RENOVATE INTERIOR & EXTERIOR St. Clair Readiness Center St. Clair, Missouri



OWNER: STATE OF MISSOURI

MICHAEL L. PARSON,

GOVERNOR

DEPARTMENT OF

MISSOURI NATIONAL GUARD

PROJECT OFFICE OF ADMINISTRATION

MANAGEMENT: DIVISION OF FACILITIES MANAGEMENT,

DESIGN AND CONSTRUCTION

DESIGNER: VESTAL CORPORATION

1 THE PINES COURT, STE A

ST. LOUIS, MO 63141

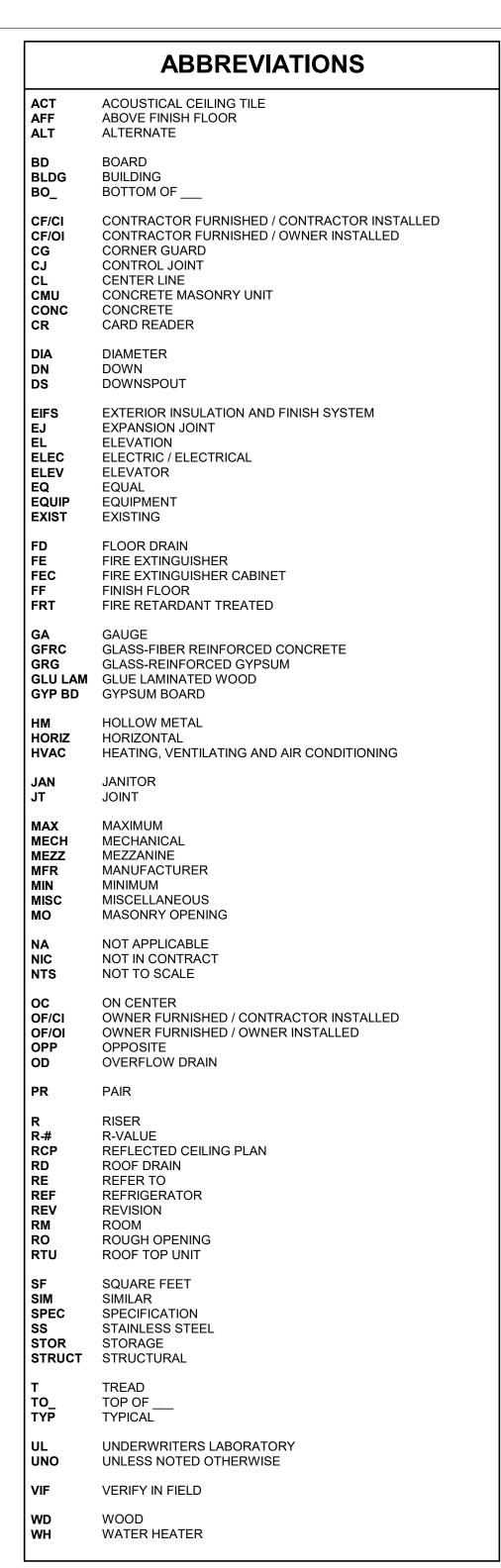
PROJECT NUMBER: T2326-01

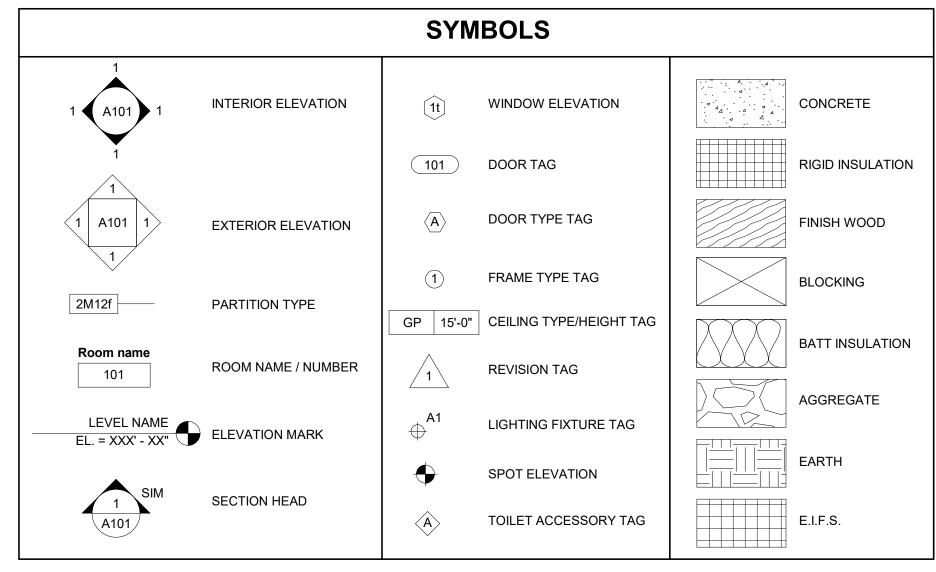
SITE NUMBER: 6304

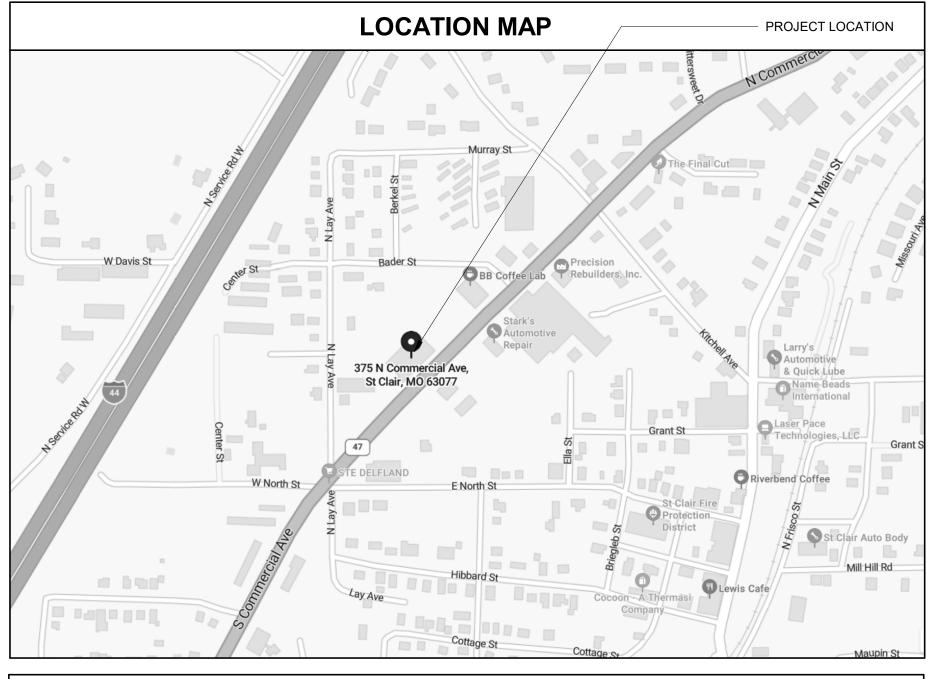
FACILITY NUMBER: 8136304011

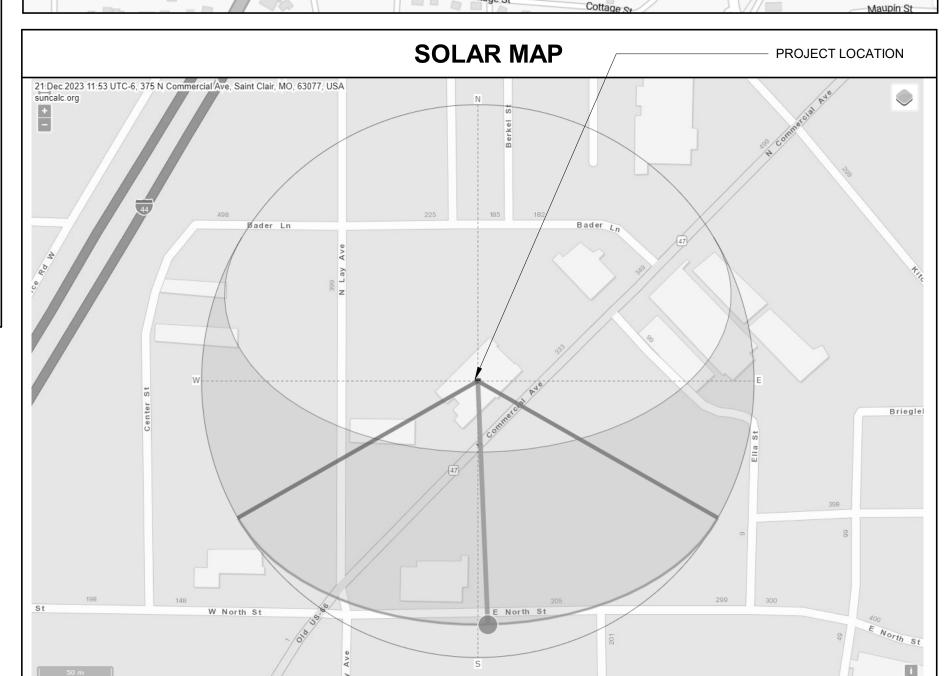


SHEET NUMBER









PROJECT DIRECTORY						
<u>OWNER</u>	CIVIL	<u>ARCHITECT</u>	STRUCTURAL	<u>MECHANICAL</u>	PLUMBING	ELECTRICAL
STATE OF MISSOURI OFFICE OF ADMINISTRATION 730 TRUMAN BUILDING, 301 WEST HIGH ST. POST OFFICE BOX 809 JEFFERSON CITY, MO 65102 P: (573) 751-3339 F: (573) 751-7277	VESTAL CORPORATION 1 THE PINES COURT SUITE A CHESTERFIELD, MO 63141 P: (314)439-9900 F: (314)439-9906	VESTAL CORPORATION 1 THE PINES COURT SUITE A CHESTERFIELD, MO 63141 P: (314)439-9900 F: (314)439-9906	VESTAL CORPORATION 1 THE PINES COURT SUITE A CHESTERFIELD, MO 63141 P: (314)439-9900 F: (314)439-9906	VESTAL CORPORATION 1 THE PINES COURT SUITE A CHESTERFIELD, MO 63141 P: (314)439-9900 F: (314)439-9906	VESTAL CORPORATION 1 THE PINES COURT SUITE A CHESTERFIELD, MO 63141 P: (314)439-9900 F: (314)439-9906	VESTAL CORPORATION 1 THE PINES COURT SUITE A CHESTERFIELD, MO 63141 P: (314)439-9900 F: (314)439-9906

COVERSHEET / GENERAL			
SHEET#	SHEET NAME	REVISION #	
G000	COVERSHEET	С	
G001	GENERAL INFORMATION	С	
G002	CODE DATA AND LIFE SAFETY	С	
G003	LIFE SAFETY PLAN	С	

CIVIL			
SHEET#	SHEET NAME	REVISION	
C001	GENERAL NOTES	С	
C101	SITE PLAN	С	
C501	STAIR DETAILS	С	
C502	DETAILS	С	

	DEMOLITION	
SHEET#	SHEET NAME	REVISION#
D101	FLOOR DEMO PLAN	С
D102	ROOF DEMO PLAN	С
D103	REFLECTED CEILING DEMO PLAN	С

	ARCHITECTURAL		
SHEET#	SHEET NAME	REVISION #	
A100	FLOOR PLAN	С	
A110	ROOF PLAN	С	
A120	REFLECTED CEILING PLAN	С	
A140	ENLARGED PLANS	С	
A141	ENLARGED PLANS	В	
A200	EXTERIOR ELEVATIONS	С	
A201	EXTERIOR ELEVATIONS	С	
A300	BUILDING SECTIONS	С	
A301	BUILDING SECTIONS	С	
A350	WALL SECTIONS	С	
A351	WALL SECTIONS	В	
A510	ROOF DETAILS	В	
A520	CEILING DETAILS	В	
A521	CEILING DETAILS	В	
A550	SECTION DETAILS	В	
A600	INTERIOR ELEVATIONS - RESTROOMS	В	
A601	INTERIOR ELEVATIONS - RESTROOMS	В	
A700	DOOR SCHEDULE AND DETAILS	В	
A701	DOOR DETAILS	В	
A720	PARTITION TYPES AND DETAILS	В	
A800	INTERIOR FINISH SCHEDULE AND LEGEND	С	
A810	FINISH PLAN	В	

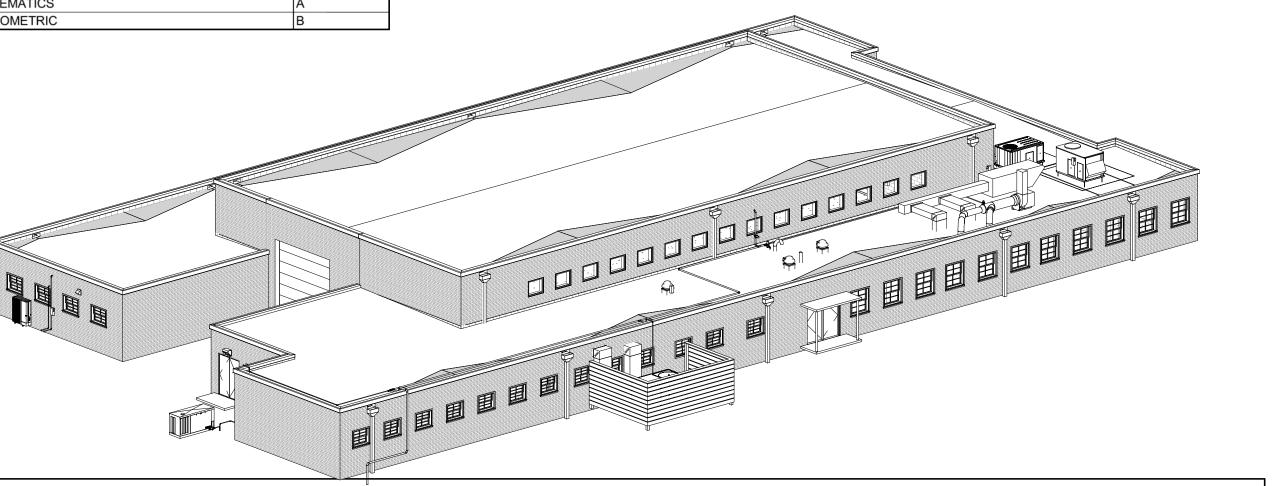
	MECHANICAL			
SHEET#	SHEET NAME	REVISION#		
M001	MECHANICAL LEGEND	С		
MD101	GROUND FLOOR PLAN - HVAC DEMO	С		
M101	OVERALL GROUND FLOOR PLAN - HVAC	С		
M102	OVERALL ROOF PLAN - HVAC	В		
M103	OVERALL GAS PIPING PLAN - HVAC	A		
M301	HVAC SECTIONS	С		
M401	ENLARGED FLOOR PLANS - HVAC	С		
M402	ENLARGED FLOOR PLANS - HVAC	С		
M403	ENLARGED FLOOR PLANS - HVAC	С		
M501	HVAC DETAILS	С		
M502	HVAC DETAILS	В		
M601	HVAC SCHEDULES	С		
M701	AIRFLOW SCHEMATICS	Α		
M901	GAS PIPING ISOMETRIC	В		

PLUMBING			
SHEET#	SHEET NAME	REVISION #	
P001	PLUMBING LEGEND	С	
PD101	UNDERGROUND PLAN - PLUMBING	С	
P101	UNDERGROUND PLAN - PLUMBING	С	
P102	GROUND FLOOR PLAN - PLUMBING	С	
P401	ENLARGED UNDERGROUND PLANS - PLUMBING	Α	
P402	ENLARGED UNDERGROUND PLANS - PLUMBING	А	
P403	ENLARGED FLOOR PLANS - PLUMBING	С	
P404	ENLARGED FLOOR PLANS - PLUMBING	В	
P501	PLUMBING DETAILS	С	
P502	PLUMBING DETAILS	A	
P601	PLUMBING SCHEDULE	С	
P901	PLUMBING ISOMETRICS	С	
P902	PLUMBING ISOMETRICS	В	
P903	PLUMBING ISOMETRICS	В	
P904	PLUMBING ISOMETRICS	В	

SHEET#	SHEET NAME	REVISION #
E001	SYMBOLS, ABBREVIATIONS, NOTES	С
E101	DEMOLITION LIGHTING PLAN	С
E102	DEMOLITION POWER PLAN	С
E121	LIGHTING PLAN	С
E131	POWER PLAN	С
E132	ENLARGED PLAN - KITCHEN	С
E133	ELECTRICAL - ROOF POWER PLAN	С
E501	ELECTRICAL - DETAILS	С
E601	PANEL SCHEDULES	С
E602	PANEL SCHEDULES	С
E701	ONE-LINE RISER DIAGRAM	С

E/U1	UNE-LINE RISER DIAGRAM	C
	KITCHEN	
SHEET#	SHEET NAME	REVISION#
Q-FP-01	FLOOR PLAN	С
Q-FP-02	FOODSERVICE EQUIPMENT SPOT ELECTRICAL PLAN	С
Q-FP-03	FOODSERVICE EQUIPMENT SPOT PLUMBING	С
Q-DT-01	FOODSERVICE EQUIPMENT HOOD DRAWINGS	С
Q-DT-02	FOODSERVICE EQUIPMENT HOOD DRAWINGS	С
Q-DT-03	FOODSERVICE EQUIPMENT HOOD DRAWINGS	С
Q-DT-04	FOODSERVICE EQUIPMENT HOOD DRAWINGS	С
Q-DT-05	FOODSERVICE EQUIPMENT HOOD DRAWINGS	С

FIRE ALARM		
SHEET#	SHEET NAME	REVISION#
FA100	FIRE ALARM SYSTEM	В
FA101	FIRE ALARM SYSTEM DETAILS AND CALCULATIONS	В
FA102	FIRE ALARM SYSTEM RISER DIAGRAM	В
FA103	FIRE ALARM SYSTEM HORN STROBE COVERAGE	В



GENERAL NOTES

- A. CONTRACTOR IS NOT AUTHORIZED TO SCALE CONSTRUCTION DRAWINGS. ARCHITECT IS TO BE NOTIFIED IN THE EVENT A DISCREPANCY IS FOUND IN EITHER SPECIFICATION OR CONSTRUCTION DRAWINGS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- B. GENERAL CONTRACTOR SHALL OBSERVE ALL REGULATIONS IMPOSED BY GOVERNING BODIES. ALL WORK SHALL COMPLY WITH APPLICABLE LOCAL, STATE AND NATIONAL CODES.
 C. THE CONSTRUCTION DOCUMENTS HAVE BEEN CAREFULLY PREPARED BUT MAY NOT DEPICT EVERY CONDITION TO BE ENCOUNTERED. IT IS THEREFORE THE GENERAL CONTRACTORS AND SUBCONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS OF THE AFFECTED WORK PRIOR TO SUBMITTING A BID. IF CONDITIONS DIFFER OR ADDITIONAL WORK IS REQUIRED BEYOND THAT STATED IN THE CONSTRUCTION DOCUMENTS IT IS THE CONTRACTORS RESPONSIBILITY TO BRING SUCH MATTERS TO THE ATTENTION OF THE ARCHITECT IN A REASONABLE TIME PERIOD (IE: 5 WORK DAYS) PRIOR TO BID SUBMISSION OR OTHERWISE INCLUDE SUCH INSTANCES IN THEIR BID SUM OR QUALIFY IN THE BID SUBMITTAL.
- INCLUDE SUCH INSTANCES IN THEIR BID SUM OR QUALIFY IN THE BID SUBMITTAL.
 . INFORMATION PROVIDED DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO FIELD VERIFY ACTUAL QUANTITIES, DIMENSIONS AND CONDITIONS.
- E. GENERAL CONTRACTOR TO COORDINATE ALL TOP OF STEEL BEARING HEIGHTS AND TOP OF MASONRY HEIGHTS WITH STRUCTURAL DRAWINGS. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.

 F. CONTRACTOR SHALL COORDINATE ALL WORK OF EVERY TRADE AND CHARACTER OF THE PROJECT. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS, METHODS AND SAFETY OF CONSTRUCTION.
- G. ALL WORK OF EVERY CHARACTER SHALL BE LAID OUT BY THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR THE CORRECT FIT AND SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE BUILDING SITE PRIOR TO CONSTRUCTION.

 H. ALL WRITTEN CORRESPONDENCE WILL BE TRANSMITTED FROM SUBCONTRACTOR THROUGH GENERAL CONTRACTOR THROUGH OWNER'S REP TO ARCHITECT. ALL PARTIES INVOLVED ARE TO RECEIVE WRITTEN AND
- SIGNED COPIES OF SUCH. NO VERBAL AGREEMENTS AFFECTING COST OR ALTERNATIVE CONSTRUCTION METHODS AND ARRANGEMENTS WILL BE CONSIDERED VALID OR BINDING, AND ARE THEREFORE, DISALLOWED.
 GENERAL CONTRACTOR IS TO FIELD VERIFY ALL EXISTING CONDITIONS / DIMENSIONS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
 THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES AT THE TIME OF CONSTRUCTION TO VERIFY EXACT LOCATIONS, INFORMATION, AND/OR CHANGES OR ADDITIONS.
- K. GENERAL CONTRACTOR SHALL COMPLY WITH ALL DIRECTIVES OF THE OWNER. IF CONFLICTS BETWEEN DRAWINGS, SPECIFICATIONS AND REQUIREMENTS OF BUILDING OWNER AND/OR OPERATORS ARISE, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
- BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

 CIVIL FINISH FLOOR ELEVATION XXX.XX' = ARCHITECTURAL FINISH FLOOR ELEVATION 100'-0".
- M. THE CONTRACTOR SHALL CONTAIN ALL CONSTRUCTION ACTIVITY, INCLUDING STORAGE OF MATERIAL AND EQUIPMENT, WITHIN THE CONSTRUCTION LIMITS, AT ALL TIMES BEING RESPONSIBLE FOR AND ABIDING BY RULES AND REGULATIONS OF THE OWNER.
 N. GENERAL CONTRACTOR TO BE RESPONSIBLE FOR REPAIRING ANY AND ALL SURFACES TO REMAIN DAMAGED BY HIMSELF OR SUBCONTRACTORS UNDER HIS CONTROL. REPAIRS ARE TO MATCH EXISTING MATERIALS
- AND MUST BE ACCEPTABLE TO OWNER. THE CONTRACTOR IS RESPONSIBLE IN HIS BID SUM THE PATCHING OF ALL ADJACENT MATERIALS AND FINISHES INCLUDING PAINTING, CONCRETE FLOORS, WALLS, ETC. WHETHER STATED IN THE CONSTRUCTION DOCUMENTS OR NOT.

 O. ALL FLOOR TRANSITIONS BETWEEN DIFFERENT MATERIALS SHALL BE SMOOTH AND FLUSH (MAXIMUM = 1/8" PER FOOT).
- GENERAL CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS FROM JOBSITE. ALL CONSTRUCTION DEBRIS SHALL BE CONTAINED INSIDE CONSTRUCTION LIMITS.

 ALL WALLS WITH ITEMS SUCH AS GRAB BARS, TOILET ACCESSORIES, WOOD TRIM, SHELVING, CASEWORK, ETC. SHALL BE REINFORCED WITH CONCEALED, FIRE TREATED WOOD BLOCKING. (GENERAL CONTRACTOR TO
- INSTALL BLOCKING TYPICAL).

 R. ALL WOOD BLOCKING, PLYWOOD, ETC. SHALL BE FIRE RETARDANT TREATED LUMBER.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR





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ST. CLAIR READINESS CENTER

375 COMMERCIAL AVE. ST. CLAIR, MO 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

REV.	DESCRIPTION	DATE
A	SD	12/06/2023
В	DD	02/16/2024
С	IFB	04/23/2024

ISSUE DATE: 2024.04.23

CAD DWG FILE:

DRAWN BY: EE

CHECKED BY: BH

DESIGNED BY: JB

SHEET TITLE:

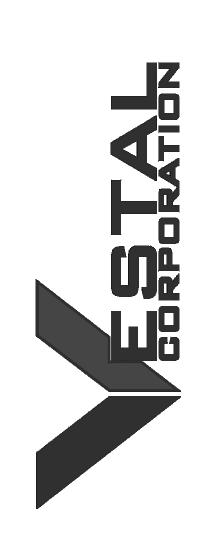
GENERAL INFORMATION

SHEET NUMBER:

G001

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ROJECT DESCRIPTION: IO. OF STORIES AT OR ABOVE GRADE 1	PLUMBING FIXTURE COUNTS: MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (TABLE 29)	02.1)	FIRE RESISTANCE REQUIREMENTS: BUILDING ELEMENTS (IBC TABLE 601)	
IO. OF STORIES BELOW GRADE 0 UILDING HEIGHT 11'-2" TO 20'-5"	BUSINESS OCCUPANTS = 115 occ	•	PRIMARY STRUCTURAL FRAMÉ: TYPICAL	0 HOUR
UILDING AREA APPROX 17,217 SF UTOMATIC SPRINKLER SYSTEM NON-SPRINKLED			SUPPORTING ROOF ONLY EXTERIOR WALLS:	0 HOUR
	MALE	MALE/FEMALE FEMALE	BEARING NONBEARING BY FIRE SEPARATION DISTANCE	0 HOUR
	BUSINESS (B)		0' TO 5' 5' TO 10'	1 HOUR 1 HOUR
	WATÈR CLOSETS	1 PER 25 FIRST 50 1 PER 50 OVER 50	10' TO 30' OVER 30'	0 HOUR 0 HOUR
	LAVATORIES	1 PER 40 FIRST 80 1 PER 80 OVER 80	INTERIOR WALLS: BEARING	
PPLICABLE CODES: D18 INTERNATIONAL BUILDING CODE	DRINKING FOUNTAIN SERVICE SINK	1 PER 100 1	TYPICAL SUPPORTING ROOF ONLY	0 HOUR 0 HOUR
115 INTERNATIONAL MECHANICAL CODE 115 INTERNATIONAL PLUMBING CODE	REQUIRED BUSINESS PRO	OVIDED BUSINESS	NONBEARING WALLS FLOOR CONSTRUCTION :	0 HOUR
09 INTERNATIONAL ENERGY CONSERVATION CODE 14 NATIONAL ELECTRICAL CODE	MALE WATER CLOSETS X	5	TYPICAL ROOF CONSTRUCTION:	0 HOUR
15 INTERNATIONAL FUEL GAS CODE 15 INTERNATIONAL FIRE CODE	URINALS X LAVATORIES X	2 4	TYPICAL 20' OR MORE ABOVE FLOOR BELOW	0 HOUR 0 HOUR
FPA 13, INSTALLATION OF SPRINKLER SYSTEMS FPA 14, STANDPIPE & HOSE SYSTEM	FEMALE		SHAFT ENCLOSURES (IBC 708)	
FPA 72, NATIONAL FIRE ALARM CODE MERICANS with DISABILITY ACT (ADA) - ICC/ANSI 117.1-2009	WATER CLOSETS X LAVATORIES X	5 4	4 STORIES OR MORE 3 STORIES OR LESS	2 HOUR ASSEMBLY 1 HOUR ASSEMBLY
	MALE/FEMALE		OPENING PROTECTIVES (IBC TABLE 715.4)	
	WATER CLOSETS 4 URINALS 0	10 2	FIRE WALLS & FIRE BARRIERS 4 HOUR ASSEMBLY	3 HOUR ASSEMBLY
	LAVATORIES 3 DRINKING FOUNTAINS 2	8 2	3 HOUR ASSEMBLY 2 HOUR ASSEMBLY	3 HOUR ASSEMBLY 1 1/2 HOUR ASSEMBLY
COLON DADAMETEDO.	OTHER		1 1/2 HOUR ASSEMBLY SHAFT, EXIT ENCLOSURES & EXIT PASSAGEWAY	1 1/2 HOUR ASSEMBLY
SIGN PARAMETERS: ROUND SNOW LOAD= XX	SERVICE SINK 1	1	2 HOUR ASSEMBLY FIRE BARRIERS ENCLOSURES FOR SHAFTS & EXIT ACCESS	1 1/2 HOUR ASSEMBLY
ND SPEAD = XX MPH ISMIC DESIGN CATEGORY = D			1 HOUR ASSEMBLY OTHER FIRE BARRIERS	1 HOUR ASSEMBLY
CCUPANCY CATEGORY = XX COST LINE DEPTH = XX"			1 HOUR ASSEMBLY FIRE PARTITIONS - CORRIDOR WALLS	3/4 HOUR ASSEMBLY
	INTERIOR FINISH REQUIREMENTS: INTERIOR EXIT STAIRWAYS, RAMPS & PASSAGEWAYS	(IBC TABLE 803.13)	1 HOUR ASSEMBLY 1/2 HOUR ASSEMBLY	1/3 HOUR ASSEMBLY 1/3 HOUR ASSEMBLY
PE OF CONSTRUCTION, BUILDING HEIGHT & AREA:	GROUP B CORRIDORS & ENCLOSURES FOR EXIT ACCESS STAIRWAYS & RA	CLASS A	OTHER FIRE PARTITIONS 1 HOUR ASSEMBLY	3/4 HOUR ASSEMBLY
DNSTRUCTION TYPE (IBC CHAPTER 6) TYPE II B	GROUP B ROOMS & ENCLOSED SPACES	CLASS B	1/2 HOUR ASSEMBLY EXTERIOR WALLS	1/3 HOUR ASSEMBLY
LOWABLE HEIGHT (IBC TABLE 504.3 AND TABLE 504.4) 3 STORIES, 55'-0" ALLOWABLE AREA (IBC TABLE 506.2) 23,000 SF	GROUP B	CLASS C	3 HOUR ASSEMBLY 2 HOUR ASSEMBLY	1 1/2 HOUR ASSEMBLY 1 1/2 HOUR ASSEMBLY
ALLOWABLE AREA INCREASE (IBC SECTION 506) XX,XXX SF (SECTION 506.3 - SPRINKLER) ALLOWABLE AREA INCREASE (IBC SECTION 506) XX,XXX SF (SECTION 506.2 - FRONTAGE)			1 HOUR ASSEMBLY SMOKE BARRIERS	3/4 HOUR ASSEMBLY
OTAL ALLOWABLE AREA (W/INCREASES SECTION 506) 23,000 SF			1 HOUR ASSEMBLY	1/3 HOUR ASSEMBLY
			FIRE DAMPERS (IBC TABLE 716.3.2.1) LESS THAN 3 HOUR ASSEMBLY	1 1/2 HOUR
CCUPANCY CLASSIFICATION: RIMARY OCCUPANCY CLASSIFICATIONS (IBC CHAPTER 3)	EXIT REQUIREMENTS: OCCUPANT LOAD (IBC TABLE 1004.1.1)		3 HOUR OR GREATER ASSEMBLY	3 HOUR
BUSINESS GROUP - B	ACCESSORY STORAGE AREAS, MECHANICAL/EQUIPMENT BUSINESS AREAS	300 GROSS SF PER OCCUPA 100 GROSS SF PER OCCUPA	IT 4 STORIES OR MORE	2 HOUR ASSEMBLY
	CAPACITY & EXIT WIDTH (IBC 1005.1)	100 GROSS SF FER OCCUPA	3 STORIES OR LESS	1 HOUR ASSEMBLY
	STAIRWAYS OTHER EGRESS COMPONENTS	0.3" PER OCCUPANT 0.2" PER OCCUPANT	EXIT PASSAGEWAYS (IBC 1023)	1 HOUR ASSEMBLY
	DOOR WIDTH (IBC 1008.1.1)	U.Z TER GOODI AIVI	HORIZONTAL EXITS (IBC 1025)	2 HOUR ASSEMBLY
CCUPANCY LOAD CALCULATION: BUSINESS GROUP "B" = 150 GROSS SQFT PER PERSON	MINIMUM WIDTH MAXIMUM WIDTH	32" 48"		
AIN LEVEL:	STAIRWAY WIDTH (IBC 1009.1)			
BUSINESS = 17,217 SQFT /150 = 114.78 occ (115)	MINIMUM WIDTH LESS THAN 50 OCCUPANTS	44" 36"		
OTAL OCCUPANTS = 115 OCCUPANTS	RAMP WIDTH (IBC 1010.5.1)			
	MEANS OF EGRESS RAMP RAMP BETWEEN HANDRAILS	PER 1018.2		
	COMMON PATH OF TRAVEL (IBC 1014.3)			
	ASSEMBLY OCCUPANCY BUSINESS OCCUPANCY	75' 100'		
	MINIMUM NUMBER OF EXITS (IBC 1015.1)			
	1-49 OCCUPANTS 49-500 OCCUPANTS	1 EXIT 2 EXITS		
	501-1,000 OCCUPANTS MORE THAN 1,000 OCCUPANTS	3 EXITS 4 EXITS	EIDE DEOTECTION SVETEMO.	
	TRAVEL DISTANCE (IBC TABLE 1016.1)		FIRE PROTECTION SYSTEMS: AUTOMATIC SPRINKLER SYSTEMS (IFC 903) FIRE DEPARTMENT CONNECTIONS (IFC 903.3.7)	
GRESS EXIT CALCULATION:	ASSEMBLY OCCUPANCY BUSINESS OCCUPANCY	250' 300'	MONITORING (IFC 903.4.1) ALARMS (IFC 903.4.2)	
AIN LEVEL: BUSINESS = 115 occ / 0.2" = 23"	DEAD ENDS (IBC 1018.4)		STANDPIPE SYSTEMS (IFC 905 & NFPA 14) FIRE EXTINGUISHERS (IFC 906 & NFPA10)	
EGRESS PROVIDED = 1 = 64" WIDE DOORS	ASSEMBLY OCCUPANCY BUSINESS OCCUPANCY	20' 50'	FIRE EXTINGUISHERS (IFC 906 & NFPA10) FIRE ALARM SYSTEMS (IFC 907 & NFPA 72)	
1 = 60" WIDE DOORS 1 = 42" WIDE DOORS	CORRIDOR WIDTH (IBC TABLE 1018.2)			
2 = 36" WIDE DOOR TOTAL WIDTH PROVIDED = 238"	MINIMUM WIDTH ACCESS TO EQUIPMENT	44" 24"		
DTAL OCCUPANTS = 115 OCCUPANTS / 0.2" = 22" REQUIRED	LESS THAN 50 OCCUPANTS	36"		
TAL WIDTH OF EGRESS PROVIDED = 238" PROVIDED				
	BUILDING ENVELOPE DESIGN REQUIREMENTS:			
	INSULATION ENTIRELY ABOVE DECK R-20 ci WALLS (ABOVE GRADE)			
	MÀSS R-9.5 ci			
	WALLS (BELOW GRADE)			
	SLAB ON GRADE FLOORS NOT REQUIRED			
	OPAQUE DOORS SWINGING (ASSEMBLY) U-0.70 ROLLING (ASSEMBLY) U-0.50			
			1	
	FENESTRATION - METAL FRAMING CURTAIN WALL / STOREFRONT U-0.50			





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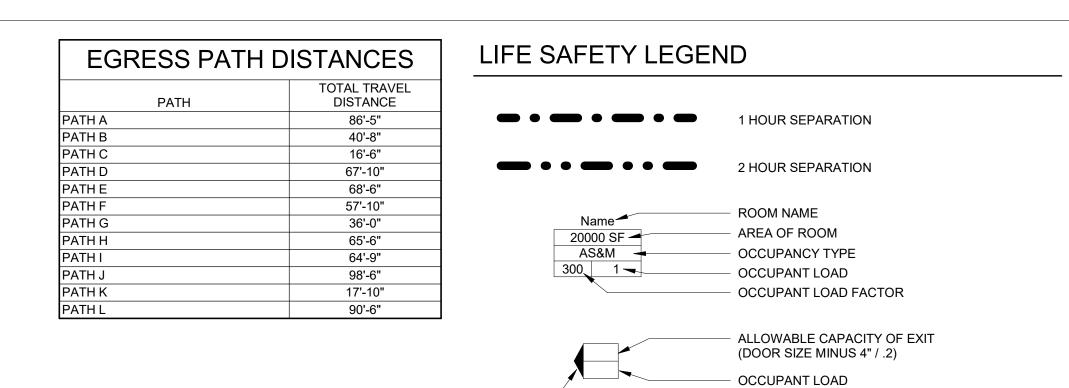
DESIGNED BY: <u>JB</u>

SHEET TITLE:

CODE DATA AND LIFE SAFETY

SHEET NUMBER:

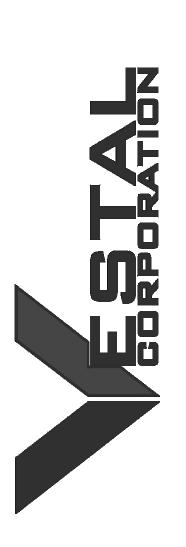
G00



EXIT LOCATION







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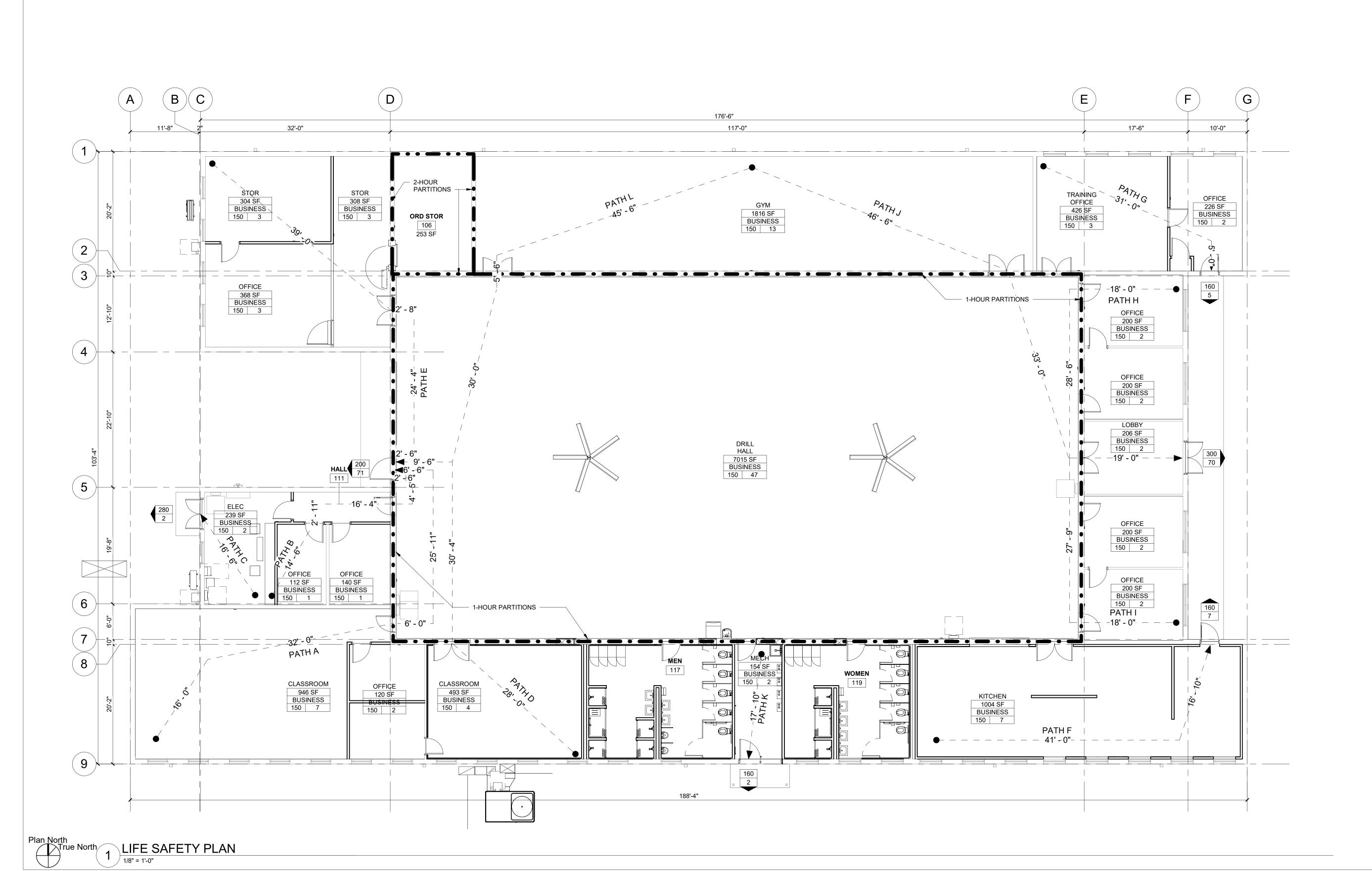
DESIGNED BY: <u>JB</u>

SHEET TITLE:

LIFE SAFETY PLAN

SHEET NUMBER:

G003



GENERAL NOTES

- SPECIFICATIONS: LINESS REFERRED TO SPECIFICALLY ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE CURRENT SPECIFICATIONS AND REQUIREMENTS OF THE COUNTY OF ST. CLAIR ON THIS PROJECT, AS WELL AS THE MANUFACTURER RECOMMENDATIONS FOR INSTALLATION SHALL GOVERN THE MATERIALS AND WORKMANSHIP TO COMPLETE THE IMPROVEMENTS SET FORTH IN THESE PLANS.
- 2. SAFETY: THE CONTRACTOR AND SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL. STATE, LOCAL AND OWNER'S REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR PROTECTION OF PERSONS, EMPLOYEES, AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
- . PERMITS: THE OWNER SHALL SECURE AND PAY FOR ALL PERMITS AND GOVERNMENT FEES, LICENSES, AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE IMPROVEMENTS SHOWN ON THE PLANS
- 4. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD WITH THE OWNER AND THE CONTRACTOR BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR SHALL SUBMIT A PROPOSED SCHEDULE REFLECTING ALL WORK THAT IS TO BE CONDUCTED
- 5. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A 24-HOUR TELEPHONE NUMBER TO READILY CONTACT A RESPONSIBLE PARTY IN THE CASE OF AN EMERGENCY.
- 6. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE OWNER AT LEAST SEVEN (7) DAYS PRIOR TO ANY CONSTRUCTION. TWENTY FOUR (24) HOUR ADVANCE NOTIFICATION IS REQUIRED FOR ALL WORK REQUIRING INSPECTION, TESTING OR APPROVAL BY OWNER, OWNER'S REPRESENTATIVE OR GOVERNING AUTHORITY, IF ANY
- 7. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY THE OWNER AND REQUEST A FINAL PUNCH LIST INSPECTION OF THE SITE ONCE ALL OF THE ITEMS ON THE CONSTRUCTION PLANS HAVE BEEN COMPLETED
- 8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND VERIFY THE EXTENT OF THE WORK TO BE PERFORMED PRIOR TO BEGINNING CONSTRUCTION. THIS IS ESPECIALLY TRUE WITH REGARD TO ANY ITEMS TO BE
- 9. THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION
- 11. WHEN WORKING WITHIN THE UTILITY EASEMENTS THE CONTRACTOR SHALL CONFORM TO THE LATEST CONSTRUCTION REQUIREMENTS OF THE UTILITY. THE CONTRACTOR IS TO CONTACT THE UTILITY REPRESENTATIVE PRIOR TO ANY CONSTRUCTION ACTIVITY.
- 12. THE CONTRACTOR IS CAUTIONED THAT THE LOCATION AND OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORD INFORMATION OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY TO LOCATE ALL UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION OF ANY UTILITIES AS REQUIRED BY THE PLANS WITH THE OWNER AND AFFECTED UTILITY.
- 14. WHERE POTENTIAL GRADE CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR SHALL UNCOVER SUCH UTILITIES SUFFICIENTLY IN ADVANCE OF LAYING PIPE OR OTHER WORK IN ORDER THAT IT MAY BE DETERMINED THE EXACT ELEVATION AND MAKE NECESSARY ADJUSTMENTS.
- 15. ALL CONSTRUCTION STAKING SHALL BE PERFORMED BY OR UNDER THE DIRECTION OF A PROFESSIONAL REGISTERED
- 16. THE CONTRACTOR SHALL FURNISH AND MAINTAIN SANITARY CONVENIENCE FACILITIES FOR THE WORKERS AND INSPECTORS FOR THE DURATION OF THE WORK.
- 17. NO MATERIALS, INCLUDING PIPE, SHALL BE STORED WITHIN THE RIGHT-OF-WAY OR WITHIN 100 FEET OF ANY INTERSECTING STREET, ALLEY, OR DRIVEWAY, DURING NON-WORKING HOURS, STORAGE OF EOUIPMENT SHALL COMPLY WITH THESE SAME REQUIREMENTS. COMPLIANCE WITH THESE REQUIREMENTS SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS LEGAL RESPONSIBILITIES OR LIABILITIES FOR THE SAFETY OF THE PUBLIC.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS WORK TO EQUAL OR BETTER CONDITION PRIOR TO THE DAMAGE, AT HIS OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND THE CITY. ANY DAMAGE TO OTHER UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE
- 19. WHEN ROAD OR STREET NAME SIGNS AND SUPPORTS INTERFERE WITH CONSTRUCTION, THE CONTRACTOR SHALL REMOVE AND ERECT THEM IN A TEMPORARY LOCATION DURING CONSTRUCTION IN A MANNER SATISFACTORY TO AND AS DIRECTED BY THE OWNER, AFTER COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL ERECT THE ROAD OR STREET SIGNS AND SUPPORTS IN A PERMANENT LOCATION IN ACCORDANCE WITH THE PLANS UNLESS OTHERWISE DIRECTED BY
- 20. THE TRACKING OF MUD. DIRT. DEBRIS OR SPILLAGE OF SAME UPON STREETS, DRIVES, SIDEWALKS, ETC. IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. AT THE END OF THE DAY, THE CONTRACTOR SHALL CLEAN UP AND DISPOSE OF ALL DEBRIS AND MATERIAL RESULTING FROM HIS OPERATION AND RESTORE ALL SURFACES AND STRUCTURES TO THEIR ORIGINAL CONDITION
- 21. THE CONTRACTOR SHALL MAINTAIN THE PROJECT IN A PRESENTABLE CONDITION. ALL TRASH AND DEBRIS EITHER EXISTING OR FROM CONSTRUCTION, MUST BE REMOVED IMMEDIATELY AND PROPERLY DISPOSED OF OFFSITE IN A LICENSED LANDFILL
- 22. ADEQUATE TEMPORARY OFF-STREET PARKING SHALL BE PROVIDED FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ON THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVING CONDITIONS.
- 23. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE TRAFFIC CONTROL DEVICES FOR THE PURPOSE OF REGULATING, WARNING, AND DIRECTING TRAFFIC, ALL FLAG MEN, BARRICADES, WARNING SIGNS, ETC. SHALL CONFORM TO THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES. THE SIGNS SHALL BE ERECTED PER THE MoDOT MANUAL OF TRAFFIC CONTROL DEVICES.
- 24. THE CONTRACTOR IS RESPONSIBLE TO CONTACT OWNER AND OR OWNER'S REPRESENTATIVE TO MAKE ARRANGEMENTS TO TAKE WATER FROM THE HYDRANTS ALL ARRANGEMENTS SHALL BE MADE REFORE OPENING ANY FIRE HYDRANT THE TAKING OF WATER FROM A FIRE HYDRANT WITHOUT AUTHORIZATION MAY RESULT IN THE CONTRACTOR'S PERSECUTION FOR THEFT. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO A FIRE HYDRANT DUE TO HIS USE.
- 25. ALL ELEVATIONS SHOWN ARE BASED ON U.S.G.S. DATUM, WITH ALL PROPOSED CONTOURS SHOWN BEING THE FINISHED ELEVATIONS OF PAVED AREAS.
- 26. DRIVE LANES FOR DAY-TO-DAY PLANT OPERATIONS SHALL BE KEPT OPEN TO TRAFFIC DURING ALL PHASES OF CONSTRUCTION OF IMPROVEMENTS. NO DRIVE LANES SHALL BE CLOSED WITHOUT PRIOR WRITTEN PERMISSION FROM THE OWNER OR OWNER'S REPRESENTATIVE
- 27. ALL EXCAVATIONS, WHETHER THEY BE UTILITY TRENCHES, BASEMENT EXCAVATIONS, OR FOOTING EXCAVATIONS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) "CONSTRUCTION STANDARDS FOR EXCAVATIONS".
- 28. EXCAVATION AND/OR OPEN TRENCHES TO BE COVERED AND PROTECTED AT ALL TIMES OTHER THAN DURING NORMAL WORKING HOURS.
- 29. SAFETY FOR THE WORKERS, EMPLOYEES OR PASSERBY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 30. EARTHWORK QUANTITIES ARE THE RESPONSIBILITY OF THE GRADING AND UTILITY CONTRACTORS. THE CONTRACTOR IS RESPONSIBLE FOR ALL HAUL-ON OR HAUL-OFF OF MATERIAL FROM THE SITE AS MAY BE REQUIRED.
- 31. THE CONTRACTOR SHALL COORDINATE ALL DISCONNECTION, SEALING, AND/OR REMOVAL OF UTILITIES WITH THE OWNER OR OWNER'S REPRESENTATIVE AND THE RESPECTIVE UTILITY COMPANY.
- 32. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THEY HAVE THE LATEST SET OF CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL CONTACT OWNER OR OWNER'S REPRESENTATIVE OF ANY PLAN DISCREPANCIES PRIOR TO
- 33. CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITION ALL PROPERTY DISTURBED BY THEIR OPERATIONS.

