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. 2. 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

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.
- 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.

GRILLE SCHEDULE

Motor Operated

ormally Closed

t in Contract

pposed Blade Damper

ormally Open

iut Off Valve

ingle Pole Single Throw

less Noted Otherwise

all Return Register

Vall Supply Register

urning Vanes

02 SENSOR

uct w/ Acoustic Lining

I. Damper w/ Remote Operator

hermostat or Room Sensor

utside Air

Piping, Ductwork, and Electrical Distribution System

Piping, ductwork, and Electrical distribution systems shall be braced to comply with the forces and

13.6.8, and 2019 CBC, Sections 1617A.1.24, 1617A.1.25 and 1617A.1.26.

Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP),

Codes:

bove Finished Flooi

Building Automation System

eiling Exhaust Register

Ondensor Water Return

ondensor Water Supply

illed/Hot Water Return

eiling Return Register

Ceiling Supply Register

Omestic Cold Water

Oouble Pole Double Throw

nergy Management System

re Damper w/ acc. panel

exible Connection

Gallons per Minute

lue Thru Roof

oor Louver

uct Thru Roof

 $\overline{}$

----▲F.D.

Record shall verify the adequacy of the structure to support the hanger and brace loads.

MP ☐ MD ☑ Option 2: Shall comply with the applicable OSHPD Pre-Approval (OPM#)

California Code of Regulations (C.C.R)

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,

The method of showing bracing and attachments to the structure for the identified distribution system are as

prior to the start of and during the hanging and bracing of the distribution systems. The Structural Engineer of

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

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

Part 1 - 2022 California Standards Administrative Code, Title 24, C.C.R.

Part 4 - 2019 California Mechanical Code (C.M.C.), Title 24, C.C.R.

ADAAG - American with Disabilities Act, Accessibility Guidelines.

Green Building Standards - 2019 Edition.

Air Conditioning Legend

—▲S.F.D.

Fixtures - Plumbing fixtures to comply with table 5.303.6 of the California

Part 5 - 2019 California Plumbing Code (C.P.C.), Title 24, C.C.R.

Part 3 - 2019 California Electrical Code, Title 24, C.C.R.

Part 6 - 2019 California Energy Code, Title 24, C.C.R.

Part 11 - 2019 California Green Code, Title 24, C.C.R.

Part 9 - 2019 California Fire Code, Title 24, C.C.R.

Standards and Guides:

Part 2 - 2019 California Building Code (C.B.C.), Title 24, C.C.R. Volumes 1-3.

Bracing Note:

Electrical Distribution Systems (E):

PP ☐ E ☐ #Tolco/B-line OPM-052.

Titus Model TDC Louvered Face Diffuser with T-Bar mount frame and O.B.D. See diffuser sizing chart for neck sizes.

Titus Model TDC Louvered Face Diffuser with flat surface mount frame and O.B.D. See diffuser sizing chart for neck size.

Titus Model 50F eggcrate T-Bar mount return grille.

Titus Model 50F eggcrate surface mount return grille.

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

EQUIPMENT SCHEDULE



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. 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: 26 MCA / 30 MOCP @ 460v-3ph. (HP Unit) Unit and Accessories: 816 Lbs. 1.9 MCA / 3.4 MOCP @ 460v-3ph. (Power Exhaust) Curb: 107 Lbs.



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

Operating Weight: 23 MCA / 25 MOCP @ 460v-3ph. (HP Unit) Unit and Accessories: 809 Lbs.



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

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:

Operating Weight: 44.8 MCA / 45 MOCP @ 208v-1ph. (HP Unit) Unit and Accessories: 366 Lbs. Curb: 65 Lbs.



Greenheck CUE-099-VG Centrifugal Upblast Roof Mounted Exhaust Fan. 250 - 300 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.

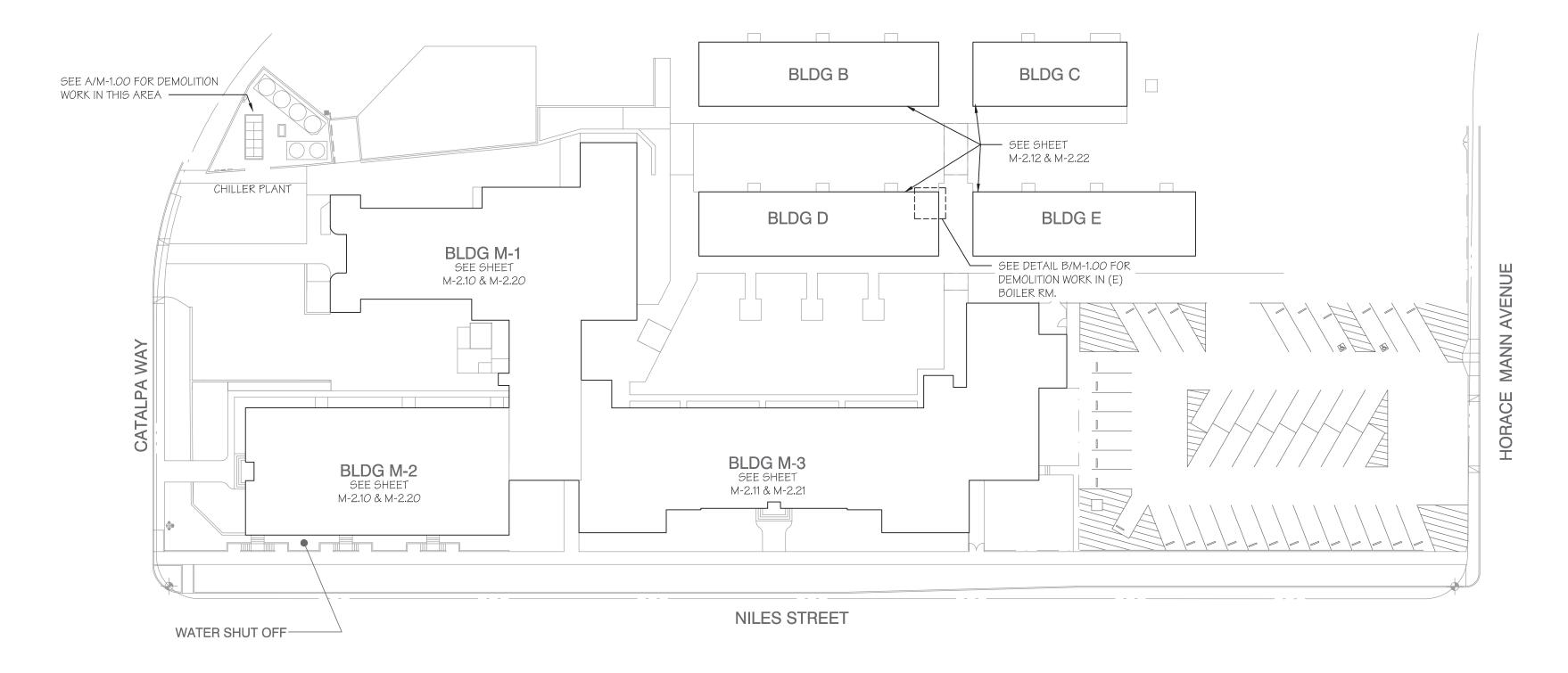
Electrical: 6 Watts @ 115v-1ph.

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 minutes.

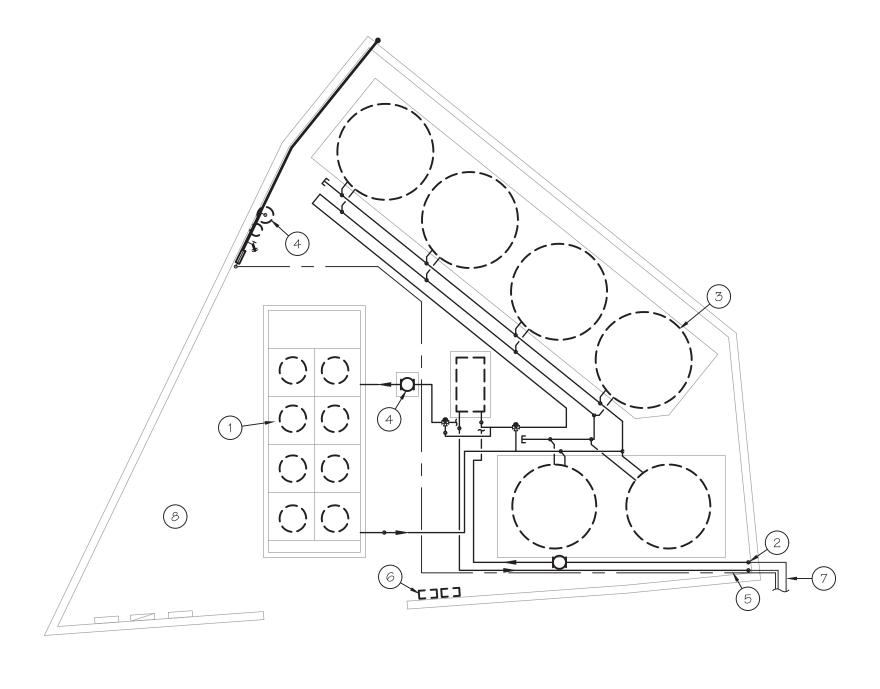
Operating Weight: 12 Lbs.

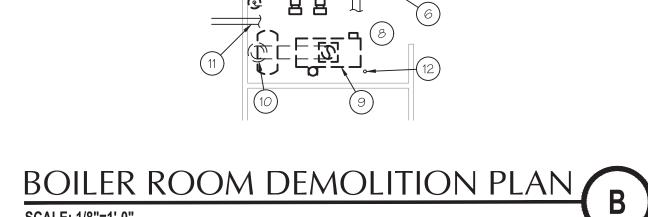
Titus Model 35RL, 35 degree deflection, surface mounting frame, O.B.D.

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" × 9"
326 - 450	10" × 10"	276 - 475	12" × 12"
45I <i>- 600</i>	12" x 12"	476 - 700	15" × 15"
601 - 700	14" × 14"	701 - 950	18" × 18"
701 - 850	16" × 16"	95I - I25 <i>0</i>	21" × 21"
851 - 950	18" × 18"	1251 - 1700	24" × 24"
95I - II5 <i>0</i>	20" × 20"	1701 - 2500	30" × 30"









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

CHILLER YARD DEMOLITION PLAN,

Central Plant Demo Keynotes:

- Remove existing chillers, all chilled water piping, supports, etc.
- 2. Cap mechanical piping at 1" above grade.
- 3. Remove existing thermal storage tanks, all piping supports, etc. 4. Remove all existing pumps, expansion tanks, pot feeder, supports, controls,
- accessories, etc. 5. Demo back domestic CW pipe back to entry into chiller yard and cap.
- 6. Remove existing EMS and / or analog control panel, all related conduits, wiring, Existing chilled / hot water piping abandoned below grade.
- 8. Note: Entire central plant chiller yard and boiler room shall be made free of all Confirm exact details based on field conditions.
- 9. Remove existing boiler, all hot water piping, supports, etc. 10. Remove existing flue thru roof, roof jack, etc. Cap and patch / weatherproof opening
- to match existing. 11. Demo hydronic piping at wall, drain system, cap, and seal.
- 12. Demo gas pipe back to drop thru ceiling and cap.
- 13. Remove existing combustion air louver and patch wall to match existing.
- 14. Remove existing exterior pipe chase, piping, pipe supports etc., and patch wall to match existing. Remove piping to 12" below grade. Cap piping and abandon in place.

BASKIN MECHANICAL Tel: (559) 237-0376 Job: 22014

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 03-122671 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗸 DATE: 11/08/2023

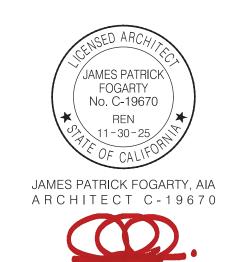


3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204| web|www.aparchitects.net|

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

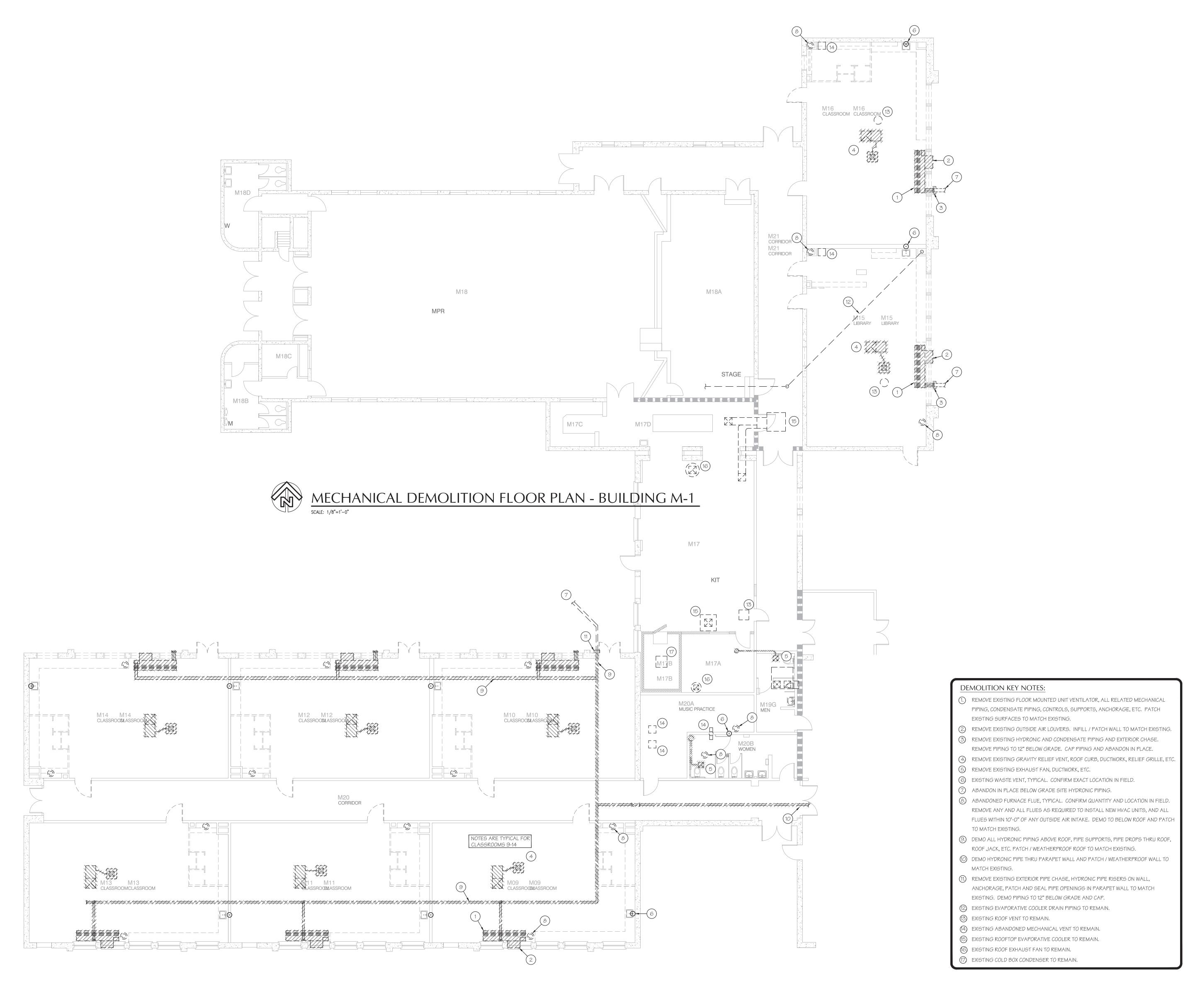
Project No	566-001
Date	10.30.2
DSA File No	15
DSA No	03-12267

REVISIONS

INO	Date	Item
*	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

> 10.31.23 13:48 MECHANICAL SITE PLAN, SCHEDULES, AND NOTES









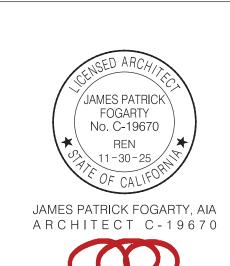
3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 web|www.aparchitects.net

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann
Elementary School

2710 Niles St. Bakersfield. CA. 93306
Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-122671

REVISIONS

No Date Item

	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

MECHANICAL DEMOLITION
PLAN - BUILDING M-1 & M-2

M2.10



EMOLITION KEY NOTES:

- 1.) REMOVE EXISTING FLOOR MOUNTED UNIT VENTILATOR, ALL RELATED MECHANICAL PIPING, CONDENSATE PIPING, CONTROLS, SUPPORTS, ANCHORAGE, ETC. PATCH EXISTING SURFACES TO MATCH EXISTING.
- REMOVE EXISTING OUTSIDE AIR LOUVERS. INFILL / PATCH WALL TO MATCH EXISTING.REMOVE EXISTING HYDRONIC AND CONDENSATE PIPING AND EXTERIOR CHASE. REMOVE PIPING TO 12"
- BELOW GRADE. CAP PIPING AND ABANDON IN PLACE.
- 4. REMOVE EXISTING GRAVITY RELIEF VENT, ROOF CURB, DUCTWORK, RELIEF GRILLE, ETC.5. REMOVE EXISTING EXHAUST FAN, DUCTWORK, ETC.
- REMOVE EXISTING EXHAUST FAN, DUCTWORK, ETC.EXISTING WASTE VENT, TYPICAL. CONFIRM EXACT LOCATION IN FIELD.
- ABANDON IN PLACE BELOW GRADE SITE HYDRONIC PIPING.

AIR INTAKE. DEMO TO BELOW ROOF AND PATCH TO MATCH EXISTING.

- (a) ABANDONED FURNACE FLUE, TYPICAL. CONFIRM QUANTITY AND LOCATION IN FIELD. REMOVE ANY AND ALL FLUES AS REQUIRED TO INSTALL NEW HVAC UNITS, AND ALL FLUES WITHIN 10'-O" OF ANY OUTSIDE
- 9) DEMO ALL HYDRONIC PIPING ABOVE ROOF, PIPE SUPPORTS, PIPE DROPS THRU ROOF, ROOF JACK, ETC.
- (0) DEMO HYDRONIC PIPE THRU PARAPET WALL AND PATCH / WEATHERPROOF WALL TO MATCH EXISTING.
- (1) DEMO ALL HYDRONIC PIPING BELOW ROOF, PIPE SUPPORTS, ETC.
- (2) REMOVE EXISTING ROOFTOP PACKAGED AC UNIT, DUCTWORK, GRILLES, CONDENSATE DRAIN, CONTROLS, ETC. DEMO GAS BACK TO ROOF JACK AND CAP.
- REMOVE THIS FLUE ASSEMBLY AS REQUIRED TO INSTALL NEW ROOF MOUNTED AC UNIT. SEE M3.11
- DEMO CEILING TRANSFER GRILLE AND PARTIAL DEMO OF 14"x8" TRANSFER DUCT BACK TO P.O.C. NOTED.

 (15) RETAIN TRANSFER GRILLE FOR RE-USE.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

APP: 03-122671 INC:

REVIEWED FOR

SS FLS ACS D

DATE: 11/08/2023



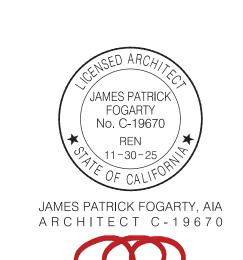
3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 web|www.aparchitects.net

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann Elementary School

2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

566-0016
10.30.23
15-6
03-122671
_

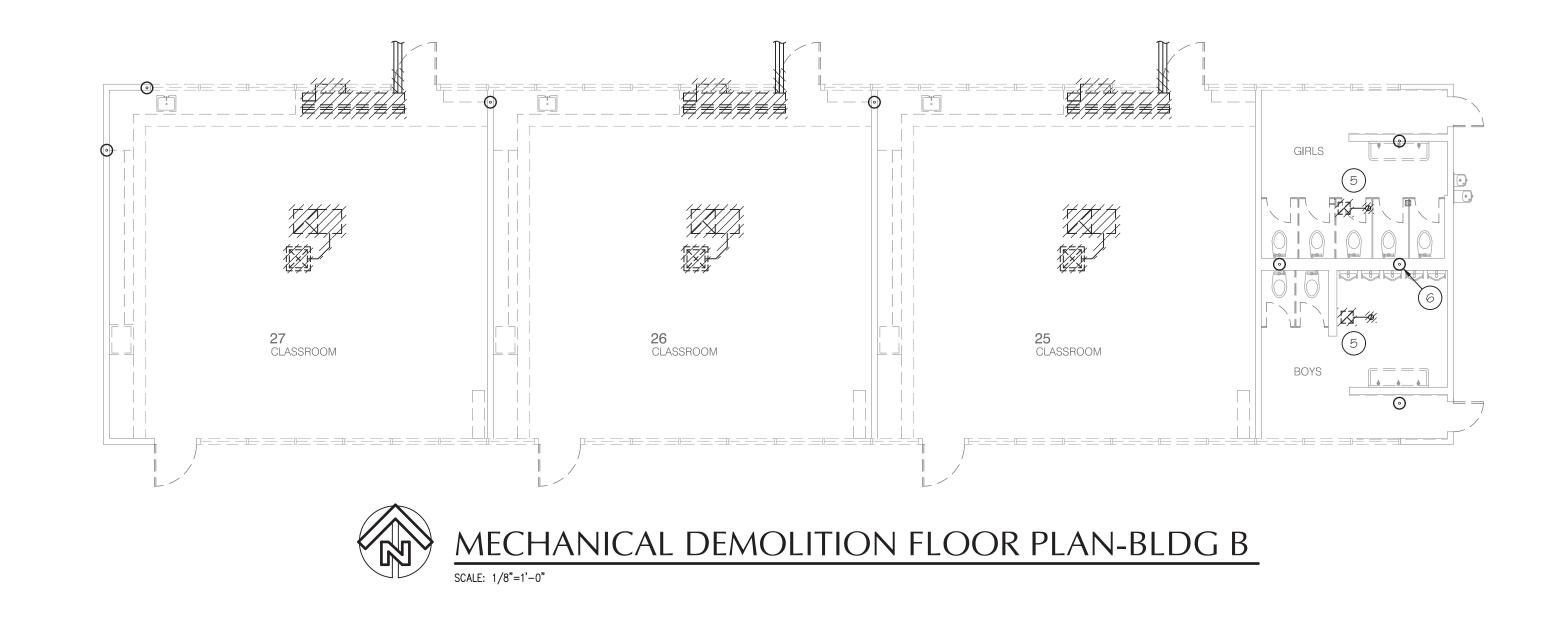
REVISIONS

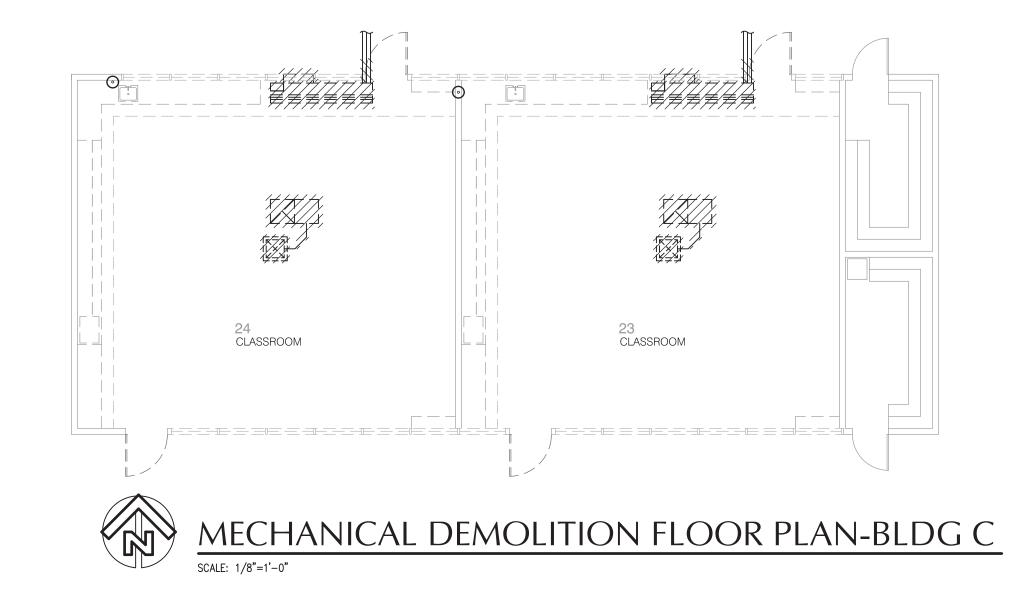
No	Date	Item
*	00.00.08	DESCRIPTION

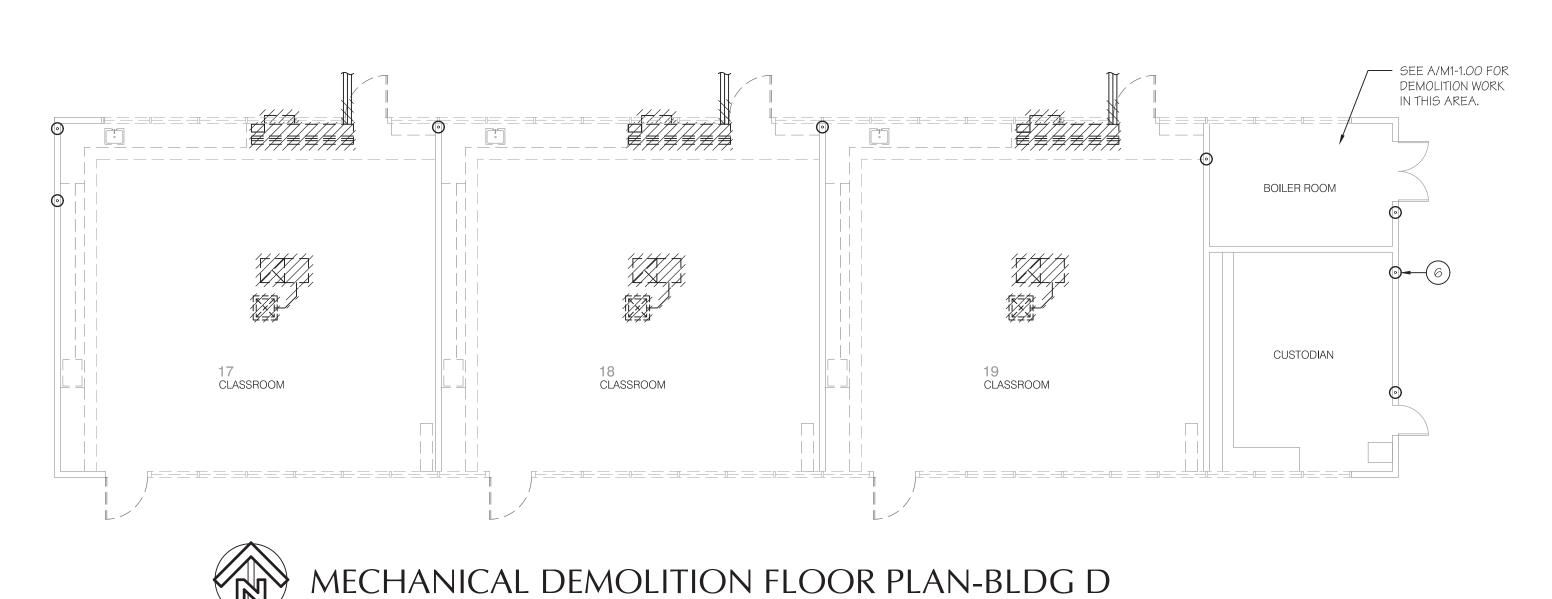
THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. WRITTEN SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS 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.

MECHANICAL DEMOLITION
PLAN - BUILDING M-3

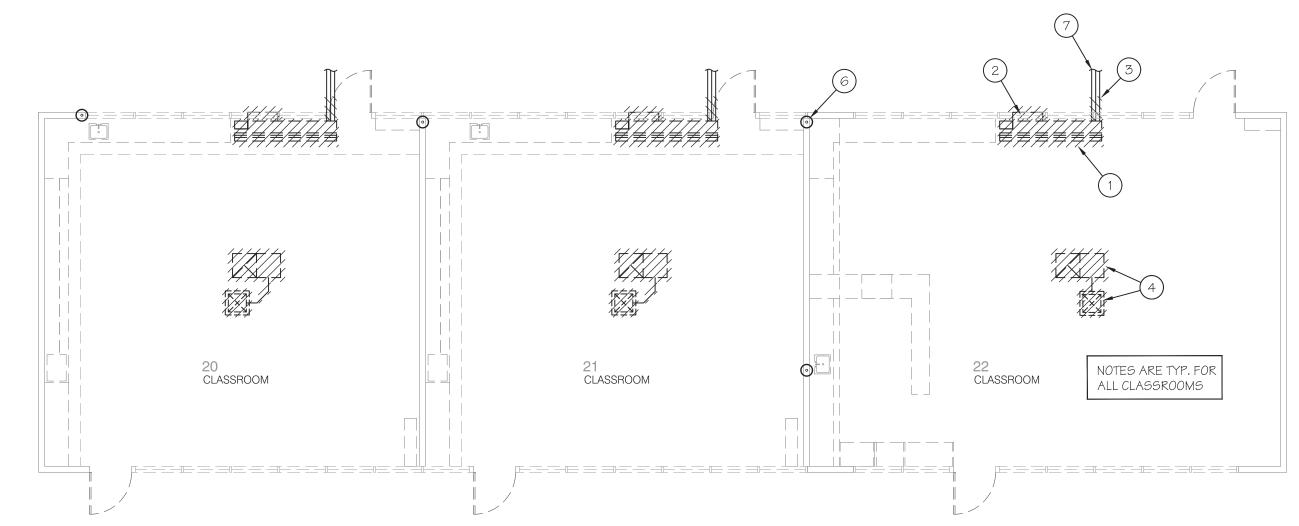
M2.11







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





Demolition Key Notes:

- (1.) Remove existing floor mounted 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. Remove existing hydronic and condensate piping and exterior chase. Remove piping to 12"
- below grade. Cap piping and abandon in place.
- 4) Remove existing gravity relief vent, roof curb, ductwork, relief grille, etc.
- (5.) Remove existing exhaust fan, ductwork, etc.
- (6) Existing waste vent, typical. Confirm exact location in field.

