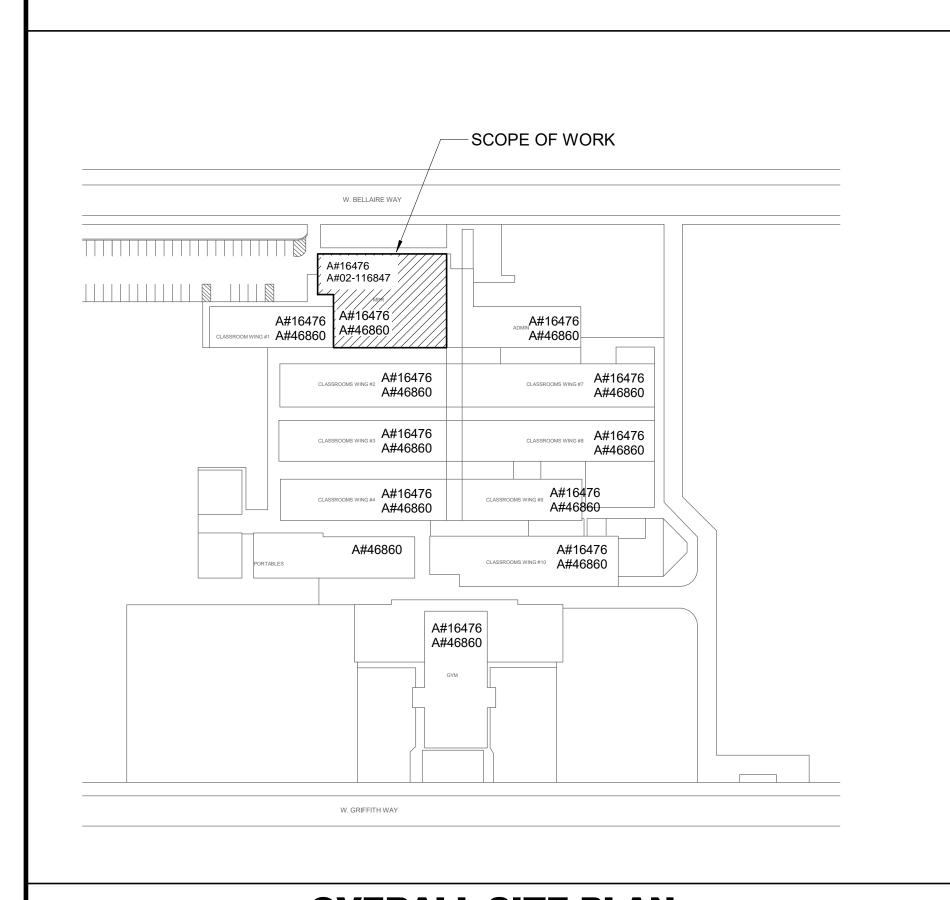
FRESNO UNIFIED SCHOOL DISTRICT COOPER ACADEMY

MULTIPURPOSE BUILDING HVAC REPLACEMENT

2277 W BELLAIRE WAY, **FRESNO, CA 93705**



FRESNO UNIFIED SCHOOL DISTRICT **FACILITIES MANAGEMENT & PLANNING** 4600 N. BRAWLEY AVE. FRESNO, CA 93722 PROJECT MANAGER: RONIKA BARNES

OWNER

ENGINEER

STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL

901 VIA PIEMONTE, SUITE 400

PROJECT MANAGER: KERRY PARKER STRUCTURAL ENGINEER: EDWIN NAJARIAN

MECHANICAL ENGINEER: ERIC DESPLINTER

ELECTRICAL ENGINEER: NESTOR IGNACIO

ONTARIO, CA 91764 tel: (909) 477-9615

fax: (909) 477-6916

N.T.S

 2019 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 1

CODE REFERENCES

 2019 CALIFORNIA BUILDING CODE (CBC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 2 2018 INTERNATIONAL BUILDING CODE

CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 3 (2017 NATIONAL ELECTRICAL CODE (NEC) 2019 CALIFORNIA MECHANICAL CODE

• 2019 CALIFORNIA ELECTRICAL CODE (CEC)

CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 4 (2018 UNIFORM MECHANICAL CODE (UMC)

 2019 CALIFORNIA PLUMBING CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 5 (2018 UNIFORM PLUMBING CODE (UPC)

 2019 CALIFORNIA ENERGY CODE (CEC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 6

2019 CALIFORNIA FIRE CODE (CFC)

CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 9 (2018 INTERNATIONAL FIRE CODE (IFC) AND 2018 CALIFORNIA AMENDMENTS)

• 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 1

 2019 CALIFORNIA REFERENCED STANDARDS CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12

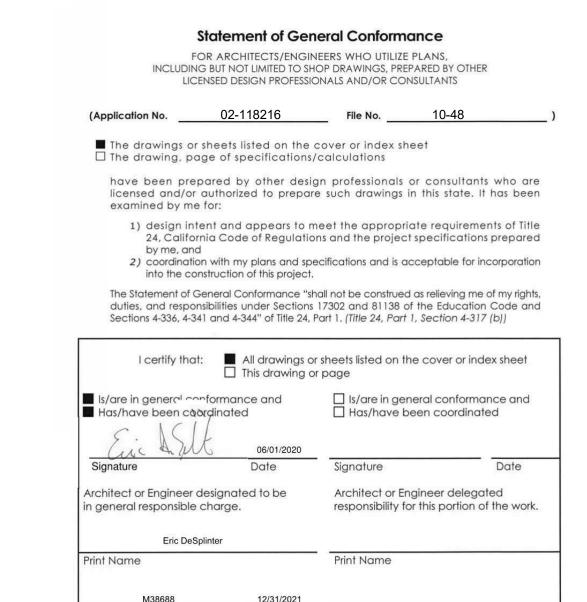
AMERICANS WITH DISABILITIES ACT (ADA) TITLE II - ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAG) 1990 STATE FIRE MARSHAL REGULATIONS AND AMENDMENTS TO-DATE

CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, CALIFORNIA STATE **ACCESSIBILITY STANDARDS** CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 19

TITLE 19 CALIFORNIA CODE OF REGULATIONS PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

CFC CH 33 - FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

STATEMENT OF GENERAL CONFORMANCE



License Number

SHEET INDEX

M0.1 GENERAL NOTES, LEGEND, ABBREVIATIONS AND DRAWING LIST M0.2 SCHEDULES

M0.3 DEMOLITION FLOOR PLAN DEMOLITION ROOF PLAN

REMODEL ROOF PLAN DETAILS

PROJECT LOCATION:

CLASS 3 PROJECT

FRESNO, CA 93705

2277 W. BELLAIRE WAY

ARCHITECTURAL SCOPE:

STRUCTURAL SCOPE:

BUILDINGS: MULTI-PURPOSE

TO STRUCTURE CONDITIONS. MECHANICAL SCOPE:

BUILDINGS: MULTI-PURPOSE

PLUMBING SCOPE:

BUILDINGS: MULTI-PURPOSE

ELECTRICAL SCOPE

BEING REMOVED.

BUILDINGS: MULTI-PURPOSE

4-338, PART 1, TITLE 24, CCR.

ADDITIONAL PROJECT SCOPE:

PATCH FLOORS, WALL, ROOFS, TO WATCH EXISTING.

REMOVE AND REPLACE EXISTING ROOF TOP HVAC UNITS.

AND REPLACE WITH DX HEAT PUMP SYSTEMS.

EITHER ON THE ROOF OR THE SIDE OF THE BUILDING.

REVIEW STRUCTURAL MOUNTING DETAIL AND EXISTING ATTACHMENT

REMOVE EXISTING EVAPORATIVE COOLERS SERVING THE EXISTING KITCHEN

INSTALL NEW CONDENSATE PIPING TO SERVICE NEW DX HEAT PUMP SYSTEMS. EXTENT OF NEW PIPING IS DETERMINED WHERE EXISTING PIPES TERMINATE

REMOVE POWER LINE AND DISCONNECT SERVING EXISTING HVAC EQUIPMENT

A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER)

CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING

WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION

AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA

CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS

CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING

CHANGE TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIR3ED BY SECTION

A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED

ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24,

SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.

THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE

BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(c), PART 1, TITLE 24, CCR)

BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE

INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.

INSTALL NEW POWER LINE AND DISCONNECT TO THE NEW DX HEAT PUMP

E0.1

E4.1

Grand total: 18

CONTROLS GENERAL NOTES, LEGEND, ABBREVIATIONS AND DRAWING LIST

PROJECT DESCRIPTION

PROJECT CLASSIFICATION: (INSPECTOR CLASSIFICATION #3)

OVERALL SITE PLAN **DEMOLITION POWER PLAN DEMOLITION ROOF PLAN** REMODEL POWER PLAN E3.2 REMODEL ROOF PLAN

DETAILS

DIV. OF THE STATE ARCHITEC APP: 02-118216 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗌

IDENTIFICATION STAME



COOPER ACADEMY KITCHEN HVAC **ADDITION**

2277 W BELLAIRE WAY, FRESNO, CA 93705



SUITE 400 ONTARIO, CA www.imegcorp.com

PROFESSIONAL SEAL



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SHEET INFORMATION 10/20/2020

SHEET TITLE TITLE SHEET

AS NOTED

SHEET NUMBER

OVERALL SITE PLAN

W Gettysburg Ave Westlake Park

oper Middle School W Dakota Ave W Shields Ave Design Guidelines from Maintenance as well as any project related comments will be offered at conceptual. Maintenance plan and spec review will take place at 60%. Just prior to DSA submission. Both Plans & Specs will have review block shown above. Facilities PMs or Assistant PMs will notify Tim Patterson via email with a Cc to Jason Duke when plans are available for review. There will be a one week review period offered. Review appointments will be scheduled by Tim Patterson Maintenance Plan Review Calendar is on Facilities SharePoint Telecomm & Data Review will be coordinated through Jack Pambukyan 457-3165 (Jack.Pambukyan@fresnounified.org Plan Reviewer will meet with either the Facilities PM or Assistant PM. Plan reviewer will utilize a red sharpie or similar to comment and/or correct. Architect will scan review set and return original to FUSD. INSPECTION PROCEDURE - This procedure is to be included in the Pre-Construction Packag Inspections & timing of inspections will be much like those of local municipalities

Inspections will be requested by contractor via email to the PM, IOR & Tim Patterson

IOR will coordinate exact day and time through Tim Patterson, the Shop with Cc to PM.

Any discrepancies and/or disagreements will be settled by the PM & Consultants

IOR will walk inspection with shop representative and PM if necessary. Comments and/or corrections will be noted in IOR daily log and in issues log.

Inspections will take place within 48 hours of request.

N.T.S

Maintenance Plan Review and Inspection Procedures

VICINITY MAP Bid No. 21-43, Viking and Vinland Elementary schools and Cooper Middle School Kitchen HVAC Additions

EXHIBIT C

VIEW KEY

- SHEET DETAIL IS LOCATED ON 、M101/−−

- INDICATES SIMILAR DETAIL REFERENCED IN MULTIPLE LOCATIONS DETAIL REFERRED TO BY SECTION CUT

1 INDICATES NOTE USED TO DESCRIBE

INDICATES SIMILAR DETAIL REFERENCED IN MULTIPLE LOCATIONS

PLAN OR DETAIL SCALE

DETAIL REFERRED TO BY ELEVATION

LINE TYPE KEY: — NEW WORK BY THIS CONTRACTOR (DARK SOLID LINE)

— — — NEW WORK UNDERFLOOR OR UNDERGROUND BY THIS CONTRACTOR (DARK LONG DASHED LINE)

> - NEW WORK BY OTHERS AND/OR EXISTING TO REMAIN (LIGHT SOLID LINE)

---- EXISTING TO BE REMOVED BY THIS CONTRACTOR (DARK SHORT DASHED LINE)

APPLICABLE CODES

2019 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 1 2019 CALIFORNIA BUILDING CODE (CBC) CALIFORNIA CODE OF REGULATIONS (CCR)

TITLE 24, PART 2 (2018 INTERNATIONAL BUILDING CODE (IBC) W/CALIFORNIA 2019 CALIFORNIA ELECTRICAL CODE (CEC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 3 (2017 NATIONAL ELECTRICAL CODE (NEC) W/CALIFORNIA

2019 CALIFORNIA MECHANICAL CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 4 (2018 UNIFORM MECHANICAL CODE (UMC) W/CALIFORNIA AMENDMENTS)

2019 CALIFORNIA PLUMBING CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 5 (2018 UNIFORM PLUMBING CODE (UPC) W/CALIFORNIA AMENDMENTS) 2019 CALIFÒRNIA ENERGY EFFICIENCY STANDARDS CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 6

• 2019 CALIFORNÌA FIRE CODE (CFC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 9 (2018 INTERNATIONAL FIRE CODE (IFC) W/CALIFORNIA AMENDMENTS) 2019 CALIFORNIA REFERENCED STANDARDS CODE CALIFORNIA CODE OF

REGULATIONS (CCR) TITLE 24, PART 12 AMERICANS WITH DISABILITIES ACT (ADA) TITLE II - ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG) 1990 STATE FIRE MARSHAL REGULATIONS AND

AMENDMENTS TO-DATE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, CALIFORNIA STATE ACCESSIBILITY STANDARDS CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 19

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS

(CA AMANDED) 2016 EDITION NFPA 14 - STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS (CA AMENDED) 2016 EDITION

NFPA 17 - STANDARD FOR THE INSTALLATION OF DRY CHEMICAL EXTINGUISHING SYSTEMS

2017 EDITION NFPA 17A - STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS

NFPA 20 - STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION

2016 EDITION NFPA 22 - STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION

2013 EDITION

NFPA 24 - STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES (CA AMANDED) 2016 EDITION

NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMANDED) 2016 EDITION

NFPA 80 - STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES 2016 EDITION

NFPA 92 - STANDARD FOR SMOKE CONTROL SYSTEMS 2018 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2019 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80.

MECHANICAL SYMBOL LIST NOT ALL SYMBOLS MAY APPLY. **SYMBOL:** DESCRIPTION: —HG— REFRIGERANT HOT GAS —LIQ—— REFRIGERANT LIQUID —LPC—— LOW PRESSURE CONDENSATE PUMPED CONDENSATE REFRIGERANT SUCTION -SUC-PIPE CAP PIPE DOWN PIPE UP OR UP/DOWN PITCH PIPE IN DIRECTION DIRECTION OF FLOW IN PIPE **ROUTE TO DRAIN NEW CONNECTION** ——— DIELECTRIC CONNECTION UNION/FLANGE ──────── SHUTOFF VALVE NORMALLY OPEN SHUTOFF VALVE NORMALLY CLOSED SOLENOID VALVE FLEXIBLE CONNECTION REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB

	MECHANICAL ABBREVIATION KEY					
ABBR:	DESCRIPTION:					
AD	ACCESS DOOR					
AFF	ABOVE FINISHED FLOOR					
CD-E	CEILING DIFFUSER - EXISTING					
EA	EXHAUST/RELIEF AIR					
FOB	FLAT ON BOTTOM					
FOT	FLAT ON TOP					
MA	MIXED AIR					
MV	MIXING VALVE					
NC	NEW CONNECTION					
N.C.	NORMALLY CLOSED					
NIC	NOT IN CONTRACT					
N.O.	NORMALLY OPEN					
OA	OUTSIDE AIR					
RA	RETURN AIR					
SA	SUPPLY AIR					
TD	TRANSFER DUCT					
TYP	TYPICAL					
UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)					
UNO	UNLESS NOTED OTHERWISE					

	CONTRACTOR ABBREVIATION KEY						
ABBR:	DESCRIPTION:						
E.C.	ELECTRICAL CONTRACTOR						
G.C.	GENERAL CONTRACTOR						
M.C.	MECHANICAL CONTRACTOR						
P.C.	PLUMBING CONTRACTOR						
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR						

MECHANICAL SYMBOL LIST NOT ALL SYMBOLS MAY APPLY. SYMBOL: DESCRIPTION DIRECTION OF AIR FLOW FLEXIBLE DUCT MANUAL VOLUME DAMPER RISE IN DIRECTION OF AIR FLOW DROP IN DIRECTION OF AIR FLOW DUCT CAP **DUCT DOWN DUCT UP** SUPPLY/OUTSIDE AIR DUCT SECTION RETURN AIR DUCT SECTION EXHAUST/RELIEF AIR DUCT SECTION 4-WAY DIFFUSER WITH BLANKOFF IN ONE DIRECTION AIR TERMINAL PROPERTIES SYMBOL NECK SIZE/CFM CARBON MONOXIDE SENSOR CARBON DIOXIDE SENSOR 1 THERMOSTAT/SENSOR

DSA 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

ALL PERMANENT EQUIPMENT AND COMPONENTS.

2. TEMPORARY, MOVEABLE 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

3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND THE ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRAVERSE AND

A. COMPNENTS WEIGHING LESS THAN 400 POUNDS AND HAVEING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT

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 MECHAICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRCTURAL 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.

<u>PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE</u>

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

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

PROJECT SPECIFIC NOTES AND DETAILS.

APPLIOCABLE CODE: 2019 CBC

1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26, AND 30:

EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.

RESTRAINED IN A MANNER APPROVED BY DSA.

ATTACHED TO THE STRUCTURE BUT NEED NOT DEMOSTRATE DESIGN COMPLIANCE WITH THE LONGITUDINAL DIRECTIONS

DIRECTLY SUPPORT THE COMPONENT.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

DISTRIBUTION SYSTEMS (E):

MP \bowtie MD \bowtie PP \square E \square - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH MP MD PP E - OPTION 2: SHALL COMPLY WITHT THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) #__

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE

1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.

2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.

3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION. MAINTENANCE. CODE COMPLIANCE. AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.

4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER

5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR

6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF

7. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS. FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND

8. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING.

9. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER

10. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS

11. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL

RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT. 12. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC.

13. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES. 14. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR

STARTERS, SWITCHES, AND DISCONNECTS. 15. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL

EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT. 16. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.

MECHANICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES. INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.

2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS

BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORI 3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD

CONDITIONS 4. EACH CONTRACTOR SHALL CUT AND PATCH ROOFS, WALLS, AND FLOORS ASSOCIATED

WITH HIS WORK 5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO

6. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, PIPING, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL

SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT. PIPING. OR DUCTWORK PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT

8. OBTAIN PERMISSION FROM OWNER BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW

SYSTEMS ARE INSTALLED. 9. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.

PIPING GENERAL NOTES:

1. PIPE DRAIN LINES FROM EQUIPMENT TO NEAREST FLOOR DRAIN 2. INSTALL ALL REFRIGERANT LIQUID AND SUCTION PIPING SIZED PER EQUIPMENT MANUFACTURER RECOMMENDATIONS.

VENTILATION GENERAL NOTES:

1. ALIGN TEMPERATURE SENSORS WITH LIGHT SWITCHES AND WHEN IN CLOSE PROXIMITY TO EACH OTHER.

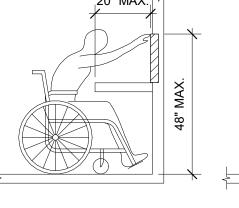
TAB POST-CONSTRUCTION NOTES:

1. TAB CONTRACTOR SHALL COMPILE AND SUBMIT COPIES OF THE FINAL POST-CONSTRUCTION TAB REPORT AS REQUIRED BY SECTION 15051.

2. THE FINAL POST CONSTRUCTION REPORT SHALL INCLUDE ALL ITEMS REQUIRED IN THE SPECIFICATIONS.

MECHANICAL SHEET INDEX

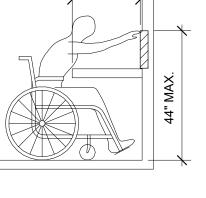
GENERAL NOTES, LEGEND, ABBREVIATIONS AND DRAWING LIST M0.2 SCHEDULES M0.3 TITLE 24 M2.1 **DEMOLITION FLOOR PLAN** M2.2 **DEMOLITION ROOF PLAN** M3.1 REMODEL FLOOR PLAN M3.2 REMODEL ROOF PLAN M4.1 DETAILS M4.2 DETAILS M5.1 **CONTROLS** Total: 10



INSTALL ABOVE COUNTER

DEVICE AT 44" ABOVE

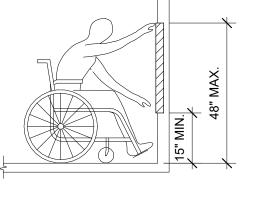
FINISHED FLOOR.



