TITLE 24 MECHANICAL & PLUMBING REQUIREMENTS (CODE REFERENCES ARE TO 2019 BUILDING ENERGY **EFFICIENCY STANDARDS):**

- 1. All air cooled HVAC units shall have minimum efficiencies per Table 110.2-A.
- . All furnaces shall have minimum efficiencies per Table 110.2-J. 3. All furnaces shall have stand by loss controls per section 110.2 (d).
- 4. All thermostats shall comply with 110 (b) or (c), as applicable. 5. All HVAC systems shall have outside (ventilation) air per 120.1 (b) 2. Also see mechanical plans for
- minimum outside air settings. Refer to table on plan. 6. When CO2 ventilation demand controls are specified, provide in accordance with 120.1 C. 4.
- 7. Minimum ventilation rates shall be initiated one hour prior to scheduled occupancy per 120.1 (c) 2. 8. Each HVAC system shall have shut-off and reset controls complying with 120.2 (e). 9. All outside and exhaust dampers shall automatically close per 120.2 (f).
- 10. All systems greater than a nominal 54 MBH cooling capacity shall have economizers equipped with fault detection and diagnostics per 120.2 (i).
- 11. All ductwork insulation shall comply with 120.4. 12. Set up all thermostats with a dead band of no less than three degrees to prevent cycling between heating
- and cooling. 13. Acceptance tests required prior to granting occupancy. NA refers to Non Residential appendices:
- Outdoor air ventilation systems per NA 7.5.1.
- Constant volume single zone system controls per NA 7.5.2. • Air economizers per NA 7.5.4.
- Demand control (CO2) controls, when required, per NA 7.5.5. • Fault Detection & diagnostics (FDD) per NA 7.5.11.

Equipment 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 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, moveable or mobile equipment which is heavier than 400 pounds or has a center mass located 4 feet or more above the adjacent floor or roof level that directly support the component are 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.

General Project Note:

Coordination of work: Layout of materials, equipment and systems is generally diagrammatic unless specifically dimensioned. Some work may be shown offset for clarity. The actual location of all materials, piping, ductwork, fixtures, equipment, supports, etc. shall be carefully planned, prior to installation of any work to avoid all interferences with each other, or with structural, electrical, architectural or other elements. Verify the proper voltage and phase of all equipment with the electrical plans. All conflicts shall be called to the attention of the architect and the engineer prior to the installation of any work or the ordering of any equipment.

Carrier 50GCQM06 Rooftop Heat Pump, 1,800 CFM @ 0.60 E.S.P., 0.66 BHP direct drive supply fan drive vane-axial fan with electrically commutated motor,

1,200 CFM low speed (staged air volume), 61,300 BTUH total / 46,320 sensible gross cooling / 54,860 heating capacity / 16.2 SEER / 11.7 EER / 8.3 HSPF at ARI

conditions. Two stage cooling, 5 year compressor warranty, high and low pressure switches, adjustable defrost timer, and anti-short cycle timer. (4) 16" x 16" x

2" MERV 13 return air filters, 5.5 kW electric strip heater factory mounted and wired, single point power connection for heat pump and strip heater. Integrated

modulating economizer with dry bulb control, fault diagnostics and detection per T24 regulations, modulating power exhaust fan module, demand control

ventilation package with wall mounted CO2 sensor set to 1000 ppm. Adjust outside airflow to modulate between hi-low settings per O.A. schedule on plans.

Carrier 50FCQM07 Rooftop Heat Pump, 2,100 CFM @ 0.60 E.S.P., 0.83 direct drive supply fan drive vane-axial fan with electrically commutated motor, 1,400

conditions. Two stage cooling, 5 year compressor warranty, high and low pressure switches, adjustable defrost timer, and anti-short cycle timer. (4) 16" x 16" x

2" MERV 13 return air filters, 5.5 kW electric strip heater factory mounted and wired, single point power connection for heat pump and strip heater. Integrated

modulating economizer with dry bulb control, fault diagnostics and detection per T24 regulations, modulating power exhaust fan module, demand control

ventilation package with wall mounted CO2 sensor set to 1000 ppm. Adjust outside airflow to modulate between hi-low settings per O.A. schedule on plans.

Include information on both settings in air balance report. Provide sperate power feed and disconnect for economizer power exhaust fan. Sloped roof curb with

Carrier 50FCQM14 Rooftop Heat Pump, 4,800 CFM @ 0.60 E.S.P. (hi-stage), 1.26 BHP belt drive supply fan motor, 3,600 CFM low stage, 147,590 BTUH total /

filters, 13.8 kW electric strip heater, factory mounted and wired, single point power connection for heat pump and strip heater. Integrated economizer with dry

105,360 sensible gross cooling / 127,860 heating capacity / 15.0 IEER / 10.6 EER / 3.3 COP at ARI conditions. Two stage cooling, two-stage fan control with

bulb control with fault diagnostics and detection per T24 regulations, modulating power exhaust fan module, demand control ventilation package with wall

VFD, 5 year compressor warranty, high and low pressure switches, adjustable defrost timer, and anti-short cycle timer. 18.0 sq. ft. 2" deep MERV 13 return air

mounted CO2 sensor set to 1000 ppm. Adjust outside airflow to modulate between hi-low settings per O.A. schedule on plans. Include information on both

settings in air balance report. Provide sperate power feed and disconnect for economizer power exhaust fan. Sloped roof curb with seismic hold down clips

CFM low speed (staged air volume), 73,450 BTUH total / 55,300 sensible gross cooling / 63,550 heating capacity / 11.2 EER / 15.0 IEER / 3.6 COP at ARI

Cutting, boring, saw cutting 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.

seismic hold down clips, internal high and low compressor protection.

seismic hold down clips, internal high and low compressor protection.

internal high and low compressor protection. Flue discharge defector (cut level with top of unit).

Electrical: 23 MCA / 25 MOCP @ 460v-3ph. (HP Unit)

Electrical: 46 MCA / 50 MOCP @ 460v-3ph. (HP Unit)

8.1 MCA / 14.6 MOCP @ 460v-3ph. (Power Exhaust)

3.5 MCA / 6.3 MOCP @ 460v-3ph. (Power Exhaust)

Electrical: 26 MCA / 30 MOCP @ 460v-3ph. (HP Unit)

1.9 MCA / 3.4 MOCP @ 460v-3ph. (Power Exhaust)

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, 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 pre-approved 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.

Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP), Electrical Distribution Systems (E):

Option 1: Detailed on the approved drawings with project specific notes and details

MP MD **Option 2:** Shall comply with the applicable OSHPD Pre-Approval (OPM#) PP ☐ E ☐ #Tolco/B-line OPM-052.

Codes:

California Code of Regulations (C.C.R)

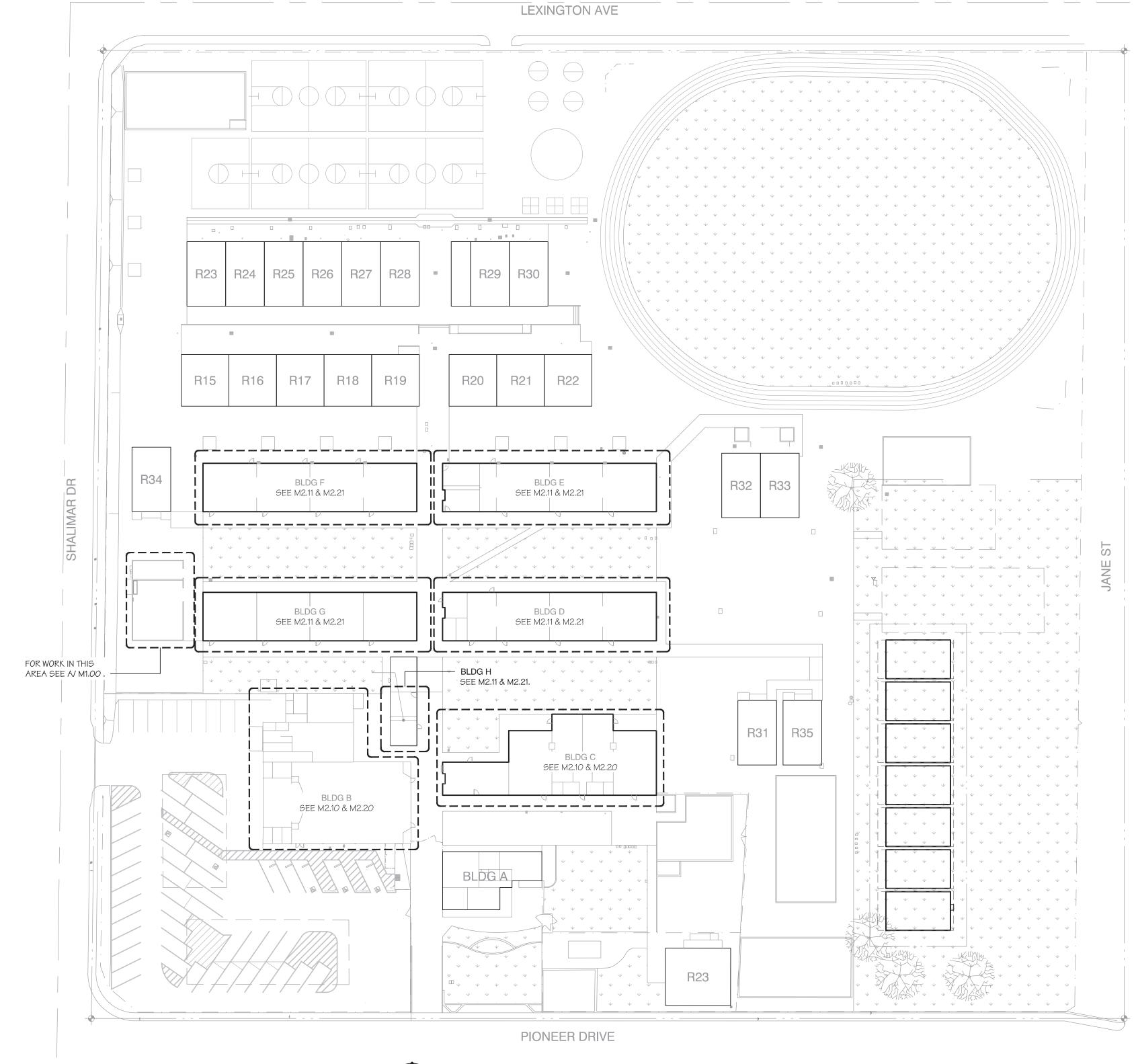
- Part 1 2022 California Standards Administrative Code, Title 24, C.C.R.
- Part 2 2019 California Building Code (C.B.C.), Title 24, C.C.R. Volumes 1-3. Part 3 - 2019 California Electrical Code, Title 24, C.C.R.
- Part 4 2019 California Mechanical Code (C.M.C.), Title 24, C.C.R. Part 5 - 2019 California Plumbing Code (C.P.C.), Title 24, C.C.R.
- Part 6 2019 California Energy Code, Title 24, C.C.R.
- Part 9 2019 California Fire Code, Title 24, C.C.R. Part 11 - 2019 California Green Code, Title 24, C.C.R.

Standards and Guides:

ADAAG - American with Disabilities Act, Accessibility Guidelines. Fixtures - Plumbing fixtures to comply with table 5.303.6 of the California Green Building Standards - 2019 Edition.

Air Conditioning Legend

SYMBOL	ABBR.	ITEM	SYMBOL	ABBR.	ITEM
	A.C.	Air Conditioning		H.W.R.	Heating Water Return
	A.D.	Access Door		H.W.S.	Heating Water Supply
	A.F.F.	Above Finished Floor		INT.	Internal
	A.H.	Air Handler		LOC.	Location
	B.A.S,	Building Automation System		М.О.	Motor Operated
	B.V.	Butterfly Valve		(N)	New
	C.D.	Condensate Drain		Ň.Ć.	Normally Closed
	C.E.	Ceiling Exhaust Register		N.I.C.	Not in Contract
	C.W.R.	Condensor Water Return		N.O.	Normally Open
	C.W.S.	Condensor Water Supply		0.S.A.	Outside Air
	C.H.W.R.	Chilled/Hot Water Return		0.B.D.	Opposed Blade Damper
	C.H.W.S.	Chilled/Hot Water Supply	$- \times$	P.O.C.	Point of Connection
	сомв.	Combustion	, "	P.P	Petes Plug
	CONN.	Connection		PROV.	Provide
	CONT.	Continuation		P.R.V.	Pressure Reducing Valve
	C.R.	Ceiling Return Register		SIM.	Similar
	CLG.	Ceiling	—-—▲S.F.D.	S.F.D.	Smoke / Fire Damper
	C.S.	Ceiling Supply Register		9.F.D.	w/ access panel '
	C.V.	Check Valve		S.M. or S/M	Sheet Metal
I — - —	D.C.W.	Domestic Cold Water	—⋈—	S.O.V.	Shut Off Valve
	DIA.	Diameter		S.P.S.T.	Single Pole Single Throw
I ⊢	D.L.	Door Louver	\bigcirc	STAT	Thermostat or Room Sensor
	DN.	Down		SURF.	Surface
	D.P.D.T.	Double Pole Double Throw		(TYP)	Typical
	D.T.R.	Duct Thru Roof		Ù.G.	Underground
	(E)	Existing		U.N.O.	Unless Noted Otherwise
	È.É.	Exhaust Fan	I —	V.D.	Volume Damper
	E.M.S.	Energy Management System	∽ ¬	V.D.	Vol. Damper w/ Remote Operator
	EX.	Exhaust		W/	With
—-— ▲F.D.	F.D.	Fire Damper w/ acc. panel		W.R.	Wall Return Register
	Flex. Conn	Flexible Connection	 	W.S.	Wall Supply Register
	FLR.	Floor	 		Duct w/ Acoustic Lining
	F.T.R.	Flue Thru Roof))))	T.V.	Turning Vanes
	Furn.	Furnace	I ———		Extractor
	GA.	Gauge	 		LXII ACIOI
	GAL.	Gallon		l	
	GALV.	Galvanized		l	CO2 SENSOR
	G.P.M.	Gallons per Minute	I	l	002 020010
	GRD.	Grade		l	Union
⋈	G.V.	Gate Valve	I ———	I	Reducer or Increaser







Carrier 50GCQM04 Rooftop Heat Pump, 1,200 CFM @ 0.60 E.S.P., 0.35 BHP direct drive vane-axial fan with electrically commutated motor, 800 CFM low speed (staged air volume), 35,890 BTUH total / 27,310 sensible gross cooling / 34,300 heating capacity / 16.2 SEER / 11.89 EER / 8.3 HSPF at ARI conditions. Two stage cooling, 5 year compressor warranty, high and low pressure switches, adjustable defrost timer, and anti-short cycle timer. 5.55 Sq. Ft. 2" Deep MERV 13 return air filters in factory filter rack, 5.5 kW electric strip heater factory mounted and wired, single point power connection for heat pump and strip heater. Integrated modulating economizer with dry bulb control, fault diagnostics and detection per T24 regulations, modulating power exhaust fan module, demand control ventilation package with wall mounted CO2 sensor set to 1000 ppm. Adjust outside airflow to modulate between hi-low settings per O.A. schedule on Include information on both settings in air balance report. Provide sperate power feed and disconnect for economizer power exhaust fan. Sloped roof curb with plans. Include information on both settings in air balance report. Provide sperate power feed and disconnect for economizer power exhaust fan. Sloped roof curb with seismic hold down clips, internal high and low compressor protection.

Operating Weight: 816 Lbs. Electrical: 19 MCA / 20 MOCP @ 460v-3ph. (HP Unit) Curb: 107 lbs. 1.9 MCA / 3.4 MOCP @ 460v-3ph. (Power Exhaust)

Operating Weight: 691 Lbs. Curb: 107 Lbs.

EQUIPMENT SCHEDULE

Carrier 50VT-C30 Rooftop Heat Pump, 950 CFM @ 0.40 E.S.P., 0.38 BHP direct drive supply fan motor, 28,430 BTUH total / 20,840 sensible net cooling / 28,310 heating capacity / 14.0 SEER / 8.2 HSPF at ARI conditions. Single stage cooling, 5 year compressor warranty, high and low pressure switches, adjustable defrost timer, and anti-short cycle timer. 2" Deep MERV 13 return air filters in factory filter rack, 3.8 kW electric strip heater, factory mounted and wired, single point power connection for heat pump and strip heater. Motorized two-position outside air damper. Sloped roof curb with seismic hold down clips internal high and low compressor protection.

Electrical: 44.8 MCA / 45 MOCP @ 208v-1ph. (HP Unit)

Operating Weight: Unit 366

Curb 65 Lbs.

Operating Weight: 37 Lbs.

Operating Weight: 809 Lbs. Curb: 107 lbs.

Operating Weight: 1,572 Lbs.

Curb: 185 Lbs.

Greenheck CUE-099-VG Centrifugal Upblast Roof Mounted Exhaust Fan. 350 CFM @ 0.50" E.S.P., 1172 RPM, .07 BHP, 5.8 sones, 1/6 HP direct drive ECM motor. Provide with sloped roof curb, backdraft damper, dial on motor for balancing, bird screen, and NEMA-1 toggle switch. Interlock fan operation with Pelican EMS system.

Electrical: 1/6 HP @ 115v-1ph.

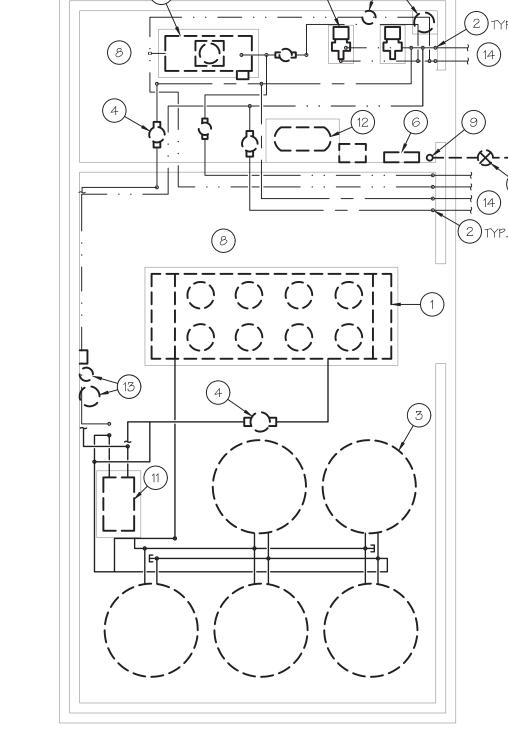


Greenheck SPA-50-90-VG Ceiling Mounted Exhaust Fan. 90 CFM @ 0.20" E.S.P., 887 RPM, 6 watts ECM motor, 0.7 sones. Provide with backdraft damper, full size discharge to roof cap, and NEMA-1 toggle switch. Interlock fan operation with light circuit. Dial on fan speed control with time delay set to fifteen

Electrical: 6 Watts @ 115v-1ph. Operating Weight: 12 Lbs.



- BOILER/CHILLER YARD DEMOLITION KEYNOTES: Remove existing chillers, all chilled water piping, hangers, supports, etc.
- 2. Cap piping at 1" above grade. . Remove existing thermal storage tanks, all piping supports, etc.
- Remove all existing pumps, expansion tanks, pot feeder, supports, accessories, etc.
- Remove existing boiler, all hot water piping, supports, flue thru roof, flue
- Remove existing EMS panel, all related conduits, wiring, controls, etc. Demo back domestic CW pipe back to branch take-off and cap.
- Note: Entire central plant yard and boiler room shall be made free of all mechanical, plumbing, electrical, and control items related to items
- being removed. Confirm exact details based on field conditions. Demo gas back to 6" above slab and cap.
- 10. Close (E) gas S.O.V.
- 11. Remove HTX and all related piping.
- 12. Remove existing control air compressor and all related items.
- 13. Remove existing expansion tank and by-pass feeder. Existing below grade piping to be abandoned in place.



BOILER/CHILLER YARD DEMOLITION PLAN



175 Fulton Street Fresno, CA 93721 Tel: (559) 237-0376

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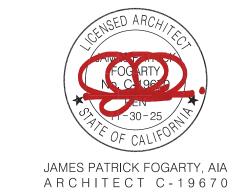
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CAMPUS HVAC

Pioneer Elementary School

4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-001
Date	09.29.2
DSA File No	15-
DSA No	03-12264

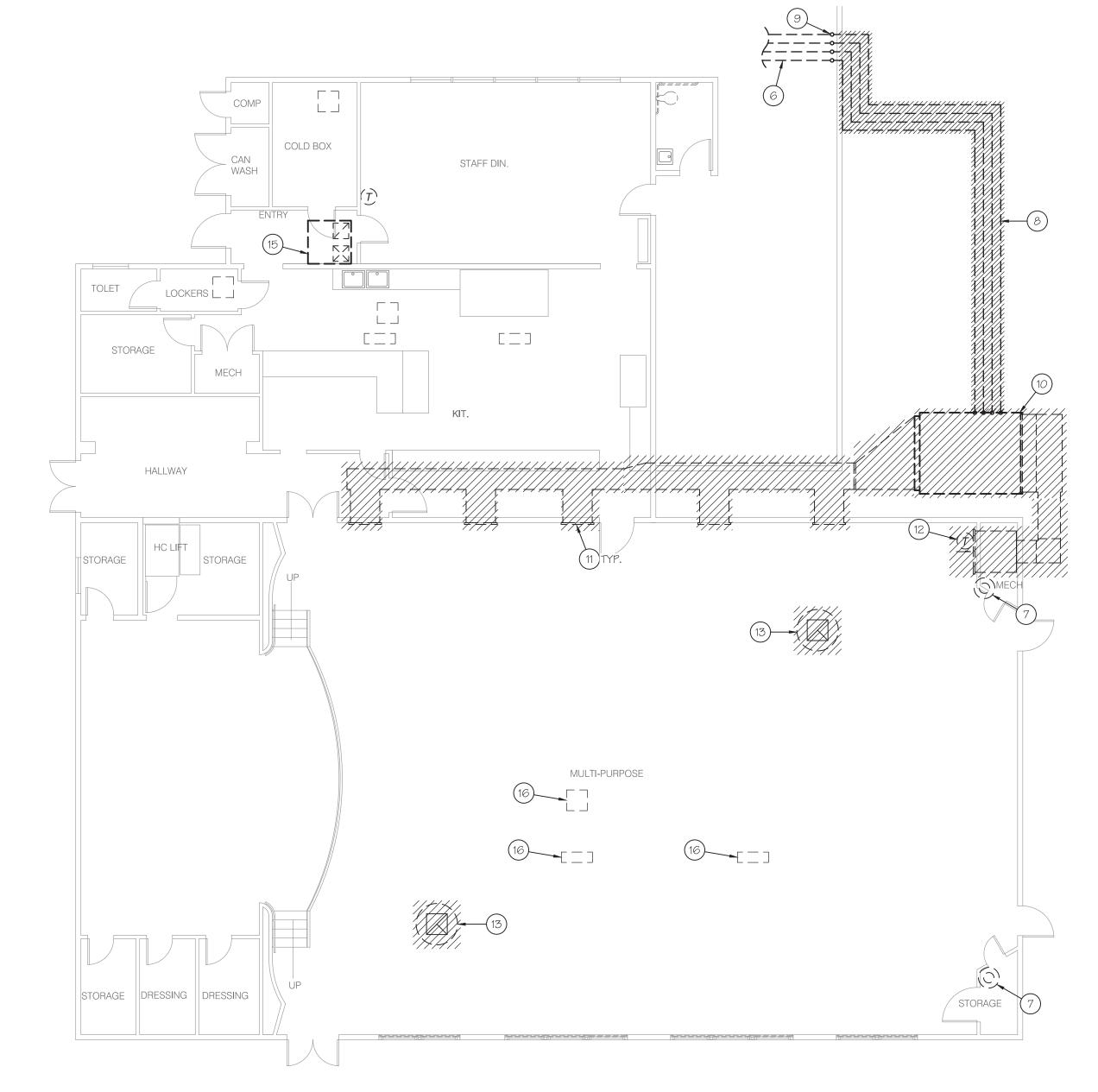
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No	Date	Item	
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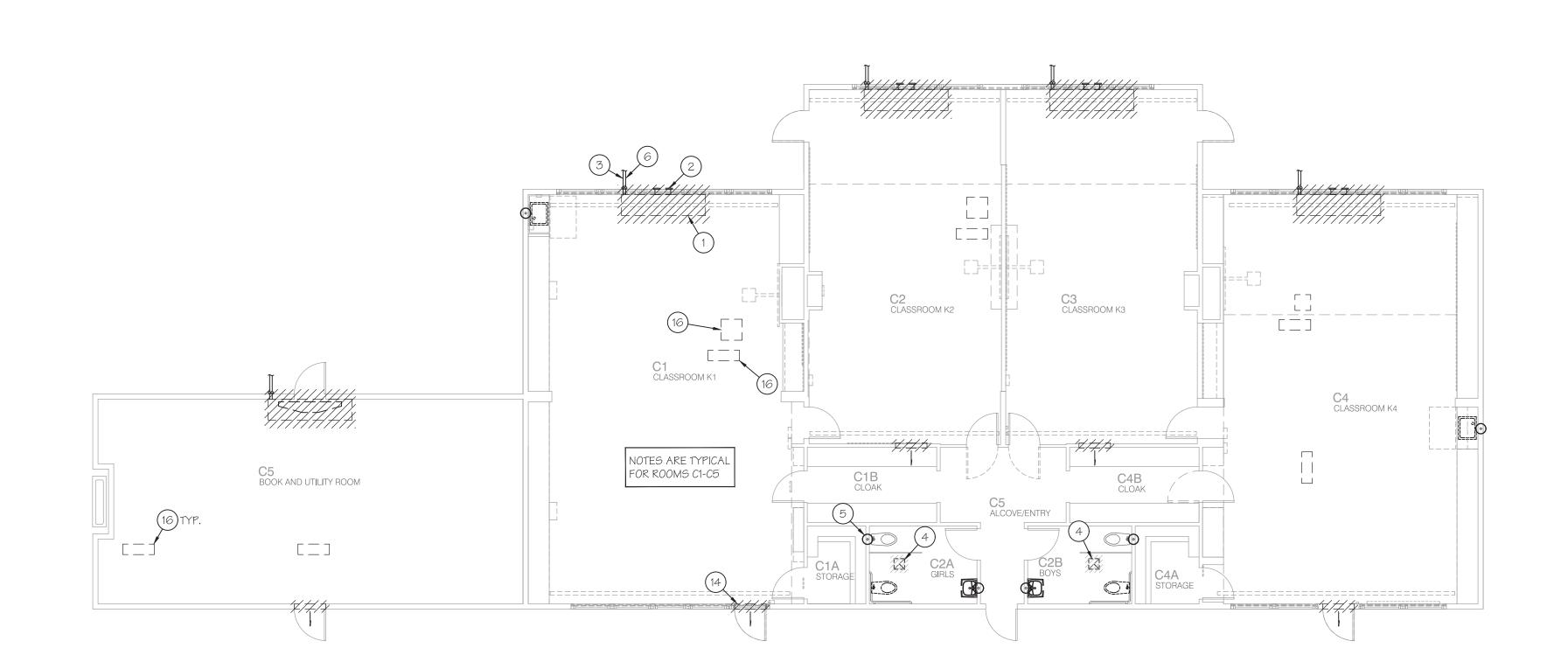
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AND BE RESPONSIBLE FOR ALL DIMENSIONS AND

CONDITIONS SHOWN BY THESE DRAWINGS. SHOP







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

Demolition Key Notes:

roof to match existing.

match existing.

match existing.

(5) Existing HVAC unit to remain.

(4) Remove existing barometric relief assembly.