7. Abandon in place below grade site hydronic piping.



IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122671 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸

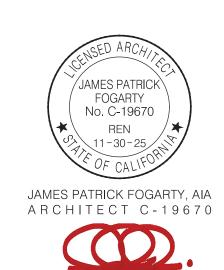


3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 web|www.aparchitects.net

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

REVISIONS	
DSA No	03-122671
DSA File No	15-6
Date	10.30.23
Project No	566-0016

No Date Item

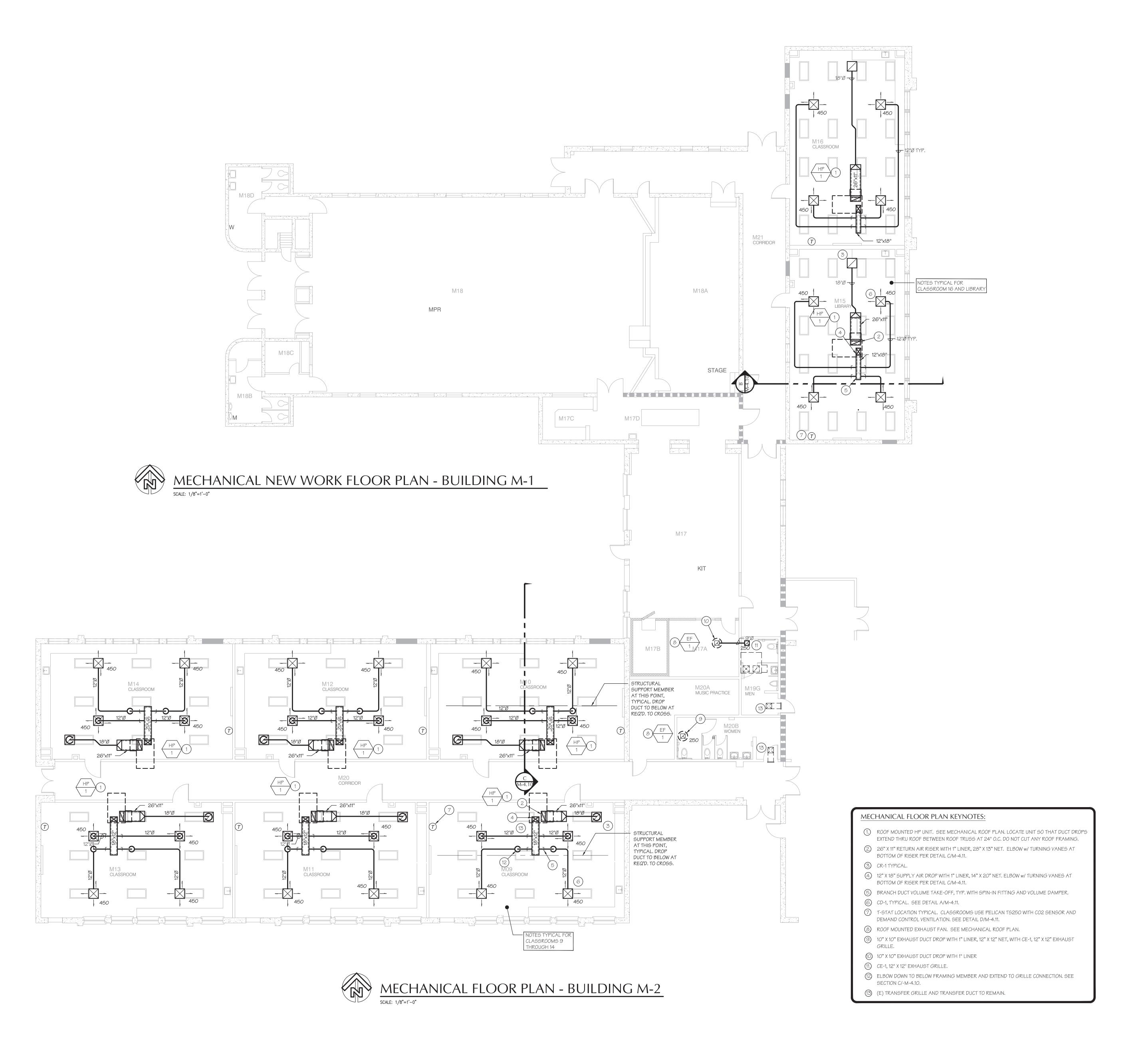
© COPYRIGHT

*	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

> 10.31.23 13:48 MECHANICAL DEMOLITION PLAN - B,C,D,E

M2.12





IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122671 INC: REVIEWED FOR SS 🔽 FLS 🗹 ACS 🗸

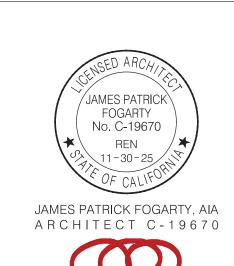


3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-122671

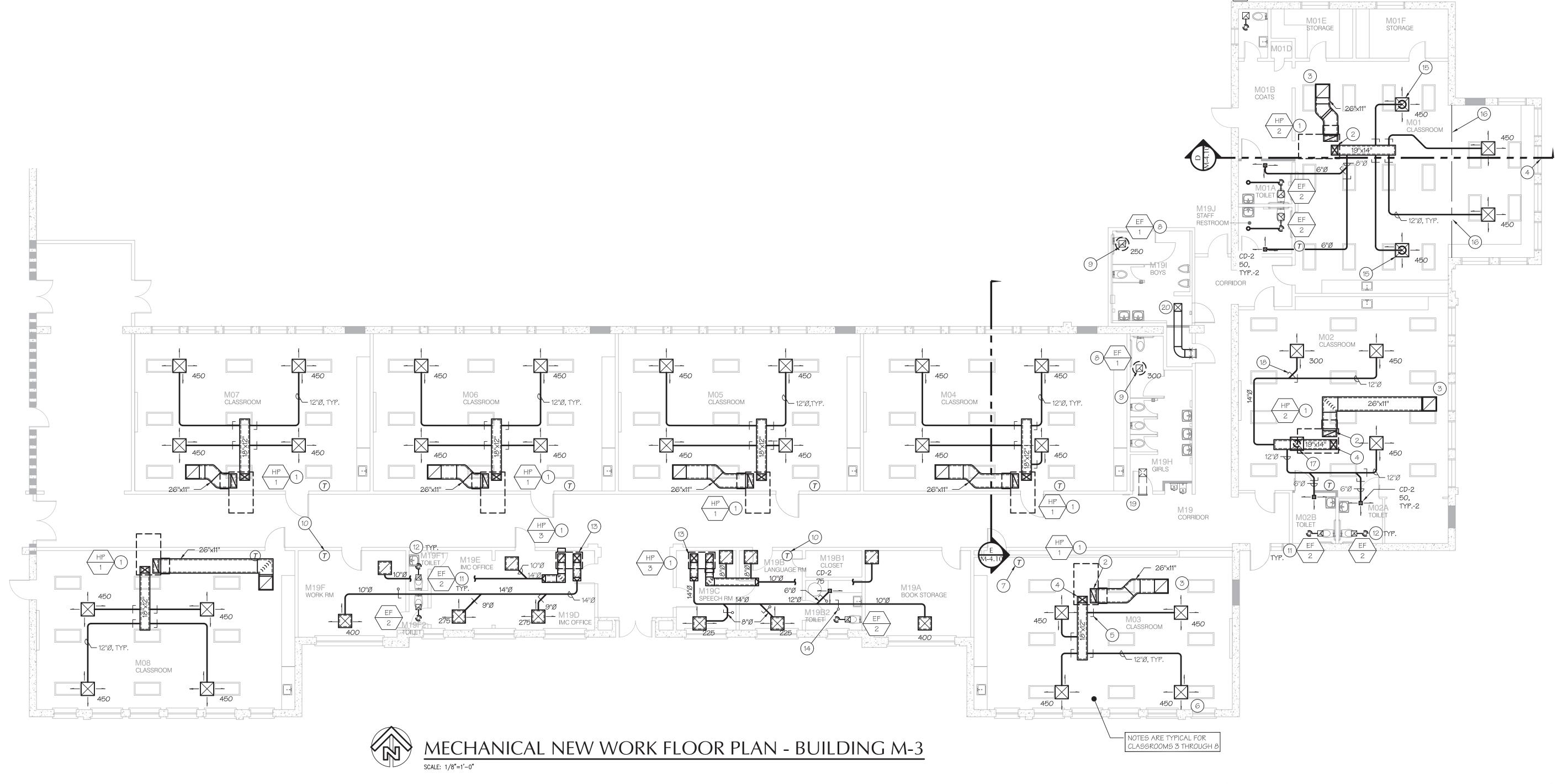
REVISIONS

No	Date	Item
*	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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

10.31.23 13:48 MECHANICAL PLAN -BUILDING M-1 & M-2



MECHANICAL FLOOR PLAN KEYNOTES:

- 1) ROOF MOUNTED HP UNIT. SEE MECHANICAL ROOF PLAN. LOCATE UNIT SO THAT DUCT DROPS EXTEND THRU ROOF BETWEEN ROOF TRUSS AT 24" O.C. DO NOT CUT ANY ROOF FRAMING.
- 2) 26" X 11" RETURN AIR RISER WITH 1" LINER, 28" X 13" NET, ELBOW W/ TURNING VANES AT BOTTOM OF RISER PER DETAIL C/M-4.11.
- 3) CR-1 TYPICAL, SEE TYP. DETAIL A/M-4.11.
- 4) 12" X 18" SUPPLY AIR DROP WITH 1" LINER, 14" X 20" NET, ELBOW w/ TURNING VANES AT BOTTOM OF RISER PER DETAIL C/M-4.11.
- (5) BRANCH DUCT TAKE-OFF w/ SPIN-IN FITTING AND VOLUME DAMPER, TYP.
- 6) CD-1, TYPICAL. SEE DETAIL A/M-4.11. 7. T-STAT LOCATION TYPICAL. CLASSROOMS USE PELICAN TS250 WITH CO2 SENSOR AND
- DEMAND CONTROL VENTILATION. SEE DETAIL D/M-4.11. 8 ROOF MOUNTED EXHAUST FAN. SEE MECHANICAL ROOF PLAN.
- (9) 10" X 10" EXHAUST DUCT DROP WITH 1" LINER, 12" X 12" NET, WITH CE-1, 12" X 12" EXHAUST GRILLE.
- PELICAN TS200 THERMOSTAT AT THIS LOCATION. (1). CEILING EXHAUST FAN, TYPICAL.
- (2) 6" ROUND DUCT THRU ROOF TO ROOF CAP, TYPICAL.
- (3) 12" X 14" LINED SUPPLY AND RETURN DUCT DROPS WITH 1" LINER, 14" X 16" NET, ELBOW w/ TURNING VANES AT BOTTOM OF RISERS.
- (4) BRANCH DUCT VOLUME DAMPERS LOCATED ABOVE A GYP BOARD CEILING SHALL BE PROVIDED WITH A BELDON CABLE AND CEILING MOUNTED ACTUATOR. YOUNG REGULATOR OR EQUAL. SEE DETAIL B/M-4.11.
- (5) ELBOW DOWN FROM TRUSS SPACE TO CONNECTION AT GRILLE.
- (6) ROUTE BELOW BEAM AND ABOVE BOTTOM CHORD OF TRUSS AT THIS POINT.
- (7) 12"Ø BRANCH DUCT DROP W/ VOLUME DAMPER TO GRILLE CONN.
- B BRANCH DUCT VOLUME DAMPER, TYP. SEE DETAIL B/M-4.11.
- (9) (E) TRANSFER GRILLE AND TRANSFER DUCT TO REMAIN.
- ②. (E) TRANSFER GRILLE TO BE RE-USED, EXTEND (E) 14"x8" DUCT AS SHOWN AND PROVIDE (N) 12"x12" CE-1 TO BE USED FOR AIR TRANSFER.



IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122671 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗸

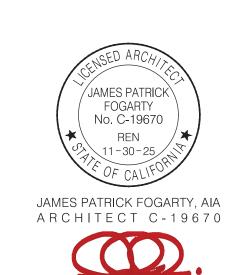


3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 | web | w w w a parchitects net |

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-122671

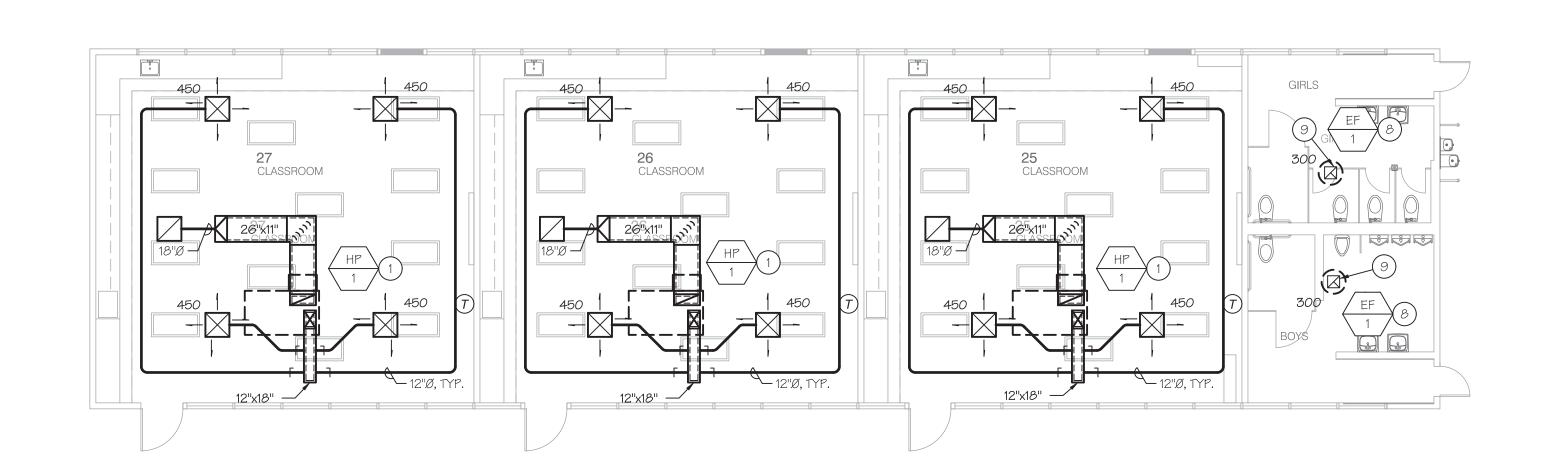
REVISIONS Date Item

/* 00.00.08 DESCRIPTION

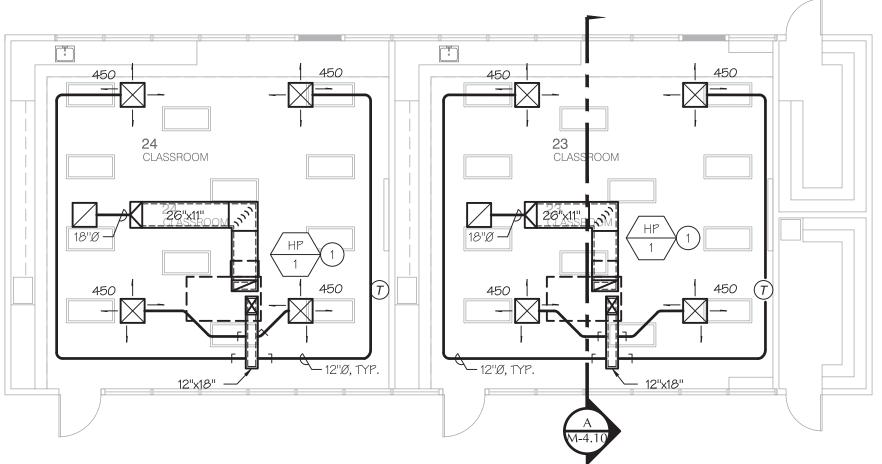
THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. WRITTEN SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS 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.

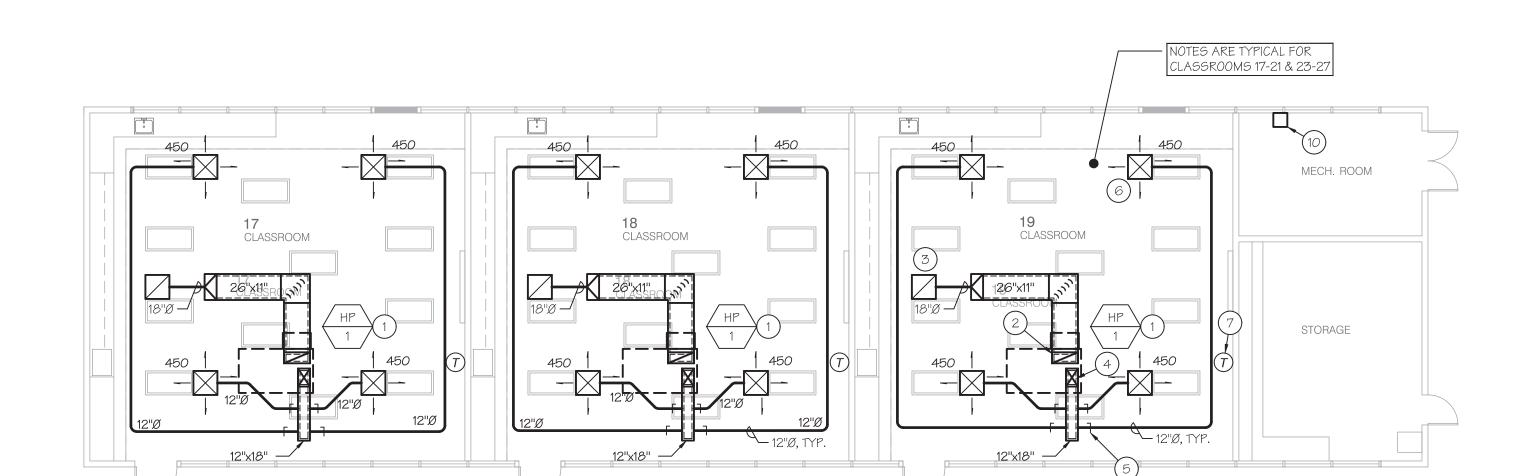
> 10.31.23 13:48 MECHANICAL PLAN -**BUILDING M-3**

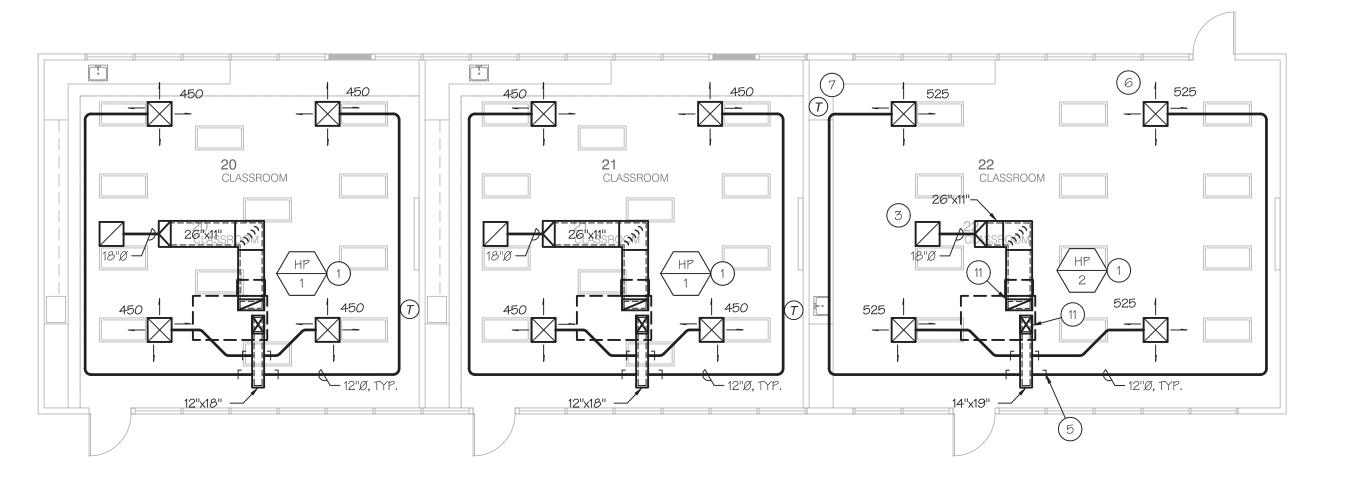
© COPYRIGHT



MECHANICAL FLOOR PLAN-BLDG B











MECHANICAL FLOOR PLAN KEYNOTES:

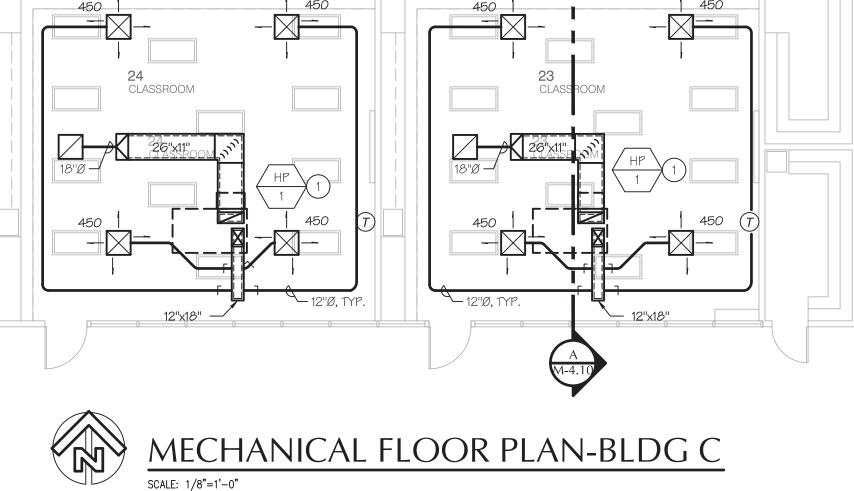
- (1.) ROOF MOUNTED HP UNIT. SEE MECHANICAL ROOF PLAN. LOCATE UNIT SO THAT DUCT DROPS EXTEND THRU ROOF BETWEEN ROOF TRUSS AT 24" O.C. DO NOT CUT ANY ROOF FRAMING.
- (2) 26" X 11" RETURN AIR RISER WITH 1" LINER, 28" X 13" NET, ELBOW w/ TURNING VANES AT
- BOTTOM OF RISER PER DETAIL C/M-4.11.

(3) CR-1 TYPICAL.

- (4) 12" X 18" SUPPLY AIR DROP WITH 1" LINER, 14" X 20" NET, ELBOW w/ TURNING VANES AT BOTTOM OF RISER PER DETAIL C/M-4.11.
- (5) BRANCH DUCT TAKE-OFF, W/ SPIN-IN AND VOLUME DAMPERS, TYP.
- 6) CD-1, TYPICAL. SEE DETAIL A/M-4.11.
- 7) T-STAT LOCATION TYPICAL. CLASSROOMS USE PELICAN TS250 WITH CO2 SENSOR AND DEMAND CONTROL VENTILATION. SEE DETAIL D/M-4.11.
- (8) ROOF MOUNTED EXHAUST FAN. SEE MECHANICAL ROOF PLAN.
- (9) 10" X 10" EXHAUST DUCT DROP WITH 1" LINER, 12" X 12" NET, WITH CE-1, 12" X 12" EXHAUST

LOCAL ROUTER. PROVIDE WALL MTD. BRACKET. SEE DETAILS D&E/M-4.11.

- PELICAN WIRELESS GATEWAY W/ 115 PLUG CONNECTED TO WALL OUTLET AND CONN. TO
- (11.) 14"x19" SUPPLY DROP w/ 1" LINER, 16"x21" NET. ELBOW w/ TURNING VANES AT BOTTOM OF RISER PER DETAIL C/M-4.11.





APP: 03-122671 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🖸



IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

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

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



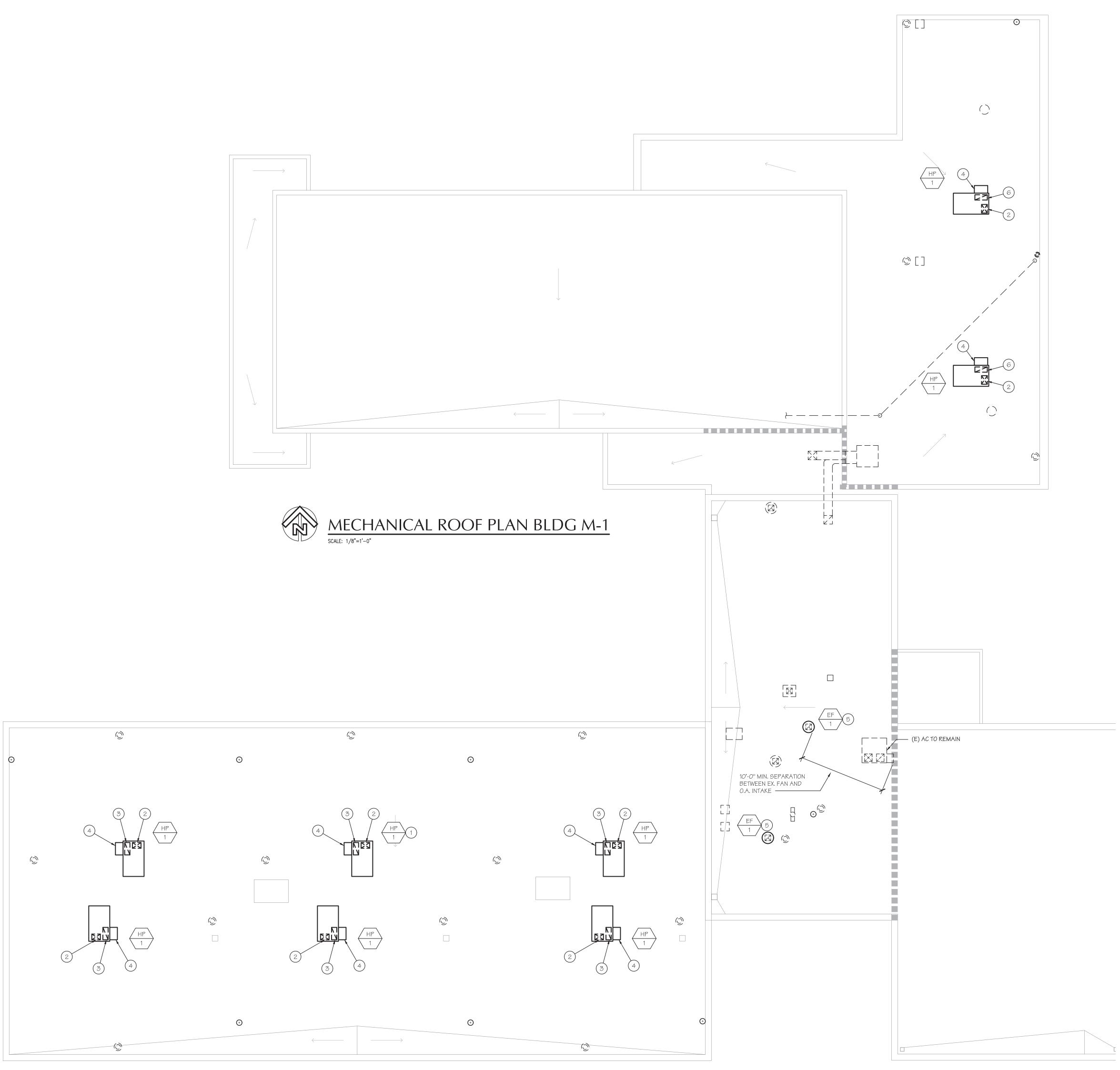
PROJECT INFO

Project No		566-0016				
Date		10.30.23				
DSA File No)	15-6				
DSA No		03-122671				
REVIS	IONS					
No	Date	Item				

↑ 00.00.08 DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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

> 10.31.23 13:48 MECHANICAL PLAN -BUILDING B,C,D,E





IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122671 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗸



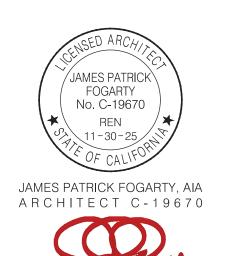
3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 web|www.aparchitects.net|

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann Elementary School

2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

REVISIONS	
DSA No	03-122671
DSA File No	15-6
Date	10.30.23
Project No	566-0016

REVISIONS No Date Item

	Date	110111
*	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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

> 10.31.23 13:49 MECHANICAL ROOF PLAN -BUILDING M-1 & M-2

M3.10

BASKIN
MECHANICAL
ENGINEERS

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22014
Plt: 10-19-23

MECHANICAL ROOF PLAN KEYNOTES:

DETAIL F/M-4.10. FOR ANCHORAGE.

DETAIL G/M-4.11. FOR ANCHORAGE.

1.) ROOF MOUNTED HP UNIT. SEE MECHANICAL ROOF PLAN. LOCATE UNIT SO THAT DUCT DROPS EXTEND THRU ROOF BETWEEN ROOF TRUSS AT 24" O.C. DO NOT CUT ANY ROOF FRAMING. SEE

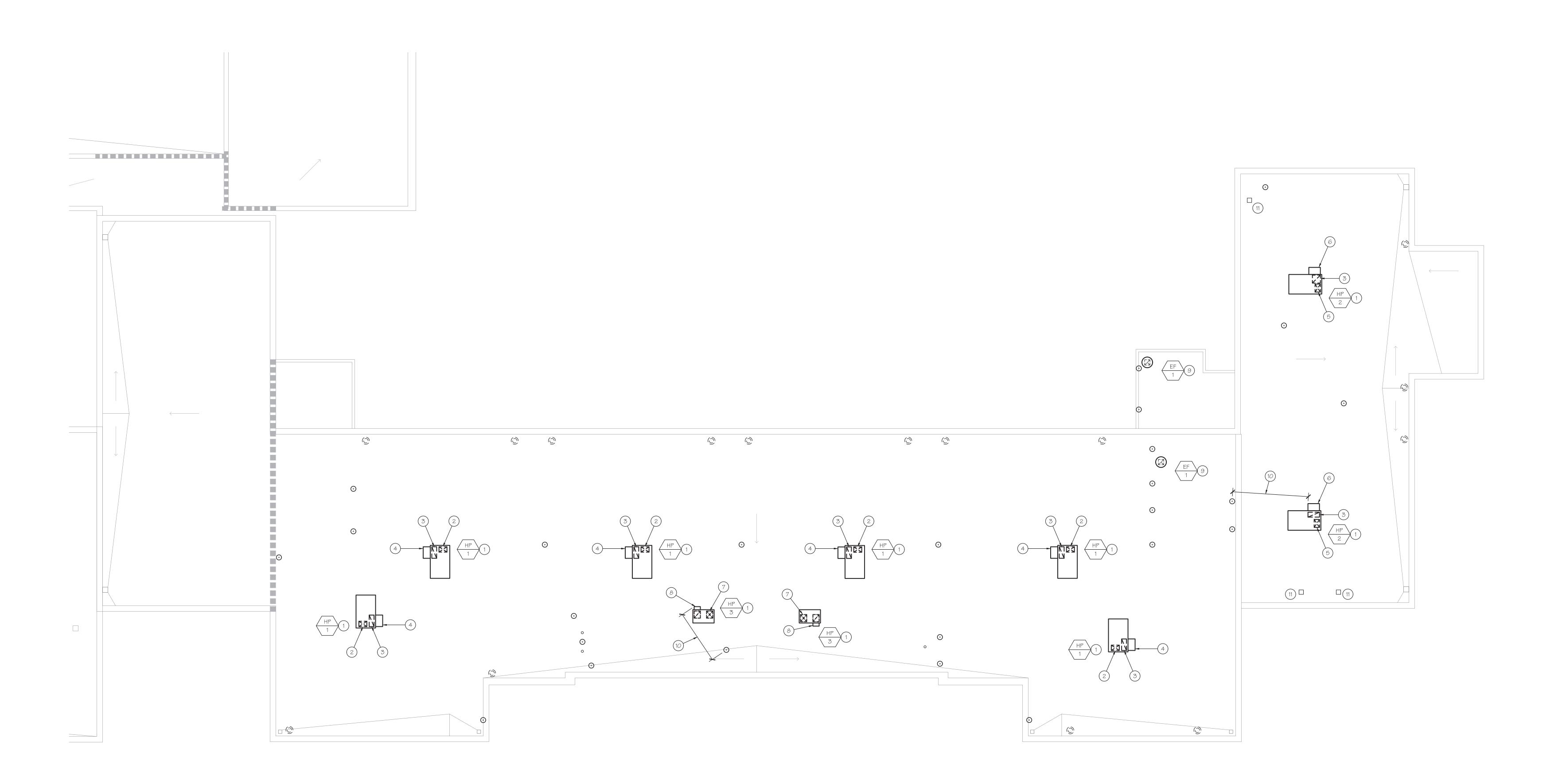
A) ECONOMIZER WITH POWER EXHAUST MODULE. SET MINIMUM OUTSIDE EQUAL TO 150 CFM WITH

5) NEW ROOF MOUNTED EXHAUST FAN WITH 10" X 10" LINED EXHAUST RISER THRU ROOF, 12" X 12' NET. COORDINATE EXACT LOCATION SO THAT EX. FAN IS A MIN. 10'-O" FROM OUTSIDE AIR INTAKE. SEE

(6) TRANSITION R.A. DUCT WITHIN CURB SPACE TO 18" X 18" w/ 1" LINER, 20" X 20" NET, AS REQ'D. TO EXTEND DUCT THRU ROOF BETWEEN ROOF TRUSS AT 24" O.C.