INSTALL ABOVE COUNTER

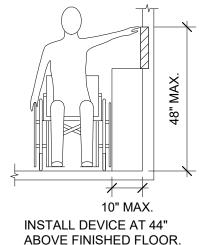
DEVICE AT 40" ABOVE

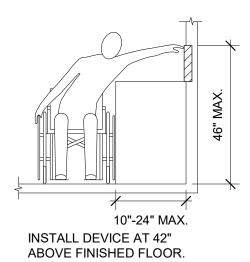
FINISHED FLOOR.



INSTALL DEVICE AT 18"

ABOVE FINISHED FLOOR.





ADA GUIDELINES - FRONT ACCESS ADA GUIDELINES - SIDE ACCESS

ADA STANDARDS FOR ACCESSIBLE DESIGN

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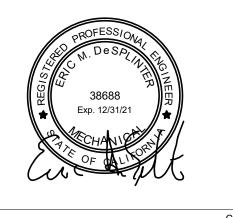
COOPER ACADEMY KITCHEN HVAC **ADDITION** 2277 W BELLAIRE WAY, FRESNO, CA 93705



901 VIA PIEMONTE SUITE 400 ONTARIO, CA

FAX: 909.477.6916 www.imegcorp.com

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SHEET INFORMATION

10/20/2020 Job Number

SHEET TITLE GENERAL NOTES, LEGEND, ABBREVIATIONS AND DRAWING LIST

As indicated

SHEET NUMBER

Bid No. 21-43, Viking and Vinland Elementary schools and Cooper Middle School Kitchen HVAC Additions EXHIBIT C

FAN COIL UNIT SCHEDULE NOTES: 1.COMPLETE WITH INTEGRAL CONDENSATE PUMP, WALL MOUNT THERMOSTAT, MANUFACTURER HIGH EFFICIENCY FILTER OPTION, AN CONTROLLER COMPATIBLE WITH EXISTIN JOHNSON CONTROLS EMS SYSTEM. COOLING HEATING ELECTRICAL TAG NAME AREA SERVED CONFIGURATION CFM MBH MBH HP VOLTAGE ANCHORAGE DETAIL **PHASES** MCA NOTES **MANUFACTURER** WEIGHT FC-1 KITCHEN 4 WAY CASSETTE 600 10.5 13.5 0.03 208 FC-2 KITCHEN 4 WAY CASSETTE 600 10.5 13.5 0.03 208 FC-3 KITCHEN 4 WAY CASSETTE 600 10.5 13.5 0.03 208 Mitsubishi Electric 0.39 TPLFYP012EM140A 2/M4.1 0.39 2/M4.1 Mitsubishi Electric TPLFYP012EM140A

0.39

COND	ONDENSING UNIT SCHEDULE												
NOTES:	IOTES:												
		NOMINAL				ELECT	RICAL					ANCHORAGE	
TAG NAME	AREA SERVED	DESIGN TONS	SEER	REFRIGERANT	VOLTAGE	PHASES	MCA	MOCP	MANUFACTURER	MODEL	WEIGHT	DETAIL	NOTES
CU-1	KITCHEN	3	22.3	R-410A	208	1	29	45	Mitsubishi Electric	TUMYP0361AK42NA	275	1/M4.1	

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COOPER ACADEMY KITCHEN HVAC ADDITION

2277 W BELLAIRE WAY, FRESNO, CA 93705



901 VIA PIEMONTE SUITE 400 ONTARIO, CA 91764

2/M4.1

TPLFYP012EM140A

PH: 909.477.6915 FAX: 909.477.6916 www.imegcorp.com

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SHEET INFORMATION 10/20/2020 SHEET TITLE **SCHEDULES**

ath outlined in §140.4, or §141.0(b)2 for alterations.	Project Address: Cooper Academy Nichem Report Page: (Page 2 of 9) Project Address: 2277 W Bellaire Way Date Prepared: 3/25/2020	Project Address: 2277 W Bellaire Way Date Prepared: 3/25/2020
oject Name: Cooper Academy Kitchen Report Page: (Page 1 of 9) oject Address: 2277 W Bellaire Way Date Prepared: 3/25/2020		
	C. COMPLIANCE RESULTS Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES"	F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS) Equipment Sizing per Mechanical Schedule (Btu/h)
1 Project Location (city) Fresno 04 Total Conditioned Floor Area 1167	NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.	Equipment sizing per Mechanical schedule (btu/n) §140.4 (a&b)
2 Climate Zone 13 05 Total Unconditioned Floor Area 0	01 02 03 04 05 06 07 08 09	Name or Equipment Category per Equipment Type per Tables 110.2 & Smallest Size Heating Output ^{2,3} Cooling Output ^{2,3}
3 Occupancy Types Within Project: 06 # of Stories (Habitable Above Grade) 1	System Summary AND Pumps AND Economizers AND Controls AND Ventilation AND Terminal Box AND Distribution AND Cooling Towers	Item Tag Tables 110.2 Title 20 Available 1 §140.4(a) Supp. Per Design Supp. Rated Sensible Rated Total Per Design
Office (B)	\$\frac{\frac{\sqrt{110.1}}{\sqrt{110.2}}}{\sqrt{110.2}} \begin{array}{c ccccccccccccccccccccccccccccccccccc	(kBtu/h) (kB
High-Rise Residential (R-2/R-3) ☐ Relocatable Class Bldg (E) ☐ Other (write in) See Table J	<u>§140.4</u> <u>§140.4(f)</u>	FC-
PROJECT SCOPE	(See Table F) (See Table G) (See Table H) (See Table I) (See Table J) (See Table K) (See Table L) (See Table M) Yes AND AND Yes AND Yes AND Yes AND AND AND COMPLIES	1,2,3/CU- Unitary Heat Pumps Air-cooled, split (3 phase) Yes 34365 42000 9556 36979 33000 77514 58787
is table Includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in	Mandatory Measures Compliance (See Table Q for Details) COMPLIES	¹ FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per
40.4, or <u>§141.0(b)2</u> for alterations .	D. EXCEPTIONAL CONDITIONS	 §140.4(a). Healthcare facilities are excepted. 2It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
Air System(s) Wet System Components Dry System Components	This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.	³ If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
✓ Heating Air System ☐ Water Economizer ☐ Air Economizer		⁴ Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(b).
□ Cooling Air System □ Pumps □ Electric Resistance Heat	E. ADDITIONAL REMARKS This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.	Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP)) 01 02 03 04 05 06 07 08 09
Mechanical Controls □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		01 02 03 04 05 06 07 08 09 Heating Mode Cooling Mode
☐ Chillers ☑ Ventilation	F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)	Minimum Minimum Size Category Rating Efficiency Efficiency
Boilers	This table is used to demonstrate compliance for mechanical equipment with mandatory requirements found in §110.1 and §110.2(a) and prescriptive requirements found in §140.4(a), §140.4(b) and §140.4(k) or §141.0(b)2 for alterations.	Name or Item Tag Size Category Rating Efficiency (Btu/h) Condition Efficiency Unit Required per Design Efficiency Efficiency Unit Required per Design Efficiency Design Effi
	Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)	(°F) Tables <u>110.2</u> / Title 20 Tables <u>110.2</u> / Title 20
	01 02 03 04 05 06 07 08 09 10 11	FC-1,2,3/CU-1 65,000 HSPF 8.2 12 SEER 13.0 22.3
		G. PUMPS
		This section does not apply to this project.
egistration Number: Registration Date/Time: Registration Provider: Energysoft	Registration Number: Registration Date/Time: Registration Provider: Energysoft	Registration Number: Registration Date/Time: Registration Provider: Energysoft
A Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.0.001 Report Generated: 2020-03-25 21:44:57 Schema Version: rev 20190401	CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.0.001 Report Generated: 2020-03-25 21:44:57 Schema Version: rev 20190401	CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.0.001 Report Generated: 2020-03-25 21:44:57 Schema Version: rev 20190401
ATE OF CALIFORNIA	STATE OF CALIFORNIA Machanical Systems	STATE OF CALIFORNIA Mochanical Systems
lechanical Systems cc-mch-e CALIFORNIA ENERGY COMMISSION	Mechanical Systems NRCC-MCH-E CALIFORNIA ENERGY COMMISSION	Mechanical Systems NRCC-MCH-E CALIFORNIA ENERGY COMMISSION
RTIFICATE OF COMPLIANCE NRCC-MCH-E	CERTIFICATE OF COMPLIANCE NRCC-MCH-E	CERTIFICATE OF COMPLIANCE NRCC-MCH-E
oject Name: Cooper Academy Kitchen Report Page: (Page 4 of 9) oject Address: 2277 W Bellaire Way Date Prepared: 3/25/2020	Project Name: Cooper Academy Kitchen Report Page: (Page 5 of 9) Project Address: 2277 W Bellaire Way Date Prepared: 3/25/2020	Project Name: Cooper Academy Kitchen Report Page: (Page 6 of 9) Project Address: 2277 W Bellaire Way Date Prepared: 3/25/2020
FAN SYSTEMS & AIR ECONOMIZERS	J. VENTILATION AND INDOOR AIR QUALITY	K. TERMINAL BOX CONTROLS
is table is used to demonstrate compliance with prescriptive requirements found in §140.4(c), §140.4(e) and §140.4(m) for fan systems. Fan systems serving healthcare facilities, or ose serving only process loads, are exempt from these requirements and do not need to be included in Table H.	This table is used to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(e)3B for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventialtion systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required	This section does not apply to this project.
System FC-1 2 3/CII-1 Fconomizer NA: 54 kBtu/h cooling Economizer Designed per and (m) System Fan Type: Fixed Flow	outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.	L. DISTRIBUTION (DUCTWORK and PIPING)
Name: PC1,2,3/CO-1 Economizer: NA. 34 kBd/n Cosmig Controls: Designed per and (III) System rail type. Thee now	01 Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table. 02 Check this box if the project included new or altered high-rise residential dwelling units.	This section does not apply to this project.
Fan Power Pressure Drop Adjustment - Table 140.4-B	O3 Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per §120.1(c)2.	M. COOLING TOWERS
In Name or Item Tag Fan Function Qty Maximum Design Supply Airflow (CFM) HP Unit ² Design HP Device Design Airflow through Device (CFM)	Nonresidential and Hotel/ Motel Ventilation Systems	This section does not apply to this project.
SF Supply 1 600 BHP 0.17	04 05 06 07 Air Filtration per §120.1(c) and §141.0(b)2 ²	N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
EF Exhaust 1 0 BHP 0.25	System Name FC-1,2,3/CU-1 System Design OA CFM Airflow¹ System Design Transfer Air CFM O Provided per \$120.1(c) (NR and	Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks.
Total System Design Supply Airflow (CFM): 600 Total System Design 0.42 Maximum System Fan 0.56	Hotel/Motel))	These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/
(B)HP: Power (B)HP: COOTNOTES: Computer room economizers must meet requirements of §140.9(a) and will be documented on the NRCC-PRC-E document.	08 09 10 11 12 13 14 15 16 Mechanical Ventilation Required per §120.1(c)3 3 Exh. Vent per §120.1(c)4	Yes No Form/Title Field Inspector
f total filter pressure drop (SPa) is greater than 1 in WC, or 245 Pascal then enter it and total fan pressure drop across the fan (SPf) for system.	Space Name Conditioned # of Shower # of Required Provided per Design	Pass Fail NRCI-MCH-01-E - Must be submitted for all buildings
SYSTEM CONTROLS	ot item Tag Occupancy Type ⁴ Floor Area heads/ f(ft ²) Floor Area heads/ people ⁵ CFM Min OA CFM Min CFM S120.1(d)5, and §120.1(e)3 6	MRCI-Mich-01-E - Music be submitted for all buildings
is table is used to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)2E for altered	DCV NA: Not required per	
ace conditioning systems.	Kitchen All others 1167 175 816.9 820 §120.1(d)3 Occ Sensor Occ Sensor Occ Sensor Occ Sensor Occ Sensor	
01 02 03 04 05 06 07 08 09 Conditioned The control of the con	¹ FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system	
System Name System Floor Area Thermostats Shut-Off Zone Demand Response Supply Air Window Interlocks per	² Air filtration requirements apply to the following three system types per §120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only	
Zoning Being Served (ft²) S120.2(a) or \$141.0(b)2E \$120.2(e) \$120.2(g) \$120.2(g) \$120.2(g) \$140.4(f)	ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.	
FC-1,2,3/CU-1 Single zone <= 25,000 ft ² Setback Auto Timer Switch 4 Hour Timer EMCS Included Provided	³ Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.	
OOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to	⁴ See <u>Standards Tables 120.1-A</u> and 120.1-B. ⁵ For lecture halls with fixed seating, the expected number of occupants shall be shall be determined in accordance with the California Building Code.	
ve setback thermostats.	⁶ §120.2(e)3 requires systems serving rooms that are required by §130.1(c) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation.	
Iotes: Controls with a * require a note in the space below explaining how compliance is achieved. EX: system 1: SA Temp Reset: Exempt because zones compliant with §140.4(d); CEPTION 1 to §140.4(f)	Examples of spaces which require lighting occupancy sensors include offices 250ft ² or smaller, multipurpose rooms less than 1,000 ft ² , classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by §130.1(c).	
	and open areas in warehouses, instary book stack distest, cornaors, start wens, parking garages, and roading and amounting zones, arises excepted by 3250-2167.	
egistration Number: Registration Date/Time: Registration Provider: Energysoft	Registration Number: Registration Date/Time: Registration Provider: Energysoft	Registration Number: Registration Date/Time: Registration Provider: Energysoft
A Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.0.001 Report Generated: 2020-03-25 21:44:57	CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.0.001 Report Generated: 2020-03-25 21:44:57	CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.0.001 Report Generated: 2020-03-25 21:44:57
Schema Version: rev 20190401	Schema Version: rev 20190401	Schema Version: rev 20190401
ATE OF CALIFORNIA	STATE OF CALIFORNIA	STATE OF CALIFORNIA
lechanical Systems cc-mch-e CALIFORNIA ENERGY COMMISSION	Mechanical Systems NRCC-MCH-E CALIFORNIA ENERGY COMMISSION	Mechanical Systems NRCC-MCH-E CALIFORNIA ENERGY COMMISSION
RTIFICATE OF COMPLIANCE NRCC-MCH-E	CERTIFICATE OF COMPLIANCE NRCC-MCH-E	CERTIFICATE OF COMPLIANCE NRCC-MCH-E
oject Name: Cooper Academy Kitchen Report Page: (Page 7 of 9) oject Address: 2277 W Bellaire Way Date Prepared: 3/25/2020	Project Name: Cooper Academy Kitchen Report Page: (Page 8 of 9) Project Address: 2277 W Bellaire Way Date Prepared: 3/25/2020	Project Name: Cooper Academy Kitchen Report Page: (Page 9 of 9) Project Address: 2277 W Bellaire Way Date Prepared: 3/25/2020
DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE	O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE	DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
lections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. see documents must be provided to the building inspector during construction and can be found online at	NRCA-MCH-19-A Occupancy Sensor Controls	I certify that this Certificate of Compliance documentation is accurate and complete.
tps://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/	● NRCA-MCH-20 Multi-Family Ventilation □ ● NRCA-MCH-21 Multi-Family Envelope Leakage □	Documentation Author Name: Zachary Mueller Documentation Author Signature:
Yes No Form/Title Field Inspector Pass Fail		Company: IMEG Corp Signature Date: 03/25/2020 Address: CEA/ HERS Certification Identification (if applicable):
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in	P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks.	901 Via Piemonte Suite 400
conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	These documents must be completed by a HERS Rater and provided to the building inspector during construction. The finsl documents must be creted by a HERS Providrs registry, but	City/State/Zip: Ontario CA 91764 Phone:
NRCA-MCH-03-A - Constant Volume Single Zone HVAC NOTE: This form does not automatically move to "Yes'. If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".	drafts can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/ Field Inspector	RESPONSIBLE PERSON'S DECLARATION STATEMENT
NRCA-MCH-04-A - Air Distribution Duct Leakage	Yes No Form/Title Field inspector Pass Fail	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.
NRCA-MCH-05-A - Air Economizer Controls □ □ NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled	NRCV-MCH-04-H Duct Leakaage Test NOTE: Must be completed by a HERS Rater	 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) 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
ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2)	● NRCV-MCH-24 Enclosure Air Leakaage Worksheet NOTE: Must be completed by a HERS Rater □ ● NRCV-MCH-27 High-rise Resdential NOTE: Must be completed by a HERS Rater □	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,
concentration setpoints. NRCA-MCH-07-A Supply Fan Variable Flow Controls	NRCV-MCH-27 High-rise Residential NOTE: Must be completed by a HERS Rater NRCV-MCH-32 Local Mechanical Exhaust NOTE: Must be completed by a HERS Rater	plans and specifications submitted to the enforcement agency for approval with this building permit application. 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
NRCA-MCH-07-A Supply Fail Variable Flow Controls NRCA-MCH-08-A Valve Leakage Test	Q. MANDATORY MEASURES DOCUMENTATION LOCATION	inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. Responsible Designer Signature:
NRCA-MCH-09-A Supply Water Temperature Reset Controls	Q. MANDATORY MEASURES DOCUMENTATION LOCATION This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.	Eric DeSplinter
○ NRCA-MCH-10-A Hydronic System Variable Flow Controls □ ○ NRCA-MCH-11-A Automatic Demand Shed Controls □	01 02	Company: Date Signed: IMEG Corp 2020-03-25
NRCA-MCH-11-A Automatic Demand Shed Controls	Compliance with Mandatory Measures documented through MCH Yes Mandatory Measures Note Block! Yes	Address: Ucense: 901 Via Piemonte M38688
NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	Mandatory Measures Note Block ¹ M-Sheets	City/State/Zip: Phone:
NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance NOTE: This form does not automatically move to "Yes". If Distributed Energy System DX AC Systems are included in teh scope permit applicant should move this form to 'Yes".		Ontario CA 91764
NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance NOTE: This form does not automatically move to "Yes". If		
Chilled water Storage, Ice-on-Coil Internal Melt, Ice-on-Coil External melt, Ice Harvester, Brine, Ice-Slurry, Eutecti Salt, Clathrate Hydrate Slurry (CHS), Cryogenic or Encapsulated (Ice Ball) Systems are included in the scope, permit applicant should move this		
form to 'Yes".		
NRCA-MCH-16-A Supply Air Temperature Reset Controls		
○ NRCA-MCH-17-A Condenser Water Temperature Reset Controls □ □		

Registration Date/Time:

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

Report Version: 2019.0.001

Schema Version: rev 20190401

Registration Provider: Energysoft

Report Generated: 2020-03-25 21:44:57

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

STATE OF CALIFORNIA

NRCC-MCH-E

CALIFORNIA ENERGY COMMISSION

Mechanical Systems

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

Registration Provider: Energysoft

Report Generated: 2020-03-25 21:44:57

Registration Date/Time:

Report Version: 2019.0.001

Schema Version: rev 20190401

Mechanical Systems

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Fresno Unified School District

CALIFORNIA ENERGY COMMISSION

Registration Provider: Energysoft

Report Generated: 2020-03-25 21:44:57

Registration Date/Time:

Report Version: 2019.0.001

Schema Version: rev 20190401

(Page 3 of 9) 3/25/2020

COOPER ACADEMY KITCHEN HVAC ADDITION

2277 W BELLAIRE WAY, FRESNO, CA 93705





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REVISIONS

SHEET INFORMATION BID SET 10/20/2020 Job Number SHEET TITLE TITLE 24

SHEET NUMBER

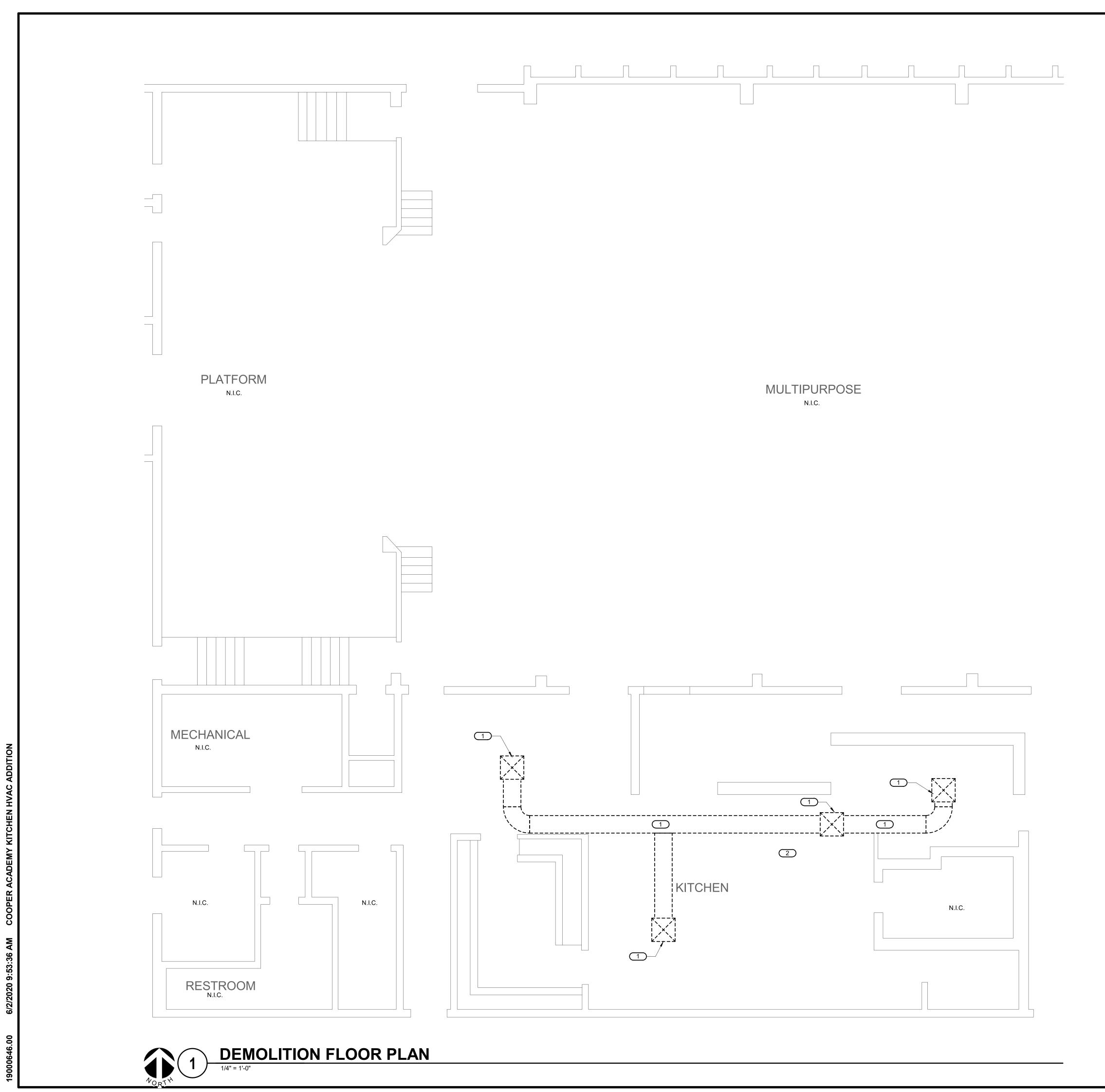
Bid No. 21-43, Viking and Vinland Elementary schools and Cooper Middle School Kitchen HVAC Additions

Registration Number:

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

STATE OF CALIFORNIA

Mechanical Systems



DEMOLITION KEYNOTES: #

- 1. EXISTING SUPPLY DUCT AND DIFFUSER FOR EXISTING EVAPORATIVE COOLER TO BE DEMOLISHED.
- 2. FIELD LOCATE ELECTRICAL CONTROLS/SWITCHES ASSOCIATED WITH EXISTING EVAPORATIVE COOLER BEING DEMOLISHED AND COORDINATE WITH DISTRICT M&O DEPARTMENT FOR EITHER REMOVAL OR PROTECT IN PLACE.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

APP: 02-118216 INC:

REVIEWED FOR

SS ☑ FLS ☑ ACS □

DATE: 06/04/2020



COOPER ACADEMY KITCHEN HVAC ADDITION

2277 W BELLAIRE WAY, FRESNO, CA 93705



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CONSULTAN

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0 1 2

. Date Revision / Issue

DEMOLITION FLOOR PLAN

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

DEMOLITION KEYNOTES: # 1. EXISTING EVAPORATIVE COOLER TO BE DEMOLISHED. ASSOCIATED CURB AND BLOCKING TO BE DEMOLISHED ACCORDINGLY AND ROOF PATCHED TO MATCH EXISTING.
 EXISTING MECHANICAL EQUIPMENT TO REMAIN AND BE PROTECTED IN PLACE.
CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGES CAUSED DURING
DEMOLITION. (E)KEF 2 DEMOLITION ROOF PLAN

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COOPER ACADEMY KITCHEN HVAC ADDITION

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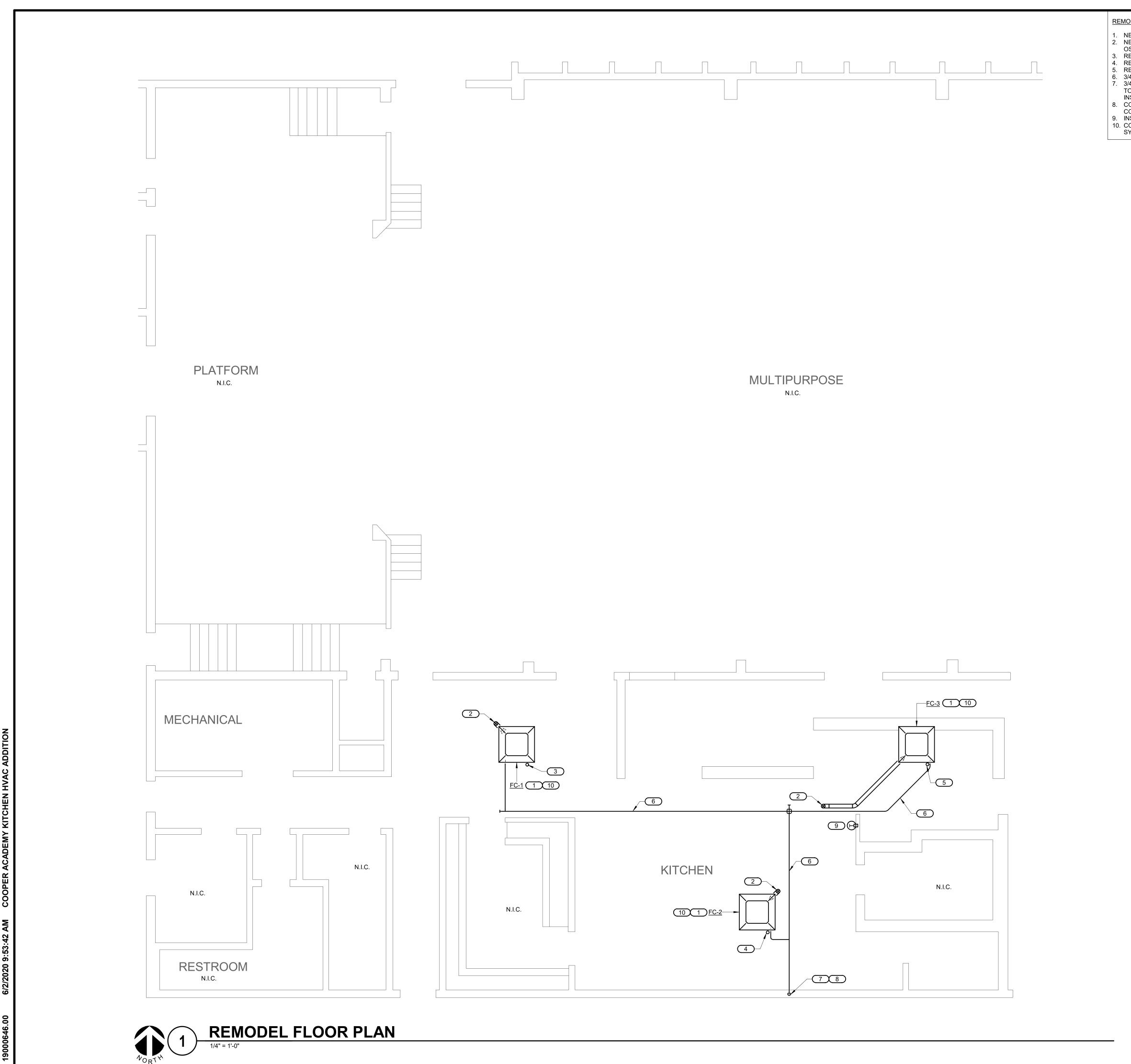


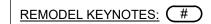
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SHEET INFORMATION SHEET TITLE

DEMOLITION ROOF PLAN

1/4" = 1'-0"





- NEW FAN COIL TO BE INSTALLED IN EXISTING OPENING IN CEILING.
 NEW 4"Ø OSA DUCT UTR TO NEW ROOF CAP. REFER TO DETAIL 5/M4.1. BALANCE
- OSA TO MIN 60 CFM.

 3. REFRIGERANT LINES IN CEILING SPACE TO FC-1.

 4. REFRIGERANT LINES IN CEILING SPACE TO FC-2.
- 5. REFRIGERANT LINES IN CEILING SPACE TO FC-3.
- 6. 3/4" CONDENSATE LINE IN CEILING SPACE. . 3/4" CONDENSATE LINE IN (E)WALL. REMOVE DRYWALL BETWEEN STUDS IN ORDER TO INSTALL PIPE IN WALL. PATCH AND PAINT WALL TO MATCH EXISTING AFTER PIPE INSTALLATION.
- 3. CONNECT CONDENSATE LINE INTO (E)SINK TRAP. INSTALL NEW TRAP WITH CONDENSATE LINE CONNECTION IF NECCESSARY. REFER TO DETAIL 6/M4.2.
-). INSTALL NEW DDC THERMOSTAT AND TIE INTO ALL FAN COILS.
- 10. CONNECT FAN COIL CONTROLLERS TO EXISTING JOHNSON CONTROLS EMS SYSTEM PANEL IN MECHANICAL ROOM. ROUTE NEW CONDUIT AS NEEDED.

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COOPER ACADEMY KITCHEN HVAC ADDITION

2277 W BELLAIRE WAY, FRESNO, CA 93705



901 VIA PIEMONTE SUITE 400 ONTARIO, CA

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SHEET INFORMATION

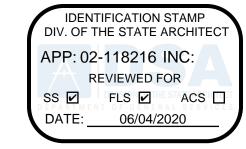
SHEET TITLE REMODEL FLOOR PLAN

1/4" = 1'-0"

SHEET NUMBER

Bid No. 21-43, Viking and Vinland Elementary schools and Cooper Middle School Kitchen HVAC Additions

- 3. EXISTING MECHANICAL EQUIPMENT TO REMAIN AND BE PROTECTED IN PLACE. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGES CAUSED DURING CONSTRUCTION.
- 4. EXISTING ROOF OPENING TO BE PATCHED TO MATCH EXISTING FINISH, RATING, AND CONSTRUCTION TYPE. PATCHING MUST ADHEAR TO ANY AND ALL REQUIREMENTS NECESSARY TO MAINTAINEXISTING WARRANTY. COORDINATE WITH DISTRICT PRIOR TO STARTING CONSTRUCTION.
- 5. BALANCE EXISTIGN KITCHEN EXHAUST FAN TO MIN 820 CFM PER TITLE 24





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SHEET INFORMATION

REMODEL ROOF PLAN

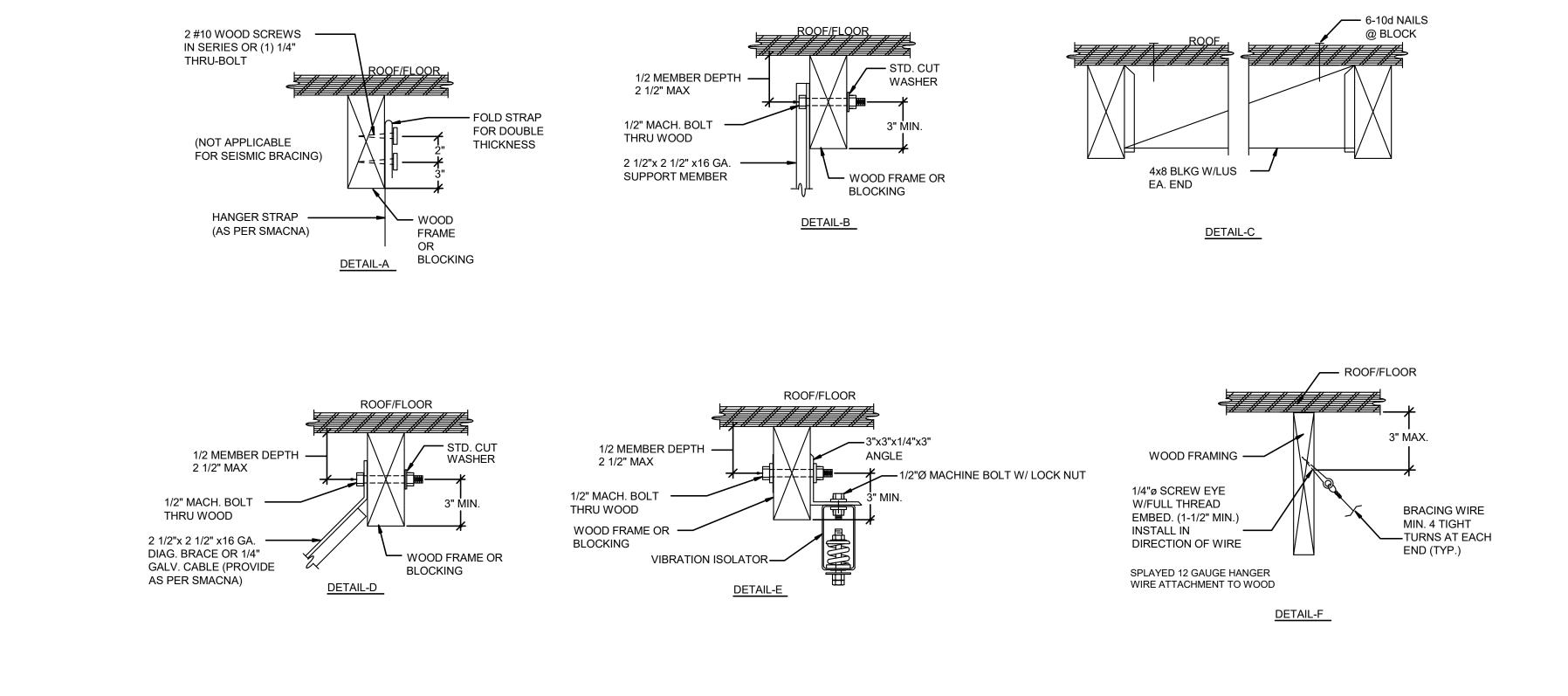
1/4" = 1'-0"

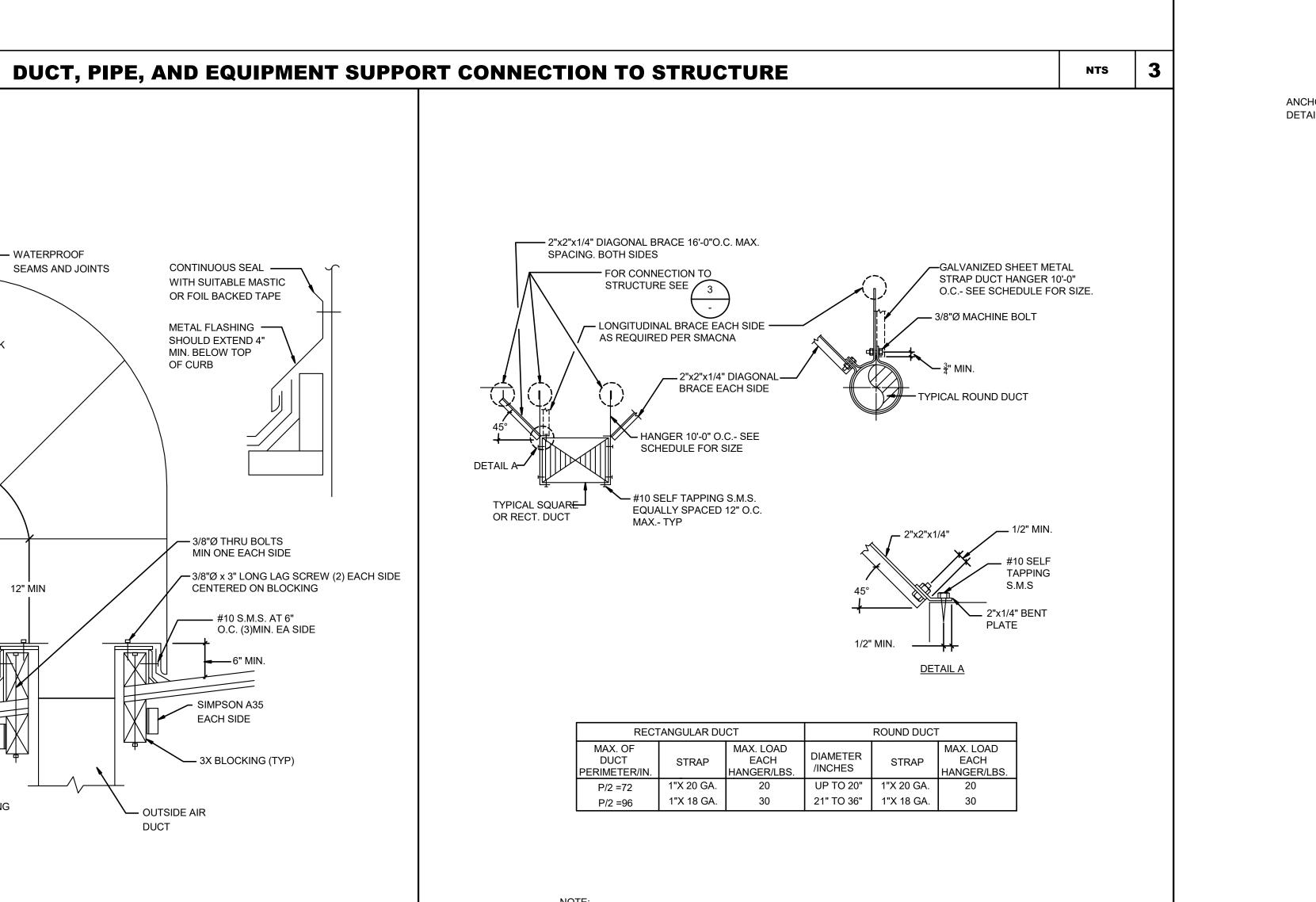
SHEET NUMBER

SHEET TITLE

REMODEL ROOF PLAN

1/4" = 1'-0"





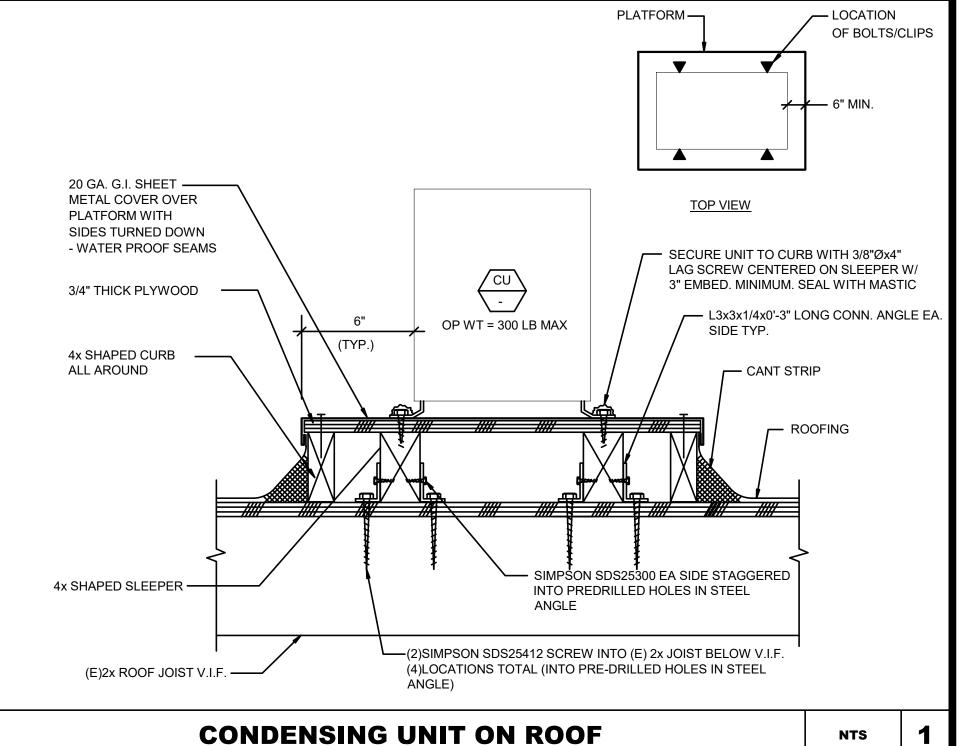
NTS

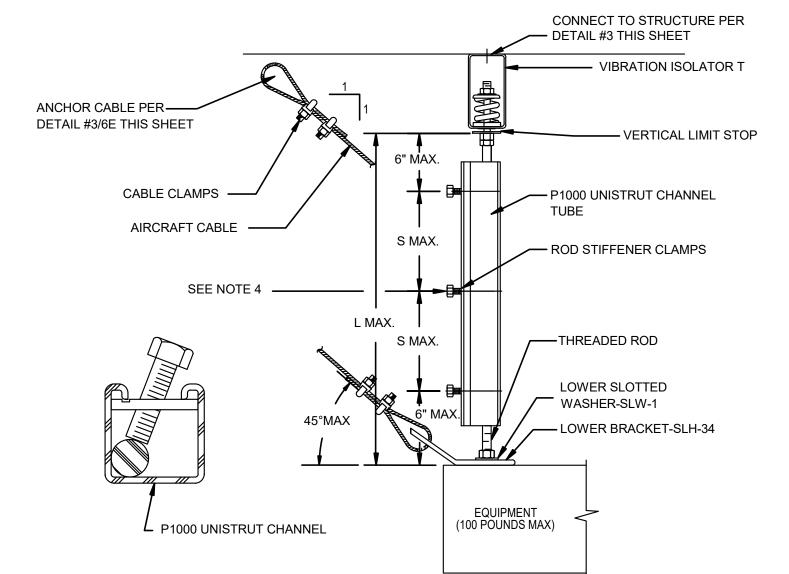
1. NO BRACING REQUIRED IF DUCT IS SUSPENDED 12 INCHES OR LESS IN LENGTH.