7. Abandoned furnace flue, typical.

1. Remove existing unit ventilator, all related mechanical piping, condensate piping, controls,

Remove existing hydronic and condensate piping and exterior chase. Remove piping to 12" below grade. Cap piping and abandon in place. Patch all surfaces to match existing.
 Remove existing exhaust fan or gravity relief vent, roof curb, ductwork, grille, etc. Patch

(8) Demo all hydronic piping above roof, pipe supports, etc. Patch / weatherproof roof to

Semove existing exterior pipe chase, hydronic pipe risers on wall, anchorage, patch and seal pipe openings in parapet wall to match existing. Demo piping to 12" below grade and

(O) Remove existing air handler, all ductwork, grilles, controls, etc. Patch roof to match

(2) Remove existing wall return grille, return air riser, etc. Patch wall opening to match

(3) Remove existing roof exhaust fan, ductwork, grille, curb, controls, etc. Infill roof opening to

(11) Remove sidewall supply grilles and infill openings to match existing.

(6) Existing roof hatch or roof vent. Confirm exact location in field.

supports, anchorage, etc. Patch existing surfaces to match existing.

2. Remove existing outside air louvers. Infill / patch wall to match existing.

(5) Existing waste vent, typical. Confirm exact location in field.

(6) Abandon in place below grade site hydronic piping.





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APP: 03-122641 INC:

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DATE: 12/07/2023



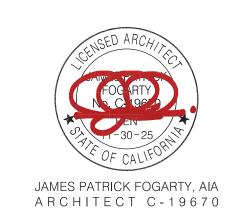
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CAMPUS HVAC SYSTEM UPGRADE

Pioneer Elementary School

4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0017
Date	09.29.23
DSA File No	15-6
DSA No	03-122641

REVISIONS

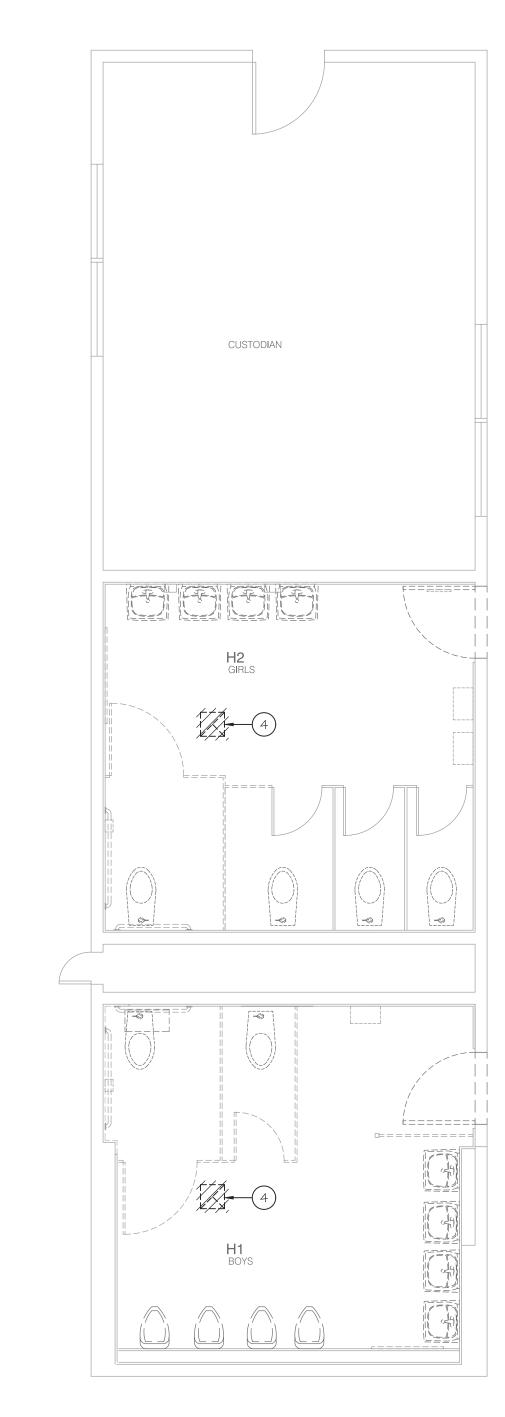
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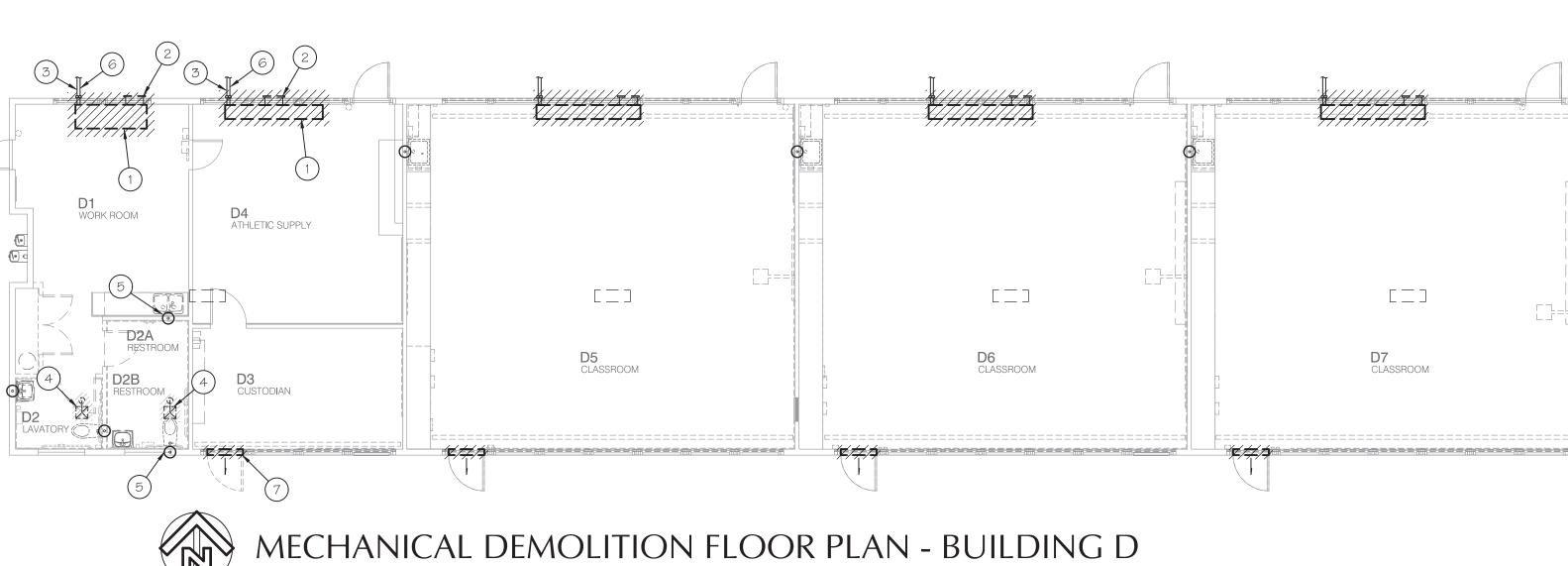
MECHANICAL DEMOLITION FLOOR PLANS BUILDINGS B, C

M2.10

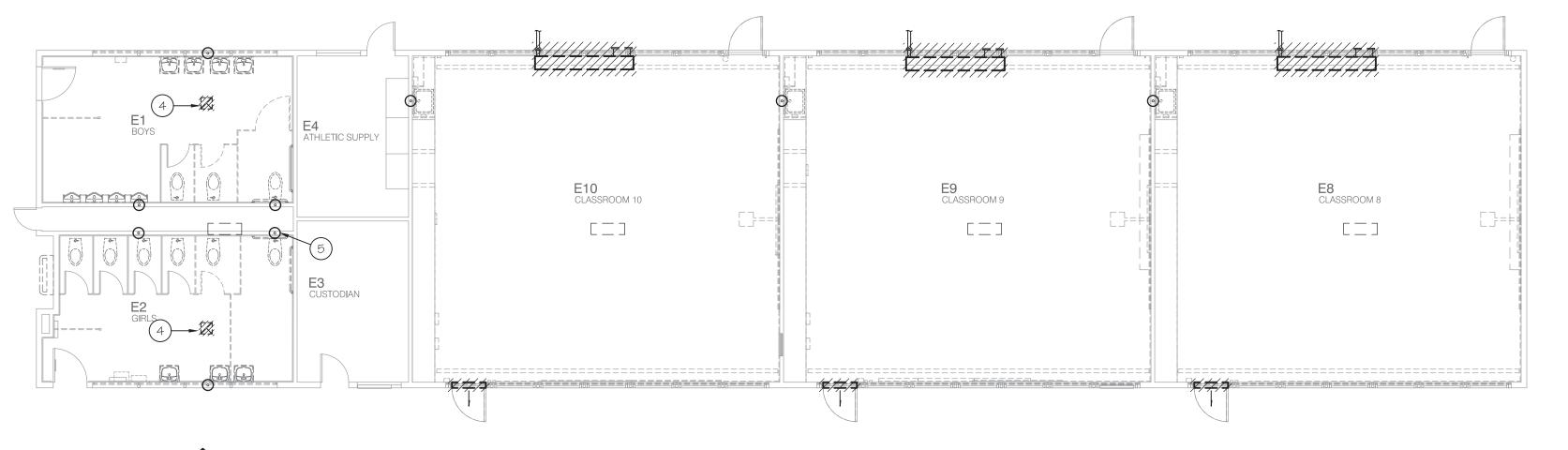




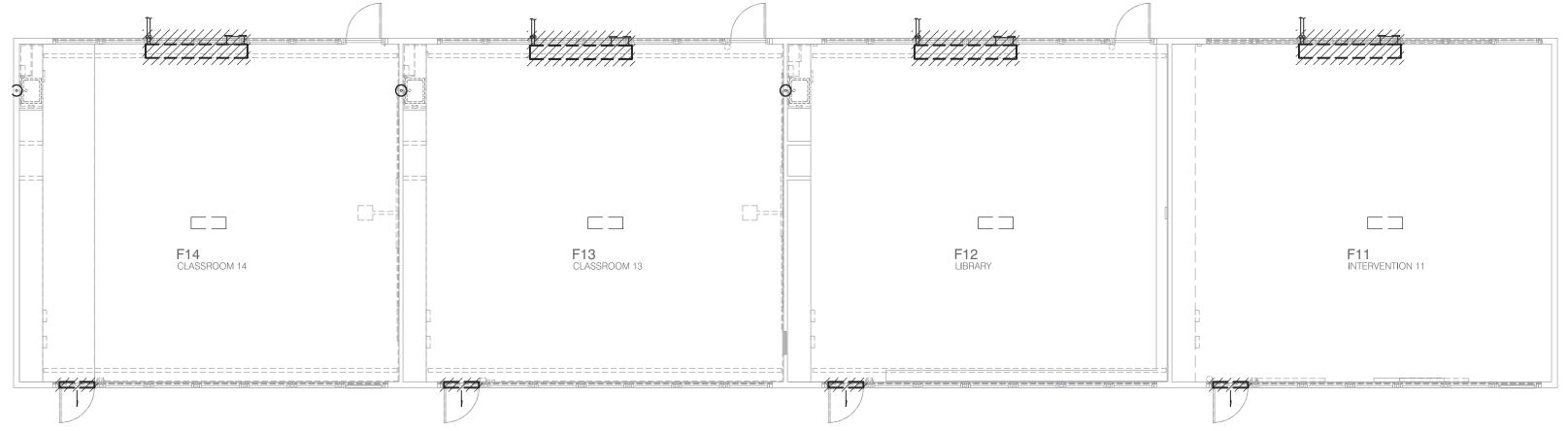
- **DEMOLITION KEY NOTES:**
- 1. Remove existing unit ventilator, all related mechanical piping, condensate piping, controls, supports, anchorage, etc. Patch existing surfaces to match existing.
- (2) Remove existing outside air louvers. Infill / patch wall to match existing. (3) Remove existing hydronic and condensate piping and exterior chase. Remove piping to 12" below grade. Cap piping and abandon in place. Patch all surfaces to match
- 4. Remove existing exhaust fan or gravity relief vent, roof curb, ductwork, grille, etc. Patch roof to match existing.
- (5) Existing waste vent, typical. Confirm exact location in field.
- Abandon in place below grade site hydronic piping.
- See arch. sheets.
- 8) Existing Roof hatch or roof vent. Confirm exact location in field.



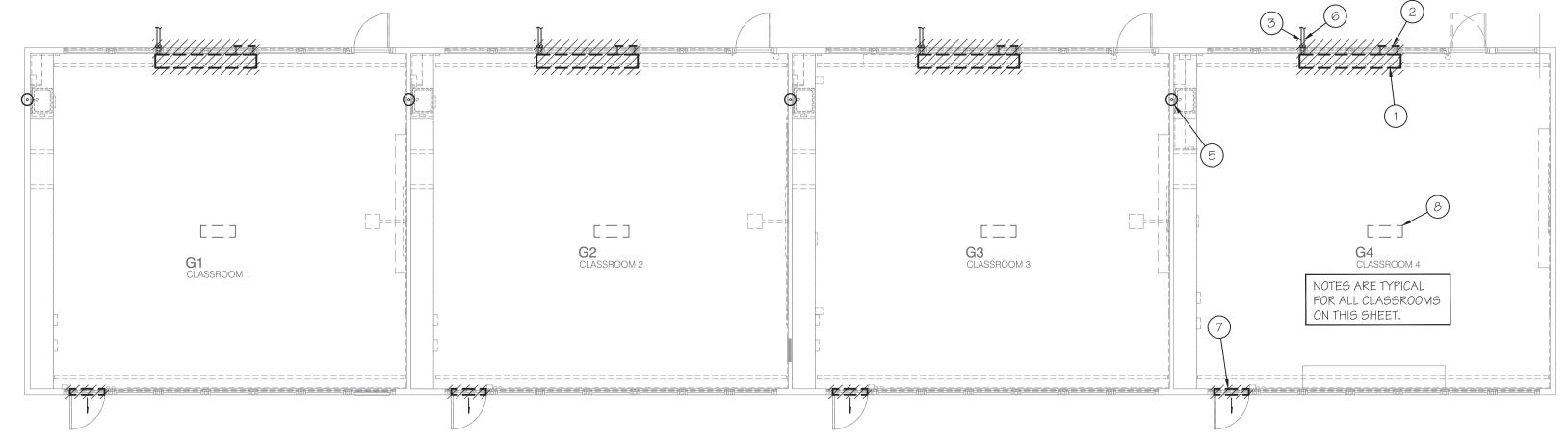
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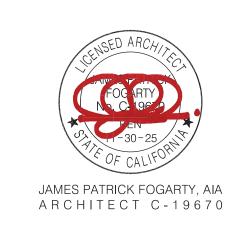


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> CAMPUS HVAC SYSTEM UPGRADE

Pioneer Elementary School 4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

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PROJECT INFO

09.29.23 DSA File No DSA No 03-122641

REVISIONS

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BASKIN
MECHANICAL
ENGINEERS

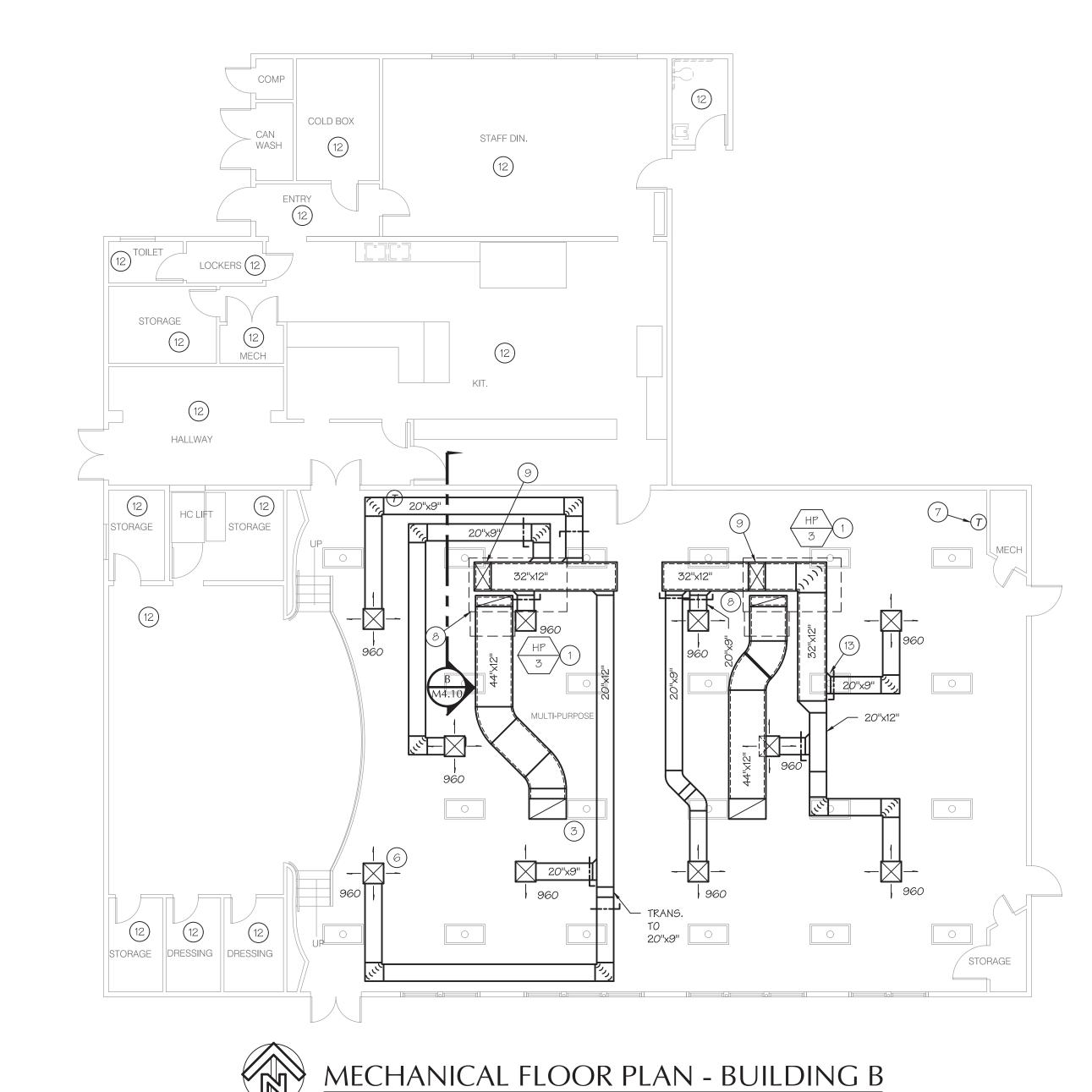
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Tel: (559) 237-0376
Job: 22015
Plt: 10-12-23

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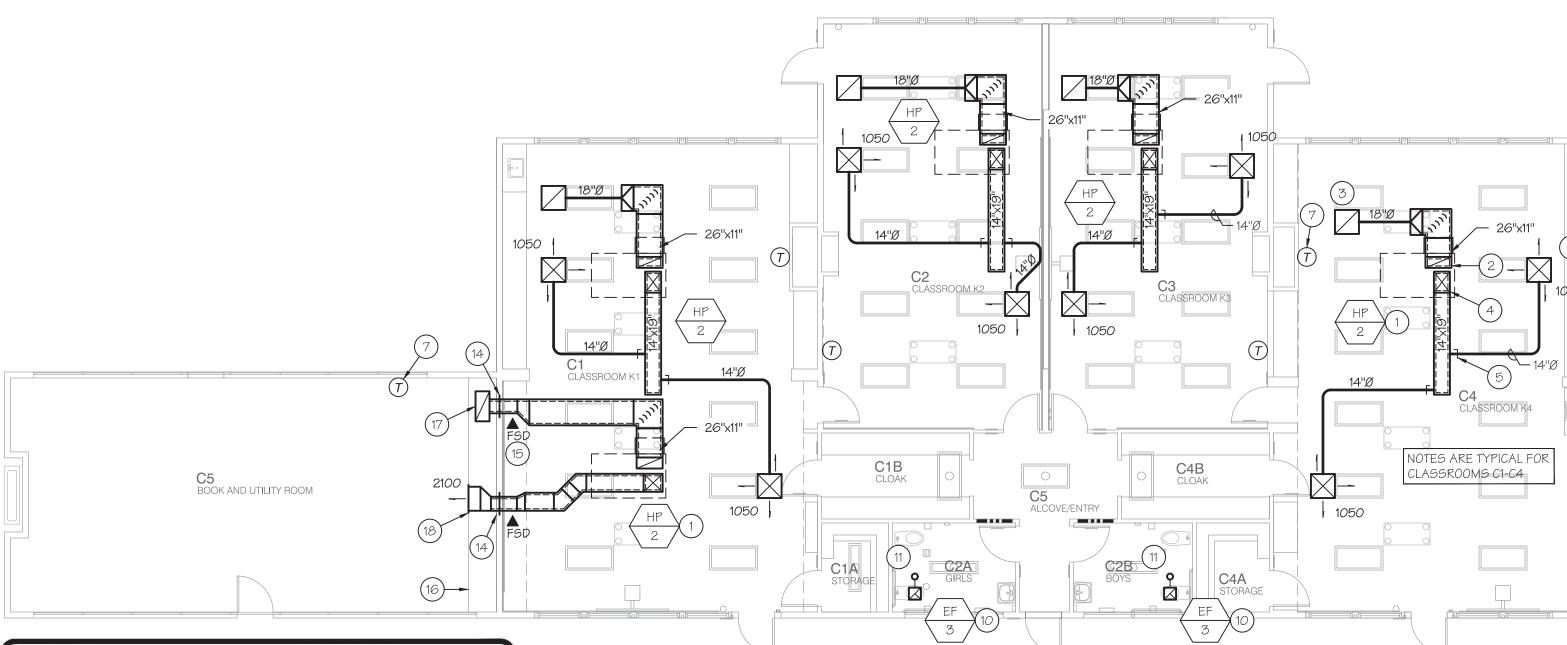
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MECHANICAL DEMOLITION FLOOR PLANS BUILDINGS D,E,F,G,H

AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS SHALL BE SUBMITTED TO THIS OFFICE FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.



MECHANICAL FLOOR PLAN - BUILDING C



GRILLE SCHEDULE

CD-1: Titus Model TDC Louvered Face Diffuser with T-Bar mount frame and O.B.D. See diffuser sizing chart for neck sizes. WS-1: Titus 300RL double deflection grille with O.B.D.

CR-1& CE-2: Titus Model 50F eggcrate T-Bar mount return grille. CE-1& CR-2: Titus Model 35RL, 35 degree deflection, surface mounting frame, O.B.D.

Note - Paint all visible surfaces behind diffusers and grilles flat black.

DIFFUSER SIZING CHART				
CFM	TITUS MCD, SQUARE NECK	CFM	TITUS TDC, SQUARE NECK	
0 - 200	6" × 6"	0 - 150	6" × 6"	
201 - 325	8" × 8"	151 - 275	9" x 9"	
326 - 450	10" × 10"	276 - 475	12" × 12"	
451 - 600	l2" x l2"	476 - 700	15" × 15"	
601 - 700	4" × 4"	701 - 950	18" × 18"	
701 - 850	16" × 16"	95I - I25 <i>0</i>	21" × 21"	
851 - 950	18" × 18"	1251 - 1700	24" × 24"	
951 - 1150	20" × 20"	1701 - 2500	30" × 30"	3

MECHANICAL FLOOR PLAN KEY NOTES:

- (1.) ROOF MOUNTED HEAT PUMP UNIT. SEE MECHANICAL ROOF PLAN. 2) 26" X 11" RETURN AIR RISER WITH 1" LINER, 28" X 13" NET. PROVIDE MITERED LINED ELBOW AT BOTTOM OF RISER. SEE DETAIL C/ M4.11.
- (4) 12" X 18" SUPPLY AIR DROP WITH 1" LINER, 14" X 20" NET. PROVIDE MITERED
- LINED ELBOW AT BOTTOM OF RISER. SEE DETAIL C/ M4.11. (5) PROVIDE SPIN-IN FITTING AT BRANCH TAKE-OFF WITH VOLUME DAMPER, TYP.
- 6 CD-1, TYPICAL. SEE DETAIL A/ M4.11.
- 7.) T-STAT LOCATION TYPICAL. CLASSROOMS AND MULTI-PURPOSE ROOMS USE PELICAN TS250 WITH CO2 SENSOR AND DEMAND CONTROL VENTILATION. SEE DETAIL D/ M4.11.
- (8) 44" X 12" RETURN AIR RISER WITH 1" LINER. 46" X 14" NET. PROVIDE MITERED LINED ELBOW AT BOTTOM OF RISER.
- (9) 32" X 12" SUPPLY AIR DROP WITH 1" LINER, 34" X 14" NET. PROVIDE MITERED LINED ELBOW AT BOTTOM OF RISER. SEE DETAIL C/ M4.11.
- (O) CEILING EXHAUST FAN.
- (11) 6" ROUND EXHAUST DUCT ROUTED THRU ROOF TO ROOF CAP.
- (2) NO MECHANICAL WORK IN THIS ROOM.
- (3) RECTANGULAR DUCT TAKE-OFF WITH 45 DEGREE FITTING, TYPICAL. (4) 12"x14" DUCT w/ 1" LINER (14"x26" NET) ROUTED THRU WALL BETWEEN (E)FRAMING.
- (5) FIRE/SMOKE DAMPER, TYP. SEE DETAIL J/ M-4.11. (6) LINE FOR SOFFIT BELOW 11'-6" CEILING. INSTALL DUCTWORK IN SOFFIT.
- (7) CR-2, 30"x14" LOCATED AT BOTTOM OF (E) SOFFIT.

18) WS-1, 24" WIDE x 18" HIGH LOCATED AT FACE OF SOFFIT.



