**CONTROL JOINT** CENTER LINE CONCRETE MASONRY UNIT CLEAN OUT GALVANIZED COL CONC CONT COLUMN CONCRETE GYPSUM CONTINUOUS HOSE BIB CARD READER CABINET UNIT HEATER HEIGHT CUBIC YARD CURTAIN WAI DEPARTMENT **DEIONIZED WATE** DIMENSION

DOWN SPOUT

ELECTRICAL ELEVATION

4 A7-1

A4-1

EQUAL

**EXPANSION JOIN** 

ELECTRIC WATER COOLER

EYE WASH STATION

TREATED WOOD GLAZING FILM HOSE CABINET HOLLOW METAL HORIZ HORIZONTAL INSTALLED BY CONTRACTOR INSULATED GLAZING UNIT ISOLATION JOINT MAXIMUM MECHANICA MECHANICAL, ELECTRICAL, & PLUMBING MANUFACTURER MANHOLE MINIMUM

MISC MISCELLANEOUS MO MASONRY OPENII

MASONRY OPENING

SHEET SIMILAR SPEC SPECIFICATIONS SOLID SURFACE SSTL STAINLESS ST STRUC STRUCTURAL STAINLESS STEE TREAD THICK TOM TOP OF MASONRY TOP OF STEEL UNLESS NOTED OTHERWISE **VERTICAL** VERIFY IN THE FIELD WIDE ZVB ZONE VALVE BOX

SHOWER CURTAIN

SCUPPER

SQUARE FEET

REFER TO PROJECT MANUAL AND/OR SCHEDULES WHEN MULTIPLE TYPES OF AN ITEM OCCUR (FEC-1, FEC-2, ETC. ..). ALL ITEMS INDICATED MAY NOT BE INCLUDED IN THE PROJECT SCOPE. REFER TO DRAWINGS FOR SPECIFIC INSTANCES.

MATERIALS LEGEND

GYPSUM BOARD PLYWOOD CONCRETE RIGID INSULATION

INTERDEPENDENT AND MUST BE USED JOINTLY TO EXECUTE THE AND LARGER SCALE PLANS, CONTRACTOR SHALL CONSULT THE ARCHITECT FOR CLARIFICATION. WHERE DISCREPANCIES OCCUR BETWEEN ARCHITECTURAL AND ALL OTHER DRAWINGS, CONTRACTOR SHALL CONSULT THE ARCHITECT FOR . MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL WORK IS

INDICATED ON THE HVAC. PLUMBING, ELECTRICAL, TECHNOLOGY AND STRUCTURAL DRAWINGS. CONTRACTORS MUST REFER TO ALI ARCHITECTURAL SERIES DRAWINGS. AS WELL AS MECHANICAL ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS, WHEN INSTALLING MECHANICAL, ELECTRICAL, PLUMBING, AND 4. DO NOT SCALE THE DRAWINGS. IF QUESTIONS ARISE, CONTACT THE ARCHITECT FOR CLARIFICATION.

5. EXISTING BUILDING INFORMATION IS BASED ON ORIGINAL CONSTRUCTION DOCUMENTS AND IS NOT INTENDED TO REPRESENT EXISTING "AS-BUILT" CONDITIONS. CONTRACTORS SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING

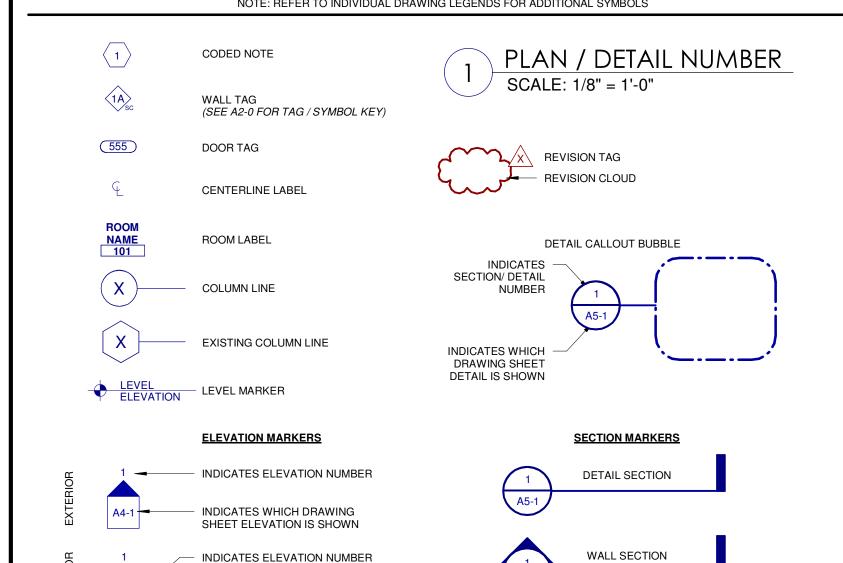
**BUILDING SECTION** 

# WARNING! ASBESTOS HAZARD

THIS PROJECT AREA MAY CONTAIN ASBESTOS MATERIALS USED FOR FIREPROOFING AND INSULATION. THE CONSTRUCTION AREA HAS BEEN CLEANED OF THESE MATERIALS PRIOR TO COMMENCEMENT OF WORK. ASBESTOS MAY BE ENCOUNTERED IN THE COURSE OF NEW WORK OR DEMOLITION ACTIVITIES.

IF ANY MATERIAL IS UNCOVERED WHICH IS SUSPECTED TO CONTAIN ASBESTOS, CEASE WORK & NOTIFY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL POST OSHA APPROVED SIGNS WHICH WILL REMAIN IN PLACE, ALERTING THE TRADESMEN TO THE HAZARDOUS CONDITION

# ARCHITECTURAL LEGEND



# PROJECT INTENT

INDICATES ELEVATION NUMBER

INDICATES WHICH DRAWING SHEET ELEVATION IS SHOWN

THE PROJECT INTENT IS TO COMPLETE ALTERATION WORK TO THE UPPER (17, 907 SF) AND LOWER (8.809 SF) FLOORS OF THE EXISTING BUILDING LOCATED AT 211 MOODY AVE THE INTENT IS TO LIMIT PRIMARY ALTERATION WORK TO THE PROJECT AREAS AS DEFINED BY THE CONSTRUCTION DOCUMENTS AND TO PROVIDE ADDITIONAL LIMITED INFRASTRUCTURE IMPROVEMENTS TO AREAS OUTSIDE THE PROJECT AREA. THE USE WILL CHANGE IN FROM E TO B. WITH THE CONSTRUCTION CLASSIFICATION REMAINING BUILDING CODES AND REGULATIONS, HOWEVER, THE PROJECT INTENT IS NOT TO BRING NEW WORK IS BEING PERFORMED. THIS WORK RECONFIGURES INTERIOR PARTITIONS AND DOES NOT INTEND TO ADD OCCUPANT LOAD, BUT ACTUALLY REDUCING IT DUE TO THE CHANGE IN USE.

THE PROJECT SCOPE SHALL BE LIMITED TO ALTERATION WORK AS INDICATED ON THE CONSTRUCTION DOCUMENTS. ALTERATION WORK AND IMPROVEMENTS WITHIN THE PROJECT AREA INCLUDE, BUT SHALL NOT BE LIMITED TO, THE FOLLOWING SYSTEMS: HVAC, PLUMBING, FIRE ALARM, NORMAL POWER, DATA AND COMMUNICATION, LIGHTING, INTERIOR PARTITIONS, DOORS AND HARDWARE, AND INTERIOR FINISHES.

ASBESTOS AND UNIVERSAL WASTE ABATEMENT WILL OCCUR THROUGH SEPARATE

ROOF REPAIR AND REPLACEMENT WILL OCCUR THROUGH SEPARATE CONTRACT

# CONSTRUCTION DOCUMENTS

ISSUE DATE: 09/27/2024



FOR REFERENCE ONLY

FOR REFERENCE ONLY -

# CARROLL COUNTY OFFICE RENOVATION

211 MOODY AVE SW CARROLLTON OHIO 44615

PROJECT NUMBER

CARROLL COUNTY BOARD OF COMMISSIONERS 119 S. LISBON STREET, SUITE 201 - CARROLLTON, OH 44615

### **ARCHITECT**

HASENSTAB ARCHITECTS, INC. 190 N. UNION STREET, SUITE 400 - AKRON, OHIO 44304 (330) 434-4464

# **MECHANICAL & ELECTRICAL ENGINEER**

EPIC ENGINEERING GROUP, LLC 3730 TABS DRIVE, SUITE 200 - UNIONTOWN, OH 44685 (330) 899-4955

# DRAWING INDEX

**COVER SHEET** 

(DEMOLITION)

P202

LOWER LEVEL - PLUMBING PLAN (NEW

UPPER LEVEL - PLUMBING PLAN (NEW

			(INEVV VVORK)
AS-1	DEMOLITION ARCHITECTURAL SITE PLAN	P204	UPPER LEVEL - PLUMBING WASTE PLAN (NEW WORK)
AS-2	ARCHITECTURAL SITE PLAN	P301	PLUMBING SCHEDULES AND DETAILS
		P302	PLUMBING SCHEDULES AND DETAILS
A0-1	LIFE SAFETY PLANS	P401	PLUMBING ISOMETRICS
		Γ <del>4</del> 01	FEOMBLING ISOMETRICS
A1-1	DEMOLITION PLAN - LOWER LEVEL	M101	LOWER LEVEL - HVAC PLAN
A1-2	DEMOLITION PLAN - UPPER LEVEL	IVITOT	(DEMOLITION)
A1-3	DEMOLITION CEILING PLAN - LOWER	M102	UPPER LEVEL - HVAC PLAN (DEMOLITION)
	LEVEL	M102	ROOF MECHANICAL PLAN (DEMOLITION)
A1-4	DEMOLITION CEILING PLAN - UPPER LEVEL	M201	LOWER LEVEL - HVAC DUCTWORK PLAN
A1R-1	DEMOLITION PLAN - ROOF PLAN - BASE BID	M202	(NEW WORK) UPPER LEVEL - HVAC DUCTWORK PLAN
A1R-2	DEMOLITION PLAN - ROOF PLAN - BID		(NEW WORK)
	ALTERNATE	M301	LOWER LEVEL - HVAC PIPING PLAN (NEW WORK)
A2-0	INTERIOR PARTITION GENERAL INFO	M302	UPPER LEVEL - HVAC PIPING PLAN (NEW WORK)
A2-0.1	RATED JOINT & PENETRATION DETAILS	M303	ROOF MECHANICAL PLAN (NEW WORK)
A2-1	FLOOR PLAN - LOWER LEVEL	M401	MECHANICAL SCHEDULES AND DETAILS
A2-2	FLOOR PLAN - UPPER LEVEL	M401 M402	
A2R-0	GENERAL INFO & TYPICAL ROOF DETAILS	=	MECHANICAL SCHEDULES AND DETAILS
A2R-0.1	GENERAL INFO & TYPICAL ROOF DETAILS	M403	MECHANICAL SCHEDULES AND DETAILS
A2R-1	ROOF PLAN - BASE BID	M404	MECHANICAL SCHEDULES AND DETAILS
A2R-2	ROOF PLAN - BID ALTERNATE	M405	MECHANICAL SCHEDULES AND DETAILS
		M406	MECHANICAL SCHEDULES AND DETAILS
A3-0	GENERAL INFO & TYPICAL CEILING DETAILS	M407	MECHANICAL SCHEDULES AND DETAILS
A3-1	REFLECTED CEILING PLAN - LOWER LEVEL	E101	LOWER LEVEL - LIGHTING PLAN (DEMOLITION)
A3-2	REFLECTED CEILING PLAN - UPPER LEVEL	E102	UPPER LEVEL - LIGHTING PLAN (DEMOLITION)
A 4 4		E103	LOWER LEVEL - POWER / SYSTEMS PLAN (DEMOLITION)
A4-1	EXTERIOR ELEVATIONS & DETAILS	E104	UPPER LEVEL - POWER / SYSTEMS PLAN (DEMOLITION)
A6-0	GENERAL INFO & TYPICAL STAIR DETAILS	E105	ROOF ELECTRICAL PLAN (DEMOLITION)
		E201	LOWER LEVEL - LIGHTING PLAN (NEW
A7-0	TYPICAL MOUNTING HEIGHTS		WORK)
A7-1	GENERAL INFO & TYPICAL MILLWORK DETAILS	E202	UPPER LEVEL - LIGHTING PLAN (NEW WORK)
A7-2	INTERIOR ELEVATIONS	E203	LOWER LEVEL - POWER / SYSTEMS PLAN
A7-3	INTERIOR ELEVATIONS		(NEW WORK)
A7-4 A7-5	INTERIOR ELEVATIONS INTERIOR ELEVATIONS	E204	UPPER LEVEL - POWER / SYSTEMS PLAN (NEW WORK)
A7-3	INTERIOR ELEVATIONS	E205	LOWER LEVEL - MECHANICAL
A8-0	DOOR & FRAME SCHEDULES & DETAILS	L200	EQUIPMENT PLAN (NEW WORK)
		E206	UPPER LEVEL - MECHANICAL EQUIPMENT PLAN (NEW WORK)
A9-1	FINISH PLAN - LOWER LEVEL	E207	ROOF ELECTRICAL PLAN (NEW WORK)
A9-2	FINISH PLAN - UPPER LEVEL	E301	ELECTRICAL SCHEDULES
A11-1	FURNITURE & EQUIP PLAN - LOWER	E302	ELECTRICAL SERVICE #1 (EXISTING CONDITIONS)
	LEVEL	E303	ELECTRICAL SERVICE #1 (REVISED
A11-2	FURNITURE & EQUIP PLAN - UPPER LEVEL		CONDITIONS)
		E304	ELECTRICAL SERVICE #2 (EXISTING CONDITIONS)
FP101	LOWER LEVEL - FIRE PROTECTION PLAN (NEW WORK)	E305	ELECTRICAL SERVICE #2 (REVISED
FP102	UPPER LEVEL - FIRE PROTECTION PLAN	<b>F</b> 000	CONDITIONS)
- <b></b>	(NEW WORK)	E306 E307	ELECTRICAL SCHEDULES AND DETAILS ELECTRICAL SCHEDULES AND DETAILS
P101	LOWER LEVEL - PLUMBING PLAN (DEMOLITION)		
P102	UPPER LEVEL - PLUMBING PLAN (DEMOLITION)		

### **CODE INFORMATION**

# **REGULATORY INFO**

BUILDING PERMIT JURISDICTION STATE OF OHIO PLUMBING PERMIT JURISDICTION 2021 IFGC 2021 IECC

2024 OHIO MECHANICAL CODE 2023 NATIONAL ELECTRIC CODE

RISK CATEGORY FIRE SUPPRESSION **EXISTING BUILDING CODE** COMPLIANCE METHOD

PARTIAL; LOWER LEVEL ONLY

2022 NFPA 13

2022 NFPA 72 2017 OHIO FIRE CODE

USE GROUP CLASSIFICATION EXISTING BUILDING IS CLASSIFIED AS 'E' USE AS IT WAS PREVIOUSLY AN EDUCATIONAL FACILITY. THE NEW USE WILL BE FOR COUNTY OFFICES

**CHAPTER 5 HEIGHT** ALLOWABLE BUILDING HEIGHT (504.3) 55 FEET ALLOWABLE NUMBER OF STORIES (504.4) 2 STORIES **ACTUAL BUILDING HEIGHT** 34'-0" +/- FEET ACTUAL BUILDING STORIES 2 STORIES AREA ALLOWABLE AREA FACTOR (506.2) 14,500 SF % INCREASE FOR FRONTAGE (506.3.3) 75% ALLOWABLE AREA PER STORY 25,375 SF

ALLOWABLE BUILDING AREA	25,375 SF
	_
ACTUAL AREAS	
UPPER LEVEL - EAST	10,829 SF; NO CHANGE
UPPER LEVEL - WEST*	25,055 SF; NO CHANGE
UPPER LEVEL - TOTAL	35,884 SF; NO CHANGE
LOWER LEVEL	8,809 SF; NO CHANGE
TOTAL BUILDING	44,693 SF; NO CHANGE
* INCLUDES BUILDING AREA IN ITS ENTIRET PROJECT AREA	Y, INCLUDING OUTSIDE OF

	CHAPTER 6	
_	CONSTRUCTION TYPE	IIB
	FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS - TABLE 601	HOUR RATING
	PRIMARY STRUCTURAL FRAME COLUMNS SUPPORTING FLOORS	0

COLUMNS SUPPORTING ONLY ROOFS MEMBERS SUPPORTING FLOORS MEMBERS SUPPORTING ONLY ROOFS	0 0 0	N/ N/ N/
BEARING WALLS EXTERIOR INTERIOR	0 0	N/ N/
NONBEARING WALLS AND PARTITIONS EXTERIOR WALLS SEPARATED > 30'	0	N/
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0	N/
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0	N/

UL ASSEMBLY

(FS: 26-75, SD: 0-450)

LOWER LEVEL

### **CHAPTER 8** INTERIOR WALL AND CEILING FINISH FLAME SPREAD AND SMOKE-DEVELOPED INDEX REQUIREMENTS: TABLE 803.13 EXIT STAIRWAYS, EXIT RAMPS,

& EXIT PASSAGEWAYS

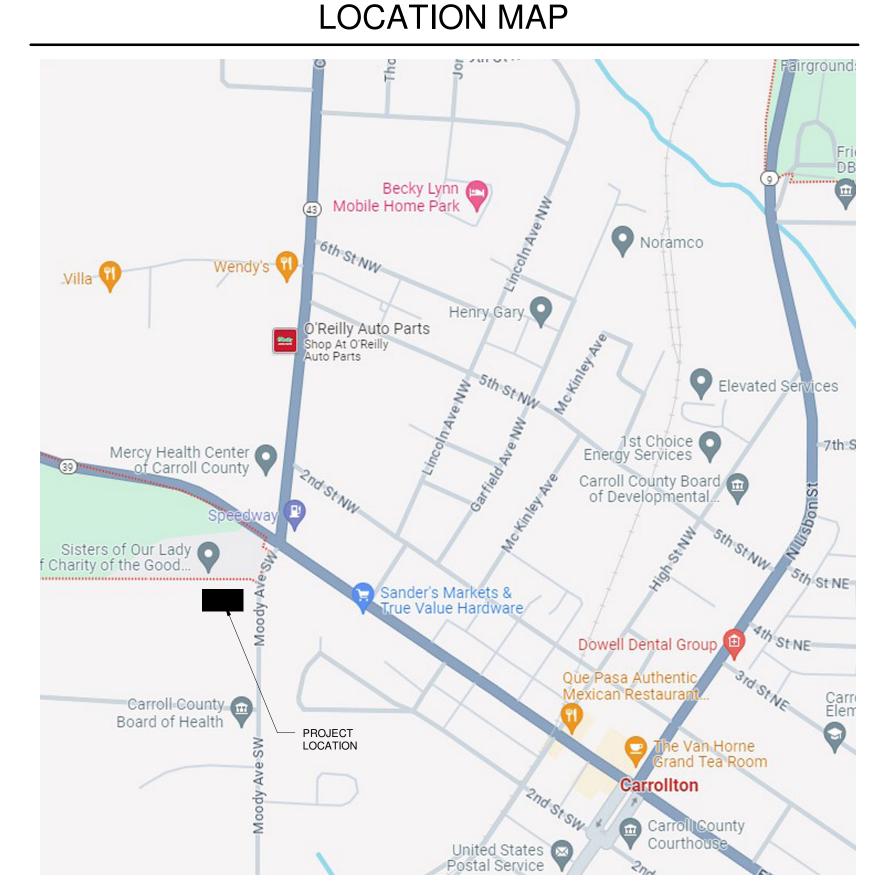
	CORRIDORS AND ENCLOSURERS FOR EXIT ACCESS STAIRWAYS AND EXIT ACCESS RAMPS	CLASS C (FS: 76-200, SD: 0-450)
	ROOMS AND ENCLOSED SPACES	CLASS C (FS: 76-200, SD: 0-450)
_		

### **CHAPTER 10** MAXIMUM DESIGN OCCUPANT LOAD AND REQUIREMENTS EXITS REQUIRED LEVEL OCCUPANTS PROVIDED

REQUIRED	PROVIDED
200' MAX	123' OR LESS
44" MIN	63" MIN
35.8"	476"
	200' MAX 44" MIN

# MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (B USE)

TOTAL OCCUPANTS = 1/9							
	WATER	CLOSETS	LAVAT	ORIES	DRINKING	SERVICE	
	М	F	М	F	FOUNTAINS	SINK	
REQ'D	4	4	1	1	1	1	
PROVIDED	9 UN	IISEX	9 UN	IISEX	2	2	



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LOWER LEVEL - PLUMBING WASTE PLAN

ISSUE / REVISION BIDDING AND PLAN REVIEW 24013.000 PROJECT NO.

**COVER SHEET** 

 EXISTING CONCRETE SIDEWALK/RAMP TO REMAIN. CLEAN.
 REMOVE PORTION OF EXISTING ASPHALT.
 REMOVE PORTION OF EXISTING CONCRETE SIDEWALK/RAMP.

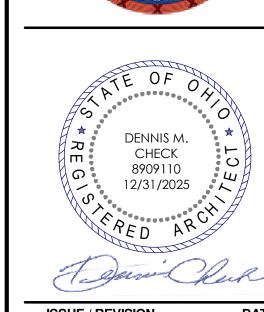
4 PORTION OF EXISTING CONCRETE SIDEWALK TO BE REMOVED AS NOTED. SEE NEW WORK. WORK.

5 EXISTING CONCRETE BUMPER TO BE SALVAGED FOR NEW WORK.

6 EXISTING STIPING TO BE REMOVED AS NOTED. SEE NEW WORK.

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PROJECT NO.

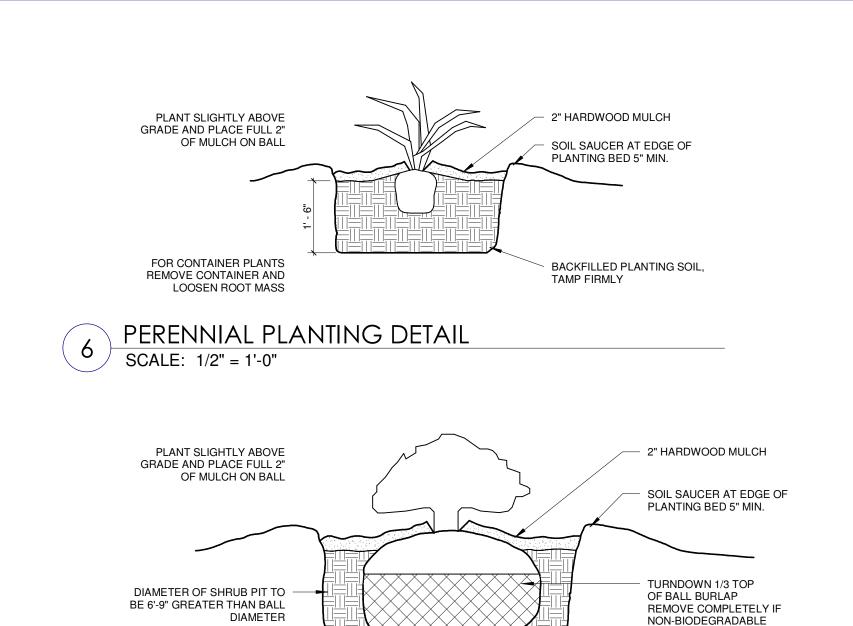
UPPER LEVEL KEY PLAN

NOT IN SCOPE

DEMOLITION ARCHITECTURAL SITE PLAN

DEMOLITION ARCHITECTURAL SITE PLAN

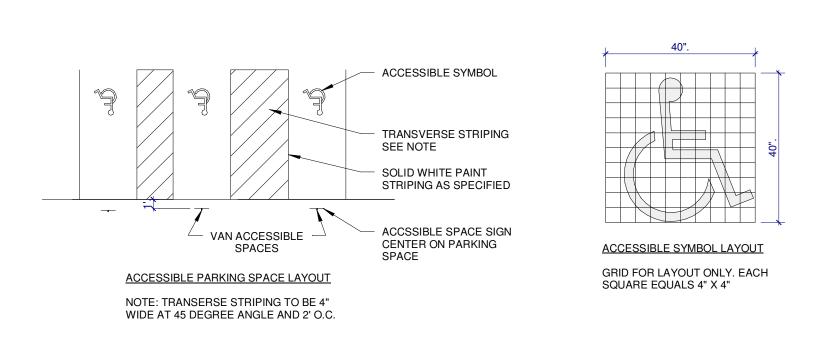
SCALE: 1" = 10'-0"



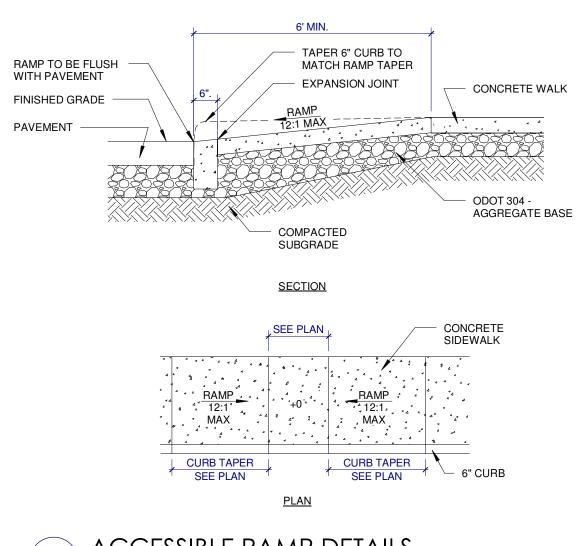
FOR CONTAINER PLANTS REMOVE CONTAINER AND LOOSEN ROOT MASS 5 DECIDUOUS SHRUB PLANTING DETAIL
SCALE: 3/4" = 1'-0"

- BACKFILLED PLANTING SOIL,

TAMP FIRMLY

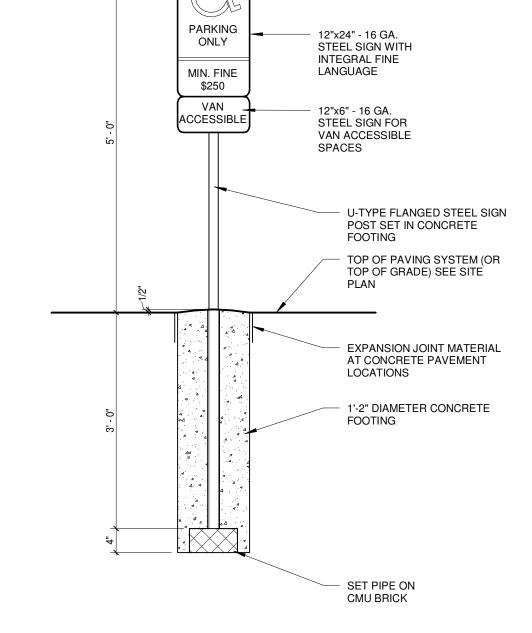


PARKING DIMENSION PLANS
SCALE: 3/8" = 1'-0"



ACCESSIBLE RAMP DETAILS

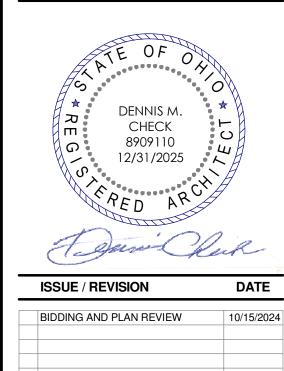
SCALE: 3/8" = 1'-0"



2 HANDICAPPED PARKING SIGN SCALE: 3/4" = 1'-0"

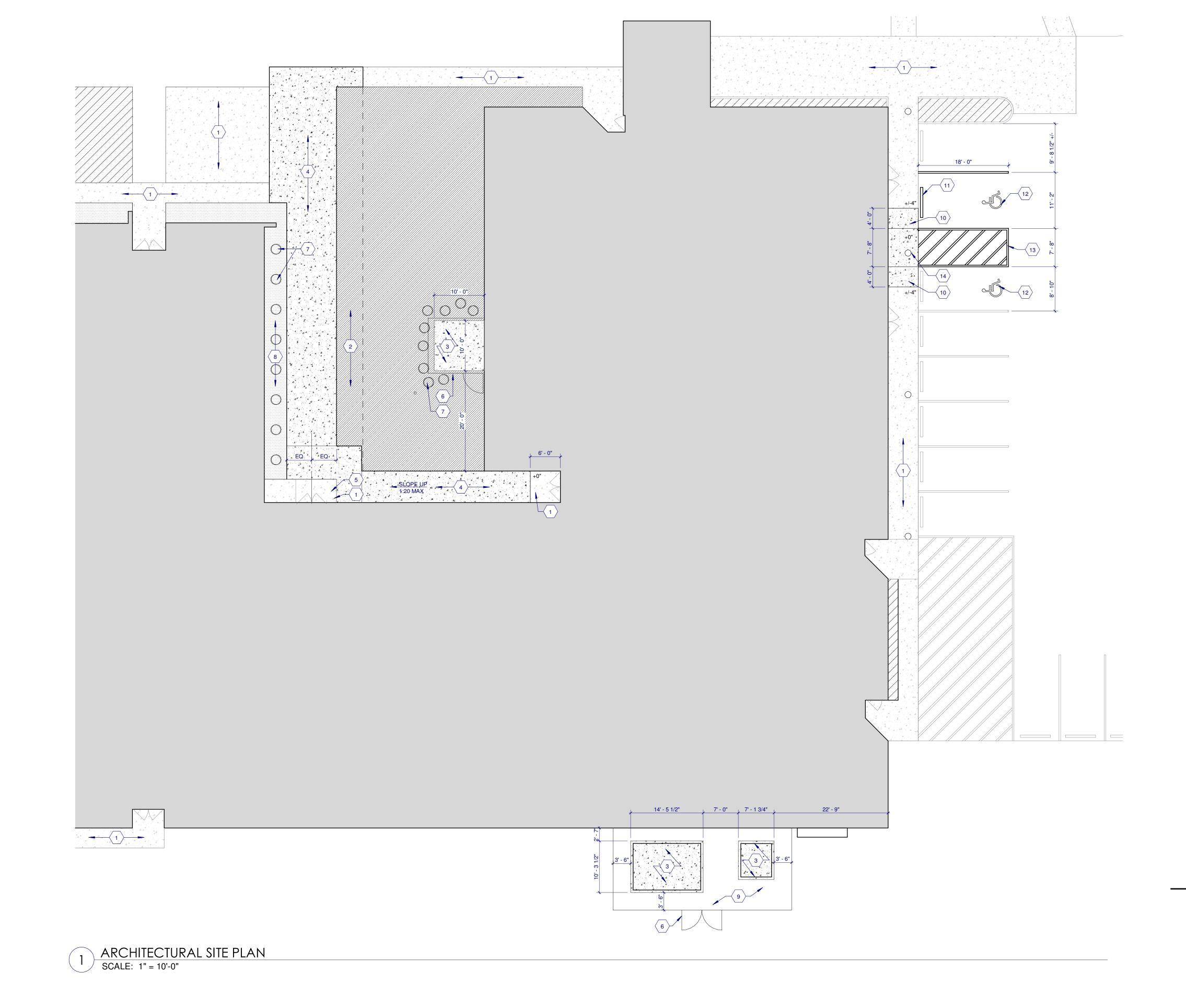
### **CODED NOTES** NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET 1 EXISTING CONCRETE SIDEWALK/RAMP TO REMAIN. CLEAN. EXISTING CONCRETE SIDEWALK/RAMIP TO REMAIN. CLEAN. EXISTING GREENSPACE TO BE EXTENDED TO MEET NEW CONCRETE SIDEWALK/RAMP. ODOT LAWN MIXTURE ODOT CMS 659.09 NEW 4" CONCRETE EQUIPMENT PAD OVER 4" COMPACTED STONE BASE. COORDINATE DIMENSIONS WITH SELECTED EQUIPMENT. 4 NEW 4" CONCRETE SIDEWALK OVER 6" COMPACTED STONE BASE. SLOPE MAX 1:20 5 NEW FABRIC ENTRANCE CANOPY (BID ALTERNATE) 6 NEW EQUIPMENT SCREEN WITH ACCESS GATE 7 NEW LANDSCAPING: BUXUS SINICA VAR. INSULARIS 'WINTERGREEN' (WINTERGREEN BOXWOOD) 24", TYP. 8 MULCH BED, EXTEND TO MEET NEW CONCRETE SIDEWALK/RAMP. 9 FENCED AREA BETWEEN EQUIPMENT PADS TO HAVE GRAVEL. 10 NEW ACCESSIBLE RAMP WITH 4" CONCRETE OVER 6" COMPACTED STONE BASE.SEE DETAIL FOR MAXIMUM SLOPE. 330.434.4464 www.hasenstabinc.com 10 NEW ACCESSIBLE RAMP WITH 6" CONCRETE OVER 6" COMPACTED STONE BASE.SEE DETAIL FOR MAXIMUM SLOPE. 1 RELOCATED CONCRETE BUMPER. 12 NEW ACCESSIBLE PARKING SYMBOL. 13 NEW TRANSVERSE STRIPING. 14 PATCH AND REPAIR BOTTOM OF CONCRETE COLUMN AS NEEDED.



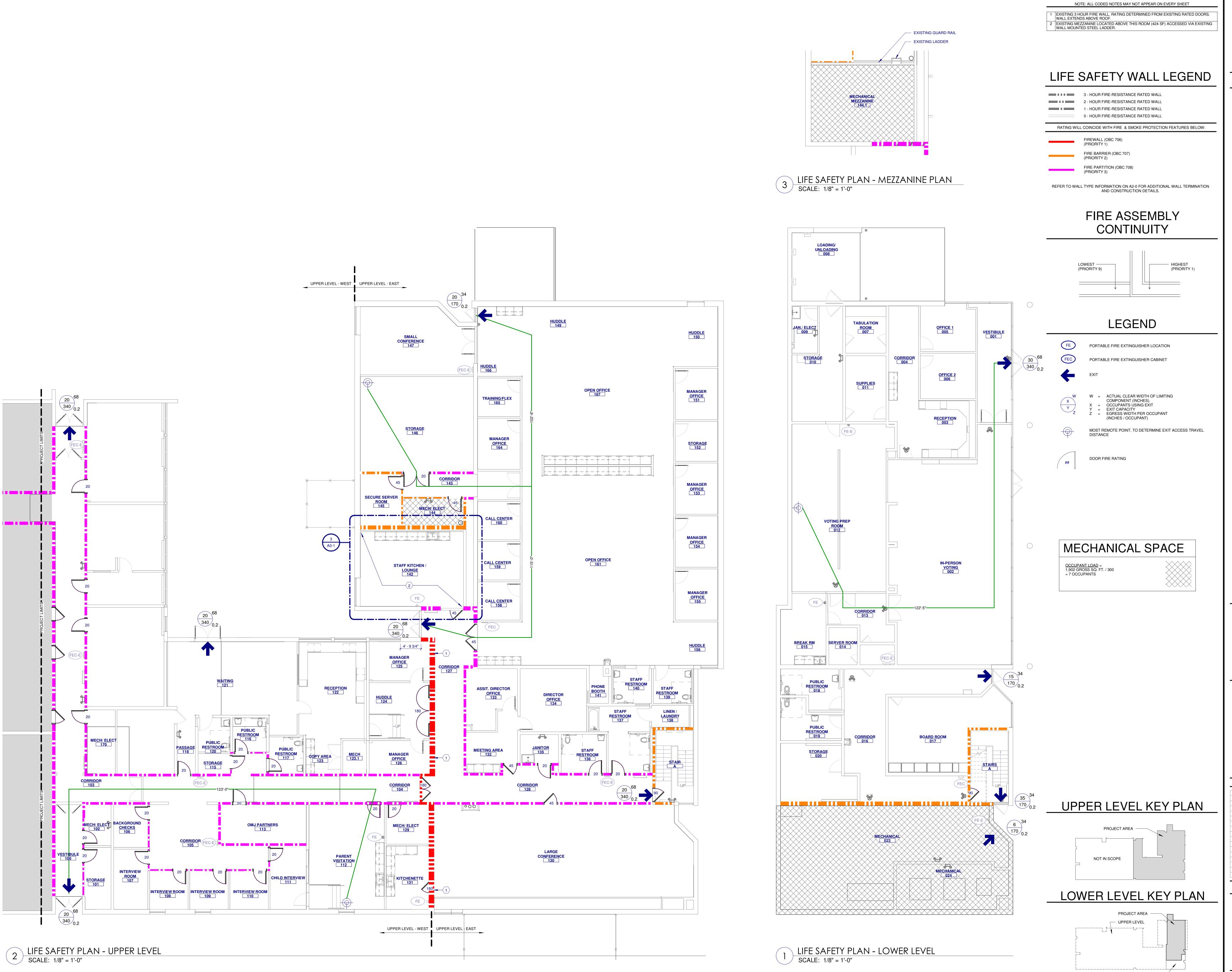


PROJECT NO.

ARCHITECTURAL SITE PLAN



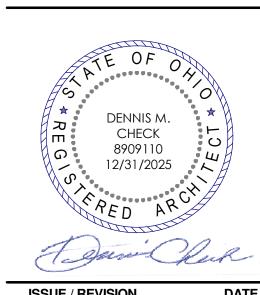
NOT IN SCOPE





**CODED NOTES** 

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ISSUE / REVISION BIDDING AND PLAN REVIEW PROJECT NO.

LIFE SAFETY PLANS

NOT IN SCOPE

**IN-PERSON** 

**TABULATION** 

UNLOADING 008

DEMOLITION PLAN - LOWER LEVEL

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

NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET

1 REMOVE DOOR AND FRAME.

2 REMOVE MILLWORK AND SINK. 3 REMOVE WATER COOLER AND PREPARE FOR NEW FIXTURE. 4 REMOVE WALL AS NOTED AND PREPARE FOR NEW DOOR.

5 REMOVE WALL AS NOTED. 6 REMOVE TOILETS/URINALS. 7 REMOVE SHOWER FIXTURES.

8 REMOVE TUB. 9 REMOVE RESTROOM PARTITIONS. 10 REMOVE MOP BASIN. 11 REMOVE WALL AS NOTED AND PREPARE FOR NEW WINDOW. COORDINATE OPENING WITH NEW WINDOW.

12 REMOVE SHOWER THRESHOLD 13 REMOVE WINDOW. 14 REMOVE WALL MOUNTED SINK. 15 REMOVE HOLLOW METAL WINDOW AND DOOR. PREP WALL FOR NEW WINDOW AND

16 REMOVE CEILING AND LIGHT FIXTURES IN THIS ROOM.

17 REMOVE LIGHT FIXTURES IN THIS ROOM. 18 REMOVE SOFFIT. 19 REMOVE PORTION OF EXISTING WALL FOR NEW KEY DROP. COORDINATE OPENING SIZE AND LOCATION WITH EQUIPMENT.

20 REMOVE FIRE EXTINGUISHER CABINET. PATCH WALL AS NEEDED. 21 REMOVE EXISTING LIGHT FIXTURES AND PREPARE FOR NEW. 22 REMOVE SOFFIT AND PREP FOR NEW WORK. 23 TEMPORARY PARTITION.

24 REMOVE EXISTING CURTAINS AND BLINDS FROM WINDOWS. 25 WOOD FLOORING TO REMAIN. 26 REMOVE DOOR PANEL, DOOR FRAME TO REMAIN FOR NEW DOOR. 27 REMOVE EXISTING WATER COOLER AND CAP PLUMBING LINES. 28 PREPARE EXISTING DOOR FRAME FOR NEW DOOR. 29 REMOVE METAL GRATE FLOOR AND PREP FOR INFILL.

31 REMOVE LADDER. 32 REMOVE GYM EQUIPMENT. 33 REMOVE EXISTING ACCESSORIES. 34 REMOVE LIGHT FIXTURE.

SPECIFICATIONS.

30 REMOVE EXISTING COAT RACK.

35 REMOVE EXISTING SPEAKER. 36 EXISTING MECHANICAL UNIT TO BE REMOVED, SEE MECHANICAL. 37 EXISTING WATER HEATER TO BE REMOVED, SEE PLUMBING.

38 REMOVE TILE FLOORING AND PREPARE FOR NEW FLOORING PER SPECIFICATIONS. 39 EXISTING AC UNIT TO BE REMOVED. LITE IN WINDOW TO BE REPAIRED. 40 EXISTING UNIT VENTILATOR TO REMAIN IN BASE BID. UNDER ALTERNATE 1 - EXISTING UNIT TO BE REMOVED, SEE MECHANICAL DRAWINGS. 41 REMOVE EXTERIOR WOOD FRAMED WALL. CONCRETE RETAINING WALL TO REMAIN.

42 REMOVE EXTERIOR WALL, DOOR, AND WINDOWS. 43 REMOVE ROOF STRUCTURE IN ITS ENTIRETY. 44 REMOVE TEMPORARY INFILL FROM A/C UNIT. LITE IN WINDOW TO BE REPAIRED. 45 EXISTING WINDOW TO BE REMOVED AND PREPARE OPENING FOR NEW WINDOW. 46 REMOVE CARPET FLOORING AND PREPARE FOR NEW FLOORING PER

47 REMOVE DOOR FRAME. 48 DOOR FRAME TO REMAIN, PREPARE FOR NEW DOOR.

# GENERAL NOTES

- 1. MAINTAIN BUILDING IN WEATHERTIGHT CONDITION AT ALL TIMES.
- 2. NOTIFY ARCHITECT PRIOR TO DEMOLITION IF ITEM INDICATED TO BE REMOVED IS SUSPECTED AS STRUCTURAL ELEMENT.
- 3. ALL STRUCTURAL MEMBERS ARE TO REMAIN AND BE PROTECTED UNLESS OTHERWISE NOTED. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO ADJACENT AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE INCURRED.

5. TEMPORARY PARTITIONS ARE TO BE ERECTED PRIOR TO COMMENCEMENT OF DEMOLITION WORK AND ARE TO REMAIN IN PLACE UNTIL WORK IS

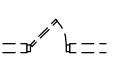
- COMPLETED, UNO. REFER TO PROJECT MANUAL FOR REQUIREMENTS.
- MINIMIZE DISRUPTION OF NORMAL DAILY ACTIVITIES IN THE PROJECT AREA. 7. ALL DEMOLISHED ITEMS ARE TO REMAIN THE PROPERTY OF THE OWNER AT THEIR DISCRETION. ALL ITEMS NOT RETAINED BY THE OWNER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. IN ADDITION, SEE CODED NOTES FOR ITEMS TO BE REMOVED AND TURNED OVER TO THE OWNER.

6. ALL DEMOLITION ACTIVITIES SHALL BE COORDINATED WITH THE OWNER TO

- 8. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS FOR REQUIRED DEMOLITION AND RELATED WORK.
- 9. RESUPPORT EXISTING CONDUIT, PIPING AND EQUIPMENT TO REMAIN AS REQUIRED DUE TO DEMOLITION. 10. WALLS ARE GYPSUM BOARD ON METAL STUDS UNLESS NOTED OTHERWISE. REMOVE ENTIRE WALL TO UNDERSIDE OF DECK UNLESS
- NOTED OTHERWISE. 11. REMOVE FLOORING AND BASE WHERE NEW FINISHES ARE INDICATED AND AS NOTED UNLESS PREVIOUSLY REMOVED UNDER ASBESTOS ABATEMENT. PATCH AND REPAIR SUBSTRATES FOR NEW FINISHES. FLOORING/BASE TO
- BE REMOVED IS VCT WITH RESILIENT BASE UNLESS NOTED OTHERWISE. 12. REMOVE CEILING WHERE NEW CEILINGS ARE INDICATED AND AS NOTED. REMOVE ALL UNUSED AND ABANDONED FASTENERS, SUPPORTS. BRACKETS, HANGERS, ETC., ABOVE THE CEILING. PATCH AND REPAIR WALL SURFACES FOR NEW CEILING INSTALLATION. CEILING TO BE REMOVED IS ACOUSTICAL PANEL CEILING UNLESS NOTED OTHERWISE.
- 13. IN DEMOLITION AREAS, REMOVE ALL MISCELLANEOUS ITEMS ON WALLS INCLUDING TACKBOARDS, TOILET ACCESSORIES, CORNER GUARDS AND OTHER WALL MOUNTED ITEMS, UNLESS NOTED OTHERWISE.
- 14. PATCH ALL EXISTING ADJACENT INTERIOR FINISHES TO REMAIN AS UNDISTURBED BY THE DEMOLITION TO MATCH ADJACENT SURFACES.
- 15. FILL AND LEVEL ALL HOLES IN FLOORS AND WALLS AFTER REMOVAL OF PIPES, DUCTS, CONDUIT AND OTHER PENETRATING ITEMS. MAINTAIN REQUIRED FIRE RATINGS.
- 16. WHERE CHALKBOARDS WERE REMOVED IN PART OF ABATEMENT, PREP WALL WITH BLOCK FILLER AND PREPARE FOR PAINT TO MATCH ADJACENT

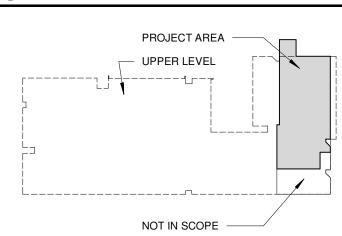
LEGEND

# 17. REMOVE WALLPAPER ON ALL WALLS TO REMAIN.



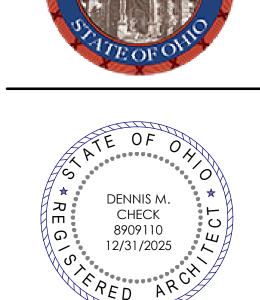
WALL OR ITEM TO BE REMOVED ALL DASHED ITEMS ARE TO BE REMOVED

# LOWER LEVEL KEY PLAN





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Legan Kuk						
ISSUE / REVISION	DAT					
BIDDING AND PLAN REVIEW	10/15/2					

DEMOLITION PLAN -LOWER LEVEL

PROJECT NO.

DEMOLITION PLAN - UPPER LEVEL SCALE: 1/8" = 1'-0"

# CODED NOTES

NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET

REMOVE DOOR AND FRAME.
 REMOVE MILLWORK AND SINK.
 REMOVE WATER COOLER AND PREPARE FOR NEW FIXTURE.
 REMOVE WALL AS NOTED AND PREPARE FOR NEW DOOR.

4 REMOVE WALL AS NOTED AND PREPARE FOR N
5 REMOVE WALL AS NOTED.
6 REMOVE TOILETS/URINALS.
7 REMOVE SHOWER FIXTURES.

REMOVE TUB.

 REMOVE RESTROOM PARTITIONS.

 REMOVE MOP BASIN

9 REMOVE RESTROOM PARTITIONS.
10 REMOVE MOP BASIN.
11 REMOVE WALL AS NOTED AND PREPARE FOR NEW WINDOW. COORDINATE OPENING WITH NEW WINDOW.
12 REMOVE SHOWER THRESHOLD.
13 REMOVE WINDOW.

14 REMOVE WALL MOUNTED SINK.
15 REMOVE HOLLOW METAL WINDOW AND DOOR. PREP WALL FOR NEW WINDOW AND DOOR.
16 REMOVE CEILING AND LIGHT FIXTURES IN THIS ROOM.
17 REMOVE LIGHT FIXTURES IN THIS ROOM.

18 REMOVE SOFFIT.
19 REMOVE PORTION OF EXISTING WALL FOR NEW KEY DROP. COORDINATE OPENING SIZE AND LOCATION WITH EQUIPMENT.
20 REMOVE FIRE EXTINGUISHER CABINET. PATCH WALL AS NEEDED.
21 REMOVE EXISTING LIGHT FIXTURES AND PREPARE FOR NEW.

22 REMOVE SOFFIT AND PREP FOR NEW WORK.
23 TEMPORARY PARTITION.
24 REMOVE EXISTING CURTAINS AND BLINDS FROM WINDOWS.
25 WOOD FLOORING TO REMAIN.
26 REMOVE DOOR PANEL, DOOR FRAME TO REMAIN FOR NEW DOOR.

27 REMOVE EXISTING WATER COOLER AND CAP PLUMBING LINES.

28 PREPARE EXISTING DOOR FRAME FOR NEW DOOR.
29 REMOVE METAL GRATE FLOOR AND PREP FOR INFILL.
30 REMOVE EXISTING COAT RACK.
31 REMOVE LADDER.

32 REMOVE GYM EQUIPMENT.33 REMOVE EXISTING ACCESSORIES.34 REMOVE LIGHT FIXTURE.

35 REMOVE EXISTING SPEAKER.
36 EXISTING MECHANICAL UNIT TO BE REMOVED, SEE MECHANICAL.
37 EXISTING WATER HEATER TO BE REMOVED, SEE PLUMBING.

38 REMOVE TILE FLOORING AND PREPARE FOR NEW FLOORING PER SPECIFICATIONS.
39 EXISTING AC UNIT TO BE REMOVED. LITE IN WINDOW TO BE REPAIRED.
40 EXISTING UNIT VENTILATOR TO REMAIN IN BASE BID. UNDER ALTERNATE 1 - EXISTING UNIT TO BE REMOVED, SEE MECHANICAL DRAWINGS.
41 REMOVE EXTERIOR WOOD FRAMED WALL. CONCRETE RETAINING WALL TO REMAIN.

42 REMOVE EXTERIOR WALL, DOOR, AND WINDOWS.
43 REMOVE ROOF STRUCTURE IN ITS ENTIRETY.
44 REMOVE TEMPORARY INFILL FROM A/C UNIT. LITE IN WINDOW TO BE REPAIRED.
45 EXISTING WINDOW TO BE REMOVED AND PREPARE OPENING FOR NEW WINDOW.
46 REMOVE CARPET FLOORING AND PREPARE FOR NEW FLOORING PER

SPECIFICATIONS.

47 REMOVE DOOR FRAME.

48 DOOR FRAME TO REMAIN, PREPARE FOR NEW DOOR.

# **GENERAL NOTES**

- MAINTAIN BUILDING IN WEATHERTIGHT CONDITION AT ALL TIMES.
- 2. NOTIFY ARCHITECT PRIOR TO DEMOLITION IF ITEM INDICATED TO BE REMOVED IS SUSPECTED AS STRUCTURAL ELEMENT.
- 3. ALL STRUCTURAL MEMBERS ARE TO REMAIN AND BE PROTECTED UNLESS OTHERWISE NOTED.4. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO ADJACENT

AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE INCURRED.

5. TEMPORARY PARTITIONS ARE TO BE ERECTED PRIOR TO COMMENCEMENT OF DEMOLITION WORK AND ARE TO REMAIN IN PLACE UNTIL WORK IS

COMPLETED, UNO. REFER TO PROJECT MANUAL FOR REQUIREMENTS.

MINIMIZE DISRUPTION OF NORMAL DAILY ACTIVITIES IN THE PROJECT AREA.
ALL DEMOLISHED ITEMS ARE TO REMAIN THE PROPERTY OF THE OWNER AT THEIR DISCRETION. ALL ITEMS NOT RETAINED BY THE OWNER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. IN ADDITION, SEE CODED NOTES FOR ITEMS TO BE REMOVED AND TURNED OVER TO THE OWNER.

6. ALL DEMOLITION ACTIVITIES SHALL BE COORDINATED WITH THE OWNER TO

8. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS FOR REQUIRED DEMOLITION AND RELATED WORK.

9. RESUPPORT EXISTING CONDUIT, PIPING AND EQUIPMENT TO REMAIN AS REQUIRED DUE TO DEMOLITION.

10. WALLS ARE GYPSUM BOARD ON METAL STUDS UNLESS NOTED OTHERWISE. REMOVE ENTIRE WALL TO UNDERSIDE OF DECK UNLESS NOTED OTHERWISE.

REMOVE FLOORING AND BASE WHERE NEW FINISHES ARE INDICATED AND AS NOTED UNLESS PREVIOUSLY REMOVED UNDER ASBESTOS ABATEMENT. PATCH AND REPAIR SUBSTRATES FOR NEW FINISHES. FLOORING/BASE TO BE REMOVED IS VCT WITH RESILIENT BASE UNLESS NOTED OTHERWISE.
 REMOVE CEILING WHERE NEW CEILINGS ARE INDICATED AND AS NOTED. REMOVE ALL UNUSED AND ABANDONED FASTENERS, SUPPORTS,

BRACKETS, HANGERS, ETC., ABOVE THE CEILING. PATCH AND REPAIR WALL

SURFACES FOR NEW CEILING INSTALLATION. CEILING TO BE REMOVED IS ACOUSTICAL PANEL CEILING UNLESS NOTED OTHERWISE.

13. IN DEMOLITION AREAS, REMOVE ALL MISCELLANEOUS ITEMS ON WALLS INCLUDING TACKBOARDS, TOILET ACCESSORIES, CORNER GUARDS AND

14. PATCH ALL EXISTING ADJACENT INTERIOR FINISHES TO REMAIN AS UNDISTURBED BY THE DEMOLITION TO MATCH ADJACENT SURFACES.

OTHER WALL MOUNTED ITEMS, UNLESS NOTED OTHERWISE.

15. FILL AND LEVEL ALL HOLES IN FLOORS AND WALLS AFTER REMOVAL OF PIPES, DUCTS, CONDUIT AND OTHER PENETRATING ITEMS. MAINTAIN REQUIRED FIRE RATINGS.

16. WHERE CHALKBOARDS WERE REMOVED IN PART OF ABATEMENT, PREP WALL WITH BLOCK FILLER AND PREPARE FOR PAINT TO MATCH ADJACENT SURFACES.

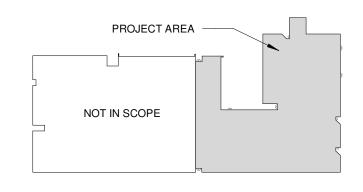
17. REMOVE WALLPAPER ON ALL WALLS TO REMAIN.

# LEGEND



WALL OR ITEM TO BE REMOVED ALL DASHED ITEMS ARE TO BE REMOVED

# UPPER LEVEL KEY PLAN





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FICE RENOVATION

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BIDDING AND PLAN REVIEW	10/15/
PROJECT NO.	24013.

DEMOLITION PLAN -UPPER LEVEL

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NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET

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1 REMOVE DOOR AND FRAME. 2 REMOVE MILLWORK AND SINK.

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47 REMOVE DOOR FRAME. 48 DOOR FRAME TO REMAIN, PREPARE FOR NEW DOOR.

# GENERAL NOTES

- 1. MAINTAIN BUILDING IN WEATHERTIGHT CONDITION AT ALL TIMES.
- 2. NOTIFY ARCHITECT PRIOR TO DEMOLITION IF ITEM INDICATED TO BE REMOVED IS SUSPECTED AS STRUCTURAL ELEMENT.
- 3. ALL STRUCTURAL MEMBERS ARE TO REMAIN AND BE PROTECTED UNLESS OTHERWISE NOTED. 4. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO ADJACENT AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE INCURRED.

5. TEMPORARY PARTITIONS ARE TO BE ERECTED PRIOR TO COMMENCEMENT OF DEMOLITION WORK AND ARE TO REMAIN IN PLACE UNTIL WORK IS

- COMPLETED, UNO. REFER TO PROJECT MANUAL FOR REQUIREMENTS. 6. ALL DEMOLITION ACTIVITIES SHALL BE COORDINATED WITH THE OWNER TO
- MINIMIZE DISRUPTION OF NORMAL DAILY ACTIVITIES IN THE PROJECT AREA. 7. ALL DEMOLISHED ITEMS ARE TO REMAIN THE PROPERTY OF THE OWNER AT THEIR DISCRETION. ALL ITEMS NOT RETAINED BY THE OWNER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. IN ADDITION, SEE CODED NOTES FOR ITEMS TO BE REMOVED AND TURNED OVER TO THE OWNER.
- 8. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS FOR REQUIRED DEMOLITION AND RELATED WORK.
- 9. RESUPPORT EXISTING CONDUIT, PIPING AND EQUIPMENT TO REMAIN AS REQUIRED DUE TO DEMOLITION. 10. WALLS ARE GYPSUM BOARD ON METAL STUDS UNLESS NOTED OTHERWISE. REMOVE ENTIRE WALL TO UNDERSIDE OF DECK UNLESS
- 11. REMOVE FLOORING AND BASE WHERE NEW FINISHES ARE INDICATED AND AS NOTED UNLESS PREVIOUSLY REMOVED UNDER ASBESTOS ABATEMENT. PATCH AND REPAIR SUBSTRATES FOR NEW FINISHES. FLOORING/BASE TO BE REMOVED IS VCT WITH RESILIENT BASE UNLESS NOTED OTHERWISE. 12. REMOVE CEILING WHERE NEW CEILINGS ARE INDICATED AND AS NOTED.

REMOVE ALL UNUSED AND ABANDONED FASTENERS, SUPPORTS.

BRACKETS, HANGERS, ETC., ABOVE THE CEILING. PATCH AND REPAIR WALL

SURFACES FOR NEW CEILING INSTALLATION. CEILING TO BE REMOVED IS ACOUSTICAL PANEL CEILING UNLESS NOTED OTHERWISE. 13. IN DEMOLITION AREAS, REMOVE ALL MISCELLANEOUS ITEMS ON WALLS INCLUDING TACKBOARDS, TOILET ACCESSORIES, CORNER GUARDS AND

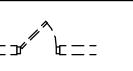
OTHER WALL MOUNTED ITEMS, UNLESS NOTED OTHERWISE.

- 14. PATCH ALL EXISTING ADJACENT INTERIOR FINISHES TO REMAIN AS
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- 16. WHERE CHALKBOARDS WERE REMOVED IN PART OF ABATEMENT, PREP WALL WITH BLOCK FILLER AND PREPARE FOR PAINT TO MATCH ADJACENT

PIPES, DUCTS, CONDUIT AND OTHER PENETRATING ITEMS. MAINTAIN

17. REMOVE WALLPAPER ON ALL WALLS TO REMAIN.

# LEGEND

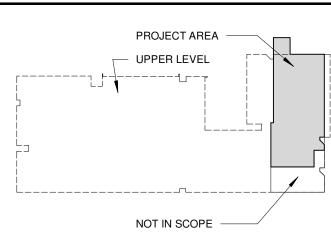


REQUIRED FIRE RATINGS.

NOTED OTHERWISE.

WALL OR ITEM TO BE REMOVED ALL DASHED ITEMS ARE TO BE REMOVED

# LOWER LEVEL KEY PLAN



PROJECT NO.

BIDDING AND PLAN REVIEW

CHECK

DEMOLITION CEILING PLAN -LOWER LEVEL

# DEMOLITION CEILING PLAN - UPPER LEVEL SCALE: 1/8" = 1'-0"

# **CODED NOTES**

NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET

1 REMOVE DOOR AND FRAME. 2 REMOVE MILLWORK AND SINK. 3 REMOVE WATER COOLER AND PREPARE FOR NEW FIXTURE. 4 REMOVE WALL AS NOTED AND PREPARE FOR NEW DOOR.

5 REMOVE WALL AS NOTED. 6 REMOVE TOILETS/URINALS.

7 REMOVE SHOWER FIXTURES. 8 REMOVE TUB.

9 REMOVE RESTROOM PARTITIONS. 10 REMOVE MOP BASIN. 11 REMOVE WALL AS NOTED AND PREPARE FOR NEW WINDOW. COORDINATE OPENING WITH NEW WINDOW. 12 REMOVE SHOWER THRESHOLD

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27 REMOVE EXISTING WATER COOLER AND CAP PLUMBING LINES. 28 PREPARE EXISTING DOOR FRAME FOR NEW DOOR. 29 REMOVE METAL GRATE FLOOR AND PREP FOR INFILL. 30 REMOVE EXISTING COAT RACK. 31 REMOVE LADDER.

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SPECIFICATIONS. 47 REMOVE DOOR FRAME.

48 DOOR FRAME TO REMAIN, PREPARE FOR NEW DOOR.

# GENERAL NOTES

- 1. MAINTAIN BUILDING IN WEATHERTIGHT CONDITION AT ALL TIMES.
- 2. NOTIFY ARCHITECT PRIOR TO DEMOLITION IF ITEM INDICATED TO BE REMOVED IS SUSPECTED AS STRUCTURAL ELEMENT. 3. ALL STRUCTURAL MEMBERS ARE TO REMAIN AND BE PROTECTED UNLESS
- OTHERWISE NOTED. 4. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO ADJACENT AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE

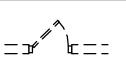
5. TEMPORARY PARTITIONS ARE TO BE ERECTED PRIOR TO COMMENCEMENT OF DEMOLITION WORK AND ARE TO REMAIN IN PLACE UNTIL WORK IS

- COMPLETED, UNO. REFER TO PROJECT MANUAL FOR REQUIREMENTS.
- MINIMIZE DISRUPTION OF NORMAL DAILY ACTIVITIES IN THE PROJECT AREA. 7. ALL DEMOLISHED ITEMS ARE TO REMAIN THE PROPERTY OF THE OWNER AT THEIR DISCRETION. ALL ITEMS NOT RETAINED BY THE OWNER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. IN ADDITION, SEE CODED NOTES FOR ITEMS TO BE REMOVED AND TURNED OVER TO THE OWNER.

6. ALL DEMOLITION ACTIVITIES SHALL BE COORDINATED WITH THE OWNER TO

- 8. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND STRUCTURAL DRAWINGS FOR REQUIRED DEMOLITION AND RELATED WORK.
- 9. RESUPPORT EXISTING CONDUIT, PIPING AND EQUIPMENT TO REMAIN AS REQUIRED DUE TO DEMOLITION. 10. WALLS ARE GYPSUM BOARD ON METAL STUDS UNLESS NOTED OTHERWISE. REMOVE ENTIRE WALL TO UNDERSIDE OF DECK UNLESS
- 11. REMOVE FLOORING AND BASE WHERE NEW FINISHES ARE INDICATED AND AS NOTED UNLESS PREVIOUSLY REMOVED UNDER ASBESTOS ABATEMENT. PATCH AND REPAIR SUBSTRATES FOR NEW FINISHES. FLOORING/BASE TO BE REMOVED IS VCT WITH RESILIENT BASE UNLESS NOTED OTHERWISE.
- 12. REMOVE CEILING WHERE NEW CEILINGS ARE INDICATED AND AS NOTED. REMOVE ALL UNUSED AND ABANDONED FASTENERS, SUPPORTS, BRACKETS, HANGERS, ETC., ABOVE THE CEILING. PATCH AND REPAIR WALL SURFACES FOR NEW CEILING INSTALLATION. CEILING TO BE REMOVED IS ACOUSTICAL PANEL CEILING UNLESS NOTED OTHERWISE.
- 13. IN DEMOLITION AREAS, REMOVE ALL MISCELLANEOUS ITEMS ON WALLS INCLUDING TACKBOARDS, TOILET ACCESSORIES, CORNER GUARDS AND OTHER WALL MOUNTED ITEMS, UNLESS NOTED OTHERWISE.
- 14. PATCH ALL EXISTING ADJACENT INTERIOR FINISHES TO REMAIN AS UNDISTURBED BY THE DEMOLITION TO MATCH ADJACENT SURFACES.
- 15. FILL AND LEVEL ALL HOLES IN FLOORS AND WALLS AFTER REMOVAL OF PIPES, DUCTS, CONDUIT AND OTHER PENETRATING ITEMS. MAINTAIN REQUIRED FIRE RATINGS.
- 16. WHERE CHALKBOARDS WERE REMOVED IN PART OF ABATEMENT, PREP WALL WITH BLOCK FILLER AND PREPARE FOR PAINT TO MATCH ADJACENT
- 17. REMOVE WALLPAPER ON ALL WALLS TO REMAIN.

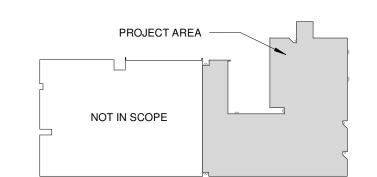
# LEGEND



NOTED OTHERWISE.

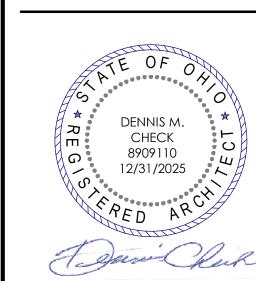
WALL OR ITEM TO BE REMOVED ALL DASHED ITEMS ARE TO BE REMOVED

# UPPER LEVEL KEY PLAN





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ISSUE / REVISION
BIDDING AND PLAN REVIEW

DEMOLITION CEILING PLAN -

**UPPER LEVEL** 

INCLUDE THE AREAS LISTED BELOW IN BASE BID FOR REPLACEMENT OF ROOF INSULATION. INCLUDE STRUCTURAL CEMENTITIOUS WOOD FIBER ROOF PANEL REPLACEMENT FOR AREA A. THE AMOUNTS LISTED ARE ESTIMATES BASED ON INSPECTION OF EXISTING ROOF CONDITIONS. ADDITIONAL AREAS EXCEEDING AREAS LISTED WILL BE COMPENSATED PER UNIT PRICES INDICATED IN BID.

89' - 0 1/2"

A = 6,500 SF B = 2,100 SF C = 1,300 SF D = 1,100 SF E = 750 SF

**TOTALS** 

= 11,750 SF

# GENERAL NOTES

- 1. MAINTAIN BUILDING IN WEATHERTIGHT CONDITION AT ALL TIMES. 2. NOTIFY ARCHITECT PRIOR TO DEMOLITION IF ITEM INDICATED TO BE
- REMOVED IS SUSPECTED AS STRUCTURAL ELEMENT. 3. ALL STRUCTURAL MEMBERS ARE TO REMAIN AND BE PROTECTED UNLESS
- OTHERWISE NOTED. 4. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO ADJACENT
- AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE
- 5. ALL DEMOLITION ACTIVITIES SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION OF NORMAL DAILY ACTIVITIES IN THE PROJECT AREA. 6. ALL DEMOLISHED ITEMS ARE TO REMAIN THE PROPERTY OF THE OWNER AT THEIR DISCRETION. ALL ITEMS NOT RETAINED BY THE OWNER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. IN ADDITION, SEE CODED

NOTES FOR ITEMS TO BE REMOVED AND TURNED OVER TO THE OWNER.

7. RESUPPORT EXISTING CONDUIT, PIPING AND EQUIPMENT TO REMAIN AS REQUIRED DUE TO DEMOLITION. 8. PATCH ALL EXISTING ADJACENT INTERIOR FINISHES TO REMAIN AS

61' - 7 1/2"

UNDISTURBED BY THE DEMOLITION TO MATCH ADJACENT SURFACES. 9. FILL AND LEVEL ALL HOLES AFTER REMOVAL OF PIPES, DUCTS, CONDUIT AND OTHER PENETRATING ITEMS. MAINTAIN REQUIRED FIRE RATINGS.

NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET

1 EXISTING COPING AND BLOCKING TO BE REMOVED AND PREP FOR REPLACEMENT.REMOVE BLOCKING DOWN TO TOP OF MASONRY WALL. REFER TO DETAILS FOR INSTALLATION OF ANCHOR BOLTS IN EXISTING WALL. 2A THIS ROOF AREA IS COMPRISED OF STRUCTURAL CEMENTITIOUS WOOD FIBER ROOF PANELS WITH RIGID INSULATION AND FIBERBOARD INSULATION. ROOF MEMBRANE TO BE REMOVED IN ITS ENTIRETY. EXAMINE ROOF INSULATION FOR WATER DAMAGE, AS WELL AS UNDERSIDE OF ROOF. REMOVE AREAS OF STRUCTURAL CEMENTITIOUS WOOD FIBER ROOF COMPROMISED BY WATER INFILTRATION OR SUFFERING FROM SEVERE DEFLECTION. REPLACE ROOF PANELS AND INSULATION TO MATCH ADJACENT

REFER TO NEW WORK. 2B THIS ROOF AREA IS COMPRISED OF METAL DECK WITH RIGID INSULATION AND FIBERBOARD INSULATION. ROOF MEMBRANE TO BE REMOVED TO EXTENTS INDICATED. EXAMINE ROOF INSULATION FOR WATER DAMAGE. REMOVE AND REPLACE INSULATION IF COMPROMISED BY WATER INFILTRATION ONLY WHERE ROOF INSULATION EXPOSED AS PART OF REPAIR. REFER TO NEW WORK. 2C ALTERNATE: THIS ROOF AREA IS COMPRISED OF METAL DECK WITH RIGID INSULATION AND FIBERBOARD INSULATION. ROOF MEMBRANE TO BE REMOVED IN ITS ENTIRETY. EXAMINE ROOF INSULATION FOR WATER DAMAGE, REMOVE AND REPLACE

3 EXISTING LIGHTINING PROTECTION TO BE REMOVED, PATCH ROOF AS NEEDED. 4 PORTION OF EXISTING ROOFING TO BE REMOVED AND REPLACED. REFER TO DETAILS.
6 EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. EXTEND NEW ROOF ONTO CURB PER DETAILS AND PROVIDE TEMPORARY CAP FOR INSTALLATION OF NEW MECHANICAL EQUIPMENT IN NEXT PHASE. 7 EXISTING MECHANICAL EQUIPMENT TO BE REMOVED, REPARE ROOF AS NEEDED.

8 EXISTING COPING AND BLOCKING REMOVED AS PART OF BASE BID. 9 THIS ROOF AREA REPLACED IN BASE BID WORK. 10 EXISTING MECHANICAL EQUIPMENT TO REMAIN.

INSULATION IF COMPROMISED BY WATER INFILTRATION. REFER TO NEW WORK.

11 EXISTING ROOF HATCH TO REMAIN. 12 EXISTING ROOF HATCH TO BE REMOVED AND PREPARE FOR NEW ROOF HATCH. 13 EXISTING SANITARY STACK VENT TO REMAIN. 14 REMOVE EXISTING ROOF DRAIN AND MAINTAIN PIPING FOR NEW ROOF DRAIN. 16 EXISTING ROOF DRAIN TO REMAIN.

18 ROOF DRAIN REPLACED UNDER BASE BID.

17 MECHANICAL EQUIPMENT REPLACED AS PART OF INTERIOR PROJECT BASE BID.

198' - 4" 58' - 6" 41' - 6" **AREA E** COURTYARD OPEN COURTYARD

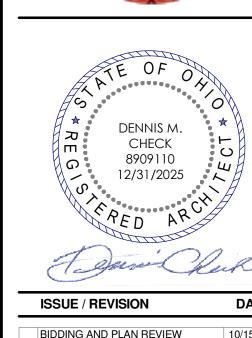
DEMOLITION ROOF PLAN
SCALE: 3/32" = 1'-0"

169' - 8"

ROOF KEY PLAN REPAIR AREA "D" REPAIR AREA "E" ----REPLACE AREA "A" — REPAIR AREA "B" REPAIR AREA "C" ——

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BIDDING AND PLAN REVIEW

PROJECT NO.

DEMOLITION PLAN -ROOF PLAN - BASE BID

# **ROOF INSULATION REPLACEMENT**

INCLUDE THE AREAS LISTED BELOW IN BASE BID FOR REPLACEMENT OF ROOF INSULATION. INCLUDE STRUCTURAL CEMENTITIOUS WOOD FIBER ROOF PANEL REPLACEMENT FOR AREA A. THE AMOUNTS LISTED ARE ESTIMATES BASED ON INSPECTION OF EXISTING ROOF CONDITIONS. ADDITIONAL AREAS EXCEEDING AREAS LISTED WILL BE COMPENSATED PER UNIT PRICES INDICATED IN BID.

A = INCLUDED IN BASE BID

B = 3,800 SF C = 1,700 SF D = 2,200 SF

E = 1,217 SF

**TOTALS** = 8,917 SF

# **GENERAL NOTES**

- 1. MAINTAIN BUILDING IN WEATHERTIGHT CONDITION AT ALL TIMES. 2. NOTIFY ARCHITECT PRIOR TO DEMOLITION IF ITEM INDICATED TO BE
- REMOVED IS SUSPECTED AS STRUCTURAL ELEMENT. 3. ALL STRUCTURAL MEMBERS ARE TO REMAIN AND BE PROTECTED UNLESS
- OTHERWISE NOTED.
- 4. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO ADJACENT AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE
- 5. ALL DEMOLITION ACTIVITIES SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION OF NORMAL DAILY ACTIVITIES IN THE PROJECT AREA.
- 6. ALL DEMOLISHED ITEMS ARE TO REMAIN THE PROPERTY OF THE OWNER AT THEIR DISCRETION. ALL ITEMS NOT RETAINED BY THE OWNER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. IN ADDITION, SEE CODED NOTES FOR ITEMS TO BE REMOVED AND TURNED OVER TO THE OWNER. 7. RESUPPORT EXISTING CONDUIT, PIPING AND EQUIPMENT TO REMAIN AS REQUIRED DUE TO DEMOLITION.
- 8. PATCH ALL EXISTING ADJACENT INTERIOR FINISHES TO REMAIN AS UNDISTURBED BY THE DEMOLITION TO MATCH ADJACENT SURFACES.
- 9. FILL AND LEVEL ALL HOLES AFTER REMOVAL OF PIPES, DUCTS, CONDUIT AND OTHER PENETRATING ITEMS. MAINTAIN REQUIRED FIRE RATINGS.

INDICATED. EXAMINE ROOF INSULATION FOR WATER DAMAGE. REMOVE AND REPLACE

2C ALTERNATE: THIS ROOF AREA IS COMPRISED OF METAL DECK WITH RIGID INSULATION

AND FIBERBOARD INSULATION. ROOF MEMBRANE TO BE REMOVED IN ITS ENTIRETY.

4 PORTION OF EXISTING ROOFING TO BE REMOVED AND REPLACED. REFER TO DETAILS.
6 EXISTING MECHANICAL EQUIPMENT TO BE REMOVED. EXTEND NEW ROOF ONTO CURB

7 EXISTING MECHANICAL EQUIPMENT TO BE REMOVED, REPARE ROOF AS NEEDED.

12 EXISTING ROOF HATCH TO BE REMOVED AND PREPARE FOR NEW ROOF HATCH.

14 REMOVE EXISTING ROOF DRAIN AND MAINTAIN PIPING FOR NEW ROOF DRAIN.

17 MECHANICAL EQUIPMENT REPLACED AS PART OF INTERIOR PROJECT BASE BID.

INSULATION IF COMPROMISED BY WATER INFILTRATION ONLY WHERE ROOF

EXAMINE ROOF INSULATION FOR WATER DAMAGE, REMOVE AND REPLACE INSULATION IF COMPROMISED BY WATER INFILTRATION. REFER TO NEW WORK.

PER DETAILS AND PROVIDE TEMPORARY CAP FOR INSTALLATION OF NEW

8 EXISTING COPING AND BLOCKING REMOVED AS PART OF BASE BID.

MECHANICAL EQUIPMENT IN NEXT PHASE.

9 THIS ROOF AREA REPLACED IN BASE BID WORK. 10 EXISTING MECHANICAL EQUIPMENT TO REMAIN.

13 EXISTING SANITARY STACK VENT TO REMAIN.

18 ROOF DRAIN REPLACED UNDER BASE BID.

11 EXISTING ROOF HATCH TO REMAIN.

16 EXISTING ROOF DRAIN TO REMAIN.

3 EXISTING LIGHTINING PROTECTION TO BE REMOVED, PATCH ROOF AS NEEDED.

INSULATION EXPOSED AS PART OF REPAIR. REFER TO NEW WORK.

NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET

1 EXISTING COPING AND BLOCKING TO BE REMOVED AND PREP FOR

REFER TO NEW WORK.

DETAILS FOR INSTALLATION OF ANCHOR BOLTS IN EXISTING WALL.

REPLACEMENT.REMOVE BLOCKING DOWN TO TOP OF MASONRY WALL. REFER TO 2A THIS ROOF AREA IS COMPRISED OF STRUCTURAL CEMENTITIOUS WOOD FIBER ROOF PANELS WITH RIGID INSULATION AND FIBERBOARD INSULATION. ROOF MEMBRANE TO BE REMOVED IN ITS ENTIRETY. EXAMINE ROOF INSULATION FOR WATER DAMAGE, AS WELL AS UNDERSIDE OF ROOF. REMOVE AREAS OF STRUCTURAL CEMENTITIOUS WOOD FIBER ROOF COMPROMISED BY WATER INFILTRATION OR SUFFERING FROM SEVERE DEFLECTION. REPLACE ROOF PANELS AND INSULATION TO MATCH ADJACENT 2B THIS ROOF AREA IS COMPRISED OF METAL DECK WITH RIGID INSULATION AND FIBERBOARD INSULATION. ROOF MEMBRANE TO BE REMOVED TO EXTENTS

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198' - 4" 41' - 6" 58' - 6" <u>AREA E</u> AREA A OPEN **OPEN COURTYARD** AREA B 61' - 7 1/2" 169' - 8" 89' - 0 1/2"

**ROOF KEY PLAN** 

BID ALTERNATE REPLACE AREA "D" BID ALTERNATE REPLACE AREA "E" - BID ALTERNATE REPLACE AREA "B" BID ALTERNATE REPLACE AREA "C" ——/

DEMOLITION PLAN -**ROOF PLAN - BID** ALTERNATE

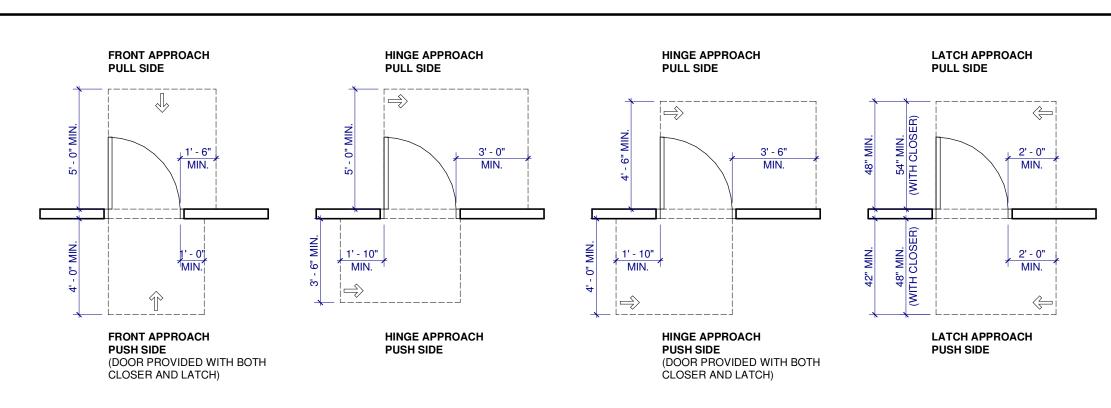
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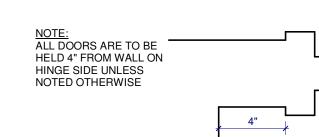
PROJECT NO.

BIDDING AND PLAN REVIEW

DEMOLITION ROOF PLAN - BID ALTERNATE
SCALE: 3/32" = 1'-0"

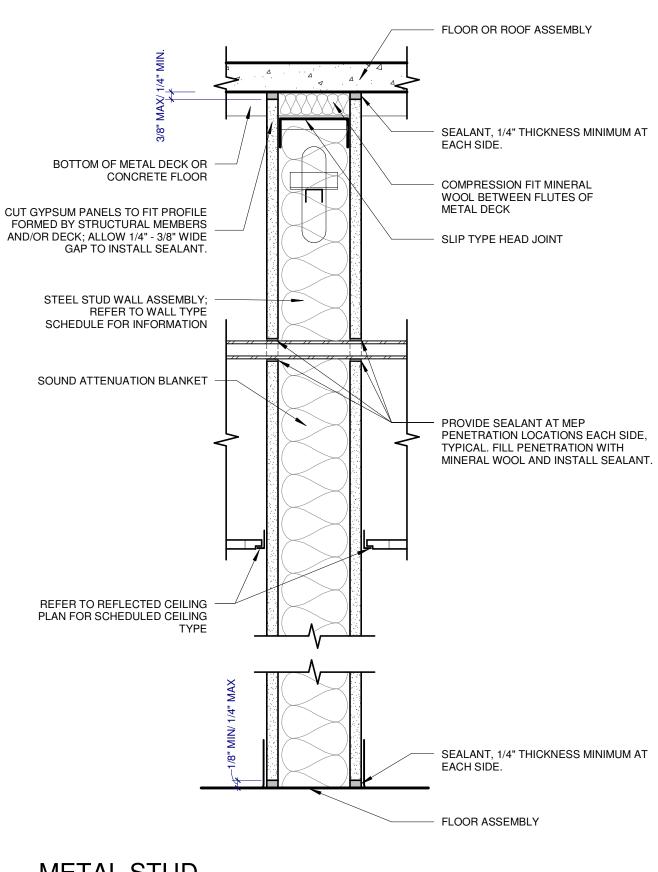
# DOOR APPROACH CLEARANCES



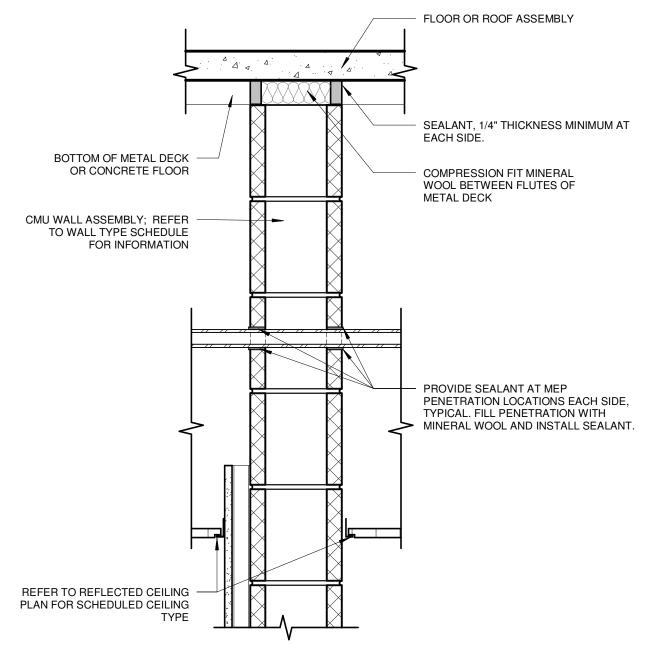


TYPICAL JAMB DETAIL

# TYPICAL FULL HEIGHT INTERIOR PARTITION DETAILS

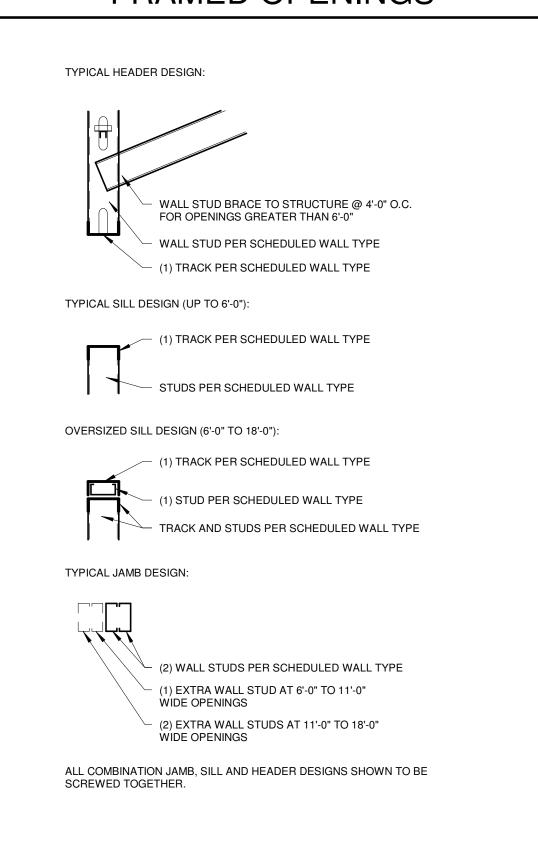


METAL STUD



CONCRETE MASONRY UNIT (CMU) NOT TO SCALE

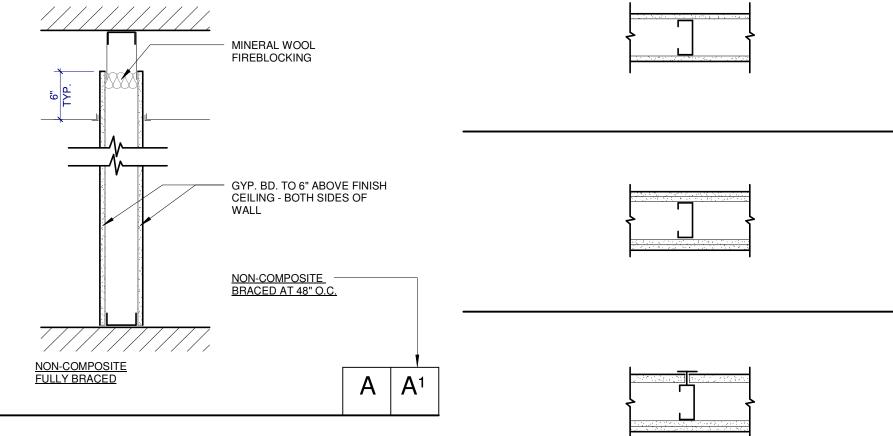
# INTERIOR STEEL STUD AT FRAMED OPENINGS

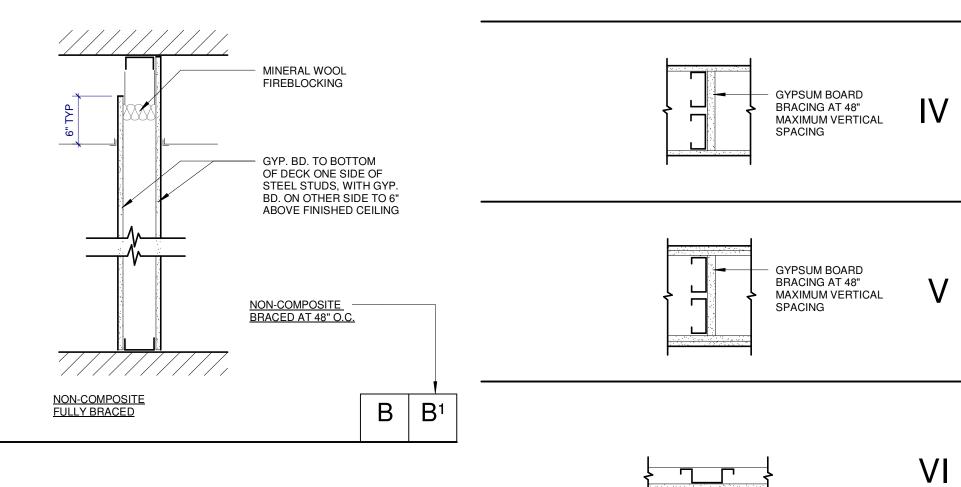


STEEL FRAMED INTERIOR PARTITION SCHEDULE										
			GYPSUM BOARD		STUD TYPES			FIRE RATING		
		PLAN			LAYERS / KNESS			TOTAL	HOUR	
WALL TYPE	SPECIAL CONSTRUCTION	DETAIL	TYPE	SIDE 1	SIDE 2	DEPTH	SHAPE	WIDTH	RATING	ASSEMBLY NO.
1. STUD WALL										
1C		I		(1) 5/8"	(1) 5/8"	3 5/8"	С	4 7/8"		
2C		Į		(1) 5/8"	(1) 5/8"	6"	С	7 1/4"		
2. FIRE RATED STU	JD WALL									
1F		I	X	(1) 5/8"	(1) 5/8"	3 5/8"	С	4 7/8"	1	UL# U465
1FP		I	X	(1) 5/8"	(1) 5/8"	3 5/8"	С	4 7/8"	1	UL# U465
4. FURRING WALL										
5Δ1		VII		(1) 5/8"		2 1/2"	C	3 1/8"		

INTERIOR CONCRETE MASONRY WALL TYPES						FLOOR HEIGHT INFORMATION			
ALL TYPE	FIRE HOUR RATING	RATING ASSEMBLY NO.	ACOUSTIC INFO. STC RATING	TOTAL WIDTH	LEVEL	LEVEL NAME	PROJECT ELEVATION	FLOOR TO UNDERSIDE OF DECK	
4" 8"	1	U906		3 5/8" 7 5/8"	LOWER LEVEL	LOWER LEVEL	0"	10' - 10 1/4"	
10" 12"	·			9 5/8" 11 5/8"	UPPER LEVEL UPPER LEVEL	UPPER LEVEL - A UPPER LEVEL - B	11' - 2" 12' - 6"	21' - 8" 21' - 8"	
12				11 3/0	UPPER LEVEL	GYM	11' - 2"	32' - 5"	
				STEE	EL FRA	MED	)		

# INTERIOR PARTITION TYPE GYPSUM BOARD PLAN DETAILS CONFIGURATION



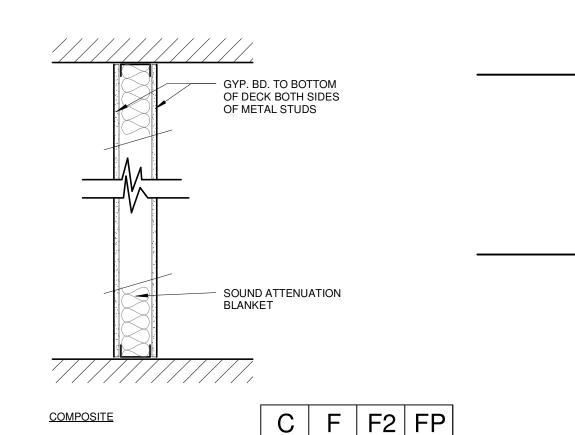


RESILIENT SOUND

CLIP @ 48" O.C.

HORIZONTALLY

@ 16" O.C. VERTICALLY



# INTERIOR PARTITION **CONSTRUCTION NOTES**

- REFER TO PROJECT MANUAL FOR TYPICAL MINIMUM STEEL THICKNESS AND SPACING FOR STEEL STUDS IN STEEL FRAMED INTERIOR PARTITIONS.
- DIMENSIONS ON FLOOR PLANS ARE TO FACE OF FINISH WALL UNLESS OTHERWISE UNLESS NOTED OTHERWISE, WALLS WITH ONE SIDE ADJACENT TO A CONCEALED SPACE MAY HAVE GYPSUM BOARD ON THE EXPOSED SIDE ONLY. THIS DOES NOT
- APPLY TO FIRE/SMOKE BARRIERS OR FIRE PARTITIONS. REFER TO LIFE SAFETY FURRING PARTITIONS NOT SUPPORTED DIRECTLY BY NON-FURRING PARTITIONS OR BUILDING STRUCTURE SHALL BE BRACED LATERALLY AT MID-HEIGHT (MIN.) DIRECTLY TO NON-FURRING PARTITIONS OR BUILDING STRUCTURE.
- PROVIDE MOLD-RESISTANT GYP BOARD AT ALL PLUMBING FIXTURE LOCATIONS UNLESS TILE BACKING PANELS ARE NOTED. EXTEND MINIMUM 3 FEET IN EACH DIRECTION FROM THE CENTERLINE OF FIXTURES HORIZONTALLY AND FROM FLOOR TO 8'-0" A.F.F. VERTICALLY.
- PROVIDE GLASS-MAT, WATER-RESISTANT BACKING BOARD AT CERAMIC TILE LOCATIONS, UNLESS OTHER TILE BACKING PANEL PRODUCTS ARE NOTED. PROVIDE BLOCKING. PER 011000 RESPONSIBILITY MATRIX. IN WALLS FOR WALL MOUNTED ITEMS INCLUDING OWNER FURNISHED ITEMS. COORDINATE MOUNTING REQUIREMENTS WITH ELEVATIONS AND INSTALLATION REQUIREMENTS.
- ALL RECESSES IN A RATED PARTITION SHALL COMPLY WITH DETAILS FOR CONTINUATION OF PARTITION INTEGRITY. REFER TO DETAILS ON A2-0.1. ALL CMU WALLS SHALL EXTEND TO UNDERSIDE OF DECK UNLESS NOTED OTHERWISE. COORDINATE WITH RATED SYSTEM REQUIREMENTS AND LIFE SAFETY
- ). REFER TO LIFE SAFETY PLANS FOR LOCATIONS OF SMOKE PARTITIONS, RATED PARTITIONS AND BARRIERS, AND SMOKE BARRIERS. AT ALL SMOKE BARRIERS, CONSTRUCT TERMINATION TIGHT TO DECK WITH MINERAL WOOL AND SEALANT, AND SEAL ALL PENETRATIONS AND VOIDS TIGHT WITH JOINT COMPOUND OR FIRESTOPPING TO PROVIDE FOR SMOKE RESISTANT BARRIER. THIS INCLUDES PATCHING OF EXISTING WALLS, WITHIN PROJECT AREA FOR RENOVATION WORK
- REFER TO TYPICAL DETAIL THIS SHEET FOR ADDITIONAL REQUIREMENTS ON PARTITIONS DESIGNATED AS "SOUND CONTROL". REFER TO DIMENSION PLAN FOR

# WALL TAG SYMBOL KEY

WHEN INDICATED FOR 'A' AND 'B' WALLS, GYP. BD. FINISH IS OMITTED ON UNEXPOSED OR INACCESSIBLE SIDE OF WALL. GYP. BD. SHALL EXTEND FULL HEIGHT TO UNDERSIDE OF DECK ON EXPOSED SIDE FOR 'B' WALLS. WHEN PRESENT INDICATES "SPECIAL CONSTRUCTION" T = WALL TILE FINISH - REFER TO PROJECT MANUAL FOR ATYPICAL STEEL STUD THICKNESS REQUIRED. COORDINATE WITH FINISH PLANS.

### GYP. BD. CONFIGURATION (REFER TO DETAILS TO THE LEFT): GYP. BD. TO 6" ABOVE FIN. CLNG. BOTH SIDES: A GYP. BD. FULL HEIGHT 1 SIDE:

GYP. BD. FULL HEIGHT BOTH SIDES: = 1 HR FIRE BARRIER\* F2 = 2 HR FIRE BARRIER\* FP = 1 HR FIRE PARTITION\*  $_{\star}$  FIRE BARRIERS OR FIRE PARTITIONS MAY ALSO BE DESIGNATED A SMOKE BARRIER - REFER TO LIFE SAFETY PLAN FOR LOCATIONS.

> REFER TO LIFE SAFETY PLANS FOR IDENTIFICATION OF SMOKE PARTITIONS AND FOR SPECIFIC LOCATIONS OF SMOKE BARRIERS, FIRE PARTITIONS AND FIRE BARRIERS.

STUD WIDTH / TYPE DESIGNATION: 6 = RESERVED 7 = 2 1/2" / 'CH' (SHAFTWALL) 3 = 7/8" / 'HAT' 8 = 4" / 'CH' (SHAFTWALL) 4 = 1 5/8" / 'C' 9 = 6" / 'CH' (SHAFTWALL)

\*REFER TO STEEL FRAMED INTERIOR PARTITION TYPE SCHEDULE FOR ADDITIONAL WALL CONSTRUCTION INFORMATION.