2.) 12" X 18" SUPPLY DUCT DROP THRU ROOF WITH 1" LINER, 14" X 20" NET. 3) 26" X 11" RETURN DUCT RISER THRU ROOF WITH 1" LINER, 28" X 13" NET.

DEMAND CONTROL VENTILATION OVERRIDE TO 400 CFM.







- (1.) NEW ROOF MOUNTED HP UNIT. SEE ANCHORAGE DETAIL F/M4.10. LOCATE UNIT SO THAT DUCT DROPS EXTEND THRU ROOF BETWEEN ROOF TRUSS AT 24" O.C. DO NOT CUT ANY ROOF FRAMING.
- 2) 12" X 18" SUPPLY DUCT DROP THRU ROOF WITH 1" LINER, 14" X 20" NET.
- 3) 26" X 11" RETURN DUCT RISER THRU ROOF WITH 1" LINER, 28" X 13" NET.
- 4) ECONOMIZER WITH POWER EXHAUST MODULE. SET MINIMUM OUTSIDE EQUAL TO 150 CFM WITH DEMAND CONTROL VENTILATION OVERRIDE TO 400 CFM.
- (5) 14" X 19" SUPPLY DUCT DROP THRU ROOF WITH 1" LINER, 16" X 21" NET.
 (6) ECONOMIZER WITH POWER EXHAUST MODULE. SET MINIMUM OUTSIDE EQUAL TO 200 CFM WITH
- DEMAND CONTROL VENTILATION OVERRIDE TO 500 CFM.

 (7) 12" X 14" SUPPLY AND RETURN DUCTS THRUROOF WITH 1" LINER 14" X 16" NET
- 7) 12" X 14" SUPPLY AND RETURN DUCTS THRU ROOF WITH 1" LINER, 14" X 16" NET.8) MOTORIZED OUTSIDE AIR DAMPER. SET TO 150 CFM.
- 9) NEW ROOF MOUNTED EXHAUST FAN WITH 10" X 10" LINED EXHAUST RISER THRU ROOF, 12" X 12" NET.
- SEE DETAIL G/M4.11. FOR ANCHORAGE.

 MAINTAIN A A MIN. 10'-O" BETWEEN O.A. INTAKE AT A.C. UNIT AND VENT RISER LOC., TYP. OFFSET ANY CONFLICTING VENT LOCATION BELOW ROOF AND RISE THRU ROOF W/ NEW ROOF JACK, TYP. CONFIRM EXACT LOCATIONS OF (E) VENTS IN FIELD.
- 1) CEILING EX. FAN VENT CAP LOCATION, TYP.





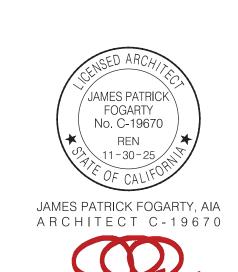
3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 web|www.aparchitects.net

CAMPUS HVAC SYSTEM UPGRADE

> Horace Mann Elementary School

2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-122671

REVISIONS

No Date Item

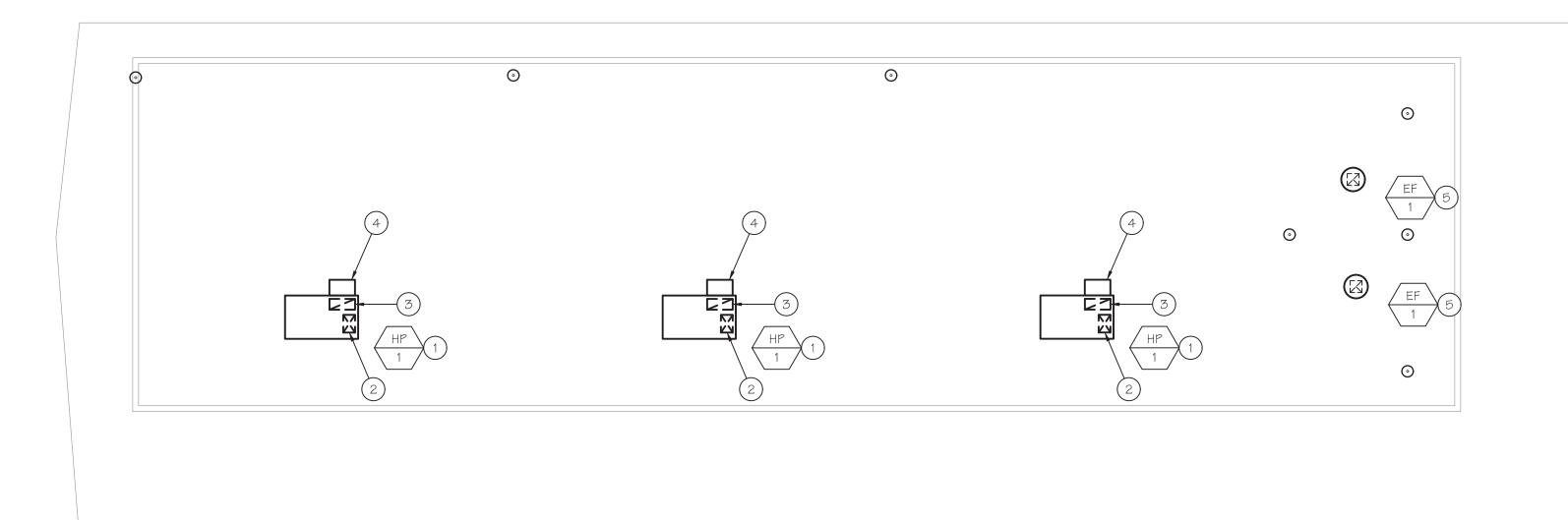
INO	Date	Item
*	00.00.08	DESCRIPTION

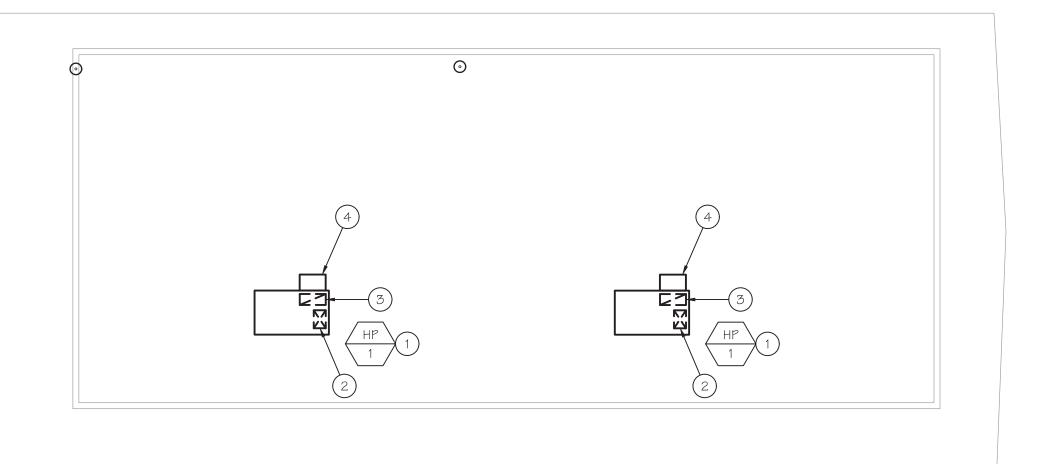
THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. WRITTEN SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS 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.

MECHANICAL ROOF PLAN -BUILDING M-3

© COPYRIGHT

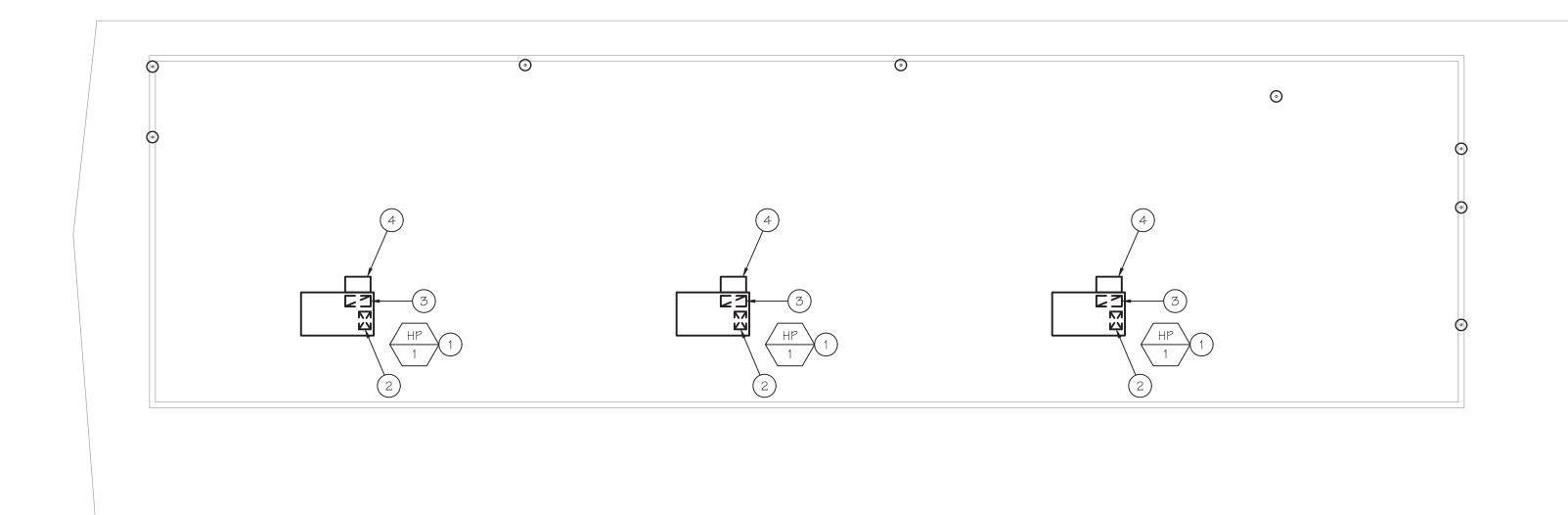
M3.11

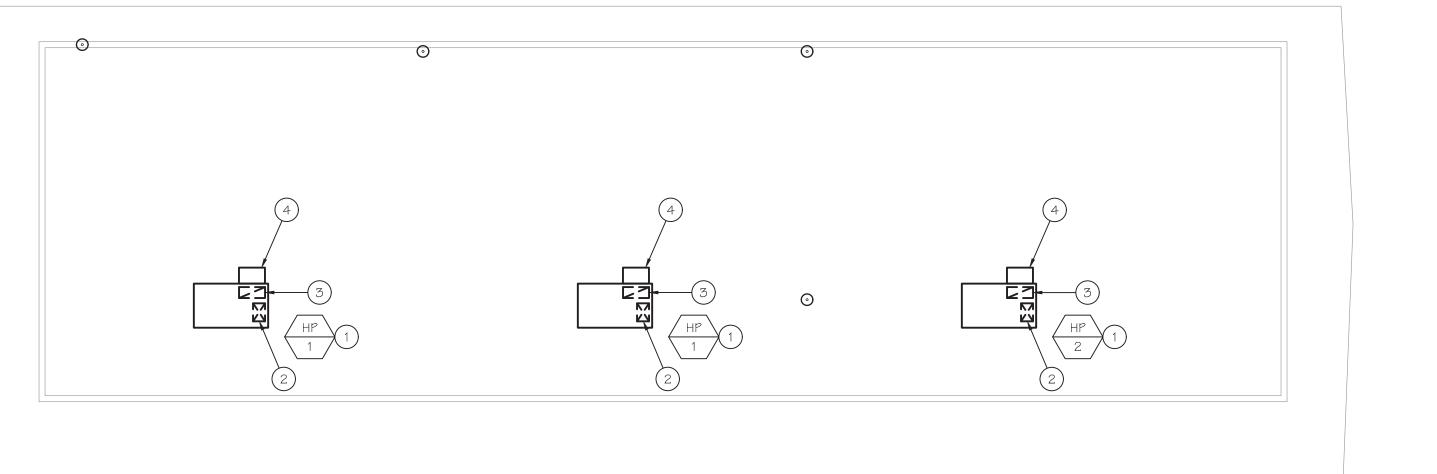
















MECHANICAL ROOF PLAN KEYNOTES:

SEE ANCHORAGE DETAIL G/M4.11.

- (1.) ROOF MOUNTED HP UNIT. SEE ANCHORAGE DETAIL F/M4.10. SEE MECHANICAL ROOF PLAN. LOCATE UNIT SO THAT DUCT DROPS EXTEND THRU ROOF BETWEEN ROOF TRUSS AT 24" O.C. DO NOT CUT ANY ROOF FRAMING.
- 2) 12" X 18" SUPPLY DUCT DROP THRU ROOF WITH 1" LINER, 14" X 20" NET.
- 26" X 11" RETURN DUCT RISER THRU ROOF WITH 1" LINER, 28" X 13" NET.
 ECONOMIZER WITH POWER EXHAUST MODULE. SET MINIMUM OUTSIDE FOUND TO 15
- ECONOMIZER WITH POWER EXHAUST MODULE. SET MINIMUM OUTSIDE EQUAL TO 150 CFM WITH DEMAND CONTROL VENTILATION OVERRIDE TO 400 CFM.
 NEW ROOF MOUNTED EXHAUST FAN WITH 10"x10" LINED EXHAUST RISER THRU ROOF, 12"x12" NET.

hitects

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 ARCHITECT

APP: 03-122671 INC:

REVIEWED FOR

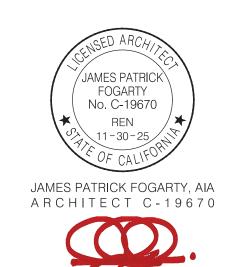
SS FLS ACS

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann
Elementary School

2710 Niles St. Bakersfield. CA. 93306
Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No				566-0016
Date				10.30.23
DSA File No)			15-6
DSA No				03-122671
REVIS	IONS			
No	Date	Item		
<u>*</u>	00.00.08	DESCF	RIPTION	

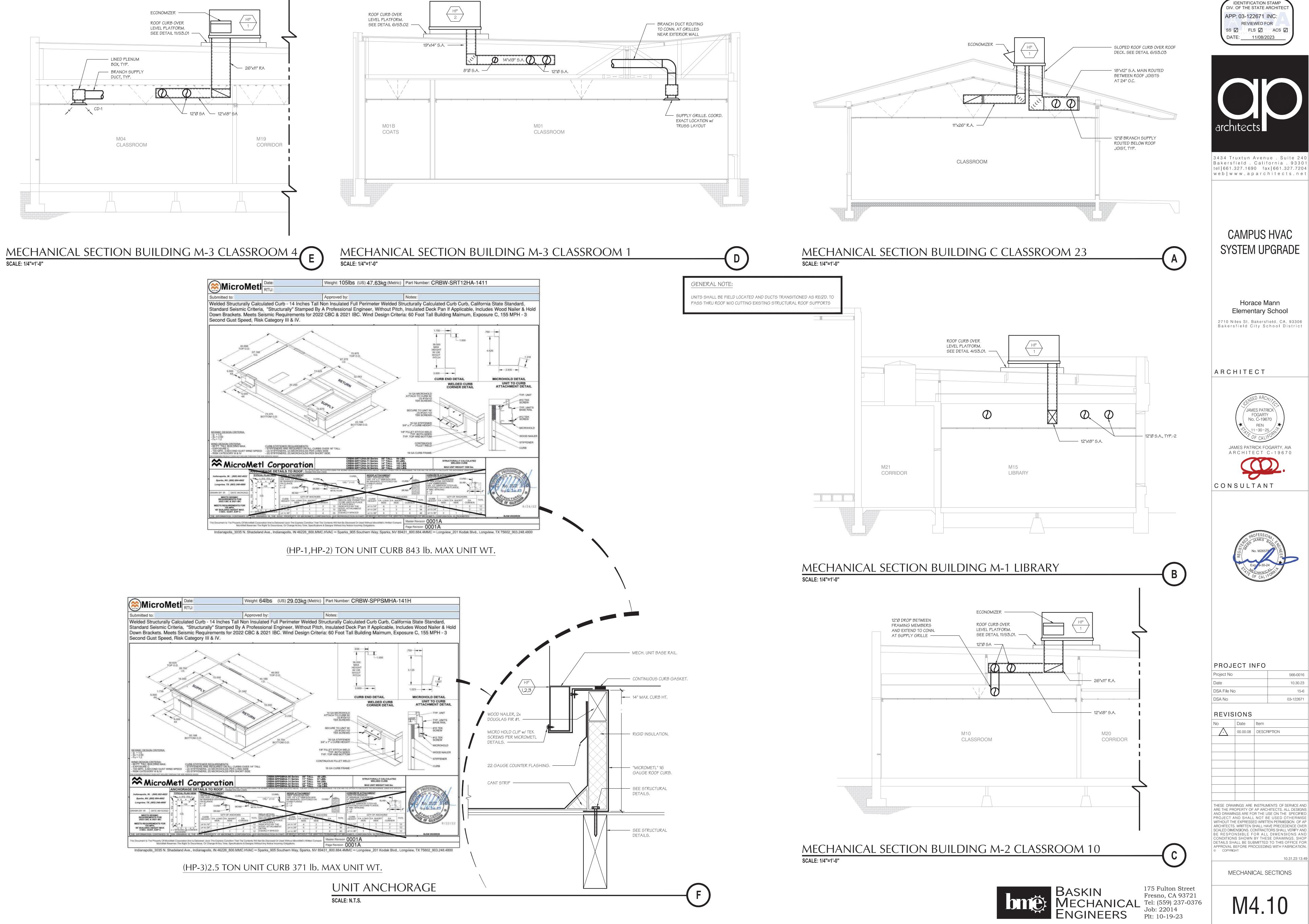
THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. WRITTEN SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS 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.

MECHANICAL ROOF PLAN -BUILDING B,C,D,E

© COPYRIGHT

M3.12





IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 03-122671 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸 DATE: 11/08/2023

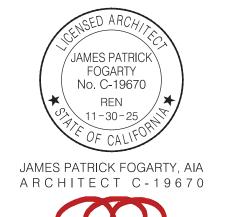


3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

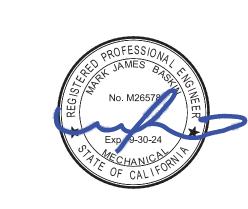
CAMPUS HVAC SYSTEM UPGRADE

Horace Mann Elementary School

ARCHITECT



CONSULTANT



PROJECT INFO 566-0016 10.30.23 DSA File No 03-122671 DSA No

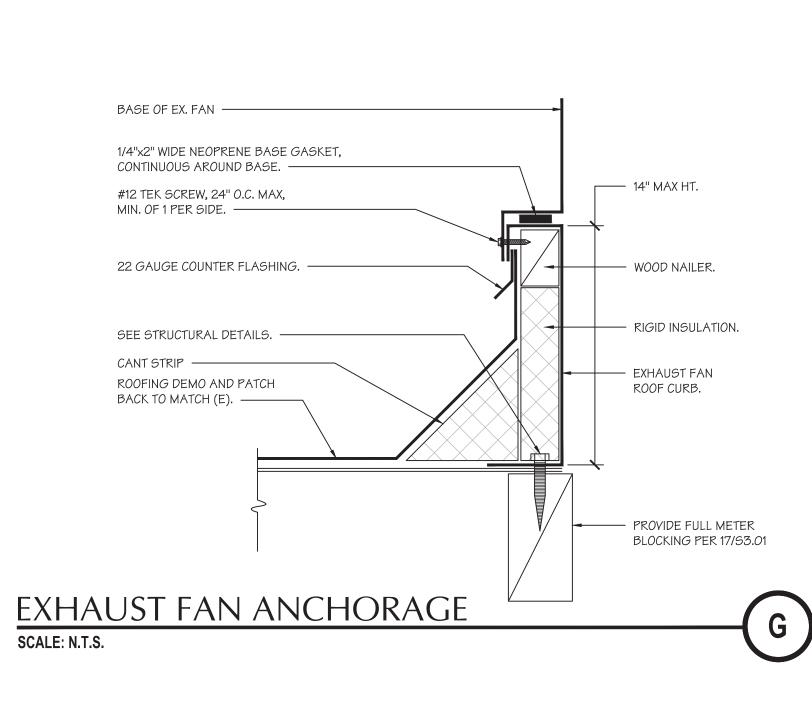
REVISIONS

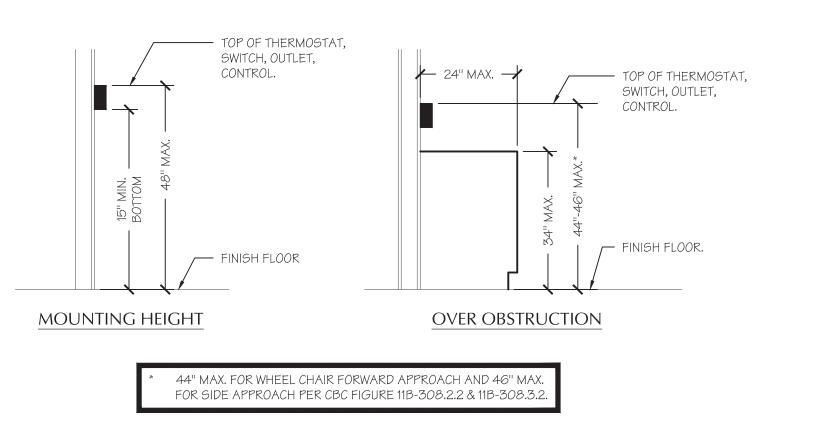
00.00.08 DESCRIPTION

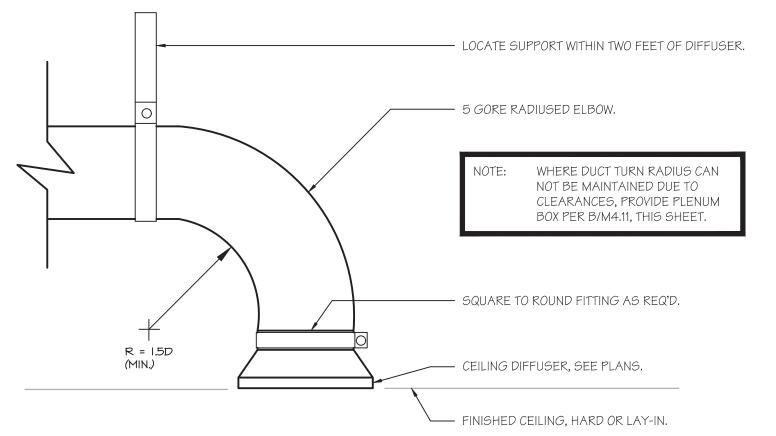
ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. WRITTEN SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP

MECHANICAL SECTIONS

M4.10









BRANCH SIZE +2"

BY NECK SIZE +2".

SECURE GRILLE TO SHEET METAL DUCT DROP w/ (3)

SUPPLY DIFFUSER. ———

SHEET METAL SCREWS. -

— 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

— SUPPORT W/ (4) 1-1/2" x 22 GA. S.M.

STRAPS. SECURE TO PLENUM WITH #10 x

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

CONNECT GRILLE TO CEILING RUNNER



3434 Truxtun Avenue . Suite 240

Bakersfield . California . 93301

tel|661.327.1690 fax|661.327.7204

| web | www.aparchitects.net |

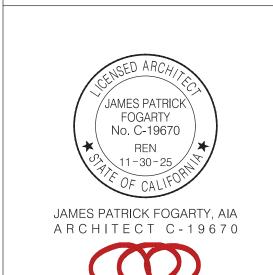
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

APP: 03-122671 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸

DATE: 11/08/2023

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

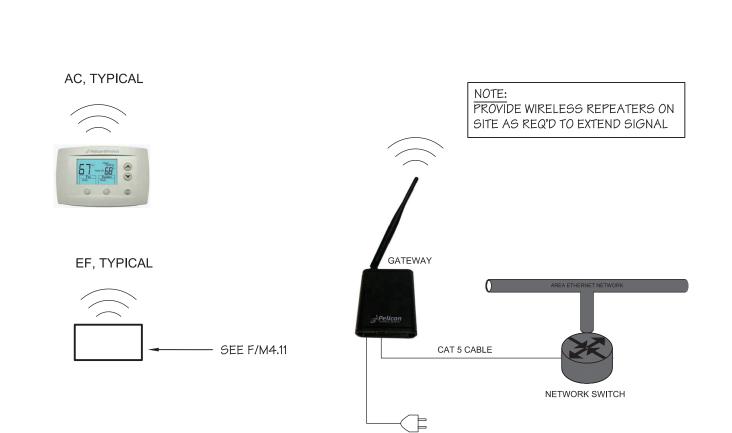
566-0016 10.30.23 DSA File No DSA No 03-122671

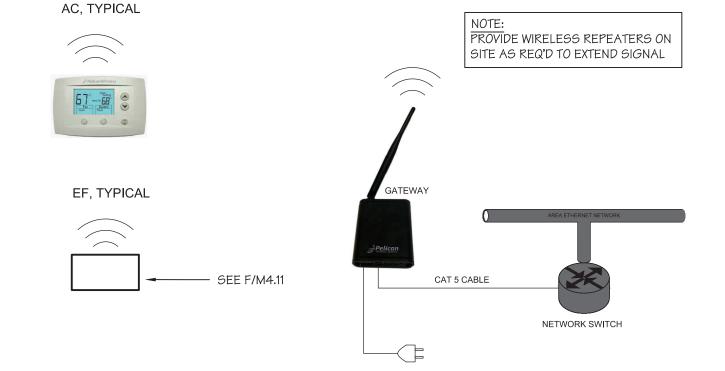
REVISIONS Date Item

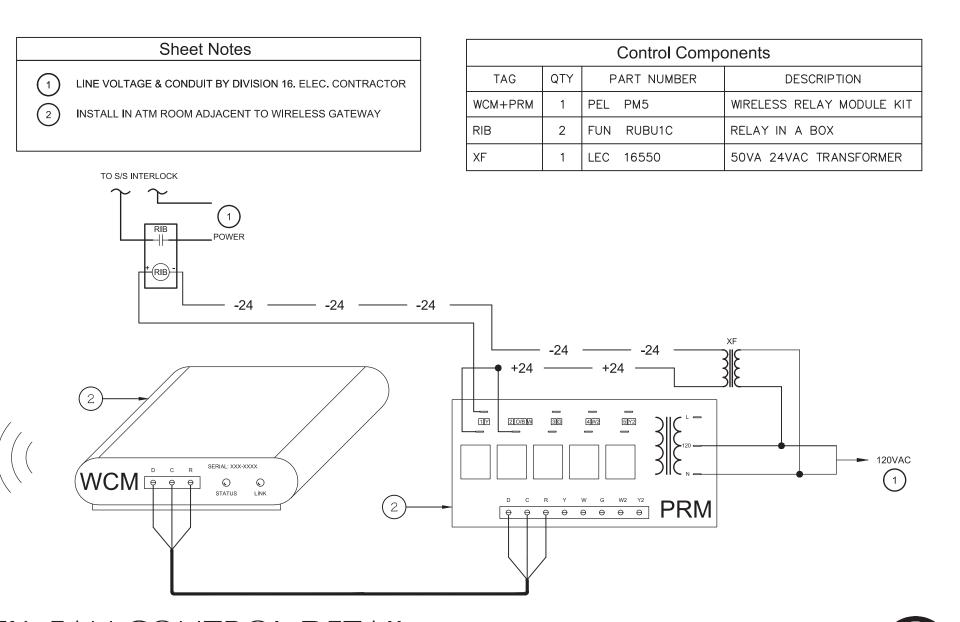
00.00.08 DESCRIPTION

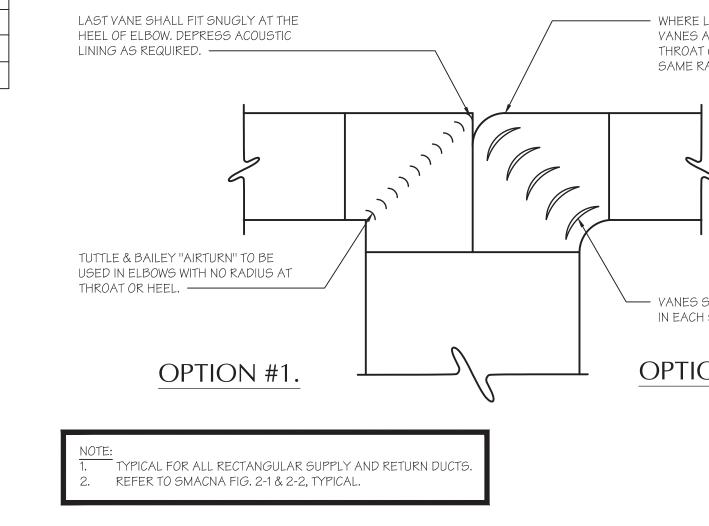
THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. WRITTEN SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS 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

> 10.31.23 13:49 MECHANICAL DETAILS







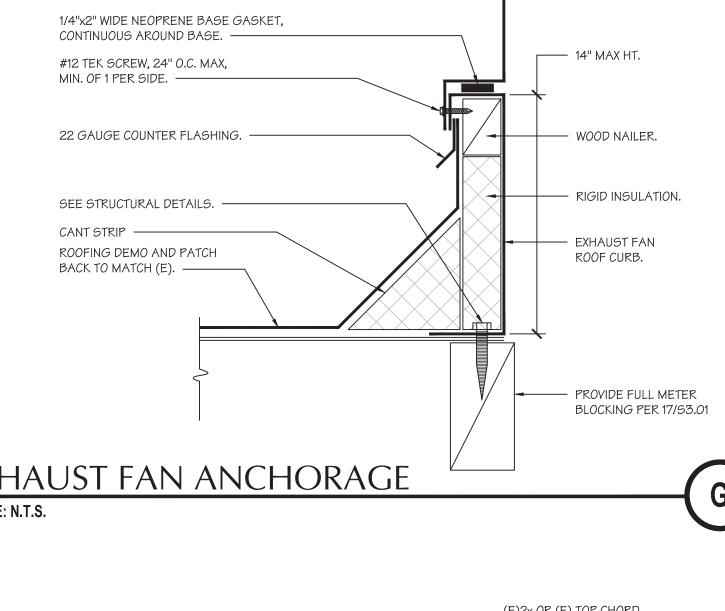


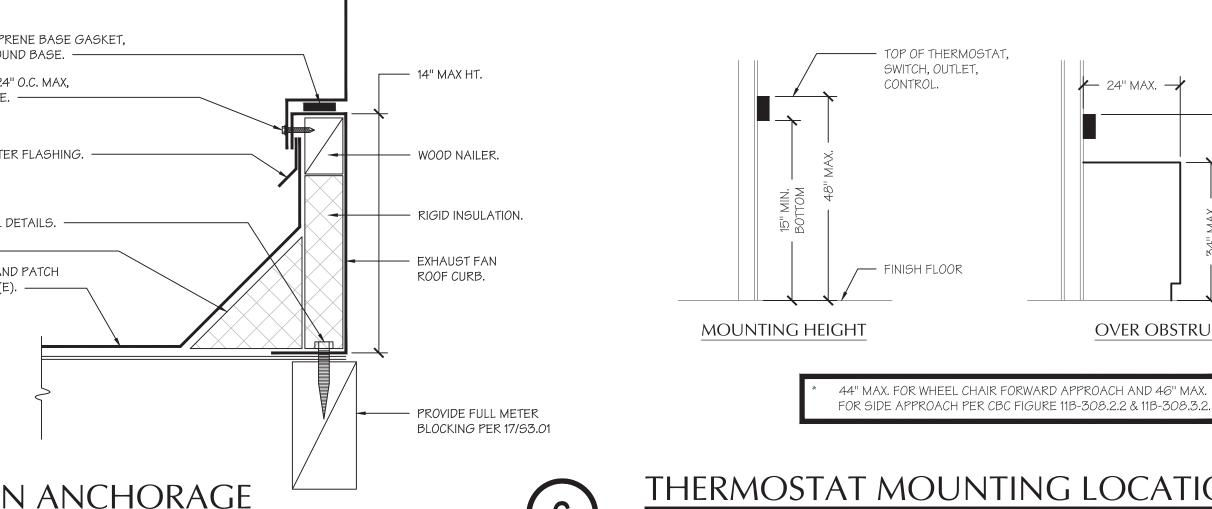
EX. FAN CONTROL DETAIL SCALE: N.T.S.