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Pioneer Elementary School 4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



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PROJECT INFO

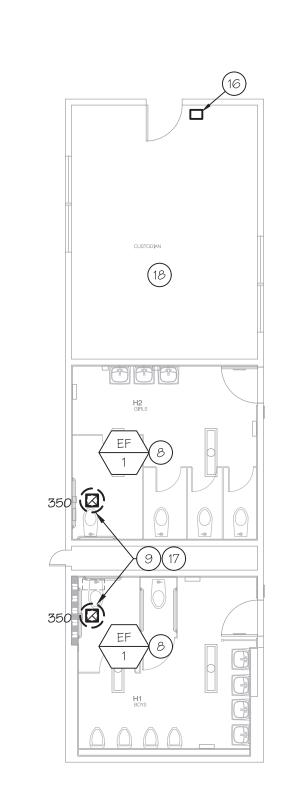
Project No	566-0017
Date	09.29.23
DSA File No	15-6
DSA No	03-122641

REVISIONS

LINO .	Daie	l item
*	00.00.08	DESCRIPTION

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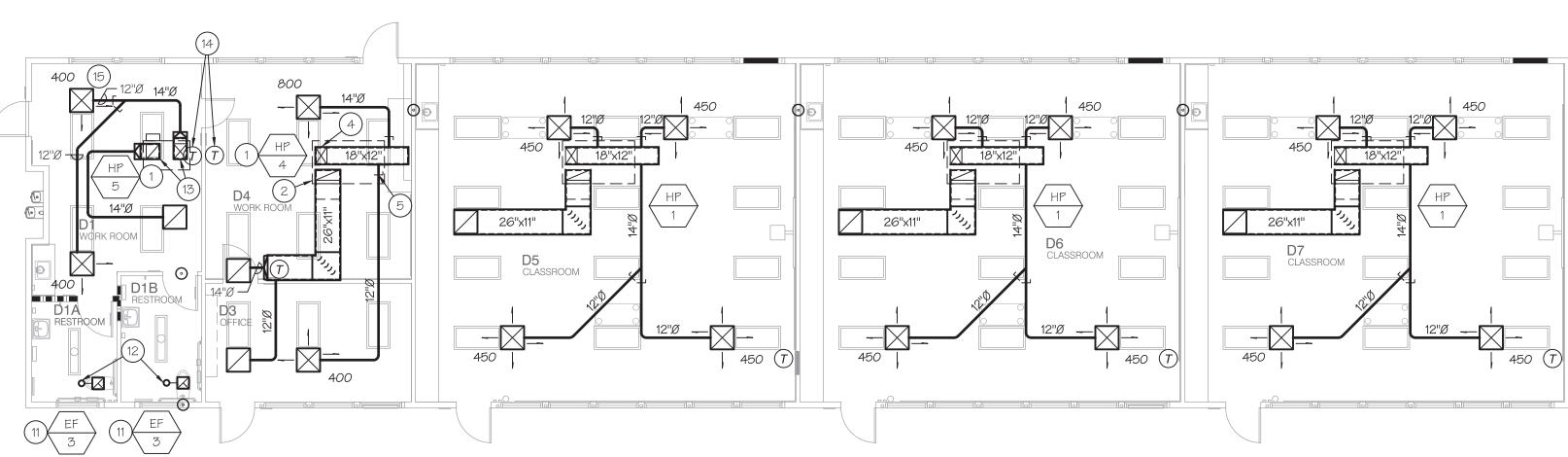
> MECHANICAL FLOOR PLANS - BUILDINGS B,C



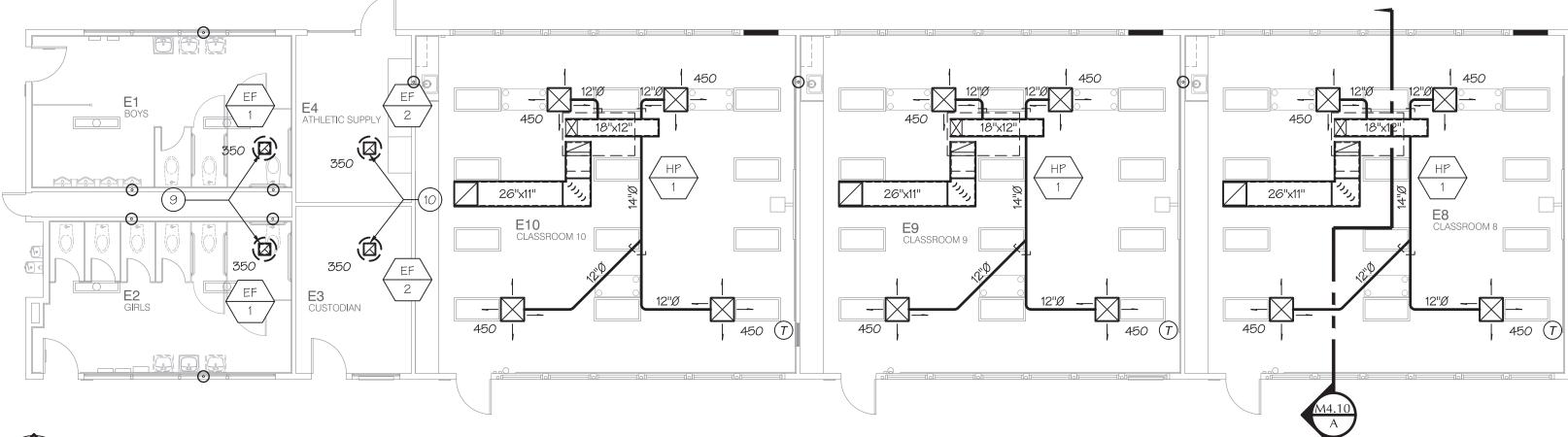


MECHANICAL FLOOR PLAN KEY NOTES:

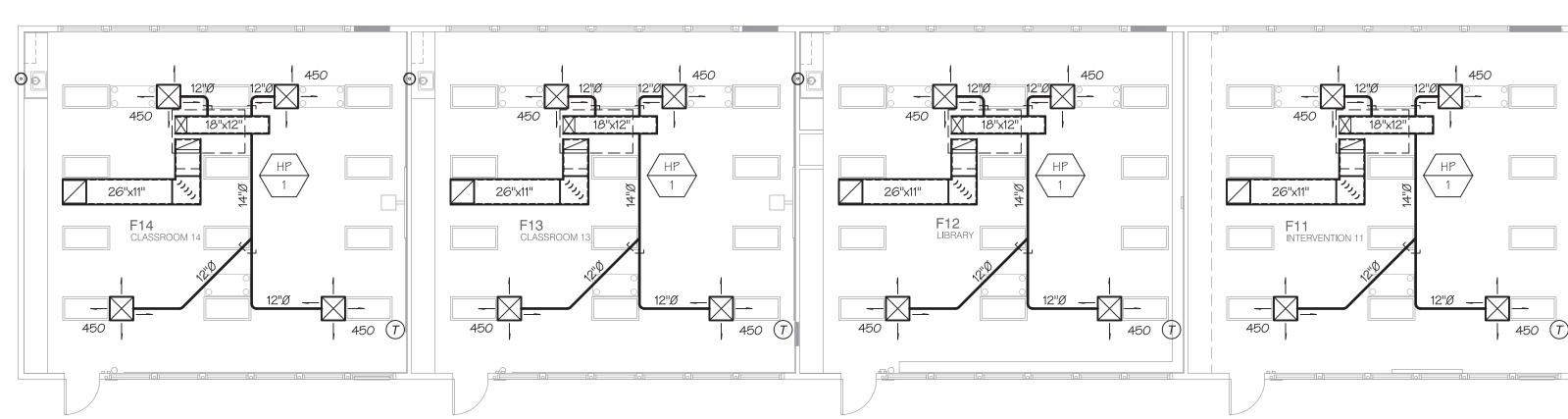
- 1.) ROOF MOUNTED HP UNIT. SEE MECHANICAL ROOF PLAN.
- 2) 26" X 11" RETURN AIR RISER WITH 1" LINER, 28" X 13" NET. PROVIDE MITERED LINED ELBOW AT BOTTOM OF RISER. SEE DETAIL C/ M4.11.
- 4.) 12" X 18" SUPPLY AIR DROP WITH 1" LINER, 14" X 20" NET. PROVIDE MITERED LINED ELBOW AT BOTTOM OF RISER. SEE DETAIL C/ M4.11.
- (5) PROVIDE SPIN-IN FITTING AT BRANCH TAKE-OFF WITH VOLUME DAMPER.
- 6) CD-1, TYPICAL. SEE DETAIL A/ M4.11.
- 7. T-STAT LOCATION TYPICAL. CLASSROOMS AND MULTI-PURPOSE ROOMS USE PELICAN TS250 WITH CO2 SENSOR AND DEMAND CONTROL VENTILATION. SEE TYPICAL DETAIL D/ M4.11.
- 8) ROOF MOUNTED EXHAUST FAN. SEE MECHANICAL ROOF PLAN.
- (9) 10" X 10" EXHAUST DUCT DROP WITH 1" LINER, WITH CE-1, 12" X 12" EXHAUST GRILLE. 12" X 12" EXHAUST DUCT DROP WITH CE-1, 12" X 12" EXHAUST GRILLE.
- (11.) CEILING EXHAUST FAN.
- (2) 6" ROUND EXHAUST DUCT ROUTED THRU ROOF TO ROOF CAP.
- (3) 12" X 14" SUPPLY AND RETURN AIR DROPS WITH 1" LINER. 14" X 16" NET. PROVIDE MITERED LINED ELBOW AT BOTTOM OF RISER.
- (4) PELICAN TS200 THERMOSTAT AT THIS LOCATION.
- (5) BRANCH DUCT VOLUME DAMPER, TYPICAL. SEE DETAIL B/ M4.11.
- 6 LOCATE PELICAN WIRELESS GATEWAY AT THIS LOCATION ALONG WITH 120V CONNECTION AND ROUTER CONNECTION. SEE DETAIL E/ M4.11.
- (7) PROVIDE WIRELESS RELAY MODULE TO CONTROL EXHAUST FANS IN THIS BUILDING. SEE DETAIL F/ M4.11.
- (8) NO MECHANICAL WORK IN THIS ROOM.



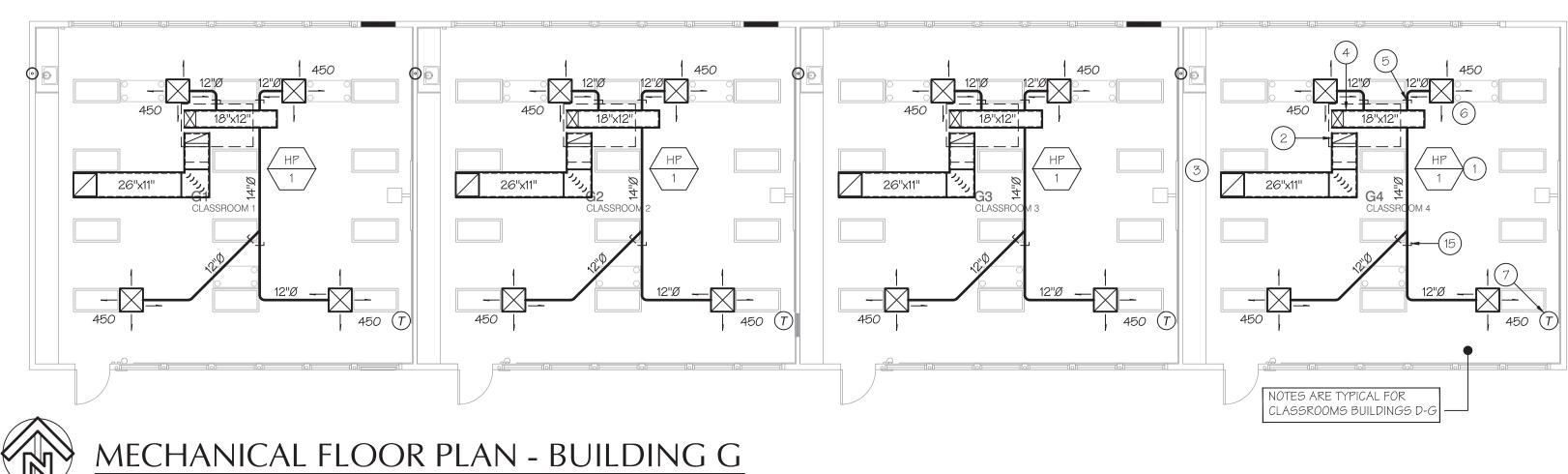
MECHANICAL FLOOR PLAN - BUILDING D SCALE: 1/8"=1'-0"



MECHANICAL FLOOR PLAN - BUILDING E



MECHANICAL FLOOR PLAN - BUILDING F



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BASKIN
MECHANICAL
ENGINEERS

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22015
Plt: 10-12-23

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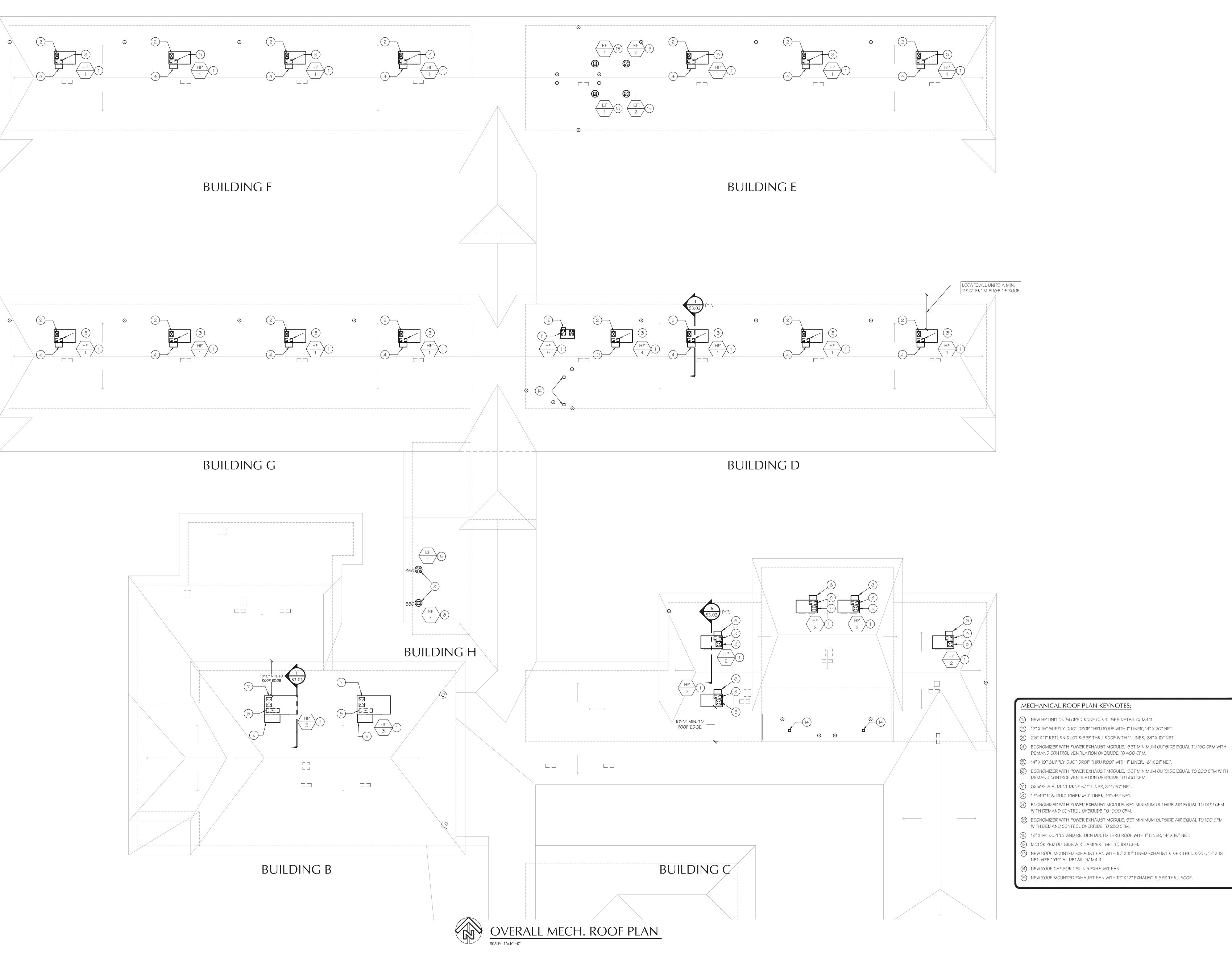
09.29.23 DSA File No 03-122641 DSA No

REVISIONS

Date Item /* 00.00.08 DESCRIPTION

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BUILDINGS D,E,F,G,H



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DSA File No	15-6
DSA No	03-122641

REVISIONS

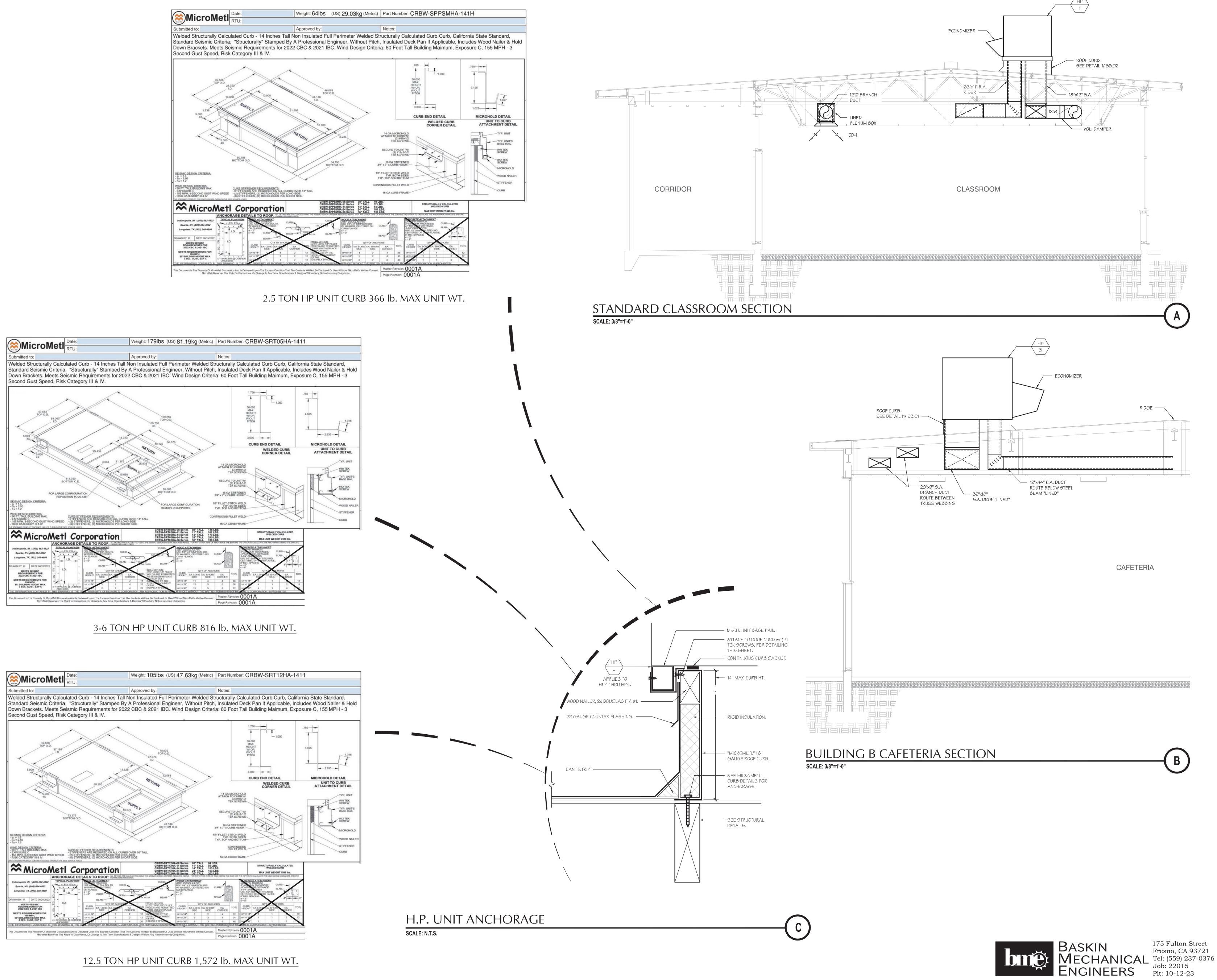
No Date Item

INO	Date	item
*	00.00.08	DESCRIPTION

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OVERALL MECH. ROOF PLAN

M3.00



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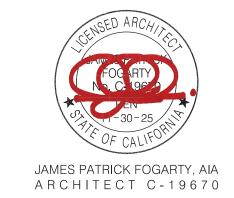
> CAMPUS HVAC SYSTEM UPGRADE

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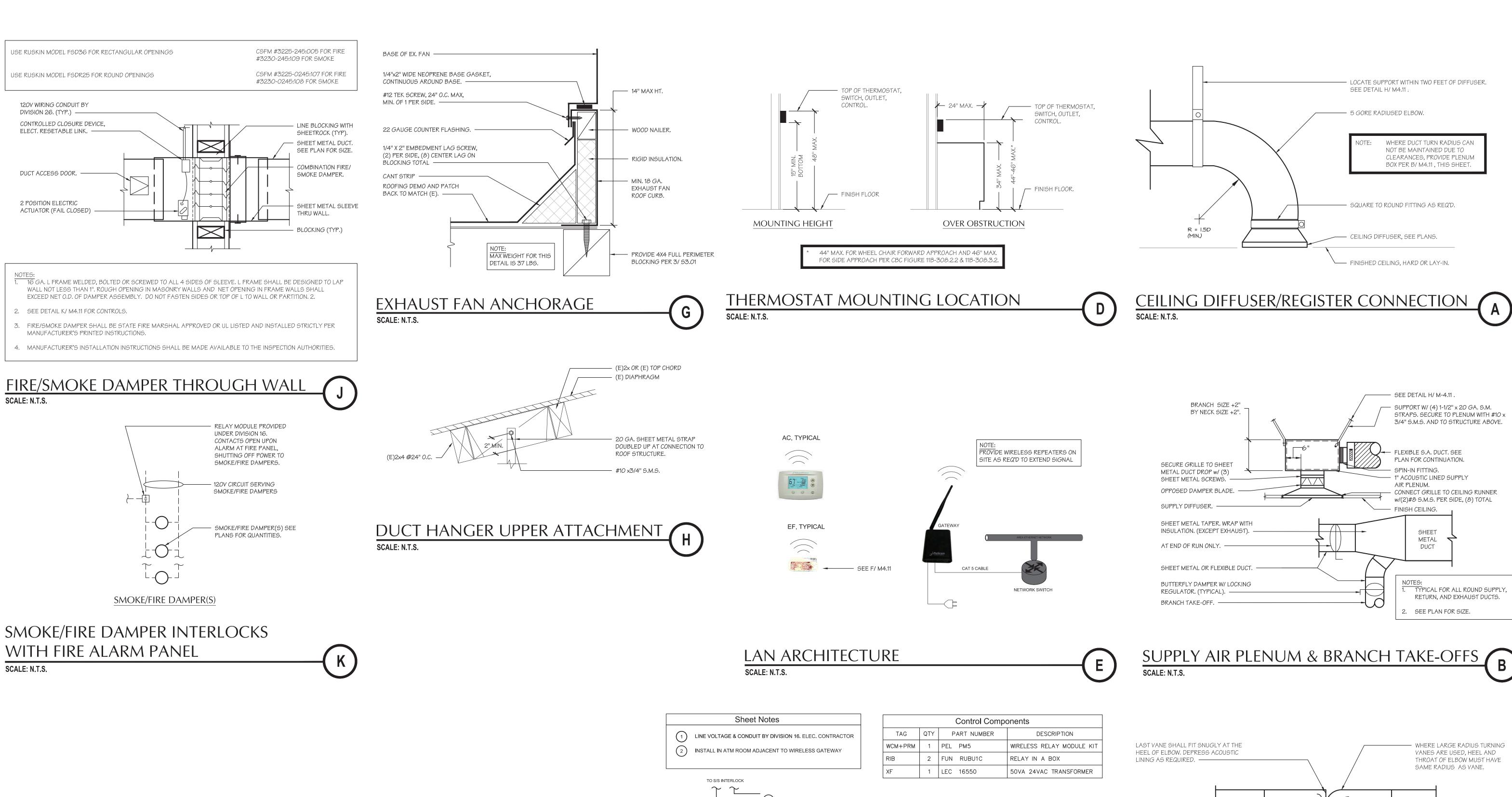
PROJECT INFO

Project No			566-0017
Date			09.29.23
DSA File No)		15-6
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REVISIONS			
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MECHANICAL SECTIONS

Job: 22015 Plt: 10-12-23 M4.10



— EX. DUCT CONN.

---- FACTORY PROVIDED MOUNTING

- (2) 1/4"x1" LAG SCREW PER BRACKET, (4) TOTAL

FIELD PROVIDED 2x BLOCKING BETWEEN (E)CEILING JOIST

BRACKET, TYP-2

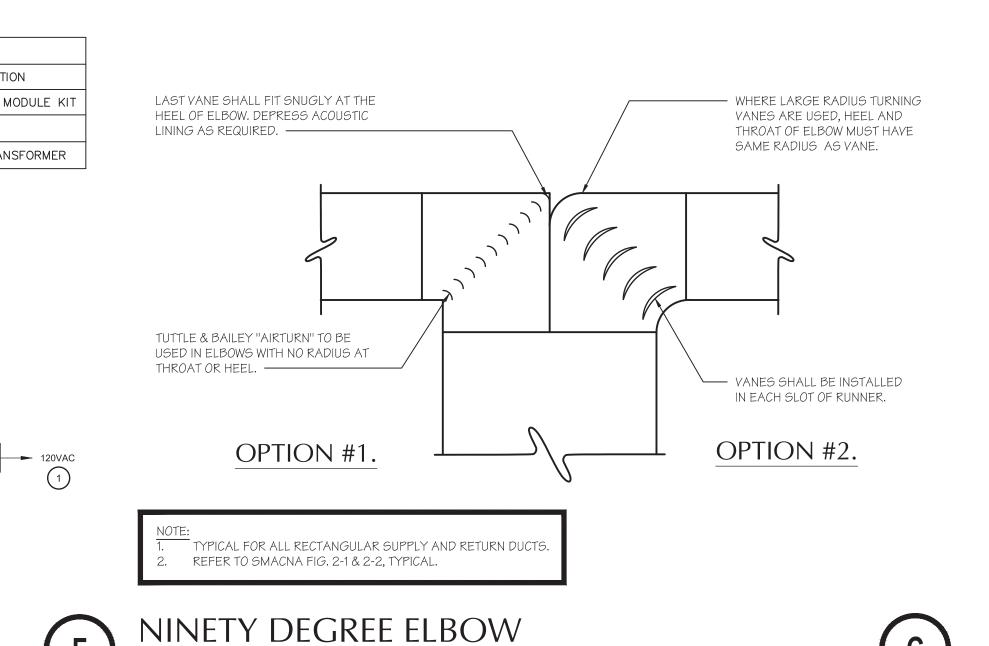
FIN. CEILING

CEILING EX FAN

SCALE: N.T.S.

EX. FAN CONTROL DETAIL

SCALE: N.T.S.



SCALE: N.T.S.





LOCATE SUPPORT WITHIN TWO FEET OF DIFFUSER.

WHERE DUCT TURN RADIUS CAN

NOT BE MAINTAINED DUE TO

CLEARANCES, PROVIDE PLENUM

BOX PER B/ M4.11 , THIS SHEET.

SEE DETAIL H/ M4.11.

— 5 GORE RADIUSED ELBOW.

— SQUARE TO ROUND FITTING AS REQ'D.

— CEILING DIFFUSER, SEE PLANS.

— FINISHED CEILING, HARD OR LAY-IN.

— SEE DETAIL H/ M-4.11.

- FLEXIBLE S.A. DUCT. SEE

SPIN-IN FITTING.

AIR PLENUM.

---- FINISH CEILING.

PLAN FOR CONTINUATION.

- 1" ACOUSTIC LINED SUPPLY

w/(2)#8 S.M.S. PER SIDE, (8) TOTAL

METAL DUCT

TYPICAL FOR ALL ROUND SUPPLY,

RETURN, AND EXHAUST DUCTS.

2. SEE PLAN FOR SIZE.

— SUPPORT W/ (4) 1-1/2" x 20 GA. S.M.

STRAPS. SECURE TO PLENUM WITH #10 x

3/4" S.M.S. AND TO STRUCTURE ABOVE.