# INTERIOR PARTITION HATCH LEGEND

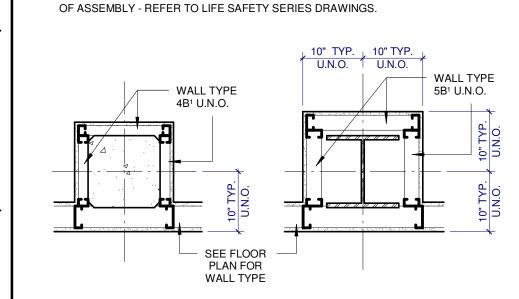
\* THE FOLLOWING DESIGNATIONS ARE FOUND ON FLOOR PLANS, DIMENSIONS PLANS, CEILING PLANS, AND DOOR PLANS AND ARE APPLICABLE TO INTERIOR PARTITIONS OF GYP. BD CONSTRUCTION. REFER TO LIFE SAFETY PLANS FOR ANY RATING INFORMATION APPLICABLE TO EXTERIOR WALLS OR INTERIOR WALLS OF MASONRY OR CONCRETE CONSTRUCTION

LIFE SAFETY / RATED WALLS 3 HR FIREWALL (F3) 2 HR FIRE BARRIER (F2) 1 HR FIRE BARRIER (F) 1 HR FIRE PARTITION (FP)

NOTE: REFER TO LIFE SAFETY PLAN(S) FOR ADDITIONAL RATING INFORMATION.

# TYPICAL COLUMN **ENCLOSURE DETAILS**

NOTE:
DETAILS ARE FOR TYPICAL DIMENSION, LAYOUT AND WALL TYPE INFORMATION.
REFER TO FLOOR PLANS FOR ATYPICAL INFORMATION AND ADDITIONAL
REQUIREMENTS AS NOTED/DIMENSIONED. ADJUST CONFIGURATIONS AT FIRE-RATED ASSEMBLIES TO MAINTAIN CONTINUITY



# GENERAL NOTES

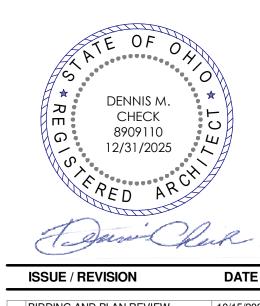
- TO THIS SHEET FOR ADDITIONAL TYPICAL INFORMATION AND FOR FLOOR TO DECK
- ALL CMU WALLS ARE 8" (NOMINAL) UNLESS NOTED OR DIMENSIONED OTHERWISE
- TYPICAL MOUNTING HEIGHTS, WALL BLOCKING, & LOCATIONS OF FIXTURES. ACCESSORIES AND SELECT EQUIPMENT ARE SHOWN ON SHEET A7-0. LOCATIONS OF 'CA' SUPPORT ANGLES ARE SHOWN ON INTERIOR ELEVATIONS. REFER TO REMAINING A7 SERIES DRAWINGS FOR ADDITIONAL REQUIREMENTS AND LOCATIONS OF ACCESSORIES AND EQUIPMENT NOT SHOWN ON FLOOR PLANS. PATCH AND LEVEL FLOORS AT DEMOLISHED WALLS. PROVIDE LEVEL SURFACES
- AND PREP FLOOR FOR SCHEDULED FINISH. PATCH EXISTING WALLS WHICH ARE NOT AFFECTED BY THE NEW WORK BUT REQUIRE SURFACE REPAIR DUE TO WATER DAMAGE, MISUSE, ACCIDENTAL DAMAGE AND DEMOLITION OR REMOVAL OF WALL MOUNTED EQUIPMENT OR ACCESSORIES. REMOVE OR REPAIR AREAS WHERE SURFACES ARE LOOSE, SPALLING OR DISPLACED. PATCH AND FILL ALL CRACKS AND OPENINGS. PREPARE SURFACES FOR FINAL FINISHES. ALL EXISTING WALL SURFACES SCHEDULED TO RECEIVE NEW FINISHES SHALL BE PATCHED AND PREPARED IN THIS FASHION. CONTRACTOR FURNISHES OR INSTALLS ALL SPECIALTY ITEMS, EQUIPMENT, ACCESSORIES, AND FURNISHINGS, UNO. REFER TO LEGEND AND EQUIPMENT SCHEDULE FOR DETAILED REQUIREMENTS.

REFER TO FURNITURE & EQUIPMENT PLANS FOR LOCATION OF OWNER FURNISHED



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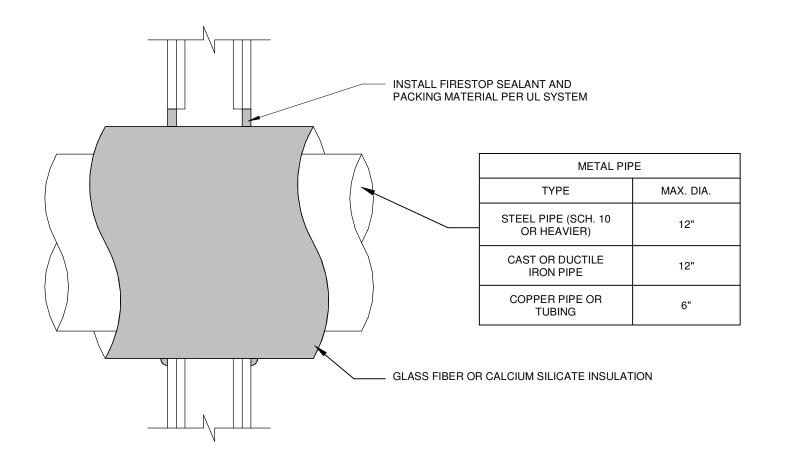


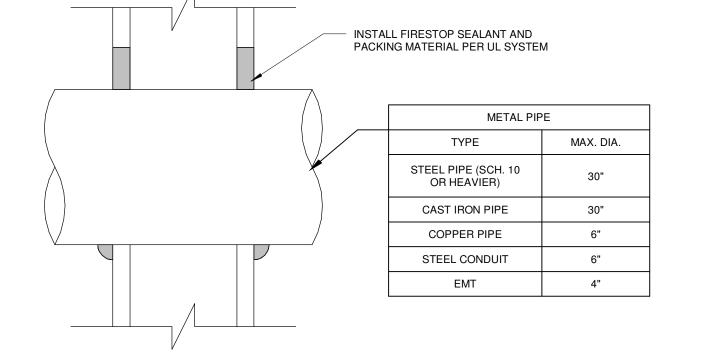
BIDDING AND PLAN REVIEW 24013.000 PROJECT NO.

> INTERIOR GENERAL INFO

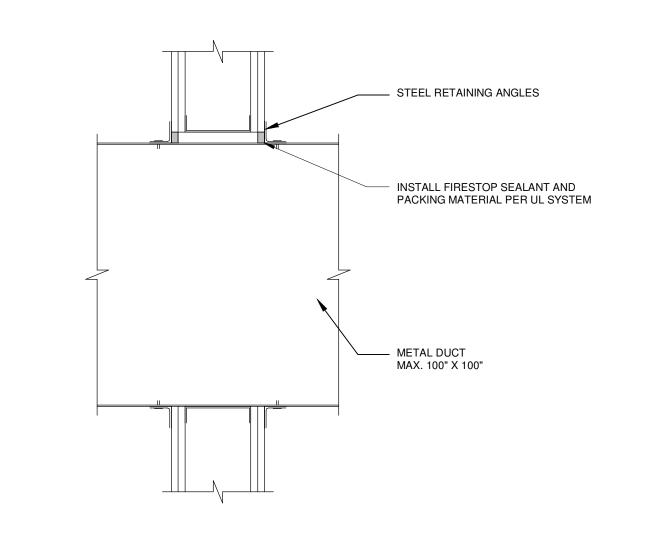
NOT TO SCALE

# TYPICAL RATED WALL AND FLOOR PENETRATION DETAILS





METAL PIPE THROUGH GYPSUM WALL ASSEMBLY

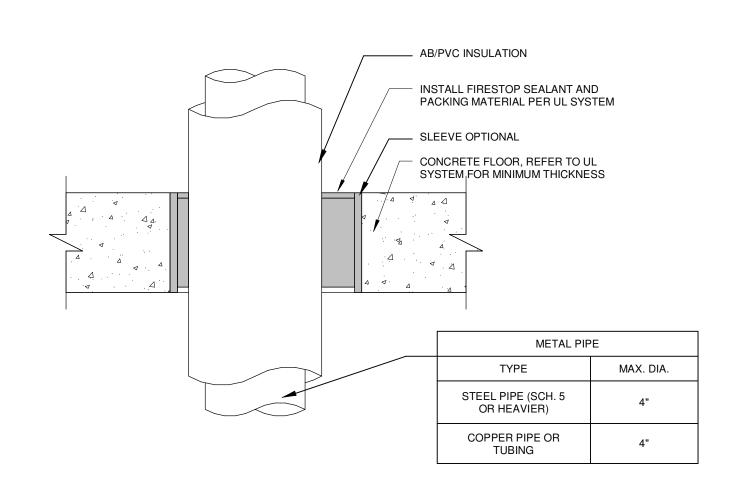


METAL DUCT THROUGH GYPSUM WALL ASSEMBLY
NOT TO SCALE

CABLE BUNDLE THROUGH CONCRETE FLOOR
NOT TO SCALE

METAL PIPE WITH GLASS FIBER OR CALCIUM SILICATE INSULATION

THROUGH GYPSUM WALL ASSEMBLY



METAL PIPE WITH AB/PVC INSULATION THROUGH CONCRETE FLOOR OR WALL NOT TO SCALE

INSTALL FIRESTOP SEALANT AND

CONCRETE FLOOR, REFER TO UL

METAL PIPE

MAX. DIA.

30"

SYSTEM FOR MINIMUM THICKNESS

SLEEVE OPTIONAL

TYPE

STEEL PIPE (SCH. 10

OR HEAVIER)

CAST IRON PIPE

COPPER PIPE

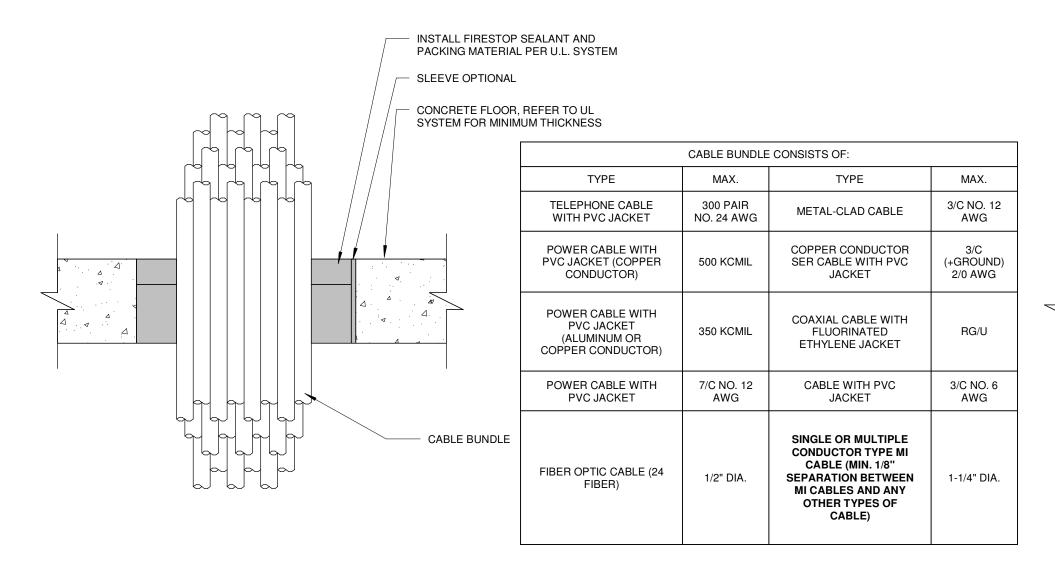
STEEL CONDUIT

EMT

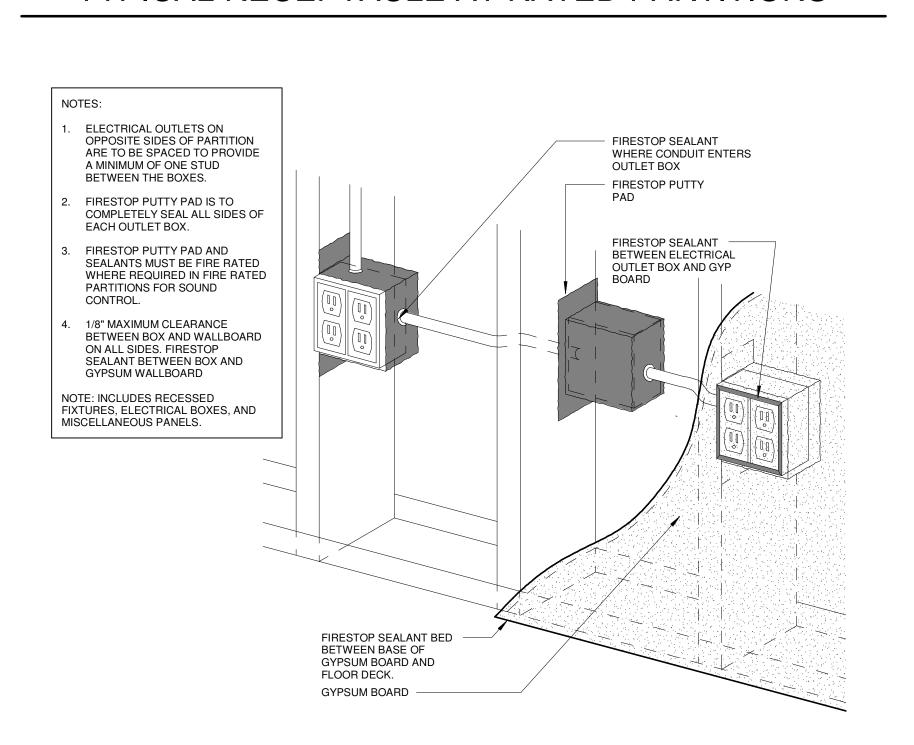
METAL PIPE THROUGH CONCRETE FLOOR TO WALL

NOT TO SCALE

PACKING MATERIAL PER UL SYSTEM



# TYPICAL RECEPTACLE AT RATED PARTITIONS



### HWD-1067(1,2hr) PARALLEL TO METAL DECK HWD-0184 (1,2hr) HWD-0539 (1,2hr) HWD-0757 (1,2hr) HWD-1068 (1,2hr) FLAT CONCRETE HWD-0209 (1,2hr)

TYP. FIRESTOP SYSTEMS CHART

FIRESTOP SYSTEM FOR THROUGH PENETRATIONS

**GYPSUM SHAFT** 

WALLS

WL-1205 (2hr)

WL-1380 (2hr)

WL-3161 (2hr)

WL-5244 (2hr)

WL-5143 (2hr)

WL-7068 (2hr)

WL-8098 (2hr)

HWD-0076 (1,2hr) HWD-1066 (1,2hr)

HWD-0045 (1,2hr)

HWD-1103 (4hr)

WWD-0082 (2hr)

WWD-1011 (2hr)

GYPSUM WALLS

WL-0012 (1,2hr)

WL-0040 (1,2hr)

WL-2078 (1,2hr)

WL-2128 (1.2hr

WL-2245 (4hr)

WL-5225 (1,2hr)

WL-3065 (1.2hr)

(1,2,3,4hr)

WL-4011 (1,2hr)

WL-5029 (2,3 hr)

WL-5257 (1,2hr)

NL-5028 (1,2hr)

WL-6019 (2hr)

WL-7155 (2hr)

WL-7059 (1,2hr)

NL-7042 (1,2hr)

WL-8065 (2hr)

WL-8079 (2hr)

WL-8014 (2hr)

CLIV listing

(1 and 2hr only)

WI -3384 (1.2h

(BASIS OF DESIGN: HILTI, 3M AND STI ARE APPROVED MANUFACTURERS)

FLOOR/ BLOCK

WALLS

CAJ-0090 (2hr)

FA-0014 (3hr)

CAJ-0081 (4hr)

CAJ-1226 (3hr)

FA-1016 (2hr)

CAJ-2109 (3hr)

FA-2054 (3hr)

FA-2094 (3hr)

CAJ-5320 (2hr)

FA-3007 (3hr)

WJ-3050 (4hr)

CAJ-4083 (2hr) WJ-4060 (4hr)

FA-5032 (2hr)

CAJ-5091 (2hr

FA-5017 (2hr)

CAJ-5090 (3hr)

FA-5032 (2hr)

FB-5004 (3hr)

CAJ-6017 (2hr)

CAJ-6042 (2hr)

CAJ-7051 (3hr)

CAJ-7084 (2hr)

FA-5032 (2hr)

CAJ-8143 (2hr)

WJ-8009 (4hr)

FIRESTOP SYSTEM FOR CONSTRUCTION JOINTS (BASIS OF DESIGN: HILTI. 3M AND STI ARE APPROVED

MANUFACTURERS)

GYPSUM WALLS (INCLUDING SHAFT WALLS)

PERPENDICULAR TO METAL DECK

WALL TO WALL

TYPE OF PENETRANT

**BLANK OPENING** 

METAL PIPE

PLASTIC PIPE

INSULATED PLASTIC PIPE

CABLE BUNDLE

METAL PIPE WITH GLASS FIBER

OR POLYISO INSULATIONS

METAL PIPE WITH AB/ PVC

MISCELLANEOUS ELECTRICAL

SHEET METAL DUCT

(RECTANGULAR)

SHEET METAL DUCT (ROUND)

MULTIPLE PENETRANTS

MEMBRANE PENETRATIONS -

OUTLET BOXES

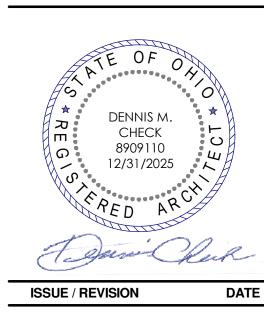
SHAFT WALL PARALLEL TO METAL DECK HWD-0570 (1,2hr) SHAFT WALL PERPENDICULAR TO METAL DECK HWD-0569 (1,2hr) HWD-0342 (1,2hr) SHAFT WALL TO FLAT CONCRETE HWD-0572 (1,2hr) STANDARD GYPSUM WALL TO CONCRETE FLOOR BWS-0002 (1,2hr) (BOTTOM OF WALL) BWS-0039 (1,2hr) SHAFT WALL TO CONCRETE FLOOR (BOTTOM OF BWS-0023 (1,2hr) WWD-0067 (2hr) CONCRETE OR BLOCK WALLS HWD-1037 (2hr) PERPENDICULAR TO METAL DECK HWD-0081 (2hr) HWD-0294 (4hr) HWD-0181 (2hr) PARALLEL TO METAL DECK HWD-0081 (2hr) HWD-0296 (4hr) HWD-1058 (3hr) FLAT CONCRETE HWD-0268 (3hr)

# **GENERAL NOTES**

1. THROUGH PENETRATIONS OF FIRE RATED WALLS OR PARTITIONS SHALL BE PROTECTED WITH AN APPROVED/LISTED SYSTEM THAT MEETS OR EXCEEDS THE FIRE RATING OF THE WALL SYSTEM PENETRATED. REFER TO SPECIFICATIONS AND PLUMBING, MECHANICAL AND ELECTRICAL

- 2. MEMBRANE PENETRATIONS (SINGLE SIDE OF WALL) OF FIRE RATED WALLS OR PARTITIONS SHALL BE PROTECTED WITH AN APPROVED/LISTED SYSTEM THAT MEETS OR EXCEEDS THE FIRE RATING OF THE WALL SYSTEM PENETRATED, OR MEET AN OBC 714.3.2.EXCEPTION APPROVED BY ARCHITECT.
- 3. THE CONTRACTOR SHALL UTILIZE AN APPROVED/LISTED THROUGH PENETRATION PROTECTION SYSTEM APPROPRIATE FOR THE PENETRATING ITEMS TYPE, SIZE, AND WALL CONSTRUCTION. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS, SUBMIT PRODUCTS FOR
- 4. PENETRATIONS OF CONCRETE OR MASONRY WALL ASSEMBLIES BY 6" MAXIMUM JACKETED WIRES IN OPENINGS OF 144 SQUARE INCHES MAXIMUM MAY BE PROTECTED BY FILLING THE FULL THICKNESS OF THE ASSEMBLY SURROUNDING THE PENETRATING ITEM WITH CONCRETE, GROUT
- 5. FIRE RATED WALLS, FLOORS/CEILINGS, ROOF/CEILINGS, SHAFTS AND OTHER FIRE RATED ASSEMBLIES SHALL BE VERIFIED AND COORDINATED FOR CONTINUITY AND COMPLETION.
- 6. ASSEMBLIES LISTED IN CHARTS ARE NOT ALL INCLUSIVE: ADDITIONAL UL FIRESTOP SYSTEMS THAT ARE COMPATIBLE WITH ONE ANOTHER: WITH THE SUBSTRATES FORMING OPENINGS: AND WITH THE ITEMS, IF ANY, PENETRATING THROUGH-PENETRATION FIRESTOP SYSTEMS, UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY THROUGH-PENETRATION FIRESTOP SYSTEM MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE ARE

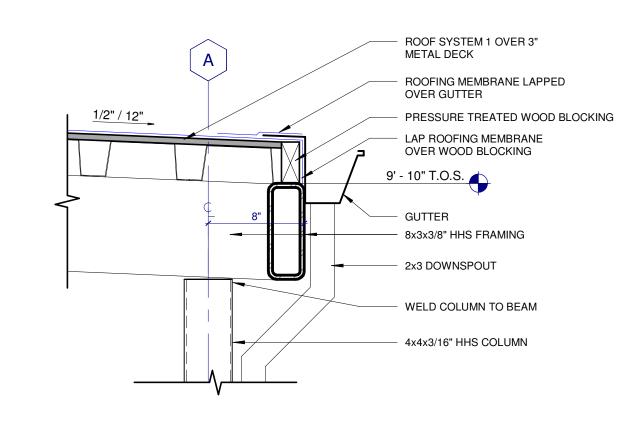




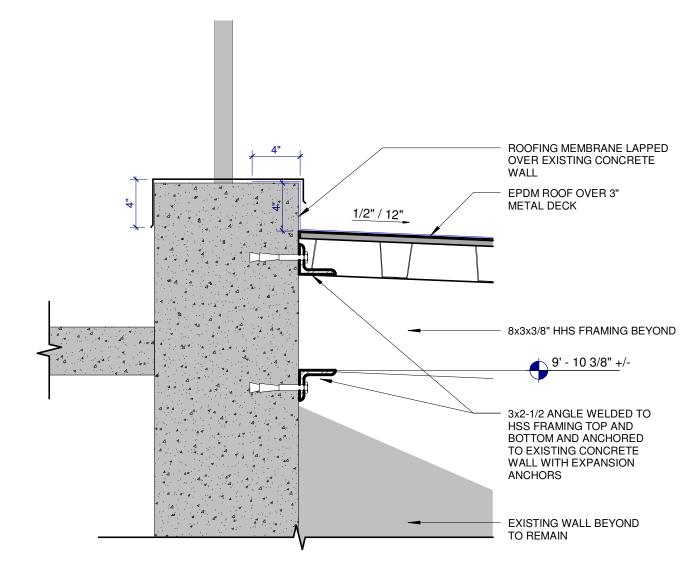
ISSUE / REVISION	DATE
BIDDING AND PLAN REVIEW	10/15/2024
PROJECT NO.	24013.000

RATED JOINT & PENETRATION **DETAILS** 

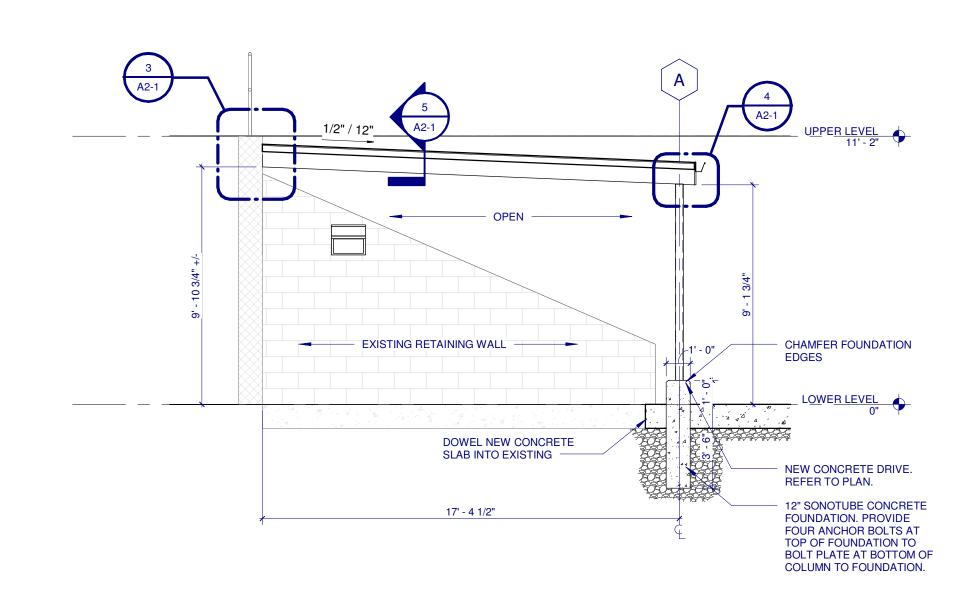
# 5 CANOPY RAKE DETAIL SCALE: 1 1/2" = 1'-0"



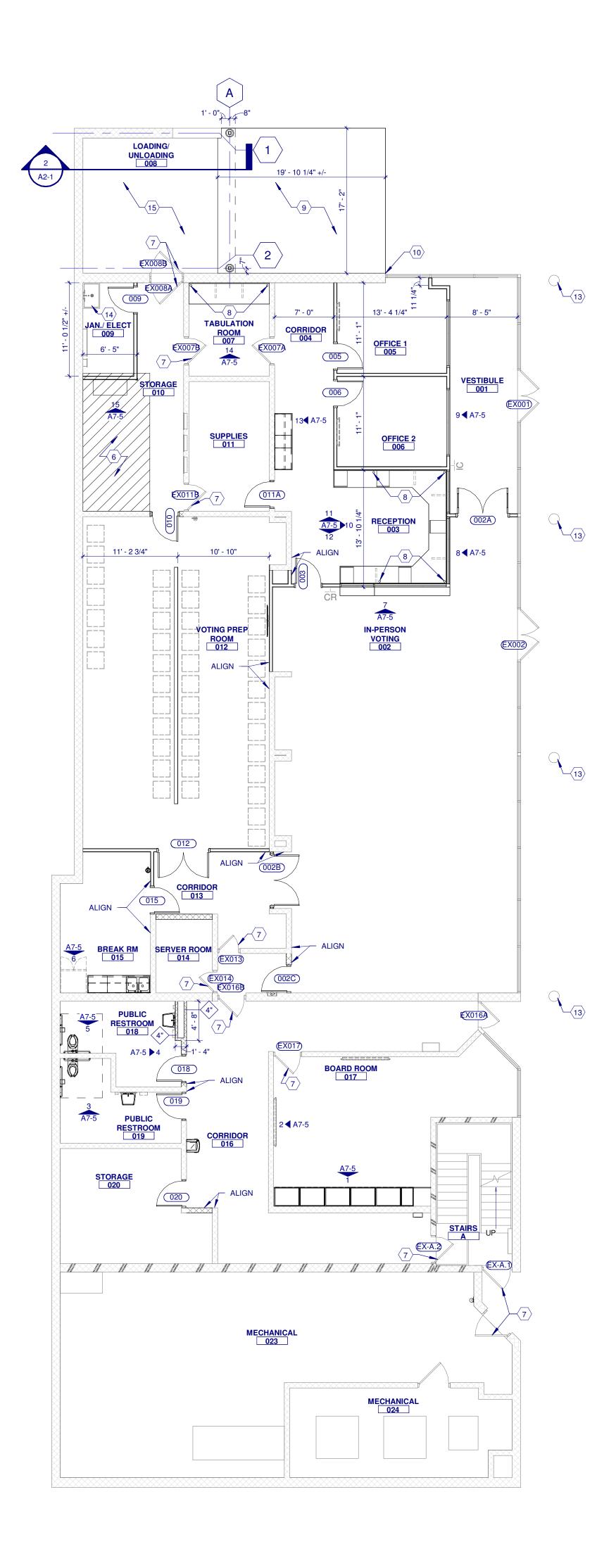
# 4 CANOPY EAVE DETAIL SCALE: 1 1/2" = 1'-0"



3 CANOPY DETAIL AT EXISTING WALL INTERFACE SCALE: 1 1/2" = 1'-0"



2 LOADING/UNLOADING BUILDING SECTION SCALE: 1/4" = 1'-0"



FLOOR PLAN - LOWER LEVEL SCALE: 1/8" = 1'-0"

NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET

INSTALL ANGLE AROUND PERIMETER OF CONCRETE OPENING IN FLOOR, INFILL WITH METAL DECK AND CONCRETE SLAB.

INSTALL METAL STUDS, METAL DECK, AND CONCRETE SLAB AT FLOOR INFILL. CENTER GYPSUM BOARD WALL ON EXISTING MASONRY WALL PROVIDE OPAQUE WINDOW FILM (GF-2) ON INSIDE OF EXISTING WINDOW.

PATCH WALL AS NEEDED FROM CHALKBOARD REMOVAL.
CONCRETE SLAB FLOORING INFILL.
EXISTING DOOR AND FRAME TO BE PAINTED P-5.

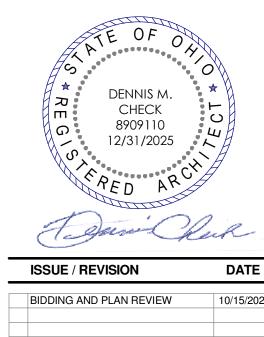
GROMMET IN COUNTER. 6" CONCRETE DRIVE WITH 6x6-W1.4xW1.4 WWF REINFORCING OVER 6" ODOT 304 COMPACTED AGGREGATE BASE. PROVIDE 1/4" CONTROL JOINTS (SAW CUT) AT 5'-0" O.C. MAX. SLOPE TO DRAIN.

ALIGN NEW CONCRETE DRIVE WITH INTERSECTION OF STOREFRONT AND MASONRY WALL.

PROVIDE TWO VENTS IN DRWALL ON TOP AND BOTTOM (TOTAL 4), COORDINATE LOCATION WITH ARCHITECT IN FIELD. BOTTOM LITE IN EXISTING WINDOW TO BE REPLACED.

3 PATCH AND REPAIR COLUMN SURROUND. PAINT IN ITS ENTIRETY. 14 EXISTING MOP BASIN TO REMAIN. CLEAN AND PROVIDE NEW MOP HOLDER. 15 STEEL STRUCTURE TO BE PAINTED P-5.





PROJECT NO. 24013.000

FLOOR PLAN -LOWER LEVEL

LOWER LEVEL KEY PLAN

PROJECT AREA

NOT IN SCOPE ----

- UPPER LEVEL

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CENTER GYPSUM BOARD WALL ON EXISTING MASONRY WALL PROVIDE OPAQUE WINDOW FILM (GF-2) ON INSIDE OF EXISTING WINDOW. PATCH WALL AS NEEDED FROM CHALKBOARD REMOVAL.
CONCRETE SLAB FLOORING INFILL.
EXISTING DOOR AND FRAME TO BE PAINTED P-5.

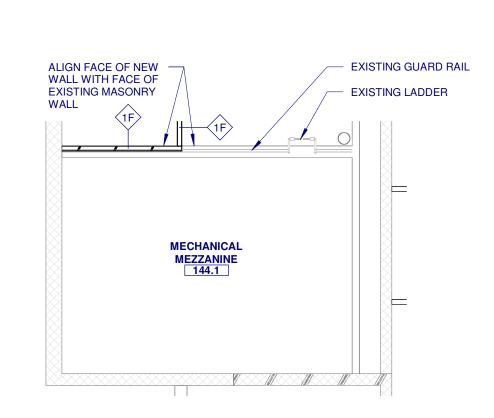
GROMMET IN COUNTER. 6" CONCRETE DRIVE WITH 6x6-W1.4xW1.4 WWF REINFORCING OVER 6" ODOT 304 COMPACTED AGGREGATE BASE. PROVIDE 1/4" CONTROL JOINTS (SAW CUT) AT 5'-0" O.C. MAX. SLOPE TO DRAIN.

PATCH AND REPAIR COLUMN SURROUND. PAINT IN ITS ENTIRETY 4 EXISTING MOP BASIN TO REMAIN. CLEAN AND PROVIDE NEW MOP HOLDER.

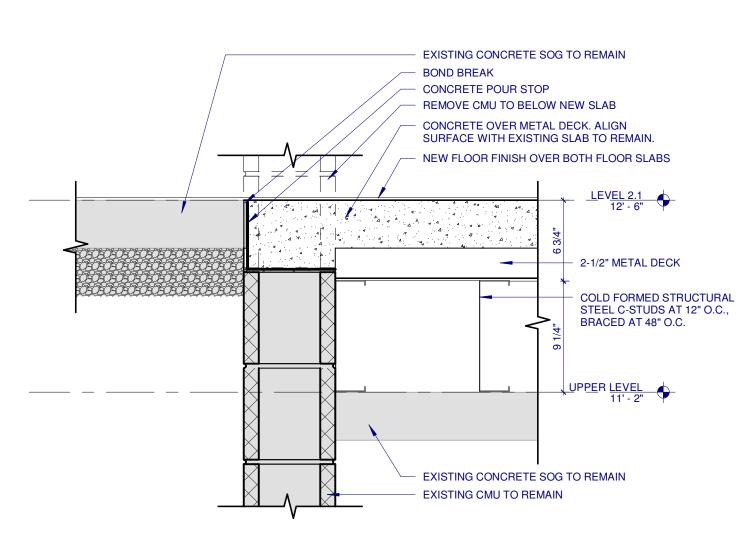
ALIGN NEW CONCRETE DRIVE WITH INTERSECTION OF STOREFRONT AND MASONRY WALL.

PROVIDE TWO VENTS IN DRWALL ON TOP AND BOTTOM (TOTAL 4), COORDINATE LOCATION WITH ARCHITECT IN FIELD. BOTTOM LITE IN EXISTING WINDOW TO BE REPLACED. 15 STEEL STRUCTURE TO BE PAINTED P-5.

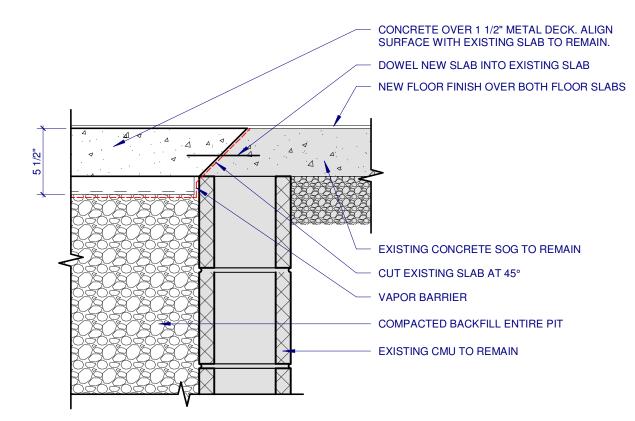




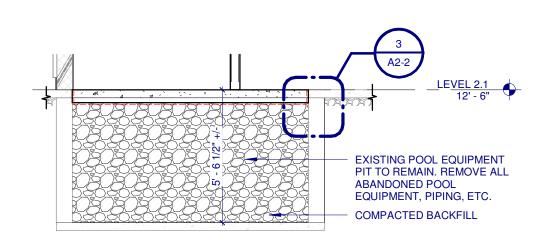
FLOOR PLAN - MEZZANINE SCALE: 1/8" = 1'-0"



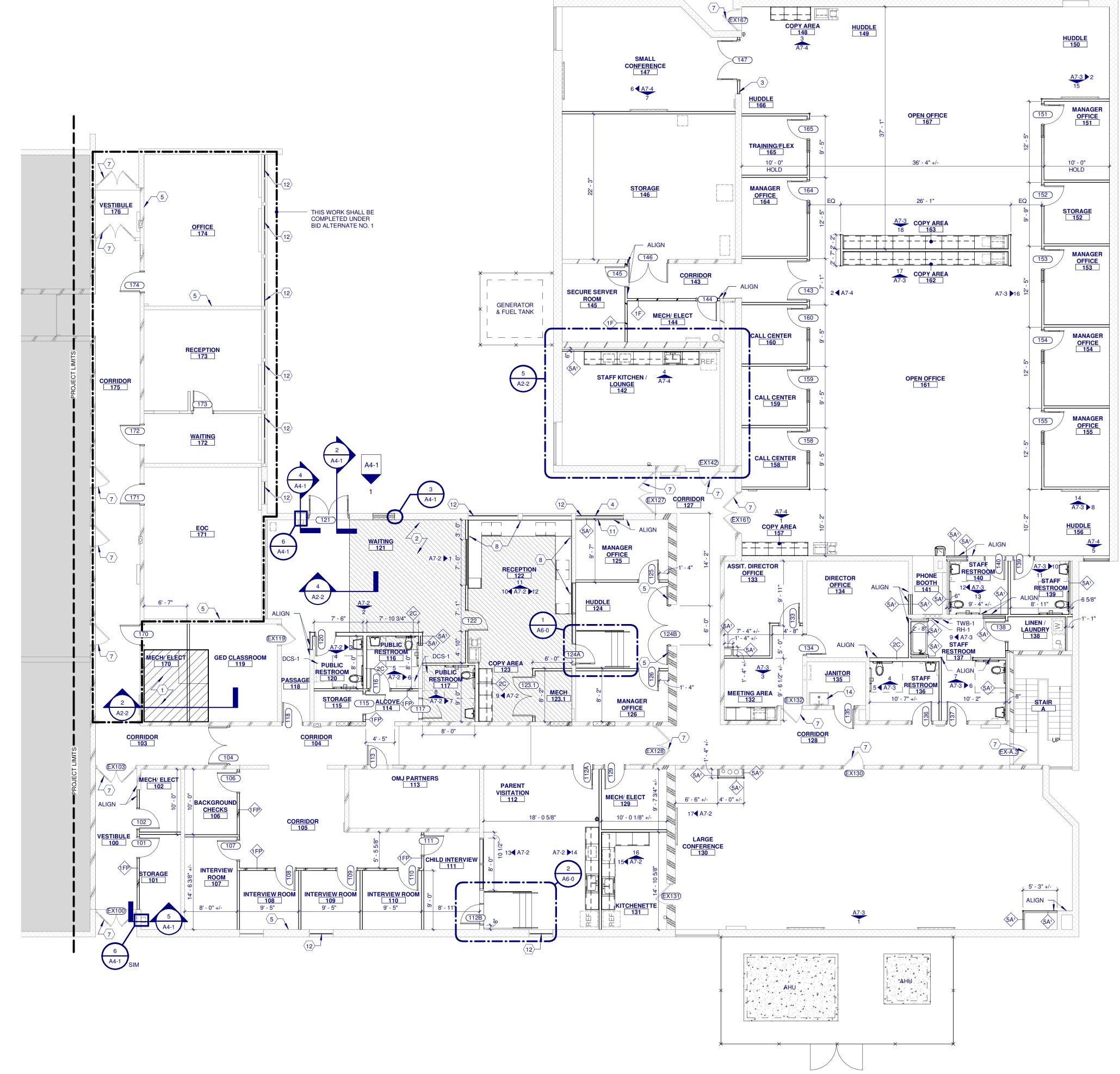
FLOOR INFILL DETAIL AT LOBBY
SCALE: 1 1/2" = 1'-0"



3 FLOOR INFILL DETAIL AT POOL EQUIPMENT PIT SCALE: 1 1/2" = 1'-0"

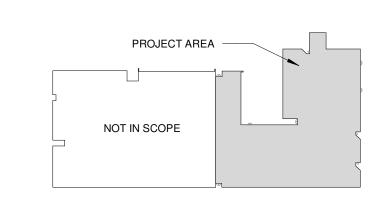


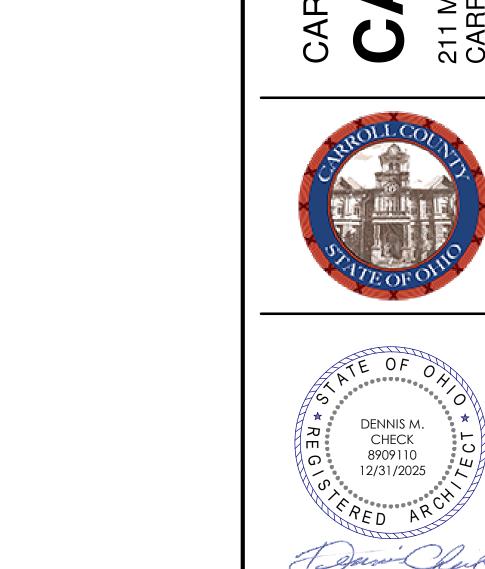
2 POOL EQUIPMENT PIT SECTION
SCALE: 1/4" = 1'-0"



FLOOR PLAN - UPPER LEVEL
SCALE: 1/8" = 1'-0"

UPPER LEVEL KEY PLAN



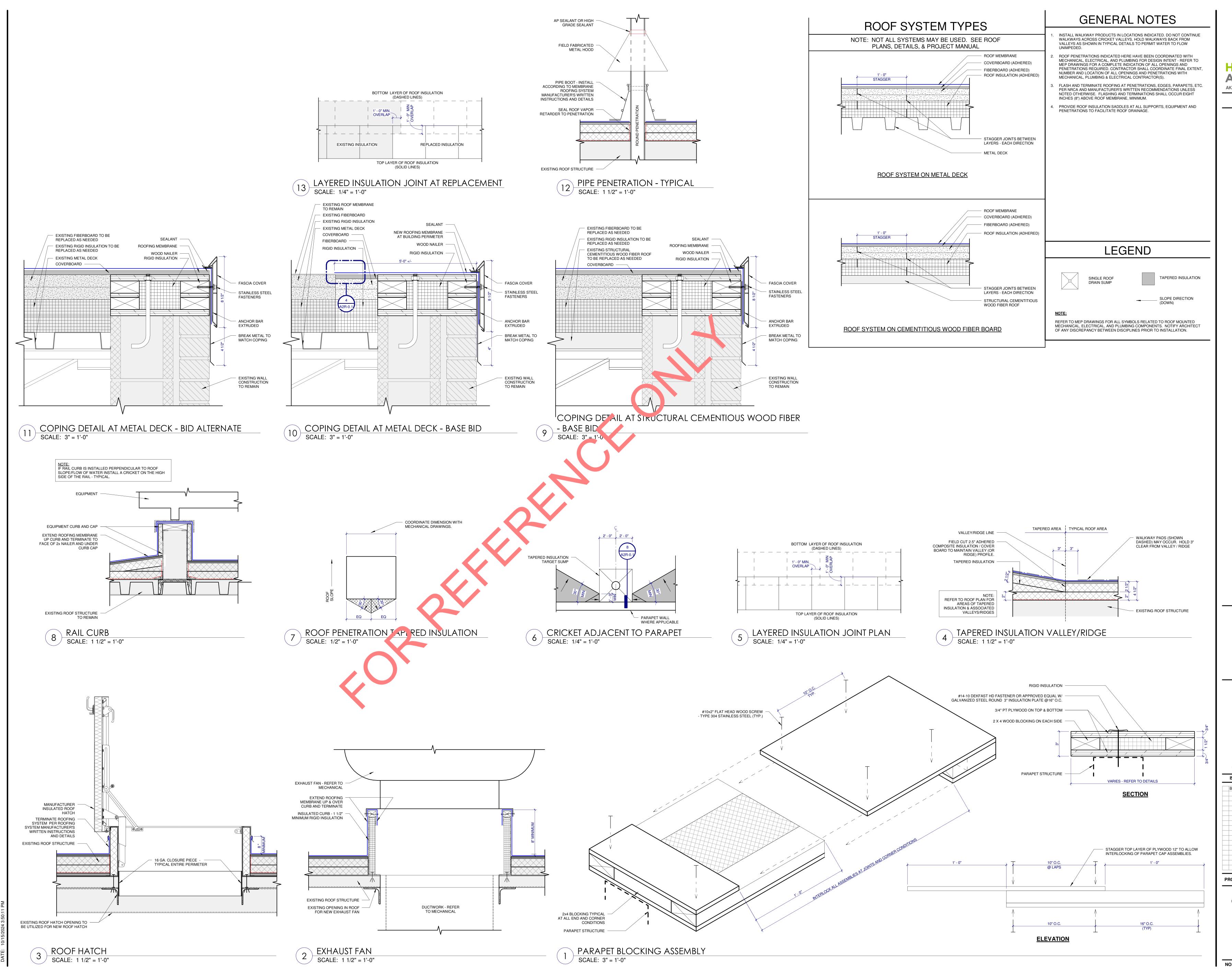


BIDDING AND PLAN REVIEW

FLOOR PLAN -

PROJECT NO.

**UPPER LEVEL** 



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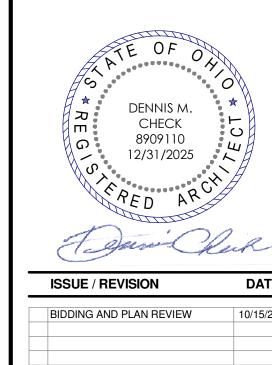
CHECK 8909110

ISSUE / REVISION BIDDING AND PLAN REVIEW 24013.000 PROJECT NO.

**GENERAL INFO &** TYPICAL ROOF **DETAILS** 







PROJECT NO. 24013.000

GENERAL INFO & TYPICAL ROOF DETAILS

1A NEW MEMBRANE ROOF OVER EXISTING ON REPLACED FIBERBOARD INSULATION OVER RIGID INSULATION OVER STRUCTURAL CEMENT FIBER ROOF PANELS. ALIGN WITH INSULATION TO MATCH EXISTING MATERIALS AND THICKNESS WHERE REMOVED DURING DEMOLITION AND DETERMINED TO BE DAMAGED.

DURING DEMOLITION AND DETERMINED TO BE DAMAGED.

1B NEW MEMBRANE ROOF OVER EXISTING OR REPLACED FIBERBOARD INSULATION OVER RIGID INSULATION OVER EXISTING METAL DECK.

2 NEW PERIMETER BLOCKING AND ROOF MEMBRANE TO BE INSTALLED PER DETAILS.

3 EXISTING ROOF TO REMAIN. PROTECT EXISTING ROOF DURING ROOF REPAIR WORK.

4 NEW ROOFING AND STRUCTURE INCLUDED IN BASE BID.

5 NEW ROOF DRAIN IN EXISTING LOCATION.

6 EXISTING ROOF DRAIN TO REMAIN.

7 NEW MECHANICAL EQUIPMENT IN FUTURE PHASE. EXTEND ROOF MEMBRANE ONTO CURB PER DETAILS AND PROVIDE TEMPORARY WATERPROOFING CAP. VERIFY CURB LOCATION WITH EXISTING STRUCTURE.

8 EXISTING MECHANICAL EQUIPMENT TO REMAIN. EXTEND NEW ROOFING UP TO CURB,

9 PATCH DECK (METAL DECK OR STRUCTURAL CEMENT FIBER ROOF PANEL) AND INSTALL INSULATION TO MATCH EXISTING WHERE MECHANICAL EQUIPMENT HAS BEEN REMOVED. 10 INSTALL TAPERED INSULATION TO PROVIDE POSITIVE DRAINAGE TO EXISTING ROOF

DRAIN.

11 MECHANICAL EQUIPMENT REPLACED IN BASE BID. 12 NEW ROOF HATCH IN EXISTING LOCATION.
13 EXISTING ROOF HATCH TO REMAIN.

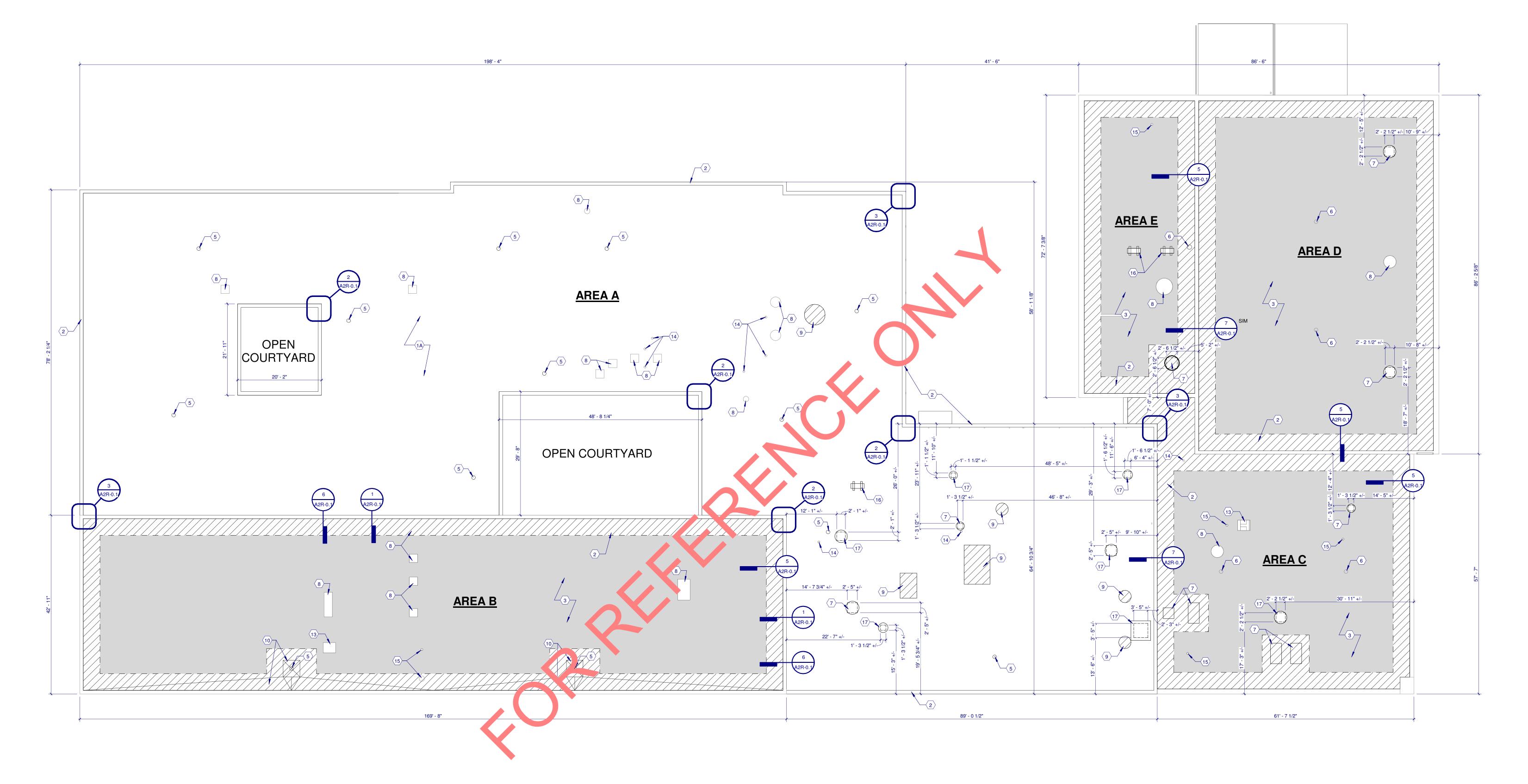
14 EXISTING SANITARY STACK VENT TO BE TIED IN TO NEW ROOF PER DETAIL.

15 EXISTING SANITARY STACK VENT TO REMAIN.

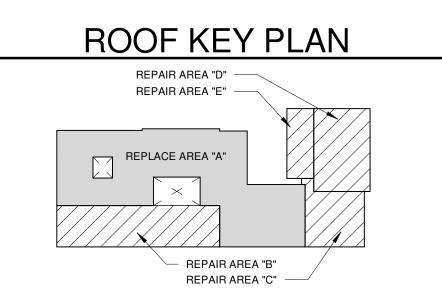
16 NEW SPLIT SYSTEM RAILS, COORDINATE OPENINGS WITH MECHANICAL DRAWINGS.

17 NEW FAN/GRAVITY VENTILATOR ON NEW CURB, COORDINATE WITH MECHANICAL DRAWINGS. VERIFY CURB LOCATION WITH EXISTING STRUCTURE.

18 ROOF DRAIN REPLACED IN BASE BID.

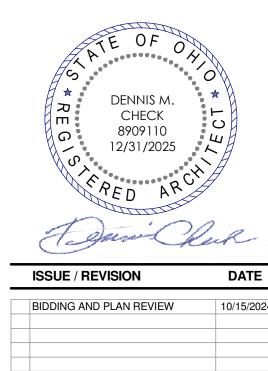


1 ROOF PLAN SCALE: 3/32" = 1'-0"



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PROJECT NO. 24013.000

ROOF PLAN - BASE BID

1A NEW MEMBRANE ROOF OVER EXISTING ON REPLACED FIBERBOARD INSULATION OVER RIGID INSULATION OVER STRUCTURAL CEMENT FIBER ROOF PANELS. ALIGN WITH INSULATION TO MATCH EXISTING MATERIALS AND THICKNESS WHERE REMOVED DURING DEMOLITION AND DETERMINED TO BE DAMAGED.

DURING DEMOLITION AND DETERMINED TO BE DAMAGED.

1B NEW MEMBRANE ROOF OVER EXISTING OR REPLACED FIBERBOARD INSULATION OVER RIGID INSULATION OVER EXISTING METAL DECK.

2 NEW PERIMETER BLOCKING AND ROOF MEMBRANE TO BE INSTALLED PER DETAILS.

3 EXISTING ROOF TO REMAIN. PROTECT EXISTING ROOF DURING ROOF REPAIR WORK.

4 NEW ROOFING AND STRUCTURE INCLUDED IN BASE BID.

5 NEW ROOF DRAIN IN EXISTING LOCATION.

6 EXISTING ROOF DRAIN TO REMAIN.

7 NEW MECHANICAL EQUIPMENT IN FUTURE PHASE. EXTEND ROOF MEMBRANE ONTO CURB PER DETAILS AND PROVIDE TEMPORARY WATERPROOFING CAP. VERIFY CURB LOCATION WITH EXISTING STRUCTURE.

EXISTING MECHANICAL EQUIPMENT TO REMAIN. EXTEND NEW ROOFING UP TO CURB, SEE DETAILS.

9 PATCH DECK (METAL DECK OR STRUCTURAL CEMENT FIBER ROOF PANEL) AND INSTALL INSULATION TO MATCH EXISTING WHERE MECHANICAL EQUIPMENT HAS BEEN REMOVED. 10 INSTALL TAPERED INSULATION TO PROVIDE POSITIVE DRAINAGE TO EXISTING ROOF DRAIN.
 11 MECHANICAL EQUIPMENT REPLACED IN BASE BID.

12 NEW ROOF HATCH IN EXISTING LOCATION.
13 EXISTING ROOF HATCH TO REMAIN.

14 EXISTING SANITARY STACK VENT TO BE TIED IN TO NEW ROOF PER DETAIL.

15 EXISTING SANITARY STACK VENT TO REMAIN.

16 NEW SPLIT SYSTEM RAILS, COORDINATE OPENINGS WITH MECHANICAL DRAWINGS.

17 NEW FAN/GRAVITY VENTILATOR ON NEW CURB, COORDINATE WITH MECHANICAL DRAWINGS. VERIFY CURB LOCATION WITH EXISTING STRUCTURE.

18 ROOF DRAIN REPLACED IN BASE BID.



1 ROOF PLAN - BID ALTERNATE
SCALE: 3/32" = 1'-0"

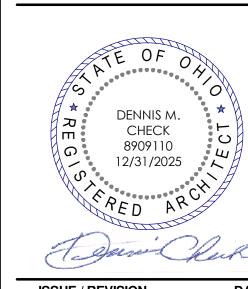
**ROOF KEY PLAN** BID ALTERNATE REPLACE AREA "D" —— BID ALTERNATE REPLACE AREA "E" ——

BID ALTERNATE REPLACE AREA "B"
BID ALTERNATE REPLACE AREA "C"

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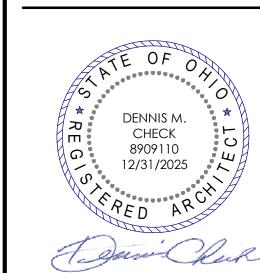
BIDDING AND PLAN REVIEW PROJECT NO.

24013.000

ROOF PLAN - BID ALTERNATE

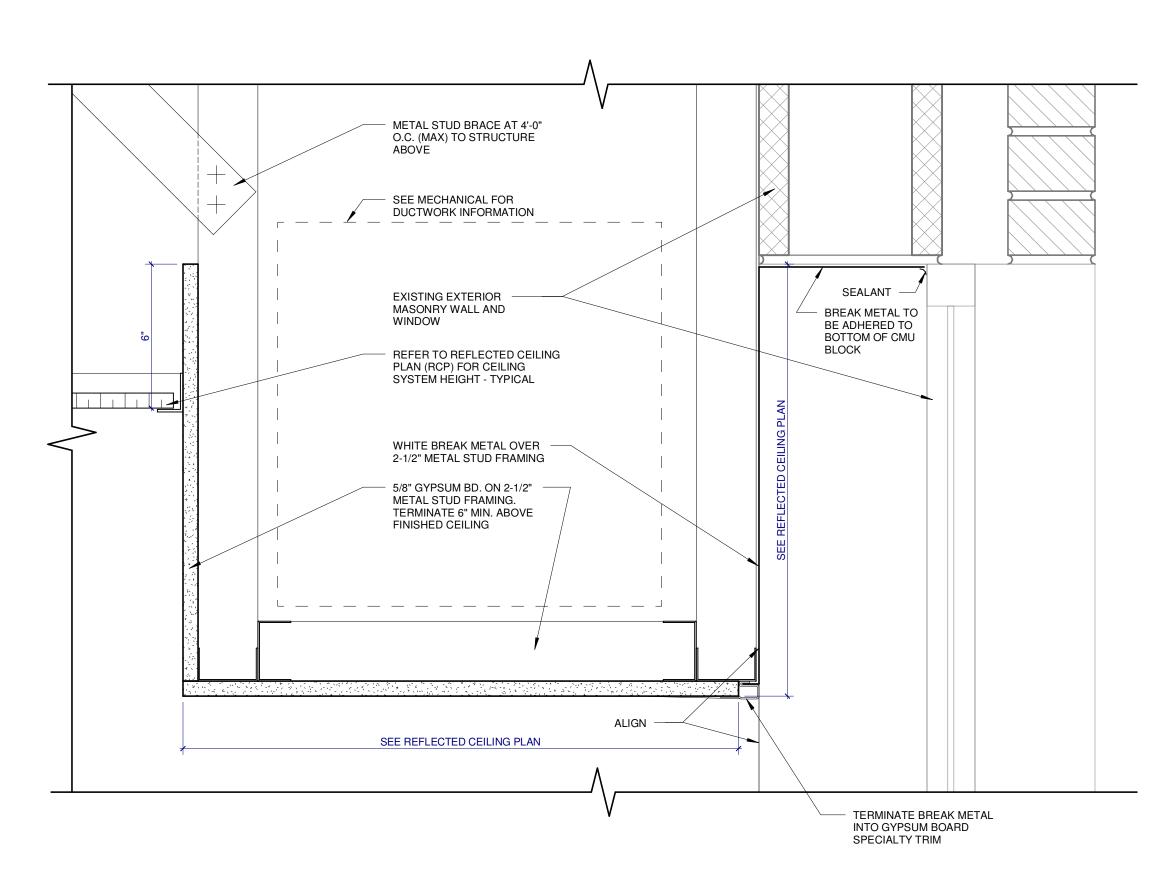
**GENERAL INFO &** TYPICAL CEILING

**DETAILS** 



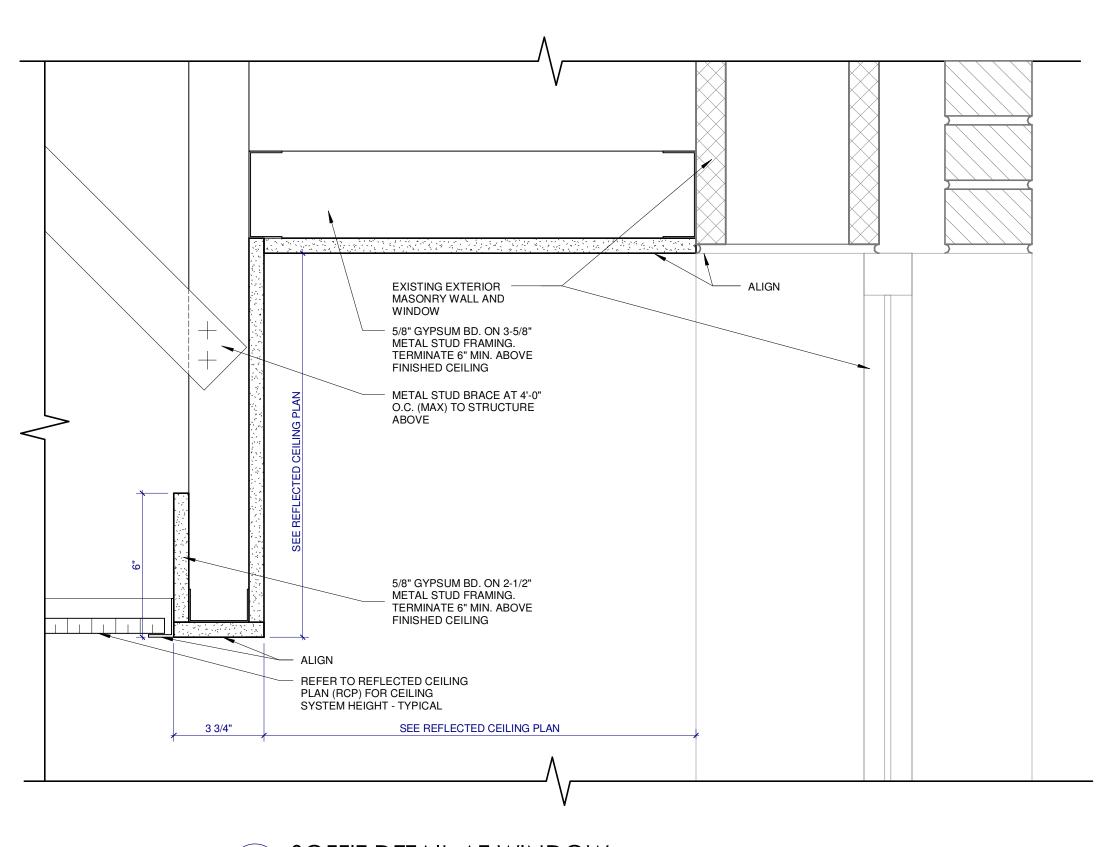
SYMBOLS FOR REFERENCE. CONFIRM CEILING MOUNTED FIXTURES W/ MEP DRAWINGS AS REQ'D.

METAL STUD BRACE AT 4'-0" O.C. (MAX) TO STRUCTURE ABOVE REFER TO REFLECTED CEILING
 PLAN (RCP) FOR CEILING
 SYSTEM HEIGHT - TYPICAL METAL STUD FRAMING. TERMINATE 6" MIN. ABOVE FINISHED CEILING SEE REFLECTED CEILING PLAN

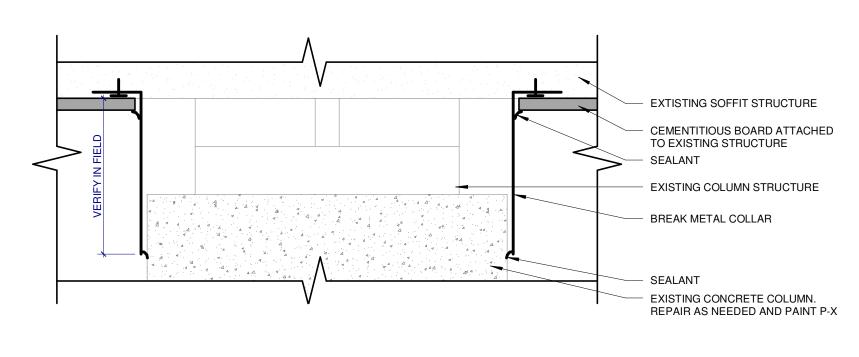


SOFFIT DETAIL AT WINDOW

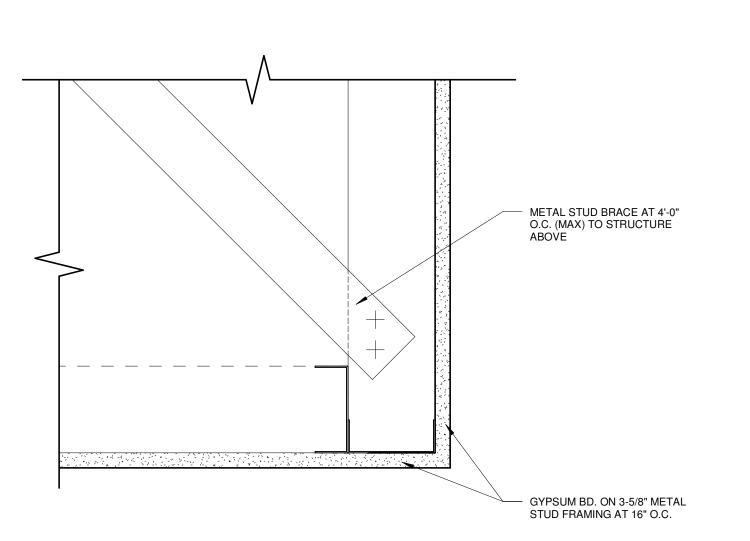
SCALE: 3" = 1'-0"



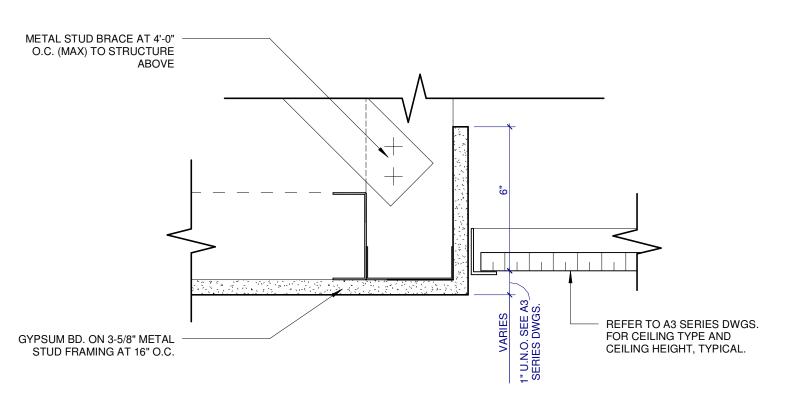
3 SOFFIT DETAIL AT WINDOW SCALE: 3" = 1'-0"



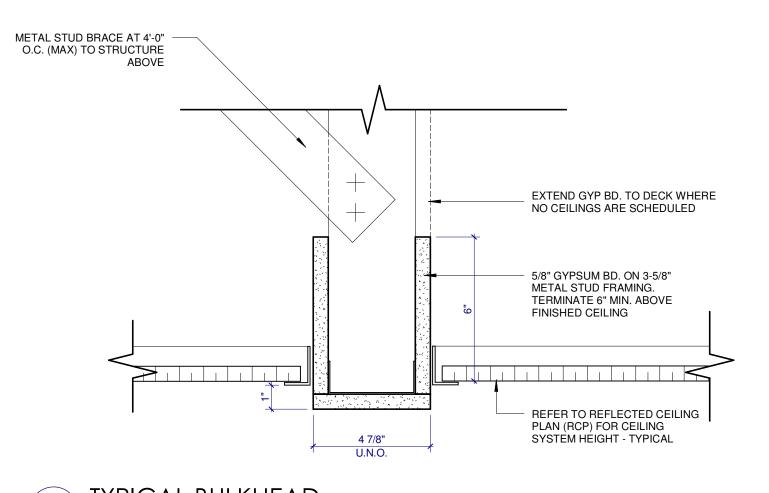
7 TOP OF COLUMN DETAIL
SCALE: 3" = 1'-0"



5 SOFFIT AT LOBBY SCALE: 3" = 1'-0"



2 TYPICAL SOFFIT DETAIL
SCALE: 3" = 1'-0"



1 TYPICAL BULKHEAD
SCALE: 3" = 1'-0"

NOTE:

GENERAL NOTES

REFER TO ELECTRICAL, MECHANICAL, & FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION ABOUT LIGHTS, DIFFUSERS, SPRINKLERS, ETC.

CENTER ALL ENGINEER ITEMS IN CEILING TILES UNLESS NOTED OR DIMENSIONED OTHERWISE.

4. TYPICAL CEILING HEIGHT IS 8'-0" UNLESS NOTED OTHERWISE.

7. ALL EXPOSED DECK AND STRUCTURE TO BE PAINTED P-1.

ACOUSTICAL PANEL CEILING SYSTEM IS APC-1, TYPICAL UNLESS NOTED OTHERWISE. REFER TO PROJECT MANUAL FOR TYPES.

CENTER CEILING GRIDS IN ROOMS UNLESS NOTED OR DIMENSIONED OTHERWISE.

6. GYPSUM BOARD CEILINGS AND SOFFITS ARE TO BE PAINTED P-1, UNLESS NOTED OTHERWISE.

AIR SUPPLY GRILLE ACOUSTICAL PANEL CEILING AIR RETURN / EXHAUST GRILLE GYPSUM BOARD CEILING LIGHT FIXTURE 8'-0" CEILING HEIGHT
APC-2 CEILING TYPE O DOWNLIGHT EXIT SIGN ACCESS PANEL /

ROOF HATCH

2436 SIZE IN INCHES

▲ FULL TILE

NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET

INSTALL BREAK METAL COLLAR AT TOP OF EXISTING COLUMNS. REPAIR AND PAINT COLUMNS P-1.

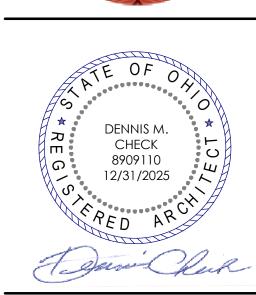
 CEMENTITIOUS BOARD AT UNDERSIDE OF SOFFIT PAINTED P-1.

 ACOUSTICAL SEALANT THIS ROOM.

 ROLLER SHADES AT INTERIOR FACE OF WINDOWS.

 OPEN TO DECK CEILING TO BE PAINTED P-1.





BIDDING AND PLAN REVIEW

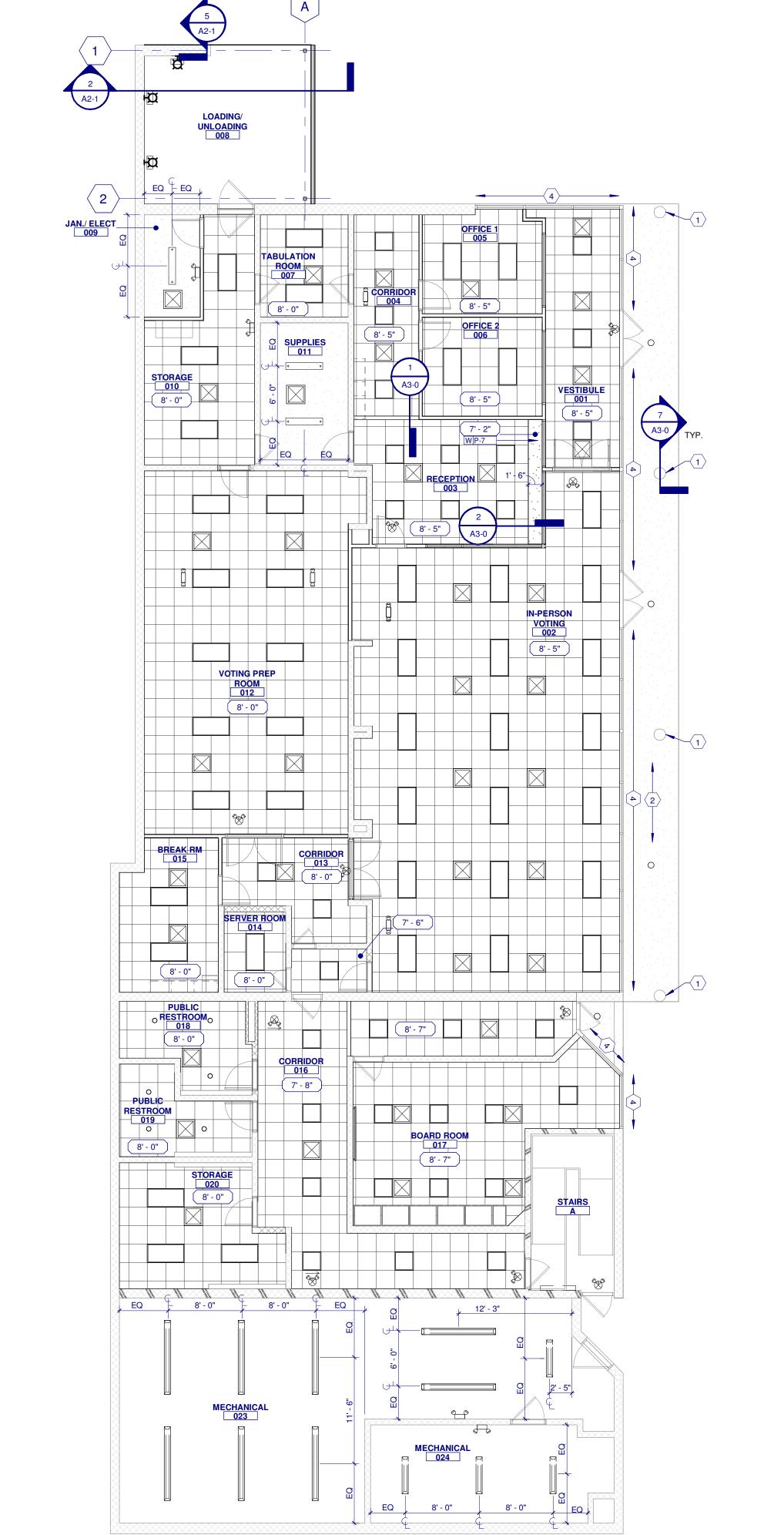
PROJECT NO.

LOWER LEVEL KEY PLAN

NOT IN SCOPE ----

REFLECTED CEILING PLAN -LOWER LEVEL

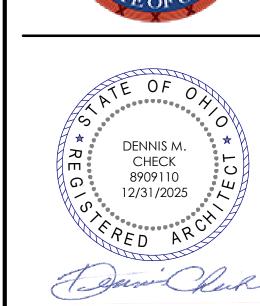
REFLECTED CEILING PLAN - LOWER LEVEL SCALE: 1/8" = 1'-0"



AT 9'-0" AFF

11' - 0" APC-2

B.O. FIXTURE AT 8'-0" AFF



BIDDING AND PLAN REVIEW

PROJECT NO.

REFLECTED CEILING PLAN -UPPER LEVEL

B.O. FIXTURES — —AT 11'-0" AFF FABRIC CANOPY (BID-ALTERNATE 1) B.O. FIXTURES TO ALIGN
WITH BOTTOM OF JOISTS FIXTURES TO BE MOUNTED AT BOTTOM OF JOISTS B.O. FIXTURE AT 8'-0" AFF LARGE CONFERENCE INTERVIEW ROOM INTERVIEW ROOM 1109 INTERVIEW ROOM 7' - 1" W|P-3 REFLECTED CEILING PLAN - UPPER LEVEL SCALE: 1/8" = 1'-0"

B.O. FIXTURES AT 8'-0" AFF

THIS WORK SHALL BE COMPLETED UNDER BID ALTERNATE NO. 1

UPPER LEVEL KEY PLAN

NOT IN SCOPE

- REFER TO PROJECT MANUAL FOR SPECIFIC INFORMATION RELATED TO EXTERIOR VISION GLAZING AND TEMPERED GLAZING.
   REFER TO FLOOR PLANS AND WALL SECTIONS FOR ADDITIONAL INFORMATION RELATED TO EXTERIOR FRAME TYPES SHOWN HERE. INTERIOR FRAME TYPES ARE IDENTIFIED IN THE A7 SERIES.
- 3. REFER TO DOOR SCHEDULE (A8 SERIES) FOR ADDITIONAL INFORMATION RELATED EXTERIOR DOORS SHOWN HERE.
- 4. COORDINATE ALL THROUGH-WALL PENETRATIONS WITH MEP DRAWINGS. REFER TO PLAN FOR LOCATIONS OF REPLACEMENT OF SINGLE WINDOW LITES WHERE A/C UNITS HAVE BEEN REMOVED.

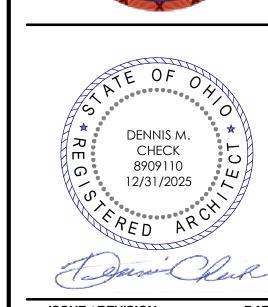
LEGEND

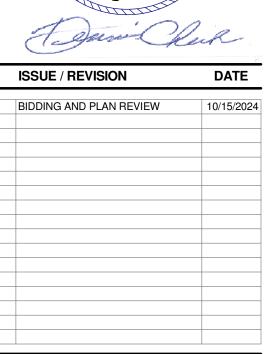
EXTERIOR VISION GLAZING (IG-1 UNO)

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FABRIC CANOPY WITH OPEN SIDES AND STRAIGHT FIXED VALANCE WITH 1" SQUARE

ALUMINUM TUBING,
PAINTED, WITH FABRIC
FASTENED WITH FLAT BAR

IN OPEN HEM AND SELFTAPPED INTO FRAME WITH
STAINLESS STEEL
HARDWARE. ANCHOR TO

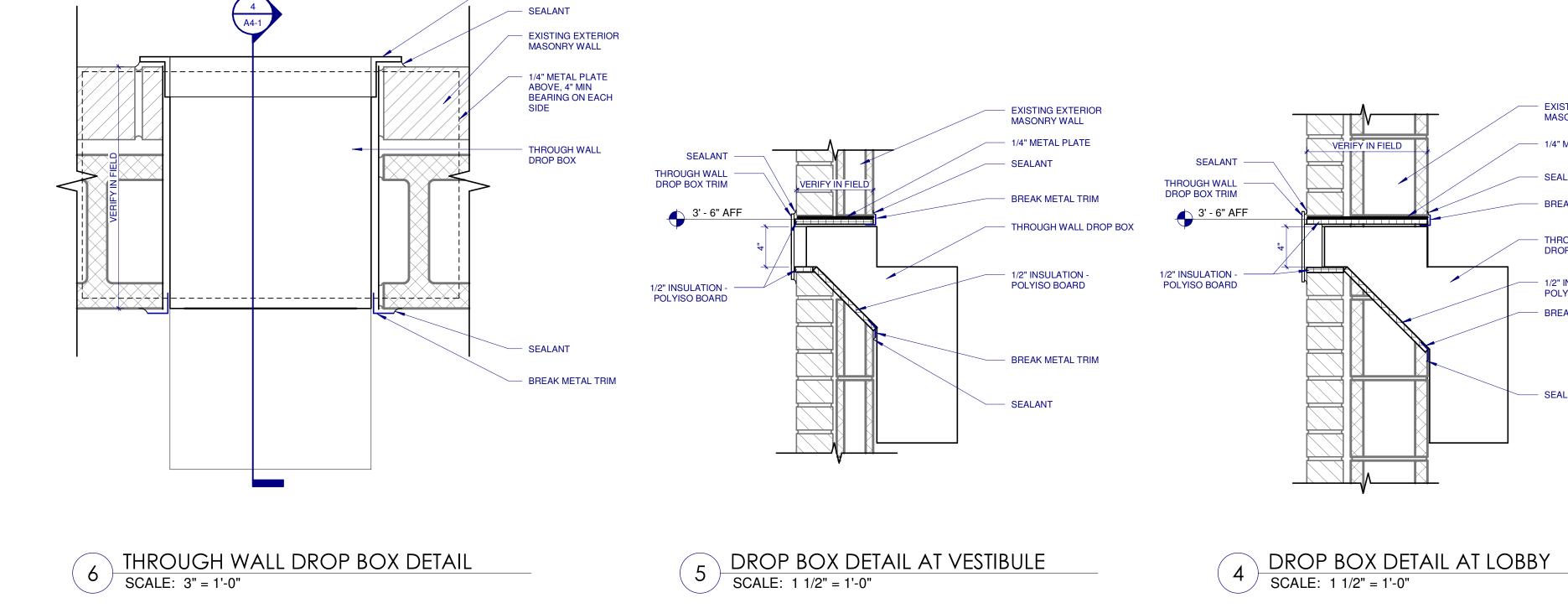
4 EXISTING BUILDING FACE.
FABRIC COLOR TO BE
SELECTED FROM
MANUFACTURER'S
STANDARD FULL RANGE.
(BID-ALTERNATE 1)

DROP BOX

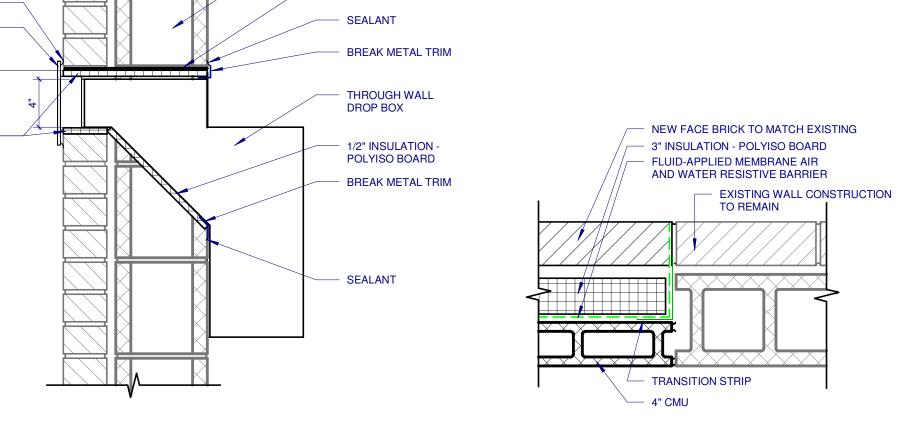
**EXTERIOR ELEVATIONS &** 

PROJECT NO.

