GENERAL NOTES

1. IF DURING SELECTIVE DEMOLITION AND CONSTRUCTION IF ANY MATERIALS SUSPECTED OF CONTAINING ASBESTOS ARE ENCOUNTERED IMMEDIATELY NOTIFY OWNER.

   REMOVAL OF ALL MATERIALS (FLOOR TILE, PIPE WRAP ETC.) SUSPECTED OF CONTAINING ASBESTOS WILL BE PREFORMED BY OWNER.

2. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ANY ADDITIONAL SELECTIVE DEMOLITION REQUIREMENTS (INCLUDING CUTTING FOR NEW VENTS AND REFIEF AIR DUCTS).

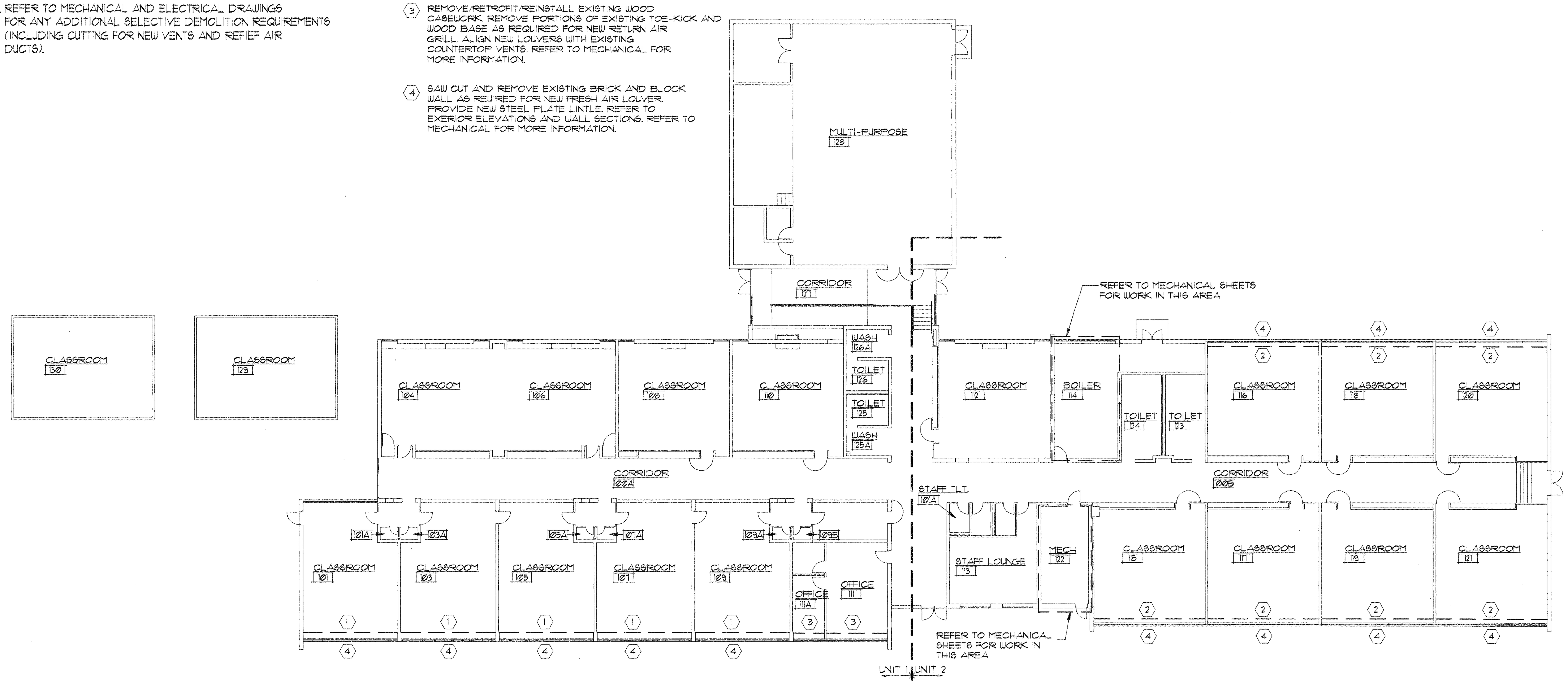
SELECTIVE DEMOLITION KEY NOTES

(1) REMOVE AND SALVAGE EXISTING WOOD CASEWORK. RETURN TO OWNER FOR REUSE

(2) REMOVE EXISTING RADIANT FIN TUBE AND PIPING. REFER TO MECHANICAL FOR EXTENT OF MECHANICAL DEMOLITION.

(3) REMOVE/RETROFIT/REINSTALL EXISTING WOOD CASEWORK. REMOVE PORTIONS OF EXISTING TOE-KICK AND WOOD BASE AS REQUIRED FOR NEW RETURN AIR GRILL. ALIGN NEW LOUVERS WITH EXISTING COUNTERTOP VENTS. REFER TO MECHANICAL FOR MORE INFORMATION.

(4) SAW CUT AND REMOVE EXISTING BRICK AND BLOCK WALL AS REUIRED FOR NEW FRESH AIR LOUVER. PROVIDE NEW STEEL PLATE LINTLE. REFER TO EXERIOR ELEVATIONS AND WALL SECTIONS. REFER TO MECHANICAL FOR MORE INFORMATION.



COMPOSITE/SELECTIVE DEMOLITION FLOOR PLAN

SCALE: 1/16"=1'-0"

CHIME ELEMENTARY SCHOOL

RENOVATIONS

Kalamazoo, Michigan
Oshtemo, Michigan

97103

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161 E. Michigan Ave.
Kalamazoo, MI 49007
616 388 7313
616 388 7330 Fax

COMPOSITE/
SELECTIVE DEMOLITION FLOOR PLAN

A1-00/BP-2

02/27/98 0:55 pm F:\97103\DWG'S\BIDPAC-2\A1-00

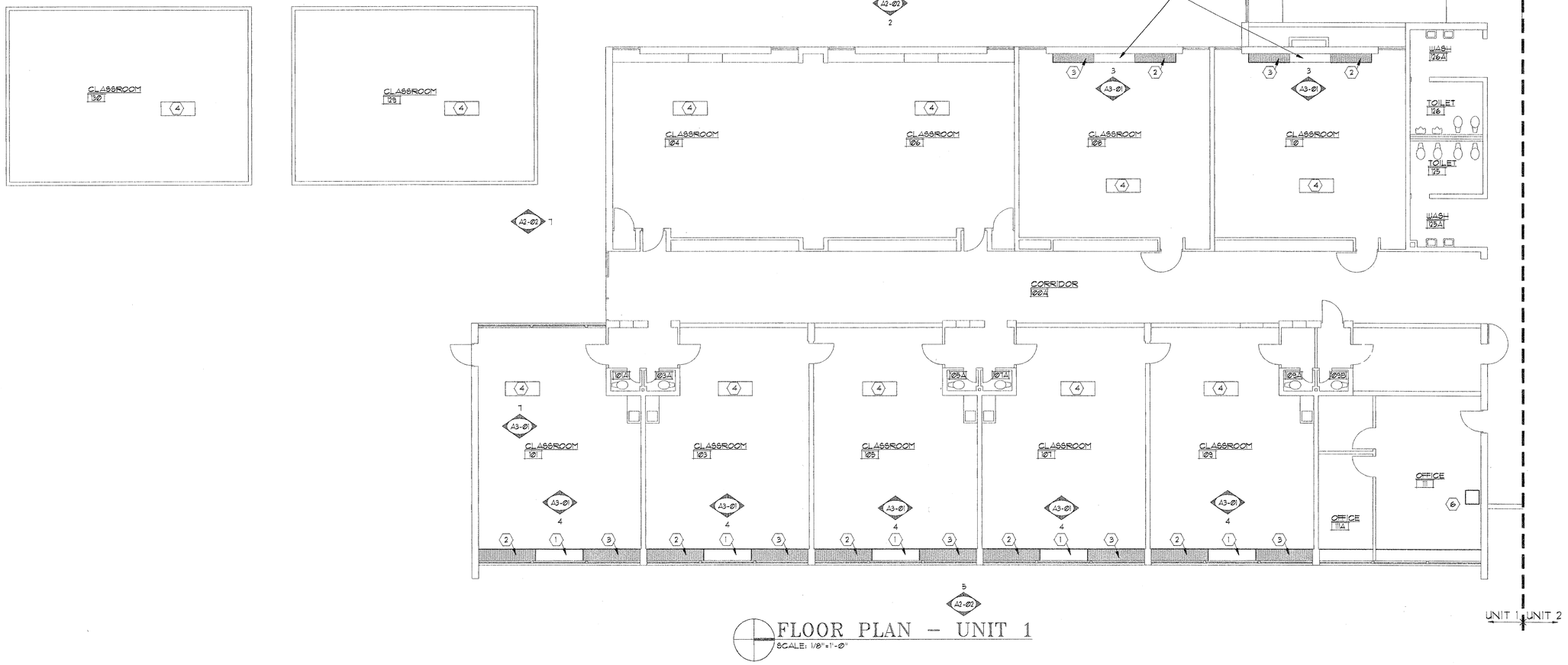
KEY NOTES

1. NEW UNIT VENTILATOR. REFER TO MECHANICAL. UNIT COLOR TO BE SELECTED BY ARCHITECT FROM FULL RANGE OF MANUFACTURER'S STANDARD COLORS
2. NEW OPEN METAL SHELVING TO MATCH NEW OR EXISTING UNIT VENTILATORS. COLOR TO BE SELECTED BY ARCHITECT FROM FULL MANUF. STANDARD COLOR RANGE. SEE ELEVATION
3. NEW LOCKABLE METAL SHELVING TO MATCH NEW OR EXISTING UNIT VENTILATORS. COLOR TO BE SELECTED BY ARCHITECT FROM FULL MANUF. STANDARD COLOR RANGE. SEE ELEVATION. COORDINATE KEYING AND CYLINDERS AS PER OWNERS REQUIREMENTS.
4. PROVIDE 2'-Ø"Dx5'-Ø"Wx3'-Ø"H MOBILE WOOD CASEWORK W/ PLASTIC LAMINATE TOP. PROVIDE CYLINDERS AND KEYS FOR DOORS AND DRAWERS. CORRIDINATE WITH OWNERS REQUIREMENTS. PROVIDE FOUR 360° CASTERS TWO W/ BRAKES. REFER TO DETAIL 7/A3-Ø1
6. PROVIDE 2'-Ø"X2'-Ø" FLAT METAL FLOOR ACCESS PANEL. SAW CUT AND REMOVE EXISTING CONC. SLAB AS REQUIRED. REFER TO MECHANICAL

ALTERNATES

ALTERNATE 1

5. PROVIDE FIVE LINIER FEET OF LOCKABLE PLASTIC LAMINATE FACED BASE AND WALL CABINETS IN ROOMS 112, 115, 116, 116, 117, 118, 119, 120, 121. SEE DETAIL 8/A3-Ø1. EXACT PLACEMENT OF NEW CASEWORK TO BE DETERMINED IN FIELD BY ARCHITECT COORDINATE KEYING AND CYLINDERS AS PER OWNERS REQUIREMENTS.



FLOOR PLAN - UNIT 1
SCALE: 1/8"=1'-Ø"

CHIME ELEMENTARY SCHOOL
RENOVATIONS

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Oshtemo, Michigan
97103

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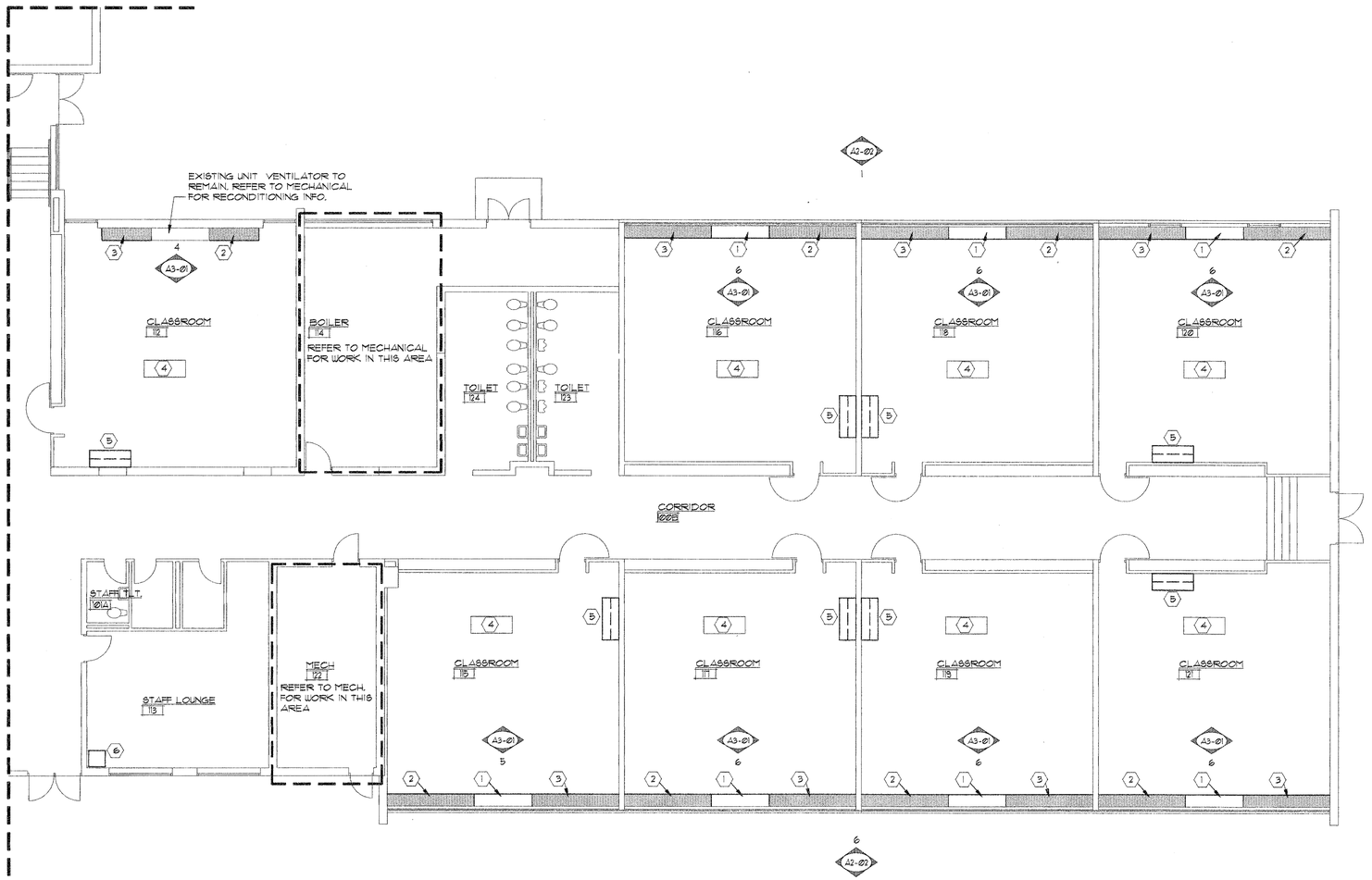
FLOOR PLAN
UNIT 1

A1-01/BP-2



FLOOR PLAN – UNIT 2

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

KEY NOTES

1. NEW UNIT VENTILATOR, REFER TO MECHANICAL, UNIT COLOR TO BE SELECTED BY ARCHITECT FROM FULL RANGE OF MANUFACTURER'S STANDARD COLORS
2. NEW OPEN METAL SHELVING TO MATCH NEW OR EXISTING UNIT VENTILATORS, COLOR TO BE SELECTED BY ARCHITECT FROM FULL MANUF. STANDARD COLOR RANGE. SEE ELEVATION
3. NEW LOCKABLE METAL SHELVING TO MATCH NEW OR EXISTING UNIT VENTILATORS, COLOR TO BE SELECTED BY ARCHITECT FROM FULL MANUF. STANDARD COLOR RANGE. SEE ELEVATION. COORDINATE KEYING AND CYLINDERS AS PER OWNERS REQUIREMENTS.
4. PROVIDE 2'-0"Dx5'-0"Wx3'-0"H MOBILE WOOD CASEWORK w/ PLASTIC LAMINATE TOP. PROVIDE CYLINDERS AND KEYS FOR DOORS AND DRAWERS. CORRIDINATE WITH OWNERS REQUIREMENTS. PROVIDE FOUR 360° CASTERS TWO w/ BRAKES. REFER TO DETAIL 7/A3-01
6. PROVIDE 2'-0"x2'-0" FLAT METAL FLOOR ACCESS PANEL. REMOVE EXISTING CARPET AS REQUIRED. SAW CUT AND REMOVE EXISTING CONC. SLAB AS REQUIRED. REFER TO MECHANICAL

ALTERNATES

ALTERNATE 1

5. PROVIDE FIVE LINIER FEET OF LOCKABLE PLASTIC LAMINATE FACED BASE AND WALL CABINETS IN ROOMS 112, 115, 116, 116, 117, 118, 119, 120, 121. SEE DETAIL 8/A3-01. EXACT PLACEMENT OF NEW CASEWORK TO BE DETERMINED IN FIELD BY ARCHITECT COORDINATE KEYING AND CYLINDERS AS PER OWNERS REQUIREMENTS.

