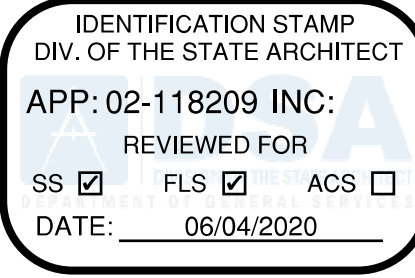


FRESNO UNIFIED SCHOOL DISTRICT VIKING ELEMENTARY SCHOOL MULTIPURPOSE BUILDING HVAC REPLACEMENT

4251 N WINERY AVE,
FRESNO, CA 93726

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E4.1	REMODEL ROOF PLAN
E4.2	DETAILS
Grand total: 18	



VIKING E.S. KITCHEN HVAC ADDITION

4251 N WINERY AVE,
FRESNO, CA 93726



901 VIA PIEMONTE
SUITE 400
ONTARIO, CA
91764

PH: 909.477.6915
FAX: 909.477.6916
www.imegcorp.com

PROFESSIONAL SEAL



CONSULTANT

PAST APPLICATION NOTES

PROJECT DESCRIPTION

PROJECT LOCATION:
4251 N WINERY AVE,
FRESNO, CA 93726

PROJECT CLASSIFICATION: (INSPECTOR CLASSIFICATION #3)

CLASS 3 PROJECT

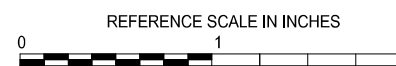
ARCHITECTURAL SCOPE:
PATCH FLOORS, WALLS, ROOFS, TO MATCH EXISTING.

STRUCTURAL SCOPE:
BUILDINGS: MULTI-PURPOSE
REMOVE AND REPLACE EXISTING ROOF TOP HVAC UNITS.
REVIEW STRUCTURAL MOUNTING DETAIL AND EXISTING ATTACHMENT
TO STRUCTURE CONDITIONS.

MECHANICAL SCOPE:
BUILDINGS: MULTI-PURPOSE
REMOVE EXISTING EVAPORATIVE COOLERS SERVING THE EXISTING KITCHEN
AND REPLACE WITH DX HEAT PUMP SYSTEMS.

DISCLAIMER

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EXPRESS WRITTEN APPROVAL AND PARTICIPATION OF IMEG CORP.
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REVISIONS

No. Date Revision / Issue

SHEET INFORMATION

Issue BID SET
Date 10/20/2020
Job Number 19000643.00
Drawn Author
Checked Checker
Approved Approver

SHEET TITLE
TITLE SHEET

SCALE

Scale: AS NOTED

SHEET NUMBER

T-1

STATEMENT OF GENERAL CONFORMANCE

Statement of General Conformance
FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS,
INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER
LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

(Application No. 02-118209 File No. 10-48)

☒ The drawings or sheets listed on the cover or index sheet
☐ The drawing, page of specifications/calculations

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

- design intent and appears to meet the appropriate requirements of Title
24, California Code of Regulations and the project specifications prepared
by me, and
- coordination with my plans and specifications and is acceptable for incorporation
into the construction of this project.

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

I certify that: <input checked="" type="checkbox"/> All drawings or sheets listed on the cover or index sheet <input type="checkbox"/> This drawing or page	
<input checked="" type="checkbox"/> Is/are in general conformance and Has/have been coordinated	<input type="checkbox"/> Is/are in general conformance and Has/have been coordinated
Signature: Eric Desplinter Date: 06/01/2020	Signature: Date:
Architect or Engineer designated to be in general responsible charge.	Architect or Engineer delegated responsibility for this portion of the work.
Print Name: Eric Desplinter	Print Name:
M38688 License Number 12/31/2021 Exp. Date	License Number Exp. Date

OWNER

CLIENT
FRESNO UNIFIED SCHOOL DISTRICT
FACILITIES MANAGEMENT & PLANNING
4600 N. BRAWLEY AVE.
FRESNO, CA 93722
tel: (559) 994-6526

PROJECT MANAGER: RONIKA BARNES

ENGINEER

STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL

IMEG CORP.
901 VIA PIEMONTE, SUITE 400
ONTARIO, CA 91764
tel: (909) 477-9615
fax: (909) 477-6916

PROJECT MANAGER: KERRY PARKER
STRUCTURAL ENGINEER: EDWIN NAJARIAN
MECHANICAL ENGINEER: ERIC DESPLINTER
ELECTRICAL ENGINEER: NESTOR IGNACIO

Eric Desplinter

Print Name

M38688

12/31/2021

License Number

Exp. Date

License Number

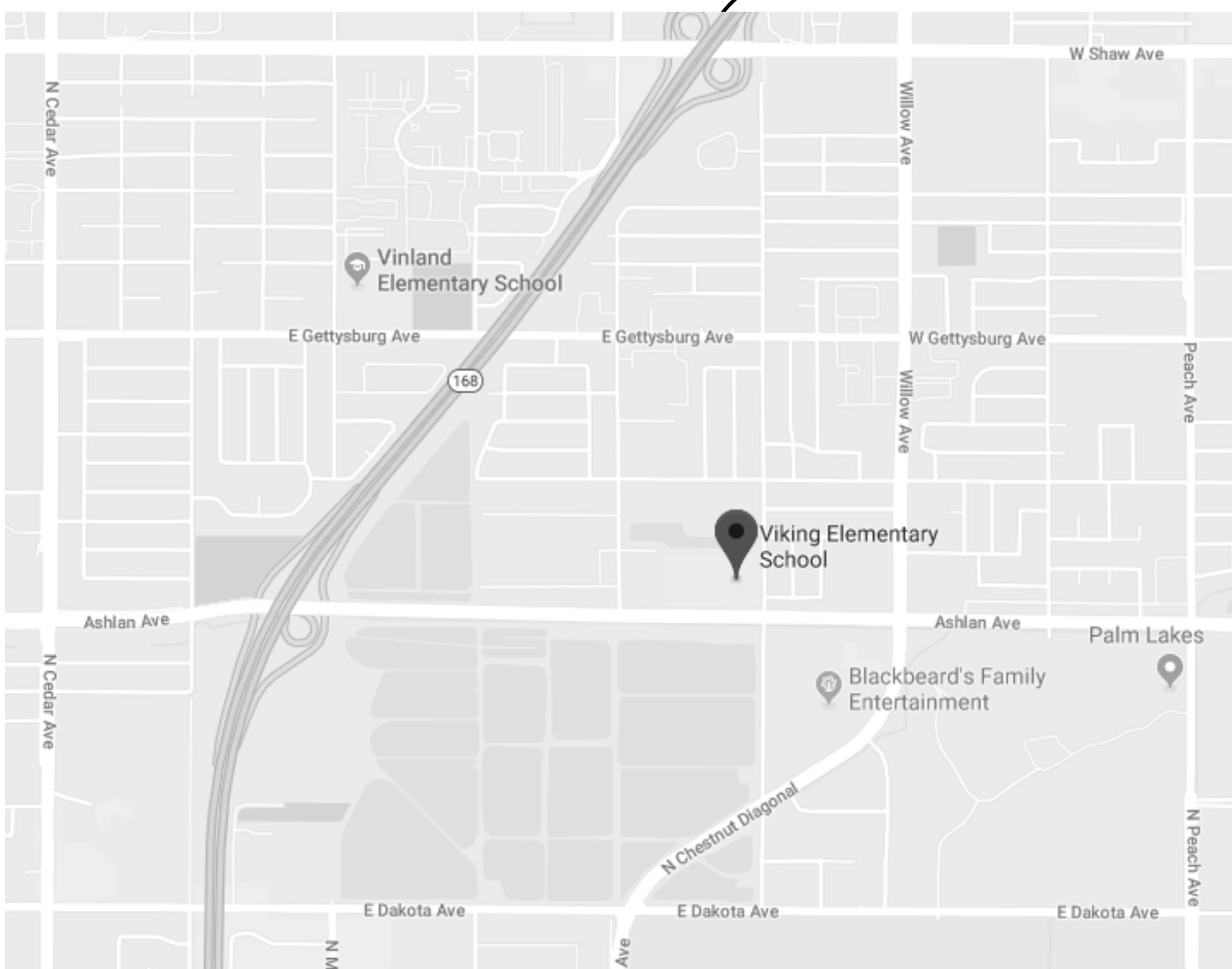
Exp. Date

OVERALL SITE PLAN

N.T.S

2


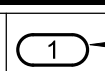
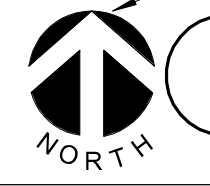

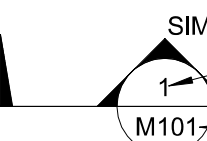
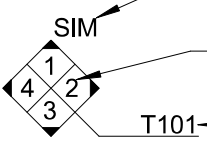
PROJECT LOCATION



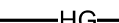














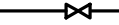




VICINITY MAP

N.T.S

1





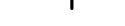











VIEW KEY	
 NAME 10' - 0" — HEIGHT ABOVE PROJECT 0' - 0"	 INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL
 INDICATES DIRECTION OF TRUE NORTH  PLAN OR DETAIL NUMBER PLAN OR DETAIL NAME 1/8" = 1'-0" PLAN OR DETAIL SCALE	VIEW NAME
 INDICATES SIMILAR DETAIL REFERENCED IN MULTIPLE SECTIONS DETAIL REFERRED TO BY SECTION CUT SHEET DETAIL IS LOCATED ON	
 INDICATES SIMILAR DETAIL REFERENCED IN MULTIPLE LOCATIONS DETAIL REFERRED TO BY ELEVATION SHEET DETAIL IS LOCATED ON	
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	
<ul style="list-style-type: none">2019 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12019 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)2019 CALIFORNIA PLUMBING CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 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 62019 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 12AMERICANS WITH DISABILITIES ACT (ADA) TITLE II - ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG) 1990 STATE FIRE MARSHAL REGULATIONS AND AMENDMENTS TO-DATECALIFORNIA 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 AMANDED) 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 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:
	REFRIGERANT HOT GAS
	REFRIGERANT LIQUID
	LOW PRESSURE CONDENSATE
	PUMPED CONDENSATE
	REFRIGERANT SUCTION
	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
	PUMP
	FLEXIBLE CONNECTION
	REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB

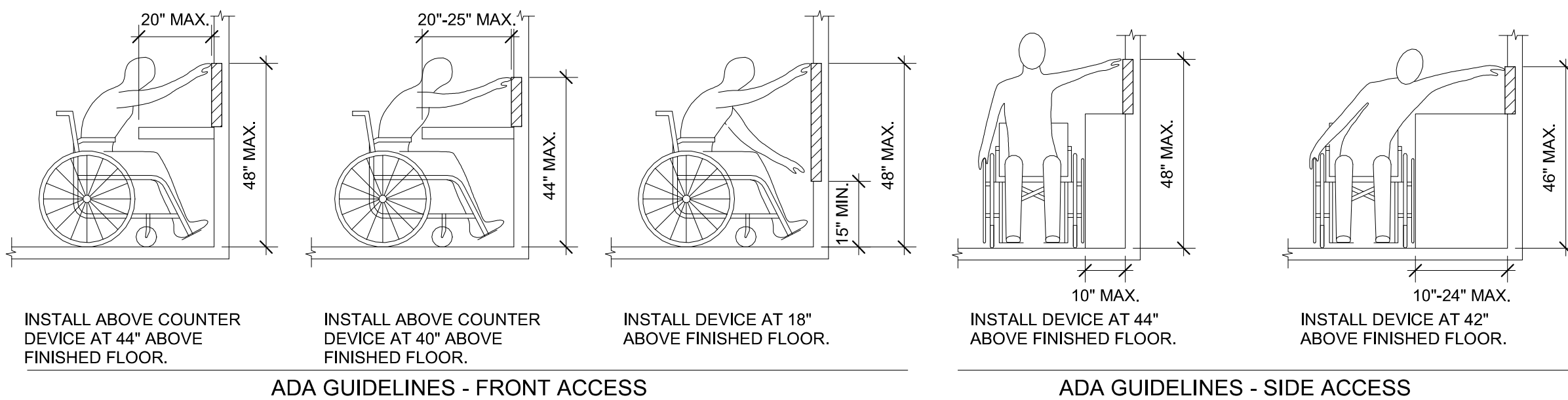
MECHANICAL ABBREVIATION KEY	
ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
CD-E	CEILING DIFFUSER - EXISTING
EA	EXHAUST/RELIEF AIR
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
MA	MIXED AIR
MV	MIXING VALVE
NC	NEW CONNECTION
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
RA	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 NECK SIZE/CFM
	CARBON MONOXIDE SENSOR
	CARBON DIOXIDE SENSOR
	THERMOSTAT/SENSOR

DSA ANCHORAGE NOTES:	
APPLICABLE CODE: 2019 CBC MEP COMPONENT ANCHORAGE NOTE: ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26, AND 30: 1. ALL PERMANENT EQUIPMENT AND COMPONENTS. 2. TEMPORARY, 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 EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE. 3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA. THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND THE ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRAVERSE AND LONGITUDINAL DIRECTIONS. A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT. B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL. THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.	

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE: PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-10 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. 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 ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS. MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E): MP <input checked="" type="checkbox"/> MD <input checked="" type="checkbox"/> PP <input type="checkbox"/> E <input type="checkbox"/> - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. MP <input type="checkbox"/> MD <input type="checkbox"/> PP <input type="checkbox"/> E <input type="checkbox"/> - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # _____.		




ADA STANDARDS FOR ACCESSIBLE DESIGN


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 CONTROL.	
<ol style="list-style-type: none">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.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. 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.REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER ACCESS.ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.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 FINISH.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.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 FOR OUTDOOR USE.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 WITHIN ROOMS.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.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.DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES.MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR STARTERS, SWITCHES, AND DISCONNECTS.PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT.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.	
<ol style="list-style-type: none">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.NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK.FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS.EACH CONTRACTOR SHALL CUT AND PATCH ROOFS, WALLS, AND FLOORS ASSOCIATED WITH HIS WORK.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 BIDDING.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 REMAIN ACTIVE.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.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:	
<ol style="list-style-type: none">PIPE DRAIN LINES FROM EQUIPMENT TO NEAREST FLOOR DRAIN.INSTALL ALL REFRIGERANT LIQUID AND SUCTION PIPING SIZED PER EQUIPMENT MANUFACTURER RECOMMENDATIONS.	
VENTILATION GENERAL NOTES:	
<ol style="list-style-type: none">ALIGN TEMPERATURE SENSORS WITH LIGHT SWITCHES AND WHEN IN CLOSE PROXIMITY TO EACH OTHER.	
TAB POST-CONSTRUCTION NOTES:	
<ol style="list-style-type: none">TAB CONTRACTOR SHALL COMPILE AND SUBMIT COPIES OF THE FINAL POST-CONSTRUCTION TAB REPORT AS REQUIRED BY SECTION 15051.THE FINAL POST CONSTRUCTION REPORT SHALL INCLUDE ALL ITEMS REQUIRED IN THE SPECIFICATIONS.	
MECHANICAL SHEET INDEX	
M0.1	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	


IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-118209 INC:
REVIEWED FOR
SS ☒ FLS ☒ ACS ☐
DATE: 06/04/2020

**Fresno Unified
School District**
**VIKING E.S. KITCHEN
HVAC ADDITION**
4251 N WINERY AVE,
FRESNO, CA 93726



901 VIA PIEMONTE
SUITE 400
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REVISIONS

No.	Date	Revision / Issue
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SHEET INFORMATION

Issue	BID SET
Date	10/20/2020
Job Number	19000643.00
Drawn	ZM
Checked	JM
Approved	ED

SHEET TITLE
**GENERAL NOTES, LEGEND,
ABBREVIATIONS AND DRAWING LIST**

SCALE
Scale: **As Indicated**

SHEET NUMBER
M0.1

EXHIBIT A

19000643.006/2/2020 9:11:23 AMVIKING E.S. KITCHEN HVAC ADDITION

BLOWER COIL UNIT SCHEDULE

NOTES:
1.COMPLETE WITH INTEGRAL CONDENSATE PUMP, WALL MOUNT THERMOSTAT, AND MANUFACTURER HIGH EFFICIENCY FILTER OPTION.

TAG NAME	AREA SERVED	CONFIGURATION	MAX. CFM	COOLING		HEATING		ELECTRICAL				MANUFACTURER	MODEL	WEIGHT	ANCHORAGE DETAIL	NOTES
				TOTAL MBH		TOTAL MBH		HP	VOLTAGE	PHASES	MCA					
FC-1	KITCHEN	4 WAY CASSETTE	1235	42.1		54	0.16	208	1	1.27	15	Mitsubishi Electric	TPLFYP048EM140A	70	2/M4.1	1

CONDENSING UNIT SCHEDULE

NOTES:

TAG NAME	AREA SERVED	NOMINAL DESIGN TONS	SEER	REFRIGERANT	ELECTRICAL				MANUFACTURER	MODEL	WEIGHT	ANCHORAGE DETAIL	NOTES
					VOLTAGE	PHASES	MCA	MOCP					
CJ-1	KITCHEN	4	22.6	R-410A	208	1	29	45	Mitsubishi Electric	TUMYP0481AK42NA	275	1/M4.1	

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4251 N WINERY AVE,
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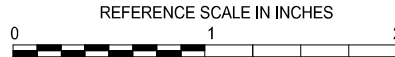


Eric M. Desplinder

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SHEET TITLE
SCHEDULES

SCALE

Scale:

SHEET NUMBER

M0.2

Registration Number:	Registration Date/Time:	Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	Report Version: 2019.0.001 Schema Version: rev 20190401	Report Generated: 2020-03-25 21:54:53

Registration Number:	Registration Date/Time:	Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	Report Version: 2019.0.001 Schema Version: rev 20190401	Report Generated: 2020-03-25 21:54:53

Registration Number:	Registration Date/Time:	Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	Report Version: 2019.0.001 Schema Version: rev 20190401	Report Generated: 2020-03-25 21:54:53

19000643.00 6/2/2020 9:11:28 AM VIKING E.S. KITCHEN HVAC ADDITION



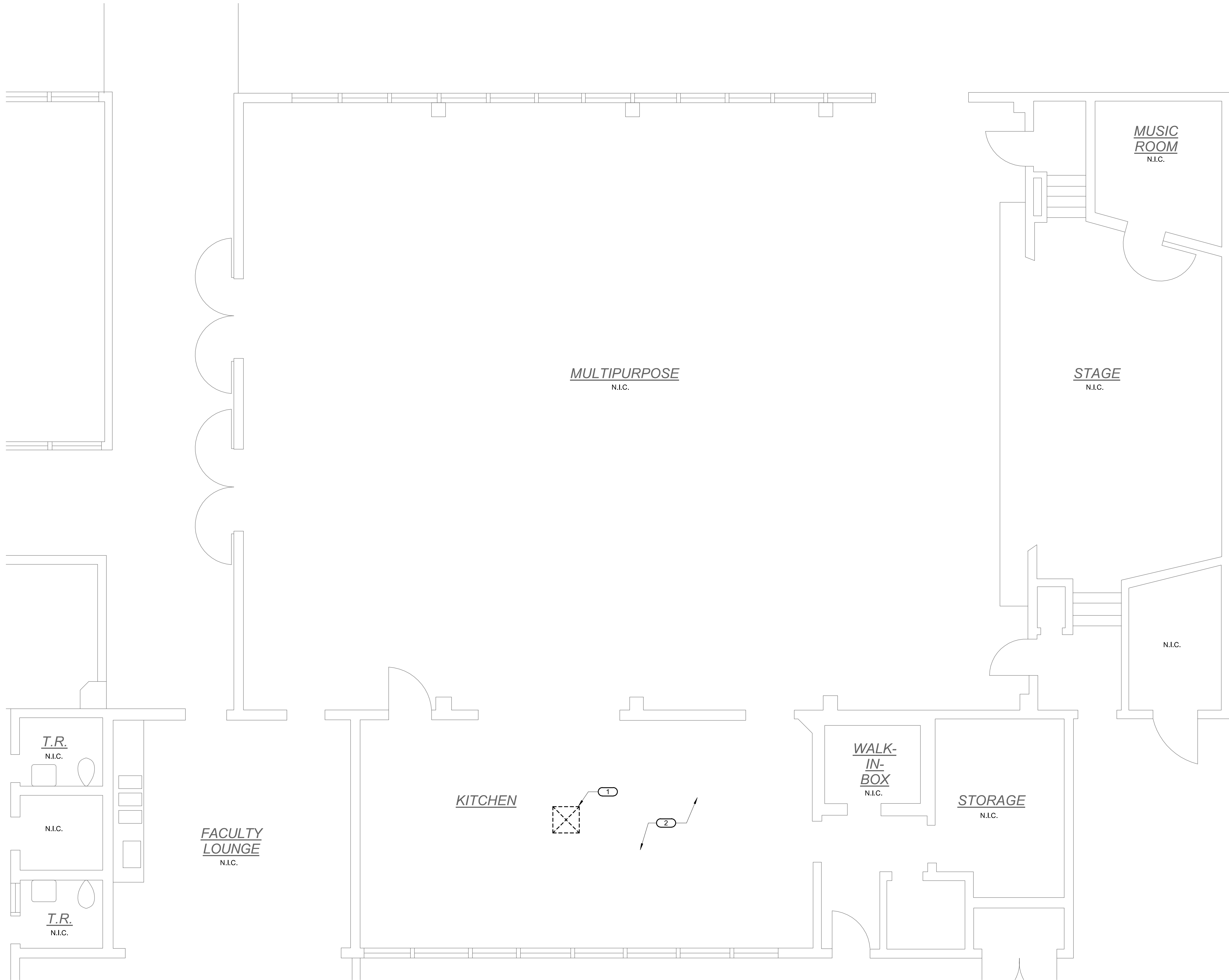
1

DEMOLITION FLOOR PLAN

1/4" = 1'-0"

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.



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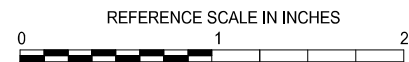
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Approved	ED

SHEET TITLE

DEMOLITION FLOOR PLAN

SCALE

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

SHEET NUMBER

M2.1

19000643.00 6/2/2020 9:11:31 AM VIKING E.S. KITCHEN HVAC ADDITION

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

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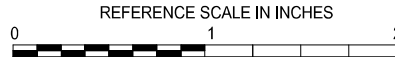
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SHEET TITLE
DEMOLITION ROOF PLAN

SCALE

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

SHEET NUMBER

M2.2

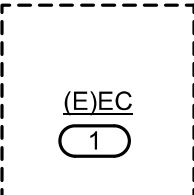
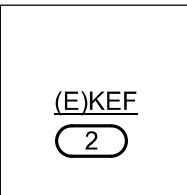
EXHIBIT A



1

DEMOLITION ROOF PLAN

1/4" = 1'-0"



19000643.00 6/2/2020 9:11:34 AM VIKING E.S. KITCHEN HVAC ADDITION



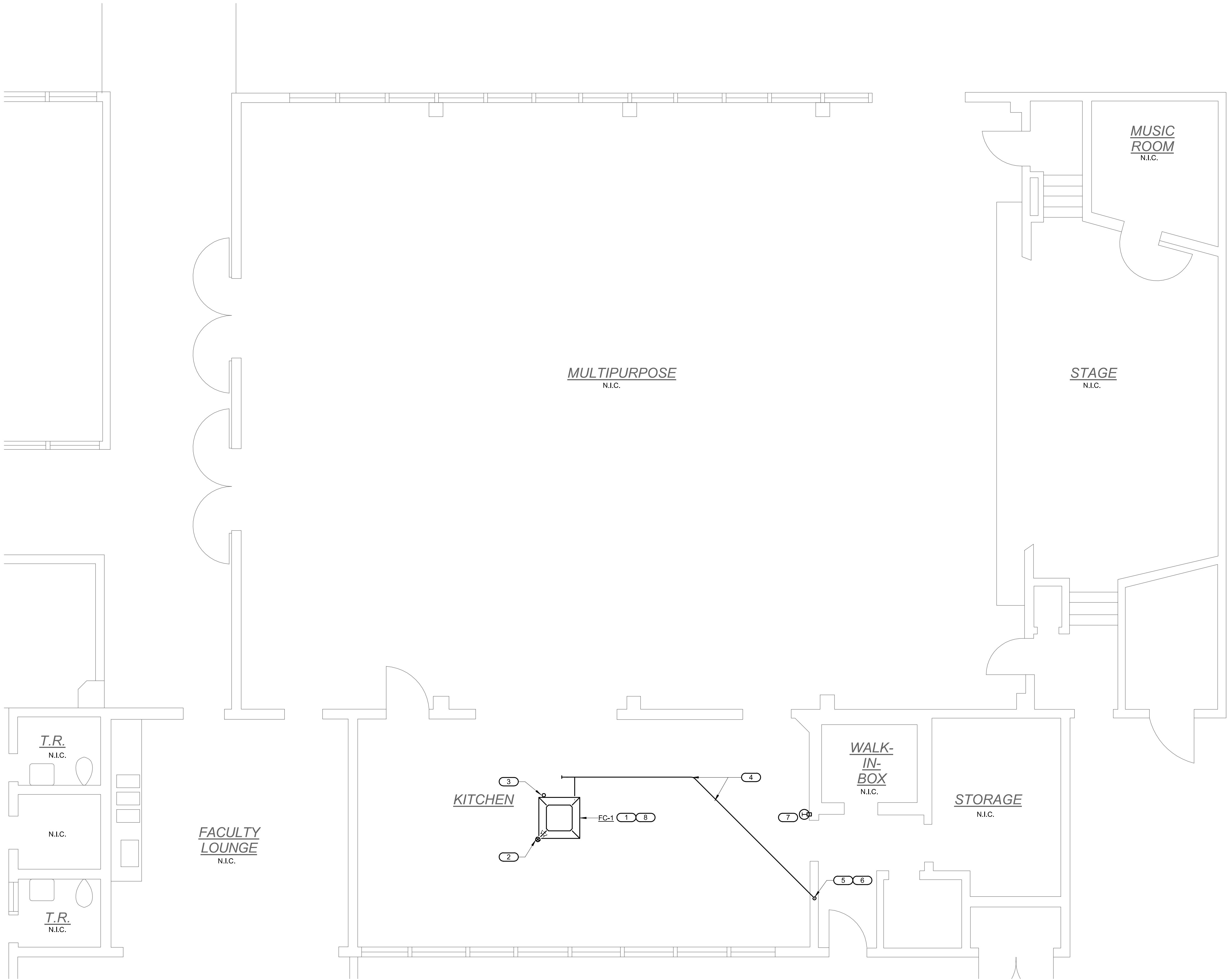
1

REMODEL FLOOR PLAN

1/4" = 1'-0"

REMODEL KEYNOTES: C

1. NEW FAN COIL TO BE INSTALLED IN EXISTING OPENING IN CEILING.
2. NEW 4"Ø OSA DUCT UTR TO NEW ROOF CAP. REFER TO DETAIL 5/M4.1. BALANCE OSA TO MIN 95 CFM.
3. REFRIGERANT LINES IN CEILING SPACE TO FC-1.
4. 3/4" CONDENSATE LINE IN CEILING SPACE.
5. 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.
6. CONNECT CONDENSATE LINE TO (E)SINK TRAP (FIELD LOCATE). INSTALL NEW TRAP WITH CONDENSATE LINE CONNECTION IF NECESSARY. REFER TO DETAIL 6/M4.2.
7. INSTALL NEW DDC THERMOSTAT.
8. CONNECT NEW FAN COIL CONTROLS TO EXISTING JOHNSON CONTROLS EMS SYSTEM PANEL IN HEATER ROOM. ROUTE CONDUIT AS NEEDED.