**DETAILS** © 2024



THROUGH WALL DROP BOX TRIM



EXISTING EXTERIOR MASONRY WALL

- 1/4" METAL PLATE





FABRIC CANOPY (BID-ALTERNATE 1)

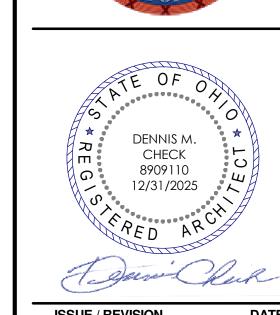
2 ENTRANCE CANOPY SCALE: 1/4" = 1'-0"

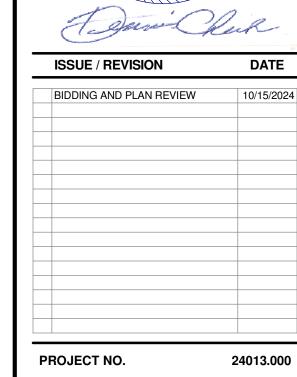
3' - 0"

WALL INFILL -

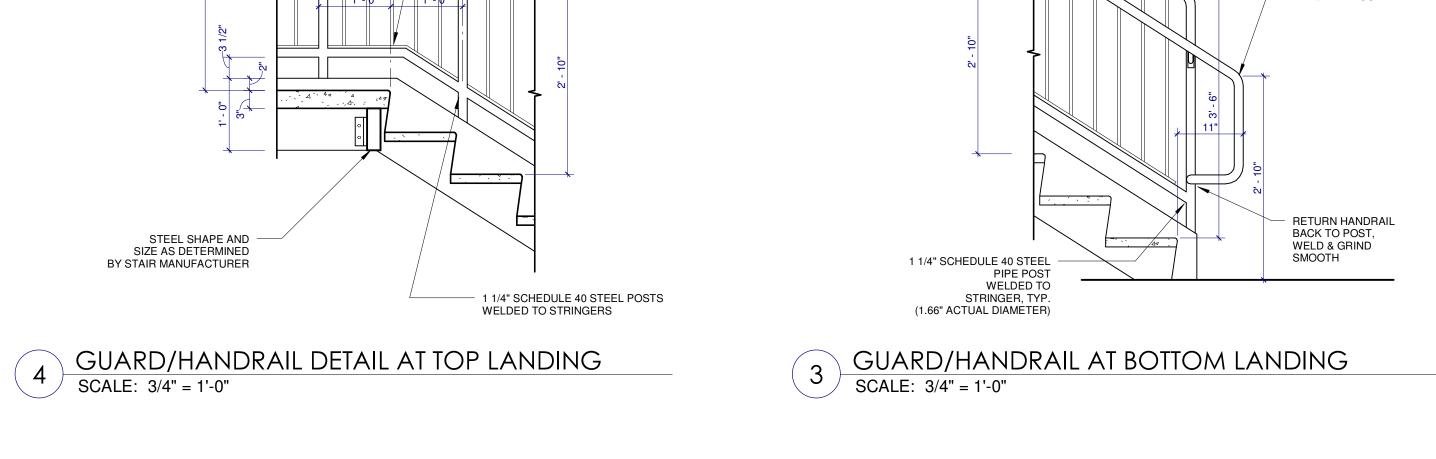
FINISH FLOOR

1 EXTERIOR ENTRY ELEVATION
SCALE: 1/4" = 1'-0"





GENERAL INFO & TYPICAL STAIR DETAILS



— 12" STEEL STRINGER

— REFER TO FINISH PLANS

CONCRETE FILLED

— 1/2" RADIUS NOSING

STAIR SURFACES

1 1/4" SCHEDULE 40 STEEL PIPE RAILS BOTH SIDES

MITER & GRIND SMOOTH ALL JOINTS IN RAILING

(1.66" ACTUAL OUTSIDE DIAMETER)

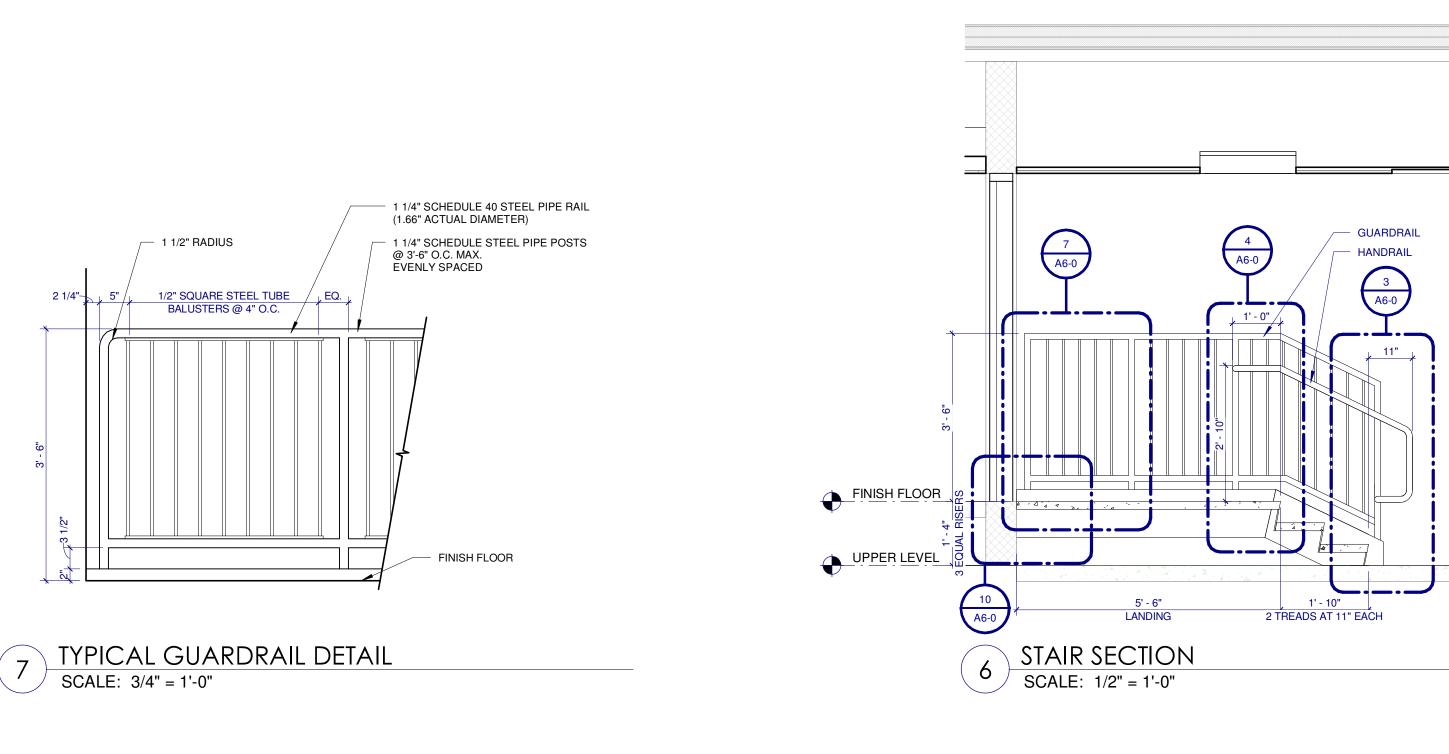
OF STAIR, PAINT

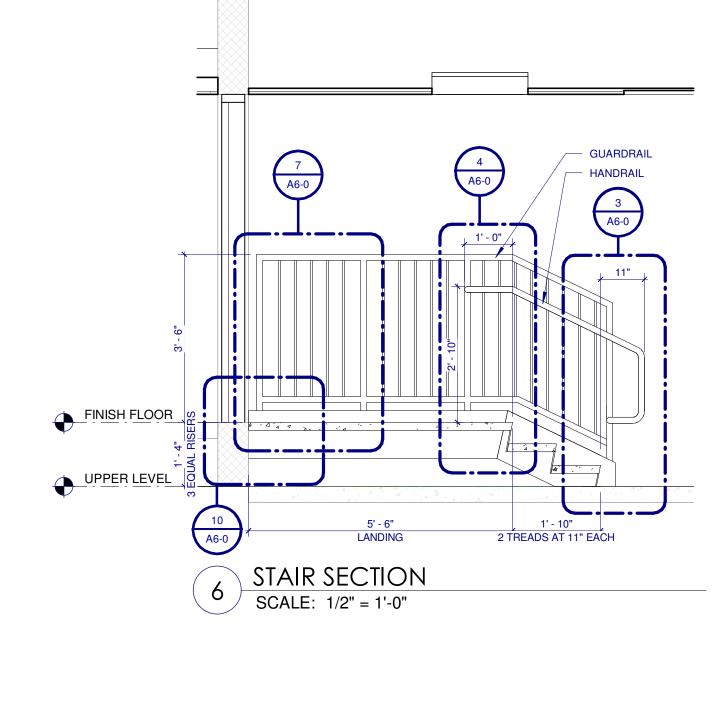
- CAP ALL ENDS & RETURN BACK TO WALL

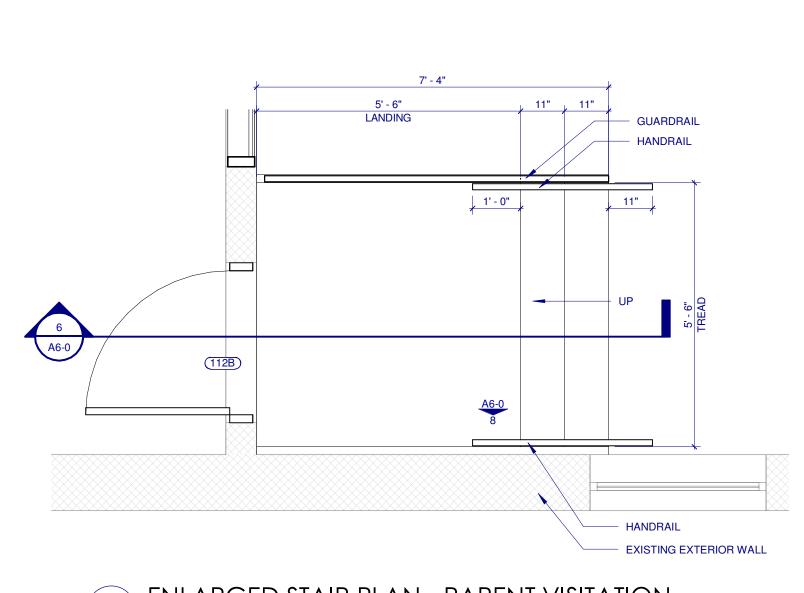
PAINT ALL EXPOSED STEEL

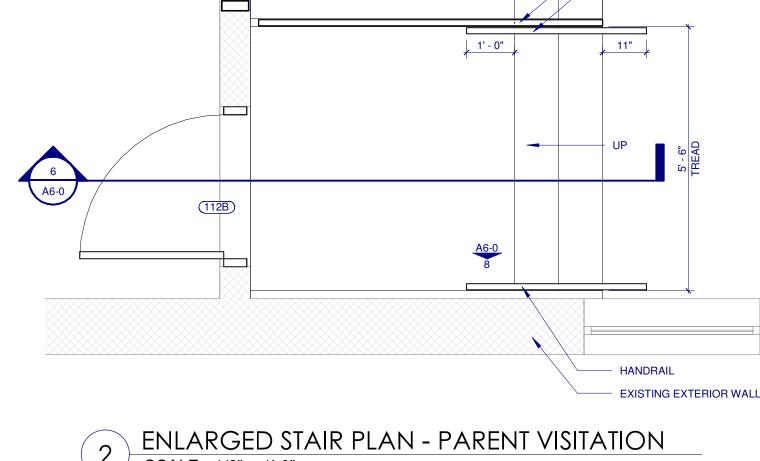
REFER TO PLANS & SECTIONS FOR EXACT RISER & TREAD

DIMENSIONS

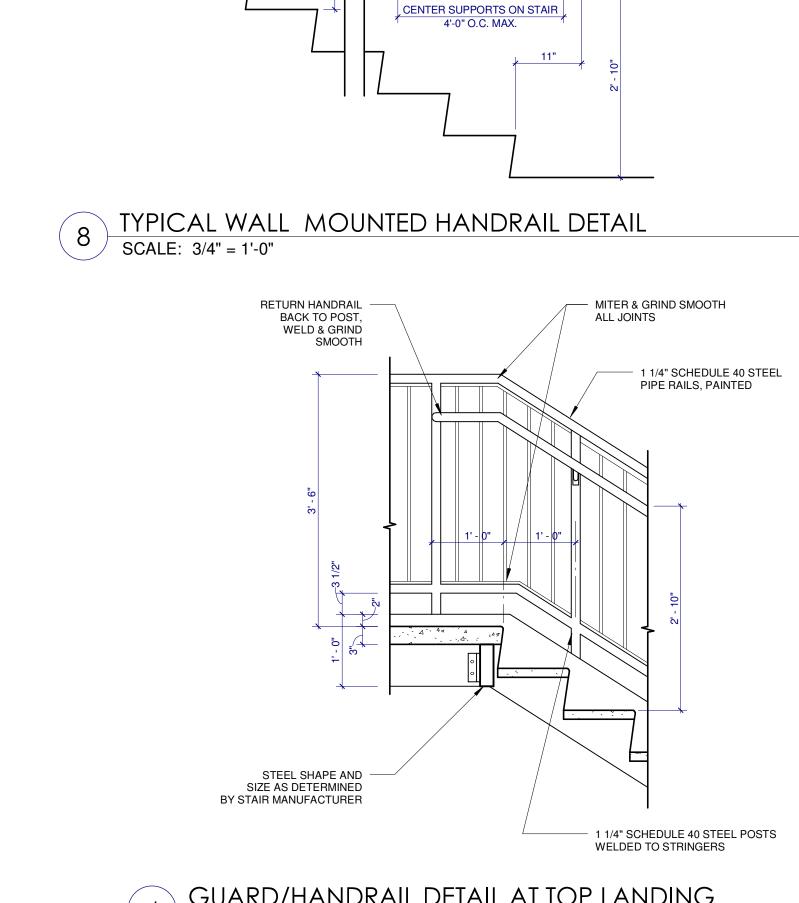






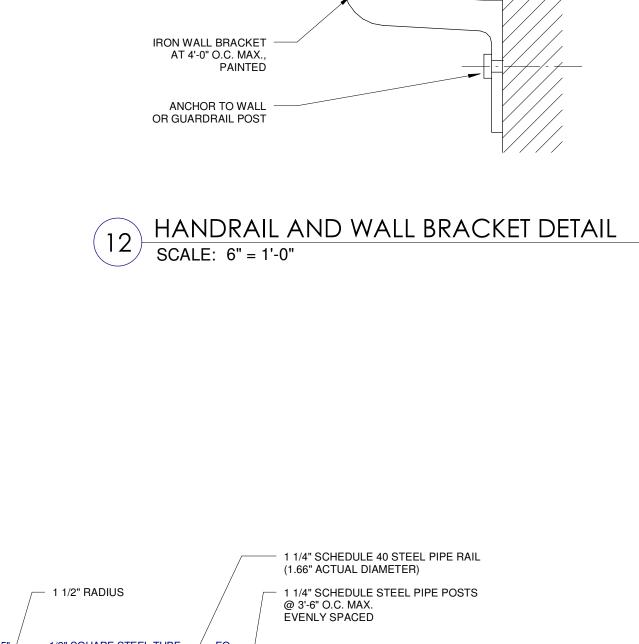


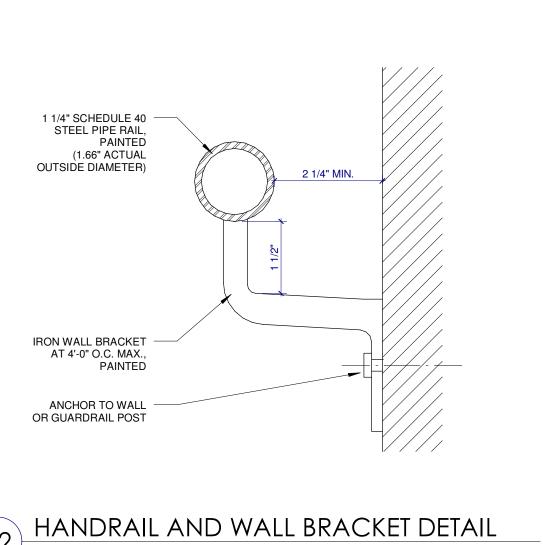




1' - 0"

13 TYPICAL TREADS AND RISERS - INTERIOR SCALE: 1 1/2" = 1'-0"

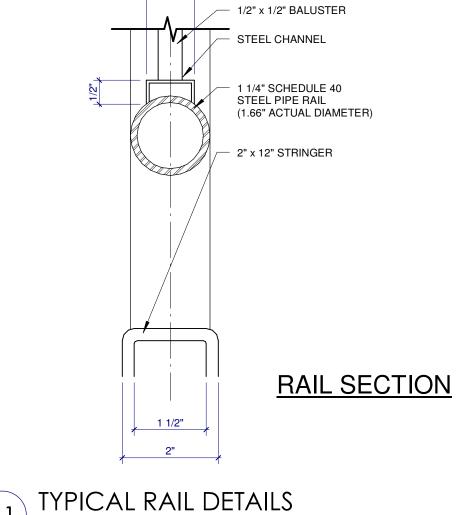




1 1/4" SCHEDULE 40 STEEL PIPE RAILS, PAINTED (1.66" ACTUAL DIAMETER)

PROVIDE 1/2" x 1/2" BALUSTERS AT 4" O.C. UNLESS NOTED OTHERWISE

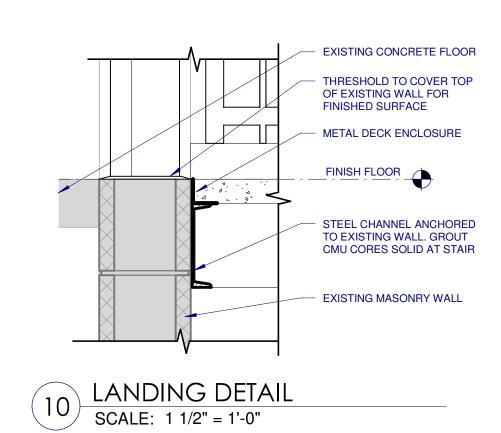


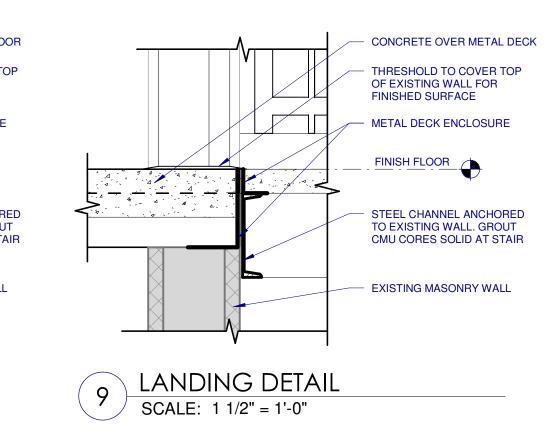


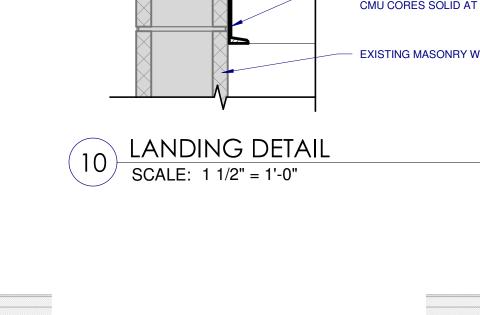
POST PLAN

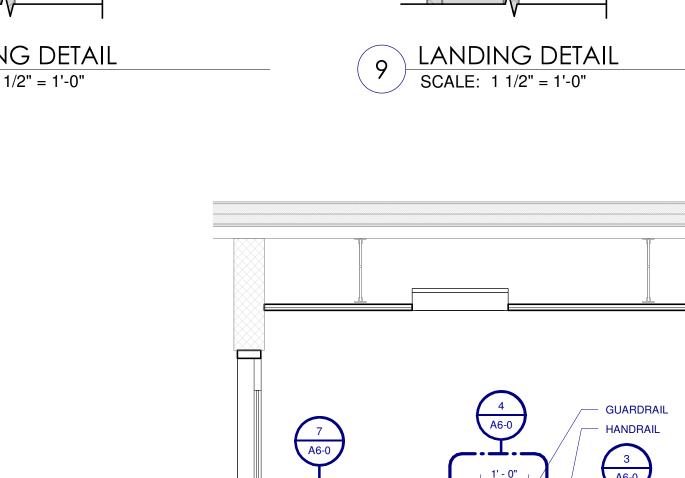
COPE END OF CHANNEL TO —— FIT AROUND POST, FILL CORNER WITH BODY PUTTY

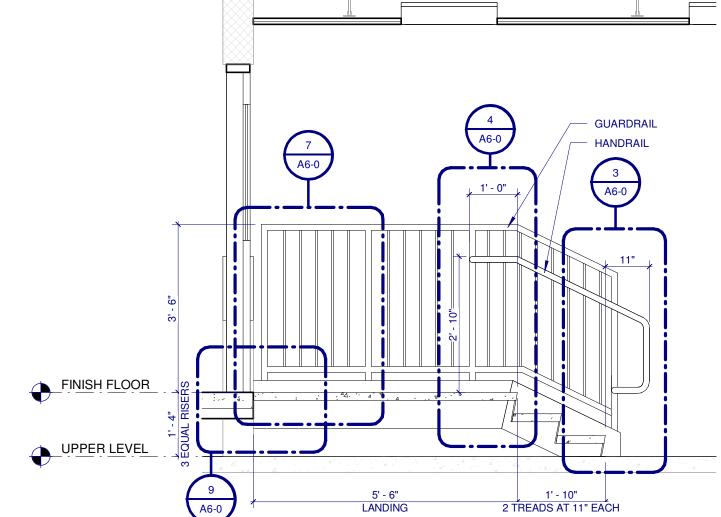
AND GRIND SMOOTH











5 STAIR SECTION
SCALE: 1/2" = 1'-0"

ENLARGED STAIR PLAN - HUDDLE SCALE: 1/2" = 1'-0"

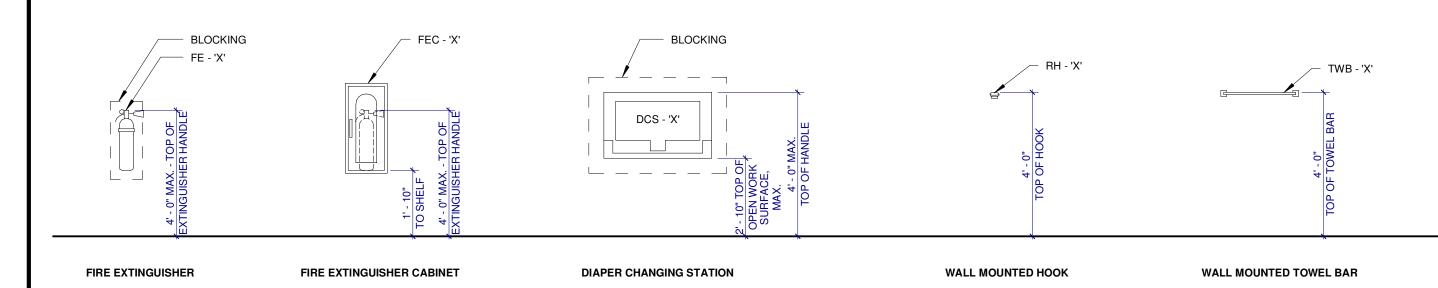
5 A6-0

- GUARDRAIL

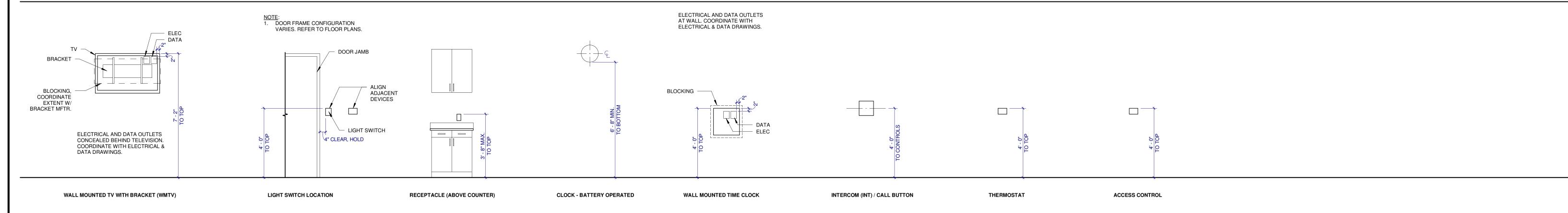
- HANDRAIL

SEE FLOOR PLAN FOR WALL CONSTRUCTION

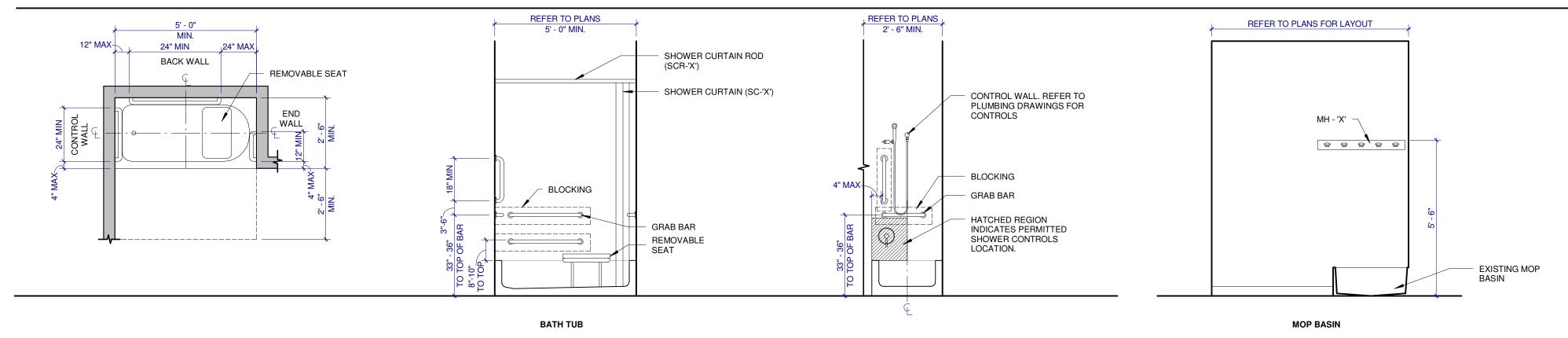
# TYPICAL ACCESSORIES



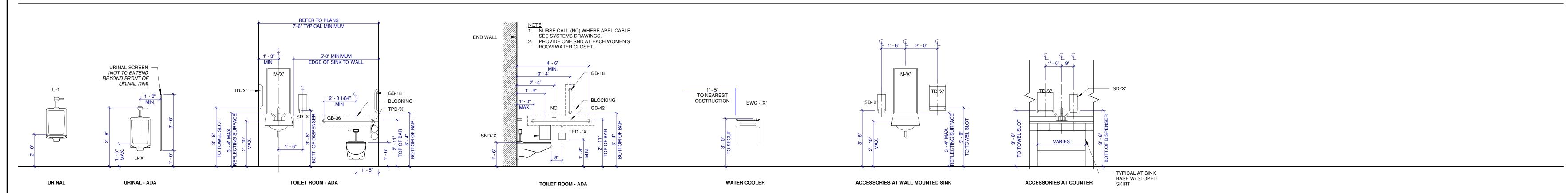
# ELECTRICAL AND TECHNOLOGY



# SHOWER & MISC. PLUMBING MOUNTING DIAGRAMS



# FIXTURE AND PARTITION MOUNTING DIAGRAMS

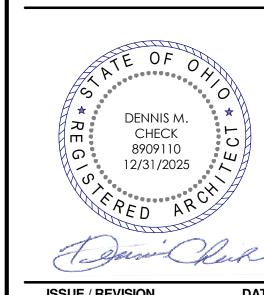


# **GENERAL NOTES**

- 1. MOUNTING HEIGHTS ARE TYPICAL U.N.O. AND MAY VARY DEPENDING ON LOCATION, CONDITION, AND MANUFACTURER. CONFIRM MOUNTING HEIGHTS WITH MANUFACTURER'S REQUIREMENTS.
- 2. DIMENSIONS THAT ARE NOT STATED AS "MAX." OR "MIN." ARE ABSOLUTE.
- 3. REFER TO PROJECT MANUAL FOR WALL MOUNTED ITEMS. REFER TO TYPICAL INTERIOR ELEVATIONS & MOUNTING HEIGHTS DRAWINGS AND REMAINING A7 SERIES DRAWINGS FOR MOUNTING HEIGHTS AND LOCATIONS OF ACCESSORIES, FIXTURES AND SELECT EQUIPMENT NOT INCLUDED IN THE PROJECT MANUAL.
- 4. PROVIDE BLOCKING WHERE DASHED ON A7-0 WITHIN GYPSUM BOARD PARTITIONS FOR WALL MOUNTED AND RECESSED ACCESSORIES, FIXTURES AND EQUIPMENT. COORDINATE WITH PROJECT MANUAL.
- 5. COORDINATE ROUGH OPENING DIMENSIONS FOR RECESSED EQUIPMENT AND ACCESSORIES WITH MANUFACTURER'S REQUIREMENTS.
- 6. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION RELATED TO THEIR RESPECTIVE DEVICES.
  COORDINATE BETWEEN TRADES.

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ISSUE / REVISION	DATE
BIDDING AND PLAN REVIEW	10/15/2024
PROJECT NO.	24013.000

TYPICAL MOUNTING HEIGHTS

GENERAL NOTES

 REFER TO A7-0 AND PROJECT MANUAL FOR TYPICAL WALL MOUNTED ITEMS AND HEIGHTS. REFER TO REMAINING A7 SERIES DRAWINGS FOR LOCATION-SPECIFIC MOUNTING HEIGHTS AND LOCATIONS OF ACCESSORIES, FIXTURES AND SELECT EQUIPMENT NOT INCLUDED IN THE PROJECT MANUAL.

2. PROVIDE BLOCKING WITHIN GYPSUM BOARD PARTITIONS FOR WALL

AND ACCESSORIES WITH MANUFACTURER'S REQUIREMENTS.

MOUNTED AND RECESSED ACCESSORIES, FIXTURES AND EQUIPMENT.

COORDINATE ROUGH OPENING DIMENSIONS FOR RECESSED EQUIPMENT

1. REFER TO TYPICAL MILLWORK DETAILS FOR TYPICAL FASCIA/SOFFIT ABOVE

PROVIDE 4" BACKSPLASH AND SIDESPLASHES TO MATCH COUNTERTOP

4. PROVIDE PVC EDGE BANDING FOR PLASTIC LAMINATE COUNTERTOPS AND

BASE CABINETS AT COUNTERTOPS DEEPER THAN THE STANDARD 25" SHALL

HAVE EXTENDED FINISHED ENDS FROM BACK OF BASE CABINET TO WALL

BEYOND. FOR DRAWER UNITS, CABINET BODIES CAN REMAIN STANDARD

PROVIDE ONE ADJUSTABLE SHELF AT ALL WALL CABINETS 24" HIGH AND

8. ALL CABINETRY, DOORS AND DRAWERS, WHETHER THEY ARE SCHEDULED TO RECEIVE LOCKS OR NOT ARE TO RECEIVE GROOVE FOR FUTURE LOCK

SHORTER. PROVIDE TWO ADJUSTABLE SHELVES AT ALL WALL CABINETS 25"

TO 36" HIGH. PROVIDE ADJUSTABLE SHELVES AS NOTED ON ELEVATIONS AT

CABINETS TALLER THAN 36" HIGH. PROVIDE ONE ADJUSTABLE SHELF AT ALL

DEPTH. FOR DOOR AND CABINET UNITS, CABINET BODY SHALL BE FULL

3. PROVIDE PLASTIC LAMINATE FACING ON ALL EXPOSED SURFACES OF

WALL-MOUNTED ACCESSORIES & EQUIPMENT:

CABINET DETAIL CONDITION.

MILLWORK UNLESS NOTED OTHERWISE.

CABINETS UNLESS NOTED OTHERWISE.

5. PROVIDE FILLERS FOR CABINETS AS REQUIRED.

TAIL PIECE UNLESS NOTED OTHERWISE.

MATERIAL U.N.O.

BASE CABINETS U.N.O.

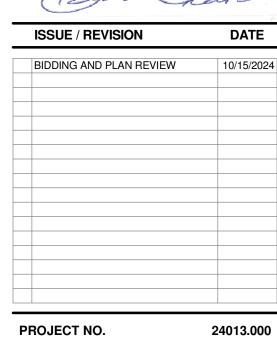
MILLWORK:

SCHEDULED CLG HT

UPPER CABINET HT

2'-10" TYP. STANDING HT COUNTER

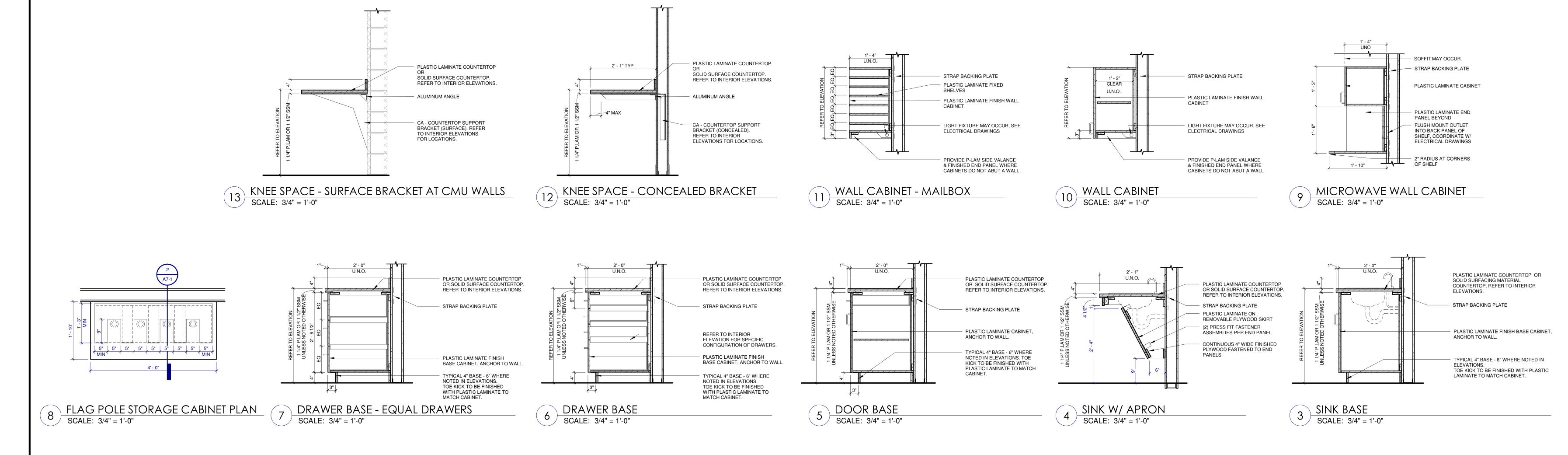
2'-6" TYP. SEATED HT COUNTER



GENERAL INFO & TYPICAL MILLWORK

DETAILS A7-1

A7-1



WALL CABINET MAILBOX

> GYPSUM BOARD SOFFIT OR FASCIA PANEL

WALL CABINET W/ UCL

> DOOR BASE W/ DRAWER

SINK BASE

KEYCODE LOCK -INDICATION

FILLER PANEL (FP)

UNDER CABINET

CABINET / DRAWER LOCK INDICATION

FILLER PANEL (FP) -

LIGHT (UCL)

STRAP BACKING PLATE

ADJUSTABLE SHELVING,

SHOWN OTHERWISE ON

NOTE: TALL STORAGE UNIT MAY

TO INTERIOR ELEVATIONS

FIXED BASE SHELF

BE OPEN (NO DOOR), REFER

INTERIOR ELEVATIONS

- FIXED SHELF

PROVIDE (4) SHELVES UNLESS

STRAP BACKING PLATE

ADJUSTABLE SHELVING,

PROVIDE 7 HEAVY DUTY

SHELVES AND HEAVY

DUTY BRACKETS

HORIZONTAL SLOT

FIXED BASE SHELF

TYPICAL 4" BASE - 6" —

WHERE NOTED IN

TOE KICK TO BE FINISHED

WITH PLASTIC LAMINATE

TO MATCH CABINET.

ELEVATIONS.

PER SHELF

TYPICAL 4" BASE - 6"

TOE KICK TO BE FINISHED

WITH PLASTIC LAMINATE

TO MATCH CABINET.

WHERE NOTED IN

ELEVATIONS.

FLAG POLE STORAGE CABINET
SCALE: 3/4" = 1'-0"

STORAGE, 8 STANDS

TYPICAL MILLWORK ELEVATIONS

COUNTER SUPPORT ANGLES (CA)

KNEE SPACE

STORAGE CABINET



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PROVIDE BLOCKING WITHIN GYPSUM BOARD PARTITIONS FOR WALL MOUNTED AND RECESSED ACCESSORIES, FIXTURES AND EQUIPMENT.

COORDINATE ROUGH OPENING DIMENSIONS FOR RECESSED EQUIPMENT AND ACCESSORIES WITH MANUFACTURER'S REQUIREMENTS.

1. REFER TO TYPICAL MILLWORK DETAILS FOR TYPICAL FASCIA/SOFFIT ABOVE CABINET DETAIL CONDITION.

2. PROVIDE 4" BACKSPLASH AND SIDESPLASHES TO MATCH COUNTERTOP MATERIAL U.N.O.

PROVIDE PLASTIC LAMINATE FACING ON ALL EXPOSED SURFACES OF MILLWORK UNLESS NOTED OTHERWISE.

4. PROVIDE PVC EDGE BANDING FOR PLASTIC LAMINATE COUNTERTOPS AND CABINETS UNLESS NOTED OTHERWISE.

5. PROVIDE FILLERS FOR CABINETS AS REQUIRED. 6. BASE CABINETS AT COUNTERTOPS DEEPER THAN THE STANDARD 25" SHALL HAVE EXTENDED FINISHED ENDS FROM BACK OF BASE CABINET TO WALL

7. PROVIDE ONE ADJUSTABLE SHELF AT ALL WALL CABINETS 24" HIGH AND SHORTER. PROVIDE TWO ADJUSTABLE SHELVES AT ALL WALL CABINETS 25" TO 36" HIGH. PROVIDE ADJUSTABLE SHELVES AS NOTED ON ELEVATIONS AT CABINETS TALLER THAN 36" HIGH. PROVIDE ONE ADJUSTABLE SHELF AT ALL

8. ALL CABINETRY, DOORS AND DRAWERS, WHETHER THEY ARE SCHEDULED TO RECEIVE LOCKS OR NOT ARE TO RECEIVE GROOVE FOR FUTURE LOCK TAIL PIECE UNLESS NOTED OTHERWISE.

# TYPICAL MATERIALS (UNO)

COUNTERTOPS, BACKSPLASHES & SIDESPLASHES
BASE & WALL CABINETS WINDOW STOOLS

# MATERIAL DESIGNATIONS

PLASTIC LAMINATE SOLID SURFACE

# SERVICE OUTLETS LEGEND

ELECTRICAL OUTLET - NORMAL POWER ELECTRICAL OUTLET -EMERGENCY POWER TELEPHONE DATA TELEVISION INTERCOMM LIGHT SWITCH PUSH PLATE THERMOSTAT

# LEGEND

SPECIALTY ITEM, EQUIPMENT OR FURNISHING TAG REFER TO A11 SERIES OR PROJECT MANUAL FOR TAG SCHEDULE AND INFORMATION **EQUIPMENT ITEM** OWNER FURNISHED, CONTRACTOR INSTALLED □ □ □ □ □ ■ EQUIPMENT ITEM OWNER FURNISHED, OWNER INSTALLED UNDER CABINET LIGHT - SEE ELECTRICAL DRAWINGS DENOTES NON-TYPICAL FINISH
REFER TO A7 SERIES MILLWORK MATERIAL KEY & A9 SERIES FINISH MATERIAL KEY

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PROJECT NO. 24013.000

**INTERIOR** 

**ELEVATIONS** 



INTERIOR

**ELEVATIONS** 

FINISH SURFACE

24013.000

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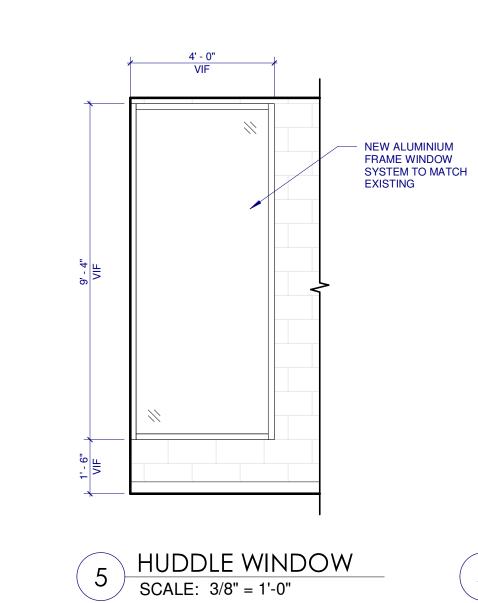
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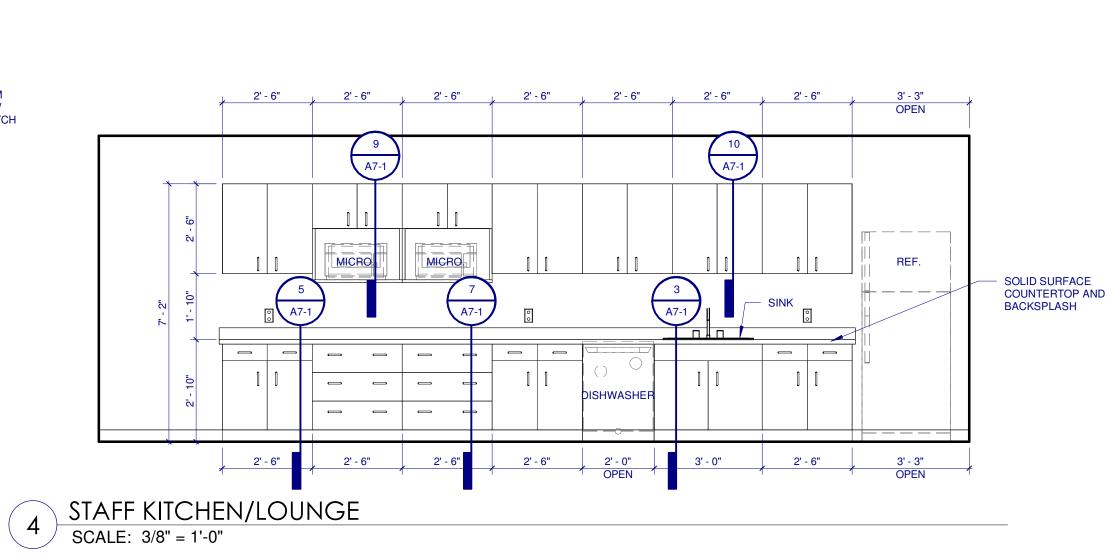
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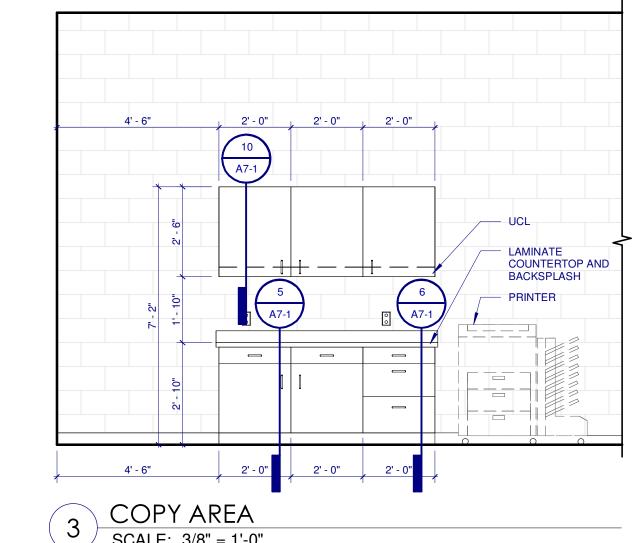
BIDDING AND PLAN REVIEW

INTERIOR **ELEVATIONS** 

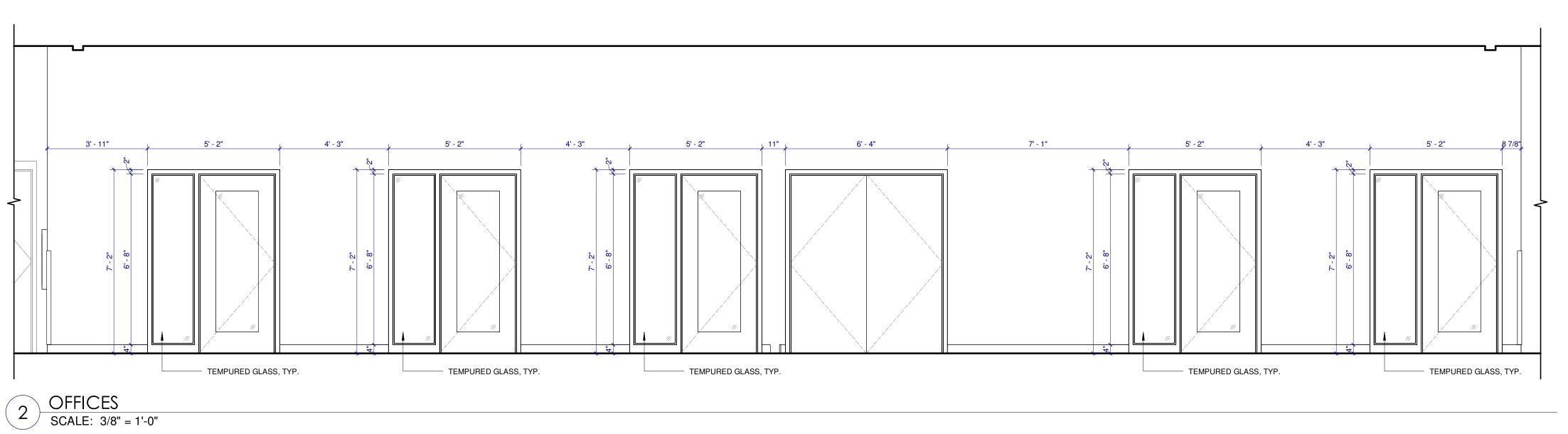
# 7 SMALL CONFERENCE SCALE: 3/8" = 1'-0"







# COPY AREA SCALE: 3/8" = 1'-0"



# 2'-0" 2'-0" 2'-0" 2'-0" LAMINATE — COUNTERTOP AND BACKSPLASH <sup>⊥</sup> UCL

2' - 0" 2' - 0" 2' - 0" 2' - 0"

1 COPY AREA
SCALE: 3/8" = 1'-0"

SPECIALTY ITEM, EQUIPMENT OR FURNISHING TAG REFER TO A11 SERIES OR PROJECT MANUAL FOR TAG SCHEDULE AND INFORMATION **EQUIPMENT ITEM** 

OWNER FURNISHED, CONTRACTOR INSTALLED □ □ □ □ □ ■ EQUIPMENT ITEM OWNER FURNISHED, OWNER INSTALLED

UNDER CABINET LIGHT - SEE ELECTRICAL DRAWINGS

LEGEND

GENERAL NOTES

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2. PROVIDE BLOCKING WITHIN GYPSUM BOARD PARTITIONS FOR WALL MOUNTED AND RECESSED ACCESSORIES, FIXTURES AND EQUIPMENT.

MILLWORK:

CABINET DETAIL CONDITION.

BASE CABINETS U.N.O.

COUNTERTOPS, BACKSPLASHES & SIDESPLASHES
BASE & WALL CABINETS

PLASTIC LAMINATE SOLID SURFACE

**EMERGENCY POWER** 

WATERLINE CONNECTION

MATERIAL FINISH SURFACE

TELEPHONE

DATA TELEVISION

INTERCOMM LIGHT SWITCH PUSH PLATE THERMOSTAT

ELECTRICAL OUTLET - NORMAL POWER ELECTRICAL OUTLET -

WINDOW STOOLS

5. PROVIDE FILLERS FOR CABINETS AS REQUIRED.

3. COORDINATE ROUGH OPENING DIMENSIONS FOR RECESSED EQUIPMENT AND ACCESSORIES WITH MANUFACTURER'S REQUIREMENTS.

1. REFER TO TYPICAL MILLWORK DETAILS FOR TYPICAL FASCIA/SOFFIT ABOVE

2. PROVIDE 4" BACKSPLASH AND SIDESPLASHES TO MATCH COUNTERTOP MATERIAL U.N.O.

PROVIDE PLASTIC LAMINATE FACING ON ALL EXPOSED SURFACES OF MILLWORK UNLESS NOTED OTHERWISE.

4. PROVIDE PVC EDGE BANDING FOR PLASTIC LAMINATE COUNTERTOPS AND CABINETS UNLESS NOTED OTHERWISE.

6. BASE CABINETS AT COUNTERTOPS DEEPER THAN THE STANDARD 25" SHALL HAVE EXTENDED FINISHED ENDS FROM BACK OF BASE CABINET TO WALL BEYOND. FOR DRAWER UNITS, CABINET BODIES CAN REMAIN STANDARD DEPTH. FOR DOOR AND CABINET UNITS, CABINET BODY SHALL BE FULL

7. PROVIDE ONE ADJUSTABLE SHELF AT ALL WALL CABINETS 24" HIGH AND SHORTER. PROVIDE TWO ADJUSTABLE SHELVES AT ALL WALL CABINETS 25" TO 36" HIGH. PROVIDE ADJUSTABLE SHELVES AS NOTED ON ELEVATIONS AT CABINETS TALLER THAN 36" HIGH. PROVIDE ONE ADJUSTABLE SHELF AT ALL

8. ALL CABINETRY, DOORS AND DRAWERS, WHETHER THEY ARE SCHEDULED TO RECEIVE LOCKS OR NOT ARE TO RECEIVE GROOVE FOR FUTURE LOCK TAIL PIECE UNLESS NOTED OTHERWISE.

TYPICAL MATERIALS (UNO)

MATERIAL DESIGNATIONS

SERVICE OUTLETS LEGEND

DENOTES NON-TYPICAL FINISH REFER TO A7 SERIES MILLWORK MATERIAL KEY & A9 SERIES FINISH MATERIAL KEY

6 SMALL CONFERENCE SCALE: 3/8" = 1'-0"



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GENERAL NOTES

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PROJECT NO. 24013.000 INTERIOR

**ELEVATIONS** 

RETENTION CABINETS
SCALE: 3/8" = 1'-0"

PUBLIC RESTROOM SCALE: 3/8" = 1'-0"

PUBLIC RESTROOM
SCALE: 3/8" = 1'-0"

2 BOARD ROOM SCALE: 3/8" = 1'-0"

FINISH SURFACE

DENOTES NON-TYPICAL FINISH REFER TO A7 SERIES MILLWORK MATERIAL KEY & A9 SERIES FINISH MATERIAL KEY

MATERIAL

LEGEND

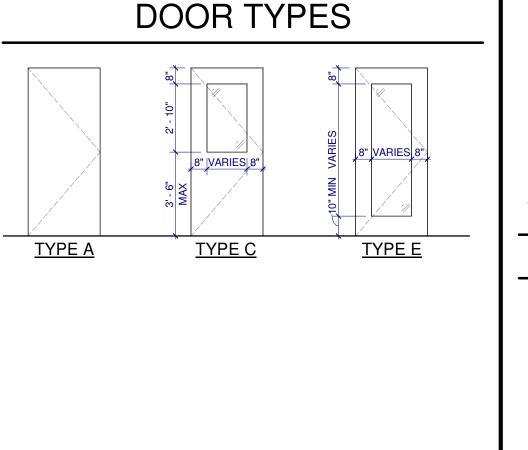
**EQUIPMENT ITEM** 

SPECIALTY ITEM, EQUIPMENT OR FURNISHING TAG REFER TO A11 SERIES OR PROJECT MANUAL FOR TAG SCHEDULE AND INFORMATION

OWNER FURNISHED, CONTRACTOR INSTALLED

UNDER CABINET LIGHT - SEE ELECTRICAL DRAWINGS

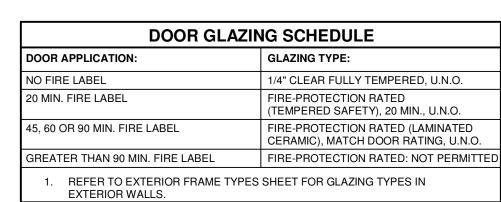
OWNER FURNISHED, OWNER INSTALLED



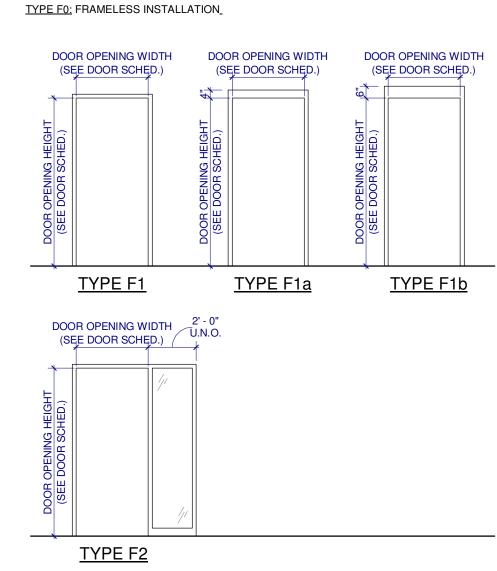
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# DOOR FRAME TYPES



DOOR SIDELITE/TRANSOM GLAZING SCHEDULE			
DOOR APPLICATION:	GLAZING TYPE:		
NO FIRE LABEL	1/4" CLEAR FULLY TEMPERED, U.N.O.		
20 MIN. FIRE LABEL	FIRE-PROTECTION RATED (TEMPERED SAFETY), 20 MIN., U.N.O.		
45. FIRE LABEL	FIRE-PROTECTION RATED (LAMINATED CERAMIC), 45 MIN., U.N.O.		
GREATER THAN 45 MIN. FIRE LABEL	FIRE-PROTECTION RATED: NOT PERMITTED		



- 1. REFER TO TYPICAL INTERIOR DOOR DETAILS FOR ALL INTERIOR DOOR FRAMES, UNO IN DOOR SCHEDULE. TYPICAL INTERIOR DOOR FRAMES ARE REFERENCED BY FRAME MATERIAL.
- 2. FOR ALL OTHER EXTERIOR DOOR FRAME DETAILS, REFER TO EXTERIOR FRAME TYPES SHEET (A4 SERIES).
- 3. REFER TO PROJECT MANUAL FOR DOOR HARDWARE SET INFORMATION. 4. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION ON ACCESS CONTROL SYSTEM AND POWER REQUIREMENTS OF ELECTRIFIED
- 5. 'OPENING WIDTH' INDICATED IN DOOR SCHEDULE REFERS TO NOMINAL INSIDE WIDTH OF DOOR FRAME.
- 6. REFER TO STRUCTURAL DRAWINGS FOR LINTEL SCHEDULE.
- 7. INSTALL CONTINUOUS IN-WALL CONCEALED BLOCKING AT HEAD FOR DOORS WITH AUTO OPERATORS.
- 8. DOOR AUTO OPERATORS TO BE INSTALLED ON SIDE OF DOOR LEAST VISIBLE TO THE PUBLIC. 9. ALL EXISTING DOORS AND FRAMES IN PROJECT AREA TO BE PAINTED P-5.

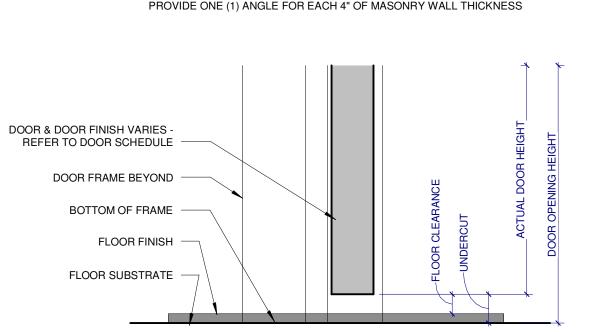
# INTERIOR FRAME TYPE **GENERAL NOTES**

REFER TO FLOOR PLANS FOR LOCATIONS OF INTERIOR FRAME TYPES FOR DETAIL INFORMATION ON EXTERIOR FRAME TYPES, REFER TO A4 SERIES FOR DETAIL INFORMATION ON INTERIOR FRAME TYPES CONTAINING DOORS,

INTERIOR FRAME TYPE GLAZING SCHEDULE LL GLAZING IN INTERIOR FRAME TYPES IS 1/4" CLEAR FULLY TEMPERED, UNO.

# LINTEL SCHEDULE

SPAN LIMITS	SIZE	BEARING
0'-0" TO 1'-0"	1/4" PLATE	4"
1'-1" TO 3'-0"	L 3 1/2 x 3 x 1/4	4"
3'-1" TO 4'-0"	L 3 1/2 x 3 1/2 x 1/4	4"
4'-1" TO 5'-0"	L 4 x 3 1/2 x 1/4	6"
5'-1" TO 6'-0"	L 5 x 3 1/2 x 5/16	6"



DOOR UNDERCUT DETAIL, TYP.

CMU SIZE VARIES. REFER TO PLAN

REFER TO STRUCTURAL

DRAWINGS FOR LINTEL

EXPOSED SURFACES.

SEALANT, BOTH SIDES

SCHEDULE, PAINT

BACKER ROD AND

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**SCHEDULES & DETAILS** 

13 ALUMINIUM WINDOW JAMB
SCALE: 3" = 1'-0" PARTITION + 1

CMU SIZE VARIES.

- MASONRY ANCHOR

BULLNOSE AT ALL

EXPOSED CORNERS

DOES NOT OCCUR

BACKER ROD AND

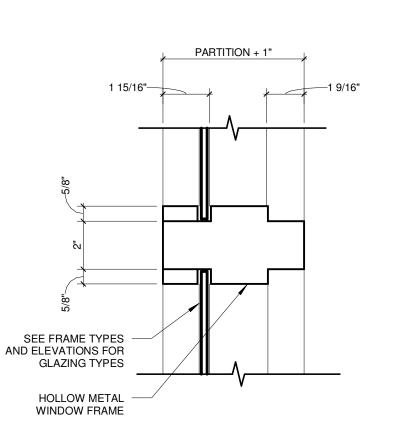
SEE FRAME TYPES

WHERE GYPSUM BOARD

SEALANT, BOTH SIDES

AND ELEVATIONS FOR **GLAZING TYPES** 

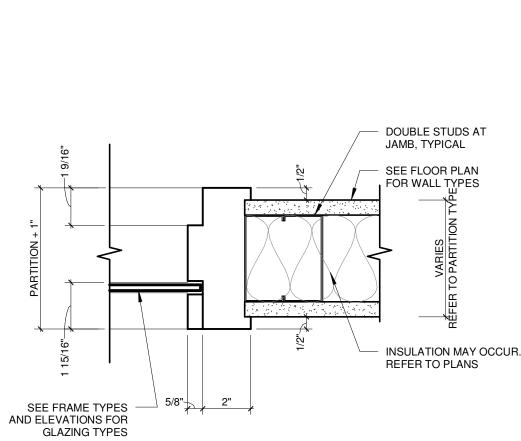
REFER TO PLAN



HOLLOW METAL MULLION

JAMB - MASONRY PARTITION

SCALE: 3" = 1'-0"



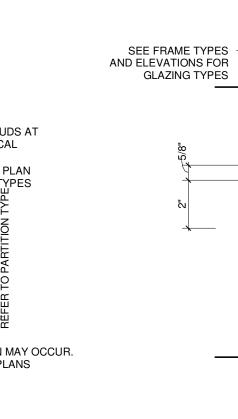
HOLLOW METAL WINDOW JAMB

SCALE: 3" = 1'-0"

ALUMINUM FRAME

**ELEVATIONS** 

REFER TO FRAME TYPE



ALUMINIUM WINDOW HEAD

REFER TO

PARTITION TYPE

FINISHED CEILING

ALUMINUM FRAME

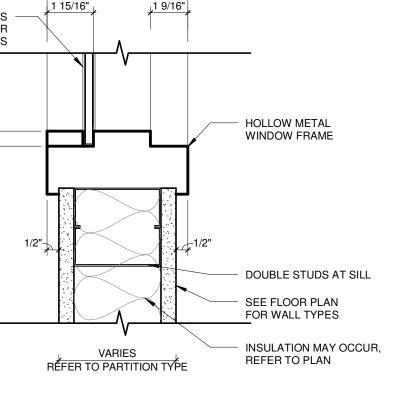
REFER TO FRAME TYPE

MAY OCCUR

INTERIOR

GLAZING-

**ELEVATIONS** 



8 HOLLOW METAL WINDOW SILL/HEAD SCALE: 3" = 1'-0"

- HOLLOW METAL

DOOR/WINDOW

FRAME

GLAZING-

SCALE: 3" = 1'-0"

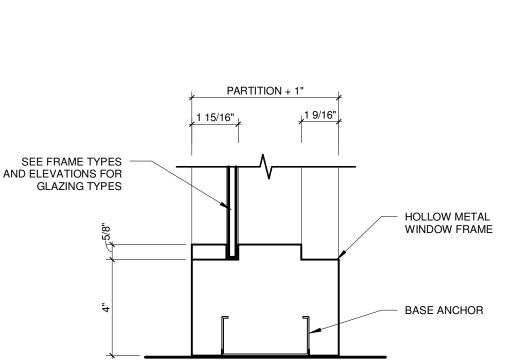
ALUMINIUM WINDOW SILL

REFER TO FRAME TYPE

**ELEVATIONS** 

ALUMINUM FRAME

INTERIOR



VARIES

REFER TO

PARTITION TYPE

SOUND INSULATION

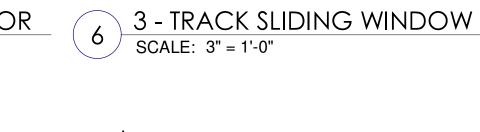
MAY OCCUR.

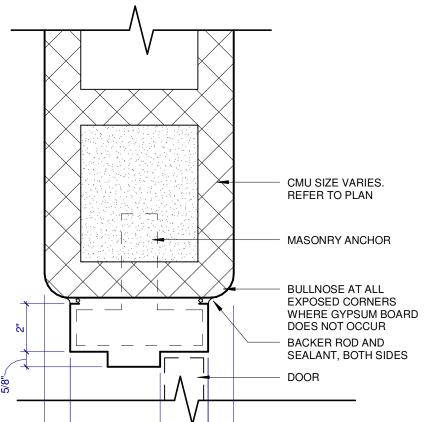
STUDS AT

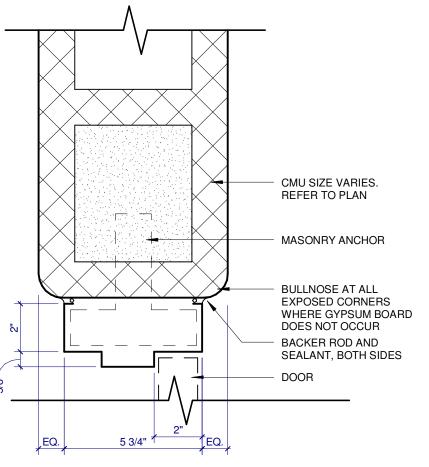
JAMB- TYPICAL

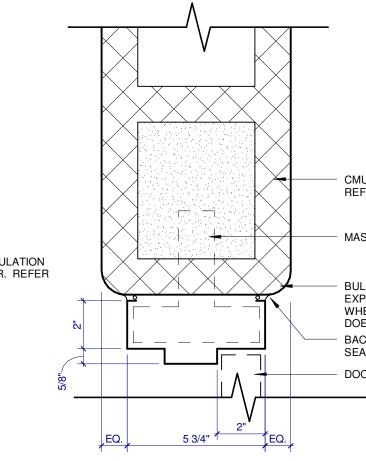
WALL ANCHOR

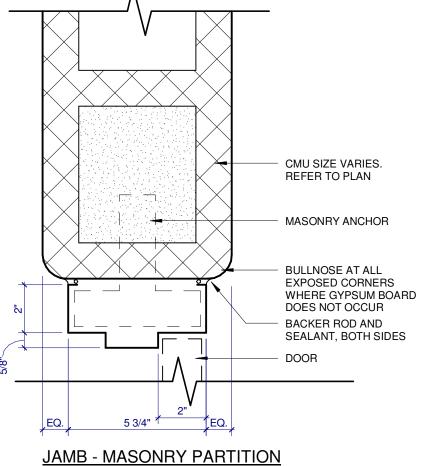
REFER TO PLANS











SOUND INSULATION MAY OCCUR. REFER TO PLANS **HEAD - GYP. BD. PARTITION** 

**HEAD - MASONRY PARTITION** 

**HEAD - MASONRY PARTITION** HOLLOW METAL WINDOW JAMB/SILL HOLLOW METAL WINDOW HEAD SCALE: 3" = 1'-0" SCALE: 3" = 1'-0"

JAMB - SIDELITE

CMU SIZE VARIES. REFER TO PLAN

REFER TO STRUCTURAL

DRAWINGS FOR LINTEL

EXPOSED SURFACES.

SEALANT, BOTH SIDES

SCHEDULE, PAINT

BACKER ROD AND

SEE FRAME TYPES

GLAZING TYPES

AND ELEVATIONS FOR

2 TYPICAL INTERIOR DOOR FRAME DETAILS - HOLLOW METAL SCALE: 3" = 1'-0"

VARIES

REFER TO

JAMB - GYP. BD. PARTITION

PARTITION TYPE

SCALE: 3" = 1'-0"

TRANSITION - RESILIENT FLOORING TO CONCRETE

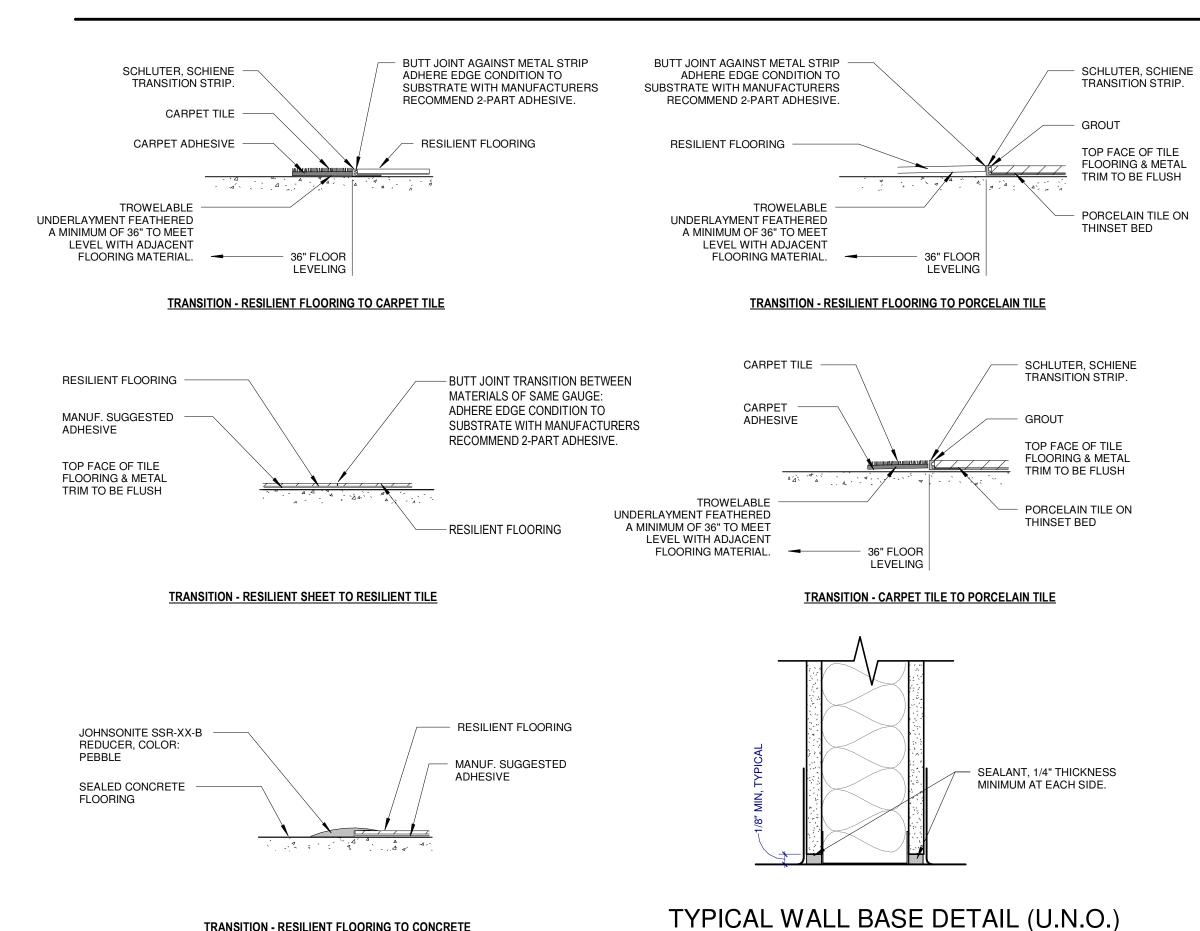


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PROJECT NO. FINISH PLAN -

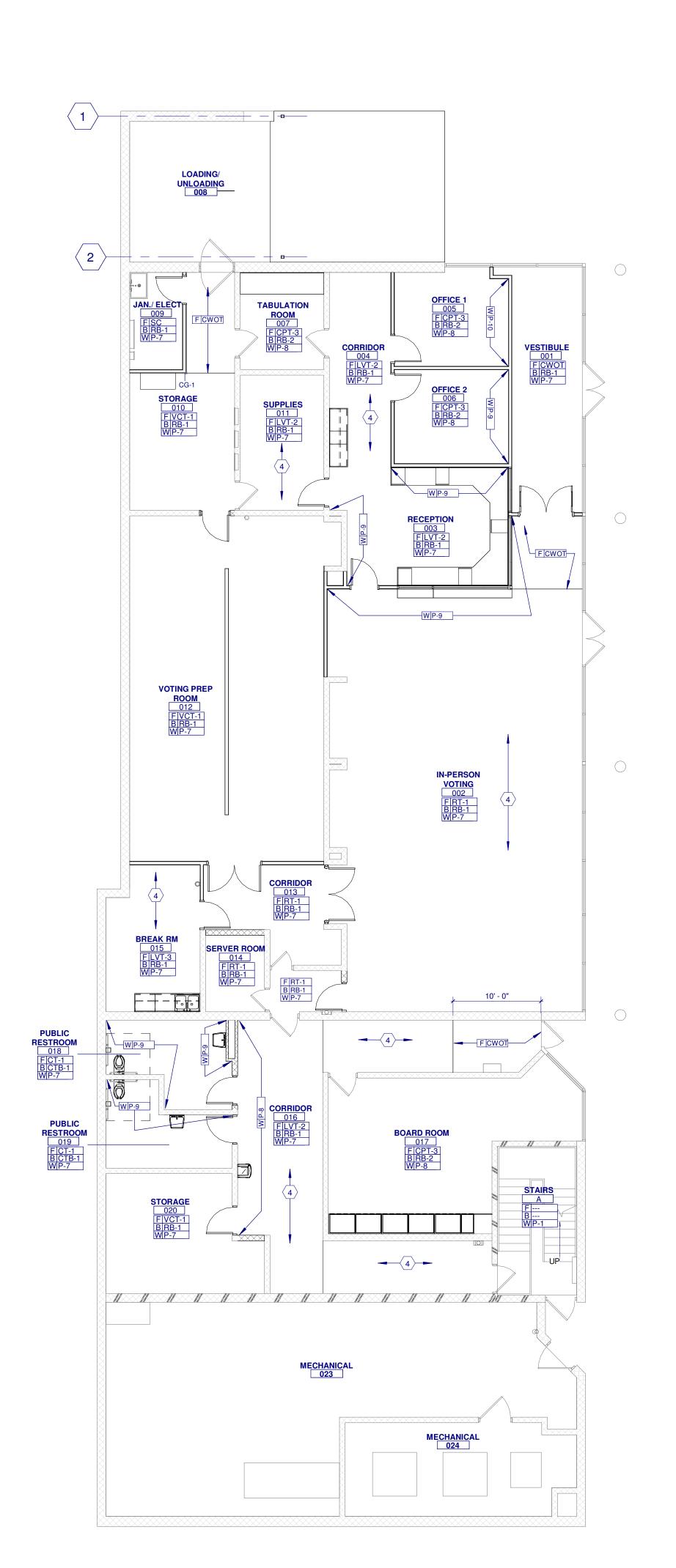
LOWER LEVEL

TYPICAL TRANSITION TYPES & BASE DETAILS



ODE	MANUFACTURER	STYLE	COLOR	SIZE	REMARKS
FLOOR (I	F) CPT ACCEPTABLE CARPET TILE MANUFACTURERS FOR CPT-1, CPT-2	I			
	AND CPT-3; (A) MANNINGTON COMMERCIAL, (B) PATCRAFT AND (C) INTERFACE.				
PT-1	(A) MANNINGTON COMMERCIAL	EXCHANGE 2 / RELAY	SWITCHBOARD 14144	24" X 24"	INSTALL IN
PT-2	(A) MANNINGTON COMMERCIAL	EXCHANGE 2 / TRANSMIT	SWITCHBOARD 14144	24" X 24"	MONOLITHIC PATTERN INSTALL IN
	(A) MANNINGTON COMMERCIAL	EXCHANGE 2 / RELAY		24" X 24"	MONOLITHIC PATTERN INSTALL IN
PT-3		EXCHANGE 2 / RELAY	HOTSPOT 15149	24 X 24"	MONOLITHIC PATTERN
Т	ACCEPTABLE CERAMIC TILE MANUFACTURERS FOR CT-1; (A) CROSSVILLE, (B) DAL TILE AND (C) STONEPEAK.				
T-1	(A) CROSSVILE	JAVA POINT	FRENCH PRESS CRV JAVO 5	12" X 24"	INSTALL IN MONOLITHIC PATTERN
WOT					/ USE GT-1
WOT	ACCEPTABLE CARPET WALK OFF TILE MANUFACTURERS FOR CWOT; (A) MANNINGTON COMMERCIAL, (B) PATCRAFT AND (C) INTERFACE.				
WOT	(A) MANNINGTON COMMERCIAL	FRIXTION / INERTIA	STATIC 34365	18" X 36"	INSTALL IN MONOLITHIC PATTERN
VT	ACCEPTABLE LUXURY VINYL TILE MANUFACTURERS FOR LVT-1 AND LVT-2; (A) MANNINGTON COMMERCIAL, (B) PATCRAFT AND (C) INTERFACE.				
VT-1	(A) MANNINGTON COMMERCIAL	NO RESERVATIONS	INHIBITION NR101	7.25" x 48" X 4 MM THK.	INSTALL IN ASHLAR
VT-2	(A) MANNINGTON COMMERCIAL	XPRESS / WOOD NO RESERVATIONS	ENDURING NR105	7.25" x 48" X 4 MM THK.	PATTERN INSTALL IN ASHLAR
VT-3	(A) MANNINGTON COMMERCIAL	XPRESS / WOOD NO RESERVATIONS	AUDACIOUS NR201	12" X 24" X 4 MM THK.	PATTERN INSTALL IN ASHLAR
	,	XPRESS / STONE	NODAGIOUG INFLUT	IL ALT ATIVIVI I TIK.	PATTERN
Т	ACCEPTABLE RESILIENT TILE MANUFACTURERS; (A) JOHNSONITE/TARKETT, (B) MANNINGTON COMMERCIAL AND (C) NORA BY				
T-1	INTERFACE. (A) JOHNSONITE / TARKETT	MINERALITY RUBBER	COLOR TO BE SELECTED	12" X 24"	INSTALL IN ASHLAR
T-2	(A) JOHNSONITE / TARKETT	TILE COLOR SPLASH	VF5 GORGE AREA /	24" X 24"	PATTERN INSTALL IN
	· ·	SPECKLED	HAMMERED	24 \ 24	MONOLITHIC PATTERN
CT	ACCEPTABLE VINYL COMPOSITION TILE MANUFACTURERS FOR VCT; (A) JOHNSONITE/TARKETT, (B) TOLI AND (C) ALTRO				
CT-1	(A) JOHNSONITE / TARKETT	VCT II	COLOR TO BE SELECTED	12" X 12"	INSTALL IN MONOLITHIC PATTERN
DAGE (D)					
BASE (B) TB	ACCEPTABLE CERAMIC TILE MANUFACTURERS FOR CT-1; (A)				
TB-1	CROSSVILLE, (B) DAL TILE AND (C) STONEPEAK.  (A) CROSSVILE	JAVA POINT	FRENCH PRESS CRV JAVO 5	6" X 12" COVE BASE	USE GT-1
В	ACCEPTABLE RESILIENT BASE MANUFACTURERS; (A) JOHNSONITE/TARKETT, (B) MANNINGTON COMMERCIAL AND (C) ROPPE.				00L 01-1
RB-1 RB-2	(A) JOHNSONITE / TARKETT (A) JOHNSONITE / TARKETT	COVE BASE STRAIGHT BASE	COLOR TO BE SELECTED  COLOR TO BE SELECTED	4" H 4" H	
. WALL (W					
T	ACCEPTABLE CERAMIC TILE MANUFACTURERS FOR CT-1; (A)				
T-2	CROSSVILLE, (B) DAL TILE AND (C) STONEPEAK.  (A) CROSSVILE	READY TO WEAR	PERFECT FIT	12" X 24"	INSTALL IN STACKED
1	ACCEPTABLE PAINT MANUFACTURERS; (A) SHERWIN WILLIAMS, (B)				PATTERN / USE GT-2
	BENJAMIN MOORE AND (C) PRATT & LAMBERT.				
-1 -2	(A) SHERWIN WILLIAMS (A) SHERWIN WILLIAMS		WHITE SAND SW9582 WORLDLY GRAY SW7043		FIELD PAINT JFS SECONDARY FIELD
-3	(A) SHERWIN WILLIAMS		GRAY SHINGLE SW7670		PAINT ACCENT PAINT
-4	(A) SHERWIN WILLIAMS		POWDER BLUE SW2863		ACCENT PAINT
-5	(A) SHERWIN WILLIAMS		WEB GRAY SW7075		DOOR FRAMES, HANDRAILS AND
<sup>1</sup> -6	(A) SHERWIN WILLIAMS		TO MATCH BENJAMIN		RAILINGS PAINT ACCENT PAINT
-0	(A) SHERWIN WILLIAMS		MOORE WEDGEWOOD GRAY		ACCENTTAINT
-7	(A) SHERWIN WILLIAMS		EIDER WHITE SW7014		FIELD PAINT BOE
-8 -9	(A) SHERWIN WILLIAMS (A) SHERWIN WILLIAMS		ACCESSIBLE BEIGE SW7036  LANGUID BLUE SW6226		ACCENT PAINT ACCENT PAINT
-9 -10	(A) SHERWIN WILLIAMS		CLOUDBURST SW6487		ACCENT PAINT
MISC. (M					
F-1	LLUMAR - EASTMAN PERFORMANCE FILMS	REFER TO SPECIFICATIONS FOR			
		PRODUCT INFORMATION			
Т	ACCEPTABLE GROUT MANUFACTURERS; (A) LATICRETE, (B) MAPEI CORPORATION AND (C) TEC				
T-1	(A) LATICRETE		TO BE SELECTED FROM MANUFACTUER'S FULL COLOR RANGE		TO BE USED WITH CT-1
T-2	(A) LATICRETE		TO BE SELECTED FROM MANUFACTUER'S FULL COLOR RANGE		TO BE USED WITH CT-2
L	ACCEPTABLE PLASTIC LAMINATE MANUFACTURERS; (A) WILSONART		OULUN MAINGE		
L-1	LAMINATE, (B) FORMICA AND (C) PIONITE.  (A) WILSONART LAMINATE	WOOD GRAIN LAMINATE	LOFT OAK 7968K-12		
L-2	(A) WILSONART LAMINATE		TO BE SELECTED FROM MANUFACTUER'S FULL		
S	ACCEPTABLE SOLID SURFACE MANUFACTURERS; (A) CORIAN, (B)		PATTERN RANGE		
_	WILSONART LAMINATE AND (C) FORMICA.	İ	1	1	

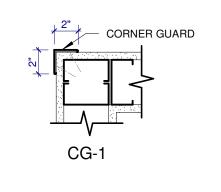
NOT TO SCALE



FINISH PLAN - LOWER LEVEL SCALE: 1/8" = 1'-0"

NOTE: CORNER GUARDS SHALL START AT TOP OF BASE UNO. (4" A.F.F. - TYPICAL). SEE PROJECT MANUAL FOR SPECIFIED TYPES / HEIGHTS.

WALL PROTECTION DETAILS



# TYPICAL FINISHES (UNO)

ITEM	COI
HOLLOW METAL FRAMES	P-5
INTERIOR DOORS	P-5
GYPSUM BOARD SOFFIT SURFACES & CEILINGS	P-1
EXPOSED DUCTWORK	P-1
GRILLES / DIFFUSERS ON EXPOSED DUCTWORK	P-1
EXPOSED COLUMNS	P-1
EXPOSED STRUCTURE, ROOF DECK & MEP COMPONENTS	P-1
ELECTRICAL DEVICE COLORS (COORD. W/ ELECTRICAL)	

# FINISH DESIGNATIONS

С	CARPET (SHEET)	LVT	LUXURY VINYL TILE
CPT	CARPET TILE	P	PAINT
CT	CERAMIC TILE	RB	RESILIENT BASE
CTB	CERAMIC TILE BASE	RT	RUBBER TILE
EP	EPOXY PAINT	SC	SEALED CONCRETE
FWP	FABRIC-WRAPPED	VCT	VINYL COMPOSITE
1 441	WALL PANELS	٧٥١	VIIVIE GOIVII GOITE
GT	GROUT		

# GENERAL NOTES

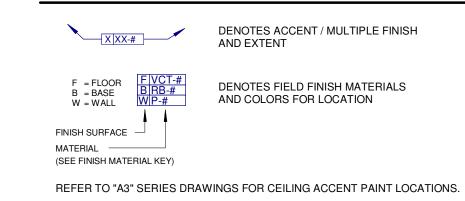
PROVIDE APPROPRIATE TRANSITION STRIPS AT EVERY LOCATION WHERE DIFFERENT FLOOR FINISHES MEET. REFER TO PROJECT MANUAL FOR PROFILES. WHEN FLOOR FINISH MATERIALS DIFFER BETWEEN ROOMS, LOCATE SEAM IN CENTER OF DOOR.

- 2. REFER TO PROJECT MANUAL FOR PAINT SHEENS. 3. ALL UNFINISHED GRILLE COVERS, FIRE EXTINGUISHER CABINETS, BEAMS,
- THE WALL / CEILING THEY OCCUR ON. 4. CLOSETS ARE TO RECEIVE THE SAME WALL AND FLOOR FINISH AS THE ROOM THEY OPEN TO, U.N.O.

MISCELLANEOUS METAL & WOOD SUPPORTS, ETC. TO BE PAINTED TO MATCH

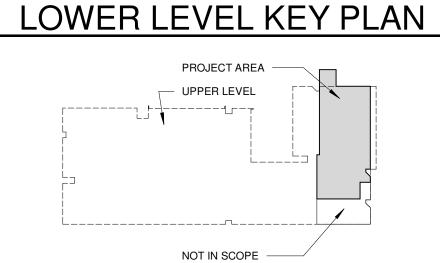
- 5. REFER TO "A3" SERIES DRAWINGS FOR CEILING ACCENT PAINT LOCATIONS.
- 6. REFER TO "A7" SERIES DRAWINGS FOR MILLWORK FINISHES AND ACCENT LOCATIONS. 7. EXISTING FLOORING HAS BEEN REMOVED IN SOME LOCATIONS AS PART OF ASBESTOS ABATEMENT. PREP EXISTING FLOOR PER MANUFACTURERS
- RECOMMENDATIONS. 8. ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE PROJECT AREA.

# LEGEND



CG-1 CORNER GUARD (CG-1, UNO)

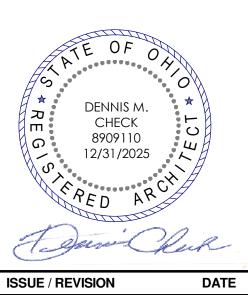
REFER TO "A7" SERIES DRAWINGS FOR MILLWORK FINISHES & ACCENT LOCATIONS.



NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET

1 REFER TO INTERIOR ELEVATION ON SHEET 8/A7-3 FOR FEATURE ACCENT PAINTED 2 EXISTING WALL TILE TO BE PREP AND PAINTED P-1.
3 REFER TO INTERIOR ELEVATION ON SHEET 2/A7-3 FOR FEATURE ACCENT PAINTED 4 ARROWS INDICATE RUNNING INSTALL DIRECTION OF FLOORING.
5 EXISTING WINDOW FRAME TO BE PAINTED P-5.

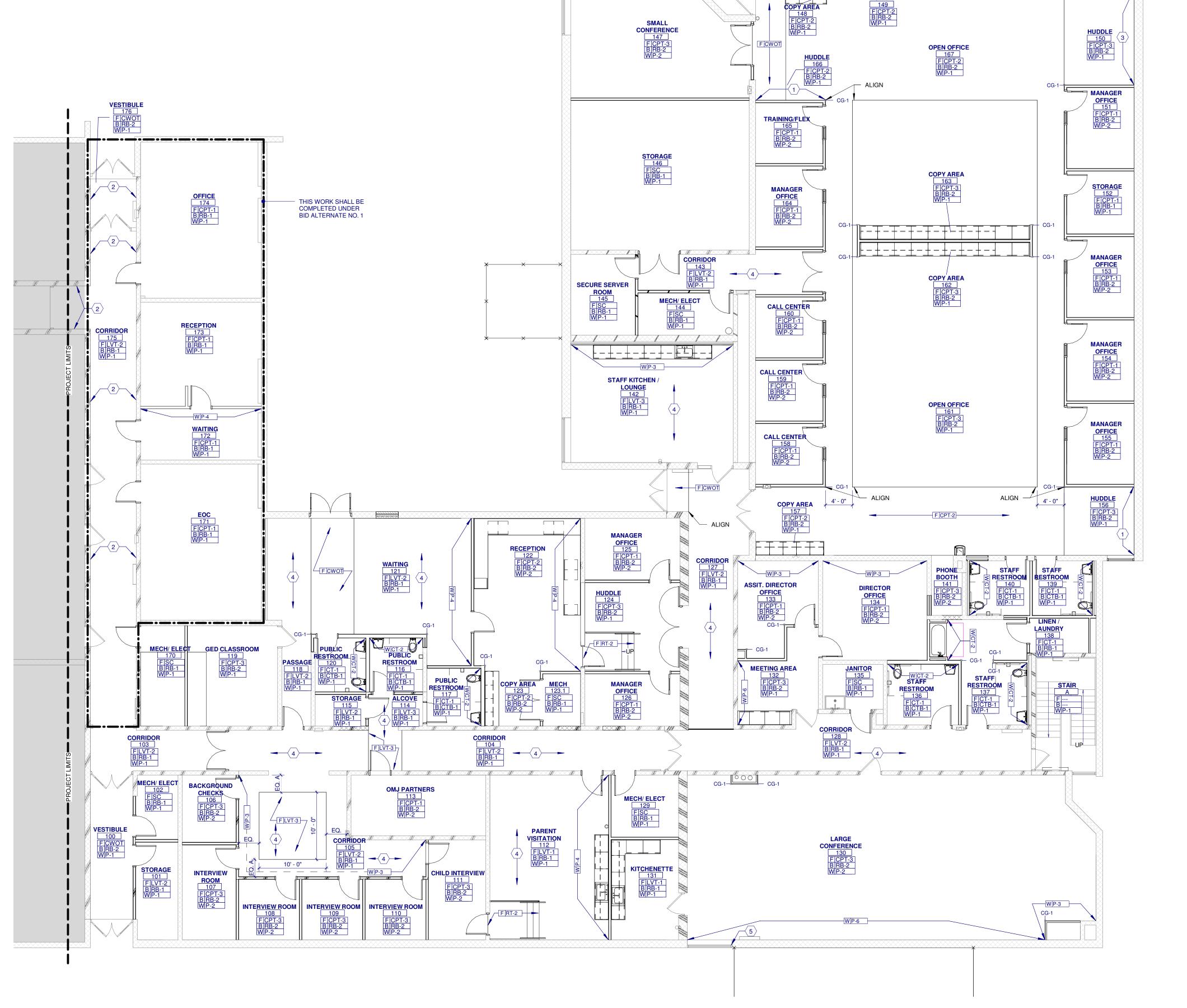




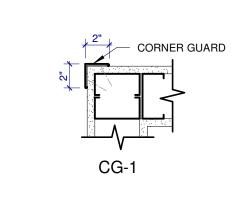
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ISSUE / REVISION	DATE
BIDDING AND PLAN REVIEW	10/15/20

FINISH PLAN -UPPER LEVEL

PROJECT NO.



WALL PROTECTION DETAILS NOTE: CORNER GUARDS SHALL START AT TOP OF BASE UNO. (4" A.F.F. - TYPICAL). SEE PROJECT MANUAL FOR SPECIFIED TYPES / HEIGHTS.



# TYPICAL FINISHES (UNO)

ITEM	COI
HOLLOW METAL FRAMES	P-5
INTERIOR DOORS	P-5
GYPSUM BOARD SOFFIT SURFACES & CEILINGS	P-1
EXPOSED DUCTWORK	P-1
GRILLES / DIFFUSERS ON EXPOSED DUCTWORK	P-1
EXPOSED COLUMNS	P-1
EXPOSED STRUCTURE, ROOF DECK & MEP COMPONENTS	P-1
ELECTRICAL DEVICE COLORS (COORD. W/ ELECTRICAL)	

# FINISH DESIGNATIONS

NOTE: NOT ALL MATERIALS / ITEMS LISTED MAY BE INCLUDED IN THE PROJECT SCOPE.

	REFER TO A7 SERIES FOR MILLWORK FINISHES.			
C CPT CT CTB EP FWP	CARPET (SHEET) CARPET TILE CERAMIC TILE CERAMIC TILE BASE EPOXY PAINT	LVT P RB RT SC VCT	LUXURY VINYL TILE / PAINT RESILIENT BASE RUBBER TILE SEALED CONCRETE	
	FABRIC-WRAPPED WALL PANELS	VCI	VINYL COMPOSITE T	
GT	GROUT			

# GENERAL NOTES

. PROVIDE APPROPRIATE TRANSITION STRIPS AT EVERY LOCATION WHERE DIFFERENT FLOOR FINISHES MEET. REFER TO PROJECT MANUAL FOR PROFILES. WHEN FLOOR FINISH MATERIALS DIFFER BETWEEN ROOMS, LOCATE SEAM IN CENTER OF DOOR.

2. REFER TO PROJECT MANUAL FOR PAINT SHEENS.

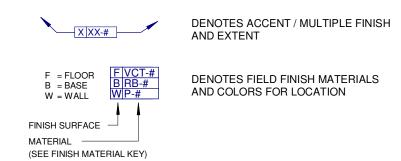
ALL UNFINISHED GRILLE COVERS, FIRE EXTINGUISHER CABINETS, BEAMS, MISCELLANEOUS METAL & WOOD SUPPORTS, ETC. TO BE PAINTED TO MATCH THE WALL / CEILING THEY OCCUR ON.

4. CLOSETS ARE TO RECEIVE THE SAME WALL AND FLOOR FINISH AS THE ROOM THEY OPEN TO, U.N.O. 5. REFER TO "A3" SERIES DRAWINGS FOR CEILING ACCENT PAINT LOCATIONS.

6. REFER TO "A7" SERIES DRAWINGS FOR MILLWORK FINISHES AND ACCENT LOCATIONS.

 EXISTING FLOORING HAS BEEN REMOVED IN SOME LOCATIONS AS PART OF ASBESTOS ABATEMENT. PREP EXISTING FLOOR PER MANUFACTURERS RECOMMENDATIONS. 8. ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE PROJECT AREA.

# LEGEND



REFER TO "A3" SERIES DRAWINGS FOR CEILING ACCENT PAINT LOCATIONS. REFER TO "A7" SERIES DRAWINGS FOR MILLWORK FINISHES & ACCENT LOCATIONS. CG-1 CORNER GUARD (CG-1, UNO)

# UPPER LEVEL KEY PLAN

PROJECT AREA ----NOT IN SCOPE

1 FURNITURE AND EQUIPMENT PLAN - LOWER LEVEL SCALE: 1/8" = 1'-0"

# CODED NOTES

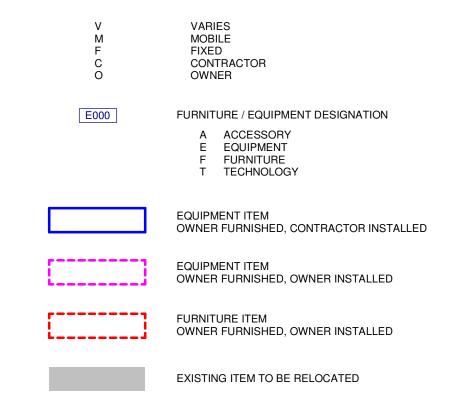
	NOTE: ALL CODED NOTES MAY NOT APPEAR ON EVERY SHEET
1	TV/MONITOR
2	PRINTER
3	SHREDDER
4	STAMP/MAIL MACHINE
5	COMPUTER/MONITOR
6	PRINTER (FUTURE)
7	SERVER/AV CART
8	WATER COOLER
9	SAFE
10	MICROWAVE
11	DISHWASHER
12	REFRIGERATOR
13	WASHER AND DRYER
14	IN WALL LOCKING KEY DROP



# GENERAL NOTES

- REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR REQUIRED CONNECTION WORK.
- 2. REFER TO PROJECT MANUAL AND/OR FE LEGEND FOR WORK ASSOCIATED WITH FURNITURE, EQUIPMENT AND ACCESSORIES.
- 3. REFER TO INTERIOR ELEVATIONS A7 SERIES FOR TYPICAL MOUNTING HEIGHTS FOR WALL MOUNTED EQUIPMENT, FURNITURE AND ACCESSORIES.
- 4. REFER TO FLOOR PLANS AND INTERIOR ELEVATIONS FOR LOCATIONS OF CONTRACTOR PROVIDED ACCESSORIES. CLOCKS (A004a) ARE CENTERED ON THE WALL IN WHICH THEY ARE SHOWN, UNLESS NOTED OTHERWISE.
- 6. FIELD VERIFY PRIOR TO ORDER ENTRY. CONFIRM PRODUCT DIMENSIONS AND FIELD CONDITIONS WITH ARCHITECT. 7. FURNITURE SHOWN FOR REFERENCE AND COORDINATION PURPOSES
- 8. PROVIDE BLOCKING FOR ALL WALL MOUNTED ITEMS. REFER TO A7 SERIES FOR TYPICAL DETAILS. 9. ITEMS NOT TAGGED TO BE CONTRACTOR PROVIDED - REFER TO A2 SERIES FOR FURTHER INFORMATION.

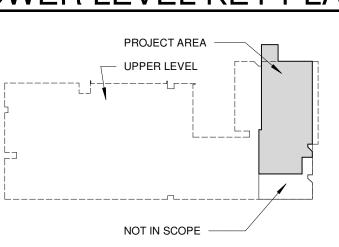
# LEGEND



# LOWER LEVEL KEY PLAN

FUTURE FURNITURE OR EQUIPMENT (NIC) PROVIDE BLOCKING AND UTILITY SERVICE FOR ITEM

EQUIPMENT ITEM CONTRACTOR INSTALLED



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JECT NO.	2401

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FURNITURE & EQUIP PLAN -LOWER LEVEL

# GENERAL NOTES

REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR REQUIRED CONNECTION WORK.

MANAGER

- 2. REFER TO PROJECT MANUAL AND/OR FE LEGEND FOR WORK ASSOCIATED WITH FURNITURE, EQUIPMENT AND ACCESSORIES.
- 3. REFER TO INTERIOR ELEVATIONS A7 SERIES FOR TYPICAL MOUNTING HEIGHTS FOR WALL MOUNTED EQUIPMENT, FURNITURE AND ACCESSORIES.
- 4. REFER TO FLOOR PLANS AND INTERIOR ELEVATIONS FOR LOCATIONS OF CONTRACTOR PROVIDED ACCESSORIES.
- CLOCKS (A004a) ARE CENTERED ON THE WALL IN WHICH THEY ARE SHOWN, UNLESS NOTED OTHERWISE.
- 6. FIELD VERIFY PRIOR TO ORDER ENTRY. CONFIRM PRODUCT DIMENSIONS AND FIELD CONDITIONS WITH ARCHITECT.
- 7. FURNITURE SHOWN FOR REFERENCE AND COORDINATION PURPOSES
- 8. PROVIDE BLOCKING FOR ALL WALL MOUNTED ITEMS. REFER TO A7 SERIES FOR TYPICAL DETAILS. 9. ITEMS NOT TAGGED TO BE CONTRACTOR PROVIDED - REFER TO A2 SERIES FOR FURTHER INFORMATION.

# LEGEND

MOBILE CONTRACTOR FURNITURE / EQUIPMENT DESIGNATION A ACCESSORY E EQUIPMENT T TECHNOLOGY EQUIPMENT ITEM OWNER FURNISHED, CONTRACTOR INSTALLED

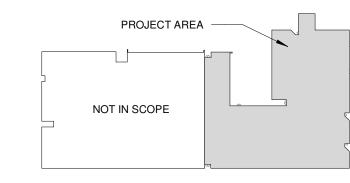
**EQUIPMENT ITEM** OWNER FURNISHED, OWNER INSTALLED

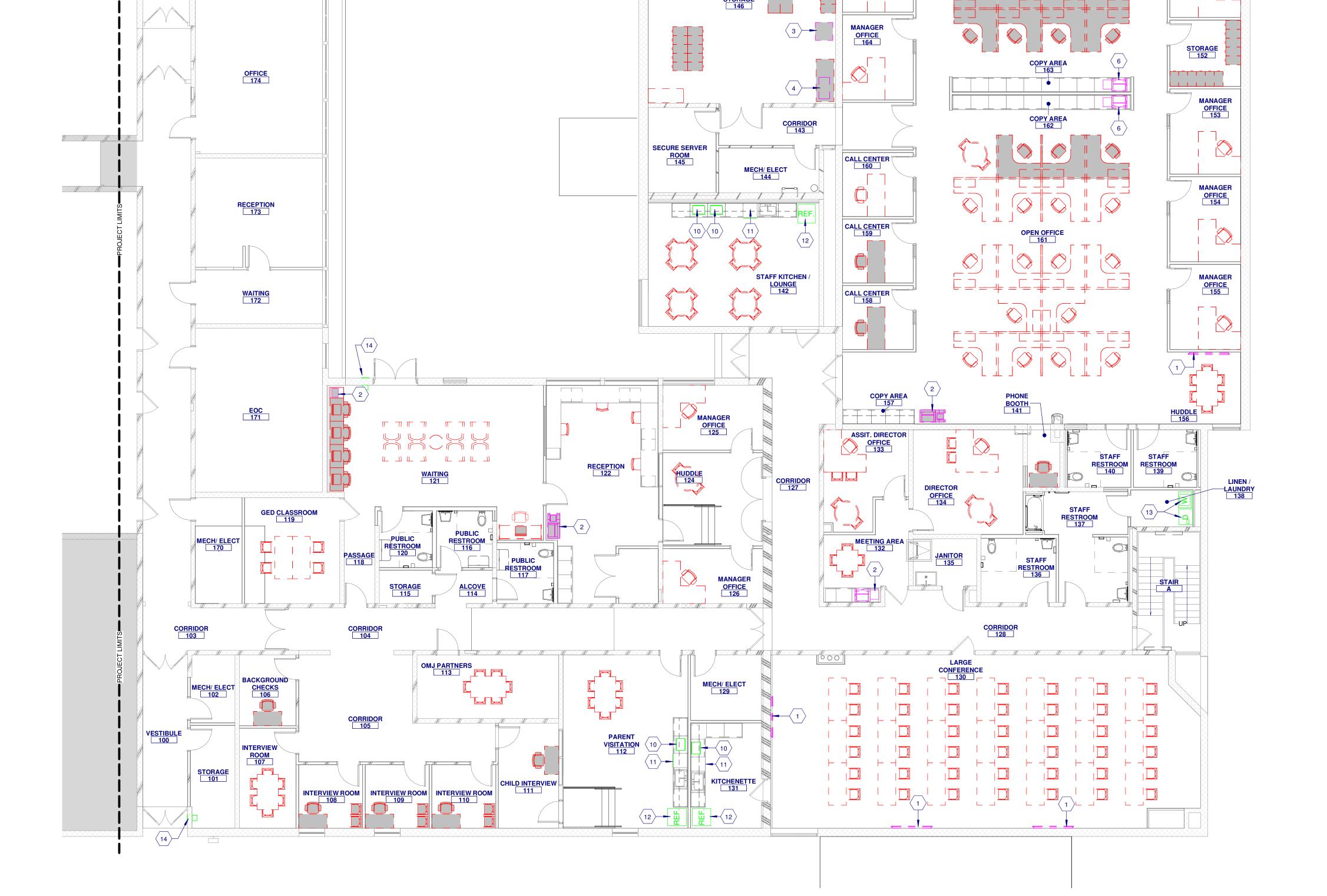
FURNITURE ITEM OWNER FURNISHED, OWNER INSTALLED

FUTURE FURNITURE OR EQUIPMENT (NIC)
PROVIDE BLOCKING AND UTILITY SERVICE FOR ITEM

EQUIPMENT ITEM CONTRACTOR INSTALLED

# UPPER LEVEL KEY PLAN





1 FURNITURE AND EQUIPMENT PLAN - UPPER LEVEL SCALE: 1/8" = 1'-0"

SMALL CONFERENCE 147

TRAINING/FLEX

EXISTING ITEM TO BE RELOCATED

PROJECT ARI	EA	
NOT IN SCOPE		
	777	

FURNITURE &

EQUIP PLAN -UPPER LEVEL

12/31/2025

BIDDING AND PLAN REVIEW

PROJECT NO.

**REMARKS:** 

. PROVIDE AS SPECIFIED OR EQUAL FROM ALTERNATE MANUFACTURERS. LOCATED IN FIRE SERVICE ROOM. COORDINATE WITH AHJ FOR FINAL INSTALLATION REQUIREMENTS.

FLOW AN	FLOW AND PRESSURE TEST		
DATE OF TEST:			
TIME OF TEST:			
LOCATION OF TEST:			
COMPLETED BY:			
FLOW HYDRANT:			
PRESSURE HYDRANT:			
HYDRANT ELEVATION (FT):			
FLOW (GPM):			
STATIC PRESSURE (PSI):			
RESIDUAL PRESSURE (PSI):			

AVAILABLE. THE CONTRACTOR SHALL OBTAIN A NEW FLOW TEST PRIOR TO CONSTRUCTION AND REPORT

TO ENGINEER. CURRENT SYSTEM DESIGN ASSUMES INCOMING WATER PRESSURE IS ADEQUATE FOR

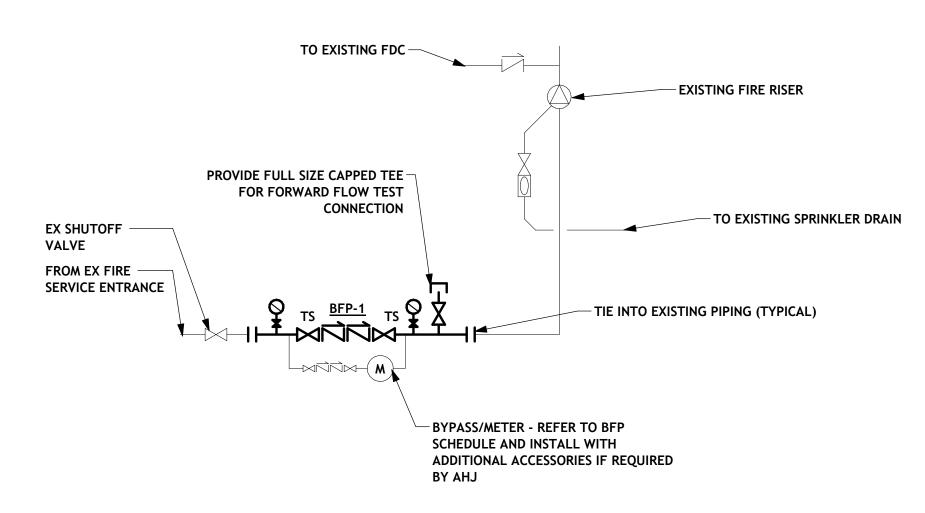
PRESSURE DROPS ASSOCIATED WITH NEW BACKFLOW PREVENTERS AND PIPING.



OFFSET WITH 90 DEG ELBOW THIS BRANCH AND INSTALL BACKFLOW PREVENTER **UPSTREAM OF FIRE RISER.** DISCONNECT AND RECONNECT TO FIRE RISER AS REQUIRED.

IT IS ACCEPTABLE TO INSTALL OPPOSITE SIDE OF WALL DIRECTLY DOWNSTREAM OF SERVICE SHUTOFF VALVE SHOULD SUBMITTED BACKFLOW FIT IN ALLOTTED SPACE (APPROXIMATELY 20").

**FIRE RISER PHOTO** 



# **EXISTING FIRE SERVICE ENTRANCE DETAIL**

FIRE PROTECTION PERFORMANCE SPECIFICATIONS

1. Outlined areas are to have a sprinkler system designed and installed by a certified fire suppression contractor. Design shall be by a certified sprinkler designer in accordance with the Ohio Administrative Code (OAC 4101:7-5).

2. Contractor shall be state certified. 3. The complete fire protection design shall include all accessories including but not limited to alarm valves, remote alarm indicators, siamese connection, interface with

fire alarm system (if installed), fire department connection etc. 4. Contractor shall provide all materials, labor, equipment, and accessories for a complete install as outlined by the contract documents. 5. Contractor shall submit a complete set of drawings and calculations to the local

authority having jurisdiction for approval. 6. Contractor shall provide a complete set of fire protection system drawings and

7. calculations, including a 10% safety factor in conformance with NFPA 13 (latest edition), NFPA 14 (latest edition), NFPA 25 (latest edition) all local and state codes, owner and owner's insurance requirements for shop drawing review.

8. Contractor shall confirm the hazard classification for each space as indicated on these drawings with the prototype, lease documents, and/or owner's insurance underwriter's requirements.

9. Contractor shall obtain a current flow and pressure test for this project. 10. Approved submittals do not absolve the contractor from providing a complete and code compliant installation of materials, equipment or other devices. Nor does it absolve the contractor from conforming to the owner or owner's insurance requirements.

11. Contractor shall not procure pipe or start any work based on sizes indicated on the construction documents. Pipe sizes indicated on the construction documents are approximate and for reference only. Contractor shall size all piping based on his own hydraulic calculations and pipe layout.

12. Contractor shall field verify existing conditions, including but not limited to pump size and type, pipe size, system zoning, hazard classification, building standards, owner and owner's insurance requirements, tenant requirements, etc. prior to start of any work.

13. Contractor shall coordinate system shutdown with GC, owner or owner's representative, and tenant or tenant's representative. System shutdown shall be done in accordance with the local authority having jurisdiction. 14. Contractor shall modify, relocate and/or provide new sprinkler piping and/or heads

as required to accommodate any new work completed under this contract. 15. Contractor shall be responsible for coordinating their work with all other trades and building constraints.

16. Contractor shall refer to architectural plans for room types and uses, ceiling types and location, fire and smoke walls and rated structures. 17. Contractor shall refer to the plumbing drawings for water service entry locations and the civil drawings for site continuation.

18. Contractor shall be responsible for patching existing floor and/or wall, including finishes, to match existing conditions. 19. No piping or equipment shall be located above electrical panels, equipment, or

20. Exposed interior and exterior fire protection piping to be painted by general

21. Contractor shall secure and pay for all fees, permits, and certificates of inspection incidental to this work required by foregoing authorities. Arrange for all required inspections and approvals.

22. Contractor shall perform all tests required by the Authority Having Jurisdiction,

Local & State Codes, and NFPA (latest edition). 23. Deliver all permits and certificates to Architect in duplicate.