DUCT SUPPORT DETAIL

SEISMIC HAZARD LEVEL "A".

2. FOR TRANSVERSE AND LONGITUDINAL BRACING FOLLOW "SMACNA" GUIDELINES FOR





- 1. SEE TABLE 1 FOR MAXIMUM LENGTH OF 3/8" THRU 7/8" DIAMETER RODS WITHOUT ROD STIFFENER.
- SEE TABLE 2 FOR MAXIMUM LENGTH OF 3/8" THRU 7/8" DIAMETER RODS WITH ROD STIFFENER. SEE TABLE 3 TO DETERMINE NUMBER OF ROD STIFFENER CLIPS REQUIRED.
- 4. (8) ROD STIFFENER CLAMPS PROVIDED IN A KIT. IF ADDITIONAL CLIPS ARE REQUIRED, CONTACT M. W. SAUSSE' & CO., INC.

M.W. SAUSSE' SEISMIC CABLE BRACING EQUIPMENT KIT NO: 316C4-12R1-4R1 (4) UPPER BRACKET - SLH-34 (4) UPPER SLOTTED WASHER -SLW-3 (4) LOWER BRACKET - SLH-34 (4) LOWER SLOTTED WASHER -SLW-1 (8) ROD STIFFENER CLAMPS - RS-18 (4) CABLE - 3/16" - 10 FT. (24) CABLE CLAMPS - 3/16"

TABLE 1. (L MAX. W/O ROD STIFFENER)

ROD DIA.	3/8"	1/2"	5/8"	3/4"	7/8'
L MAX.	18"	25"	31"	37"	43

TABLE 2. (L MAX. W/ ROD STIFFENER)

ROD STIFFENER	12GA. X 1-5/8" X 1-5/8 STRUT CHANNEL
L MAX.	116"

TABLE 3. (S MAX. W/ ROD STIFFENER)								
ROD DIA.	3/8"	1/2"	5/8"	3/4"	7/8			

CEILING MOUNTED EQUIPMENT MOUNTING NTS

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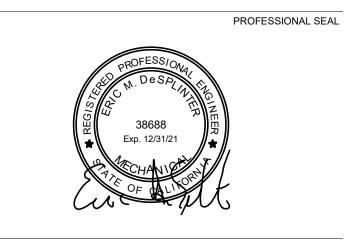
COOPER ACADEMY KITCHEN HVAC **ADDITION**

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REVISIONS Revision / Issue

SHEET INFORMATION **BID SET** 10/20/2020 Job Number

SHEET NUMBER

SHEET TITLE

DETAILS

WATERPROOF

12" MIN

- ANGLE RIVETED OR TACK

WELDED AS REQUIRED

-1/2 " SCREEN

ROOFING UP

- ANGLE IRON REINFORCING

GOOSENECK INSTALLATION

WHERE REQUIRED

- METAL SCREEN

FRAME

- BOLTS

ALL SIDES

18" MIN.

SEAMS AND JOINTS

CONTINUOUS SEAL ——

WITH SUITABLE MASTIC

OR FOIL BACKED TAPE

METAL FLASHING —

— 3/8"Ø THRU BOLTS

SIMPSON A35

EACH SIDE

— OUTSIDE AIR

DUCT

— 3X BLOCKING (TYP)

MIN ONE EACH SIDE

CENTERED ON BLOCKING

O.C. (3)MIN. EA SIDE

—— #10 S.M.S. AT 6"

-3/8"Ø x 3" LONG LAG SCREW (2) EACH SIDE

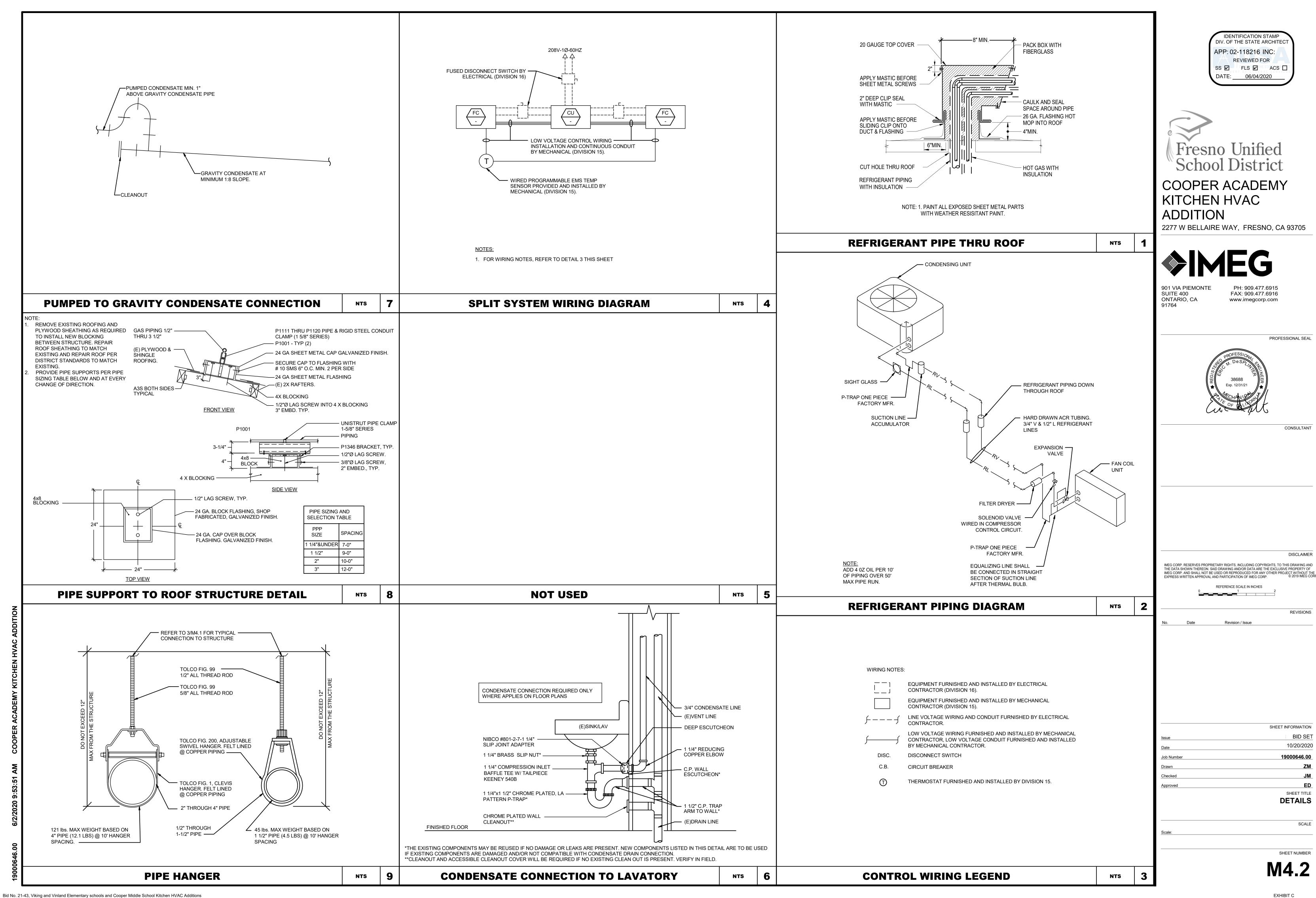
5

NTS

SHOULD EXTEND 4"

MIN. BELOW TOP

OF CURB



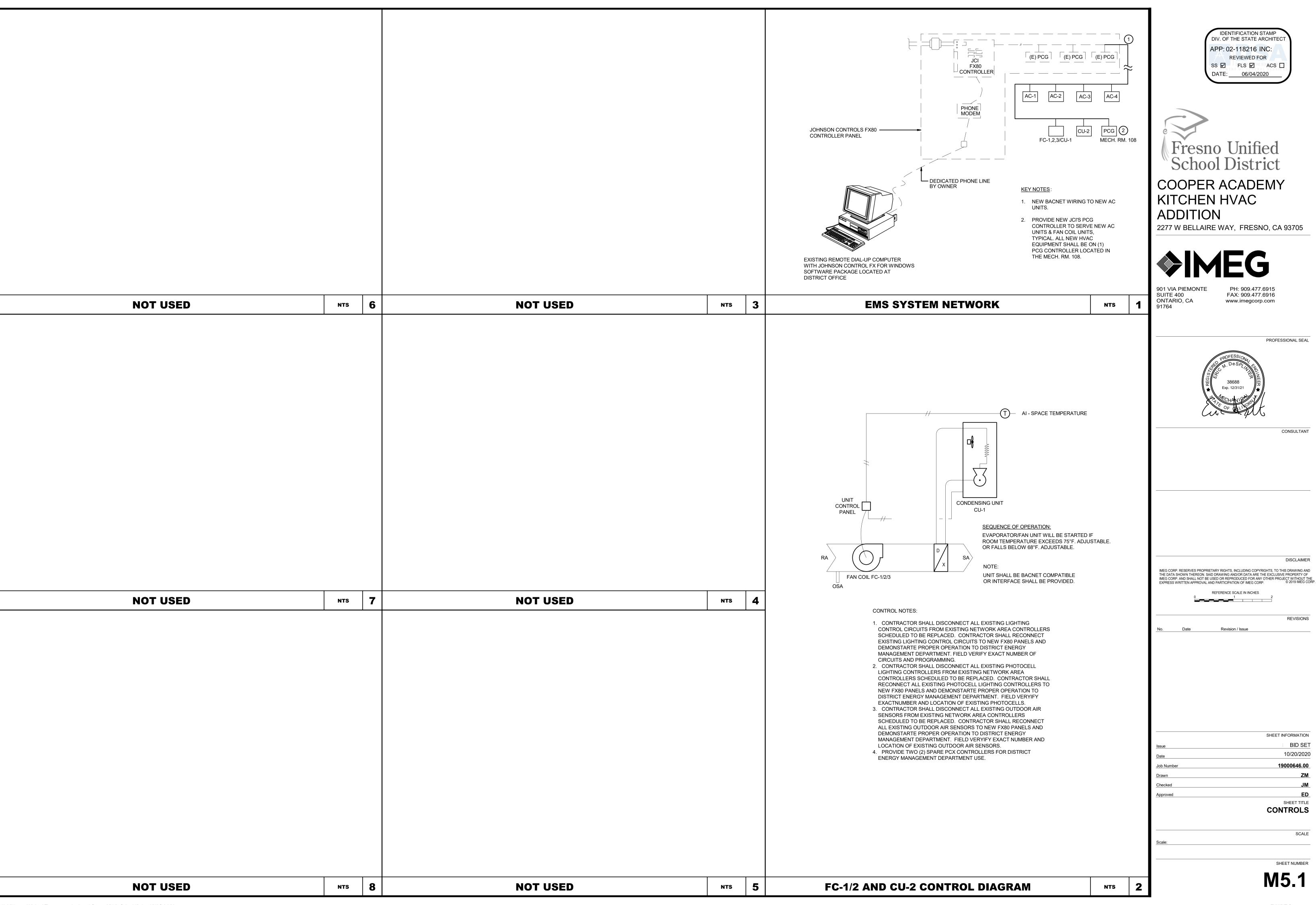


EXHIBIT C

BID SET

10/20/2020

APPLICABLE CODES

- 2019 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE CALIFORNIA CODE
 OF REGULATIONS (CCR) TITLE 24, PART 1
 2019 CALIFORNIA BUILDING CODE (CBC) CALIFORNIA CODE OF REGULATIONS (CCR)
 TITLE 24, PART 2 (2018 INTERNATIONAL BUILDING CODE (IBC) W/CALIFORNIA
 AMENDMENTS)
- 2019 CALIFORNIA ELECTRICAL CODE (CEC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 3 (2017 NATIONAL ELECTRICAL CODE (NEC) W/CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA MECHANICAL CODE CALIFORNIA CODE OF REGULATIONS (CCR)
 TITLE 24, PART 4 (2018 UNIFORM MECHANICAL CODE (UMC) W/CALIFORNIA
 AMENDMENTS)
- AMENDMENTS)

 2019 CALIFORNIA PLUMBING CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE

 24. PART 6 (2018 UNIFORM BLUMBING CODE (URC) W/CALIFORNIA AMENDMENTS)
- 24, PART 5 (2018 UNIFORM PLUMBING CODE (UPC) W/CALIFORNIA AMENDMENTS)
 2019 CALIFORNIA ENERGY EFFICIENCY STANDARDS CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 6
- 2019 CALIFORNIA ENERGY EFFICIENCY STANDARDS CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 6
 2019 CALIFORNIA FIRE CODE (CFC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 9 (2018 INTERNATIONAL FIRE CODE (IFC) W/CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA REFERENCED STANDARDS CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12
 AMERICANS WITH DISABILITIES ACT (ADA) TITLE II - ACCESSIBILITY GUIDELINES FOR
- BUILDINGS AND FACILITIES (ADAAG) 1990 STATE FIRE MARSHAL REGULATIONS AND AMENDMENTS TO-DATE

 CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, CALIFORNIA STATE
- ACCESSIBILITY STANDARDS CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 19

PARTIAL LIST OF APPLICABLE STANDARDS:

(LIGHT SOLID LINE)

---- EXISTING TO BE REMOVED BY THIS CONTRACTOR

(DARK SHORT DASHED LINE)

NFPA 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS

(CA AMANDED) 2016 EDITION

NFPA 14 - STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS
(CA AMENDED) 2016 EDITION
NFPA 17 - STANDARD FOR THE INSTALLATION OF DRY CHEMICAL EXTINGUISHING SYSTEMS

2017 EDITION
NFPA 17A - STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS

2017 EDITION

NFPA 20 - STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION
2016 EDITION

NFPA 22 - STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION 2013 EDITION

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

INSTALL ABOVE COUNTER

ADA GUIDELINES - FRONT ACCESS

DEVICE AT 40" ABOVE

FINISHED FLOOR.

APPURTENANCES (CA AMANDED) 2016 EDITION NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE

(CA AMANDED) 2016 EDITION
NFPA 80 - STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES
2016 EDITION

NFPA 92 - STANDARD FOR SMOKE CONTROL SYSTEMS 2018 EDITION

CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80.

INSTALL ABOVE COUNTER

DEVICE AT 44" ABOVE

FINISHED FLOOR.

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2019 CBC (SFM)

ELECTRICAL INSTALLATION NOTES:

- 1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATION DETAIL ON THIS PAGE FOR ADDITIONAL INFORMATION
- THIS PAGE FOR ADDITIONAL INFORMATION.

 2. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN
- EACH PHASE.

 3. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO [27 05 03 AND 28 05 03] [DIVISION 7] [26 05 03] FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR
- SEALED INTO OPENINGS.

 5. CONTRACTOR SHALL REMOVE AND REINSTALL ALL CEILING TILES AS REQUIRED FOR THE EXECUTION OF ELECTRICAL WORK. CONTRACTOR SHALL REPLACE CEILING TILES WITH IDENTICAL MATERIAL WHERE DAMAGED BY THIS CONTRACTOR.
- 6. ELECTRICAL INDENTIFICATION. REFER TO SPECIFICATION SECTION 16195 FOR COLOR/LABEL REQUIREMENTS FOR CONDUIT, BOX, CABLE/WIRE, AND EQUIPMENT.

ELECTRICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO LICHTING DOWER AND SYSTEMS

- TO, LIGHTING, POWER, AND SYSTEMS.1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND
- REPORT ANY CONFLICTS BEFORE PROCEEDING.

 2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS.

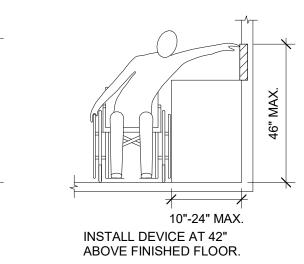
 CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING] [EACH CONTRACTOR SHALL CUT AND PATCH ROOFS. WALLS. AND FLOORS ASSOCIATED WITH
- 3. THE <u>GENERAL CONTRACTOR</u> IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE <u>GENERAL CONTRACTOR</u> OF AFFECTED AREAS PRIOR TO
- 4. WHERE EXISTING ELECTRICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, CONDUIT, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING ELECTRICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK.

ABBR: DESCRIPTION: AFF ABOVE FINISHED FLOOR C CONDUIT GFI GROUND FAULT INTERRUPTER N.C. NORMALLY CLOSED NIC NOT IN CONTRACT N.O. NORMALLY OPEN SV SOLENOID VALVE TYP TYPICAL UNO UNLESS NOTED OTHERWISE WP WEATHERPROOF

ELECTRICAL SYMBOL LIST						
SYMBOL:	DESCRIPTION:					
₽	GFI DUPLEX RECEPTACLE, 20A, 115V					
	FUSED DISCONNECT					

ELECTRICAL SHEET INDEX

E0.1	GENERAL NOTES, LEGEND, ABBREVIATIONS AND DRAWING LIST
E1.1	OVERALL SITE PLAN
E2.1	DEMOLITION POWER PLAN
E2.2	DEMOLITION ROOF PLAN
E3.1	REMODEL POWER PLAN
E3.2	REMODEL ROOF PLAN
E4.1	DETAILS



ADA GUIDELINES - SIDE ACCESS

10" MAX.

INSTALL DEVICE AT 44"

ABOVE FINISHED FLOOR.

ADA STANDARDS FOR ACCESSIBLE DESIGN

INSTALL DEVICE AT 18"

ABOVE FINISHED FLOOR.