GENERAL DEMOLITION NOTES:

- 1. THE UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE RECORD INFORMATION AND FIELD LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UTILITIES. SHOWN OR NOT SHOWN. AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY DEMOLITION OR CONSTRUCTION. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE
- THE INTENT OF THIS DEMOLITION PLAN IS TO DEMOLISH ALL ELEMENTS WITHIN THE DEMOLITION LIMITS, INCLUDING, BUT NOT LIMITED TO, PARKING AREAS, SIDEWALKS, ABOVE AND BELOW GRADE UTILITIES.
- 3. ALL CONTRACTORS WILL BE REQUIRED TO VISIT THE SITE PRIOR TO BEGINNING DEMOLITION TO FAMILIARIZE THEMSELVES WITH THE SITE.
- 4. GENERAL CONTRACTOR RESPONSIBLE TO COORDINATE DEMOLITION, RELOCATING, DISCONNECTING, AND CAPPING OF ALL EXISTING UTILITIES PRIOR TO DEMOLITION WITH APPROPRIATE UTILITY COMPANY AND OWNER. CONTRACTOR TO PROVIDE BY-PASS CONNECTIONS AS DETERMINED BY UTILITY COMPANIES OR ICL PERFORMANCE PRODUCTS LP. TO MAINTAIN CONTINUITY OF SERVICES TO OCCUPIED AREAS OF THE SITE. PROVIDE ADEQUATE NOTICE TO OWNER OR OWNER'S REPRESENTATIVE IF SHUT-DOWN OF SERVICES IS REQUIRED.
- 5. CONTRACTOR TO CONSULT WITH OWNER REGARDING SALVAGE OF ITEMS TO BE REMOVED. OWNER HAS FIRST SALVAGE RIGHTS ON ALL ITEMS REMOVED
- GENERAL CONTRACTOR TO COORDINATE DEMOLITION WORK WITH NEW CONSTRUCTION SHOWN ELSEWHERE IN THE PLANS, DUE CARE IS TO BE TAKEN TO AVOID UNDUE DAMAGE TO ADJACENT STRUCTURES/FINISHES AND SCHEDULED.
- 7. GENERAL CONTRACTOR TO REMOVE ALL DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS FROM THE PLANT SITE. COORDINATE LOCATION OF DUMPSTER WITH OWNER OR OWNER'S REPRESENTATIVE PRIOR TO ITS DELIVERY. ALL DEBRIS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS IN A LICENSED DEMOLITION LANDFILL.
- 8. IF UNANTICIPATED ELECTRICAL, PLUMBING, OR STRUCTURAL ELEMENTS ARE ENCOUNTERED WHICH CONFLICT WITH THE INTENDED FUNCTION OR DESIGN. NOTIFY OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY.
- 9. CONTRACTOR TO COORDINATE ALL PHASING OF DEMOLITION AND NEW CONSTRUCTION WITH OWNER. PROVIDE FREE AND SAFE ACCESS TO AND FROM EXISTING PLANT BUILDINGS AT ALL TIMES, ENTRANCE WALKS AND MEANS OF EGRESS.
- 10. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS NOT TO DAMAGE EXISTING PAVING, SIDEWALKS AND CURBS WHERE NOTED TO BE USED IN PLACE (UIP). IF THE PAVING, SIDEWALKS AND/OR CURBS ARE DAMAGED, THE CONTRACTOR SHALL REPAIR THEM AT THEIR COST
- 11. PROMPTLY REPAIR DAMAGES CAUSED BY DEMOLITION WORK TO ADJACENT AREAS SCHEDULED TO REMAIN IN PLACE.
- 12. CONTRACTOR SHALL CATALOG AND PROPERLY STORE ALL EXISTING ITEMS, IF ANY, SCHEDULED TO BE REINSTALLED.
- 13. UPON REMOVAL OF ANY STORM OR SANITARY SEWER STRUCTURES THE PIPES GOING TO THAT STRUCTURE SHALL HAVE THE ENDS CAPPED OR REMOVED AS INDICATED ON THE PLANS.
- 14. ALL EXISTING SEWER STRUCTURES TO BE USED IN PLACE (U.I.P.) SHALL BE PROTECTED BY THE PLACEMENT OF
- 15. REMOVE ALL TREES, SHRUBS AND BUSHES (INCLUDING ROOTS) AS INDICATED WITH THE DEMOLITION LIMITS. ALL TREES
- SHOWN TO BE LEFT IN PLACE SHALL BE PROTECTED BY A CONSTRUCTION FENCE.
- 16. REFER TO EROSION CONTROL DRAWINGS FOR EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO DEMOLITION.

GRADING NOTES

BARRICADES OR A SIMILAR DEVICE AROUND THE STRUCTURE.

- 1. THE GRADING CONTRACTOR SHALL PERFORM A COMPLETE GRADING AND COMPACTION OPERATION AS SHOWN ON THE PLANS, STATED IN THESE NOTES, OR REASONABLY IMPLIED THERE FROM, ALL IN ACCORDANCE WITH THE PLANS AND NOTES AS INTERPRETED BY THE GEOTECHNICAL ENGINEER OF RECORD.
- 2. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER AT LEAST TWO DAYS IN ADVANCE OF THE START OF THE GRADING OPERATION
- 3. ALL AREAS SHALL BE ALLOWED TO DRAIN. ALL LOW POINTS SHALL BE PROVIDED WITH TEMPORARY DITCHES.
- 4. A SEDIMENT CONTROL PLAN THAT INCLUDES MONITORED AND MAINTAINED SEDIMENT CONTROL BASINS AND/OR STRAW BALES SHOULD BE IMPLEMENTED AS SOON AS POSSIBLE. NO GRADED AREA IS TO BE ALLOWED TO REMAIN BARE OVER THE WINTER WITHOUT BEING SEEDED AND MULCHED. CARE SHOULD BE EXERCISED TO PREVENT SOIL FROM DAMAGING ADJACENT PROPERTY AND SILTING UP EXISTING DOWNSTREAM STORM DRAINAGE SYSTEM.
- SOFT SOIL IN THE BOTTOM AND BANKS OF ANY EXISTING OR FORMER POND SITES OR TRIBUTARIES SHOULD BE REMOVED, SPREAD OUT AND PERMITTED TO DRY SUFFICIENTLY TO BE USED AS FILL. NONE OF THIS MATERIAL SHOULD BE PLACED IN PROPOSED RIGHT-OF-WAY LOCATIONS OR ON STORM SEWER LOCATIONS.
- 6. SITE PREPARATION INCLUDES THE CLEARANCE OF ALL STUMPS, TREES, BUSHES, SHRUBS, AND WEEDS; THE GRUBBING AND REMOVAL OF ROOTS AND OTHER SURFACE OBSTRUCTIONS FROM THE SITE: AND THE DEMOLITION AND REMOVAL OF ANY MAN-MADE STRUCTURES. THE UNSUITABLE MATERIAL SHALL BE PROPERLY DISPOSED OF OFF-SITE. TOPSOIL AND GRASS IN THE FILL AREAS SHALL BE THOROUGHLY DISCED PRIOR TO THE PLACEMENT OF ANY FILL. THE GEOTECHNICAL ENGINEER SHALL APPROVE THE DISCING OPERATION
- 7. COMPACTION FOUIPMENT SHALL CONSIST OF TAMPING ROLLERS. THE ROLLER SHALL BE DESIGNED SO AS TO AVOID THE CREATION OF A LAYERED FILL WITHOUT PROPER BLENDING OF SUCCESSIVE FILL LAYERS.
- 8. THE GEOTECHNICAL ENGINEER SHALL OBSERVE AND TEST THE PLACEMENT OF THE FILL TO VERIFY THAT SPECIFICATIONS ARE MET. A SERIES OF FILL DENSITY TESTS WILL BE DETERMINED ON EACH LIFT OF FILL. INTERIM REPORTS SHOWING FILL OUALITY WILL BE MADE TO THE OWNER AT REGULAR INTERVALS.
- 9. THE GEOTECHNICAL ENGINEER SHALL NOTIFY THE CONTRACTOR OF REJECTION OF A LIFT OF FILL OR ITS ACCEPTANCE PRIOR TO THE PLACEMENT OF ADDITIONAL FILL
- 10. ALL AREAS TO RECEIVE FILL SHALL BE SCARIFIED TO A DEPTH OF NOT LESS THAN 6 INCHES AND THEN COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN BELOW. NATURAL SLOPES STEEPER THAN 1 VERTICAL TO 5 HORIZONTAL TO RECEIVE FILL SHALL HAVE HORIZONTAL BENCHES CUT INTO THE SLOPES BEFORE THE PLACEMENT OF ANY FILL. THE WIDTH AND HEIGHT TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER . THE FILL SHALL BE LOOSELY PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 8 INCHES IN THICKNESS AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN BELOW. THE GEOTECHNICAL ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE ACCEPTABILITY OF SOILS PLACED. ANY UNACCEPTABLE SOILS PLACED SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE.
- 11. THE SEQUENCE OF OPERATION IN THE FILL AREAS WILL BE FILL, COMPACT, VERIFY ACCEPTABLE SOIL DENSITY, AND REPETITION OF THE SEQUENCE. THE ACCEPTABLE MOISTURE CONTENTS DURING THE FILLING OPERATION ARE THOSE AT WHICH SATISFACTORY DRY DENSITIES CAN BE OBTAINED. THE ACCEPTABLE MOISTURE CONTENTS DURING THE FILLING OPERATION IN THE REMAINING AREAS ARE FROM 2 TO 8 PERCENT ABOVE THE OPTIMUM MOISTURE CONTROL.
- 12. THE SURFACE OF THE FILL SHALL BE FINISHED SO THAT IT WILL NOT IMPOUND WATER. IF AT THE END OF A DAYS WORK IT WOULD APPEAR THAT THERE MAY BE RAIN PRIOR TO THE NEXT WORKING DAY. THE SURFACE SHALL BE FINISHED SMOOTH. IF THE SURFACE HAS BEEN FINISHED SMOOTH FOR ANY REASON, IT SHALL BE SCARIFIED BEFORE PROCEEDING WITH THE PLACEMENT OF SUCCEEDING LIFTS. FILL SHALL NOT BE PLACED ON FROZEN GROUND, NOR SHALL FILLING OPERATIONS CONTINUE WHEN THE TEMPERATURE IS SUCH AS TO PERMIT THE LAYER UNDER PLACEMENT TO FREEZE.
- 13. FILL AND BACKFILL SHOULD BE COMPACTED TO THE CRITERIA SPECIFIED IN THE FOLLOWING TABLE:

CATEGORY MINIMUM PERCENT COMPACTION FILL IN BUILDING AREAS BELOW FOOTINGS FILL UNDER SLABS, WALKS, AND PAVEMENT 90% FILL OTHER THAN BUILDING AREAS 88% NATURAL SUBGRADE 88% PAVEMENT SUBGRAD PAVEMENT BASE COURSE

MEASURED AS A PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR TEST (ASTM-D-1557). MOISTURE CONTENT MUST BE WITHIN 2 PERCENT BELOW OR 4 PERCENT ABOVE OPTIMUM MOISTURE CONTENT IF FILL IS

14. NO SLOPE SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL)

HEAVY STONE REVETMENT:

DEEPER THAN 10 FEET.

HEAVY STONE REVETMENT CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL MEET THE REQUIREMENTS BELOW.

MATERIALS. HEAVY STONE REVETMENT SHALL BE SOUND, DURABLE, AND FREE FROM CRACKS AND OTHER STRUCTURAL DEFECTS THAT WOULD CAUSE IT TO DETERIORATE. IT SHALL NOT CONTAIN ANY SOAPSTONE, SHALE, OR OTHER MATERIAL EASILY DISINTEGRATED. THE STONE SHALL BE IN BLOCKS AT LEAST 12 INCHES IN THICKNESS PERPENDICULAR TO THE SLOPE AND HAVE APPROXIMATELY RECTANGULAR FACES 7 INCHES OR MORE IN WIDTH. ALL BLOCKS SHALL WEIGH NOT LESS THAN 50 POUNDS, AND AT LEAST 60 PERCENT SHALL WEIGH NOT LESS THAN 100 POUNDS.

BROKEN CONCRETE. WHEN OTHER WORK INCLUDED IN THE CONTRACT OCCASIONS OUANTITIES OF BROKEN CONCRETE. THE CONTRACTOR'S MAY USE SUCH MATERIAL AS BLOCKS FOR REVETMENT. PROVIDED MINIMUM SIZE AND WEIGHT REQUIREMENTS FOR STONE ARE MAINTAINED.

CONSTRUCTION REQUIREMENTS. UNLESS OTHERWISE APPROVED, THE SLOPES UPON WHICH REVETMENT IS TO BE PLACED SHALL CONFORM TO THE SECTION SHOWN ON THE PLANS. THE SLOPES SHALL BE COMPACTED TO A UNIFORM DENSITY AS REQUIRED FOR ADJACENT MATERIAL. THE REVETMENT SHALL BE STARTED IN A TRENCH BELOW THE TOE OF THE SLOPE SHOWN ON THE PLANS AND SHALI PROGRESS UPWARD. EACH STONE OR BROKEN CONCRETE BLOCK SHALL BE LAID PERPENDICULAR TO THE SLOPE, SHALL BE FIRMLY BEDDED AGAINST THE SLOPE AND AGAINST ADJOINING STONES. OR BROKEN CONCRETE, AND SHALL BE LAID WITH WELL BROKEN JOINTS. AFTER REVETMENT HAS BEEN PLACED. THE VOIDS SHALL BE FILLED WITH SPALLS OR SMALL STONE IN SUCH A MANNER THAT ALL REVETMENT STONES OR BROKEN CONCRETE ARE TIGHTLY WEDGED. THE FINISHED SURFACE SHALL PRESENT A UNIFORM APPEARANCE TRUE TO LINE, GRADE, AND SECTION.

SEWER NOTES:

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- 1. ALL PUBLIC STORM AND SANITARY SEWER CONSTRUCTION METHODS SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE APPLICABLE CODES AND SHALL CONFORM TO ALL APPROPRIATE METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARDS 2020
- 2. ALL PUBLIC STORM AND SANITARY SEWER STRUCTURES AND APPURTENANCES TO CONFORM TO THE STANDARD DETAILS AND CONSTRUCTION SPECIFICATIONS SHOWN IN CURRENT METROPOLITAN ST. LOUIS SEWER DISTRICT, "STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES", 2020.
- 3. AFTER ALL SEWERS AND APPURTENANCES ARE COMPLETED, INSPECTED AND ACCEPTED, THE CONTRACTOR WILL BE PERMITTED TO CONNECT THE SEWER EXTENTIONS INTO THE EXISTING SYSTEM, IN THE PRESENCE OF AN INSPECTOR.
- 4. DRAINAGE PIPE SHALL BE REINFORCED CONCRETE CLASS III (AT A MINIMUM) EXCEPT AS NOTED ON PLANS. INSTALLATION SHALL CONFORM TO M.S.D. STANDARDS AND SPECIFICATIONS.
- 5. JOINTING MATERIAL FOR POLY VINYL CHLORIDE (PVC) SANITARY SEWERS SHALL CONFORM TO ASTM SPECIFICATION D-3212. ALL PVC PIPE SHALL CONFORM TO ASTM D-3034 TYPE PSM WITH A SDR RATING OF 35, OR LOWER.
- 6. MANHOLE FRAMES AND COVERS SHALL BE STANDARD FRAMES AND COVERS AS APPROVED BY THE GOVERNING AUTHORITY
- SHALL BE BACKFILLED WITH 3/4" MINUS CRUSHED LIMESTONE AND COMPACTED TO 90% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST (ASTM D-1557).

7. TRENCHES UNDER EXISTING PAVEMENT AND UNDER AREAS TO BE PAVED WITH AND OFF THE ROAD RIGHT-OF-WAY

- 8. IN ALL AREAS WHERE SEWER AND APPURTENANCES ARE TO BE CONSTRUCTED IN FILLED GROUND, THE FILL WILL BE PLACED TO APPROXIMATE FINISH GRADE AND COMPACTED TO 90% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST (ASTM D-1557), PRIOR TO THE EXCAVATING AND INSTALLING PIPE. ALL TESTS SHALL BE PERFORMED UNDER THE DIRECTION OF AND VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS.
- 9. THE SEWER CONTRACTOR MAY CONSTRUCT THE BUILDING SEWER LATERALS IN CONJUNCTION WITH THE SANITARY MAIN, TRUNK OR LATERAL SEWERS, WITH THE DEVELOPMENT, PROVIDED THAT THE BUILDING SEWER LATERAL TERMINATES FIVE (5) FEET, OR MORE, OUTSIDE THE PROPOSED OR EXISTING BUILDING LINE OR FOUNDATION WALL
- 10. ALL MANHOLE AND INLET TOPS BUILT WITHOUT ELEVATIONS FURNISHED BY THE ENGINEER WILL BE THE RESPONSIBILITY OF THE SEWER CONTRACTOR. AT THE TIME OF CONSTRUCTION STAKEOUT, CURB OR GRATE INLETS WILL BE FACED STAKED, PROVIDED SAID STAKES DO NOT FALL IN THE DITCH LINE. IF STAKES FALL WITHIN THE DITCH LINE, THE CONTRACTOR OR JOB SUPERINTENDENTS SHALL NOTIFY THE ENGINEER THAT STAKES ARE NEEDED AND ALLOW 48 HOURS FOR CUTS. TOPS OF MANHOLES, INLETS, VALVE BOXES, ETC. SHALL CONFORM TO FINISH GRADE.
- 11. ALL STANDARD STREET CURB INLETS TO HAVE A FRONT OF INLET TWO AND A HALF (2.5) FEET BEHIND CURB.
- 12. ALL SANITARY BUILDING CONNECTIONS HAVE BEEN DESIGNED SO THAT THE MINIMUM VERTICAL DISTANCE FROM THE LOW POINT OF THE FINISHED FLOOR TO THE FLOW LINE OF A SANITARY SEWER AT THE CORRESPONDING BUILDING CONNECTION IS NOT LESS THAT THE DIAMETER OF THE PIPE PLUS A VERTICAL DISTANCE OF TWO AND A HALF (2.5) FEET.
- 13. SOILS ENGINEER WILL VERIFY THAT ALL COMPRESSIBLE MATERIAL HAS BEEN REMOVED PRIOR TO FILL PLACEMENT AND THAT ALL FILLED AREAS, INCLUDING TRENCH BACKFILLS, UNDER BUILDINGS, PROPOSED SANITARY AND STORM SEWER LINES, PUBLIC RIGHT-OF-WAY AND PAVED AREAS HAS BEEN COMPACTED TO 90% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST (ASTM D-1557), UNLESS OTHERWISE RECOMMENDED IN THE SOILS REPORT FOR THIS PROJECT. FILL IS TO BE PLACED IN A MAXIMUM OF NINE (9) INCH LIFTS. TESTS SHALL BE TAKEN AT A MAXIMUM OF 50 FOOT INTERVALS ALONG THE ROUTE OF THE PIPE; AT A MAXIMUM OF 2 FOOT VERTICALLY; AND LATERALLY ON EACH SIDE OF THE PIPE, AT A DISTANCE EQUAL TO THE DEPTH OF FILL OVER THE PIPE. A COPY OF THESE RESULTS WILL BE SUBMITTED TO OWNER OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- 14. WHEN PVC PIPE IS USED, APPROPRIATE RUBBER SEAL WATER-STOP, AS APPROVED BY THE SEWER DISTRICT, SHALL BE INSTALLED BETWEEN PVC PIPE AND MASONRY (CONCRETE & BRICK) STRUCTURE.
- 15. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM THE LOCATION OF EXISTING UTILITIES AND\OR UNDERGROUND FACILITIES BY NOTIFYING UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- 16. GAS, WATER AND OTHER UNDERGROUND UTILITIES SHALL NOT CONFLICT WITH THE DEPTH OR HORIZONTAL LOCATION OF EXISTING AND PROPOSED SANITARY AND STORM SEWERS INCLUDING BUILDING LATERALS.
- 17. ALL CONSTRUCTION METHODS AND MATERIALS USED SHALL CONFORM TO CURRENT APPLICABLE STANDARDS.
- 18. SHOP DRAWINGS ARE REQUIRED FOR CONSTRUCTION OF NON-STANDARD REINFORCED CONCRETE STRUCTURES

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19. MAINTENANCE OF THE SEWERS DESIGNATED AS PUBLIC SHALL BE THE RESPONSIBILITY OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT UPON DEDICATION OF THE SEWERS TO THE DISTRICT.

CONTOURS

SPOT ELEVATIONS

CENTER LINE

BUILDING, ETC.

TREE LINE

FENCE

STORM SEWERS

SANITARY SEWERS

MANHOLE

AREA INLET

STORM MANHOLE

FLARED END

SANITARY MANHOLE

UTILITY OR POWER POLE

FIRE HYDRANT

PAVEMENT

WATER MAIN & SIZE

GAS MAIN & SIZE

ELECTRIC (UNDERGROUND)

ELECTRIC (OVERHEAD)

SWALE

LIGHT STANDARD

STREET SIGN

BORE LOCATION

PARKING SPACE

PROPERTY LINE

CHAIN LINK FENCE

TELEPHONE

PAVEMENT NOTES:

- 1. ALL PAVING TO BE IN ACCORDANCE WITH MODOT STANDARDS AND SPECIFICATIONS EXCEPT AS MODIFIED THESE PLANS OR BY THE OWNER AND/OR HIS REPRESENTATIVE
- 2. ALL SUB GRADE IN CUT OR FILL WILL NEED TO CONFORM TO THE COMPACTION REQUIREMENTS RECOMMENDED BY THE GEOTECHNICAL REPORT OR DETAIL WITHIN THESE PLANS.
- 3. MATERIALS FOR CONSTRUCTION SHALL BE TESTED AND INSPECTED PER THE APPROPRIATE ASTM CODE OR AT THE OWNER'S OR OWNER'S REPRESENTATIVE'S DISCRETION.
- 4. THE OWNER AND/OR OWNER'S REPRESENTATIVE SHALL APPROVE THE SUB GRADE BEFORE ANY BASE IS PLACED THEREON AND SHALL APPROVE THE BASE BEFORE CONCRETE OR SURFACE COURSE IS PLACED. THE SUB GRADE AND BASE SHALL BE SO CONSTRUCTED THAT IT WILL BE UNIFORM IN DENSITY THROUGHOUT.
- 5. NO TRAFFIC WILL BE ALLOWED ON NEW CONCRETE PAVEMENT UNTIL IT HAS CURED FOR SEVEN (7) DAYS AND IT REACHES FOUR THOUSAND (4,000) PSI WITHIN 28 DAYS.
- 5.1. CONCRETE PAVEMENTS SHALL NOT BE APPROVED UNLESS IT REACHES A STRENGTH OF FOUR THOUSAND (4,000) PSI, CYLINDERS/COMPRESSIVE STRENGTH, ONE (1) SET OF FOUR (5) CYLINDERS WITHIN THE FIRST FIFTY (50) CUBIC YARDS AND ONE (1) SET PER ONE HUNDRED (100) CUBIC YARDS THEREAFTER. ONE (1) CYLINDER MUST BE TESTED AT SEVEN (7) DAYS, THREE (3) AT TWENTY-EIGHT (28) DAYS, AND ONE (1) HELD IN RESERVE.
- 6. PRIOR TO PLACEMENT OF AGGREGATE BASE MATERIAL ON SUB GRADE AND PRIOR TO PLACEMENT OF PAVEMENT ON BASE MATERIAL. THE SUB GRADE AND BASE MUST BE PROOF-ROLLED WITH A FULLY LOADED (TEN (10) TON LOAD) TANDEM TRUCK OR EOUIVALENT TIRE VEHICLE WITH ONE (1) PASS DOWN EACH DRIVING LANE NO FASTER THAN THREE (3) MILES PER HOUR. IF SOFT SPOTS ARE DETECTED, OR PUMPING, RUTTING OR HEAVING OCCURS GREATER THAN ONE (1) INCH AT THE SUBGRADE. THE ROADBED SHALL BE CONSIDERED UNSATISFACTORY AND THE SOIL IN THESE AREAS SHALL BE REMEDIATED TO THE DEPTH INDICATED BY THE OWNER'S TESTING FIRM AND APPROVED BY THE OWNER AND/OR OWNER'S REPRESENTATIVE.
- 7. SUB GRADE AND BASE BENEATH PAVEMENTS SHALL BE COMPACTED TO MODOT SPECIFICATIONS. THE MOISTURE RANGE SHALL BE DETERMINED BY THE STANDARD OR MODIFIED PROCTOR DENSITY METHOD AASHTO T-99 AND WITHIN -2/+4 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT.
- 8. THE ENTIRE WIDTH AND LENGTH WILL CONFORM TO LINE, GRADE AND CROSS SECTION SHOWN ON THE PLANS OR AS ESTABLISHED BY THE ENGINEER. IF ANY SETTLING OR WASHING OCCURS, OR WHERE HAULING RESULTS IN RUTS OR OTHER OBJECTIONABLE IRREGULARITIES. THE CONTRACTOR SHALL IMPROVE THE SUB GRADE OR BASE TO THE SATISFACTION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE BEFORE THE PAVEMENT IS PLACED. ADDITIONAL ROLLING OR METHODS TO VERIFY COMPACTION SHALL BE AT THE DISCRETION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE. TOLERANCE ALLOWED ON ALL LINES, GRADES AND CROSS SECTIONS SHALL BE PLUS OR MINUS FOUR-HUNDREDTHS (+0.04) FEET.
- 9. EQUIPMENT CALIBRATION. THE DEVELOPER'S CONTRACTORS AND SUBCONTRACTORS MUST HAVE THEIR EQUIPMENT CALIBRATED BY THE FOLLOWING MINIMUM STANDARDS.
- 9.1. AIR METER--WEEKLY. CYLINDER COMPRESSION--ANNUALLY BY INDEPENDENT CALIBRATION SERVICE.
- BATCH SCALES--MONTHLY.
- 9.4. NUCLEAR TESTING DEVICES--EVERY SIX (6) MONTHS 9.5. PROCTOR EOUIPMENT--EVERY SIX (6) MONTHS.
- 9.6. SLUMP CONE--MONTHLY.

BBREVIATIONS

C.O. - CLEANOUT

E - ELECTRIC

FL - FLOWLINE

FT - FEET

G - GAS

PG. - PAGE

SQ. - SQUARE

W - WATER

U.I.P. - USE IN PLACE

T.B.R. - TO BE REMOVED

FND. - FOUND

M.H. - MANHOLE

PB. - PLAT BOOK

N/F - NOW OR FORMERLY

P.O.B. - POINT OF BEGINNING

T - TELEPHONE CABLE

V.C.P. - VETRIFIED CLAY PIPE

(86'W) - RIGHT-OF-WAY WIDTH

T.B.R.&R. - TO BE REMOVED & REPLACED

P.O.C. - POINT OF COMMENCEMENT

P.V.C. - POLYVINYL CHLORIDE PIPE

R.C.P. - REINFORCED CONCRETE PIPE

DB. - DEED BOOK

10. ALL PERMANENT TRAFFIC CONTROL WILL BE PER M.U.T.C.D. OR MODOT STANDARDS.

MANAGEMENT, DESIGN AND CONSTRUCTION DEPARTMENT OF MISSOURI NATIONAL

DIVISION OF FACILITIES

OFFICE OF ADMINISTRATION

STATE OF MISSOURI MICHAEL L. PARSON

GOVERNOR

PROFESSIONAL SEAL

ST. CLAIR READINESS

GUARD

CENTER

375 COMMERCIAL AVE. ST, CLAIR, MO 6307

PROJECT # T2326-01 FACILITY # 8113630401

REV.	DESCRIPTION	DATE
A	SD	12/06/2023
В	DD	02/19/2024
С	IFB	04/23/2024

CAD DWG FILE: DRAWN BY: CHECKED BY: CJM DESIGNED BY: DSL

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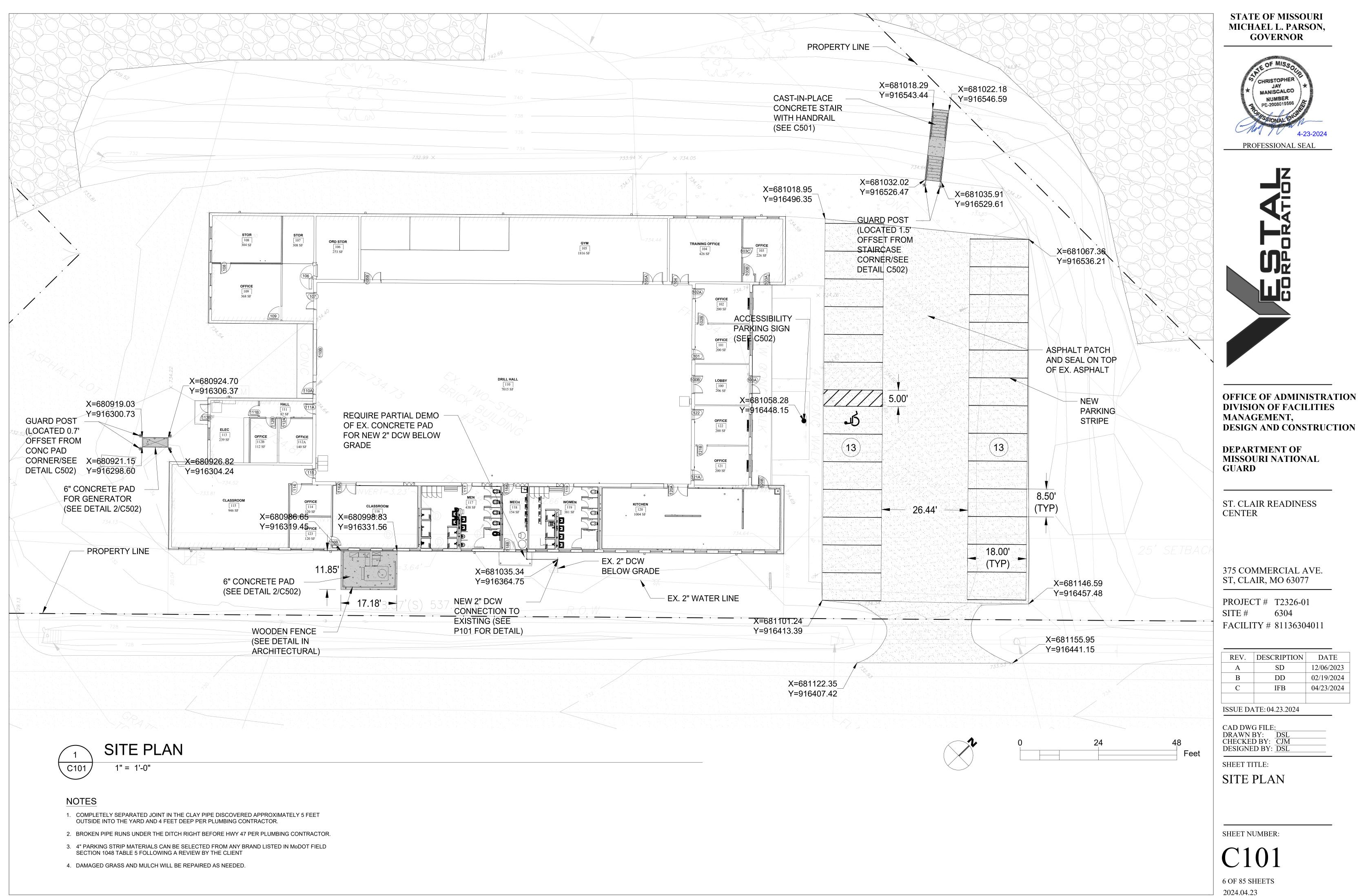
GENERAL NOTES

SHEET NUMBER

5 OF 85 SHEETS

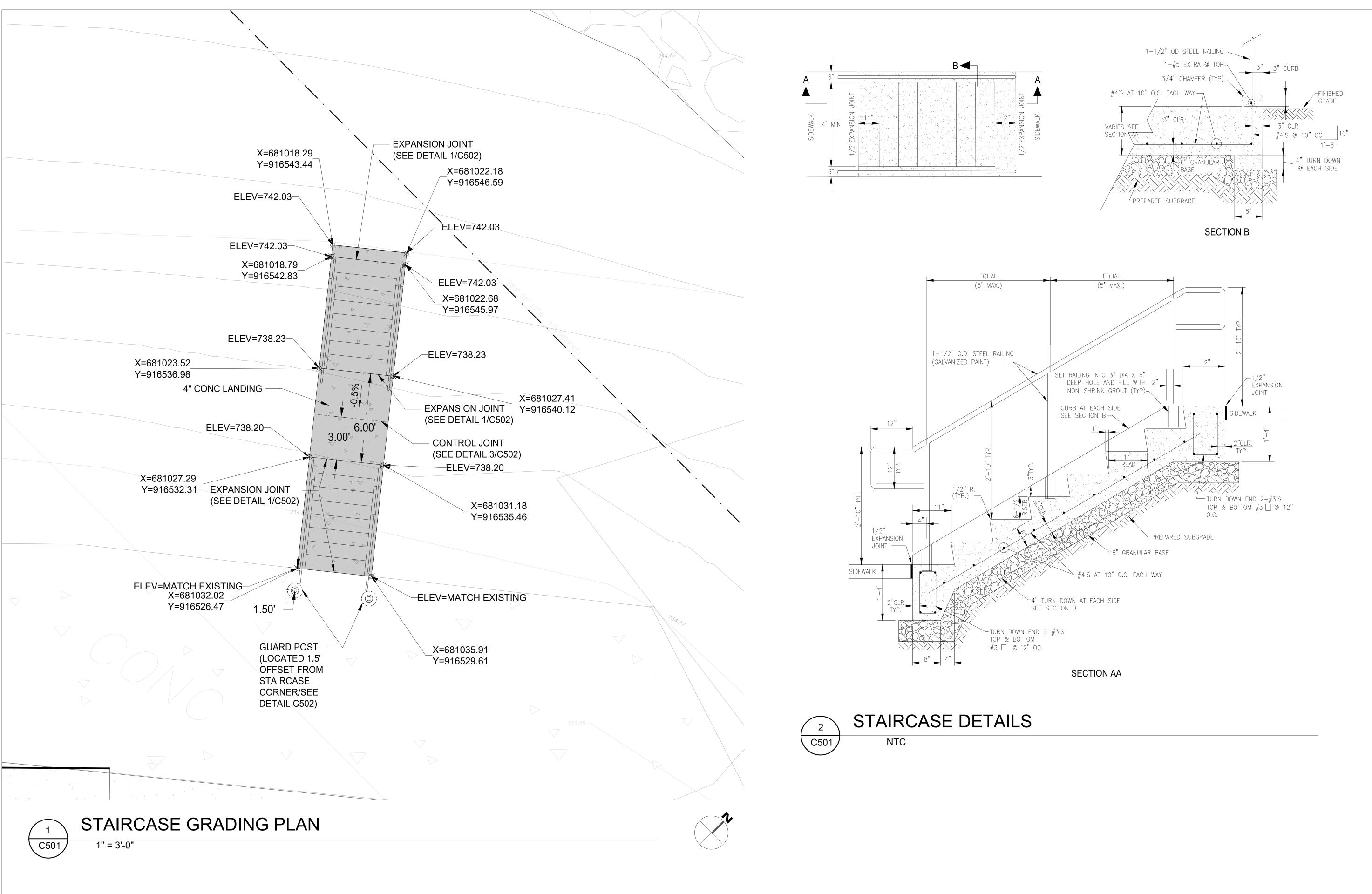
2024.04.23

ISSUE DATE: 04.23.2024



DESIGN AND CONSTRUCTION

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ESTAL GREDCHATION

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DEPARTMENT OF MISSOURI NATIONAL GUARD

ST. CLAIR READINESS CENTER

375 COMMERCIAL AVE. ST, CLAIR, MO 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 81136304011

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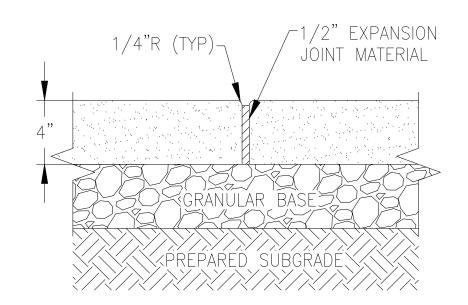
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DRAWN BY:
CHECKED BY:
DESIGNED BY:
DSL

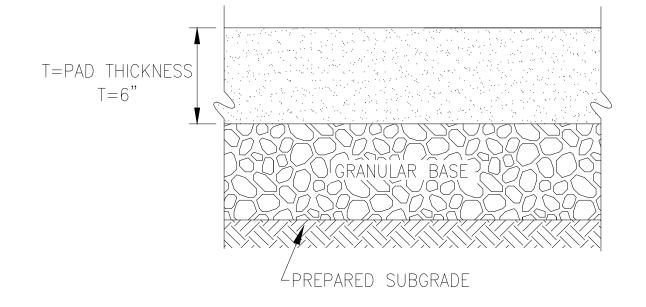
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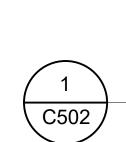
STAIR DETAILS

SHEET NUMBER:

C50





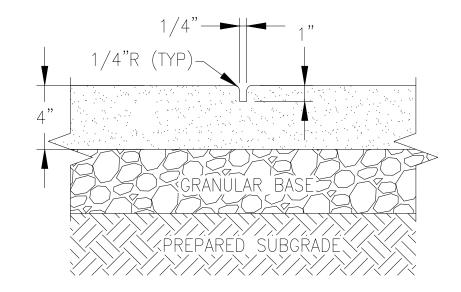


EXPANSION JOINT IN CONCRETE SIDEWALK

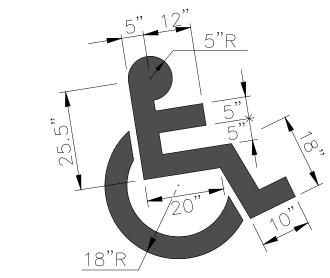


CONCRETE PAD

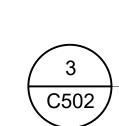
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CONTROL JOINT IN



NOTE: SYMBOL TO BE PAINTED WITH WHITE NON-REFLECTIVE TRAFFIC PAINT.

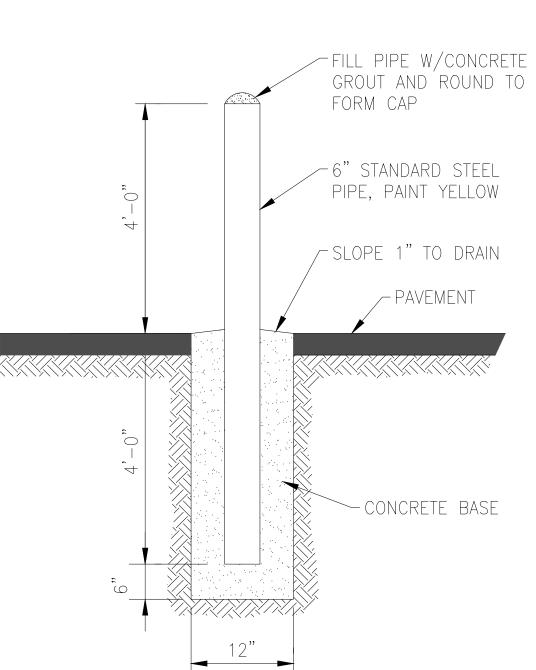


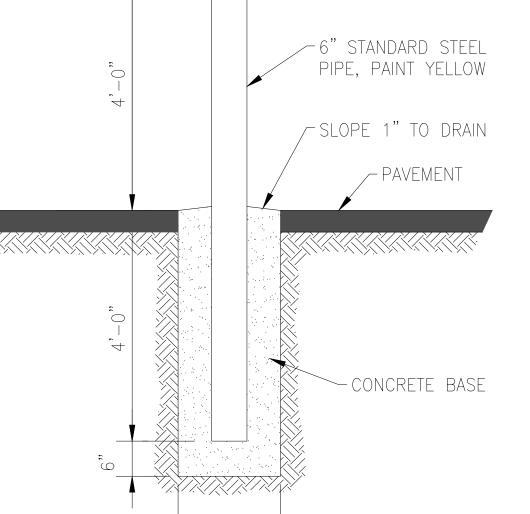
CONCRETE SIDEWALK NTC

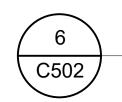
PAINTED ACCESSIBLE SYMBOL

C502

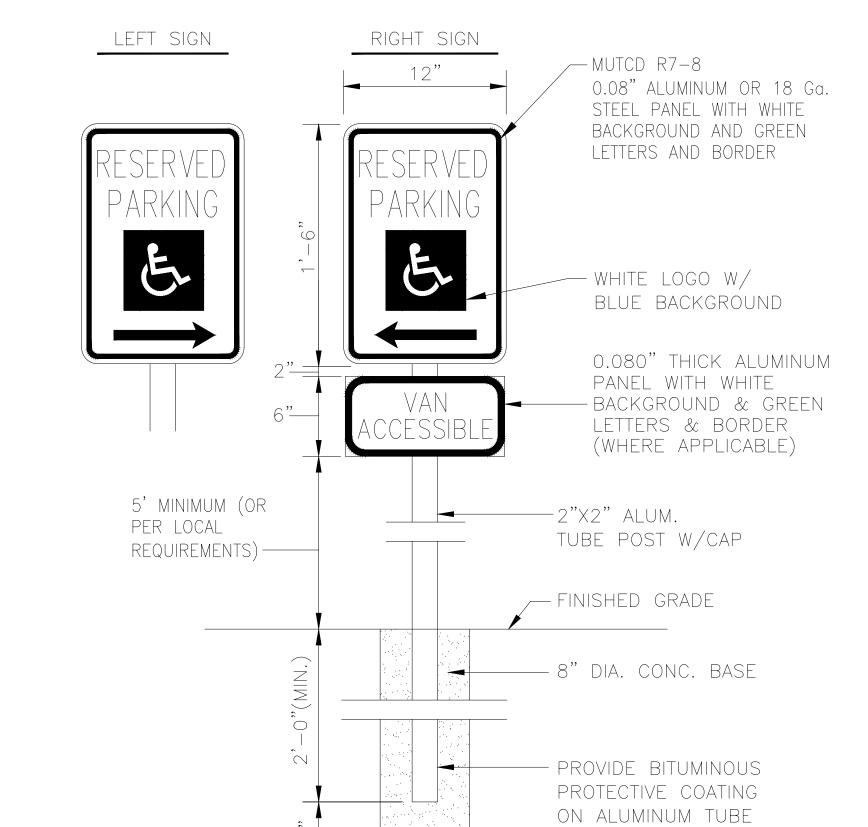
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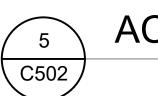






GUARD POST DETAIL





ACCESSIBILITY PARKING SIGN

EMBEDDED IN CONC.