AUTOMATIC-SPRINKLER SYSTEM DESIGN REQUIREMENTS

1. Hazard Occupancies:

A. Residential (Dwelling) Occupancy: 0.05 gpm over 400sf B. Light-Hazard Occupancy: 0.10 gpm over 1,500sf C. Ordinary-Hazard, Group 1 Occupancy: 0.15 gpm over 1,500sf D. Ordinary-Hazard, Group 2 Occupancy: 0.20 gpm over 1,500sf E. Extra-Hazard, Group 1 Occupancy: 0.30 gpm over 2,500sf

F. Extra-Hazard, Group 2 Occupancy: 0.40 gpm over 2,500sf G. Special-Hazard Occupancy: As determined by the Authority Having Jurisdiction

2. Total Combined Hose-Stream Demand: 100 gpm for 30 minutes A. Light-Hazard Occupancy: 250 gpm for 60-90 minutes B. Ordinary-Hazard Occupancy: C. Extra-Hazard Occupancy: 500 gpm for 90-120 minutes D. Special-Hazard Occupancy: As determined by the Authority Having

3. Area reductions permitted by the NFPA 13.11.2.3.2 (latest edition) for Quick Response Sprinklers. Contractor shall verify with Authority Having Jurisdiction and Owners' Underwriter prior to start of any work.

4. 30% area increase is required for remote areas as defined by NFPA 13.11.2.3.2 (latest edition) (i.e. sloped ceilings and/or sloped roofs).

WET SYSTEM SPRINKLER PIPING

1. Contractor shall be fully responsible for coordinating pipe routing and location with 2. No piping shall be installed below any device that would need to be removed or

3. No piping shall be installed within equipment service areas, in front of any doors or

4. No piping shall be installed below ceilings. 5. No piping shall be installed in areas subject to freezing. 6. Piping Schdedule:

residential-hazard occupancies by the NFPA.

A. Schedule 40 black steel; ASTM A53/A53M, Grade, A B. Schedule 40 black steel Thinwall; ASTM A135/A135M, Grade A C. Schedule 40 black steel Thinwall; ASTM A795/A795M, Grade A D. Schedule 10 black steel; ASTM A135/A135M, Grade A for pipe diameters 4" and

E. Schedule 10 black steel; ASTM A795/A795M, Grade A for pipe diameters greater

F. Schedule 40 CPVC; ASTM F442/F442M, listed for sprinkler application G. Schedule 80 CPVC; ASTM F442/F442M, listed for sprinkler application 7. No CPVC shall be installed in areas of ordinary-, extra-, or special-hazard occupancies. CPVC piping is only allowed where areas can be classified as light- or

DRY SYSTEM SPRINKLER PIPING 1. Contractor shall be fully responsible for coordinating pipe routing and location with

2. No piping shall be installed below any device that would need to be removed or 3. No piping shall be installed within equipment service areas, in front of any doors or

access panels. 4. No piping shall be installed below ceilings. 5. Contractor shall be responsible for sizing of all air compressors and dry pipe valves

6. Piping Schdedule: A. Schedule 40 black steel; ASTM A53/A53M, Grade, A B. Schedule 10 black steel; ASTM A135/A135M, Grade A for pipe diameters 4" and

C. Schedule 10 black steel; ASTM A795/A795M, Grade A for pipe diameters greater than 4".

1. 1. Contractor shall be fully responsible for coordinating pipe routing and location

with all disciplines. 2. Sprinkler heads shall be UL or FM listed. 3. Sprinkler heads shall coordinate with all other ceiling devices. 4. Sprinkler heads shall be symmetrically placed.

5. In areas with acoustical ceiling titles, sprinkler heads shall be located within the

6. Sprinkler Head Schedule: A. Upright heads shall be rough brass. B. Recessed pendent heads shall be brass, chrome plated with two-piece flush C. Concealed heads shall be brass with white flush mounted cover plate.

D. Sidewall heads shall be brass, chrome plated with two-piece semi-recessed escutcheon. 7. No sprinkler head shall be installed in areas subject to freezing unless sprinkler head is listed as an approved dry-style sprinkler head.

**EXTRA MATERIALS** 

center of the tile.

1. Contractor shall provide sprinkler cabinet located adjacent to fire riser.

2. Sprinkler cabinet shall contain the following: A. General description of the system, installed date, tested date, etc. B. List of all sprinkler types installed; including make, model, quantity, orifice, thermal sensitivity, and pressure rating.

C. Minimum one (1) valve wrench for each sprinkler type installed. D. Stock of spare sprinkler heads for each sprinkler type in the following quantities: a. < 300 installed sprinklers - minimum of six (6). b. 300 to 1000 installed sprinklers - minimum of twelve (12). c. >1000 installed sprinklers - minimum of twenty-four (24)

— - - -\^2/ - - - - - - -

JAN.X ELECT VESTIBULE OFFICE 2 RECEPTION BREAK RM RESTROOM RESTROOM

(THESE NOTES APPLY REFERENCE NOTES TO THIS PLAN ONLY)

1> REWORK EXISTING SPRINKLER PIPING AS REQUIRED DUE TO ARCHITECTURAL CHANGES PER NFPA 13 REQUIREMENTS. DO NOT REUSE EXISTING SPRINKLER HEADS IN AREAS WITH NEW CEILINGS. MATCH EXISTING SPRINKLER HEAD TYPES AND

2 PROVIDE DRY TYPE SPRINKLER HEADS TO SERVE THIS AREA AND ALL OVERHANGS OVER 4' UNLESS PERMITTED TO BE OMITTED BY NFPA 13.

3> EXISTING 4" FIRE SERVICE ENTRANCE TO BE REWORKED TO INCLUDE NEW DOUBLE CHECK DETECTOR BACKFLOW ASSEMBLY. REVISE PIPING LAYOUT AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW BACKFLOW AND ASSOCIATED COMPONENTS PER AHJ REQUIREMENTS. SHUTOFF VALVES TO BE PROVIDED SEPARATELY AS REQUIRED GIVEN LIMITED SPACE FOR BACKFLOW INSTALLATION. COORDINATE WITH PC. REFER TO FIRE RISER PHOTO AND DETAIL THIS SHEET.

4> EXISTING FIRE SPRINKLER SYSTEM DRAIN.

5> EXISTING FIRE DEPT CONNECTION.

6> NO CPVC PIPING SHALL BE INSTALLED IN STAIRWELLS OR OTHER AREAS EXPOSED TO THE PUBLIC.

HAZARD CLASSIFICATION

RDINARY HAZARD, GROUP 1

**SPRINKLER PROTECTION BY OTHERS** 

CURRENT KNOWN FIRE SUPPRESSION SYSTEM DEFICIENCIES . GAUGES ARE DUE FOR REPLACEMENT PER NFPA 25. . SYSTEM IS DUE FOR 5 YEAR INTERNAL PIPE INSPECTION

. ALARM AND CHECK VALVES ARE DUE FOR 5 YEAR INTERNAL INSPECTION PER NFPA 25.

PER NFPA 25.

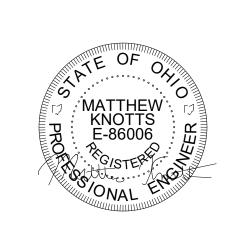
4. FIRE DEPT CONNECITONS ARE DUE FOR 5 YEAR HYDROSTATIC TEST PER NFPA 25.

LOWER LEVEL - FIRE PROTECTION PLAN (NEW WORK) SCALE: 1/8" = 1'-0"









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LOWER LEVEL -FIRE PROTECTION PLAN (NEW WORK)

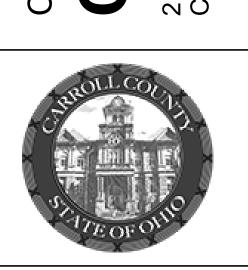
REFERENCE NOTES

1 ENTIRE FLOOR TO REMAIN UNSPRINKLERED.



# SOUNTY OFFICE RENOVATION

CARROLL COUNT



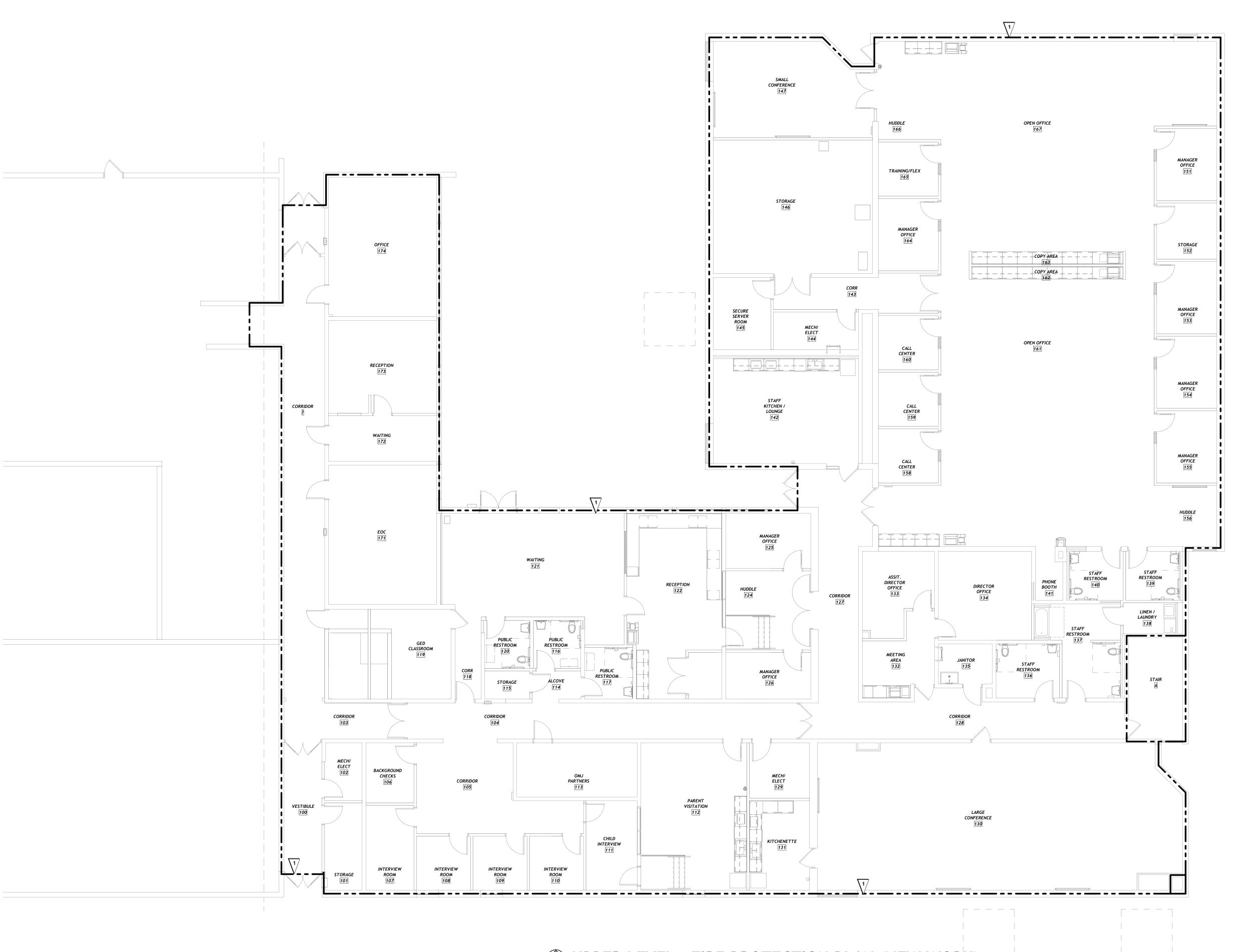


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UPPER LEVEL -FIRE PROTECTION

FP102

ENGINEERING GROUP, LLC
CONSULTING ENGINEERS
3730 Tabs Drive, Suite 200
Uniontown, Ohio 44685
330.899.4955 | epic-eeg.com



||LE: C:\Users\mknotts\Documents\24002-Carrol County Commissioners Office (MEP)

UPPER LEVEL - FIRE PROTECTION PLAN (NEW WORK)

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

EXISTING SANITARY BEING REUSED TO BE SCOPED, LOCATED/CAMERA'D AND FIELD VERIFIED. REPORT FINDINGS AND LAYOUT TO ENGINEER/ARCHITECT PRIOR TO CONSTRUCTION. ALL EXISTING SANITARY PIPING IN PROJECT AREA TO BE JETTED BACK TO BUILDING SERVICE ENTRANCE

**EXPOSED PIPING PAINTING REQUIREMENTS:** 

ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.

**L.** 8 14

**GENERAL NOTES** 

1. THIS PLAN REPRESENTS THE PLUMBING EXISTING CONDITIONS AND THE INTENT OF THE PLUMBING DEMOLITION AND REMOVAL OF THE EXISTING PLUMBING FOR THE REMODELING. THE "PC" SHALL REMOVE AND/OR RELOCATE ALL ITEMS SHOWN 'DARK DASHED' ON THE PLAN. ANY ITEMS SHOWN 'LIGHT SOLID' SHALL REMAIN. ANY ITEMS NOT INDICATED ON PLAN THAT NEED REMOVED OR RELOCATED SHALL BE THE RESPONSIBILITY OF THE "PC".

2. PIPES WHICH ARE CONCEALED AND THEREFORE INACCESSIBLE MAY BE ABANDONED IN PLACE. HOWEVER, ALL ENDS SHALL BE CAPPED. ABANDONED PIPING MUST NOT INTERFERE WITH NEW CONSTRUCTION AND MUST REMAIN CONCEALED. PATCH WALLS / CEILINGS / FLOORS TO MATCH EXISTING SURFACES.

3. THE "PC" SHALL CONSULT WITH THE OWNER AS TO THE DISPOSITION OF ALL REMOVED PLUMBING EQUIPMENT (FIXTURES, PIPING, WATER HEATERS, ETC). PLUMBING EQUIPMENT WHICH OWNER DOES NOT DESIRE TO RETAIN SHALL BE REMOVED FROM THE PREMISES BY THE "PC".

4. THE "PC" SHALL PATCH ALL OPENINGS AND HOLES IN EXISTING WALLS / FLOOR (CAUSED BY HIM/HER IN THE PERFORMANCE OF HIS/HER WORK) TO MATCH THE SURROUNDING SURFACE AND TO MAINTAIN THE FIRE INTEGRITY OF SAID WALLS /

5. ANY AND ALL ABANDONED PIPING AND EQUIPMENT SHALL BE REMOVED BY THE "PC".

6. THE "PC" SHALL ENSURE THAT ANY FIXTURES AND EQUIPMENT CALLED FOR TO REMAIN ARE NOT TO BE DISTURBED BY THE DEMOLITION OF ANOTHER FIXTURE. WHERE A BRANCH PIPE IS CALLED TO BE CAPPED AT THE MAIN IT IS THE RESPONSIBILITY OF THE "PC" TO VERIFY THAT THE BRANCH PIPE DOES NOT SERVE ANY OTHER FIXTURES THAT ARE TO REMAIN IN USE.

(THESE NOTES APPLY REFERENCE NOTES

1> REMOVE EXISTING WATER CLOSET COMPLETE. REMOVE ASSOCIATED DCW, SAN AND VENT BACK AS REQUIRED FOR INSTALLATION OF NEW FIXTURE IN SAME LOCATION. 2 REMOVE EXISTING LAV COMPLETE. REMOVE ASSOCIATED DCW, DHW, SAN AND VENT

PIPING BACK TO MAINS AND CAP.

REMOVE EXISTING WATER CLOSET COMPLETE. REMOVE ASSOCIATED DCW, SAN AND VENT BACK TO MAINS AND CAP.

4 REMOVE EXISTING URINAL COMPLETE. REMOVE ASSOCIATED DCW, SAN AND VENT PIPING BACK TO MAINS AND CAP. 5> EXISTING WATER COOLER TO BE REMOVED AND REPLACED. REMOVE ASSOCIATED

PIPING BACK AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW WATER COOLER IN SAME LOCATION. 6 EXISTING DOMESTIC WATER SERVICE ENTRANCE TO BE REWORKED AS REQUIRED TO

ALLOW FOR INSTALLATION OF NEW REDUCED PRESSURE BACKFLOW ASSEMBLY. REVISE LAYOUT AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW BACKFLOW PREVENTER IN ACCORDANCE WITH AHJ REQUIREMENTS. COORDINATE WITH FPC. 7 EXISTING DOMESTIC WATER HEATER, DOMESTIC HOT WATER RECIRC PUMP AND

EXPANSION TANK TO BE REMOVED COMPLETE. REMOVE FLUE BACK TO CHIMNEY AND CAP. REMOVE GAS PIPING AND DCW/DHW/DHWR PIPING BACK AS REQUIRED TO ALLOW FOR CONNECTION TO NEW WATER HEATER AND PUMP. REFER TO DETAIL

FOR EXTENTS. 8 REMOVE ALL EXISTING PIPING SERVING REMOVED KITCHEN EQUIPMENT BACK TO NEAREST ACTIVE MAINS AND CAP. TYPICAL.

9> EXISTING FROSTPROOF WALL HYDRANT TO REMAIN.

10> EXISTING FLOOR DRAIN TO REMAIN. REWORK EXISTING VENT PIPING LOCATED IN WALLS BEING ADJUSTED OR REMOVED AS REQUIRED TO REMAIN CONCEALED.

EXISTING FLOOR CLEANOUT. TYPICAL.

12> EXISTING SAN SERVING SINK ON FLOOR ABOVE. REMOVE BACK TO GRADE AND CAP WITH CLEANOUT. VERIFY BRANCH IS COMPLETELY INACTIVE PRIOR TO REMOVAL.

EXISTING SANITARY PIPING TO BE REMOVED BACK TO POINT INDICATED FOR TIE IN AND EXTENSION UNDER NEW WORK. REMOVE ALL DOWNSTREAM PIPING SERVING REMOVED FIXTURES.

EXISTING FLOOR DRAIN TO BE REMOVED COMPLETE. CAP AT FLOOR LINE WITH FLOOR CLEANOUT.

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LOWER LEVEL -PLUMBING PLAN (DEMOLITION)

Uniontown, Ohio 44685 330.899.4955|epic-eeg.com

**LOWER LEVEL - PLUMBING PLAN (DEMOLITION)** 

EXISTING SANITARY BEING REUSED TO BE SCOPED, LOCATED/CAMERA'D AND FIELD VERIFIED. REPORT FINDINGS AND LAYOUT TO ENGINEER/ARCHITECT PRIOR TO CONSTRUCTION. ALL EXISTING SANITARY PIPING IN PROJECT AREA TO BE JETTED BACK TO BUILDING SERVICE ENTRANCE.

**EXPOSED PIPING PAINTING REQUIREMENTS:** 

ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.

-STM(E)--------||-====| −STM(E)— DCW(E) لہٹا

<u>UPPER LEVEL - PLUMBING PLAN (DEMOLITION)</u>

#### **GENERAL NOTES**

1. THIS PLAN REPRESENTS THE PLUMBING EXISTING CONDITIONS AND THE INTENT OF THE PLUMBING DEMOLITION AND REMOVAL OF THE EXISTING PLUMBING FOR THE REMODELING. THE "PC" SHALL REMOVE AND/OR RELOCATE ALL ITEMS SHOWN 'DARK DASHED' ON THE PLAN. ANY ITEMS SHOWN 'LIGHT SOLID' SHALL REMAIN. ANY ITEMS NOT INDICATED ON PLAN THAT NEED REMOVED OR RELOCATED SHALL BE THE RESPONSIBILITY OF THE "PC".

2. PIPES WHICH ARE CONCEALED AND THEREFORE INACCESSIBLE MAY BE ABANDONED IN PLACE. HOWEVER, ALL ENDS SHALL BE CAPPED. ABANDONED PIPING MUST NOT INTERFERE WITH NEW CONSTRUCTION AND MUST REMAIN CONCEALED. PATCH WALLS / CEILINGS / FLOORS TO MATCH EXISTING SURFACES.

3. THE "PC" SHALL CONSULT WITH THE OWNER AS TO THE DISPOSITION OF ALL REMOVED PLUMBING EQUIPMENT (FIXTURES, PIPING, WATER HEATERS, ETC). PLUMBING EQUIPMENT WHICH OWNER DOES NOT DESIRE TO RETAIN SHALL BE REMOVED FROM THE PREMISES BY THE "PC".

4. THE "PC" SHALL PATCH ALL OPENINGS AND HOLES IN EXISTING WALLS / FLOOR (CAUSED BY HIM/HER IN THE PERFORMANCE OF HIS/HER WORK) TO MATCH THE SURROUNDING SURFACE AND TO MAINTAIN THE FIRE INTEGRITY OF SAID WALLS /

5. ANY AND ALL ABANDONED PIPING AND EQUIPMENT SHALL BE REMOVED BY THE "PC".

6. THE "PC" SHALL ENSURE THAT ANY FIXTURES AND EQUIPMENT CALLED FOR TO REMAIN ARE NOT TO BE DISTURBED BY THE DEMOLITION OF ANOTHER FIXTURE. WHERE A BRANCH PIPE IS CALLED TO BE CAPPED AT THE MAIN IT IS THE RESPONSIBILITY OF THE "PC" TO VERIFY THAT THE BRANCH PIPE DOES NOT SERVE ANY OTHER FIXTURES THAT ARE TO REMAIN IN USE.

(THESE NOTES APPLY REFERENCE NOTES

1> REMOVE EXISTING WATER CLOSET COMPLETE. REMOVE ASSOCIATED DCW, SAN AND VENT BACK TO MAINS AND CAP.

2 REMOVE EXISTING URINAL COMPLETE. REMOVE ASSOCIATED DCW, SAN AND VENT PIPING BACK TO MAINS AND CAP.

REMOVE EXISTING MOP BASIN COMPLETE. REMOVE ASSOCIATED DCW, DHW, SAN

AND VENT PIPING BACK TO MAINS AND CAP.

EXISTING MOP BASIN TO REMAIN.

5 EXISTING STORM PIPING TO REMAIN.

6> REMOVE EXISTING BATH TUB COMPLETE. REMOVE ASSOCIATED DCW, DHW, SAN AND VENT PIPING BACK TO MAINS AND CAP.

7> REMOVE EXISTING WATER COOLER COMPLETE. REMOVE ASSOCIATED DCW, SAN, AND VENT PIPING BACK TO MAINS AND CAP.

8 REMOVE EXISTING SHOWER COMPLETE. REMOVE ASSOCIATED DCW, DHW, SAN AND VENT PIPING BACK TO MAINS AND CAP.

9> REMOVE EXISTING SINK COMPLETE. REMOVE PIPING BACK TO MAINS AND CAP.

10> REMOVE ALL ABANDONED DOMESTIC WATER AND VENT PIPING THIS ROOM BACK TO NEAREST ACTIVE MAINS AND CAP. FIELD VERIFY MAINS INACTIVE PRIOR TO REMOVAL.

EXISTING DOMESTIC WATER HEATER, RECIRC PUMP AND EXPANSION TANK TO BE REMOVED AND REPLACED IN NEW LOCATION UNDER NEW WORK. REMOVE ALL ASSOCIATED PIPING SERVING REMOVED FIXTURES.

12 REMOVE DCW PIPING BACK TO POINT INDICATED FOR TIE IN AND EXTENSION UNDER NEW WORK.

13> EXISTING 2" WATER SERVICE TO BE REMOVED BACK TO BELOW GRADE AND CAPPED. COORDINATE WITH WATER DEPT FOR ADDITIONAL REQUIREMENTS FOR SERVICE MODIFICATIONS AND SHUTDOWN. PATCH FLOOR TO MATCH EXISTING SURROUNDING CONSTRUCTION AND REMOVE DOWNSTREAM PIPING BACK TO NEAREST ACTIVE MAIN AND CAP. FIELD VERIFY AND COORDINATE WITH WATER DEPT AND OWNER THAT SERVICE IS INACTIVE PRIOR TO CONSTRUCTION. COORDINATE REMOVAL WITH CARROLLTON WATER DEPT.

EXISTING WATER COOLER TO BE REMOVED AND REPLACED. REMOVE ASSOCIATED PIPING COMPLETE.

15> EXISTING FLOOR DRAIN TO BE REMOVED AND REPLACED IN SAME LOCATION. REMOVE SAN AND VENT PIPING AND EXTEND NEW AS SHOWN UNDER NEW WORK.

EXISTING STORM PIPING RISER FROM BELOW DROPS IN APPROXIMATELY THIS LOCATION. EXISTING PIPING TO REMAIN AND BE CONCEALED UNDER NEW WORK IN NEW WALL. FIELD VERIFY PRIOR TO CONSTRUCTION. REWORK AS REQUIRED.

17 EXISTING STORM PIPING RISER TO FLOOR BELOW TO BE REWORKED AS REQUIRED DUE TO REMOVAL OF ASSOCIATED WALL. REFER TO NEW WORK FOR NEW ROUTING REQUIREMENTS.

EXISTING FLOOR DRAIN TO BE REMOVED COMPLETE. REMOVE ASSOCIATED SANITARY AND VENT PIPING BACK TO NEAREST ACTIVE MAINS AND CAP.

19 EXISTING WASHER BOX TO BE REMOVED COMPLETE. REMOVE PIPING BACK TO NEAREST ACTIVE MAINS AND CAP.

20 REMOVE EXISTING SINK COMPLETE. REMOVE PIPING BACK AS REQUIRED FOR NEW SINK INSTALLATION IN NEARBY LOCATION.



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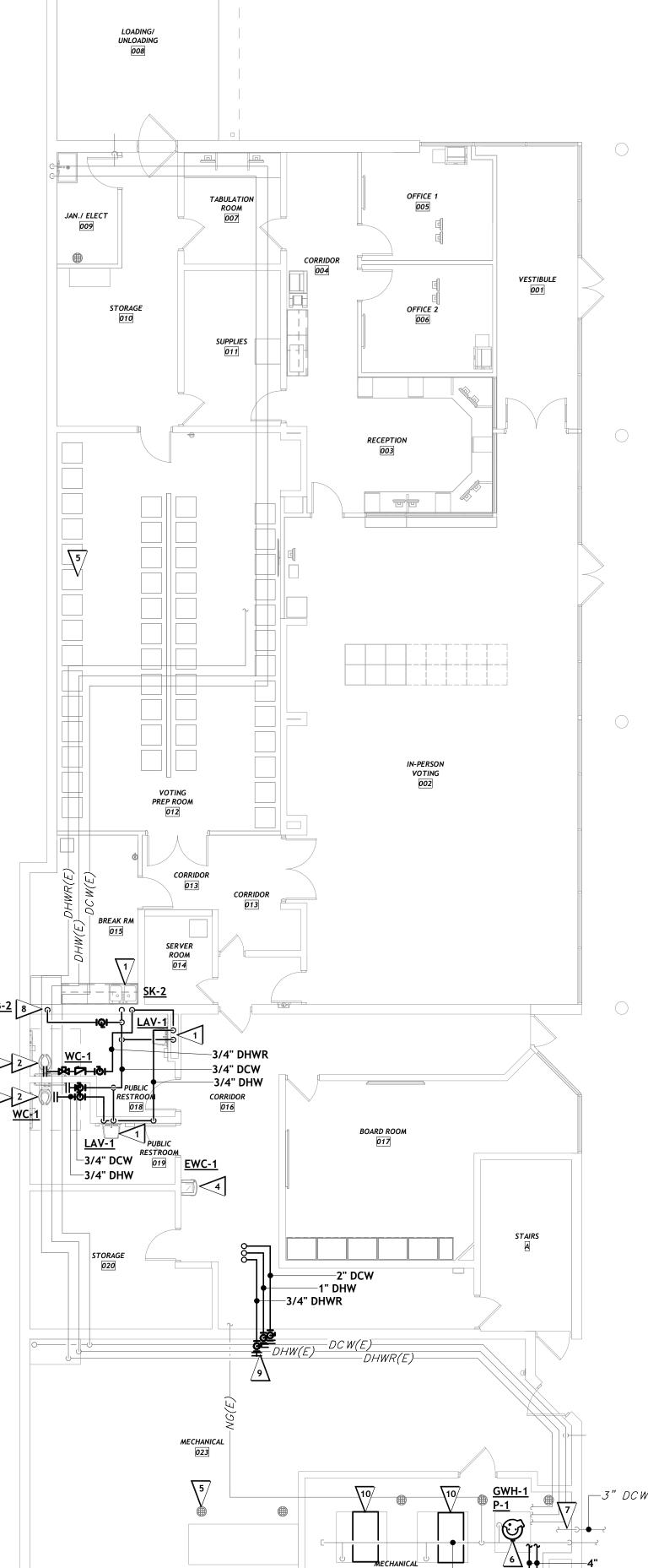
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UPPER LEVEL -PLUMBING PLAN

(DEMOLITION)

3730 Tabs Drive, Suite 200 Uniontown, Ohio 44685 330.899.4955 | epic-eeg.com

ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.



**GENERAL NOTES** 

1. PLUMBING VENTS SHALL BE LOCATED A MINIMUM OF 10'-0". FROM ALL OUTDOOR AIR

2. NATURAL GAS PIPING EXPOSED TO ELEMENTS SHALL BE PAINTED WITH TWO COATS OF RUST PROHIBITED PAINT. COORDINATE FINAL COLOR OF PAINT WITH OWNER AND ARCHITECT. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.

4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT AND FIXTURES.

5. PLUMBING PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING REMOVAL.

6. REFER TO PLUMBING ISOMETRICS FOR ANY SANITARY AND VENT SIZES NOT INDICATED ON THE PLANS.

7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF

8. THE PLUMBING CONTRACTOR TO VERIFY INVERT ELEVATIONS AND LOCATION OF EXISTING UNDERGROUND SANITARY WASTE PIPING IN FIELD PRIOR TO CONSTRUCTION. NOTIFY OWNER AND ARCHITECT IMMEDIATELY IF DRAINAGE BY GRAVITY CANNOT BE ACHIEVED. DRAWINGS BASED ON ORIGINAL DESIGN DOCUMENTS, CURRENT ELEVATIONS

PENETRATIONS THROUGH STRUCTURAL ELEMENTS.

9. EXISTING UNDERFLOOR SANITARY IS ASSUMED FROM LOCATION OF EXISTING CLEANOUTS. THE PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION OF PIPING PRIOR TO ANY SAW-CUTTING.

10. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING NECESSARY TO REPAIR DAMAGE CAUSED BY THE INSTALLATION ACTIVITIES PERFORMED BY THE CONTRACTOR. ALL REPAIRED WALLS, CEILINGS, FLOORS, ETC... SHALL MATCH EXISTING CONDITIONS.

11. FIELD VERIFY EXISTING PIPING ROUTING AND SIZES FOR TIE IN TO SERVE NEW FIXTURES PRIOR TO CONSTRUCTION.

(THESE NOTES APPLY REFERENCE NOTES TO THIS PLAN ONLY)

NEW LAV/SINK. EXTEND 1/2" DCW AND 1/2" DHW TO LAV/SINK.

NEW FIXTURE IN APPROXIMATELY SAME LOCATION AS REMOVED. IT IS ACCEPTABLE TO REUSE EXISTING PIPING SERVING REMOVED FIXTURE IF IT IS THE SAME SIZE OR EQUAL TO SPECIFIED SERVING NEW FIXTURE.

3> NEW WATER CLOSET. EXTEND 1-1/4" DCW TO WATER CLOSET WITH HAMMER

ARRESTOR <u>HA-1</u>. EXTEND PIPING FROM NEARBY EXISTING MAINS. EXISTING PIPING SIZES TO MATCH OR EXCEED FIXTURE CONNECTION SIZES.

4> NEW WATER COOLER IN SAME LOCATION AS REMOVED. RECONNECT TO EXISTING PIPING AS REQUIRED.

5> EXISTING FLOOR DRAIN. TYPICAL.

6 NEW GAS FIRED DOMESTIC WATER HEATER INSTALLED ON EXISTING CONCRETE HOUSEKEEPING PAD WITH NEW RECIRC PUMP AND EXPANSION TANK. EXTEND DCW, DHW, DHWR AND NG PIPING AND CONNECT PER DETAIL AND MANUFACTURER REQUIREMENTS (APPROX 76 CFH). EXTEND 4" COMBUSTION AIR AND FLUE PIPING AND TERMINATE THROUGH ROOF WITH CONCENTRIC VENTING KIT PER MANUFACTURER REQUIREMENTS.

EXISTING DOMESTIC WATER SERVICE ENTRANCE TO BE REWORKED AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW REDUCED PRESSURE BACKFLOW ASSEMBLY. REVISE LAYOUT AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW BACKFLOW PREVENTER IN ACCORDANCE WITH AHJ REQUIREMENTS. COORDINATE WITH FPC. PROVIDE BACKFLOW PREVENTER AND VALVES SEPARATELY AS REQUIRED DUE TO LIMITED SPACE FOR INSTALLATION. DO NOT INSTALL IN VERTICAL. REFER TO DETAILS FOR ADDITIONAL REQUIREMENTS.

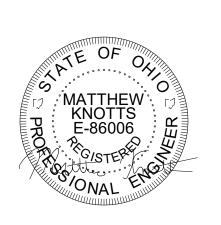
8 EXTEND 1/2" DCW PIPING DOWN IN WALL TO WALL BOX.

TIE INTO EXISTING MAINS AND EXTEND AS SHOWN WITH SHUTOFF VALVES. MODIFY EXISTING MAINS AS REQUIRED TO ALLOW FOR TIE IN. TYPICAL.

10> RECONNECT TO EXISTING AND EXTEND NEW 2" NG TO NEW BOILER (APPROX 1500 CFH EACH). CONNECT PER DETAIL AND MANUFACTURER REQUIREMENTS.

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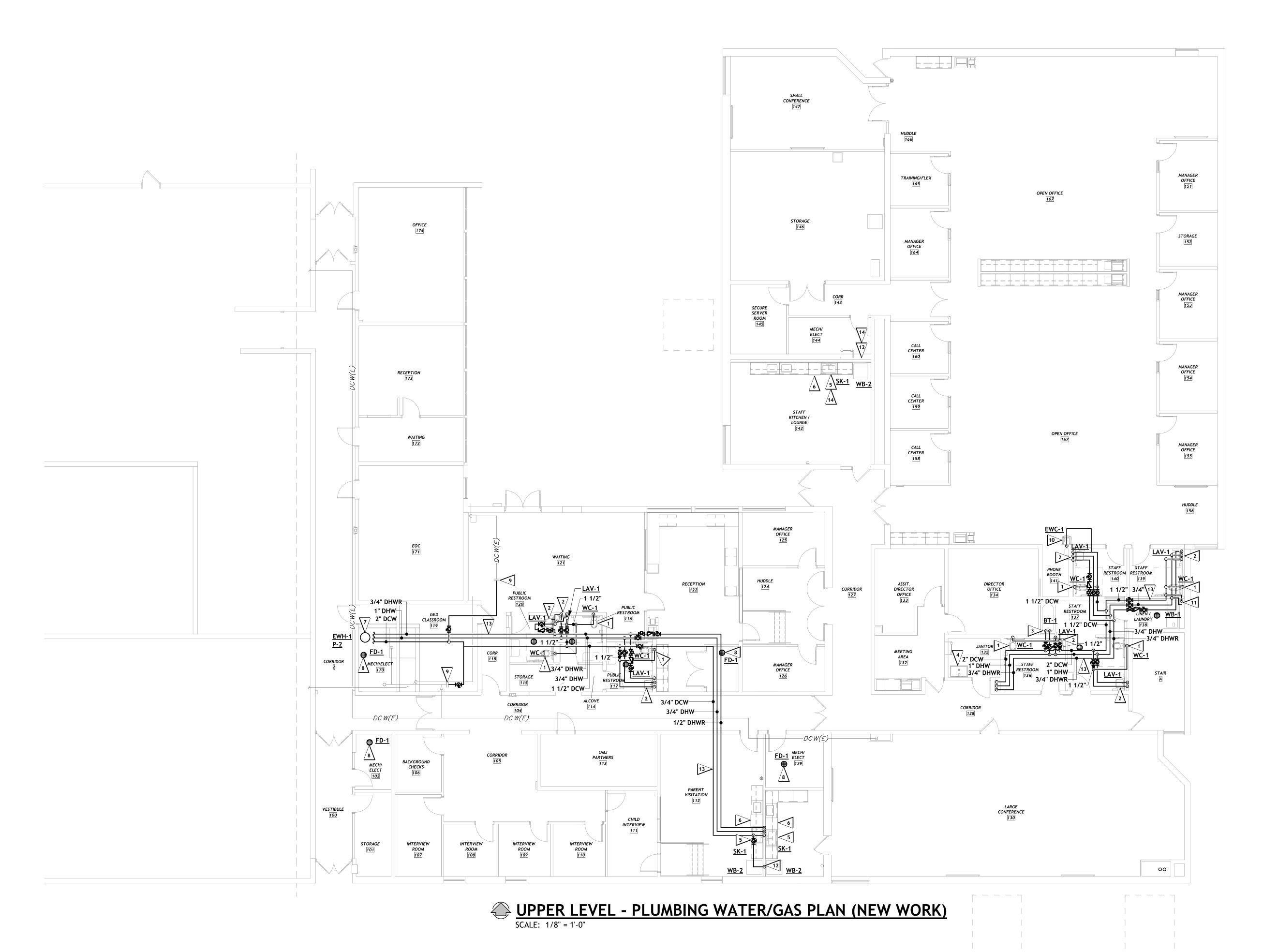
LOWER LEVEL -PLUMBING WATER/GAS PLAN (NEW WORK)

Uniontown, Ohio 44685 330.899.4955|epic-eeg.com

LOWER LEVEL - PLUMBING WATER/GAS PLAN (NEW WORK)

**EXPOSED PIPING PAINTING REQUIREMENTS:** 

ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.



**GENERAL NOTES** 

1. PLUMBING VENTS SHALL BE LOCATED A MINIMUM OF 10'-0". FROM ALL OUTDOOR AIR

2. NATURAL GAS PIPING EXPOSED TO ELEMENTS SHALL BE PAINTED WITH TWO COATS OF RUST PROHIBITED PAINT. COORDINATE FINAL COLOR OF PAINT WITH OWNER AND ARCHITECT. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.

4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT AND FIXTURES.

5. PLUMBING PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING

6. REFER TO PLUMBING ISOMETRICS FOR ANY SANITARY AND VENT SIZES NOT INDICATED ON THE PLANS.

7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF PENETRATIONS THROUGH STRUCTURAL ELEMENTS.

8. THE PLUMBING CONTRACTOR TO VERIFY INVERT ELEVATIONS AND LOCATION OF EXISTING UNDERGROUND SANITARY WASTE PIPING IN FIELD PRIOR TO CONSTRUCTION. NOTIFY OWNER AND ARCHITECT IMMEDIATELY IF DRAINAGE BY GRAVITY CANNOT BE ACHIEVED. DRAWINGS BASED ON ORIGINAL DESIGN DOCUMENTS, CURRENT ELEVATIONS

9. EXISTING UNDERFLOOR SANITARY IS ASSUMED FROM LOCATION OF EXISTING CLEANOUTS. THE PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION OF PIPING PRIOR TO ANY SAW-CUTTING.

10. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING NECESSARY TO REPAIR DAMAGE CAUSED BY THE INSTALLATION ACTIVITIES PERFORMED BY THE CONTRACTOR. ALL REPAIRED WALLS, CEILINGS, FLOORS, ETC... SHALL MATCH EXISTING CONDITIONS.

11. FIELD VERIFY EXISTING PIPING ROUTING AND SIZES FOR TIE IN TO SERVE NEW FIXTURES PRIOR TO CONSTRUCTION.

> (THESE NOTES APPLY TO THIS PLAN ONLY)

REFERENCE NOTES NEW WATER CLOSET. EXTEND 1-1/4" DCW TO WATER CLOSET WITH HAMMER ARRESTOR <u>HA-1</u>.

2 NEW LAV. EXTEND 1/2" DCW AND 1/2" DHW TO LAV.

NEW BATHTUB. EXTEND 1/2" DCW AND 1/2" DHW.

4 EXISTING MOP BASIN.

5 NEW SINK. EXTEND 1/2" DCW 1/2" DHW TO SINK.

6 EXTEND DRAIN LINE FROM DISHWASHER AND CONNECT TO TAIL PIECE OF ADJACENT SINK PRIOR TO TRAP. EXTEND 3/8" DHW TO DISHWASHER.

7> NEW ELECTRIC HOT WATER HEATER, RECIRC PUMP AND EXPANSION TANK. EXTEND DCW, DHW AND DHWR PIPING AS SHOWN IN DETAIL.

NEW FLOOR DRAIN. CUT AND PATCH FLOOR AS REQUIRED. COORDINATE FINAL LOCATION IN ROOM WITH NEARBY EQUIPMENT LOCATIONS.

9 TIE INTO EXISTING AND EXTEND AS SHOWN WITH NEW SHUTOFF VALVE.

10 NEW WATER COOLER IN SAME LOCATION AS REMOVED. EXTEND NEW 1/2" DCW PIPING AS SHOWN.

11> EXTEND 1/2" DCW AND 1/2" DHW PIPING TO WALL BOX PER DETAIL.

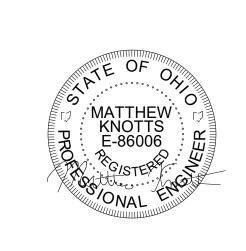
12 EXTEND 1/2" DCW PIPING DOWN IN WALL TO WALL BOX PER DETAIL.

13> ROUTE PIPING IN JOIST SPACE WHERE POSSIBLE.

TIE INTO NEARBY EXISTING MAINS SERVING REMOVED FIXTURES AND EXTEND TO SERVE NEW.

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UPPER LEVEL -**PLUMBING** WATER/GAS PLAN (NEW WORK)

CONSULTING ENGINEERS 3730 Tabs Drive, Suite 200 Uniontown, Ohio 44685 330.899.4955|epic-eeg.com

EXISTING SANITARY BEING REUSED TO BE SCOPED, LOCATED/CAMERA'D AND FIELD VERIFIED. REPORT FINDINGS AND LAYOUT TO ENGINEER/ARCHITECT PRIOR TO CONSTRUCTION. ALL EXISTING SANITARY PIPING IN PROJECT AREA TO BE JETTED BACK TO BUILDING SERVICE ENTRANCE.

#### **EXPOSED PIPING PAINTING REQUIREMENTS:**

ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.

LOADING/ UNLOADING 008 TABULATION ROOM JAN./ ELECT 009 VESTIBULE  GENERAL NOTES

1. PLUMBING VENTS SHALL BE LOCATED A MINIMUM OF 10'-0". FROM ALL OUTDOOR AIR

2. NATURAL GAS PIPING EXPOSED TO ELEMENTS SHALL BE PAINTED WITH TWO COATS OF RUST PROHIBITED PAINT. COORDINATE FINAL COLOR OF PAINT WITH OWNER AND ARCHITECT. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.

3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING

4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT AND FIXTURES.

5. PLUMBING PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING REMOVAL.

6. REFER TO PLUMBING ISOMETRICS FOR ANY SANITARY AND VENT SIZES NOT INDICATED ON THE PLANS.

7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF PENETRATIONS THROUGH STRUCTURAL ELEMENTS.

8. THE PLUMBING CONTRACTOR TO VERIFY INVERT ELEVATIONS AND LOCATION OF EXISTING UNDERGROUND SANITARY WASTE PIPING IN FIELD PRIOR TO CONSTRUCTION. NOTIFY OWNER AND ARCHITECT IMMEDIATELY IF DRAINAGE BY GRAVITY CANNOT BE ACHIEVED. DRAWINGS BASED ON ORIGINAL DESIGN DOCUMENTS, CURRENT ELEVATIONS

9. EXISTING UNDERFLOOR SANITARY IS ASSUMED FROM LOCATION OF EXISTING CLEANOUTS. THE PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION OF PIPING PRIOR TO ANY SAW-CUTTING.

10. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING NECESSARY TO REPAIR DAMAGE CAUSED BY THE INSTALLATION ACTIVITIES PERFORMED BY THE CONTRACTOR. ALL REPAIRED WALLS, CEILINGS, FLOORS, ETC... SHALL MATCH EXISTING CONDITIONS.

11. FIELD VERIFY EXISTING PIPING ROUTING AND SIZES FOR TIE IN TO SERVE NEW FIXTURES PRIOR TO CONSTRUCTION.

REFERENCE NOTES

(THESE NOTES APPLY TO THIS PLAN ONLY)

NEW LAV/SINK. EXTEND 1-1/2" VENT TO LAV. EXTEND 2" SAN FROM BELOW GRADE. EXTEND 1-1/2" SAN TO LAV.

2 NEW FIXTURE IN APPROXIMATELY SAME LOCATION AS REMOVED. IT IS ACCEPTABLE TO REUSE EXISTING PIPING SERVING REMOVED FIXTURE IF IT IS THE SAME SIZE OR EQUAL TO SPECIFIED SERVING NEW FIXTURE. REFER TO SANITARY ISOMETRICS AND MATCH EQUIVALENT FIXTURE PIPING, TRAPPING AND VENTING SHOWN ELSEWHERE

3> NEW WATER CLOSET. EXTEND 3" SAN AND 2" VENT TO WATER CLOSET. EXTEND PIPING FROM NEARBY EXISTING MAINS. EXISTING PIPING SIZES TO MATCH OR EXCEED FIXTURE CONNECTION SIZES. CUT AND PATCH FLOOR AS REQUIRED DUE TO SANITARY EXTENSION TO NEW FLOOR MOUNT FIXTURE WHERE REPLACING WALL MOUNT FIXTURE.

4> NEW WATER COOLER IN SAME LOCATION AS REMOVED. RECONNECT TO EXISTING

5> EXISTING FLOOR DRAIN. TYPICAL.

6> EXISTING FLOOR CLEANOUT. TYPICAL.

TIE INTO EXISTING NEARBY VENT PIPING. MINIMUM 2". TIE INTO NEARBY EXISTING SANITARY PIPING. MINIMUM 2".

8 INSTALL NEW FLOOR CLEANOUT IN PLACE OF REMOVED FLOOR DRAIN.

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LOWER LEVEL -PLUMBING WASTE PLAN (NEW WORK)

CONSULTING ENGINEERS
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Uniontown, Ohio 44685
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**LOWER LEVEL - PLUMBING WASTE PLAN (NEW WORK)** 

**EXISTING SANITARY SYSTEM REQUIREMENTS:** 

EXISTING SANITARY BEING REUSED TO BE SCOPED, LOCATED/CAMERA'D AND FIELD VERIFIED. REPORT FINDINGS AND LAYOUT TO ENGINEER/ARCHITECT PRIOR TO CONSTRUCTION. ALL EXISTING SANITARY PIPING IN PROJECT AREA TO BE JETTED BACK TO BUILDING SERVICE ENTRANCE.

**EXPOSED PIPING PAINTING REQUIREMENTS:** 

ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.



**GENERAL NOTES** 

1. PLUMBING VENTS SHALL BE LOCATED A MINIMUM OF 10'-0". FROM ALL OUTDOOR AIR

2. NATURAL GAS PIPING EXPOSED TO ELEMENTS SHALL BE PAINTED WITH TWO COATS OF RUST PROHIBITED PAINT. COORDINATE FINAL COLOR OF PAINT WITH OWNER AND ARCHITECT. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.

4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT AND FIXTURES.

5. PLUMBING PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING

6. REFER TO PLUMBING ISOMETRICS FOR ANY SANITARY AND VENT SIZES NOT INDICATED ON THE PLANS.

7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF PENETRATIONS THROUGH STRUCTURAL ELEMENTS.

8. THE PLUMBING CONTRACTOR TO VERIFY INVERT ELEVATIONS AND LOCATION OF EXISTING UNDERGROUND SANITARY WASTE PIPING IN FIELD PRIOR TO CONSTRUCTION. NOTIFY OWNER AND ARCHITECT IMMEDIATELY IF DRAINAGE BY GRAVITY CANNOT BE ACHIEVED. DRAWINGS BASED ON ORIGINAL DESIGN DOCUMENTS, CURRENT ELEVATIONS

9. EXISTING UNDERFLOOR SANITARY IS ASSUMED FROM LOCATION OF EXISTING CLEANOUTS. THE PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION OF PIPING PRIOR TO ANY SAW-CUTTING.

10. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING NECESSARY TO REPAIR DAMAGE CAUSED BY THE INSTALLATION ACTIVITIES PERFORMED BY THE CONTRACTOR. ALL REPAIRED WALLS, CEILINGS, FLOORS, ETC... SHALL MATCH EXISTING CONDITIONS.

11. FIELD VERIFY EXISTING PIPING ROUTING AND SIZES FOR TIE IN TO SERVE NEW FIXTURES PRIOR TO CONSTRUCTION.

REFERENCE NOTES

(THESE NOTES APPLY

TO THIS PLAN ONLY) 1 NEW WATER CLOSET. EXTEND 3" SAN AND 2" VENT TO WATER CLOSET.

2 NEW LAV. EXTEND 1-1/2" VENT TO LAV. EXTEND 2" SAN FROM BELOW GRADE. EXTEND 1-1/2" SAN TO LAV.

3 NEW BATHTUB. EXTEND 1-1/2" VENT AND 2" SAN TO BATHTUB.

4 EXISTING MOP BASIN.

5 NEW SINK. EXTEND 1-1/2" VENT TO SINK. EXTEND 2" SAN FROM BELOW GRADE. EXTEND 1-1/2" SAN TO SINK.

6 EXTEND DRAIN LINE FROM DISHWASHER AND CONNECT TO TAIL PIECE OF ADJACENT SINK PRIOR TO TRAP.

7 EXISTING STORM PIPING.

NEW FLOOR DRAIN. EXTEND 3" SAN AND 1-1/2" VENT PIPING TO SERVE FLOOR DRAIN. CUT AND PATCH FLOOR AS REQUIRED. COORDINATE FINAL LOCATION IN ROOM WITH NEARBY EQUIPMENT LOCATIONS.

9> EXISTING STORM PIPING RISER TO BE REWORKED AS REQUIRED TO DROP IN NEW WALL TO BELOW GRADE. REWORK ASSOCIATED STORM PIPING BELOW GRADE AS REQUIRED DUE TO RISER MODIFICATIONS. CUT AND PATCH FLOOR TO MATCH EXISTING SURROUNDING CONSTRUCTION.

NEW WATER COOLER IN SAME LOCATION AS REMOVED. EXTEND NEW 1-1/2" SAN AND VENT PIPING AS SHOWN.

EXTEND 3" SAN AND 2" VENT PIPING TO WALL BOX PER DETAIL.

3" SAN PIPING DOWN TO BELOW GRADE AND INTO LOWER LEVEL. SLEEVE AND SEAL AT LOWER LEVEL EXTERIOR WALL. TIE INTO MINIMUM 3" EXISTING SANITARY MAIN IN LOWER LEVEL MECHANICAL ROOM.

TIE INTO EXISTING SANITARY PIPING BELOW GRADE, MINIMUM SIZE TO BE EQUAL TO OR GREATER THAN NEW PIPE SIZE.

14>> 3" V.T.R

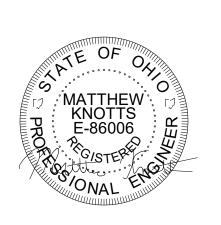
EXTEND NEW 3" SAN AND 1-1/2" VENT TO SERVE NEW FLOOR DRAIN IN SAME LOCATION AS REMOVED.

16 NEW LAV/SINK. EXTEND 1-1/2" VENT TO LAV. EXTEND 1-1/2" SAN TO LAV.



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**UPPER LEVEL -**PLUMBING WASTE PLAN (NEW WORK)

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	PLUMBING	J ADDKE	VIAIIONS
TAG	EQUIPMENT	TAG	EQUIPMENT
Α	AMPS	MC	MECHANICAL CONTRACTOR
AFF	ABOVE FINISH FLOOR	MFR	MANUFACTURER
AHU	AIR HANDLING UNIT	NEC	NATIONAL ELECTRIC CODE
AP	ACCESS PANEL	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
ARCH	ARCHITECTURAL	NG	NATURAL GAS
В	BOILER	NIC	NOT IN CONTRACT
BAS	BUILDING AUTOMATION SYSTEM	NTS	NOT TO SCALE
BFP	BACKFLOW PREVENTER	ОС	ON CENTER
ВТ	BATHTUB	PC	PLUMBING CONTRACTOR
CFH	CUBIC FEET PER HOUR	РН / Ф	PHASE
СО	CLEANOUT	PRV	PRESSURE RELIEF/REDUCING VALVE
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY	PSF	POUNDS PER SQUARE FOOT
DCVA	DOUBLE CHECK VALVE ASSEMBLY	PSIG	POUNDS PER SQUARE INCH, GAUGE
DCW	DOMESTIC COLD WATER	PVC	POLYVINYL CHLORIDE
DHW	DOMESTIC HOT WATER	QTY	QUANTITY
DHWR	DOMESTIC HOT WATER RETURN	RD	ROOF DRAIN
DIA / Ø	DIAMETER	RH	ROOF HYDRANT
DN	DOWN	RPM	REVOLUTIONS PER MINUTE
EC	ELECTRICAL CONTRACTOR	RPZA	REDUCED PRESSURE ZONE ASSEMBLY
ET	EXPANSION TANK	SAN	SANITARY
EWC	ELECTRIC WATER COOLER	SH	SHOWER
EWT	ENTERING WATER TEMPERATURE	SK	SINK
EWH	ELECTRIC WATER HEATER	ST	STORAGE TANK
EX / (E)	EXISTING	STM	STORM
FD	FLOOR DRAIN	TD	TRENCH DRAIN
FFE	FINISH FLOOR ELEVATION	TMV	THERMOSTATIC MIXING VALVE
FPC	FIRE PROTECTION CONTRACTOR	TP	TRAP PRIMER
FPM	FEET PER MINUTE	TW	TEMPERED WATER
FPWH	FROST PROOF WALL HYDRANT	TYP	TYPICAL
FT	FEET	UR	URINAL
GC	GENERAL CONTRACTOR	UT	UTILITY TUB
GPM	GALLONS PER MINUTE	V	VENT
GHW	GAS WATER HEATER	VFD	VARIABLE FREQUENCY DRIVE
НВ	HOSE BIBB	VOLT	VOLTAGE
HP	HORSEPOWER	VTR	VENT THRU ROOF
KW	KILOWATT	W	WATTS
LAV	LAVATORY	WB	WASHER BOX
MB	MOP BASIN	WC	WATER CLOSET
			<del> </del>

PROVIDE AS SPECIFIED OR EQUAL FROM ALTERNATE MANUFACTURERS.

2. LEAD FREE ASSEMBLY.

3. PROVIDE WITH ASSE 1070 MIXING VALVE FACTORY PRE-SET TO 110°F OUTPUT.

4. PROVIDE WITH ASSE Z358.1 MIXING VALVE.

5. COORDINATE L/R HANDING WITH ARCHITECTURAL FLOOR PLANS PRIOR TO PURCHASE. 6. PROVIDE WITH ASSE 1070 MIXING VALVE FACTORY PRE-SET TO 120°F OUTPUT.

ACCEPTABLE MANUFACTURERS FOR VARIOUS FIXTURES:

SINKS: ELKAY, JUST, DAYTON

SINK FAUCETS: CHICAGO FAUCETS, T&S BRASS, MOEN. LAVS: KOHLER, AMERICAN STANDARD, SLOAN

LAV FAUCETS: CFG, DELTA, MOEN, SLOAN, AMERICAN STANDARD, KOHLER.

SHOWERS/BATH TUBS: CLARION, FREEDOM SHOWERS, STERLING.

SHOWER/BATH TUB TRIM: CFG, MOEN, KOHLER. WATER CLOSETS: MANSFIELD, KOHLER, AMERICAN STANDARD.

	GAS-FIRED DOMESTIC WATER HEATER SCHEDULE																
TAG ID	MANUFACTURER	MODEL	∆T (°F)	RECOVERY (GPH)	STORAGE			GAS DATA				ELECTR	ICAL DATA	1	RELIEF PRESSURE	WEIGHT, SHIPPING	REMARKS
IAGID	MANUFACIURER	MODEL	Δι ( Γ)	RECOVERT (GPH)	(GAL)	TYPE	PSIG	INPUT (MBH)	OUTPUT (MBH)	AFUE (%)	VOLT.	PHASE	MCA	MOCP	(PSIG)	(LBS)	KEMIAKKS
GWH-1	AO SMITH	BTX-80	100	86	50	NAT. GAS	14" MAX	76	71.4	94	115	1	<5	15	100	225	ALL

. ACCEPTABLE MANUFACTURERS: AO SMITH, BRADFORD WHITE, LOCHINVAR, PVI, RHEEM, RUUD, STATE.

PROVIDE WITH INTEGRAL DISCONNECT SWITCH & CONCENTRIC INTAKE/FLUE TERMINATION KIT.

B. MOUNT ON EXISTING CONCRETE HOUSEKEEPING PAD. 4. PROVIDE WITH 'AMTROL' ST-20C-DD OR APPROVED EQUAL THERMAL EXPANSION TANK WITH 8.6 GAL STORAGE, 3.2 GAL ACCEPTANCE VOLUME.

	ELECTRIC DOMESTIC WATER HEATER SCHEDULE													
TAG ID	MANUFACTURER	MODEL	∆T (°F)	RECOVERY (GPH)	STORAGE (GAL)	CAPACITY (KW)	# OF ELEMENTS		PHASE	MCA	MOCP	RELIEF PRESSURE (PSIG)	WEIGHT, SHIPPING (LBS)	REMARKS
EWH-1	AO SMITH	DEL-20-4.5	100	18	20	4.5	2	208	3	-	-	100	73	ALL

MBH 1.000 BTUH

I. ACCEPTABLE MANUFACTURERS: AO SMITH, BRADFORD WHITE, LOCHINVAR, PVI, RHEEM, RUUD, STATE.

2. PROVIDE WITH INTEGRAL DISCONNECT SWITCH, ASME RATING, & NON-SIMULTANEOUS HEATING. MOUNT ON EQUIPMENT STAND PER MFR RECOMMENDATIONS. SEE DETAIL.

4. PROVIDE WITH 'AMTROL' ST-5C-DD THERMAL EXPANSION TANK OR APPROVED EQUAL WITH 2 GAL STORAGE, 0.9 GAL MAX ACCEPTANCE.

PUMP SCHEDULE													
TAG ID	MANUFACTURER	MODEL	ТҮРЕ	SERVICE	SIZE (IN)	GPM	FT. OF HEAD	RPM	НР	VOLTAGE	PHASE	WEIGHT (LBS)	REMARKS
P-1	TACO	0015E3	CIRCULATING	140°F HW	3/4	0-16	0-18	3250	44 WATT	115	1	6	1,2
P-2	TACO	0015E3	CIRCULATING	140°F HW	3/4	0-16	0-18	3250	44 WATT	115	1	6	1,2

**REMARKS:** 

. ACCEPTABLE MANUFACTURERS: ARMSTRONG, BELL & GOSSETT, GRUNDFOS, TACO.

2. PROVIDE 7 DAY PROGRAMMABLE DIGITAL TIMER WITH 10 ON/OFF PROGRAM SETTINGS AND 100 HOUR SETTING BACKUP CAPABILITY, 95-115 DEG. F. AQUASTAT, BRONZE CONNECTIONS, 1125 PSIG/230 DEG. F. MAXIMUM WORKING PRESSURE/TEMPERATURE.







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PLUMBING SCHEDULES AND **DETAILS** 

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\_\_\_\_\_\_

CONNECTION

INCREASER /

ROOF

REDUCER AS

**REQUIRED** 

GAS PRESSURE REGULATOR (COORDINATE

**DIRTLEG WITH THREADED** 

REMOVABLE CAP (12"

FLASH VENT WITH 6 LB. LEAD CAP AND BASE. ROLL CAP 1" INTO TOP OF VENT BASE TO BE 2'-0" SQUARE.

✓ 4" VENT PIPING THROUGH ROOF

**└ INSULATION** 

- BALL VALVE WITH

& 1/4" OUTLET

SUPPLY BOX

WB-SUPPLY BOX NOT TO SCALE

REDUCED PRESSURE BACKFLOW PREVENTER

1. ALL PIPING TO CONFORM TO AHJ STANDARD CONSTRUCTION DRAWINGS

3. INSTALLATION OF THIS ASSEMBLY IN VAULTS IS SPECIFICALLY PROHIBITED.

4. UNIONS PRIOR TO BACKFLOW PREVENTION ASSEMBLIES ARE PROHIBITED.

5. INSTALLED DIRECTLY AFTER THE METER SETTING AHEAD OF ANY OUTLETS.

6. INSTALLED SO AS TO BE READILY ACCESSIBLE FOR INSPECTION, TESTING

7. PROVIDED WITH ADEQUATE SPACE FOR INSPECTION, TESTING,

8. PROTECTED FROM FREEZING BY INSTALLATION WITHIN A HEATED

2. BYPASSING OF THIS ASSEMBLY IS SPECIFICALLY PROHIBITED.

**INSTALLATION REQUIREMENTS** 

AND SPECIFICATIONS.

HAMMER ARRESTOR

**NOTES:** 

BE AS SHOWN.

SUPPLY LINE.

1.) ICE MAKER SUPPLY BOX (WB-2)

2.) PROVIDE WATTS SERIES 7

DOUBLE CHECK VALVE IN 1/2"

**VENT THROUGH ROOF DETAIL** 

ROOFING MEMBRANE

REQUIRED WHEN ELEVATED —

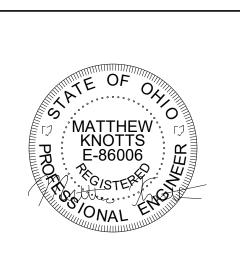
PRESSURE SUPPLIED TO FACILITY

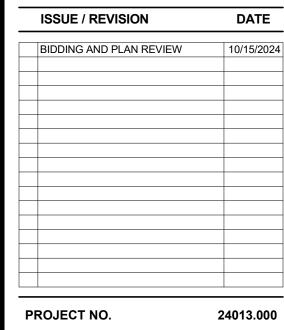
GAS EQUIPMENT CONNECTION DETAIL
NOT TO SCALE

PRESSURE SETTING WITH EQT. REQUIREMENTS)

- NATURAL GAS PIPE







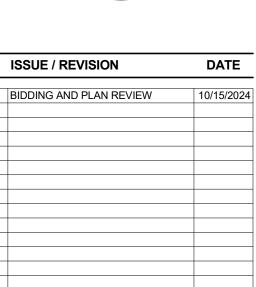
PLUMBING SCHEDULES AND **DETAILS** 

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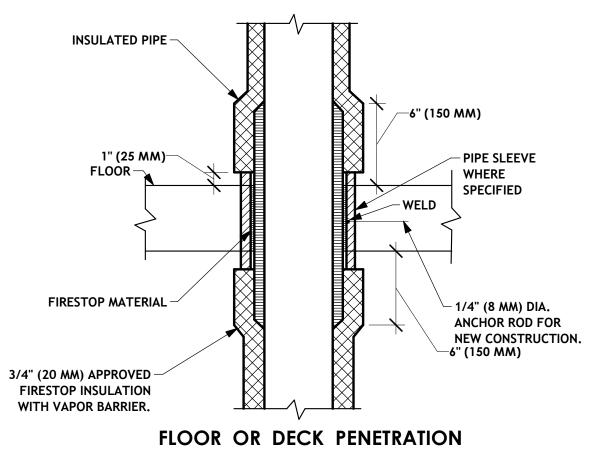
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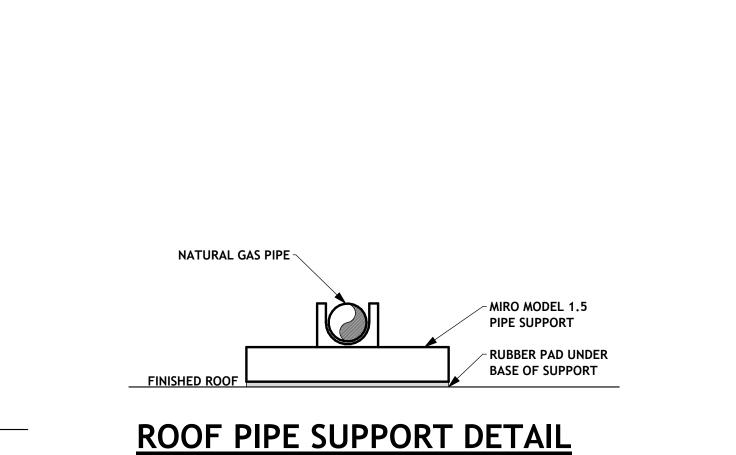


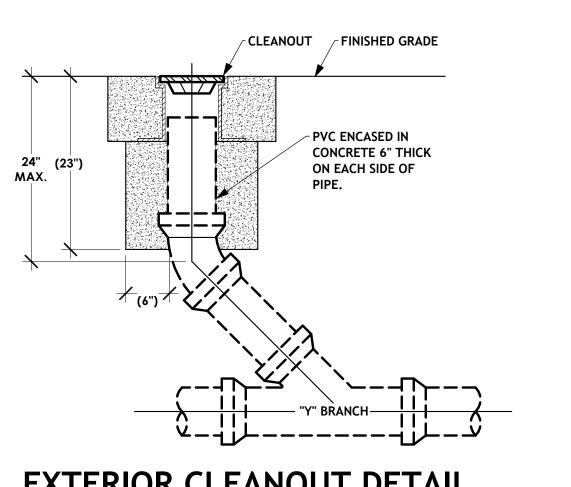
MASONRY PARTITION **INSULATED PIPE** FIRESTOP MATERIAL - 3/4" (20 MM APPROVED FIRESTOP INSULATION WITH VAPOR BARRIER. 6" (150 MM) 6" (150 MM) PARTITION OR CHASE PENETRATION **INSULATED PIPE**-



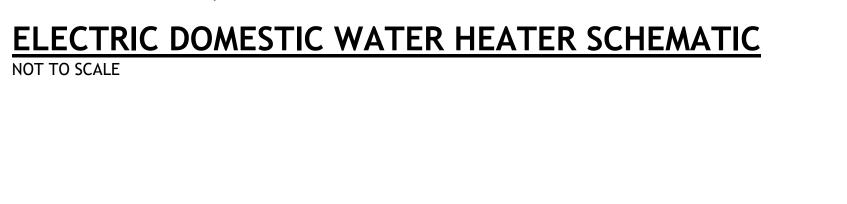
1. APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH NFPA 101. REFER TO SPECIFICATIONS SECTION 07270 FIRE STOPPING SYSTEMS. 2. SYSTEM NO. C-AJ-1009

# PIPE PENETRATION OF FIRE / SMOKE BARRIERS





**EXTERIOR CLEANOUT DETAIL** 



COLD WATER -

HOT WATER-

STRUCTURAL FRAMING NOTE:

FROM THE ROOF DECK

PIPE WITH INSUALTION &

JACKET (AS APPLICAPLE).

SEE SPECIFICATIONS FOR

REQUIREMENTS.

HEX NUTS

**CLEVIS HANGER PIPE SUPPORT - PLUMBING** 

BEAM CLAMP

THREADED ROD —

ADJUSTABLE CLEVIS HANGER ~

INSULATE VOID SPACE -BETWEEN SADDLE & PIPE

SUPPLY ADDITIONAL SUPPORT STEEL AS REQUIRED. HANGERS ARE NOT TO BE SUPPORTED

WATER HEATER FLUE & INTAKE

PIPES BY THE PLUMBING

CONTRACTOR (TYPICAL).

**CONFIRM FINAL SIZE AND** 

REQUIREMENTS WITH FINAL SUBMITTED VENDOR.

DIELECTRIC UNION -

HOT WATER HEATER —

**REFER TO 'GAS EQUIPMENT-**CONNECTION DETAIL'

FLOOR

DRAIN PAN INDIRECT -DRAIN TO FLOOR DRAIN

NOT TO SCALE

FLOOR DRAIN

DIELECTRIC -

(TYPICAL)

ASME PRESSURE & ~

RELIEF VALVE. INDIRECT PIPE

ABOVE FLOOR DRAIN.

TEMPERATURE

HOT WATER -HEATER (WH-1)

DRAIN VALVE

DRAIN PAN, INDIRECT

TO 2" ABOVE FLOOR DRAIN.

DRAIN VALVE -

(TYPICAL)

FLOOR DRAIN —

**EXPANSION TANK** 

BALANCE VALVE

PROVIDE WALL BRACKET FOR WATER HEATER. INSTALL PER

MANUFACTURES REQUIREMENTS

GAS FIRED DOMESTIC WATER HEATER SCHEMATIC

-THERMOMETER

(TYPICAL)

EXPANSION TANK

BALANCE VALVE -

(TYPICAL)

- HOT WATER RECIRC.

— CHECK VALVE (TYPICAL)

- ASME PRESSURE & TEMP

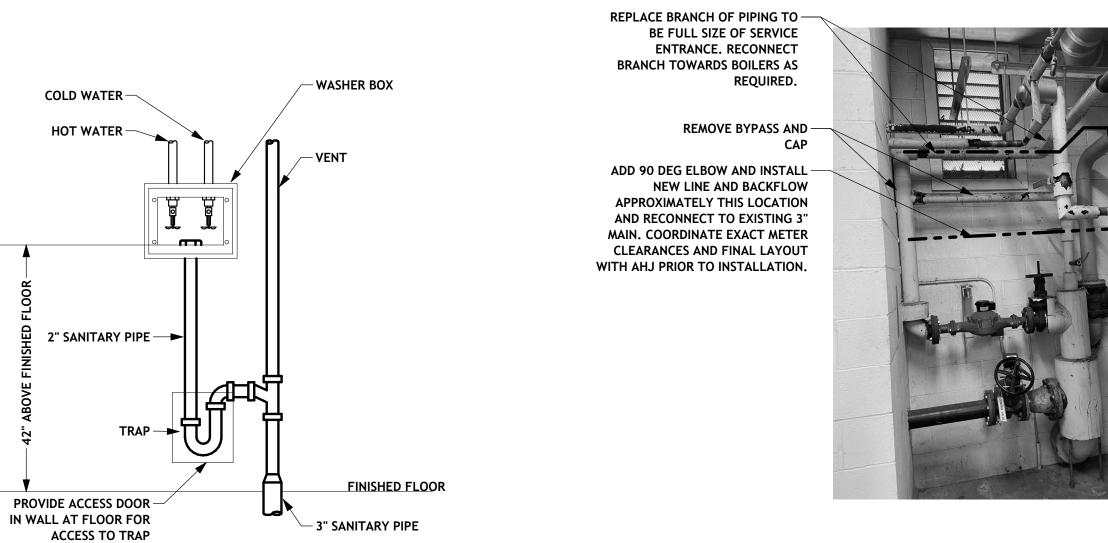
RELIEF VALVE. INDIRECT

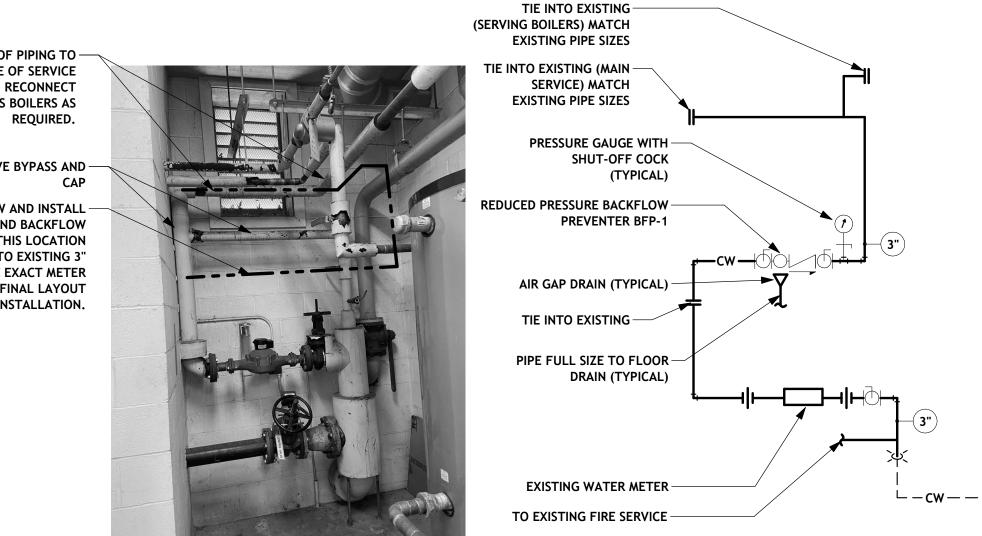
PIPE 2" ABOVE FLOOR DRAIN.

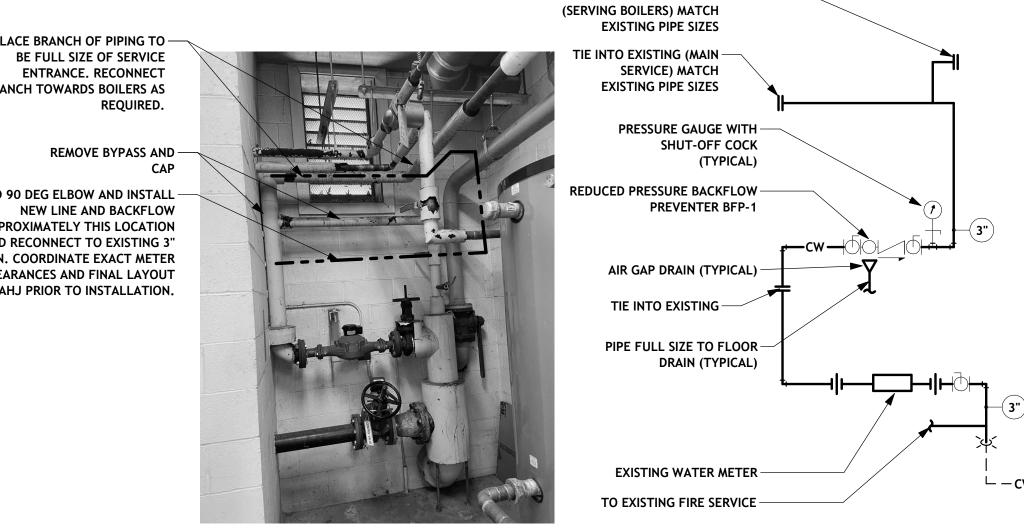
VALVE (TYPICAL)

HOT WATER RECIRC.

PUMP (P-1)







**WASHER BOX DETAIL** 

AS SUPPLIED WITH THE ASSEMBLY, THREE FEET ABOVE FINISHED FLOOR. INSTALL WITH 1'-0" MINIMUM CLEARANCE BETWEEN ASSEMBLY AND WALL.

10. PROVIDED WITH ADEQUATE DRAINAGE.

11. INSTALLED SO THAT THERE IS A VISIBLE FREE DISCHARGE FROM THE

RELIEF PORT WITH NO EXTENSION PIPING. 12. INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS. WHERE MANUFACTURER'S SPECIFICATIONS CONFLICT WITH THESE GUIDELINES, THESE **GUIDELINES SHALL GOVERN.** 

13. BECAUSE OF THEIR DESIGN, BACKFLOW PREVENTION ASSEMBLIES CREATE A CLOSED SYSTEM AND A DETECTABLE PRESSURE LOSS. BECAUSE OF THESE FACTS, THE INSTALLATION MAY ALTER THE HYDRAULICS OF THE INTERNAL PLUMBING SYSTEM. THE OWNER SHOULD CONTACT A MECHANICAL DESIGNER PRIOR TO INSTALLATION.

14. UPON INSTALLATION, ASSEMBLIES MUST BE TESTED BY A BACKFLOW PREVENTION ASSEMBLY TESTER, CERTIFIED BY THE OHIO DEPARTMENT OF COMMERCE. THE ASSEMBLY MUST BE DISMANTLED, INSPECTED INTERNALLY CLEANED, AND REPAIRED, IF NECESSARY.





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PLUMBING ISOMETRICS

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#### EXISTING HEATING EQUIPMENT

CONTRACTOR SHALL PROVIDE SEPARATE COST TO INSTALL NEW BALANCING VALVES ON EXISTING HEATING EQUIPMENT TO REMAIN WITHIN PROJECT AREA. FIELD VERIFY AND REPORT TO ENGINEER ANY VALVES FOUND TO REQUIRE REPLACEMENT OR EQUIPMENT NOT CURRENTLY INSTALLED WITH BALANCING MEANS PRIOR TO CONSTRUCTION. FIELD VERIFY/PRETEST EXISTING FLOW RATES AND REPORT TO ENGINEER. UNITS TO BE RE-BALANCED UNDER NEW WORK TO EXISTING FLOW RATES, OR ADJUSTED FLOW RATES AS DETERMINED BY ENGINEER AFTER REVIEW OF PRETEST REPORT.

#### MECHANICAL CLEANING NOTE:

ALL LOUVERS AND ALL MECHANICAL EQUIPMENT/ COMPONENTS BEING REUSED UNDER NEW WORK TO BE THOROUGHLY CLEANED PRIOR TO REUSE. ANY AND ALL DUCT BEING REUSED TO BE THOROUGHLY CLEANED. EXISTING HEATING WATER SYSTEM TO BE PURGED/CLEANED.

#### **EXPOSED PIPING PAINTING REQUIREMENTS:**

ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.

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**LOWER LEVEL - HVAC PLAN (DEMOLITION)** 

#### **GENERAL NOTES**

1. THIS PLAN REPRESENTS THE MECHANICAL EXISTING CONDITIONS AND THE INTENT OF THE MECHANICAL DEMOLITION AND REMOVAL OF THE EXISTING MECHANICAL FOR THE REMODELING. THE "MC" SHALL REMOVE AND/OR RELOCATE ALL ITEMS SHOWN 'DARK DASHED' ON THE PLAN. ANY ITEMS SHOWN 'LIGHT SOLID' SHALL REMAIN. ANY ITEMS NOT INDICATED ON PLAN THAT NEED REMOVED OR RELOCATED SHALL BE THE RESPONSIBILITY OF THE "MC".

2. PIPES WHICH ARE CONCEALED AND THEREFORE UNACCESSIBLE MAY BE ABANDONED IN PLACE. HOWEVER, ALL ENDS SHALL BE CAPPED. ABANDONED PIPING MUST NOT INTERFERE WITH NEW CONSTRUCTION AND MUST REMAIN CONCEALED. PATCH WALLS / CEILINGS / FLOORS TO MATCH EXISTING SURFACES.

3. THE "MC" SHALL CONSULT WITH THE OWNER AS TO THE DISPOSITION OF ALL REMOVED MECHANICAL EQUIPMENT (AIR DEVICES, PIPING, PUMPS, ETC). MECHANICAL EQUIPMENT WHICH OWNER DOES NOT DESIRE TO RETAIN SHALL BE REMOVED FROM THE PREMISES BY THE "MC".

SURFACE AND TO MAINTAIN THE FIRE INTEGRITY OF SAID WALLS / FLOOR.

4. THE "MC" SHALL PATCH ALL OPENINGS AND HOLES IN EXISTING WALLS / FLOOR (CAUSED BY HIM IN THE PERFORMANCE OF HIS WORK) TO MATCH THE SURROUNDING

5. ANY AND ALL ABANDONED PIPING, DUCTWORK, EQUIPMENT SHALL BE REMOVED BY

6. THE "MC" SHALL COORDINATE THE DISCONNECTION OF THE MAIN ELECTRICAL POWER WITH THE "EC" PRIOR TO THE DEMOLITION OF ALL POWERED EQUIPMENT.

7. THE "MC" SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING

REFERENCE NOTES

(THESE NOTES APPLY

1> EXISTING AHU TO BE REMOVED COMPLETE. REMOVE HEATING WATER PIPING BACK AS REQUIRED DUE TO INSTALLATION OF NEW UNIT IN NEARBY LOCATION. REMOVE ALL ASSOCIATED DUCTWORK IN MECHANICAL ROOM AND DOWNSTREAM OF UNIT. REMOVE ALL ASSOCIATED DIFFUSERS AND GRILLES, THERMOSTAT, AND CONTROLS.

2 EXISTING OUTDOOR AIR INTAKE AND RELIEF AIR LOUVER TO REMAIN. REMOVE ASSOCIATED CONTROL DAMPERS COMPLETE.

3 UNDER ALTERNATE 3 - REMOVE EXISTING HEATING WATER PUMPS COMPLETE. REMOVE PIPING BACK TO LOCATIONS INDICATED FOR TIE IN AND EXTENSION UNDER NEW WORK.

4 UNDER ALTERNATE 3 - REMOVE EXISTING BOILERS, EXPANSION TANKS, AND AIR SEPARATOR COMPLETE. REMOVE PIPING BACK TO LOCATIONS INDICATED FOR TIE IN AND EXTENSION UNDER NEW WORK. REMOVE DOMESTIC MAKE UP WATER PIPING, EXISTING BACKFLOW PREVENTER AND FILL VALVE BACK FOR TIE IN AND EXTENSION AS SHOWN IN FLOW DIAGRAM. REFER TO HEATING WATER FLOW DIAGRAM AND NEW WORK PLANS.

5 EXISTING UNIT HEATER TO REMAIN.

6> EXISTING AIR COMPRESSOR TO REMAIN - VERIFY AIR COMPRESSOR STILL OPERATIONAL AFTER COMPLETION OF WORK. REMOVE IF NO LONGER NECESSARY.

EXISTING DIFFUSER/GRILLE TO BE REMOVED COMPLETE. REMOVE ALL ASSOCIATED DUCTWORK. TYPICAL.

8 EXISTING UNIT HEATER TO BE REMOVED COMPLETE. REMOVE ASSOCIATED PIPING BACK TO MAINS AND CAP. REMOVE ASSOCIATED THERMOSTAT AND CONTROLS.

9 EXISTING HEATING WATER PIPING TO REMAIN. TYPICAL.

19> EXISTING CABINET UNIT HEATER TO REMAIN. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT, TYPICAL.

EXISTING EXHAUST GRILLE TO BE REMOVED COMPLETE. REMOVE ASSOCIATED DUCTWORK COMPLETE.

12> EXISTING EXHAUST GRILLE TO BE REPLACED IN SAME LOCATION WITH NEW GRILLE.

DUCTWORK INSIDE OF WALL TO REMAIN. EXISTING HYDRONIC FINNED TUBE TO REMAIN. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT. TYPICAL.

14 EXISTING TRANSFER AIR DUCT TO BE REMOVED COMPLETE.

15 EXISTING HOOD AND ASSOCIATED DUCTWORK/EXHAUST GRILLE TO BE REMOVED COMPLETE. IT IS ACCEPTABLE TO CAP BOTH ENDS OF INACCESSIBLE DUCT IN WALL AND ABANDON INACTIVE DUCT IN WALL.

16> EXISTING RELIEF OPENING AND ASSOCIATED DUCTWORK TO REMAIN.

EXISTING LOUVER TO REMAIN.

18> REMOVE BOILER FLUES AND MANIFOLDED FLUE BACK TO CHIMNEY WALL AND CAP WITH INSULATED CAP. CAP AT TOP OF CHIMNEY WHERE INACTIVE FLUES TERMINATE. WATER HEATER FLUE TO REMAIN ACTIVE.

EXISTING HYDRONIC FINNED TUBE TO BE REWORKED AS REQUIRED DUE TO ARCHITECTURAL MODIFICATIONS TO FIT ON ASSOCIATED WALL.

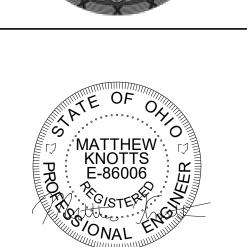
20> EXISTING HEATING WATER PIPING TO BE REMOVED BACK TO HEATING WATER PUMPS UNDER BASE BID. EXISTING PUMPS AND VALVING ETC TO REMAIN UNDER

21> REMOVE BACK TO POINT INDICATED FOR TIE IN AND EXTENSION UNDER NEW WORK UNDER BASE BID.

22> REMOVE BACK TO POINT INDICATED FOR TIE IN AND EXTENSION UNDER NEW WORK UNDER ALTERNATE 3.



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LOWER LEVEL -**HVAC PLAN** 

(DEMOLITION)

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REPORT.

CONTRACTOR SHALL PROVIDE SEPARATE COST TO INSTALL NEW BALANCING VALVES ON EXISTING HEATING EQUIPMENT TO REMAIN WITHIN PROJECT AREA. FIELD VERIFY AND REPORT TO ENGINEER ANY VALVES FOUND TO REQUIRE REPLACEMENT OR EQUIPMENT NOT CURRENTLY INSTALLED WITH BALANCING MEANS PRIOR TO CONSTRUCTION. FIELD VERIFY/PRETEST EXISTING FLOW RATES AND REPORT TO ENGINEER. UNITS TO BE RE-BALANCED UNDER NEW WORK TO EXISTING FLOW RATES, OR ADJUSTED FLOW RATES AS DETERMINED BY ENGINEER AFTER REVIEW OF PRETEST

MECHANICAL CLEANING NOTE:

ALL LOUVERS AND ALL MECHANICAL EQUIPMENT/
COMPONENTS BEING REUSED UNDER NEW WORK TO BE
THOROUGHLY CLEANED PRIOR TO REUSE. ANY AND ALL
DUCT BEING REUSED TO BE THOROUGHLY CLEANED.
EXISTING HEATING WATER SYSTEM TO BE PURGED/CLEANED.

EXPOSED PIPING PAINTING REQUIREMENTS:

ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.

**[--1]** 4", HWR(E) ·4" HWS(E)— 7===== FZ======

UPPER LEVEL - HVAC PLAN (DEMOLITION)

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

GENERAL NOTES

1. THIS PLAN REPRESENTS THE MECHANICAL EXISTING CONDITIONS AND THE INTENT OF THE MECHANICAL DEMOLITION AND REMOVAL OF THE EXISTING MECHANICAL FOR THE REMODELING. THE "MC" SHALL REMOVE AND/OR RELOCATE ALL ITEMS SHOWN 'DARK DASHED' ON THE PLAN. ANY ITEMS SHOWN 'LIGHT SOLID' SHALL REMAIN. ANY ITEMS NOT INDICATED ON PLAN THAT NEED REMOVED OR RELOCATED SHALL BE THE RESPONSIBILITY OF THE "MC".

2. PIPES WHICH ARE CONCEALED AND THEREFORE UNACCESSIBLE MAY BE ABANDONED IN PLACE. HOWEVER, ALL ENDS SHALL BE CAPPED. ABANDONED PIPING MUST NOT INTERFERE WITH NEW CONSTRUCTION AND MUST REMAIN CONCEALED. PATCH WALLS / CEILINGS / FLOORS TO MATCH EXISTING SURFACES.

3. THE "MC" SHALL CONSULT WITH THE OWNER AS TO THE DISPOSITION OF ALL REMOVED MECHANICAL EQUIPMENT (AIR DEVICES, PIPING, PUMPS, ETC). MECHANICAL EQUIPMENT WHICH OWNER DOES NOT DESIRE TO RETAIN SHALL BE REMOVED FROM THE PREMISES BY THE "MC".

4. THE "MC" SHALL PATCH ALL OPENINGS AND HOLES IN EXISTING WALLS / FLOOR (CAUSED BY HIM IN THE PERFORMANCE OF HIS WORK) TO MATCH THE SURROUNDING SURFACE AND TO MAINTAIN THE FIRE INTEGRITY OF SAID WALLS / FLOOR.

5. ANY AND ALL ABANDONED PIPING, DUCTWORK, EQUIPMENT SHALL BE REMOVED BY THE "MC".

6. THE "MC" SHALL COORDINATE THE DISCONNECTION OF THE MAIN ELECTRICAL POWER WITH THE "EC" PRIOR TO THE DEMOLITION OF ALL POWERED EQUIPMENT.

(THESE NOTES APPLY

TO THIS PLAN ONLY)

7. THE "MC" SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING

REFERENCE NOTES

EXISTING AHU MOUNTED IN MEZZANINE TO BE REMOVED COMPLETE. REMOVE HEATING WATER PIPING COMPLETE DUE TO INSTALLATION OF NEW UNIT IN SAME LOCATION. REMOVE ALL ASSOCIATED DUCTWORK IN MECHANICAL ROOM AND DOWNSTREAM OF UNIT. REMOVE ALL ASSOCIATED DIFFUSERS AND GRILLES, THERMOSTAT, AND CONTROLS.

2 REMOVE EXHAUST DUCT SERVING KITCHENETTE COMPLETE.

EXISTING OUTDOOR AIR INTAKE LOUVER TO BE REUSED UNDER NEW WORK.
REMOVE EXISTING CONTROL DAMPER(S) AND DUCTWORK COMPLETE.

4 EXISTING UNIT HEATER MOUNTED IN MEZZANINE TO REMAIN.

EXISTING CABINET UNIT HEATER TO REMAIN. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT. TYPICAL.

EXISTING FINNED TUBE TO REMAIN. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT. TYPICAL.

EXISTING EXHAUST FAN AND ALL ASSOCIATED DUCTWORK TO BE REMOVED COMPLETE. CAP ROOF CURB WITH INSULATED CAP.

8 EXISTING KITCHEN HOOD EXHAUST DUCT TO BE REMOVED COMPLETE. IT IS ACCEPTABLE TO CAP EACH END OF DUCT IN INACCESSIBLE LOCATIONS (SHAFT BELOW) AND ABANDON CAPPED INACCESSIBLE SECTIONS.

9 EXISTING UNIT VENTILATOR TO BE REMOVED COMPLETE. CAP OUTDOOR AIR INTAKE WITH INSULATED CAP AT EXTERIOR WALL AND PAINT TO MATCH FINAL WALL FINISHES. COORDINATE WITH ARCHITECT. REMOVE HEATING WATER PIPING BACK TO NEAREST ACTIVE MAIN AND CAP.

EXISTING UNIT HEATER TO BE REMOVED COMPLETE. REMOVE ASSOCIATED HEATING WATER PIPING BACK TO NEAREST ACTIVE MAIN AND CAP.

UNDER BASE BID - EXISTING UNIT VENTILATOR TO REMAIN. UNDER ALTERNATE 1 - EXISTING UNIT VENTILATOR TO BE REMOVED AND REPLACED.

EXISTING FINNED TUBE RADIATION TO BE REMOVED COMPLETE. REMOVE ASSOCIATED HEATING WATER PIPING BACK TO NEAREST ACTIVE MAINS AND CAP.

EXISTING CABINET UNIT HEATER TO BE REMOVED COMPLETE. REMOVE ASSOCIATED HEATING WATER PIPING BACK TO NEAREST ACTIVE MAIN AND CAP.

EXISTING CEILING MOUNTED HEATER TO REMAIN. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT. TYPICAL.

15 EXISTING EXHAUST GRILLE AND ASSOCIATED DUCT TO BE REMOVED COMPLETE.

EXISTING EXHAUST GRILLE AND ASSOCIATED DUCT TO BE REMOVED COMPLETE.

EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK AND CONTROLS TO BE REMOVED COMPLETE. EXISTING OPENING IN ROOF SERVING GRAVITY VENTILATOR TO BE REUSED UNDER NEW WORK.

17 REMOVE EXISTING PNEUMATIC CONTROLS COMPLETE THAT ARE FOUND TO BE INACTIVE AND NO LONGER REQUIRED GIVEN NEW WORK AND NEW CONTROLS.

EXISTING WINDOW A/C UNIT TO BE REMOVED COMPLETE AND TURNED OVER TO

REMOVE EXISTING HEATING WATER BACK TO FLOOR BELOW. REMOVE PIPING THIS FLOOR TO TIE IN LOCATION INDICATED FOR RECONNECTION UNDER NEW WORK.

20 EXISTING THERMOSTAT SERVING REMOVED EQUIPMENT TO BE REMOVED COMPLETE.

21 EXISTING THERMOSTAT TO REMAIN.

22 EXISTING RELIEF DUCT SERVING SPACE BELOW TO REMAIN.

23> REMOVE DUCTWORK AND ALL ASSOCIATED DIFFUSERS AND GRILLES.

EXISTING RELIEF AIR GRILLES, DUCTWORK, AND ASSOCIATED GRAVITY VENTILATOR TO BE REMOVED COMPLETE.

25 ALL WORK WITHIN DASHED OUTLINE IS LOCATED ON MEZZANINE LEVEL ABOVE.

REMOVE EXISTING OA DUCT COMPLETE. CAP EXTERIOR LOUVER WITH INSULATED CAP.

GRILLE AND ASSOCIATED FAN ON ROOF ABOVE TO BE REMOVED COMPLETE.

EXISTING FLOOR SUPPLY GRILLE AND ASSOCIATED DUCTWORK TO BE REMOVED

29 EXISTING GRILLE AND ASSOCIATED DUCT TO BE REMOVED COMPLETE.

APPROXIMATE LOCATION ON UPPER LEVEL OF EXISTING THERMOSTAT REMOVED AS PART OF ASBESTOS ABATEMENT TO BE REPLACED. COORDINATE EXACT LOCATION WITH OWNER/ARCHITECT.

EXISTING AUTOMATIC AIR VENT ON HEATING WATER PIPING MAIN TO BE REPLACED IN KIND.

UNDER BASE BID - EXISTING UNIT VENTILATOR TO REMAIN. UNDER ALTERNATE 1 - EXISTING UNIT VENTILATOR TO BE REMOVED COMPLETE. CAP OUTDOOR AIR INTAKE AT EXTERIOR WALL WITH INSULATED CAP.

33 EXISTING UNIT HEATER TO REMAIN. REMOVE ASSOCIATED PIPING AND VALVES.

EXISTING UNIT VENTILATOR TO BE REMOVED COMPLETE. REMOVE OUTDOOR AIR INTAKE COMPLETE. EXISTING OPENING IN WALL TO BE INFILLED WITH BRICK, PATCH TO MATCH EXISTING SURROUNDING CONSTRUCTION AND SEAL WEATHERTIGHT. REFER TO ARCHITECTURAL DRAWINGS. REMOVE HEATING WATER PIPING BACK TO NEAREST ACTIVE MAIN AND CAP.

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UPPER LEVEL -HVAC PLAN (DEMOLITION)

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ROOF MECHANICAL PLAN (DEMOLITION)

**GENERAL NOTES** 

PENETRATIONS.

1. MECHANICAL EQUIPMENT SHALL MAINTAIN A MINIMUM OF 10'-0" FROM A ROOF EDGE UNLESS NOTED OTHERWISE.

2. THE MECHANICAL CONTRACTOR SHALL COORDINATE FINAL ELECTRICAL

REQUIREMENTS OF EQUIPMENT PRIOR TO ORDERING. 3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING

UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.

4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT, FIXTURES, OPENINGS, FIRE AND SMOKE WALL AND RATED STRUCTURES.

AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING REMOVAL. 6. RETURN AIR DUCTWORK EXTENDING FROM EQUIPMENT SERVING A RETURN AIR

PLENUM SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS WITH 1/2" DUCT

5. DUCTWORK AND PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES

LINER FOR THE ENTIRE LENGTH OF THE DUCT FROM THE UNIT TO OUTLET. 7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF

8. EXPOSED SUPPLY AIR DUCTWORK WITHIN FINISHED SPACES SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS. DUCTWORK SIZE SHOWN IS FREE AREA DIMENSION REQUIRED OF DUCTWORK.

9. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR THE EXACT LOCATIONS OF FLOOR DRAINS REQUIRED TO SERVE MECHANICAL EQUIPMENT.