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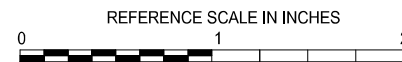
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Checked	JM
Approved	ED

SHEET TITLE

REMODEL FLOOR PLAN

SCALE

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

SHEET NUMBER

M3.1

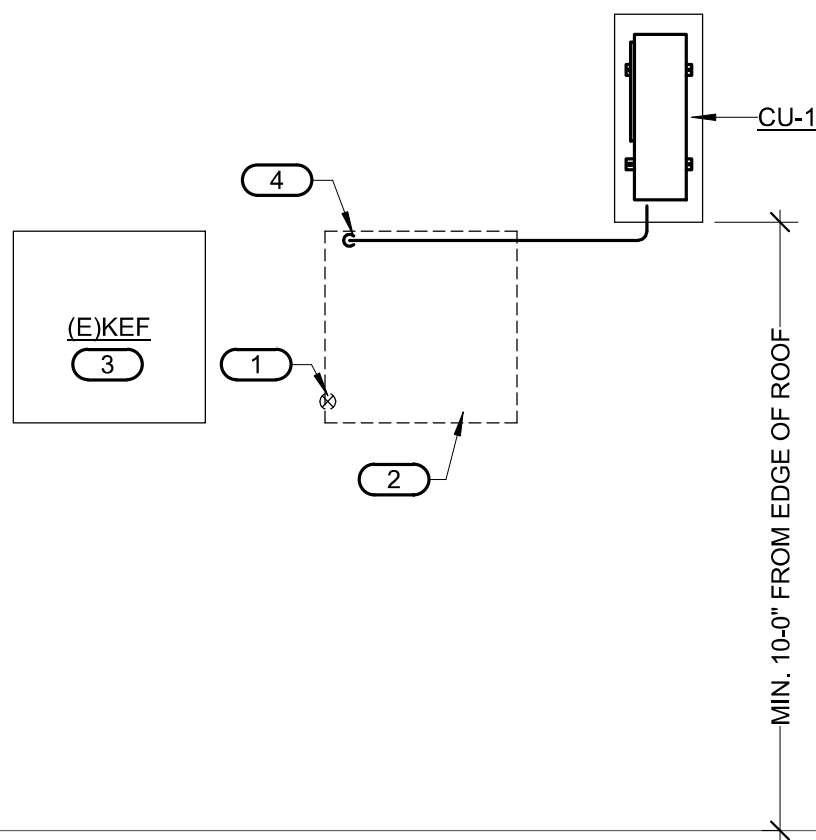
19000643.00 6/2/2020 9:11:37 AM VIKING E.S. KITCHEN HVAC ADDITION



1

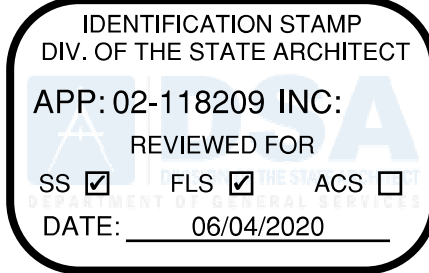
REMODEL ROOF PLAN

1/4" = 1'-0"



REMODEL KEYNOTES: (#)

1. NEW OSA INTAKE CAP TO BE INSTALLED IN EXISTING ROOF OPENING.
2. FOR REFRIGERANT LINE THROUGH ROOF REFER TO 11M4.2.
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 MAINTAIN EXISTING WARRANTY. COORDINATE WITH DISTRICT PRIOR TO STARTING CONSTRUCTION.
5. BALANCE EXISTING KITCHEN EXHAUST FAN TO MIN 445 CFM PER TITLE 24 REQUIREMENTS.



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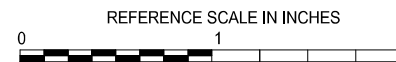
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Approved	ED

SHEET TITLE

REMODEL ROOF PLAN

SCALE

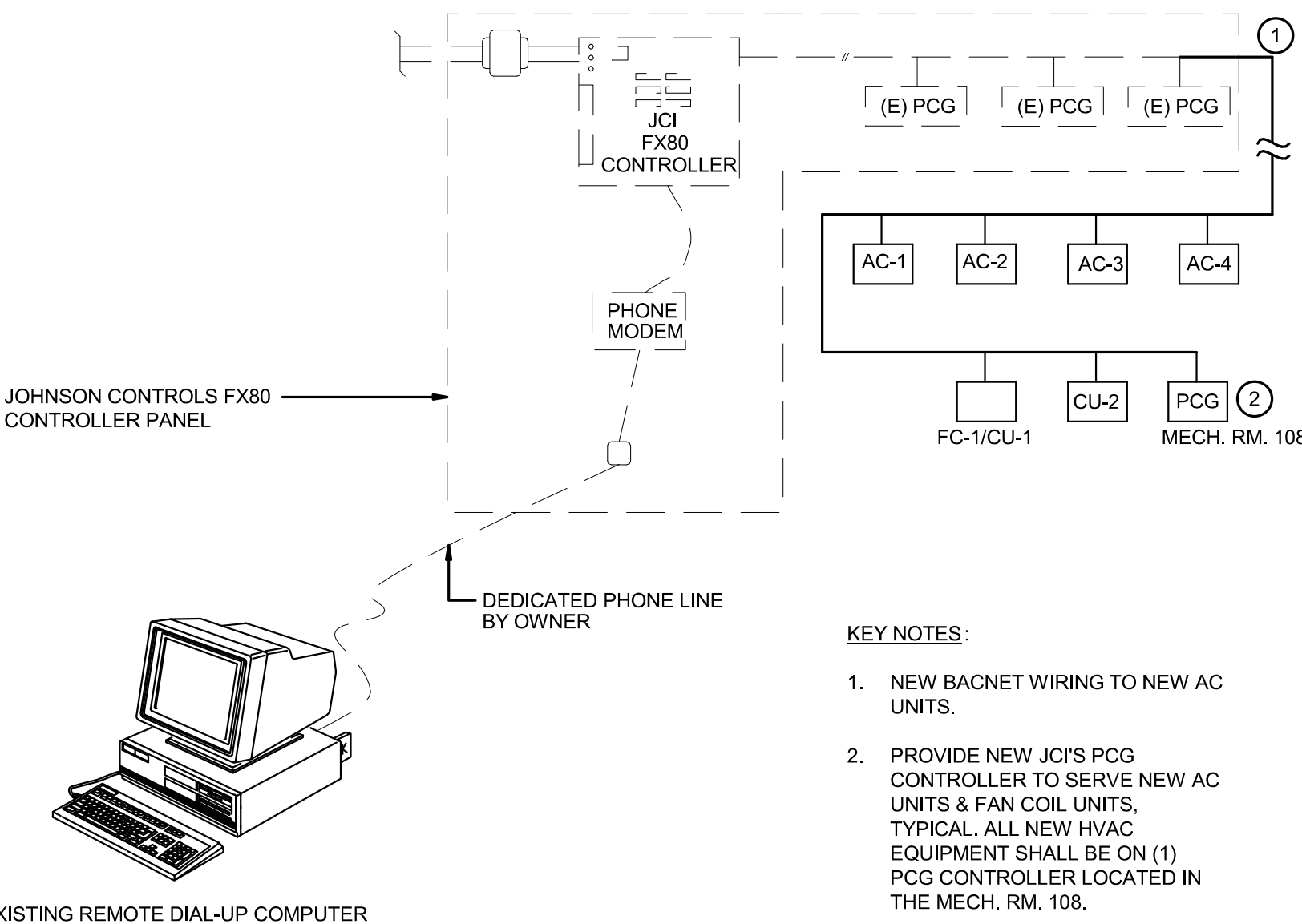
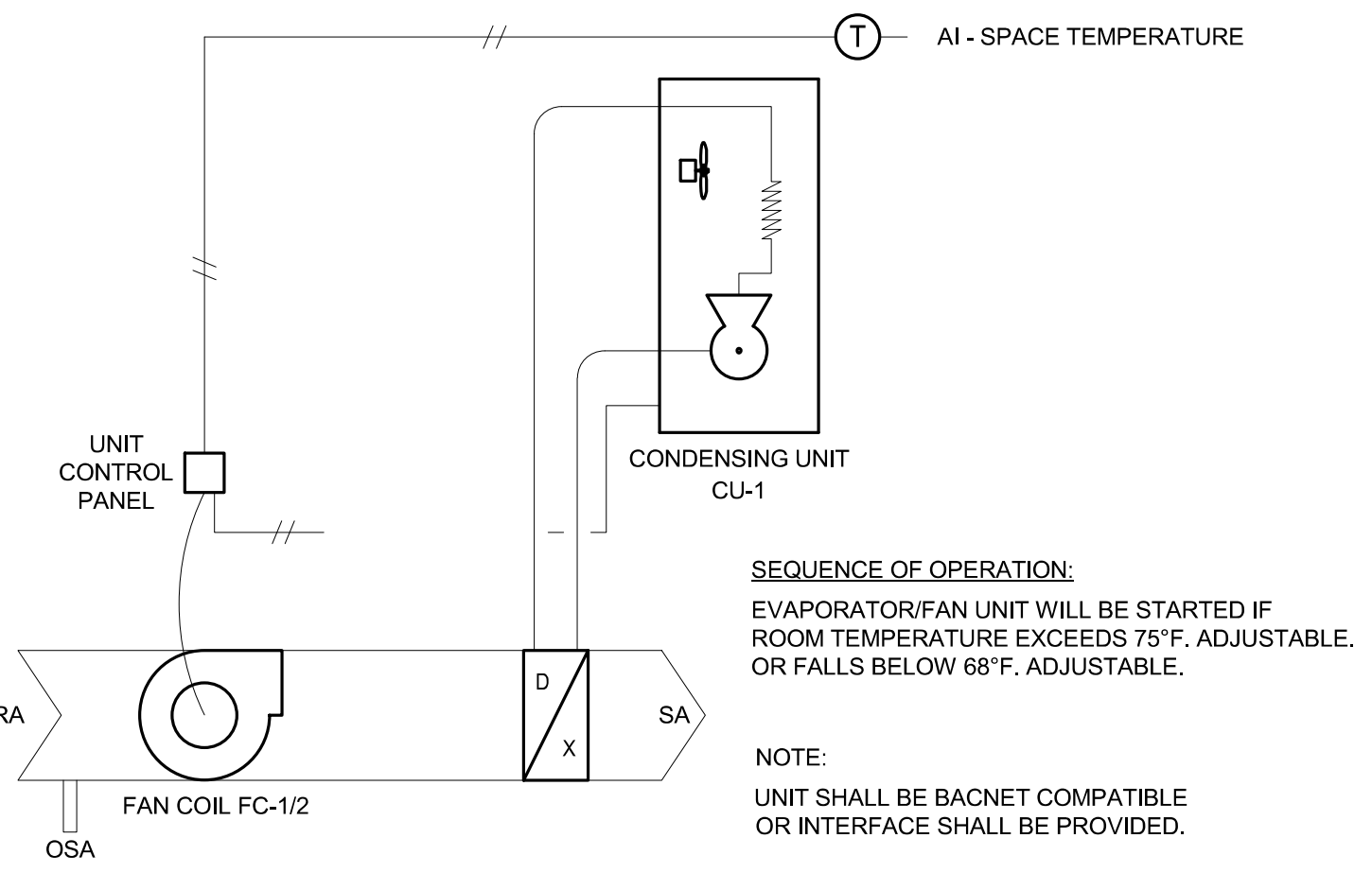
Scale: 1/4" = 1'-0"

SHEET NUMBER

M3.2

EXHIBIT A

19000643.00 6/2/2020 9:11:45 AM VIKING E.S. KITCHEN HVAC ADDITION

						<div><div>KEY NOTES:</div><div><div>1.</div><div>NEW BACNET WIRING TO NEW AC UNITS.</div></div><div><div>2.</div><div>PROVIDE NEW JCI'S PCG CONTROLLER TO SERVE NEW AC UNITS & FAN COIL UNITS. TYPICAL. ALL NEW HVAC EQUIPMENT SHALL BE ON (1) PCG CONTROLLER LOCATED IN THE MECH. RM. 108.</div></div></div>		
NOT USED	NTS	6	NOT USED	NTS	3	EMS SYSTEM NETWORK	NTS	1
						<div><div>SEQUENCE OF OPERATION: EVAPORATOR/FAN UNIT WILL BE STARTED IF ROOM TEMPERATURE EXCEEDS 75°F. ADJUSTABLE. OR FALLS BELOW 68°F. ADJUSTABLE.</div><div>NOTE: UNIT SHALL BE BACNET COMPATIBLE OR INTERFACE SHALL BE PROVIDED.</div><div>CONTROL NOTES:</div><div><div>1.</div><div>CONTRACTOR SHALL DISCONNECT ALL EXISTING LIGHTING CONTROL CIRCUITS FROM EXISTING NETWORK AREA CONTROLLERS SCHEDULED TO BE REPLACED. CONTRACTOR SHALL RECONNECT EXISTING LIGHTING CONTROL CIRCUITS TO NEW FX80 PANELS AND DEMONSTRATE PROPER OPERATION TO DISTRICT ENERGY MANAGEMENT DEPARTMENT. FIELD VERIFY EXACT NUMBER OF CIRCUITS AND PROGRAMMING.</div></div><div><div>2.</div><div>CONTRACTOR SHALL DISCONNECT ALL EXISTING PHOTOCELL LIGHTING CONTROLLERS FROM EXISTING NETWORK AREA CONTROLLERS SCHEDULED TO BE REPLACED. CONTRACTOR SHALL RECONNECT ALL EXISTING PHOTOCELL LIGHTING CONTROLLERS TO NEW FX80 PANELS AND DEMONSTRATE PROPER OPERATION TO DISTRICT ENERGY MANAGEMENT DEPARTMENT. FIELD VERIFY EXACT NUMBER AND LOCATION OF EXISTING PHOTOCELLS.</div></div><div><div>3.</div><div>CONTRACTOR SHALL DISCONNECT ALL EXISTING OUTDOOR AIR SENSORS FROM EXISTING NETWORK AREA CONTROLLERS SCHEDULED TO BE REPLACED. CONTRACTOR SHALL RECONNECT ALL EXISTING OUTDOOR AIR SENSORS TO NEW FX80 PANELS AND DEMONSTRATE PROPER OPERATION TO DISTRICT ENERGY MANAGEMENT DEPARTMENT. FIELD VERIFY EXACT NUMBER AND LOCATION OF EXISTING OUTDOOR AIR SENSORS.</div></div><div><div>4.</div><div>PROVIDE TWO (2) SPARE PCX CONTROLLERS FOR DISTRICT ENERGY MANAGEMENT DEPARTMENT USE.</div></div></div>		
NOT USED	NTS	7	NOT USED	NTS	4			
						FC-1/2 AND CU-2 CONTROL DIAGRAM	NTS	2
NOT USED	NTS	8	NOT USED	NTS	5			

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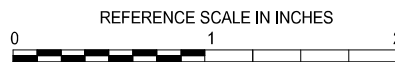
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REVISIONS

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Date	10/20/2020
Job Number	19000643.00
Drawn	Author
Checked	Checker
Approved	Approver

SHEET TITLE
CONTROLS

SCALE

Scale:

SHEET NUMBER

M5.1

NAME

10' - 0"

LEVEL NAME

HEIGHT ABOVE PROJECT 0' - 0"

1

INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL

INDICATES DIRECTION OF TRUE NORTH

PLAN OR DETAIL NUMBER

PLAN OR DETAIL NAME

1

VIEW NAME

1/8" = 1'-0"

PLAN OR DETAIL SCALE

SIM

INDICATES SIMILAR DETAIL REFERENCED IN MULTIPLE LOCATIONS

DETAIL REFERRED TO BY SECTION CUT

1

SHEET DETAIL IS LOCATED ON

SIM

INDICATES SIMILAR DETAIL REFERENCED IN MULTIPLE LOCATIONS

DETAIL REFERRED TO BY ELEVATION

4

7

3

1

T101

SHEET DETAIL IS LOCATED ON

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

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.

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 IDENTIFICATION. 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, 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 HIS/HER WORK].

3. 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 BIDDING.

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.

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

ELECTRICAL ABBREVIATION KEY	
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 SHEET INDEX

E0.1 OVERALL SITE PLAN

E1.1 DEMOLITION POWER PLAN

E2.2 DEMOLITION ROOF PLAN

E3.1 REMODEL POWER PLAN

E3.2 REMODEL ROOF PLAN

E4.1 DETAILS

Total: 7

GENERAL NOTES, LEGEND, ABBREVIATIONS AND DRAWING LIST

20" MAX.

48" MAX.

INSTALL ABOVE COUNTER DEVICE AT 44" ABOVE FINISHED FLOOR.

20"-25" MAX.

44" MAX.

INSTALL ABOVE COUNTER DEVICE AT 40" ABOVE FINISHED FLOOR.

15" MIN.

48" MAX.

INSTALL DEVICE AT 18" ABOVE FINISHED FLOOR.

10" MAX.

48" MAX.

INSTALL DEVICE AT 44" ABOVE FINISHED FLOOR.

10"-24" MAX.

48" MAX.

INSTALL DEVICE AT 42" ABOVE FINISHED FLOOR.

ADA GUIDELINES - FRONT ACCESS

ADA GUIDELINES - SIDE ACCESS

ADA STANDARDS FOR ACCESSIBLE DESIGN

IDENTIFICATION STAMP

DIV. OF THE STATE ARCHITECT

APP: 02-118209 INC:

REVIEWED FOR

SS ☒ FLS ☒ ACS ☐

DATE: 06/04/2020

Fresno Unified School District

VIKING E.S. KITCHEN HVAC ADDITION

4251 N WINERY AVE, FRESNO, CA 93726

IMEG

901 VIA PIEMONTE SUITE 400 ONTARIO, CA 91764

PH: 909.477.6915 FAX: 909.477.6916 www.imegcorp.com

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER

NESTOR C. IGUAJO JR.

LIC. E16934

Exp. 6-30-2021

CONSULTANT

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REVISIONS		
No.	Date	Revision / Issue

SHEET INFORMATION

Issue

10/20/2020

Date

19000643.00

Job Number

Author

Drawn

Checker

Checked

Approver

Approved

SHEET TITLE

GENERAL NOTES, LEGEND, ABBREVIATIONS AND DRAWING LIST

SCALE

As indicated

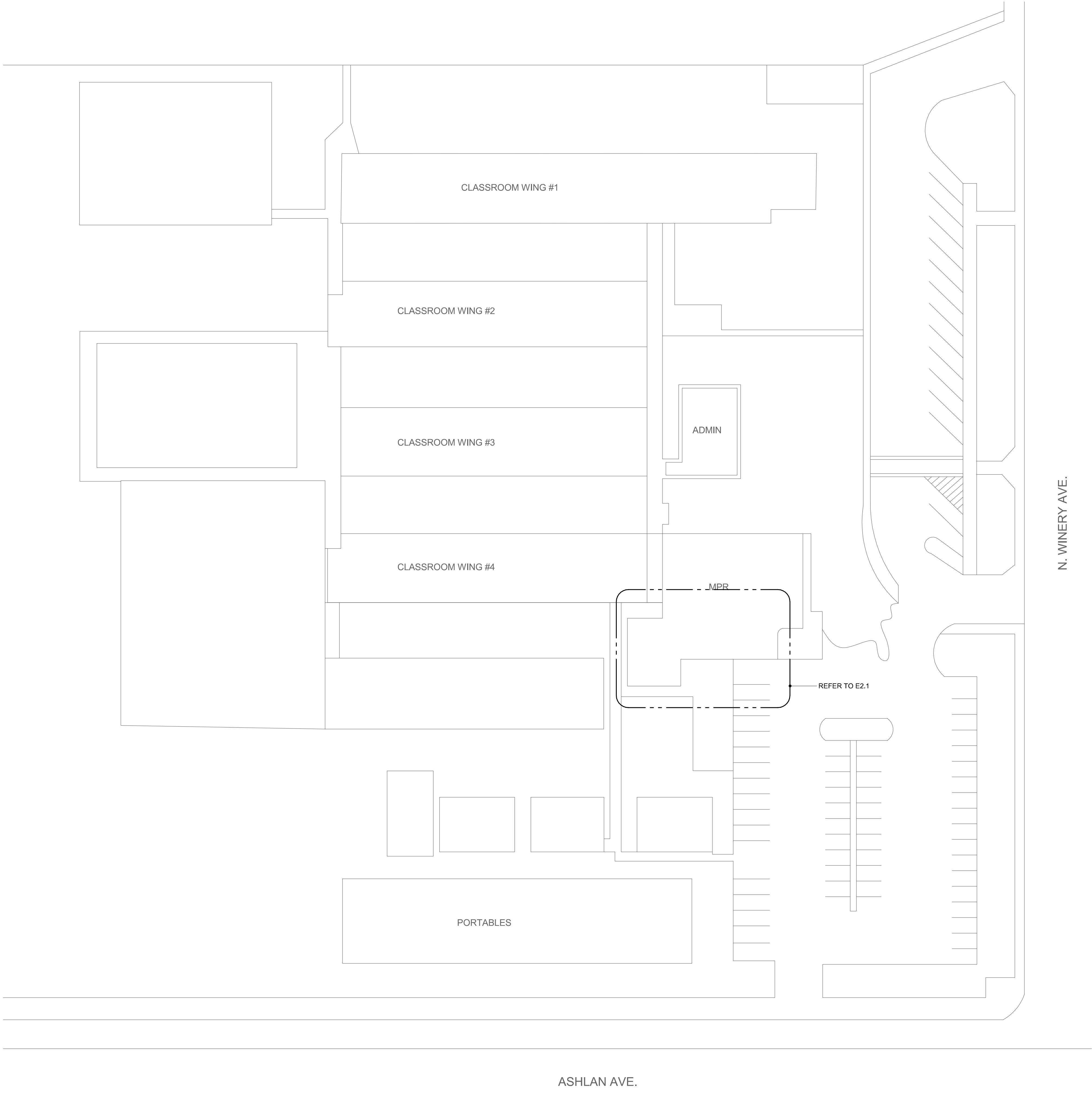
SHEET NUMBER

E0.1

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

EXHIBIT A

19000643.00 6/2/2020 9:17:29 AM VIKING E.S. KITCHEN HVAC ADDITION



1

ELECTRICAL OVERALL SITE PLAN

1" = 30'-0"

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VIKING E.S. KITCHEN HVAC ADDITION

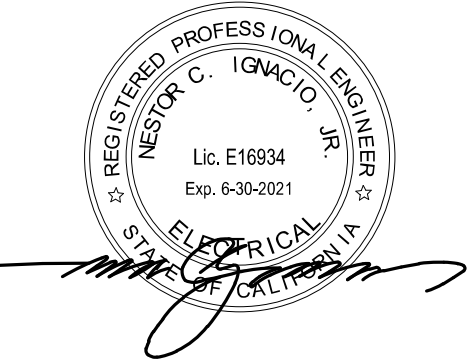
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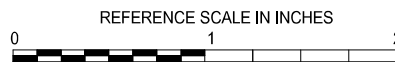
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SHEET INFORMATION

Issue	BID SET
Date	10/20/2020
Job Number	19000643.00
Drawn	Author
Checked	Checker
Approved	Approver

SHEET TITLE

OVERALL SITE PLAN

SCALE

Scale: 1" = 30'-0"

SHEET NUMBER

E1.1

19000643.00 6/2/2020 9:17:32 AM VIKING E.S. KITCHEN HVAC ADDITION



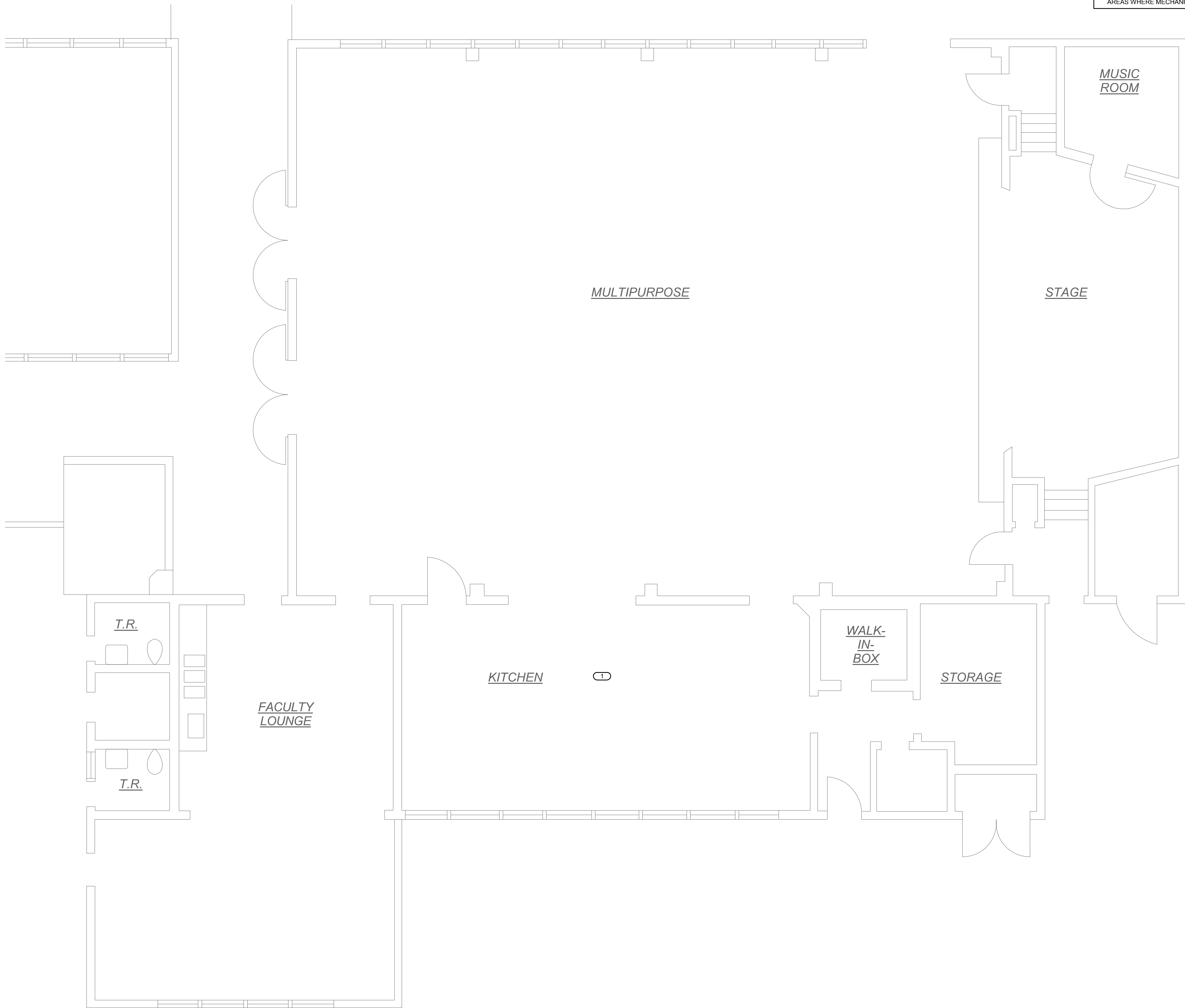
1

KITCHEN DEMOLITION PLAN

1/4" = 1'-0"

KEYNOTES: **C** **F**

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



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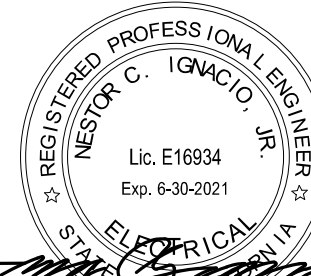
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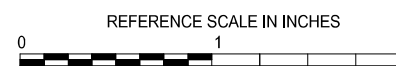
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No.	Date	Revision / Issue
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Issue	BID SET
Date	10/20/2020
Job Number	19000643.00
Drawn	Author
Checked	Checker
Approved	Approver

SHEET TITLE

DEMOLITION POWER PLAN

SCALE

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

SHEET NUMBER

E2.1

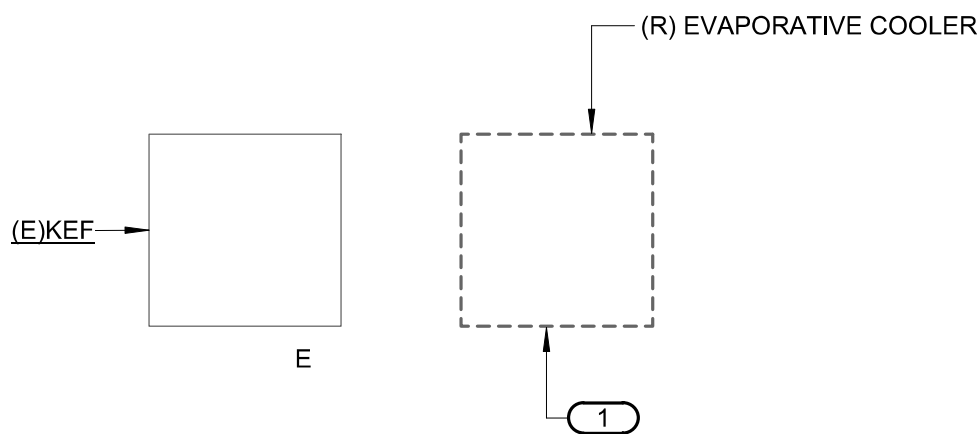
19000643.00 6/2/2020 9:17:35 AM VIKING E.S. KITCHEN HVAC ADDITION



1

ELECTRICAL ROOF DEMOLITION PLAN

1/4" = 1'-0"



KEYNOTES: #

1. EXISTING EVAPORATIVE COOLER TO BE REMOVED BY MECHANICAL. CIRCUIT TRACE AND REMOCE ASSOCIATED WIRES. REMOVE CONDUIT UP TO PANEL AND PATCH ROOF OPENINGS.