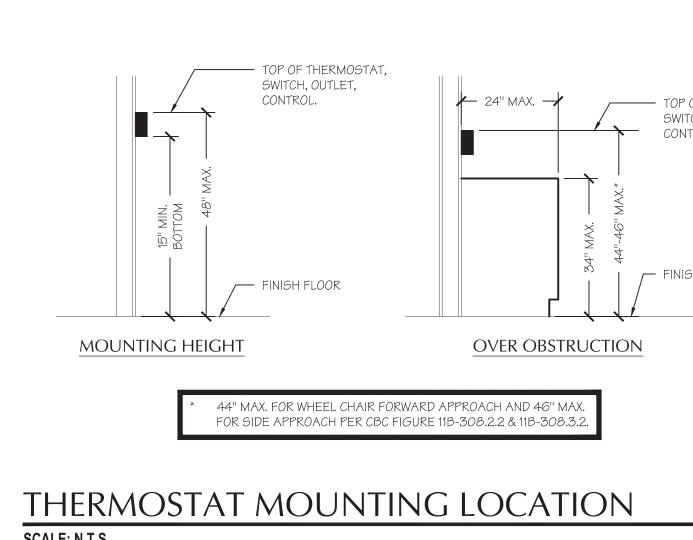
LAN ARCHITECTURE

SCALE: N.T.S.

SCALE: N.T.S.









SCALE: N.T.S.

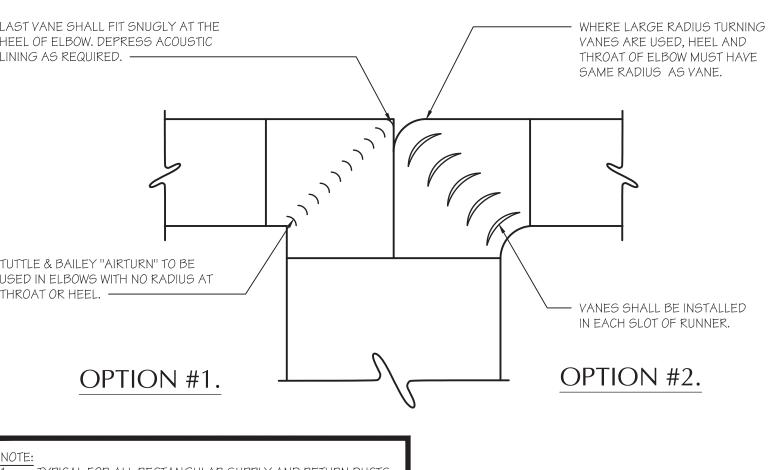


—— (E)2x OR (E) TOP CHORD — (E) DIAPHRAGM - 20 GA. SHEET METAL STRAP DOUBLED UP AT CONNECTION TO ROOF STRUCTURE.

- #10 x3/4" S.M.S.

DUCT HANGER UPPER ATTACHMENT SCALE: N.T.S.

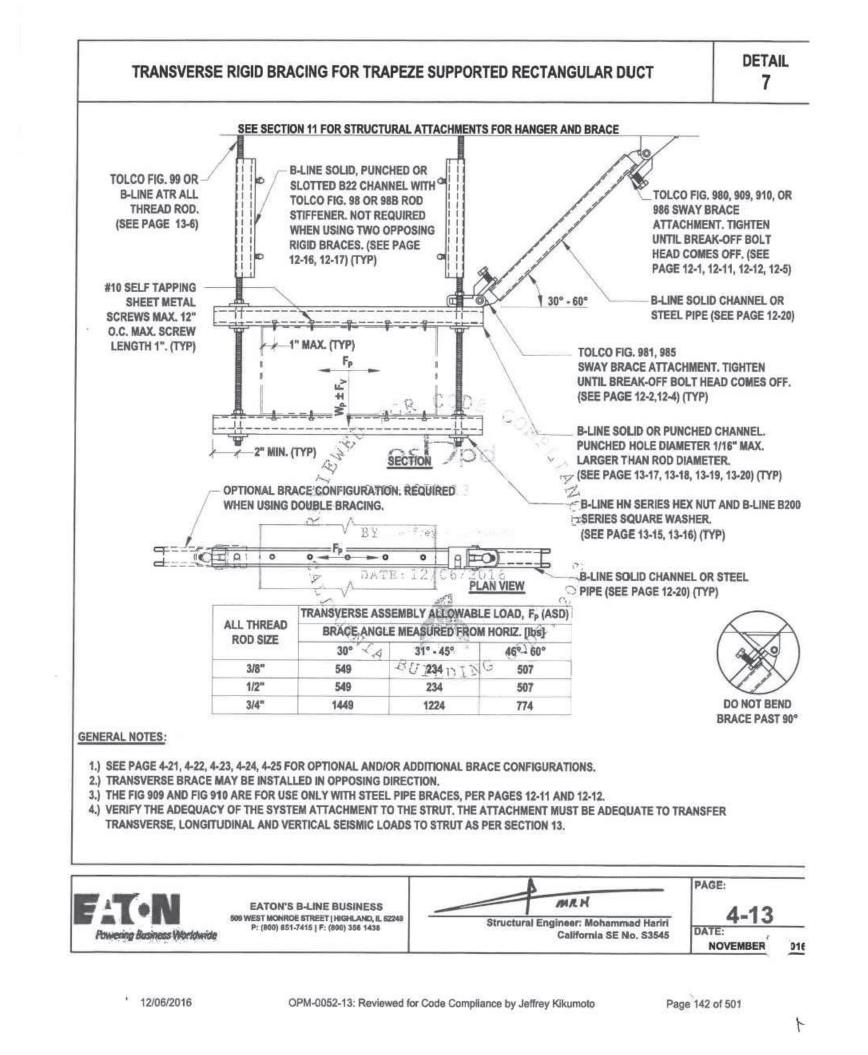
SHEET METAL TAPER. WRAP WITH INSULATION. (EXCEPT EXHAUST). — METAL ' AT END OF RUN ONLY. -SHEET METAL OR FLEXIBLE DUCT. -BUTTERFLY DAMPER W/ LOCKING TYPICAL FOR ALL ROUND SUPPLY, REGULATOR. (TYPICAL). ---RETURN, AND EXHAUST DUCTS. BRANCH TAKE-OFF. -2. SEE PLAN FOR SIZE.



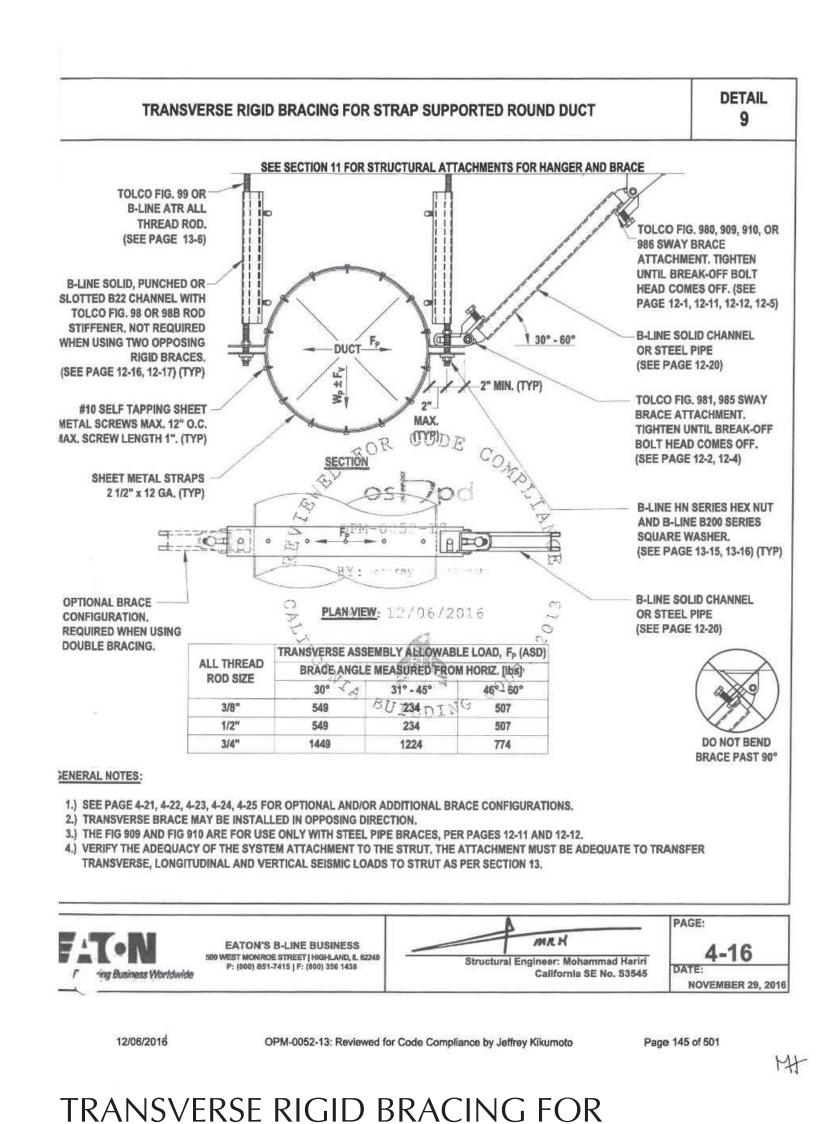
NINETY DEGREE ELBOW

BASKIN
MECHANICAL
ENGINEERS

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22014
Plt: 10-19-23



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



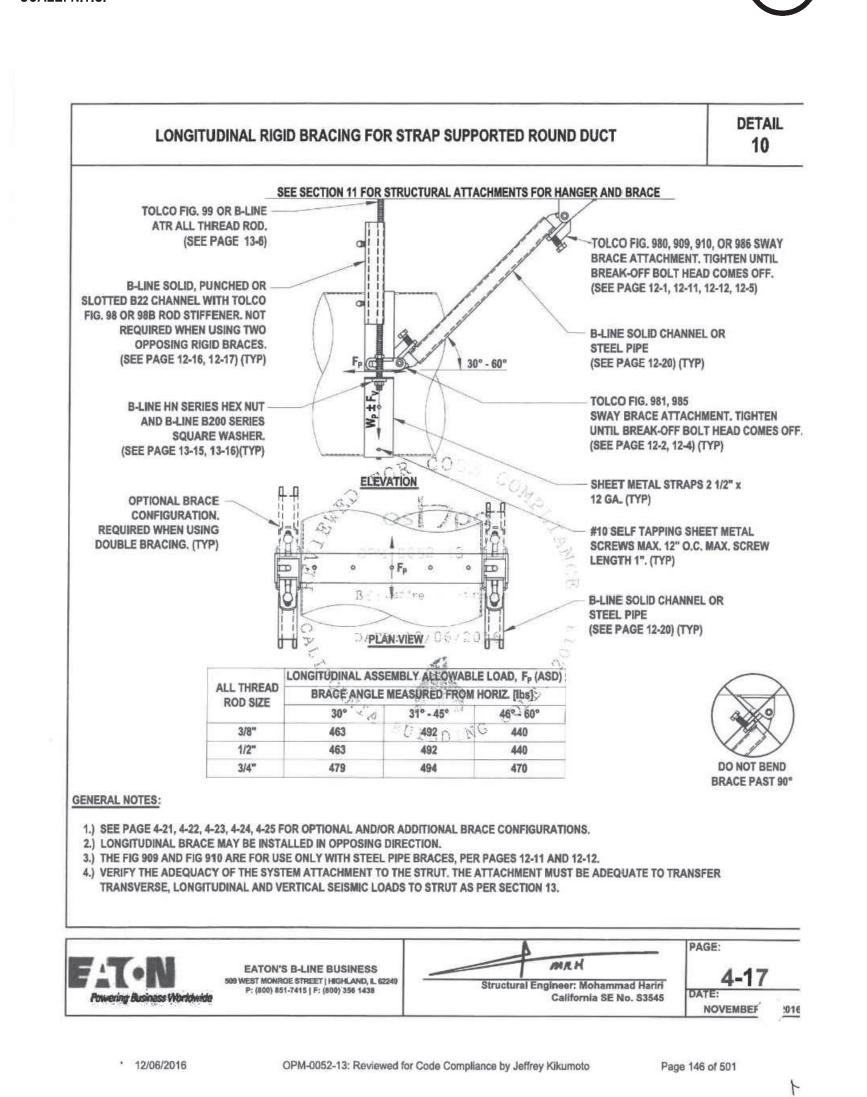
STRAP SUPPORTED ROUND DUCT

SCALE: N.T.S.

LONGITUDINAL RIGID BRACING FOR TRAPEZE SUPPORTED RECTANGULAR DUCT SEE SECTION 11 FOR STRUCTURAL ATTACHMENTS FOR HANGER AND BRACE TOLCO FIG. 99 OR B-LINE -ATR ALL THREAD ROD. (SEE PAGE 13-6) TOLCO FIG. 980, 909, 910, OR 986 SWAY BRACE ATTACHMENT, TIGHTEN UNTIL B-LINE SOLID, PUNCHED OR -BREAK-OFF BOLT HEAD COMES OFF. SLOTTED B22 CHANNEL WITH TOLCO (SEE PAGE 12-1, 12-11, 12-12, 12-5) FIG. 98 OR 98B ROD STIFFENER. NOT REQUIRED WHEN USING TWO **B-LINE SOLID CHANNEL** OPPOSING RIGID BRACES. OR STEEL PIPE (SEE PAGE 12-16, 12-17) (TYP) (SEE PAGE 12-20) (TYP) **B-LINE SOLID OR PUNCHED CHANNEL.** TOLCO FIG. 981, 985 SWAY BRACE PUNCHED HOLE DIAMETER 1/16" MAX, ATTACHMENT. TIGHTEN UNTIL LARGER THAN ROD DIAMETER BREAK-OFF BOLT HEAD COMES OFF. (SEE PAGE 13-17, 13-18, 13-19, 13-20) (SEE PAGE 12-2, 12-4) (TYP) **B-LINE HN SERIES HEX NUT AND B-LINE** B200 SERIES SQUARE WASHER. #10 SELF TAPPING SHEET _ (SEE PAGE 13-15, 13-16) (TYP) METAL SCREWS MAX. 12" O.C. MAX, SCREW LENGTH 1". (TYP) OPTIONAL BRACE CONFIGURATION. REQUIRED WHEN USING DOUBLE BRACING. (TYP) B-LINE SOLID CHANNEL OR DATE: 12/06/2016 STEEL PIPE (SEE PAGE 12-20) (TYP) LONGITUDINAL ASSEMBLY ALLOWABLE LOAD (F) (ASD) BRACE ANGLE MEASURED FROM HORIZ. Tibs1 DO NOT BEND BRACE PAST 90° ENERAL NOTES: 1.) SEE PAGE 4-21, 4-22, 4-23, 4-24, 4-25 FOR OPTIONAL AND/OR ADDITIONAL BRACE CONFIGURATIONS. 2.) LONGITUDINAL BRACE MAY BE INSTALLED IN OPPOSING DIRECTION. 3.) THE FIG 909 AND FIG 910 ARE FOR USE ONLY WITH STEEL PIPE BRACES, PER PAGES 12-11 AND 12-12. 4.) VERIFY THE ADEQUACY OF THE SYSTEM ATTACHMENT TO THE STRUT. THE ATTACHMENT MUST BE ADEQUATE TO TRANSFER TRANSVERSE, LONGITUDINAL AND VERTICAL SEISMIC LOADS TO STRUT AS PER SECTION 13. DESIGN PROFESSIONAL SHALL CONSIDER ECCENTRIC LOAD DISTRIBUTION WHEN DETERMINING THE F P VALUE USED IN DESIGN. 6.) WHERE SEISMIC LOAD IS APPLIED FULLY ECCENTRIC, REDUCE F. BY 50%. LINEARLY INTERPOLATE FOR CONDITION BETWEEN CENTER LINE AND BRACE. **EATON'S B-LINE BUSINESS** 4-14 509 WEST MONROE STREET | HIGHLAND, IL 62249 P: (800) 851-7415 | F: (800) 356 1438 Structural Engineer: Mohammad Hariri California SE No. S3545 Pow Business Vitoridunide **NOVEMBER 29, 201**

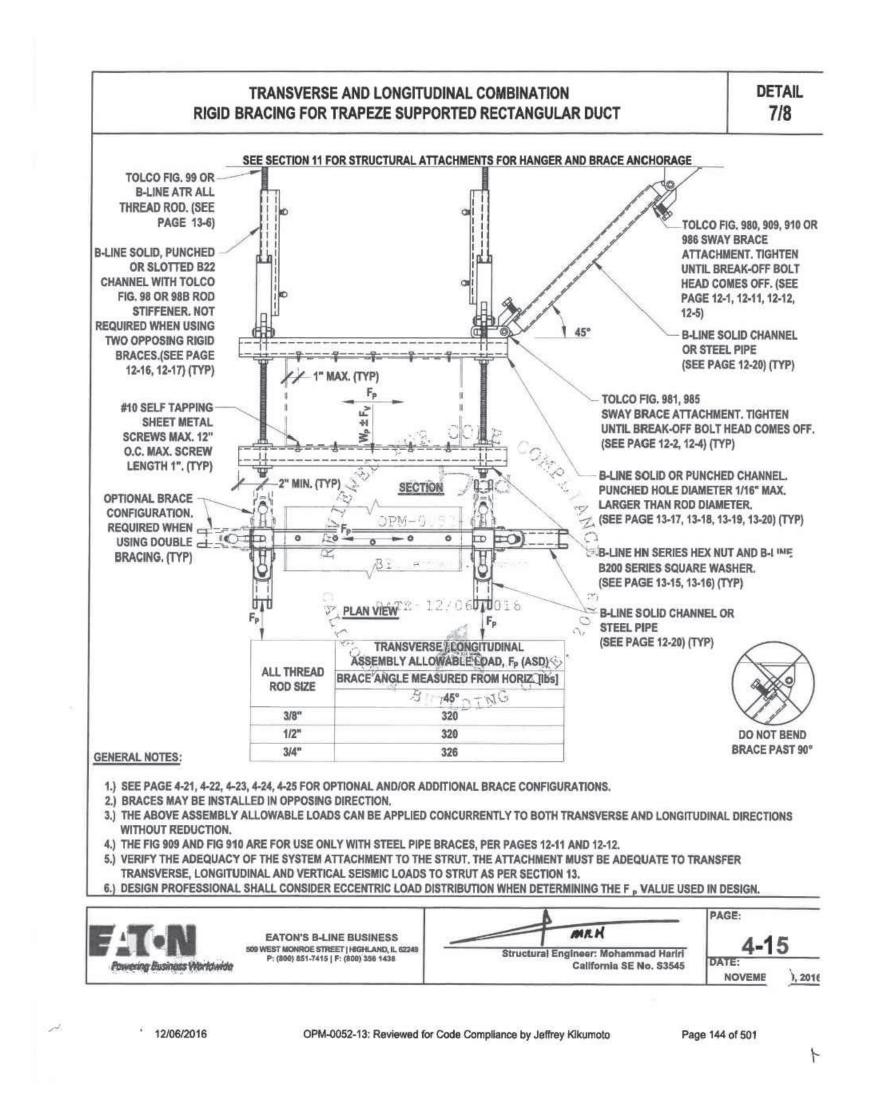
LONGITUDINAL RIGID BRACING FOR TRAPEZE SUPPORTED RECTANGULAR DUCT SCALE: N.T.S.

OPM-0052-13: Reviewed for Code Compliance by Jeffrey Kikumoto



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.

DETAIL TRANSVERSE AND LONGITUDINAL COMBINATION RIGID BRACING FOR STRAP SUPPORTED ROUND DUCT SEE SECTION 11 FOR STRUCTURAL ATTACHMENTS FOR HANGER AND BRACE TOLCO FIG. 99 OR B-LINE ATR ALL THREAD ROD. (SEE PAGE 13-6) TOLCO FIG. 980, 909, 910, OR 986 SWAY BRACE ATTACHMENT, TIGHTEN B-LINE SOLID, PUNCHED OR-SLOTTED B22 CHANNEL UNTIL BREAK-OFF BOLT HEAD COMES OFF. (SEE WITH TOLCO FIG. 98 OR 98B PAGE 12-1, 12-11, 12-12, 12-5) ROD STIFFENER, NOT REQUIRED WHEN USING TWO OPPOSING RIGID BRACES. **B-LINE SOLID CHANNEL** (SEE PAGE 12-16, 12-17) (TYP) OR STEEL PIPE (SEE PAGE 12-20) (TYP) #10 SELF TAPPING SHEET TOLCO FIG. 981, 985 SWAY METAL SCREWS MAX. 12" O.C. BRACE ATTACHMENT. MAX. SCREW LENGTH 1". (TYP) **TIGHTEN UNTIL BREAK-OFF** BOLT HEAD COMES OFF. SHEET METAL STRAPS (SEE PAGE 12-2, 12-4) (TYP) 2 1/2" x 12 GA. (TYP) **B-LINE HN SERIES HEX NUT** ANDB-LINE B200 SERIES SQUARE WASHER. (SEE PAGE 13-15, 13-16) (TYP) TIONAL BRACE ONFIGURATION. REQUIRED WHEN USING **B-LINE SOLID CHANNEL OR** DOUBLE BRACING. (TYP) STEEL PIPE (SEE PAGE 12-20) (TYP) TRANSVERSE / LONGITUDINAL ASSEMBLY ALLOWABLE LOAD, Fp (ASD) BRACE ANGLE MEASURED FROM HORIZ, [Ibs] ROD SIZE DO NOT BEND .) SEE PAGE 4-21, 4-22, 4-23, 4-24, 4-25 FOR OPTIONAL AND/OR ADDITIONAL BRACE CONFIGURATIONS. 2.) BRACES MAY BE INSTALLED IN OPPOSING DIRECTION. .) THE ABOVE ASSEMBLY ALLOWABLE LOADS CAN BE APPLIED CONCURRENTLY TO BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS WITHOUT REDUCTION. i.) THE FIG 909 AND FIG 910 ARE FOR USE ONLY WITH STEEL PIPE BRACES, PER PAGES 12-11 AND 12-12. 6.) VERIFY THE ADEQUACY OF THE SYSTEM ATTACHMENT TO THE STRUT. THE ATTACHMENT MUST BE ADEQUATE TO TRANSFER TRANSVERSE, LONGITUDINAL AND VERTICAL SEISMIC LOADS TO STRUT AS PER SECTION 13. **EATON'S B-LINE BUSINESS** 509 WEST MONROE STREET | HIGHLAND, IL 62249 P: (800) 851-7415 | F: (800) 356 1438 Structural Engineer: Mohammad Hariri ving Business Vlaridwide California SE No. \$3545 Page 147 of 501 OPM-0052-13: Reviewed for Code Compliance by Jeffrey Kikumoto

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

F

BASKIN

MECHANICAL
ENGINEERS

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22014
Plt: 10-19-23

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122671 INC:

REVIEWED FOR
SS FLS ACS DATE: 11/08/2023



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

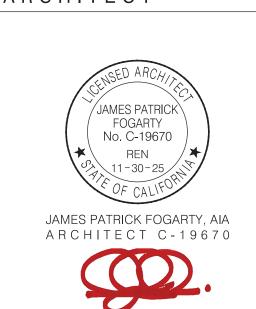
CAMPUS HVAC

Horace Mann
Elementary School

2710 Niles St. Bakersfield. CA. 93306

Bakersfield City School District

ARCHITECT



CONSULTANT



 PROJECT INFO

 Project No
 566-0016

 Date
 10.30.23

 DSA File No
 15-6

 DSA No
 03-122671

REVISIONS

No Date Item

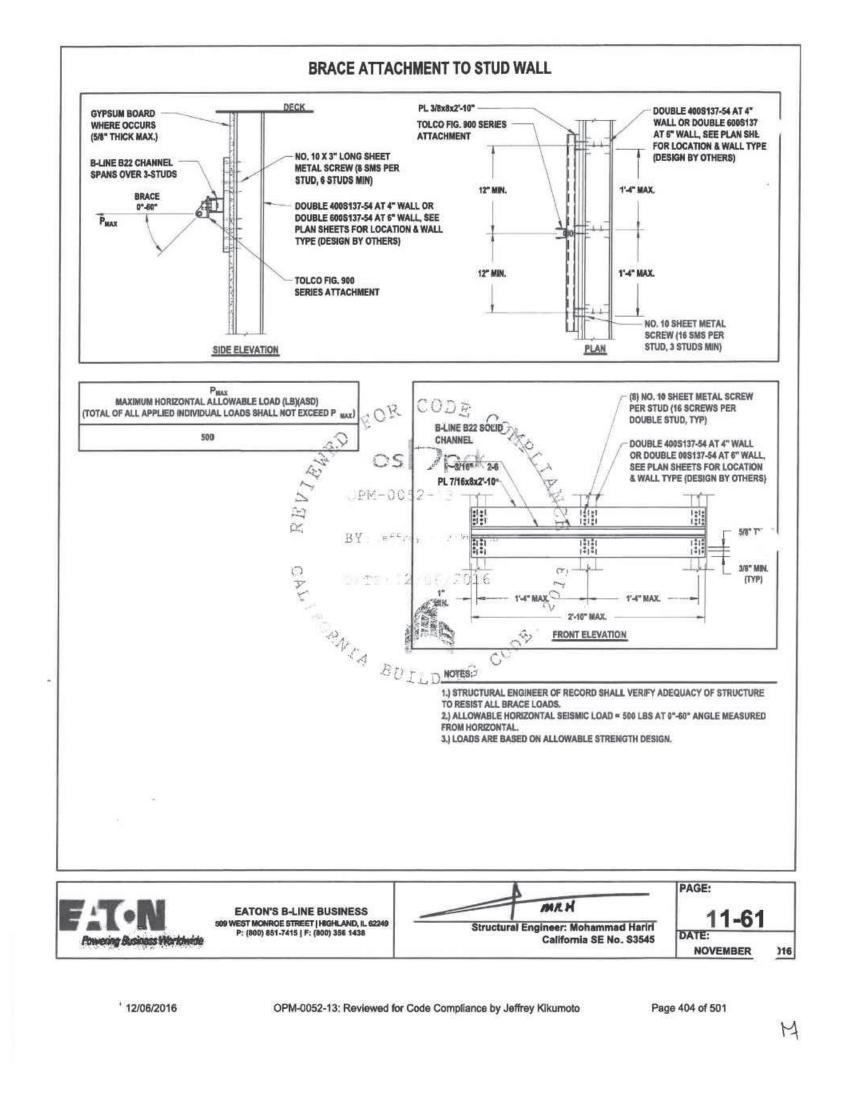
00.00.08 DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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

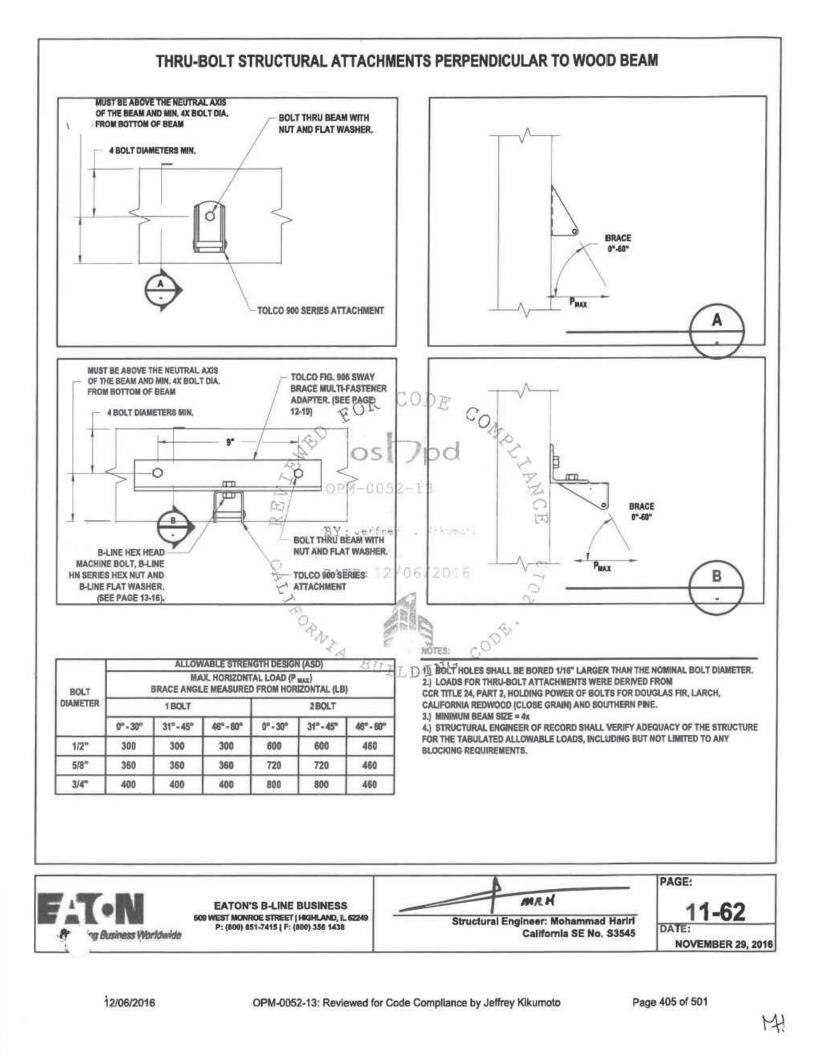
DUCT BRACING DETAILS

APPROVAL BEFORE PROCEEDING WITH FABRICATION.

M4.12



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



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

BLOCKING FOR BRACE CONN.