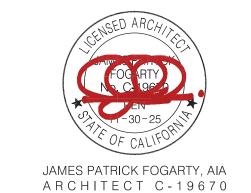
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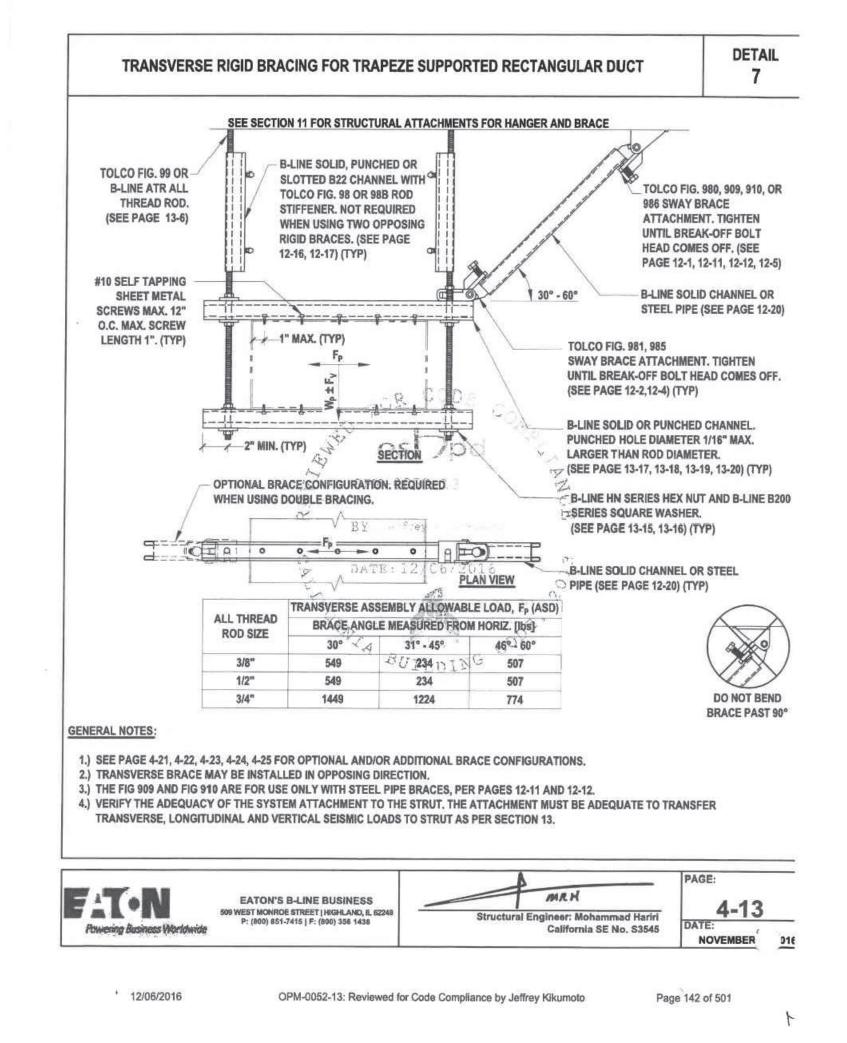
Project No	566-0017
Date	09.29.23
DSA File No	15-6
DSA No	03-122641

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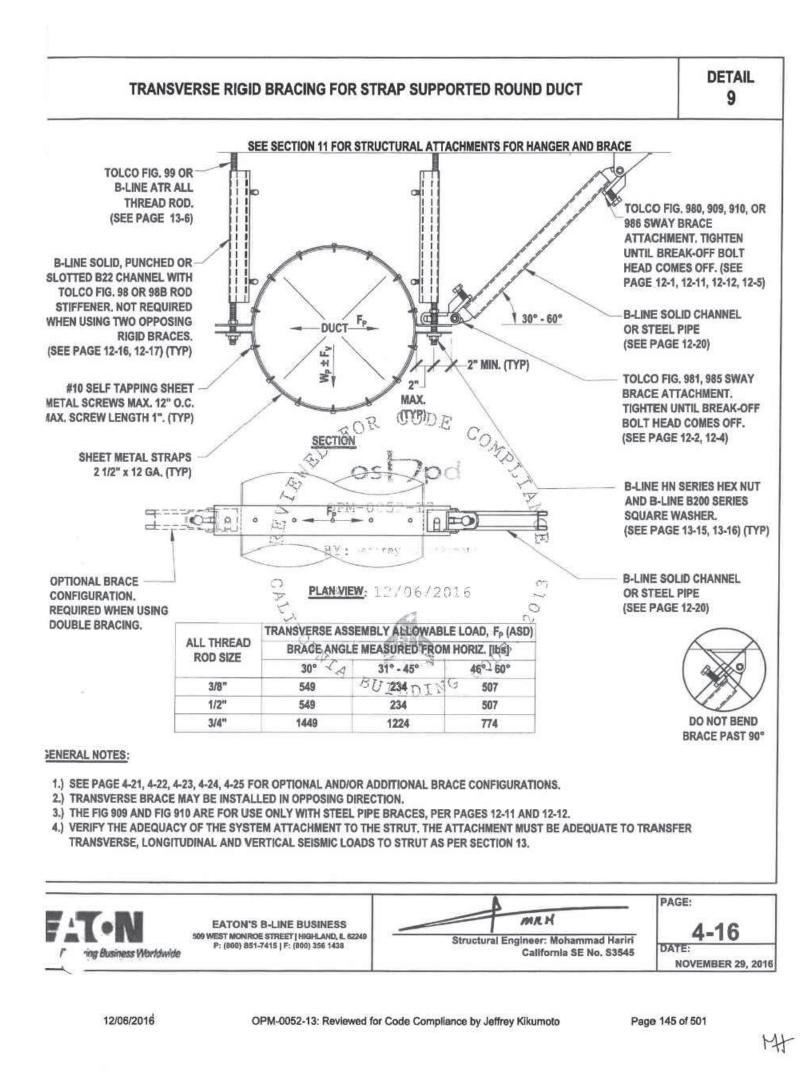
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MECHANICAL DETAILS

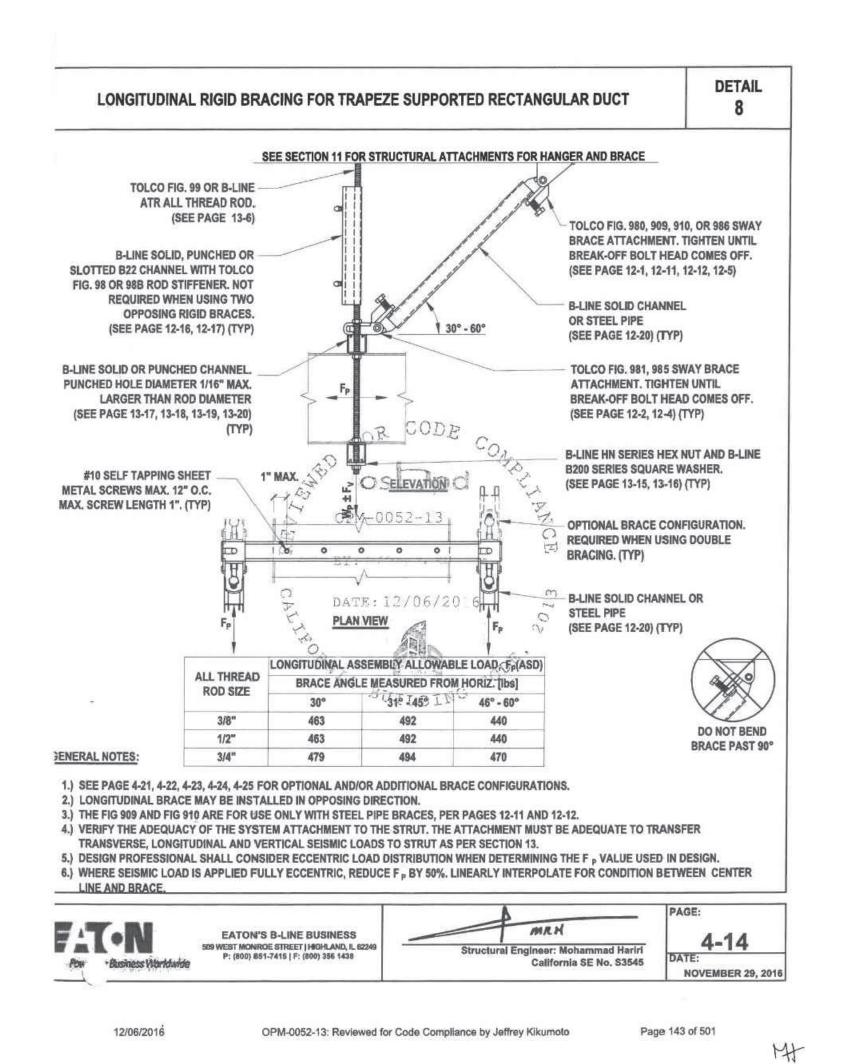


TRANSVERSE RIGID BRACING FOR
TRAPEZE SUPPORTED RECTANGULAR DUCT
SCALE: N.T.S.

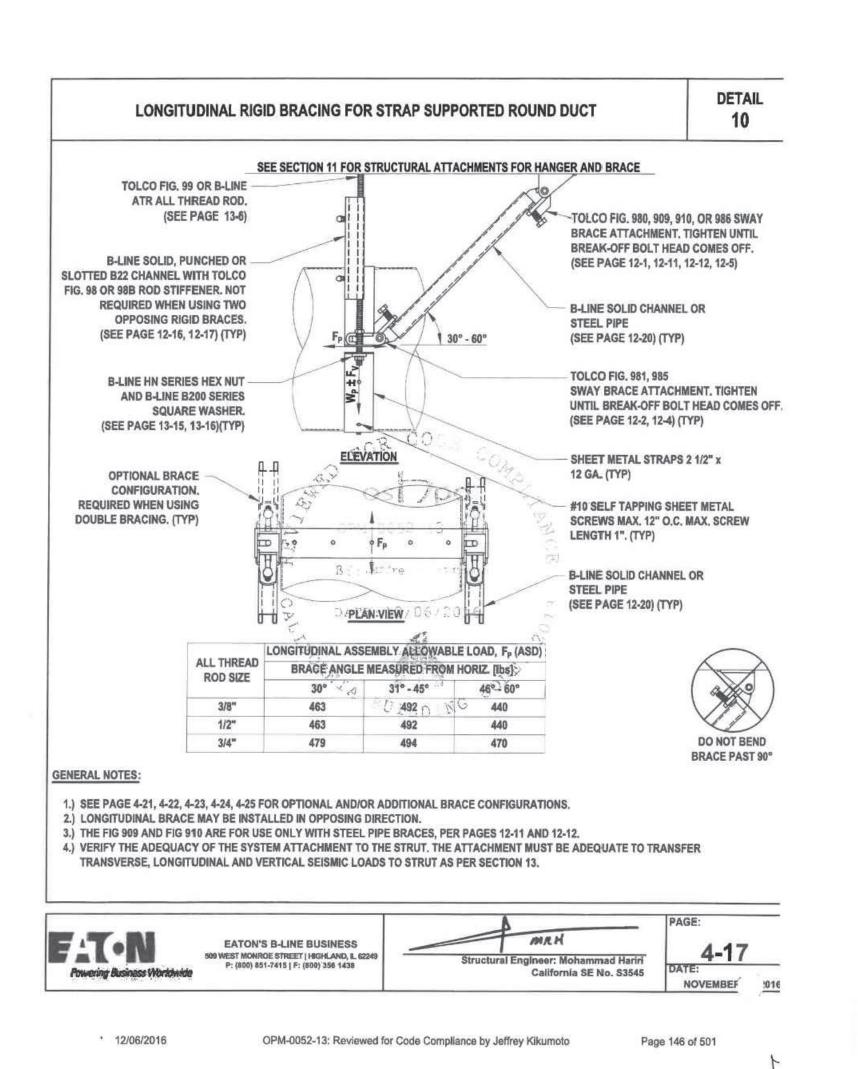


TRANSVERSE RIGID BRACING FOR STRAP SUPPORTED ROUND DUCT SCALE: N.T.S.



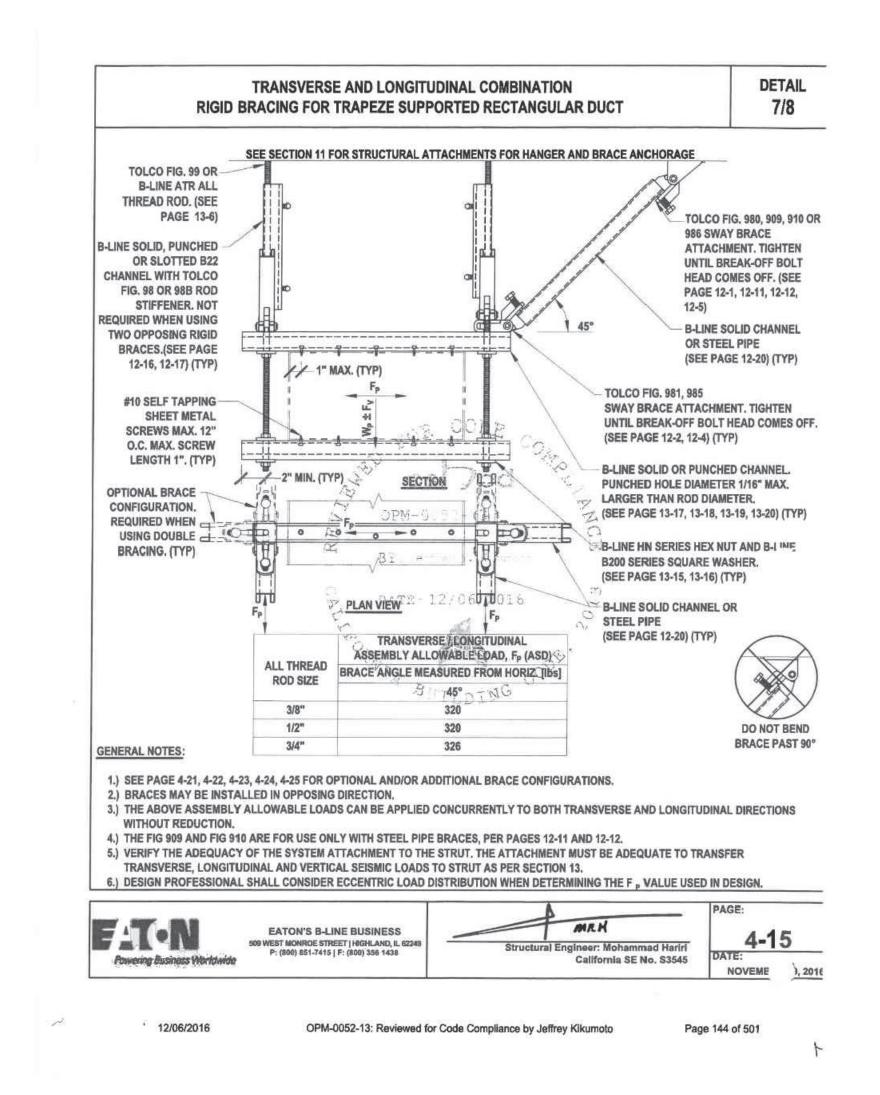


LONGITUDINAL RIGID BRACING FOR TRAPEZE SUPPORTED RECTANGULAR DUCT SCALE: N.T.S.

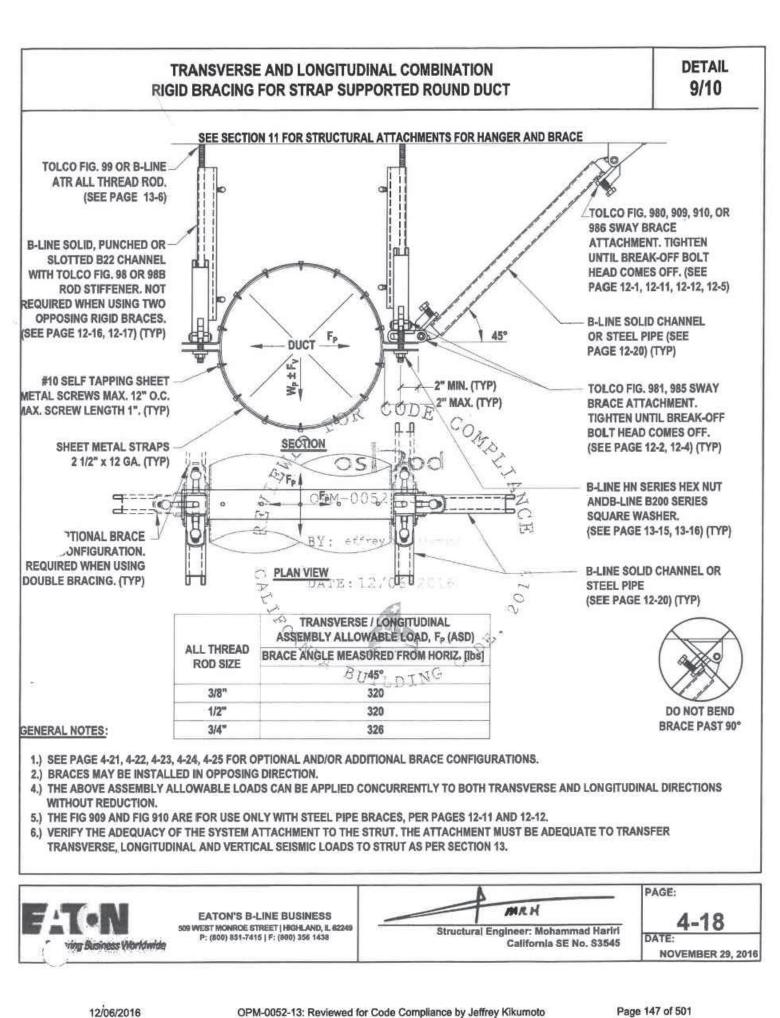


LONGITUDINAL RIGID BRACING FOR STRAP SUPPORTED ROUND DUCT SCALE: N.T.S.

(E)



TRANSVERSE & LONGITUDINAL COMBINATION RIGID BRACING FOR TRAPEZE SUPPORTED RECTANGULAR DUCT SCALE: N.T.S.



TRANSVERSE & LONGITUDINAL COMBINATION RIGID BRACING FOR STRAP SUPPORTED ROUND DUCT SCALE: N.T.S.

F



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PROJECT INFO

 Project No
 566-0017

 Date
 09.29.23

 DSA File No
 15-6

 DSA No
 03-122641

REVISIONS
No Date

No Date Item

* 00.00.08 DESCRIPTION

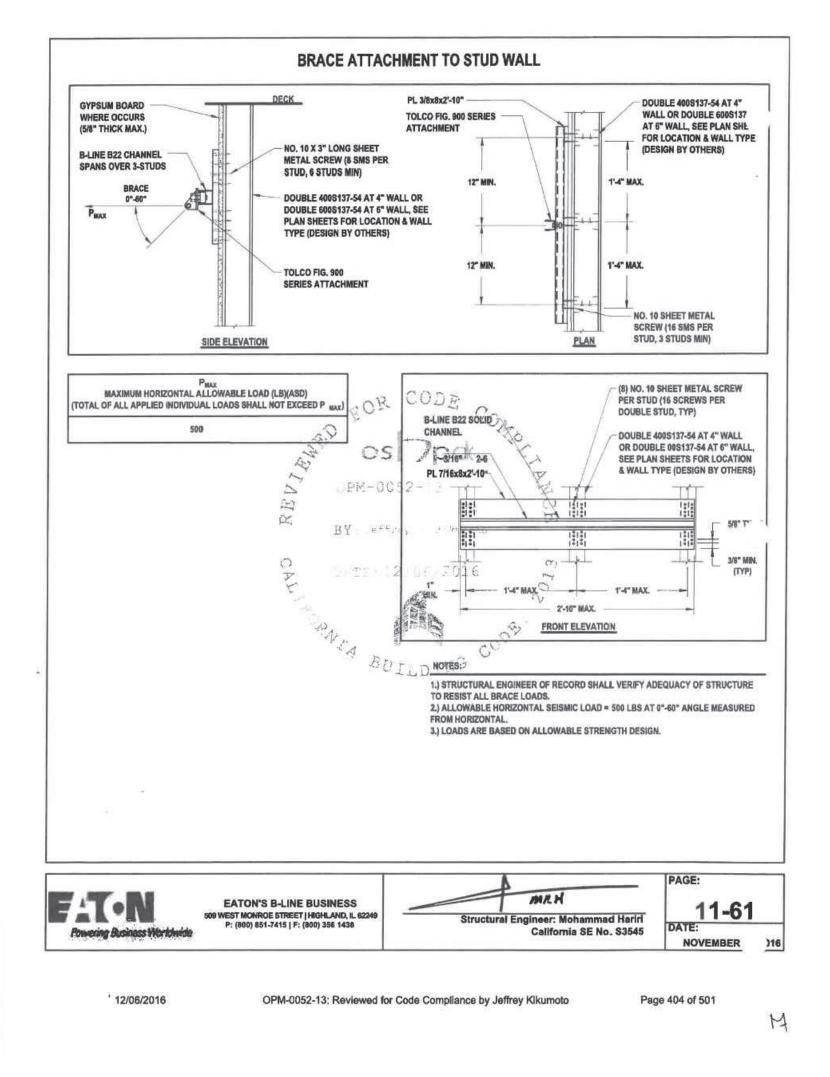
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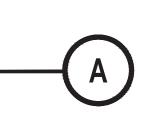
DETAILS

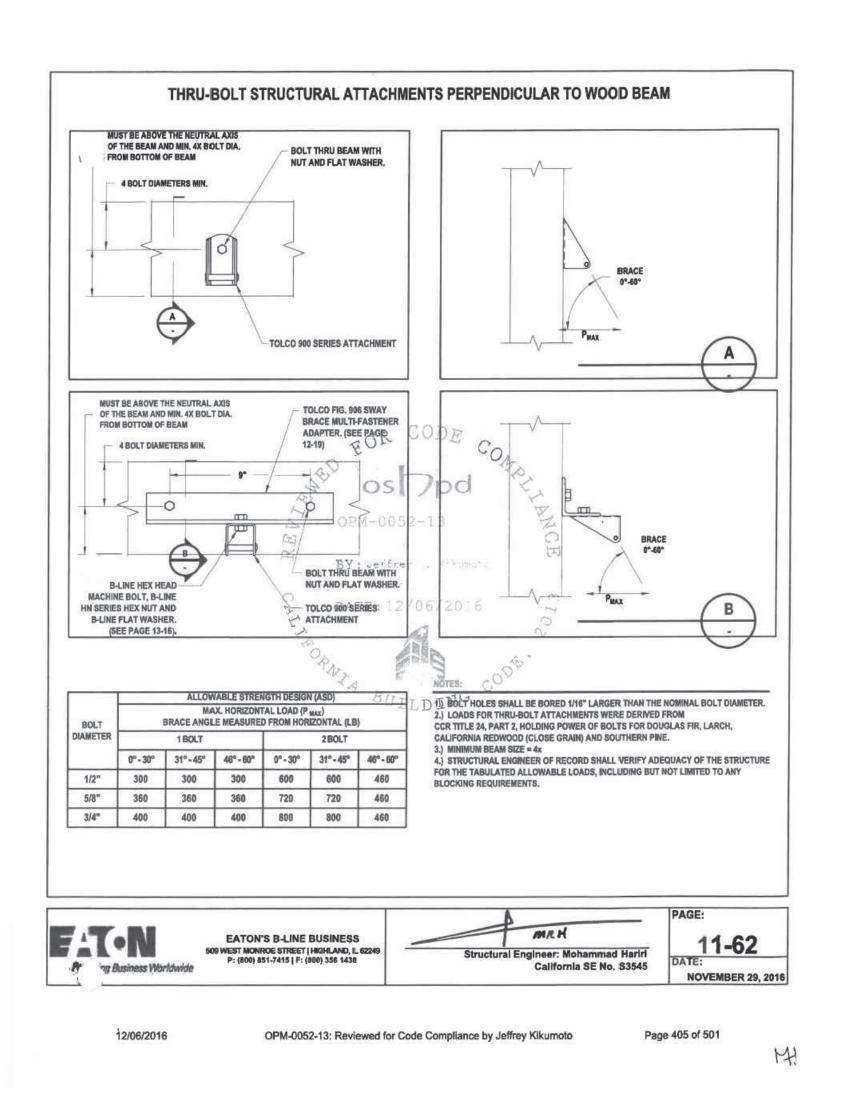
DUCT BRACING

M4.12



BRACE ATTACHMENT TO STUD WALL SCALE: N.T.S.



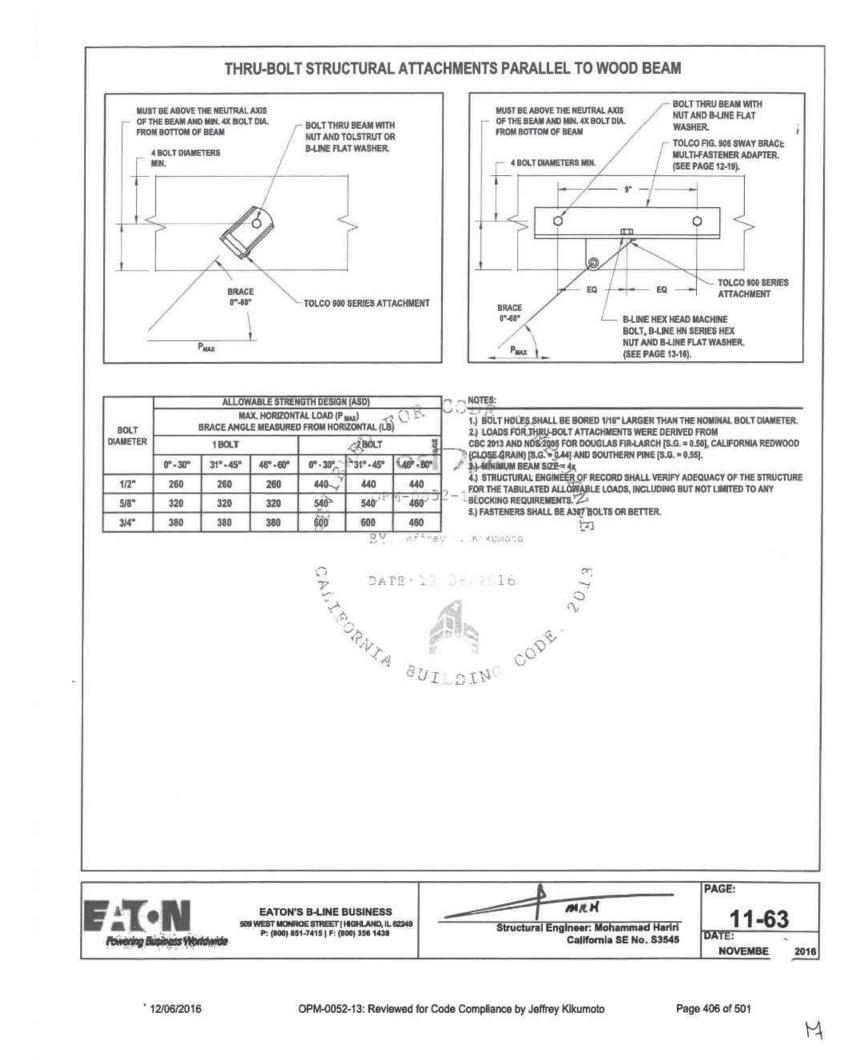


THRU-BOLT STRUCTURAL ATTACHMENTS
PERPENDICULAR TO WOOD BEAM
SCALE: N.T.S.

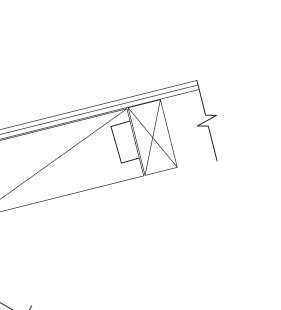
(B)

4x4 BLOCKING w/ SIMPSON U24 EA. END. TYP.

SCALE: N.T.S.

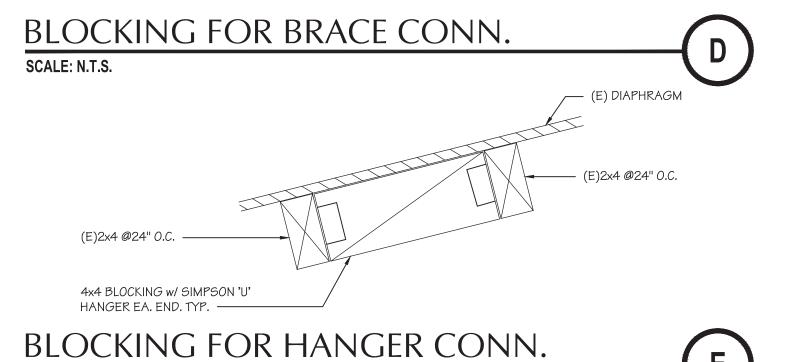


THRU-BOLT STRUCTURAL ATTACHMENTS
PARALLEL TO WOOD BEAM
SCALE: N.T.S.



- BRACING PER DETAILS ON SHEET M4.12

INTSTALL ADDITIONAL BLOCKING ON EITHER SIDE OF THE BLOCKING FOR BRACE, AND MAINTAIN BRACES AT A MAXIMUM OF 10'-O" O.C.