NTC

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**



PROFESSIONAL SEAL



OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, **DESIGN AND CONSTRUCTION**

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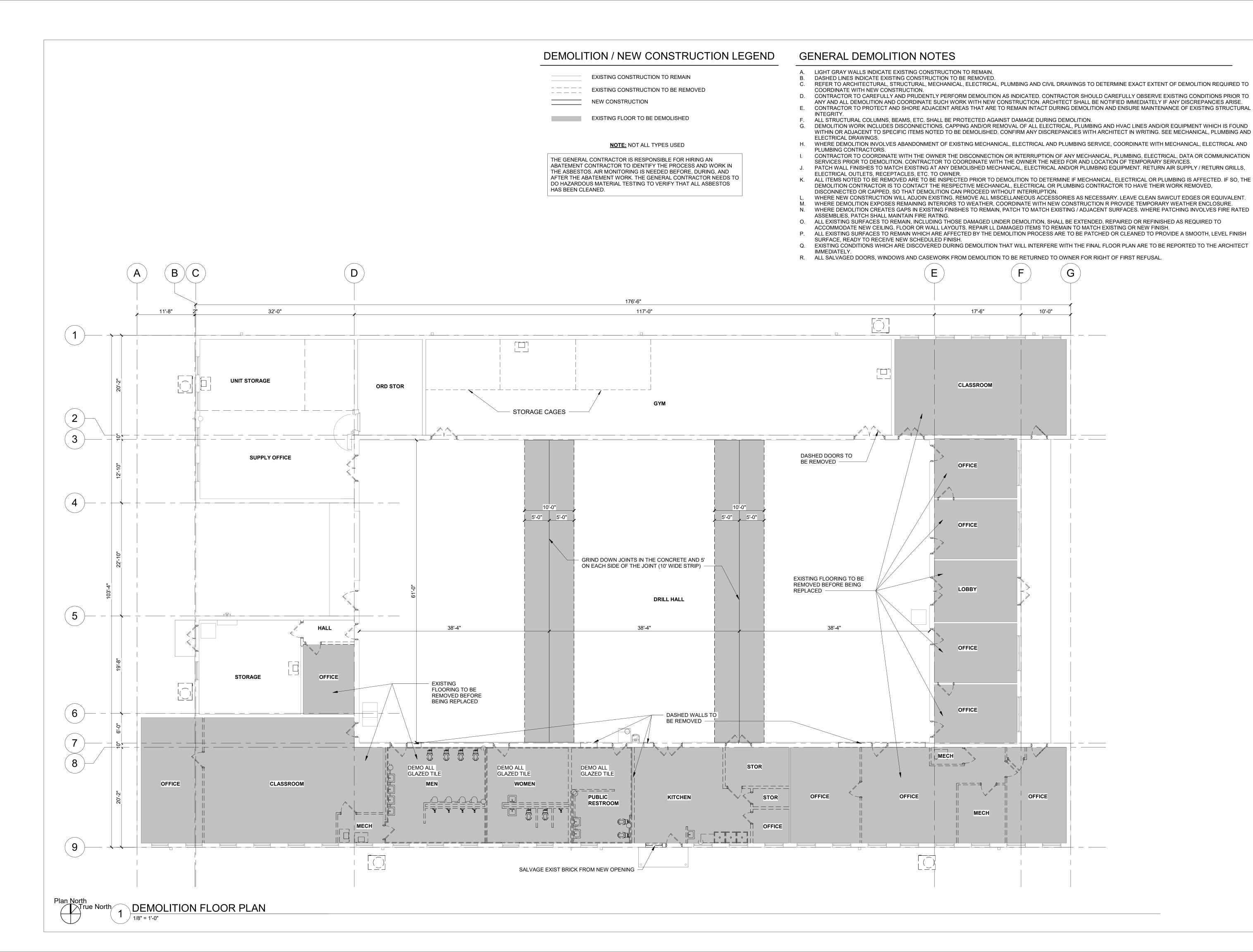
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CHECKED BY:
CJM DESIGNED BY: DSL

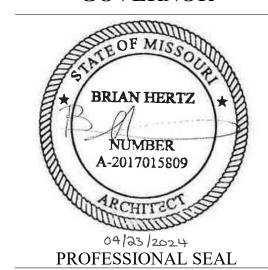
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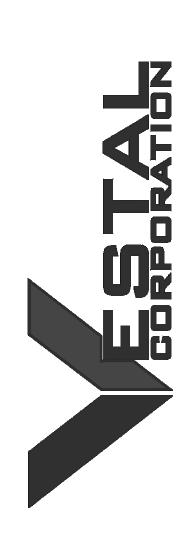
DETAILS

SHEET NUMBER:

C502







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CHECKED BY: BH

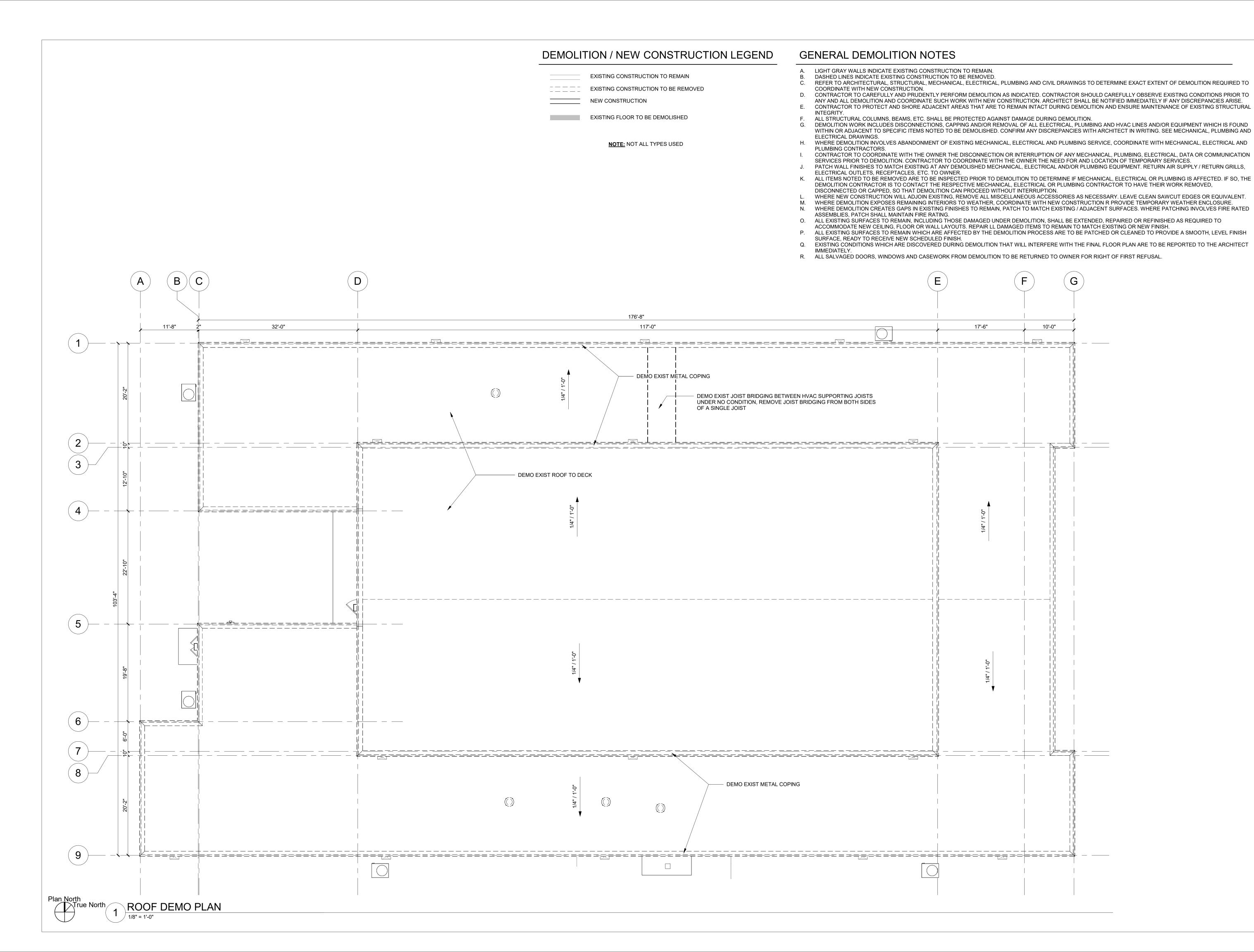
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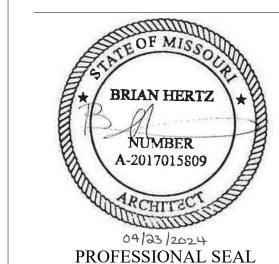
SHEET TITLE:

FLOOR DEMO PLAN

SHEET NUMBER:

D10







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CAD DWG FILE:

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CHECKED BY: BH

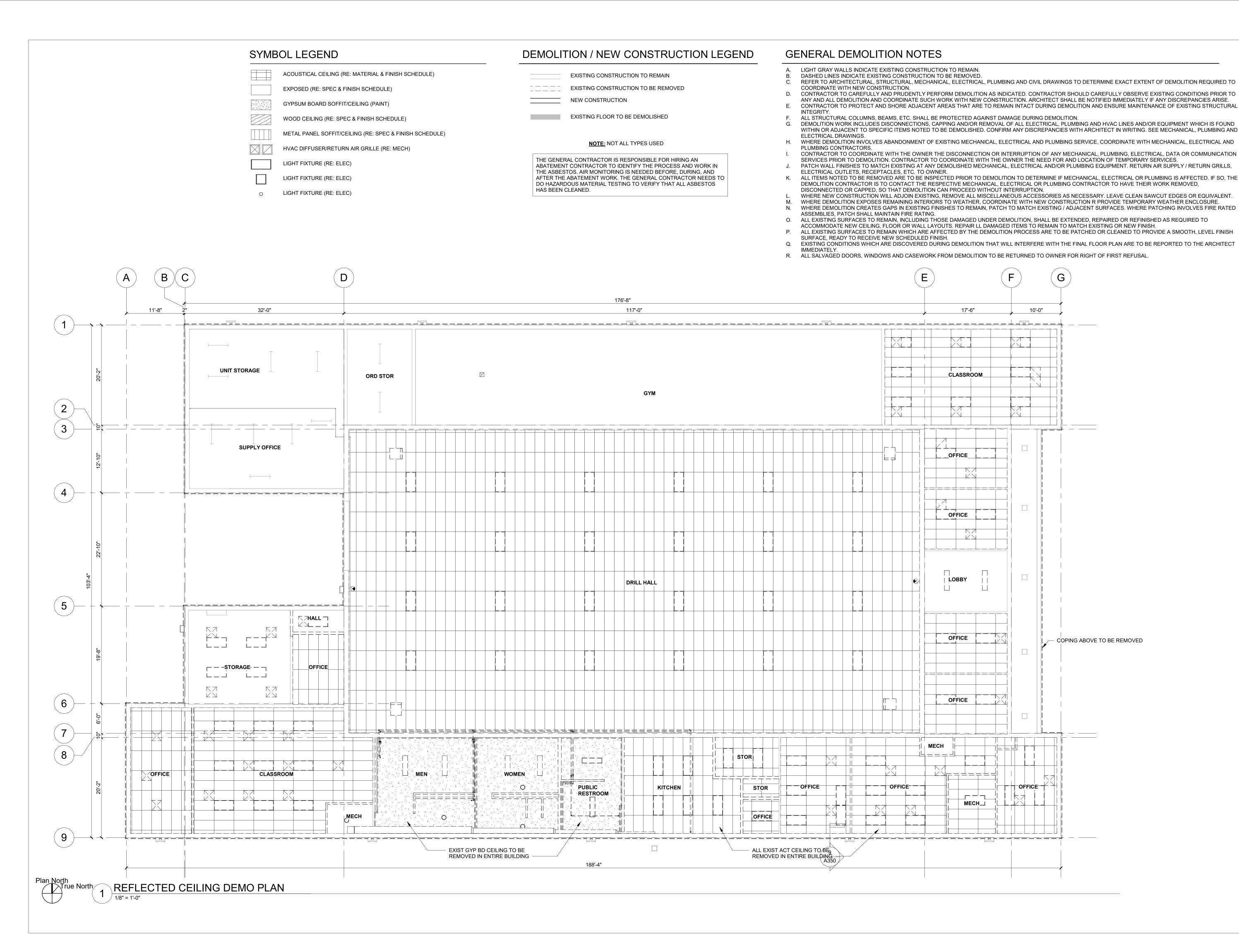
DESIGNED BY: JB

SHEET TITLE:

ROOF DEMO PLAN

SHEET NUMBER:

D102



STATE OF MISSOURI

MICHAEL L. PARSON, **GOVERNOR**





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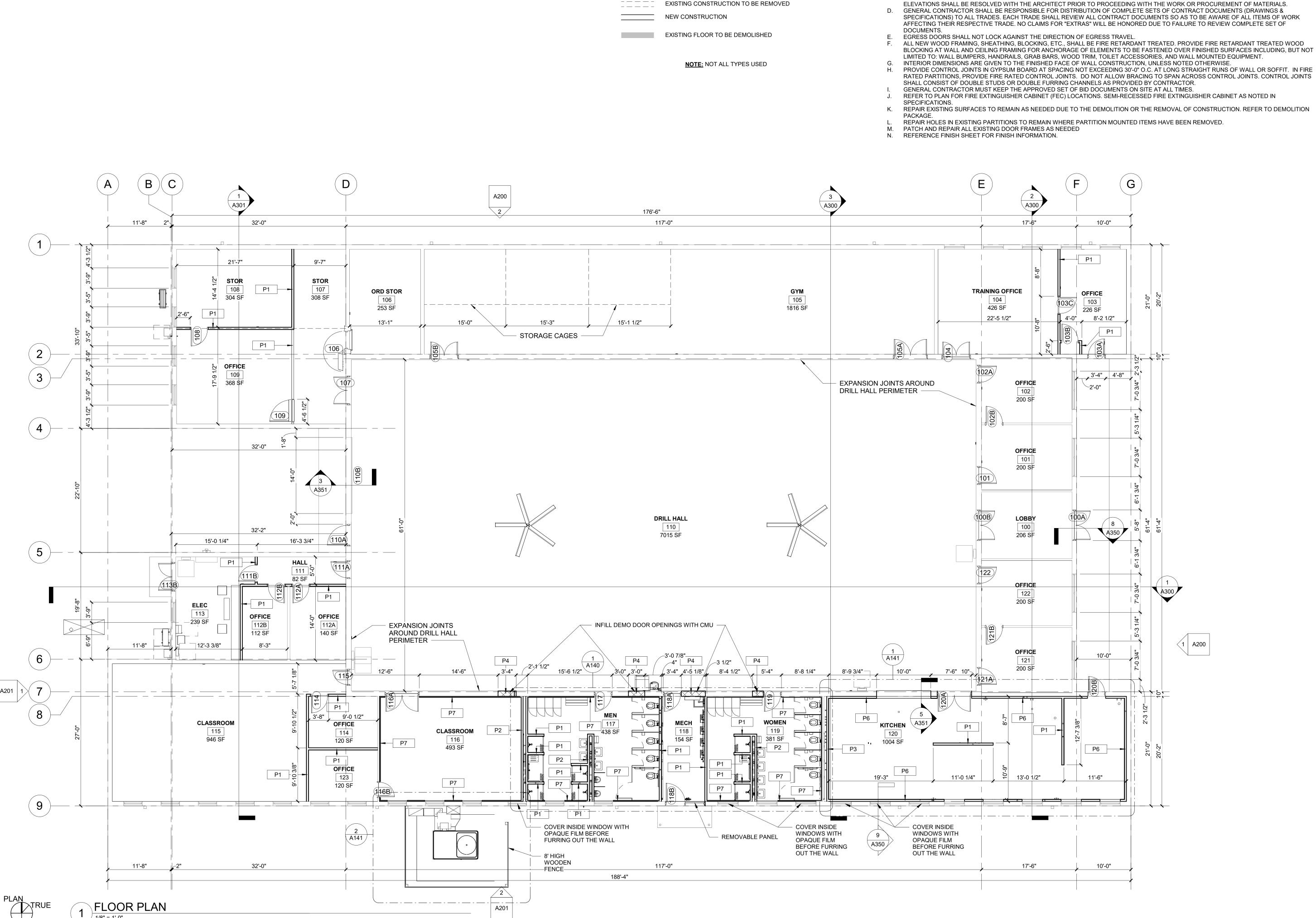
ISSUE DATE: 2024.04.23

CAD DWG FILE: DRAWN BY: CHECKED BY: DESIGNED BY: JB

SHEET TITLE:

REFLECTED CEILING **DEMO PLAN**

SHEET NUMBER:



DEMOLITION / NEW CONSTRUCTION LEGEND

EXISTING CONSTRUCTION TO REMAIN

GENERAL FLOOR PLAN NOTES:

A. DO NOT SCALE DRAWINGS - USE DIMENSIONS AND NOTES ONLY.

FIELD VERIFY ANY EXISTING CONSTRUCTION, CONFIGURATION AND DIMENSIONS.

CONTRACTOR TO CONFIRM ALL DIMENSIONS AGAINST ACTUAL SITE CONDITIONS. ANY CONFLICT OR DISCREPANCIES IN DIMENSIONS OR

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTION OF COMPLETE SETS OF CONTRACT DOCUMENTS (DRAWINGS & SPECIFICATIONS) TO ALL TRADES. EACH TRADE SHALL REVIEW ALL CONTRACT DOCUMENTS SO AS TO BE AWARE OF ALL ITEMS OF WORK

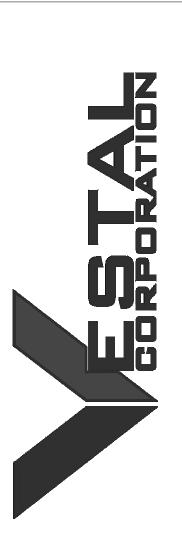
ALL NEW WOOD FRAMING, SHEATHING, BLOCKING, ETC., SHALL BE FIRE RETARDANT TREATED. PROVIDE FIRE RETARDANT TREATED WOOD

RATED PARTITIONS, PROVIDE FIRE RATED CONTROL JOINTS. DO NOT ALLOW BRACING TO SPAN ACROSS CONTROL JOINTS. CONTROL JOINTS

REFER TO PLAN FOR FIRE EXTINGUISHER CABINET (FEC) LOCATIONS. SEMI-RECESSED FIRE EXTINGUISHER CABINET AS NOTED IN

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**





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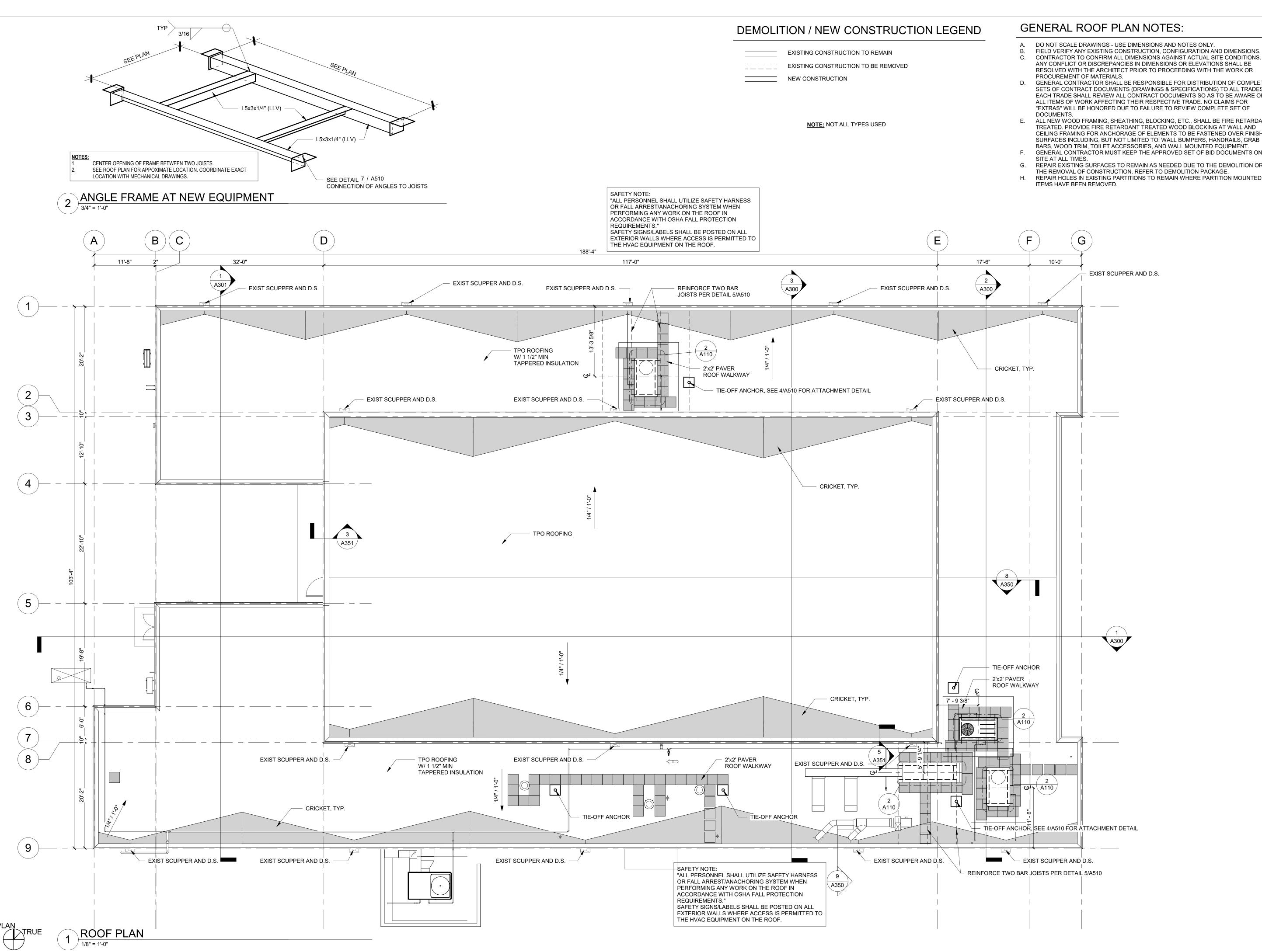
ISSUE DATE: 2024.04.23

CAD DWG FILE: DRAWN BY: CHECKED BY: DESIGNED BY: JB

SHEET TITLE:

FLOOR PLAN

SHEET NUMBER:



- CONTRACTOR TO CONFIRM ALL DIMENSIONS AGAINST ACTUAL SITE CONDITIONS. ANY CONFLICT OR DISCREPANCIES IN DIMENSIONS OR ELEVATIONS SHALL BE RESOLVED WITH THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK OR
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTION OF COMPLETE SETS OF CONTRACT DOCUMENTS (DRAWINGS & SPECIFICATIONS) TO ALL TRADES. EACH TRADE SHALL REVIEW ALL CONTRACT DOCUMENTS SO AS TO BE AWARE OF ALL ITEMS OF WORK AFFECTING THEIR RESPECTIVE TRADE. NO CLAIMS FOR "EXTRAS" WILL BE HONORED DUE TO FAILURE TO REVIEW COMPLETE SET OF
- TREATED. PROVIDE FIRE RETARDANT TREATED WOOD BLOCKING AT WALL AND CEILING FRAMING FOR ANCHORAGE OF ELEMENTS TO BE FASTENED OVER FINISHED SURFACES INCLUDING, BUT NOT LIMITED TO: WALL BUMPERS, HANDRAILS, GRAB
- GENERAL CONTRACTOR MUST KEEP THE APPROVED SET OF BID DOCUMENTS ON
- REPAIR EXISTING SURFACES TO REMAIN AS NEEDED DUE TO THE DEMOLITION OR
- REPAIR HOLES IN EXISTING PARTITIONS TO REMAIN WHERE PARTITION MOUNTED



STATE OF MISSOURI

MICHAEL L. PARSON, **GOVERNOR**

BRIAN HERTZ

NUMBER A-2017015809

04/23/2024

OFFICE OF ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, DESIGN AND CONSTRUCTION

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SHEET TITLE:

ROOF PLAN

SHEET NUMBER:

WOOD CEILING (RE: SPEC & FINISH SCHEDULE) METAL PANEL SOFFIT/CEILING (RE: SPEC & FINISH SCHEDULE) HVAC DIFFUSER/RETURN AIR GRILLE (RE: MECH) LIGHT FIXTURE (RE: ELEC) LIGHT FIXTURE (RE: ELEC) LIGHT FIXTURE (RE: ELEC) ORD STOR STOR 107 8'-0" OFFICE 8'-0" OFFICE 8'-0" DRILL HALL 110 A350 111 A300 ELEC 113 OFFICE OFFICE OFFICE 8'-7 1/2" KITCHEN CLASSROOM CLASSROOM 115 8'-0" 8'-0"

(9)

FIRST FLOOR REFLECTED CEILING PLAN

GENERAL CEILING NOTES:

SYMBOL LEGEND

ACOUSTICAL CEILING (RE: MATERIAL & FINISH SCHEDULE)

EXPOSED (RE: SPEC & FINISH SCHEDULE)

GYPSUM BOARD SOFFIT/CEILING (PAINT)

- A. ALL ACT HEIGHTS ARE TO FACE OF TILE UNLESS NOTED OTHERWISE.

 B. SHADED PORTIONS ARE TO RECEIVE SOUND BATT INSULATION (INCLUDING FULL HEIGHT OF BARTITIONS AROVE WINDOW AND DOOR HEADS).
- HEIGHT OF PARTITIONS ABOVE WINDOW AND DOOR HEADS).

 C. COORDINATE ALL LIGHTING FIXTURE LOCATIONS WITH ELECTRICAL DRAWINGS –
- C. COORDINATE ALL LIGHTING FIXTURE LOCATIONS WITH ELECTRICAL DRAWINGS REPORT ANY DISCREPANCIES TO ARCHITECT PRIOR TO CONSTRUCTION.
- D. ALL EXPOSED METAL DECK, STEEL BAR JOISTS, BEAMS, ANGLES, CONDUITS, JUNCTION BOXES, DUCTWORK, ETC. ARE TO BE PAINTED.
 E. ALL HVAC ROUTING IS TO BE COORDINATED WITH ARCHITECT.



STATE OF MISSOURI

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CAD DWG FILE:

DRAWN BY: EE

CHECKED BY: BH

DESIGNED BY: JB

SHEET TITLE:

REFLECTED CEILING PLAN

SHEET NUMBER:

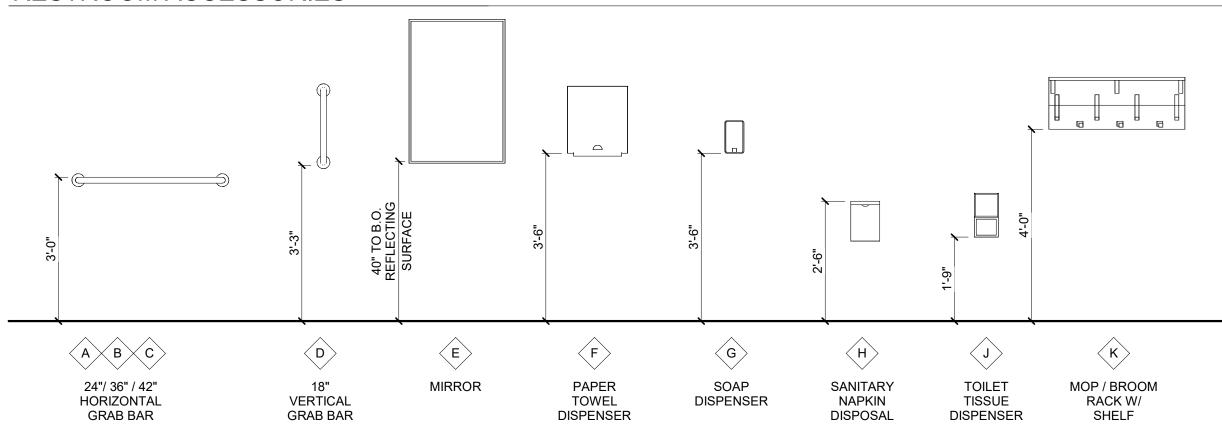
A120

RESTROOM ACCESSORIES SCHEDULE NOTES

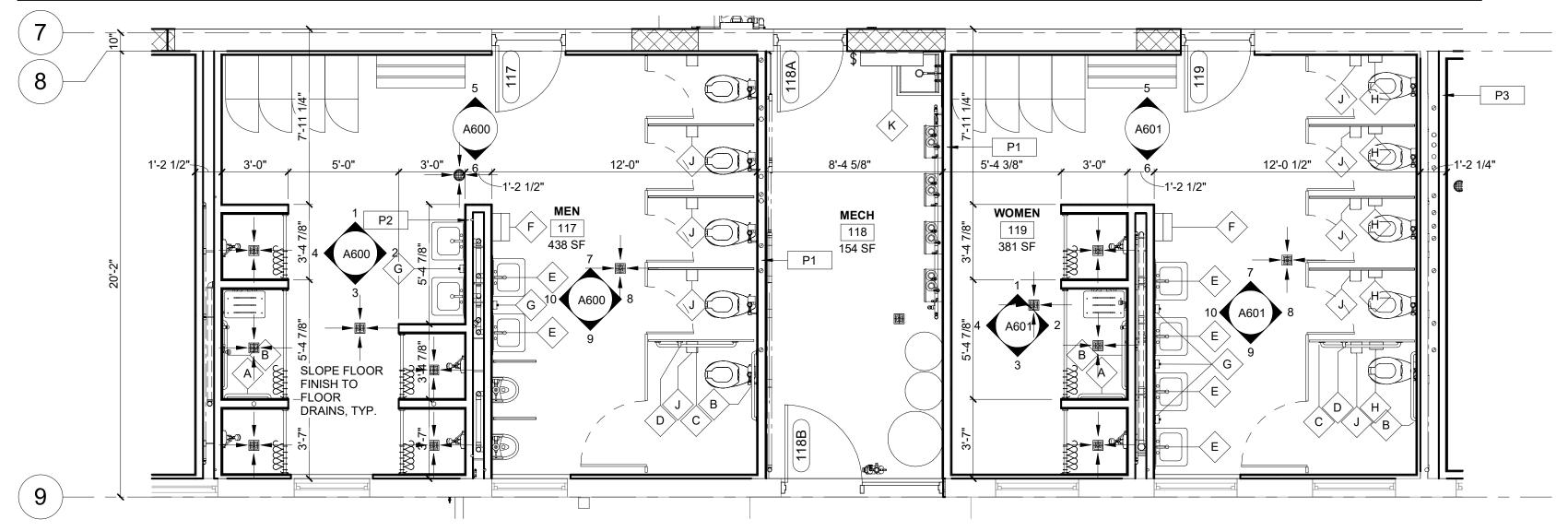
G.C. RESPONSIBLE FOR PROVIDING ALL WOOD BLOCKING AS REQUIRED FOR PROPERLY INSTALLING ALL ACCESSORIES (INCLUDING OWNER PROVIDED ITEMS) ALL ACCESSORIES SHALL BE INSTALLED PER A.D.A. REQUIREMENTS

MODEL NUMBERS SHOWN FOR DESIGN INTENT. REFERENCE SPECIFICATIONS FOR ADDITIONAL APPROVED EQUALS

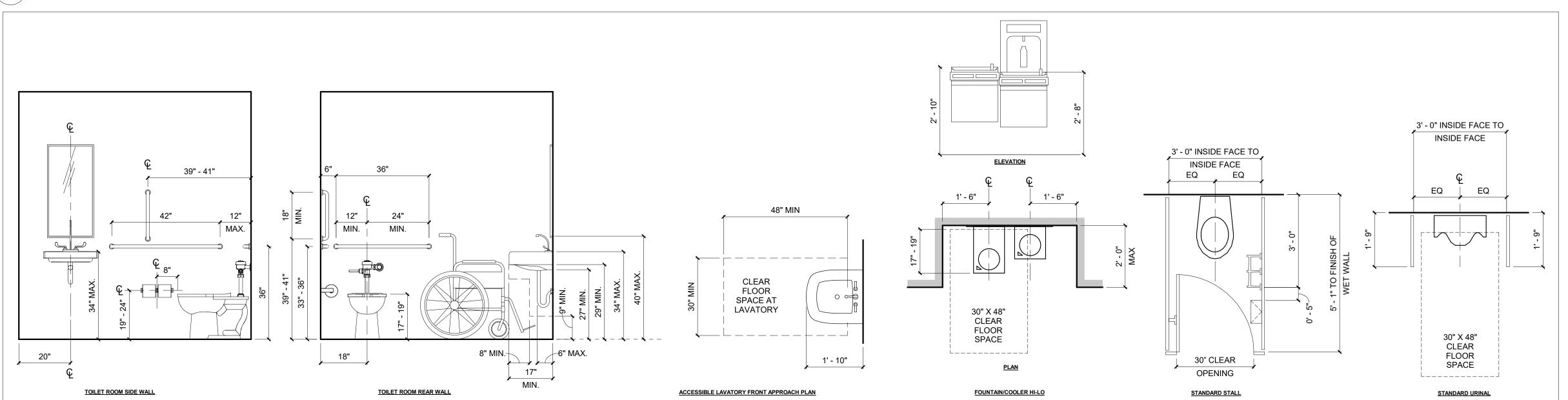
RESTROOM ACCESSORIES



RESTROOM ACCESSORIES SCHEDULE										
DESCRIPTION	MARK	Count	BY	MOUNTING HEIGHT	WIDTH	HEIGHT	DEPTH	MANUFACTURER	MODEL	COMMENTS
24" GRAB BAR	A	2	OF/CI	3'-0"				BOBRICK	B-5806 x 24	
36" GRAB BAR	В	4	OF/CI	3'-0"				BOBRICK	B-5806 x 36	
42" GRAB BAR	С	2	OF/CI	3'-0"				BOBRICK	B-5806 x 42	
18" GRAB BAR	D	2	OF/CI	3'-3"				BOBRICK	B-5806 x 18	
24"X36" MIRROR	E	8	OF/CI	3'-3"	24"	36"	3/4"	BOBRICK	B-290 2436	
PAPER TOWEL DISPENSER	F	2	OF/CI	3'-6"	12 5/8"	15 1/2"	9 1/16"	BOBRICK	B-2974	
SOAP DISPENSER	G	5	OF/CI	3'-6"	4 3/4"	8 1/8"	3 1/2"	BOBRICK	B-2111	
SANITARY NAPKIN DISPOSAL	Н	5	OF/CI	2'-6"	7 1/2"	10"	3 13/16"	BOBRICK	B-270	
FOILET TISSUE DISPENSER	J	10	OF/CI	1'-9"	6 1/16"	11"	5 15/16"	BOBRICK	B-4288	
MOP / BROOM RACK WITH SHELF	K	1	OF/CI	4'-0"	34"	13"	-	BOBRICK	B-239 x 34	
SHOWER ROD	L	8	OF/CI	6'-6"				BOBRICK	B207 x 36	
Solid Phenolic Folding Shower / Dressing Area Seat	M	2	OF/CI		22"		15 13/16"	BOBRICK	B-5192	



1 RESTROOM PLAN 1/4" = 1'-0"



2 TYP. TOILET ROOM DIMENSIONS W/ MULTI-STALL 1/2" = 1'-0"

GENERAL FLOOR PLAN NOTES:

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FIELD VERIFY ANY EXISTING CONSTRUCTION, CONFIGURATION AND DIMENSIONS. CONTRACTOR TO CONFIRM ALL DIMENSIONS AGAINST ACTUAL SITE CONDITIONS. ANY CONFLICT OR DISCREPANCIES IN DIMENSIONS OR

ELEVATIONS SHALL BE RESOLVED WITH THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK OR PROCUREMENT OF MATERIALS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTION OF COMPLETE SETS OF CONTRACT DOCUMENTS (DRAWINGS & SPECIFICATIONS) TO ALL TRADES. EACH TRADE SHALL REVIEW ALL CONTRACT DOCUMENTS SO AS TO BE AWARE OF ALL ITEMS OF WORK

EGRESS DOORS SHALL NOT LOCK AGAINST THE DIRECTION OF EGRESS TRAVEL

ALL NEW WOOD FRAMING, SHEATHING, BLOCKING, ETC., SHALL BE FIRE RETARDANT TREATED. PROVIDE FIRE RETARDANT TREATED WOOD BLOCKING AT WALL AND CEILING FRAMING FOR ANCHORAGE OF ELEMENTS TO BE FASTENED OVER FINISHED SURFACES INCLUDING, BUT NOT LIMITED TO: WALL BUMPERS, HANDRAILS, GRAB BARS, WOOD TRIM, TOILET ACCESSORIES, AND WALL MOUNTED EQUIPMENT, INTERIOR DIMENSIONS ARE GIVEN TO THE FINISHED FACE OF WALL CONSTRUCTION, UNLESS NOTED OTHERWISE.

PROVIDE CONTROL JOINTS IN GYPSUM BOARD AT SPACING NOT EXCEEDING 30'-0" O.C. AT LONG STRAIGHT RUNS OF WALL OR SOFFIT. IN FIRE RATED PARTITIONS, PROVIDE FIRE RATED CONTROL JOINTS. DO NOT ALLOW BRACING TO SPAN ACROSS CONTROL JOINTS. CONTROL JOINTS. SHALL CONSIST OF DOUBLE STUDS OR DOUBLE FURRING CHANNELS AS PROVIDED BY CONTRACTOR.

GENERAL CONTRACTOR MUST KEEP THE APPROVED SET OF BID DOCUMENTS ON SITE AT ALL TIMES. REFER TO PLAN FOR FIRE EXTINGUISHER CABINET (FEC) LOCATIONS. SEMI-RECESSED FIRE EXTINGUISHER CABINET AS NOTED IN

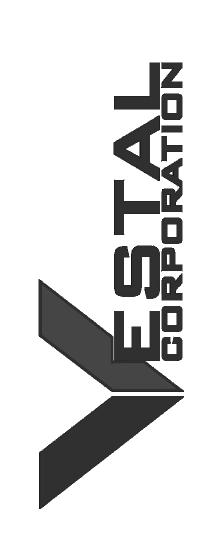
REPAIR EXISTING SURFACES TO REMAIN AS NEEDED DUE TO THE DEMOLITION OR THE REMOVAL OF CONSTRUCTION. REFER TO DEMOLITION

REPAIR HOLES IN EXISTING PARTITIONS TO REMAIN WHERE PARTITION MOUNTED ITEMS HAVE BEEN REMOVED.

PATCH AND REPAIR ALL EXISTING DOOR FRAMES AS NEEDED N. REFERENCE FINISH SHEET FOR FINISH INFORMATION.

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**





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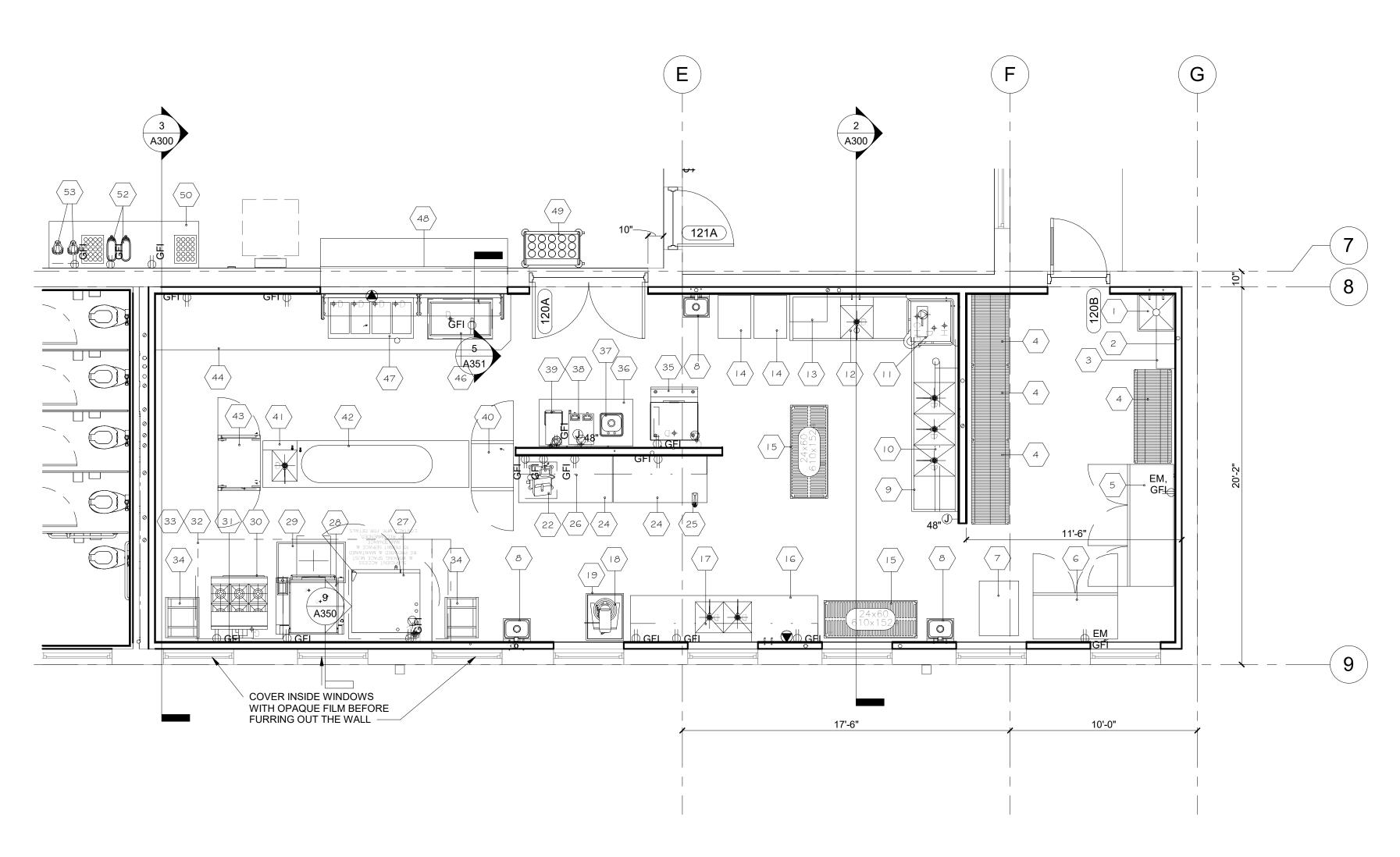
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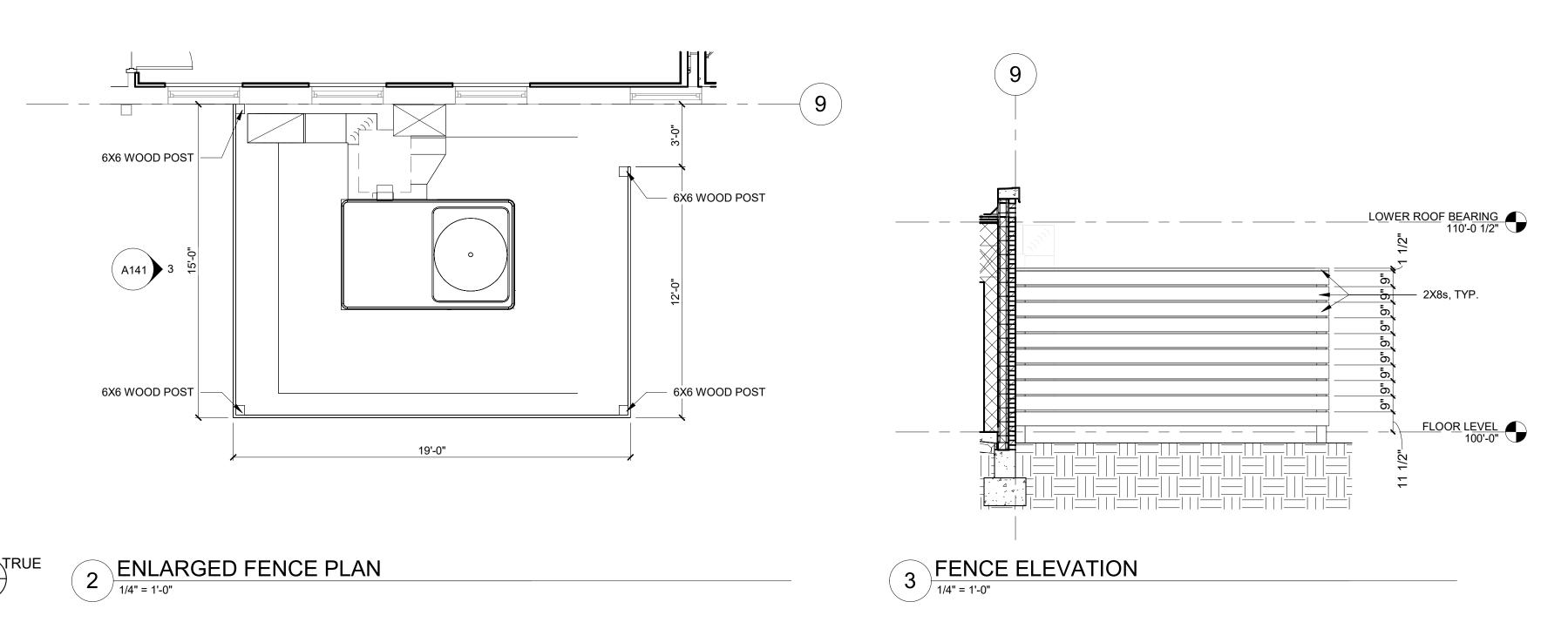
SHEET TITLE:

ENLARGED PLANS

SHEET NUMBER:



PLAN	JE 1 ENLARGED KITCHEN PLAN	
	1/4" = 1'-0"	



EQUIPMENT SCHEDULE						
ITEM NO.	QUANTITY	DESCRIPTION	REMARKS			
1	1	MOP SINK	BY PLUMBER			
2	1	MOP RACK	BY G.C.			
3	1	WALL SHELF	BY G.C.			
4	1 LOT	STORAGE SHELVING				
5	1	FREEZER	THREE SECTION WITH FULL HEIGHT DOORS			
6	1	REFRIGERATOR	TWO SECTION WITH FULL HEIGHT DOORS			
7	1	CAN RACK				
8	3	HAND SINKS	WITH SIDE SPLASHES			
9	1	THREE COMPARTMENT SINK/ CLEAN DISH TABLE				
10	1	DOUBLE OVER SHELF				
11	1	DISH MACHINE	UL LISTED FOR VENTLESS OPERATION			
12	1	SOILED DISH TABLE				
13	1	RACK SHELF				
14	3	SOILED DISH TRANSPORT CART				
15	2	POT AND PAN RACKS				
16	1	PREP TABLE				
17	1	WALL SHELF				
18	1	MIXER	20 QT			
19	1	PORTABLE MIXER STAND				
20	0	SPARE NUMBER				
21	0	SPARE NUMBER				
22	1	SLICER				
23	0	SPARE NUMBER				
24	2	WORK TABLES				
25	1	CAN OPENER				
26	1	WALL SHELF				
27	1	COMBIOVEN	SINGLE DECK			
28	1	BRAISING PAN	30 GALLON			
29	1	TRENCH DRAIN	30 GALLON			
30	1	RANGE	6 BURNER WITH CONVECTION OVEN BASE			
31	1	STAINLESS STEEL WALL PANELING	O BORNER WITH CONVECTION OVEN BAGE			
32	1	HOOD WITH FIRE PROTECTION SYSTEM				
33	1	DUCT AND FAN	BY HVAC			
34	1	RACK	BT RVAC			
35		ICE MACHINE				
	1					
36	1	BEVERAGE COUNTER				
37	1	DROP IN DUMP SINK	DVVENDOD			
38	1	COFFEE MAKER	BY VENDOR			
39	1	TEA BREWER	BY VENDOR			
40	1	PASS THRU REFRIGERATOR	SINGLE SECTION WITH HALF HEIGHT DOORS			
41	1	WORK TABLE WITH SINK				
42	1	HANGING UTENSIL RACK	FULL DESCRIPTION TO THE CONTROL OF T			
43	1	HOT HOLDING CABINET	FULL HEIGHT - PASS THRU UNIT			
44	1	SERVING COUNTER				
45	0	SPARE NUMBER				
46	1	DROP IN COLD PAN	3 PAN UNIT			
47	1	DROP IN HOT FOOD UNIT	4 PAN UNIT			
48	1	PROTECTOR GUARD				
49	1	TRAY AND SILVER CART				
50	1	BEVERAGE COUNTER				
51	0	SPARE NUMBER				
52	2	TEA DISPENSERS	BY VENDOR			
53	2	COFFEE DISPENSERS	BY VENDOR			





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ST. CLAIR READINESS CENTER

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PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

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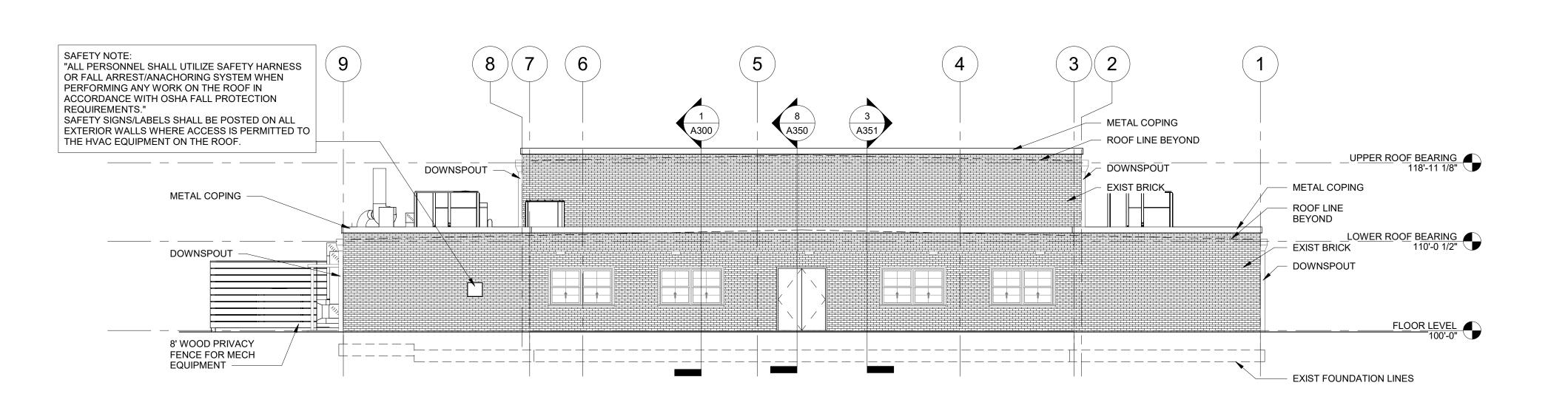
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SHEET NUMBER:

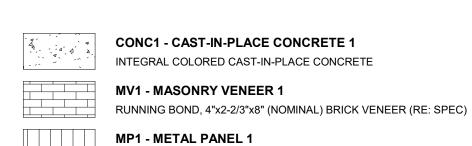
A14



GENERAL EXTERIOR ELEVATION NOTES

- A. COORDINATE ALL GRADES WITH CIVIL DRAWINGS, NO CONCRETE FOUNDATIONS ARE TO BE VISIBLE ABOVE FINISH GRADE, ONLY FINISH MATERIALS. G.C. TO FIELD
- VERIFY ALL GRADES AT BUILDING AND BRICK SHELF ELEVATION.