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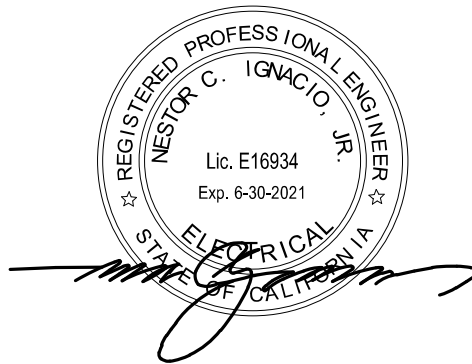
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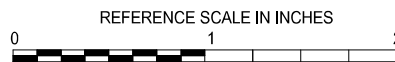
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Date	10/20/2020
Job Number	19000643.00
Drawn	Author
Checked	Checker
Approved	Approver

SHEET TITLE

DEMOLITION ROOF PLAN

SCALE

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

SHEET NUMBER

E2.2

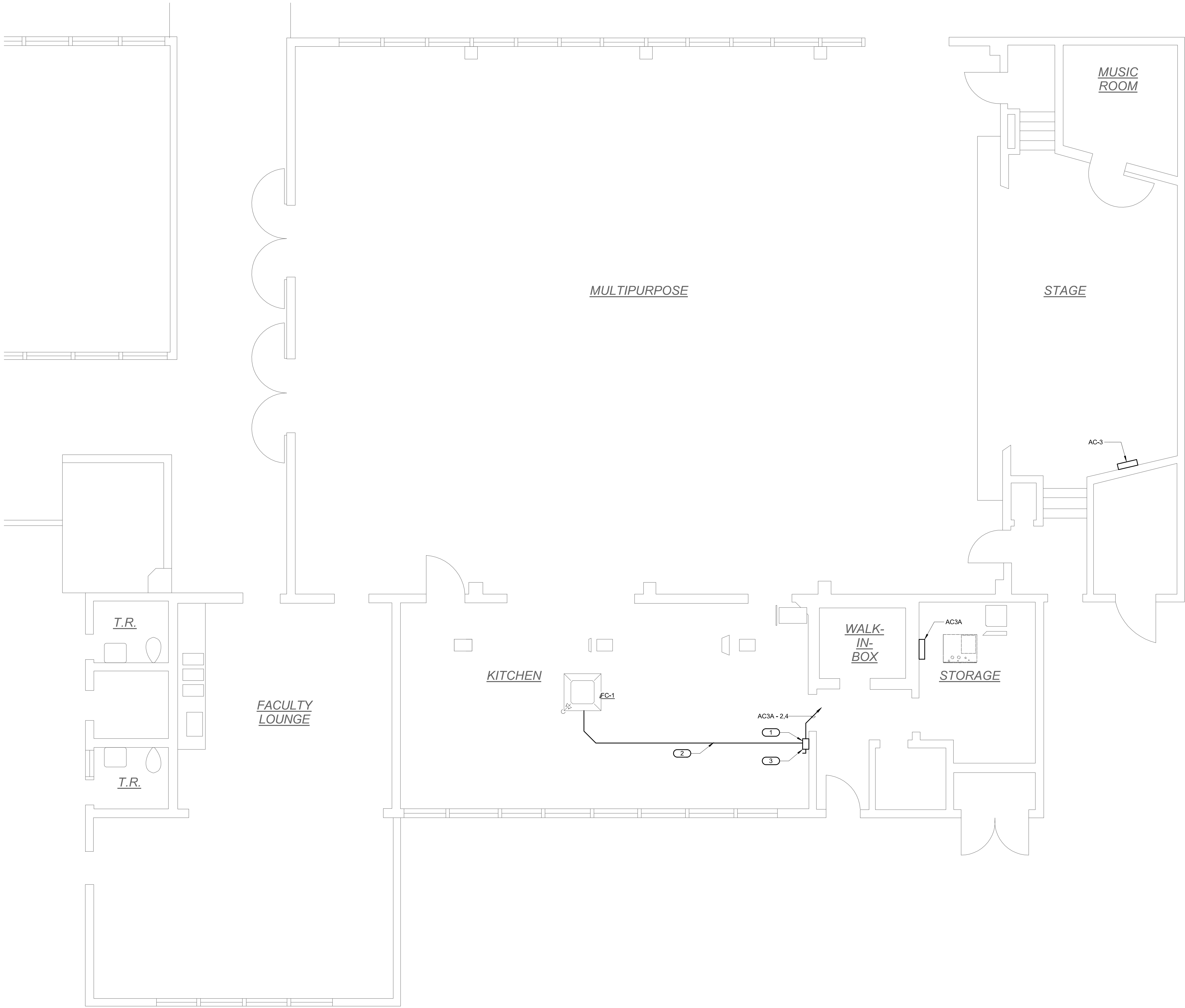
19000643.00 6/2/2020 9:17:38 AM VIKING E.S. KITCHEN HVAC ADDITION



1

1/4" = 1'-0"

KITCHEN REMODEL PLAN



KEYNOTES: (E)

1. MOUNT FUSED DISCONNECT ON WALL AT 84".
2. RUN DEVICES IN CEILING.
3. 15AF/15AFU, 2-POLE.

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VIKING E.S. KITCHEN HVAC ADDITION

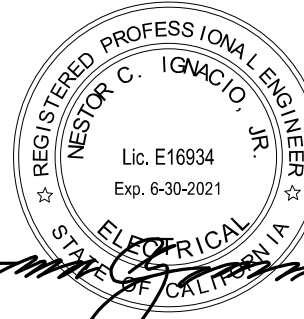
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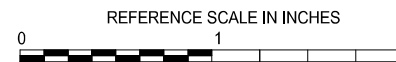
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SHEET INFORMATION

Issue	BID SET
Date	10/20/2020
Job Number	19000643.00
Drawn	Author
Checked	Checker
Approved	Approver

SHEET TITLE

REMODEL POWER PLAN

SCALE

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

SHEET NUMBER

E3.1

19000643.00 6/2/2020 9:17:41 AM VIKING E.S. KITCHEN HVAC ADDITION

KEYNOTES: (#)
1. MOUNT ON UNIT.

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DATE: 06/04/2020

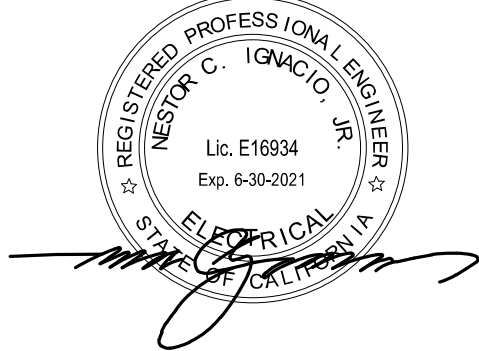


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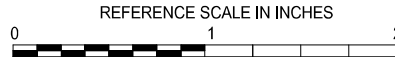
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No.	Date	Revision / Issue
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SHEET INFORMATION

Issue	BID SET
Date	10/20/2020
Job Number	19000643.00
Drawn	Author
Checked	Checker
Approved	Approver

SHEET TITLE
REMODEL ROOF PLAN

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

SHEET NUMBER

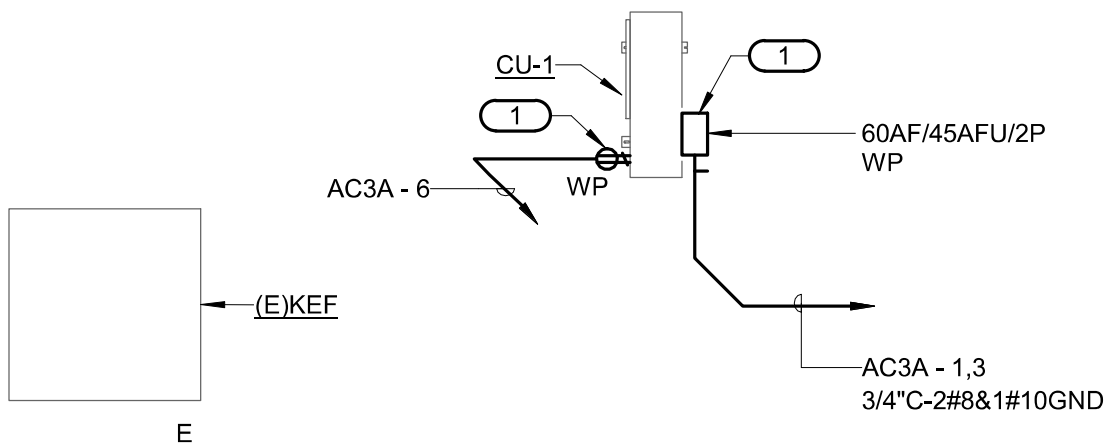
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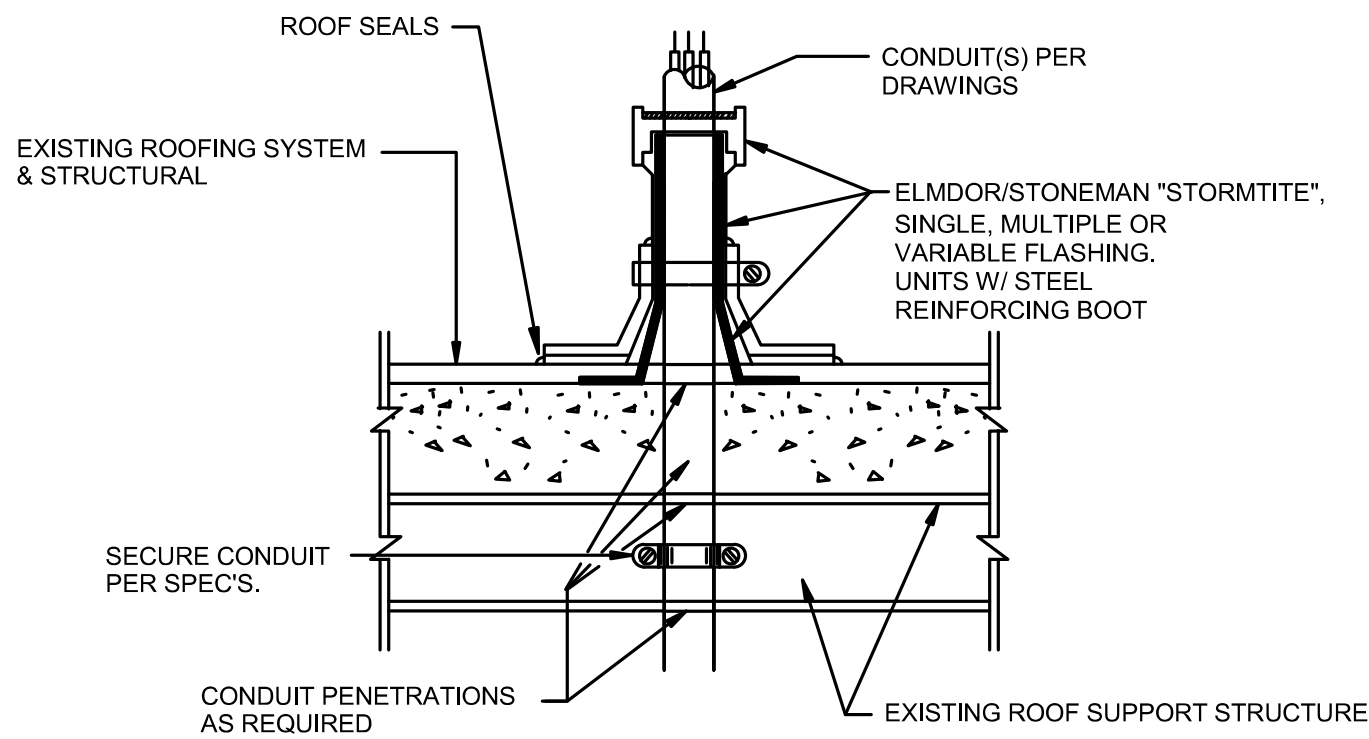
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ELECTRICAL KITCHEN ROOF PLAN

1/4" = 1'-0"



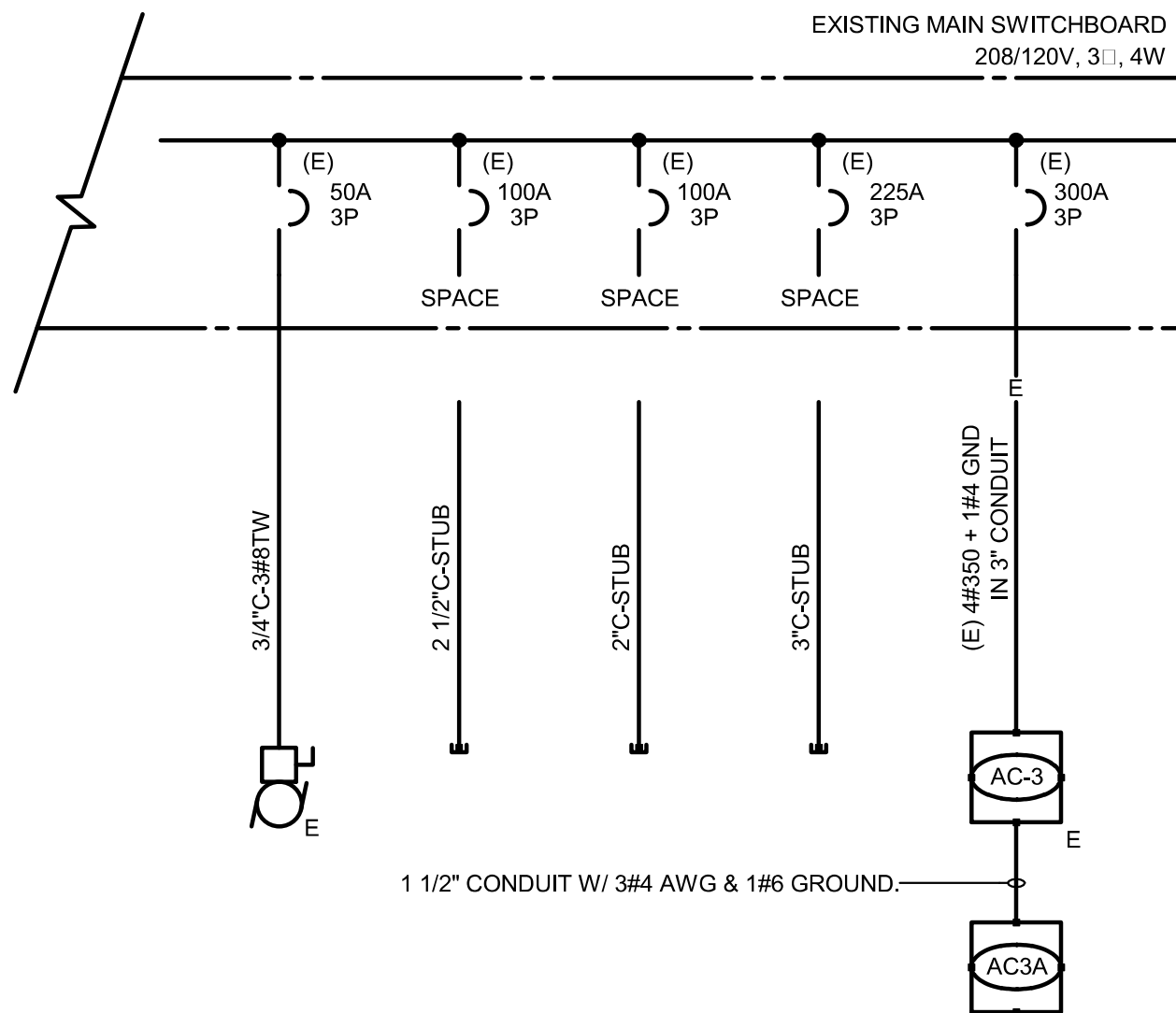
19000643.00 6/2/2020 9:17:44 AM VIKING E.S. KITCHEN HVAC ADDITION



CONDUIT ROOF PENETRATION DETAIL

NTS

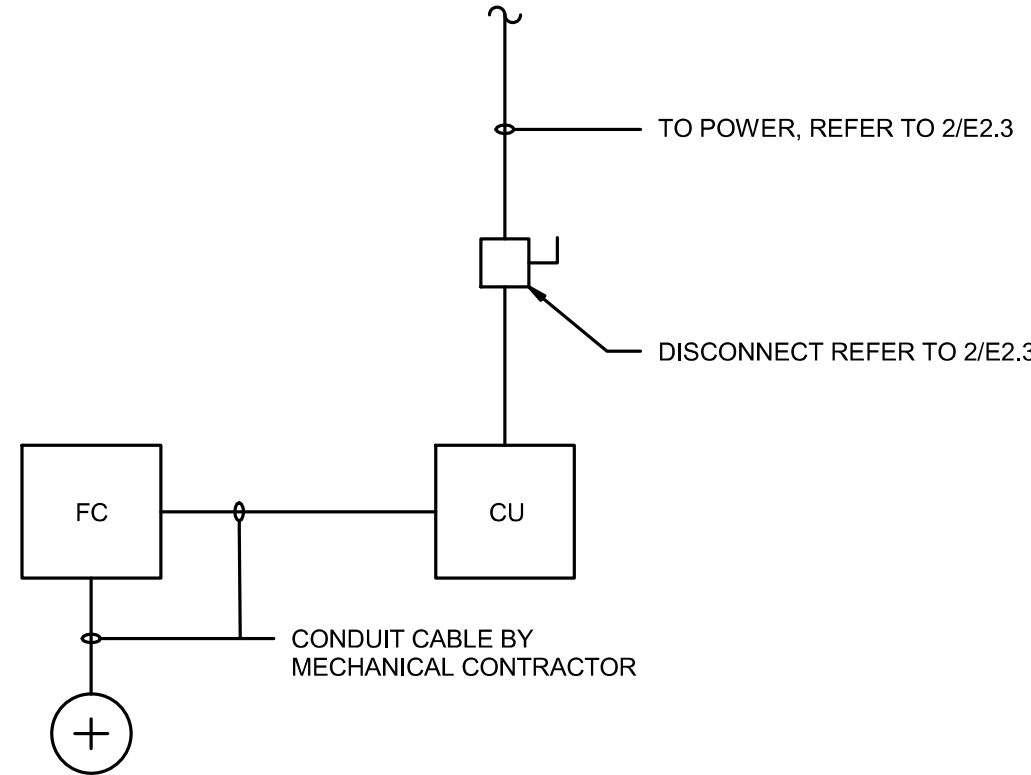
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PARTIAL SINGLE LINE DIAGRAM

NTS

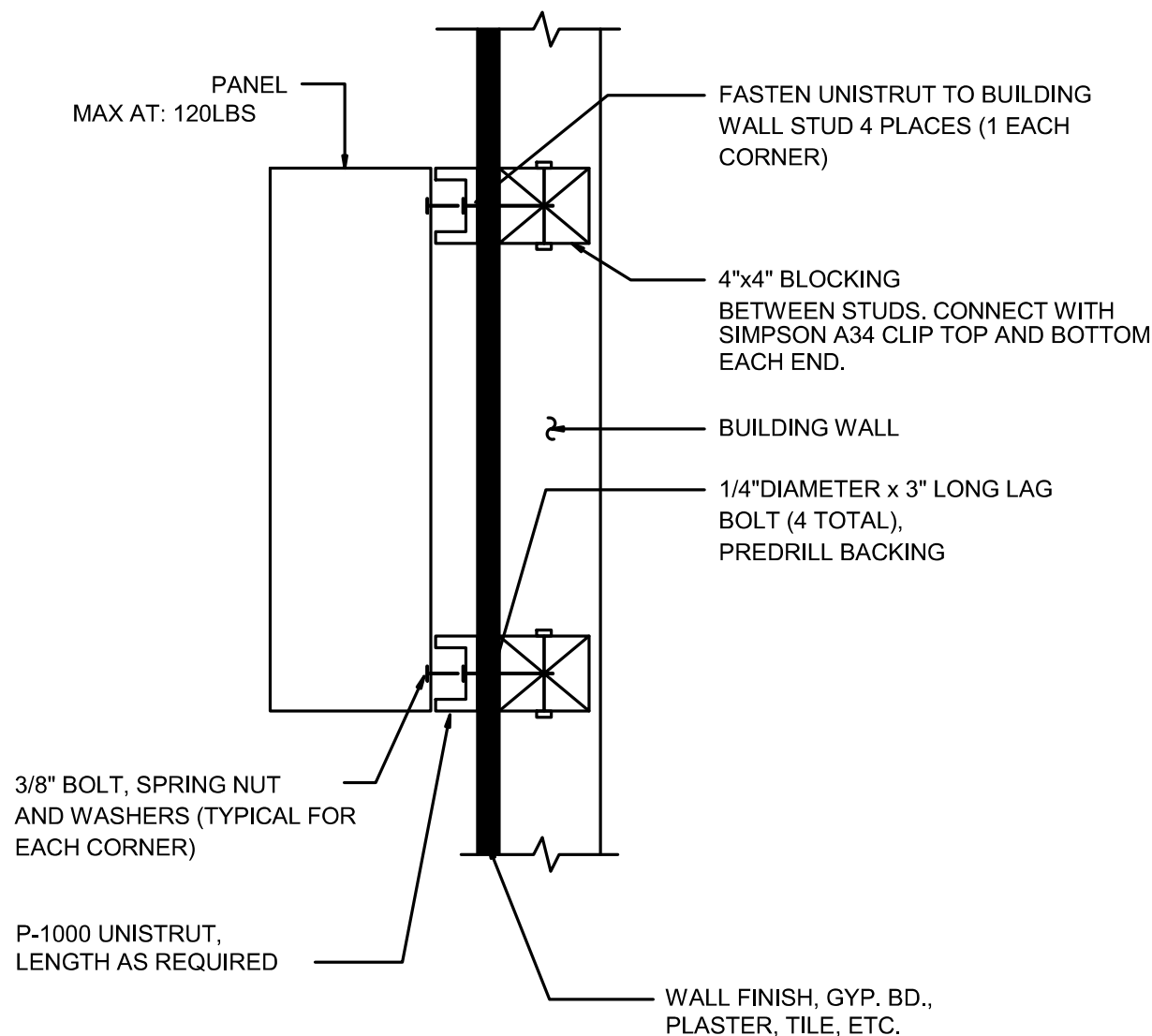
2



FAN-COIL/CONDENSING UNIT DIAGRAM

NTS

1



SURFACE MOUNTED PANEL/CABINET WOOD FRAMING

NTS

5

Branch Panel: AC3A

Location:
Supply From: (E) AC-3
Mounting: FLUSH
Enclosure: BOLT-ON

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000
Mains Type:
Mains Rating: 100 A
MCB Rating: 100 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C	Poles	Trip	Circuit Description	CKT
1	CU-1	45 A	2	3016 VA	104 VA	3016 VA	104 VA		2	15 A	FC-1	2
3	--	--	--						--	--	--	4
5	SPARE	20 A	1					0 VA	1	20 A	ROOF RECEPTACLE	6
7	SPARE	20 A	1	0 VA	0 VA				1	20 A	SPARE	8
9	SPARE	20 A	1			0 VA	0 VA		1	20 A	SPARE	10
11												12
Total Load:				3120 VA		3120 VA		180 VA				
Total Amps:				29.8 A		29.8 A		1.5 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Receptacles	180 VA	100.00%	180 VA	Total Conn. Load: 180 VA Total Est. Demand: 180 VA Total Conn. Current: 0.5 A Total Est. Demand... 0.5 A

Notes:

Branch Panel: (E) AC-3

Location:
Supply From:
Mounting: SURFACE
Enclosure: BOLT-ON

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 42,000
Mains Type:
Mains Rating: 400 A
MCB Rating: 300 A

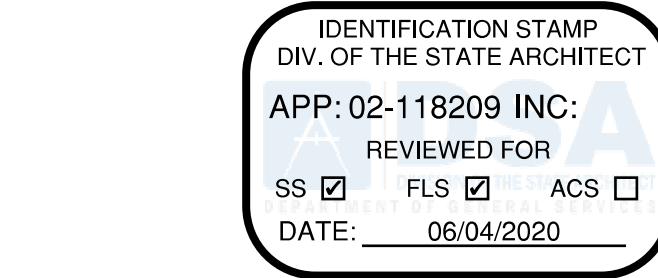
Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	(E) HC-3A	60 A	3	5000 VA	1400 VA					3	20 A	(E) EXAU. FAN FOR HC-3A	2
3	--	--	--			5000 VA	1400 VA			--	--	--	4
5	--	--	--					5000 VA	1400 VA	--	--	--	6
7	(E) HC-3B	60 A	3	5000 VA	1400 VA					3	20 A	(E) EXHAUS FAN FOR HC-3B	8
9	--	--	--			5000 VA	1400 VA			--	--	--	10
11	--	--	--					5000 VA	1400 VA	--	--	--	12
13	(E) CU-1	20 A	2	800 VA	2500 VA					3	30 A	(E) HC-1	14
15	--	--	--			800 VA	2500 VA			--	--	--	16
17	CONDENSING PUMP	20 A	1					800 VA	2500 VA	--	--	--	18
19	AC3A	20 A	3	3120 VA	800 VA					1	20 A	(E) WP RECEPTACLE	20
21	--	--	--			3120 VA	500 VA			1	20 A	(E) LOAD	22
23	--	--	--					180 VA	500 VA	1	20 A	(E) LOAD	24
Total Load:				20020 VA		19720 VA		16780 VA					
Total Amps:				170.6 A		168.1 A		139.8 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Receptacles	180 VA	100.00%	180 VA	Total Conn. Load: 50280 VA Total Est. Demand: 40260 VA Total Conn. Current: 139.6 A Total Est. Demand... 111.8 A

Notes:



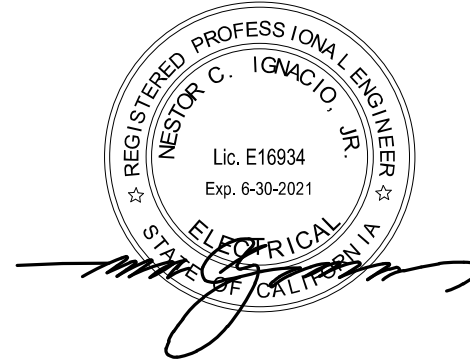
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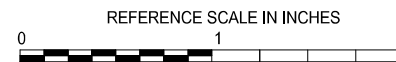
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REVISIONS

No. Date Revision / Issue

SHEET INFORMATION

Issue BID SET

Date 10/20/2020

Job Number 19000643.00

Drawn Author

Checked Checker

Approved Approver

SHEET TITLE
DETAILS

SCALE

Scale:

SHEET NUMBER


E4.1


EXHIBIT A

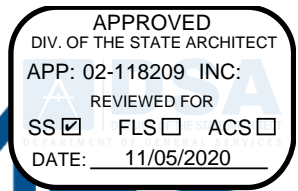
APPLICATION FOR SUBMITTAL OF POST-APPROVAL DOCUMENT

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 [DSA Forms](#) or [DSA Publications](#) webpages.

