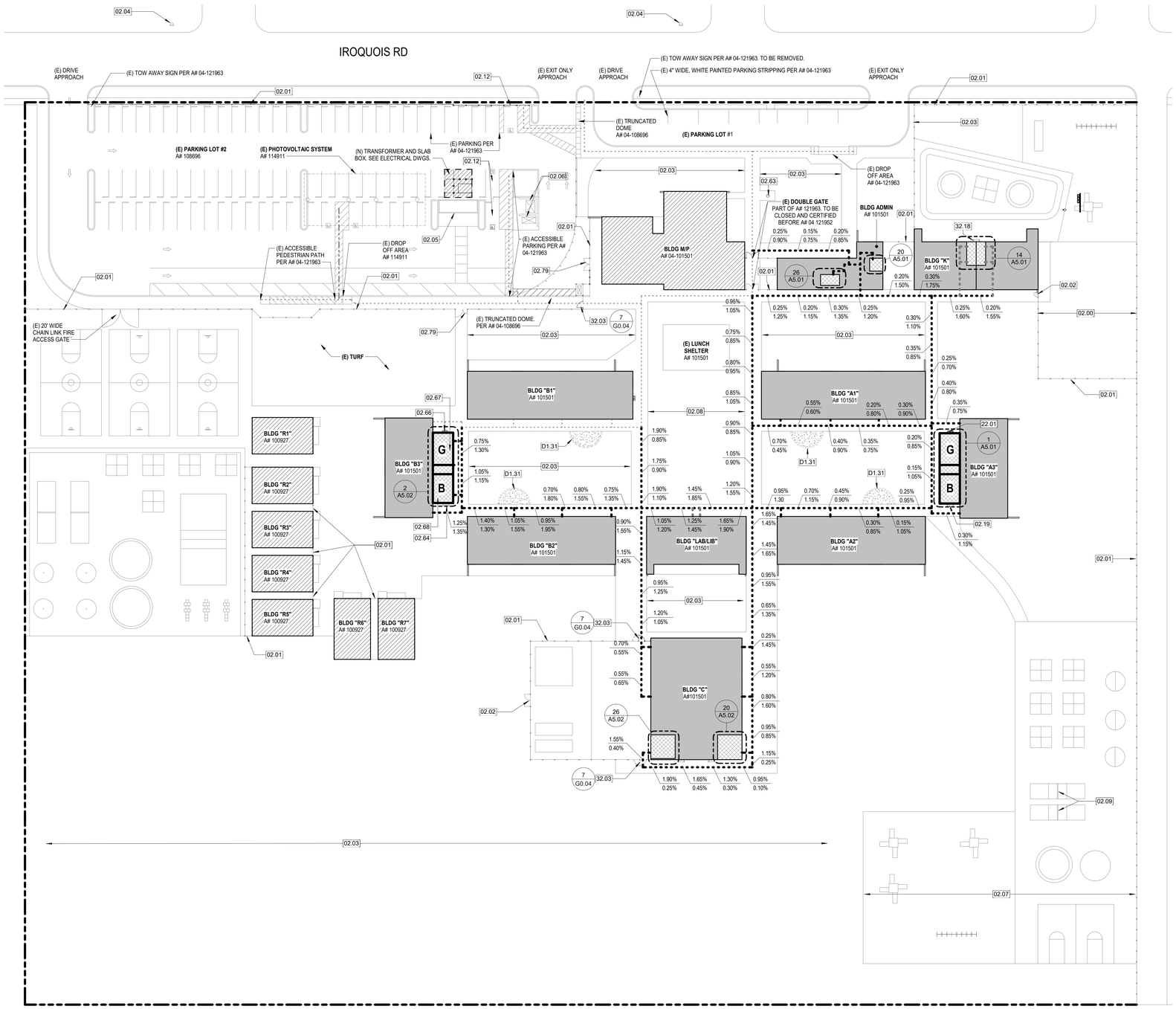
DSA SUBMITTAL SET

TITLE SHEET

G0.01

FILE PATH: Z:\Projects\...
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0" 1"



PATH OF TRAVEL

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE POT INDENTIFIED IN THESE CONSTRUCTION DCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR **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 THRESHHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

ACCESSIBILITY LEGEND

- PROPOSED PATH OF TRAVEL
- (E) PATH OF TRAVEL PER A# 121963
- (E) PATH OF TRAVEL PER A# 114911. CCD 003
- (E) PROPERTY LINE
- (E) BUILDING FIRE ALARM SCOPE ONLY
- BUILDING TO BE REMODELED
- ACCESSIBLE TOILET ROOMS TO BE PROVIDED AS PART OF THE CONTRACT
  RR = GENDER NEUTRAL RESTROOM
  B = BOYS
  G = GIRLS
  S = STAFFS
- AREA OF SAFE DISPERSAL
- SLOPE IN DIRECTION OF TRAVEL
  0.0% 0.0%
  (E) SLOPES PER SMART LEVEL, VERIFIED IN FIELD.
  NOTE: SLOPE MEASUREMENTS SPACED 10'-0" O.C. MAX, TYP
  CROSS SLOPE

ACCESSIBILITY KEYED NOTES

#	Description
02.00	(E) TURF TO REMAIN
02.01	(E) CHAINLINK FENCING
02.02	(E) CHAINLINK GATE
02.03	(E) TURF
02.04	(E) FIRE HYDRANT
02.05	(E) TRASH ENCLOSURE
02.06	(E) TRANSFORMER/SWITCHBOARD
02.07	(E) PLAYGROUND
02.08	(E) A.C.PAVING
02.09	(E) BALL WALL
02.12	(E) ACCESSIBLE PARKING SIGN PER A# 121963
02.19	(E) DRINKING FOUNTAIN TO REMAIN
02.63	(E) FLAG POLE
02.64	(E) NON-ACCESSIBLE DRINKING FOUNTAIN TO REMAIN, PROTECT IN PLACE
02.66	(E) ACCESSIBLE DRINKING FOUNTAIN, PER A# 04-121963
02.67	(E) ACCESSIBLE GIRLS RESTROOM
02.68	(E) ACCESSIBLE BOYS RESTROOM
02.79	(E) SERVICE GATE
22.01	(N) ACCESSIBLE DRINKING FOUNTAIN W/ BOTTLE FILLER AND WING GUARDS
32.03	(N) 6'-0" HIGH GALV. STEEL CHAIN LINK GATE, PER DETAIL 7/G0.04
32.18	(N) DRINKING FOUNTAIN RAILING, PER DETAIL 3/G0.04

DEMOLITION KEYNOTES

#	Description
D1.31	DEMO (E) SEMI-CIRCLE WALL & PAVING & REPLACE WITH TURF & IRRIGATION LINES

DSA CERTIFICATION LIST

1. THE FOLLOWING PROJECT... **A# 20218**
2. THE FOLLOWING PROJECT... **A# 100927** CLOSED WITH DSA CERTIFICATION ON 12/10/2008
3. THE FOLLOWING PROJECT... **A# 101501** CLOSED WITH DSA CERTIFICATION ON __/__/____
4. THE FOLLOWING PROJECT... **A# 108696** CLOSED WITH DSA CERTIFICATION ON __/__/____
5. THE FOLLOWING PROJECT... **A# 114911** CLOSED WITH DSA CERTIFICATION ON 1/26/2017

PARKING CALCULATION

(E) PARKING LOT 1: (VISITOR/STAFF USER GROUP)
- a. STANDARD STALLS 5
- b. MIN. NUMBER OF REQUIRED ACCESSIBLE PARKING SPACES..... 1
- c. NUMBER OF REQUIRED ACCESSIBLE PARKING SPACES PROVIDED..... 1(LOCATED IN ADJACENT LOT 2)

TOTAL P-LOT 1 STALLS **5**

(E) PARKING LOT 2: (VISITOR/STAFF USER GROUP)
- a. STANDARD STALLS 76
- b. MIN. NUMBER OF REQUIRED ACCESSIBLE PARKING SPACES..... 4
- c. VAN ACCESSIBLE STALLS 2
- d. STD ACCESSIBLE STALLS 3
- e. STANDARD STALL LOST IN SCE TRANSFORMER ..... -2

TOTAL P-LOT 2 STALLS **81**

TOTAL STALLS ON SITE **86**

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
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DATE: 11/28/2023

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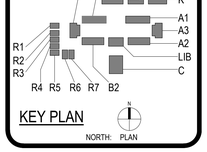
ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

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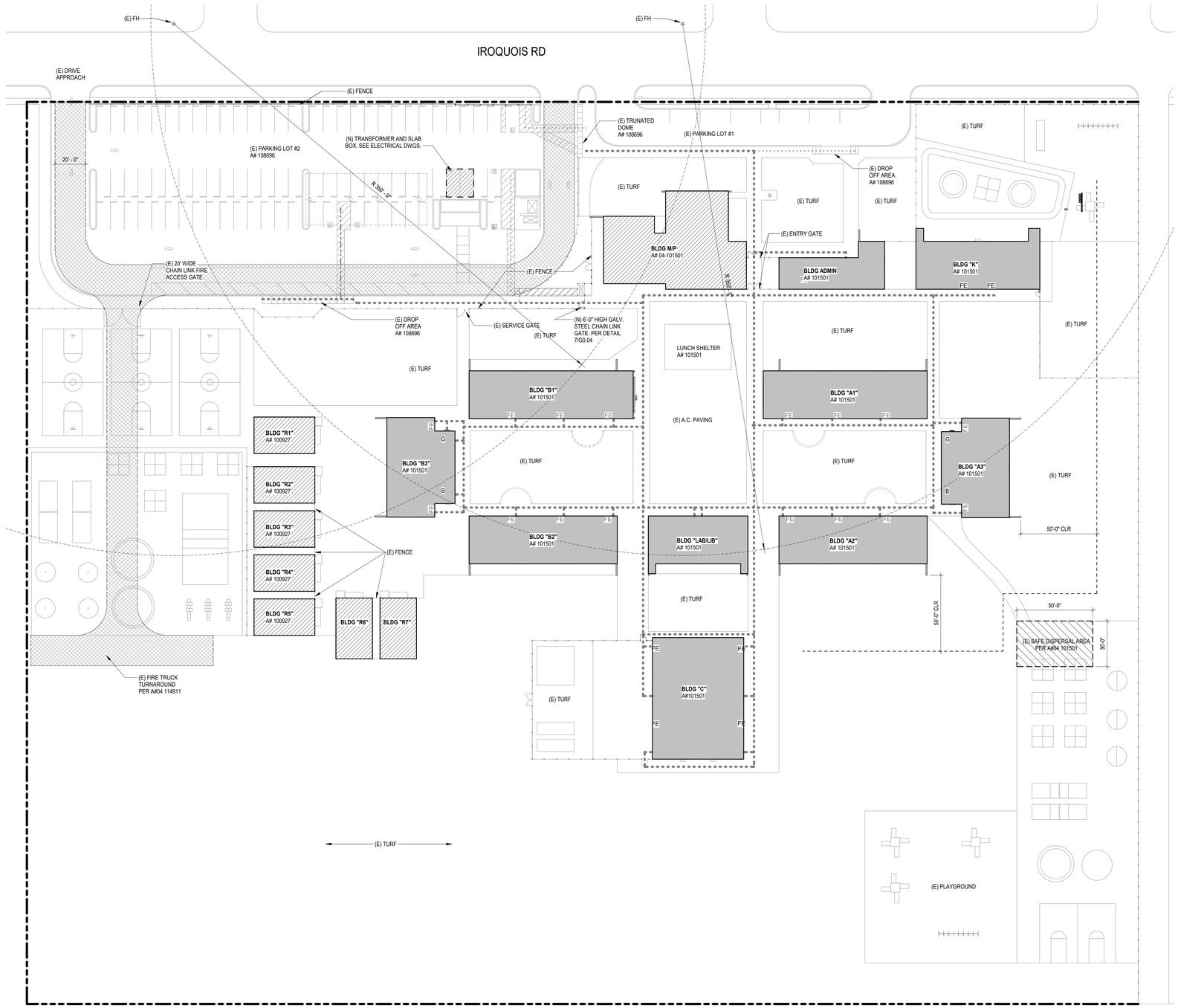
ACCESSIBILITY SITE PLAN

G0.02

30 ACCESSIBILITY SITE PLAN
1" = 30'-0"

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9/20/2023 12:34:35 PM

0" 1"



FIRE ACCESS LEGEND

- PROPERTY LINE
- (E) BUILDING NOT IN SCOPE
- EXISTING BUILDING IN SCOPE OF WORK.
- (E) FIRE ACCESS LANE A#04 114911

BLDG CONSTRUCTION TYPE/SPRINKLER INFO

1. ADMIN BLDG (EXISTING ADMINISTRATION BLDG) - TYPE V-N , NON SPRINKLERED
2. BLDG K (EXISTING KINDERGARTEN CLASSROOM) - TYPE V-N , NON SPRINKLERED
3. BLDG A1, A2, A3, B1, B2, B3, C, LAB/LIBRARY (EXISTING CLASSROOMS) - TYPE V-N , NON SPRINKLERED
4. BLDG MP (EXISTING MULTI-PURPOSE BLDG) - TYPE V - 1 HOUR , NON-SPRINKLERED
5. EXISTING RELOCATABLE CLASSROOMS CR# R1, R2, R3, R4, R5, R6, R7 - TYPE V-N , NON SPRINKLERED

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Forms or DSA Publications webpages.

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 through 3 below is to be provided for all project types indicated above. Information associated with items 4 through 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.

The Project Information and Fire & Life Safety Information sections are to be completed for all projects and imaged onto the fire access site plan. When an alternate design/means is proposed, all sections on pages 1 and 2 are to be completed and imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy *PI, 09-01: Fire Flow for Buildings*.

PROJECT INFORMATION	
School District/Owner:	Westminster Unified School District
Project Name/School:	Sequoia Elementary School HVAC Upgrade & Modernization
Project Address:	5900 Iroquois Rd. Westminster, CA 92683

FIRE & LIFE SAFETY INFORMATION				
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 (FHSZ) as established by Cal-Fire? *(If yes, indicate FHSZ classification below.)*	Yes ☐		No ☑
	Refer to the following website for FHSZ locations: http://egis.fire.ca.gov/FHSZ/	Moderate ☐	High ☐	Very High ☐
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*			WIFA ☐

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SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

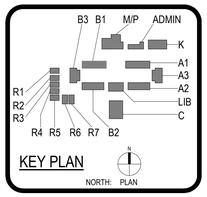
ARCHITECT PBK Architects, Inc.
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

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WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

FIRE ACCESS SITE PLAN

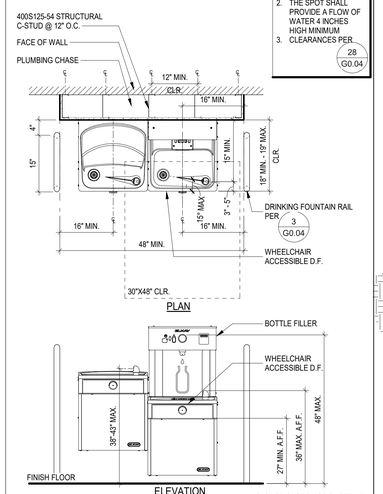
G0.03

2 FIRE ACCESS SITE PLAN
1" = 30'-0"

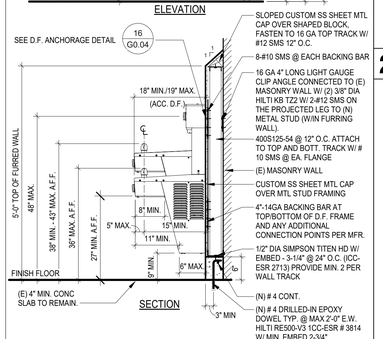
0" 1"

DRINKING FOUNTAIN
MFR: EKLAY
MODEL: EZH2O
DESCRIPTION: BOTTLE FILLER REFER TO PLUMBING SPOUT TO PROVIDE A FLOW OF WATER 4" HIGH MIN.

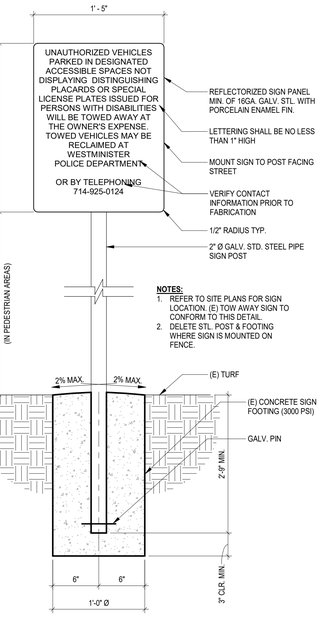
NOTES:
1. UNDERSIDE OF D.F. IS FREE OF SHARP OR ABRASIVE EDGES OR SURFACES
2. THE SPOT SHALL PROVIDE A FLOW OF WATER 4 INCHES HIGH MINIMUM
3. CLEARANCES PER... (28 / G0.04)



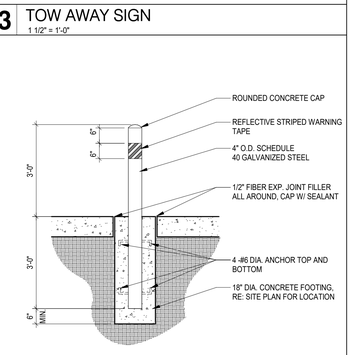
18 ACCESSIBLE DRINKING FOUNTAIN
3/4" = 1'-0"



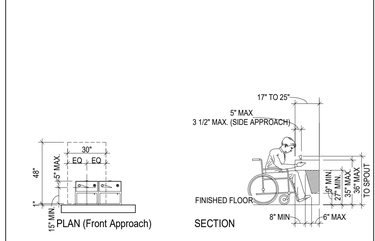
17 GUARD POST/ BOLLARD
1/2" = 1'-0"



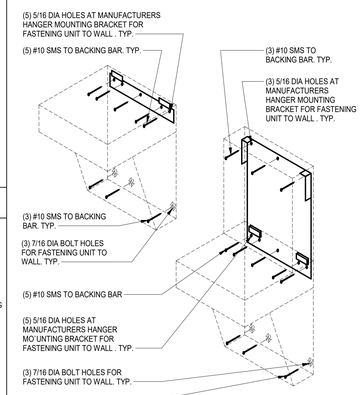
23 TOW AWAY SIGN
1 1/2" = 1'-0"



16 D.F. ANCHORAGE DETAIL
1/4" = 1'-0"

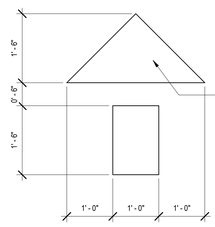


28 DRINKING FOUNTAIN GUIDELINE
1/4" = 1'-0"

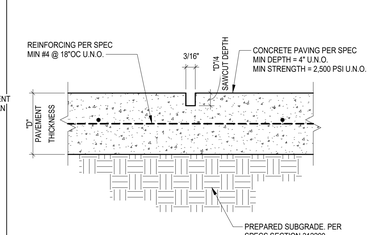


INSTALLATION INSTRUCTION PER ELKAY MODEL VRCTLR8WSK

11 PAVEMENT DIRECTIONAL ARROW
3/4" = 1'-0"



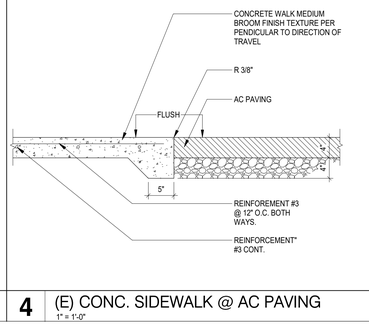
10 CONC CONTROL JOINT - TYP.
3" = 1'-0"

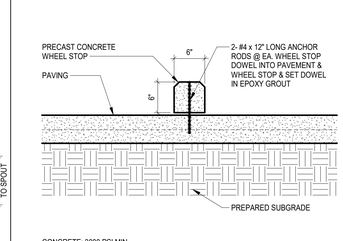


NOTE:
CONTROL JOINTS TO BE PROVIDED @ 5'-0"OC MIN U.N.O.

0330053.01-S *Rev 10/17*

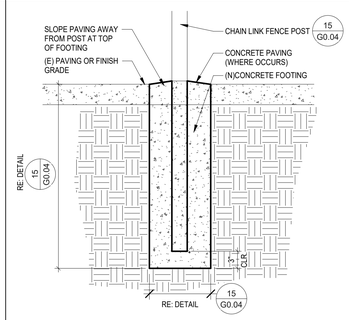
4 (E) CONC. SIDEWALK @ AC PAVING
1" = 1'-0"





CONCRETE: 3000 PSI MIN.
MIN. WEIGHT: AT 6'-0" LENGTH - 190 LBS.

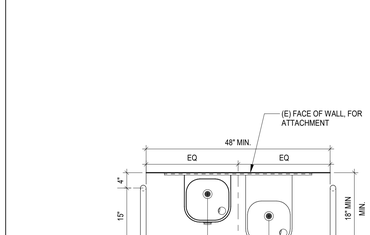
27 (E) CONCRETE WHEEL STOP
1" = 1'-0"



21 CHAIN LINK FENCE POST FOOTING
1" = 1'-0"

Item	Height	Nominal Pipe Size (Inches)	Outside Diameter (Inches)	Weight (pounds per foot)	Conc.Footings f'c=3000 psi min.	
					Diameter (Inches)	Depth (Inches)
Top Rail, Brace Rails and Transom Rails	Up to 10'-0"	1-1/4	1.660	2.27	N/A	N/A
	10'-1" to 16'-0"	1-1/2	1.900	2.72	N/A	N/A
Line Posts	Up to 6'-0"	2	2.375	2.65	12	30
	6'-1" to 8'-0"	2	2.375	2.65	12	36
	8'-1" to 10'-0"	2-1/2	2.875	5.79	12	42
	10'-1" to 16'-0"	3	3.500	7.58	14	60
Terminal, Corner, Angle & Pull Posts	Up to 8'-0"	2-1/2	2.875	5.79	12	36
	8'-1" to 10'-0"	2-1/2	2.875	5.79	14	42
	10'-1" to 16'-0"	3	3.500	7.58	14	60
Pedestrian Gate Posts	Up to 8'-0"	2-1/2	2.875	5.79	14	36
Gate Frames	Up to 8'-0"	1-1/2	1.900	2.72	N/A	N/A
Driveway Double-Leaf Swing Gate Posts: Opening						
Up to 17' - 3-1/2"	Up to 8'-0"	3-1/2	4.000	9.11	16	42
17'-4" to 20'- 3 1/2"	Up to 8'-0"	3-1/2	4.000	9.11	16	42

15 CHAINLINK FENCE SCHEDULE
3" = 1'-0"

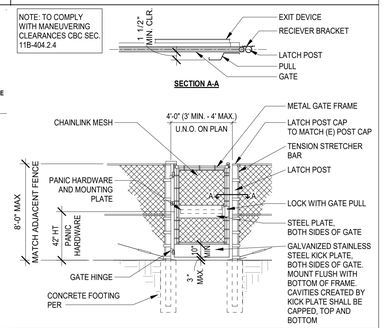


3 DRINKING FOUNTAIN RAILS
3/4" = 1'-0"

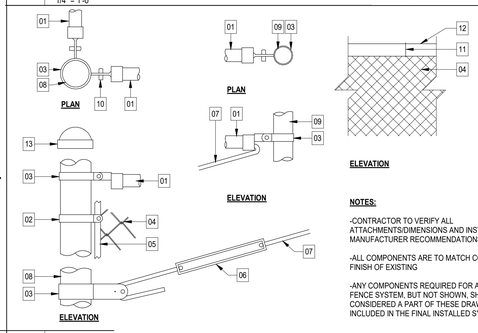
HARDWARE GROUP (EMERGENCY EGRESS PANIC HARDWARE)
- 3 HINGE (HEAVY WEIGHT): T4A3386 4-1/2" X 4-1/2" NRP
- EXIT HARDWARE: VON DUPRIN 99/99 SERIES RIM DEVICE, PROVIDE P.A. DEVICE & AX PREFIC
- EXIT PULL DEVICE: IVES PULL VR91IN-DT
- FORMAT IC CORE (KEYED PER DISTRICT REQUIREMENT)
- CLOSURE: LCN 4040XL SERIES CLOSER
- KICK PLATE: 10 GA. GALV.
- HARDWARE BACKING-PLATE: 24" TALL X WIDTH OF GATE 16 GA GALV.
- CLOSURE BACKING PLATE: SIZED FIT ITEM C. CLOSURE.

***DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM
*** THE FORCE REQUIRED TO ACTIVATE GATE OPERABLE PARTS (SWING & UNLATCHING) SHALL BE 5 LBS. MAXIMUM.

NOTE: TO COMPLY WITH MANEUVERING CLEARANCES CBC SEC. 11B-404.2.4



7 CHAINLINK GATE W/ PANIC HARDWARE
1/4" = 1'-0"



NOTES:
-CONTRACTOR TO VERIFY ALL ATTACHMENTS/DIMENSIONS AND INSTALL PER MANUFACTURER RECOMMENDATIONS

-ALL COMPONENTS ARE TO MATCH COLOR AND FINISH OF EXISTING

-ANY COMPONENTS REQUIRED FOR A COMPLETE FENCE SYSTEM, BUT NOT SHOWN, SHOULD BE CONSIDERED A PART OF THESE DRAWINGS AND INCLUDED IN THE FINAL INSTALLED SYSTEM.

01	BRACE RAIL
02	TENSION CLIP/BAND
03	BRACE BAND PER MANUF. TO BE 4" MAX. FROM TOP & BOT., SPACED 1'-2" O.C. MAX.
04	CHAIN LINK MESH 1" MAX
05	TENSION FLAT BAR PER MANUF.
06	TURNBUCKLE
07	TRUSS ROD PER MANUF.
08	CORNER OR END POST
09	LINE POST
10	BOLT AND NUT. VERY WITH MANUFACTURER
11	NO. 9 GA. ALUM. TIE WIRES, 18" O.C., ALONG TOP & BOT. RAILS; 7 PER 10'-0" SECTION
12	TOP RAIL
13	DOME POST CAP. SIZE TO MATCH POST

2 CHAIN LINK CONNECTIONS1
1 1/2" = 1'-0"

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DATE: 11/28/2023

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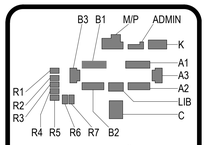
ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

Architect

LICENSED ARCHITECT Yong Yoo No. C-31162 REN. 10-31-2025 STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

SITE DETAILS

G0.04

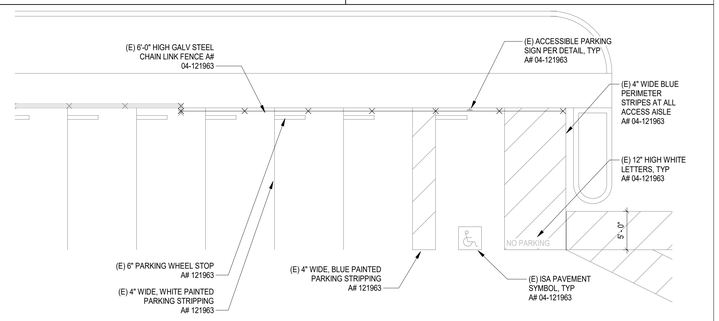
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0" 1"

ADD.1 - ENLARGED DEMO SITE PLAN

DEMOLITION KEYNOTES

#	Description



2 ENLARGE SITE PLAN @ (E) ACCESSIBLE PARKING (AS APPROVED PER A#04 121963)
1/8" = 1'-0"

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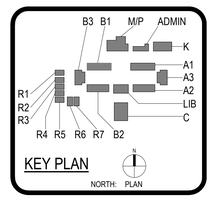
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KEY PLAN
NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

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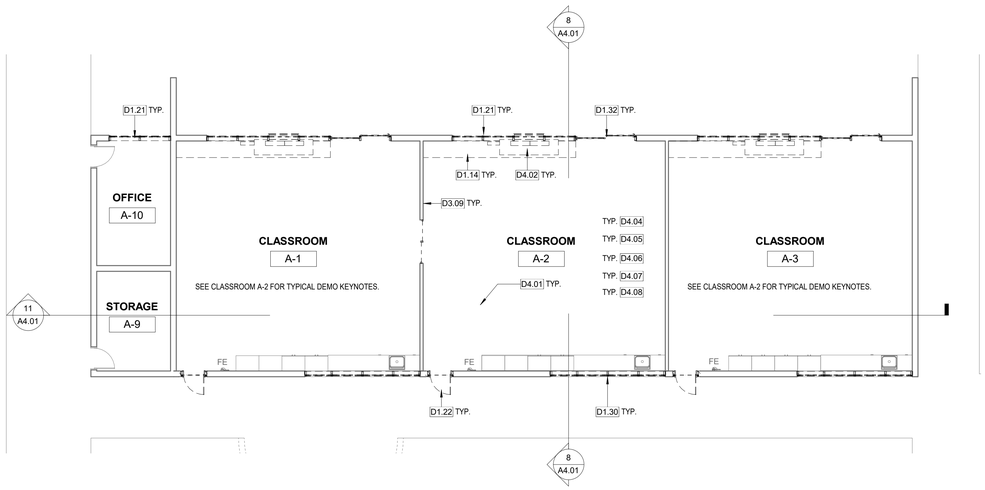
DSA SUBMITTAL SET

ENLARGED DEMO SITE PLAN

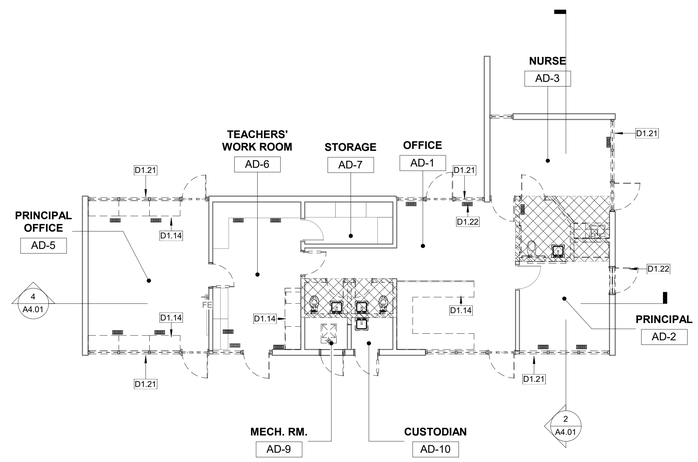
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0" 1"



28 DEMO FLOOR PLAN - BLDG "A-1"
1/8" = 1'-0"



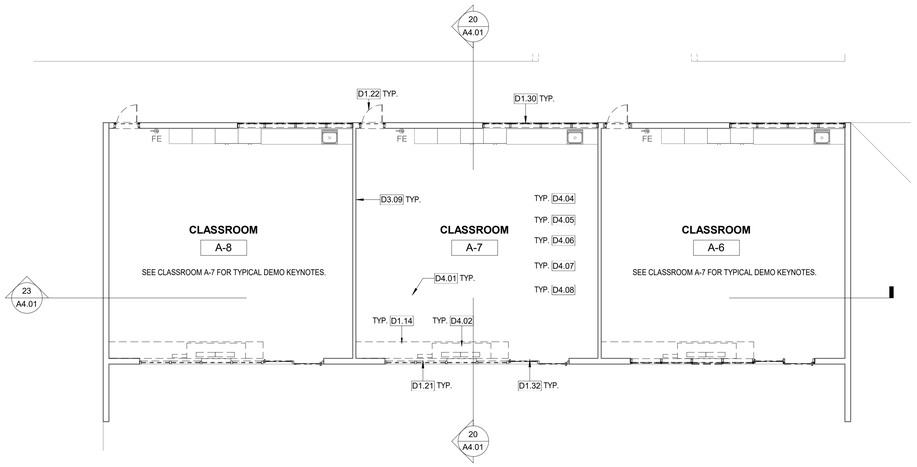
13 DEMO FLOOR PLAN - ADMIN BLDG
1/8" = 1'-0"

DEMOLITION KEYNOTES

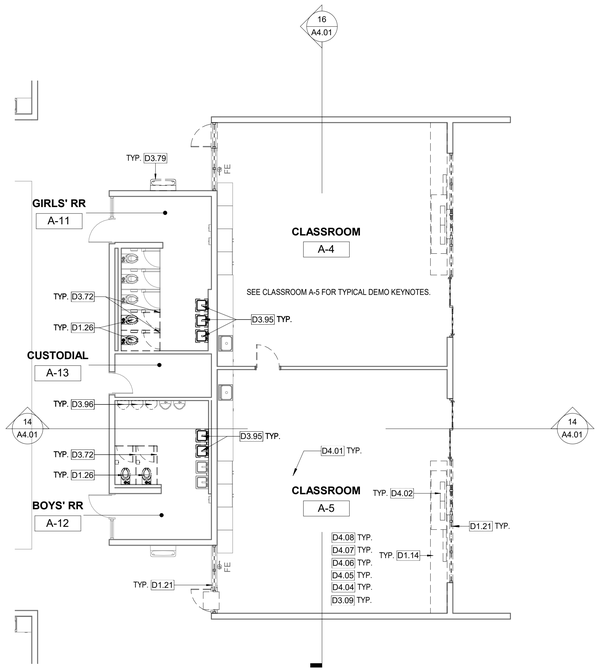
#	Description
D1.14	(E) CASEWORK TO BE REMOVED.
D1.21	(E) ALUMINUM FRAME & GLAZING STOREFRONT SYSTEM TO BE REMOVED AND DISPOSED
D1.22	(E) HM DOOR FRAME & (E) DOOR PANEL TO BE REMOVED AND DISPOSED
D1.26	(E) WATERCLOSET TO BE REMOVED AND DISPOSED, PATCH AND REPLACE FLOOR AND WALL FINISH MATERIALS TO MATCH EXISTING
D1.30	(E) TRANSOM WINDOW TO BE REMOVED AND DISPOSED
D1.32	REMOVE (E) SLIDING DOORS & HARDWARE AND DISPOSE
D3.09	(E) GLUE-ON/STAPLED ACOUSTIC TILE TO BE DEMOLISHED AND DISPOSED, INCLUDING SUBSTRATES AND (E) 2"X3" WOOD STRIPPING. WHERE OCCURS
D3.72	(E) TOILET PARTITION TO BE REMOVED AND DISPOSED, PATCH AND REPLACE FLOOR AND WALL FINISH MATERIALS TO MATCH EXISTING
D3.79	REMOVE (E) DRINKING FOUNTAINS, PREPARE FOR NEW DRINKING FOUNTAIN
D3.95	(E) LAVATORY TO BE REMOVED AND REPLACED, PATCH AND REPLACE WALL FINISH MATERIALS TO MATCH EXISTING
D3.96	(E) URINAL TO BE REMOVED AND REPLACED, PATCH AND REPLACE WALL FINISH MATERIALS TO MATCH EXISTING
D4.01	REMOVE EXISTING FLOOR FINISH. TYP.
D4.02	DEMO (E) HEATER SYSTEM (DUCTS, PIPES, ETC.)
D4.04	(E) TELEVISION & BRACKET TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.05	(E) ANALOG WALL CLOCK TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.06	(E) AUDIO SPEAKER TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.07	(E) WHITE & TACK BOARD TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.08	(E) ELECTRICAL WIRE, CONDUITS AND ASSOCIATED FIXTURES AND ACCESSORIES TO BE REMOVED AND DISPOSED. SEE ELECTRICAL DRAWING

DEMOLITION LEGEND

- EXISTING NON-BEARING WALL TO BE REMOVED
- EXISTING DOOR & DOOR FRAME TO BE REMOVED
- WINDOW TO BE REMOVED (SEE SCHEDULE)
- DEMO ALL (E) WALL FINISH, FLOOR SLAB, DUCTS, PIPES, CONDUITS & FIXTURES, U.N.O.
- REMOVE & INFILL WITH CONCRETE ALL (E) FLOOR VENTS TYP. @ ALL ROOMS. PER STRUCTURAL IN-FILL DETAIL 5/SD1
- FE (E) WALL MOUNTED FIRE EXTINGUISHER TO BE PROTECTED IN PLACE



30 DEMO FLOOR PLAN - BLDG "A-2"
1/8" = 1'-0"



15 DEMO FLOOR PLAN - BLDG "A-3"
1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. DEMOLITION PLANS INDICATE SOME OF THE SCOPE-OF-WORK INVOLVED FOR THE DEMOLITION PHASE OF THIS PROJECT. CONTRACTOR SHALL REVIEW ALL SHEETS FOR ADDITIONAL DEMOLITION SCOPE.
2. CONTRACTOR SHALL VERIFY EXISTING SITE AND BUILDING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO DEMOLITION ACTIVITIES AND WORK.
3. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES IN WRITING.
4. CONTRACTOR SHALL NOTIFY ARCHITECT AND OWNER OF ANY POSSIBLE ASBESTOS CONTAINING MATERIALS DISCOVERED BEFORE PROCEEDING WITH WORK. PROTECT INTERIOR CONSTRUCTION TO REMAIN DURING DEMOLITION AND CONSTRUCTION.
5. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS BEFORE COMMENCING WORK.
6. CONTRACTOR SHALL NOT SCALE DRAWINGS.
7. ALL FURNITURE WILL BE REMOVED OR RELOCATED BY THE OWNER AS NECESSARY PRIOR TO THE DEMOLITION WORK OF THIS PROJECT. CONTRACTOR SHALL COORDINATE WITH OWNER AS REQUIRED.
8. REMOVE EXISTING CONSTRUCTION TO THE EXTENT INDICATED ON THE DRAWINGS. SHOULD ANY DAMAGE OCCUR TO ANY EXISTING CONSTRUCTION TO REMAIN, THE CONTRACTOR SHALL REPAIR THE DAMAGE TO MATCH EXISTING AND OR ADJACENT CONSTRUCTION.
9. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES AND WORK.
10. NOTIFY THE BUILDING OWNER OF ANY MATERIALS, FIXTURES, ETC. TO BE REMOVED THAT ARE DEEMED SALVAGEABLE. TURN OVER ANY REQUESTED ITEMS TO THE BUILDING OWNER IN GOOD CONDITION.
11. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
12. MAINTAIN ANY AND ALL EXISTING FIRE-RATED ASSEMBLIES THAT ARE TO REMAIN, AND THEIR ASSOCIATED FIRE-RATINGS, INCLUDING BUT NOT LIMITED TO ALL ASSOCIATED EXISTING FIRE-RATED OPENINGS, ALL ASSOCIATED EXISTING FIRE-RATED PENETRATIONS, AND ALL ASSOCIATED EXISTING FIRE-RATED FIRESTOPPING CONDITIONS.
13. WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, DETERMINE THE NATURE AND EXTENT OF THE CONFLICT AND NOTIFY THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
14. CONTRACTOR SHALL RE-LOCATE UTILITIES AND EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW HVAC, ELECTRICAL, PLUMBING, AND TECHNOLOGY REQUIREMENTS FOR NEW WORK.
15. SAW-CUT AND REMOVE EXISTING FLOOR FINISHES AND FLOOR SLAB AS REQUIRED TO INSTALL NEW FIXTURES, ITEMS, AND OR DEVISES FOR ALL SCOPE-OF-WORK PERTAINING TO NEW MECHANICAL WORK, NEW PLUMBING UTILITIES, NEW PLUMBING WORK, NEW ELECTRICAL WORK, AND NEW TECHNOLOGY WORK. SPLICE NEW REINFORCING BARS DOWELED INTO EXISTING CONCRETE AND PROVIDE NEW VAPOR RETARDER AND NEW CONTINUOUS WATERSTOPS AT JOINT BETWEEN NEW CONCRETE FLOOR SLAB AND EXISTING CONCRETE FLOOR SLAB. PATCH WITH NEW 3,500 PSI MINIMUM CONCRETE AND PREPARE FLOOR, INCLUDING NEW CONCRETE, TO RECEIVE NEW FLOOR FINISHES. COORDINATE WITH STRUCTURAL.
16. EXISTING WALLS (OR PORTIONS OF WALLS) TO BE REMOVED SHALL BE CUT FLUSH WHERE INTERSECTING WITH WALLS TO REMAIN. REMAINING WALLS TO BE PATCHED AND FINISHED SMOOTH.
17. WHERE EXISTING INTERIOR WALLS ARE REPLACED OR REMOVED, REMOVE MEPT SYSTEMS BACK TO PANEL, OR MECHANICAL ROOM, OR FARTHEST POSSIBLE POINT WITHOUT DISTURBING EXISTING CONSTRUCTION. REMOVE EXISTING MECHANICAL EQUIPMENT, RELOCATE POWER PER MEPT DRAWINGS.
18. PATCH FLOORS, WALLS CEILINGS WHICH REMAIN AT LOCATIONS WHERE PIPES, CONDUITS, ETC. ARE REMOVED AS REQUIRED TO MATCH EXISTING CONDITIONS OR TO RECEIVE NEW FINISHES.
19. WHERE EXISTING FINISH FLOOR IS REMOVED, PREPARE FLOOR SURFACE TO RECEIVE NEW FLOORING.
20. ALL DASHED LINES ARE DEMOLITION LINES UNLESS NOTED OTHERWISE.
21. REMOVE ALL EXISTING ROOM AND BUILDING SIGNAGE.
22. DEMOLISH PORTION OF (E) WALL AS REQ'D TO PROVIDE ACCESSIBLE SIDE STRIKE CLEARANCE, RE: TO REMODEL PLAN FOR EXTENT.
23. EXISTING HHW BOILERS TO BE DECOMMISSIONED, DISCONNECT EXISTING HHW PIPING AT BOILER ROOM, DRAIN PIPING SYSTEM AND CAP. EXISTING RADIATORS IN CLASSROOMS TO BE REMOVED. EXPOSED HHW PIPING IN CLASSROOMS SHALL BE REMOVED BACK TO WALL PENETRATION AND CAPPED INSIDE WALL. ALL WALL OPENINGS, INCLUDING EXTERIOR WALL, SHALL BE SEALED AIR AND WATER TIGHT AND PAINTED TO MATCH EXISTING WALL COLOR. COORDINATE WITH DISTRICT ON REMOVAL OF EXISTING BOILER, PUMPS AND ASSOCIATED EQUIPMENT IN BOILER ROOM.
24. EXISTING EXHAUST FANS AND DUCTWORK IN RESTROOMS TO BE REMOVED.
25. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURES AND DISPOSE OF IN A LEGAL MANNER. RETAIN EXISTING CIRCUITS TO ALLOW EXTENSION TO NEW LIGHT FIXTURES.
26. CONTRACTOR TO DEMOLISH PLUMPING PIPING BACK TO POINTS OF CONNECTION (POC) AS IDENTIFIED ON ENGINEERING DRAWINGS FOR WATER AND SANITARY SEWER.
27. CONTRACTOR WILL REMOVE FROM SITE AND PATCH AND REPAIR AS NECESSARY TO ACCOMMODATE NEW WORK.
28. CONTRACTOR TO REMOVE ALL EXISTING WINDOW SHADES.
29. ALL EXISTING FIRE ALARM SYSTEM TO BE REMOVED.
30. ALL EXISTING ROUTERS TO BE REMOVED AND RELOCATED.
31. CONTRACTOR SHALL PROTECT ALL EXISTING WALL MURALS AND SCHEDULE A MEETING WITH THE OWNER AND ARCHITECT TO REVIEW ALL PROTECTION IN PLACE PRIOR TO INITIATING DEMOLITION.

NOTE: CONTRACTOR SHALL PROTECT ALL EXISTING WALL MURALS AND SCHEDULE A MEETING WITH THE OWNER AND ARCHITECT TO REVIEW ALL PROTECTION IN PLACE PRIOR TO INITIATING DEMOLITION.

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

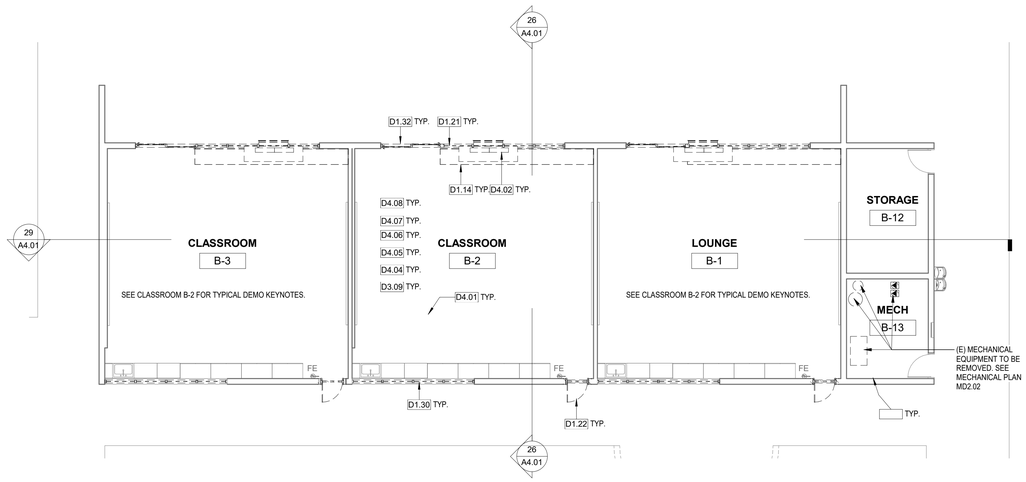
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DEMO FLOOR PLANS - ADMIN & BLDG A-1, A-2 & A-3

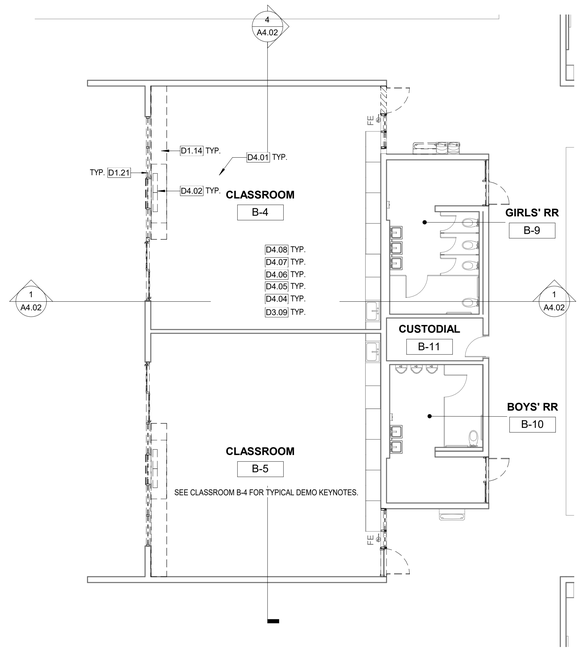
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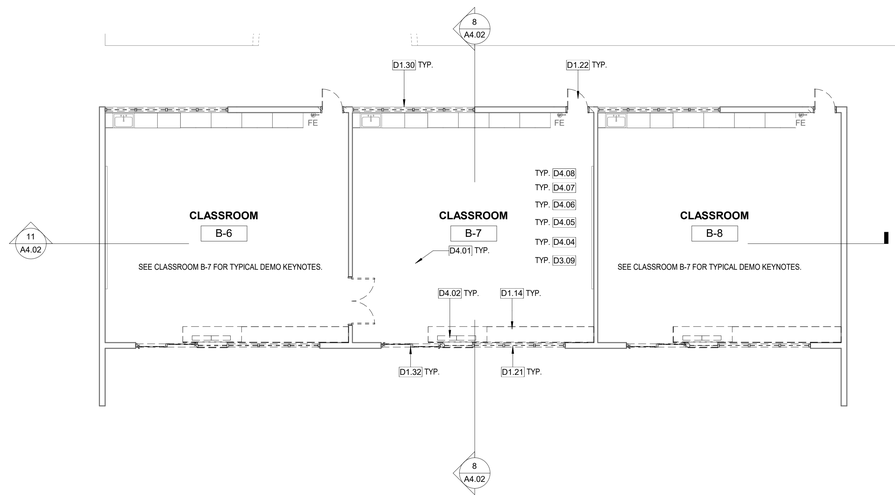
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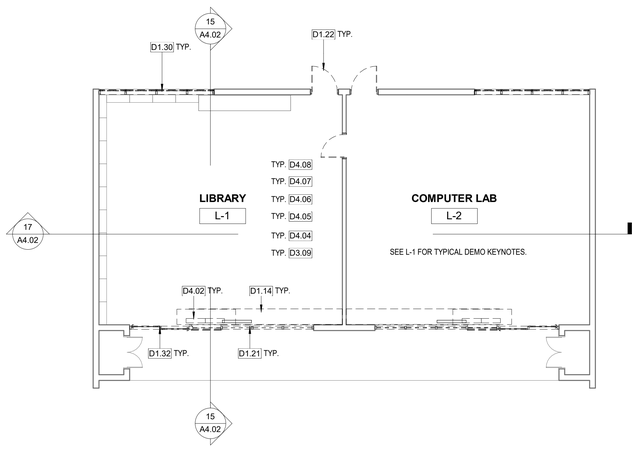
28 DEMO FLOOR PLAN - BLDG "B-1"
1/8" = 1'-0"



13 DEMO FLOOR PLAN - BLDG "B-3"
1/8" = 1'-0"



30 DEMO FLOOR PLAN - BLDG "B-2"
1/8" = 1'-0"



15 DEMO FLOOR PLAN - BLDG "LAB/LIBRARY"
1/8" = 1'-0"

DEMOLITION KEYNOTES

#	Description
D1.14	(E) CASEWORK TO BE REMOVED.
D1.21	(E) ALUMINUM FRAME & GLAZING STOREFRONT SYSTEM TO BE REMOVED AND DISPOSED
D1.22	(E) HM DOOR FRAME & (E) DOOR PANEL TO BE REMOVED AND DISPOSED
D1.30	(E) TRANSOM WINDOW TO BE REMOVED AND DISPOSED
D1.32	REMOVE (E) SLIDING DOORS & HARDWARE AND DISPOSE
D3.09	(E) GLUE-ON/STAPLED ACOUSTIC TILE TO BE DEMOLISHED AND DISPOSED, INCLUDING SUBSTRATES AND (E) 2"X3" WOOD STRIPPING. WHERE OCCURS
D4.01	REMOVE EXISTING FLOOR FINISH. TYP.
D4.02	DEMO (E) HEATER SYSTEM (DUCTS, PIPES, ETC.)
D4.04	(E) TELEVISION & BRACKET TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.05	(E) ANALOG WALL CLOCK TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.06	(E) AUDIO SPEAKER TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.07	(E) WHITE & TACK BOARD TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.08	(E) ELECTRICAL WIRE, CONDUITS AND ASSOCIATED FIXTURES AND ACCESSORIES TO BE REMOVED AND DISPOSED. SEE ELECTRICAL DRAWING

DEMOLITION LEGEND

- EXISTING NON-BEARING WALL TO BE REMOVED
- EXISTING DOOR & DOOR FRAME TO BE REMOVED
- WINDOW TO BE REMOVED (SEE SCHEDULE)
- DEMO ALL (E) WALL FINISH, FLOOR SLAB, DUCTS, PIPES, CONDUITS & FIXTURES, U.N.O.
- REMOVE & INFILL WITH CONCRETE ALL (E) FLOOR VENTS TYP. @ ALL ROOMS. PER STRUCTURAL IN-FILL DETAIL S/SD1
- FE (E) WALL MOUNTED FIRE EXTINGUISHER TO BE PROTECTED IN PLACE

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APP: 04-121952 INC:
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DATE: 11/28/2023

PBK

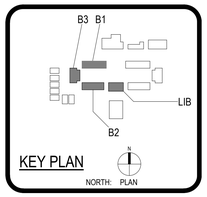
ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

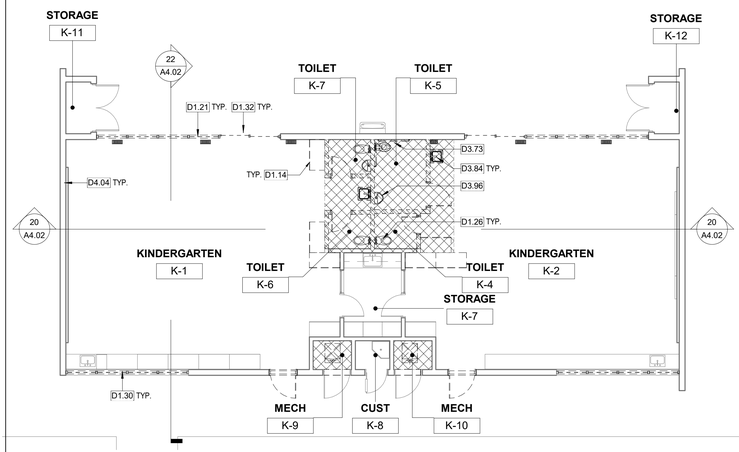
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DEMO FLOOR PLANS - BLDG B-1, B-2, B-3 & BLDG LAB/LIBRARY

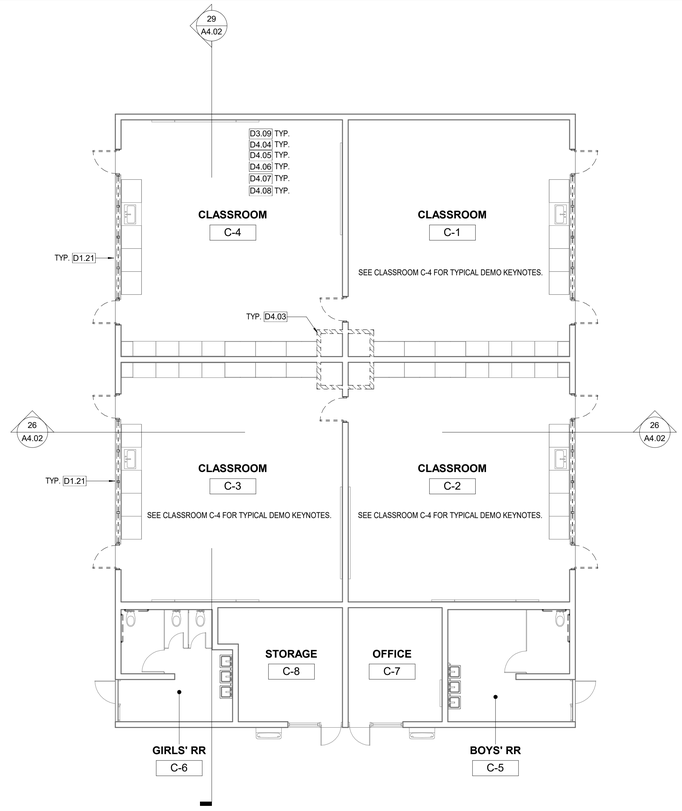
AD1.2

AD1.3 - DEMO FLOOR PLANS - BLDG "C" & "K"

0" 1"



13 DEMO FLOOR PLAN - BLDG "K"
1/8" = 1'-0"



15 DEMO FLOOR PLAN - BLDG "C"
1/8" = 1'-0"

DEMOLITION KEYNOTES

#	Description
D1.14	(E) CASEWORK TO BE REMOVED.
D1.21	(E) ALUMINUM FRAME & GLAZING STOREFRONT SYSTEM TO BE REMOVED AND DISPOSED
D1.26	(E) WATERCLOSET TO BE REMOVED AND DISPOSED, PATCH AND REPLACE FLOOR AND WALL FINISH MATERIALS TO MATCH EXISTING
D1.30	(E) TRANSOM WINDOW TO BE REMOVED AND DISPOSED
D1.32	REMOVE (E) SLIDING DOORS & HARDWARE AND DISPOSE
D3.09	(E) GLUE-ON/STAPLED ACOUSTIC TILE TO BE DEMOLISHED AND DISPOSED, INCLUDING SUBSTRATES AND (E) 2"X3" WOOD STRIPPING. WHERE OCCURS
D3.73	REMOVE (E) GRAB BAR AND RELOCATE PER ELEVATION, PATCH AND REPLACE WALL FINISH MATERIALS TO MATCH EXISTING
D3.84	REMOVE (E) LAVATORIES AND PLUMBING FIXTURES, PREPARE FOR NEW LAVATORIES
D3.96	(E) URINAL TO BE REMOVED AND REPLACED, PATCH AND REPLACE WALL FINISH MATERIALS TO MATCH EXISTING
D4.03	DEMO (E) MECHANICAL CHASE / SOFFIT, REMOVE (E) MECHANICAL DUCT & ASSOCIATED ACCESSORIES.
D4.04	(E) TELEVISION & BRACKET TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.05	(E) ANALOG WALL CLOCK TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.06	(E) AUDIO SPEAKER TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.07	(E) WHITE & TACK BOARD TO BE REMOVED AND DISPOSED, WHERE OCCURS
D4.08	(E) ELECTRICAL WIRE, CONDUITS AND ASSOCIATED FIXTURES AND ACCESSORIES TO BE REMOVED AND DISPOSED. SEE ELECTRICAL DRAWING

DEMOLITION LEGEND

- EXISTING NON-BEARING WALL TO BE REMOVED
- EXISTING DOOR & DOOR FRAME TO BE REMOVED
- WINDOW TO BE REMOVED (SEE SCHEDULE)
- DEMO ALL (E) WALL FINISH, FLOOR SLAB, DUCTS, PIPES, CONDUITS & FIXTURES, U.N.O.
- REMOVE & INFILL WITH CONCRETE ALL (E) FLOOR VENTS TYP. @ ALL ROOMS. PER STRUCTURAL IN-FILL DETAIL 5/SD1
- FE (E) WALL MOUNTED FIRE EXTINGUISHER TO BE PROTECTED IN PLACE

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APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN

NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

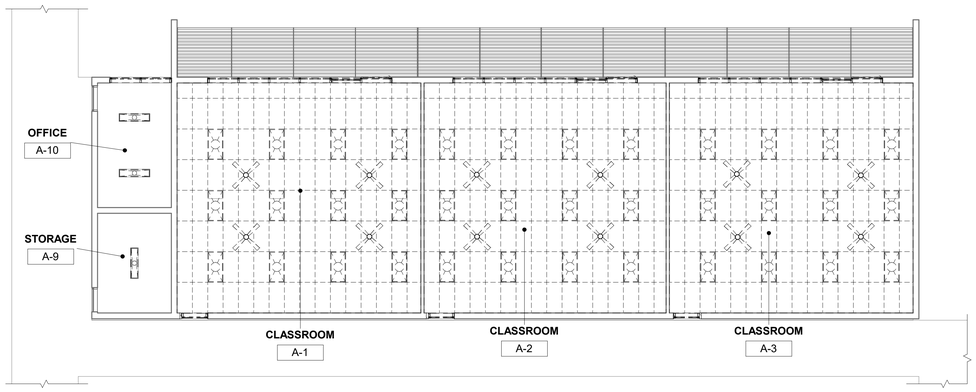
DEMO FLOOR PLANS - BLDG "C" & "K"

AD1.3

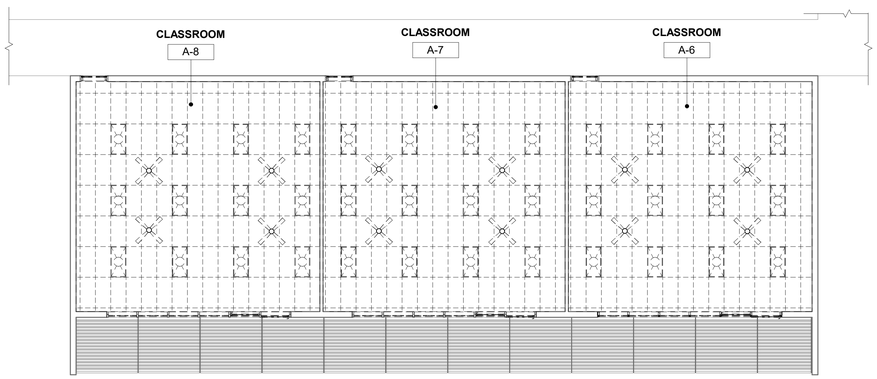
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AD2.1 - DEMO REFLECTED CEILING PLANS ADMIN & BLDG A-1, A-2 & A-3

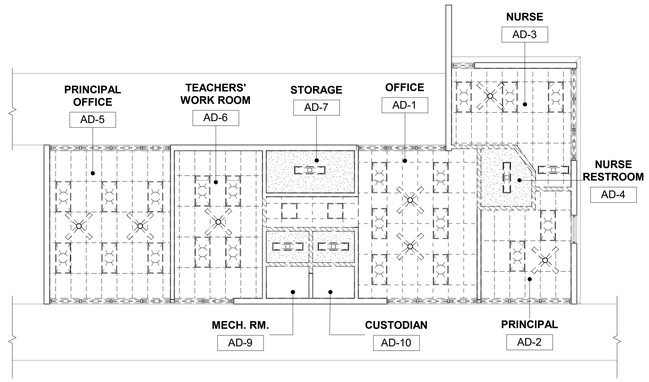
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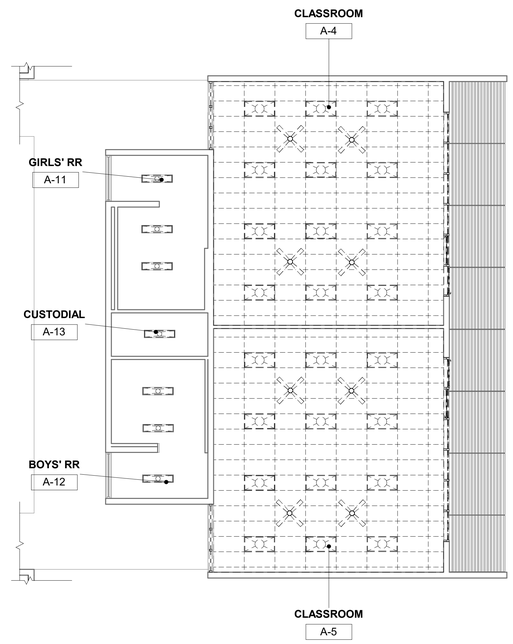
28 DEMO RCP - BLDG A-1
1/8" = 1'-0"



30 DEMO RCP - BLDG A-2
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13 DEMO RCP - ADMIN BLDG
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15 DEMO RCP - BLDG A-3
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DEMOLITION REFLECTED CEILING PLAN LEGEND

- EXISTING PLASTER CEILING TO REMAIN
- EXISTING PLASTER CEILING TO BE REMOVED AND DISPOSED
- EXISTING NON-BEARING WALL TO BE REMOVED AND DISPOSED
- EXISTING 12"x12" GLUE UP TILE TO BE REMOVED AND DISPOSED
- EXISTING SUSPENDED ACOUSTIC CEILING TILE TO BE REMOVED, AND DISPOSED
- WHEN SHOWN IN HIDDEN LINES, REMOVE (E) LIGHT FIXTURES, OTHERWISE, LIGHT FIXTURES ARE TO REMAIN.
- MECHANICAL GRILLES, REFER TO MECHANICAL DRAWINGS (REMOVE WHEN SHOWN DASHED)
- (E) CEILING FAN TO BE REMOVED AND DISPOSED
- (E) ACCESS PANEL

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PBK

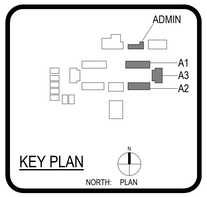
ARCHITECT PBK Architects, Inc.
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

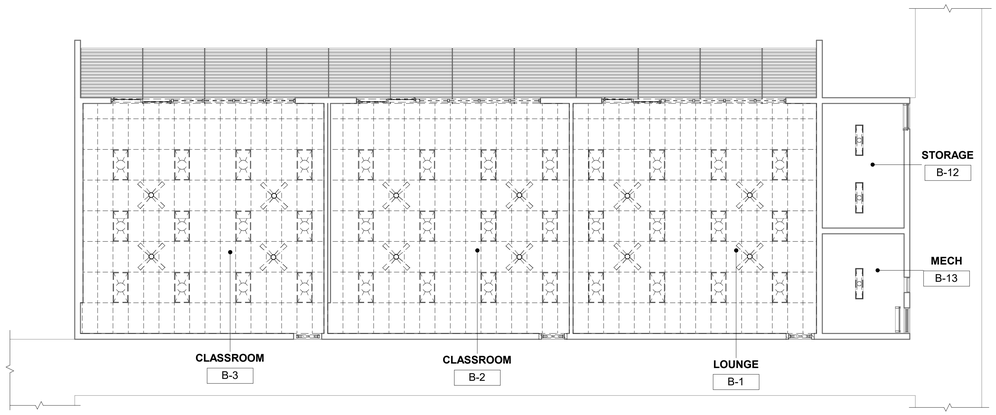
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DEMO REFLECTED CEILING PLANS ADMIN & BLDG A-1, A-2 & A-3

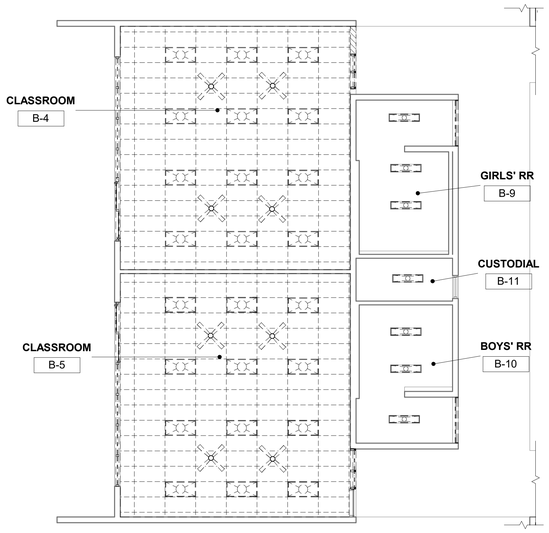
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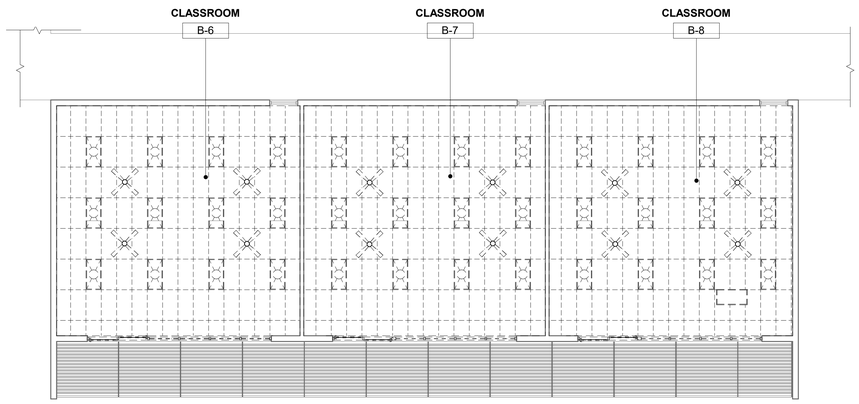
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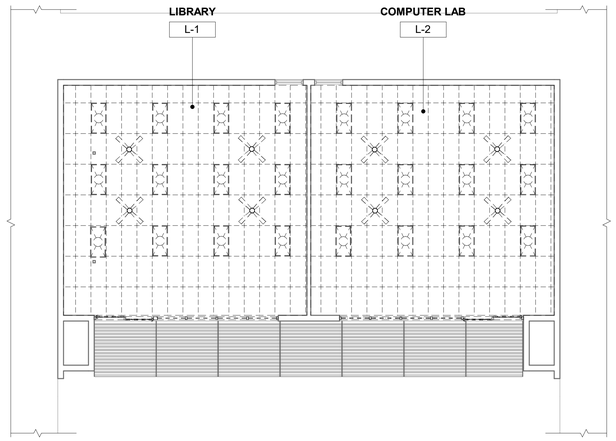
28 DEMO RCP - BLDG "B-1"
1/8" = 1'-0"



13 DEMO RCP - BLDG "B-3"
1/8" = 1'-0"



30 DEMO RCP - BLDG "B-2"
1/8" = 1'-0"



15 DEMO RCP - BLDG "LAB/LIB"
1/8" = 1'-0"

DEMOLITION REFLECTED CEILING PLAN LEGEND

- EXISTING PLASTER CEILING TO REMAIN
- EXISTING PLASTER CEILING TO BE REMOVED AND DISPOSED
- EXISTING NON-BEARING WALL TO BE REMOVED AND DISPOSED
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- (E) CEILING FAN TO BE REMOVED AND DISPOSED
- (E) ACCESS PANEL

GENERAL DEMOLITION NOTES

1. DEMOLITION PLANS INDICATE SOME OF THE SCOPE-OF-WORK INVOLVED FOR THE DEMOLITION PHASE OF THIS PROJECT. CONTRACTOR SHALL REVIEW ALL SHEETS FOR ADDITIONAL DEMOLITION SCOPE.
2. CONTRACTOR SHALL VERIFY EXISTING SITE AND BUILDING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO DEMOLITION ACTIVITIES AND WORK.
3. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES IN WRITING.
4. CONTRACTOR SHALL NOTIFY ARCHITECT AND OWNER OF ANY POSSIBLE ASBESTOS CONTAINING MATERIALS DISCOVERED BEFORE PROCEEDING WITH WORK. PROTECT INTERIOR CONSTRUCTION TO REMAIN DURING DEMOLITION AND CONSTRUCTION.
5. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS BEFORE COMMENCING WORK.
6. CONTRACTOR SHALL NOT SCALE DRAWINGS.
7. ALL FURNITURE WILL BE REMOVED OR RELOCATED BY THE OWNER AS NECESSARY PRIOR TO THE DEMOLITION WORK OF THIS PROJECT. CONTRACTOR SHALL COORDINATE WITH OWNER AS REQUIRED.
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9. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES AND WORK.
10. NOTIFY THE BUILDING OWNER OF ANY MATERIALS, FIXTURES, ETC. TO BE REMOVED THAT ARE DEEMED SALVAGEABLE. TURN OVER ANY REQUESTED ITEMS TO THE BUILDING OWNER IN GOOD CONDITION.
11. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
12. MAINTAIN ANY AND ALL EXISTING FIRE-RATED ASSEMBLIES THAT ARE TO REMAIN, AND THEIR ASSOCIATED FIRE-RATINGS, INCLUDING BUT NOT LIMITED TO ALL ASSOCIATED EXISTING FIRE-RATED OPENINGS, ALL ASSOCIATED EXISTING FIRE-RATED PENETRATIONS, AND ALL ASSOCIATED EXISTING FIRE-RATED FIRESTOPPING CONDITIONS.
13. WHEN UNANTICIPATED MECHANICAL, ELECTRICAL, OR STRUCTURAL ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, DETERMINE THE NATURE AND EXTENT OF THE CONFLICT AND NOTIFY THE ARCHITECT IMMEDIATELY FOR RESOLUTION.
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15. SAW-CUT AND REMOVE EXISTING FLOOR FINISHES AND FLOOR SLAB AS REQUIRED TO INSTALL NEW FIXTURES, ITEMS, AND OR DEVISES FOR ALL SCOPE-OF-WORK PERTAINING TO NEW MECHANICAL WORK, NEW PLUMBING UTILITIES. NEW PLUMBING WORK, NEW ELECTRICAL WORK, AND NEW TECHNOLOGY WORK. SPLICE NEW REINFORCING BARS DOWELED INTO EXISTING CONCRETE AND PROVIDE NEW VAPOR RETARDER AND NEW CONTINUOUS WATERSTOPS AT JOINT BETWEEN NEW CONCRETE FLOOR SLAB AND EXISTING CONCRETE FLOOR SLAB. PATCH WITH NEW 3,500 PSI MINIMUM CONCRETE AND PREPARE FLOOR, INCLUDING NEW CONCRETE, TO RECEIVE NEW FLOOR FINISHES. COORDINATE WITH STRUCTURAL.
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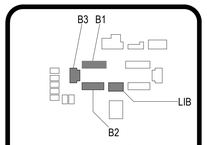
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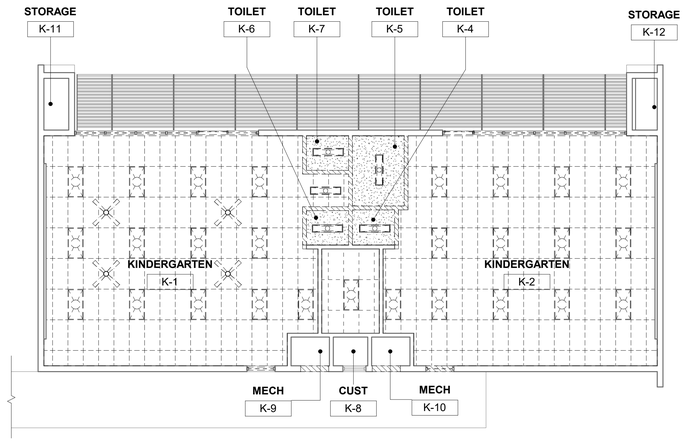
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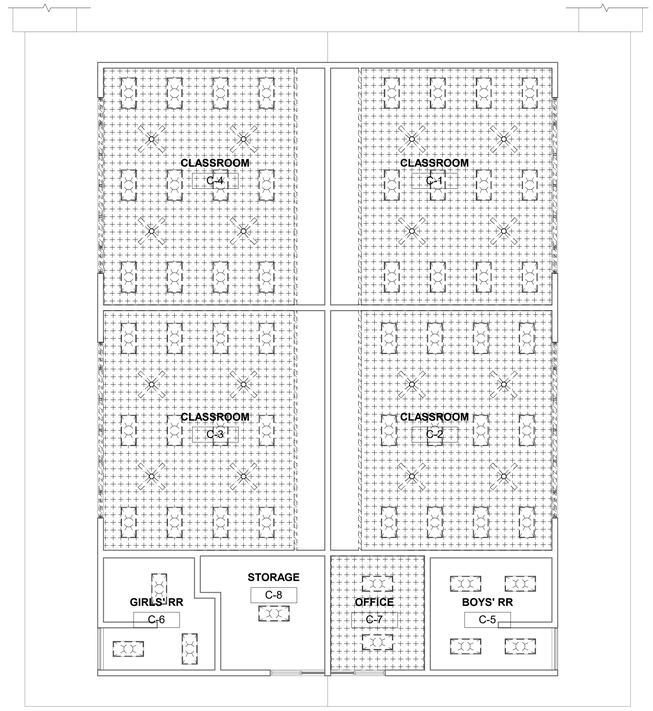
DEMO REFLECTED CEILING PLANS BLDG B-1. B-2, B-3 & LAB/LIBRARY

AD2.2

0" 1"



1 DEMO RCP - BLDG "K"
1/8" = 1'-0"



2 DEMOLIITON REFLECTED CEILING PLAN
1/8" = 1'-0"

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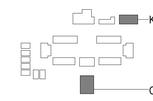
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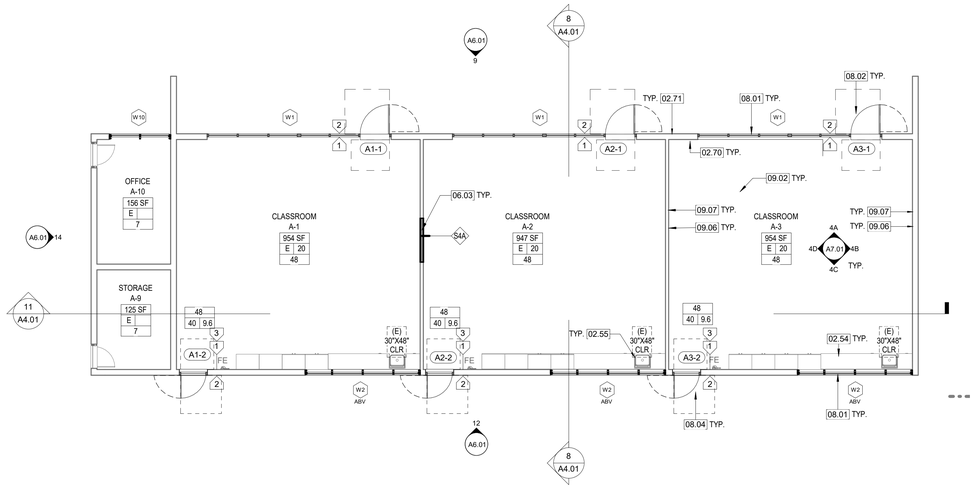
DSA SUBMITTAL SET

DEMO REFLECTED CEILING PLAN BLDG "C" & "K"

AD2.3

A1.01 - FLOOR PLANS - ADMIN & BLDG A-1, A-2 & A-3

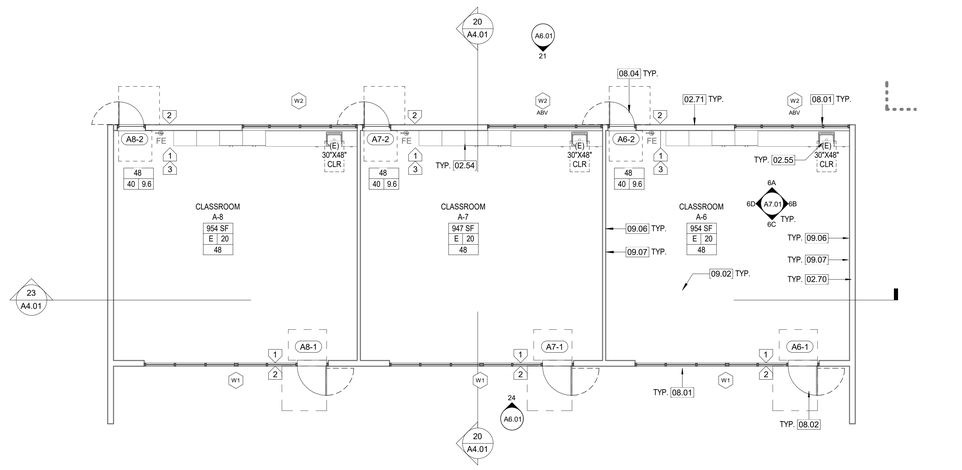
0" 1"



NORTH

24 FLOOR PLAN - BLDG "A-1"

1/8" = 1'-0"



NORTH

6 FLOOR PLAN - BLDG "A-2"

1/8" = 1'-0"

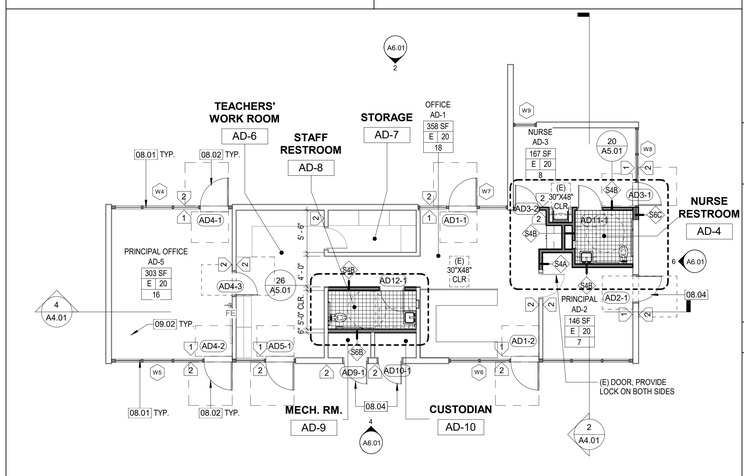
ALTERNATIVE ALS SYSTEM REQUIREMENTS

PROVIDE 2 PORTABLE ASSISTIVE LISTENING SYSTEMS, EACH WITH A TRANSMITTER AND A MINIMUM OF 2 RECEIVERS, FOR USE IN CLASSROOMS WITHOUT AUDIO AMPLIFICATION. THE ASSISTIVE LISTENING RECEIVERS AND TRANSMITTER SHALL BE STORED IN THE SCHOOL SITE ADMINISTRATION OFFICE UNTIL REQUESTED.

ASSISTIVE LISTENING SYSTEMS AND SIGNAGE 11B-219

1) PROVIDE AN ASSISTIVE LISTENING SYSTEM, COMPLYING WITH CBC 11B-219 & 11B-706. PROVIDE EACH ASSEMBLY WITH A SIGN WHICH INCLUDES THE SYMBOL FOR HEARING LOSS IN COMPLIANCE WITH 11B-216.10 & 11B-703.7.2.4.

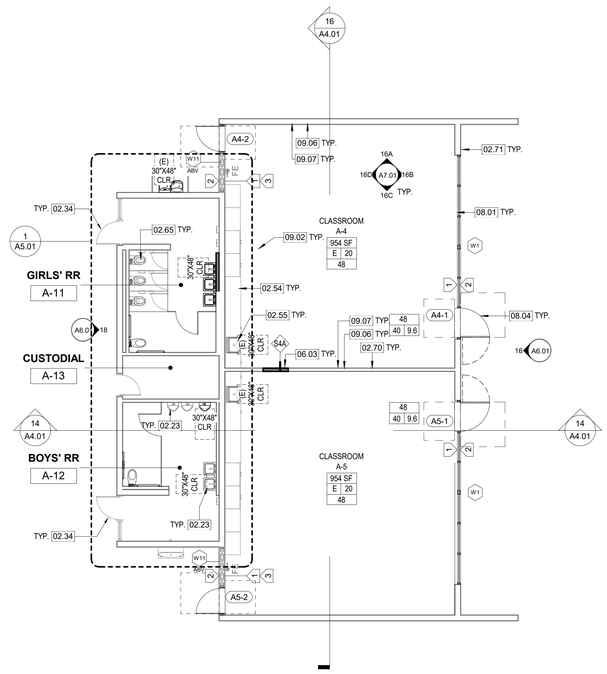
2) ASSISTIVE-LISTENING SYSTEMS SHALL BE PROVIDED IN ACCORDANCE WITH CBC SECTION 11B-219 AND SHALL COMPLY WITH CBC SECTION 11B-706.



NORTH

20 FLOOR PLAN - BLDG ADMIN

1/8" = 1'-0"



NORTH

1 FLOOR PLAN - BLDG "A-3"

1/8" = 1'-0"

CONSTRUCTION KEYNOTES

#	Description
02.23	(E) TOILET FIXTURE TO REMAIN
02.34	(E) H.M. DOOR FRAME & DOOR PANEL TO REMAIN
02.54	(E) CASEWORK TO REMAIN. PROTECT IN PLACE AND RE-PAINT.
02.55	(E) ACCESSIBLE SINK TO REMAIN. PROTECT IN PLACE
02.65	(E) WATER CLOSET TO REMAIN, PROTECT IN PLACE
02.70	(E) INTERIOR WALL FINISH, PATCH & REPAIR TO PREPARE FOR NEW FINISH WHERE OCCURS.
02.71	(E) BRICK WALL, PROTECT IN PLACE, PATCH AND REPAIR WHERE NEEDED.
06.03	(N) DOOR INFILL
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
08.02	(N) INTEGRAL ALUMINUM FRAME DOOR SYSTEM.SEE FRAMING ELEVATION A9.01 & DOOR SCHEDULE, PER ALUMINUM-FRAMED STOREFRONT & DOOR SPEC SECTION
08.04	(N) HOLLOW METAL DOOR FRAME & PANEL (SEE DOOR SCHEDULE ON SHEET A9.01)
09.02	(N) FLOOR FINISH AND BASEBOARD, SEE FINISH SCHEDULE
09.06	(N) FLOOR TO CEILING HEIGHT TACKBOARD, ADHESIVELY SECURED TO EXISTING WALL
09.07	(N) MARKERBOARD, REF DETL 5/A8.02

EXTERIOR AND INTERIOR PAINT SCOPE OF WORK

1. CONTRACTOR SHALL PAINT ALL EXTERIOR AND INTERIOR SURFACES OF ALL BUILDINGS INCLUDING PORTABLES PER SPECIFICATION. THIS WORK INCLUDES ALL FLASHING, FASCIA, PLASTER, LOUVER, DRYWALL, DOORS AND FRAMES WITH THE EXCEPTION OF BRICK SURFACES. MINIMUM OF 4 COLORS TO BE SELECTED BY THE ARCHITECTS.
2. GENERAL CONTRACTOR TO NOTIFY AND DOCUMENT ANY AREAS WITH DRYROT AND / OR TERMITE DAMAGE IN WRITTEN FORMAT PRIOR TO BID.
3. PROVIDE APPROPRIATE PREPARATION , CLEANING AND BASE MATERIAL AT EXISTING EXTERIOR FINISHES BEFORE RECEIVING NEW FINISHES. PER FINISH SPECIFICATION.

GENERAL ARCH PLAN NOTES

1. COORDINATE ALL SPOT ELEVATIONS AND DIMENSIONS WITH CIVIL
2. PROVIDE AND INSTALL POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS OF 1 % MINIMUM, 2 % MAXIMUM AT ALL EXTERIOR PAVED PEDESTRIAN AREAS, INCLUDING BUT NOT LIMITED TO, SIDEWALKS, PATIOS, STAIRS, PAVING, U.N.O.
3. PROVIDE AND INSTALL POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS OF 5 % FOR A HORIZ. DISTANCE OF 10 FEET AT ALL EXTERIOR NON-PAVED AREAS U.N.O
4. REFER TO CIVIL DOCUMENTS FOR CONCRETE SIDEWALK EXPANSION JOINTS AND CONCRETE SIDEWALK CONTROL JOINTS
5. PROVIDE AND INSTALL CONCRETE SIDEWALK CONTROL JOINTS AT DISTANCES EQUIVALENT TO SIDEWALK WIDTH, BUT NOT TO EXCEED 10 FEET ON-CENTER MAX.

NOTE: ALL BUILDINGS ARE NON-SPRINKLERED

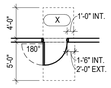
REMODEL PLAN LEGEND

EXISTING WALL TO REMAIN

NEW NON-BEARING WALL WALL TO BE PROVIDED.
SEE WALL PARTITION TAG FOR TOP & BOTTOM CONNECTION

WINDOW MARK, REFER TO WINDOW SCHEDULE A9.01 FOR WINDOW FRAMES AND GLAZING TYPES

(N) WINDOW (SEE SCHEDULE ON ON SHEET A9.01)



(N) DOOR TO BE PROVIDED. REFER TO A9.01 FOR DOOR SCHEDULE AND TYPES

WALL PARTITIONS TAG

LETTER INDICATES PARTITION TYPE, REF. DETAIL 1, 2 /A8.02 & 6/A8.03
INDICATES CORE WIDTH (IN INCHES)
LETTER INDICATES CORE TYPE (S=STUD)

CLASSROOM — ROOM NAME
400 — ROOM NUMBER
960 — ROOM AREA (SQ. FT.)
E 20 — OCCUPANT LOAD FACTOR
48 — ROOM OCCUPANT
OCCUPANCY TYPE

100 — COMBINED EXIT LOAD
32 | 20 — REQUIRED CLEAR EXIT WIDTH (IN INCHES)
PROVIDED CLEAR EXIT WIDTH (IN INCHES)

FE — WHERE EXISTING FIRE EXTINGUISHER IS MISPLACED IN CLASSROOM, MOVE (E) FIRE EXTINGUISHER WITH WALL BRACKET TO LOCATION SHOWN ON PLAN. IF FIRE EXTINGUISHER AND/OR MOUNTING BRACKET IS MISSING PROVIDE PER SPEC 10 44 00 AND REFER TO DETAIL 18 / A8.02

NOTE: ALL EXTERIOR CLASSROOM/ADMIN WINDOW FRAMES AND GLAZING TO BE REPLACED. PATCH AND REPAIR WALLS, AS NEEDED, FOLLOWING WINDOW INSTALLATION

SIGNAGE LEGEND

ALL SIGNAGE IS (E) TO REMAIN. WHERE (E) SIGNAGE IS MISSING OR DAMAGED PROVIDE NEW SIGNAGE TO MATCH EXISTING PER DETAIL REFERENCES BELOW...

SIGNAGE TAG #

1. TACTILE EXIT SIGNAGE, SEE DETAIL 16 / A8.02 AND/OR SEE ELECTRICAL PLANS FOR ILLUMINATED EXIT REQUIREMENTS.
2. ROOM IDENTIFICATION SIGNAGE, SEE DETAIL 19 / A8.02 (VERIFY ROOM NAME & NUMBER w/ OWNER). WHERE TWO ROOMS ADJOIN ONE ANOTHER, PROVIDE SIGNAGE ON EACH SIDE OF THE WALL, TYP. ALL ROOMS
3. ASSISTIVE LISTENING SIGNAGE, SEE DETAIL 23 / A8.02
4. MAXIMUM OCCUPANT LOAD SIGNAGE, SEE DETAIL 17 / A8.02

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

ADMIN
A1
A3
A2
KEY PLAN
NORTH: PLAN

Consultant

Architect
LICENSED ARCHITECT
TONG YOO
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

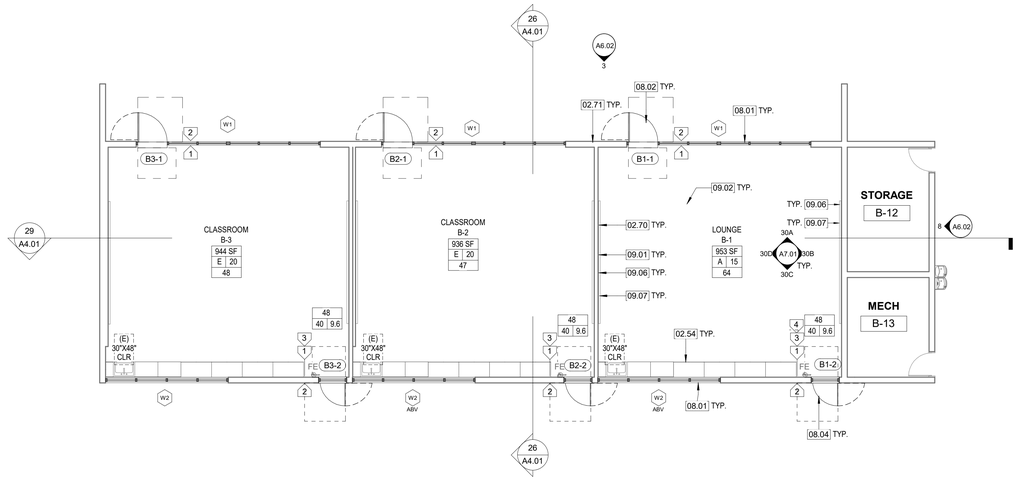
FLOOR PLANS - ADMIN & BLDG A-1, A-2 & A-3

A1.01

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A1.02 - FLOOR PLANS - BLDG B-1, B-2, B-3 & LAB/LIBRARY

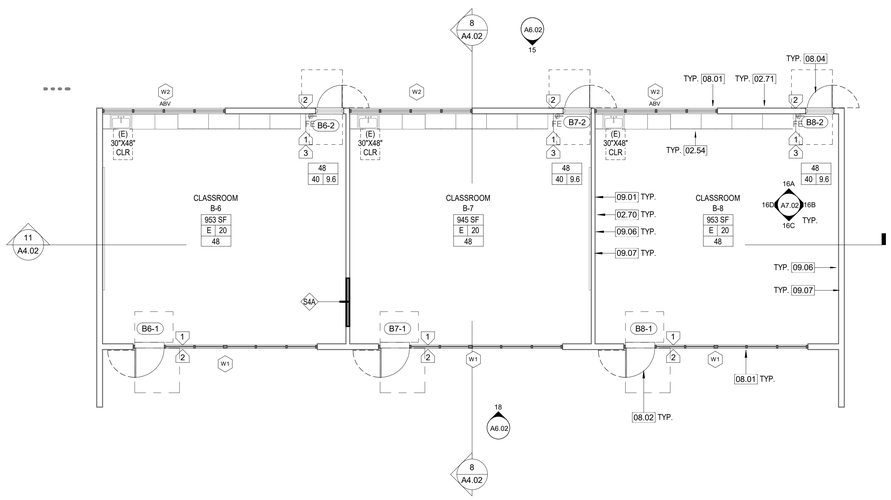
0" 1"



NORTH

1 FLOOR PLAN - BLDG "B-1"

1/8" = 1'-0"



NORTH

2 FLOOR PLAN - BLDG "B-2"

1/8" = 1'-0"

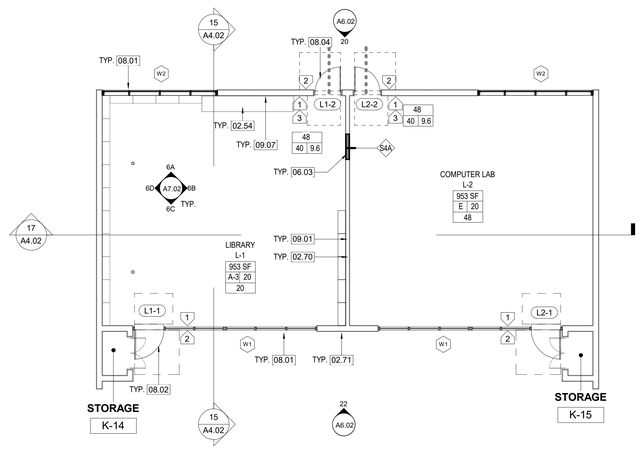
ALTERNATIVE ALS SYSTEM REQUIREMENTS

PROVIDE 2 PORTABLE ASSISTIVE LISTENING SYSTEMS, EACH WITH A TRANSMITTER AND A MINIMUM OF 2 RECEIVERS. FOR USE IN CLASSROOMS WITHOUT AUDIO AMPLIFICATION. THE ASSISTIVE LISTENING RECEIVERS AND TRANSMITTER SHALL BE STORED IN THE SCHOOL SITE ADMINISTRATION OFFICE UNTIL REQUESTED.

ASSISTIVE LISTENING SYSTEMS AND SIGNAGE 11B-219

1) PROVIDE AN ASSISTIVE LISTENING SYSTEM, COMPLYING WITH CBC 11B-219 & 11B-706. PROVIDE EACH ASSEMBLY WITH A SIGN WHICH INCLUDES THE SYMBOL FOR HEARING LOSS IN COMPLIANCE WITH 11B-216.10 & 11B-703.7.2.4.

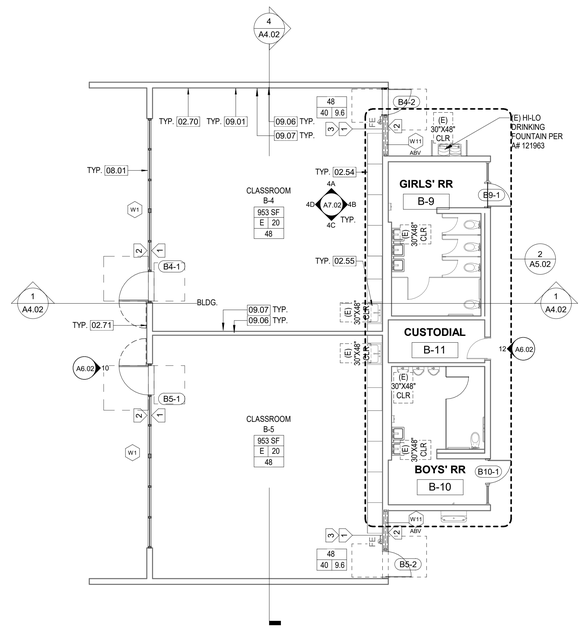
2) ASSISTIVE-LISTENING SYSTEMS SHALL BE PROVIDED IN ACCORDANCE WITH CBC SECTION 11B-219 AND SHALL COMPLY WITH CBC SECTION 11B-706.



NORTH

4 FLOOR PLAN - BLDG LAB/LIBRARY

1/8" = 1'-0"



NORTH

3 FLOOR PLAN - BLDG "B-3"

1/8" = 1'-0"

CONSTRUCTION KEYNOTES

#	Description
02.54	(E) CASEWORK TO REMAIN. PROTECT IN PLACE AND RE-PAINT.
02.55	(E) ACCESSIBLE SINK TO REMAIN. PROTECT IN PLACE
02.70	(E) INTERIOR WALL FINISH, PATCH & REPAIR TO PREPARE FOR NEW FINISH WHERE OCCURS.
02.71	(E) BRICK WALL, PROTECT IN PLACE, PATCH AND REPAIR WHERE NEEDED.
06.03	(N) DOOR INFILL
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
08.02	(N) INTEGRAL ALUMINUM FRAME DOOR SYSTEM.SEE FRAMING ELEVATION A9.01 & DOOR SCHEDULE, PER ALUMINUM-FRAMED STOREFRONT & DOOR SPEC SECTION
08.04	(N) HOLLOW METAL DOOR FRAME & PANEL (SEE DOOR SCHEDULE ON SHEET A9.01)
09.01	(N) INTERIOR PAINT FINISH, SEE FINISH SCHEDULE
09.02	(N) FLOOR FINISH AND BASEBOARD, SEE FINISH SCHEDULE
09.06	(N) FLOOR TO CEILING HEIGHT TACKBOARD, ADHESIVELY SECURED TO EXISTING WALL
09.07	(N) MARKERBOARD, REF DETL 5/A8.02

EXTERIOR AND INTERIOR PAINT SCOPE OF WORK

1. CONTRACTOR SHALL PAINT ALL EXTERIOR AND INTERIOR SURFACES OF ALL BUILDINGS INCLUDING PORTABLES PER SPECIFICATION, THIS WORK INCLUDES ALL FLASHING, FASCIA, PLASTER, LOUVER, DRYWALL, DOORS AND FRAMES WITH THE EXCEPTION OF BRICK SURFACES. MINIMUM OF 4 COLORS TO BE SELECTED BY THE ARCHITECTS.
2. GENERAL CONTRACTOR TO NOTIFY AND DOCUMENT ANY AREAS WITH DRYROT AND / OR TERMITE DAMAGE IN WRITTEN FORMAT PRIOR TO BID.
3. PROVIDE APPROPRIATE PREPARATION , CLEANING AND BASE MATERIAL AT EXISTING EXTERIOR FINISHES BEFORE RECEIVING NEW FINISHES. PER FINISH SPECIFICATION.

GENERAL ARCH PLAN NOTES

1. COORDINATE ALL SPOT ELEVATIONS AND DIMENSIONS WITH CIVIL
2. PROVIDE AND INSTALL POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS OF 1 % MINIMUM, 2 % MAXIMUM AT ALL EXTERIOR PAVED PEDESTRIAN AREAS, INCLUDING BUT NOT LIMITED TO, SIDEWALKS, PATIOS, STAIRS, PAVING, U.N.O.
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4. REFER TO CIVIL DOCUMENTS FOR CONCRETE SIDEWALK EXPANSION JOINTS AND CONCRETE SIDEWALK CONTROL JOINTS
5. PROVIDE AND INSTALL CONCRETE SIDEWALK CONTROL JOINTS AT DISTANCES EQUIVALENT TO SIDEWALK WIDTH, BUT NOT TO EXCEED 10 FEET ON-CENTER MAX.

NOTE: ALL BUILDINGS ARE NON-SPRINKLERED

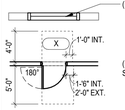
REMODEL PLAN LEGEND

EXISTING WALL TO REMAIN

NEW NON-BEARING WALL WALL TO BE PROVIDED. SEE WALL PARTITION TAG FOR TOP & BOTTOM CONNECTION

A — WINDOW MARK, REFER TO WINDOW SCHEDULE A9.01 FOR WINDOW FRAMES AND GLAZING TYPES

(N) WINDOW (SEE SCHEDULE ON ON SHEET A9.01)



(N) DOOR TO BE PROVIDED. REFER TO A9.01 FOR DOOR SCHEDULE AND TYPES

S4A — WALL PARTITIONS TAG
LETTER INDICATES PARTITION TYPE, REF. DETAIL 1, 2 /A8.02 & 6/A8.03
INDICATES CORE WIDTH (IN INCHES)
LETTER INDICATES CORE TYPE (S=STUD)

CLASSROOM — ROOM NAME
400 — ROOM NUMBER
960 — ROOM AREA (SQ. FT.)
E 20 — OCCUPANT LOAD FACTOR
48 — ROOM OCCUPANT
OCCUPANCY TYPE

100 — COMBINED EXIT LOAD
32 20 — REQUIRED CLEAR EXIT WIDTH (IN INCHES)
PROVIDED CLEAR EXIT WIDTH (IN INCHES)

FE — WHERE EXISTING FIRE EXTINGUISHER IS MISPLACED IN CLASSROOM, MOVE (E) FIRE EXTINGUISHER WITH WALL BRACKET TO LOCATION SHOWN ON PLAN. IF FIRE EXTINGUISHER AND/OR MOUNTING BRACKET IS MISSING PROVIDE PER SPEC 10 44 00 AND REFER TO DETAIL 18 / A8.02

NOTE: ALL EXTERIOR CLASSROOM/ADMIN WINDOW FRAMES AND GLAZING TO BE REPLACED. PATCH AND REPAIR WALLS, AS NEEDED, FOLLOWING WINDOW INSTALLATION

SIGNAGE LEGEND

ALL SIGNAGE IS (E) TO REMAIN. WHERE (E) SIGNAGE IS MISSING OR DAMAGED PROVIDE NEW SIGNAGE TO MATCH EXISTING PER DETAIL REFERENCES BELOW...

SIGNAGE TAG #

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3. ASSISTIVE LISTENING SIGNAGE, SEE DETAIL 23 / A8.02
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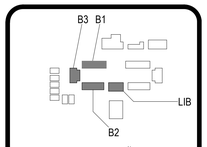
ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

FLOOR PLANS - BLDG B-1, B-2, B-3 & LAB/LIBRARY

A1.02

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A1.03 - FLOOR PLANS - BLDS 'C' & 'K'

0" 1"

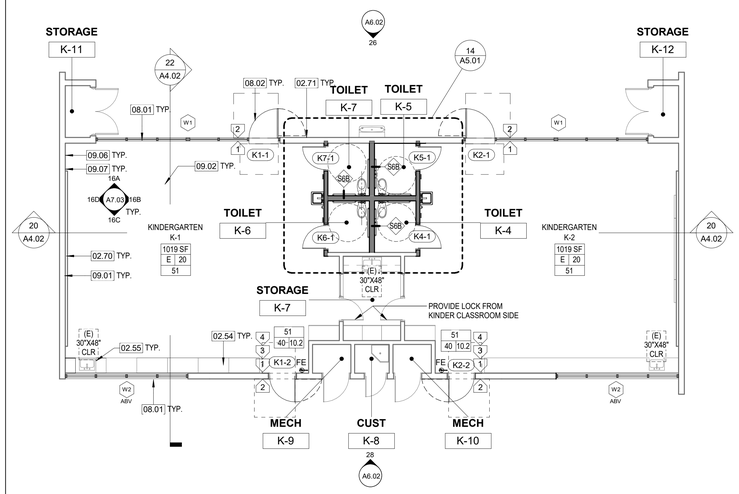
ALTERNATIVE ALS SYSTEM REQUIREMENTS

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ASSISTIVE LISTENING SYSTEMS AND SIGNAGE 11B-219

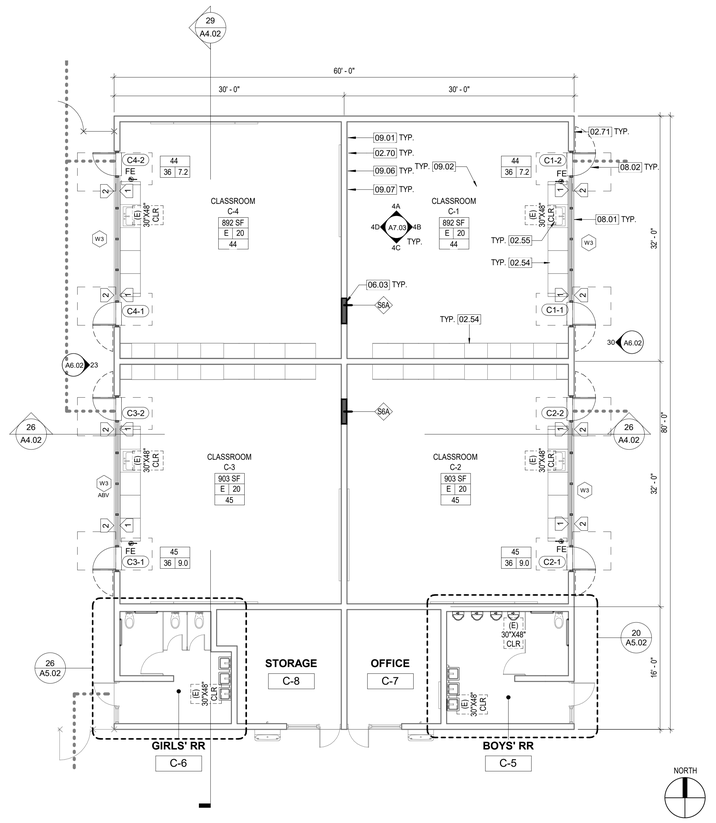
1) PROVIDE AN ASSISTIVE LISTENING SYSTEM, COMPLYING WITH CBC 11B-219 & 11B-706. PROVIDE EACH ASSEMBLY WITH A SIGN WHICH INCLUDES THE SYMBOL FOR HEARING LOSS IN COMPLIANCE WITH 11B-216.10 & 11B-703.7.2.4.

2) ASSISTIVE-LISTENING SYSTEMS SHALL BE PROVIDED IN ACCORDANCE WITH CBC SECTION 11B-219 AND SHALL COMPLY WITH CBC SECTION 11B-706.



1 FLOOR PLAN - BLDG "K"

1/8" = 1'-0"



2 FLOOR PLAN - BLDG C

1/8" = 1'-0"

CONSTRUCTION KEYNOTES

#	Description
02.54	(E) CASEWORK TO REMAIN. PROTECT IN PLACE AND RE-PAINT.
02.55	(E) ACCESSIBLE SINK TO REMAIN. PROTECT IN PLACE
02.70	(E) INTERIOR WALL FINISH, PATCH & REPAIR TO PREPARE FOR NEW FINISH WHERE OCCURS.
02.71	(E) BRICK WALL, PROTECT IN PLACE, PATCH AND REPAIR WHERE NEEDED.
06.03	(N) DOOR INFILL
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
08.02	(N) INTEGRAL ALUMINUM FRAME DOOR SYSTEM.SEE FRAMING ELEVATION A9.01 & DOOR SCHEDULE, PER ALUMINUM-FRAMED STOREFRONT & DOOR SPEC SECTION
09.01	(N) INTERIOR PAINT FINISH, SEE FINISH SCHEDULE
09.02	(N) FLOOR FINISH AND BASEBOARD, SEE FINISH SCHEDULE
09.06	(N) FLOOR TO CEILING HEIGHT TACKBOARD, ADHESIVELY SECURED TO EXISTING WALL
09.07	(N) MARKERBOARD, REF DETL 5/A8.02

EXTERIOR AND INTERIOR PAINT SCOPE OF WORK

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3. PROVIDE APPROPRIATE PREPARATION , CLEANING AND BASE MATERIAL AT EXISTING EXTERIOR FINISHES BEFORE RECEIVING NEW FINISHES. PER FINISH SPECIFICATION.

GENERAL ARCH PLAN NOTES

1. COORDINATE ALL SPOT ELEVATIONS AND DIMENSIONS WITH CIVIL
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NOTE: ALL BUILDINGS ARE NON-SPRINKLERED

REMODEL PLAN LEGEND

EXISTING WALL TO REMAIN

NEW NON-BEARING WALL WALL TO BE PROVIDED. SEE WALL PARTITION TAG FOR TOP & BOTTOM CONNECTION

(A) WINDOW MARK, REFER TO WINDOW SCHEDULE A9.01 FOR WINDOW FRAMES AND GLAZING TYPES

(N) WINDOW (SEE SCHEDULE ON ON SHEET A9.01)

(N) DOOR TO BE PROVIDED. REFER TO A9.01 FOR DOOR SCHEDULE AND TYPES

WALL PARTITIONS TAG

LETTER INDICATES PARTITION TYPE, REF. DETAIL 1, 2 /A8.02 & 6/A8.03
INDICATES CORE WIDTH (IN INCHES)
LETTER INDICATES CORE TYPE (S=STUD)

CLASSROOM — ROOM NAME
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OCCUPANCY TYPE

100 — COMBINED EXIT LOAD
32 | 20 — REQUIRED CLEAR EXIT WIDTH (IN INCHES) / PROVIDED CLEAR EXIT WIDTH (IN INCHES)

FE — WHERE EXISTING FIRE EXTINGUISHER IS MISPLACED IN CLASSROOM, MOVE (E) FIRE EXTINGUISHER WITH WALL BRACKET TO LOCATION SHOWN ON PLAN. IF FIRE EXTINGUISHER AND/OR MOUNTING BRACKET IS MISSING PROVIDE PER SPEC 10 44 00 AND REFER TO DETAIL 18 / A8.02

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SIGNAGE TAG (#)

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3. ASSISTIVE LISTENING SIGNAGE, SEE DETAIL 23 / A8.02
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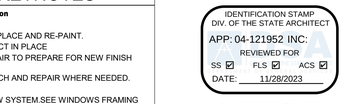
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DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
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REN 10-31-2023
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CLIENT
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03-31-2023	220524

REVISIONS

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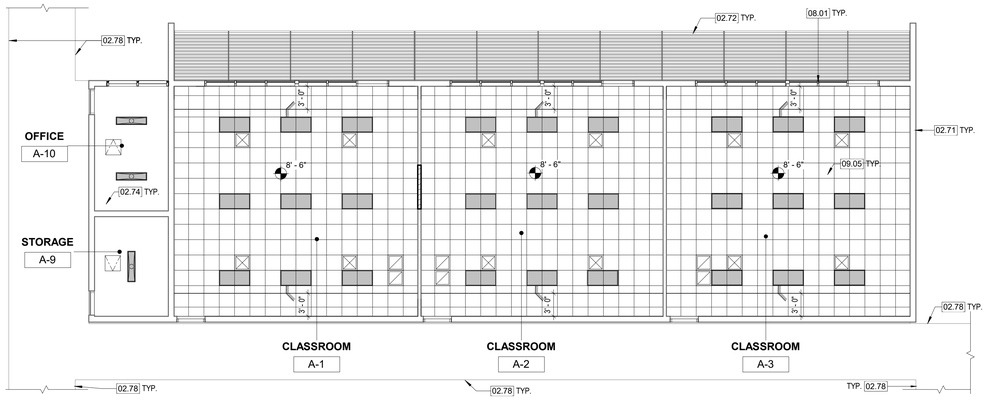
FLOOR PLANS - BLDG 'C' & 'K'

A1.03

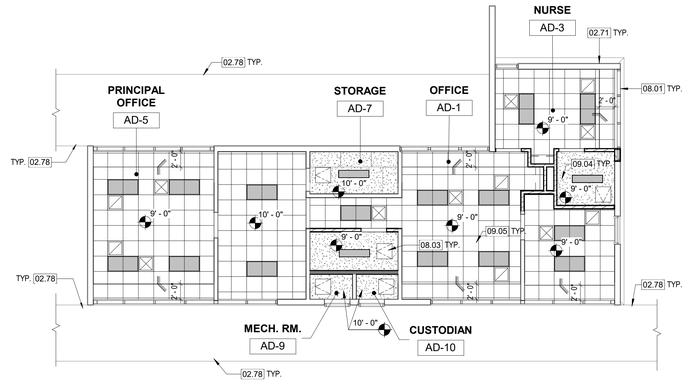
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A2.01 - REFLECTED CEILING PLANS - ADMIN & BLDG A-1, A-2 & A-3

0" 1"



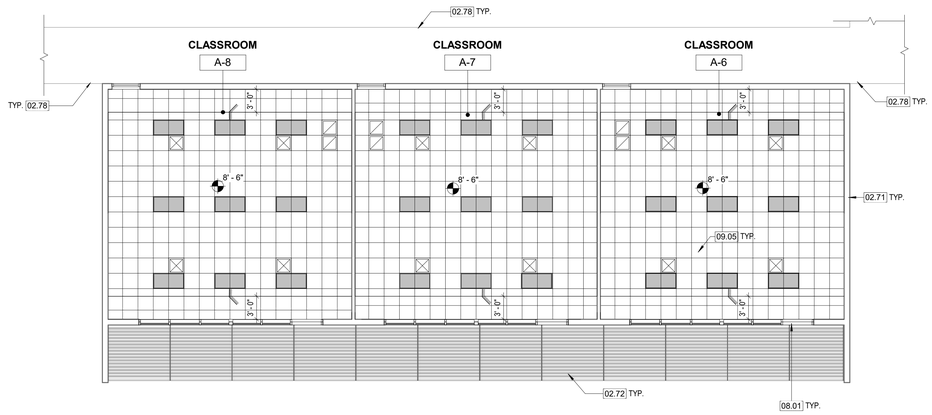
2 RCP - BLDG "A-1"
1/8" = 1'-0"



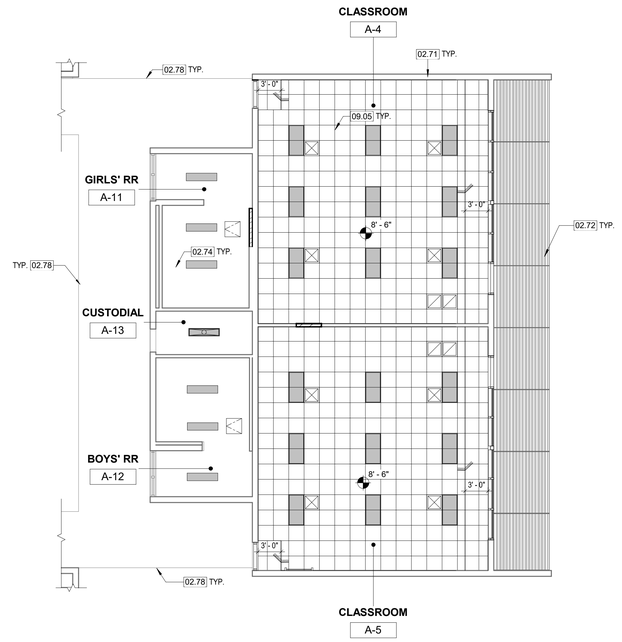
1 RCP - ADMIN BLDG.
1/8" = 1'-0"

CONSTRUCTION KEYNOTES

#	Description
02.71	(E) BRICK WALL, PROTECT IN PLACE, PATCH AND REPAIR WHERE NEEDED.
02.72	(E) ALUM LOUVERED ROOF SUN SCREEN, TO REMAIN, PATCH AND REPAIR WHERE NEEDED.
02.74	(E) CEILING TO REMAIN, PROVIDE (N) PAINT FINISH AS NEEDED.
02.78	(E) EDGE OF ROOF/COVERED WALKWAY OVERHANG. PATCH & REPAIR WHERE OCCURS TO PREPARE FOR NEW FINISH
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
08.03	(N) CEILING ACCESS PANEL, MIN. 22"X30" ROUGH FRAMED OPENNG, AS REQUIRED PER CODE. TO ACCESS HEAT DETECTOR AND RELATED MECH/ELEC SYSTEMS. MATCH CEILING FINISH. SEE DETAIL 4/A8.03
09.04	(N) MOISTURE RESIST GYP BD. PAINTED
09.05	(N) 2'X2' SUSPENDED ACOUSTIC CEILING TILE. ATTACH TO (E) ROOF STRUCTURE PER CEILING DETAIL 7/A8.03, W/ (N) R-30 BATT INSULATION ABOVE.



4 RCP - BLDG "A-2"
1/8" = 1'-0"



3 RCP - BLDG "A-3"
1/8" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- EXISTING PLASTER /GYP. BD. CEILING TO REMAIN. RE-PAINT TO MATCH EXISTING.
- NEW PAINTED MOISTURE RESISTANT GYPSUM BOARD CEILING ATTACHED TO (E) CEILING JOIST. SEE DETAIL 5/A8.03
- NEW 24" x 24" SUSPENDED ACOUSTIC CEILING TILE. SEE DETAIL 7/A8.03
- NEW LIGHT FIXTURE(S). SEE ELECTRICAL DRAWINGS.
- MECHANICAL GRILLES, REFER TO MECHANICAL DRAWINGS
- ACCESS PANEL. SEE DETAIL 4/A8.03
- CEILING SLOPE TRANSITION. 29/A8.03
- CEILING HEIGHT

NOTE:
ALL (E) BLDGS ARE NON-SPRINKLERED

GENERAL CEILING PLAN NOTES

1. REFER TO AND COORD. WITH ROOM FINISH SCHEDULES FOR SPECIFIC CEILING TYPES.
2. ALL SCHEDULED CEILING HEIGHTS ARE FROM THE MAIN FLOOR LEVEL WITHIN THE ROOM AND OR SPACE. AND ARE NOT FROM AN ELEVATED FLOOR LEVEL, AND ARE NOT FROM A RECESSED FLOOR LEVEL.
3. NO FIRE SPRINKLER HEADS ARE SHOWN ON ARCH. CEILING PLANS. ALL SPRINKLER HEADS SHALL BE CENTERED WITHIN CEILING TILES U.N.O.
4. ONLY CEILING MOUNTED FIXTURES AND EQUIP. IS SHOWN ON ARCH. CEILING PLANS. REFER TO INTERIOR ELEVATIONS FOR WALL MOUNTED FIXTURES. REFER TO MEPT DOCUMENTS FOR ADDITIONAL INFORMATION CONCERNING CEILING MOUNTED FIXTURES AND OR WALL MOUNTED FIXTURES.
5. CEILING MOUNTED LIGHT FIXTURES ARE SHOWN FOR LOCATION PURPOSES ONLY. COORD. WITH ELEC. DOCUMENTS FOR LIGHT FIXTURE DESIGNATIONS.
6. CEILING MOUNTED LIGHT FIXTURES WITHIN FIRE RATED CEILING ASSEMBLIES SHALL HAVE LIGHT FIXTURE PROTECTION AND BE TENTED OR OTHERWISE FIRE RATED TO MATCH CEILING ASSEMBLY FIRE RATING.
7. VERIFY LOCATIONS OF ALL CEILING ACCESS PANELS WITH MEPT DOCUMENTS. COORD. LOCATIONS OF CEILING ACCESS PANELS WITH ARCH. PRIOR TO INSTALLATION. CEILING ACCESS PANEL FIRE RATINGS SHALL MATCH CEILING ASSEMBLY FIRE RATINGS.
8. REFER TO WALL SECTIONS FOR WALL-CEILING INTERFACE
9. EXISTING CEILING ACCESS PANEL TO REMAIN.
10. PROVIDE NEW CEILING ACCESS PANEL WHERE REQUIRED PER CODE.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
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2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

ADMIN
A1
A3
A2
KEY PLAN
NORTH: PLAN

Consultant

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2025
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

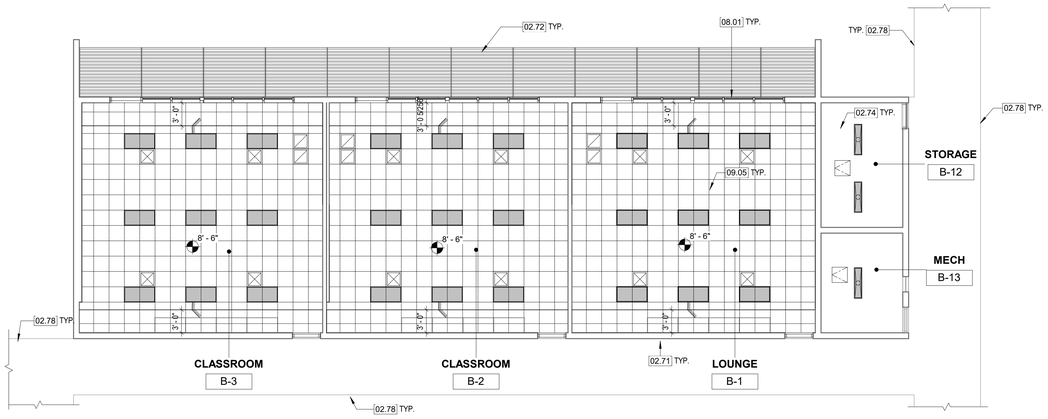
REFLECTED CEILING PLANS - ADMIN & BLDG A-1, A-2 & A-3

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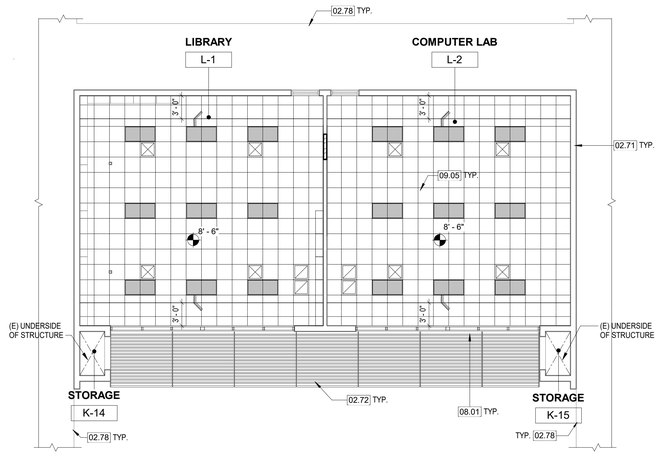
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A2.02 - REFLECTED CEILING PLANS - BLDG' B-1, B-2, B-3 & LAB/LIBRARY

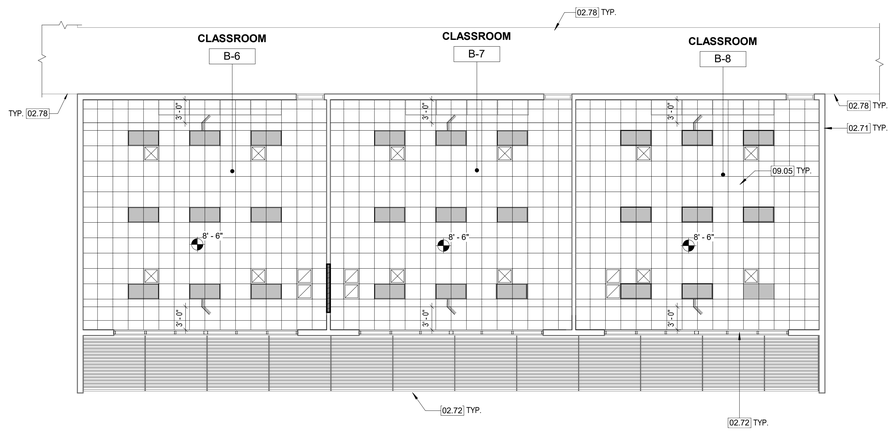
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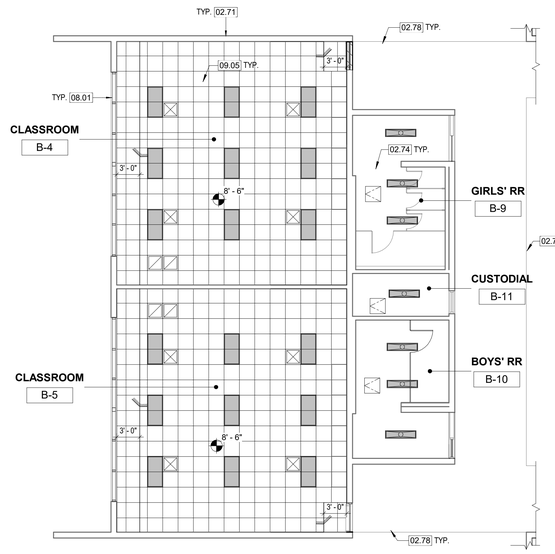
1 RCP - BLDG "B-1"
1/8" = 1'-0"



4 RCP - BLDG "LAB/LIBRARY"
1/8" = 1'-0"



3 RCP - BLDG "B-2"
1/8" = 1'-0"



2 RCP - BLDG "B-3A"
1/8" = 1'-0"

CONSTRUCTION KEYNOTES

#	Description
02.71	(E) BRICK WALL, PROTECT IN PLACE, PATCH AND REPAIR WHERE NEEDED.
02.72	(E) ALUM LOUVERED ROOF SUN SCREEN, TO REMAIN, PATCH AND REPAIR WHERE NEEDED.
02.74	(E) CEILING TO REMAIN, PROVIDE (N) PAINT FINISH AS NEEDED.
02.78	(E) EDGE OF ROOF/COVERED WALKWAY OVERHANG. PATCH & REPAIR WHERE OCCURS TO PREPARE FOR NEW FINISH
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
09.05	(N) 2'X2' SUSPENDED ACOUSTIC CEILING TILE, ATTACH TO (E) ROOF STRUCTURE PER CEILING DETAIL 7/A8.03, W/ (N) R-30 BATT INSULATION ABOVE.