BRACING TABLE

BRACE MAX SPACING

TRAVERSE 20'-0"
LONGITUDINAL 40'-0"

NOTES:

1. EACH STRAIGHT RUN OF 10'-0" OR LONGER MUST BE BRACED.
2. ANY CHANGE IN DIRECTION MUST BE BRACED.
3. EACH STRAIGHT RUN MUST BE BRACED AT EACH END OF RUN.
4. EACH STRAIGHT RUN MUST HAVE A MINIMUM OF ONE

LONGITUDINAL BRACE AND ON TRANSVERSE BRACE



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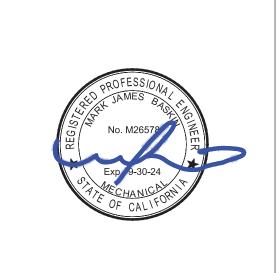
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DUCT BRACING DETAILS

M4.13

roj	ect Name:	t Name: Pioneer School Bld. B			NRCC-PRF-01-E	Page 1 of	11
roje	ect Address:	4404 Pioneer Drive Bake	ersfield 93306 Calculation Date/Time: 16:14,		16:14, Mo	on, Sep 19, 2022	
npu	t File Name:	Pioneer Bld B 2.cibd19x					
A G	ENERAL INFORM	MATION					
1	Project Location		Bakersfield	8	Standards Version		Compliance2019
2	CA Zip Code		93306	9	Compliance Software (ve	rsion)	EnergyPro 8.3
3	Climate Zone		13	10	Weather File		BAKERSFIELD_723840_CZ2010.epw
4	Total Conditione	d Floor Area in Scope	3,600 ft ²	11	Building Orientation (deg)	(E) 90 deg
5	Total Uncondition	ned Floor Area	0 ft ²	12	Permitted Scope of Work	8	ExistingAdditionAndAlteration
6	Total # of Stories	s (Habitable Above Grade)	1	13	Building Type(s)		Nonresidential
7	Total # of dwelling	ng units	0	14	Gas Type		NaturalGas

B. PROJECT SUMMARY								
Table Instructions: Table B shows whi permit application.	ich build	ding component	s are included in the performance calcula	tion.	If indicated as no	ot included, the project must show complian	ce prescriptively if within	
	Buildin	g Components C	omplying via Performance			Building Components Comply	ving Prescriptively	
		Performance	Covered Process: Commercial Kitchens		Performance	The following building components are ONLY eligible for prescript compliance and should be documented on the NRCC form listed if the scope of the permit application (i.e. compliance will not be shon the NRCC-PRF-E).		
Envelope (see Table G)		Not Included			Not Included			
Mechanical (see Table H)	×	Performance	Covered Process: Computer Rooms		Performance	Indoor Lighting (Unconditioned)§140.6	NRCC-LTI-E	
		Not Included		\boxtimes	Not Included	Outdoor Lighting §140.7	NRCC-LTO-E	
National distances for Table 0		Performance			Performance	Sign Lighting §140.8	NRCC -LTS-E	
Domestic Hot Water (see Table I)		Not Included	Covered Process: Laboratory Exhaust		Not Included	Mandatory Measures		
Lighting (Indoor Conditioned, see Table K)	×	Performance			51	Electrical power systems, commissioning, escalator requirements are mandatory an listed if applicable (i.e. compliance will no NRCC-PRF-E.)	d should on the NRCC form	
		Not Included				Electrical Power Distribution S110.11	NRCC-ELC-E	
Solar Thermal Water Heating (see		Performance				Commissioning S120.8	NRCC-CXR-E	
Table I)		Not Included	1			Solar Ready S110.10	NRCC-SRA-E	

Project Name:	Pioneer School Bld. B	NRCC-PRF-01-E	Page 2 of 11	Page 2 of 11	
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date	te/Time: 16:14, Mon, Sep 19, 2022		
Input File Name:	Pioneer Bld B 2.cibd19x				
C1. COMPLIANCE F	RESULTS FOR PERFORMANCE COMPONENTS (Ann	ual TDV Energy Use, kBtu/ft ²-yr)			
		COMPLIES			
Energy Component		Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹	
Space Heating		12.37	17.22	-4.85	
Space Cooling		97.11	92.94	4.17	
Indoor Fans		100.85	72.95	27.90	
Heat Rejection			77	77	
Pumps & Misc.		-	-		
Domestic Hot Water		14.82	14.82	in the second	
Indoor Lighting		40.01	40.01	~	
ENERGY STANDARDS COMPLIANCE TOTAL		265.16	237.94	27.22 (10.3%)	
² Notes: The number	er in parenthesis following the Compliance Margin	in column 4. represents the Percent Bet	tter than Standard.		
C2. RESULTS FOR '/	ABOVE CODE' QUALIFICATIONS ¹				
☐ This project is purs	suing CalGreen Tier 1	ì	This project is pursuing CalGreen Tier	2	
	Miscellaneous Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)1	
Receptacle		72.74	72.74		
Process		**	-	H	
Other Ltg		==	-		
Process Motors			i <u>e</u>		
COMPLIANCE TOTAL	PLUS MISCELLANEOUS COMPONENTS	337.90	310.68	27.2 (8.1%)	
	is used to document compliance with programs O1				

Project Name:	Pioneer School Bld. B			NRCC-PRF-01-E	Page 3 of 11			
Project Address:	4404 Pioneer Drive Bakersfield 93306			Calculation Date/Time	: 16:14, Mon, Sep 19, 20	16:14, Mon, Sep 19, 2022		
Input File Name:	: Pioneer Bld B 2.cibd19x							
C3. ENERGY USE SU	JMMARY		1	10 - 10				
Ene	rgy Component	Standard Design Site (MWh)	Proposed Design (MWh)	Site Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)	
S	pace Heating	148	2.5	-2.5	21.5	-44	21.5	
S	pace Cooling	8.6	7.9	0.7	### P	-55		
_ 0	Indoor Fans	11.6	8.5	3.1	 -	148	5 85	
Н	eat Rejection	=	#0		24	-16	244	
Pi	umps & Misc.	÷		-	-		-	
Dom	nestic Hot Water	-	118 3	- 1	29.7	29.7	0.0	
In	door Lighting	5.2	5.2	0.0	(4)		>	
Co	mpliance Total	25.4	24.1	1.3	51.2	29.7	21.5	
	Receptacle	9.5	9.5	0.0	题	=	577	
	Process	**	⊕ :	#:	**		.÷÷	
	Other Ltg		-	44:	¥4		522	
Pr	rocess Motors		2 56	550	(T.T.) (1)	129,	980	
	TOTAL	34.9	33.6	1.3	51.2	29.7	21.5	

	4.				
D. EXCEPTIONAL CONDITIONS					
The building does not include service water heating	g. Verify that service water heating	g is not required and is no	t included in the	design.	
E. HERS VERIFICATION					
This Section Does Not Apply					

CA Building En	ergy Efficiency Standar	ds- 2019 Nonresidential	Compliance

Pioneer School Bld. B

Project Name:

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NRCC-PRF-01-E Page 4 of 11

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Equipment Type

lotes: This table includes controls related to the performance path only. For projects using the prescriptive path, mondotory and prescriptive controls requirements are documented on the NRCC-MCH-E.

Ventilation Function

Education - Multiuse assembly

Pioneer School Bld. B

Pioneer Bld B 2.cibd19x

H4. Wet System Equipment(boilers, chillers, cooling towers, etc.)

4404 Pioneer Drive Bakersfield 93306

Project Name:

Project Address:

Input File Name:

H5. PUMPS

H3. EXHAUST FAN SUMMARY This Section Does Not Apply

This Section Does Not Apply

H6. SYSTEM SPECIAL FEATURES

System Name

H7. NONRESIDENTIAL VENTILATION

Zone Name

1-Multi-Purpose

This Section Does Not Apply

Project Address: Input File Name:

Building Component

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3 4 5 6

people CFM CFM

90.00 1350 0

of Supply OA Exhaust Conditioned Area

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Other Special Features and Controls

Zones With CO2Sensor Vent. Control

Differential Drybulb Economizer

DCV or Occupant Sensor

Controls, or Both

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3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

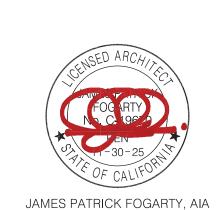
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

APP: 03-122641 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸

Elementary School 4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

Pioneer

ARCHITECT



ARCHITECT C-19670

CONSULTANT



	PROFESSIONA JAMES BAS	
REG ISTERE	No. M26578	A THE REER
0747	Exp 9-30-24 MECHANICA F OF CALIFOR	T T
	, ORE	

PROJECT	INFO

DEVISIONS	
DSA No	03-122641
DSA File No	15-6
Date	09.29.23
I Toject No	500-0017

REVIS	IONS	
No	Date	Item
*	00.00.08	DESCRIPTION

	00.00.00	BEGOTHI TION

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MECHANICAL TITLE 24 - BUILDING B

Project Address:	4404 Pioneer Drive Bakersf	ield 93306	Calculation Date/Time:	16:14, Mon, Sep 19,	2022
nput File Name:	Pioneer Bld B 2.cibd19x				
G1. ENVELOPE GEN	IERAL INFORMATION (condit	tioned spaces only)			
	1	2	3		4
Opaque Surfa	ices & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Ar	ea (ft²)	Window to Wall Ratio (%)
	North-Facing ¹		720 ft²		00.0%
East-Facing ²		2,000 ft ²		0 ft ²	00.0%
	South-Facing ³	1,800 ft²		0 ft²	00.0%
West-Facing ⁴ 0 ft ²		O ft ²		00.00	

4,520 ft² 3,600 ft²

¹ North-Facing is oriented to within 45 degrees of true north, including 45°00'00" east of north (NE), but excluding 45°00'00" west of north (NW). ² East-Facing is oriented to within 45 degrees of true east, including 45°00'00" south of east (SE), but excluding 45°00'00" north of east (NE). ³ South-Facing is oriented to within 45 degrees of true south, including 45°00'00" west of south (SW), but excluding 45°00'00" east of south (SE). 4 West-Facing is oriented to within 45 degrees of true west, including 45°00'00" north of due west (NW), but excluding 45°00'00" south of west (SW).

1	2	3	4	5	6	7	8	9	1
Surface Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	Status
R-30 Roof Attic6	Roof	3600	Wood	30	NA	U-Factor	0.038	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.	E
R-11 Wall8	ExteriorWall	4520	Wood	11	NA	U-Factor	0.110	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.	E

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	R

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roject Name:	Pioneer School Bld, B					NRCC-PRF-01-E		Page 7 of 11				
roject Address:	4404 Pioneer Drive Ba	kersfield 93306				Calculation Date,	/Time:	16:14, Mon, Sep	19, 2022			
nput File Name:	Pioneer Bld B 2,cibd19	9x										
19. ZONAL SYSTEM A	ND TERMINAL UNIT S	SUMMARY										
1	2	3	4	5	6	7	8	9	10	11	12	13
System ID Zone Na	Zone Name	System Type	Ot-	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
	zone Name		Qty	Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	VSD
1-Multi-Purpose-Trm	1-Multi-Purpose	VAVNoReheatBox	2	NA	NA	4800	3600	0.75	1.260	bhp	NA	

1	2	3	4	5	6
		Installed Lighting Dougs	Lighting Control Condite	Additional (Cus	tom) Allowance
Occupancy Type ¹	Conditioned Floor Area ² (ft ²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts)
Classroom, Lecture, Training, /ocational Areas	3,600	2,520	o	o	0
Building Totals:	3,600	2,520	0	0	0

¹ See Table 140.6-C ² See NRCC-LTI-01-E for unconditioned spaces

³Lighting information for existing spaces modeled is not included in the table

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

H11. HEAT RECOVERY SUMMARY

This Section Does Not Apply

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Report Version: NRCC-PRF-01-E-12092021-6844

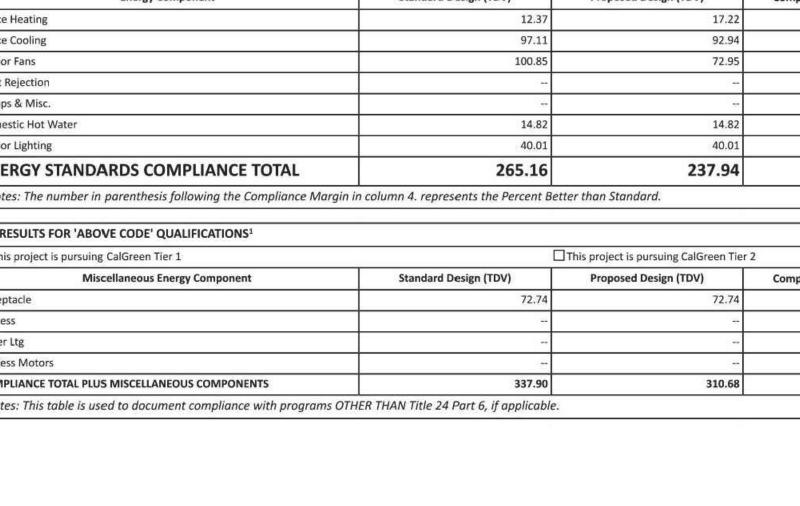
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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22015



Project Name: Pioneer School Bld. B NRCC-PRF-01-E Page 5 of 11 Calculation Date/Time: 16:14, Mon, Sep 19, 2022 4404 Pioneer Drive Bakersfield 93306 Project Address: Input File Name: Pioneer Bld B 2.cibd19x

1	2	3	4	5	6	7	8	9	
Surface Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	
Slab On Grade13	UndergroundFloor	3600	NA	0	NA	F-Factor	0.73	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0	2

¹ Status: N - New, A - Altered, E - Existing

1	2	3	4	5	6	7	8	9	10	11	1
			•	Heating			Cooling			Г	
Equipment Name	Equipment Type	Qty	Total Heating Output (kBtu/h)	Supp Heat Output (kBtuh)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency	Economizer Type (if present)	Status.
HP-3	SZVAVHP (Packaged3Phase)	2	133	47	COP	3.30	142	EER	10.6	DifferentialDryBulb	N

H2. FAN SYSTEMS	SUM	MARY											
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Design OA		Supply Fan						Return Fan		()	St
Name or Item Tag	Qty	CFM	CFM	Modeling Method	Power	Power Units	Control	CFM	Modeling Method	Power	Power Units	Control	Status ¹
HP-3	2	675	4800	BrakeHorsePower	1.260	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report

Pioneer School Bld. B

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4404 Pioneer Drive Bakersfield 93306	Calculation Date/Tim	ne: 16:14. Mon	. Sep 19, 2022		
Pioneer Bld B 2.cibd19x					
ITIONED LIGHTING MANDATORY LIGHTING CONTROLS					
trols					
1				2	
Mandatory Demand Response §110.12(c)			Shut-Off Con	trols §130.1(c)	
s (includes all lighting controls installed in conditioned spa	ce to meet mandatory requiremen	ts per §130.1)			
5	6	7	8	9	10
otion Area Category Primary Function	Area Controls 130.1(a)	Multi-Level Controls 130.1(b)	Shut-Off Controls 130.1(c)	Primary Daylighting 130.1(d)	Secondary Daylighting 140.5(d)
֡	Pioneer Bld B 2.cibd19x ITIONED LIGHTING MANDATORY LIGHTING CONTROLS trols 1 Mandatory Demand Response §110.12(c) s (includes all lighting controls installed in conditioned spa	Pioneer Bld B 2.cibd19x ITIONED LIGHTING MANDATORY LIGHTING CONTROLS trols 1 Mandatory Demand Response §110.12(c) s (includes all lighting controls installed in conditioned space to meet mandatory requirements 5 6 Area Category Primary Function Area Area Controls	Pioneer Bld B 2.cibd19x ITIONED LIGHTING MANDATORY LIGHTING CONTROLS trols 1 Mandatory Demand Response §110.12(c) s (includes all lighting controls installed in conditioned space to meet mandatory requirements per §130.1) 5 6 7 Area Controls Multi-Level Controls	Pioneer Bld B 2.cibd19x ITIONED LIGHTING MANDATORY LIGHTING CONTROLS trols 1 Mandatory Demand Response §110.12(c) S (includes all lighting controls installed in conditioned space to meet mandatory requirements per §130.1) 5 6 7 8 Area Controls Multi-Level Shut-Off Controls Area Category Primary Function Area Area Controls Controls Controls	Pioneer Bld B 2.cibd19x ITIONED LIGHTING MANDATORY LIGHTING CONTROLS trols 1 2 Mandatory Demand Response §110.12(c) Shut-Off Controls §130.1(c) s (includes all lighting controls installed in conditioned space to meet mandatory requirements per §130.1) 5 6 7 8 9 priori Area Category Primary Function Area Area Controls 130.1(a) Area Controls Controls Daylighting

Pioneer School Bld. B

Pioneer Bld B 2.cibd19x

4404 Pioneer Drive Bakersfield 93306

Mechanical NRCI-MCH-01-E - Must be submitted for all buildings

H8. HIGH-RISE RESIDENTIAL DWELLING UNIT AND HOTEL/MOTEL VENTILATION

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844

Window Interlocks per

§140.4(n)

Mechanical Ventilation

Calculation Date/Time: 16:14, Mon, Sep 19, 2022

NRCC-PRF-01-E Page 9 of 11

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents bust be retained and 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/

Report Version: NRCC-PRF-01-E-12092021-6844

Project Name:	Pioneer School Bld. B	NRCC-PRF-01-E	Page 10 of 11
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	16:14, Mon, Sep 19, 2022
Input File Name:	Pioneer Bld B 2.cibd19x		
M. DECLARATION OF	REQUIRED CERTIFICATES OF ACCEPTANCE		
compliance. These do	cuments must be provided to the building inspector during	construction and much be completed	
	more information visit:https://www.energy.ca.gov/title24/	[through an Acceptance Test Technician Certification cuments/Nonresidential_Documents/NRCA/
Provider (ATTCP). For	가게 얼마 하다가 가게 되었다. 그리고 그렇게 되었다면 하는데 그들이 되었다면 하는데	/2019standards/2019_compliance_do	cuments/Nonresidential_Documents/NRCA/
Provider (ATTCP). For	nore information visit:https://www.energy.ca.gov/title24/	/2019standards/2019_compliance_do	cuments/Nonresidential_Documents/NRCA/

			NRCC-PRF-01-E	
Project Address:	4404 Pioneer Drive Bakersfield 93306	\{\bar{\}}	Calculation Date/Time:	16:14, Mon, Sep 19, 2022
Input File Name:	Pioneer Bld B 2.cibd19x	3		
	AUTHOR'S DECLARATION STATEMENT cate of Compliance documentation is accurate and complete.			()
Documentation Author	or Name: Mark Baskin	C.	M-1 D-	Digitally signed by Mark Baskin, P.E. DN: C=US, E=MBaskin@BaskinME.com, O=Baskin Mechanical
Company: Baskin Med	chanical Engineers		e Mark Bas	Skin, P.E. Reson: 1 have reviewed this document Date: 202.09.19 16:16:24-07-09
Address: 175 Fulton S	St.	Signatur	e Date: 2022-09-19	300000000000000000000000000000000000000
City/State/Zip: Fresno	o CA 93721	CEA/ HE	RS Certification Identifica	tion (if applicable): M26578
Phone: 5592370376),		*
RESPONSIBLE PERS	SON'S DECLARATION STATEMENT			
	Part 6 of the California Code of Regulations.			
The building design f plans and specifications I will ensure that a co	features or system design features identified on this Certificat is submitted to the enforcement agency for approval with this completed signed copy of this Certificate of Compliance shall be ind that a completed signed copy of this Certificate of Compliance	s building permit application. se made available with the buildin	ng permit(s) issued for the bu	on other applicable compliance documents, worksheets, calculation illding, and made available to the enforcement agency for all applicabilider provides to the building owner at occupancy.
4. The building design f plans and specifications 5. I will ensure that a co inspections. I understar	features or system design features identified on this Certificat is submitted to the enforcement agency for approval with this completed signed copy of this Certificate of Compliance shall be ind that a completed signed copy of this Certificate of Compliance	s building permit application. se made available with the buildin	ng permit(s) issued for the bu th the documentation the bu	illding, and made available to the enforcement agency for all applicat
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4. The building design f plans and specifications 5. I will ensure that a coinspections. I understar Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting I Company: Address: City/State/Zip: Phone: Responsible Mechani Company: Baskin Mechani	features or system design features identified on this Certificat is submitted to the enforcement agency for approval with this completed signed copy of this Certificate of Compliance shall b ind that a completed signed copy of this Certificate of Complia ie Designer Name: Designer Name: Designer Name: Designer Name: Avenue, #251	building permit application. be made available with the building ance is required to be included	e: Mark Ba	License #: License #: Digitally signed by Mark Baskin, P.E.

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-

NRCA-MCH-07-A Supply Fan Variable Flow Controls

NRCA-MCH-12-A FDD for Packaged Direct Expansion Units

NRCA-MCH-16-A Supply Air Temperature Reset Controls

NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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DIV. OF THE STATE ARCHITECT

APP: 03-122641 INC:

REVIEWED FOR
SS FLS ACS D

DATE: 12/07/2023



3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 web|www.aparchitects.net

CAMPUS HVAC

Pioneer Elementary School

4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

	Project No	566-0017
	Date	09.29.23
	DSA File No	15-6
	DSA No	03-122641

REVISIONS

	00.00.08	DESCRIPTION

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MECHANICAL TITLE 24 - BUILDING B



roje	ct Name: Pioneer School Bld C		NRCC-PRF-01-E		Page 1 of 12		
roje	ect Address:	4404 Pioneer Drive Bake	rsfield 93306		Calculation Date/Time:	17:48, Mon, Sep 19, 2022	
Inpu	t File Name:	Pioneer Bld C.cibd19x					
A. G	ENERAL INFORM	MATION					
1	Project Location	(city)	Bakersfield	8	Standards Version		Compliance2019
2	CA Zip Code		93306	9	Compliance Software (ve	rsion)	EnergyPro 8.3
3	Climate Zone		13	10	Weather File		BAKERSFIELD_723840_CZ2010.epw
4	Total Conditions	ed Floor Area in Scope	4,080 ft ²	11	Building Orientation (deg	:)	(S) 180 deg
5	Total Uncondition	oned Floor Area	0 ft ²	12	Permitted Scope of Work		ExistingAdditionAndAlteration
6	Total # of Storie	s (Habitable Above Grade)	1	13	Building Type(s)		Nonresidential
7	Total # of dwelli	ng units	0	14	Gas Type		NaturalGas

B. PROJECT SUMMARY							
Table Instructions: Table B shows whi permit application.	ch buil	ding component	s are included in the performance calcula	tion.	If indicated as no	ot included, the project must show complian	ce prescriptively if within
	Buildin	g Components C	omplying via Performance			Building Components Comply	ring Prescriptively
		Performance			Performance	The following building components are Of	
Envelope (see Table G)		Not Included	Covered Process: Commercial Kitchens	×	Not Included	compliance and should be documented on the scope of the permit application (i.e. co on the NRCC-PRF-E).	
	×	Performance	Covered Process: Computer Rooms		Performance	Indoor Lighting (Unconditioned)§140.6	NRCC-LTI-E
Mechanical (see Table H)		Not Included			Not Included	Outdoor Lighting §140.7	NRCC-LTO-E
Delegate the Marco feet Table N		Performance	Covered Process: Laboratory Exhaust		Performance	Sign Lighting §140.8	NRCC -LTS-E
Domestic Hot Water (see Table I)		Not Included			Not Included	Mandatory Measures	
Lighting (Indoor Conditioned, see		Electrical power systems, commissioning, escalator requirements are mandatory an listed if applicable (i.e. compliance will not NRCC-PRF-E.)	d should on the NRCC form				
		Not Included				Electrical Power Distribution S110.11	NRCC-ELC-E
Solar Thermal Water Heating (see		Performance				Commissioning S120.8	NRCC-CXR-E
Table I)	\boxtimes	Not Included	1			Solar Ready S110.10	NRCC-SRA-E

Project Name:	ject Name: Pioneer School Bld C		E Page 2 of 12	Page 2 of 12	
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Da	ite/Time: 17:48, Mon, Sep 19, 2022		
Input File Name:	Pioneer Bld C.cibd19x		4-		
C1. COMPLIANCE	RESULTS FOR PERFORMANCE COMPONENTS (Ani	nual TDV Energy Use, kBtu/ft ²-yr)			
		COMPLIES			
	Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹	
Space Heating		15.90	22.96	-7.0	
Space Cooling		140.84	114.91	25.9	
Indoor Fans		177.47	85.67	91.8	
Heat Rejection			+		
Pumps & Misc.		-	-		
Domestic Hot Water		14.44	14.44		
Indoor Lighting		40.01	40.01		
ENERGY STAN	NDARDS COMPLIANCE TOTAL	388.66	277.99	110.67 (28.5%	
² Notes: The number	er in parenthesis following the Compliance Margii	n in column 4. represents the Percent Be	tter than Standard.		
C2. RESULTS FOR '	ABOVE CODE' QUALIFICATIONS ¹				
☐ This project is pure	suing CalGreen Tier 1		This project is pursuing CalGreen Tier	2	
A 5.	Miscellaneous Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹	
Receptacle		72.74	72.74		
Process		-	-		
Other Ltg					
Process Motors		-			
COMPLIANCE TOTAL	PLUS MISCELLANEOUS COMPONENTS	461.40	350.73	110.7 (24.0%	

Project Name:	oject Name: Pioneer School Bld C		NRCC-PRF-01-E		Page 3 of 12			
Project Address:	4404 Pioneer Drive Ba	kersfield 93306		Calculation Date/Time:		17:48, Mon, Sep 19, 2022		
Input File Name:	Pioneer Bld C.cibd19x	Pioneer Bld C.cibd19x						
C3. ENERGY USE SU	JMMARY							
Ene	rgy Component	Standard Design Site (MWh)	Proposed Design (MWh)	Site Margir (MWh		ndard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
S	pace Heating	148	3.8	-3.8		31.3		31.3
S	pace Cooling	13.4	10.8	2.6			55	
_0	Indoor Fans	23.8	11.4	12.4		 -	1-16	5 81
Н	eat Rejection	-				22	+4	844
Pi	umps & Misc.	*	₩)			Ę.	-17	
Dom	nestic Hot Water	=	11 00	- 1		32.8	32.8	0.0
In	door Lighting	5.8	5.8	0.0		**:	144	>
Cor	mpliance Total	43.0	31.8	11.2		64.1	32.8	31.3
1	Receptacle	10.8	10.8	0.0		77 .0	=	877
	Process	**		**)()		
	Other Ltg	*	-	412		11		944
Pr	rocess Motors	=	756	351		77.0	125	955
	TOTAL	53.8	42.6	11.2		64.1	32.8	31.3

TOTAL	53.8	42.6	11.2	64.1	32.8	31.3
D. EXCEPTIONAL CONDITIONS						
The building does not include service water heatin	g. Verify that service water heatin	ng is not required and is r	not included in the de	esign.		
E. HERS VERIFICATION						
This Section Does Not Apply						

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Report Version: NRCC-PRF-01-E-12092021-6844

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

G3. OPAQUE SURFACE ASSEMBLY SUMMARY

Surface Name

Slab On Grade14

G5. FENESTRATION ASSEMBLY SUMMARY

Single Metal Clear

Z Status: N - New, A - Altered, E - Existing

G6. OVERHANG DETAILS

1 Status: N - New, A - Altered, E - Existing

Pioneer School Bld C

Pioneer Bld C.cibd19x

Fenestration Assembly Name / Tag | Fenestration Type / Product Type /

Fenestration Tag/ID

Window11

Window19

Window25

Window31

Frame Type

VerticalFenestration

FixedWindow

MetalFraming

4404 Pioneer Drive Bakersfield 93306

Project Name:

Project Address: Input File Name:

¹ Notes: This table is used to document compliance with programs OTHER THAN Title 24 Part 6, if applicable.