1. SUBMITTAL TYPE: (Is this a resubmittal? Yes <input type="checkbox"/> No <input type="checkbox"/>)			
Deferred Submittal <input type="checkbox"/>	Addendum Number:	Revision Number:	CCD Number: Category A <input type="checkbox"/> or B <input type="checkbox"/>
2. PROJECT INFORMATION:			
School District/Owner:		DSA File Number:	
Project Name/School:		DSA Application Number:	
3. APPLICANT INFORMATION:			
Date Submitted:		Attached Pages? No <input type="checkbox"/> Yes <input type="checkbox"/> Number of pages?	
Firm Name:		Contact Name:	
Work Email:		Work Phone:	
Firm Address:	City:	State:	Zip Code:
4. REASON FOR SUBMITTAL: (Check applicable boxes)			
<input type="checkbox"/> For revision or addendum prior to construction.		<input type="checkbox"/> For a project currently under construction.	
<input type="checkbox"/> For a project that has a form DSA 301-N: Notification of Requirement for Certification, DSA 301-P: Posted Notification of Requirement for Certification or a 90-Day Letter issued.			
<input type="checkbox"/> To obtain DSA approval of an existing uncertified building or buildings.			
<input type="checkbox"/> For Category B CCD this is: <input type="checkbox"/> a voluntary submittal, <input type="checkbox"/> a DSA required submittal (attach DSA notice requiring submission).			
5. DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE:			
Name of the Design Professional In General Responsible Charge:			
Professional License Number:		Discipline:	
Design Professional in General Responsible Charge Statement: The attached post-approval documents have been examined by me for design intent and appear to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications. They are acceptable for incorporation into the construction of the project.			
Signature:  _____ <div style="text-align: center; font-size: small;">DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE</div>			
6. CONFIRMATION, DESCRIPTION AND LISTING OF DOCUMENTS:			
For addenda, revisions, or CCDs: CHECK THIS BOX <input type="checkbox"/> to confirm that <i>all</i> post-approval documents have been stamped and signed by the Responsible Design Professional listed on form DSA 1: Application for Approval of Plans and Specifications for this project. (For Deferred Submittals, refer to IR A-18: Use of Construction Documents Prepared by Other Professionals, and IR A-19: Design Professional's Signature and Seal (Stamp) on Construction Documents, when applicable, for signature and seal requirements.)			
Provide a brief description of construction scope for this post-approval document (attach additional sheets if needed):			
List of DSA-approved drawings affected by this post-approval document:			

DSA USE ONLY		
SSS RBH Date 11/05/20 <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input type="checkbox"/> Not Required Comments: _____ FLS _____ Date _____ <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input checked="" type="checkbox"/> Not Required Comments: _____ ACS _____ Date _____ <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input checked="" type="checkbox"/> Not Required Comments: _____	<div style="border: 1px solid black; padding: 5px;"> Returned Date: _____ By: _____ </div>	<div style="border: 1px solid black; padding: 10px; text-align: center;"> DSA STAMP APPROVED DIV. OF THE STATE ARCHITECT APP: 02-118209 INC:  REVIEWED FOR SS <input checked="" type="checkbox"/> FLS <input type="checkbox"/> ACS <input type="checkbox"/> DATE: 11/05/2020 </div>



ADDENDUM #1

To: DSA, SACRAMENTO **A#:** 02-118209
From: IMEG Corp. **FILE #:** 10-48
Project FUSD Viking ES Kitchen
IMEG #: 19000643.00
Date: October 20, 2020

Fresno Unified School District, **Viking Elementary School Kitchen HVAC Addition (A#02-118209).**

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.

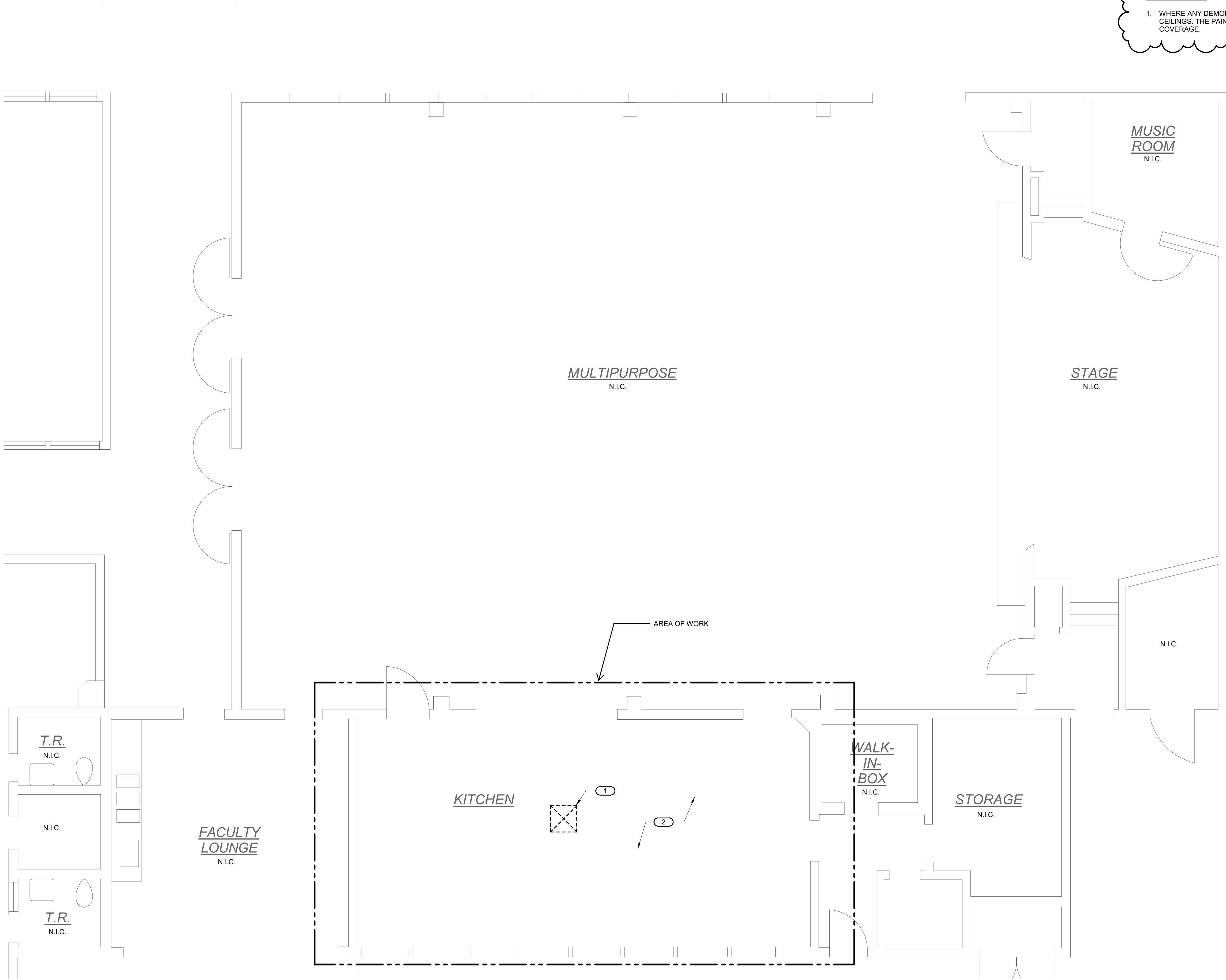
19000643.00 11/3/2020 2:30:39 PM VIKING E.S. KITCHEN HVAC ADDITION



1

1/4" = 1'-0"

DEMOLITION FLOOR PLAN



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 REMOVE EXSISTING POWER AND CONTROLS WIRING, CONDUITS AND SWITCHES. PATCH AND PAINT WALLS AND CEILING TO MATCH EXISTING.

GENERAL NOTES:

1. WHERE ANY DEMOLITION REQUIRES PATCH AND PAINT OF EXISTING WALLS AND CEILINGS. THE PAINTING SHALL BE CORNER TO CORNER FOR COMPLETE COVERAGE.



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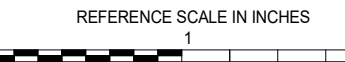
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SHEET INFORMATION

Issue	BID SET - ADDENDUM 1
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Checked	JM
Approved	ED

SHEET TITLE

DEMOLITION FLOOR PLAN

SCALE

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

SHEET NUMBER

M2.1

EXHIBIT A

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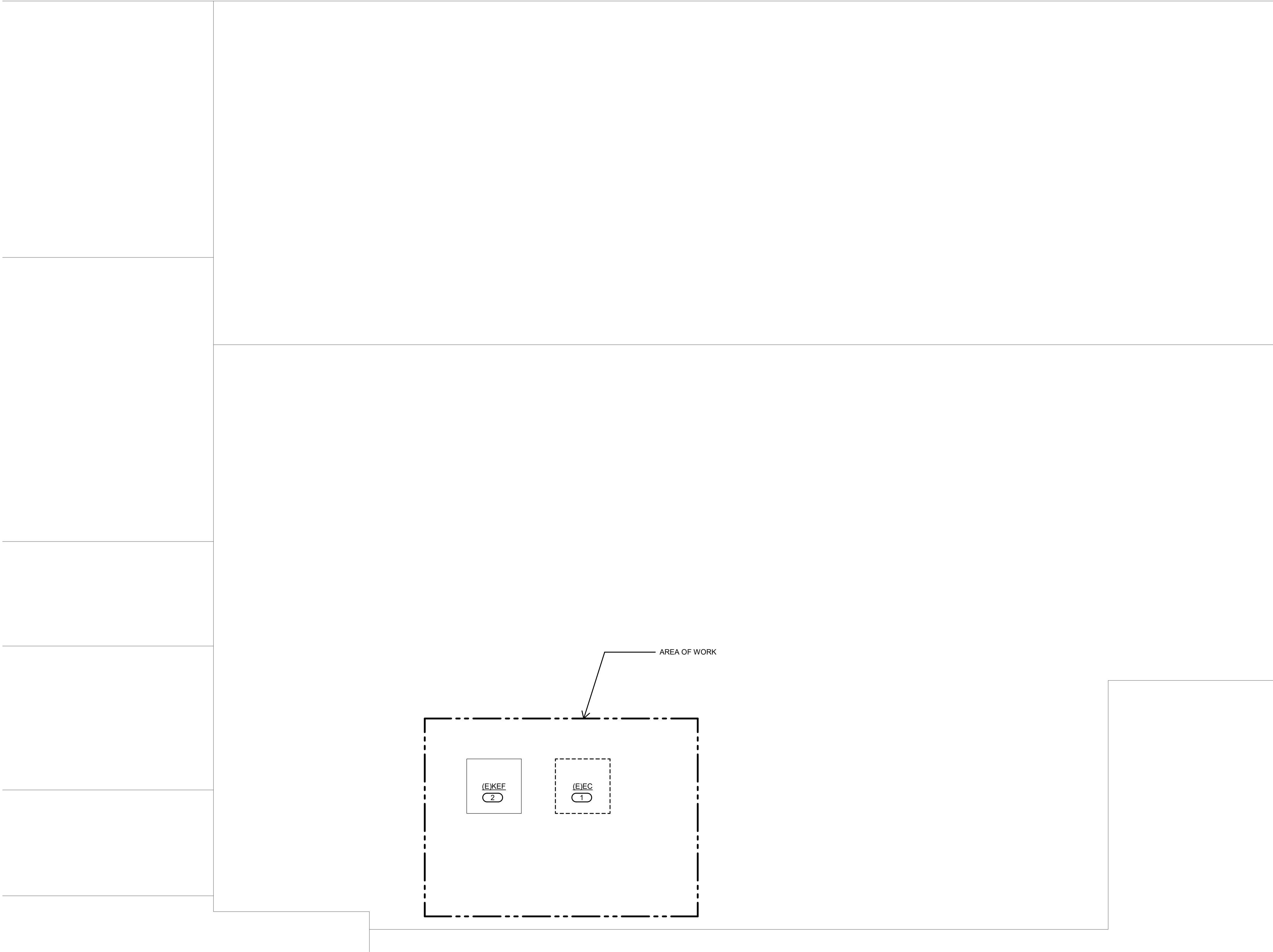
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DEMOLITION ROOF PLAN

1/4" = 1'-0"

DEMOLITION KEYNOTES: **#**

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



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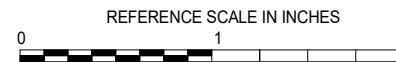
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SHEET TITLE

DEMOLITION ROOF PLAN

SCALE

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

SHEET NUMBER

M2.2



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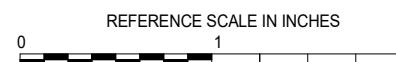


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REMODEL FLOOR PLAN

SCALE

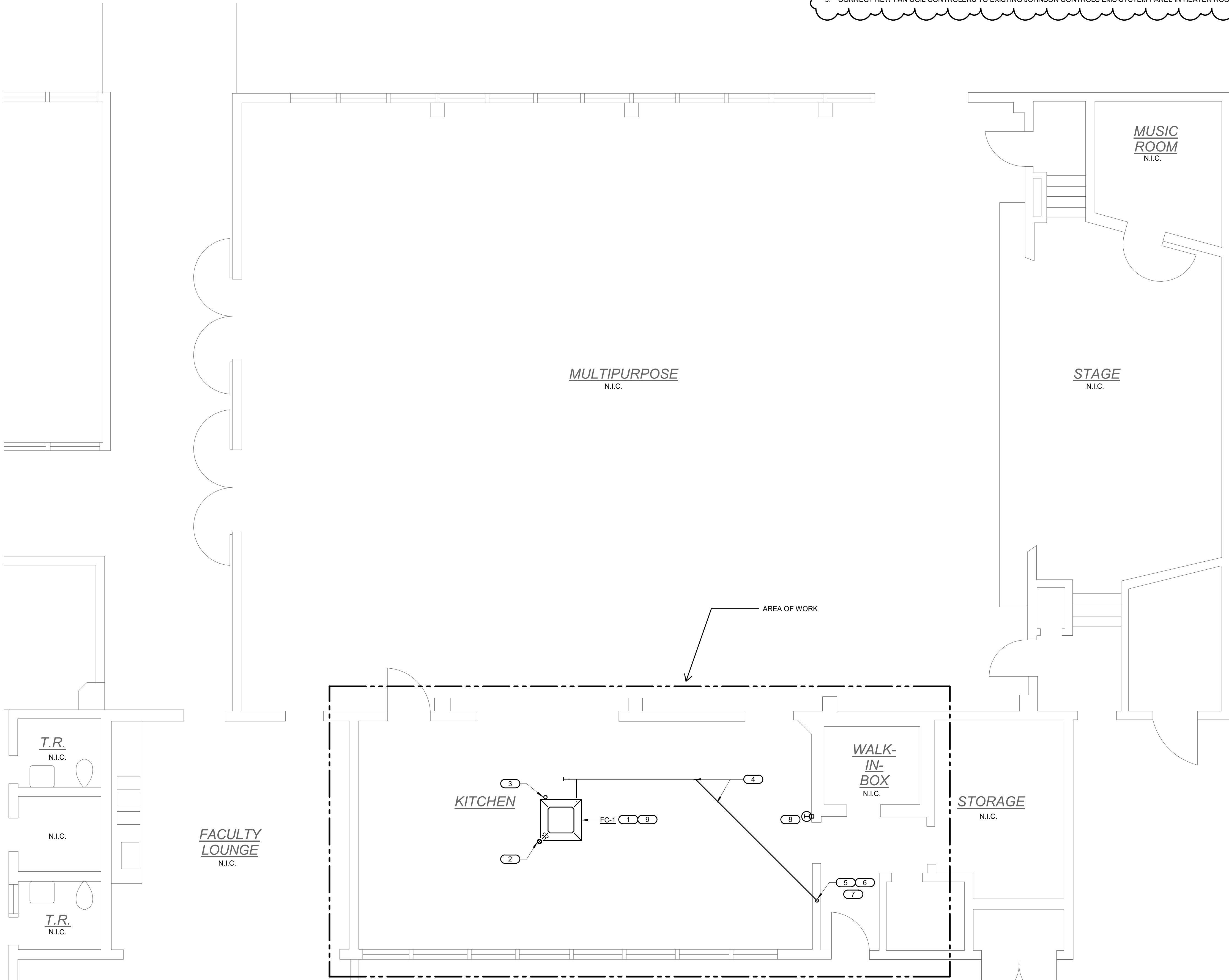
Scale: 1/4" = 1'-0"

SHEET NUMBER

M3.1

REMODEL KEYNOTES: C #

1. NEW FAN COIL TO BE INSTALLED IN EXISTING OPENING IN CEILING.
2. NEW 4"Ø OSA DUCT UTR TO NEW ROOF CAP. REFER TO DETAIL 5/M4.1. BALANCE OSA TO MIN 95 CFM.
3. REFRIGERANT LINES IN CEILING SPACE TO FC-1.
4. 3/4" CONDENSATE LINE IN CEILING SPACE.
5. 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.
6. CONNECT CONENSATE LINE TO (E)SINK TRAP (FIELD LOCATE). INSTALL NEW TRAP WITH CONDENSATE LINE CONNECTION IF NECESSARY. REFER TO DETAIL 6/M4.2.
7. RUN NEW CONDENSATE LINE IN (E)CASEWORK TO (E)SINK. FIELD COORDINATE EXACT ROUTING OF PIPING WITHIN CASE WORK TO MINIMIZE DISRUPTION AND SPACE CONSIDERATION.
8. INSTALL NEW DDC THERMOSTAT.
9. CONNECT NEW FAN COIL CONTROLLERS TO EXISTING JOHNSON CONTROLS EMS SYSTEM PANEL IN HEATER ROOM. ROUTE CONDUIT AS NEEDED.



1

REMODEL FLOOR PLAN

1/4" = 1'-0"

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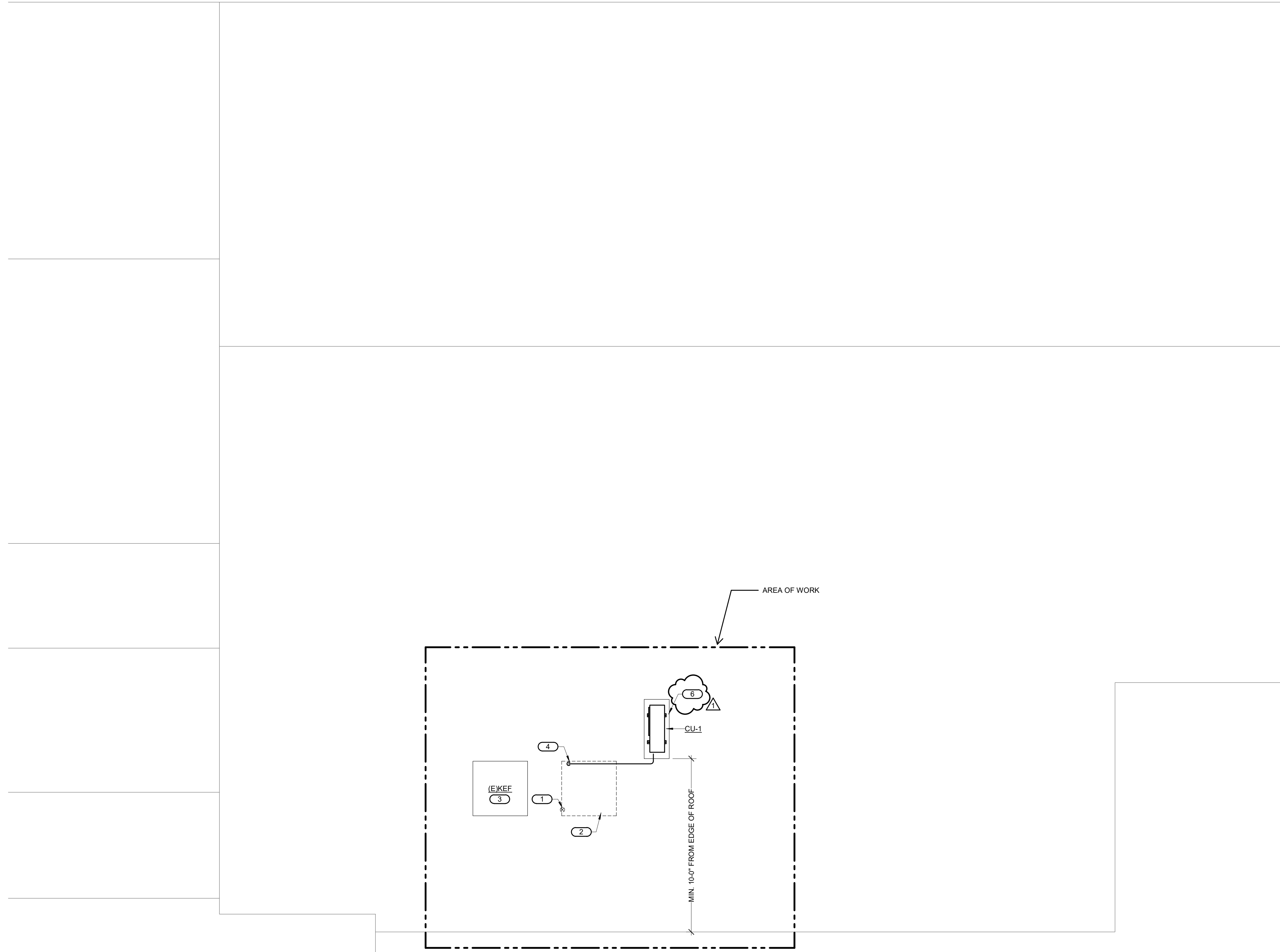
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REMODEL ROOF PLAN

1/4" = 1'-0"

REMODEL KEYNOTES:

1. NEW OSA INTAKE CAP TO BE INSTALLED IN EXISTING ROOF OPENING.
2. FOR REFRIGERANT LINE THROUGH ROOF REFER TO 1/M4.2.
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 MAINTAIN EXISTING WARRANTY. COORDINATE WITH DISTRICT PRIOR TO STARTING CONSTRUCTION.
5. ~~BAWAGE EXISTING KITCHEN EXHAUST DUCT TO MIN. 14" CFM PER TITLE 24 REQUIREMENTS.~~
6. FOR CONDENSING UNIT MOUNTING ON ROOF REFER TO 1/M4.1.