 B. FOR DOOR SCHEDULE AND FRAME ELEVATIONS, REFER TO A700 SERIES SHEETS.



COMPOSITE PANEL, RAINSCREEN SYSTEM (RE: SPEC)

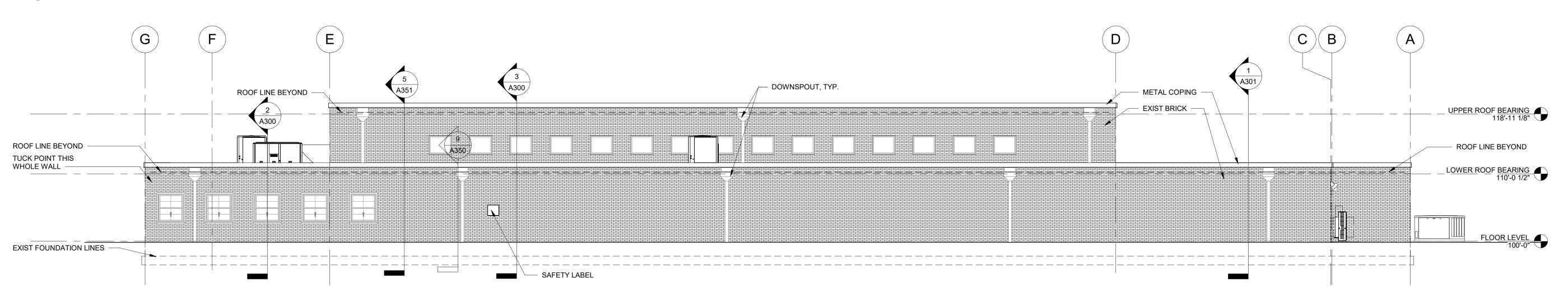
GL1 - GLAZING 1
GLAZING UNIT (RE: FRAME ELEVATIONS AND SPEC)

GL2 - GLAZING 2

SPANDREL GLAZING UNIT (RE: FRAME ELEVATIONS AND SPEC)

1 EAST ELEVATION

1/8" = 1'-0"



2 NORTH ELEVATION

1/8" = 1'-0"

ESTAL BRANKTON

STATE OF MISSOURI

MICHAEL L. PARSON, GOVERNOR

BRIAN HERTZ

NUMBER

A-2017015809

04/23/2024

PROFESSIONAL SEAL

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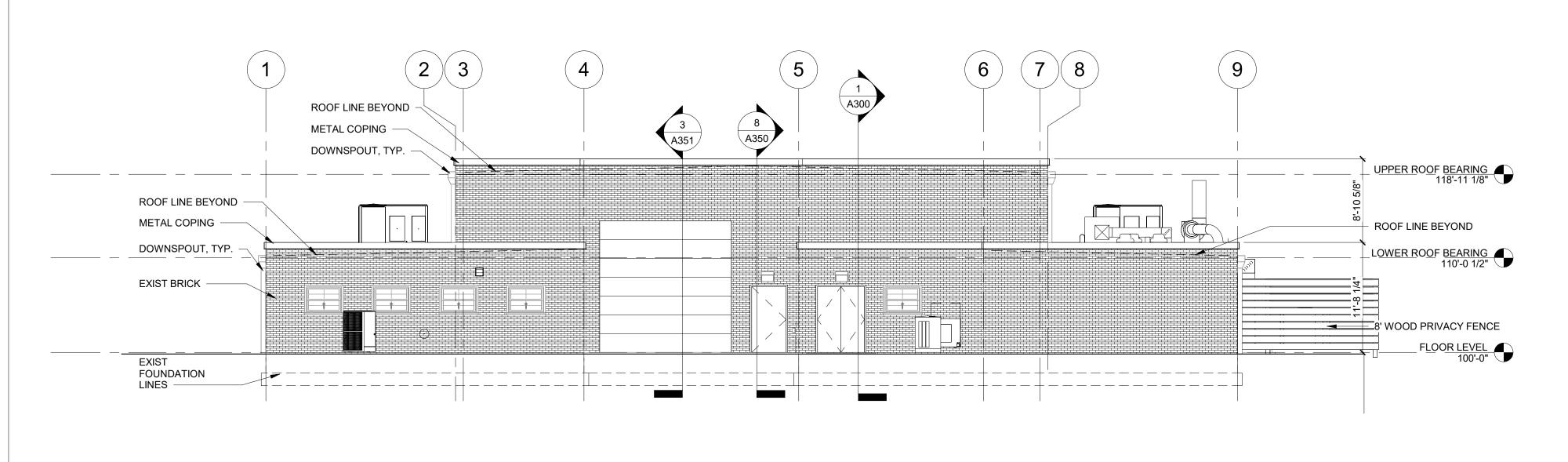
DESIGNED BY: <u>JB</u>

SHEET TITLE:

EXTERIOR ELEVATIONS

SHEET NUMBER:

A200



GENERAL EXTERIOR ELEVATION NOTES

- COORDINATE ALL GRADES WITH CIVIL DRAWINGS, NO CONCRETE FOUNDATIONS ARE TO BE VISIBLE ABOVE FINISH GRADE, ONLY FINISH MATERIALS. G.C. TO FIELD VERIFY ALL GRADES AT BUILDING AND BRICK SHELF ELEVATION.
- FOR DOOR SCHEDULE AND FRAME ELEVATIONS, REFER TO A700 SERIES SHEETS.

CONC1 - CAST-IN-PLACE CONCRETE 1 INTEGRAL COLORED CAST-IN-PLACE CONCRETE **MV1 - MASONRY VENEER 1** RUNNING BOND, 4"x2-2/3"x8" (NOMINAL) BRICK VENEER (RE: SPEC) MP1 - METAL PANEL 1 COMPOSITE PANEL, RAINSCREEN SYSTEM (RE: SPEC)

GL1 - GLAZING 1

GLAZING UNIT (RE: FRAME ELEVATIONS AND SPEC)

GL2 - GLAZING 2 SPANDREL GLAZING UNIT (RE: FRAME ELEVATIONS AND SPEC)

STATE OF MISSOURI

MICHAEL L. PARSON, **GOVERNOR**

BRIAN HERTZ

NUMBER

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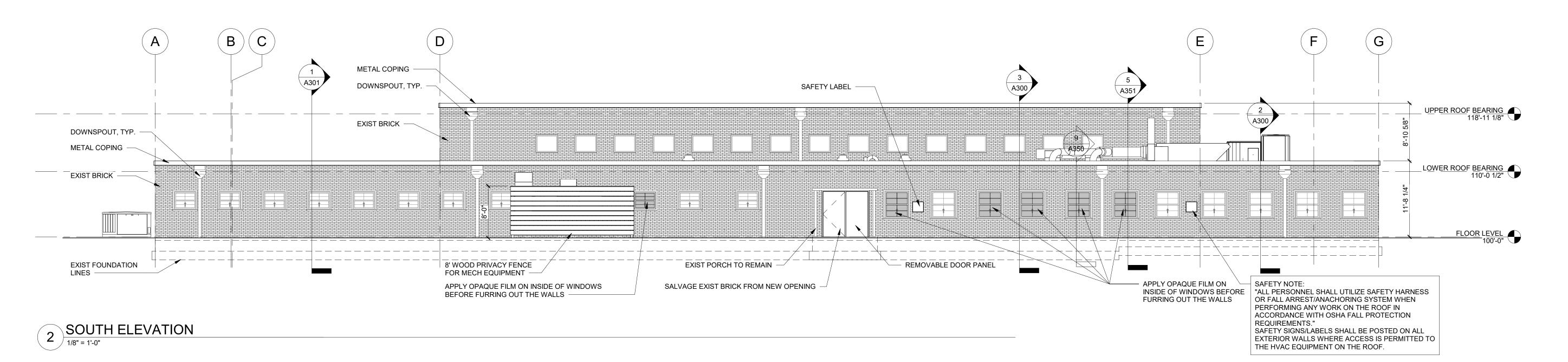
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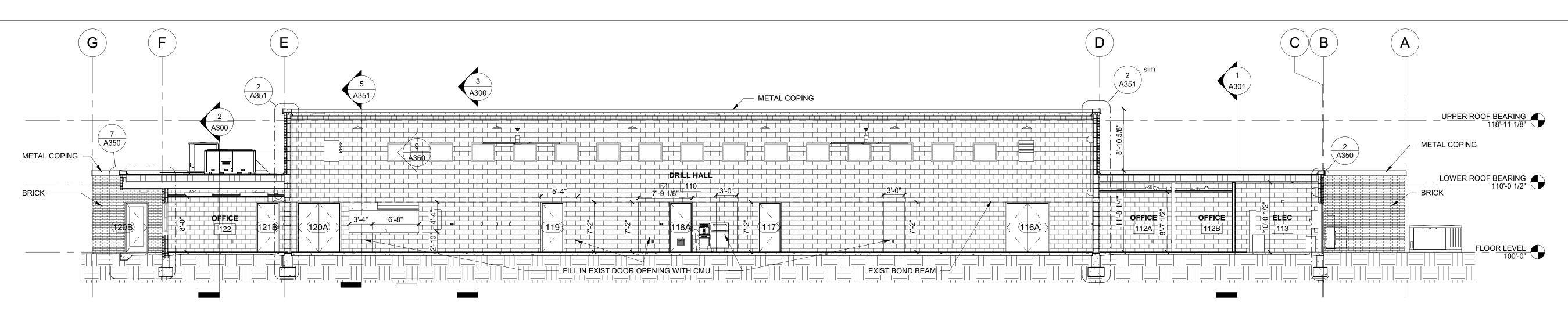
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EXTERIOR ELEVATIONS

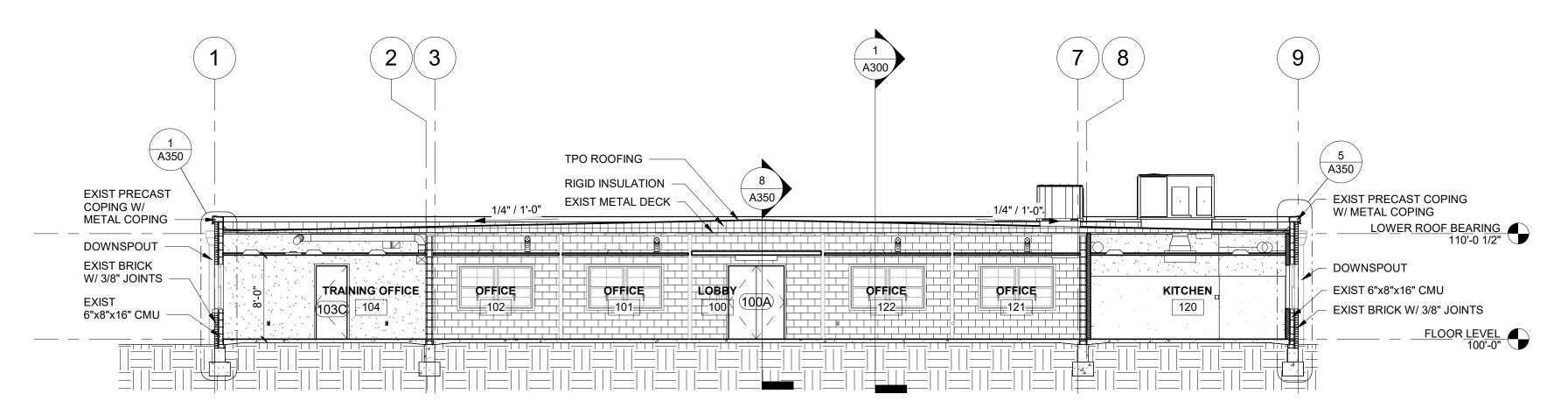
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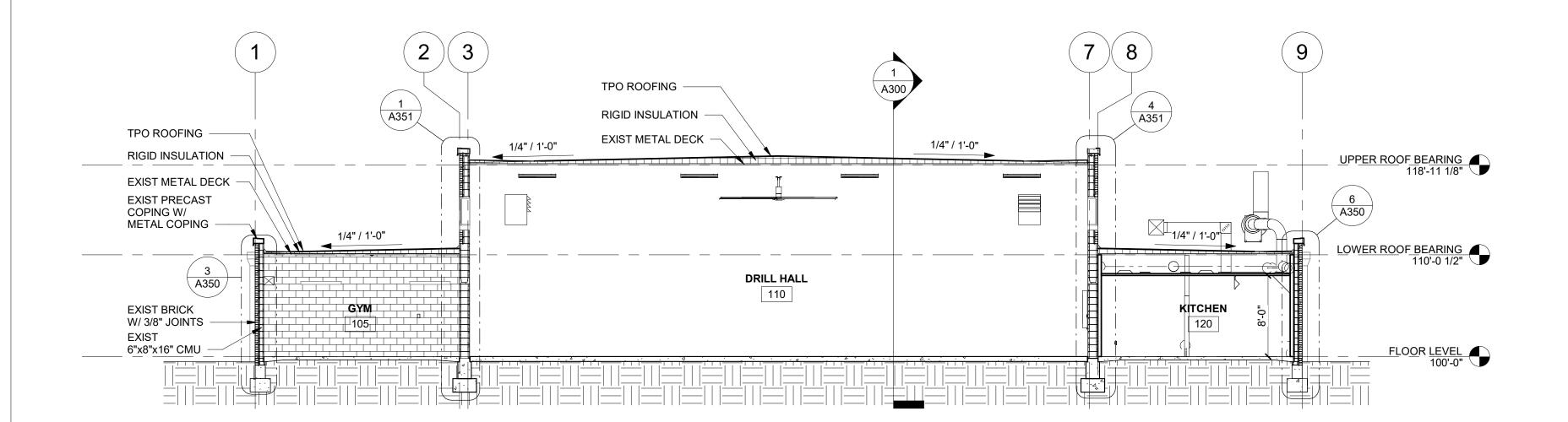




1 BUILDING SECTION 1/8" = 1'-0"



2 BUILDING SECTION 1/8" = 1'-0"

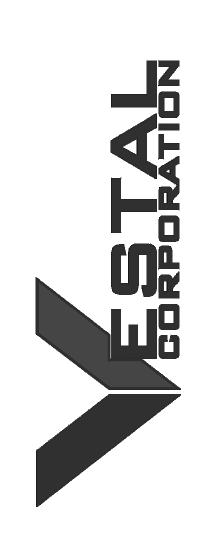


3 BUILDING SECTION

1/8" = 1'-0"

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR





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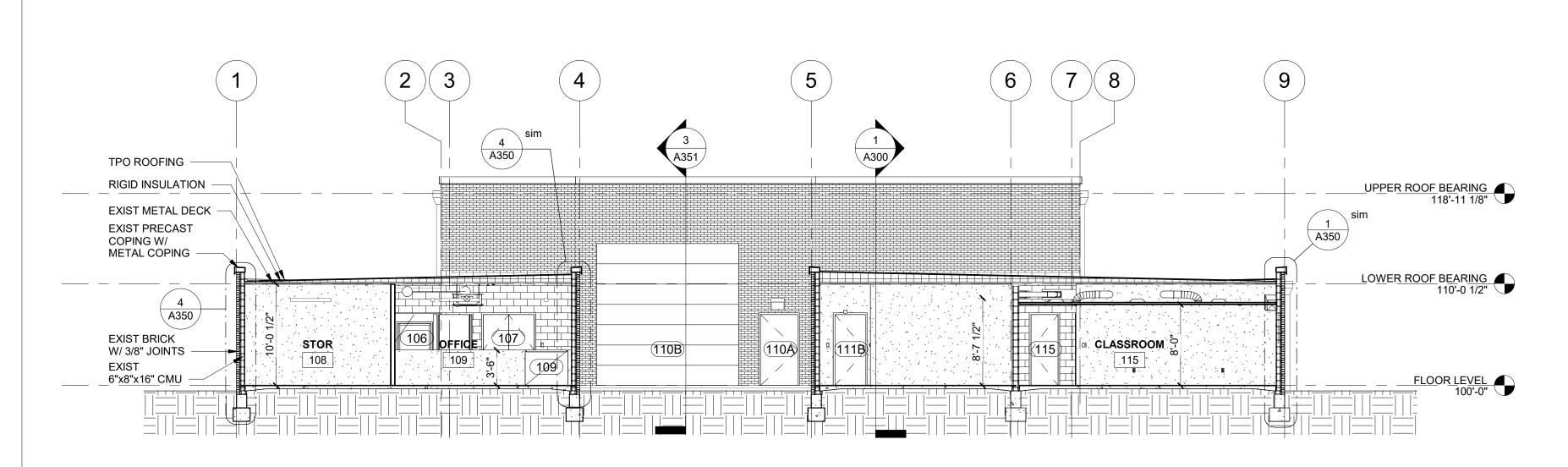
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SHEET TITLE:

BUILDING SECTIONS

SHEET NUMBER:

A300

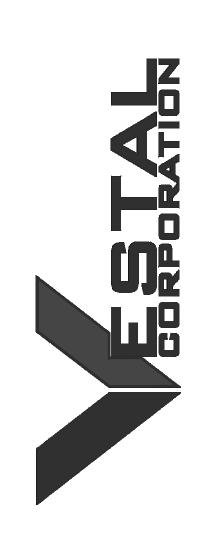


1 BUILDING SECTION

1/8" = 1'-0"

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR





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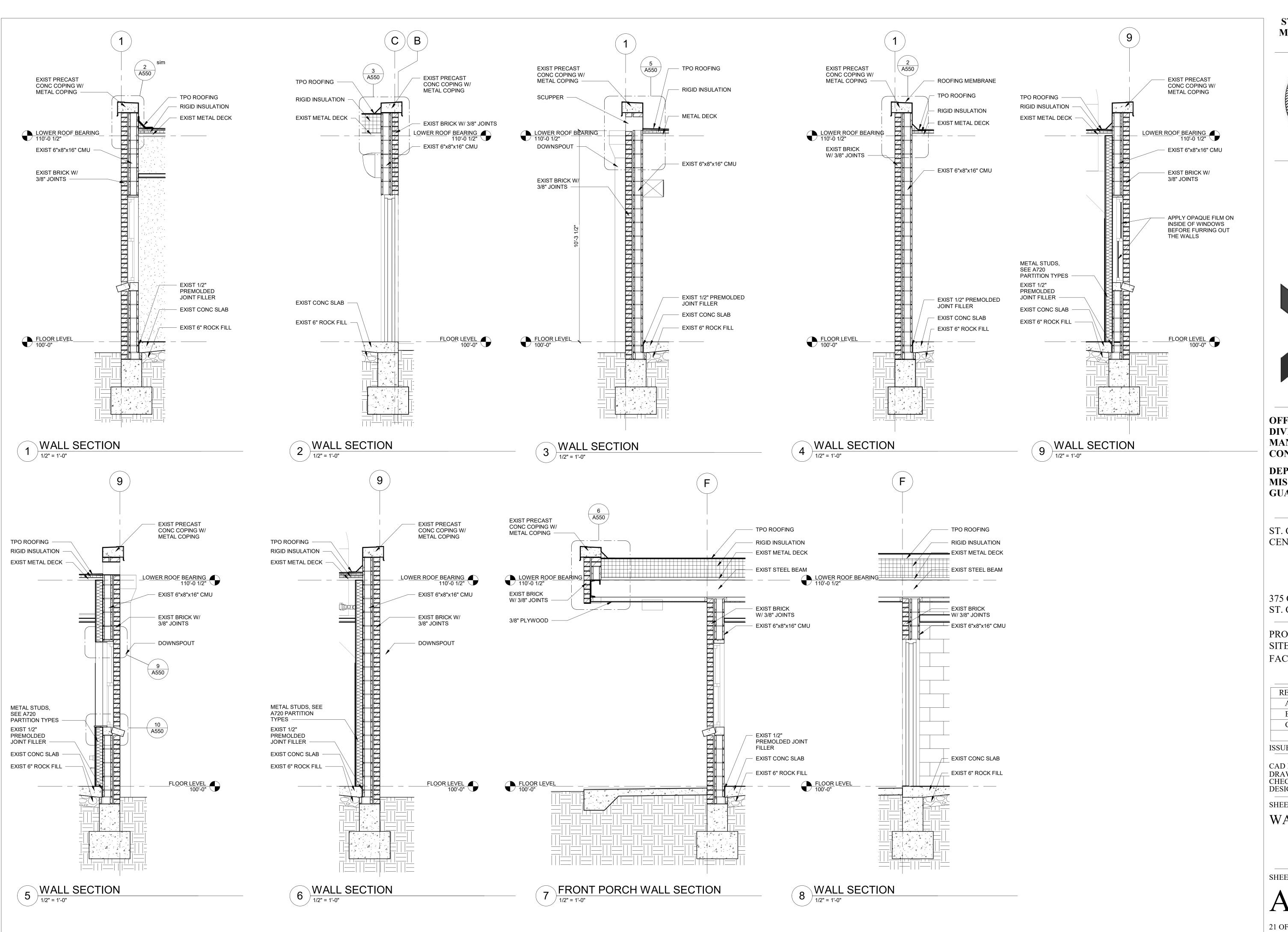
DESIGNED BY: <u>JB</u>

SHEET TITLE:

BUILDING SECTIONS

SHEET NUMBER:

A30







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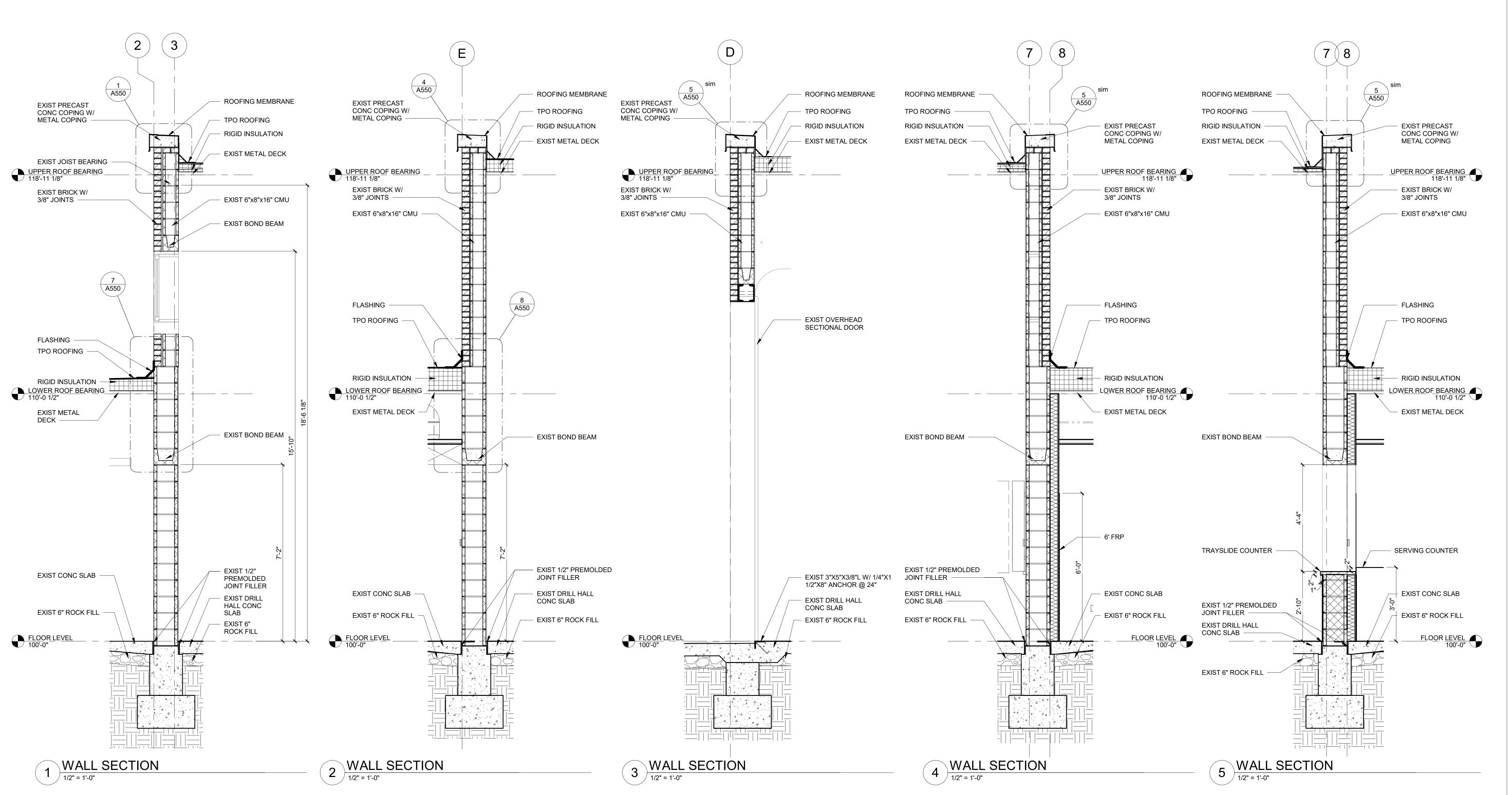
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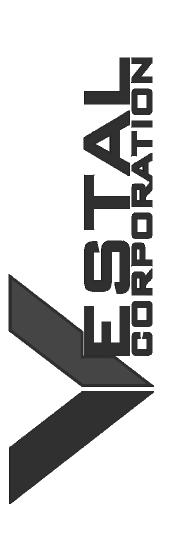
WALL SECTIONS

SHEET NUMBER:

A350







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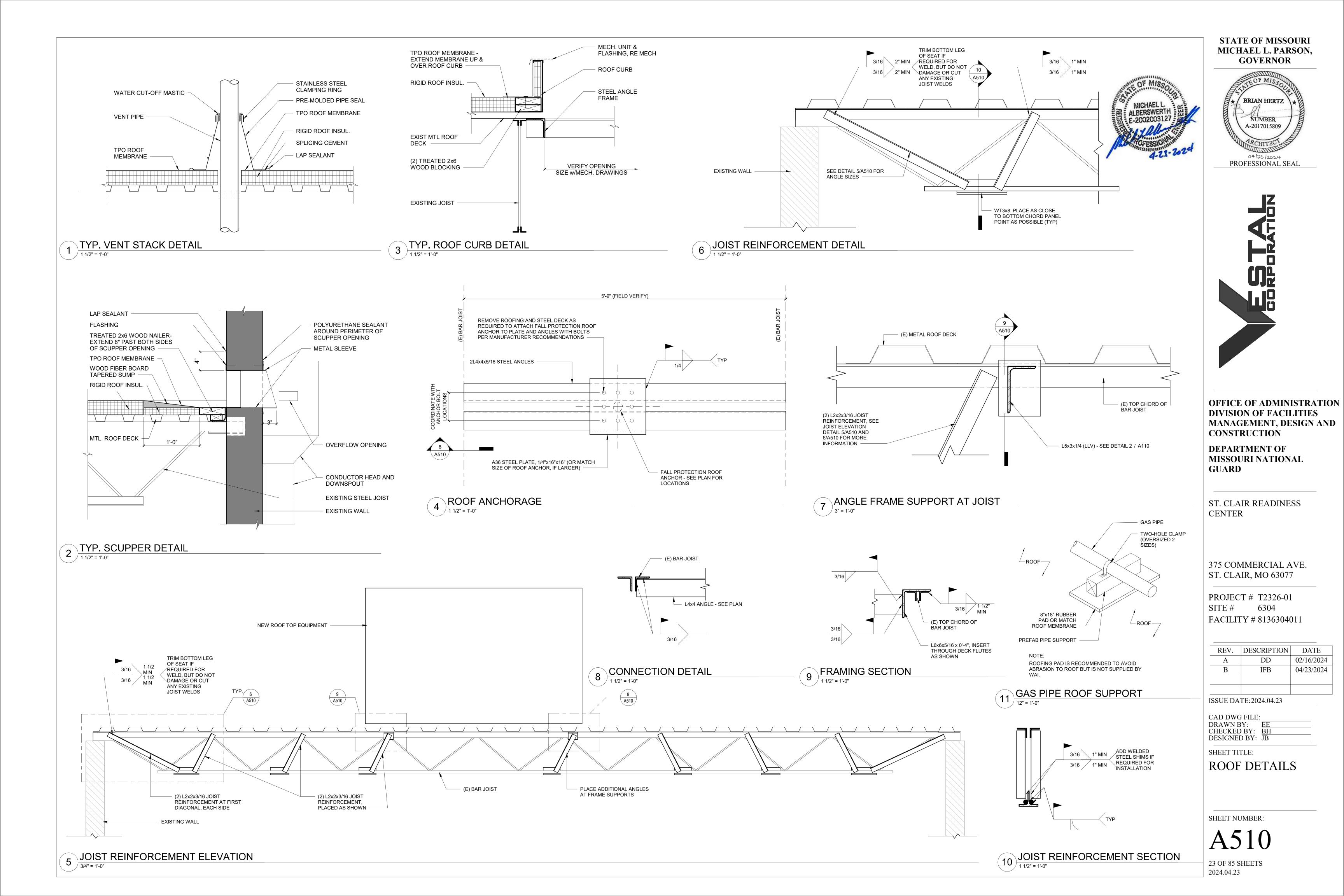
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В	IFB	04/23/2024			
ISSUE DA	TE:2024.04.23				
CAD DWG FILE: DRAWN BY: <u>EE</u> CHECKED BY: <u>BH</u> DESIGNED BY: <u>JB</u>					

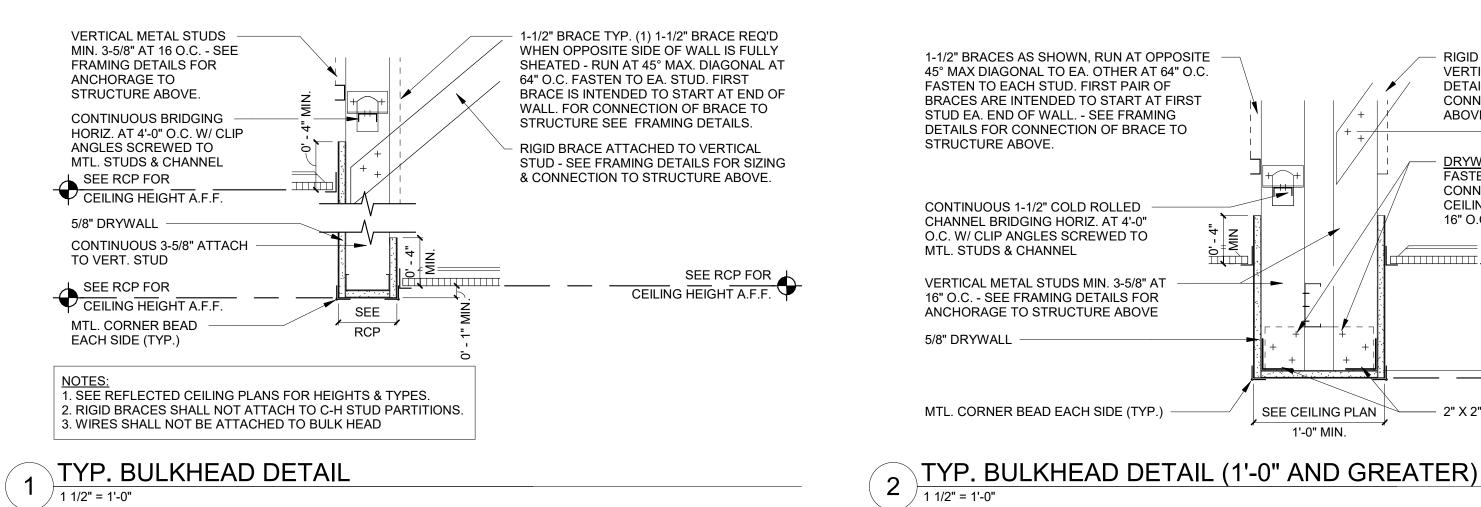
WALL SECTIONS

SHEET NUMBER:

SHEET TITLE:

A351





(2) 1-1/2" STUD - (1) EA. SIDE, RUN AT OPPOSITE 45°

MAX. DIAGONAL TO EA. OTHER AT 64" O.C. FASTEN

WALL. SEE FRAMING DETAILS FOR CONNECTION OF

TO (1) EACH STUD. FIRST PAIR OF BRACES ARE

INTENDED TO START AT FIRST STUD EA. END OF

FASTEN STUDS AT EACH CONNECTION. FRAME

SOFFIT CEILING W/ 3-5/8" STUDS AT 16" O.C. MAX.

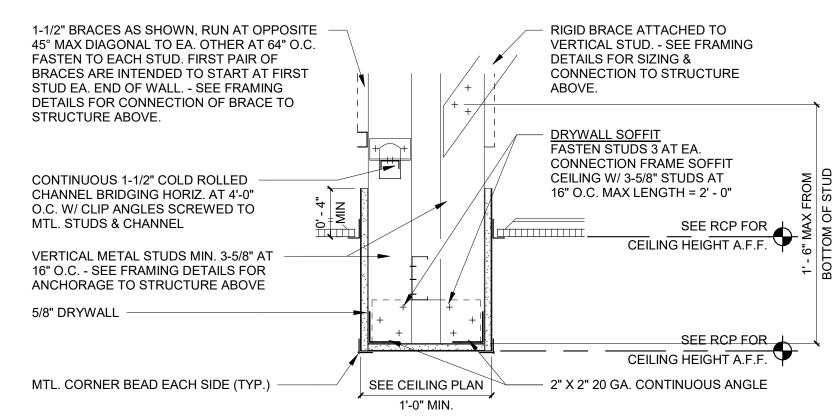
3-5/8" STUD FASTEN TO EACH STUD

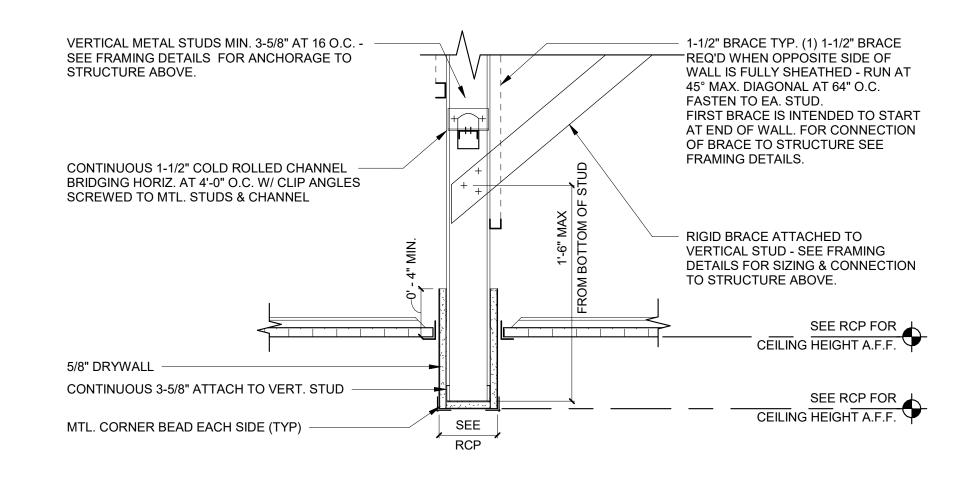
- 2" x 2" x 3" 14 GA. CLIP ANGLE

- PARTITION SEE PLAN FOR TYPE

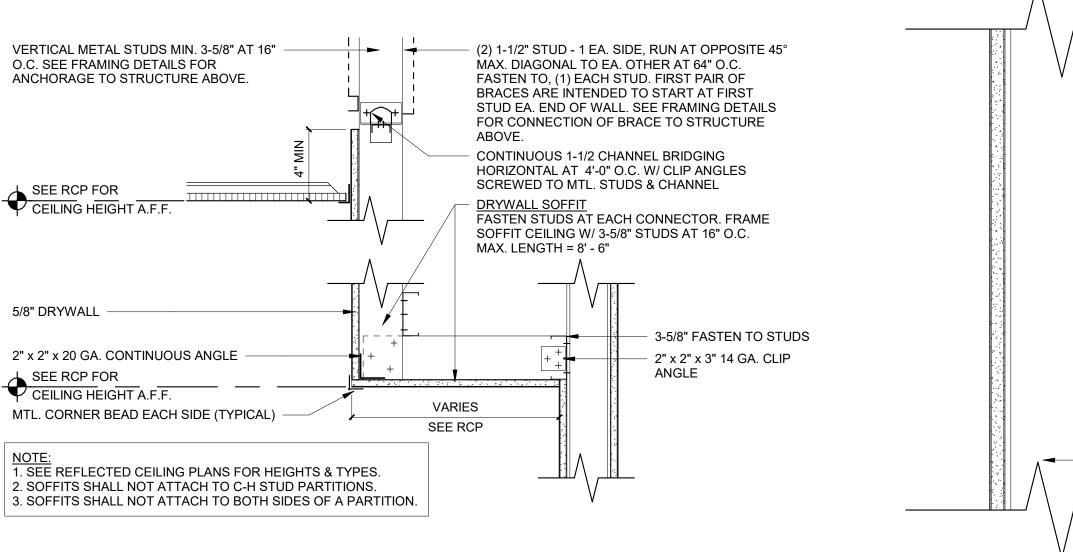
BRACE TO STRUCTURE ABOVE

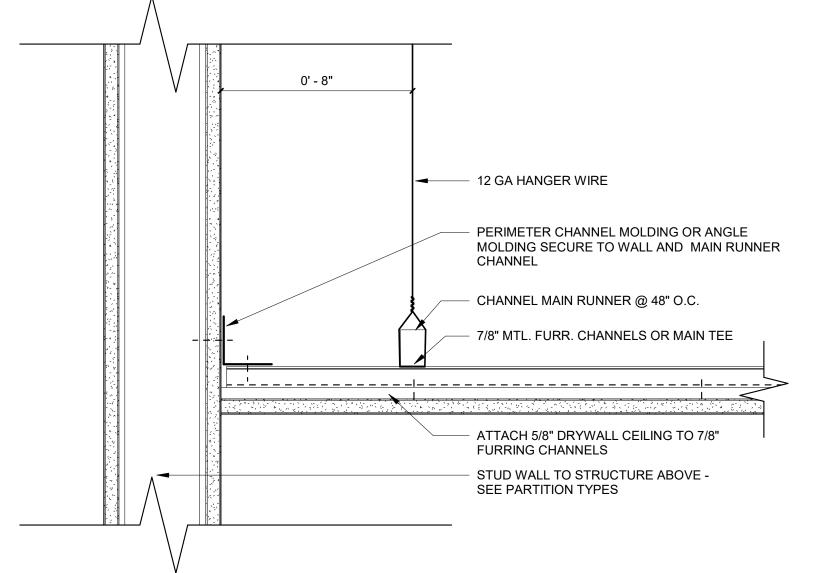
LENGTH = 8' - 6"





3 TYP. BULKHEAD DETAIL (LESS THAN 1'-0")







VERTICAL METAL STUDS MIN.

3-5/8" AT 16" O.C. SEE FRAMING

DETAILS FOR ANCHORAGE TO

CONTINUOUS 1-1/2" COLD ROLLED

CHANNEL BRIDGING HORIZ. AT

4'-0" O.C. W/ CLIP ANGLES

SCREWED TO MTL. STUDS &

STRUCTURE ABOVE.

SEE RCP FOR CEILING HEIGHT A.F.F.

2" x 2" x 20 GA. CONTINUOUS ANGLE

2. DO NOT ATTACH SOFFIT TO CH STUDS.

NOTE:

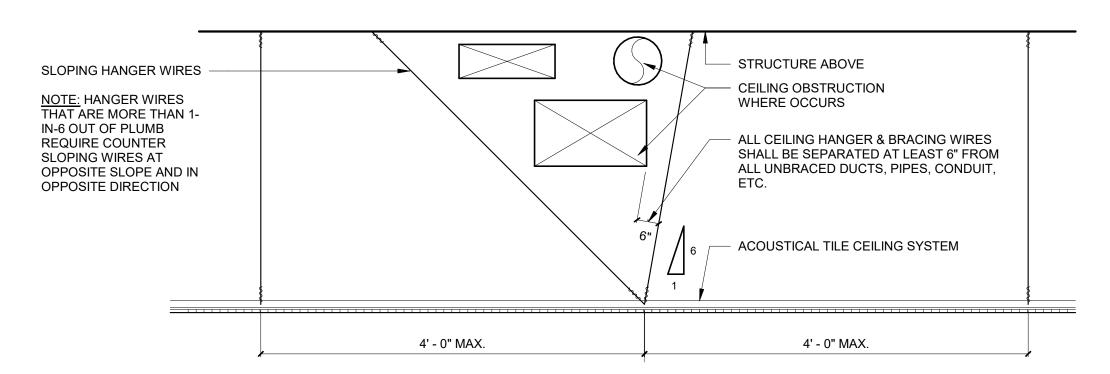
1. SEE REFLECTED CEILING PLANS FOR HEIGHTS & TYPES.

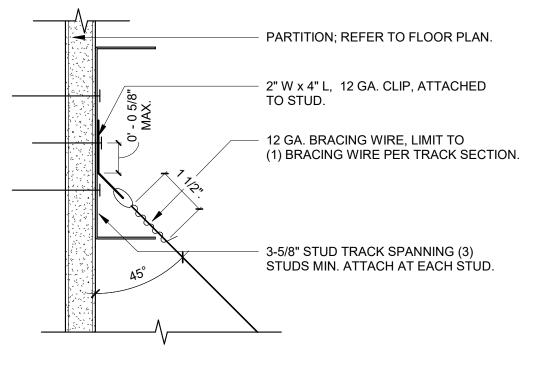
3. DO NOT ATTACH SOFFITS TO BOTH SIDES OF WALL.

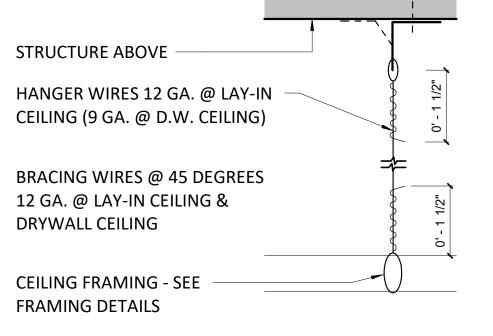
CHANNEL

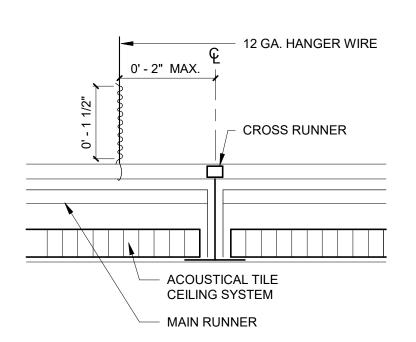


TYP. PARTITION CONNECTION DETAIL 6 TO MAIN RUNNER CHANNELS









7 TYP. ACOUSTIC CEILING COUNTER SLOPING WIRES AT OBSTRUCTION

TYP. BRACING/STRAP HANGING WIRE 8 CONNECTION AT WALL STUD

TYP. TRACK HANGER & BRACING 9 WIRE CONNECTION DETAIL

TYP. WIRE CONNECTION TO 10 ACOUSTIC LAY-IN CEILING GRID

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**





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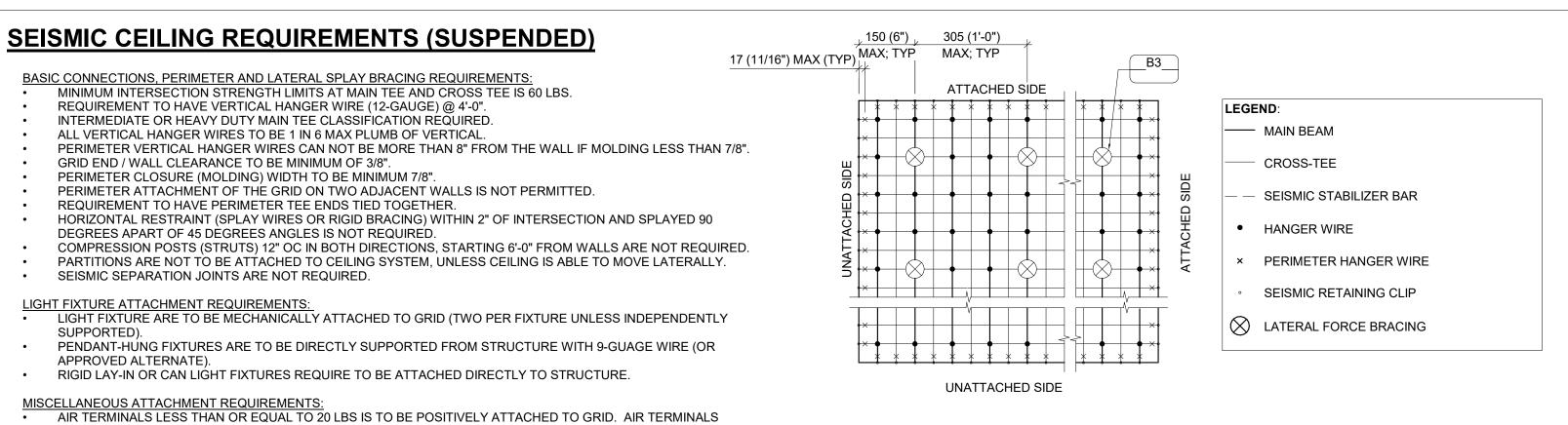
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SHEET TITLE:

CEILING DETAILS

SHEET NUMBER:



PLAN - CEILING SUSPENSION DIAGRAM AND SEISMIC CRITERIA

12 GA. VERTICAL HANGER WIRE @ BEAM AND STRUCTURE ABOVE 48" O.C. EACH WAY. (SHOWN DASHED) 4'-0" FIXTURE VERTICAL HANGER WIRE TYP. BETWEEN SEE SEISMIC CLIP SEISMIC SLOTTED RETAINING ATTACHED TO THE FIXTURE AND PERIMETER HANGER WIRE JOINT DETAIL AT WALL CLIP, FASTEN TO ADJOINING TO STRUCTURE ABOVE (SEE ELEC. MAIN RUNNERS CONSTRUCTION AND MECH. DRAWINGS. (4) DIAGONAL SPLAY WIRES SEISMIC SLOTTED RETAINING CLIP. FASTEN TO ADJOINING STABILIZER BARS. TYP. CONSTRUCTION **GRID END TIGHT TO** ADJOINING CONSTRUCTION **HEAVY DUTY MAIN** PERIMETER HANGER WIRE RUNNER @ 48" O.C. CROSS RUNNER @ 24" O.C. EDGE MOLDING EDGE MOLDING NO SCREW TO SECURE MAIN BEAM OR CROSS-TEE TO CLIP SECURE MAIN BEAM OR SPLICES AND INTERSECTIONS CROSS-TEE TO CLIP WITH SHALL BE MECHANICALLY 8" FOR THE ENTIRE SCREW LIGHT OR DIFFUSER INTERLOCKING PERIMETER OF THE **CEILING AREA AT ALL** MAIN RUNNERS AND MAIN BEAM OR CROSS-TEE CROSS TEES, IF (TRABE PRINCIPAL O TEE) MOLDING IS LESS THAN ------7---1 ISOMETRIC - UNATTACHED SIDE ISOMETRIC - ATTACHED SIDE ISOMETRIC - LATERAL FORCE BRACING

SEISMIC CEILING REQUIREMENTS (GYP BD)

BASIC CONNECTIONS, PERIMETER AND LATERAL SPLAY BRACING REQUIREMENTS:
 MINIMUM INTERSECTION STRENGTH LIMITS AT MAIN TEE AND CROSS TEE IS 60 LBS.

NOTE: 12 GA. HANGER WIRE @ 48" O.C. EACH WAY

BETWEEN 21 LBS AND 56 LBS ARE TO BE POSITIVELY ATTACHED TO GRID AND WITH TWO WIRES TO STRUCTURE

CABLE TRAY AND ELECTRICAL CONDUIT IS NOT REQUIRED TO BE INDEPENDENTLY SUPPORTED OR BRACED.

SPRINKLER HEADS AND OTHER PENETRATIONS REQUIRE A MINIMUM 3/8" CLEARANCE ON ALL SIDES.

GREATER THAN 57 LBS REQUIRES DIRECT SUPPORT TO STRUCTURE.

REQUIREMENT TO HAVE VERTICAL HANGER WIRE (12-GAUGE) @ 4'-0". NO MAIN TEE CLASSIFICATION REQUIRED.

SEE SEISMIC CLIP JOINT

DETAIL AT WALL

ALL VERTICAL HANGER WIRES TO BE 1 IN 6 MAX PLUMB OF VERTICAL. PERIMETER VERTICAL HANGER WIRES ARE NOT REQUIRED TO BE LESS THAN 8" FROM THE WALL.

NO GRID END / WALL CLEARANCE REQUIRED.

 NO MINIMUM PERIMETER CLOSURE (MOLDING) WIDTH. NO REQUIREMENT TO HAVE PERIMETER TEE ENDS TIED TOGETHER.

HORIZONTAL RESTRAINT (SPLAY WIRES OR RIGID BRACING) WITHIN 2" OF INTERSECTION AND

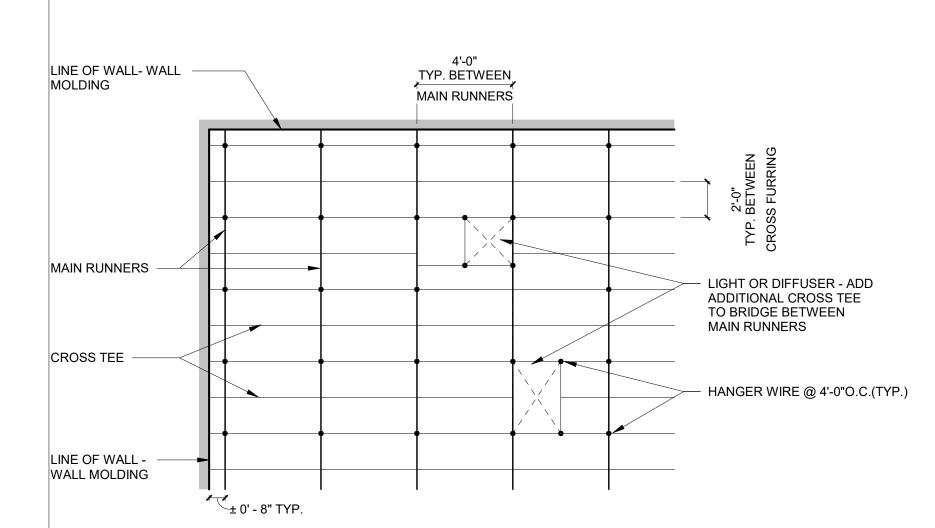
SPLAYED 90 DEGREES APART OF 45 DEGREES ANGLES IS NOT REQUIRED.