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DEMOLITION PLAN
UNIT 2

A1-02/BP-2

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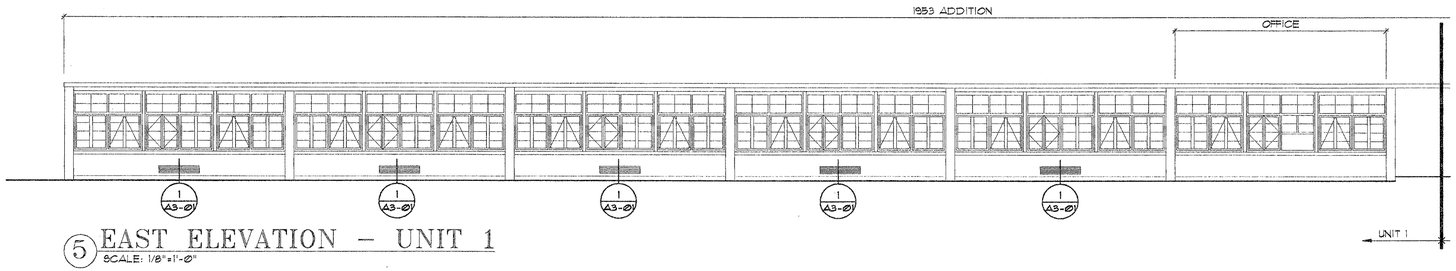
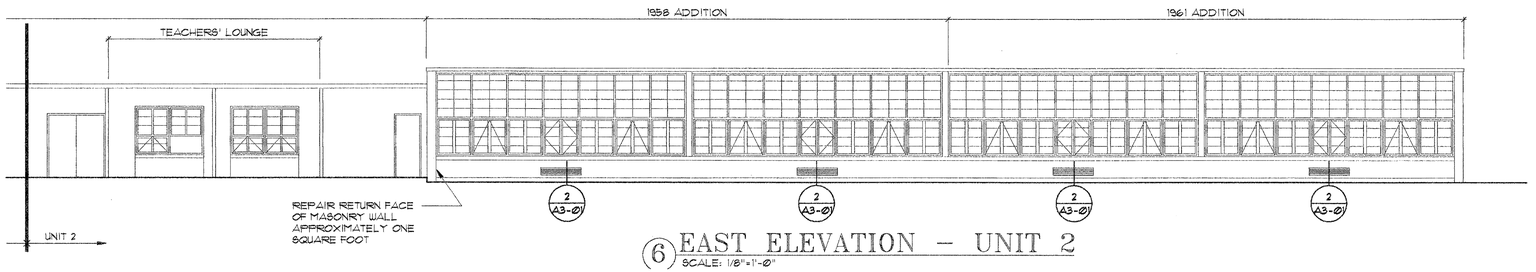
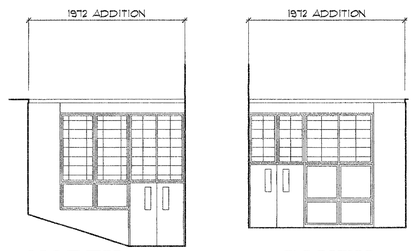


5 EAST ELEVATION – UNIT 1
SCALE: 1/8"=1'-Ø"

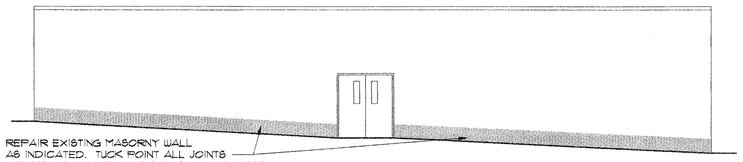


6 EAST ELEVATION – UNIT 2
SCALE: 1/8"=1'-Ø"

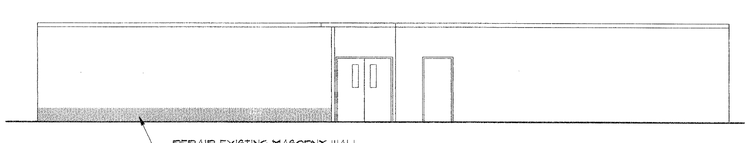


3 NORTH ELEVATION
SCALE: 1/8"=1'-Ø"

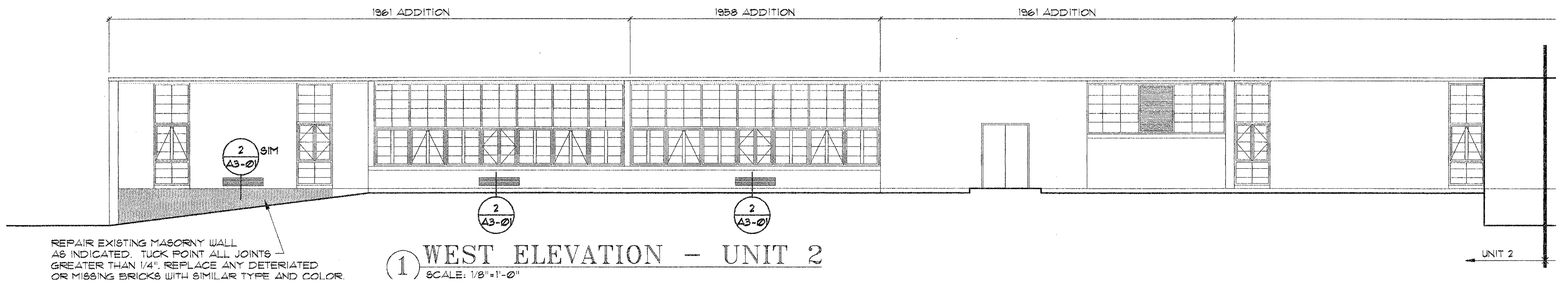
4 SOUTH ELEVATION
SCALE: 1/8"=1'-Ø"



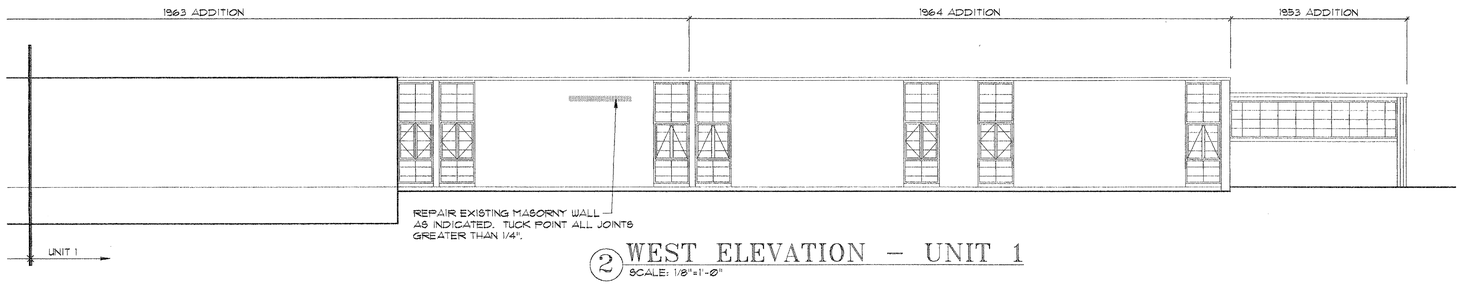
7 NORTH ELEVATION
SCALE: 1/8"=1'-Ø"



8 SOUTH ELEVATION
SCALE: 1/8"=1'-Ø"



1 WEST ELEVATION – UNIT 2
SCALE: 1/8"=1'-Ø"



2 WEST ELEVATION – UNIT 1
SCALE: 1/8"=1'-Ø"

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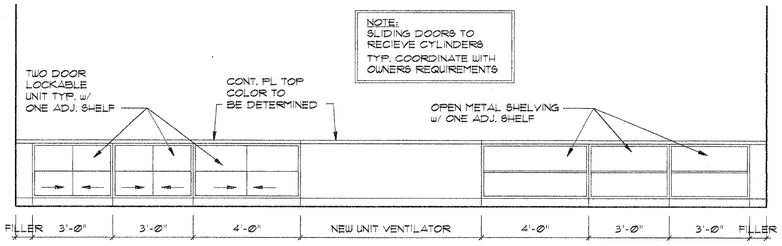
BUILDING ELEVATIONS

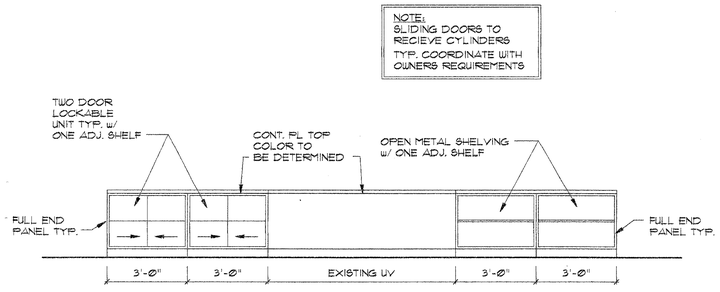
A2-01/BP-2

02/25/98 4:59 pm F:\97103\DWGS\BIDPAC-2\A2-01



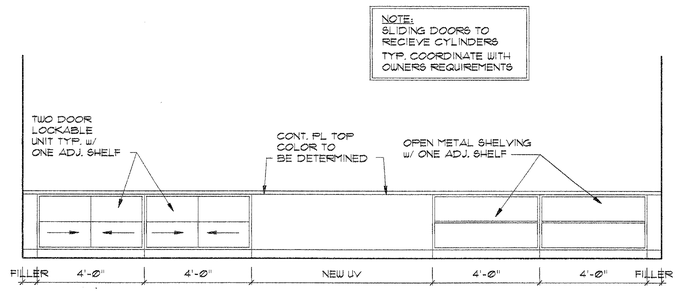
6 METAL CASEWORK ELEVATION
Scale: 3/8"=1'-Ø"

NOTE:
METAL CASEWORK TO BE FURNISHED BY UNIT VENTILATOR SUPPILER. COLOR TO MATCH NEW UNIT VENTILATOR



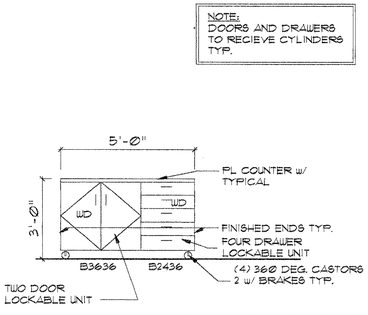
4 METAL CASEWORK ELEVATION
Scale: 3/8"=1'-Ø"

NOTE:
METAL CASEWORK TO BE FURNISHED BY UNIT VENTILATOR SUPPILER. COLOR TO MATCH EXISTING UNIT VENTILATOR



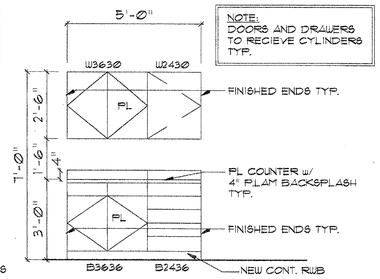
5 METAL CASEWORK ELEVATION
Scale: 3/8"=1'-Ø"

NOTE:
METAL CASEWORK TO BE FURNISHED BY UNIT VENTILATOR SUPPILER. COLOR TO MATCH NEW UNIT VENTILATOR

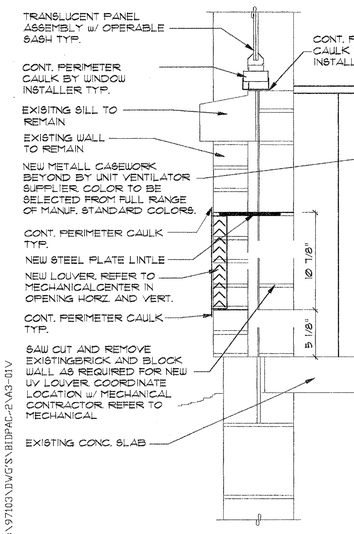


WD = WOOD FINISH TO BE DETERMINED

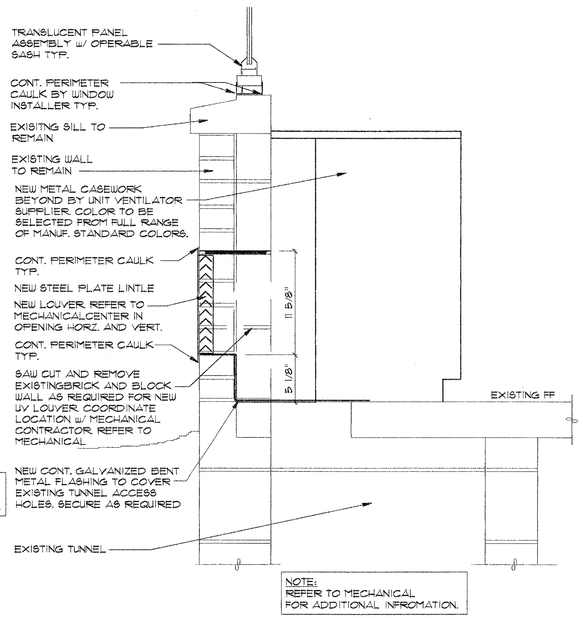
7 MOBILE CASEWORK ELEVATION
Scale: 3/8"=1'-Ø"



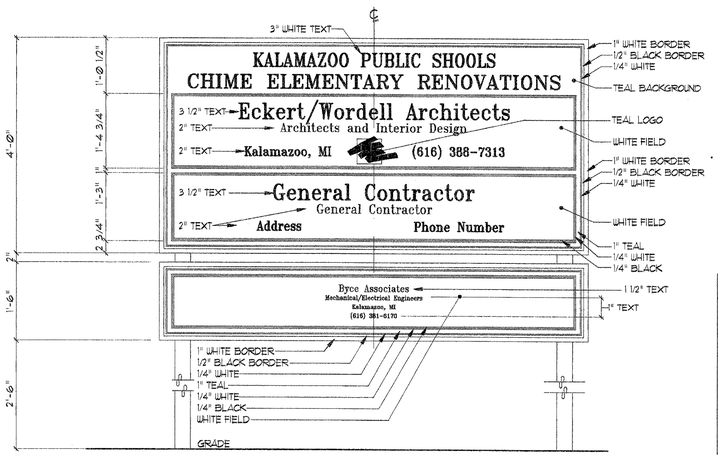
8 CASEWORK ELEVATION – ALT. 1
Scale: 3/8"=1'-Ø"



1 WALL SECTION @ LOUVER
Scale: 1 1/2"=1'-Ø" (1958/61)



2 WALL SECTION @ LOUVER
Scale: 1 1/2"=1'-Ø" (1953)



NOTE:
ALL TEXT TO BE BLACK UNLESS OTHERWISE NOTED

PANTONE COLOR NUMBERS
TEAL = PANTONE 322C
BLACK =
WHITE =

3 PROJECT SIGN
SCALE: 3/4" = 1'-Ø"

CHIME ELEMENTARY SCHOOL
RENOVATIONS
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Oshtemo, Michigan
97103

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616 388 7313
616 388 7330 Fax

DETAILS

A3-01/BP-2

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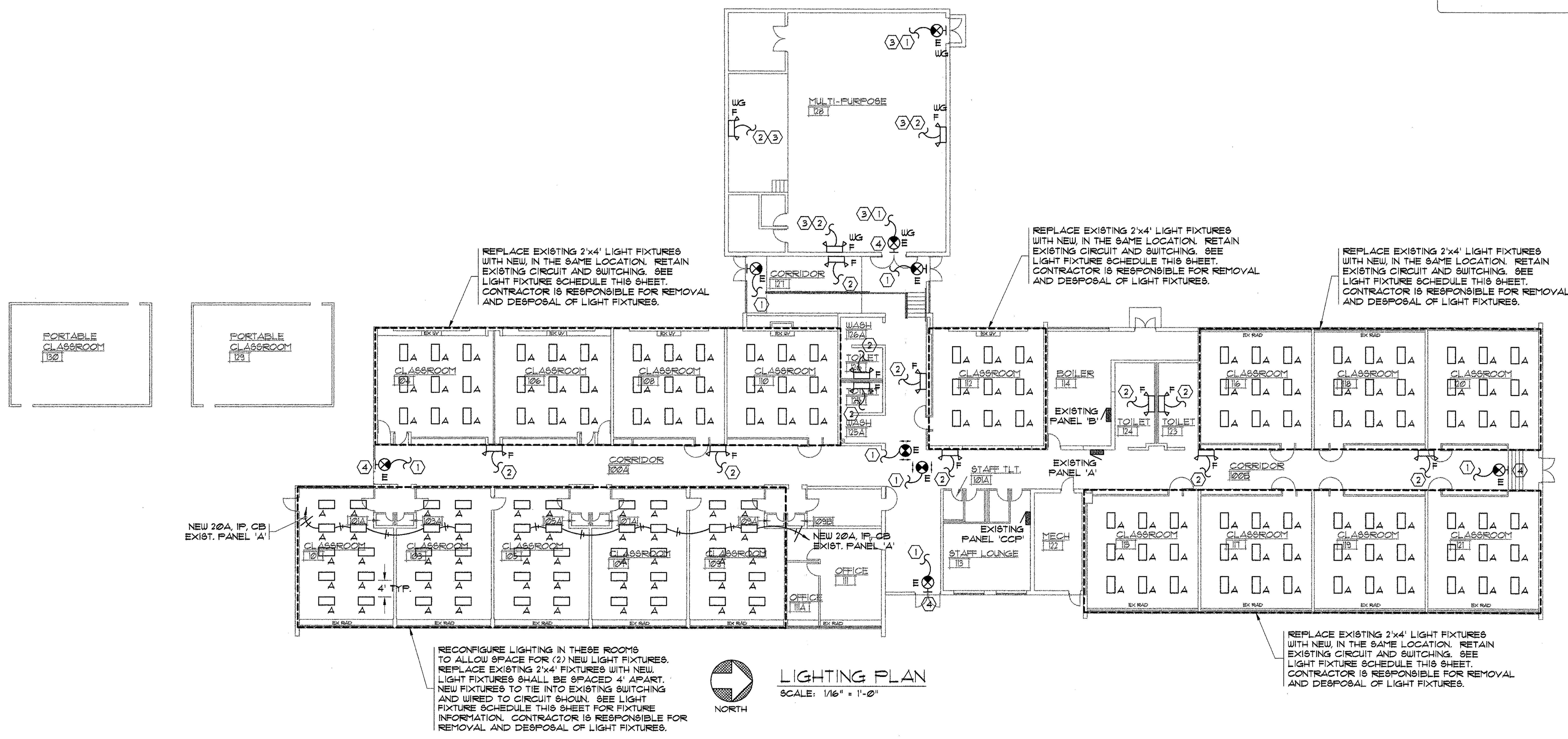
2211 Miller Road • Kalamazoo, MI 49003-2101 • (616) 383-2525



LIGHTING PLAN
SCALE: 1/16" = 1'-0"

ELECTRICAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL AUTHORITIES HAVING JURISDICTION.
2. SECURE AND PAY FOR ALL PERMITS AND FEES.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES FOR INSTALLATION OF ALL EQUIPMENT. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
4. ALL WIRING SHALL BE COPPER No. 12 AWG MINIMUM SIZE, TYPE THHN/THWN INSULATION.
5. ALL WIRING SHALL BE INSTALLED IN A METALLIC CONDUIT SYSTEM UNLESS NOTED OTHERWISE ON THE DRAWING. ALL CONDUIT USE IN WET OR DAMP AREAS SHALL BE WATER TIGHT. PROVIDE FLEXIBLE METAL CONDUIT FOR CONNECTION TO ALL MOTORS. PROVIDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR WITH ALL FLEXIBLE METAL CONDUIT. MAXIMUM 2 FT. LENGTH OF FLEXIBLE METAL CONDUIT ALLOWED. RUN ALL NEW CONDUIT CONCEALED WHERE POSSIBLE. WHERE EXISTING DOES NOT PERMIT CONCEALED, RUN EXPOSED. ALL CONDUIT RUN EXPOSED SHALL BE RUN SQUARE TO THE BUILDING AND PAINTED TO MATCH SURFACE MOUNTED ON.
6. PROVIDE ELECTRICAL DEMOLITION AS REQUIRED. FIELD VERIFY EXTENT OF ELECTRICAL DEMOLITION.
7. WHERE CONDUIT RUNS ARE ABOVE EXISTING SUSPENDED CEILINGS, CEILING PADS AND GRID SHALL BE LEFT IN LIKE NEW CONDITION.
8. MAXIMUM LOAD FOR A 20 AMP BREAKER SHALL BE 15AMPS OR 1800 WATTS AT 120 VAC.
9. PROVIDE UPDATED TYPED PANEL INDEXES ON ALL ELECTRICAL PANELS.
10. PROVIDE SHOP DRAWINGS TO ARCH. FOR APPROVAL.

LEGEND

Symbol	Description	Symbol	Description
▭	2x4 LIGHT FIXTURE	⊖	DUPLEX RECEPTACLE, 18" AFF, UNO
⊗	EXIT SIGN - (WG = WIREGUARD)	Ⓒ	COMPUTER OUTLET, 18" AFF, UNO
	WALL MOUNT EMERGENCY EGRESS FIXTURE. - (WG = WIREGUARD)	▲	TELEPHONE OUTLET, 18" AFF, UNO
	ELECTRICAL PANEL	⌒	CONDUIT

KEYED NOTES: ⬡

1. TIE EXIT SIGN TO EXISTING EXIT SIGN CIRCUIT OR TO NEAREST AVAILABLE LIGHT CIRCUIT, WIRE AHEAD OF SWITCHES. MOUNT EXIT SIGNS CENTERED ABOVE DOORS OR MOUNT SECURELY TO CEILING.
2. TIE EMERGENCY EGRESS FIXTURE IN TO NEAREST LIGHTING CIRCUIT. WIRE AHEAD OF SWITCHES. MOUNT FIXTURE A MINIMUM 7'-6" OR AT A HEIGHT ADEQUATE TO AVOID LOCKERS, TOILET PARTITIONS, ETC..
3. PROVIDE WIREGUARD FOR NEW FIXTURE.
4. DEMO EXISTING EXIT LIGHT FIXTURE.