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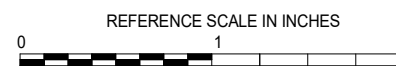


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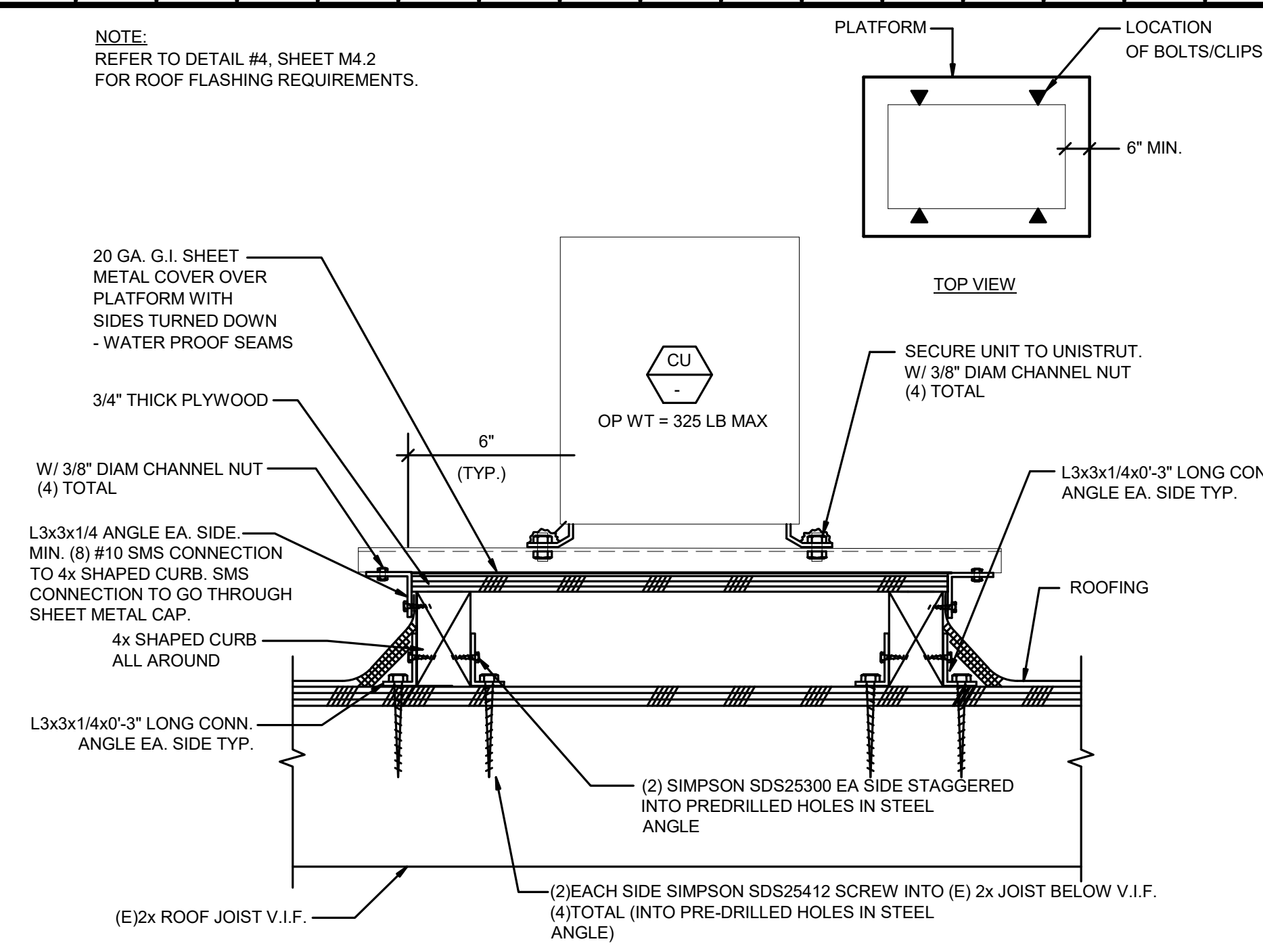
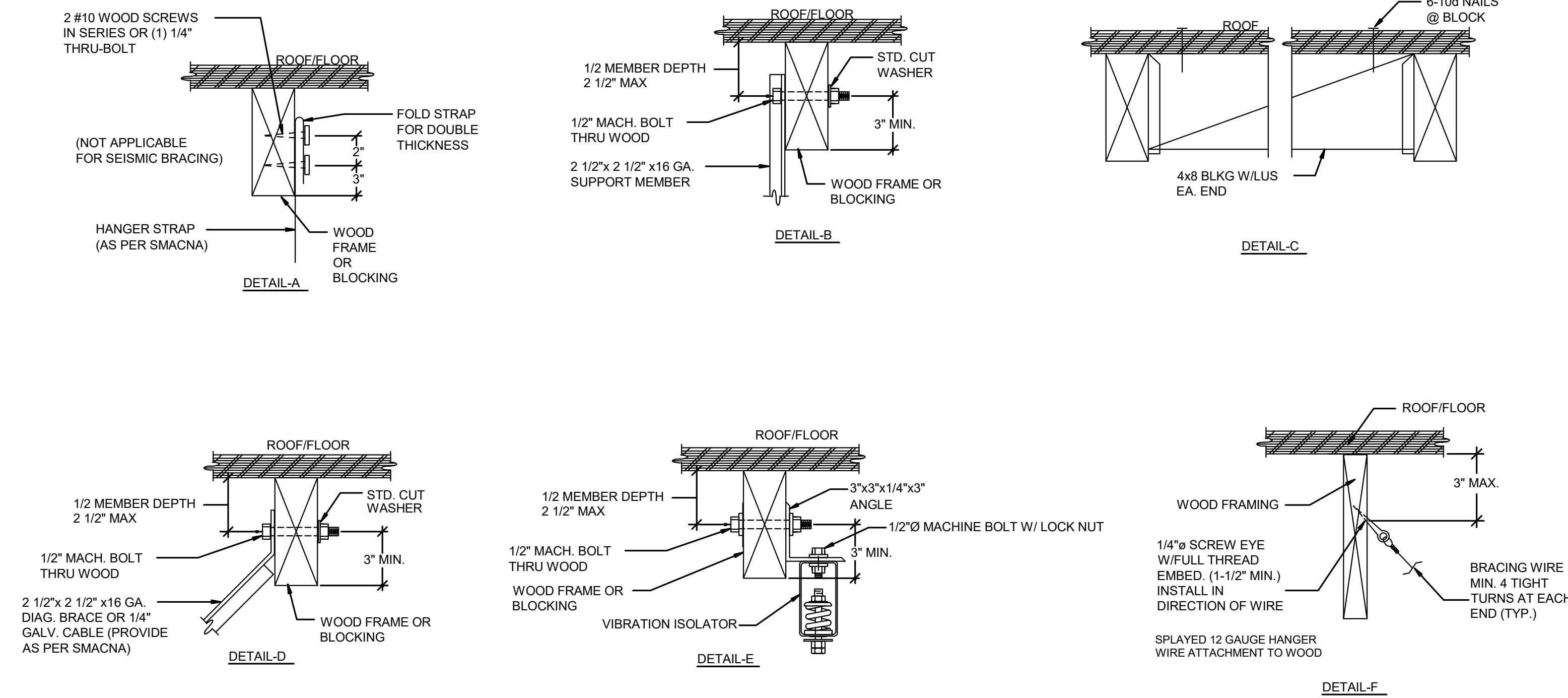
REMODEL ROOF PLAN

SCALE

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

SHEET NUMBER

M3.2



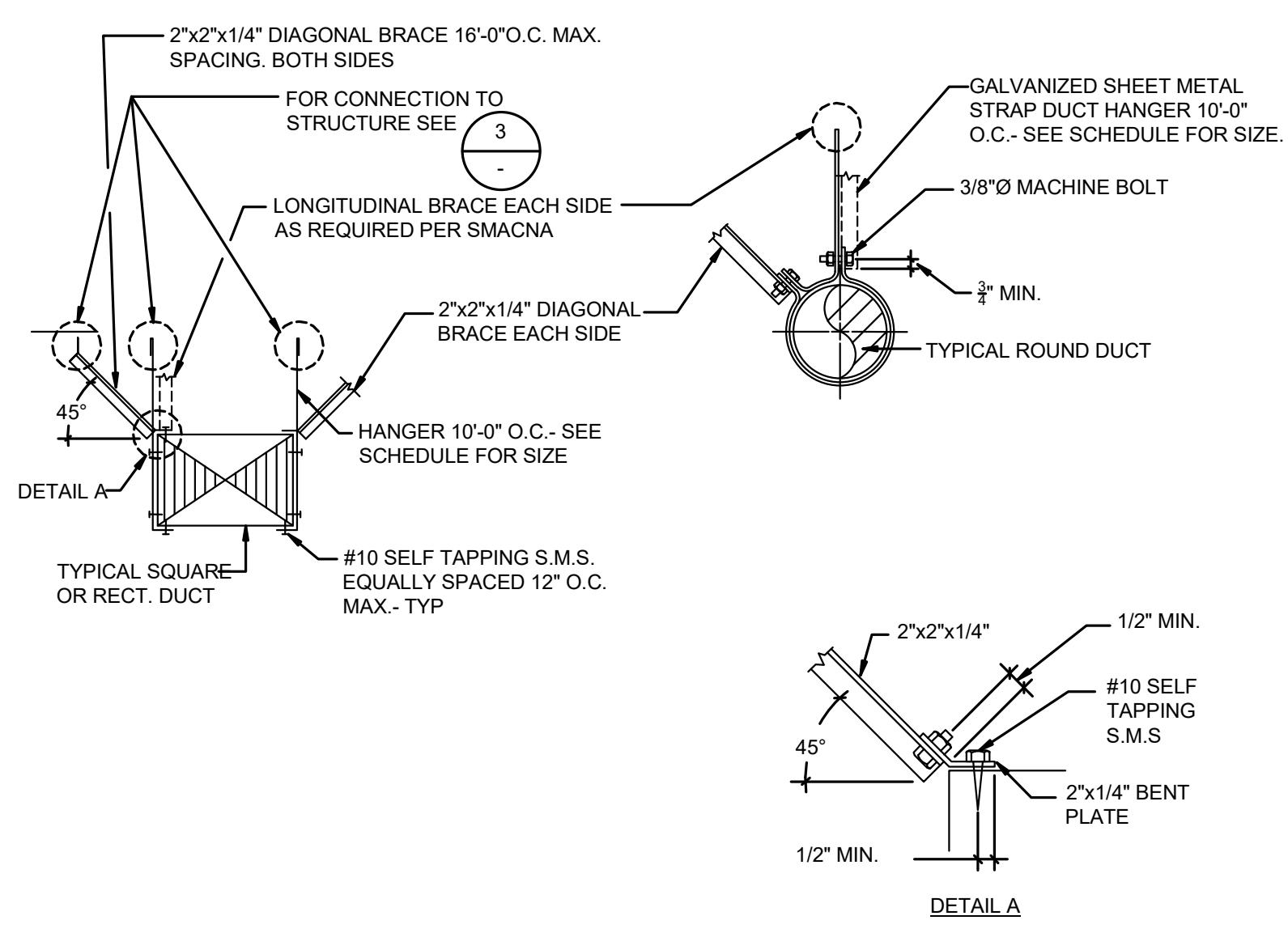
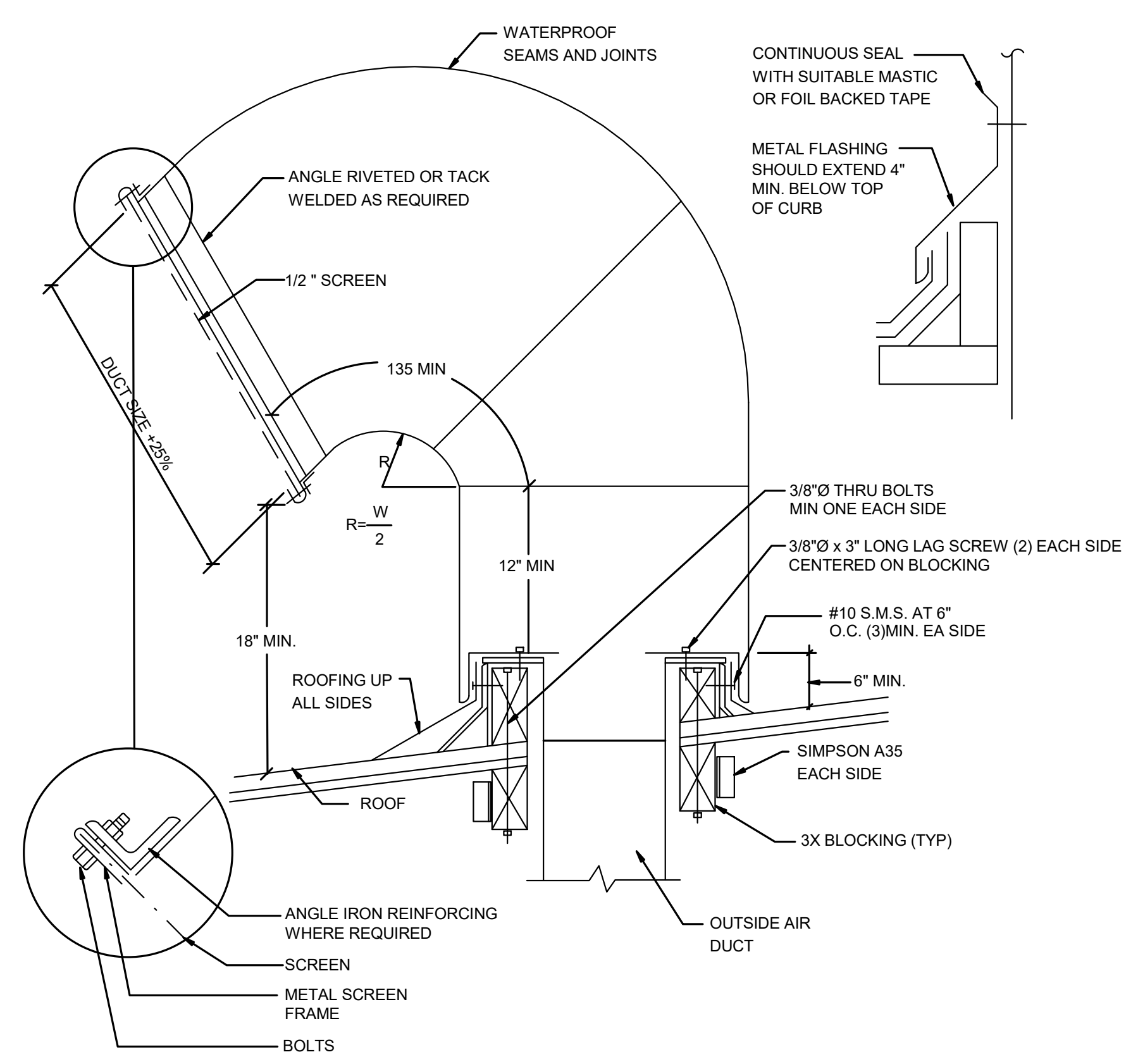
CONDENSING UNIT ON ROOF

NTS	1
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1

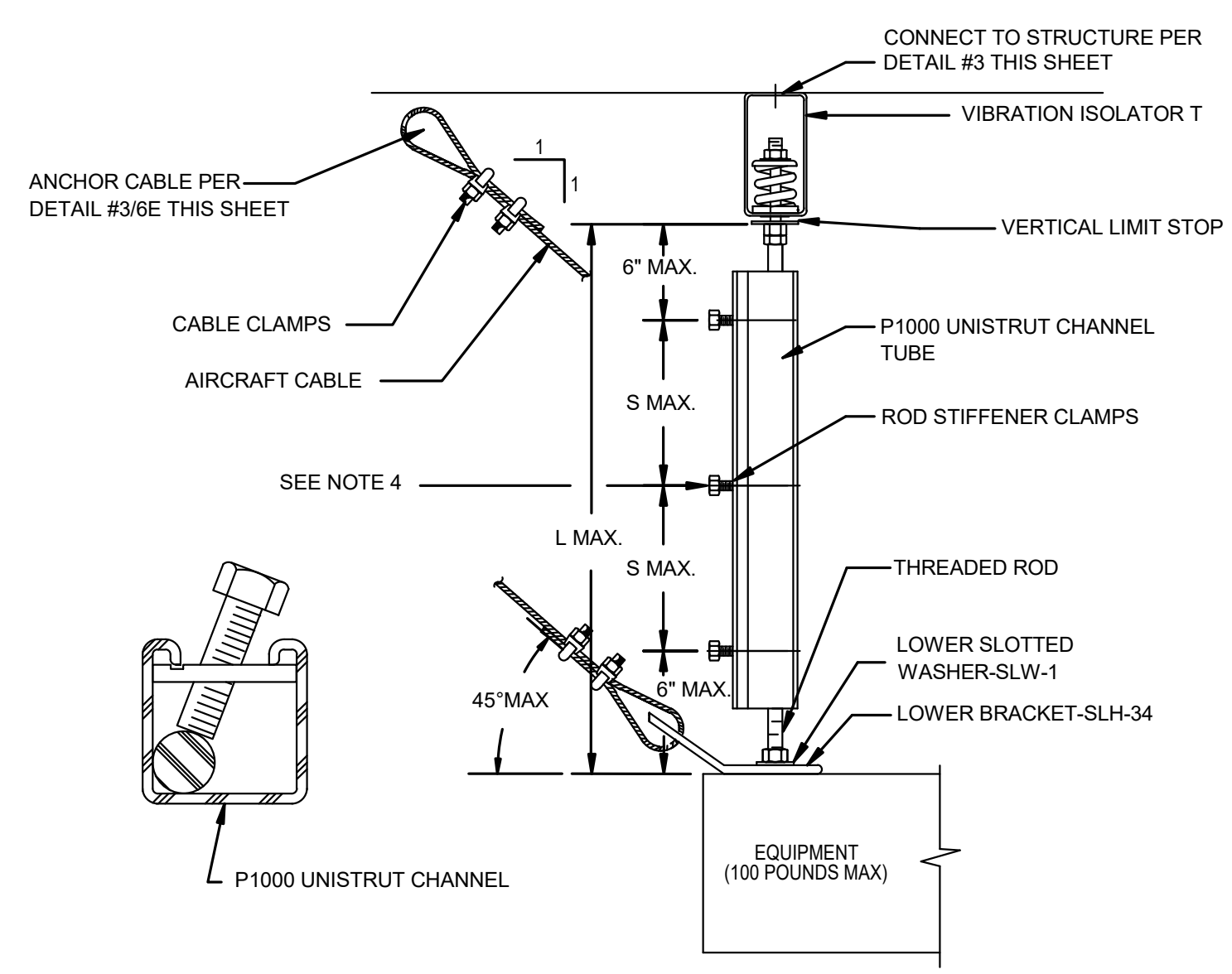
DUCT, PIPE, AND EQUIPMENT SUPPORT CONNECTION TO STRUCTURE

NTS	3
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RECTANGULAR DUCT			ROUND DUCT		
MAX. OF DUCT PERIMETER/IN.	STRAP	MAX. LOAD EACH HANGER/LBS.	DIAMETER /INCHES	STRAP	MAX. LOAD EACH HANGER/LBS.
P/2 = 72	1"X 20 GA.	20	UP TO 20"	1"X 20 GA.	20
P/2 = 96	1"X 18 GA.	30	21" TO 36"	1"X 18 GA.	30

- NOTE:**
1. NO BRACING REQUIRED IF DUCT IS SUSPENDED 12 INCHES OR LESS IN LENGTH.
 2. FOR TRANSVERSE AND LONGITUDINAL BRACING FOLLOW "SMACNA" GUIDELINES FOR SEISMIC HAZARD LEVEL "A".



- NOTES:**
1. SEE TABLE 1 FOR MAXIMUM LENGTH OF 3/8" THRU 7/8" DIAMETER RODS WITHOUT ROD STIFFENER.
 2. SEE TABLE 2 FOR MAXIMUM LENGTH OF 3/8" THRU 7/8" DIAMETER RODS WITH ROD STIFFENER.
 3. 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: 316CA-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"
S MAX.	18"	25"	31"	37"	43"

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REFERENCE SCALE IN INCHES

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SHEET INFORMATION

BID SET - ADDENDUM 1

Date	10.20.2020
Job Number	19000643.00

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Checked	JM

Approved	ED
	SHEET TITLE
	DETAILS

DETAILS

SCALE

Scale: _____

SHEET NUMBER

1000

M4 1

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M4.1



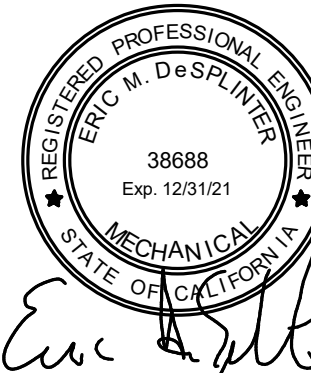
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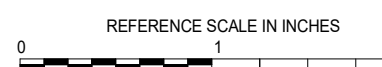
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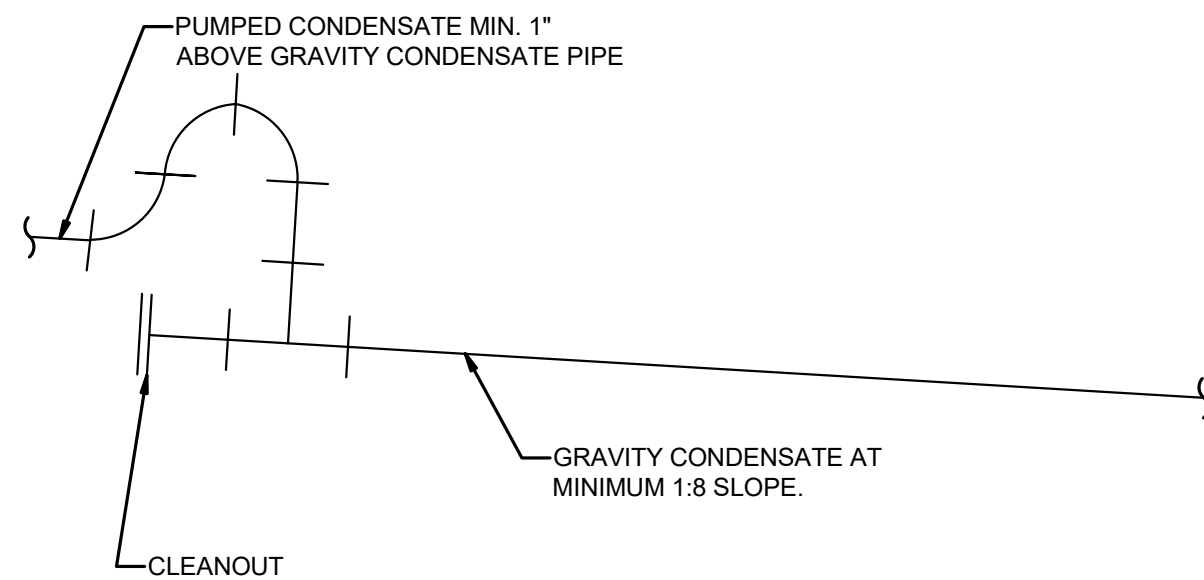
SHEET TITLE

SCALE

SHEET NUMBER

M4.2

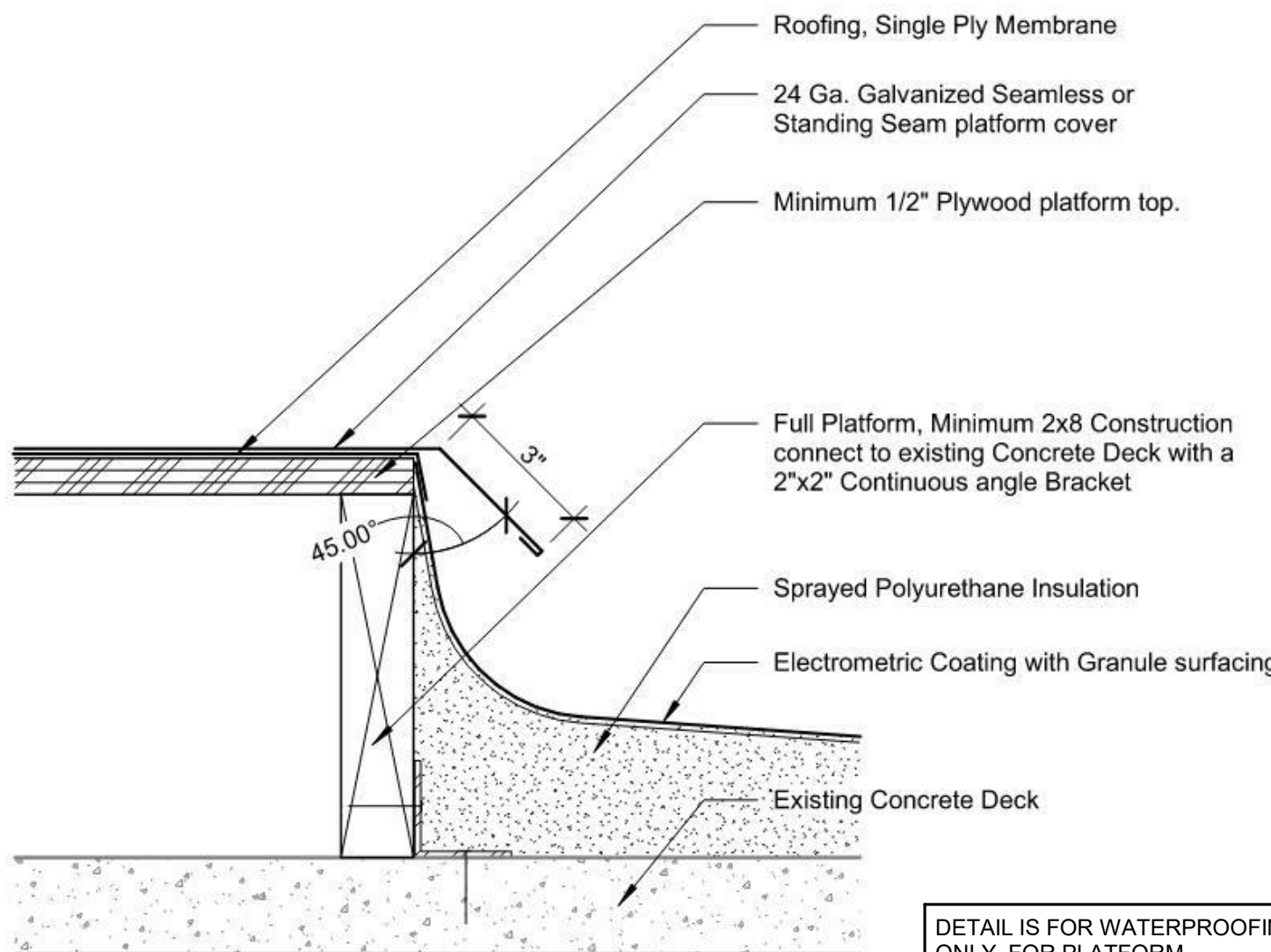
EXHIBIT A



PUMPED TO GRAVITY CONDENSATE CONNECTION

NTS

7

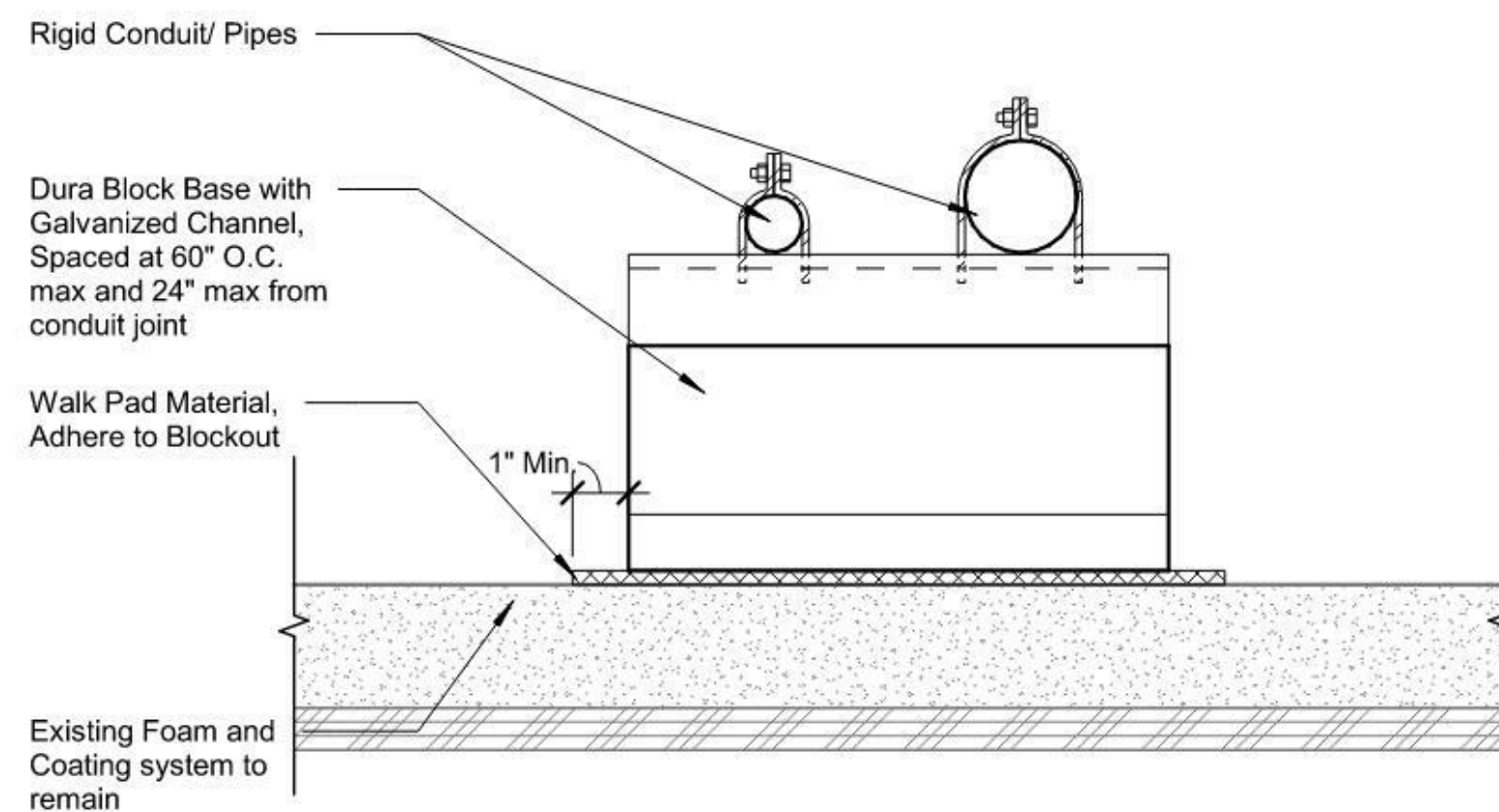


DETAIL IS FOR WATERPROOFING ONLY. FOR PLATFORM CONSTRUCTION AND EQUIPMENT ANCHORAGE REFER TO 1/M4.1.