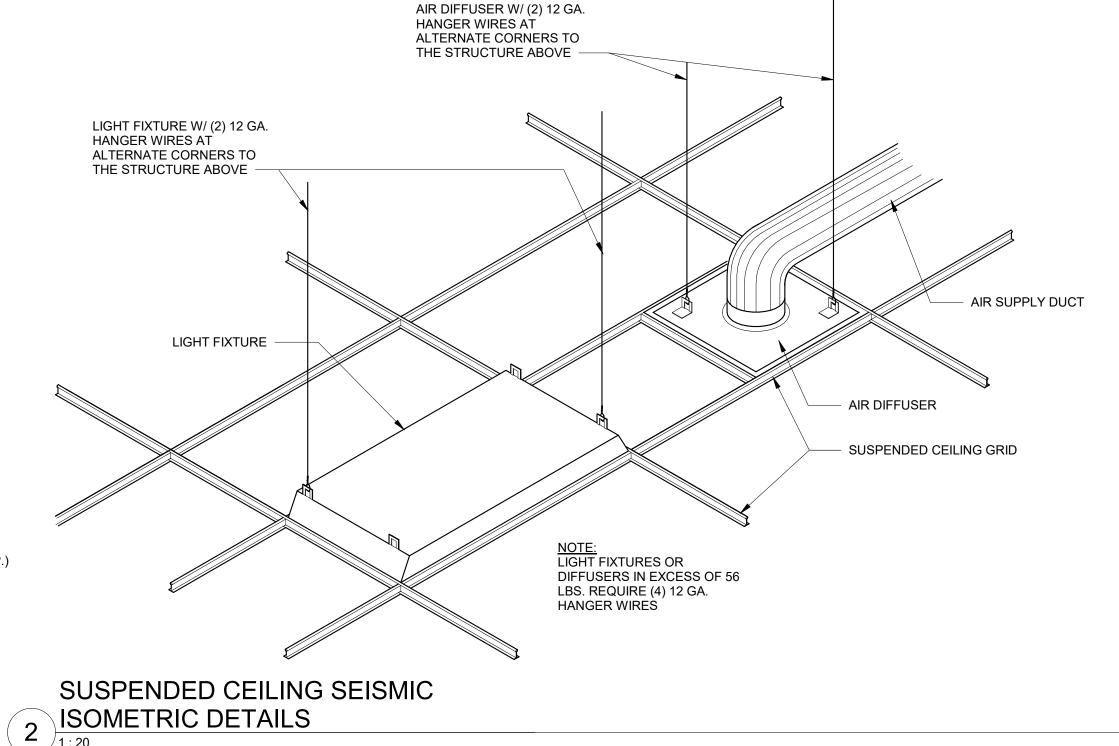
COMPRESSION POSTS (STRUTS) 12" OC IN BOTH DIRECTIONS, STARTING 6'-0" FROM WALLS ARE NOT REQUIRED.

SEISMIC SEPARATION JOINTS ARE NOT REQUIRED. DRYWALL CONTROL JOINTS REQUIRED WHEN APPLICABLE OR AS NOTED ON DRAWINGS:

INTERIOR CEILINGS WITH PERIMETER RELIEF: MAXIMIUM 50'-0" SINGLE DIRECTION AND

INTERIOR CEILINGS WITHOUT PERIMETER RELIEF: MAXIMIUM 30'-0" SINGLE DIRECTION AND MAXIMIUM 900 SFT. EXTERIOR CEILINGS: MAXIMIUM 30'-0" SINGLE DIRECTION AND MAXIMIUM 900 SFT





SEISMIC STRUT - ANCHOR TO MAIN

SUSPENDED CEILING SEISMIC GENERAL NOTES

- A. CEILING SYSTEMS MAY NOT BE USED TO SUPPORT WALLS OR PARTITIONS.
- B. 12 GA. (MIN.) HANGER WIRES MAY BE USED FOR UP TO AND INCLUDING 48" x 48" GRID SPACING AND SHALL BE ATTACHED TO MAIN RUNNER; NOT MORE THAN 6:1 OUT OF PLUMB UNLESS COUNTER SLOPING WIRES ARE
- C. PROVIDE 12 GA. (MIN.) HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN 8" OF THE SUPPORT OR WITHIN (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LEAST, FOR THE PERIMETER OF THE CEILING AREA. END CONNECTIONS FOR RUNNERS WHICH ARE DESIGNED AND DETAILED TO RESIST THE APPLIED VERTICAL AND HORIZONTAL FORCES MAY BE USED IN LIEU OF THE 12 GA. HANGER WIRES.
- D. PROVIDE TRAPEZE AND OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO TYPICAL HANGER SPACING. PROVIDE ADDITIONAL HANGERS, STRUTS AND BRACES AS REQUIRED AT ALL CEILING BREAKS, SOFFITS AND DISCONTINUOUS AREAS. HANGER WIRES THAT ARE MORE THAN 1" OUT OF PLUMB SHALL HAVE
- E. ATTACH CEILING GRID MEMBERS TO NO MORE THAN (2) ADJACENT WALLS. CEILING GRID MEMBERS SHALL BE AT LEAST 1/2" FREE OF OTHER WALLS. WHERE WALLS RUN DIAGONALLY TO CEILING GRID SYSTEM RUNNERS, ONE END OF MAIN AND CROSS RUNNERS SHALL BE FREE WITH MINIMUM OF 1/2" SPACE PROVIDED BETWEEN RUNNERS AND WALL.
- F. AT THE PERIMETER OF THE CEILING OR WHERE MAIN AND CROSS RUNNERS ARE NOT CONNECTED TO THE ADJACENT WALL, PROVIDE INTERCONNECTION BETWEEN THE RUNNERS AND THE FREE END TO PREVENT LATERAL SPREADING. PROVIDE A METAL STRUT OR 16 GA. WIRE WITH A POSITIVE MECHANICAL CONNECTION TO THE RUNNER. WHERE THE PERPENDICULAR DISTANCE FROM THE WALL TO THE FIRST PARALLEL RUNNER IS 12" OR LESS, INTERLOCK IS NOT REQUIRED.
- 1. EDGE MOLDING 7/8" WIDE (MINIMUM), UNLESS OTHERWISE NOTED. 2. PROVIDE PERIMETER HANGER WIRES AT ENDS OF MAIN BEAMS AND CROSS-TEES AT 8" MAXIMUM) FROM EACH WALL OR CHANGE IN PLANE.
- 3. PROVIDE SLOTTED RETAINING CLIP AT ENDS OF MAIN BEAMS AND CROSS-TEES. ANCHOR CLIP TO ADJOINING CONSTRUCTION ON EACH SIDE; ANCHOR CLIP TO BEAMS AND TEES ON 2 SIDES (ATTACHED SIDES).
- G. PROVIDE BRACING ASSEMBLIES CONSISTING OF A COMPRESSION STRUT AND (4) 12 GA. SPLAYED BRACING WIRES ORIENTED 90 DEGREES FROM EACH OTHER AT THE FOLLOWING SPACING.
- PLACE BRACING ASSEMBLIES AT A SPACING NOT MORE THAN 12" BY 12" ON CENTER 2. PLACE BRACING ASSEMBLIES AT LOCATIONS NOT MORE THAN (1/2) THE SPACING GIVEN ABOVE, FROM EACH PERIMETER WALL AND AT THE EDGE OF VERTICAL CEILING OFFSETS. THE SLOPE OF THESE WIRES SHALL NOT EXCEED 45 DEGREES FROM THE PLANE OF THE CEILING AND SHALL BE TAUT. SPLICES IN BRACING WIRES ARE NOT TO BE PERMITTED.
- SUSPENDED ACOUSTICAL CEILING SYSTEMS WITH A CEILING AREA OF 144 SQUARE FEET OR LESS, AND FIRE RATED SUSPENDED ACOUSTICAL CEILING SYSTEMS WITH A CEILING AREA OF 96 SQUARE FEET OR LESS, SURROUNDED BY WALLS WHICH CONNECT DIRECTLY TO THE STRUCTURE ABOVE, DO NOT REQUIRE BRACING ASSEMBLIES WHEN ATTACHED TO THE ADJACENT WALLS.
- PROVIDE LATERAL FORCE SPLAY WIRE BRACING CLUSTERS OF 4 WIRES ATTACHED TO MAIN BEAM WITHIN 2" OF CROSS-TEE INTERSECTION. WIRES ARRAYED AT 90-DEGREES FROM EACH OTHER AND AT ANGLE NOT GREATER THAN 45-DEGREES FROM PLANE OF CEILING. PROVIDE SEISMIC STRUT ATTACHED TO MAIN BEAMS AND STRUCTURE ABOVE AT EACH LATERAL FORCE BRACING LOCATION. RIGID BRACING AND SEISMIC STRUT MAY BE USED IN LIEU OF SPLAY WIRES AND SEISMIC STRUT. CONTINUOUS CEILING AREA NOT TO EXCEED 2,500 SQUARE FEET. LATERAL FORCE BRACING IS NOT REQUIRED AT CEILING AREAS LESS THAN 1,000 SQUARE FEET.
- FASTEN HANGER WIRES WITH NO LESS THAN (3) TIGHT TURNS. FASTEN BRACING WIRES WITH (4) TIGHT TURNS. MAKE ALL TIGHT TURNS WITHIN A DISTANCE OF 1 1/2". HANGER AND BRACING WIRE ANCHORS TO THE STRUCTURE, INSTALL IN SUCH A MANNER THAT THE DIRECTION OF THE WIRE ALIGNS AS CLOSELY AS POSSIBLE WITH THE DIRECTION OF THE FORCES ACTING ON THE WIRE. NOTE: WIRE TURNS MADE BY MACHINE WHERE BOTH STRANDS HAVE BEEN DEFORMED OR BENT IN
- WRAPPING CAN WAIVE THE 1 1/2" REQUIREMENT, BUT THE NUMBER OF TURNS SHALL BE MAINTAINED AND BE AS
- J. SEPARATE ALL CEILING HANGING AND BRACING WIRES AT LEAST 6" FROM ALL UNBRACED DUCTS, PIPES. CONDUITS, ETC. LIGHTWEIGHT ITEMS, SUCH AS SINGLE ELECTRICAL CONDUIT NOT EXCEEDING 3/4" NOMINAI DIAMETER, MAY BE ATTACHED TO HANGER WIRES USING CONNECTORS ACCEPTABLE TO THE ARCHITECT.
- K. CEILING PENETRATIONS (COLUMNS, WALLS, SPRINKLERS, ETC.) AND INDEPENDENTLY SUPPORTED FIXTURES OR SERVICES ARE TO BE TREATED AS PERIMETER CLOSURES AND SHALL MAINTAIN CLEARANCE AT END OF GRID WITH SUITABLE ESCUTCHEONS OR CLOSURES. EXCEPT WHEN RIGID BRACING AND SEISMIC STRUTS ARE USED, PROVIDE SPRINKLER HEADS AND OTHER PENETRATIONS WITH 2" OVER-SIZE ESCUTCHEON, SLEEVE, OR ADAPTER THROUGH THE CEILING PANEL TO ALLOW 1" FREE MOVEMENT IN ALL HORIZONTAL DIRECTIONS.
- L. ATTACH ALL LIGHT FIXTURES, CEILING MOUNTED AIR TERMINALS AND SERVICES TO THE CEILING GRID RUNNERS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE FIXTURES. SCREWS OR APPROVED FASTENERS ARE REQUIRED.
- M. SUPPORT FLUSH LIGHT FIXTURES. RECESSED LIGHT FIXTURES. AIR TERMINALS AND SERVICES WEIGHING LESS THAN 56 LBS. DIRECTLY ON RUNNERS OF A HEAVY DUTY GRID SYSTEM. PROVIDE A MINIMUM OF (2) 12 GA. SLACK SAFETY WIRES ATTACHED TO FIXTURE AT DIAGONAL CORNERS AND ANCHORED TO STRUCTURE ABOVE. ALL 48" x 48" LIGHT FIXTURES SHALL HAVE SLACK SAFETY WIRES AT EACH CORNER.
- N. ALL FLUSH LIGHT FIXTURES, RECESSED LIGHT FIXTURES, AIR TERMINALS AND SERVICES WEIGHING 56 LBS. OR MORE SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN (4) TAUT 12 GA. WIRES EACH ATTACHED TO THE FIXTURE AND TO THE STRUCTURE. THE (4) TAUT 12 GA. WIRES INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE MUST BE CAPABLE OF SUPPORTING (4) TIMES THE WEIGHT OF THE UNIT.
- O. WHERE CONFLICT IN CEILING DEVICES OCCURS. COORDINATE WITH THE ARCHITECT.

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**





OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

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PROJECT # T2326-01 FACILITY # 8136304011

REV.	DESCRIPTION	DATE
A	DD	02/16/2024
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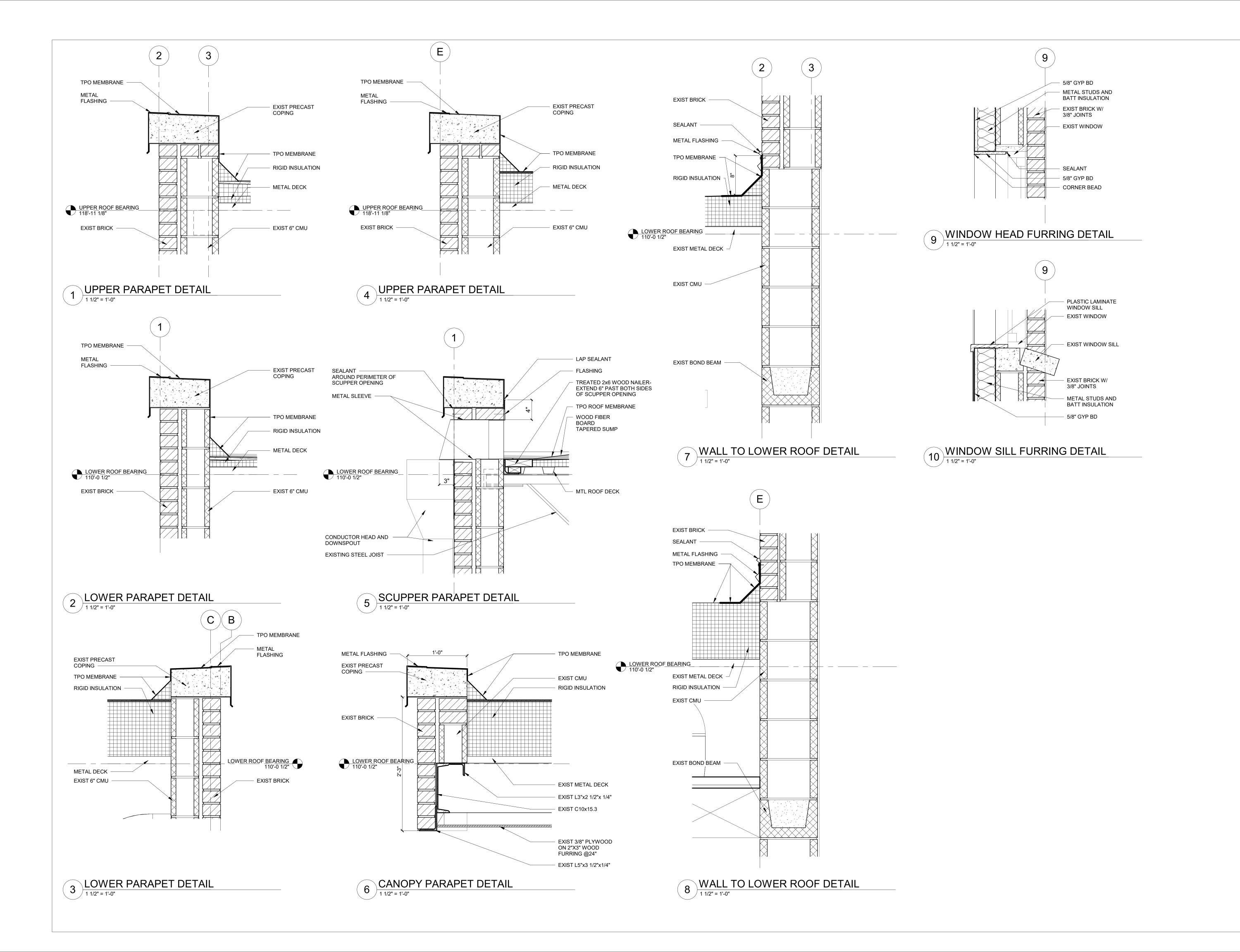
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DRAWN BY: EE

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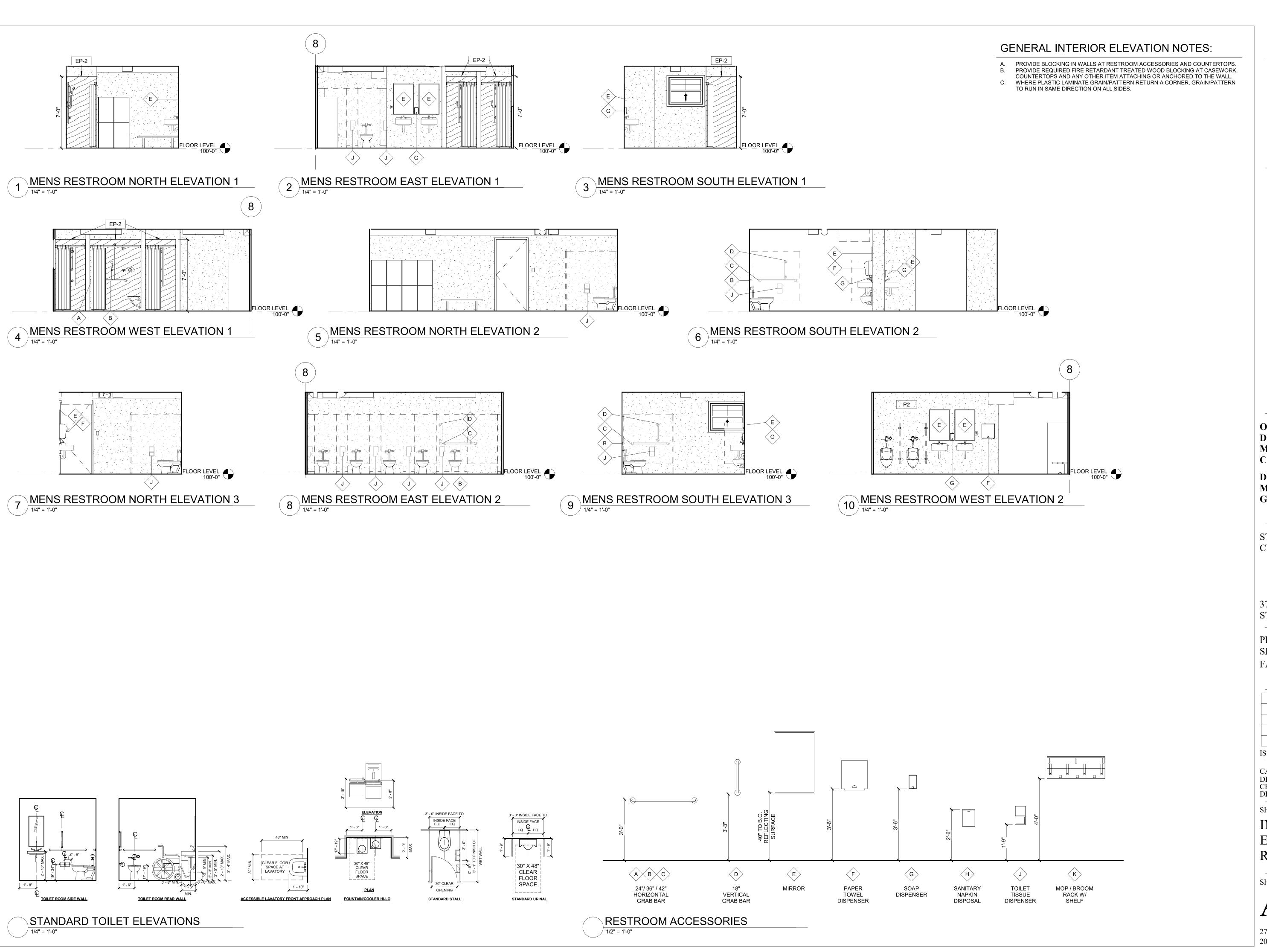
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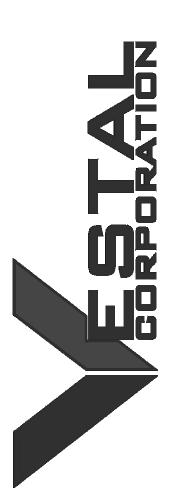
SECTION DETAILS

SHEET NUMBER:

A550







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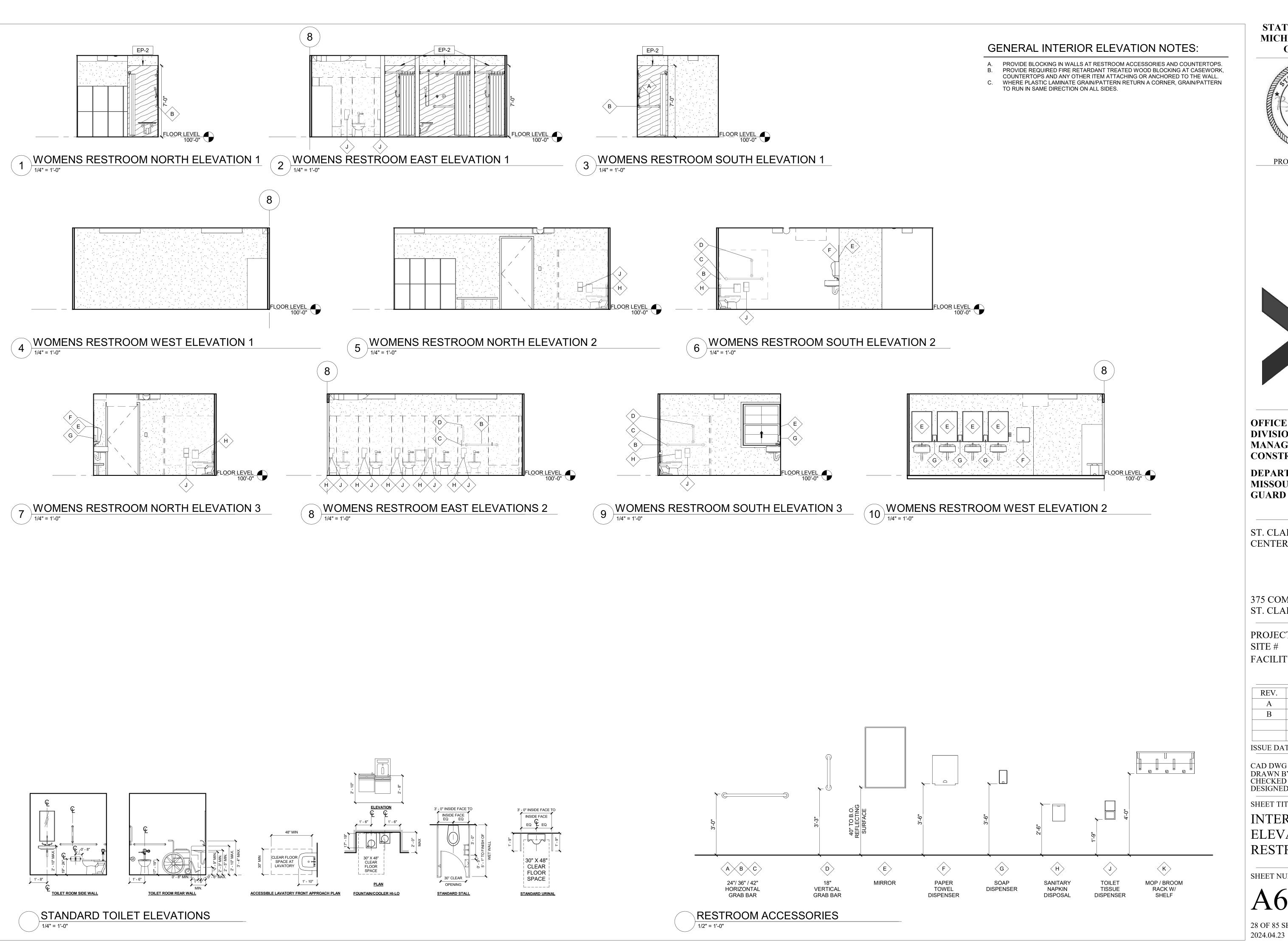
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DESIGNED BY:	JB

SHEET TITLE:

INTERIOR ELEVATIONS -RESTROOMS

SHEET NUMBER:

A600







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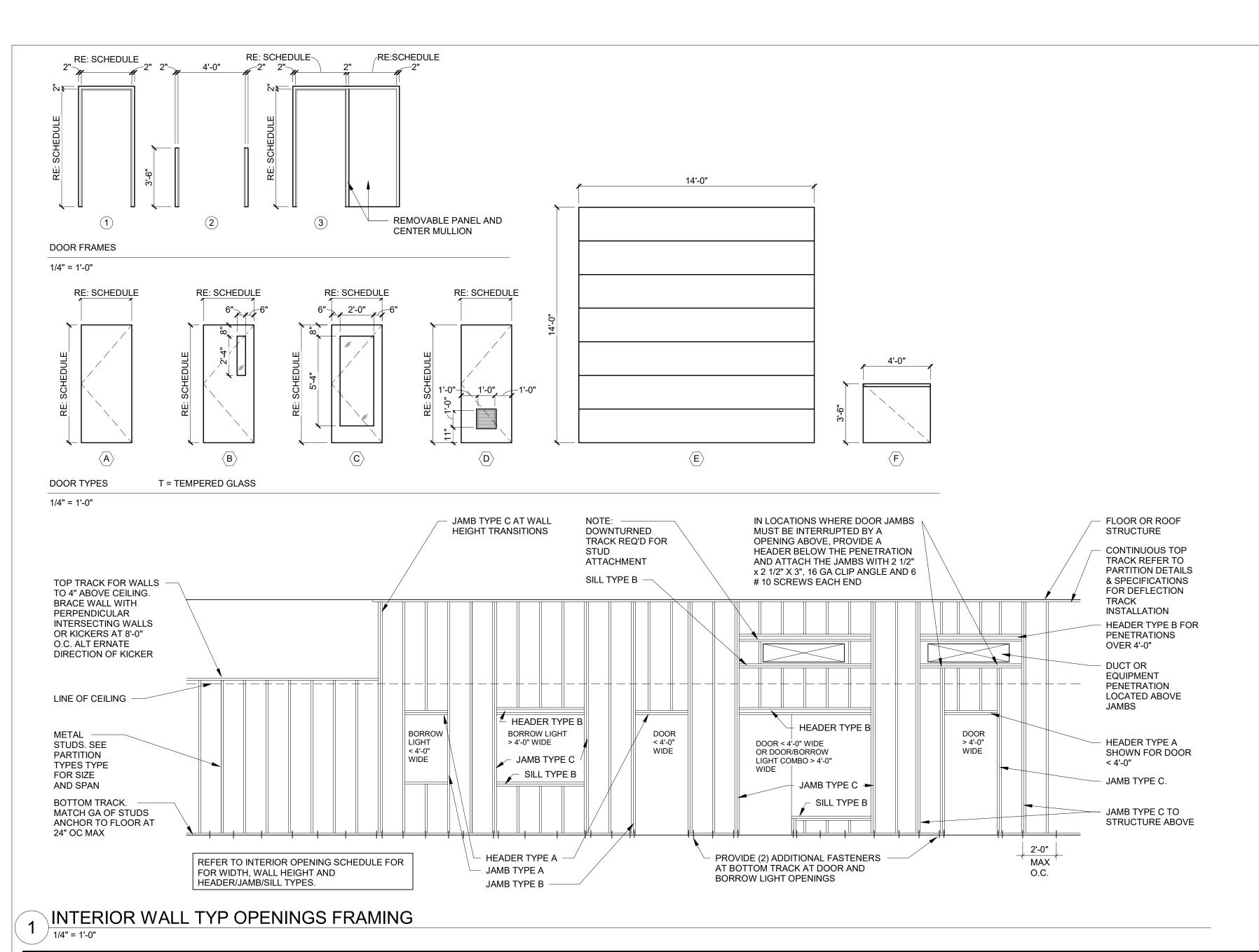
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INTERIOR ELEVATIONS -RESTROOMS

SHEET NUMBER:

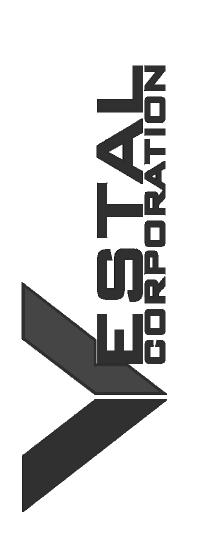
A601

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		DOOR						FRAME DE			DET	AILS	HDW	FIRE		
DOOR#	PAIR	W	Н	THK	ELEV	MATL	FINISH	GLAZING	ELEV	MATL	FINISH	HEAD	JAMB	SET	RATING	REMARKS
100A	•	2'-8"	7'-0"	1 3/4"	Α	HM	PT-2	-	1	HM	PT-2	H4	J4	8	-	
100B	•	2'-8"	7'-0"	1 3/4"	С	WD	ST	GL-1	1	HM	PT-2	H2	J2	6	1	
101		3'-0"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	HM	PT-2	H2	J2	9	1	
102A		3'-0"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	HM	PT-2	H2	J2	9	1	
102B		3'-0"	7'-0"	1 3/4"	Α	WD	ST	-	1	HM	PT-2	H1	J1	9	-	
103A		3'-0"	7'-0"	1 3/4"	В	НМ	PT-2	-	1	HM	PT-2	H4	J4	8	1	
103B		3'-0"	7'-0"	1 3/4"	Α	WD	ST	-	1	HM	PT-2	H1	J1	5	-	
103C		3'-0"	7'-0"	1 3/4"	Α	WD	ST	GL-1	1	HM	PT-2	H1	J1	11	-	
104	•	2'-6"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	НМ	PT-2	H2	J2	4	1	
105A	•	3'-0"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	НМ	PT-2	H2	J2	4	1	
105B	•	2'-6"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	НМ	PT-2	H2	J2	4	1	
106			7'-0"		-	-	-	-	-	-	-	-	-		2	EXIST VAULT DOOR TO REMAIN
107	•	2'-6"	7'-0"	1 3/4"	Α	WD	ST	-	1	НМ	PT-2	H2	J2	12	1	
108		3'-0"	7'-0"	1 3/4"	Α	WD	ST	-	1	НМ	PT-2	H1	J1	2	-	
109			3'-6"	1 3/4"	F	WD	ST	-	2	НМ	PT-2	-	J1	5	-	HALF DOOR
110A		3'-8"	7'-0"	1 3/4"	Α	HM	PT-2	-	1	HM	PT-2	H4	J4	8	1	
110B			14'-0"	1 1/2"	E	STEEL	-	-	-	-	-	H6	J6	-	-	EXIST SECTIONAL DOOR TO REMAIN
111A		3'-0"	7'-0"	1 3/4"	В	WD	ST	-	1	HM	PT-2	H2	J2	5	1	
111B		3'-0"	7'-0"	1 3/4"	Α	HM	PT-2	GL-1	1	HM	PT-2	H1	J1	1	-	
112A		3'-0"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	HM	PT-2	H1	J1	9	-	
112B		3'-0"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	HM	PT-2	H1	J1	9	-	
113B	•	2'-6"	7'-0"	1 3/4"	Α	HM	PT-2	-	1	HM	PT-2	H4	J4	8	-	
114		3'-0"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	НМ	PT-2	H2	J2	9	-	
115		2'-8"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	HM	PT-2	H2	J2	4	1	
116A	•	3'-0"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	HM	PT-2	H8	J2	4	1	
116B		2'-8"	7'-0"	1 3/4"	Α	WD	ST	-	1	HM	PT-2	H1	J1	4	-	
117		3'-0"	7'-0"	1 3/4"	Α	WD	ST	-	1	НМ	PT-2	H8	J2	7	1	
118A		3'-0"	7'-0"	1 3/4"	D	WD	ST	-	1	HM	PT-2	H8	J2	2	1	
118B	•	3'-6"	7'-0"	1 3/4"	Α	НМ	PT-2	-	3	НМ	PT-2	H7	J4	8	-	ONE REMOVABLE PANEL
119		3'-0"	7'-0"	1 3/4"	Α	WD	ST	-	1	HM	PT-2	H8	J2	7	1	
120A	•	3'-0"	7'-0"	1 3/4"	Α	WD	ST	-	1	HM	PT-2	H3	J3	4	1	
120B		3'-0"	7'-0"	1 3/4"	Α	НМ	PT-2	-	1	НМ	PT-2	H5	J5	8	-	
121A		3'-0"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	НМ	PT-2	H2	J2	9	-	
121B		3'-0"	7'-0"	1 3/4"	Α	WD	ST	-	1	HM	PT-2	H1	J1	9	-	
122		3'-0"	7'-0"	1 3/4"	В	WD	ST	GL-1	1	НМ	PT-2	H2	J2	9	1	





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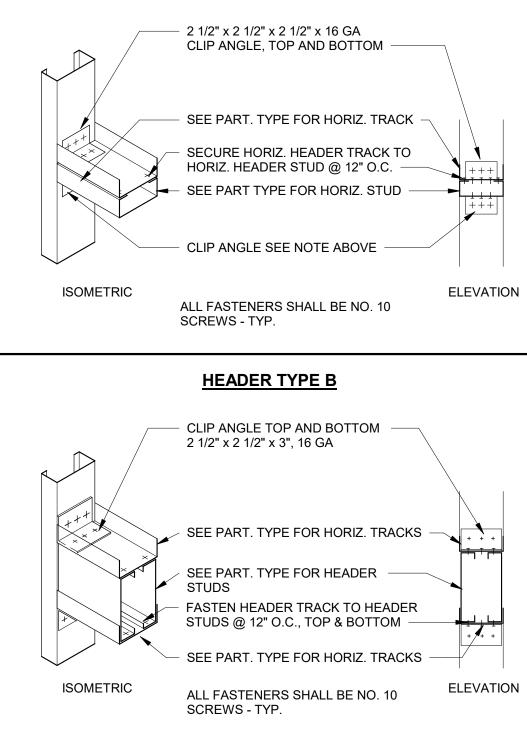
DOOR SCHEDULE AND DETAILS

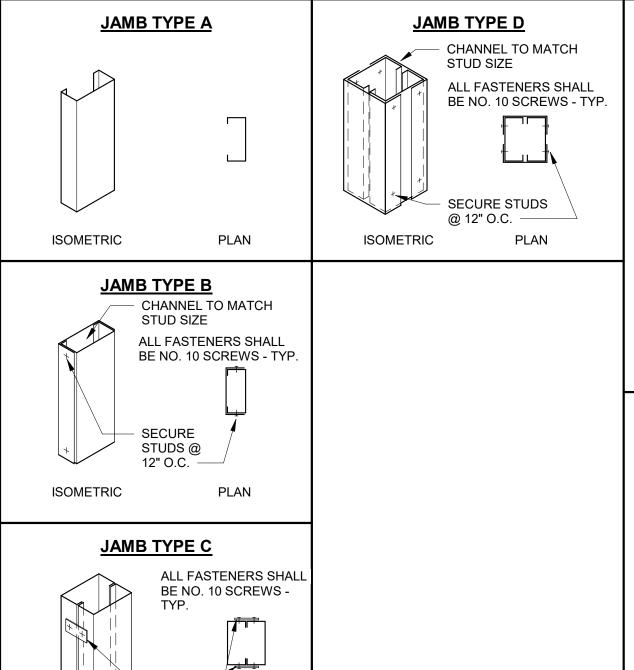
29 OF 85 SHEETS 2024.04.23

INTERIOR WALL OPENING SCHEDULE - HEADER, JAMB AND SILL TYPES	3
	_

HEADER TYPE A

								11 1	
WALL HEIGHT "H" REF PART TYPE FOR STUD SIZE/GA	ROUGH OPENING WIDTH "W"	HEADER TYPE	JAMB TYPE	SILL TYPE	WALL HEIGHT "H" REF PART TYPE FOR STUD SIZE/GA	ROUGH OPENING WIDTH "W"	HEADER TYPE	JAMB TYPE	SILL TYPE
3 5/	8" STUD - 1 LAYER	8 5/8" GYP B	D EA SIDE		3 5/8	B" STUD - 2 LAYER	S 5/8" GYP E	BD EA SIDE	
	0'-0" < W ≤ 4'-0"	Α	A -OR- B	А		0'-0" < W ≤ 4'-0"	А	A -OR- B	А
8'-0" - 12'-0"	4'-0" < W ≤ 8'-0"	В	B -OR- C	В	8'-0" - 12'-0"	4'-0" < W ≤ 8'-0"	В	B -OR- C	В
	8'-0" < W ≤ 12'-0"	В	С	В	11	8'-0" < W ≤ 12'-0"	В	С	В
	0'-0" < W ≤ 4'-0"	Α	В	А		0'-0" < W ≤ 4'-0"	А	В	А
12'-0" < H ≤ 14'-0"	4'-0" < W ≤ 8'-0"	В	B-OR- C	В	12'-0" < H ≤ 14'-0"	4'-0" < W ≤ 8'-0"	В	B-OR- C	В
	8'-0" < W ≤ 12'-0"	В	С	В]	8'-0" < W ≤ 12'-0"	В	С	В
	0'-0" < W ≤ 4'-0"	А	В	Α		0'-0" < W ≤ 4'-0"	А	A- OR-B	А
14'-0" < H ≤ 16'-0"	4'-0" < W ≤ 8'-0"	В	B-OR-C	В	14'-0" < H ≤ 16'-0"	4'-0" < W ≤ 8'-0"	В	B-OR-C	В
	8'-0" < W ≤ 12'-0"	В	D	В		8'-0" < W ≤ 12'-0"	В	D	В
WALL HEIGHT "H" REF PART TYPE FOR STUD SIZE/GA	ROUGH OPENING WIDTH "W"	HEADER TYPE	JAMB TYPE	SILL TYPE	WALL HEIGHT "H" REF PART TYPE FOR STUD SIZE/GA	ROUGH OPENING WIDTH "W"	HEADER TYPE	JAMB TYPE	SILL TYPE
6"	STUD - 1 LAYER 5	5/8" GYP BD	EA SIDE		6" STUD - 2 LAYERS 5/8" GYP BD EA SIDE				
	0'-0" < W ≤ 4'-0"	А	A -OR- B	А		0'-0" < W ≤ 4'-0"	А	A -OR- B	А
8'-0" - 12'-0"	4'-0" < W ≤ 8'-0"	В	B -OR- C	В	8'-0" - 12'-0"	4'-0" < W ≤ 8'-0"	В	B -OR- C	В
	8'-0" < W ≤ 12'-0"	В	С	В		8'-0" < W ≤ 12'-0"	В	С	В
	0'-0" < W ≤ 4'-0"	А	В	А]	0'-0" < W ≤ 4'-0"	А	В	А
12'-0" < H ≤ 14'-0"	4'-0" < W ≤ 8'-0"	В	B -OR- C	В	12'-0" < H ≤ 14'-0"	4'-0" < W ≤ 8'-0"	В	B -OR- C	В
	8'-0" < W ≤ 12'-0"	В	С	В		8'-0" < W ≤ 12'-0"	В	С	В
	0'-0" < W ≤ 4'-0"	А	В	А		0'-0" < W ≤ 4'-0"	А	В	А
14'-0" < H ≤ 16'-0"	4'-0" < W ≤ 8'-0"	В	B -OR- C	В	14'-0" < H ≤ 16'-0"	4'-0" < W ≤ 8'-0"	В	B -OR- C	В
	8'-0" < W ≤ 12'-0"	В	D	В		8'-0" < W ≤ 12'-0"	В	D	В





SECURE STUDS @ 18" O.C. W/ 1" x 2" 18 GA STRAP EACH SIDE AND 2 FASTENERS ISOMETRIC PLAN

JAMB STUD EACH SIDE SEE PART. TYPE FOR SILL TRACK SIZE -ISOMETRIC ELEVATION ALL FASTENERS SHALL BE NO. 10 SCREWS - TYP. SILL TYPE B

- 2 1/2" X 2 1/2" X 2 1/2" 16 GA CLIP ANGLE, TOP AND BOTTOM SEE PART TYPE FOR HORIZ. STUD SIZE SECURE HORIZ. STUD TO HORIZ. TRACK @ 12" O.C. SEE PART.TYPE FOR HORIZ. TRACK SIZE -ISOMETRIC ELEVATION ALL FASTENERS SHALL BE NO. 10

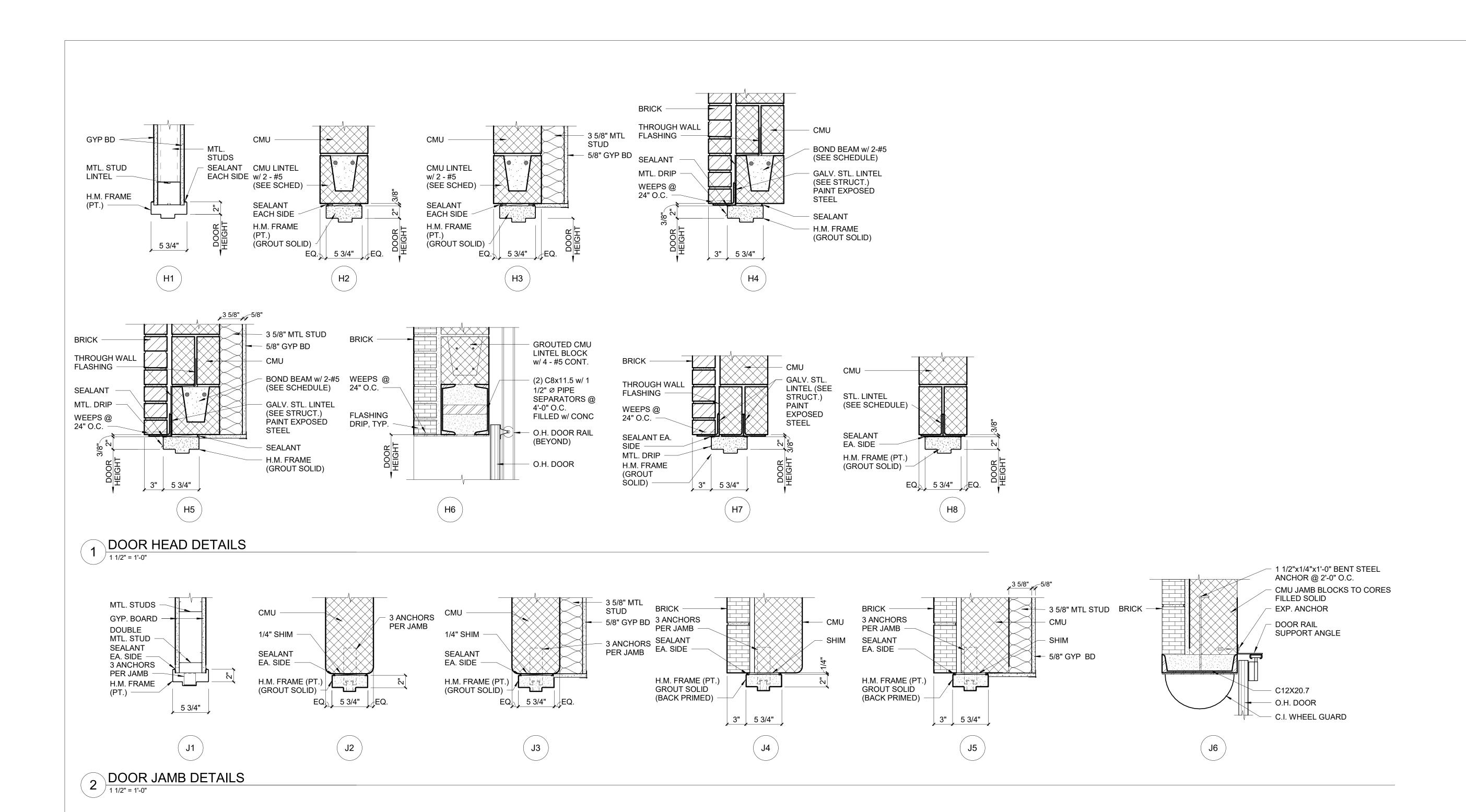
SCREWS - TYP.

SILL TYPE A

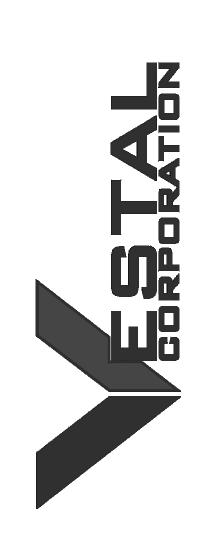
SNIP FLANGES AND BEND

SILL TRACK. ATTACH TO

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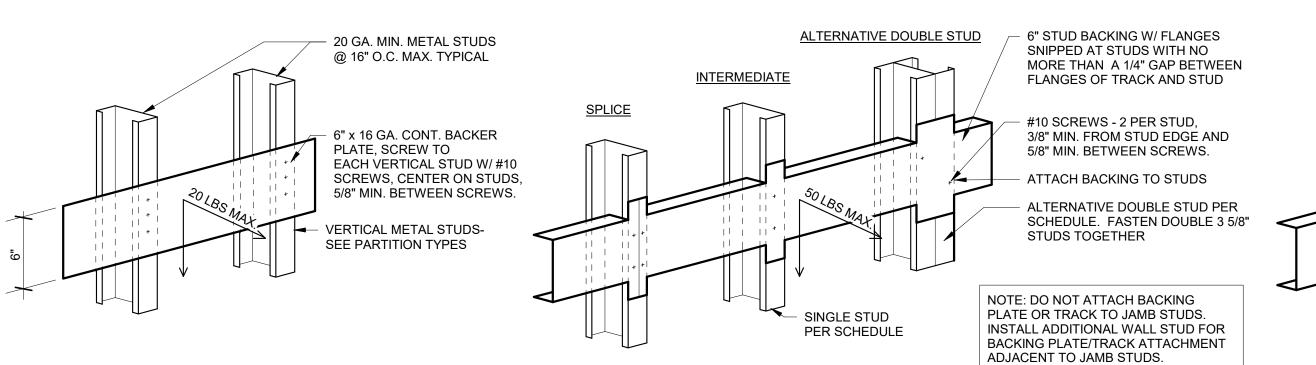
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DESIGNED BY: <u>JB</u>

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DOOR DETAILS

SHEET NUMBER:

A70



TYPICAL METAL BLOCKING DETAIL - 20 LB MAX. LOAD

BRACING AT EACH STUD.

1 / 1 1/2" = 1'-0"

THIS DETAIL MAY BE USED FOR THE ATTACHMENT OF CABINETS OR EQUIPMENT DISTRIBUTING LESS THAN OR EQUAL TO 20 LBS TO EACH STUD

UNLESS APPROVED OTHERWISE BY THE STRUCTURAL ENGINEER. (THE CENTER OF GRAVITY SHALL BE LESS THAN 6" FROM FACE OF STUDS. NOTCHING OR CUTTING OF BACKING PLATE IS NOT PERMITTED. THIS DETAIL MAY BE USED FOR WALL DOOR STOP ATTACHMENT.

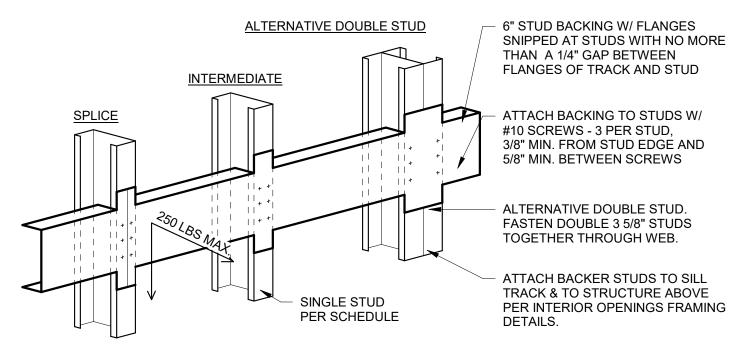
FOR WALLS THAT DO NOT EXTEND TO STRUCTURE ABOVE PROVIDE

PRESCRIBED WEIGHT SHALL INCLUDE CONTENT WEIGHT. TYP. ALL DETAILS.