LIGHT FIXTURE SCHEDULE

MARK	LAMP	DESCRIPTION	MANUFACTURER AND CATALOG NUMBER
A	F-1	2 X 4 LAY-IN STATIC TROFFER, .125" ACRYLIC LENS, (4) T8 LAMPS, ELECTRONIC BALLAST SPECIFICATION GRADE, LESS THAN 20% DHD, 120V.	LITHONIA 2SP-432-A12-120-1GEB
E	INCL. WITH FIXT.	LED DIE CAST EXIT SIGN, BATTERY BACK-UP, RED STENCIL LETTERS, WHITE HOUSING, 120V. WIRE AHEAD OF SWITCHES, PROVIDE WIRE GUARD WHERE REQUIRED.	LITHONIA LXSWIR-120/277EL * 1 = SINGLE FACE 2 = DOUBLE FACE
F	INCL. WITH FIXT.	EMERGENCY EGRESS LIGHT FIXTURE, TWIN HEAD, 6V, BATTERY BACK-UP, WHITE FINISH, WIRE AHEAD OF SWITCHES. PROVIDE WIREGUARD WHERE REQUIRED.	LITHONIA ELT16 (FIXTURE) ELA WG2 (WIRE GUARD)

NOTE: LITHONIA FIXTURES ARE BASE BID. ALL OTHER MANUFACTURERS CAN BID AS A VOLUNTARY ALTERNATE.

LAMP SCHEDULE

LAMP	DESCRIPTION
F-1	(4) 32W, T8, FLUORESCENT RAPID START LAMPS, 3500°K, F32T8/SP35/RS, 2850 INIT. LUMENS, 20,000 HOURS. GE, SYLVANIA, PHILLIPS.

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[redacted]

LIGHTING PLAN

E1-01

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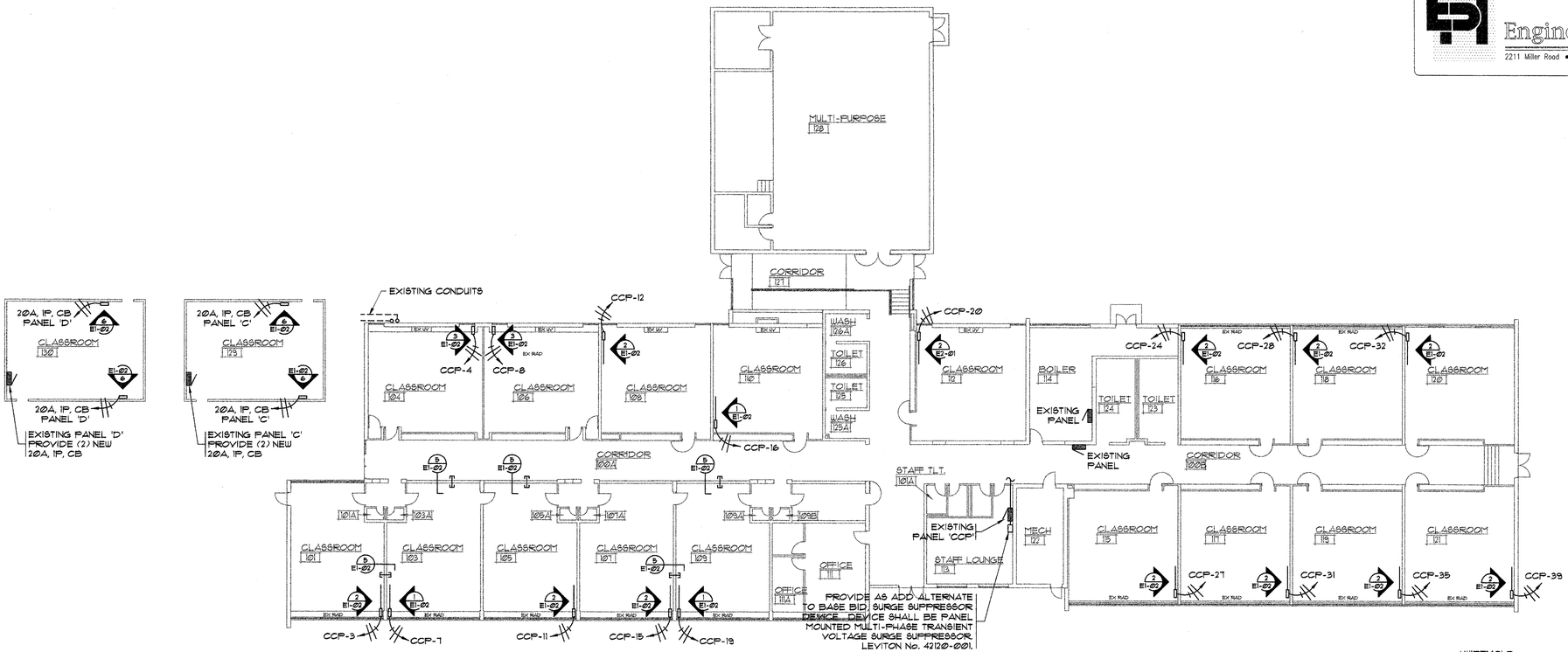
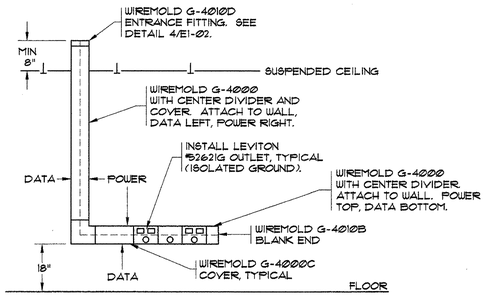
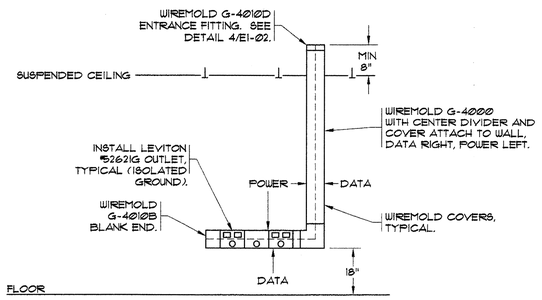


POWER AND COMMUNICATIONS PLAN
SCALE: 1/16" = 1'-0"



1 E1-02 RACEWAY ELEVATION
NO SCALE

- PROVIDE WIREMOLD G4046B FACE PLATES FOR RECEPTACLES/COMM/DATA AND G4046T FOR COMM/DATA AND OPENINGS WITH NO RECEPTACLES TYPICAL. COORDINATE WITH K.P.S. COMMUNICATIONS CONSULTANT ON FACE PLATE MODEL No.'S



2 E1-02 RACEWAY ELEVATION
NO SCALE

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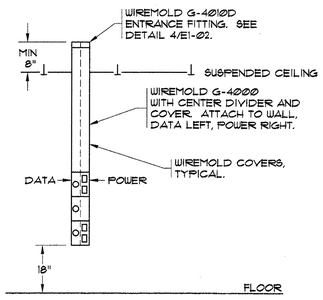
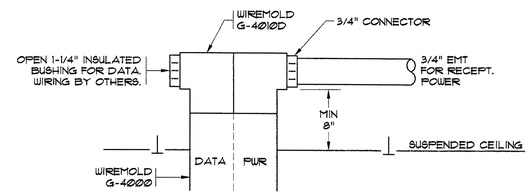


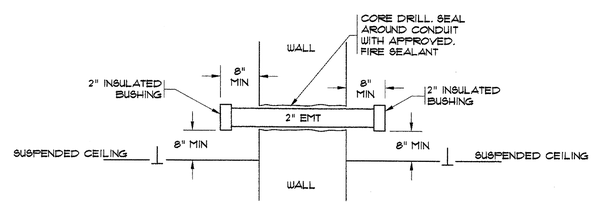
3 E1-02 RACEWAY ELEVATION
NO SCALE

- PROVIDE WIREMOLD G4046B FACE PLATES FOR RECEPTACLES/COMM/DATA AND G4046T FOR COMM/DATA AND OPENINGS WITH NO RECEPTACLES TYPICAL. COORDINATE WITH K.P.S. COMMUNICATIONS CONSULTANT ON FACE PLATE MODEL No.'S

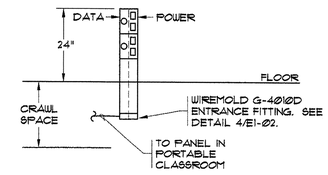
NOTE: RACEWAY ELEVATIONS DO NOT SHOW ALL REQUIRED OFF-SET, ELBOWS AND FITTINGS. FIELD VERIFY ALL REQUIRED FITTINGS TO FIT EXISTING CONSTRUCTION AND STRUCTURE.



4 E1-02 WIREMOLD V-4010D DETAIL
NO SCALE



5 E1-02 CONDUIT SLEEVE DETAIL
NO SCALE



6 E1-02 PORTABLE CLASSROOM RACEWAY ELEVATION
NO SCALE

- PROVIDE WIREMOLD G4046B FACE PLATES FOR RECEPTACLES/COMM/DATA AND G4046T FOR COMM/DATA AND OPENINGS WITH NO RECEPTACLES TYPICAL. COORDINATE WITH K.P.S. COMMUNICATIONS CONSULTANT ON FACE PLATE MODEL No.'S

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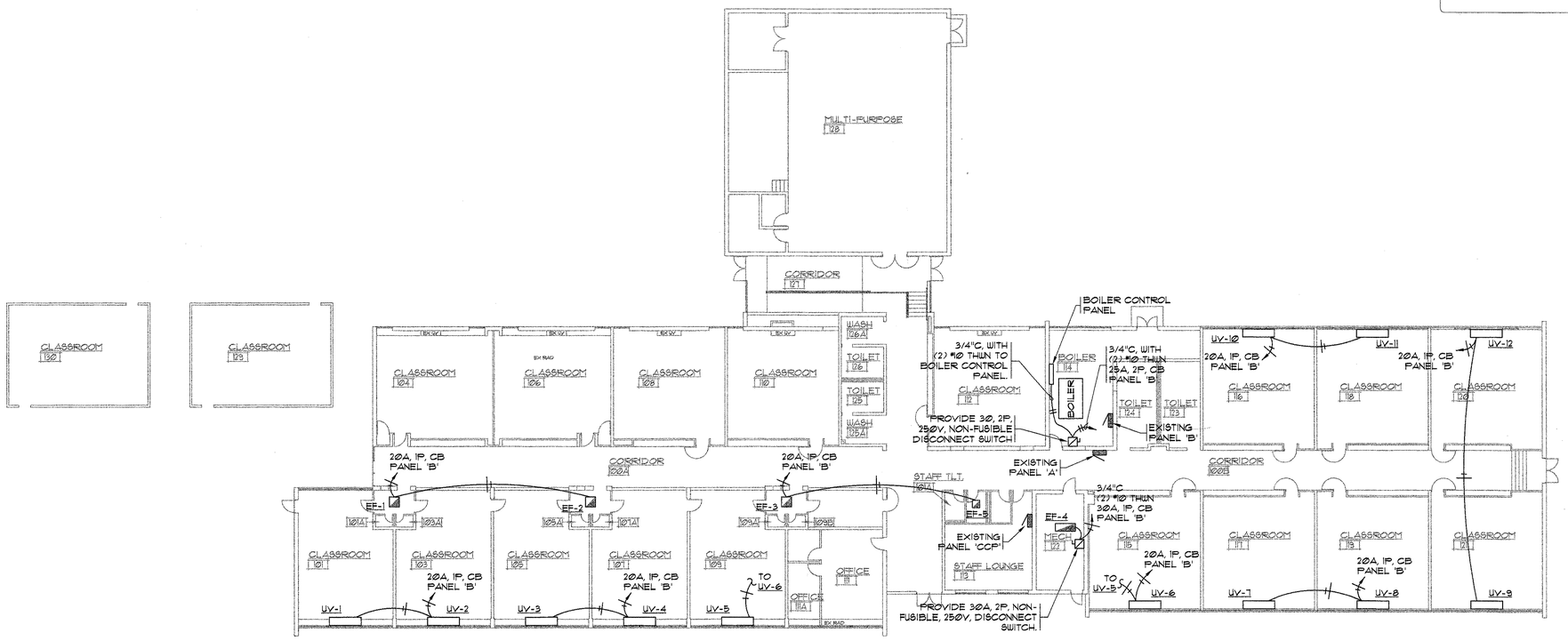
POWER AND COMMUNICATIONS PLAN

E1-02



NORTH

HVAC POWER PLAN

SCALE: 1/16" = 1'-0"

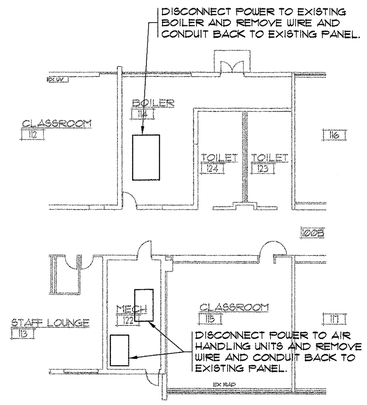
** LOAD SUMMARY			
LOAD	DESCRIPTION	KW	
EXISTING LOAD		*42.0 KW	(175A @ 240V)
ADDED LOAD	LIGHTS	1.6 KW	
	RECEPTACLES	3.8 KW	
	MOTORS	9.6 KW	
	MISC.	2.3 KW	
TOTAL NEW LOAD		17.3 KW	(72A @ 240V)
TOTAL LOAD (NEW AND EXISTING)		59.3 KW	(247A @ 240V)

* FIELD MEASURED LOAD Ø2/25/98.

** EXISTING SERVICE: 240/120V, 1 PHASE, 3 WIRE, 400A.

SHEET NOTES:

1. WIRE EF-1, EF-2, EF-3 AND EF-5 TO FACTORY SUPPLIED DISCONNECT. EXHAUST FANS BY M.C., WIRED BY E.C. EXHAUST FANS LOCATED ON ROOF.
2. MOUNT DISCONNECT SWITCH FOR EF-4 IN AN ACCESSIBLE LOCATION FOR MAINTENANCE PURPOSES. EF-4 BY M.C., E.C. TO WIRE. EXHAUST FAN LOCATED IN MECH. ROOM 122.
3. WIRE UNIT VENTILATORS TO FACTORY SUPPLIED DISCONNECTS. UNIT VENTILATORS BY M.C., WIRED BY E.C.
4. VERIFY WITH MECHANICAL CONTRACTOR AND TEMPERATURE CONTROL CONTRACTOR FOR EXTENT OF ELECTRICAL CONTRACTOR WORK AND CONNECTION TO BOILER.
5. PROVIDE (6) 20A, 1P, CB IN EXISTING PANEL 'B' FOR NEW UNIT VENTILATOR FEEDS. PROVIDE (1) 30A, 1P, CB IN EXISTING PANEL 'B' FOR NEW EF-4. PROVIDE (1) 25A, 2P, CB IN EXISTING PANEL 'B' FOR NEW BOILER.



NORTH

HVAC POWER DEMOLITION PLAN

SCALE: 1/16" = 1'-0"

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HVAC POWER PLAN AND LOAD SUMMARY

E1-03

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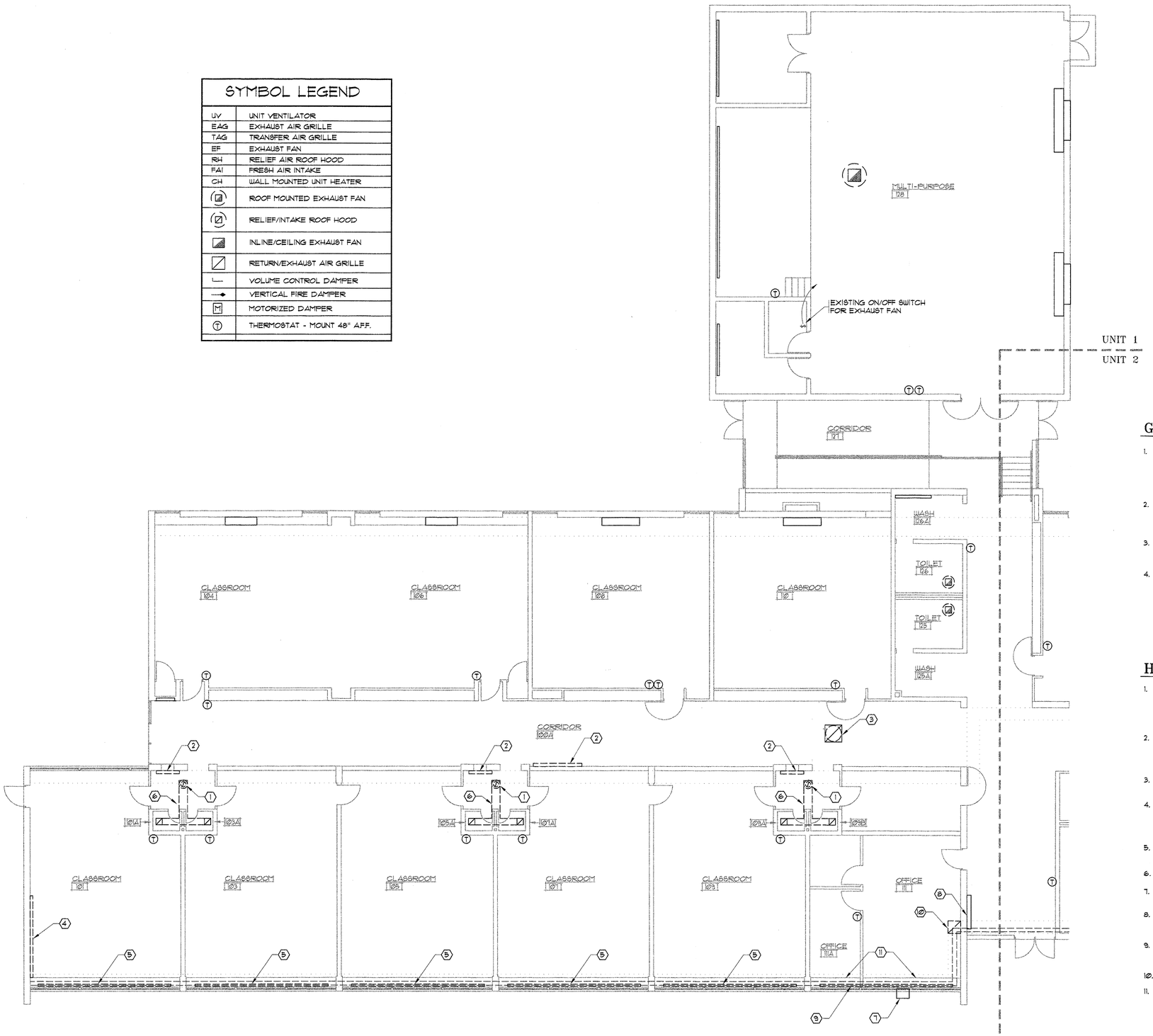
SYMBOL LEGEND	
UV	UNIT VENTILATOR
EAG	EXHAUST AIR GRILLE
TAG	TRANSFER AIR GRILLE
EF	EXHAUST FAN
RH	RELIEF AIR ROOF HOOD
FAI	FRESH AIR INTAKE
CH	WALL MOUNTED UNIT HEATER
	ROOF MOUNTED EXHAUST FAN
	RELIEF/INTAKE ROOF HOOD
	INLINE/CEILING EXHAUST FAN
	RETURN/EXHAUST AIR GRILLE
	VOLUME CONTROL DAMPER
	VERTICAL FIRE DAMPER
M	MOTORIZED DAMPER
T	THERMOSTAT - MOUNT 48" A.F.F.