10. ALL INDIVIDUAL DUCT RUNOUTS TO DIFFUSERS, REGISTERS AND GRILLES TO BE PROVIDED WITH MEANS OF BALANCING AIRFLOW WHETHER SHOWN ON FLOOR PLANS OR NOT. INTEGRAL BALANCING MEANS AT AIR OULET ARE ACCEPTABLE AS SCHEDULED.

11. DUCT RUNOUTS TO DIFFUSERS/GRILLES TO MATCH NECK SIZE OF ASSOCIATED DIFFUSER/GRILLE UNLESS NOTED OTHERWISE.

12. ALL DUCTWORK AND PIPING TO BE ROUTED TIGHT TO STRUCTURE OR IN JOIST SPACE ABOVE UNLESS NOTED OTHERWISE. MAINTAIN MAXIMUM HEAD HEIGHT.

REFERENCE NOTES TO THIS PLAN ONLY)

FIELD VERIFY EXISTING OUTDOOR UNIT IS INACTIVE PRIOR TO REMOVAL.

1> EXISTING OUTDOOR CONDENSING UNIT TO BE REMOVED COMPLETE ALONG WITH ASSOCIATED INDOOR UNIT AND REFRIGERANT PIPING ETC. REUSE EXISTING ROOFTOP PENETRATIONS FOR NEW PIPING. SEAL AROUND NEW PIPING AS REQUIRED WEATHERTIGHT. EXISTING CURB TO BE REUSED UNDER NEW WORK.

2> EXISTING RTU TO BE REMOVED COMPLETE. REMOVE ASSOCIATED NG PIPING BACK TO MAIN AND CAP. CAP CURB WITH INSULATED CAP PER DETAIL. REMOVE ALL ASSOCIATED DUCTWORK, DIFFUSERS AND GRILLES, THERMOSTAT AND CONTROLS. EXISTING CURB TO BE REUSED UNDER NEW WORK.

3> EXISTING FAN TO BE REMOVED COMPLETE. REUSE EXISTING CURB UNDER NEW WORK. REMOVE ALL ASSOCIATED DUCTWORK AND CONTROLS ETC COMPLETE.

EXISTING FAN SERVING REMOVED KITCHEN HOOD TO BE REMOVED COMPLETE. REMOVE ALL ASSOCIATED DUCTWORK, CONTROLS ETC. CAP CURB WITH INSULATED

EXISTING RELIEF VENTILATOR SERVING LOWER LEVEL TO BE REMOVED COMPLETE.
REMOVE ALL ASSOCIATED CONTROLS COMPLETE TO BE REPLACED UNDER NEW WORK. EXISTING DUCTWORK BELOW TO REMAIN.

6 EXISTING FAN TO BE REMOVED COMPLETE. REMOVE ALL ASSOCIATED DUCTWORK, GRILLE BELOW AND CONTROLS ETC. CAP CURB WITH INSULATED CAP.

EXISTING GRAVITY VENTILATOR SERVING EXHAUST FANS BELOW TO BE REMOVED COMPLETE. EXISTING ROOF OPENING TO BE REUSED FOR NEW EXHAUST FAN UNDER NEW WORK.

8 EXISTING RELIEF VENTILATOR SERVING ABANDONED DUCT BELOW TO BE REMOVED COMPLETE. CURB TO BE REMOVED DURING ROOF REPLACEMENT.

9 EXISTING RELIEF VENTILATOR SERVING UNIT VENTILATORS TO BE REMOVED COMPLETE. REMOVE EXISTING CURB AND ALL COMPONENTS. COORDINATE WITH ROOF REPLACEMENT PROJECT.

EXISTING FAN TO BE REMOVED COMPLETE. REMOVE ALL ASSOCIATED DUCTWORK AND CONTROLS ETC. ROOF OPENING TO BE MODIFIED FOR REUSE UNDER NEW WORK AS REQUIRED.

11> EXISTING EXHAUST FAN TO REMAIN.

EXISTING FAN TO BE REMOVED COMPLETE. REMOVE ALL ASSOCIATED DUCTWORK, GRILLE BELOW AND CONTROLS ETC. CURB TO BE REMOVED DURING ROOF REPLACEMENT.

UNDER ROOF PROJECT ALTERNATE 5, ROOF TO BE REPLACED. ALL EXISTING CURBS NOTED TO BE CAPPED TO BE REMOVED COMPLETE.

UNDER ROOF PROJECT ALTERNATE 4, ROOF TO BE REPLACED. ALL EXISTING CURBS NOTED TO BE CAPPED TO BE REMOVED COMPLETE.

UNDER ROOF PROJECT ALTERNATE 3, ROOF TO BE REPLACED. ALL EXISTING CURBS NOTED TO BE CAPPED TO BE REMOVED COMPLETE.

WORK OUTSIDE OF PROJECT SCOPE ON ADJACENT ROOF TAKING PLACE AS A PART OF SEPARATE ROOF PROJECT AND IS NOT TO BE IMPACTED BY WORK THIS



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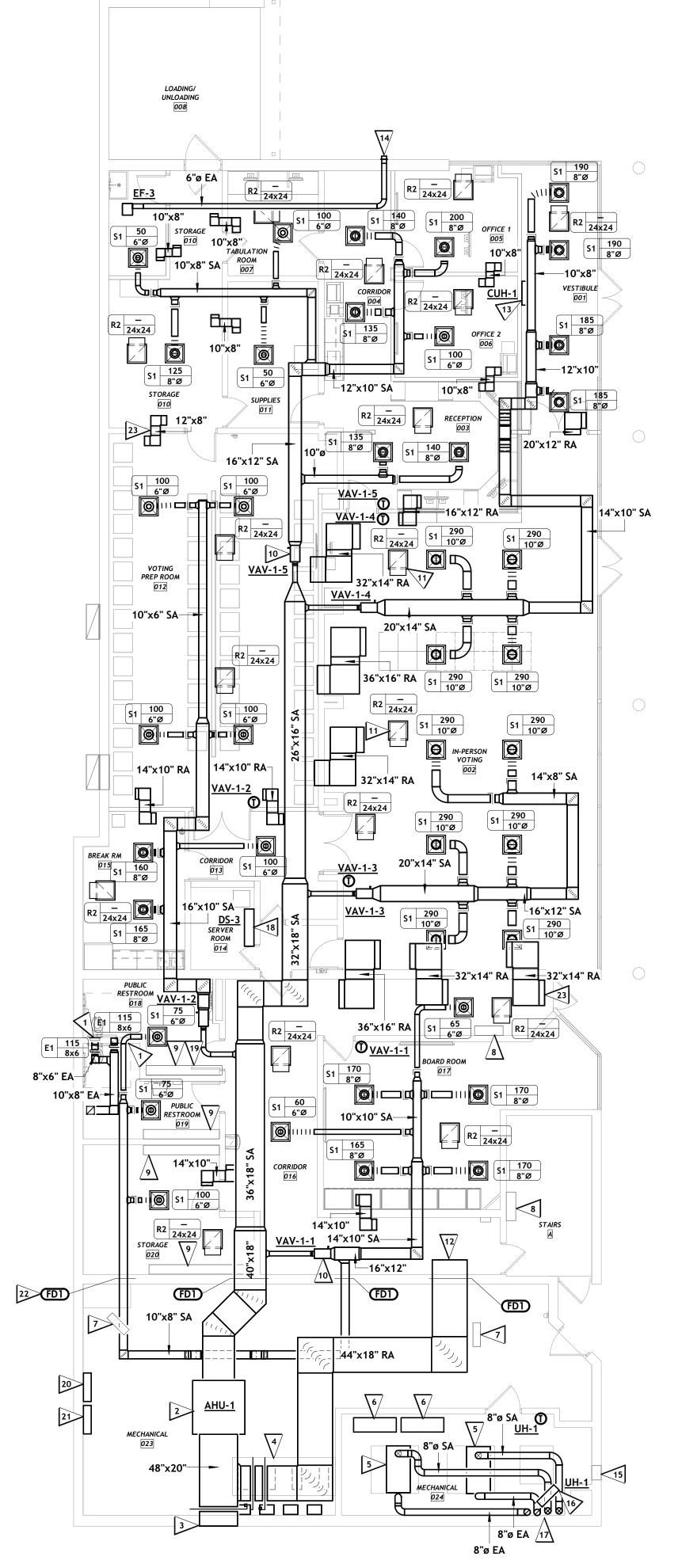


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**ROOF MECHANICAL** PLAN (DEMOLITION)

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FIELD VERIFY ALL EXISTING TO REMAIN COMPONENTS IN NEW RETURN AIR PLENUMS ARE PLENUM RATED. REPORT TO ARCHITECT/ENGINEER IF FOUND TO BE NONCOMPLIANT.



**LOWER LEVEL - HVAC DUCTWORK PLAN (NEW WORK)** 

GENERAL NOTES

1. MECHANICAL EQUIPMENT SHALL MAINTAIN A MINIMUM OF 10'-0" FROM A ROOF EDGE UNLESS NOTED OTHERWISE.

2. THE MECHANICAL CONTRACTOR SHALL COORDINATE FINAL ELECTRICAL REQUIREMENTS OF EQUIPMENT PRIOR TO ORDERING.

3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.

4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT, FIXTURES, OPENINGS, FIRE AND SMOKE WALL AND RATED STRUCTURES.

5. DUCTWORK AND PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING REMOVAL.

6. RETURN AIR DUCTWORK EXTENDING FROM EQUIPMENT SERVING A RETURN AIR PLENUM SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS WITH 1/2" DUCT LINER FOR THE ENTIRE LENGTH OF THE DUCT FROM THE UNIT TO OUTLET.

7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF PENETRATIONS.

8. EXPOSED SUPPLY AIR DUCTWORK WITHIN FINISHED SPACES SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS. DUCTWORK SIZE SHOWN IS FREE AREA DIMENSION REQUIRED OF DUCTWORK.

9. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR THE EXACT LOCATIONS OF FLOOR DRAINS REQUIRED TO SERVE MECHANICAL EQUIPMENT.

10. ALL INDIVIDUAL DUCT RUNOUTS TO DIFFUSERS, REGISTERS AND GRILLES TO BE PROVIDED WITH MEANS OF BALANCING AIRFLOW WHETHER SHOWN ON FLOOR PLANS OR NOT. INTEGRAL BALANCING MEANS AT AIR OULET ARE ACCEPTABLE AS SCHEDULED.

11. DUCT RUNOUTS TO DIFFUSERS/GRILLES TO MATCH NECK SIZE OF ASSOCIATED DIFFUSER/GRILLE UNLESS NOTED OTHERWISE.

12. ALL DUCTWORK AND PIPING TO BE ROUTED TIGHT TO STRUCTURE OR IN JOIST SPACE ABOVE UNLESS NOTED OTHERWISE. MAINTAIN MAXIMUM HEAD HEIGHT.

REFERENCE NOTES

(THESE NOTES APPLY TO THIS PLAN ONLY)

TO EXISTING DUCTWORK AS REQUIRED LOCATED IN WALL. TIE NEW DUCTWORK INTO EXISTING IN CEILING SPACE. NEW SPLIT AHU WITH HYDRONIC REHEAT COIL HUNG FROM STRUCTURE ABOVE PER MANUFACTURER REQUIREMENTS. EXTEND DUCTWORK AS SHOWN. RECONNECT TO

1> NEW EXHAUST GRILLE IN SAME LOCATION AS EXISTING. REWORK AND RECONNECT

EXISTING LOUVER WITH NEW CONTROL DAMPER(S) AS REQUIRED. EXISTING OUTDOOR AIR INTAKE AND RELIEF AIR LOUVER. EXTEND AND CONNECT NEW DUCT TO OA PORTION OF LOUVER. INSTALL NEW CONTROLS AS SHOWN ON TEMPERATURE CONTROL DRAWINGS. INSTALL NEW CONTROL DAMPER ON RELIEF

4 UNDER ALTERNATE 3 - INSTALL NEW HEATING WATER PUMPS AND ASSOCIATED VFD'S. REFER TO PIPING PLANS.

AND PROGRAM TO MATCH EXISTING PNEUMATIC DAMPER FUNCTIONALITY.

5 UNDER ALTERNATE 3 - NEW HYDRONIC BOILERS AND AIR SEPARATOR. REFER TO

6 NEW HYDRONIC EXPANSION TANKS. REFER TO PIPING PLANS.

**7** EXISTING UNIT HEATER.

8 EXISTING CABINET UNIT HEATER. REFINISH/PAINT. COORDINATE FINISHES WITH

9> EXISTING HYDRONIC FINNED TUBE. REFINISH/PAINT. COORDINATE FINISHES WITH

10 NEW VAV TERMINAL UNIT WITH HYDRONIC REHEAT COIL. INSTALL PER DETAIL.

11> RA BOOT. SEE DETAIL. TYPICAL

12> TERMINATE DUCT IN RA PLENUM WITH MESH SCREEN.

13> NEW CUH. REFER TO PIPING DRAWINGS.

14> TERMINATE 6"Ø EA DUCT THROUGH EXTERIOR WALL WITH WALL CAP.

15> EXISTING LOUVER. INSTALL INSULATED CONTROL DAMPER ON OPENING AND SEAL WEATHERTIGHT AROUND OPENING. DAMPER TO OPERATE SUCH THAT DAMPER CLOSES WHENEVER TEMPERATURE IN SPACE IS LESS THAN 60 DEGREES (ADJ).

16> NEW UNIT HEATER. INSTALL PER DETAIL.

FLUES UP TO ROOF. TERMINATE NEW FLUES ON ROOF ABOVE PER MANUFACTURER REQUIREMENTS.

18> WALL MOUNTED INDOOR SPLIT SYSTEM UNIT.

19>> REWORK EXSITING HYDRONIC FINNED TUBE AS REQUIRED DUE TO ARCHITECTURAL MODIFICATIONS TO FIT ON ASSOCIATED WALL.

20 WALL MOUNTED TEMPERATURE CONTROL PANEL (120V). COORDINATE FINAL QUANTITIES AND LOCATIONS WITH FINAL TEMPERATURE CONTROL VENDOR. COORDINATE INSTALLATION WITH EC.

FRONT END WALL MOUNTED TEMPERATURE CONTROL PANEL (120V) WITH DATA DROP. COORDINATE INSTALLATION WITH EC.

INSTALL DUCT MOUNTED FIRE DAMPER. SEE DETAILS AND SCHEDULE FOR ADDITIONAL REQUIREMENTS. TYPICAL.

23> RETURN AIR TRANSFER DUCT. SEE DETAIL. TYPICAL.

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PROJECT NO.	24013.000

LOWER LEVEL -HVAC DUCTWORK PLAN (NEW WORK)

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**ENLARGED MEZZANINE PLAN - HVAC** 

RECEPTION 173

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16"x10" SA

**GENERAL NOTES** 

1. MECHANICAL EQUIPMENT SHALL MAINTAIN A MINIMUM OF 10'-0" FROM A ROOF EDGE UNLESS NOTED OTHERWISE.

2. THE MECHANICAL CONTRACTOR SHALL COORDINATE FINAL ELECTRICAL REQUIREMENTS OF EQUIPMENT PRIOR TO ORDERING.

3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.

4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT, FIXTURES, OPENINGS, FIRE AND SMOKE WALL AND RATED STRUCTURES.

5. DUCTWORK AND PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING REMOVAL.

6. RETURN AIR DUCTWORK EXTENDING FROM EQUIPMENT SERVING A RETURN AIR PLENUM SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS WITH 1/2" DUCT LINER FOR THE ENTIRE LENGTH OF THE DUCT FROM THE UNIT TO OUTLET.

7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF PENETRATIONS.

8. EXPOSED SUPPLY AIR DUCTWORK WITHIN FINISHED SPACES SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS. DUCTWORK SIZE SHOWN IS FREE AREA DIMENSION REQUIRED OF DUCTWORK.

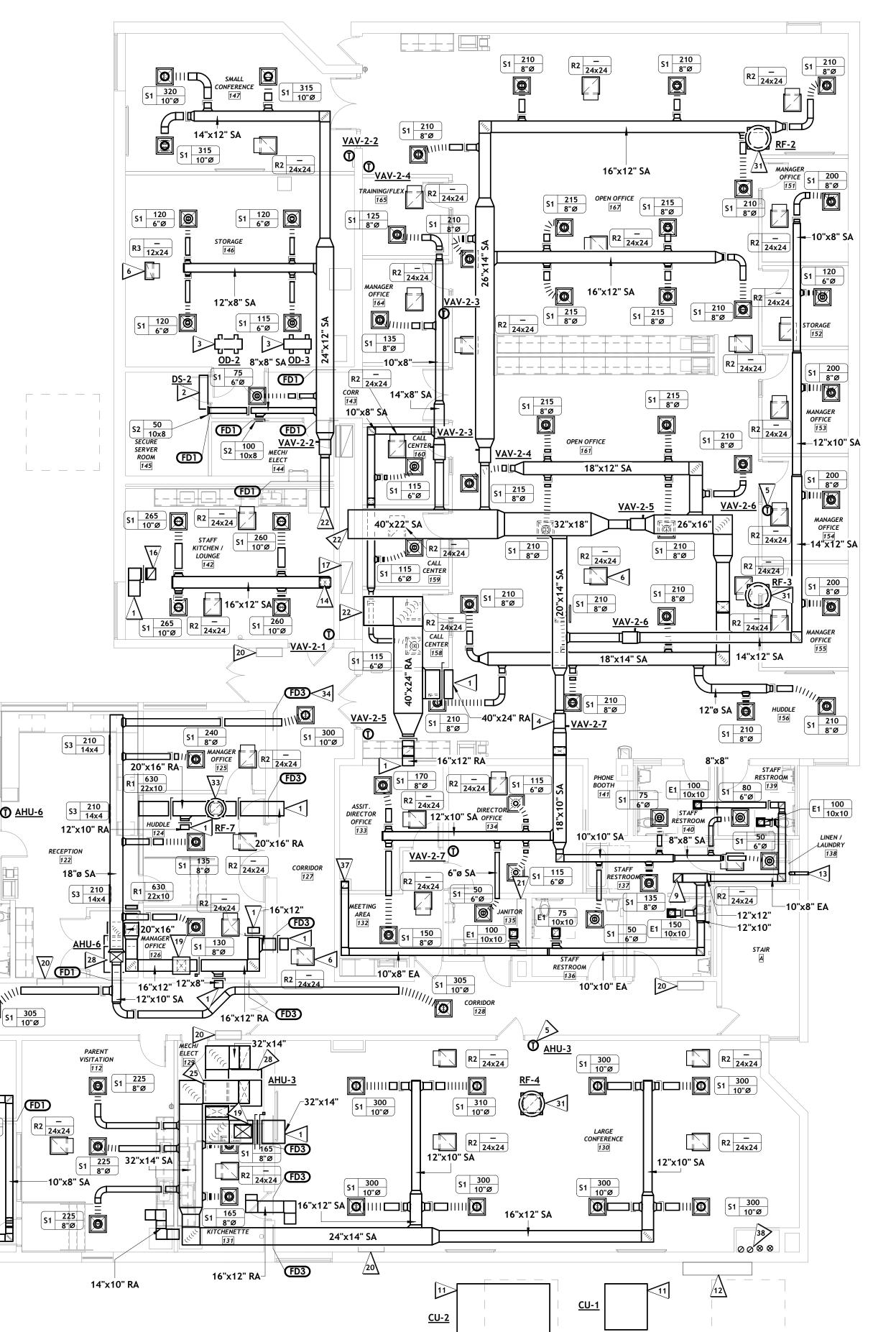
9. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR THE EXACT LOCATIONS OF FLOOR DRAINS REQUIRED TO SERVE MECHANICAL EQUIPMENT.

10. ALL INDIVIDUAL DUCT RUNOUTS TO DIFFUSERS, REGISTERS AND GRILLES TO BE PROVIDED WITH MEANS OF BALANCING AIRFLOW WHETHER SHOWN ON FLOOR PLANS OR NOT. INTEGRAL BALANCING MEANS AT AIR OULET ARE ACCEPTABLE AS SCHEDULED.

11. DUCT RUNOUTS TO DIFFUSERS/GRILLES TO MATCH NECK SIZE OF ASSOCIATED DIFFUSER/GRILLE UNLESS NOTED OTHERWISE.

12. ALL DUCTWORK AND PIPING TO BE ROUTED TIGHT TO STRUCTURE OR IN JOIST

SPACE ABOVE UNLESS NOTED OTHERWISE. MAINTAIN MAXIMUM HEAD HEIGHT.



REFERENCE NOTES

TO THIS PLAN ONLY) 1> TERMINATE RA DUCT IN RETURN AIR PLENUM WITH MESH SCREEN.

(THESE NOTES APPLY

2 WALL MOUNTED INDOOR SPLIT SYSTEM UNIT.

4> VAV TERMINAL UNIT WITH HYDRONIC REHEAT COIL. TYPICAL.

3 OUTDOOR UNIT MOUNTED ON "PATE" RAILS ON ROOF ABOVE PER DETAIL.

5> WALL MOUNTED THERMOSTAT MOUNTED AT 48" AFF IN VENTED, LOCKABLE

6> RETURN AIR BOOT. SEE DETAIL. TYPICAL.

ENCLOSURE. TYPICAL.

RETURN AIR TRANSFER DUCT, SEE DETAIL, TYPICAL.

| 8 INDOOR AIR HANDLING UNIT MOUNTED ON 4" CONCRETE HOUSEKEEPING PAD. INSTALL ASSOCIATED DUCTWORK TO UNIT AND PIPING TO COIL CONNECTIONS TO AVOID OBSTRUCTING UNIT CLEARANCES ON FRONT OF UNIT. COORDINATE FINAL ORIENTATION AND LAYOUT WITH FINAL SUBMITTED MANUFACTURER CLEARANCE REQUIREMENTS. TYPICAL.

9> EA DUCT UP TO FAN ON ROOF. MODIFY EXISTING ROOF OPENING AS REQUIRED.

10> HYDRONIC AIR CURTAIN INSTALLED OVER DOOR PER MFR REQUIREMENTS.

0UTDOOR CONDENSING UNIT MOUNTED ON 4" FROSTPROOF CONCRETE PAD PER MANUFACTURER REQUIREMENTS. MAINTAIN CLEARANCES.

12> EXISTING GAS SERVICE ASSEMBLY. MAINTAIN CLEARANCES.

13> EXTEND 4"Ø DRYER VENT FROM DRYER AND TERMINATE THROUGH EXTERIOR WALL PER MANUFACTURER REQUIREMENTS WITH WALL CAP.

14> EXTEND 16"x12" SA DUCT THROUGH MEZZANINE FLOOR TO CEILING SPACE BELOW.

15> INDOOR AIR HANDLING UNIT. MOUNT ON EXISTING CONCRETE PAD. MODIFY EXISTING PAD AS REQUIRED. INSTALL ASSOCIATED DUCTWORK TO UNIT AND PIPING TO COIL CONNECTIONS TO AVOID OBSTRUCTING UNIT CLEARANCES ON FRONT OF UNIT. COORDINATE FINAL ORIENTATION AND LAYOUT WITH FINAL SUBMITTED MANUFACTURER CLEARANCE REQUIREMENTS. EXTEND RL/RS TO ASSOCIATED OUTDOOR UNIT PER MFR REQUIREMENTS. SEAL EXTERIOR PENETRATIONS WEATHERTIGHT. EXTEND 1-1/4" CD PIPING TO NEARBY FLOOR DRAIN WITH TRAP PER DETAIL. EXTEND 2" HWS/HWR PIPING TO UNIT AND CONNECT PER DETAIL.

16> EXTEND 16"x12" RA DUCT INTO RA PLENUM BELOW MEZZANINE WITH OBD.

17> EXISTING RELIEF AIR DUCT.

18> EXISTING OUTDOOR AIR INTAKE LOUVER. EXTEND AND CONNECT NEW DUCT TO LOUVER. INSTALL NEW CONTROLS AS SHOWN ON TEMPERATURE CONTROL DRAWINGS. TRANSITION AS REQUIRED TO LOUVER OPENING SIZE.

19> GRAVITY VENTILATOR. INSTALL PER DETAIL. EXTEND OA DUCT AND TIE INTO RA DUCT AT ASSOCIATED AHU PRIOR TO ANY BRANCHES. INSTALL BALANCING AND CONTROL DAMPER (120V) ON OA DUCT AND RA DUCTWORK AS SHOWN ON TEMPERATURE CONTROL DIAGRAM. (2) CONTROL DAMPERS TOTAL.

29> EXISTING UNIT HEATER, REFINISH/PAINT, COORDINATE FINISHES WITH ARCHITECT. TYPICAL ALL EXISTING TO REMAIN IN PROJECT AREA.

21> EXISTING HYDRONIC FINNED TUBE. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT. TYPICAL ALL EXISTING TO REMAIN IN PROJECT AREA.

22> REFER TO ENLARGED MEZZANINE PLAN THIS SHEET FOR CONTINUATION.

23> REFER TO OVERALL FLOOR PLANS FOR CONTINUATION.

24> HWS/HWR PIPING DOWN IN EXISTING SHAFT. OFFSET PIPING AS REQUIRED DUE TO INSTALLATION OF NEW RETURN AIR DUCT.

25 COORDINATE DUCT ROUTING AROUND EXISTING HWS/HWR PIPING AND NEW AHU ACCESS AND COIL CLEARANCES.

26 UNDER ALTERNATE 1 - NEW UNIT VENTILATOR MOUNTED IN SAME LOCATION AS REMOVED. RECONNECT TO EXISTING OUTDOOR AIR INTAKE LOUVER AND EXTEND TO NEW UNIT OA CONNECTION AS REQUIRED. FIELD VERIFY FINAL INSTALLATION LOCATION SUCH THAT EXISTING UTILITIES ARE ALIGNED WITH NEW CONNECTION

27 UNDER ALTERNATE 1 - OUTDOOR CONDENSING UNIT MOUNTED ON GRADE PER DETAIL ON CONCRETE PAD. COORDINATE FINAL LOCATIONS WITH OWNER/ARCHITECT.

28> ALL DUCTWORK ASSOCIATED WITH AHU TO BE ROUTED IN JOIST SPACE AND WEBBING WHERE POSSIBLE UNLESS NOTED OTHERWISE.

29> WALL MOUNTED TEMPERATURE CONTROL PANEL (120V). COORDINATE FINAL QUANTITIES AND LOCATIONS WITH FINAL TEMPERATURE CONTROL VENDOR. COORDINATE INSTALLATION WITH EC.

|30> INSTALL CONTROL DAMPER (120V) FOR <u>AHU-1</u> ECONOMIZER OPERATION. DAMPER TO MODULATE PER SEQUENCING DURING ECONOMIZER OPERATION, ALL AIR TO BE RELIEVED AT ASSOCIATED RELIEF FAN DURING FULL ECONOMIZER MODE.

31>> RELIEF FAN MOUNTED ON ROOF ABOVE PER DETAIL. EXTEND FULL SIZE DUCT INTO RETURN AIR PLENUM BELOW AND TERMIANTE WITH MESH SCREEN AND CONTROL DAMPER (120V). REFER TO TEMPERATURE CONTROLS DRAWINGS FOR ADDITIONAL

32> RELIEF FAN MOUNTED ON ROOF ABOVE PER DETAIL. EXTEND FULL SIZE DUCT DOWN AND INTO RA DUCT BELOW. INSTALL CONTROL (120V) DAMPER UPSTREAM OF RA DUCT TIE IN. REFER TO TEMPERATURE CONTROLS DRAWINGS FOR ADDITIONAL REQUIREMENTS.

33> RELIEF FAN MOUNTED ON ROOF ABOVE PER DETAIL. EXTEND FULL SIZE DUCT DOWN FROM FAN WITH CONTROL DAMPER (120V). EXTEND DUCTWORK AS SHOWN. REFER TO TEMPERATURE CONTROLS DRAWINGS FOR ADDITIONAL REQUIREMENTS.

134 INSTALL DUCT MOUNTED FIRE DAMPER. SEE DETAILS AND SCHEDULE FOR ADDITIONAL REQUIREMENTS. TYPICAL.

35> NEW VAV TERMINAL UNIT WITH 3-WAY CONTROL VALVE. INSTALL AND EXTEND PIPING TO UNIT PER DETAIL.

36> EXTEND NEW PIPING TO EXISTING UNIT HEATER AND CONNECT PER DETAIL. 37> EXHAUST AIR DUCT DOWN.

38> BOILER FLUES/AIR INTAKES UP FROM BELOW. TERMINATE UP THROUGH ROOF PER

MANUFACTURER REQUIREMENTS. 39> RELIEF FAN MOUNTED ON ROOF ABOVE PER DETAIL. EXTEND FULL SIZE DUCT DOWN FROM FAN WITH CONTROL DAMPER (120V), TRANSITION AND TIE INTO EXISTING DUCT BELOW. REFER TO TEMPERATURE CONTROLS DRAWINGS FOR ADDITIONAL REQUIREMENTS.

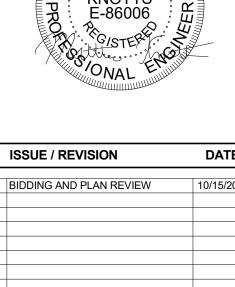
RETURN AIR PLENUMS:

FIELD VERIFY ALL EXISTING TO REMAIN COMPONENTS IN NEW RETURN AIR PLENUMS ARE PLENUM RATED. REPORT T

ARCHITECT/ENGINEER IF FOUND TO BE NONCOMPLIANT.



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BIDDING AND PLAN REVIEW

**UPPER LEVEL -HVAC DUCTWORK** PLAN (NEW WORK)

INTERVIEW ROOM 108

ROOM 109

**UPPER LEVEL - HVAC DUCTWORK PLAN (NEW WORK)** 

10"x10" SA

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ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.

**---**1 1/2"──

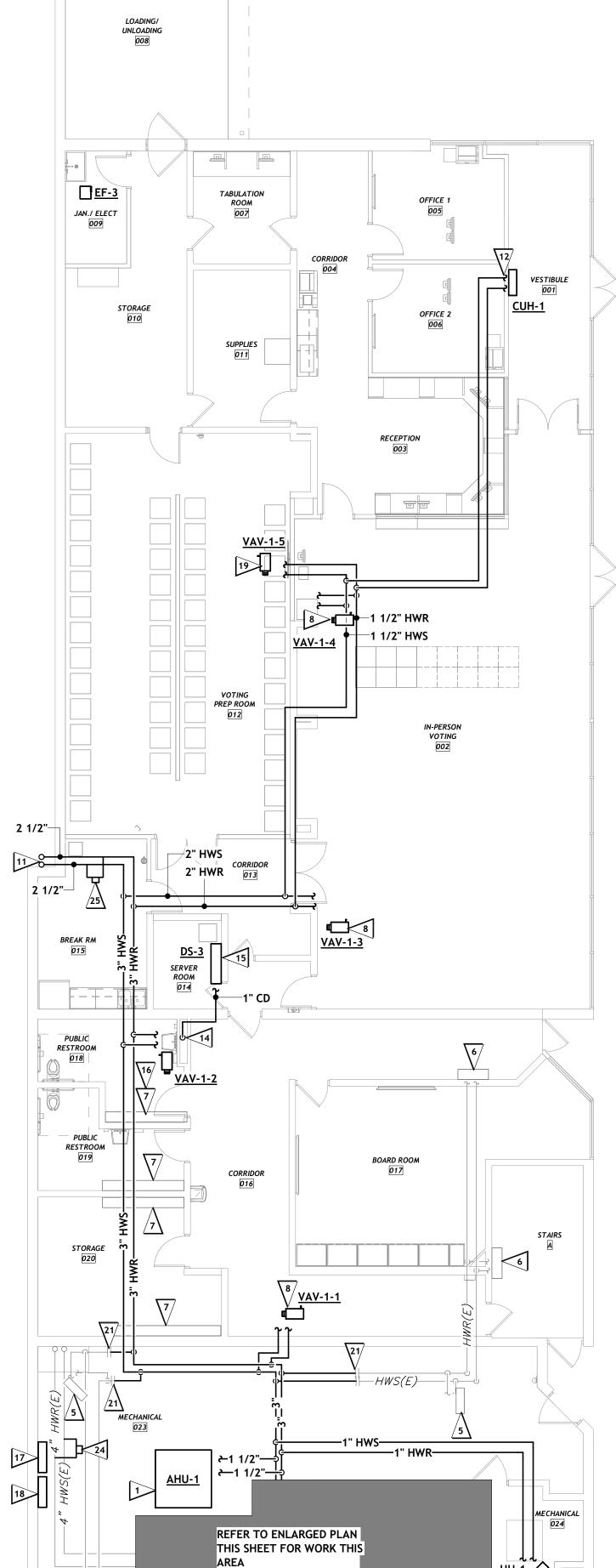
VFD-SHWP-3

SHWP-3 SHWP-2 SHWP-1

VFD-SHWP-1

LOWER LEVEL - ENLARGED PIPING PLAN (NEW WORK)

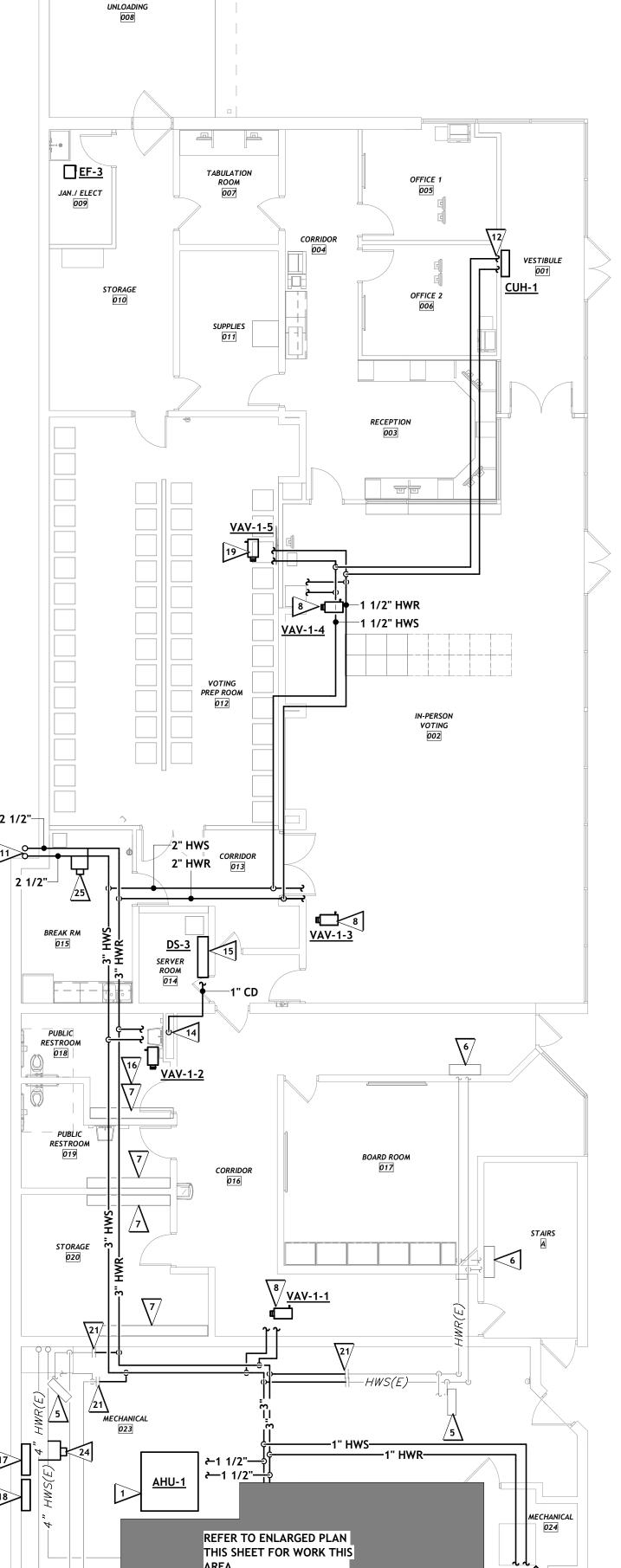
<u>AHU-1</u>



**EXPOSED PIPING PAINTING REQUIREMENTS:** 

EXISTING HEATING EQUIPMENT

CONTRACTOR SHALL PROVIDE SEPARATE COST TO INSTALL NEW BALANCING VALVES ON EXISTING HEATING EQUIPMENT TO REMAIN WITHIN PROJECT AREA. FIELD VERIFY AND REPORT TO ENGINEER ANY VALVES FOUND TO REQUIRE REPLACEMENT OR EQUIPMENT NOT CURRENTLY INSTALLED WITH BALANCING MEANS PRIOR TO CONSTRUCTION. FIELD VERIFY/PRETEST EXISTING FLOW RATES AND REPORT TO ENGINEER. UNITS TO BE RE-BALANCED UNDER NEW WORK TO EXISTING FLOW RATES, OR ADJUSTED FLOW RATES AS DETERMINED BY ENGINEER AFTER REVIEW OF PRETEST



**GENERAL NOTES** 

1. MECHANICAL EQUIPMENT SHALL MAINTAIN A MINIMUM OF 10'-0" FROM A ROOF EDGE UNLESS NOTED OTHERWISE.

2. THE MECHANICAL CONTRACTOR SHALL COORDINATE FINAL ELECTRICAL REQUIREMENTS OF EQUIPMENT PRIOR TO ORDERING.

3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.

4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT, FIXTURES, OPENINGS, FIRE AND SMOKE WALL AND RATED STRUCTURES.

5. DUCTWORK AND PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING REMOVAL.

6. RETURN AIR DUCTWORK EXTENDING FROM EQUIPMENT SERVING A RETURN AIR PLENUM SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS WITH 1/2" DUCT LINER FOR THE ENTIRE LENGTH OF THE DUCT FROM THE UNIT TO OUTLET.

7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF 8. EXPOSED SUPPLY AIR DUCTWORK WITHIN FINISHED SPACES SHALL BE INTERNALLY

INSULATED PER THE SPECIFICATIONS. DUCTWORK SIZE SHOWN IS FREE AREA DIMENSION

REQUIRED OF DUCTWORK. 9. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR THE EXACT LOCATIONS OF FLOOR DRAINS REQUIRED TO SERVE

10. ALL INDIVIDUAL DUCT RUNOUTS TO DIFFUSERS, REGISTERS AND GRILLES TO BE PROVIDED WITH MEANS OF BALANCING AIRFLOW WHETHER SHOWN ON FLOOR PLANS OR NOT. INTEGRAL BALANCING MEANS AT AIR OULET ARE ACCEPTABLE AS SCHEDULED.

11. DUCT RUNOUTS TO DIFFUSERS/GRILLES TO MATCH NECK SIZE OF ASSOCIATED DIFFUSER/GRILLE UNLESS NOTED OTHERWISE.

12. ALL DUCTWORK AND PIPING TO BE ROUTED TIGHT TO STRUCTURE OR IN JOIST SPACE ABOVE UNLESS NOTED OTHERWISE. MAINTAIN MAXIMUM HEAD HEIGHT.

1> NEW SPLIT AHU WITH HYDRONIC REHEAT COIL HUNG FROM STRUCTURE ABOVE PER MFR REQUIREMENTS. EXTEND 1-1/2" HWS/HWR PIPING TO COIL PER DETAIL. EXTEND 1-1/4" CD PIPING TO NEARBY FLOOR SINK. INSTALL TRAP PER DETAIL. EXTEND RL/RS PIPING TO ASSOCIATED OUTDOOR CONDENSING UNIT PER MFR REQUIREMENTS. SEAL EXTERIOR PENETRATIONS WEATHERTIGHT.

(THESE NOTES APPLY

2 UNDER ALTERNATE 3 - INSTALL NEW HEATING WATER PUMPS. RECONNECT TO EXISTING PIPING AND EXTEND TO NEW PUMPS PER DETAIL. REFER TO PUMP DETAIL FOR PUMP INSTALLATION REQUIREMENTS. REFER TO FLOW DIAGRAM FOR ADDITIONAL INFORMATION.

3 UNDER ALTERNATE 3 - NEW HYDRONIC BOILERS AND ASSOCIATED BOILER PUMPS. RECONNECT TO EXISTING DOMESTIC WATER MAKE UP PIPING. REFER TO FLOW DIAGRAM FOR ADDITIONAL INFORMATION. INSTALL BOILER PUMPS AND EXTEND HWS/HWR PIPING PER DETAIL. MODIFY EXISTING CURB AS REQUIRED TO MATCH FOOTPRINT OF FINAL SUBMITTED BOILER.

4 UNDER ALTERNATE 3 - NEW HYDRONIC EXPANSION TANK. FIELD VERIFY DURING INSTALLATION REQUIRED SET PRESSURE AND MATCH EXACTLY TO FILL PRESSURE

5> EXISTING UNIT HEATER.

MECHANICAL EQUIPMENT.

6> EXISTING CABINET UNIT HEATER. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT. TYPICAL.

7> EXISTING HYDRONIC FINNED TUBE. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT, TYPICAL.

8> NEW VAV TERMINAL UNIT WITH 2-WAY CONTROL VALVE. INSTALL AND EXTEND 1" HWS/R PIPING TO UNIT PER DETAIL. TYPICAL.

9 UNDER ALTERNATE 3 - INSTALL NEW HYDRAULIC SEPARATOR. REFER TO FLOW

DIAGRAM FOR ADDITIONAL INFORMATION.

10> UNDER ALTERNATE 3 - REFER TO FLOW DIAGRAM FOR PIPING EXTENSION TO NEW EQUIPMENT. COORDINATE FINAL INSTALLATION TO MAINTAIN MAXIMUM HEIGHT AND EQUIPMENT ACCESSIBILITY.

3" HWS/HWR PIPING UP IN EXISTING SHAFT TO UPPER LEVEL MEZZANINE ABOVE. REFER TO UPPER LEVEL PIPING PLAN AND M202 ENLARGED PLAN FOR CONTINUATION OF PIPING.

12> NEW CABINET UNIT HEATER. EXTEND 1" HWS/R PIPING TO HEATER PER DETAIL. 13 NEW UNIT HEATER HUNG FROM STRUCTURE ABOVE. INSTALL PER DETAIL. EXTEND

14 EXTEND 1" CD PIPING AND TERMINATE IN NEARBY LAV DRAIN UPSTREAM OF P-

1" HWS/HWR PIPING TO UNIT HEATER AND CONNECT PER DETAIL.

15> WALL MOUNTED INDOOR SPLIT SYSTEM UNIT. EXTEND RL/RS PIPING TO ASSOCIATED OUTDOOR UNIT ON ROOF ABOVE. INSTALL PIPE CURB/PORTALS AT ROOF PENETRATION. SIZE AND INSTALL UNITS AND PIPING PER MANUFACTURER REQUIREMENTS.

16> REWORK EXSITING HYDRONIC FINNED TUBE AS REQUIRED DUE TO ARCHITECTURAL MODIFICATIONS TO FIT ON ASSOCIATED WALL.

17 WALL MOUNTED TEMPERATURE CONTROL PANEL (120V). COORDINATE FINAL QUANTITIES AND LOCATIONS WITH FINAL TEMPERATURE CONTROL VENDOR. COORDINATE INSTALLATION WITH EC.

FRONT END WALL MOUNTED TEMPERATURE CONTROL PANEL (120V) WITH DATA DROP. COORDINATE INSTALLATION WITH EC.

19> NEW VAV TERMINAL UNIT WITH 3-WAY CONTROL VALVE. INSTALL AND EXTEND 1" HWS/HWR PIPING TO UNIT PER DETAIL. 20 UNDER ALTERNATE 3 - WALL MOUNTED VARIABLE FREQUENCY DRIVES SERVING

TIE INTO EXISTING AND EXTEND AS SHOWN. MATCH EXISTING PIPE SIZES AT TIE IN

22 UNDER BASE BID - CONNECT NEW 3" HWS/HWR INTO EXISTING 2-1/2" MAINS.

23> REFER TO OVERALL PLANS FOR CONTINUATION.

24 INSTALL DIFFERENTIAL PRESSURE TRANSMITTER IN APPROXIMATELY THIS LOCATION TO SERVE SHWP-3,4. DPT TO BE RELOCATED FURTHER DOWNSTREAM UNDER FUTURE PHASES.

25 INSTALL DIFFERENTIAL PRESSURE TRANSMITTER IN APPROXIMATELY THIS

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ISSUE / REVISION	DATE
BIDDING AND PLAN REVIEW	10/15/2024
PROJECT NO.	24013.000

LOWER LEVEL -**HVAC PIPING PLAN** (NEW WORK)

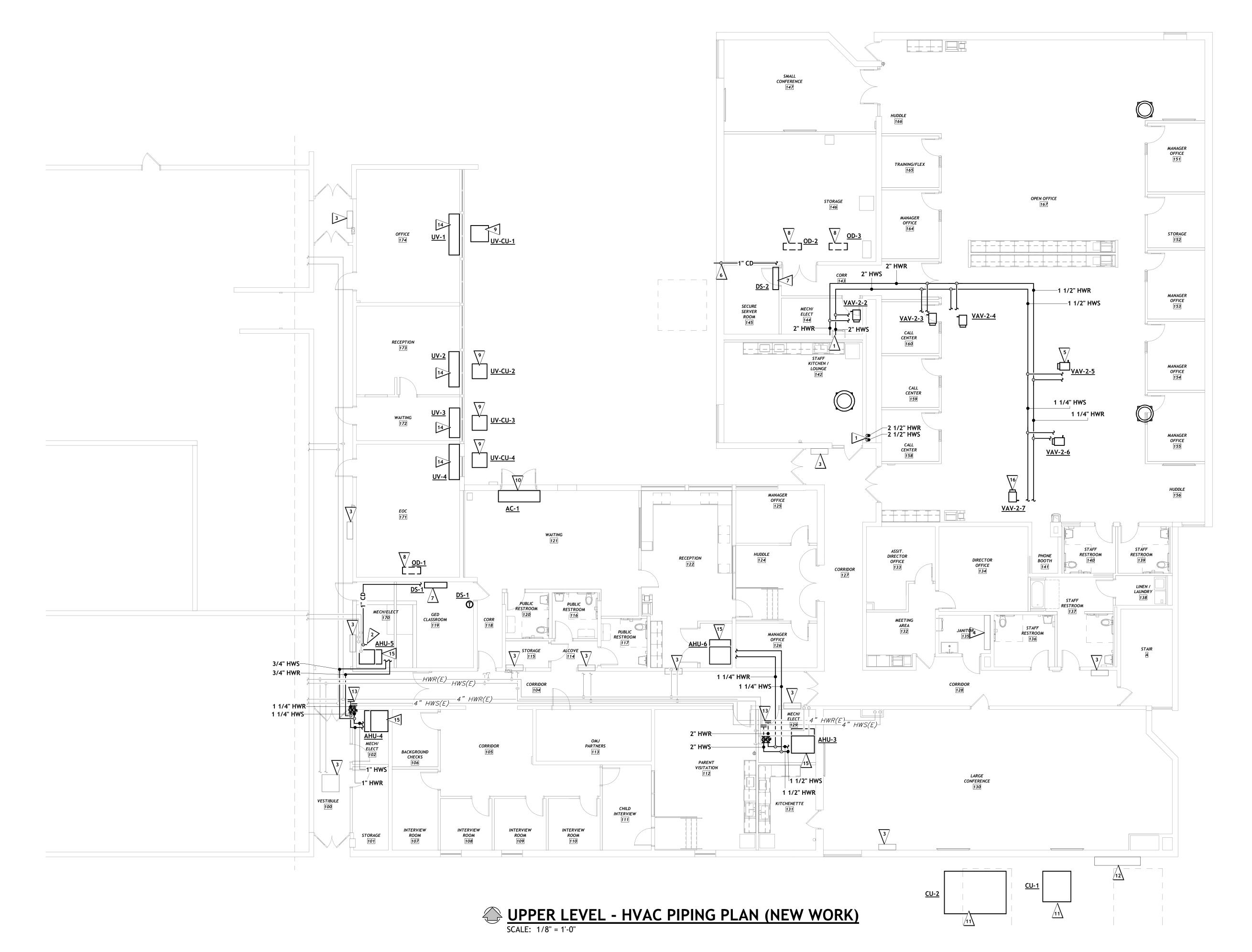
**LOWER LEVEL - HVAC PIPING PLAN (NEW WORK)** 

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CONTRACTOR SHALL PROVIDE SEPARATE COST TO INSTALL NEW BALANCING VALVES ON EXISTING HEATING EQUIPMENT TO REMAIN WITHIN PROJECT AREA. FIELD VERIFY AND REPORT TO ENGINEER ANY VALVES FOUND TO REQUIRE REPLACEMENT OR EQUIPMENT NOT CURRENTLY INSTALLED WITH BALANCING MEANS PRIOR TO CONSTRUCTION. FIELD VERIFY/PRETEST EXISTING FLOW RATES AND REPORT TO ENGINEER. UNITS TO BE RE-BALANCED UNDER NEW WORK TO EXISTING FLOW RATES, OR ADJUSTED FLOW RATES AS DETERMINED BY ENGINEER AFTER REVIEW OF PRETEST REPORT.

**EXPOSED PIPING PAINTING REQUIREMENTS:** 

ALL EXPOSED PIPING, EXISTING AND NEW, TO BE PAINTED INSIDE OF PROJECT AREA. COORDINATE FINISHES WITH ARCHITECT. PATCH AND REINSULATE EXISTING PIPING AS REQUIRED TO ALLOW FOR PAINTING APPLICATION. ALL EXPOSED PIPING MUST HAVE PAINT COMPATIBLE SURFACES.



**GENERAL NOTES** 

1. MECHANICAL EQUIPMENT SHALL MAINTAIN A MINIMUM OF 10'-0" FROM A ROOF EDGE UNLESS NOTED OTHERWISE.

2. THE MECHANICAL CONTRACTOR SHALL COORDINATE FINAL ELECTRICAL REQUIREMENTS OF EQUIPMENT PRIOR TO ORDERING.

3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.

4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT, FIXTURES, OPENINGS, FIRE AND SMOKE WALL AND RATED STRUCTURES.

5. DUCTWORK AND PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING REMOVAL.

6. RETURN AIR DUCTWORK EXTENDING FROM EQUIPMENT SERVING A RETURN AIR PLENUM SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS WITH 1/2" DUCT LINER FOR THE ENTIRE LENGTH OF THE DUCT FROM THE UNIT TO OUTLET.

7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF

8. EXPOSED SUPPLY AIR DUCTWORK WITHIN FINISHED SPACES SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS. DUCTWORK SIZE SHOWN IS FREE AREA DIMENSION REQUIRED OF DUCTWORK.

9. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR THE EXACT LOCATIONS OF FLOOR DRAINS REQUIRED TO SERVE MECHANICAL EQUIPMENT.

10. ALL INDIVIDUAL DUCT RUNOUTS TO DIFFUSERS, REGISTERS AND GRILLES TO BE PROVIDED WITH MEANS OF BALANCING AIRFLOW WHETHER SHOWN ON FLOOR PLANS OR NOT. INTEGRAL BALANCING MEANS AT AIR OULET ARE ACCEPTABLE AS SCHEDULED.

11. DUCT RUNOUTS TO DIFFUSERS/GRILLES TO MATCH NECK SIZE OF ASSOCIATED DIFFUSER/GRILLE UNLESS NOTED OTHERWISE.

12. ALL DUCTWORK AND PIPING TO BE ROUTED TIGHT TO STRUCTURE OR IN JOIST SPACE ABOVE UNLESS NOTED OTHERWISE. MAINTAIN MAXIMUM HEAD HEIGHT.

> (THESE NOTES APPLY TO THIS PLAN ONLY)

1 REFER TO ENLARGED MEZZANINE PLAN SHEET M202 FOR CONTINUATION.

REFERENCE NOTES

2 TERMINATE 1" CD PIPING OVER FLOOR DRAIN WITH AIR GAP.

3> EXISTING CABINET UNIT HEATER. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT. TYPICAL.

EXISTING HYDRONIC FINNED TUBE. REFINISH/PAINT. COORDINATE FINISHES WITH ARCHITECT. TYPICAL.

5 NEW VAV TERMINAL UNIT WITH 2-WAY CONTROL VALVE. INSTALL AND EXTEND HWS/HWR PIPING TO UNIT PER DETAIL. TYPICAL.

6> EXTEND AND TERMINATE 1" CD PIPING OUT EXTERIOR WALL. TERMINATE 1' AFF WITH SPLASH BLOCK. ROUTE PIPING CONCEALED IN WALL.

WALL MOUNTED INDOOR SPLIT SYSTEM UNIT. EXTEND RL/RS PIPING TO ASSOCIATED OUTDOOR UNIT ON ROOF ABOVE, INSTALL PIPE CURB/PORTALS AT ROOF PENENTRATION. SIZE AND INSTALL UNITS AND PIPING PER MANUFACTURER

8> OUTDOOR UNIT MOUNTED ON "PATE" RAILS ON ROOF ABOVE PER DETAIL. EXTEND RL/RS PIPING TO ASSOCIATED INDOOR UNIT. SIZE AND INSTALL PER MANUFACTURER REQUIREMENTS. INSTALL PIPE CURB/PORTALS AT ROOF PENETRATION.

9 UNDER ALTERNATE 1 - OUTDOOR CONDENSING UNIT MOUNTED ON GRADE PER DETAIL ON CONCRETE PAD. COORDINATE FINAL LOCATIONS WITH OWNER/ARCHITECT.

10> EXTEND NEW 1" HWS/R PIPING TO AIR CURTAIN INSTALLED ABOVE DOOR PER

11> OUTDOOR CONDENSING UNIT MOUNTED ON 4" FROSTPROOF CONCRETE PAD PER MANUFACTURER REQUIREMENTS. MAINTAIN CLEARANCES AND SIZE/EXTEND REFRIGERANT PIPING TO ASSOCIATED INDOOR UNIT PER MANUFACTURER RECOMMENDATIONS. SEAL EXTERIOR PENETRATIONS WEATHERTIGHT.

12> EXISTING GAS SERVICE ASSEMBLY. MAINTAIN CLEARANCES.

13> TIE INTO EXISTING 4" HWS/R MAINS AND EXTEND NEW AS SHOWN WITH SHUTOFF

14 UNDER ALTERNATE 1 - NEW UNIT VENTILATOR MOUNTED IN SAME LOCATION AS REMOVED. RECONNECT TO EXISTING HEATING WATER PIPING WITH NEW VALVES AS SHOWN ON DETAIL. EXTEND NEW RL/RS PIPING THROUGH EXTERIOR WALL TO OUTDOOR CONDENSING UNIT. SIZE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER REQUIREMENTS. EXTEND 1" CD PIPING FROM UNIT DRAIN WITH TRAP PER DETAIL AND TERMINATE THROUGH EXTERIOR WALL OVER SPLASH BLOCK. SEAL EXTERIOR WALL PENETRATIONS WEATHERTIGHT.

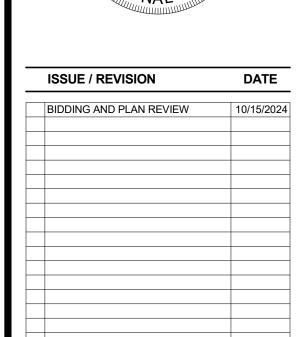
15> INDOOR AIR HANDLING UNIT. MOUNT ON 4" CONCRETE PAD WITH CHAMFERED EDGES. INSTALL ASSOCIATED DUCTWORK TO UNIT AND PIPING TO COIL CONNECTIONS TO AVOID OBSTRUCTING UNIT CLEARANCES ON FRONT OF UNIT. COORDINATE FINAL ORIENTATION AND LAYOUT WITH FINAL SUBMITTED MANUFACTURER CLEARANCE REQUIREMENTS. EXTEND RL/RS TO ASSOCIATED WEATHERTIGHT. EXTEND HWS/R PIPING TO UNIT COIL PER DETAIL. EXTEND 1-1/4" CD PIPING TO NEARBY FLOOR DRAIN WITH TRAP PER DETAIL.

16> NEW VAV TERMINAL UNIT WITH 3-WAY CONTROL VALVE. INSTALL AND EXTEND 1" HWS/HWR PIPING TO UNIT PER DETAIL.

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**UPPER LEVEL -HVAC PIPING PLAN** 

(NEW WORK)

24013.000

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ROOF MECHANICAL PLAN

#### **GENERAL NOTES**

- 1. MECHANICAL EQUIPMENT SHALL MAINTAIN A MINIMUM OF 10'-0" FROM A ROOF EDGE UNLESS NOTED OTHERWISE.
- 2. THE MECHANICAL CONTRACTOR SHALL COORDINATE FINAL ELECTRICAL REQUIREMENTS OF EQUIPMENT PRIOR TO ORDERING .
- 3. PVC PIPING SHALL NOT BE ALLOWED WITHIN A RETURN AIR PLENUM. ALL PIPING UTILIZED IN A RETURN AIR PLENUM IS TO BE LABELED BY THE MANUFACTURER WITH A FLAME-SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS AS TESTED UNDER ASTM E 84.
- 4. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR EXACT DIMENSIONS, ELEVATIONS AND LOCATIONS OF EQUIPMENT, FIXTURES, OPENINGS, FIRE AND SMOKE WALL AND RATED STRUCTURES.
- 5. DUCTWORK AND PIPING INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES AS TO NOT HINDER ACCESS TO EQUIPMENT. INSTALLATION OF PIPING SHALL ENABLE ACCESS TO VALVES ABOVE CEILING WHILE ALLOWING MINIMUM OF 8" CLEAR FOR CEILING REMOVAL.
- 6. RETURN AIR DUCTWORK EXTENDING FROM EQUIPMENT SERVING A RETURN AIR PLENUM SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS WITH 1/2" DUCT LINER FOR THE ENTIRE LENGTH OF THE DUCT FROM THE UNIT TO OUTLET.
- 7. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DESIGN REQUIREMENTS OF
- 8. EXPOSED SUPPLY AIR DUCTWORK WITHIN FINISHED SPACES SHALL BE INTERNALLY INSULATED PER THE SPECIFICATIONS. DUCTWORK SIZE SHOWN IS FREE AREA DIMENSION REQUIRED OF DUCTWORK.
- 9. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR THE EXACT LOCATIONS OF FLOOR DRAINS REQUIRED TO SERVE MECHANICAL EQUIPMENT.
- 10. ALL INDIVIDUAL DUCT RUNOUTS TO DIFFUSERS, REGISTERS AND GRILLES TO BE PROVIDED WITH MEANS OF BALANCING AIRFLOW WHETHER SHOWN ON FLOOR PLANS OR NOT. INTEGRAL BALANCING MEANS AT AIR OULET ARE ACCEPTABLE AS SCHEDULED.
- 11. DUCT RUNOUTS TO DIFFUSERS/GRILLES TO MATCH NECK SIZE OF ASSOCIATED DIFFUSER/GRILLE UNLESS NOTED OTHERWISE.
- 12. ALL DUCTWORK AND PIPING TO BE ROUTED TIGHT TO STRUCTURE OR IN JOIST SPACE ABOVE UNLESS NOTED OTHERWISE. MAINTAIN MAXIMUM HEAD HEIGHT.

REFERENCE NOTES

(THESE NOTES APPLY

- 1> INSTALL NEW OUTDOOR CONDENSING UNIT ON EXISTING CURB SERVING REMOVED UNIT. INSTALL NEW STRUCTURAL SUPPORTS/RAILS BETWEEN CURBS GIVEN NEW FOOTPRINT AS REQUIRED. REUSE EXISTING OPENING LEFT IN ROOF FOR NEW PIPING AND SEAL WEATHERTIGHT AS REQUIRED. COORDINATE FINAL UNIT ORIENTATION BASED ON FINAL SUBMITTED UNIT CLEARANCES AND AIRFLOW DIRECTION RELATIVE TO ADJACENT UNIT.
- NEW SPLIT SYSTEM OUTDOOR CONDENSING UNIT MOUNTED ON EQUIPMENT RAILS. EXTEND RL/RS PIPING TO ASSOCIATED INDOOR UNIT, SIZED AND INSTALLED PER MFR REQUIREMENTS. INSTALL PIPE PORTALS/CURB AT ROOF PENETRATION.
- NEW FAN/GRAVITY VENTILATOR ON EXISTING CURB. MODIFY EXISTING CURB AS REQUIRED TO INSTALL NEW FAN AND ASSOCIATED DUCTWORK AND BACKDRAFT OR CONTROL DAMPER. REFER TO SCHEDULES AND TEMPERATURE CONTROLS FOR DAMPER REQUIREMENTS.
- UNDER ROOF PROJECT ALTERNATE 3, ROOF TO BE REPLACED. ALL CURBS TO BE NEW AND INDEPENDENT OF EXISTING. EXISTING ROOF OPENINGS TO BE REUSED WHERE APPLICABLE.
- 5 ROOF MOUNTED GRAVITY VENTILATOR/FAN INSTALLED IN SAME LOCATION AS REMOVED EQUIPMENT. MODIFY EXISTING ROOF OPENING AS REQUIRED DUE TO CHANGE IN CURB/OPENING SIZE. INSTALL PER DETAIL.
- 6 INSTALL NEW RELIEF FAN ON EXISTING CURB. MODIFY EXISTING CURB AND PROVIDE CURB ADAPTER AS REQUIRED.
- NEW FAN/GRAVITY VENTILATOR ON NEW CURB. REFER TO SCHEDULES AND TEMPERATURE CONTROLS FOR DAMPER REQUIREMENTS. COORDINATE FINAL LOCATION WITH JOISTS BELOW.
- 8 UNDER ROOF PROJECT ALTERNATE 5, ROOF TO BE REPLACED. ALL CURBS TO BE NEW AND INDEPENDENT OF EXISTING. EXISTING ROOF OPENINGS TO BE REUSED WHERE APPLICABLE.
- 9 UNDER ROOF PROJECT ALTERNATE 4, ROOF TO BE REPLACED. ALL CURBS TO BE NEW AND INDEPENDENT OF EXISTING. EXISTING ROOF OPENINGS TO BE REUSED WHERE APPLICABLE.

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ISSUE / REVISION	DATE					
BIDDING AND PLAN REVIEW	10/15/202					

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KEWAKKS:		
1. ACCEPTABLE MANUFACTURERS: CARRIER, JCI,	, KRUEGER, PRICE, TITUS, TRANE.	

2. PROVIDE WITH INTEGRAL NEMA 1 HINGED CONTROL PANEL, 24V STEP-DOWN TRANSFORMER, AIRFLOW SWITCH, 1/2" INSULATED CABINET, FLANGED DUCT CONNECTIONS, AND REMOTE

PROGRAMMABLE THERMOSTAT.

3. PROVIDE WITH INTEGRAL DISCONNECT SWITCH.

4. UNIT SHALL BE SELECTED FOR NOISE CRITEERIA OF 30 OR LESS.

5. CONTRACTOR SHALL PROVIDE MINIMUM 10x THE INLET DIAMETER OR 3'-0" OF STRAIGHT DUCT ON INLET AND DISCHARGE SIDE OF BOX, RESPECTIVELY. 3. CONTROLS TO BE FACTORY MOUNTED BY VENDOR. COORDINATE WITH FINAL TEMPERATURE CONTROLS VENDOR.

7. FACTORY MOUNTED PIPING PACKAGES ARE ACCEPTABLE, REFER TO DETAILS AND CONTROLS FOR VALVING REQUIREMENTS.

	CONDENSING UNIT SCHEDULE (COOLING)														
				CAPACITY AND PERFORMANCE						ELECTRI	CAL DATA	O DED A TIME			
TAG ID MANUFACTURER		MODEL	SERVICE	REFRIG. TYPE	CAPACITY TOT/SENS (MBH)	AMBIENT TEMP (°F) STAGES		EFFICIENCY (EER)	VOLT	PHASE MCA		МОСР	OPERATING WEIGHT (LBS)	REMARKS	
CU-1	JCI	YC300C00A2JAE5	AHU-1	R-410A	267.0/ -	95.0	2	-	208	3	99.9	150	945	1-11	
CU-2	JCI	YD360C00A2GAB2	AHU-2	R-410A	333.5/ -	95.0	4	-	208	3	129.5	150	1875	1-11,13	
CU-3	JCI	YC150C00A2JAE5	AHU-3	R-410A 136.9/ -		95.0	2	-	208	3	56	70	499	1-3,5-12	
CU-4	JCI	YE090C00A2JAE5	AHU-4	R-410A	84.6/ -	95.0	1	-	208	3	36.9	50	386	1-3,5-12,14	
CU-5	GUARDIAN	TCD2B36S31S	AHU-5	R-410A	35.0/ -	95.0	1	-	208	3	11.9	20	150	1-3,5-12,14	
CU-6	JCI	YE090C00A2JAE5	AHU-6	R-410A	84.6 / -	95.0	2	-	208	3	36.9	50	386	1-3,5-12	
UV-CU-1	GUARDIAN	RC448E2S11	UV-1	R-454B	45.7/-	95.0	-	-	208	1	29.1	50	215	1-11	
UV-CU-2	GUARDIAN	RC430E2S11	UV-2	R-454B	27.7/-	95.0	-	-	208	1	16.2	25	165	1-11	
UV-CU-3	GUARDIAN	RC418E2S11	UV-3	R-454B	16.1/-	95.0	-	-	208	1	9	15	150	1-11	
UV-CU-4	GUARDIAN	RC430E2S11	UV-4	R-454B	27.7/-	95.0	-	-	208	1	16.2	25	165	1-11	

I. ACCEPTABLE MANUFACTURERS: (FCU/AHU) CARRIER, JCI, LENNOX, MITSUBISHI, SAMSUNG, TRANE.

2. PROVIDE WITH 7-DAY PROGRAMMABLE, AUTO-CHANGEOVER, DIGITAL THERMOSTAT.

3. PROVIDE WITH HI/LO PRESSURE CONTROL, CONDENSER COIL HAIL GUARDS, AND CRANKCASE HEATER. 4. MOUNT ON MINIMUM 4" HIGH FROSTPROOF CONCRETE PAD FOR ON GRADE INSTALLATIONS.

5. PROVIDE WITH VARIABLE SPEED COMPRESSOR AND CONDENSER FAN.

6. PROVIDE WITH LOW-AMBIENT CONTROL KIT.

7. PROVIDE WITH COMPLETE REFRIGERANT LINESET SIZED BY MANUFACTURER.

8. E.C. TO PROVIDE AND INSTALL DISCONNECT SWITCH. 9. UNIT SHALL BE ASHRAE 90.1 COMPLIANT.

10. UNIT SHALL BE SAME MANUFACTURER AS PAIRED INDOOR UNIT.

11. VERIFY MAXIMUM REFRIGERANT PIPING LENGTHS BETWEEN INDOOR AND OUTDOOR UNITS WITH FINAL SUBMITTED MFR RELATIVE TO LAYOUT SHOWN ON CONTRACT DOCUMENTS PRIOR TO ORDERING

12. MOUNT ON PATE MODEL 'ES-1' OR EQUAL EQUIPMENT RAILS WITH VIBRATION ISOLATOR PADS FOR INSTALLATIONS ON ROOF.

13. PROVIDE WITH FIELD INSTALLED OIL SEPARATOR AND RAWAL VALVE PER MFR REQUIREMENTS.

14. PROVIDE HARD START KIT AND SOLENOID VALVE.

MEC	HANICAL SYMBOL LEGEND
SYMBOL	DESCRIPTION
UC	3/4" DOOR UNDERCUT
M	120V MOTOR OPERATED DAMPER
S1 200 8"Ø	SUPPLY AIR DEVICE DESIGNATION
R1 - 24x12	RETURN AIR DEVICE DESIGNATION
S1(E) - 24x12	EXISTING AIR DEVICE DESIGNATION
	AIR DEVICE, EXHAUST
	AIR DEVICE, RETURN
	AIR DEVICE, SUPPLY/OUTSIDE
<del>-</del> 2	AIRFLOW DIRECTION
$\nabla \mathbf{M}$	AUDIBLE/VISUAL ALARM
BDD	BACKDRAFT DAMPER
L _	BALANCE DAMPER
<b>CO2</b>	CARBON DIOXIDE DETECTOR
<u>CO</u>	CARBON MONOXIDE DETECTOR
CRD	CEILING RADIATION DAMPER
CL2	CHLORINE SENSOR
_R ►	DUCT RISE
<i>EQ−#(E)</i> <b>EQ-#</b>	EQUIPMENT DESIGNATION (EXISTING/NEW)
(FD)— (FD)—	FIRE DAMPER
FSD FSD	FIRE/SMOKE DAMPER
$_{EQ-\#}$ $\overset{\text{H}}{\text{EQ-\#}}$	HUMIDISTAT
$\mathcal{H}_{\mathcal{S}}$ $\mathcal{H}_{\mathbf{S}}$	HUMIDITY SENSOR
$\mathbf{H}$	HYDROGEN SENSOR
H	HYDROGEN DETECTION SYSTEM
<u>M</u> — <u>M</u> —	MOTOR OPERATED DAMPER
<i>DD</i> — <b>DD</b> —	SMOKE DETECTOR, DUCT
DTS — DTS —	TEMPERATURE SENSOR, DUCT
$s_{EQ-\#}$ $s_{EQ-\#}$	TEMERATURE SENSOR, WALL
(T) <sub>EQ-#</sub> (T) <sub>EQ-#</sub>	THERMOSTAT

TAG	EQUIPMENT	TAG	EQUIPMENT
A	AMPS	НХ	HEAT EXCHANGER
AC	AIR CURTAIN	I/O	INPUT OUTPUT
AFF	ABOVE FINISH FLOOR	KW	KILOWATT
AFMS	AIR FLOW MONITORING SYSTEM	L	LOUVER
AHU	AIR HANDLING UNIT	LAT	LEAVING AIR TEMPERATURE
AP	ACCESS PANEL	LRA	LOCKED ROTOR AMPS
ARCH	ARCHITECTURAL	LWT	LEAVING WATER TEMPERATURE
В	BOILER	MAT	MIXED AIR TEMPERATURE
BAS	BUILDING AUTOMATION SYSTEM	MBH	1,000 BTUH
BDD	BACKDRAFT DAMPER	MC	MECHANICAL CONTRACTOR
BTUH	BRITISH THERMAL UNIT PER HOUR	MERV	MINIMUM EFFICIENCY REPORTING VALUE
CFH	CUBIC FEET PER HOUR	MFR	MANUFACTURER
CFM	CUBIC FEET PER MINUTE	NC	NOISE CRITERIA / NORMALLY CLOSED
CD	CONDENSATE	NEC	NATIONAL ELECTRIC CODE
CU	CONDINSING UNIT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CUH	CABINET UNIT HEATER	NIC	NOT IN CONTRACT
DB	DRY BULB	NO	NORMALLY OPEN
DD	DUCT DETECTOR	NTS	NOT TO SCALE
DIA / Ø	DIAMETER	OA	OUTSIDE AIR
DN	DOWN	PC	PLUMBING CONTRACTOR
DS	DUCTLESS SPLIT	PD / $\Delta$ P	PRESSURE DROP
DX	DIRECT EXPANSION	РН / Ф	PHASE
EA	EXHAUST AIR	PRV	PRESSURE RELIEF/REDUCING VALVE
EAT	ENTERING AIR TEMPERATURRE	PSF	POUNDS PER SQUARE FOOT
EC	ELECTRICAL CONTRACTOR	PSIG	POUNDS PER SQUARE INCH, GAUGE
ECH	ELECTRIC CEILING HEATER	QTY	QUANTITY
EF	EXHAUST FAN	RA	RETURN AIR
EL	ELEVATION	RH	RELATIVE HUMIDITY
ELEC	ELECTRICAL	REQ'D	REQUIRED
ESP	EXTERNAL STATIC PRESSURE	RF	RETURN FAN
ET	EXPANSION TANK	RHG	REFRIGERANT HOT GAS
EWT	ENTERING WATER TEMPERATURE	RL	REFRIGERANT LIQUID
EX / (E)	EXISTING	RLA	RUNNING LOAD AMPS
FA	FIRE ALARM	RP	RADIANT PANEL
FAC	FIRE ALARM CONTRACTOR	RPM	REVOLUTIONS PER MINUTE
FD	FIRE DAMPER	RS	REFRIGERANT SUCTION
FFE	FINISH FLOOR ELEVATION	RTU	ROOF TOP UNIT
FPC	FIRE PROTECTION CONTRACTOR	SA	SUPPLY AIR
FPM	FEET PER MINUTE	SF	SUPPLY FAN
FLA	FULL LOAD AMPS	TCC	TEMPERATURE CONTROLS CONTRACTOR
FT	FEET	TCP	TEMPERATURE CONTROL PANEL
FTR	FINNED TUBE RADIATOR	TSTAT	THERMOSTAT
GA	GAUGE	TYP	TYPICAL
GC	GENERAL CONTRACTOR	UH	UNIT HEATER
GPM	GALLONS PER MINUTE	UV	UNIT VENTILATOR
GV	GRAVITY VENTILATOR	VAV	VARIABLE AIR VOLUME BOX
HOA	HAND-OFF-AUTOMATIC SWITCH	VFD	VARIABLE FREQUENCY DRIVE
HP	HEAT PUMP / HORSEPOWER	W	WATTS
HWR	HEATING HOT WATER RETURN	WB	WET BULB
HWS	HEATING HOT WATER SUPPLY	WC	WATER COLUMN

	FAN SCHEDULE														
					AIRFLOW						ELECTRI	CAL DATA		OPERATING WEIGHT	,
TAG ID	MANUFACTURER	MODEL	TYPE	SERVICE	(CFM)	ESP ("W.C.)	SP ("W.C.) FAN RPM	M FAN POWER (BHP/HP)	DRIVE	VOLT	PHASE	FLA / MCA	MOCP	(LBS)	REMARKS
EF-1	GREENHECK	G-097-VG	EXHAUST	PUBLIC RR	225	0.75	1657	0.11/0.25	DIRECT	115	1	3.5/4	15	45	1,3,6,8
EF-2	GREENHECK	G-100HP-VG	EXHAUST	STAFF RR	755	1.0	2256	0.33/0.5	DIRECT	115	1	6.6/8	15	69	1,3,6,8
EF-3	GREENHECK	SP-B110	<b>EXHAUST</b>	JANITOR/ELEC.	75	0.6	850	80 W	DIRECT	115	1	1.15/-	15	15	2, 4, 6,8
RF-1	GREENHECK	G-240-VG	RELIEF	AHU-1	6300	1.0	921	2.06/3.0	DIRECT	208	3	8/10	20	207	1,3,7,9
RF-2	GREENHECK	G-200-VG	RELIEF	AHU-2	4675	0.25	926	0.9/2.0	DIRECT	208	1	12.5/16	30	168	1,3,7,9
RF-3	GREENHECK	G-200-VG	RELIEF	AHU-2	4675	0.25	926	0.9/2.0	DIRECT	208	1	12.5/16	30	168	1,3,7,9
RF-4	GREENHECK	G-200-VG	RELIEF	AHU-3	3500	0.25	733	0.46/1.0	DIRECT	208	1	7.1/9	20	160	1,3,7,9
RF-5	GREENHECK	G-095-VG	RELIEF	AHU-5	850	0.25	1544	0.11/0.167	DIRECT	208	1	1.3/2	15	52	1,3,7,9
RF-6	GREENHECK	G-130-VG	RELIEF	AHU-4	1600	0.25	1242	0.2/0.5	DIRECT	208	1	3.8/5	15	55	1,3,7,9
RF-7	GREENHECK	G-140-VG	RELIEF	AHU-6	1995	0.25	1212	0.35/0.75	DIRECT	208	1	5.4/7	15	60	1,3,7,9

I. ACCEPTABLE MANUFACTURERS: (STANDARD) CAPTIVEAIRE, DAYTON, GREENHECK, LOREN COOK, SOLER & PALAU, TWIN CITY.

2. ACCEPTABLE MANUFACTURERS: (FAN/LITE) BROAN-NUTONE, GREENHECK, PANASONIC. 3. PROVIDE WITH PREFABRICATED INSULATED ROOF CURB WITH NEOPRENE INSULATORS AND INTEGRAL DISCONNECT SWITCH. INSTALLED CURBS WHERE NEW ROOFS AND CURBS WERE INSTALLED AS A PART OF THE ROOF REPLACEMENT PROJECT. COORDINATE

WITH GC. PROVIDE CURB ADAPTERS WHERE REQUIRED FOR FINAL SUBMITTED UNITS IF NON-BOD UNITS SUBMITTED. INSTALLED CURBS BASED ON BOD UNIT DIMENSIONS. 4. PROVIDE WITH VIBRATION ISOLATORS AND INTEGRAL DISCONNECT SWITCH.

5. FAN SHALL BE INTERLOCKED WITH TIME CLOCK (BY E.C.) AND OPERATE CONTINUOUSLY DURING OPERATING HOURS. 6. FAN SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS.

7. PROVIDE WITH MOTORIZED CONTROL DAMPER.

8. PROVIDE WITH BACKDRAFT DAMPER. 9. REFER TO TEMPERATURE CONTROL DRAWINGS FOR REQUIREMENTS.

											AIR HAI	NDLING UN	IT SCHED	ULE											
SUPPLY FAN SE					SECTION			COOLING C	OIL SECTION (DX)			HEATING CO	OIL SECTION (F	IOT WATER)		FILTER S	ECTION	ELECTRICAL DATA							
TAG ID	MANUFACTURER	MODEL	SERVICE	OUTSIDE AIR (%)	AIRFLOW (CFM)	ESP / TSP ("W.C.)	RPM	BHP / HP	REFRIG. TYPE	TOT/SENS MBH	EAT DB/WB (°F)	LAT DB/WB (°F)	CAPACITY (MBH)	EAT/LAT (°F)	FLOW RATE (GPM)	EWT / LWT (°F)	<b>∆P (FT)</b>	ТҮРЕ	MERV	VOLT	PHASE	MCA	МОСР	OPERATING WEIGHT (LBS)	REMARKS
AHU-1	JCI	AMI-V12	LOWER LEVEL	17%	6300	2.00/3.42	1044	5.41/7.5	R410A	199.8/151.1	77.4/64.7	54.6/53.8	135.9	61.6/81.8	13.9	180.0/160.0	2.27	DISPOSABLE	8/14	208	3	30.25	50	1112	1, 3-7
AHU-2	JCI	AMI-V17	OPEN OFFICE	15%	9350	2.00/3.84	1151	10.27/15	R410A	322.8/239	77.5/64.8	53.2/52.8	203.3	61.0/81.4	20.9	180.0/160.0	4.78	DISPOSABLE	8/14	208	3	57.75	100	2046	ALL
AHU-3	JCI	AMI-V08	CONF/BREAK	17%	3500	1.00/2.6	1353	2.8/3.0	R410A	115.6/86.6	77.4/64.7	53.9/53.2	161.9	60.0/103.2	16.6	180.0/160.0	2.03	DISPOSABLE	8/14	208	3	14.75	25	976	ALL
AHU-4	JCI	AMI-V04	INTERVIEW	15%	1600	1.00/2.05	1597	1.18/1.5	R410A	55.8/40.5	77.1/64.5	53.0/52.3	46.1	63.1/90.2	4.7	180.0/160.0	1.44	DISPOSABLE	8/14	208	3	8.25	15	637	ALL
AHU-5	JCI	AMI-V02	WAITING	18%	850	1.00/2.02	1735	0.77/1.0	R410A	29.5/21.1	77.0/64.6	53.4/52.5	27.9	60.0/90.7	2.9	180.0/160.0	0.38	DISPOSABLE	8/14	208	3	5.75	15	504	ALL
AHU-6	JCI	AMI-V06	RECEPTION	14%	1995	1.00/1.82	1161	1.14/1.5	R410A	70.1/50.2	76.8/64.4	53.5/52.4	115.0	52.0/103.8	11.8	180.0/160.0	3.39	DISPOSABLE	8/14	208	3	8.25	15	771	ALL

#### **REMARKS:**

. ACCEPTABLE MANUFACTURERS: AAON, CARRIER, JCI, LENNOX, TRANE.

. MOUNT ON MINIMUM 4" HIGH CONCRETE PAD WITH VIBRATION ISOLATORS. 3. PROVIDE WITH DOUBLE-WALL INSULATED CABINET.

4. PROVIDE EACH FAN WITH INTEGRAL VARIABLE FREQUENCY DRIVE AND CONTROLLER.

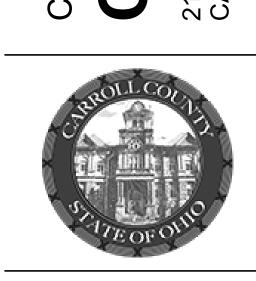
5. E.C. TO PROVIDE AND INSTALL DISCONNECT SWITCH.

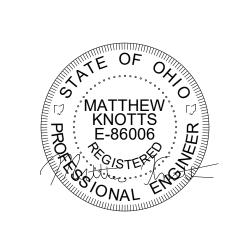
6. UNIT SHALL BE ASHRAE 90.1 COMPLIANT. 7. UNIT ACCESS SECTIONS TO BE COORDINATED WITH PLANNED INSTALLED CLEARANCES. UNIT ACCESS TO BE FROM FRONT OF UNIT. DO NOT IMPEDE UNIT ACCESS WITH ASSOCIATED DUCTWORK, PIPING OR OTHER COMPONENTS. OFFSET PIPING/DUCTWORK AS REQUIRED.



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ISSUE / REVISION	DATE
BIDDING AND PLAN REVIEW	10/15/2024
+	

**MECHANICAL** SCHEDULES AND **DETAILS** 

24013.000

PROJECT NO.

**REMARKS:** 

1. ACCEPTABLE MANUFACTURERS: GREENHECK, LLOYD, NAILOR, RUSKIN, SAFE AIR, WARD.

2. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE ARCHITECTURAL LIFE SAFETY PLANS.

3. CONTRACTOR SHALL COORDINATE LOCATION, CONTROLS, AND ACCESS WITH ALL OTHER DISCIPLINES.

					DUCTLES	S SPLIT	SCHE	DULE								
				CUTCIDE AID		FAN SECTIO	N		FILTER SEC	TION		ELECT	RICAL DATA		0.050.4.701.0	
TAG ID	MANUFACTURER	MODEL	SERVICE	OUTSIDE AIR (CFM)	AIRFLOW H/M/L (CFM)	ESP / TSP ("W.C.)	RPM	BHP / HP	TYPE	MERV	VOLT	PHASE	FLA / MCA	МОСР	OPERATING WEIGHT (LBS)	REMARKS
DS-1	MITSUBISHI	PKA-A24KA8	GED CLASSROOM	-	635/705/775	-	-	-	WASHABLE	8	208	1	0.265 / 1	-	46	ALL
DS-2,3	MITSUBISHI	PKA-A24KA8	SERVER ROOM	-	635/705/775	-	-	-	WASHABLE	8	208	1	0.265 / 1	-	46	ALL

1. ACCEPTABLE MANUFACTURERS: CARRIER, JCI, MITSUBISHI, SAMSUNG. 2. PROVIDE WITH INTEGRAL DISCONNECT SWITCH, CONDENSATE PUMP, AND TEMPERATURE SENSOR.

3. UNIT SHALL BE POWERED BY CONDENSING UNIT.

4. UNIT SHALL BE ASHRAE 90.1 COMPLIANT.

5. UNIT SHALL BE SAME MANUFACTURER AS PAIRED OUTDOOR UNIT.

6. REFER TO ASSOCIATED OUTDOOR UNIT SCHEDULE FOR COOLING AND HEATING CAPACITIES.

							CC	NDENSIN	IG UNIT SCH	EDULE (	HEAT PUN	NP)									
							COIL	SECTION				COMPRESSO	OR DATA	CONDENSE	R FAN DATA		ELECT	RICAL DATA		OPERATING	
TAG ID	MANUFACTURER	MODEL	SERVICE	REFRIG. TYPE	# OF CIRCUITS	COOL. CAPACITY TOT/SENS (MBH)	AMBIENT TEMP (°F)	EFFICIENCY (EER)	HEAT. CAPACITY (MBH)	AMBIENT TEMP (°F)	EFFICIENCY (COP)	QUANTITY	RLA	QTY	POWER	VOLT	PHASE	FLA / MCA	МОСР	WEIGHT (LBS)	REMARKS
OD-1	MITSUBISHI	PUZ-A24NHA7	DS-1	R401A	1	24 / 18.48	95	12.2	15.2	5	1.94	1	7	1	86 WATTS	208	1	0.4 / 19	26	153	ALL
OD-2,3	MITSUBISHI	PUZ-A24NHA7	DS-2,3	R401A	1	24 / 18.48	95	12.2	15.2	5	1.94	1	7	1	86 WATTS	208	1	0.4 / 19	26	153	ALL

1. ACCEPTABLE MANUFACTURERS: (DS) CARRIER, JCI, MITSUBISHI, SAMSUNG.

2. PROVIDE WITH 7-DAY PROGRAMMABLE, AUTO-CHANGEOVER, DIGITAL THERMOSTAT.

3. PROVIDE WITH HI/LO PRESSURE CONTROL, CONDENSER COIL HAIL GUARDS, AND CRANKCASE HEATER. 4. MOUNT ON PATE MODEL 'ES-1' OR EQUAL EQUIPMENT RAILS WITH VIBRATION ISOLATOR PADS.

5. PROVIDE WITH VARIABLE SPEED COMPRESSOR AND CONDENSER FAN.

. PROVIDE WITH LOW-AMBIENT CONTROL KIT.

7. PROVIDE WITH COMPLETE REFRIGERANT LINESET SIZED BY MANUFACTURER.

8. E.C. TO PROVIDE AND INSTALL DISCONNECT SWITCH.

9. UNIT SHALL BE ASHRAE 90.1 COMPLIANT.
10. UNIT SHALL BE SAME MANUFACTURER AS PAIRED INDOOR UNIT.

		VAV	AHU VENTILATION SCH	HEDULE		
TAG ID	SYSTEM POPULATION (AT MAX SIMULTANEOUS LOAD)	OCCUPANT DIVERSITY (Ps/SUM(Pz)	UNCORRECTED OA INTAKE (D*SUM(Rp)*(Pz)+SUM(Ra)*Az	MAX Zp	SYSTEM VENTILATION EFFICIENCY BASED ON MAX Zp (TABLE 6.3)	MINIMUM OUTDOOR AIR INTAKE, Vou/Ev (CFM)
AHU-1	58	0.97	623	0.51	0.7	890
AHU-2	103	0.93	936	0.53	0.70	1338

#### **REMARKS:**

1. CALCULATIONS BASED ON 2024 OHIO MECHANICAL CODE, TABLE 403.1.1 AND ASHRAE 62.1 REQUIREMENTS.

3. REFER TO EQUIPMENT SCHEDULES FOR TOTAL VENTILATION PROVIDED.

2. OCCUPANT COUNT BASED ON NUMBER OF CHAIRS, NUMBER OF EMPLOYEES OR VALUES LISTED IN 2024 OHIO MECHANICAL CODE TABLE 403.3.1.1.

**VENTILATION SCHEDULE** 

2. OCCUPANT COUNT BASED ON NUMBER OF CHAIRS OR OCCUPANTS SHOWN ON SRCHITECTURAL DRAWINGS. 3. REFER TO EQUIPMENT SCHEDULES FOR TOTAL VENTILATION AIR PROVIDED.

ID	SYSTEM POPULATION (AT MAX SIMULTANEOUS LOAD)	OCCUPANT DIVERSITY (Ps/SUM(Pz)	UNCORRECTED OA INTAKE (D*SUM(Rp)*(Pz)+SUM(Ra)*Az	MAX Zp	SYSTEM VENTILATION EFFICIENCY BASED ON MAX Zp (TABLE 6.3)	MINIMUM OUTDOOR AIR INTAKE, Vou/Ev (CFM)
-1	58	0.97	623	0.51	0.7	890
-2	103	0.93	936	0.53	0.70	1338
(S:	ONS BASED ON OHIO STATE MECHAN	ICAL CODE, TABLE 403.3.1.1.				

TOTAL REQ'D: 85.1

MINIMUM OUTDOOR AIR INTAKE, Vou/Ev (CFM)	TAG ID	MANUFACTURER	MODEL	TYPE	MODULE SIZE	MOUNTING (FRAME)	DAMPER TYPE	REMARKS
890	\$1	PRICE	SPD	SUPPLY	24x24	SURFACE/LAY IN	N/A	1,2,3
1338	<b>S2</b>	PRICE	510	SUPPLY	SEE PLANS	DUCT	N/A	1,2,3,4
	\$3	PRICE	SDG	SUPPLY	SEE PLANS	SPIRAL DUCT	AIR SCOOP	1, 2, 3. 4
	R1	PRICE	PDDR	RETURN	24x24	SURFACE/LAY IN	N/A	1,2,3
	R2	PRICE	PDDR	RETURN	24x12	SURFACE/LAY IN	N/A	1,2,3
	R3	PRICE	535	RETURN	30x18	SURFACE/LAY IN	N/A	1,2,3,5
	E1	PRICE	535	RETURN	SEE PLANS	SURFACE/LAY IN	N/A	1,2,3,5
	E2	PRICE	535	OBD	SEE PLANS	SURFACE/LAY IN	N/A	1,2,3,5
						•	-	

GRILLES, REGISTERS, & DIFFUSERS SCHEDULE

. ACCEPTABLE MANUFACTURERS: ANEMOSTAT, KRUEGER, NAILOR, PRICE, TITUS.

2. SHALL BE SELECTED FOR NOISE CRITERIA OF <25; REFER TO DRAWINGS FOR NECK SIZE.

3. COORDINATE FINISHES WITH ARCHITECT.

4. PROVIDE WITH 3/4" BLADE SPACING; 22.5° DOUBLE DEFLECTION; ADJUSTABLE. 5. PROVIDE WITH 1/2" BLADE SPACING 45° SINGLE DEFLECTION; FIXED.

			V = 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							
UNIT	RM NUMBER / RM NAME	AREA (SF)	OCCUPANT/ROOM TYPE	DENSITY	OCCUPANTS	CFM PER		\(\(\text{\cos}\)	TOTAL	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	110 / DADENT VICITATION			(/1000 SF)	00	PERSON	SF 0.10	Vbz (CFM)	Ez	Vot (CFM)
	112/ PARENT VISITATION	433	Break rooms	50	22	5	0.12	160.2	1	160.2
AHU-3	129/ MECH/ELECTRIC	93	Electrical equipment room	0	0	0.06	0.06	5.6	1	5.6
	130/ LARGE CONFERENCE	1456	Conf. room	50	60	5	0.06	387.4	1	387.4
	131/ KITCHENETTE	149	Kitchens (cooking)	20	3	7.5	0.12	40.2	<u> </u>	40.2
									TOTAL REQ'D:	593.4
	101/ STORAGE	91	Occ. storage room	2	0	5	0.06	6.4	1	6.4
	102/ MECH/ELECTRIC	60	Electrical equipment room	0	0	0.06	0.06	3.6	1	3.6
	105/ CORRIDOR	313	Corridor	0	0	0	0.06	18.8	1	18.8
	106/ BACKGROUND CHECKS	80	Office space	5	0	5	0.06	6.8	1	6.8
A 1 111 A	107/ INTERVIEW ROOM	113	Office space	5	1	5	0.06	9.6	1	9.6
AHU-4	108/ INTERVIEW ROOM	81	Office space	5	0	5	0.06	6.9	1	6.9
	109/ INTERVIEW ROOM	81	Office space	5	0	5	0.06	6.9	1	6.9
	110/ INTERVIEW ROOM	81	Office space	5	0	5	0.06	6.9	1	6.9
	111/ CHILD INTERVIEW	127	Office space	5	1	5	0.06	10.8	1	10.8
	113/ OMJ PARTNERS	181	Conf. room	50	9	5	0.06	56.1	1	56.1
						-1	1	I	TOTAL REQ'D:	132.7
AHU-5	118/ CORRIDOR	61	Corridor	0	0	0	0.06	3.7	1	3.7
	121/ WAITING	553	Office-reception areas	30	17	5	0.06	116.1	1	116.1
									TOTAL REQ'D:	119.8
	104/ CORRIDOR	392	Corridor	0	0	0	0.06	23.5	1	23.5
	124/ HUDDLE	145.4	Break rooms	50	7	5	0.12	53.8	1	53.8
	125/ MANAGER OFFICE	130	Office space	5	1	5	0.06	11.1	1	11.1
AHU-6	126/ MANAGER OFFICE	110	Office space	5	1	5	0.06	9.4	1	9.4
	127/ CORRIDOR	311.5	Corridor	0	0	0	0.06	18.7	1	18.7
	128/ CORRIDOR	359.5	Corridor	0	0	0	0.06	21.6	1	21.6
	122/ RECEPTION	477	Office-reception areas	30	14	5	0.06	100.2	1	100.2
							1		TOTAL REQ'D:	238.1
	T	T -		I I			T	_	I	_
UV-1	174/ OFFICE	417.5	Office space	5	2	5	0.06	35.5	1	35.5
									TOTAL REQ'D:	35.5
UV-2	173/ RECEPTION	277	Office-reception areas	30	7	5	0.06	51.6	1	51.6
	-	I	•	<u> </u>		1	1	1	TOTAL REQ'D:	51.6
111/ 2	170 / WAITING	107	Office was as it as a second	20			0.04	00.0	1	00.0
UV-3	172/ WAITING	137	Office-reception areas	30	4	5	0.06	28.8	TOTAL DEGIS	28.8
									TOTAL REQ'D:	28.8
UV-4	171/ EOC	417.7	Office space	5	12	5	0.06	85.1	1	85.1
		•	•			•	•			

				GRA	VITY VENTI	LATOR SCH	EDULE				
TAG ID	MANUFACTURER	MODEL	SERVICE	DESIGN AIRFLOW (CFM)	AIR PRESSURE DROP ("W.C.)	OVERALL DIAMETER (IN)	THROAT DIAMETER (IN)	THROAT / FACE AREA (SQ. FT.)	THROAT VELOCITY (FPM)	OPERATING WEIGHT (LBS)	REMARKS
GV-1	GREENHECK	GRSI-24	AHU-4	1600	0.043	38.25	24.5	3.24	494	29	ALL
GV-2	GREENHECK	GRSI-20	AHU-5	850	0.024	35.5	20.25	2.25	378	24	ALL
GV-3	GREENHECK	GRSI-24	AHU-6	1995	0.067	38.25	24.5	3.24	616	29	ALL
GV-4	GREENHECK	GRSI-36	AHU-3	3500	0.057	56.75	36.5	7.29	480	45	ALL
DEALA DIC.											

1. ACCEPTABLE MANUFACTURERS: CAPTIVEAIRE, DAYTON, GREENHECK, LOREN COOK, SOLER & PALAU.

2. PROVIDE WITH PREFABRICATED INSULATED ROOF CURB, MODULATING MOTORIZED CONTROL DAMPER, AND BIRD SCREEN. INSTALL ON PREVIOUSLY INSTALLED CURBS WHERE NEW ROOFS AND CURBS WERE INSTALLED AS A PART OF THE ROOF REPLACEMENT PROJECT. COORDINATE WITH GC. PROVIDE CURB ADAPTERS WHERE REQUIRED FOR FINAL SUBMITTED UNITS IF NON-BOD UNITS SUBMITTED. INSTALLED CURBS BASED ON BOD UNIT

DIMENSIONS.