TYPICAL METAL BLOCKING DETAIL- 50 LB MAX LOAD - 600T125 - 43 MIN BACKER

1. THIS DETAIL MAY BE USED FOR THE ATTACHMENT OF CABINETS, LIGHT FIXTURES, SHOWER CURTAIN RODS OR EQUIPMENT DISTRIBUTING LESS THAN OR EQUAL TO 50 LBS TO EACH STUD UNLESS APPROVED OTHERWISE BY THE STRUCTURAL ENGINEER. (THE CENTER OF GRAVITY SHALL BE LESS THAN 6" FROM FACE OF STUDS.

- NOTCHING OR CUTTING OF BACKING PLATE IS NOT PERMITTED. FOR EXTERIOR WALL STUDS USE DOUBLE TYP. SPECIFIED STUDS FASTENED TOGETHER IN LIEU OF STUDS
- SPECIFIED HERE. PRESCRIBED WEIGHT SHALL INCLUDE CONTENT WEIGHT. TYP. ALL DETAILS. FOR WALLS THAT DO NOT EXTEND TO STRUCTURE ABOVE PROVIDE BRACING AT EACH STUD.



TYPICAL METAL BLOCKING DETAIL- 250 LB MAX LOAD - 600T150 - 68 MIN. BACKER

NOTE: 1. THIS DETAIL MAY BE USED FOR THE ATTACHMENT OF WALL MOUNTED TOWEL BARS, GRAB BARS, INFANT CHANGING TABLES. CASEWO SHOWER SEATS, SHELVING, HANDRAILS, COUNTERS, LAVS., INFANT CHANGING TABLES, CASEWORK, AND EQUIPMENT DISTRIBUTING LESS THAN OR EQUAL TO 250 LBS TO EACH STUD UNLESS APPROVED OTHERWISE BY THE STRUCTURAL ENGINEER. (THE CENTER OF GRAVITY SHALL BE LESS THAN 6" FROM FACE OF STUDS.)

- NOTCHING OR CUTTING OF BACKING PLATE IS NOT PERMITTED.
- THIS DETAIL MAY BE USED FOR WALL DOOR STOP ATTACHMENT
- PRESCRIBED WEIGHT SHALL INCLUDE CONTENT WEIGHT. TYP. ALL DETAILS 5. FOR WALLS THAT DO NOT EXTEND TO STRUCTURE ABOVE PROVIDE BRACING AT EACH STUD.

4 7/8" 5/8" 3 5/8" 5/8" 5/8" GYP. BOARD EACH SIDE 3 5/8" META STUDS @ 16" O.C. (MAX.)	AL	5/8" GYP. BOARD EACH SIDE 3 5/8" METAL STUDS @ 16" O.C. (MAX.) 3-1/2" SOUND ATTENUATION BLANKETS 5/8" GYP. BOARD EXISTING WALL STUDS @ 16" O.C. (MAX.) 3-1/2" SOUND ATTENUATION BLANKETS	11 5/8" — 12" CMU	10" 5 5/8" 4 3/8" 4" BRICK 6" CMU	3 5/8" 5/8" 5/8" GYP. BOARD 3 5/8" METAL STUDS @ 16" O.C. (MAX.) EXISTING WALL	5/8" GYP. BOARD 1 1/2" METAL HAT CHANNEL STUDS @ 16" O.C. (MAX.) EXISTING WALL
P1	P2	P3	P4	P5	P6	P7
PARTITION TY	/PES					

GENERAL PARTITION TYPE NOTES:

- REFER TO ARCHITECTURAL FLOOR PLANS FOR PARTITION TYPE DESIGNATIONS.
- B. SEE THIS SHEET FOR ACTUAL PARTITION TYPES, DETAILS AND GENERAL NOTES REGARDING CONSTRUCTION OF PARTITIONS SHOWN ON PLANS.
- REFER TO CODE DATA FOR ADDITIONAL FIRE RATINGS, SMOKE PARTITION LOCATIONS, INFORMATION AND REQUIREMENTS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING RATED ASSEMBLIES AS INDICATED ON CONSTRUCTION DOCUMENTS AND PER ALL LOCAL AND JURISDICTIONAL CODES IN FORCE.
- FIRE WALLS SHALL NOT BE PENETRATED EXCEPT AS ALLOWED AND PROTECTED BY CODE REGULATIONS AND REQUIREMENTS (E.G. APPROPRIATE USE OF FIRE STOPPING, DAMPERS, FIRE RESISTIVE MATERIALS AND METHODS OF CONSTRUCTION. GYPSUM BOARD IS TO BE WATER RESISTANT TYPE "X" GYPSUM BOARD ON WET FACES OF PLUMBING WALLS AND ON CERAMIC
- TILE FACED WALL SURFACES (E.G. TILED SERVERY WALLS, DRINKING FOUNTAIN WALLS, REST ROOM PLUMBING WALLS, OR WET WALLS THAT RECEIVE CERAMIC TILE THAT ARE SUBJECT TO BEING HOSED DOWN, SUCH AS "BACK OF HOUSE" AREAS
- (E.G. KITCHEN, DISH ROOM, JANITOR'S CLOSET, ETC.) SHALL BE CEMENTITIOUS BACKER BOARD (IN LIEU OF WATER RESISTANT GYPSUM BOARD). PLACE 6 MIL POLYETHYLENE MEMBRANE BEHIND CEMENT BACKER BOARD (AS A VAPOR BARRIER). ALL STRUCTURAL STEEL COLUMNS SHALL BE PROTECTED AS REQUIRED BY CODE (TYPICAL). AT ALL SMOKE BARRIER AND FIRE RATED PARTITIONS, FURR OUT ALL COLUMNS, BEAMS, JOISTS AND OTHER STRUCTURAL

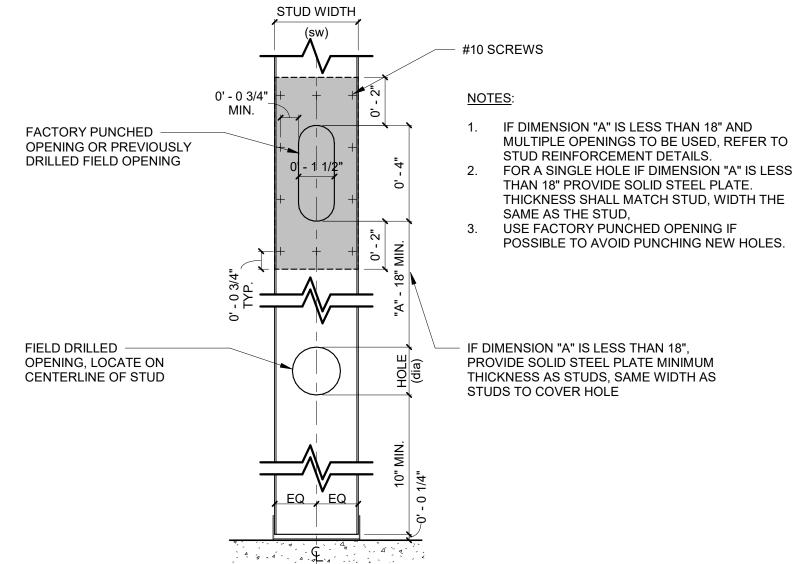
ITEMS AS REQUIRED TO SEAL GYPSUM BOARD TIGHT TO STRUCTURAL DECK OR EXTERIOR WALL TO MAINTAIN REQUIRED

ALL GYPSUM BOARD AT STAIR, RAMP, & CORRIDOR WALLS TO BE IMPACT RESISTANT GYPSUM BOARD. GENERAL CONTRACTOR TO VERIFY THAT ALL EXISTING WALLS, REQUIRED TO BE FIRE RATED AS SHOWN ON PLANS, MEET CODE FOR RATINGS. IF EXISTING WALLS INDICATED AS RATED WALLS HAVE NOT BEEN CONSTRUCTED ACCORDING TO CODE REQUIREMENTS, GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT AND SHALL BRING SUCH WALLS UP TO CODE. IF EXISTING WALLS SHOWN AS RATED WALLS ON PLANS HAVE UNPROTECTED, OR IMPROPERLY PROTECTED OPENINGS,

GENERAL CONTRACTOR SHALL PROPERLY INFILL OR PROTECT OPENINGS AS REQUIRED TO COMPLY WITH CODE.

INT	INTERIOR METAL STUD LIMITING HEIGHT SCHEDULE									
STUD SIZE	STUD SPACING	ALLOWABLE DEFLECTION	LIMITING HEIGHT							
1 5/8"	16" O.C.	L/240	8'-10" MAX HGT.							
1 5/8"	24" O.C.	L/240	7'-9" MAX HGT.							
2 1/2"	16" O.C.	L/240	12'-3" MAX HGT.							
2 1/2"	24" O.C.	L/240	10'-8" MAX HGT.							
3 5/8"	16" O.C.	L/240	16'-3" MAX HGT.							
3 5/8"	24" O.C.	L/240	14'-3" MAX HGT.							
4"	16" O.C.	L/240	17'-7" MAX HGT.							
4"	24" O.C.	L/240	15'-4" MAX HGT.							
6"	16"O.C.	L/240	24'-1" MAX HGT.							
6"	24" O.C.	L/240	20'-1" MAX HGT.							

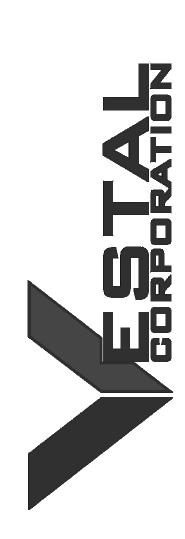
THE ABOVE LIMITING HEIGHTS ARE BASED ON THE CLARKDEITRICH PROSTUD (PROSTUD 33MIL) (5.0 PSF), NON-COMPOSITE WALL (FULLY BRACED), CONTRACTOR TO VERIFY LIMITING HEIGHTS BASED ON MANUFACTURER OF STUD PROVIDED FOR PROJECT.



	•	, , , , , , , , , , , , , , , , , , , ,		
STUD WIDTH (sw)	MAXIMUM HOLE DIAMETER (dia)	MAXIMUM NOMINAL CONDUIT DIAMETER	MAXIMUM STEEL/IRON/PVC PIPING DIAMETER	MAXIMUM COPPER PIPING DIAMETER
2 1/2"	1 1/2" Ø	1" Ø	1" Ø	1 1/4" Ø
3 5/8"	2 5/16" Ø	1 1/2" Ø	1 1/2"	2" Ø
4"	2 1/2" Ø	2" Ø	2" Ø	2" Ø
6"	4" Ø	3" Ø	3" Ø	3" Ø

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**





OFFICE OF ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL **GUARD**

ST. CLAIR READINESS CENTER

375 COMMERCIAL AVE. ST. CLAIR, MO 63077

PROJECT # T2326-01 6304 FACILITY # 8136304011

	REV.	DESCRIPTION	DATE				
	A	DD	02/16/2024				
	В	IFB	04/23/2024				

ISSUE DATE: 2024.04.23

CAD DWG FILE: DRAWN BY: CHECKED BY: DESIGNED BY: JB

SHEET TITLE:

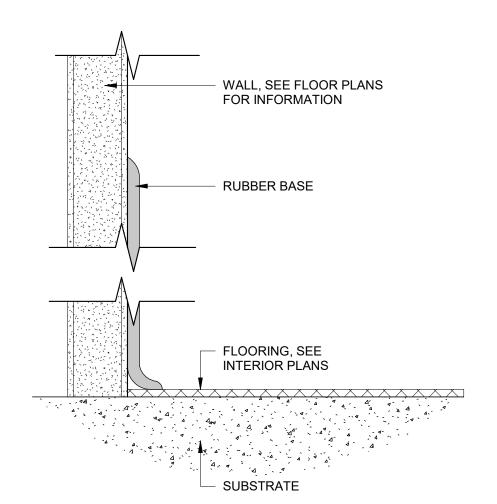
PARTITION TYPES AND DETAILS

SHEET NUMBER:

GENERAL FINISH NOTES:

- A. FINISH SYSTEMS DESCRIBE THE FINISH SPECIFICATION FOR THE VERTICAL SURFACE OF ALL FINISHES APPLIED TO A PARTITION. IF DISCREPANCY OCCURS, CONTACT THE ARCHITECT FOR CLARIFICATION PRIOR TO STARTING WORK WITHIN THE SUBJECT
- B. WORKMANSHIP SHALL BE THE BEST OF ITS RESPECTIVE KINDS FOR EACH OF THE VARIOUS TRADES EMPLOYED.
 C. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW
- C. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. SUBSTRATE SHALL BE SMOOTH, FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS WRITTEN RECOMMENDATIONS.
- D. UPON COMPLETION OF INSTALLATION OF PORCELAIN/CERAMIC TILE, CONTRACTOR TO CLEAN ALL TILE SURFACES PER MANUFACTURERS WRITTEN RECOMMENDATIONS SO THEY ARE FREE OF FOREIGN MATTER. SEAL ALL GROUT WITH (2) COATS OF MANUFACTURERS RECOMMENDED GROUT SEALER. PROHIBIT FOOT AND/OR WHEEL TRAFFIC FROM TILED FLOORS FOR AT LEAST 7 DAYS AFTER GROUTING IS COMPLETE.
- E. FINISH SUBSTITUTIONS SHALL BE APPROVED BY ARCHITECT ONLY. SEE SPECIFICATIONS FOR SUBMITTAL REQUIREMENTS FOR ANY SUBSTITUTIONS.
- F. DURING INSTALLATION OF CARPET, CONTRACTOR MUST COMPLY WITH CARPET MANUFACTURERS WRITTEN RECOMMENDED INSTALLATION METHODS. THIS INCLUDES SEAM SEALERS, GLUE, TERMINATION OF ALL SEAMS AND EXPOSED EDGES.
- UPON COMPLETION OF INSTALLATION OF CARPET, CONTRACTOR TO REMOVE VISIBLE ADHESIVE, SEAM SEALER AND OTHER SURFACE BLEMISHES USING CLEANER RECOMMENDED BY CARPET MANUFACTURER. COMPLY WITH CRI 104, SECTION 15:
- "PROTECTION OF INDOOR INSTALLATION.". REFER TO FINISH AND MATERIAL LEGEND FOR ARCHITECT DESIRED INSTALL.
 H. PROVIDE AND CONTINUE SCHEDULED FLOORING FROM PARTITION TO PARTITION AND UNDER MILLWORK UNLESS NOTED
- OTHERWISE.

 I. FLOOR TRANSITIONS SHALL OCCUR AT CENTERLINE OF DOOR, UNLESS NOTED OTHERWISE.
- J. TOLERANCE VARIATION FROM FLAT AND LEVEL SURFACE: 1/8" IN 10', UNLESS NOTED OTHERWISE IN SPECIFICATIONS.
- K. ALL WALLS SHALL BE PAINTED (P-XX) UNLESS NOTED OTHERWISE.L. ALL DOOR FRAMES TO BE PAINTED TO MATCH ADJACENT WALL, UNLESS NOTED OTHERWISE.
- M. ALL GYPSUM BOARD CEILINGS TO BE PAINTED (P-XXX), UNLESS NOTED OTHERWISE.
 N. ALL ACOUSTICAL CEILINGS TO BE (ACT-XX), UNLESS NOTED OTHERWISE.
- O. ALL WINDOW SILLS TO BE (SS-XX), UNLESS NOTED OTHERWISE.
- P. ALL RECEPTACLES, SWITCHES, COVER PLATES, ETC. ARE TO BE STAINLESS STEEL, UNLESS NOTED OTHERWISE.
 Q. WHERE PLASTIC LAMINATE GRAIN/PATTERN RETURN A CORNER, GRAIN/PATTERN TO RUN IN SAME DIRECTION ON ALL SIDES.

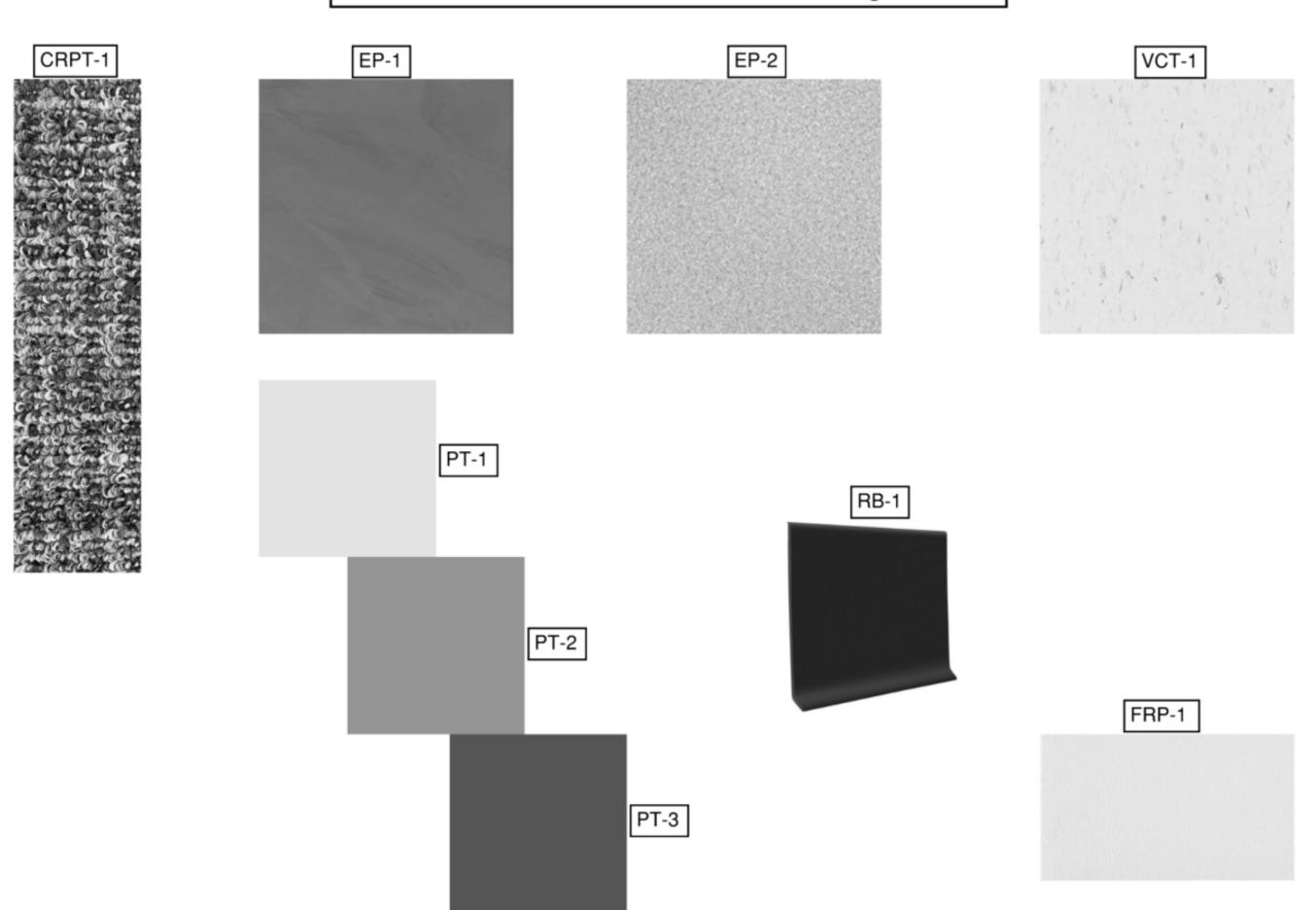




	ROOM FINISH SCHEDULE									
					WALL	FINISHES			CEILING	
ROOM#	NAME	FLOOR FINISH	BASE FINISH	NORTH	SOUTH	EAST	WEST	CEILING FINISH		COMMENTS
100	LOBBY	EP-1	RB-1	PT-1	PT-1	PT-1	PT-2	ACT1	8'-0"	
101	OFFICE	CRPT-1	RB-1	PT-1	PT-1	PT-3	PT-1	ACT1	8'-0"	
102	OFFICE	CRPT-1	RB-1	PT-1	PT-1	PT-3	PT-1	ACT1	8'-0"	
103	OFFICE	CRPT-1	RB-1	PT-3	PT-1	PT-1	PT-1	ACT1	8'-0"	
104	TRAINING OFFICE	CRPT-1	RB-1	PT-2	PT-1	PT-1	PT-1	ACT1	8'-0"	
105	GYM	-	-	-	-	-	-	EXP	10'-0 1/2"	
106	ORD STOR	SCONC	-	-	-	-	-	EXP	9'-7"	
107	STOR	SCONC	-	-	-	-	-	EXP	10'-0 1/2"	
108	STOR	SCONC	-	-	-	-	-	EXP	10'-0 1/2"	
109	OFFICE	SCONC	-	PT-1	PT-1	PT-1	PT-3	EXP	10'-0 1/2"	
110	DRILL HALL	EP-1	-	PT-1	PT-1	PT-1	PT-1	EXP	18'-11"	
111	HALL	SCONC	-	PT-1	PT-1	PT-1	PT-1	ACT1	8'-7 1/2"	
112A	OFFICE	CRPT-1	RB-1	PT-1	PT-3	PT-1	PT-1	ACT1	8'-7 1/2"	
112B	OFFICE	CRPT-1	RB-1	PT-1	PT-3	PT-1	PT-1	ACT1	8'-7 1/2"	
113	ELEC	SCONC	-	PT-1	PT-1	PT-1	PT-1	EXP	10'-0 1/2"	
114	OFFICE	CRPT-1	RB-1	PT-1	PT-3	PT-1	PT-1	ACT1	8'-0"	
115	CLASSROOM	VCT-1	RB-1	PT-1	PT-2	PT-1	PT-1	ACT1	8'-0"	
116	CLASSROOM	VCT-1	RB-1	PT-1	PT-2	PT-1	PT-1	ACT1	8'-0"	
117	MEN	EP-1	-	PT-1	PT-1	PT-1	PT-1	GYP1	8'-0"	SEE ELEVATION FOR SHOWER WALL EPOXY DETAILS 7' HEIGHT
118	MECH	SCONC	-	PT-1	PT-1	PT-1	PT-1	EXP	10'-0 1/2"	
119	WOMEN	EP-1	-	PT-1	PT-1	PT-1	PT-1	GYP1	8'-0"	SEE ELEVATION FOR SHOWER WALL EPOXY DETAILS 7' HEIGHT
120	KITCHEN	EP-1	-	PT-1/FRP	PT-1/FRP	PT-1/FRP	PT-1/FRP	ACT2	8'-0"	SEE ELEVATIONS FOR FRP UP TO 6' HIGH ON ALL WALLS.
121	OFFICE	CRPT-1	RB-1	PT-1	PT-1	PT-3	PT-1	ACT1	8'-0"	
122	OFFICE	CRPT-1	RB-1	PT-1	PT-1	PT-3	PT-1	ACT1	8'-0"	
123	OFFICE	CRPT-1	RB-1	PT-1	PT-3	PT-1	PT-1	ACT1	8'-0"	

	FINISH AND MATERIAL SCHEDULE							
SYMBOL	DESCRIPTION	MANUFACTURER	STYLE	MODEL#	COLOR	SIZE	FINISH	REMARKS
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	1912TEMP	-	WHITE	24" X 48"	-	FOR GENERAL AREAS
ACT-2	ACOUSTIC CEILING TILE	ARMSTRONG	1959	-	WHITE	24" X 48"	-	KITCHEN
GYP-1	GYPSUM BOARD	USG	-	-	WHITE	-	-	BATHROOMS
PT-1	PAINT	PPG	-	PPG1036-1	GRAY GLIMPSE	-	SEMI-GLOSS	ALL OVER USE
PT-2	PAINT	PPG	-	PPG1012-5	STEEPLE GRAY	-	SEMI-GLOSS	ACCENT PAINT FOR GENERAL USE
PT-3	PAINT	PPG	-	PPG1162-7	DRAGONFLY	-	SEMI-GLOSS	ACCENT PAINT FOR OFFICE
CRPT-1	CARPET TILE	BENTLEY	LONG STORY SHORT	401033	LAMPOON	18" X 36"	-	FOR OFFICE MONOLITHIC LAY PATTERN
EP-1	EPOXY	LIQUID ELEMENTS	SMOOTH-DUO	-	HALIFAX RAIN	-	MATTE	FOR LOBBY FLOOR AND SHOWER WALLS
EP-2	EPOXY	LIQUID ELEMENTS	POLISHED	-	RAW CONCRETE	-	-	FOR KITCHEN AND BATHROOM FLOORS
RB-1	RUBBER BASE	JOHNSONITE BY TARKETT	TRADITIONAL	DC-40	BLACK B	6"	-	FOR ALL AREAS
ST	STAIN							WOOD DOORS
VCT-1	VINYL COMPOSITION TILE	TARKETT	VCT II	480	PURE WHITE	12" X 12"		FOR CLASSROOMS
SCOC	SEALED CONCRETE	-	-	-	-	-	-	FOR ALL OTHER AREAS
FRP-1	FIBERGLASS REINFORCED PANEL	ALTRO	PURAGUARD	W140/400	SEA SALT	4'X10'	GLOSS	FOR KITCHEN WALLS, SEE ELEVATIONS

St. Clair Readiness Center Material Design Board



STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR





OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL GUARD

ST. CLAIR READINESS CENTER

375 COMMERCIAL AVE. ST. CLAIR, MO 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

	REV.	DESCRIPTION	DATE				
	A	SD	12/06/2023				
	В	DD	02/16/2024				
	C	IFB	04/23/2024				

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CAD DWG FILE:

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DESIGNED BY:

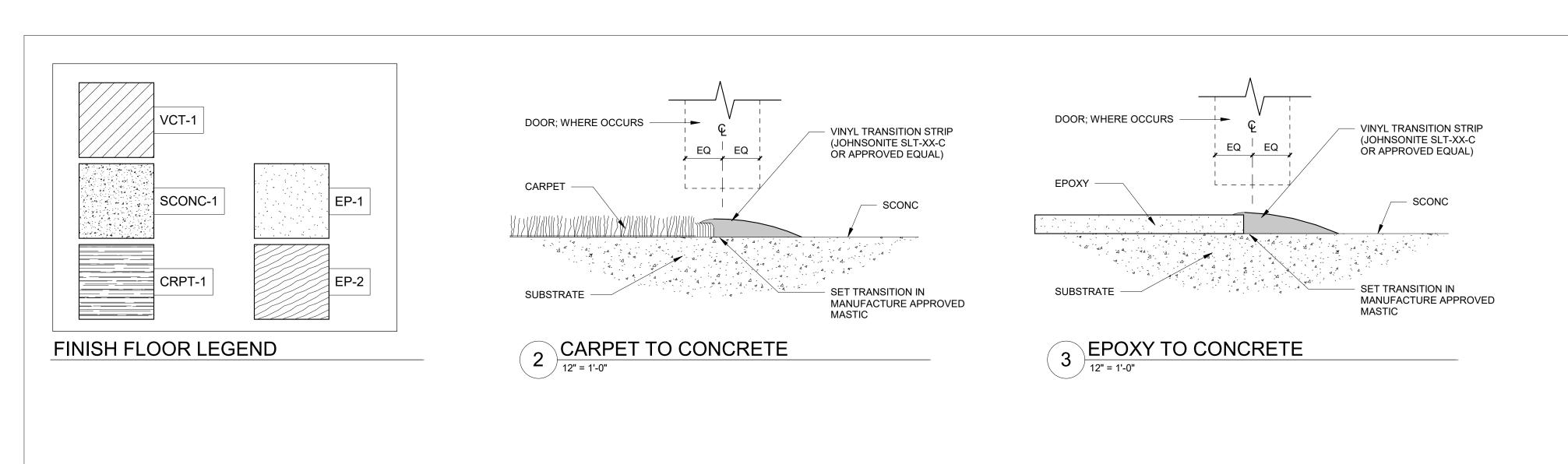
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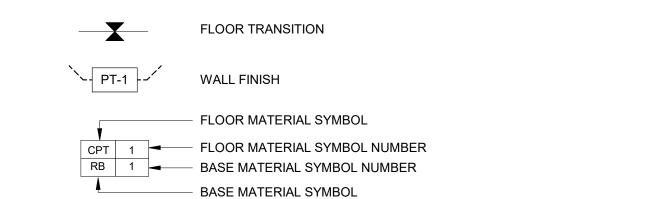
INTERIOR FINISH SCHEDULE AND LEGEND

SHEET NUMBER:

A800











OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL GUARD

ST. CLAIR READINESS CENTER

375 COMMERCIAL AVE. ST. CLAIR, MO 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

REV.	DESCRIPTION	DATE
A	DD	02/16/2024
В	IFB	04/23/2024
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ISSUE DATE: 2024.04.23

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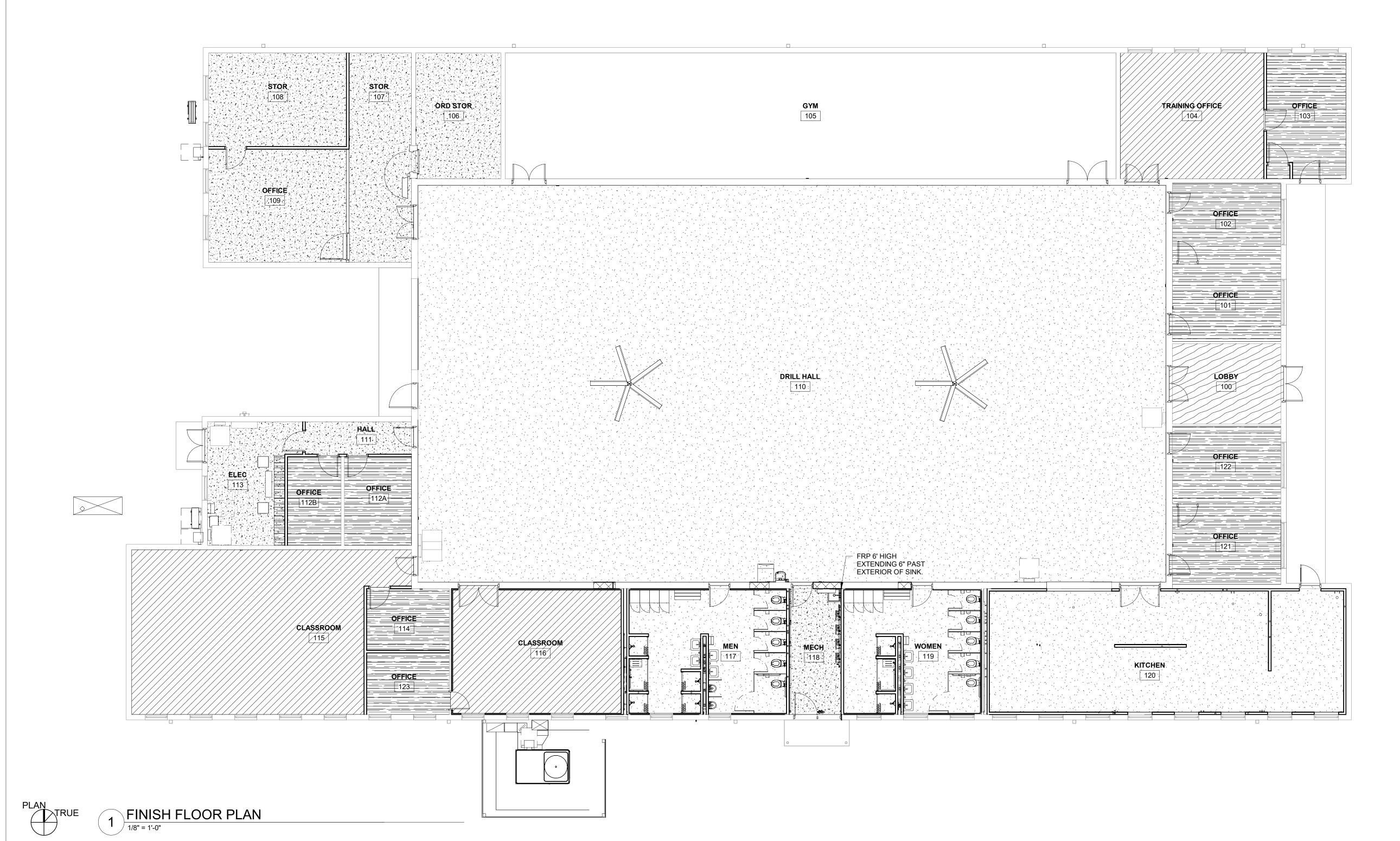
DESIGNED BY: JB

SHEET TITLE:

FINISH PLAN

SHEET NUMBER:

A810



MECHANICAL LEGEND

HVAC DUCTWORK SYMBOLS		HVAC PIPING SYMBOLS		HVAC GENERAL SYMBOLS		HVAC ABBREVIATIONS (CONTINUED)	
\otimes	ROUND ELBOW UP - SUPPLY	CD	CONDENSATE DRAIN LINE - HVAC	REVISION TAG	FLR	FLOOR	
	ROUND ELBOW UP - RETURN			# KEYED NOTE TAG	FCU	FAN COIL UNIT	
	NOUND ELDOW OF THE TORN	- — — -CHWR- — — -	CHILLED WATER RETURN		FSD	FIRE SMOKE DAMPER	
	ROUND ELBOW UP - EXHAUST	CHWS	CHILLED WATER SUPPLY	EQUIPMENT TAG	FTU	FAN TERMINAL UNIT	
	DOLIND EL DOW DOWN - OLIDBLY			SECTION DESIGNATION	FTR	FILTER	
	ROUND ELBOW DOWN - SUPPLY	- — — -CWR- — — -	CONDENSER WATER RETURN	## SHEET No. WHERE SECTION IS SHOWN	FV GALV	FAN GALVANIZED	
	ROUND ELBOW DOWN - RETURN	CWS	CONDENSER WATER SUPPLY		GPM	GALLONS PER MINUTE	
	ROUND ELBOW DOWN - EXHAUST			S-# SUPPLY DIFFUSER TAG ###	HP	HORSE POWER	
	ROUND ELBOW DOWN - EXHAUST	G	NATURAL GAS	R-# RETURN DIFFUSER TAG	HTG	HEATING	
	DUCTWORK POSITIVE PRESSURE (SUPPLY AIR OR FAN DISCHARGE)	- — — -GWR- — — -	GLYCOL WATER RETURN		HWP	HOT WATER PUMP	
	JP			E-# EXHAUST DIFFUSER TAG ###	KW	KILOWATT	
		———GWS———	GLYCOL WATER SUPPLY	HVAC ABBREVIATIONS	L	LOUVER	
	DUCT SECTION - RETURN	- — — —HPR— — — -	HIGH PRESSURE STEAM CONDENSATE		LS	SUPPLY LOUVER	
DN	JP			A/C AIR CONDITIONING	L/S	LITERS PER SECOND	
	DUCT SECTION - EXHAUST	HPS	HIGH PRESSURE STEAM	AFF ABOVE FINISHED FLOOR AHU AIR HANDLING UNIT	LWT	LEAVING WATER TEMPERATURE	
DN	JP	_ — — —HWR— — — –	(HEATING) HOT WATER RETURN	AP ACCESS PANEL	MCA	MINIMUM CIRCUIT AMPACITY	
	VOLUME DAMPER RECTANGULAR			AUX AUXILIARY	MOCP MEZZ	MAXIMUM OVER-CURRENT PROTECTION MEZZANINE	
		———HWS———	(HEATING) HOT WATER SUPPLY	BAS BUILDING AUTOMATED SYSTEM	OA	OUTSIDE AIR	
	DAOK DDAET DAMBED	- — — —LPR— — — -	LOW PRESSURE STEAM CONDENSATE	BHP BRAKE HORSE POWER	OAD	OUTSIDE AIR DAMPER	
	BACK DRAFT DAMPER			BTU BRITISH THERMAL UNITS	PS	POWER SUPPLY	
		LPS	LOW PRESSURE STEAM	BFP BACKFLOW PREVENTER	PVC	POLYVINYL CHLORIDE	
	MOTORIZED DAMPER	_ — — —MPR— — — -	MEDIUM PRESSURE STEAM CONDENSATE	CFM CUBIC FEET PER MINUTE	RA	RETURN AIR	
T			MESIGIN I RESSORE STEAM SOMBERS WE	CIR CIRCULATING	RLA	RATED LOAD AMPS	
	SMOKE DAMPER VERTICAL	MPS	MEDIUM PRESSURE STEAM	CLG CEILING	RM	ROOM	
		MUW	MAKE UP WATER LINE	CM CONTROL MODULE	RT	RETURN	
	SMOKE DAMPER AND FIRE DAMPER (VERTICAL)			CONN CONNECTION CONT CONTROL	SA	SUPPLY AIR	
		PD	CONDENSATE PUMP DISCHARGE	CV CONTROL VALVE	SAF SC	SUPPLY AIR FAN SENSIBLE COOLING	
	FLEX CONNECTION	RC	REFRIGERANT CIRCUIT, LIQUID/GAS RECIRCULATION	CU CONDENSING UNIT	SD	SMOKE DETECTOR	
TD 250mm			TELLIGERY AND SINCOTT, EIGOID/O/IC NEORGOLITHON	D DIFFUSERS	SOV	SHUT-OFF VALVE	
TD 250mm <u>→</u>	TOP OF DUCT FITTING DOWN 250 MM	- — — —RHG— — — –	REFRIGERANT HOT GAS LINE	DAC DOOR AIR CURTAIN	TC	TOTAL COOLING	
TU 250mm	TOP OF DUCT FITTING UP 250 MM		REFRIGERANT LIQUID LINE	DEH DEHUMIDIFIER	TYP	TYPICAL	
		1	THE THOLE WITE LIQUID LINE	DR DRY BULB	VAV	VARIBLE AIR VOLUME	
BD 250mm ►	BOTTOM OF DUCT FITTING DOWN 250 MM	RLR	REFRIGERANT LIQUID / GAS RECIRCULATION LINE	DN DOWN	V.D.	VOLUME DAMPER	
BU 250mm	BOTTOM OF DUCT FITTING UP 250 MM	RS	REFRIGERANT SERVICE COMPRESSOR SUCTION	DR DRAIN	VOL	VOLUME	
				DX DIRECT EXPANSION	VEF	VENTILATION EXHAUST FAN	
	AIR DIFFUSER - SUPPLY		VENT (MECHANICAL)	EA EACH EAT ENTERING AIR TEMPERATURE	VRF	VARIABLE REFRIGERANT FLOW	
	AIR DIFFUSER - RETURN		LEVER MANUAL VALVE	ECM ELECTRONICALLY COMMUTATED MOTOR	VTR WB	VENT THROUGH ROOF WET BULB	
				EMCS ENERGY MONITORING CONTROL SYSTEM	***	WEI BOLD	
	AIR DIFFUSER - EXHAUST		THREE-WAY VALVE	EMER EMERGENCY			
	DEMO DIFFUSER		BALL VALVE	EMS ENERGY MONITORING SYSTEM			
		_	DALL VALVE	ENT ENTRANCE			
	DEMO DUCT		BUTTERFLY VALVE	ESP EXTERNAL STATIC PRESSURE			
	HVAC CONTROL SYMBOLS		UNION FITTING	EWC ELECTRIC WATER COOLING			
	THEDMOSTAT	-		EWT ENTERING WATER TEMPERATURE			
(1)	THERMOSTAT		CHECK VALVE	EXH EXHAUST			
TS	SPACE TEMPERATURE SENSOR			FCU FAN COIL UNIT FD FLOOR DRAIN			
Н	HUMIDISTAT			FLA FULL LOAD AMPS			
(SP)	STATIC PRESSURE SENSOR			FLEX FLEXIBLE			
SD	SMOKE DETECTOR						

GENERAL NOTES - MECHANICAL HVAC

- 1. GENERAL NOTES, SYMBOL LIST AND DETAILS ARE APPLICABLE TO ALL HVAC/MECHANICAL
- COORDINATE THIS WORK WITH THAT OF OTHER TRADES.
- VERTICAL EXCEPT IN WAY OF STRUCTURAL STEEL, DIMENSIONS ARE MEASURED PERPENDICULAR TO FLANGE.
- 4. MANUFACTURERS MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF
- QUALITY FOR PERFORMANCE AND MATERIALS.
 5. PRODUCT INSTALLATION SHALL ADHERE TO MANUFACTURERS RECOMMENDATIONS.
- 6. PROVIDE ACCESS PANELS IN NON-ACCESSIBLE GENERAL CONSTRUCTION SUBSTRATES FOR MAINTENANCE AND ADJUSTMENT OF ALL CONCEALED DAMPERS, AIR CONTROL DEVICES, CONTROL DEVICES/INSTRUMENTATION, EQUIPMENT AND DUCTWORK ACCESS DOORS. WOOD, GYPSUM DRYWALL AND CONCEALED SPLINE CEILINGS ARE CONSIDERED NON-ACCESSIBLE.
- PROVIDE HANGERS, INSERTS, ANCHORS, SUPPLEMENTAL STEEL & SUPPORTS AS REQUIRED TO SUPPORT DUCTWORK, PIPING AND EQUIPMENT FROM STRUCTURE.

 COORDINATE ROOF PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING

DIMENSIONS SHOWN ON PLAN ARE HORIZONTAL. DIMENSIONS SHOWN IN ELEVATION ARE

- REQUIREMENTS.

 9. RUN DUCTS AND PIPING CONCEALED, UNLESS OTHERWISE SPECIFIED AND CLEAR OF CEILING
- 9. RUN DUCTS AND PIPING CONCEALED, UNLESS OTHERWISE SPECIFIED AND CLEAR OF CEILING INSERTS.
- . INSTALL AND CONTROL PANELS 4' ABOVE FINISHED FLOOR OR AS DIRECTED OTHERWISE BY ARCHITECT.
- ANY WELDING SHALL BE 1/4" FILLET UNLESS REQUIRED OTHERWISE.

 ALL PERSONNEL TO UTILIZE SAFETY HARNESS AND LINE WHEN PERFORMING ANY INSPECTION OR WORK ON THE ROOF IN ACCORDANCE WITH OSHA FALL PROTECTION REQUIREMENTS.

GENERAL DEMOLITION NOTES - MECHANICAL HVAC

- 1. THE DRAWINGS DEPICT ONLY GENERALLY THE EXISTING CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD OBSERVATIONS AND CONFIRM THE LOCATIONS OF EXISTING HVAC
- EQUIPMENT THAT NEED TO BE RELOCATED AND ASSOCIATED PIPING AND DUCTWORK.

 2. DEMOLITION WORK SHALL BE DONE BY THE MECHANICAL CONTRACTOR. CONTRACTOR SHALL FOLLOW STANDARD DEMOLITION PROCEDURES TO REMOVE THE EXISTING PIPING AND/OR DUCTWORK AND THE EXISTING HVAC EQUIPMENT. CONTRACTOR TO COORDINATE THE DEMO WITH OWNER AND OTHER TRADES.
- 3. THE CONTRACTOR IS RESPONSIBLE TO FOLLOW BUILDING MANAGEMENT RULES WITH REGARD
- TO TRASH AND NOISE.

 4. THE CONTRACTOR SHALL MAINTAIN IN OPERATION ALL EXISTING UTILITIES DURING
- 5. ALL DEMOLITION WORK WILL BE SCHEDULED WITH BUILDING MANAGEMENT AND PERFORMED
- ONLY FOLLOWING APPROVAL.
 6. THE CONTRACTOR SHALL INFORM BUILDING MANAGEMENT AND RECEIVE SCHEDULE APPROVAL
- FOR ANY REQUIRED UTILITY SHUTDOWN.
 7. PATCH WALL AND/OR CEILING/ROOF LOCATIONS AFFECTED BY DEMOLITION/RELOCATION WORK
- TO MATCH ADJACENT SURFACES.

 ANY PIDING/DUCTWORK SHOWN TO BE DEMOVED SHALL INCLUDE DEMOVAL OF ALL
- 8. ANY PIPING/DUCTWORK SHOWN TO BE REMOVED SHALL INCLUDE REMOVAL OF ALL ASSOCIATED FITTINGS, CONNECTIONS, HANGERS, INSULATION, ETC.

GENERAL NOTES - AIR SYSTEMS

- 1. AIR SYSTEMS REFER TO ARCHITECT REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF AIR
- DEVICES.
 2. INTERNAL AIRFLOW DIMENSIONS ARE SHOWN FOR DUCTS. INCREASE DUCT SIZE AS
- NECESSARY TO MAINTAIN FREE FLOW AREA INDICATED.
- USE FLAT TRANSVERSE SEAM FOR DUCTWORK WHERE SPACE AVAILABLE DICTATES.
 DIFFUSER SIZES SHOWN ARE NECK SIZES. REGISTERS AND GRILLE SIZES ARE NOMINAL.
 PROVIDE VOLUME DAMPERS OR OTHER APPROVED BALANCING DEVICES AT DUCT BRANCHES
- AND RUN OUTS.

 SPONTE OF A LIFE CONTROL BANGE IN FRONT OF A LIFE CONTROL BANGE OF A LIFE CONTROL BANGE
- 6. PROVIDE 3.3 FT CLEARANCE IN FRONT OF ALL ELECTRIC CONTROL PANELS PER N.E.C. AND MFG. REQUIREMENTS.

GENERAL NOTES - PIPING SYSTEMS

- 1. REFRIGERANT PIPING SHALL BE TYPE ACR DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS AND BRAZED JOINTS ABOVE GROUND WITHIN BUILDING. TYPE K ANNEALED TEMPER COPPER TUBING FOR 2 INCHES AND SMALLER WITHOUT JOINTS.
- 2. REFRIGERANT PIPE SHALL BE INSTALLED IN THE SHORTEST AND MOST DIRECT ARRANGEMENT
- AS POSSIBLE.
 3. REFRIGERANT SUCTION LINES SHALL BE INSULATED.
- 4. CONDENSATE DRAIN LINES SHALL BE EITHER TYPE L DRAWN TEMPER COPPER TUBING WITH
- SOLDERED JOINTS OR SCHEDULE 40 PVC PIPE WITH SOLVENT WELDED JOINTS.

 5. PITCH PIPING 1:240 IN DIRECTION OF FLOW.
- 5. PITCH PIPING 1:240 IN DIRECTION OF FLOW.6. PROVIDE TRAPS IN ALL CONDENSATE LINES.

GENERAL NOTES - INSULATION

- EXTERIOR AND INTERIOR REFRIGERANT SUCTION AND HOT GAS BY-PASS PIPING SHALL BE INSULATED WITH EITHER CELLULAR GLASS, FLEXIBLE ELASTOMERIC OR CLOSED CELL TYPE INSULATION WITH VAPOR BARRIER AND FIELD APPLIED JACKET.
- INTERIOR CONDENSATE DRAIN SHALL BE INSULATED WITH EITHER CELLULAR GLASS, FLEXIBLE ELASTOMERIC OR CLOSED CELL TYPE INSULATION WITH VAPOR BARRIER.
- FLEXIBLE ELASTOMERIC OR CLOSED CELL TYPE INSULATION WITH VAPOR BARRIER.

 3. INTERIOR HEATING/COOLING SUPPLY AND RETURN DUCTWORK AND PLENUMS SHALL BE
- INSULATED WITH EXTERIOR BLANKET OR BOARD INSULATION WITH VAPOR BARRIER.

 4. EXTERIOR HEATING OR COOLING SUPPLY AND RETURN DUCTWORK AND PLENUMS SHALL BE INSULATED WITH EXTERIOR BLANKET OR BOARD INSULATION WITH VAPOR BARRIER AND PROTECTIVE COVER/JACKET.

GENERAL NOTES - GAS PIPING

- LOW PRESSURE GAS STOPS, 2 INCHES AND SMALLER SHALL BE AGA CERTIFIED DESIGN FOR 2 PSIG OR LESS NATURAL GAS, WITH AGA STAMP, PLUG OR BALL TYPE, BRONZE BODY AND
- BRONZE PLUG.

 GAS VALVES 2 INCHES AND SMALLER SHALL BE RATED FOR 150 PSI WOG, BRONZE BODY, BRONZE PLUG, STRAIGHT-AWAY PATTERN SQUARE HEAD, TAPERED PLUG TYPE, WITH
- THREADED ENDS.

 GAS VALVES 2-1/2 INCHES AND LARGER, CLASS 125 OR 175 WOG, LUBRICATED PLUG TYPE,
- SEMI-STEEL BODY, WRENCHED OPERATED WITH FLANGED ENDS.