REFLECTED CEILING PLAN LEGEND

- EXISTING PLASTER /GYP. BD. CEILING TO REMAIN. RE-PAINT TO MATCH EXISTING.
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- NEW 24" x 24" SUSPENDED ACOUSTIC CEILING TILE. SEE DETAIL 7/A8.03
- NEW LIGHT FIXTURE(S). SEE ELECTRICAL DRAWINGS.
- MECHANICAL GRILLES, REFER TO MECHANICAL DRAWINGS
- ACCESS PANEL. SEE DETAIL 4/A8.03
- CEILING SLOPE TRANSITION 29/A8.03
- CEILING HEIGHT

NOTE:
ALL (E) BLDGS ARE NON-SPRINKLERED

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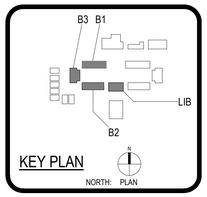
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2400 E. Katella Ave. #950
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

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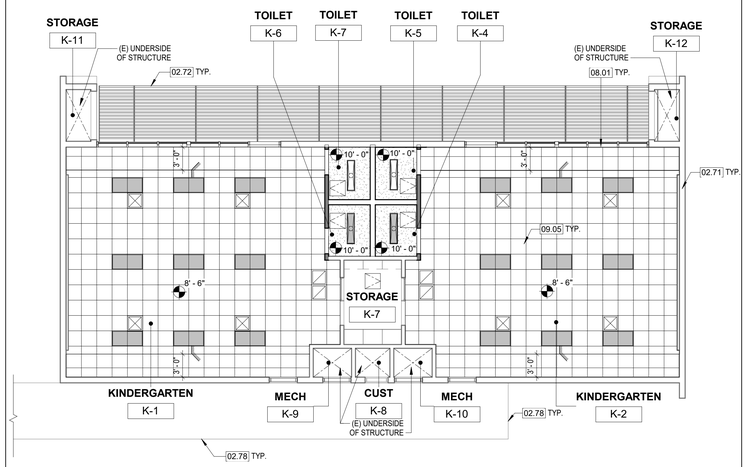
REFLECTED CEILING PLANS - BLDG' B-1, B-2, B-3 & LAB/LIBRARY

A2.02

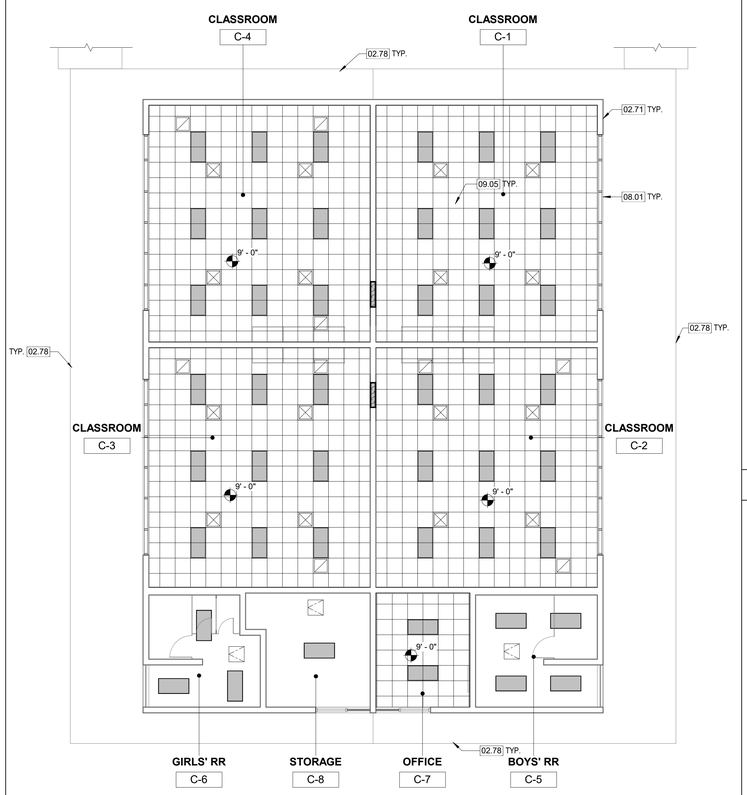
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A2.03 - REFLECTED CEILING PLANS - BLDG 'C' & 'K'

0" 1"



2 RCP - BLDG "K"
1/8" = 1'-0"



1 RCP - BLDG "C"
1/8" = 1'-0"

CONSTRUCTION KEYNOTES

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- ACCESS PANEL. SEE DETAIL 4/A8.03
- CEILING SLOPE TRANSITION. 29/A8.03
- CEILING HEIGHT

NOTE:
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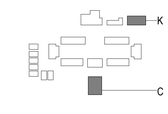
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DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong You
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

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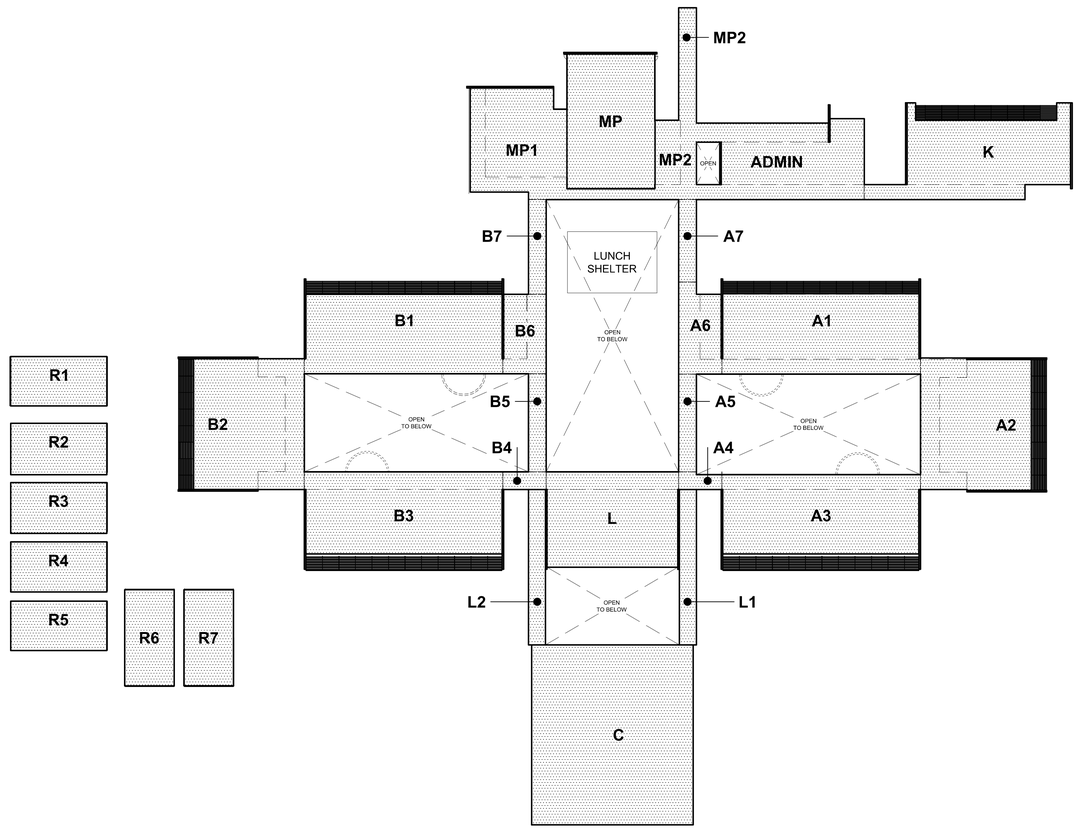
DSA SUBMITTAL SET

REFLECTED CEILING PLANS - BLDG 'C' & 'K'

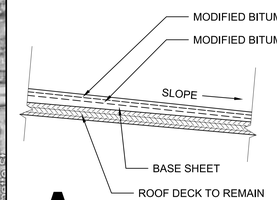
A2.03



23 VICINITY MAP
NOT TO SCALE



5 COMPOSITE ROOF PLAN
1"=30'-0"



A

26 NEW NOMENCLATURE
NOT TO SCALE

AREA	APROX. SQ. FT.	EXISTING NOMENCLATURE	NEW NOMENCLATURE	REMARKS
A1	3,775	WD/SS/BUR-A	A	-
A2	3,447	WD/SS/BUR-A	A	-
A3	3,866	WD/SS/BUR-A	A	-
A4	184	WD/SS/BUR-A	A	C.W.
A5	416	WD/SS/BUR-A	A	C.W.
A6	864	WD/SS/BUR-A	A	-
A7	350	WD/SS/BUR-A	A	C.W.
ADMIN	3,102	WD/SS/BUR-A	A	-
B1	3,757	WD/SS/BUR-A	A	-
B2	3,467	WD/SS/BUR-A	A	-
B3	3,871	WD/SS/BUR-A	A	-
B4	184	WD/SS/BUR-A	A	C.W.
B5	416	WD/SS/BUR-A	A	C.W.
B6	823	WD/SS/BUR-A	A	-
B7	402	WD/SS/BUR-A	A	C.W.
C	6,952	WD/SS/BUR-A	A	-
K	3,160	WD/SS/BUR-A	A	-
L	3,005	WD/SS/BUR-A	A	C.W.
L1	657	WD/SS/BUR-A	A	C.W.
L2	657	WD/SS/BUR-A	A	-
MP	2,834	WD/SS/BUR-A	A	-
MP1	2,638	WD/SS/BUR-A	A	-
MP2	1,267	WD/SS/BUR-A	A	C.W.
R1	1,128	WD/SS/BUR-A	A	-
R2	1,128	WD/SS/BUR-A	A	-
R3	1,128	WD/SS/BUR-A	A	-
R4	1,128	WD/SS/BUR-A	A	-
R5	1,128	WD/SS/BUR-A	A	-
R6	1,128	WD/SS/BUR-A	A	-
R7	1,128	WD/SS/BUR-A	A	-
TOTAL	57990			

NOTE: SQUARE FOOTAGES SHOWN ARE FOR REFERENCE ONLY - (FIELD VERIFY) CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS AND FOR ENSURING NEW CONDITIONS ADHERE TO ALL LOCAL AND FEDERAL CODES ALONG WITH INDUSTRY STANDARD GUIDELINES AND REMAIN IN A WATERTIGHT CONDITION.

SEE SPECIFICATION DIVISION 7 FOR OTHER ROOF RELATED COMPONENTS.

SEE DETAIL 26- FOR NEW NOMENCLATURE

REMARKS:

C.W. = COVERED WALKWAYS

14 EXISTING NOMENCLATURE
NOT TO SCALE

WD: WOOD DECK
SS: SLIP AHEET
BUR-A: MULTI-PLY BUILT UP ROOF SYSTEM W/ ALUMINUM COATING
(E): EXISTING
TYP: TYPICAL
SIM: SIMILAR
PLYWD: PLYWOOD
SHTHG: SHEATHING
BLDG: BUILDING
NIC: NOT IN CONTRACT
MODBIT: MODIFIED BITUMEN
CONT: CONTINUED
EA: EACH
MANUF: MANUFACTURER
DIA: DIAMETER

8 ABREVIATIONS
NOT TO SCALE

1. WAS REMOVE AND PROPERLY DISPOSE OF EXISTING ROOFING (WEIGHING APPROXIMATELY 8 LBS/SF) / INSULATION (RE: 3/A4.11) DOWN TO EXISTING ROOF DECK AT ROOF AREAS ADMIN, KINDERGARTEN, BLDG C1, C2, C3, C4, C5,C6, MPR & ALL RELOCATABLES. PREPARE / REPAIR EXISTING VERTICAL FASCIA NAILER (INCLUDE 100 IN FT OF REPLACEMENT) FOR INSTALLATION OF NEW CLASS "A" ROOF SYSTEM. PREPARE / REPAIR EXISTING ROOF DECK WITH LIKE KIND MATERIAL AND ATTACHMENT. MECHANICALLY ATTACH NEW BASE SHEET, HEAT WELD MODIFIED BITUMEN BASE PLY ROOF MEMBRANE, ENSURE IS WATER TIGHT PRIOR TO COVERING UP. HEAT WELD MODIFIED BITUMEN TITLE 24 FINISH PLY ROOF MEMBRANE WITH ASSOCIATED ROOF RELATED SHEET METAL, GUTTERS, DOWNSPOUTS, EDGE METALS AND TRIM. THE TOTAL WEIGHT OF THE NEW COMPLETED ROOF IS NOT TO EXCEED 5 LBS/SF.
2. PROVIDE R-30 BATT INSULATION UNDER ROOF DECK PER SPEC SECTION 07 21 00.
3. REPLACE OR REPAIR ALL EXISTING ROOF DAMAGE.
4. REPLACE EXISTING ROOF FASCIA WITH "TREX" COMPOSITE FASCIA, MATCH EXISTING FASCIA PROFILE.
5. EXISTING ROOF SLOPE TO REMAIN.
6. SEE DIVISION 7 FOR ROOFING SPECIFICATIONS FOR MORE INFORMATION.

19 SCOPE OF WORK
NOT TO SCALE

A. CONTRACTOR SHALL VISIT SITE TO ASCERTAIN EXACT EXISTING CONDITIONS AND COMPONENTS RELATED TO THE WORK DESCRIBED BY THESE DOCUMENTS. AFTER AWARD OF THE CONTRACT, CHANGE ORDER REQUEST FOR ADDITIONAL MONEY SHALL NOT BE APPROVED IF THE WORK COULD HAVE BEEN ANTICIPATED DURING THE SITE VISIT BY THE CONTRACTOR, ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ACCEPTED MANUFACTURER'S PRINTED INSTRUCTIONS & WARRANTY REQUIREMENTS.

B. DIMENSIONS,DETAILS, EQUIPMENT SIZE AND LOCATION SHOWN IN THESE DOCUMENTS ARE FOR INFORMATION AND REFERENCE ONLY. EXACT SIZE, LOCATION, TYPE OF MATERIAL AND TYPE OF CONSTRUCTION OF EXISTING CONDITIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN & CONFIRM.

C. ALL NEW CRICKETS AND TAPERED INSULATION SHALL BE INSTALLED WITH A FINISHED 1/4" PER FOOT MIN. SLOPE. CRICKET THE UP SLOPE SIDE OF ALL SQUARE CURBS AND PROJECTIONS.

D. REMOVE ALL ABANDONED EQUIP. IDENTIFIED ON ROOF TOP AND AS SHOWN ON DRAWINGS -(PATCH DECK) HOLES LESS THAN 10" WIDE- SCREW 22 GA. STAINLESS STEEL SHEET METAL TO EXISTING DECK HOLES GREATER THAN 10" WIDE- SCREW NEW METAL DECK (MATCH EXISTING) SPAN FROM JOIST TO JOIST.

E. ALL HVAC AND/OR DX UNITS, ELECTRICAL TRANSFORMERS, ROOF TOP EQUIPMENT, ETC. THAT ARE ON SLEEPERS SHALL BE DISCONNECTED/REMOVED, RAISED, & PLACED ON NEW CURBED PLATFORMS (RE: DETAIL), AND RECONNECTED/RE-INSTALLED. VERIFY ALL EXISTING CURB MOUNTED UNITS, EQUIPMENT, ETC. HAVE A MINIMUM 10" CURB HEIGHT (RAISED AS REQUIRED) - ALL DISCONNECTS AND RECONNECTS SHALL BE PERFORMED BY A LICENSED ELECTRICIAN.

F. IF EXISTING ELECTRICAL/GAS/WATER/ETC. LINES ARE MODIFIED- ONLY LICENSED SUBCONTRACTORS SPECIALIZING IN HVAC, PLUMBING AND ELECTRICAL SHALL PERFORM THAT TYPE OF WORK, PERMITS AND INSPECTIONS REQUIRED- PROVIDE "MERCURY" GAS LINE TEST (COORDINATE OWNER/ARCHITECT WITNESS OF TEST), REPAIR ALL LEAKS AND RE-TEST

G. REPLACE AND RAISE (AS REQUIRED) ALL EXISTING EXPANSION JOINTS/AREA DIVIDERS/ CURB MOUNTED EQUIPMENT/ SKYLIGHTS A MIN. 10" ABOVE ROOF DECK. (UNLESS INDICATED OTHER WISE ON DRAWING.)

H. ENSURE ALL SOIL STACK FLASHING IS MIN. 10" ABOVE ROOF, COUPLE PVC PIPE ABOVE DECK, COUPLE CAST IRON PIPE UNDER DECK.

I. PROVIDE SHEET METAL HOODED (w/METAL FACE CLOSURE), WOOD CURB, BOX COVER AT ALL GAS LINE AND WATER LINE ROOF PENETRATIONS (RE: DETAILS). ENSURE LINES SLOPE AWAY FROM FACE COVER.

J. PROVIDE WALKWAY PROTECTION PADS (AS ACCEPTABLE TO MANUFACTURER-RE: SPECS,) AROUND ALL ROOF HATCHES, A/C UNITS, DOORS THAT OPEN ONTO ROOF, AND AT ALL ROOF TOP ACCESS LADDERS (TOP & BOTTOM)

K. ISOLATE ALL HEAT PIPES/FLUES AS RECOMMENDED & OUTLINED IN THE NRCA MANUAL FOR ISOLATED STACK FLASHING- (RE:DETAILS)

L. ALL OUTSIDE AIR INTAKES SHALL BE COVERED TO ELIMINATE ODORS AND FUMES FROM ENTERING INTO THE BUILDING DURING WORK.

M. EXAMINE AND CLEAN EXISTING DRAIN LINES OF DEBRIS AND BLOCKAGE, FLUSH WITH WATER TO ENSURE THAT DRAINS FLOW FREELY.

N. OWNER WILL VERIFY CORRECT OPERATION OF ALL ROOF TOP EQUIPMENT BEFORE AND AFTER PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL INOPERABLE EQUIPMENT PRIOR TO RELEASE OF RETAINAGE.

O. REPLACE ALL RUSTED/DETERIORATED EXISTING METAL VENT FLASHING AND FLUES.

P. COORDINATE WALK OF ENTIRE ROOF (PRIOR TO STARTING) WITH ROOFING MANUFACTURER'S TECHNICAL REP. TO IDENTIFY AND LOCATE ALL AREAS OF HIGH SLOPE WHICH MIGHT REQUIRE SPECIAL PROCEDURES FOR SYSTEM ATTACHMENT.

Q. PROVIDE ONE-WAY MOISTURE VENTS 1 PER 900 SF AT ALL LT. WT. OVER POUR AREAS

7 GENERAL NOTES
NOT TO SCALE

1 INDEX OF DRAWINGS
NOT TO SCALE

GENERAL:

SHEET NUMBER	SHEET NAMES
A3.01	GENERAL INFORMATION

BUILDING ENVELOPE:

A3.02	ENLARGED ROOF PLAN
A3.03	GENERAL ROOF DETAILS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

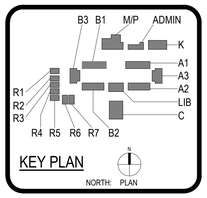
ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-9000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD.
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO. 04-121952 DSA FILE NO. 30-43



Consultant

BEAM PROFESSIONALS

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

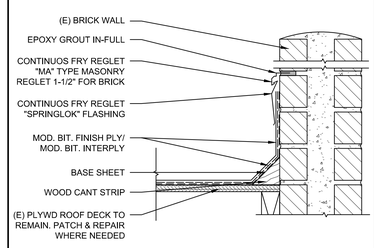
REVISIONS

No.	Description	Date

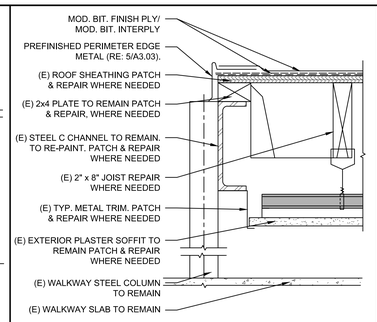
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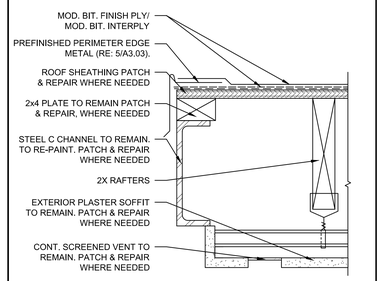
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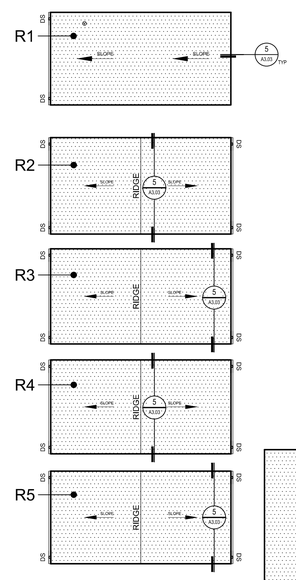
30 TYPICAL PARAPET BRICK WALL
NOT TO SCALE

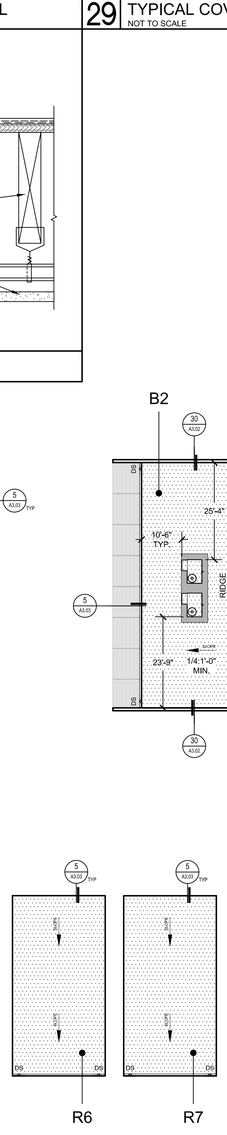


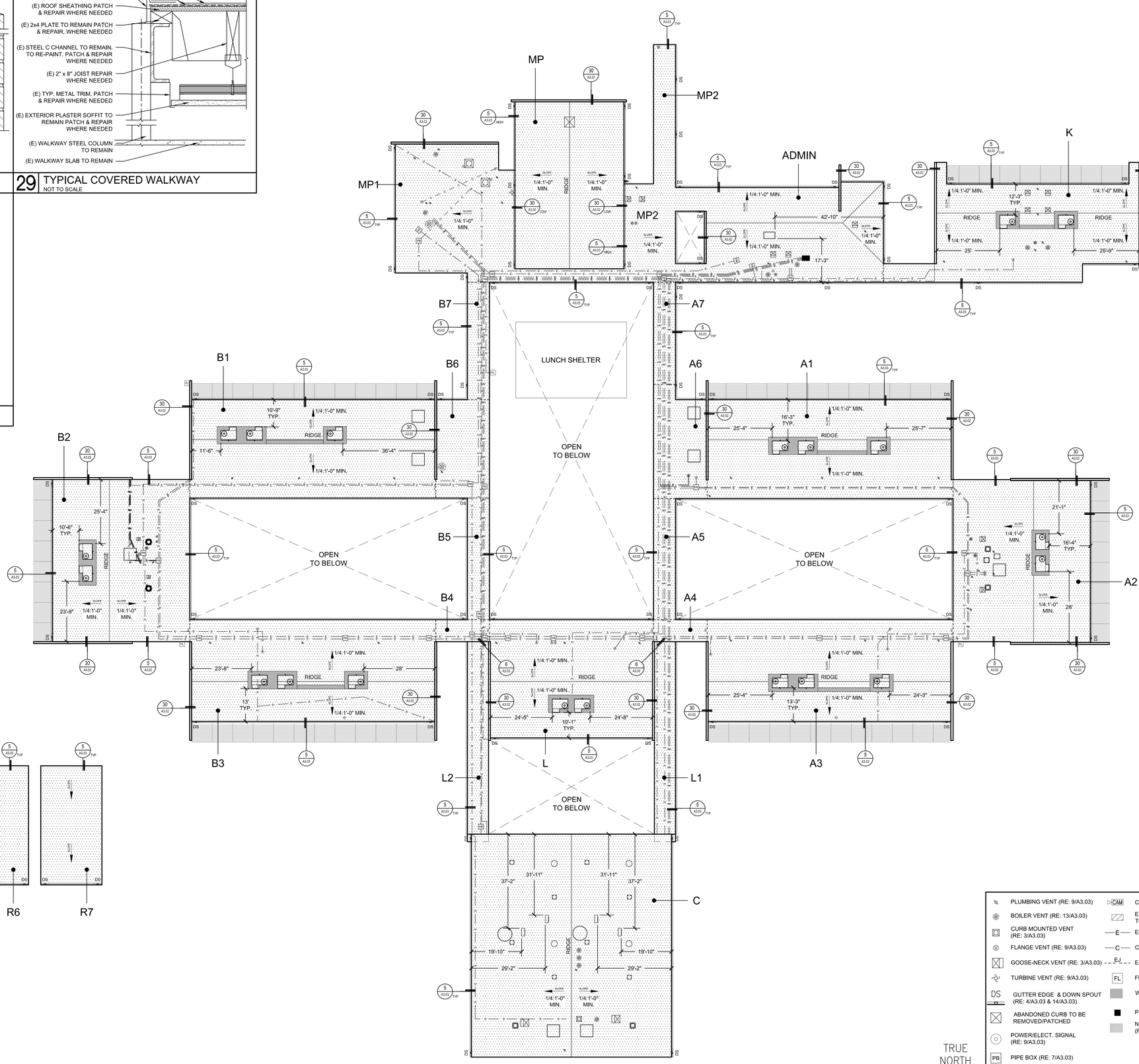
29 TYPICAL COVERED WALKWAY
NOT TO SCALE



24 TYPICAL ROOF EAVE
NOT TO SCALE







6 ROOF PLAN
1/16" = 1'-0"

PLUMBING VENT (RE: 9/A3.03)		CAM	CAMERA
BOILER VENT (RE: 13/A3.03)			EXISTING AREAS TO REMIAN-NIC
CURB MOUNTED VENT (RE: 3/A3.03)		E	ELECTRICAL LINE (RE: 7/A3.03)
FLANGE VENT (RE: 9/A3.03)		C	CONDENSATE LINE (RE: 7/A3.03)
GOOSE-NECK VENT (RE: 3/A3.03)		EJ	EXPANSION JOINT (RE: 11/A3.03)
TURBINE VENT (RE: 9/A3.03)		FL	FLOOD LIGHT (RE: 5/A3.03)
DS	GUTTER EDGE & DOWN SPOUT (RE: 4/A3.03 & 14/A3.03)		WALKPAD (RE: 12/A3.03)
	ABANDONED CURB TO BE REMOVED/PATCHED		PITCH PAN (RE: 9/A3.03)
	POWER/ELECT. SIGNAL (RE: 9/A3.03)		NEW MULTI-PLY BUR SYSTEM (RE: 26/A3.01)
PB	PIPE BOX (RE: 7/A3.03)		
A1	ROOF AREA DESIGNATION		

TRUE NORTH

1 GENERAL LEGEND
NOT TO SCALE

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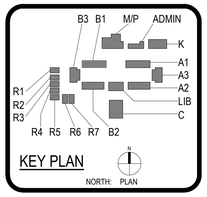
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ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-948-5000

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DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH PLAN

Consultant
BEAM PROFESSIONALS

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
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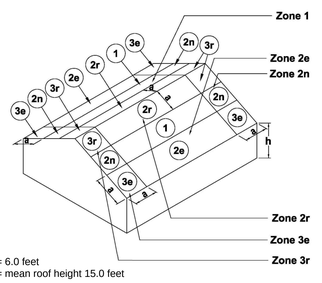
REVISIONS

No.	Description	Date

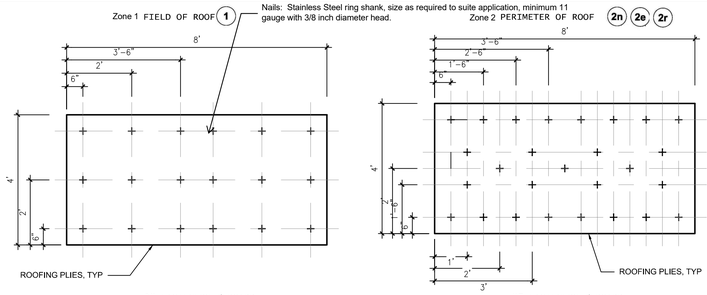
DSA SUBMITTAL SET

ENLARGED ROOF PLAN

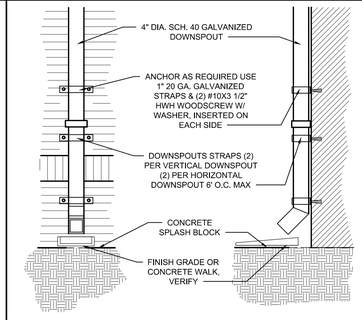
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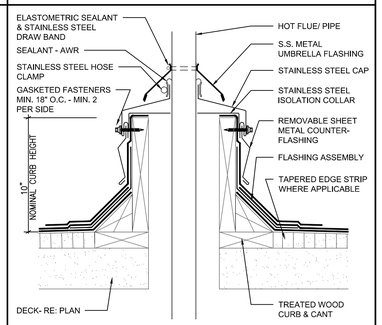
a = 6.0 feet
h = mean roof height 15.0 feet



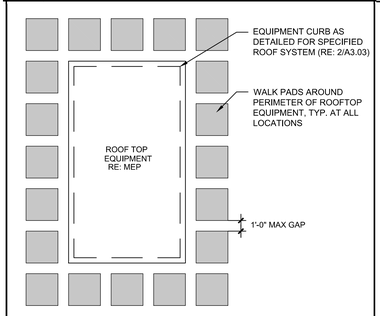
17 FASTENERS PATTERN
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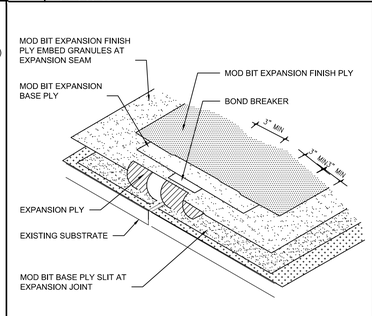
14 DOWNSPOUT TO GRADE
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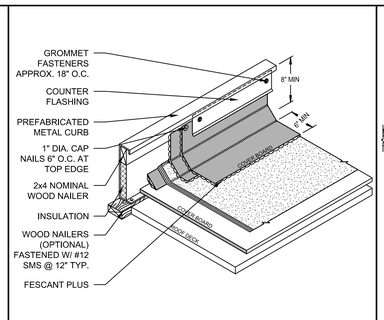
13 HOT STACK
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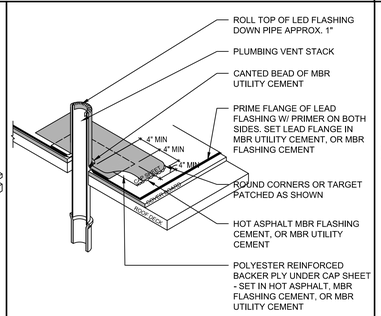
12 WALK PADS AT RTU
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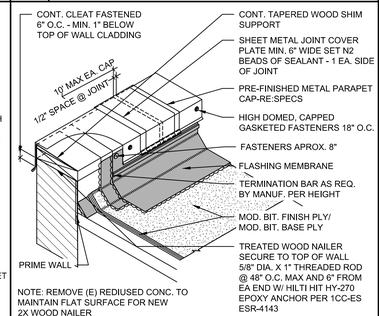
11 LOW RISE EXPANSION JOINT
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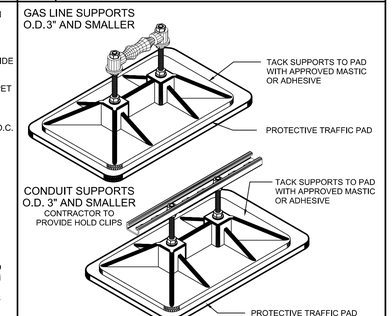
10 PREFABRICATED CURB
NOT TO SCALE



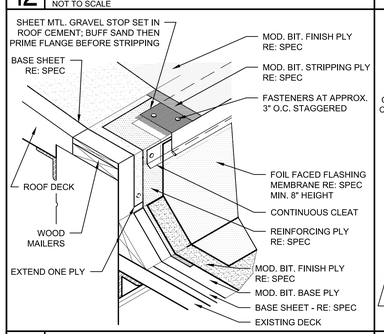
9 PLUMBING VENT THRU ROOF
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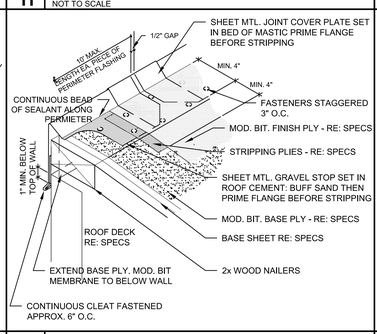
8 PARPAET BASE AND CAP
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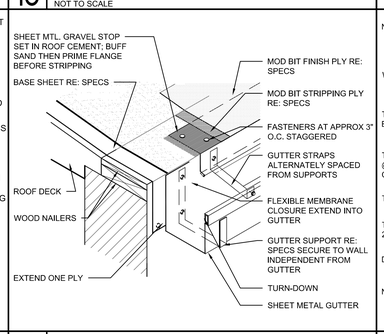
7 NON-PENETRATING PIPE SUPPORTS
NOT TO SCALE



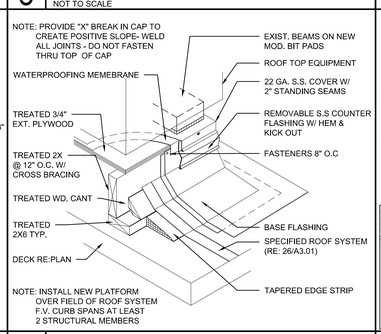
6 ROOF HIGH/LOW
NOT TO SCALE



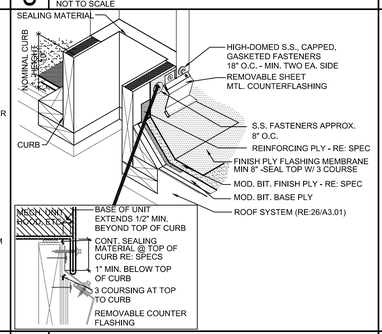
5 PERIMETER EDGE
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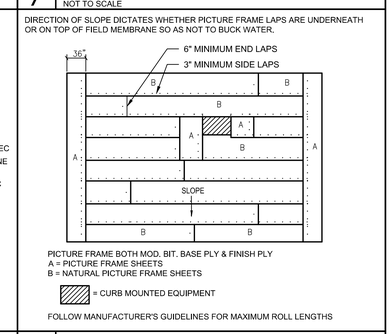
4 GUTTER EDGE
NOT TO SCALE



3 CURBED PLATFORM
NOT TO SCALE



2 EQUIPMENT CURB
NOT TO SCALE



DIRECTION OF SLOPE DICTATES WHETHER PICTURE FRAME LAPS ARE UNDERNEATH OR ON TOP OF FIELD MEMBRANE SO AS NOT TO BUCK WATER.

PICTURE FRAME BOTH MOD. BIT. BASE PLY & FINISH PLY
A = PICTURE FRAME SHEETS
B = NATURAL PICTURE FRAME SHEETS

= CURB MOUNTED EQUIPMENT

FOLLOW MANUFACTURER'S GUIDELINES FOR MAXIMUM ROLL LENGTHS

1 PICTURE FRAME
NOT TO SCALE

IDENTIFICATION STAMP
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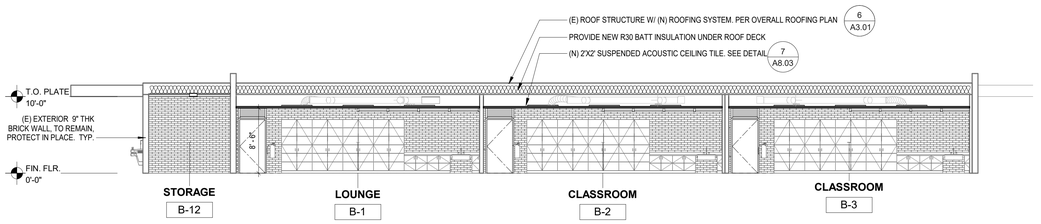
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BEAM PROFESSIONALS

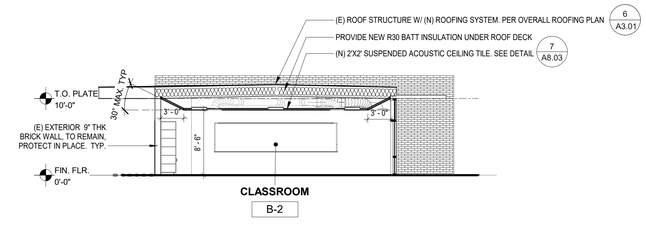
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

A4.01 - BLDG SECTIONS

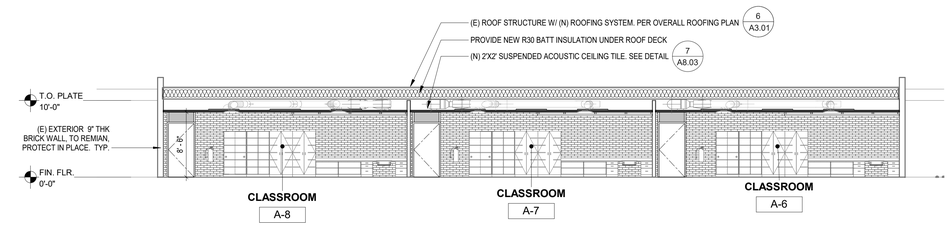
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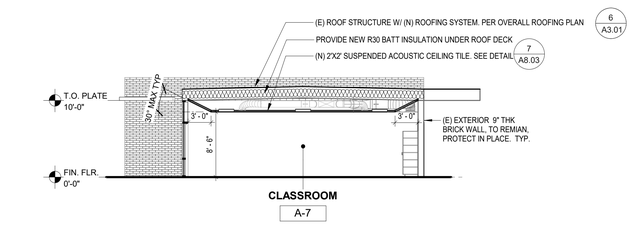
29 BLDG B-1 BLDG SECTION B
1/8" = 1'-0"



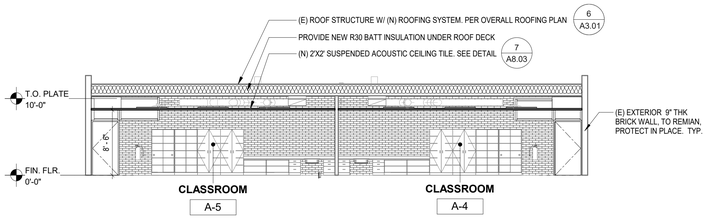
26 BLDG B-1 BLDG SECTION A
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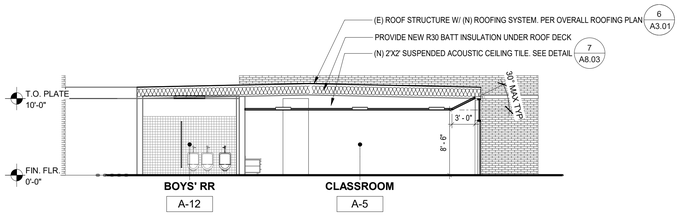
23 BLDG A-2 BLDG SECTION B
1/8" = 1'-0"



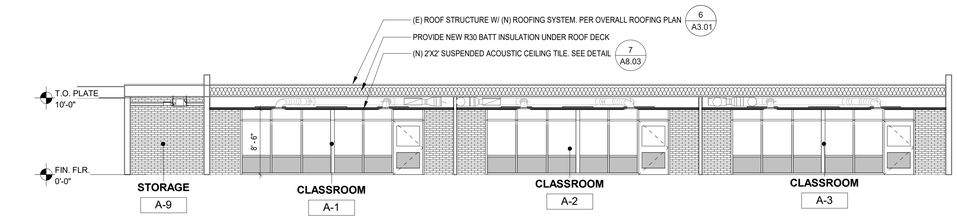
20 BLDG A-2 BLDG SECTION A
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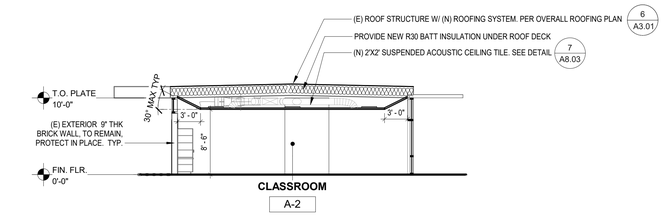
16 BLDG A-3 BLDG SECTION B
1/8" = 1'-0"



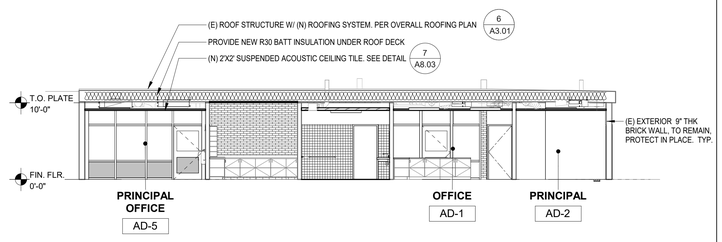
14 BLDG A-3 BLDG SECTION A
1/8" = 1'-0"



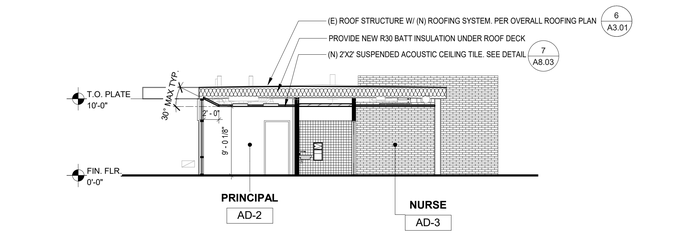
11 BLDG A-1 BLDG SECTION B
1/8" = 1'-0"



8 BLDG A-1 BLDG SECTION A
1/8" = 1'-0"



4 BLDG ADMIN SECTION B
1/8" = 1'-0"



2 BLDG ADMIN SECTION A
1/8" = 1'-0"

FILE PATH: Z:\Projects\...
9/18/2023 2:09:49 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
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SS ☑ FLS ☑ ACS ☑
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PBK

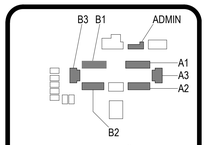
ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
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P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
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DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

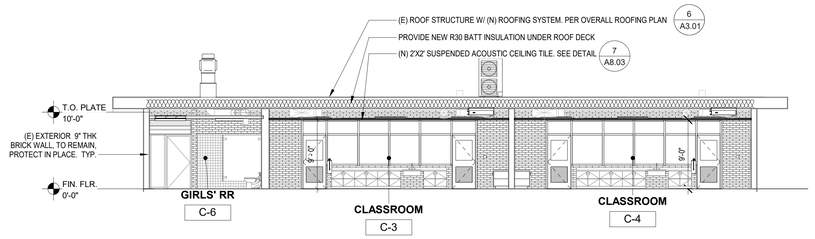
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BLDG SECTIONS

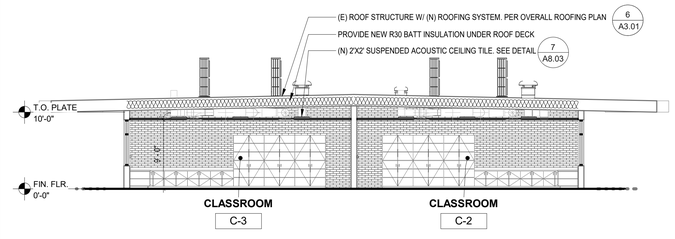
A4.01

A4.02 - BLDG SECTIONS

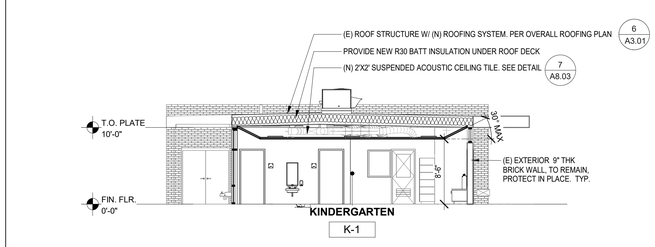
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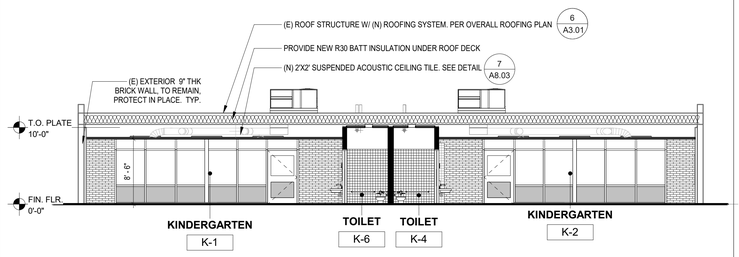
29 BLDG "C" BLDG SECTION B
1/8" = 1'-0"



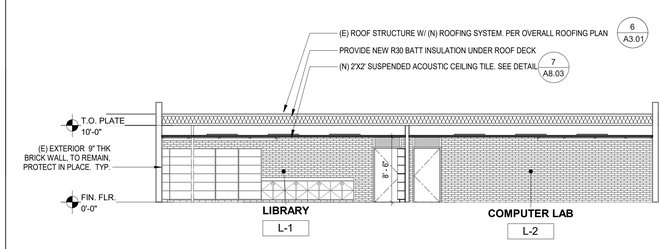
26 BLDG "C" BLDG SECTION A
1/8" = 1'-0"



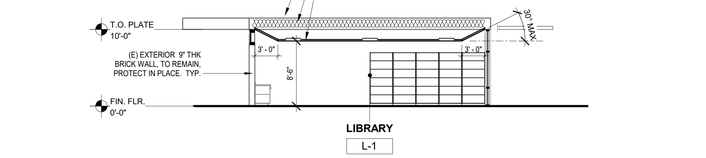
22 BLDG "K" BLDG SECTION B
1/8" = 1'-0"



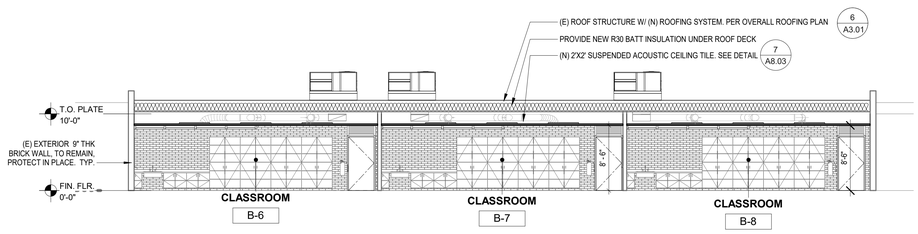
20 BLDG "K" BLDG SECTION A
1/8" = 1'-0"



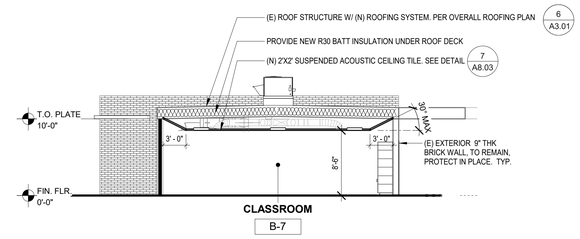
17 BLDG "LAB/LIB" BLDG SECTION B
1/8" = 1'-0"



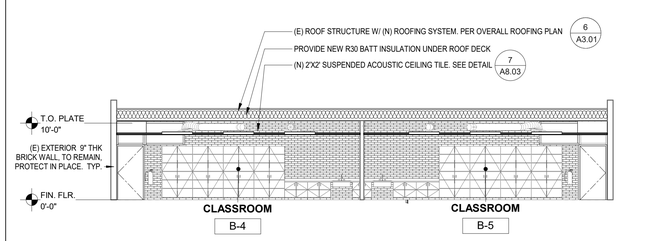
15 BLDG "LAB/LIB" BLDG SECTION A
1/8" = 1'-0"



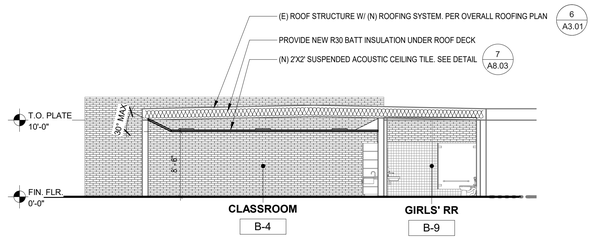
11 BLDG B-2 BLDG SECTION B
1/8" = 1'-0"



8 BLDG B-2 BLDG SECTION A
1/8" = 1'-0"



4 BLDG B-3 BLDG SECTION B
1/8" = 1'-0"



1 BLDG B-3 BLDG SECTION A
1/8" = 1'-0"

FILE PATH: Z:\Projects\...
9/18/2023 2:10:00 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

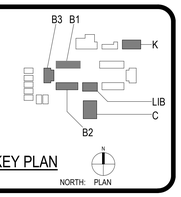
ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

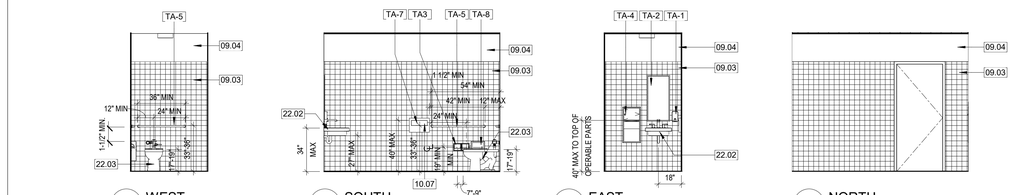
REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

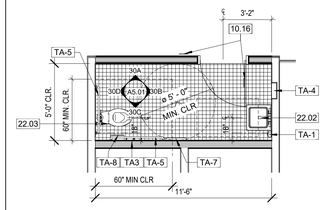
BLDG SECTIONS

A4.02



30D WEST 1/4" = 1'-0" | 30C SOUTH 1/4" = 1'-0" | 30B EAST 1/4" = 1'-0" | 30A NORTH 1/4" = 1'-0"

30 ELEVATIONS - ADMIN STAFF RESTROOMS AD-12 (ADULT)
1/4" = 1' - 0"



26 PLAN ADMIN STAFF RR AD-12 (ADULT)
1/4" = 1'-0"

TOILET ACCESSORIES

LABEL	DESCRIPTION	REMARKS
TA-1	SOAP DISPENSER	
TA-2	MIRROR	
TA-3	TOILET PAPER DISPENSER	
TA-4	PAPER TOWEL DISPENSER AND TRASH RECEPTACLE	
TA-5	GRAB BARS	
TA-6	CLOTHES HOOK	NOTE 5
TA-7	SEAT COVER DISPENSER	
TA-8	SANITARY NAPKIN DISPOSAL	

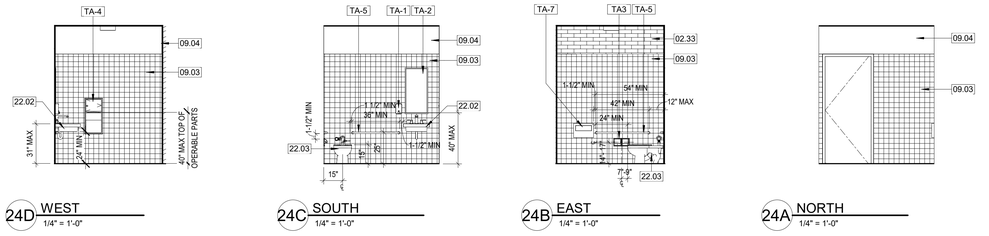
NOTE: ALL TOILET ACCESSORIES SHALL BE CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED U.N.O.

1. COORDINATE FINAL LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION
2. CONTRACTOR IS TO VERIFY ALL HEIGHTS OF ACCESSORIES TO COMPLY WITH ALL APPLICABLE ACCESSIBILITY REQUIREMENTS
3. REFER TO ALL FINISHES AND COLORS IN FINISH SCHEDULE, VERIFY ALL PATTERNS WITH ARCHITECT
4. ALIGN MIRROR ON CENTER OF LAVATORY
5. ONE (1) HOOK SHALL BE INSTALLED INSIDE DOOR AT EACH TOILET PARTITION. ONE HOOK INSIDE DOOR AT SINGLE TOILET ROOMS AND ONE HOOK AT EACH SHOWER

SEE SPECIFICATION SECTION 10 28 13 PART-4 FOR TOILET ACCESSORIES SCHEDULE

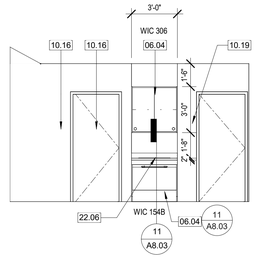
CONSTRUCTION KEYNOTES

#	Description
02.20	(E) LAVATORY TO REMAIN
02.22	(E) URINAL TO REMAIN
02.26	(E) MIRROR TO REMAIN
02.32	(E) FLOOR MOUNTED WATER CLOSET TO REMAIN
02.33	(E) INTERIOR FINISH TO REMAIN, PROTECT IN PLACE
02.43	(E) PAPER TOWEL DISPENSER TO REMAIN
02.69	(E) PLASTIC TOILET PARTITION, TO REMAIN
02.70	(E) INTERIOR WALL FINISH, PATCH & REPAIR TO PREPARE FOR NEW FINISH WHERE OCCURS.
02.75	(E) CERAMIC TILE TO REMAIN, PROTECT IN PLACE
06.01	(N) 2x4 FURRED WALL
06.04	(N) PLASTIC-LAMINATE CLAD ARCHITECTURAL CABINETS, SEE SPECS
08.04	(N) HOLLOW METAL DOOR FRAME & PANEL (SEE DOOR SCHEDULE ON SHEET A9.01)
09.01	(N) INTERIOR PAINT FINISH, SEE FINISH SCHEDULE
09.03	(N) 4"X4" CERAMIC TILES, PER DETAIL 15/A8.02
09.04	(N) MOISTURE RESIST GYP BD. PAINTED
10.07	NEW LOCATION FOR (E) TOILET SEAT COVER DISPENSER
10.08	(N) SOLID PLASTIC TOILET PARTITION, FOR MOUNTING SEE DETL 18/A8.03
10.16	(N) TACTILE RESTROOM DOOR & WALL SIGN, REF DETL 24/A8.02
10.19	(N) TACTILE EXIT ROUTE SIGN, REF DETL 16/A8.02
10.20	(N) TACTILE ROOM IDENTIFICATION SIGN, REF 22/A8.02
22.01	(N) ACCESSIBLE DRINKING FOUNTAIN W/ BOTTLE FILLER AND WING GUARDS
22.02	(N) WALL MOUNTED LAVATORY. SEE PLUMBING DRAWING
22.03	(N) FLOOR MOUNTED ACCESSIBLE WATER CLOSET. SEE PLUMBING DRAWING
22.05	(N) WALL MOUNTED URINAL
22.06	(N) COUNTER SINK AND FAUCET, SEE PLUMBING DRAWING

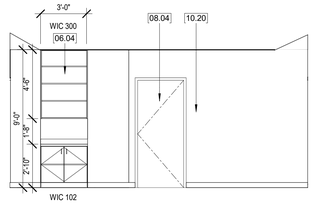


24D WEST 1/4" = 1'-0" | 24C SOUTH 1/4" = 1'-0" | 24B EAST 1/4" = 1'-0" | 24A NORTH 1/4" = 1'-0"

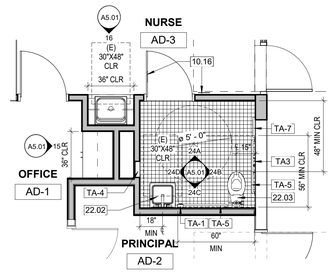
24 ELEVATIONS - NURSE STUDENT RESTROOMS AD-11 (AGES 5-8)
1/4" = 1' - 0"



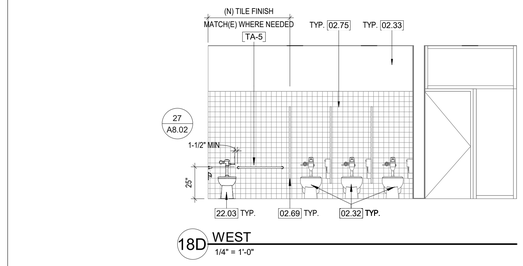
16 ADMIN NURSE AD-3 SOUTH ELEVATION
1/4" = 1'-0"



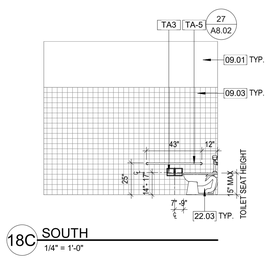
15 ADMIN OFFICE AD-1 EAST ELEVATION
1/4" = 1'-0"



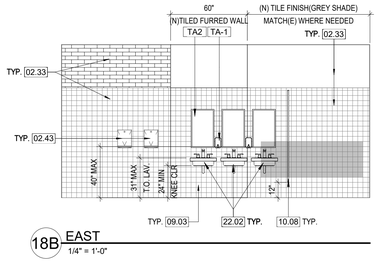
20 BLDG ADMIN NURSE RR AD-11 (AGE 5-8)
1/4" = 1'-0"



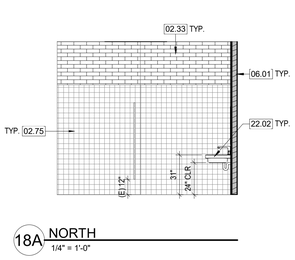
18D WEST 1/4" = 1'-0"



18C SOUTH 1/4" = 1'-0"

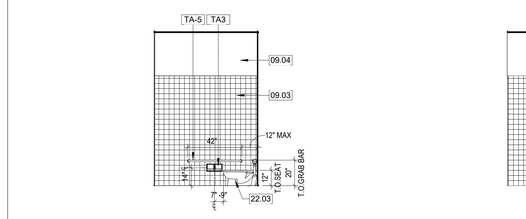


18B EAST 1/4" = 1'-0"

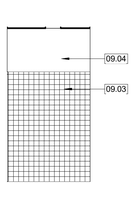


18A NORTH 1/4" = 1'-0"

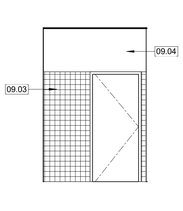
18 ELEVATIONS - BLDG -A3 TYPICAL GIRLS STUDENT RR (AGES 5-8)
1/4" = 1' - 0"



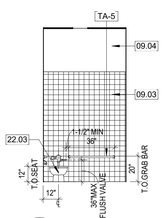
12D WEST 1/4" = 1'-0"



12C SOUTH 1/4" = 1'-0"

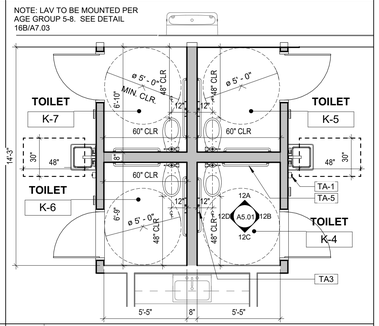


12B EAST 1/4" = 1'-0"

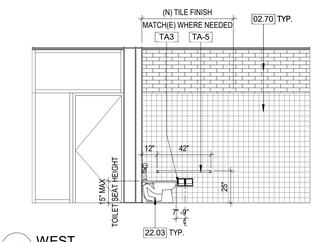


12A NORTH 1/4" = 1'-0"

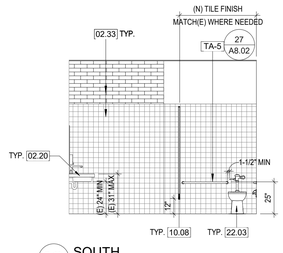
12 ELEVATIONS - BLDG K TYPICAL STUDENT RR (AGES 5-8)
1/4" = 1' - 0"



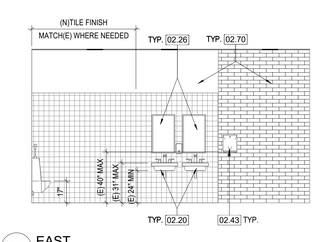
14 BLDG "K" STUDENT RR (AGES 5-8)
1/4" = 1'-0"



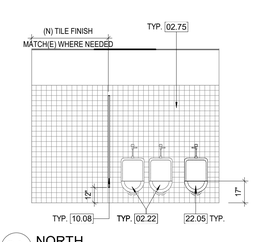
6D WEST 1/4" = 1'-0"



6C SOUTH 1/4" = 1'-0"

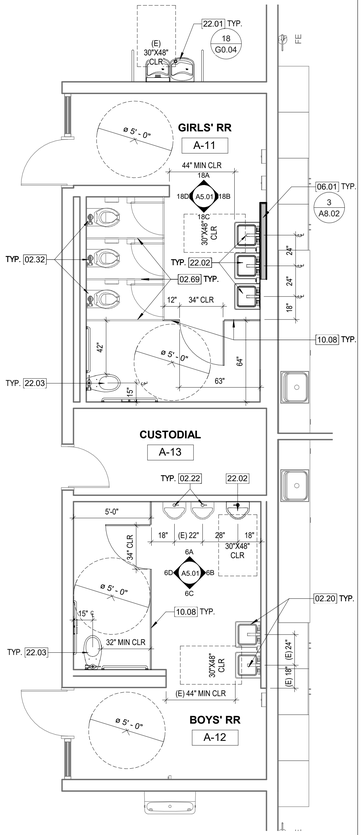


6B EAST 1/4" = 1'-0"



6A NORTH 1/4" = 1'-0"

6 ELEVATIONS - BLDG -A3 TYPICAL BOYS STUDENT RR (AGES 5-8)
1/4" = 1' - 0"



1 BLDG "A-3" BOYS & GIRLS RR (AGES 5-8)
1/4" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

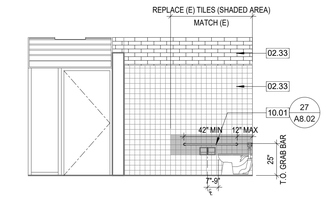
No.	Description	Date

DSA SUBMITTAL SET

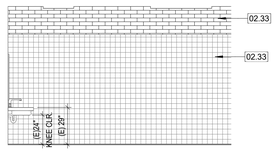
ENLARGED RESTROOM PLANS & INTERIOR ELEVATIONS

A5.01

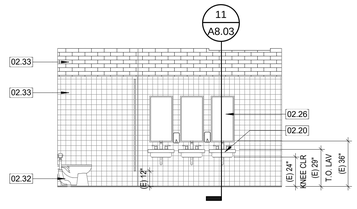
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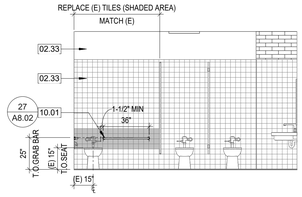
30D WEST
1/4" = 1'-0"



30C SOUTH
1/4" = 1'-0"

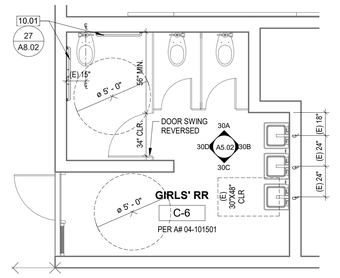


30B EAST
1/4" = 1'-0"



30A NORTH
1/4" = 1'-0"

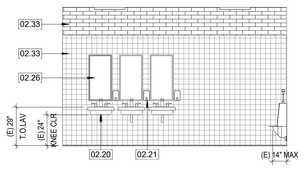
30 ELEVATIONS - BLDG C GIRLS STUDENT RR (AGES 5-8)
1/4" = 1' - 0"



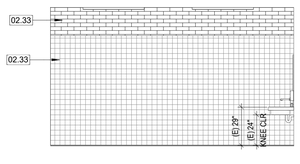
26 BLDG "C" C-6 GIRLS RR (AGES 5-8)
1/4" = 1'-0"

CONSTRUCTION KEYNOTES

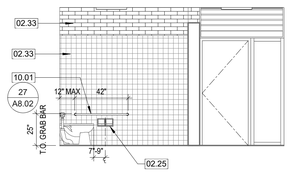
#	Description
02.20	(E) LAVATORY TO REMAIN
02.21	(E) SOAP DISPENSER TO REMAIN
02.24	(E) GRAB BAR TO REMAIN
02.25	(E) TOILET PAPER DISPENSER TO REMAIN
02.26	(E) MIRROR TO REMAIN
02.27	(E) ACCESSIBLE URINAL TO REMAIN
02.32	(E) FLOOR MOUNTED WATER CLOSET TO REMAIN
02.33	(E) INTERIOR FINISH TO REMAIN, PROTECT IN PLACE
02.43	(E) PAPER TOWEL DISPENSER TO REMAIN
02.65	(E) WATER CLOSET TO REMAIN, PROTECT IN PLACE
02.66	(E) ACCESSIBLE DRINKING FOUNTAIN, PER A# 04-121963
02.69	(E) PLASTIC TOILET PARTITION, TO REMAIN
10.01	(N) WALL MOUNTED GRAB BAR



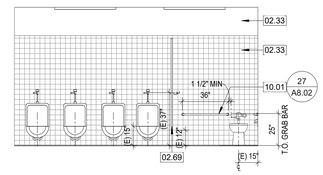
24D WEST
1/4" = 1'-0"



24C SOUTH
1/4" = 1'-0"

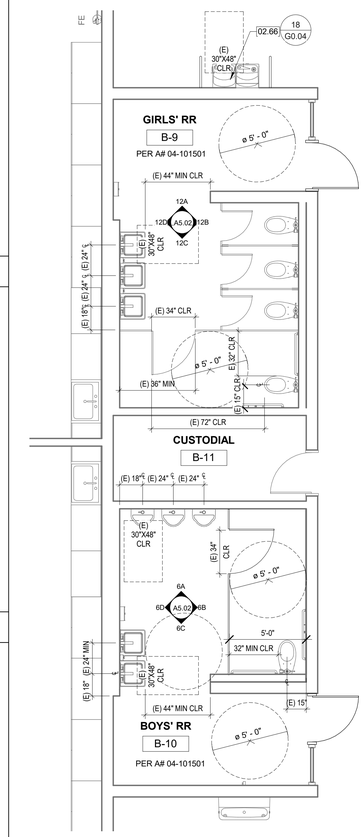


24B EAST
1/4" = 1'-0"

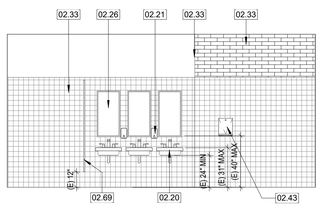


24A NORTH
1/4" = 1'-0"

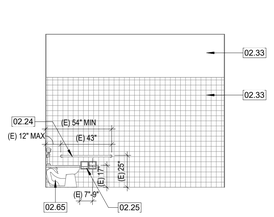
24 ELEVATIONS - BLDG C BOYS STUDENT RR (AGES 5-8)
1/4" = 1' - 0"



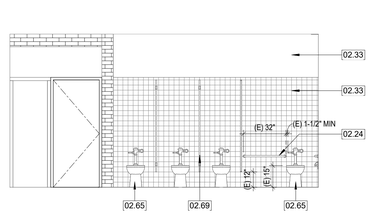
20 BLDG "C" C-5 BOYS RR (AGES 5-8)
1/4" = 1'-0"



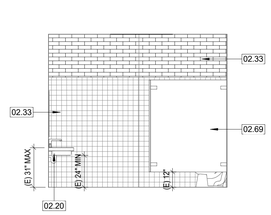
12D WEST
1/4" = 1'-0"



12C SOUTH
1/4" = 1'-0"

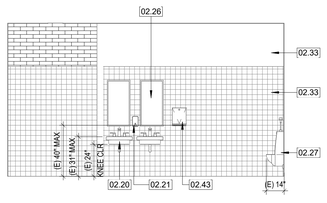


12B EAST
1/4" = 1'-0"

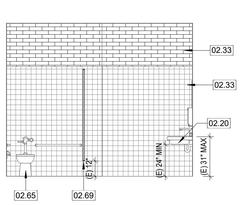


12A NORTH
1/4" = 1'-0"

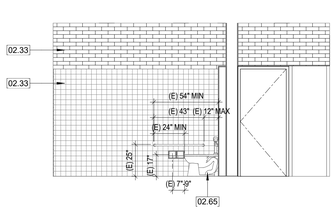
12 ELEVATIONS - BLDG B-3 GIRLS STUDENT RR B-9 (AGES 5-8)
1/4" = 1' - 0"



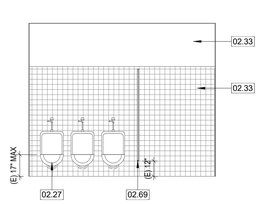
6D WEST
1/4" = 1'-0"



6C SOUTH
1/4" = 1'-0"



6B EAST
1/4" = 1'-0"



6A NORTH
1/4" = 1'-0"

6 ELEVATIONS - BLDG B-3 BOYS STUDENT RR B-10 (AGES 5-8)
1/4" = 1' - 0"

2 BLDG "B-3" BOYS & GIRLS RR (AGES 5-8)
1/4" = 1'-0"

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

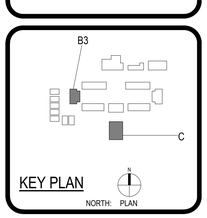
ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

ENLARGED RESTROOM PLANS & INTERIOR ELEVATIONS

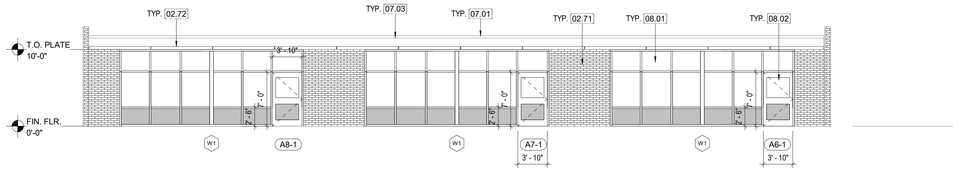
A5.02

A6.01 - EXTERIOR ELEVATIONS

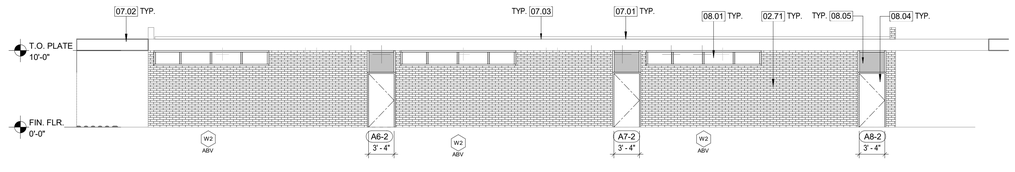
0" 1"

CONSTRUCTION KEYNOTES

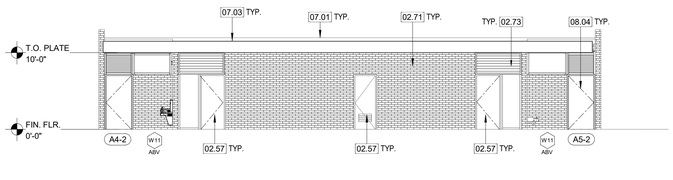
#	Description
02.57	(E) DOOR FRAME & PANEL TO REMAIN. PROVIDE (N) PAINT FINISH AS NEEDED, PROTECT IN PLACE.
02.71	(E) BRICK WALL, PROTECT IN PLACE, PATCH AND REPAIR WHERE NEEDED.
02.72	(E) ALUM LOUVERED ROOF SUN SCREEN, TO REMAIN, PATCH AND REPAIR WHERE NEEDED.
02.73	(E) LOUVERED TRANSOM TO REMAIN IN PLACE, RE-PAINT, PATCH & REPAIR AS NEEDED.
07.01	(N) ROOFING SYSTEM WITH TAPERED INSULATION & ACCESSORIES TO (E) BUILDING ROOF STRUCTURE
07.02	(N) ROOFING SYSTEM & ACCESSORIES TO (E) COVERED WALKWAY STRUCTURE
07.03	(N) ROOF GUTTER AND DOWNSPOUT, PRIMED & PAINTED TO MATCH EXISTING, TYP. WHERE OCCURS
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
08.02	(N) INTEGRAL ALUMINUM FRAME DOOR SYSTEM.SEE FRAMING ELEVATION A9.01 & DOOR SCHEDULE, PER ALUMINUM-FRAMED STOREFRONT & DOOR SPEC SECTION
08.04	(N) HOLLOW METAL DOOR FRAME & PANEL (SEE DOOR SCHEDULE ON SHEET A9.01)
08.05	(N) TRANSOM OPENING W/ INTEGRATED HM TRANSOM FRAME & INSULATED PANEL WHERE OCCURS PER DETAIL 24 & 30/A8.01



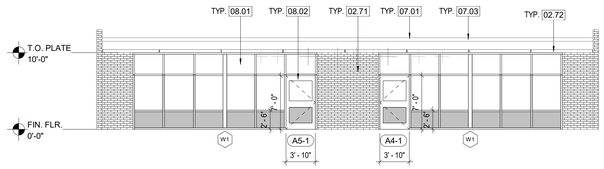
24 BLDG A-2 SOUTH ELEVATION
1/8" = 1'-0"



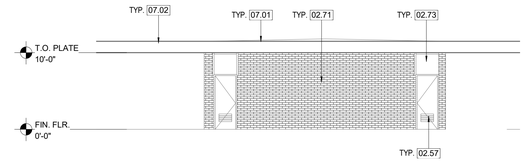
21 BLDG A-2 NORTH ELEVATION
1/8" = 1'-0"



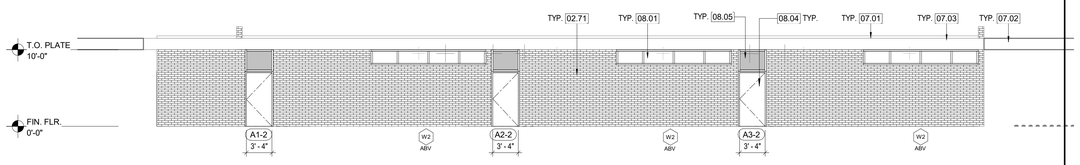
18 BLDG A-3 WEST ELEVATION
1/8" = 1'-0"



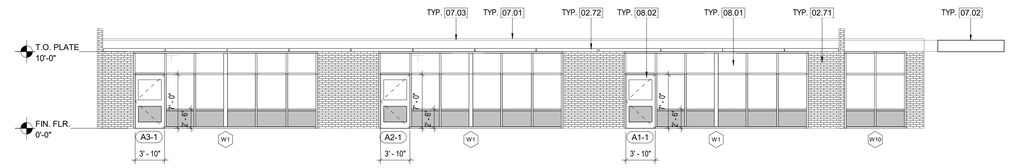
16 BLDG A-3 EAST ELEVATION
1/8" = 1'-0"



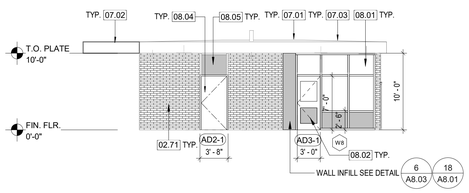
14 BLDG A-1 WEST ELEVATION
1/8" = 1'-0"



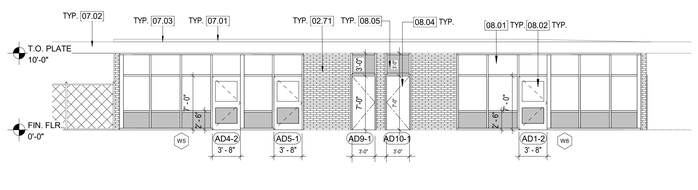
12 BLDG A-1 SOUTH ELEVATION
1/8" = 1'-0"



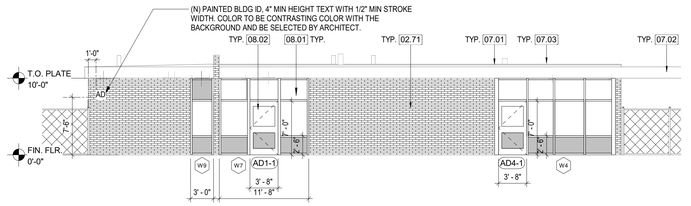
9 BLDG A-1 NORTH ELEVATION
1/8" = 1'-0"



6 ADMIN EAST ELEVATION
1/8" = 1'-0"



4 ADMIN SOUTH ELEVATION
1/8" = 1'-0"



2 ADMIN NORTH ELEVATION
1/8" = 1'-0"

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PBK

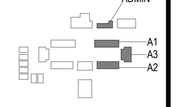
ARCHITECT
PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
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DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

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REVISIONS

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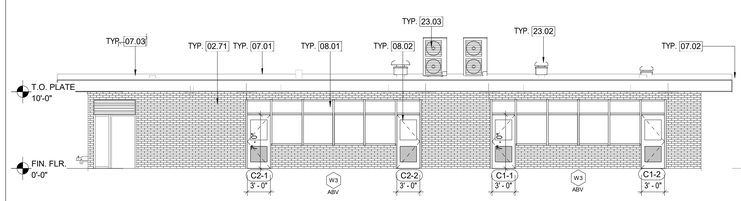
DSA SUBMITTAL SET

EXTERIOR ELEVATIONS

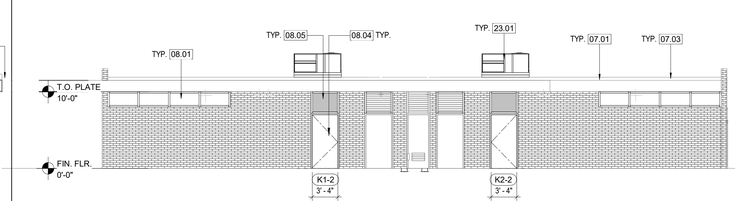
A6.01

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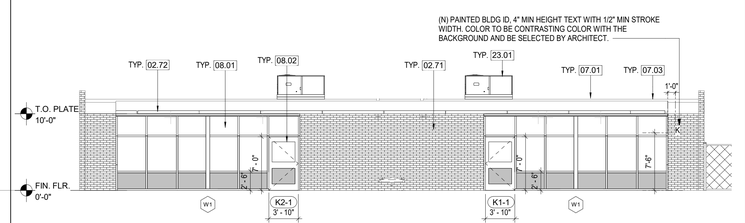
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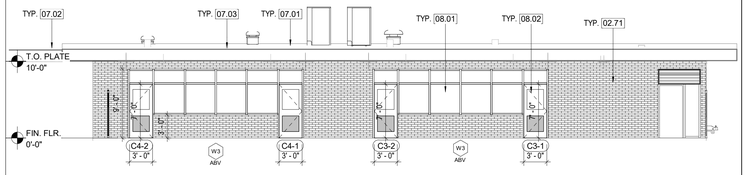
30 BLDG C EAST ELEVATION
1/8" = 1'-0"



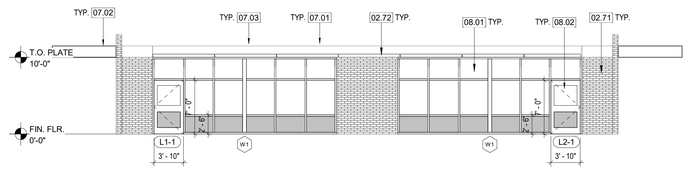
28 BLDG K SOUTH ELEVATION
1/8" = 1'-0"



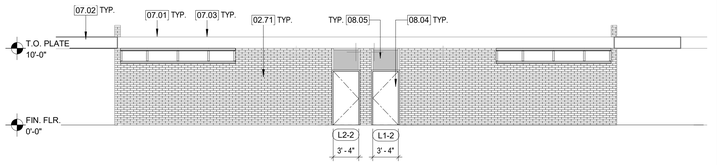
26 BLDG K NORTH ELEVATION
1/8" = 1'-0"



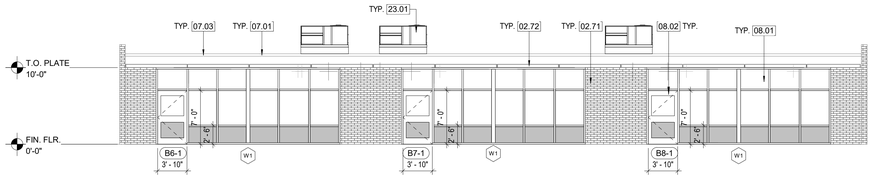
23 BLDG C WEST ELEVATION
1/8" = 1'-0"



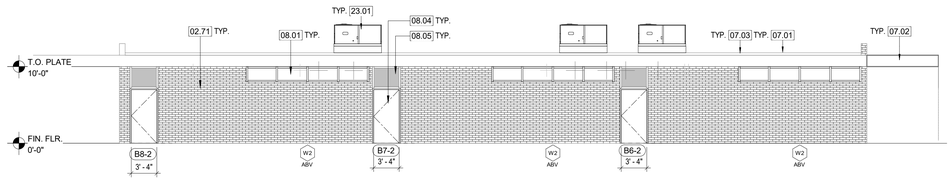
22 BLDG LAB/LIB SOUTH ELEVATION
1/8" = 1'-0"



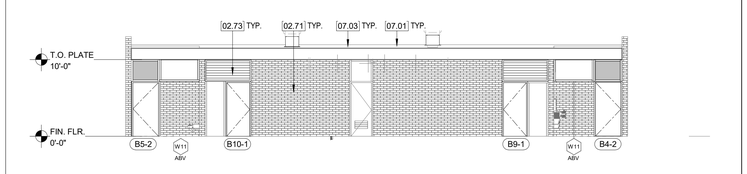
20 BLDG LAB/LIB NORTH ELEVATION
1/8" = 1'-0"



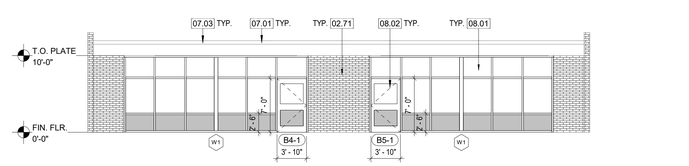
18 BLDG B-2 SOUTH ELEVATION
1/8" = 1'-0"



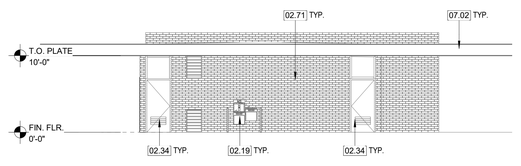
15 BLDG B-2 NORTH ELEVATION
1/8" = 1'-0"



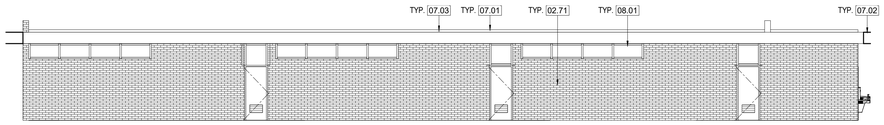
12 BLDG B-3 EAST ELEVATION
1/8" = 1'-0"



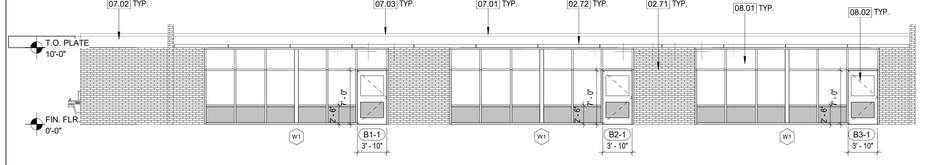
10 BLDG B-3 WEST ELEVATION
1/8" = 1'-0"



8 BLDG B-1 EAST ELEVATION
1/8" = 1'-0"



6 BLDG B-1 SOUTH ELEVATION
1/8" = 1'-0"



3 BLDG B-1 NORTH ELEVATION
1/8" = 1'-0"

CONSTRUCTION KEYNOTES

#	Description
02.19	(E) DRINKING FOUNTAIN TO REMAIN
02.34	(E) H.M. DOOR FRAME & DOOR PANEL TO REMAIN
02.71	(E) BRICK WALL, PROTECT IN PLACE, PATCH AND REPAIR WHERE NEEDED.
02.72	(E) ALUM LOUVERED ROOF SUN SCREEN, TO REMAIN, PATCH AND REPAIR WHERE NEEDED.
02.73	(E) LOUVERED TRANSOM TO REMAIN IN PLACE, RE-PAINT, PATCH & REPAIR AS NEEDED.
07.01	(N) ROOFING SYSTEM WITH TAPERED INSULATION & ACCESSORIES TO (E) BUILDING ROOF STRUCTURE
07.02	(N) ROOFING SYSTEM & ACCESSORIES TO (E) COVERED WALKWAY STRUCTURE
07.03	(N) ROOF GUTTER AND DOWNSPOUT, PRIMED & PAINTED TO MATCH EXISTING, TYP. WHERE OCCURS
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
08.02	(N) INTEGRAL ALUMINUM FRAME DOOR SYSTEM.SEE FRAMING ELEVATION A9.01 & DOOR SCHEDULE, PER ALUMINUM-FRAMED STOREFRONT & DOOR SPEC SECTION
08.04	(N) HOLLOW METAL DOOR FRAME & PANEL (SEE DOOR SCHEDULE ON SHEET A9.01)
08.05	(N) TRANSOM OPENING W/ INTEGRATED HM TRANSOM FRAME & INSULATED PANEL WHERE OCCURS PER DETAIL 24 & 30/A8.01
23.01	(N) PACKAGED ROOFTOP AIR-CONDITIONING UNIT, SEE MECHANICAL DRAWING
23.02	(N) ROOF MOUNTED EXHAUST FAN. SEE MECHANICAL DRAWING
23.03	(N) ROOF MOUNTED HVAC SPLIT-UNIT, SEE MECHANICAL DRAWING

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9/18/2023 2:10:35 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
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PBK

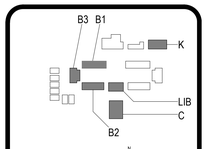
ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave. #950
Anaheim, CA 92806
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KEY PLAN
NORTH: PLAN

Consultant

Architect
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Yong Yoo
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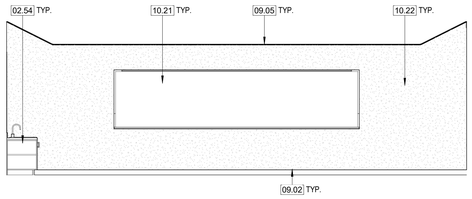
No.	Description	Date

DSA SUBMITTAL SET

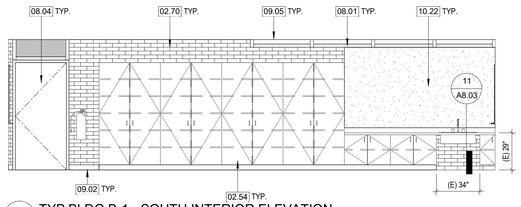
EXTERIOR ELEVATIONS

A6.02

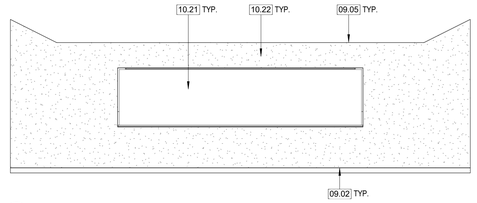
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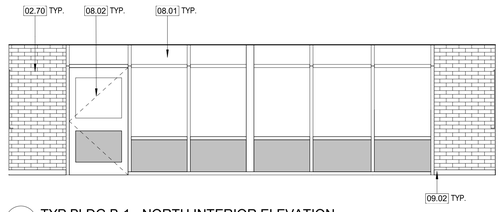
30D TYP BLDG B-1 - WEST INTERIOR ELEVATION
1/4" = 1'-0"



30C TYP BLDG B-1 - SOUTH INTERIOR ELEVATION
1/4" = 1'-0"

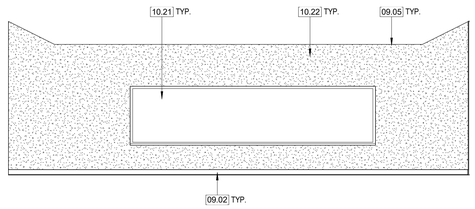


30B TYP BLDG B-1 - EAST INTERIOR ELEVATION
1/4" = 1'-0"

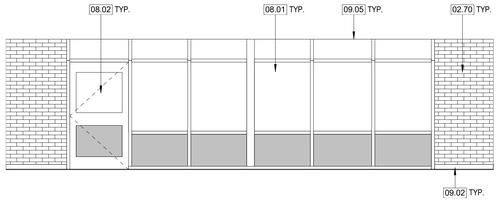


30A TYP BLDG B-1 - NORTH INTERIOR ELEVATION
1/4" = 1'-0"

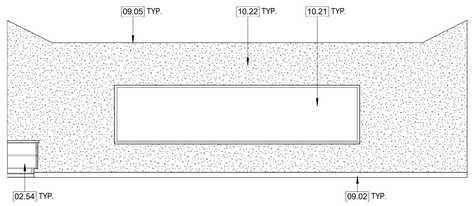
30 BUILDING B-1 - TYPICAL CLASSROOM INTERIOR ELEVATION
1/4" = 1'-0"



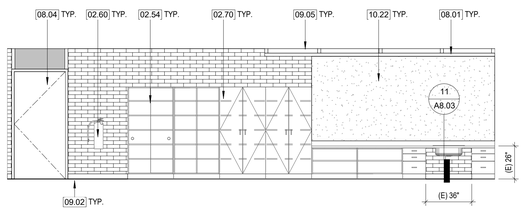
6D TYP BLDG A-2 - WEST INTERIOR ELEVATION
1/4" = 1'-0"



6C TYP BLDG A-2 - SOUTH INTERIOR ELEVATION
1/4" = 1'-0"

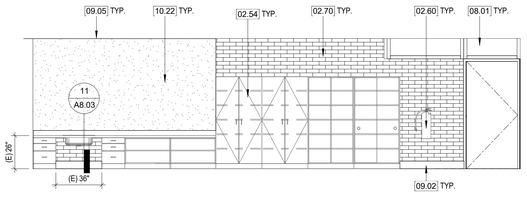


6B TYP BLDG A-2 - EAST INTERIOR ELEVATION
1/4" = 1'-0"

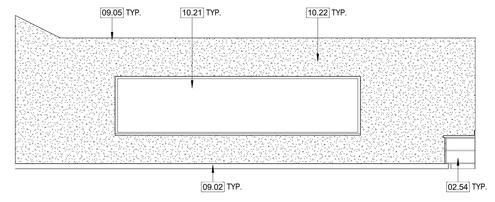


6A TYP BLDG A-2 - NORTH INTERIOR ELEVATION
1/4" = 1'-0"

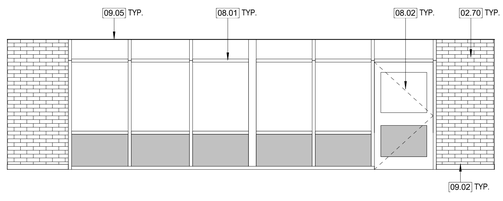
6 BUILDING A-2 - TYPICAL CLASSROOM INTERIOR ELEVATION
1/4" = 1'-0"



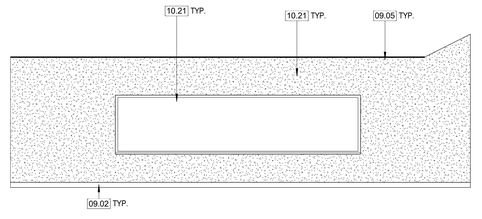
16D TYP BLDG A-3 - WEST INTERIOR ELEVATION
1/4" = 1'-0"



16C TYP BLDG A-3 - SOUTH INTERIOR ELEVATION
1/4" = 1'-0"

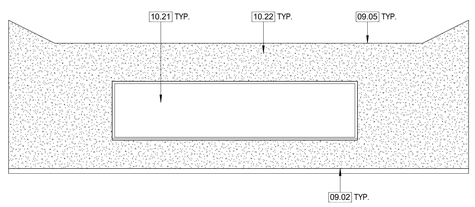


16B TYP BLDG A-3 - EAST INTERIOR ELEVATION
1/4" = 1'-0"

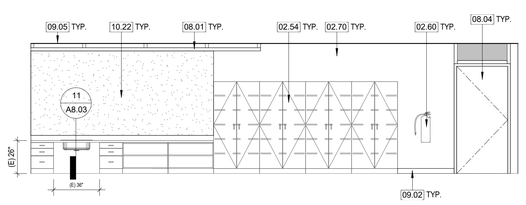


16A TYP BLDG A-3 -NORTH INTERIOR ELEVATI
1/4" = 1'-0"

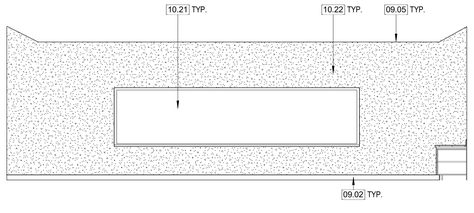
16 BUILDING A-3 - TYPICAL CLASSROOM INTERIOR ELEVATION
1/4" = 1'-0"



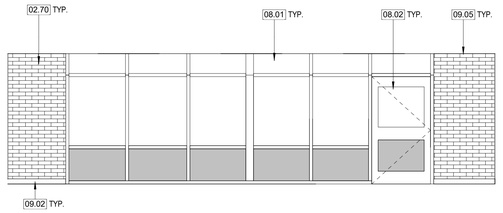
4D TYP BLDG A-1 - WEST INTERIOR ELEVATION
1/4" = 1'-0"



4C TYP BLDG A-1 - SOUTH INTERIOR ELEVATION
1/4" = 1'-0"



4B TYP BLDG A-1 - EAST INTERIOR ELEVATION
1/4" = 1'-0"



4A TYP BLDG A-1 - NORTH INTERIOR ELEVATION
1/4" = 1'-0"

4 BUILDING A-1 - TYPICAL CLASSROOM INTERIOR ELEVATION
1/4" = 1'-0"

CONSTRUCTION KEYNOTES

#	Description
02.54	(E) CASEWORK TO REMAIN. PROTECT IN PLACE AND RE-PAINT.
02.60	(E) FIRE EXTINGUISHER, TO REMAIN
02.70	(E) INTERIOR WALL FINISH, PATCH & REPAIR TO PREPARE FOR NEW FINISH WHERE OCCURS.
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
08.02	(N) INTEGRAL ALUMINUM FRAME DOOR SYSTEM.SEE FRAMING ELEVATION A9.01 & DOOR SCHEDULE, PER ALUMINUM-FRAMED STOREFRONT & DOOR SPEC SECTION
08.04	(N) HOLLOW METAL DOOR FRAME & PANEL (SEE DOOR SCHEDULE ON SHEET A9.01)
09.02	(N) FLOOR FINISH AND BASEBOARD, SEE FINISH SCHEDULE
09.05	(N) 2'X2' SUSPENDED ACOUSTIC CEILING TILE. ATTACH TO (E) ROOF STRUCTURE PER CEILING DETAIL 7/A8.03, W/ (N) R-30 BATT INSULATION ABOVE.
10.21	(N) MARKER BOARD, REF DETL 5/A8.02
10.22	(N) TACKABLE SURFACE, REF DETL 6/A8.02

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9/18/2023 2:10:40 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

B1
A1
A3
A2

KEY PLAN
N
NORTH: PLAN

Consultant

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
RENEW 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

INTERIOR ELEVATIONS

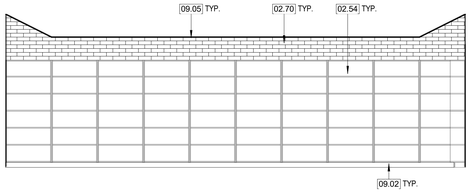
A7.01

A7.02 - INTERIOR ELEVATIONS

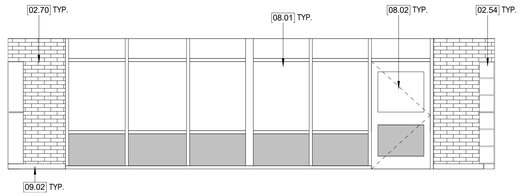
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CONSTRUCTION KEYNOTES

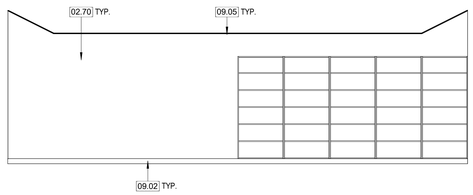
#	Description
02.54	(E) CASEWORK TO REMAIN. PROTECT IN PLACE AND RE-PAINT.
02.60	(E) FIRE EXTINGUISHER, TO REMAIN
02.70	(E) INTERIOR WALL FINISH, PATCH & REPAIR TO PREPARE FOR NEW FINISH WHERE OCCURS.
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
08.02	(N) INTEGRAL ALUMINUM FRAME DOOR SYSTEM.SEE FRAMING ELEVATION A9.01 & DOOR SCHEDULE, PER ALUMINUM-FRAMED STOREFRONT & DOOR SPEC SECTION
08.04	(N) HOLLOW METAL DOOR FRAME & PANEL (SEE DOOR SCHEDULE ON SHEET A9.01)
09.02	(N) FLOOR FINISH AND BASEBOARD, SEE FINISH SCHEDULE
09.05	(N) 2'X2' SUSPENDED ACOUSTIC CEILING TILE. ATTACH TO (E) ROOF STRUCTURE PER CEILING DETAIL 7/A8.03, W/ (N) R-30 BATT INSULATION ABOVE.
10.21	(N) MARKER BOARD, REF DETL 5/A8.02
10.22	(N) TACKABLE SURFACE, REF DETL 6/A8.02



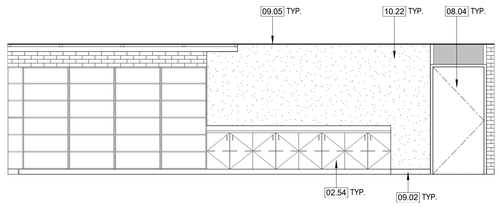
6D TYP BLDG LAB / LIBRARY - WEST INTERIOR ELEVATION
1/4" = 1'-0"



6C TYP BLDG LAB / LIBRARY - SOUTH INTERIOR ELEVATION
1/4" = 1'-0"

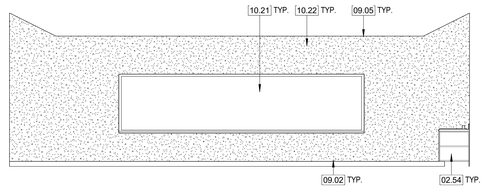


6B TYP BLDG LAB / LIBRARY - EAST INTERIOR ELEVATION
1/4" = 1'-0"

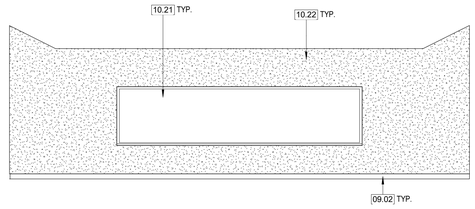


6A TYP BLDG LAB / LIBRARY - NORTH INTERIOR ELEVATION
1/4" = 1'-0"

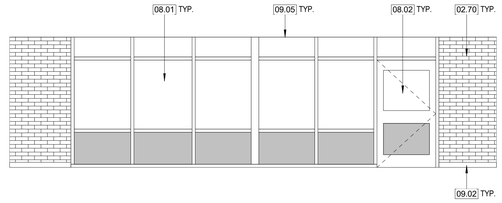
6 BUILDING LAB / LIBRARY - TYPICAL INTERIOR ELEVATION
1/4" = 1'-0"



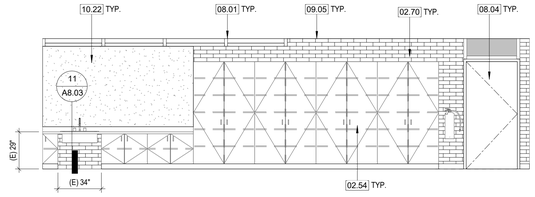
16D TYP BLDG B-2 - WEST INTERIOR ELEVATION
1/4" = 1'-0"



16B TYP BLDG B-2- EAST INTERIOR ELEVATION
1/4" = 1'-0"

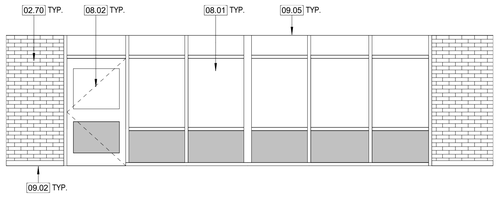


16C TYP BLDG B-2 - SOUTH INTERIOR ELEVATION
1/4" = 1'-0"

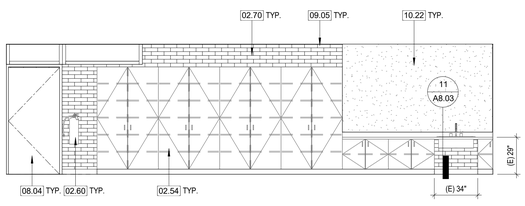


16A TYP BLDG B-2- NORTH INTERIOR ELEVATION
1/4" = 1'-0"

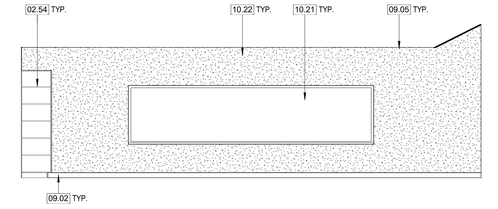
16 BUILDING B-2 - TYPICAL CLASSROOM INTERIOR ELEVATION
1/4" = 1'-0"



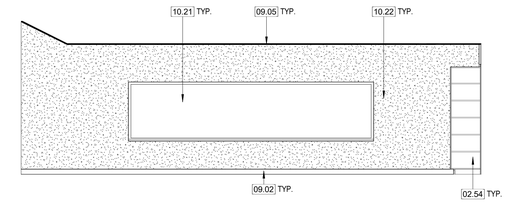
4D TYP BLDG B-3 - WEST INTERIOR ELEVATION
1/4" = 1'-0"



4B TYP BLDG B-3 - EAST INTERIOR ELEVATION
1/4" = 1'-0"



4C TYP BLDG B-3 - SOUTH INTERIOR ELEVATION
1/4" = 1'-0"



4A TYP BLDG B-3 - NORTH INTERIOR ELEVATION
1/4" = 1'-0"

4 BUILDING B-3 - TYPICAL CLASSROOM INTERIOR ELEVATION
1/4" = 1'-0"

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9/18/2023 2:10:43 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

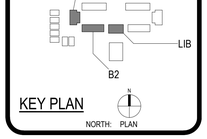
ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Long Tao
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

INTERIOR ELEVATIONS

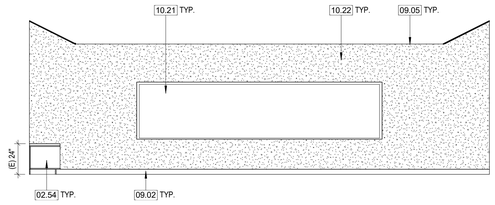
A7.02

A7.03 - INTERIOR ELEVATIONS

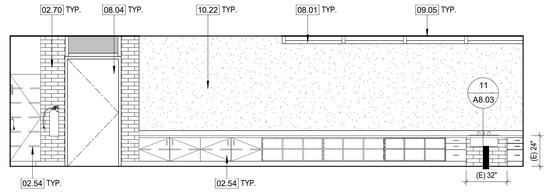
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CONSTRUCTION KEYNOTES

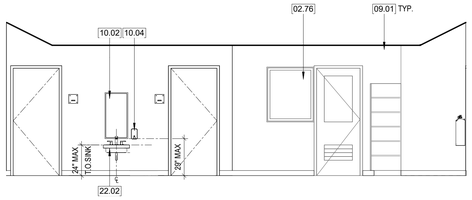
#	Description
02.54	(E) CASEWORK TO REMAIN. PROTECT IN PLACE AND RE-PAINT.
02.55	(E) ACCESSIBLE SINK TO REMAIN. PROTECT IN PLACE
02.70	(E) INTERIOR WALL FINISH, PATCH & REPAIR TO PREPARE FOR NEW FINISH WHERE OCCURS.
02.76	(E) INTERIOR WINDOW TO REMAIN, PROTECT IN PLACE
08.01	(N) ALUMINUM FRAME & GLAZING WINDOW SYSTEM.SEE WINDOWS FRAMING ELEVATION A9.01, PER ALUMINUM-FRAMED STOREFRONT & ALUMINUM WINDOWS & GLAZING SPEC SECTION
08.02	(N) INTEGRAL ALUMINUM FRAME DOOR SYSTEM.SEE FRAMING ELEVATION A9.01 & DOOR SCHEDULE, PER ALUMINUM-FRAMED STOREFRONT & DOOR SPEC SECTION
08.04	(N) HOLLOW METAL DOOR FRAME & PANEL (SEE DOOR SCHEDULE ON SHEET A9.01)
09.01	(N) INTERIOR PAINT FINISH, SEE FINISH SCHEDULE
09.02	(N) FLOOR FINISH AND BASEBOARD, SEE FINISH SCHEDULE
09.05	(N) 2'X2' SUSPENDED ACOUSTIC CEILING TILE, ATTACH TO (E) ROOF STRUCTURE PER CEILING DETAIL 7/A8.03, W/ (N) R-30 BATT INSULATION ABOVE.
10.02	(N) WALL MOUNTED MIRROR
10.04	(N) WALL MOUNTED HAND SOAP DISPENSER
10.21	(N) MARKER BOARD, REF DETL 5/A8.02
10.22	(N) TACKABLE SURFACE, REF DETL 6/A8.02
22.02	(N) WALL MOUNTED LAVATORY. SEE PLUMBING DRAWING



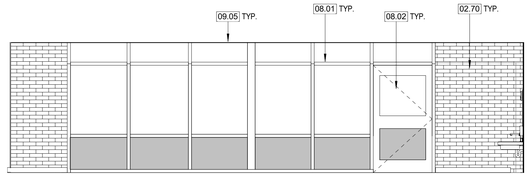
16D TYP BLDG K - WEST INTERIOR ELEVATION
1/4" = 1'-0"



16C TYP BLDG K - SOUTH INTERIOR ELEVATION
1/4" = 1'-0"

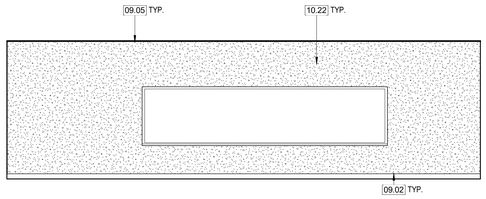


16B TYP BLDG K - EAST INTERIOR ELEVATION
1/4" = 1'-0"

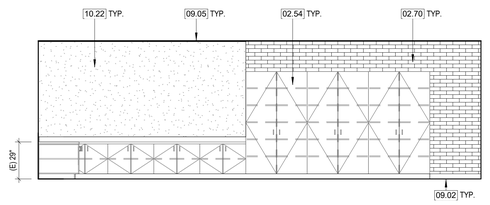


16A TYP BLDG K - NORTH INTERIOR ELEVATION
1/4" = 1'-0"

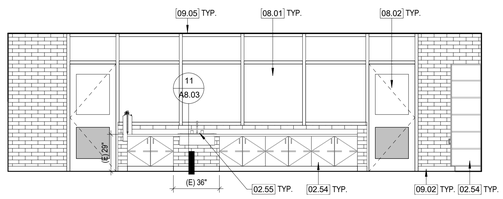
16 BUILDING K - TYPICAL CLASSROOM INTERIOR ELEVATION
1/4" = 1'-0"



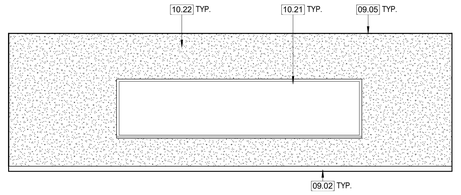
4D TYP BLDG C - WEST INTERIOR EELVATION
1/4" = 1'-0"



4C TYP BLDG C - SOUTH INTERIOR ELEVATION
1/4" = 1'-0"



4B TYP BLDG C - EAST INTERIOR ELEVATION
1/4" = 1'-0"



4A TYP BLDG C - NORTH INTERIOR ELEVATION
1/4" = 1'-0"

4 BUILDING C - TYPICAL CLASSROOM INTERIOR ELEVATION
1/4" = 1'-0"

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9/18/2023 2:10:46 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

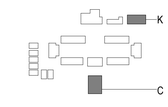
ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

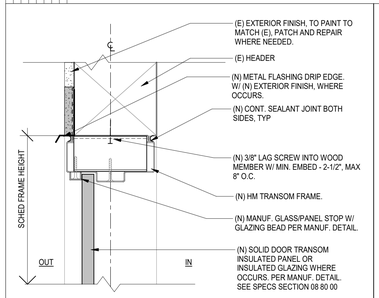
DSA SUBMITTAL SET

INTERIOR ELEVATIONS

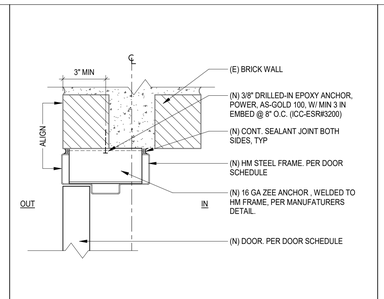
A7.03

A8.01 - DOORS, WINDOW FRAME DETAILS

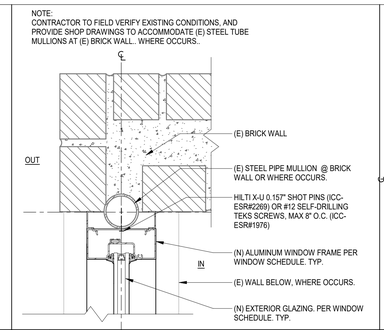
0" 1"



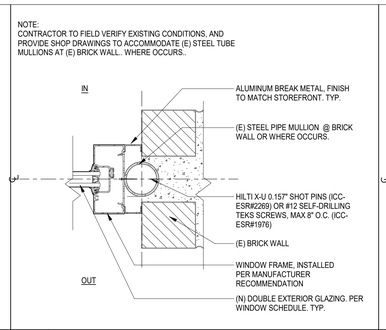
30 HM TRANSOM @ (E) HEADER BEAM
3" = 1'-0"



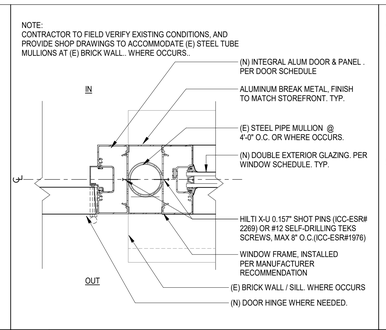
29 HM DOOR JAMB/HEAD @ BRICK WALL
3" = 1'-0"



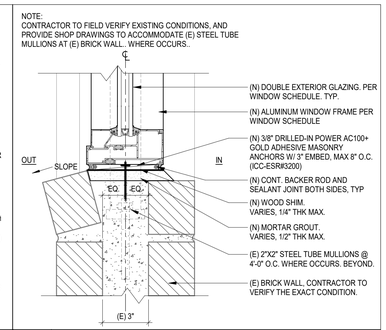
28 WIN JAMB @ COR. WALL W/ (E) STL COL.
3" = 1'-0"



27 WIN JAMB @ BRICK WALL W/ (E) STL COL.
3" = 1'-0"

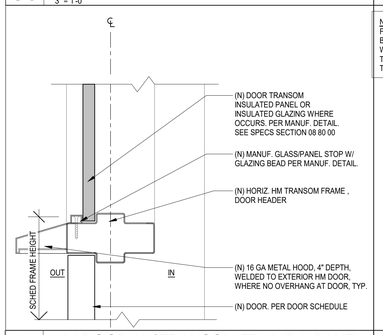


26 WIN/DOOR (E) MULLION ATTACHMENT
3" = 1'-0"

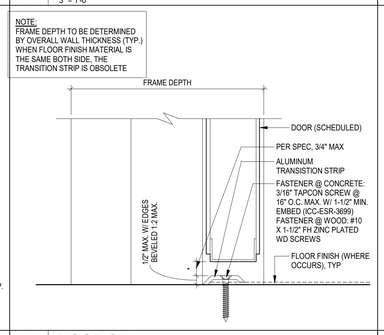


25 WINDOW SILL @ BRICK WALL
3" = 1'-0"

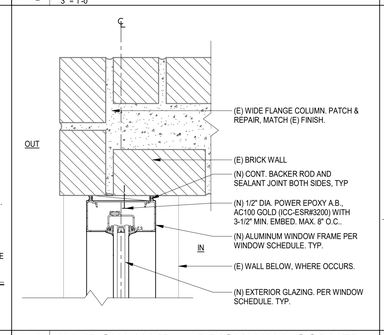
24 HM DOOR W/ TRANSOM FRAME & PANEL
3" = 1'-0"



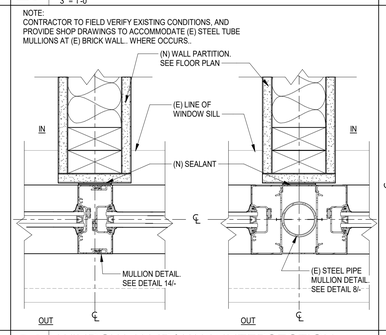
23 DOOR SILL
6" = 1'-0"



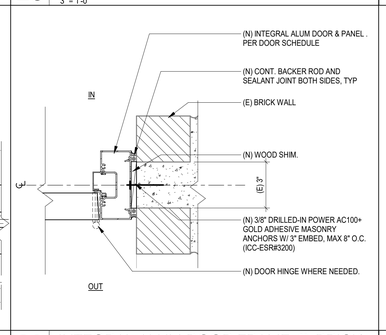
22 WINDOW JAMB @ BRICK WALL CORNER
3" = 1'-0"



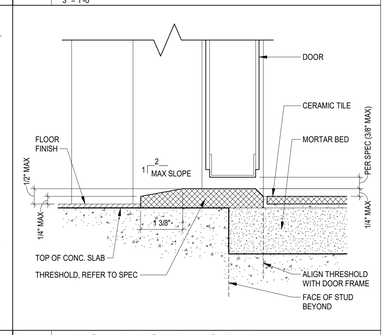
21 WINDOW JAMB/WALL INTERSECTION
3" = 1'-0"



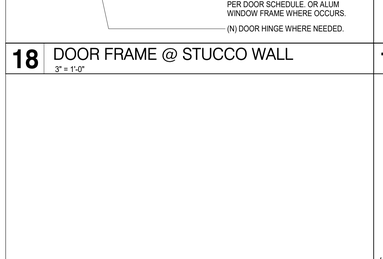
20 INTEGRAL ALUM DOOR FRAME @ BRICK
3" = 1'-0"



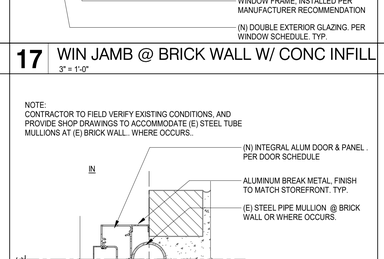
19 INT SILL AT CERAMIC TILE
6" = 1'-0"



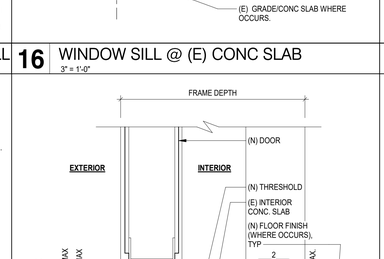
18 DOOR FRAME @ STUCCO WALL
3" = 1'-0"



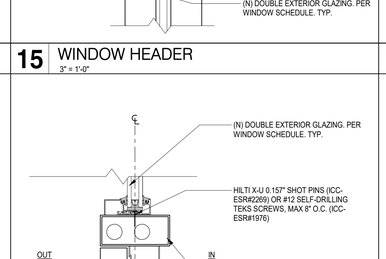
17 WIN JAMB @ BRICK WALL W/ CONC INFILL
3" = 1'-0"



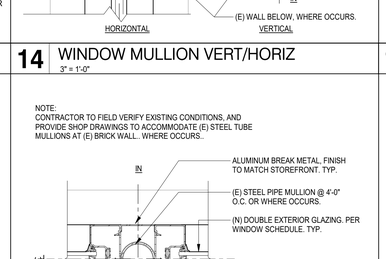
16 WINDOW SILL @ (E) CONC SLAB
3" = 1'-0"



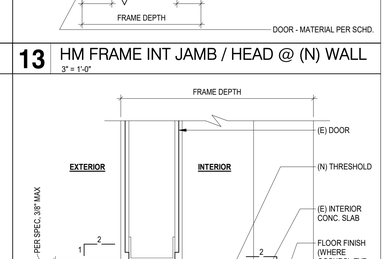
15 WINDOW HEADER
3" = 1'-0"



14 WINDOW MULLION VERT/HORIZ
3" = 1'-0"



13 HM FRAME INT JAMB / HEAD @ (N) WALL
3" = 1'-0"



11 INT. ALUM DOOR FRAME W/ COL @ BRICK
3" = 1'-0"

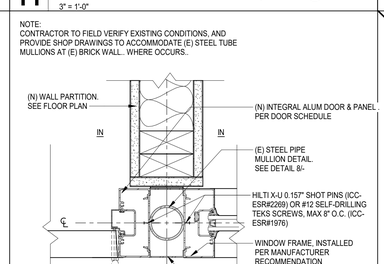
10 EXT SILL DOOR THRESHOLD RAMP
6" = 1'-0"

9 WINDOW/DOOR INTEGRAL ALUM HEADER
3" = 1'-0"

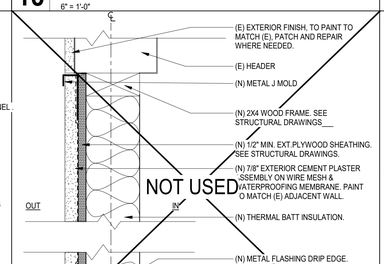
8 WINDOW MULLION ATTACHMENT
3" = 1'-0"

7 EXT SILL @ (E) DOOR
6" = 1'-0"

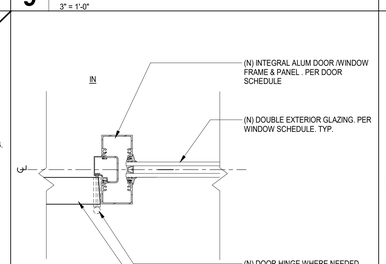
5 WIN/DOOR JAMB @ (E) STL COL W/ WALL
3" = 1'-0"



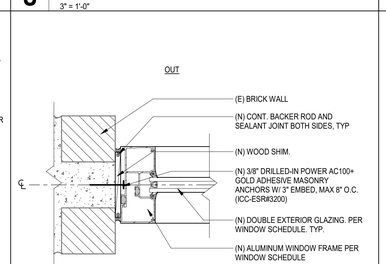
4 WINDOW INFILL
3" = 1'-0"



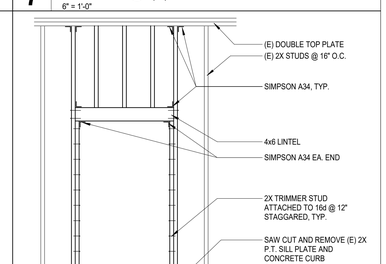
3 WIN/DOOR JAMB MULLION ATTACHMENT
3" = 1'-0"



2 WINDOW JAMB @ BRICK WALL
3" = 1'-0"



1 (N) DOOR OPENING
1/2" = 1'-0"



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DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
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ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

B3 B1 M/P ADMIN K A1 A3 A2 LIB C R1 R2 R3 R4 R5 R6 R7 B2

KEY PLAN
NORTH: PLAN

Consultant

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

DOORS, WINDOW FRAME DETAILS

A8.01

0" 1"

BACKGROUND COLOR SHALL CONTRAST 70% MIN. WITH DOOR COLOR, TYP.
1/4" THICK CIRCLE
SUB-SURFACE IMAGE CENTERED ON SIGN, TYP.
CIRCLE COLOR TO CONTRAST DOOR AND TRIANGLE COLOR.
12"
6" TYP.
12"
12"
EQUAL SIDES, TYP
BOYS
GIRLS
GENDER NEUTRAL RESTROOM
1/4" THICK TRIANGLE
1/4" THICK TRIANGLE OVER 1/4" THICK CIRCLE
VERTICES SHALL BE RADIUSES 1/8" MIN. - 1/4" MAX., TYP
EDGE SHALL BE ROUNDED @ 1/16" MIN. OR CHAMFERED @ 1/8" MIN., TYP

B DOOR SIGNAGE

8" TYP
EQ. (1/2" MIN)
CORNERS SHALL HAVE 3/8" RADIUS, TYP.
6" TYP.
10" TYP
+60" * MAX. AFF
+48" * MIN. AFF
3/8"
GIRLS
BOYS
FONT = HELVETICA NARROW CHARACTER FONT HEIGHT = 1"
PROVIDE AT SINGLE OCCUPANT TOILET ROOMS
+60" * MAX. AFF
+48" * MIN. AFF
RESTROOM
0' - 8"
0' - 2"
0' - 4"
0' -4"

GENDER NEUTRAL RESTROOM

A WALL SIGNAGE

* 60" MAX A.F.F. TO THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS & 48" MIN. A.F.F. TO THE BASELINE OF THE LOWEST BRAILLE CELLS

NOTE:
FOR CHARACTER TYPE AND BRAILLE REQUIREMENTS SEE DETAILS 12 A8.02 11 A8.02

24 RESTROOM DOOR & WALL SIGNS
1 1/2" = 1'-0"

MOUNTING BRACKET REFER TO SPECIFICATION & VERIFY WITH MANUFACTURER FOR SPECIFIC SIZES OF HOLES & TYPES OF SCREWS. PROVIDE BACKING AS REQUIRED.
+48" MAX TO FIRE EXT. HANDLE OR CABINET HANDLE
FIRE EXTINGUISHER PER PLAN
WALL PER PLAN
TYPE 'X' GYP BOARD, WO. FINISH FLOOR
4" MAX.

COMPLY WITH CBC SEC.906 - PORTABLE FIRE EXTINGUISHERS

18 WALL MOUNT FIRE EXTINGUISHER
3" = 1'-0"

CHARACTER REQUIREMENTS:

A. CHARACTER REQUIREMENTS FOR ALL SIGNS PER 2022 CBC 11B-703:
1. CHARACTERS SHALL BE UPPERCASE.
2. CHARACTERS SHALL BE SANS SERIF. CHARTERS SHALL NOT BE ITALLIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.
3. CHARACTER SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".
4. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE CHARACTER HEIGHT.
5. TEXT SHALL BE IN HORIZONTAL FORMAT.
6. CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH AND CONTRAST WITH ONE ANOTHER

B. RAISED CHARACTER REQUIREMENTS FOR SIGNS WITH BRAILLE PER 2022 CBC 11B-703.2:
1. RAISED CHARACTERS SHALL COMPLY WITH REQUIREMENTS NOTED IN PARAGRAPH 'A' ABOVE
2. RAISED CHARACTERS SHALL BE 1/32 INCH MIN ABOVE BACKGROUND.
3. RAISED CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8 INCH MINIMUM AND 2 INCHES MAXIMUM BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I".
4. STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10 PERCENT MINIMUM AND 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.
5. CHARACTER SPACING BETWEEN INDIVIDUAL RAISED LETTERS SHALL BE 1/8 INCH MINIMUM AND FOUR (4) TIMES THE RAISED CHARACTER STROKE WIDTH MAXIMUM.

C. VISUAL CHARACTER REQUIREMENTS FOR SIGNS WITHOUT BRAILLE PER 2022 CBC 11B-703.5:
1. VISUAL CHARACTERS SHALL COMPLY WITH REQUIREMENTS NOTED IN PARAGRAPH 'A' ABOVE
2. MINIMUM CHARACTER HEIGHT SHALL CONFORM TO 2022 CBC TABLE 11B-703.5.5 BUT IN NO CASE SHALL BE LESS THAN 5/8 INCH.
3. HEIGHT FROM FINISH FLOOR SHALL BE NO LESS THAN 40 INCHES.
4. STROKE THICKNESS OF THE UPPERCASE LETTER 'I' SHALL BE 10 PERCENT MINIMUM AND 20 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER.
5. SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 10 PERCENT MINIMUM AND 35 PERCENT MAXIMUM OF CHARACTER HEIGHT.

CHARACTER AND STROKE WIDTH TO HEIGHT PROPORTIONS:

1:1:1 MAX 110% | 3:5 MIN 60% | 3:20 MAX 15% (TACTILE) | 1:5 MAX 20% (NON-TACTILE) | 1:10 MIN 10%

CHARACTER WIDTH (UPPERCASE LETTER "O") — STROKE THICKNESS(UPPERCASE LETTER "I")

12 CHARACTER REQ. FOR SIGNAGE
1" = 1'-0"

CEILING HEIGHT /TRANSOM WINDOW SILL
(N) / (E) WOOD STUD WALL
(N) / (E) 5/8" GYP BOARD
ADHESIVELY SECURED. PER MANUFACTURERS DETAIL
VINYL FABRIC COVER 1/4" CORK BOARD
FLOOR LEVEL

TACKBOARD ON GYP BD WOOD FRAMING WALL

CEILING HEIGHT /TRANSOM WINDOW SILL
(E) BRICK WALL
ADHESIVELY SECURED. PER MANUFACTURERS DETAIL
VINYL FABRIC COVER 1/4" CORK BOARD
FLOOR LEVEL

TACKBOARD ON (E) BRICK WALL

6 TACKBOARD DETAIL
3" = 1'-0"

6"
9"
NOT USED
ACCESSIBLE
6"
5/8" MIN. CHARACTER HEIGHT. HELVETICA NARROW, SEE ALSO 4 —
BRAILLE PER 11 —
48" MIN. AFF *
60" MAX. AFF *
60" MAX A.F.F. TO THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS & 48" MIN. A.F.F. TO THE BASELINE OF THE LOWEST BRAILLE CELLS

101400.15-S CBC 2022 Rev 10/17

29 ACCESSIBLE ROUTE SIGN
6" = 1'-0"

9"
EQ
6"
EQ
CORNERS SHALL HAVE 3/8" RADIUS, TYP
INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS
10"
6"
EQ
EQ
+60" AFF *
PICTOGRAM SHALL CONTRAST WITH BACKGROUND AND HAVE A NON-GLARE FINISH
ASSISTIVE LISTENING SYSTEM AVAILABLE
5/8" MIN CHARACTER HEIGHT. HELVETICA NARROW.

NOTES:
1. SIGN MATERIAL SHALL BE 1/4" THICK PLASTIC W/ 1/32" RAISED LETTERS
2. MOUNT W/ VANDAL RESISTANT FASTENERS
3. COMPLY WITH VISUAL CHARACTERS PER CBC 1143A.5

101400.13-S CBC 2022 - Rev 7/23

23 ASSISTIVE LISTENING SIGNAGE
3" = 1'-0"

5/8" MIN CHARACTER HEIGHT. HELVETICA NARROW. SEE ALSO
9"
EQ
EQ
+84" AFF *
6"
EQ
EQ
MAXIMUM OCCUPANCY 200
VERIFY # PER PLAN
CORNERS SHALL HAVE 3/8" RADIUS, TYP

NOTES:
1. SIGN MATERIAL SHALL BE 1/4" THICK PLASTIC
2. MOUNT W/ VANDAL RESISTANT FASTENERS
3.COMPLY WITH VISUAL CHARACTERS PER CBC 1143A.5

101400.14-S CBC 2022 - Rev 7/23

17 OCCUPANT LOAD SIGN
3" = 1'-0"

BRAILLE REQUIREMENTS PER 2022 CBC 11B-703.3:
1. CONTRACTED CALIFORNIA GRADE 2 BRAILLE SHALL COMPLY WITH SECTIONS 11B-703.3 AND 11B-703.4
2. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND COMPLY WITH TABLE 11B-703.3.1
3. DOT BASE DIAMETER = 0.059 TO 0.063 INCHES
4. DISTANCE BETWEEN TWO DOTS IN THE SAME CELL = 0.100 INCHES
5. DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS = 0.300 INCHES
6. DOT HEIGHT = 0.025 TO 0.037 INCHES
7. DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW = 0.395 TO 0.400 INCHES
8. SPACING BETWEEN DOTS AND CELLS PER BELOW, MEASURED CENTER TO CENTER...

5. SPACING BETWEEN CELLS
SINGLE BRAILLE CELL
RAISED DOT
NO RAISED DOT
BLANK CELL SPACE BETWEEN WORDS
4. SPACING BETWEEN DOTS (VERTICAL OR HORIZONTAL)
7. DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW

9. BRAILE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT IN A HORIZONTAL FORMAT, FLUSH LEFT OR CENTERED. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8" (9.5MM) MIN. AND 1/2 INCH (12.7MM) MAXIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8" MIN. FROM RAISED BORDERS AND DECORATIVE ELEMENTS.