HVAC DEMOLITION PLAN – UNIT 1

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

UNIT 1 UNIT 2

GENERAL NOTES

1. FLOORING, CEILINGS, WALL FINISHES, ETC, ARE NOT BEING REPLACED AS PART OF THIS PROJECT. ALL DEMOLITION AND NEW WORK MUST BE PERFORMED WITH CARE NOT TO DAMAGE OR DIRTY EXISTING CONDITIONS. REPAIR OF DAMAGE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT FAULT.
2. EXISTING MATERIALS AND EQUIPMENT IS THE PROPERTY OF KALAMAZOO PUBLIC SCHOOLS AND IS TO BE DISPOSED OF AS DIRECTED BY KALAMAZOO SCHOOLS AT THE CONTRACTOR'S EXPENSE.
3. COORDINATE ALL ROOF WORK WITH HOEKSTRA ROOFING THROUGH THE GENERAL CONTRACTOR TO ENSURE THAT ANY EXISTING ROOF WARRANTIES ARE MAINTAINED.
4. CONCRETE PENETRATIONS FOR ACCESS TO THE TUNNEL IS BY OTHERS. COORDINATE WITH GENERAL CONTRACTOR.

HVAC DEMOLITION NOTES: ⬡

1. REMOVE ROOF-MOUNTED VENTILATOR AND ENLARGE ROOF OPENING AS REQUIRED FOR NEW CURB AND EXHAUST FAN. PROVIDE ANGLE IRON REINFORCEMENT OF ROOF OPENING. TEMPORARILY SEAL OPENING WATERTIGHT UNTIL NEW CURB AND FAN ARE INSTALLED.
2. REMOVE CABINET HEATER AND CAP PIPING IN WALL OR BELOW FLOOR. PATCH AND REPAIR WALL AND FLOOR TO MATCH EXISTING. COORDINATE REPAIR AND FINISHES WITH GENERAL CONTRACTOR.
3. REMOVE RELIEF HOOD AND TEMPORARILY SEAL OPENING WATERTIGHT UNTIL NEW RELIEF HOOD IS INSTALLED.
4. REMOVE FINNED TUBE AND COVER ALONG WALL. CAP PIPING BELOW FLOOR. PATCH AND REPAIR WALL AND FLOOR TO MATCH EXISTING. COORDINATE REPAIR AND FINISHES WITH GENERAL CONTRACTOR.
5. REMOVE FINNED TUBE ALONG WALL. REMOVE STEAM AND CONDENSATE PIPING IN TUNNEL BELOW.
6. REMOVE DUCTWORK AND EXHAUST GRILLES.
7. WINDOW AIR CONDITIONER TO BE REMOVED AND RE-INSTALLED IN NEW WALL.
8. DISCONNECT CABINET HEATER STEAM AND CONDENSATE PIPING FROM MAINS IN TUNNEL BELOW. PIPING TO BE RECONNECTED TO NEW STEAM AND CONDENSATE MAINS.
9. DISCONNECT STEAM AND CONDENSATE PIPING FROM FINNED TUBE TO MAINS IN TUNNEL BELOW. PIPING TO BE RECONNECTED TO NEW STEAM AND CONDENSATE MAINS.
10. NEW TUNNEL ACCESS IS BY OTHERS
11. REMOVE SUPPLY GRILLES IN EXISTING COUNTERTOP ALONG WINDOW. ENLARGE OPENINGS AS REQUIRED FOR NEW GRILLES. SEE CABINET AND PIPING DETAIL ON DRAWING M2-01.

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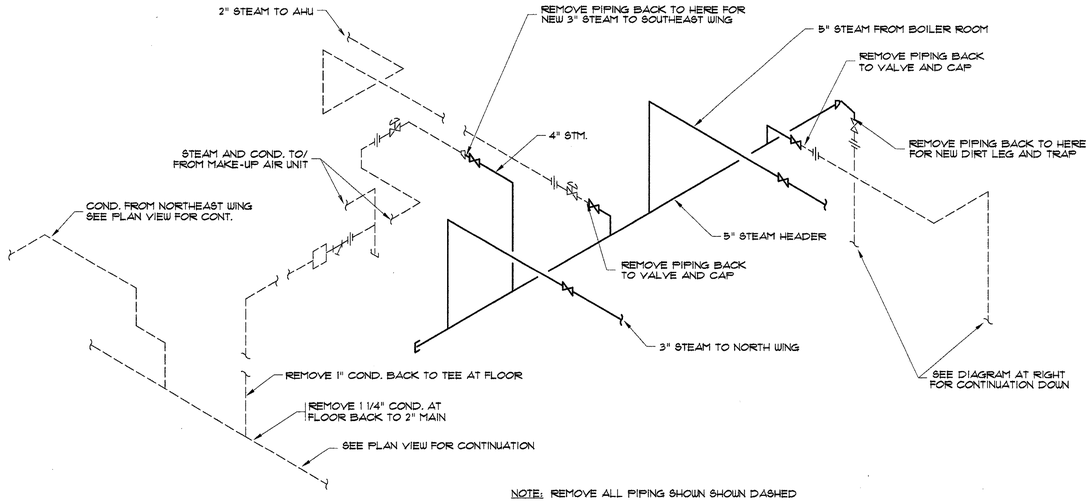
HVAC DEMOLITION PLAN – UNIT 1

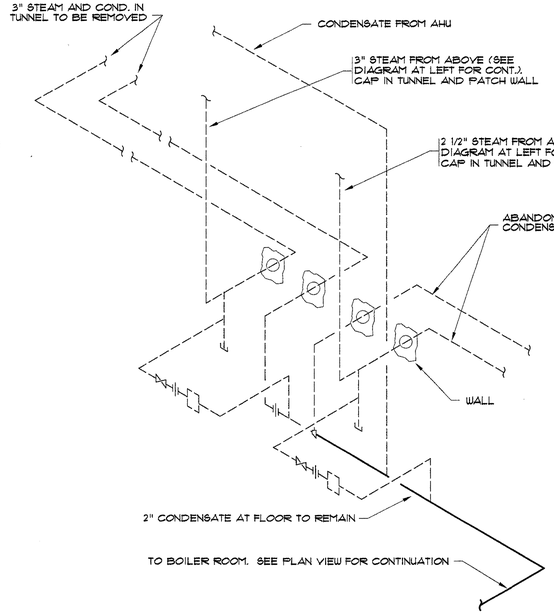
M1-01



NOTE: REMOVE ALL PIPING SHOWN SHOWN DASHED

ROOM 122 PARTIAL PIPING DIAGRAM

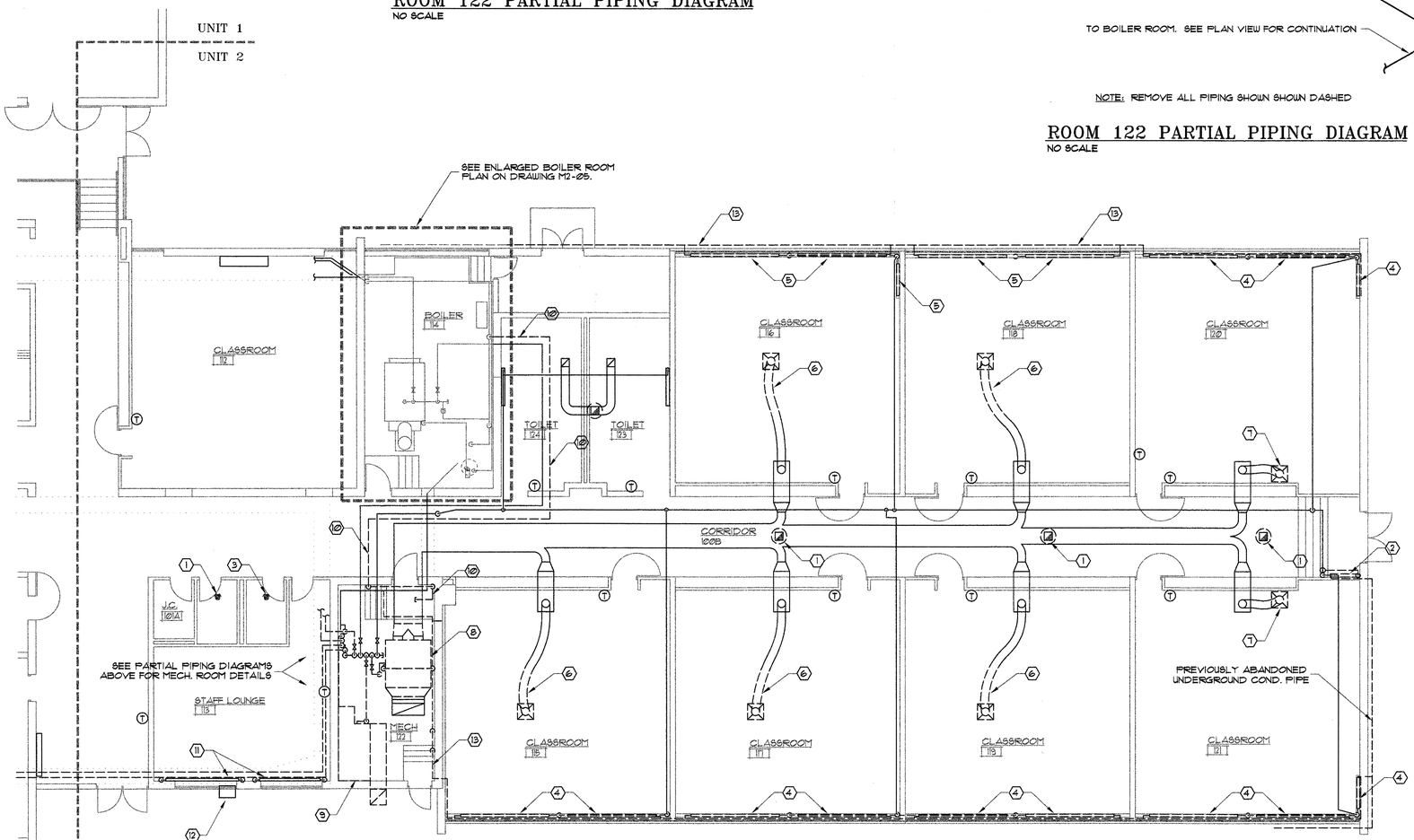
NO SCALE



NOTE: REMOVE ALL PIPING SHOWN SHOWN DASHED

ROOM 122 PARTIAL PIPING DIAGRAM

NO SCALE



HVAC DEMOLITION PLAN – UNIT 2

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

GENERAL NOTES

1. FLOORING, CEILINGS, WALL FINISHES, ETC, ARE NOT BEING REPLACED AS PART OF THIS PROJECT. ALL DEMOLITION AND NEW WORK MUST BE PERFORMED WITH CARE NOT TO DAMAGE OR DIRTY EXISTING CONDITIONS. REPAIR OF DAMAGE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT FAULT.
2. EXISTING MATERIALS AND EQUIPMENT ARE THE PROPERTY OF KALAMAZOO PUBLIC SCHOOLS AND ARE TO BE DISPOSED OF AS DIRECTED BY KALAMAZOO SCHOOLS AT THE CONTRACTOR'S EXPENSE.
3. COORDINATE ALL ROOF WORK WITH HOEKSTRA ROOFING THROUGH THE GENERAL CONTRACTOR TO ENSURE THAT ANY EXISTING ROOF WARRANTIES ARE MAINTAINED.
4. CONCRETE PENETRATIONS FOR ACCESS TO THE TUNNEL ARE BY OTHERS. COORDINATE WITH GENERAL CONTRACTOR.
5. INSPECT EXISTING EQUIPMENT PRIOR TO REMOVAL FOR ASBESTOS CONTAINING MATERIALS. ASBESTOS REMOVAL WILL BE BY OWNER. SEE SPECIFICATIONS FOR DETAILS.

HVAC DEMOLITION NOTES: ⬡

1. REMOVE ROOF-MOUNTED EXHAUST FAN AND ENLARGE ROOF OPENING AS REQUIRED FOR NEW CURB AND RELIEF HOOD. PROVIDE ANGLE IRON REINFORCEMENT OF ROOF OPENING AS REQUIRED. TEMPORARILY SEAL OPENING WATERTIGHT UNTIL NEW HOOD IS INSTALLED.
2. REMOVE CABINET HEATER AND CAP PIPING ABOVE CEILING AND BELOW FLOOR. PATCH AND REPAIR WALL AND FLOOR TO MATCH EXISTING. COORDINATE REPAIR AND FINISHES WITH GENERAL CONTRACTOR.
3. REMOVE ROOF-MOUNTED VENTILATOR, DUCTWORK, AND GRILLE. PATCH AND SEAL ROOF OPENING.
4. REMOVE FINNED TUBE AND COVER ALONG WALL. DISCONNECT STEAM PIPING AT CABINET LEVEL IN CORNER OF ROOM. REMOVE CONDENSATE PIPING ALONG FLOOR.
5. REMOVE FINNED TUBE AND COVER ALONG WALL. DISCONNECT STEAM PIPING AT CABINET LEVEL IN CORNER OF ROOM. REMOVE CONDENSATE PIPING ALONG FLOOR AND THROUGH FLOOR/EXTERIOR WALL. PATCH AND SEAL OPENINGS IN FLOOR/WALL.
6. REMOVE CEILING DIFFUSER AND FLEX DUCT AS SHOWN BACK TO 8 FEET FROM GALVANIZED ELBOW. ELBOW AND FIRST 8 FEET OF FLEX DUCT ARE TO BE ROTATED AND REUSED FOR EXHAUST (SEE HVAC PLAN).
7. REMOVE CEILING DIFFUSER.
8. REMOVE MAKE-UP AIR UNIT. REMOVE STEAM PIPING BACK TO VALVE AT HEADER AND REMOVE CONDENSATE PIPING BACK TO FLOOR (SEE PIPING DIAGRAMS ABOVE). REMOVE CONTROLS FROM UNIT AND CAP AIRLINES. REMOVE DUCTWORK AS SHOWN. ROOF HOOD TO REMAIN.
9. REMOVE MAKE-UP AIR UNIT. REMOVE STEAM PIPING BACK TO VALVE AT HEADER AND CAP. REMOVE CONDENSATE PIPING BACK TO FLOOR AND CAP. REMOVE CONTROLS FROM UNIT AND CAP AIRLINES. REMOVE OUTDOOR AIR INTAKE HOOD AND PATCH AND SEAL WALL OPENING. COORDINATE WALL REPAIR AND FINISHES WITH GENERAL CONTRACTOR.
10. REMOVED PREVIOUSLY ABANDONED CONDENSATE PIPING. CAP WHERE PIPE ENTERS BOILER ROOM 114.
11. DISCONNECT STEAM AND CONDENSATE PIPING FROM FINNED TUBE TO MAINS IN TUNNEL BELOW. PIPING TO BE RECONNECTED TO NEW STEAM AND CONDENSATE MAINS IN TUNNEL. ACCESS TO TUNNEL IS THROUGH OPENING IN MECHANICAL ROOM 122 AND THROUGH NEW FLOOR PENETRATIONS AS REQUIRED FOR ACCESS. FLOOR PENETRATIONS BY OTHERS. COORDINATE WITH GENERAL CONTRACTOR.
12. WINDOW AIR CONDITIONER TO BE REMOVED AND RE-INSTALLED IN NEW WALL.
13. REMOVE CONDENSATE PIPING. SEE PIPING DIAGRAMS ABOVE FOR EXTENT OF REMOVAL.

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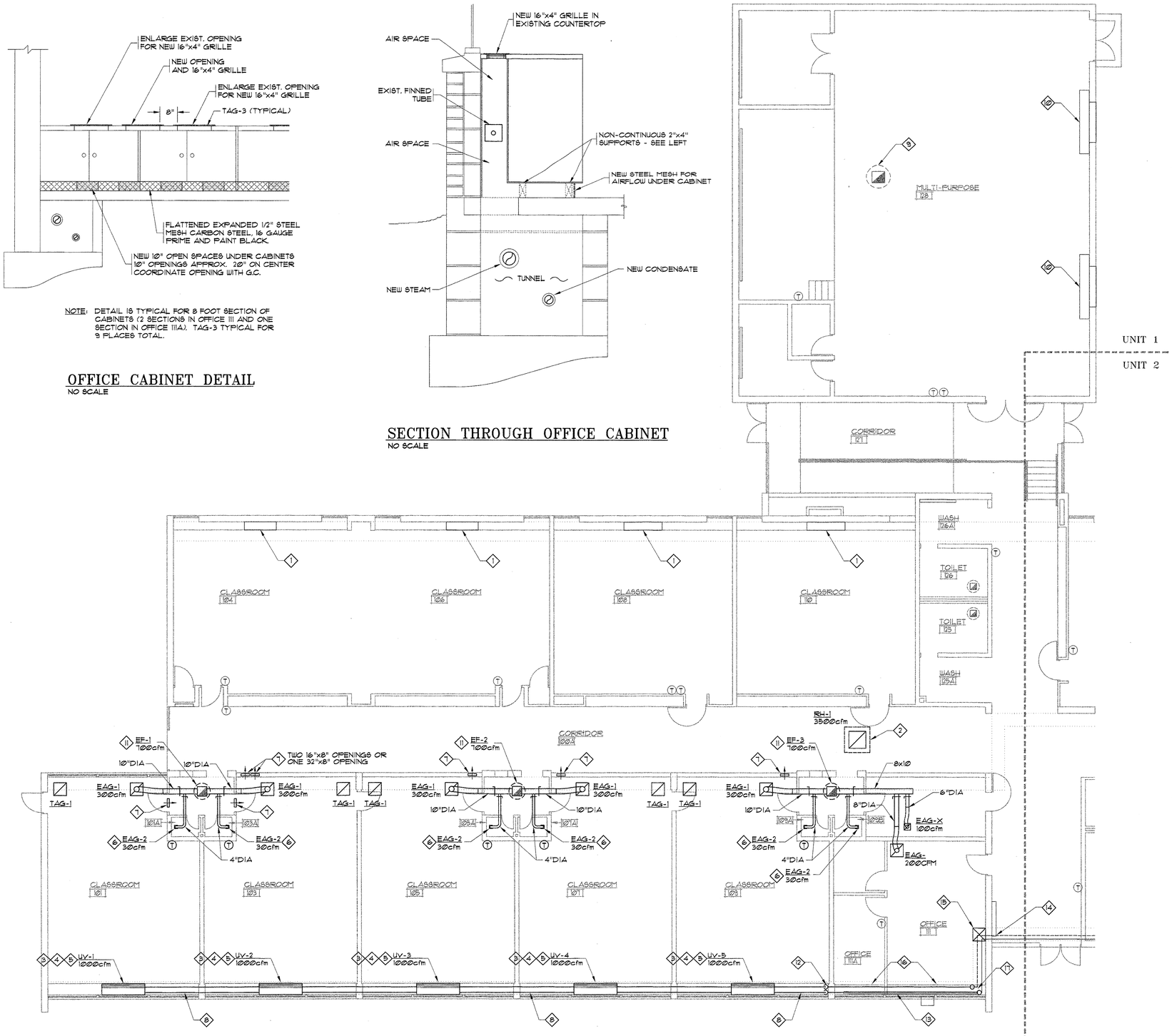
HVAC DEMOLITION PLAN – UNIT 2

M1-02

NOTE: DETAIL IS TYPICAL FOR 8 FOOT SECTION OF CABINETS (2 SECTIONS IN OFFICE 111 AND ONE SECTION IN OFFICE 111A). TAG-3 TYPICAL FOR 9 PLACES TOTAL.