Total: 7

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-118216 INC:

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SS FLS ACS D

DATE: 06/04/2020



COOPER ACADEMY KITCHEN HVAC ADDITION

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 Date
 10/20/2020

 Job Number
 19000646.00

 Drawn
 Author

 Checked
 Checker

 Approved
 SHEET TITLE

GENERAL NOTES, LEGEND,
ABBREVIATIONS AND DRAWING LIST

Scale:

SHEET NUMBER

F0₋1

As indicated

Bid No. 21-43, Viking and Vinland Elementary schools and Cooper Middle School Kitchen HVAC Additions





COOPER ACADEMY KITCHEN HVAC ADDITION

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10/20/2020

Number 19000646.00

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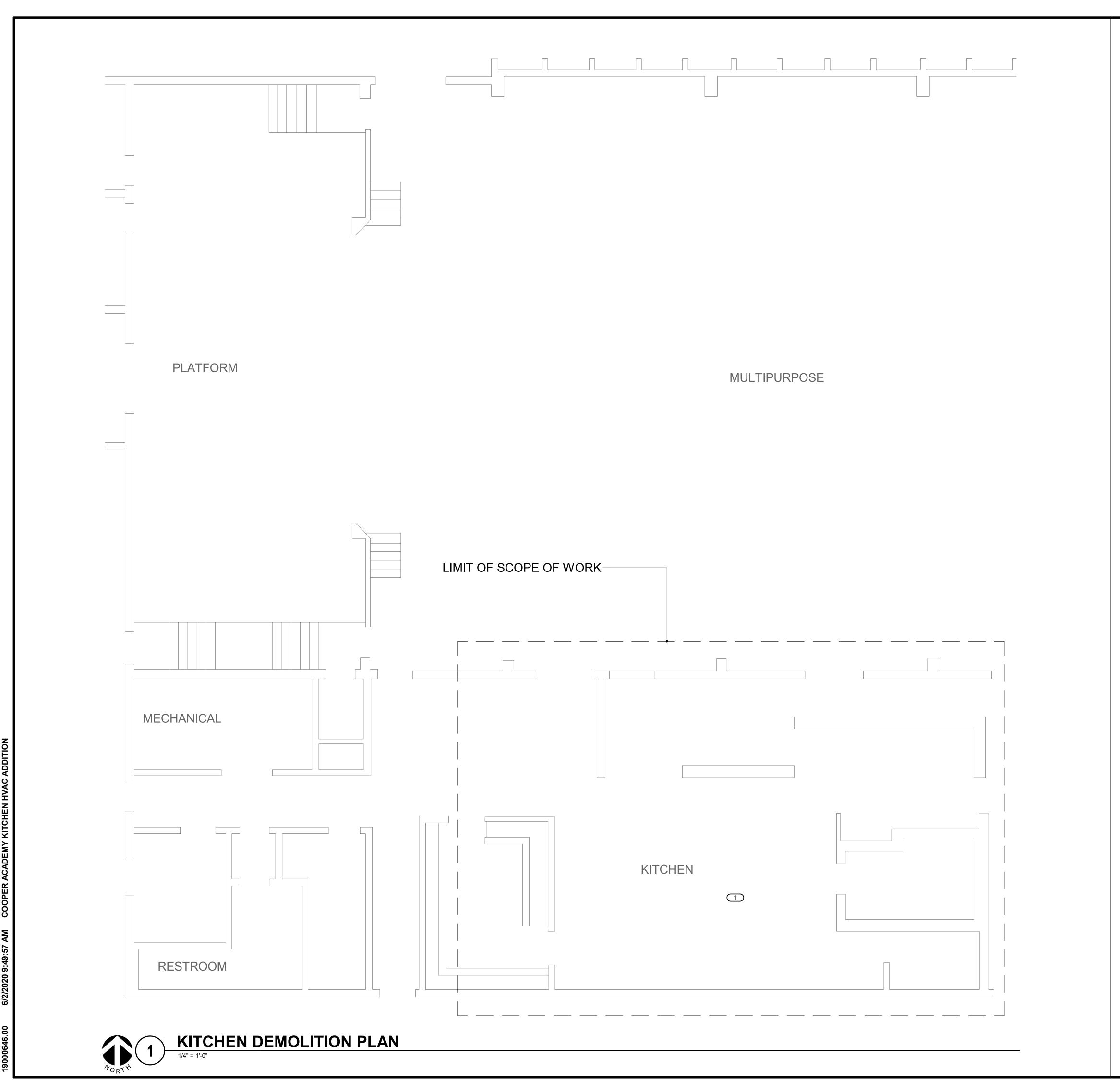
proved Approver

OVERALL SITE PLAN

SCA ale: 1" = 30'-

SHEET NUMBER

E1.1



KEYNOTES: #

1. PROTECT ELECTRICAL AND SIGNAL DEVICES, LIGHTING FIXTURE ON AREAS WHERE MECHANICAL DEMOLITION OCCURS.





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10/20/2020

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DEMOLITION POWER PLAN

Scale: 1/4" = 1'-0"

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APP: 02-118216 INC:

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DATE: 06/04/2020



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SHEET TITLE

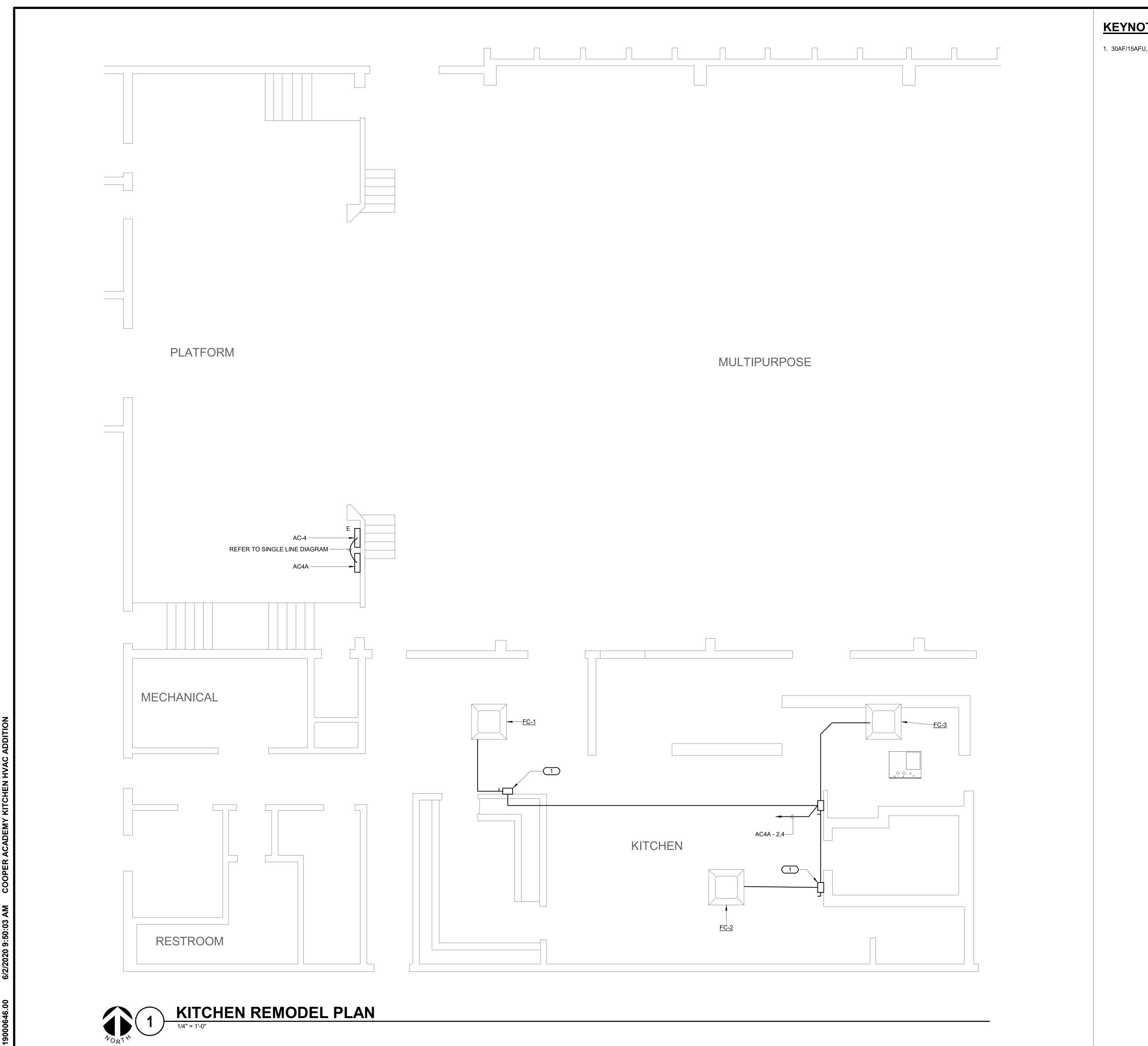
DEMOLITION ROOF PLAN

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

E2.2

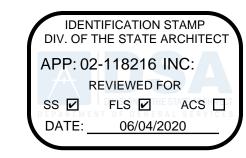
1 ELECTRICAL ROOF DEMOLITION PLAN

1/4" = 1'-0"



KEYNOTES:

1. 30AF/15AFU, 2-POLE DISCONNECT.





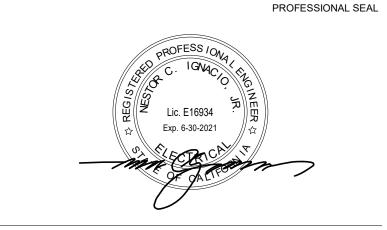
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SHEET INFORMATION

REMODEL POWER PLAN

1/4" = 1'-0"

SHEET NUMBER E3.1

KEYNOTES: #

1. PROVIDE 60AF/45AFU, 2-POLE, WEATHERPROOF.
2. MOUNT ON UNIT.

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SHEET INFORMATION

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BID SET
10/20/2020

Job Number
19000646.00

Drawn
Author
Checked
Approved
Approver
SHEET TITLE

REMODEL ROOF PLAN

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

E3.2

SHEET NUMBER

AC4A - 1,3

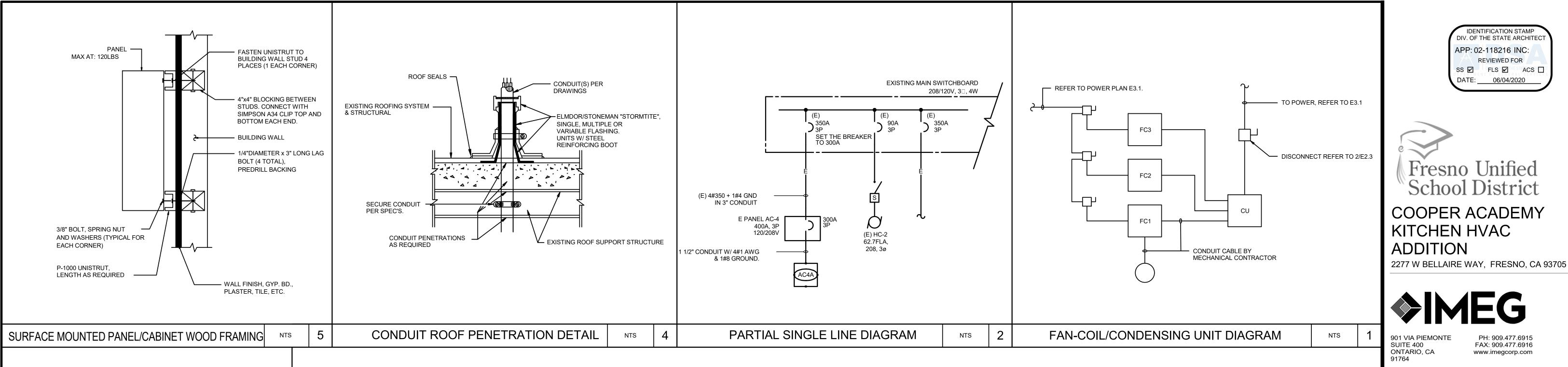
WP

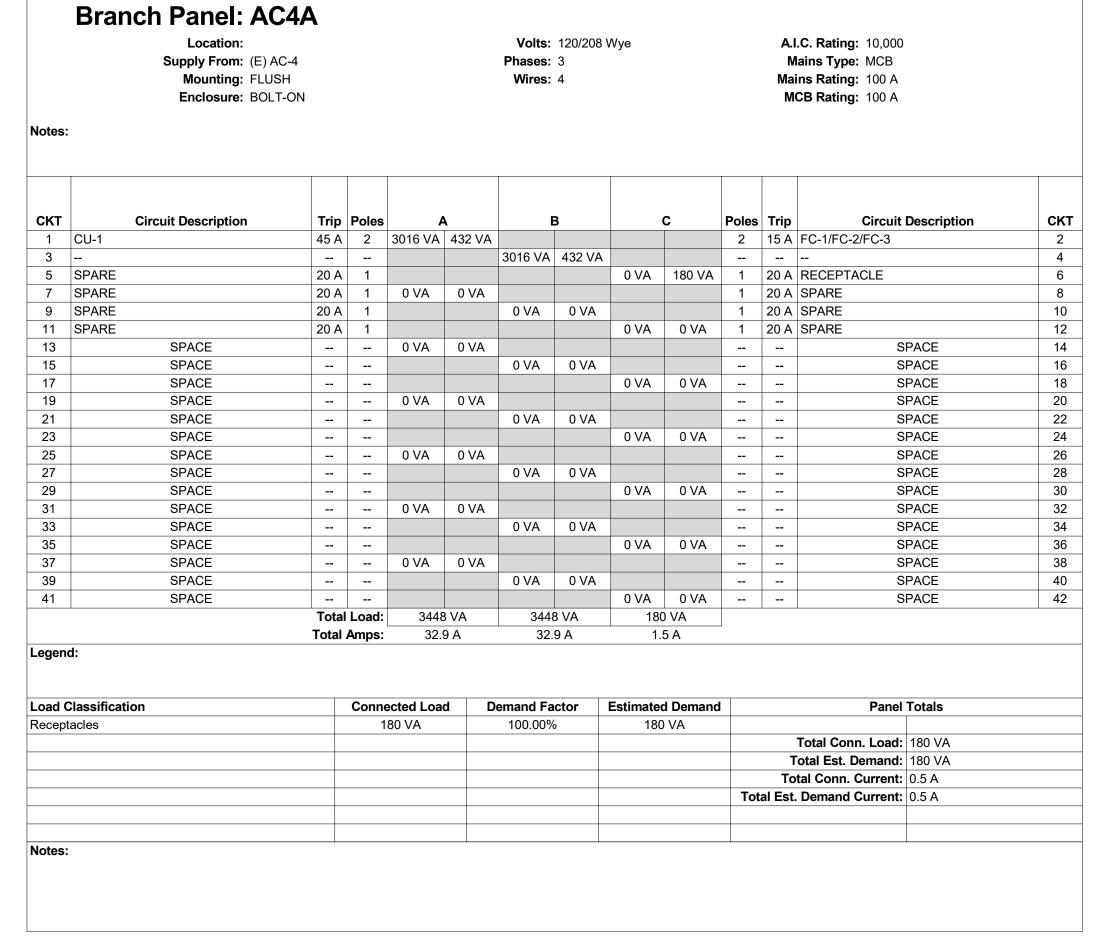
WP

E

ELECTRICAL KITCHEN ROOF PLAN

1/4" = 1'-0"





Notes	Branch Panel: (E) A Location: Supply From: Mounting: SURFACE Enclosure: BOLT-ON					Volts: Phases: Wires:		Wye			M Mai	.C. Rating: 42,000 ains Type: ns Rating: 400 A CB Rating: 300 A		
СКТ	Circuit Description	Trip	Poles	A	A	ı	3		С	Poles	Trip	Circuit	Description	скт
1	(E) HC-3A	50 A	3	5000 VA	5000 VA					3	50 A	(E) HC-3C		2
3						5000 VA	5000 VA							4
5								5000 VA	5000 VA					6
7	(E) HC-3B	50 A	3	5000 VA	5000 VA					3	50 A	(E) HC-3D		8
9						5000 VA	5000 VA							10
11								5000 VA	5000 VA					12
13	(E) HC-3A EXHAUST FAN	20 A	3	1400 VA	1400 VA					3	20 A	(E) HC-3C EXHAU	ST FAN	14
15						1400 VA	1400 VA							16
17								1400 VA	1400 VA					18
19	(E) HC-3B EXHAUST FAN	20 A	3	1400 VA	1400 VA					3	20 A	(E) HC-3D EXHAU	ST FAN	20
21						1400 VA	1400 VA							22
23								1400 VA	1400 VA					24
25	(E) WP ROOF RECEPTACLE	20 A	1	360 VA	3448 VA					3	90 A	AC4A		26
27	(E) EXISTING KITCHEN EVAP COOLER	20 A	1			300 VA	3448 VA							28
29	SPACE							0 VA	180 VA					30
			Load:				8 VA		30 VA					
Legen	d: Classification	Total	Amps:	249.		emand Fa	.1 A		l.8 A			Panel	Totals	
	tacles			80 VA		100.00%			VA					
												Total Conn. Load:	77640 VA	
											Т	otal Est. Demand:	62148 VA	
											To	tal Conn. Current:	215.5 A	
										Tot	al Est.	Demand Current:	172.5 A	

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-118216 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗆



COOPER ACADEMY KITCHEN HVAC **ADDITION**

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Revision / Issue

SHEET INFORMATION BID SET 10/20/2020 Job Number Checked SHEET TITLE **DETAILS**

SHEET NUMBER

PANEL SCHEDULE NTS



APPLICATION FOR SUBMITTAL OF POST-APPROVAL DOCUMENT

This application is for submittal of documents, after the initial approval of the project (post-approval documents), that require Division of the State Architect (DSA) review and approval. This form shall be completed by the Design Professional in General Responsible Charge of the project, in accordance with California Code of Regulations, Title 24, Part 1, Sections 4-317, 4-323 and 4-338 and in compliance with DSA IR A-6: Construction Change Document Submittal and Approval Process.

DSA documents referenced within this form are available on the <u>DSA Forms</u> or <u>DSA Publications</u> webpages.