Report Version: NRCC-PRF-01-E-12092021-6844

Framing Cavity Continuous
Type R-Value R-Value

UndergroundFloor 4080 NA 0

Orientation

South

South

South

Certification Method¹

Default Performance

1 Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.

Depth(ft.)

12.0

12.0

12.0

12.0

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NA F-Factor 0.73

Assembly Method

SiteBuilt

Height from Bottom of Sill to

Overhang(ft)

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Slab Type = UnheatedSlabOnGrade

Insulation Orientation = None Insulation R-Value = R0

5 6 7 8 9

Right Extent(ft)

10.0

10.0

10.0

Overall Overall Overall U-factor SHGC VT

Left Extent(ft)

10.0

10.0

10.0

10.0

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Economizer Type (if

Report Generated at: 2022-09-19 17:48:33

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3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

APP: 03-122641 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸

Elementary School 4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

Pioneer

ARCHITECT



ARCHITECT C-19670

CONSULTANT



PROJECT INFO	

REVISIONS	
DSA No	03-12264
DSA File No	15-
Date	09.29.2
Project No	566-001

REVIS	IONS	
No	Date	Item
*	00.00.08	DESCRIP

*	00.00.08	DESCRIPTION

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> MECHANICAL TITLE 24 - BUILDING C

Project Name:	Pioneer School Bld C	NRCC-PRF-01-E	Page 4 of 12	
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	17:48, Mon, Sep 19, 2022	
Input File Name:	Pioneer Bld C.cibd19x	İ		

1	2	3	4
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing ¹	1,632 ft²	864 ft ²	52.9%
East-Facing ²	0 ft²	0 ft²	00.0%
South-Facing ³	1,632 ft²	448 ft ²	27.5%
West-Facing ⁴	360 ft ²	O ft²	00.0%
Total	3,624 ft²	1,312 ft²	36.2%
Roof	4,080 ft ²	0 ft²	00.0%

¹ North-Facing is oriented to within 45 degrees of true north, including 45°00'00" east of north (NE), but excluding 45°00'00" west of north (NW). ² East-Facing is oriented to within 45 degrees of true east, including 45°00'00" south of east (SE), but excluding 45°00'00" north of east (NE). ³ South-Facing is oriented to within 45 degrees of true south, including 45°00'00" west of south (SW), but excluding 45°00'00" east of south (SE). 4 West-Facing is oriented to within 45 degrees of true west, including 45°00'00" north of due west (NW), but excluding 45°00'00" south of west (SW).

1	2	3	4	5	6	7	8	9	1
Surface Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	
R-30 Roof Attic6	Roof	4080	Wood	30	NA	U-Factor	0.038	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.	
R-11 Wall8	ExteriorWall	3624	Wood	11	NA	U-Factor	0.110	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.	

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	rive Bakersfield 93306 bd19x	Calculation Date/Time:	17:48, Mon, Sep 19, 2022	
Input File Name: Pioneer Bld C.cil	bd19x			
H4. Wet System Equipment(boilers,ch	, , , , , , , , , , , , , , , , , , , ,			
This Section Does Not Apply				
			*	
H5. PUMPS	**		LE LE	
500000 N 52				

1	2	3	4			
ystem Name	Equipment Type	Window Interlocks per §140.4(n)	Other Special Features and Controls			
HP2 C1	SZVAVHP	NA	Zones With CO2Sensor Vent, Control Fixed Drybulb Economizer			
HP-2 C2	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer			
HP-2 C3	SZVAVHP	NA NA	Zones With CO2Sensor Vent, Control Fixed Drybulb Economizer			
HP-2 C4	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer			

1	2	3	4	5	6	7	
	N	lechanical Vent	lation				
Zone Name	Ventilation Function	# of	Supply OA	Exhaust	Conditioned Area	DCV or Occupant Sensor Controls, or Both	
	ventilation Function	people	CFM	CFM	(sf)		
1-Classroom C1	Education - Classrooms (ages 5-8)	27.00	405	0	1080	DCV	
2-Classroom C2	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
3-Classroom C3	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
4-Classroom C4	Education - Classrooms (ages 5-8)	27.00	405	0	1080	DCV	

H8. HIGH-RISE RESIDENTIAL DWELLING UNIT AND HOTEL/MOTEL VENTILATION	

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This Section Does Not Apply

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Project Address:	4404 Pioneer Drive Ba	kersfield 93306				Calculation Date	/Time:	17:48, Mon, Sep	19, 2022			
nput File Name:	Pioneer Bld C.cibd19x											
19. ZONAL SYSTEM A	ND TERMINAL UNIT S	SUMMARY										
1	2	3	4	5	6	7	8	9	10	11	12	13
Suntana ID	Zone Name	Sustain Tuna	Qty	5,000 (0.00)	apacity tuh)	A	irflow (c	fm)	Fan			
System ID	Zone Name	System Type	<u> </u>	Heating	Cooling	Design	Min	. Min. Ratio	Power	Power Units	Cycles	VSD
1-Classroom C1-Trm	1-Classroom C1	VAVNoReheatBox	1	NA	NA	2100	140	0 0.67	0.830	bhp	NA	
2-Classroom C2-Trm	2-Classroom C2	VAVNoReheatBox	1	NA	NA	2100	140	0 0.67	0.830	bhp	NA	
3-Classroom C3-Trm	3-Classroom C3	VAVNoReheatBox	1	NA	NA	2100	140	0 0.67	0.830	bhp	NA	
4-Classroom C4-Trm	4-Classroom C4	VAVNoReheatBox	1	NA	NA	2100	140	0 0.67	0.830	bhp	NA	
H10. EVAPORATIVE C	OOLER SUMMARY			-								
This Section Does Not A	pply	<u> </u>		75								
H11. HEAT RECOVERY	SUMMARY									<u> </u>		
This Section Does Not A	vlag											

1	2	3	4	5	6		
~		Installed Lighting Power	Linksing Consuel Condition	Additional (Custom) Allowance			
Occupancy Type ¹	Conditioned Floor Area ² (ft ²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts)		
lassroom, Lecture, Training, ocational Areas	4,080	2,856	0	0	0		
Building Totals:	4,080	2,856	0	0	0		

¹ See Table 140.6-C ² See NRCC-LTI-01-E for unconditioned spaces ³Lighting information for existing spaces modeled is not included in the table

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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Report Generated at: 2022-09-19 17:48:33

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22015

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844 Project Name: Pioneer School Bld C NRCC-PRF-01-E Page 6 of 12 Calculation Date/Time: 17:48, Mon, Sep 19, 2022 Calculation Date/Time: 17:48, Mon, Sep 19, 2022 4404 Pioneer Drive Bakersfield 93306 Project Address: Input File Name: Pioneer Bld C.cibd19x H1. DRY SYSTEM EQUIPMENT (furnaces, air handling units, heat pumps, VRF, economizers etc.)

HFZCI		(Packaged3	Phase)	1 00	1.5		3.00	1.	cen	11.2	FIAC	dulybulb	100
HP-2 C2		SZVAVI (Packaged3	19	1 66	19) (COP 3.60	71	L EER	11.2	Fixe	dDryBulb	N
HP-2 C3		SZVAVI (Packaged3	Salah-un	1 66	19) (COP 3.60	71	L EER	11.2	Fixe	dDryBulb	N
HP-2 C4		SZVAVI (Packaged3	CT)	1 66	19) (COP 3.60	71	L EER	11.2	Fixe	dDryBulb	N
H2. FAN SYSTEMS	SUM 2	3	4	5	6 Supply Fan	7	8	9	10	11	12	13	1
	Design OA			9	Return Fan					S			
Name or Item Tag	Qty	CFM	CFM	Modeling Method	Power	Power Units	Control	СЕМ	Modeling Method	Power	Power Units	Control	Status ¹
HP2 C1	1	405	2100	BrakeHorsePower	0.830	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	1
		l I		- I									
HP-2 C2	1	360	2100	BrakeHorsePower	0.830	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	1

1	2	3	4	5	6	7	8	9	10	11	12	13	14
83		Design OA			Supply Fan			Return Fan					
Name or Item Tag	Qty	CFM	CFM	Modeling Method	Power	Power Units	Control	CFM	Modeling Method	Power	Power Units	Control	Status ¹
HP2 C1	1	405	2100	BrakeHorsePower	0.830	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
HP-2 C2	1	360	2100	BrakeHorsePower	0.830	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
HP-2 C3	1	360	2100	BrakeHorsePower	0.830	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
HP-2 C4	1	405	2100	BrakeHorsePower	0.830	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N

H3. EXHAUST FAN SUMMARY	
-------------------------	--

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Equipment Type Qty Total Heating Supp Heat

Equipment Name

Project Name:	Pioneer School Bld C	NRCC-PRF-01-E	Page 9 of 1	Page 9 of 12				
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Input File Name:	Pioneer Bld C.cibd19x							
K4. INDOOR COND	ITIONED LIGHTING MANDATORY LIGHTING CONTROLS							
Building Level Cont	trols	-						
	1			3	2			
	Mandatory Demand Response §110.12(c)			Shut-Off Con	trols §130.1(c)			
Area Level Control	s (includes all lighting controls installed in conditioned space	to meet mandatory requiremen	nts per §130.1)					
4	5	6	7	8	9	10		
Area Description Area Category Primary Function Area		rea Area Controls	Multi-Level Controls	Shut-Off Controls	Primary Daylighting	Secondary Daylighting		

Project Name:	Pioneer School Bld C	NRCC-PRF-01-E	Page 10 of 12	
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Input File Name:	Pioneer Bld C.cibd19x			

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for

compliance. These documents bust be retained and 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/									
Building Component	Form/Title								
Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings								

Report Version: NRCC-PRF-01-E-12092021-6844

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Building Componen	Form/Title					
compliance. These o	Selections shall be made by Documentation Author to in documents must be provided to the building inspector a corn more information visit:https://www.energy.ca.gov/ti	luring construction and must be completed	through an Acceptance Test Technician Certification			
M. DECLARATION C	OF REQUIRED CERTIFICATES OF ACCEPTANCE					
Input File Name:	Pioneer Bld C.cibd19x					
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	Calculation Date/Time: 17:48, Mon, Sep 19, 2022			
Project Name:	Pioneer School Bld C	NRCC-PRF-01-E	Page 11 of 12			

Building Component	Form/Title
	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-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
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints
	NRCA-MCH-07-A Supply Fan Variable Flow Controls
	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units
	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance

NRCA-MCH-16-A Supply Air Temperature Reset Controls

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-19 17:48:33

	Comments and Comme			Control of the Control of the			
Project Address:	4404 Pioneer Drive Bakersfield 93306		Calculation Date/Time:	17:48, Mon, Sep 19, 2022			
Input File Name:	Pioneer Bld C.cibd19x						
	AUTHOR'S DECLARATION STATEMENT cate of Compliance documentation is accurate and complete.						
Documentation Auth	or Name: Mark Baskin	61	Signature: Mark Baskin, P.E. DN: C-US. E-MBaskin@BaskinME.com, O-Baskin Mechanic Engineers, CN-Mark Baskin, P.E. Reason: I have reviewed this document Date: 2022.09.19 17:50 04-07:00				
Company: Baskin Me	chanical Engineers	Signature					
Address: 175 Fulton !	St.	Signature	Date: 2022-09-19				
City/State/Zip: Fresno CA 93721			RS Certification Identifica	tion (if applicable): M26578			
Phone: 5592370376							
RESPONSIBLE PERS	SON'S DECLARATION STATEMENT						
5. will ensure that a c inspections. understa	nd that a completed signed copy of this Certificate of Compli	be made available with the building		uilding, and made available to the enforcement agency for all applicat uilder provides to the building owner at occupancy.			
Responsible Envelope	e Designer Name:	Signature	Signature:				
Company:		3 5570					
Address:		Date Sign	ned:	To the second se			
City/State/Zip:							
Phone:		Title:		Parameter and the			
Responsible Lighting	Responsible Lighting Designer Name:						
Company:	Designer Name:	Signature	N* :	License #:			
Address:			: :	License #:			
Address.	Designer Name:	Signature Date Sign		License #:			
City/State/Zip:	Designer Name:	1076		License #:			

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License #: M26578

Report Generated at: 2022-09-19 17:48:33

Project Name:

City/State/Zip: Bakersfield CA 93309

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Phone: (661) 397-2114

Pioneer School Bld C

Responsible Mechanical Designer Name: Mark Baskin, P.E. Company: Baskin Mechanical Engineers Date Signed: 09-19-2022 Address: 5500 Ming Avenue, #251

Title: P.E.

Report Version: NRCC-PRF-01-E-12092021-6844

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122641 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹



3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

Pioneer Elementary School 4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

DEVIOLONO	
DSA No	03-122641
DSA File No	15-6
Date	09.29.23
	000 0017

REVISIONS

No Date Item

00.00.08 DESCRIPTION

	00.00.08	DESCRIPTION

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MECHANICAL TITLE 24

- BUILDING C



Proje	ect Name:	Pioneer School Bld D			NRCC-PRF-01-E Page 1 of 12		of 12
Proje	ect Address:	4404 Pioneer Drive Bake	rsfield 93306	rsfield 93306 Calculation		Time: 18:25, Mon, Sep 19, 2022	
Inpu	t File Name:	Pioneer Bld D.cibd19x					
A. G	ENERAL INFOR	MATION					
1	1 Project Location (city)		Bakersfield	8	Standards Version		Compliance2019
2	CA Zip Code		93306	9	Compliance Softwar	e (version)	EnergyPro 8.3
3	Climate Zone		13	10	Weather File		BAKERSFIELD_723840_CZ2010.epw
4	Total Condition	ed Floor Area in Scope	3,990 ft ²	11	Building Orientation	(deg)	(S) 180 deg
5	Total Unconditi	oned Floor Area	0 ft ²	12	Permitted Scope of	Work	ExistingAdditionAndAlteration
6	Total # of Storie	es (Habitable Above Grade)	1	13	Building Type(s)		Nonresidential
7	Total # of dwelling units		0	14	Gas Type		NaturalGas
able	ROJECT SUMM. e Instructions: Tal nit application.	ble B shows which building co			n. If indicated as not in		roject must show compliance prescriptively if within
		Building Comp	oonents Complying via Performanc	e		Bu	ilding Components Complying Prescriptively
		☑ Perfo	rmance	1	Performance T	he following b	nuilding components are ONLY eligible for prescriptiv

B. PROJECT SUMMARY								
Table Instructions: Table B shows whi permit application.	ch buile	ding components	are included in the performance calcula	ition.	If indicated as no	ot included, the project must show complian	ce prescriptively if within	
	Buildin	g Components C	omplying via Performance			Building Components Compl	ying Prescriptively	
	\boxtimes	Performance	Covered Process: Commercial		Performance	The following building components are O		
Envelope (see Table G)		Not Included			Not Included	compliance and should be documented of the scope of the permit application (i.e. co on the NRCC-PRF-E).	cumented on the NRCC form listed if within ation (i.e. compliance will not be shown	
Mechanical (see Table H)		Performance	Covered Process: Computer Rooms		Performance	Indoor Lighting (Unconditioned)§140.6	NRCC-LTI-E	
		Not Included		\boxtimes	Not Included	Outdoor Lighting §140.7	NRCC-LTO-E	
		Performance	Covered Process: Laboratory Exhaust		Performance	Sign Lighting §140.8	NRCC -LTS-E	
Domestic Hot Water (see Table I)		Not Included			Not Included	Mandatory Measures		
Lighting (Indoor Conditioned, see Table K)	×	Performance				Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)		
		Not Included	1			Electrical Power Distribution S110.11	NRCC-ELC-E	
Solar Thermal Water Heating (see		Performance	1			Commissioning S120.8	NRCC-CXR-E	
Table I)	\boxtimes	Not Included	1			Solar Ready S110.10	NRCC-SRA-E	

2-13-1-21		1	-100-1	(
Project Name:	Pioneer School Bld D		-01-E	Page 2 of 12		
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time: 1		18:25, Mon, Sep 19, 2022		
Input File Name:	Pioneer Bld D.cibd19x					
C1. COMPLIANCE R	ESULTS FOR PERFORMANCE COMPONENTS (Annua	al TDV Energy Use, kBtu/ft 2-vr)				
	·	COMPLIES				
	Energy Component	Standard Design (TDV)	Pro	posed Design (TDV)	Compliance Margin (TDV) ¹	
Space Heating		12.0	6	21.93	-9.8	
Space Cooling		140.9	1	95.45	45.46	
Indoor Fans		180.9	9	77.70	103.2	
Heat Rejection						
Pumps & Misc.				+		
Domestic Hot Water		30.6	5	30.65		
Indoor Lighting		39.3	0	39.30		
ENERGY STAN	DARDS COMPLIANCE TOTAL	403.9	91 265.03		138.88 (34.4%	
² Notes: The numbe	r in parenthesis following the Compliance Margin in	o column 4. represents the Percen	Better than	Standard.		
C2. RESULTS FOR 'A	BOVE CODE' QUALIFICATIONS ¹					
☐ This project is purs	uing CalGreen Tier 1		☐This proj	ect is pursuing CalGreen Tier	2	
	Miscellaneous Energy Component	Standard Design (TDV)	ign (TDV) Proposed Design (TDV)		Compliance Margin (TDV) ¹	
Receptacle		81.7	6	81.76		
Process			-	*		
Other Ltg				=		
Process Motors					4	

Project Name:	The Conference of State Conference of the Confer			NRCC-PRF-01-E		Page 3 of 12	Page 3 of 12		
Project Address:				Calculation Da	ate/Time:	18:25, Mon, Sep 19, 2022			
Input File Name:									
C3. ENERGY USE SU	IMMARY								
Ene	rgy Component	Standard Design Site (MWh)	Proposed Design (MWh)		rgin Wh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)	
S	pace Heating	***	3.5	+3	.5	23.2		23.2	
Space Cooling		13.5	8.7	4	.8		55	-	
Indoor Fans		23.9	10.2	13.7			1-16	sen	
Heat Rejection					-	2	**	842	
Pumps & Misc.		₩	₩)		-	2	-77	-	
Domestic Hot Water		2.8	2.8	.0	.0	25.7	25.7	0.0	
Indoor Lighting		5.6	5.6	0	.0	**		>	
Cor	mpliance Total	45.8	30.8	15	5.0	48.9	25.7	23.2	
1	Receptacle	11.9	11.9	0	.0	559	=	277	
Process		**		,	*:	*	**		
Other Ltg			-			44			
Pr	ocess Motors	=	7 4		31	75°		- 177	
	TOTAL	57.7	42.7	15	6.0	48.9	25.7	23.2	

TOTAL	57.17	Total I	25.0	40.5	.450	20.2
D. EXCEPTIONAL CONDITIONS						
The building does not include service water heating. Ve	rify that service water heatir	ng is not required and is not	included in the	e design.		
E. HERS VERIFICATION						
This Section Does Not Apply						

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Report Version: NRCC-PRF-01-E-12092021-6844

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CA Building Energy	Efficiency :	Standards-	2019 N	lonresident	ial Complia	ance

Pioneer School Bld D

Pioneer Bld D.cibd19x

4404 Pioneer Drive Bakersfield 93306

Project Name:

Project Address:

Input File Name:

¹ Notes: This table is used to document compliance with programs OTHER THAN Title 24 Part 6, if applicable.

COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS

Report Version: NRCC-PRF-01-E-12092021-6844

CA Building Energy Efficiency Standards- 2019 Nonresidential Comp

Project Name:

Project Address:

Input File Name:

Equipment Name

^I Status: N - New, A - Altered, E - Existing

H2. FAN SYSTEMS SUMMARY

Name or Item Tag Qty

HP-4 D3

HP-1 D5

HP-1 D6

Project Name:

Project Address:

Input File Name:

Vocational Areas

Occupancy Type 1

Office Area (>250 square feet)

ssroom, Lecture, Training,

² See NRCC-LTI-01-E for unconditioned spaces

Area Description

Building Level Controls

Building Totals:

³Lighting information for existing spaces modeled is not included in the table

Status: N - New, A - Altered, E - Existing

Pioneer School Bld D

Pioneer Bld D.cibd19x

SZHP (Packaged3Phase)

(Packaged3Phase)

(Packaged3Phase)

(Packaged3Phase)

Pioneer School Bld D

Pioneer Bld D.cibd19x

K1. INDOOR CONDITIONED LIGHTING GENERAL INFO

4404 Pioneer Drive Bakersfield 93306

Conditioned Floor Area 2 (ft2)

3,990

Mandatory Demand Response §110.12(c)

Area Level Controls (includes all lighting controls installed in conditioned space to meet mandatory requirements per §130.1)

Area Category Primary Function Area

K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS

4404 Pioneer Drive Bakersfield 93306

H1. DRY SYSTEM EQUIPMENT (furnaces, air handling units, heat pumps, VRF, economizers etc.)

Equipment Type Qty Total Heating Supp Heat

CFM CFM Modeling Method Power

1200 BrakeHorsePower

1800 BrakeHorsePower

1800 BrakeHorsePower

1800 BrakeHorsePower

950 BrakeHorsePower 0.380

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844

0.660

Installed Lighting Power

644

2,100

2,744

(kBtu/h)

(kBtuh)

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HSPF

HSPF

HSPF

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14

HSPF 8.30

bhp | ConstantVolume | NA |

NRCC-PRF-01-E

Lighting Control Credits

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Multi-Level

Controls

130.1(b)

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NRCC-PRF-01-E

Afficiency Output

8.30

8.30

8.30

(kBtu/h)

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27 SEER/EER 14.00/12.20 NoEconomizer

16.20/11.70

16.20/11.70

SEER/EER 16.20/11.90

SEER/EER 16.20/11.70

SEER/EER

SEER/EER

Economizer Type (if

FixedDryBulb

FixedDryBulb

FixedDryBulb

NA

Report Generated at: 2022-09-19 18:26:04

Additional (Custom) Allowance

Shut-Off Controls §130.1(c)

Tailored Method (Watts)

0

Area Category Footnotes

3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

APP: 03-122641 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸

Pioneer Elementary School 4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



ARCHITECT C-19670

CONSULTANT



PROJECT	INFO

Project No	566-001
Date	09.29.2
DSA File No	15-
DSA No	03-12264

REVIS	IONS	
	Б.	1.

No	Date	Item
*	00.00.08	DESCRIPTION

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11.29.23 14:05

MECHANICAL TITLE 24 - BUILDING D

Project Name:	Pioneer School I	Pioneer School Bld D			NRC	NRCC-PRF-01-E		Page 5 of 12		
Project Address:	4404 Pioneer Drive Bakersfield 93306			Calcu	alculation Date/Time: 18:25, Mon, Sep 19, 2022			9, 2022		
nput File Name:	Pioneer Bld D.cibd19x									
G3. OPAQUE SURFA	ACE ASSEMBLY SUN	MMARY								-
	1	2	3	4	5	6	7	8	9	10
Surfac	e Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	Status
Slab On	Grade14	UndergroundFloor	3990	NA	0	NA	F-Factor	0.73	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0	Ε

1	2	3	4	5	6	7	8	9
Fenestration Assembly Name / Tag or I.D.	Fenestration Type / Product Type / Frame Type	Certification Method ¹	Assembly Method	Area ft ²	Overall U-factor	Overall SHGC	Overall VT	Status
Single Metal Clear	VerticalFenestration FixedWindow MetalFraming	Default Performance	SiteBuilt	1072	1.19	0.83	0.77	E

1 Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis. ² Status: N - New, A - Altered, E - Existing

1	2	3	4	5	6
Fenestration Tag/ID	Orientation	Depth(ft.)	Height from Bottom of Sill to Overhang(ft)	Right Extent(ft)	Left Extent(ft)
Window29	South	12.0	4	10.0	10.0
Window35	South	12.0	4	10.0	10.0
Window41	South	12.0	4	10.0	10.0

CA Building Energy Efficiency Standards-	2019 Nonresidential Compliance

Pioneer School Bld D

Pioneer Bld D.cibd19x

H4. Wet System Equipment(boilers,chillers,cooling towers,etc.)

4404 Pioneer Drive Bakersfield 93306

Equipment Type

SZVAVHP

SZVAVHP

SZVAVHP

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mondatory and prescriptive controls requirements are documented on the NRCC-MCH-E.