OFFICE CABINET DETAIL
NO SCALE

SECTION THROUGH OFFICE CABINET
NO SCALE



HVAC PLAN – UNIT 1
SCALE: 1/8"=1'-0"

UNIT 1 UNIT 2

GENERAL NOTES

1. FLOORING, CEILINGS, WALL FINISHES, ETC. ARE NOT BEING REPLACED AS PART OF THIS PROJECT. ALL DEMOLITION AND NEW WORK MUST BE PERFORMED WITH CARE NOT TO DAMAGE OR DIRTY EXISTING CONDITIONS. REPAIR OF DAMAGE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT FAULT.
2. COORDINATE ALL ROOF WORK WITH HOEKSTRA ROOFING THROUGH THE GENERAL CONTRACTOR TO ENSURE THAT ANY EXISTING ROOF WARRANTIES ARE MAINTAINED.
3. CONCRETE PENETRATIONS FOR ACCESS TO THE TUNNEL IS BY OTHERS. COORDINATE WITH GENERAL CONTRACTOR.
4. SEE DRAWING M2-04 FOR ELEVATION VIEW OF STEAM AND CONDENSATE PIPING.

HVAC PLAN NOTES: ◇

1. INSPECT, CLEAN, ADJUST, LUBRICATE AND REPAIR EXISTING UNIT VENTILATOR AS REQUIRED TO RESTORE UNIT TO GOOD WORKING CONDITION. INSPECT BEARINGS, MOTORS, FANS, VALVES, COILS, TRAPS, DAMPERS, CONTROLS, PIPING, ETC. CLEAN (VACUUM AND WIPE DOWN) INTERIOR OF UNIT AND REPLACE FILTERS. CALIBRATE CONTROLS AND TEST RUN.
2. INSTALL NEW ROOF-MOUNTED BAROMETRIC RELIEF HOOD ON EXISTING CURB.
3. NEW UNIT VENTILATOR. INSTALL PER MANUFACTURER INSTRUCTIONS. WALL OPENING FOR NEW INTAKE GRILLE IS BY OTHERS (COORDINATE LOCATION). SEE DRAWINGS M2-03 AND M2-04 FOR DETAILS.
4. NEW CASE WORK FROM UNIT VENTILATOR MANUFACTURER. INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR DETAILS ON CASEWORK TYPES AND INSTALLATION.
5. REUSE EXISTING CONTROL SYSTEM COMPONENTS AS MUCH AS POSSIBLE. SEE SPECIFICATIONS FOR SEQUENCE OF OPERATION.
6. INSTALL NEW GRILLE IN NEW CEILING PAD. PROVIDE PAD TO MATCH EXISTING (REUSE PAD REMOVED FOR NEW EXHAUST GRILLE IN CLASSROOM CEILING IF IT MATCHES EXISTING IN BATHROOM). SUPPORT GRILLE FROM RIGID DUCT OR STRUCTURE, NOT FROM CEILING PAD.
7. MAKE OPENING THROUGH EXISTING WALL ABOVE CEILING FOR TRANSFER AIR. OPENING SIZE 16"x8" OR GEOMETRIC EQUIVALENT. COORDINATE WITH GENERAL CONTRACTOR.
8. INSTALL NEW STEAM PIPING IN CHASE BEHIND UNIT VENTILATORS AND CASEWORK. INSTALL NEW CONDENSATE PIPING BETWEEN BACK OF CASEWORK AND WALL. SEE DRAWINGS M2-03 AND M2-04 FOR DETAILS.
9. EXISTING ROOF-MOUNTED EXHAUST FAN TO BE TIED INTO BUILDING DAY-NIGHT SYSTEM. FAN TO RUN CONTINUOUSLY DURING DAY AND BE OFF AT NIGHT.
10. INSPECT EXISTING UNIT VENTILATORS AND CONTROL OPERATION. MAKE ADJUSTMENTS TO CONTROLS TO ENSURE CONTINUOUS FAN OPERATION DURING DAY AND ON-OFF FAN OPERATION DURING NIGHT. SEQUENCE OF OPERATION SHOULD CONFORM TO ASHRAE CYCLE 2.
11. NEW EXHAUST FAN AND ROOF CURB TO BE INSTALLED OVER EXISTING ROOF OPENING. ENLARGE OPENING AS REQUIRED FOR NEW EXHAUST DUCT (SIZE TO MATCH FAN INLET SIZE). SEE ROOF-MOUNTED EXHAUST FAN DETAIL ON DRAWING M2-01.
12. DROP NEW STEAM AND CONDENSATE PIPING THROUGH FLOOR INTO TUNNEL BELOW. CREATE/ENLARGE OPENING TO TUNNEL AS REQUIRED. CONTINUE PIPING IN TUNNEL BELOW. MAINTAIN MINIMUM SLOPE OF 1/4" PER 10 FEET IN DIRECTION OF FLOW FOR STEAM AND 1/2" PER 10 FEET FOR CONDENSATE.
13. RECONNECT STEAM AND CONDENSATE FROM EXISTING FINNED TUBE TO NEW MAINS IN TUNNEL. CREATE/ENLARGE OPENINGS TO TUNNEL AS REQUIRED.
14. RECONNECT STEAM AND CONDENSATE FROM EXISTING CABINET HEATER TO NEW MAINS IN TUNNEL. CREATE/ENLARGE OPENINGS TO TUNNEL AS REQUIRED.
15. NEW ACCESS DOOR BY OTHERS.
16. SEE OFFICE CABINET AND PIPING DETAIL ABOVE.
17. 1-1/2" VALVED AND CAPPED TAP FROM STEAM MAIN FOR FUTURE. 1" VALVED AND CAPPED TAP FROM CONDENSATE MAIN FOR FUTURE.

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HVAC PLAN - UNIT 1

M2-01

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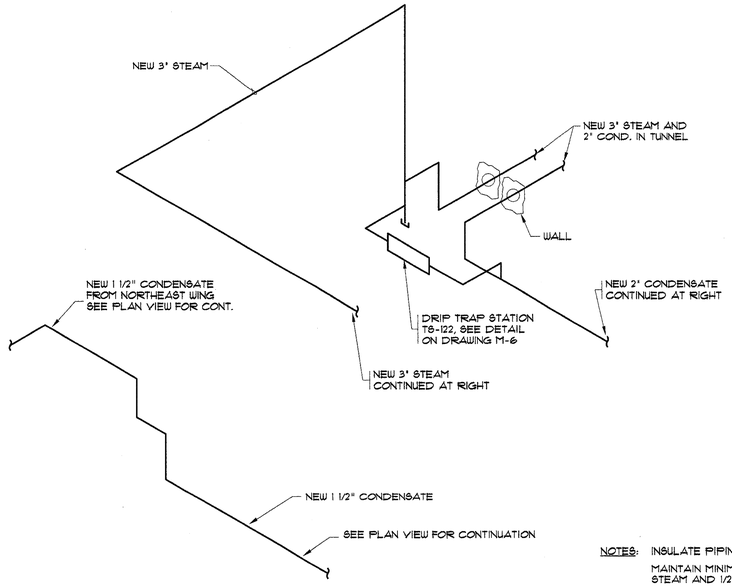
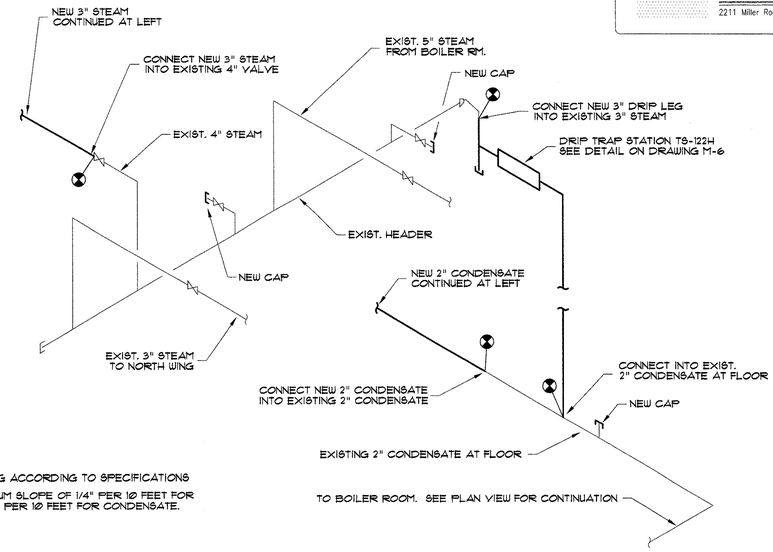
GENERAL NOTES

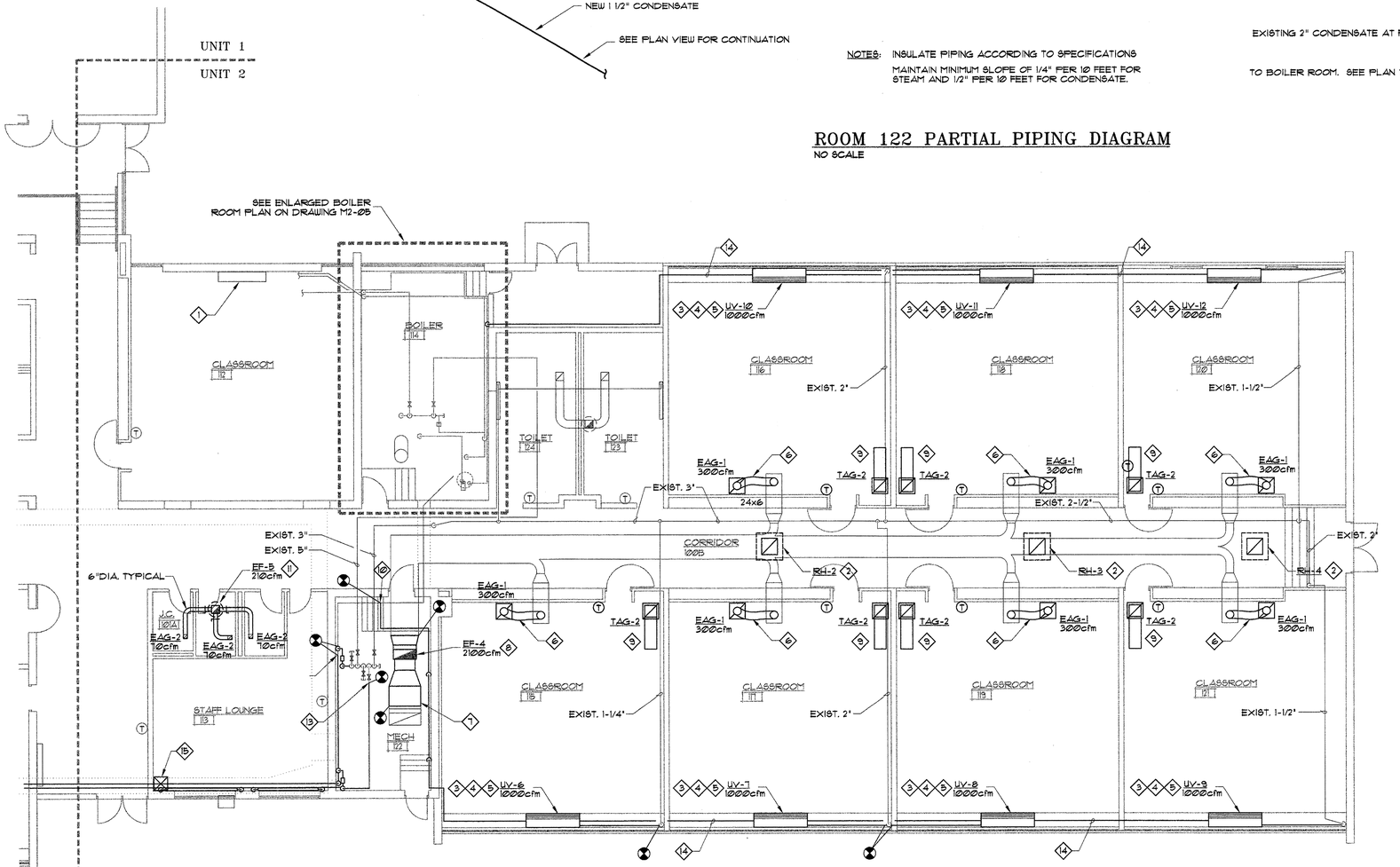
1. FLOORING, CEILINGS, WALL FINISHES, ETC, ARE NOT BEING REPLACED AS PART OF THIS PROJECT. ALL DEMOLITION AND NEW WORK MUST BE PERFORMED WITH CARE NOT TO DAMAGE OR DIRTY EXISTING CONDITIONS. REPAIR OF DAMAGE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT FAULT.
2. COORDINATE ALL ROOF WORK WITH HOEKSTRA ROOFING THROUGH THE GENERAL CONTRACTOR TO ENSURE THAT ANY EXISTING ROOF WARRANTIES ARE MAINTAINED.
3. CONCRETE PENETRATIONS FOR ACCESS TO THE TUNNEL IS BY OTHERS. COORDINATE WITH GENERAL CONTRACTOR.
4. SEE DRAWING M2-03 FOR ELEVATION VIEW OF CLASSROOM STEAM AND CONDENSATE PIPING.





NOTES: INSULATE PIPING ACCORDING TO SPECIFICATIONS
MAINTAIN MINIMUM SLOPE OF 1/4" PER 10 FEET FOR STEAM AND 1/2" PER 10 FEET FOR CONDENSATE.

ROOM 122 PARTIAL PIPING DIAGRAM
NO SCALE



HVAC PLAN – UNIT 2
SCALE: 1/8"=1'-0"

HVAC PLAN NOTES: ◇

1. INSPECT, CLEAN, ADJUST, LUBRICATE AND REPAIR EXISTING UNIT VENTILATOR AS REQUIRED TO RESTORE UNIT TO GOOD WORKING CONDITION. INSPECT BEARINGS, MOTORS, FANS, VALVES, COILS, TRAPS, DAMPERS, CONTROLS, PIPING, ETC. CLEAN (VACUUM AND WIPE DOWN) INTERIOR OF UNIT AND REPLACE FILTERS. CALIBRATE CONTROLS AND TEST RUN.
2. INSTALL NEW ROOF-MOUNTED BAROMETRIC RELIEF HOOD AND NEW CURB.
3. NEW UNIT VENTILATOR. INSTALL PER MANUFACTURER'S INSTRUCTIONS. WALL OPENING FOR NEW INTAKE GRILLE IS BY OTHERS (COORDINATE LOCATION). SEE DRAWINGS M2-03 AND M2-04 FOR DETAILS.
4. NEW CASE WORK FROM UNIT VENTILATOR MANUFACTURER. INSTALL PER MANUFACTURER'S INSTRUCTIONS. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR DETAILS ON CASEWORK TYPES AND INSTALLATION.
5. REUSE EXISTING CONTROL SYSTEM COMPONENTS AS MUCH AS POSSIBLE. SEE SPECIFICATIONS FOR SEQUENCE OF OPERATION.
6. REUSE EXISTING 12" DIAMETER GALVANIZED ELBOW AND FLEX DUCT. ROTATE ELBOW 90 DEGREES AND CUT FLEX DUCT TO REQUIRED LENGTH FOR ATTACHMENT TO EAG-1.
7. CONNECT INTO EXISTING DUCTWORK UP TO ROOF-MOUNTED HOOD.
8. CONNECT NEW EXHAUST FAN EF-4 INTO EXISTING 42x12 DUCT. MAKE TRANSITION TO FAN INLET SIZE. SEE INLINE EXHAUST FAN DETAIL ON DRAWING M2-07. FAN TO RUN DURING OCCUPIED AND BE OFF DURING UNOCCUPIED. TIE INTO EXISTING BUILDING DAY/NIGHT SYSTEM AS REQUIRED.
9. 18x12 FIBERGLASS TRANSFER AIR DUCT. SEE TRANSFER AIR DUCT DETAIL ON DRAWING M2-01.
10. CONNECT NEW 1-1/2" CONDENSATE INTO EXISTING 2" CONDENSATE AT FLOOR. SEE PIPING DIAGRAM ABOVE.
11. NEW EXHAUST FAN AND ROOF CURB TO BE INSTALLED OVER EXISTING ROOF OPENING. ENLARGE OPENING AS REQUIRED FOR NEW EXHAUST DUCT (SIZE TO MATCH FAN INLET SIZE). SEE ROOF-MOUNTED EXHAUST FAN DETAIL ON DRAWING M2-07. FAN TO RUN CONTINUOUSLY.
12. CONNECT NEW 2" CONDENSATE INTO EXISTING 2" CONDENSATE AT FLOOR.
13. CONNECT NEW 3" STEAM INTO EXISTING 4" VALVE. CONTINUE 3" STEAM ALONG CEILING TO DROP AND DRIP TRAP IN SOUTHEAST CORNER OF MECHANICAL ROOM. SEE PIPING DIAGRAM ABOVE.
14. NEW CONDENSATE PIPING TO RUN BEHIND UNIT VENTILATORS. SEE DRAWINGS M2-03 FOR ELEVATION VIEW.
15. NEW ACCESS DOOR BY OTHERS.