11 BRAILLE STANDARDS FOR SIGNAGE
6" = 1'-0"

5/8" GYP BOARD
#12 WOOD SCREW @ 16" O.C. @ 1-1/2" MIN. EMBED INTO BLOCKING
VARIES TO FIN. FLR.
CORK INSERT
MAP RAIL
MARKERBOARD TRIM AS SPECIFIED
SOLID BLOCKING W/ A34 TOP & BOTTOM AT EA. END
MARKER TRAY W/ END PLATES EACH END
4" MAX
VARIES TO FIN. FLR.
WOOD STUDS BEHIND

MARKERBOARD ON GYP BD WOOD FRAMING WALL

VARIES TO FIN. FLR.
CORK INSERT
MAP RAIL
MARKERBOARD TRIM AS SPECIFIED
1/2" SIMPSON TITEN HD @ 16" O.C. 2-1/2" MIN. EMBED . ICC ESR 1056
MARKER TRAY W/ END PLATES EACH END
4" MAX
VARIES TO FIN. FLR.
(E) BRICK WALL BEHIND

MARKERBOARD ON (E) BRICK WALL

5 MARKERBOARD DETAIL
3" = 1'-0"

9" MIN - 12" MAX
EQ
EQ
DOOR AND WALL SIGNS PER 24 A8.02
DOOR
58" MIN. 60" MAX. AFF TO ℄ OF DOOR SIGN

101400.04-S CBC 2022- Rev 10/19

28 RESTROOM SIGNAGE
1/2" = 1'-0"

CORNERS SHALL HAVE 3/8" RADIUS, TYP
ATTACH WITH VANDALL RESISTANT SCREWS PER SPEC, TYP
FONT = HELVETICA NARROW CHARACTER HEIGHT = 1"
9"
CONFERENCE 100-A
4"
EQ
+60" * MAX AFF
1 1/4"
3/8"
EQ
+48" * MIN AFF
VERIFY ROOM NAME AND NUMBER WITH OWNER PRIOR TO FABRICATION

* 60" MAX A.F.F. TO THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS & 48" MIN. A.F.F. TO THE BASELINE OF THE LOWEST BRAILLE CELLS

101400.11-S CBC 2022- Rev 7/23

22 TYP. ROOM ID SIGN
6" = 1'-0"

NOT USED
6"
CORNERS SHALL HAVE 3/8" RADIUS, TYP
FONT = HELVETICA NARROW CHARACTER HEIGHT = 1" SEE ALSO SPEC AND 12 A8.02 TYP
4"
EQ
1/4"
EQ
3/8"
EQ
EXIT ROUTE
EXIT
BRAILLE PER 11 A8.02 TYP
A
B
48" MIN AFF *
60" MAX AFF *

* 60" MAX A.F.F. TO THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS & 48" MIN. A.F.F. TO THE BASELINE OF THE LOWEST BRAILLE CELLS

101400.12-S CBC 2022 - Rev 7/23

16 TACTILE EXIT SIGNS
3" = 1'-0"

NOTE:
PROVIDE SPACES AS NEEDED SO SIGNAGE IS WITHIN 3" OF WINDOW FRAME

MOUNTING AT DBL. GLAZING
WINDOW FRAME
SAME HEIGHT, WIDTH, CORNER RADIUSES= MIRROR BACK TO BACK
<3 TYP.
GLAZING
BLANK PLATE/ SIGNAGE, AS OCCURS. PROVIDE BLANK IF NO SIGNAGE OCCURS. MOUNTED WITH CLEAR ADHESIVE SILICONE.
ALIGN EACH END, TYP
SIGNAGE MOUNTED WITH CLEAR SILICONE ADHESIVE

MOUNTING AT SGL. GLAZING
WINDOW FRAME
SAME HEIGHT, WIDTH, CORNER RADIUSES= MIRROR BACK TO BACK
<3 TYP.
GLAZING
BLANK PLATE/ SIGNAGE, AS OCCURS. PROVIDE BLANK IF NO SIGNAGE OCCURS. MOUNTED WITH CLEAR ADHESIVE SILICONE.
ALIGN EACH END, TYP
SIGNAGE MOUNTED WITH CLEAR SILICONE ADHESIVE

MOUNTING AT C.M.U WALL
C.M.U WALL
AT SPLIT FACE WALL - GRIND SMOOTH HIGH POINTS AS NEEDED TO ALLOW PLUMB INSTALLATION
SIGNAGE MOUNTED TO MATERIAL/SURFACE WITH MECHANICAL FASTENERS & CLEAR SILICONE ADHESIVE.

4 ROOM IDENTIFICATION SIGN MOUNTING
3" = 1'-0"

4x6 BLOCKING W/ (2) SIMP. A34 FRAMING CLIPS TOP & BOTTOM, EACH END OF BLOCKING
FILL ALL HOLES IN MANUFACTURER MOUNTING PLATE W/ 1/4" LAG SCREWS W/ 2" MIN. EMBED INTO BLOCKING. MIN (4) SCREWS
1 1/2" CLR
GRAB BAR 1-1/4" O.D. MIN. & 2" O.D. MAX. PER CBC 11B-609.2.1
FOR MOUNTING HEIGHT REFER TO TABLE ON 8 / -
MIN. 1" EDGE DISTANCE
ESCUTCHEON PLATE O/ GRAB BAR BRACKET
CERAMIC TILE, U.N.O.
CEMENTITIOUS BACKER BOARD, U.N.O.

27 GRAB BAR MOUNT1
3" = 1'-0"

MORTAR BED TO BE USED IN MULTI - OCCUPANT RESTROOMS
THIN - SET TO BE USED IN SINGLE - OCCUPANT RESTROOMS
5/8" GYPSUM WATER RESISTANT BACKER
WALL TILE - REFER TO FINISH SCHEDULE
WATERPROOF MEMBRANE TO EXTEND 24" UP FACE OF WALL
COVE TILE BASE - REFER TO FINISH PLAN
FLOOR TILE. PER SPECS SECTION 093000
WATERPROOF FLOOR MEMBRANE
MORTAR BED OR THIN SET PER SPECS SECTION 093000- 2.5 - SETTING MATERIALS

NOTE: PROVIDE HOT MOP AT RESTROOM WALLS WITH NO CURB OR SINGLE OCCUPANT RESTROOMS

21 TYPICAL TILE WALL BASE
6" = 1'-0"

7'-2" WHERE APPLIES
BULLNOSE COLOR: WHITE SIZE: 4-1/4" X 4-1/4"
ACCENT TILE A COLOR: SEE SPEC # 09 30 00 SIZE: 4-1/4" X 4-1/4"
WALL TILE - FIELD COLOR: WHITE SIZE: 4-1/4" X 4-1/4"
COVE BASE COLOR: WHITE SIZEI 4-1/4" X 4-1/4"
21 A8.02

15 TILE FINISH ELEVATION
1/2" = 1'-0"

(E) BRICK WALL
TOP PLATE BRACING. SEE DETAIL 14 A8.02 20 A8.02
CLNG FRAMING, WHERE OCCURS. SEE DETAIL
6" MIN ABOVE FINISH CLNG HT
HEAD
1/2" TYPE X GYP BD CEILING
23 A8.03
5/8" TYPE X GYP BD CEILING OR BACKER BD WHERE TILE OCCURS
SEE RCP FOR (N) CLNG HT
2X WOOD STUD PER ARCH PLAN & STRUCT DETL 15/SD1
PLAN
SOUND ATTENUATION BLANKET (FULL HEIGHT) - REFER TO TYP. NOTES. ONLY AT RESTROOMS
TILE W/ BACKER BOARD WHERE OCCURS PER FINISH SCHEDULE
2X CONT BACKING PER STRUCT DETL 15/SD1
2X WOOD BLOCKING PER STRUCT DETL 15/SD1
ANCHOR SCREW PER STRUCT DETL 15/SD1
2X PTDF SILL PLATE
BASE
(2) #4 CONT REBAR
6" HIGH CONC CURB
#4 DOWELS @ 18"OC
(N) CONC SLAB PER STRUCT DETL 15/SD1
FINISH FLOOR
3" MIN
6"
7"
3"
12"

NOTE:
SEE WOOD FRAMING AT STRUCTURAL DWGS SN1

3 WALL FURRING
1 1/2" = 1'-0"

(E) GLB 5-1/4"X 20-1/2" V.O.S.
(E) 2X12 @24" O.C. ROOF JOIST V.O.S.
(N) 2x BLKG EVERY 4'-0"
1" GAP
CONT. 3x6 FLAT
1" GAP
(N) DOUBLE TOP PLATE
10d NAIL @ 6" O.C. INTO VERT. BLKG
NON-BEARING PARTITION
2-10d NAIL INTO ROOF JOISTS

26 DOOR INFILL DETAIL
1/2" = 1'-0"

(E) HEADER TO REMAIN
REMOVE (E) WALL FINISH AS REQUIRED TO ALLOW INFILL FRAMING
2X STUD FRAMING INFILL TO MATCH (E) STUD. PER STRUCT DETL 10/SD1
(E) F.F./F.S.
INTERIOR DRYWALL TO MATCH EXISTING AND ALIGN WITH EXISTING ADJACENT DRYWALL SURFACES. PAINT TO MATCH EXISTING
TOP PLATE TO HEADER PER STRUCT DETL 10/SD1
2X STUD TO MATCH EXISTING PER STRUCT DETL 10/SD1
FOR VERTICAL STUD ATTACHMENT REFER TO STRUCT DETL 10/SD1
2X P.T. SILL PER STRUCT DETL 10/SD1

20 TOP CONNECTION - PERPENDICULAR
1 1/2" = 1'-0"

(E) ROOF FRAMING PER PLAN V.O.S.
(E) 2X12 @24" O.C. ROOF JOIST V.O.S.
(N) 3-10D NAIL
(N) 2x BLKG
(N) 2X4 BRACE @ 32" O.C. MAX. TYP.
PERPENDICULAR FRAMING
NOT USED
(N) 2X BLKG W/ (2) SIMPSON A-35 FRAMING CLIPS EA END, EA SIDE OF BLKG W/ (3) 10d NAILS @ EA LEG OF EA CLIP
PARALLEL FRAMING
CEILING LINE
(N) 3-10D NAIL
SEE STRUCTURAL DRAWING 9/SD1
(N) STUD WALL

14 TOP CONNECTION - PARALLEL
1 1/2" = 1'-0"

TOP PLATE BRACING - REFER TO 14 A8.02 20 A8.02
(E) STRUCTURE
HEAD
SOUND ATTENUATION BLANKET (FULL HEIGHT) - REFER TO TYP. NOTES. ONLY AT RESTROOMS
2X BLOCKING @ 8'-0" O.C. SEE FLOOR PLAN FOR PARTITION TYPE & CORE WIDTH WALL TAG.
2X VERTICAL WOOD STUDS @16" O.C. SEE FLOOR PLAN FOR PARTITION TYPE & CORE WIDTH WALL TAG.
PLAN
5/8" TYPE "X" GYPSUM BOARD
SCHEDULED TILE W/ BACKER BOARD WHERE OCCURS - REFER TO FINISH SCHEDULE
BASE
5/8" DIA THREADED ROD @ 4'-0" O.C. INSTALL W/ HILTI HIT-HY 200 (ICC-ES ESR-3187) PULL TEST = 2,000)
7'-2" TILE FINISH WHERE OCCURS
2X PTDF SILL PLATE
REST ROOM SIDE
F.F.
2 #4 CONT REBAR
6" CONC BASE
3" MIN
CLEAN & ROUGHEN (E) SLAB, BY 1/4" MIN. CONCRETE DEPTH.
ACOUSTICAL SEALANT AT NON-RATED WALLS
FOR TOILET CONDITION

2 B- PARTITION TYPE
3" = 1'-0"

9" MIN.
ROOM SIGN PER 22 A8.02
9" MIN.
ROOM SIGN PER 22 A8.02
SCHED FRAME WIDTH
ROOM SIGN PER 22 A8.02
DETL 9/GSU.04
DETL 9/GSU.04
EQ EQ
ELEVATION
9" MIN.
ROOM SIGN PER 22 A8.02
MOUNT DETAILS
ROOM EXIT SIDE
DETL 9/GSU.04
DETL 9/GSU.04
MOUNT DETAILS
ELEVATION
B ROOM SIGN
C.B.C. FIGURE 11B-703.4.1
REFER TO MOUNTING DETAILS 4 A8.02
ROOM ENTRY SIDE
CLASSROOM
4"
4"
OPTION 2 SIGN PLACEMENT
OPTION 1 SIGN PLACEMENT
ROOM SIGNAGE PER 22 A8.02
A BUILDING ENTRY ROOM SIGN
COLOR TO BE SELECTED BY ARCHITECT (LIGHT TEXT / DARK BACKGROUND)

NOTES:
1. FOR CHARACTER TYPE & BRAILLE, SEE ALSO DETAIL 12 A8.02 11 A8.02
2. SIGN MATERIAL SHALL BE PAINTED, 1/8" THICK ES PLASTIC USING GRAPHIC PROCESS SAND-CARVED W/ 3/32" RAISED GRAPHIC AND LETTERS. PROVIDE MECHANICAL MOUNTING W/ COUNTERSUNK, VANDAL RESISTANT #8 FASTENERS. MOUNT ON GLAZING WITH CLEAR SILICONE ADHESIVE AND A SECOND SIGN OR BLANK ALIGNED ON THE OTHER SIDE OF GLAZING TO MASK THE ADHESIVE.
3. PROVIDE ONE SIGN WHERE INDICATED ON PLANS OR SCHEDULE.
4. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT. MOUNTING LOCATION SHALL BE DETERMINED SO THAT A PERSON MAY APPROACH WITHIN 3" OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR. FOR PAIRS OF DOORS WHERE DOOR SWING IS LIMITED TO 90 DEGREES, MOUNT SIGN 9" FROM EDGE OF DOOR. FOR PAIRS OF DOORS WHERE DOOR SWING EQCEEDS 90 DEGREES, MOUNT SIGN DOOR WIDTH PLUS 9" FROM EDGE OF DOOR.

19 ROOM IDENTIFICATION SIGNAGE
1 1/2" = 1'-0"

13 (N) WALL TO (E) BRICK WALL
3" = 1'-0"

TOP PLATE BRACING - REFER TO 14 A8.02 20 A8.02
(E) STRUCTURE
HEAD
SOUND ATTENUATION BLANKET (FULL HEIGHT) - REFER TO TYP. NOTES. ONLY AT RESTROOMS
2X BLOCKING @ 8'-0" O.C. SEE FLOOR PLAN FOR PARTITION TYPE & CORE WIDTH WALL TAG.
2X VERTICAL WOOD STUDS @16" O.C. SEE FLOOR PLAN FOR PARTITION TYPE & CORE WIDTH WALL TAG.
PLAN
5/8" TYPE "X" GYPSUM BOARD
SCHEDULED BASE WHERE OCCURS
2X PTDF SILL PLATE
F.F.

(E) BRICK WALL TO REMAIN
(N) 4x4 TILE FINISH
(N) WATERPROOFING MEMBRANE
(N) 5/8" GYPSUM BOARD
SEE STRUCTURAL POST-INSTALLED ANCHOR BOLTS STRUCTURAL SHEET SN1
1/2" DIA. SIMPSON HY270 EPOXY ANCHORS (ICC-ESR #4143)
(N) 2x6 STUD WALL
BASE
(N) SHOT PINS (HILTI X-U 0.157 WITH EMBED=1-1/2" INTO (E) SLAB-ON-GRADE AT 16-IN O.C. (ICC-ESR#2289), OR 3/8-IN HILTI EXPANSION BOLT KWIK BOLT-TZ2 (ICC-ESR#4266) AT 32-IN O.C.

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

B3 B1 M/P ADMIN K A1 A3 A2 LIB C R1 R2 R3 R4 R5 R6 R7 B2

KEY PLAN
NORTH: PLAN

Consultant

Architect
LICENSED ARCHITECT Yong Yoo No. C-31162 REN. 10-31-2023 STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

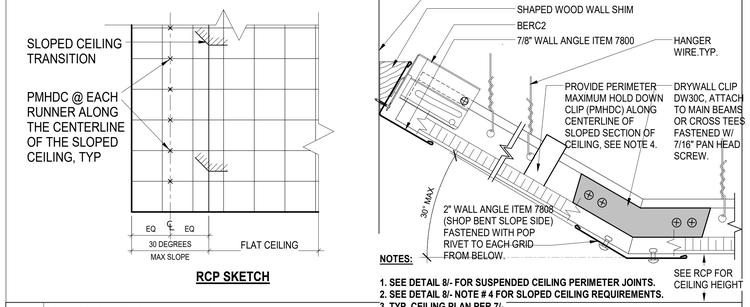
DSA SUBMITTAL SET

PARTITION TYPES AND MISC. DETAILS

A8.02

A8.03 - CEILING DETAILS AND MISC. DETAILS

0" 1"

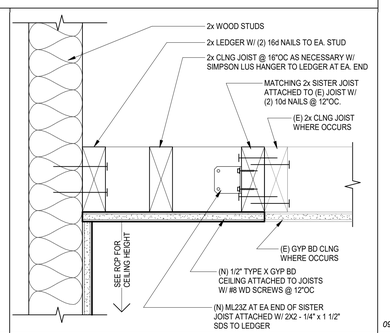


RCP SKETCH

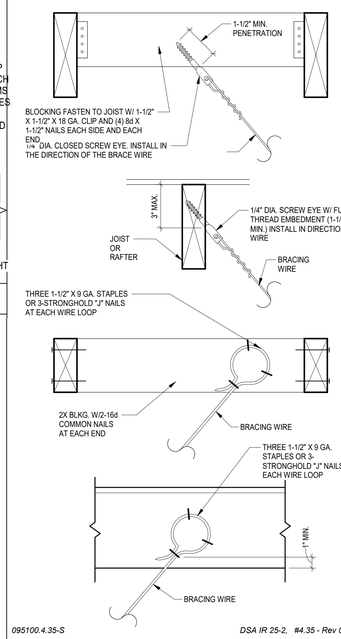
NOTES:

1. **SEE DETAIL 8/- FOR SUSPENDED CEILING PERIMETER JOINTS.**
2. **SEE DETAIL 8/- NOTE # 4 FOR SLOPED CEILING REQUIREMENTS.**
3. **TYP. CEILING PLAN PER 7/-.**

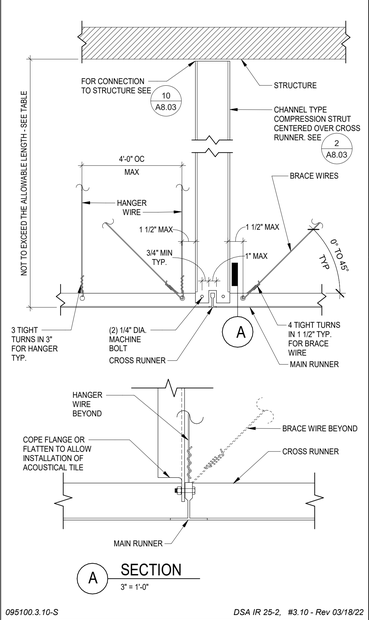
29 SLOPED CEILING
6" = 1'-0"



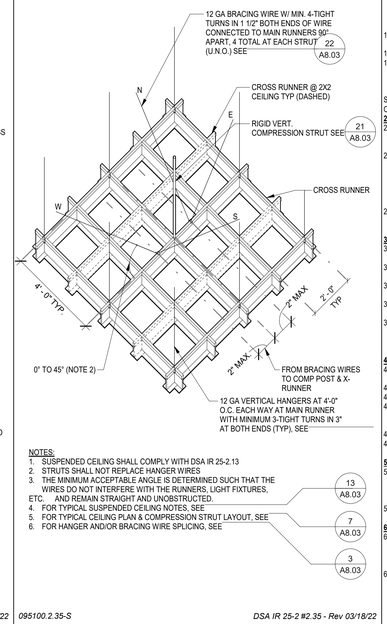
095100.4.35-S *DSA IR 25-2, #4.35 - Rev 03/18/22*



095100.3.10-S *DSA IR 25-2, #3.10 - Rev 03/18/22*



095100.2.35-S *DSA IR 25-2 #2.35 - Rev 03/18/22*



NOTES:

1. SUSPENDED CEILING SHALL COMPLY WITH DSA IR 25-2.13
2. STRUTS SHALL NOT REPLACE HANGER WIRES
3. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC., AND REMAIN STRAIGHT AND UNOBSTRUCTED.
4. FOR TYPICAL SUSPENDED CEILING NOTES, SEE 13 A8.03
5. FOR TYPICAL CEILING PLAN & COMPRESSION STRUT LAYOUT, SEE 7 A8.03
6. FOR HANGER AND/OR BRACING WIRE SPLICING, SEE 3 A8.03

1. CEILING SYSTEM GENERAL NOTES: PER IR 25-2 REV 3/18/22

1.01 CEILING SYSTEM COMPONENTS SHALL COMPLY WITH ASTM C635-07 AND SECTION 5.1 OF ASTM E580-10a.
1.02 THE CEILING GRID SYSTEM MUST BE RATED HEAVY DUTY AS DEFINED BY ASTM C635-08
1.03 CEILING SYSTEMS. THE FOLLOWING CEILING SYSTEM(S) ISSARE PART OF THE SCOPE OF THIS PROJECT:
MANUFACTURER'S NAME ARMSTRONG WORLD INDUSTRIES, INC.
PRODUCT EVALUATION REPORT TYPE AND NUMBER ICC ESR-1308
MANUFACTURER'S MODEL NUMBER - MAIN RUNNER ARMSTRONG HEAVY DUTY PRELUDE XL 7301
MANUFACTURER'S CATALOG NUMBER - CROSS RUNNER ARMSTRONG XL7328
1.04 SEISMIC WALL CLIP:
MANUFACTURER'S MODEL BERC2
1.05 CEILING PANELS SHALL NOT SUPPORT ANY LIGHT FIXTURES, AIR TERMINALS OR DEVICES.
1.06 FOR CEILING INSTALLATIONS UTILIZING ACOUSTICAL TILE PANELS OF MINERAL OR GLASS FIBER, IT IS NOT MANDATORY TO PROVIDE 3/4" CLEARANCE BETWEEN THE ACOUSTICAL TILE PANELS AND THE WALL ON THE SIDES OF THE CEILING WHERE ARE FREE TO SLIP. FOR ALL OTHER CEILING PANEL TYPES, PROVIDE 3/4" CLEARANCE BETWEEN THE CEILING PANEL AND THE WALL ON THE SIDES OF THE CEILING FREE TO SLIP. CLEARANCE BETWEEN CEILING GRID RUNNERS/MEMBERS AND WALLS SHALL COMPLY WITH THE DETAILS ON THESE DRAWINGS REGARDLESS OF CEILING TILE MATERIAL.

2. MATERIALS:

2.01 CEILING WIRE SHALL BE CLASS 1 ZINC COATED (GALVINIZED) CARBON STEEL CONFORMING TO ASTM A641-09a. WIRE SHALL BE #12 GAGE (0.106" DIAMETER) WITH SOFT TEMPER AND MINIMUM TENSILE STRENGTH = 70 KSI.
2.02 GALVANIZED SHEET STEEL (INCLUDING THAT USED FOR METAL STUD AND TRACK COMPRESSION STRUTS/POST) SHALL CONFORM TO ASTM A653-11, OR OTHER EQUIVALENT SHEET STEEL LISTED IN SECTION A2.1 OF THE NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS 2007, INCLUDING SUPPLEMENT 2 DATED 2010 (AISI S100-07/S2-10). MATERIAL 43 MIL (18 GAGE) AND LIGHTER SHALL HAVE A MINIMUM YIELD STRENGTH OF 32 KSI. MATERIAL 54 MIL (16 GAGE) AND HEAVIER SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI.
2.03 ELECTRICAL METALLIC TUBE (EMT) SHALL BE ANSI C80.3/UL 797 CARBON STEEL WITH G90 GALVANIZING. EMT SHALL HAVE MINIMUM YIELD STRENGTH (Fy) OF 30 KSI AND MINIMUM ULTIMATE STRENGTH (Fu) OF 48 KSI.

3. ATTACHMENT OF HANGER AND BRACING WIRES:

3.01 SEPARATE ALL CEILING HANGER AND BRACING WIRES AT LEAST SIX (6) INCHES FROM ALL UNBRACED DUCTS, PIPES, CONDUIT, ETC.
3.02 HANGER AND BRACING WIRES SHALL NOT ATTACH TO OR BEND AROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO: PIPING, DUCTWORK, CONDUIT AND EQUIPMENT.
3.03 HANGER WIRES THAT ARE MORE THAN ONE (HORIZONTAL) IN SIX (VERTICAL) OUT OF PLUMB SHALL HAVE COUNTER-SLOPING WIRES.
3.04 SLACK SAFETY WIRES SHALL BE CONSIDERED HANGER WIRES FOR INSTALLATION AND TESTING REQUIREMENTS.
3.05 HANGER AND BRACING WIRE ANCHORAGE TO THE STRUCTURE SHALL BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE ANCHORAGE ALIGNS CLOSELY WITH THE DIRECTION OF THE WIRE. (E.G. BRACING WIRE CEILING CLIPS MUST BE BENT AS SHOWN IN THE DETAILS AND ROTATED AS REQUIRED TO ALIGN CLOSELY WITH THE DIRECTION OF THE WIRE, ETC.)

4. FASTENERS AND WELDING:

4.01 SHEET METAL SCREWS SHALL COMPLY WITH ASTM C1513-10, ASME B18.6.4-99 (R2005). PENETRATION OF SCREWS THROUGH JOINED MATERIAL SHALL NOT BE LESS THAN THREE EXPOSED THREADS.
4.02 EXPANSION ANCHORS SHALL BE: NA
4.03 POWER-ACTUATED FASTENERS SHALL BE: NA
4.04 IF NOT OTHERWISE SPECIFIED IN THE EVALUATION REPORT, POWER-ACTUATED FASTENERS INSTALLED IN STEEL SHALL BE INSTALLED SO THE ENTIRE POINTED END OF THE FASTENER IS DRIVEN THROUGH THE STEEL MEMBER.
4.05 POWER-ACTUATED FASTENERS IN CONCRETE ARE NOT PERMITTED FOR BRACING WIRES.
4.06 CONCRETE REINFORCEMENT AND PRESTRESSING TENDONS SHALL BE LOCATED BY NON DESTRUCTIVE MEANS PRIOR TO INSTALLING POST - INSTALLED ANCHOR.

5. TESTING: ALL FIELD TESTING MUST BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR.

5.01 POST-INSTALLED ANCHORS IN CONCRETE USED TO SUPPORT HANGER WIRES SHALL BE TESTED AT A FREQUENCY OF 10 PERCENT. POWER ACTUATED FASTENERS IN CONCRETE SHALL BE FIELD TESTED FOR 200 LBS. IN TENSION. ALL OTHER POST-INSTALLED ANCHORS IN CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1913A.7.
5.02 POST-INSTALLED ANCHORS IN CONCRETE USED TO ATTACH BRACING WIRES SHALL BE TESTED AT A FREQUENCY OF 50 PERCENT IN ACCORDANCE WITH CBC SECTION 1913A.7.

6. LUMINAIRES:

6.01 ALL LUMINAIRES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE FIXTURE. A MINIMUM OF TWO SCREWS OR APPROVED FASTENERS ARE REQUIRED AT EACH LUMINAIRES, PER ASTM E580, SECTION 5.3.1.
6.02 SURFACE-MOUNTED LUMINAIRES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES. THE CLAMPING DEVICE SHALL COMPLETELY SURROUND THE SUPPORTING CEILING RUNNER AND BE MADE OF STEEL WITH A MINIMUM THICKNESS OF #14 GAGE. ROTATIONAL SPRING CATCHES DO NOT COMPLY. A #12 GAGE SLACK SAFETY WIRE SHALL BE CONNECTED FROM EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. PROVIDE ADDITIONAL SUPPORTS WHEN LIGHT FIXTURES ARE EIGHT (8) FEET OR LONGER OR EXCEED 56 LB. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED EIGHT (8) FEET.
6.03 LUMINAIRES WEIGHING LESS THAN OR EQUAL TO 10 LB. SHALL HAVE A MINIMUM OF ONE (1) #12 GAGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE.
6.04 LUMINAIRES WEIGHING GREATER THAN 10 LB. BUT LESS THAN OR EQUAL TO 56 LBS. MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, BUT THEY SHALL HAVE A MINIMUM OF TWO (2) #12 GAGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS TO THE STRUCTURE ABOVE.
EXCEPTION: ALL LUMINAIRES GREATER THAN TWO BY FOUR FEET WEIGHING LESS THAN 56LBS. SHALL HAVE A #12 GAGE SLACK SAFETY WIRE AT EACH CORNER.
6.05 ALL LUMINAIRES WEIGHING GREATER THAN 56 LB. SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR (4) TAUT #12 GAGE HANGER WIRES (ONE AT EACH CORNER) ATTACHED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS. THE FOUR (4) TAUT #12 GAGE WIRES OR OTHER APPROVED HANGERS, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, SHALL BE CAPABLE OF SUPPORTING FOUR (4) TIMES THE WEIGHT OF THE FIXTURE.

7. SERVICES WITHIN THE CEILING:

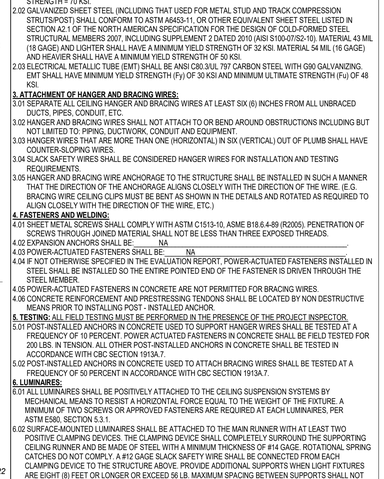
7.01 ALL FLEXIBLE SPRINKLER HOSE FITTING MOUNTING BRACKETS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS. SCREWS OR APPROVED FASTENERS ARE REQUIRED. A MINIMUM OF TWO ATTACHMENTS ARE REQUIRED AT EACH COMPONENT.
7.02 CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING LESS THAN OR EQUAL TO 20 LB. SHALL HAVE ONE (1) #12 GAGE SLACK SAFETY WIRE ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.
7.03 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 20 LB. BUT LESS THAN OR EQUAL TO 56 LB. SHALL HAVE TWO (2) #12 GAGE SLACK SAFETY WIRES (AT DIAGONAL CORNERS) CONNECTED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.
7.04 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 56 LB. SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY NOT LESS THAN FOUR (4) TAUT #12 GAGE HANGER WIRES ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS.

8. OTHER DEVICES WITHIN THE CEILING:

8.01 ALL LIGHTWEIGHT MISCELLANEOUS DEVICES, SUCH AS STROBE LIGHTS, OCCUPANCY SENSORS, SPEAKERS, EXIT SIGNS, ETC., SHALL BE ATTACHED TO THE CEILING GRID. IN ADDITION, DEVICES WEIGHING MORE THAN 10 LBS. SHALL HAVE A #12 GAGE SLACK SAFETY WIRE ANCHORED TO THE STRUCTURE ABOVE. DEVICES WEIGHING MORE THAN 20 LB. SHALL BE SUPPORTED INDEPENDENTLY FROM THE STRUCTURE ABOVE.

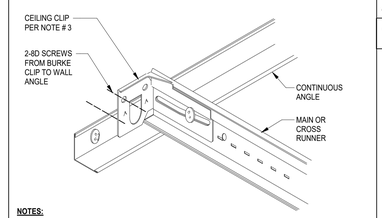
095100.1.00-S *DSA IR 25-2, Rev 03/18/22*

13 SUSPENDED CEILING NOTES
1/2" = 1'-0"



095100.2.10-S *DSA IR 25-2, #2.10 - Rev 03/18/22*

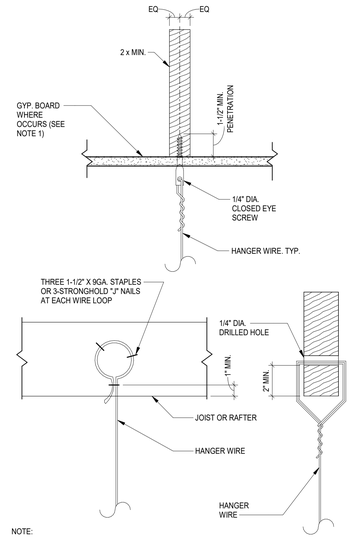
12 SUSPENDED CEILING PERIMETER JOINTS
6" = 1'-0"



NOTES:

1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OF WITHIN ONE-FORTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.
2. AT METAL STUD FRAMING: (1) #10 SMS TO 20 GA. MIN. WALL STUD @ 24" O.C. AT WOOD STUD FRAMING: (1) #10 WOOD SCREW TO 2X MIN. WALL STUD @ 24" O.C.
3. CEILING CLIP: ARMSTRONG BERC2 CLIP, OR EQUAL
4. SLOPED CEILING: USE ACCEPTABLE SUSPENSION SYSTEM & ACCESSORIES. WALL ANGLE ARE PAINTED AND WALL SHIMMED TO ACHIEVE THE CORRECT ANGLE. 7/8" WALL ANGLE ITEM 7800 SHOULD BE USED. PER MANUFACTURERS RECOMMENDATION. MAX. CEILING SLOPE SHALL NOT EXCEED 30 DEGREES. (SEE DETAIL 29/-)

095100.2.60-S *DSA IR 25-2, #2.60 - Rev 03/18/22*

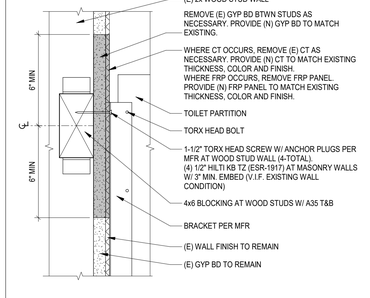


NOTE:

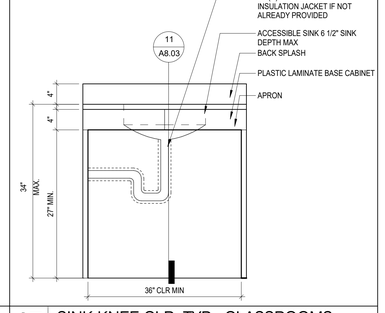
(1) WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES W/ SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP. BOARD AND MEET MIN. PENETRATION.

095100.4.25-S *DSA IR 25-2, #4.25 - Rev 03/18/22*

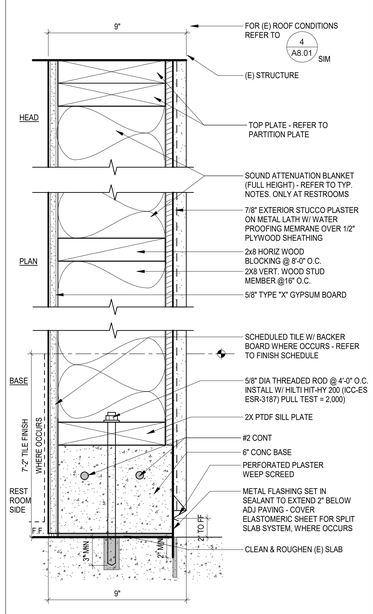
9 HANGER WIRE TO WOOD
3" = 1'-0"



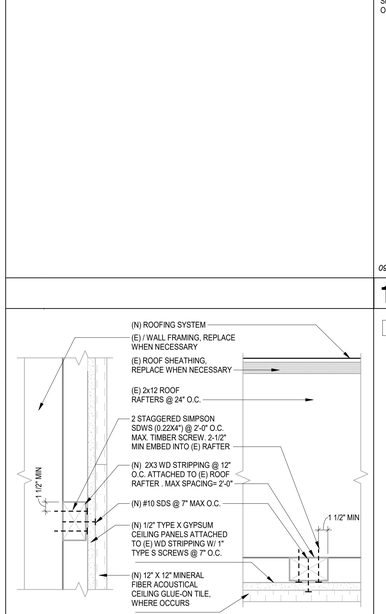
18 PARTITION MOUNT
3" = 1'-0"



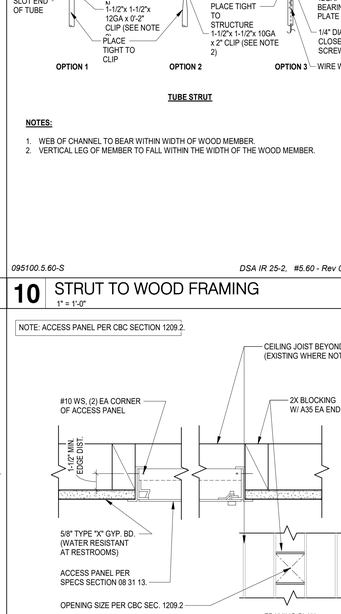
17 SINK KNEE CLR. TYP. CLASSROOMS
1" = 1'-0"



6 C- PARTITION TYPE
3" = 1'-0"

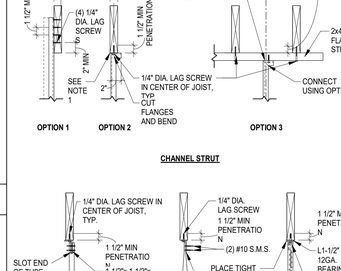


5 GYP. BD. WALL / CEILING
3" = 1'-0"



095000.12-S

4 ACCESS PANEL
3" = 1'-0"



NOTES:

1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF WOOD MEMBER.
2. VERTICAL LEG OF MEMBER TO FALL WITHIN THE WIDTH OF THE WOOD MEMBER.

095100.5.60-S *DSA IR 25-2, #5.60 - Rev 03/18/22*

10 STRUT TO WOOD FRAMING
1" = 1'-0"

NOTES:

WIRE SPLICES ARE SHOWN LOOSELY TIED FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE DRAWN TIGHT TO COMPLETE INSTALLATION WHEN CONSTRUCTED.

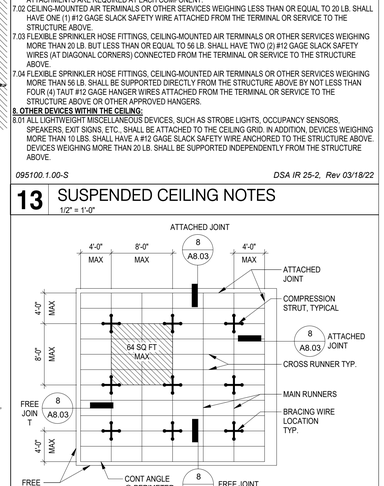
095100.6.10-S *DSA IR 25-2, #6.10 - Rev 03/18/22*

3 CEILING WIRE SPLICES
6" = 1'-0"

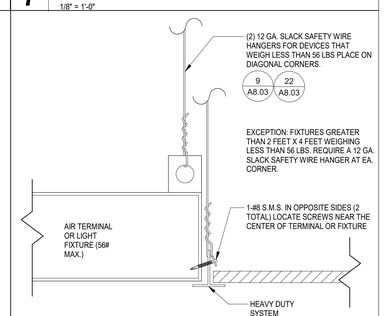
EMT COMPRESSION STRUT	MAXIMUM LENGTH
1/2" DIAMETER EMT (0.042" WALL THICKNESS)	3'-11"
3/4" DIAMETER EMT (0.049" WALL THICKNESS)	6'-4"
1" DIAMETER EMT (0.057" WALL THICKNESS)	9'-9"
1 1/4" DIAMETER EMT (0.065" WALL THICKNESS)	12'-9"
1 1/2" DIAMETER EMT (0.065" WALL THICKNESS)	14'-9"
2" DIAMETER EMT (0.065" WALL THICKNESS)	18'-10"

CHANNEL COMPRESSION STRUT	MAXIMUM LENGTH
250S125-33	5'-10"
250S137-33	6'-10"
362S137-33	8'-0"
250137-43	8'-10"
400S137-43	10'-10"

2 COMPRESSION STRUT TABLE
1/2" = 1'-0"



095100.3.21-S *DSA IR 25-2, #3.21 - Rev 03/18/22*



095100.2.80-S *DSA IR 25-2, #2.80 - Rev 03/18/22*

1 SUSPENDED LIGHT FIX./AIR TERMINALS
3" = 1'-0"

FILE PATH: Z:\Projects\...
9/18/2023 2:10:52 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

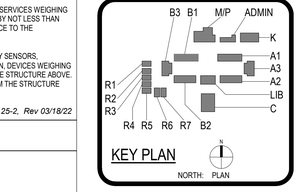
ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

Architect
LICENSED ARCHITECT
Yong Yap
No. C-31162
RENEW 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

CEILING DETAILS AND MISC. DETAILS

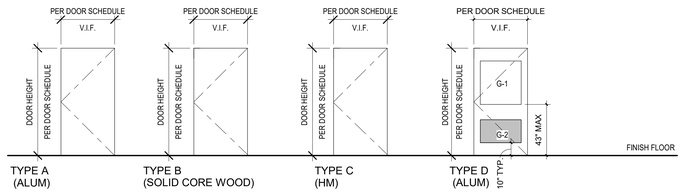
A8.03

A9.01 - DOOR SCHEDULE & WINDOW FRAMING ELEVATION

0" 1"

DOOR SCHEDULE

DOOR #	ROOM NAME	BUILDING NAME	DOOR						FRAME			DETAILS			HARDWARE	Fire Rating	Panic Hardware	Accessible Security Locking Hardware	Comments
			DOOR TYPE	PairSingle	SIZE W x H WIDTH	SIZE W x H HEIGHT	MATL.	Finish	FRAME TYPE	MATL	FINISH	SILL	JAMB	HEAD					
A1-1	CLASSROOM A-1	A-1	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
A1-2	CLASSROOM A-1	A-1	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
A2-1	CLASSROOM A-2	A-1	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
A2-2	CLASSROOM A-2	A-1	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
A3-1	CLASSROOM A-3	A-1	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
A3-2	CLASSROOM A-3	A-1	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
A4-1	CLASSROOM A-4	A-3	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
A4-2	CLASSROOM A-4	A-3	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
A5-1	CLASSROOM A-5	A-3	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
A5-2	CLASSROOM A-5	A3	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
A6-1	CLASSROOM A-6	A-2	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
A6-2	CLASSROOM A6	A-2	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
A7-1	CLASSROOM A-7	A-2	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
A7-2	CLASSROOM A-7	A-2	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
A8-1	CLASSROOM A-8	A-2	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
A8-2	CLASSROOM A8	A-2	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
AD1-1	OFFICE AD-1	ADMIN	D	SINGLE	3' - 8"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	26/A8.01	9/A8.01	2		Yes	X	
AD1-2	OFFICE AD-1	ADMIN	D	SINGLE	3' - 8"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 26/A8.01	9/A8.01	1		Yes	X	
AD2-1	PRINCIPAL AD-2	ADMIN	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	3		Yes	X	
AD3-1	NURSE AD-3	ADMIN	D	SINGLE	3' - 0"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 18/A8.01	9/A8.01	4		Yes	X	
AD3-2	NURSE AD1	ADMIN	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	23/A8.01	13/A8.01	13/A8.01	5		No	X	Lockable on both sides
AD4-1	PRINCIPAL OFFICE AD-4	ADMIN	D	SINGLE	3' - 8"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 11/A8.01	9/A8.01	4		Yes	X	
AD4-2	PRINCIPAL OFFICE AD-4	ADMIN	D	SINGLE	3' - 8"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 5/A8.01	9/A8.01	4		Yes	X	
AD4-3	TEACHER WORKROOM AD111	ADMIN	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	9		No	X	Lockable on both sides
AD5-1	TEACHER'S WORKROOM AD-5	ADMIN	D	SINGLE	3' - 8"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
AD9-1	MECHANICAL RM.	ADMIN	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	6		No		
AD10-1	CUSTODIAN	ADMIN	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	5		No		
AD11-1	UNISEX NURSE RR AD-11	ADMIN	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	19/A8.01	13/A8.01	13/A8.01	6		No		
AD12-1	STAFF RR AD-12	ADMIN	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	19/A8.01	13/A8.01	13/A8.01	7		No		
B1-1	LOUNGE B-1	B-1	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
B1-2	LOUNGE B-1	B-1	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
B2-1	CLASSROOM B-2	B-1	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
B2-2	CLASSROOM B-2	B-1	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
B3-1	CLASSROOM B-3	B-1	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
B3-2	CLASSROOM B-3	B-1	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
B4-1	CLASSROOM B-4	B-3	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
B4-2	CLASSROOM B-4	B3	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
B5-1	CLASSROOM B-5	B-3	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
B5-2	CLASSROOM B-5	B-3	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
B6-1	CLASSROOM B-6	B-2	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
B6-2	CLASSROOM B-6	B-2	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
B7-1	CLASSROOM B-7	B-2	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
B7-2	CLASSROOM B-7	B-2	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
B8-1	CLASSROOM B-8	B-2	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
B8-2	CLASSROOM B-8	B-2	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
B9-1	GIRL'S RR	B-3	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No		
B10-1	BOY'S RR	B-3	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No		
C1-1	CLASSROOM C-1	C	D	SINGLE	3' - 0"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 , 26 & 20/A8.01	9/A8.01	1		Yes	X	
C1-2	CLASSROOM C-1	C	D	SINGLE	3' - 0"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 , 26 & 20/A8.01	9/A8.01	11		No	X	
C2-1	CLASSROOM C-2	C	D	SINGLE	3' - 0"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 , 26 & 20/A8.01	9/A8.01	1		Yes	X	
C2-2	CLASSROOM C-2	C	D	SINGLE	3' - 0"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 , 26 & 20/A8.01	9/A8.01	11		No	X	
C3-1	CLASSROOM C-3	C	D	SINGLE	3' - 0"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 , 26 & 20/A8.01	9/A8.01	1		Yes	X	
C3-2	CLASSROOM C-3	C	D	SINGLE	3' - 0"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 , 26 & 20/A8.01	9/A8.01	11		No	X	
C4-1	CLASSROOM C-4	C	D	SINGLE	3' - 0"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 , 26 & 20/A8.01	9/A8.01	1		Yes	X	
C4-2	CLASSROOM C-4	C	D	SINGLE	3' - 0"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 , 26 & 20/A8.01	9/A8.01	11		No	X	
K1-1	KINDERGARTEN K-1	K	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
K1-2	KINDERGARTEN K-2	K	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PNT	3	HM	PT	7 OR 10/A8.01	29/A8.01	29/A8.01	10		No	X	
K2-1	KINDERGARTEN K-2	K	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
K2-2	KINDERGARTEN K-2	K	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	29/A8.01	10		No	X	
K4-1	KINDERGARTEN TOILET	K	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	7 OR 10/A8.01	29/A8.01	29/A8.01	10		No		
K5-1	KINDERGARTEN TOILET	K	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	7 OR 10/A8.01	29/A8.01	29/A8.01	10		No		
K6-1	KINDERGARTEN TOILET	K	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	7 OR 10/A8.01	29/A8.01	29/A8.01	10		No		
K7-1	KINDERGARTEN TOILET	K	B	SINGLE	3' - 0"	7' - 0"	SC/WD	PT	2	HM	PT	7 OR 10/A8.01	29/A8.01	29/A8.01	10		No		
L1-1	LIBRARY L-1	LAB/LIB	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
L1-2	LIBRARY L-1	LAB/LIB	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	
L2-1	LAB L-2	LAB/LIB	D	SINGLE	3' - 10"	7' - 0"	ALUM	AC	1	ALUM	AC	7 OR 10/A8.01	3 & 20/A8.01	9/A8.01	1		Yes	X	
L2-2	LAB L-2	LAB/LIB	B	SINGLE	3' - 4"	7' - 0"	SC/WD	PT	3	HM	PT	7 OR 10/A8.01	29/A8.01	24/A8.01	10		No	X	



NOTE:
G-1 = TG (TEMPERED GLASS)
G-2 = TGTINT (TEMPERED GLASS/TINTED GLASS)

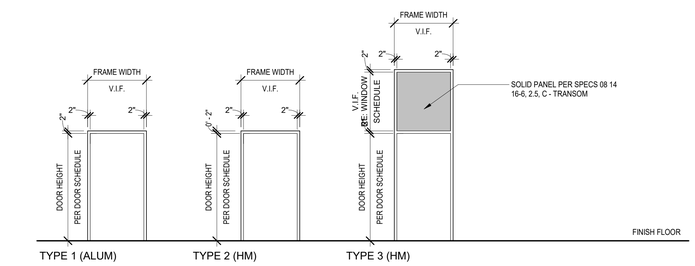
GLASS COLOR TO BE VERIFIED BY THE DISTRICT

DOOR & WINDOW SCHEDULE ABBREVIATIONS

ALUM	ALUMINUM
AC	ANODIZED CLEAR
FF	FACTORY FINISH
HM	HOLLOW METAL
N/A	NOT APPLICABLE
PTD	PAINT
SC	SOLID CORE
ST	STAIN
WD	WOOD

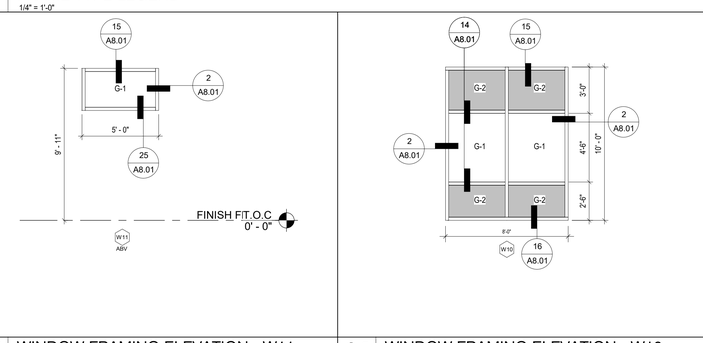
DOOR TYPE LEGEND

1/4" = 1'-0"



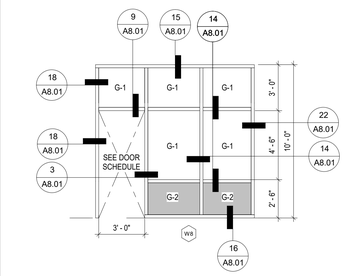
FRAME TYPE LEGEND

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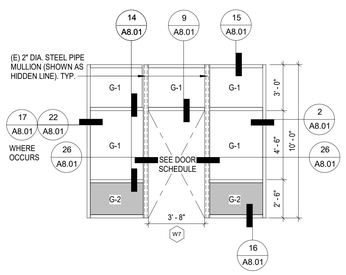


GENERAL WINDOW FRAMING NOTES

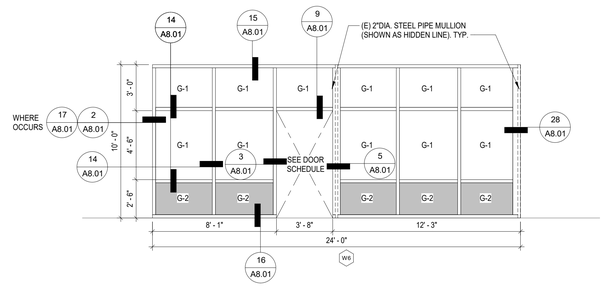
1. (N) ALUMINUM FRAME . PER SPEC SEC. 08 41 13
2. G-1 : TEMPERED GLASS (N) 1" INSULATED GLASS. SEE GLAZING SPECS.
3. USE BRONZE GLAZING COLOR
4. G-2: TEMPERED GLASS (N) 1" INSULATED / TINTED GLASS
5. FIELD VERIFY ALL DIMENSIONS



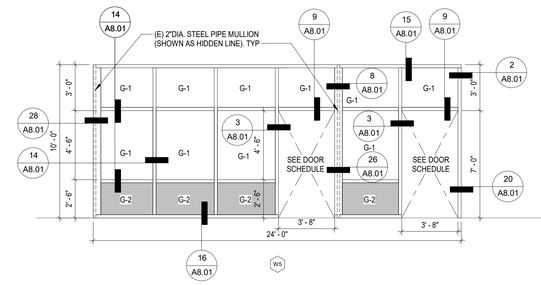
12 WINDOW FRAMING ELEVATION - W8
1/4" = 1'-0"



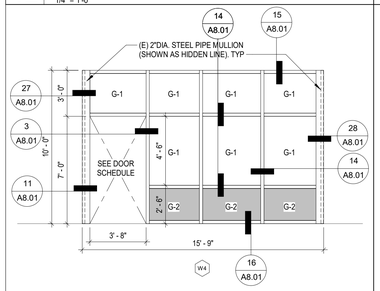
11 WINDOW FRAMING ELEVATION - W7
1/4" = 1'-0"



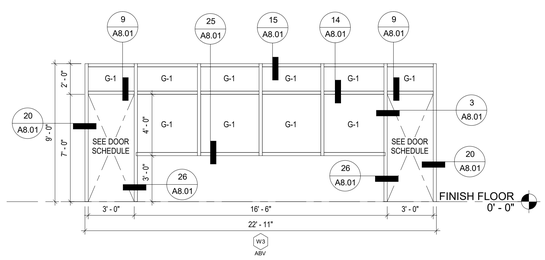
10 WINDOW FRAMING ELEVATION - W6
1/4" = 1'-0"



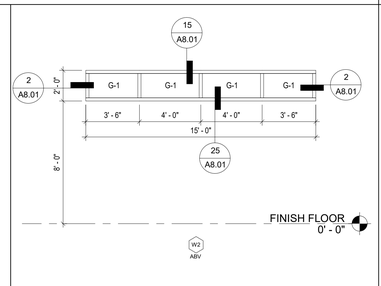
8 WINDOW FRAMING ELEVATION - W5
1/4" = 1'-0"



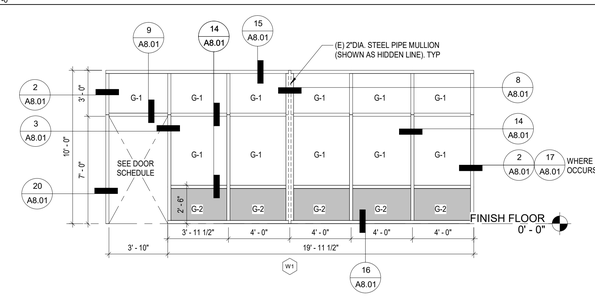
6 WINDOW FRAMING ELEVATION - W4
1/4" = 1'-0"



5 WINDOW FRAMING ELEVATION - W3
1/4" = 1'-0"

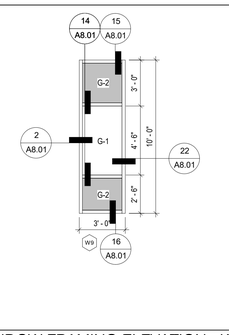


3 WINDOW FRAMING ELEVATION - W2
1/4" = 1'-0"



2 WINDOW FRAMING ELEVATION - W1
1/4" = 1'-0"

14 WINDOW FRAMING ELEVATION - W10
1/4" = 1'-0"



13 WINDOW FRAMING ELEVATION - W9
1/4" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

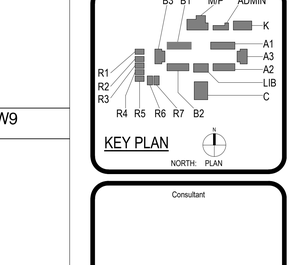
ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave. #950
Anaheim, CA 92806
P 949-548-5000

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

Architect

LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2023
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

DOOR SCHEDULE & WINDOW FRAMING ELEVATION

A9.01

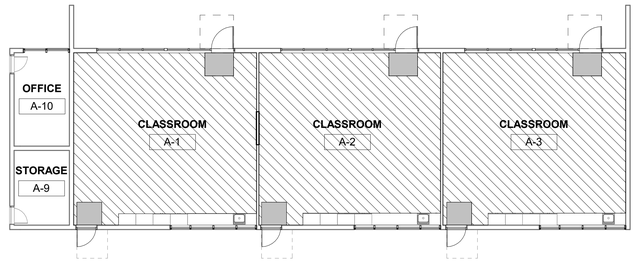
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9/18/2023 2:10:52 PM

A10.01 - FINISH PLANS & SCHEDULE

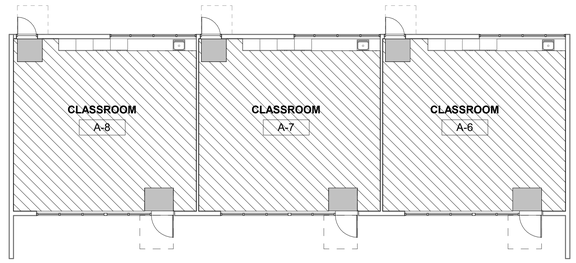
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FINISH SCHEDULE

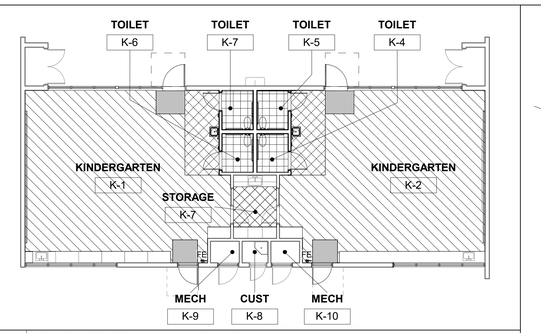
ROOM NUMBER	ROOM NAME	(E) FLOOR MATERIAL	FLOOR		BASE		NORTH WALL		EAST WALL		SOUTH WALL		WEST WALL		CEILING	
			MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH
A-1	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	P1	(E) GYP	TS1	(E) BRICK	TS1 & P1	(E) BRICK	TS1	ACP	ACP1
A-2	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	P1	(E) GYP	TS1	(E) BRICK	TS1 & P1	(E) GYP	TS1	ACP	ACP1
A-3	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	P1	(E) BRICK	TS1	(E) BRICK	TS1 & P1	(E) GYP	TS1	ACP	ACP1
A-4	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1	(E) BRICK & (E) GYP	P1	(E) GYP	TS1	(E) BRICK	TS1 & P1	ACP	ACP1
A-5	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) GYP	TS1	(E) BRICK & (E) GYP	P1	(E) BRICK	TS1	(E) BRICK	TS1 & P1	ACP	ACP1
A-6	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1 & P1	(E) BRICK	TS1	(E) BRICK	P1	(E) GYP	TS1	ACP	ACP1
A-7	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1 & P1	(E) GYP	TS1	(E) BRICK	P1	(E) GYP	TS1	ACP	ACP1
A-8	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1 & P1	(E) GYP	TS1	(E) BRICK	P1	(E) BRICK	TS1	ACP	ACP1
AD-1	OFFICE	VCT	(E)	(E)	RB	RB1	(E) BRICK	P1	(E) GYP	P1	(E) BRICK	P1	(E) GYP	P1	ACP	ACP1
AD-2	PRINCIPAL	VCT	(E)	(E)	RB	RB1	(E) GYP	P1	(E) BRICK	P1	(E) BRICK	P1	(E) GYP	P1	ACP	ACP1
AD-3	NURSE	VCT	(E)	(E)	RB	RB1	(E) BRICK	P1	(E) BRICK & (E) GYP	P1	(E) GYP	P1	(E) BRICK	P1	ACP	ACP1
AD-4	NURSE RESTROOM	CT	CT	CT1	CTB	CTB1	(E) GYP	CT1	(E) BRICK	CT1	(E) GYP	CT1	(E) GYP	CT1	GYP	P1
AD-5	PRINCIPAL OFFICE	VCT	(E)	(E)	RB	RB1	(E) GYP	P1	(E) GYP	P1	(E) GYP	P1	(E) GYP	P1	ACP	ACP1
AD-6	TEACHERS' WORK ROOM	VCT	(E)	(E)	RB	RB1	(E) BRICK	P1	(E) GYP	P1	(E) BRICK	P1	(E) GYP	P1	ACP	ACP1
AD-7	STORAGE	VCT	(E)	(E)	RB	RB1	(E) BRICK	P1	(E) GYP	P1	(E) GYP	P1	(E) GYP	P1	GYP	P1
AD-8	STAFF RESTROOM	CT	CT	CT1	CTB	CTB1	(E) GYP	CT1	(E) GYP	CT1	(E) GYP	CT1	(E) GYP	CT1	GYP	P1
B-2	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	P1	(E) GYP	TS1	(E) BRICK	TS1 & P1	(E) GYP	TS1	ACP	ACP1
B-3	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	P1	(E) GYP	TS1	(E) BRICK	TS1 & P1	(E) BRICK	TS1	ACP	ACP1
B-4	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1	(E) BRICK	TS1 & P1	(E) GYP	TS1 & P1	(E) BRICK	P1	ACP	ACP1
B-5	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) GYP	TS1	(E) BRICK	TS1 & P1	(E) BRICK	TS1 & P1	(E) BRICK	P1	ACP	ACP1
B-6	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1 & P1	(E) GYP	TS1	(E) BRICK	P1	(E) BRICK	TS1	ACP	ACP1
B-7	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1 & P1	(E) GYP	TS1	(E) BRICK	P1	(E) GYP	TS1	ACP	ACP1
B-8	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1 & P1	(E) BRICK	TS1	(E) BRICK	P1	(E) GYP	TS1	ACP	ACP1
C-1	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1	(E) BRICK	P1	(E) GYP	TS1 & P1	(E) GYP	TS1	ACP	ACP1
C-2	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) GYP	TS1 & P1	(E) BRICK	P1	(E) GYP	TS1 & P1	(E) GYP	TS1	ACP	ACP1
C-3	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) GYP	TS1 & P1	(E) GYP	TS1	(E) GYP	TS1 & P1	(E) BRICK	P1	ACP	ACP1
C-4	CLASSROOM	CPT	CPT	CPT1	RB	RB1	(E) BRICK	TS1	(E) GYP	TS1	(E) GYP	TS1 & P1	(E) BRICK	P1	ACP	ACP1
K-1	KINDERGARTEN	CPT	CPT	CPT1	RB	RB1	(E) BRICK	P1	(E) GYP	P1	(E) BRICK	P1	(E) BRICK	TS1	ACP	ACP1
K-2	KINDERGARTEN	CPT	CPT	CPT1	RB	RB1	(E) BRICK	P1	(E) BRICK	P1	(E) BRICK	P1	(E) GYP	P1	ACP	ACP1
K-4	TOILET	CT	CT	CT1	CTB	CTB1	(E) CT	CT1	(E) CT	CT1	(E) CT	CT1	(E) CT	CT1	GYP	P1
K-5	TOILET	CT	CT	CT1	CTB	CTB1	(E) CT	CT1	(E) CT	CT1	(E) CT	CT1	(E) CT	CT1	GYP	P1
K-6	TOILET	CT	CT	CT1	CTB	CTB1	(E) CT	CT1	(E) CT	CT1	(E) CT	CT1	(E) CT	CT1	GYP	P1
K-7	TOILET	CT	CT	CT1	CTB	CTB1	(E) CT	CT1	(E) CT	CT1	(E) CT	CT1	(E) CT	CT1	GYP	P1
K-7	STORAGE	CPT	CPT	VCT1	RB	RB1	(E) GYP	P1	(E) GYP	P1	(E) GYP	P1	(E) GYP	P1	ACP	ACP1
L-1	LIBRARY	CPT	CPT	CPT1	RB	RB1	(E) BRICK	P1	(E) GYP	P1	(E) BRICK	P1	(E) BRICK	P1	ACP	ACP1
L-2	COMPUTER LAB	CPT	CPT	CPT1	RB	RB1	(E) BRICK	P1	(E) BRICK	TS1	(E) BRICK	P1	(E) GYP	TS1	ACP	ACP1



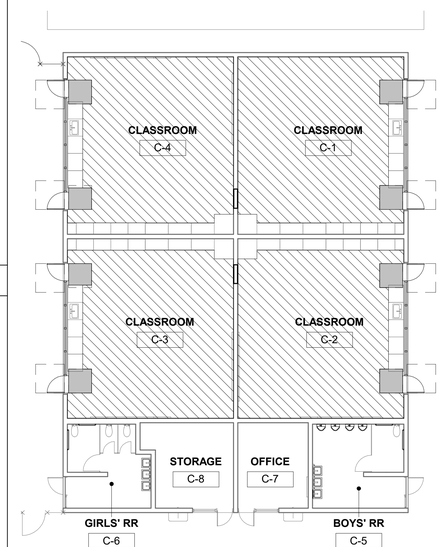
6 FINISH FLOOR PLAN - BLDG "A-1"
3/32" = 1'-0"



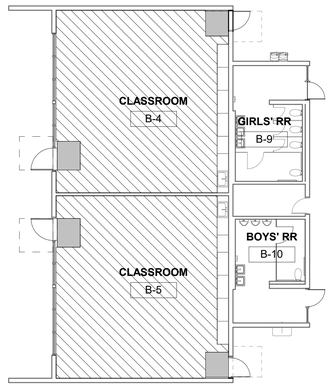
10 FINISH FLOOR PLAN - BLDG "A-2"
3/32" = 1'-0"



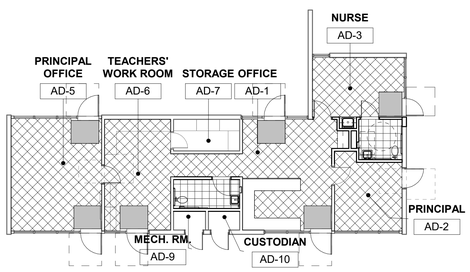
28 FINISH FLOOR PLAN - BLDG "K"
3/32" = 1'-0"



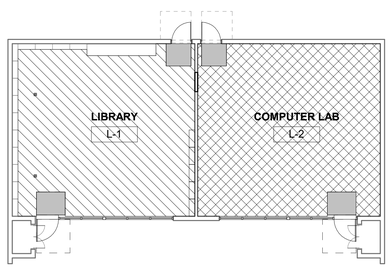
20 FINISH FLOOR PLAN - BLDG "C"
3/32" = 1'-0"



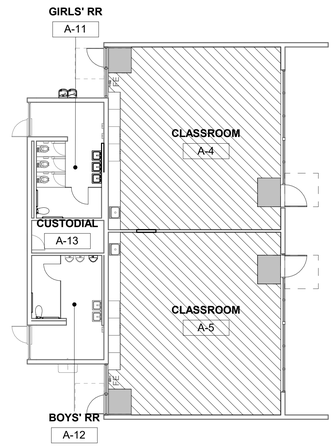
15 FINISH FLOOR PLAN - BLDG "B-3"
3/32" = 1'-0"



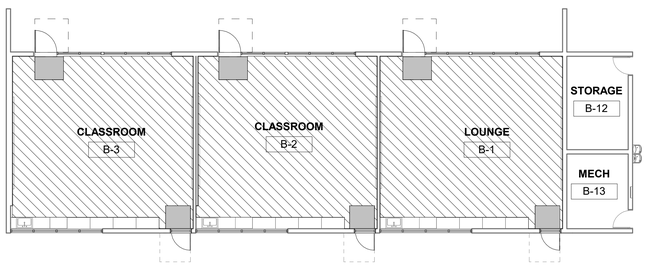
3 FINISH FLOOR PLAN - BLDG "ADMIN"
3/32" = 1'-0"



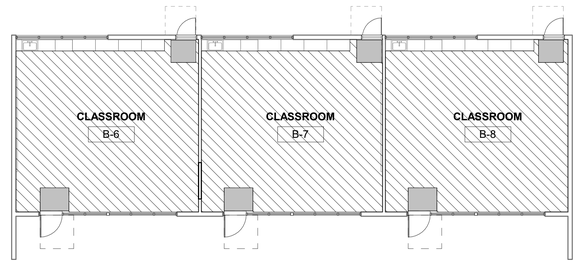
23 FINISH FLOOR PLAN - BLDG LAB/LIB
3/32" = 1'-0"



8 FINISH FLOOR PLAN - BLDG "A-3"
3/32" = 1'-0"



12 FINISH FLOOR PLAN - BLDG "B-1"
3/32" = 1'-0"



17 FINISH FLOOR PLAN - BLDG "B-2"
3/32" = 1'-0"

FINISH FLOOR MATERIALS LEGEND

- (E) FLOOR FINISH TO REMAIN
- CPT-1, CARPET FLOORING TYPE 1
  RE: FINISH SCHEDULE
- VCT-1, VINYL COMPOSITION TILE
  RE: FINISH SCHEDULE
- CT-1 CERAMIC TILE FLOORING
  RE: FINISH SCHEDULE
- WALK-OFF MAT,
  TRANSITION FLUSHED W/ ADJACENT CARPET.
  RE: FLOOR FINISH PLAN
  48" DEPTH, 12" EXTEND ON PUSH SIDE, UNLESS SHOWN AS FLUSH TO DOOR WIDTH OR EDGE OF WALL

GENERAL FINISH LEGEND NOTES

1. ALL FINISH MATERIALS SHALL MEET THE FLAME SPREAD RATINGS PER THE BUILDING CODE. PROVIDE CLASS A MATERIALS.
2. REFER TO INTERIOR ELEVATIONS FOR SPECIFIC MATERIAL LOCATIONS.
3. PAINT ALL EXPOSED STRUCT. MEMBERS, STRUCT. DECK, DUCTWORK, DIFFUSERS, PIPING, CONDUIT, EQUIP. HOUSINGS, LIGHT FIXTURE HOUSINGS, CABLE SUPPORTS, CABLE TRAYS, EQUIP. SUPPORTS, HANGERS, ETC. TO MATCH ADJACENT SURFACES.
4. PAINT ALL NON-FACTORY FINISHED EXPOSED METAL.
5. REFER TO TYPICAL FLOORING TRANSITION DETAILS FOR FLOORING MATERIAL TRANSITIONS.
6. ALL FLOORING TRANSITIONS AT DOORS SHALL BE LOCATED UNDER THE DOOR IN THE CLOSED POSITION, U.N.O.
7. PROTECT ALL FINISHED FLOORING SURFACES FROM DAMAGE DURING ALL CONSTRUCTION PHASES.
8. PROVIDE AND INSTALL BULLNOSE TRIM AT ALL TRANSITIONS FROM CERAMIC WALL TILE TO OTHER MATERIAL U.N.O.
9. REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
10. ALL ELECTRICAL DEVICE COVERS ARE TO BE WHITE U.N.O.
11. ALL CARPET PATTERNS TO RUN PARALLEL TO CORRIDOR, U.N.O.
12. PAINT ALL HOLLOW METAL DOOR FRAMES TO MATCH ADJACENT WALL COLOR U.N.O.
13. REMOVE EXISTING PAINT AT EXISTING BRICK WALL. PREPARE BRICK WALL SMOOTH TO RECEIVE NEW PAINT FINISH. WHERE OCCURS.
14. RE-PAINT ALL EXISTING CASEWORK (EXCLUDE PLAM/STONE COUNTERTOPS).
15. PROVIDE APPROPRIATE PREPARATION, CLEANING AND BASE MATERIALTO EXISTING BRICK WALL BEFORE RECEIVING NEW FINISH MATERIAL. PER FINISH SPECIFICATION.
16. PROVIDE APPROPRIATE PREPARATION, CLEANING AND BASE MATERIAL TO EXISTING INTERIOR SURFACES TO RECEIVE NEW FINISHES PER FINISH SPECS.
17. PROVIDE CONSISTENT FLAT SURFACE USING CEMENT FLOAT AND APPROPRIATE BASE MATERIAL AT EXISTING BRICK WALL TO RECEIVE NEW TILE FINISH, PER FINISH SPECIFICATIONS.

MATERIAL FINISH ABBREVIATIONS

ACP1	2'X2' ACOUSTICAL CEILING PANEL , SEE SPECIFICATIONS
CPT1	CARPET TYPE 1 , SEE SPECIFICATIONS
CT1	CERAMIC TILE 1, SEE SPECIFICATIONS
CTB1	CERAMIC TILE BASE 1, SEE SPECIFICATIONS
VCT1	VINYL COMPOSITE TILE 1, SEE SPECIFICATIONS
P1	PAINT TO BE SELECTED BY OWNER, SEE SPECIFICATIONS
RB1	RUBBER BASE , SEE SPECIFICATIONS
(E)	(E) FINISH TO REMAIN
MF	MANUFACTURERS FINISH, SEE SPECIFICATIONS
TS1	TACKABLE SURFACE, SEE SPECIFICATIONS

MATERIAL ABBREVIATIONS

ACP	ACOUSTIC CEILING PANEL
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
GUT	GLUE UP TILE
GYP	GYPSUM BOARD
P	PAINT
RB	RUBBER BASE
VCT	VINYL COMPOSITE TILE
(E)	(E) FINISH TO REMAIN

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

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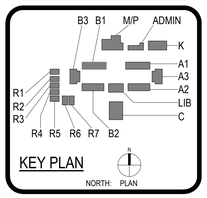
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL SET

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

Architect
LICENSED ARCHITECT
Yong Yoo
No. C-31162
REN. 10-31-2025
STATE OF CALIFORNIA

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03-31-2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL SET

FINISH PLANS & SCHEDULE

A10.01

0" 1"

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH TITLE 24 CALIFORNIA BUILDING CODE, 2022 EDITION.
2. ALL DRAWINGS AND SPECIFICATIONS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE EOR, THE ARCHITECT AND THE OWNER REPRESENTATIVE. PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO EXPENSE TO THE OWNER.
3. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE EOR AND THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
4. ALL DIMENSIONS AND THE SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOB SITE PRIOR TO BID SUBMITTAL, START OF SHOP DRAWINGS, START OF CONSTRUCTION, AND/OR FABRICATION OF MATERIALS. IF DISCREPANCIES ARE ENCOUNTERED, OR CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS, THE OWNER SHALL BE NOTIFIED FOR CLARIFICATION.
5. CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ADJACENT EXISTING SURFACES AND AREAS WHICH MAY BE DAMAGED AS A RESULT OF NEW WORK.
6. DO NOT SCALE DRAWINGS. PRINTED DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS AND LARGE SCALE OVER SMALL.
7. TYPICAL DETAILS SHALL APPLY IN GENERAL CONSTRUCTION UNLESS SPECIFICALLY DETAILED. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK & PER TYP DETAILS.
8. THE CONTRACT DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THESE DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE AND SAFETY OF WORKMEN DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE CITY OR STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS AND DOES NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES FOR THE ABOVE.
9. FOR TRENCHES OR EXCAVATIONS (5) FIVE FEET OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, THE CONTRACTOR IS TO OBTAIN THE NECESSARY PERMIT FROM THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY, PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
10. NO HOLES, NOTCHES, BLOCKOUTS, ETC. ARE ALLOWED IN STRUCTURAL ELEMENTS UNLESS DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER AND OWNER.
11. ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE FROM PLANS SUPPLIED BY THE OWNER, BUT WITHOUT GUARANTEE OF ACCURACY. WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, THEY SHALL BE REPORTED TO THE UNIVERSITY REPRESENTATIVE OR ENGINEER SO THAT PROPER CLARIFICATION MAY BE MADE. MODIFICATION OF DETAILS OF CONSTRUCTION SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF STRUCTURAL ENGINEER AND OWNER.
12. IN CASE OF DISCREPANCIES BETWEEN NOTES ON THIS SHEET & PROJECT SPECIFICATIONS, THE PROVIDED NOTES SHALL TAKE PRECEDENCE OVER SPECS.
13. CUTTING, BORING, SAW CUTTING OR DRILLING INTO (E) OR (NEW) STRUCTURAL ELEMENTS SHALL BE SPECIFICALLY DETAILED OR OTHERWISE APPROVED BY EOR.

QUALITY ASSURANCE PROGRAM

A) STRUCTURAL TESTS AND SPECIAL INSPECTION PROGRAM.

PER SECTION 4-335 OF CALIFORNIA ADMINISTRATION CODE, THE ARCHITECT OR REGISTERED ENGINEER IN GENERAL RESPONSIBLE CHARGE OF THE PROJECT, OR WITHIN THEIR DELEGATED PORTION OF THE WORK, SHALL ESTABLISH THE EXTENT OF THE STRUCTURAL TESTS AND SPECIAL INSPECTION PROGRAM CONSISTENT WITH THE NEEDS OF THE PROJECT, AND A COMPLETED AND SIGNED DSA-103.

THE ARCHITECT OR REGISTERED ENGINEER SHALL RECEIVE VERIFIED REPORTS FROM THE PROJECT INSPECTOR, SPECIAL INSPECTORS, TESTING FACILITY, THE GEOTECHNICAL ENGINEER, CONTRACTORS AND THE OTHER ARCHITECTS AND ENGINEERS ARE SUBMITTED AS REQUIRED. THE RESPONSIBLE PARTY SHALL NOTIFY DSA AS TO THE DISPOSITION OF MATERIALS NOTED ON LABORATORY TESTING, AND/ OR SPECIAL INSPECTION, REPORTS AS NOT CONFORMING TO THE DSA APPROVED DOCUMENTS.

B) STRUCTURAL OBSERVATION

PERIODIC STRUCTURAL OBSERVATION SHALL BE CONDUCTED, PER SECTION 1710A OF THE CALIFORNIA BUILDING CODE AND SECTION 4-341(F) OF THE CALIFORNIA ADMINISTRATION CODE, TO ASSURE CONFORMANCE WITH THE DESIGN INTENT AND THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE REQUIREMENT ANS/OR RESPONSIBILITY FOR THE INSPECTION BY IOR.

A REGISTERED PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OF THE PROJECT, INCLUDING LICENSED ARCHITECT OR STRUCTURAL ENGINEER, SHALL OBSERVE HIS/HER PORTION OF WORK DURING THE CONSTRUCTION OF THE PROJECT.

OBSERVATION SHOULD INCLUDE VISITS TO THE PROJECT SITE BY THE ARCHITECT AND/OR ENGINEER OR THEIR QUALIFIED REPRESENTATIVES IN COORDINATION WITH THE DISTRICT AND DSA. PRIOR NOTIFICATION SHALL BE MADE TO REQUEST THE REQUIRED OBSERVATIONS. DEMOLITION OF COVERING MATERIAL MAY BE REQUIRE TO FACILITATE OBSERVATION.

STRUCTURAL OBSERVATIONS MAY CONSIST OF VISUAL OBSERVATION OF MAJOR STRUCTURAL MEMBERS, AND THEIR IMMEDIATE CONNECTIONS, AT SIGNIFICANT CONSTRUCTION STAGES. THE FREQUENCY OF SUCH OBSERVATION SHALL BE COORDINATED WITH THE DISTRICT ENGINEER OR ASSIGNED IOR PER SECTION 4-336.

AT THE COMPLETION OF THE PROJECT, A FINAL OBSERVATION REPORT (DSA-6) MUST BE SUBMITTED WHICH SHOWS THAT THE STRUCTURAL SYSTEM IS COMPLETE AND GENERALLY CONFORMS TO THE APPROVED PLANS AND SPECIFICATIONS.

DEMOLITION

1. REFER TO MECH. SHEETS FOR DEMOLITION NOTES. SEE DEMOLITION PLANS ON SHEET MD2 SERIES
2. ALL (E) UTILITIES, DUCTS, CONDUITS, PIPES, SIGNS, JOINTS, ELEC PANELS & BOXES, DOOR, WINDOW, CHAIN FRAME CEILINGS & OTHER ARCH'L TREATMENTS SHALL BE REMOVED TEMPORARILY AS NEEDED & REINSTALLED TO IT'S ORIGINAL CONDITION & IN AGREEMENT WITH CODE STANDARDS. SUPPORTS & BRACES FOR DUCT WORK SHALL BE IN ACCORDANCE WITH SMACNA GUIDELINES.
3. DEMOLITION WORK SHALL BE FULLY COORDINATED WITH THE DISTRICT & DSA 'S REPRESENTATIVES FOR SEQUENCE AND TIME FRAME.
4. CONTRACTOR TO PROVIDE TEMP. SHORING, AS REQUIRED.
5. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBERS SHALL BE CUT, DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DISTRICT ENGINEER FROM THE DIVISION OF THE STATE ARCHITECT.

CONCRETE AND REINFORCEMENT

1. ALL CEMENT SHALL CONFORM AT ASTM C-150, TYPE II OR V
2. FINE AND COARSE AGGREGATE SHALL CONFORM TO ASTM C-33.
3. AGGREGATE GRADATION FOR CONCRETE SHALL CONFORM TO ASTM C-33 AND CBC 2022. AGGREGATE FOR ELEMENT WITH 4 HOURS RATING SHALL BE SILICEOUS.
4. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM 28 DAY STRENGTH:
   - ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI, UNLESS NOTED OTHERWISE.
   - CAST IN DRILLED-HOLE PILES - 4000 PSI.
   - CONCRETE SLAB ON GRADE/HOUSEKEEPING PAD - 3000 PSI.
   - EXTERIOR CONCRETE WALKS, CURBS, ETC. AND MISC. CONCRETE - 2500 PSI STONE.
5. LIGHTWEIGHT CONCRETE . (NOT APPLICABLE)
6. CONCRETE DESIGN MIXES SHALL CONFORM TO THE STANDARD SPECIFICATIONS. MIX DESIGNS SHALL BE SIGNED BY A CALIFORNIA LICENSED ENGINEER & SUBMITTED FOR REVIEW & APPROVAL. SUPPORTING DATA SHALL BE PROVIDED PER CBC 1903A. THE TEST DATA SHALL BE REPORTED BY AN INDEPENDENT TESTING AGENCY.
7. PLACING OF ALL CONCRETE SHALL BE INSPECTED BY THE JOB INSPECTOR TO VERIFY THAT REINFORCING STEEL IS SECURELY SUPPORTED IN PLACE DURING THE POUR. CONTRACTOR TO PROVIDE NECESSARY MEASURE TO PROTECT REINFORCING AND TENDONS DURING PLACEMENT USING TIES AND SUPPORTS. USE TREMY FOR PLACEMENT OF CONCRETE FOR POURS DEEPER THAN 6'-0". USE OF BUCKET OR DROPPING IS NOT ALLOWED TO AVOID SEGREGATION.
8. LOCATION OF CONSTRUCTION JOINTS OR POUR JOINTS SHALL BE AS SHOWN ON PLANS OR AS APPROVED BY THE ENGINEER OR THE ARCHITECT PRIOR TO POURING CONCRETE. SEE NOTE 19 BELOW.
9. ANCHOR BOLTS, DOWELS, REINFORCING STEEL, INSERTS, ETC., SHALL BE SECURELY TIED IN PLACE PRIOR TO POURING CONCRETE. CONCRETE BLOCKS ONLY SHALL BE USED TO SUPPORT REINFORCING OFF GRADE.
10. CONCRETE SLABS SHALL BE CURED BY KEEPING CONTINUOUSLY WET FOR 7 DAYS. FORMS FOR CONCRETE WALLS SHALL BE LEFT IN PLACE FOR 7 DAYS OR THEY MAY BE STRIPPED AFTER 3 DAYS AND THEN COVERED WITH BURLAP WHICH SHALL BE KEPT WET FOR AN ADDITIONAL 7 DAYS. IN LIEU OF BURLAP, CURING COMPOUNDS MAY BE USED IF APPROVED BY THE STRUCTURAL ENGINEER. FORMS FOR CONCRETE COLUMNS SHALL BE LEFT IN PLACE FOR 3 DAYS. IF STRIPPED EARLY, THEN SHALL BE COVERED FOR ANOTHER 3 DAYS. OR BE PROTECTED BY CURRING COMPONDS CONTRACTOR SELECTS TO DEVIATE FROM THESE INSTRUCTIONS, ALL CRACKS AND OTHER DEFECTS SHALL BE PER EOR RECOMMENDATIONS IN CONTRACTORS EXPENSE.
11. NOTIFY THE STRUCTURAL ENGINEER 48 HOURS MINIMUM PRIOR TO ALL POURS.
12. PROVIDE 3/4" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
13. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL COMPLY WITH CBC SECTION TABLE 1808A.8.2
14. ALL CONCRETE SHALL BE VIBRATED IN PLACE BY MECHANICAL MEANS DURING PLACING OF CONCRETE.
15. THE STRUCTURAL STEEL AND STEEL FORM WILL DEFLECT WHILE CONCRETE IS BEING PLACED ON IT. THIS WILL RESULT IN THE NEED TO ADJUST THE SCREEDS AFTER THE CONCRETE HAS BEEN PLACED TO PRODUCE A LEVEL CONCRETE SURFACE. ALSO, THERE WILL BE ADDITIONAL CONCRETE REQUIRED, WHICH IS TO BE ANTICIPATED, AND NO REQUEST FOR EXTRA COST WILL BE CONSIDERED.
16. NO STAKES, STEEL OR WOOD, SHALL BE PERMITTED IN ANY CONCRETE POUR. SUSPEND FORMS FROM ABOVE GRADE.
17. DRYPACK SHALL BE 1:3-1/2 PORTLAND CEMENT TO SAND WITH A MINIMUM 28 DAY STRENGTH OF 4500 PSI. OR SET GROUT BY AN APPROVED EOR.
18. NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 7000 PSI.
19. CONSTRUCTION JOINTS: CONSTRUCTION JOINTS SHALL HAVE ENTIRE SURFACE REMOVED TO MIN 1/4" TO EXPOSE CLEAN, SOLIDLY EMBEDDED AGGREGATE. PER TYP. DETAILS PROVIDED IN THIS SET, CONSTRUCTION JOINTS SHALL BE PROVIDED TO LIMIT SHRINKAGE CRACKS. A MAX DISTANCE OF 30 x SLAB THICKNESS (IN) SHALL BE CONSIDERED IF NO CONSTRUCTION JOINTS IS CALLED ON PLANS. THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL OF CONSTRUCTION & CONTROL JOINT LOCATION IN SLABS, WALLS AND BEAMS.
20. TEMPERATURE AND SHRINKAGE REINFORCEMENT: SHALL HAVE A LAP OF THIRTY (30) BAR DIAMETERS, BUT NOT LESS THAN 18 IN. AND THE SPLICES IN ADJACENT BARS SHALL BE NOT LESS THAN FIVE (5) FEET APART.
21. REBAR GRADES: **ALL REINFORCING STEEL SHALL BE NEW STOCK DEFORMED BARS CONFORMING TO ASTM A615 AS FOLLOWS:**
   - ALL SIZES NOT SUBJECT TO WELDING.......................................GRADE 60.

   ALL REINFORCING BARS TO BE WELDED SHOULD CONFORM TO ASTM A706.
22. TYP. REBAR COVER: MINIMUM REBAR COVER FOR PRESTRESSED CONCRETE SHALL BE AS SHOWN IN THIS TABLE:
23. MAX W/C RATIO = 0.45

EXPOSURE CONDITION	COVER	TOLERANCE (-)
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"	3/8 INCH
EXPOSED TO EARTH OR WEATHER:		
NO. 5 AND SMALLER BARS	1-1/2"	1/4 INCH
NO. 6 AND LARGER BARS	2"	1/4 INCH
NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:		
ROOF SLAB	1"	1/8 INCH
STRUCTURAL SLABS & WALLS	1"	1/8 INCH
BEAMS AND COLUMNS (PRIMARY REINFORCEMENT, TIES, STIRRUPS & SPIRALS)	1-1/2"	1/4 INCH
SLABS ON GRADE	1-1/2"	1/4 INCH

NON–SHRINK GROUT

"NON-SHRINK GROUT" SHALL BE DEFINED AS A HIGH-STRENGTH MORTAR OR GROUT WHICH DOES NOT SHRINK IN THE PLASTIC STATE, IS DIMENSIONALLY STABLE IN THE HARDENED STATE, AND BONDS PERMANENTLY TO CLEAN METAL SURFACES AND CONCRETE SUBSTRATE.

DRY PACK OR NON-SHRINK GROUT SHALL CONFORM TO THE ASTM C1107, SPECIFICATION FOR PACKAGED DRY, HYDRAULIC-CEMENT GROUT (NON-SHRINKABLE). NO SHRINKAGE BEFORE HARDENING (0.00 SHRINKAGE WHEN TESTED IN ACCORDANCE WITH ASTM C827), IS ALLOWED

COMPRESSIVE STRENGTH, SHALL REACH THE FOLLOWING COMPRESSIVE STRENGTH

a. AT ONE DAY: 1000 PSI
b. AT THREE DAYS: 2500 PSI
c. AT SEVEN DAYS: 4000 PSI
d. AT 28 DAYS: 7000 PSI

A MANUFACTURER'S PRODUCT DATA SHALL BE SUBMITTED PRIOR TO THE INSTALLATION, SHOWING THE MATERIAL MEET SPECIFIED SHRINKAGE AND COMPRESSIVE STRENGTH REQUIREMENTS, ABOVE.

SHOP DRAWINGS:

1. SHOP DRAWINGS ARE AN AID FOR FIELD PLACEMENT, AND ARE SUPERSEDED BY THE STRUCTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST STRUCTURAL DRAWINGS.
2. SHOP DRAWINGS SHALL BE SUBMITTED BY CONTRACTOR TO ENGINEER OF RECORD (EOR) FOR REVIEW AND APPROVAL, AND IF REUIRED TO THE BUILDING OFFICIALS FOR THEIR REVIEW AND APPROVAL, ALSO SEE SUBMITTALS AND DEFERRED APPROVAL.
3. A SET OF APPROVED SHOP DRAWINGS SHALL BE MAINTAINED @ THE JOB SITE & PRESENTED TO THE INSPECTOR PRIOR TO PLACEMENT OF THE REINFORCEMENT.

STRUCTURAL STEEL AND MISC. IRON

1. WELDING SHALL BE DONE IN CONFORMANCE WITH AWS-D1.1 & OTHER APPLICABLE CODES & STANDARDS USE ELECTRIC SHIELDED ARC PROCESS USING E-70XX ELECTRODES. ALL WELDS SHALL BE UNIFORM IN SIZE AND APPEARANCE, AND FREE OF PINHOLES, POROSITY, UNDERCUTTING, OR OTHER DEFECTS. ALL BUTT WELDS SHALL BE FULL PENETRATION.
2. WELDS SHALL BE DONE IN THE SHOP OF AN ICC OR AISC APPROVED FABRICATOR UNLESS OTHERWISE NOTED ON PLANS. ALL FIELD WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS APPROVED BY THE BUILDING OFFICIAL.
3. CONTINUOUS INSPECTION BY AN APPROVED DEPUTY INSPECTOR IS REQUIRED FOR ALL ON SITE WELDING, U.N.O.
4. STRUCTURAL STEEL NOT ENCASED IN CONCRETE OR MASONRY SHALL BE SHOP PAINTED AS SPECIFIED. ANY ABRASIONS SHALL BE TOUCHED UP AFTER ERECTION.
5. FABRICATOR SHALL SUBMIT SHOP DRAWINGS TO STRUCTURAL ENGINEER FOR REVIEW PRIOR TO START OF FABRICATION. FABRICATION SHALL CONFORM TO A.I.S.C. SPECIFICATION.
6. ALL FULL PENETRATION WELDS IN FIELD AND SHOP SHALL BE ULTRASONICALLY TESTED AND APPROVED.
7. CONTINUOUS INSPECTION IS REQUIRED FOR ALL HIGH STRENGTH BOLTING CONNECTIONS.
8. SPLICE MEMBERS ONLY WHERE INDICATED.
9. BOLT HOLES IN STEEL SHALL BE STANDARD HOLES, 1/16 INCH LARGER IN DIAMETER THAN NORMAL SIZE OF BOLT USED, UNLESS NOTED OTHERWISE. BOLT HOLES IN BASE PLATES MAY BE OVERSIZED PER AISC TABLE 14-2 IF WASHERS ARE PROVIDED IN ACCORDANCE WITH THIS TABLE.
10. STRUCTURAL STEEL SHALL CONFORM TO ASTM DESIGNATION AS INDICATED BELOW UNLESS NOTED OTHERWISE:
    - ALL WIDE FLANGE AND WT SHAPES — A992, GRADE 50
    - STEEL ANGLES AND CHANNELS — A36 U.N.O.
    - BEAM SHEAR PLATES, STIFFENER PLATES, ALL OTHER PLATES — A572, GRADE 50 U.N.O.
    - MACHINE BOLTS USE ONLY WHERE INDICATED) — A307
    - THREADED AND SMOOTH ROD — F1554, GR50
    - NUTS FOR BOLTS AND MACHINE BOLTS — A563
    - HARDENED WASHERS — F436
    - UNHARDENED WASHERS — F844
    - PLAIN WASHERS — ANSI B18.22.1
    - STRUCTURAL TUBES — A-500, GRADE C
    - STRUCTURAL PIPES — A-53, TYPE E OR S, GRADE B
12. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIP ZINC GALVANIZED

WOOD FRAMING

1. ALL SAWN LUMBER SHALL BE DOUGLAS FIR OR WESTERN LARCH, U.N.O.
2. GRADE MARKED BY A RECOGNIZED GRADING AGENCY (WWPA OR WCLIB). WOOD GRADES ARE TO BE AS FOLLOWS U.N.O.:
   - BEAMS____LSL OR PRL OR GLB UNO
   - HEADERS____NO.1
   - POSTS AND TIMBERS____NO.1
   - PLATES____NO.2
   - STUDS @ NON-BEARING WALLS____NO.2
   - STUDS @ BEARING/SHEAR WALLS NO.2 U.N.O.____NO.2
   - RAFTERS AND ROOF JOISTS____NO.2
   - FLOOR JOIST____NO.1
   - SILL PLATES PRESSURE TREATED FOR MOISTURE RESISTANCE (SEE NOTE #23.)____NO.1
   - TJI____PER PLAN OR EQ.
   - OPEN WEB TRUSSES____PER PLAN & APPROVED MANUF.
   - ROOF TRUSSES____PER PLAN & APPROVED MANUF.
3. WHERE WOOD IS IN CONTACT WITH CONCRETE OR MASONRY USE FOUNDATION REDWOOD OR DOUGLAS FIR PRESSURE TREATED FOR MOISTURE RESISTANCE. CORROSION RESISTANCE BOLTS ARE REQUIRED FOR "CHEMICALLY THREATED SILLS".
4. PLYWOOD SHALL BE DOUGLAS FIR CONFORMING TO U.S. PRODUCT STANDARDS PS 1-83, WITH EXTERIOR GLUE AND SHALL BE GRADE MARKED BY APA. PLYWOOD AT EXPOSED EAVES SHALL BE EXPOSURE I GRADE PLYWOOD. PLYWOOD SHALL BE STRUCTURAL- I FOR FLOOR DIAPHRAGMS & SHEAR WALLS. OSB PANELS MAY BE USED IF HAVE EQUIVALENT PROPERTIES.
5. U.N.O. ALL DAMAGED OR DETERIORATED LUMBER SHALL BE REPLACED WITH EQUAL SECTION AND EQUAL OR BETTER GRADE AS SPECIFIED ON THESE DRAWINGS.
6. ALL BOLTS FOR WOOD CONNECTIONS SHALL BE A307, GRADE A. WHERE WOOD IS BOLTED TO STEEL, USE A LOCK WASHER UNDER THE NUT ON THE STEEL SIDE.
7. ALL BOLT HEADS AND NUTS THAT BEAR AGAINST THE FACE OF WOOD MEMBERS SHALL BE PROVIDED WITH METAL SQUARE WASHERS AS INDICATED ON PLANS.
8. ALL STUD WALLS SHALL HAVE FIRE BLOCKING AT 5'-0" O.C. MAXIMUM, VERTICAL UNLESS ALLOWED BY CODE.
9. BLOCKING SHALL BE INSTALLED AT THE TOP OF ALL BEARING AND SHEAR WALLS.
10. PROVIDE DOUBLE FLOOR JOISTS UNDER PARALLEL PARTITIONS.
11. PROVIDE 2X3 CROSS-BRIDGING OR 2X SOLID BLOCKING AT A MINIMUM OF 8'-0" O.C. FOR FLOOR JOISTS (CONTACT METAL BRIDGING OR EQUAL MAY BE USED).
12. HOLES AND NOTCHES IN STRUCTURAL MEMBERS FOR PIPES AND CONDUIT SHALL COMPLY WITH THE BUILDING CODE & PROVIDED TYP. DETAILS.
13. ALL BOLT HOLES SHALL BE DRILLED A MIN. OF 1/32" TO A MAX. OF 1/16" LARGER IN DIAMETER THAN THE NOMINAL SIZE OF BOLT USED.
14. EACH SHEET OF PLYWOOD SHALL HAVE 2' MIN. SHEET DIMENSION UNLESS ALL EDGES OF THE UNDERSIZED SHEETS ARE SUPPORTED BY FRAMING MEMBERS OR BLOCKING.
15. THREADED PORTION OF LAG SCREWS SHALL BE TURNED NOT DRIVEN INTO THE PRE-DRILLED HOLE.
16. ALL NAILS SHALL BE COMMON WIRE NAILS U.N.O.
17. IF GUN NAILING IS USED, REDUCE THE SPECIFIED NAIL SPACING BY 20% UNLESS THE HEADS DO NOT PENETRATE INTO THE SHT'G..
18. ALL NAILS SHALL BE GALVANIZED WHERE EXPOSED TO WEATHER.
19. EXCEPT WHERE TOE NAIL IS REQUIRED, NAILS SHALL BE DRIVEN PERPENDICULAR. PRE-DRILL FOR ALL NAILS 20d OR LARGER.
20. TJI, PARALLAM, AND TIMBER STRANDS SHALL BE ICC APPROVED PER SPECIFICATIONS. ALSO SEE SPECIAL INSPECTION & SHOP DRAWING NOTES ON THIS SHEET.
21. USE SIMPSON OR OTHER EQUIVALENT ICC APPROVED HARDWARE FOR ALL CONNECTION PER PLAN NOTES AND SPECIFICATIONS.
22. ROOF TRUSSES SHALL BE DESIGNED & STAMPED BY MANUFACTURE'S ENGINEER. SHOP DRAWING SHALL BE PREPARED PER NOTES ON THIS SHEET.
23. FASTENERS AND ANCHOR BOLTS INSTALLED IN CHEMICALLY OR PRESSURE TREATED LUMBERS SHALL BE CORROSION RESISTANT USING HOT-DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL PER CBC SECTION 2304A.3
24. EDGE OF SHEATHING PLYWOOD PANELS SHALL BE BLOCKED OR T&G AS SPECIFIED ON PLANS.
25. PARTICLE PANELS (OSB) MAY BE USED IN LIEU OF PLYWOOD, IF IT IS PROVED TO BE EQUIVALENT TO CDX-STRUCT-I, AND MEETS UL-FIRE-RATED ASSEMBLY FOR THE FLOOR SYSTEM, AS SPECIFIED ON THE PROJECT REQUIREMENTS. PLYWOOD SHEATHING PANELS SHALL HAVE TONGUE & GROOVE EDGES FOR INTERLOCKING OR BE SUPPORTED BY 3X BLOCKING ALONG THE PANEL WITH SQUARE EDGES. PLACING DECK CLIPS FOR SUPPORT OF PANELS IS NOT ACCEPTABLE AS ALTERNATIVE SUPPORT METHODS ALONG FREE EDGES.

POST–INSTALLED ANCHOR BOLTS

ANCHOR BOLTS SHALL BE ONE OF THE FOLLOWING ACCEPTABLE PRODUCTS, OR AN EQUIVALENT. NO DRILLED-IN ANCHOR IS ALLOWED IN POST TENSIONED SLABS TO AVOID DAMAGING/CUTTING TENDONS & REINFORCEMENT, UNLESS THE LOCATION IS CLEARED BY NONDESTRUCTIVE TESTING OF UNDERGROUND PENETRATING RADAROR X-RAY. (PACHOMETER READING IS NOT ACCEPTABLE)

- EXPANSION-TYPE ANCHORS
  HILTI -TZ2 (ESR#4266) (FOR CONCRETE)
  HILTI -TZ2 (ESR#4561) (FOR MASONRY)
  (FOR INSTALLATION SEE TABLE A)
- EPOXY/ADHESIVE ANCHORS
  HILTI RESD500-V3 ADHESIVE SYSTEM, ESR#3814
  (FOR TEST FREQUENCY SEE NOTES BELOW AND FOR TESTING LOADS SEE TABLE B)
- SCREW TYPE ANCHORS
  SIMPSON TITEN HD (ESR#1056) (FOR MASONRY)

1. EQUIVALENT PRODUCTS, WITH VALID & CURRENT ICC REPORTS WHICH ALLOW APPLICATION FOR SEISMIC LOADING, ARE ACCEPTABLE.
2. FOR MIN. EMBEDMENT AND OTHER INFO., REFER TO DETAILS.
3. FOR REPRESSION AND INSTALLATION, REFER TO MANUFACTURES' RECOMMENDATIONS & NOTE/TABLES BELOW

POST–INSTALLED EXPANSIVE ANCHOR BOLTS

TABLE A

SETTING INFORMATION	SYM.	UNITS	NOMINAL ANCHOR DIAMETER (IN.)													
			1/4	3/8			1/2				5/8			3/4		
NOMINAL BIT DIAMETER	d_0	IN	1/4	3/8			1/2				5/8			3/4		
EFFECTIVE MIN. EMBEDMENT	h_{ef}	IN	1½	1½	2	2½	1½	2	2½	3¼	2¾	3¼	4	3¼	3¾	4¾
NOMINAL EMBEDMENT	h_{nom}	IN	1¾	1⅞	2½	3	2	2½	3	3¾	3¼	3¾	4½	4	4½	5½
MIN. HOLE DEPTH	h_o	IN	2	2	2¾	3¼	2¼	2¾	3¼	4¼	3¾	4¼	4¾	4¼	4¾	5¾
INSTALLATION TORQUE C.S.	T_{inst}	FT-LB	4	30			50				40			110		
INSTALLATION TORQUE S.S.	T_{inst}	FT-LB	6	30			40				60			125		
FIXTURE HOLE DIAMTER	d_h	IN	5/16	7/16			9/16				11/16			13/16		

ADHESIVE ANCHOR BOLTS AND DOWELS:

1. MANUFACTURER'S FIELD REPRESENTATIVE SHALL PROVIDE INSTALLATION TRAINING FOR ALL PRODUCTS TO BE USED PRIOR TO COMMENCEMENT OF WORK; INSTALLATION.
2. INSTALLATION OF ADHESIVE ANCHORS IN HORIZONTAL TO VERTICAL ORIENTATION SHALL BE DONE BY A CERTIFIED ADHESIVE INSTALLER (AAI) AS CERTIFIED THROUGH ACI AND IN ACCORDANCE WITH THE CURRENT EDITION OF ACI 318.
3. EMBEDMENT DEPTH FOR ANCHORS AND DOWELS IS AS FOLLOWS, UNLESS OTHERWISE NOTED THE TESTING LABORATORY WILL PERFORM TENSION TESTS ON 25% OF ANCHORS AND DOWELS TO THE SPECIFIED TEST LOADS:

TABLE B

ROD DIA. OR BAR SIZE	EMBEDMENT	TEST LOAD	BASE MATERIAL
3/8"	4"	3,000#	CONCRETE
1/2"	5"	4,500#	CONCRETE
5/8"	6"	6,500#	CONCRETE
3/4"	7"	9,000#	CONCRETE
7/8"	9"	11,000#	CONCRETE
1"	11"	15,000#	CONCRETE
1-1/4"	14"	20,000#	CONCRETE
#3	5"	3,500#	CONCRETE
#4	6-1/2"	5,500#	CONCRETE
#5	8"	8,500#	CONCRETE
#6	10"	12,000#	CONCRETE
#7	12"	16,500#	CONCRETE
#8	14"	12,500#	CONCRETE
#9	16"	23,000#	CONCRETE
#10	19"	26,000#	CONCRETE

4. ANCHORS SHALL CONFORM WITH ASTM A193 GRADE B7 THREADED RODS USING ASTM A 563 GRADE DH HEAVY HEX NUTS AND ASTM F436 WASHERS U.N.O..
5. REPLACE ANCHORS AND DOWELS THAT FAIL DURING TESTING AND RETEST. IF MORE THAN 10% OF THE TESTED DOWELS AND ANCHORS FAIL TO ACHIEVE THE SPECIFIED TEST LOAD, TEST 100% OF THE DOWELS AND ANCHORS INSTALLED IN THE LAST 2 DAYS OF ANCHOR INSTALLATION.
6. CENTER BAR IN THE HOLE AND WEDGE TIGHT WITH WOODEN WEDGES TO HOLD IT IN PLACE UNTIL THE ADHESIVE SETS.
7. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE. THE ENGINEER WILL DETERMINE A NEW LOCATION.
8. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLES ATTACHED WITH ADHESIVE ANCHORS.
9. BOLTS SET IN EXPOSED SURFACE SHALL BE STAINLESS STEEL OR CORROSION RESISTANT
10. **TEST REQUIRMENT:**
    - **A. FREQUENCY** 50% OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP, SHALL BE TESTED.
    - **B. TEST LOADS:** TEST LOADS SHALL BE TWICE THE MAXIMUM ALLOWABLE TENSION LOAD OR ONE AND A QUARTER (1¼) TIMES THE MAXIMUM DESIGN STRENGTH OF ANCHORS AS PROVIDED IN THE APPROVED ICC REPORT TENSION TEST LOAD NEED NOT EXCEED 80% OF THE NOMINAL YIELD STRENGTH OF THE ANCHOR ELEMENT.

STRUCTURAL INDEX OF DRAWINGS

SN1........GENERAL NOTES
S1......... FLOOR/ROOF PLANS - BLDG ADMIN & BLDG "A"
S2......... FLOOR/ROOF PLANS - BLDG "B" & "LAB/LIB"
S3......... FLOOR/ROOF PLANS - BLDG "C" & "K"
SD1........CONCRETE DETAILS
SD2........RTU DETAILS
SD2A......RTU DETAILS
SD3........HUNG UNITS DETAILS

DESIGN LOADS:

THE SEISMIC DESIGN CRITERIA:
LATITUDE: 33.767562° N
LONGITUDE: -118.026975° W

S_S = 1.442 S_{DS}= 1.154
S_1=0.515 S_{D1} = N/A

SITE CLASS "DEFAULT"
SEISMIC DESIGN CATEGORY "D"
I_e =1.25 RISK CATEGORY: III

COMPONENTS:

a_p= 1
R_p= 2.5
Ω_o= 2.0
I_p = 1.0

WIND CRITERIA:
BASIC WIND SPEED 101 MPH
EXPOSURE "C"
I_W = 1.00

STRUCTURAL ABBREVIATIONS

#	NUMBER OR POUNDS	FRMG.	FRAMING
CL	CENTER LINE	FLR.	FLOOR
BM.	BEAM	MTL.	METAL
BEAM	BEAM	PL.	PLATE
DET.	DETAIL	REINF.	REINFORCING
CLR.	CLEAR	PLCS.	PLACES
CONT.	CONTINUOUS	P.H.	PENTHOUSE
CONC.	CONCRETE	O.C.	ON CENTER
COL.	COLUMN	NO.	NUMBER
BTWN.	BETWEEN	PSF	POUNDS PGR SQ.FT.
BOTT.	BOTTOM	N.T.S.	NOT TO SCALE
B.O.F.	BOTTOM OF FOOTING	N.I.C.	NOT IN CONTRACT
ANCH.	ANCHOR	SIM.	SIMILAR
A.B.	ANCHOR BOLT	SIMP.	SIMPSON
DWG.	DRAWING	SEPN.	SEPARATION
DIM.	DIMENSION	SECT.	SECTION
-3"	SLAB DEPRESSION	S.W.S.	SHEAR WALL
EA.	EACH	SCHL.	SCHEDULE
FIN.	FINISH	S.	FOOTING STEP
EXP.	EXPANSION	MIN.	MINIMUM
EXIST.	EXISTING	STL.	STEEL
ELECTL.	ELECTRICAL	THK.	THICK
EL	ELEVATION	STIFF.	STIFFENER
E.W.	EACH WAY	T.O.W.	TOP OF WALL
E.F.	EACH FACE	T.O.S.	TOP OF STEEL
EXTR.	EXTERIOR	T.O.	TOP OF DRAWINGS
F.O.W.	FACE OF WALL	S.O.G.	SLAB ON GRADE
F.O.S.	FACE OF STUD	S.A.D.	SEE ARCHITECTURAL
F.O.C.	FACE OF CONCRETE	SYM.	SYMMETRICAL
FDN.	FOUNDATION	SUPPT.	SUPPORT
ELEV.	ELEVATOR OR ELEVATION	STD.	STANDARD
GA.	GAUGE	SQ.	SQUARE
JT.	JOINT	V.O.S.	VERIFY ON SITE
INTR.	INTERIOR	V.O.J.	VERIFY ON JOB
MFR.	MANUFACTURER	TYP.	TYPICAL
MECHL.	MECHANICAL	SPEC.	SPECIFICATION
MAX.	MAXIMUM	U.N.O.	UNLESS NOTED OTHERWISE
M.B.	MACHINE BOLT	DWL.	DOWEL
LT.	WT. LIGHTWEIGHT	W/	WITH
HORIZ.	HORIZONTAL	WT.	WEIGHT
H.S.B.	HIGH STRENGTH BOLT	WJ.	WALL JOINT
GR. BM.	GRADE BEAM	VERT.	VERTICAL
FRT.	FIRE RETARDANT		

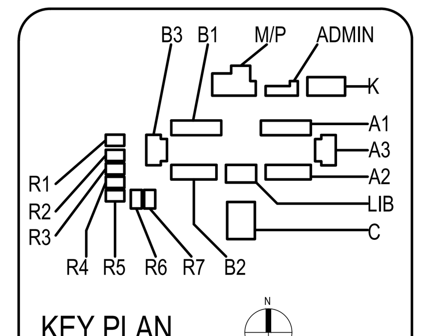
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683
DSA PROGRESS SET
DSA APPL NO.: 04-121952



KEY PLAN
NORTH: PLAN

Consultant
STRUCTURAL ENGINEERING CONSULTANTS
23 CORPORATE PLAZA DR. SUITE 150
NEWPORT BEACH, CA 92660
NIC PROJECT NO.1723.06
REGISTERED PROFESSIONAL ENGINEER TOURAJ EIMANI No. S4302 Exp. 09/30/23 STRUCTURAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
01-10-2023	220524

REVISIONS

No.	Description	Date

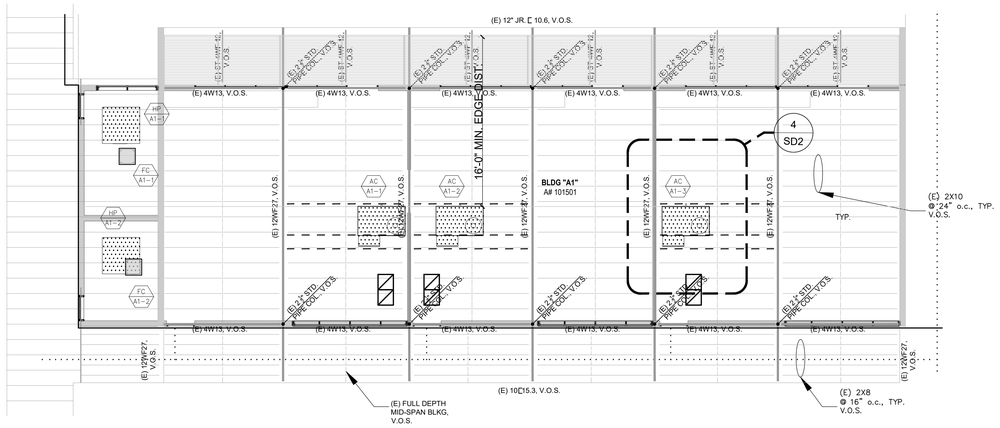
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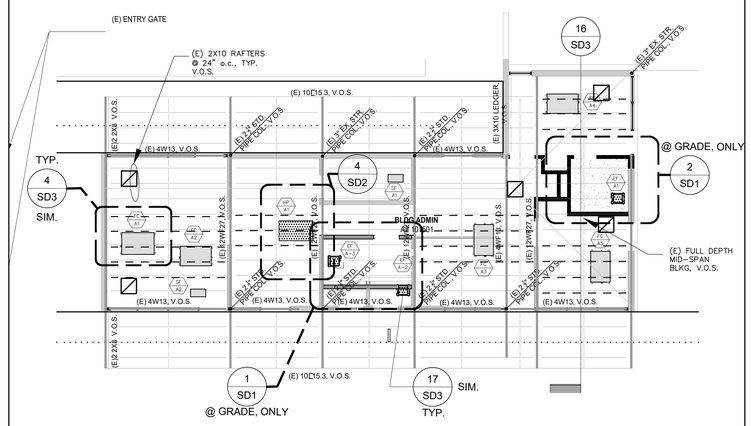
GENERAL NOTES

SN1

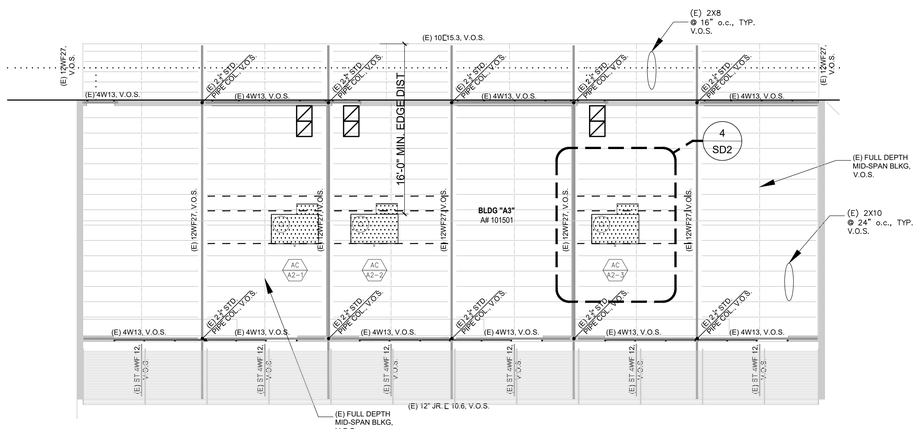
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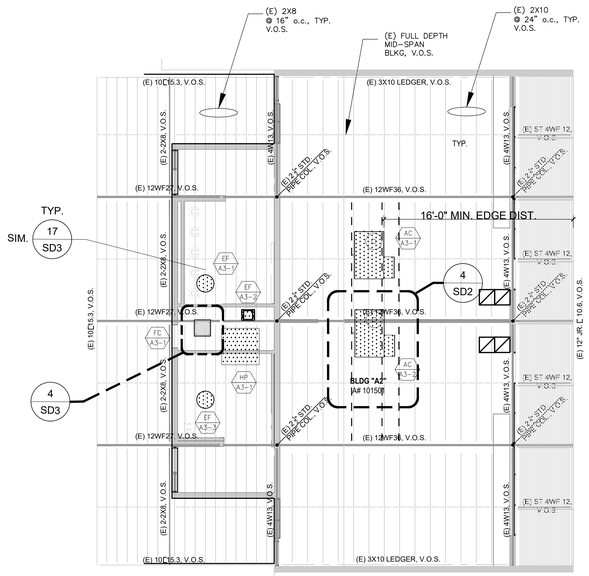
4 BLDG "A–1"
1/8" = 1'-0"



2 BLDG ADMIN
1/8" = 1'-0"



3 BLDG "A–2"
1/8" = 1'-0"



1 BLDG "A–3"
1/8" = 1'-0"

1. THE MAXIMUM OPERATIONAL WEIGHTS OF NEW UNITS ARE LISTED IN THE ANCHORAGE SCHEDULE IN DETAIL 15/SD2. EXACT SIZE AND WEIGHT OF UNITS MAY SLIGHTLY DIFFER FROM THE ONES SPECIFIED ON THESE DRAWINGS/SCHEDULE. SHOULD THE ACTUAL WEIGHT OF ANY UNITS EXCEED MORE THAN 10% OF THE LISTED WEIGHTS, IMMEDIATELY NOTIFY SE OR AND DSA DISTRICT ENGINEER FOR FURTHER INSTRUCTION.
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6. THE EXACT LOCATION AND SIZE OF MECH UNIT SHALL BE VERIFIED BY VENDOR/INSTALLER IN COORDINATION WITH THE LATEST MECH DRAWING/ CUT SHEETS.

A. PRIOR TO DEMOLITION WORK, SEE GENERAL NOTES ON SN1. FOR EXACT EXTENT OF DEMOLITION WORK REFER TO THE ARCH. DWG'S.

B. ALL EXISTING FRAMING MEMBERS THAT ARE BEING CUT/NOTCHED/TRIMMED SHALL BE PROPERLY SECURED BY SHORING.

C. SIZES SPACING LOCATIONS OF ALL EXISTING STRUCTURAL ELEMENTS SHALL BE FIELD VERIFIED & ANY DISCREPANCIES BE REPORTED TO SEoR.

D. IF EXISTING MEMBERS ARE SMALLER THAN WHAT IS SHOWN IN DRAWINGS AND CONSIDERED IN CALCULATIONS, PLEASE NOTICE SEOR FOR DETAIL OR FURTHER INFO

LEGEND

	(E) BEAM, V.O.S., PER PLAN SEE NOTE A-D
	(E) HEADER, V.O.S., PER PLAN, SEE NOTES A-D
	(E) ROOF FRAMING, PER PLAN, SEE NOTES A-D
	(E) COLUMN PER PLAN, V.O.S.
	(N) MATCHING SISTER JOIST, PER PLAN FOR EXACT LOCATION, SEE DETAIL 4/SD2
	(N) CONC. SLAB-ON-GRADE
EF HP	(N) ROOFTOP UNIT, PER PLAN, SEE 4/SD2 SEE NOTE 1-6
FC	(N) SUSPENDED UNIT, PER PLAN, SEE 4/SD3 SEE NOTE 1-6
AC	(N) HVAC UNIT, PER MECH. PLANS SEE NOTE 1-6
	DUCT THROUGH ROOF PENETRATION PER MECH.

EQUIPMENT SCHEDULE (*)

UNIT DESCRIPTION	OVERALL WEIGHT(LBS)	DIMENSIONS	DETAIL REF.
		HP A1	
HEAT PUMP (ON ROOF)	675	4.3"L x 2.6"W x 5.3"H	4/SD2
		HP A1-1 HP A1-2	
HEAT PUMP (ON ROOF)	75		20/SD2
		FC A1-1 FC A1-2 FC A2-1 FC A2-2 FC A3-1 FC A3-2	
FAN COIL	40...125		4/SD3
		EF A1-1 EF A1-2 EF A2-1 EF A2-2 EF A3-1 EF A3-2	
EXHAUST FAN	15...40		17/SD3
		HP A2 HP A3	
SUPPLY FAN	55...60		4/SD3
		AC A1-1 AC A1-2 AC A2-1 AC A2-2 AC A3-1 AC A3-2	
AIR CONDITION	737		4/SD2

(*) SUBJECT TO CHANGE REFER TO LATEST MECHANICAL PACKAGE. SEE NOTES 1-6

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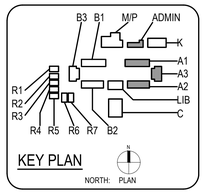
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SUITE 150
NEWPORT BEACH, CA 92660
NIC PROJECT NO.1723.06

REGISTERED PROFESSIONAL ENGINEER TIMOTHY EDWARD MCMAHON No. S4302 Exp. 09/30/23 STRUCTURAL

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
01-10-2023	220524

REVISIONS

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FLOOR PLANS - ADMIN & BLDG 'A'

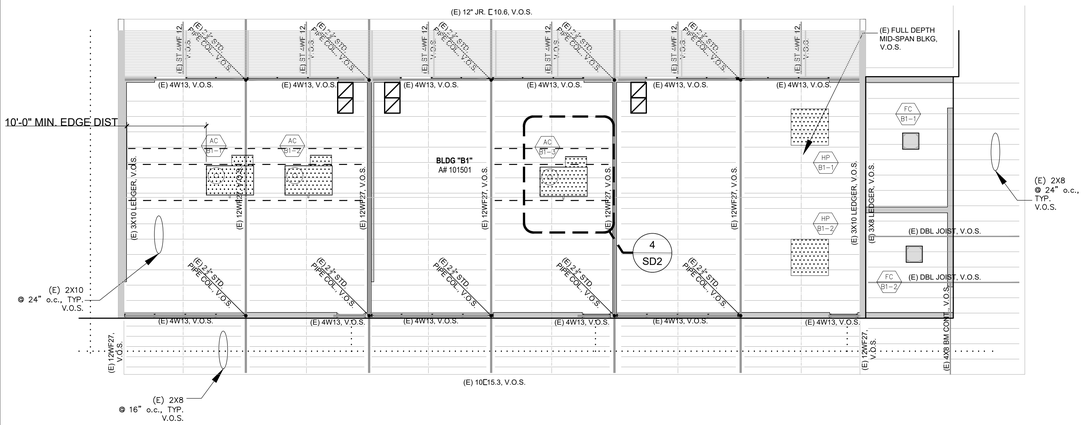
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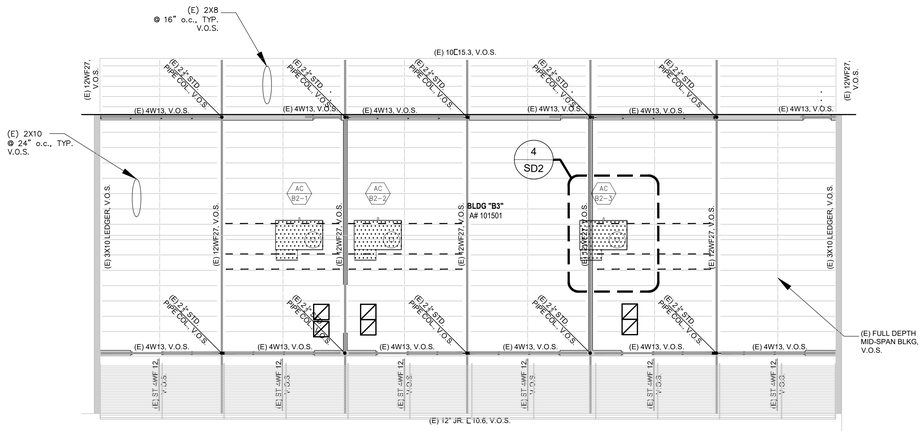
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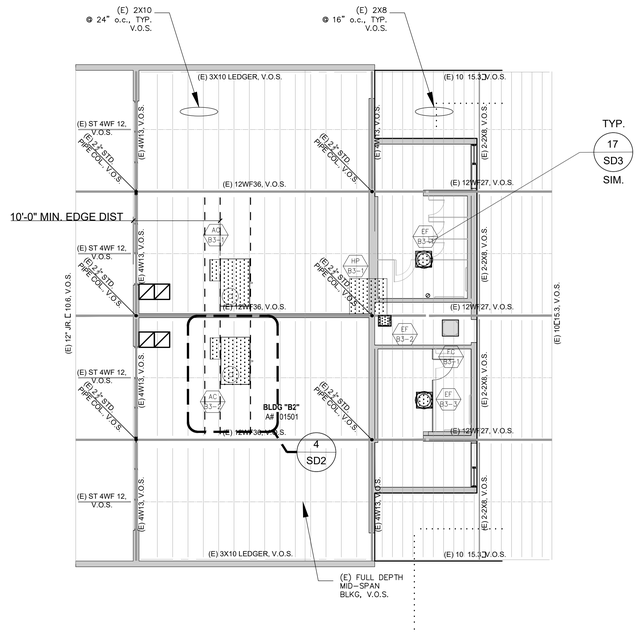
1 BLDG B 1
1/8" = 1'-0"



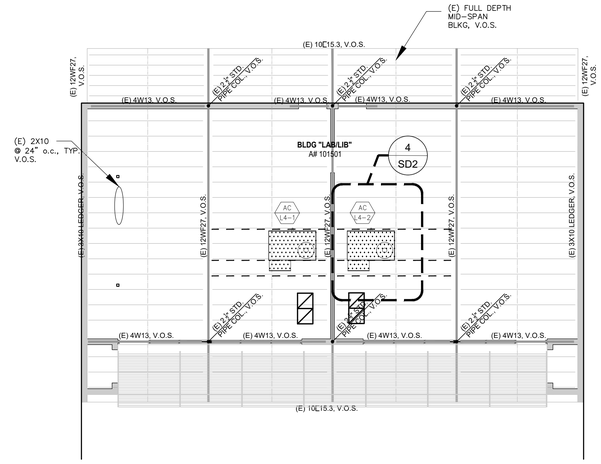
2 BLDG "B-2"
1/8" = 1'-0"



3 BLDG "B-3"
1/8" = 1'-0"



4 BLDG LAB/LIB
1/8" = 1'-0"



1. THE MAXIMUM OPERATIONAL WEIGHTS OF NEW UNITS ARE LISTED IN THE ANCHORAGE SCHEDULE IN DETAIL 15/SD2. EXACT SIZE AND WEIGHT OF UNITS MAY SLIGHTLY DIFFER FROM THE ONES SPECIFIED ON THESE DRAWINGS/SCHEDULE. SHOULD THE ACTUAL WEIGHT OF ANY UNITS EXCEED MORE THAN 10% OF THE LISTED WEIGHTS, IMMEDIATELY NOTIFY SE OR AND DSA DISTRICT ENGINEER FOR FURTHER INSTRUCTION.
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	(E) ROOF FRAMING, PER PLAN, SEE NOTES A-D
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	(N) MATCHING SISTER JOIST, PER PLAN FOR EXACT LOCATION, SEE DETAIL 4/SD2
EF HP	(N) ROOFTOP UNIT, PER PLAN, SEE 4/SD2 SEE NOTE 1-6
FC	(N) SUSPENDED UNIT, PER PLAN, SEE 4/SD3 SEE NOTE 1-6
	(N) HVAC UNIT, PER MECH. PLANS SEE NOTE 1-6
	DUCT THROUGH ROOF PENETRATION PER MECH.