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SCHEDULES AND **DETAILS** 

**ISSUE / REVISION** 

BIDDING AND PLAN REVIEW

**MECHANICAL** 

ISSUE / REVISION	DATE
BIDDING AND PLAN REVIEW	10/15/202
DIBBINOTH DI ENTRE VIEW	10/10/202
PROJECT NO.	24013.000

MECHANICAL SCHEDULES AND **DETAILS** 

					UN	IT HEATE	R SCHEDU	JLE							
				AIRELOW	FAN	I DATA	C	OIL DATA			ELECTRIC	CAL DATA	4	ODEDATING	
TAG ID	MANUFACTURER	MODEL	MOUNTING	AIRFLOW (CFM)	QUANTITY	POWER (EA.)	CAPACITY (MBH)	GPM	MAX WPD (FEET)	VOLT	PHASE	AMPS	МОСР	OPERATING WEIGHT (LBS)	REMARKS
CUH-1	VULCAN	W-04	WALL	430	1	1/10 HP	32.3	5	1.45	115	1	0.65	-	128	ALL
UH-1	VULCAN	HV-118A	HORIZONTAL	500	1	16 W	18.4	1.9	2.2	115	1	0.8	-	26	ALL
	: PTABLE MANUFACTURE DE WITH INTEGRAL FILT			ERLING, VULCA	AN, ZEHNDER	R RITTLING.									

**MOTOR HP SERVED** 

VOLTS/PHASE

208/3

**REMARKS** 

ALL

ALL

ALL

ALL

2. FURNISHED BY MC, INSTALLED BY EC. 3. PROVIDE WITH BYPASS.

**MANUFACTURER** 

**DANFOSS** 

**DANFOSS** 

**DANFOSS** 

**DANFOSS** 

4. BALANCE VFD OPERATION AND HARMONICS AFTER INSTALLATION DURING EQUIPMENT START UP TO MINIMIZE VFD BREAKOUT NOISE.

VARIABLE FREQUENCY DRIVE SCHEDULE

SERVICE

SHWP-1

SHWP-2

SHWP-3

SHWP-4

5. REFER TO TEMPERATURE CONTROLS DRAWINGS FOR ADDITIONAL REQUIREMENTS.

. ACCEPTABLE MANUFACTURERS: ABB, DANFOSS, SQUARE D, SIEMENS.

MODEL

VLT

6. INSTALL UNDER ALTERNATE 3

VFD-SHWP-1

VFD-SHWP-2

VFD-SHWP-3

VFD-SHWP-4

					AIR	CURT	AIN SCH	EDULE							
				AIRFLOW	FAN DA	ATA	COIL	DATA (HOT WA	TER)		ELECTR	ICAL DATA		OPERATING	
TAG ID	MANUFACTURER	MODEL	MOUNTING	(CFM)	QUANTITY	POWER (EA.)	CAPACITY (MBH)	FLOW RATE (GPM)	∆P (FT OF H2O)	VOLT	PHASE	MCA	MOCP	WEIGHT (LBS)	REMARKS
AC-1	POWERED AIRE	CHS-2-84HW/ST	WALL	2080	2	1/2 HP	82.379	8.39	2.44	208	1	3.5	15	271	ALL

. ACCEPTABLE MANUFACTURERS: BERNER, CAMBRIDGE, MARLEY, MARS, POWERED AIRE.

2. PROVIDE WITH INTEGRAL DISCONNECT SWITCH.

3. PROVIDE WITH INTEGRAL DISCONNECT SWITCH.

5. PROVIDE INTEGRAL THERMOSTAT.

4. PROVIDE WITH WALL/CEILING MOUNTING BRACKET.

3. PROVIDE WITH INTEGRAL FILTER/FILTER RACK, 24-VOLT DOOR CONTACT, TIME DELAY SWITCH, AND CONTROL PACKAGE.

6. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLOR PALETTE.

			AIR 8	& DIRT S	EPARATO	R SCHEDUI	LE					
TAG ID	MANUFACTURER	MODEL	ТҮРЕ	SERVICE	MAXIMUM PARTICLE (MIRCONS)	CONNECTION SIZE (IN)	SIZE (Ø"xH")	RELIEF PRESSURE (PSIG)	RATED PRESSURE (PSIG)	MAX WATER PRESSURE DROP (FT H20)	DRY WEIGHT (LBS)	REMARKS
AS-1	CALFETTI	NA549120A	COMBINATION AIR/DIRT AND HYDRAULIC SEPARATOR	HWS/R	5	5"	25x63	100	150	1	117	ALL

1. ACCEPTABLE MANUFACTURERS: ARMSTRONG, AMTROL, BELL & GOSSETT, TACO, WESSELS.

2. PROVIDE WITH INTEGRAL FLUSH VALVE, BLOWOUT FITTINGS, LIFTING LUGS, AIR VENT, AND FLANGED CONNECTIONS. 3. SHALL BE ASME RATED.

4. INSTALL UNDER ALTERNATE 3.

	PUMP SCHEDULE																	
							PRESSURE (FT	NPSH (FT OF		POWER	POWER	POWER		ELECTRICAL DATA			OPERATING	
TAG ID	MANUFACTURER	MODEL	TYPE	SERVICE	SIZE (IN)	FLOW (GPM)	OF HEAD)	HEAD)	RPM	(BHP)	(N/O HP)	(HP)	VOLT	PHASE	MCA	МОСР	WEIGHT (LBS)	REMARKS
SHWP-1/2	GRUNDFOS	NBS 015-090-4P	HYDRONICS	OLD GYM	-	75	65.8	3.32	1765	2.13	2.91	3	208	3	-	-	189	1,2,4,5
SHWP-3/4	GRUNDFOS	NBS 020-095-4P	HYDRONICS	OLD SCHOOL	-	180	65.6	4.23	1750	4.01	5.06	5	208	3	•	-	192	1,2,4,5
PHWP-1	GRUNDFOS	MAGNA 3 65-120 GF	HYDRONICS	B-1	-	144	23.3	-	-	758 W	-	-	208	1	3.32	-	54	1,3,5,6
PHWP-2	GRUNDFOS	MAGNA 3 65-120 GF	HYDRONICS	B-2	-	144	23.3	-	-	758 W	-	-	208	1	3.32	-	54	1,3,5,6

1. ACCEPTABLE MANUFACTURERS: (HYDRONICS) ARMSTRONG, BELL & GOSSETT, GRUNDFOS, PACO, TACO.

2. INSTALL ON MINIMUM 4" CONCRETE HOUSEKEEPING PAD WITH CHAMFERED EDGES. 3. SUPPORT INLINE PUMP FROM STRUCTURE ABOVE OR INSTALL ON UNI-STRUT RACK IN ACCESSIBLE LOCATION.

4. PROVIDE WITH INVERTER DUTY MOTORS FOR INSTALLATION/COMPATIBILITY WITH VFD'S.

5. INSTALL UNDER ALTERNATE 3. 6. PUMP SPEED CONTROLLED BY INTEGRAL FREQUENCY CONVERTER.

	TANK SCHEDULE											
TAG ID	MANUFACTURER	MODEL	TYPE	SERVICE	TANK VOLUME (GAL)	SIZE (Ø" x H")	CHARGE PRESSURE	MAX WORKING PRESSURE	WEIGHT, FULL (LBS)	REMARKS		
ET-1,2	GRUNDFOS	GNLA-35	BLADDER	HWS/R	106	30"x49"	FIELD VERIFY	125	300	ALL		

1. ACCEPTABLE MANUFACTURERS: AMTROL, ARMSTRONG, BELL & GOSSETT, TACO, WESSELS.
2. SHALL BE ASME RATED.

3. PROVIDE UNDER ALTERNATE 3.

	BOILER SCHEDULE																	
TAG ID	MANUFACTURER	MODEL	TYPE	SERVICE	RELIEF PRESSURE (PSIG)	FUEL TYPE	GAS DA INPUT / OUTPUT (MBH)	# OF STAGES	AFUE (%)	FLOW RATE (GPM)	WATER DATA	△P (FT OF H2O)	VOLT	ELECTR PHASE	FLA / MCA	МОСР	OPERATING WEIGHT (LBS)	REMARKS
B-1/B-2	LOCHINVAR	FBN1501	CONDENSING	HWS/R	100	NAT. GAS	1,500/1,443	MOD.	96.2	144	20	7.3	120	1	10/13	-	2307	ALL

1. ACCEPTABLE MANUFACTURERS: (CONDENSING) AERCO, FULTON, HYDROTHERM, LAARS, LOCHINVAR, PVI, SUPERIOR, THERMAL SOLUTIONS, WEIL MCLAIN.

2. MOUNT ON MINIMUM 4" HIGH CONCRETE PAD WITH CHAMFERED EDGES.

3. INSTALL UNDER ALTERNATE 3. 4. E.C. TO PROVIDE AND INSTALL DISCONNECT SWITCH.

5. UNIT SHALL BE ASME RATED.

	UNIT VENTILATOR SCHEDULE																							
						PPLY FAN SEC		COOLING COIL SECTION (DX)				HEATING COIL SECTION (HOT WATER)				FILTER SEC	TION		ELECTRIC	AL DATA	A			
TAG ID	MANUFACTURER	MODEL	SERVICE	OUTSIDE AIR (CFM)	AIRFLOW (CFM)	ESP / TSP ("W.C.)	RPM E	BHP / HP RE	EFRIG. TYPE	TOT/SENS MBH	EAT DB/WB (°F)	LAT DB/WB (°F)	CAPACITY (MBH)	EAT/LAT (°F)	FLOW RATE (GPM)	EWT / LWT (°F)	WATER △P (FT OF H20)	ТҮРЕ	MERV	VOLT	PHASE	MCA	MOCP	REMARKS
UV-1	MAGIC AIRE	MAUVF5BAABA213D0K1BAA2AAB1HH	ALT 1	45	1485	0.3	-	-/0.5	R454B	43.24/28.9	80/67	61.38/57.23	56.99	55/89.5	6.5	180/162.01	2.561	DISPOSABLE	13	208	1	4.1	15	ALL
UV-2	MAGIC AIRE	MAUVF3BAABA213D0K1BAA2AAB1HH	ALT 1	55	820	0.3	-	-/0.33	R454B	25.1/17.1	80/67	60.04/56.67	52.76	55/112.23	5.0	180/158.34	2.189	DISPOSABLE	13	208	1	3.2	15	ALL
UV-3	MAGIC AIRE	MAUVF2BAABA213D0K1BAA2AAB1HH	ALT 1	45	500	0.3	-	-/0.33	R454B	14.9/10.41	80/67	59.91/56.87	22.58	55/95.57	4.0	180/168.42	0.616	DISPOSABLE	13	208	1	2.9	15	ALL
UV-4	MAGIC AIRE	MAUVF3BAABA213D0K1BAA2AAB1HH	ALT 1	100	820	0.3	-	-/0.33	R454B	25.1/17.1	80/67	60.04/56.67	33.06	55/91	4.0	180/163.04	0.769	DISPOSABLE	13	208	1	3.2	15	ALL

1. ACCEPTABLE MANUFACTURERS: CARRIER, MAGIC AIRE, TRANE.

2. FACTORY INSTALLED BACNET CAPABILITIES.

3. PROVIDE WITH HEAVY-GAGE STEEL CABINET, MECHANICALLY ISOLATED FANS/MOVING PARTS, INTEGRAL MIXING DAMPER.

4. PROVIDE EACH FAN WITH EC MOTOR WITH VARIABLE SPEED CONTROL OPTION. 5. PROVIDE WITH INTEGRAL NON-FUSED DISCONNECT SWITCH.

6. UNIT SHALL BE ASHRAE 90.1 COMPLIANT. 7. PROVIDE UNDER ALTERNATE 1.

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- INCREASING RADIUS

SUPPLY, RETURN OR EXHAUST DUCT

FOR USE WHEN A BRANCH TAKE-OFF

THE AIR HANDLED BY THE MAIN DUCT

IS TO HANDLE MORE THAN 25% OF

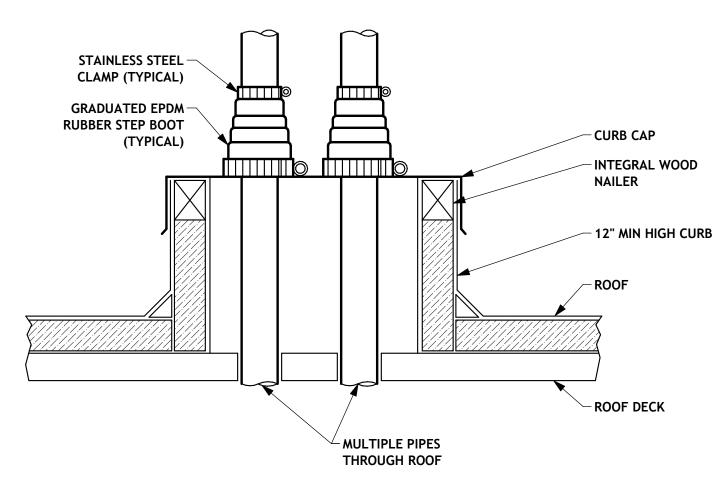
RETURN OR EXHAUST

- ECCENTRIC TEE FITTING

FIRE DAMPER ACCESS DOOR -ATTACH DUCT TO FIRE DAMPER COLLAR AND SEAL WITH MASTIC SLEEVE TO EXTEND MINIMUM 6" ABOVE AND BELOW FLOOR - STEEL ANGLE ON ALL FOUR SIDES, TACKWELD, BOLT, OR SCREW TO SLEEVE AT TACKWELD FIRE DAMPER 8" OC. DO NOT ATTACH SLEEVE TO FLOOR TO STEEL SLEEVE (TYPICAL FOR BOTH SIDES OF FLOOR) 1/4" CLEARANCE ALL FOUR -SIDES. SEAL WITH FIRE -FLOOR LINE RESISTANT CAULKING DAMPER BLADES TO BE FUSIBLE LINK OUT OF AIR STREAM EXTEND END OF DAMPER ~ - NOT LESS THAN FRAME (SAME GAUGE AS **DUCT WIDTH** DAMPER) & SEAL AIRTIGHT NOTE: FIRE DAMPERS TO BE U.L. LABELED. THIS DETAIL ILLUSTRATES GENERAL REQUIREMENTS ONLY. THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DETAILS (AS TESTED AND APPROVED BY U.L.) MUST BE USED FOR THE ACTUAL INSTALLATION.

#### r------REMOVE EXISTING EQUIPMENT COMPLETE. DISCONNECT POWER AND REMOVE BACK TO PANEL, MARK CIRCUIT AS 'SPARE'. IF REQ'D, DISCONNECT AS AND REMOVE GAS PIPING BACK TO MAIN. MC SHALL REMOVE AND RECLAIM ALL REFRIGERANT AND DISPOSE OF PER ALL FEDERAL REQUIREMENTS PROVIDE NEW 3" THICK, 6 POUND DENSITY FIBERGLASS BOARD INSULATION BETWEEN TWO (2) LAYERS OF SHEET METAL (MIN. 22 GAUGE); MC SHALL WELD ALL SEEAMS **WEATHER-TIGHT** FASTEN CURB CAP WITH FLASHING — TO EXISTING CURB WITH STAINLESS STEEL SHEET METAL SCREWS, SEAL **WEATHER-TIGHT EXISTING ROOF CURB TO REMAIN. FIELD-**VERIFY EXACT DIMENSIONS PRIOR TO START OF ANY WORK. ROOF ASSEMBLY

# **ROOF CURB CAP DETAIL**



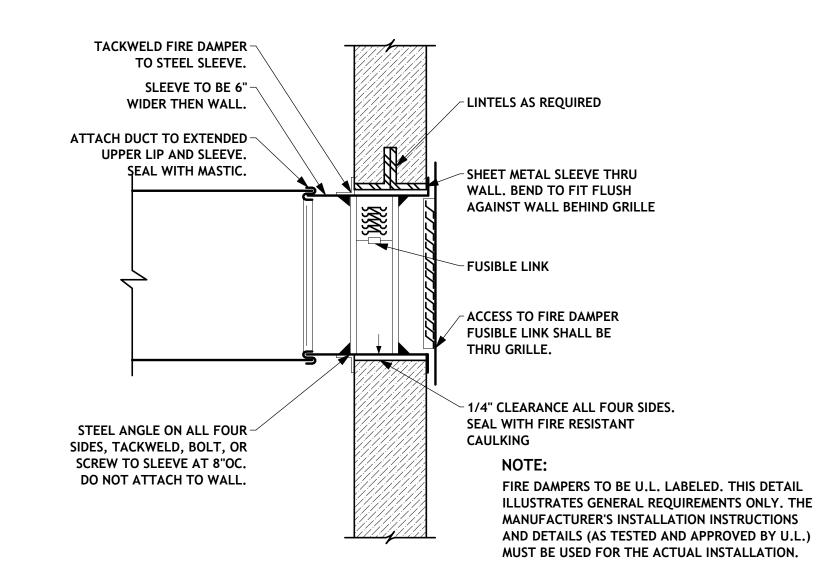
1. THE "MC" SHALL FURNISH AND LOCATE CURB. 2. THE "GC" SHALL PROVIDE OPENING AND INSTALL CURB.

3. THE "GC" SHALL PROVIDE FLASHING AND ROOFING.

4. COORDINATE ROOF WORK TO MAINTAIN ALL WARRANTIES.

#### ROOF MOUNTED PIPE CURB DETAIL

NOT TO SCALE





#### 2-WAY CONTROL VALVE \ **AUTOMATIC BALANCE VALVE** MANUAL AIR VENT AT HIGH-POINT WITH 3/8" SOFT COPPER - UNION (TYPICAL) OUTLET LOOPED DOWNWARD HEATING - WATER SUPPLY UNION CONNECTION -FOR COIL REMOVAL BALL VALVE (TYPICAL) DRAIN VALVE WITH CAPPED 1/2" HOSE THREAD OUTLET

VAV AND UNIT HEATER PIPING DIAGRAM

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PROJECT NO. **MECHANICAL** SCHEDULES AND **DETAILS** 

**ISSUE / REVISION** 

BIDDING AND PLAN REVIEW

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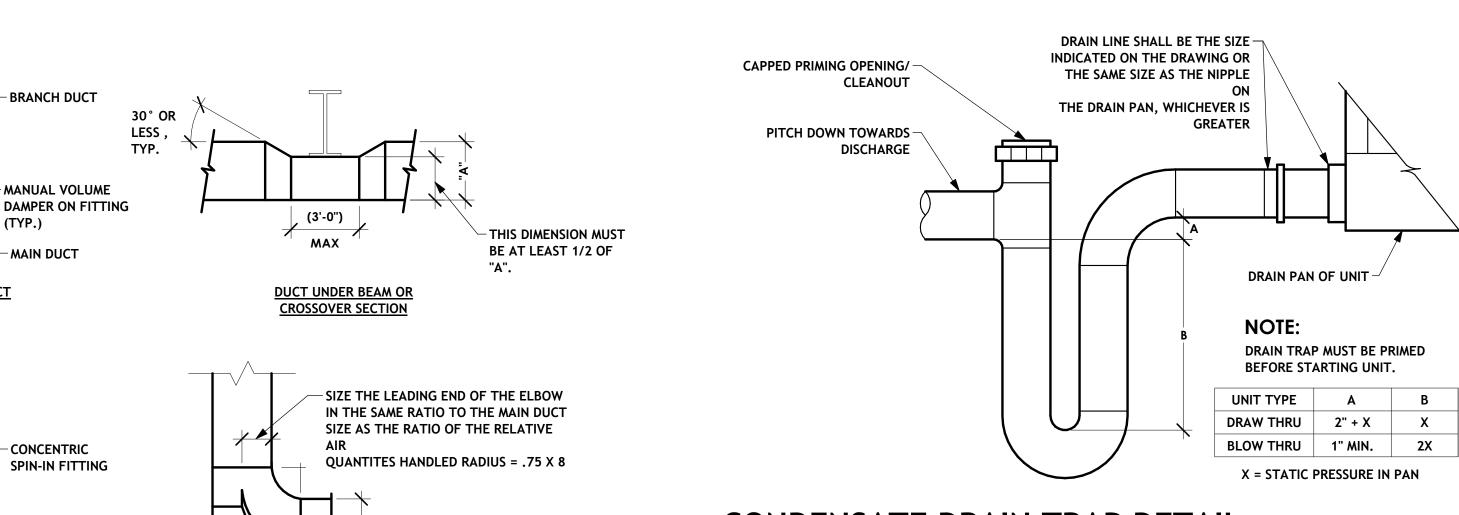
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# CEILING LINEAR DIFFUSER CONNECTION W/O REMOTE DAMPER

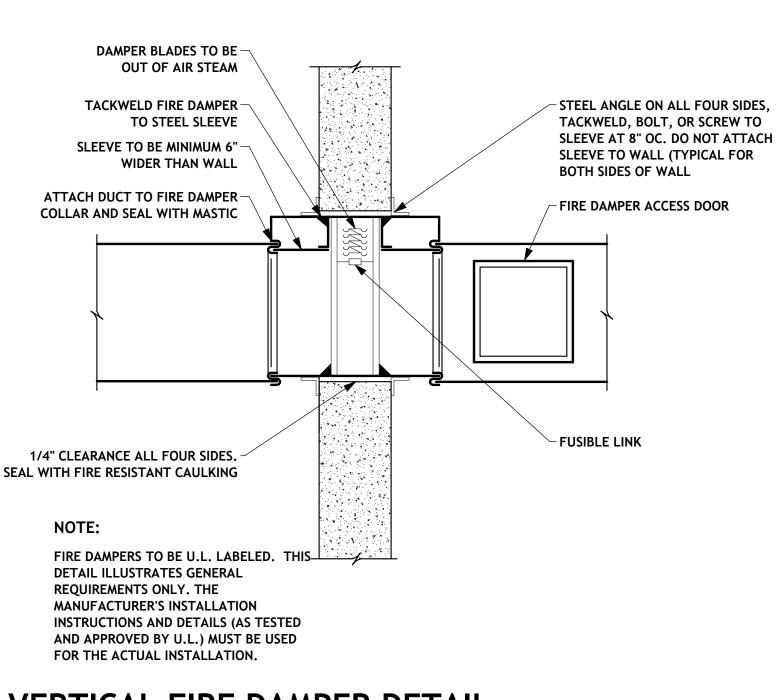
### HORIZONTAL FIRE DAMPER DETAIL

BEAM CLAMP

THREADED ROD —



# **CONDENSATE DRAIN TRAP DETAIL**



#### VERTICAL FIRE DAMPER DETAIL

NOT TO SCALE

RETURN OR EXHAUST SUPPLY DUCT FLAT OVAL DUCT **BRANCH TAKE-OFF** 

CONCENTRIC TEE

FITTING

**ROUND BRANCH DUCT** 

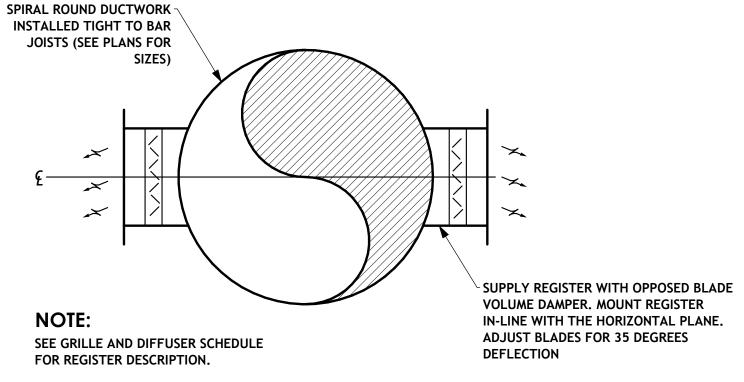
**RECTANGULAR TO** 

SUPPLY DUCT

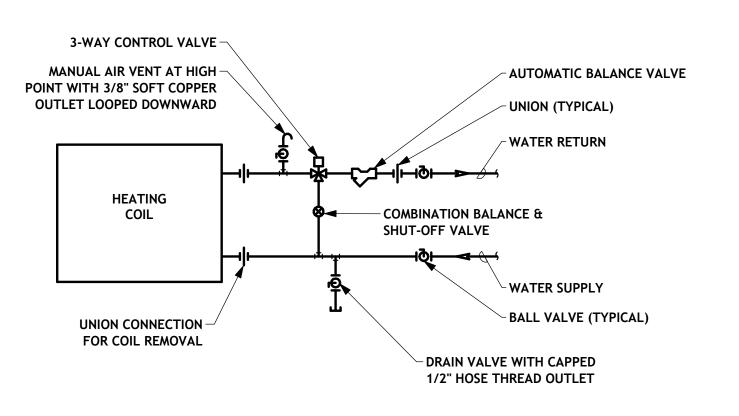
ROUND DUCT

# **DUCT BRANCH TAKE-OFF DETAILS**

1.25XDIM "B"

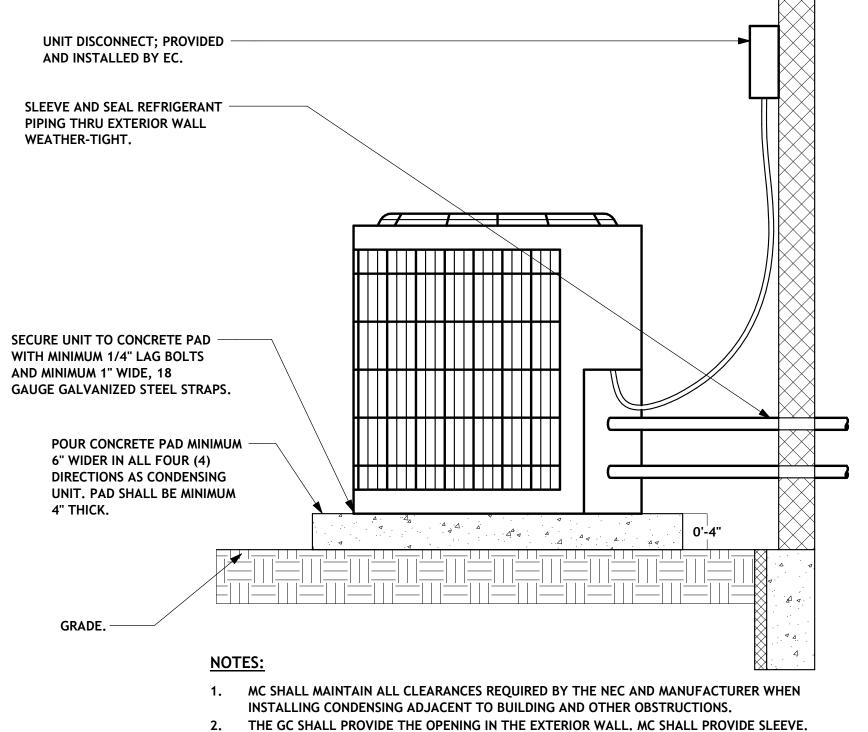


**DUCT MOUNTED SUPPLY REGISTER DETAIL** 



VAV TERMINAL PIPING DIAGRAM - 3 WAY CONTROL VALVE

**ADJUSTABLE CLEVIS HANGER < INSULATE VOID SPACE BETWEEN SADDLE & PIPE CLEVIS HANGER PIPE SUPPORT** 



STRUCTURAL FRAMING NOTE:

SUPPLY ADDITIONAL SUPPORT STEEL AS REQUIRED. HANGERS ARE NOT TO BE SUPPORTED

FROM THE ROOF DECK

PIPE WITH INSUALTION &

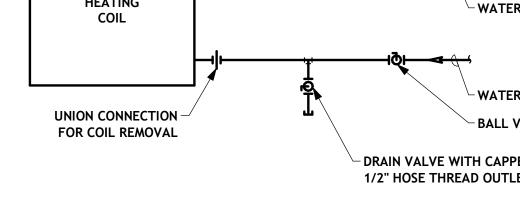
JACKET (AS APPLICAPLE).

SEE SPECIFICATIONS FOR

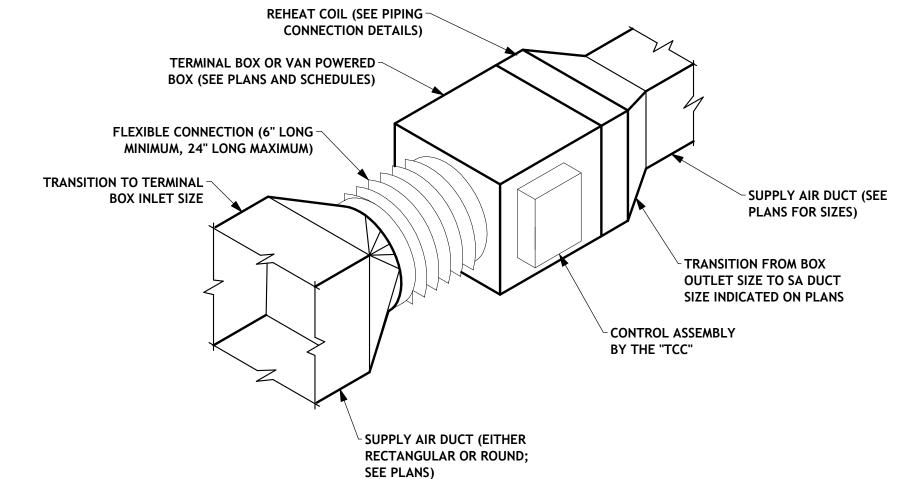
REQUIREMENTS.

#### **CONDENSING UNIT INSTALLATION DETAIL - GRADE** NOT TO SCALE

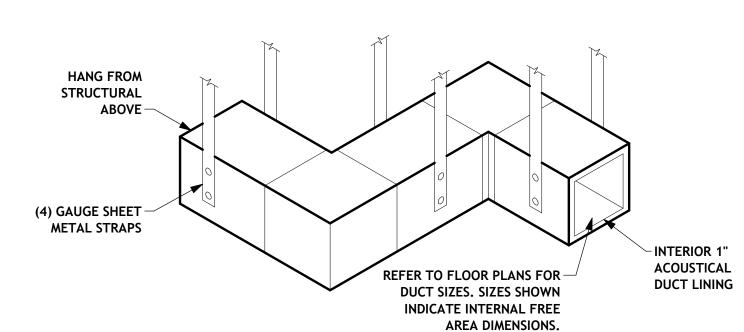
3. MC SHALL SHIM UNIT LEVEL.



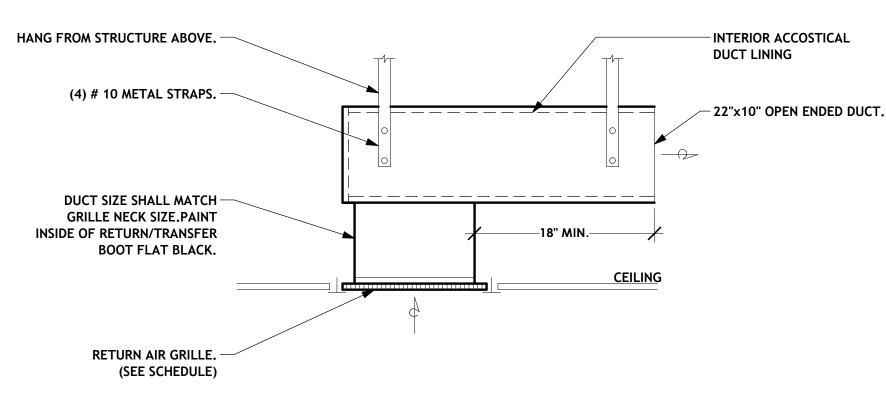
ROOF MOUNTED GRAVITY VENTILATOR DETAIL FLAT ROOF
NOT TO SCALE



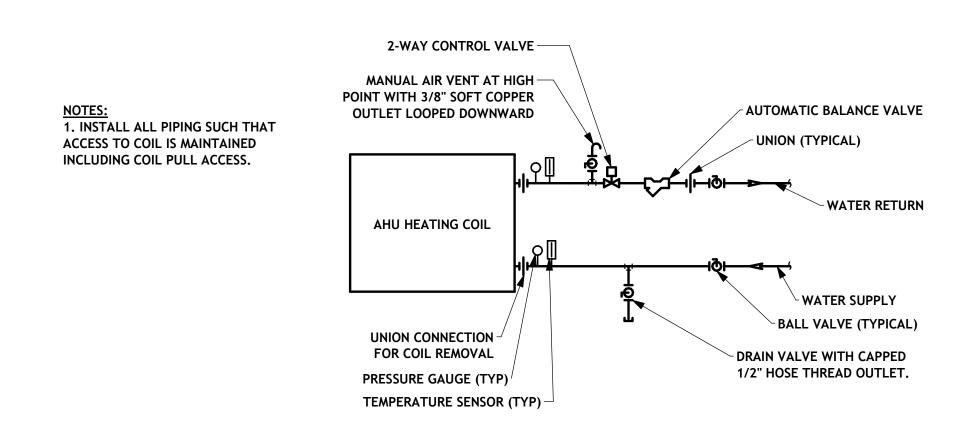
**TERMINAL BOX DETAIL** 



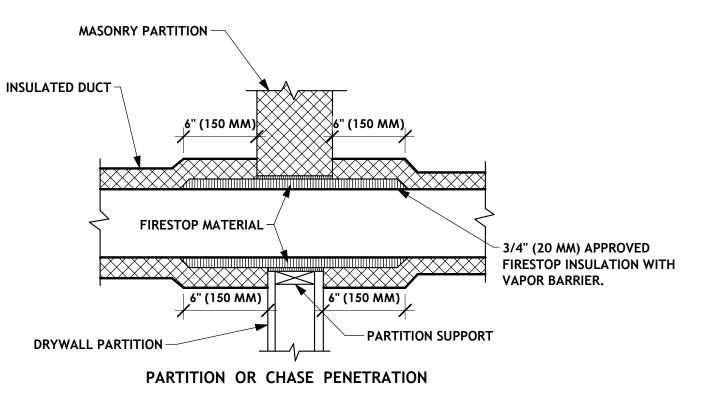
**RETURN 'Z' DUCT AIR BOOT DETAIL** 

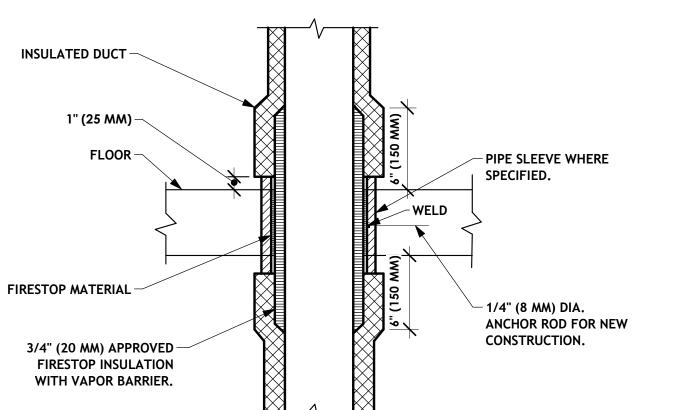


**RETURN AIR BOOT DETAIL** 



AIR HANDLING UNIT HEATING PIPING DIAGRAM NOT TO SCALE





FLOOR OR DECK PENETRATION

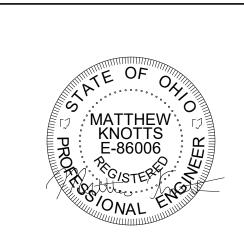
1. APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH NFPA 101. REFER TO SPECIFICATIONS SECTION 07270, FIRE STOPPING SYSTEMS.

# DUCT/PIPE PENETRATION OF FIRE/SMOKE BARRIERS



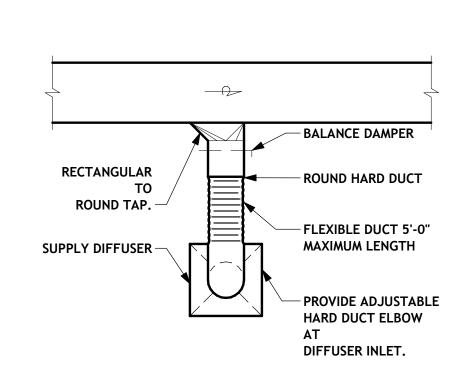
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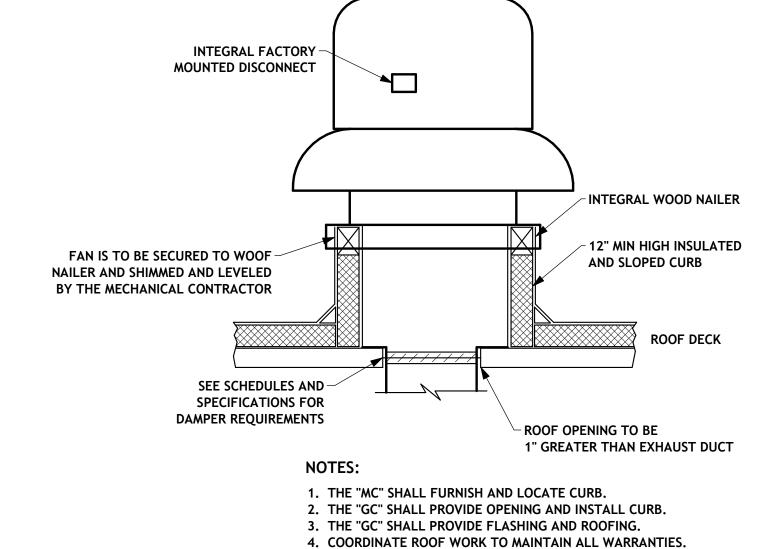


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BIDDING AND PLAN REVIEW	10/15/202
ROJECT NO.	24013.00

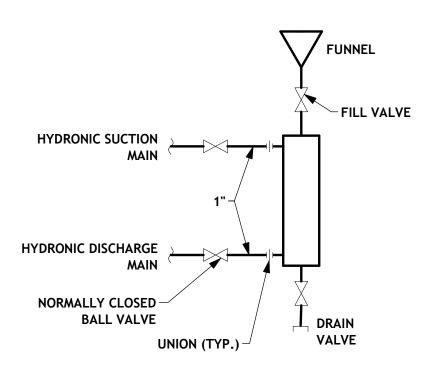
MECHANICAL SCHEDULES AND **DETAILS** 



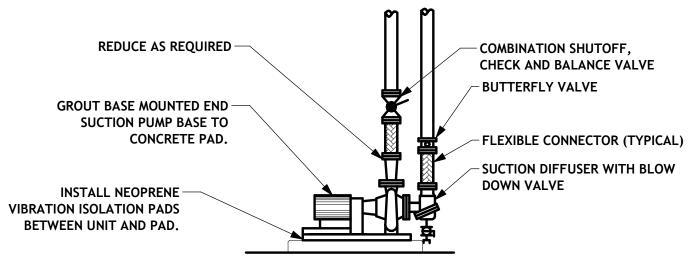
SUPPLY DIFFUSER WITH FLEXIBLE CONNECTOR



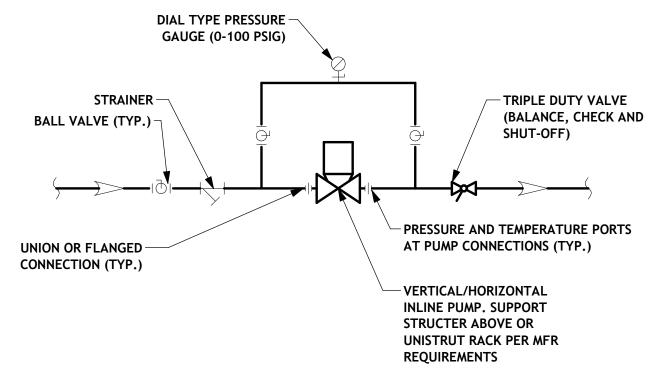
ROOF MOUNTED EXHAUST FAN DETAIL DOWN BLAST



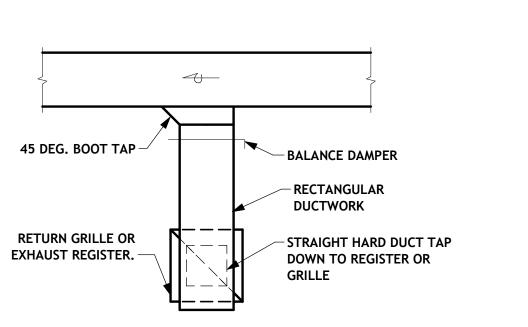
CHEMICAL FEEDER DETAIL
NOT TO SCALE



END SUCTION PUMP DETAIL
NOT TO SCALE

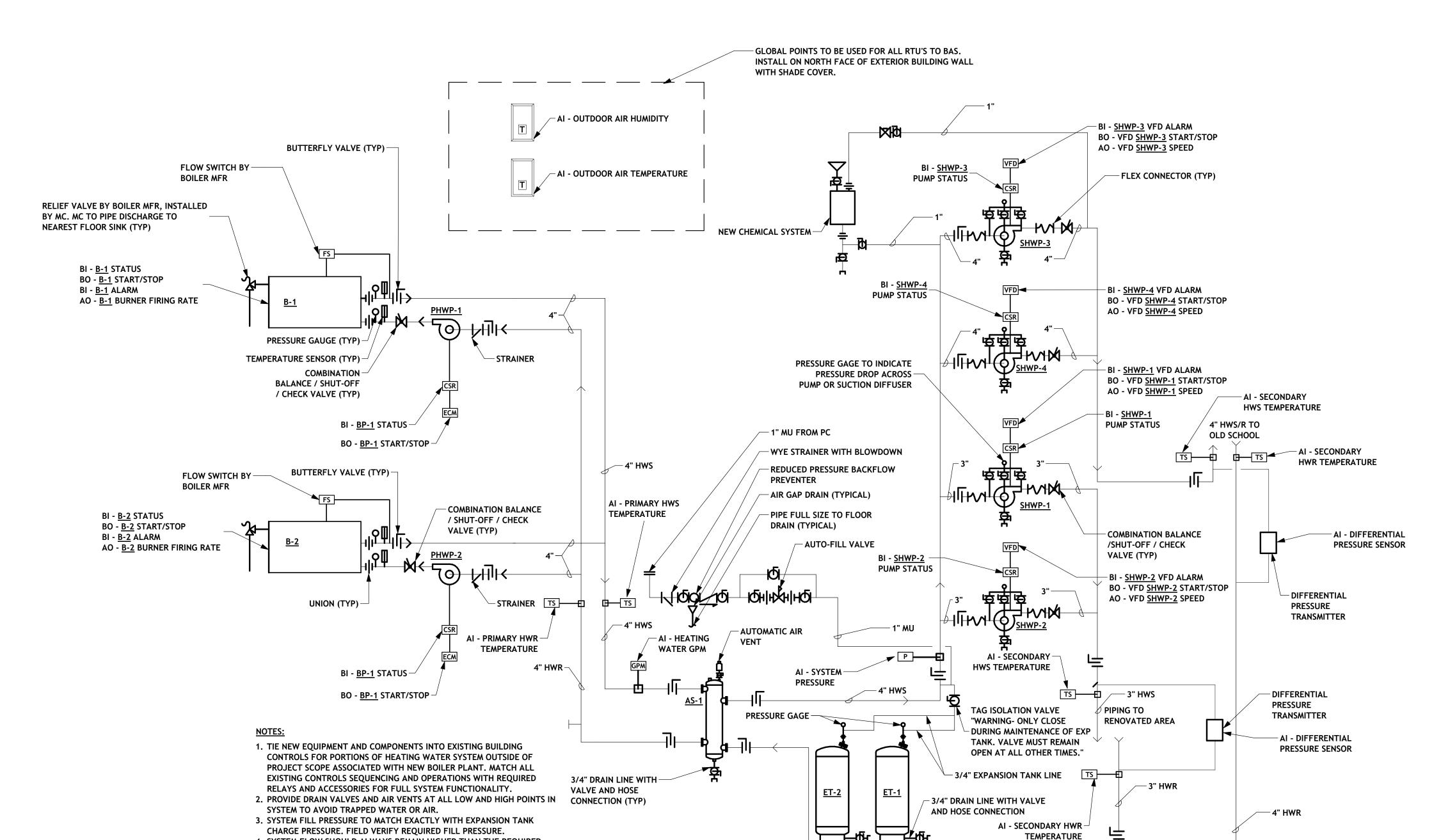


**IN-LINE PUMP DETAIL** 



**RETURN GRILLE OR EXHAUST REGISTER** 

**MECHANICAL** SCHEDULES AND **DETAILS** 



**SEQUENCE OF OPERATIONS:** 

ALL CONTROL POINTS (LISTED AS AI, BI, AO, BO), FLOWS, SENSORS, ETC SHALL BE VISIBLE IN THE BUILDING AUTOMATION SYSTEM AS SHOWN IN THE DIAGRAM AND THIS SEQUENCE. THE OWNER SHALL HAVE FULL TRENDING AND MONITORING CAPABILITIES OF THE HEATING WATER SYSTEM THAT SHALL BE DEMONSTRATED DURING OWNER TRAINING. ADDITIONAL CONTROL POINTS MAY BE REQUIRED BEYOND WHAT IS SHOWN ON THIS DIAGRAM AND ARE TO BE PROVIDED AS NEEDED BY THE FINAL TEMPERATURE CONTROLS VENDOR TO MAINTAIN SEQUENCING LISTED BELOW. ALL CONTROL POINTS LISTED HERE TO BE INCORPORATED INTO BAS BY THE FINAL TEMPERATURE CONTROLS VENDOR SUCH THAT ALL POINTS SHOWN ARE VISIBLE AND ADJUSTABLE (WHERE APPLICABLE) BY THE SYSTEM OPERATOR.

#### **HEATING SYSTEM ENABLE/DISABLE:**

UPON A DROP IN OUTDOOR AIR TEMPERATURE BELOW 70.0 DEG F (ADJ), THE HEATING WATER SYSTEM COMPONENTS SHALL BE ENABLED. SYSTEMS SHALL ALSO BE ENABLED UPON A CALL FOR REHEAT FROM ASSOCIATED AIR HANDLING EQUIPMENT AND VAV TERMINAL UNITS. EQUIPMENT CURRENTLY SCHEDULED TO BE LEAD SHALL BE STARTED AND FACTORY BOILER CONTROLS SHALL OPERATE THE BOILER TO MAINTAIN SETPOINT OF THE PRIMARY SYSTEM HEATING WATER LOOP SET BY THE BAS SYSTEM (ADJ). UPON A RISE IN OUTDOOR AIR TEMPERATURE TO ABOVE 75 DEG F (ADJ), AND WHERE THERE IS NO CALL FOR REHEAT OR DURING UNOCCUPIED MODE, THE HEATING WATER SYSTEM SHALL BE DISABLED AND PUMPS AND BOILERS SHALL CEASE OPERATION.

THE BOILER, BOILER PUMP, AND SECONDARY PUMP LEAD/LAG SEQUENCE SHALL BE BASED ON A WEEKLY SCHEDULE. FROM THE BAS, AN OPERATOR SHALL BE ABLE TO MANUALLY CHANGE THE LEAD/LAG SEQUENCE. REFER TO SEQUENCING FOR EACH SPECIFIC PIECE OF EQUIPMENT BELOW FOR TIMING REQUIREMENTS RELATIVE TO LEAD/LAG START UP/SHUT DOWN.

SHALL BE DISABLED AND THE OPERATIONAL PUMP/BOILER SHALL MAINTAIN OPERATION. ONCE THE ISSUE/ALARM HAS BEEN RESOLVED, THE OPERATOR SHALL HAVE CONTROL TO CLEAR THE ALARM, RE-**ENABLING THE LEAD/LAG SEQUENCE.** 

#### **BOILER CONTROL:**

ONCE THE LEAD BOILER IS ENABLED, THE ADD SEQUENCE OF ADDITIONAL BOILERS SHALL BE DISABLED FOR A PERIOD OF 30 MINUTES (ADJ.). ADDITIONAL BOILERS ARE ADDED IF THE HOT WATER DISTRIBUTION SYSTEM SUPPLY TEMPERATURE FALLS 5.0 DEG. F (ADJ.) BELOW THE HOT WATER SETPOINT FOR A PERIOD OF 10 MINUTES (ADJ.) OR MORE.

180.0 DEG. F (ADJ.) AS THE OUTSIDE AIR TEMPERATURE FALLS FROM 70.0 DEG. F (ADJ.) TO 0.0 DEG. F

#### BOILER PUMPS SHALL RUN IN CONJUNCTION WITH ASSOCIATED BOILER OPERATION BASED ON

THE BAS CONTROLLER SHALL MONITOR THE HOT WATER SYSTEM DIFFERENTIAL PRESSURE TRANSMITTER. WHEN THE PUMP VFD IS ENABLED, THE BAS CONTROLLER SHALL CONTROL THE ANALOG SPEED SIGNAL SENT TO THE PUMP VFD TO MAINTAIN A HOT WATER DIFFERENTIAL PRESSURE SETPOINT AS LOW AS POSSIBLE TO MAINTAIN REQUIRED FLOW TO WORK WITH TAB TO DETERMINE SETPOINT. COORDINATE SETPOINT IN FIELD

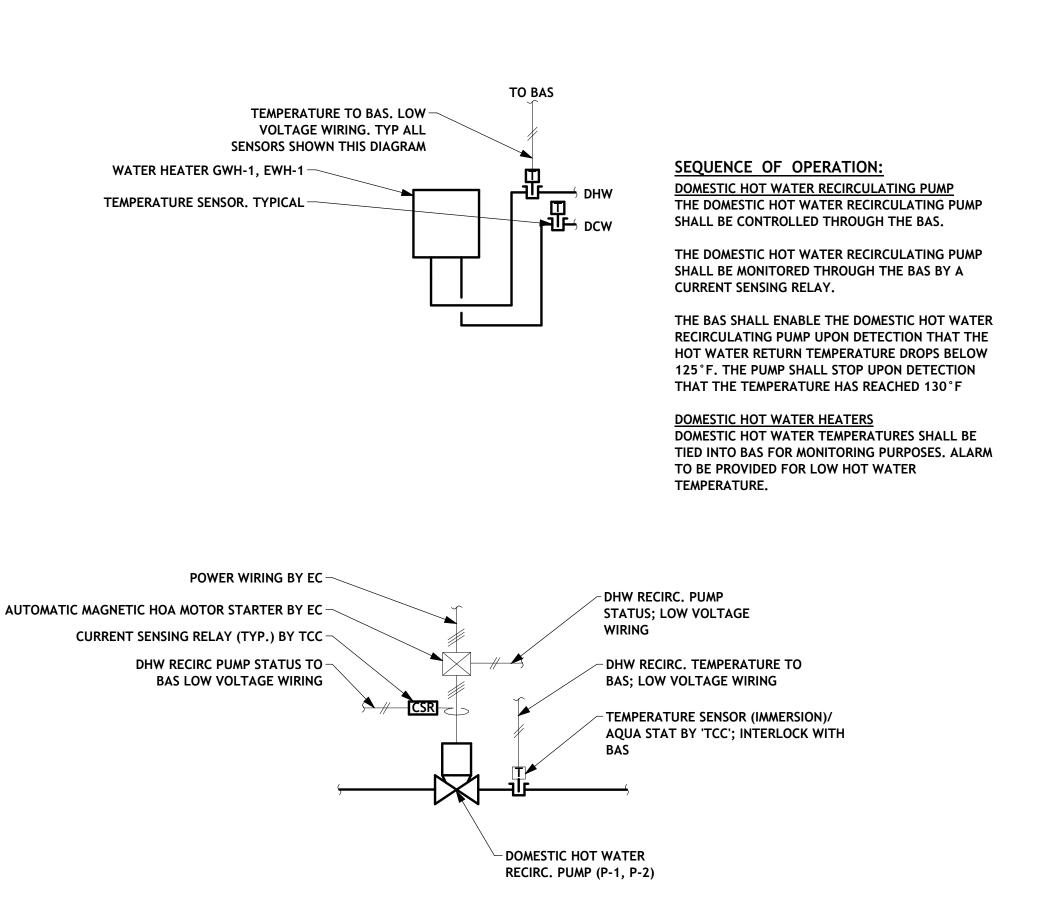
WHEN THE OUTDOOR AIR TEMPERATURE FALLS BELOW 40.0 DEG. F (ADJ.), THE LEAD SECONDARY HOT

SHWP-1,2 DISTRIBUTION SYSTEM SHALL UTILIZE 3-WAY VALVES AT INDICATED VAV'S AND EXISTING 3-WAY VALVES ON EQUIPMENT TO MAINTAIN FLOW OF 10 GPM PENDING FINAL SUBMITTED PUMP.

MAINTAIN MINIMUM 20 GPM FLOW PENDING FINAL SUBMITTED PUMP.

COORDINATE FINAL BYPASS FLOWS WITH FINAL SUBMITTED PUMP MINIMUM FLOWS.

# HEATING WATER SYSTEM PIPING SCHEMATIC AND CONTROLS - ALTERNATE 3



4. SYSTEM FLOW SHOULD ALWAYS REMAIN HIGHER THAN THE REQUIRED FLOW FOR THE BOILER(S) WHEN THE BOILER(S) IS IN OPERATION TO

INSTALLER IS RESPONSIBLE FOR ALL EQUIPMENT. THE INSTALLER MUST FOLLOW ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EACH

6. SHUTOFF VALVES: FOR ALL PIPING OVER 2" IN SIZE, BUTTERFLY SHUTOFF VALVES ARE TO BE UTILIZED. FOR ALL PIPING LESS THAN 2-1/2" IN SIZE,

5. FLOW DIAGRAM IS MEANT TO SHOW PIPING CONCEPTS ONLY, THE

PREVENT SHORT CYCLING AND HIGH LIMIT ISSUES.

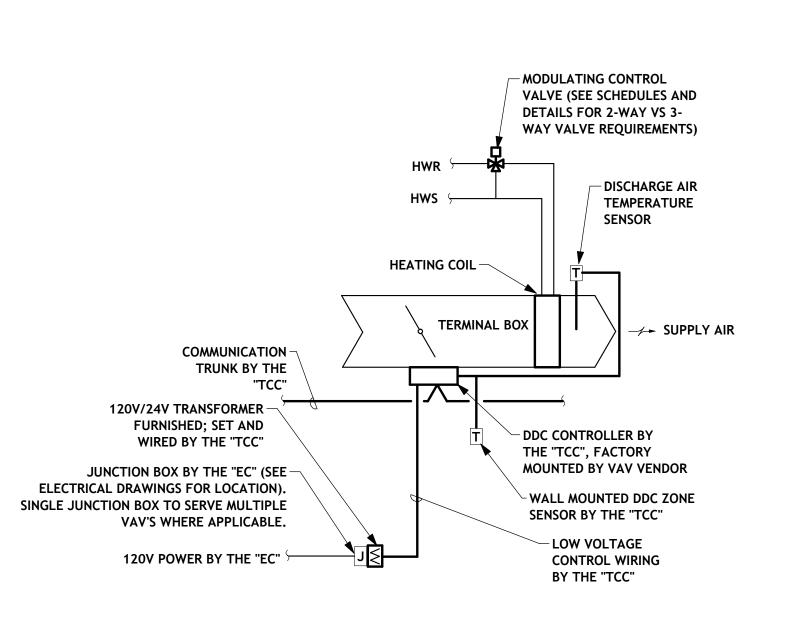
SYSTEM COMPONENT.

BALL VALVES ARE TO BE UTILIZED.

PLUMBING SYSTEM CONTROL DIAGRAM

TE	MPERATURE CONTROL
	<b>ABBREVIATIONS</b>
TAG	EQUIPMENT
ADJ	ADJUSTABLE
AFMS	AIRFLOW MEASURING STATION
AFS	AIR FLOW SWITCH
Al -	ANALOG INPUT - POINT NAME
AO -	ANALOG OUTPUT - POINT NAME
BAS	BUILDING AUTOMATION SYSTEM
BI -	BINARY INPUT - POINT NAME
BO -	BINARY OUTPUT - POINT NAME
СС	HYDRONIC COOLING COIL
СО	DUCT/UNIT CO SENSOR
CO2	DUCT/UNIT CO2 SENSOR
CSR	CURRENT SENSING RELAY
DDC	DIRECT DIGITAL CONTROLS
DD	DUCT DETECTOR
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
DX/C	DX COOLING COIL
EC	ELECTRICAL CONTRACTOR
ECM	ELECTRONICALLY COMMUNATED MOTOR
FP	FILTER DIFFERENTIAL PRESSURE SENSOR
FS	FLOW SWITCH
FSTAT	DUCT MOUNTED FREEZESTAT
GPM	HYDRONIC FLOW SENSOR
Н	DUCT MOUNTED HUMIDITY SENSOR
H/C	ELECTRIC REHEAT COIL
НОА	HAND/OFF/SUTO CONTROLLER
HSP/LSP	DUCT MOUNTED STATIC PRESSURE SENSOR
J	JUNCTION BOX (BY EC)
MC	MECHANICAL CONTRACTOR
Р	DUCT MOUNTED PRESSURE SENSOR
PH/C	HYDRONIC PREHEAT COIL
PPM	PARTS PER MILLION
PS	HYDRONIC PRESSURE MONITOR
RF	RETURN FAN
RH/C	HYDRONIC REHEAT COIL
SD	DUCT/UNIT SMOKE DETECTOR
SF	SUPPLY FAN
Т	DUCT MOUNTED TEMPERATURE SENSOR
TCC	TEMPERATURE CONTROL CONTRACTOR
TS	HYDRONIC TEMPERATURE SENSOR
	1

VARIABLE FREQUENCY DRIVE



#### **SEQUENCE OF OPERATION:**

THE ROOM TEMPERATURE SENSOR WITH LOCALLY ADJUSTABLE SETPOINT SHALL SEND TEMPERATURE AND SETPOINT SIGNALS TO THE UNIT'S DIGITAL CONTROLLER. THE DIGITAL CONTROLLER SHALL OPERATE THE MODULATING TERMINAL UNIT OPERATOR THROUGH THE FLOW CONTROLLER IN A PRESSURE INDEPENDENT MANNER IN SEQUENCE WITH THE HYDRONIC REHEAT COIL MODULATING CONTROL VALVE TO CONTROL AIRFLOW AND SPACE TEMPERATURE. UPON A DROP IN SPACE TEMPERATURE BELOW THE TEMPERATURE SENSOR COOLING SETPOINT, THE UNIT DIGITAL CONTROLLER SHALL REDUCE THE AIRFLOW AS REQUIRED (DOWN TO THE TERMINAL UNIT'S MINIMUM SCHEDULED AIRFLOW) TO MAINTAIN TEMPERATURE SETPOINT. REFER TO DRAWINGS FOR 2-WAY VS 3-WAY CONTROL VALVE REQUIREMENTS.

UPON A FURTHER DROP IN SPACE TEMPERATURE BELOW THE TEMPERATURE SENSOR HEATING SETPOINT, THE UNIT DIGITAL CONTROLLER SHALL MODULATE THE HEATING WATER CONTROL VALVE AT THE MINIMUM SCHEDULED CONSTANT AIRFLOW TO MAINTAIN TEMPERATURE SETPOINT. THE TEMPERATURE SENSOR IN THE SUPPLY AIR DUCT (DOWNSTREAM OF HYDRONIC HEATING COIL) SHALL MODULATE THE HEATING WATER CONTROL VALVE TO LIMIT THE SUPPLY AIR TEMPERATURE TO VALUE LISTED IN VAV TERMINAL UNIT SCHEDULE DEG. F., ADJUSTABLE. IF FURTHER HEATING IS REQUIRED WHITE AT LISTED SETPOINT TEMPERATURE DISCHARGE, BOX MINIMUM TO INCREASE TO PROVIDE MORE AIR TO THE SPACE UP TO UNITS SCHEDULED HEATING AIRFLOW.

THE SYSTEM SHALL HAVE THE CAPABILITY OF REPORTING LOCAL TEMPERATURES BACK TO THE BUILDING AUTOMATION SYSTEM, AND THE SYSTEM SHALL HAVE THE CAPABILITY OF OVERRIDING THE LOCAL TEMPERATURE SETPOINT FROM THE GLOBAL SYSTEM FOR SETBACK OR OTHER ENERGY MANAGEMENT STRATEGIES. DURING UNOCCUPIED OPERATION, THE TERMINAL SHALL CLOSE AND THE HEATING WATER CONTROL VALVE SHALL REMAIN CLOSED TO THE COIL. DURING WARM-UP OR SETBACK MODES, THE TERMINAL SHALL REMAIN OPEN AND THE HEATING WATER CONTROL VALVE SHALL MODULATE TO MAINTAIN SETBACK OR ROOM TEMPERATURE.

# TERMINAL BOX CONTROL DIAGRAM - HOT WATER REHEAT



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**LEAD/LAG SEQUENCING:** 

BOILER/PUMP FAILURE RELATIVE TO LEAD/LAG OPERATION: WHEN A PUMP/BOILER FAILS, AN ALARM SHALL BE ANNUNCIATED AT THE BAS, THE LEAD/LAG AUTOMATION

THE HOT WATER SUPPLY TEMPERATURE SETPOINT SHALL BE LINEARLY RESET FROM 110.0 DEG. F (ADJ.) TO

#### MANUFACTURER REQUIREMENTS.

#### HOT WATER SECONDARY PUMP SPEED:

WITH TAB CONTRACTOR.

PROVIDE HOT WATER CIRCULATION TO ALL ASSOCIATED HOT WATER COILS.

#### **SYSTEM BYPASS:**

SHWP-3,4 DISTRIBUTION SYSTEM SHALL UTILIZE EXISTING DOWNSTREAM 3-WAY VALVES ON EQUIPMENT TO

TEMPERATURE CONTROLS GENERAL NOTE:

- RELIABLE CONTROLS - AUTOMATED LOGIC

- SIEMENS

ALL TEMPERATURE CONTROLS AND ACCESSORIES SHALL BE PROVIDED BY SINGLE VENDOR. ACCEPTABLE VENDORS

**SEQUENCE OF OPERATION:** 

ALARM TO THE BAS.

RUN CONDITIONS - CONTINUOUS (AS SCHEDULED BY OWNER): THE UNIT SHALL RUN PER THE OPERATIONAL SCHEDULE AND SHALL MAINTAIN:

 A 74°F (ADJ.) SETPOINT +/- 2°F • A 50% RELATIVE HUMIDITY SETPOINT WITH +/- 5% RANGE. (COOLING ONLY) ALARMS SHALL BE

PROVIDED AS FOLLOWS: 1. HIGH/LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS GREATER THAN THE TEMPERATURE SETPOINT BY 2°F.

RETURN AIR SMOKE DETECTION: THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A RETURN AIR SMOKE DETECTOR STATUS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

 SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF. SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON. SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.). HIGH RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS GREATER THAN 90°F (ADJ.).

LOW RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS LESS THAN 45°F (ADJ.).

 HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 120°F (ADJ.). LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45°F (ADJ.). HIGH DUCT STATIC PRESSURE: IF POSITIVE PRESSURE EXCEEDS DUCT PRESSURE CLASS RATINGS. • LOW DUCT STATIC PRESSURE: IF NEGATIVE PRESSURE EXCEEDS DUCT PRESSURE CLASS RATINGS.

BUILDING AUTOMATION SYSTEM (BAS) INTERFACE: THE FACTORY UNIT CONTROLLER WILL INTERFACE WITH BACNET.

 ALL TEMPERATURES, PRESSURES, SPEEDS AND DAMPER POSITIONS, TIME FRAMES AND AIR/FLOW QUANTITIES SHALL BE PROGRAMMED AS USER ADJUSTABLE SETPOINTS AND PARAMETERS. HEAD PRESSURE CONTROL: THE CONDENSER HEAD PRESSURE WILL BE MONITORED BY THE UNIT CONTROLLER TO MAINTAIN HEAD PRESSURE AND THE COMPRESSOR OPERATING ENVELOPE AT ALL TIMES TO AVOID HIGH PRESSURE TRIPS ON HIGH LOAD DAYS. CONDENSER FANS WITH ECM MOTORS SHALL BE PROVIDED AS WELL AS FACTORY SENSORS TO PROVIDE THIS PROTECTION COMPRESSOR ENVELOPE CONTROL: THE UNIT CONTROLLER WILL CONTINUALLY MONITOR THE SUCTION AND DISCHARGE PRESSURE AND TEMPERATURE CONDITIONS DURING COMPRESSOR OPERATION. THE UNIT WILL MODULATE THE COMPRESSOR, CONDENSER HEAD PRESSURE, AND

ELECTRONIC EXPANSION VALVE TO MAINTAIN A SAFE COMPRESSOR OPERATING CONDITIONS TO ADD

A DIFFERENTIAL PRESSURE TRANSMITTER (DPT) SHALL BE INSTALLED ACROSS ANY PRE OR FINAL FILTERS AND SHALL MONITOR PRESSURES DURING UNIT OPERATION AND REPORT TO BAS. UPON REACHING SETPOINT DURING NORMAL OPERATION, THE DPT SHALL ANNUNCIATE A DIRTY FILTER

RELIABILITY, AND LIMIT UNIT SHUT DOWN DURING FRINGE OPERATING CONDITIONS.

<u>SUPPLY FAN:</u> THE AHU WILL BE FACTORY SUPPLIED WITH A DIRECT DRIVE SUPPLY FAN. MULTI ZONE VAV: THE SUPPLY FAN WILL OPERATE CONTINUOUSLY BETWEEN A SPECIFIED MINIMUM AND MAXIMUM SPEED. THE UNIT WILL MODULATE THE SUPPLY FAN SPEED BETWEEN THE MINIMUM AND MAXIMUM BASED ON SUPPLY AIR DUCT STATIC PRESSURE SETPOINT (ADJUSTABLE). COORDINATE STATIC PRESSURE SETPOINT SUCH THAT MINIMUM PRESSURE IS MAINTAINED DURING BALANCING PROCESS TO REACH SCHEDULED AIRFLOWS FOR ENERGY SAVINGS.

 PROVIDE UNITS WITH SUPPLY AND RETURN AIRFLOW MEASURING STATIONS TO MONITOR ACTUAL UNIT SUPPLY AND RETURN AIRFLOW QUANTITIES AND REPORT TO BAS.

**OUTSIDE AIR DAMPER CONTROL:** 

 PROPORTIONAL DAMPER RESET: THE UNIT CONTROLLER WILL PROPORTIONALLY MODULATE THE OUTSIDE AIR DAMPERS OPEN AND CLOSED AS THE SUPPLY FAN SPEED CHANGES TO PROVIDE A CONSTANT VOLUME OF FRESH OUTSIDE AIR. PROVIDE UNITS WITH OUTDOOR AIRFLOW MEASURING STATION TO MONITOR ACTUAL UNIT OUTDOOR AIRFLOW QUANTITIES AND REPORT TO BAS.

 DISCHARGE AIR CONTROL: THE UNIT CAPACITY WILL MODULATE THE VARIABLE SPEED COMPRESSOR FOR COOLING OR THE HYDRONIC HEATING COIL CONTROL VALVE FOR HEATING TO MAINTAIN THE UNIT DISCHARGE AIR SET POINT. THE DAT SET POINT (55°F) WILL BE ADJUSTABLE AT THE UNIT CONTROLLER AND THROUGH THE BAS. UNIT CAPACITY WILL BE MODULATED BY THE VARIABLE SPEED COMPRESSOR AND THE MODULATING HYDRONIC HEATING COIL CONTROL VALVE OPERATION. • COOLING DAT RESET: THE COOLING DAT SETPOINT MAY BE RESET BY THE SPACE TEMP, RETURN

TEMP, OAT OR EXTERNAL VOLTAGE/MA SIGNALS. A LINEAR RELATIONSHIP BETWEEN THE DAT AND THE RESET VARIABLE WILL BE CREATED FOR THE MINIMUM AND MAXIMUM DAT SETPOINTS. AS THE RESET VARIABLE CHANGES THE DAT WILL ADJUST ACCORDING TO THE RELATIONSHIP.

IF AIR TEMPERATURE AT THE FREEZE STAT SENSOR LOCATION FALLS BELOW 40 DEG F (ADJ), AN

ALARM SHALL BE ANNUNCIATED AT THE BAS AND UNIT OUTDOOR AIR DAMPER SHALL CLOSE. UPON A FURTHER TEMPERATURE DROP TO BELOW 36 DEGREES F (ADJ) AT FREEZE STAT SENSOR LOCATION, HEATING WATER CONTROL VALVE TO BE OPEN A MINIMUM OF 50% AND UNIT SUPPLY FAN SHALL SHUT DOWN THROUGH A HARD WIRED CONNECTION. **ECONOMIZER:** A COMPARATIVE ENTHALPY (SELECTABLE OPTION) SHALL BE ENGAGED WHENEVER THE

OUTDOOR ENTHALPY OR DRY BULB IS LESS THAN THE RETURN AIR ENTHALPY OR DRY BULB TO UTILIZE OUTSIDE AIR FOR COOLING. OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SET POINT.

RELIEF FAN CONTROL: RELIEF FANS SHALL BE DIRECT DRIVE ELECTRICALLY COMMUTATED MOTOR(S) (ECM). RELIEF CONTROL OPTIONS ARE AS FOLLOWS:

 OUTDOOR AIR DAMPER TRACKING: THE RELIEF FAN(S) WILL ACTIVATE BASED ON THE OUTSIDE AIR DAMPER POSITION AND WILL MODULATE BETWEEN AN ADJUSTABLE MINIMUM AND MAXIMUM AS THE OA DAMPER OPENS TO PROVIDE RELIEF.

 SPACE PRESSURE SETPOINT: THE RELIEF FAN(S) WILL ACTIVATE BASED ON THE SPACE PRESSURE RELATIVE TO OUTDOORS AND WILL MODULATE BETWEEN AN ADJUSTABLE MINIMUM AND MAXIMUM AS THE OA DAMPER OPENS TO PROVIDE RELIEF TO MAINTAIN A SETPOINT OF 0.01" POSITIVE **RELATIVE TO THE OUTDOORS.** 

 DURING SCHEDULED UNOCCUPIED HOURS THE OUTDOOR AIR AND RELIEF AIR DAMPERS SHALL REMAIN CLOSED AND SUPPLY AND RELIEF FANS SHALL BE OFF.

 UPON A DROP IN SPACE TEMPERATURE BELOW 61 DEG F (ADJ), THE UNIT SUPPLY FAN SHALL TURN ON AND THE UNIT HYDRONIC HEATING COIL CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE OF 66 DEG F (ADJ).

 UPON A RISE IN SPACE TEMPERATURE ABOVE 82 DEG F (ADJ), THE UNIT SUPPLY FAN SHALL TURN ON AND THE UNIT UNIT DX COIL/VARIABLE SPEED COMPRESSOR SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE OF 78 DEG F (ADJ).

HIGH AND LOW DUCT STATIC PRESSURE SENSORS WHEN HIGH STATIC PRESSURE SENSOR (SUPPLY) OR LOW STATIC PRESSURE SENSOR (RETURN) REACH PRESSURES SET AS ALARM, FANS SHALL DISCONTINUE OPERATION, OUTDOOR AIR DAMPERS SHALL CLOSE AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS.

OPTIMAL START (MORNING WARM UP/PRECOOL MODES): DURING OPTIMAL START, IF THE AVERAGE SPACE TEMPERATURE IS BELOW SETPOINT, THE UNIT SHALL OPERATE IN COOLING MODE WITH OUTDOOR AIR AND RELIEF AIR DAMPERS FULLY CLOSED AND RETURN AIR DAMPER

THE OCCUPIED HEATING SETPOINT, THE UNIT SHALL OPERATE IN HEATING MODE WITH OUTDOOR AIR AND RELIEF AIR DAMPERS FULLY CLOSED AND RETURN AIR DAMPER FULLY OPENED. UNIT SHALL OPERATE IN HEATING MODE UNTIL OCCUPIED SETPOINT IS REACHED. IF THE AVERAGE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING

TRANSITION TO OCCUPIED MODE, ALL VAV TERMINAL UNITS SHALL BE

FULLY OPENED DURING OPTIMAL START MODES.

FULLY OPENED UNTIL SPACE TEMPERATURE REACHES OCCUPED COOLING ONCE OCCUPIED SETPOINT IS REACHED FOR EITHER MODE, UNIT SHALL

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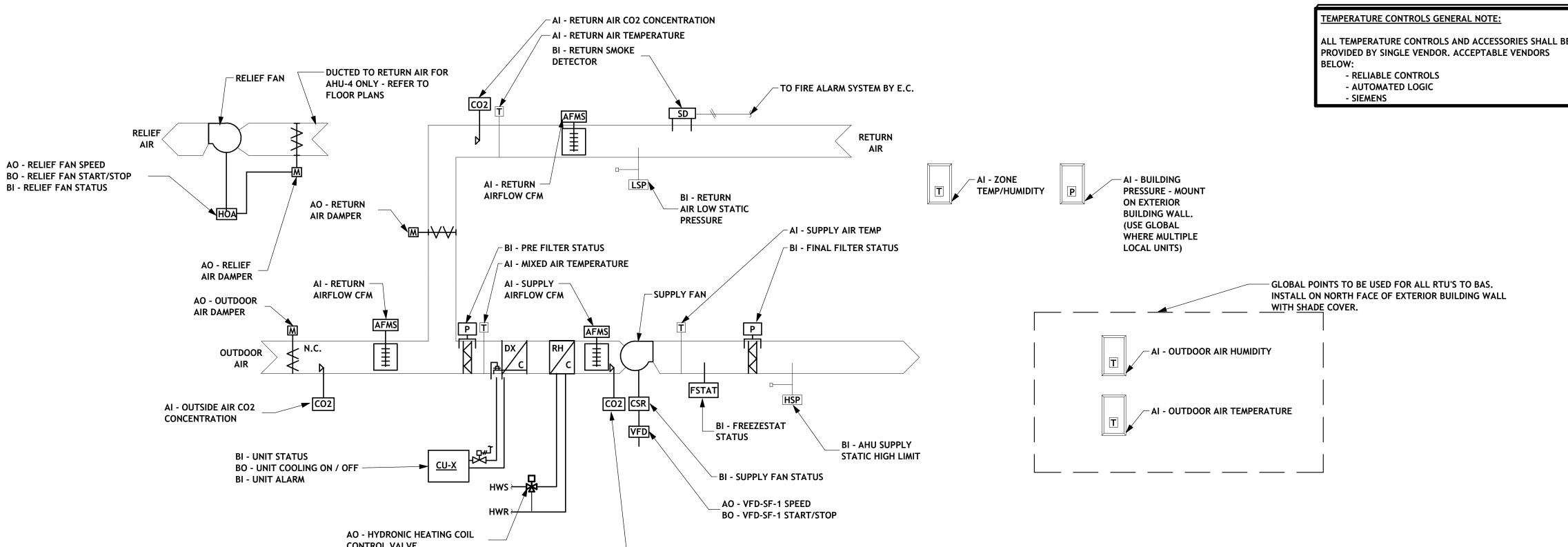
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BIDDING AND PLAN REVIEW

PROJECT NO. 24013.000

**MECHANICAL SCHEDULES AND DETAILS** 

AHU CONTROL DIAGRAM MULTI ZONE (AHU-1, AHU-2)



RUN CONDITIONS - CONTINUOUS (AS SCHEDULED BY OWNER): THE UNIT SHALL RUN PER THE OPERATIONAL SCHEDULE AND SHALL MAINTAIN:

• A 50% RELATIVE HUMIDITY SETPOINT WITH +/- 5% RANGE. (COOLING ONLY) ALARMS SHALL BE PROVIDED AS FOLLOWS:

1. HIGH/LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS GREATER THAN THE TEMPERATURE SETPOINT BY 2°F.

ZONE SETPOINT ADJUST: ZONE TEMPERATURE SETPOINT ADJUSTMENT SHALL BE ENABLED THROUGH THE ZONE SENSOR WITH ADJUSTMENT UP TO +/- 5°F. RETURN AIR SMOKE DETECTION: THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A RETURN AIR SMOKE DETECTOR STATUS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

• SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF. SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.

• SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.). HIGH RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS GREATER THAN 90°F (ADJ.).

 LOW RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS LESS THAN 45°F (ADJ.). HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 120°F (ADJ.).

 LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45°F (ADJ.). HIGH DUCT STATIC PRESSURE: IF POSITIVE PRESSURE EXCEEDS DUCT PRESSURE CLASS RATINGS.

LOW DUCT STATIC PRESSURE: IF NEGATIVE PRESSURE EXCEEDS DUCT PRESSURE CLASS RATINGS.

**UNIT CONTROLS:** 

BUILDING AUTOMATION SYSTEM (BAS) INTERFACE: THE FACTORY UNIT CONTROLLER WILL INTERFACE WITH BACNET.

ALL TEMPERATURES, PRESSURES, SPEEDS AND DAMPER POSITIONS, TIME FRAMES AND AIR/FLOW QUANTITIES SHALL BE PROGRAMMED AS USER ADJUSTABLE

 HEAD PRESSURE CONTROL: THE CONDENSER HEAD PRESSURE WILL BE MONITORED BY THE UNIT CONTROLLER TO MAINTAIN HEAD PRESSURE AND THE COMPRESSOR OPERATING ENVELOPE AT ALL TIMES TO AVOID HIGH PRESSURE TRIPS ON HIGH LOAD DAYS. CONDENSER FANS WITH ECM MOTORS SHALL BE PROVIDED AS WELL AS

FACTORY SENSORS TO PROVIDE THIS PROTECTION. • COMPRESSOR ENVELOPE CONTROL: THE UNIT CONTROLLER WILL CONTINUALLY MONITOR THE SUCTION AND DISCHARGE PRESSURE AND TEMPERATURE CONDITIONS DURING COMPRESSOR OPERATION. THE UNIT WILL MODULATE THE COMPRESSOR, CONDENSER HEAD PRESSURE, AND ELECTRONIC EXPANSION VALVE TO MAINTAIN A SAFE COMPRESSOR OPERATING CONDITIONS TO ADD RELIABILITY, AND LIMIT UNIT SHUT DOWN DURING FRINGE OPERATING CONDITIONS.

FILTER STATUS: A DIFFERENTIAL PRESSURE TRANSMITTER (DPT) SHALL BE INSTALLED ACROSS ANY PRE OR FINAL FILTERS AND SHALL MONITOR PRESSURES DURING UNIT OPERATION AND REPORT TO BAS. UPON REACHING SETPOINT DURING NORMAL OPERATION, THE DPT SHALL ANNUNCIATE A DIRTY FILTER ALARM TO THE BAS.

SUPPLY FAN: THE AHU WILL BE FACTORY SUPPLIED WITH A DIRECT DRIVE SUPPLY FAN. • SINGLE ZONE VAV: THE SUPPLY FAN WILL OPERATE CONTINUOUSLY BETWEEN A SPECIFIED MINIMUM AND MAXIMUM SPEED. THE UNIT WILL MODULATE THE SUPPLY FAN BETWEEN THE MINIMUM AND MAXIMUM BASED ON HOW NEAR OR FAR THE CONTROL TEMPERATURE (TYPICALLY SPACE OR RETURN TEMP) IS AWAY FROM

• PROVIDE UNITS WITH SUPPLY AND RETURN AIRFLOW MEASURING STATIONS TO MONITOR ACTUAL UNIT SUPPLY AND RETURN AIRFLOW QUANTITIES AND REPORT TO

 PROPORTIONAL DAMPER RESET: THE UNIT CONTROLLER WILL PROPORTIONALLY MODULATE THE OUTSIDE AIR DAMPERS OPEN AND CLOSED AS THE SUPPLY FAN SPEED CHANGES TO PROVIDE A CONSTANT VOLUME OF FRESH OUTSIDE AIR. PROVIDE UNITS WITH OUTDOOR AIRFLOW MEASURING STATION TO MONITOR ACTUAL

AI - SUPPLY AIR CO: CONCENTRATION

UNIT OUTDOOR AIRFLOW QUANTITIES AND REPORT TO BAS.

• UPON AN INCREASE IN SPACE TEMPERATURE ABOVE SETPOINT, THE UNIT CAPACITY WILL MODULATE THE VARIABLE SPEED COMPRESSOR/DX COIL TO MAINTAIN THE UNIT COOLING DISCHARGE AIR SET POINT. THE COOLING DAT SET POINT WILL BE ADJUSTABLE AT THE UNIT CONTROLLER. UNIT CAPACITY WILL BE MODULATED BY THE VARIABLE SPEED COMPRESSOR OPERATION AND SHALL REMAIN IN OPERATION UNTIL SPACE TEMPERATURE SETPOINT HAS BEEN SATISFIED BEYOND HIGH LIMITS OF SETPOINT DEADBAND AT OR BELOW ACTUAL SETPOINT

COOLING DAT RESET: THE COOLING DAT SETPOINT MAY BE RESET BY THE SPACE TEMP, RETURN TEMP, OAT OR EXTERNAL VOLTAGE/MA SIGNALS. A LINEAR

CONTROL VALVE TO MAINTAIN HEATING DISCHARGE AIR TEMPERATURE UNTIL SETPOINT IS SATISFIED ABOVE ACTUAL SPACE TEMPERATURE SETPOINT.

RELATIONSHIP BETWEEN THE DAT AND THE RESET VARIABLE WILL BE CREATED FOR THE MINIMUM AND MAXIMUM DAT SETPOINTS. AS THE RESET VARIABLE CHANGES THE DAT WILL ADJUST ACCORDING TO THE RELATIONSHIP UPON A DROP IN SPACE TEMPERATURE BELOW THE TEMPERATURE SENSOR COOLING SETPOINT, THE UNIT SHALL REDUCE AIRFLOW AS REQUIRED DOWN TO UNIT'S MINIMUM SCHEDULED AIRFLOW REQUIRED FOR PRESSURIZATION OR VENTILATION PURPOSES TO MAINTAIN SPACE TEMPERATURE SETPOINT. UPON A FURTHER DROP IN SPACE TEMPERATURE BELOW SETPOINT, THE UNIT SHALL MODULATE THE HYDRONIC HEATING COIL CONTROL VALVE TO MAINTAIN HEATING DISCHARGE

AIR TEMPERATURE AND SHALL OPERATE UNTIL SPACE TEMPERATURE SETPOINT HAS BEEN SATISFIED BEYOND LOW LIMITS OF SETPOINT DEADBAND AT OR ABOVE

ACTUAL SETPOINT. IF TEMPERATURE CONTINUES TO DECREASE, UNIT SHALL INCREASE AIRFLOW AS REQUIRED WHILE MODULATING THE HYDRONIC HEATING COIL

IF AIR TEMPERATURE AT THE FREEZE STAT SENSOR LOCATION FALLS BELOW 40 DEG F (ADJ), AN ALARM SHALL BE ANNUNCIATED AT THE BAS AND UNIT OUTDOOR AIR DAMPER SHALL CLOSE. UPON A FURTHER TEMPERATURE DROP TO BELOW 36 DEGREES F (ADJ) AT FREEZE STAT SENSOR LOCATION, HEATING WATER CONTROL VALVE TO BE OPEN A MINIMUM OF 50% AND UNIT SUPPLY FAN SHALL SHUT DOWN THROUGH A HARD WIRED CONNECTION.

DURING OPERATION WHERE SPACE TEMPERATURE IS SATISFIED AND NO CALL FOR HEATING OR COOLING EXISTS AND RETURN AIR HUMIDITY RISES ABOVE 55% RH (ADJ), AHU SHALL MAINTAIN RETURN AIR HUMIDITY BY MODULATING THE DX COOLING COIL TO REDUCE COOLING COIL LAT TO 55 DEG F (ADJ) AND MODULATING THE HYDRONIC HEATING COIL CONTROL VALVE TO REHEAT TEMPERATURE BACK TO 72 DEG F (ADJ) TO DEHUMIDIFY THE AIR UNTIL RA HUMIDITY IS LESS THAN OR EQUAL TO 50% RH (ADJ).

ECONOMIZER: A COMPARATIVE ENTHALPY (SELECTABLE OPTION) SHALL BE ENGAGED WHENEVER THE OUTDOOR ENTHALPY OR DRY BULB IS LESS THAN THE RETURN AIR ENTHALPY OR DRY BULB TO UTILIZE OUTSIDE AIR FOR COOLING. OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SET POINT.

• DURING SCHEDULED UNOCCUPIED HOURS THE OUTDOOR AIR AND RELIEF AIR DAMPERS SHALL REMAIN CLOSED AND SUPPLY AND RELIEF FANS SHALL BE OFF. UPON A DROP IN SPACE TEMPERATURE BELOW 61 DEG F (ADJ), THE UNIT SUPPLY FAN SHALL TURN ON AND THE UNIT HYDRONIC HEATING COIL CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE OF 66 DEG F (ADJ).

• UPON A RISE IN SPACE TEMPERATURE ABOVE 82 DEG F (ADJ), THE UNIT SUPPLY FAN SHALL TURN ON AND THE UNIT UNIT DX COIL/VARIABLE SPEED COMPRESSOR SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE OF 78 DEG F (ADJ).

AHU CONTROL DIAGRAM SINGLE ZONE (AHU-3 THRU 6) NOT TO SCALE

RELIEF FAN CONTROL: RELIEF FANS SHALL BE DIRECT DRIVE ELECTRICALLY COMMUTATED MOTOR(S) (ECM). RELIEF CONTROL OPTIONS ARE AS FOLLOWS:

• OUTDOOR AIR DAMPER TRACKING: THE RELIEF FAN(S) WILL ACTIVATE BASED ON THE OUTSIDE AIR DAMPER POSITION AND WILL MODULATE BETWEEN AN ADJUSTABLE MINIMUM AND MAXIMUM AS THE OA DAMPER OPENS TO PROVIDE RELIEF. • SPACE PRESSURE SETPOINT: THE RELIEF FAN(S) WILL ACTIVATE BASED ON THE SPACE PRESSURE RELATIVE TO OUTDOORS AND WILL MODULATE BETWEEN AN ADJUSTABLE MINIMUM AND MAXIMUM AS THE OA DAMPER OPENS TO PROVIDE RELIEF TO MAINTAIN A SETPOINT OF 0.01" POSITIVE RELATIVE TO THE OUTDOORS.

HIGH AND LOW DUCT STATIC PRESSURE SENSORS:

WHEN HIGH STATIC PRESSURE SENSOR (SUPPLY) OR LOW STATIC PRESSURE SENSOR (RETURN) REACH PRESSURES SET AS ALARM, FANS SHALL DISCONTINUE OPERATION, OUTDOOR AIR DAMPERS SHALL CLOSE AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS.

OPTIMAL START (MORNING WARM UP/PRECOOL MODES):

DURING OPTIMAL START, IF THE AVERAGE SPACE TEMPERATURE IS BELOW THE OCCUPIED HEATING SETPOINT, THE UNIT SHALL OPERATE IN HEATING MODE WITH OUTDOOR AIR AND RELIEF AIR DAMPERS FULLY CLOSED AND RETURN AIR DAMPER FULLY OPENED. UNIT SHALL OPERATE IN HEATING MODE UNTIL OCCUPIED SETPOINT IS REACHED.

IF THE AVERAGE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT, THE UNIT SHALL OPERATE IN COOLING MODE WITH OUTDOOR AIR AND RELIEF AIR DAMPERS FULLY CLOSED AND RETURN AIR DAMPER FULLY OPENED UNTIL SPACE TEMPERATURE REACHES OCCUPED COOLING SETPOINT.

ONCE OCCUPIED SETPOINT IS REACHED FOR EITHER MODE, UNIT SHALL TRANSITION TO OCCUPIED MODE.

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REFERENCE NOTES

NEW WORK LIGHTING PLAN.

(THESE NOTES APPLY

TO THIS PLAN ONLY) EXISTING LIGHT FIXTURE SHALL BE REMOVED BY THE 'EC'. EXISTING OUTLET BOX SHALL REMAIN FOR NEW LIGHT FIXTURE AT THE SAME / SIMILAR LOCATION PER

#### **DEMOLITION NOTES:**

- 1. THIS PLAN REPRESENTS THE ELECTRICAL EXISTING CONDITIONS AND THE INTENT OF THE ELECTRICAL DEMOLITION AND REMOVAL OF THE EXISTING ELECTRICAL FOR THE REMODELING. THE "EC" SHALL REMOVE AND/OR RELOCATE ALL ITEMS SHOWN 'DARK DASHED' ON THE PLAN. ALL ITEMS SHOWN 'LIGHT SOLID' SHALL REMAIN. ANY ITEMS NOT INDICATED ON PLAN THAT NEED REMOVED OR RELOCATED IN ORDER FOR DEMOLITION TO BE ACCOMPLISHED SHALL BE THE RESPONSIBILITY OF THE "EC". IF ANY CIRCUITS ARE INTERRUPTED DURING DEMOLITION, THE "EC" SHALL ALSO BE RESPONSIBLE FOR ALL NECESSARY REWIRING OR REROUTING TO INSURE THAT ALL DEVICES AND FIXTURES ARE IN WORKING ORDER WHEN PROJECT IS COMPLETE.
- 2. ALL EXISTING UNUSED CONDUIT AND WIRING, INCLUDING VOICE / DATA, ETC., SHALL BE REMOVED TO SATISFY THE ELECTRICAL INSPECTOR AND ALL LOCAL AUTHORITIES.
- 3. CONDUITS WHICH ARE CONCEALED AND THEREFORE UNACCESSIBLE MAY BE ABANDONED IN PLACE. HOWEVER, ALL WIRING MUST BE REMOVED AND CONDUIT ENDS SHALL BE PLUGGED (CAPPED), ABANDONED CONDUIT MUST NOT INTERFERE WITH NEW CONSTRUCTION AND MUST REMAIN CONCEALED. PATCH WALLS / CEILINGS / FLOORS TO MATCH EXISTING SURFACES.
- 4. ALL EXISTING CONDUIT AND WIRING THAT IS TO REMAIN MUST COMPLY WITH THE APPLICABLE ELECTRICAL CODES. ANY MODIFICATIONS REQUIRED SHALL BE INCLUDED IN THE ELECTRICAL CONTRACT. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING ITEMS: SUPPORTING OF CONDUIT AND/OR CABLE, SPLICING OF CONDUCTORS IN PANELBOARD, BLANK COVERS ON JUNCTION BOXES, SUPPORTING OF LIGHT FIXTURES. NECESSARY SITE INSPECTIONS SHALL BE DONE TO CLARIFY THIS EXACT SCOPE OF WORK
- 5. THE "EC" SHALL PROVIDE BLANK COVER PLATES OVER ANY AND ALL WIRING DEVICES THAT ARE TO BE REMOVED IN THE WALLS WHERE NO WALL REMODELING / RENOVATION IS TO TAKE PLACE.
- 6. THE "EC" SHALL PATCH ALL OPENINGS AND HOLES IN EXISTING WALLS / FLOOR (CAUSED BY HIM / HER IN THE PERFORMANCE OF HIS / HER WORK) TO MATCH THE SURROUNDING SURFACE AND TO MAINTAIN THE FIRE INTEGRITY OF SAID WALLS / FLOOR.
- 7. THE "EC" SHALL TRACE AND IDENTIFY ALL EXISTING CIRCUITS THAT ARE TO REMAIN AND PROVIDE NEW TYPEWRITTEN DIRECTORIES IN EXISTING PANELS TO IDENTIFY AREA AND DEVICE ON CIRCUIT. "THERE SHALL BE NO UNKNOWN CIRCUITS".
- 8. THE "EC" SHALL CONSULT WITH THE OWNER AS TO THE DISPOSITION OF ALL REMOVED ELECTRICAL EQUIPMENT (FIXTURES, SWITCHES, STARTERS, WIRING DEVICES, CIRCUIT BREAKERS, ETC). ELECTRICAL EQUIPMENT WHICH OWNER DOES NOT DESIRE TO RETAIN SHALL BE REMOVED FROM THE PREMISES BY THE "EC".

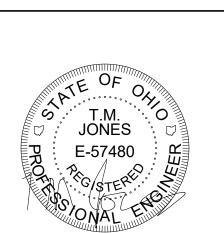
F======== L = 4L = 4L = 4L = 4 L \_ \_ # \_ # \_ # \_ # \_ # EXISTING DEVICE / EQUIPMENT
SHOWN "DARK DASHED" SHALL
BE REMOVED BY THE 'EC'
ALONG WITH ASSOCIATED
CONDUIT / WIRING (TYPICAL). EXISTING DEVICE / EQUIPMENT SHOWN "LIGHT SOLID" SHALL REMAIN AND BE MAINTAINED 

> **LOWER LEVEL - LIGHTING PLAN (DEMOLITION)** SCALE: 1/8" = 1'-0"



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ROJECT NO.	24013.000		

LOWER LEVEL -LIGHTING PLAN (DEMOLITION)

1> EXISTING LIGHT FIXTURE SHALL BE REMOVED BY THE 'EC'. EXISTING OUTLET BOX SHALL REMAIN FOR NEW LIGHT FIXTURE AT THE SAME / SIMILAR LOCATION PER NEW WORK LIGHTING PLAN.