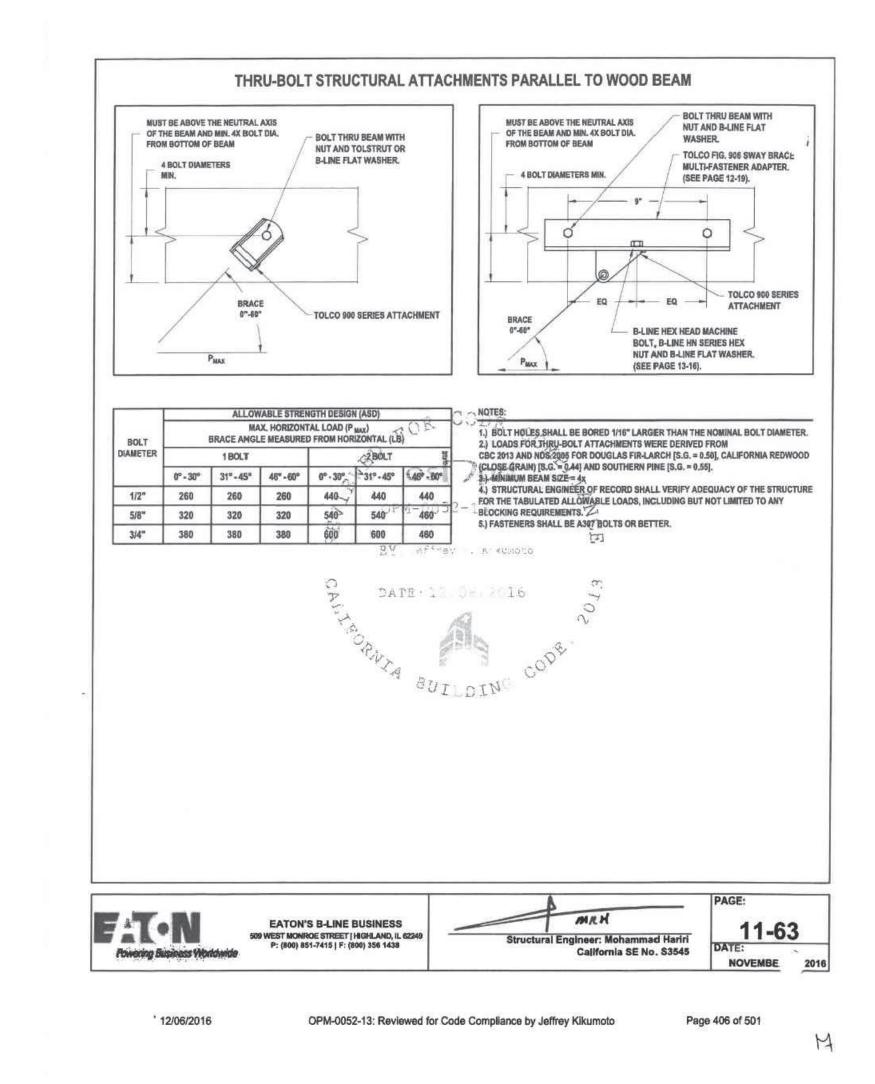
- BRACING SPACED AT 10'-0" OC MAX

INTSTALL ADDITIONAL BLOCKING ON EITHER SIDE OF THE BLOCKING FOR BRACE, AND MAINTAIN

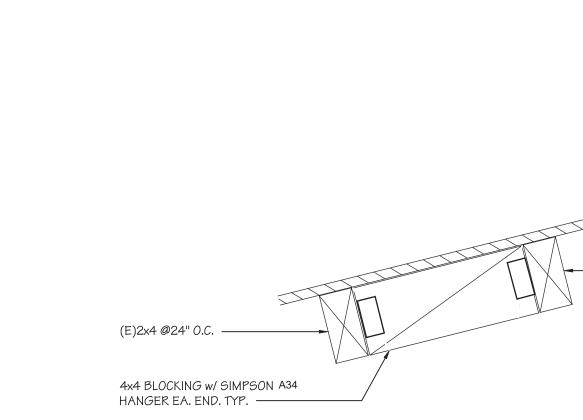
BRACES AT A MAXIMUM OF 10'-0" O.C.

4x4 BLOCKING w/ SIMPSON A34 EA. END. TYP. ——

SCALE: N.T.S.



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



SCALE: N.T.S.

(E)2x4 @24" 0.C. BLOCKING FOR HANGER CONN.



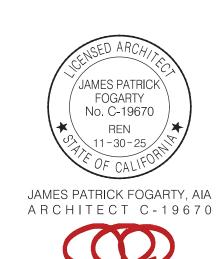


3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204| |web|www.aparchitects.net|

CAMPUS HVAC

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

566-0016 10.30.23 DSA File No DSA No 03-122671

REVISIONS

© COPYRIGHT

Date Item 00.00.08 DESCRIPTION

> THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

> > DUCT BRACING DETAILS



Project Name:	Horace Mann School Blo	I B		NRCC-PRF-01-E	Page 1 of 12	
Project Address:	2719 Niles Street Bakers	Street Bakersfield 93308 nn B.cibd19x		Calculation Date/Time:	15:57, Thu, Sep 01, 2022	
Input File Name:	Horace Mann B.cibd19x					
A. GENERAL INFO	RMATION					
1 Project Locat	ion (city)	Bakersfield	8	Standards Version	Compliance2019	
2 CA Zip Code		93308	9	Compliance Software (ve	rsion) EnergyPro 8.3	
3 Climate Zone		13	10	Weather File	BAKERSFIELD_723840_CZ	
4 Total Condition	oned Floor Area in Scope	2,880 ft ²	11	Building Orientation (deg	(S) 180 deg	
5 Total Uncond	itioned Floor Area	0 ft ²	12	Permitted Scope of Work	ExistingAdditionAndAltera	
6 Total # of Sto	ries (Habitable Above Grade)	1	13	Building Type(s)	Nonresidential	
7 Total # of dw	elling units	0	14	Gas Type	NaturalGas	

B. PROJECT SUMMARY					7			
Table Instructions: Table B shows whi permit application.	ch buil	ding component	s are included in the performance calcula	tion.	If indicated as n	ot included, the project must show complian	ce prescriptively if within	
	Buildin	g Components C	omplying via Performance			Building Components Compl	ying Prescriptively	
□ Performance □ P					Performance	The following building components are ONLY eligible for prescrip		
Envelope (see Table G)		Not Included	Covered Process: Commercial Kitchens		Not Included	compliance and should be documented on the NRCC form listed the scope of the permit application (i.e. compliance will not be 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		\boxtimes	Not Included	Outdoor Lighting §140.7	NRCC-LTO-E	
		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 Mea	easures	
Lighting (Indoor Conditioned, see Table K)	×	Performance				Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should on the NRCC folisted if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)		
		Not Included				Electrical Power Distribution S110.11	NRCC-ELC-E	
Solar Thermal Water Heating (see		Performance				Commissioning S120.8	NRCC-CXR-E	
Solar Thermal Water Heating (see Table I)		Not Included	1			Solar Ready S110.10	NRCC-SRA-E	

Project Name:	ject Name: Horace Mann School Bld B		C-PRF-01-E	Page 2 of 12		
Project Address:	2719 Niles Street Bakersfield 93308	Cald	ulation Date/Time:	15:57, Thu, Sep 01, 2022		
Input File Name:	Horace Mann B.cibd19x					
C1. COMPLIANCE R	ESULTS FOR PERFORMANCE COMPONENTS (Ann	ual TDV Energy Use, kBtu/ft	-yr)			
		COMPLIES				
	Energy Component	Standard Design (TDV) Prop		posed Design (TDV)	Compliance Margin (TDV) ¹	
Space Heating			15.22	25.72	-10.50	
Space Cooling			148.46	106.65	41.81	
Indoor Fans			200.53	84.53	116.00	
Heat Rejection			-	717	5	
Pumps & Misc.				++	**	
Domestic Hot Water			15.62	15.62	-22	
Indoor Lighting			40.01 40.01		FE	
ENERGY STAN	DARDS COMPLIANCE TOTAL	4:	19.84	272.53	147.31 (35.1%)	
¹ Notes: The number	r in parenthesis following the Compliance Margin	in column 4. represents the P	ercent Better than	Standard.	2 2	

C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS ¹			
☐ This project is pursuing CalGreen Tier 1		This project is pursuing CalGreen Tier 2	<u>.</u>
Miscellaneous Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹
Receptacle	72.74	72.74	-
Process		11.	-
Other Ltg		22	-
Process Motors			
COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS	492.58	345.27	147.3 (29.9%

Project Name:	Horace Mann School Bld B		RCC-PRF-01-E	Page 3 of 12	Page 3 of 12		
Project Address:	2719 Niles Street Bake	ersfield 93308	c	alculation Date/Tim	e: 15:57, Thu, Sep 01, 20	22	
nput File Name:	Horace Mann B.cibd19	Эх					
3. ENERGY USE SU	JMMARY	16	·		W.		
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	***		\$4.9	21.2	35.8	-14.6
S	Space Cooling	10.0	7.0	3.0	***		
	Indoor Fans	19.2	7.7	11.5	+		s as
н	leat Rejection					146	244
P	umps & Misc.		€)		÷.		
Don	nestic Hot Water	-	11 0	# 4	25.0	25.0	0.0
In	ndoor Lighting	4.1	4.1	0.0	**	- -	>
Co	mpliance Total	33.3	18.8	14.5	46.2	60.8	-14.6
}	Receptacle	7.6	7.6	0.0			8.00
	Process		+40	#2		348	
	Other Ltg			425		44	
Pi	rocess Motors	=	2 %			125	955
	TOTAL	40.9	26.4	14.5	46.2	60.8	-14.6

	TOTAL	40.9	20.4	14.5	46.2	60.8	-14.0
-							
	D. EXCEPTIONAL CONDITIONS						
	The building does not include service water heating. Ver	rify that service water heati	ng is not required and is not	included in the	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

Report Generated at: 2022-09-01 15:57:39

Report Generated at: 2022-09-01 15:57:39

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 15:57:39

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 15:57:39

Report Generated at: 2022-09-01 15:57:39

Project Name: Horace Mann School Bld B NRCC-PRF-01-E Page 4 of 12 Calculation Date/Time: 15:57, Thu, Sep 01, 2022 2719 Niles Street Bakersfield 93308 Project Address: Horace Mann B.cibd19x Input File Name: G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only) Opaque Surfaces & Orientation Total Gross Surface Area (ft²) Window to Wall Ratio (%) Total Fenestration Area (ft²) North-Facing¹ 00.0% 360 ft² East-Facing² Oft² 1,152 ft² South-Facing³ 288 ft² West-Facing⁴ 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	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	2880	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	3024	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.	

R-30 Roof Attic6	Roof	2880	Wood	30	NA	U-Factor	0.038	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	3024	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

-	T		I	
Project Name:	Horace Mann School Bld B	NRCC-PRF-01-E	Page 7 of 12	
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	15:57, Thu, Sep 01, 2022	
Input File Name:	Horace Mann B.cibd19x			

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

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

This Section Does Not Apply

M SPECIAL FEATURES			
1	2	3	4
System Name	Equipment Type	Window Interlocks per §140.4(n)	Other Special Features and Controls
AC1 B1	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
AC1 B2	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
AC1 B3	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer

1	2	3	4	5	6	7	
	M	echanical Vent	ilation			I Medicale 1960 Voles	
Zone Name	V-attato E-atta	# of	Supply OA	Exhaust	Conditioned Area	DCV or Occupant Sensor Controls, or Both	
	Ventilation Function	people	CFM	CFM	(sf)	20 313, 61 50	
1-Classoom B27	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
2-Classroom B26	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
3-Classroom B25	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 15:57:39

Project Name:	Horace Mann S	chool Bld B			NRC	C-PRF-01-E	Pa	age 5 of 12			
Project Address:	2719 Niles Stre	et Bakersfield 93308			Calcu	ulation Date/Ti	me: 1	15:57, Thu, Sep 01, 2022			
Input File Name:	Horace Mann B	.cibd19x			j						
G3. OPAQUE SURFA	ACE ASSEMBLY SU	MMARY								2	
	1	2	3	4	5	6	7	8	9	1	
Surfac	e Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	s Value	Description of Assembly Layers	Status	
Slab On	Grade14	UndergroundFloor	2880	NA	0	NA	F-Facto	or 0.73	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0		

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 ft²	Overall U-factor	Overall SHGC	Overall VT	Status ²
Single Metal Clear	VerticalFenestration FixedWindow MetalFraming	Default Performance	SiteBuilt	864	1.19	0.83	0.77	E

. 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
Window19	South	12.0	4	10.0	10.0
Window25	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: 2022-09-01 15:57:

NRCC-PRF-01-E Page 8 of 12

2719 Niles Street Bake	719 Niles Street Bakersfield 93308					/Time:	15:57, Thu, Sep	5:57, Thu, Sep 01, 2022				
Horace Mann B.cibd1	9x											
ND TERMINAL UNIT S	UMMARY											
2	3	4	5	6	7	8	9	10	11	12	13	
m ID Zono Namo System Type			1,000,000		А	Airflow (cfm)		Fan				
System ID Zone Name	Зузсені туре	QLy	Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	VSD	
1-Classoom B27	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA		
2-Classroom B26	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA		
3-Classroom B25	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA		
OLED CHIMANADY												
Section of the Section Control of the Section Control			-									
ply												
	Horace Mann B.cibd19 ND TERMINAL UNIT S Z Zone Name 1-Classoom B27 2-Classroom B26	Zone Name System Type 1-Classoom B27 VAVNoReheatBox 2-Classroom B26 VAVNoReheatBox VAVNoReheatBox VAVNoReheatBox	Horace Mann B.cibd19x ND TERMINAL UNIT SUMMARY 2 3 4 Zone Name System Type Qty 1-Classoom B27 VAVNoReheatBox 1 2-Classroom B26 VAVNoReheatBox 1 3-Classroom B25 VAVNoReheatBox 1	Note	NO TERMINAL UNIT SUMMARY 2 3 4 5 6	Horace Mann B.cibd19x	NO TERMINAL UNIT SUMMARY 2 3 4 5 6 7 8	NO TERMINAL UNIT SUMMARY 2 3 4 5 6 7 8 9	NO TERMINAL UNIT SUMMARY 2 3 4 5 6 7 8 9 10	Horace Mann B.cibd19x	NO TERMINAL UNIT SUMMARY 2 3 4 5 6 7 8 9 10 11 12	

1	2	3	4	5	6	
*	Installed Lighting Power Lighting Control Credit		Linkting Control Condite	Additional (Custom) Allowance		
Occupancy Type ¹	Conditioned Floor Area ² (ft ²)	(Watts)	(Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts	
Classroom, Lecture, Training, Vocational Areas	2,880	2,016	0	0	0	
Building Totals:	2,880	2,016	0	0	0	

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

Report Generated at: 2022-09-01 15:57:39

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

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Horace Mann School Bld B

H11. HEAT RECOVERY SUMMARY

This Section Does Not Apply

Project Name:	Horace Mann School Bld	В			1	NRCC-PRF-01-E		Page 6 of 12			
Project Address:	2719 Niles Street Bakersf	ield 9330	8		1	Calculation Date	e/Time:	e: 15:57, Thu, Sep 01, 2022			
Input File Name:	Horace Mann B.cibd19x										
H1. DRY SYSTEM EQU	JIPMENT (furnaces, air h	andling (units, heat pump	os, VRF, econo	mizers etc	.)					_
1	2	3	4	5	6	7	8	9	10	11	9
			1	Heatin	g	-		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)	20.00.00.00.00.00.00
AC1 B1	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb	1000
AC1 B2	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb	100000
AC1 B3	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb	

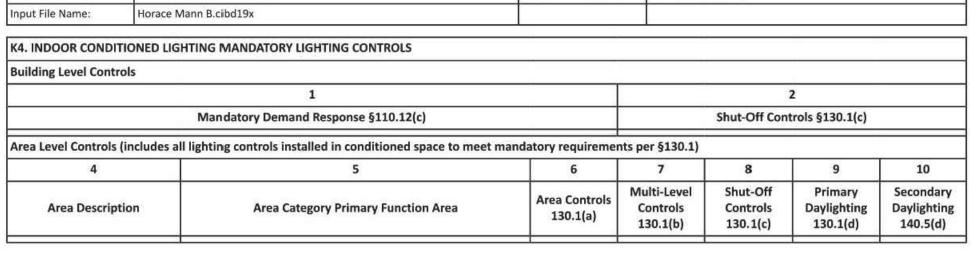
81	2	3	4	5	6	7	8	9	10	11	12	13	14
	~	Design OA	2		Supply Fan	(8			1 100000	Return Fan			
Name or Item Tag	Qty	CFM	CFM	Modeling Method	Power	Power Units	Control	CFM	Modeling Method	Power	Power Units	Control	Status ¹
AC1 B1	1	360	1800	BrakeHorsePower	0.720	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
AC1 B2	1	360	1800	BrakeHorsePower	0.720	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
AC1 B3	1	360	1800	BrakeHorsePower	0.720	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N

Status: N - New, A - Altered, E - Existing) i	
H3. EXHAUST FAN SUMMARY	W Ye		
This Section Does Not Apply			
H4. Wet System Equipment(boilers,chillers,cooling towers,etc.)			1
This Section Does Not Apply			"

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

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

	tion Area Category Primary Function Area	Area Controls	Multi-Level Controls	Shut-Off Controls	Primary Daylighting	Secondary Daylightin		
4	5	6	7	8	9	10		
Area Level Controls	(includes all lighting controls installed in conditioned space to r	meet mandatory requiremer	nts per §130.1)		11			
	Mandatory Demand Response §110.12(c)			Shut-Off Con	trols §130.1(c)			
	1				2			
Building Level Cont	rols							
K4. INDOOR CONDI	TIONED LIGHTING MANDATORY LIGHTING CONTROLS							
Input File Name:	Horace Mann B.cibd19x							
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Tim	ime: 15:57, Thu, Sep 01, 2022					
Project Name:	Horace Mann School Bld B	NRCC-PRF-01-E	7 (10 Table 10 10 10 10 10 10 10 10 10 10 10 10 10	Page 9 of 12				



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

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22014
Plt: 10-19-23

Report Generated at: 2022-09-01 15:57:39

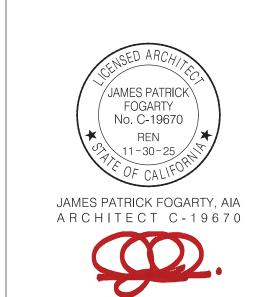
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122671 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹



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

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT

PROJECT INFO

566-0016 10.30.23 DSA File No DSA No 03-122671

REVISIONS Date Item

/* 00.00.08 DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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

10.31.23 13:49 TITLE 24

Project Name:	Horace Mann School Bld B	NRCC-PRF-01-E	Page 10 of 12
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	15:57, Thu, Sep 01, 2022
Input File Name:	Horace Mann B.cibd19x		<i>a</i>
. DECLARATION OF F	EQUIRED CERTIFICATES OF INSTALLATION		
compliance. These do	ections shall be made by Documentation Author to indicate whic cuments bust be retained and provided to the building inspector ca.gov/title24/2019standards/2019_compliance_documents/No	during construction and can be	found online at:
Building Component		Form/Title	
	I .	roim) inte	

Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	15:57, Thu, Sep 01, 2022
input File Name:	Horace Mann B.cibd19x		
M. DECLARATION OF	REQUIRED CERTIFICATES OF ACCEPTANCE		
compliance. These do	lections shall be made by Documentation Author to inc cuments must be provided to the building inspector do more information visit:https://www.energy.ca.gov/tit	uring construction and must be completed	through an Acceptance Test Technician Certification
Building Component		Form/Title	
	NRCA-MCH-02-A Outdoor Air must be submitted for all ne Acceptance (if applicable) since testing activities overlap	ewly installed HVAC units. Note: MCH02-A can b	pe performed in conjunction with MCH-07-A Supply Fan VFD
	NRCA-MCH-05-A Air Economizer Controls		
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems Acc §120.1(c)3) can vary outside ventilation flow rates based of	[18] [18] [18] [18] [18] [18] [18] [18]	
	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 an	d Zone Terminal Units Acceptance	
	NRCA-MCH-16-A Supply Air Temperature Reset Controls		

NRCC-PRF-01-E

Page 11 of 12

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 15:57:39	CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 15:57:39

Project Name:

Horace Mann School Bld B

Project Name: Horace Mann School Bld B NRCC-PRF-01-E Page 12 of 12 Project Address: 2719 Niles Street Bakersfield 93308 Calculation Date/Time: 15:57, Thu, Sep 01, 2022 Input File Name: Horace Mann B.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: 2022-09-01 City/State/Zip: Fresno CA 93721 CEA/ HERS Certification Identification (if applicable): M26578 Phone: 5592370376 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California: 1. The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)

3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. Responsible Envelope Designer Name: Date Signed: City/State/Zip: License #: Responsible Lighting Designer Name: Date Signed: City/State/Zip: Responsible Mechanical Designer Name: Mark Baskin, P.E. Company: Baskin Mechanical Engineers Date Signed: 09/01/22 Address: 5500 Ming Avenue, #251 City/State/Zip: Bakersfield CA 93309 Title: P.E. Phone: (661) 397-2114 License #: M26578

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

Report Generated at: 2022-09-01 15:57:39

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APP: 03-122671 INC:

REVIEWED FOR
SS FLS ACS D

DATE: 11/08/2023



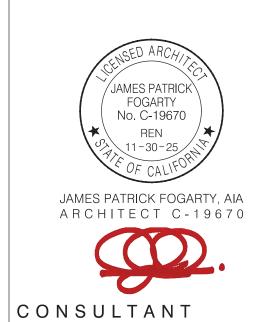
3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 web|www.aparchitects.net

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann
Elementary School

2710 Niles St. Bakersfield. CA. 93306
Bakersfield City School District

ARCHITECT





PROJECT INFO

1.10,001.10	000 0010
Date	10.30.23
DSA File No	15-6
DSA No	03-122671
DEVIOLONIO	

No Date Item

00.00.08 DESCRIP

<u>_</u> *	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

TITLE 24

10.31.23 13:49

© COPYRIGHT

M5.11

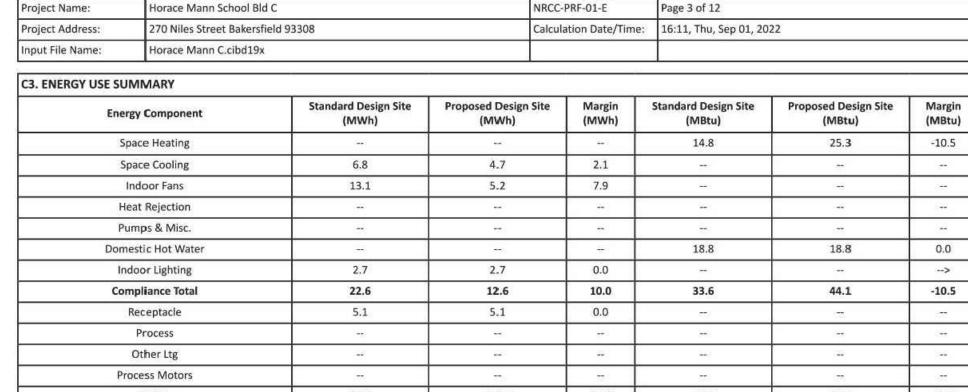


Project Name:	Horace Mann School Blo	С		NRCC-PRF-01-E	Page 1 of 12	
Project Address:	270 Niles Street Bakersfi	eld 93308		Calculation Date/Time:	16:11, Thu, Se	p 01, 2022
Input File Name:	Horace Mann C.cibd19x					
A. GENERAL INFOR	MATION					
1 Project Locatio	n (city)	Bakersfield	8	Standards Version	С	Compliance2019
2 CA Zip Code		93308	9	Compliance Software (ve	rsion) E	nergyPro 8.3
3 Climate Zone		13	10	Weather File	В	AKERSFIELD_723840_CZ2010.epw
4 Total Condition	ed Floor Area in Scope	1,920 ft ²	11	Building Orientation (deg) (5	S) 180 deg
5 Total Unconditi	ioned Floor Area	0 ft ²	12	Permitted Scope of Work	E	xistingAdditionAndAlteration
6 Total # of Storie	es (Habitable Above Grade)	1	13	Building Type(s)	N	Ionresidential
7 Total # of dwell	ling units	0	14	Gas Type	N	laturalGas

B. PROJECT SUMMARY								
Table Instructions: Table B shows who permit application.	ich buil	ding component	s are included in the performance calcula	tion.	If indicated as no	ot included, the project must show complianc	e 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 scope of the permit application (i.e. co. on the NRCC-PRF-E).	보다 살아보다 하는 사람들이 가득하다 하나 사람들이 살아 살아 있다면 하는데 모든데 되었다. 그 모모 !!!	
**************************************		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	
Description of the Control of the Co		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 Meas	ures	
Lighting (Indoor Conditioned, see Table K)	×	Performance				Electrical power systems, commissioning, s escalator requirements are mandatory and listed if applicable (i.e. compliance will not NRCC-PRF-E.)	f 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:	Horace Mann School Bld C	NRCC-P	RF-01-E	Page 2 of 12	
Project Address:	270 Niles Street Bakersfield 93308	Calculat	ion Date/Time:	16:11, Thu, Sep 01, 2022	
Input File Name:	Horace Mann C.cibd19x				
C1. COMPLIANCE R	RESULTS FOR PERFORMANCE COMPONENTS (Ann	ual TDV Energy Use, kBtu/ft ²-yr	Ž		
		COMPLIES			
	Energy Component	Standard Design (TDV)	Pro	posed Design (TDV)	Compliance Margin (TDV) ¹
Space Heating		15	5.92	27.27	-11.35
Space Cooling		157	2.28	109.33	42.95
Indoor Fans		200	5.30	84.83	121.47
Heat Rejection			Total Control	-	司
Pumps & Misc.			**	+-	**
Domestic Hot Water		17	7.64	17.64	-2
Indoor Lighting		40	0.01	40.01	
ENERGY STAN	IDARDS COMPLIANCE TOTAL	432.	15	279.08	153.07 (35.4%)
1 Notes: The number	er in parenthesis following the Compliance Margin	in column 4, represents the Perce	nt Better than	Standard.	

ENERGY STANDARDS COMPLIANCE TOTAL	432.15	2/9.08	155.07 (55.4%
¹ Notes: The number in parenthesis following the Compliance Marg	in in column 4. represents the Percent Bet	ter than Standard.	
C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS ¹			
☐ This project is pursuing CalGreen Tier 1		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		45.	
Other Ltg		===	
Process Motors			
COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS	504.89	351.82	153.1 (30.3%
¹ Notes: This table is used to document compliance with programs C	OTHER THAN Title 24 Part 6, if applicable.		



TOTAL	27.7	17.7	10.0	33.6	44.1	-10.5
D. EXCEPTIONAL CONDITIONS						
The building does not include service water heating	g. Verify that service water heati	ng is not required and is r	not included in the de	esign.		
5 UEDS VEDUENCATION						
E. HERS VERIFICATION						
This Section Does Not Apply						

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 16:11:48

CA Building Energy Efficiency Standards- 2019	Nonresident

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Project Name:

Project Address:

Input File Name:

Equipment Name

AC1 C1

AC1 C2

Name or Item Tag Qty

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

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

H3. EXHAUST FAN SUMMARY This Section Does Not Apply

This Section Does Not Apply

This Section Does Not Apply

H5. PUMPS

H2. FAN SYSTEMS SUMMARY

Horace Mann School Bld C

Horace Mann C.cibd19x

Equipment Type

(Packaged3Phase)

(Packaged3Phase)

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

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

270 Niles Street Bakersfield 93308

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

1800 BrakeHorsePower

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

Heating

AFUE

AFUE

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

Total Heating Supp Heat

0.720

Output (kBtu/h)

BrakeHorsePower 0.720

NRCC-PRF-01-E Page 6 of 12

4 5 6 7 8 9 10

81.0

81.0

VariableSpeedDriv NA

Calculation Date/Time: 16:11, Thu, Sep 01, 2022

Report Generated at: 2022-09-01 16:11:48

FixedDryBulb

SEER/EER 16.10/12.20

SEER/EER 16.10/12.20 FixedDryBulb

NA

Report Generated at: 2022-09-01 16:11:48

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

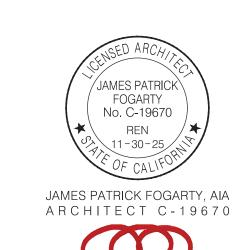
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301

tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

APP: 03-122671 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

ARCHITECT



CONSULTANT



PROJECT	INFO
Project No	

Date	10.30.2
DSA File No	15-
DSA No	03-12267
REVISIONS	

*	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

> 10.31.23 13:49 TITLE 24

© COPYRIGHT

Project Name:	Horace Mann School Bld C		NRCC-PRF-01-E	Page 4 of 12		
Project Address:	270 Niles Street Bakersfield 93308 C		Calculation Date/Time:	16:11, Thu, Sep 01, 2	022	
Input File Name:	Horace Mann C.cibd19x					
G1. ENVELOPE GEN	NERAL INFORMATION (condi	tioned spaces only)				
	1	2	3		4	
Opaque Surfa	aces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Ar	ea (ft²)	Window to Wall Ratio (%)	
	North-Facing ¹	768 ft²		384 ft ²	50.0%	
	East-Facing ²	360 ft²		0 ft ²	00.0%	
	South-Facing ³	768 ft²		192 ft²	25.0%	
	West-Facing ⁴	360 ft²		O ft ²	00.0%	
	Total	2,256 ft ²		576 ft ²	25.5%	
Roof		1,920 ft ²		0 ft ²	00.0%	
² East-Facing is orie ³ South-Facing is or	nted to within 45 degrees of iented to within 45 degrees o	f true north, including 45°00'00" east of nor true east, including 45°00'00" south of east if true south, including 45°00'00" west of so true west, including 45°00'00" north of due	(SE), but excluding 45°00'0 uth (SW), but excluding 45	00" north of east (NE °00'00" east of south	r). h (SE).	