EQUIPMENT SCHEDULE (*)

UNIT DESCRIPTION	OVERALL WEIGHT(LBS)	DIMENSIONS	DETAIL REF.
		HP B-1 HP B-2 HP B-3	
HEAT PUMP (ON ROOF)	75	2.8"L x 1.0"W x 1.8"H	20/SD2
		EF B-1 EF B-2 EF B-3	
EXHAUST FAN	40		17/SD3
		AC B-1 AC B-2 AC B-3 AC B-4 AC B-5 AC B-6 AC B-7 AC 4-1 AC 4-2	
AIR CONDITION	737		4/SD2
		FC B-1 FC B-2 FC B-3	
FAN COIL	40		4/SD3

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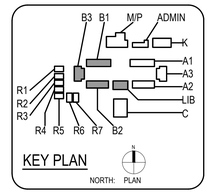
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KEY PLAN
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Consultant
STRUCTURAL ENGINEERING CONSULTANTS
23 CORPORATE PLAZA DR. SUITE 150
NEWPORT BEACH, CA 92660
NIC PROJECT NO.1723.06

REGISTERED PROFESSIONAL ENGINEER TIMOTHY EMMONS No. S4302 Exp. 09/30/23 STRUCTURAL CIVIL

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
01-10-2023	220524

REVISIONS

No.	Description	Date

DSA PROGRESS SET

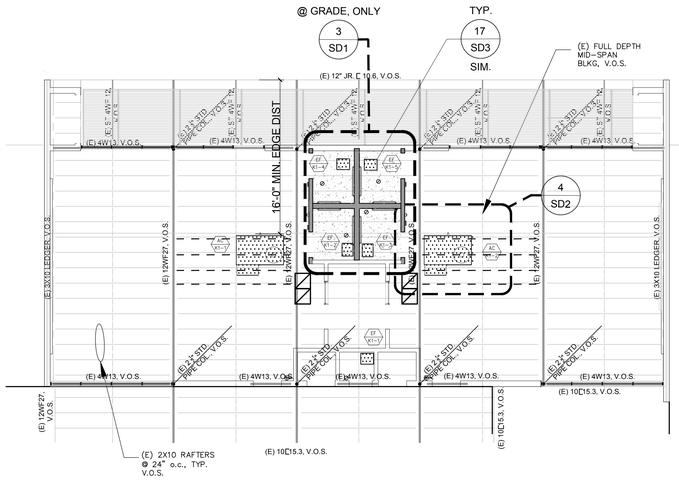
FLOOR PLANS - "LAB/LIB" & BLDG "B"

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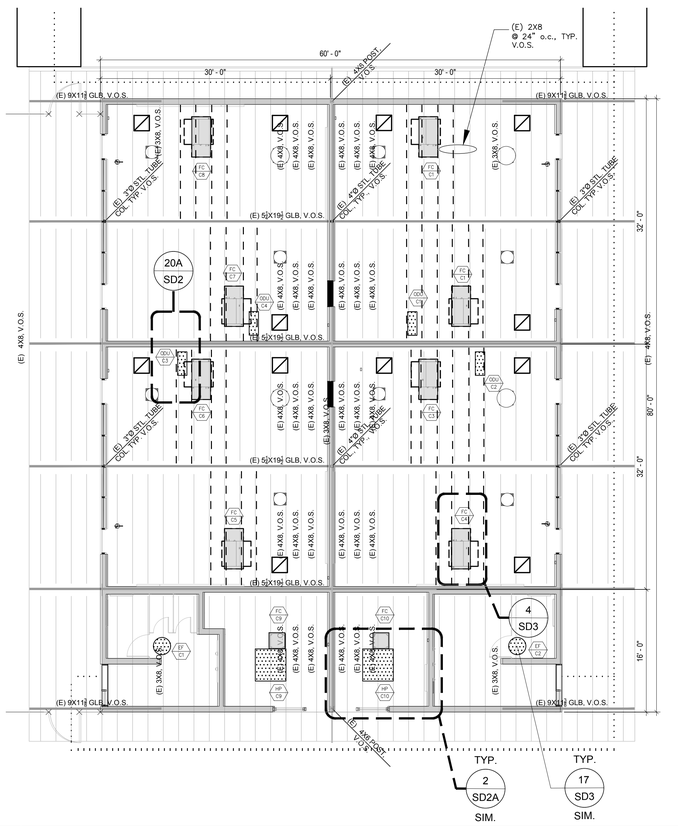
S2

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0" 1"



1 BLDG "K"
1/8" = 1'-0"



2 BLDG C
1/8" = 1'-0"

1. THE MAXIMUM OPERATIONAL WEIGHTS OF NEW UNITS ARE LISTED IN THE ANCHORAGE SCHEDULE IN DETAIL 15/SD2. EXACT SIZE AND WEIGHT OF UNITS MAY SLIGHTLY DIFFER FROM THE ONES SPECIFIED ON THESE DRAWINGS/SCHEDULE. SHOULD THE ACTUAL WEIGHT OF ANY UNITS EXCEED MORE THAN 10% OF THE LISTED WEIGHTS, IMMEDIATELY NOTIFY SE OR AND DSA DISTRICT ENGINEER FOR FURTHER INSTRUCTION.
2. THE OPERATABLE WEIGHT OF UNITS SHALL BE LESS OR EQUAL TO THE VALUES SHOWN, CONTRACTOR SHALL NOTIFY SEoR ABOUT HEAVIER UNITS.
(MORE THAN 5% OF LISTED VALUES)
3. UNIT DIMENSION SHOWN HERE REPRESENT THE BEST ESTIMATE BASED ON THE AVAILABLE DATA.
4. MINOR ADJUSTMENTS IN UNIT POSITION WITH RESPECT TO EXISTING ROOF FRAMING MAY BE NECESSARY TO MISS CONFLICT, ALIGN NEW BLOCKINGS TO MATCH THE EXACT UNIT LOCATION/DIMENSIONS.
5. FINAL CONFIGURATION OF EACH UNIT, WITH RESPECT TO THE EXISTING ROOF FRAMING, SHALL BE FIELD VERIFY TO AVOID CONFLICT. SEE ALTERNATIVE CONFIGURATIONS SHOWN ON TYPICAL DETAIL 4/SD2
6. THE EXACT LOCATION AND SIZE OF MECH UNIT SHALL BE VERIFIED BY VENDOR/INSTALLER IN COORDINATION WITH THE LATEST MECH DRAWING/ CUT SHEETS.

A. PRIOR TO DEMOLITION WORK, SEE GENERAL NOTES ON SN1. FOR EXACT EXTENT OF DEMOLITION WORK REFER TO THE ARCH. DWG'S.
B. ALL EXISTING FRAMING MEMBERS THAT ARE BEING CUT/NOTCHED/TRIMMED SHALL BE PROPERLY SECURED BY SHORING.
C. SIZES SPACING LOCATIONS OF ALL EXISTING STRUCTURAL ELEMENTS SHALL BE FIELD VERIFIED & ANY DISCREPANCIES BE REPORTED TO SEoR.
D. IF EXISTING MEMBERS ARE SMALLER THAN WHAT IS SHOWN IN DRAWINGS AND CONSIDERED IN CALCULATIONS, PLEASE NOTICE SEOR FOR DETAIL OR FURTHER INFO

LEGEND

	(E) BEAM, V.O.S., PER PLAN SEE NOTE A-D
	(E) HEADER, V.O.S., PER PLAN, SEE NOTES A-D
	(E) ROOF FRAMING, PER PLAN, SEE NOTES A-D
	(E) COLUMN PER PLAN, V.O.S.
	(N) MATCHING SISTER JOIST, PER PLAN FOR EXACT LOCATION, SEE DETAIL 4/SD2
	(N) CONC. SLAB-ON-GRADE
EF HP	(N) ROOFTOP UNIT, PER PLAN, SEE 4/SD2 SEE NOTE 1-6
FC	(N) SUSPENDED UNIT, PER PLAN, SEE 4/SD3 SEE NOTE 1-6
	(N) HVAC UNIT, PER MECH. PLANS SEE NOTE 1-6
	DUCT THROUGH ROOF PENETRATION PER MECH.

EQUIPMENT SCHEDULE (*)

UNIT DESCRIPTION	OVERALL WEIGHT(LBS)	DIMENSIONS	DETAIL REF.
	EF EF-1 EF EF-2 EF EF-3 EF EF-4 EF EF-5 EF EF-6		
EXHAUST FAN	15...40		17/SD3
	AC AC-1 EF EF-7		
AIR CONDITION	737		4/SD2
	FC FC-A FC FC-B FC FC-C FC FC-D FC FC-E FC FC-F FC FC-G		
FAN COIL	40		4/SD3
	CDU CDU-01 CDU CDU-02 CDU CDU-03 CDU CDU-04		
OUTDOOR COND. UNIT	420		4/SD2
	HP HP-01 HP HP-02		
HEAT PUMP	75		20/SD2

(*) SUBJECT TO CHANGE REFER TO LATEST MECHANICAL PACKAGE. SEE NOTES 1-6

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

Not for permitting or construction

PBK

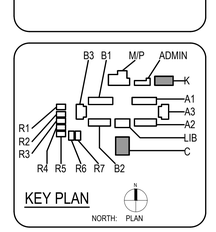
ARCHITECT PBK Architects, Inc.
RANCHO CUCAMONGA PBK.com
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga
California 91730
P 909-987-0909

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA PROGRESS SET

DSA APPL NO.: 04-121952



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Architect

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PROJECT NUMBER 220524

REVISIONS

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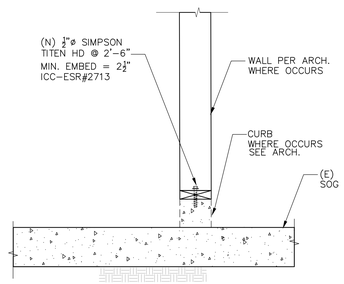
FLOOR PLANS - BLDG 'C' & 'K'

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S3

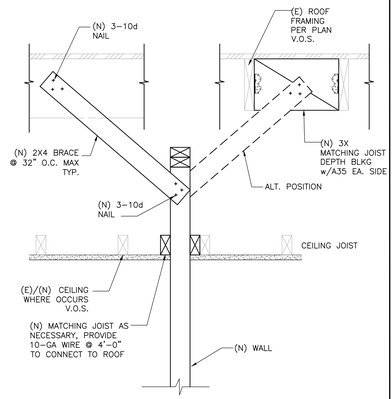
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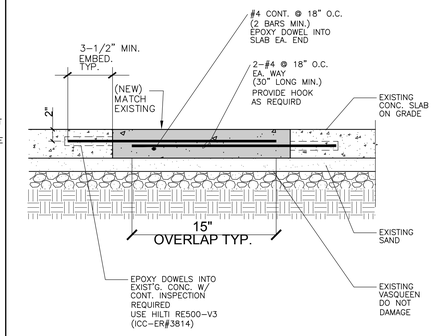


(FOR REFERENCE ONLY)

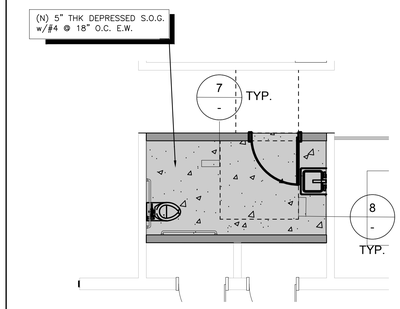
17 TYP. BOT. CONN. @ PARTN. 13



TYP. TOP CONN. @ (N) PARTN. 9

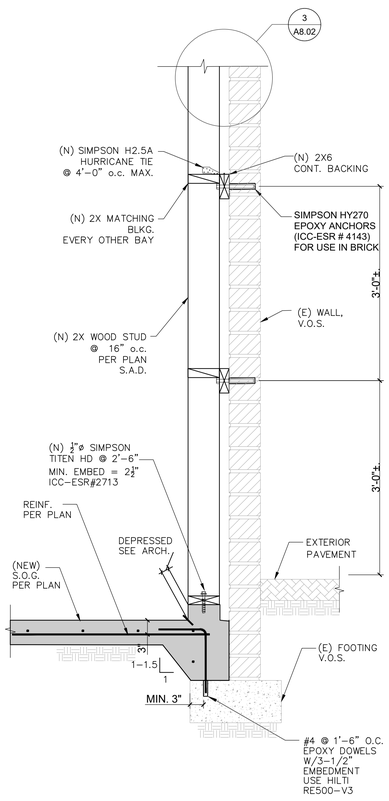


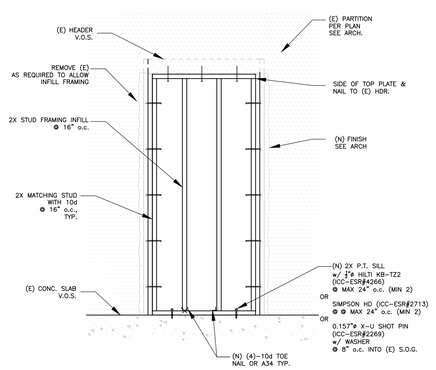
TYPICAL REPAIR AT SLAB ON GRADE 5



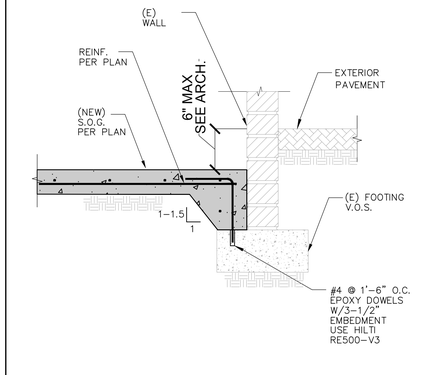
STAFF RR @ ADMIN BLDG. 1

18

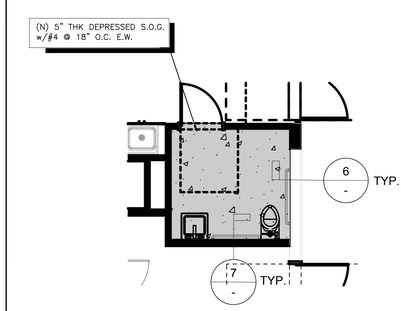




TYP. INFILL @ DOOR OPNG. 10



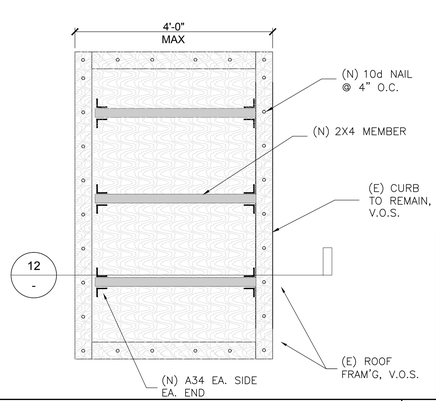
NEW DEPRESSED SLAB @ EXT. WALL 6



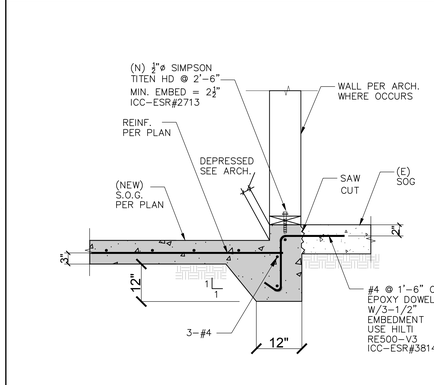
ACC. UNISEX TOILET @ ADMIN BLDG. 2

19

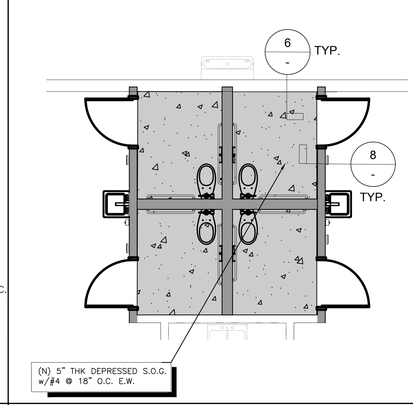
TYP. FURRING WALL SUPPORT 15



NEW INFILL 11



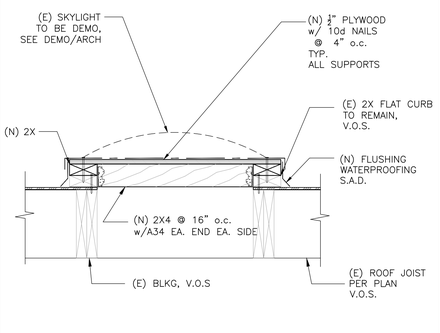
NEW DEPRESSED SLAB @ INT. WALL 7



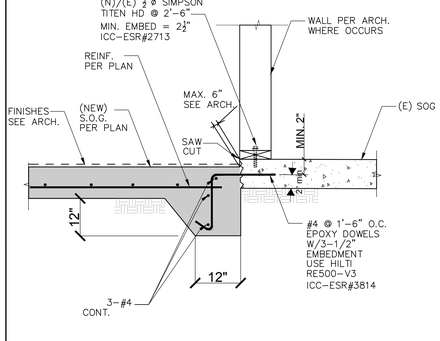
STUDENT RR @ BLDG. "K" 3

20

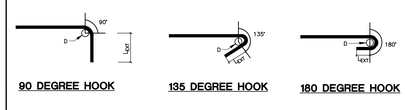
16



SECTION 12



NEW DEPRESSED SLAB @ INT. WALL 8



	TYPE OF HOOK	BAR SIZE	MIN D (IN)	L_{EXT} (IN)
STIRRUP	90-DEGREE HOOK	#3-5	$4d_b$	GREATER OF $6d_b$ AND 3"
		#6-8	$6d_b$	$12d_b$
	135-DEGREE HOOK	#3-5	$4d_b$	GREATER OF $6d_b$ AND 3"
		#6-8	$6d_b$	
	180-DEGREE HOOK	#3-5	$4d_b$	GREATER OF $4d_b$ AND 2.5"
		#6-8	$6d_b$	
BENT BAR	90-DEGREE HOOK	#3-8	$6d_b$	$12d_b$
		#9-11	$8d_b$	
	180-DEGREE HOOK	#3-8	$6d_b$	GREATER OF $4d_b$ AND 2.5"
		#9-11	$8d_b$	

D = INSIDE BENT DIAMTER

BAR BENDING & STIRRUPS 4

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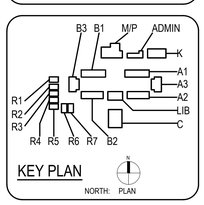
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REGISTERED PROFESSIONAL ENGINEER
ERIC J. EIMAN
No. S4302
Exp. 09/30/23
STRUCTURAL
CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
01-10-2023	220524

REVISIONS

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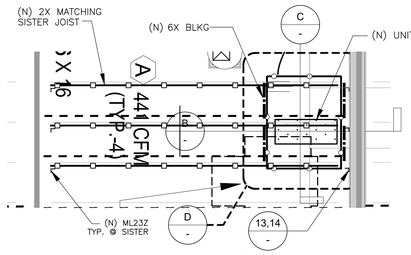
DSA PROGRESS SET

CONCRETE DETAILS

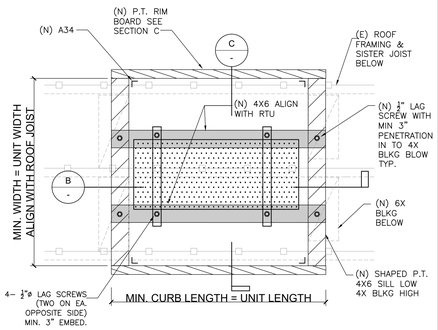
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SD1

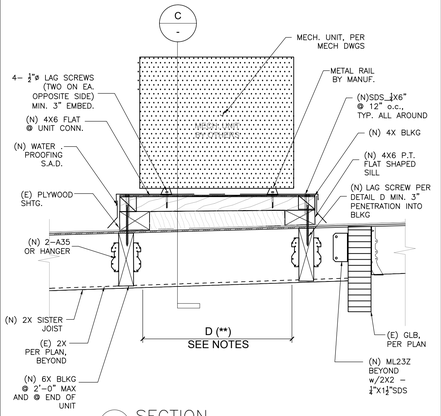
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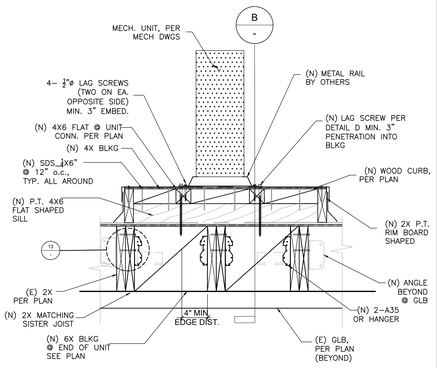
A ENLARGED PARTIAL PLAN



D ENLARGED PLAN CURB LAYOUT

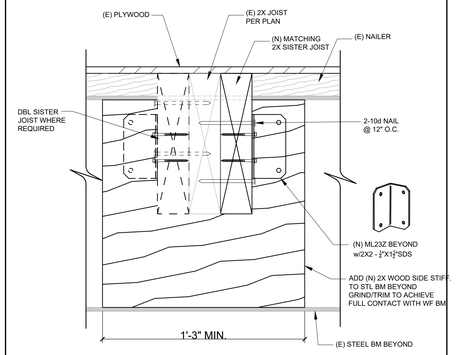


B SECTION

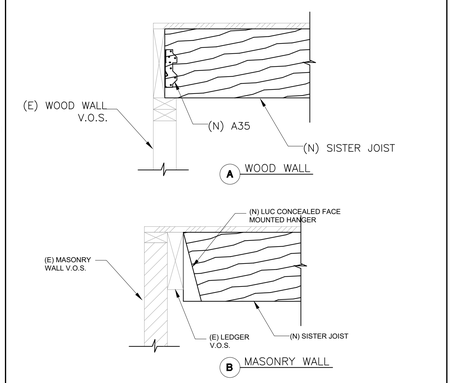


C SUPPORT DETAIL FOR **DEFAULT** CONFIGURATION

LIGHT WT. UNITS (<100lb) SUPPORT | 20



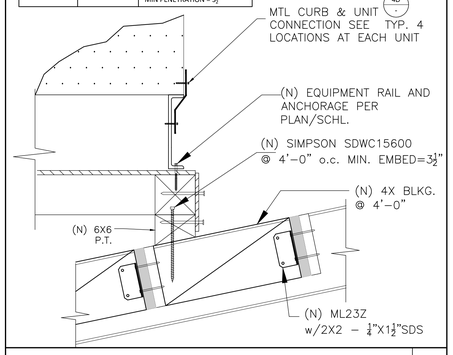
REINFORCED SUBPURLINE @ ROOF | 13



SISTER JOIST TO WALL CONN. | 14

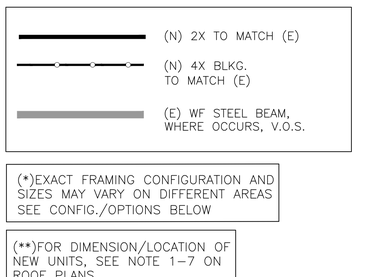
RTU ANCHORAGE SCHEDULE

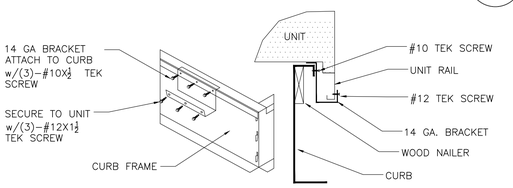
UNIT SYMBOL	MAX. WEIGHT	FASTENER
EQ EQ	737 LB	(3)-3/8ø LAG SCREW LONG SIDE (2)-3/8ø LAG SCREW SHORT SIDE MIN PENETRATION = 3½"



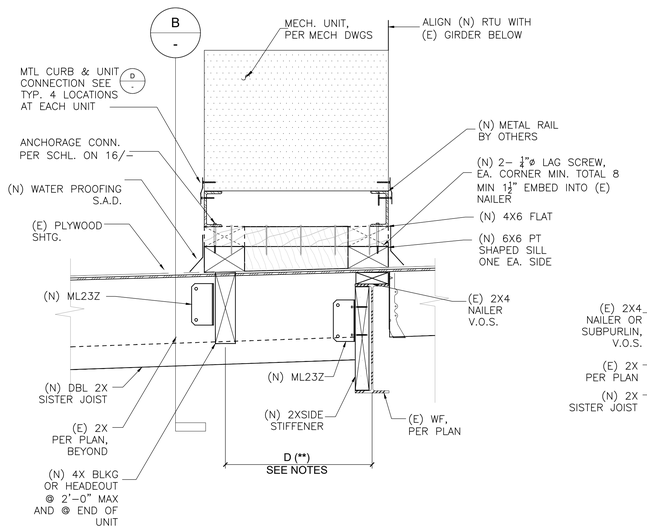
DETAIL | 15

16

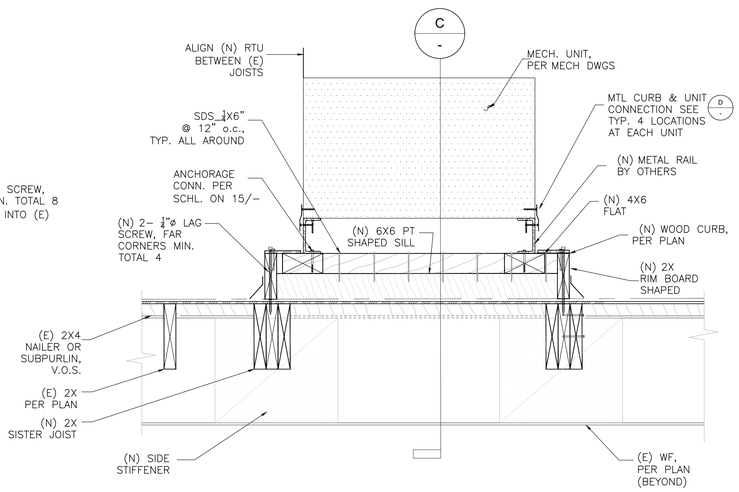




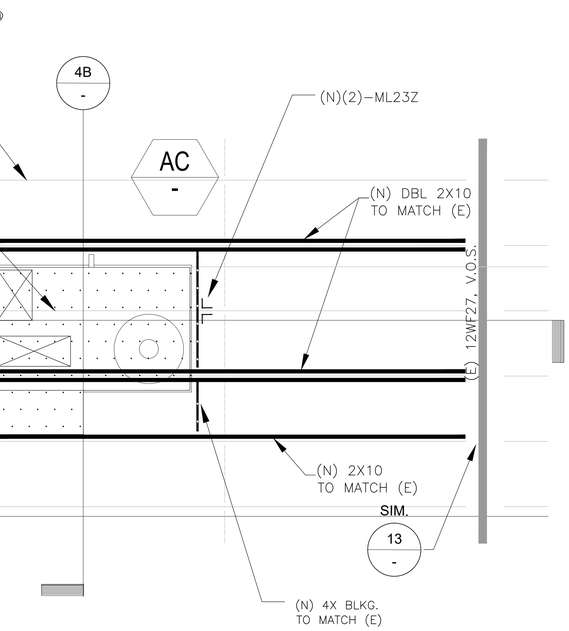
D RTU TO CURB CONN. (TYP. TWO ON EA. SIDE)



C SECTION



B SUPPORT DETAIL FOR **DEFAULT** CONFIGURATION



A ENLARGED PARTIAL VIEW

NEW MECH. UNIT @ CLASSROOM | 4

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PBK

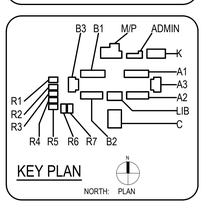
ARCHITECT
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RANCHO CUCAMONGA
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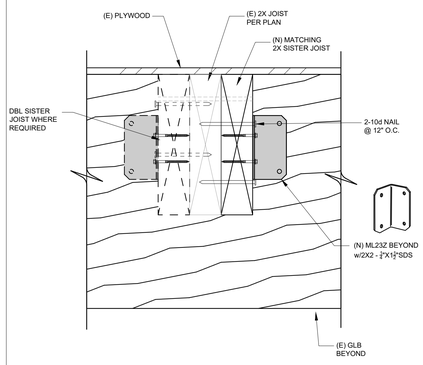
DSA PROGRESS SET

RTU DETAILS

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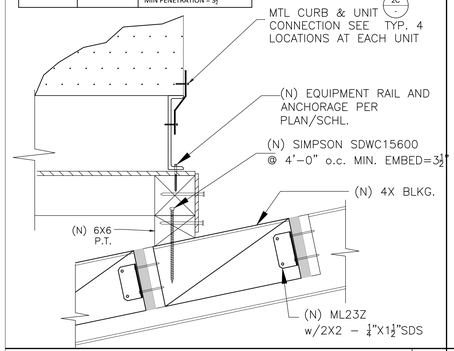
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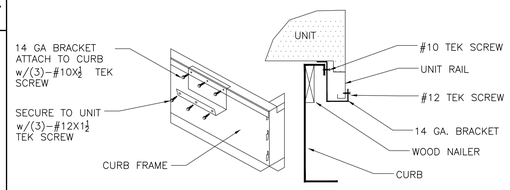


REINFORCED SUBPURLINE @ ROOF | 17

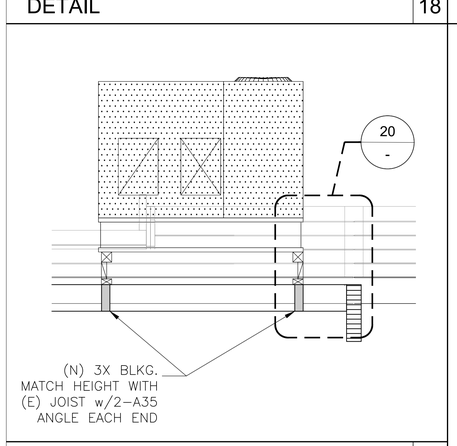
RTU ANCHORAGE SCHEDULE		
UNIT SYMBOL	MAX. WEIGHT	FASTENER
RTU	737 LB	(3)-3/8Ø LAG SCREW LONG SIDE (2)-3/8Ø LAG SCREW SHORT SIDE MIN PENETRATION = 3"



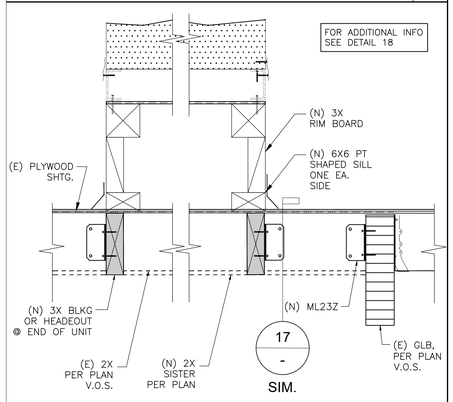
DETAIL | 18



C RTU TO CURB CONN. (TYP. TWO ON EA. SIDE)



ELEVATION VIEW | 19

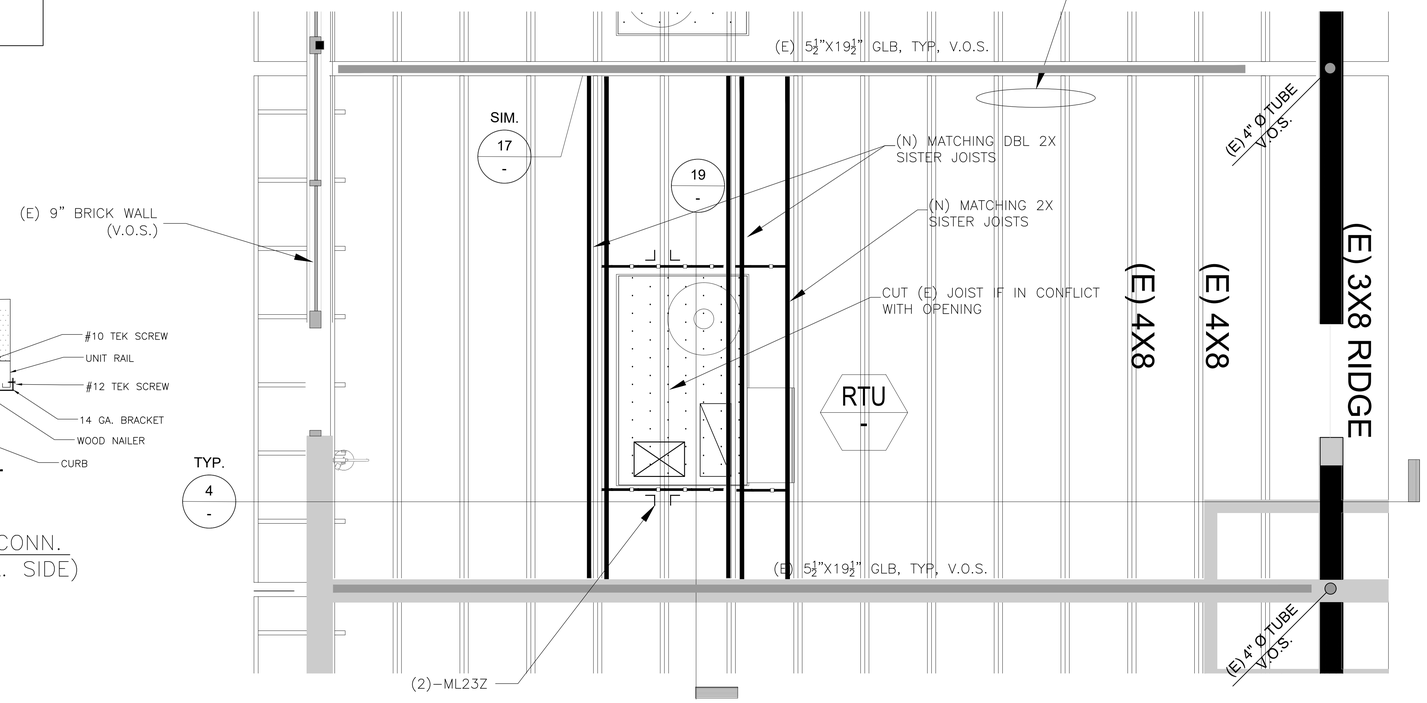


DETAIL | 20

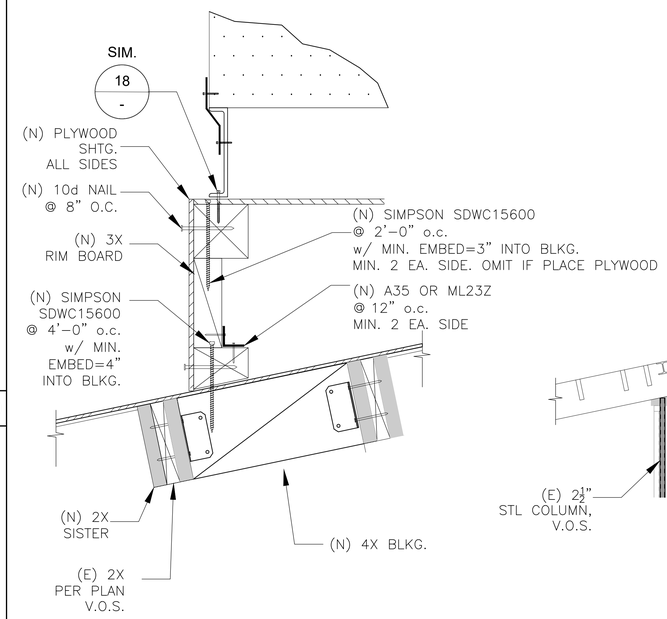
(*)EXACT FRAMING CONFIGURATION AND SIZES MAY VARY ON DIFFERENT AREAS SEE CONFIG./OPTIONS BELOW

(**)FOR DIMENSION/LOCATION OF NEW UNITS, SEE NOTE 1-7 ON ROOF PLANS

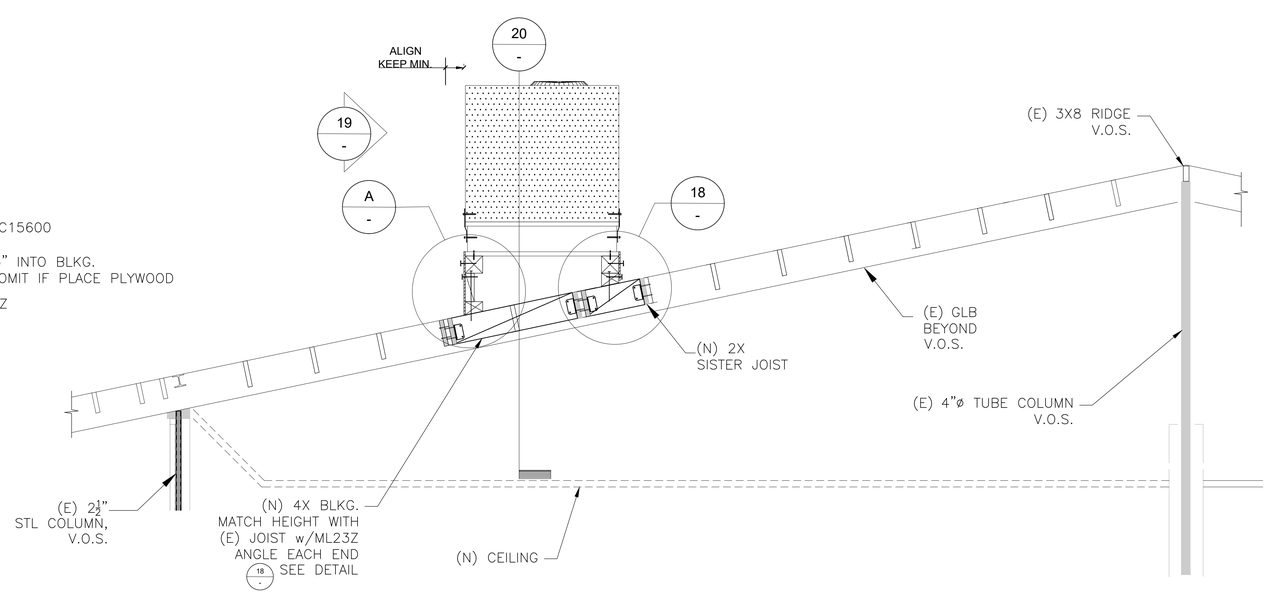
(N) 2X8 SISTER JOISTS
(N) 4X BLKG. TO MATCH (E)
(E) GLB, WHERE OCCURS, V.O.S.



NEW MECH. UNIT @ BLDG C | 2



A CONN. DETAIL



NEW MECH. UNIT @ BLDG C | 4

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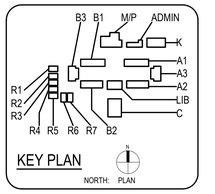
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA PROGRESS SET

DSA APPL NO.: 04-121952



Consultant
STRUCTURAL ENGINEERING CONSULTANTS
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NIC PROJECT NO.1723.06

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
01-10-2023	220524

REVISIONS

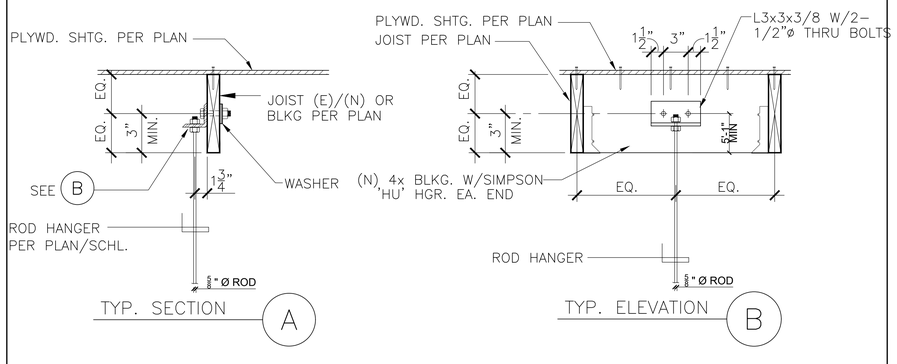
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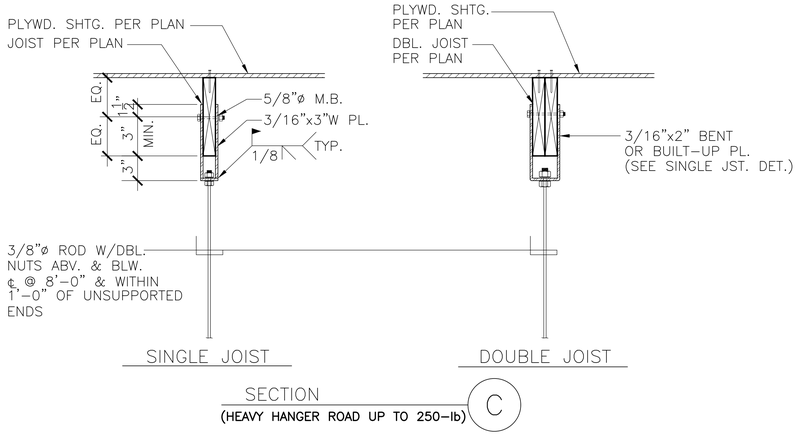
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RTU DETAILS

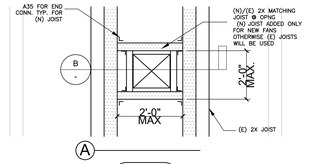
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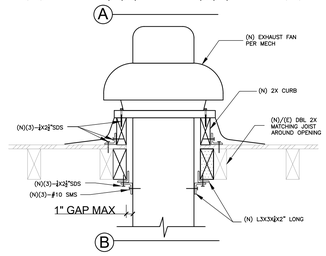
SD2A



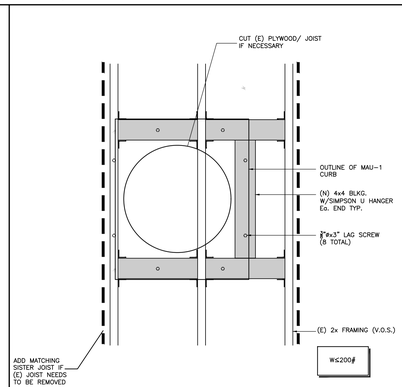


HANGER FOR SAWN LUMBER (UP TO 250 LB) | 14

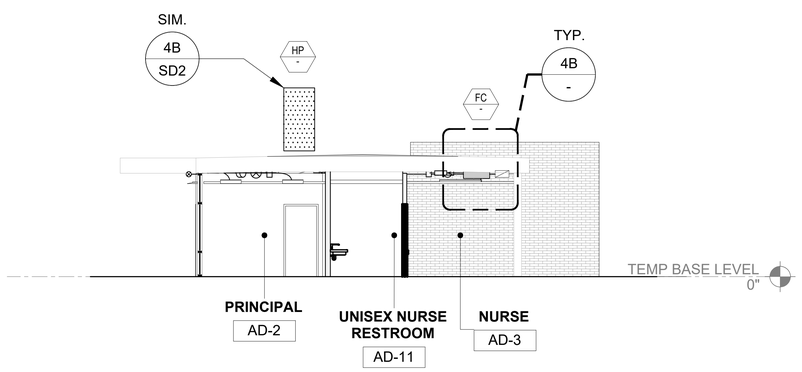




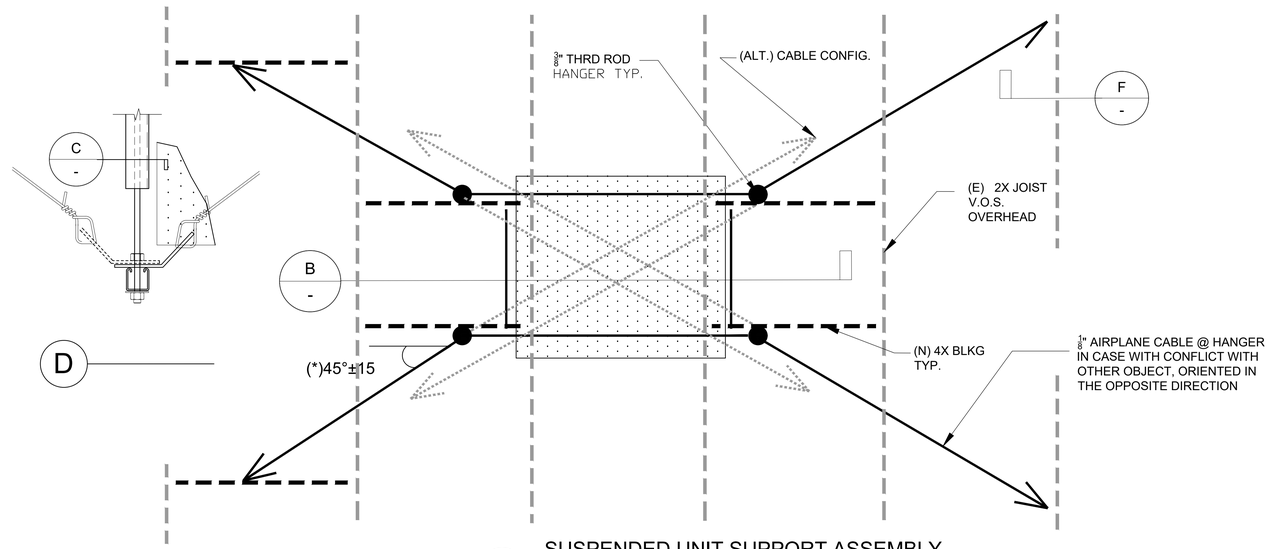
DETAIL | 17

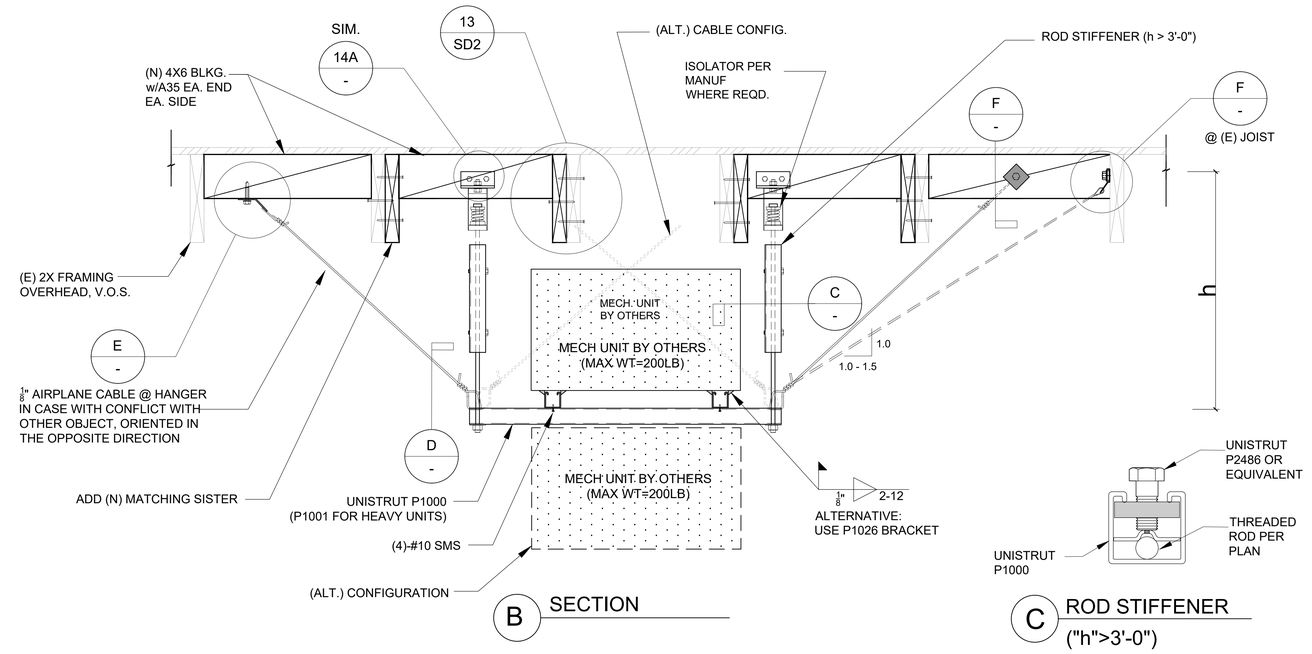


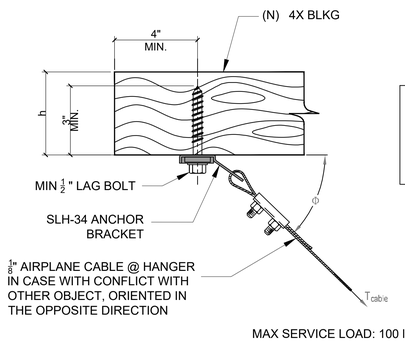
LIGHT WT EQUIP. SUPPORT FRAMING | 15



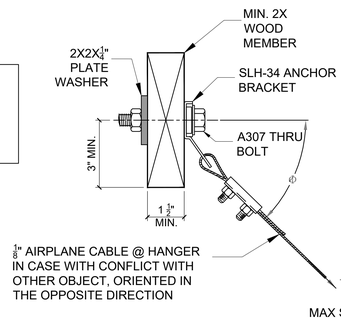
SECTION @ BLDG. ADMIN | 16







PROVIDE ADDITIONAL SUPPORT POINT & LATERAL BRACES FOR HEAVY UNITS (>500-LB) COORDINATE WITH MEP



HANGER SUPPORT/ SEISMIC BRACING @ HUNG UNITS (MAX 200-lbs) | 4

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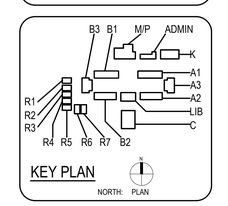
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No.	Description	Date

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HUNG UNITS DETAILS

SD3

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M0.00 - MECHANICAL SYMBOLS, LEGENDS & GENERAL NOTES

0" 1"

TITLE 24 NOTES

THE FOLLOWING SHALL BE REQUIRED WHETHER OR NOT SPECIFICALLY SHOWN OR MENTIONED IN DRAWINGS AND/OR SPECIFICATIONS:

1. EQUIPMENT SHALL MEET EFFICIENTY REQUIREMENTS OF TABLES 110.2-A THROUGH 110.2-K.
2. ALL AIR-COOLED, UNITARY, DX UNITS (PACKAGED, SPLIT-SYSTEM, HEAT PUMPS AND VRF) WITH ECONOMIZERS SHALL BE EQUIPPED WITH FAULT DETECTION AND DIAGNOSTICS SYSTEMS.
3. PIPE INSULATION FOR SPACE CONDITIONING AND SERVICE WATER-HEATING WITH FLUID TEMPERATURES LISTED IN TABLE 120.3-A SHALL HAVE INSULATION LEVELS AS SPECIFIED IN SUBSECTION (A) AND (B).
4. MECHANICAL HEATING AND COOLING EQUIPMENT SHALL BE THE SMALLEST SIZE, WITHIN THE AVAILABLE OPTIONS OF THE DESIRED EQUIPMENT LINE, NECESSARY TO MEET THE DESIGN HEATING AND COOLING LOADS OF THE BUILDING, AS CALCULATED ACCORDING TO THE REQUIREMENTS OF SECTION 140.4(B).
5. HVAC MOTORS FOR FANS THAT ARE LESS THAN 1 HP AND 1/12 HP OR GREATER SHALL BE ECM OR HAVE A MINIMUM MOTOR EFFICIENCY OF 70%. MOTORS SHALL ALSO HAVE MEANS TO ADJUST MOTOR SPEED FOR BALANCING OR REMOTE CONTROL.
6. ELECTRIC RESISTANCE HEATING SYSTEMS ARE NOT PROVIDED FOR SPACE HEATING.
7. IN DRIER CLIMATES AND WHEN LARGE OUTDOOR AIR FRACTIONS ARE REQUIRED, EVAPORATIVE PRE-COOLING PACKAGES WERE EVALUATED TO PRE-COOL OUTSIDE AIR AND COOL THE AIR FLOWING OVER THE DX CONDENSING UNIT.
8. ZONE EACH AIR HANDLER TO SERVE ONLY AREAS WITH COMMON LOADS TO ALLOW MORE AGGRESSIVE CONTROL STRATEGIES AND IMPROVE COMFORT. HAVE DIFFERENT AHU'S SERVING CORE VS. PERIMETER AREAS.
9. THE DESIGN ACCOMMODATES PARTIAL OCCUPANCY ENERGY SAVINGS WHEN THE OWNER'S REQUIREMENTS OR NARRATIVE DESCRIBE ANY POSSIBLITY OF PARTIAL OCCUPANCY, BY ZONING AIR HANDLERS BY FLOOR OR BY PART OF A FLOOR, OR BY INCORPORATING CONTROLLED FLOOR DAMPERS, OR VAV AIR TERMINALS GOING TOTALLY SHUT WHEN NOT OCCUPIED, ETC.
10. EACH ZONE IS CONTROLLED BY AN INDIVIDUAL THERMOSTATIC CONTROL. CONTROLS SHALL BE CAPABLE OF SETTING TEMPERATURES TO 55 DEG F FOR HEATING AND 85 DEG F FOR COOLING AND PROVIDE A TEMPERATURE DEADBAND OF AT LEAST 5 DEG F IF CONTROLLING BOTH HEATING AND COOLING.
11. EACH SPACE CONDITIONING SYSTEM SHALL BE EQUIPPED WITH CONTROLS TO SHUT THE SYSTEM OFF DURING PERIODS OF NONUSE AND WILL TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN SETBACK AND SETUP TEMPERATURES WHILE KEEPING VENTILATION DAMPERS CLOSED.
12. SYSTEMS SERVING MULTIPURPOSE ROOMS LESS THAN 100 SF AND CLASSROOMS, CONFERENCE, AUDITORIUM OR MEETING CENTER ROOMS GREATER THAN 750 SF SHALL HAVE OCCUPANCY SENSORS THAT INTERFACE WITH HVAC CONTROLS TO AUTOMATICALLY SETUP THE COOLING SETPOINT BY 2F OR MORE AND AUTOMATICALLY RESET THE MINIMUM REQUIRED VENTILATION RATE. THESE OCCUPANT SENSOR VENTILATION CONTROL DEVICES MUST MEET THE REQUIREMENTS OF SECTION 120.1(C)5.
13. OUTDOOR AIR SUPPLY AND EXHAUST EQUIPMENT SHALL BE INSTALLED WITH DAMPERS THAT AUTOMATICALLY CLOSE UPON EF FAN SHUTDOWN.
14. HVAC SYSTEMS WITH DDC TO THE ZONE LEVEL SHALL BE PROGRAMMED TO ALLOW CENTRALIZED DEMAND SHED FOR NON-CRITICAL ZONES.
15. ZONE CONTROLS PREVENT REHEATING, RECOOLING AND SIMULTANEOUS PROVISIONS OF HEATING AND COOLING TO THE SAME ZONE.
16. EACH WALL MOUNTED THRMOSTAT SHALL BE LOCATED AWAY FROM POTENTIAL SOURCES THAT WOULD ADVERSELY AFFECT THE READING (CLOSE TO COPIERS, DIRECT SUNLIGHT, BELOW OR ABOVE A SUPPLY AIR DIFFUSER OR CONVECTOR, ETC.). ANY THERMOSTATS MOUNTED ON EXTERIOR WALLS SHALL BE INSTALLED IN SEALED AND INSULATED JUNCTION BOXES.
17. CORNER OFFICE SHALL ALWAYS HAVE THEIR OWN THERMOSTATS, AIR TERMINAL BOXES OR FIN-TUBE RADIATORS.
18. CONTROL SEQUENCES SHALL BE LISTED FOR EQUIPMENT OPERATED BY STAND-ALONE PACKAGED CONTROLS. UNOCCUPIED SEQUENCES SHALL BE INCLUDED.
19. CONTROL SEQUENCES SHALL BE PROVIDED FOR EACH PIECE OF EQUIPMENT LISTED IN THE EQUIPMENT SCHEDULE THAT IS MONITORED OR CONTROLLED BY THE BUILDING AUTOMATION SYSTEM (BAS). UNOCCUPIED SEQUENCES SHALL BE INCLUDED.
20. OUTSIDE AIR TEMPERATURE SENSORS SHALL BE IN A COMMERCIALLY DESIGNED SOLAR SHIELD LOCATED ON A NORTH WALL OR SOME OTHER LOCATION OUT OF DIRECT SUNLIGHT AND AWAY FROM BUILDING EXHAUST OR HEAT REJECTION EQUIPMENT.
21. THE OUTDOOR AIR-VENTILATION RATE AND AIR-DISTRIBUTION ASSUMPTIONS MADE IN THE DESIGN OF THE VENTILATING SYSTEM ARE CLEARLY IDENTIFIED ON THE PLANS.
22. EACH SPACE IS DESIGNED TO HAVE NATURAL VENTILATION OR MECHANICAL VENTILATION THAT IS NO LESS THAN THE LARGER OF CONDITIONED FLOOR AREA TIMES THE REQUIREMENTS IN TABLE 120.1-A OR 15 CFM TIMES THE EXPECTED NUMBER OF OCCUPANTS.
23. THE MINIMUM AND MAXIMUM OUTDOOR AIR RATES FOR EACH AIR HANDLER ARE LISTED ON THE EQUIPMENT SCHEDULES.
24. THE OUTDOOR AIR-VENTILATION RATES ARE BASED ON PLANNED OWNER OCCUPANCY AS DEFINED IN OWNER'S DESIGN INTENT AND ARE NOT BASED ON MAXIMUM EGRESS OCCUPANCY RATES.
25. HVAC SYSTEMS THAT HAVE AN ECONOMIZER, SERVE A SPACE WITH A DESIGN OCCUPANT DENSITY GREATER THAN OR EQUAL TO 25 PEOPLE PER 1000 SF, AND ARE EITHER A SINGLE ZONE SYSTEM WITH ANY CONTROLS OR MULTIPLE ZONE SYSTEM WITH DDC CONTROLS TO THE ZONE LEVEL MUST HAVE DEMAND CONTROL VENTILATION CONTROLS. THE FOLLOWING MUST BE MET:
   A. CO2 SENSORS INSTALLED IN EACH ROOM SERVED BY SYSTEMS WITH DCV CONTROLS.
   B. CO2 SENSORS ARE LOCATED BETWEEN 3 FT AND 6 FT ABOVE THE FLOOR.
   C. CO2 CONCENTRATIONS MAINTAINED AT LESS THAN OR EQUAL TO 600 PPM PLUS OUTDOOR PPM.
   D. DURING HOURS OF EXPECTED OCCUPANCY, CONTROLS MAINTAIN THE SYSTEM VENTILATION RATE.
26. EACH COOLING FAN SYSTEM THAT HAS A DESIGN MECHANICAL COOLING CAPACITY OVER 54,000 BTU/H SHALL HAVE AN AIR ECONOMIZER OR A WATER ECONOMIZER. AIR ECONOMIZERS MUST COMPLY WITH THE HIGH LIMIT SHUTOFF CONTROLS SHOWN IN TABLE 140.4-B.
27. INTEGRATED ECONOMIZER CONTROLS SHALL BE SET UP SUCH THAT PARTIAL COOLING IS PROVIDED BY THE ECONOMIZER EVEN WHEN ADDITIONAL MECHANICAL COOLING ID REQUIRED.
28. ECONOMIZER DAMPERS SHALL BE DRIVEN BY DIRECT DRIVE ACTUATORS RATHER THAN ROD LINKAGES, WHICH CAN BE A MAJOR CAUSE OF ECONOMIZER MALFUNCTION.
29. BAROMETRIC RELIEF IS USED, IF POSSIBLE. IF NOT, RELIEF FANS (RATHER THAN RETURN FANS) SHALL BE USED IN MOST CASES.
30. OUTDOOR AND RETURN AIR SENSORS SHALL BE PROPERLY SELECTED, PROPERLY LOCATED TO PROVIDE ACCURATE AND REPEATABLE MEASUREMENTS FOR CONTROLLING ECONOMIZER OPERATION. AVERAGING SENSORS COVER THE ENTIRE DUCT OR COIL FACE AREAS.
31. ALL AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS MUST BE INSTALLED, SEALED AND INSULATED AS REQUIRED BY 120.4(A).
32. DUCT SEALING LEAKAGE RATES SHALL BE NO MORE THAN 6% OF AIR FLOW FOR NEW DUCT SYSTEMS AND NO MORE THAN 15% OF AIR FLOW FOR ALTERED EXISTING DUCT SYSTEMS.
33. DUCT SHALL UTILIZE LOW STATIC PRESSURE DESIGN. IDENTIFY THE MOST RESTRICTIVE BRANCH FROM THE FAN TO THE LAST AIR TERMINAL UNIT. IDENTIFY POSSIBLE MEANS OF SIGNIFICANTLY REDUCING THE PRESSURE DROP. BRANCH DUCT SYSTEMS SHALL DESIGNED FOR EQUAL PRESSURE DROP, WHEN POSSIBLE.
34. DUCT BRANCHES WITH SIGNIFICANTLY DIFFERING STATIC PRESSURE REQUIREMENTS SHALL HAVE VOLUME CONTROL STRATEGICALLY PLACED TO AID IN TAB WORK.
35. FAN SHALL DISCHARGE INTO DUCT SECTIONS THAT REMAIN STRAIGHT FOR AS LONG AS POSSIBLE (IDEALLY 10 DUCT DIAMETERS) TO REDUCE FAN INEFFICIENCIES FROM SYSTEM EFFECTS.
36. DUCT VELOCITIES SHALL GENERALLY BE BELOW 2,000 FPM FOR DUCTS IN CEILING PLENUMS, 1500 FPM FOR EXPOSED DUCTS AND 3500 FPM IN MECHANICAL ROOMS AND NON-NOISE SENSITIVE SHAFTS AND DO NOT REDUCE ANY DUCT SIZES LISTED ON PLANS.
37. DUCT FRICTION RATES SHALL GENERALLY BE LESS THAN O.25" WC PER 100 LINEAL FEET NEARER THE FAN, 0.15 TO 0.20" IN THE MAIN DUCTS AND 0.08 TO 0.12" WC/100' NEARER THE END OF THE SYSTEM. DESIGNS OVER THESE RATES SHALL BE QUESTIONED. VERY ENERGY EFFICIENT DESIGN CAN LOWER THESE VALUES BY UP TO 40%.
38. CONTRACTOR SHOP DRAWINGS SHALL BE SUFFICIENTLY DETAILED TO ENSURE THAT DISTRIBUTION SYSTEM DESIGN INTENT IS ADEQUATELY CONVEYED TO MATCH PLANS. IF SUFFICIENT DETAIL IS NOT INCLUDED IN DRAWINGS, INSTALLATIONS MAY RESULT IN SIGNIFICANTLY HIGHER PRESSURE DROPS AND HENCE HIGHER ENERGY CONSUMPTION AND OTHER OPERATING ISSUES.
39. ACCEPTANCE REQUIREMENTS ARE CLEARLY IDENTIFIED IN CONSTRUCTION DOCUMENTS.
40. COMMISSIONING MEASURES OR REQUIREMENTS ARE REFLECTED IN THE CONSTRUCTION DOCUMENTS.
41. REQUIREMENTS FOR FUNCTIONAL PERFORMANCE TESTS ARE REFLECTED IN THE CONSTRUCTION DOCUMENTS.
42. COOLING SYSTEMS IDENTIFIED IN TABLE 140.4-D SHALL HAVE FAN CONTROLS TO VARY THE INDOOR FAN AIRFLOW AS A FUNCTION OF LOAD:
   A. DX AND CHILLED WATER COOLING SYSTEMS THAT CONTROL CAPACITY BASED ON OCCUPIED SPACE TEMPERATURE SHALL HAVE A MINIMUM OF 2 STAGES OF CONTROL.
   B. SYSTEMS THAT CONTROL SPACE TEMPERATURE BY MODULATING AIRFLOW TO THE SPACE SHALL HAVE PROPORTIONAL FAN CONTROL.
   C. SYSTEMS WITH AIR SIDE ECONOMIZER SHALL HAVE A MINIMUM OF 2 SPEEDS OF FAN CONTROL DURING ECONOMIZER OPERATION.
43. FAN CABINET ENCLOSURE AND INTERNAL COMPONENTS SHALL BE ELECTED TO MINIMIZE PRESSURE DROP, E.G. FACE VELOCITY IS LESS THAN 500 FPM, LOW PRESSURE DROP COILS, FILTERS, ETC.
44. FAN WHEEL SHALL BE SELECTED FOR EFFICIENT OPERATION, E.G. LARGER DIAMETER ROTATING AT LOWER SPEED.
45. SYSTEMS THAT SERVE MULTIPLE ZONES SHALL HAVE CONTROLS THAT AUTOMATICALLY RESET SUPPLY AIR TEMPERATURE. ZONES WITH HIGH INTERNAL LOADS WITH NEAR CONSTANT AIRFLOW SHALL BE DESIGNED FOR THE ELEVATED RESET SUPPLY AIR TEMPERATURE. RESET CONTROLS SHALL BE IN RESPONSE TO BUILDING LOADS OR TO OUTDOOR AIT TEMPERATURE AND SHALL BE AT LEAST 25% OF THE DIFFERENCE BETWEEN SUPPLY AIR AND DESIGN ROOM AIR TEMPERATURE. CONTROL SEQUENCES ARE IDENTIFIED IN CONSTRUCTION DOCUMENTS.
46. SAT RESET SHALL BE ESTABLISHED WITH AN AGGRESSIVE RESET SCHEDULE OF 10F, E.G. 55F DURING WARM WEATHER AND 65F DURING COOL WEATHER.

GENERAL NOTES

1. ALL WORK SHALL BE IN CONFORMANCE WITH TITLE 24, 2022 CALIFORNIA CODE OF REGULATIONS (CCR), 2022 CALIFORNIA BUILDING CODE, PART 2, TITLE 24 CCR, 2022 CALIFORNIA MECHANICAL CODE, PART 4, TITLE 24 CCR, ALL OTHER APPLICABLE CODES AND REGULATIONS, SMACNA AND ASHRAE GUIDELINES, AND LOCAL CODES.
2. ALL HVAC EQUIPMENT SHALL BE COMPLIANT WITH EFFICIENCY STANDARDS PER TITLE-24, PART 6.
3. ALL FRESH AIR INTAKES SHALL BE AT LEAST 10 FEET IN A HORIZONTAL DIRECTION FROM ALL EXHAUST, FLUE, FUEL BURNING APPLIANCE AND PLUMBING VENT OUTLETS. FOR GAS/ELECTRIC AIR CONDITIONING UNITS WHERE THE CODE REQUIRED CLEARANCES ARE NOT MET, A FACTORY FLUE GAS DEFLECTOR AND EXTENSION SHALL BE USED TO MINIMIZE THESE CLEARANCES. CONTRACTOR SHALL DETERMINE LOCATIONS WHERE REQUIRED PRIOR TO BID. THIS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
4. AIR FILTERS SHALL BE STATE FIRE MARSHAL APPROVED AND LISTED. PREFORMED FILTERS HAVING COMBUSTIBLE FRAMING SHALL BE TESTED AS A COMPLETE ASSEMBLY. AIR FILTERS IN ALL OCCUPANCIES SHALL BE PER TITLE-24 PART 6 AND APPLICABLE ASHRAE REQUIREMENTS. FILTERS SHALL BE ACCESSIBLE
5. REVIEW THESE PLANS AND SPECIFICATIONS PRIOR TO BID. REVIEW PLANS AND SPECIFICATIONS OF OTHER RELATED TRADES INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND FIRE PROTECTION.
6. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AS THESE ARE PART OF THE CONTRACT DOCUMENTS. WHERE A CONFLICT OCCURS BETWEEN THIS SPECIFICATION AND OTHER SPECIFICATIONS ISSUED AS A PART OF THE CONTRACT DOCUMENTS, THE MORE STRINGENT REQUIREMENT SUPERCEDES.
7. THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND NOT INTENDED TO INDICATE ALL REQUIRED OFFSETS, BENDS, ELBOWS, TRANSITIONS, FITTINGS AS REQUIRED TO CONFORM TO THE BUILDING STRUCTURE, CLEARANCE INSIDE CEILINGS, AVOIDANCE OF OBSTRUCTIONS, AND MAINTAINING HEAD CLEARANCE.
8. COORDINATE INSTALLATION WITH ALL OTHER TRADES PRIOR TO INSTALLATION OF EQUIPMENT OR MATERIALS, INCLUDING BUT NOT LIMITED TO, STRUCTURAL, ARCHITECTURAL, ELECTRICAL, AND PLUMBING.
9. COORDINATE THE LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES WITH THE ARCHITECTURAL REFLECTIVE CEILING PLANS, ELECTRICAL LIGHTING LAYOUT, AND ARCHITECTURAL ROOM ELEVATIONS. THE ARCHITECT AND ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY CONFLICTS PRIOR TO FABRICATION AND INSTALLATION.
10. COORDINATE THE LOCATION OF ALL ROOF OPENINGS AND THE LOCATIONS OF ALL ROOF MOUNTED EQUIPMENT WITH THE STRUCTURAL AND ARCHITECTURAL WEIGHTS FOR PLATFORM AND CURB SIZES, FOR ROOF AND WALL PENETRATION DETAILS AND REQUIREMENTS, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS. REQUIRED PLATFORMS AND FLASHINGS FOR MECHANICAL EQUIPMENT SHALL BE AS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL PLANS, UNLESS NOTED OTHERWISE.
11. HIRE A TEST AND BALANCE AGENCY TO PERFORM THE TESTING PROCEDURES, REQUIRED BY THE MECH-2A THROUGH MECH-11A CERTIFICATE OF ACCEPTANCE FORMS, AS APPLICABLE FOR ALL NEWLY INSTALLED HEATING AND COOLING SYSTEMS. THE CONTRACTOR AND TEST AND BALANCE AGENCY ARE RESPONSIBLE FOR OBTAINING THE CERTIFICATE OF ACCEPTANCE FORMS REQUIRED BY THE IOR. THE TEST AND BALANCE AGENCY SHALL BE WELL VERSED WITH ALL THE REQUIREMENTS OF THESE CERTIFICATE OF ACCEPTANCE FORMS, AND SHALL COORDINATE AND WORK WITH THE EQUIPMENT AND CONTROLS INSTALLERS TO COMPLY WITH THESE REQUIREMENTS IN A TIMELY MANNER WITHIN THE PROJECT SCHEDULE. THE AIR BALANCE CONTRACTOR SHALL BE A MEMBER OF AABC (ASSOCIATED AIR BALANCE COUNCIL).
12. PAINT ALL EXPOSED DUCTWORK, DUCT SUPPORTS, ACCESSORIES, REGISTERS, GRILLES, DIFFUSERS, AND APPURTENANCES, WHETHER OR NOT COLORS ARE DESIGNATED IN SCHEDULES, EXCEPT WHERE A SURFACE OR MATERIAL IS SPECIFICALLY INDICATED NOT TO BE PAINTED OR IS TO REMAIN NATURAL. WHERE AN ITEM OR SURFACE IS NOT SPECIFICALLY MENTIONED, PAINT THE SAME AS SIMILAR ADJACENT MATERIALS OR SURFACES. IF COLOR OR FINISH IS NOT DESIGNATED, THE ARCHITECT WILL SELECT FROM STANDARD COLORS OR FINISHES AVAILABLE. PAINTING INCLUDES FIELD PAINTING EXPOSED BARE AND COVERED PIPES AND DUCTS (INCLUDING COLOR CODING), HANGERS, EXPOSED STEEL AND IRON WORK, AND PRIMED METAL SURFACES OF MECHANICAL EQUIPMENT.
13. PROVIDE ALL LABOR, MATERIAL, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, AND OTHER WORK AS REQUIRED. FOR A COMPLETE AND PROPERLY OPERATING MECHANICAL SYSTEM.
14. ALL MATERIALS SHALL BE NEW AND OF THE SAME MANUFACTURER FOR EACH CLASS OR GROUP OF EQUIPMENT. EQUIPMENT SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES, AND SHALL BEAR THE INSPECTION LABEL WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH THE APPROVAL OF THE GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY THE LATEST EDITION OF CMC, CBC U.L., SMACNA AND ASHRAE GUIDELINES. INSTALL PER MANUFACTURERS' RECOMMENDATIONS, AND INSTALLATION INSTRUCTIONS.
15. OBTAIN AND PAY FOR ALL NECESSARY BUILDING PERMITS AND VARIANCES. COORDINATE TEMPORARY CONSTRUCTION REQUIREMENTS WITH ALL TRADES PRIOR TO CONSTRUCTION. INCLUDE ALL COSTS IN THE BID.
16. IF THE CONTRACTOR PROPOSES ALTERNATE EQUIPMENT OR MATERIAL, THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL DSA APPROVALS, PAY ALL RELATED FEES AND OBTAIN APPROVAL FROM OWNER & ENGINEER OF RECORD. PROVIDE TITLE-24 COMPLIANCE CERTIFICATION AND ALL ASSOCIATED FEES REQUIRED. COORDINATE SUBMITTED EQUIPMENT WITH OTHER TRADES. INCLUDE IN THE SHOP DRAWINGS THE EQUIPMENT SUBMITTED FOR APPROVAL WITH A DIFFERENT PHYSICAL SIZE OR ARRANGEMENT FROM THAT SHOWN.
17. PROVIDE SHOP DRAWINGS PER PROJECT SCHEDULE, SEE 23 00 00 SPECIFICATIONS FOR REQUIREMENTS. IF SHOP DRAWINGS ARE NOT PROVIDED TO THE ENGINEER FOR REVIEW, AND ANY CONFLICTS OCCUR BETWEEN TRADES, DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY TO RESOLVE THE CONFLICT AND BEAR ALL COSTS INCURRED FOR ALL REVISIONS, AT NO ADDITIONAL COST TO THE DISTRICT. THE DISTRICT AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY PRIOR TO FABRICATION AND INSTALLATION OF ALL WORK THAT CAUSES CONFLICTS BETWEEN TRADES.
18. PROVIDE ALL MANUFACTURER'S PRODUCT DATA CLEARLY INDICATING MODEL NUMBERS, CAPACITIES, CONSTRUCTION, ELECTRICAL INFORMATION, AND OPTIONAL ACCESSORIES, PER PROJECT SCHEDULE AND PRIOR TO THE START OF WORK. THESE SHALL BE REVIEWED BY THE MECHANICAL ENGINEER PRIOR TO PURCHASING.
19. SUBMIT TO THE OWNER ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, "AS-BUILTS", ETC. AT THE COMPLETION OF THE JOB. PROVIDE THE OWNER WITH COMPLETE MECHANICAL "AS-BUILTS" INDICATING FINAL EQUIPMENT LOCATIONS, DUCTWORK AND PIPE ROUTING, ETC.
20. OBTAIN APPROVAL FROM THE OWNER ON ALL ADDENDA AND CONSTRUCTION CHANGE DOCUMENT (CCD) PRIOR TO DOING THE WORK.
21. INSTALL ALL EQUIPMENT, ACCESSORIES, AND MATERIAL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.
22. PROVIDE FIRESTOPPING FOR PIPE AND DUCT PENETRATIONS THROUGH RATED WALLS. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AS NECESSARY PRIOR TO INSTALLATION.
23. ANY MATERIAL EXPOSED WITHIN A PLENUM OR DUCT MUST HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25, AND A SMOKE DEVELOPED RATING OF NOT MORE THAN 50, AND A MOLD/HUMIDITY RESISTANCE PER U.L. 181.
24. ALL EQUIPMENT, DUCTS, PIPING, AND OTHER DEVICES AND MATERIALS OUTSIDE OF THE BUILDING OR OTHERWISE EXPOSED TO THE WEATHER SHALL BE COMPLETELY WEATHERPROOFED.
25. LOCATE ALL EQUIPMENT SUCH THAT CODE REQUIRED ACCESS IS MAINTAINED, INCLUDING N.E.C. REQUIREMENTS. ACCESS PANELS WHERE REQUIRED, SHALL BE COORDINATED WITH ARCHITECT, AND PROVIDED BY FACTORY OR BE FIELD-PROVIDED. FOR ATTIC EQUIPMENT, G.C. TO PROVIDE A CATWALK & LIGHT PER CMC FOR ATTIC EQUIPMENT.
26. FOR INACCESSIBLE AREAS THE CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL DAMPERS, EQUIPMENT, SMOKE DETECTORS, AND CONTROL DEVICES. THESE PANELS SHALL MATCH THE RATING OF THE WALL AND/OR CEILING WHERE THEY ARE LOCATED IN. MINIMUM ACCESS PANEL SIZES SHALL BE AS FOLLOWS:
   1) HAND ACCESS: 12"x12" MIN.
   2) BODY ACCESS: 30"x30" MIN.
27. ALL EQUIPMENT WITH MOVING PARTS SHALL BE PROVIDED WITH FLEXIBLE DUCT AND PIPE CONNECTIONS.
28. LABEL ALL EQUIPMENT AS TO THE SPACE IT SERVES. SEE SPECIFICATIONS FOR IDENTIFICATION STANDARDS. LABEL DUCT SMOKE DETECTOR LOCATIONS (AT CEILING) AS TO THE EQUIPMENT IT SERVES.
29. A/C UNITS PROVIDED WITH ECONOMIZER CYCLE DAMPERS SHALL HAVE OSA DAMPERS SET UP TO CLOSE AUTOMATICALLY ON FAN SHUT DOWN.
30. PROVIDE MANUAL VOLUME DAMPERS AND BACKDRAFT DAMPERS FOR FRESH AIR INTAKES ON ALL AIR HANDLING EQUIPMENT AND EXHAUST FANS SERVING CONDITIONED SPACES. EXCEPTION: EQUIPMENT WITH FACTORY-ECONOMIZERS.
31. DRAWINGS ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITION PRIOR TO BID DATE.
32. OWNER RETAINS SALVAGE RIGHTS, PROVIDE A MINIMUM OF 72 HOURS NOTICE PRIOR TO REMOVAL OF ROOF TOP UNITS AND EXHAUST FANS.
33. PATCH AND SEAL ALL SLAB, ROOF AND WALL OPENINGS WITH LIKE MATERIAL WHERE MECHANICAL EQUIPMENT ONCE PENETRATED.
34. REMOVE EXISTING AND PROVIDE ALL NEW DUCT AND PIPE HANGER SUPPORTS WHERE DUCT AND PIPE IS BEING REPLACED.
35. PROVIDE ALL NEW PIPE SUPPORTS WHERE PIPING IS SCHEDULED TO BE REPLACED.
36. OUTDOOR REFRIGERANT PIPING TO BE INSULATED AND ALUMINUM WRAPPED.
37. CONTRACTOR IS RESPONSIBLE FOR COMPLETE AND OPERABLE SYSTEM.
38. ALL MECHANICAL EQUIPMENTS, PIPES AND DUCTS SHALL BE SUPPORTED AND BRACED PER THE CURRENT CALIFORNIA BUILDING CODE. ALL MECHANICAL COMPONENTS SHALL BE ABLE TO RESIST THE EFFECTS OF SEISMIC FORCES.
39. MECHANICAL WORK SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS.
40. CONTRACTOR SHALL PROTECT EXISTING BUILDING INFRASTRUCTURE DURING CONSTRUCTION FROM OUTDOOR ELEMENT. IF DAMAGED, CONTRACTOR SHALL REPLACE DAMAGED BUILDING COMPONENTS WITH NEW AT NO ADDITIONAL COST TO THE OWNER.
41. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS.
42. ALL DUCT JOINTS SHALL BE MADE WITH MASTIC SEALANT, SHEET METAL SCREWS AND TAPED AIR TIGHT WITH HARDCAST OR EQUIV., MINIMUM 2-1/2" WIDTH.
43. WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT, MECHANICAL ENGINEER AND DSA FIELD ENGINEER.
44. A COPY OF THE GUIDELINES PUBLISHED BY SMACNA AND APPROVED BY DSA SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON THE JOB AT ALL TIMES.
45. CONTRACTOR SHALL COORDINATE ALL DUCTWORK ROUTING WITH WORK OF OTHER TRADES AND MAKE ANY OFFSET AS REQUIRED TO AVOID CONFLICT WITH PIPING, LIGHT FIXTURES, TRUSSES, ETC.
46. COORDINATE ALL EQUIPMENT VOLTAGES WITH ELECTRICAL PRIOR TO ORDERING ANY EQUIPMENT.
47. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBERS SHALL BE CUT, DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DISTRICT STRUCTURAL ENGINEER FROM THE DIVISION OF THE STATE ARCHITECT.

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26 AND 30:

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRIC, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

1. 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.
2. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUND PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

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

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

MEP COMPONENT ANCHORAGE NOTE

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

THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30:
1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

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

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

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

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR 2022 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

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

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

MP ☒ MD ☒ PP ☐ E ☐ OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # 0203-13.

CAL GREEN NOTES

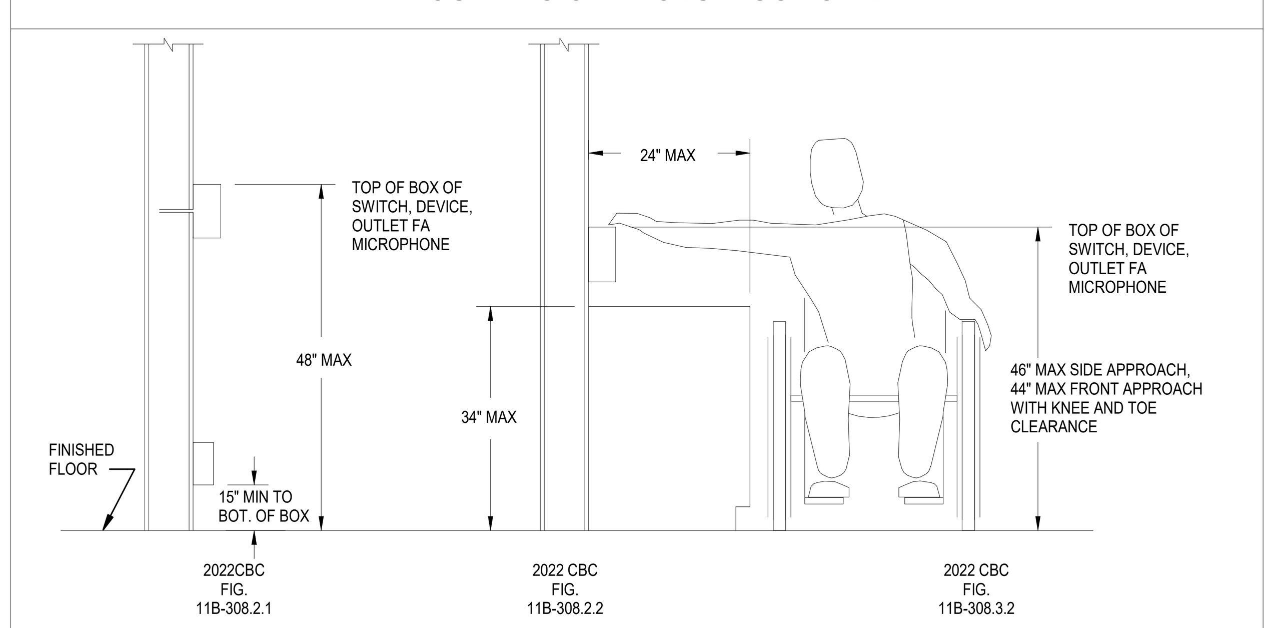
1. TESTING AND ADJUSTING. TESTING AND ADJUSTING OF SYSTEMS SHALL BE REQUIRED FOR NEW BUILDING LESS THAN 10,000 SQUARE FEET OR NEW SYSTEMS TO SERVE AN ADDITION OR ALTERATION SUBJECT TO SECTION 303.1
2. SYSTEMS. DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING SYSTEMS. SYSTEMS TO BE INCLUDED FOR TESTING AND ADJUSTING SHALL INCLUDE, AS APPLICABLE TO THE PROJECT:
   A. HVAC SYSTEMS AND CONTROLS.
   B. INDOOR AND OUTDOOR LIGHTING AND CONTROLS.
   C. WATER HEATING SYSTEMS.
   D. RENEWABLE ENERGY SYSTEMS.
   E. LANDSCAPE IRRIGATION SYSTEMS.
   F. WATER REUSE SYSTEMS.
3. PROCEDURES. PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND APPLICABLE STANDARDS ON EACH SYSTEM.
   A. HVAC BALANCING. IN ADDITION TO TESTING AND ADJUSTING, BEFORE A NEW SPACE-CONDITIONING SYSTEM SERVING A BUILDING OR SPACE IS OPERATED FOR NORMAL USE, BALANCE THE SYSTEM IN ACCORDANCE WITH THE PROCEDURES DEFINED BY THE TESTING ADJUSTING AND BALANCING BUREAU NATIONAL STANDARDS; THE NATIONAL ENVIRONMENTAL BALANCING BUREAU PROCEDURAL STANDARDS; ASSOCIATED AIR BALANCE COUNCIL NATIONAL STANDARDS OR AS APPROVED BY THE ENFORCING AGENCY.
4. REPORTING. AFTER COMPLETION OF TESTING, ADJUSTING AND BALANCING, PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
5. OPERATION AND MAINTENANCE (O & M) MANUAL. PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH SYSTEM. O & M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUREMENTS IN CCR, TITLE 8, SECTION 5142, AND OTHER RELATED REGULATIONS.
   A. INSPECTIONS AND REPORTS. INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE ENFORCING AGENCY.
6. TEMPORARY VENTILATION. THE PERMANENT HVAC SYSTEM SHALL ONLY BE USED DURING CONSTRUCTION IF NECESSARY TO CONDITION THE BUILDING WITHIN THE REQUIRED TEMPERATURE RANGE FOR MATERIAL AND EQUIPMENT INSTALLATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MINIMUM REPORTING VALUE (MERV 13) OF 13, BASED ON ASHRAE 52.2-1999 OR AN AVERAGE EFFICIENCY OF 30 PERCENT BASED ON ASHRAE 52.1-1992. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY, OR, IF THE BUILDING IS OCCUPIED DURING ALTERATIONS, AT THE CONCLUSION OF CONSTRUCTION.
7. COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATION EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH WRAP, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM.
8. FILTERS. IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY THAT PROVIDE AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV 13) OF 13. MERV 13 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL.

   EXCEPTIONS:
   A. AN ASHRAE 10-PERCENT TO 15-PERCENT EFFICIENCY FILTER SHALL BE PERMITTED FOR AN HVAC UNIT MEETING THE 2019 CALIFORNIA ENERGY CODE HAVING 60,000 BTU/H OR LESS CAPACITY PER FAN COIL, IF THE ENERGY USE OF THE AIR DELIVERY SYSTEM IS 0.4 W/CFM OR LESS AT DESIGN AIR FLOW.
   B. EXISTING MECHANICAL EQUIPMENT.
9. OZONE DEPLETION AND GREENHOUSE GAS REDUCTIONS. INSTALLATIONS OF HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT SHALL COMPLY WITH SECTIONS 5.508.1.1 AND 5.508.1.2.
   A. CHLOROFLOUROCARBONS (CFCS). INSTALL HVAC, REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT THAT DO NOT CONTAIN CFCS.
   B. HALONS. INSTALL HVAC REFRIGERATION AND FIRE SUPPRESSION EQUIPMENT THAT DO NOT CONTAIN HALONS.
10. ADHESIVES, ADHESIVE BONDING PRIMERS, ADHESIVE PRIMERS, SEALANTS, SEALANT PRIMERS AND CAULKS SHALL COMPLY WITH LOCAL OR REGIONAL AIR POLLUTION CONTROL OR AIR QUALITY MANAGEMENT DISTRICT RULES WHERE APPLICABLE, OR SCAQMD RULE 1168 VOC LIMITS, AS SHOWN IN TABLES 5.504.4.1.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
-	KEY NOTES
-	DEMOLITION KEY NOTES
01 / M-2	DETAIL DESIGNATION DETAIL NUMBER SHEET NO. WHERE SHOWN
AC / 1	EQUIPMENT DESIGNATION UNIT ABBREVIATION NUMBER
10X10-3 / 120 F/S	GRILLE DESIGNATION NECK SIZE & BLOW FIRE/SMOKE DAMPER WHERE REQ'D CFM
- / -	SECTION CALLOUT
	POINT OF CONNECTION
	POINT OF DISCONNECTION
	NEW LINEWORK
	EXISTING LINEWORK
	DEMOLITION LINEWORK
16"x12"	SHEET METAL DUCT
16"x12"	HIDDEN SHEET METAL DUCT
16"x12"	INTERNALLY INSULATED SHEET METAL DUCT
	DIRECTION OF FLOW
	STANDARD BRANCH FOR SUPPLY AND RETURN
	ROUND ELBOW DOWN
	ROUND ELBOW UP
	RECTANGULAR TO ROUND TRANSITION
8"	FLEXIBLE DUCT
FC	FLEX CONNECTION
BDD	BACK DRAFT DAMPER
FD	FIRE DAMPER
F/S	COMBINATION FIRE AND SMOKE DAMPER
M	MOTORIZED DAMPER
	SUPPLY DIFFUSER: 2-WAY/3-WAY/4-WAY
	GRILLE: RETURN/EXHAUST
	1'x2' RETURN AIR GRILLE
	2'x2' RETURN AIR GRILLE
UP / DN	SUPPLY AIR DUCT SECTION
UP / DN	RETURN AIR DUCT SECTION
UP / DN	EXHAUST AIR DUCT SECTION
	POWER OR GRAVITY ROOF VENTILATOR - EXHAUST
	POWER OR GRAVITY ROOF VENTILATOR - SUPPLY
UC	UNDERCUT DOOR
TG	TRANSFER GRILLE OR LOUVER
DG	DOOR GRILLE OR LOUVER
D / X	DX COOLING COIL
H / C	HEATING COIL
	DAMPER, OPPOSED BLADE
	DAMPER, PARALLEL BLADE
	FILTER
	HUMIDIFIER
	LOUVER
AD	ACCESS DOOR OR ACCESS PANEL (AP) IN DUCTWORK
1" 2"	STATIC PRESSURE CHANGE TAG
2"	STATIC PRESSURE TAG
	TURNING VANES (RECTANGULAR)
	DRAIN, FUNNEL
	CENTRIFUGAL FAN
	ANALOG SIGNAL
	DIGITAL SIGNAL
	ELECTRIC LEAD
	INSTRUMENT CAPILLARY TUBING
	ELECTRONIC 3-WAY VALVE
	ELECTRONIC 2-WAY VALVE
	DDC INPUT
	DDC OUTPUT
	LOCALLY MOUNTED INSTRUMENT
C02	CARBON DIOXIDE SENSOR
DPS	DIFFERENTIAL PRESSURE SENSOR
FM	FLOW METER
FS	AIRFLOW SENSOR
HS	RELATIVE HUMIDITY SENSOR
TS	TEMPERATURE SENSOR
TS	AVERAGING TEMPERATURE SENSOR
	METAL DUCT
R	EMS CO2 SENSOR
T	THERMOSTAT
PS	PRESSURE SWITCH
SD	SMOKE DETECTOR
SP	STATIC PRESSURE SENSOR
RS	REFRIGERANT SENSOR
D	DEW POINT SENSOR
H	SPACE HUMIDITY SENSOR
S	SWITCH
▲	FIRE WALL PENETRATION
(E)	EXISTING
(N)	NEW

MOUNTING OVER OBSTRUCTION DETAIL



NOTE:
1. THIS DETAIL APPLIES TO MOUNTING OF ANY MECHANICAL AND ELECTRICAL DEVICE WHICH CONTAINS AN OPERABLE PART THAT IS ADJUSTABLE BY THE OCCUPANT. THIS DOES NOT APPLY TO SENSORS OR CONTROLS THAT ARE ONLY ADJUSTABLE THROUGH THE BUILDING AUTOMATION SYSTEM (IE: TEMPERATURE AND HUMIDITY SENSORS).

DRAWING INDEX

SHEET	DESCRIPTION
M0.00	MECHANICAL SYMBOLS, LEGENDS & GENERAL NOTES
M0.01	MECHANICAL TITLE 24 ADMIN BLDG
M0.02	MECHANICAL TITLE 24 ADMIN BLDG
M0.03	MECHANICAL TITLE 24 BLDG A1
M0.04	MECHANICAL TITLE 24 BLDG A1
M0.05	MECHANICAL TITLE 24 BLDG A2
M0.06	MECHANICAL TITLE 24 BLDG A2
M0.07	MECHANICAL TITLE 24 BLDG A3
M0.08	MECHANICAL TITLE 24 BLDG A3
M0.09	MECHANICAL TITLE 24 BLDG B1
M0.10	MECHANICAL TITLE 24 BLDG B1
M0.11	MECHANICAL TITLE 24 BLDG B2
M0.12	MECHANICAL TITLE 24 BLDG B2
M0.13	MECHANICAL TITLE 24 BLDG B3
M0.14	MECHANICAL TITLE 24 BLDG B3
M0.15	MECHANICAL TITLE 24 BLDG B4
M0.16	MECHANICAL TITLE 24 BLDG B4
M0.17	MECHANICAL TITLE 24 BLDG C
M0.18	MECHANICAL TITLE 24 BLDG C
M0.19	MECHANICAL TITLE 24 BLDG K1
M0.20	MECHANICAL TITLE 24 BLDG K1
M1.01	MECHANICAL SITE PLAN
MD2.01	MECHANICAL FLOOR PLANS - DEMO
MD2.02	MECHANICAL FLOOR PLANS - DEMO
MD2.03	MECHANICAL FLOOR PLANS - DEMO
M2.01	MECHANICAL FLOOR PLANS
M2.02	MECHANICAL FLOOR PLANS
M2.03	MECHANICAL FLOOR PLANS
M4.01	MECHANICAL ROOF PLANS
M4.02	MECHANICAL ROOF PLANS
M4.03	MECHANICAL ROOF PLANS
M5.01	MECHANICAL SCHEDULES
M5.02	MECHANICAL SCHEDULES
M6.01	MECHANICAL DETAILS
M6.02	MECHANICAL DETAILS
M7.01	MECHANICAL CONTROLS

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AAV	AUTOMATIC AIR VENT
ABV	ABOVE
AC	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
ALUM	ALUMINUM
AO	ANALOG OUTPUT
AP	ACCESS PANEL
B	BOILER
BDD	BACK DRAFT DAMPER
BEL	BELOW
BFC	BELOW FINISHED CEILING
BFP	BACK FLOW PREVENTER
BG	BLAST GATE
BHP	BREAK HORSEPOWER
BLDG	BUILDING
BOB	BOTTOM OF BEAM
BOP	BOTTOM OF PIPE
BSMT	BASEMENT
BTU	BRITISH THERMAL UNIT
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CL	CENTER LINE
CLG	CEILING
CO	CLEANOUT
COL	COLUMN
CP	CONDENSATE PUMP
CT	COOLING TOWER
CU	CONDENSING UNIT
CV	CONSTANT VOLUME BOX
D	DRAIN
DB	DRY BULB
DEG	DEGREES
DI	DIGITAL INPUT
DIA	DIAMETER
DL	DOOR LOUVER
DN	DOWN
DO	DIGITAL OUTPUT
DP	DIFFERENATIAL PRESSURE
DS	DUCT SILENCER
DX	DIRECT EXPANSION
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EFF	EFFICIENCY
EGC	EGGCRATE GRILLE
EJ	EXPANSION JOINT
EL	ELEVATION
EQ	EQUAL
ER	EXHAUST REGISTER
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EXIST / (E)	EXISTING
°F	DEGREES FAHRENHEIT
FA	FREE AREA
FC	FAN COIL UNIT
FD	FIRE DAMPER
FG	FILTER GRILLE
FLA	FULL LOAD AMPS
FLR	FLOOR
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FP	FIRE PUMP
FPI	FINS PER INCH
FPM	FEET PER MINUTE
FS	FLOW SWITCH
FT	FEET / FOOT
FX	FLEXIBLE CONNECTION
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HD	HEAD
HOA	HANDS OFF AUTO
HP	HEAT PUMP
HP	HORSEPOWER
HT	HEIGHT
HV	HEATING AND VENTILATING UNIT
HWC	HOT WATER CONVERTER
HWP	HEATING HOT WATER RETURN
HWR	HOT WATER PUMP
HWS	HEATING HOT WATER SUPPLY
HZ	HERTZ
IC	MOTOR STATUS
ICW	INDUSTRIAL COLD WATER
ID	INSIDE DIAMETER
IN	INCHES
IW	INDIRECT WASTE
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LD	LINEAR DIFFUSER
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPS
MH	MANHOLE
MIN	MINIMUM
MOCP	MAXIMUM OVERLOAD CIRCUIT PROTECTION
MOD	MOTOR OPERATED DAMPER
MTD	MOUNTED
MUA	MAKE-UP AIR UNIT
(N)	NEW
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
OAT	OUTSIDE AIR TEMPERATURE
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSA	OUTSIDE AIR
PBD	PARALLEL BLADE DAMPER
PD	PRESSURE DROP
PERF	PERFORATED
PH	PHASE
PR	PRESSURE RELIEF
PS	PRESSURE SWITCH
PSID	POUNDS PER SQUARE INCH DIFFERENTIAL
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	PRESSURE TRANSMITTER
PTAC	PACKAGED TERMINAL AIR CONDITIONER
PVC	POLYVINYL CHLORIDE
RA	RETURN AIR
RAR	RETURN AIR REGISTER
RD	ROOF DRAIN
RF	RETURN FAN
RG	RETURN AIR GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RLA	RATED LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SAR	SUPPLY AIR REGISTER
SAV	STAGED AIR VOLUME
SD	SMOKE DAMPER
SF	SUPPLY FAN
SI	SPEED INDICATOR
SK	SPEED CONTROL
SMBH	SENSIBLE MBH
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STD	STANDARD
TAD	TRANSFER AIR DUCT
TEFC	TOTALLY ENCLOSED FAN COOLED
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
TI	TEMPERATURE INDICATOR
TMBH	TOTAL MBH
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UC	UNDERCUT
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UTR	UP THROUGH ROOF
V	VOLTS
VA	DAMPER/VALVE ACTUATOR
VAV	VARIABLE AIR VOLUME UNIT
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VP	VELOCITY PRESSURE
VTR	VENT THROUGH ROOF
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
WT	WEIGHT

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

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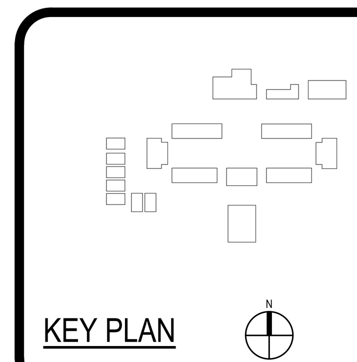
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant
REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
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MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL SYMBOLS, LEGENDS & GENERAL NOTES

M0.00

FILE PATH: Z:\Projects\...
9/18/2023 3:38:40 PM

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-MCH-E**

This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.

Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 1 of 13)**
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04	Total Conditioned Floor Area	1325
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

● Office ● School or Classroom

B. PROJECT SCOPE

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

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

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97173-0323-0002
Report Generated: 2023-03-27 11:14:30

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-MCH-E**

Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 2 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
FC-A1	1	Single zone	Alteration		☐

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-MCH-E**

Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 3 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
FC-A2	1	Single zone	Alteration		☐
FC-A3	1	Single zone	Alteration		☐
FC-A4	1	Single zone	Alteration		☐
FC-A5	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
				Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
FC-A1	Variable Refrigerant Flow	VRF heat pump, air cooled	Yes	34,000	34,000	0	30,000	30,000	24000	28,000
FC-A2	Variable Refrigerant Flow	VRF heat pump, air cooled	Yes	17,000	17,000	0	15,000	15,000	10000	12,000
FC-A3	Variable Refrigerant Flow	VRF heat pump, air cooled	Yes	27,000	27,000	0	24,000	24,000	19000	19,000
FC-A4	Variable Refrigerant Flow	VRF heat pump, air cooled	Yes	17,000	17,000	0	15,000	15,000	11000	12,000
FC-A5	Variable Refrigerant Flow	VRF heat pump, air cooled	Yes	17,000	17,000	0	15,000	15,000	11000	12,000

[1]FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.
[2]It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
[3] If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
[4] Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
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Report Generated: 2023-03-27 11:14:30

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-MCH-E**

Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 4 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
FC-A1	<65,000	47 °Fdb/ 43 °Fwb OSA	HSPF	7.7	8.5	SEER	13	23.2
FC-A2	<65,000	47 °Fdb/ 43 °Fwb OSA	HSPF	7.7	8.5	SEER	13	23.2
FC-A3	<65,000	47 °Fdb/ 43 °Fwb OSA	HSPF	7.7	8.5	SEER	13	23.2
FC-A4	<65,000	47 °Fdb/ 43 °Fwb OSA	HSPF	7.7	8.5	SEER	13	23.2
FC-A5	<65,000	47 °Fdb/ 43 °Fwb OSA	HSPF	7.7	8.5	SEER	13	23.2

G. PUMPS

This section does not apply to this project.

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-MCH-E**

Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 5 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	FC-A1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,070	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
											Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-A1	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.28
									Fan System Allowance (kW)[3]		0.4		Fan System Electrical Output (kW)		0.28

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97173-0323-0002
Report Generated: 2023-03-27 11:14:30

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-MCH-E**

Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 6 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	FC-A2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	535	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
											Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-A2	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.14
									Fan System Allowance (kW)[3]		0.2		Fan System Electrical Output (kW)		0.14

System Name	FC-A3	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	800	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
											Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-A3	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.23
									Fan System Allowance (kW)[3]		0.3		Fan System Electrical Output (kW)		0.23

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-MCH-E**

Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 7 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	FC-A4	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	535	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
											Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-A4	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.14
									Fan System Allowance (kW)[3]		0.2		Fan System Electrical Output (kW)		0.14

System Name	FC-A5	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	535	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
											Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-A5	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.14
									Fan System Allowance (kW)[3]		0.2		Fan System Electrical Output (kW)		0.14

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97173-0323-0002
Report Generated: 2023-03-27 11:14:30

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-MCH-E**

Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 8 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

[1] FOOTNOTES: Fans serving spaces with design background noise goals below NC35
[2] Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.
[3] Fan system allowance includes fan system base allowance.
[4] Filter pressure loss can only be counted once per fan system.
[5] Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.
[6] Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
FC-A1	Embedded Fan Regulated under 110.2 or 110.1	
FC-A2	Embedded Fan Regulated under 110.2 or 110.1	
FC-A3	Embedded Fan Regulated under 110.2 or 110.1	
FC-A4	Embedded Fan Regulated under 110.2 or 110.1	
FC-A5	Embedded Fan Regulated under 110.2 or 110.1	

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-MCH-E**

Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 9 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
FC-A1	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-A2	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-A3	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-A4	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-A5	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1]FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS: 5900 IROQUOIS RD WESTMINSTER, CA 92683
DSA Submittal
DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M38155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINSTER SCHOOL DISTRICT
DATE 03/31/2023 — PROJECT NUMBER 220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 ADMIN BLDG

M0.01

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9/18/2023 3:38:46 PM

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 10 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:\24refnolink\160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Multifamily Dwelling Unit Ventilation Systems

☐ Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2

19	20	21	22	23	24	25	26	27
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft^2)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		
28	Is this a balanced system[4]				29	Meeting Outside Air Requirements?		

[1] *FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*

[2] *Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.*

[3] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*

[4] *A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.*

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 11 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No
		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes

11	No	The scope of the project includes only duct systems serving healthcare facilities
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A
18	No	All ductwork is an extension of an existing duct system
19	No	Ductwork serving individual dwelling unit
20	No	< 25 ft of new or replacement space conditioning ducts installed
21	R-8	Dust Insulation R-value

M. COOLING TOWERS

This section does not apply to this project.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 12 of 13)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location

03	04
Mandatory Measure	**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1	M5.02
Cooling Equipment Efficiency per 110.1	M5.02
Furnace Standby Loss Control per 110.2(d)	N/A
Duct Insulation per 120.4	M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)	M0.00
The air duct and plenum system is designed per 120.4(a)-(f)	Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2	N/A

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project	**Report Page:**	**(Page 13 of 13)**
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T14:14:26-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 03/28/2023
Address: 8163 Rochester Avenue	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone:

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:	Rex Wang	Responsible Designer Signature:	
Company:	LEAF Engineers	Date Signed:	03/28/2023
Address:	8163 Rochester Avenue	License:	M36155
City/State/Zip:	Rancho Cucamonga, CA 91730	Phone:	(909)987-0909

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 ADMIN BLDG

M0.02

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.		
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:** (Page 1 of 14)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T15:41:37-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04	Total Conditioned Floor Area	3243
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

● Classroom ● Office

B. PROJECT SCOPE

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

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

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:** (Page 2 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T15:41:37-04:00

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-A1-1	1	Single zone	Alteration		☐

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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:** (Page 3 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T15:41:37-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-A1-2	1	Single zone	Alteration		☐
AC-A1-3	1	Single zone	Alteration		☐
FC-A1-1	1	Single zone	Alteration		☐
FC-A1-2	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h)						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
AC-A1-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-A1-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-A1-3	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,920	38,920	0	48,130	48,130	30000	45,000
FC-A1-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	12,000	12,000	0	12,000	12,000	9000	9,000
FC-A1-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	12,000	12,000	0	12,000	12,000	9000	9,000

[1] *FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are exepted.*
[2] *It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:** (Page 4 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T15:41:37-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11

[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*
[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).*

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
AC-A1-1	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-A1-2	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-A1-3	<65,000		HSPF	8	8.69	SEER	14	16.2
FC-A1-1	<65,000		HSPF	8.19	10.6	SEER	14	21.5
FC-A1-2	<65,000		HSPF	8.19	10.6	SEER	14	21.5

G. PUMPS

This section does not apply to this project.

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:** (Page 5 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T15:41:37-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	AC-A1-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-A1-1	Supply	1	Hydronic/DX cooling coil or heat pump coil						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97238-0323-0002 Report Generated: 2023-03-27 12:41:40

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:** (Page 6 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T15:41:37-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	AC-A1-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-1-2	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

System Name	AC-1-3	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-1-3	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97238-0323-0002 Report Generated: 2023-03-27 12:41:40

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Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:** (Page 7 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T15:41:37-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	FC-A1-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	400	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-A1-1	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.15
									Fan System Allowance (kW)[3]		0.15		Fan System Electrical Output (kW)		0.15

System Name	FC-A1-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	400	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-A1-2	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.15
									Fan System Allowance (kW)[3]		0.15		Fan System Electrical Output (kW)		0.15

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97238-0323-0002 Report Generated: 2023-03-27 12:41:40

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:** (Page 8 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T15:41:37-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*
[2] *Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.*
[3] *Fan system allowance includes fan system base allowance.*
[4] *Filter pressure loss can only be counted once per fan system.*
[5] *Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.*
[6] *Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..*

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
AC-A1-1	Embedded Fan Regulated under 110.2 or 110.1	
AC-A1-2	Embedded Fan Regulated under 110.2 or 110.1	
AC-A1-3	Embedded Fan Regulated under 110.2 or 110.1	
FC-A1-1	Embedded Fan Regulated under 110.2 or 110.1	
FC-A1-2	Embedded Fan Regulated under 110.2 or 110.1	

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97238-0323-0002 Report Generated: 2023-03-27 12:41:40

STATE OF CALIFORNIA
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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:** (Page 9 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T15:41:37-04:00

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
AC-A1-1	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-A1-2	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-A1-3	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-A1-1	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-A1-2	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

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ANAHEIM PBK.com
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Anaheim, CA 92806
P 949-548-5000
CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS: 5900 IROQUOIS RD WESTMINSTER, CA 92683
DSA Submittal DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT
DATE 03/31/2023 | PROJECT NUMBER 220524
REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG A1

M0.03

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:**	**(Page 10 of 14)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T15:41:37-04:00

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:\24refnlink/}160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Multifamily Dwelling Unit Ventilation Systems

☐ Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2

19	20	21	22	23	24	25	26	27
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft²)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		

28	Is this a balanced system[4]		29	Meeting Outside Air Requirements?		

[1] FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.

[2] Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.

[3] Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.

[4] A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:**	**(Page 11 of 14)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T15:41:37-04:00

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No
		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes

11	No	The scope of the project includes only duct systems serving healthcare facilities
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A
18	No	All ductwork is an extension of an existing duct system
19	No	Ductwork serving individual dwelling unit
20	No	< 25 ft of new or replacement space conditioning ducts installed
21	R-8	Dust Insulation R-value

M. COOLING TOWERS

This section does not apply to this project.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:**	**(Page 12 of 14)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T15:41:37-04:00

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	
NRCA-MCH-05-A - Air Economizer Controls	AC-A1-1; AC-A1-2; AC-1-3

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:**	**(Page 13 of 14)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T15:41:37-04:00

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location
03		04
Mandatory Measure		**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1		M5.01 and M5.02
Cooling Equipment Efficiency per 110.1		M5.01 and M5.02
Furnace Standby Loss Control per 110.2(d)		N/A
Duct Insulation per 120.4		M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)		M5.01 & M5.02
The air duct and plenum system is designed per 120.4(a)-(f)		Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		N/A

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Sequoia Elementary School - Modernization Project - Building A1	**Report Page:**	**(Page 14 of 14)**
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T15:41:37-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone:

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: Rex Wang	Responsible Designer Signature:
Company: LEAF Engineers	Date Signed: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	License: M36155
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG A1

M0.04

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.		
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	**Report Page:** (Page 1 of 12)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T16:33:08-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04 Total Conditioned Floor Area	2880
02	Climate Zone	6	05 Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06 # of Stories (Habitable Above Grade)	1

● Classroom

B. PROJECT SCOPE

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

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

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	**Report Page:** (Page 2 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T16:33:08-04:00

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-A2-1	1	Single zone	Alteration		☐

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	**Report Page:** (Page 3 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T16:33:08-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-A2-2	1	Single zone	Alteration		☐
AC-A2-3	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]		Cooling Output[2,3]		Load Calculations[3,4]		
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
AC-A2-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-A2-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-A2-3	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000

[1] *FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.*
[2] *It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*
[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*
[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).*

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97266-0323-0002 Report Generated: 2023-03-27 13:33:12

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	**Report Page:** (Page 4 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T16:33:08-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
AC-A2-1	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-A2-2	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-A2-3	<65,000		HSPF	8	8.69	SEER	14	16.2

G. PUMPS

This section does not apply to this project.

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97266-0323-0002 Report Generated: 2023-03-27 13:33:12

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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	**Report Page:** (Page 5 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T16:33:08-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	AC-A2-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
											Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-A2-1	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97266-0323-0002 Report Generated: 2023-03-27 13:33:12

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	**Report Page:** (Page 6 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T16:33:08-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	AC-A2-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
											Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-A2-2	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

System Name	AC-A2-3	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
											Allowance		Design		
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-A2-3	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97266-0323-0002 Report Generated: 2023-03-27 13:33:12

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	**Report Page:** (Page 7 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T16:33:08-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*
[2] *Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.*
[3] *Fan system allowance includes fan system base allowance.*
[4] *Filter pressure loss can only be counted once per fan system.*
[5] *Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.*
[6] *Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..*

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
AC-A2-1	Embedded Fan Regulated under 110.2 or 110.1	
AC-A2-2	Embedded Fan Regulated under 110.2 or 110.1	
AC-A2-3	Embedded Fan Regulated under 110.2 or 110.1	

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97266-0323-0002 Report Generated: 2023-03-27 13:33:12

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	**Report Page:** (Page 8 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T16:33:08-04:00

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
AC-A2-1	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-A2-2	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-A2-3	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/160.2, 160.3(a)3D, 170.2(a)4O, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.
Multifamily Dwelling Unit Ventilation Systems		

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97266-0323-0002 Report Generated: 2023-03-27 13:33:12

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	**Report Page:** (Page 9 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T16:33:08-04:00

J. VENTILATION AND INDOOR AIR QUALITY

☐	Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2							
19	20	21	22	23	24	25	26	27
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft^2)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		
28	Is this a balanced system[4]				29	Meeting Outside Air Requirements?		

[1] *FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*
[2] *Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.*
[3] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*
[4] *A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.*

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97266-0323-0002 Report Generated: 2023-03-27 13:33:12

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APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

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LEAF ENGINEERS
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS: 5900 IROQUOIS RD WESTMINSTER, CA 92683
DSA Submittal
DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M38156 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG A2

M0.05

L. DISTRIBUTION (DUCTWORK and PIPING)

			Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
			Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes
11	No	The scope of the project includes only duct systems serving healthcare facilities		
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.		
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.		
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:		
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.		
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.		
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A		
18	No	All ductwork is an extension of an existing duct system		
19	No	Ductwork serving individual dwelling unit		
20	No	< 25 ft of new or replacement space conditioning ducts installed		
21	R-8	Dust Insulation R-value		

M. COOLING TOWERS

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	Report Page: (Page 11 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-27T16:33:08-04:00

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	
NRCA-MCH-05-A - Air Economizer Controls	AC-A2-1; AC-A2-2; AC-A2-3

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location
03		04
Mandatory Measure		**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1		M5.01 & M5.02
Cooling Equipment Efficiency per 110.1		M5.01 & M5.02
Furnace Standby Loss Control per 110.2(d)		N/A
Duct Insulation per 120.4		M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)		M0.00
The air duct and plenum system is designed per 120.4(a)-(f)		Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		N/A

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
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Report Generated: 2023-03-27 13:33:12

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A2	Report Page: (Page 12 of 12)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-27T16:33:08-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

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: Rex Wang	Responsible Designer Signature:
Company: LEAF Engineers	Date Signed: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	License: M36155
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG A2

M0.06

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.		
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 1 of 12)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04	Total Conditioned Floor Area	1989
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

● Classroom ● Support Areas

B. PROJECT SCOPE

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

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

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 2 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-A3-1	1	Single zone	Alteration		☐

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97297-0323-0003 Report Generated: 2023-03-27 16:50:08

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 3 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-A3-2	1	Single zone	Alteration		☐
FC-A3-1	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
AC-A3-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,710	38,710	0	39,710	48,020	30000	45,000
AC-A3-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,710	38,710	0	39,710	48,020	30000	45,000
FC-A3-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	12,000	12,000	0	12,000	12,000	9000	9,000

[1] FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.
[2] It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
[3] If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
[4] Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97297-0323-0003 Report Generated: 2023-03-27 16:50:08

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 4 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode				Cooling Mode		
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
AC-A3-1	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-A3-2	<65,000		HSPF	8	8.69	SEER	14	16.2
FC-A3-1	<65,000		HSPF	8.19	10.6	SEER	14	21.5

G. PUMPS

This section does not apply to this project.

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97297-0323-0003 Report Generated: 2023-03-27 16:50:08

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 5 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	AC-A3-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
AC-A3-1	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.59
			Fan System Allowance (kW)[3]			0.59		Fan System Electrical Output (kW)		0.59

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97297-0323-0003 Report Generated: 2023-03-27 16:50:08

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 6 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	AC-A3-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
AC-A3-2	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.59
			Fan System Allowance (kW)[3]			0.59		Fan System Electrical Output (kW)		0.59

System Name	FC-A3-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	400	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-A3-1	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.14
			Fan System Allowance (kW)[3]			0.15		Fan System Electrical Output (kW)		0.15

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97297-0323-0003 Report Generated: 2023-03-27 16:50:08

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 7 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

[1] FOOTNOTES: Fans serving spaces with design background noise goals below NC35
[2] Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.
[3] Fan system allowance includes fan system base allowance.
[4] Filter pressure loss can only be counted once per fan system.
[5] Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.
[6] Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
AC-A3-1	Embedded Fan Regulated under 110.2 or 110.1	
AC-A3-2	Embedded Fan Regulated under 110.2 or 110.1	
FC-A3-1	Embedded Fan Regulated under 110.2 or 110.1	

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97297-0323-0003 Report Generated: 2023-03-27 16:50:08

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 8 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
AC-A3-1	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-A3-2	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-A3-1	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1] FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:\t24refnolink/\160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Multifamily Dwelling Unit Ventilation Systems

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Report Version: 2022.0.000 Schema Version: rev 20220101 | Compliance ID: 97297-0323-0003 Report Generated: 2023-03-27 16:50:08

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 9 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

J. VENTILATION AND INDOOR AIR QUALITY

☐	Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2							
19	20	21	22	23	24	25	26	27

Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft^2)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		
28	Is this a balanced system[4]				29	Meeting Outside Air Requirements?		

[1] FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.
[2] Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.
[3] Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.
[4] A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	NR/ Common Use: Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace
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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
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P 949-548-5000

CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS: 5900 IROQUOIS RD WESTMINSTER, CA 92683
DSA Submittal
DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG A3

M0.07

0" 1"

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 10 of 12)
5900 IROQUOIS RD WESTMINSTER, CA 92683		**Date Prepared:** 2023-03-27T19:50:05-04:00

L. DISTRIBUTION (DUCTWORK and PIPING)

			Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
			Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes
11	No	The scope of the project includes only duct systems serving healthcare facilities		
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.		
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.		
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:		
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.		
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.		
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A		
18	No	All ductwork is an extension of an existing duct system		
19	No	Ductwork serving individual dwelling unit		
20	No	< 25 ft of new or replacement space conditioning ducts installed		
21	R-8	Dust Insulation R-value		

M. COOLING TOWERS

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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Report Version: 2022.0.000
Schema Version: rev 20220101

Documentation Software: Energy Code Ace

Compliance ID: 97297-0323-0003
Report Generated: 2023-03-27 16:50:08

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 11 of 12)
5900 IROQUOIS RD WESTMINSTER, CA 92683		**Date Prepared:** 2023-03-27T19:50:05-04:00

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	
NRCA-MCH-05-A - Air Economizer Controls	AC-A3-1; AC-A3-2

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location
03		04
Mandatory Measure		**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1		M5.01 & M5.02
Cooling Equipment Efficiency per 110.1		M5.01 & M5.02
Furnace Standby Loss Control per 110.2(d)		N/A
Duct Insulation per 120.4		M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)		M5.01 & M5.02
The air duct and plenum system is designed per 120.4(a)-(f)		Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		N/A

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Generated Date/Time:

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STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building A3	**Report Page:** (Page 12 of 12)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:50:05-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

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 that is turned over to the building owner at occupancy.

Responsible Designer Name: Rex Wang	Responsible Designer Signature:
Company: LEAF Engineers	Date Signed: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	License: M36155
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG A3

M0.08

FILE PATH: Z:\Projects\...
9/18/2023 3:39:23 PM

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.		
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	**Report Page:** (Page 1 of 14)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T17:53:11-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04	Total Conditioned Floor Area	3212
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

● Classroom ● Office

B. PROJECT SCOPE

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

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

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97322-0323-0002
Report Generated: 2023-03-27 14:53:16

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	**Report Page:** (Page 2 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T17:53:11-04:00

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01 System Name	02 Quantity	03 System Serving	04 System Status	05 Space Type	06 Utilizing Recovered Heat
AC-B1-1	1	Single zone	Alteration		☐

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97322-0323-0002
Report Generated: 2023-03-27 14:53:16

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	**Report Page:** (Page 3 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T17:53:11-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-B1-2	1	Single zone	Alteration		☐
AC-B1-3	1	Single zone	Alteration		☐
FC-B1-1	1	Single zone	Alteration		☐
FC-B1-2	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
AC-B1-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-B1-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-B1-3	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	39,140	39,140	0	40,890	48,230	30000	45,000
FC-B1-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	12,000	12,000	0	12,000	12,000	9000	9,000
FC-B1-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	12,000	12,000	0	12,000	12,000	9000	9,000

[1] *FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.*
[2] *It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97322-0323-0002
Report Generated: 2023-03-27 14:53:16

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	**Report Page:** (Page 4 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T17:53:11-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11

[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*
[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).*

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
AC-B1-1	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-B1-2	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-B1-3	<65,000		HSPF	8	8.69	SEER	14	16.2
FC-B1-1	<65,000		HSPF	8.19	10.6	SEER	14	21.5
FC-B1-2	<65,000		HSPF	8.19	10.6	SEER	14	21.5

G. PUMPS

This section does not apply to this project.

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
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Documentation Software: Energy Code Ace
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	**Report Page:** (Page 5 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T17:53:11-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	AC-B1-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
AC-B1-1	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	**Report Page:** (Page 6 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T17:53:11-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	AC-B1-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
AC-B1-2	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

System Name	AC-B1-3	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
AC-B1-3	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	**Report Page:** (Page 7 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T17:53:11-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	FC-B1-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	400	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-B1-1	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.15
									Fan System Allowance (kW)[3]		0.15		Fan System Electrical Output (kW)		0.15

System Name	FC-B1-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	400	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-B1-2	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.15
									Fan System Allowance (kW)[3]		0.15		Fan System Electrical Output (kW)		0.15

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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	**Report Page:** (Page 8 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T17:53:11-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*
[2] *Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.*
[3] *Fan system allowance includes fan system base allowance.*
[4] *Filter pressure loss can only be counted once per fan system.*
[5] *Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.*
[6] *Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..*

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
AC-B1-1	Embedded Fan Regulated under 110.2 or 110.1	
AC-B1-2	Embedded Fan Regulated under 110.2 or 110.1	
AC-B1-3	Embedded Fan Regulated under 110.2 or 110.1	
FC-B1-1	Embedded Fan Regulated under 110.2 or 110.1	
FC-B1-2	Embedded Fan Regulated under 110.2 or 110.1	

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	**Report Page:** (Page 9 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T17:53:11-04:00

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01 System Name	02 System Zoning	03 Conditioned Floor Area Being Served (ft²)	04 Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	05 Shut-Off Controls 120.2(e) & 160.3(a)2D	06 Isolation Zone Controls 120.2(g) & 160.3(a)2F	07 Demand Response 110.12 120.2(b) & 160.3(a)2B	08 Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	09 Window Interlocks per 140.4(n) & 170.2(c)4D
AC-B1-1	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-B1-2	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-B1-3	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-B1-1	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-B1-2	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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Schema Version: rev 20220101
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Compliance ID: 97322-0323-0002
Report Generated: 2023-03-27 14:53:16

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK
ARCHITECT PBK Architects, Inc.
ANAHEIM
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000
CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA FILE NO.: 30-43
DSA APPL NO.: 04-121952

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG B1

M0.09

STATE OF CALIFORNIA
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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	Report Page: (Page 10 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-27T17:53:11-04:00

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)38 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refinlink/}160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Multifamily Dwelling Unit Ventilation Systems

☐ Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2

19	20	21	22	23	24	25	26	27
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft^2)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		
28	Is this a balanced system[4]				29	Meeting Outside Air Requirements?		

[1] *FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*

[2] *Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.*

[3] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*

[4] *A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.*

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	Report Page: (Page 11 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-27T17:53:11-04:00

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No
		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes

11	No	The scope of the project includes only duct systems serving healthcare facilities
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A
18	No	All ductwork is an extension of an existing duct system
19	No	Ductwork serving individual dwelling unit
20	No	< 25 ft of new or replacement space conditioning ducts installed
21	R-8	Dust Insulation R-value

M. COOLING TOWERS

This section does not apply to this project.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	Report Page: (Page 12 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-27T17:53:11-04:00

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	
NRCA-MCH-05-A - Air Economizer Controls	AC-B1-1; AC-B1-2; AC-B1-3

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	Report Page: (Page 13 of 14)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-27T17:53:11-04:00

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location
03		04
Mandatory Measure		**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1		M5.01 & M5.02
Cooling Equipment Efficiency per 110.1		M5.01 & M5.02
Furnace Standby Loss Control per 110.2(d)		N/A
Duct Insulation per 120.4		M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)		M0.00
The air duct and plenum system is designed per 120.4(a)-(f)		Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		N/A

STATE OF CALIFORNIA
Mechanical Systems
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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B1	Report Page: (Page 14 of 14)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-27T17:53:11-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

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 building provides to the building owner at occupancy.

Responsible Designer Name: Rex Wang	Responsible Designer Signature:
Company: LEAF Engineers	Date Signed: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	License: M36155
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
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PBK

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leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG B1

M0.10

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.		
Project Name:	Sequoia Elementary School - Modernization Project - Building B2	**Report Page:** **(Page 1 of 12)**
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:01:28-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04	Total Conditioned Floor Area	2880
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

• Classroom

B. PROJECT SCOPE

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

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

Registration Number: | Generated Date/Time: | Documentation Software: Energy Code Ace

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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B2	**Report Page:** **(Page 2 of 12)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:01:28-04:00

C. COMPLIANCE RESULTS

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

01		02		03		04		05		06		07		08	09
System Summary 110.1, 110.2, 140.4, 170.2(c)	AND	Pumps 140.4(k), 170.2(c)4I	AND	Fans/ Economizers 140.4(c), 140.4(e), 170.2(c)	AND	System Controls 110.2, 120.2, 140.4(f), 170.2(c)	AND	Ventilation 120.1, 160.2	AND	Terminal Box Controls 140.4(d), 170.2(c)4B	AND	Distribution 120.3, 140.4(l), 160.2, 160.3	AND	Cooling Towers 110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES with Exceptional Conditions
Mandatory Measures Compliance (See Table Q for Details)										DOES NOT COMPLY					

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-B2-1	1	Single zone	Alteration		☐

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:01:28-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-B2-2	1	Single zone	Alteration		☐
AC-B2-3	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
AC-B2-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-B2-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-B2-3	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000

[1] *FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.*
[2] *It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*
[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*
[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).*

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CALIFORNIA ENERGY COMMISSION

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Project Name:	Sequoia Elementary School - Modernization Project - Building B2	**Report Page:** **(Page 4 of 12)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:01:28-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode				Cooling Mode		
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
AC-B2-1	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-B2-2	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-B2-3	<65,000		HSPF	8	8.69	SEER	14	16.2

G. PUMPS

This section does not apply to this project.

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	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:01:28-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	AC-B2-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
AC-B2-1	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.59
						Fan System Allowance (kW)[3]	0.59		Fan System Electrical Output (kW)	0.59

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	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:01:28-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	AC-B2-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
AC-B2-2	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.59
						Fan System Allowance (kW)[3]	0.59		Fan System Electrical Output (kW)	0.59

System Name	AC-B2-3	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
AC-B2-3	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.59
				Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

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Project Name:	Sequoia Elementary School - Modernization Project - Building B2	**Report Page:** **(Page 7 of 12)**
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H. FAN SYSTEMS & AIR ECONOMIZERS

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*
[2] *Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.*
[3] *Fan system allowance includes fan system base allowance.*
[4] *Filter pressure loss can only be counted once per fan system.*
[5] *Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.*
[6] *Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..*

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
AC-B2-1	Embedded Fan Regulated under 110.2 or 110.1	
AC-B2-2	Embedded Fan Regulated under 110.2 or 110.1	
AC-B2-3	Embedded Fan Regulated under 110.2 or 110.1	

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	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:01:28-04:00

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
AC-B2-1	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-B2-2	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-B2-3	Single zone	<= 25,000 ft^2	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/)160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.
Multifamily Dwelling Unit Ventilation Systems		

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Project Name:	Sequoia Elementary School - Modernization Project - Building B2	**Report Page:** **(Page 9 of 12)**
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:01:28-04:00

J. VENTILATION AND INDOOR AIR QUALITY

☐	Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2							
19	20	21	22	23	24	25	26	27

Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft^2)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		

28	Is this a balanced system[4]		29	Meeting Outside Air Requirements?	

[1] *FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*
[2] *Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.*
[3] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*
[4] *A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.*

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS: 5900 IROQUOIS RD WESTMINSTER, CA 92683
DSA Submittal
DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG B2

M0.11

L. DISTRIBUTION (DUCTWORK and PIPING)

			Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
			Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes
11	No	The scope of the project includes only duct systems serving healthcare facilities		
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.		
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.		
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:		
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.		
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.		
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A		
18	No	All ductwork is an extension of an existing duct system		
19	No	Ductwork serving individual dwelling unit		
20	No	< 25 ft of new or replacement space conditioning ducts installed		
21	R-8	Dust Insulation R-value		

M. COOLING TOWERS

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	
NRCA-MCH-05-A - Air Economizer Controls	AC-B2-1; AC-B2-2; AC-B2-3

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location
03		04
Mandatory Measure		**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1		M5.01 & M5.02
Cooling Equipment Efficiency per 110.1		M5.01 & M5.02
Furnace Standby Loss Control per 110.2(d)		N/A
Duct Insulation per 120.4		M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)		M0.00
The air duct and plenum system is designed per 120.4(a)-(f)		Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		N/A

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

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: Rex Wang	Responsible Designer Signature:
Company: LEAF Engineers	Date Signed: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	License: M36155
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

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ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
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CONSULTANT LEAF Engineers
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8163 Rochester Avenue, Suite 100
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG B2

M0.12

M0.12 - MECHANICAL TITLE 24 BLDG B2

FILE PATH: Z:\Projects\...
9/18/2023 3:39:45 PM

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.		
Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 1 of 12)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04	Total Conditioned Floor Area	1988
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

● Classroom ● Support Areas

B. PROJECT SCOPE

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

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

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 2 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01 System Name	02 Quantity	03 System Serving	04 System Status	05 Space Type	06 Utilizing Recovered Heat
AC-B3-1	1	Single zone	Alteration		☐

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 3 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01 System Name	02 Quantity	03 System Serving	04 System Status	05 Space Type	06 Utilizing Recovered Heat
AC-B3-2	1	Single zone	Alteration		☐
FC-B3-1	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[1,3]			Cooling Output[1,3]		Load Calculations[3,4]	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
AC-B3-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-B3-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	48,150	48,150	30000	45,000
FC-B3-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	12,000	12,000	0	12,000	12,000	9000	9,000

[1] *FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.*
[2] *It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*
[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*
[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).*

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

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Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 4 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode				Cooling Mode		
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
AC-B3-1	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-B3-2	<65,000		HSPF	8	8.69	SEER	14	16.2
FC-B3-1	<65,000		HSPF	8.19	10.6	SEER	14	21.5

G. PUMPS

This section does not apply to this project.