**DEMOLITION NOTES:** 

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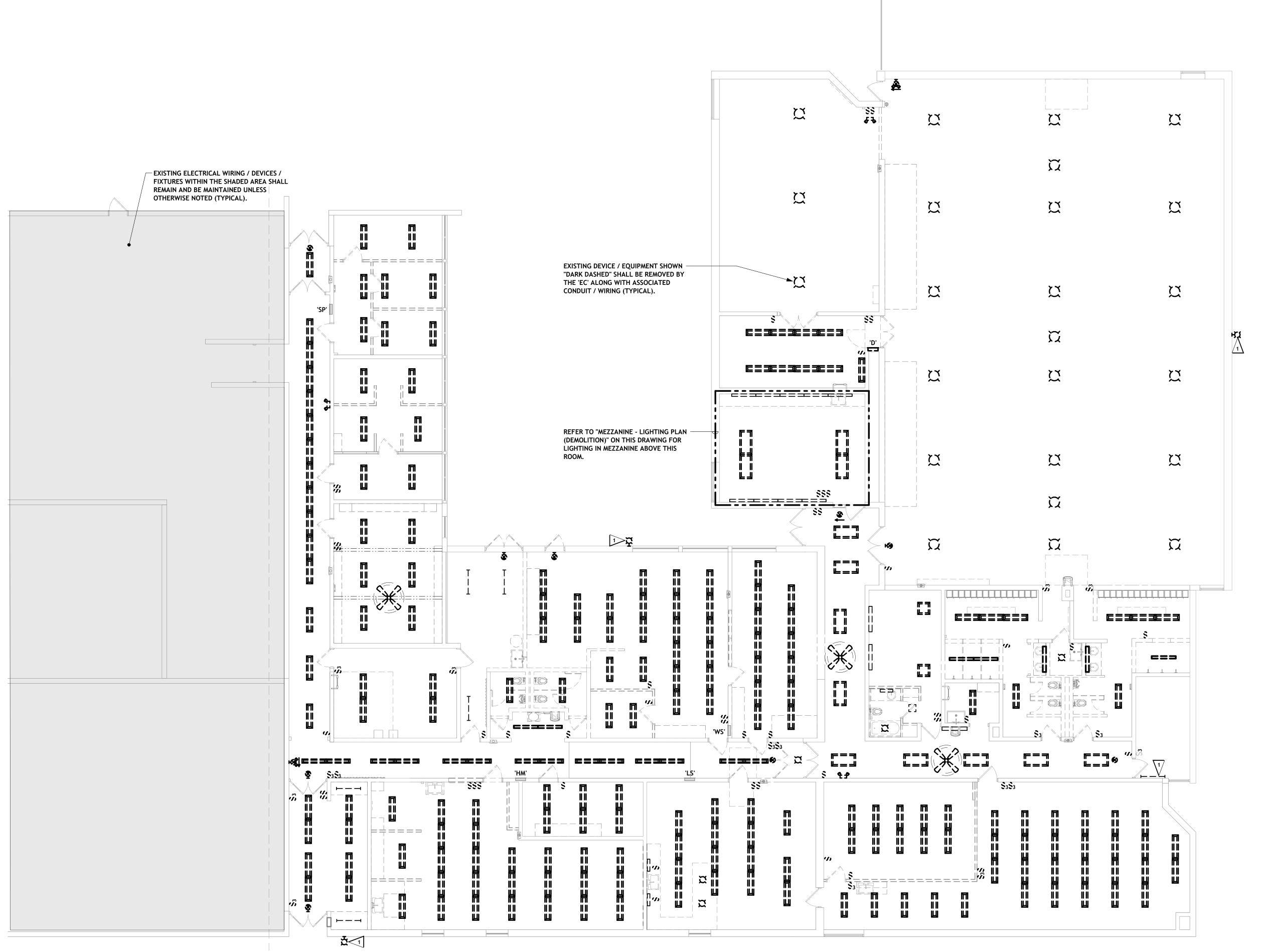
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**MEZZANINE - LIGHTING PLAN (DEMOLITION)** 

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ISSUE / REVISION	DATE
BIDDING AND PLAN REVIEW	10/15/202
PROJECT NO.	24013.00

UPPER LEVEL -LIGHTING PLAN (DEMOLITION)

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**GENERAL NOTES** 

- 1. WIRING DEVICES INDICATED EXISTING TO REMAIN SHALL BE REPLACED WITH NEW DEVICES AND COVER PLATES.
- 2. BOXES FOR SAME SHALL REMAIN AND BE REUSED.
- 3. RECIRCUIT DEVICES AS INDICATED ON NEW WORK PLANS.
- 4. THE 'EC' SHALL PROVIDE THE FOLLOWING SERVICES IN THE BASE BID AT 11 E. MAIN ST., CARROLLTON, OH: CARROLL COUNTY EMERGENCY MAINTENANCE AGENCY
- A. DISCONNECT, REMOVE, AND TRANSPORT ONE (1) 20KW, 120/240V, 1-PHASE, 3-WIRE, RESIDENTIAL LIQUID PROPANE GENERATOR LOCATED OUTDOORS TO THE NEW PROJECT SITE FOR REINSTALLATION.
- B. DISCONNECT, REMOVE, AND TRANSPORT ONE (1) 200A, 120/240V, 1-PHASE, 3-WIRE, AUTOMATIC TRANSFER SWITCH (ATS) LOCATED OUTDOORS NEXT TO THE GENERATOR TO THE NEW PROJECT SITE FOR REINSTALLATION.
- C. DISCONNECT, REMOVE, AND TRANSPORT ONE (1) 120-GALLON LIQUID PROPANE TANK LOCATED OUTDOORS NEXT TO THE GENERATOR TO THE NEW PROJECT SITE FOR REINSTALLATION.
- D. REWORK THE NORMAL POWER LINE SIDE FEEDER (100A) FROM THE REMOVED ATS TO THE EMERGENCY PANEL LOCATED ON THE SECOND FLOOR OF THE FACILITY AND RELABEL THE PANEL AS NORMAL POWER PANEL '2B'.

REFERENCE NOTES

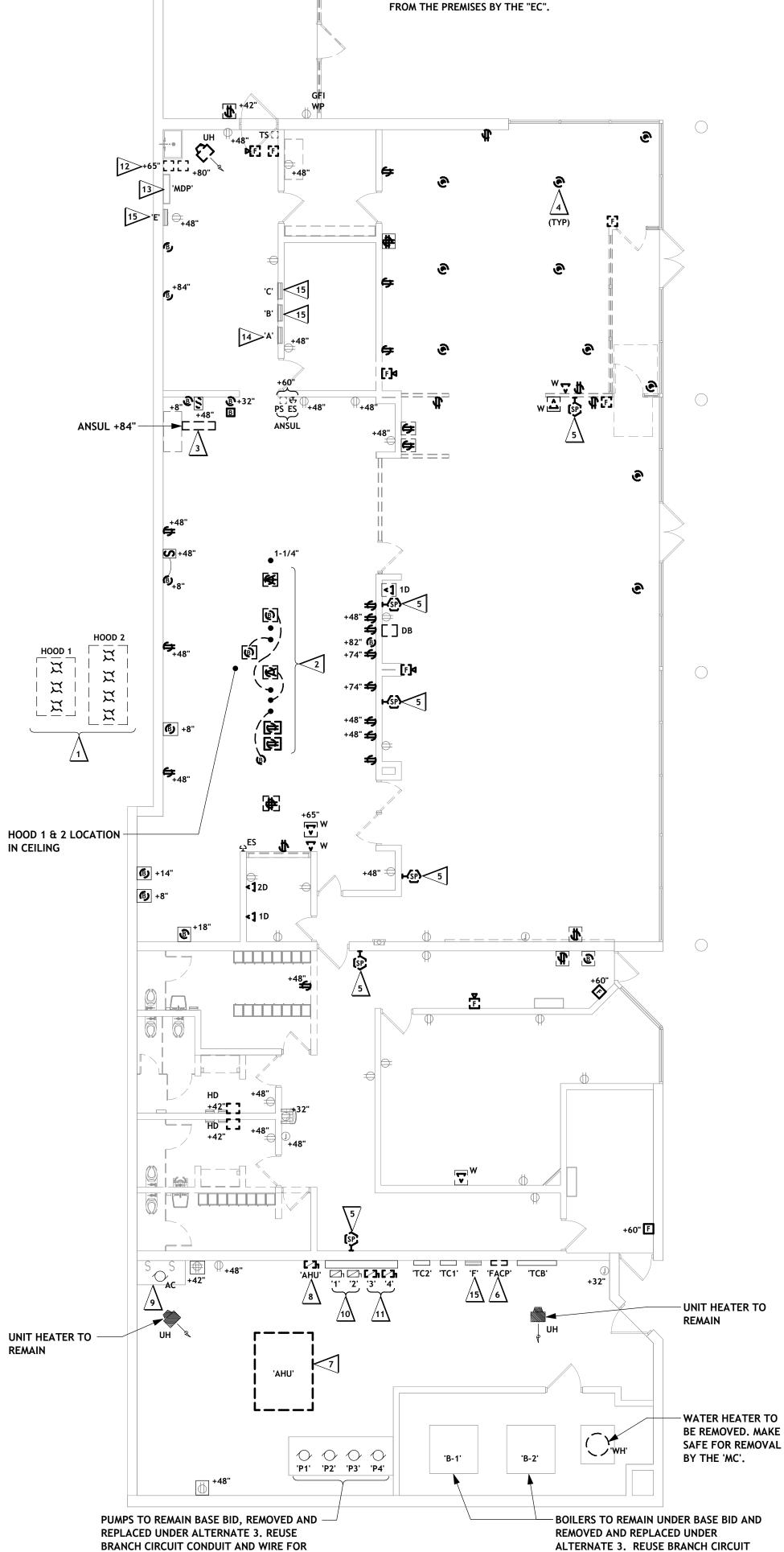
1> EXISTING KITCHEN HOOD WITH ALL COMPONENTS TO BE REMOVED BY THE 'MC'. DISCONNECT POWER AND REMOVE BRANCH CIRCUIT CONDUIT/WIRING BACK TO

(THESE NOTES APPLY

- 2> EXISTING WIRING DEVICES ON FLOOR SERVING KITCHEN EQUIPMENT REMOVED BY OTHERS. DISCONNECT AND REMOVE DEVICES ALONG WITH BRANCH CIRCUIT WIRING BACK TO SOURCE. CUT UNDERGROUND CONDUITS SERVING SAME FLUSH WITH FLOOR AND ABANDON.
- EXISTING FIRE SUPPRESSION EQUIPMENT TO BE REMOVED BY THE 'MC'. DISCONNECT POWER ALONG WITH SYSTEM CONTROL DEVICES AND REMOVE BRANCH CIRCUIT CONDUIT/WIRING BACK TO SOURCE.
- 4> EXISTING FLOOR BOX. DISCONNECT AND REMOVE WIRING DEVICE ALONG WITH BRANCH CIRCUIT WIRING BACK TO SOURCE. ABANDON BOX AND CONDUIT IN PLACE.
- 5 EXISTING SURFACE MOUNTED WALL SPEAKER. DISCONNECT AND REMOVE ALONG WITH SYSTEM CABLING BACK TO SOURCE.
- 6> EXISTING FIRE ALARM CONTROL PANEL. DISCONNECT AND REMOVE ALONG WITH ALL SYSTEM INITIATING AND NOTIFICATION DEVICES. REMOVE SYSTEM CONDUIT/CABLING BACK TO PANEL. PROVIDE BLANK COVER FOR SYSTEM BOXES IN WALLS WHICH ARE TO REMAIN.
- 7> EXISTING AHU IN CEILING TO BE REMOVED BY THE 'MC'. DISCONNECT AND REMOVE BRANCH CIRCUIT CONDUIT AND WIRING BACK TO DISCONNECT SWITCH SERVING
- 8 EXISTING COMBINATION STARTER SERVING AHU. DISCONNECT AND REMOVE ALONG WITH BRANCH CIRCUIT CONDUIT AND WIRING BACK TO 'MDP'.
- 9> EXISTING AIR COMPRESSOR TO REMAIN. VERIFY AIR COMPRESSOR STILL OPERATIONAL AFTER WORK IS COMPLETE. REMOVE IF NO LONGER IN USE.
- 10> EXISTING COMBINATION STARTERS SIZE '0' WITH BRANCH CIRCUIT CONDUIT AND WIRING TO PUMPS 1 & 2 TO REMAIN AND BE REUSED. UNDER ALTERNATE 3, DISCONNECT AND REMOVE 15A/3P CIRCUIT BREAKERS IN 'MDP'.
- 11> EXISTING COMBINATION STARTERS 3 & 4 SIZE '0' WITH BRANCH CIRCUIT CONDUIT AND WIRING TO PUMPS 3 & 4. UNDER ALTERNATE 3, DISCONNECT AND REMOVE COMBINATION STARTERS ALONG WITH 20A/3P CIRCUIT BREAKERS IN 'MDP' SERVING SAME. BRANCH CIRCUIT CONDUIT AND WIRING SHALL REMAIN AND BE REUSED.
- 12> EXISTING 2-CIRCUIT BREAKER PANELS SERVING EMERGENCY EGRESS FIXTURES AND FIRE ALARM SYSTEM. DISCONNECT AND REMOVE.
- EXISTING 'MDP' 600A, 120/208V, 3Ø, 4W 'GE' TO REMAIN AND BE REUSED.
- 14 EXISTING PANEL 'A', 400A, 120/208V, 3Ø, 4W, 'GE' RECESSED IN WALL TO REMAIN. DISCONNECT AND REMOVE 400A FEEDER WIRE RUN UNDERGROUND. CONDUIT SHALL BE ABANDONED IN PLACE.
- 15> EXISTING PANEL 'F' ('GE') SERVED FROM 'MDP' TO REMAIN AND BE REUSED.

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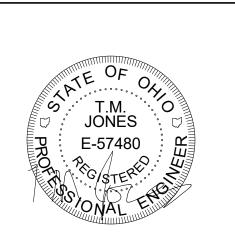


**LOWER LEVEL - POWER / SYSTEMS PLAN (DEMOLITION)** SCALE: 1/8" = 1'-0"

ALTERNATE 3. REUSE BRANCH CIRCUIT

CONDUIT AND WIRE.





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LOWER LEVEL -POWER / SYSTEMS PLAN (DEMOLITION)

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- 1. WIRING DEVICES INDICATED EXISTING TO REMAIN SHALL BE REPLACED WITH NEW DEVICES AND COVER PLATES.
- 2. BOXES FOR SAME SHALL REMAIN AND BE REUSED.

**GENERAL NOTES** 

- 3. RECIRCUIT DEVICES AS INDICATED ON NEW WORK PLANS.
- 4. THE 'EC' SHALL PROVIDE THE FOLLOWING SERVICES IN THE BASE BID AT 11 E. MAIN ST., CARROLLTON, OH: CARROLL COUNTY EMERGENCY MAINTENANCE AGENCY
- A. DISCONNECT, REMOVE, AND TRANSPORT ONE (1) 20KW, 120/240V, 1-PHASE, 3-WIRE, RESIDENTIAL LIQUID PROPANE GENERATOR LOCATED OUTDOORS TO THE NEW PROJECT SITE FOR REINSTALLATION.
- B. DISCONNECT, REMOVE, AND TRANSPORT ONE (1) 200A, 120/240V, 1-PHASE, 3-WIRE, AUTOMATIC TRANSFER SWITCH (ATS) LOCATED OUTDOORS NEXT TO THE GENERATOR TO THE NEW PROJECT SITE FOR REINSTALLATION.
- C. DISCONNECT, REMOVE, AND TRANSPORT ONE (1) 120-GALLON LIQUID PROPANE TANK LOCATED OUTDOORS NEXT TO THE GENERATOR TO THE NEW PROJECT SITE FOR REINSTALLATION.
- D. REWORK THE NORMAL POWER LINE SIDE FEEDER (100A) FROM THE REMOVED ATS TO THE EMERGENCY PANEL LOCATED ON THE SECOND FLOOR OF THE FACILITY AND RELABEL THE PANEL AS NORMAL POWER PANEL '2B'.

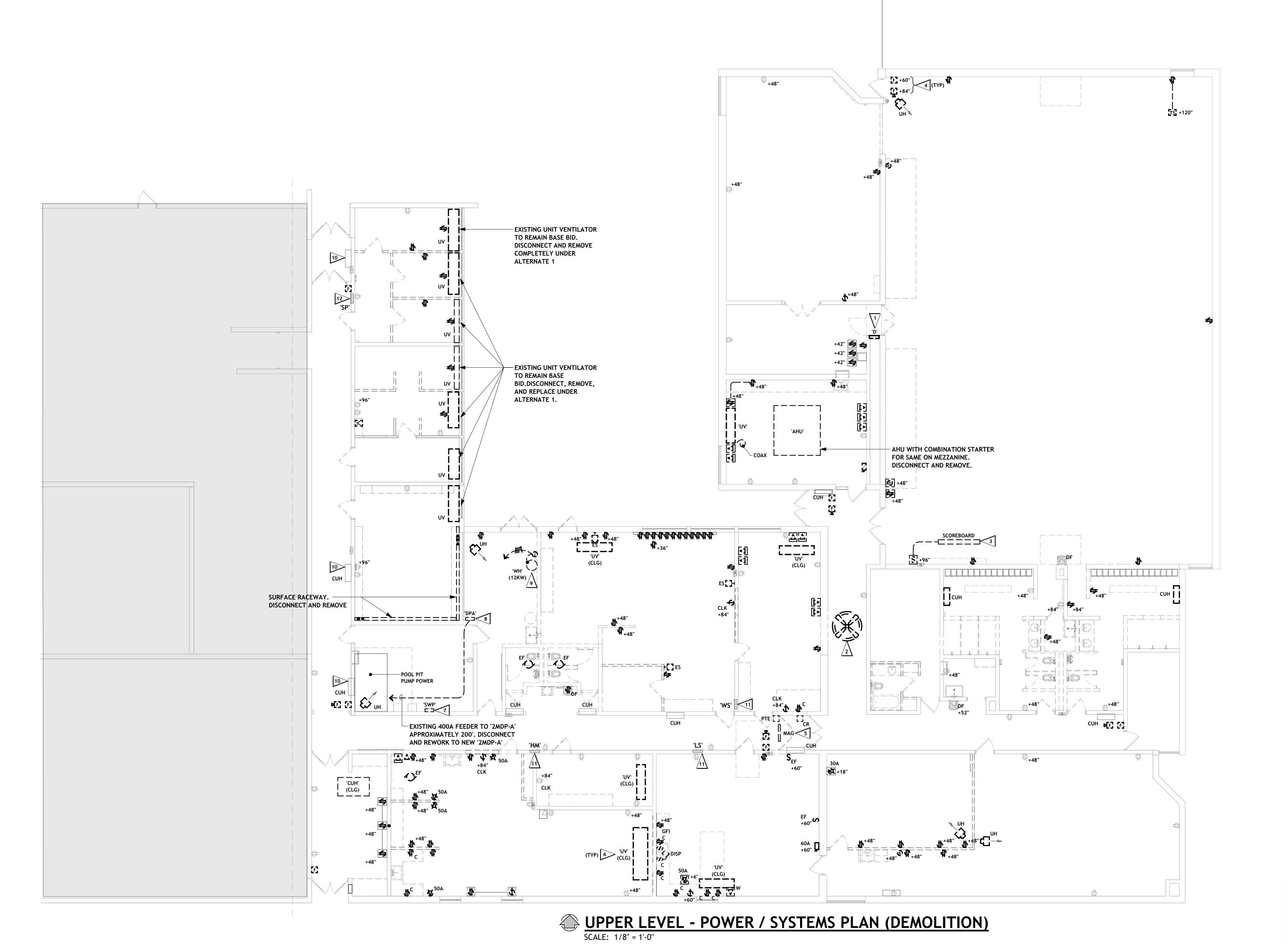
- (THESE NOTES APPLY TO THIS PLAN ONLY)
- 1> EXISTING PANEL 'D', 150A, 120/208V RECESSED IN WALL. DISCONNECT AND REMOVE FEEDER BACK TO 'MDP' ON LOWER LEVEL. PANEL SHALL REMAIN AND BE REFED FROM NEW 'MDP-B' ON UPPER LEVEL. SEE POWER RISER DIAGRAMS FOR
- 2 EXISTING CEILING PADDLE FAN. DISCONNECT AND REMOVE ALONG WITH BRANCH CIRCUIT CONDUIT/WIRING BACK TO SOURCE.
- 3> EXISTING SCOREBOARD TO BE REMOVED BY THE 'GC'. DISCONNECT POWER TO MAKE IT SAFE FOR REMOVAL.
- 4> EXISTING FIRE ALARM SYSTEM DEVICES. DISCONNECT AND REMOVE ALL SYSTEM INITIATING AND NOTIFICATION DEVICES THIS LEVEL. REMOVE SYSTEM CONDUIT/CABLING BACK TO PANEL. PROVIDE BLANK COVER FOR SYSTEM BOXES IN WALLS WHICH ARE TO REMAIN.
- 5> EXISTING DOOR ACCESS SYSTEM DEVICES. DISCONNECT AND REMOVE ALONG WITH SYSTEM CONDUIT/CABLING BACK TO SOURCE. PROVIDE BLANK COVER FOR SYSTEM BOXES IN WALLS WHICH ARE TO REMAIN.
- EXISTING MECHANICAL EQUIPMENT TO BE REMOVED BY THE 'MC'. DISCONNECT POWER TO MAKE IT SAFE FOR REMOVAL.
- 7> EXISTING PANEL 'SWP', 100A, 120/208V, 3Ø, 4W SURFACE MOUNTED, 20 CIRCUIT. DISCONNECT AND REMOVE ALONG WITH 100A FEEDER BACK TO 'MP', APPROXIMATELY 200'.
- 8> EXISTING DISTRIBUTION PANEL 'DPA', 400A, 120/208V, 3Ø, 4W SURFACE MOUNTED, 28 CIRCUIT WITH (2) 150A/3P CIRCUIT BREAKERS. DISCONNECT AND REMOVE, INTERIOR, 'OLD' ENCLOSURE TO REMAIN. REWORK OVERHEAD 400A FEEDER TO NEW '2MDP-B'. DPLICE AND EXTEND FEEDERS AND BRANCH CIRCUITS FROM 'OLD' ENCLOSURE TO NEW '2MDP-B'. SEE POWER RISER DIAGRAM FOR DETAILS.
- 9> EXISTING ELECTRIC WATER HEATER TO BE REMOVED BY THE 'MC'. DISCONNECT AND REMOVE 50A, 3Ø BRANCH CIRCUIT BACK TO 'DPA'.
- 10> EXISTING CABINET UNIT HEATER (CUH) WALL MOUNTED TO REMAIN.

12 EXISTING PANEL SERVED FROM 'MP' TO REMAIN.

EXISTING PANEL SERVED UNDERGROUND FROM 'DPA'. REWORK FEEDER AND SERVE FROM NEW 'MDP-B'. SEE POWER RISER DIAGRAM FOR DETAILS.

#### **DEMOLITION NOTES:**

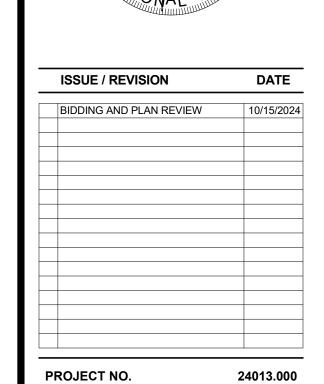
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UPPER LEVEL -POWER / SYSTEMS PLAN (DEMOLITION)

EXISTING CONDENSING UNIT (CU) TO BE REMOVED BY THE 'MC'. DISCONNECT AND REMOVE DISCONNECT SWITCH ALONG WITH BRANCH CIRCUIT CONDUIT AND WIRE BACK TO POWER SOURCE ON LOWER LEVEL.

EXISTING ROOFTOP UNIT (RTU) TO BE REMOVED BY THE 'MC'. DISCONNECT AND REMOVE DISCONNECT SWITCH ALONG WITH BRANCH CIRCUIT CONDUIT AND WIRE BACK TO POWER SOURCE ON LOWER LEVEL.

3> EXISTING EXHAUST FAN (EF) TO BE REMOVED BY THE 'MC'. DISCONNECT AND REMOVE DISCONNECT SWITCH ALONG WITH BRANCH CIRCUIT CONDUIT AND WIRE BACK TO POWER SOURCE ON LOWER LEVEL.

EXISTING KITCHEN EXHAUST AND MAKE UNIT AIR UNIT TO BE REMOVED BY THE 'MC'. UNITS SERVED FROM COMBINATION STARTERS ON MEZZANINE ON UPPER LEVEL. DISCONNECT AND REMOVE STARTERS ALONG WITH BRANCH CIRCUIT CONDUIT AND WIRE BACK TO POWER SOURCE ON LOWER LEVEL.

5 EXISTING EXHAUST FAN (EF) TO BE REMOVED BY THE 'MC'. DISCONNECT AND REMOVE DISCONNECT SWITCH ALONG WITH BRANCH CIRCUIT CONDUIT AND WIRE BACK TO POWER SOURCE ON UPPER LEVEL.

6 EXISTING EXHAUST FAN TO REMAIN

**GENERAL NOTES** 

1. WIRING DEVICES INDICATED EXISTING TO REMAIN SHALL BE REPLACED WITH NEW DEVICES AND COVER PLATES.

2. BOXES FOR SAME SHALL REMAIN AND BE REUSED.

3. RECIRCUIT DEVICES AS INDICATED ON NEW WORK PLANS.

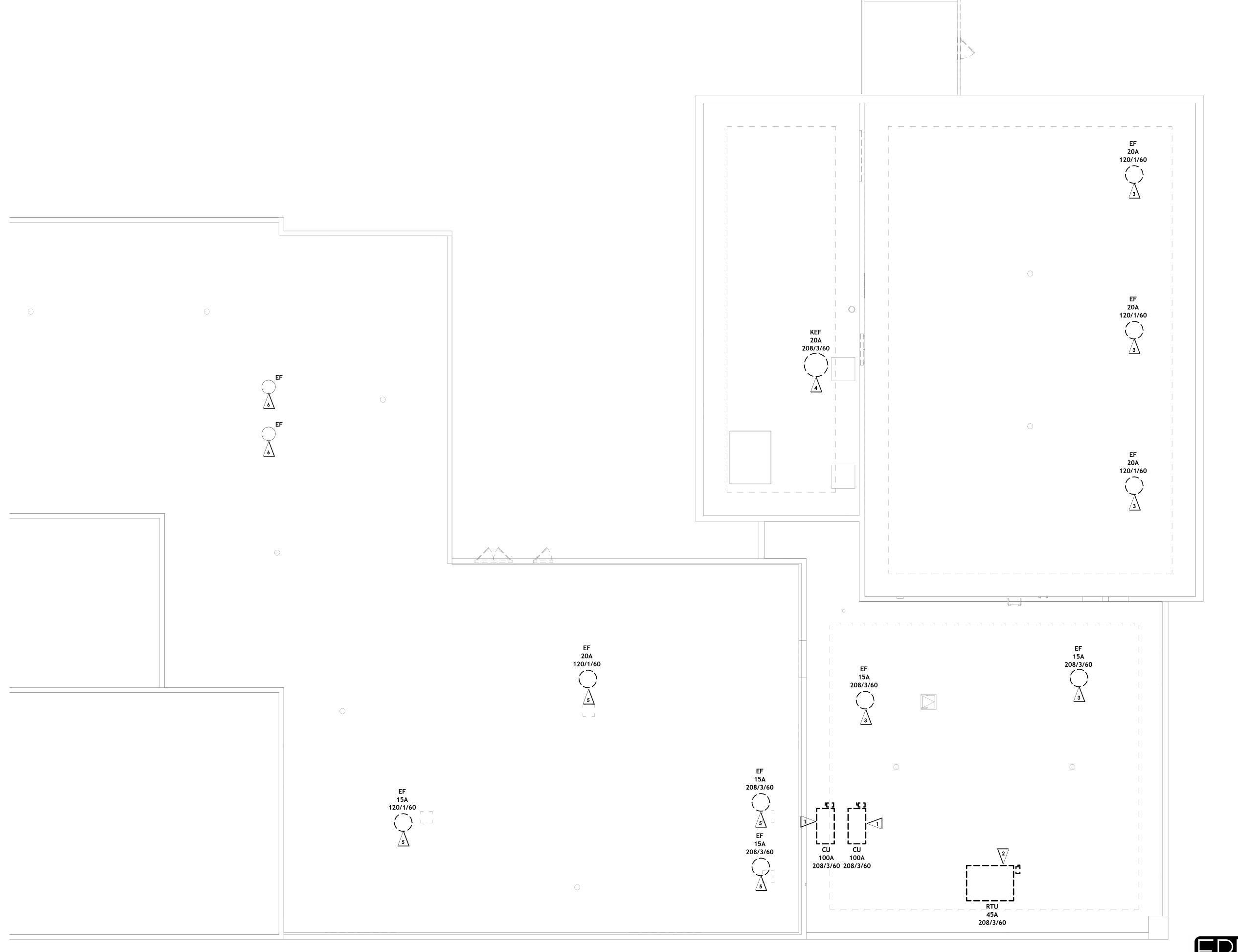
4. THE 'EC' SHALL PROVIDE THE FOLLOWING SERVICES IN THE BASE BID AT 11 E. MAIN ST., CARROLLTON, OH: CARROLL COUNTY EMERGENCY MAINTENANCE AGENCY

A. DISCONNECT, REMOVE, AND TRANSPORT ONE (1) 20KW, 120/240V, 1-PHASE, 3-WIRE, RESIDENTIAL LIQUID PROPANE GENERATOR LOCATED OUTDOORS TO THE NEW PROJECT SITE FOR REINSTALLATION.

B. DISCONNECT, REMOVE, AND TRANSPORT ONE (1) 200A, 120/240V, 1-PHASE, 3-WIRE, AUTOMATIC TRANSFER SWITCH (ATS) LOCATED OUTDOORS NEXT TO THE GENERATOR TO THE NEW PROJECT SITE FOR REINSTALLATION.

C. DISCONNECT, REMOVE, AND TRANSPORT ONE (1) 120-GALLON LIQUID PROPANE TANK LOCATED OUTDOORS NEXT TO THE GENERATOR TO THE NEW PROJECT SITE FOR REINSTALLATION.

D. REWORK THE NORMAL POWER LINE SIDE FEEDER (100A) FROM THE REMOVED ATS TO THE EMERGENCY PANEL LOCATED ON THE SECOND FLOOR OF THE FACILITY AND RELABEL THE PANEL AS NORMAL POWER PANEL '2B'.



ROOF ELECTRICAL PLAN (DEMOLITION)

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



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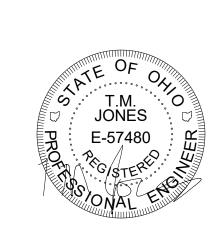




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ROOF ELECTRICAL PLAN (DEMOLITION)

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LOWER LEVEL -LIGHTING PLAN (NEW WORK)

E201

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REFERENCE NOTES

TO THIS PLAN ONLY)

THE 'EC' SHALL FURNISH AND INSTALL A NEW LIGHT FIXTURE AT SAME / SIMILAR

CONNECT NEW LIGHT FIXTURE TO EXISTING / NEW WIRING AS REQUIRED.

2/C #16 AWG LOW VOLTAGE CABLE BY THE 'EC' FOR 0-10V DIMMING. REFER TO "VACANCY SENSOR DIMMING WIRING DIAGRAM" ON DETAIL DRAWINGS.

LOCATION AS LIGHT FIXTURE REMOVED DURING THE DEMOLITION PHASE.

THE 'EC' SHALL FURNISH AND INSTALL NEW EXTERIOR REMOTE EMERGENCY EGRESS FIXTURE AND CONNECT TO EXISTING ADJACENT 120V UNSWITCHED LIGHTING CIRCUIT; VERIFY TERMINATION LOCATION IN THE FIELD.

THE 'EC' SHALL CONNECT NEW EXTERIOR BUILDING LIGHT FIXTURES INTO EXISTING 120V SWITCHED EXTERIOR BUILDING LIGHTING CIRCUIT; VERIFY TERMINATION LOCATION IN THE FIELD.

LIGHT FIXTURE SHALL CONTAIN EMERGENCY BATTERY PACK TO SERVE AS EMERGENCY EGRESS LIGHTING. THE 'EC' SHALL CONNECT UNSWITCHED AND SWITCHED CONDUCTORS TO THIS LIGHT FIXTURE AS REQUIRED.

6 LIGHTING CONTROL SYSTEM 0-10V DIMMING POWER / RELAY PACK ("nLIGHT" #nPP16-D-EFP-SA) MOUNTED IN CEILING SPACE BY THE 'EC'; COORDINATE MOUNTING LOCATION IN THE FIELD. REFER TO "LIGHTING CONTROL WIRING DIAGRAM" ON DETAIL DRAWINGS.

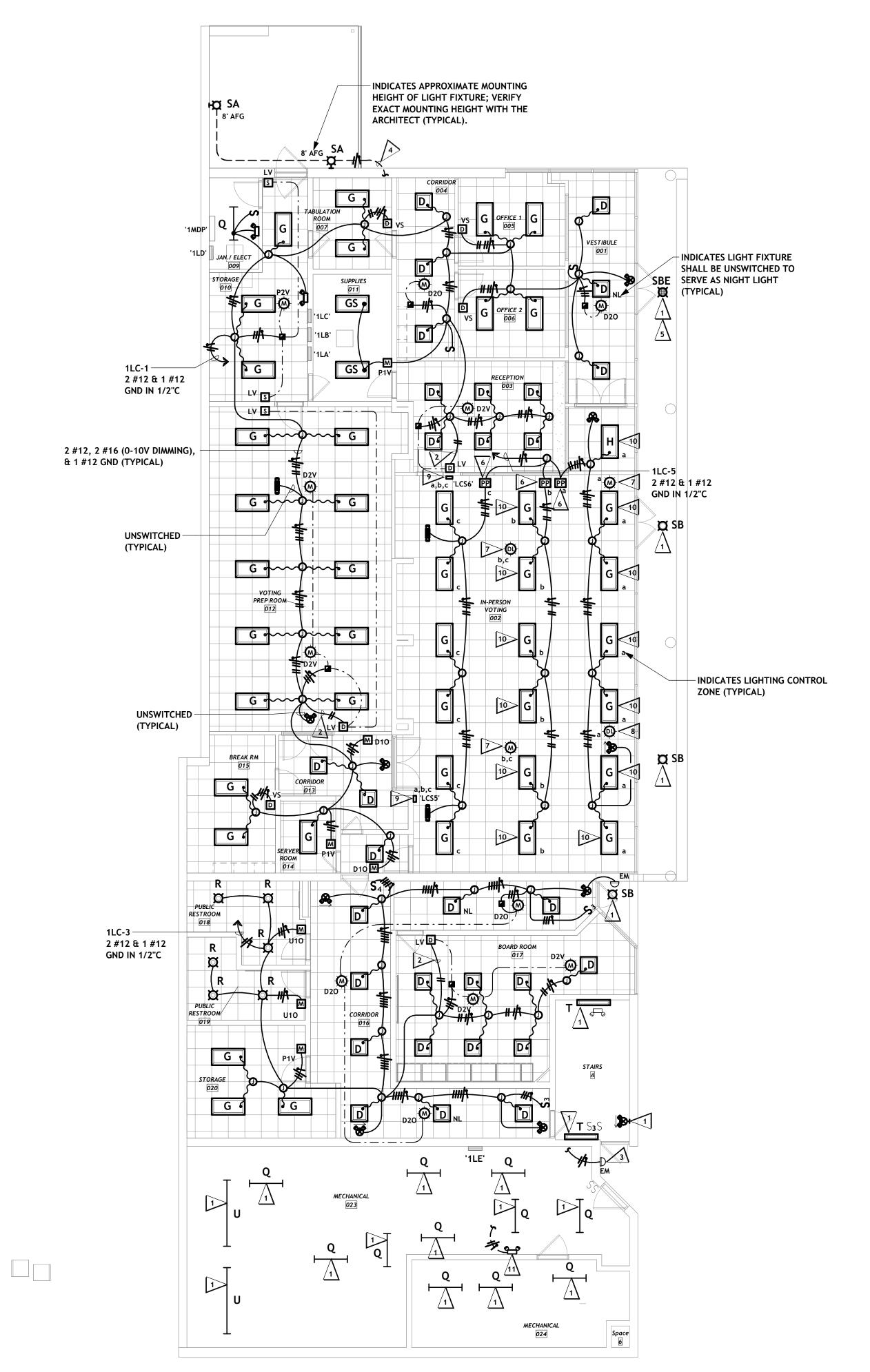
LIGHTING CONTROL SYSTEM CEILING MOUNTED DUAL TECHNOLOGY VACANCY SENSOR ("nLIGHT" #NCM-PDT-10-RJB) BY THE 'EC'; REFER TO "LIGHTING CONTROL WIRING DIAGRAM" ON DETAIL DRAWINGS.

8 LIGHTING CONTROL SYSTEM CEILING MOUNTED DUAL TECHNOLOGY VACANCY SENSOR WITH DAYLIGHT HARVESTING PHOTOCELL CAPABILITY ("nLIGHT" #NCM-PDT-10-ADCX-RJB) BY THE 'EC'; REFER TO "LIGHTING CONTROL WIRING DIAGRAM" ON DETAIL DRAWINGS.

9 LIGHTING CONTROL SYSTEM ON / OFF AND DIMMING CONTROL STATION BY THE 'EC'; COORDINATE EXACT MOUNTING LOCATION WITH THE OWNER. REFER TO "LIGHTING CONTROL WIRING DIAGRAM" AND FACEPLATE DETAILS ON DETAIL DRAWINGS.

THIS LIGHT FIXTURE SHALL BE CONTROLLED BY THE DAYLIGHT HARVESTING PHOTOCELL WITHIN THE VACANCY SENSOR ASSOCIATED WITH THIS ZONE.

THE 'EC' SHALL FURNISH AND INSTALL NEW EMERGENCY EGRESS FIXTURE AND CONNECT TO EXISTING ADJACENT 120V UNSWITCHED LIGHTING CIRCUIT; VERIFY TERMINATION LOCATION IN THE FIELD.



LOWER LEVEL - LIGHTING PLAN (NEW WORK)

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

UPPER LEVEL -LIGHTING PLAN (NEW WORK)

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2LC-22 2 #12 & 1 #12 GND IN 1/2"C

(THESE NOTES APPLY REFERENCE NOTES TO THIS PLAN ONLY)

1 THE 'EC' SHALL FURNISH AND INSTALL A NEW LIGHT FIXTURE AT SAME / SIMILAR LOCATION AS LIGHT FIXTURE REMOVED DURING THE DEMOLITION PHASE. CONNECT NEW LIGHT FIXTURE TO EXISTING / NEW WIRING AS REQUIRED.

2/C #16 AWG LOW VOLTAGE CABLE BY THE 'EC' FOR 0-10V DIMMING. REFER TO "VACANCY SENSOR DIMMING WIRING DIAGRAM" ON DETAIL DRAWINGS.

3> LIGHTING CONTROL SYSTEM 0-10V DIMMING POWER / RELAY PACK ("nLIGHT" #nPP16-D-EFP-SA) MOUNTED IN CEILING SPACE BY THE 'EC'; COORDINATE MOUNTING LOCATION IN THE FIELD. REFER TO "LIGHTING CONTROL WIRING DIAGRAM" ON DETAIL DRAWINGS.

LIGHTING CONTROL SYSTEM CEILING MOUNTED DUAL TECHNOLOGY VACANCY SENSOR ("nLIGHT" #NCM-PDT-10-RJB) BY THE 'EC'; REFER TO "LIGHTING CONTROL WIRING DIAGRAM" OB DETAIL DRAWINGS.

5> LIGHTING CONTROL SYSTEM ON / OFF AND DIMMING CONTROL STATION BY THE 'EC'; COORDINATE EXACT MOUNTING LOCATION WITH THE OWNER. REFER TO "LIGHTING CONTROL WIRING DIAGRAM" AND FACEPLATE DETAILS ON DETAIL DRAWINGS.

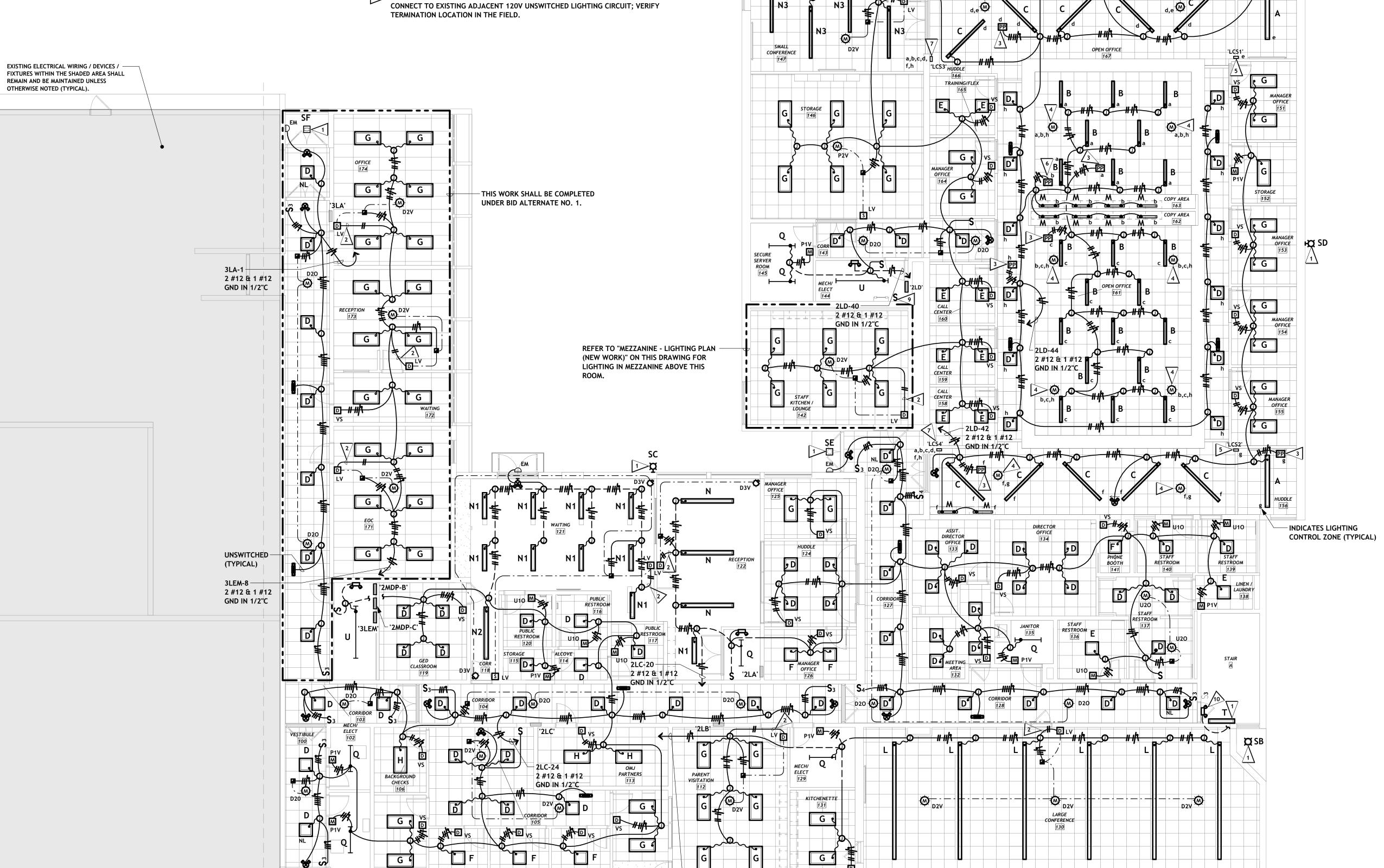
6 LIGHTING CONTROL SYSTEM SWITCHING POWER / RELAY PACK ("nLIGHT" #nPP16-EFP-SA) MOUNTED IN CEILING SPACE BY THE 'EC'; COORDINATE MOUNTING LOCATION IN THE FIELD. REFER TO "LIGHTING CONTROL WIRING DIAGRAM" ON DETAIL DRAWINGS.

LIGHTING CONTROL SYSTEM SCENE SELECTION, ON / OFF, AND DIMMING CONTROL STATION BY THE 'EC'; COORDINATE EXACT MOUNTING LOCATION WITH THE OWNER. REFER TO "LIGHTING CONTROL WIRING DIAGRAM" AND FACEPLATE

DETAILS ON DETAIL DRAWINGS. 8 THE 'EC' SHALL CONNECT MEZZANINE LIGHTING INTO NEW 120V LIGHTING CIRCUIT

THE 'EC' SHALL INSTALL TOGGLE SWITCH ADJACENT TO LADDER AND CONNECT TO MEZZANINE LIGHTING AS REQUIRED.

10 THE 'EC' SHALL FURNISH AND INSTALL NEW EMERGENCY EGRESS FIXTURE AND CONNECT TO EXISTING ADJACENT 120V UNSWITCHED LIGHTING CIRCUIT; VERIFY TERMINATION LOCATION IN THE FIELD.



**MEZZANINE - LIGHTING PLAN (NEW WORK)** 

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

UPPER LEVEL - LIGHTING PLAN (NEW WORK)

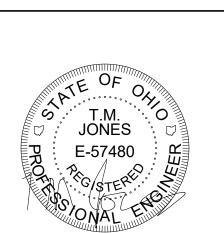
SCALE: 1/8" = 1'-0"

BOX FOR FUTURE INTERCOM AT DOOR

COORDINATE LOCATION

(TYPICAL OF 2)

WITH OWNER



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LOWER LEVEL -POWER / SYSTEMS PLAN (NEW WORK)

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DISCONNECT AND REMOVE WIRING DEVICE AND COVER PLATE ALONG WITH BRANCH CIRCUIT. PROVIDE NEW WIRING DEVICE AND COVERPLATE AND REWIRE TO BRANCH CIRCUIT INDICATED. 2 COORDINATE MOUNTING HEIGHT OF TELEVISION MONITOR RECEPTACLES WITH THE 'GC' PRIOR TO ROUGH-IN. 3 PROVIDE FLOOR BOX (HUBBELL OR EQUAL) WITH (2) DUPLEX RECEPTACLES FOR CONCRETE FLOOR. CUT AND PATCH FLOOR AS REQUIRED. COORDINATE LOCATION AND FLOOR FINISH FOR ADAPTER PLATE WITH THE 'GC'.

(THESE NOTES APPLY TO THIS PLAN ONLY)

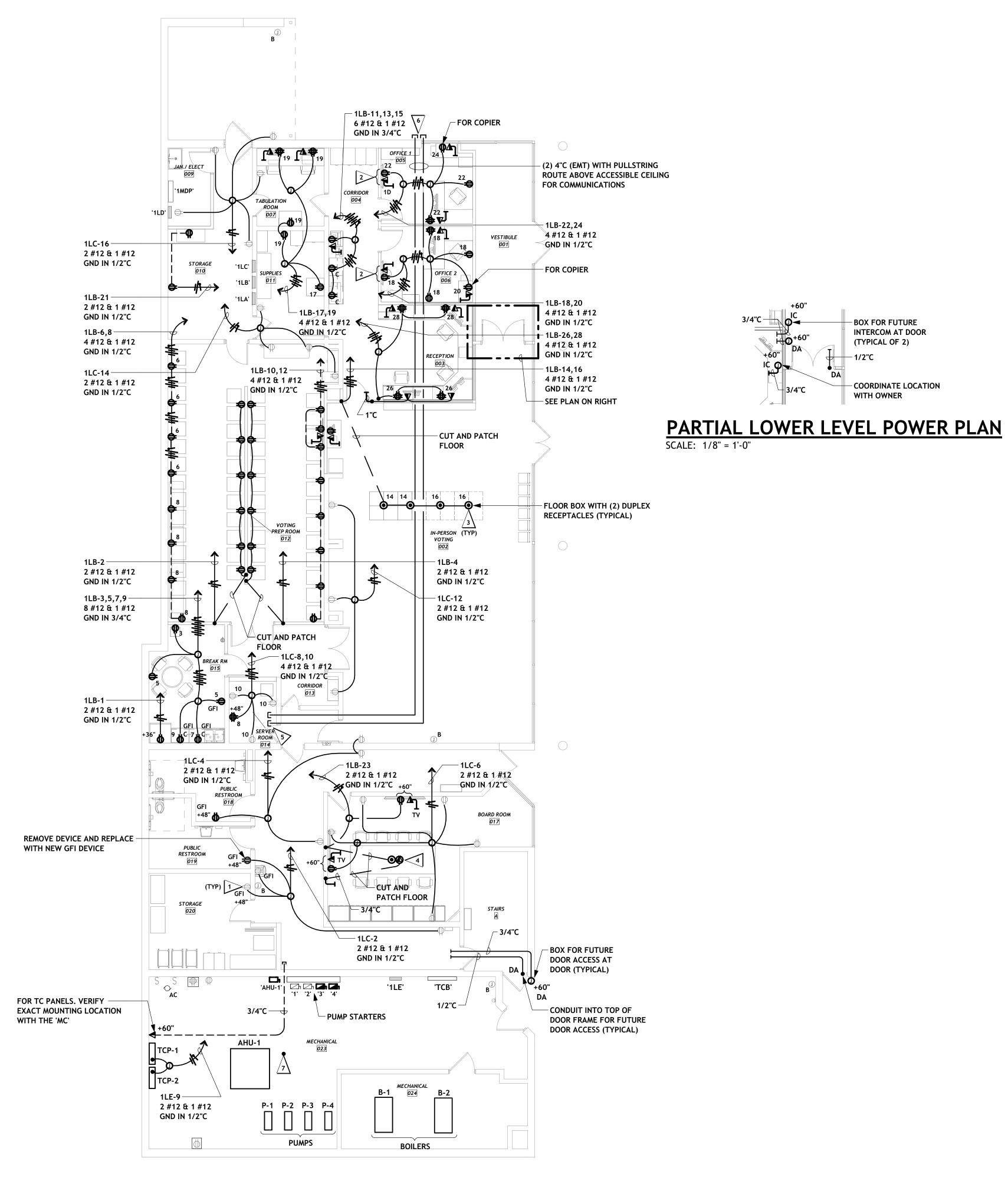
PROVIDE FLOOR BOX (HUBBELL OR EQUAL) WITH (1) DUPLEX RECEPTACLES AND (1) T/D OUTLET FOR CONCRETE FLOOR. CUT AND PATCH FLOOR AS REQUIRED. COORDINATE LOCATION AND FLOOR FINISH ADAPTER PLATE WITH THE 'GC'.

5 STUB AT CEILING AS HIGH AS POSSIBLE IN ROOM.

REFERENCE NOTES

6 CORE DRILL BRICK FOR CONDUITS AND TRANSITION TO PVC OUTSIDE. STUB TO 12"

7 ELECTRICAL ITEMS THIS ROOM SHALL REMAIN CONNECTED TO PANEL '1LE'.



LOWER LEVEL - POWER / SYSTEMS PLAN (NEW WORK)

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

'GC' PRIOR TO ROUGH-IN.

(THESE NOTES APPLY

PROVIDE FLOOR BOX (HUBBELL OR EQUAL) WITH (1) DUPLEX RECEPTACLE AND (1) T/D OUTLET FOR CONCRETE FLOOR. CUT AND PATCH FLOOR AS REQUIRED. COORDINATE LOCATION AND FLOOR FINISH FOR ADAPTER PLATE WITH THE 'GC'.

PROVIDE 3" DIAMETER FIRE-RATED POKE-THRU DEVICE (HUBBELL OR EQUAL) WITH FLEXIBLE CONDUIT FURNITURE CONNECTION FITTING TO SERVE MOVABLE PARTITION FURNITURE WITH POWER AND TELECOMMUNICATIONS. CUT AND PATCH FLOOR AS REQUIRED. COORDINATE LOCATION WITH 'GC' PRIOR TO ROUGH-IN.

CONNECT POLE-THRU TO MOVABLE PARTITION WITH FLEXIBLE CONDUIT FOR BOTH POWER AND TELECOMMUNICATIONS. SEE DETAIL ON DRAWING E306.

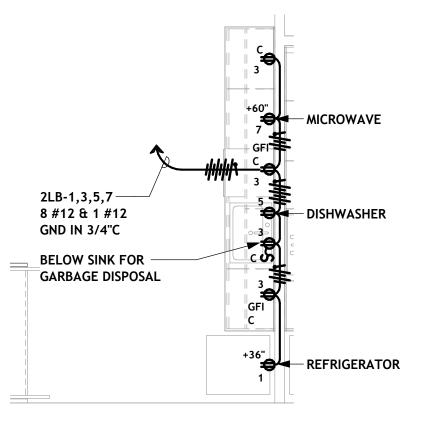
5> SURFACE MOUNT WIRING DEVICE BOX AND BRANCH CIRCUIT CONDUIT / WIRE ON EXISTING WALL.

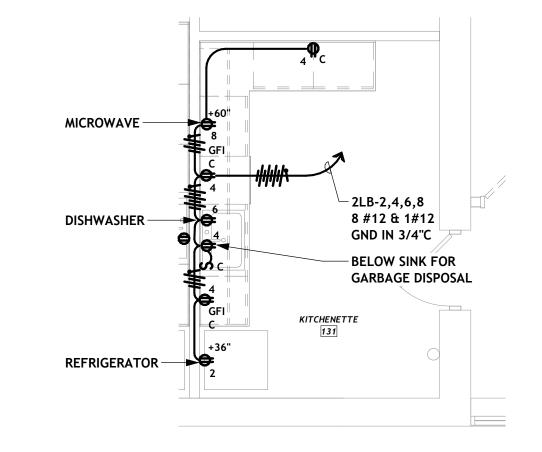
SURFACE MOUNT T/D OUTLET WITH BOX AND RACEWAY ON EXISTING WALL.

7> THE 'EC' SHALL REINSTALL THE GENERATOR, ATS, AND LIQUID PROPANE TANK REMOVED FROM THE DEMOLITION PHASE AT LOCATION INDICATED. MAKE ALL CONNECTIONS (ELECTRICAL / MECHANICAL / PLUMBING) AND TEST UNIT WITH OWNER PRESENT.

8 ROUTE 100A FEEDER TO PANEL '3LEM' AND 100A FEEDER TO '2MDP-A' FROM ATS (OUTPUT & NORMAL POWER CONNECTION SIDES) UNDERGROUND TO BUILDING THEN TRANSITION TO OVERHEAD. SEE REVISED POWER RISER DIAGRAM DRAWING E305 FOR DETAILS.

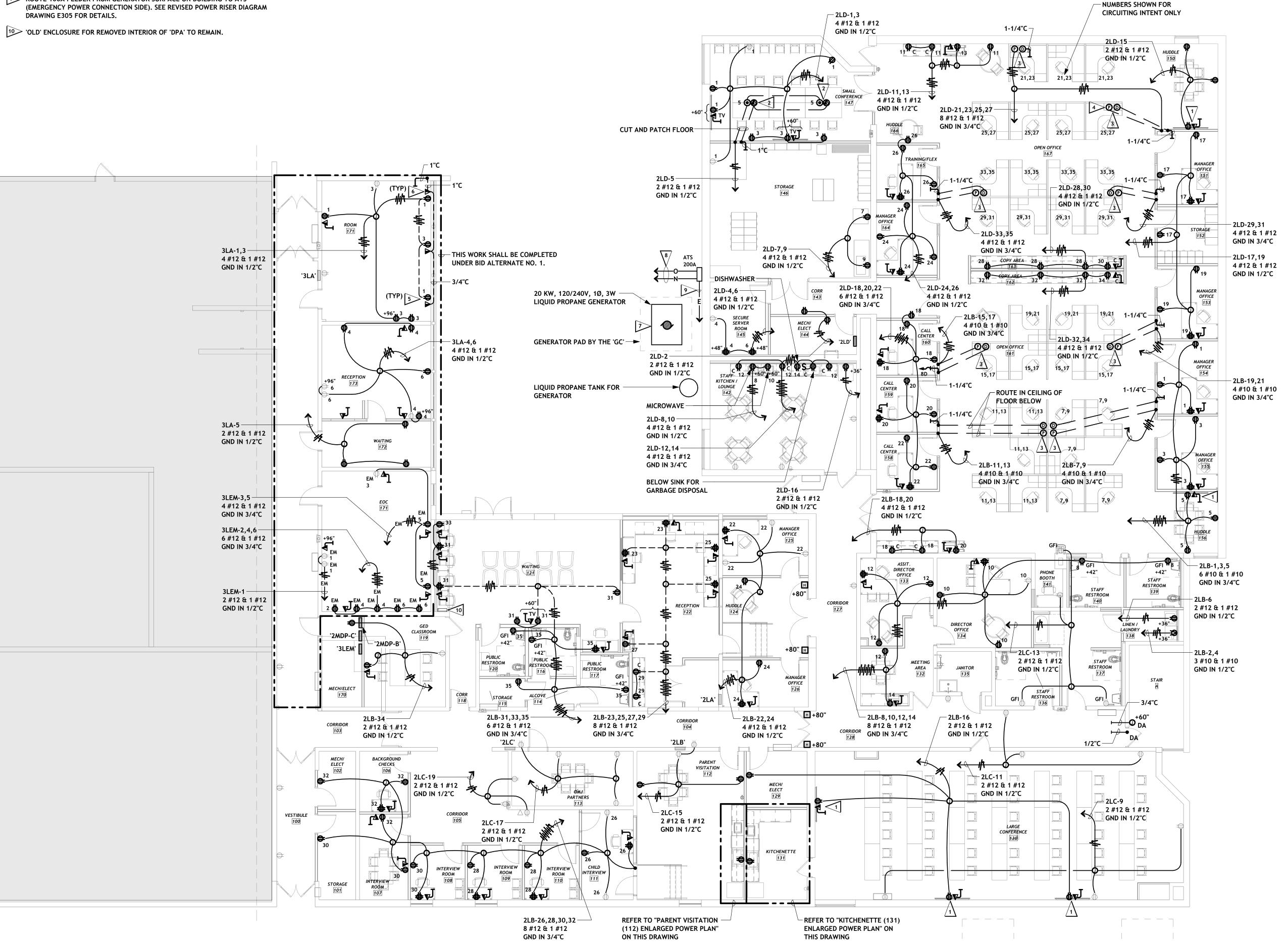
9> ROUTE 100A FEEDER FROM GENERATOR SURFACE ON BUILDING TO ATS (EMERGENCY POWER CONNECTION SIDE). SEE REVISED POWER RISER DIAGRAM





# PARENT VISITATION (112) ENLARGED POWER PLAN SCALE: 1/4" = 1'-0"

# KITCHENETTE (131) ENLARGED POWER PLAN SCALE: 1/4" = 1'-0"



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**UPPER LEVEL -**POWER / SYSTEMS PLAN (NEW WORK)

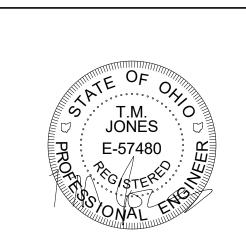
UPPER LEVEL - POWER / SYSTEMS PLAN (NEW WORK)

ON THIS DRAWING

8 #12 & 1 #12

GND IN 3/4"C

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



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LOWER LEVEL -MECHANICAL EQUIPMENT PLAN (NEW WORK)

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REFERENCE NOTES

TO THIS PLAN ONLY) UNDER ALTERNATE 3, INTERCEPT EXISTING BOILER BRANCH CIRCUIT AT CEILING AND EXTEND TO NEW BOILER. PROVIDE NEW LOCAL DISCONNECTING MEANS (20A, 1P, TOGGLE SWITCH) AND SURFACE MOUNT ON SIDE OF BOILER.

(THESE NOTES APPLY

2 UNDER ALTERNATE 3, INTERCEPT EXISTING PUMP BRANCH CIRCUITS AND EXTEND TO NEW PUMPS.

EXISTING COMBINATION STARTERS FOR PUMPS 1 & 2 TO REMAIN. REUSE UNDER ALTERNATE 3 TO SERVE NEW PUMPS. PROVIDE NEW COMBINATION STARTERS FOR PUMPS 3 & 4 UNDER ALTERNATE 3.

4 HVAC EQUIPMENT FURNISHED WITH INTEGRAL DISCONNECT SWITCH.

5 JUNCTION BOX FOR VAV UNIT 120/24V CONTROL POWER, VERIFY EXACT LOCATION WITH THE 'MC'.

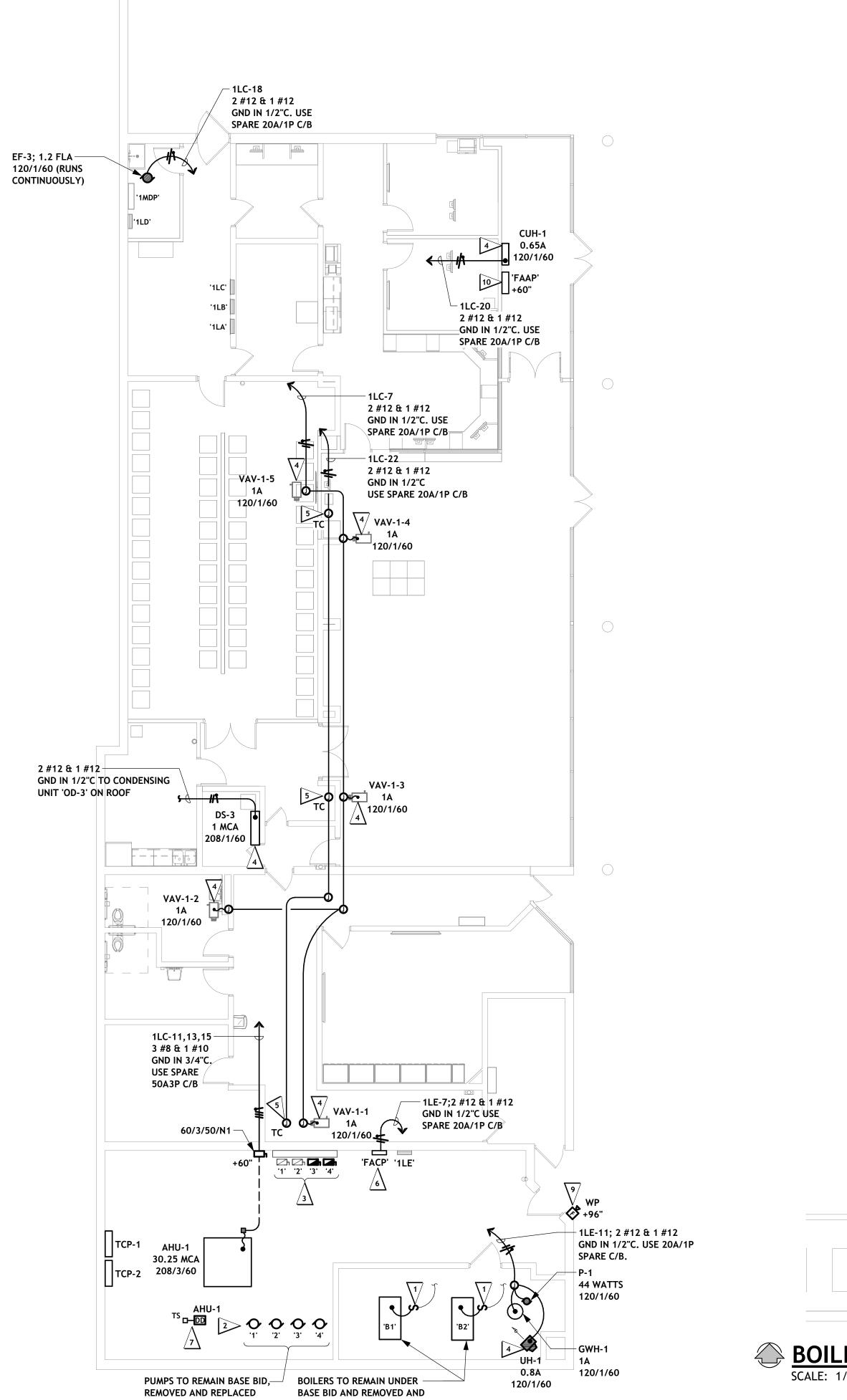
6 NEW FIRE ALARM SYSTEM CONTROL PANEL FOR HVAC AND SPRINKLER SYSTEM MONITORING. CONNECT TO 120V BRANCH CIRCUIT IN PANEL. PROVIDE BREAKER LOCK FOR BREAKER AND PAINT RED.

FIRE ALARM SYSTEM DUCT DETECTOR AND TEST SWITCH FOR AHU-1. INSTALL AT LOCATION IN DUCTWORK PER THE 'MC'.

FIRE ALARM TAMPER SWITCHES (2) AND FLOW SWITCHES (5) PER SPRINKLER SYSTEM REQUIREMENTS. COORDINATE LOCATION WITH THE 'PC'.

9 FIRE ALARM SYSTEM AUDIO / VISUAL UNIT IN WEATHERPROOF ENCLOSURE. SURFACE MOUNT ON EXTERIOR WALL.

10> FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL. SURFACE MOUNT ON WALL.



**BOILER ROOM PLAN** SCALE: 1/8" = 1'-0"

LOWER LEVEL - MECHANICAL EQUIPMENT & F. A. SYSTEM PLAN (NEW WORK)

BASE BID AND REMOVED AND

REPLACED UNDER ALTERNATE 3

**UNDER ALTERNATE 3** 

1> HVAC EQUIPMENT FURNISHED WITH INTEGRAL DISCONNECT SWITCH.

2 JUNCTION BOX FOR VAV UNIT 120/24V TEMPERATURE CONTROL POWER, VERIFY EXACT LOCATION WITH THE 'MC'.

3 120V BRANCH CIRCUIT FOR CONTROL DAMPER. COORDINATE LOCATION WITH THE

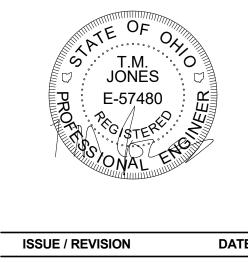
FIRE ALARM SYSTEM DUCT DETECTOR AND TEST SWITCH FOR AHU. INSTALL AT LOCATION IN DUCTWORK PER THE 'MC'.

5 PROVIDE CONTROL XFMR, HOA SELECTOR SWITCH, (2) NO & NC AUXILIARY

CONTACTS, AND 'RED' RUN PILOT LIGHT.



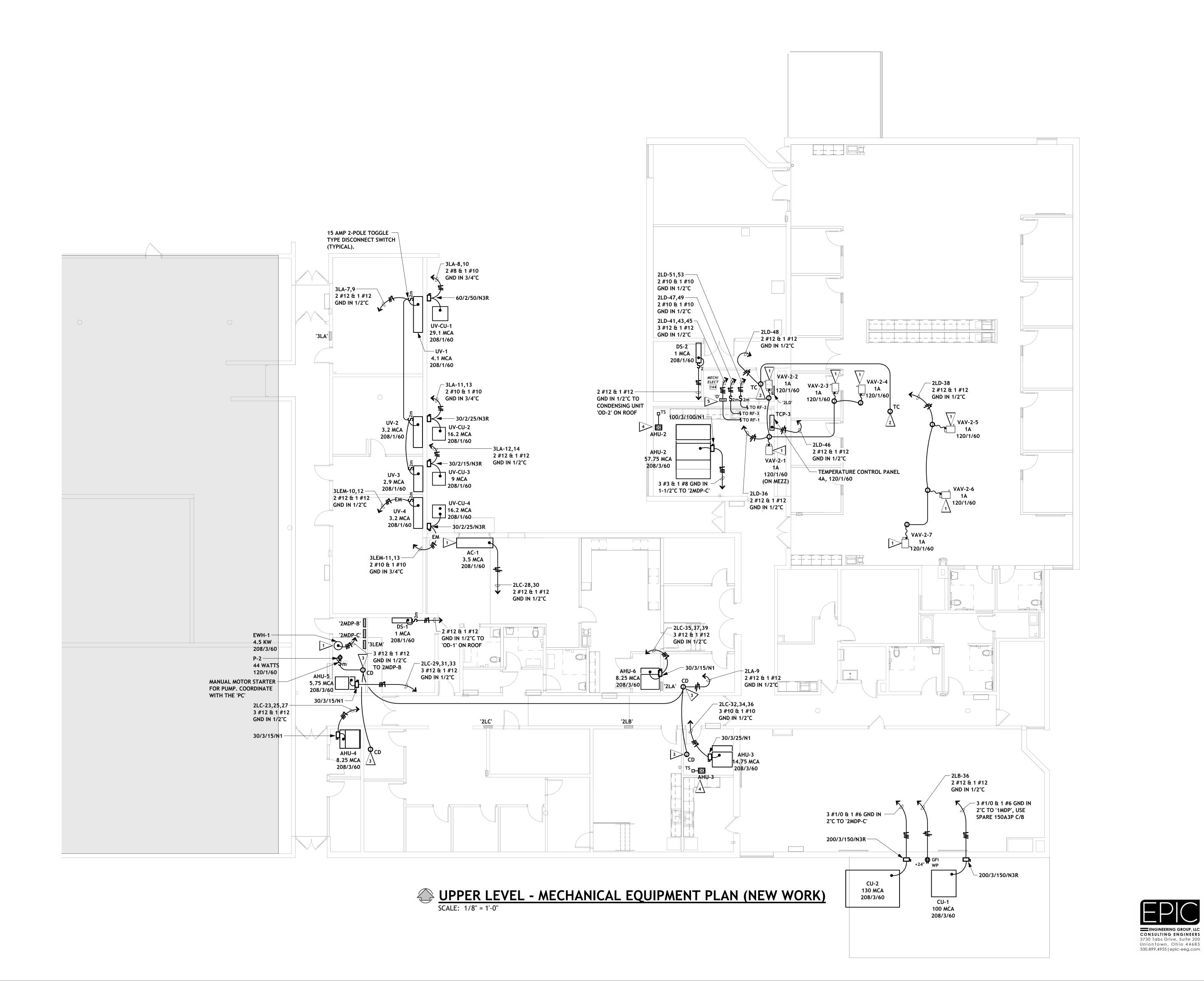


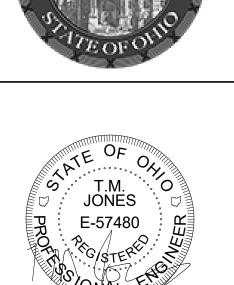


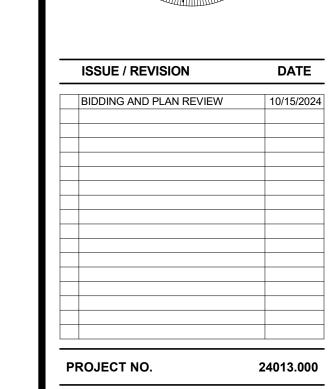
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UPPER LEVEL -MECHANICAL **EQUIPMENT & FIRE** 

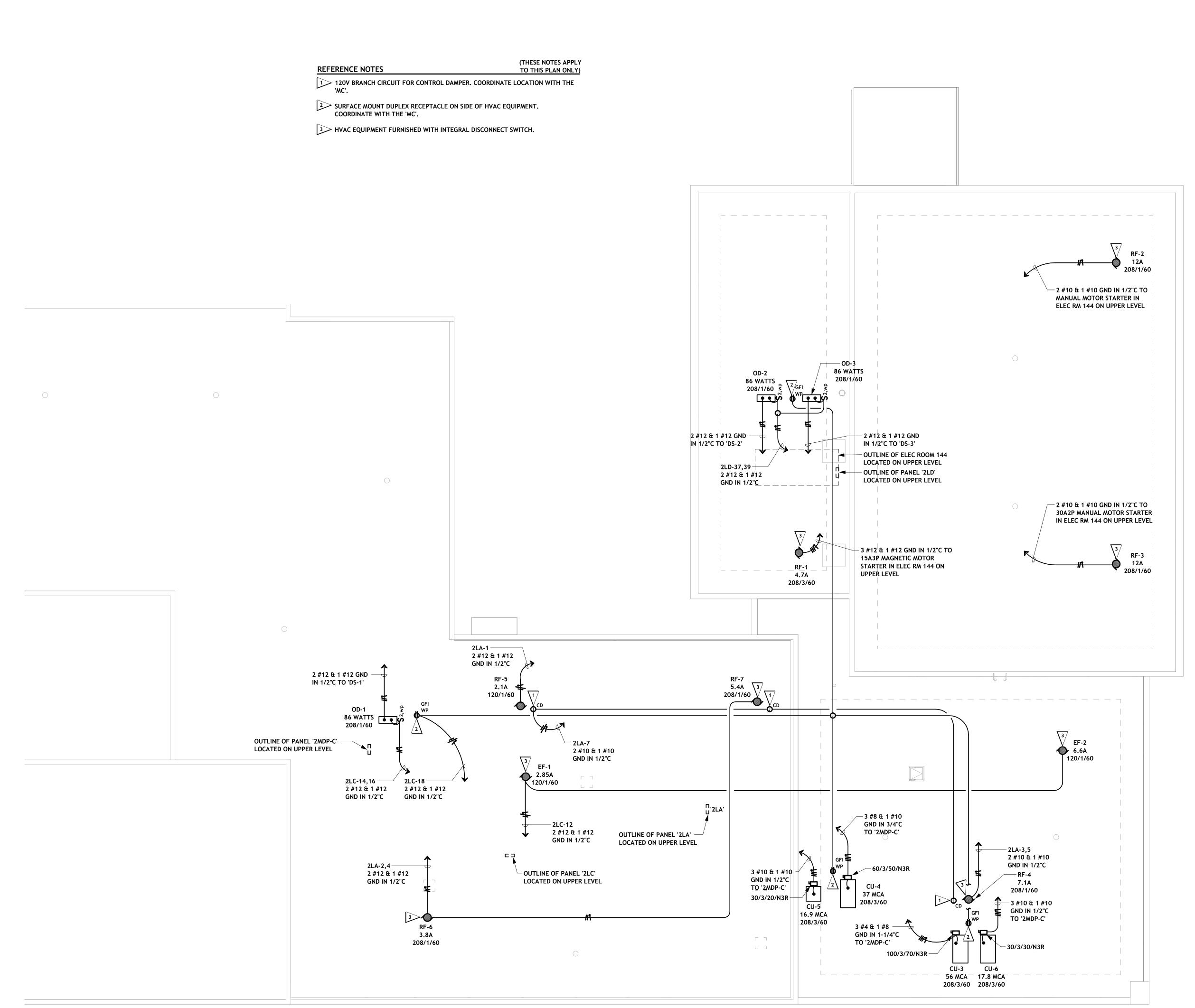
ALARM SYSTEM PLAN (NEW WORK)







ROOF ELECTRICAL PLAN (NEW WORK)



ROOF ELECTRICAL PLAN (NEW WORK)

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

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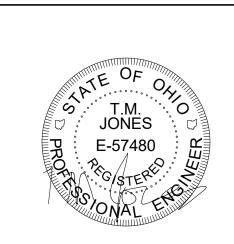
TIXTURE SCHEDULE  FURE SCHEDULE  RWISE NOTED  HERWISE NOTED, TAMPER RESISTANT  INLESS OTHERWISE NOTED,  WINGS FOR DESCRIPTION  NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG AND INSULATED BUSHING ON END)
TURE SCHEDULE  RWISE NOTED  HERWISE NOTED, TAMPER RESISTANT INLESS OTHERWISE NOTED,  WINGS FOR DESCRIPTION  NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG
TURE SCHEDULE  RWISE NOTED  HERWISE NOTED, TAMPER RESISTANT INLESS OTHERWISE NOTED,  WINGS FOR DESCRIPTION  NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG
RWISE NOTED HERWISE NOTED, TAMPER RESISTANT INLESS OTHERWISE NOTED, WINGS FOR DESCRIPTION  NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG
HERWISE NOTED, TAMPER RESISTANT INLESS OTHERWISE NOTED, WINGS FOR DESCRIPTION  NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG
HERWISE NOTED, TAMPER RESISTANT INLESS OTHERWISE NOTED, WINGS FOR DESCRIPTION  NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG
WINGS FOR DESCRIPTION  NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG
WINGS FOR DESCRIPTION  NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG
NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG
NF - NON FUSED  2-1/8" DEEP BOX WITH SINGLE GANG
2-1/8" DEEP BOX WITH SINGLE GANG
2-1/8" DEEP BOX WITH SINGLE GANG
4" SQUARE x 2-1/8" DEEP BOX WITH
STRING AND INSULATED BUSHING ON
 JIT
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
)
ON
VACANCY SENSOR, "SENSOR SWITCH"
OR SWITCH, "SENSOR SWITCH"
ITCH, "SENSOR SWITCH"
SOR SWITCH, "SENSOR SWITCH"
NCY SENSOR WITH 1500 SQUARE FEET
MANUAL ON MODE ENSOR WITH 1000 SQUARE FEET OF
MANUAL ON MODE
ANCY SENSOR WITH 2000 SQUARE FEET D2V: MANUAL ON MODE
NCY SENSOR WITH 1200 SQUARE FEET NSOR SWITCH" #WV-PDT-16;
:H" #SPODMA-D-SA-3X
Const o on on
ST SWITCH / INDICATOR LIGHT
=

				LIGHTING FIX	IUKE	2CHEI	DULE		
ТҮРЕ	MFG.	CAT. NO.	VOLT	DESCRIPTION	ТҮРЕ	MFG.	CAT. NO.	VOLT	DESCRIPTION
A	EUREKA	74300D-96-LED REG-35-90-120V-DV- AC-60-RC1-WHE-WH-	120	8' LONG LED LINEAR DIRECT LED PENDANT FIXTURE WITH WHITE DIFFUSER, WHITE CANOPY, VERIFY FINISH OF ACOUSTICAL MATERIAL AND ENDCAP WITH ARCHITECT, AIRCRAFT CABLE SUSPENSION, ELECTRONIC 0-10V DIMMING DRIVER, 4,218 LUMENS / 90 CRI / 3500°K	R	JUNO	JPDZ4-DC-AL010- SWW5WD-90CRI- JPDZ4RDNCMF- MVOLT-ZT10-WWH	120	4" DIAMETER RECESSED LED DOWNLIGHT FIXTURE WITH NEW CONSTRUCTION HOUSING, WHITE REFLECTOR WITH WHITE TRIM RING, ELECTRONIC 0-10V DIMMING DRIVER, 1,200 LUMENS / 90 CRI / 3500°K / 15.9W LED MODULE 4' LONG SURFACE MOUNTED LED WRAPAROUND FIXTURE
В	MA DV	S2PD-LLP-4FT-MSL4- 80CRI-35K-800LMF-	420	/ 64W LED MODULE, COORDINATE SUSPENSION HEIGHT WITH THE ARCHITECT  4' LONG LED LINEAR DIRECT LED PENDANT FIXTURE WITH EXTRUDED ALUMINUM HOUSING, EXTRUDED ACRYLIC LENS, BLACK POLYESTER POWDER COAT FINISH,	Т	LITHONIA	BLWP4-48L-ADPT- EZ1-LP835-MSD7ADCX	120	WITH PRE-PAINT WHITE FINISH, RIBBED CURVED DIFFUSER, INTEGRAL OCCUPANCY SENSOR (DIM FIXTURE DOWN TO 25% WHEN UNOCCUPIED), ELECTRONIC DRIVER, 4,800 LUMENS / 82 CRI / 3500°K / 40W LED MODULE 8' LONG SURFACE MOUNT LED STRIP LIGHT FIXTURE
	MARK	SCT-MIN1-FLL-MVOLT- BLKT-ZT-F1/72A- RDCY-BLKCY-BCRD	120	BLACK ROUND CANOPY, BLACK CORD, AIRCRAFT CABLE SUSPENSION, ELECTRONIC 0-10V DIMMING DRIVER, 2,808 LUMENS / 80 CRI / 3500°K / 25.1W LED MODULE, COORDINATE SUSPENSION HEIGHT WITH THE ARCHITECT	U	LITHONIA	CSS-L96-AL04- MVOLT-SWW3-80CRI	120	WITH COLD ROLLED STEEL HOUSING, BAKED WHITE ENAMEL FINISH, DIFFUSE ACRYLIC LENS, ELECTRONIC LUMEN / CCT SELECTABLE DRIVER, 8,173 LUMENS / 80 CRI / 3500°K / 64.1W LED MODULE
С	MARK	S2PD-LLP-8FT-MSL8- 80CRI-35K-1000LMF- SCT-MIN1-FLL-MVOLT- BLKT-ZT-F1/72A- RDCY-BLKCY-BCRD	120	8' LONG LED LINEAR DIRECT LED PENDANT FIXTURE WITH EXTRUDED ALUMINUM HOUSING, EXTRUDED ACRYLIC LENS, BLACK POLYESTER POWDER COAT FINISH, BLACK ROUND CANOPY, BLACK CORD, AIRCRAFT CABLE SUSPENSION, ELECTRONIC 0-10V DIMMING DRIVER, 7,264 LUMENS / 80 CRI / 3500°K / 63.8W LED MODULE, COORDINATE SUSPENSION HEIGHT WITH THE ARCHITECT	SA	LITHONIA	WDGE1-LED-P2-40K- 80CRI-VW-MVOLT- SRM-PBBW-PE-DDBXD	120	EXTERIOR WALL MOUNTED LED FIXTURE WITH DIE-CAST ALUMINUM HOUSING, DARK BRONZE THERMOSET POWDER COAT FINISH, VISUAL COMFORT WIDE DISTRIBUTION, INTEGRAL PHOTOCELL, SURFACE MOUNT BACK BOX, ELECTRONIC DRIVER, 1,982 LUMENS / 80 CRI / 4000°K / 15W LED MODULE, COORDINATE MOUNTING HEIGHT WITH THE ARCHITECT
D	LITHONIA	CPX-2X2-3200LM- 80CRI-35K-SWL-MIN1- ZT-MVOLT	120	2' x 2' RECESSED FLAT PANEL LED FIXTURE WITH ALUMINUM FRAME, SATIN WHITE LENS, T-GRID CEILING, ELECTRONIC 0-10V DIMMING DRIVER, 3,200 LUMENS / 80 CRI / 3500°K / 30.1W LED MODULE	SB	LITHONIA	LBR8-20LM-SWW1- AR-TRW-LSS-WD- MVOLT-UGZ	120	8" DIAMETER RECESSED LED RETROFIT DOWNLIGHT FIXTURE WITH CLEAR SEMI-SPECULAR REFLECTOR WITH WHITE TRIM RING, ELECTRONIC 0-10V DIMMING DRIVER, 2,000 LUMENS / 80 CRI / 4000°K / 25W LED MODULE
E	LITHONIA	CPX-2X2-4000LM- 80CRI-35K-SWL-MIN1- ZT-MVOLT	120	2' x 2' RECESSED FLAT PANEL LED FIXTURE WITH ALUMINUM FRAME, SATIN WHITE LENS, T-GRID CEILING, ELECTRONIC 0-10V DIMMING DRIVER, 4,000 LUMENS / 80 CRI / 3500°K / 36.3W LED MODULE	SBE	LITHONIA	LBR8-20LM-SWW1- AR-TRW-LSS-WD- MVOLT-UGZ-E10WCP	120	8" DIAMETER RECESSED LED RETROFIT DOWNLIGHT FIXTURE WITH CLEAR SEMI-SPECULAR REFLECTOR WITH WHITE TRIM RING, EMERGENCY BATTERY PACK, ELECTRONIC 0-10V DIMMING DRIVER, 2,000 LUMENS / 80 CRI / 4000°K / 25W LED MODULE
F	LITHONIA	CPX-2X2-5000LM- 80CRI-35K-SWL-MIN1- ZT-MVOLT	120	2' x 2' RECESSED FLAT PANEL LED FIXTURE WITH ALUMINUM FRAME, SATIN WHITE LENS, T-GRID CEILING, ELECTRONIC 0-10V DIMMING DRIVER, 5,000 LUMENS / 80 CRI / 3500°K / 41.8W LED MODULE 2' x 4' RECESSED FLAT PANEL LED FIXTURE WITH	sc	LITHONIA	WDGE2-LED-P4-40K- 80CRI-T3M-MVOLT-	120	EXTERIOR WALL MOUNTED LED FIXTURE WITH DIE-CAST ALUMINUM HOUSING, DARK BRONZE FINISH, TYPE III MEDIUM DISTRIBUTION, INTEGRAL PHOTOCELL, ELECTRONIC DRIVER, 4,268 LUMENS / 80 CRI / 4000°K /
G	LITHONIA	CPX-2X4-5000LM- 80CRI-35K-SWL-MIN1- ZT-MVOLT	120	ALUMINUM FRAME, SATIN WHITE LENS, T-GRID CEILING, ELECTRONIC 0-10V DIMMING DRIVER, 5,000 LUMENS / 80 CRI / 3500°K / 40W LED MODULE  2' x 4' RECESSED FLAT PANEL LED FIXTURE WITH			SRM-PE-DDBXD		47W LED MODULE, COORDINATE MOUNTING HEIGHT WITH THE ARCHITECT  EXTERIOR WALL MOUNTED LED FIXTURE WITH DIE-CAST ALUMINUM HOUSING, DARK BRONZE FINISH, TYPE
GS	LITHONIA	CPX-2X4-5000LM- 80CRI-35K-SWL-MIN1- ZT-MVOLT-2X4SMKSH	120	ALUMINUM FRAME, SATIN WHITE LENS, SURFACE MOUNT KIT, ELECTRONIC 0-10V DIMMING DRIVER, 5,000 LUMENS / 80 CRI / 3500°K / 40W LED MODULE  2' x 4' RECESSED FLAT PANEL LED FIXTURE WITH	SD	LITHONIA	WDGE3-LED-P3-40K- 80CRI-RFT-MVOLT- SRM-PE-DDBXD	120	FORWARD THROW DISTRIBUTION, INTEGRAL PHOTOCELL, ELECTRONIC DRIVER, 10,146 LUMENS / 70 CRI / 4000°K / 71W LED MODULE, COORDINATE MOUNTING HEIGHT WITH THE ARCHITECT
Н	LITHONIA	CPX-2X4-6000LM- 80CRI-35K-SWL-MIN1- ZT-MVOLT	120	ALUMINUM FRAME, SATIN WHITE LENS, T-GRID CEILING, ELECTRONIC 0-10V DIMMING DRIVER, 6,000 LUMENS / 80 CRI / 3500°K / 41.8W LED MODULE  2" WIDE X 18' LONG RECESSED LINEAR LED FIXTURE WITH	SE	LITHONIA	SCNY-LED-P1-40K- FPFL-MVOLT-DWHXD	120	15.2" X 15.2" EXTERIOR RECESSED CANOPY LED FIXTURE WITH DIE-CAST ALUMINUM HOUSING, WHITE FINISH, FLAT POLYCARBONATE FROSTED LENS, WET LOCATION RATED, ELECTRONIC DRIVER, 4,200 LUMENS / 70 CRI / 4000°K /
L	MARK	SL2L-LOP-18FT-FLP- TG-80CRI-35K- 800LMF-MIN1-120-ZT	120	COLD-ROLLED STEEL HOUSING, SATIN FLUSH DIFFUSER, SATIN WHITE POLYESTER POWDER COAT FINISH, T-GRID CEILING TYPE, ELECTRONIC 0-10V DIMMING DRIVER, 12,690 LUMENS / 80 CRI / 3500°K / 144W LED MODULE 40" LONG LED UNDERCABINET LIGHT FIXTURE WITH	SF	LITHONIA	SCNY-LED-P1-40K- FPFL-MVOLT-DWHXD	120	28W LED MODULE  10" X 10" EXTERIOR SURFACE CANOPY LED FIXTURE WITH DIE-CAST ALUMINUM HOUSING, DARK BRONZE POLYESTER POWDER COAT FINISH, FROSTED LENS, WET LOCATION RATED, ELECTRONIC DRIVER, 4,500 LUMENS / 80 CRI / 4000°K / 35W LED MODULE
М	AFX	KNLU40WH- XLCCXXWH (INTERCONNECT CABLES)	120	EXTRUDED ALUMINUM HOUSING, WHITE FINISH, WHITE POLYCARBONATE DIFFUSER, ELECTRONIC DRIVER, 1,150 LUMENS / 90 CRI / 3000 °K / 19.5W, PROVIDE ALL ADDITIONAL CONNECTORS, WIRING, AND ASSOCIATED ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION  8' LONG LED LINEAR INDIRECT / DIRECT LED PENDANT	EM	LITHONIA	AFB-OEL-DDBTXD- UVOLT-LTP- SDRT-WT-CW	120	EXTERIOR WALL MOUNTED EMERGENCY EGRESS LED LIGHT FIXTURE WITH DIE-CAST ALUMINUM HOUSING, DARK BRONZE TEXTURED POWDER COAT FINISH, WIDE THROW DISTRIBUTION, LITHIUM IRON PHOSPHATE BATTERY, SELF DIAGNOSTICS, COLD WEATHER AND WET LOCATION RATED, COORDINATE EXACT MOUNTING
N	MARK	PLN8-LLP-8FT-MSL8- 80CRI-35K- ID1000LMF-10/90- SCT-MIN1-MVOLT- BKSG-ZT-SCEP- F2/72A-BLKCY-BCRD	120	FIXTURE WITH COLD-ROLLED STEEL HOUSING, SCULPTURED END CAP, SATIN BLACK FINISH, BLACK CANOPY / CORD, 10% UP / 90% DOWN DISTRIBUTION, AIRCRAFT CABLE SUSPENSION, HARD CEILING MOUNTING, ELECTRONIC 0-10V DIMMING DRIVER, 8,112 LUMENS / 80 CRI / 3500°K / 48W LED MODULE, COORDINATE	•	EELP	REM2-LED-SD	120	HEIGHT WITH THE ARCHITECT  SELF-CONTAINED RECESSED EMERGENCY EGRESS LIGHTING FIXTURE WITH THERMOPLASTIC HOUSING, (2) 'LED' LIGHTING HEADS ON HOUSING, NICKEL METAL HYDRIDE BATTERY, INTEGRAL CHARGER, SELF DIAGNOSTICS
N1	MARK	PLN8-LLP-4FT-MSL4- 80CRI-35K- ID800LMF-10/90-	120	SUSPENSION HEIGHT WITH THE ARCHITECT  4' LONG LED LINEAR INDIRECT / DIRECT LED PENDANT FIXTURE WITH COLD-ROLLED STEEL HOUSING, SCULPTURED END CAP, SATIN BLACK FINISH, BLACK CANOPY / CORD, 10% UP / 90% DOWN DISTRIBUTION,	<b>a</b>	LITHONIA	ELM4L-UVOLT-LTP- SDRT	120	SELF-CONTAINED WALL MOUNTED EMERGENCY EGRESS LIGHTING FIXTURE WITH THERMOPLASTIC HOUSING, (2) 'LED' LIGHTING HEADS ON HOUSING, LITHIUM IRON PHOSPHATE BATTERY, INTEGRAL CHARGER, SELF DIAGNOSTICS
		SCT-MIN1-MVOLT- BKSG-ZT-SCEP- F2/72A-BLKCY-BCRD		AIRCRAFT CABLE SUSPENSION, HARD CEILING MOUNTING, ELECTRONIC 0-10V DIMMING DRIVER, 3,236 LUMENS / 80 CRI / 3500°K / 20W LED MODULE, COORDINATE SUSPENSION HEIGHT WITH THE ARCHITECT 4' LONG LED LINEAR INDIRECT / DIRECT LED PENDANT	₩	LITHONIA	LHQM-LED-R-SD	120	EMERGENCY EXIT SIGN WITH RED LETTERS, WHITE THERMOPLASTIC HOUSING, 'LED' LAMPS, (2) 'LED' LIGHTING HEADS ON HOUSING, SEALED NICKEL CADMIUM BATTERY, INTEGRAL CHARGER, SELF DIAGNOSTICS,
N2	MARK	PLN8-LLP-8FT-MSL8- 80CRI-35K- ID800LMF-10/90- SCT-MIN1-MVOLT- BKSG-ZT-SCEP- F2/72A-BLKCY-BCRD	120	FIXTURE WITH COLD-ROLLED STEEL HOUSING, SCULPTURED END CAP, SATIN BLACK FINISH, BLACK CANOPY / CORD, 10% UP / 90% DOWN DISTRIBUTION, AIRCRAFT CABLE SUSPENSION, HARD CEILING MOUNTING, ELECTRONIC 0-10V DIMMING DRIVER, 6,472 LUMENS / 80 CRI / 3500°K / 40W LED MODULE, COORDINATE SUSPENSION HEIGHT WITH THE ARCHITECT	1. THI LIG 2. THI	E ELECTRICAL CO HT FIXTURES.	RATURE FOR ALL LIGHT I		ARROWS AND MOUNTING AS SHOWN ON DRAWINGS  O INSTALL ALL MOUNTING HARDWARE REQUIRED FOR ALL  S SHALL BE 3500°K, INTERIOR, 4000K FOR EXTERIOR,
N3	MARK	PLN8-LLP-8FT-MSL8- 80CRI-35K- ID800LMF-10/90- SCT-MIN1-MVOLT- BKSG-ZT-SCEP- F1/72A-BLKCY-BCRD	120	4' LONG LED LINEAR INDIRECT / DIRECT LED PENDANT FIXTURE WITH COLD-ROLLED STEEL HOUSING, SCULPTURED END CAP, SATIN BLACK FINISH, BLACK CANOPY / CORD, 10% UP / 90% DOWN DISTRIBUTION, AIRCRAFT CABLE SUSPENSION, T-GRID CEILING MOUNTING, ELECTRONIC 0-10V DIMMING DRIVER, 6,472 LUMENS / 80 CRI / 3500°K / 40W LED MODULE,	AN AN 4. DIM OT	D MANUFACTURE D DRIVERS CAN B IMING DRIVERS F HERWISE NOTED.	ER NUMBERS) USED ON P BE PURCHASED TO BE GIV OR LIGHT FIXTURES SHA	ROJECT VEN TO (	IST OF ALL LED MODULES AND DRIVERS (INCLUDING CATALOG DISTRIBUTOR NAME AND LOCATION WHERE LED MODULES OWNER AT JOB COMPLETION.  -10V DIMMING WITH A DIMMING RANGE DOWN TO 1%, UNLESS
Q	LITHONIA	CSS-L48-AL03- MVOLT-SWW3-80CRI	120	4' LONG SURFACE MOUNT LED STRIP LIGHT FIXTURE WITH COLD ROLLED STEEL HOUSING, BAKED WHITE ENAMEL FINISH, DIFFUSE ACRYLIC LENS, ELECTRONIC LUMEN / CCT SELECTABLE DRIVER, 4,732 LUMENS / 80	DEI THI THI	IVERIES. ANY DE ERE ARE ANY SPE E ENGINEER'S AT	ELAYS IN THE RECEIPT O ECIALTY FIXTURES REQU TENTION NO LESS THAN	F FIXTU IRING M 14 WEE	THE COMPLETION OF THE PROJECT DUE TO LIGHT FIXTURE RES DUE TO A DELAY IN ORDERING IS NOT ACCEPTABLE. IF ORE THAN 10 WEEKS DELIVERY, THIS SHALL BE BROUGHT TO KS BEFORE THE JOB COMPLETION.  TALLED IN FIRE-RATED CEILINGS, THE ELECTRICAL

7. IN LOCATIONS WHERE NON-IC RATED LIGHTING FIXTURES ARE INSTALLED IN INSULATED CEILINGS, THE ELECTRICAL CONTRACTOR SHALL PROVIDE AN INSULATED ENCLOSURE AROUND FIXTURE TO KEEP INSULATION 3" (MINIMUM) FROM FIXTURE HOUSING ON ALL SIDES.



330.434.4464 www.hasenstabinc.com

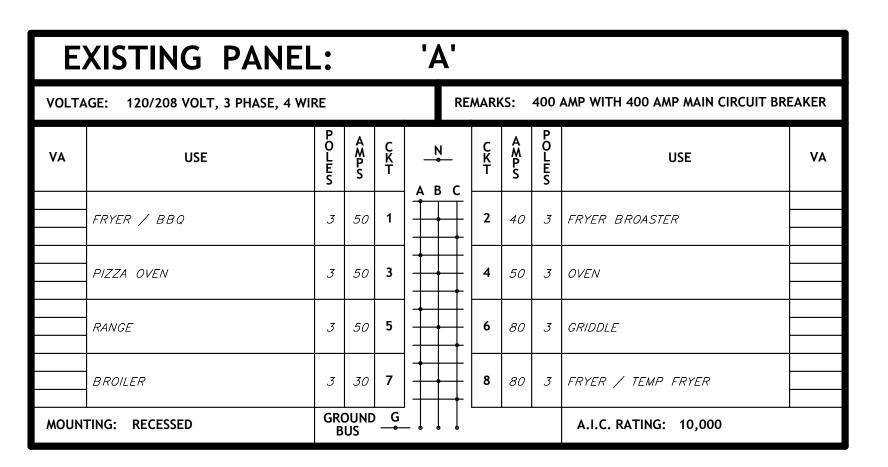


ISSUE / REVISION	DATE
BIDDING AND PLAN REVIEW	10/15/202

PROJECT NO.