1. SUBMITTAL TYPE:	(Is this a resubmittal? Yes⊟ No ⊟)					
Deferred Submittal □	Addendum Number:	Revision Numbe	r:	CCD Nur	nber:	Category A □ or B □
2. PROJECT INFORMA	TION:					
School District/Owner:					DSA File Numb	er:
Project Name/School:					DSA Application	n Number:
3. APPLICANT INFORM	MATION:					
Date Submitted:		Attached	d Pages? No □ Ye	es 🗆 Num	ber of pages?	
Firm Name:		Contact	Name:			
Work Email:		Work Ph	ione:			
Firm Address:		City:			State:	Zip Code:
4. REASON FOR SUBM	IITTAL: (Check applicable boxes)					
☐ For revision or addend	lum prior to construction.			☐ For a	project currently (under construction.
☐ For a project that has a 90-Day Letter issued	a form <i>DSA 301-N: Notification of Re</i>	quirement for Certi	fication, DSA 301	-P: Posted	Notification of R	equirement for Certification or
☐ To obtain DSA approv	al of an existing uncertified building o	r buildings.				
☐ For Category B CCD to	nis is: 🗌 a voluntary submittal, 🛘 a D	SA required submi	ttal (attach DSA n	otice requ	iring submission).	
5. DESIGN PROFESSION	ONAL IN GENERAL RESPONSIBLE	CHARGE:				
Name of the Design Prof	essional In General Responsible Cha	rge:				
Professional License Nur	nber:	Discipli	ne:			
	General Responsible Charge State appropriate requirements of Title 24, Construction of the project. DESIGN PROFESSIONAL IN	California Code of I	Regulations and th			
6. CONFIRMATION, DE	SCRIPTION AND LISTING OF DOC	UMENTS:				
For addenda, revisions, or Design Professional liste Use of Construction Doc	or CCDs: CHECK THIS BOX ☐ to cold on form <i>DSA 1: Application for Appuments Prepared by Other Profession</i> able, for signature and seal requirements.	nfirm that <i>all</i> post-a roval of Plans and nals, and IR A-19:	Specifications for	this project	ct. (For <i>Deferred</i> 3	Submittals, refer to IR A-18:
Provide a brief description	n of construction scope for this post-a	approval document	t (attach additional	l sheets if	needed):	
List of DSA-approved dra	wings affected by this post-approval	document:				
		DSA USE C	MI V			
		DOA USE C	Retur	ned		DSA STAMP
sss <u>RBH</u> Da	te_11/16/20_ X Approved □Disapp	roved □Not Require	Date:			
Comments:			By:			APPROVED
	te □Approved □Disapp		-		APP: 0	THE STATE ARCHITECT 2-118216 INC: REVIEWED FOR FLS ACS
ACSDa	te □Approved □Disapp	roved XNot Require	ed		DATE:_	11/16/2020





ADDENDUM #1

To: DSA, SACRAMENTO **A#:** 02-118216

From: IMEG Corp. FILE #: 10-48

Project FUSD Cooper Academy

Kitchen

IMEG #: 19000646.00

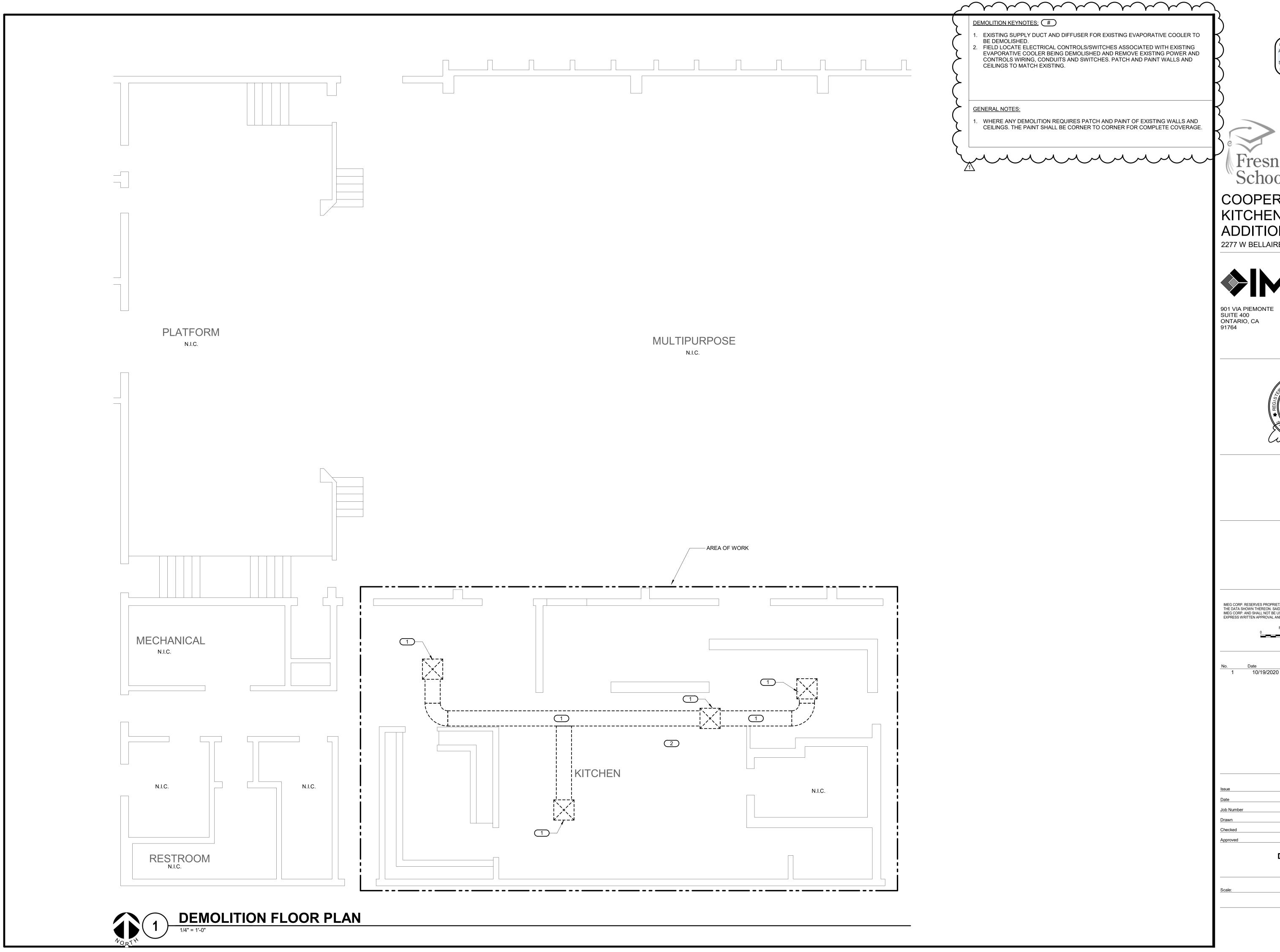
Date: October 20, 2020

Fresno Unified School District, Cooper Academy Elementary School Kitchen HVAC Addition (A#02-118216).

Please see the following addendum for Mechanical systems. All revisions to drawings are indicated by cloud and delta No.1

MECHANICAL

- 1.1 SHEET M2.1
 - A. Added patch and paint general note.
 - B. Modified keynote 2 stating to remove existing power and controls wiring.
- 1.2 SHEET M2.2
 - A. Modified demolition keynotes.
- 1.3 SHEET M3.1
 - A. Modified keynotes.
 - B. Added general note.
- 1.4 SHEET M3.2
 - A. Added keynote 6.
- 1.5 SHEET M4.1
 - A. Modified detail 1 "Condensing Unit On Roof" to FUSD approved detail.
- 1.6 SHEET M4.2
 - A. Relocated detail 3 to Sheet M5.1.
 - B. Modified detail 4. Added FUSD approved detail "Sprayed Polyurethane Foam Equipment Platform."
 - C. Modified detail 6 "Condensate Connection To Lavatory."
 - D. Modified detail 8 "Sprayed Polyurethane Foam, Conduit Support" to FUSD approved detail.
- 1.7 SHEET M5.1
 - A. Relocated "Split System Wiring Diagram" from Sheet M4.2 Detail 4 to Sheet M5.1 Detail 3.
 - B. Relocated "Control Wiring Legend" from Sheet M4.2 Detail 3 to Sheet M5.1 Detail 4.



APPROVED DIV. OF THE STATE ARCHITE APP: 02-118216 INC: REVIEWED FOR

Fresno Unified School District

COOPER ACADEMY KITCHEN HVAC ADDITION

2277 W BELLAIRE WAY, FRESNO, CA 93705



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10/19/2020 REVISION 1

SHEET INFORMATION

BID SET - ADDENDUM 1

SHEET TITLE

DEMOLITION FLOOR PLAN

1/4" = 1'-0"

DEMOLITION KEYNOTES: # - AREA OF WORK (E)EF 2 (E)KEF 2

- 1. EXISTING EVAPORATIVE COOLER TO BE DEMOLISHED. ASSOCIATED CURB AND BLOCKING TO BE DEMOLISHED ACCORDINGLY AND ROOF PATCHED TO MATCH
- EXISTING.
 EXISTING MECHANICAL EQUIPMENT TO REMAIN AND BE PROTECTED IN PLACE.
 CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGES CAUSED DURING
 DEMOLITION.

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COOPER ACADEMY KITCHEN HVAC ADDITION

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901 VIA PIEMONTE SUITE 400 ONTARIO, CA 91764

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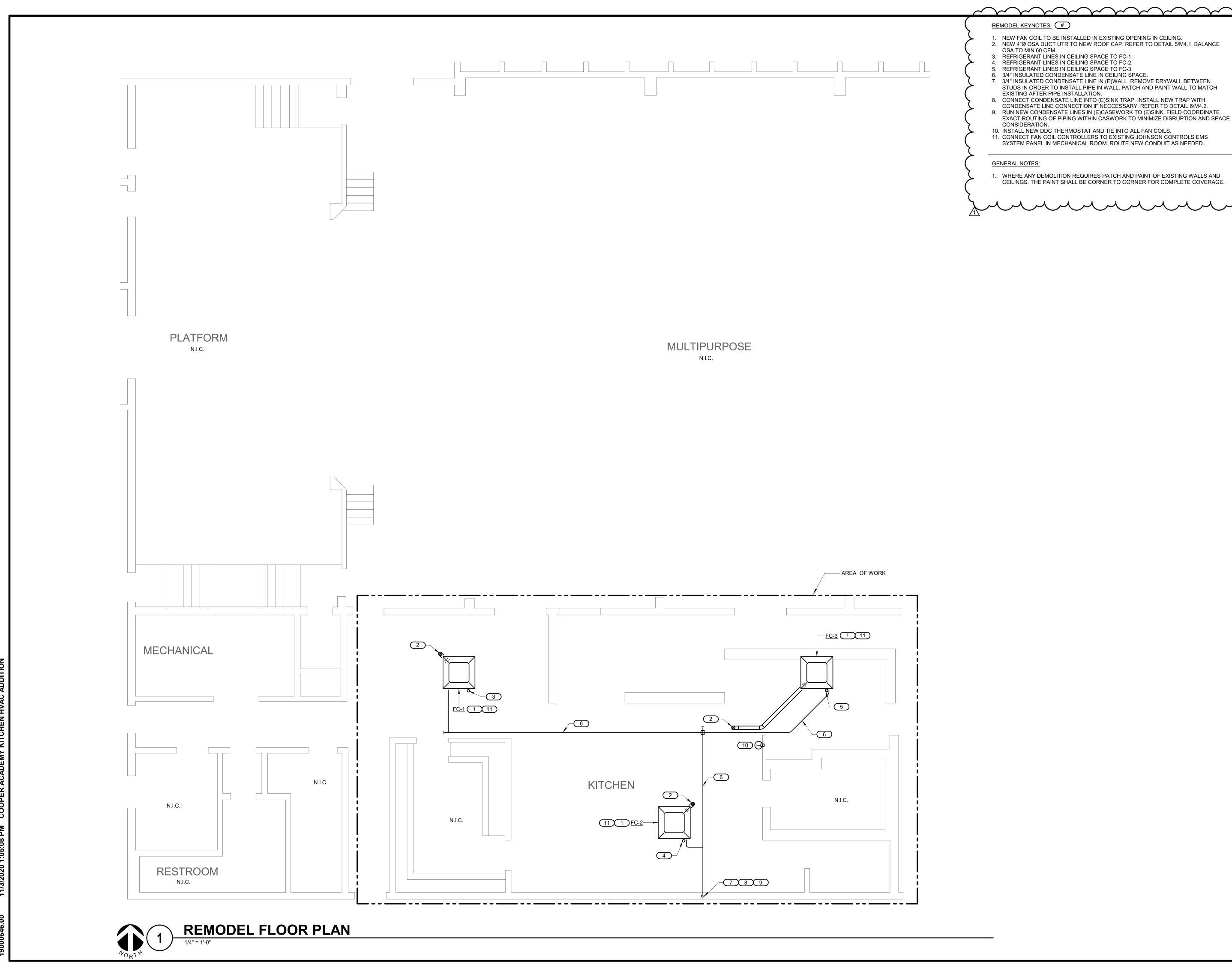
SHEET TITLE

DEMOLITION ROOF PLAN

1/4" = 1'-0"

SHEET NUMBER

DEMOLITION ROOF PLAN



APPROVED
DIV. OF THE STATE ARCHITECT
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SS FLS ACS
DATE: 11/16/2020



COOPER ACADEMY KITCHEN HVAC ADDITION

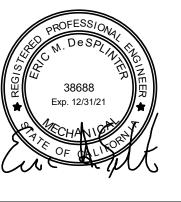
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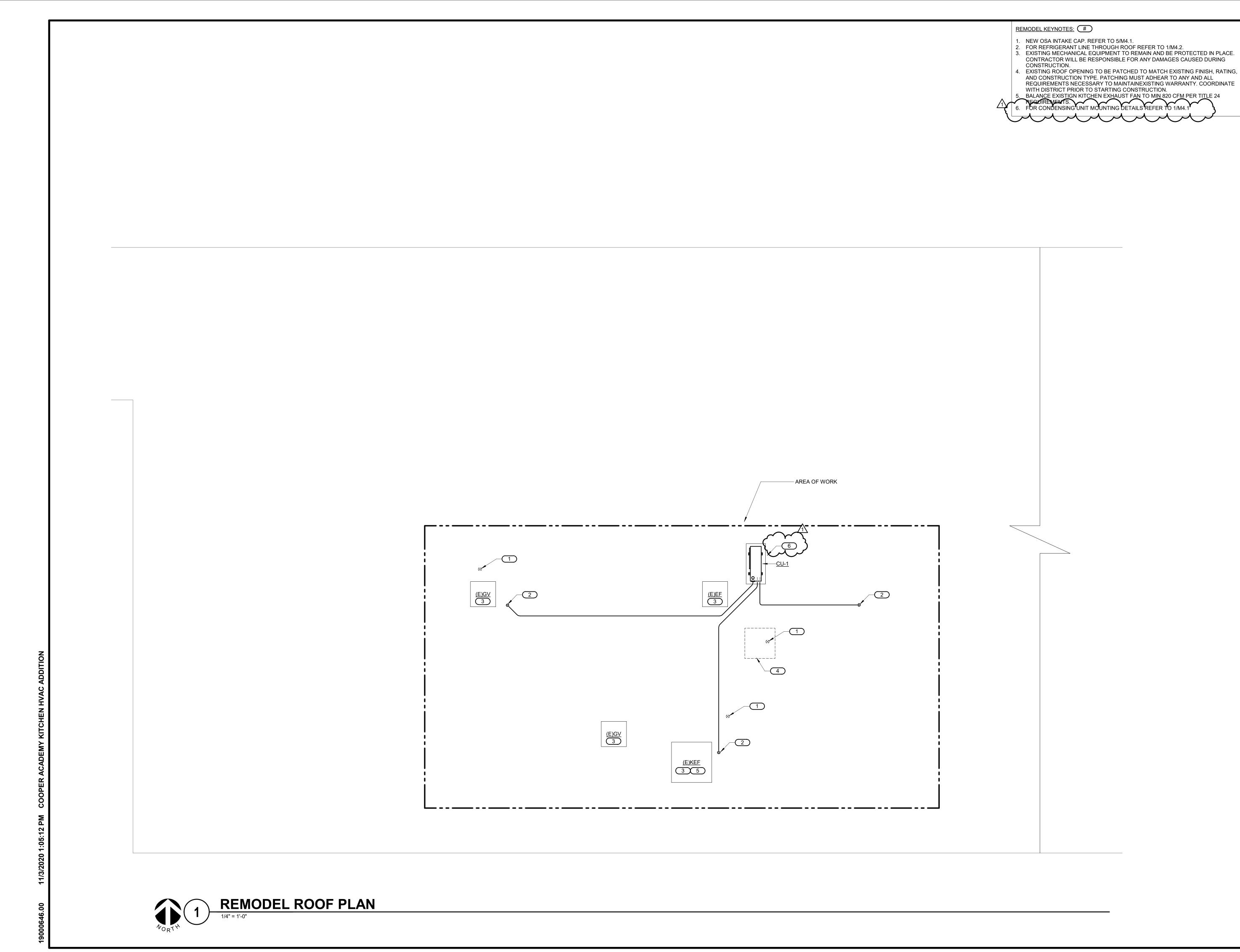
10.20.2020

Job Number 1900
Drawn

ed **ED**SHEET TITLE

REMODEL FLOOR PLAN

SCALE 1/4" = 1'-0"