EQUIPMENT CURB/PLATFORM FLASHING

NTS

4



SPRAYED POLYURETHANE FOAM, CONDUIT SUPPORT

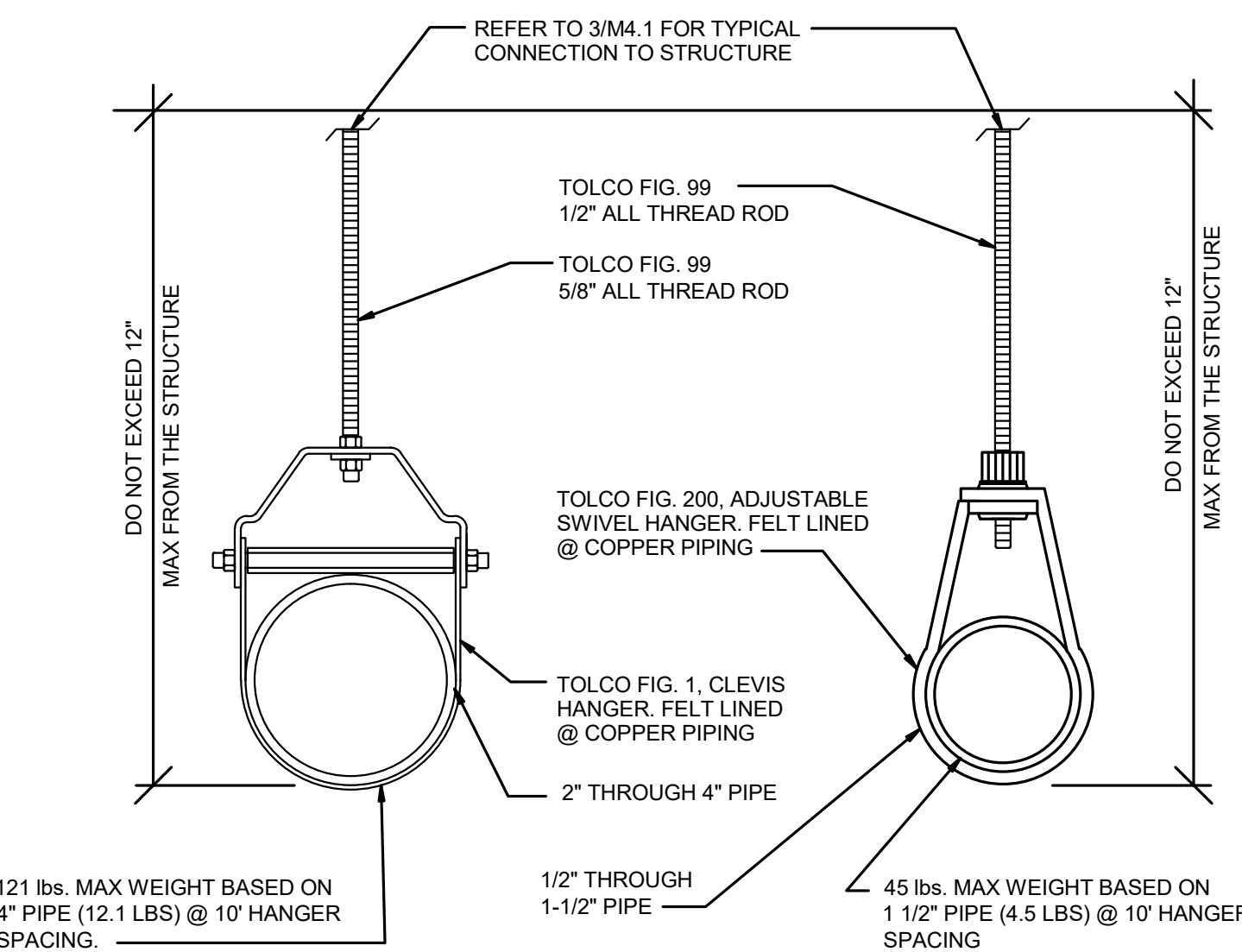
NTS

8

NOT IN USE

NTS

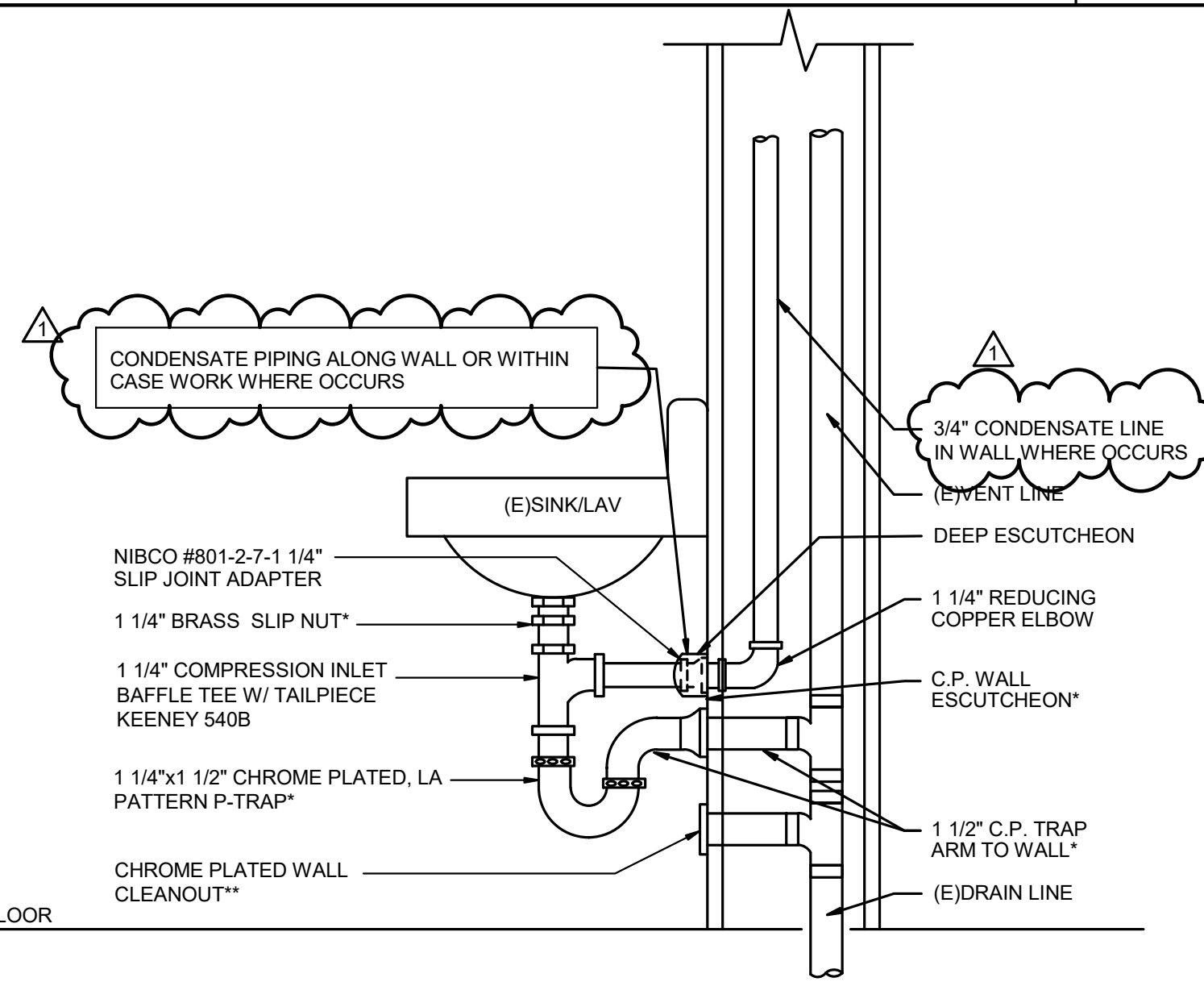
5



PIPE HANGER

NTS

9

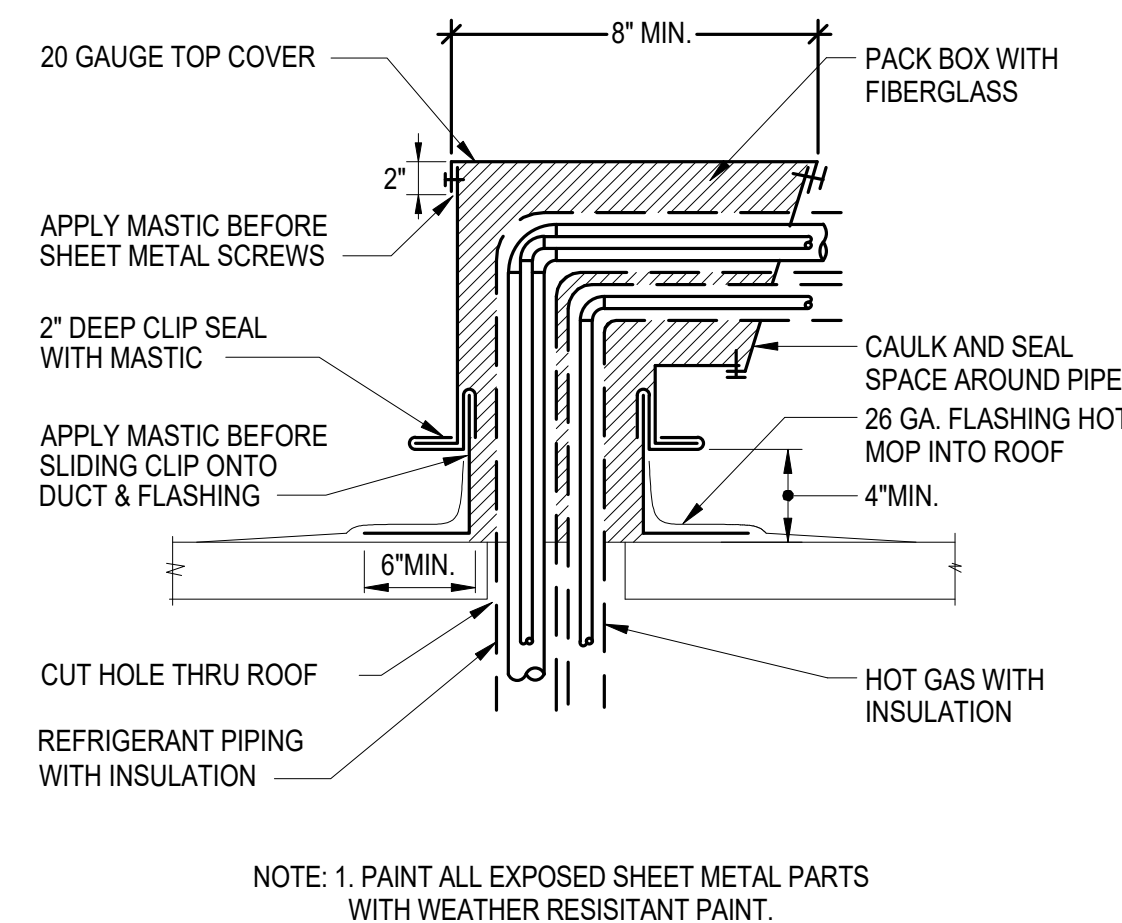


*THE EXISTING COMPONENTS MAY BE REUSED IF NO DAMAGE OR LEAKS ARE PRESENT. NEW COMPONENTS LISTED IN THIS DETAIL ARE TO BE USED IF EXISTING COMPONENTS ARE DAMAGED AND/OR NOT COMPATIBLE WITH CONDENSATE DRAIN CONNECTION.
**CLEANOUT AND ACCESSIBLE CLEANOUT COVER WILL BE REQUIRED IF NO EXISTING CLEAN OUT IS PRESENT. VERIFY IN FIELD.

CONDENSATE CONNECTION TO LAVATORY

NTS

6

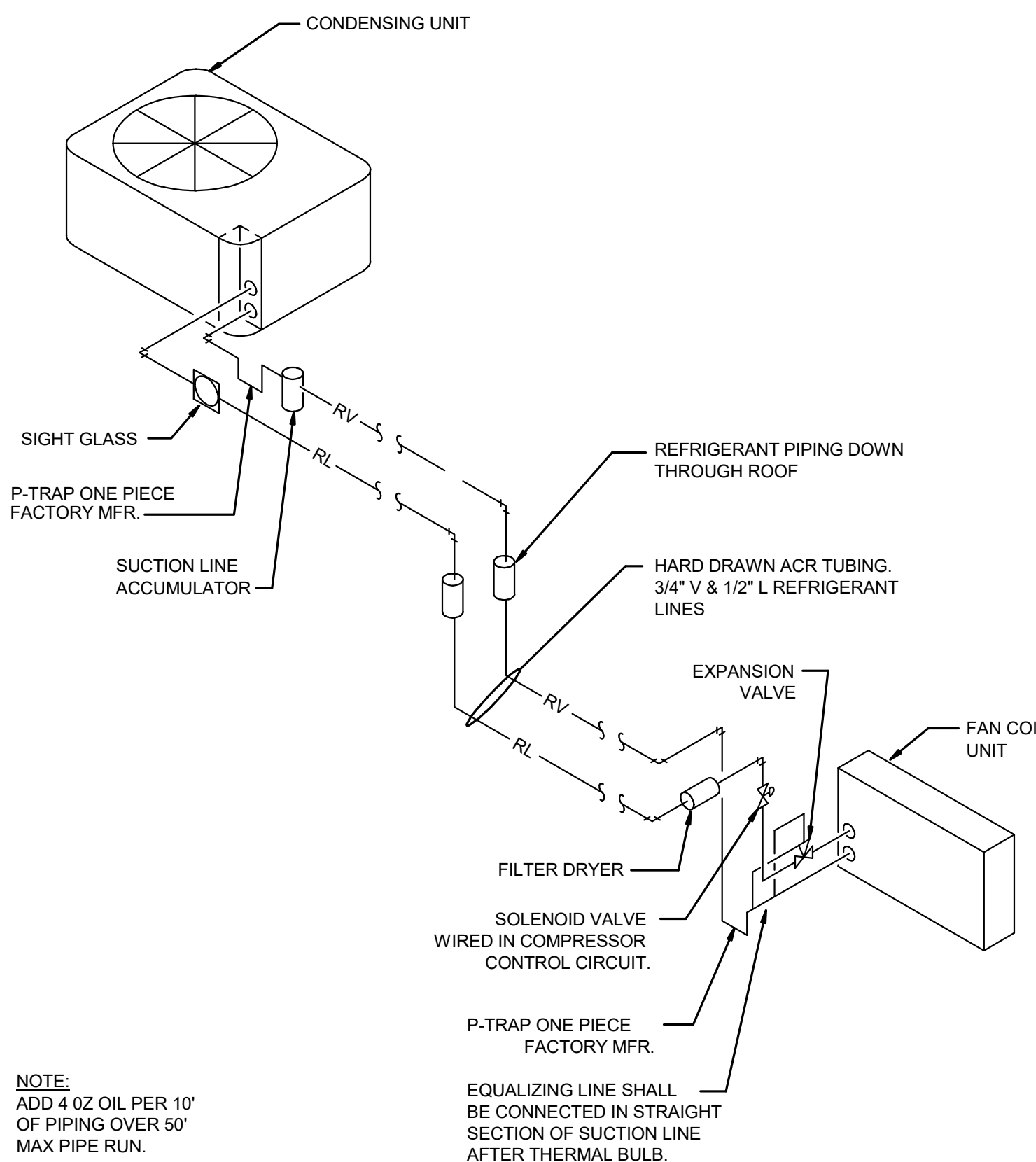


NOTE: 1. PAINT ALL EXPOSED SHEET METAL PARTS WITH WEATHER RESISTANT PAINT.

REFRIGERANT PIPE THRU ROOF

NTS

1



NOTE:
ADD 4 OZ OIL PER 10'
OF PIPING OVER 50'
MAX PIPE RUN.

EQUALIZING LINE SHALL
BE CONNECTED IN STRAIGHT
SECTION OF SUCTION LINE
AFTER THERMAL BULB.

REFRIGERANT PIPING DIAGRAM

NTS

2

NOT IN USE

NTS

3



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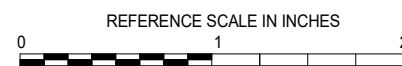
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Approved	Approver

SHEET TITLE
CONTROLS

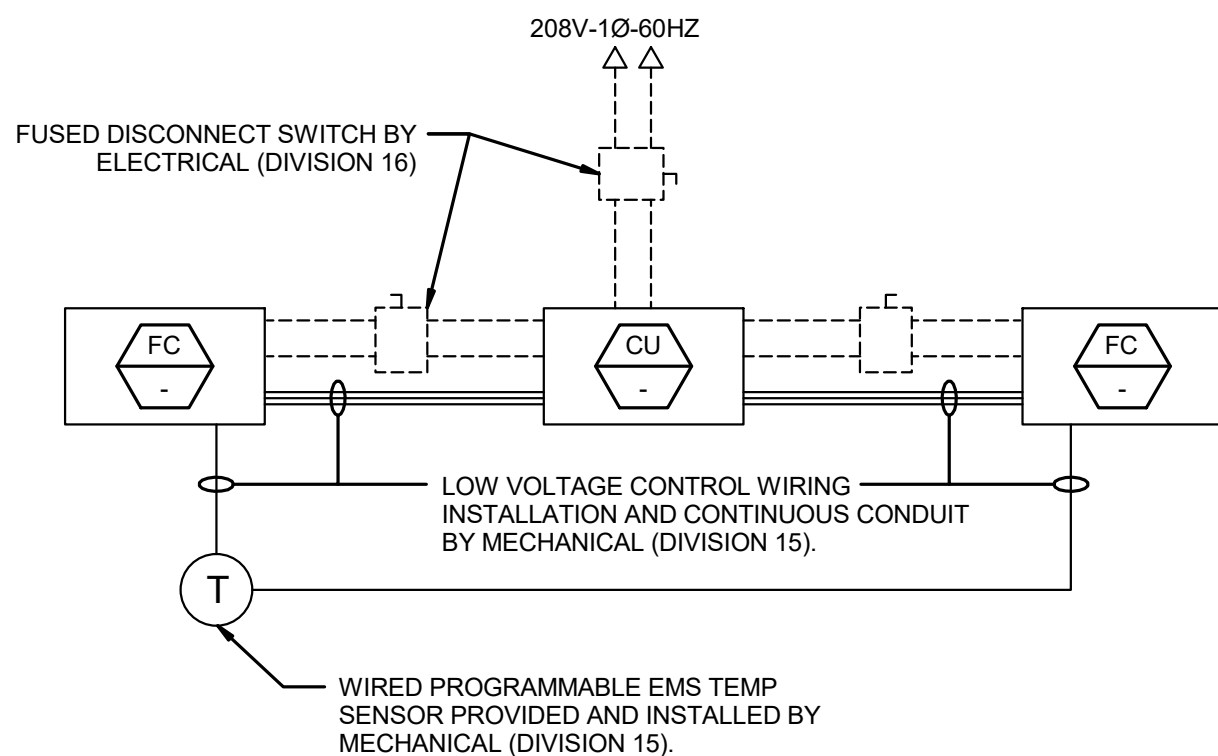
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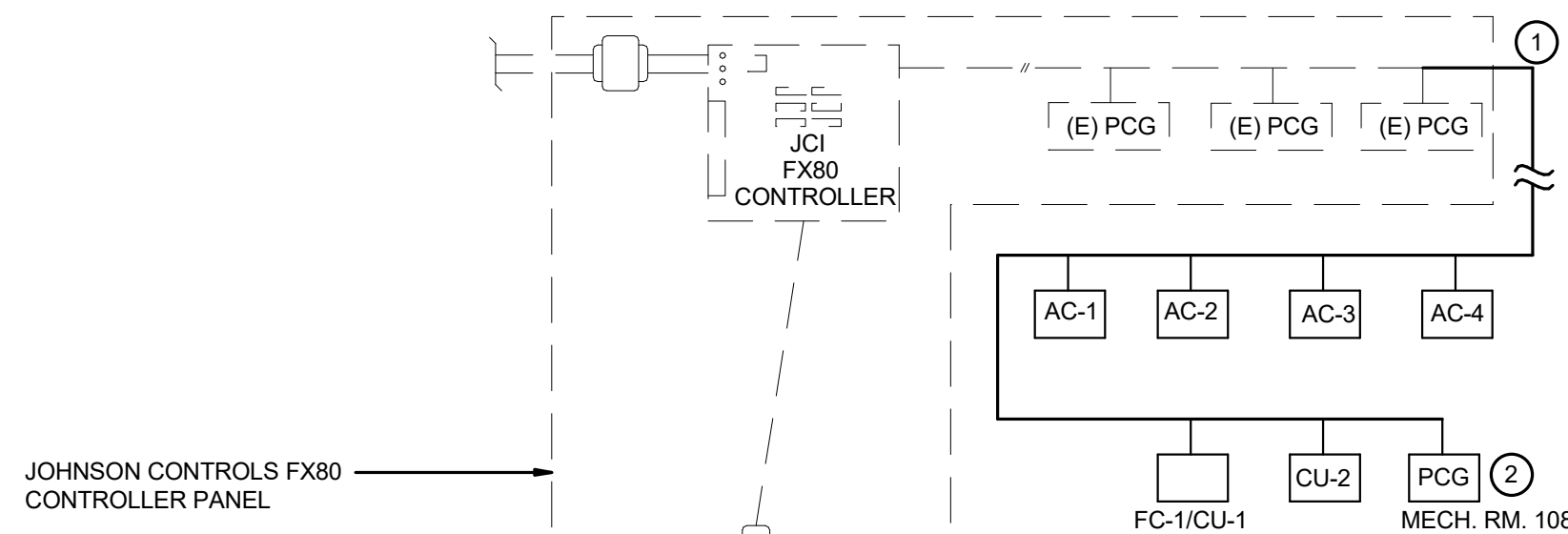
SHEET NUMBER

M5.1

EXHIBIT A



- NOTES:
- FOR WIRING NOTES, REFER TO DETAIL 3 THIS SHEET

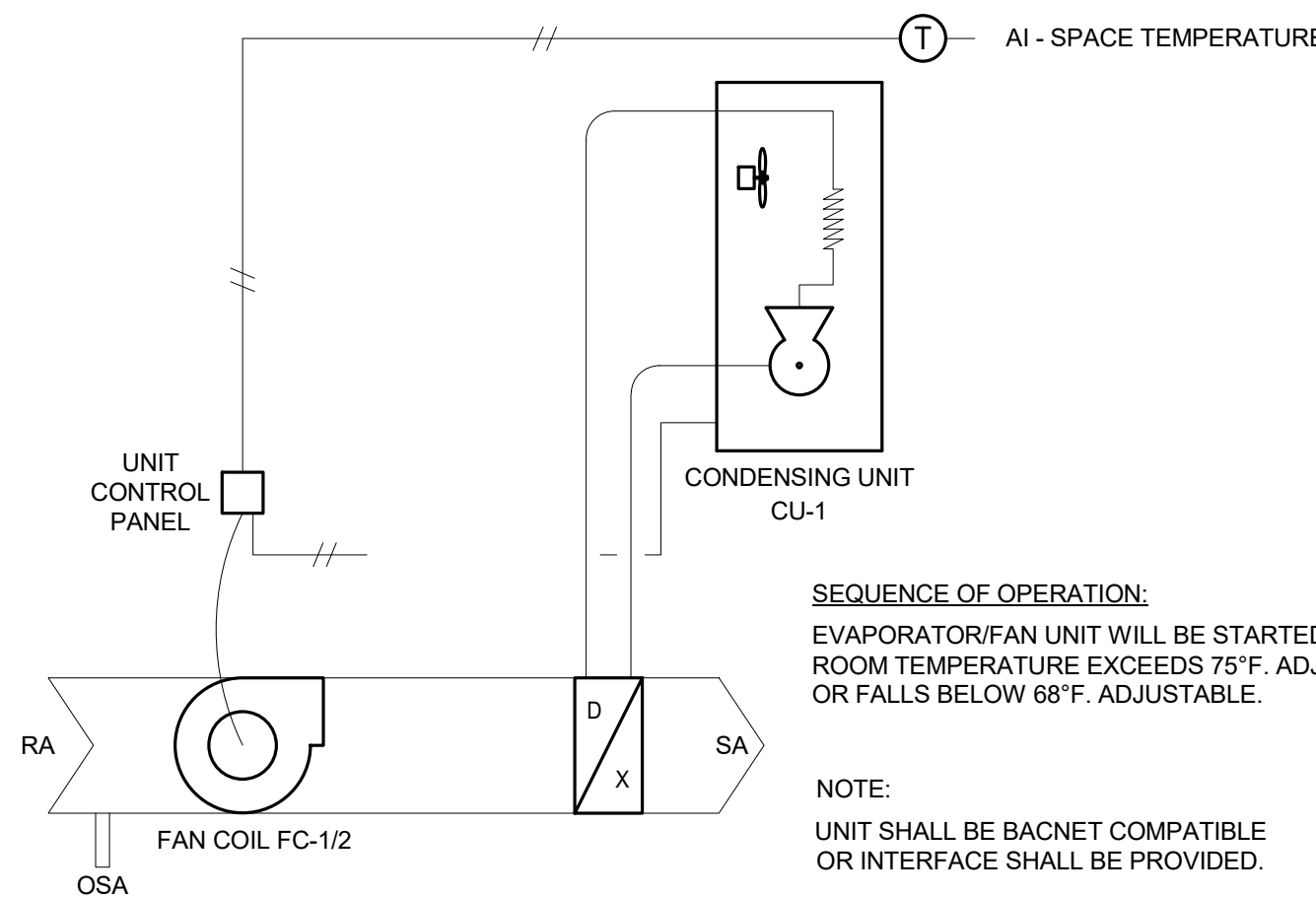


JOHNSON CONTROLS FX80
CONTROLLER PANEL

EXISTING REMOTE DIAL-UP COMPUTER
WITH JOHNSON CONTROL FX FOR WINDOWS
SOFTWARE PACKAGE LOCATED AT
DISTRICT OFFICE

- KEY NOTES:
- NEW BACNET WIRING TO NEW AC UNITS.
 - PROVIDE NEW JCI'S PCG CONTROLLER TO SERVE NEW AC UNITS & FAN COIL UNITS, TYPICAL. ALL NEW HVAC EQUIPMENT SHALL BE ON (1) PCG CONTROLLER LOCATED IN THE MECH. RM. 108.