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	1920	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	2256	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	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 16:11:4

Project Name:	Horace Mann Sch	Horace Mann School Bld C NRCC-PRF-0		NRCC-PRF-01-E	Page 7 of 12
Project Address:	270 Niles Street B	Bakersfield 93308		Calculation Date/Time: 16:11, Thu, Sep 01, 2022	
Input File Name:	Horace Mann C.c	ibd19x			
H6. SYSTEM SPECIA	AL FEATURES				
1		2	3		4
System I	Name	Equipment Type	Window Interlocks §140.4(n)	s per	Other Special Features and Controls
AC1	C1	SZVAVAC	NA		Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
AC1	C2	SZVAVAC	NA		Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer

NONRESIDENTIAL VENTILATION							
1	2	3	4	5	6	7	
	N.	Nesseria des Vivena					
Zone Name	Ventilation Function	# of	# of Supply OA		Conditioned Area	DCV or Occupant Sensor Controls, or Both	
	ventilation Function	people	CFM	CFM	(sf)	controls, or both	
1-Classoom C24	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
2-Classroom C23	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	

his Section Does Not Ap	iply											
19. ZONAL SYSTEM AI	ND TERMINAL UNIT S	UMMARY										
1	2	3	4	5	6	7	8	9	10	11	12	13
System ID	Zone Name	Sustan Tuna	Otto	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
System ID	Zone Name	System Type	Qty	Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	vs
1-Classoom C24-Trm	1-Classoom C24	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
2-Classroom C23-Trm	2-Classroom C23	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 16:11:48

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version; NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 16:11:48

Project Name:	Name: Horace Mann School Bld C					C-PRF-01-E	Page	5 of 12			
Project Address:	270 Niles Street	Bakersfield 93308			Calcu	ılation Date/Ti	me: 16:1	16:11, Thu, Sep 01, 2022			
nput File Name:	Horace Mann C.cibd19x										
33. OPAQUE SURFA	ACE ASSEMBLY SUN	MMARY								2	
	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	1920	NA	0	NA	F-Factor	0.73	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0	Е	

1 Status: N - New, A - Altered	F-	Fv
STOREST IN THE PROPERTY	100	***

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	576	1.19	0.83	0.77	E

² Status: N - New, A - Altered, E - Existing					
G6. OVERHANG DETAILS					
1	2	3	4	5	6
Fenestration Tag/ID	Orientation	Depth(ft.)	Height from Bottom of Sill to	Right Extent(ft)	Left Extent(ft)

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
Window19	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: 2022-09-01 16:11:48

Project Name:	Horace Mann School Bld C	NRCC-PRF-01-E	Page 8 of 12	
Project Address:	270 Niles Street Bakersfield 93308	Calculation Date/Time:	16:11, Thu, Sep 01, 2022	
Input File Name:	Horace Mann C.cibd19x			
H11. HEAT RECOVE	ERY SUMMARY		ii.	
This Section Does No	t Apply			

1	2	3	4	5	6		
	Installed Lighting Power Lightin		Lighting Countral Condition	Additional (Custom) Allowance			
Occupancy Type ¹	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	1,920	1,344	0	0	0		
Building Totals:	1,920	1,344	0	0	0		

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

uilding Level Controls						
	1			-	2	
	Mandatory Demand Response §110.12(c)			Shut-Off Con	trols §130.1(c)	
rea Level Controls (includes all li	ighting controls installed in conditioned space to meet	mandatory requiremen	nts per §130.1)			
Δ	5	6	7	8	9	10
5.7 4 .			Multi-Level	Shut-Off	Primary	Secondary

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 16:11:4

Project Name:	Horace Mann School Bld C	NRCC-PRF-01-E	Page 9 of 12	
Project Address:	270 Niles Street Bakersfield 93308	Calculation Date/Time:	16:11, Thu, Sep 01, 2022	
Input File Name:	Horace Mann C.cibd19x			

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

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

BASKIN
MECHANICAL
ENGINEERS

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22014
Plt: 10-19-23

Report Generated at: 2022-09-01 16:11:48

Project Name:	Horace Mann School Bld C	NRCC-PRF-01-E	Page 10 of 12
Project Address:	270 Niles Street Bakersfield 93308	Calculation Date/Time:	16:11, Thu, Sep 01, 2022
Input File Name:	Horace Mann C.cibd19x		
Table Instructions: Se	REQUIRED CERTIFICATES OF INSTALLATION elections shall be made by Documentation Author to indica		
	ocuments bust be retained and provided to the building in ca.gov/title24/2019standards/2019_compliance_docume		
Building Component		Form/Title	
Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings		

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

Report Generated at: 2022-09-01 16:11:48

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

oject Address:	270 Niles Street Bakersfield 93308	Calculation Date/Time:	16:11, Thu, Sep 01, 2022				
out File Name:	Horace Mann C.cibd19x	3					
. DECLARATION OF	REQUIRED CERTIFICATES OF ACCEPTANCE						
mpliance. These dod	ections shall be made by Documentation Author to indicate which C cuments must be provided to the building inspector during construc more information visit:https://www.energy.ca.gov/title24/2019sta	tion and must be completed	through an Acceptance Test Technician Certification				
Building Component							
	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 Termina	l Units Acceptance					
	NRCA-MCH-16-A Supply Air Temperature Reset Controls						

NRCC-PRF-01-E Page 11 of 12

Project Name:

Horace Mann School Bld C

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 16:11:48

Project Address:	270 Niles Street Bakersfield 93308		Calculation Date/Time:	16:11, Thu, Sep 01, 2022	
Input File Name:	Horace Mann C.cibd19x				
	AUTHOR'S DECLARATION STATEMENT cate of Compliance documentation is accurate and complete.			Ye.	
Documentation Auth	or Name: Mark Baskin	100	M. I.D.	Digitally signed by Mark Baskin, P.E. ON C-US, E-MBaskin@BaskinME.com, O-Baskin Mechanical Engineers.	
Company: Baskin Me	chanical Engineers	Signatu	Signature: Mark Baskin, P.E. Diskally signed by Mark Baskin, P.E. Disk C.U.S. E.M.Baskin@BaskinME.com, OBaskin Mechanical Engineers. ChMark Baskin, P.E. Readen: These seviewed this document to the 2022-08.01 16:13:05-07:07		
Address: 175 Fulton S	St.	Signatu	Signature Date: 2022-09-01		
City/State/Zip: Fresn	o CA 93721	CEA/ H	ERS Certification Identifica	tion (if applicable): M26578	
Phone: 5592370376				76	
RESPONSIBLE PERS	SON'S DECLARATION STATEMENT				
4. The building design			with the information provided	on other applicable compliance documents, worksheets, calculations,	
The building design plans and specification I will ensure that a continuous con	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with thi ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli	is building permit application. be made available with the build lance is required to be included w	ing permit(s) issued for the bu with the documentation the bu	ilding, and made available to the enforcement agency for all applicable	
4. The building design plans and specification 5. I will ensure that a c inspections. I understa	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with thi ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli	is building permit application. be made available with the build	ing permit(s) issued for the bu with the documentation the bu	ilding, and made available to the enforcement agency for all applicable	
4. The building design plans and specification 5. I will ensure that a conspections. I understa Responsible Envelope Company;	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with thi ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli	is building permit application. be made available with the build lance is required to be included w	ing permit(s) issued for the bu vith the documentation the bu ire:	ilding, and made available to the enforcement agency for all applicable	
4. The building design plans and specification 5. I will ensure that a clinspections. I understa Responsible Envelope Company:	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with thi ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli	is building permit application. be made available with the buildi iance is required to be included w	ing permit(s) issued for the bu vith the documentation the bu ire:	ilding, and made available to the enforcement agency for all applicable	
4. The building design plans and specification 5. I will ensure that a conspections. I understates Responsible Enveloper Company: Address: City/State/Zip:	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with thi ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli	is building permit application. be made available with the buildi iance is required to be included w	ing permit(s) issued for the bu vith the documentation the bu ire:	ilding, and made available to the enforcement agency for all applicable	
4. The building design plans and specification 5. I will ensure that a c inspections. I understa Responsible Envelope	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli e Designer Name:	is building permit application. be made available with the building ince is required to be included with the building ince is required to be included with the building ince is required to be included with the building ince	ing permit(s) issued for the bu vith the documentation the bu ire: gned:	ilding, and made available to the enforcement agency for all applicable ilder provides to the building owner at occupancy.	
4. The building design plans and specification 5. I will ensure that a conspections. I understates the specification of the specificat	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli e Designer Name:	is building permit application. be made available with the building ince is required to be included with the building signature. Signature is pate Signature.	ing permit(s) issued for the bu vith the documentation the bu ire: gned:	ilding, and made available to the enforcement agency for all applicable ilder provides to the building owner at occupancy.	
4. The building design plans and specification 5. I will ensure that a clinspections. I understa Responsible Envelope Company; Address: City/State/Zip: Phone: Responsible Lighting	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli e Designer Name:	is building permit application. be made available with the building ince is required to be included with the building ince is required to be included with the building ince is required to be included with the building ince	ing permit(s) issued for the bu vith the documentation the bu ire: gned:	ilding, and made available to the enforcement agency for all applicable ilder provides to the building owner at occupancy.	
4. The building design plans and specification 5. I will ensure that a conspections. I understate Responsible Enveloper Company: Address: City/State/Zip: Phone: Responsible Lighting Company:	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli e Designer Name:	is building permit application. be made available with the building inner is required to be included with the building signature. Date Signature. Signature.	ing permit(s) issued for the bu vith the documentation the bu ire: gned:	ilding, and made available to the enforcement agency for all applicable ilder provides to the building owner at occupancy.	
4. The building design plans and specification 5. I will ensure that a conspections. I understate Responsible Enveloper Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip:	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli e Designer Name:	is building permit application. be made available with the building inner is required to be included with the building signature. Date Signature. Signature.	ing permit(s) issued for the bu vith the documentation the bu ire: gned:	ilding, and made available to the enforcement agency for all applicable ilder provides to the building owner at occupancy.	
4. The building design plans and specification 5. I will ensure that a conspections. I understate Responsible Enveloper Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: Phone: City/State/Zip: Phone:	features or system design features identified on this Certifica is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compli e Designer Name:	is building permit application. be made available with the building inner is required to be included with the building part of the following part of the f	ing permit(s) issued for the bu vith the documentation the bu ire: gned: ire: gned:	License #: License #:	
4. The building design plans and specification 5. I will ensure that a conspections. I understate Responsible Enveloper Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: Phone: City/State/Zip: Phone:	features or system design features identified on this Certifical is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Complie Designer Name: Designer Name: Designer Name:	is building permit application. be made available with the buildiance is required to be included w Signatu Date Signatu Date Signatu Date Signatu Date Signatu Signatu Signatu Signatu Signatu Signatu Signatu Signatu	ing permit(s) issued for the built the documentation the built. Ire: gned: gned: Ire: Mark Bas	License #:	
4. The building design plans and specification 5. I will ensure that a clinspections. I understa Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: Phone: Responsible Mechan	features or system design features identified on this Certifical is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall not that a completed signed copy of this Certificate of Complie Designer Name: Designer Name: Designer Name: Designer Name: ical Designer Name: Mark Baskin, P.E.	is building permit application. be made available with the buildiance is required to be included w Signatu Date Signatu Date Signatu Date Signatu Date Signatu Signatu Signatu Signatu Signatu Signatu Signatu Signatu	ing permit(s) issued for the bu vith the documentation the bu ire: gned: ire: gned:	License #: Licens	
4. The building design plans and specification 5. I will ensure that a clinspections. I understal Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: Phone: Responsible Mechan Company: Baskin Me	features or system design features identified on this Certifical is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall nd that a completed signed copy of this Certificate of Compliance Designer Name: Designer Name: Designer Name: ical Designer Name: Mark Baskin, P.E. chanical Engineers Avenue, #251	is building permit application. be made available with the buildiance is required to be included w Signatu Date Signatu Date Signatu Date Signatu Date Signatu Signatu Signatu Signatu Signatu Signatu Signatu Signatu	ing permit(s) issued for the built the documentation the built. Ire: gned: gned: Ire: Mark Bas	License #: Licens	

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

Report Generated at: 2022-09-01 16:11:48

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

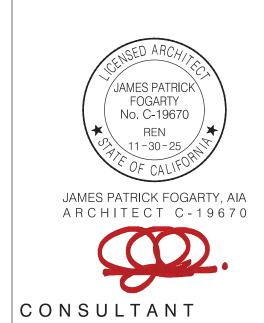
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122671 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸



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

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT





PROJECT INFO

566-0016 10.30.23 DSA File No DSA No 03-122671

REVISIONS

No Date Item

00.00.08 DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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

> 10.31.23 13:49 TITLE 24

M5.13

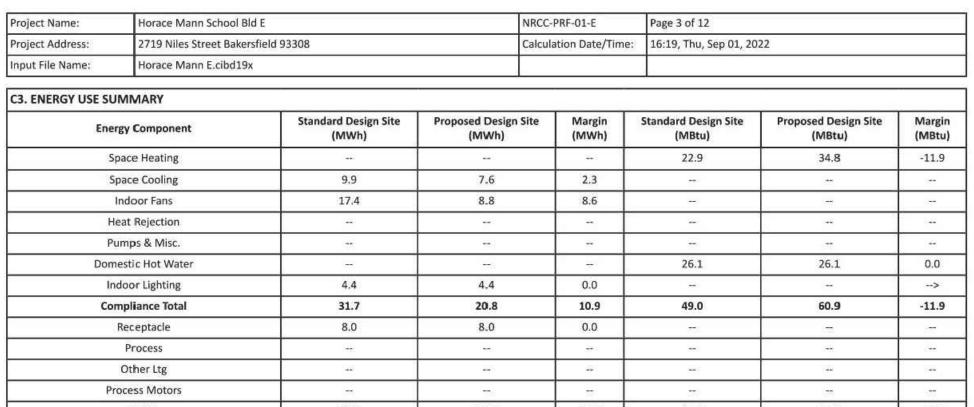


Proje	ct Name:	Horace Mann School Bld E			NRCC-PRF-01-E	Page 1 of 12	
Proje	ect Address:	2719 Niles Street Bakers	field 93308		Calculation Date/Time:	16:19, Thu, Sep 01, 2022	
Input	t File Name:	Horace Mann E.cibd19x					
A. GI	ENERAL INFORM	ATION					
1	Project Location (city)	Bakersfield	8	Standards Version	Compliance2019	
2	CA Zip Code		93308	9	Compliance Software (ve	rsion) EnergyPro 8.3	
3	Climate Zone		13	10	Weather File	BAKERSFIELD_723840_CZ	2010.epw
4	Total Conditioned	l Floor Area in Scope	3,040 ft ²	11	Building Orientation (deg	(S) 180 deg	
5	Total Uncondition	ned Floor Area	0 ft ²	12	Permitted Scope of Work	ExistingAdditionAndAltera	ation
6	Total # of Stories	(Habitable Above Grade)	1	13	Building Type(s)	Nonresidential	
7	Total # of dwelling	g units	0	14	Gas Type	NaturalGas	

/ lotar# or dwelling units		Į0		14	Gas Type	NaturaiGas	
B. PROJECT SUMMARY						NT-	
Table Instructions: Table B shows whi permit application.	ich build	ding component	s are included in the performance calculo	ation.	If indicated as n	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 form list the scope of the permit application (i.e. compliance will not be 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		\boxtimes	Not Included	Outdoor Lighting §140.7	NRCC-LTO-E
was a second and a second a second and a second a second and a second		Performance			Performance	Sign Lighting §140.8	NRCC -LTS-E
Domestic Hot Water (see Table I)		Not Included	Covered Process: Laboratory Exhaust	×	Not Included	Mandatory Meas	sures
Lighting (Indoor Conditioned, see Table K)	×	Performance				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	1			Solar Ready S110.10	NRCC-SRA-E

Project Name: Horace Mann School Bld E		NRCC-PRI	NRCC-PRF-01-E Pa				
Project Address:	2719 Niles Street Bakersfield 93308	Calculation	n Date/Time:	16:19, Thu, Sep 01, 2022			
Input File Name:	Horace Mann E.cibd19x						
C1. COMPLIANCE R	ESULTS FOR PERFORMANCE COMPONENTS (Ann	ual TDV Energy Use, kBtu/ft ²-yr)					
		COMPLIES					
	Energy Component	Standard Design (TDV)	Pro	posed Design (TDV)	Compliance Margin (TDV) ¹		
Space Heating		15.	52	23.65			
Space Cooling		138.	51	109.42	29.19		
Indoor Fans		173.	34	90.79	83.09		
Heat Rejection			-	177	5		
Pumps & Misc.				77			
Domestic Hot Water		15.41		15.41		15.41	2
Indoor Lighting		40.01		40.01	ā.		
ENERGY STAN	DARDS COMPLIANCE TOTAL	383.4	9	279.28	104.21 (27.2%)		
¹ Notes: The number	r in parenthesis following the Compliance Margin	in column 4. represents the Percen	t Better than	Standard.	- 3		

C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS ¹						
☐ This project is pursuing CalGreen Tier 1 ☐ 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		11.				
Other Ltg		12.00	=			
Process Motors						
COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS	456.23	352.02	104.2 (22.8%)			



TOTAL	39.7	28.8	10.9	49.0	60.9	-11.9
D. EXCEPTIONAL CONDITIONS						
The building does not include service water heating	g. Verify that service water hea	ting is not required and is n	ot included in the	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

H 마마마마 (1885) - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
ort Generated at: 2022-09-01 16:20:08

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

G3. OPAQUE SURFACE ASSEMBLY SUMMARY

Slab On Grade14

G5. FENESTRATION ASSEMBLY SUMMARY

Fenestration Assembly Name / Tag

or I.D.

Single Metal Clear

² Status: N - New, A - Altered, E - Existing

Project Address:

Input File Name:

System ID

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

Project Name:

Project Address:

Input File Name:

Horace Mann School Bld E

Horace Mann E.cibd19x

2719 Niles Street Bakersfield 93308

UndergroundFloor

enestration Type / Product Type /

VerticalFenestration

FixedWindow

MetalFraming

Frame Type

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

NRCC-PRF-01-E

R-Value R-Value

Page 5 of 12

Calculation Date/Time: 16:19, Thu, Sep 01, 2022

Assembly Method

SiteBuilt

Report Generated at: 2022-09-01 16:20:08

Slab Type = UnheatedSlabOnGrade

Insulation Orientation = None

Insulation R-Value = R0

Overall Overall Overall U-factor SHGC VT

0.83

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Horace Mann School Bld E

Horace Mann E.cibd19x

Equipment Type

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

2719 Niles Street Bakersfield 93308

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

Project Name:

Project Address:

Input File Name:

Equipment Name

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

NRCC-PRF-01-E

Efficiency

Page 6 of 12

Calculation Date/Time: 16:19, Thu, Sep 01, 2022

5 6 7 8 9 10

Output

Report Generated at: 2022-09-01 16:20:08

Efficiency

Economizer Type (if

Report Generated at: 2022-09-01 16:20:08

Project Name: Horace Mann School Bld E NRCC-PRF-01-E Page 4 of 12 Calculation Date/Time: 16:19, Thu, Sep 01, 2022 2719 Niles Street Bakersfield 93308 Project Address: Input File Name: Horace Mann E.cibd19x G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only) Opaque Surfaces & Orientation Total Gross Surface Area (ft²) Total Fenestration Area (ft²) Window to Wall Ratio (%) North-Facing¹ 00.0% 360 ft² East-Facing² Oft² 25.0% 00.0% South-Facing³ 1,152 ft² 288 ft² 360 ft² West-Facing⁴ 3,024 ft² 864 ft² 3,040 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). 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	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	3040	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	3024	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.	

R-30 Roof Attic6	Roof	3040	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	3024	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- 20	19 Nonresidential Compliance

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

Report Generated at: 2022-09-01 16:20:08

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
Window19	South	12.0	4	10.0	10.0
Window25	South	12.0	4	10.0	10.0

4 5 6

NA

Rated Capacity

(kBtuh)

NA

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.

Certification Method¹

Default Performance

CA Building End	ergy Efficiency Stand	lards- 2019 Nonr	esidential Complian	ce

lorace Mann School Bld E

Horace Mann E.cibd19x

Zone Name

2-Classroom E21-Trm 2-Classroom E21 VAVNoReheatBox

H9. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

1-Classoom E20-Trm 1-Classoom E20

3-Classroom E22-Trm 3-Classroom E22

H10. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

This Section Does Not Apply

lassroom, Lecture, Training,

H11. HEAT RECOVERY SUMMARY

719 Niles Street Bakersfield 93308

System Type

VAVNoReheatBox

VAVNoReheatBox

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

NRCC-PRF-01-E

Page 8 of 12

7 8 9 10 11 12 13

1800 1200 0.67 0.720 bhp NA

(Watts)

Additional (Custom) Allowance

Tailored Method (Watts)

2400 1600 0.67 1.110 bhp

Calculation Date/Time: 16:19, Thu, Sep 01, 2022

Airflow (cfm)

Report Generated at: 2022-09-01 16:20:08

AC1 E1		(Packaged3	Phase)	1	49	0	l A	FUE 81.0	5,	SEER/EER	16.10/12.20	Fixe	edDryBulb	l N
AC1 E2		SZVAV (Packaged3	194	1	49	0	А	FUE 81.0	57	SEER/EER	16.10/12.20	Fixe	edDryBulb	N
AC1 E3		SZVAV (Packaged3		1	54	0	А	FUE 81.0	68	B EER	11.0	Fixe	edDryBulb	N
¹ 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		-23	*	Supply Fan	·	20			Return Fan			St
Name or Item Tag	Qty	CFM	CFM	Modeli	ng Method	Power	Power Units	Control	CFM	Modeling Method	Power	Power Units	Control	Status ¹
AC1 E1	1	360	1800	BrakeH	orsePower	0.720	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
AC1 E2	1	360	1800	BrakeH	orsePower	0.720	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
AC1 E3	1	420	2400	BrakeH	orsePower	1.110	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
Status: N - New, A - Alte	red, E –	Existing		=										
							27							
H3. EXHAUST FAN	SUM	MARY												
This Section Does N	ot App	ly												
	000000 = 000000	CNORGA ATOMA DE RESERVA	THE STATE OF THE S		0.0000000000000000000000000000000000000									
H4. Wet System E	quipn	nent(boilers,	cnillers,co	oling tow	ers,etc.)									
This Section Does N	ot App	ly												

Heating

Output

(kBtuh)

Total Heating Supp Heat

(kBtu/h)

Project Name:	Horace Mann School Bld E	NRCC-PRF-01-E	Page 9 of 12	2		
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Tim	ne: 16:19, Thu,	Sep 01, 2022		
Input File Name:	Horace Mann E.cibd19x					
K4. INDOOR COND	ITIONED LIGHTING MANDATORY LIGHTING CONTROLS					
Building Level Con	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 sp	ace to meet mandatory requiremer	nts per §130.1)			
4	5	6	7	8	9	10
	ption Area Category Primary Function	n Area Controls	Multi-Level Controls	Shut-Off Controls	Primary Daylighting	Secondary Daylighting

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

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

H5. PUMPS				
Input File Name:	Horace Mann E.cibd19x			
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	16:19, Thu, Sep 01, 2022	
Project Name:	Horace Mann School Bld E	NRCC-PRF-01-E	Page 7 of 12	

This Section	Does Not Apply
	507.0
HC CVCTER	M SPECIAL FEATURES

1	2	3	4
System Name	Equipment Type	Window Interlocks per §140.4(n)	Other Special Features and Controls
AC1 E1	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
AC1 E2	SZVAVAC	NA NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
AC1 E3	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer

1	2	3	Λ	5	6	7	
्रके		Mechanical Ventilation					
Zone Name		# of	Supply OA Exhaus		Conditioned Area	DCV or Occupant Sensor Controls, or Both	
	Ventilation Function	people	CFM	CFM	(sf)	controls, or both	
1-Classoom E20	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
2-Classroom E21	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
3-Classroom E22	Education - Classrooms (ages 5-8)	28.00	420	0	1120	DCV	

H8. HIGH-RISE RESIDENTIAL DWELLIN	G UNIT AND HOTEL/MOTEL VENTILATION
This Section Does Not Apply	

2,128 Vocational Areas **Building Totals:** 2,128 0

Installed Lighting Power

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

K1. INDOOR CONDITIONED LIGHTING GENERAL INFO

Report Version: NRCC-PRF-01-E-12092021-6844 CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Generated at: 2022-09-01 16:20:08

Report Version: NRCC-PRF-01-E-12092021-6844 Report Generated at: 2022-09-01 16:20:08 CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Lighting Control Credits

175 Fulton Street Fresno, CA 93721
Tel: (559) 237-0376
Job: 22014

Report Generated at: 2022-09-01 16:20:08

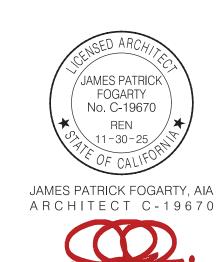
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 03-122671 INC: REVIEWED FOR SS 🗸 FLS 🗹 ACS 🗸



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

Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-122671

REVISIONS

<u>_</u>	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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

10.31.23 13:49 TITLE 24

Project Name:	Horace Mann School Bld E	NRCC-PRF-01-E	Page 10 of 12
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	16:19, Thu, Sep 01, 2022
Input File Name:	Horace Mann E.cibd19x		
Table Instructions: Se compliance. These do	REQUIRED CERTIFICATES OF INSTALLATION lections shall be made by Documentation Author to indicat becoments bust be retained and provided to the building insp ca.gov/title24/2019standards/2019_compliance_documen	pector during construction and can be	found online at:
Building Component		Form/Title	
Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings		

oject Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	16:19, Thu, Sep 01, 2022				
out File Name:	Horace Mann E.cibd19x						
. DECLARATION OF	REQUIRED CERTIFICATES OF ACCEPTANCE						
mpliance. These dod	ections shall be made by Documentation Author to indicat cuments must be provided to the building inspector during more information visit:https://www.energy.ca.gov/title24,	construction and must be completed	through an Acceptance Test Technician Certification				
Building Component		Form/Title					
	NRCA-MCH-02-A Outdoor Air must be submitted for all newly in Acceptance (if applicable) since testing activities overlap	nstalled HVAC units. Note: MCH02-A can b	be performed in conjunction with MCH-07-A Supply Fan VFD				
	NRCA-MCH-05-A Air Economizer Controls		V				
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems Accepta §120.1(c)3) can vary outside ventilation flow rates based on ma	나 있는 아이들은 이 전에 보이면 하면 하지만 아니까 아니까 아이들은 아들은 아이들이 아이들이 아니는 아이들이 아이들이 아니는 아니까 아니다.					
	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 Zor	ne Terminal Units Acceptance					
	NRCA-MCH-16-A Supply Air Temperature Reset Controls						

NRCC-PRF-01-E Page 11 of 12

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844 Report Generated at: 2022-09-01 16:20:08 Report Version: NRCC-PRF-01-E-12092021-6844 Report Generated at: 2022-09-01 16:20:08

Project Name:

Horace Mann School Bld E

Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Tin	ne: 16:19, Thu, Sep 01, 2022				
Input File Name:	Horace Mann E.cibd19x						
	AUTHOR'S DECLARATION STATEMENT cate of Compliance documentation is accurate and complete.						
Documentation Author Name: Mark Baskin Company: Baskin Mechanical Engineers		Signatura: Moule D	Digitally signed by Mark Baskin, P.E. DN.C-US, E-MBaskin@BaskinME.com, O-Baskin Mechanical				
		Signature: IVIATK E	Signature: Mark Baskin, P.E. Bighaeri, Com, O-Baskin Mechanical Engineeri, CN-Mark Baskin, P.E. Beaskin Mechanical Engineeri, CN-Mark Baskin, P.E. Beaskin,				
Address: 175 Fulton S	St.	Signature Date: 2022-09-01					
City/State/Zip: Fresno	o CA 93721	CEA/ HERS Certification Ident	tification (if applicable): M26578				
Phone: 5592370376							
RESPONSIBLE PERS	SON'S DECLARATION STATEMENT						
of Title 24, Part 1 and F	Part 6 of the California Code of Regulations.						
plans and specification 5. I will ensure that a co inspections. I understa	features or system design features identified on this Certificate 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 Complian	building permit application. e made available with the building permit(s) issued for t	vided on other applicable compliance documents, worksheets, calculations, he building, and made available to the enforcement agency for all applicable he builder provides to the building owner at occupancy.				
plans and specification 5. I will ensure that a co inspections. I understa Responsible Envelope	features or system design features identified on this Certificate 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 Complian	building permit application. e made available with the building permit(s) issued for t	he building, and made available to the enforcement agency for all applicable				
plans and specification 5. I will ensure that a co	features or system design features identified on this Certificate 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 Complian	building permit application. made available with the building permit(s) issued for to be included with the documentation to be included with the documentation to be included. Signature:	he building, and made available to the enforcement agency for all applicable				
plans and specification 5. I will ensure that a co inspections. I understal Responsible Envelope Company; Address:	features or system design features identified on this Certificate 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 Complian	building permit application. made available with the building permit(s) issued for to be included with the documentation the documentation to be included with the documentation to be	he building, and made available to the enforcement agency for all applicable				
plans and specification 5. I will ensure that a co- inspections. I understal Responsible Envelope Company; Address: City/State/Zip:	features or system design features identified on this Certificate 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 Complian	building permit application. made available with the building permit(s) issued for to be included with the documentation to be included with the documentation to be included. Signature:	he building, and made available to the enforcement agency for all applicable				
plans and specification 5. I will ensure that a co inspections. I understa Responsible Envelope Company:	features or system design features identified on this Certificate is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall be nd that a completed signed copy of this Certificate of Complianal e Designer Name:	building permit application. made available with the building permit(s) issued for the properties of t	he building, and made available to the enforcement agency for all applicable he builder provides to the building owner at occupancy.				
plans and specification 5. I will ensure that a co- inspections. I understal Responsible Envelope Company; Address: City/State/Zip: Phone: Responsible Lighting	features or system design features identified on this Certificate is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall be nd that a completed signed copy of this Certificate of Complianal e Designer Name:	building permit application. made available with the building permit(s) issued for the commentation to be included with the documentation to be i	he building, and made available to the enforcement agency for all applicable he builder provides to the building owner at occupancy.				
plans and specification 5. I will ensure that a co- inspections. I understal Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting Company:	features or system design features identified on this Certificate is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall be nd that a completed signed copy of this Certificate of Complianal e Designer Name:	building permit application. made available with the building permit(s) issued for the properties of t	he building, and made available to the enforcement agency for all applicable he builder provides to the building owner at occupancy.				
plans and specification 5. I will ensure that a co- inspections. I understal Responsible Envelope Company; Address: City/State/Zip: Phone: Responsible Lighting Company; Address:	features or system design features identified on this Certificate is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall be nd that a completed signed copy of this Certificate of Complianal e Designer Name:	building permit application. e made available with the building permit(s) issued for to be included with the documentation to signature: Date Signed: Title: Signature:	he building, and made available to the enforcement agency for all applicable he builder provides to the building owner at occupancy.				
plans and specification 5. I will ensure that a co- inspections. I understal Responsible Envelope Company; Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: City/State/Zip:	features or system design features identified on this Certificate is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall be nd that a completed signed copy of this Certificate of Complianal e Designer Name:	building permit application. e made available with the building permit(s) issued for to be included with the documentation to signature: Date Signed: Title: Signature:	he building, and made available to the enforcement agency for all applicable he builder provides to the building owner at occupancy.				
plans and specification 5. I will ensure that a co- inspections. I understal Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: Phone: Phone: City/State/Zip: Phone:	features or system design features identified on this Certificate is submitted to the enforcement agency for approval with this ompleted signed copy of this Certificate of Compliance shall be nd that a completed signed copy of this Certificate of Complianal e Designer Name:	building permit application. e made available with the building permit(s) issued for to the ce is required to be included with the documentation to signature: Date Signed: Title: Date Signature: Date Signed: Title:	he building, and made available to the enforcement agency for all applicable he builder provides to the building owner at occupancy. License #: License #:				
plans and specification 5. I will ensure that a co- inspections. I understal Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: Phone: Phone: City/State/Zip: Phone:	features or system design features identified on this Certificate is submitted to the enforcement agency for approval with this completed signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance Designer Name: Designer Name: Designer Name:	building permit application. e made available with the building permit(s) issued for to the ce is required to be included with the documentation to signature: Date Signed: Title: Date Signature: Date Signed: Title:	he building, and made available to the enforcement agency for all applicable he builder provides to the building owner at occupancy. License #: License #:				
plans and specification 5. I will ensure that a co- inspections. I understal Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: Phone: Responsible Mechani	features or system design features identified on this Certificate is submitted to the enforcement agency for approval with this completed signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance Designer Name: Designer Name: Designer Name: Designer Name: ical Designer Name: Mark Baskin, P.E. chanical Engineers	building permit application. e made available with the building permit(s) issued for to the ce is required to be included with the documentation to signature: Date Signed: Title: Date Signature: Date Signed: Title:	License #: License #: Digitally expect by Mark Baskin, P.E. ON: S-UB, E-Millouth PE. Bourieri. Public 2006 t 16:24-7-0700				
plans and specification 5. I will ensure that a co- inspections. I understal Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting Company: Address: City/State/Zip: Phone: Responsible Mechani Company: Baskin Me	features or system design features identified on this Certificate is submitted to the enforcement agency for approval with this completed signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance Designer Name: Designer Name: Designer Name: Designer Name: Avenue, #251	building permit application. e made available with the building permit(s) issued for the process required to be included with the documentation to signature: Date Signed: Title: Date Signature: Date Signed: Title: Signature: Mark E	License #: License #: Digitally expect by Mark Baskin, P.E. ON: S-UB, E-Millouth PE. Bourieri. Public 2006 t 16:24-7-0700				