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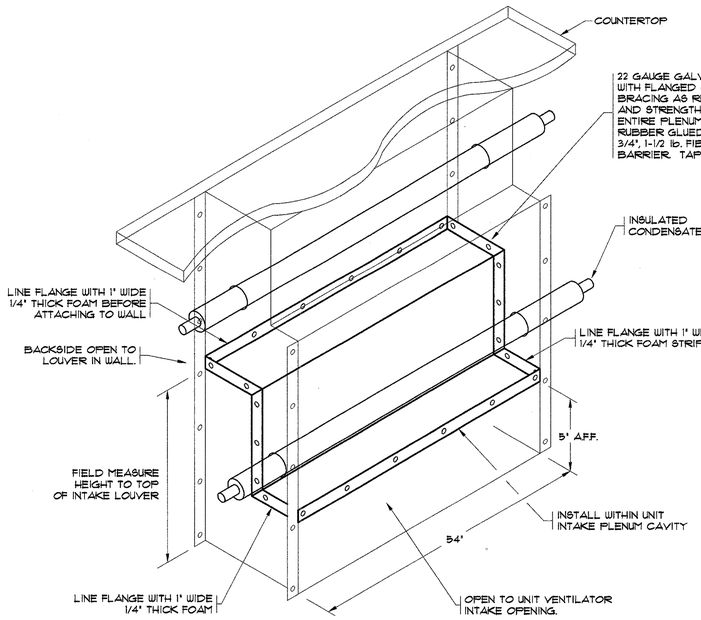
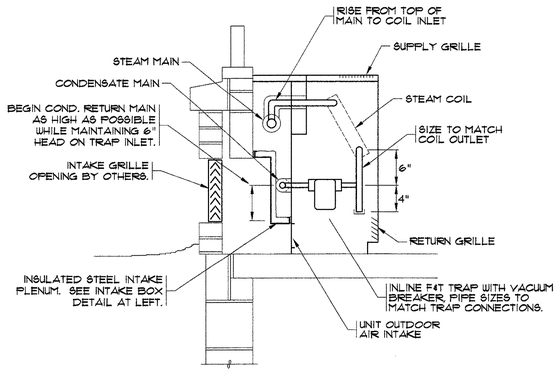
HVAC PLAN - UNIT 2

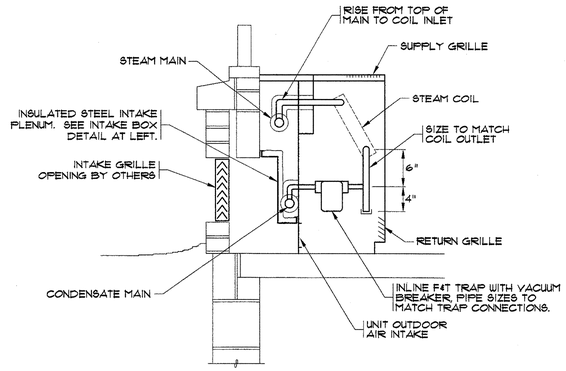
M2-02



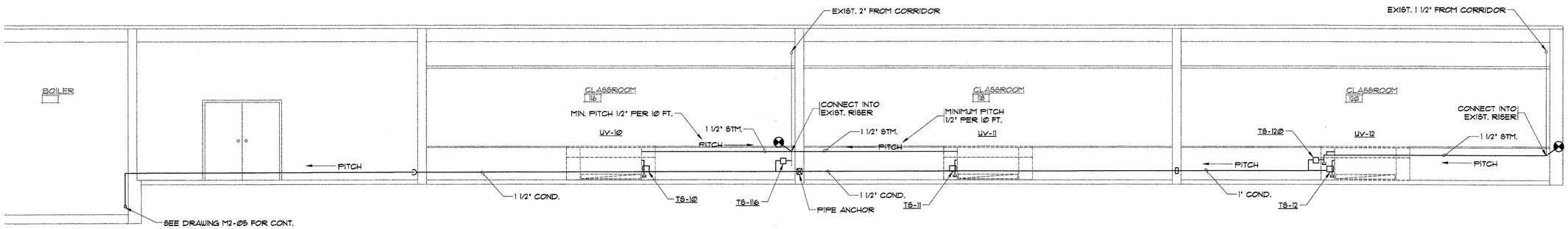
U.V. INTAKE PLENUM BOX DETAIL
NO SCALE



U.V. SECTION - UV-1, 9, 12
NO SCALE

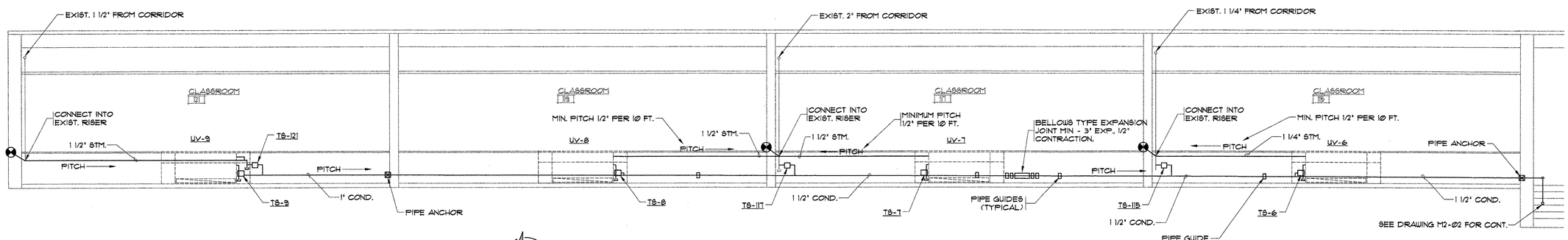


TYPICAL UV SECTION
NO SCALE



PIPING PLAN - UNIT 2 - WEST CLASSROOMS
SCALE: 1/4"=1'-0"

NOTES:
1. SLOPE ALL STEAM PIPING MINIMUM 1/4" PER 10 FEET IN DIRECTION OF FLOW UNLESS NOTED OTHERWISE.
2. SLOPE ALL CONDENSATE PIPING MINIMUM 1/2" PER 10 FEET IN DIRECTION OF FLOW.
3. USE ONLY ECCENTRIC REDUCERS.
4. PROVIDE FOR FREE MOVEMENT OF PIPING AND FITTINGS DURING THERMAL EXPANSION AND CONTRACTION.



PIPING PLAN - UNIT 2 - EAST CLASSROOMS
SCALE: 1/4"=1'-0"

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CLASSROOM PIPING ELEVATIONS
PIPING DETAILS

M2-03

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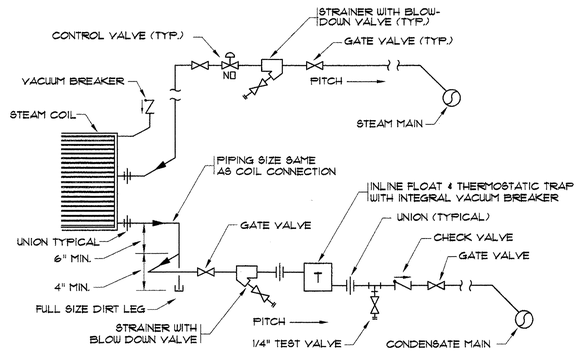
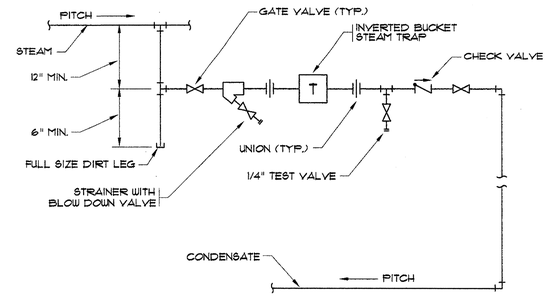
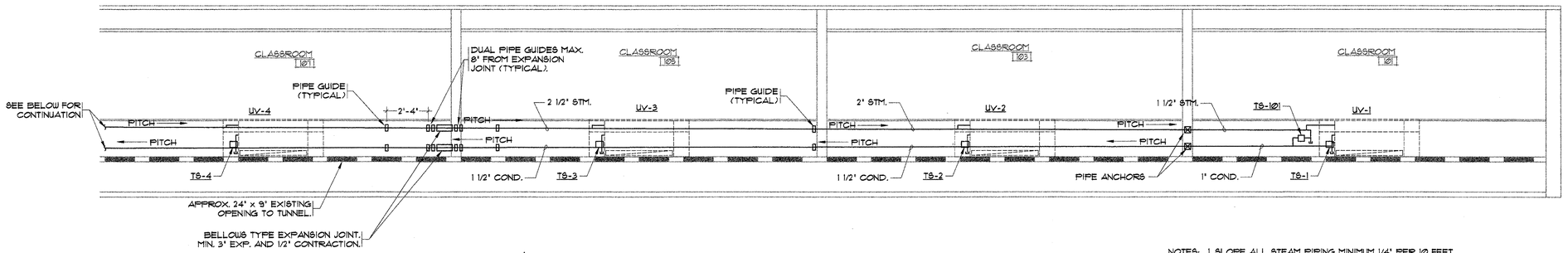


TYPICAL STEAM COIL PIPING DIAGRAM
NO SCALE



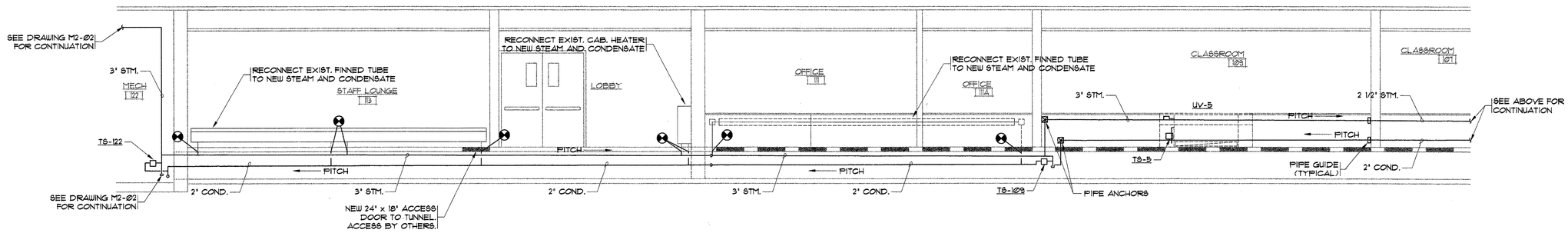
NOTE: SIMILIAR PIPING FOR END OF MAIN.

TYPICAL DRIP TRAP STATION DETAIL
NO SCALE



PIPING PLAN – UNIT 1 – EAST CLASSROOMS
SCALE: 1/4"=1'-0"

NOTES:
1. SLOPE ALL STEAM PIPING MINIMUM 1/4" PER 10 FEET IN DIRECTION OF FLOW UNLESS NOTED OTHERWISE.
2. SLOPE ALL CONDENSATE PIPING MINIMUM 1/2" PER 10 FEET IN DIRECTION OF FLOW.
3. USE ONLY ECCENTRIC REDUCERS.
4. PROVIDE FOR FREE MOVEMENT OF PIPING AND FITTINGS DURING THERMAL EXPANSION AND CONTRACTION.



PIPING PLAN – UNIT 1 – EAST CLASSROOMS
SCALE: 1/4"=1'-0"

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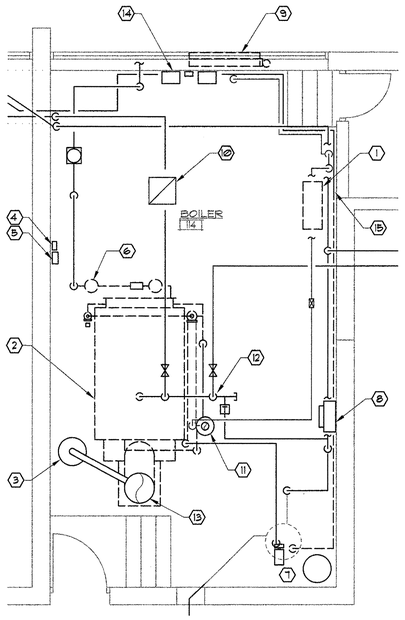
CLASSROOM PIPING ELEVATIONS
PIPING DETAILS

M2-04



NOTE:
REMOVE ALL ITEMS SHOWN DASHED

BOILER ROOM DEMOLITION PLAN
SCALE: 1/4"=1'-0"

DEMOLITION NOTES: ⬡

1. REMOVE AIR COMPRESSOR AND DRIER. SEE DETAIL AT RIGHT FOR EXTENT OF PIPING REMOVAL. TURN OVER COMPRESSOR AND DRIER TO K.P.S.
2. REMOVE BOILER. CUT UP AS REQUIRED TO REMOVE THROUGH EXISTING OPENING. INSPECT BOILER AND PIPE INSULATION FOR ASBESTOS CONTAINING MATERIALS PRIOR TO DISASSEMBLY. ASBESTOS REMOVAL WILL BE BY OWNER. SEE SPECIFICATIONS FOR DETAILS.
3. WATER HEATER TO REMAIN.
4. KEYED ON/OFF/AUTO SWITCH FOR BOILERS TO BE REMOVED AND RELOCATED TO NEW BOILER CONTROL PANEL.
5. REMOVE BOILER CONTROL PANEL ON WALL.
6. REMOVE GAS TRAIN BACK TO HORIZONTAL PIPE ALONG WALL AND CAP.
7. CONDENSATE RECEIVER, PUMP AND CHEMICAL FEEDER TO REMAIN.
8. BARBER COLMAN NETWORK 8000 PANEL TO REMAIN.
9. REMOVE LOUVER / DAMPER.
10. MANUALLY OPENED ROOF OPENING TO REMAIN.
11. BLOW-DOWN TANK, VTR AND PIPING TO DRAIN TO REMAIN.
12. STEAM HEADER AND DRIP TRAP TO REMAIN.
13. 20" DIA. STACK THROUGH ROOF TO REMAIN.
14. DAY/NIGHT SYSTEM PANELS TO REMAIN.
15. CUT 1-1/2" COND. NEAR FLOOR WHERE SHOWN AND REMOVE BACK TO COND. RECEIVER. SEE PLAN BELOW.

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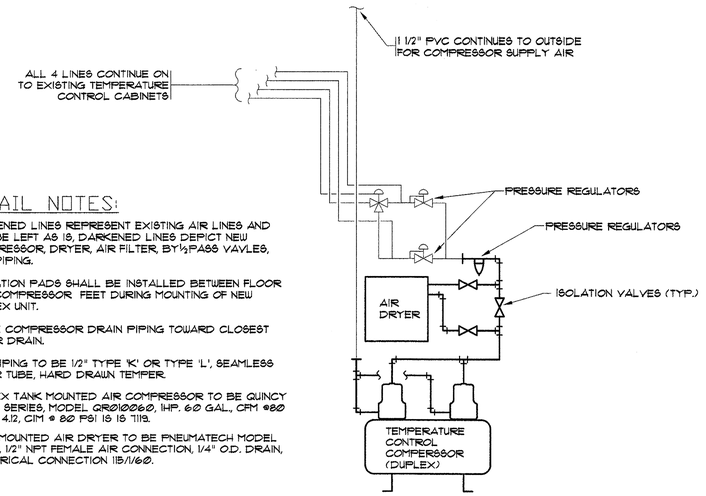
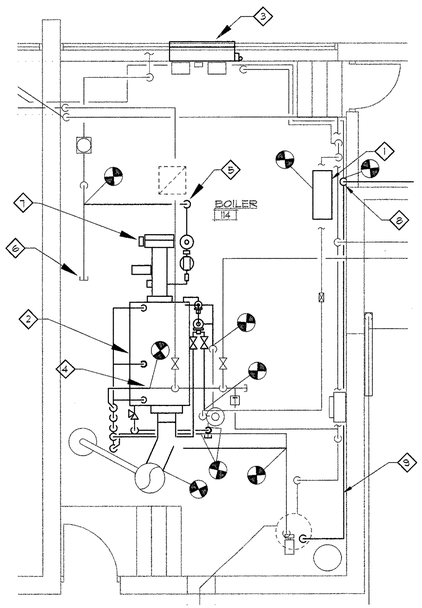


DETAIL NOTES:

1. LIGHTENED LINES REPRESENT EXISTING AIR LINES AND WILL BE LEFT AS IS, DARKENED LINES DEPICT NEW COMPRESSOR, DRYER, AIR FILTER, BY½PASS VAVLES, AND PIPING.
2. VIBRATION PADS SHALL BE INSTALLED BETWEEN FLOOR AND COMPRESSOR FEET DURING MOUNTING OF NEW DUPLEX UNIT.
3. ROUTE COMPRESSOR DRAIN PIPING TOWARD CLOSEST FLOOR DRAIN.
4. NEW PIPING TO BE 1/2" TYPE 'K' OR TYPE 'L', SEAMLESS WATER TUBE, HARD DRAWN TEMPER.
5. DUPLEX TANK MOUNTED AIR COMPRESSOR TO BE QUINCY QR-25 SERIES, MODEL QR010066, 1HP, 60 GAL., CFM @80 PSI IS 4.12, CFM @ 80 PSI IS IS 7.119.
6. WALL MOUNTED AIR DRYER TO BE PNEUMATECH MODEL AD-10, 1/2" NPT FEMALE AIR CONNECTION, 1/4" O.D. DRAIN, ELECTRICAL CONNECTION 115/1/60.

AIR COMPRESSOR AND DRIER DETAIL
NO SCALE

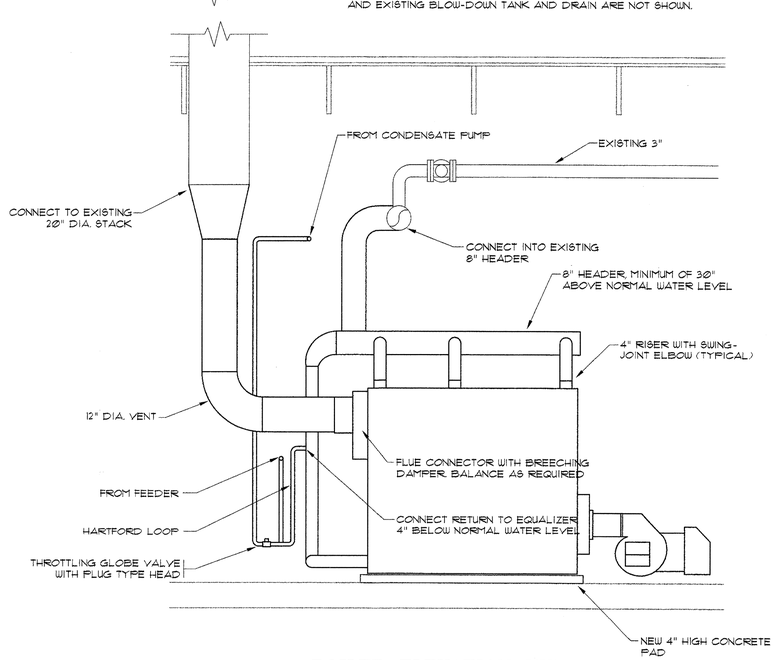


BOILER ROOM PLAN
SCALE: 1/4"=1'-0"

BOILER PLAN NOTES: ◇

1. NEW COMPRESSOR AND DRYER. SEE DETAIL ABOVE FOR NEW PLAN.
2. NEW BOILER. SEE ELEVATION VIEW AT RIGHT AND PIPING DIAGRAM ON DRAWING M2-06 FOR DETAILS.
3. NEW INTAKE LOUVER, DAMPER AND PNEUMATIC ACTUATOR. INTAKE LOUVER IS BY OTHERS. COORDINATE DAMPER INSTALLATION WITH LOUVER INSTALLER. REUSE EXISTING ACTUATOR FROM RETURN AIR TO MAKE-UP AIR UNIT IN MECHANICAL ROOM 122.
4. CONNECT NEW 8" STEAM TO EXISTING 8" HEADER.
5. NEW GAS PIPING.
6. NEW CAP.
7. RELOCATED KEYED ON/OFF/AUTO SWITCH FROM BOILER.
8. TIE NEW 1-1/2" COND. FROM NW. CLASSROOMS INTO EXISTING 1-1/2" COND. NEAR FLOOR. CONTINUE TO COND. RECEIVER WITH 2" PIPE.
9. NEW 2" CONDENSATE NEAR FLOOR.

NOTE:
BOILER TRIM ITEMS, CONTROLS GAS PIPING, PIPE SUPPORTS AND EXISTING BLOW-DOWN TANK AND DRAIN ARE NOT SHOWN.



BOILER ELEVATION VIEW
NO SCALE

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BOILER ROOM PLAN

M2-05

INTAKE DAMPER

LOUVERS & DAMPERS VCD-P 5" DEEP PARALLEL BLADE CONTROL DAMPER, 42"W x 36"L. INSTALL IN STEEL FRAME BEHIND INTAKE LOUVER.