STATE OF CALIFORNIA
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Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 5 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	AC-B3-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other system s	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-B3-1	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 6 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	AC-B3-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other system s	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-B3-2	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

System Name	FC-B3-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other system s	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	400	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
FC-B3-1	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.15
									Fan System Allowance (kW)[3]		0.15		Fan System Electrical Output (kW)		0.15

STATE OF CALIFORNIA
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Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 7 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*
[2] *Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.*
[3] *Fan system allowance includes fan system base allowance.*
[4] *Filter pressure loss can only be counted once per fan system.*
[5] *Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.*
[6] *Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..*

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
AC-B3-1	Embedded Fan Regulated under 110.2 or 110.1	
AC-B3-2	Embedded Fan Regulated under 110.2 or 110.1	
FC-B3-1	Embedded Fan Regulated under 110.2 or 110.1	

STATE OF CALIFORNIA
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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 8 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01 System Name	02 System Zoning	03 Conditioned Floor Area Being Served (ft²)	04 Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	05 Shut-Off Controls 120.2(e) & 160.3(a)2D	06 Isolation Zone Controls 120.2(g) & 160.3(a)2F	07 Demand Response 110.12 120.2(b) & 160.3(a)2B	08 Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	09 Window Interlocks per 140.4(n) & 170.2(c)4D
AC-B3-1	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-B3-2	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-B3-1	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/]160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.
Multifamily Dwelling Unit Ventilation Systems		

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 9 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

J. VENTILATION AND INDOOR AIR QUALITY

☐ Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2

19	20	21	22	23	24	25	26	27
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft²)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		
28	Is this a balanced system[4]				29	Meeting Outside Air Requirements?		

[1] *FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*
[2] *Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.*
[3] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*
[4] *A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.*

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

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DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG B3

M0.13

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 10 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

L. DISTRIBUTION (DUCTWORK and PIPING)

			Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
			Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes
11	No	The scope of the project includes only duct systems serving healthcare facilities		
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.		
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.		
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:		
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.		
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.		
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A		
18	No	All ductwork is an extension of an existing duct system		
19	No	Ductwork serving individual dwelling unit		
20	No	< 25 ft of new or replacement space conditioning ducts installed		
21	R-8	Dust Insulation R-value		

M. COOLING TOWERS

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 11 of 12)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	
NRCA-MCH-05-A - Air Economizer Controls	AC-B3-1; AC-B3-2

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location
03		04
Mandatory Measure		**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1		M5.01
Cooling Equipment Efficiency per 110.1		M5.01
Furnace Standby Loss Control per 110.2(d)		N/A
Duct Insulation per 120.4		M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)		M0.00
The air duct and plenum system is designed per 120.4(a)-(f)		Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		N/A

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97364-0323-0003
Report Generated: 2023-03-27 16:41:35

STATE OF CALIFORNIA
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Project Name:	Sequoia Elementary School - Modernization Project - Building B3	**Report Page:** (Page 12 of 12)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T19:41:31-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

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: Rex Wang	Responsible Designer Signature:
Company: LEAF Engineers	Date Signed: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	License: M36155
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97364-0323-0003
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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG B3

M0.14

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.		
Project Name:	Sequoia Elementary School - Modernization Project - Building B4	**Report Page:** (Page 1 of 11)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:12:58-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04	Total Conditioned Floor Area	1920
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

● Library ● School or Classroom

B. PROJECT SCOPE

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

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

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B4	**Report Page:** (Page 2 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:12:58-04:00

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01 System Name	02 Quantity	03 System Serving	04 System Status	05 Space Type	06 Utilizing Recovered Heat
AC-B4-1	1	Single zone	Alteration		☐

STATE OF CALIFORNIA
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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:12:58-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01 System Name	02 Quantity	03 System Serving	04 System Status	05 Space Type	06 Utilizing Recovered Heat
AC-B4-2	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
				Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
AC-B4-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,970	38,970	0	40,420	48,150	30000	45,000
AC-B4-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,940	38,940	0	40,360	48,140	30000	45,000

[1] FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.
[2] It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
[3] If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
[4] Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).

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	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:12:58-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
AC-B4-1	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-B4-2	<65,000		HSPF	8	8.69	SEER	14	16.2

G. PUMPS

This section does not apply to this project.

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B4	**Report Page:** (Page 5 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:12:58-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	AC-B4-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
											Allowance			Design	
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-B4-1	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B4	**Report Page:** (Page 6 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:12:58-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	AC-B4-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
											Allowance			Design	
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-B4-2	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

[1] FOOTNOTES: Fans serving spaces with design background noise goals below NC35
[2] Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.
[3] Fan system allowance includes fan system base allowance.
[4] Filter pressure loss can only be counted once per fan system.
[5] Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.
[6] Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..

Fan Energy Index (FEI)

01 Name or Item Tag	02 FEI Exception	03 FEI
AC-B4-1	Embedded Fan Regulated under 110.2 or 110.1	
AC-B4-2	Embedded Fan Regulated under 110.2 or 110.1	

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CALIFORNIA ENERGY COMMISSION

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	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:12:58-04:00

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01 System Name	02 System Zoning	03 Conditioned Floor Area Being Served (ft²)	04 Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	05 Shut-Off Controls 120.2(e) & 160.3(a)2D	06 Isolation Zone Controls 120.2(g) & 160.3(a)2F	07 Demand Response 110.12 120.2(b) & 160.3(a)2B	08 Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	09 Window Interlocks per 140.4(n) & 170.2(c)4D
AC-B4-1	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-B4-2	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1] FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:\t24refnolink\160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.
Multifamily Dwelling Unit Ventilation Systems		
☐	Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2	

19	20	21	22	23	24	25	26	27

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B4	**Report Page:** (Page 8 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:12:58-04:00

J. VENTILATION AND INDOOR AIR QUALITY

Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft²)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		
28	Is this a balanced system[4]				29	Meeting Outside Air Requirements?		

[1] FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.
[2] Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.
[3] Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.
[4] A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

STATE OF CALIFORNIA
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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building B4	**Report Page:** (Page 9 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:12:58-04:00

L. DISTRIBUTION (DUCTWORK and PIPING)

		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.	
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:	
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A	
18	No	All ductwork is an extension of an existing duct system	
19	No	Ductwork serving individual dwelling unit	
20	No	< 25 ft of new or replacement space conditioning ducts installed	
21	R-8	Dust Insulation R-value	

M. COOLING TOWERS

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
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WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG B4

M0.15

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	
NRCA-MCH-05-A - Air Economizer Controls	AC-B4-1; AC-B4-2

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location

03	04
Mandatory Measure	**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1	M5.01
Cooling Equipment Efficiency per 110.1	M5.01
Furnace Standby Loss Control per 110.2(d)	N/A
Duct Insulation per 120.4	M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)	M0.00
The air duct and plenum system is designed per 120.4(a)-(f)	Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2	N/A

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			**NRCC-MCH-E**
Project Name:	Sequoia Elementary School - Modernization Project - Building B4	**Report Page:**	**(Page 11 of 11)**
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T20:12:58-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

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: Rex Wang	Responsible Designer Signature:
Company: LEAF Engineers	Date Signed: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	License: M36155
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97375-0323-0002
Report Generated: 2023-03-27 17:13:02

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK
ARCHITECT PBK Architects, Inc.
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2400 E. Katella Ave., Suite 950
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Architect

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DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG B4

M0.16

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations.		
Project Name:	Sequoia Elementary School - Modernization Project - Building C	**Report Page:** (Page 1 of 17)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-28T13:22:56-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04	Total Conditioned Floor Area	3943
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

● Classroom ● Office ● Support Areas

B. PROJECT SCOPE

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

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

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97446-0323-0002
Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	**Report Page:** (Page 2 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-28T13:22:56-04:00

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01 System Name	02 Quantity	03 System Serving	04 System Status	05 Space Type	06 Utilizing Recovered Heat
FC-C1	1	Single zone	Alteration		☐

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97446-0323-0002
Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	**Report Page:** (Page 3 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-28T13:22:56-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01 System Name	02 Quantity	03 System Serving	04 System Status	05 Space Type	06 Utilizing Recovered Heat
FC-C2	1	Single zone	Alteration		☐
FC-C3	1	Single zone	Alteration		☐
FC-C4	1	Single zone	Alteration		☐
FC-C5	1	Single zone	Alteration		☐
FC-C6	1	Single zone	Alteration		☐
FC-C7	1	Single zone	Alteration		☐
FC-C8	1	Single zone	Alteration		☐
FC-C9	1	Single zone	Alteration		☐
FC-C10	1	Single zone	Alteration		☐

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
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Documentation Software: Energy Code Ace
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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	**Report Page:** (Page 4 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-28T13:22:56-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01 Name or Item Tag	02 Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	03 Equipment Type per Tables 110.2 and Title 20	04 Smallest Size Available[1] 140.4(a) and 170.2(c)1	05–11 Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
				05 Per Design (kBtu/h)	06 Rated (kBtu/h)	07 Supp. Heating Output (kBtu/h)	08 Sensible Per Design (kBtu/h)	09 Rated (kBtu/h)	10 Total Heating Load (kBtu/h)	11 Total Sensible Cooling Load (kBtu/h)
FC-C1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	27,800	27,800	0	20,300	25,300	19000	20,000
FC-C2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	27,800	27,800	0	20,300	25,300	19000	20,000
FC-C3	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	27,800	27,800	0	20,300	25,300	19000	20,000
FC-C4	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	27,800	27,800	0	20,300	25,300	19000	20,000
FC-C5	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	27,800	27,800	0	20,300	25,300	19000	20,000
FC-C6	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	27,800	27,800	0	20,300	25,300	19000	20,000
FC-C7	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	27,800	27,800	0	20,300	25,300	19000	20,000
FC-C8	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	27,800	27,800	0	20,300	25,300	19000	20,000
FC-C9	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	12,000	12,000	0	12,000	12,000	9000	9,000
FC-C10	Unitary Heat Pumps (no elec. resistance)	Air-cooled, split (1phase)	Yes	12,000	12,000	0	12,000	12,000	9000	9,000

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97446-0323-0002
Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	**Report Page:** (Page 5 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-28T13:22:56-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11

[1]FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.
[2]It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
[3] If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
[4] Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01 Name or Item Tag	02 Size Category (Btu/h)	03 Heating Mode: Rating Condition (°F)	04 Heating Mode: Efficiency Unit	05 Heating Mode: Minimum Efficiency Required per Tables 110.2 / Title 20	06 Heating Mode: Design Efficiency	07 Cooling Mode: Efficiency Unit	08 Cooling Mode: Minimum Efficiency Required per Tables 110.2 / Title 20	09 Cooling Mode: Design Efficiency
FC-C1	<65,000		HSPF	8.19	8.5	SEER	14	17
FC-C2	<65,000		HSPF	8.19	8.5	SEER	14	17
FC-C3	<65,000		HSPF	8.19	8.5	SEER	14	17
FC-C4	<65,000		HSPF	8.19	8.5	SEER	14	17
FC-C5	<65,000		HSPF	8.19	8.5	SEER	14	17
FC-C6	<65,000		HSPF	8.19	8.5	SEER	14	17
FC-C7	<65,000		HSPF	8.19	8.5	SEER	14	17
FC-C8	<65,000		HSPF	8.19	8.5	SEER	14	17
FC-C9	<65,000		HSPF	8.19	10.6	SEER	14	21.5
FC-C10	<65,000		HSPF	8.19	10.6	SEER	14	21.5

G. PUMPS

This section does not apply to this project.

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97446-0323-0002
Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	**Report Page:** (Page 6 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-28T13:22:56-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	FC-C1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	235	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C1	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.09
			Fan System Allowance (kW)[3]	0.09		Fan System Electrical Output (kW)		0.09		

System Name	FC-C2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	235	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C2	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.09
			Fan System Allowance (kW)[3]	0.09		Fan System Electrical Output (kW)		0.09		

System Name	FC-C3	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	235	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C3	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.09
			Fan System Allowance (kW)[3]	0.09		Fan System Electrical Output (kW)		0.09		

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
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Compliance ID: 97446-0323-0002
Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	**Report Page:** (Page 7 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-28T13:22:56-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	FC-C4	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	235	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C4	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.09
			Fan System Allowance (kW)[3]	0.09		Fan System Electrical Output (kW)		0.09		

System Name	FC-C5	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	235	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C5	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.09
			Fan System Allowance (kW)[3]	0.09		Fan System Electrical Output (kW)		0.09		

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	**Report Page:** (Page 8 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-28T13:22:56-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	FC-C6	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	235	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C6	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.09
			Fan System Allowance (kW)[3]	0.09		Fan System Electrical Output (kW)		0.09		

System Name	FC-C7	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	235	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C7	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.09
			Fan System Allowance (kW)[3]	0.09		Fan System Electrical Output (kW)		0.09		

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97446-0323-0002
Report Generated: 2023-03-28 10:23:00

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DATE: 11/28/2023

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG C

M0.17

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	Report Page: (Page 10 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-28T13:22:56-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	FC-C8	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	235	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C8	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.09
			Fan System Allowance (kW)[3]			0.09		Fan System Electrical Output (kW)		0.09

System Name	FC-C9	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	400	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C9	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.14
			Fan System Allowance (kW)[3]			0.15		Fan System Electrical Output (kW)		0.14

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 97446-0323-0002 Report Generated: 2023-03-28 10:23:00

I. SYSTEM CONTROLS

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats	Shut-Off Controls	Isolation Zone Controls	Demand Response	Supply Air Temp. Reset	Window Interlocks per
FC-C5	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C6	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C7	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C8	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C9	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C10	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1]*FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/J160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Multifamily Dwelling Unit Ventilation Systems

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 97446-0323-0002 Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	Report Page: (Page 11 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-28T13:22:56-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	FC-C10	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	400	Site Elevation	38	Economizer	NA: <=33 kBtu/h cooling
01	02	03	04						05	06	07	08	09	10	11

Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g)	Allowance: Component Allowance	Allowance: Fan Allowance (watt/cfm)[3]	Design: Design Electrical Input Power Method	Design: Motor Nameplate Horsepower	Design: Design Electrical Input Power (kW)
FC-C10	Supply	1	Supply Fan System	100		0.13	0.139	Manufacturer provided		0.14
			Fan System Allowance (kW)[3]			0.15		Fan System Electrical Output (kW)		0.14

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*
[2] *Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.*
[3] *Fan system allowance includes fan system base allowance.*
[4] *Filter pressure loss can only be counted once per fan system.*
[5] *Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.*
[6] *Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..*

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
FC-C1	Embedded Fan Regulated under 110.2 or 110.1	
FC-C2	Embedded Fan Regulated under 110.2 or 110.1	
FC-C3	Embedded Fan Regulated under 110.2 or 110.1	

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 97446-0323-0002 Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	Report Page: (Page 12 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-28T13:22:56-04:00

Fan Energy Index (FEI)

FC-C4	Embedded Fan Regulated under 110.2 or 110.1	
FC-C5	Embedded Fan Regulated under 110.2 or 110.1	
FC-C6	Embedded Fan Regulated under 110.2 or 110.1	
FC-C7	Embedded Fan Regulated under 110.2 or 110.1	
FC-C8	Embedded Fan Regulated under 110.2 or 110.1	
FC-C9	Embedded Fan Regulated under 110.2 or 110.1	
FC-C10	Embedded Fan Regulated under 110.2 or 110.1	

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats	Shut-Off Controls	Isolation Zone Controls	Demand Response	Supply Air Temp. Reset	Window Interlocks per
FC-C1	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C2	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C3	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C4	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 97446-0323-0002 Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	Report Page: (Page 13 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-28T13:22:56-04:00

I. SYSTEM CONTROLS

FC-C5	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C6	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C7	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C8	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C9	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
FC-C10	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1]*FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/J160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Multifamily Dwelling Unit Ventilation Systems

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 97446-0323-0002 Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	Report Page: (Page 14 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-28T13:22:56-04:00

J. VENTILATION AND INDOOR AIR QUALITY

☐ Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2

19	20	21	22	23	24	25	26	27
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft²)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		

28	Is this a balanced system[4]		29	Meeting Outside Air Requirements?	

[1] *FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*
[2] *Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.*
[3] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*
[4] *A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.*

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	NR/ Common Use: Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 97446-0323-0002 Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	Report Page: (Page 15 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-28T13:22:56-04:00

L. DISTRIBUTION (DUCTWORK and PIPING)

		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.	
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:	
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A	
18	No	All ductwork is an extension of an existing duct system	
19	No	Ductwork serving individual dwelling unit	
20	No	< 25 ft of new or replacement space conditioning ducts installed	
21	R-8	Dust Insulation R-value	

M. COOLING TOWERS

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 97446-0323-0002 Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	Report Page: (Page 16 of 17)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-28T13:22:56-04:00

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location
03		04
Mandatory Measure		**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1		M5.02
Cooling Equipment Efficiency per 110.1		M5.02
Furnace Standby Loss Control per 110.2(d)		N/A
Duct Insulation per 120.4		M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)		M0.00
The air duct and plenum system is designed per 120.4(a)-(f)		Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		N/A

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 97446-0323-0002 Report Generated: 2023-03-28 10:23:00

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building C	Report Page: (Page 17 of 17)
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	Date Prepared: 2023-03-28T13:22:56-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Maher Dandachi	Documentation Author Signature:
Company: LEAF Engineers	Signature Date: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

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: Rex Wang	Responsible Designer Signature:
Company: LEAF Engineers	Date Signed: 03/28/2023
Address: 8163 Rochester Ave., Ste 100	License: M36155
City/State/Zip: Rancho Cucamonga, CA 91730	Phone: 909.987.0909

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 97446-0323-0002 Report Generated: 2023-03-28 10:23:00

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

R5

KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp 09-30-2024
SIGNATURE
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG C

M0.18

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, or 141.0(b)2 for alterations. 5900 IROQUOIS RD WESTMINSTER, CA 92683		
Project Name:	Sequoia Elementary School - Modernization Project - Building K1	**Report Page:** (Page 1 of 11)
Project Address:		**Date Prepared:** 2023-03-27T20:48:16-04:00

A. GENERAL INFORMATION

01	Project Location (city)	Westminster	04	Total Conditioned Floor Area	2022
02	Climate Zone	6	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

• Classroom

B. PROJECT SCOPE

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

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

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97388-0323-0002
Report Generated: 2023-03-27 17:48:20

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building K1	**Report Page:** (Page 2 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:48:16-04:00

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS

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

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-K1-1	1	Single zone	Alteration		☐

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97388-0323-0002
Report Generated: 2023-03-27 17:48:20

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building K1	**Report Page:** (Page 3 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:48:16-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Space Conditioning System Information

01	02	03	04	05	06
System Name	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat
AC-K1-2	1	Single zone	Alteration		☐

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	Equipment Type per Tables 110.2 and Title 20	Smallest Size Available[1] 140.4(a) and 170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h) 140.4(a&b), 170.2(c)1 & 170.2(c)2						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
AC-K1-1	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,670	38,670	0	39,590	48,000	30000	45,000
AC-K1-2	Unitary Heat Pumps (no elec. resistance)	Air-cooled, pkg (3 phase)	Yes	38,750	38,750	0	39,830	48,050	30000	45,000

[1] *FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are excepted.*
[2] *It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*
[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*
[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).*

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97388-0323-0002
Report Generated: 2023-03-27 17:48:20

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building K1	**Report Page:** (Page 4 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:48:16-04:00

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode				Cooling Mode		
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
AC-K1-1	<65,000		HSPF	8	8.69	SEER	14	16.2
AC-K1-2	<65,000		HSPF	8	8.69	SEER	14	16.2

G. PUMPS

This section does not apply to this project.

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97388-0323-0002
Report Generated: 2023-03-27 17:48:20

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building K1	**Report Page:** (Page 5 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:48:16-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name	AC-K1-1	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-K1-1	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

Registration Number:
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance
Generated Date/Time:
Report Version: 2022.0.000
Schema Version: rev 20220101
Documentation Software: Energy Code Ace
Compliance ID: 97388-0323-0002
Report Generated: 2023-03-27 17:48:20

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building K1	**Report Page:** (Page 6 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:48:16-04:00

H. FAN SYSTEMS & AIR ECONOMIZERS

System Name	AC-K1-2	Quantity	1	Fan System Status	Alteration	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	1,600	Site Elevation	38	Economizer	Fixed Enthalpy
01	02	03	04						05	06	07	08	09	10	11
Fan Name or Item Tag	Fan Type	Qty	Component						Airflow through Component (%)	Water Gauge (w.g)	Allowance		Design		
											Component Allowance	Fan Allowance (watt/cfm)[3]	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kW)
AC-K1-2	Supply	1	Supply Fan System						100		0.13	0.139	Manufacturer provided		0.59
									Fan System Allowance (kW)[3]		0.59		Fan System Electrical Output (kW)		0.59

[1] *FOOTNOTES: Fans serving spaces with design background noise goals below NC35*
[2] *Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.*
[3] *Fan system allowance includes fan system base allowance.*
[4] *Filter pressure loss can only be counted once per fan system.*
[5] *Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both.*
[6] *Computer room economizers must meet requirements of 140.9(a) and will be documented on the NRCC-PRC-E document..*

Fan Energy Index (FEI)

01	02	03
Name or Item Tag	FEI Exception	FEI
AC-K1-1	Embedded Fan Regulated under 110.2 or 110.1	
AC-K1-2	Embedded Fan Regulated under 110.2 or 110.1	

Registration Number:
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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building K1	**Report Page:** (Page 7 of 11)
	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:48:16-04:00

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D
AC-K1-1	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows
AC-K1-2	Single zone	<= 25,000 ft²	Setback	NA: Altered per 141.0(b)2E	NA: Single Zone	DR Tstat per 110.12	NA: Single Zone	NA: No operable windows

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24refnolink/J160.2, 160.3(a)3D, 170.2(a)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Multifamily Dwelling Unit Ventilation Systems

☐	Check the box if the system is using continuous ventilation to meet the ventilation requirements per 160.2(b)2Aivb2

19	20	21	22	23	24	25	26	27

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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J. VENTILATION AND INDOOR AIR QUALITY

Space Name or Item Tag	Mechanical Ventilation Required per 120.1(b) & 160.2(b)2				Ventilation per Design		Local Exhaust	Air Filtration per 120.1(c) & 160.2(b)1
	Conditioned Floor Area (ft²)	# of Bedrooms	# of Dwelling Units	Required Min OA CFM[1]	Supply Air CFM	Exhaust CFM		
28	Is this a balanced system[4]				29	Meeting Outside Air Requirements?		

[1] *FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*
[2] *Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.*
[3] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*
[4] *A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent.*

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)

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

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

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	Supply	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:** 2023-03-27T20:48:16-04:00

L. DISTRIBUTION (DUCTWORK and PIPING)

		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	Yes
11	No	The scope of the project includes only duct systems serving healthcare facilities	
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.	
14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system:	
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A	
18	No	All ductwork is an extension of an existing duct system	
19	No	Ductwork serving individual dwelling unit	
20	No	< 25 ft of new or replacement space conditioning ducts installed	
21	R-8	Dust Insulation R-value	

M. COOLING TOWERS

This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

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P 949-548-5000

CONSULTANT LEAF Engineers
LEAF ENGINEERS
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Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT
DATE 03/31/2023
PROJECT NUMBER 220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL TITLE 24 BLDG K1

M0.19

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	
NRCA-MCH-05-A - Air Economizer Controls	AC-K1-1; AC-K1-2

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

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

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	No	Plan sheet or construction document location
03		04
Mandatory Measure		**Plan sheet or construction document location**
Heating Equipment Efficiency per 110.1		M5.01
Cooling Equipment Efficiency per 110.1		M5.01
Furnace Standby Loss Control per 110.2(d)		N/A
Duct Insulation per 120.4		M0.00
Heat Pump with Supplemental electric Resistance Heater Controls per 110.2(b)		M0.00
The air duct and plenum system is designed per 120.4(a)-(f)		Yes
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		N/A

STATE OF CALIFORNIA
Mechanical Systems CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	Sequoia Elementary School - Modernization Project - Building K1	**Report Page:**	**(Page 11 of 11)**
Project Address:	5900 IROQUOIS RD WESTMINSTER, CA 92683	**Date Prepared:**	2023-03-27T20:48:16-04:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name:	Maher Dandachi	Documentation Author Signature:	
Company:	LEAF Engineers	Signature Date:	03/28/2023
Address:	8163 Rochester Ave., Ste 100	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	Rancho Cucamonga, CA 91730	Phone:	909.987.0909

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:	Rex Wang	Responsible Designer Signature:	
Company:	LEAF Engineers	Date Signed:	03/28/2023
Address:	8163 Rochester Ave., Ste 100	License:	M36155
City/State/Zip:	Rancho Cucamonga, CA 91730	Phone:	909.987.0909

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

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DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

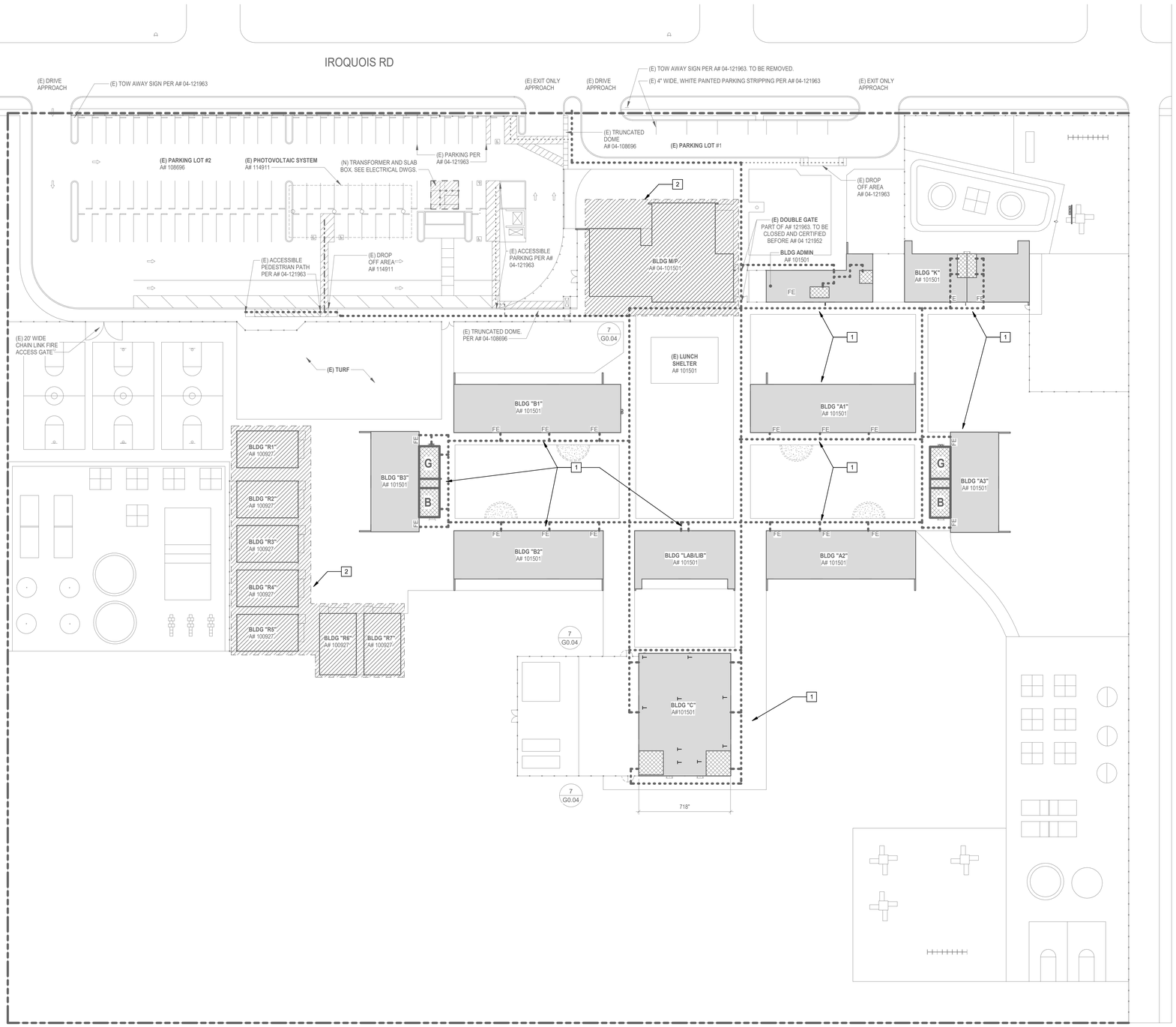
DSA Submittal

MECHANICAL TITLE 24 BLDG K1

M0.20

M1.01 - MECHANICAL SITE PLAN

0" 1"



NORTH

KEY NOTES

1 SCOPE OR WORK AREA.

2 NOT IN SCOPE OF WORK AREA.

1 MECHANICAL SITE PLAN
1" = 30'-0"

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9/18/2023 3:40:35 PM

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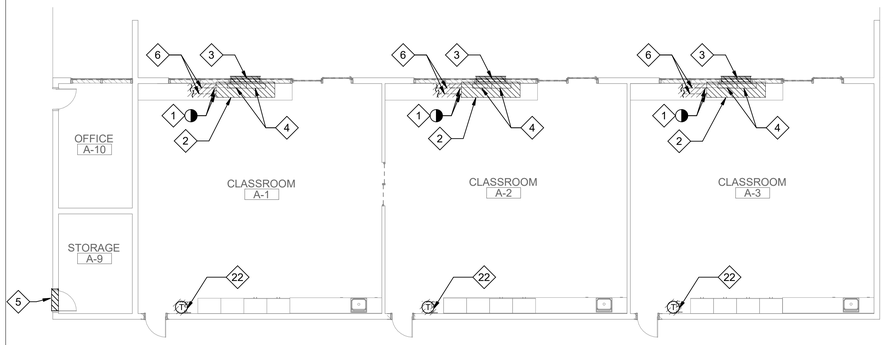
No.	Description	Date

DSA Submittal

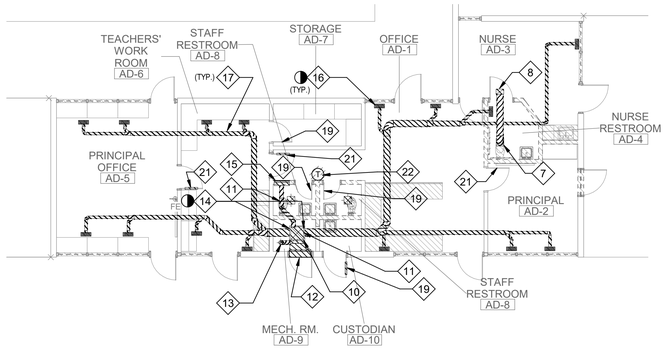
MECHANICAL SITE PLAN

M1.01

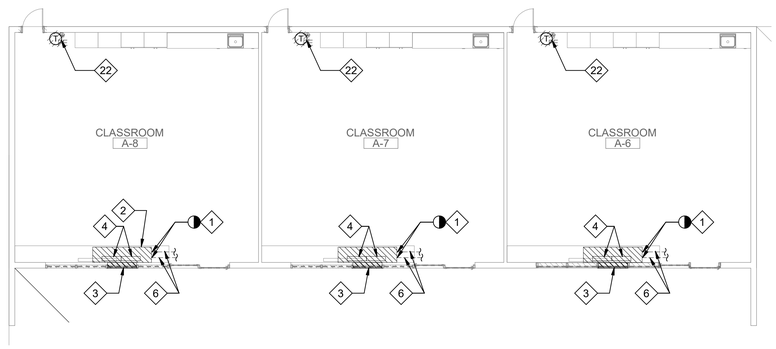
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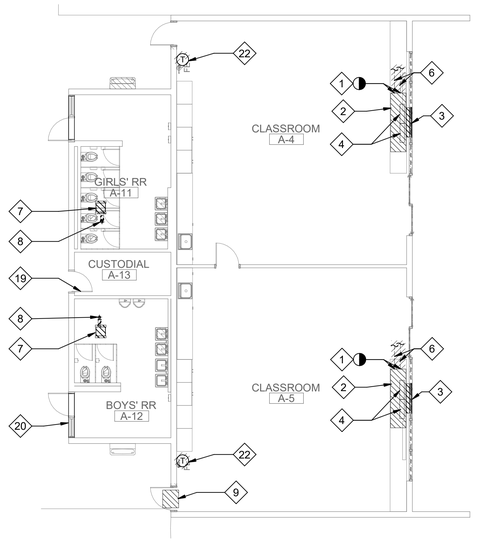
4 FLOOR PLAN DEMO - BLDG A-1
1/8" = 1'-0"



2 FLOOR PLAN DEMO - BLDG ADMIN
1/8" = 1'-0"



3 FLOOR PLAN DEMO - BLDG A-2
1/8" = 1'-0"



1 FLOOR PLAN DEMO - BLDG A-3
1/8" = 1'-0"

DEMOLITION GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, LOUVERS, ACCESSORIES, ETC. BEFORE COMMENCING WORK.

DEMOLITION KEY NOTES

1. DISCONNECT (E) HWS&R AT POINT OF DISCONNECT (BELOW GROUND). PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
2. (E) HEATER TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, PIPES, WIRING, ACCESSORIES, ETC.
3. (E) OSA GRILLE/LOUVER TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, ETC.. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
4. (E) TOP OF COUNTER GRILLES TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
5. (E) ABOVE DOOR LOUVER TO BE DOMOLISHED WITH ALL ASSOCIATED ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACES TO MATCH EXISTING.
6. (E) HWS&R PIPE TO BE ABONDONED.
7. (E) CEILING EXHAUST FAN TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, WIRING, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
8. (E) EXHAUST AIR DUCT AND UTR TO BE DEMOLISHED WITH ALL ASSOCIATED ROOF CURB, ROOF CAP, ETC.
9. (E) WINDOW TYPE A/C UNIT (ABOVE DOOR) TO BE DEMOLSHED WITH ALL ASSOCIATED WIRING, SUPPORT, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACES TO MATCH EXISTING.
10. (E) FLOOR MOUNTED HEATER TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, PIPING, WIRING, DAMPERS, ETC. PATCH, REPAIR AND PAINT SURFCES TO MATCH EXISTING.
11. (E) RA DUCT AND PLENUM TO BE DEMOLISHED WITH ALL ASSCIATED DAMPERS, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACES TO MATCH EXISTING.
12. (E) OSA LOUVERS (ABOVE AND BELOW DOOR) TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, ACCESSOIRES, ETC. PATCH, REPAIN AND PAINT SURFACES TO MATCH EXISTING.
13. (E) GAS FLUE DUCT AND UTR TO BE DEMOLISHED WITH ALL ASSOCIATED ACCESSORIES, ROOF CURB, ROOF CAP, ETC.. PAINT, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
14. DISCONNECT (E) UNDERGROUND DUCT BELOW FLOOR AND CAP. PATCH, REPAIR AND PAINT SURFACES TO MATCH EXISTING.
15. (E) RA REGISTER TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, DAMPER, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
16. (E) FLOOR MOUNTED SA GRILLE TO BE DEMOLISHED. DISCONNECT (E) DUCT BELOW GROUND AND CAP. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
17. (E) UNDERGROUND DUCT TO BE ABANDONED. SIZES ARE APPROXIMATE ONLY.
18. (E) DOOR LOUVER TO BE DEMOLISHED, REFER TO ARCH. DRAWING FOR DOOR REMOVAL.
19. (E) DOOR LOUVER TO REMAIN.
20. (E) LOUVER (ABOVE DOOR) TO REMAIN.
21. (E) DOOR LOUVER TO BE DEMOLISHED. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
22. (E) THERMOSTAT TO BE DEMOLISHED WITH ALL ASSOCIATED WIRING, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.

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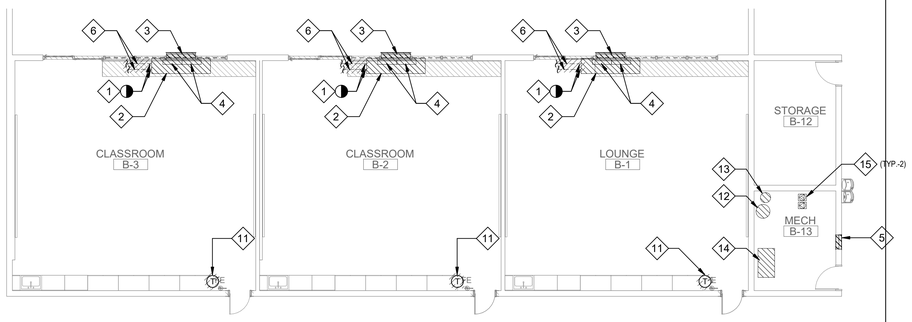
No.	Description	Date

DSA Submittal

MECHANICAL FLOOR PLANS - DEMO

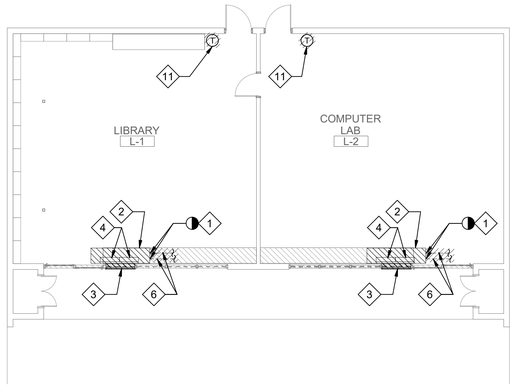
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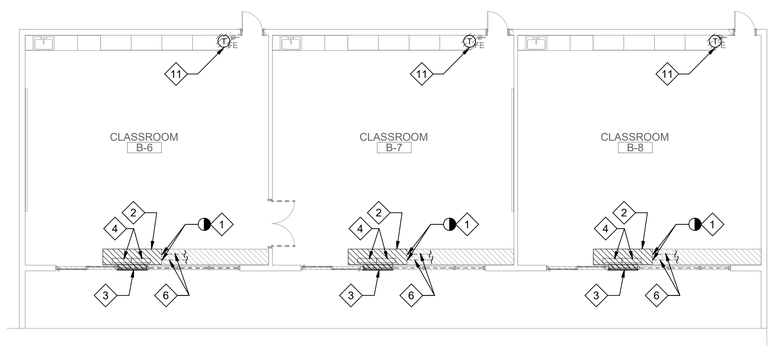
NORTH

4 FLOOR PLAN DEMO - BLDG B-1
1/8" = 1'-0"



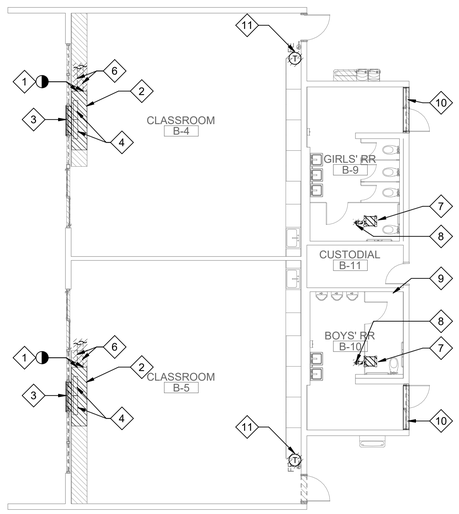
NORTH

2 FLOOR PLAN DEMO - BLDG LAB/LIB
1/8" = 1'-0"



NORTH

3 FLOOR PLAN DEMO - BLDG B-2
1/8" = 1'-0"



NORTH

1 FLOOR PLAN DEMO - BLDG B-3
1/8" = 1'-0"

DEMOLITION GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, LOUVERS, ACCESSORIES, ETC. BEFORE COMMENCING WORK.

DEMOLITION KEY NOTES

1. DISCONNECT (E) HWS&R AT POINT OF DISCONNECT (BELOW GROUND). PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
2. (E) HEATER TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, PIPES, WIRING, ACCESSORIES, ETC.
3. (E) OSA GRILLE/LOUVER TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, ETC.. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
4. (E) TOP OF COUNTER GRILLES TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
5. (E) ABOVE DOOR LOUVER TO BE DOMOLISHED WITH ALL ASSOCIATED ACCESSORIES, ETC. PATACH, REPAIR AND PAINT SURFACES TO MATCH EXISTING.
6. (E) HWS&R PIPE TO BE ABONDONED.
7. (E) CEILING EXHAUST FAN TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, WIRING, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
8. (E) EXHAUST AIR DUCT AND UTR TO BE DEMOLISHED WITH ALL ASSOCIATED ROOF CURB, ROOF CAP, ETC.
9. (E) DOOR LOUVER TO REMAIN.
10. (E) LOUVER (ABOVE DOOR) TO REMAIN.
11. (E) THERMOSTAT TO BE DEMOLISHED WITH ALL ASSOCIATED WIRING, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
12. (E) BOILER TO BE DOMOLISHED WITH ALL ASSOCIATED GAS FLUE, PIPING, WIRING, SUPPORT, ROOF CAP, ACCESSORIES, ETC. PATCH REPAIR ALL SURFACES TO MATCH EXISTING.
13. (E) STORAGE TANK TO BE DOMOLISHED WITH ALL ASSOCIATED PIPING, WIRING, SUPPORT, ACCESSORIES, ETC. PATCH REPAIR ALL SURFACES TO MATCH EXISTING.
14. (E) EXPANSION TANK TO BE DOMOLISHED WITH ALL ASSOCIATED PIPING, WIRING, SUPPORT, ACCESSORIES, ETC. PATCH REPAIR ALL SURFACES TO MATCH EXISTING.
15. (E) HOT WATER PUMP TO BE DOMOLISHED WITH ALL ASSOCIATED PIPING, WIRING, SUPPORT, ACCESSORIES, ETC. PATCH REPAIR ALL SURFACES TO MATCH EXISTING.

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DATE: 11/28/2023

PBK

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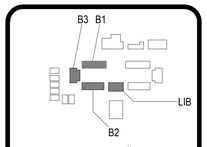
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

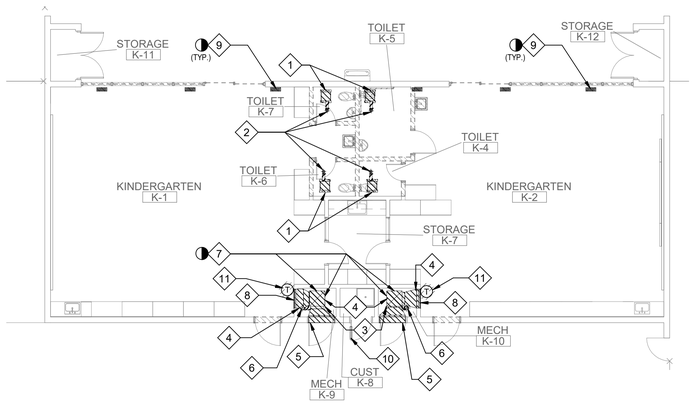
DSA Submittal

MECHANICAL FLOOR PLANS - DEMO

MD2.02

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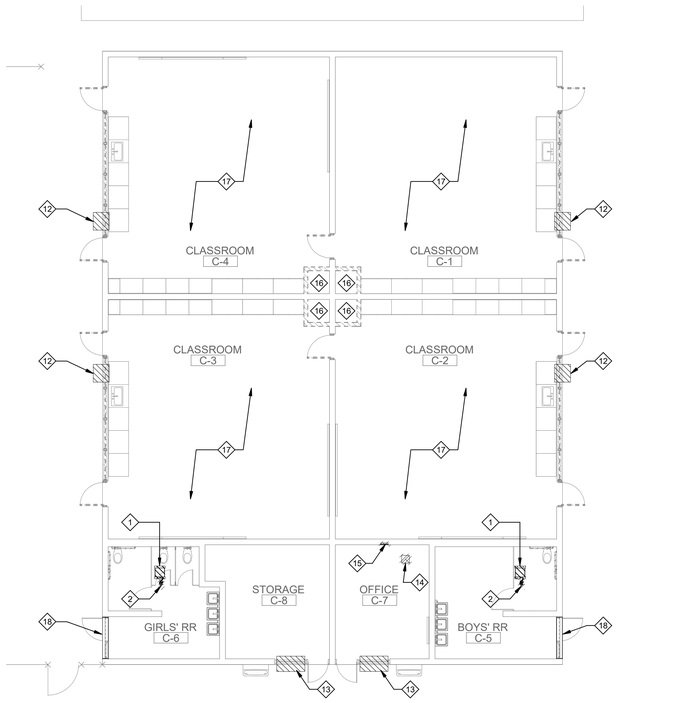
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NORTH

2 FLOOR PLAN DEMO - BLDG K

1/8" = 1'-0"



NORTH

1 FLOOR PLAN DEMO - BLDG C

1/8" = 1'-0"

DEMOLITION GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, LOUVERS, ACCESSORIES, ETC. BEFORE COMMENCING WORK.

DEMOLITION KEY NOTES

1. (E) CEILING EXHAUST FAN TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, WIRING, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
2. (E) EXHAUST AIR DUCT AND UTR TO BE DEMOLISHED WITH ALL ASSOCIATED ROOF CURB, ROOF CAP, ETC.
3. (E) FLOOR MOUNTED HEATER TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, PIPING, WIRING, DAMPERS, ETC. PATCH, REPAIR AND PAINT SURFCES TO MATCH EXISTING.
4. (E) RA DUCT AND PLENUM TO BE DEMOLISHED WITH ALL ASSCIATED DAMPERS, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACES TO MATCH EXISTING.
5. (E) OSA LOUVERS (ABOVE AND BELOW DOOR) TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, ACCESSOIRES, ETC. PATCH, REPAIN AND PAINT SURFACES TO MATCH EXISTING.
6. (E) GAS FLUE DUCT AND UTR TO BE DEMOLISHED WITH ALL ASSOCIATED ACCESSORIES, ROOF CURB, ROOF CAP, ETC.. PAINT, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
7. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UNDERGROUND DUCTWORK, DISCONNECT (E) UNDERGROUND DUCT BELOW FLOOR AND CAP. PATCH, REPAIR AND PAINT SURFACES TO MATCH EXISTING. ALL UNDERGROUND DUCTWORK SHALL BE ABONDONED IN PLACE.
8. (E) RA REGISTER TO BE DEMOLISHED WITH ALL ASSOCIATED DUCTWORK, DAMPER, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
9. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL UNDERGROUND DUCTWORK, DISCONNECT (E) UNDERGROUND DUCT BELOW FLOOR AND CAP. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
10. (E) DOOR LOUVER TO REMAIN.
11. (E) THERMOSTAT TO BE DEMOLISHED WITH ALL ASSOCIATED WIRING, ACCESSORIES, ETC. PATCH, REPAIR AND PAINT SURFACE TO MATCH EXISTING.
12. (E) WINDOW TYPE A/C UNIT (ABOVE DOOR LOVEL) TO BE DEMOLISHED WITH ALL ASSOCIATED WIRING, SUPPORT, ACCESSORIES, ETC.. PATCH, REPAIR, AND PAINT SURFACES TO MATCH EXISTING.
13. (E) WINDOW TYPE A/C UNIT (ABOVE DOOR LOVEL) TO BE DEMOLISHED WITH ALL ASSOCIATED WIRING, PLENUM, SUPPORT, ACCESSORIES, ETC.. PATCH, REPAIR, AND PAINT SURFACES TO MATCH EXISTING.
14. (E) CEILING REGISTER TO BE DEMOLISHED WITH ALL ASSOCIATED DUCT, SUPPORT, ACCESSORIES, ETC. PATCH, REPAIR, AND PAINT SURFACE TO MATCH EXISTING.
15. (E) WALL GRILLE TO BE DEMOLISHED WITH ALL ASSOCIATED DUCT, SUPPORT, ACCESSORIES, ETC. PATCH, REPAIR, AND PAINT SURFACE TO MATCH EXISTING.
16. (E) FLOOR MOUNTED HEATER (INSIDE ABANDONED CLOSET) TO BE DEMOLISHED WITH ALL ASSOCIATED DUCT, WIRING, DAMPER, ACCESSORIES, ETC. REFER TO ARCHITECTURAL DRAWING FOR (E) CLOSET DEMOLITION SCOPE..
17. ALL EXISTING AND/OR ABANDONED DUCT, PIPES (GAS, CONDENSATE DRAIN), DAMPERS, DUCT HANGERS, ACCESSORIES, ETC. TO BE DEMOLISHED. PATCH, PAINT, AND REPAIR SURFACES TO MATCH EXISTING.
18. (E) LOUVER (ABOVE DOOR) TO REMAIN.

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PBK

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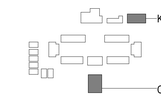
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN N
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

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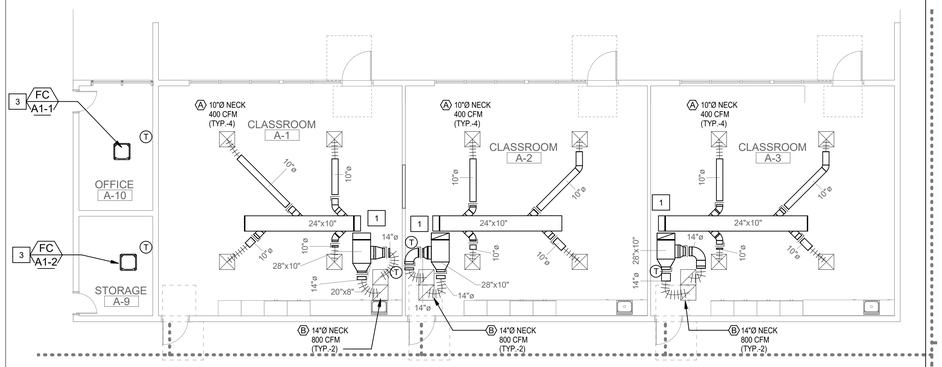
MECHANICAL FLOOR PLANS - DEMO

MD2.03

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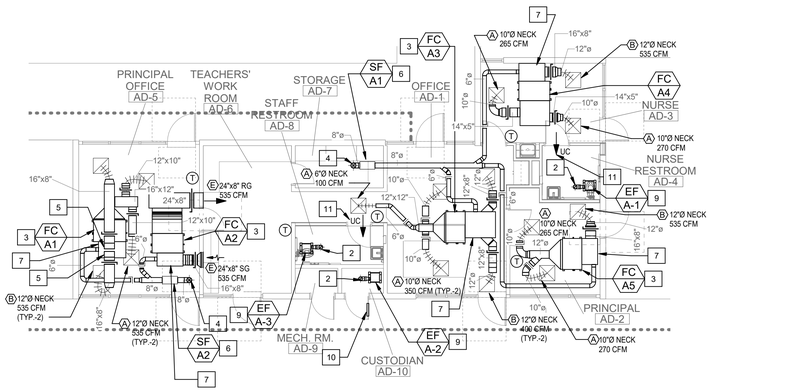
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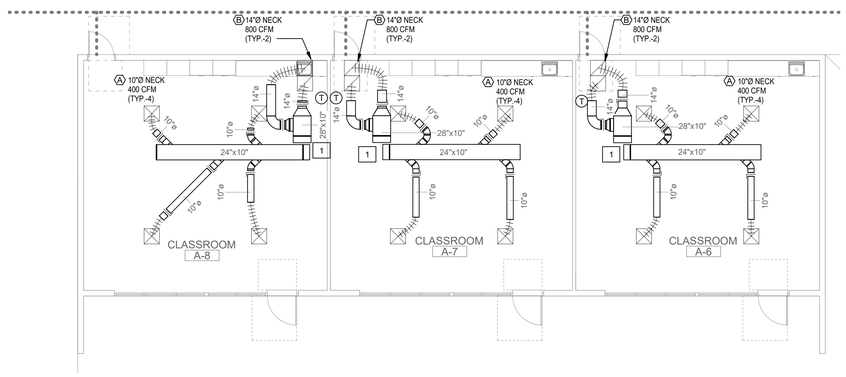
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4 FLOOR PLAN -BLDG A-1
1/8" = 1'-0"



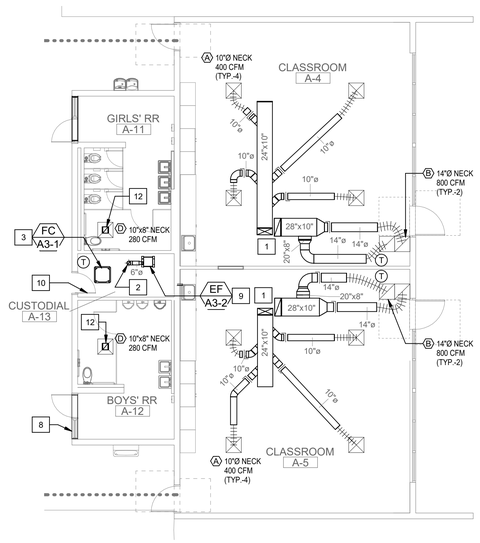
NORTH

2 FLOOR PLAN -BLDG ADMIN
1/8" = 1'-0"



NORTH

3 FLOOR PLAN -BLDG A-2
1/8" = 1'-0"



NORTH

1 FLOOR PLAN -BLDG A-3
1/8" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, LOUVERS, ACCESSORIES, ETC. BEFORE COMMENCING WORK.
2. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL ABOVE CIELING RAFTERS/JOISTS AND BEFORE COMMENCING WORK.
3. ALL THERMOSTATS AND CO2 SENSORS/MONITORS SHALL BE LOCATED MIN. 5'-0" FROM OPERABLE DOORS AND WINDOWS.

KEY NOTES

1	24"x10" SA AND 28"x10" RA DUCTS UTR AND TRANSITION TO A/C UNIT OPENINGS, SEE DETAIL 2/M6.01 AND 4/SD2.
2	6"Ø EA DUCT UTR, SEE DETAIL 5/M6.01 AND 17/SD3.
3	CEILING SUSPENDED FAN COIL UNIT, SEE DETAIL 19/M6.01.
4	8"Ø OSA DUCT UTR, SEE DETAIL 5/M6.01.
5	RA DUCT UP AND RUN AS HIGH AS POSSIBLE IN BETWEEN RAFTERS/JOISTS.
6	CEILING SUSPENDED SUPPLY AIR FAN, SEE DETAIL 11/M6.01.
7	MIXING BOX, SEE DETAIL 20/M6.01.
8	(E) LOUVER (ABOVE DOOR).
9	CEILING MOUNTED EXHAUST FAN, SEE DETAIL 11/M6.01.
10	(E) DOOR LOUVER.
11	3/4" DOOR UNDERCUT.
12	10"x8" EA DUCT UP AND TRANSITION TO 16"x16" EA DUCT UTR, SEE DETAIL 25/M6.01 AND 17/SD3.

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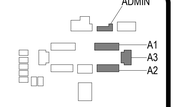
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

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DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

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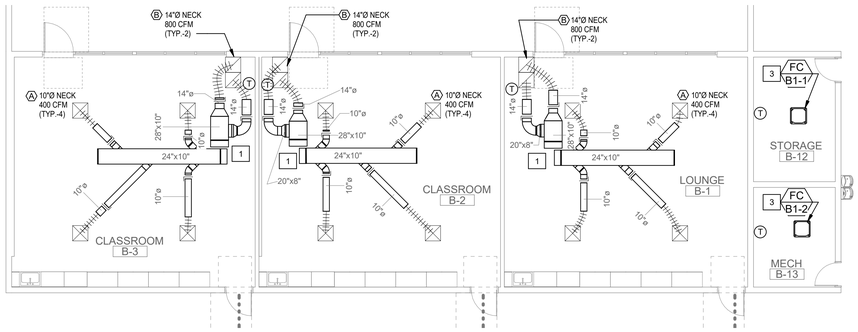
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MECHANICAL FLOOR PLANS

M2.01

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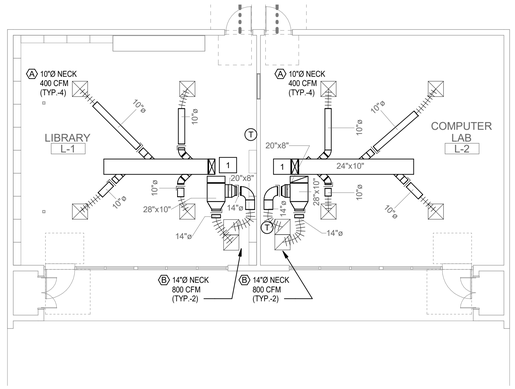


NORTH

4 FLOOR PLAN -BLDG B-1
1/8" = 1'-0"

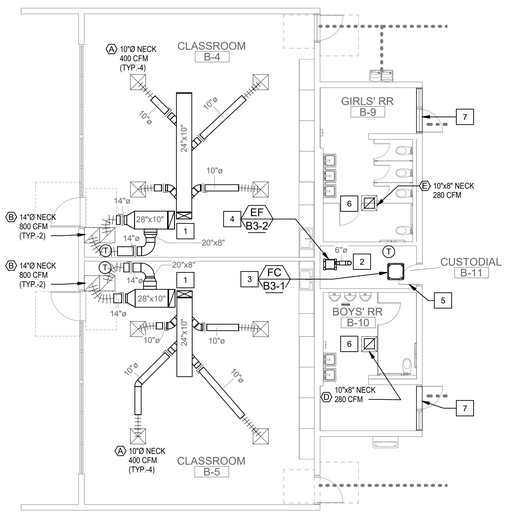
NORTH

3 FLOOR PLAN -BLDG B-2
1/8" = 1'-0"



NORTH

2 FLOOR PLAN -BLDG LAB/LIB
1/8" = 1'-0"



NORTH

1 FLOOR PLAN -BLDG B-3
1/8" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, LOUVERS, ACCESSORIES, ETC. BEFORE COMMENCING WORK.
2. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL ABOVE CEILING RAFTERS/JOISTS AND BEFORE COMMENCING WORK.
3. ALL THERMOSTATS AND CO2 SENSORS/MONITORS SHALL BE LOCATED MIN. 5'-0" FROM OPERABLE DOORS AND WINDOWS.

KEY NOTES

1	24"x10" SA AND 28"x10" RA DUCTS UTR AND TRANSITION TO A/C UNIT OPENINGS, SEE DETAIL 2/M6.01 AND 4/SD2.
2	6"Ø EA DUCT UTR, SEE DETAIL 5/M6.01 AND 17/SD3..
3	CEILING SUSPENDED FAN COIL UNIT, SEE DETAIL 19/M6.01.
4	CEILING MOUNTED EXHAUST FAN, SEE DETAIL 11/M6.01.
5	(E) DOOR LOUVER.
6	10"x8" EA DUCT UP AND TRANSITION TO 16"x16" EA DUCT UTR, SEE DETAIL 25/M6.01 AND 17/SD3.
7	(E) LOUVER (ABOVE DOOR).

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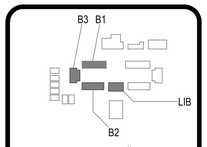
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
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WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

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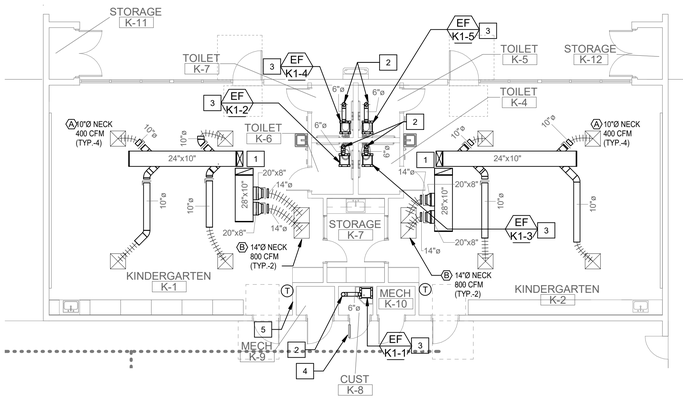
DSA Submittal

MECHANICAL FLOOR PLANS

M2.02

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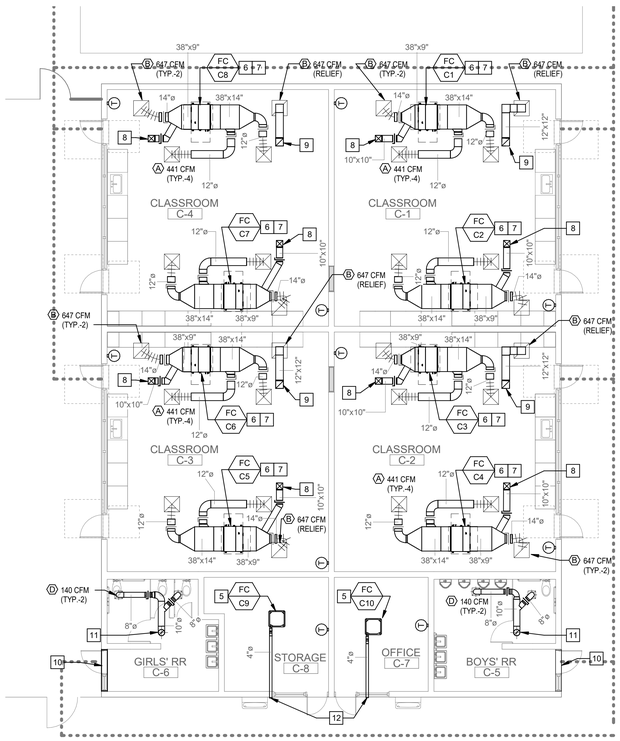
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NORTH

2 FLOOR PLAN -BLDG K

1/8" = 1'-0"



NORTH

1 FLOOR PLAN -BLDG C

1/8" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, LOUVERS, ACCESSORIES, ETC. BEFORE COMMENCING WORK.
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3. ALL THERMOSTATS AND CO2 SENSORS/MONITORS SHALL BE LOCATED MIN. 5'-0" FROM OPERABLE DOORS AND WINDOWS.

KEY NOTES

1	24"x10" SA AND 28"x10" RA DUCTS UTR AND TRANSITION TO A/C UNIT OPENINGS, SEE DETAIL 2/M6.01 AND 4/SD2.
2	6"Ø EA DUCT UTR, SEE DETAIL 5/M6.01 AND 17/SD3.
3	CEILING MOUNTED EXHAUST FAN, SEE DETAIL 11/M6.01.
4	(E) DOOR LOUVER.
5	CEILING SUSPENDED FAN COIL UNIT, SEE DETAIL 19/M6.01.
6	DUCTED FAN COIL UNIT, SEE EQUIPMENT SCHEDULE SHEET M5.01 FOR COMPLETE INFORMATION AND DETAIL 20/M6.01.
7	38"x14" SA & 38"x9" RA DUCT WITH FLEX CONNECTIONS TO UNIT. SA & RA DUCTS SHALL TRANSTION TO ROUND. PROVIDE OSA DUCT OUT OF TOP OF TRANSITION TO ROUND. SEE DETAIL 20/M6.01.
8	10"x10" OSA UTR TO INTAKE CAP, SEE DETAIL 5/M6.01 17/SD3.
9	12"x12" RELIEF AIR DUCT UTR TO RELIEF CAP, SEE DETAIL 27/M6.01 AND 17/SD3.
10	(E) LOUVER (ABOVE DOOR).
11	10"Ø EA DUCT UTR, SEE DETAIL 25/M6.01 AND 17/SD3.
12	6"x6" OSA LOUVER (0.25 SQUARE FEET, 50% FREE AREA).

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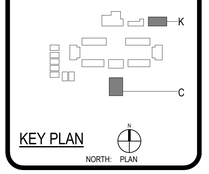
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DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

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Exp.09-30-2024
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STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

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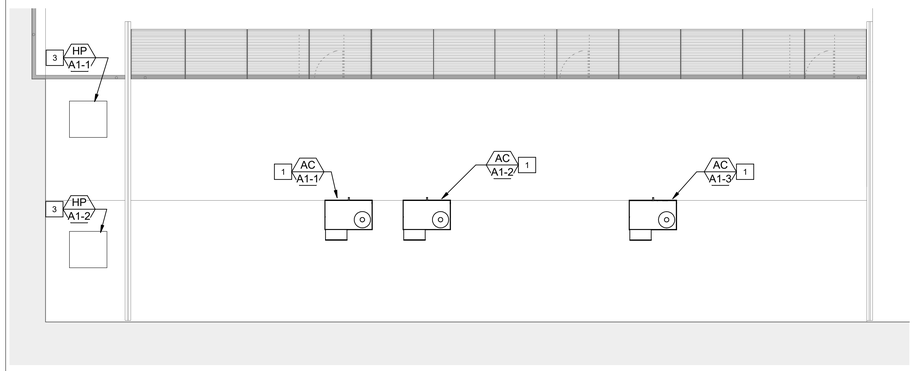
DSA Submittal

MECHANICAL FLOOR PLANS

M2.03

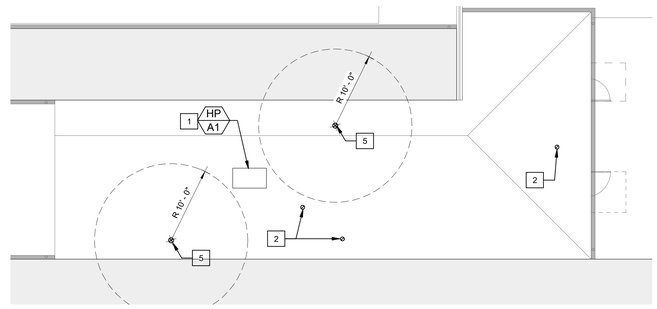
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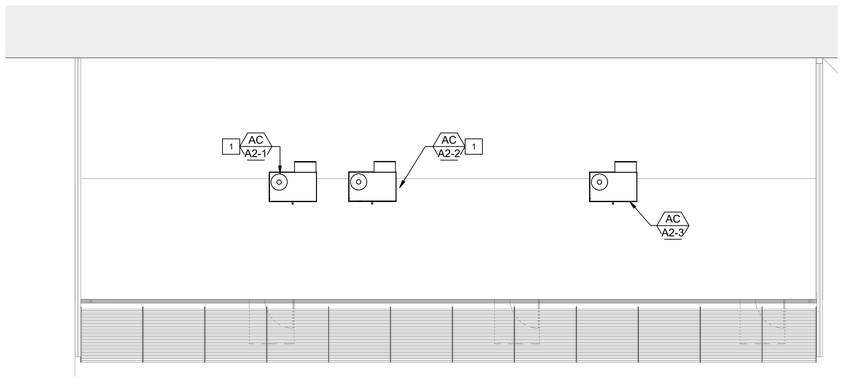
NORTH

4 ROOF PLAN -BLDG A-1
1/8" = 1'-0"



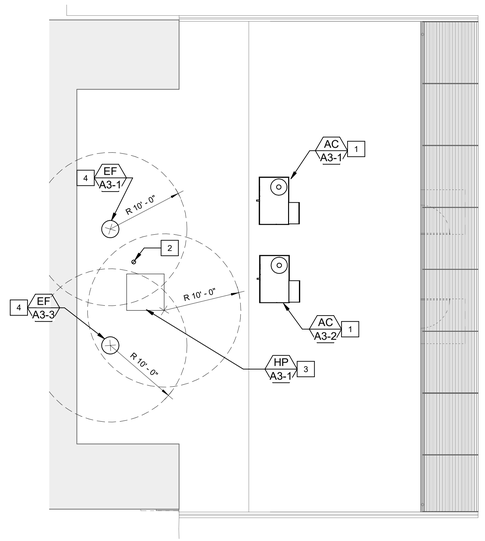
NORTH

2 ROOF PLAN -BLDG ADMIN
1/8" = 1'-0"



NORTH

3 ROOF PLAN -BLDG A-2
1/8" = 1'-0"



NORTH

1 ROOF PLAN -BLDG A-3
1/8" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS EXISTING CURBS, DUCT, PIPES, CONDUITS, ETC. ON ROOF BEFORE COMMENCING WORK.

KEY NOTES

1	A/C UNIT, SEE DETAIL 2/M6.01.
2	6"Ø EA DUCT DN., TERMINATE ABOVE ROOF WITH ROOF CAP. SEE DETAIL 5/M6.01.
3	OUTDOOR SPLIT SYSTEM HEAT PUMP, SEE DETAIL 6/M6.01.
4	EXHAUST FAN, SEE DETAIL 25/M6.01.
5	8"Ø OSA DUCT DN., TERMINATE ABOVE ROOF WITH ROOF CAP, SEE DETAIL 5/M6.01.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

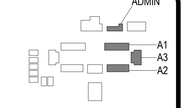
CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

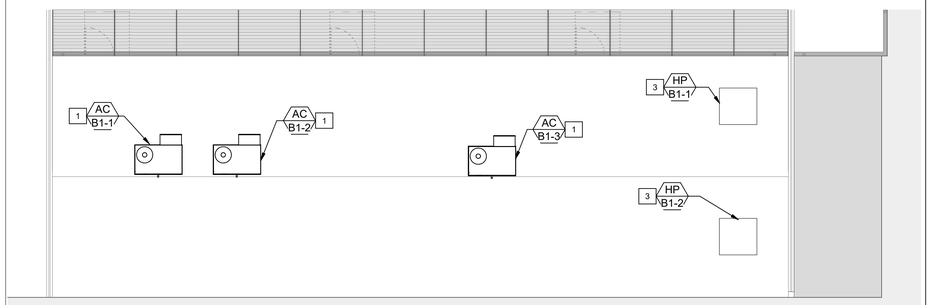
DSA Submittal

MECHANICAL ROOF PLANS

M4.01

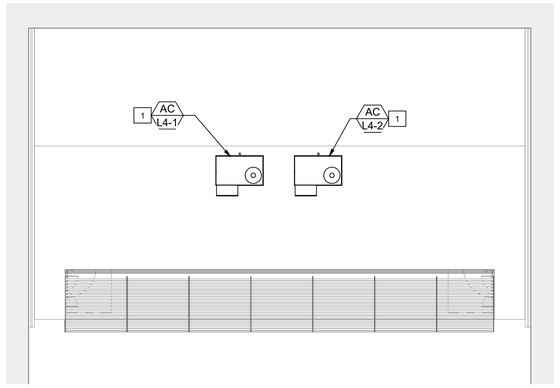
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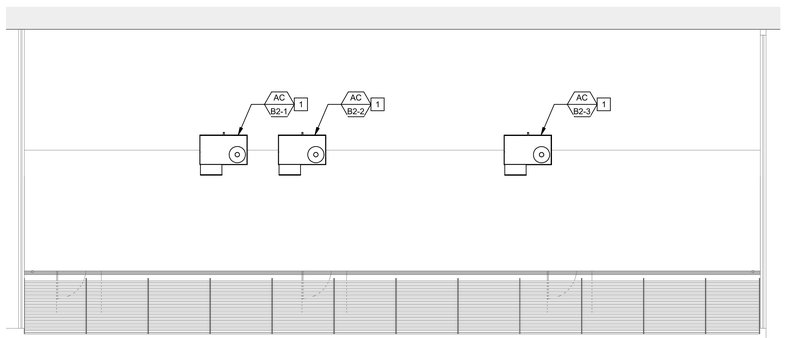
NORTH

4 ROOF PLAN -BLDG B-1
1/8" = 1'-0"



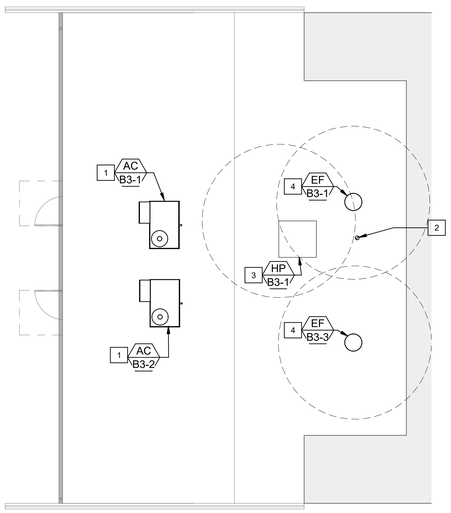
NORTH

2 ROOF PLANS -BLDG LAB/LIB
1/8" = 1'-0"



NORTH

3 ROOF PLAN -BLDG B-2
1/8" = 1'-0"



NORTH

1 ROOF PLAN -BLDG B-31
1/8" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS EXISTING CURBS, DUCT, PIPES, CONDUITS, ETC. ON ROOF BEFORE COMMENCING WORK.

KEY NOTES

1	A/C UNIT, SEE DETAIL 2/M6.01.
2	6"Ø EA DUCT DN., TERMINATE ABOVE ROOF WITH ROOF CAP, SEE DETAIL 5/M6.01.
3	OUTDOOR SPLIT SYSTEM HEAT PUMP, SEE DETAIL 6/M6.01.
4	EXHAUST FAN, SEE DETAIL 25/M6.01.

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P 949-548-5000

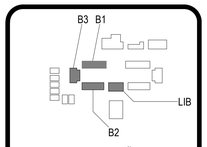
CONSULTANT LEAF Engineers
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8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

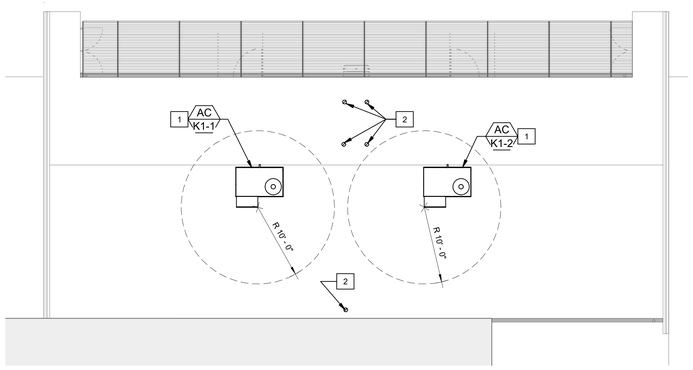
DSA Submittal

MECHANICAL ROOF PLANS

M4.02

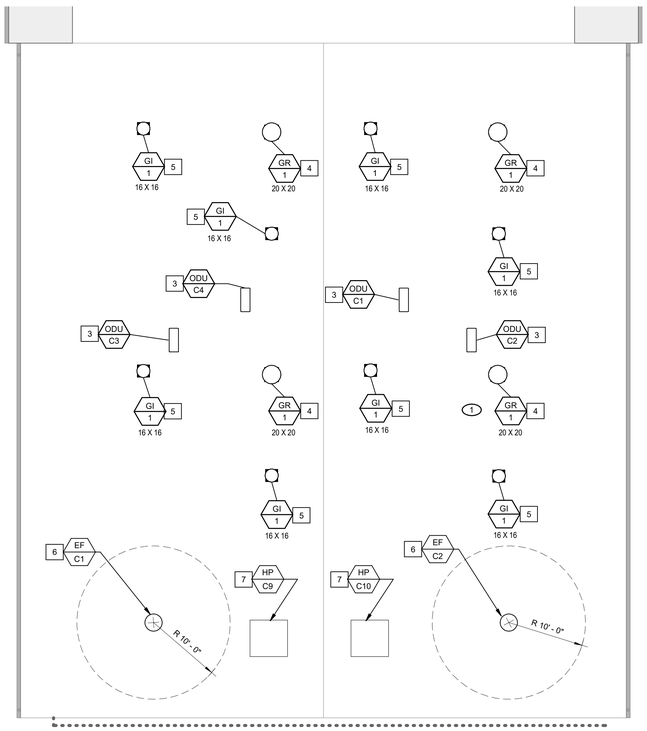
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0" 1"



NORTH

2 ROOF PLAN -BLDG K
1/8" = 1'-0"



NORTH

1 ROOF PLAN -BLDG C
1/8" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY LOCATIONS EXISTING CURBS, DUCT, PIPES, CONDUITS, ETC. ON ROOF BEFORE COMMENCING WORK.

KEY NOTES

1	A/C UNIT, SEE DETAIL 2/M6.01.
2	6"Ø EA DUCT DN., TERMINATE ABOVE ROOF WITH ROOF CAP, SEE DETAIL 5/M6.01.
3	REFRIGERANT PIPES FROM HEAT PUMP UNIT ON ROOF SHAL DROP DOWN THRU ROOF AND CONNECT TO FAN COIL UNITS, SEE PIPING SCHEMATICS 4/M7.01. ALSO, SEE WIRING SCHEMATICS 5/ M7.01.
4	GRAVITY RELIEF VENT, SEE DETAIL 27/M6.01.
5	GRAVITY INTAKE VENT, SEE DETAIL 27/M6.01.
6	EXHAUST FAN, SEE DETAIL 25/M6.01.
7	OUTDOOR SPLIT SYSTEM HEAT PUMP, SEE DETAIL 6/M6.01 .

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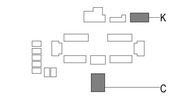
CONSULTANT LEAF Engineers
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8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINSTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL ROOF PLANS

M4.03

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ROOFTOP PACKAGED AIR CONDITIONING HEAT PUMP UNIT SCHEDULE

UNIT	MANUFACTURER & MODEL NO.	TYPE	SERVICE	SIZE (TONS)	CFM	ESP (IN. WG)	SEER	COOLING CAP (MBH)		EVAP. ENT. AIR TEMP. (°F)		EVAP. LEAV. AIR TEMP. (°F)		ENT. COND. TEMP. (°F)			HEATING CAPACITIES		COP/HSPF (%)	INDOOR FAN				COMPRESSOR			ECONOMIZER WITH POWER EXHAUST								ELECTRICAL									FILTERS TYPE, (QUANTITIES), DIMENSIONS	OPER. WT. (Unit + Curb + Economizer) (LBS)	OSA CFM	ANCHORAGE DETAIL	REMARKS
								TOTAL	SENS.	DB	WB	DB	WB	SUMMER DB	SUMMER WB	WINTER DB	TOTAL (MBH)	INTEGRATED (MBH)		NO.	RPM	BHP	DRIVE	NO.	RLA	LRA	MANUFACTURER PART #	CFM	HP	FLA	MCA	MOCP	V	PHASE	HZ	OPER. WT. (LBS)	OFM NO.	OFM (FLA)	IFM (FLA)	V	PHASE	HZ	POWER SUPPLY MCA	POWER SUPPLY MCOP				
AC A1-1	CARRIER 50GCGM05	VERTICAL	CLASSROOM A1	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC A1-2	CARRIER 50GCGM05	VERTICAL	CLASSROOM A2	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC A1-3	CARRIER 50GCGM05	VERTICAL	CLASSROOM A3	4	1,600	1.0	16.20	48.13	40.30	80.3	65.2	56.2	55.3	91.0	68.0	36.0	38.92	37.20	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	460	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC A2-1	CARRIER 50GCGM05	VERTICAL	CLASSROOM A8	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.8	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC A2-2	CARRIER 50GCGM05	VERTICAL	CLASSROOM A7	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 7 8 9 10
AC A2-3	CARRIER 50GCGM05	VERTICAL	CLASSROOM A6	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC A3-1	CARRIER 50GCGM05	VERTICAL	PRESCHOOL CLASSROOM A4	4	1,600	1.0	16.20	48.02	39.71	79.8	65.1	56.5	55.2	91.0	68.0	36.0	38.71	36.99	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	410	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC A3-2	CARRIER 50GCGM05	VERTICAL	PRESCHOOL CLASSROOM A5	4	1,600	1.0	16.20	48.02	39.71	79.8	65.1	56.8	55.2	91.0	68.0	36.0	38.71	36.99	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	410	2 M6.01	1 2 3 4 5 7 8 9 10
AC B1-1	CARRIER 50GCGM05	VERTICAL	CLASSROOM B3	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC B1-2	CARRIER 50GCGM05	VERTICAL	CLASSROOM B2	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 7 8 9 10
AC B1-3	CARRIER 50GCGM05	VERTICAL	CLASSROOM B1	4	1,600	1.0	16.20	48.23	40.89	80.8	65.3	57.0	55.4	91.0	68.0	36.0	39.14	37.40	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	510	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC B2-1	CARRIER 50GCGM05	VERTICAL	CLASSROOM B6	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC B2-2	CARRIER 50GCGM05	VERTICAL	CLASSROOM A7	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 7 8 9 10
AC B2-3	CARRIER 50GCGM05	VERTICAL	CLASSROOM B8	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC B3-1	CARRIER 50GCGM05	VERTICAL	CLASSROOM B4	4	1,600	1.0	16.20	48.15	40.42	79.8	65.1	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC B3-2	CARRIER 50GCGM05	VERTICAL	CLASSROOM B5	4	1,600	1.0	16.20	48.15	40.42	79.8	65.1	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 7 8 9 10
AC L4-1	CARRIER 50GCGM05	VERTICAL	LIBRARY L-1	4	1,600	1.0	16.20	48.15	40.42	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.97	37.24	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	470	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC L4-2	CARRIER 50GCGM05	VERTICAL	COMPUTER LAB L-2	4	1,600	1.0	16.20	48.14	40.36	80.4	65.2	56.9	55.3	91.0	68.0	36.0	38.94	37.22	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	465	2 M6.01	1 2 3 4 5 7 8 9 10
AC K1-1	CARRIER 50GCGM05	VERTICAL	KINDERGARTEN K2	4	1,600	1.0	16.20	48.0	39.59	79.8	65.0	56.8	55.1	91.0	68.0	36.0	38.67	36.95	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	400	2 M6.01	1 2 3 4 5 6 7 8 9 10
AC K1-2	CARRIER 50GCGM05	VERTICAL	KINDERGARTEN K1	4	1,600	1.0	16.20	48.05	39.83	79.9	65.1	56.8	55.2	91.0	68.0	36.0	38.75	37.03	3.7/8.7	1	1878	0.71	DIRECT	1	14.0	83.0	MICROMETL PECD-SRT12CA-D2DH-2LH	1,600	0.5	3.9	4.9	8.8	208	3	60	191	1	1.5	7.1	208	3	60	27.0	30	MERV 13 (4) 16"x16"x2"	590 + 98 + 49 = 737	420	2 M6.01	1 2 3 4 5 7 8 9 10

NOTES:
1. SCHEDULED LOADS INCLUDE FAN AND MOTOR HEAT.
2. PROVIDE FACTORY 100% MODULATING, FIXED DRY BULB ENTHALPY CONTROL, ECONOMIZER WITH POWER EXHAUST. PROVIDE WITH LOCKING MESH COVER. POWER EXHAUST SHALL BE PROVIDED WITH A SEPARATE DISCONNECT SWITCH, FILED WIRED BY ELECTRICAL.
3. PROVIDE T-24 COMPLAINT INTERNET PROGRAMMABLE THERMOSTAT "NT" MODEL X7C WITH DEMAND CONTROL VENTILATION (DCV) W/CO2 SENSORS.
4. BYPASS UNIT ANTI-RECYCLE TIMER WHEN ANTI-RECYCLE FUNCTION IS INCLUDED IN THE THERMOSTAT.
5. PROVIDE FACTORY MOUNTED NON-FUSED DISCONNECT SWITCH.
6. PROVIDE FACTORY MOUNTED, NON-POWERED CONVENIENT OUTLET.
7. PROVIDE FACTORY CONDENSER COIL GUARDS.
8. ALL CONNECTIONS TO UNIT SHALL BE PROVIDED WITH DUCT FLEX CONNECTIONS.
9. ALL AC UNITS SHALL HAVE R-410A REFRIGERANT.
10. PROVIDE A FACTORY "MICROMETL" MODEL CRBK-SRT12GA-14 PITCHED ROOF CURB, 98 LBS.

AIR DISTRIBUTION SCHEDULE

SYMBOL	TYPE	MAKE & MODEL	DESCRIPTION
A	CEILING SUPPLY	TITUS MODEL MCD-3	MODULAR CORE DIFFUSER WITH FRAME FOR LAY-IN T-BAR CEILING, FLUSH FACE MOUNTING.
B	CEILING RETURN	TITUS MODEL PAR-3	PERFORATED FACE DIFFUSER WITH FRAME FOR LAY-IN T-BAR CEILING, FLUSH FACE MOUNTING.
C	CEILING SUPPLY	TITUS MODEL MCD-1	NOT USED.
D	CEILING RETURN/EXHAUST	TITUS MODEL 50F	EGG CRATE GRILLE REGISTER WITH FRAME FOR SURFACE MOUNTING.
E	SIDEWALL SUPPLY/RETURN	TITUS MODEL 1700	DOUBLE DEFLECTION HORIZONTAL 5° DOWN FRONT GRILLE WITH 1/2" BLADE SPACING, FRAME FOR WALL MOUNTING. MAX. OPERATING WEIGHT IS 10 LBS.
F	LINEAR CEILING SUPPLY	TITUS MODEL ML-38-2B	NOT USED.
GR 1	RELIEF HOOD	GREENHECK MODEL FHR	LOW SILHOUETTE ALUMINUM CONSTRUCTION HOOD WITH PRE-SLOPED CURB. PROVIDE WITH BIRDSCREEN AND BACKDRAFT DAMPER IN VERTICAL POSITION
GI 1	INTAKE HOOD	GREENHECK MODEL WIH	18" HIGH LOUVERED PENTHOUSE ALUMINUM CONSTRUCTION HOOD WITH PRE-SLOPED CURB AND REMOVEABLE INSULATED CONVER. PROVIDE WITH BIRDSCREEN AND BACKDRAFT DAMPER IN VERTICAL POSITION

NOTES:
1. EQUIVALENT MODELS OF KRUEGER, ANEMOSTAT, PRICE OR J&J ARE ACCEPTABLE.
2. REFER TO THE FLOOR PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN AND FIRE/DAMPER, IF REQUIRED.
3. PROVIDE AIR CONTROL GRID FOR ALL CEILING SUPPLY DIFFUSERS SET AT 90°.
4. INTERIOR OF ALL GRILLES SHALL BE PAINTED FLAT BLACK.
5. TAG 'A' TO 'F' MAX. OPERATING WEIGHT IS 10 LBS. GR-1 & GI-1 MAX. OPERATING WEIGHT IS 50 LBS.
6. FOR TAG 'A' TO 'F' SUPPORT, REFER TO ARCHITECUTAL DETAIL 1/A8.03.
7. FOR GR-1 & GI-1 SUPPORT, REFER TO DETAIL 27/M6.01.

EXHAUST FAN SCHEDULE

UNIT	MANUFACTURER & MODEL NO.	SERVICE	TYPE	CFM	SP IN W.G.	FAN RPM	MOTOR HP/ BHP	MOTOR FLA	MOTOR VOLT	MOTOR PH	MOTOR HZ	SONES	OPER WT. (LBS)	ANCHORAGE DETAIL	REMARKS
EF A-1	GREENHECK SP-80-VG	ADMIN. BLDG. UNISEX AD2	CEILING/SUSPENDED	70	0.25	825	6 WATTS	0.1	115	1	60	0.6	15	11 M6.01	2 3 4
EF A-2	GREENHECK SP-80-VG	ADMIN. BLDG. JAN. AD6	CEILING/SUSPENDED	30	0.25	622	6 WATTS	0.1	115	1	60	0.6	15	11 M6.01	2 3 4
EF A-3	GREENHECK SP-80-VG	ADMIN. BLDG. UNISEX AD9	CEILING/SUSPENDED	70	0.25	825	6 WATTS	0.1	115	1	60	0.6	15	11 M6.01	2 3 4
EF A3-1	GREENHECK G-070-VG	BLDG. A3 GIRLS RR A11	ROOF MOUNTED	280	0.25	1589	1/15 0.03	1.3	115	1	60	5.0	40	25 M6.01	1 2 3 4
EF A3-2	GREENHECK SP-110-VG	BLDG. A3 JAN. A12	CEILING/SUSPENDED	100	0.25	855	8 WATTS	0.2	115	1	60	1.4	15	11 M6.01	2 3 4
EF A3-3	GREENHECK G-070-VG	BLDG. A3 BOYS RR A13	ROOF MOUNTED	280	0.25	1589	1/15 0.03	1.3	115	1	60	5.0	40	25 M6.01	1 2 3 4
EF B3-1	GREENHECK G-070-VG	BLDG. B3 TOILET B13	ROOF MOUNTED	280	0.25	1589	1/15 0.03	1.3	115	1	60	5.0	40	25 M6.01	1 2 3 4
EF B3-2	GREENHECK SP-110-VG	BLDG. B3 JAN. B12	CEILING/SUSPENDED	100	0.25	855	8 WATTS	0.2	115	1	60	1.4	15	11 M6.01	2 3 4
EF B3-3	GREENHECK G-070-VG	BLDG. B3 TOILET B15	ROOF MOUNTED	280	0.25	1589	1/15 0.03	1.3	115	1	60	5.0	40	25 M6.01	1 2 3 4
EF C1	GREENHECK G-070-VG	BLDG. B2 TOILET B15	ROOF MOUNTED	280	0.25	1589	1/15 0.03	1.3	115	1	60	5.0	40	25 M6.01	1 2 3 4
EF C2	GREENHECK G-070-VG	BLDG. B2 TOILET B15	ROOF MOUNTED	280	0.25	1589	1/15 0.03	1.3	115	1	60	5.0	40	25 M6.01	1 2 3 4
EF K1-1	GREENHECK SP-80-VG	BLDG. K CUST. K-8	CEILING/SUSPENDED	30	0.25	622	6 WATTS	0.1	115	1	60	0.6	15	11 M6.01	2 3 4
EF K1-2	GREENHECK SP-80-VG	BLDG. K TOILET K-6	CEILING/SUSPENDED	70	0.25	825	6 WATTS	0.1	115	1	60	0.6	15	11 M6.01	2 3 4
EF K1-3	GREENHECK SP-80-VG	BLDG. K TOILET K-4	CEILING/SUSPENDED	70	0.25	825	6 WATTS	0.1	115	1	60	0.6	15	11 M6.01	2 3 4
EF K1-4	GREENHECK SP-80-VG	BLDG. K TOILET K-7	CEILING/SUSPENDED	70	0.25	825	6 WATTS	0.1	115	1	60	0.6	15	11 M6.01	2 3 4
EF K1-5	GREENHECK SP-80-VG	BLDG. K TOILET K-5	CEILING/SUSPENDED	70	0.25	825	6 WATTS	0.1	115	1	60	0.6	15	11 M6.01	2 3 4

NOTES:
1. PROVIDE FACTORY ROOF CURB. SLOPE TO MATCH ROOF SLOPE, AS REQUIRED.
2. INTERLOCK EXHAUST FAN'S OPERATION WITH LIGHTING OCCUPANY SENSOR (REFER TO ELECTRICAL DRAWINGS).
3. PROVIDE BACKDRAFT DAMPER FOR ALL FANS.
4. PROVIDE FACTORY SOLID STATE SPEED CONTROLLER MOUNTED WITHIN THE FAN CASING.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL SCHEDULES

M5.01

OUTDOOR UNIT SCHEDULE

NUMBER	ODU-1, ODU-2, ODU-3, ODU-4	
TYPE	HEATPUMP	
VOLTS / PHASE	230 / 1	
(MIN. CIRCUIT AMPS (MCA)	36.3	
RECOMMENDED FUSE SIZE	40	
COMPRESSOR TYPE (number)	Hermetic Twin Rotary (1)	
MOTOR OUTPUT (kW)	3.75	
FAN MOTOR TYPE (STEPS)	PROPELLER (2)	
FAN MOTOR OUTPUT (kW)	0.10 + 0.10	
SEER / HSPF / COP (DUCTED)	17.60 / 11.0	
SEER / HSPF / COP (DUCTLESS)	20.50 / 11.50	
NOMINAL COOLING (MBH)	60.0	
HEATING CAPACITY (MBH)	66.0	
AMBIENT TEMP. (°F)	90	
REFRIGERANT TYPE	R-410A	
REFRIG. LINE SIZE (LIQ. / SUC.)	SEE NOTES	
UNIT SERVED	SEE PLANS	
ACCESSORIES	SEE NOTES	
OPER. WT. (LBS.)	420	
MANUFACTURER	TOSHIBA	
MODEL	MCY-MAP0607HS-UL	
ANCHORAGE DETAIL	26 / M6.01	

NOTES:
1. PROVIDE I-TOUCH CONTROLLER WITH WEB BASED OPTION.
2. MAINTAIN MANUFACTURER'S REQUIRED SERVICE CLEARANCES.
3. CONTRACTOR SHALL SUBMIT COMPLETE PIPING DIAGRAMS AND LINE SIZES PRIOR TO INSTALLATION.
4. PROVIDE FACTORY CONDENSER COIL GUARDS.
5. PROVIDE FACTORY CRANKCASE HEATER, LOW AMBIENT KIT, AND HIGH & LOW PRESSURE SWITCHES.
6. EQUAL UNITS MANUFACTURED BY DAIKIN, TRANE, LG OR MITSUBISHI SHALL BE ACCEPTABLE.

FAN COIL SCHEDULE

NUMBER	FC-C1, FC-C2, FC-C3, FC-C4, FC-C5, FC-C6, FC-C7, FC-C8	
TYPE	CONCEALED CEILING	
MOUNTING	ATTIC	
VOLTS / PHASE	208 / 1	
FLA / MCA	2.39 / 2.99	
M.O.C.P.	15	
HSPF / SEER	- / SEE NOTE 4	
BLOWER — WATTS	250	
BLOWER — SUPPLY CFM / SPEED	883 / HI	
BLOWER — E.S.P. (IN. WC.)	0.8	
BLOWER — RPM	-	
BLOWER — DRIVE	DIRECT	
COOLING — MIN. O.A. (CFM)	235	
COOLING — TOTAL CAP. (MBH)	25.3	
COOLING — SENS. CAP. (MBH)	20.3	
COOLING — E.A. DB / WB (°F)	80 / 67	
COOLING — L.A. DB / WB (°F)	-	
COOLING — AMBIENT TEMP. (°F)	90	
COOLING — COIL TYPE	DIRECT EXP.	
COOLING — REFRIGERANT	R-410A	
HEAT — NOMINAL CAP. (MBH)	27.8	
HEAT — E.A. DB (°)	70	
HEAT — -	-	
FILTER	SEE NOTES	
SERVICE	SEE PLANS	
ACCESSORIES	SEE NOTES	
OPER. WT. (LBS.)	40	
MANUFACTURER	TOSHIBA	
MODEL	MMD-AP0306HPUL	
ANCHORAGE DETAIL	20 / M6.01	

1. PROVIDE T-24 COMPLIANT INTERNET PROGRAMMABLE THERMOSTAT "NT" MODEL X7C PER DISTRICT STANDARD.
2. PROVIDE FACTORY CONDENSATE PUMP CAPABLE OF LIFTING CONDENSATE A MINIMUM OF 24".
3. PROVIDE REFRIGERANT LINE SIZE AND CONNECTIONS DIAGRAMS PRIOR TO INSTALLATION.
4. FC/ODU SYSTEM SHALL BE EQUAL TO EFFICIENCIES LISTED ON OUTDOOR UNIT SCHEDULE OR BETTER.
5. UNITS MOUNTED ABOVE CEILING SHALL BE MOUNTED A MAXIMUM OF 12" ABOVE FINISHED CEILING.
6. CONTRACTOR SHALL COMPLETE MANUFACTURERS INSTALLATION TRAINING PRIOR TO INSTALLING ANY SPLIT SYSTEM EQUIPMENT.
7. CONNECT TO (E) OVERALL SMOKE DETECTION SYSTEM TO SHUT OFF THE UNIT POWER UPON DETECTION OF SMOKE. INSTALL IN STRICT ACCORDANCE WITH 2022 CMC SECTION 608.1.
8. EQUAL UNITS MANUFACTURED BY DAIKIN, TRANE, LG OR MITSUBISHI SHALL BE ACCEPTABLE.
9. UNITS SHALL BE PROVIDED WITH SENSOR IN CONDENSATE DRAIN PAN THAT SHUTS OFF UNIT AND SENDS AN ALARM TO THE MAIN CONTROL PANEL WHEN CONDENSATE LEVEL IS TOO HIGH. NO SECONDARY DRAIN IS REQUIRED.
10. COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE ACCESS IN ABOVE CEILING WALL FRAMING AS REQUIRED.
11. PROVIDE FIELD INSTALLED MERV 13 FILTER RACK FOR CONCEALED CEILING UNITS.

SUPPLY FAN SCHEDULE

UNIT	MANUFACTURER & MODEL NO.	SERVICE	TYPE	CFM	SP IN W.G.	FAN RPM	DRIVE	MOTOR HP/BHP	MOTOR VOLT	MOTOR PH	MOTOR HZ	SONES INLET	SONES RADIATED	OPER WT. (LBS)	ANCHORAGE DETAIL	REMARKS
SF A-1	GREENHECK SQ-97-VG	ADMIN. BLDG. AD1, AD2, AD3	CEILING SUSPENDED	180	0.75	1853	DIRECT	1/2 0.18	115	1	60	15.3	13.8	60	11 / M6.01	SEE NOTES BELOW
SF A-2	GREENHECK SQ-97-VG	ADMIN. BLDG. AD4, AD5	CEILING SUSPENDED	105	0.5	1364	DIRECT	1/4 0.07	115	1	60	9.5	9.1	55	11 / M6.01	SEE NOTES BELOW

NOTES:
1. PROVIDE BACKDRAFT DAMPER FOR ALL FANS.
2. PROVIDE INTERLOCK WITH ALL RESPECTIVE FC UNITS..
3. PROVIDE CONTROL TRANSFORMER AND PRESSURE TRANSDUCER.
4. PROVIDE WITH MERV 13 FILTERS.

INDOOR FAN COIL UNIT SCHEDULE

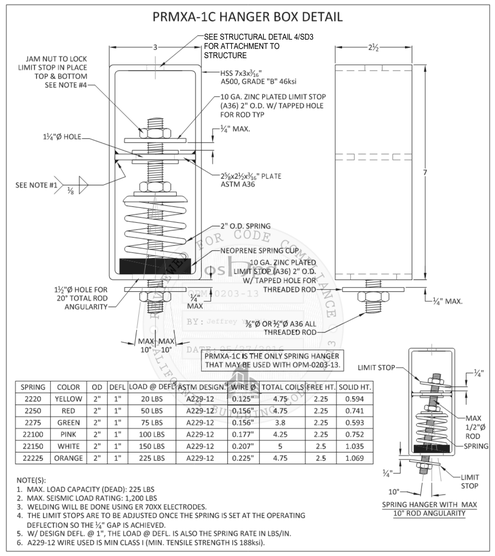
UNIT	MANUFACTURER AND MODEL NO.	CAPACITY (MBH) COOLING (TOTAL/SENSIBLE)	CAPACITY (MBH) HEATING	OSA TEMP. (°F) SUMMER (DB/WB)	OSA TEMP. (°F) WINTER (DB)	EAT. (°F) (DB/WB)	LAT. (°F) (DB/WB)	SUPPLY FAN CFM	SUPPLY FAN E.S.P. (IN.)	ELECTRICAL VOLTAGE	ELECTRICAL UNIT MCA	ELECTRICAL MOCP	OPER. WT. (LBS.)	ANCHORAGE DETAIL	REMARKS
FC A1	CARRIER 40VMM030A	30.0	34.0	91.0/68.0	36.0	62.7	88.9	1,070 H 900 M 780 L	0.6	208V/ 1Ø / 60HZ	3.13	15	125	20 / M6.01	1 3 4 5 7
FC A2	CARRIER 40VMM015A	15.0	17.0	91.0/68.0	36.0	63.1	87.4	535 H 450 M 400 L	0.6	208V/ 1Ø / 60HZ	3.13	15	100	20 / M6.01	1 3 4 5 7
FC A3	CARRIER 40VMM024A	24.0	27.0	91.0/68.0	36.0	61.5	91.9	800 H 640 M 570 L	0.6	208V/ 1Ø / 60HZ	3.13	15	100	20 / M6.01	1 3 4 5 7
FC A4	CARRIER 40VMM015A	15.0	17.0	91.0/68.0	36.0	61.2	91.8	535 H 450 M 400 L	0.6	208V/ 1Ø / 60HZ	3.13	15	100	20 / M6.01	1 3 4 5 7
FC A5	CARRIER 40VMM015A	15.0	17.0	91.0/68.0	36.0	61.8	91.4	535 H 450 M 400 L	0.6	208V/ 1Ø / 60HZ	3.13	15	100	20 / M6.01	1 3 4 5 7
FC A1-1	CARRIER 40MBCQ12	12.0	12.0	91.0/68.0	36.0	57.6	109.7	400 H 340 M 280 L	-	208V/ 1Ø / 60HZ	0.2	6	40	19 / M6.01	2 3 4 6
FC A1-2	CARRIER 40MBCQ12	12.0	12.0	91.0/68.0	36.0	57.6	109.7	400 H 340 M 280 L	-	208V/ 1Ø / 60HZ	0.2	6	40	19 / M6.01	2 3 4 6
FC A3-1	CARRIER 40MBCQ12	12.0	12.0	91.0/68.0	36.0	57.6	109.7	400 H 340 M 280 L	-	208V/ 1Ø / 60HZ	0.2	6	40	19 / M6.01	2 3 4 6
FC B1-1	CARRIER 40MBCQ12	12.0	12.0	91.0/68.0	36.0	57.6	109.7	400 H 340 M 280 L	-	208V/ 1Ø / 60HZ	0.2	6	40	19 / M6.01	2 3 4 6
FC B1-2	CARRIER 40MBCQ12	12.0	12.0	91.0/68.0	36.0	57.6	109.7	400 H 340 M 280 L	-	208V/ 1Ø / 60HZ	0.2	6	40	19 / M6.01	2 3 4 6
FC B3-1	CARRIER 40MBCQ12	12.0	12.0	91.0/68.0	36.0	57.6	109.7	400 H 340 M 280 L	-	208V/ 1Ø / 60HZ	0.2	6	40	19 / M6.01	2 3 4 6
FC C9	CARRIER 40MBCQ12	12.0	12.0	91.0/68.0	36.0	57.6	109.7	400 H 340 M 280 L	-	208V/ 1Ø / 60HZ	0.2	6	40	19 / M6.01	2 3 4 6
FC C10	CARRIER 40MBCQ12	12.0	12.0	91.0/68.0	36.0	57.6	109.7	400 H 340 M 280 L	-	208V/ 1Ø / 60HZ	0.2	6	40	19 / M6.01	2 3 4 6

NOTES:
1. PROVIDE WITH CONDENSATE DRAIN PAN (PRIMARY AND SECONDARY) FOR FAN COIL UNIT AND ASSOCIATED PIPING.
2. PROVIDE WITH FACTORY FURNISHED & INSTALLED CONDENSATE DRAIN LIFT PUMP (CONDENSATE PUMP SHALL BE POWERED THRU INDOOR FAN COIL UNIT).
3. SIZE REFRIGERANT LINES PER MANUFACTURERS RECOMMENDATIONS.
4. PROVIDE T-24 COMPLAINT INTERNET PROGRAMMABLE THERMOSTAT.
5. CEILING MOUNTED FAN COIL UNIT.
6. CASSETTE TYPE DUCTLESS FAN COIL UNIT, POWERED BY OUTDOOR HEAT PUMP.
7. PROVIDE WITH MDEDIUM STATIC MOTOR.

OUTDOOR HEAT PUMP UNIT SCHEDULE

UNIT	MANUFACTURER AND MODEL NO.	COOLING CAP. (MBH) COOLING (TOTAL/SENSIBLE)	COOLING CAP. (MBH) HEATING	COP/ HSPF	AMB. TEMP.(°F) SUMMER (DB/WB)	AMB. TEMP.(°F) WINTER (DB)	E.E.R. I.E.E.R.	ELECTRICAL COMPRESSOR QTY.	ELECTRICAL COMPRESSOR RLA	ELECTRICAL OUTDOOR FAN QTY.	ELECTRICAL MCA	ELECTRICAL MOCP	ELECTRICAL VOLTAGE	OPER WT. (LBS)	ANCHORAGE DETAIL	REMARKS
HP A1	CARRIER 38VMA120RDS5-1	117.6	126.0	3.45	91.0/68.0	36.0	11.2 21.9	1	-	2	46	50	208V / 3Ø / 60HZ	675	26 / M6.01	
HP A1-1	CARRIER 38MARBQ12AA3	12.0	12.0	3.22/ 10.6	91.0/68.0	36.0	12.7 EER 21.5 SEER	1	8.5	1	15	15	208V / 1Ø / 60HZ	75	6 / M6.01	
HP A1-2	CARRIER 38MARBQ12AA3	12.0	12.0	3.22/ 10.6	91.0/68.0	36.0	12.7 EER 21.5 SEER	1	8.5	1	15	15	208V / 1Ø / 60HZ	75	6 / M6.01	
HP A3-1	CARRIER 38MARBQ12AA3	12.0	12.0	3.22/ 10.6	91.0/68.0	36.0	12.7 EER 21.5 SEER	1	8.5	1	15	15	208V / 1Ø / 60HZ	75	6 / M6.01	
HP B1-1	CARRIER 38MARBQ12AA3	12.0	12.0	3.22/ 10.6	91.0/68.0	36.0	12.7 EER 21.5 SEER	1	8.5	1	15	15	208V / 1Ø / 60HZ	75	6 / M6.01	
HP B1-2	CARRIER 38MARBQ12AA3	12.0	12.0	3.22/ 10.6	91.0/68.0	36.0	12.7 EER 21.5 SEER	1	8.5	1	15	15	208V / 1Ø / 60HZ	75	6 / M6.01	
HP B3-1	CARRIER 38MARBQ12AA3	12.0	12.0	3.22/ 10.6	91.0/68.0	36.0	12.7 EER 21.5 SEER	1	8.5	1	15	15	208V / 1Ø / 60HZ	75	6 / M6.01	
HP C9	CARRIER 38MARBQ12AA3	12.0	12.0	3.22/ 10.6	91.0/68.0	36.0	12.7 EER 21.5 SEER	1	8.5	1	15	15	208V / 1Ø / 60HZ	75	6 / M6.01	
HP C10	CARRIER 38MARBQ12AA3	12.0	12.0	3.22/ 10.6	91.0/68.0	36.0	12.7 EER 21.5 SEER	1	8.5	1	15	15	208V / 1Ø / 60HZ	75	6 / M6.01	

NOTES:
1. PROVIDE CRANKCASE HEATER, HIGH & LOW PRESSURE SWITCHES.
2. PROVIDE LOW AMBIENT KIT.
3. PROVIDE 3/4" EXPAND METAL CONDENSING COIL GUARD.
4. PROVIDE MINIMUM CLEARANCE AROUND EACH UNIT PER THE MANUFACTURER'S RECOMMENDATIONS.
5. SIZE REFRIGERANT (R410A) LINES PER MANUFACTURERS RECOMMENDATIONS. PROVIDE LONG LINE KIT IF REQUIRED.
6. PROVIDE HAIL-GUARD.
7. PROVIDE WITH HOUSEKEEPING PAD.
8. ALL HEAT PUMP UNITS ARE ROOF MOUNTED.



SPRING	COLOR	OD	DEFL	LOAD @ DEFL	ASTM DESIGN	WIRE Ø	TOTAL COILS	FREE HT.	SOLID HT.
2220	YELLOW	2"	1"	20 LBS	A229-12	0.125""	4.75	2.25	0.594
2250	RED	2"	1"	50 LBS	A229-12	0.156""	4.75	2.25	0.741
2275	GREEN	2"	1"	75 LBS	A229-12	0.156"	3.8	2.25	0.593
22100	PINK	2"	1"	100 LBS	A229-12	0.177"	4.25	2.25	0.752
22150	WHITE	2"	1"	150 LBS	A229-12	0.207"	5	2.5	1.035
22225	ORANGE	2"	1"	225 LBS	A229-12	0.225"	4.75	2.5	1.069

NOTE(S):
1. MAX. LOAD CAPACITY (DEAD): 225 LBS
2. MAX. SEISMIC LOAD RATING: 1,200 LBS
3. WELDING WILL BE DONE USING ER 70XX ELECTRODES.
4. THE LIMIT STOPS ARE TO BE ADJUSTED ONCE THE SPRING IS SET AT THE OPERATING DEFLECTION SO THE ¼" GAP IS ACHIEVED.
5. W/ DESIGN DEFL. @ 1", THE LOAD @ DEFL. IS ALSO THE SPRING RATE IN LBS/IN.
6. A229-12 WIRE USED IS MIN CLASS I (MIN. TENSILE STRENGTH IS 188ksi).

Vibrex® vibration & seismic control systems
M.W. Saussé & Co., Inc.
28744 Witherspoon Parkway | Valencia, CA 91355
Ph: (661) 257-3311 | Fax: (661) 257-6050
Civil Engineer: P.K. Sachdeva
California PE No. C59644
Page No.: 4.1
Date: May 9, 2016

05/27/2016 OPM-0203-13: Reviewed for Code Compliance by Jeffrey Kikumoto Page 179 of 211

1 PRE-APPROVED OPM HANGER DETAIL
NOT TO SCALE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID MANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT
DATE 03/31/2023
PROJECT NUMBER 220524

REVISIONS

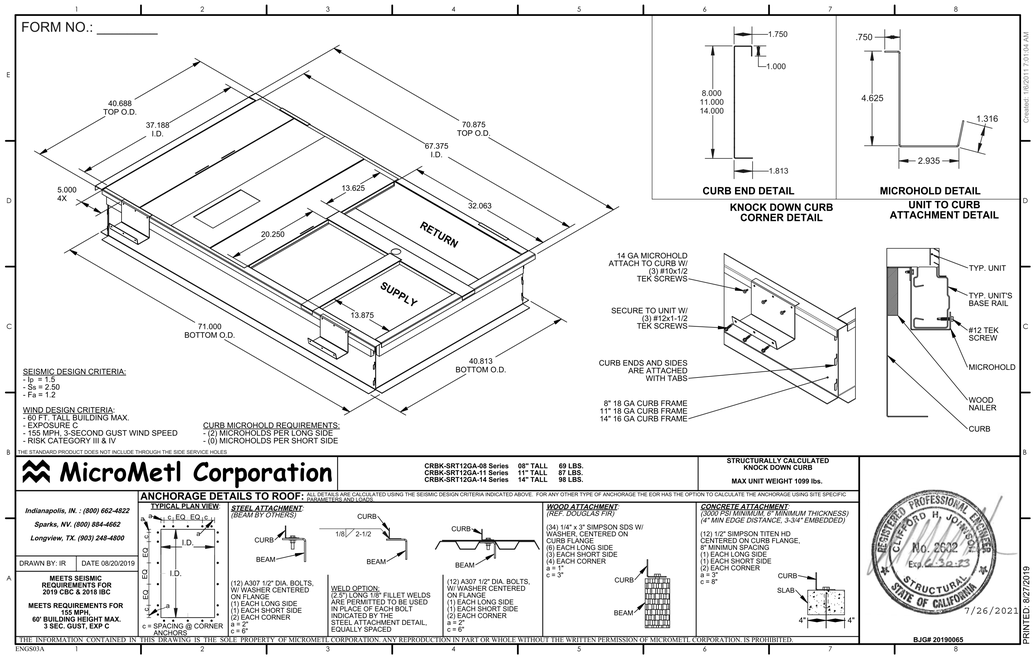
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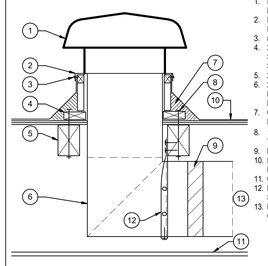
DSA Submittal

MECHANICAL SCHEDULES

M5.02

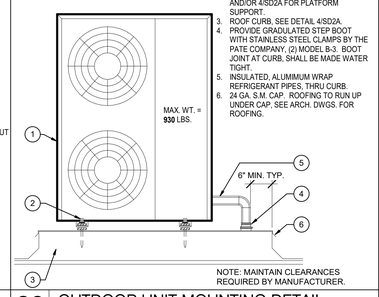
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1. INTAKE/RELIEF HOOD, SEE MECH. PLAN.
2. FACTORY ROOF CURB FURNISHED WITH HOOD.
3. #12 SMS LAG SCREW.
4. 2x WOOD LEVELING BLOCK, SHAPED TO MATCH ROOF SLOPE.
5. 2x6 BLKG W/ U26 EA. END.
6. 22 GA. GALV. SHEET METAL DUCT WITH ELBOW, SEE MECH. PLAN.
7. CANT STRIP WITH ROOFING FELTS.
8. 1/2"Ø BOLT W/ WASHER & NUT THRU STRUCT. AT 24" O.C.
9. BACKDRAFT DAMPER.
10. FINISHED ROOF, SEE ARCH. DWGS.
11. CEILING, SEE ARCH. DWGS.
12. DUCT STRAP HANGER, PER SMACNA STANDARDS.
13. DUCT CONTINUATION TO GRILLE.

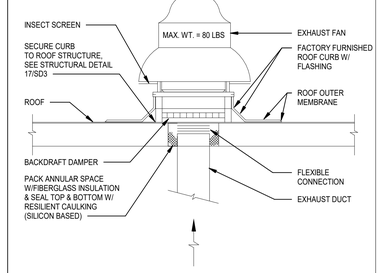
27 INTAKE/RELIEF HOOD CURB
NOT TO SCALE



1. OUTDOOR UNIT, SEE OUTDOOR UNIT SCHEDULES.
2. REFER TO STRUCTURAL DETAIL 4/SD2 AND/OR 4/SD2A FOR PLATFORM SUPPORT.
3. ROOF CURB, SEE DETAIL 4/SD2A.
4. PROVIDE GRADUATED STEP BOOT WITH STAINLESS STEEL CLAMPS BY THE PATE COMPANY, (2) MODEL B-3. BOOT JOINT AT CURB, SHALL BE MADE WATER TIGHT.
5. INSULATED, ALUMINUM WRAP REFRIGERANT PIPES, THRU CURB.
6. 24 GA. S.M. CAP. ROOFING TO RUN UP UNDER CAP, SEE ARCH. DWGS. FOR ROOFING.

NOTE: MAINTAIN CLEARANCES REQUIRED BY MANUFACTURER.

26 OUTDOOR UNIT MOUNTING DETAIL
NOT TO SCALE

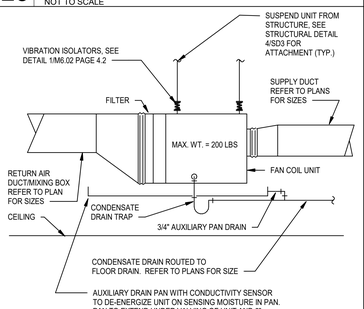


25 ROOF MOUNTED EXHAUST FAN DETAIL
NOT TO SCALE

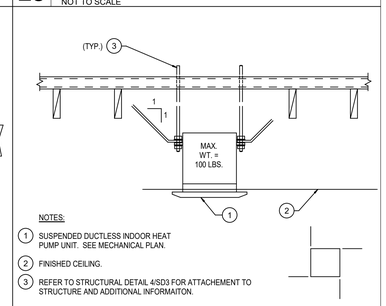
1. PROVIDE DUCT STRAPS PER DETAIL **10/M6.01**.
2. ACOUSTIC LINED GALVANIZED S/M ELBOW, SAME SIZE AS GRILLE SQUARE NECK SIZE.
3. 2x BLOCKING OR NAILER.
4. #10 S.M. SCREW, SECURE PER GRILLE MFR. REQUIREMENTS.
5. TYPICAL RELIEF GRILLE.
6. FINISHED CEILING, SEE ARCHITECTURAL DRAWINGS.
7. DUCT OPEN TO ATTIC.

NOTE: VERIFY CEILING TYPE AND PROVIDE APPROPRIATE GRILLE FRAME & INSTALLATION.

21 RELIEF GRILLE INSTALLATION DETAIL
NOT TO SCALE

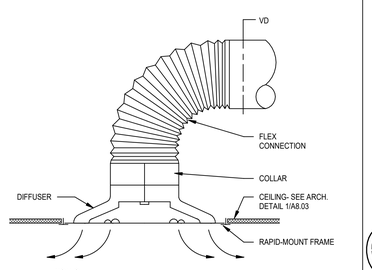


20 DUCTED FAN COIL UNIT DETAIL
NOT TO SCALE



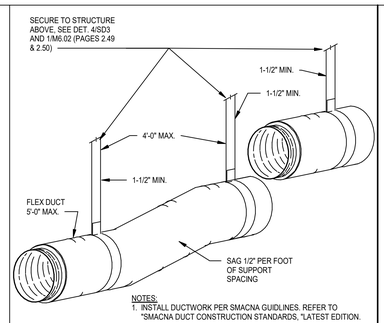
NOTES:
1. SUSPENDED DUCTLESS INDOOR HEAT PUMP UNIT. SEE MECHANICAL PLAN.
2. FINISHED CEILING.
3. REFER TO STRUCTURAL DETAIL 4/SD3 FOR ATTACHEMENT TO STRUCTURE AND ADDITIONAL INFORMAITON.

19 DUCTLESS FAN COIL UNIT DETAIL
NOT TO SCALE



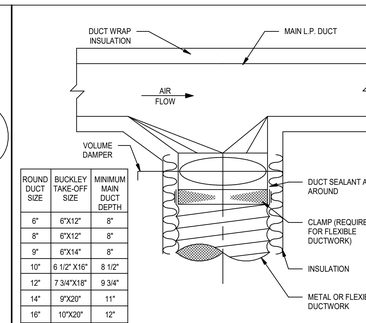
NOTES:
1. MAX. OPERATING WEIGHT IS 10 LBS.

18 HARD LID DIFFUSER CONNECTION DETAIL
NOT TO SCALE



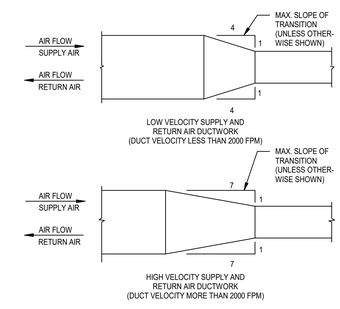
NOTES:
1. INSTALL DUCTWORK PER SMACNA GUIDLINES. REFER TO "SMACNA DUCT CONSTRUCTION STANDARDS, "LATEST EDITION.

17 FLEXIBLE DUCTWORK HANGER DETAIL
NOT TO SCALE



ROUND DUCT SIZE	BUCKLEY TAKE-OFF SIZE	MINIMUM MAIN DUCT DEPTH
6"	6"X12"	8"
8"	6"X12"	8"
9"	6"X14"	8"
10"	6 1/2" X16"	8 1/2"
12"	7 3/4"X18"	9 3/4"
14"	9"X20"	11"
16"	10"X20"	12"

16 RECT. TO ROUND TRANS. TAKE-OFF DET.
NOT TO SCALE

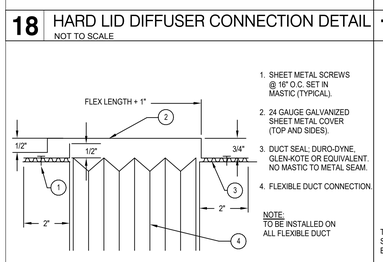


15 RECTANGULAR DUCT TRANSITION DETAIL
NOT TO SCALE

14 DUCT CONSTRUCTION STANDARDS
NOT TO SCALE

DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS &/OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1) AT JOINTS: MIN. HT. IN.	DRIVE SLIP / PLAIN S SLIP RECOM-MENDED GAGE	HEMMED S SLIP RECOM-MENDED GAGE	ALTER'NT BAR SLIP RECOM-MENDED GAGE	REIN-FORCED BAR SLIP RECOM-MENDED GAGE
UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
13 - 18	24	NONE REQUIRED	1	24	24	24	24
19 - 30	24	1" x 1" x 1/8" @ 60 IN.	1		24	24	24
31 - 42	22	1" x 1" x 1/8" @ 60 IN.	1			22	22
43 - 60	20	1" x 1" x 1/8" @ 60 IN.	1				20
61 & ABOVE	18	1" x 1" x 1/8" @ 60 IN.	1				18

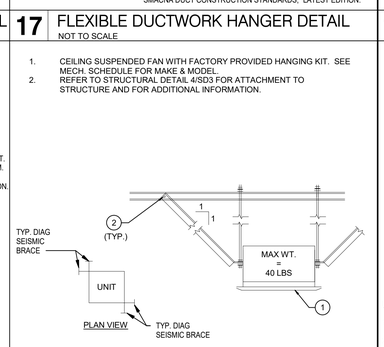
(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.



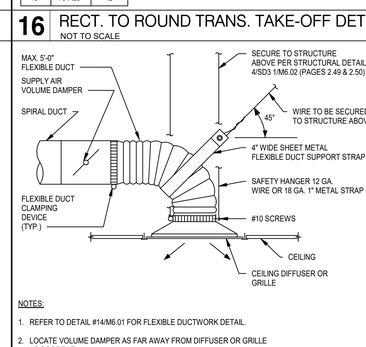
1. SHEET METAL SCREWS @ 16" O.C. SET IN MASTIC (TYPICAL).
2. 24 GAUGE GALVANIZED SHEET METAL COVER (TOP AND SIDES).
3. DUCT SEAL; DURO-DYNE, GLEN-KOTE OR EQUIVALENT. NO MASTIC TO METAL SEAM.
4. FLEXIBLE DUCT CONNECTION.

NOTE: TO BE INSTALLED ON ALL FLEXIBLE DUCT

12 FLEX CONNECTOR DETAIL
NOT TO SCALE

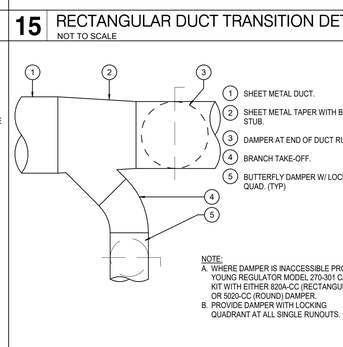


11 SUSPENDED SUPPLY/EXHAUST FAN DET.
NOT TO SCALE



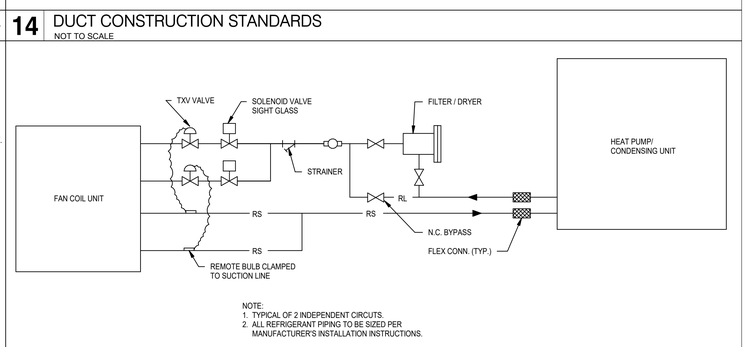
NOTES:
1. REFER TO DETAIL #14/M6.01 FOR FLEXIBLE DUCTWORK DETAIL.
2. LOCATE VOLUME DAMPER AS FAR AWAY FROM DIFFUSER OR GRILLE AS POSSIBLE.

10 LAY IN DIFFUSER CONNECTION DETAIL
NOT TO SCALE



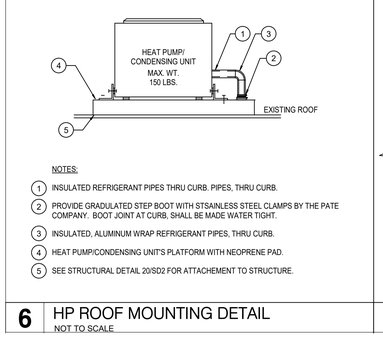
NOTE:
A. WHERE DAMPER IS INACCESSIBLE PROVIDE YOUNG REGULATOR MODEL 270-301 CABLE KIT WITH EITHER 820A-CC (RECTANGULAR OR 5020-CC (ROUND) DAMPER.
B. PROVIDE DAMPER WITH LOCKING QUADRANT AT ALL SINGLE RUNOUTS.

9 BRANCH DUCT DAMPER DETAIL
NOT TO SCALE



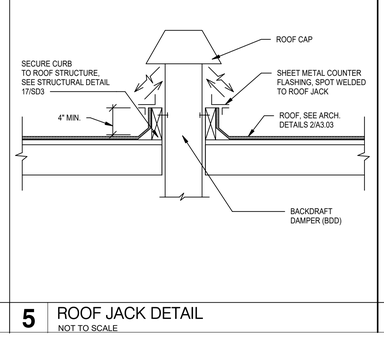
NOTE:
1. TYPICAL OF 2 INDEPENDENT CIRCUITS.
2. ALL REFRIGERANT PIPING TO BE SIZED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

8 REFRIGERANT PIPING SCHEMATIC DETAIL
NOT TO SCALE

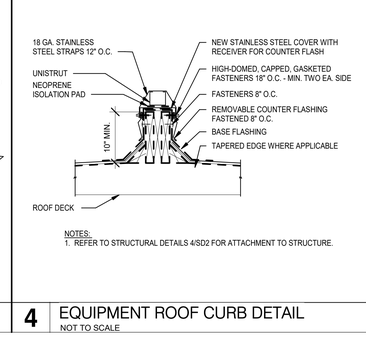


NOTES:
1. INSULATED REFRIGERANT PIPES THRU CURB. PIPES, THRU CURB.
2. PROVIDE GRADULATED STEP BOOT WITH STSAINLESS STEEL CLAMPS BY THE PATE COMPANY. BOOT JOINT AT CURB, SHALL BE MADE WATER TIGHT.
3. INSULATED, ALUMINUM WRAP REFRIGERANT PIPES, THRU CURB.
4. HEAT PUMP/CONDENSING UNIT'S PLATFORM WITH NEOPRENE PAD.
5. SEE STRUCTURAL DETAIL 20/SD2 FOR ATTACHEMENT TO STRUCTURE.