ELECTRICAL SCHEDULES

ENGINEERING GROUP, LLC CONSULTING ENGINEERS 3730 Tabs Drive, Suite 200 Uniontown, Ohio 44685 330.899.4955 | epic-eeg.com



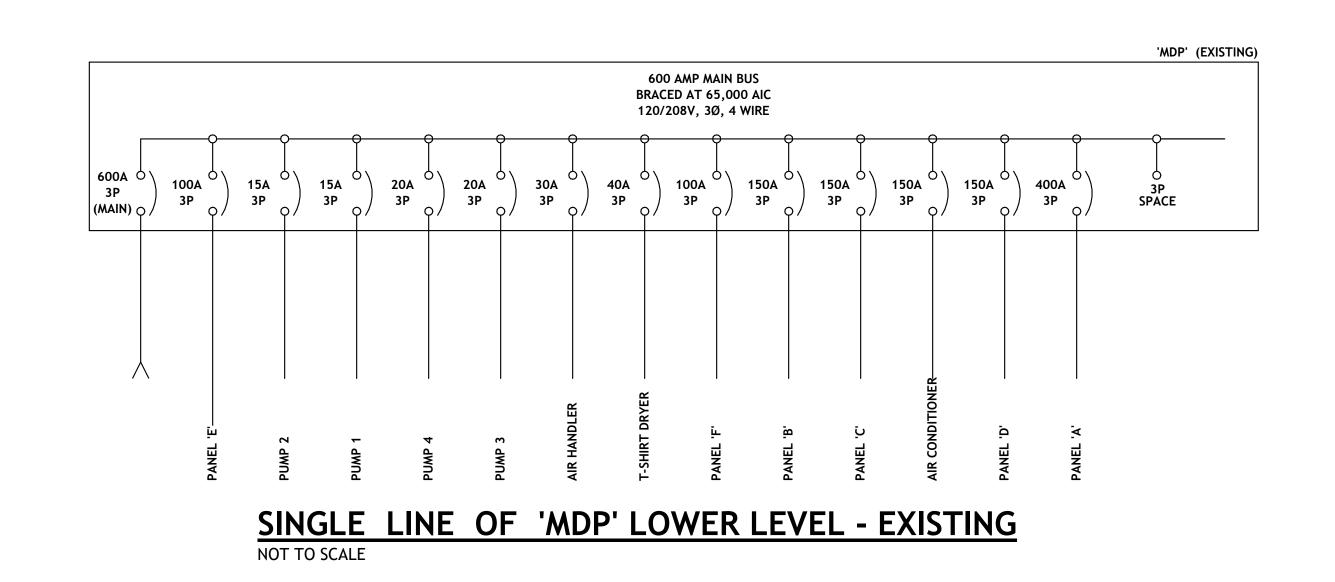
/OLT	AGE: 120/208 VOLT, 3 PHASE, 4 WIF	RE			F	REMARI	<s:< th=""><th>225</th><th>AMP MAIN LUG ONLY</th></s:<>	225	AMP MAIN LUG ONLY
VA	USE	POLES	A M P S	C K T	N D	C K T	A M P S	POLES	USE
	WATER STATION	1	15	1	ВС	- 2	15	1	REFRIGERATOR
	ICE CREAM CAB/LTG COOL/FRZR	1	15	3	+	- 4	20	1	FREEZER
	COFFEE URN	1	20	5	+	- 6	30	1	SODA FOUNTAIN
	HOOD SUPPLY FAN	3	15	7		- - - 8	15	3	HOOD EXHAUST FAN
	PEELER	3	15	9		- - 10	15	3	DISPOSAL
	DISPOSAL	3	15	11		- - 12	15	3	MIXER - HOT FOOD
	WALK-IN COOLER	3	15	13		- - 14	15	3	WALK-IN FREEZER
	DISHWASHER	3	30	15		- - 16	40	3	BOOSTER HEATER

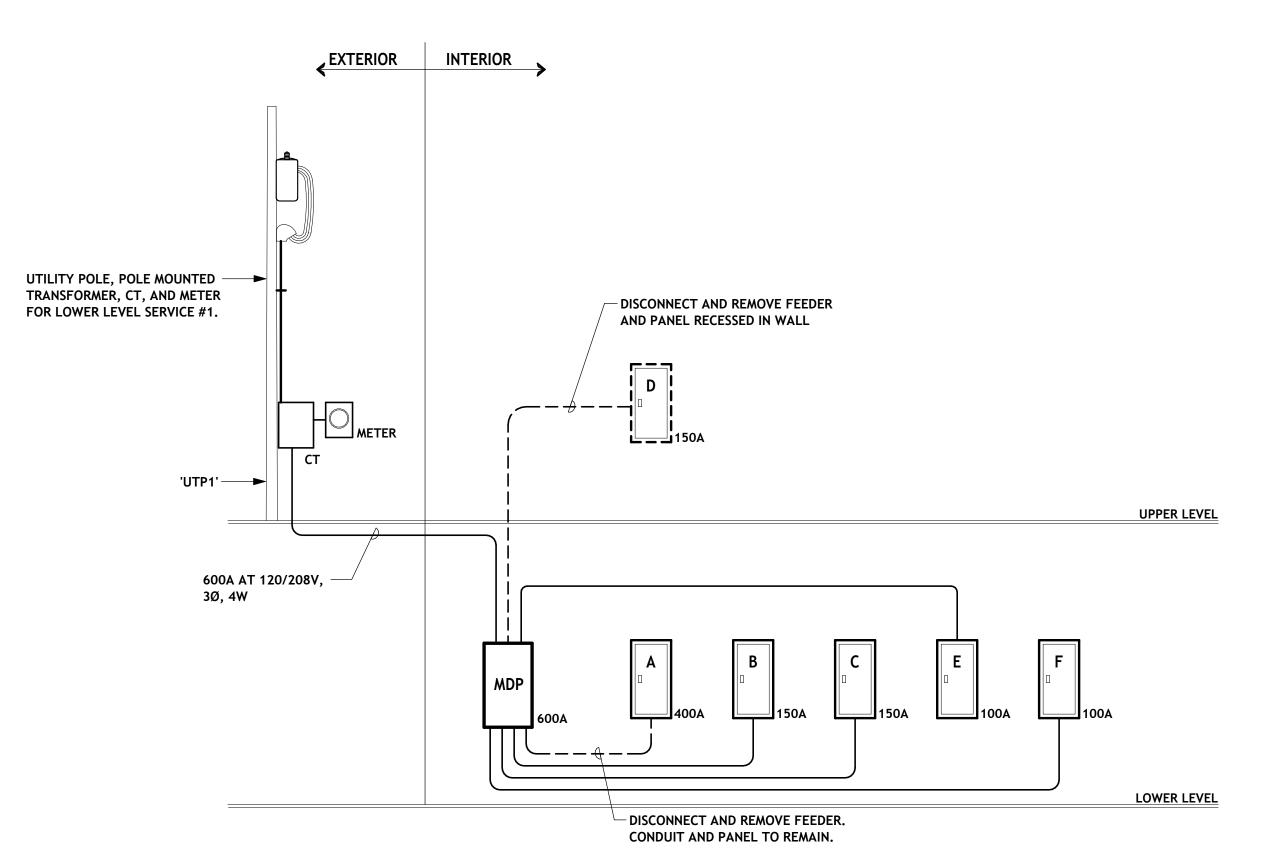
EX	ISTING PANEL:	)			'(	~ I							
VOLT	AGE: 120/208 VOLT, 3 PHASE, 4 WIF	RE				RE	MARI	ζS:	100	O AMP MAIN LUG ONLY			
VA	USE	POLES	A M P S	C K T		_	C K T	A M P S	P O L E S	USE	VA		
	LIGHTS - MEETING ROOM	1	20	1	A E	- C	2	20	1	LIGHTS - DINING ROOM			
	LIGHTS - MEETING ROOM	1	20	3	1 🛶	+	4	20	1	LIGHTS - DINING ROOM			
	LIGHTS - MEETING ROOM	1	20	5	1 +	$\rightarrow$	6	20	1	LIGHTS - DINING ROOM			
	LIGHTS — GIFT SHOP	1	20	7	] +	+	8	20	1	LIGHTS - LOCKER ROOM			
	LIGHTS — GIFT SHOP	1	20	9	l +∤	+	10	20	1	LIGHTS — HALL			
	LIGHTS — GIFT SHOP	1	20	11	] +	$\rightarrow$	12	20	1	LIGHTS - RECEIVING / STORAGE			
	LIGHTS — EXTERIOR CEILING FAN	1	20	13	] +	+	14	20	1	LIGHTS - KITCHEN			
	HOOD CONTROL	1	20	15	] +	+	16	20	1	LIGHTS - KITCHEN			
	FLEIZEL	1	20	17	] +	<del>-</del>	18	20	1	LIGHTS — KITCHEN			
	RECEPT - DINING ROOM	1	20	19	] +	+	20	20	1	RECEPT - KITCHEN			
	RECEPT - MEET RM/SALAD BAR	1	20	21	] +	+	22	20	1	RECEPT - KITCHEN ICE MACHINE			
	RECEPT - HALL / BOILER ROOM	1	20	23	++	$\rightarrow$	24	20	1	RECEPT - KITCHEN			
	RECEPT — GIFT SHOP	1	20	25	<b>│ ┿</b> ┤	+	26	20	1	RECEPT — REC./OUTSIDE REC.			
	RECEPT — GIFT SHOP	1	20	27	╽┼┼┪	+	28	20	1	RECEPT - LOCKER ROOMS			
	RECEPT — FLOOR OUTLETS	1	20	29	] +	$\rightarrow$	30	20	1	WATER COOLER			
	LIGHTS - DINING ROOM	1	20	31	] +	+	32	20	1	HAND DRYER			
	LIGHTS - DINING ROOM	1	20	33	] +	+	34	20	1	HAND DRYER			
	LIGHTS - DINING ROOM	1	20	35	] +	$\rightarrow$	36	20	1	RECEPT - GYM 'N'			
	RECPT - RECEIVING	1	20	37	] +	+	38	20	1	RECEPT - GYM 'E'			
	RECEPT — BEHIND SALAD BAR	1	20	39	] +	+	40	20	1	SIGN			
	RECEPT — BEHIND SALAD BAR	1	20	41	] +	$\rightarrow$	42	20	1	UP-RIGHT FREEZER			
MOUN	ITING: RECESSED		OUND	G		,				A.I.C. RATING: 10,000			

EX	ISTING PANEL	•				Έ	ī					
VOLTA	AGE: 120/208 VOLT, 3 PHASE, 4 WII	RE					RE	MARK	KS:	100	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T		N •	-	C K T	A MPS	POLES	USE	VA
	FREEZER LIGHTING	1	20	1	1 4	B	<del>-</del>	2				
	FREEZER FANS	2	20	3 5			+	6	20	3	WALK-IN FREEZER	
	SPACE			7	] -	-	+	8	20	1	SPACE	
	SPACE			9	] -	-	+	10	20	1	SPACE	
	TABLE	1	20	11	] -		+	12	30	1	UNKNOWN LOAD	
	REST	1	20	13	] -	$\vdash$	+	14			SPACE	
	SPACE			15	╛┩	+	+	16			SPACE	
	SPACE			17	╛┪		+	18			SPACE	
MOUN	TING: SURFACE		OUND US	G	_						A.I.C. RATING: 10,000	

E	(ISTING PAN	EL:			1	F'					
VOLT	AGE: 120/208 VOLT, 3 PHASE	, 4 WIRE				R	EMAR	<s:< th=""><th>100</th><th>AMP MAIN LUG ONLY</th><th></th></s:<>	100	AMP MAIN LUG ONLY	
VA	USE	P O L E S	A M P S	C K T	_	N •	C K T	A M P S	P O L E S	USE	VA
	LTG-BOILER ROOM	1	20	1	<del>   </del>	ВС	. 2	20	1	CONTROL COMPRESSOR	
	BOILER #1	1	20	3	] +	+	4	20	1	AIR DRYER	
	BOILER #2	1	20	5	] +	+	6	20	1	JOHNSTON CONTROL	
	GYM EXHAUST FAN	1	20	7	] +	+	. 8	20	1	TOILET EXHAUST FAN	
	GYM EXHAUST FAN	1	20	9	] +	+	10	20	1	TOILET EXHAUST FAN	
	GYM EXHAUST FAN	1	20	11	╽┷	$\rightarrow$	12	20	1	WATER HEATER & PUMP	

VOLT	AGE: 120/208 VOLT, 3 PHASE	, 4 WIRE				F	REM	ARK	S:	225	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T	_	N •		C K T	A M P S	POLES	USE	V
	EXISTING LOAD	1	20	1	A +	ВС	<u>-</u>	2	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	3		+	$\vdash \Gamma$	4	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	5		┵	$\vdash \Gamma$	6	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	7	+	+	$- \Gamma$	8	20	1	EXISTING LOAD	
		_		9		+	┝┌	10	20	1	EXISTING LOAD	
	EXISTING LOAD	2	20	11		+		12	20	1	EXISTING LOAD	
				13	-	+	$\vdash \vdash$	14	20	1	EXISTING LOAD	
	EXISTING LOAD	2	20	15		+	$\vdash \vdash$	16	20	1	EXISTING LOAD	
	EXISTING LOAD	2	20	17 19	$  \frac{1}{4}$			18 20	20	2	APARATUS LIGHTS	
	ENT HEATER SW	1	20	21		$\downarrow$	-	22	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	23		+	- 7	24	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	25		+	- [	26	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	27		+	-	28	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	29		+	- :	30	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	31	$\mid + \mid$	+	-   Ti	32	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	33		+	-   Ti	34	20	1	EXISTING LOAD	
	EXISTING LOAD	1	20	35		+	- [:	36	20	1	EXISTING LOAD	
				37		+	<b>├</b> [:	38				
	OLD PAVILION	3	50	39		+	- [	40	30	3	AIR HANDLER	
	7			41	$\perp$	$oldsymbol{\downarrow}$		42				





POWER RISER DIAGRAM - LOWER LEVEL - EXISTING
NOT TO SCALE (SERVICE #1)

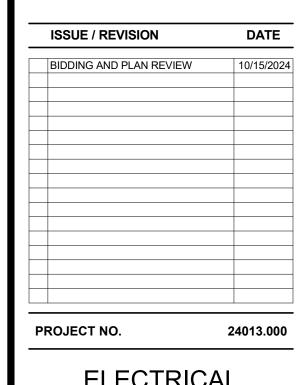


# OFFICE RENOVATION

211 MOODY AVE SW CARROLLTON OHIO 44615







ELECTRICAL SERVICE #1 (EXISTING CONDITIONS)

ENGINEERING GROUP, LLC CONSULTING ENGINEERS 3730 Tabs Drive, Suite 200 Uniontown, Ohio 44685 330.899.4955|epic-eeg.com E302

O. © 2024

DISCONNECT PANEL FROM '1MDP'. PANEL SHALL REMAIN AS SPARE

VOLTA	AGE: 120/208 VOLT, 3 PHASE, 4 WIR	RE				RI	EMARI	KS:	225	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T	_	N •	C K T	A M P S	P O L E S	USE	VA
1200	RECEPT-BREAK RM 015 REFRIG.	1	20	1	<u>A</u>	B C	2	20	1	RECEPT-VOTING PREP RM 012	1080
1200	RECEPT-BREAK RM 015 WTR. COOL.	1	20	3	1 🚣	+	4	20	1	RECEPT-VOTING PREP RM 012	1080
360	RECEPT-BREAK ROOM 015	1	20	5	1 —	++	6	20	1	RECEPT-VOTING PREP RM 012	720
180	RECEPT-BREAK ROOM 015 COUNTER	1	20	7	1 +-	++	8	20	1	RECEPT-VOTING PREP RM 012	720
1800	RECEPT-BREAK ROOM 015 COUNTER	1	20	9	1 🚣	┿┼	10	20	1	RECEPT-VOTING PREP RM 012	900
1000	RECEPT-CORR 004 COPIER	1	20	11	1 <del> </del>	+	12	20	1	RECEPT-VOTING PREP RM 012	720
180	RECEPT-CORR 004 COUNTER	1	20	13	1 🚣	++	14	20	1	RECEPT-IN-PERSON VOTING	720
500	RECEPT-CORR 004 EQUIPMENT	1	20	15	1 <del> </del>	+	16	20	1	RECEPT-IN-PERSON VOTING	720
500	RECEPT-SUPPLIES 011 SHREDDER	1	20	17	1 —	+	18	20	1	RECEPT-OFFICE 002	900
1080	RECEPT-SUPPLIES 011/TABUL. 007	1	20	19	1 +	++	20	20	1	RECEPT-OFFICE 002 COPIER	500
360	RECEPT-STORAGE 010	1	20	21	1 +	+	22	20	1	RECEPT-OFFICE 005	900
720	RECEPT-BOARDROOM 017	1	20	23	1 <del> </del>	+	24	20	1	RECEPT-OFFICE 005 COPIER	500
	SPARE	3	15	25 27 29			26 28 30	15	3	SPARE	
	SPARE	3	30	31 33 35			32 34 36	40	3	SPARE	

- NOTES:

  1. 'DARK BOLD' INDICATES NEW LOAD AND / OR CIRCUIT BREAKER.
- 2. 'LIGHT ITALIC' INDICATES EXISTING LOAD AND / OR CIRCUIT BREAKER.
- 3. " \* " INDICATES THE 'EC' SHALL FURNISH AND INSTALL A NEW CIRCUIT BREAKER TO REPLACE EXISTING CIRCUIT BREAKER(S). 4. 'GFCI' INDICATES CIRCUIT BREAKER SHALL BE GFCI-TYPE.

RE	VISED PANEL:				'1	L	.C	•			(FORMERLY PAN	EL 'C')
VOLTA	AGE: 120/208 VOLT, 3 PHASE, 4 WIF	RE					RE	MARK	ΚS:	100	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T		N	_ _	C K T	A P S	POLES	USE	VA
1450	LTG-LOWER LEVEL OFF./VEST/PREP	1	20	1	🛖	$\overline{}$	$\overline{}$	2	20	1	RECEPT-RR 019 / STOR 020 / CORR	720
670	LTG-BOARD RM / RR / CORR / STOR	1	20	3	] +	$\dashv$	+	4	20	1	RECEPT-RR 018 / CORR	900
770	LTG-IN-PERSON VOTING	1	20	5	] +	+	+	6	20	1	RECEPT-BOARD RM 017	900
480	VAV POWER	1	20	7	] →	+	+	8	20	1	RECEPT-SERVER 014 EQUIPMENT	500
1080	AC-1	1	20	9	] +	$\dashv$	+	10	20	1	RECEPT-SERVER 014	540
2903 2903 2903	AHU-1	3	50	11 13 15		+	<u>+</u>	12 14 16	20 20 20	1 1 1	RECEPT-IN-PERSON VOTING 002 RECEPT-VOTING PREP 012 RECEPT-STOR 010 / JAN 009	540 720 900
	SPARE	1	20	17	14	_	$\downarrow$	18	20	1	EF-3	200
	SPARE	1	20	19	<b>│</b>	4	4	20	20	1	CUH-1	100
	SPARE	1	20	21	14	$\downarrow$	4	22	20	1	TC POWER	400
	SPARE	1	20	23		4	$\downarrow$	24	20	1	SPARE	
	SPARE	1	20	25	<b>│</b>	4	$\perp$	26	20	1	SPARE	
	SPARE	1	20	27	14	_	_	28	20	1	SPARE	
	SPARE	1	20	29		$\dashv$	$\downarrow$	30	20	1	SPARE	
	SPARE	1	20	31		$\dashv$	+	32	20	1	SPARE	
	SPARE	1	20	33		$\dashv$	+	34	20	1	SPARE	
	SPARE	1	20	35		$\dashv$	+	36	20	1	SPARE	
	SPARE	1	20	37		4	+	38	20	1	SPARE	
	SPARE	1	20	39		4	+	40	20	1	SPARE	
	SPARE	1	20	41		+	+	42	20	1	SPARE	
WOUN.	TING: RECESSED		DUND US	G	_				•		A.I.C. RATING: 10,000	

- 1. 'DARK BOLD' INDICATES NEW LOAD AND / OR CIRCUIT BREAKER.
- 2. 'LIGHT ITALIC' INDICATES EXISTING LOAD AND / OR CIRCUIT BREAKER. 3. " \* " INDICATES THE 'EC' SHALL FURNISH AND INSTALL A NEW CIRCUIT BREAKER TO REPLACE EXISTING CIRCUIT BREAKER(S) OR IN
- EXISTING SPACE. 4. 'L' INDICTAES CIRCUIT BREAKER SHALL HAVE LOCK-ON CLIP. 5. 'GFCI' INDICATES CIRCUIT BREAKER SHALL BE GFCI-TYPE.

RE	VISED PANEL:			,	<b>'1</b> l	_D	ī			(FORMERLY PANEL 'E')
VOLT	AGE: 120/208 VOLT, 3 PHASE, 4 WI	RE				RE	MARK	ζS:	100	AMP MAIN LUG ONLY
VA	USE	P O L E S	A M P S	C K T		N ♣	C K T	A P S	POLES	USE VA
	SPARE - SPARE	1 2	20 20	1		3 C	2	20	3	SPARE
	SPACE		20	7			8	20	1	SPARE
	SPACE SPARE	1	20	9 11	+		10	<i>20</i> <i>30</i>	1	SPARE SPARE
	SPACE SPACE	1	20	13 15 17			14 16 18			SPACE SPACE SPACE
MOUN	ITING: SURFACE		DUND US							A.I.C. RATING: 10,000

- 1. 'DARK BOLD' INDICATES NEW LOAD AND / OR CIRCUIT BREAKER.
- 2. 'LIGHT ITALIC' INDICATES EXISTING LOAD AND / OR CIRCUIT BREAKER. 3. " \* " INDICATES THE 'EC' SHALL FURNISH AND INSTALL A NEW CIRCUIT BREAKER TO REPLACE EXISTING CIRCUIT BREAKER(S).

	R	EVISED PANEL:	•			'1L	Ε'	ı			(FORMERLY PAI	NEL 'F')
	VOLTA	AGE: 120/208 VOLT, 3 PHASE, 4 WII	RE				RE	MARK	ΚS:	100	AMP MAIN LUG ONLY	
	VA	USE	POLES	A M P S	C K T			C K T	A P S	POLES	USE	VA
		LTG-BOILER ROOM	1	20	1	A B		2	20	1	CONTROL COMPRESSOR	
		BOILER #1	1	20	3	] +	+	4	20	1	AIR DRYER	
ιl		BOILER #2	1	20	5	] +	+	6	20	1	JOHNSTON CONTROL	
Ì.	300	FACP	1	20	7	] +	+	8	20	1	TOILET EXHAUST FAN	
	1000	TCP-1 & 2	1	20	9	] +	+	10	20	1	TOILET EXHAUST FAN	
	500	GWH-1, P-1, & UH-1	1	20	11	] +	+	12	20	1	WATER HEATER & PUMP	
	MOUN	TING: SURFACE		OUND US	G						A.I.C. RATING: 10,000	

1. 'DARK BOLD' INDICATES NEW LOAD AND / OR CIRCUIT BREAKER.

PAINT C/B 'RED' —

- 2. 'LIGHT ITALIC' INDICATES EXISTING LOAD AND / OR CIRCUIT BREAKER. 3. " \* " INDICATES THE 'EC' SHALL FURNISH AND INSTALL A NEW CIRCUIT BREAKER TO REPLACE EXISTIN
- 4. 'L' INDICTAES CIRCUIT BREAKER SHALL HAVE LOCK-ON CLIP.

,,,,,,				
ST FAN				
ST FAN				
% PUMP				
i: 10,000	•			
ING CIRCUIT BREA	AKER(S).			
			$\sqrt{17}$	$\sqrt{1}$

SINGLE LINE OF '1MDP' LOWER LEVEL - REVISED

 $\begin{vmatrix} 100A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 20A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 30A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 30A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 30A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 30A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 30A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 30A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 40A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 150A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 150A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 150A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 150A & \Diamond \\ 3P & Q \end{vmatrix} \begin{vmatrix} 400A & \Diamond \\ 3P & Q \end{vmatrix}$ 

GENERAL NOTES

REVISED POWER RISER DIAGRAM.

PROJECT COMPLETION.

REFERENCE NOTES

UNDER ALTERNATE 3.

1. ALL DISTRIBUTION AND LIGHTING / APPLIANCE PANELS ARE GENERAL ELECTRIC 'GE'.

2. RELABEL ALL DISTRIBUTION AND LIGHTING / APPLIANCE PANELS AS INDICATED ON

3. UPDATE DISTRIBUTION AND LIGHTING APPLIANCE DIRECTORIES / LEGENDS AT

4. REVISED PANEL '1LA' WILL NOT BE ENERGIZED AND SHALL REMAIN AS SPARE.

REINSTALL EXISTING 20A/3P CIRCUIT BREAKERS REMOVED DURIND DEMOLITION TO

3> PROVIDE DIGITAL METERING (EMON/DMON, LEVITON, OR EQUAL) ON DISTRIBUTION

4> PROVIDE NEW LABEL AND DIRECTORY / LEGEND FOR ALL REVISED DISTRIBUTION

5 PROVIDE LABEL ON '1MDP' PER 110.24 STATING THE MAXIMUM AVAILABLE SHORT

PROVIDE NEW 30A/3P CIRCUIT BREAKERS IN '1MDP' TO SERVE PUMPS 3 AND 4

SERVE PUMPS 1 AND 2 UNDER ALTERNATE 3.

PANEL '2MDP-C' FOR M, ONITORING USAGE.

CIRCUIT FAULT CURRENT IS 21,077A DATED 10.14.24.

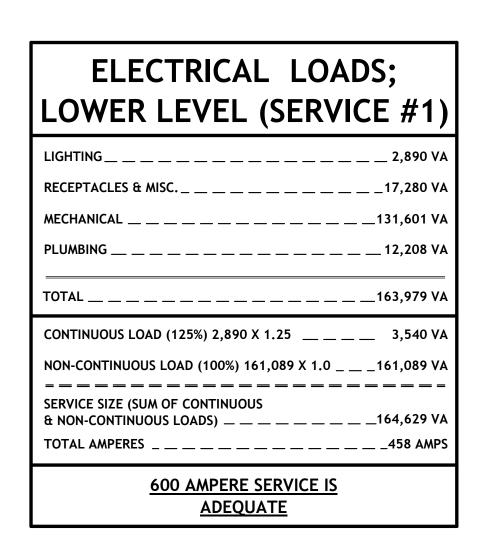
600 AMP MAIN BUS BRACED AT 65,000 AIC

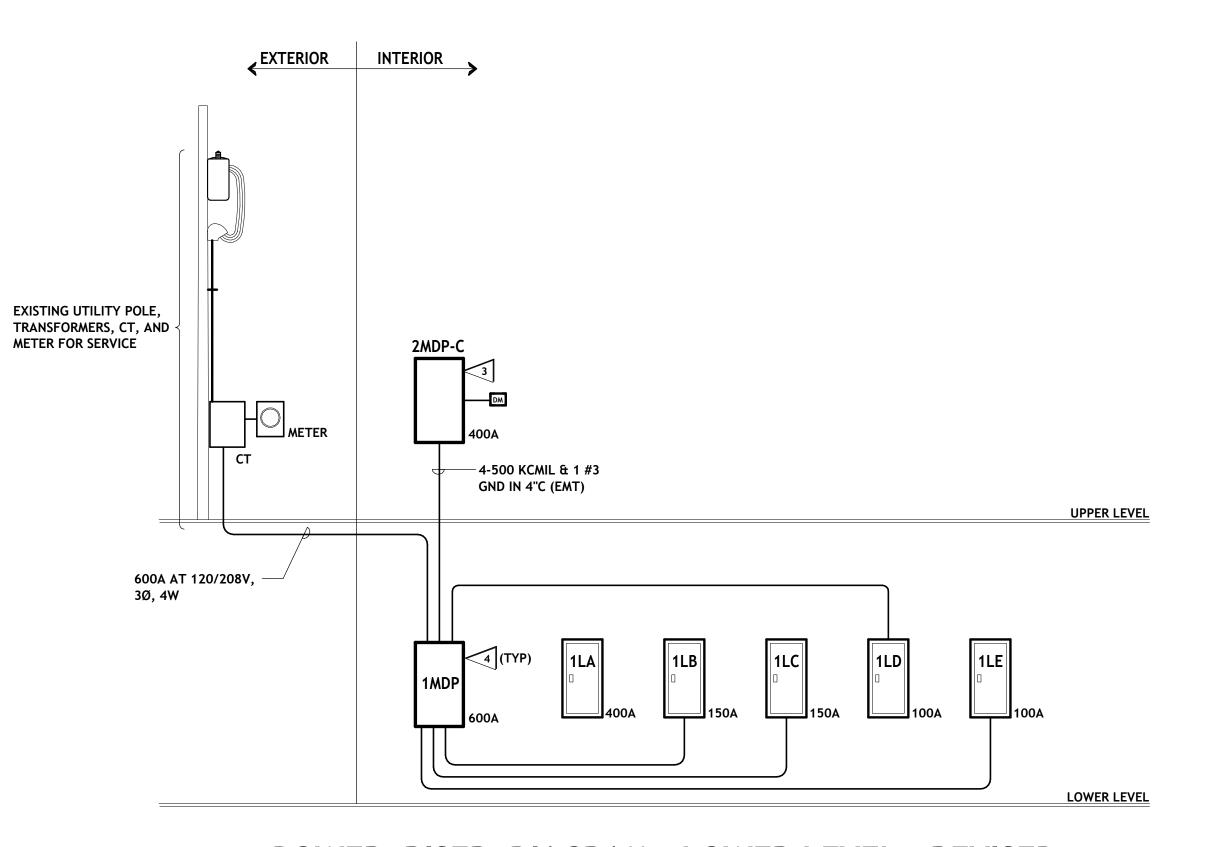
AND LIGHTING APPLIANCE PANELS.

(THESE NOTES APPLY TO THIS PLAN ONLY)

'1MDP' (FORMERLY 'MDP')

5 SCCR



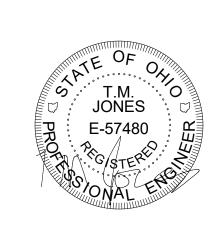


POWER RISER DIAGRAM - LOWER LEVEL - REVISED
NOT TO SCALE (SERVICE #1)



330.434.4464 www.hasenstabinc.com





ISSUE / REVISION	DATE
BIDDING AND PLAN REVIEW	10/15/2024
PROJECT NO.	24013.000
ELECTRIC	
SERVICE	# I

CONSULTING ENGINEERS 3730 Tabs Drive, Suite 200 Uniontown, Ohio 44685 330.899.4955|epic-eeg.com

(REVISED CONDITIONS)

E	CISTING PANEL	•			Ή	M	'				
VOL1	AGE: 120/208 VOLT, 3 PHASE, 4 WI	IRE				R	REMAI	KS:	225	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T		N •	C K T	A M P S	P O L E S	USE	VA
	RECEPT-HOME EC	1	20	1	<del>                                    </del>	B C	_ 2	20	1	DISPOSAL HOME EC	
	RECEPT-HOME EC	1	20	3		+	- 4	20	1	REFRIGERATOR HOME EC	
	DISHWASHER HOME EC	1	20	5		╀	- 6	20	1	DISHWASHER SPARE	
	DISHWASHER HOME EC	1	20	7		++	- 8	20	1	RECEPT-HOME EC	
	RECEPT-HOME EC	1	20	9		+ +	- 10	20	1	DISPOSAL HOME EC	
	REFRIGERATOR HOME EC	1	20	11		+	- 12	20	1	WASHER HOME EC	
	WASHER HOME EC	1	20	13		+	- 14	20	1	RECEPT-HOME EC	
	RECEPT-HOME EC	1	20	15		+	- 16	20	1	PLUGMOLD HOME EC	
	RECEPT-HOME EC	1	20	17		╁	- 18	20	1	RECEPT-SHOE REPAIR	
	RECEPT-SHOE REPAIR	1	20	19	+	++	- 20	20	1	RECEPT-SHOE REPAIR	
	EXHAUST FAN HOME EC	1	20	21		┥┤	- 22	20	1	UNKNOWN LOAD	
	UNKNOWN LOAD	1	20	23 25			- 24 - 26	<b>⊣</b> 70	1	DRYER	
	DRYER	1	30	27 29	$\parallel \pm \parallel$		- 28 - 30		1	RANGE	
	RANGE	1	50	31 33			- 32 - 34		1	RANGE	
	SPACE			35		$\downarrow \downarrow$	- 36			SPACE	
	SPACE			37	<b>│                                    </b>	+	- 38			SPACE	
	SPACE			39		+	- 40			SPACE	
	SPACE			41		$\downarrow \downarrow$	- 42			SPACE	
MOU	NTING: RECESSED		OUNE	G				•		A.I.C. RATING: 10,000	

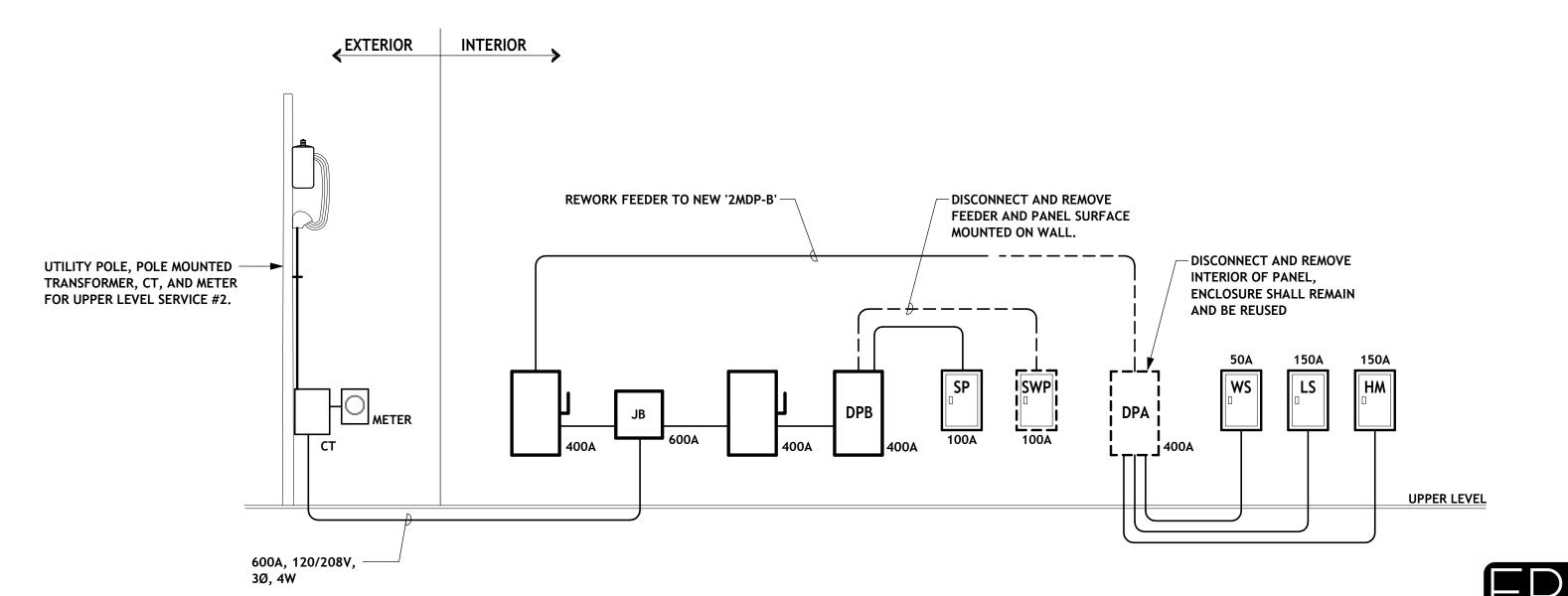
VOLT	AGE: 120/208 VOLT, 3 PHASE, 4 V	VIRE					RE	MARK	KS:	225	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T	_	N	-	C K T	A M P S	POLES	USE	VA
	LIGHTS-KILN ROOM	1	20	1	<del>A</del>	В	<u> </u>	2			V	
	UNIT HEATER KILN ROOM	1	20	3	] +	+	+	4	XX	2	X	
	LIGHTS-SHOW REPAIR	1	20	5	] +	+	+	6	20	1	LIGHTS-HOME EC	
	LIGHTS-HOME EC	1	20	7	] +	+	+	8	20	1	LIGHTS-HOME EC	
	LIGHTS-HALLWAY	1	20	9	] +	┿	+	10	20	1	LIGHTS-WOOD SHOP	
	LIGHTS-WOOD SHOP	1	20	11	] +	+	+	12	20	1	LIGHTS-WOOD SHOP	
	LIGHTS-UPHOLSTERY ROOM	1	20	13	] +	+	+	14	20	1	UNIT HEATER WOOD SHOP/UPHOL	
	SPARE	1	20	15	] +	+	+	16	20	1	RECEPT-KITCHEN	
	POTTERY WHEEL AIR COND.	1	20	17	] +	+	+	18	20	1	RECEPT-KILN ROOM	
	EXHAUST FAN KILN ROOM	1	20	19	] +	+	+	20	20	1	RECEPT-UPHOLSTERY ROOM	
	RECEPT-UPHOLSTERY ROOM	1	20	21	] +	┿	+	22	20	1	SLIP-O-MATIC	
	UNKNOWN LOAD	1	20	23	] +	+	+	24	20	1	UNKNOWN LOAD	
	RECEPT-KITCHEN COUNTER	1	20	25	] +	+	+	26	20	1	RECEPT-KITCHEN COUNTER	
	UNKNOWN LOAD	1	20	27	] +	+	+	28	20	0	LINIKOWAL LOAD	
	UNKNOWN LOAD	1	20	29	] +	+	+	30	20	2	UNKOWN LOAD	
				31	] +	+	+	32			SPACE	
	UNKNOWN LOAD	3	XX	33	] +	┿	+	34			SPACE	
				35	] +	+	+	36			SPACE	
	SPACE			37	] +	+	+	38			SPACE	
	SPACE			39	+	+	+	40			SPACE	
	SPACE			41	1 +	+	+	42			SPACE	

VOLT	AGE: 120/208 VOLT, 3 PHASE, 4 V	WIRE				RE	MARK	KS:	100	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T		<u>,</u>	C K T	A M P S	POLES	USE	V
	HALL LTG	1	20	1	1 4 1	3 C	2	20	1	ROOM LTG N.E.	
	HEAT HALL	1	20	3	] +	+	4	20	1	ROOM LTG CENTER	
	ROOM LTG S.W.	1	20	5	] +	<b>-</b>	6	20	1	ROOM LTG S.E.	
	PLUGS	1	20	7	] +	+	8	20	1	PLUGS	
	UNKNOWN LOAD	1	20	9	] +	+	10	20	1	PLUGS	
	UNKNOWN LOAD	1	20	11	] +	+	12	20	1	PLUGS RM 12	
	UNKNOWN LOAD	1	20	13	] +	+	14	20	1	PLUGS RM 11	
	OUTSIDE EMERGENCY LIGHT	1	20	15	] +	<del>                                      </del>	16	20	1	RECEPT-ROOM 12	
	DRYER PLUG	1	20	17	] +	<b>-</b>	18	20	1	PLUGS RM 12	
	UNKNOWN LOAD	1	20	19	] +	-	20	20	1	UNKNOWN LOAD	
	UNKNOWN LOAD	1	20	21	] +	$\vdash$	22	20	1	UNKNOWN LOAD	
	UNKNOWN LOAD	1	20	23	] +	<b>-</b>	24	20	1	UNKNOWN LOAD	
	SPACE			25	] +	-	26			SPACE	
	SPACE			27	] +	$\vdash$	28			SPACE	
	SPACE			29	1 —	<b>-</b>	30			SPACE	

E	XISTING PANEI	-•			<b>'S</b> '	WI	P'			
VOLTA	AGE: 120/208 VOLT, 3 PHASE, 4 WI	RE			RE	MARI	(S:	100	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T	N →	C K T	A P S	P O L E S	USE	VA
	LIGHTING	1	20	1	A B C	2	20	1	RECEPTACLES	
	HEATER	1	20	3	+++	4	20	1	HEATER IN HALL	
	UNKNOWN LOAD	1	20	5	+++	6	20	1	UNKNOWN LOAD	
	UNKNOWN LOAD	1	20	7	+++	8	20	1	UNKNOWN LOAD	
	UNKNOWN LOAD	3	20	9 11 13		10 12 14	20	3	UNKNOWN LOAD	
	UNKNOWN LOAD	3	20	15 17 19		16 18 20	20	3	UNKNOWN LOAD	
MOUN	TING: SURFACE		OUND SUS	G					A.I.C. RATING: 10,000	

VOLT.	AGE: 120/208 VOLT, 3 PHASE, 4 V	VIRE				RE	MARK	(S:	60 /	AMP MAIN LUG ONLY	
VA	USE	P O L E S	A M P S	C K T		N •	C K T	A MPS	P O L E S	USE	VA
	WORK SHOP RECEPTACLES	1	20	1	<u>A</u>	ВС	2	20	1	WORK SHOP RECEPTACLES	+
	WORK SHOP RECEPTACLES	1	20	3		+	4	20	1	WORK SHOP RECEPTACLES	
	WORK SHOP RECEPTACLES	1	20	5		<del>     </del>	6	20	1	WORK SHOP RECEPTACLES	
	DROP CORD TABLE	1	20	7	+	$\vdash$	8	20	1	DROP CORD SAW	
	RECEPT STRIP 120 PLUGS	1	20	9		++	10	20	1	RECEPT STRIP 120 PLUGS	
	UNKNOWN LOAD	1	20	11		+	12	20	1	UNKNOWN LOAD	
	SPACE			13	+	++	14			SPACE	
	SPACE			15	] +	+	16			SPACE	
	UNKNOWN LOAD	2	20	17 19			18 20			SPACE SPACE	
4U0 <i>N</i>	TING: SURFACE	GR	OUND SUS				20			<i>SPACE</i> <b>A.I.C. RATING:</b> 10,000	

VOLT	AGE: 120/208 VOLT, 3 PHASE, 4	WIRE					R	MAR	KS:	400	AMP MAIN LUG ONLY	
VA	USE	P O L E S	A M P S	C K T		_\_	_	C K T	A M P S	P O L E S	USE	V
	SPARE	3	100	1 3 5	-		3 C	4	20 20 20	1 1 1	SPARE LIGHTS HEATER	
	WATER HEATER	3	50	7 9 11	   -   -			8 10 12	20 20 20	1 1 1	RECEPTACLES RECEPTACLES SPARE	
	LIGHTS	1	20	13	│			14	20	1	SPARE	
	HEATER	1	20	15	] -	H	+	16	20	1	SPARE	
	RECEPTACLES	1	20	17	] –	Н	$\rightarrow$	18				
	RECIRC PUMP	1	20	19	]	$\vdash$	+	20	50	3	PANEL 'WS'	
	SPARE	1	20	21	] –	H	$\vdash$	22				
	KILN	2	40	23	] –	$\vdash\vdash$	$\vdash \downarrow$	24	20	1	SPACE	
	NLN		40	25	] -	$\vdash$	$\dashv$	26	20	1	SPACE	
	SPACE	1	20	27	] –	$\vdash$	$\vdash$	28	20	1	SPACE	
	PANEL 'HM'	3	150	29 31 33	] -   -			30 32 34	150	3	PANEL 'LS'	



POWER RISER DIAGRAM - UPPER LEVEL - EXISTING
NOT TO SCALE (SERVICE #2)



# 330.434.4464 v.hasenstabinc.com

NTY OFFICE RENO

MOODY AVE SW





ISSUE / REVISION	DATE
BIDDING AND PLAN REVIE	EW 10/15/2024
PROJECT NO.	24013.000

ENGINEERING GROUP, LLC CONSULTING ENGINEERS 3730 Tabs Drive, Suite 200 Uniontown, Ohio 44685 330.899.4955 | epic-eeg.com

.,,								
1.	'DARK	BOLD' IN	NDICATES N	EW LOAD A	AND / O	R CIR	CUIT B	REAKER
0	11011	ITALIO!	1110101750	CVICTIVO	1010	4 4 / 0	/ 00	010011

<sup>2. &#</sup>x27;LIGHT ITALIC' INDICATES EXISTING LOAD AND / OR CIRCUIT BREAKER. 3. " \* " INDICATES THE 'EC' SHALL FURNISH AND INSTALL A NEW CIRCUIT BREAKER TO REPLACE EXISTING CIRCUIT BREAKER(S).

VOLIA	AGE: 120/208 VOLT, 3 PHASE, 4 W	IRE					F	RE/	MARK	(S: 2	25 /	AMP WITH 150 AMP MAIN CIRCUIT BREA	AKER
VA	USE	P O L E S	A M P S	C K T		_N ⊸•	_		C K T	A M P S	POLES	USE	VA
720	RECEPT-CONFERENCE 147	1	20	1	A	В			2	20	1	RECEPT-ELEC 144/CORR 143	360
540	RECEPT-CONFERENCE 147	1	20	3	14	_		ĻΙ	4	20	1	RECEPT-SECURE SERVER 145	500
720	RECEPT-CONF 147 FLOOR BOXES	1	20	5	4	_	_	$\vdash$	6	20	1	RECEPT-SECURE SERVER 145	500
500	RECEPT-STOR 146 SHREDDER	1	20	7	╽→			$\vdash$	8	20	1	RECEPT-KITCHENETTE 142 MICRO	1000
500	RECEPT-STOR 146 EQUIPMENT	1	20	9	4	_		$\vdash$	10	20	1	RECEPT-KITCHENETTE 142 MICRO	1000
540	RECEPT-STOR 146 COUNTER	1	20	11	4	_	_	$\vdash$	12	20	1	RECEPT-KITCHEN. 142 COUNTER	540
1200	RECEPT-HUDDLE 149 COPIER	1	20	13	╽→	$\dashv$	$\dashv$	ĻΙ	14	20	1	RECEPT-KITCHEN. 142 DISHWASHER	800
540	RECEPT-HUDDLE 150	1	20	15	4	$\dashv$	$\dashv$	ĻΙ	16	20	1	RECEPT-KITCHEN. 142 REFRIG.	1200
900	RECEPT-OFF 151/STOR 152	1	20	17	4	_	_	$\vdash$	18	20	1	RECEPT-CALL CENTER 160	900
720	RECEPT-OFFICE 153	1	20	19		$\dashv$	$\dashv$	$\vdash$	20	20	1	RECEPT-CALL CENTER 159	720
540	RECEPT-FURNITURE FEED	1	20	21	4	$\rightarrow$	$\dashv$	$\vdash$ $\mid$	22	20	1	RECEPT-CALL CENTER 158	720
540	RECEPT-FURNITURE FEED	1	20	23	4	$\dashv$	_	-	24	20	1	RECEPT-OFFICE 164	900
540	RECEPT-FURNITURE FEED	1	20	25	╽→	$\dashv$	$\dashv$	$\vdash$ $\mid$	26	20	1	RECEPT-TRAINING 165	900
540	RECEPT-FURNITURE FEED	1	20	27	4	$\rightarrow$	$\dashv$	$\vdash$	28	20	1	RECEPT-COPY 163 COUNTER	540
540	RECEPT-FURNITURE FEED	1	20	29	4	_	-	$\vdash$	30	20	1	RECEPT-COPY 163 PRINTER	1000
540	RECEPT-FURNITURE FEED	1	20	31	╽→	$\dashv$		$\vdash$	32	20	1	RECEPT-COPY 162 COUNTER	540
540	RECEPT-FURNITURE FEED	1	20	33	4	-	-	$\vdash$	34	20	1	RECEPT-COPY 162 PRINTER	1000
540	RECEPT-FURNITURE FEED	1	20	35	4	-	-	$\vdash$	36	20	1	VAV POWER	240
86	OB-2 & 3	2	20	37		$\dashv$	$\dashv$	ŀΙ	38	20	1	VAV POWER	600
86	OB-2 & 3	-	20	39		$\rightarrow$	$\dashv$	$\vdash$ $\mid$	40	20	1	LTG-UPPER LEVEL NORTHWEST	1240
565				41		$\dashv$	-	$\vdash$	42	20	1	LTG-UPPER LEVEL OFFICES	780
565	RF-1	3	20	43		$\dashv$	$\dashv$	$\vdash$	44	20	1	LTG-OPEN OFFICE 161 / 167	1420
565				45		$\rightarrow$	$\dashv$	$\vdash$	46	20	1	TC PANEL	500
1250	DE 3		20	47		$\dashv$	-	-	48	20	1	TC POWER	500
1250	RF-3	2	20	49		$\dashv$	$\dashv$	$\vdash$	50	20	1	SPARE	
1250	DE 2	2	20	51		$\dashv$	$\dashv$	$\vdash$ $\mid$	52	20	1	SPARE	
1250	RF-2	2	20	53		$\dashv$	-	$\vdash$	54	20	1	SPARE	
	SPARE	1	20	55		$\dashv$	$\dashv$	<b>⊦</b>	56	20	1	SPARE	
	SPARE	1	20	57	4	-	$\dashv$	$\vdash$ $ $	58	20	1	SPARE	
	SPARE	1	20	59		$\dashv$	-	$\vdash$	60	20	1	SPARE	

1. 'GFCI' INDICATES CIRCUIT BREAKER SHALL BE GFCI-TYPE.

NE	W PANEL:			<b>'2</b>	MD	P.	-B'	1		
VOLTA	AGE: 120/208 VOLT, 3 PHASE, 4 W	IRE				RE	MARK	S:	400	AMP WITH 400 AMP MAIN CIRCUIT BREAKER
VA	USE	P O L E S	A M P S	C K T	N •		C K T	A M P S	P O L E S	USE VA
1500 1500 1500	EWH-1	3	20	1 3 5	A B	<u></u>	4 6	60	3	PANEL '2LA'
	PANEL '2LB'	3	150	7 9 11		+	8 10 12	150	3	PANEL '2LC'
	PANEL '2LD'	3	150	13 15 17		+	14 16 18		3	SPACE
	SPACE	3		19 21 23		+	20 22 24		3	SPACE
	SPACE	3		25 27 29		+	26 28 30		3	SPACE
MOUN	TING: SURFACE	GR:	OUND BUS	G						A.I.C. RATING: 25,000

<sup>1.</sup> POWER PANELBOARD CONSTRUCTION

NE	W PANEL:			<b>'2</b>	MD	)P	<b>-C</b>	1			
VOLTA	GE: 120/208 VOLT, 3 PHASE, 4 WI	RE				RE	MARK	KS:	400	AMP WITH 400 AMP MAIN CIRCUIT BRE	EAKER
VA	USE	P O L E S	A M P S	C K T		_	C K T	A M P S	POLES	USE	VA
12500 12500 12500	CU-2	3	150	1 3 5	A B		4 6	100	3	AHU-2	5570 5570 5570
5380 5380 5380	CU-3	3	70	7 9 11			8 10 12		3	SPACE	
3555 3555 3555	CU-4	3	50	13 15 17			14 16 18		3	SPACE	
1625 1625 1625	CU-5	3	20	19 21 23			20 22 24		3	SPACE	
1710 1710 1710	CU-6	3	30	25 27 29			26 28 30		3	SPACE	
MOUN.	TING: SURFACE		OUNE	G	_					A.I.C. RATING: 25,000	

1. POWER PANELBOARD CONSTRUCTION

R	EVISED PANEL:	•			'2l	B			(FORMERLY PANE	L 'LS')
VOLTA	AGE: 120/208 VOLT, 3 PHASE, 4 WIF	RE			RE	MARK	KS:	225	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T	_N_ - A B C	C K T	A M P S	POLES	USE	VA
720	RECEPT-OFFICE 154	1	20	1	1 1 1	2	30	2	RECEPT-DRYER	2500
720	RECEPT-OFFICE 155	1	20	3	] <del>       </del>	4				2500
540	RECEPT-HUDDLE 156	1	20	5	<u> </u>	6	20	1	RECEPT-WASHER	1200
900	RECEPT-FURNITURE FEED	1	20	7	] <del>                                    </del>	8	20	1	RECEPT-RESTROOM 139/140	360
900	RECEPT-FURNITURE FEED	1	20	9	] + + + -	10	20	1	RECEPT-OFFICE 134	900
900	RECEPT-FURNITURE FEED	1	20	11	] + + + +	12	20	1	RECEPT-OFFICE 133	900
900	RECEPT-FURNITURE FEED	1	20	13	<b>  <del>       </del>  </b>	14	20	1	RECEPT-MEETING 132 COPIER	1200
540	RECEPT-FURNITURE FEED	1	20	15	] + + + -	16	20	1	RECEPT-CONF. 130 MONITORS	720
540	RECEPT-FURNITURE FEED	1	20	17	] + + + +	18	20	1	RECEPT-OFFICE 161 COUNTER	360
540	RECEPT-FURNITURE FEED	1	20	19	l <del>       </del>	20	20	1	RECEPT-OFFICE 161 COPIER	1200
540	RECEPT-FURNITURE FEED	1	20	21	] + + + +	22	20	1	RECEPT-OFFICE 125	900
720	RECEPT-RECEPTION 122	1	20	23	]	24	20	1	RECEPT-HUDDLE 124/OFF 126	720
720	RECEPT-RECEPTION 122	1	20	25	1 + + + -	26	20	1	RECEPT-INTERVIEW 111	900
1200	RECEPT-RECEPTION 122 COPIER	1	20	27	1 + + + -	28	20	1	RECEPT-INTERVIEW 109/110	1080
360	RECEPT-RECEPTION 122 COUNTER	1	20	29	1 + + + -	30	20	1	RECEPT-INTERVIEW 107/108	1000
1080	RECEPT-WAITING 121	1	20	31	1 🖊 🕂	32	20	1	RECEPT-BGND CHECK 106/ELEC 102	900
180	RECEPT-PRINTER	1	20	33	1 + + + -	34	20	1	RECEPT-GED 119 / ELECT 170	540
1080	RECEPT-STOR 115/RR-116,117,120	1	20	35	1 + + + -	36	20	1	RECEPT-EXTERIOR	180
	SPACE			37	1 +	38			SPACE	
	SPACE			39	1 + + + + -	40			SPACE	
	SPACE			41	1 + + + +	42			SPACE	
MOUN	TING: RECESSED		OUND	G			•		A.I.C. RATING: 10,000	

1. 'DARK BOLD' INDICATES NEW LOAD AND / OR CIRCUIT BREAKER. 2. " \* " INDICATES THE 'EC' SHALL FURNISH AND INSTALL A NEW CIRCUIT BREAKER TO REPLACE EXISTING CIRCUIT BREAKER(S).

VOLT	AGE: 120/208 VOLT, 3 PHASE, 4 WII	RE				RI	MARI	<s:< th=""><th>225</th><th>SAMP MAIN LUG ONLY</th><th></th><th></th></s:<>	225	SAMP MAIN LUG ONLY		
VA	USE	P O L E S	A M P S	C K T	_	N .	C K T	A M P S	P O L E S	USE	VA	1
1200	RECEPT-PAR. VISIT. 112 REFRIG	1	20	1	<del>   </del>	ВС	2	20	1	RECEPT-KITCH. 131 REFRIGERATOR	1200	1
540	RECEPT-PAR. VISIT. 112 COUNTER	1	20	3	1 📙	++	4	20	1	RECEPT-KITCH. 131 COUNTER	540	1
1000	RECEPT-PAR. VISIT. 112 DISHWASH	1	20	5	1+	+	6	20	1	RECEPT-KITCH. 131 DISHWASHER	1000	1
1000	RECEPT-PAR. VISIT. 112 MICRO.	1	20	7	1 🕂	++	8	20	1	RECEPT-KITCH. 131 MICROWAVE	1000	1
540	RECEPT-CONFERENCE 130	1	20	9	1+	+	10	20	1	AC-1	1080	1
540	RECEPT-CONF 130 / CORR 128	1	20	11	1+	+	12	20	1	EXHAUST FANS EF-1 / EF-2	1200	1
720	RECEPT-RR 136 / 137 / PHONE 141	1	20	13	] +	++	14	20	2	OD-1	43	
720	RECEPT-PAR. VISITATION 112	1	20	15	] +	+	16	20		OD-1	43	1
720	RECEPT-OMJ 113	1	20	17	] +	++	18	20	1	RECEPT-ROOFTOP	720	
540	RECEPT-CORR 105 / OMJ 113	1	20	19	] +	++	20	20	1	LTG-UPPER LEVEL SOUTH	1390	
	SPARE	1	20	21	] +	+	22	20	1	LTG-UPPER LEVEL SOUTH	1230	
995				23	] +	++	24	20	1	LTG-UPPER LEVEL SOUTH	1490	
995		3	15	25	] +	++	26	20	1	SPARE		
995				27	] +	+	28	50	2	SPARE		
995				29	] +	++	30	30		SPARE		1
995	_ AHU-5	3	15	31	╛╇	++	32				1659	
995				33	<b>」</b> 十	++	34	25	3	AHU-3	1659	
995				35	<b>」</b> 十	++	36				1659	1
995	_ AHU-6	3	15	37	╛╇	++	38			SPACE		1
995				39	<b>」</b> 十	++	40			SPACE		
	SPACE			41	+	++	42			SPACE		ı

1. 'DARK BOLD' INDICATES NEW LOAD AND / OR CIRCUIT BREAKER. 2. " \* " INDICATES THE 'EC' SHALL FURNISH AND INSTALL A NEW CIRCUIT BREAKER TO REPLACE EXISTING CIRCUIT BREAKER(S) OR IN EXISTING SPACE.

		EMBINIO SI ACE.		
3	3.	'GFCI' INDICATES CIRCUIT BRE	EAKER SHALL B	E GFCI-TYPE

R	EVISED PANI	EL:		•	3LA'				(FORMERLY PA	NEL 'SP')
VOLT	AGE: 120/208 VOLT, 3 PHASE,	4 WIRE			RE	MARK	(S:	100	AMP MAIN LUG ONLY	
VA	USE	POLES	A M P S	C K T	N A D C	C K T	A M P S	POLES	USE	VA
800	RECEPT-RM 171	1	20	1	A B C	2	20	1	LTG-CORRIDOR	220
800	RECEPT-RM 171	1	20	3	1 + + + -	4	20	1	RECEPT-RM 173	600
600	RECEPT-RM 172	1	20	5	1 + + + -	6	20	1	RECEPT-RM 173	600
850 850	UV-1,2, & 3	2	25	7		8 10	50	2	UV-CU-1	2420 2420
750 750	UV-CU-3	2	15	11 13		12 14	25	2	UV-CU-2	1350 1350
	SPARE	1	20	15	1 + + + -	16	20	1	SPARE	
	SPARE	1	20	17	1 + + + -	18	20	1	SPARE	
	SPARE	1	20	19	1 + + + -	20	20	1	SPARE	
	SPARE	1	20	21	l <del>       </del>	22	20	1	SPARE	
	SPARE	1	20	23	l <del>       </del>	24	20	1	SPARE	
	SPACE			25	+	26			SPACE	
	SPACE			27	<b>  + + +</b>	28			SPACE	
	SPACE			29	+ + +	30			SPACE	
MOUN	TING: RECESSED		OUNE SUS	G					A.I.C. RATING: 10,000	

NOTES.
1. 'DARK BOLD' INDICATES NEW LOAD AND / OR CIRCUIT BREAKER.
2. " * " INDICATES THE 'EC' SHALL FURNISH AND INSTALL A NEW CIRCUIT BREAKER TO REPLACE EXISTING CIRCUIT BREAKER(S).

	A M P S 20 20 20 20 20 25	C K T 1 3 5 7 9 11 13		N B	-	C K T 2 4 6 8 10	A M P S 20 20 20 20	P O L E S 1 1 1 1 1	RECEPT-RM 174 RECEPT-RM 174 LTG-RM 171/172/173/174	VA 400 200 400 720 270
	20 20 20 20 20 20	1 3 5 7 9			-	2 4 6 8 10	20 20 20 20 20	1 1 1 1	RECEPT-RM 174 RECEPT-RM 174 RECEPT-RM 174 LTG-RM 171/172/173/174	400 200 400 720 270
	20 20 20 20	3 5 7 9		A B	   	4 6 8 10	20 20 20	1 1 1	RECEPT-RM 174 RECEPT-RM 174 LTG-RM 171/172/173/174	200 400 720 270
	20 20 20	5 7 9 11			_	6 8 10	20	1	RECEPT-RM 174 LTG-RM 171/172/173/174	400 720 270
	20	7 9 11			— [ — ] — ]	8	20	1	LTG-RM 171/172/173/174	720 270
	20	9	] — ] — ] —		$ \begin{bmatrix} - \end{bmatrix}$	10		•	10/-4	270
$\top$		11	] _ ] _		-[		4.5		I I I V - A	
2	25		] —						UV-4	
		117			— <u> </u>	12	15	2		270
$\neg$			-		_	14	20	1	SPARE	
_	20	15	<b>↓</b> —	$\Box$	_	16	20	1	SPARE	
_	20	17	↓ —	Ħ	_	18	20	1	SPARE	
_	20	19	ļ —	1	_	20	20	1	SPARE	
_	20	21	—	$\vdash$	_	22	20	1	SPARE	
_			-	$\Box$	-			<u> </u>		
_			ļ —	╅┤	— <u> </u>			<u> </u>		
_			] —	╁	— <u>[</u>			1		
	20	29	] —	$\vdash$	— <u>[</u>	30	20	1	SPARE	
1		1 20 1 20 1 20 1 20 5ROUNE	1 20 23 1 20 25 1 20 27 1 20 29 GROUND G	1 20 23 — 1 20 25 — 1 20 27 — 1 20 29 — GROUND G	1 20 23 1 20 25 1 20 27 1 20 29 GROUND G	1 20 23 1 20 25 1 20 27 1 20 29 GROUND G	1 20 23 1 20 25 1 20 27 1 20 29 GROUND G	1 20 23 1 20 25 1 20 27 1 20 29 GROUND G	1 20 23 1 20 25 1 20 27 1 20 29 GROUND G	1 20 23 1 20 25 1 20 27 1 20 29 24 20 1 SPARE 26 20 1 SPARE 28 20 1 SPARE 30 20 1 SPARE

**ELECTRICAL EQUIPMENT FOR CARROLL COUNTY EMERGENCY MAINTENANCE AGENCY** 

**ELECTRICAL EQUIPMENT FOR CARROLL COUNTY** 

**BOARD OF ELECTIONS** 

**GENERAL NOTES** 

1. ALL DISTRIBUTION AND LIGHTING / APPLIANCE PANELS ARE GENERAL ELECTRIC 'GE'.

2. RELABEL ALL DISTRIBUTION AND LIGHTING / APPLIANCE PANELS AS INDICATED ON REVISED POWER RISER DIAGRAM.

3. UPDATE DISTRIBUTION AND LIGHTING APPLIANCE DIRECTORIES / LEGENDS AT PROJECT COMPLETION.

4. REVISED PANEL '1LA' WILL NOT BE ENERGIZED AND SHALL REMAIN AS SPARE.

(THESE NOTES APPLY REFERENCE NOTES TO THIS PLAN ONLY) 1> 'OLD' ENCLOSURE OF REMOVED INTERIOR OF 'DPA'. SPLICE AND EXTEND FEEDERS FOR PANELS '2LA', '2LB', AND '2LC' IN ENCLOSURE USING IN-LINE SPLICE OR TAP CONNECTORS TO NEW DISTRIBUTION PANEL '2MDP-B'.

PROUTE FEEDERS FOR PANELS OVERHEAD TO NEW DISTRIBUTION PANEL '2MDP-B'. KEEP TIGHT TO CEILING STRUCTURAL STEEL.

NEW DISTRIBUTION PANEL '2MDP-B' LOCATED IN UPPER LEVEL ELECTRICAL/MECHANICAL ROOM.

NEW DISTRIBUTION PANEL '2MDP-C' LOCATED IN UPPER LEVEL ELECTRICAL/MECHANICAL ROOM SERVED FROM LOWER LEVEL DISTRIBUTION PANEL

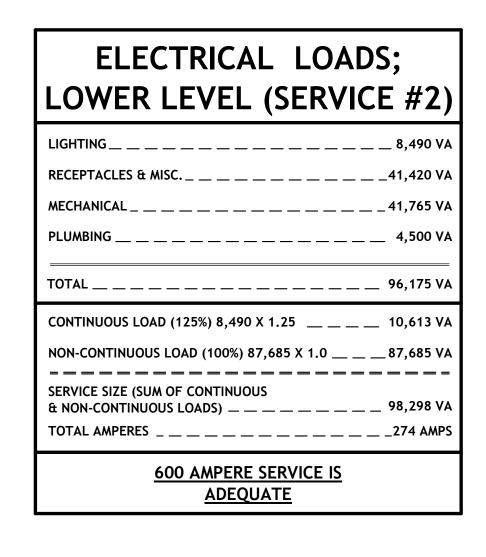
5> PROVIDE NEW LABEL AND DIRECTORY/LEGEND FOR ALL REVISED DISTRIBUTION AND LIGHTING/APPLIANCE PANELS.

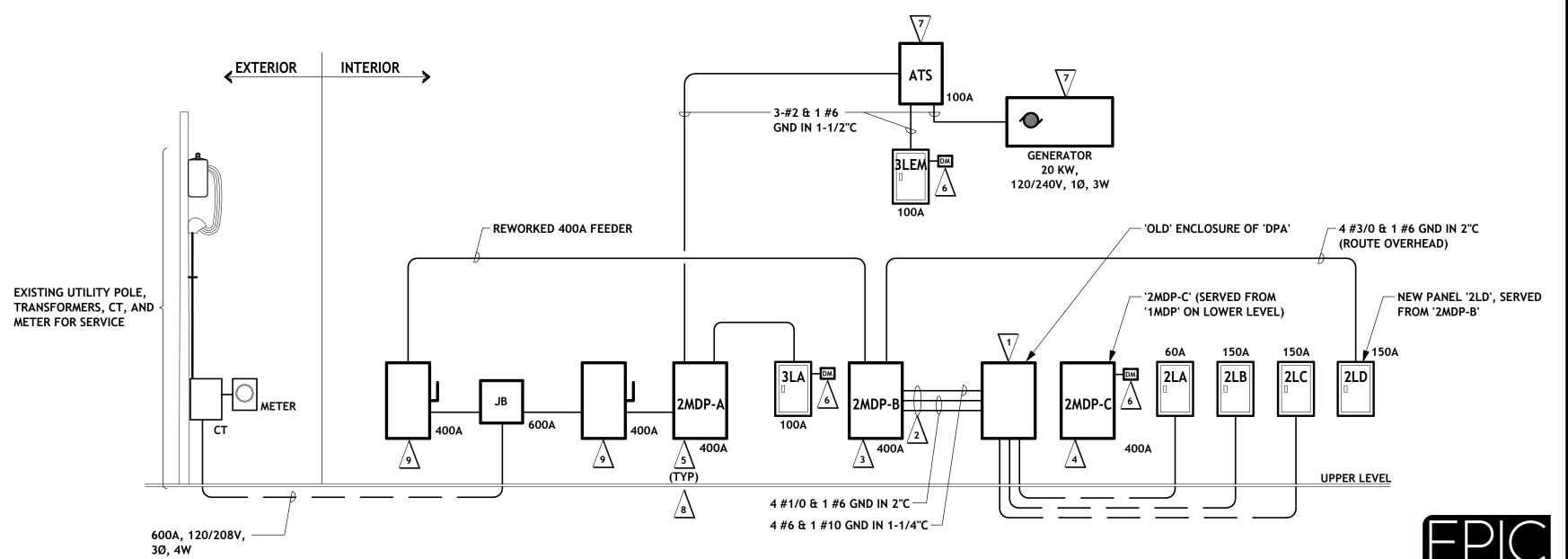
6 PROVIDE DIGITAL METERING (EMON/DMON, LEVITON, OR EQUAL) ON PANEL FOR MONITORING USAGE.

GENERATOR AND ATS ARE LOCATED OUTDOORS. SEE DRAWING E204 FOR DETAILS.

8 CONNECT ATS TO EXISTING SPARE 100A/3P C/B.

9 PROVIDE LABEL ON DISCONNECT SWITCH PER 110.24 STATING THE MAXIMUM AVAILABLE SHORT CIRCUIT FAULT CURRENT IS 21,077AA DATED 10.14.24.





POWER RISER DIAGRAM - UPPER LEVEL REVISED CONDITIONS



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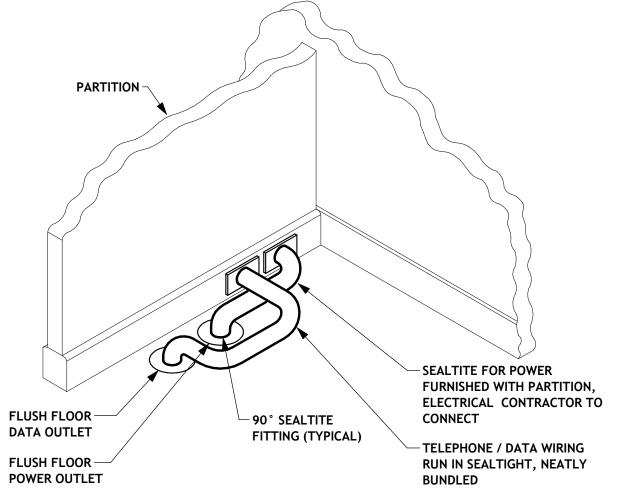




ISSUE / REVISION	DATE							
BIDDING AND PLAN REVIE	W 10/15/2024							
	0.4040.000							
PROJECT NO.	24013.000							
ELECTR	ICAL							
SERVICE #2								
SERVICE #Z								

(REVISED CONDITIONS)

CONSULTING ENGINEER 3730 Tabs Drive, Suite 200 Uniontown, Ohio 44685 330.899.4955|epic-eeg.com

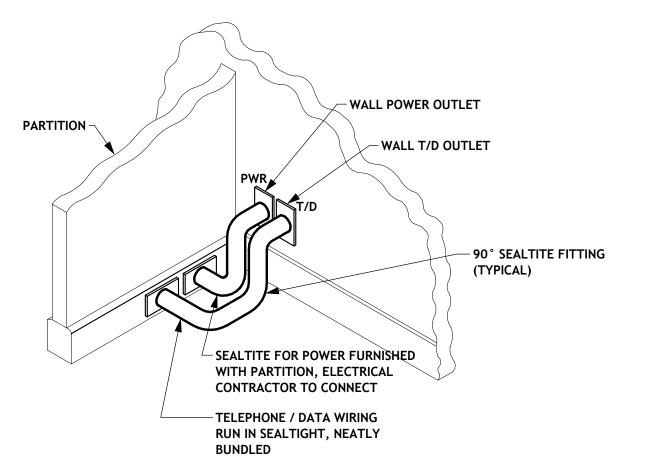


# TYPICAL PARTITION SYSTEM FEED - FROM FLOOR

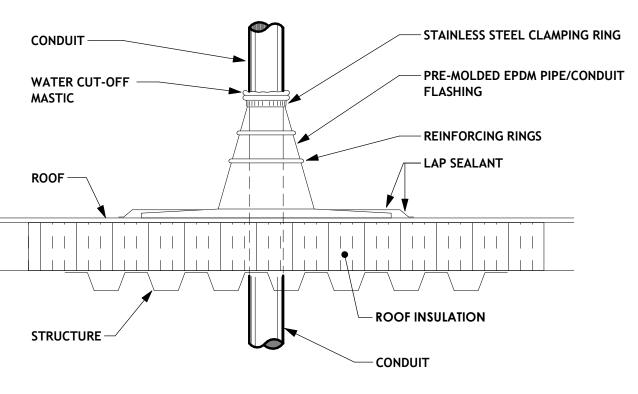
NOT TO SCALE

NOT TO SCALE

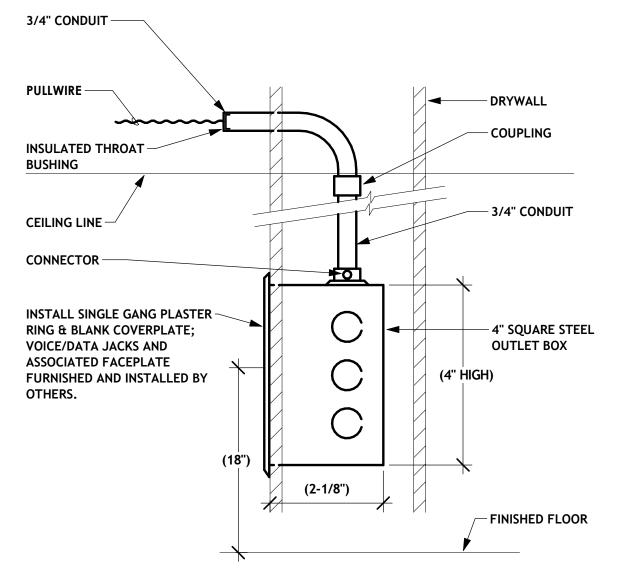
NOT TO SCALE

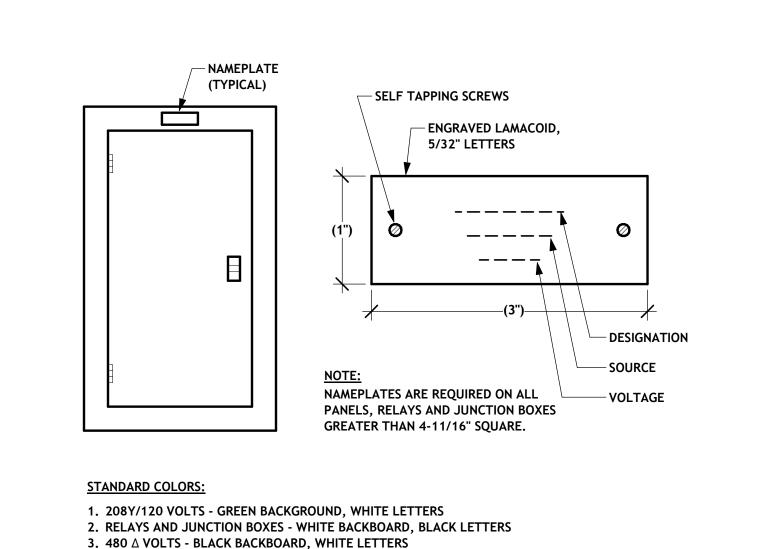


## TYPICAL PARTITION SYSTEM FEED - FROM WALL



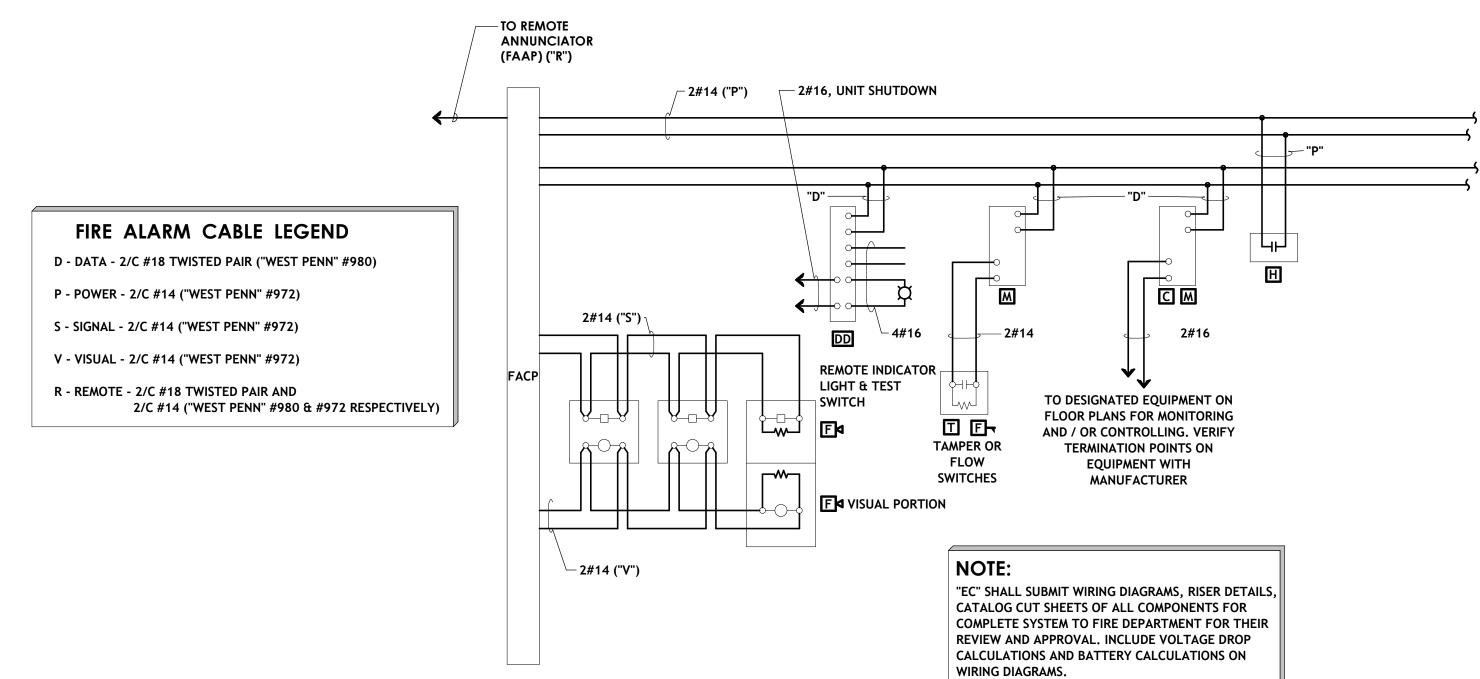
**CONDUIT DETAIL OF ROOF PENETRATION** NOT TO SCALE



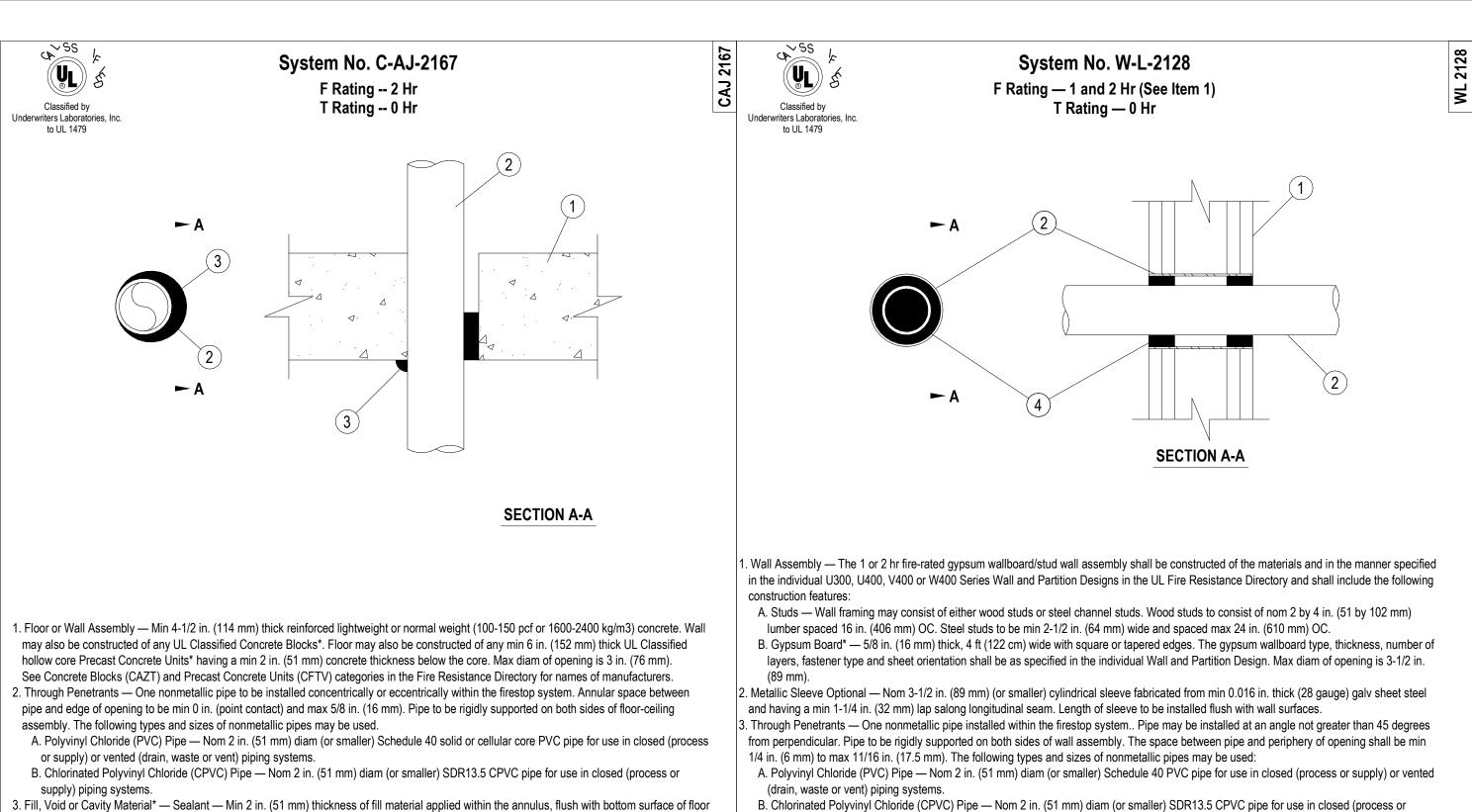


TYPICAL VOICE/DATA OUTLET

**IDENTIFICATION TAGGING DETAIL** NOT TO SCALE



FIRE ALARM WIRING DIAGRAM



3. Fill, Void or Cavity Material\* — Sealant — Min 2 in. (51 mm) thickness of fill material applied within the annulus, flush with bottom surface of floor

or with both surfaces of wall. At point contact location, min 1/2 in. (13 mm) diam bead of sealant applied at pipe/concrete interface on bottom surface of floor or both surfaces of wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada),

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. January 09, 2015

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. January 26, 2015

4. Fill, Void or Cavity Materials\* — Sealant — For 1 hr F Rating, min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with

both surfaces of wall. For 2 hr F Rating, min 1-1/4 in. (32 mm) thickness of fill material applied within annulus, flush with both surfaces of wall.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada),

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

A/C SUPPLY OR RETURN DIFFUSER CEILING FOR CEILING HEIGHTS LESS THAN 86", THE VISUAL LENS 4" 12" MAX. PER - CEILING MOUNTED MOUNTING HEIGHT SHALL BE NFPA 72 2016 SMOKE / HEAT WITHIN 6" OF THE CEILING **EDITION DETECTOR (TYPICAL) HEAT DETECTOR SHALL** (SECTION NOT BE INSTALLED IN 17.7.3.2.1) THIS AREA AUDIO / VISUAL OR **VISUAL- ONLY DEVICE** (TYPICAL) WALL MOUNTED -SMOKE / HEAT DETECTOR **MEASUREMENTS** SYNCHRONIZE MORE THAN SHOWN ARE TO THE TWO APPLIANCES IN ANY **CLOSEST EDGE OF THE** - 5' MAX. TO EXIT DOOR -FIELD OF VIEW. DETECTOR. NFPA 72 2016 EDITION SIDE WALL (SECTION 18.5.5.4.2(2)) **→** DOOR WIDTH → FINISHED WALL ---**REFER TO THE PROPER DEVICE INSTALLATION** INSTRUCTIONS FOR 80" (ADA) **BACKBOX MOUNTING** 80" MIN. (NFPA) 96" MAX. (NFPA) NFPA 72 2016 EDITION MAGNETIC — MANUAL PULL **→** DOOR (SECTION 18.5.5) DOOR HOLDER STATION SWITCH (OR OCCUPANCY SENSOR) PULL, DOWN DUPLEX — RECEPTACLE 48" MAX. (NFPA) NFPA 72 2016 EDITION (SECTION 17.14.5) FINISHED FLOOR

#### TYPICAL DEVICE MOUNTING HEIGHTS NOT TO SCALE

**VOICE/DATA OUTLET** 



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**ISSUE / REVISION** BIDDING AND PLAN REVIEW PROJECT NO.

**ELECTRICAL** SCHEDULES AND **DETAILS** 

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330.434.4464

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ELECTRICAL SCHEDULES AND DETAILS

PROJECT NO.

24013.000

E307

N H BLK - 120V N H BLK - 120V **刊** BLK- 120V OPEN OFFICE OPEN OFFICE OPEN OFFICE **OPEN OFFICE** OPEN OFFICE OPEN OFFICE OPEN OFFICE PERIMETER OPEN OFFICE OPEN OFFICE **OPEN OFFICE** (161) **HUDDLE (156)** RECESSED UNDERCABINET (161) PENDANT (161) PENDANT LIGHTING LIGHTING LIGHTING LIGHTING LIGHTING 'LCS4' "NLIGHT" 'LCS2' - INDICATES LIGHTING "NLIGHT" CONTROL ZONE 'f' #NCM-PDT-10-RJB #NCM-PDT-10-RJB #NCM-PDT-10-RJB #NCM-PDT-10-RJB #NCM-PDT-10-RJB #NCM-PDT-10-RJB #NPP16-D-EFP-SA #NPP16-D-EFP-SA #NPP16-D-EFP-SA #NPP16-D-EFP-SA #NPP-EFP-SA #NPODMA-4S-DX #NPODMA-DX (TYPICAL) WALL STATION WALL STATION N H BLK - 120V N H BLK - 120V N H BLK - 120V **OPEN OFFICE** OPEN OFFICE **OPEN OFFICE** 

# LIGHTING CONTROL SYSTEM WIRING DIAGRAM NO SCALE (OPEN OFFICES (161) & (167))

"NLIGHT"

#NCM-PDT-10-RJB

OPEN OFFICE

(167) PENDANT

LIGHTING

"NLIGHT"

#NPP16-D-EFP-SA

'LCS3' "NLIGHT"

#NPODMA-4S-DX

WALL STATION

"NLIGHT"

#NCM-PDT-10-RJB

#### **GENERAL NOTE:**

"NLIGHT"

#NCM-PDT-10-RJB

1. THE LIGHTING CONTROL LOW VOLTAGE SWITCHES, VACANCY SENSORS, POWER PACKS, DIMMERS, ETC. SHOWN ON THIS PLAN ARE ALSO SHOWN ON THE LIGHTING PLANS. THE INTENT OF THIS DRAWING IS TO SHOW THE LOW VOLTAGE LIGHTING CONTROL SYSTEM CABLING INTERCONNECTION.

"NLIGHT"

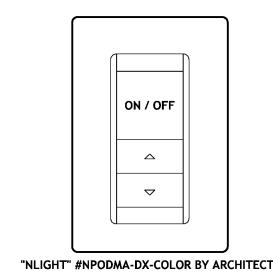
#NPP16-D-EFP-SA

"NLIGHT"

#NPODMA-DX WALL STATION

- ALL LOW VOLTAGE LIGHTING CONTROL WIRING SHOWN IN THESE WIRING DIAGRAMS ARE SHOWN FOR REFERENCE ONLY. THE EC SHALL COORDINATE EXACT LIGHTING CONTROL WIRING REQUIREMENTS WITH MANUFACTURER PRIOR TO WIRING.
- 3. ALL CAT 5E CABLING SHALL BE BUNDLED / ROUTED NEATLY IN 90° PATTERNS AND CONCEALED WHEN POSSIBLE. COORDINATE ROUTING WITH ARCHITECT / OWNER.
- 4. THE ELECTRICAL CONTRACTOR SHALL INCLUDE FACTORY COMMISSIONING OF THE LIGHTING CONTROL SYSTEM INCLUDING ALL PROGRAMMING. COORDINATE PROGRAMMING WITH THE OWNER. TWO SITE VISITS SHALL BE INCLUDED.

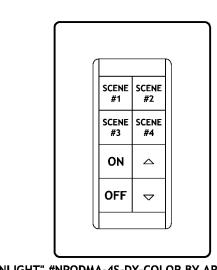
	LIGHTING CO	NTROL	RELAY SCHED	ULE
POWER PACK ZONE	CONTROLLED BY	VOLTAGE	DESCRIPTION	REMARKS
a	'LCS3' / 'LCS4' / VACANCY SENSORS	120V	OPEN OFFICE (167) PENDANT LIGHTING	0-10V DIMMING
þ	'LCS3' / 'LCS4' / VACANCY SENSORS	120V	OPEN OFFICE UNDERCABINET LIGHTING	SWITCHED
С	'LCS3' / 'LCS4' / VACANCY SENSORS	120V	OPEN OFFICE (161) PENDANT LIGHTING	0-10V DIMMING
d	d 'LCS3' / 'LCS4' / VACANCY SENSORS		OPEN OFFICE (167) PENDANT LIGHTING	0-10V DIMMING
е	'LCS1' / VACANCY SENSOR	120V	HUDDLE (150) LIGHTING	0-10V DIMMING
f	'LCS3' / 'LCS4' / VACANCY SENSORS	120V	OPEN OFFICE (161) PENDANT LIGHTING	0-10V DIMMING
g	g 'LCS2' / VACANCY SENSOR		HUDDLE (156) LIGHTING	0-10V DIMMING
h	h 'LCS3' / 'LCS4' / VACANCY SENSORS		OPEN OFFICE PERIMETER RECESSED LIGHTING	0-10V DIMMING



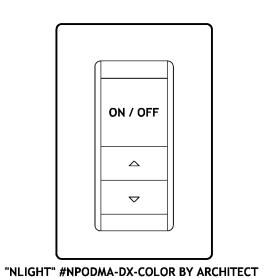
LIGHTING CONTROL STATIONS

'LCS1' & 'LCS2' FACEPLATE DETAIL

NO SCALE



LIGHTING CONTROL STATIONS
'LCS3' & 'LCS4' FACEPLATE DETAIL
NO SCALE



LIGHTING CONTROL STATIONS
'LCS5' & 'LCS6' FACEPLATE DETAIL
NO SCALE

LIGHTING CONTROL RELAY SCHEDULE				
POWER PACK ZONE	CONTROLLED BY	VOLTAGE	DESCRIPTION	REMARKS
a	'LCS' & VACANCY SENSOR	120V	IN-PERSON VOTING (002) LIGHTING	0-10V DIMMING; DAYLIGHT HARVESTING
b	'LCS' & VACANCY SENSOR	120V	IN-PERSON VOTING (002) LIGHTING	0-10V DIMMING; DAYLIGHT HARVESTING
С	'LCS' & VACANCY SENSOR	120V	IN-PERSON VOTING (002) LIGHTING	0-10V DIMMING

(167)

"NLIGHT"

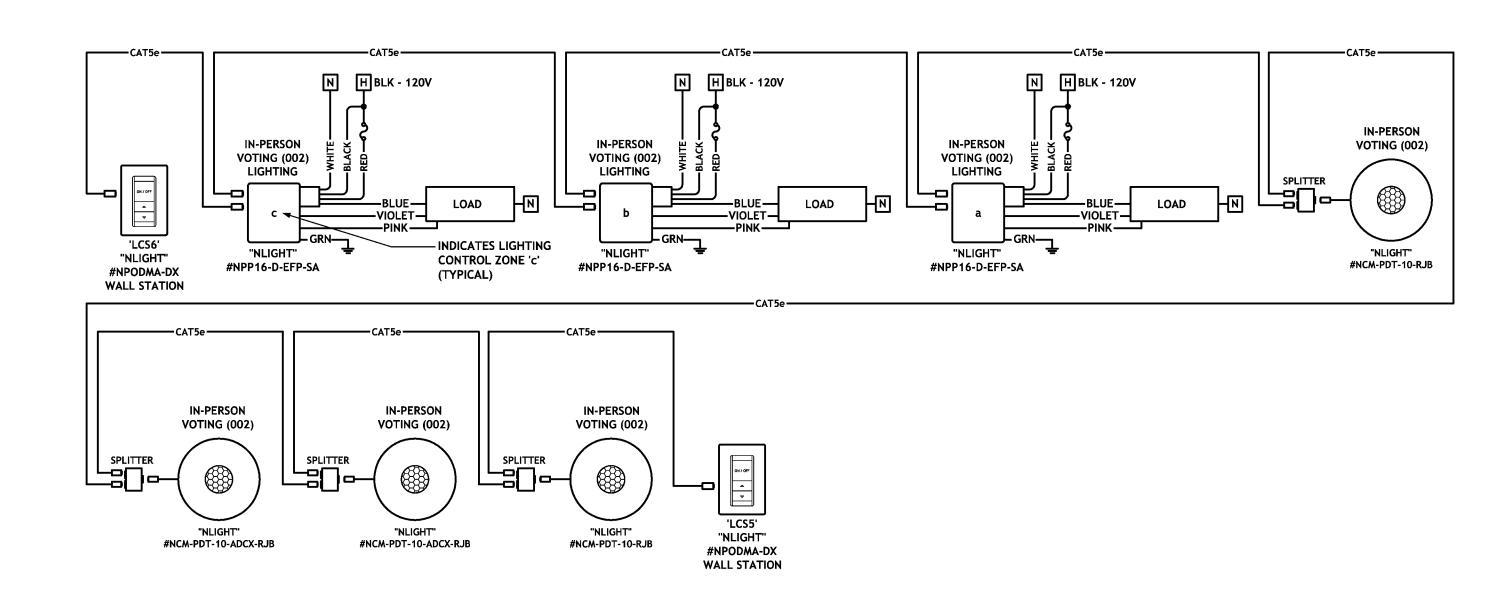
#NCM-PDT-10-RJB

OPEN OFFICE

(167) PENDANT LIGHTING

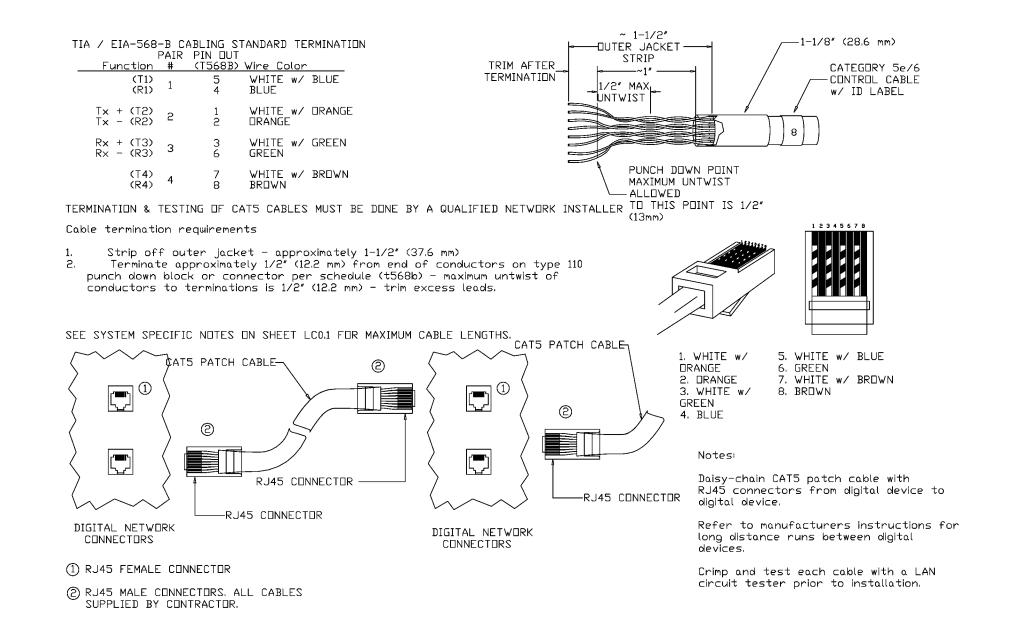
"NLIGHT"

#NPP16-D-EFP-SA



LIGHTING CONTROL SYSTEM WIRING DIAGRAM

NO SCALE (IN-PERSON VOTING (002))



LIGHTING CONTROL SYSTEM CAT 5E CABLE TERMINATION DETAIL
NO. SCALE