Ventilation Function

Office - Office space

Office - Office space

Education - Classrooms (ages 5-8)

Education - Classrooms (ages 5-8)

Project Name:

Project Address:

Input File Name:

H3. EXHAUST FAN SUMMARY

This Section Does Not Apply

This Section Does Not Apply

This Section Does Not Apply

H6. SYSTEM SPECIAL FEATURES

System Name

HP-4 D3

HP-1 D5

HP-1 D6

HP-1 D7

H7. NONRESIDENTIAL VENTILATION

Zone Name

1-Work Room D1

2-Work Room D3

3-Classroom D5

4-Classroom D6

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3 4 5 6

CFM

Supply OA Exhaust

68 0

CFM

81

24.00 360 0

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4

Other Special Features and Controls

Zones With CO2Sensor Vent. Control

Fixed Drybulb Economizer

Zones With CO2Sensor Vent. Control

Fixed Drybulb Economizer Zones With CO2Sensor Vent. Control

Fixed Drybulb Economizer

Zones With CO2Sensor Vent. Control

Fixed Drybulb Economizer

Conditioned Area

450

960

5-Classro	20m D7	Education - Classrooms (ages 5-8)	27.00	-	5M	CFM 0	(sf) 1080	DCV		
Zone N	lame	Ventilation Function	# of		ly OA	Exhaust	Conditioned Area	DCV or Occupant Sens Controls, or Both		
		M	lechanical Ve	entilation				DCV or Occupant Sons		
1		2	3	4	4	5	6	7		
H7. NONRESIDENTI	AL VENTILATION									
Input File Name:	Pioneer Bld D.cibd19)x								
Project Address:	4404 Pioneer Drive I	Bakersfield 93306	c	Calculation I	Date/Time:	18:25, M	on, Sep 19, 2022	p 19, 2022		
Project Name:	Pioneer School Bld D		N	NRCC-PRF-0	1-E	Page 8 of	f 12			

7. NONRESIDENTI	AL VENTILATION							
1		2	3	4	5	6	7	
		м	echanical Venti	lation	_		Washing 1995 - Walan	
Zone f	Name	Market - Frank	# of	Supply OA	Exhaust	Conditioned Area	DCV or Occupant Senso Controls, or Both	
		Ventilation Function	people	CFM	CFM	(sf)		
5-Classro	oom D7	Education - Classrooms (ages 5-8)	27.00	405	0	1080	DCV	

H9. ZONAL SYSTEM AN	ND TERMINAL UNIT S	UMMARY										
1	2	3	4	5	6	7	8	9	10	11	12	13
System ID	Zone Name	Sustain Tuna	Otv	Rated Capacity (kBtuh)		Airflow (cfm)			Fa	an		
System to System type	System Type	Qty	Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	VSD	
1-Work Room D1-Trm	1-Work Room D1	VAVNoReheatBox	1	NA	NA	2100	1386	0.66	0.380	bhp	NA	
2-Work Room D3-Trm	2-Work Room D3	VAVNoReheatBox	1	NA	NA	2100	1400	0.67	0.350	bhp	NA	
3-Classroom D5-Trm	3-Classroom D5	VAVNoReheatBox	1	NA	NA	2100	1400	0.67	0.660	bhp	NA	
4-Classroom D6-Trm	4-Classroom D6	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	
5-Classroom D7-Trm	5-Classroom D7	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	

-

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-68

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Report Version: NRCC-PRF-01-E-12092021-6844

2.25

24.00 360

Window Interlocks per

§140.4(n)

NA

NA

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DCV or Occupant Sensor

Controls, or Both

NA

DCV

DCV

DCV

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BASKIN
MECHANICAL
ENGINEERS

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22015
Plt: 10-12-23

138.9 (28.6%)

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1	2	3	4	5	6	7	8	9	10	11	12
	ľ			Heatin	g			Cooling			
Equipment Name	Equipment Type	Qty	Total Heating Output (kBtu/h)	Supp Heat Output (kBtuh)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency	Economizer Type (if present)	Status ¹
HP-5 D1	SZHP (Packaged3Phase)	1	29	13	HSPF	8.20	27	SEER/EER	14.00/12.20	NoEconomizer	N
HP-4 D3	SZVAVHP (Packaged3Phase)	1	36	19	HSPF	8.30	34	SEER/EER	16.20/11.90	FixedDryBulb	N
HP-1 D5	SZVAVHP (Packaged3Phase)	1	57	19	HSPF	8.30	59	SEER/EER	16.20/11.70	FixedDryBulb	N
HP-1 D6	SZVAVHP (Packaged3Phase)	1	57	19	HSPF	8.30	59	SEER/EER	16.20/11.70	FixedDryBulb	N
HP-1 D7	SZVAVHP (Packaged3Phase)	1	57	19	HSPF	8.30	59	SEER/EER	16.20/11.70	FixedDryBulb	N

HP-1 D7		SZVAVI (Packaged3	1199	1 57	19	Н	SPF 8.30	55	SEER/EER	16.20/11.7	0 Fixe	dDryBulb	N
Status: N - New, A - Alte	red, E – I	Existing									· ·		
H2. FAN SYSTEMS	SUM	MARY							- :				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
===		Design OA		- 12	Supply Fan	2			2 10	Return Fan			St
Name or Item Tag	Qty	CFM	CFM	Modeling Method	Power	Power Units	Control	CFM	Modeling Method	Power	Power Units	Control	Status ¹
HP-5 D1	1	68	950	BrakeHorsePower	0.380	bhp	ConstantVolume	NA	NA	NA	NA	NA	N
HP-4 D3	1	81	1200	BrakeHorsePower	0.350	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
HP-1 D5	1	360	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
HP-1 D6	1	360	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
HP-1 D7	1	405	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N

HP-1 D6	1	360	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
HP-1 D7	1	405	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
is: N - New, A - Al	ltered, E – E	xisting											

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	CONTRACTOR TO CONTRACTOR						4			
S:	4404 Pioneer Drive B	akersfield 93306	Ca	lculation Date/Tim	e: 18:25, N	18:25, Mon, Sep 19, 2022				
e:	Pioneer Bld D.cibd19	K								
DENTIA	L VENTILATION									
1		2	3	4	5	6	7			
		M	echanical Ven	tilation			12000 100 - 1000 - 1			
Zone Name		Ventilation Function	# of	Supply OA	Exhaust	Conditioned Area	Controls, or Both DCV			
		ventilation Function		CFM	CFM	(sf)				
Classroom D7		Education - Classrooms (ages 5-8)	27.00	405	0	1080				

			4		3			0			
		Mechanical Ventilation								1948	0.20
Zone Name				# of	Supply OA	Exhaust	Conditioned Area	DCV or Occupant Senso Controls, or Both			
		Ventilation Function			people	CFM	CFM	(sf)	Controls, or both		
5-Classroo	om D7	Education - Classrooms (ages 5-8)			27.00	405	0	1080		DCV	
H8. HIGH-RISE RESID	DENTIAL DWELLING	JNIT AND HOTEL/MO	TEL VENTIL	ATION							
This Section Does Not	Apply										
H9. ZONAL SYSTEM	AND TERMINAL UNI	T SUMMARY									
1	2	3	4	5	6	7	8	9 10	11	12	13

1	2	3	4	5	6	7	8	9	10	11	12	13
System ID	Zone Name	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)		Fan				
				Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	VSD
1-Work Room D1-Trm	1-Work Room D1	VAVNoReheatBox	1	NA	NA	2100	1386	0.66	0.380	bhp	NA	
2-Work Room D3-Trm	2-Work Room D3	VAVNoReheatBox	1	NA	NA	2100	1400	0.67	0.350	bhp	NA	
3-Classroom D5-Trm	3-Classroom D5	VAVNoReheatBox	1	NA	NA	2100	1400	0.67	0.660	bhp	NA	
4-Classroom D6-Trm	4-Classroom D6	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	
5-Classroom D7-Trm	5-Classroom D7	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	

H10. EVAPORATIVE COOLER SUMMARY	
This Section Does Not Apply	
H11. HEAT RECOVERY SUMMARY	
This Section Does Not Apply	

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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Primary Secondary

Controls Daylighting Daylighting

130.1(c) 130.1(d) 140.5(d)

8	01			30
Project Name:	Pioneer School Bld D	NRCC-PRF-01-E	Page 10 of 12	
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	18:25, Mon, Sep 19, 2022	
Input File Name:	Pioneer Bld D.cibd19x			

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents bust be retained and 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/

Maria de la Carta	222 CELL AN	CE / 171				
Building Component				Form/T	Title	

ı		Ci .
I	Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings

Project Name:	Pioneer School Bld D	NRCC-PRF-01-E	Page 11 of 12	
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	18:25, Mon, Sep 19, 2022	
Input File Name:	Pioneer Bld D.cibd19x			

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Building Component	Form/Title
	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VF Acceptance (if applicable) since testing activities overlap
	NRCA-MCH-03-A Constant Volume Single Zone HVAC
	NRCA-MCH-05-A Air Economizer Controls

	NRCA-MCH-05-A Air Economizer Controls
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints
	NRCA-MCH-07-A Supply Fan Variable Flow Controls
	NRCA MCU 12 A EDD for Declared Direct Events in Units

Mechanical	§120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints
	NRCA-MCH-07-A Supply Fan Variable Flow Controls
	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units
	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance
	NRCA-MCH-16-A Supply Air Temperature Reset Controls

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-19 18:26:04	CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-19 18:26:04

Project Name: Pioneer School Bld D NRCC-PRF-01-E Page 12 of 12 Calculation Date/Time: 18:25, Mon, Sep 19, 2022 4404 Pioneer Drive Bakersfield 93306 Project Address: Input File Name: Pioneer Bld D.cibd19x DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete. Documentation Author Name: Mark Baskin Company: Baskin Mechanical Engineers Address: 175 Fulton St. Signature Date: 2022-09-19 City/State/Zip: Fresno CA 93721 CEA/ HERS Certification Identification (if applicable): M26578 Phone: 5592370376

RESPONSIBLE PERSON'S DECLARATION STATEMENT

Address: 5500 Ming Avenue, #251 City/State/Zip: Bakersfield CA 93309

Phone: (661) 397-2114

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.

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 plans and specifications submitted to the enforcement agency for approval with this is 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be inspections. I understand that a completed signed copy of this Certificate of Compliance.	building permit application. made available with the building permit(s) issued for the	building, and made available to the enforcement agency for all applicable
Responsible Envelope Designer Name:	e	÷
Company:	Signature:	
Address:	Date Signed:	
City/State/Zip:		
Phone:	Title:	License #:
Responsible Lighting Designer Name:	S	311
Company:	Signature:	
Address:	Date Signed:	
City/State/Zip:		<u> </u>
Phone:	Title:	License #:
Responsible Mechanical Designer Name: Mark Baskin, P.E.	M I B	Digitally signed by Mark Baskini, P.E. DN: G-US, E-MBaskini@BaskinME.com, O-Baskin Mechanical
Company: Baskin Mechanical Engineers	Signature: Mark B	askin, P.E. Digitally stigned by Mark Baskin, P.E. Halled an in Baskin Mechanical Endingers: CN. Mark Baskin, P.E. Endingers: CN. Mark Baskin, P.E. Feasier: However evel-weed this document Date: 2022.09.18 16:09.59-0700
Address: 5500 Ming Avenue, #251	Date Signed: 09-19-202	

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844 Report Generated at: 2022-09-19 18:26:04

Title: P.E.

License #: M26578

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122641 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸

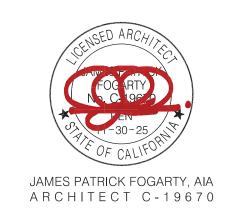


3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

Pioneer Elementary School

4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Date	09.29.23
DSA File No	15-6
DSA No	03-122641

<u>_</u> *	00.00.08	DESCRIPTION

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MECHANICAL TITLE 24

- BUILDING D



Proje	ect Name:	Pioneer Sch	Pioneer School Bld E				NRCC-PRF-01-E		Page 1 of 1	2
Proje	ect Address:	4404 Pionee	er Drive	e Bakersfield 93	rsfield 93306		Calculation Date/	Time:	18:33, Mon	, Sep 19, 2022
Inpu	t File Name:	Pioneer Bld	E.cibd	19x						
3 52										
A, G	SENERAL INFORM	MATION								7
1	Project Location	(city)	Bakersfield		8	Standards Version	n		Compliance2019	
2	2 CA Zip Code		93306	93306		Compliance Softv	vare (ve	rsion)	EnergyPro 8.3	
3	3 Climate Zone		13	13		Weather File			BAKERSFIELD_723840_CZ2010.epw	
4	Total Conditions	ed Floor Area in	Scope	3,000 f	12	11	Building Orientat	ion (deg)	(S) 180 deg
5	Total Uncondition	oned Floor Area		0 ft ²		12	Permitted Scope	of Work		ExistingAdditionAndAlteration
6	Total # of Storie	s (Habitable Abo	ve Gra	ade) 1		13	Building Type(s)			Nonresidential
7	Total # of dwelli	ng units		0	0		Gas Type			NaturalGas
								_		ė.
B. P	ROJECT SUMMA	ARY								
		le B shows whici	h build	ling component	s are included in the performance ca	lculation	. If indicated as no	t include	ed, the proje	ct must show compliance prescriptively if within
pern	nit application.									
		В	uilding	Components C	omplying via Performance				Buildi	ng Components Complying Prescriptively
			\boxtimes	Performance			Performance		e following building components are ONLY eligible for prescripti	
Enve	elope (see Table G))	П	Not Included	Covered Process: Commercial Kitchens		Not Included		compliance and should be documented on the NRCC form li the scope of the permit application (i.e. compliance will not	

B. PROJECT SUMMARY						<u> </u>		
Table Instructions: Table B shows who permit application.	ich build	ding component	s are included in the performance calcula	ition.	If indicated as no	ot included, the project must show compliant	ce prescriptively if within	
	Buildin	g Components C	omplying via Performance			Building Components Comply	ing Prescriptively	
	☑ Performance				Performance	The following building components are ON		
Envelope (see Table G)		Not Included	Covered Process: Commercial Kitchens	×	Not Included	compliance and should be documented on the NRCC the scope of the permit application (i.e. compliance on the NRCC-PRF-E).		
Name to stand for a Table 10	×	Performance	C		Performance	Indoor Lighting (Unconditioned)§140.6	NRCC-LTI-E	
Mechanical (see Table H)		Not Included	Covered Process: Computer Rooms	\boxtimes	Not Included	Outdoor Lighting §140.7	NRCC-LTO-E	
Delicinate Historical Property of Table ()		Performance			Performance	Sign Lighting §140.8	NRCC -LTS-E	
Domestic Hot Water (see Table I)		Not Included	Covered Process: Laboratory Exhaust	Ø	Not Included	Mandatory Measures		
Lighting (Indoor Conditioned, see Table K)	×	Performance			51	Electrical power systems, commissioning, sescalator requirements are mandatory and listed if applicable (i.e. compliance will not NRCC-PRF-E.)	d should on the NRCC form	
		Not Included				Electrical Power Distribution S110.11	NRCC-ELC-E	
Solar Thermal Water Heating (see		Performance				Commissioning S120.8	NRCC-CXR-E	
Table I)	\boxtimes	Not Included				Solar Ready S110.10	NRCC-SRA-E	

Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation	Date/Time:	18:33, Mon, Sep 19, 2022	
Input File Name:	Pioneer Bld E.cibd19x	=			
C1. COMPLIANCE F	RESULTS FOR PERFORMANCE COMPONENTS (A	Annual TDV Energy Use, kBtu/ft ²-yr)			
		COMPLIES			
	Energy Component	Standard Design (TDV)	Proj	posed Design (TDV)	Compliance Margin (TDV) ¹
Space Heating		13.3	4	24.54	-11.20
Space Cooling		138.7	1	93.04	45.67
Indoor Fans		184.0	9	70.37	113.72
Heat Rejection			-		77
Pumps & Misc.			-	+	
Domestic Hot Water		15.4	5	15.46	
Indoor Lighting		40.0	40.01 40.0		7
ENERGY STAN	NDARDS COMPLIANCE TOTAL	391.63	L	243.42	148.19 (37.8%)
² Notes: The number	er in parenthesis following the Compliance Mar	gin in column 4. represents the Percent	Better than	Standard.	
C2. RESULTS FOR '/	ABOVE CODE' QUALIFICATIONS ¹				
☐ This project is purs	suing CalGreen Tier 1		☐This proj	ect is pursuing CalGreen Tier 2	!
37 - 37 - 37 - 37 - 37 - 37 - 37 - 37 -	Miscellaneous Energy Component	Standard Design (TDV)	Proj	posed Design (TDV)	Compliance Margin (TDV) ¹
Receptacle		72.7	4	72.74	
Process			-		# T
Other Ltg			-		
Process Motors				15	- E
COMPLIANCE TOTAL	PLUS MISCELLANEOUS COMPONENTS	464.3	5	316.16	148.2 (31.9%)
1 Notes: This table i	is used to document compliance with programs	OTHER THAN Title 24 Part 6 if applical	ala.		

NRCC-PRF-01-E

Page 2 of 12

Project Name:	Pioneer School Bld E		1	NRCC-PRF-01-E	Page 3 of 12		
Project Address:	4404 Pioneer Drive Ba	kersfield 93306	(Calculation Date/Time	18:33, Mon, Sep 19, 20	022	
Input File Name:	Pioneer Bld E.cibd19x						
C3. ENERGY USE SU	JMMARY	7					
Ene	ergy Component	Standard Design Site (MWh)	Proposed Design S (MWh)	ite Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
S	pace Heating	**	2.9	-2.9	19.3		19.3
	Space Cooling	9.8	6.3	3.5	**:		-
	Indoor Fans	18.3	7.0	11.3	+	148	s as
H	leat Rejection			- 1	¥2-1		844
Р	umps & Misc.	₩	₩.	**			-
Don	nestic Hot Water	-	18 3	At a	25.8	25.8	0.0
Ir	ndoor Lighting	4.3	4.3	0.0	**		>
Co	mpliance Total	32.4	20.5	11.9	45.1	25.8	19.3
	Receptacle	7.9	7.9	0.0	FE)	=	377
	Process			#3	**	***	-
	Other Ltg			SEC 1			124
P	rocess Motors	=	774	75°	FF.	129,	985
	TOTAL	40.3	28.4	11.9	45.1	25.8	19.3

TOTAL	40.3	28.4	11.9	45.1	25.8	19.3
**						
D. EXCEPTIONAL CONDITIONS						
The building does not include service water heating	. Verify that service water heating	ng is not required and is r	not included in the de	esign.		
E. HERS VERIFICATION						
This Section Does Not Apply						

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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Report Generated at: 2022-09-19 18:33:34

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Pioneer School Bld E

Report Version: NRCC-PRF-01-E-12092021-6844

Report Generated at: 2022-09-19 18:33:34

Project Name:

Project Address: Input File Name:

Equipment Name

HP-1 E9

HP-1 E10

Name or Item Tag Qty

HP-1 E8

HP-1 E10

Status: N - New, A - Altered, E - Existing

H3. EXHAUST FAN SUMMARY This Section Does Not Apply

This Section Does Not Apply

Project Address:

Input File Name:

Building Level Controls

Area Description

^I Status: N - New, A - Altered, E - Existing

H2. FAN SYSTEMS SUMMARY

Pioneer School Bld E

Pioneer Bld E.cibd19x

(Packaged3Phase)

(Packaged3Phase) SZVAVHP

(Packaged3Phase)

H4. Wet System Equipment(boilers, chillers, cooling towers, etc.)

Pioneer School Bld E

Pioneer Bld E.cibd19x

4404 Pioneer Drive Bakersfield 93306

K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS

4404 Pioneer Drive Bakersfield 93306

H1. DRY SYSTEM EQUIPMENT (furnaces, air handling units, heat pumps, VRF, economizers etc.)

Equipment Type Qty Total Heating Supp Heat

Output (kBtu/h)

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844

Mandatory Demand Response §110.12(c)

Area Level Controls (includes all lighting controls installed in conditioned space to meet mandatory requirements per §130.1)

Area Category Primary Function Area

(kBtuh)

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Report Version: NRCC-PRF-01-E-12092021-6844

NRCC-PRF-01-E

8.30

8.30

HSPF

1 2 3 4 5 6 7 8 9 10 11 12 13 14

HSPF 8.30

VariableSpeedDriv

VariableSpeedDriv

NRCC-PRF-01-E

Area Controls

130.1(a)

Calculation Date/Time: 18:33, Mon, Sep 19, 2022

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SEER/EER 16.20/11.70

59 SEER/EER 16.20/11.70

59 SEER/EER 16.20/11.70

Calculation Date/Time: 18:33, Mon, Sep 19, 2022

Output (kBtu/h)

Report Generated at: 2022-09-19 18:33:34

Economizer Type (if

FixedDryBulb

FixedDryBulb

FixedDryBulb

Report Generated at: 2022-09-19 18:33:34

Shut-Off Controls §130.1(c)

Multi-Level Shut-Off Primary Secondary

Controls Controls Daylighting Daylighting 130.1(b) 130.1(c) 130.1(d) 140.5(d)

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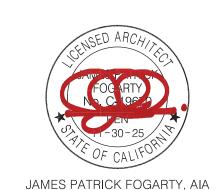
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APP: 03-122641 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸

Elementary School 4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

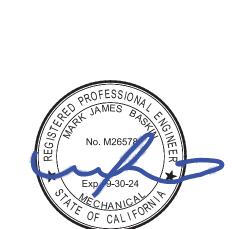
Pioneer

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ARCHITECT C-19670

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PROJECT	INFO	

Project No	566-0017
Date	09.29.23
DSA File No	15-6
DSA No	03-122641

REVISIONS No Date Item

*	00.00.08	DESCRIPTION

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MECHANICAL TITLE 24 - BUILDING E

Project Name:	Pioneer School Bld E	NRCC-PRF-01-E	Page 4 of 12	
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	18:33, Mon, Sep 19, 2022	
Input File Name:	Pioneer Bld E.cibd19x			

1	2	3	4
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing ¹	1,152 ft²	576 ft²	50.0%
East-Facing ²	0 ft²	0 ft²	00.0%
South-Facing ³	1,152 ft²	288 ft²	25.0%
West-Facing ⁴	0 ft²	O ft²	00.0%
Total	2,304 ft²	864 ft²	37.5%
oof	3,000 ft ²	0 ft ²	00.0%

¹ North-Facing is oriented to within 45 degrees of true north, including 45°00'00" east of north (NE), but excluding 45°00'00" west of north (NW). ² East-Facing is oriented to within 45 degrees of true east, including 45°00'00" south of east (SE), but excluding 45°00'00" north of east (NE). ³ South-Facing is oriented to within 45 degrees of true south, including 45°00'00" west of south (SW), but excluding 45°00'00" east of south (SE). 4 West-Facing is oriented to within 45 degrees of true west, including 45°00'00" north of due west (NW), but excluding 45°00'00" south of west (SW).

1	2	3	4	5	6	7	8	9	1
Surface Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	
R-30 Roof Attic6	Roof	3000	Wood	30	NA	U-Factor	0.038	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.	
R-11 Walf8	ExteriorWall	2304	Wood	11	NA	U-Factor	0.110	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.	

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Project Name:	Pioneer School B	Bld E		NRC	CC-PRF-01-E	Page 7 o	f 12		
Project Address:	4404 Pioneer Dr	ive Bakersfield 93306		Calc	ulation Date/Tim	ie: 18:33, M	on, Sep 19, 2022		
Input File Name:	Pioneer Bld E.cib	od19x							
H5. PUMPS									
This Section Does Not	Apply	ii-						10	
H6. SYSTEM SPECIA	L FEATURES							•	
1		2		3			4		
System N	lame	Equipment Type		Window Interlocks per §140.4(n) Other Spec		ner Special Features and	Controls		
HP-1	E8	SZVAVHP		NA		Zor	t. Control nizer		
HP-1 I	E9	SZVAVHP		NA		Zor	t, Control nizer		
HP-1 E	10	SZVAVHP		NA		Zor	nes With CO2Sensor Ven Fixed Drybulb Econom		
lotes: This table includes co	ntrols related to the perform	mance path only. For projects using the prescript	ive path, mandator	y and prescriptive (controls requirements	are documented o	n the NRCC-MCH-E.		
H7. NONRESIDENTI	AL VENTILATION								
1		2		3	4	5	6	7	
			Me	echanical Venti	lation			551 - 6	
Zone N	lame	Ventilation Functio		# of	Supply OA	Exhaust	Conditioned Area	DCV or Occupant Sensor Controls, or Both	
		ventilation runctio		people	CFM	CFM	(sf)		
1-Classro	oom E8	Education - Classrooms (a	ges 5-8)	24.00	360	0	960	DCV	
2.6	nom EQ	Education - Classrooms (a	roc 5-81	24.00	360	0	960	DCV	
2-Classro	30111 E3	Education - Classiconis (a)	563 2-01	24.00	300		300	DC.	

18. HIGH-RISE RESIDENTIAL DWELLING UNIT AND HOTEL/MOTEL VENTILATION			
his Section Does Not Apply			

Report Version: NRCC-PRF-01-E-12092021-6844

Report Generated at: 2022-09-19 18:33:34

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Project Name:	Pioneer School Bld E	NRCC-PRF-01-E	Page 5 of 12	
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	18:33, Mon, Sep 19, 2022	
Input File Name:	Pioneer Bld E.cibd19x			

1	2	3	4	5	6	7	8	9	10
Surface Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	Status
Slab On Grade13	UndergroundFloor	3000	NA	0	NA	F-Factor	0.73	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0	E

1 Status: N - New, A - Altered, E - Existing

1	2	3	4	5	6	7	8	9
enestration Assembly Name / Tag or I.D.	Fenestration Type / Product Type / Frame Type	Certification Method ¹	Assembly Method	Area ft ²	Overall U-factor	Overall SHGC	Overall VT	otatus
Single Metal Clear	VerticalFenestration FixedWindow MetalFraming	Default Performance	SiteBuilt	864	1.19	0.83	0.77	E

1 Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.

. OVERHANG DETAILS					
1	2	3	4	5	6
Fenestration Tag/ID	Orientation	Depth(ft.)	Height from Bottom of Sill to Overhang(ft)	Right Extent(ft)	Left Extent(ft)
Window11	South	12.0	4	10.0	10.0
Window18	South	12.0	4	10.0	10.0
Window24	South	12.0	4	10.0	10.0

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-19 18:3

roject Name:	Pioneer School Bld E					NRCC-PRF-01-E		Page 8 of 12				
roject Address:	4404 Pioneer Drive Ba	kersfield 93306				Calculation Date	Time:	18:33, Mon, Sep	19, 2022			
nput File Name:	Pioneer Bld E.cibd19x	V.										
19. ZONAL SYSTEM A	ND TERMINAL UNIT S	SUMMARY										
1	2	3	4	5	6	7	8	9	10	11	12	13
Suntana ID	Zone Name	Sustain Time	Oto	0.314.50	Capacity tuh)	Airflow (cfm		m)		Fa	an	
System ID	Zone Name	System Type	Qty	Heating	Cooling	Design	Min	Min. Ratio	Power	Power Units	Cycles	VSI
1-Classroom E8-Trm	1-Classroom E8	VAVNoReheatBox	1	NA	NA	2100	1400	0.67	0.660	bhp	NA	
2-Classroom E9-Trm	2-Classroom E9	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	
	3-Classroom E10	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	

1	2	3	4	5	6
		Installed Lighting Davies	Lighting Control Condition	Additional (Cus	tom) Allowance
Occupancy Type ¹	Conditioned Floor Area ² (ft ²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts)
Classroom, Lecture, Training, Vocational Areas	3,000	2,100	0	0	0
Building Totals:	3,000	2,100	0	0	0

¹ See Table 140.6-C ² See NRCC-LTI-01-E for unconditioned spaces ³Lighting information for existing spaces modeled is not included in the table

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844 Report Generated at: 2022-09-19 18:33:34

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Report Version: NRCC-PRF-01-E-12092021-6844

Report Generated at: 2022-09-19 18:33:34

Project Name:	Pioneer School Bld E	NRCC-PRF-01-E	Page 10 of 12	
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	18:33, Mon, Sep 19, 2022	
Input File Name:	Pigneer Bld E cibd19x	i		

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Mechanical NRCI-MCH-01-E - Must be submitted for all buildings

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents bust be retained and provided to the building inspector during construction and can be found online at:

Report Version: NRCC-PRF-01-E-12092021-6844

Report Generated at: 2022-09-19 18:33:34

https://www.energy.co	r.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/
Building Component	Form/Title

ole Instru	ctions:	Selections sh	iall be mad	e by Doc	umentation	Author to	indicate	which C	ert
mpliance	. These	documents r	nust be pro	vided to	the building	inspector	during c	onstruc	tion

NRCA-MCH-16-A Supply Air Temperature Reset Controls

NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance

ertificates of Acceptance must be submitted for the features to be recognized for ion and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit:https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

ilding Component	Form/Title					
	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-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					
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints					
	NRCA-MCH-07-A Supply Fan Variable Flow Controls					
	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units					