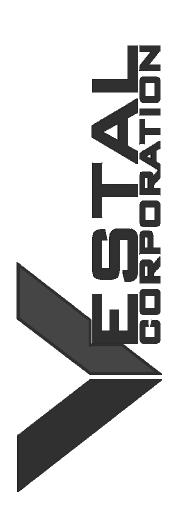
 4. EARTHQUAKE ACTUATED AUTOMATIC SHUTOFF VALVES SHALL BE MECHANICAL OPERATION WITH THREADED ENDS FOR 2 INCHES AND SMALLER AND FLANGED ENDS FOR 2-1/2 INCHES
- AND LARGER.
 5. GAS SHUTOFF VALVE SHALL BE PROVIDED DOWNSTREAM OF GAS METER, OUTSIDE
- BUILDING AT GAS SERVICE ENTRANCE.
- 6. NATURAL GAS PIPING ABOVE GROUND WITHIN BUILDING SHALL BE STEEL PIPE, BUTT WELDING FITTINGS AND WELDED JOINTS.
- WELDING FITTINGS AND WELDED JOINTS.
 7. PROVIDE GAS VALVES FOR SHUT-OFF TO APPLIANCES.
- 8. GAS PIPING MAY BE INSTALLED IN ACCESSIBLE ABOVE CEILING SPACES, HOWEVER LOCATION OF VALVES IN SUCH SPACES ARE PROHIBITED.
- 9. DO NOT INSTALL GAS PIPING IN OR THROUGH CIRCULATING AIR DUCTS, CLOTHES OR TRASH CHUTES, CHIMNEYS OR GAS VENTS (FLUES), VENTILATING DUCTS, OR DUMBWAITER OR ELEVATOR SHAFTS.

GENERAL NOTES - PACKAGED OUTDOOR EQUIPMENT

- 1. ROOF CURB SHALL BE MANUFACTURER'S STANDARD CONSTRUCTION, INSULATED AND HAVE A CORROSIVE PROTECTIVE COATING, COMPLETE WITH FACTORY INSTALLED WOOD NAILER AND DRAIN NIPPLE.
- 2. ROOF TOP UNITS SHALL BE EQUIPPED WITH LOW AMBIENT CONTROL DESIGNED TO OPERATE AT TEMPERATURES DOWN TO 0 DEG. F.
- 3. GROUND MOUNTED CONDENSERS SHALL BE INSTALLED 4 INCH THICK REINFORCED CONCRETED PAD, 4 INCHES LARGER ON EACH SIDE THAN THE CONDENSING UNIT.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR





OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL GUARD

STATE OF MISSOURI -ST. CLAIR READINESS CENTER

375 SOUTH COMMERCIAL AVENUE, ST. CLAIR MISSOURI 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

	REV.	DESCRIPTION	DATE
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	В	DD	2024.02.19
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ISSUE DATE: 2023.12.06

CAD DWG FILE:

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SHEET TITLE:

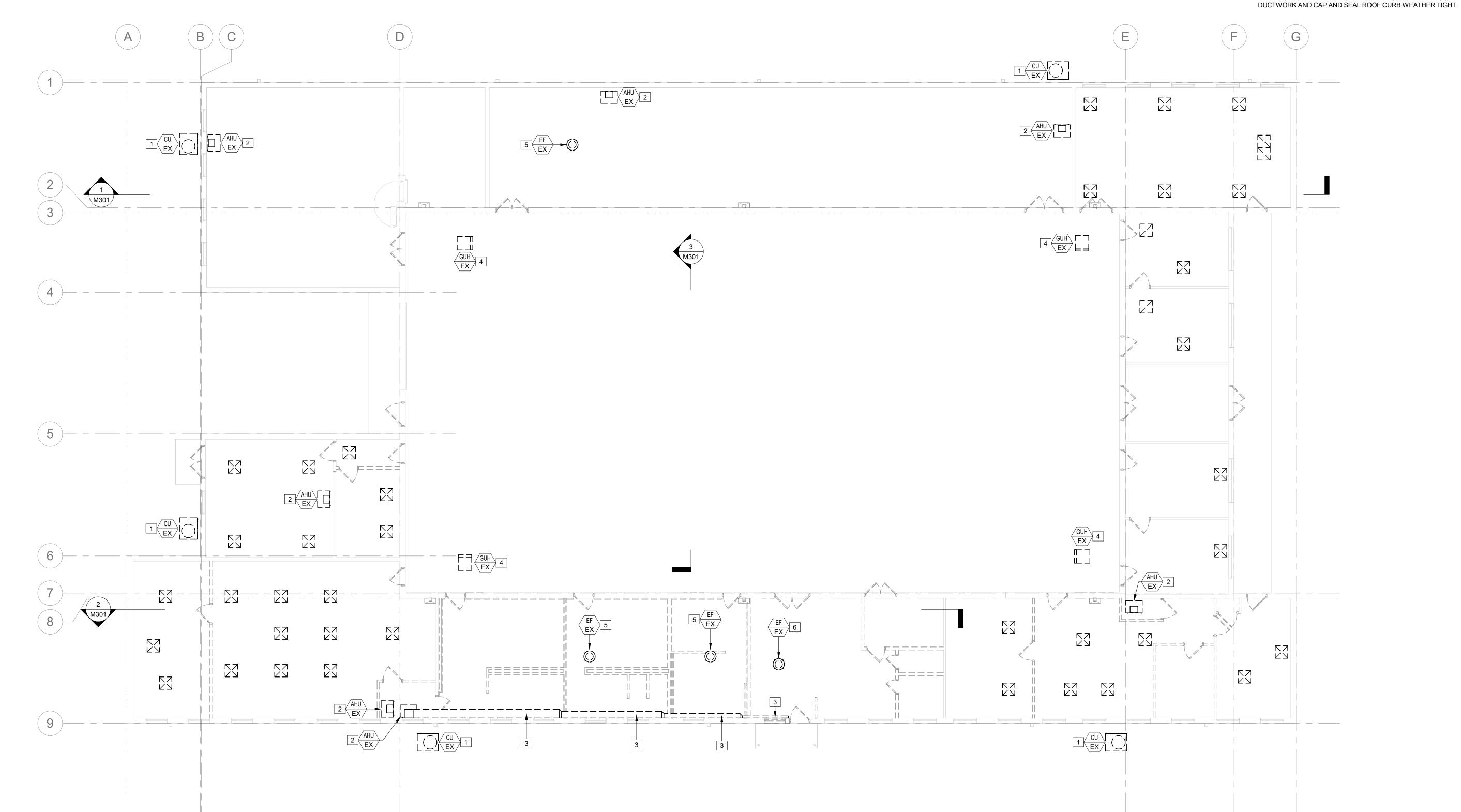
MECHANICAL LEGEND

SHEET NUMBER:

M00

KEYED NOTES:

- EXISTING OUTDOOR CONDENSING UNIT AND ASSOCIATED POWER AND REFRIGERANT LINE TO BE DEMOLISHED AND DISPOSED OF.
- EXISTING AIR HANDLING UNIT/FURNACE AND ASSOCIATED GAS PIPING AND FLUE DUCTWORK TO BE DEMOLISHED AND DISPOSED OF. GAS PIPING TO BE DEMOLISHED BACK TO MAIN SERVICE LINE AT THE GAS METER IN THE SOUTH FACE OF BUILDING. PATCH ALL WALL AND/OR ROOF PENETRATIONS ACCORDINGLY.
- EXISTING DUCTWORK AND ASSOCIATED HANGERS TO BE DEMOLISHED AND DISPOSED OF.
- EXISTING GAS UNIT HEATERS (GUH) TO BE REMOVED AND DISPOSED OF. GAS PIPING TO BE DEMOLISHED BACK TO MAIN SERVICE LINE AT THE GAS METER IN THE SOUTH FACE OF BUILDING. ASSOCIATED FLUE DUCTWORK TO REMAIN FOR INSTALLATION OF NEW UNITS.
- EXISTING ROOF EXHAUST FAN TO BE DEMOLISHED AND DISPOSED OF. CAP AND SEAL ROOF CURB WEATHER TIGHT.
- EXISTING ROOF EXHAUST VENTILATOR SERVING RANGE HOOD TO BE DEMOLISHED AND DISPOSED OF. DEMOLISH ALL ASSOCIATED



GROUND FLOOR PLAN - HVAC DEMO

MD101 SCALE: 1/8" = 1'-0"

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**





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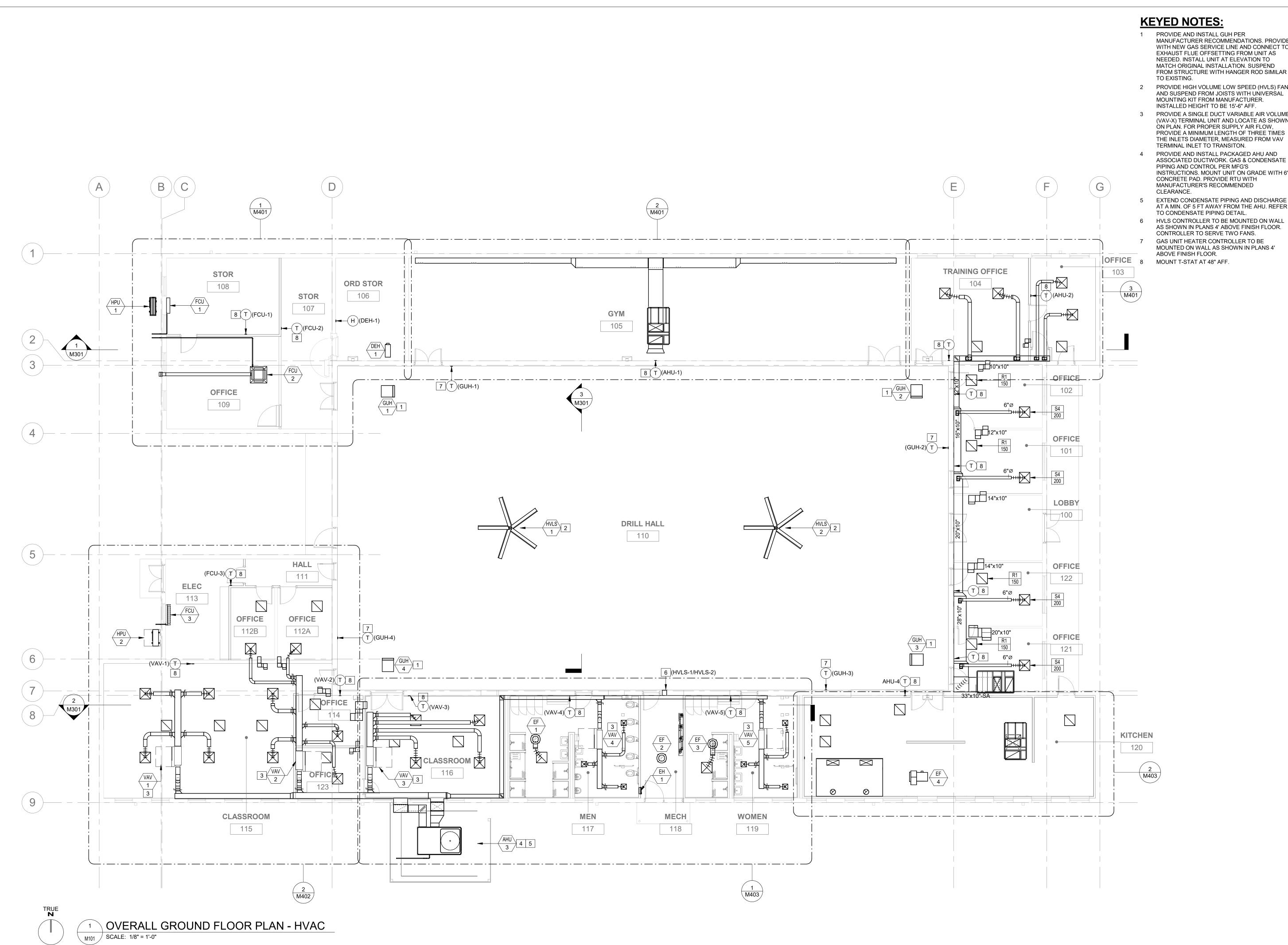
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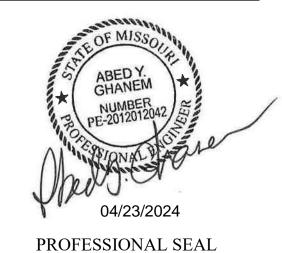
GROUND FLOOR PLAN - HVAC DEMO

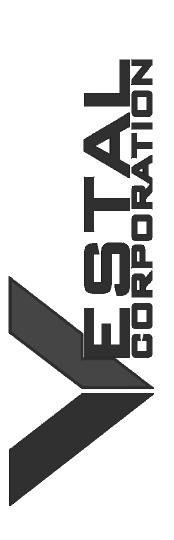
SHEET NUMBER:

MD101



- PROVIDE AND INSTALL GUH PER MANUFACTURER RECOMMENDATIONS. PROVIDE WITH NEW GAS SERVICE LINE AND CONNECT TO EXHAUST FLUE OFFSETTING FROM UNIT AS NEEDED. INSTALL UNIT AT ELEVATION TO MATCH ORIGINAL INSTALLATION. SUSPEND
- 2 PROVIDE HIGH VOLUME LOW SPEED (HVLS) FAN AND SUSPEND FROM JOISTS WITH UNIVERSAL
- INSTALLED HEIGHT TO BE 15'-6" AFF. 3 PROVIDE A SINGLE DUCT VARIABLE AIR VOLUME (VAV-X) TERMINAL UNIT AND LOCATE AS SHOWN ON PLAN. FOR PROPER SUPPLY AIR FLOW, PROVIDE A MINIMUM LENGTH OF THREE TIMES THE INLETS DIAMETER, MEASURED FROM VAV TERMINAL INLET TO TRANSITON.
- PROVIDE AND INSTALL PACKAGED AHU AND ASSOCIATED DUCTWORK. GAS & CONDENSATE PIPING AND CONTROL PER MFG'S INSTRUCTIONS. MOUNT UNIT ON GRADE WITH 6" CONCRETE PAD. PROVIDE RTU WITH MANUFACTURER'S RECOMMENDED
- EXTEND CONDENSATE PIPING AND DISCHARGE AT A MIN. OF 5 FT AWAY FROM THE AHU. REFER TO CONDENSATE PIPING DETAIL.
- AS SHOWN IN PLANS 4' ABOVE FINISH FLOOR. CONTROLLER TO SERVE TWO FANS. GAS UNIT HEATER CONTROLLER TO BE MOUNTED ON WALL AS SHOWN IN PLANS 4' ABOVE FINISH FLOOR. MOUNT T-STAT AT 48" AFF.





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OVERALL GROUND FLOOR PLAN - HVAC

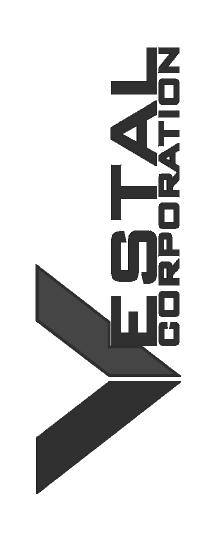
SHEET NUMBER:

SAFETY NOTE:

1. ALL HVAC PERSONNEL SHALL UTILIZE SAFETY HARNESS OR FALL ARREST/ANACHORING SYSTEM WHEN PERFORMING ANY WORK ON THE ROOF IN ACCORDANCE WITH OSHA FALL PROTECTION REQUIREMENTS. SAFETY SIGNS/LABLES SHALL BE POSTED ON ALL EXTERIOR WALLS WHERE ACCESS IS PERMITTED TO THE HAVC EQUIPMENT ON THE ROOF.

KEYED NOTES:

- PROVIDE AHU, MOUNT ON MANUFACTURERS 14" ROOF CURB AND INSTALL UNIT AND ASSOCIATED DUCTWORK, PIPING & CONTROL PER MANUFACTURER'S INSTRUCTIONS. COORDINATE DUCTS DROPS WITH EXISTING ROOF FRAMING. ROUTE CONDENSATE PIPING TO SCUPPER DRAINS AS SHOWN IN PLAN.
- PROVIDE EXHAUST/GREASE FAN AND MOUNT ON MANUFACTURER'S 14" EQUIPMENT ROOF CURB. INSTALL UNIT AND ASSOCIATED DUCT AND CONTROLS PER MANUFACTURER'S INSTRUCTIONS. SLOPE DUCTWORK AT MINIMUM OF 2%. REFER TO SCHEDULE AND DETAIL FOR MORE INFORMATION. INTERLOCK WITH MAU-1 AND KITCHEN HOOD SWITCH.
- PROVIDE MAU, MOUNT ON MANUFACTURERS 14" ROOF CURB AND INSTALL UNIT AND ASSOCIATED DUCTWORK, GAS PIPING & CONTROL PER MANUFACTURER'S INSTRUCTIONS. INTERLOCK WITH EF-4 AND KITCHEN HOOD SWITCH.
- ROUTE DUCT ON THE ROOF AND PROVIDE A MIN R-VALUE OF 8 FOR THE MAKEUP AIR DUCT. SUPPORT DUCT ON THE ROOF PER SMACNA STANDARDS.
- PROVIDE ROOF CURB FOR DUCT PENETRATION THRU THE ROOF. PENETRATION SHALL BE WEATHER TIGHT.
- COMBUSTION AIR INTAKE AND EXHAUST PENETRATE THROUGH ROOF FOR TANKLESS WATER HEATERS.
- SLOPE DUCTWORK AT MINIMUM 2% DOWN TO KITCHEN HOOD. REFER TO DETAIL #1
- DISCHARGE CONDENSATE PIPING NEAR SCUPPER DRAINS AS SHOWN IN PLAN.



STATE OF MISSOURI MICHAEL L. PARSON,

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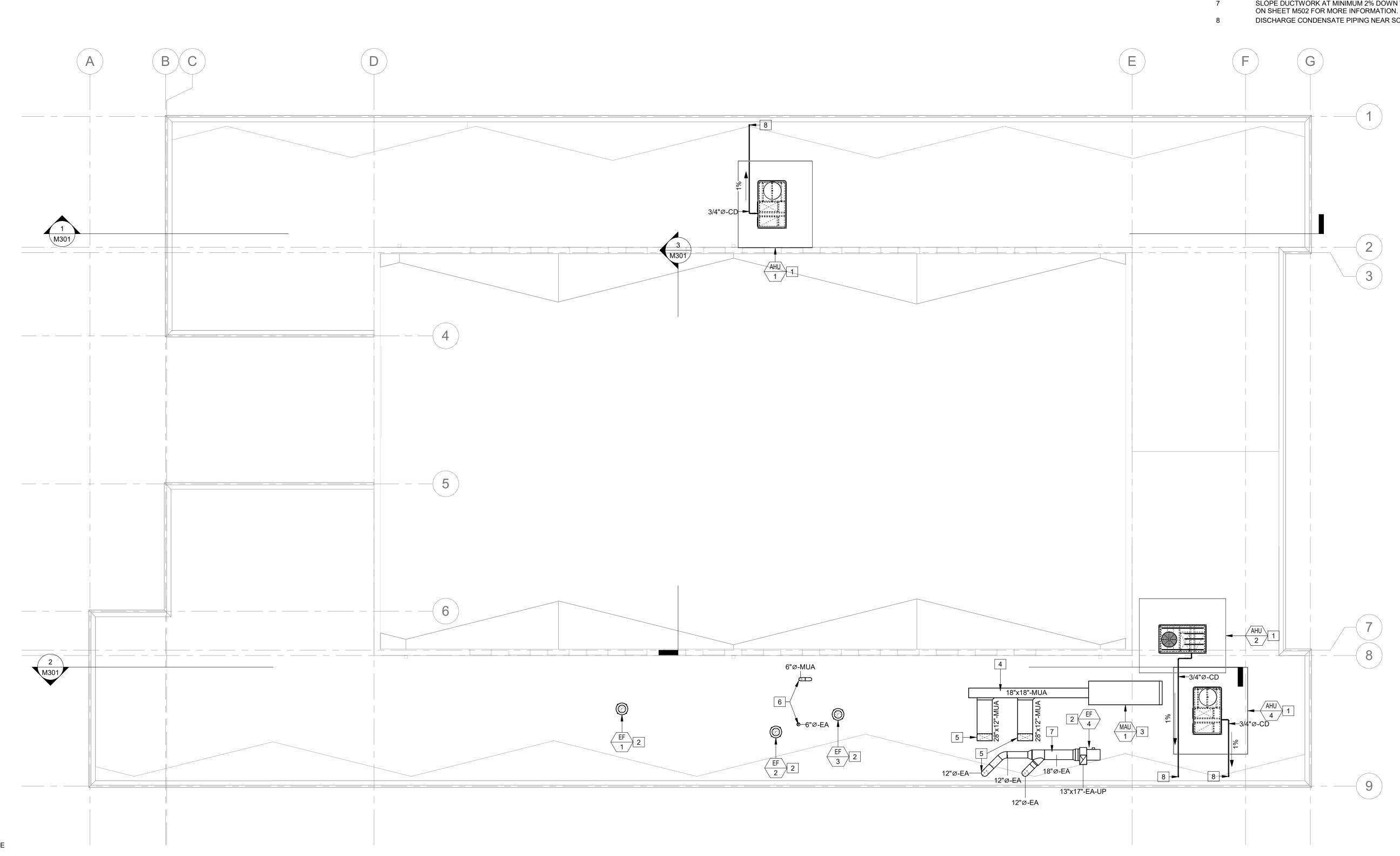
SHEET TITLE:

OVERALL ROOF PLAN - HVAC

SHEET NUMBER:

M102

37 OF 85 SHEETS 2024.04.23



OVERALL ROOF PLAN - HVAC

M102 SCALE: 1/8" = 1'-0"



1. ALL HVAC PERSONNEL SHALL UTILIZE SAFETY HARNESS OR FALL ARREST/ANACHORING SYSTEM WHEN PERFORMING ANY WORK ON THE ROOF IN ACCORDANCE WITH OSHA FALL PROTECTION REQUIREMENTS. SAFETY SIGNS/LABLES SHALL BE POSTED ON ALL EXTERIOR WALLS WHERE ACCESS IS PERMITTED TO THE HAVC EQUIPMENT ON THE ROOF.

KEYED NOTES:

- PROVIDE GAS TO EACH UNIT AND INSTAL PER MFG'S INSTRUCTIONS. REFER TO
- PROVIDE NATURAL GAS SEISMIC SHUT-OFF VALVE TO SHUT OFF THE GAS FLOW TO THE BUILDING DURING AN EARTHQUAKE EVENTS. USE PACIFIC SEISMIC
- FILED VERIFY THAT AN EXISITNG GAS METER IS ADEQUATE TO ACCOMMODATE THE GAS LOAD OF 3,310 MBH. COORDINATE WITH LOCAL GAS PROVIDER AS NEEDED TO REPLACE THE EXISTING GAS METER, AS NEEDED. GAS PIPING IS SIZED BASED ON DELIVERY PRESUURE OF 2 PSIG AT THE METER'S DISCHARGE. FIELD VERIFY SIZE AND LOCATION OF EXOSTING GAS METER.
- PROVIDE AN EMERGENY SHUT-OFF VALVE TO SHUT OFF THE GAS FLOW TO THE KITCHEN COOKING APPLIANCES. THE VALVE SHALL NOT BE LOCATED MORE THAN 6 FT OF THE SERVING APPLIANCES.



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STATE OF MISSOURI MICHAEL L. PARSON,

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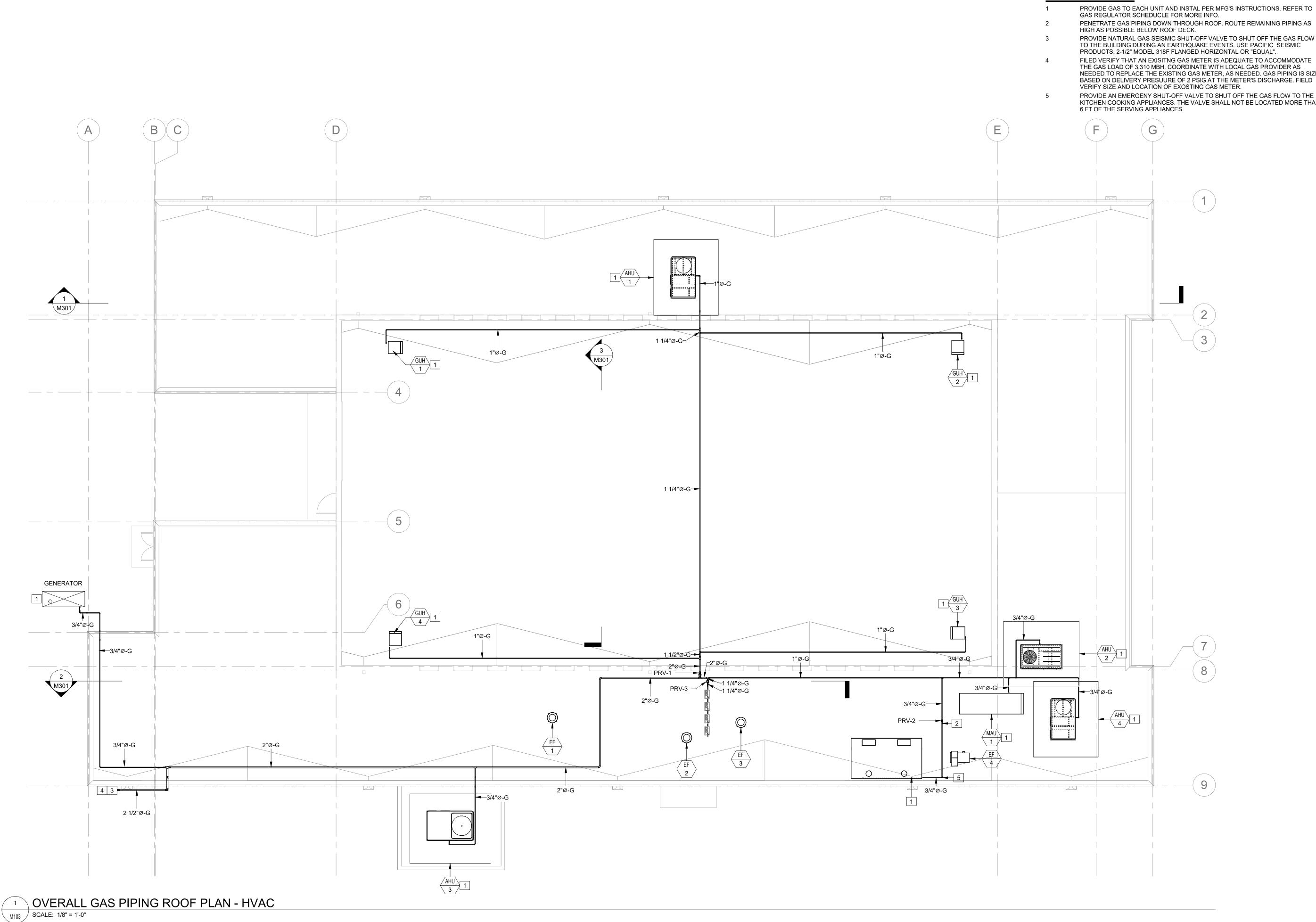
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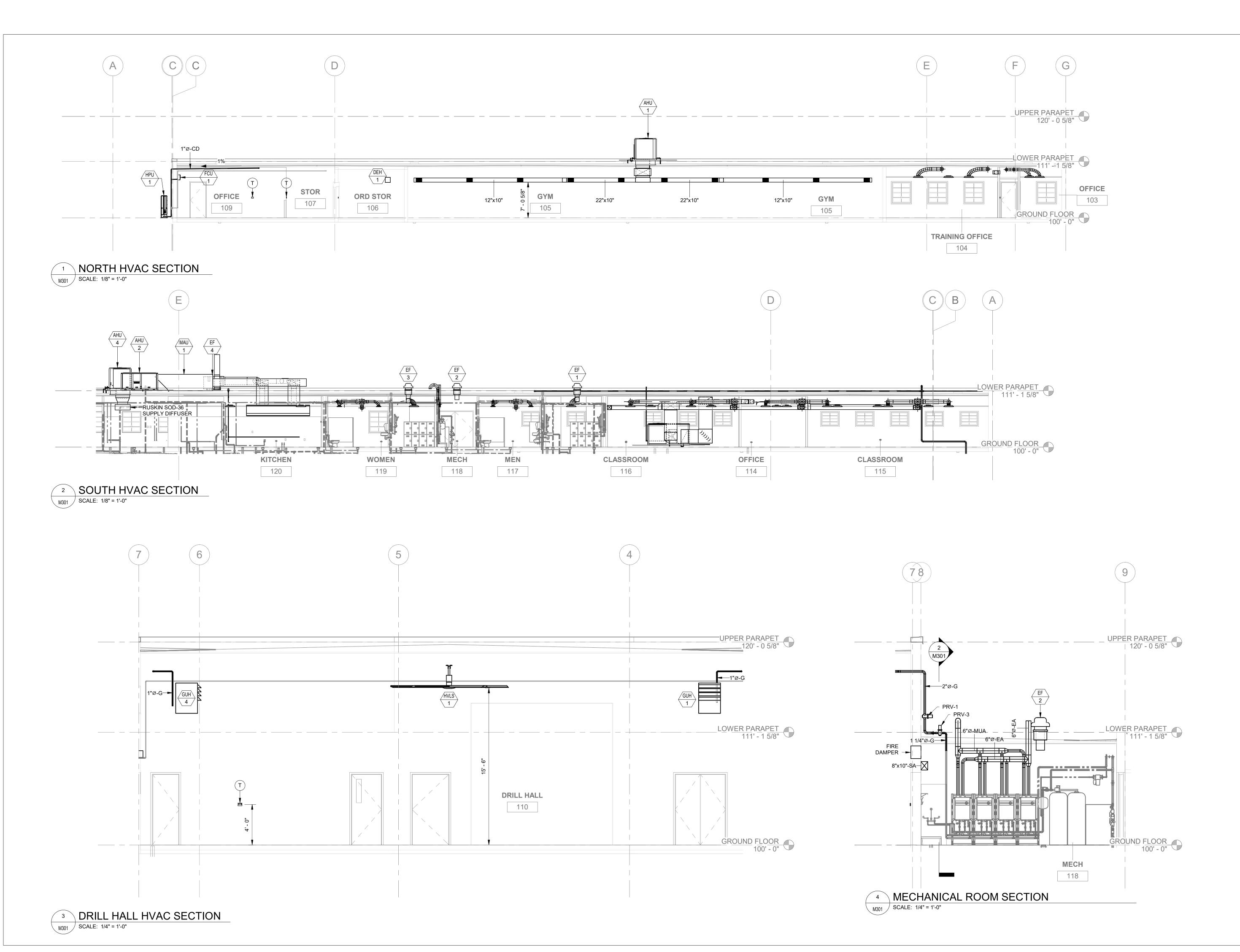
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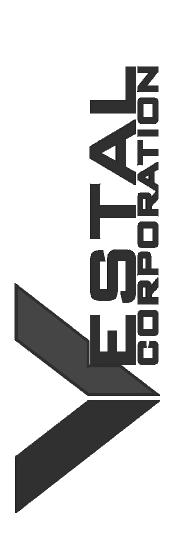
OVERALL GAS PIPING PLAN - HVAC

SHEET NUMBER:









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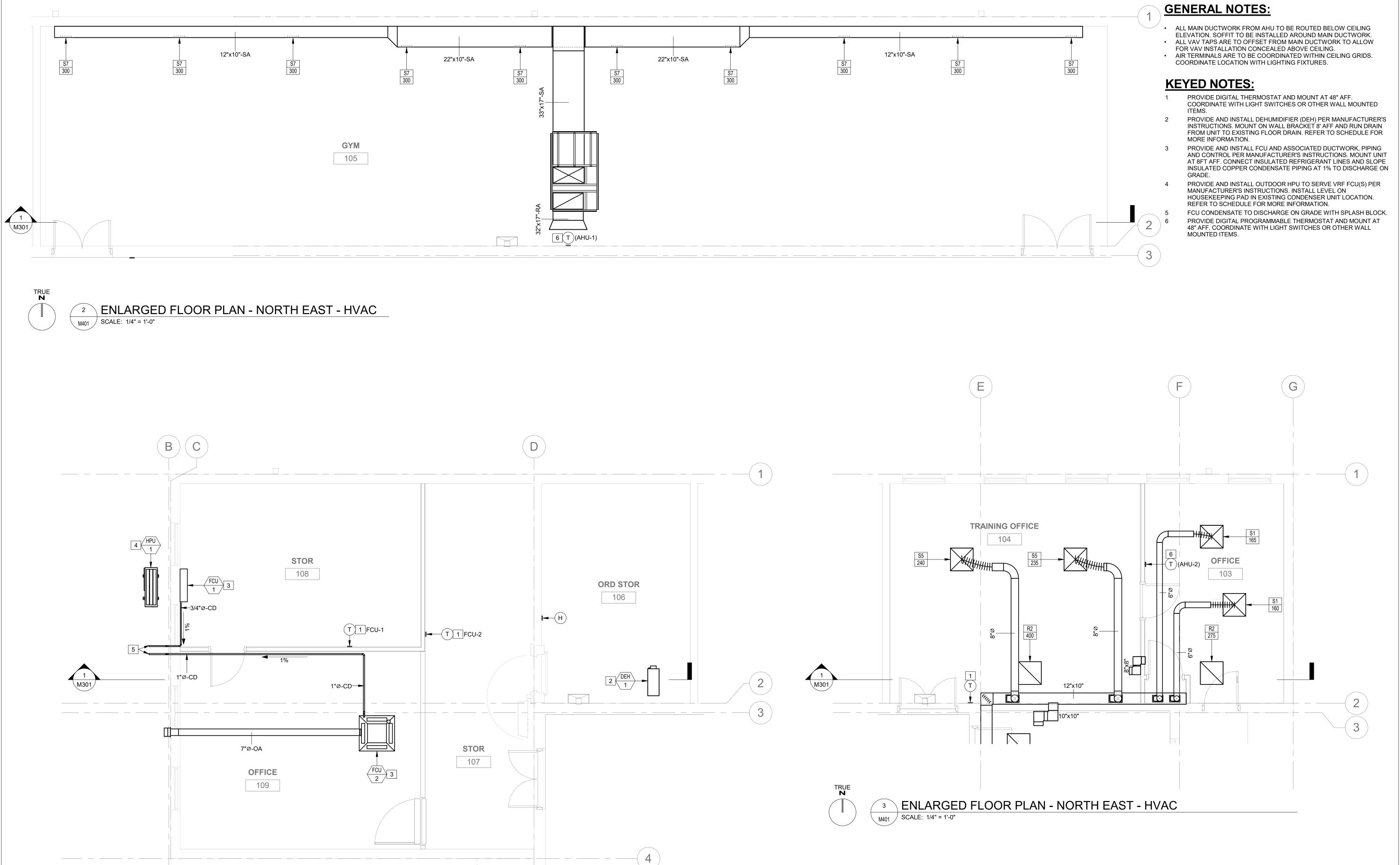
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SHEET TITLE:

HVAC SECTIONS

SHEET NUMBER:

M301

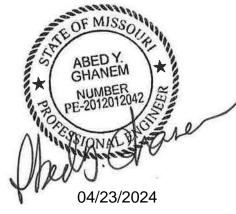


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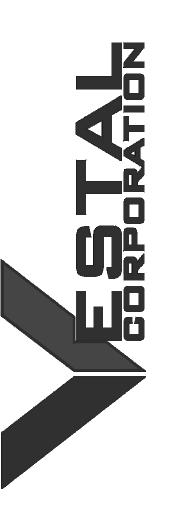
ENLARGED FLOOR PLAN - NORTH STORAGE - HVAC

STATE OF MISSOURI MICHAEL L. PARSON.

MICHAEL L. PARSON, GOVERNOR



PROFESSIONAL SEAL



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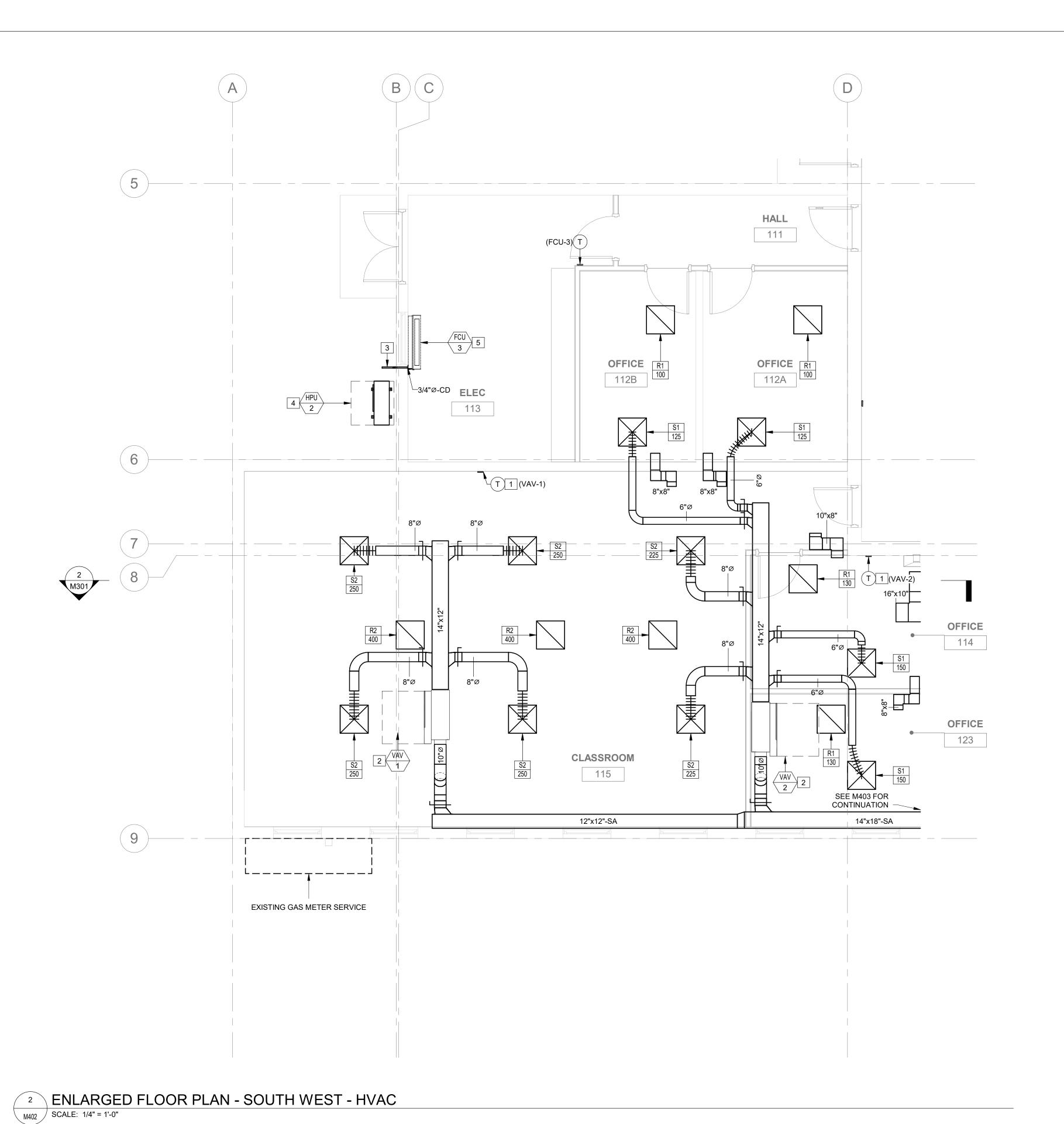
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SHEET TITLE:

ENLARGED FLOOR PLANS - HVAC

SHEET NUMBER:

M401



GENERAL NOTES:

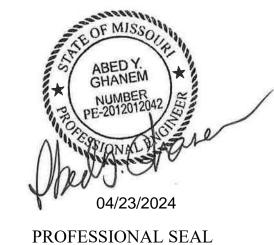
- ALL MAIN DUCTWORK FROM AHU TO BE ROUTED BELOW CEILING ELEVATION. SOFFIT TO BE INSTALLED AROUND MAIN DUCTWORK.
- ALL VAV TAPS ARE TO OFFSET FROM MAIN DUCTWORK TO ALLOW
- FOR VAV INSTALLATION CONCEALED ABOVE CEILING. AIR TERMINALS ARE TO BE COORDINATED WITHIN CEILING GRIDS. COORDINATE LOCATION WITH LIGHTING FIXTURES.

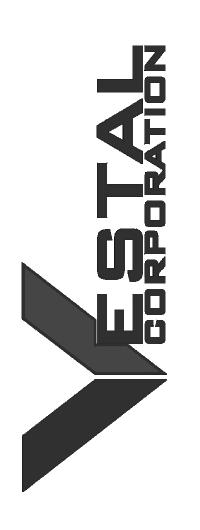
KEYED NOTES:

- FCU CONDENSATE TO DISCHARGE ON GRADE WITH SPLASH BLOCK.
- MORE INFORMATION. PROVIDE AND INSTALL FCU AND ASSOCIATED DUCTWORK, PIPING AND CONTROL PER MANUFACTURER'S INSTRUCTIONS. MOUNT UNIT AT 8FT AFF. CONNECT INSULATED REFRIGERANT LINES AND SLOPE INSULATED COPPER CONDENSATE PIPING AT 1% TO

- PROVIDE DIGITAL THERMOSTAT AND MOUNT AT 48" AFF. COORDINATE WITH LIGHT SWITCHES OR OTHER WALL MOUNTED ITEMS.
- PROVIDE A SINGLE DUCT VARIABLE AIR VOLUME (VAV-X) TERMINAL UNIT AND LOCATE AS SHOWN ON PLAN. FOR PROPER SUPPLY AIR FLOW, PROVIDE A MINIMUM LENGTH OF THREE TIMES THE INLETS DIAMETER, MEASURED FROM VAV TERMINAL INLET TO TRANSITON.
- 4 PROVIDE AND INSTALL OUTDOOR HPU TO SERVE VRF FCU(S) PER MANUFACTURER'S INSTRUCTIONS. INSTALL LEVEL ON HOUSEKEEPING PAD IN EXISTING CONDENSER UNIT LOCATION. REFER TO SCHEDULE FOR
- DISCHARGE ON GRADE.







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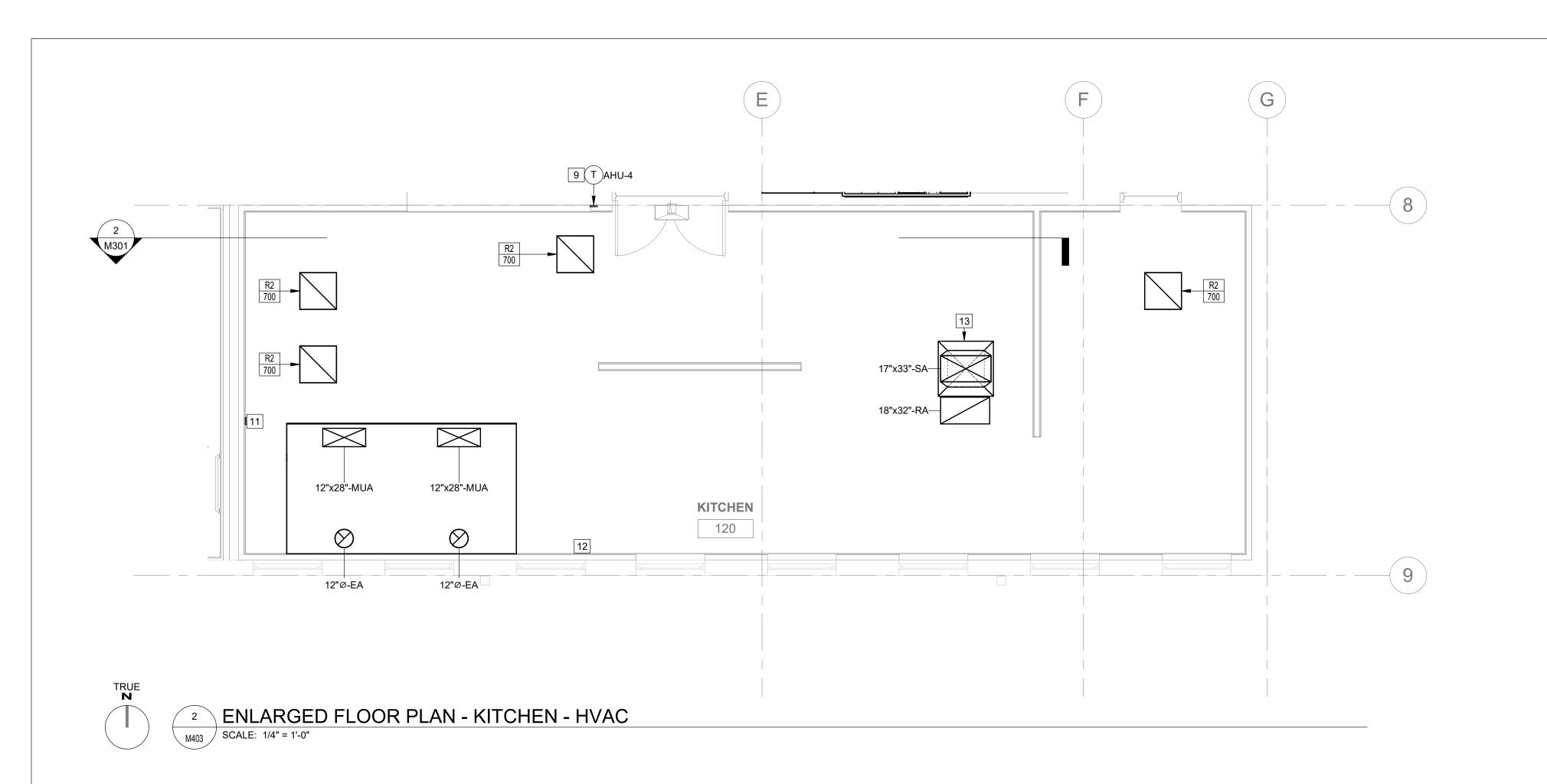
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SHEET TITLE:

ENLARGED FLOOR PLANS - HVAC

SHEET NUMBER:

M402



M403 SCALE: 1/4" = 1'-0"

GENERAL NOTES:

- ALL MAIN DUCTWORK FROM AHU TO BE ROUTED BELOW CEILING ELEVATION. SOFFIT TO BE INSTALLED AROUND MAIN DUCTWORK.
- ALL VAV TAPS ARE TO OFFSET FROM MAIN DUCTWORK TO ALLOW
- FOR VAV INSTALLATION CONCEALED ABOVE CEILING. AIR TERMINALS ARE TO BE COORDINATED WITHIN CEILING GRIDS. COORDINATE LOCATION WITH LIGHTING FIXTURES.

- EXHAUST FAN TO BE INSTALLED ON ROOF IN LOCATION SHOWN. COORDINATE LOCATION WITH EXISTING NEEDED. INSTALL PER MANUFACTURER'S
- EXHAUST VENT FROM GAS WATER HEATERS TO BE ROUTED THROUGH ROOF. COORDINATE ROUTING WITH EXISTING CONDITIONS AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE WITH WEATHER CAP.
- PROVIDE A SINGLE DUCT VARIABLE AIR VOLUME (VAV-X) TERMINAL UNIT AND LOCATE AS SHOWN ON PLAN. FOR PROPER SUPPLY AIR FLOW, PROVIDE A MINIMUM LENGTH OF THREE TIMES THE INLETS DIAMETER, MEASURED
- DUCTWORK. GAS & CONDENSATE PIPING AND CONTROL PER MFG'S INSTRUCTIONS. MOUNT UNIT ON GRADE WITH 6" CONCRETE PAD. PROVIDE RTU WITH MANUFACTURER'S RECOMMENDED CLEARANCE. PROVIDE 15"x10" GREENHECK MODEL DFD-110 OR
- WITH FACTORY SLEEVE OPTION. PROVIDE OPENINGS WITH GRILLE AND BIRD SCREEN. PROVIDE DIGITAL PROGRAMMABLE THERMOSTAT AND
- PROVIDE AN EMERGENY SHUT-OFF VALVE TO SHUT OFF THE GAS FLOW TO THE KITCHEN COOKING APPLIANCES. THE VALVE SHALL NOT BE LOCATED MORE THAN 6 FT OF

KEYED NOTES:

- ANY DUCTWORK LOCATED OUTSIDE THE BUILDING SHALL BE PROVIDED WITH A MIN. 2" LINER INSULATION (MIN R-VALUE OF 8). EXTERIOR DUCTWORK TO BE SEALED WEATHER TIGHT OR PROVIDED WITH JACKETING AND VAPOR BARRIER.
- CONDITIONS AND STRUCTURE. FRAME OUT OPENING AS RECOMMENDATIONS. REFER TO DETAIL AND SCHEDULE FOR MORE INFORMATION.
- AIR INTAKE FOR GAS WATER HEATERS TO BE ROUTED FROM ROOF. TERMINATE ROOF DUCTWORK WITH GOOSENECK. ROUTE DUCTWORK TO MAINTAIN AT MINIMUM 10' CLEARANCE FROM INTAKE TO ROOF EXHAUST VENTS/EQUIPMENT.
- PROVIDE DIGITAL THERMOSTAT AND MOUNT AT 48" AFF. COORDINATE WITH LIGHT SWITCHES OR OTHER WALL MOUNTED ITEMS.
- FROM VAV TERMINAL INLET TO TRANSITON. PROVIDE AND INSTALL PACKAGED AHU AND ASSOCIATED
- EQUIVALENT FIRE DAMPER. MOUNT AT 8' 6" AFF. PROVIDE
- MOUNT AT 48" AFF. COORDINATE WITH LIGHT SWITCHES OR OTHER WALL MOUNTED ITEMS.
- 10 INSTALL EH PER MFG'S INSTRUCTIONS. MOUNT UNIT AT 1' AFF. REFER TO SCHEDULE FOR MORE INFO.
- LOCATE KITCHEN CONTROL PANEL ON THE WALL AND MOUNT AT 60" AFF. GREASE FAN AND MAKE-UP AIR UNIT TO INTERLOCK WITH TYPE 1 HOOD, REFER TO KITCHEN DRAWINGS FOR WIRING DIAGRAM.
- THE SERVING APPLIANCES.
- 13 PROVIDE WITH RUSKIN SOD-36 DOUBLE DEFLECTION SUPPLY DIFFUSER.