- WIRING NOTES:
- EQUIPMENT FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR (DIVISION 16).
 - EQUIPMENT FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR (DIVISION 15).
 - LINE VOLTAGE WIRING AND CONDUIT FURNISHED BY ELECTRICAL CONTRACTOR.
 - LOW VOLTAGE WIRING FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR, LOW VOLTAGE CONDUIT FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR.
 - DISC. DISCONNECT SWITCH
 - C.B. CIRCUIT BREAKER
 - T THERMOSTAT FURNISHED AND INSTALLED BY DIVISION 15.



SEQUENCE OF OPERATION:
EVAPORATOR/FAN UNIT WILL BE STARTED IF
ROOM TEMPERATURE EXCEEDS 75°F. ADJUSTABLE.
OR FALLS BELOW 68°F. ADJUSTABLE.

NOTE:
UNIT SHALL BE BACNET COMPATIBLE
OR INTERFACE SHALL BE PROVIDED.

CONTROL NOTES:

- CONTRACTOR SHALL DISCONNECT ALL EXISTING LIGHTING CONTROL CIRCUITS FROM EXISTING NETWORK AREA CONTROLLERS SCHEDULED TO BE REPLACED. CONTRACTOR SHALL RECONNECT EXISTING LIGHTING CONTROL CIRCUITS TO NEW FX80 PANELS AND DEMONSTRATE PROPER OPERATION TO DISTRICT ENERGY MANAGEMENT DEPARTMENT. FIELD VERIFY EXACT NUMBER OF CIRCUITS AND PROGRAMMING.
- CONTRACTOR SHALL DISCONNECT ALL EXISTING PHOTOCELL LIGHTING CONTROLLERS FROM EXISTING NETWORK AREA CONTROLLERS SCHEDULED TO BE REPLACED. CONTRACTOR SHALL RECONNECT ALL EXISTING PHOTOCELL LIGHTING CONTROLLERS TO NEW FX80 PANELS AND DEMONSTRATE PROPER OPERATION TO DISTRICT ENERGY MANAGEMENT DEPARTMENT. FIELD VERIFY EXACT NUMBER AND LOCATION OF EXISTING PHOTOCELLS.
- CONTRACTOR SHALL DISCONNECT ALL EXISTING OUTDOOR AIR SENSORS FROM EXISTING NETWORK AREA CONTROLLERS SCHEDULED TO BE REPLACED. CONTRACTOR SHALL RECONNECT ALL EXISTING OUTDOOR AIR SENSORS TO NEW FX80 PANELS AND DEMONSTRATE PROPER OPERATION TO DISTRICT ENERGY MANAGEMENT DEPARTMENT. FIELD VERIFY EXACT NUMBER AND LOCATION OF EXISTING OUTDOOR AIR SENSORS.
- PROVIDE TWO (2) SPARE PCX CONTROLLERS FOR DISTRICT ENERGY MANAGEMENT DEPARTMENT USE.

NOT USED

NTS 6

SPLIT SYSTEM WIRING DIAGRAM

NTS 3

EMS SYSTEM NETWORK

NTS 1

NOT USED

NTS 7

CONTROL WIRING LEGEND

NTS 4

FC-1/2 AND CU-2 CONTROL DIAGRAM

NTS 2

NOT USED

NTS 8

NOT USED

NTS 5



November 19, 2020

Asbestos and Lead Survey Report

**Viking Elementary School
Kitchen HVAC Upgrade Project
4251 North Winery Avenue
Fresno, California 93726**

Prepared for:

**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@forensicanalytical.com**

FACS Project #PJ60930

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Appendix C: Certifications of Personnel and Laboratory	
Appendix D: Previous Inspection Information	

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 Viking Elementary School, located at 4251 North Winery Avenue in Fresno, California. The survey was limited to suspect asbestos-containing materials (ACM) and lead-containing paints of the Kitchen located in the Multi-Purpose Room Building which may be disturbed during the upcoming HVAC upgrade renovation project. A summary list of suspect lead-containing paints / coatings which were identified and sampled is provided in Appendix A of this report. No bulk asbestos sampling was performed as materials to be disturbed had been sampled in the past in preparation for a separate project and FACS confirmed these materials are the same within the project area. The report with past sampling information is provided in Appendix D of this report. The survey was performed on November 4, 2020.

Asbestos

Previous documentation was reviewed and determined materials have all been sampled during inspections in the past. FACS has included the report for the MPR HVAC Upgrade Project, dated October 31, 2017.

Lead

Lead-based paints or coatings have a lead content at or above 1.00 mg/cm², 5,000 parts per million, or 0.5% by weight. None of the paints or coatings tested in the project areas have been identified as lead-based.

A single bulk paint chip was collected and analyzed during this survey. The cream paint on plaster was found to contain a detectable concentration of lead.

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 Viking Elementary School, located at 4251 North Winery Avenue in Fresno, California. The survey was limited to suspect asbestos-containing materials (ACM) and lead-containing paints of the Kitchen located in the Multi-Purpose Room Building which may be disturbed during the upcoming HVAC upgrade renovation 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 coatings which may be disturbed during the upcoming project. The visual inspection, bulk sampling, and survey documentation were performed by Eric Farnsworth and Jeremy Noyola. Mr. Farnsworth is a Division of Occupational Safety and Health (DOSH) Certified Asbestos Consultant (CAC #19-6643) and California Department of Public Health (CDPH) Certified Lead Inspector and Assessor (LRC-00005578) as required by California regulations. Mr. Noyola is an EPA-accredited AHERA Building Inspector and CDPH Certified Lead Sampling Technician (LRC-00005788). Technical oversight of the survey and this report was provided by Chris Chipponeri, who is a DOSH Certified Asbestos Consultant (CAC #10-4633) 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 asbestos-containing materials (ACMs) that will be disturbed during the upcoming 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

Vinland Elementary School is a typical school site located in Fresno, California. The survey was limited to the inspection of the areas to be disturbed during the upcoming project per drawings provided by Fresno Unified School District.

Materials suspected to contain lead include all paints and coatings on building components and surfaces.

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 areas and materials found elsewhere at this site are not expected to be disturbed by the project. The inspection is based on the drawings provided by Fresno Unified School District. Review of past inspections found all suspect materials to be disturbed to be none-detect. Since best industry practices were followed and sufficient sampling was performed to meet the AHERA regulation, no additional asbestos sampling was required for this project.

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 where 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 (SGS-FL) for analysis. SGS-FL 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 materials to be disturbed per project drawings as part of the upcoming Kitchen HVAC Upgrade Project at Viking Elementary School. These are the findings of the completed survey by FACS.

Asbestos

Previous documentation was reviewed and determined materials have all been sampled during inspections in the past. FACS has included the report for the MPR HVAC Upgrade Project, dated October 31, 2017.

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. None of the one (1) paint or coating samples tested in the project areas were identified as lead-based paints.

A single bulk paint chip was collected and analyzed during this survey. The cream paint on plaster was found to contain a detectable concentration of lead.

Any other paints and coatings not included in this survey must be handled as lead-containing until sampled and proven otherwise.

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.

While there was lead-based paint present in the project area, it does not appear that more than 20 square feet of the painted exterior surface will be disturbed on this project. 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

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

Lead Survey Summary (Lab Report #M229715) Viking Elementary 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	0.068

PAINT CHIP SAMPLE REQUEST FORM

Page 1 of 1

Client: FR09 FACS Fresno FRESNO UNIFIED SCHOOL DISTRICT	Sampled by: Jeremy Noyola PM: Eric Farnsworth Date: 11/04/20											
Contact: Eric Farnsworth Phone: (559) 436-0277	Special Instructions: E-mail results to E-mail results to efarnsworth@forensicanalytical.com jeremy.noyola@forensicanalytical.com and dpyle@forensicanalytical.com and pamela.scott@forensicanalytical.com											
Site: FRESNO UNIFIED SCHOOL DISTRICT Viking ES	Turnaround Time:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>1-Day</td> <td>2-Day</td> <td>3-Day</td> <td>5-Day</td> <td>Other</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	1-Day	2-Day	3-Day	5-Day	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1-Day	2-Day	3-Day	5-Day	Other								
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
Client No.: C23033 FACS Job #: PJ60930	Analysis: <input checked="" type="checkbox"/> Flame AA (Pb) / <input type="checkbox"/> Other:											

Sample Number	Sample Location	Component	Color	Substrate	Condition
PJ60930-01Pb	Kitchen: South East of Center	Wall	Cream	Plaster	I

Shipped via: <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> Airborne <input type="checkbox"/> UPS <input type="checkbox"/> US Mail <input type="checkbox"/> Courier <input type="checkbox"/> Drop Off <input type="checkbox"/> Other:		Substrate: wood metal concrete plaster drywall brick	
Relinquished by: <i>Pamela Scott</i>	Date & Time: <i>11/4/20 3pm</i>	Received by: <i>[Signature]</i>	Date & Time: <i>NOV 05 2020</i>
Relinquished by: <i>[Signature]</i>	Date & Time: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Date & Time: <i>[Signature]</i>
Condition Acceptable <input type="checkbox"/> Yes <input type="checkbox"/> No		Condition Acceptable <input type="checkbox"/> Yes <input type="checkbox"/> No	

Metals Analysis of Paints

(AIHA-LAP, LLC Accreditation, Lab ID #101762)

FACS - Fresno
Eric Farnsworth
21228 Cabot Blvd.

Hayward, CA 94545

Client ID: FR09
Report Number: M229715
Date Received: 11/05/20
Date Analyzed: 11/10/20
Date Printed: 11/10/20
First Reported: 11/10/20

Job ID / Site: PJ60930; Fresno Unified School District - Facilities Management & Planning
Viking Elementary School 4251 North Winery Ave Fresno CA

Date(s) Collected: 11/4/20

SGSFL Job ID: FR09

Total Samples Submitted: 1

Total Samples Analyzed: 1

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
PJ60930-01PB	30879063	Pb	0.068	wt%	0.006	EPA 3050B/7000B

* 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.



Kevin Poon, Laboratory Analyst, Hayward Laboratory

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.

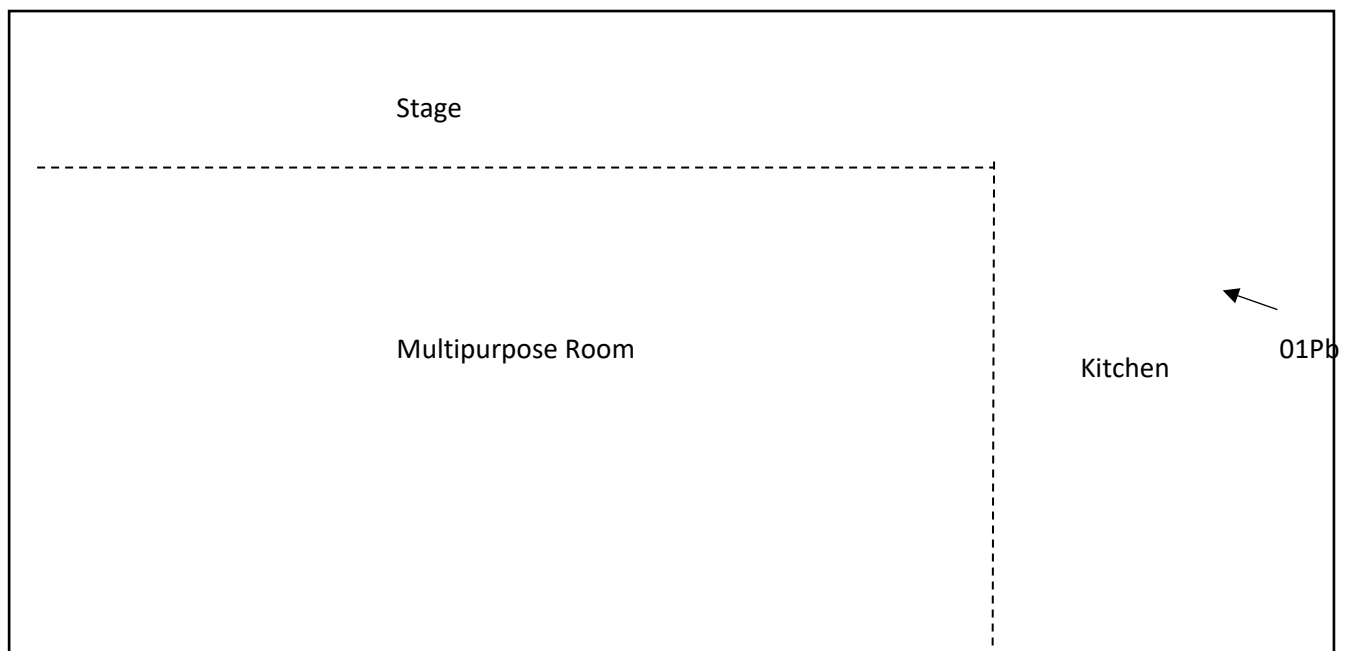
Note* Sampling data used in this report was provided by the client as noted on the associated chain of custody form.

Appendix B

Sample Location Drawing

Site Name:	Viking Elementary School
Address:	4251 N. Winery Ave., Fresno, CA
Date:	November 4, 2020

Not Drawn to Scale



Appendix C

Certifications of Personnel and Laboratory

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
Fresno CA 93710

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



Renewal – Card Attached (Revised 06/2020)

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



A handwritten signature in black ink, reading "Michael C. Sharp".

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:



Eric Farnsworth

CERTIFICATE TYPE:

Lead Inspector/Assessor
Lead Sampling Technician

NUMBER:

LRC-00005578
LRC-00000970

EXPIRATION DATE:

2/18/2021
5/22/2020

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

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



A handwritten signature in black ink, reading "Michael C. Sharp".

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:



Jeremy Noyola

CERTIFICATE TYPE:

Lead Sampling Technician

NUMBER:

LRC-00005788

EXPIRATION DATE:

2/28/2021

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



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
Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal – Card Attached 08/2019



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



A handwritten signature in black ink, appearing to read 'Michael C. Sharp'.

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:



Chris Chipponeri

CERTIFICATE TYPE:

Lead Inspector/Assessor

NUMBER:

LRC-00000782

EXPIRATION DATE:

6/20/2021

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.



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

<input checked="" type="checkbox"/>	INDUSTRIAL HYGIENE	Accreditation Expires: December 01, 2020
<input checked="" type="checkbox"/>	ENVIRONMENTAL LEAD	Accreditation Expires: December 01, 2020
<input checked="" type="checkbox"/>	ENVIRONMENTAL MICROBIOLOGY	Accreditation Expires: December 01, 2020
<input type="checkbox"/>	FOOD	Accreditation Expires:
<input checked="" type="checkbox"/>	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

Elizabeth Bair
Chairperson, Analytical Accreditation Board

Cheryl O. Morton

Cheryl O Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 17: 09/11/2018

Date Issued: 08/02/2019

Appendix D

Previous Inspection Information



Hazard Management Services, Inc.

371 E Bullard Ave., Suite 109 • Fresno, CA 93710
(559) 436-0277 • www.hazmanage.com

October 31, 2017

Ms. Ronika Barnes
Fresno Unified School District
4600 N. Brawley Ave.
Fresno, CA 93722-3921

Subject: Viking Elementary School
Multipurpose Building – Limited Roofing and Boiler/Mechanical Room Inspection
Asbestos Sampling Report
HMS, Inc. Project No. F17192

Dear Ms. Barnes,

Pursuant to your request, on October 19 and 26, 2017, Hazard Management Services, Inc. (HMS, Inc.) conducted a limited asbestos survey for renovation purposes at the Multipurpose Building and Building E Boiler Room at Viking Elementary School, in Fresno, California. Planned renovations include removal and replacement of HVAC units on the roof of the structure, and reconfiguration and/or removal of components from the MPR Mechanical Room and the Boiler Room in Building E. This current survey supplements the original asbestos inspection at this site, conducted by Kurt Gates in 1988, with samples analyzed by Clark Geological Services (CGS), and was undertaken to determine if any additional suspect asbestos-containing materials were present in project areas.

The survey was performed Jacob Sharp an EPA-accredited Building Inspector and Cal/OSHA certified Site Surveillance Technician, under the supervision of Joseph M. Vuglia, who is an EPA-accredited asbestos Building Inspector and Cal/OSHA Certified Asbestos Consultant (see attached certifications). Several building materials that may be disturbed during renovation were observed which are considered "suspect" under US EPA guidelines. Under current US EPA guidelines for conducting building inspections for ACM, all "suspect" building materials must be **assumed** to contain asbestos until otherwise determined by laboratory testing. A complete list of suspect materials that will be disturbed which were identified, sampled, and included in this survey are listed in Appendices A and B

INSPECTION PROTOCOL

The following inspection process was followed by HMS, Inc. at the above referenced site:

The areas were visually inspected for suspect materials.

Representative bulk samples of each suspect material were collected using a scraper, chisel, or power drill. Descriptions of sample locations are included on the Bulk Sample Analysis for Asbestos Request (chain of custody) forms. The samples were analyzed using polarized light microscopy (PLM) by Forensic Analytical Laboratories, Inc., a NVLAP accredited laboratory in Hayward, CA.

Due to the use of nondestructive investigating, HMS, Inc. cannot report materials which might exist within any layered or enclosed system of materials. If any additional materials, other than those included in this report, are discovered during renovation, it must be assumed that such materials contain asbestos and the project should then be halted and reevaluated.

BULK SAMPLE RESULTS

HMS, Inc. collected 22 bulk samples of suspect materials that may be affected during renovations involving the roof-mounted HVAC units and Boiler/Mechanical Room equipment. See the attached laboratory reports for detailed analysis information.



US EPA AND OSHA COMPLIANCE

US EPA

The US EPA NESHAP (40 CFR Part 61 - Nov. 20, 1990) requires materials containing greater than one percent asbestos be removed prior to renovation or demolition of a regulated building, if those materials are friable or likely to become friable due to the forces expected to act upon them during renovation or demolition. In California, there are "delegated" counties which enforce the NESHAP regulations, and may have regulations more restrictive than the US EPA.

A ten (10) day waiting period is still required, however, following renovation or demolition notification to the US EPA.

Cal/OSHA

Cal/OSHA worker health and safety regulations apply during any disturbance of ACM by a person while in the employ of another. This is true regardless of friability or quantity disturbed. If there is greater than 100 square feet of asbestos which will be affected by the demolition, a California Licensed Contractor who is registered with Cal/OSHA for asbestos is required. The regulations regarding asbestos are found in Title 8 CCR Section 1529, and also include formal notification requirements to Cal/OSHA at least 24 hours prior to removal.

Contractors State Licensing Board (CSLB)

Pursuant to current CSLB requirements, the remediation contractor must meet the following requirements:

1. Possession of the C-22 Asbestos Abatement License or
2. Possession of the individual C-class Specialty License for each individual trade work to be performed with asbestos certification or
3. For work involving two or more trades of work, a B-class General license with asbestos certification.

DISCLAIMERS

The nature of renovation or demolition is such that materials can be uncovered which previously were unknown to exist. Therefore, HMS, Inc. cannot be responsible for "hidden materials," although every effort was made during the inspection to detect all suspect materials. If any materials, other than those included herein, are discovered during renovation, it must be assumed that the materials are asbestos-containing, and the project should then be halted and reevaluated.

If you have any questions regarding this report, or if you desire any additional services, please contact our Fresno office at (559) 436-0277.

Sincerely,


Jacob Sharp, Project Manager
Cal/OSHA SST #16-5815

Reviewed by: Joe Vuglia, Senior Project Manager
Cal/OSHA CAC #13-5005





APPENDIX A

ASBESTOS SURVEY FOR RENOVATION VIKING ELEMENTARY SCHOOL MULTIPURPOSE BUILDING – ROOF, CAFETERIA, & MECHANICAL ROOM

HMS, Inc. Project No. F17192

Inspection Date: October 19 and 26, 2017

BUILDING DESCRIPTION

The Multipurpose Building has a rolled composition roof, with HVAC units mounted on raised curbs covered with a metal shroud. The roof system contains built up tar and felt layers over a fibrous underlayment, with silver paint beneath a white coating layer on the surface. Exterior walls are stucco. Interior areas have plaster walls and ceilings, with acoustic ceiling tile. The original 1988 inspection noted the presence of pipe insulation in attic/plenum areas, but these materials were not identified during the current inspection.

BULK SAMPLE RESULTS

The following suspect materials were identified in the specified project areas, and bulk samples were collected and analyzed, or were previously sampled in the initial inspection and were analyzed in 1988 by CGS:

Rolled composition roofing
12" Vinyl floor tile and mastic
Stucco
Plaster
Window putty

Fiberglass insulation
4" Vinyl baseboard and mastic
Mastic (various)
Acoustic ceiling tiles
Sealants (various)

The samples were shipped to Forensic Analytical Laboratories, Inc., a NVLAP-accredited laboratory in Hayward, California. Laboratory analysis was performed using polarized light microscopy with dispersion staining.

ASBESTOS-CONTAINING MATERIALS

MATERIAL	LOCATION	ASBESTOS CONTENT	APPROX. QUANTITY	NESHAP CATEGORY*
07A: 12" VFT (tan popcorn) and mastic*	MPR	2% Chrysotile in mastic	+/- 2250 Square Feet	Category I, non-friable

*Flooring will not be disturbed during this renovation project.

If any additional suspect materials, other than those included herein, are discovered during renovation, it must be assumed that such materials are asbestos containing, and must be treated as such until proven otherwise by laboratory analysis.

Please include this report with submissions to the San Joaquin Valley Air Pollution Control District to document that a thorough asbestos inspection was performed for this renovation, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) for asbestos.

Written by: Jacob Sharp, Project Manager
Cal/OSHA SST # 16-5815

Reviewed by: Joe Vuglia, Senior Project Manager
Cal/OSHA CAC #13-5005

Date: October 31, 2017



APPENDIX B

ASBESTOS SURVEY FOR RENOVATION VIKING ELEMENTARY SHOOOL Classroom WING 13-10 –BOILER ROOM

HMS, Inc. Project No. F17192

Inspection Date: October 19 and 26, 2017

BUILDING DESCRIPTION

The Mechanical/Boiler Room contains a boiler and fiberglass pipe insulation. The floor is concrete, and walls and ceilings are plaster, with stucco at exterior walls.

BULK SAMPLE RESULTS

The following suspect materials were identified in the specified project areas, and bulk samples were collected and analyzed or previously sampled (by CGS):

Plaster
Stucco (CGS)

Concrete
Fiberglass pipe insulation with wrap

The samples were shipped to Forensic Analytical Laboratories, Inc., a NVLAP-accredited laboratory in Hayward, California. Laboratory analysis was performed using polarized light microscopy with dispersion staining.

RESULTS: NO ASBESTOS WAS DETECTED IN SAMPLED SUSEPCT MATERIALS.

If any additional suspect materials, other than those included herein, are discovered during renovation, it must be assumed that such materials are asbestos containing, and must be treated as such until proven otherwise by laboratory analysis.

Please include this report with submissions to the San Joaquin Valley Air Pollution Control District to document that a thorough asbestos inspection was performed for this renovation, in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) for asbestos.

Written by: Jacob Sharp, Project Manager
Cal/OSHA SST # 16-5815

A handwritten signature in black ink that reads 'Jacob Sharp'.

Reviewed by: Joe Vuglia, Senior Project Manager
Cal/OSHA CAC #13-5005

A handwritten signature in black ink that reads 'Joe Vuglia'.

Date: October 31, 2017



Bulk Material Analysis Request Form

Hazard Management Services, Inc.