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-19 18:33:34

Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date	/Time: 18:33, Mon, Sep 19, 2022			
Input File Name:	Pioneer Bld E.cibd19x					
	AUTHOR'S DECLARATION STATEMENT ate of Compliance documentation is accurate and complete	ž.	1			
Documentation Autho	or Name: Mark Baskin		Digitally signed by Mark Baskin, P.E. DN°C-US: E-MBaskin@BaskinMf com. O-Baskin Mechan			
Company: Baskin Mechanical Engineers		Signature: Mark	Signature: Mark Baskin, P.E. Digitally signed by Mark Baskin, P.E. DN: C-U.S. E-MBaskin@BaskinME.com, O-Baskin Mechanic Engineers, NoMark Baskin, P.E. Reason: I have reviewed this document			
Address: 175 Fulton St.		Signature Date: 2022-09-	19			
City/State/Zip: Fresno	CA 93721	CEA/ HERS Certification to	lentification (if applicable): M26578			
Phone: 5592370376						
RESPONSIBLE PERS	ON'S DECLARATION STATEMENT					
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Pa	and performance specifications, materials, components, an art 6 of the California Code of Regulations.	d manufactured devices for the building design or syst	entified on this Certificate of Compliance (responsible designer) em design identified on this Certificate of Compliance conform to the require provided on other applicable compliance documents, worksheets, calculatio			
 I am eligible under Di The energy features a of Title 24, Part 1 and Pa The building design fe plans and specifications I will ensure that a co 	vision 3 of the Business and Professions Code to accept res and performance specifications, materials, components, and art 6 of the California Code of Regulations. eatures or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shall and that a completed signed copy of this Certificate of Compliance	d manufactured devices for the building design or syst ate of Compliance are consistent with the information his building permit application. I be made available with the building permit(s) issued liance is required to be included with the documentati	em design identified on this Certificate of Compliance conform to the requir provided on other applicable compliance documents, worksheets, calculation			
 I am eligible under Di The energy features a of Title 24, Part 1 and Pa The building design fe plans and specifications I will ensure that a co inspections. I understan 	vision 3 of the Business and Professions Code to accept res and performance specifications, materials, components, and art 6 of the California Code of Regulations. eatures or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shall and that a completed signed copy of this Certificate of Compliance	d manufactured devices for the building design or syst ate of Compliance are consistent with the information his building permit application. I be made available with the building permit(s) issued liance is required to be included with the documentation. Signature:	em design identified on this Certificate of Compliance conform to the requir provided on other applicable compliance documents, worksheets, calculation for the building, and made available to the enforcement agency for all applic			
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Pa 4. The building design fe plans and specifications 5. I will ensure that a co inspections. I understan Responsible Envelope Company; Address:	vision 3 of the Business and Professions Code to accept res and performance specifications, materials, components, and art 6 of the California Code of Regulations. eatures or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shall and that a completed signed copy of this Certificate of Compliance	d manufactured devices for the building design or syst ate of Compliance are consistent with the information his building permit application. I be made available with the building permit(s) issued liance is required to be included with the documentati	em design identified on this Certificate of Compliance conform to the requir provided on other applicable compliance documents, worksheets, calculation for the building, and made available to the enforcement agency for all applications.			
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Pa 4. The building design fe plans and specifications 5. I will ensure that a co inspections. I understan Responsible Envelope Company:	vision 3 of the Business and Professions Code to accept res and performance specifications, materials, components, and art 6 of the California Code of Regulations. eatures or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shall and that a completed signed copy of this Certificate of Compliance	ate of Compliance are consistent with the information also building permit application. I be made available with the building permit(s) issued is liance is required to be included with the documentation. Signature: Date Signed:	em design identified on this Certificate of Compliance conform to the requir provided on other applicable compliance documents, worksheets, calculation or the building, and made available to the enforcement agency for all application on the builder provides to the building owner at occupancy.			
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Pa 4. The building design fe plans and specifications 5. I will ensure that a co inspections. I understan Responsible Envelope Company; Address:	vision 3 of the Business and Professions Code to accept res and performance specifications, materials, components, and art 6 of the California Code of Regulations. eatures or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shall and that a completed signed copy of this Certificate of Compliance	d manufactured devices for the building design or syst ate of Compliance are consistent with the information his building permit application. I be made available with the building permit(s) issued liance is required to be included with the documentation. Signature:	em design identified on this Certificate of Compliance conform to the requision provided on other applicable compliance documents, worksheets, calculation the building, and made available to the enforcement agency for all applications.			
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Pa 4. The building design fe plans and specifications 5. I will ensure that a co inspections. I understan Responsible Envelope Company: Address: City/State/Zip:	vision 3 of the Business and Professions Code to accept researd performance specifications, materials, components, and performance specifications, materials, components, and the California Code of Regulations. Parties or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shalled that a completed signed copy of this Certificate of Compliance Designer Name:	d manufactured devices for the building design or syst ate of Compliance are consistent with the information his building permit application. I be made available with the building permit(s) issued liance is required to be included with the documentation. Signature: Date Signed: Title:	em design identified on this Certificate of Compliance conform to the requirement of the requirement of the requirement of the requirement of the provided on other applicable compliance documents, worksheets, calculation the building, and made available to the enforcement agency for all application the builder provides to the building owner at occupancy.			
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Pa 4. The building design fe plans and specifications 5. I will ensure that a co inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone:	vision 3 of the Business and Professions Code to accept researd performance specifications, materials, components, and performance specifications, materials, components, and the California Code of Regulations. Parties or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shalled that a completed signed copy of this Certificate of Compliance Designer Name:	ate of Compliance are consistent with the information also building permit application. I be made available with the building permit(s) issued is liance is required to be included with the documentation. Signature: Date Signed:	em design identified on this Certificate of Compliance conform to the require provided on other applicable compliance documents, worksheets, calculation or the building, and made available to the enforcement agency for all application the builder provides to the building owner at occupancy.			
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Pa 4. The building design fe plans and specifications 5. I will ensure that a co inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting C	vision 3 of the Business and Professions Code to accept researd performance specifications, materials, components, and performance specifications, materials, components, and the California Code of Regulations. Parties or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shalled that a completed signed copy of this Certificate of Compliance Designer Name:	d manufactured devices for the building design or syst ate of Compliance are consistent with the information his building permit application. I be made available with the building permit(s) issued liance is required to be included with the documentation. Signature: Date Signed: Title:	em design identified on this Certificate of Compliance conform to the requirement of the requirement of the requirement of the requirement of the provided on other applicable compliance documents, worksheets, calculation the building, and made available to the enforcement agency for all application the builder provides to the building owner at occupancy.			
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Po 4. The building design fe plans and specifications 5. I will ensure that a co inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting C Company:	vision 3 of the Business and Professions Code to accept researd performance specifications, materials, components, and performance specifications, materials, components, and the California Code of Regulations. Parties or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shalled that a completed signed copy of this Certificate of Compliance Designer Name:	ate of Compliance are consistent with the information his building permit application. I be made available with the building permit(s) issued is liance is required to be included with the documentation. Signature: Date Signed: Title: Signature:	em design identified on this Certificate of Compliance conform to the requir provided on other applicable compliance documents, worksheets, calculation or the building, and made available to the enforcement agency for all application on the builder provides to the building owner at occupancy.			
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Pa 4. The building design fe plans and specifications 5. I will ensure that a co inspections. I understan Responsible Envelope Company; Address: City/State/Zip: Phone: Responsible Lighting C Company; Address:	vision 3 of the Business and Professions Code to accept researd performance specifications, materials, components, and performance specifications, materials, components, and the California Code of Regulations. Parties or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shalled that a completed signed copy of this Certificate of Compliance Designer Name:	ate of Compliance are consistent with the information his building permit application. I be made available with the building permit(s) issued is liance is required to be included with the documentation. Signature: Date Signed: Title: Signature:	em design identified on this Certificate of Compliance conform to the requir provided on other applicable compliance documents, worksheets, calculation or the building, and made available to the enforcement agency for all application on the builder provides to the building owner at occupancy.			
2. I am eligible under Di 3. The energy features a of Title 24, Part 1 and Pa 4. The building design fe plans and specifications 5. I will ensure that a co inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting C Company: Address: City/State/Zip: Phone: City/State/Zip: Phone:	vision 3 of the Business and Professions Code to accept researd performance specifications, materials, components, and performance specifications, materials, components, and the California Code of Regulations. Parties or system design features identified on this Certifical submitted to the enforcement agency for approval with the impleted signed copy of this Certificate of Compliance shalled that a completed signed copy of this Certificate of Compliance Designer Name:	ate of Compliance are consistent with the information his building permit application. I be made available with the building permit(s) issued is liance is required to be included with the documentation. Signature: Date Signed: Title: Date Signed: Title:	em design identified on this Certificate of Compliance conform to the require provided on other applicable compliance documents, worksheets, calculations on the building, and made available to the enforcement agency for all applications on the builder provides to the building owner at occupancy. License #:			

NRCC-PRF-01-E

Page 12 of 12

License #: M26578

Report Generated at: 2022-09-19 18:33:34

Pioneer School Bld E

Project Name:

City/State/Zip: Bakersfield CA 93309

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Phone: (661) 397-2114

Date Signed: 09-19-2022 Address: 5500 Ming Avenue, #251

Title: P.E

Report Version: NRCC-PRF-01-E-12092021-6844

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

APP: 03-122641 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 web|www.aparchitects.net|

Pioneer Elementary School

4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0017
Date	09.29.23
DSA File No	15-6
DSA No	03-122641
	·

<u>_</u> *	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF THE ADDINGTON PARTNERSHIP. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE ADDINGTON PARTNERSHIP. WRITTEN SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS SHALL BE SUBMITTED TO THIS OFFICE FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.
© COPYRIGHT

MECHANICAL TITLE 24 - BUILDING E

Project Name: Pioneer School Bld F & C		Pioneer School Bld F & C			NRCC-PRF-01-E	Page 1 of	12	
Proje	ect Address:	4404 Pioneer Drive Bake	tersfield 93306		Calculation Date/Time:	Time: 18:46, Mon, Sep 19, 2022		
Inpu	nput File Name: Pioneer Bld F & G.cibd1		9x					
A. G	SENERAL INFOR	MATION			-			
1	Project Location	n (city)	Bakersfield	8	Standards Version		Compliance2019	
2	CA Zip Code		93306	9	Compliance Software (ve	ersion)	EnergyPro 8.3	
3	Climate Zone		13	10	Weather File		BAKERSFIELD_723840_CZ2010.epw	
4	4 Total Conditioned Floor Area in Scope		3,960 ft ²	11	Building Orientation (deg)		(S) 180 deg	
5	5 Total Unconditioned Floor Area		0 ft ²	12	Permitted Scope of Work		ExistingAdditionAndAlteration	
6	Total # of Storie	es (Habitable Above Grade)	1	13	Building Type(s)		Nonresidential	
7	Total # of dwelling units		0	14	Gas Type		NaturalGas	
abl	ROJECT SUMM. e Instructions: Tal nit application.		mponents are included in the perfo	ormance calculation	n. If indicated as not includ	led, the proj	ect must show compliance prescriptively if within	
Econol.	v sieuz (1 40.5 815) Weierin (1751)	Building Com	oonents Complying via Performance	e		Build	ling Components Complying Prescriptively	
		57		- I	10 5 71 5		tit i omit till e til	

Table Instructions: Table B shows whi permit application.	ch build	ding component	s are included in the performance calcula	tion.	If indicated as no	ot included, the project must show compliant	ce prescriptively if within
	Buildin	g Components C	omplying via Performance			Building Components Comply	ring Prescriptively
Envelope (see Table G)		Performance	Covered Process: Commercial		Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if whe scope of the permit application (i.e. compliance will not be shown the NRCC-PRF-E).	
		Not Included			Not Included		
Name to the Late Table 11)		Performance	Covered Process: Computer Rooms		Performance	Indoor Lighting (Unconditioned)§140.6	NRCC-LTI-E
Mechanical (see Table H)		Not Included		\boxtimes	Not Included	Outdoor Lighting §140.7	NRCC-LTO-E
Description of the Market Park Table II		Performance			Performance	Sign Lighting §140.8 NRCC -LTS-E	
Domestic Hot Water (see Table I)		Not Included	Covered Process: Laboratory Exhaust		Not Included	Mandatory Measures	
Lighting (Indoor Conditioned, see Table K)	×	Performance			51	Electrical power systems, commissioning, escalator requirements are mandatory and listed if applicable (i.e. compliance will not NRCC-PRF-E.)	d should on the NRCC form
		Not Included	1			Electrical Power Distribution S110.11	NRCC-ELC-E
Solar Thermal Water Heating (see		Performance	1			Commissioning S120.8	NRCC-CXR-E
Table I)	\boxtimes	Not Included	1			Solar Ready S110.10	NRCC-SRA-E

Project Name:	Pioneer School Bld F & G	NRC	C-PRF-01-E	Page 2 of 12	
Project Address:	4404 Pioneer Drive Bakersfield 93306	Calc	ulation Date/Time	: 18:46, Mon, Sep 19, 2022	
Input File Name:	Pioneer Bld F & G.cibd19x				
25 221111111111			1.00		
C1. COMPLIANCE F	RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft 2	-yr)		
		COMPLIES			
	Energy Component	Standard Design (TDV)	Pr	roposed Design (TDV)	Compliance Margin (TDV) ¹
Space Heating			13.45	24.63	-11.18
Space Cooling			139.19	93.53	45.66
Indoor Fans			184.98	72.19	112.79
Heat Rejection				#	***
Pumps & Misc.					
Domestic Hot Water			14.52 14.52		2
Indoor Lighting	ndoor Lighting		40.01	40.01	
ENERGY STAN	DARDS COMPLIANCE TOTAL	39	392.15		147.27 (37.6%)
² Notes: The number	er in parenthesis following the Compliance Ma	rgin in column 4. represents the Pe	rcent Better tha	n Standard.	
C2. RESULTS FOR '/	ABOVE CODE' QUALIFICATIONS ¹				
☐ This project is purs	suing CalGreen Tier 1		☐This pr	oject is pursuing CalGreen Tier 2	2
	Miscellaneous Energy Component	Standard Design (TDV)	Pr	roposed Design (TDV)	Compliance Margin (TDV)1
Receptacle			72.74		
Process			**	**	-
Other Ltg					2
Process Motors					**
COMPLIANCE TOTAL	PLUS MISCELLANEOUS COMPONENTS	3	464.89		147.3 (31.7%)
1 Manager This sale is a	is used to document compliance with program:	OTHER THAN THE DAR LOCK			

Project Name:	Project Name: Pioneer School Bld F & G			RCC-PRF-01-E	Page 3 of 12			
Project Address:	4404 Pioneer Drive Ba	akersfield 93306	C	alculation Date/Time:	18:46, Mon, Sep 19, 20)22		
Input File Name:	Pioneer Bld F & G.cibo	d19x						
C3. ENERGY USE SU	JMMARY	*	-	- 19				
Ene	ergy Component	Standard Design Site (MWh)	Proposed Design Si (MWh)	te Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)	
S	pace Heating	***	3.9	-3.9	25.7		25.7	
S	Space Cooling	12.9	8.3	4.6	F#1			
	Indoor Fans	24.2	9.4	14.8	 .		sen	
Н	leat Rejection			-	22	**	542	
P	umps & Misc.		₩)	-	=		-	
Don	nestic Hot Water	-	17 3;	+	32.0	32.0	0.0	
Ir	ndoor Lighting	5.7	5.7	0.0	940	144	>	
Co	mpliance Total	42.8	27.3	15.5	57.7	32.0	25.7	
	Receptacle	10.5	10.5	0.0	55)		377	
	Process	.+:	+52	#	**	**		
	Other Ltg		-	44.1	223		522	
Pi	rocess Motors	=	77.00	551	777-1 187-2		1975	
	TOTAL	53.3	37.8	15.5	57.7	32.0	25.7	

TOTAL	53.3	37.8	15.5	57.7	32.0	25.7
D. EXCEPTIONAL CONDITIONS						
The building does not include service water heating	g. Verify that service water heatir	ng is not required and is r	not included in the de	esign.		
-						
E. HERS VERIFICATION						
This Section Does Not Apply						

NRCC-PRF-01-E

8.30

8.30

8.30

Unit

HSPF

HSPF

HSPF

1 2 3 4 5 6 7 8 9 10 11 12 13 14

HSPF 8.30

(kBtuh)

Page 6 of 12

SEER/EER

59 SEER/EER 16.20/11.70

Calculation Date/Time: 18:46, Mon, Sep 19, 2022

Output

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CA Building Energy Efficiency Standards- 2019 N	Ionresidential Compliance

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Report Version: NRCC-PRF-01-E-12092021-6844

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Pioneer School Bld F & G

Pioneer Bld F & G.cibd19x

Fenestration Assembly Name / Tag Fenestration Type / Product Type /

Pioneer School Bld F & G

Pioneer Bld F & G.cibd19x

Zone Name

H9. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

1-Classroom F11-Trm 1-Classroom F11

2-Classroom F12-Trm 2-Classroom F12

3-Classroom F13-Trm 3-Classroom F13

H10. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

This Section Does Not Apply

H11. HEAT RECOVERY SUMMARY

4404 Pioneer Drive Bakersfield 93306

Frame Type

VerticalFenestration

FixedWindow

MetalFraming

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844

System Type

VAVNoReheatBox

VAVNoReheatBox

VAVNoReheatBox 1

G3. OPAQUE SURFACE ASSEMBLY SUMMARY

Surface Name

Slab On Grade13

G5. FENESTRATION ASSEMBLY SUMMARY

Single Metal Clear

1 Status: N - New, A - Altered, E - Existing

4404 Pioneer Drive Bakersfield 93306

Project Name:

Project Address: Input File Name: Report Version: NRCC-PRF-01-E-12092021-6844

Framing Cavity Continuous
Type R-Value R-Value

UndergroundFloor 3960 NA 0 NA F-Factor 0.73

Certification Method¹

Default Performance

NRCC-PRF-01-E

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Slab Type = UnheatedSlabOnGrade

Insulation Orientation = None

Insulation R-Value = R0

5 6 7 8 9

Overall Overall Overall U-factor SHGC VT

0.83

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0.77

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844

Report Generated at: 2022-09-19 18:46:23

16.20/11.70

SEER/EER 16.20/11.70

SEER/EER 16.20/11.70

Economizer Type (if

FixedDryBulb

FixedDryBulb

FixedDryBulb

FixedDryBulb

Project Name:	Pioneer School Bld F & G		NRCC-PRF-01-E	Page 4 of 12		
Project Address:	4404 Pioneer Drive Bakers	field 93306	Calculation Date/Time:	18:46, Mon, Sep 19, 2022		
Input File Name:	Pioneer Bld F & G.cibd19x					
G1. ENVELOPE GEI	NERAL INFORMATION (condi	tioned spaces only)				
	1	2	3		4	
Opaque Surf	aces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Ar	ea (ft²)	Window to Wall Ratio (%)	
	North-Facing ¹	1,536 ft²		768 ft ²	50,0%	
	East-Facing ²	0 ft²		0 ft ²	00.0%	
	South-Facing ³	1,536 ft²		384 ft ²	25.0%	
	West-Facing ⁴	0 ft²		0 ft ²	00.0%	
	Total	3,072 ft²		1,152 ft²	37.5%	
Roof		3,960 ft ²		0 ft ²	00.0%	
² East-Facing is orie ³ South-Facing is or	ented to within 45 degrees of riented to within 45 degrees o	of true north, including 45°00'00" east of nor true east, including 45°00'00" south of east of true south, including 45°00'00" west of so f true west, including 45°00'00" north of due	(SE), but excluding 45°00'0 uth (SW), but excluding 45	00" north of east (Ni °00'00" east of sout	E). th (SE).	

1	2	3	4	5	6	7	8	9	1
Surface Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	1000000
R-30 Roof Attic6	Roof	3960	Wood	30	NA	U-Factor	0.038	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.	
R-11 Wall8	ExteriorWall	3072	Wood	11	NA	U-Factor	0.110	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.	

1	2	3	4	5	6	7	8	9	10
Surface Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	Status
R-30 Roof Attic6	Roof	3960	Wood	30	NA	U-Factor	0.038	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.	Е
R-11 Wall8	ExteriorWall	3072	Wood	11	NA	U-Factor	0.110	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.	Е

10		tial Appendix NA6 and are used in the anal	ysis.
Status ¹	G6. OVERHANG DETAILS		
	1	2	3
	Fenestration Tag/ID	Orientation	Depth(ft.
E	Window11	South	12.0
	Window18	South	12.0
	Window24	South	12.0
E	Window30	South	12.0
	Status ¹ H	G6. OVERHANG DETAILS 1 Fenestration Tag/ID Window11 Window24 Window30	G6. OVERHANG DETAILS 1 2 Fenestration Tag/ID Orientation Window11 South Window18 South Window24 South Window30 South

Project Name:

Project Address:

Input File Name:

System ID

6. OVERHANG DETAILS					
1	2	3	4	5	6
Fenestration Tag/ID	Orientation	Depth(ft.)	Height from Bottom of Sill to Overhang(ft)	Right Extent(ft)	Left Extent(ft)
Window11	South	12.0	4	10.0	10.0
Window18	South	12.0	4	10.0	10.0
Window24	South	12.0	4	10.0	10.0
Window30	South	12.0	4	10.0	10.0

Rated Capacity (kBtuh)

NA NA

Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease

2	3	4	5	6
Orientation	Depth(ft.)	Height from Bottom of Sill to Overhang(ft)	Right Extent(ft)	Left Extent(ft)
South	12.0	4	10.0	10.0
South	12.0	4	10.0	10.0
South	12.0	4	10.0	10.0
South	12.0	4	10.0	10.0

Page 8 of 12

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4 5 6 7 8 9 10 11 12 13

NA NA 1800 1200 0.67 0.660 bhp NA

Min. Min. Ratio Power

1800 1200 0.67 0.660 bhp

1152

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Assembly Method

SiteBuilt

NRCC-PRF-01-E

2100

			CFIVI	`
6	HP-1 F11	1	360	1
xtent(ft)	111 21 22	*	300	-
.0.0	HP-1 F12	1	360	1
.0.0	HP-1 F13	1	405	1
0.0	1,155.00, 2000. 95 \$0.000	4		
.0.0	HP-1 F14	1	360	1
	1 Status: N - New, A - A	Itered, E = E)	dsting	-

Project Name:

Project Address:

Input File Name:

Equipment Name

HP-1 F12

HP-1 F13

HP-1 F14

¹ Status: N - New, A - Altered, E - Existing

H2. FAN SYSTEMS SUMMARY

Pioneer School Bld F & G

Pioneer Bld F & G.cibd19x

(Packaged3Phase)

(Packaged3Phase)

(Packaged3Phase)

SZVAVHP

(Packaged3Phase)

4404 Pioneer Drive Bakersfield 93306

H1. DRY SYSTEM EQUIPMENT (furnaces, air handling units, heat pumps, VRF, economizers etc.)

Equipment Type Qty Total Heating Supp Heat

Output (kBtu/h)

		Design OA			Supply Fan					Return Fan			2
Name or Item Tag	Qty	CFM	CFM	Modeling Method	Power	Power Units	Control	CFM	Modeling Method	Power	Power Units	Control	Status ¹
HP-1 F11	1	360	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
HP-1 F12	1	360	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDriv e	NA	NA NA	NA	NA	NA	N
HP-1 F13	1	405	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
HP-1 F14	1	360	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N

H3. EXHAUST	FAN SUMMARY
This Section Doe	s Not Apply

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CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	18:46, Mon, Sep 19, 2022	
Input File Name:	Pioneer Bld F & G.cibd19x			
H4. Wet System Ed	uipment(boilers,chillers,cooling towers,etc.)		*	
This Section Does No		4 (f)		
H5. PUMPS				
	t Apply			

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1	2	3	4
System Name	Equipment Type	Window Interlocks per §140.4(n)	Other Special Features and Controls
HP-1 F11	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
HP-1 F12	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
HP-1 F13	SZVAVHP	NA NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
HP-1 F14	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer

1	2	3	4	5	6	7
	M	Mechanical Ventilation				
Zone Name	Vanatinatina Franchina	# of	Supply OA	Exhaust	Conditioned Area	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	people	CFM	CFM	(sf)	
1-Classroom F11	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV
2-Classroom F12	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV
3-Classroom F13	Education - Classrooms (ages 5-8)	27.00	405	0	1080	DCV
4-Classroom F14	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV

		people	CFM	CFM	(sf)	. 35-4-310-25-30-5115-29-20
1-Classroom F11	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV
2-Classroom F12	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV
3-Classroom F13	Education - Classrooms (ages 5-8)	27.00	405	0	1080	DCV
4-Classroom F14	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV

This Section Does Not Apply	-			
		7	E0	

Report Version: NRCC-PRF-01-E-12092021-6844

1	2	3	4	5	6
		Installed Lighting Davies	Linkting Control Condition	Additional (Cus	tom) Allowance
Occupancy Type ¹	Conditioned Floor Area ² (ft ²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts)
Classroom, Lecture, Training, Vocational Areas	3,960	2,772	0	0	0
Building Totals:	3,960	2,772	0	0	0

² See NRCC-LTI-01-E for unconditioned spaces ³Lighting information for existing spaces modeled is not included in the table

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Input File Name:	Pioneer Bld F & G.cibd19x						
K4. INDOOR COND	TIONED LIGHTING MANDATORY LIGHTING CONTROLS						
Building Level Cont	rols						
	1			3	2		
	Mandatory Demand Response §110.12(c)			Shut-Off Con	trols §130.1(c)		
Area Level Controls	(includes all lighting controls installed in conditioned space	to meet mandatory requiremen	nts per §130.1)				
4	5	6	7	8	9	10	
Area Descrip	otion Area Category Primary Function Are	Area Controls 130.1(a)	Multi-Level Controls 130.1(b)	Shut-Off Controls 130.1(c)	Primary Daylighting 130.1(d)	Secondary Daylightin 140.5(d)	

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BASKIN
MECHANICAL
ENGINEERS

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22015
Plt: 10-12-23

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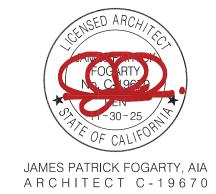


3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

Pioneer

Elementary School 4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Date	09.29.23
DSA File No	15-6
DSA No	03-122641
REVISIONS	

No Date Item

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- BUILDING F & G

MECHANICAL TITLE 24

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nttps://www.en	ergy.cu.gov/title24/20	19standards/2019_compliance_documents/Nonresidential_Documents/NACI/	
Building Compo	nent	Form/Title	

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents bust be retained and 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/			
Building Component	Form/Title		
Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings		

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Project Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	18:46, Mon, Sep 19, 2022	
Input File Name:	Pioneer Bld F & G.cibd19x			

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for

NRCA-MCH-16-A Supply Air Temperature Reset Controls

compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit:https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

uilding Component	Form/Title	
	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-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	
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints	
	NRCA-MCH-07-A Supply Fan Variable Flow Controls	
	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	

NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-19 18:46:23

ocumentation Author Name: Mark Baskin		Signature: Mark Ba	Digitally signed by Mark Baskin, P.E. DN: C-Us, E-MBaskin@BaskinME.com, O-Baskin Mechanical
	AUTHOR'S DECLARATION STATEMENT ate of Compliance documentation is accurate and complete.		
put File Name:	Pioneer Bld F & G.cibd19x		
roject Address:	4404 Pioneer Drive Bakersfield 93306	Calculation Date/Time:	18:46, Mon, Sep 19, 2022
roject Name:	Pioneer School Bld F & G	NRCC-PRF-01-E	Page 12 of 12

CEA/ HERS Certification Identification (if applicable): M26578

License #: M26578

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and comple	ete.
Documentation Author Name: Mark Baskin	Digitally signed by Mark Baskin, P.E. DN:C-US, E-MBaskin@BaskinME.com. O-Baskin Mechanical
Company: Baskin Mechanical Engineers	Signature: Mark Baskin, P.E. Engineers, CN. "Mark Baskin, P.E. Reason: Have reviewed this document Date: 2022 09-19 18:47:52-07:00"
Address: 175 Fulton St.	Signature Date: 2022-09-19

Phone: 5592370376 RESPONSIBLE PERSON'S DECLARATION STATEMENT

City/State/Zip: Fresno CA 93721

Phone: (661) 397-2114

- 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)

 I am eligible under Division 3 of the Business and Professions Code to accept res The energy features and performance specifications, materials, components, an of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certifications and specifications submitted to the enforcement agency for approval with the 5. I will ensure that a completed signed copy of this Certificate of Compliance shall inspections. I understand that a completed signed copy of this Certificate of Compliance 	d manufactured devices for the building design or system des ate of Compliance are consistent with the information provid- his building permit application. I be made available with the building permit(s) issued for the	sign identified on this Certificate of Compliance conform to the requirement led on other applicable compliance documents, worksheets, calculations, building, and made available to the enforcement agency for all applicable
Responsible Envelope Designer Name:	Signature:	
Company:		
Address:	Date Signed:	
City/State/Zip:		
Phone:	Title:	License #:
Responsible Lighting Designer Name:	Signature:	
Company:		
Address:	Date Signed:	
City/State/Zip:		
Phone:	Title:	License #:
Responsible Mechanical Designer Name: Mark Baskin, P.E.	s Mada Da	Digitally signed by Mark Baskin, P.E. DN: C-US, E-MBaskin@BaskinME.com, O-Baskin Mechanical
Company: Baskin Mechanical Engineers	Signature: Mark Baskin, P.E. Box C-US. E-MBaskin@BaskinME.com, O-Bask P.E. Box C-US. E-MBaskin P.E. Box C-US. E-MB	
Address: 5500 Ming Avenue, #251	Date Signed: 09-19-22	A CONTRACTOR OF THE PARTY OF TH
City/State/Zip: Bakersfield CA 93309		22

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Pioneer Elementary School

4404 Pioneer Dr. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



Date	09.29.23
DSA File No	15-6
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