6 HP ROOF MOUNTING DETAIL
NOT TO SCALE

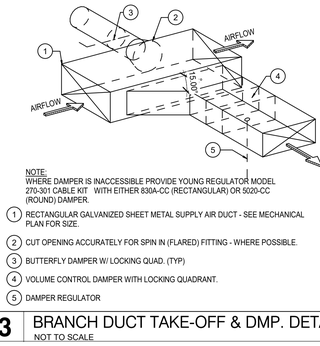


5 ROOF JACK DETAIL
NOT TO SCALE



NOTES:
1. REFER TO STRUCTURAL DETAILS 4/SD2 FOR ATTACHMENT TO STRUCTURE.

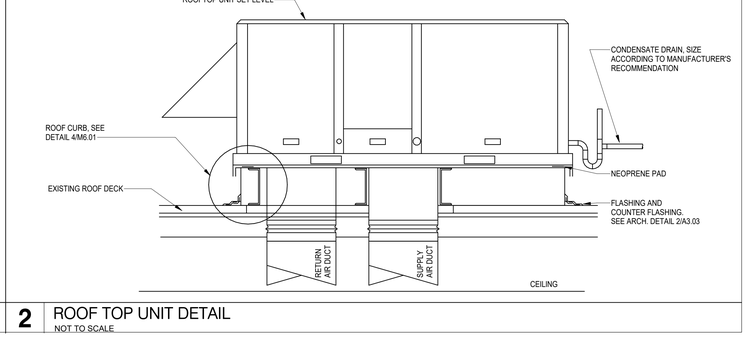
4 EQUIPMENT ROOF CURB DETAIL
NOT TO SCALE



NOTE:
WHERE DAMPER IS INACCESSIBLE PROVIDE YOUNG REGULATOR MODEL 270-301 CABLE KIT WITH EITHER 839A-CC (RECTANGULAR) OR 5020-CC (ROUND) DAMPER.

1. RECTANGULAR GALVANIZED SHEET METAL SUPPLY AIR DUCT - SEE MECHANICAL PLAN FOR SIZE.
2. CUT OPENING ACCURATELY FOR SPIN IN (FLARED) FITTING - WHERE POSSIBLE.
3. BUTTERFLY DAMPER W/ LOCKING QUAD. (TYP)
4. VOLUME CONTROL DAMPER WITH LOCKING QUADRANT.
5. DAMPER REGULATOR

3 BRANCH DUCT TAKE-OFF & DMP. DETAIL
NOT TO SCALE



2 ROOF TOP UNIT DETAIL
NOT TO SCALE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT
DATE 03/31/2023
PROJECT NUMBER 220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL DETAILS

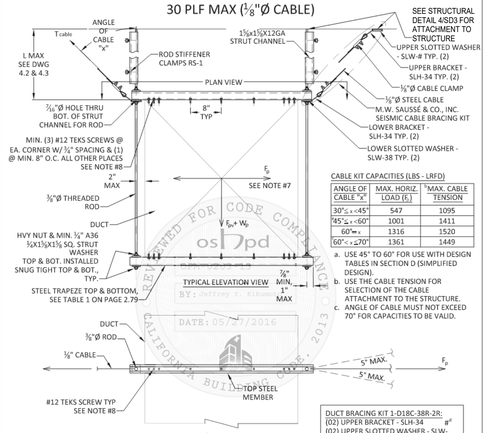
M6.01

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M6.02 - MECHANICAL DETAILS

0" 1"

CABLE BRACING SYSTEM - TRAPEZE HUNG DUCT - TRANSVERSE 30 PLF MAX (⅛"Ø CABLE)



CABLE KIT CAPACITIES (LBS - LRFD)

ANGLE OF CABLE "x"	MAX. HORIZ. LOAD (F_h)	MAX. CABLE TENSION
30°≤ x <45°	547	1095
45°≤ x <60°	1001	1411
60°= x	1316	1520
60°< x ≤70°	1361	1449

a. USE 45° TO 60° FOR USE WITH DESIGN TABLES IN SECTION D (SIMPLIFIED DESIGN).
b. USE THE CABLE TENSION FOR SELECTION OF THE CABLE ATTACHMENT TO THE STRUCTURE.
c. ANGLE OF CABLE MUST NOT EXCEED 70° FOR CAPACITIES TO BE VALID.
d. UPPER SLOTTED WASHER TO MATCH SELECTED ATTACHMENT.

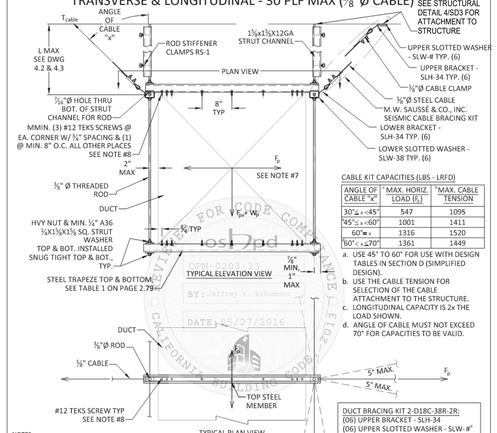
DUCT BRACING KIT 1-D18C-38R-2R:
(02) UPPER BRACKET - SLH-34 #"
(02) UPPER SLOTTED WASHER - SLW-#"
(02) LOWER BRACKET - SLH-34
(02) LOWER SLOTTED WASHER - SLW-38
(04) ROD STIFFENER CLAMPS - RS-1
(02) ⅛" CABLE - 10 FT.
(04) ⅛" CABLE CLAMPS

NOTES:
1. CABLE IS 7 X 19 GALVANIZED STEEL CABLE. SEE PG 4.5
2. CABLES TO BE INSTALLED TAUT W/O SLACK. CAUTION - CABLE MUST NOT SUSTAIN ANY DEAD LOAD.
3. SEE PAGE 4.2 & 3 FOR ROD STIFFENER DETAIL & REQUIREMENTS.
4. SEE PAGE 4.4 FOR BRACKET - SLH-34 AND SLOTTED WASHER - SLW-XX DETAIL.
5. SEE PAGE 4.5 FOR CABLE CLAMP DETAIL.
6. TEKS SCREWS MUST BE PER ICC ESR-1976.
7. RDP SHALL CONSIDER THE ECCENTRIC LOAD DISTRIBUTION WHEN DETERMINING THE F_p VALUE USED IN THE DESIGN.
8. USE SHORTEST SMS POSSIBLE WHEN PENETRATING DUCTWORK TO MINIMIZE AIRFLOW NOISE INSIDE THE DUCT (FEMA 414).

REVIEWED FOR CODE COMPLIANCE BY: Jeffrey Kikumoto DATE: 05/27/2016 OSHPD CALIFORNIA BUILDING CODE 2013

Vibrex vibration & seismic control systems
M.W. Saussé & Co., Inc.
28744 Witherspoon Parkway | Valencia, CA 91355
Ph: (661) 257-3311 | Fax: (661) 257-6050
Civil Engineer: P.K. Sachdeva
California PE No. C59644
Page No.: 2.37
Date: May 9, 2016

CABLE BRACING SYSTEM - TRAPEZE HUNG DUCT TRANSVERSE & LONGITUDINAL - 30 PLF MAX (⅛"Ø CABLE)



CABLE KIT CAPACITIES (LBS - LRFD)

ANGLE OF CABLE "x"	MAX. HORIZ. LOAD (F_h)	MAX. CABLE TENSION
30°≤ x <45°	547	1095
45°≤ x <60°	1001	1411
60°= x	1316	1520
60°< x ≤70°	1361	1449

a. USE 45° TO 60° FOR USE WITH DESIGN TABLES IN SECTION D (SIMPLIFIED DESIGN).
b. USE THE CABLE TENSION FOR SELECTION OF THE CABLE ATTACHMENT TO THE STRUCTURE.
c. LONGITUDINAL CAPACITY IS 2x THE LOAD SHOWN.
d. ANGLE OF CABLE MUST NOT EXCEED 70° FOR CAPACITIES TO BE VALID.
e. UPPER SLOTTED WASHER TO MATCH SELECTED ATTACHMENT.

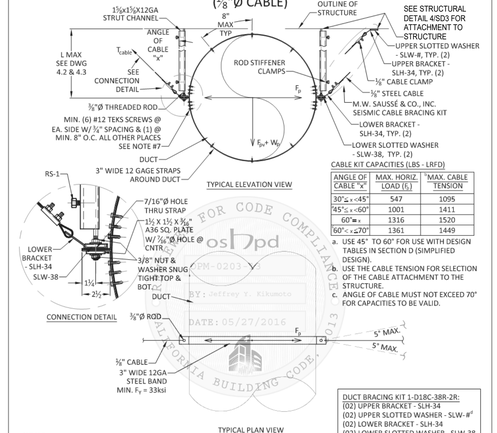
DUCT BRACING KIT 2-D18C-38R-2R:
(06) UPPER BRACKET - SLH-34
(06) UPPER SLOTTED WASHER - SLW-#"
(06) LOWER BRACKET - SLH-34
(06) LOWER SLOTTED WASHER - SLW-38
(04) ROD STIFFENER CLAMPS - RS-1
(06) ⅛" CABLE - 10 FT.
(12) ⅛" CABLE CLAMPS

NOTES:
1. CABLE IS 7 X 19 GALVANIZED STEEL CABLE. SEE PG 4.5
2. CABLES TO BE INSTALLED TAUT W/O SLACK. CAUTION - CABLE MUST NOT SUSTAIN ANY DEAD LOAD.
3. SEE PAGE 4.2 & 3 FOR ROD STIFFENER DETAIL & REQUIREMENTS.
4. SEE PAGE 4.4 FOR BRACKET - SLH-34 AND SLOTTED WASHER - SLW-XX DETAIL.
5. SEE PAGE 4.5 FOR CABLE CLAMP DETAIL.
6. TEKS SCREWS MUST BE PER ICC ESR-1976.
7. RDP SHALL CONSIDER THE ECCENTRIC LOAD DISTRIBUTION WHEN DETERMINING THE F_p VALUE USED IN THE DESIGN.
8. USE SHORTEST SMS POSSIBLE WHEN PENETRATING DUCTWORK TO MINIMIZE AIRFLOW NOISE INSIDE THE DUCT (FEMA 414).

REVIEWED FOR CODE COMPLIANCE BY: Jeffrey Kikumoto DATE: 05/27/2016 OSHPD CALIFORNIA BUILDING CODE 2013

Vibrex vibration & seismic control systems
M.W. Saussé & Co., Inc.
28744 Witherspoon Parkway | Valencia, CA 91355
Ph: (661) 257-3311 | Fax: (661) 257-6050
Civil Engineer: P.K. Sachdeva
California PE No. C59644
Page No.: 2.38
Date: May 9, 2016

CABLE BRACING SYSTEM - HUNG ROUND DUCT - TRANSVERSE - 30 PLF MAX (⅛"Ø CABLE)



CABLE KIT CAPACITIES (LBS - LRFD)

ANGLE OF CABLE "x"	MAX. HORIZ. LOAD (F_h)	MAX. CABLE TENSION
30°≤ x <45°	547	1095
45°≤ x <60°	1001	1411
60°= x	1316	1520
60°< x ≤70°	1361	1449

a. USE 45° TO 60° FOR USE WITH DESIGN TABLES IN SECTION D (SIMPLIFIED DESIGN).
b. USE THE CABLE TENSION FOR SELECTION OF THE CABLE ATTACHMENT TO THE STRUCTURE.
c. ANGLE OF CABLE MUST NOT EXCEED 70° FOR CAPACITIES TO BE VALID.
d. UPPER SLOTTED WASHER TO MATCH SELECTED ATTACHMENT.

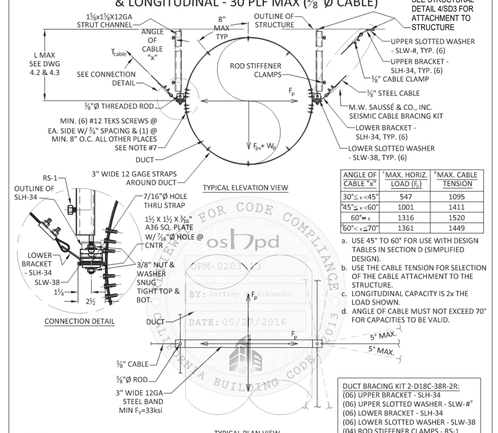
DUCT BRACING KIT 1-D18C-38R-2R:
(02) UPPER BRACKET - SLH-34
(02) UPPER SLOTTED WASHER - SLW-#"
(02) LOWER BRACKET - SLH-34
(02) LOWER SLOTTED WASHER - SLW-38
(04) ROD STIFFENER CLAMPS - RS-1
(02) ½" CABLE - 10 FT.
(04) ½" CABLE CLAMPS

NOTES:
1. CABLE IS 7 X 19 GALVANIZED STEEL CABLE. SEE PAGE 4.5.
2. CABLES TO BE INSTALLED TAUT W/O SLACK. CAUTION - CABLE MUST NOT SUSTAIN ANY DEAD LOAD.
3. SEE PAGE 4.2 & 3 FOR ROD STIFFENER DETAIL & REQUIREMENTS.
4. SEE PAGE 4.4 FOR BRACKET - SLH-34 AND SLOTTED WASHER - SLW-XX DETAIL.
5. SEE PAGE 4.5 FOR CABLE CLAMP DETAIL.
6. TEKS SCREWS MUST BE PER ICC ESR-1976.
7. USE SHORTEST SMS POSSIBLE WHEN PENETRATING DUCTWORK TO MINIMIZE AIRFLOW NOISE INSIDE THE DUCT (FEMA 414).

REVIEWED FOR CODE COMPLIANCE BY: Jeffrey Kikumoto DATE: 05/27/2016 OSHPD CALIFORNIA BUILDING CODE 2013

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California PE No. C59644
Page No.: 2.49
Date: May 9, 2016

CABLE BRACING SYSTEM - HUNG ROUND DUCT - TRANSVERSE & LONGITUDINAL - 30 PLF MAX (⅛"Ø CABLE)



ANGLE OF CABLE "x"	MAX. HORIZ. LOAD (F_h)	MAX. CABLE TENSION
30°≤ x <45°	547	1095
45°≤ x <60°	1001	1411
60°= x	1316	1520
60°< x ≤70°	1361	1449

a. USE 45° TO 60° FOR USE WITH DESIGN TABLES IN SECTION D (SIMPLIFIED DESIGN).
b. USE THE CABLE TENSION FOR SELECTION OF THE CABLE ATTACHMENT TO THE STRUCTURE.
c. LONGITUDINAL CAPACITY IS 2x THE LOAD SHOWN.
d. ANGLE OF CABLE MUST NOT EXCEED 70° FOR CAPACITIES TO BE VALID.
e. UPPER SLOTTED WASHER TO MATCH SELECTED ATTACHMENT.

DUCT BRACING KIT 2-D18C-38R-2R:
(06) UPPER BRACKET - SLH-34
(06) UPPER SLOTTED WASHER - SLW-#"
(06) LOWER BRACKET - SLH-34
(06) LOWER SLOTTED WASHER - SLW-38
(04) ROD STIFFENER CLAMPS - RS-1
(06) ⅛" CABLE - 10 FT.
(12) ⅛" CABLE CLAMPS

NOTES:
1. CABLE IS 7 X 19 GALVANIZED STEEL CABLE. SEE PAGE 4.5.
2. CABLES TO BE INSTALLED TAUT W/O SLACK. CAUTION - CABLE MUST NOT SUSTAIN ANY DEAD LOAD.
3. SEE PAGE 4.2 & 3 FOR ROD STIFFENER DETAIL & REQUIREMENTS.
4. SEE PAGE 4.4 FOR BRACKET - SLH-34 AND SLOTTED WASHER - SLW-XX DETAIL.
5. SEE PAGE 4.5 FOR CABLE CLAMP DETAIL.
6. TEKS SCREWS MUST BE PER ICC ESR-1976.
7. USE SHORTEST SMS POSSIBLE WHEN PENETRATING DUCTWORK TO MINIMIZE AIRFLOW NOISE INSIDE THE DUCT (FEMA 414).

REVIEWED FOR CODE COMPLIANCE BY: Jeffrey Kikumoto DATE: 05/27/2016 OSHPD CALIFORNIA BUILDING CODE 2013

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California PE No. C59644
Page No.: 2.50
Date: May 9, 2016

RS-1 - ROD STIFFENER DETAILS & REQUIREMENTS

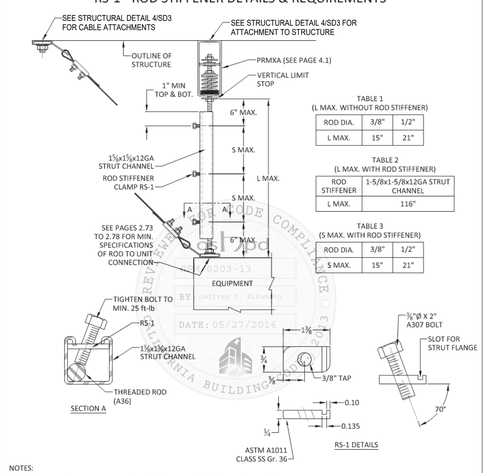


TABLE 1
(L MAX. WITHOUT ROD STIFFENER)

ROD DIA.	3/8"	1/2"
L MAX.	15"	21"

TABLE 2
(L MAX. WITH ROD STIFFENER)

ROD STIFFENER	1-5/8x1-5/8x12GA STRUT CHANNEL
L MAX.	116"

TABLE 3
(S MAX. WITH ROD STIFFENER)

ROD DIA.	3/8"	1/2"
S MAX.	15"	21"

NOTES:
1. SEE TABLE 1 FOR MAXIMUM LENGTH OF ⅜" THRU ¾"Ø RODS WITHOUT ROD STIFFENER.
2. SEE TABLE 2 FOR MAXIMUM LENGTH OF ⅜" THRU ¾"Ø RODS WITH ROD STIFFENER.
3. SEE TABLE 3 TO DETERMINE NUMBER OF ROD STIFFENER CLIPS REQUIRED.
4. PROVIDE ROD STIFFENING ONLY WHERE SEISMIC BRACKETS ARE ATTACHED TO THE ROD.
5. SEE SECTION 3 FOR STRUCTURAL ATTACHMENTS FOR HANGER BOX AND CABLE BRACING

REVIEWED FOR CODE COMPLIANCE BY: Jeffrey Kikumoto DATE: 05/27/2016 OSHPD CALIFORNIA BUILDING CODE 2013

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California PE No. C59644
Page No.: 4.2
Date: May 9, 2016

RS-1 - ROD STIFFENER DETAILS & REQUIREMENTS

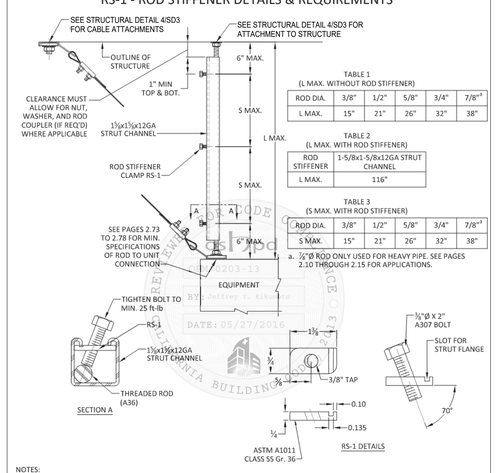


TABLE 1
(L MAX. WITHOUT ROD STIFFENER)

ROD DIA.	3/8"	1/2"	5/8"	3/4"	7/8"[a]
L MAX.	15"	21"	26"	32"	38"

TABLE 2
(L MAX. WITH ROD STIFFENER)

ROD STIFFENER	1-5/8x1-5/8x12GA STRUT CHANNEL
L MAX.	116"

TABLE 3
(S MAX. WITH ROD STIFFENER)

ROD DIA.	3/8"	1/2"	5/8"	3/4"	7/8"[a]
S MAX.	15"	21"	26"	32"	38"

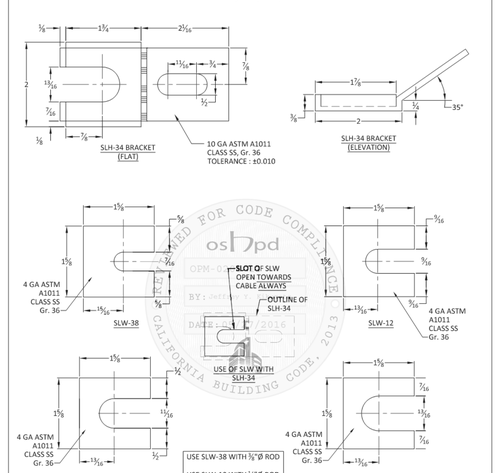
a. ⅞"Ø ROD ONLY USED FOR HEAVY PIPE. SEE PAGES 2.10 THROUGH 2.15 FOR APPLICATIONS.

NOTES:
1. SEE TABLE 1 FOR MAXIMUM LENGTH OF ⅜" THRU ¾"Ø RODS WITHOUT ROD STIFFENER.
2. SEE TABLE 2 FOR MAXIMUM LENGTH OF ⅜" THRU ¾"Ø RODS WITH ROD STIFFENER.
3. SEE TABLE 3 TO DETERMINE NUMBER OF ROD STIFFENER CLIPS REQUIRED.
4. PROVIDE ROD STIFFENING ONLY WHERE SEISMIC BRACKETS ARE ATTACHED TO THE ROD.
5. SEE SECTION 3 FOR STRUCTURAL ATTACHMENTS FOR HANGER BOX AND CABLE BRACING

REVIEWED FOR CODE COMPLIANCE BY: Jeffrey Kikumoto DATE: 05/27/2016 OSHPD CALIFORNIA BUILDING CODE 2013

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Page No.: 4.3
Date: May 9, 2016

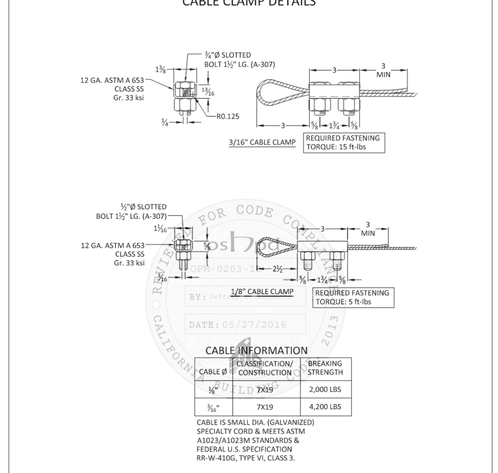
SLH-34 & SLW-38, 12, 58, & 34 DETAILS



REVIEWED FOR CODE COMPLIANCE BY: Jeffrey Kikumoto DATE: 05/27/2016 OSHPD CALIFORNIA BUILDING CODE 2013

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Page No.: 4.4
Date: May 9, 2016

CABLE CLAMP DETAILS



CABLE INFORMATION

CABLE Ø	CLASS/DESCRIPTION/ CONSTRUCTION	BREAKING STRENGTH
⅛"	7X19	2,000 LBS
3/16"	7X19	4,200 LBS

CABLE IS SMALL DIA. (GALVANIZED) SPECIALTY CORD & MEETS ASTM A1023/A1023M STANDARDS & FEDERAL U.S. SPECIFICATION RR-W-410G, TYPE VI, CLASS 3.

REVIEWED FOR CODE COMPLIANCE BY: Jeffrey Kikumoto DATE: 05/27/2016 OSHPD CALIFORNIA BUILDING CODE 2013

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California PE No. C59644
Page No.: 4.5
Date: May 9, 2016

1 PRE-APPROVED OPM HANGER DETAILS
NOT TO SCALE

FILE PATH: Z:\Projects\...
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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

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CONSULTANT LEAF Engineers
LEAF ENGINEERS
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Rancho Cucamonga, CA 91730
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43

KEY PLAN
NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M38155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT
DATE 03/31/2023
PROJECT NUMBER 220524

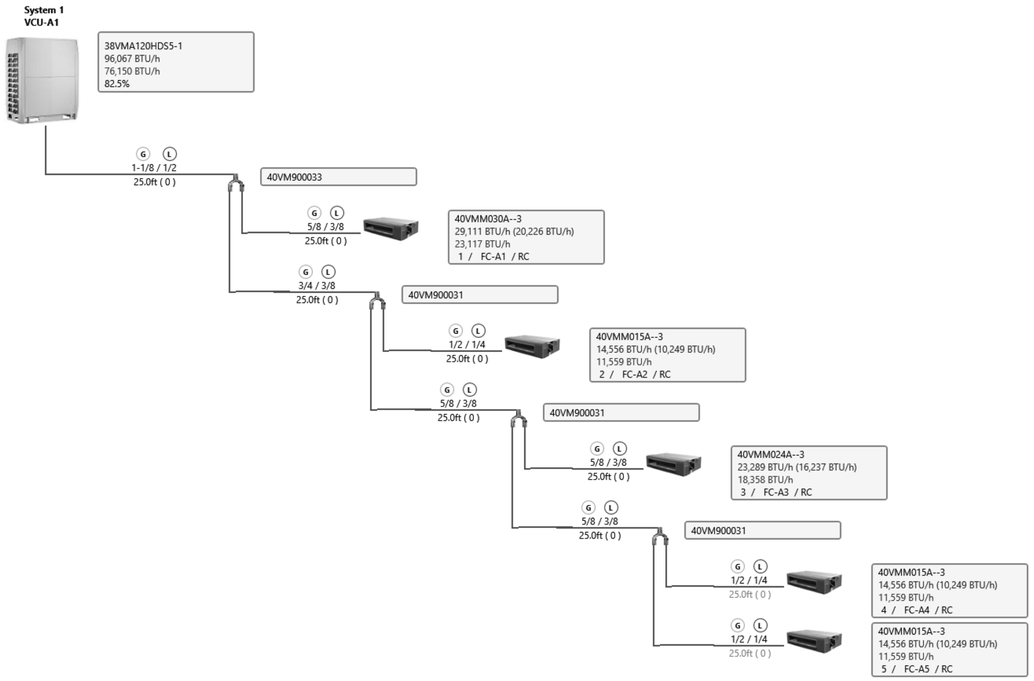
REVISIONS

No.	Description	Date

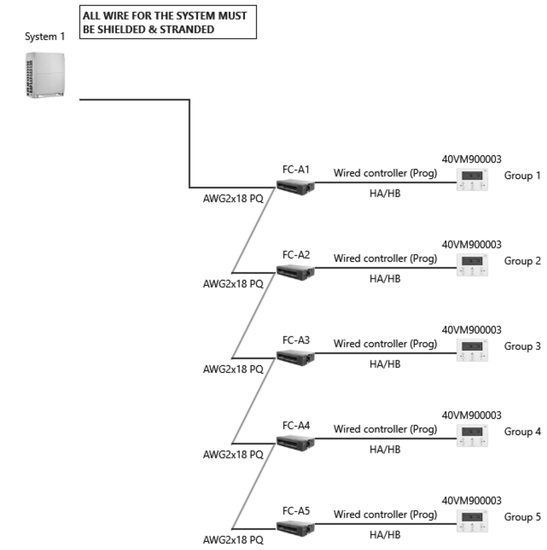
DSA Submittal

MECHANICAL DETAILS

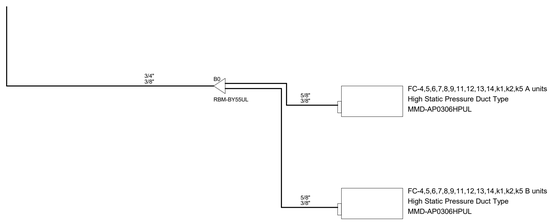
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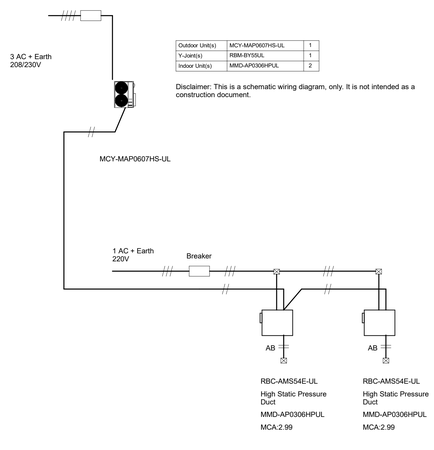
6 VRF SYSTEM CONTROL DIAGRAMS
NOT TO SCALE



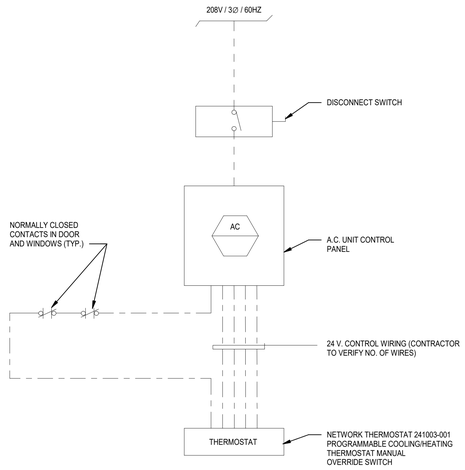




5 ODU-1 THRU ODU-4 WIRING DIARAM
NOT TO SCALE



4 ODU-1 THRU ODU-4 PIPING DIAGRAM
NOT TO SCALE



3 A/C UNIT WIRING DIAGRAM
NOT TO SCALE

Indoor Units:	1 / 1 to 1	
Capacity:	12 / 6 to 12 (100.0%)	
Total Pipe Length:	10.0 / 82.0	feet
Furthest Actual:	10.0 / 82.0	feet
Furthest Equiv.:	10.0 / 82.0	feet
After 1st Branch Actual:	0.0 / 0.0	feet
After 1st Branch Equiv.:	0.0 / 0.0	feet
Max Height Between IDU/IDU:	0.0 / 0.0	feet
Max Height Between IDU/ODU (Above):	0.0 / 32.0	feet
Max Height Between IDU/ODU (Below):	0.0 / 32.0	feet

Correction Factors

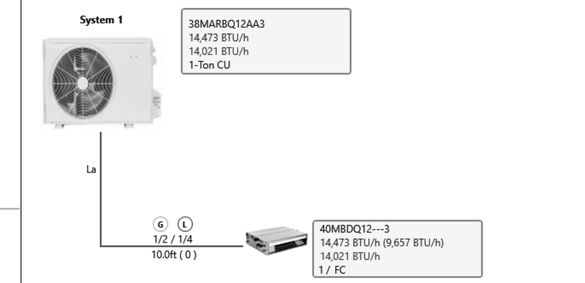
System Capacity:	1.00	1.00
Piping Length:	1.00	1.00
Altitude:	1.00	1.00
Defrosting:	-	1.00
Additional Derates:	1.00	1.00

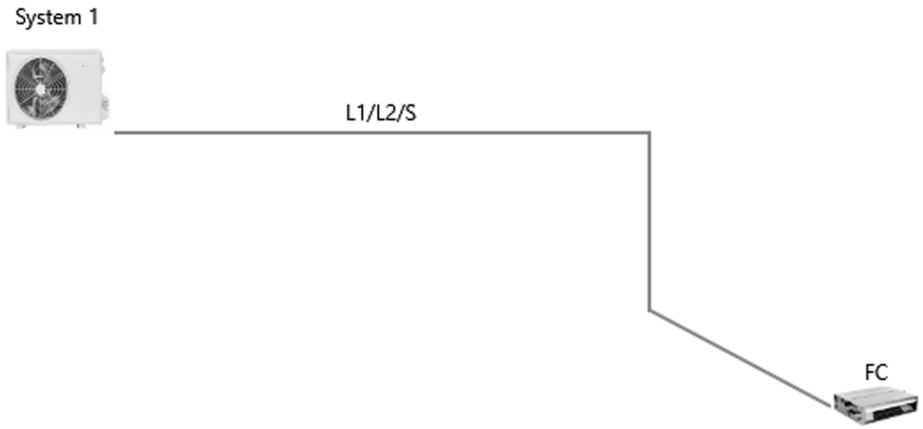
Additional Refrigerant:	0.00	lb
Total Refrigerant Amount:	2.60	lb
Min Allowable Room Volume(cuft):	100.05	

Design Temperatures (°F)

Cooling:
Indoor DB 80.0 Humidity 51.8% Indoor WB 67.0
Outdoor DB 96.0

Heating:
Indoor DB 70.0
Outdoor DB 18.0 Humidity 75.0% Outdoor WB 16.5





1 SPLIT SYSTEM CONTROL DIAGRAMS
NOT TO SCALE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
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DATE: 11/28/2023

PBK

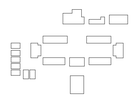
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P 949-548-5000
CONSULTANT LEAF Engineers
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DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M38155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

MECHANICAL CONTROLS

M7.01

0" 1"

ELECTRICAL SYMBOL LEGEND

1. EVERY SYMBOL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS.
2. DASHED ELECTRICAL EQUIPMENT GENERALLY INDICATES EXISTING EQUIPMENT.
3. LONG-SHORT-SHORT-LONG DASHING GENERALLY INDICATES MATCH LINE OR DEFINES AREA FOR SPECIAL NOTE.

CIRCUIT RELATED:

LIGHTING OR POWER CIRCUIT(S). ARROW INDICATES HOME RUN, LONGER TICK(S) INDICATE NEUTRAL WIRE(S), SHORTER STRAIGHT TICK(S) INDICATE PHASE WIRE(S), SLANTED SHORTER TICK(S) INDICATE SWITCH LEG(S), DOT(S) INDICATE GROUNDING CONDUCTOR(S), DASHED WIRING (LONG-SHORT-LONG DASHES) INDICATES WIRING BELOW SLAB OR GRADE, DASHED WIRING (SERIES OF SHORT DASHES) INDICATES EXISTING WIRING, SLASH THROUGH ARROW INDICATES PARTIAL CIRCUIT, "D" ON HOMERUN ARROW INDICATES DEDICATED CIRCUIT. PROVIDE A SEPARATE NEUTRAL FOR EACH PHASE CONDUCTOR FOR ENTIRE LENGTH OF CIRCUIT FROM PANEL TO OUTLET; COUNT EACH NEUTRAL AS CURRENT-CARRYING AND GROUP A MAXIMUM OF SIX THHN/THWN CONDUCTORS IN A SINGLE RACEWAY; GROUNDING CONDUCTOR IS NOT COUNTED.
NOTE: HOMERUN INDICATES INSTALLATION OF NEW WIRE AND CONDUIT (#12 WIRE, 3/4"C, UNLESS OTHERWISE NOTED) FROM SOURCE PANELBOARD TO LOAD. HOMERUN INDICATES CONNECTION OF NEW LOADS TO EXISTING CIRCUITS IN LIEU OF PANELBOARD WHERE NOTED ON PLANS.

JUNCTION BOX

GROUNDING FIXTURE

LIGHTING:

LED LIGHTING FIXTURE. LETTER INDICATES TYPE, SMALL LETTER INDICATES SWITCH CONTROL, NUMBER INDICATES CIRCUIT. CROSS HATCHING INDICATES FIXTURE ON EMERGENCY SYSTEM. FOR SOLID CIRCLE WITHIN FIXTURE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL

STRIP TYPE LED LIGHTING FIXTURE. LETTER INDICATES TYPE, SMALL LETTER INDICATES SWITCH CONTROL, NUMBER INDICATES CIRCUIT, FOR SOLID CIRCLE ATTACHED TO FIXTURE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL

LED LIGHTING FIXTURE. LETTER INDICATES TYPE, SMALL LETTER INDICATES SWITCH CONTROL, NUMBER INDICATES CIRCUIT, FOR SOLID CIRCLE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL

DESIGNATES FIXTURE ON EMERGENCY POWER. RE: LIGHTING PLAN NOTES AND FIXTURE SCHEDULE NOTES FOR ADDITIONAL INFORMATION

WALL OR BRACKET MOUNTED FIXTURE OR DEVICE

EXIT LIGHT FIXTURE. LETTER INDICATES TYPE, NUMBER INDICATES CIRCUIT, NUMBER AND LOCATION OF SHADED TRIANGLE SECTIONS INDICATE NUMBER OF EXIT SIGN FACES AND DIRECTION OF EACH FACE. PROVIDE CHEVRON DIRECTIONAL INDICATORS AS SHOWN ON DRAWINGS

CONTROL:

SWITCH. SMALL LETTER INDICATES FIXTURES CONTROLLED, "P" INDICATES PILOT LIGHT, "WP" INDICATES WEATHERPROOF, "K" INDICATES KEY POERATED, "MO" INDICATES SPDT MOMENTARY CONTACT, "2" INDICATES DPDT, "3" INDICATES 3-WAY, "4" INDICATES 4-WAY, "M" INDICATES MANUAL MOTOR STARTER, CIRCUIT DESIGNATION NEXT TO SWITCH INDICATES BRANCH CIRCUIT NUMBER

WALL BOX DIMMER SWITCH. "MARK" INDICATES WATTAGE IF OTHER THAN 600, "3D" INDICATES 3-WAY DIMMER

MULTI-LEVEL SWITCH. CIRCUIT DESIGNATION NEXT TO SWITCH INDICATES BRANCH CIRCUIT NUMBER

DIGITAL TIME SWITCH

PHOTOELECTRIC CONTROL

EMERGENCY POWER OFF (EPO) PUSHBUTTON

PUSH BUTTON

WALL MOUNT OCCUPANCY SENSOR

WALL MOUNT OCCUPANCY SENSOR WITH DIMMING CONTROLS

DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR

CEILING MOUNTED RESTROOM OCCUPANCY SENSOR

CEILING MOUNTED CORRIDOR OCCUPANCY SENSOR

CEILING MOUNTED HIGH CEILING OCCUPANCY SENSOR

POWER OUTLETS:

20A-125V DUPLEX RECEPTACLE

20A-125V GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. "WP" INDICATES WEATHER PROOF DEVICE

20A-125V DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP. REFER TO ARCHITECT FOR EXACT HEIGHT ABOVE COUNTER

20A-125V CONTROLLED DUPLEX RECEPTACLE

20A-125V ISOLATED GROUND TYPE DUPLEX RECEPTACLE

20A-125V DUPLEX TAMPER RESISTANT RECEPTACLE WITH (2) USB CHARGING PORTS

20A-125V FOURPLEX RECEPTACLE. SAME SYMBOLOGY AS DUPLEX RECEPTACLE

SPECIAL PURPOSE SINGLE POWER RECEPTACLE. RATED AS INDICATED (IF NO RATING INDICATED, RECEPTACLE RATING SHALL MATCH BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE AND SHALL MEET REQUIREMENTS OF EQUIPMENT BEING CONNECTED). "C" INDICATES CLOCK OUTLET

20A-125V FLUSH FLOOR DUPLEX RECEPTACLE. 20A WHEN INDICATED OR IF BRANCH CIRCUIT SERVES ONLY SINGLE DUPLEX. PROVIDE CARPED FLANGE WHERE APPLICABLE

LC1-X CIRCUIT DESIGNATION NEXT TO RECEPTACLE DEVICES INDICATES BRANCH CIRCUIT NUMBER. SEE PANEL SCHEDULES FOR INFORMATION.

TELEPHONE/DATA:

FLUSH FLOOR TELEPHONE OUTLET WITH CARPET FLANGE WHERE APPLICABLE

WALL COMMUNICATIONS OR DATA OUTLET. REFER TO 'TS' SERIES SHEETS FOR EXACT BOX / CONDUIT REQUIREMENTS

FLUSH FLOOR COMMUNICATIONS OR DATA OUTLET. REFER TO 'TS' SERIES SHEETS FOR EXACT BOX / CONDUIT REQUIREMENTS. PROVIDE CARPET FLANGE WHERE APPLICABLE

SURFACE FLOOR COMMUNICATIONS OR DATA OUTLET. REFER TO 'TS' SERIES SHEETS FOR EXACT BOX / CONDUIT REQUIREMENTS. PROVIDE CARPET FLANGE WHERE APPLICABLE

EQUIPMENT:

+42" A NOTATION INDICATING THE MOUNTING HEIGHT OF A DEVICE AS MEASURED FROM FINISHED FLOOR OR GRADE TO CENTER LINE OF DEVICE

MOTOR

DISCONNECT SWITCH. FRAME SIZE/FUSE SIZE/POLES AS INDICATED, "NF" INDICATES NON-FUSIBLE, NEMA 1 ENCLOSURE UNLESS OTHERWISE NOTED. PROVIDE FUSED BUSWAY PLUG WHEN SWITCH IS INDICATED ON BUSWAY. ALL DISCONNECT SWITCHES SHALL BE 30/NF/3 UNLESS OTHERWISE NOTED

SINGLE CIRCUIT BREAKER IN INDIVIDUAL ENCLOSURE

MAGNETIC MOTOR CONTROLLER. NUMBER INDICATES NEMA SIZE. STARTER NEMA SIZE SHALL BE "NEMA 1" UNLESS OTHERWISE NOTED

COMBINATION DISCONNECT SWITCH / MOTOR CONTROLLER

CONTACTOR

PANELBOARD

SWITCHBOARD / DP

TRANSFORMER

GROUNDING CONNECTION TO GROUNDING ELECTRODE AS DEFINED IN CEC ARTICLE 250

BELL. "WP" INDICATED OUTDOOR RATED

REMODEL:

(E) EQUIPMENT WITH "E" ADJACENT IS EXISTING TO REMAIN.

(R) EXISTING EQUIPMENT WITH "R" ADJACENT IS TO BE COMPLETELY DISCONNECTED AND REMOVED.

(RR) EXISTING EQUIPMENT WITH "RR" ADJACENT IS TO BE DISCONNECTED, REMOVED AND RELOCATED TO NEW LOCATION AND RECONNECTED AS REQUIRED.

(ER) EQUIPMENT WITH "ER" ADJACENT IS RELOCATED EQUIPMENT SHOWN IN NEW LOCATION.

NO TAG INDICATES NEW EQUIPMENT.

(E) PNL-CKT CIRCUIT DESIGNATION WITH PREFIX "(E)" DENOTES EXISTING CIRCUIT AND EQUIPMENT IS TO REMAIN.

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. HE SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND BY SUBMITTING A BID, ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF CONTRACT DOCUMENTS AND ADDENDA (DRAWINGS AND SPECIFICATIONS.) HE SHALL CHECK THE CONTRACT DOCUMENTS OF THE OTHER TRADES AND DETERMINE HIS RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM COMPLETING ALL RESPONSIBLE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SECURE AND PAY FOR ALL PERMITS, FEES, CHARGES, AND INCIDENTAL COSTS NECESSARY FOR EXECUTION AND COMPLETION OF ELECTRICAL WORK, INCLUDING ALL CHARGES BY STATE, COUNTY AND LOCAL GOVERNMENTAL AGENCIES.
4. ALL ELECTRICAL WORK REFERENCED HEREIN SHALL BE COORDINATED WITH OTHER TRADES AND SITE CONDITIONS. ANY COSTS TO INSTALL WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE CONTRACT DOCUMENTS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING BID TIME FOR CLARIFICATION. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
5. PROVIDE TEMPORARY POWER FACILITIES AND CONNECTIONS FOR ALL FEEDERS, BRANCH CIRCUITS OR SIGNAL AND COMMUNICATIONS SYSTEMS BEING DISCONNECTED IN ORDER TO MAINTAIN SYSTEMS IN OPERATION.
6. ALL INTERRUPTION OF ELECTRICAL POWER SHALL BE KEPT TO A MINIMUM. HOWEVER WHEN AN INTERRUPTION IS NECESSARY, THE SHUTDOWN MUST BE COORDINATED WITH THE OWNER AND ENGINEER 14 DAYS PRIOR TO THE OUTAGE AND OVERTIME PAY SHALL BE INCLUDED IN THE CONTRACTOR'S BID. WORK IN EXISTING SWITCHBOARDS OR PANEL BOARDS SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVING ACCESS PANELS OR DOORS.
7. AFTER ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS HAVE BEEN FULLY COMPLETED. REPRESENTATIVES OF THE OWNERS WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPETENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM TO THE FULL SATISFACTION OF EACH REPRESENTATIVE. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE OWNER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCETANCE FROM EACH REPRESENTATIVE.
8. FURNISH A ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF PUNCH LIST COMPLETION.
9. ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR.
10. EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE OR MASONARY WALLS, GRADEBEAMS, FLOORS OR STRUCTURAL STEEL MEMBER SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAWCUTTING, PATCHING, AND REFINISHING OF WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE. OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR OR CEILING EXACT METHOD AND LOCATION OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE WALLS OR FLOORS SHALL BE UL APPROVED.
11. FINAL CONNECTIONS TO VIBRATING EQUIPMENT AND AT SEISMIC SEPARATIONS SHALL BE FLEXIBLE STEEL CONDUIT IN DRY INTERIOR LOCATIONS, AND LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN AREAS EXPOSED TO WEATHER, DAMP LOCATIONS, CONNECTIONS TO TRANSFORMER ENCLOSURES, AND FINAL CONNECTIONS TO MOTORS.
12. EQUIPMENT OUTLETS, LIGHTING FIXTURES, CONDUIT, WIRE AND CONNECTION METHODS IN HVAC AIR-PLENUMS SHALL BE APPROVED FOR USE IN PLENUMS AND SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE.
13. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILING SPACES PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING, ARRANGE CONDUIT TO MAINTAIN HEADROOM AND TO PRESENT A NEAT APPEARANCE.
14. CONDUIT SHALL NOT BE INSTALLED IN ANY FLOOR SLAB. CONDUIT SHALL BE INSTALLED CONCEALED IN THE CEILING SPACE, CONCEALED WALLS, OR 24" MINIMUM BELOW SLAB ON GRADE UNLESS NOTED OTHERWISE.
15. LOCATE ELECTRICAL EQUIPMENT AND BOXES IN ACCESSIBLE CEILING SPACE OR PROVIDE AN ACCESS PANEL FOR INACCESSIBLE CEILING SYSTEMS. ACCESS DOORS SHALL BE A MINIMUM DIMENSION OF 24" x 24" ACCESS DOOR LOCATIONS SHALL SUIT ACCESSIBILITY AND CONSTRUCTION CONDITIONS. ACCESS DOORS SHALL HAVE A FIRE RATING EQUAL TO THE CEILING ASSEMBLY IN WHICH THEY ARE INSTALLED.
16. COORDINATE REQUIRED ACCESS DOORS IN NON-ACCESSIBLE CEILING TO SUIT FIELD CONDITIONS. THE EXACT SIZES AND PHYSICAL LOCATIONS SHALL SUIT ACCESSIBILITY AND CONSTRUCTION CONDITIONS. ACCESS DOORS SHALL BE PROVIDED IN OTHER SECTIONS OF THE SPECIFICATIONS. ACCESS DOORS SHALL HAVE A FIRE RATING EQUAL TO THE CEILING ASSEMBLY IN WHICH THEY ARE INSTALLED.
17. WHENEVER A DISCREPANCY OF ANY SYSTEM AND/OR EQUIPMENT ARISES ON THE CONTRACT DOCUMENTS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ARCHITECT/ENGINEER.
18. STRAIGHT FEEDER BRANCH CIRCUIT AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS.
19. PANEL SCHEDULES SHALL BE REVISED TO REFLECT FINAL ROOM NAMES AND NUMBERS USING OWNER'S ROOM NAMES AND NUMBERS DESIGNATIONS. CONTRACTOR TO PROVIDE FINAL PANEL SCHEDULE TO EEOR AT COMPLETION OF PROJECT.
20. WHERE OUTLETS OCCUR AT TACKABLE WALL PANELS OR OTHER WALL FINISHES. PROVIDE EXTENSION RINGS AS REQUIRED SO THAT NO SPACE WILL EXIST BETWEEN DEVICE PLATE AND BACKBOX PER CALIFORNIA ELECTRICAL CODE 314.20 SEE ARCHITECTURAL ELEVATIONS FOR WALL FINISHES AND LOCATIONS.
21. COORDINATE LOCATIONS OF ALL SEISMIC SEPARATIONS.
22. ALL 120V POWER REQUIRED FOR THE FUNCTIONALITY OF ALL LOW VOLTAGE / TECHNOLOGY SYSTEMS SHALL BE A DEDICATED CIRCUIT AND ON EMERGENCY POWER WHEN AVAILABLE. CABLING CONTRACTOR SHALL COORDINATE ALL 120V POWER REQUIREMENTS AND LOCATIONS WITH ELECTRICAL CONTRACTOR FOR ALL EQUIPMENT.
23. SYSTEM WIRING AND EQUIPMENT INSTALLATION SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AS ESTABLISHED BY THE EIA AND THE CEC.
24. ALL AC POWER CABLES ARE TO BE INSTALLED WITH A MINIMUM OF 12 INCHES OF SEPARATION FROM TECHNOLOGY LOW VOLTAGE CABLES, INTERCOM, FIRE ALARM, SECURITY CABLES IN ANY PARALLEL OPEN WIRE RUN.
25. CONTRACTOR SHALL PROVIDE AND INSTALL ALL SLEEVES REQUIRED TO INSTALL COMMUNICATION CABLING THROUGH RATED WALLS. ALL TECHNOLOGY SYSTEM CONDUIT SLEEVES SHALL HAVE PROTECTIVE BUSHING ON BOTH ENDS, BE DEDICATED FOR TECHNOLOGY SYSTEMS ONLY AND SHALL NOT SHARE WITH OTHER BUILDING TRADES.
26. CONTRACTOR SHALL MAINTAIN WALL RATING WITH PROPER FIRE BLOCKING METHODS.
27. ALL CONDUCTORS SHALL BE UL LISTED, COPPER #12 MINIMUM SIZE, TYPE THHN/THWN THERMOPLASTIC, 600 VOLT, 75 DEGREES CELSIUS WET AND 90 DEGREES CELSIUS DRY, UNLESS NOTED OTHERWISE.
28. ALL CABLING SHALL BE ROUTED IN CONDUIT. SIZE CONDUIT AS REQUIRED TO ROUTE SYSTEMS WITH MAXIMUM 40% CABLE FILL. MINIMUM CONDUIT SIZE SHALL BE 3/4" INTERIOR & 1" EXTERIOR.
29. ALL CONDUIT STUB OUTS AND SLEEVES SHALL HAVE PROTECTIVE BUSHINGS TO PREVENT CABLE DAMAGE. BUSHING TO BE INSTALLED PRIOR TO CABLE INSTALLATION. CUTTING BUSHING AND INSTALLING AFTER CABLE IS INSTALLED WILL NOT BE ACCEPTED.

EQUIPMENT ANCHORAGE 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. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26 AND 30:

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRIC, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

1. 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.
2. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUND PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

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

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO START OF AND DURING THE HANGING AND BRACING OF DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY 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 & DETAILS.

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

APPLICABLE CODES

PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2023
2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR
2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
2019 ASME A17.1(CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS (PER 2022 CBC PART 2 CH 35)

NOTE: CAL/OSHA ELEVATOR UNIT ENFORCES CCR TITLE 8 AND USES THE 2004 ASME A17.1 BY ADOPTION

DRAWING INDEX

SHEET	DESCRIPTION
E0.00	ELECTRICAL SYMBOLS, LEGENDS & GENERAL NOTES
E0.01	ELECTRICAL TITLE 24
E0.02	ELECTRICAL TITLE 24
E1.01	ELECTRICAL SITE PLAN
ED2.01	ELECTRICAL FLOOR PLANS - DEMO
ED2.02	ELECTRICAL FLOOR PLANS - DEMO
ED2.03	ELECTRICAL FLOOR PLANS - DEMO
ED3.01	ELECTRICAL LIGHTING PLANS - DEMO
ED3.02	ELECTRICAL LIGHTING PLANS - DEMO
ED3.03	ELECTRICAL LIGHTING PLANS - DEMO
E2.01	ELECTRICAL FLOOR PLANS
E2.02	ELECTRICAL FLOOR PLANS
E2.03	ELECTRICAL FLOOR PLANS
E3.01	ELECTRICAL LIGHTING PLANS
E3.02	ELECTRICAL LIGHTING PLANS
E3.03	ELECTRICAL LIGHTING PLANS
E4.01	ELECTRICAL ROOF PLANS
E4.02	ELECTRICAL ROOF PLANS
E4.03	ELECTRICAL ROOF PLANS
E5.01	SINGLE LINE DIAGRAM
E5.02	ELECTRICAL SCHEDULES
E5.03	ELECTRICAL SCHEDULES
E6.01	ELECTRICAL DETAILS

DIAGRAMMATIC NOTE

DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE DETAILED CONDUIT ROUTING OR LENGTHS REQUIRED FOR COMPLETE INSTALLATION. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR BUT SHALL BE IN STRICT COMPLIANCE WITH STRUCTURAL REQUIREMENTS, CONTRACT DOCUMENTS AND SPECS UNLESS OTHERWISE NOTED. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL, ARCHITECTURAL, STRUCTURAL AND/OR MECHANICAL ITEMS OR FEATURES. REFER TO ARCHITECTURAL AND STRUCTURAL CONTRACT DOCUMENTS FOR FEATURES. REFER TO ARCHITECTURAL AND STRUCTURAL CONTRACT DOCUMENTS FOR DIMENSIONS.

DEVICE LOCATIONS NOTE

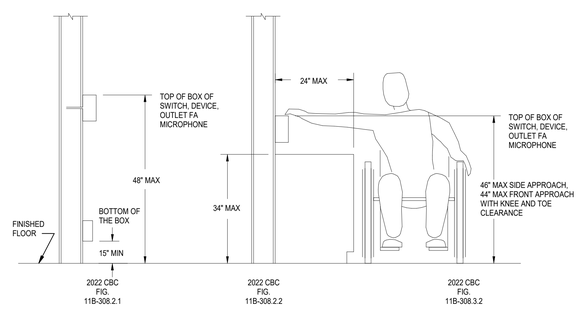
THE LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS, DETAILS, OR SECTIONS PRIOR TO INSTALLATION. ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE RECESSED IN WALLS UNLESS OTHERWISE NOTED. OUTLETS NOT INDICATED ON ARCHITECTURAL ELEVATIONS SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO ROUGH-IN, UNLESS OTHERWISE NOTED. ELECTRICAL DEVICES SHALL BE MOUNTED PER "ACCESSIBLE DEVICE MOUNTING HEIGHT" DETAIL.

COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT SUPPLY POWER AND MAKE CONNECTION TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS, AND DRAWINGS OF OTHER TRADES. REVIEW THE DRAWINGS OF OTHER TRADES FOR CONTROL DIAGRAMS, SIZE AND LOCATION OF EQUIPMENT, DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS, AND CONDUIT FOR MECHANICAL AND PLUMBING OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.

STRUCTURAL NOTE

UNLESS SPECIFICALLY SHOWN ON THESE PLANS, STRUCTURAL MEMBERS SHALL NOT BE CUT, DRILLED, OR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT.

MOUNTING OVER OBSTRUCTION DETAIL



NOTE:

1. THIS DETAIL APPLIES TO MOUNTING OF ANY MECHANICAL AND ELECTRICAL DEVICE WHICH CONTAINS AN OPERABLE PART THAT IS ADJUSTABLE BY THE OCCUPANT. THIS DOES NOT APPLY TO SENSORS OR CONTROLS THAT ARE ONLY ADJUSTABLE THROUGH THE BUILDING AUTOMATION SYSTEM (IE: TEMPERATURE AND HUMIDITY SENSORS).

UL LISTINGS NOTE

ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATIES (UL) AND BEAR THEIR LABEL OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY.

ALL EQUIPMENT/DEVICES INSTALLED RECESSED IN FIRE RATED CEILINGS OR WALLS SHALL BE ENCLOSED WITH AN APPROVED UL LISTED ENCLOSURE CARRYING THE SAME FIRE RATING AS THE CEILING OR WALL.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

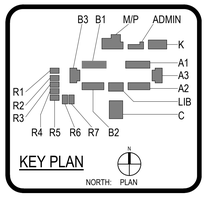
CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER RANALD C. DELA CRUZ No. E 23576 Exp. 09-30-2025 ELECTRICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

ELECTRICAL SYMBOLS, LEGENDS & GENERAL NOTES

E0.00

FILE PATH: Z:\Projects\...
9/18/2023 6:44:21 PM

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 04/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — NRCC-LTI-E

This document is used to demonstrate compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.

Project Name: SEQUOIA Elementary - HVAC & Modernization	Report Page: Page 1 of 6
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared: 03/28/2023

A. GENERAL INFORMATION

01	Project Location (city)	WESTMINSTER	04	Total Conditioned Floor Area (ft²)	29,641.08
02	Climate Zone	6	05	Total Unconditioned Floor Area (ft²)	
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1

☐ Office ☐ Retail ☐ Warehouse ☐ Hotel/Motel ☑ School ☐ Support Areas
☐ Parking Garage ☐ High-Rise Residential ☐ Relocatable ☐ Healthcare ☐ Other (write in):

B. PROJECT SCOPE

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☐ New Lighting System				
☑ Altered Lighting System	Complete Building	29,641.08		
Total Area of Work (ft²)	**29,641.08**			

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)						Adjusted Lighting Power per §140.6(a) (Watts)				Compliance Results
	01	02	03	04		05	06	07		08	09
	Complete Building §140.6(c)1	Area Category §140.6(c)2	Area Category Additional §140.6(c)2G (+)	Tailored §140.6(c)3 (+)	=	Total Allowed (Watts)	Total Designed (Watts)	Adjustments PAF Control Credits §140.6(a)2 (-)	=	Total Adjusted (Watts) *Includes Adjustments	05 Must be ≥08 §140.6
	(See Table I)	(See Table I)	(See Table J)	(See Table K)			(See Table F)	(See Table P)			
Conditioned:	14,803.1				=	**14,803.1**	≥ 11,087		=	**11,087**	**COMPLIES**
Unconditioned:					=		≥		=		

Table Continued

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 04/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — NRCC-LTI-E

Project Name: SEQUOIA Elementary - HVAC & Modernization	Report Page: Page 2 of 6
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared: 03/28/2023

Controls Compliance (See Table H for Details)	**COMPLIES**
Rated Power Reduction Compliance (See Table Q for Details)	**Not Applicable**

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. INDOOR LIGHTING FIXTURE SCHEDULE

Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change[1]	Watts per luminaire[3]	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector	
									Pass	Fail
FX-A	2x4 TROFFER	☐	☐	38	Mfr. Spec[2]	273	☐	10,374	☐	☐
FX-B	1x4 TROFFER	☐	☐	31	Mfr. Spec[2]	23	☐	713	☐	☐
						Total Designed Watts CONDITIONED SPACES:		**11,087**		

[1] *FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B is adjusted to be 75% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*
[2] *Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS

This Section Does Not Apply

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 04/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — NRCC-LTI-E

Project Name: SEQUOIA Elementary - HVAC & Modernization	Report Page: Page 3 of 6
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared: 03/28/2023

*Table Instructions: Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Building Level Controls

01	02	03	
Mandatory Demand Response §110.12(c)	Shut-Off Controls §130.1(c)	Field Inspector	
		Pass	Fail
Required > 10,000 SF	Whole Building Timeswitch	☐	☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylit Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector	
								Pass	Fail
CLASSROOM	School Building	Manual ON/ OFF	Dimmer	Occ. Sensor	Included	Included	☐	☐	☐
ADMIN	Office Building	Manual ON/ OFF	Dimmer	Occ. Sensor	Included	Included	☐	☐	☐
RESTROOM	School Building	Manual ON/ OFF	Dimmer	Occ. Sensor	NA	NA	☐	☐	☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting;
EXCEPTION 1 to §130.1(d)2*

13
Plan Sheet Showing Daylit Zones:

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowances / Adjustment	
					Area Category	PAF
CLASSROOM	School Building	0.65	21,496	13,972.4	☐	☐
ADMIN/RESTROOMS	Office Building	0.65	1,278	830.7	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 04/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — NRCC-LTI-E

Project Name: SEQUOIA Elementary - HVAC & Modernization	Report Page: Page 4 of 6
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared: 03/28/2023

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowances / Adjustment	
					Area Category	PAF
	TOTAL:		**22,774**	**14,803.1**	See Tables J or P for detail	

J. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This Section Does Not Apply

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This Section Does Not Apply

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This Section Does Not Apply

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This Section Does Not Apply

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS

This Section Does Not Apply

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This Section Does Not Apply

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This Section Does Not Apply

Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS

This Section Does Not Apply

R. 80% LIGHTING POWER FOR ALTERATIONS - CONTROLS EXCEPTIONS

This Section Does Not Apply

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 04/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — NRCC-LTI-E

Project Name: SEQUOIA Elementary - HVAC & Modernization	Report Page: Page 5 of 6
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared: 03/28/2023

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This Section Does Not Apply

T. 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 https://ww2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
◉	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐	☐
○	◉	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.	☐	☐
○	◉	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐	☐

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

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 any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
◉	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐	☐
◉	○	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐	☐
◉	○	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐	☐
○	◉	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐	☐
○	◉	NRCA-ENV-03-F - Must be submitted for daylighting design power adjustment factors (PAF).	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 04/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — NRCC-LTI-E

Project Name: SEQUOIA Elementary - HVAC & Modernization	Report Page: Page 6 of 6
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared: 03/28/2023

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name:	DIEGO HERRERA	Documentation Author Signature:	Diego Herrera
Company:	LEAF ENGINEERS	Signature Date:	03/29/2023
Address:	8163 ROCHESTER AVE.	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	RANCHO CUCAMONGA, CA. 91730	Phone:	909-987-0909

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:	RONALD DELA CRUZ	Responsible Designer Signature:	
Company :	LEAF ENGINEERS	Date Signed:	03/29/2023
Address:	8163 ROCHESTER AVE.	License:	E23576
City/State/Zip:	RANCHO CUCAMONGA, CA. 91730	Phone:	909-987-0909

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

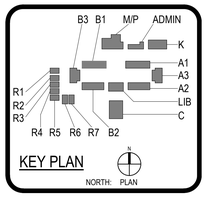
PBK

ARCHITECT PBK Architects, Inc. PBK.com
ANAHEIM
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS: 5900 IROQUOIS RD WESTMINSTER, CA 92683
DSA Submittal
DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant
REGISTERED PROFESSIONAL ENGINEER RONALD C DELA CRUZ No. E 23576 Exp. 09-30-2025 ELECTRICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

ELECTRICAL TITLE 24

E0.01

FILE PATH: Z:\Projects\...
9/18/2023 6:44:21 PM

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.2, §140.7, and §141.0(b)2L for outdoor lighting scopes using the prescriptive path.		
Project Name: SEQOUIA ELEMENTARY - HVAC & MODERNIZATION	Report Page:	Page 1 of 7
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared:	03/28/2023

A. GENERAL INFORMATION

01	Project Location (city)	WESTMINSTER	04	Total Illuminated Hardscape Area (ft²)	3,279
02	Climate Zone	6			
03	Outdoor Lighting Zone per Title 24, Part 1 §10-114 or as designated by Authority Having Jurisdiction (AHJ):				

☐ LZ-0: Very Low - Undeveloped Parkland ☐ LZ-2: Moderate - Rural Areas ☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval
☑ LZ-1: Low - Developed Parkland ☐ LZ-3: Moderately High - Urban Areas

B. PROJECT SCOPE

Table Instructions: Include any outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)2L for alterations.

My project consists of:

01	02	
☑ New Lighting System	Must Comply with Allowances from §140.7.	
☐ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)?	◉ Yes ○ No

03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method

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

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Calculation of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2L												Compliance Results		
01		02		03		04		05		06		07		08		09
General Hardscape Allowance §140.7(d)1	+	Per Application §140.7(d)2	+	Sales Frontage §140.7(d)2	+	Ornamental §140.7(d)2	+	Per Specific Area §140.7(d)2	OR	Existing Power §141.0(b)2L	=	**Total Allowed** (Watts)	≥	**Total Actual** (Watts)		**07 Must be ≥ 08**
(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)		(See Table N)				(See Table F)		
344.994	+	36	+		+		+	8	OR		=	388.994	≥	355		**COMPLIES**
Cutoff Compliance (See Table G for Details)														**Not Applicable**		
Controls Compliance (See Table H for Details)														**COMPLIES**		

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: SEQOUIA ELEMENTARY - HVAC & MODERNIZATION	Report Page:	Page 2 of 7
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared:	03/28/2023

D. EXCEPTIONAL CONDITIONS

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

Table F. Outdoor Lighting Fixture Schedule Permit Applicant Notes:
FX-A: EXCEPTION 6 to Section 130.2(b): Luminaires that illuminate the public right of way on publicly maintained roadways, sidewalks, and bikeways.
Total Hardscape Area in Table A does not match the areas entered in Table I. Please review for compliance.

E. ADDITIONAL REMARKS

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

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

Table Instructions: For new or altered lighting systems demonstrating compliance with §140.7 (ie Table I has expanded for input), include all luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L (ie Table N has expanded for input), include only new luminaires being installed and replacement luminaires being installed as part of the project scope (ie, do not include existing luminaires remaining or existing luminaires being moved).

Designed Wattage:

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Watts per luminaire[1,2]	How Wattage is determined	Total number luminaires[2]	Luminaire Status[3]	Excluded per §140.7(a)	Design Watts	Cutoff Req. ≥ 6,200 initial lumen output §130.2(b)[4]	Field Inspector Pass / Fail
FX-A	Wallpack ☐ Linear	71	Mfr. Spec[3]	5	New	☐	355	Exempt*	☐ ☐
					Total Designed Watts:		**355**		

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

FX-A EXCEPTION 6 to Section 130.2(b): Luminaires that illuminate the public right of way on publicly maintained roadways, sidewalks, and bikeways.

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: SEQOUIA ELEMENTARY - HVAC & MODERNIZATION	Report Page:	Page 3 of 7
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared:	03/28/2023

[1] FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)
[2] For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 05 instead of number of luminaires.
[3] Select "New" for new luminaires in a new outdoor lighting project or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope
[4] Compliance with mandatory cutoff requirements is required for luminaires with initial lumen output ≥ 6,200 unless exempted by §130.2(b).

G. CUTOFF REQUIREMENTS (BUG)

This Section Does Not Apply

H. OUTDOOR LIGHTING CONTROLS

Table Instructions: Complete this table demonstrating compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
*When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank. For each requirement in columns 02 through 04, do not leave the field blank, instead select NA or Exempt* from the dropdown list to indicate not applicable or an exemption.*

Mandatory Controls

01	02	03	04	05
Area Description	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Field Inspector Pass / Fail
Wallpack	Photocontrol	Yes	Yes	☐ ☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c).

I. LIGHTING POWER ALLOWANCE (per §140.7)

Table Instructions: Please complete this table for areas using the allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lost it" Allowances are per Table 140.7-B. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

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

Table Continued

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: SEQOUIA ELEMENTARY - HVAC & MODERNIZATION	Report Page:	Page 4 of 7
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared:	03/28/2023

			0.018	0		0.15	0	0

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 0, 1 & 4)

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)
	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
Bldg. P1 Wallpack	3,279	0.018	59.022	200	0.15	30	89.022
Bldg. P1 Wallpack	3,279	0.018	59.022	113	0.15	16.95	75.972
						Initial Wattage Allowance for Entire Site (Watts):	**180**
						Total General Hardscape Allowance (Watts):	**344.994**

J. LIGHTING ALLOWANCE: PER APPLICATION

Table Instructions: Please complete this table for areas using the wattage allowance per application from Table-140.7-B.

01	02	03	04	05	06	07	08	09	10
Area Description	Application per Table 140.7-B[1]	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		# of Locations	Allowance per Location[2] (Watts)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire[3]	# of Luminaires[3]	Design Watts	
Bldg. P1 Wallpack	Bldg Entrance/ Exit	4	9	36	FX-A	71	5	355	
							Total Design Watts for this Area:	355	36
								Total Allowance (Watts) All Areas:	**36**

[1] FOOTNOTES: Primary entrance applications are only available for senior care facilities, healthcare facilities, police stations, hospitals, fire stations, and emergency vehicle facilities.
[2] The Allowance per Location for ATMs is 100W for the first ATM and 35W for each additional per Table 140.7-B.
[3] For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 08 instead of number of luminaires

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This Section Does Not Apply

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: SEQOUIA ELEMENTARY - HVAC & MODERNIZATION	Report Page:	Page 4 of 7
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared:	03/28/2023

			0.018	0		0.15	0	0

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 0, 1 & 4)

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)
	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
Bldg. P1 Wallpack	3,279	0.018	59.022	200	0.15	30	89.022
Bldg. P1 Wallpack	3,279	0.018	59.022	113	0.15	16.95	75.972
						Initial Wattage Allowance for Entire Site (Watts):	**180**
						Total General Hardscape Allowance (Watts):	**344.994**

J. LIGHTING ALLOWANCE: PER APPLICATION

Table Instructions: Please complete this table for areas using the wattage allowance per application from Table-140.7-B.

01	02	03	04	05	06	07	08	09	10
Area Description	Application per Table 140.7-B[1]	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		# of Locations	Allowance per Location[2] (Watts)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire[3]	# of Luminaires[3]	Design Watts	
Bldg. P1 Wallpack	Bldg Entrance/ Exit	4	9	36	FX-A	71	5	355	
							Total Design Watts for this Area:	355	36
								Total Allowance (Watts) All Areas:	**36**

[1] FOOTNOTES: Primary entrance applications are only available for senior care facilities, healthcare facilities, police stations, hospitals, fire stations, and emergency vehicle facilities.
[2] The Allowance per Location for ATMs is 100W for the first ATM and 35W for each additional per Table 140.7-B.
[3] For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 08 instead of number of luminaires

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This Section Does Not Apply

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: SEQOUIA ELEMENTARY - HVAC & MODERNIZATION	Report Page:	Page 6 of 7
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared:	03/28/2023

O. 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 https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

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

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

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YES	NO	Form/Title	Field Inspector Pass	Fail
◉	○	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	☐	☐

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: SEQOUIA ELEMENTARY - HVAC & MODERNIZATION	Report Page:	Page 7 of 7
Project Address: 5900 IROQUOIS RD, WESTMINSTER, CA 92683	Date Prepared:	03/28/2023

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name:	DIEGO HERRERA	Documentation Author Signature:	Diego Herrera
Company:	LEAF Engineers	Signature Date:	03/29/2023
Address:	8163 Rochester Ave.	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	Rancho Cucamonga, CA. 91730	Phone:	909-987-0909

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:	Ronald Dela Cruz	Responsible Designer Signature:	
Company :	LEAF Engineers	Date Signed:	03/29/2023
Address:	8163 Rochester Ave.	License:	E23576
City/State/Zip:	Rancho Cucamonga, CA. 91730	Phone:	909-987-0909

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
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PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

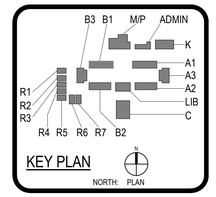
CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
RONALD C DELA CRUZ
No. E 23576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

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DSA Submittal

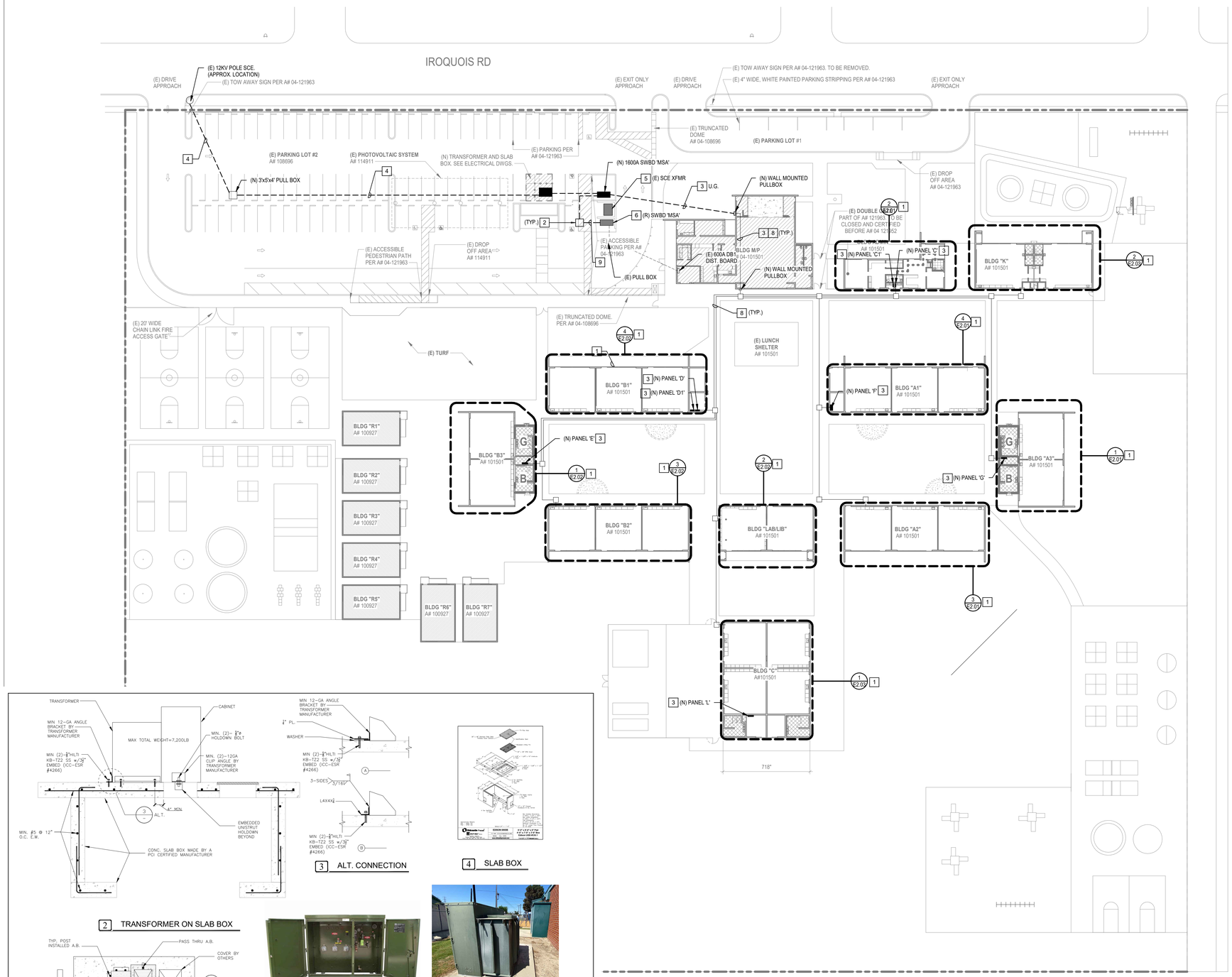
ELECTRICAL TITLE 24

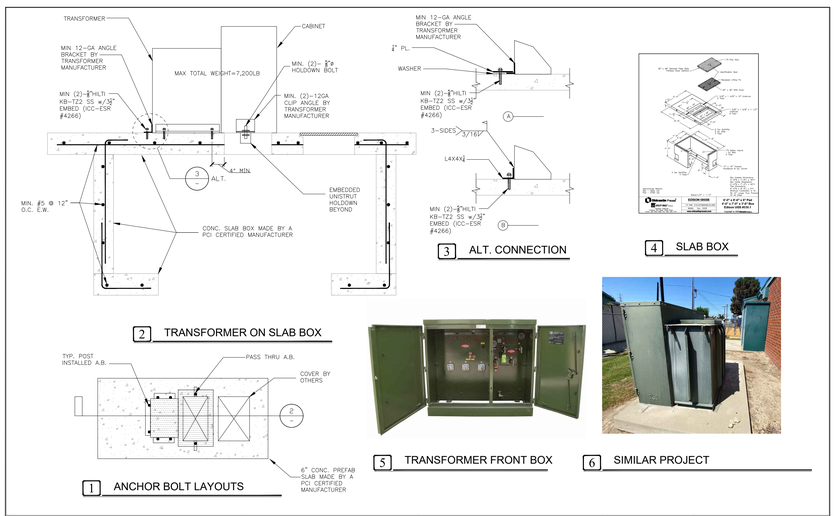
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E1.01 - ELECTRICAL SITE PLAN

0" 1"





STRUCTURAL ENGINEERING CONSULTANTS
23 CORPORATE PLAZA DR. SUITE 150
NEWPORT BEACH, CA 92660

REGISTERED PROFESSIONAL ENGINEER No. S4302 Exp.09/30/25 STRUCTURAL STATE OF CALIFORNIA

SEQUOIA ES
TRANSFORMER ANCHOR
CCD

CCD_S1

1 SITE PLAN
1" = 30'-0"

GENERAL NOTES

1. THE EXISTING BUILDING INCLUDING PORTIONS OF THE RENOVATED AREA SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION PHASE OF THIS PROJECT. ANY MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEMS THAT MAY REQUIRE THE TEMPORARY INTERRUPTION OF EXISTING SERVICES SHALL BE COORDINATED AND PRE-SCHEDULED WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY WORK.
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3. COORDINATE ROUTING FOR ALL UNDERGROUND ELECTRICAL BRANCH CIRCUITS AND FEEDERS WITH OTHER DISCIPLINES PRIOR TO TRENCHING.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY INSTALLATION OF NEW WORK.
5. UPON COMPLETION OF THIS PROJECT CONTRACTOR TO DEMOLISH ALL TEMPORARY INFRASTRUCTURE SERVING THE INTERIM BUILDINGS.
6. PAINT CONDUITS SEMI-GLOSS TO MATCH ADJACENT EXTERIOR PAINT, PER DISTRICT STANDARD.
7. EXISTING EXTERIOR LIGHT FIXTURES SHALL REMAIN AND BE PROTECTED IN PLACE.
8. CONTRACTOR SHALL BE RESPONSIBLE TO DEMOLISH TEMPORARY INFRASTRUCTURE SERVING THE INTERIM HOUSING AND BRING IT BACK TO ORIGINAL CONDITION, UPON COMPLETION OF THE MODERNIZATION PROJECT.
9. ELECTRICAL CONTRACTOR SHALL VERIFY ALL NEW AND EXISTING PANEL LOCATIONS PRIOR TO ROUGH-IN. ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
10. PULLBOX AND JUNCTION BOX SHALL BE SIZED PER DRAWINGS OR AS PER NEC/CEC 314.28 WHICHEVER IS LARGER.

KEY NOTES

1. SCOPE OF WORK.
2. PROVIDE AND INSTALL IN-GROUND H-20 TRAFFIC RATED PULLBOX. SIZE PER NEC 314.28(A)
3. SEE SINGLE LINE DIAGRAM FOR WIRING SIZING AND QUANTITY ON SHEET E5.01
4. SAWCUT, TRENCH AND EXCAVATE AS REQUIRED TO INSTALL CONDUITS AND FEEDERS AS INDICATED. BACKFILL, TAMP AND RESURFACE TO ORIGINAL CONDITION. REFER TO DETAIL 3/E6.01 FOR FURTHER CONDUIT TRENCHING REQUIREMENTS.
5. EXISTING TRANSFORMER SHALL BE REPLACED/UPGRADED. COORDINATE WITH SCE REPRESENTATIVE FOR ADDITIONAL INSTALLATION INFORMATION/INSTRUCTIONS.
6. EXISTING SWITCHBOARD TO BE DEMOLISHED AND REPLACED WITH NEW 1600A SWITCHBOARD. ALL EXISTING LOADS SHALL BE RELOCATED TO NEW SWITCHBOARD. DEMOLISH EXISTING GROUND AND REPLACE WITH NEW GROUNDING. SEE SWITCHBOARD DETAILS ON SHEET 4&5/E6.01.
7. EXISTING PANEL TO REMAIN AND BE PROTECTED IN PLACE. SEE SINGLE LINE DIAGRAM ON SHEET E5.01 FOR FURTHER DETAILS.
8. PROVIDE NEW OVERHEAD CONDUIT AND WIRING. SEE SINGLE LINE DIAGRAM FOR ADDITIONAL INFORMATION.
9. EXTEND ALL EXISTING FEEDERS FROM (E) SWITCHBOARD AND SOLAR DISCONNECT, TO THE NEW SWITCHBOARD.

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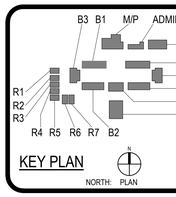
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

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DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER RANALD C. DELA CRUZ No. E 23576 Exp. 09-30-2025 ELECTRICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

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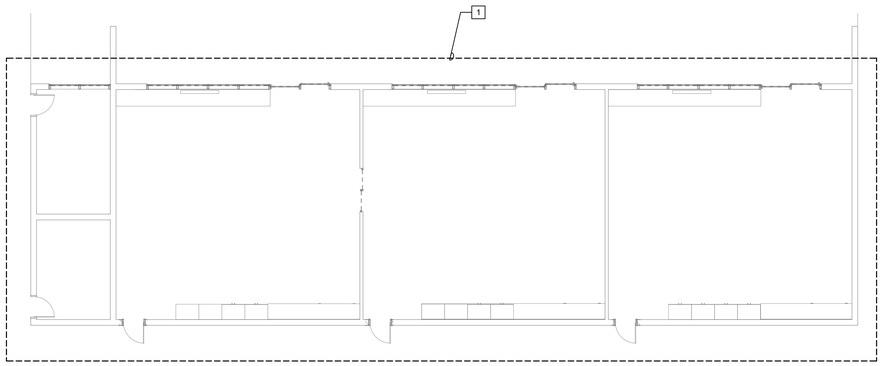
DSA Submittal

ELECTRICAL SITE PLAN

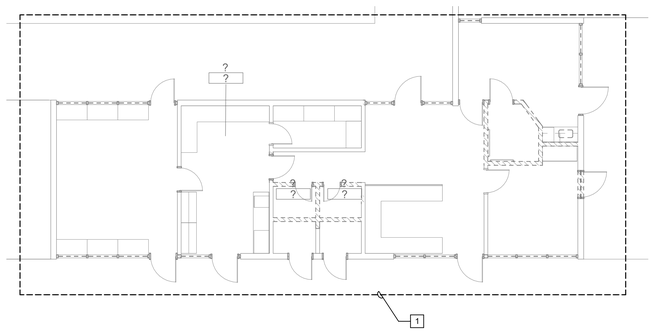
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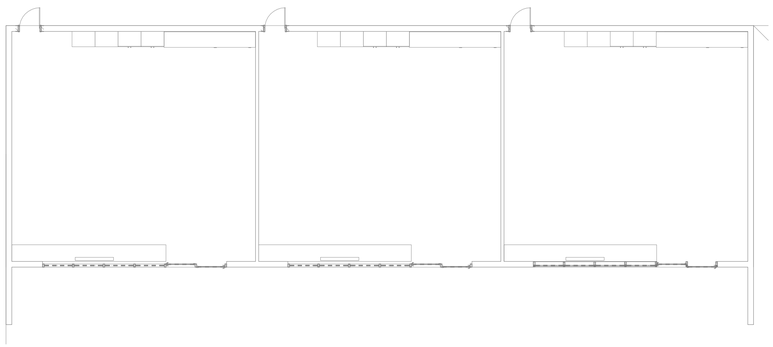
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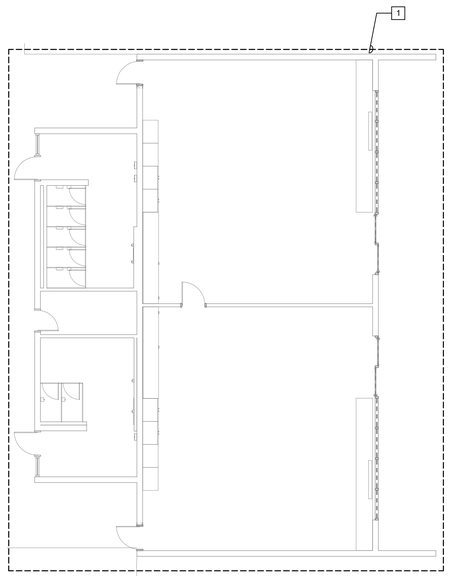
4 FLOOR PLAN DEMO - BLDG A-1
1/8" = 1'-0"



2 FLOOR PLAN DEMO - BLDG ADMIN
1/8" = 1'-0"



3 FLOOR PLAN DEMO - BLDG A-2
1/8" = 1'-0"



1 FLOOR PLAN DEMO - BLDG A-3
1/8" = 1'-0"

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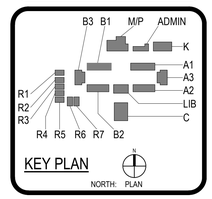
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

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Consultant

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Exp. 09-30-2025
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Architect

CLIENT
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REVISIONS

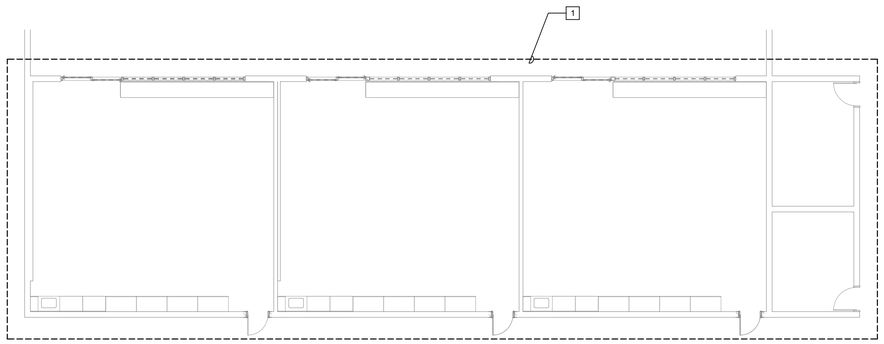
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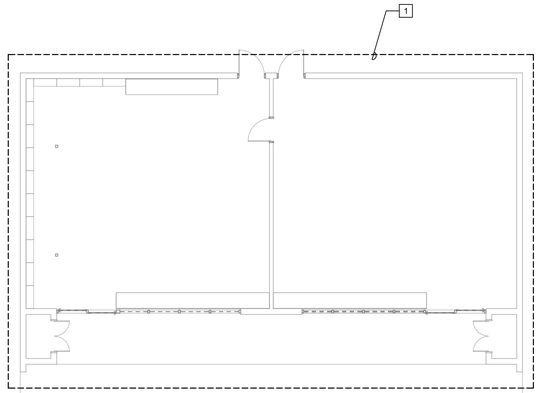
ELECTRICAL FLOOR PLANS - DEMO

ED2.01

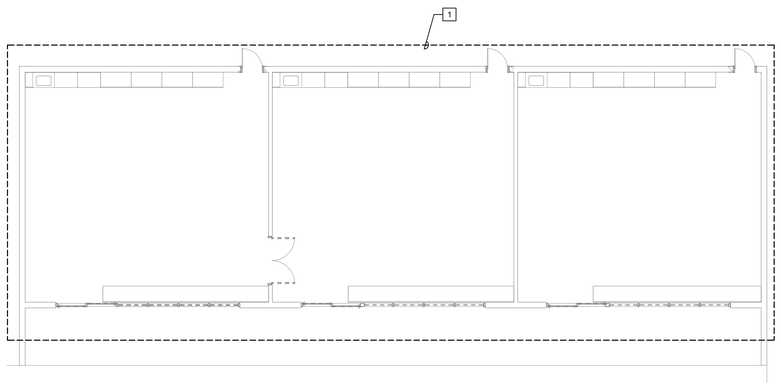
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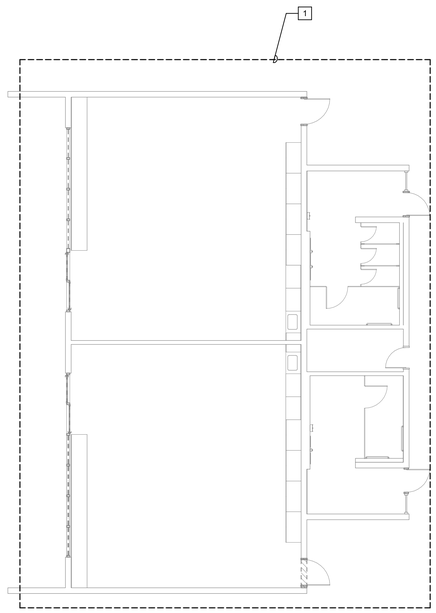
4 FLOOR PLAN DEMO - BLDG B-1
1/8" = 1'-0"



2 FLOOR PLAN DEMO - BLDG LAB/LIB
1/8" = 1'-0"



3 FLOOR PLAN DEMO - BLDG B-2
1/8" = 1'-0"



1 FLOOR PLAN DEMO - BLDG B-3
1/8" = 1'-0"

GENERAL NOTES

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KEY NOTES

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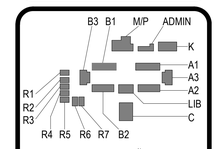
CONSULTANT LEAF Engineers
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

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Consultant

REGISTERED PROFESSIONAL ENGINEER
RONALD C. DELA CRUZ
No. E 23576
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STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

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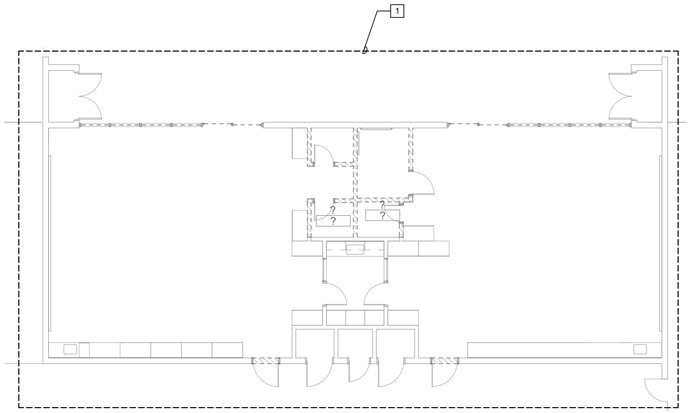
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ELECTRICAL FLOOR PLANS - DEMO

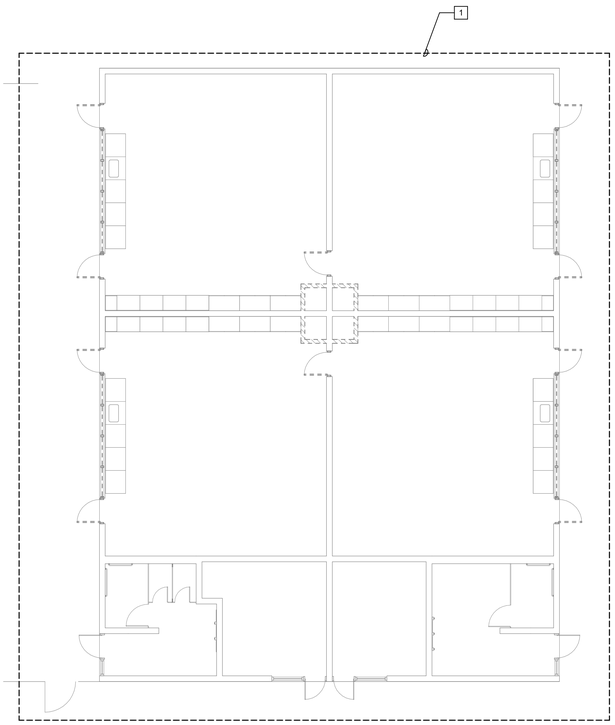
ED2.02

0" 1"

ED2.03 - ELECTRICAL FLOOR PLANS - DEMO



2 FLOOR PLAN DEMO - BLDG K
1/8" = 1'-0"



1 FLOOR PLAN DEMO - BLDG C
1/8" = 1'-0"

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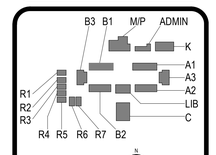
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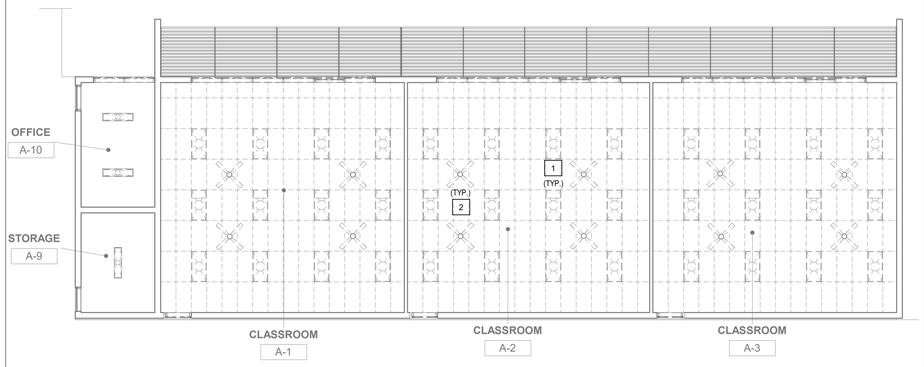
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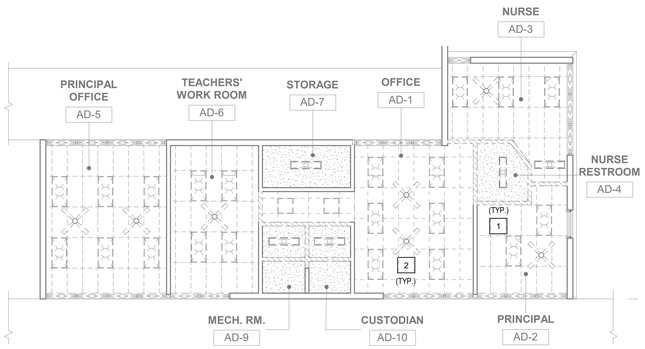
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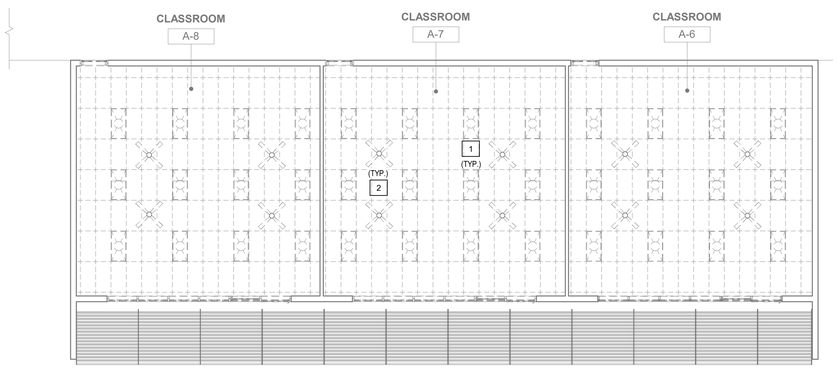
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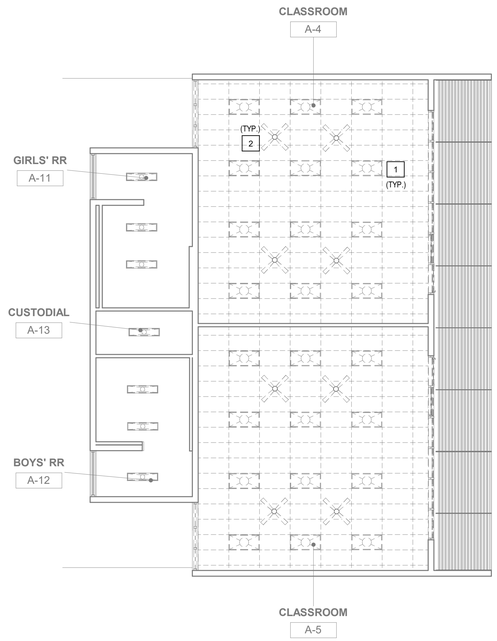
4 RCP PLAN DEMO - BLDG A-1
1/8" = 1'-0"



2 RCP PLAN DEMO - BLDG ADMIN
1/8" = 1'-0"



3 RCP PLAN DEMO - BLDG A-2
1/8" = 1'-0"



1 RCP PLAN DEMO - BLDG A-3
1/8" = 1'-0"

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3. REMOVE ANY UNUSED CONDUITS AND RELOCATE EXISTING TO ALLOW SPACE FOR NEW DUCTS AND CONDUITS.
4. ALL CEILING MOUNTED LOW VOLTAGE EQUIPMENT/DEVICES INCLUDING SECURITY/INTRUSION SHALL BE DISCONNECTED AND RE-INSTALLED ONTO THE NEW CEILING.

KEY NOTES

1 EXISTING LIGHT FIXTURES AND ALL OTHER ELECTRICAL DEVICES/EQUIPMENT IN THE SCOPE OF WORK AREA SHALL BE REMOVED. ALL CONDUITS AND WIRES SHALL BE DEMOLISHED BACK TO PANEL BOARD SOURCE. CONTRACTOR TO DEMOLISH AND PROVIDE CIRCUIT CONTINUITY TO DOWNSTREAM DEVICES/EQUIPMENT WHICH REMAIN. VERIFY EXACT SCOPE OF DEMOLITION WITH ARCHITECTURAL PLANS.

2 EXISTING CEILING MOUNTED FAN SHALL BE REMOVED AND STORED AS DIRECTED BY OWNER'S REPRESENTATIVE DURING DEMOLITION. PROTECT EXISTING WIRING AND CONDUIT IN PLACE FOR RE-INSTALLATION.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

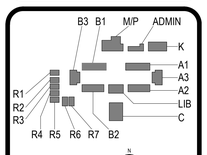
CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
RANALD C. DELA CRUZ
No. E 23576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

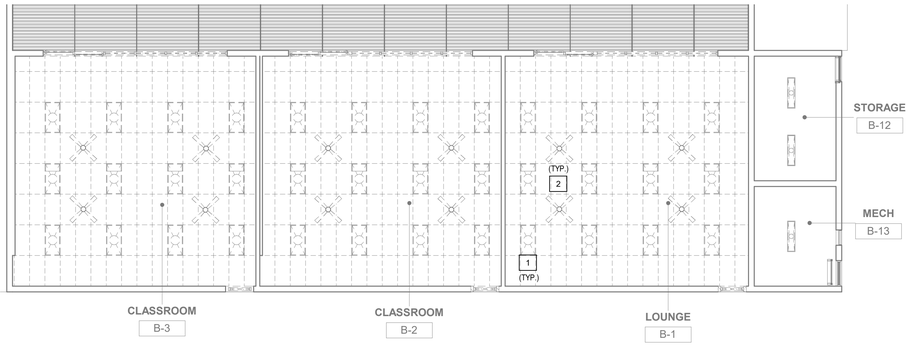
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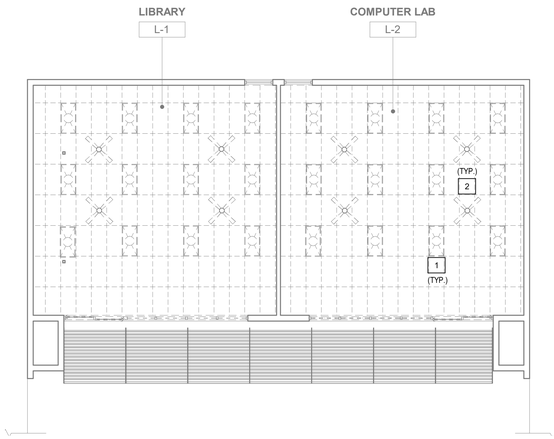
ELECTRICAL LIGHTING PLANS - DEMO

ED3.01

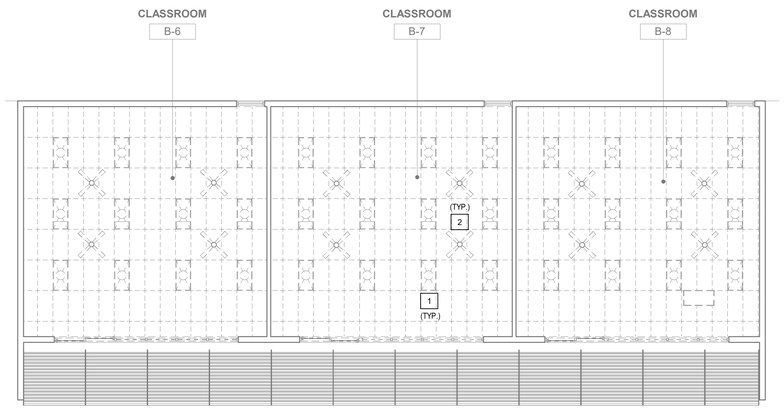
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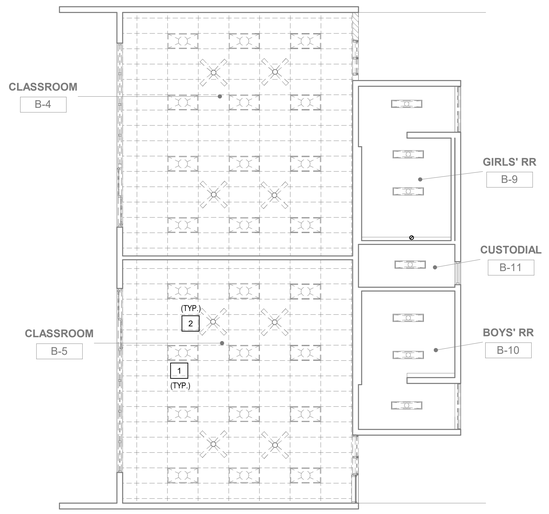
4 RCP PLAN DEMO - BLDG B-1
1/8" = 1'-0"



2 RCP PLAN DEMO - BLDG LAB/LIB
1/8" = 1'-0"



3 RCP PLAN DEMO - BLDG B-2
1/8" = 1'-0"



1 RCP PLAN DEMO - BLDG B-3
1/8" = 1'-0"

GENERAL NOTES

1. THE EXISTING BUILDING INCLUDING PORTIONS OF THE RENOVATED AREA SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION PHASE OF THIS PROJECT. ANY MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEMS THAT MAY REQUIRE THE TEMPORARY INTERRUPTION OF EXISTING SERVICES SHALL BE COORDINATED AND PRE-SCHEDULED WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY WORK.
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3. REMOVE ANY UNUSED CONDUITS AND RELOCATE EXISTING TO ALLOW SPACE FOR NEW DUCTS AND CONDUITS.
4. ALL CEILING MOUNTED LOW VOLTAGE EQUIPMENT/DEVICES INCLUDING SECURITY/INTRUSION SHALL BE DISCONNECTED AND RE-INSTALLED ONTO THE NEW CEILING.

KEY NOTES

1 EXISTING LIGHT FIXTURES AND ALL OTHER ELECTRICAL DEVICES/EQUIPMENT IN THE SCOPE OF WORK AREA SHALL BE REMOVED. ALL CONDUITS AND WIRES SHALL BE DEMOLISHED BACK TO PANEL BOARD SOURCE. CONTRACTOR TO DEMOLISH AND PROVIDE CIRCUIT CONTINUITY TO DOWNSTREAM DEVICES/EQUIPMENT WHICH REMAIN. VERIFY EXACT SCOPE OF DEMOLITION WITH ARCHITECTURAL PLANS.

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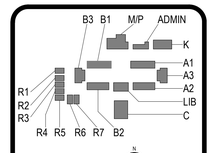
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
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DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN
NORTH: PLAN

Consultant



Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

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03/31/2023	220524

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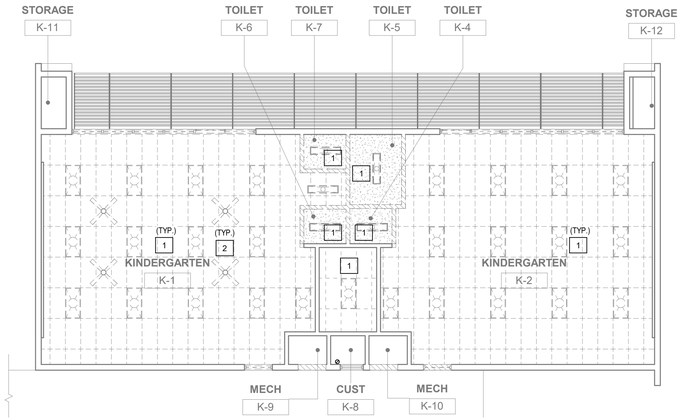
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ELECTRICAL LIGHTING PLANS - DEMO

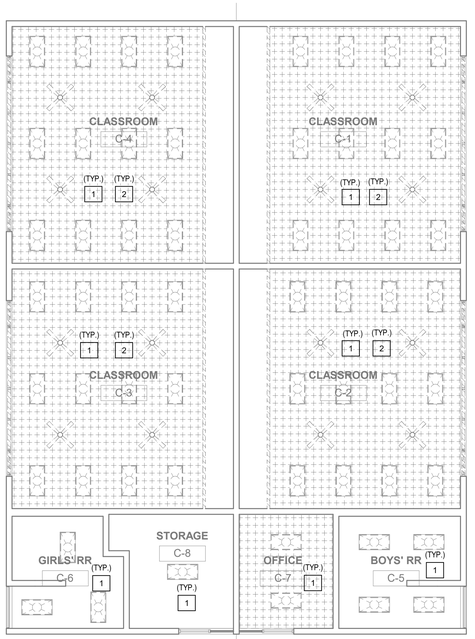
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0" 1"



2 RCP PLAN DEMO - BLDG K
1/8" = 1'-0"



1 RCP PLAN DEMO - BLDG C
1/8" = 1'-0"

GENERAL NOTES

1. THE EXISTING BUILDING INCLUDING PORTIONS OF THE RENOVATED AREA SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION PHASE OF THIS PROJECT. ANY MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEMS THAT MAY REQUIRE THE TEMPORARY INTERRUPTION OF EXISTING SERVICES SHALL BE COORDINATED AND PRE-SCHEDULED WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY WORK.
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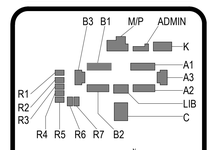
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Consultant

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RONALD C. DELA CRUZ
No. E 23576
Exp. 09-30-2025
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STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

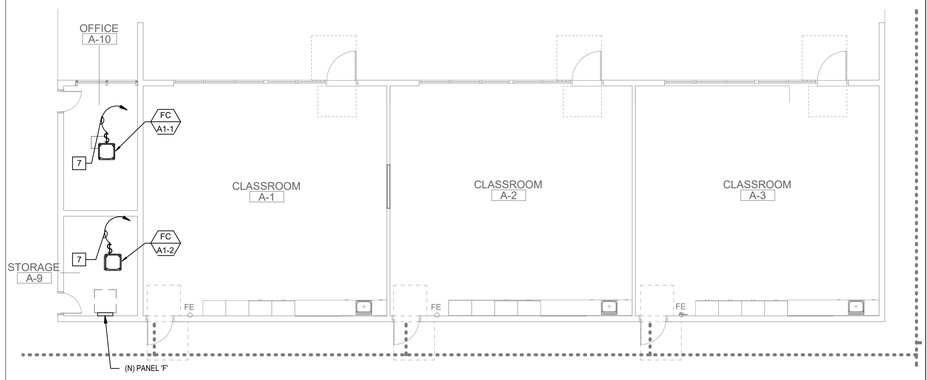
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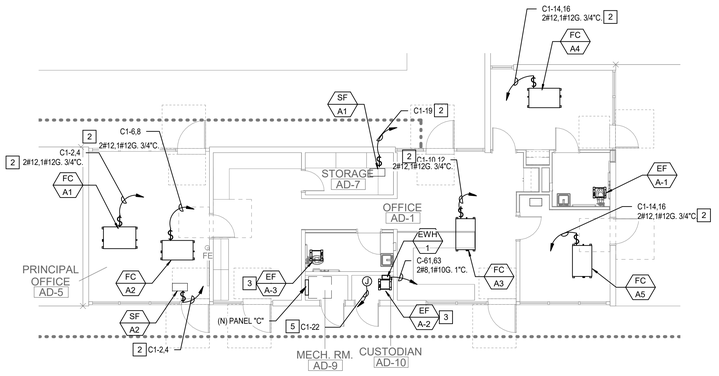
ELECTRICAL LIGHTING PLANS - DEMO

ED3.03

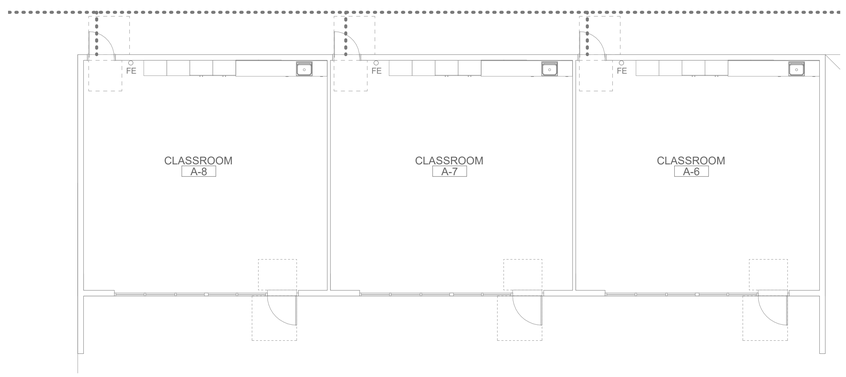
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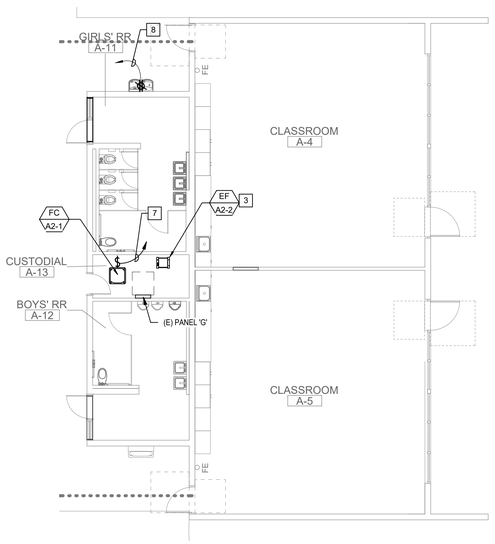
4 FLOOR PLAN -BLDG A-1
1/8" = 1'-0"



2 FLOOR PLAN -BLDG ADMIN
1/8" = 1'-0"



3 FLOOR PLAN -BLDG A-2
1/8" = 1'-0"



1 FLOOR PLAN -BLDG A-3
1/8" = 1'-0"

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4. PULLBOX AND JUNCTION BOX SHALL BE SIZED PER DRAWINGS OR AS PER NEC/CEC 314.28 WHICHEVER IS LARGER.

KEY NOTES

1	EXISTING TO REMAIN AND BE PROTECTED IN PLACE.
2	PROVIDE LOCAL DISCONNECT SWITCH.
3	ROUTE EXHAUST FAN THROUGH LIGHTING CIRCUIT AND LIGHTING CONTROLS. SEE MECHANICAL SCHEDULE FOR ADDITIONAL INFORMATION.
4	PROVIDE 120V POWER/20A DEDCATED CIRCUIT TO NEW WATER FOUNTAIN. PROVIDE GFCI TYPE CIRCUIT BREAKER.
5	PROVIDE POWER CONNECTION TO NEW CIRC PUMP 'CP-1'. COORDINATE WITH PLUMBING PLANS FOR EXACT LOCATION.
6	PROVIDE DEDICATED RECEPTACLE AND CIRCUIT FOR SECURITY CONTROL PANEL.
7	PROVIDE LOCAL 20A 2P TOGGLE DISCONNECT SWITCH. EXTEND OUTDOOR UNIT CIRCUIT TO INDOOR FAN COIL UNIT AND ASSOCIATED CONDENSATE PUMP. SEE MECHANICAL SCHEDULE FOR ADDITIONAL INFORMATION.
8	PROVIDE 120V POWER/20A DEDICATED CIRCUIT TO NEW DRINKING FOUNTAIN. PROVIDE GFCI TYPE CIRCUIT BREAKER.

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PBK

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ANAHEIM PBK.com
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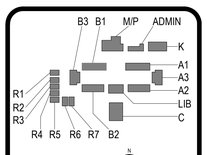
CONSULTANT LEAF Engineers
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
RONALD C. DELA CRUZ
No. E 23576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

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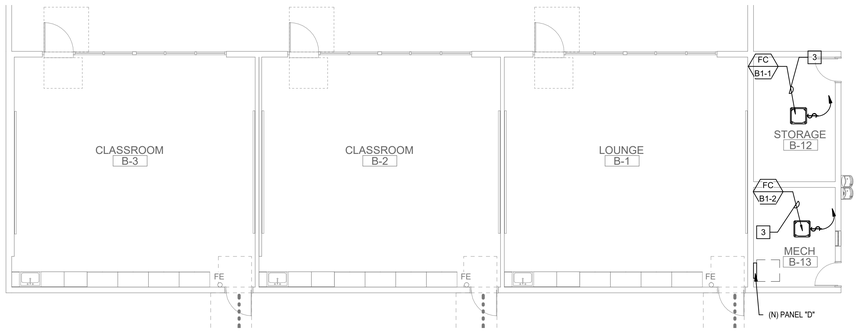
DSA Submittal

ELECTRICAL FLOOR PLANS

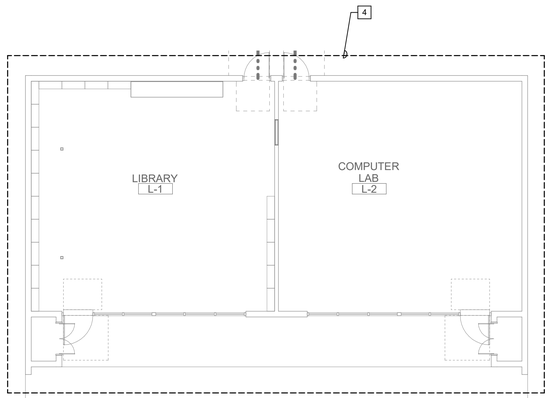
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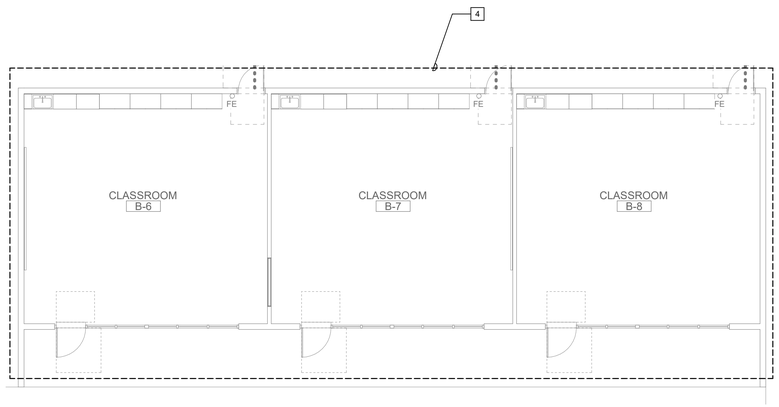
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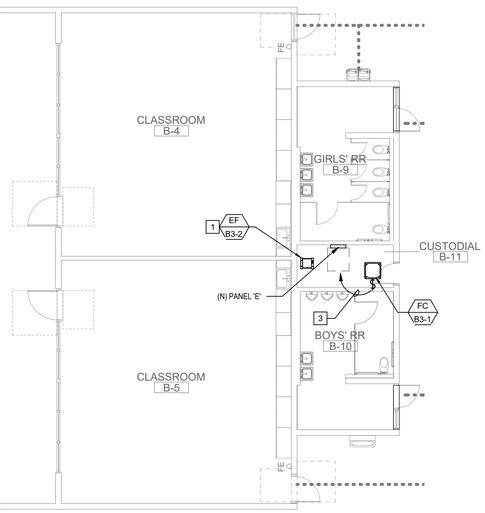
4 FLOOR PLAN -BLDG B-1
1/8" = 1'-0"



2 FLOOR PLAN -BLDG LAB/LIB
1/8" = 1'-0"



3 FLOOR PLAN -BLDG B-2
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1 FLOOR PLAN -BLDG B-3
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4. PULLBOX AND JUNCTION BOX SHALL BE SIZED PER DRAWINGS OR AS PER NEC/CEC 314.28 WHICHEVER IS LARGER.

KEY NOTES

1. ROUTE EXHAUST FAN THROUGH LIGHTING CIRCUIT AND LIGHTING CONTROLS. SEE MECHANICAL SCHEDULE FOR ADDITIONAL INFORMATION.
2. PROVIDE 120V POWER/20A DEDICATED CIRCUIT TO NEW DRINKING FOUNTAIN. PROVIDE GFCI TYPE CIRCUIT BREAKER.
3. PROVIDE LOCAL 20A 2P TOGGLE DISCONNECT SWITCH. EXTEND OUTDOOR UNIT CIRCUIT TO INDOOR FAN COIL UNIT AND ASSOCIATED CONDENSATE PUMP. SEE MECHANICAL SCHEDULE FOR ADITIONAL INFOMRATION.
4. NOT IN SCOPE.

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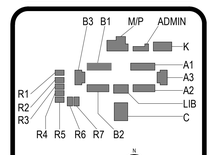
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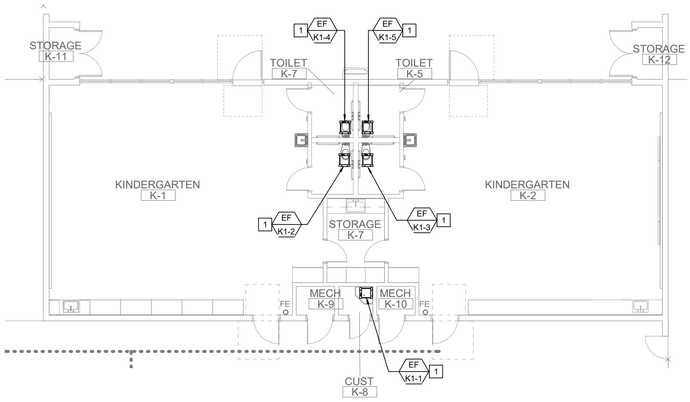
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ELECTRICAL FLOOR PLANS

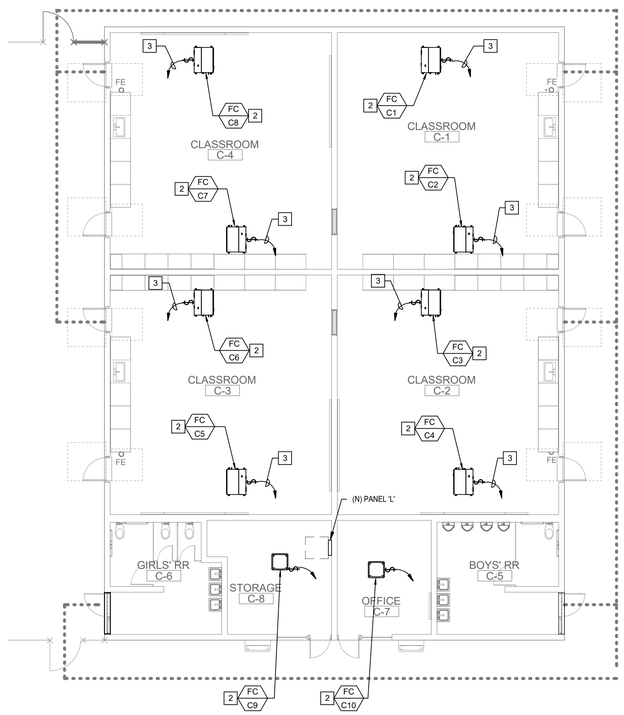
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0" 1"



2 FLOOR PLAN -BLDG K
1/8" = 1'-0"



1 FLOOR PLAN -BLDG C
1/8" = 1'-0"

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KEY NOTES

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2. PROVIDE LOCAL 20A/2P TOGGLE DISCONNECT SWITCH. EXTEND OUTDOOR UNIT CIRCUIT TO INDOOR FAN COIL UNIT AND ASSOCIATED CONDENSATE PUMP. SEE MECHANICAL SCHEDULE FOR ADDITIONAL INFORMATION.
3. PROVIDE LOCAL DISCONNECT SWITCH.
4. EXHAUST FAN POWERED ROOFTOP UNIT. SEE MECHANICAL SCHEDULE FOR ADDITIONAL INFORMATION.

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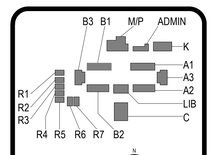
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8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
RANALD C. DELA CRUZ
No. E 23576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

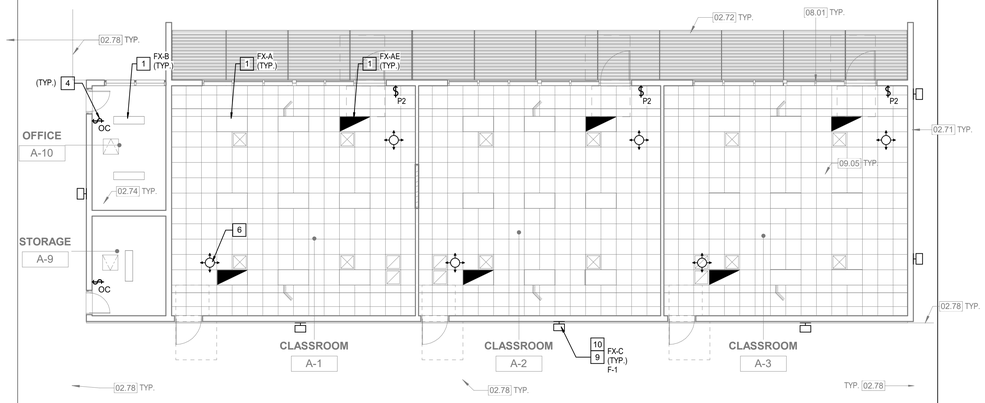
DSA Submittal

ELECTRICAL FLOOR PLANS

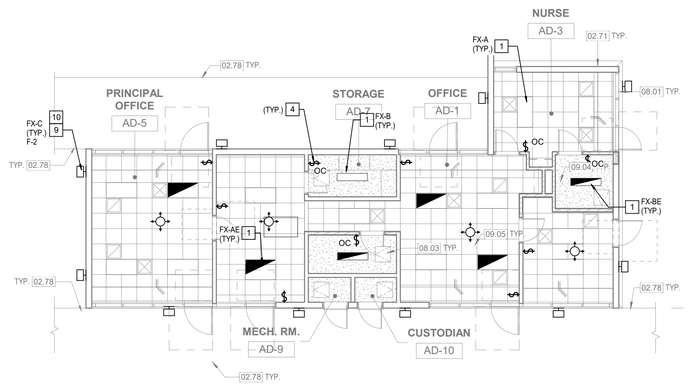
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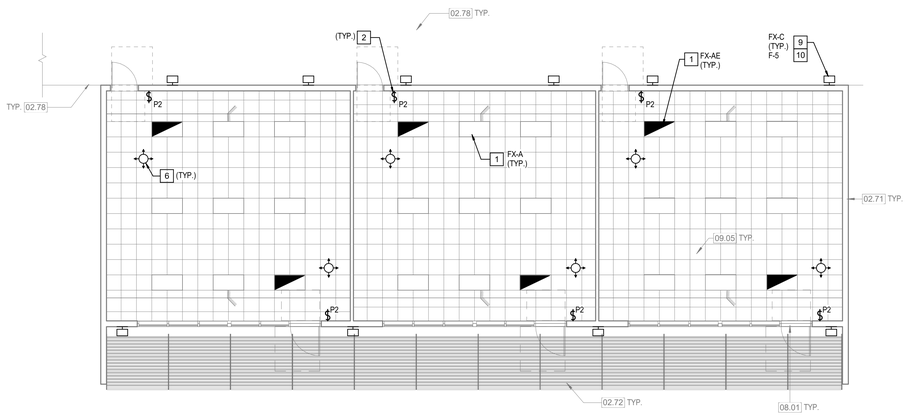
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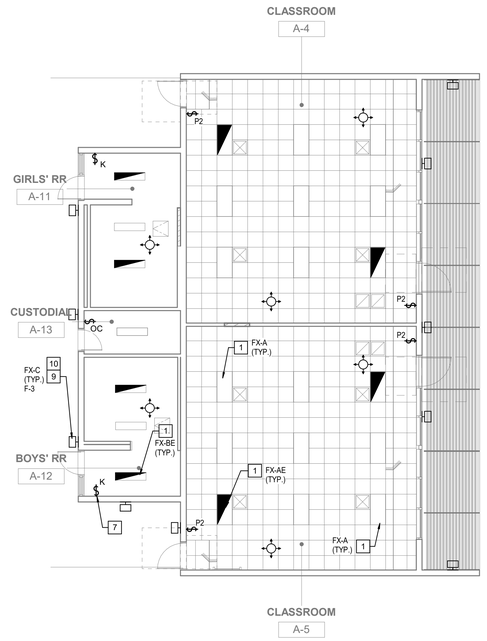
4 RCP PLAN - BLDG A-1
1/8" = 1'-0"



2 RCP PLAN - BLDG ADMIN
1/8" = 1'-0"



3 RCP PLAN - BLDG A-2
1/8" = 1'-0"



1 RCP PLAN - BLDG A-3
1/8" = 1'-0"

GENERAL NOTES

1. THE EXISTING BUILDING INCLUDING PORTIONS OF THE RENOVATED AREA SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION PHASE OF THIS PROJECT. ANY MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEMS THAT MAY REQUIRE THE TEMPORARY INTERRUPTION OF EXISTING SERVICES SHALL BE COORDINATED AND PRE-SCHEDULED WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY WORK.
2. ELECTRICAL ENGINEERING FOR THIS PROJECT IS BASED ON EXISTING DRAWINGS, AND A FIELD VISIT OF THE ELECTRICAL SYSTEM. IN CASE OF ANY DISCREPANCIES WITH EXISTING FIELD CONDITIONS, ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
3. PROVIDE A COMPLETE AND OPERATIONAL SYSTEM OF OCCUPANCY SENSOR FOR ON/OFF CONTROL OF ALL LIGHT FIXTURES INCLUDING BUT NOT LIMITED TO POWER PACKS, WIRING, ETC. RE: DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. PROVIDE EMERGENCY BATTERY PACKS FOR ALL LIGHTING FIXTURES DESIGNATED TO BE ON EMERGENCY POWER AND EXIT SIGNS. PROVIDE UNSWITCHED GOT TO BATTERY SO THAT LAMPS CAN BE SWITCHED OFF AND ON WITHOUT DRAINING BATTERY. RE: DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION. PROVIDE 20A UNSWITCHED BRANCH CIRCUIT (2#12, 1#12G, 3/4"C.) FROM LIGHTING PANEL TO ALL EXIT SIGNS IN THIS AREA.
5. ALL NEW EXTERIOR WALLPACKS ARE TYPE 'FX-C' WITH EMERGENCY BATTERY PACK. SEE FIXTURE SCHEDULE ON SHEET E5.01.
6. FOR ALL EXISTING CIRCUITS AND DEVICES THAT ARE TO REMAIN, CONTRACTOR TO INCLUDE IN THEIR BID TO REMOVE AND REPLACE ALL MC CABLES ABOVE CEILING SPACES. INTERCEPT ALL CONDUITS ABOVE THE CEILING, PROVIDE NEW HOMERUNS WITH MINIMUM 3/4" EMT AND NEW WIRING THAT MATCHES THE EXISTING, BACK TO THE PANEL SOURCE.
7. PULLBOX AND JUNCTION BOX SHALL BE SIZED PER DRAWINGS OR AS PER NEC/CEC 314.28 WHICHEVER IS LARGER.