COOPER ACADEMY KITCHEN HVAC ADDITION

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 REVISION 1

SHEET INFORMATION

BID SET - ADDENDUM 1

10.20.2020

umber 19000646.00

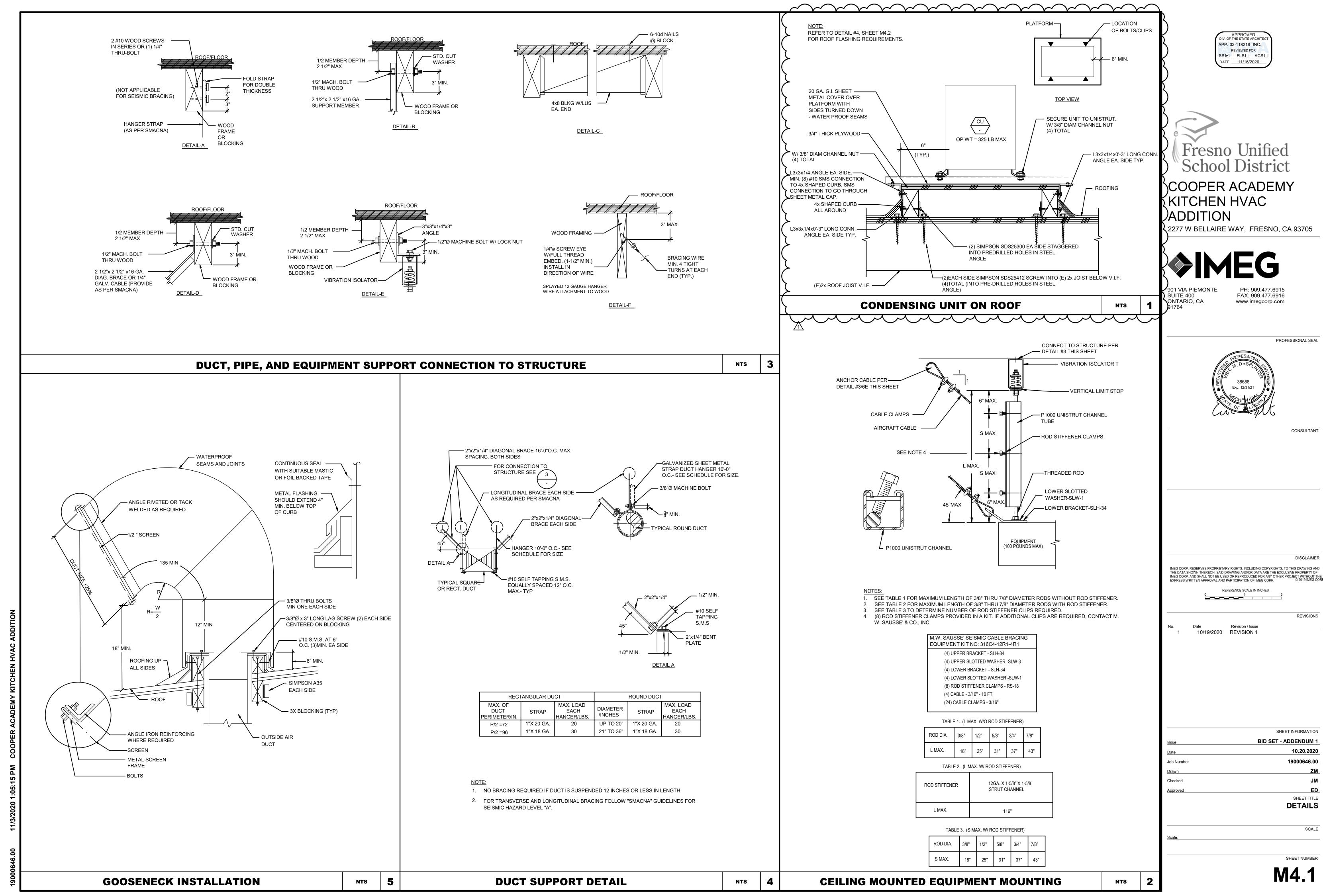
ZM

REMODEL ROOF PLAN

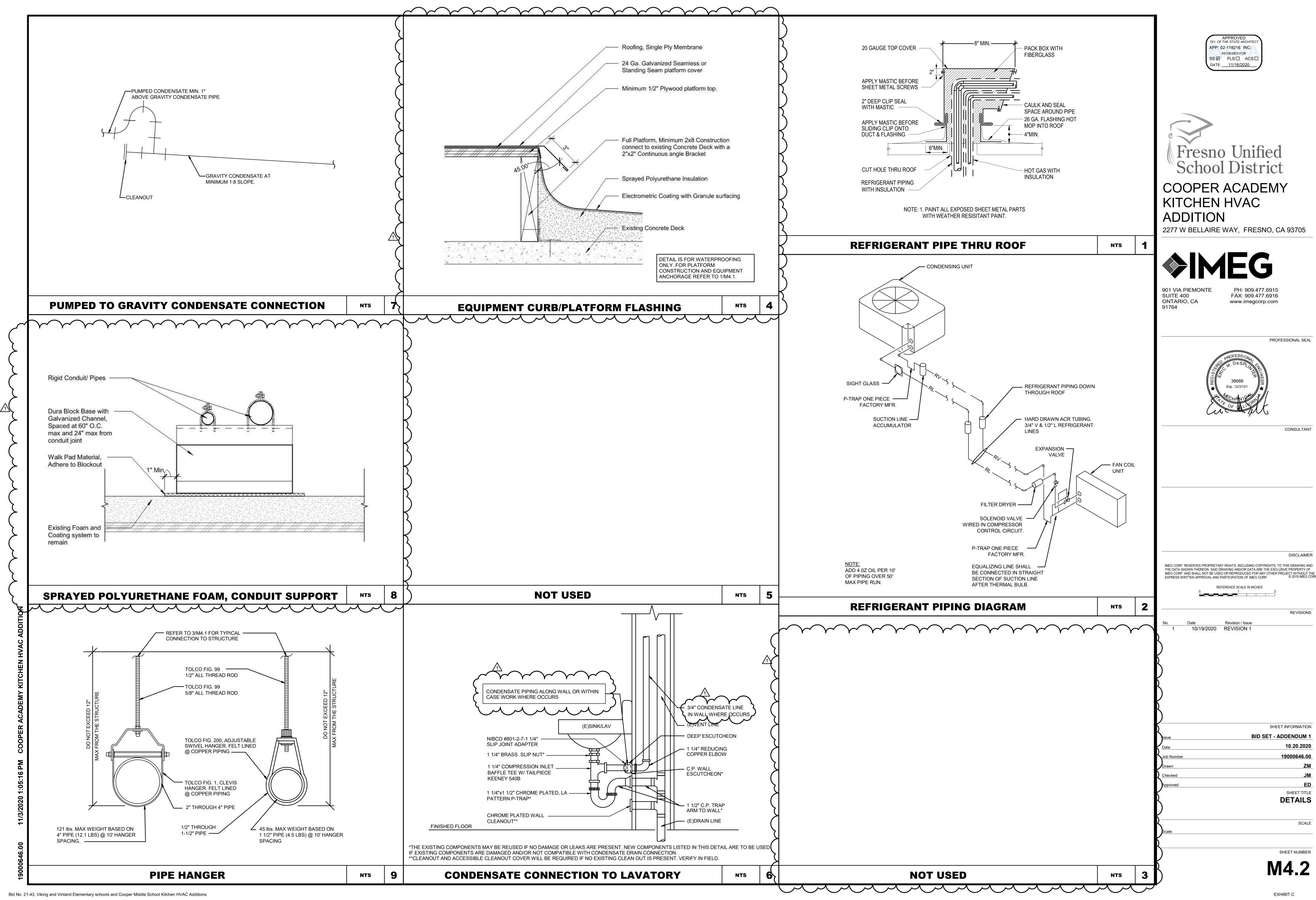
Scale: Scale: 1/4" = 1'-0"

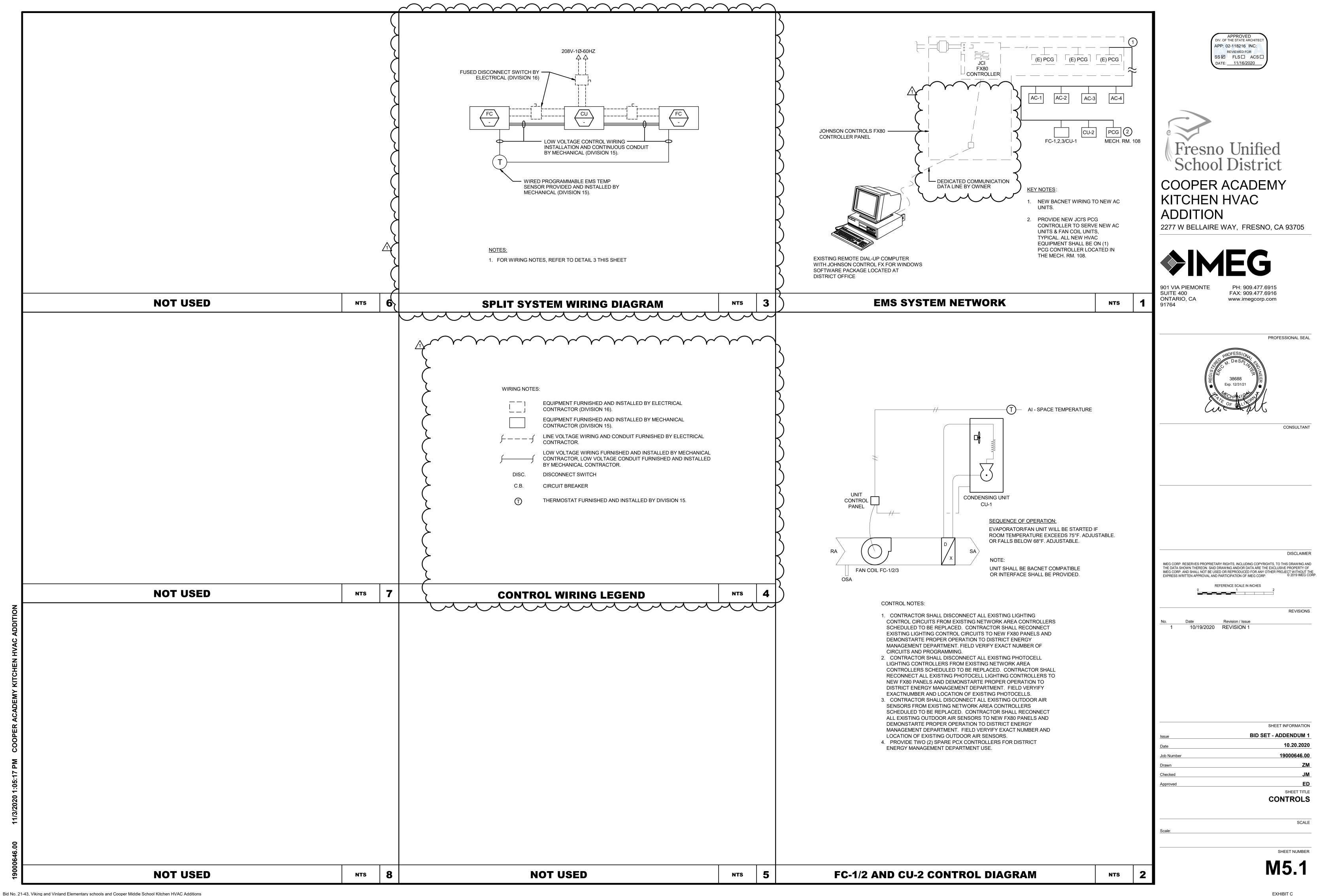
SHEET NUMBER

M3.2



Bid No. 21-43, Viking and Vinland Elementary schools and Cooper Middle School Kitchen HVAC Additions





PROFESSIONAL SEAL

BID SET - ADDENDUM 1 10.20.2020





Asbestos and Lead Survey Report

Cooper Academy Middle School Kitchen HVAC Upgrade 2277 West Bellaire Way Fresno, California 93705

Prepared for:

Ms. Ronika Barnes
Fresno Unified School District
4600 N. Brawley Avenue
Fresno, California 93722
(559) 994-6526 |
Ronika.Barnes@fresnounified.org

Prepared By:

Chris Chipponeri, Director
Forensic Analytical Consulting Services
371 E. Bullard Avenue, Suite 109
Fresno, California 93710
(559) 436-0277|
cchipponeri@forensicanalyical.com

FACS Project #PJ60928

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Executive Summary	2
Introduction	3
Scope of Work	3
Site Characterization	3
Survey Methods	4
Findings and Recommendations	6
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Appendix A: Asbestos Sampling Summary Bulk Sample Chain-of-Custody Form and Laboratory Results Report

Appendix B: Lead Survey Summary, Bulk Sample Chain-of-Custody, Laboratory Results Report, and CDPH Form 8552

Appendix C: Sample Location Drawing and Pictures Appendix D: Certifications of Personnel and Laboratories

List of Acronyms

ACCM Asbestos Containing Construction Material

ACM Asbestos Containing Material

AHERA Asbestos Hazard Emergency Response Act
AIHA American Industrial Hygiene Association
CAC California - Certified Asbestos Consultant

Cal/OSHA California Occupational Safety and Health Association

CCR Code of California Regulations
CFR Code of Federal Regulation

DOSH Department of Occupational Safety and Health
ELAP Environmental Laboratory Accreditation Program

EPA Environmental Protection Agency (EPA)
FACS Forensic Analytical Consulting Services, Inc.

FALI Forensic Analytical Laboratories, Inc.

ND None Detected

NESHAP National Emissions Standard Hazardous Air Pollutants NIOSH National Institute for Occupational Safety and Health

NIST National Institute of Science and Technology

NVLAP National Voluntary Laboratory Accreditation Program

PLM Polarized Light Microscopy

TEM Transmission Electron Microscopy
TTLC Total Threshold Limit Concentration

Executive Summary

Forensic Analytical Consulting Services, Inc. (FACS) was retained by Fresno Unified School District to perform a limited asbestos and lead paint survey of Cooper Academy Middle School, located at 2277 West Bellaire Way in Fresno, California. The survey included suspect asbestos-containing materials (ACM) and lead containing paints / coatings which may be disturbed during the planned renovation activities at the MPR Building as part of the Kitchen HVAC Upgrades Project. A summary list of suspect asbestos-containing materials and lead-containing paints / coatings which were identified and sampled are included in Appendix A and B of this report. The survey was performed on November 4, 2020

Asbestos

Identified suspect materials that were targeted and sampled during the survey were determined to not contain asbestos by laboratory analysis.

The roof was sampled during a previous inspection and found not to contain asbestos.

Any suspect materials not included in this inspection must be assumed to be asbestos-containing materials until tested and proven not to contain asbestos.

Lead

Lead-based paints or coatings have lead content at or above 1.00 mg/cm², 5,000 parts per million, or 0.5% by weight. One bulk sample was collected from the Kitchen area. The following paints did not contain lead above the laboratory's reporting limit. The paint can be handled as "lead-free" by any personnel:

• Cream paint on Plaster Wall in Kitchen (<0.03mg/cm²)

Any other paints to be disturbed must be handled as lead-containing on this project.

FACS recommends that the results of this report be incorporated into any renovation plans provided for this project for informational purposes.

Introduction

Forensic Analytical Consulting Services, Inc. (FACS) was retained by Fresno Unified School District to perform a limited asbestos and lead paint survey of Cooper Academy Middle School, located at 2277 West Bellaire Way in Fresno, California. The survey included suspect asbestos-containing materials (ACM) and lead containing paints / coatings which may be disturbed during the planned renovation activities at the MPR Building as part of the Kitchen HVAC Upgrades Project. The survey was performed on November 4, 2020.

Scope of Work

The purpose of this survey was to identify asbestos-containing materials (ACMs) and lead-containing paints or coating which may be disturbed during upcoming renovation activities at the site as part of the Kitchen HVAC Upgrade Project. The visual inspection, bulk sampling, and survey documentation were performed by Pamela Scott and Jeremy Noyola and Eric Farnsworth. Mr. Farnsworth is a Division of Occupational Safety and Health (DOSH) Certified Asbestos Consultant (CAC #19-6643), EPA-accredited AHERA Building Inspector, and a CDPH Certified Lead Inspector/Assessor (LRC-00005578) as required by California regulations. Ms. Scott and Mr. Noyola are EPA-accredited AHERA Building Inspectors and CDPH Certified Lead Sampling Technicians (LRC-00001886, LRC-00005788). Technical oversight of the inspection and this report was provided by Chris Chipponeri, who is a DOSH Certified Asbestos Consultant (CAC #10-4633), EPA-accredited AHERA Building Inspector, and CDPH Certified Lead Inspector / Assessor (LRC-00000782). The scope of the survey and the services provided by FACS included:

- Performing a visual inspection of the subject area to identify accessible suspect asbestoscontaining materials (ACMs) that will be disturbed during the project;
- Collection of bulk material samples for asbestos analysis by polarized light microscopy (PLM);
- Collection of bulk paint chip samples for lead analysis by flame atomic absorption;
- Ensuring the technical quality of all work by using Asbestos Hazard Emergency Response Act (AHERA) accredited Building Inspectors;
- Ensuring the technical quality of all work by using California Department of Public Health (CDPH)
 Certified Lead Sampling Technicians and Inspection/Risk Assessors;
- Consolidating data and findings into a written report format.

Site Characterization

Cooper Academy Middle School is a typical school site located in Fresno, California. The survey was limited to the inspection of areas to be disturbed per project drawings at the Kitchen of the MPR Building. Suspect asbestos-containing materials observed within the project area include the following:

Plaster (Smooth Finish)

The shingle roofing system, along with white mastic and sealants, and grey sealant associated with the MPR Roof and HVAC components were sampled in October of 2017 by Hazard Management Services, Inc. These materials were found to be none-detect and it was confirmed during this inspection that these same materials remain.

Materials suspect of containing lead include all paints and coatings on building materials within the project scope.

Survey Methods

Visual Inspection

Accessible interior building materials were visually inspected using the methods presented in the Federal AHERA regulations (40 CFR, Part 763). AHERA is required to be used for inspections of K-12 schools and is generally accepted as the industry standard for all ACM inspections regardless of structure or facility type. Suspect ACMs were also physically assessed for friability, condition and possible disturbance factors.

All specified areas were accessible during this inspection. Other materials found elsewhere at this site are not expected to be disturbed by the project and are not included in this survey.

Asbestos Inspection

Bulk Sample Collection

Bulk samples of identified homogeneous materials were collected in building areas that may be impacted by the planned renovation/demolition activities. Samples were collected of each separate homogeneous area (material). A homogeneous area (material) is defined as a surfacing material, thermal system insulation, or miscellaneous material that is uniform in use, color and texture. Examples of homogeneous areas could include:

Vinyl floor tile Fireproofing Plaster

The specific number of samples collected was determined by using the methods required by the Federal AHERA regulations (40 CFR, Part 763.86) as noted below:

1) For Surfacing Material:

1,000 ft² or less - collect 3 samples 1,001 to 5,000 ft² - collect 5 samples 5,001 ft² or greater - collect 7 samples

2) For Thermal System Insulation:

"In a randomly distributed manner" - collect 3 samples 6 linear feet of patching or less - collect 1 sample Cementitious pipe fittings - "In a manner sufficient to determine"

3) For all Miscellaneous Material:

Collect samples "In a manner sufficient to determine whether material is ACM (asbestos-containing material) or not ACM..."

The suspect ACMs were sampled using a knife, chisel, scraper, drill or other similar coring device suitable to the type of material sampled to cut through its entire thickness and to ensure that a cross-section of the material was obtained. The material was then placed in an appropriately labeled container that was sealed and submitted to SGS - Forensic Laboratories for analysis. A unique sample number (e.g. PJ60928-01A) was assigned to each sample.

Bulk samples will be retained by the laboratory for one month unless otherwise instructed. After this period, the samples will be disposed of appropriately.

Bulk Sample Analysis

A total two (2) bulk samples were collected during this survey. All bulk samples were analyzed by SGS-Forensic Laboratories (SGS) in Hayward, California. SGS is accredited by the California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) and the National Institute of Science and Technology's (NIST) National Voluntary Laboratory Accreditation Program (NVLAP). SGS participates in the National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing Program and has substantial experience in the analysis of asbestos.

All samples were analyzed using Polarized Light Microscopy with Dispersion Staining (PLM/DS) techniques in accordance with the methodology approved by the U.S. Environmental Protection Agency (EPA). The percentage of asbestos present in the samples was determined based on a visual area estimation. The EPA defines asbestos-containing materials (ACM) as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM). 40 CFR Part 763 identifies the lower limit of reliable quantification for asbestos using the PLM method as approximately one percent (1%) by volume. Regulations in California (CAL/OSHA Title 8 CCR 1529) define asbestos-containing construction materials (ACCM) as those materials having asbestos content of greater than one tenth of one percent (> 0.1%). Therefore, for the purpose of this survey, any amount of asbestos detected will be considered positive. In addition to the percentages, the types of asbestos minerals are also reported. The PLM method is the standard method used to analyze asbestos bulk samples.

When "None Detected" (ND) appears in the laboratory results, it should be interpreted as meaning asbestos was not observed in the sample material.

Lead Inspection

The client-defined lead inspection was conducted in accordance with the CDPH Lead-Related Construction Program and modeled upon the sampling protocol described in "Chapter 7: Lead Based Paint Inspection" of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1997 Revision.)

Cal/OSHA, in Title 8 California Code of Regulations (CCR) Section 1532.1, Lead in Construction Standard which implements California Labor Code 8716-6717, regulates all construction work were an employee may be occupationally exposed to lead. Paint or materials with any detectable level of lead is considered lead-containing by Cal/OSHA.

Bulk Sampling Methodology

During this survey, FACS personnel collected one bulk lead paint chip sample for laboratory analysis. The sample was collected using a knife, chisel, or similar tool to scrape the paint or coating from the substrate it had been applied to and placed in a leak-tight container. The sample was given a unique number, identified on a chain of custody and sent via FedEx to SGS-Forensic Laboratories for analysis. SGS is accredited by the American Industrial Hygiene Association's Environmental Lead Laboratory Accreditation Program for the analysis of lead in bulk paint chip samples.

Findings and Recommendations

The survey was limited to the inspection of suspect materials within the project scope. The following results were found regarding asbestos-containing materials and lead-containing paints, coatings or components in project areas.

Asbestos

Identified suspect materials that were sampled during the survey were determined to not contain asbestos by laboratory analysis. See Appendix A for a list of suspect materials sampled.

The shingle roofing system, along with white mastic and sealants, and grey sealant associated with the MPR Roof and HVAC components were sampled in October of 2017 by Hazard Management Services, Inc. These materials were found to be none-detect and it was confirmed during this inspection that these same materials remain.

Any suspect materials not included in this inspection must be assumed to be asbestos-containing materials until tested and proven not to contain asbestos.

Lead

One bulk samples was collected from a painted wall. The following paints did not contain lead above the laboratory's reporting limit. The paint can be handled as "lead-free" by any personnel:

Cream Paint on smooth Plaster Wall <0.03 mg/cm²)

Untested paints or coatings not included in this inspection, must be assumed to contain lead and handled accordingly unless sampled and proven not to contain lead.

Cal/OSHA and CDPH Requirements

Any project disturbing paints or coatings with any detectable concentration of lead paint, or presumed lead-containing paint, would be regulated by the Cal/OSHA Lead Construction Standard (8 CCR 1532.1). In addition, CDPH has regulations regarding the safe handling of lead-based paints and prevention of lead hazards being generated in public buildings. The following information is a summary of the requirements only and additional requirements may be required for a project.

Any contractor with workers disturbing any quantity of detectable lead must perform an initial determination regarding worker exposures to lead, which may be based on personal air monitoring at the start of the project, prior employee monitoring from the past 12 months under workplace conditions closely resembling the current project, or objective data demonstrating that exposures will not exceed the Cal/OSHA action level (30 micrograms per cubic meter of air). It is the employer's responsibility to conduct the initial determination and comply with any relevant Cal/OSHA requirements.

Workers disturbing lead must have lead awareness or action level training depending on the initial exposure determination and must use lead-safe work practices. Disturbance of lead-containing paints or coatings must be performed within a contained area to prevent the spread and build-up of lead dust in order to comply with CDPH requirements. HEPA vacuums, dustless tools or shrouds, and/or intact removal of components should be employed to minimize lead dust generation and properly cleanup work areas following disturbance to lead-containing materials during this project. Waste generated during disturbance to lead-containing materials must be profiled in a hazardous waste determination to ascertain proper disposal requirements.

If the initial determination or initial exposure monitoring shows that workers impacting lead can be expected to be or are exposed to lead above the Cal/OSHA permissible exposure level (50 micrograms per cubic meter of air) workers and supervisors must have the requisite training and CDPH certification.