Date: 10/19/2017 Contact Name: Jacob Sharp
Collected By: Jacob Sharp Bill: Acct # 1636
Date Collected: Various Type of Analysis: PLM with Dispersion Staining
Turn Around Time: 24 Hr.
Laboratory: Forensic Analytical Laboratories
Job ID: F17192 – Fresno Unified School District
Job Site: Viking Elementary School – MPR Boiler Room Inspection
Special: _____
Instructions: _____
Email Results: jsharp@hazmanage.com, dspyle@hazmanage.com, jolsen@hazmanage.com

Sample ID	Results	Material Description and Location
HMS-F17192-01A		Concrete Floor
		13-10 Boiler Room – West Side North End
HMS-F17192-02A		Plaster – Sanded
		13-10 Boiler Room – East Side South End at Damaged
HMS-F17192-02B		Plaster – Sanded
		MPR Stage - North Side East End at Damaged
HMS-F17192-02C		Plaster – Sanded
		MPR Boiler Room – North Side West End
HMS-F17192-03A		Fiberglass on Pipes
		13-10 Boiler Room – North Side Center
HMS-F17192-03B		Fiberglass on Pipes
		MPR Boiler Room – North Side West End
HMS-F17192-04A		Interior Concrete Ring
		13-10 Boiler Room – East Side South End
HMS-F17192-05A		Sealant (Green)
		MPR Boiler Room – West Side Center on Boiler
HMS-F17192-06A		Sealant (White)
		MPR Boiler Room – West Side Center on Boiler
HMS-F17192-07A		12" VFT (Tan Popcorn) & mastic
		MPR – North Side East End at Stage
HMS-F17192-08A		12" ACT (Uniform) on Drywall
		MPR – West Side North End at Entry
HMS-F17192-09A		12" ACT (Fissure Pinhole) on Drywall
		MPR – West Side North End at Entry

Submitted By: 

Received By: _____

Date: 10/23/2017

Date: _____





Bulk Material Analysis Request Form

Hazard Management Services, Inc.

Date: 10/19/2017 Contact Name: Jacob Sharp
Collected By: Jacob Sharp Bill: Acct # 1636
Date Collected: Various Type of Analysis: PLM with Dispersion Staining
Turn Around Time: 24 Hr.
Laboratory: Forensic Analytical Laboratories
Job ID: F17192 – Fresno Unified School District
Job Site: Viking Elementary School – MPR Boiler Room Inspection
Special: _____
Instructions: _____
Email Results: jsharp@hazmanage.com, dspxle@hazmanage.com jolsen@hazmanage.com

Sample ID	Results	Material Description and Location
HMS-F17192-10A		12" VFT (Brown) & mastic
		MPR – North Side East End at Stage
HMS-F17192-11A		Vibration Collar
		MPR Boiler Room - South Side Center on Boiler
HMS-F17192-12A		Rolled Roof Composition
		MPR R00f – East Side North End
HMS-F17192-12B		Rolled Roof Composition
		MPR Roof – North Side East End at Corner
HMS-F17192-12C		Rolled Roof Composition
		MPR Roof – East Side North End at Curb
HMS-F17192-13A		Sealant (Gray)
		MPR Roof – East Side North End on HVAC Unit
HMS-F17192-14A		Mastic (Gray)
		MPR Roof – East Side North End on HVAC Unit
HMS-F17192-15A		Foam Insulation
		MPR Roof – East Side North End on HVAC Unit

Submitted By: 

Received By: _____



Date: 10/23/2017

Date: _____



Bulk Asbestos Analysis

(EPA Method 600/M4-82-020 and 600/R-93-116, Visual Area Estimation)

Hazard Mgmt. Services
Jacob Sharp
Fresno Location
371 E. Bullard Ave., Ste. 109
Fresno, CA 93710

Client ID: 1636
Report Number: B248296
Date Received: 10/24/17
Date Analyzed: 10/25/17
Date Printed: 10/25/17
First Reported: 10/25/17

Job ID/Site: F17192 - Fresno Unified School District, Viking Elementary School-MPR Boiler Room Inspection
Date(s) Collected: 10/19/2017

FALI Job ID: 1636
Total Samples Submitted: 20
Total Samples Analyzed: 20

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
HMS-F17192-01A	11949317						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
HMS-F17192-02A	11949318						
Layer: White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
HMS-F17192-02B	11949319						
Layer: White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
HMS-F17192-02C	11949320						
Layer: White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
HMS-F17192-03A	11949321						
Layer: Yellow Fibrous Material			ND				
Layer: Tan Fibrous Material			ND				
Layer: Silver Foil			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (5 %) Fibrous Glass (90 %)							
HMS-F17192-03B	11949322						
Layer: Yellow Fibrous Material			ND				
Layer: Tan Fibrous Material			ND				
Layer: Silver Foil			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (5 %) Fibrous Glass (90 %)							

Client Name: Hazard Mgmt. Services

Report Number: B248296

Date Printed: 10/25/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
HMS-F17192-04A	11949323						
Layer: Grey Cementitious Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
HMS-F17192-05A	11949324						
Layer: Green Semi-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (10 %)							
HMS-F17192-06A	11949325						
Layer: Green Semi-Fibrous Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (30 %) Wollastonite (5 %)							
HMS-F17192-07A	11949326						
Layer: Beige Tile			ND				
Layer: Black Mastic		Chrysotile	2 %				
Total Composite Values of Fibrous Components:		Asbestos (Trace)					
Cellulose (Trace)							
HMS-F17192-08A	11949327						
Layer: Tan Fibrous Material			ND				
Layer: Paint			ND				
Layer: White Drywall			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (65 %) Fibrous Glass (2 %)							
HMS-F17192-09A	11949328						
Layer: White Drywall			ND				
Layer: Beige Fibrous Tile			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (30 %) Fibrous Glass (25 %)							
HMS-F17192-10A	11949329						
Layer: Beige Tile			ND				
Layer: Yellow Mastic			ND				
Layer: Off-White Non-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
HMS-F17192-11A	11949330						
Layer: Black Non-Fibrous Material			ND				
Layer: White Woven Material			ND				
Layer: Black Non-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Fibrous Glass (80 %)							

Client Name: Hazard Mgmt. Services

Report Number: B248296

Date Printed: 10/25/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
HMS-F17192-12A	11949331						
Layer: White Non-Fibrous Coating			ND				
Layer: Silver Paint			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Tan Fibrous Material			ND				
Total Composite Values of Fibrous Components: Asbestos (ND)							
Cellulose (35 %) Fibrous Glass (15 %) Wollastonite (Trace)							
Comment: Bulk complex sample.							
HMS-F17192-12B	11949332						
Layer: White Non-Fibrous Coating			ND				
Layer: Silver Paint			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Tan Fibrous Material			ND				
Total Composite Values of Fibrous Components: Asbestos (ND)							
Cellulose (35 %) Fibrous Glass (15 %) Wollastonite (Trace)							
Comment: Bulk complex sample.							
HMS-F17192-12C	11949333						
Layer: White Non-Fibrous Coating			ND				
Layer: Silver Paint			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Layer: Tan Fibrous Material			ND				
Total Composite Values of Fibrous Components: Asbestos (ND)							
Cellulose (35 %) Fibrous Glass (15 %) Wollastonite (Trace)							
Comment: Bulk complex sample.							
HMS-F17192-13A	11949334						
Layer: Grey Non-Fibrous Material			ND				
Total Composite Values of Fibrous Components: Asbestos (ND)							

Client Name: Hazard Mgmt. Services

Report Number: B248296

Date Printed: 10/25/17

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
HMS-F17192-14A	11949335						
Layer: Grey Non-Fibrous Material			ND				
Layer: Off-White Non-Fibrous Material			ND				
Layer: Beige Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (5 %)							
HMS-F17192-15A	11949336						
Layer: Off-White Foam			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							



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 Forensic Analytical Laboratories Inc. (FALI) 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 FALI 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 FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI 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.



Hazard
Management
Services
SINCE 1986

Bulk Material Analysis Request Form

Hazard Management Services, Inc.

Date: 10/26/2017 Contact Name: Jacob Sharp
Collected By: Jacob Sharp Bill: Acct # 1636
Date Collected: 10/26/2017 Type of Analysis: PLM with Dispersion Staining
Turn Around Time: 24 Hr.
Laboratory: Forensic Analytical Laboratories
Job ID: F17192 – Fresno Unified School District
Job Site: Viking Elementary School – MPR Boiler Room Inspection
Special
Instructions:
Email Results: jsharp@hazmanage.com, dspyle@hazmanage.com jolsen@hazmanage.com

Sample ID	Results	Material Description and Location
HMS-F17192-16A		Exterior Stucco
		Exterior MPR: South Side East End
HMS-F17192-17A		Window Putty
		Exterior MPR: South Side East End



Submitted By:  Date: 10/26/2017
Received By: _____ Date: _____



Bulk Asbestos Analysis

(EPA Method 600/M4-82-020 and 600/R-93-116, Visual Area Estimation)

Hazard Mgmt. Services
Jacob Sharp
Fresno Location
371 E. Bullard Ave., Ste. 109
Fresno, CA 93710

Client ID: 1636
Report Number: B248462
Date Received: 10/27/17
Date Analyzed: 10/27/17
Date Printed: 10/30/17
First Reported: 10/30/17

Job ID/Site: F17192, Fresno Unified School District, Viking Elementary School-MPR Boiler Room Inspection
Date(s) Collected: 10/26/2017

FALI Job ID: 1636
Total Samples Submitted: 2
Total Samples Analyzed: 2

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
HMS-F17192-16A	11950282						
Layer: White Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
HMS-F17192-17A	11950283						
Layer: Grey Non-Fibrous Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

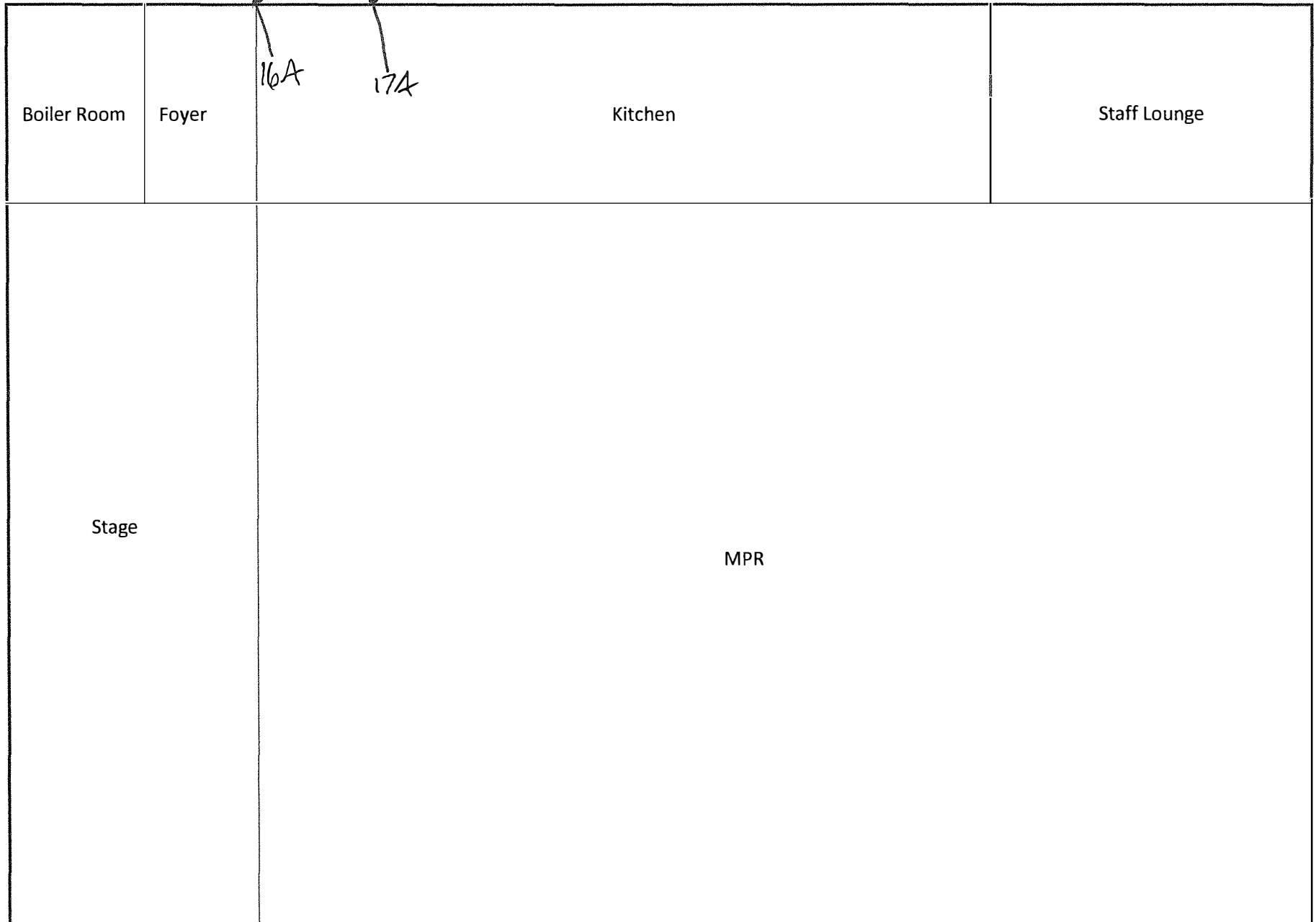
Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) 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 FALI 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 FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI 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.

F17192 – Viking ES Roof and Boiler Room Inspection

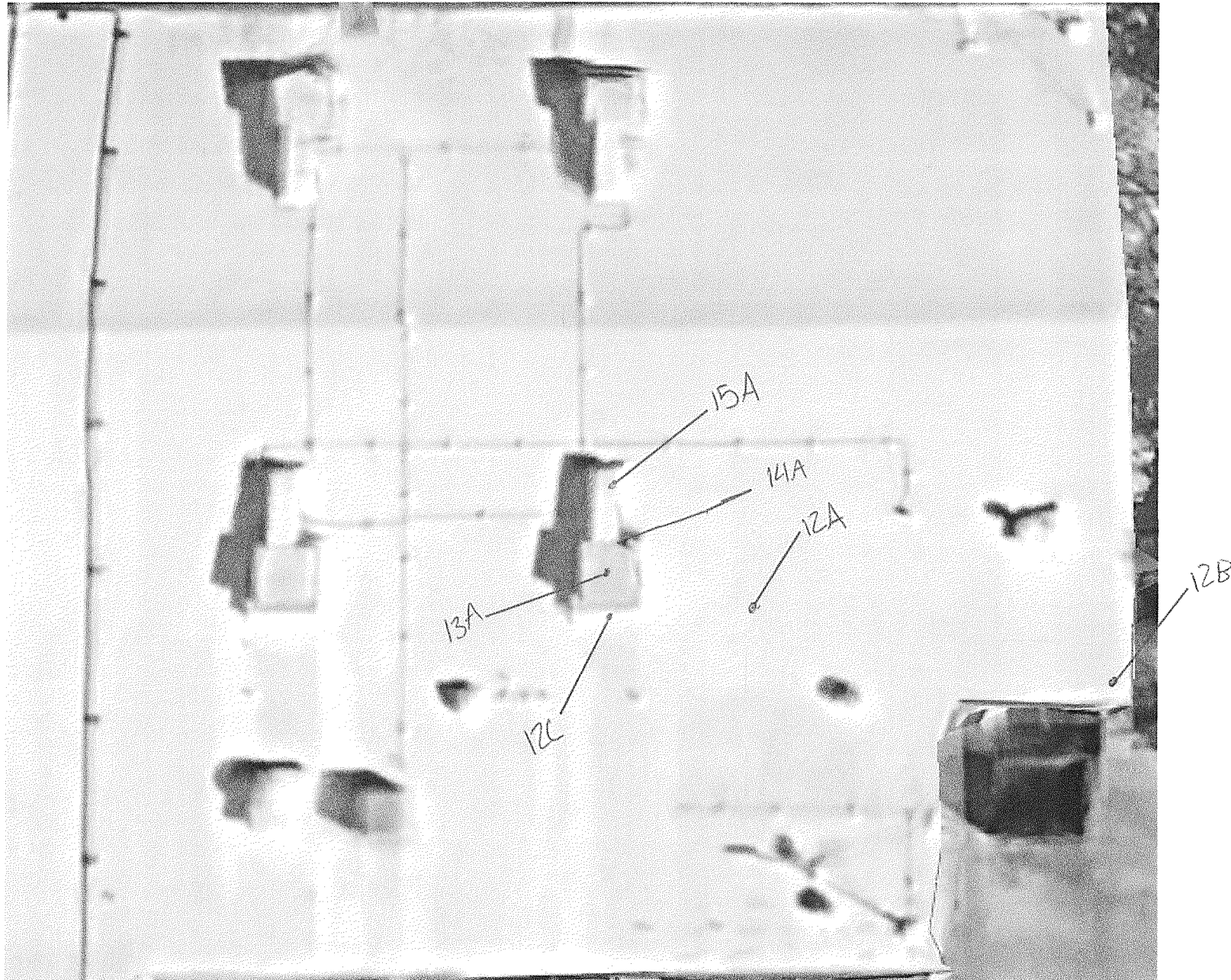


MPR Sample Map



MPR Boiler Room Inspection – MPR Roof

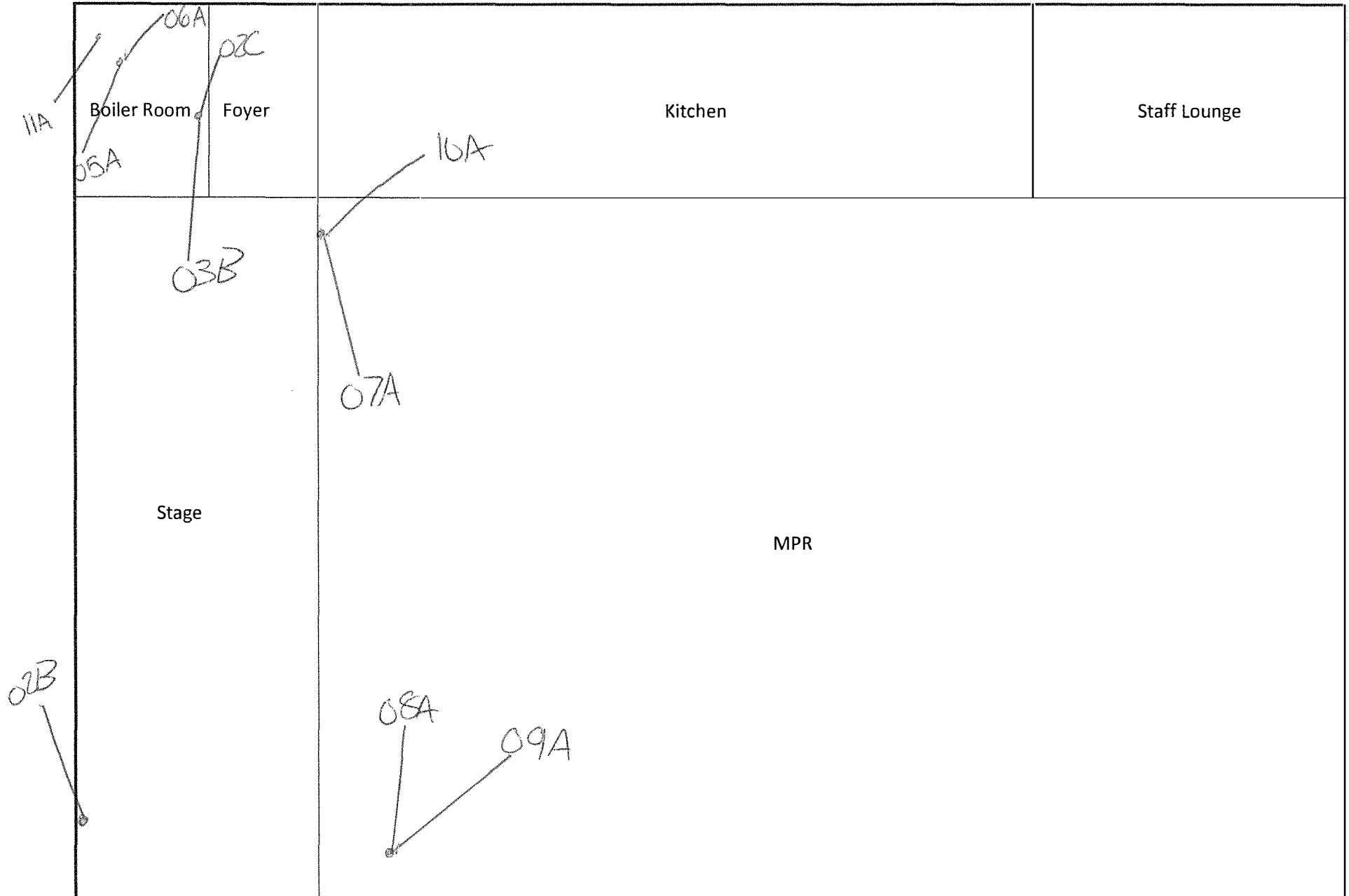
10/23/17



F17192 – Viking ES Roof and Boiler Room Inspection

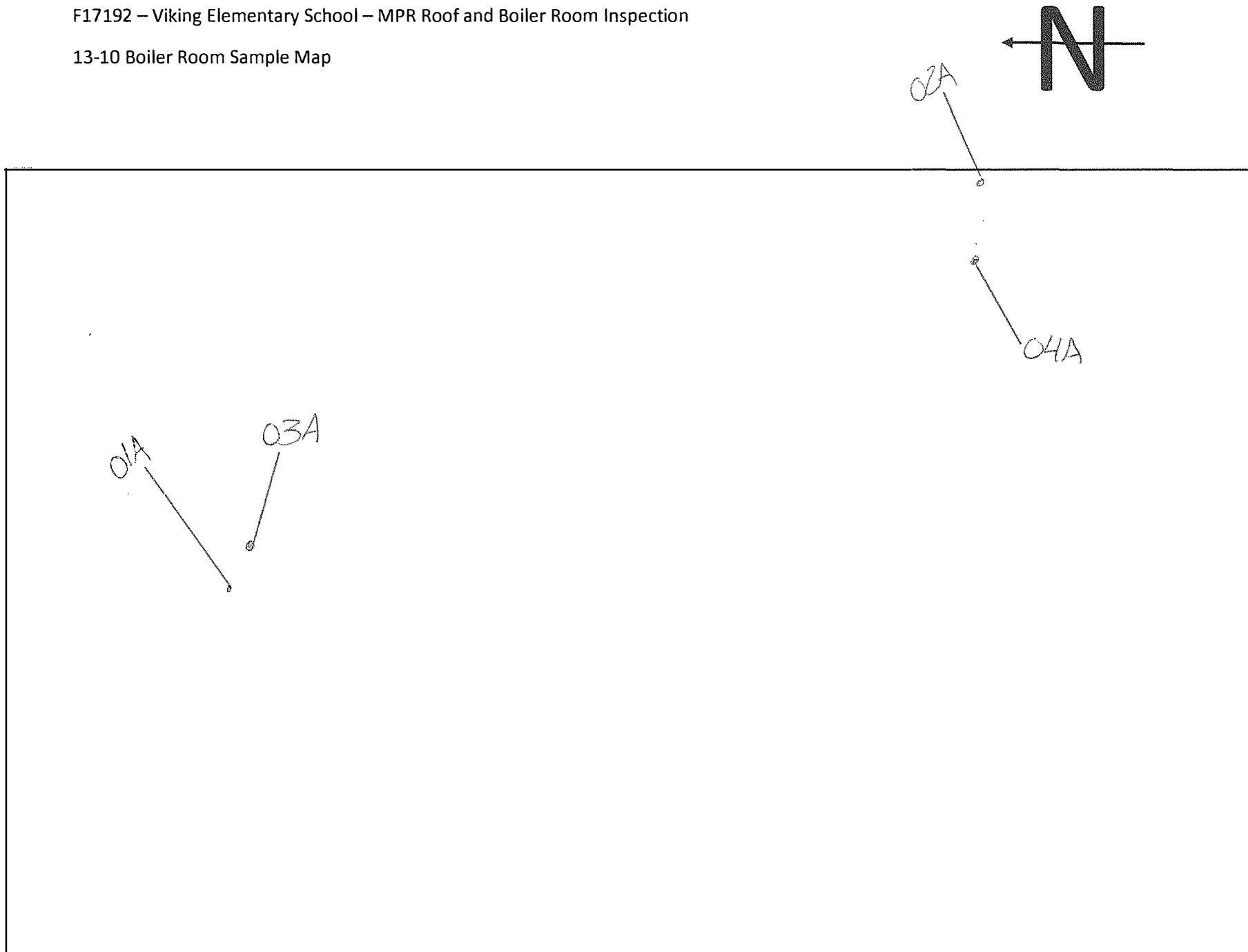


MPR Sample Map



F17192 – Viking Elementary School – MPR Roof and Boiler Room Inspection

13-10 Boiler Room Sample Map



Hazard Management Services, Inc.

This is to confirm that

Jacob M. Sharp

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 12, 2017

Certificate Number: HMSBIR298

Valid Until: September 12, 2018

Cal/OSHA Approval Number: CA-025-06



Michael C. Sharp

Michael C. Sharp - AHERA Training Director
Hazard Management Services, Inc.
207 McHenry Ave. Modesto, CA 95354
(209) 551-2000

DEPARTMENT OF INDUSTRIAL RELATIONS

Division of Occupational Safety and Health

Asbestos Unit

2424 Arden Way, Suite 495

Sacramento, CA 95825-2417

(916) 574-2993 Office (916) 483-0572 Fax

<http://www.dir.ca.gov/dirdatabases.html> actu@dir.ca.gov

611025815T

416

Hazard Management Services, Inc.

Jacob M Sharp

207 McHenry Ave

Modesto CA 95354

September 11, 2017

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 contact our office at the above address, fax number or email; of any changes in your contact/mailling information 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 Site Surveillance Technician

Jacob M Sharp

Name

Certification No. **16-5815**Expires on **11/16/18**

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

Renewal - Card Attached (Revised 10/24/2012)

Hazard Management Services, Inc.

This is to confirm that

Joe M. Vuglia

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 12, 2017

Certificate Number: HMSBIR304

Valid Until: September 12, 2018

Cal/OSHA Approval Number: CA-025-06



Michael C. Sharp

Michael C. Sharp - AHERA Training Director
Hazard Management Services, Inc.
207 McHenry Ave. Modesto, CA 95354
(209) 551-2000

DEPARTMENT OF INDUSTRIAL RELATIONS
Division of Occupational Safety and Health
Asbestos Unit
2424 Arden Way, Suite 495
Sacramento, CA 95825-2417
(916) 574-2993 Office (916) 483-0572 Fax
<http://www.dir.ca.gov/dirdatabases.html> actu@dir.ca.gov



302255005C

372

February 14, 2017

Joseph M Vuglia
371 E. Bullard Ave. #109
Fresno CA 93710

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 contact our office at the above address, fax number or email; of any changes in your contact/mailling information within 15 days of the change.

Sincerely,

Jeff Ferrell
Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal – Card Attached (Revised 10/24/2012)



**Right People
Right Perspective
Right Now**

www.forensicanalytical.com