KEY NOTES

1. PROVIDE NEW LED LIGHT FIXTURE. SEE LIGHT FIXTURE SCHEDULE ON SHEET E5.01 FOR ADDITIONAL INFORMATION. RE-USE EXISTING CIRCUIT AND EXTEND CONDUIT AND WIRING AS NEEDED.
2. LUTRON "PICO" WIRELESS SWITCH. "P1" INDICATES 2-BUTTON ON/OFF NON-DIMMED, "P2" INDICATES 3-BUTTON ON/OF/DIM, "P3" INDICATES 3-BUTTON ON/OFF/DIM/PRE-SET SCENE.
3. NOT USED.
4. LUTRON LOW VOLTAGE WALL MOUNT VACANCY/SWITCH, NON-DIMMED.
5. LUTRON POWERPACK MODULE. PROVIDE AS REQUIRED, EVEN IF NOT SHOWN ON PLANS. LOCATE ABOVE ACCESSIBLE CEILING. WHERE OCCUPANCY SENSOR IS UTILIZED ON ROOMS WITH HARD CEILINGS (I.E. RESTROOMS, ETC.), INSTALL POWERPACKS ABOVE NEAREST ACCESSIBLE CEILING (I.E. CORRIDOR, ETC.).
6. LUTON WIRELESS CEILING MOUNTED OCCUPANCY SENSOR.
7. REGULAR TOGGLE LINE VOLTAGE SWITCH (NONE-LUTRON SWITCH). "K" INDICATED KEY OPERATED.
8. LUTRON WIRELESS DAYLIGHT SENSOR.
9. PROVIDE NEW EXTERIOR LIGHT FIXTURE. SEE LIGHT FIXTURE SCHEDULE ON SHEET E5.03
10. PROVIDE NEW PHOTOCELL TIME CLOCK ON ROOF FACING NORTH, CIRCUIT THROUGH NEW TIME CLOCK. PROVIDE TIME CLOCK ADJACENT TO PANEL BOARD.

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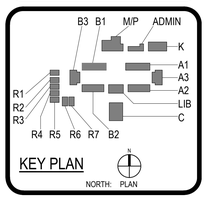
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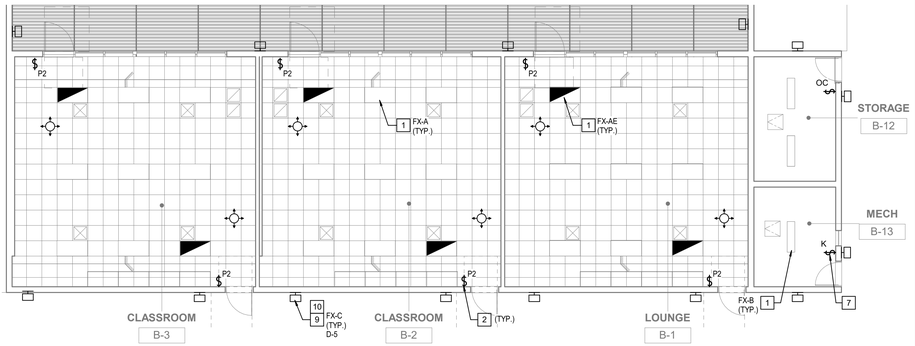
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ELECTRICAL LIGHTING PLANS

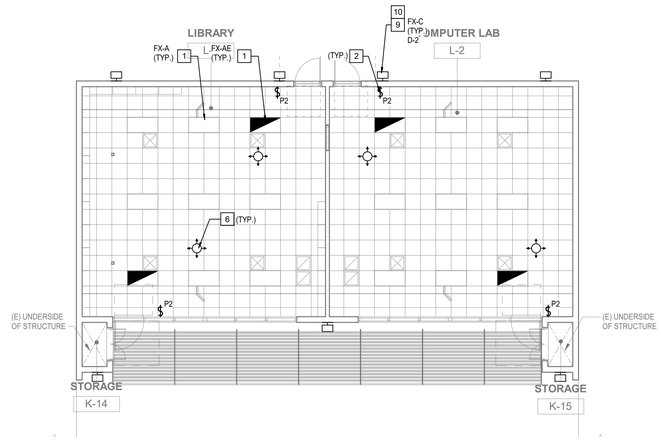
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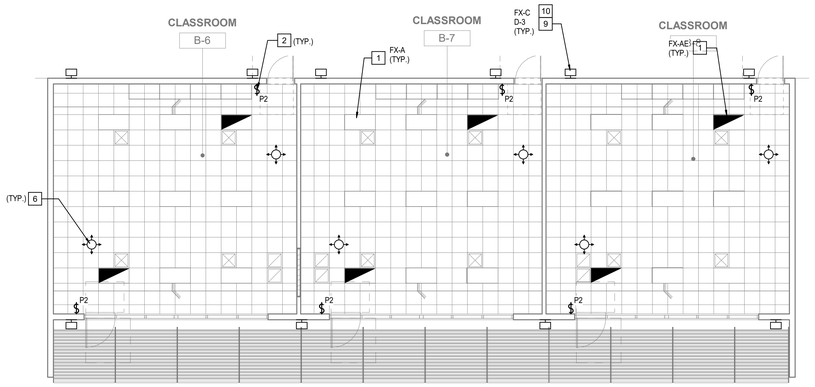
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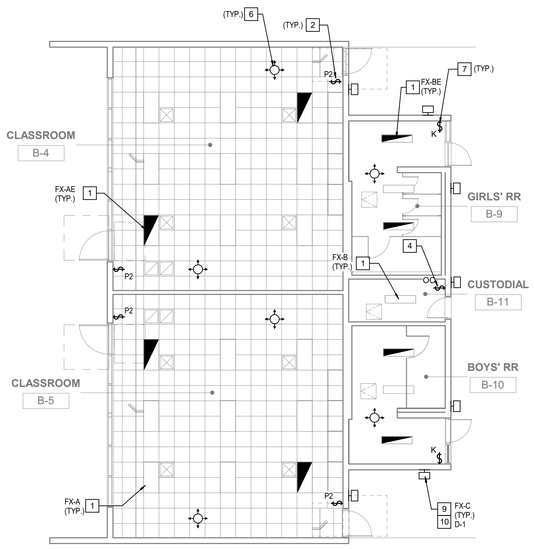
4 RCP PLAN - BLDG B-1
1/8" = 1'-0"



2 RCP PLAN - BLDG LAB/LIB
1/8" = 1'-0"



3 RCP PLAN - BLDG B-2
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KEY NOTES

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2. LUTRON "PICO" WIRELESS SWITCH. "P1" INDICATES 2-BUTTON ON/OFF NON-DIMMED, "P2" INDICATES 3-BUTTON ON/OF/DIM, "P3" INDICATES 3-BUTTON ON/OFF/DIM/PRE-SET SCENE.
3. LUTRON WALL MOUNT NOVA "T" SERIES. "3D" INDICATES 3 WAY DIMMER.
4. LUTRON LOW VOLTAGE WALL MOUNT VACANCY/SWITCH, NON-DIMMED.
5. LUTRON POWERPACK MODULE. PROVIDE AS REQUIRED, EVEN IF NOT SHOWN ON PLANS. LOCATE ABOVE ACCESSIBLE CEILING. WHERE OCCUPANCY SENSOR IS UTILIZED ON ROOMS WITH HARD CEILINGS (I.E. RESTROOMS, ETC.), INSTALL POWERPACKS ABOVE NEAREST ACCESSIBLE CEILING (I.E. CORRIDOR, ETC.).
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10. PROVIDE NEW PHOTOCELL TIME CLOCK ON ROOF FACING NORTH, CIRCUIT THROUGH NEW TIME CLOCK. PROVIDE TIME CLOCK ADJACENT TO PANEL BOARD.

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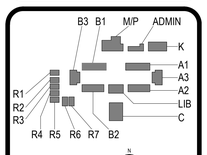
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KEY PLAN
NORTH: PLAN

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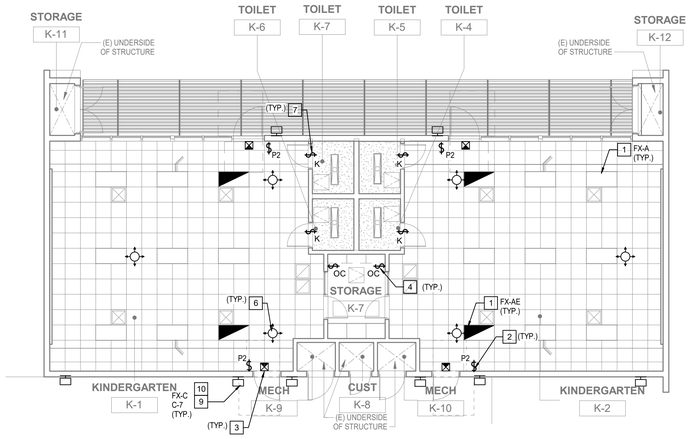
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ELECTRICAL LIGHTING PLANS

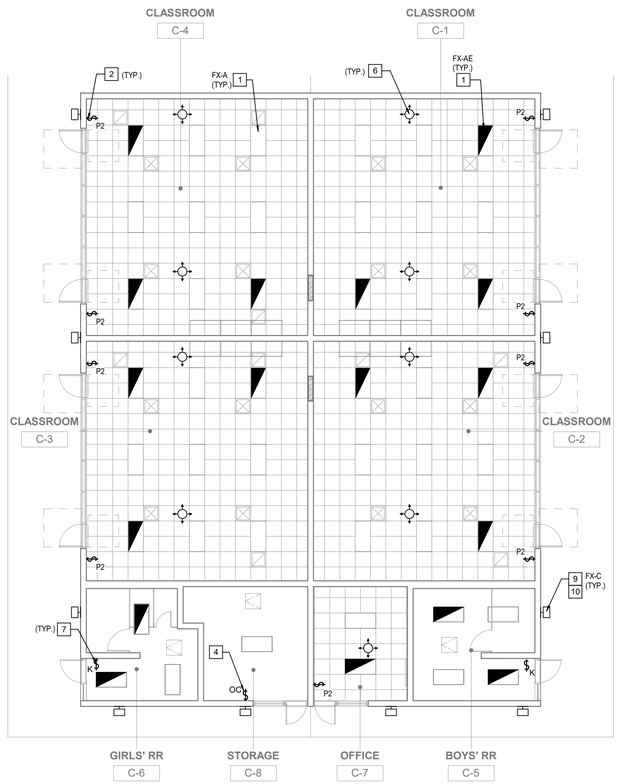
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2 RCP PLAN - BLDG K
1/8" = 1'-0"



1 RCP PLAN - BLDG C
1/8" = 1'-0"

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3. PROVIDE NEW EXIT SIGN.
4. LUTRON LOW VOLTAGE WALL MOUNT VACANCY/SWITCH, NON-DIMMED.
5. LUTRON POWERPACK MODULE. PROVIDE AS REQUIRED, EVEN IF NOT SHOWN ON PLANS. LOCATE ABOVE ACCESSIBLE CEILING. WHERE OCCUPANCY SENSOR IS UTILIZED ON ROOMS WITH HARD CEILINGS (I.E. RESTROOMS, ETC.), INSTALL POWERPACKS ABOVE NEAREST ACCESSIBLE CEILING (I.E. CORRIDOR, ETC.).
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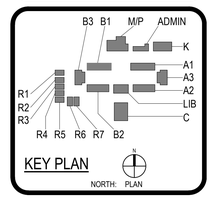
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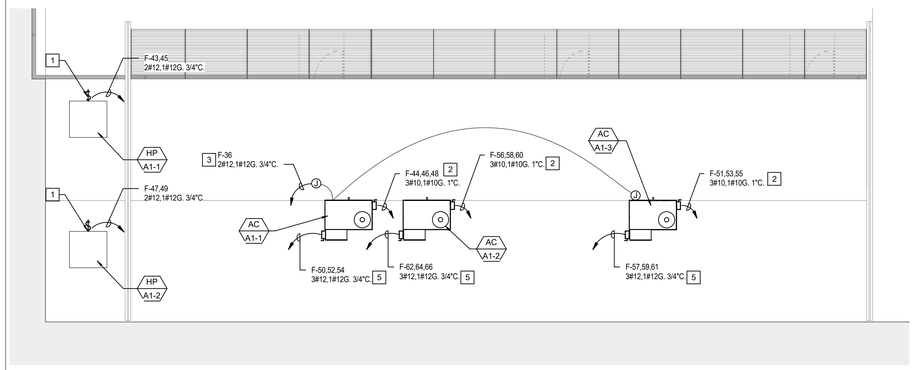
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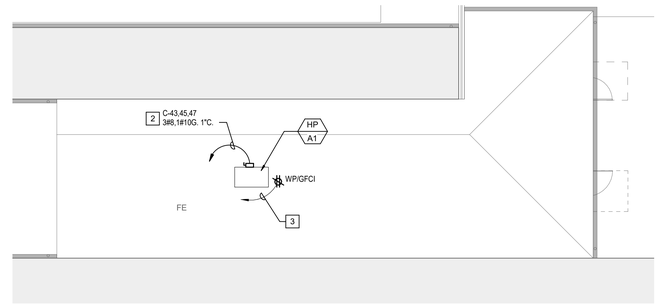
ELECTRICAL LIGHTING PLANS

E3.03

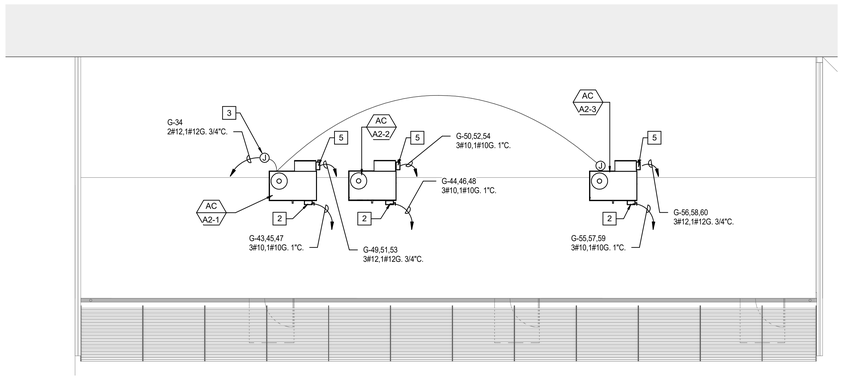
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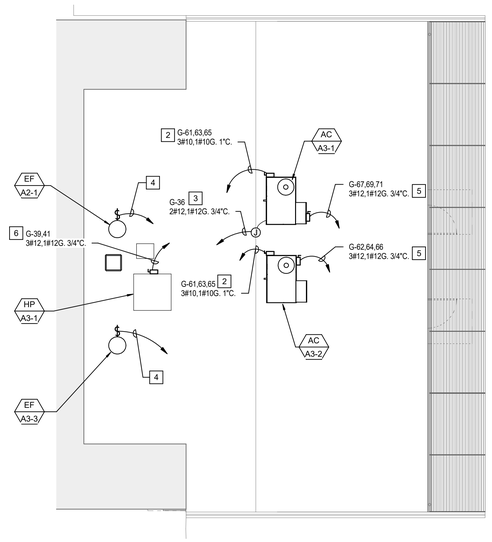
4 ROOF PLAN -BLDG A-1
1/8" = 1'-0"



2 ROOF PLAN -BLDG ADMIN
1/8" = 1'-0"



3 ROOF PLAN -BLDG A-2
1/8" = 1'-0"



1 ROOF PLAN -BLDG A-3
1/8" = 1'-0"

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3. ALL ELECTRICAL EQUIPMENT/DEVICES ON THE ROOF SHALL BE WEATHER PROOF, NEMA 3R AND +8" ABOVE FINISHED ROOF LEVEL AND ROOF PENETRATIONS SHALL BE FLASHED.

KEY NOTES

1	PROVIDE LOCAL DISCONNECT SWITCH TO NEW HEAT PUMP.
2	DISCONNECT SWITCH FURNISHED BY MECHANICAL AND WIRED BY ELECTRICAL. ELECTRICAL CONRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION, SIZE DISCONNECT SWITCH PER MANUFACTURER'S RECOMMENDATION.
3	PROVIDE 120V POWER TO CONVENIENCE OUTLET.
4	STUB DOWN TO NEW EXHAUST FAN IN CEILING, SEE SHEET E2.01 FOR ADDITONAL INFORMATION.
5	PROVIDE POWER CONNECTION TO POWER EXHAUST. DISCONNECT SWITCH FURNISHED BY MECHANICAL AND WIRED BY ELECTRICAL. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION, SIZE DISCONNECT PER MANUFACTURER'S RECOMMENDATION.
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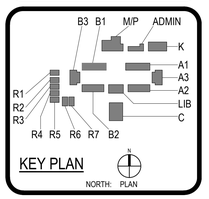
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8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
RONALD C. DELA CRUZ
No. E 23576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

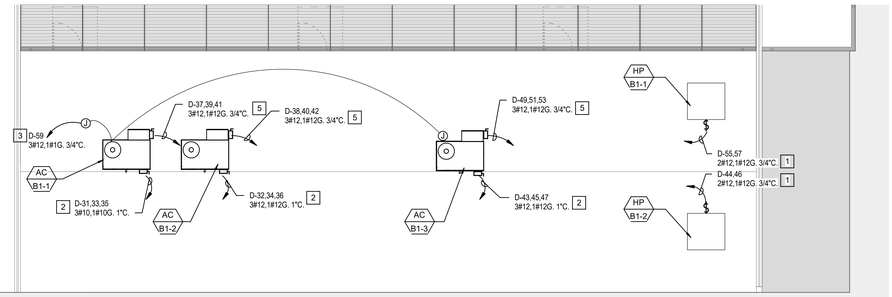
No.	Description	Date

DSA Submittal

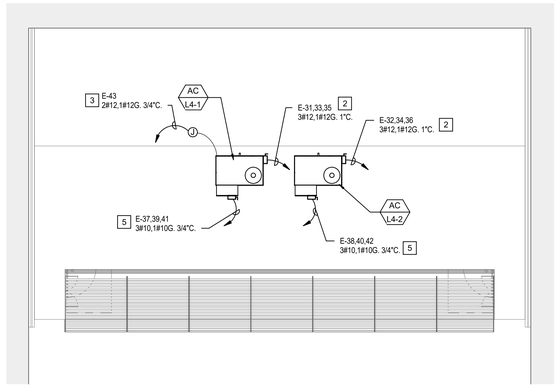
ELECTRICAL ROOF PLANS

E4.01

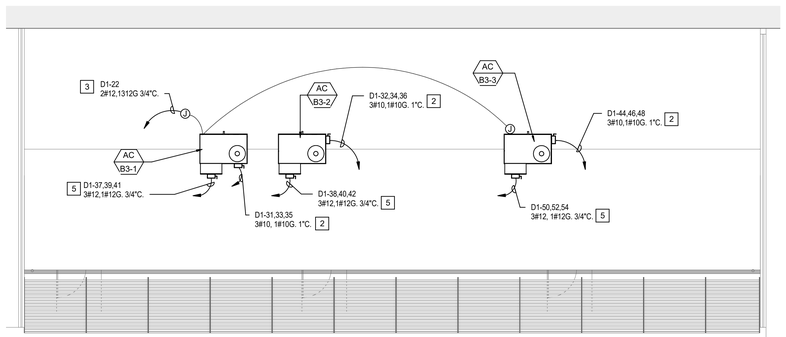
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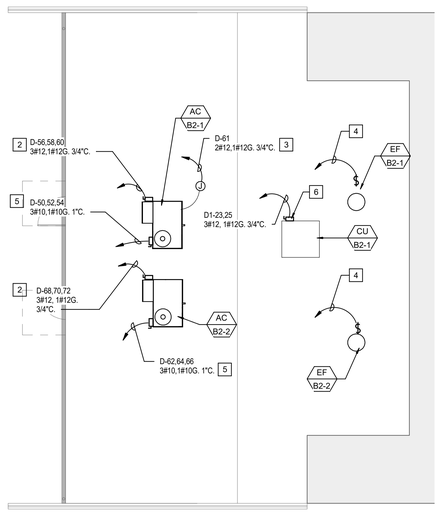
4 ROOF PLAN -BLDG B-1
1/8" = 1'-0"



2 ROOF PLANS -BLDG LAB/LIB
1/8" = 1'-0"



3 ROOF PLAN -BLDG B-2
1/8" = 1'-0"



1 ROOF PLAN -BLDG B-3
1/8" = 1'-0"

GENERAL NOTES

1. THE EXISTING BUILDING INCLUDING PORTIONS OF THE RENOVATED AREA SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION PHASE OF THIS PROJECT. ANY MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEMS THAT MAY REQUIRE THE TEMPORARY INTERRUPTION OF EXISTING SERVICES SHALL BE COORDINATED AND PRE-SCHEDULED WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY WORK.
2. ELECTRICAL ENGINEERING FOR THIS PROJECT IS BASED ON EXISTING DRAWINGS, AND A FIELD VISIT OF THE ELECTRICAL SYSTEM. IN CASE OF ANY DISCREPANCIES WITH EXISTING FIELD CONDITIONS, ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
3. ALL ELECTRICAL EQUIPMENT/DEVICES ON THE ROOF SHALL BE WEATHER PROOF, NEMA 3R AND +8" ABOVE FINISHED ROOF LEVEL AND ROOF PENETRATIONS SHALL BE FLASHED.

KEY NOTES

1. PROVIDE LOCAL DISCONNECT TO NEW HEAT PUMP.
2. DISCONNECT SWITCH FURNISHED NY MECHANICAL AND WIRED BY ELECTRICAL. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION, SIZE DISCONNECT SWITCH PER MANUFACTURER'S RECOMMENDATION.
3. PROVIDE 120V POWER TO CONVENIENCE OUTLET.
4. STUB DOWN TO NEW EXHAUST FAN IN CEILING, SEE SHEET E2.02 FOR ADDIOTNAL INFORMATION.
5. PROVIDE POWER CONNECTION TO POWER EXHAUST. DISCONNECT SWITCH FURNISHED BY MECHAINCAL AND WIRED BY ELECTRICAL. ELECTRICAL CONTRACTOR SHALL COORDIANTE WITH MECHAINCAL CONTRACTOR FOR EXACT LOCATION, SIZE DISCONNECT SWITCH PER MANUFACTURER'S RECOMMENDATION.
6. PROVIDE LOCAL DISCONNECT SWITCH. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOATION, SIZE DISCONNECT SWITCH PER MANUFACTURER'S RECOMMENDATION.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
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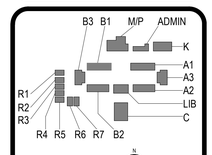
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DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
RANALD C. DELA CRUZ
No. E 23576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

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REVISIONS

No.	Description	Date

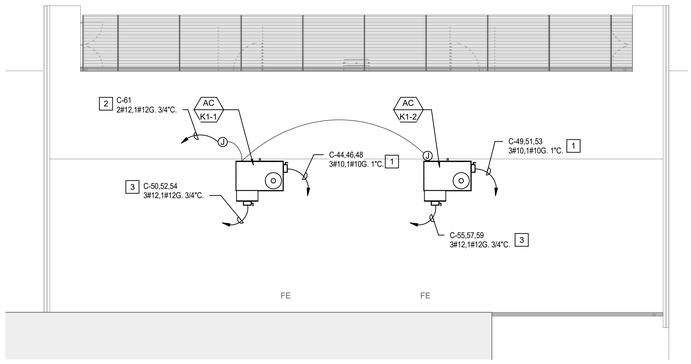
DSA Submittal

ELECTRICAL ROOF PLANS

E4.02

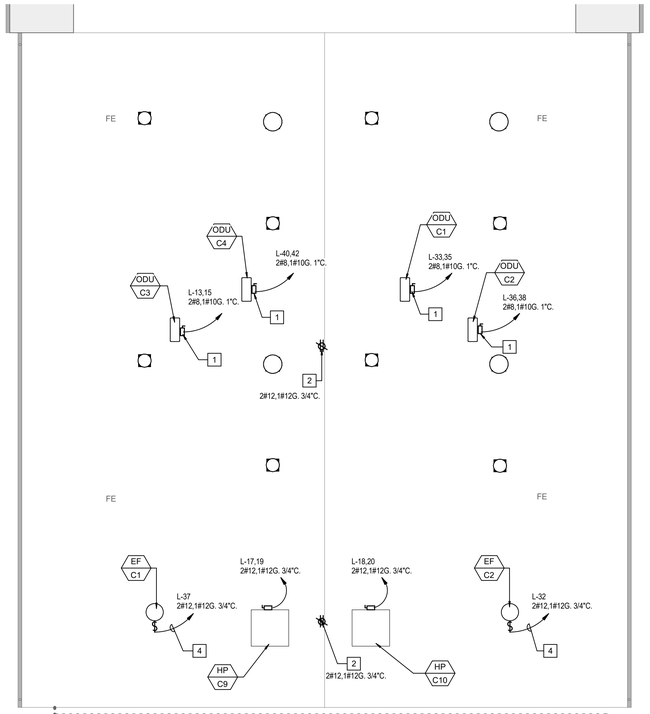
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0" 1"



2 ROOF PLAN -BLDG K

1/8" = 1'-0"



1 ROOF PLAN -BLDG C

1/8" = 1'-0"

GENERAL NOTES

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4. PROVIDE LOCAL DISCONNECT SWITCH. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHAINCAL CONTRACTOR FOR EXACT LOCATION. SIZE DISCONNECT SWITCH PER MANUFACTURER'S RECOMMENDATION.

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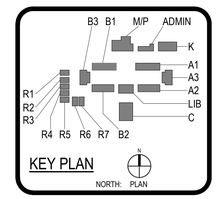
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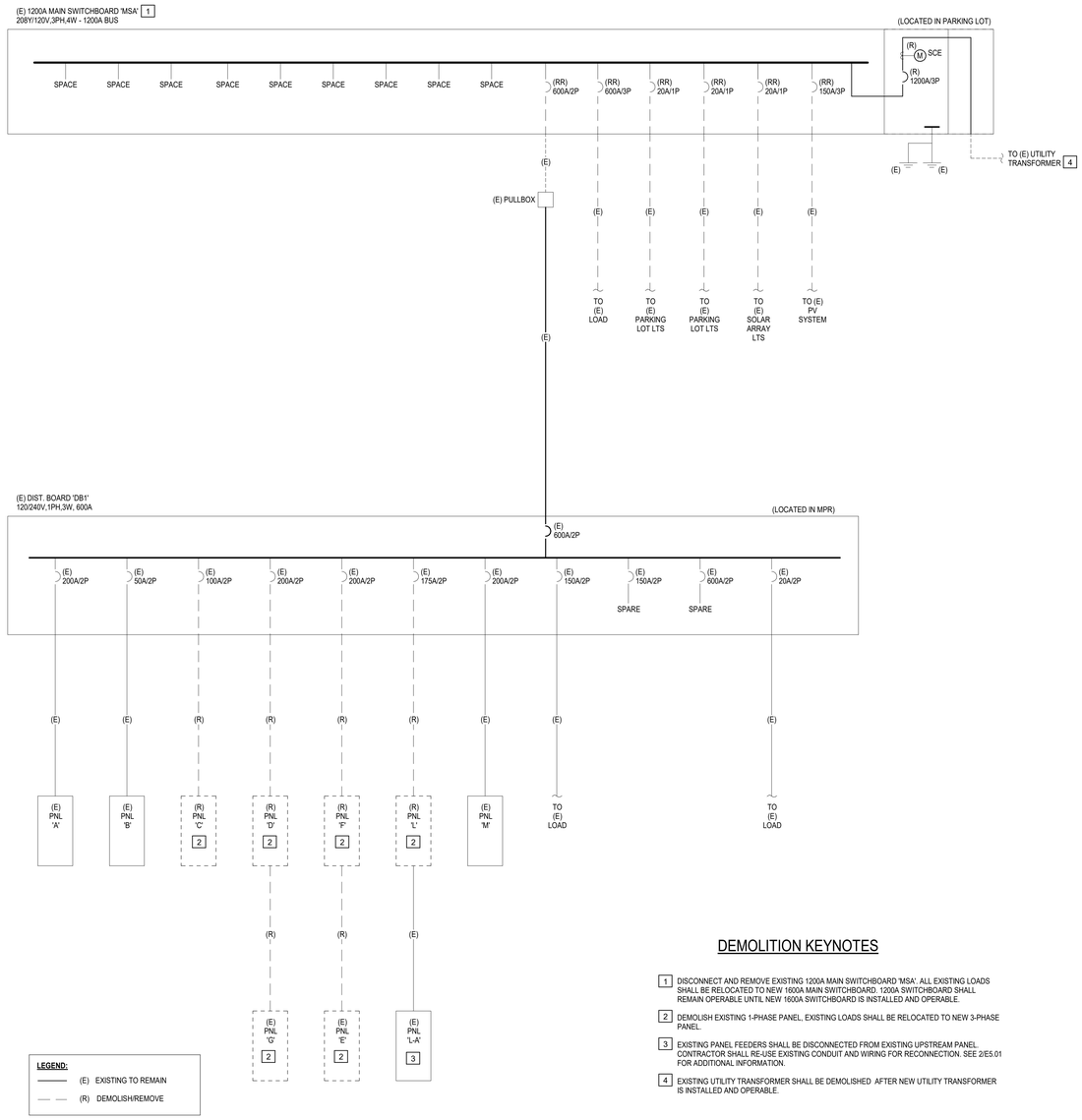
DSA Submittal

ELECTRICAL ROOF PLANS

E4.03

E5.01 - SINGLE LINE DIAGRAM

0" 1"

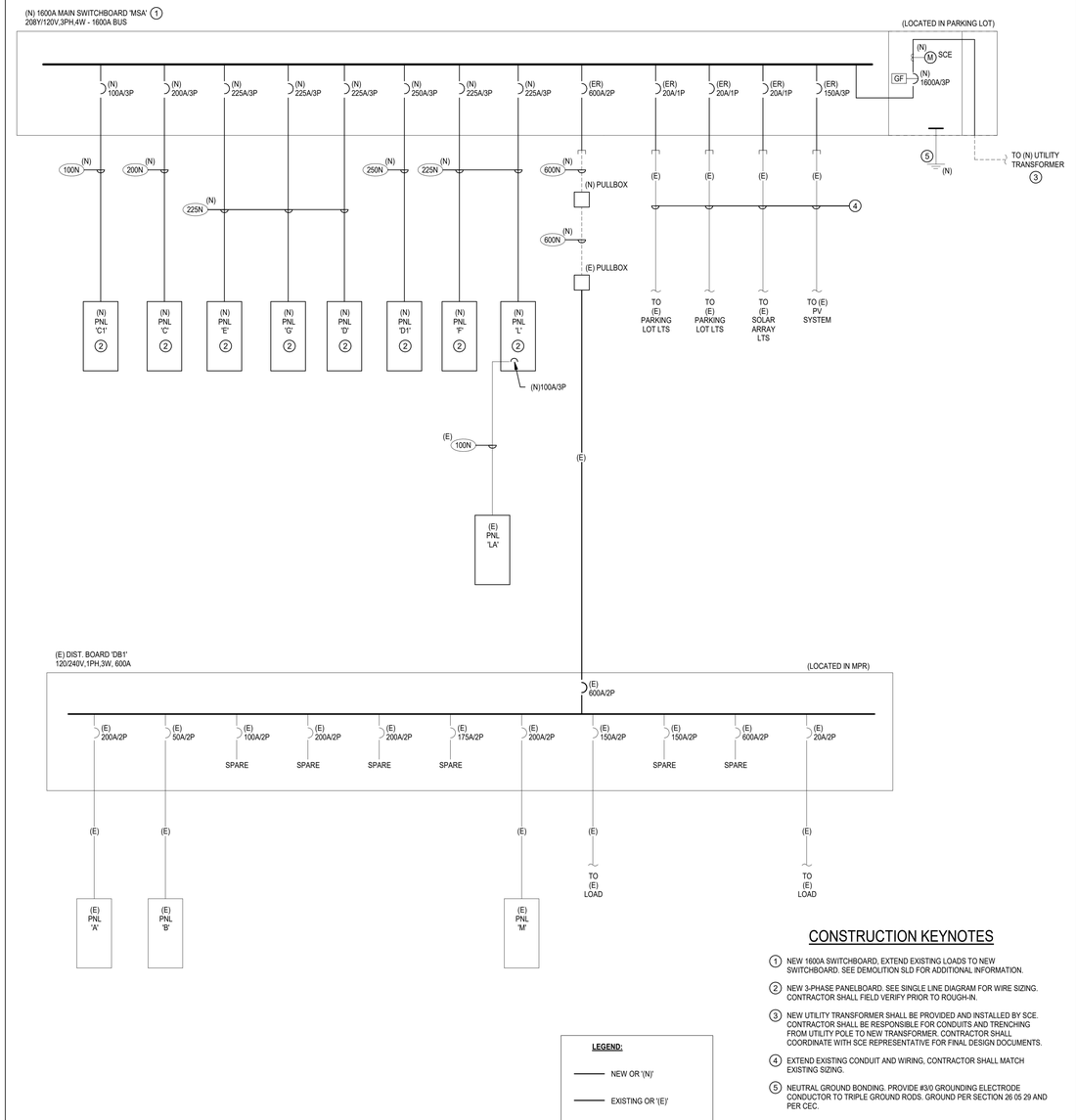


DEMOLITION KEYNOTES

1. DISCONNECT AND REMOVE EXISTING 1200A MAIN SWITCHBOARD 'MSA'. ALL EXISTING LOADS SHALL BE RELOCATED TO NEW 1600A MAIN SWITCHBOARD. 1200A SWITCHBOARD SHALL REMAIN OPERABLE UNTIL NEW 1600A SWITCHBOARD IS INSTALLED AND OPERABLE.
2. DEMOLISH EXISTING 1-PHASE PANEL. EXISTING LOADS SHALL BE RELOCATED TO NEW 3-PHASE PANEL.
3. EXISTING PANEL FEEDERS SHALL BE DISCONNECTED FROM EXISTING UPSTREAM PANEL. CONTRACTOR SHALL RE-USE EXISTING CONDUIT AND WIRING FOR RECONNECTION. SEE 2/E5.01 FOR ADDITIONAL INFORMATION.
4. EXISTING UTILITY TRANSFORMER SHALL BE DEMOLISHED AFTER NEW UTILITY TRANSFORMER IS INSTALLED AND OPERABLE.

1 SINGLE LINE DIAGRAM - DEMOLITION

NOT TO SCALE



CONSTRUCTION KEYNOTES

1. NEW 1600A SWITCHBOARD, EXTEND EXISTING LOADS TO NEW SWITCHBOARD. SEE DEMOLITION SLD FOR ADDITIONAL INFORMATION.
2. NEW 3-PHASE PANELBOARD. SEE SINGLE LINE DIAGRAM FOR WIRE SIZING. CONTRACTOR SHALL FIELD VERIFY PRIOR TO ROUGH-IN.
3. NEW UTILITY TRANSFORMER SHALL BE PROVIDED AND INSTALLED BY SCE. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS AND TRENCHING FROM UTILITY POLE TO NEW TRANSFORMER. CONTRACTOR SHALL COORDINATE WITH SCE REPRESENTATIVE FOR FINAL DESIGN DOCUMENTS.
4. EXTEND EXISTING CONDUIT AND WIRING, CONTRACTOR SHALL MATCH EXISTING SIZING.
5. NEUTRAL GROUND BONDING. PROVIDE #3/0 GROUNDING ELECTRODE CONDUCTOR TO TRIPLE GROUND RODS. GROUND PER SECTION 26 05 29 AND PER CEC.

LEGEND:
NEW OR '(N)'
EXISTING OR '(E)'
UNDERGROUND

2 SINGLE LINE DIAGRAM - NEW

NOT TO SCALE

FEEDER SCHEDULE				
TAG NUMBER	CONDUCTOR QUANTITY AND SIZE	CONDUIT SIZE	SETS	COMMENTS
30N	4#10, 1#10G	1"	1	
50N	4#6, 1#10G	1"	1	
60N	4#6, 1#10G	1"	1	
100	3#1, 1#8G	1 1/2"	1	
100N	4#1, 1#8G	1 1/2"	1	
125	3#1, 1#6G	1 1/2"	1	
125N	4#1, 1#6G	2"	1	
150	3#1/0, 1#6G	1 1/2"	1	
150N	4#1/0, 1#6G	2"	1	
175	3#2/0, 1#6G	2"	1	
175N	4#2/0, 1#6G	2"	1	
200	3#3/0, 1#6G	2"	1	
200N	4#3/0, 1#6G	2"	1	
225	3#4/0, 1#4G	2"	1	
225N	4#4/0, 1#4G	2 1/2"	1	
250	3#250, 1#4G	2 1/2"	1	
250N	4#250, 1#4G	3"	1	
300	3#350, 1#4G	3"	1	
300N	4#350, 1#4G	3"	1	
400	3#3/0, 1#3G	2"	2	
400N	4#3/0, 1#3G	2"	2	
400S	4#500	3 1/2"	1	
600	3#350, 1#1G	3"	2	
600N	4#350, 1#1G	3"	2	
600S	4#350	3"	2	
800	3#500, 1#1/0G	3"	2	
800N	4#500, 1#1/0G	3 1/2"	2	
800S	4#500	3 1/2"	2	
1000	3#400, 1#2/0G	3"	3	
1000N	4#400, 1#2/0G	3"	3	
1000S	4#400	3"	3	
1200	3#350, 1#3/0G	3"	4	
1200N	4#350, 1#3/0G	3"	4	
1200S	4#350	3"	4	
1600S	4#400	3"	5	
2000S	4#400	3"	6	
2500S	4#500	3 1/2"	7	
3000S	4#500	3 1/2"	8	
4000S	4#500	3 1/2"	11	

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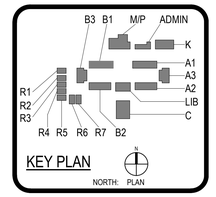
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03/31/2023	220524

REVISIONS

No.	Description	Date
	DSA Submittal	

SINGLE LINE DIAGRAM

E5.01

Job: SEQUOIA ES - MOD | Job No. 220524 | AIC Rating: 18000

Mounting: **SURFACE** | Voltage: **208Y/120V-3PH 4W** | Ground: **Equipment Ground**
Main Type: **MCB (200A)** | Main Size: **225 AMPS** | Lugs: **SINGLE**
Neutral: **100%**

PANEL: **C** — **ALL LOADS IN VA**

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
152							0.00	LTS MECH/BATHHALL/JAN *	20/1	EX	**1**	**A**	**2**	EX	20/1	REC/FAU/PERM/ALARM/SEC		900						0.00
76							0.00	LTS TEACHER WORK RM *	20/1	EX	**3**	**B**	**4**	EX	20/1	REC TEACHER WORK RM		360						0.00
	300						0.00	IDF	20/1	EX	**5**	**C**	**6**	EX	20/1	REC K-2		720						0.00
494							0.00	LTS K-1 *	20/1	EX	**7**	**A**	**8**	EX	20/1	REC K-1		720						0.00
186							0.00	LTS K-3 THRU K-10 *	20/1	EX	**9**	**B**	**10**	EX	20/1	SPARE K-1 MECH RM								0.00
342							0.00	LTS K-2 *	20/1	EX	**11**	**C**	**12**	EX	20/1	SPARE K-1 MECH RM								0.00
							1.00	SPARE	20/1	EX	**13**	**A**	**14**	EX	20/1	REC LRN CTR		540						0.00
	1080						0.00	RECEPT K-2 & W WALL	20/1	EX	**15**	**B**	**16**	EX	20/1	SPARE MECH RM								0.00
	150						0.00	MASTER CLOCK	20/1	EX	**17**	**C**	**18**	EX	20/1	SPARE ADMIN MECH RM								0.00
							1.00	SPARE	20/1	EX	**19**	**A**	**20**	EX	20/1	LTS PRIN/NURSE *	**152**							0.00
	300						0.00	COPIER	20/1	EX	**21**	**B**	**22**	EX	20/1	LTS OFFICE *	**152**							0.00
	300						0.00	---	20/1	EX	**23**	**C**	**24**	EX	20/1	WIREMOLD K-2		1080						0.00
	1080						0.00	WIREMOLD TEACHER WORK RM.	20/1	EX	**25**	**A**	**26**	EX	20/1	WIREMOLD K-2		1080						0.00
	1080						0.00	WIREMOLD TEACHER WORK RM.	20/1	EX	**27**	**B**	**28**	EX	20/1	WIREMOLD K-2		1080						0.00
	1080						0.00	WIREMOLD TEACHER WORK RM.	20/1	EX	**29**	**C**	**30**	EX	20/1	WIREMOLD K-2		1080						0.00
	1080						0.00	WIREMOLD TEACHER WORK RM.	20/1	EX	**31**	**A**	**32**	EX	20/1	WIREMOLD K-2		1080						0.00
	1080						0.00	WIREMOLD SOUTH PE RM.	20/1	EX	**33**	**B**	**34**	EX	20/1	WIREMOLD K-1		1080						0.00
	1080						0.00	WIREMOLD NORTH PE RM.	20/1	EX	**35**	**C**	**36**	EX	20/1	WIREMOLD K-1		1080						0.00
	1080						0.00	WIREMOLD NORTH PE RM.	20/1	EX	**37**	**A**	**38**	EX	20/1	WIREMOLD K-1		1080						0.00
	1080						0.00	WIREMOLD SOUTH PE RM.	20/1	EX	**39**	**B**	**40**	EX	20/1	WIREMOLD K-1		1080						0.00
	300						0.00	PROJECTOR	20/1	EX	**41**	**C**	**42**	EX	20/1	VERIZON FIBER		720						0.00
		3328					**0.00**	**HP 'A1'***	**50/3**	**8**	**43**	**A**	**44**	**10**	**30/3**	**AC 'K1-1'***						**1872**		0.00
		3328					**0.00**	**----**	**--**	**8**	**45**	**B**	**46**	**10**	**--**	**---**						**1872**		0.00
		3328					**0.00**	**----**	**--**	**8**	**47**	**C**	**48**	**10**	**--**	**---**						**1872**		0.00
		1872					**0.00**	**AC 'K1-2'****	**30/3**	**10**	**49**	**A**	**50**	**12**	**15/3**	**AC 'K1-1' PWR EXH.****						**340**		0.00
		1872					**0.00**	**---**	**--**	**10**	**51**	**B**	**52**	**12**	**--**	**---**						**340**		0.00
		1872					**0.00**	**---**	**--**	**10**	**53**	**C**	**54**	**12**	**--**	**---**						**340**		0.00
		340					**0.00**	**AC 'K1-2' PWR EXH.****	**15/3**	**12**	**55**	**A**	**56**	**10**	**30/3**	**AC 'K2-1'***						**1872**		0.00
		340					**0.00**	**---**	**--**	**12**	**57**	**B**	**58**	**10**	**--**	**---**						**1872**		0.00
		340					**0.00**	**---**	**--**	**12**	**59**	**C**	**60**	**10**	**--**	**---**						**1872**		0.00
							1.00	**SPARE**	**20/1**		**61**	**A**	**62**	**12**	**15/3**	**AC 'K2-1' PWR EXH.****						**340**		0.00
							1.00	**SPARE**	**20/1**		**63**	**B**	**64**	**12**	**--**	**---**						**340**		0.00
							1.00	**SPARE**	**20/1**		**65**	**C**	**66**	**12**	**--**	**---**						**340**		0.00
							0.00	**SPACE**			**67**	**A**	**68**			**SPACE**								0.00
							0.00	**SPACE**			**69**	**B**	**70**			**SPACE**								0.00
							0.00	**SPACE**			**71**	**C**	**72**			**SPACE**								0.00
1250	11070	15600	0	0	0	0	2.00	**TOTALS**								**TOTALS**	304	13680	0	0	0	0	0	0.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
1.6	24.8	15.6	0.0	0.0	0.0	0.0	2.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
1.9	17.4	15.6	0.0	0.0	0.0	0.0	1.0	Design KVA

*Input div. factor per descriptions as required for calculations.
** 100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	43.9	121.9		35.9	99.7

Phase Load

Ph	KVA
A	9.4
B	8.6
C	8.2

NOTE:
UNLESS NOTED OTHERWISE, ALL LOADS ARE EXISTING LOADS RELOCATED FROM EXISTING PANEL "C".

CONTRACTOR SHALL VERIFY ALL EXISTING LOADS AND PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE

Panel Remarks:
NEW PANEL FED FROM 'MSB'

* = INDICATES LOAD UPDATED
** = INDICATES NEW LOAD

PANEL: **C**

Date: | By:

Job: SEQUOIA ES - MOD | Job No. 220524 | AIC Rating: 18000

Mounting: **SURFACE** | Voltage: **208Y/120V-3PH 4W** | Ground: **Equipment Ground**
Main Type: **MCB (225A)** | Main Size: **225 AMPS** | Lugs: **SINGLE**
Neutral: **100%**

PANEL: **D** — **ALL LOADS IN VA**

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
532							0.00	LTS B-2 **	20/1	EX	**1**	**A**	**2**	EX	20/1	LTS B-4	**93**							0.00
456							0.00	LTS B-3 **	20/1	EX	**3**	**B**	**4**	EX	20/1	REC B-2-3		1080						0.00
532							0.00	LTS B-1 **	20/1	EX	**5**	**C**	**6**	EX	20/1	LT POLE LIBRARY	200							0.00
					500		1.00	SPARE	20/1	EX	**7**	**A**	**8**		**20/1**	**SPARE**								**1.00**
	900						0.00	REC LIBRARY	20/1	EX	**9**	**B**	**10**		**20/1**	**SPARE**								**1.00**
	900						0.00	REC LIBRARY	20/1	EX	**11**	**C**	**12**		**20/1**	**SPARE**								**1.00**
					500		1.00	SPARE	20/1	EX	**13**	**A**	**14**		**20/1**	**SPARE**								1.00
	1080						0.00	WIREMOLD COMP LAB	20/1	EX	**15**	**B**	**16**	EX	20/1	FACP 'LO'		300						0.00
	1080						0.00	WIREMOLD COMP LAB	20/1	EX	**17**	**C**	**18**	EX	20/1	POWER-POLE		450						0.00
	1080						0.00	WIREMOLD B-3	20/1	EX	**19**	**A**	**20**	EX	20/1	WIREMOLD B-2		1080						0.00
	1080						0.00	WIREMOLD B-3	20/1	EX	**21**	**B**	**22**	EX	20/1	WIREMOLD B-2		1080						0.00
	1080						0.00	WIREMOLD B-3	20/1	EX	**23**	**C**	**24**	EX	20/1	WIREMOLD B-1		1080						0.00
	1080						0.00	WIREMOLD B-3	20/1	EX	**25**	**A**	**26**	EX	20/1	WIREMOLD B-1		1080						0.00
	1080						0.00	WIREMOLD B-2	20/1	EX	**27**	**B**	**28**	EX	20/1	WIREMOLD B-1		1080						0.00
	1080						0.00	WIREMOLD B-2	20/1	EX	**29**	**C**	**30**	EX	20/1	WIREMOLD B-1		1080						0.00
		1872					**0.00**	**AC 'B1-1' ***	**30/3**	**10**	**31**	**A**	**32**	**10**	**30/3**	**AC 'B1-2' ***			**1872**					**0.00**
		1872					**0.00**	**---**	**--**	**10**	**33**	**B**	**34**	**10**	**--**	**---**			**1872**					**0.00**
		1872					**0.00**	**---**	**--**	**10**	**35**	**C**	**36**	**10**	**--**	**---**			**1872**					**0.00**
		340					**0.00**	**AC 'B1-1' PWR EXH. ***	**15/3**	**12**	**37**	**A**	**38**	**12**	**15/3**	**AC 'B1-2' PWR EXH. ***			**340**					**0.00**
		340					**0.00**	**---**	**--**	**12**	**39**	**B**	**40**	**12**	**--**	**---**			**340**					**0.00**
		340					**0.00**	**---**	**--**	**12**	**41**	**C**	**42**	**12**	**--**	**---**			**340**					**0.00**
		1872					**0.00**	**AC 'B1-3' ***	**30/3**	**10**	**43**	**A**	**44**	**12**	**15/3**	**HP 'B1-2' ***			**884**					**0.00**
		1872					**0.00**	**---**	**--**	**10**	**45**	**B**	**46**	**12**	**--**	**---**			**884**					**0.00**
		1872					**0.00**	**---**	**--**	**10**	**47**	**C**	**48**	**12**	**--**	**---**			**884**					**0.00**
		340					**0.00**	**AC 'B1-3' PWR EXH. ***	**15/3**	**12**	**49**	**A**	**50**	**10**	**30/3**	**AC 'B2-1' ***			**1872**					**0.00**
		340					**0.00**	**---**	**--**	**12**	**51**	**B**	**52**	**10**	**--**	**---**			**1872**					**0.00**
		340					**0.00**	**---**	**--**	**12**	**53**	**C**	**54**	**10**	**--**	**---**			**1872**					**0.00**
							0.00	**HP 'B1-1' ***	**15/2**	**12**	**55**	**A**	**56**	**12**	**15/3**	**AC 'B2-1' PWR EXH. ***			**340**					**0.00**
							0.00	**---**	**--**	**12**	**57**	**B**	**58**	**12**	**--**	**---**			**340**					**0.00**
	360 *						**0.00**	**B1' ROOFTOP REC. ***	**20/1**	**12**	**59**	**C**	**60**	**12**	**--**	**---**			**340**					**0.00**
	180 *						**0.00**	**B2' ROOFTOP REC. ***	**20/1**	**12**	**61**	**A**	**62**	**10**	**30/3**	**AC 'B2-2' ***			**1872**					**0.00**
		340					**0.00**	**AC 'B3-2' PWR EXH. ***	**15/3**	**10**	**63**	**B**	**64**	**10**	**--**	**---**			**1872**					**0.00**
		340					**0.00**	**---**	**--**	**12**	**65**	**C**	**66**	**10**	**--**	**---**			**1872**					**0.00**
		340					**0.00**	**---**	**--**	**12**	**67**	**A**	**68**			**SPACE**								0.00
		500					**0.00**	**DRINKING FTN.***	**20/1**	**12**	**69**	**B**	**70**			**SPACE**								0.00
							0.00	**---**			**71**	**C**	**72**			**SPACE**								0.00
1520	10440	14792	0	0	1000	0	2.00	**TOTALS**								**TOTALS**	293	8310	15924	0	0	0	0	4.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
1.8	18.8	30.7	0.0	0.0	1.0	0.0	6.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
2.3	14.4	30.7	0.0	0.0	1.0	0.0	3.0	Design KVA

*Input div. factor per descriptions as required for calculations.
** 100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	58.3	161.8		51.4	142.6

Phase Load

Ph	KVA
A	15.7
B	17.9
C	17.2

NOTE:
UNLESS NOTED OTHERWISE, ALL LOADS ARE EXISTING LOADS RELOCATED FROM EXISTING PANEL "D".

CONTRACTOR SHALL VERIFY ALL EXISTING LOADS AND PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE

Panel Remarks:
NEW PANEL FED FROM 'MSB'

*** = INDICATES NEW LOAD ADDED**
**** = INDICATES LOAD UPDATED**
'LO' = INDICATES CIRCUIT BREAKER REQUIRES LOCKING DEVICE.
PROVIDE LOCK AND/OR LOCKING DEVICE/S AS REQUIRED.

PANEL: **D**

Date: | By:

Job: SEQUOIA ES - MOD | Job No. 220524 | AIC Rating: 18000

Mounting: **RECESSED** | Voltage: **208Y/120V-3PH 4W** | Ground: **Equipment Ground**
Main Type: **MCB (100A)** | Main Size: **100 AMPS** | Lugs: **SINGLE**
Neutral: **100%**

PANEL: **C1** — **ALL LOADS IN VA**

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
	360						0.00	'K1' ROOFTOP RECEPT.	20/1	12	**1**	**A**	**2**	12	15/2	FC 'A-1'			325					0.00
	180						0.00	'K2' ROOFTOP RECEPT.	20/1	12	**3**	**B**	**4**	12	--	---			325					0.00
	180						0.00	'K3' ROOFTOP RECEPT.	20/1	12	**5**	**C**	**6**	12	15/2	FC 'A-2'			325					0.00
	1872						0.00	AC 'K3-1'	30/3	10	**7**	**A**	**8**	12	--	---			325					0.00
	1872						0.00	---	--	10	**9**	**B**	**10**	12	15/2	FC 'A-3'			325					0.00
	1872						0.00	---	--	10	**11**	**C**	**12**	12	--	---			325					0.00
	340						0.00	AC 'K3-1' PWR EXH.	15/3	12	**13**	**A**	**14**	12	15/2	FC 'A-4'			325					0.00
	340						0.00	---	--	12	**15**	**B**	**16**	12	--	---			325					0.00
	340						0.00	---	--	12	**17**	**C**	**18**	12	15/2	FC 'A-5'			325					0.00
		1176					0.00	ADMIN BLDG- SF A1	20/1	12	**19**	**A**	**20**	12	--	---			325					0.00
		696					0.00	ADMIN BLDG - SF A2	15/1	12	**21**	**B**	**22**	12	15/1	ADMIN-CIRC PUMP 'CP1'						40		0.00
				300			0.00	DED. SECURITY PNL	20/1	12	**23**	**C**	**24**		20/1	SPARE								1.00
							1.00	SPARE	20/1		**25**	**A**	**26**		20/1	SPARE								1.00
							1.00	SPARE	20/1		**27**	**B**	**28**		20/1	SPARE								1.00
							1.00	SPARE	20/1		**29**	**C**	**30**		20/1	SPARE								1.00
							1.00	SPARE	20/1		**31**	**A**	**32**		20/1	SPARE								1.00
							1.00	SPARE	20/1		**33**	**B**	**34**		20/1	SPARE								1.00
							0.00	SPACE			**35**	**C**	**36**			SPACE								0.00
							0.00	SPACE			**37**	**A**	**38**			SPACE								0.00
							0.00	SPACE			**39**	**B**	**40**			SPACE								0.00
							0.00	SPACE			**41**	**C**	**42**			SPACE								0.00
0	7356	1872	0	0	300	0	5.00	**TOTALS**								**TOTALS**	0	0	3250	0	0	40	0	6.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
0.0	7.4	5.1	0.0	0.0	0.3	0.0	11.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
0.0	7.4	5.1	0.0	0.0	0.3	0.0	5.5	Design KVA

*Input div. factor per descriptions as required for calculations.
** 100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	23.8	66.1		18.3	50.8

Phase Load

Ph	KVA
A	5.0
B	4.1
C	3.7

Panel Remarks:
NEW PANEL FED FROM 'MSA'

PANEL: **C1**

Date: | By:

Job: SEQUOIA ES - MOD | Job No. 220524 | AIC Rating: 18000

Mounting: **SURFACE** | Voltage: **208Y/120V-3PH 4W** | Ground: **Equipment Ground**
Main Type: **MCB (250A)** | Main Size: **250 AMPS** | Lugs: **SINGLE**
Neutral: **100%**

PANEL: **D1** — **ALL LOADS IN VA**

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
	300						0.00	CIR PUMP #1	20/2	EX.	**1**	**A**	**2**	EX.	20/1	REC B-1		1080						0.00
	300						0.00	---	--	EX.	**3**	**B**	**4**	EX.	20/1	REC B-2,3		1080						0.00
	300						0.00	CIR PUMP #2	20/2	EX.	**5**	**C**	**6**	EX.	20/1	REC		1080						0.00
	300						0.00	---	--	EX.	**7**	**A**	**8**	EX.	20/1	REC		1080						0.00
					250		0.00	FAU RM B-6,7,8	20/1	EX.	**9**	**B**	**10**	EX.	20/1	REC SPEECH		1080						0.00
					250		0.00	FAU RM B-1,2,3	20/1	EX.	**11**	**C**	**12**	EX.	20/1	POWER POLE COMP.		200						0.00
					250		0.00	FAU RM LIB./COMP.	20/1	EX.	**13**	**A**	**14**	EX.	20/1	POWER POLE COMP.		200						0.00
					800		0.00	WTR HTR/CIR PUMP	20/1	EX.	**15**	**B**	**16**	EX.	20/1	IDF		300						0.00
200							0.00	LIGHT MECH/SPEECH	20/1	EX.	**17**	**C**	**18**	EX.	20/1	AC COMP. LAB		250						0.00
	2500						0.00	2P 30A MECH RM	30/2	EX.	**19**	**A**	**20**	EX.	20/1	ALARM MECH RM.		250						0.00
	2500						0.00	---	--	EX.	**21**	**B**	**22**	**12**	**20/1**	****B3' ROOFTOP RECEPT.**		**180**						0.00
		895					0.00	****CU 'B2-1'**	**15/2**	**12**	**23**	**C**	**24**	EX.	*70/2*	*SPARE*							*5200*	1.00
		895					0.00	---	--	**12**	**25**	**A**	**26**	EX.	--	---							*5200*	0.00
				5200			*1.00*	*SPARE*	*70/2*	EX.	**27**	**B**	**28**	EX.	*70/2*	*SPARE*							*5200*	1.00
				5200			*0.00*	---	--	EX.	**29**	**C**	**30**	EX.	--	---							*5200*	0.00
		1872					**0.00**	**'AC 'B3-1'**	**30/3**	**10**	**31**	**A**	**32**	**10**	**30/3**	**'AC 'B3-2'**		**1872**						**0.00**
		1872					**0.00**	**---**	**--**	**10**	**33**	**B**	**34**	**10**	**--**	**---**		**1872**						**0.00**
		1872					**0.00**	**---**	**--**	**10**	**35**	**C**	**36**	**10**	**--**	**---**		**1872**						**0.00**
		340					**0.00**	**'AC 'B3-1' PWR EXH.**	**15/3**	**12**	**37**	**A**	**38**	**12**	**15/3**	**'AC 'B3-2' PWR EXH.**		**340**						**0.00**
		340					**0.00**	**---**	**--**	**12**	**39**	**B**	**40**	**12**	**--**	**---**		**340**						**0.00**
		340					**0.00**	**---**	**--**	**12**	**41**	**C**	**42**	**12**	**--**	**---**		**340**						**0.00**
		1872					**0.00**	**'AC 'K3-2'**	**30/3**	**10**	**43**	**A**	**44**	**10**	**30/3**	**'AC 'B3-3'**		**1872**						**0.00**
		1872					**0.00**	**---**	**--**	**10**	**45**	**B**	**46**	**10**	**--**	**---**		**1872**						**0.00**
		1872					**0.00**	**---**	**--**	**10**	**47**	**C**	**48**	**10**	**--**	**---**		**1872**						**0.00**
		340					**0.00**	**'AC'K3-2' PWR EXH.**	**15/3**	**12**	**49**	**A**	**50**	**12**	**15/3**	**'AC 'B3-3' PWR EXH.**		**340**						**0.00**
		340					**0.00**	**---**	**--**	**12**	**51**	**B**	**52**	**12**	**--**	**---**		**340**						**0.00**
		340					**0.00**	**---**	**--**	**12**	**53**	**C**	**54**	**12**	**--**	**---**		**340**						**0.00**
200	6200	15062	0	10400	1550	0	1.00	**TOTALS**								**TOTALS**	0	20052	0	0	0	20800	0	2.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
0.2	26.3	15.1	0.0	10.4	22.4	0.0	3.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
0.3	18.1	15.1	0.0	10.4	22.4	0.0	1.5	Design KVA

*Input div. factor per descriptions as required for calculations.
** 100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	77.3	214.5		67.7	187.9

Phase Load

Ph	KVA
A	20.9
B	25.7
C	27.6

NOTE:
UNLESS NOTED OTHERWISE, ALL LOADS ARE EXISTING LOADS RELOCATED FROM EXISTING PANEL "D1".

CONTRACTOR SHALL VERIFY ALL EXISTING LOADS AND PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE

Panel Remarks:
NEW PANEL FED FROM PNL 'D'

*** = INDICATES NEW LOAD ADDED**
**** = INDICATES LOAD UPDATED**

PANEL: **D1**

Date: | By:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

ARCHITECT PBK Architects, Inc.
ANAHEIM
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

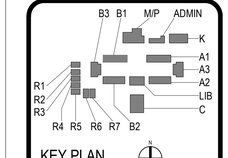
CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
RAINALD C. DELA CRUZ
No. E 23576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

ELECTRICAL SCHEDULES

E5.02

0" 1"

PANEL: E

Job: SEQUOIA ES - MOD | Job No. 220524 | AIC Rating 18000

Mounting **SURFACE** | Main Type **MCB (225A)** | Neutral **100%**

Voltage: **208Y/120V-3PH 4W** | Main Size: **225 AMPS**

Ground **Equipment Ground** | Lugs **SINGLE**

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
350							0.00	LIGHTING K-4	20/1	EX.	1	A	2	EX.	20/1	BOYS/B-5 LIGHTING	500							0.00
342							0.00	LIGHTING B-5	20/1	EX.	3	B	4	EX.	20/1	IDF						200		0.00
342							0.00	LIGHTING B-6	20/1	EX.	5	C	6	EX.	20/1	FACP ***						200		0.00
342							0.00	LIGHTING B-8	20/1	EX.	7	A	8	EX.	20/1	REC B-4/B-5		900						0.00
					200		0.00	SOLAR DAS	20/1	EX.	9	B	10	EX.	20/1	HEATER BLOWER				300				0.00
	900						0.00	WIREMOLD B-4	20/1	EX.	11	C	12	EX.	20/1	WIREMOLD B-8		900						0.00
	900						0.00	WIREMOLD B-4	20/1	EX.	13	A	14	EX.	20/1	WIREMOLD B-6		900						0.00
	900						0.00	WIREMOLD B-4	20/1	EX.	15	B	16	EX.	20/1	WIREMOLD B-6		900						0.00
	900						0.00	WIREMOLD B-4	20/1	EX.	17	C	18	EX.	20/1	WIREMOLD B-7		900						0.00
	900						0.00	WIREMOLD B-5	20/1	EX.	19	A	20	EX.	20/1	WIREMOLD B-7		900						0.00
	900						0.00	WIREMOLD B-5	20/1	EX.	21	B	22	EX.	20/1	WIREMOLD B-7		900						0.00
	900						0.00	WIREMOLD B-5	20/1	EX.	23	C	24	EX.	20/1	WIREMOLD B-7		900						0.00
	900						0.00	WIREMOLD B-5	20/1	EX.	25	A	26	EX.	20/1	WIREMOLD B-8		900						0.00
	900						0.00	WIREMOLD B-6	20/1	EX.	27	B	28	EX.	20/1	WIREMOLD B-8		900						0.00
	900						0.00	WIREMOLD B-6	20/1	EX.	29	C	30	EX.	20/1	WIREMOLD B-8		900						0.00
		1872					0.00	AC 'B4-1' *	30/3	10	31	A	32	10	30/3	AC 'B4-2' *			1872					0.00
		1872					0.00	---	--	10	33	B	34	10	--	---			1872					0.00
		1872					0.00	---	--	10	35	C	36	10	--	---			1872					0.00
		340					0.00	AC 'B4-1' PWR EXH. *	15/3	12	37	A	38	12	15/3	AC 'B4-2' PWR EXH. *			340					0.00
		340					0.00	---	--	12	39	B	40	12	--	---			340					0.00
		340					0.00	---	--	12	41	C	42	12	--	---			340					0.00
		180					0.00	B4' ROOFTOP REC. *	20/1		43	A	44		20/1	SPARE								1.00
							1.00	SPARE	20/1		45	B	46		20/1	SPARE								1.00
							1.00	SPARE	20/1		47	C	48		20/1	SPARE								1.00
							0.00	SPACE			49	A	50			SPACE								0.00
							0.00	SPACE			51	B	52			SPACE								0.00
							0.00	SPACE			53	C	54			SPACE								0.00
1376	9000	6816	0	0	200	0	0.00	TOTALS								TOTALS	500	9900	6636	300	0	400	0	0.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
1.9	18.9	13.5	0.3	0.0	0.6	0.0	0.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
2.3	14.5	13.5	0.3	0.0	0.6	0.0	0.0	Design KVA

Phase Load

Ph	KVA
A	12.1
B	10.9
C	12.2

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	35.1	97.5		31.1	86.5

NOTE:
UNLESS NOTED OTHERWISE, ALL LOADS ARE EXISTING LOADS RELOCATED FROM EXISTING PANEL "E".

CONTRACTOR SHALL VERIFY ALL EXISTING LOADS AND PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE

Panel Remarks:
NEW PANEL FED FROM 'MSA'
*** = INDICATES NEW LOAD ADDED**
**** = INDICATES LOAD UPDATED**
*****= PROVIDE BREAKER WITH RED LOCK-ON COVER LABELED "FIRE ALARM CIRCUIT.**

PANEL: **E**

Date: By:

9/28/2021

PANEL: G

Job: SEQUOIA ES - MOD | Job No. 220524 | AIC Rating 18000

Mounting **SURFACE** | Main Type **MCB (225A)** | Neutral **100%**

Voltage: **208Y/120V-3PH 4W** | Main Size: **225 AMPS**

Ground **Equipment Ground** | Lugs **SINGLE**

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
186							0.00	GIRLS/BOYS LIGHTING	20/1	EX	1	A	2	EX	20/1	TIMECLOCK						150		0.00
342							0.00	LIGHTING A-4/A-5	20/1	EX	3	B	4	EX	20/1	REC A-4/A-5		1080						0.00
342							0.00	LIGHTING A-6	20/1	EX	5	C	6	EX	20/1	EXIST. LOAD						750		0.00
342							0.00	LIGHTING A-7	20/1	EX	7	A	8	EX	20/1	EXIST. LOAD						750		0.00
342							0.00	LIGHTING A-8	20/1	EX	9	B	10	EX	20/1	EXIST. LOAD						750		0.00
	900						0.00	WIREMOLD A-4	20/1	EX	11	C	12	EX	20/1	WIREMOLD A-8		900						0.00
	900						0.00	WIREMOLD A-4	20/1	EX	13	A	14	EX	20/1	WIREMOLD A-8		900						0.00
	900						0.00	WIREMOLD A-4	20/1	EX	15	B	16	EX	20/1	WIREMOLD A-8		900						0.00
	900						0.00	WIREMOLD A-4	20/1	EX	17	C	18	EX	20/1	WIREMOLD A-6		900						0.00
	900						0.00	WIREMOLD A-5	20/1	EX	19	A	20	EX	20/1	WIREMOLD A-6		900						0.00
	900						0.00	WIREMOLD A-5	20/1	EX	21	B	22	EX	20/1	WIREMOLD A-7		900						0.00
	900						0.00	WIREMOLD A-5	20/1	EX	23	C	24	EX	20/1	WIREMOLD A-7		900						0.00
	900						0.00	WIREMOLD A-5	20/1	EX	25	A	26	EX	20/1	WIREMOLD A-7		900						0.00
	900						0.00	WIREMOLD A-6	20/1	EX	27	B	28	EX	20/1	WIREMOLD A-7		900						0.00
	900						0.00	WIREMOLD A-6	20/1	EX	29	C	30	EX	20/1	EXIST. LOAD						500		0.00
	200						0.00	MAINT CLOSET	20/1	EX	31	A	32	EX	20/1	FACP 'LO'		500						0.00
	300						0.00	IDF	20/1	EX	33	B	34	EX	20/1	'A3' ROOFTOP RECEPT.		360 **						0.00
							1.00	SPARE	20/1	EX	35	C	36	EX	20/1	'A2' ROOFTOP RECEPT.		360 **						0.00
							1.00	SPARE	20/1	EX	37	A	38	EX	20/1	SPARE								1.00
		895					0.00	HP A3-1 **	15/2	12	39	B	40	EX	20/1	SPARE								1.00
		895					0.00	----	--	12	41	C	42	EX	20/1	SPARE								1.00
		1872					0.00	AC 'A2-1' *	30/3	10	43	A	44	10	30/3	AC 'A2-2' *			1872					0.00
		1872					0.00	---	--	10	45	B	46	10	--	---			1872					0.00
		1872					0.00	---	--	10	47	C	48	10	--	---			1872					0.00
		340					0.00	AC 'A2-1' PWR EXH. *	15/3	12	49	A	50	12	15/3	AC 'A2-2' PWR EXH. *			340					0.00
		340					0.00	---	--	12	51	B	52	12	--	---			340					0.00
		340					0.00	---	--	12	53	C	54	12	--	---			340					0.00
		1872					0.00	AC 'A2-3' *	30/3	10	55	A	56	10	30/3	AC 'A2-3' PWR EXH. *			340					0.00
		1872					0.00	---	--	10	57	B	58	10	--	---			340					0.00
		1872					0.00	---	--	10	59	C	60	10	--	---			340					0.00
		1872					0.00	AC 'A3-1'	30/3	10	61	A	62	10	30/3	AC 'A3-2'			1872					0.00
		1872					0.00	---	--	10	63	B	64	10	--	---			1872					0.00
		1872					0.00	---	--	10	65	C	66	10	--	---			1872					0.00
		340					0.00	AC 'A3-1' PWR EXH.	15/3	12	67	A	68	12	15/3	AC 'A3-2' PWR EXH.			340					0.00
		340					0.00	---	--	12	69	B	70	12	--	---			340					0.00
		340					0.00	---	--	12	71	C	72	12	--	---			340					0.00
1554	9500	20678	0	0	0	0	2.00	TOTALS								TOTALS	0	9680	14292	0	0	2900	0	3.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
1.6	19.2	35.0	0.0	0.0	2.9	0.0	5.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
1.9	14.6	35.0	0.0	0.0	2.9	0.0	2.5	Design KVA

Phase Load

Ph	KVA
A	14.2
B	15.7
C	15.4

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	63.6	176.5		56.9	157.9

NOTE:
UNLESS NOTED OTHERWISE, ALL LOADS ARE EXISTING LOADS RELOCATED FROM EXISTING PANEL "G".

CONTRACTOR SHALL VERIFY ALL EXISTING LOADS AND PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE

Panel Remarks:
NEW PANEL FED FROM PNL 'MSA'
* = INDICATES NEW LOAD ADDED
** = INDICATES LOAD UPDATED
'LO' = INDICATES CIRCUIT BREAKER REQUIRES LOCKING DEVICE. PROVIDE LOCK AND/OR LOCKING DEVICE/S AS REQUIRED.

PANEL: **G**

Date: By:

9/28/2021

PANEL: F

Job: SEQUOIA ES - MOD | Job No. 220524 | AIC Rating 18000

Mounting **SURFACE** | Main Type **MCB (225A)** | Neutral **100%**

Voltage: **208Y/120V-3PH 4W** | Main Size: **225 AMPS**

Ground **Equipment Ground** | Lugs **SINGLE**

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
462							0.00	LTS A-1	20/1	EX	1	A	2	EX	20/1	LTS TITLE 1 OFFICE	580							0.00
517							0.00	LTS A-2	20/1	EX	3	B	4	EX	20/1	TITLE 1 OFFICE		320						0.00
462							0.00	LTS A-3	20/1	EX	5	C	6	EX	20/1	FACP**		300						0.00
	1080						0.00	WIREMOLD A-1	20/1	EX	7	A	8	EX	20/1	FAU VIA TIMECLOCK		200						0.00
	1080						0.00	WIREMOLD A-1	20/1	EX	9	B	10	EX	20/1	FAU VIA TIMECLOCK		200						0.00
	1080						0.00	WIREMOLD A-1	20/1	EX	11	C	12	EX	20/1	REC A-2 / A-3		1080						0.00
	1080						0.00	WIREMOLD A-1	20/1	EX	13	A	14	EX	20/1	REC A-1 / A-2		1080						0.00
	1080						0.00	WIREMOLD A-2	20/1	EX	15	B	16	EX	20/1	REC A-7 / A-8		648						0.00
	1080						0.00	WIREMOLD A-2	20/1	EX	17	C	18	EX	20/1	REC A-6 / A-7		648						0.00
	1080						0.00	WIREMOLD A-2	20/1	EX	19	A	20	EX	20/1	EXISTING LOAD		300						0.00
	1080						0.00	WIREMOLD A-2	20/1	EX	21	B	22	EX	20/1	EXISTING LOAD		300						0.00
	1080						0.00	WIREMOLD A-3	20/1	EX	23	C	24	EX	20/1	EXISTING LOAD		300						0.00
	1080						0.00	WIREMOLD A-3	20/1	EX	25	A	26	EX	20/1	COPIER/REC A-1 LOUNGE		1100						0.00
	1080						0.00	WIREMOLD A-3	20/1	EX	27	B	28	EX	20/1	SUMP PUMP		1000						0.00
	1080						0.00	WIREMOLD A-3	20/1	EX	29	C	30	EX	20/1	EXISTING LOAD		800						0.00
	200						0.00	LOUNGE GFI	20/1	EX	31	A	32	EX	20/1	EXISTING LOAD		800						0.00
	200						0.00	LOUNGE GFI	20/1	EX	33	B	34	EX	20/1	COPIER		500						0.00
	200						0.00	REC @ PANEL	20/1	EX	35	C	36	EX	20/1	COUNTER		300						0.00
	200						0.00	REC @ PANEL	20/1	EX	37	A	38	EX	20/1	TITLE 1 OFFICE		320						0.00
	200						0.00	REC @ PANEL	20/1	EX	39	B	40		20/1	SPARE								1.00
	200						0.00	REC ALARM	20/1	EX	41	C	42		20/1	SPARE								1.00
		884					0.00	HP A1-1	15/2	12	43	A	44		20/1	SPARE								1.00
		884					0.00	---	--	12	45	B	46	10	30/3	AC 'A1-1' *			1872					0.00
		884					0.00	HP A1-2	15/2	12	47	C	48	10	--	---			1872					0.00
		884					0.00	---	--	12	49	A	50	10	--	---			1872					0.00
		1872					0.00	AC 'A1-3'	30/3	10	51	B	52	12	15/3	AC 'A1-1' POWER EXH. *			340					0.00
		1872					0.00	---	--	10	53	C	54	12	--	---			340					0.00
		1872					0.00	---	--	10	55	A	56	12	--	---			340					0.00
		340					0.00	AC 'A1-3' POWER EXH.	15/3	12	57	B	58	10	30/3	AC 'A1-2' *			1872					
		340					0.00	---	--	12	59	C	60	10	--	---			1872					
		340					0.00	---	--	12	61	A	62	10	--	---			1872					
		360					0.00	ROOFTOP RECEPTS.	20/1	12	63	B	64	12	15/3	AC 'A1-2' POWER EXH. *			340					
	100						0.00	DED. GFCI DF-1	20/1	12	65	C	66	12	--	---			340					
					xxx		0.00	PANEL 'A-1'	EX./2		67	A	68	12	--	---			340					
					xxx		0.00	----	EX./2		69	B	70			SPACE								
											71	C	72			SPACE								
1441	14160	10532	0	0	0	0	0.00	TOTALS								TOTALS	580	10196	13272	0	0	0	0	2.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
2.0	24.4	23.8	0.0	0.0	0.0	0.0	2.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
2.5	17.2	23.8	0.0	0.0	0.0	0.0	1.0	Design KVA

Phase Load

Ph	KVA
A	18.0
B	16.1
C	16.2

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	52.2	144.8		44.5	123.5

NOTE:
UNLESS NOTED OTHERWISE, ALL LOADS ARE EXISTING LOADS RELOCATED FROM EXISTING PANEL "F".

CONTRACTOR SHALL VERIFY ALL EXISTING LOADS AND PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE

Panel Remarks:
NEW PANEL FED FROM 'MSB'
BOLD indicates load updated
* = INDICATES NEW LOAD ADDED
**= PROVIDE BREAKER WITH RED LOCK-ON COVER LABELED "FIRE ALARM CIRCUIT.
PROVIDE NEW 225A/3P BREAKER FOR PANEL 'E'

PANEL: **F**

Date: By:

9/28/2021

PANEL: L

Job: SEQUOIA ES - MOD | Job No. 220524 | AIC Rating 18000

Mounting **SURFACE** | Main Type **MCB (225A)** | Neutral **100%**

Voltage: **208Y/120V-3PH 4W** | Main Size: **225 AMPS**

Ground **Equipment Ground** | Lugs **SINGLE**

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
750								RM 2 LIGHTS	20/1	EX	1	A	2	EX	20/1	RM 2 RECEPT. SO. WALL		1080						0.00
800								RM 1 LIGHTS	20/1	EX	3	B	4	EX	20/1	RM 2 RECEPT W & N WALL		1080						0.00
900								RM 3 LIGHTS	20/1	EX	5	C	6	EX	20/1	RM 1 RECEPT W. WALL		540						0.00
650								RM 4 LIGHTS	20/1	EX	7	A	8	EX	20/1	RM 1 RECEPT NORTH WALL		360						0.00
500								SOFT LIGHTS	20/1	EX	9	B	10	EX	20/1	RM 3 RECEPT S. WALL		360						0.00
					100			FIRE ALARM	20/1	EX	11	C	12	EX	20/1	RM 3 RECEPT E. & N. WALL		1080						0.00
		4160						**ODU-C3	40/2	8	13	A	14	EX	20/1	RM 4 RECEPT. SO. & E. WALL		540						0.00
		4160						----	-	8	15	B	16	EX	20/1	RM 4 RECEPT. N. WALL		540						0.00
		1560						**HP-C9	20/2	12	17	C	18	12	20/2	**HP-C10			1560					0.00
		1560						----	-	12	19	A	20	12	-	----			1560					0.00
								SPARE	20/1	EX	21	B	22	EX	20/2	EXISTING LOAD						800		0.00
	540							RM 5 RECEPTACLES	20/1	EX	23	C	24	EX	-	----						800		0.00
	1080							RM 6 RECEPTACLES	20/1	EX	25	A	26	EX	20/2	HEATER				2000				0.00
					500			TIME CLOCK	20/1	EX	27	B	28	EX	-	----				2000				0.00
	1080							RM 5 RECEPT N. WALL	20/1	EX	29	C	30	EX	20/1	RM 5, 6, &RR LIGHTS	900							0.00
					400			IDF 3	20/1	EX	31	A	32	12	20/1	**EF-C2			720					0.00
		4160						**ODU-C1	40/2	8	33	B	34	EX	20/1	C2 PROJECTOR						1200		0.00
		4160						----	-	8	35	C	36	8	40/2	**ODU-C2			4160					0.00
		720						**EF-C1	20/1	12	37	A	38	8	-	----			4160					0.00
					4800			PANEL 'LA'	100/2		39	B	40	8	40/2	**ODU-C4			4160					0.00
					4800			----	-		41	C	42	8	-	----			4160					0.00
3600	2700	20480	0	0	10600	0	0.00	TOTALS								TOTALS	900	5580	20480	4000	0	2800	0	0.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
4.5	8.3	41.0	4.0	0.0	13.4	0.0	0.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
5.6	8.3	41.0	4.0	0.0	13.4	0.0	0.0	Design KVA

Phase Load

Ph	KVA
A	19.7
B	25.1
C	26.3

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	71.1	197.5		72.3	200.6

NOTE:
UNLESS NOTED OTHERWISE, ALL LOADS ARE EXISTING LOADS RELOCATED FROM EXISTING PANEL "L".

CONTRACTOR SHALL VERIFY ALL EXISTING LOADS AND PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE

Panel Remarks:
NEW PANEL FED FROM 'MSB'
**= INDICATES NEW LOAD ADDED

PANEL: **L**

Date: By:

FIXTURE SCHEDULE

TYPE	DESCRIPTION	VOLTAGE	MOUNTING	MANUFACTURER & NO.	WEIGHT (LBS)	REMARKS
FX-A	2X4 TROFFER	MVOLT	RECESSED	LITHONIA LIGHTING EPANL 2X4 4000LM 80CRI 35K MIN1 MVOLT	15	
FX-AE	2X4 TROFFER - EMERG.	MVOLT	RECESSED	LITHONIA LIGHTING EPANL 2X4 4000LM 80CRI 35K MIN1 MVOLT E10WCP	15	PROVIDE 90 MIN. EMERGENCY BATTERY BACKUP FOR ALL LIGHT FIXTURES SHOWN TO BE ON EMERG.
FX-B	1X4 TROFFER	MVOLT	SURFACE	LITHONIA LIGHTING EPANL 1X4 4000LM 80CRI 35K MIN1 MVOLT	14	
FX-BE	1X4 TROFFER - EMERG.	MVOLT	SURFACE	LITHONIA LIGHTING EPANL 1X4 4000LM 80CRI 35K MIN1 MVOLT E10WCP	14	PROVIDE 90 MIN. EMERGENCY BATTERY BACKUP FOR ALL LIGHT FIXTURES SHOWN TO BE ON EMERG.
FX-C	WALLPACK	MVOLT	SURFACE	LITHONIA LIGHTING WDGE3 LED P2 40K 80CRI RFT 120 SRM E20WC PE DBLXD	5	PROVIDE 90 MIN. EMERGENCY BATTERY BACKUP FOR ALL LIGHT FIXTURES.
FX-EX	EMERGENCY EXIT	MVOLT	SURFACE	LITHONIA LIGHTING LE S 1 R EL N SD - WITH MOUNTING KIT 'ELA WG1'	5	COORDINATE WITH MANUFACTURER AND ARCHITECT PRIOR TO PROCUREMENT.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

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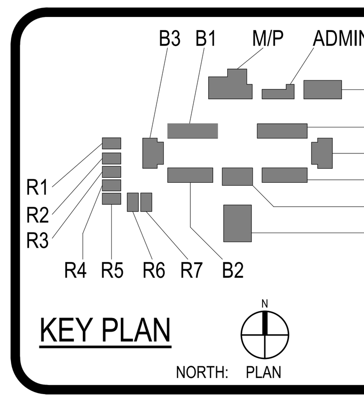
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN

Consultant
REGISTERED PROFESSIONAL ENGINEER
RONALD C DELA CRUZ
No. E 23576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

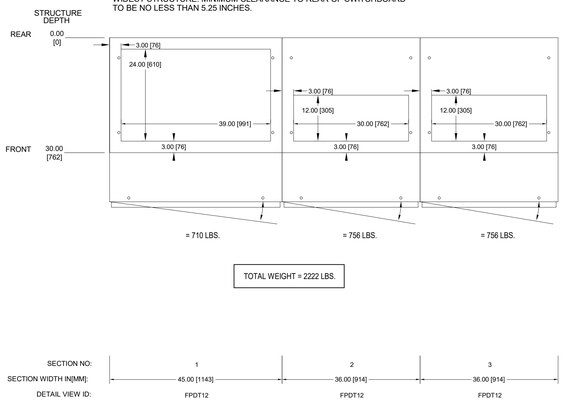
DSA Submittal

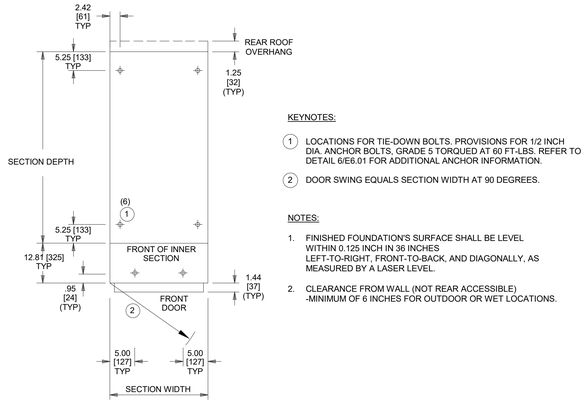
ELECTRICAL SCHEDULES

E5.03

0" 1"

DOOR SWING IS EQUAL TO STRUCTURE WIDTH. DOORS OPEN TO 90 DEGREES. CONDUIT ENTERING BOTTOM OF SWITCHBOARD SHALL NOT EXTEND MORE THAN 3 INCHES INTO STRUCTURE. REFER TO FLOOR PLAN DETAIL VIEW FOR ANCHOR LOCATIONS AND MOUNTING DETAILS. MINIMUM CLEARANCE TO FRONT OF SWITCHBOARD TO BE NO LESS THAN WIDTH OF WIDEST STRUCTURE. MINIMUM CLEARANCE TO REAR OF SWITCHBOARD TO BE NO LESS THAN 5.25 INCHES.





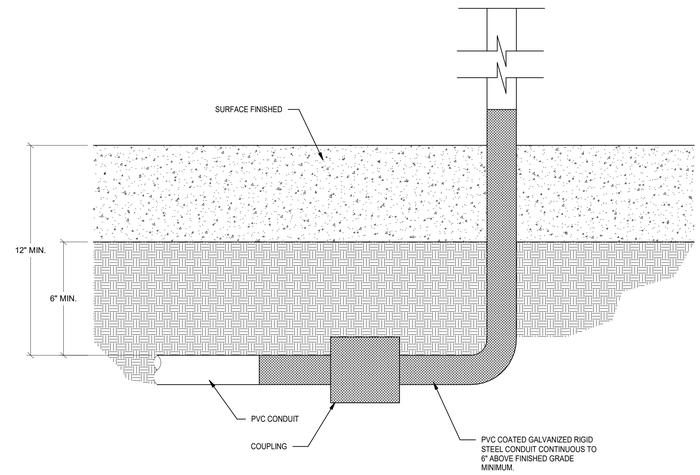
KEYNOTES:

1. LOCATIONS FOR TIE-DOWN BOLTS. PROVISIONS FOR 1/2 INCH DIA. ANCHOR BOLTS, GRADE 5 TORQUED AT 60 FT-LBS. REFER TO DETAIL 6/E6.01 FOR ADDITIONAL ANCHOR INFORMATION.
2. DOOR SWING EQUALS SECTION WIDTH AT 90 DEGREES.

NOTES:

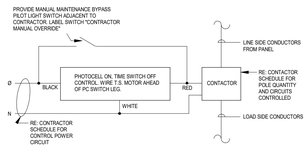
1. FINISHED FOUNDATION'S SURFACE SHALL BE LEVEL WITHIN 0.125 INCH IN 36 INCHES LEFT-TO-RIGHT, FRONT-TO-BACK, AND DIAGONALLY, AS MEASURED BY A LASER LEVEL.
2. CLEARANCE FROM WALL (NOT REAR ACCESSIBLE) -MINIMUM OF 6 INCHES FOR OUTDOOR OR WET LOCATIONS.

5 SWITCHBOARD DETAIL
N.T.S.



3 CONDUIT INSTALLED BELOW GRADE TO ABOVE GRADE DETAIL
N.T.S.

6 SWITCHBOARD ANCHORAGE DETAIL
N.T.S.



8 CONTACTOR CONTROL DIAGRAM
N.T.S.

4 SURFACE MOUNTED PANEL/CABINET AT WOOD FRAMING DETAIL
N.T.S.

2 NOT USED
N.T.S.

7 CONCRETE HOUSE KEEPING PAD DETAIL
NOT TO SCALE

KEY NOTES:

1. ATTACH WIRE TO FIXTURE (3 TIGHT TURNS MIN. IN 1½" MAX.)
2. MIN #8 "TEK" SCREW GRID TO FIXTURE @ EACH CORNER.
3. ATTACH HANGER WIRES TO STRUCTURE AS PER ARCHITECTURAL DETAIL 1/A8.03

9 RECESSED FIXTURE IN LAY-IN GRID DETAIL
N.T.S.

1 TYPICAL PULL BOX AND CONDUIT PLACEMENT DETAIL
N.T.S.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

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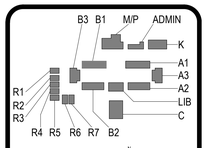
CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER RONALD C DE LA CRUZ No. E 23576 Exp. 09-30-2025 ELECTRICAL STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

ELECTRICAL DETAILS

E6.01

FILE PATH: Z:\Projects\...
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0" 1"

PLUMBING LEGEND

NOTE: NOT ALL SYMBOLS TABULATED BELOW ARE NECESSARILY USED ON THE DRAWINGS.

SYMBOL	ITEM	ABBR.
S / 1	FIXTURE DESIGNATION UNIT ABBREVIATION NUMBER	
01 / P-1	DETAIL DESIGNATION DETAIL NUMBER SHEET NO. WHERE SHOWN	
	DOMESTIC COLD WATER	CW
	DOMESTIC HOT WATER	HW
	DOMESTIC HW RETURN	HWR
	EXISTING PIPING	
X	POINT OF CONNECTION	POC
C	CONDENSATE DRAIN	
	SHUT-OFF VALVE IN BOX	SOV
	PIPING RISE	
	PIPING DROP	
S	SOIL OR WASTE	S OR W
V	VENT	V
	VENT THRU ROOF	VTR
FCO	FLOOR CLEANOUT	FCO
COTG	CLEANOUT TO GRADE	COTG
	WALL CLEANOUT	WCO
	HOSE BIBB	HB
RD	ROOF DRAIN	RD
OD	OVERFLOW DRAIN	OD
	DOWN SPOUT	DS
	UNDERGROUND	UG
TP	TRAP PRIMER	TP
SD	STORM DRAIN	SD
(E)	EXISTING	EXIST.
(N)	NEW	NEW
	UNDERFLOOR	UF
	OVERHEAD	OH
R	RELIEF	
D	DRAIN	
	CONDENSATE DRAIN CLEAN OUT	CO
SC	SECONDARY CONDENSATE DRAIN	
FC	FURNACE CONDENSATE	
	GAS SHUT OFF VALVE	GSOV
	CONDENSATE DRAIN TRAP	CDT
LPG	LIQUIFIED PETROLEUM GAS	LPG
G	NATURAL GAS	G
	FIRE SPRINKLER RISER	FSR
FSL	FIRE SPRINKLER LINE	FSL
	FIRE DEPARTMENT CONNECTION	FDC
	FINISHED FLOOR	FF
	FLOW LINE	FL
▲	FIRE RATED PENETRATION	
	POINT OF DISCONNECTION	POD
	POINT OF CONNECTION	POC

CALIFORNIA GREEN BUILDING STANDARDS

THE FOLLOWING SHALL BE REQUIRED WHETHER OR NOT SPECIFICALLY SHOWN OR MENTIONED IN DRAWINGS AND/OR SPECIFICATIONS:

5.303.1 METERS: SEPARATE SUBMETERS OR METERING DEVICES SHALL BE INSTALLED FOR USES DESCRIBED IN SECTIONS
5.303.1.1 AND 5.303.1.2.

5.303.1.1 NEW BUILDINGS OR ADDITIONS IN EXCESS OF 50,000 SQUARE FEET:
1. FOR EACH INDIVIDUAL LEASED, RENTED, OR OTHER TENANT SPACE WITHIN THE BUILDING PROJECTEED TO CONSUME MORE THAN 100 GAL/DAY, INCLUDING, BUT NOT LIMITED TO, SPACES USED FOR LAUNDRY OR CLEANERS, RESTAURANT OR FOOD SERVICE, MEDICAL OR DENTAL OFFICE, LABORATORY, OR BEAUTY SALON OR BARBER SHOP.
2. WHERE SEPARATE SUBMETERS FOR INDIVIDUAL BUILDING TENANTS ARE UNFEASIBLE, FOR WATER SUPPLIED TO THE FOLLOWING SUBSYSTEMS:
   a. MAKE-UP WATER FOR COOLING TOWERS WHERE FLOW THROUGH IS GREATER THAN 500 GPM.
   b. MAKE-UP WATER FOR EVAPORATIVE COOLERS GREATER THAN 6 GPM.
   c. STEAM AND HOT-WATER BOILERS WITH ENERGY INPUT MORE THAN 500,000 BTUH/H.

5.303.1.2 EXCESS CONSUMPTION: A SEPARATE SUBMETER OR BE PROVIDED FOR ANY TENANT WITHIN A NEW BUILDING OR WITHIN AN ADDITION THAT IS PROJECTED TO CONSUME MORE THAN 1,000 GAL/DAY.

5.303.2 RESERVED

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS: PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH THE FOLLOWING:

5.303.3.1 WATER CLOSETS: THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR TANK-TYPE TOILETS. NOTE: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH.

5.303.3.2 URINALS:

5.303.3.2.1 WALL-MOUNTED URINALS: THE EFFECTIVE FLUSH VOLUME OF WALL-MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH.

5.303.3.2.2 FLOOR-MOUNTED URINALS: THE EFFECTIVE FLUSH VOLUME OF FLOOR-MOUNTED URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.

5.303.3.2.1 WALL-MOUNTED URINALS: THE EFFECTIVE FLUSH VOLUME OF WALL-MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH.

5.303.3.2.2 FLOOR-MOUNTED URINALS: THE EFFECTIVE FLUSH VOLUME OF FLOOR-MOUNTED URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.

5.303.3.3 SHOWERHEADS:

5.303.3.3.1 SINGLE SHOWERHEAD: SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 2.0 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEADS.

5.303.3.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER: WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL SHOWERHEADS AND/OR SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 2.0 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME. NOTE: A HAND-HELD SHOWER SHALL BE CONSIDERED A SHOWERHEAD.

5.303.3.4 FAUCETS AND FOUNTAINS:

5.303.3.4.1 NONRESIDENTIAL LAVATORY FAUCETS: LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.5 GALLONS PER MINUTE AT 60 PSI.

5.303.3.4.2 KITCHEN FAUCETS: KITCHEN FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI.

5.303.3.4.3 WASH FOUNTAINS: WASH FOUNTAINS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE/20 [RIM SPACE (INCHES) AT 60 PSI].

5.303.3.4.4 METERING FAUCETS: METERING FAUCETS SHALL NOT DELIVER MORE THAN 0.20 GALLONS PER CYCLE.

5.303.3.4.5 METERING FAUCETS FOR WASH FOUNTAINS: METERING FAUCETS FOR WASH FOUNTAINS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.20 GALLONS PER CYCLE/20 [RIM SPACE (INCHES) AT 60 PSI]. NOTE: WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION.

PLUMBING TESTING

1. ALL EQUIPMENT AND/OR SYSTEMS NOTED ON THE DRAWINGS "TO REMAIN" SHALL BE INSPECTED AND TESTED ON SITE TO CERTIFY WORKING CONDITION. A WRITTEN REPORT ON THE CONDITION OF ALL EQUIPMENT TO REMAIN, INCLUDING A COPY OF THE TEST RESULTS AND RECOMMENDED REMEDIAL ACTIONS AND COSTS SHALL BE MADE BY THIS CONTRACTOR TO THE ARCHITECT/ENGINEER FOR REVIEW.

2. PIPE COVER AND BACKFILLING:
   A. AFTER HYDROSTATIC TEST, EVENLY BACKFILL ENTIRE TRENCH WIDTH BY HAND PLACING BACKFILL MATERIAL AND HAND TAMPING IN FOUR (4) ICHES COMPACTED LAYERS TO 12 INCHES MINIMUM COVER OVER TOP OF JACKET. COMPACT TO 95 PERCENT MAXIMUM DENSITY.
   B. EVENLY AND CONTINUOUSLY BACKFILL REMAINING TRENCH DEPTH IN
   C. UNIFORM LAYERS WITH BACKFILL MATERIAL
   D. DO NOT USE WHEELED OR TRACKED VEHICLES FOR TAMPING.

3. PRESSURE TEST ALL DOMESTIC WATER PIPING. AFTER INSTALLATION AND PRIOR TO BACKFILL OR COVER-UP, RINSE PIPING SYSTEM OF PARTICULATE CONTAMINANTS, CAP AND SUBJECT TO STATIC WATER PRESSURE OF 125 PSIG FOR FOUR (4) HOURS. REPAIR LEAKS AND DEFECTS AND RE-TEST ANY PORTION OF PIPING SYSTEM THAT FAILS. PROVIDE WRITTEN TEST REPORT INCLUDING DATE AND TIME OF TEST, PASS OR FAIL INDICATION, SUMMARY OF REMEDIAL WORK REQUIRED AND DATE AND TIME OF EACH RE-TEST.

4. PRIOR TO COVER UP, WATER PIPE, SANITARY PIPE, AND GAS PIPING SHALL BE PRESSURE TESTED. TESTS SHALL BE WITNESSED BY CONSULTANT AND OWNER. NOTIFY OWNER 48 HOURS PRIOR TO TEST. TEST SHALL BEWITNESSED BY CLIENT PLUMBING TECHNICIAN.

5. UPON COMPLETION OF THE SANITARY PIPING SYSTEM, THE CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER TO OBSERVE A SMOKE TEST OF THE SYSTEM. SMOKE TESTING SHALL BE PERFORMED ON SANITARY PIPING SYSTEM TWICE DURING CONSTRUCTION.

6. PRESSURE TEST NATURAL GAS PIPING IN ACCORDANCE WITH NFPA 54. CA PLUMBING CODE SECTION 1213

GENERAL PLUMBING NOTES

1. ALL BRACING OF PIPING SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES, HAZARD LEVEL 'A'.
2. WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT, MECHANICAL ENGINEER AND FIELD INSPECTOR.
3. SUPPORT AND BRACING OF ALL PIPING SHALL BE IN ACCORDANCE WITH THE SMACNA "GUIDELINES FOR SEISMIC RESTRAINTS OF PLUMBING PIPING SYSTEMS", OR THE "SUPERSTRUT SEISMIC RESTRAINT SYSTEM" FOR PIPING ONLY.
4. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH INSTALLATION. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY EXISTING CONDITIONS WHICH CONFLICT WITH INFORMATION PROVIDED IN CONSTRUCTION DOCUMENTS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL PIPE ROUTING WITH WORK OF OTHER TRADES AND MAKE ANY OFFSETS AS REQUIRED TO AVOID CONFLICT WITH DUCTWORK, LIGHT FIXTURES, SKYLIGHTS, ETC.
6. PLUMBING CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL CONDENSATE DRAIN CONNECTIONS TO MECHANICAL EQUIPMENT.
7. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PLUMBING CONDITIONS PRIOR TO PROCEEDING WITH INSTALLATION. CONTRACTOR SHALL NOTIFY ARCHITECT/ ENGINEER OF ANY EXISTING CONDITIONS WHICH CONFLICT WITH INFORMATION PROVIDED IN CONSTRUCTION DOCUMENTS.
8. FOR PLUMBING FIXTURE MOUNTING HEIGHTS AND LOCATIONS, REFER TO THE ARCHITECTURAL DRAWINGS.
9. ALL PLUMBING CONVEYING OR DISPENSING WATER FOR HUMAN CONSUMPTION SHALL COMPLY WITH AB 1953 FOR LEAD CONTENT.
10. REFER TO ARCHITECTURAL DRAWING FOR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC. DO NOT SCALE FROM PLUMBING DRAWINGS.
11. ALL WALL CLEAN-OUTS SHALL BE ACCESSIBLE BY AN ACCESS PANEL.
12. PROVIDE A DOUBLE EXTERIOR CLEAN-OUT (DFCO) ON ALL SANITARY LINES EXITING THE BUILDING.
13. ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH A TRAP PRIMER.
14. FIXTURES DESIGNATED AS ADA ACCESSIBLE BY ARCHITECT SHALL BE INSTALLED AT ADA ACCESSIBLE HEIGHT PER ARCHITECTURAL DETAILS.
15. ALL DOMESTIC COLD AND HOT WATER TAKE-OFFS SHALL HAVE AN ISOLATION SHUT-OFF VALVE.
16. CONTRACTOR SHALL DEWATER ANY AREA AT OR BELOW GRADE PRIOR TO SETTING EQUIPMENT.
17. ANY AND ALL WATER PIPING EXPOSED TO OUTSIDE ELEMENTS SHALL BE INSULATED TO PREVENT FREEZING.
18. ALL WORK AND MATERIAL SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED BY THE INSPECTION AUTHORITY. NOTHING IN THESE PLANS IS TO BE CONSTUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHER APPLICABLE PROJECT SPECIFICATIONS:
    A. CALIFORNIA BUILDING CODE - 2019
    B. CALIFORNIA PLUMBING CODE - 2019
    C. CALIFORNIA MECHANICAL CODE - 2019
    D. CALIFORNIA ELECTRICAL CODE - 2019
    E. CALIFORNIA GREEN CODE - 2019
    F. NATIONAL FIRE PROTECTION ASSOCIATION
    G. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
19. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE FACILITY, UTILITIES AND APPURTENANCE CAUSED BY THE WORK IN THEIR SCOPE. CONTRACTOR SHALL RESTORE AND REPAIR ANY DAMAGE AT NO ADDITIONAL COST TO THE OWNERS BY INSTALLATION THE FACILITY OF NEW WORK.

MEP COMPONENT ANCHORAGE NOTES:

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA-APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26 AND 30:

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRIC, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

1. 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.
2. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUND PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 CBC, SECTION 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FORM2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO START OF AND DURING THE HANGING AND BRACING OF DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY 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 & DETAILS.

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

DRAWING INDEX

SHEET	DESCRIPTION
P0.00	PLUMBING SHEET INDEX, LEGENDS, AND NOTES
P1.01	PLUMBING SITE PLAN
PD2.01	PLUMBING FLOOR PLANS - DEMO
PD2.02	PLUMBING FLOOR PLANS - DEMO
PD2.03	PLUMBING FLOOR PLANS - DEMO
P2.01	PLUMBING FLOOR PLANS
P2.02	PLUMBING FLOOR PLANS
P2.03	PLUMBING FLOOR PLANS
P4.01	PLUMBING ROOF PLANS
P4.02	PLUMBING ROOF PLANS
P4.03	PLUMBING ROOF PLANS
P5.01	PLUMBING SCHEDULES
P6.01	PLUMBING DETAILS

ABBREVIATIONS

NOTE: 1. ALL ABBREVIATIONS MAY NOT BE USED ON THESE DRAWINGS.

AAP	AREA ALARM PANEL	MH	MANHOLE
AAV	AUTOMATIC AIR VENT	MS	MOP SINK
A.F.F.	ABOVE FINISHED FLOOR	N.C.	NORMALLY CLOSED
AP	ACCESS PANEL	NIC	NOT IN CONTRACT
B.F.F.	BELOW FINISHED FLOOR	N.O.	NORMALLY OPEN
BFP	BACKFLOW PREVENTER	O.F./C.I.	OWNER FURNISHED/CONTRACTOR INSTALLED
BOB	BOTTOM OF BEAM	O.F./O.I.	OWNER FURNISHED/OWNER INSTALLED
BOP	BOTTOM OF PIPE	OFD	OVERFLOW DRAIN
BTUH	BRITISH THERMAL UNITS PER HOUR	PH	PHASE
CA	COMPRESSED AIR	PIV	POST INDICATOR VALVE
C/C	CUT AND CAP	PRV	PRESSURE REDUCING VALVE
CFH	CUBIC FEET PER HOUR	RD	ROOF DRAIN
CFS	CUBIC FEET PER SECOND	RE:	REFER TO
CI	CAST IRON	R.I.C.	ROUGH-IN AND CONNECT
CLG	CEILING	RO	REVERSE OSMOSIS
CO	CLEANOUT	RPBFP	REDUCED PRESSURE BACKFLOW PREVENTER
CONN	CONNECTION	RPM	REVOLUTIONS PER MINUTE
CONT.	CONTINUATION	RVB	REFRIGERATOR VALVE BOX
DF	DRINKING FOUNTAIN	SD	STORM DRAIN
DPV	DRY PIPE VALVE	S.F.	SQUARE FEET
DWG.	DRAWING	SIA.	SIAMESE
EA	EACH	SK	SINK
EL.	ELEVATION	T.O.P.	TOP OF PIPE
EDF	ELECTRIC DRINKING FOUNTAIN	TP	TRAP PRIMER
FCO	FLOOR CLEANOUT	TYP	TYPICAL
FD	FLOOR DRAIN	U	URINAL
FDV	FIRE DEPARTMENT VALVE	U/F	UNDERFLOOR
F.F.	FINISHED FLOOR	U/S	UNDERSLAB
FHC	FIRE HOSE CABINET	VAC. BRKR.	VACUUM BREAKER
F.L.	FLOW LINE	VIF	VERIFY IN FIELD
FS	FLOOR SINK	VTR	VENT THRU ROOF
FT	FEET	WC	WATER CLOSET
FU	FIXTURE UNITS	WCO	WALL CLEANOUT
GC	GENERAL CONTRACTOR	WH	WALL HYDRANT
GPH	GALLONS PER HOUR	WMB	WASHING MACHINE BOX
GPM	GALLONS PER MINUTE	YH	YARD HYDRANT
HB	HOSE BIBB	ZV	ZONE VALVE
HP	HORSEPOWER	(A)	ITEM NOTED TO BE ABANDONED
I.E.	INVERT ELEVATION	(D)	ITEM NOTED TO BE DEMOLISHED
KW	KILOWATTS	(E)	EXISTING ITEM
LAV	LAVATORY	(N)	NEW ITEM
MAP	MASTER ALARM PANEL	(R)	ZFITEM NOTED TO RELOCATED
MECH	MECHANICAL		

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

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

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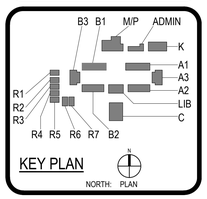
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LEAF ENGINEERS
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M38155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

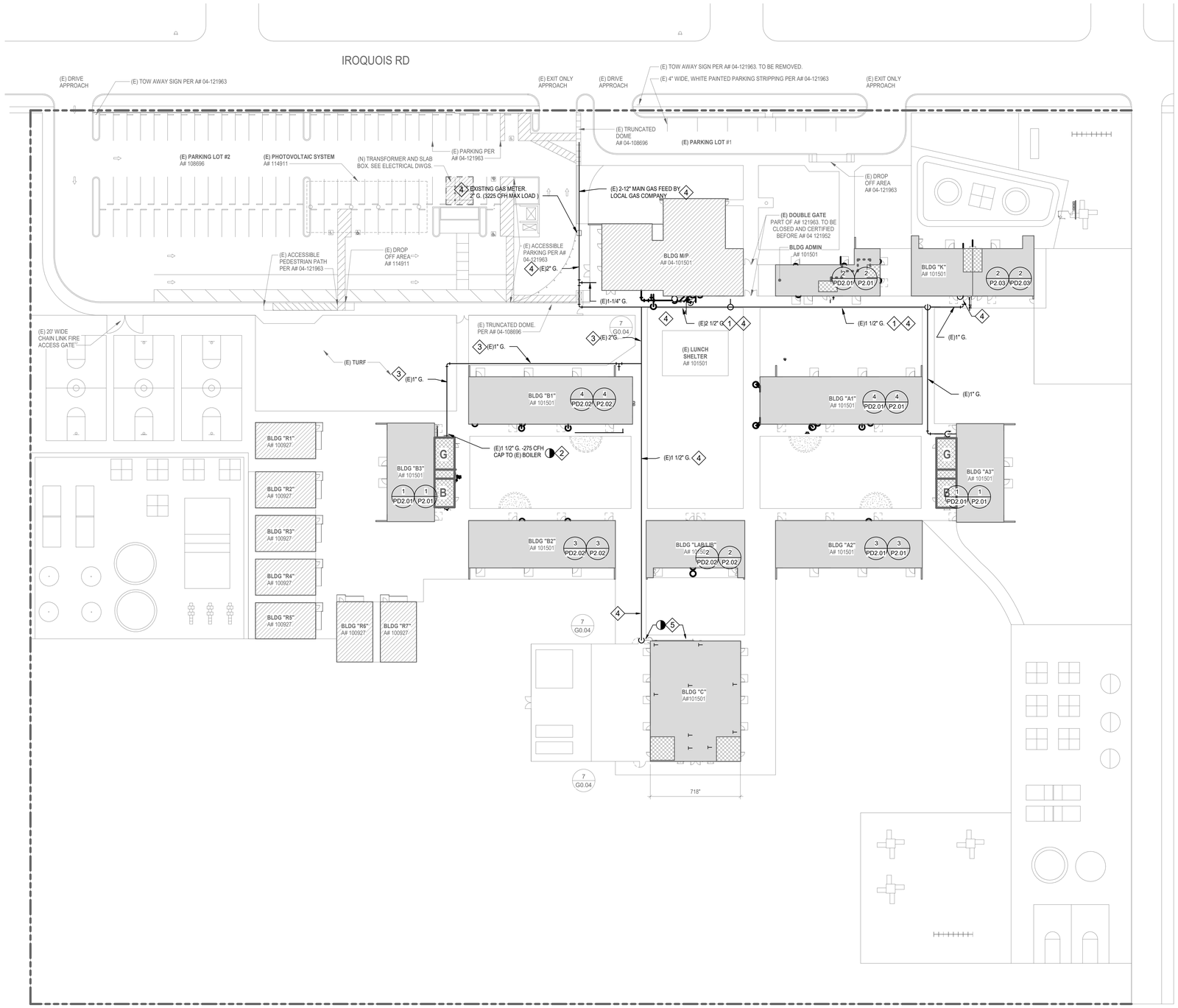
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PLUMBING SHEET INDEX, LEGENDS, AND NOTES

P0.00

P1.01 - PLUMBING SITE PLAN

0" 1"



KEY NOTES

1. PIPING LOCATED ON OVERHEAD COVERED WALKWAY
2. DISCONNECT AND REMOVE EXISTING 1-1/2" GAS LINE IN BOILER ROOM. CAP LINE OUTSIDE OF BUILDING ON OVERHEAD WALKWAY
3. EXISTING GAS TO BE REMOVED FROM OVERHEAD WALKWAY
4. EXISTING GAS TO REMAIN
5. EXISTING GAS TO BE REMOVED FROM OUTSIDE OF BUILDING. CAP ABOVE WALKWAY.

CONSTRUCTION NOTES

1. FOR CONTINUATION OF ALL UTILITIES SEE BUILDING AS-BUILTS
2. BEFORE COMMENCEMENT OF WORK , THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF ALL UTILITIES AND PIPING BY PHYSICAL EXCAVATION AND SHALL IMMEDIATLEY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES
3. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND POINTS OF CONNECTIONS PRIOR TO BIDDING THE PROJECT.
4. WHERE PLANS INDICATE NEW FIXTURES OR EQUIPMENT CONNECTING TO EXISTING SERVICES, PLUMBING CONTRACTOR SHALL MODIFY AND OR EXTEND EXISTING PIPING OR ROUGH INS AS REQUIRED TO SUIT THE NEW FIXTURE.

1 MECHANICAL SITE PLAN
1" = 30'-0"

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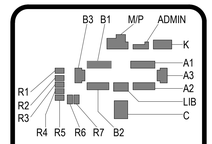
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KEY PLAN NORTH: PLAN

Consultant

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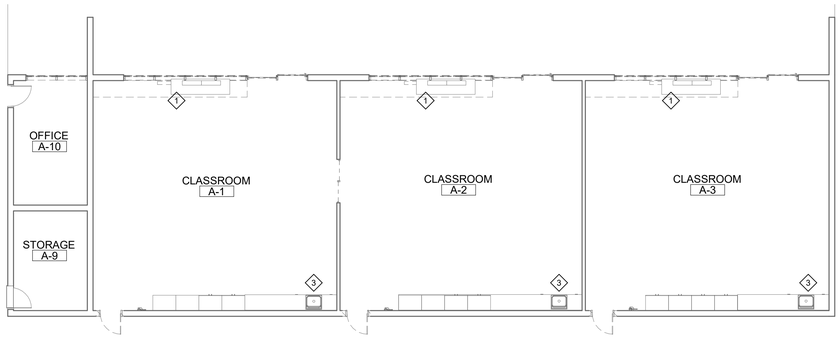
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PLUMBING SITE PLAN

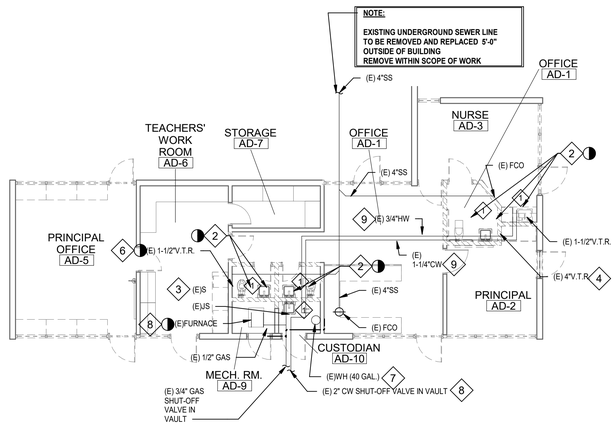
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PD2.01 - PLUMBING FLOOR PLANS - DEMO

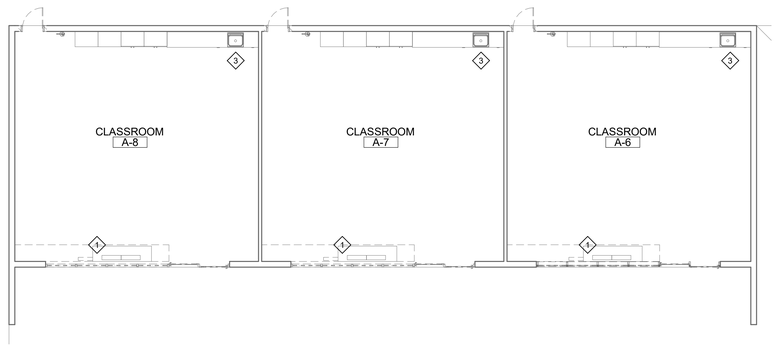
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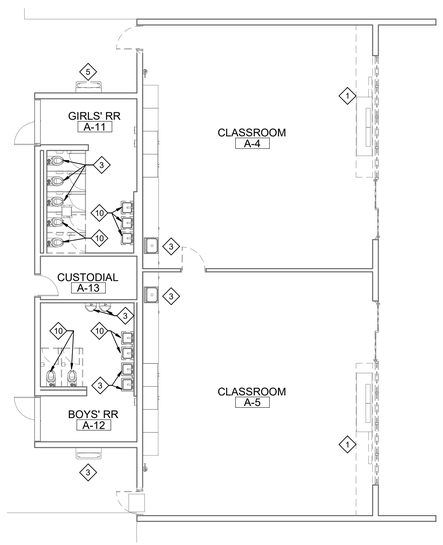
4 FLOOR PLAN DEMO - BLDG A-1
1/8" = 1'-0"



2 FLOOR PLAN DEMO - BLDG ADMIN
1/8" = 1'-0"



3 FLOOR PLAN DEMO - BLDG A-2
1/8" = 1'-0"



1 FLOOR PLAN DEMO - BLDG A-3
1/8" = 1'-0"

KEY NOTES

1. EXISTING HEATER UNIT TO BE REMOVED (SEE MECHANICAL DRAWINGS.)
2. EXISTING TOILET ROOM WALLS TO BE DEMOLISHED AND RECONFIGURED (PER ARCHITECTURAL DRAWINGS.) REMOVE PLUMBING FIXTURES. CAP EXISTING SEWER BELOW FLOOR, CAP VENT AND WATER LINE ABOVE CEILING.
3. EXISTING PLUMBING FIXTURE TO REMAIN
4. EXISTING VTR TO REMAIN
5. EXISTING DRINKING FOUNTAIN TO BE REMOVED AND REPLACED . CAP EXISTING UTILITIES TEMPORARILY FOR REPLACEMENT DRINKING FOUNTAIN W/ CHILLER.
6. EXISTING 1-1/2" VTR TO BE REMOVED AND REPLACED WITH NEW 2" VTR
7. EXISTING GAS WATER HEATER TO BE REMOVED, REMOVE ALL APPURTENENCES AND REPLACED. CAP (E) GAS LINE HIGH IN CEILING SPACE
8. REMOVE AND REPLACE EXISTING SHUT-OFF VALVE IN VAULT
9. EXISTING HOT AND COLD WATER PIPING TO BE REMOVED AND REPLACED
10. REMOVE PLUMBING FIXTURES. CAP EXISTING SEWER BELOW FLOOR, CAP VENT. CAP WATER LINE ABOVE CEILING.