EPA Repair, Renovation and Painting (RRP) rule

The EPA's Renovation, Repair, and Painting (RRP) rule applies to disturbance of lead-based paints at child-occupied facilities constructed before 1978. In the context of the RRP rule, child-occupied facility is defined as being visited by the same child under the age of 6 on two or more days per week for at least 3 hours per visit with a cumulative annual total of 60 hours. In California schools, children may be enrolled in Kindergarten if they are age 5 or older on or before September 1, and they may attend pre-Kindergarten summer programs or Transitional Kindergarten programs before being age-eligible for Kindergarten.

Since lead-based paint was absent within the project area, the US EPA RRP rule would not apply to this project as FACS understands for the work to be completed.

Limitations

This investigation is limited to the conditions and practices observed and information made available to FACS. The methods, conclusions and recommendations provided are based on FACS' judgment, expertise and the standard of practice for professional service. They are subject to the limitations and variability inherent in the methodology employed. As with all environmental investigations, this investigation is limited to the defined scope and does not purport to set forth all hazards, nor indicate that other hazards do not exist.

Please do not hesitate to contact our office at 559-436-0277 with any questions or concerns. Thank you for the opportunity to assist Fresno Unified School District with promoting worker, staff and student safety and a healthy environment.

Respectfully,

FORENSIC ANALYTICAL

Eric Farnsworth
Project Manager

Cal/OSHA CAC #19-6643 CDPH I/A LRC-00005578 Reviewed by:

FORENSIC ANALYTICAL

Chris Chipponeri Local Director

Cal/OSHA CAC #10-4633 CDPH I/A LRC-00000782

Appendix A

Asbestos Sampling Summary, Bulk Sample Chain-of-Custody Form and Laboratory Results Report

Asbestos Survey Summary (Lab Report # BB310101) Cooper Academy Middle School – Building A, Fresno, CA Survey Date: November 05, 2020

Sample Numbers	Material Description	Location(s) of Material	Material Number	Asbestos Content (percent)	Asbestos NESHAP Category	Approx. Quantity
01A,01B	Plaster – Cream, Smooth	Building A: MPR/Kitchen	1 1	None Detect in White Plaster None Detect in Paint	N/A	N/A

FFACS

SAMPLING DATA FORM & CHAIN OF CUSTODY

Page	1	of	1	
age		O I		

Formed Analysis	ON CONSUMING SERVICES						
E88558 DV726	FR09 FACS Fresno Jnified School District	Sampled by:	Pamel	a Scott &	Jeremy Noyola		Sample Date: 11/04/2020
	dg.: FRESNO UNIFIED SCHOOL DISTRICT	Turnaround	Time:		5 Days		
2277 W.	Academy Middle School Bellaire Way CA 93705	Analysis:	X	PLM Stan	ndard		
FACS Pr	roj. No.: PJ60928	7				s to efarnsworth@forensicanalytical.com jo t@forensicanalytical.com	eremy.noyola@forensicanalytical.com
HA#	Homogeneous Material Description (incl. color, texture, phase of construction)	Quant. in SF (LF for small pipe only)		Condition (good, fair, poor)	Sample Number	Sample Location	Lab Result (when rcvd)
01	Plaster: Cream Smooth				PJ60928-01A	MPR: Kitchen: Wall South west side u	ınder sink
01	Plaster: Cream, Smooth				PJ60928-01B	MPR: Kitchen: Wall South eastside un	der steel counter

27							
DW = Dry Tile AC	wall JC = Joint Compound WT = Wall Tex S = Sprayed-on Acoustical Ceiling Material	ture VFT = Vin	yl Floor T PI = Pip	Tile VSF = e Insulation	Vinyl Sheet Flooring PFI = Pipe fitting ins	BB = Baseboard BBM = Baseboard Mastic Culation WP = Plaster CP = Ceiling Plaster E	M = Carpet Mastic ACT = Acoustic Ceiling S = Exterior Stucco
Relinqı Date &	uished by:	1	1041	20 3F	Relinquisl Date & Ti	•	Relinquished by: Date & Time:
Receive Date &	ed by:	12	, ,		Received I Date & Ti		Relinquished by: Date & Time:



Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation) NVLAP Lab Code: 101459-0

FACS - Fresno Eric Farnsworth 21228 Cabot Blvd. Hayward, CA 94545					Client ID: Report Num Date Receive Date Analyze Date Printed First Report	ed: 11/05/2 ed: 11/10/2 i: 11/11/2 ed: 11/11/2	0 0 0
Job ID/Site: PJ60928; Fresno Unified School District - Facilities Management & Planning Cooper Academy Middle School 2277 West Bellaire Way Fresno CA Total Samples Subn Total Samples Analy					es Submitted:	2 2	
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
PJ60928-01A Layer: White Plaster Layer: Paint	12353846		ND ND				
Total Composite Values of Fibrous Cellulose (Trace)	s Components: As	sbestos (ND)					
PJ60928-01B Layer: White Plaster Layer: Paint	12353847		ND ND				
Total Composite Values of Fibrous Cellulose (Trace)	s Components: As	sbestos (ND)					

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'. Analytical results and reports are generated by SGS Forensic Laboratories (SGSFL) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by SGSFL to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by SGSFL. The client is solely responsible for the

use and interpretation of test results and reports requested from SGSFL. SGSFL is not able to assess the degree of hazard resulting from materials analyzed. SGS Forensic Laboratories reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.

Appendix B

Lead Survey Summary Table, Sample Chain-of-Custody, Laboratory Results Report, and CDPH 8552 Form

Lead Survey Summary (Lab Report #M229714) Cooper Academy Middle School – Kitchen HVAC Upgrade Project, Fresno, CA Survey Date: November 04, 2020							
Sample Number	Component Location	Color	Substrate	Component	Analytical Results (weight percent of lead)		
01Pb	Kitchen	Cream	Plaster	Wall	<0.03		



PAINT CHIP SAMPLE REQUEST FORM

PAINT CHIP SAMPLE REQUEST FORM Page1 of _1							el ofl .		
Client:		CS Fresno fied School District		Sampled by:	Pamela Scott	PM:	Eric Farnsw	orth Date:	11/04/2020
Contact:	1901. Rric Rarnewarth Phone: (339) 436-117//		Special Instructions:						
Site:		UNIFIED SCHOO Academy Middle Sch		Turnaround Time:	1-Day 2-Day	3-Day	5-Day X	Other Due I	Date and Time:
Client No.:	C23033	FACS Job #:	PJ60928	Analysis:	☐ Flame AA (Pb)☐ Other:) /			
Sample Number Sample Location				Componer	nt	Color	Substrate	Condition	
PJ60928-01	Pb	MPR/Kitchen: South we	st corner, under sink		Cream Paint on Plaste	r Wall	Cream	Plaster	1
		i i							
	4								
				ı					
				À		9 10 11	12 AM		
					/60	Stu	bstrate: wood me	tal concrete plass	ter drywall brick
	: 4 Fed Ex	☐ Airborne ☐ UPS		ourier Drop (RECE			
Relinquishe		catl	Date & Time:	Received	SAMPE	NOV 05	2020 1	te & Time: dition Acceptable	☐ Yes ☐ No
Retinquishe	d by:		Date & Time:	Received	by:	L P	Con	te & Time:	□ Yes □ No
						W ZI II	01 6 8	and Treeplatie	



Metals Analysis of Paints (AIHA-LAP, LLC Accreditation, Lab ID #101762)

FACS - Fresno **Client ID:** FR09 Eric Farnsworth **Report Number:** M229714 21228 Cabot Blvd. 11/05/20 **Date Received: Date Analyzed:** 11/11/20 Hayward, CA 94545 **Date Printed:** 11/11/20 First Reported: 11/11/20 Job ID / Site: PJ60928; Fresno Unified School District - Facilities Management & Planning **SGSFL Job ID:** FR09 Cooper Academy Middle School 2277 West Bellaire Way Fresno CA Date(s) Collected: 11/4/20 **Total Samples Submitted:** 1 **Total Samples Analyzed:**

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
PJ60928-01PB	30879062	Pb	< 0.03	wt%	0.03	EPA 3050B/7000B
Comment: Sample su	ibmission below 0.1 grams.					

Kevin Poon, Laboratory Analyst, Hayward Laboratory

Levin Poon

Analytical results and reports are generated by SGS Forensic Laboratories at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by SGS Forensic Laboratories to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by SGS Forensic Laboratories. The client is solely responsible for the use and interpretation of test results and reports requested from SGS Forensic Laboratories. SGS Forensic Laboratories is not able to assess the degree of hazard resulting from materials analyzed. SGS Forensic Laboratories reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. Any modifications that have been made to referenced test methods are documented in SGS Forensic Laboratories' Standard Operating Procedures Manual. Sample results have not been blank corrected. Quality control and sample receipt condition were acceptable unless otherwise noted.

Note* Sampling data used in this report was provided by the client as noted on the associated chain of custody form.

^{*} The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation	lovember	04, 2020				
Section 2 — Type of Lead Hazard Evaluation (C	heck on	e box only)				
✓ Lead Inspection Risk assessment Clearance Inspection Other (specify)						
Section 3 — Structure Where Lead Hazard Eval	uation V	/as Conducted				
Address [number, street, apartment (if applicable)]	1	City	10	County	Zip Code	
2277 West Bellaire Way		Fresno		Fresno	93705	
Construction date (year) Type of structure of structure	'			Children living in structure?		
Multi-unit building	g	✓ School or daycare		Yes Vo		
Unknown Single family dw	elling	Other		Don't Know		
Section 4 — Owner of Structure (if business/ag	ency, lis	t contact person)				
Name			Telep	hone number		
Fresno Unified School District / Ronika B	arnes		559	-994-6526		
Address [number, street, apartment (if applicable)]	T	City		State	Zip Code	
4600 North Brawley Avenue		Fresno		CA	93722	
Section 5 — Results of Lead Hazard Evaluation	(check	all that apply)				
✓ No lead-based paint detected Intac ✓ No lead hazards detected Lead-contamina Section 6 — Individual Conducting Lead Hazard	ated dust		minate	Deteriorated lead-based soil found Othe		
Name			Teler	phone number		
Chris Chipponeri				9-436-0277		
Address [number, street, apartment (if applicable)]	T	City		State	Zip Code	
371 E. Bullard Avenue		Fresno		CA	93710	
CDPH certification number	Signa	ature			Date	
LRC-0000782		(L (Mrs	,	nggamathyrida erini.	11/19/2020	
Name and CDPH certification number of any other individual	duals cond	ducting sampling or testing	(if app	olicable)		
Eric Farnsworth LRC-00005578	Jerer	my Noyola LRC-	-000	005788		
Section 7 — Attachments						
A. A foundation diagram or sketch of the structure lead-based paint; B. Each testing method, device, and sampling proc. All data collected, including quality control data,	cedure us	sed;				
		Third arms only	-441	manto) maile de la facción		
First copy and attachments retained by inspector		., .,		ments) mailed or faxed to:		
Second copy and attachments retained by owner California Department of Public Health Childhood Lead Poisoning Prevention Branch Reports 850 Marina Bay Parkway, Building P, Third Floor Richmond, CA 94804-6403 Fax: (510) 620-5656					rts	

CDPH 8552 (8/19)

Appendix C

Sample Location Drawing and Pictures

Site Name:	Cooper Middle School
Address:	2277 West Bellaire Way, Fresno, CA
Date:	November 4, 2020

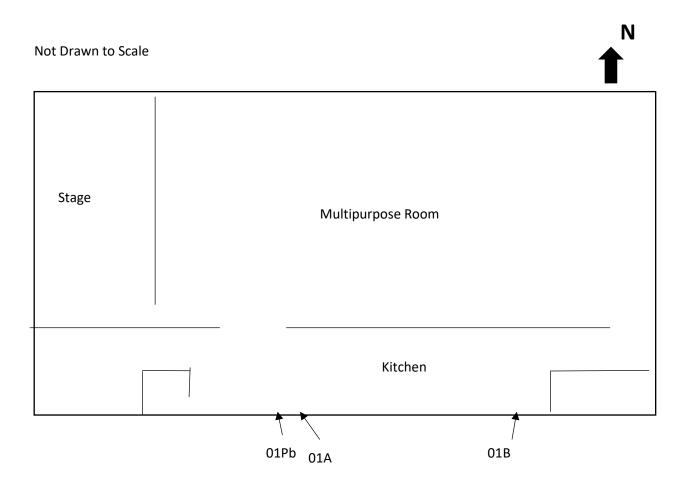




Figure 1. Kitchen, Interior Southside



Figure 2. Kithcen South Westside

Appendix D

Certifications of Personnel and Laboratories

DEPARTMENT OF INDUSTRIAL RELATIONS Division of Occupational Safety and Health **Asbestos Certification & Training Unit** 1750 Howe Avenue, Suite 460 Sacramento, CA 95825 (916) 574-2993 Office http://www.dir.ca.gov/dosh/asbestos.html acru@dir.ca.gov



909166643C

451

Forensic Analytical Consulting Services, Inc. Eric S Farnsworth 371 E. Bullard Avenue, Suite 109 93710 Fresno CA

September 15, 2020

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. To maintain your certification, you must abide by the rules printed on the back of the certification card.

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please notify our office via U.S. Postal Service or other carrier of any changes in your mailing or work address within 15 days of the change.

Sincerely,

Jeff Ferrell

Senior Safety Engineer

Attachment: Certification Card

cc: File

State of California Division of Occupational Safety and Health **Certified Asbestos Consultant** Eric S Farnsworth

Certification No. 19-6643

10/16/21 Expires on

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seg, of the Business and **Professions Code**

HMS Training

a division of Forensic Analytical Consulting Services

This is to confirm that

Eric Farnsworth

Has attended the four-hour

AHERA Refresher Course for Asbestos Inspectors

And has completed the requisite training and passed the exam for

asbestos accreditation under TSCA Title II

July 8, 2020

Certificate Number: HMSBIR824

Valid Until: July 8, 2021

Cal/OSHA Approval Number: CA-025-06



Michael C. Sharp - Training Director

Michael C. Sharp - Training Director
HMS/Forensic Analytical Consulting Services
207 McHenry Ave. Modesto, CA 95354
(800) 677-1483



STATE OF CALIFORNIA DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL: CERTIFICATE TYPE:

Lead Inspector/Assessor
Lead Sampling Technician

NUMBER:

LRC-00005578 LRC-00000970 2/18/2021

EXPIRATION DATE:

5/22/2020

Eric Farnsworth

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

HMS Training

a division of Forensic Analytical Consulting Services

This is to confirm that

Pamela Scott

Has attended the four-hour

AHERA Refresher Course for Asbestos Inspectors

And has completed the requisite training and passed the exam for

asbestos accreditation under TSCA Title II

October 15, 2020

Certificate Number: HMSBIR879

Valid Until: October 15, 2021

Cal/OSHA Approval Number: CA-025-06



Michael C. Sharp - Training Director HMS/Forensic Analytical Consulting Services 207 McHenry Ave. Modesto, CA 95354 (800) 677-1483



STATE OF CALIFORNIA DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:

CERTIFICATE TYPE:

NUMBER:

EXPIRATION DATE:

Lead Sampling Technician

LRC-00001886

6/28/2021



Pamela Scott

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

HMS Training

My the many part my pa

a division of Forensic Analytical Consulting Services

This is to confirm that

Jeremy Noyola

Has attended the twenty-four hour

AHERA Course for Asbestos Inspectors

And has completed the requisite training and passed the exam for

asbestos accreditation under TSCA Title II

March 2-4, 2020

Certificate Number: HMSBII173

Valid Until: March 4, 2021

Cal/OSHA Approval Number: CA-025-05



Michael C. Sharp - Training Director HMS/Forensic Analytical Consulting Services 207 McHenry Ave. Modesto, CA 95354 (800) 677-1483

me hart lithe



STATE OF CALIFORNIA DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:

CERTIFICATE TYPE:

NUMBER:

EXPIRATION DATE:

Lead Sampling Technician

LRC-00005788

2/28/2021



Jeremy Noyola

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

DEPARTMENT OF INDUSTRIAL RELATIONS Division of Occupational Safety and Health **Asbestos Certification & Training Unit** 2424 Arden Way, Suite 495 Sacramento, CA 95825-2417 (916) 574-2993 Office http://www.dir.ca.gov/dosh/asbestos.html acru@dir.ca.gov/dosh/asbestos.html



005174633C

339

June 08, 2020

Christopher J Chipponeri 1401 Louise Avenue Modesto CA 95350

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. To maintain your certification, you must abide by the rules printed on the back of the certification card.

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please notify our office via U.S. Postal Service or other carrier of any changes in your mailing or work address within 15 days of the change.

Sincerely,

Jeff, Ferrell

Serlidr Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached 08/2019

State of California Division of Occupational Safety and Health **Certified Asbestos Consultant**

Christopher J Chipponeri

Certification No. 10-4633

06/16/21 Expires on

Occupational Safety and Health as authorized by Sections 7180 at sed of the Business and Professions Code

HMS Training

a division of Forensic Analytical Consulting Services

This is to confirm that

Chris Chipponeri

Has attended the four-hour

AHERA Refresher Course for Asbestos Inspectors

And has completed the requisite training and passed the exam for

asbestos accreditation under TSCA Title II

September 9, 2020

Certificate Number: HMSBIR851

Valid Until: September 9, 2021

Cal/OSHA Approval Number: CA-025-06



weekerf C. Shorp

Michael C. Sharp - Training Director HMS/Forensic Analytical Consulting Services 207 McHenry Ave. Modesto, CA 95354 (800) 677-1483



STATE OF CALIFORNIA DEPARTMENT OF PUBLIC HEALTH



LEAD-RELATED CONSTRUCTION CERTIFICATE

INDIVIDUAL:

CERTIFICATE TYPE:

NUMBER:

EXPIRATION DATE:

Lead Inspector/Assessor

LRC-00000782

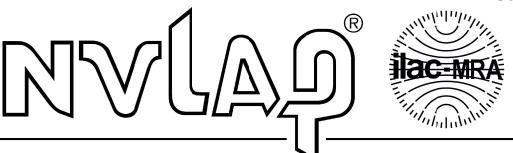
6/20/2021



Chris Chipponeri

Disclaimer: This document alone should not be relied upon to confirm certification status. Compare the individual's photo and name to another valid form of government issued photo identification. Verify the individual's certification status by searching for Lead-Related Construction Professionals at www.cdph.ca.gov/programs/clppb or calling (800) 597-LEAD.

United States Department of Commerce National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101459-0

SGS Forensic Laboratories

Hayward, CA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2020-07-01 through 2021-06-30

Effective Dates



For the National Voluntary Laboratory Accreditation Program

National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

SGS Forensic Laboratories

3777 Depot Road, Suite 409 Hayward, CA 94545-2761 Mr. Steven Takahashi

Phone: 310-294-4365 Fax: 310-764-1136 Email: steven.takahashi@sgs.com http://www.falaboratories.com

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101459-0

Bulk Asbestos Analysis

<u>Code</u> <u>Description</u>

18/A01 EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of

Asbestos in Bulk Insulation Samples

18/A03 EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

Code Description

18/A02 U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and

Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in

40 CFR, Part 763, Subpart E, Appendix A.

For the National Voluntary Laboratory Accreditation Program





AIHA Laboratory Accreditation Programs, LLC

acknowledges that

SGS Forensic Laboratories 3777 Depot Rd, Suite 409, Hayward, CA 94545-2761 Laboratory ID: LAP-101762

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

LABORATORY ACCREDITATION PROGRAMS

\checkmark	INDUSTRIAL HYGIENE	Accreditation Expires: December 01, 2020
\checkmark	ENVIRONMENTAL LEAD	Accreditation Expires: December 01, 2020
\checkmark	ENVIRONMENTAL MICROBIOLOGY	Accreditation Expires: December 01, 2020
	FOOD	Accreditation Expires:
\checkmark	UNIQUE SCOPES	Accreditation Expires: December 01, 2020

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Elizabeth Bair

Chairperson, Analytical Accreditation Board

Bet Bair

Cheryl O Morton

Managing Director, AIHA Laboratory Accreditation Programs, LLC

Cheryl O. Marton

Revision 17: 09/11/2018 Date Issued: 08/02/2019

Right People
Right Perspective
Right Now

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