OTHER ACCEPTABLE MANUFACTURERS: RUSKIN, GREENHECK

INTAKE LOUVER IS PROVIDED AND INSTALLED BY OTHERS

BOILER AND BURNER

BURNHAM V1111-SG CAST IRON SECTIONAL FORCED DRAFT GAS BOILER (CSD-1 REQUIREMENTS). 9-HIP KNOCKED DOWN AND FIELD ASSEMBLE. 2636 MBH INPUT, 2154 MBH GROSS OUTPUT, 1672 MBH NET I-B-R OUTPUT.

McDONNEL MILLER 51-2-M FEEDER / CUT-OFF COMBINATION UNIT WITH MANUAL RESET.

McDONNEL MILLER 150 PUMP CONTROLLER / LOW WATER CUT-OFF / ALARM SWITCH UNIT.

POWER FLAME CR3-G-20 GAS BURNER (CSD-1 REQUIREMENTS). 1-1/2 HP, 240/1/60, FULL MODULATION, MIN. 5.8 IN. GAS PRESSURE.

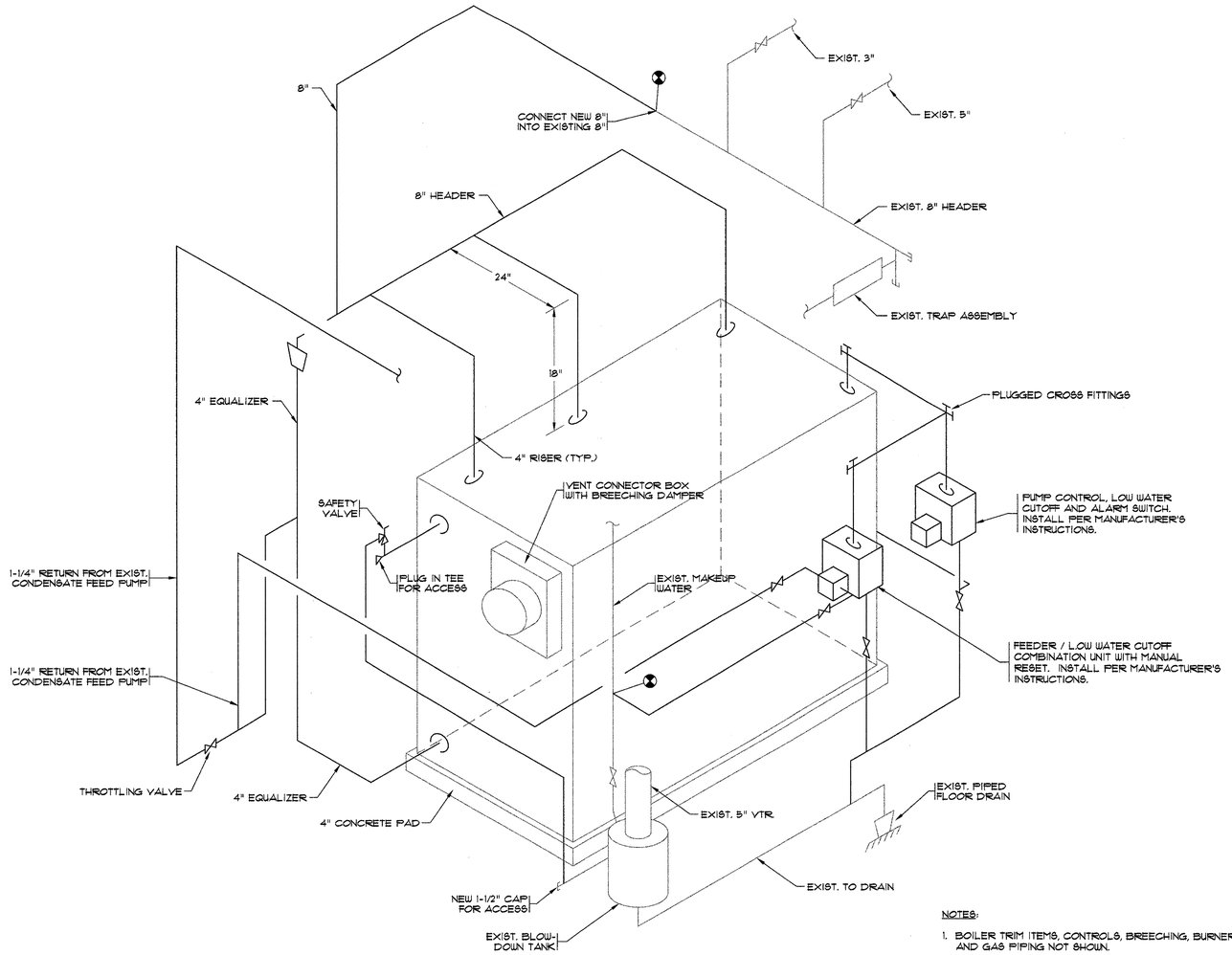
PROVIDE NEW 3" CONCRETE BASE PAD FOR BOILER.

INTALL PER MANUFACTURER'S INSTRUCTIONS.

OTHER ACCEPTABLE BOILER MANUFACTURER:
WEIL-McLAIN 988 WITH POWER FLAME BURNER

MECHANICAL NOTES:

1. CONTRACTOR IS RESPONSIBLE TO VISIT THE JOB SITE TO VERIFY EXISTING CONDITIONS RELATING TO WORK REQUIRED.
2. CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS TO THE GENERAL CONTRACTOR FOR HIS FORWARDING TO THE ARCHITECT.
3. CONTRACTOR'S WORK SHALL COMPLY WITH ALL LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES THAT APPLY.
4. CONTRACTOR SHALL PAY FOR ALL NECESSARY PERMITS, FEES, TAXES, AND APPROVALS FOR CONSTRUCTION.
5. CONTRACTOR SHALL REMOVE ALL SALVAGE MATERIALS AND DEBRIS FROM THE SITE AND REPLACE OR REPAIR ALL AREAS DAMAGED OR DISTURBED BY THE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE ALL UTILITIES.
7. ALL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL. SCREWED PIPE AND FITTINGS FOR 2" PIPE AND SMALLER. WELDED PIPE AND FITTINGS FOR 2-1/2" PIPE AND LARGER.
8. PATCH ALL WALL, FLOOR AND CEILING PENETRATIONS TO MATCH EXISTING.
9. PROVIDE AND INSTALL ALL HANGERS AND SUPPORTS WHERE REQUIRED.
10. FOR TIE-INS TO EXISTING SYSTEM, EXISTING MUST BE EQUAL TO OR LARGER THAN NEW.
11. M.C. IS RESPONSIBLE TO ENSURE THAT THE BOILER SYSTEMS ARE FULLY OPERATIONAL AND THAT THE OWNER RECEIVES ADEQUATE TRAINING AND INSTRUCTION IN THE OPERATION AND MAINTENANCE OF THE SYSTEMS AND EQUIPMENT.
12. ALL EQUIPMENT EQUALS MUST BE SUBMITTED A MINIMUM OF 10 DAYS PRIOR TO BID DATE FOR APPROVAL.



NOTES:

1. BOILER TRIM ITEMS, CONTROLS, BREECHING, BURNER UNIT AND GAS PIPING NOT SHOWN.
2. BOILER PIPING IS DIAGRAMMATIC ONLY AND DOES NOT SUPERSEDE MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL ALL COMPONENTS PER MANUFACTURER'S INSTRUCTIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

BOILER PIPING DIAGRAM
NO SCALE

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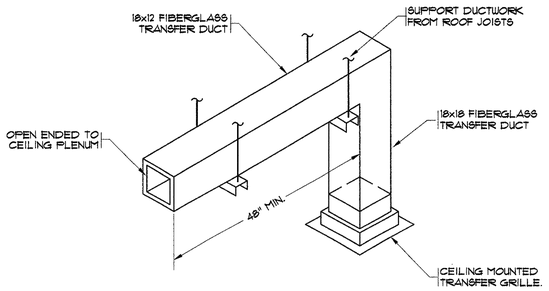
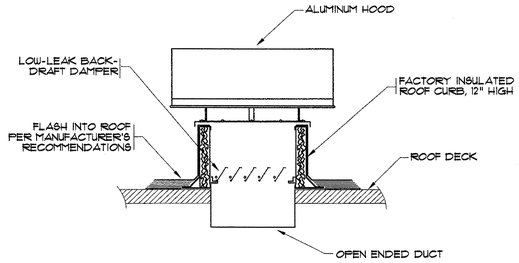
BOILER ROOM PLAN

M2-06



TYPICAL TRANSFER DUCT DETAIL
NO SCALE



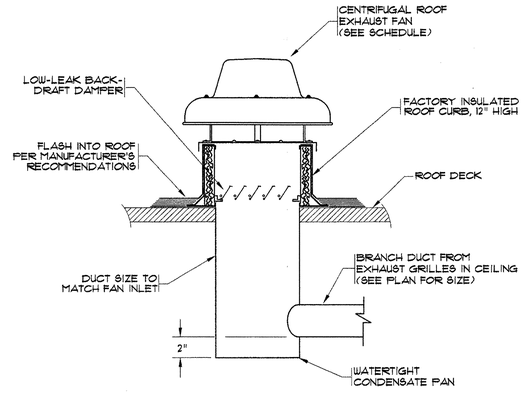
NOTE: COORDINATE ALL ROOF WORK WITH K.P.S. AND HOEKSTRA ROOFING

RELIEF HOOD DETAIL
NO SCALE

STEAM TRAP SCHEDULE

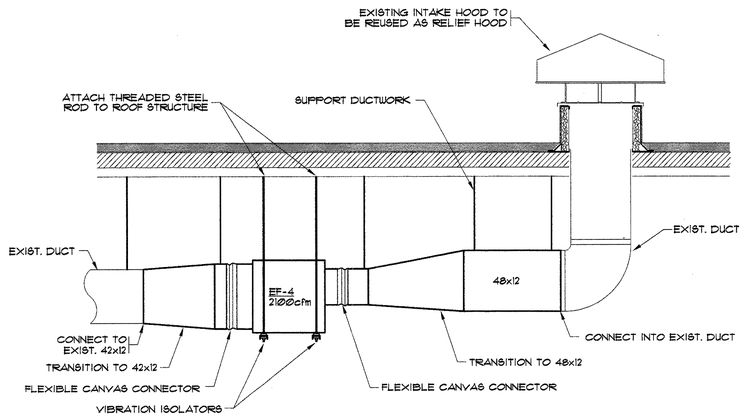
TAG	LOCATION	ACTUAL LBS/HR	SAFETY FACTOR	DESIGN LBS/HR	TRAP TYPE	MIN. OPER. PRESS. (PSI)	MAX. PRESS. (PSI)	NOTES
T-1	UV-1, COIL	60	2:1	120	F&T	1/4	25	1
T-2	UV-2, COIL	60	2:1	120	F&T	1/4	25	1
T-3	UV-3, COIL	60	2:1	120	F&T	1/4	25	1
T-4	UV-4, COIL	60	2:1	120	F&T	1/4	25	1
T-5	UV-5, COIL	60	2:1	120	F&T	1/4	25	1
T-6	UV-6, COIL	60	2:1	120	F&T	1/4	25	1
T-7	UV-7, COIL	60	2:1	120	F&T	1/4	25	1
T-8	UV-8, COIL	60	2:1	120	F&T	1/4	25	1
T-9	UV-9, COIL	60	2:1	120	F&T	1/4	25	1
T-10	UV-10, COIL	60	2:1	120	F&T	1/4	25	1
T-11	UV-11, COIL	60	2:1	120	F&T	1/4	25	1
T-12	UV-12, COIL	60	2:1	120	F&T	1/4	25	1
T-101	END OF MAIN, RM. 101	10	3:1	30	IBLV	2	25	2
T-103	TUNNEL, RM. 103	9	2:1	18	IBLV	2	25	2
T-115	END OF MAIN, RM. 115	5	3:1	15	IBLV	2	25	2
T-116	END OF MAIN, RM. 116	5	3:1	15	IBLV	2	25	2
T-117	END OF MAIN, RM. 117	5	3:1	15	IBLV	2	25	2
T-120	END OF MAIN, RM. 120	7	3:1	21	IBLV	2	25	2
T-121	END OF MAIN, RM. 121	7	3:1	21	IBLV	2	25	2
T-122	MECH. RM. 122	4	2:1	8	IBLV	2	25	2
T-122H	HEADER, MECH. RM. 122	21	2:1	42	IBLV	2	25	2

ACCEPTABLE MANUFACTURERS: HOFFMAN, ARMSTRONG, SPIRAX SARCO
1. INLINE STYLE WITH INTEGRAL VACUUM BREAKER
2. PROVIDE WITH INTEGRAL THERMIC VENT



NOTE: COORDINATE ALL ROOF WORK WITH K.P.S. AND HOEKSTRA ROOFING

ROOF-MOUNTED EXHAUST FAN DETAIL
NO SCALE



NOTES: BALANCE EXHAUST SYSTEM TO CFM'S SHOWN ON PLAN
FIELD VERIFY ALL DUCT SIZES PRIOR TO FABRICATION

INLINE EXHAUST FAN DETAIL
NO SCALE

SYMBOL LEGEND

UV	UNIT VENTILATOR
EAG	EXHAUST AIR GRILLE
TAG	TRANSFER AIR GRILLE
EF	EXHAUST FAN
RH	RELIEF AIR ROOF HOOD
FAI	FRESH AIR INTAKE
CH	WALL MOUNTED UNIT HEATER
	ROOF MOUNTED EXHAUST FAN
	RELIEF/INTAKE ROOF HOOD
	INLINE/CEILING EXHAUST FAN
	RETURN/EXHAUST AIR GRILLE
	VOLUME CONTROL DAMPER
	VERTICAL FIRE DAMPER
M	MOTORIZED DAMPER
T	THERMOSTAT - MOUNT 48" A.F.F.
	CONNECT INTO EXISTING

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ROOF HOOD SCHEDULE

MARK	MANUFACTURER	MODEL	NECK SIZE	CFM	FPM	PD	APPLICATION	NOTES
RH-1	GREENHECK	FHR	30 x 30	3500	560	.075	GENERAL RELIEF	1
RH-2	GREENHECK	FHR	20 x 20	1600	575	.075	GENERAL RELIEF	1
RH-3	GREENHECK	FHR	20 x 20	1600	575	.075	GENERAL RELIEF	1
RH-4	GREENHECK	FHR	20 x 20	1600	575	.075	GENERAL RELIEF	1

OTHER ACCEPTABLE MANUFACTURERS: LOREN COOK, ACME, PENN VENTILATOR AND LOUVERS & DAMPERS
1. PROVIDE WITH INSULATED 12" HIGH ROOF CURB, BIRD SCREEN, AND GRAVITY BACKDRAFT DAMPER

EXHAUST FAN SCHEDULE

MARK #	MANUFACTURER	MODEL	CFM	ESP	RPM	TYPE	ELECTRICAL HP	V	PH	HZ	NOTES
EF-1	GREENHECK	G-95-G	660	.24	1300	DOWNBLAST	1/8	115	1	60	1, 3
EF-2	GREENHECK	G-95-G	660	.24	1300	DOWNBLAST	1/8	115	1	60	1, 3
EF-3	GREENHECK	G-95-G	660	.24	1300	DOWNBLAST	1/8	115	1	60	1, 3
EF-4	GREENHECK	CSP-275	2100	.20	1100	INLINE	1	115	1	60	1, 2
EF-5	GREENHECK	G-80-E	210	.18	1050	DOWNBLAST	1/20	115	1	60	3, 4

OTHER ACCEPTABLE MANUFACTURERS: PENN VENTILATOR, LOREN COOK, AND ACME
1. RUN DURING OCCUPIED, OFF DURING UNOCCUPIED. CONNECT TO EXISTING BUILDING DAY/NIGHT SYSTEM. BALANCE AIRFLOW TO SPECIFIED CFM.
2. PROVIDE WITH DISCONNECT, HANGING VIBRATION ISOLATORS, AND BACKDRAFT DAMPER.
3. PROVIDE WITH 12" HIGH INSULATED ROOF CURB AND BACKDRAFT DAMPER.
4. TO RUN CONTINUOUSLY.

REGISTER GRILLE & DIFFUSER SCHEDULE

MARK #	MANUFACTURER	MODEL #	FACE SIZE	NECK SIZE	APPLICATION	DEFLECTION	DAMPER	NOTES
TAG-1	TITUS	50F	24"x24"	24"x24"	LAY-IN	NONE	NONE	1, 2
TAG-2	TITUS	50F	24"x24"	18"x18"	LAY-IN	NONE	NONE	1
TAG-3	TITUS	30IRS	17 3/4"x5 3/4"	16"x4"	SURFACE MNT.	SINGLE	NONE	1, 3
EAG-1	TITUS	50F	24"x24"	12"x12"	LAY-IN	NONE	NONE	1
EAG-2	TITUS	50F	7 3/4"x7 3/4"	6"x6"	SURFACE MNT.	NONE	NONE	1

OTHER ACCEPTABLE MANUFACTURERS: TUTTLE & BAILEY, KRUEGER, AND METAL AIRE
1. #2B STANDARD WHITE FINISH (CONFIRM WITH OWNER)
2. CORE ONLY
3. NO SCREW HOLES IN FRAME

UNIT VENTILATOR SCHEDULE

MARK #	MANUFACTURER	MODEL #	CFM	MIN. % O.A.	TYPE	MBH	LBS/ HOUR	PRESS. (PSI)	E.A.T. (°F)	ELECTRICAL HP	V	PH	HZ	NOTES
UV-1	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-2	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-3	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-4	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-5	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-6	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-7	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-8	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-9	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-10	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-11	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	
UV-12	TRANE	VUV-100	1000	30	VERTICAL	580	60	5.0	45	1/6	115	1	60	

1. PROVIDE WITH NON-FUSED TOGGLE DISCONNECT, 6" FALSE BACK, WALL INTAKE BOX, AND ACCESSORY SHELVING. COORDINATE SHELVING WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. COORDINATE STEAM COIL PIPING CONNECTION SIDE WITH DRAWING ELEVATION VIEWS. COORDINATE INTAKE BOX STYLE WITH ARCHITECT.

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SCHEDULES AND DETAILS

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PLUMBING FIXTURE SCHEDULE

MARK #	FIXTURE	TYPE OF NEW FAUCET	MFGR.	MODEL #	CW	HW	WASTE	NOTES
◇1	* LAVATORY	METERING FAUCET	**	785-665	1/2"	1/2"	-	8" CENTERS, CONCEALED FITTING, 3 1/2" RIGID SPOUT, COLOR CODED PUSH HANDLES
◇2	* S.S. SINK	DECK MOUNTED FAUCET	**	526	1/2"	1/2"	-	4" CENTERS, SWING SPOUT, 1/4 TURN, LEVER HANDLES, INDEX AND COLOR CODED
◇3	* C.I. SINK	DECK MOUNTED FAUCET	**	527	1/2"	1/2"	-	8" CENTERS, SWING SPOUT, 1/4 TURN, LEVER HANDLES, INDEX AND COLOR CODED
◇4	* LAVATORY	DECK MOUNTED FAUCET	**	785-369	1/2"	1/2"	-	8" CENTERS, CONCEALED FITTING, 3 1/2" RIGID SPOUT, COLOR CODED 1/4 TURN HANDLES

* FIXTURE HAS EXISTING FAUCET THAT SHALL BE REMOVED BY M.C.
** CHICAGO FAUCET CO.
◇ INDICATES MODEL OF NEW FIXTURE TO BE INSTALLED.
- CHICAGO FAUCETS ARE BASE BID, ALL OTHERS SUBMITTED AS VOLUNTARY ALTERNATE.