CONSTRUCTION NOTES

1. FOR CONTINUATION OF ALL UTILITIES SEE BUILDING AS-BUILTS
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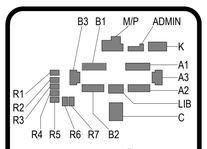
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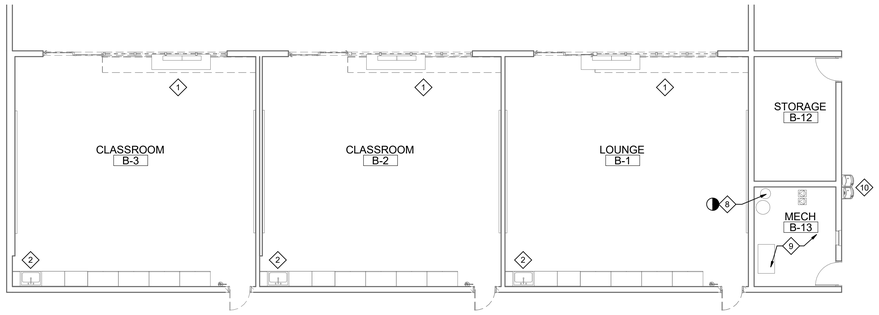
PLUMBING FLOOR PLANS - DEMO

PD2.01

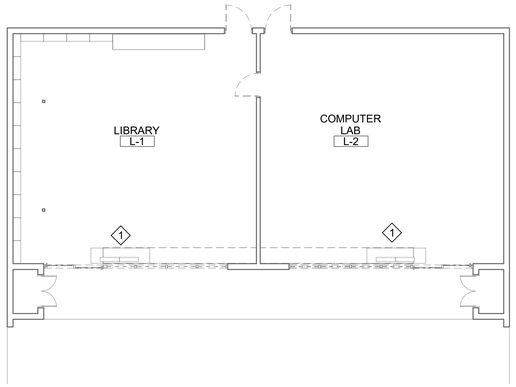
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PD2.02 - PLUMBING FLOOR PLANS - DEMO

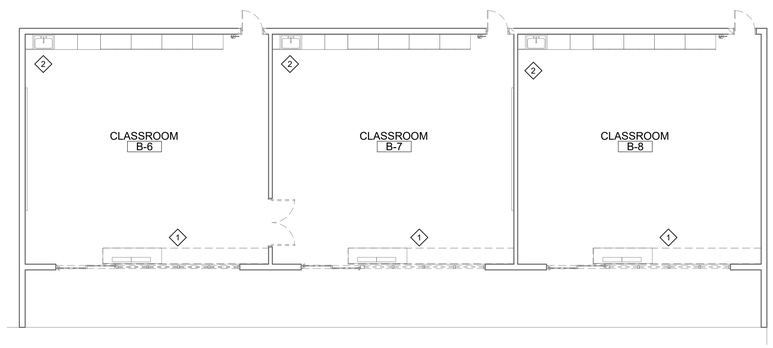
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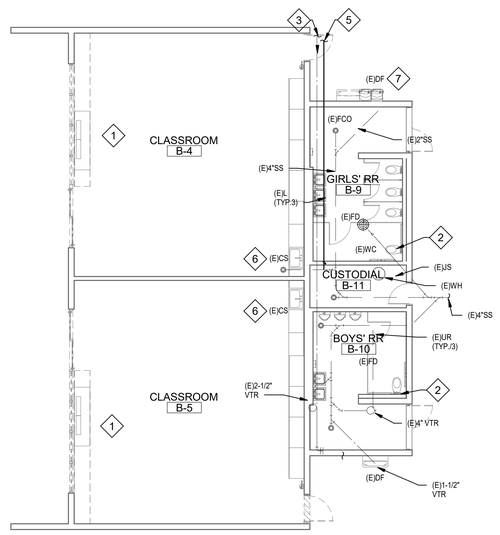
4 FLOOR PLAN DEMO - BLDG B-1
1/8" = 1'-0"



2 FLOOR PLAN DEMO - BLDG LAB/LIB
1/8" = 1'-0"



3 FLOOR PLAN DEMO - BLDG B-2
1/8" = 1'-0"



1 FLOOR PLAN DEMO - BLDG B-3
1/8" = 1'-0"

KEY NOTES

1. EXISTING HEATER UNIT TO BE REMOVED (SEE MECHAMICAL DRAWINGS)
2. EXISTING PLUMBING FIXTURES TO REMAIN
3. EXISTING 2-1/2" CW SUSPENDED ABOVE
4. EXISTING 1" CW SUSPENDED ABOVE
5. EXISTING 3/4" GAS SUSPENDEND ABOVE
6. EXISTING PLUMBING FIXTURES TO BE REMOVED AND REPLACED CAP EXISTING SEWER , VENT AND WATER LINE TEMPORARILY
7. EXISTING DRINKING FOUNTAIN REFER TO INTERIM PLUMBING PLAN P2.02
8. CAP EXISTING 1 1/2" GAS AND 2" MAKE UP WATER TO MECHANICAL BOILER
9. MECHANICAL EQUIPMENT TO BE DEMOLISHED. REFER TO HVAC PLANS.
10. EXISTING DRINKING FOUNTAIN TO BE REMOVED AND REPLACED. CAP EXISTING SEWER , VENT AND WATER LINE TEMPORARILY

CONSTRUCTION NOTES

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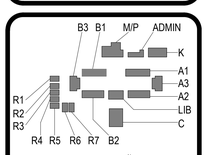
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
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MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
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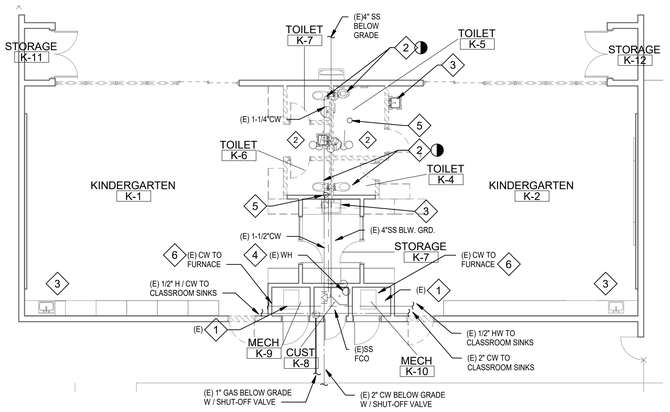
DSA Submittal

PLUMBING FLOOR PLANS - DEMO

PD2.02

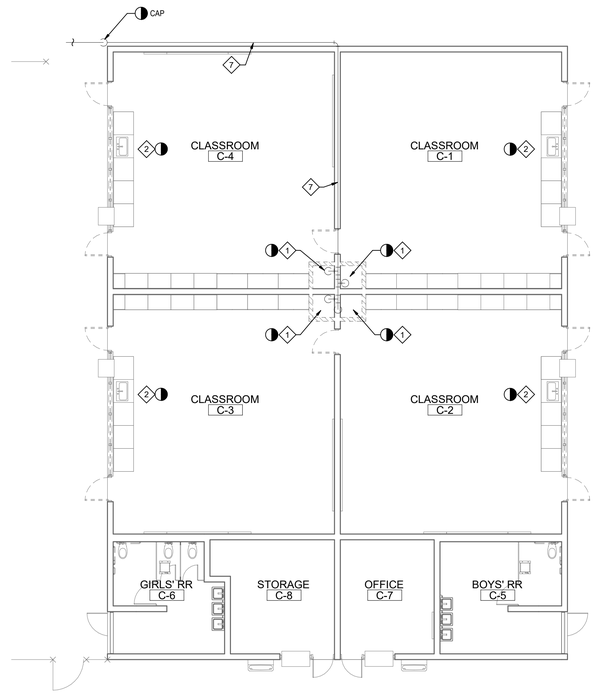
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0" 1"



2 FLOOR PLAN DEMO - BLDG K

1/8" = 1'-0"



1 FLOOR PLAN DEMO - BLDG C

1/8" = 1'-0"

KEY NOTES

1. EXISTING FLOOR MOUNTED FURNACE UNIT TO BE REMOVED . DISCONNECT AND REMOVE GAS SUPPLY AND ALL APPURTENANCES.
2. EXISTING PLUMBING FIXTURE TO BE REMOVED AND REPLACED. TEMPORARILY CAP EXISTING SEWER BELOW FLOOR, CAP VENT AND WATER LINE ABOVE CEILING.
3. EXISTING PLUMBING FIXTURES TO REMAIN
4. EXISTING WATER HEATER TO BE REMOVED AND REPLACED. CAP GAS LINE SERVING GAS WATER HEATER
5. EXISTING 4" VTR
6. CAP EXISTING GAS PIPING INSIDE CUSTODIAL ROOM AND INSIDE MECHANICAL ROOMS SERVING FURNACES
7. EXISTING GAS PIPING TO BE REMOVED

CONSTRUCTION NOTES

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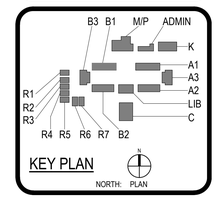
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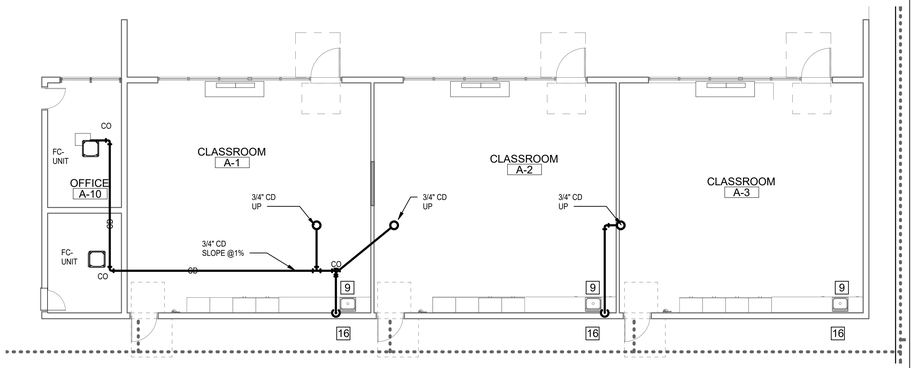
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PLUMBING FLOOR PLANS - DEMO

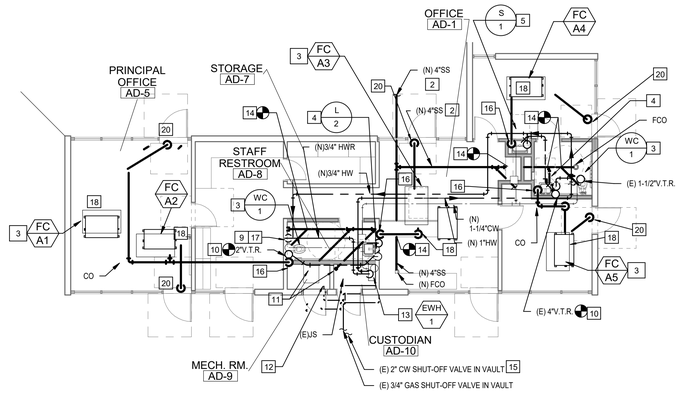
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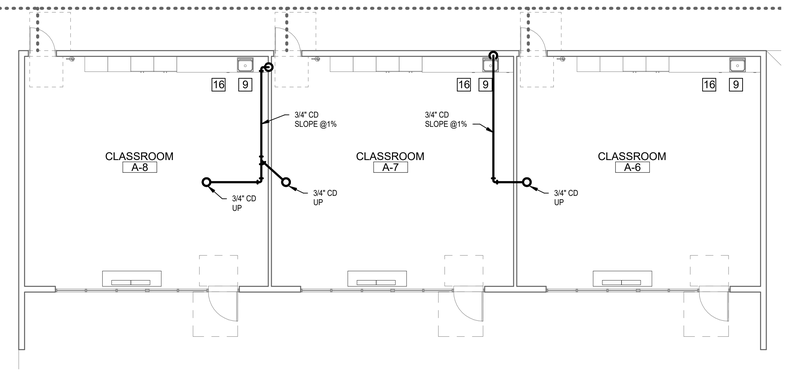
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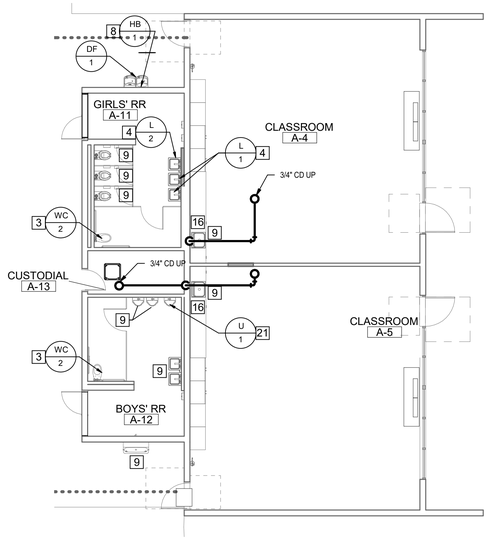
4 FLOOR PLAN -BLDG A-1
1/8" = 1'-0"



2 FLOOR PLAN -BLDG ADMIN
1/8" = 1'-0"



3 FLOOR PLAN -BLDG A-2
1/8" = 1'-0"



1 FLOOR PLAN -BLDG A-3
1/8" = 1'-0"

KEY NOTES

1. PIPING ABOVE IN CEILING SPACE
2. PIPING BELOW FLOOR / GRADE
3. PROVIDE 4" SANITARY SEWER , 2" VENT AND 1 -1/4" CW TO WATER CLOSET.
4. LAVATORY AND FAUCET TO BE INSTALLED ADA COMPLIANT. PLUMBING CONTRACTOR TO SUPPLY & INSTALL NEW ANGLE STOP, SINK SUPPLY, COMPLETE WITH LOOSE KEY, CHROME ESCUTCHEON PLATE COMPRESSION INLET, HEAVY DUTY OUTLET RISER. PROVIDE 2" SANITARY SEWER , 2" VENT AND 1/2" HI CW
5. SINK AND FAUCET TO BE INSTALLED ADA COMPLIANT. PLUMBING CONTRACTOR TO SUPPLY & INSTALL NEW ANGLE STOP, SINK SUPPLY, COMPLETE WITH LOOSE KEY, CHROME ESCUTCHEON PLATE COMPRESSION INLET, HEAVY DUTY OUTLET RISER. PROVIDE 2" SANITARY SEWER , 2" VENT AND 1/2" HI CW
6. P.O.C. NEW 1 1/4" COLD WATER LINE TO EXISTING COLD WATER LINE ABOVE IN CEILING SPACE. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION OF ANY PIPING
7. DRINKING FOUNTAIN POC TO (E) 2" SS AND 2" VENT AND (E) 3/4" CW .
8. CONTRACTOR SHALL UTILIZE EXISTING BORE THRU EXTERIOR WALL FOR NEW HOSE BIBB PIPING
9. EXISTING PLUMBING FIXTURE
10. POC TO EXISTING VENT ABOVE IN CEILING SPACE
11. EXISTING CAPPED SS BELOW GRADE
12. EXISTING CAPPED GAS LINE IN MECHANICAL ROOM
13. PROVIDE NEW 1" HW SUPPLY TO AND FROM WATER HEATER
14. POC TO EXISTING SS BELOW GRADE
15. PROVIDE NEW SHUT - OFF VALVE IN VAULT
16. 3/4" CONDENSATE FROM ABOVE. DROP DN. IN WALL TO LAV TAIL PIECE SEE DETAIL 01/ P6.02
17. RE-CONNECT 1/2" HOT WATER AND COLD WATER TO EXISTING SINK
18. NEW FAN COIL UNITS (BY MECHANICAL) PROVIDE CONDENSATE TRAP AND VENT AS REQUIRED SEE DETAIL 04 / P6.01
19. 3/4" SECONDARY DRAIN LINE OVERHEAD EXPOSED OVER DOORWAY
20. 3/4" SECONDARY DRAIN LINE OVERHEAD OVER DOORWAY. PROVIDE ESCUTHCHEON

CONSTRUCTION NOTES

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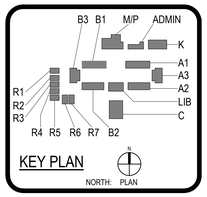
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REGISTERED PROFESSIONAL ENGINEER
REX DAVID NIANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

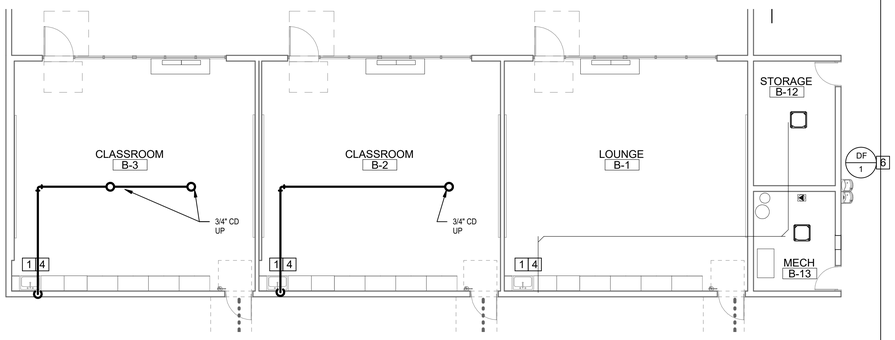
PLUMBING FLOOR PLANS

P2.01

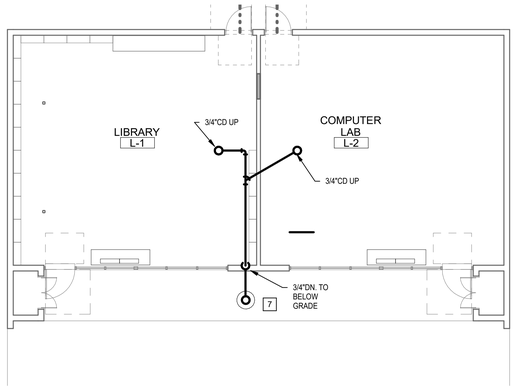
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P2.02 - PLUMBING FLOOR PLANS

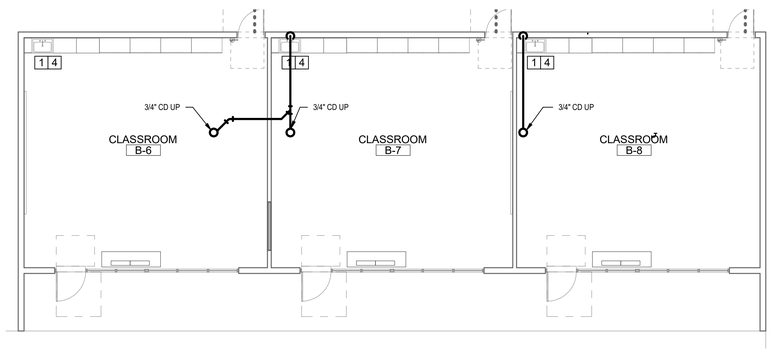
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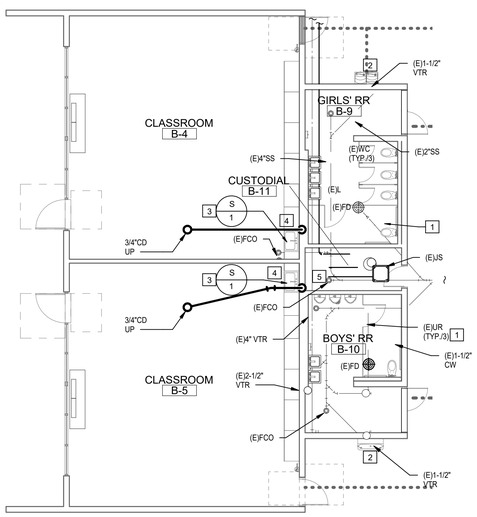
4 FLOOR PLAN -BLDG B-1
1/8" = 1'-0"



2 FLOOR PLAN -BLDG LAB/LIB
1/8" = 1'-0"



3 FLOOR PLAN -BLDG B-2
1/8" = 1'-0"



1 FLOOR PLAN -BLDG B-3
1/8" = 1'-0"

KEY NOTES

1. EXISTING PLUMBING FIXTURES TO REMAIN (N.I.C.)
2. DRINKING FOUNTAIN PER A#04-121963.
3. SINK AND FAUCET TO BE INSTALLED ADA COMPLIANT. PLUMBING CONTRACTOR TO SUPPLY & INSTALL NEW ANGLE STOP, SINK SUPPLY, COMPLETE WITH LOOSE KEY, CHROME ESCUTCHEON PLATE COMPRESSION INLET, HEAVY DUTY OUTLET RISER.. POC TO EXISTING 2" SS, 2" VENT AND 1/2" CW
4. 3/4" CONDENSATE FROM ABOVE. DROP DN. IN WALL TO LAV TAIL PIECE SEE DETAIL (1/P6.02)
5. 3/4" CONDENSATE FROM ABOVE SPILL TO JANITORS SINK
6. DRINKING FOUNTAIN POC TO (E) 2" SS AND 2" VENT AND (E) 3/4" CW .
7. 3/4" CONDENSATE LINE, TO EXTERIOR DRYWELL. SEE DRYWELL DETAIL ON SHEET (6/P6.01)

CONSTRUCTION NOTES

1. FOR CONTINUATION OF ALL UTILITIES SEE BUILDING AS-BUILTS
2. BEFORE COMMENCEMENT OF WORK , THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF ALL UTILITIES AND PIPING BY PHYSICAL EXCAVATION AND SHALL IMMEDIATLEY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES
3. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES AND POINTS OF CONNECTIONS PRIOR TO BIDDING THE PROJECT.
4. WHERE PLANS INDICATE NEW FIXTURES OR EQUIPMENT CONNECTING TO EXISTING SERVICES, PLUMBING CONTRACTOR SHALL MODIFY AND OR EXTEND EXISTING PIPING OR ROUGH INS AS REQUIRED TO SUIT THE NEW FIXTURE.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
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ANAHEIM
2400 E. Katella Ave., Suite 950
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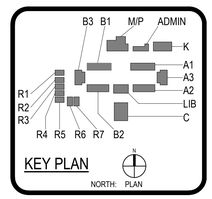
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8163 Rochester Avenue, Suite 100
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
ELECTRICAL
STATE OF CALIFORNIA

Architect

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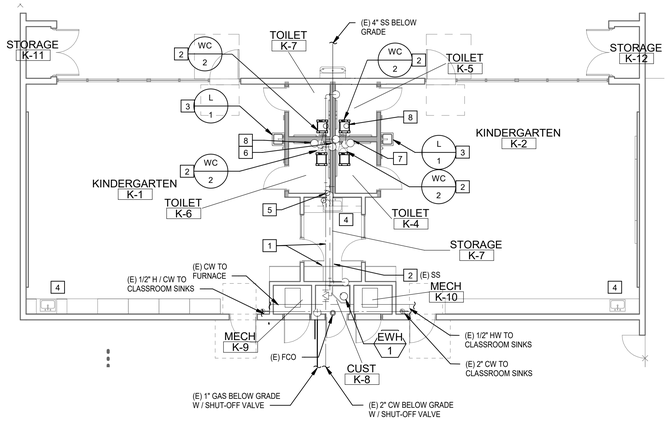
DSA Submittal

PLUMBING FLOOR PLANS

P2.02

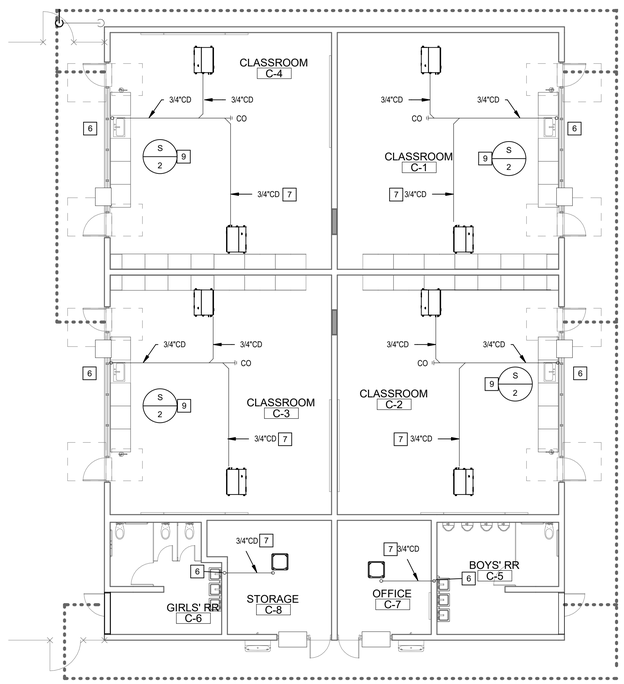
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0" 1"



2 FLOOR PLAN -BLDG K

1/8" = 1'-0"



1 FLOOR PLAN -BLDG C

1/8" = 1'-0"

KEY NOTES

1. PIPING ABOVE IN ATTIC SPACE
2. ROUGH IN AND CONNECT 4" SANITARY SEWER , 2" VENT AND 1 -1/4" C/W TO WATER CLOSET. WHERE PLANS INDICATE NEW FIXTURES OR EQUIPMENT CONNECTING TO EXISTING SERVICES, PLUMBING CONTRACTOR SHALL MODIFY AND/OR EXTEND EXISTING PIPING OR ROUGH-INS AS REQUIRED TO SUIT THE NEW FIXTURE.
3. LAVATORY AND FAUCET TO BE INSTALLED ADA COMPLIANT. PLUMBING CONTRACTOR TO SUPPLY & INSTALL NEW ANGLE STOP, SINK SUPPLY, COMPLETE WITH LOOSE KEY, CHROME ESCUTCHEON PLATE COMPRESSION INLET, HEAVY DUTY OUTLET RISER. ROUGH IN AND CONNECT 2" SANITARY SEWER , 2" VENT AND 1/2" H/ C/W. WHERE PLANS INDICATE NEW FIXTURES OR EQUIPMENT CONNECTING TO EXISTING SERVICES, PLUMBING CONTRACTOR SHALL MODIFY AND/OR EXTEND EXISTING PIPING OR ROUGH-INS AS REQUIRED TO SUIT THE NEW FIXTURE.
4. EXISTING PLUMBING FIXTURE
5. EXISTING VENT THROUGH ROOF
6. 3/4" CONDENSATE FROM ABOVE. DROP DN. IN WALL TO LAV TAIL PIECE SEE DETAIL 01/ P6.01
7. 3/4" CONDENSATE IN ATTIC SPACE SLOPE @ 1%
8. 3/4" CONDENSATE UP TO A/C UNIT ON ROOF.
9. SINK AND FAUCET TO BE INSTALLED ADA COMPLIANT. PLUMBING CONTRACTOR TO SUPPLY & INSTALL NEW ANGLE STOP, SINK SUPPLY, COMPLETE WITH LOOSE KEY, CHROME ESCUTCHEON PLATE COMPRESSION INLET, HEAVY DUTY OUTLET RISER. ROUGH IN AND CONNECT TO 2" SANITARY SEWER , 2" VENT AND 1/2" H/ C/W. WHERE PLANS INDICATE NEW FIXTURES OR EQUIPMENT CONNECTING TO EXISTING SERVICES, PLUMBING CONTRACTOR SHALL MODIFY AND/OR EXTEND EXISTING PIPING OR ROUGH-INS AS REQUIRED TO SUIT THE NEW FIXTURE.

CONSTRUCTION NOTES

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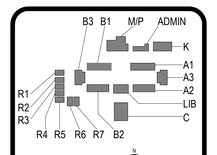
CONSULTANT LEAF Engineers
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leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

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WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
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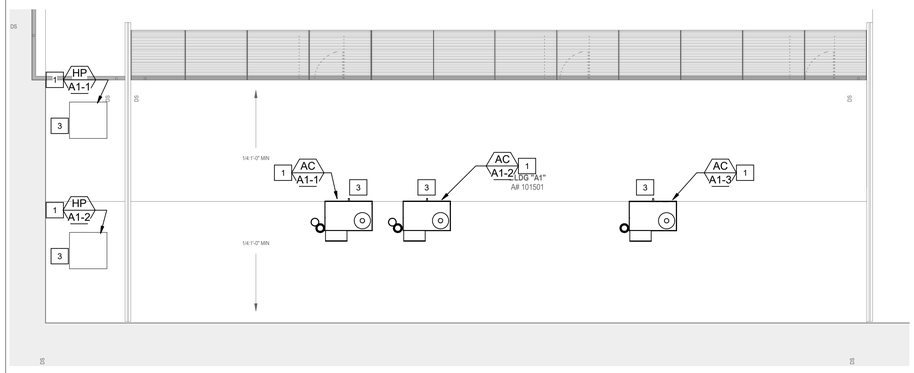
DSA Submittal

PLUMBING FLOOR PLANS

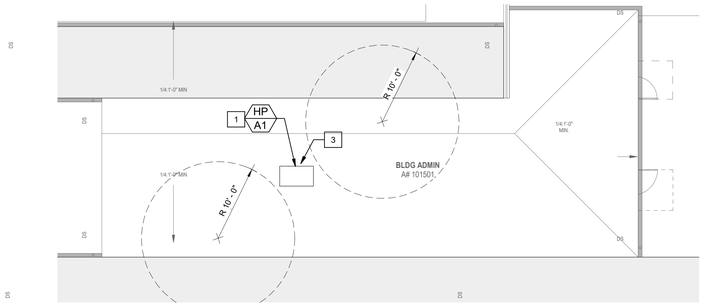
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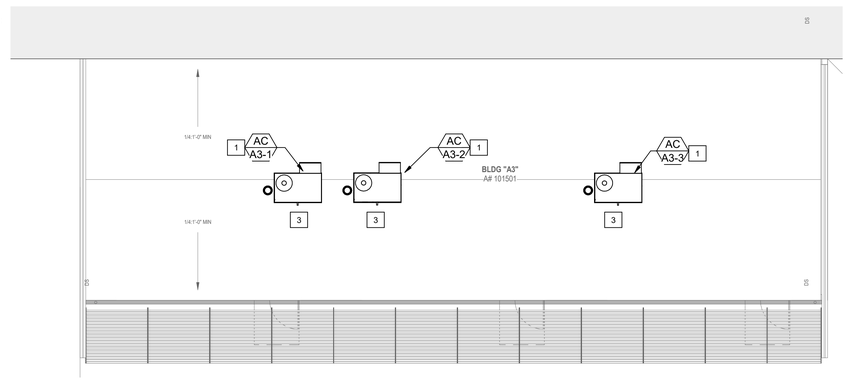
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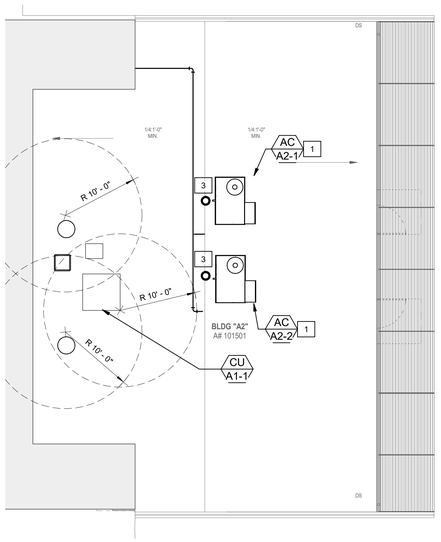
4 ROOF PLAN -BLDG A-1
1/8" = 1'-0"



2 ROOF PLAN -BLDG ADMIN
1/8" = 1'-0"



3 ROOF PLAN -BLDG A-2
1/8" = 1'-0"



1 ROOF PLAN -BLDG A-3
1/8" = 1'-0"

KEY NOTES

1. NEW A/C UNITS (BY MECHANICAL) PROVIDE 3/4" CONDENSATE LINE, TRAP AND VENT AS REQUIRED. SEE CONDENSATE DETAIL ON SHEET 01/P6.01
2. SLOPE PIPING @ 1%
3. 3/4" CONDENSATE DOWN. PENETRATE THROUGH ROOF TO CLASSROOM SINK TAILPIECE BELOW. 07/P6.01

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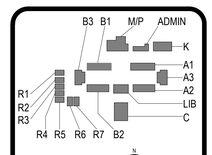
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Rancho Cucamonga, CA 91730
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
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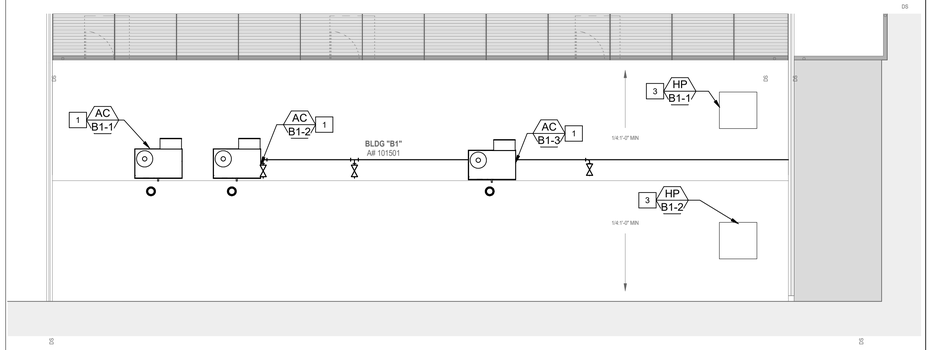
DSA Submittal

PLUMBING ROOF PLANS

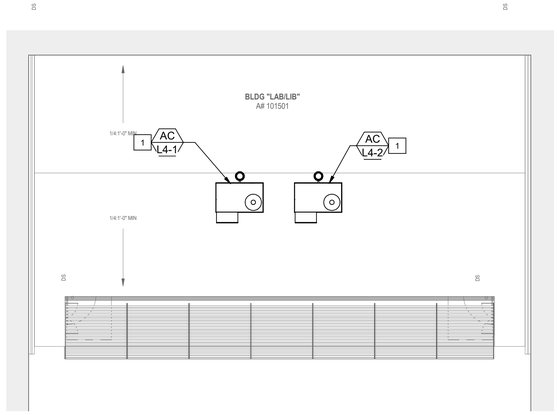
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P4.02 - PLUMBING ROOF PLANS

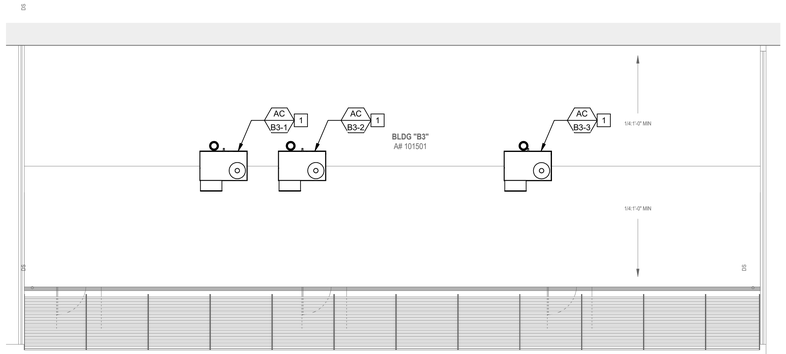
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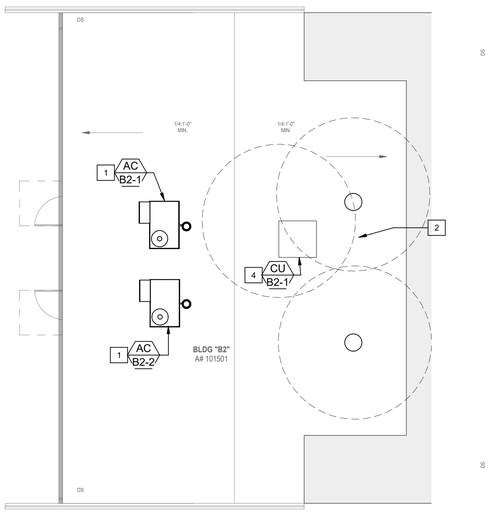
4 ROOF PLAN -BLDG B-1
1/8" = 1'-0"



2 ROOF PLANS -BLDG LAB/LIB
1/8" = 1'-0"



3 ROOF PLAN -BLDG B-2
1/8" = 1'-0"



1 ROOF PLAN -BLDG B-3
1/8" = 1'-0"

KEY NOTES

1. NEW A/C UNITS (BY MECHANICAL) PROVIDE 3/4" CONDENSATE LINE, TRAP AND VENT AS REQUIRED. SEE CONDENSATE DETAIL ON SHEET 01/P6.01
2. SLOPE PIPING @ 1%
3. 3/4" CONDENSATE DOWN. PENETRATE THROUGH ROOF TO CLASSROOM SINK TAILPIECE BELOW. 07/P6.01

CONSTRUCTION NOTES

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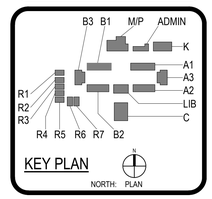
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

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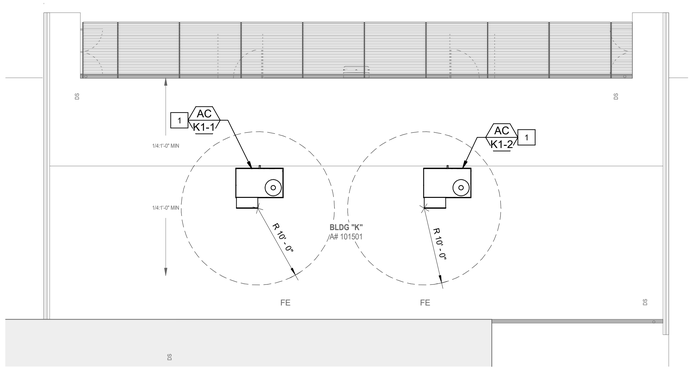
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PLUMBING ROOF PLANS

P4.02

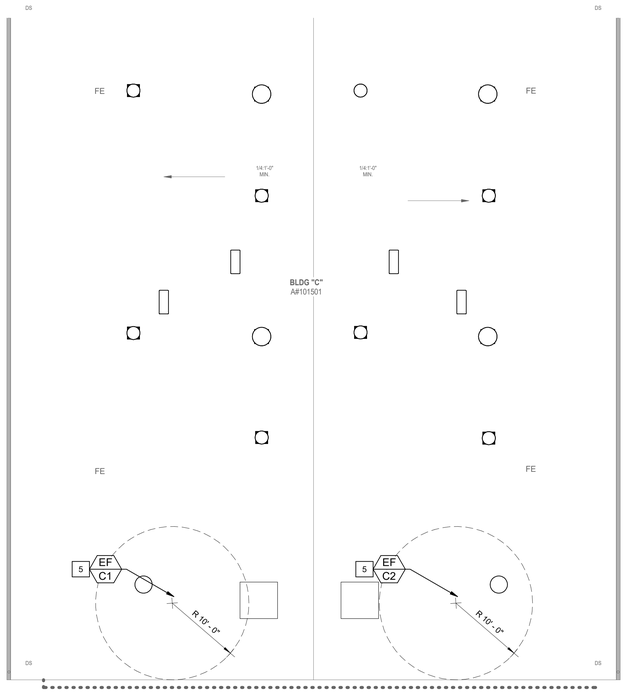
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0" 1"



2 ROOF PLAN -BLDG K

1/8" = 1'-0"



1 ROOF PLAN -BLDG C

1/8" = 1'-0"

KEY NOTES

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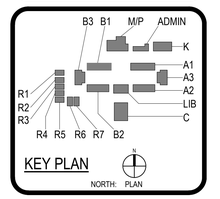
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PLUMBING ROOF PLANS

P4.03

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ELECTRIC WATER HEATER SCHEDULE

UNIT	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	INLET TEMP. °F	OUTLET TEMP. °F	ELEC. REQ.	DIMENSIONS	OPER. WT. (LBS)	REMARKS
EWH 1	CHRONOMITE R-48L / 208/ 3PH	ADMIN. JAN. RM & BLDG "K"	ADMIN. & BLDG. "K"	55	120	10 KW	9-7/8" (H) X 10-5/8" X 4-1/4"	10	T & P VALVE TO JANITORS SINK

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	S or W	V	CW	HW	DESCRIPTION
WC 1	WATER CLOSET (STAFF)	4"	2"	1-1/2"	---	AMERICAN STANDARD # 2859.128 AFWAL FLOWISE -WATER SENSE. WALL HUNG WITH ELONGATED BOWL. VITREOUS CHINA. 1.28 GPF SLOAN ROYAL # 111-1.28 GPF MANUAL FLUSH VALVE. OLSONITE 955SC WHITE ELONGATED OPEN FRONT SEAT LESSCOVER. J.R.SMITH SERIES 0100-0200 CARRIERS. BRASSCRAFT STOPS AND SUPPLIES. OR EQUAL PROVIDE ADJUSTABLE CARRIER. ACCESSIBLE COMPLIANT
WC 2	WATER CLOSET ((KINDER GARTEN) AGE 5-8	4"	2"	1-1/2"	---	AMERICAN STANDARD #2282.001 "BABY DEVORO" FLOWISE FLUSHOMETER VITREOUS CHINA TOILET, HIGH EFFICIENCYLOW CONSUMPTION, ELONGATED BOWL 10-1/4" HEIGHT COMPLETE WITH CHURCH TOILET SEAT #1580C OPEN FRONT SEAT LESS COVER WITH AMERICAN STANDARD #6047.121.002 MANUAL FLUSH VALVE AT 1.28 GPF.
U 1	URINAL	2"	2"	1"	---	AMERICAN STANDARD #6590.001 WASHBROOK FLOWISE WALL HUNG URINAL 0.125 GPF, VITREOUS CHINA. SLOAN ROYAL 186-0.125 GPF EXPOSED MANUAL FLUSH VALVE. JR. SMITH #0600 SERIES URINAL SUPPORTS.PROVIDE WALL CLEANOUTS ABOVE EA. URINAL (ACCESSIBLE)
S 1	SINK (STAFF)	2"	2"	1/2"	1/2"	JUST SL -ADA ,2225 - B - GR 18 GA STAINLESS STEEL , SINGLE COMPARTMENT , 25" X 22" X 0-1/2, 3-HOLE PUNCH WITH CHICAGO 1100-GN8AE35-369AB WRISTBLADE LEVER, FAUCET WITH 1.5 GPM FLOW RETRICTOR, J-35-FS PERFORATED GRID DRAIN , SPEEDWAY COMPRESSION WALL STOPS & SUPPLY, P-TRAP . SYMMONS "MAXLINE" NO. 7-225-CK-MS-BT-X THERMOSTATIC MIXING VALVE WITH STAINLES STEEL CABINET,CBC COMPLIANT FOR ACCESS.
S 2	CLASSROOM (BLDG."C")	2"	2"	1/2"	-	ELKAY CDKR2517VRC GR 18 GA STAINLESS STEEL , SINGLE COMPARTMENT , 25" X 17" X 6 7/8" , (REAR DRAIN) FAUCET WITH 1.5 GPM FLOW RETRICTOR, J-35-FS PERFORATED GRID DRAIN , SPEEDWAY COMPRESSION WALL STOPS & SUPPLY, P-TRAP , , CBC COMPLIANT FOR ACCESS. (OR EQUAL)
L 1	LAVATORY (KINDER GARTEN) AGE 5-8	2"	2"	1/2"	-	AMERICAN STANDARD NO. 0356.041"LUCERNE WALL HUNG LAVATORY" 20"X18" WALL HUNG, COMPLETE WITH FAUCET WITH 0.5 GPM AERATOR AND VANDAL RESISTANT COVER PLATE, MCGUIRE NO. 155A 1-1/4" OUTLET "OPEN GRID P.O. PLUG" MCGUIRE NO. PW8090NC0 1-1/4" L.A. PATTERN P-TRAP WITH TRAP AND SUPPLYCOVERS, GALVANIZED NIPPLE AND CHROMIUM PLATED BRASS CASING, CHICAGO NO. 1017 -ABCP LOOSE KEY STOPSWITH RIGID SUPPLIES, AND ZURN NO. Z-1231CARRIER WITH STEEL PLATE, MOUNT AT ACCESIBLE HEIGHT.
L 2	LAVATORY (STAFF)	2"	2"	1/2"	1/2"	AMERICAN STANDARD NO. 0356.028"LUCERNE WALL HUNG LAVATORY" 20"X18" WALL HUNG, COMPLETE WITH CHICAGO NO. 2200-448CP FAUCET WITH 0.5 GPM AERATOR AND VANDAL RESISTANT COVER PLATE, SYMMONS "MAXLINE" NO. 7-225-CK-MS-BT-X THERMOSTATIC MIXING VALVE WITH STAINLES STEEL CABINET, MCGUIRE NO. 155A 1-1/4" OUTLET "OPEN GRID P.O. PLUG" MCGUIRE NO. PW8090NC0 1-1/4" L.A. PATTERN P-TRAP WITH TRAP AND SUPPLYCOVERS, GALVANIZED NIPPLE AND CHROMIUM PLATED BRASS CASING, CHICAGO NO. 1017 -ABCP LOOSE KEY STOPS WITH RIGID SUPPLIES, AND ZURN NO. Z-1231CARRIER WITH STEEL PLATE,
WHA 1	WATER HAMMER ARRESTER	---	---	VARIES	VARIES	SIOUX CHIEF 650 SERIES HYDRA-RESTER, SEAMLESS COPPER CHAMBER SUITABLE FOR CONCEALED INSTALLATION. PDI SIZE INDICATED ON PLANS. INSTALL PER MANUFACTURER RECOMMENDATION.
HB 1	HOSE BIBB	---	---	3/4"	---	WOODFORD 24P-3/4 WITH WALL FLANGE AT WALLS; WOODFORD Y24 AT STAND PIPES.BRASS FAUCET, SHIELDED LOOSE KEY HANDLE, NON REMOVABLE VACUUM BREAKER, & ROUGH CHROME FINISH FOR OUTDOORS; POLISHED CHROME INDOORS.
DF 1	DRINKING FOUNTAIN	2"	2"	1/2"	---	ELKAY NO. LZS8WSLP / FILTERED SINGLE LZ COOLER, WALL MOUNTED. W TOUCHLESS BOTTLE FILLER EZH2O, W/ SOLENOID VALVE, CONTROLLED BY TRANSFORMER 115 / 60HZ / 4.2 FLA 14 GAUGE STAINLESS STEEL W/ INTEGRAL 1/4" STAINLESS STEEL MOUNTING PLATE, ADA APPROVED, COMPLETE WITH VANDAL PROOF BOTTOM CHICAGO NO. 45LKABCP ANGLE STOP W/ 1/2" FEMALE INLET & OUTLET. MOUNT AT ADA ACCESSIBLE HEIGHT.

NOTES:

1. ALL PLUMBING FIXTURES, FLUSH VALVES, FAUCETS, FLOOR DRAINS, FLOOR SINKS, DRINKING FOUNTAINS, ETC. SHALL BE VANDAL RESISTANT.
2. ALL PLUMBING FIXTURES SHALL COMPLY WITH CAL GREEN FLOW RATES FOR 20 PERCENT FLOW RATE REDUCTION PER TABLE 5.303.2.3.
3. COORDINATE ALL FIXTURES WITH ARCHITECT
4. FOR PLUMBING FIXTURE HEIGHTS REFER TO ARCHITECT PLAN G0.04

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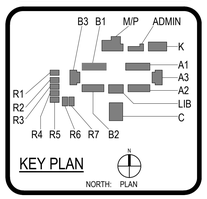
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN

PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

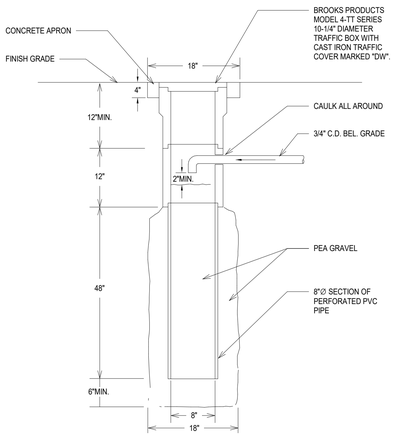
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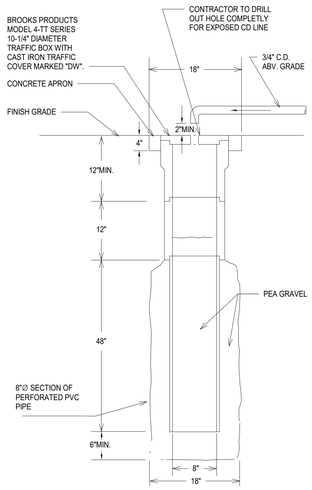
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PLUMBING SCHEDULES

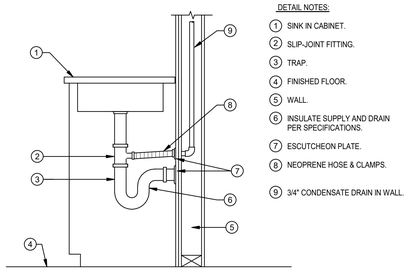
P5.01

0" 1"





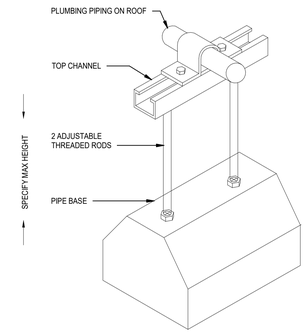
6 DRY WELL DETAIL
12" = 1'-0"



DETAIL NOTES:

1. SINK IN CABINET.
2. SLIP-JOINT FITTING.
3. TRAP.
4. FINISHED FLOOR.
5. WALL.
6. INSULATE SUPPLY AND DRAIN PER SPECIFICATIONS.
7. ESCUTCHEON PLATE.
8. NEOPRENE HOSE & CLAMPS.
9. 3/4" CONDENSATE DRAIN IN WALL.

7 CONDENSATE TO TAILPIECE DETAIL
12" = 1'-0"



NOTES:

1. ALL PIPING ON ROOF SHALL BE SUPPORTED BY COOPER B-LINE DURA-BLOCK ROOFTOP SUPPORT MODEL NO. DBE 10-16 WITH CLDP 10 LOAD DISTRIBUTION PLATE. DIMENSIONS: ADJUSTABLE HEIGHT x WIDTH x LENGTH - 5/12-16"x6"x9.6" TOTAL WEIGHT: 5.76 LBS. TOTAL LOAD RATED FOR 200 LBS.
2. CONSTRUCTION: BASE WITH (2) 1/2" ELECTRO ZINC ALL THREADED ROD RISERS TOP CHANNEL IS 1" TALL. BASE IS CONSTRUCTED OF 100% RECYCLE RUBBER, UV RESISTANT.
3. PAINT PVC CONDENSATE DRAIN PIPE WITH APPROVED ULTRA VIOLET RESISTANT PAINT, VERIFY ARCHITECT FOR COLOR.
4. PROVIDE SPEARS PVC PIPE SCHEDULE 80 CONDENSATE DRAIN OR APPROVED EQUAL.

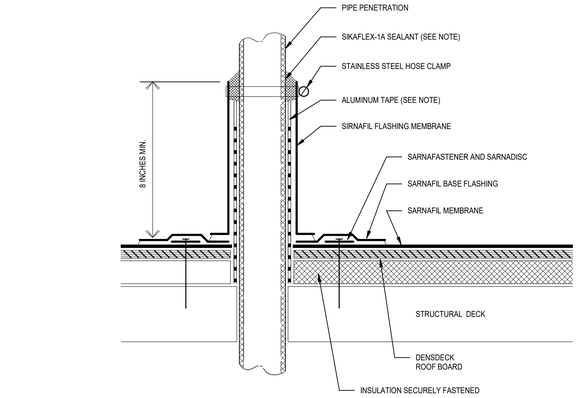
3 CONDENSATE DRAIN ROOF SUPPORT
12" = 1'-0"

TYPICAL SEISMIC BRACING FOR PIPE

PIPE SIZE	* CHANNEL BRACE	ROD SIZE	MAX. VERT. SUPPORT SPACING	MAX. TRANS./ LONGITUDE SUPPORT SPACING	ANCHOR BOLT SIZE	ANGLE CLIP
1/2"	1-5/8"x1-5/8"x12 GA	1/4"	5'	10'	1/4"	2"x2"x1/8"x0'-2"
3/4"	1-5/8"x1-5/8"x12 GA	1/4"	6'	12'	3/8"	2"x2"x1/8"x0'-2"
1"	1-5/8"x1-5/8"x12 GA	3/8"	7'	14'	3/8"	3"x3"x1/4"x0'-3"
1-1/4"	1-5/8"x1-5/8"x12 GA	3/8"	8'	16'	3/8"	3"x3"x1/4"x0'-3"
1-1/2"	1-5/8"x1-5/8"x12 GA	3/8"	9'	18'	3/8"	3"x3"x1/4"x0'-3"
2"	1-5/8"x1-5/8"x12 GA	3/8"	10'	20'	3/8"	3"x3"x1/4"x0'-3"
2-1/2"	1-5/8"x1-5/8"x12 GA	3/8"	10'	22'	3/8"	3"x3"x1/4"x0'-3"
3", 4"	1-5/8"x1-5/8"x12 GA	3/8"	11'	24'	1/2"	3"x3"x1/4"x0'-3"

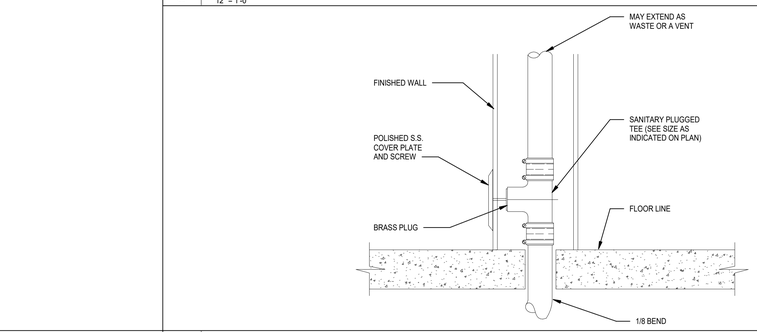
* CHANNEL MAX. 5'-0" LENGTH

5 PIPE SEISMIC BRACING DETAIL
12" = 1'-0"

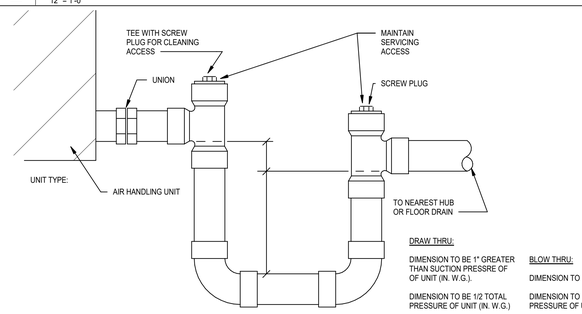


NOTES:
1. ALUMINUM TAPE IS REQUIRED IF EXISTING PENETRATION IS CONTAMINATED.
2. SEALANT IS A MAINTENANCE ITEM, MAINTENANCE IS NOT COVERED UNDER THE SARNAFIL WARRANTY.

2 PIPE PENETRATION FLASHING
12" = 1'-0"



4 WALL CLEANOUT DETAIL
N.T.S



DRAW THRU:

DIMENSION TO BE 1" GREATER THAN SUCTION PRESSRE OF OF UNIT (IN. W.G.).

DIMENSION TO BE 1/2 TOTAL PRESSURE OF UNIT (IN. W.G.)

BLOW THRU:

DIMENSION TO BE 1"

DIMENSION TO BE EQUAL TO TOTAL PRESSURE OF UNIT (IN. W.G.)

1 CONDENSATE TRAP PIPING DETAIL
12" = 1'-0"

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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

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DSA Submittal

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER REX DAVID WANDELL No.M36155 Exp.09-30-2024 CHANTICO STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA Submittal

PLUMBING DETAILS

P6.01

0" 1"

DEVICE SCHEDULE

SYMBOL	DESCRIPTION	MODEL	MANUFACTURER	BACKBOX	MOUNTING HEIGHT	C.S.F.M. NUMBER
FACP	NEW FIRE ALARM CONTROL PANEL AND VOICE EVAC MICROPHONE	IFP-2100ECS ECS-RPU	FARENHYT BY SILENT KNIGHT	PROVIDED		7165-0559:0505 7300-0559:0175
ANN	FIRE ALARM ANUNCIATOR	RA-2000	FARENHYT BY SILENT KNIGHT	N/A		7165-0559:0135
FATC	FIRE ALARM TERMINAL CABINET	N/A	BY ELECTRICAL CONTRACTOR	N/A		N/A
FAPS	FIRE ALARM POWER SUPPLY	RPS-1000	FARENHYT BY SILENT KNIGHT	N/A		7165-0559:0135
AMP	FIRE ALARM AMPLIFIER	ECS-DUAL50W	FARENHYT BY SILENT KNIGHT	N/A		7300-0559:0173
SM	AUDIBLE/VISUAL SYNC MODULE	MDL3	SILENT KNIGHT	5S DEEP BOX W/ 5S EXTENSION		7300-1653:0202
S P	ADDRESSABLE AREA SMOKE DETECTOR (PHOTOELECTRIC)	IDP-PHOTO B300-6	FARENHYT BY SILENT KNIGHT	4S DEEP BOX W/ 3-0 RING	CEILING	7272-0559:0149 7300-1653:0109
! A / !	ADDRESSABLE AREA HEAT DETECTOR	IDP-HEAT-HT-W B300-6	FARENHYT BY SILENT KNIGHT	4S DEEP BOX W/ 3-0 RING	ATTIC/ CEILING	7270-0559:0147 7300-1653:0109
F	FIRE ALARM ADDRESSABLE MANUAL PULL STATION	IDP-PULL-DA	FARENHYT BY SILENT KNIGHT	4S DEEP BOX W/ 3-0 RING		7150-0559:0140
CR	FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE	IDP-RELAY	FARENHYT BY SILENT KNIGHT	4S DEEP BOX W/ 3-0 RING		7300-0559:0155
WP	FIRE ALARM EXTERIOR WEATHERPROOF SPEAKER	SPRK	SYSTEM SENSOR	4S DEEP BOX W/ 4S EXTENSION		7320-1653:0201
	FIRE ALARM CEILING MOUNTED SPEAKER/STROBE	SPSCRL	SYSTEM SENSOR	4S DEEP BOX W/ 4S EXTENSION		7320-1653:0505
	FIRE ALARM CEILING MOUNTED STROBE	SCW	SYSTEM SENSOR	4S DEEP BOX W/ 4S EXTENSION		7125-1653:0186
JB	FIRE ALARM JUNCTION BOX	N/A	BY ELECTRICAL CONTRACTOR	N/A		N/A
EOL	END OF LINE RESISTOR	N/A	N/A	N/A		N/A
M	FIRE ALARM ADDRESSABLE MONITOR MODULE	IDP-MONITOR	FARENHYT BY SILENT KNIGHT	4S DEEP BOX W/ 3-0 RING		7300-0559:0155

LEGENDS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A OR AMP	AMPERES	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	NO.	NUMBER
AIC	AMPERES INTERRUPTING CAPACITY	PH. OR Ø	PHASE
ARCH.	ARCHITECT; ARCHITECTURAL	PNL	PANEL
AWG	AMERICAN WIRE GAUGE	PWR	POWER
C	CONDUIT	REC/RECEPT	RECEPTACLE
CKT	CIRCUIT	REQ'D	REQUIRED
CL.	CEILING MOUNTED DEVICE	RM	ROOM
C.O.	CONDUIT ONLY WITH PULL WIRE	SF	SQUARE FEET
CU	COPPER	SHT	SHEET
DWG	DRAWING	SP	SINGLE POLE
ER	EXISTING DEVICE TO BE REMOVED	SPECS	SPECIFICATIONS
EMT	ELECTRICAL METALLIC TUBING	SW	SWITCH
EQUIP	EQUIPMENT	TYP	TYPICAL
EXIST / (E)	EXISTING	UG	UNDERGROUND
FIN.	FINISH	U.O.N.	UNLESS OTHERWISE NOTED
FLR	FLOOR	V	VOLTS
FT	FEET	V-A	VOLT-AMPERES
GFI	GROUND FAULT INTERRUPTER	W	WATTS
GND	GROUND	W/	WITH
LTG.	LIGHTING	W/O	WITHOUT
MTG	MOUNTING	WP	WEATHERPROOF
N	NEW	CEC	CALIFORNIA ELECTRICAL CODE
FS	FLOW SWITCH		
JB	JUNCTION BOX		
PIV	POST INDICATOR VALVE		
TS	TEMPER SWITCH		
	PULL BOX (WEATHERPROOF)		
##	RISER UP AND DOWN		

APPLICABLE CODES

PARTIAL LIST OF APPLICABLE CODES:
2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR
2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR
TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

PARTIAL LIST OF APPLICABLE STANDARDS
NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED): 2022 EDITION
NFPA 720 STANDARD FOR THE INSTALLATION OF CARBON MONOXIDE DETECTION AND WARNING EQUIPMENT; 2015 EDITION
NFPA 80 STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES; 2019 EDITION
UL 464 AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES; 2003 EDITION
UL 521 STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS; 1999 EDITION
UL 1971 STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED; 2018 EDITION (R2010)

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2022 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80.

SEE CALIFORNIA BUILDING CODE, CHAPTER 35, FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

DRAWING INDEX

SHEET	DESCRIPTION
FA0.00	FIRE ALARM SYMBOLS, LEGENEDS & GENERAL NOTES
FA1.01	FIRE ALARM SITE PLAN
FA2.01	FIRE ALARM FLOOR PLANS
FA2.02	FIRE ALARM FLOOR PLANS
FA2.03	FIRE ALARM FLOOR PLANS
FA2.04	FIRE ALARM FLOOR PLAN - BLDG M/P
FA5.01	FIRE ALARM RISER DIAGRAM
FA5.02	FIRE ALARM CALCULATIONS
FA6.01	FIRE ALARM DETAILS

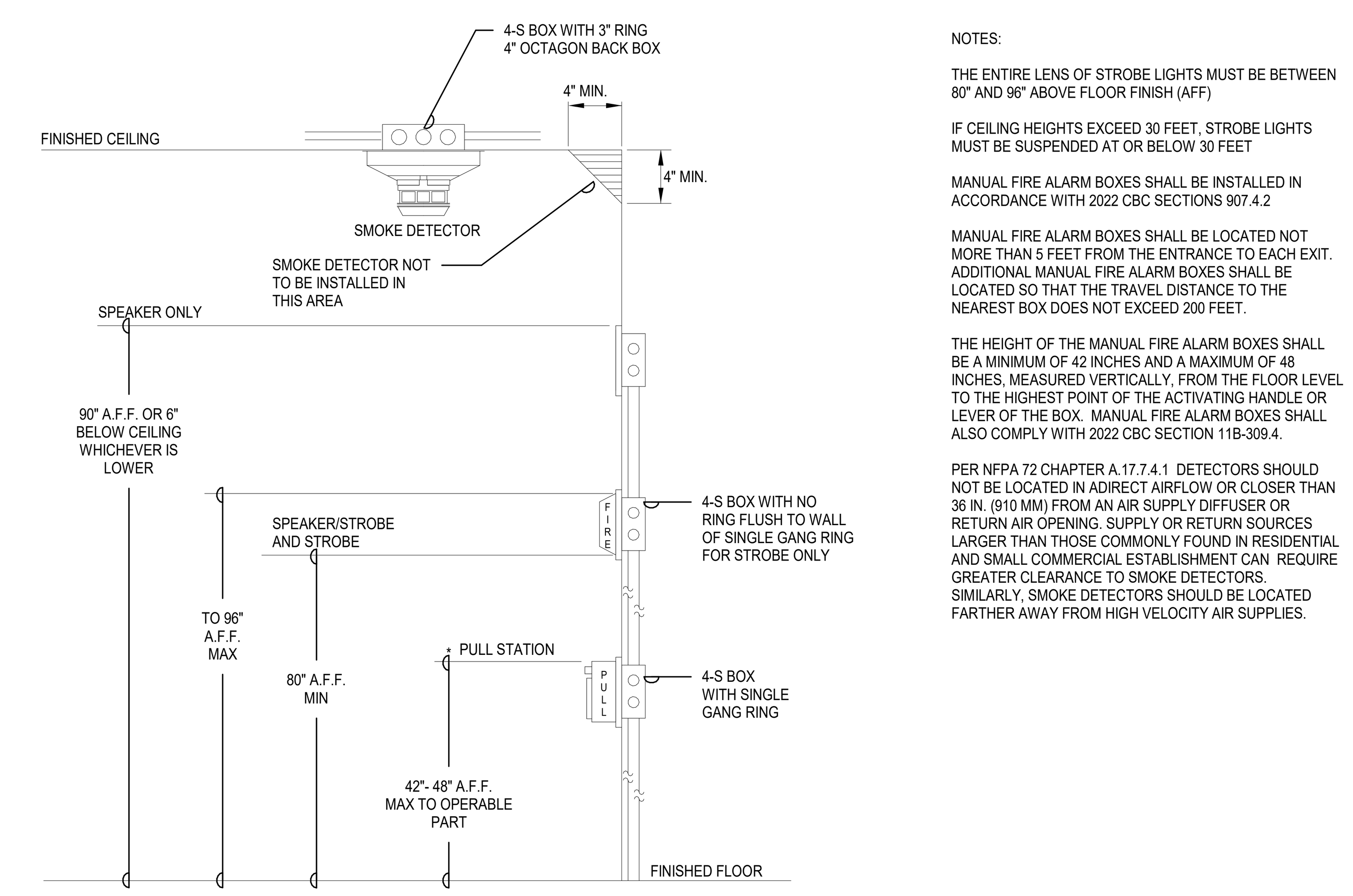
FIRE WATCH NOTE

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

SCOPE OF WORK

PROVIDE COMPLETE FULL AUTOMATIC ADDRESSABLE FIRE ALARM SYSTEM WITHIN THE AREA OF WORK. PROVIDE FIRE ALARM SYSTEM DEVICES AS SHOWN IN EQUIPMENT LEGEND, FLOOR PLANS, AND SPECIFICATIONS IN THIS CONSTRUCTION DOCUMENT SET. USE NEW FIRE ALARM CONTROL PANEL TO CONNECT NEW FIRE ALARM SYSTEM DEVICES SHOWN PER DRAWING AND SPECIFICATION DOCUMENT. UPON COMPLETION, A COMPLETE PRE TEST SHALL BE PERFORMED TO VERIFY FUNCTIONALITY, IF FUNCTIONALITY IS COMPLETE THEN THE PROPER DOCUMENTATION SHALL BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION PRIOR TO SCHEDULING A FINAL INSPECTION.

ELEVATION MOUNTING DETAIL



NOTES:

THE ENTIRE LENS OF STROBE LIGHTS MUST BE BETWEEN 80" AND 96" ABOVE FLOOR FINISH (AFF)

IF CEILING HEIGHTS EXCEED 30 FEET, STROBE LIGHTS MUST BE SUSPENDED AT OR BELOW 30 FEET

MANUAL FIRE ALARM BOXES SHALL BE INSTALLED IN ACCORDANCE WITH 2022 CBC SECTIONS 907.4.2

MANUAL FIRE ALARM BOXES SHALL BE LOCATED NOT MORE THAN 5 FEET FROM THE ENTRANCE TO EACH EXIT. ADDITIONAL MANUAL FIRE ALARM BOXES SHALL BE LOCATED SO THAT THE TRAVEL DISTANCE TO THE NEAREST BOX DOES NOT EXCEED 200 FEET.

THE HEIGHT OF THE MANUAL FIRE ALARM BOXES SHALL BE A MINIMUM OF 42 INCHES AND A MAXIMUM OF 48 INCHES, MEASURED VERTICALLY, FROM THE FLOOR LEVEL TO THE HIGHEST POINT OF THE ACTIVATING HANDLE OR LEVER OF THE BOX. MANUAL FIRE ALARM BOXES SHALL ALSO COMPLY WITH 2022 CBC SECTION 11B-309.4.

PER NFPA 72 CHAPTER A.17.7.4.1 DETECTORS SHOULD NOT BE LOCATED IN ADIRECT AIRFLOW OR CLOSER THAN 36 IN. (910 MM) FROM AN AIR SUPPLY DIFFUSER OR RETURN AIR OPENING. SUPPLY OR RETURN SOURCES LARGER THAN THOSE COMMONLY FOUND IN RESIDENTIAL AND SMALL COMMERCIAL ESTABLISHMENT CAN REQUIRE GREATER CLEARANCE TO SMOKE DETECTORS. SIMILARLY, SMOKE DETECTORS SHOULD BE LOCATED FARTHER AWAY FROM HIGH VELOCITY AIR SUPPLIES.

SEQUENCE OF OPERATIONS

ACTION \ DEVICE	MANUAL PULL STATION	AREA SMOKE DETECTOR	HEAT DETECTOR	120VAC POWER FAILURE	SHORT CIRCUIT	GROUND FAULT	BATTERY FAILURE
SOUND ALARM AT "FACP"	**YES**	**YES**	**YES**	NO	NO	NO	NO
SOUND TROUBLE BUZZER AT "FACP"	NO	NO	NO	**YES**	**YES**	**YES**	**YES**
ANNUNCIATE AT "FACP" AND THE REMOTE ANNUNCIATOR (ALARM OR TROUBLE)	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
ACTIVATE AUDIBLE / VISUAL ALARM SIGNAL THROUGHOUT BUILDING	**YES**	**YES**	**YES**	NO	NO	NO	NO
ACTIVATE HVAC UNIT SHUTDOWN AND/ OR CLOSE COMBINATION FIRE/SMOKE DAMPERS	NO	**YES**	**YES**	NO	NO	NO	NO
ACTIVATE SIGNAL FOR OFF-SITE MONITORING	**YES**	**YES**	**YES**	**YES**	NO	NO	NO
MUTE AUTONOMOUS LOCAL SOUND SYSTEM	**YES**	**YES**	**YES**	**YES**	NO	NO	NO

ANCHORAGE AND BRACING NOTES

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

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

MEP COMPONENT ANCHORAGE NOTE

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

THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30:
1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

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

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

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

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

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

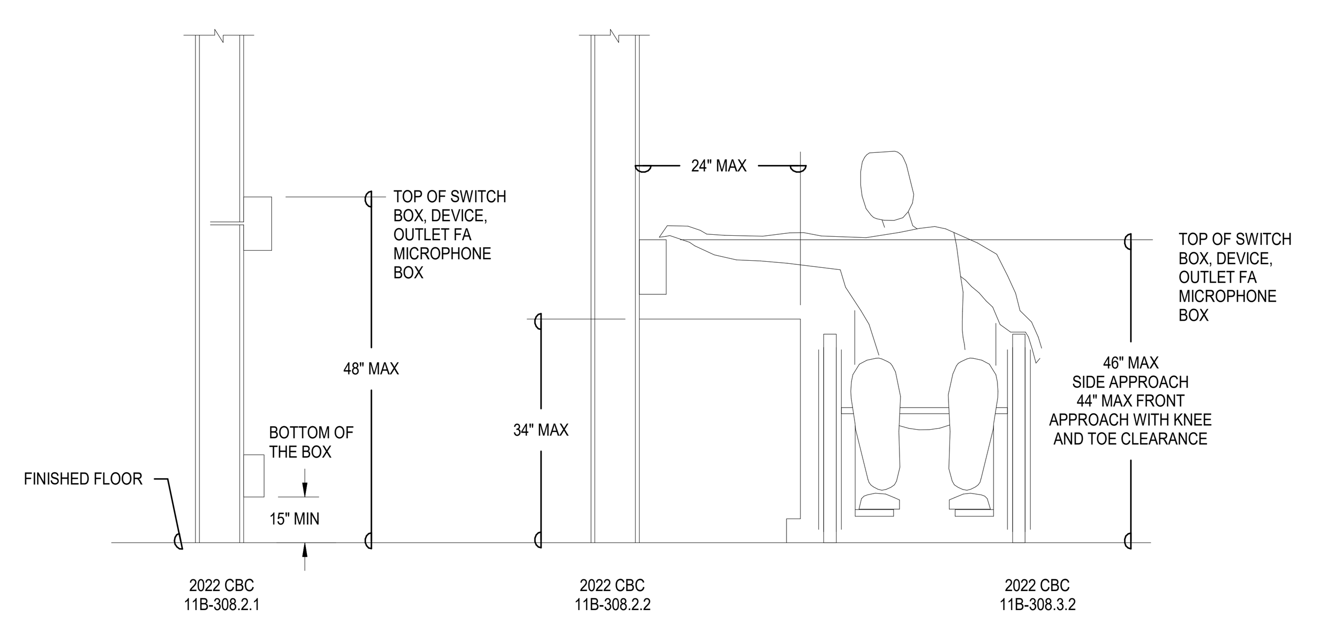
MECHANICALPIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

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

GENERAL NOTES

1. APPLICABLE STANDARD 2022, NFPA 72, AS ADOPTED AND AMENDED IN CBC CHAPTER 35
2. INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHALL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM, HAS BEEN APPROVED BY DSA.
3. UPON COMPLETION OF SYSTEM INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.
4. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
6. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR TESTING.
8. WALL MOUNTED VISIBLE NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR.
9. WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6" TO A HORIZONTAL STRUCTURE.
10. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (DBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR FIVE DBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIABLE SPACE WITHIN THE BUILDING.
11. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.
12. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
13. VISIBLE DEVICES SHOULD NOT EXCEED TWO FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISIBLE DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
14. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
15. ALL FIRE ALARM WIRING SHALL BE FPLOR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE TYPE THHN OR THWN.
16. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE SIZED PER CEC.
17. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM, DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
18. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS.
19. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
20. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
21. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL." CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
22. THE INSTALLING CONTRACTOR SHALL PROVIDE A COMPLETED "SYSTEM RECORD OF COMPLETION" PER NFPA 72, FIGURE 7.8.2.
23. FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" ABOVE THE FINISHED FLOOR.
24. MICROPHONES ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (EVAC) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308.
25. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.
26. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
27. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
29. ALL EQUIPMENT SHALL BE U.L. AND C.S.F.M. LISTED.
30. ELECTRICAL CONTRACTOR SHALL FURNISH ACCESS PANELS TO AREAS THAT REQUIRE ACCESS FOR ATTIC HEAT DETECTOR, SERVICING, TROUBLESHOOTING, ETC.
31. DO NOT DEVIATE FROM CONDUIT RUNS AS SHOWN ON FLOOR PLANS WITHOUT PRIOR APPROVAL FROM SYSTEM SUPPLIER. FACTORS SUCH AS EXCESSIVE VOLTAGE DROP, ADDITIONAL PARTS, ENGINEERING, ETC., THAT ARE A RESULT OF CONDUIT RUN DEVIATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
32. ALL FAN SHUTDOWN FUNCTIONS, DAMPER CLOSURES, AND ASSOCIATED MECHANICAL SYSTEM FIRE ALARM I NTERFACE SHALL BE BY MECHANICAL CONTRACTOR.
34. ALL 120VAC POWER REQUIREMENTS FOR THE FIRE ALARM SYSTEM SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR AND SHALL MEET ALL REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
35. ALL FIRE ALARM DEVICE BACKBOXES, FIRE ALARM TERMINAL CABINETS, GUTTERS, JUNCTION BOXES, AND ASSOCIATED CONDUITS SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. REFER TO FIRE ALARM SYMBOL LIST AND/OR MOUNTING DETAILS FOR ADDITIONAL INFORMATION. SYSTEM SUPPLIER PROVIDED BACKBOXES SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.
36. SMOKE DETECTOR TESTING SHALL BE ACCOMPLISHED PER THE MANUFACTURER'S INSTRUCTIONS.
37. ALL WIRING, INITIATING DEVICES AND ANNUNCIATOR PANEL SHALL BE SUPERVISED TO THE PRINCIPAL POINT OF ANNUNCIATION. THE FIRE ALARM CONTROL PANEL TO SUPERVISE THE ANNUNCIATOR PANEL, ALL INITIATING AND INDICATING DEVICE CIRCUITS.
38. ALL WIRING SHALL BE CUT FOR IN AND OUT. WIRING SHALL NOT BE LOOPED THROUGH DEVICES.
39. POINT, COMMON ANNUNCIATION, AND T-TAPPING ARE PROHIBITED.
40. PROVIDE 3/4" CONDUIT FROM FIRE ALARM CONTROL PANEL TO TELEPHONE BACKBOARD FOR OWNER PROVIDED CENTRAL STATION MONITORING.
41. ALL CONDUIT SHALL BE 3/4" UNLESS OTHERWISE NOTED.
42. ALL FLOW SWITCHES SHALL BE 2 WIRE WITH NON-ELECTRONIC RETARD TYPE SIMILAR TO THE SYSTEM SENSOR MODEL "WFD SERIES" ONLY.
43. ALL DEVICES IN THE ALARM SYSTEM SHALL BE COMPATIBLE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
44. FIRE ALARM SYSTEM SHALL BE UL LISTED (UUJS).
45. CBC 907.6.6.3 (SFM AMENDMENT) REQUIRES FIRE ALARM TO... "TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISORY STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISORY STATION SHALL BE LISTED AS EITHER UUFX (CENTRAL STATION) OR UUJS (REMOTE AND PROPRIETARY) BY THE UNDERWRITERS LABORATORY INC. (UL) OR OTHER APPROVED LISTING AND TESTING LABORATORY OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD, FM 3011)."
46. SUBSTITUTION OF SYSTEM COMPONENTS OR MANUFACTURER WILL REQUIRE THE CONTRACTOR TO SEPARATELY OBTAIN APPROVAL WITH THE DSA AT CONTRACTOR'S EXPENSE AND SHALL MEET ALL REQUIREMENTS OF THE SYSTEM AS DESIGNED AND PRE-APPROVED. ALL PROPOSED SUBSTITUTIONS SHALL BE LISTED WITH THE CALIFORNIA STATE FIRE MARSHAL.
47. FINAL ACCEPTANCE TEST TO INCLUDE TESTING THE CONNECTION BETWEEN THE FIRE ALARM PANEL AND THE SUPERVISING STATION.
48. COORDINATE WITH THE ENGINEER FOR USE OF EXISTING CONDUIT ON A CASE BY CASE BASIS.
49. PRIOR TO DEMOLITION, CONTRACTOR SHALL TEST THE INTERCOM SYSTEM TO ENSURE FULL FUNCTIONALITY. GENERATE A LIST OF FAULTY EQUIPMENT AND PROVIDE TO THE OWNER AND THE ARCHITECT. PROVIDE PRICING FOR ANY REQUIRED EQUIPMENT REPAIRS OR REPLACEMENT.
50. CONTRACTOR SHALL DISCONNECT EXISTING FIRE ALARM SYSTEM FROM THE EXISTING INTERCOM SYSTEM. ENSURE THE INTERCOM SYSTEM IS COMPLETELY FUNCTIONAL AFTER DISCONNECTION.
51. CONTRACTOR SHALL CLEARLY MARK THE ABANDON SECTION OF PUBLIC ADDRESS SYSTEM.
52. PROVIDE A FIRE ALARM DOCUMENTATION CABINET PER NFPA72,7.7.
53. FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION SHALL COMPLY WITH CBC CHAPTER 33 AND CFC CHAPTER 33.
54. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE DSA APPROVED DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATION CHANGE DOCUMENT, OR A SEPERATE 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 (CAC 4-317(C)).
55. CHANGES TO THE DIVISION OF THE STATE ARCHITECT APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENTS FOR CHANGES TO THE STRUCTURAL, ACCESSIBILITY OR FIRE -SAFETY PORTIONS OF THE PROJECT. CHANGES SHALL BE SUBMITTED TO AND APPROVED BY DSA PRIOR TO COMMENCEMENT OF THE WORK SHOWN THEREON CAC 4-338(C)).
56. PROJECT INSPECTOR TO APPROVE SYSTEM VOICE-EVACUATION INTELLIGIBILITY DURING TESTING PHASE.
57. CONTRACTOR SHALL PROVIDE ALL CABLING, RELAYS, MOUNTING HARDWARE AND ANY OTHER DEVICES (FIRE ALARM SYSTEM DEVICES) TO PROVIDE A FULLY FUNCTIONING FIRE ALARM OVERRIDE SYSTEM. WHEN FIRE ALARM CEASES, EACH LOCAL SOUND SYSTEM SHALL AUTOMATICALLY REVERT TO NORMAL OPERATION. FIRE ALARM MODULES AND CABLING BY FIRE ALARM CONTRACTOR.
58. FOR ALL HEAT DETECTORS THAT ARE LOCATED ABOVE CEILING/ATTIC SPACES, CONTRACTOR SHALL PROVIDE STICKER AND LABEL "HD" AT THE REFLECTED CEILING DIRECTLY BELOW THE DEVICE TO INDICATE LOCATION.
59. NOTIFICATION APPLIANCES USED FOR SIGNALING OTHER THAN FIRE SHALL NOT HAVE THE WORD "FIRE" OR ANY FIRE SYMBOL, IN ANY FORM (I.E., STAMPED, IMPRINTED, ETC.) ON THE APPLIANCE VISIBLE TO THE PUBLIC. NOTIFICATION APPLIANCES WITH MULTIPLE VISIBLE ELEMENTS SHALL BE PERMITTED TO HAVE FIRE MARKING ONLY ON THOSE VISIBLE ELEMENTS USED FOR FIRE SIGNALING. PER NFPA 72, 18.3.3.2/ NFPA 720, 6.3.3.2/ IR 9-2, 5.4.4 & 5.4.5.
60. AUTOMATIC FIRE ALARM SYSTEMS SHALL BE MONITORED AND SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX (CENTRAL STATION) OR UUJS (REMOTE & PROPRIETARY) BY THE UNDERWRITERS LABORATORY INC. (UL) OR OTHER APPROVED LISTING AND TESTING LABORATORY OR SHALL COMPLY WITH THE REQUIREMENTS OF FM 3011. TERMINATION OF MONITORING SERVICES SHALL BE IN ACCORDANCE WITH SECTION 907.6.6.2.
61. THE NEW PROJECT SUBMITTAL TO INCLUDE DIRECTION THAT FIRE ALARM SYSTEM RECORD OF COMPLETION AND FIRE ALARM SYSTEM RECORD OF INSPECTION AND TESTING FORM THESE TWO DOCUMENTS FROM NFPA 72 ARE TO BE COMPLETED AND SUBMITTED PRIOR TO CLOSE OUT OF THE PROJECT. A COPY OF COMPLETED AND SIGNED FORM SHALL BE GIVEN TO THE ARCHITECT OR ENGINEER OF RECORD, THE PROJECT INSPECTOR, THE OWNER (SCHOOL DISTRICT) AND LOCAL FIRE AUTHORITY.
62. INTELLIGIBILITY SHALL BE TESTED ACCORDING TO NFPA 72 ANNEX D.2 (SPEECH INTELLIGIBILITY).
63. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBERS SHALL BE CUT, DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DISTRICT STRUCTURAL ENGINEER FROM THE DIVISION OF THE STATE ARCHITECT.

MOUNTING OVER OBSTRUCTION DETAIL



NOTES:

1. THIS DETAIL APPLIES TO MOUNTING OF ANY MECHANICAL AND ELECTRICAL DEVICE WHICH CONTAINS AN OPERABLE PART THAT IS ADJUSTABLE BY THE OCCUPANT. THIS DOES NOT APPLY TO SENSORS OR CONTROLS THAT ARE ONLY ADJUSTABLE THROUGH THE BUILDING AUTOMATION SYSTEM (IE: TEMPERATURE AND HUMIDITY SENSORS).
2. FORWARD OR FRONT APPROACH FOR DEVICES MOUNTED ABOVE COUNTERS ASSUMES THAT DIRECTLY BELOW THE DEVICE, THE COUNTER HAS A 30"MIN. WIDTH x27" HIGH x19" MIN. DEEP CLEAR OPENING. CBC SECTIONS 11B-306 & 11B-308.

FIRE ALARM REQUIREMENTS

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

A. SHOP DRAWINGS: COMPLETE 1/8" SCALE FLOOR PLANS SHOWING ALL DEVICES, COMPONENTS, CONDUIT AND WIRING INDICATING A COMPLETE AND OPERABLE SYSTEM AS DESIGNED AND SPECIFIED. REPRODUCED COPIES OF BID SET FIRE ALARM PLANS ARE NOT ACCEPTABLE AS SHOP DRAWINGS. SHOP DRAWINGS MUST ALSO INDICATE DEVICE MOUNTING HEIGHTS, ROOM NAMES AND NUMBERS AND THE LOCATION OF ALL FIRE RATED WALLS.
B. ELECTRICAL CONTRACTOR'S AND FIRE ALARM SYSTEM INSTALLER'S NAME, ADDRESS, PHONE NUMBER AND C-10 LICENSE NUMBER.
C. LIST OF SYSTEM COMPONENTS, EQUIPMENT AND DEVICES, INCLUDING MANUFACTURERS' MODEL NUMBER(S) AND CALIFORNIA STATE FIRE MARSHALL LISTING NUMBERS.
D. ORIGINAL COPIERS OF MANUFACTURERS' SPECIFICATION SHEETS FOR ALL EQUIPMENT AND DEVICES INDICATED.
E. VOLTAGE DROP CALCULATIONS -- INCLUDE THE FOLLOWING INFORMATION FOR THE WORST CASE:
   1. POINT-TO-POINT OR OHMS LAW CALCULATIONS.
   2. IDENTIFICATION OF ZONE USED IN CALCULATIONS.
   3. VOLTAGE DROP PERCENT (NOT TO EXCEED MANUFACTURERS' REQUIREMENTS).
      a. NOTE: IF VOLTAGE DROP EXCEEDS 10%, INDICATE MANUFACTURERS' LISTED OPERATING RANGE(S) OR EQUIPMENT AND DEVICES.
   4. NOTE CIRCUIT NUMBER FOR WORST CASE CALCULATION.
F. BATTERY TYPE(S), AMPS HOURS AND LOAD CALCULATIONS -- INCLUDE THE FOLLOWING INFORMATION:
   1. NORMAL OPERATION: 100% OF APPLICABLE DEVICES FOR 24 HOURS = CONTROL PANEL AMPS PLUS LIST OF AMPS PER DEVICE WHICH DRAW POWER FROM THE PANEL DURING STANDBY POWER -- I.E.:
      a. ZONE MODULES
      b. DETECTORS
      c. OTHER DEVICES (IDENTIFY)
   2. ALARM CONDITION: 100% OF APPLICABLE DEVICES FOR 15 MINUTES = CONTROL PANEL AMPS PLUS LIST OF AMPS PER DEVICE WHICH DRAW POWER FROM THE PANEL DURING STANDBY POWER -- I.E.:
      a. ZONE MODULES
      b. SIGNAL MODULES
      c. DETECTORS
      d. SIGNAL DEVICES
      e. ANNUNCIATOR
      f. OTHER DEVICES (IDENTIFY)
   3. NORMAL OPERATION + ALARM OPERATION
      a. TOTAL AMP HOURS REQUIRED.
      b. TOTAL AMP HOURS PROVIDED.

10% OF EXISTING FIRE ALARM DEVICES AND APPLIANCES SHALL BE ADDED TO THE NEW FIRE ALARM DEVICES AND APPLIANCES FOR TESTING.

WIRE SCHEDULE

WIRE DESIGNATION	WIRE IN CONDUIT	WIRE IN CONDUIT UNDERGROUND/WET LOC.	UNDERGROUND/WET WIRE DESIGNATION
INIT. LOOP Z	2 CONDUCTOR #16 FPL TWISTED/ SHIELDED WEST PENN #D991	2 CONDUCTOR #16 FPLP SHIELDED WEST PENN #AQ-294	INIT. LOOP Z
SBUS B	4 CONDUCTOR #18 TWISTED SHIELDED PAIR CABLE	4 CONDUCTOR #18 TWISTED SHIELDED PAIR CABLE	SBUS B
VBUS C	2 CONDUCTOR #18 TWISTED SHIELDED PAIR CABLE	2 CONDUCTOR #18 TWISTED SHIELDED PAIR CABLE	VBUS C
SPEAKER CKT. S	2 CONDUCTOR #14 THHN/THWN STRANDED	2 CONDUCTOR #14 THHN/THWN STRANDED	SPEAKER CKT. S
VISUAL CKT. V	2 CONDUCTOR #12 THHN/THWN STRANDED	2 CONDUCTOR #12 THHN/THWN STRANDED	VISUAL CKT. V
POWER CKT. P	2 CONDUCTOR #12 THHN/THWN STRANDED	2 CONDUCTOR #12 THHN/THWN STRANDED	POWER CKT. P

NOTE:
ALL WIRE MODEL NUMBERS ARE WEST PENN.
EQUIVALENT BY OTHER MANUFACTURER IS ACCEPTABLE.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

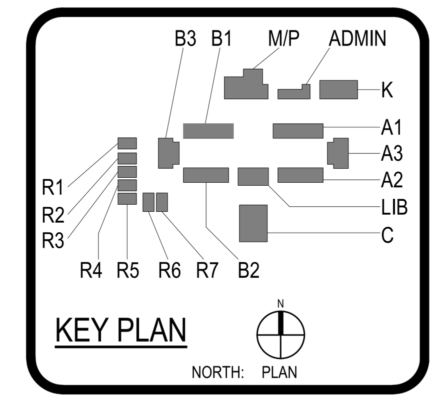
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
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WESTMINSTER, CA 92683

DSA SUBMITTAL
DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



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Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL

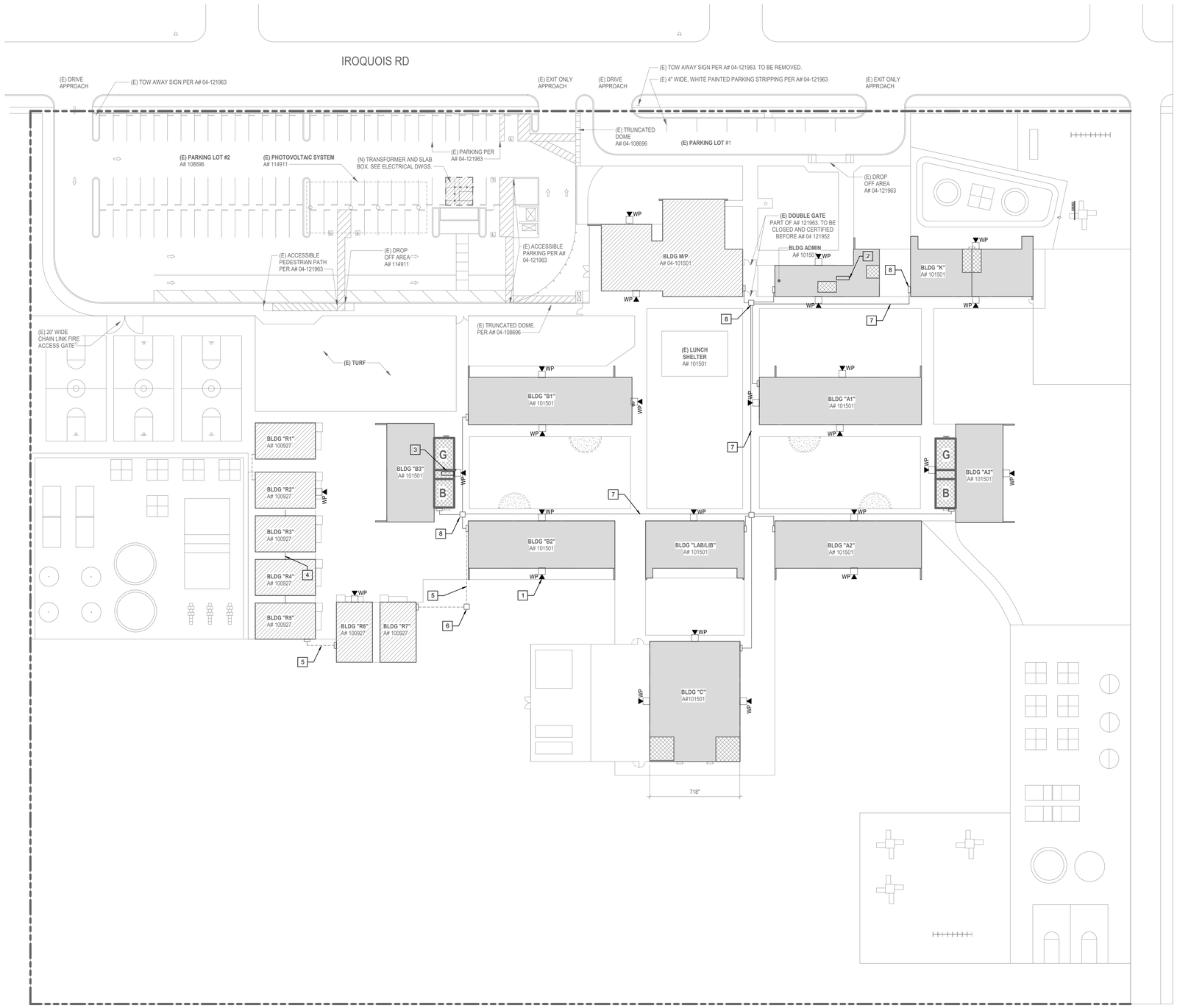
FIRE ALARM SYMBOLS, LEGENEDS & GENERAL NOTES

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FA1.01 - FIRE ALARM SITE PLAN

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KEY NOTES

1. PROVIDE NEW FIRE ALARM WEATHERPROOF SPEAKER DEVICE AS SHOWN (TYP).
2. PROVIDE NEW FIRE ALARM CONTROL PANEL, FIRE ALARM POWER SUPPLY AND TERMINAL CABINEL AS SHOWN. FIELD VERIFY THE EXACT LOCATION.
3. PROVIDE FIRE ALARM POWER SUPPLY AND TERMINAL CABINET AS SHOWN.
4. PROVIDE 2" CONDUIT FLEXIBLE LIQUID TIGHT SLEEVE AT ATTIC SPACE HEIGHT (TYP).
5. SAWCUT AND TRENCH EXISTING ASPHALT. PROVIDE (2) 2" UNDERGROUND CONDUIT (PVC, SCHEDULE 40, 24" BELOW GRADE).ONE CONDUIT IS FOR SPARE AND FIRE ALARM CABLE AS INDICATED. BACK FILL TO MATCH EXISTING SURFACES. RUN CONDUIT IN DIRT/PLANNER AREA AS MUCH AS POSSIBLE.
6. PROVIDE CONCRETE UNDERGROUND PULL BOXES AS 11" X 17" X 18" DEEP ON A 6" DEEP GRAVEL BASE.
7. PROVIDE OVERHEAD CONDUIT ABOVE CEILINGS SPACES AND/OR ABOVE COVERED WALKWAY (TYP).
8. PROVIDE NEMA 3R WEATHERPROOF PULLBOX 18"x18"X6" FOR FIRE-ALARM (TYP).

1 FIRE ALARM SITE PLAN
1" = 30'-0"

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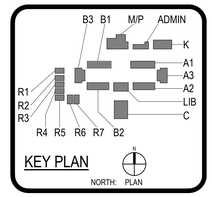
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8163 Rochester Avenue, Suite 100
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909.987-0909
leafengineers.com

SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



KEY PLAN NORTH: PLAN

Consultant

REGISTERED PROFESSIONAL ENGINEER
RONALD C DELA CRUZ
No. E 23576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

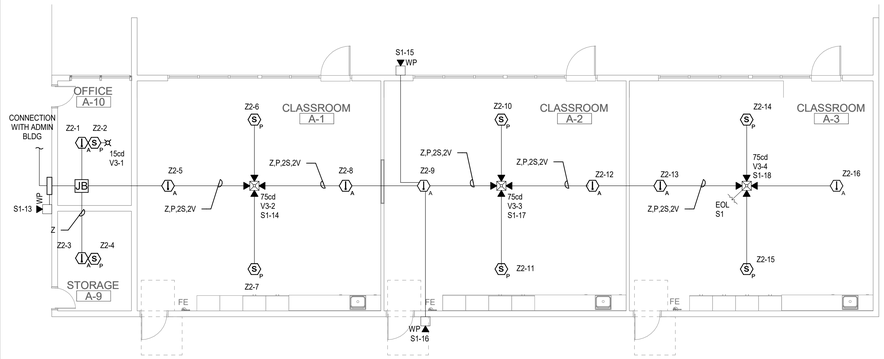
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FIRE ALARM SITE PLAN

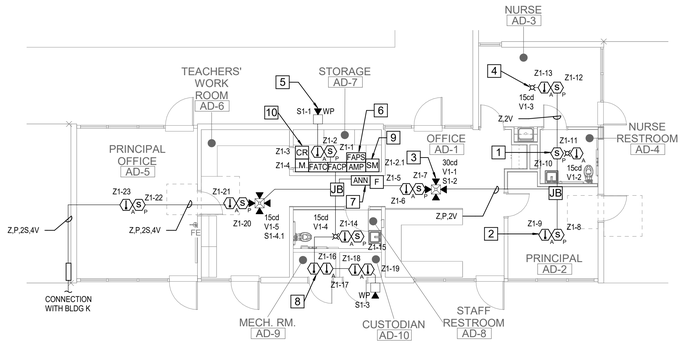
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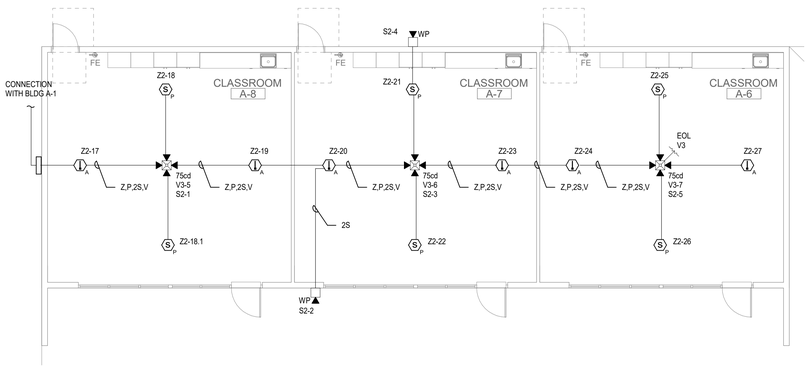
4 FLOOR PLAN -BLDG A-1

1/8" = 1'-0"



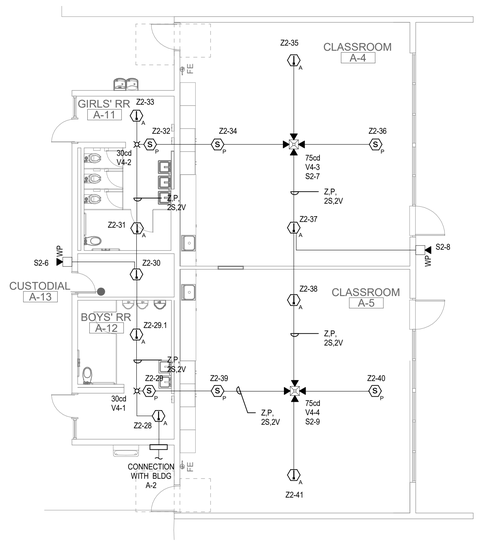
2 FLOOR PLAN -BLDG ADMIN

1/8" = 1'-0"



3 FLOOR PLAN -BLDG A-2

1/8" = 1'-0"



1 FLOOR PLAN -BLDG A-3

1/8" = 1'-0"

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

1	PROVIDE FIRE ALARM ADDRESSABLE SMOKE DETECTOR AS SHOWN (TYP).
2	PROVIDE FIRE ALARM ADDRESSABLE ATTIC HEAT DETECTOR AS SHOWN (TYP).
3	PROVIDE FIRE ALARM CEILING MOUNTED SPEAKER STROBE AS SHOWN (TYP).
4	PROVIDE FIRE ALARM CEILING MOUNTED STROBE DEVICE AS SHOWN (TYP).
5	PROVIDE FIRE ALARM WALL MOUNTED WEATHERPROOF SPEAKER DEVICE AS SHOWN (TYP).
6	PROVIDE NEW FIRE ALARM CONTROL PANEL. NEW POWER SUPPLY PANEL. NEW TERMINAL CABINET. NEW AMPLIFIER AND NEW FIRE ALARM TERMINAL CABINET AS SHOWN.
7	PROVIDE FIRE ALARM ANNUNCIATOR AS SHOWN. PROVIDE FIRE ALARM ADDESSABLE PULL STATION AS SHOWN NEXT TO THE NEW ANNUNCIATOR PANEL AS SHOWN.
8	PROVIDE CEILING MOUNTED HEAT DETECTOR AS SHOWN (TYP).
9	PROVIDE SUPERVISORY MONITOR MODULE TO MONITOR THE CONNECTION BETWEEN POWER SUPPLY AND FIRE ALARM CONTROL PANEL AS SHOWN.
10	PROVIDE CONTROL RELAY AND MONITOR MODULE FOR FIRE ALARM OVERRIDE OF LOCAL SOUND SYSTEMS.

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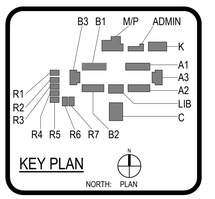
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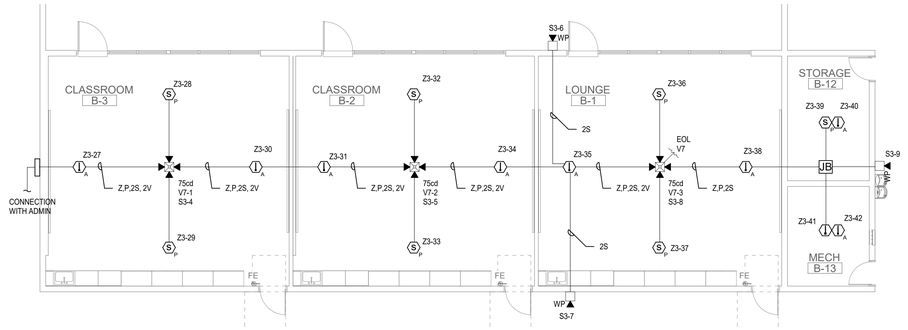
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FIRE ALARM FLOOR PLANS

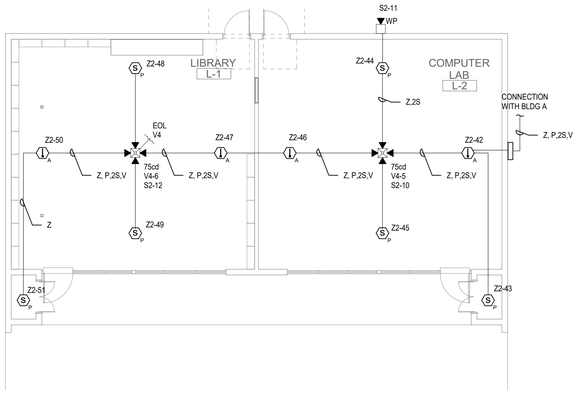
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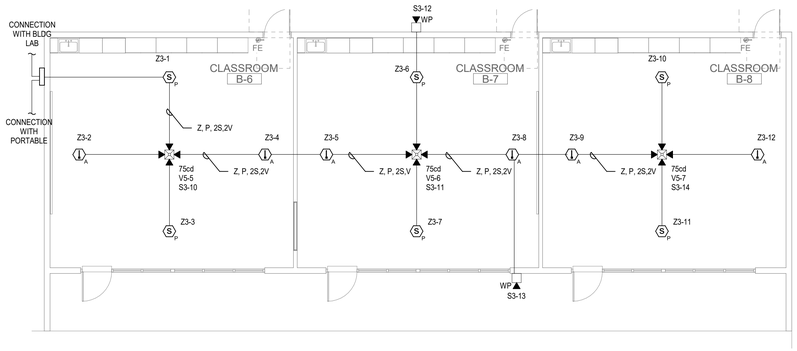
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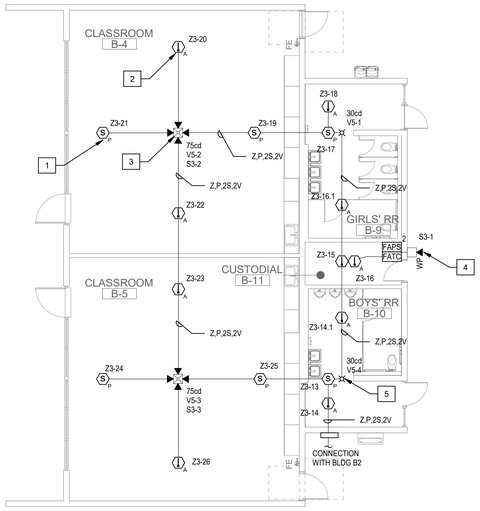
4 FLOOR PLAN -BLDG B-1
1/8" = 1'-0"



2 FLOOR PLAN -BLDG LAB/LIB
1/8" = 1'-0"



3 FLOOR PLAN -BLDG B-2
1/8" = 1'-0"



1 FLOOR PLAN -BLDG B-3
1/8" = 1'-0"

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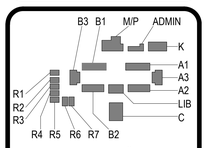
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DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

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Exp. 09-30-2025
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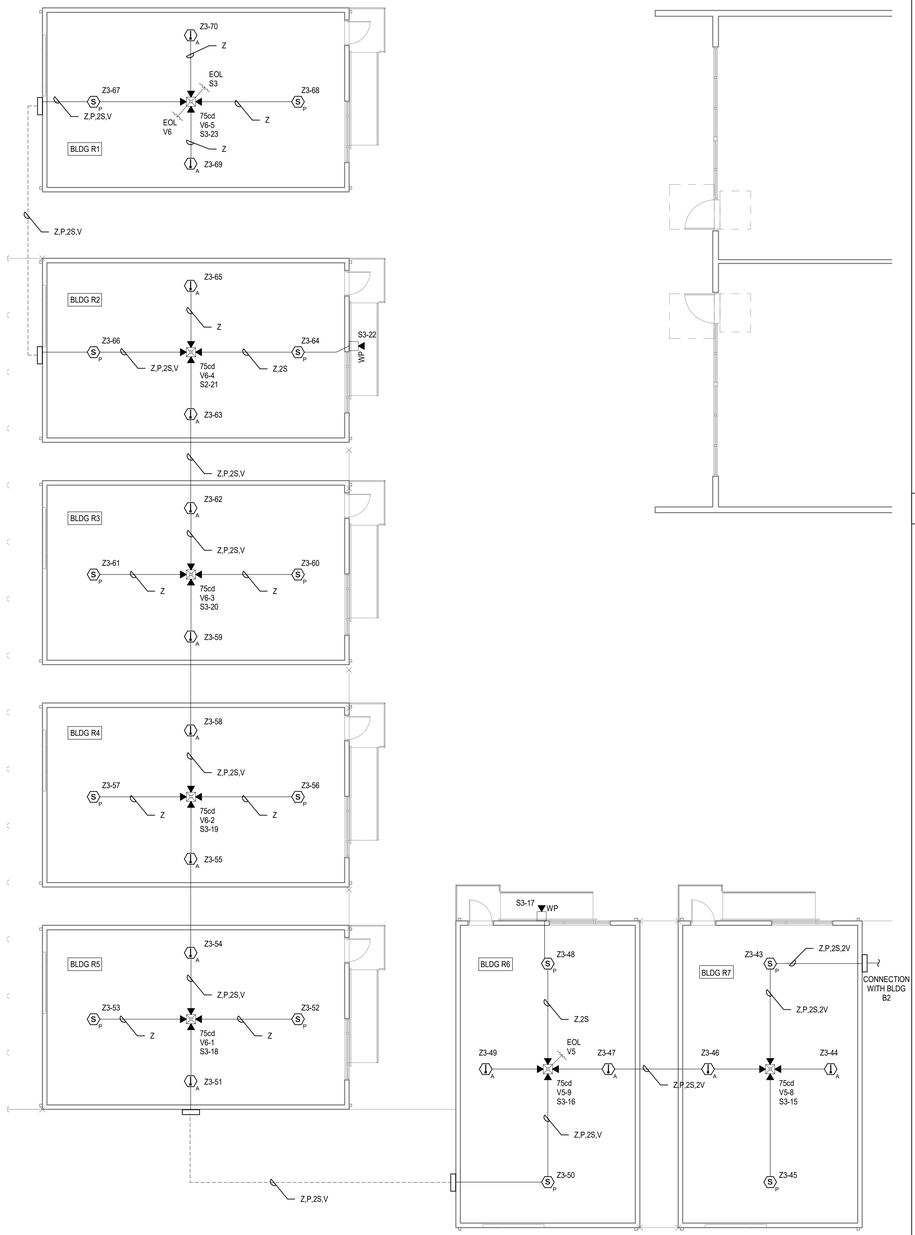
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FIRE ALARM FLOOR PLANS

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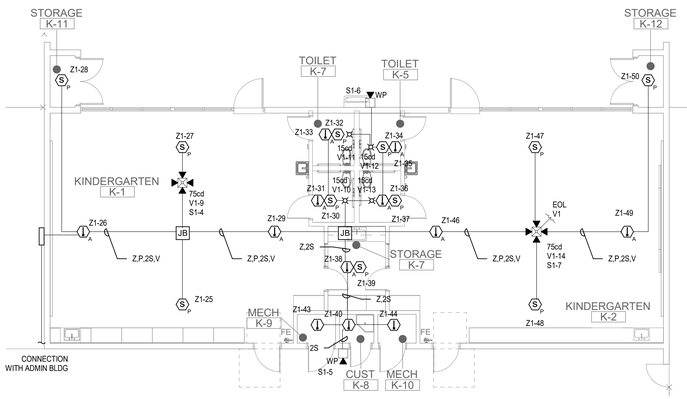
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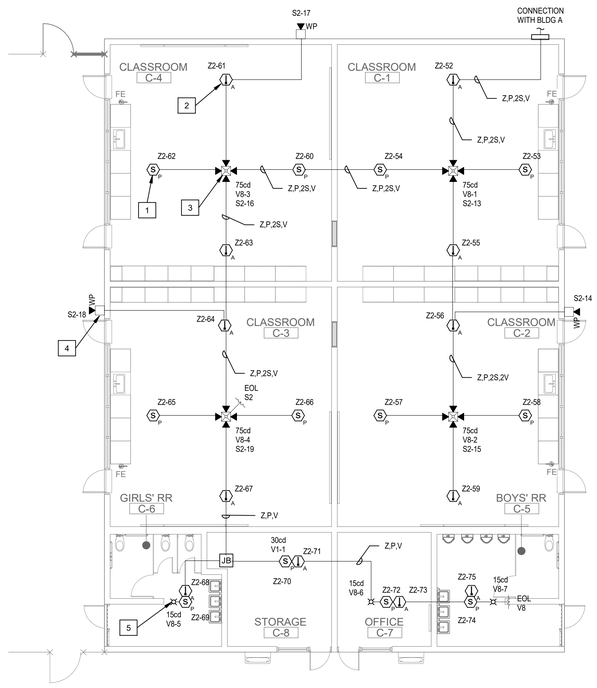
3 FLOOR PLAN - PORTABLE BLDGS

1/8" = 1'-0"



2 FLOOR PLAN -BLDG K

1/8" = 1'-0"



1 FLOOR PLAN -BLDG C

1/8" = 1'-0"

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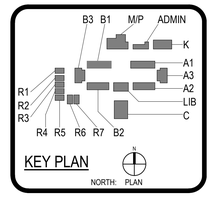
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03/31/2023	220524

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FIRE ALARM FLOOR PLANS

FA2.03

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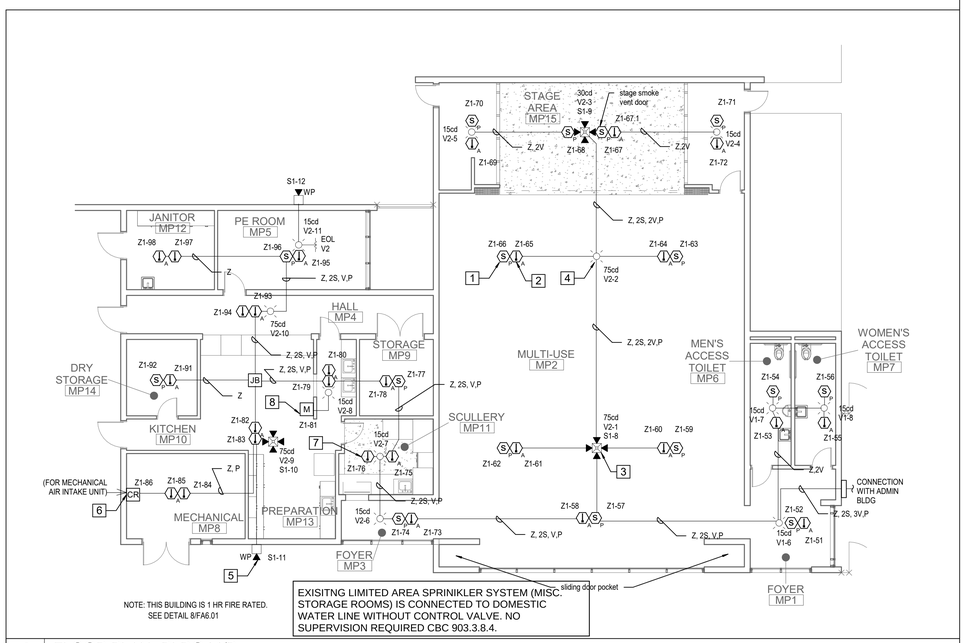
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5. PROVIDE FIRE ALARM WALL MOUNTED WEATHERPROOF SPEAKER DEVICE AS SHOWN (TYP).
6. PROVIDE FIRE ALARM CONTROL RELAY TO SHUT DOWN THE MECHANICAL UNIT AS SHOWN (TYP). CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION.
7. PROVIDE CEILING MOUNTED HEAT DETECTOR AS SHOWN (TYP).
8. PROVIDE MONITOR MODULE TO MONITOR THE KITCHEN HOOD SUPPRESSION SYSTEM. CONTRACTOR TO FIELD VERIFY.



NOTE: THIS BUILDING IS 1 HR FIRE RATED. SEE DETAIL 8/FA6.01

EXISITNG LIMITED AREA SPRINIKLER SYSTEM (MISC. STORAGE ROOMS) IS CONNECTED TO DOMESTIC WATER LINE WITHOUT CONTROL VALVE. NO SUPERVISION REQUIRED CBC 903.3.8.4.

1 FLOOR PLAN -BLDG M/P
1/8" = 1'-0"

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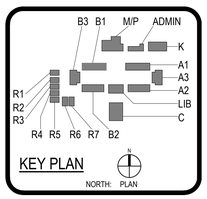
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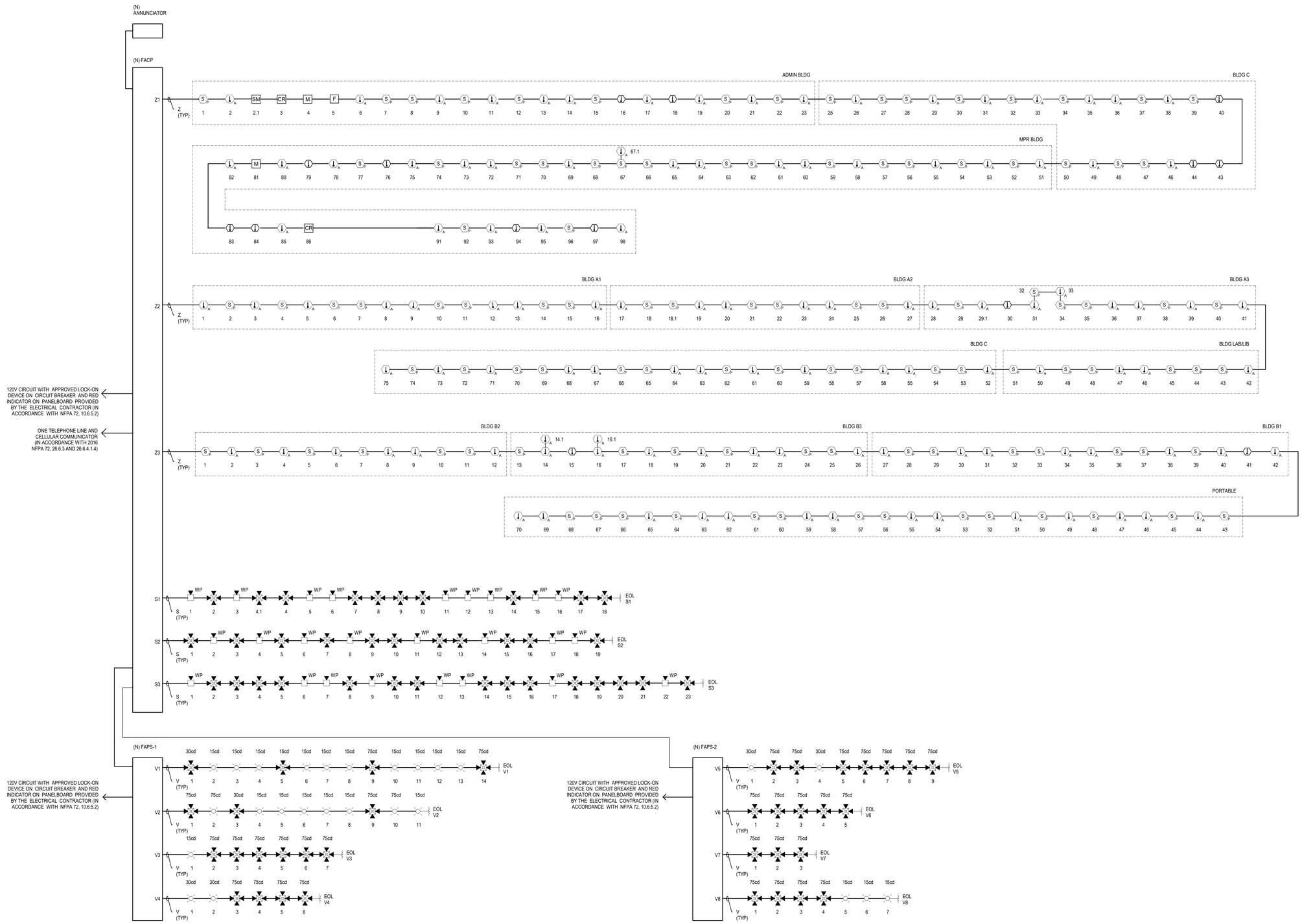
FIRE ALARM FLOOR PLAN - BLDG M/P

FA2.04

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FA5.01 - FIRE ALARM RISER DIAGRAM

0" 1"



1 FIRE ALARM RISER DIAGRAM
NOT TO SCALE

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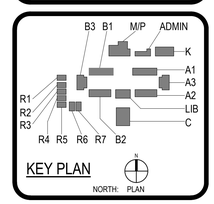
CONSULTANT LEAF Engineers
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
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SEQUOIA ELEMENTARY SCHOOL - MODERNIZATION PROJECT

PROJECT ADDRESS:
5900 IROQUOIS RD
WESTMINSTER, CA 92683

DSA SUBMITTAL

DSA APPL NO.: 04-121952 DSA FILE NO.: 30-43



Consultant

REGISTERED PROFESSIONAL ENGINEER
RONALD C DE LA CRUZ
No. E 21576
Exp. 09-30-2025
ELECTRICAL
STATE OF CALIFORNIA

Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL

FIRE ALARM RISER DIAGRAM

FA5.01

FACP BATTERY CALCULATION SHEET

FACP
LOCATION: ADMIN

QUANTITY		UNIT STANDBY CURRENT(A)	TOTAL STANDBY CURRENT(A)	UNIT ALARM CURRENT(A)	TOTAL ALARM CURRENT(A)
1	MAIN BOARD	0.23000	0.23000	0.45000	0.45000
1	ANNUNCIATOR	0.02500	0.02500	0.05000	0.05000
1	REMOTE PAGING UNIT	0.00700	0.00700	0.00100	0.00100
1	FIRE PHONE CARD	0.05300	0.05300	0.07500	0.07500
1	AMPLIFIER	0.11000	0.11000	1.20000	1.20000
106	SMOKE DETECTOR	0.00019	0.02014	0.00019	0.02014
129	HEAT DETECTOR	0.00020	0.02567	0.00200	0.25800
1	PULL STATION	0.00035	0.00035	0.00035	0.00035
1	SYNC MODULE	0.00400	0.00400	0.00400	0.00400
2	MONITOR MODULE	0.00039	0.00078	0.00038	0.00075
2	RELAY MODULE	0.00030	0.00060	0.00550	0.01100
	SUB TOTAL		0.477		2.070
	STANDBY CURRENT x 24 Hrs. (AH)		11.437 AH		
	ALARM CURRENT x 15 MINUTES (AH)		0.518 AH		
	TOTAL (AH)		11.955 AH		
	25% DERATING		2.989 AH		
	TOTAL DEMAND (AH)		14.943 AH		
	BATTERY REQUIRED		55 AH		

BATTERY CAPACITY CALCULATION SHEET

FAPS-1

QUANTITY	Description	Unit Standby Current(A)	Total Standby Current(A)	Unit Alarm Current(A)	Total Alarm Current(A)
1	NAC TRIP	0.040	0.040	0.160	0.160
17	15cd ceiling strobes	0.000	0.000	0.071	1.207
2	30cd ceiling strobes	0.000	0.000	0.096	0.192
2	75cd ceiling strobes	0.000	0.000	0.153	0.306
1	15cd ceiling speaker/strobe	0.000	0.000	0.060	0.060
2	30cd ceiling speaker/strobe	0.000	0.000	0.086	0.172
14	75cd ceiling speaker/strobe	0.000	0.000	0.142	1.988
	Sub Total		0.040		4.085
	A - Battery Backup - Standby (Hour)	24			
	B - Battery Backup (minutes)	15			
	C - Allowable Error (%)	25			
	D - Total Standby Backup (Amp-Hour)	0.960			
	E - Total Alarm Backup (Amp-Hour)	1.021			
	F - Allowable Error (C x (D + E))	0.495			
	Total Amp-Hour Required (D + E + F)	2.477			
	Battery Submitted	7 Amp-Hour			

BATTERY CAPACITY CALCULATION SHEET

FAPS-2

QUANTITY	Description	Unit Standby Current(A)	Total Standby Current(A)	Unit Alarm Current(A)	Total Alarm Current(A)
1	NAC TRIP	0.040	0.040	0.160	0.160
3	15cd ceiling strobes	0.000	0.000	0.071	0.213
2	30cd ceiling strobes	0.000	0.000	0.096	0.192
19	75cd ceiling speaker/strobe	0.000	0.000	0.142	2.698
	Sub Total		0.040		3.569
	A - Battery Backup - Standby (Hour)	24			
	B - Battery Backup (minutes)	15			
	C - Allowable Error (%)	25			
	D - Total Standby Backup (Amp-Hour)	0.960			
	E - Total Alarm Backup (Amp-Hour)	0.892			
	F - Allowable Error (C x (D + E))	0.463			
	Total Amp-Hour Required (D + E + F)	2.315			
	Battery Submitted	7 Amp-Hour			

SPEAKER CIRCUIT LOAD CALCULATION

MFG. REC. MAXIMUM LOSS IS: -0.5dB

SPEAKER CIRCUIT DESCRIPTION		PANEL CIRCUIT NUMBER	WIRE GAUGE (18, 16,14 12)	CIRCUIT VOLTAGE (25 OR 70 VRMS)	APPLIANCES QUANTITIES / TAP VALUES				TOTAL CIRCUIT LOAD (WATT)	ESTIMATED CIRCUIT LENGTH (FEET)	ACTUAL WIRE/LOSS (dB)	MAXIMUM ALLOWABLE CKT, LENGTH (FEET)	TOTAL CIRCUIT RESISTANCE (OHMS)
AMPLIFIER#	CIRCUIT LOCATION				SPEAKER TAPPED AT 0.25 WATTS	SPEAKER TAPPED AT 0.5 WATTS	SPEAKER TAPPED AT 1 WATTS	SPEAKER TAPPED AT 2 WATTS					
AMP 1	ADMIM, BLDG K, M/P, A-1	S1	14 AWG	70		10		9	23.00	900	-0.20	1,950	4.64
	BLDG A1,A2,A3,C, LAB	S2	14 AWG	70		15		8	23.50	1200	-0.27	2,415	6.18
	BLDG B1,B2,B3, PORTABLE	S3	14 AWG	70		11		8	21.50	1450	-0.30	2,200	7.47
	(SPARE)	S4	14 AWG	70					0.00				0.00
								TOTAL	68.00				

STROBES WORST CASE VOLTAGE DROP

PANEL NAME	CIRCUIT NUMBER	CEILING STROBE 15cd 0.071	30cd 0.096	75cd 0.153	95cd 0.176	CEILING SPEAKER/STROBE 15cd 0.060	30cd 0.086	75cd 0.142	95cd 0.164	TOTAL CURRENT (AMPS)	TOTAL DISTANCE (FEET)	TOTAL VOLTAGE DROP (%)	TOTAL DEVICES
FAPS-1	V1	10				1	1	2		1.140	530	8.33%	14
	V2	6		2			1	2		1.102	600	9.11%	11
	V3	1						6		0.923	510	6.49%	7
	V4		2					4		0.760	590	6.18%	6
TOTAL		17	2	2	0	1	2	14	0				
FAPS-2	V5		2					7		1.186	460	7.52%	9
	V6							5		0.710	450	4.40%	5
	V7							3		0.426	300	1.76%	3
	V8	3						4		0.781	580	6.24%	7
TOTAL		3	2	0	0	0	0	19	0				

BATTERY CALCULATION SHEET

AMP-1
LOCATION: ADMIN. BUILDING

QUANTITY		UNIT STANDBY CURRENT(A)	TOTAL STANDBY CURRENT(A)	UNIT ALARM CURRENT(A)	TOTAL ALARM CURRENT(A)
1	50 WATT AMPLIFIER	0.110	0.110	1.2000	1.2000
36	SPEAKER (1/2 W)	0.000	0.000	0.0071	0.2556
25	WP SPEAKER (2W)	0.000	0.000	0.1790	4.4750
	SUB TOTAL		0.110		5.931
	STANDBY CURRENT x 24 Hrs. (AH)		2.640 AH		
	ALARM CURRENT x 15 MINUTES (AH)		1.483 AH		
	TOTAL (AH)		4.123 AH		
	25% DERATING		1.031 AH		
	TOTAL DEMAND (AH)		5.153 AH		
	BATTERY REQUIRED		7 AH		

1 FIRE ALARM VOLTAGE DROP AND BATTERY CALCULATIONS
NOT TO SCALE

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
ANAHEIM PBK.com
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
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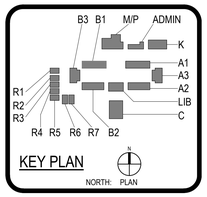
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KEY PLAN
NORTH: PLAN

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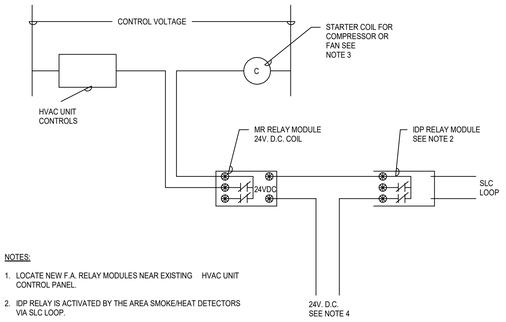
REVISIONS

No.	Description	Date

DSA SUBMITTAL

FIRE ALARM CALCULATIONS

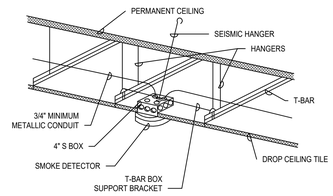
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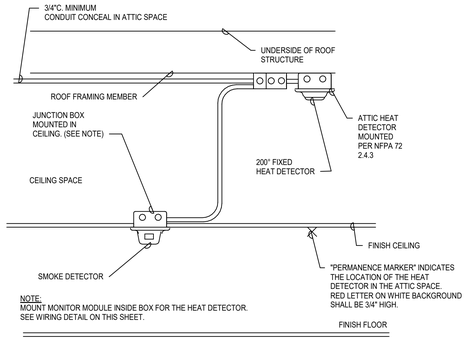


NOTES:

1. LOCATE NEW F.A. RELAY MODULES NEAR EXISTING HVAC UNIT CONTROL PANEL.
2. IDP RELAY IS ACTIVATED BY THE AREA SMOKE/HEAT DETECTORS VIA SLC LOOP.
3. VERIFY NUMBER OF STARTER COILS AT EACH HVAC UNIT. SOME UNITS REQUIRE 2 OR MORE RELAYS FOR SHUTDOWN OF COMPRESSORS AND FANS.
4. PROVIDE 24V. D.C. SOURCE (LOW VOLTAGE TRANSFORMER) FROM POWER SUPPLY UNIT.
5. A LISTED RELAY TO THE FIRE ALARM SYSTEM SHALL BE LOCATED WITHIN 3 FEET OF THE CONTROLLED CIRCUIT PER 2022 NFPA 6.16.2.2.

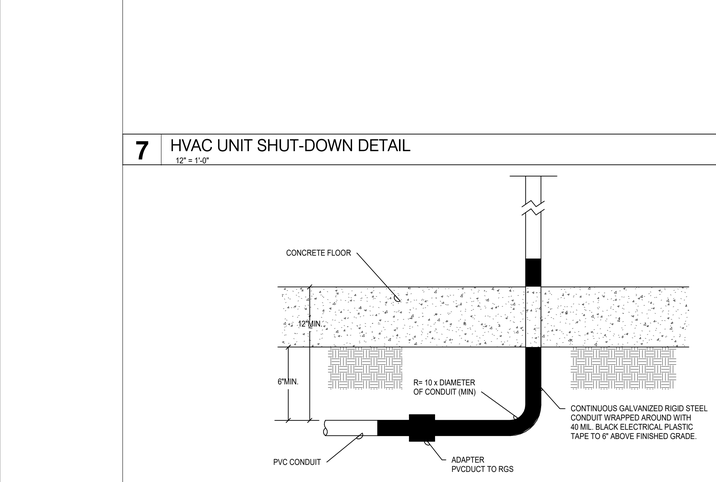
7 HVAC UNIT SHUT-DOWN DETAIL
12" = 1'-0"



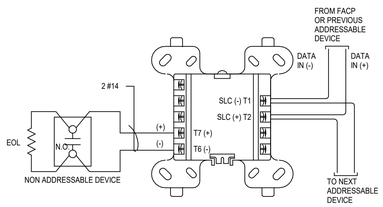


NOTE:
MOUNT MONITOR MODULE INSIDE BOX FOR THE HEAT DETECTOR. SEE WIRING DETAIL ON THIS SHEET.

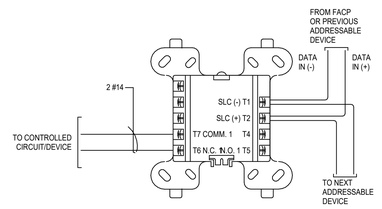
6 DROP CEILING DEVICE INSTALLATION DETAIL
12" = 1'-0"



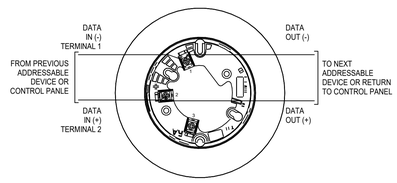
5 CONDUIT RISER DETAIL
12" = 1'-0"



4 MONITOR MODULE DETAIL
12" = 1'-0"



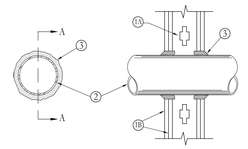
3 RELAY MODULE DETAIL
12" = 1'-0"



2 SMOKE/HEAT DETECTOR DETAIL
12" = 1'-0"

System No. W-L-1001
June 15, 2005
F Ratings – 1, 2, 3 and 4 Hr (See Items 5 and 5)
T Ratings – 0, 1, 2, 3 and 4 Hr (See Item 5)
L Rating At Ambient – less than 1 CFM/sq ft
L Rating At 400 F – less than 1 CFM/sq ft

Through Penetrations | Metallic Pipes | 1000 Series | Gypsum | WL



SECTION A-A

1. **Wall Assembly** – The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs** – Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 inch (51 by 102 mm) lumber spaced 16 inches (406 mm) OC. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-1/4 in. (32 mm) deep channel shaped steel spaced 24 in (610 mm) OC.
   B. **Gypsum Board*** – Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Designs in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).
2. **Through Penetrant** – One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and perimeter of opening shall be min of 0 in. (0 mm) (point contact) to max 2 in. (51 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. **Steel Pipe** – Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe** – Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
   C. **Conduit** – Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing
   D. **Copper Tubing** – Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing
   E. **Copper Pipe** – Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
   F. **Through Penetrating Product* – Flexible Metal Piping** – The following types of steel flexible metal gas piping may be used:
      1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
         OMEGA FLEX INC
      2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
         TITEFLEX CORP
         A BUNDY CO
      3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
         WARD MFG INC

This material was extracted and drawn by 3M Fire Protection Products from the 2007 edition of the UL Fire Resistance Directory

Through Penetrations | Metallic Pipes | 1000 Series | Gypsum | WL

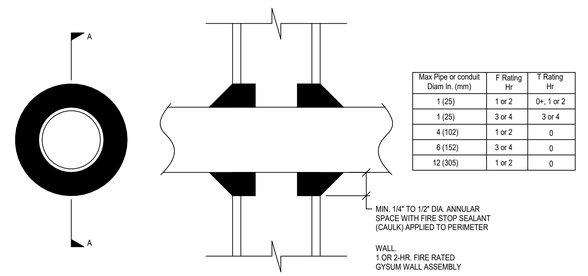
System No. W-L-1001 *continued*

3. **Fill, Void or Cavity Material*** – **Caulk or Sealant** – Min 5/8, 1-1/4, 1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In. (mm)	F Rating Hr	T Rating Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

+ When copper pipe is used, T Rating is 0 hr.
3M COMPANY - CP 25WB+ caulk or FB-3000 WT sealant,
*Bearing the UL Classification Marking

This material was extracted and drawn by 3M Fire Protection Products from the 2007 edition of the UL Fire Resistance Directory



Max Pipe or conduit Diam In. (mm)	F Rating Hr	T Rating Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

FRONT VIEW SECTION A-A

DETAIL NOTES:

WALL CONSTRUCTION:
A. STEEL STUDS PER ARCHITECTURAL/STRUCTURAL.
B. 5/8" TYPE x GYPSUM BOARD PER ARCHITECTURAL.

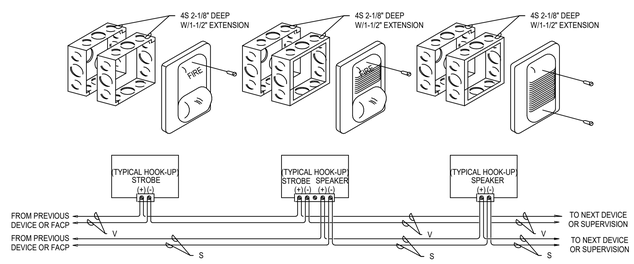
CONDUIT SIZE PER DRAWINGS.

FIRE STOP SYSTEM - ONE HOUR CAULK. APPLY TO INTERFACE WITH WALL SURFACE.

U.L. SYSTEM NO. W-L-1001

NOTE:
MAX. DIA. OF OPENING IS 13 1/2" ANNULAR SPACE OF MIN. 1/4" DIA. BEAD IS REQUIRED.

8 CONDUIT PENETRATION AT 1-HR FIRE RATED WALL DETAIL
NOT TO SCALE



1 SPEAKER/STROBE DETAIL
12" = 1'-0"

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9/19/2023 11:29:25 AM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-121952 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 11/28/2023

PBK

ARCHITECT PBK Architects, Inc.
PBK.com
ANAHEIM
2400 E. Katella Ave., Suite 950
Anaheim, CA 92806
P 949-548-5000

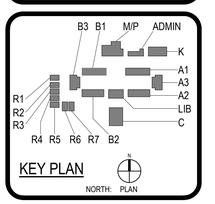
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Architect

CLIENT
WESTMINISTER SCHOOL DISTRICT

DATE	PROJECT NUMBER
03/31/2023	220524

REVISIONS

No.	Description	Date

DSA SUBMITTAL

FIRE ALARM DETAILS

FA6.01