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

Report Generated at: 2022-09-01 16:20:08

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APP: 03-122671 INC:

REVIEWED FOR

SS FLS ACS DATE: 11/08/2023



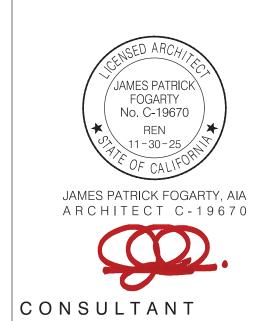
3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel | 661.327.1690 fax | 661.327.7204 web | www.aparchitects.net

CAMPUS HVAC SYSTEM UPGRADE

Horace Mann
Elementary School

2710 Niles St. Bakersfield. CA. 93306
Bakersfield City School District

ARCHITECT





PROJECT INFO

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-122671

EVISIONS

_*\	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

10.31.23 13:49 TITLE 24

M5.15

BASKIN
MECHANICAL
ENGINEERS

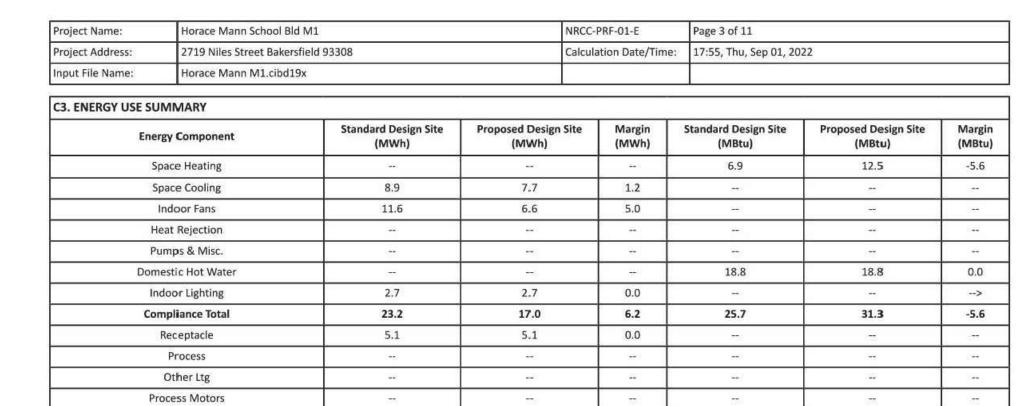
175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22014
Plt: 10-19-23

Project Name:	Horace Mann School Blo	Horace Mann School Bld M1			Page 1 of 11		
Project Address:	2719 Niles Street Bakers	2719 Niles Street Bakersfield 93308 Horace Mann M1.cibd19x		Calculation Date/Time:	17:55, Thu, Sep 01, 2022		
Input File Name:	Horace Mann M1.cibd1						
A. GENERAL INF	ORMATION						
1 Project Loca	tion (city)	Bakersfield	8	Standards Version	Compliance2019		
2 CA Zip Code	8	93308	9	Compliance Software (ve	rsion) EnergyPro 8.3		
3 Climate Zon	е	13	10	Weather File	BAKERSFIELD_723840_CZ2010.ep		
4 Total Condit	ioned Floor Area in Scope	1,920 ft ²	11	Building Orientation (deg	(S) 180 deg		
5 Total Uncon	ditioned Floor Area	0 ft ²	12	Permitted Scope of Work	ExistingAdditionAndAlteration		
6 Total # of St	ories (Habitable Above Grade)	1	13	Building Type(s)	Nonresidential		
7 Total # of dy	velling units	0	14	Gas Type	NaturalGas		

7 lotal # of dwelling units		lo.		14	Gas Type	NaturalGas	
B. PROJECT SUMMARY		1			-		
Table Instructions: Table B shows whi permit application.	ch buil	ding component	s are included in the performance calcula	ition.	If indicated as n	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			Performance	The following building components are Ol	
Envelope (see Table G)	☐ Not Include		Covered Process: Commercial Kitchens		Not included	compliance and should be documented or the scope of the permit application (i.e. co on the NRCC-PRF-E).	네 마른 이번 경기 가게 되면 하다 하는 사람들이 되었다. 그 사람들이 되었다면 하는 것이 되었다면 하는데 보다를 다 하는데
v	×	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
B		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 Mea	sures
Lighting (Indoor Conditioned, see Table K)	×	Performance				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)	\boxtimes	Not Included				Solar Ready S110:10	NRCC-SRA-E

Project Name: Horace Mann School Bld M1		NRCC-PRF-01-E		Page 2 of 11	
Project Address:	2719 Niles Street Bakersfield 93308	Calculation	Calculation Date/Time:		
Input File Name:	Horace Mann M1.cibd19x				
C1. COMPLIANCE R	RESULTS FOR PERFORMANCE COMPONENTS (Ann	ual TDV Energy Use, kBtu/ft ²-yr)			
		COMPLIES			
	Energy Component	Standard Design (TDV)	Design (TDV) Propose		Compliance Margin (TDV) ¹
Space Heating		7.57		13.63	-6.06
Space Cooling		181.72		159.31	22.41
Indoor Fans		188.0	0	104.82	83.18
Heat Rejection			T		57
Pumps & Misc.				+-	-
Domestic Hot Water		17.64		17.64	2
Indoor Lighting		40.01		40.01	
ENERGY STAN	IDARDS COMPLIANCE TOTAL	434.94	434.94		99.53 (22.9%)
1 Notes: The number	er in parenthesis following the Compliance Margin	in column 4. represents the Percent	Better than	Standard.	

C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS ¹									
☐ This project is pursuing CalGreen Tier 1 ☐ 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	145	11 .	+						
Other Ltg		22							
Process Motors			-						
COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS	507.68	408.15	99.5 (19.6%)						



TOTAL	28.3	22.1	6.2	25.7	31.3	-5.6
D. EXCEPTIONAL CONDITIONS						
The building does not include service water heating. Ve	rify that service water heatin	g is not required and is n	ot 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

Report Generated at: 2022-09-01 17:56:08

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 17:56:08 CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844

Report Generated at: 2022-09-01 17:56:08

Project Name:	Horace Mann School Bld N	11	NRCC-PRF-01-E	Page 4 of 11	
Project Address:	2719 Niles Street Bakersfie	ld 93308	Calculation Date/Time:	17:55, Thu, Sep 01	, 2022
Input File Name:	Horace Mann M1.cibd19x				
G1. ENVELOPE GEN	NERAL INFORMATION (condi	tioned spaces only)			
	1	2	3		4
Opaque Surfaces & Orientation		Total Gross Surface Area (ft²)	Total Fenestration Ar	ea (ft²)	Window to Wall Ratio (%)
North-Facing ¹		288 ft²	0 ft²		00.0%
East-Facing ²		960 ft²		486 ft ²	50.6%
	South-Facing ³	288 ft²	0 ft²		00.0%
	West-Facing ⁴	240 ft ²	0 ft ²		00.0%
	Total	1,776 ft²	486 ft²		27.4%
Roof		1,920 ft ²		0 ft ²	00.0%
² East-Facing is orie ³ South-Facing is or	nted to within 45 degrees of iented 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't uth (SW), but excluding 45	00" north of east (1 °00'00" east of sou	NE). ith (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	
R-30 Roof Attic6	Roof	1920	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.	
8 CMU Wall furred8	ExteriorWall	1776	Wood	0	NA	U-Factor	0.281	Concrete - Part Grouted and Empty - 125 lb/ft3 - 8 in. Wood framed wall, 16in. OC, 3.5in., R-0 Gypsum Board - 1/2 in.	

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

Horace Mann School Bld M1

Horace Mann M1.cibd19x

2719 Niles Street Bakersfield 93308

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

Ventilation Function

Education - Classrooms (ages 5-8)

System Type

VAVNoReheatBox

VAVNoReheatBox

Project Name:

Project Address: Input File Name:

H7. NONRESIDENTIAL VENTILATION

Zone Name

1-Library M1

2-Classoom M1-16

H9. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

Zone Name

1-Library M1

2-Classoom M1-16

This Section Does Not Apply

System ID

1-Library M1-Trm

M1-16-Trm

H10. EVAPORATIVE COOLER SUMMARY

H11. HEAT RECOVERY SUMMARY

This Section Does Not Apply

Mechanical Ventilation

Rated Capacity

24.00 360

Page 7 of 11

Supply OA Exhaust Conditioned Area

CFM CFM (sf)

1200

1600

7 8 9 10 11 12 13

Calculation Date/Time: 17:55, Thu, Sep 01, 2022

Report Generated at: 2022-09-01 17:56:08

DCV or Occupant Sensor

Controls, or Both

DCV

Project Name:	Horace Mann	School Bld M1			NRC	C-PRF-01-E	Pa	age 5 of 11		
Project Address:	2719 Niles Str	eet Bakersfield 93308			Calc	ulation Date/Ti	me: 17	7:55, Thu, Sep 01	, 2022	
Input File Name:	Horace Mann	M1.cibd19x								
G3. OPAQUE SURFA	ACE ASSEMBLY SU	JMMARY								2
	1	2	3	4	5	6	7	8	9	10
Surface	e Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	Status ¹
Slab On	Grade12	UndergroundFloor	1920	NA	0	NA	F-Facto	or 0.73	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0	Е
¹ Status: N - New, A - Altered	l, E – Existing					1				
G5. FENESTRATION	ASSEMBLY SUM	MARY								

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	Status,
Single Metal Clear	VerticalFenestration FixedWindow MetalFraming	Default Performance	SiteBuilt	486	1.19	0.83	0.77	E

1	2	3	4	5	6	7	8	9	10	11	12
				Heating				Cooling			\Box
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
AC1 M1	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb	N
AC1 M2	SZVAVAC (Packaged3Phase)	1	54	0	AFUE	81.0	68	EER	11.0	FixedDryBulb	N

		(kBtu/h)	(kBtuh)	Unit	Linciency	Output (kBtu/h)	Linciency Oline	Linciency	H-COCCASIO	1
SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb	N
SZVAVAC (Packaged3Phase)	1	54	0	AFUE	81.0	68	EER	11.0	FixedDryBulb	N
	(Packaged3Phase) SZVAVAC	(Packaged3Phase) 1 SZVAVAC 1	SZVAVAC 1 49 SZVAVAC 1 54	SZVAVAC 1 49 0 SZVAVAC 1 54 0	SZVAVAC 1 49 0 AFUE SZVAVAC 1 54 0 AFUE	SZVAVAC 1 49 0 AFUE 81.0 SZVAVAC 1 54 0 AFUE 81.0	SZVAVAC 1 49 0 AFUE 81.0 57 SZVAVAC 1 54 0 AFUE 81.0 68	SZVAVAC (Packaged3Phase) 1 49 0 AFUE 81.0 57 SEER/EER SZVAVAC 1 54 0 AFUE 81.0 68 FER	SZVAVAC (Packaged3Phase) 1 49 0 AFUE 81.0 57 SEER/EER 16.10/12.20 SZVAVAC 1 54 0 AFUE 81.0 68 FER 11.0	SZVAVAC

roject Name:	Horace Mann School Bld M1		NRCC-PRF-01-E	Page 8 of 11			
roject Address:	2719 Niles Street Bakersfield 93308		Calculation Date/Time:	17:55, Thu, Sep 01, 2022			
nput File Name:	Horace Mann M1.cibd19x						
1. INDOOR CONDITION	NED LIGHTING GENERAL INFO						
1	2	3	4	5	6		
		Installed Lighting Downs	Lighting Control Condite	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 (Watt		
lassroom, Lecture, Trainir ocational Areas	ng, 1,920	1,344	О	0	0		
Building To	otals: 1,920	1,344	0	0	0		

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

(4. INDOOR CONDITIONED LIGHT	ING MANDATORY LIGHTING CONTROLS					
Building Level Controls						
	1				2	
	Mandatory Demand Response §110.12(c)			Shut-Off Con	trols §130.1(c)	
Area Level Controls (includes all li	ghting controls installed in conditioned space to meet	mandatory requiremen	nts per §130.1)			
4	5	6	7	8	9	10
			Multi-Level	Shut-Off	Primary	Secondary

Horace Mann School Bld M1 NRCC-PRF-01-E		Horace Mann School Bld M1			Page 6 of 11			Page 6 of 11				
	2719 Niles Street Bakersfield 93308		Calculation Date	n Date/Time: 17:55, Thu, Sep 01, 2022								
	Horace Mann N	e Mann M1.cibd19x										
SUM	MARY											
2	3	4	5	6	7	8	9	10	11	12	13	14
	Design OA			Supply Fan				Î	Return Fan			Sta
Qty	CFM	CFM	Modeling Method	Power	Power Units	Control	CFM	Modeling Method	Power	Power Units	Control	atus ¹
1	360	1800	BrakeHorsePower	0.720	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
1	360	2400	BrakeHorsePower	1.110	bhp	VariableSpeedDriv	NA	NA	NA	NA	NA	N
	SUM 2	2719 Niles Street Horace Mann I SUMMARY 2 3 Design OA Qty CFM 1 360	2719 Niles Street Bakersfi Horace Mann M1.cibd19x SUMMARY 2	2719 Niles Street Bakersfield 93308 Horace Mann M1.cibd19x SUMMARY 2	2719 Niles Street Bakersfield 93308 Horace Mann M1.cibd19x SUMMARY 2	2719 Niles Street Bakersfield 93308 Horace Mann M1.cibd19x SUMMARY 2	2719 Niles Street Bakersfield 93308 Calculation Date Horace Mann M1.cibd19x	2719 Niles Street Bakersfield 93308 Calculation Date/Time:	2719 Niles Street Bakersfield 93308 Calculation Date/Time: 17:55, Thu, Sep 01	2719 Niles Street Bakersfield 93308 Calculation Date/Time: 17:55, Thu, Sep 01, 2022	2719 Niles Street Bakersfield 93308 Calculation Date/Time: 17:55, Thu, Sep 01, 2022	2719 Niles Street Bakersfield 93308 Calculation Date/Time: 17:55, Thu, Sep 01, 2022

H3. EXHAUST FAN SUMMARY				
This Section Does Not Apply	 7.5 Y			
H4. Wet System Equipment(boilers,chillers,cooling towers,etc.)			**	
This Section Does Not Apply			(4)	

This Section Does Not Apply					
H5. PUMPS					
This Section Does Not Apply					

1	2	3	4
System Name	Equipment Type	Window Interlocks per §140.4(n)	Other Special Features and Controls
AC1 M1	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
AC1 M2	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 17:56:08

Project Name:	Horace Mann School Bld M1	NRCC-PRF-01-E	Page 9 of 11
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	17:55, Thu, Sep 01, 2022
Input File Name:	Horace Mann M1.cibd19x		
	REQUIRED CERTIFICATES OF INSTALLATION		
compliance. These d	ocuments bust be retained and provided to the building ins	pector during construction and can be	st be submitted for the features to be recognized for found online at:
compliance. These d https://www.energy	ocuments bust be retained and provided to the building inst ca.gov/title24/2019standards/2019_compliance_documen	pector during construction and can be hts/Nonresidential_Documents/NRCI/	
compliance. These d	ocuments bust be retained and provided to the building inst ca.gov/title24/2019standards/2019_compliance_documen	pector during construction and can be	

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122671 INC: REVIEWED FOR SS 🗸 FLS 🗹 ACS 🗸 DATE: 11/08/2023

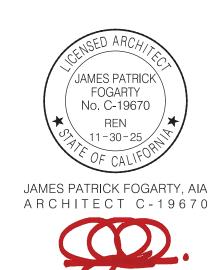


3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

Horace Mann Elementary School

2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-122671

REVISIONS

*	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

> 10.31.23 13:49 TITLE 24

© COPYRIGHT

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22014
Plt: 10-19-23

Report Generated at: 2022-09-01 17:56:08

Project Name:	Horace Mann School Bld M1	NRCC-PRF-01-E	Page 10 of 11		
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	17:55, Thu, Sep 01, 2022		
Input File Name:	Horace Mann M1.cibd19x				
M. DECLARATION OF	REQUIRED CERTIFICATES OF ACCEPTANCE				
compliance. These do	ections shall be made by Documentation Author to indicate cuments must be provided to the building inspector during more information visit:https://www.energy.ca.gov/title24/	construction and must be completed	through an Acceptance Test Technician Certification		
Building Component	Form/Title				
	NRCA-MCH-02-A Outdoor Air must be submitted for all newly in Acceptance (if applicable) since testing activities overlap	nstalled HVAC units. Note: MCH02-A can l	be performed in conjunction with MCH-07-A Supply Fan VFD		
		nstalled HVAC units. Note: MCH02-A can l	be performed in conjunction with MCH-07-A Supply Fan VFD		
Mechanical	Acceptance (if applicable) since testing activities overlap	ice must be submitted for all systems req	uired to employ demand controlled ventilation (refer to		
Mechanical	Acceptance (if applicable) since testing activities overlap NRCA-MCH-05-A Air Economizer Controls NRCA-MCH-06-A Demand Control Ventilation Systems Acceptan	ice must be submitted for all systems req	uired to employ demand controlled ventilation (refer to		
Mechanical	Acceptance (if applicable) since testing activities overlap NRCA-MCH-05-A Air Economizer Controls NRCA-MCH-06-A Demand Control Ventilation Systems Acceptant §120.1(c)3) can vary outside ventilation flow rates based on ma	ice must be submitted for all systems req	uired to employ demand controlled ventilation (refer to		
Mechanical	Acceptance (if applicable) since testing activities overlap NRCA-MCH-05-A Air Economizer Controls NRCA-MCH-06-A Demand Control Ventilation Systems Acceptar §120.1(c)3) can vary outside ventilation flow rates based on ma NRCA-MCH-07-A Supply Fan Variable Flow Controls	ice must be submitted for all systems req intaining interior carbon dioxide (CO2) co	uired to employ demand controlled ventilation (refer to		

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

Report Generated at: 2022-09-01 17:56:08

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Project Address:	2719 Niles Street Bakersfield 93308		Calculation Date/Time:	17:55, Thu, Sep 01, 2022			
Input File Name:	Horace Mann M1.cibd19x	nn M1.cibd19x					
	AUTHOR'S DECLARATION STATEMENT ate of Compliance documentation is accurate and complete.			1)	11		
Documentation Author	or Name: Mark Baskin	150		Dotally signed by Mark Baskin, P.E. DN:C-US, E-MBaskin@BaskinA/E.com, O	-Basion Mochanical Engineers		
Company: Baskin Mechanical Engineers		Signatur	Signature: Mark Baskin, P.E. Div. C. U.S. E-MBackin/ME.com. O-Baskin Machanical Engineser ON-Mark Baskin, P.E.*				
Address: 175 Fulton St.		Signatur	Signature Date: 2022-09-01				
City/State/Zip: Fresno	CA 93721	CEA/ HE	RS Certification Identifica	tion (if applicable): M26578			
Phone: 5592370376							
RESPONSIBLE PERS	ON'S DECLARATION STATEMENT						
	eatures or system design features identified on this Certificate o s submitted to the enforcement agency for approval with this bu		ith the information provided				
5. I will ensure that a co inspections. I understan	empleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance				cy for all applicable		
5, I will ensure that a co inspections. I understan Responsible Envelope	empleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance		th the documentation the bu		cy for all applicable		
5. I will ensure that a co inspections. I understar Responsible Envelope Company:	empleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance	e is required to be included wi	th the documentation the bu		cy for all applicable		
5. I will ensure that a co inspections. I understar Responsible Envelope Company: Address:	empleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance	e is required to be included wi	th the documentation the bu		cy for all applicable		
5, I will ensure that a co- inspections. I understan Responsible Envelope Company: Address: City/State/Zip:	empleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance	e is required to be included wi Signatur Date Sig	th the documentation the bu	ilder provides to the building owner at occupancy.	cy for all applicable		
5, I will ensure that a co- inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone:	ompleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance. Designer Name:	e is required to be included wi	th the documentation the bu		cy for all applicable		
5. I will ensure that a co- inspections. I understan Responsible Envelope Company; Address: City/State/Zip: Phone: Responsible Lighting [ompleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance. Designer Name:	e is required to be included wi Signatur Date Sig	th the documentation the bue:	ilder provides to the building owner at occupancy.	cy for all applicable		
5. I will ensure that a co- inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone:	ompleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance. Designer Name:	e is required to be included wi Signatur Date Sig Title:	th the documentation the bue: ned:	ilder provides to the building owner at occupancy.	cy for all applicable		
5. I will ensure that a co- inspections. I understan Responsible Envelope Company; Address: City/State/Zip: Phone: Responsible Lighting I Company:	ompleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance. Designer Name:	e is required to be included wi Signatur Date Sig Title:	th the documentation the bue: ned:	ilder provides to the building owner at occupancy.	cy for all applicable		
5. I will ensure that a co- inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting [Company:	ompleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance. Designer Name:	e is required to be included wi Signatur Date Sig Title:	th the documentation the bue: ned:	ilder provides to the building owner at occupancy.	cy for all applicable		
5. I will ensure that a co- inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting D Company: Address: City/State/Zip: Phone:	ompleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance. Designer Name:	e is required to be included with a Signatur Date Signatur	th the documentation the bue: e: ned:	License #:			
5. I will ensure that a co- inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting D Company: Address: City/State/Zip: Phone:	ompleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance Designer Name: Designer Name: Designer Name:	e is required to be included with a Signatur Date Signatur	th the documentation the bue: e: ned:	License #:			
5. I will ensure that a co- inspections. I understan Responsible Envelope Company; Address: City/State/Zip: Phone: Responsible Lighting I Company: Address: City/State/Zip: Phone: Responsible Mechanic	ompleted signed copy of this Certificate of Compliance shall be not that a completed signed copy of this Certificate of Compliance Designer Name: Designer Name: Cal Designer Name: Mark Baskin, P.E. Chanical Engineers	e is required to be included with a Signature of Signatur	th the documentation the bue: e: ned:	License #: Licens			
5. I will ensure that a co- inspections. I understan Responsible Envelope Company: Address: City/State/Zip: Phone: Responsible Lighting D Company: Address: City/State/Zip: Phone: Responsible Mechanic Company: Baskin Mec	cal Designer Name: Mark Baskin, P.E. chanical Engineers chanical Engineers	e is required to be included with a Signature of Signatur	e: ned: e: Mark Bas	License #: Licens			

NRCC-PRF-01-E Page 11 of 11

Project Name:

Horace Mann School Bld M1

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APP: 03-122671 INC:

REVIEWED FOR
SS FLS ACS D

DATE: 11/08/2023



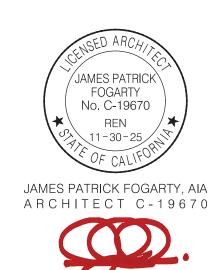
3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel | 661.327.1690 fax | 661.327.7204 web | www.aparchitects.net

CAMPUS HVAC

Horace Mann
Elementary School

2710 Niles St. Bakersfield. CA. 93306
Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Date	10.30.23
DSA File No	15-6
DSA No	03-122671

EVISIONS

<u>_</u> *	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

10.31.23 13:49 TITLE 24

M5.17

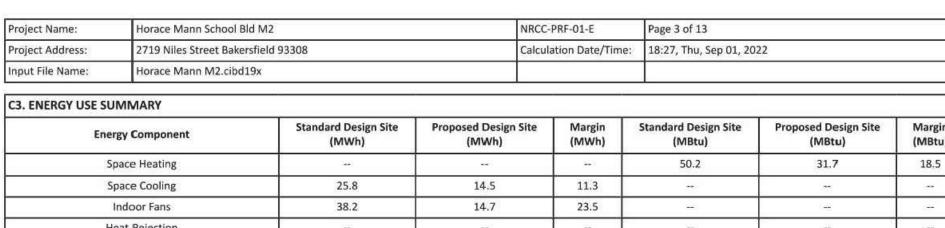


Proje	ect Name:	Horace Mann School Bld	M2		NRCC-PRF-01-E	Page 1 of 1	Page 1 of 13	
Project Address: 2719 Niles Street Bakersfield 93308		Calculation Date/Time:	18:27, Thu,	Sep 01, 2022				
Inpu	Input File Name: Horace Mann M2.cibd19x							
A. G	ENERAL INFORM	IATION						
1	Project Location	(city)	Bakersfield	8	Standards Version		Compliance2019	
2	CA Zip Code		93308	9	Compliance Software (ve	rsion)	EnergyPro 8.3	
3	Climate Zone		13	10	Weather File		BAKERSFIELD_723840_CZ2010.epw	
4	Total Conditioned	d Floor Area in Scope	5,760 ft ²	11	Building Orientation (deg	()	(S) 180 deg	
5	Total Uncondition	ned Floor Area	0 ft²	12	Permitted Scope of Work		ExistingAdditionAndAlteration	
6	Total # of Stories	(Habitable Above Grade)	1	13	Building Type(s)		Nonresidential	
7	Total # of dwellin	ng units	0	14	Gas Type		NaturalGas	

B. PROJECT SUMMARY		,			7			
Table Instructions: Table B shows whi permit application.	ch build	ding components	are included in the performance calcula	tion.	If indicated as no	ot included, the project must show compliand	e 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 form listed the scope of the permit application (i.e. compliance will not be on the NRCC-PRF-E).		
Mechanical (see Table H)		Performance	Country December Community Process		Performance	Indoor Lighting (Unconditioned)§140.6	NRCC-LTI-E	
		Not Included	Covered Process: Computer Rooms		Not Included	Outdoor Lighting §140.7	NRCC-LTO-E	
		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				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	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:	Horace Mann School Bld M2 2719 Niles Street Bakersfield 93308		RF-01-E	Page 2 of 13		
Project Address:			on Date/Time:	18:27, Thu, Sep 01, 2022		
nput File Name:	Horace Mann M2.cibd19x					
C1. COMPLIANCE R	ESULTS FOR PERFORMANCE COMPONENTS (Ann	ual TDV Energy Use, kBtu/ft ²-yr	Ť			
		COMPLIES	a			
	Energy Component	Standard Design (TDV)	Pro	posed Design (TDV)	Compliance Margin (TDV) ¹	
Space Heating		1:	3.01	11.42	6.5	
Space Cooling		17).72	104.47	75.2	
ndoor Fans		19	0.89	82.05	117.8	
Heat Rejection			THE STATE OF THE S	717	-	
Pumps & Misc.			**	+-		
Domestic Hot Water		1	.61	13.61	-	
Indoor Lighting		40.01		40.01	ā	
ENERGY STAN	IDARDS COMPLIANCE TOTAL	451.	24	251.56	199.68 (44.3%)	
Notes: The number	or in narenthesis following the Compliance Margin	in column A represents the Berce	nt Retter than	Standard		

C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS ¹			
☐ This project is pursuing CalGreen Tier 1		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	14	11.	-
Other Ltg		22	-
Process Motors		**	
COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS	523.98	324.30	199.7 (38.1%



Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating			***	50.2	31.7	18.5
Space Cooling	25.8	14.5	11.3			-
Indoor Fans	38.2	14.7	23.5		148	s ät
Heat Rejection				22	**	
Pumps & Misc.	₩	€)	-		-77	
Domestic Hot Water	-	77 0	#4	43.6	43.6	0.0
Indoor Lighting	8.2	8.2	0.0	**		>
Compliance Total	72.2	37.4	34.8	93.8	75.3	18.5
Receptacle	15.3	15.3	0.0	FE)		8.77
Process	(**)	+0	**	**		
Other Ltg		44%	44	443	142	592
Process Motors		2 %	550	77.7.1 17.7.1	125	1985
TOTAL	87.5	52.7	34.8	93.8	75.3	18.5

TOTAL	07.5	32.7	54.0	35.0	75.5	40.5
D. EXCEPTIONAL CONDITIONS						
The building does not include service water heating. Ve	rify that service water heati	ng is not required and is not	included in the	e design.		
E. HERS VERIFICATION						
This Section Does Not Apply						

Heating

Output

(kBtuh)

Total Heating Supp Heat

(kBtu/h)

CFM Modeling Method Power

1800 BrakeHorsePower 0.720

1800 BrakeHorsePower 0.720

1800 BrakeHorsePower 0.720

1800 BrakeHorsePower 0.720

1800 BrakeHorsePower

0.720

0.720

NRCC-PRF-01-E

Efficiency

81.0

81.0

81.0

81.0

/ariableSpeedDriv

/ariableSpeedDriv

/ariableSpeedDriv

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

AFUE

AFUE

AFUE

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

Page 6 of 13

Calculation Date/Time: 18:27, Thu, Sep 01, 2022

5 6 7 8 9 10

Cooling Output

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 18:27:44

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

G3. OPAQUE SURFACE ASSEMBLY SUMMARY

Slab On Grade12

G5. FENESTRATION ASSEMBLY SUMMARY

Fenestration Assembly Name / Tag

or I.D.

Single Metal Clear

² Status: N - New, A – Altered, E – Existing

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

Horace Mann School Bld M2

Horace Mann M2.cibd19x

2719 Niles Street Bakersfield 93308

Project Name:

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

NRCC-PRF-01-E

R-Value R-Value

Assembly Method

Page 5 of 13

Calculation Date/Time: 18:27, Thu, Sep 01, 2022

Report Generated at: 2022-09-01 18:27:44

Slab Type = UnheatedSlabOnGrade

Insulation Orientation = None

Insulation R-Value = R0

5 6 7 8 9

Overall Overall Overall

U-factor SHGC VT

0.83

1.19

1080

0.77

Project Name:

Project Address:

Input File Name:

Equipment Name

AC1 M2-11

AC1 M2-12

AC1 M2-13

AC1 M2-14

AC1 M2-10

AC1 M2-11

AC1 M2-12

AC1 M2-13

AC1 M2-14

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

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

H2. FAN SYSTEMS SUMMARY

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

Horace Mann School Bld M2

Horace Mann M2.cibd19x

Equipment Type

(Packaged3Phase)

(Packaged3Phase)

(Packaged3Phase)

SZVAVAC

(Packaged3Phase)

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

1800

2719 Niles Street Bakersfield 93308

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

Report Generated at: 2022-09-01 18:27:44

Efficiency

SEER/EER 16.10/12.20

SEER/EER 16.10/12.20

SEER/EER 16.10/12.20

SEER/EER 16.10/12.20

NA

NA

Economizer Type (if

FixedDryBulb

FixedDryBulb

FixedDryBulb

FixedDryBulb

NA

NA

NA

NA

NA

NA

Report Generated at: 2022-09-01 18:27:44

NA

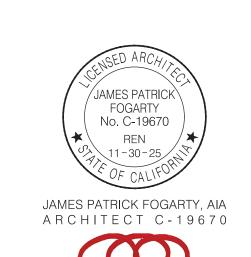
Horace Mann Elementary School 2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

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

APP: 03-122671 INC: REVIEWED FOR SS 🗸 FLS 🗹 ACS 🗸

ARCHITECT



CONSULTANT



PROJECT	INFO	

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-122671
REVISIONS	

No Date Item

<u>*</u>	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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

TITLE 24

10.31.23 13:49

Project Name:	Horace Mann School Bld M2		NRCC-PRF-01-E	Page 4 of 13		
Project Address:	2719 Niles Street Bakersfie	2719 Niles Street Bakersfield 93308		18:27, Thu, Sep 01, 2	022	
Input File Name:	Horace Mann M2.cibd19x					
G1. ENVELOPE GEN	IERAL INFORMATION (condi	tioned spaces only)				
	1	2	3		4	
Opaque Surfa	aces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Ar	ea (ft²)	Window to Wall Ratio (%)	
	North-Facing ¹	1,440 ft ²		540 ft ²		37.59
	East-Facing ²	240 ft ²		0 ft ²		00.0%
	South-Facing ³	1,440 ft ²		540 ft ²		37.5%
	West-Facing ⁴	480 ft ²		0 ft ²		00.0%

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). 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).