CLEANING AND DISINFECTING OF WATER SUPPLY:

1. PURGE ALL NEW WATER PIPING AND PARTS, EXISTING SYSTEM THAT HAS BEEN ALTERED, EXTENDED, OR REPAIRED PRIOR TO USE.
2. USE THE PURGING AND DISINFECTING PROCEDURE PRESCRIBED BY THE AUTHORITY HAVING JURISDICTION OR, IN CASE A METHOD IS NOT PRESCRIBED BY THAT AUTHORITY, THE PROCEDURE DESCRIBED IN EITHER AWWA C651, OR AWWA C652 OR AS DESCRIBED BELOW:

A. FLUSH THE PIPING SYSTEM WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT THE POINTS OF OUTLET.

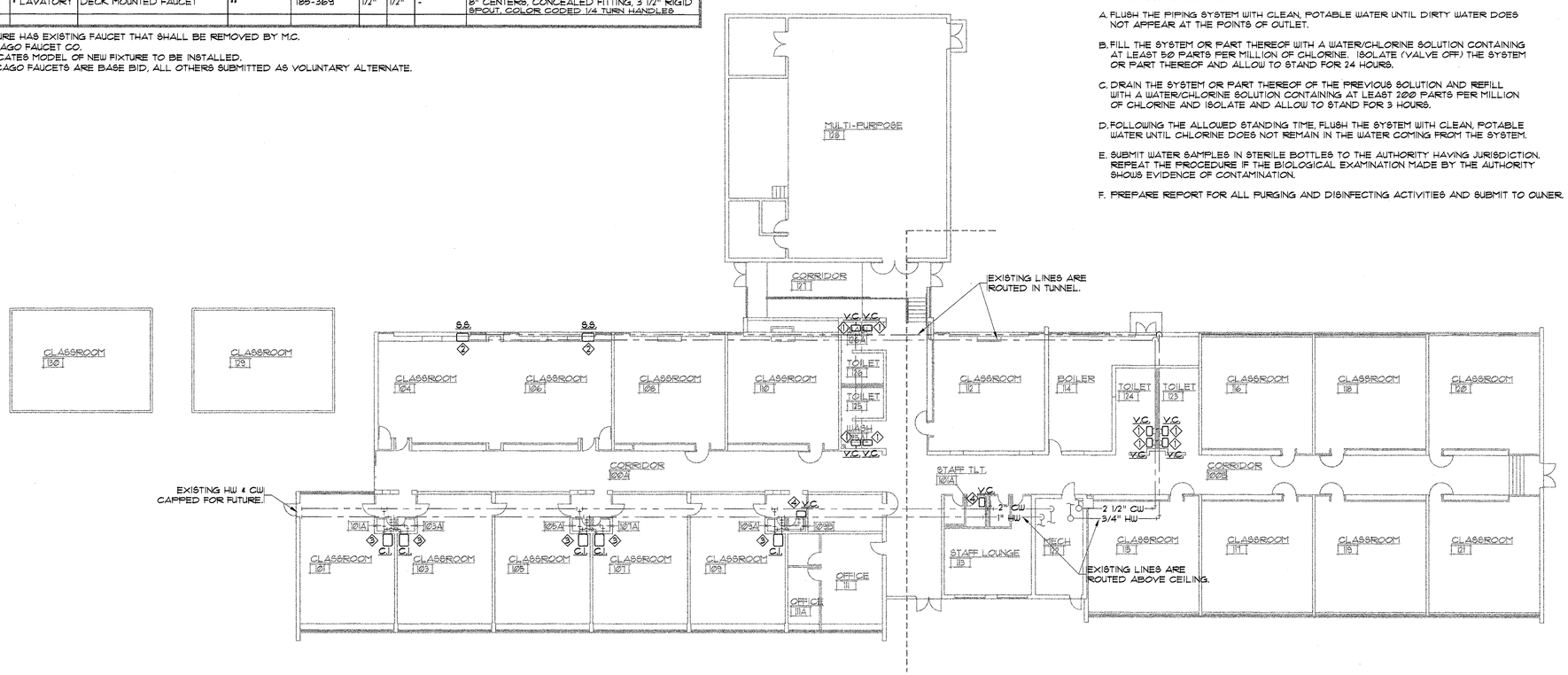
B. FILL THE SYSTEM OR PART THEREOF WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION OF CHLORINE. ISOLATE (VALVE OFF) THE SYSTEM OR PART THEREOF AND ALLOW TO STAND FOR 24 HOURS.

C. DRAIN THE SYSTEM OR PART THEREOF OF THE PREVIOUS SOLUTION AND REFILL WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 200 PARTS PER MILLION OF CHLORINE AND ISOLATE AND ALLOW TO STAND FOR 3 HOURS.

D. FOLLOWING THE ALLOWED STANDING TIME, FLUSH THE SYSTEM WITH CLEAN, POTABLE WATER UNTIL CHLORINE DOES NOT REMAIN IN THE WATER COMING FROM THE SYSTEM.

E. SUBMIT WATER SAMPLES IN STERILE BOTTLES TO THE AUTHORITY HAVING JURISDICTION. REPEAT THE PROCEDURE IF THE BIOLOGICAL EXAMINATION MADE BY THE AUTHORITY SHOWS EVIDENCE OF CONTAMINATION.

F. PREPARE REPORT FOR ALL PURGING AND DISINFECTING ACTIVITIES AND SUBMIT TO OWNER.



GENERAL PLUMBING NOTES.

1. CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING CONDITIONS RELATING TO WORK REQUIRED.
2. CONTRACTOR SHALL PAY FOR ALL NECSSARY PERMITS, FEES, TAXES AND APPROVALS FOR CONSTRUCTION.
3. CONTRACTOR'S WORK SHALL COMPLY WITH ALL LOCAL, STATE, NATIONAL CODES AND ORDINANCES THAT APPLY.
4. PATCH ALL WALL, FLOOR AND CEILING PENETRATIONS TO MATCH EXISTING.
5. PROVIDE HANGERS AND SUPPORTS AS REQUIRED BY CODE.
6. FIRE STOP ALL WALL, FLOOR AND CEILING PENETRATIONS WHERE REQUIRED TO MAINTAIN FIRE SEPARATION INTEGRITY. USE U.L. LISTED MATERIAL.
7. FOR TIE-INS TO EXISTING SYSTEM, EXISTING MUST BE EQUAL TO OR LARGER THAN NEW. LOCATIONS TO BE FIELD VERIFIED.
8. CONTRACTOR SHALL REMOVE ALL SALVAGE MATERIALS AND DEBRIS FROM THE SITE AND REPLACE OR REPAIR ALL AREAS DAMAGED OR DISTURBED BY THE CONSTRUCTION.
9. ALL EQUIPMENT, PIPING AND FIXTURES SHALL BE INSTALLED PER CODE AND LOCAL AUTHORITY HAVING JURISDICTION.
10. DOMESTIC HOT AND COLD WATER PIPING SHALL BE COPPER TYPE 'L', ABOVE GRADE. USE LEAD FREE SOLDER.
11. PLUMBING CONTRACTORS SHALL BE FAMILIAR WITH ALL ASPECTS OF THE PROJECT, (EX. EXISTING PIPE AND EQUIPMENT LOCATIONS).
12. ALL NEW HOT AND COLD WATER LINES SHALL BE SANITIZED PER LOCAL WATER DEPARTMENT REQUIREMENTS. FLUSH AND TEST SYSTEM FOR LEAKS. PLUMBING CONTRACTOR IS RESPONSIBLE FOR THE PROPER AND LEAK-FREE OPERATIONS OF THE SYSTEM. SOLDER JOINTS WITH NON-LEAD SOLDER.
13. PROVIDE DI-ELECTRIC FITTINGS WHERE ANY DISSIMILAR METALS ARE CONNECTED.
14. EXISTING HOT AND COLD WATER LINES ARE SHOWN TO AID CONTRACTOR IN DETERMINING SUPPLY LOCATION IN CASE A REPAIR HAS TO BE MADE.
15. SINK AND LAVATORY FAUCETS ONLY, ARE BEING REPLACED, THERE IS NO REPLACEMENT OF FIXTURES OR FLUSH VALVES AT THIS TIME.
16. FEILD VERIFY EXISTING CONDITIONS OF SUPPLY STOPS AND VISIBLE SUPPLY PIPING TO INDIVIDUAL FIXTURES BEFORE BIDDING. CONTRACTOR IS RESPONSIBLE FOR REPLACING VALVE STOPS AND SUPPLY PIPING AS NEEDED TO PERFORM A LEAK FREE OPERATIONAL INSTALLATION.
17. STAINLESS STEEL SINKS (S.S.) WILL REQUIRE BORING OF (2) HOLES IN EACH SINK TO ACCOMMODATE THE NEW 4" CENTER FIXTURES.
18. EXISTING VIRTUOUS CHINA LAVATORIES (V.C.) ARE EXPOSED FACE. EXISTING CAST IRON (C.I.) AND STAINLESS STEEL (S.S.) SINKS ARE IN CASE WORK.

NORTH

PLUMBING PLAN

SCALE: 1/16" = 1'-0"

LEGEND

C.I.	CAST IRON SINK
CW	COLD WATER
HW	HOT WATER
M.C.	MECHANICAL CONTRACTOR
S.S.	STAINLESS STEEL SINK
V.C.	VIRTEOUS CHINA SINK
—— - —— - ——	COLD WATER
—— - - —— - - ——	HOT WATER
~	CONTINUES ON TO SOURCE
◇	PLUMBING FIXTURE TYPE

CHIME ELEMENTARY SCHOOL
Kalamazoo Public Schools
Oshtemo, Michigan
97103

3/2/98 ISSUED FOR CONSTRUCTION

Eckert/Wordell
Architects
161 E. Michigan Ave.
Kalamazoo, MI 49007
616 388 7313
616 388 7330 Fax

COMPOSITE FLOOR PLAN

P1-01

Eckert/Wordell Architects

CHIME ELEMENTARY SCHOOL

KALAMAZOO PUBLIC SCHOOLS

6740 CHIME STREET, OSHTEMO, MI 49009

PROJECT NO. 97103

BID PACKAGE 2

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MECHANICAL/ELECTRICAL ENGINEERS
Engineering Plus, Inc.
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Kalamazoo, Michigan 49003-2101
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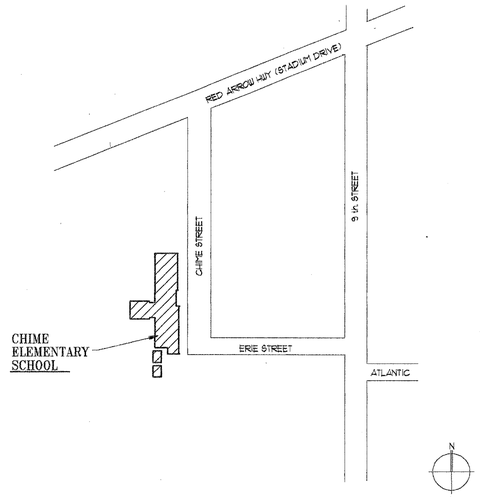
(616) 344-0196 FAX

LOCATION MAP



CODE COMPLIANCE INFORMATION

Applicable Major Codes:

Plumbing Code Rules, Michigan Dept. of Labor, incorporating the 1990 Edition of the BOCA National Plumbing Code

Uniform Mechanical Code, 1994 Edition

National Electric Code, 1993 Edition

NFPA, 1988

ALTERNATES:

ALTERNATE 1

PROVIDE FIVE LINIER FEET OF PLASTIC LAMINATE FACED BASE AND WALL CABINETS IN ROOMS 112, 113, 116, 116, 117, 118, 119, 120, 121. SEE DETAIL 8/A3-01. EXACT PLACEMENT OF NEW CASEWORK TO BE DETERMINED IN FIELD BY ARCHITECT

ABBREVIATIONS

A.B.	Anchor Bolt
A.D.	Area Drain
A.F.F.	Above-Finished Floor
ALUM.	Aluminum
A.P.	Access Panel
A.P.C.	Access Panel Ceiling
ACOUS.	Acoustic
ANCH.	Anchor
APPROX.	Approximate
ARCH.	Architectural
ASPH.	Asphalt
B/	Bottom of
B.L.	Building Line
B.P.	Base Plate
B.S.	Both Sides
BD.	Board
BITUM.	Bituminous
BLDG.	Building
BLKG.	Blocking
BLKHD.	Bulkhead
BOT.	Bottom
C.B.	Catch Basin
CPT.	Carpet
C. TO C.	Center to Center
CARPT.	Carpet Tile
CH.	Channel
C.J.	Control Joint
C.L.	Center Line
C.M.U.	Concrete Masonry Unit
C.O.	Casead Opening, Clean Out
CAB.	Cabinet
CLKG.	Caulking
CLG.	Ceiling
CEM.	Cement
CER.	Ceramic
C.T.	Ceramic Tile
CHKD.PL.	Checkered Plate
CLR.	Clear
COL.	Column
COMP.	Compressible
COMPO.	Composition
CONC.	Concrete
CONN.	Connect, Connection
CONST.	Construction
CONST.JT.	Construction Joint
CONT.	Continuous
CONTR.	Contractor
CTSK.	Counter Sunk
CTR.	Counter
D.F.	Drinking Fountain
D.O.	Door Opening
D.S.	Down Spout
D.T.	Drain Tile
DET.	Detail
DIA.	Diameter
DIFF.	Diffuser
DN.	Down
DR.	Door
DW.	Drywall
DWR.	Drawer
DWG.	Drawing
EA.	Each
E.I.F.S.	Exterior Insulation Finish System
EL.	Elevation
ELECT.	Electrical
ELEV.	Elevator
E.P.S.	Exterior Paint System
ENCL.	Enclosure
EQ.	Equal
EQUIP.	Equipment
EX.GR.	Existing Grade
EXIST.	Existing
E.U.	Each Way
E.W.C.	Electric Water Cooler
EXP.	Expansion
EXP.JT.	Expansion Joint
EXT.	Exterior
F.A.	Fire Alarm
F.D.	Floor Drain
F.E.	Fire Extinguisher
F.E.C.	Fire Extinguisher Cabinet
F.H.C.	Fire Hose Cabinet
F.O.C.	Face of Column
F.O.CONC.	Face of Concrete
F.S.	Full Size
FDN.	Foundation
FIN.	Finish
FL.	Floor
FLL.	Floor Line
FLUOR.	Fluorescent
FR.	Frame
F.R.C.	Fiber Reinforced Concrete
FRPFG.	Fireproofing
FT.	Foot, Feet
FTG.	Footing
FUR.	Furring
G.B.	Grab Bar, Grade Beam
G.C.	General Contractor
GAZ.T.	Glazed Hollow Tile
G.O.	Grill Opening
GA.	Gauge
GALV.	Galvanized
GL.	Glass
GND.	Ground
GR.	Grade
GRTG.	Grating
GYP.	Gypsum
H.C.	Hollow Core
H.D.P.B.	High Density Particleboard
H.M.	Hollow Metal
H.P.	High Point
HORIZ.	Horizontal
HR.	Hour
HT.	Height
HWD.	Hardware
I.D.	Inside Diameter
I.E.	Invert Elevation
IN.	Inch, Inches,
INCL.	Including, Inclusive
INS.MET.	Insulated Metal
INSUL.	Insulation
INT.	Interior
I.P.S.	Interior Paint System
JAN.	Janitor
JT.	Joint
L.H.	Left Hand
L.L.H.	Long Leg Horizontal
L.L.V.	Long Leg Vertical
L.O.	Louver Opening
L.P.	Lighting Panel
LAD.	Ladder
LAM.	Laminated
LAV.	Lavatory
LKR.	Locker
LGTH.	Length
LT.	Light
M.H.	Manhole
MI.	Miscellaneous Iron
M.O.	Masonry Opening
MT.	Marble Tile
MAS.	Masonry
MATL.	Material
MAX.	Maximum
MECH.	Mechanical
M.C.	Medicine Cabinet
MEMB.W.P.	Membrane Waterproofing
MET.	Metal
MEZZ.	Mezzanine
MFR.	Manufacturer
MIN.	Minimum
MIR.	Mirror
MUL.	Mullion
MTD.	Mounted
N.I.C.	Not In Contract
N.	North
N.S.N.S.	Non Shrink Non Stain
N.T.S.	Not to Scale
NO. or #	Number
NOM.	Nominal
O.C., o/c	On Center
O.D.	Outside Diameter
O.H.DR.	Overhead Door
OBS.GL.	Obscure Glass
OPNG.	Opening
OPP.	Opposite
PB.	Particleboard
PT.	Preservative Treated
P.I.V.	Post Indicator Valve
P.LAM.	Plastic Laminate
PART.	Partition
PC.	Precast
PCS.	Pieces
PERM.	Permanent
PL.	Plate
PLGL.	Plate Glass
PLAS.	Plaster
PLBG.	Plumbing
PLYWD.	Plywood
Q.T.	Quarry Tile
R.	Radius, Riser
R.A.	Return Air
R.C.	Roof Conductor
R.D.	Roof Drain
R.H.	Right Hand
R.O.	Rough Opening
R.S.	Roof Sump
RESIL.	Resilient
RD.	Round
RECVG.	Receiving
REINF.	Reinforced
REF.	Refrigerator
REQ'D.	Required
RM.	Room
RUB.	Rubber Wall Base
RWD.	Redwood
S.A.	Supply Air
S.C.	Solid Core
S.L.V.	Short Leg Vertical
SECT.	Section
SERREC.	Service Receptor
SCH.	Schedule
SHT.	Sheet
SIM.	Similar
SH.	Shelf
S.SK.	Service Sink
SPEC.	Specification
SIM.	Similar
SQ.	Square
ST.	Steel
S.S.T.	Stainless Steel
STD.	Standard
SHR.	Shower
STOR.	Storage
STRL.	Structural
SUPP.	Support
SUSP.	Suspended, Suspension
SYM.	Symmetrical
T/	Top of
T.	Tread
T.B.	Truss Bearing
T.I.G.	Temp. Insul. Gl.
THRESH.	Threshold
THK.	Thick
TOIL.	Toilet
T.&G.	Tongue and Groove
TYP.	Typical
T.O.C., T/C	Top of Concrete, Curb
T.O.S., T/S	Top of Steel
T.O.W., T/W	Top of Wall
T.O.M., T/M	Top of Masonry
T.O.P., T/P	Top of Pavement, Parapet
UNF.	Unfinished
U.N.O.	Unless Noted Otherwise
UR.	Urinal
V.	Vinyl
V.C.T.	Vinyl Composition Tile
V.I.F.	Verify in Field
V.W.B.	Vinyl Wall Base
VERT.	Vertical
VEST.	Vestibule
W.C.	Wallcovering
W.C.	Water Closet
W.C.O.	Wall Clean Out
WPRG.	Waterproofing
WT.	Weight
W/	With
W/O	Without
WP.	Workpoint
WSCT.	Wainscot

DRAWING INDEX

2 MARCH 1998
BID PACKAGE 2 - MECHANICAL/ELECTRICAL

8

TS-1/BP-2