3. OPAQUE SURFACI	ASSEMBLY	SUMMARY	

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 ¹
R-30 Roof Attic6	Roof	5760	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
8 CMU Wall furred8	ExteriorWall	3600	Wood	0	NA	U-Factor	0.281	Concrete - Part Grouted and Empty - 125 lb/ft3 - 8 in. Wood framed wall, 16in. OC, 3.5in., R-0 Gypsum Board - 1/2 in.	E

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Horace Mann School Bld M2

Horace Mann M2.cibd19x

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

2719 Niles Street Bakersfield 93308

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

AC1 M2-9

AC1 M2-10

AC1 M2-11

AC1 M2-12

AC1 M2-13

H5. PUMPS

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

Window Interlocks per

§140.4(n)

NRCC-PRF-01-E

Page 7 of 13

Calculation Date/Time: 18:27, Thu, Sep 01, 2022

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 Zones With CO2Sensor Vent. Control

Fixed Drybulb Economizer Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer

Report Generated at: 2022-09-01 18:27:44

1,080 ft2

Equipment Name	Equipment Type	Qty	Output (kBtu/h)	Output (kBtuh)	Efficiency Unit	Efficiency	Cooling Output (kBtu/h)	Efficiency Unit	Efficiency	present)	2.5
AC1 M2-9	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb	
AC1 M2-10	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb	
1			*		<u> </u>	**		*			_

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.

5760

UndergroundFloor

enestration Type / Product Type /

Frame Type

VerticalFenestration

FixedWindow

MetalFraming

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

Report Generated at: 2022-09-01 18:27:44 CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-12092021-6844

5 6 7 8 9

Report Generated at: 2022-09-01 18:27:44

		-	·
Project Name:	Horace Mann School Bld M2	NRCC-PRF-01-E	Page 9 of 13
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	18:27, Thu, Sep 01, 2022
Input File Name:	Horace Mann M2.cibd19x		
	E COOLER SUMMARY	1	
This Section Does No	t Apply		
	7/		
H11. HEAT RECOVE	RY SUMMARY		

bhp

K1. INDOOR CONDITIONED	LIGHTING GENERAL INFO				_
1	2	3	4	5	6
		Later of the Lorentz Barrier	(1.12)	Additional (Cus	tom) Allowance
Occupancy Type ¹	Conditioned Floor Area ² (ft²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts)
lassroom, Lecture, Training, ocational Areas	5,760	4,032	o	0	0

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

4,032

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

5,760

Building Totals:

Horace Mann School Bld M2 NRCC-PRF-01-E Page 8 of 13 Calculation Date/Time: 18:27, Thu, Sep 01, 2022 Project Address: 719 Niles Street Bakersfield 93308

Input File Name:	Horace Mann N	12.cibd19x			-			
H7. NONRESIDENTI	AL VENTILATION							
1		2	3	4	5	6	7	
		M	echanical Vent	ilation	_		Nacional (02)	
Zone N	Name	Ventilation Function	# of	Supply OA	Exhaust	Conditioned Area	Exhaust Conditioned Area	DCV or Occupant Senso Controls, or Both
		ventilation Function	people	CFM	CFM	(sf)		
1-Classoo	m M2-9	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
2-Classooi	m M2-10	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
3-Classooi	m M2-11	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
4-Classooi	m M2-12	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
5-Classooi	m M2-13	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	
6-Classooi	m M2-14	Education - Classrooms (ages 5-8)	24.00	360	0	960	DCV	

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

This Section Does Not Apply

1	2	3	4	5	6	7	8	9	10	11	12	13
Sustana ID	7	Surtana Vana	05.		Rated Capacity (kBtuh)		Airflow (cfm)				Fan	
System ID	Zone Name	System Type	Qty	Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	VSD
1-Classoom M2-9-Trm	1-Classoom M2-9	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
2-Classoom M2-10-Trm	2-Classoom M2-10	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
3-Classoom M2-11-Trm	3-Classoom M2-11	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
4-Classoom M2-12-Trm	4-Classoom M2-12	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
5-Classoom M2-13-Trm	5-Classoom M2-13	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
6-Classoom M2-14-Trm	6-Classoom M2-14	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	

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

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

Equipment Type

SZVAVAC

SZVAVAC

SZVAVAC

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 18:27:44

Report Generated at: 2022-09-01 18:27:44

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

Project Name:	Horace Mann School Bld M2	NRCC-PRF-01-E	Page 10 of 1	13		
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Tin	ne: 18:27, Thu,	Sep 01, 2022		
Input File Name:	Horace Mann M2.cibd19x					
K4. INDOOR COND	ITIONED LIGHTING MANDATORY LIGHTING CONTROLS					
Building Level Cont	rols					
	1				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	ce to meet mandatory requiremen	nts per §130.1)			//
4	5	6	7	8	9	10
Area Descrip	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)

Project Name:	Horace Mann School Bld M2	NRCC-PRF-01-E	Page 11 of 13
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	18:27, Thu, Sep 01, 2022
Input File Name:	Horace Mann M2.cibd19x		
L. DECLARATION OF	REQUIRED CERTIFICATES OF INSTALLATION		
compliance. These do	elections shall be made by Documentation Author to indicat ocuments bust be retained and provided to the building insp ca.gov/title24/2019standards/2019_compliance_documen	pector during construction and can be	found online at:
Building Component	William To The Control of the Contro	Form/Title	
Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings		

Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	18:27, Thu, Sep 01, 2022
nput File Name:	Horace Mann M2.cibd19x		
M. DECLARATION OF	REQUIRED CERTIFICATES OF ACCEPTANCE		
compliance. These do	ections shall be made by Documentation Author to indica cuments must be provided to the building inspector during more information visit:https://www.energy.ca.gov/title24	g construction and must be completed	through an Acceptance Test Technician Certification
Building Component		Form/Title	
	NRCA-MCH-02-A Outdoor Air must be submitted for all newly Acceptance (if applicable) since testing activities overlap	installed HVAC units. Note: MCH02-A can l	pe performed in conjunction with MCH-07-A Supply Fan VFD
	NRCA-MCH-05-A Air Economizer Controls		
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems Accepts §120.1(c)3) can vary outside ventilation flow rates based on m		
	NRCA-MCH-07-A Supply Fan Variable Flow Controls		
	Particle William and a large of the company of the particle of		
	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units		
	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zo	ne Terminal Units Acceptance	

NRCC-PRF-01-E Page 12 of 13

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 18:27:44

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 18:27:44 CA E

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance Repor

Horace Mann School Bld M2

Project Name:

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

Report Generated at: 2022-09-01 18:27:44

Project Name: Horace Mann School Bld M2 NRCC-PRF-01-E Page 13 of 13 Calculation Date/Time: 18:27, Thu, Sep 01, 2022 Project Address: 2719 Niles Street Bakersfield 93308 Input File Name: Horace Mann M2.cibd19x DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete. Signature: Mark Baskin, P.E. Digutily signed by Mark Baskin, P.E. DN C-US, E-MBaskin/ME.com, O-Baskin Mechanical Engineers, CNa Mark Baskin, PE Pesson, I have reviewed this document Date: 2022 (9.01 18:31:36-07:00' Documentation Author Name: Mark Baskin Company: Baskin Mechanical Engineers Address: 175 Fulton St. Signature Date: 2022-09-01 City/State/Zip: Fresno CA 93721 CEA/ HERS Certification Identification (if applicable): M26578 Phone: 5592370376 RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California: The information provided on this Certificate of Compliance is true and correct. 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)

3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.

4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. Responsible Envelope Designer Name: Company: Date Signed: City/State/Zip: License #: Responsible Lighting Designer Name: company: Date Signed: City/State/Zip: Responsible Mechanical Designer Name: Mark Baskin, P.E. Company: Baskin Mechanical Engineers Date Signed: 09-01-2022 Address: 5500 Ming Avenue, #251 City/State/Zip: Bakersfield CA 93309 Phone: (661) 397-2114 Title: P.E. License #: M26578

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 18:27:44

BASKIN
MECHANICAL
ENGINEERS

175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22014
Plt: 10-19-23

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APP: 03-122671 INC:

REVIEWED FOR
SS FLS ACS D

DATE: 11/08/2023



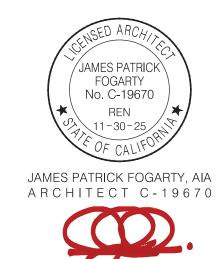
3434 Truxtun Avenue . Suite 240 Bakersfield . California . 93301 tel|661.327.1690 fax|661.327.7204 web|www.aparchitects.net

CAMPUS HVAC

Horace Mann Elementary School

2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-122671

REVISIONS

LINO .	Daie	ILEITI
*	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

10.31.23 13:49 TITLE 24

© COPYRIGHT

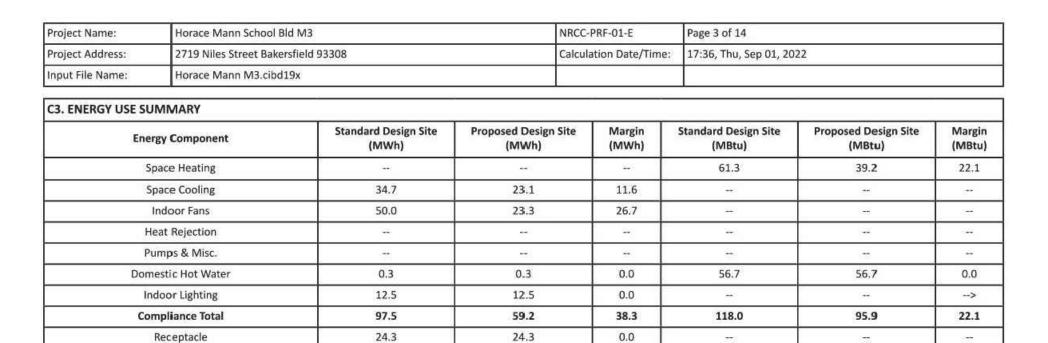
M5.19

Proje	ect Name:	Horace Mann School Bld	M3		NRCC-PRF-01-E	Page 1 of 14	
Proje	ect Address:	2719 Niles Street Bakers	field 93308		Calculation Date/Time:	17:36, Thu, Sep	01, 2022
Inpu	t File Name:	Horace Mann M3.cibd19)x				
A. G	ENERAL INFOR	MATION					
1	Project Location	n (city)	Bakersfield	8	Standards Version	C	ompliance2019
2	CA Zip Code		93308	9	Compliance Software (ve	rsion) Er	nergyPro 8.3
3	Climate Zone		13	10	Weather File	Ba	AKERSFIELD_723840_CZ2010.epw
4	Total Condition	ed Floor Area in Scope	8,724 ft ²	11	Building Orientation (deg	;) (S) 180 deg
5	Total Unconditi	oned Floor Area	0 ft ²	12	Permitted Scope of Work	E)	cistingAdditionAndAlteration
6	Total # of Storie	es (Habitable Above Grade)	1	13	Building Type(s)	N	onresidential
7	Total # of dwell	ing units	0	14	Gas Type	N	aturalGas

B. PROJECT SUMMARY					191	7			
Table Instructions: Table B shows whi permit application.	ich buil	ding components	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 Co	omplying via Performance			Building Components Comply	ing Prescriptively		
					The following building components are ONLY eligible for prescriptive				
Envelope (see Table G)	ee Table G)		Covered Process: Commercial Kitchens		Not included		ld be documented on the NRCC form listed if within nit application (i.e. compliance will not be shown		
	×	Performance			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		
Management Constitution of Programs (Clark)		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 Mea	sures		
Lighting (Indoor Conditioned, see Table K)	×	Performance				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	1			Electrical Power Distribution S110.11	NRCC-ELC-E		
Solar Thermal Water Heating (see		Performance	1			Commissioning S120.8	NRCC-CXR-E		
Table I)		Not Included	1			Solar Ready S110.10	NRCC-SRA-E		

Project Name:	Horace Mann School Bld M3	NRCC-PRF-01	NRCC-PRF-01-E			
Project Address:	2719 Niles Street Bakersfield 93308	Calculation D	ate/Time:	17:36, Thu, Sep 01, 2022		
Input File Name:	Horace Mann M3.cibd19x					
C1. COMPLIANCE F	RESULTS FOR PERFORMANCE COMPONENTS (Ann	ual TDV Energy Use, kBtu/ft ²-yr)				
		COMPLIES				
	Energy Component	Standard Design (TDV)	tandard Design (TDV) Prop		Compliance Margin (TDV) ¹	
Space Heating		14.52		9.34	5.1	
Space Cooling		158.38		107.08	51.30	
Indoor Fans		173.40		84.00	89.40	
Heat Rejection				-		
Pumps & Misc.				**	**	
Domestic Hot Water		12.53	12.53		22	
Indoor Lighting		40.01		40.01	55	
ENERGY STAN	IDARDS COMPLIANCE TOTAL	398.84		252.96	145.88 (36.6%)	

C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS ¹			
☐ This project is pursuing CalGreen Tier 1		This project is pursuing CalGreen Tier 2	1
Miscellaneous Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) ¹
Receptacle	76.54	76.54	
Process	145	15 .	-
Other Ltg	44	***	=
Process Motors			
COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS	475.38	329.50	145.9 (30.7%)



TOTAL	121.8	83.5	38.3	118.0	95.9	22.1
D. EXCEPTIONAL CONDITIONS						
The building does not include service water heating	ng. Verify that service water heatin	g is not required and is r	ot 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

Report Generated at: 2022-09-01 17:36:47

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Horace Mann School Bld M3

Horace Mann M3.cibd19x

G3. OPAQUE SURFACE ASSEMBLY SUMMARY

Slab On Grade15

G5. FENESTRATION ASSEMBLY SUMMARY

Fenestration Assembly Name / Tag

or I.D.

Single Metal Clear

² Status: N - New, A – Altered, E – Existing

Equipment Name

AC2 M1

AC2 M2

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

2719 Niles Street Bakersfield 93308

Project Name:

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

NRCC-PRF-01-E

R-Value R-Value

Assembly Method

5 6 7 8 9 10

81.0

81.0

Cooling Output

68

8724

Total Heating Supp Heat
Output Output
(kBtu/h) (kBtuh)

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

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.

Unit

AFUE

AFUE

UndergroundFloor

enestration Type / Product Type /

VerticalFenestration

FixedWindow

MetalFraming

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

Equipment Type

(Packaged3Phase) SZVAVAC

(Packaged3Phase)

Frame Type

Page 5 of 14

Calculation Date/Time: 17:36, Thu, Sep 01, 2022

Report Generated at: 2022-09-01 17:36:47

Slab Type = UnheatedSlabOnGrade

Insulation Orientation = None Insulation R-Value = R0

Overall Overall Overall U-factor SHGC VT

Economizer Type (if

FixedDryBulb

FixedDryBulb

Report Generated at: 2022-09-01 17:36:47

1.19 0.83

1344

Efficiency Unit Efficiency

11.0

11.0

EER

EER

Process

Process Motors

-+

Horace Mann

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

APP: 03-122671 INC: REVIEWED FOR SS 🗸 FLS 🗸 ACS 🗸

DATE: 11/08/2023

3434 Truxtun Avenue . Suite 240

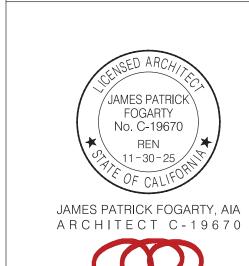
Bakersfield . California . 93301

tel|661.327.1690 fax|661.327.7204 |web|www.aparchitects.net|

2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

Elementary School

ARCHITECT



CONSULTANT



PROJECT INFO

Project No	566-0016
Date	10.30.23
DSA File No	15-6
DSA No	03-12267 ⁻

REVISIONS No Date Item

*	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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.

> 10.31.23 13:49 TITLE 24

© COPYRIGHT

Project Name:	Horace Mann School Bld N	13	NRCC-PRF-01-E	Page 4 of 14			
Project Address:	2719 Niles Street Bakersfie	ld 93308	Calculation Date/Time:	17:36, Thu, Sep 01, 2022			
nput File Name: Horace Mann M3.cibd19x							
G1. ENVELOPE GEN	NERAL INFORMATION (condi	tioned spaces only)					
	1	2	3		4		
Opaque Surfaces & Orientation		Total Gross Surface Area (ft²)	Total Fenestration Ar	ea (ft²)	Window to Wall Ratio (%)		
	North-Facing ¹	936 ft²	456 ft ²		48.79		
East-Facing ²		1,296 ft²	324 ft²		25.0%		
South-Facing ³		1,884 ft ²	564 ft ²		29.9%		
	West-Facing ⁴	408 ft ²	O ft²		00.0%		
	Total	4,524 ft ²	1,344 ft²		29.7%		
Roof		8,724 ft ²		0 ft ²	00.0%		
² East-Facing is orie	nted to within 45 degrees of	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	(SE), but excluding 45°00'0	00" north of east (NE).		

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	8724	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
3 CMU Wall furred8	ExteriorWall	4524	Wood	0	NA	U-Factor	0.281	Concrete - Part Grouted and Empty - 125 lb/ft3 - 8 in. Wood framed wall, 16in. OC, 3.5in., R-0 Gynsum Board - 1/2 in	E

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).

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Horace Mann School Bld M3

Horace Mann M3.cibd19x

Design OA

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

2719 Niles Street Bakersfield 93308

1800

1800

BrakeHorsePower 0.720

BrakeHorsePower 0.720

BrakeHorsePower 0.720

BrakeHorsePower 0.720

1800 BrakeHorsePower 0.720 bhp

65 900 BrakeHorsePower 0.240 bhp ConstantVolume NA

900 BrakeHorsePower 0.240 bhp ConstantVolume NA

bhp

Project Name:

Project Address:

Input File Name:

H2. FAN SYSTEMS SUMMARY

Name or Item Tag Qty

AC1 M4

AC1 M5

AC1 M6

AC1 M7

AC1 M8

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

H3. EXHAUST FAN SUMMARY This Section Does Not Apply

This Section Does Not Apply

This Section Does Not Apply

H5. PUMPS

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

NRCC-PRF-01-E

Page 7 of 14

NA

8 9 10 11 12 13

Calculation Date/Time: 17:36, Thu, Sep 01, 2022

Report Generated at: 2022-09-01 17:36:47

Power Units

NA

NA

NA NA NA N

NA

NA

NA

NA

roject Name:	Horace Mann Sc	Horace Mann School Bld M3			Page 8 of 14	
Project Address:	2719 Niles Street Bakersfield 93308			Calculation Date/Time:	17:36, Thu, Sep 01, 2022	
nput File Name:	Horace Mann M	Mann M3.cibd19x				
1		2	3		*	
System I	Name	Equipment Type	Window Interlocks §140.4(n)	per	Other Special Features and Controls	
AC2 I	M1	SZVAVAC	NA		Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer	
AC2 M2		2 SZVAVAC		*	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer	
				1		

1	2	3	4	
System Name	Equipment Type	Window Interlocks per §140.4(n)	Other Special Features and Controls	
AC2 M1	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer	
AC2 M2	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer	
AC1 M3	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer	
AC1 M4	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer	
AC1 M5	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer	
AC1 M6	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer	
AC1 M7	SZVAVAC	SZVAVAC NA Zones With CO25e Fixed Drybul		
AC1 M8	SZVAVAC	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer	

1	2	3	4	5	6	7
	M					
Zone Name	Managharan Farantian	# of	Supply OA	Exhaust CFM	Conditioned Area (sf)	Controls, or Both
	Ventilation Function	people	CFM			
1-Classoom M3-1	Education - Classrooms (ages 5-8)	28.80	432	0	1152	DCV
2-Classoom M3-2	Education - Classrooms (ages 5-8)	26.10	392	0	1044	DCV
3-Classoom M3-3	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV
4-Classoom M3-4	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV
5-Classoom M3-5	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV
6-Classoom M3-6	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance	Report Version: NRCC-PRF-01-E-12092021-6844	Report Generated at: 2022-09-01 17:36:47

bme	Baskin Mechanical Engineers	175 Fres Tel: Job Plt:

Report Generated at: 2022-09-01 17:36:47



CA Building Energy Efficie	ency Standards- 2019 Nonre	esidential	Compliance	Report Ve	rsion: NRCC	-PRF-01-E-1209	2021-6844	F	eport Generate	d at: 2022-09-01 17:36	47		
Project Name:	Horace Mann School Bld	M3			1	NRCC-PRF-01-E	1	Page 6 of 14					
Project Address:	2719 Niles Street Bakersf	8		Calculation Date	e/Time:	17:36, Thu, Sep 01,	2022		_				
Input File Name:	Horace Mann M3.cibd19	x									_		
H1. DRY SYSTEM EQU	IIPMENT (furnaces, air h	andling (units, heat pum 4	5	6	7	8	9 Cooling	10	11	I		
Equipment Name	Equipment Type	ipment Name Equipment Type	pment Name Equipment Type	pment Name Equipment Type Qty	Total Heating Output (kBtu/h)	Supp Heat Output (kBtuh)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Total Cooling Output Efficiency Unit Efficiency		Economizer Type (if present)	
AC1 M3	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb			
AC1 M4	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb			
AC1 M5	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb			
AC1 M6	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb			
AC1 M7	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb			
AC1 M8	SZVAVAC (Packaged3Phase)	1	49	0	AFUE	81.0	57	SEER/EER	16.10/12.20	FixedDryBulb			

	_			5117	- 1	515				1			-
AC1 M8		SZVAV/ (Packaged3	550	1 49	0	А	FUE 81.0	5	7 SEER/EER	16.10/12.	20 Fixe	edDryBulb	N
AC3 Speech		SZAC (Package	ed3Phase)	1 32	0	А	FUE 78.0	25	SEER/EER	15.00/12.	00 NoE	conomizer	N
AC3 ESL		SZAC (Package	ed3Phase)	1 32	0	А	FUE 78.0	25	SEER/EER	15.00/12.	00 NoE	conomizer	N
Status: N - New, A - Alte	red, E –	Existing		71-									
H2. FAN SYSTEMS	SUM	MARY											<u> </u>
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
AC2 M1	1	432	2400	BrakeHorsePower	1.110	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
AC2 M2	1	392	2400	BrakeHorsePower	1.110	bhp	VariableSpeedDriv e	NA	NA	NA	NA	NA	N
AC1 M3	1	351	1800	BrakeHorsePower	0.720	bhp	VariableSpeedDriv	NA	NA	NA	NA	NA	N

1103.110	ै	332	1000	JIGNERIOISEI GWEI	020	O. Ip	e	3.5933	(2.75)	0.255	0.576.25	3,75,0	22.52
CA Building Energy E	Efficienc	y Standards-	2019 Nonresi	idential Compliance	Rep	ort Version: N	NRCC-PRF-01-E-12092	2021-68	44	Report Gene	rated at: 2022	2-09-01 17:36:	:47

Project Name:	Horace Mann Sch	ool Bld M3	NR	NRCC-PRF-01-E		Page 9 of 14			
Project Address:	2719 Niles Street	Bakersfield 93308	Cal	culation Date/Tim	e: 17:36, Ti	nu, Sep 01, 2022			
Input File Name:	Horace Mann M3	.cibd19x							
H7. NONRESIDENT	IAL VENTILATION								
1		2	3	4	5	6	7		
		Mechanical Ventilation							
Zone	Name	Ventilation Function pe		Supply OA	Exhaust	Conditioned Area	DCV or Occupant Sensor Controls, or Both		
				CFM	CFM	(sf)			
7-Classo	om M3-7	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV		
8-Classoom M3-8		Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV		
9-Speech & Book Storage		Office - Office space	2.16	65	0	432	NA		
10-ESL		Office - Office space	2.40	72	0	480	NA		

H8. HIG	H-RISE RESIDENTIAL DWELL	ING UNIT AND HOTEL/MOTEL VENTILATION	
This Sec	tion Does Not Apply		

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

1	2	3	4	5	6	7	8	9	10	11	12	13
System ID	Zone Name	System Type	Obi	Rated Capacity (kBtuh)		Airflow (cfm)		Fan				
		System Type	Qty	Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	VSD
1-Classoom M3-1-Trm	1-Classoom M3-1	VAVNoReheatBox	1	NA	NA	2400	1600	0.67	1.110	bhp	NA	
2-Classoom M3-2-Trm	2-Classoom M3-2	VAVNoReheatBox	1	NA	NA	2400	1600	0.67	1.110	bhp	NA	
3-Classoom M3-3-Trm	3-Classoom M3-3	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
4-Classoom M3-4-Trm	4-Classoom M3-4	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
5-Classoom M3-5-Trm	5-Classoom M3-5	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
6-Classoom M3-6-Trm	6-Classoom M3-6	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
7-Classoom M3-7-Trm	7-Classoom M3-7	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
8-Classoom M3-8-Trm	8-Classoom M3-8	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.720	bhp	NA	
9-Speech & Book Storage-Trm	9-Speech & Book Storage	Uncontrolled	1	NA	NA	900	NA	0.00	0.240	bhp	NA	
10-ESL-Trm	10-ESL	Uncontrolled	1	NA	NA	900	NA	0.00	0.240	bhp	NA	

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

5 Fulton Street esno, CA 93721 l: (559) 237-0376 b: 22014 t: 10-19-23

Project Name:	Horace Mann School Bld M3	NRCC-PRF-01-E	Page 10 of 14	
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	17:36, Thu, Sep 01, 2022	
Input File Name:	Horace Mann M3.cibd19x			
This Section Does No	t Apply			
H11. HEAT RECOVE	ERY SUMMARY		,	
This Section Does No	t Apply	· · · · · · · · · · · · · · · · · · ·		

K1. INDOOR CONDITIONED	LIGHTING GENERAL	INFO
	Figure Figure of the Control Office State	0.00.00000

1	2	3	4	5	6		
		to a title of the Later of the	Lighting Control Credits	Additional (Custom) Allowance			
Occupancy Type ¹	Conditioned Floor Area ² (ft ²)	Installed Lighting Power (Watts)	(Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts)		
Classroom, Lecture, Training, Vocational Areas	7,812	5,467	0	o	0		
Office Area (<250 square feet)	912	638	0	0	0		
Building Totals:	8,724	6,105	0	0	0		

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

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

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

Report Version: NRCC-PRF-01-E-12092021-6844 Report Generated at: 2022-09-01 17:36:47 CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

Project Name:

Project Address:

Input File Name:

Building Level Controls

Area Description

Horace Mann School Bld M3

Horace Mann M3.cibd19x

K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS

719 Niles Street Bakersfield 93308

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

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

NRCC-PRF-01-E

Area Controls

130.1(a)

Page 11 of 14

Shut-Off Controls §130.1(c)

Multi-Level Shut-Off Primary Secondary

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

Calculation Date/Time: 17:36, Thu, Sep 01, 2022

Controls 130.1(b)

Report Generated at: 2022-09-01 17:36:47

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 17:36:47

Project Name:	Horace Mann School Bld M3	NRCC-PRF-01-E	Page 13 of 14						
Project Address:	2719 Niles Street Bakersfield 93308	Calculation Date/Time:	17:36, Thu, Sep 01, 2022						
Input File Name:	Horace Mann M3.cibd19x								
M. DECLARATION OF	REQUIRED CERTIFICATES OF ACCEPTANCE								
compliance. These doc	ections shall be made by Documentation Author to indicate whick cuments must be provided to the building inspector during constr more information visit:https://www.energy.ca.gov/title24/2019s	uction and must be completed	through an Acceptance Test Technician Certification						
Building Component	Form/Title								
	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed Acceptance (if applicable) since testing activities overlap	HVAC units. Note: MCH02-A can l	pe performed in conjunction with MCH-07-A Supply Fan VFD						
	NRCA-MCH-03-A Constant Volume Single Zone HVAC								
	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	10							

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

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

Report Generated at: 2022-09-01 17:36:47

CA Building Energy Efficiency Standards- 2019 Nonresidential Compliance

City/State/Zip: Bakersfield CA 93309

Phone: (661) 397-2114

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

Title: P.E.

Report Generated at: 2022-09-01 17:36:47

License #: M26578

Project Name: Horace Mann School Bld M3 NRCC-PRF-01-E Page 12 of 14 Project Address: Calculation Date/Time: 17:36, Thu, Sep 01, 2022 2719 Niles Street Bakersfield 93308 Input File Name: Horace Mann M3.cibd19x 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/ **Building Component** Mechanical NRCI-MCH-01-E - Must be submitted for all buildings

Project Name: Horace Mann School Bld M3 NRCC-PRF-01-E Page 14 of 14 Calculation Date/Time: 17:36, Thu, Sep 01, 2022 Project Address: 2719 Niles Street Bakersfield 93308 Horace Mann M3.cibd19x Input File Name: DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete. Signature: Mark Baskin, P.E. Digitally signed by Mark Baskin, P.E. DN: C-US, E-MBaskin@BaskinME.com, O-Baskin Mechanical Engineers, CN-"Mark Baskin, P.E." Reason: They reviewed this document Date: 2022.09.01 17:38:16-07:00 Documentation Author Name: Mark Baskin Company: Baskin Mechanical Engineers Address: 175 Fulton St. Signature Date: 2022-09-01 CEA/ HERS Certification Identification (if applicable): M26578 City/State/Zip: Fresno CA 93721 Phone: 5592370376 RESPONSIBLE PERSON'S DECLARATION STATEMENT 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. . I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer) 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. Responsible Envelope Designer Name: Date Signed: City/State/Zip: License #: Responsible Lighting Designer Name: Company: Date Signed: City/State/Zip: Responsible Mechanical Designer Name: Mark Baskin, P.E. Company: Baskin Mechanical Engineers Date Signed: 09-01-2022 Address: 5500 Ming Avenue, #251

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 03-122671 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|

Horace Mann Elementary School

2710 Niles St. Bakersfield. CA. 93306 Bakersfield City School District

ARCHITECT

JAMES PATRICK No. C-19670

JAMES PATRICK FOGARTY, AIA ARCHITECT C-19670

CONSULTANT



PROJECT INFO

566-0016
10.30.23
15-6
03-122671
_

REVISIONS

LINO .	Daie	ILEITI
*	00.00.08	DESCRIPTION

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF AP ARCHITECTS. ALL DESIGNS AND DRAWINGS ARE FOR THE USE ON THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF AP ARCHITECTS. 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

> 10.31.23 13:49 TITLE 24

M5.21