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**





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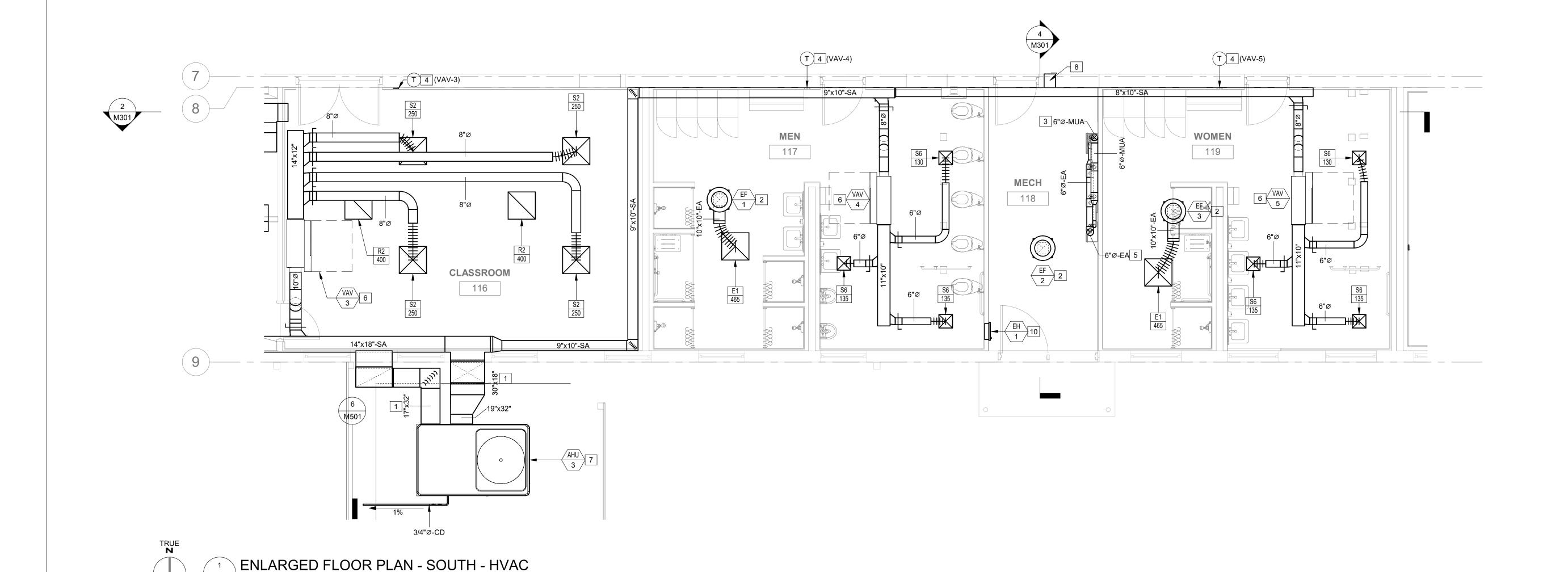
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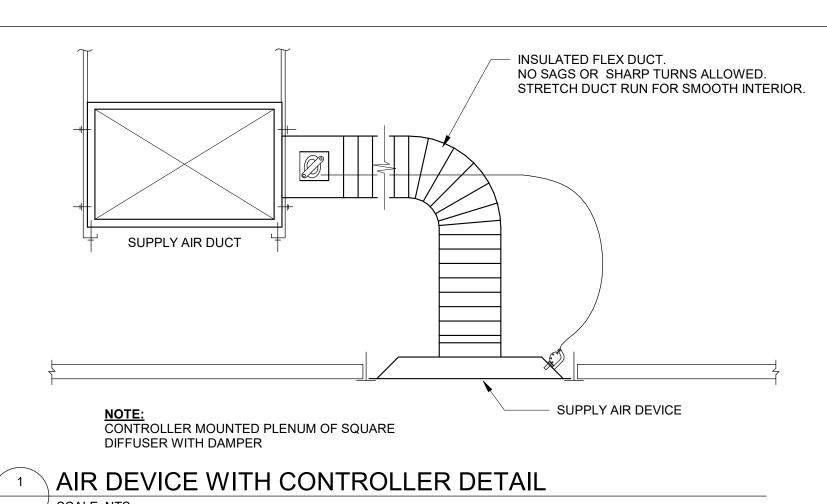
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DRAWN BY: No Proceed By: A DESIGNED BY: $\overline{\text{NJA}}$

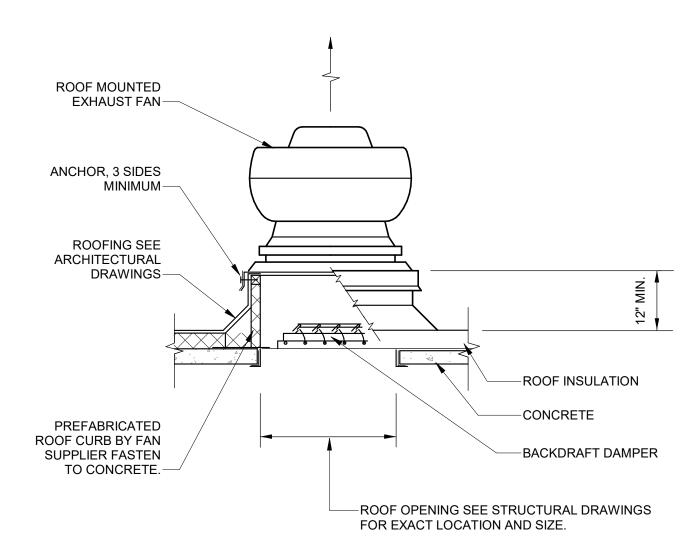
SHEET TITLE:

ENLARGED FLOOR PLANS - HVAC

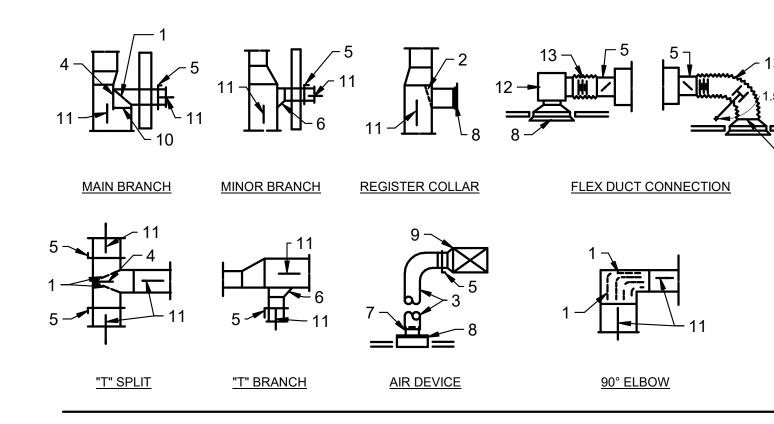
SHEET NUMBER:







ROOF MOUNTED EXHAUST FAN DETAIL

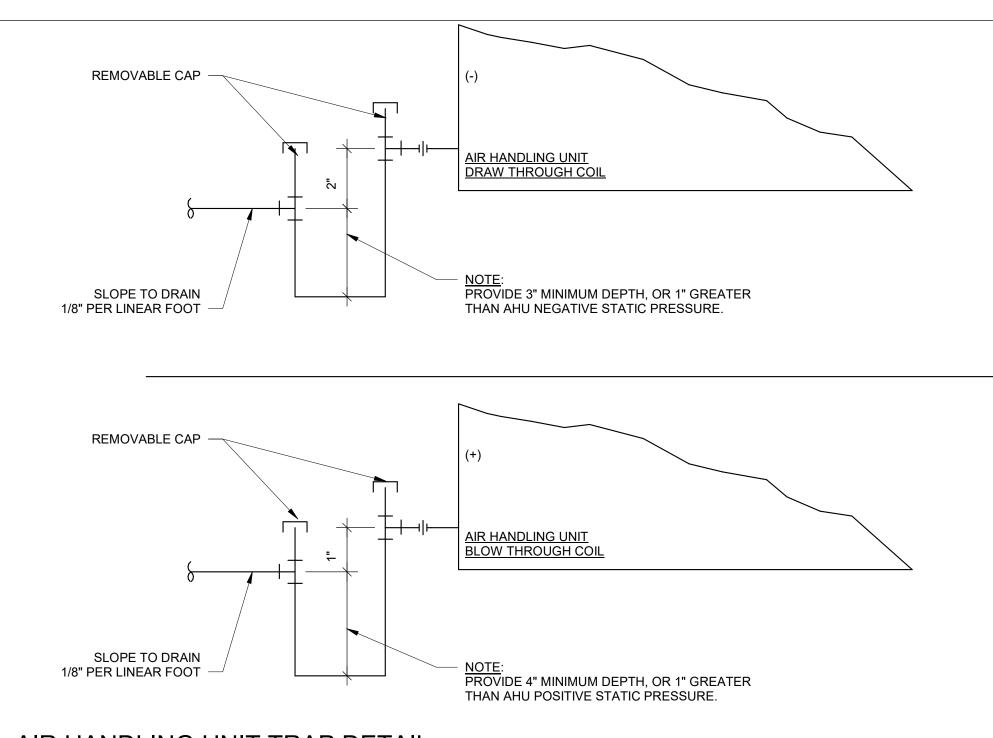


NOTES:

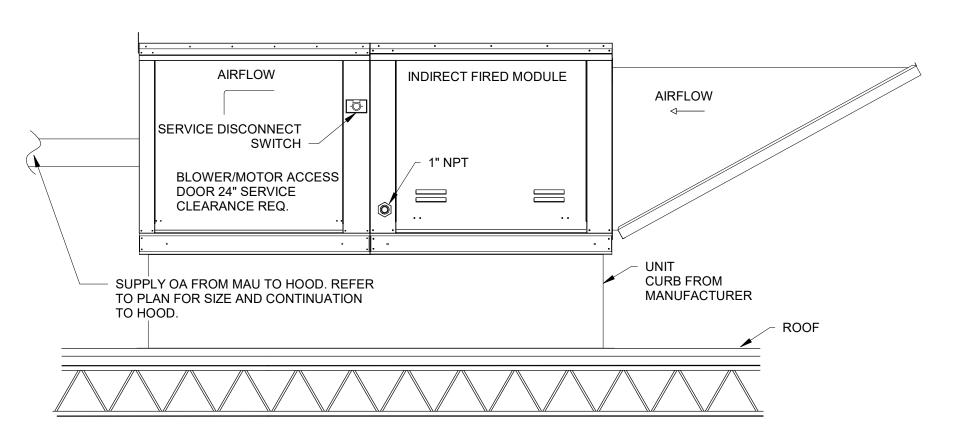
1. TURNING VANES OR EXTRACTOR WITH LEADING AND TRAILING EDGES PARALLEL TO SIDE OF DUCT.

- 2. ADJUSTABLE AIREXTRACTOR.
- 3. BRANCH DUCTWORK AS SHOWN ON PLAN.
- 4. FIXED SPLITTER.
- 5. MANUAL DAMPER.
- 6. 45° SHOE TAP.
- 7. ROUND DUCT ADAPTER, WHERE REQUIRED.
- 8. AIR DEVICE.
- 9. SPIN COLLAR TAP WITH QUADRANT DAMPER, IF BRANCH DUCTWORK IS ROUND.
- 10. THROAT SIZE, KEY NOTED ON PLAN.
- 11. AIR FLOW.
- 12. AIR PLENUM BOX TO BE USED WHEN THERE IS NOT ADEQUATE SPACE FOR MINIMUM RADIUS OF 1.5X FLEX
- 13. FLEXIBLE DUCT.

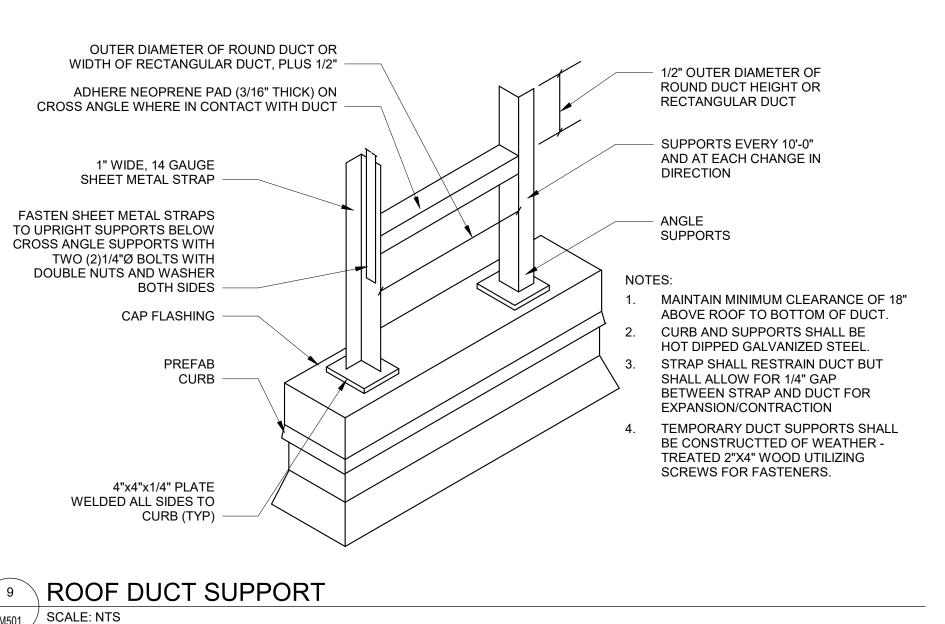


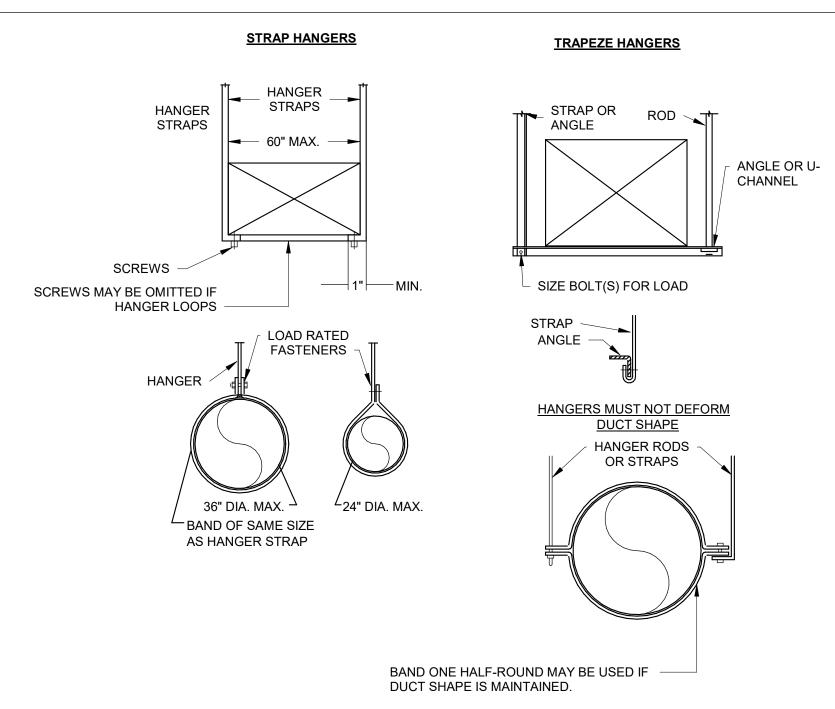


AIR HANDLING UNIT TRAP DETAIL

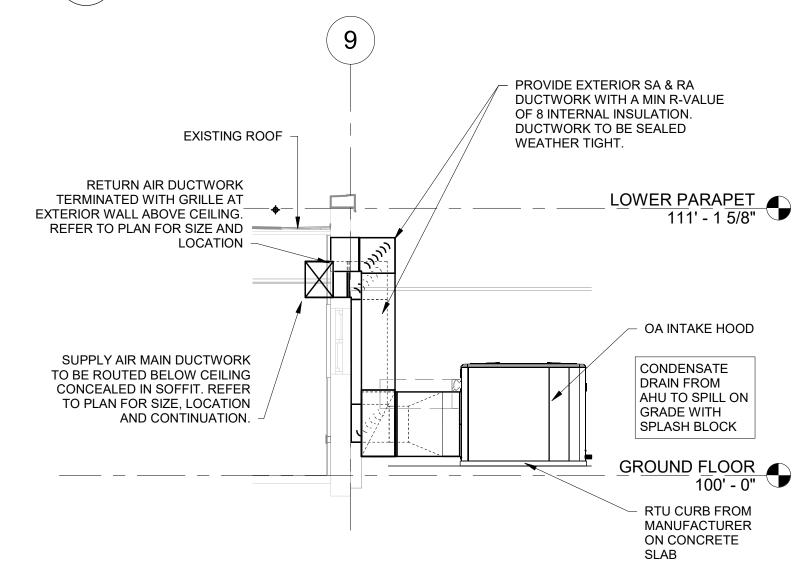


MAKE-UP AIR UNIT (MAU) DETAIL M501 SCALE: NTS

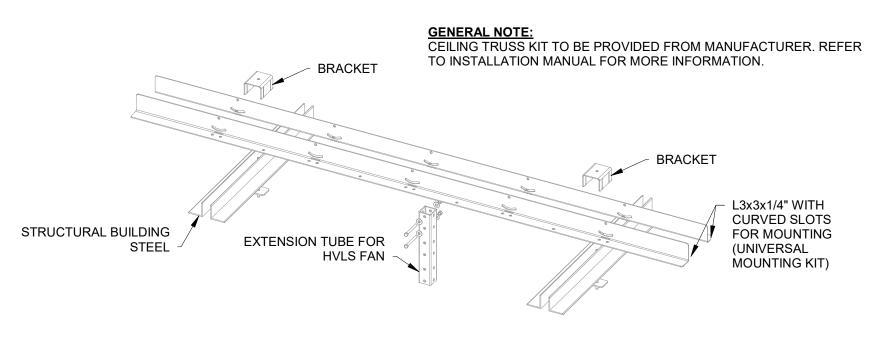




HARD DUCT SUPPORT DETAIL SCALE: NTS

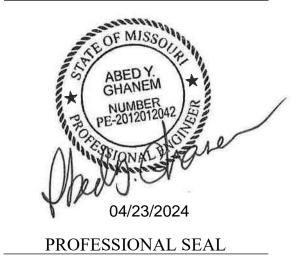


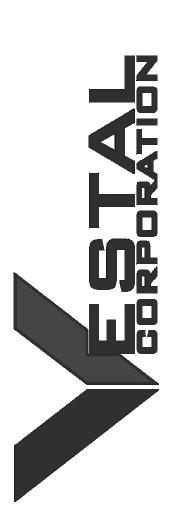
PACKAGED AHU DETAIL LOCATED ON GRADE M501 SCALE: NTS



HVLS JOIST MOUNTING DETAIL SCALE: NTS M501 /

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**





OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND **CONSTRUCTION**

DEPARTMENT OF MISSOURI NATIONAL **GUARD**

STATE OF MISSOURI ST. CLAIR READINESS CENTER

375 SOUTH COMMERCIAL AVENUE, ST. CLAIR MISSOURI 63077

PROJECT # T2326-01 6304 FACILITY # 8136304011

	REV.	DESCRIPTION	DATE
	A	SD	2023.12.06
	В	DD	2024.02.19
	C	IFB	2024.04.23

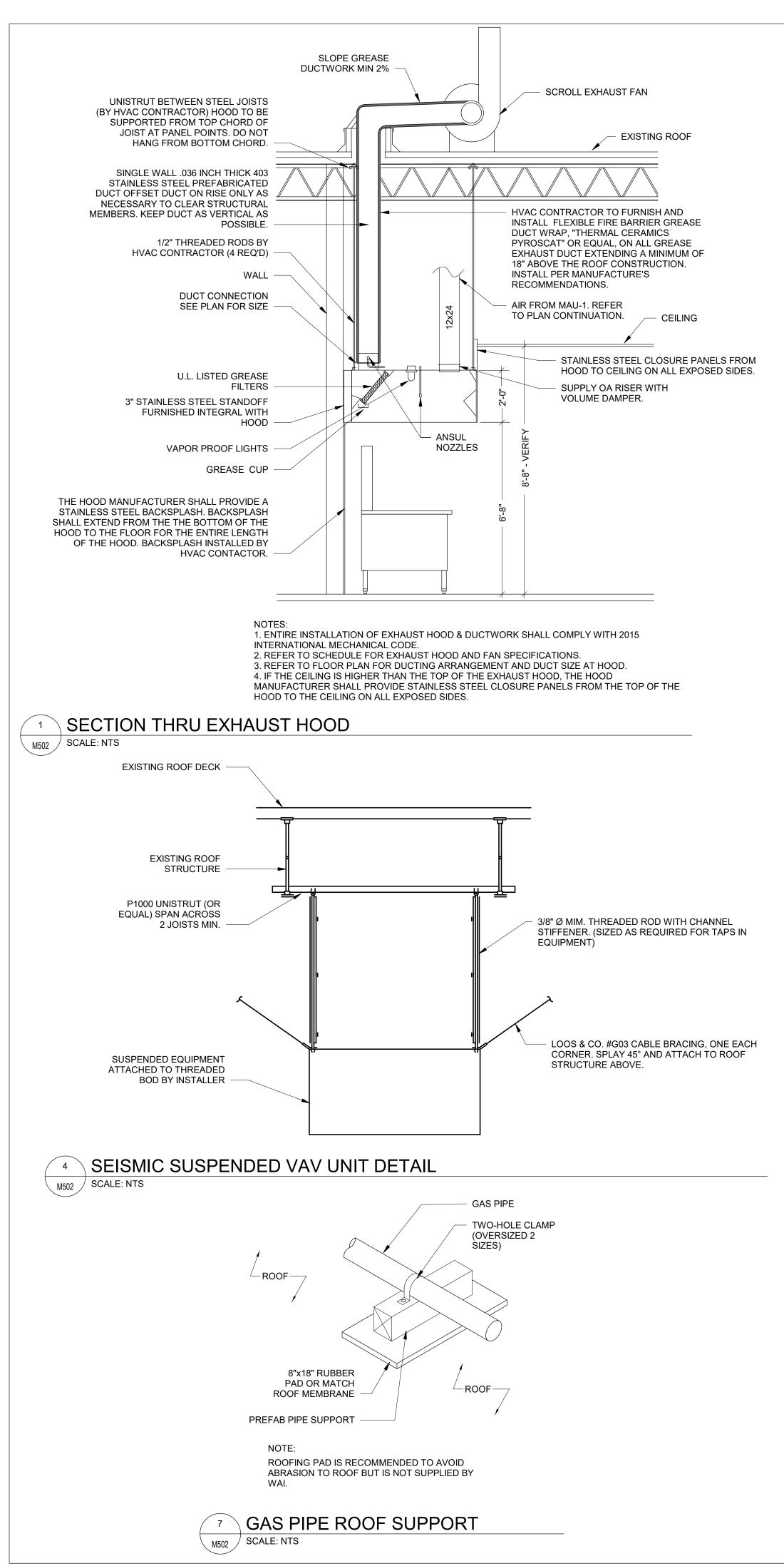
ISSUE DATE: 2023.12.06

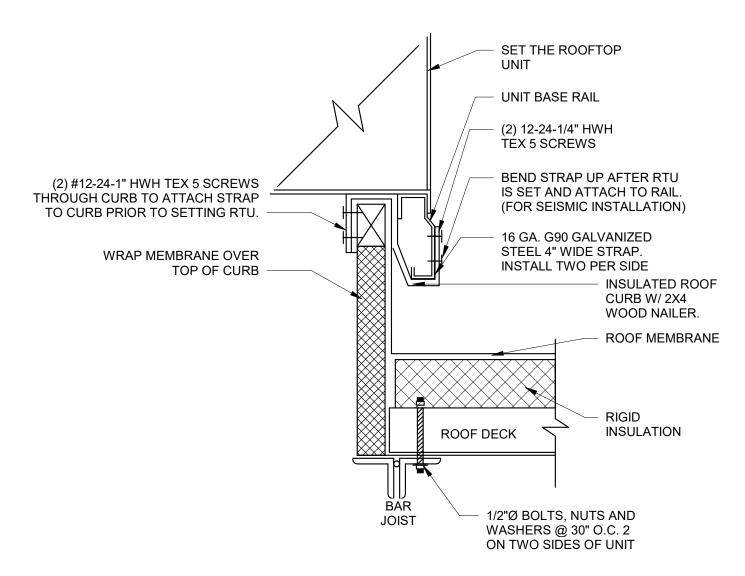
CAD DWG FILE: DRAWN BY: CHECKED BY: \overline{AY} DESIGNED BY: NJA

SHEET TITLE:

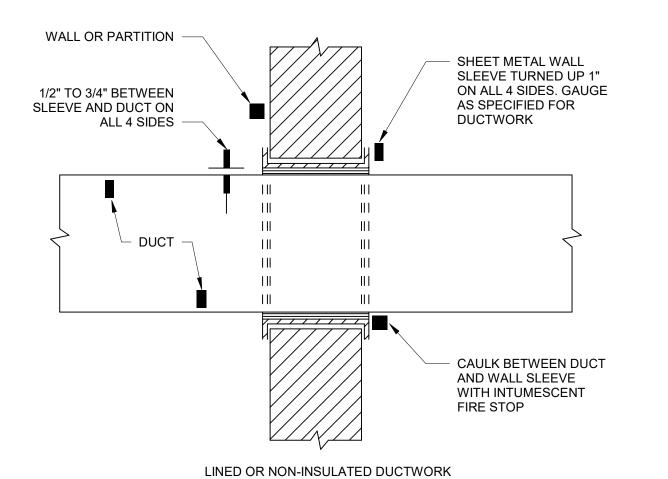
HVAC DETAILS

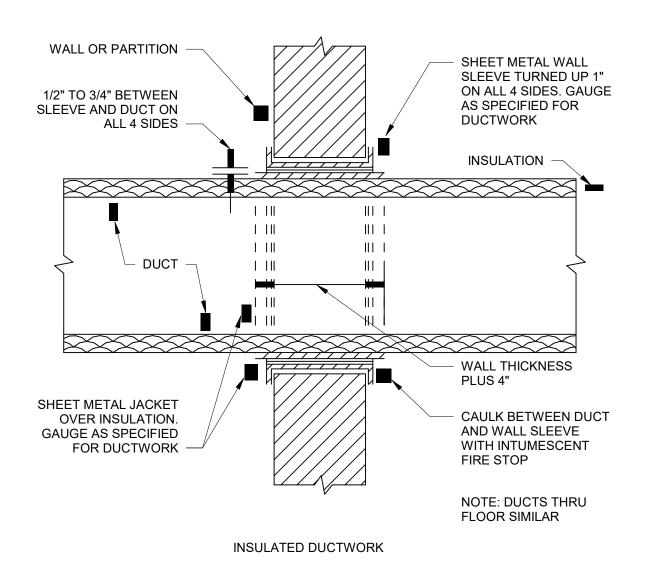
SHEET NUMBER:



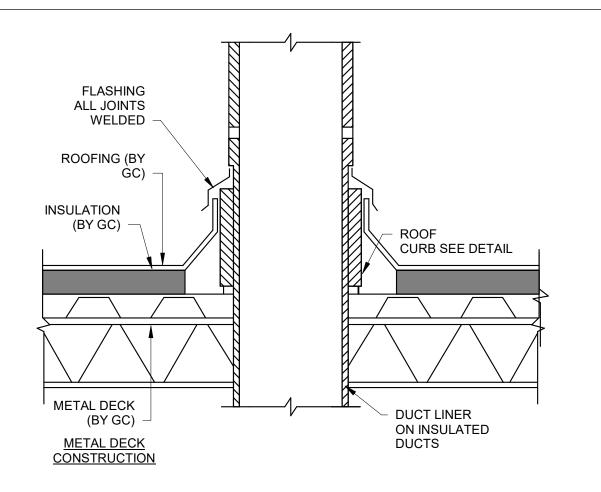




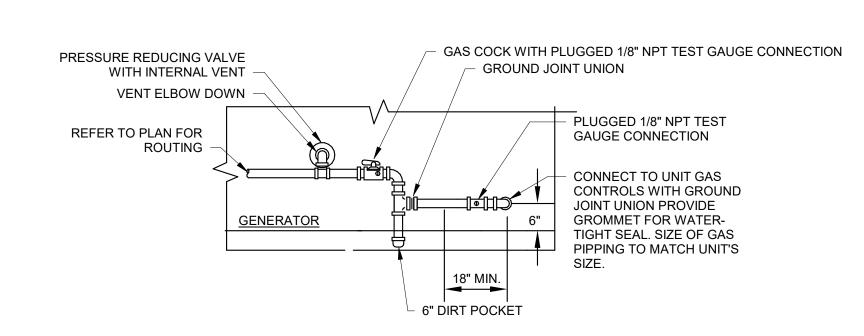




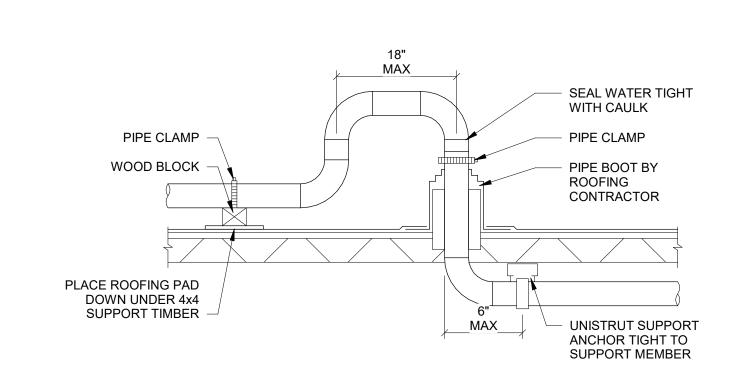




3 DUCT PENETRATION THROUGH ROOF SCALE: NTS



GENERATOR GAS PIPE CONNECTION SCALE: NTS

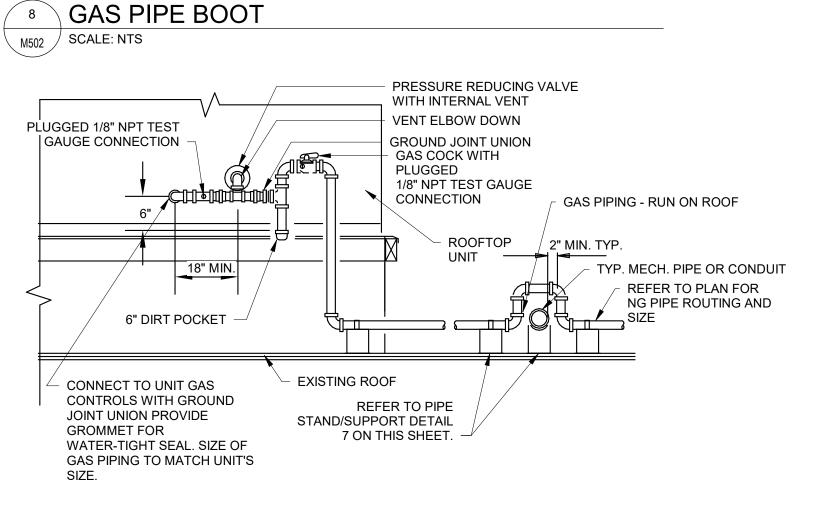


NOTE:

COORDINATE WITH GENERAL

CONTRACTOR TO OBTAIN ROOFING PAD

MATERIAL.

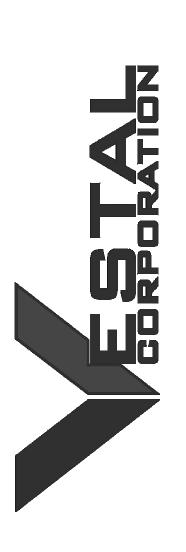


5 RTU GAS PIPE CONNECTION

M502 SCALE: NTS

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR





OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL GUARD

STATE OF MISSOURI -ST. CLAIR READINESS CENTER

375 SOUTH COMMERCIAL AVENUE, ST. CLAIR MISSOURI 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

	REV.	DESCRIPTION	DATE
	A	DD	2024.02.19
	В	IFB	2024.04.23
ı			

ISSUE DATE: 2023.12.06

CAD DWG FILE:

DRAWN BY: NJA

CHECKED BY: AYG

DESIGNED BY: NJA

SHEET TITLE:

HVAC DETAILS

SHEET NUMBER:

M502

								AIR	HANDL	ING UNI	T SCHE	DULE									
					AIR S	SIDE						COIL SIE	DE				FILTERS	ELEC1	TRICAL		
					SUPPL	Y FAN				DX CO	DLING COIL			GA	S HEATING (COIL				OPERATING	
PLAN														INPUT	OUTPUT					WEIGHT	
MARK	LOCATION	MANUFACTURER - MODEL	MIN OA	QTY	CFM	ESP	TBHP	TMBH	SMBH	EDB/EWB	LDB/LWB	IEER/EER	REFRIGERANT	(MBh)	(MBh)	EAT/LAT	TYPE	VOLTS/PH	MCA/MOP	(LBS)	NOTES
AHU-1	ROOF	TRANE-YSJ120A4S0M	1050	1	3000	1.594	3	115.05	79	80/67	54.46/53.9	14.6/11	R-410A	200	162	50/99.07	MERV 8	460/3	29/40	1199	2-8
AHU-2	ROOF	TRANE-YHC060F4RMA	160	1	1600	1	1	55.61	40.12	80/67	55.45/55.09	15/12.8	R-410A	80	64	55/92.3	MERV 8	460/3	14/20	992	2-8
AHU-3	GRADE	TRANE-YSJ150B4S0M	1000	1	3800	1.807	4.6	136.51	94.91	80/67	55.96/54.93	14.5/10.8	R-410A	200	162	50/88.05	MERV 8	460/3	31/40	1489	1, 3-6,8
AHU-4	ROOF	TRANE-YSJ120A4S0M	1050	1	3000	1.594	3	115.05	79	80/67	54.46/53.9	14.6/11	R-410A	200	162	50/99.07	MERV 8	460/3	29/40	1199	2-8

1. PROVIDE UNIT WITH RTU CONTROL PANEL FOR OPERATION OF UNIT AND COMMUNICATION WITH VAV BOXES.

2. PROVIDE UNIT WITH RTU CONTROL PANEL FOR OPERATION OF UNIT. 3. PROVIDE UNIT WITH ECONOMIZER CONTROL WITH ENTHALPY CONTROL.

4. PROVIDE DUCT PRESSURE SENSOR.

5. PROVIDE UNIT WITH MERV 8 FILTER. 6. UNIT TO BE PROVIDED WITH FACTORY INSTALLED DISCONNECT SWITCH.

7. PROVIDE 14" SEISMICALLY RATED AND PRE-INSULATED ROOF CURB. 8. PROVIDE WITH RETURN MOUNTED SMOKE DETECTOR INTEGRATED TO SHUTDOWN UNIT UPON SMOKE DETECTION.

				HEA ⁻	T PUMP	SCHED	JLE					
PLAN		MANUFACTURER -	NOMINAL	CONNECTING			CONNE	CTIONS	ELECT	TRICAL	WEIGHT	
MARK	LOCATION	MODEL	TONS	FCU(S)	AMBIENT	EER/IEER	LIQUID (IN)	SUCTION (IN)	VOLTS/PH	MCA/MOP	(LBS)	NOTES
HPU-1	GRADE	MITSUBISHI-NTXMSH36A142AA	3.0	FCU-1/FCU-2	95.3	13.5/20.75	3/8	5/8	230/1	42/50	278	1-2
HPU-2	GRADE	MITSUBISHI-TRUYA0301HA70BA	2.5	FCU-3	95.3	9.5/20	3/8	5/8	230/1	19/26	151	1-3

1. UNITS SHALL ONLY BE INSTALLED BY FACTORY TRAINED INSTALLERS/TECHNICIANS.

PROVIDE WITH LOW AMBIENT COOLING.

3. PROVIDE WITH WIND BAFFLE KIT.		
	3.	PROVIDE WITH WIND BAFFLE KIT.

				VA	V UNIT	SCHEDU	JLE					
				AIR SIDE			COIL SIDE		ELECT	RICAL	OPERATING	
PLAN		MANUFACTURER -		SUPPLY FAN		Н	EATING CO	IL			WEIGHT	
MARK	LOCATION	MODEL	MAX. CFM	MIN. CFM	ESP	CFM	KW	EAT/LAT	VOLTS/PH	MCA/MOP	(LBS)	NOTES
VAV-1	CLASSROOM-115	TRANE-VCEF10	1000	400	0.03	600	6.0	55/86.46	480/3/60	9.02/15	81	1-5
VAV-2	OFFICE-114	TRANE-VCEF10	1000	400	0.03	600	6.0	55/86.46	480/3/60	9.02/15	81	1-5
VAV-3	CLASSROOM-116	TRANE-VCEF10	1000	400	0.03	600	6.0	55/86.46	480/3/60	9.02/15	81	1-5
VAV-4	MEN-117	TRANE-VCEF08	400	200	0.02	200	2.0	55/86.46	480/3/60	3.01/15	67	1-5
VAV-5	WOMEN-119	TRANE-VCEF08	400	200	0.02	200	2.0	55/86.46	480/3/60	3.01/15	67	1-5

465 0.36 1300

350 0.38 1300

465 0.36 1300

GREENHECK-USF-16-B7 2938 0.5 1178 DIRECT

4. UL/CUL 705 LISTED - "POWER VENTILATORS FOR RESTAURANT EXH. APPLIANCES"

7. BEARINGS WITH GREASE FITTINGS, L10 LIFE OF 100,000 HRS (L50 AVG. LIFE 500,000 HRS).

FAN SCHEDULE

DIRECT

DIRECT

ELECTRICAL

AIR DEVICE SCHEDULE

MODULE

SIZE (IN)

24"x24"

24"x24"

24"x24"

24"x24"

24"x24"

24"x24"

24"x24"

12"x12"

12"x8"

SIZE

CFM ESP RPM DRIVE TYPE BHP VOLTZ/PH MCA/MOP WEIGHT (LBS) NOTES

115/60/1

115/60/1

115/60/1

1/12

1/25

1/12

MANUFACTURER

MODEL

TITUS-PAR-AA

TITUS-PAR-AA

TITUS-PAR-AA

TITUS-OMNI-AA

TITUS-OMNI-AA

ACUTHERM-ADV

ACUTHERM-ADV

TITUS-OMNI-AA

TITUS-JFA-L

2. PROVIDE WITH ACUTHERM DIGITAL WALL ADJUSTER (ADJ-D).

3. ALL GRILLS AND DIFFUSERS MADE IN ALUMINUM WHITE COLOR.

1. PROVIDE WITH ACUTHERM BYPASS R-RINGS.

3/4 460/60/3

OPERATING

MOUNT

TYPE

LAY-IN

LAY-IN

LAY-IN

LAY-IN

LAY-IN

LAY-IN

LAY-IN

LAY-IN

FACE

NOTES

1-3

1-3

UNITS TO BE TRANE MODEL, SIZE, AND CONFIGURATION AS INDICATED IN SCHEDULE AND ON DRAWINGS EACH RCP CIRCUIT SHALL BE PROVIDED A LINE VOLTAGE.

MANUFACTURER -

MODEL

GREENHECK-G-095-E

GREENHECK-G-090-E

GREENHECK-G-095-E

6. COATED WITH HI-PRO POLYESTER, CONCRETE GRAY-RAL 7023.

8. MOTOR STARTER TO BE PROVIDED BY ELECTRICAL CONTRACTOR.

10. INTERCONNECT UNIT OPERATION TO ASSOCIATED KITCHEN HOOD.

1. 14" ROOF CURB WITH 1" INSULATION THICKNESS. 2. BIRDSCREEN GALVANIZED, NOM. 84% FREE AREA.

9. INCLUDES GREASE TRAP WITH CLEAN OUT PORT.

5. FOAM CURB SEAL (FACTORY APPLIED).

PROVIDE WITH ZONE TEMPERATURE SENSORS. PROVIDE WITH FACTORY-WIRED DISCHARGE AIR TEMPERATURE SENSOR.

PROVIDE UNIT-MOUNTED CONTROL POWER TRANSFORMER, DISCONNECT, AND POWER FUSE.

MARK

3. BACK DRAFT DAMPER.

PROVIDE UNIT WITH FIBER FREE LINER AND HANGER BRACKETS.

	FAN COIL UNIT SCHEDULE															
			AIR SIDE COIL SIDE							ELECTRICAL						
PLAN			S	UPPLY FAN				DX COOLING	COIL		DX HEA	TING COIL			OPERATING	
MARK	LOCATION	MANUFACTURER - MODEL	CFM	ESP	TBHP	TMBH	SMBH	EDB/EWB	LAT	REFRIGERANT	MBH	EAT/LAT	VOLTS/PH	MCA/MOP	WEIGHT (LBS)	NOTES
FCU-1	STOR - 108	MITSUBISHI-MSZ-EF12NAS-U2	448	-	-	12.0	12.0	80/67	54.7	R-410A	14.4	70/99.8	230/1	1/-	29	1-4
FCU-2	OFFICE - 109	MITSUBISHI-TPLA0A0241EA80A	810	-	-	24.0	20.7	80/67	55.8	R-410A	26.0	70/99.7	230/1	1/15	57	1-4
FCU-3	ELEC - 113	MITSUBISHI-TPKA0A0301KA70A	775	-	-	30	27.5	95/75	60.5	R-410A	0	-	230/1	1/-	46	1-4

1. PROVIDE WITH PREMIUM MOTOR(S).

2. PROVIDE WITH THERMOSTAT. 3. UNIT SHALL ONLY BE INSTALLED BY TRAINED INSTALLERS/TECHNICIANS.

4. PROVIDE UNIT WITH MOUNTING BRACKET.

	MAKE-UP AIR UNIT SCHEDULE														
	WAILE OF AIR ONLEDGE														
				AIR	SIDE			COIL	SIDE		FILTERS	ELEC1	RICAL		
			SUPPLY FAN			GAS HEATING COIL									
				JUFFL	_ I FAN										
PLAN							INPUT	OUTPUT						OPERATING	
MARK	LOCATION	MANUFACTURER - MODEL	QTY	CFM	ESP	TBHP	(MBh)	(MBh)	EAT/LAT	PSI	TYPE	VOLTS/PH	MCA/MOP	WEIGHT (LBS)	NOTES
MAU-1	ROOF	GREENHECK-IGX-P112-H12-MF-G	1	2350	1	1-1/2	200	162	4/67.9	0.5	MERV 8	460/60/3	4.6/15	1081	1-10

PROVIDE WITH PREMIUM EFFICIENCY MOTOR(S), COMBINATION FILTER/MIXING BOX, 2" PLEATED MERV 8 PRE-FILTER AND LOW LEAKAGE DAMPER. ALL ACCESS TO UNIT SHALL BE FROM THE SIDE.

115/60

15 212 1-4

- 2. INCLUDES MANUFACTURER 12" SEISMICALLY RATED ROOF CURB WITH FRONT DUCT OPENING. 3. COATED WITH HI-PRO POLYESTER, CONCRETE GRAY-RAL 7023.
- 4. SWITCH NEMA 3R, TOGGLE, FACTORY INSTALLED.
- INCLUDES NEOPRENE VIBRATION ISOLATORS FOR SUPPLY FAN AND MOTOR. PROVIDE WITH FACTORY MOUNTED CONTROL PANEL WITH BACNET CARD.
- PROVIDE UNIT WITH FACTORY SUPPLIED SENSORS: 120V SMOKE DETECTOR, SUPPLY AIR TEMPERATURE SENSOR AND DIRTY FILTER SWITCHES.

225

8. INTERCONNECT SMOKE DETECTOR WITH ZONE ALARM PANEL TO SHUT DOWN UNIT IN CASE OF AN ALARM. 9. INTERCONNECT UNIT OPERATION TO ASSOCIATED KITCHEN HOODS.

UDZ-225

10. PROVIDE 14" SEISMICALLY RATED AND PRE-INSULATED ROOF CURB.

GAS UNIT	HEATER (G	UH-X) SC	HEDULE				HVLS FAN SCHEDULE												
			ELECTRIC	AL														GENERAL	
R MANUFACTURER	MODEL NO.	MBH INPUT (PROPANE)	VOLT/PHASE	MOCP	WEIGHT LBS.	NOTES	TYPE MA	RK MARK	ROOM NAME	MANUFACTURER	MODEL NO.	AIRFLOW (CFM)	FAN RPMs	DRIVE TYPE	HP	VOLT/ PHASE	WEIGHT (LBS)	DIMENSIONS (DIAM X DROP HEIGHT) (FT)	NOTES
10 REZNOR	UDZ-225	225	115/60	15	212	1 /	HVLS	1	DRILL HALL - 110	GREENHECK	DC-5-12	43624	90	DIRECT	0.25	115/60	101	12x2	1 2
			113/00		212	1-4	TIVES	ı ı					90				101		1-2
10 REZNOR	UDZ-225	225	115/60	15	212	1-4	HVLS	2	DRILL HALL - 110	GREENHECK	DC-5-12	43624	90	DIRECT	0.25	115/60	101	12x2	1-2
10 REZNOR	UDZ-225	225	115/60	15	212	1-4													

MARK

NOTES:

1. COLOR TO BE SELECTED BY ARCHITECT DURING SHOP REVIEW.

ROOM NUMBER | MANUFACTURER |

REZNOR

DRILL HALL - 110

DRILL HALL - 110

GUH - 3 DRILL HALL - 110

GUH - 4 DRILL HALL - 110

2. PROVIDE WITH MANUFACTURER'S WALL MOUNTED THERMOSTAT. THERMOSTAT ENERGIZES FAN AND THE

HEATING SECTION.

3. PROVIDE 304 STAINLESS STEEL SHEEL AND CORROSION RESISTANT INTERNAL COMPONENTS.

4. PROVIDE WITH STEP-DOWN REGULATOR SET TO <14" W.C.

ELECTRIC UNIT HEATERS (EH) SCHEDULE											
TAG	AREA SERVED	SERIES	ТҮРЕ	MOUNTING	CAPACITY (KW)	VOLT/PHASE/AMPS	ACCESSORIES				
EH-1	MECH - 118	CWH3000	FAN-FORCED WALL HEATER	WALL	3	208/1/14.5	1-2				

NOTES:

1. PROVIDE WITH INTEGRAL THERMOSTAT. 2. PROVIDE WITH THERMAL OVERLOAD PROTECTION. NOTES:
1. PROVIDE WITH FAN CONTROL PANEL. CONTROLLER TO SERVE TWO FANS

PROVIDE WITH MOUNTING HARDWARE.

						GENERAL			
Э.	AIRFLOW (CFM)	FAN RPMs	DRIVE TYPE	НР	VOLT/ PHASE	WEIGHT (LBS)	DIMENSIONS (DIAM X DROP HEIGHT) (FT)	NOTES	
	43624	90	DIRECT	0.25	115/60	101	12x2	1-2	
	43624	90	DIRECT	0.25	115/60	101	12x2	1-2	

MECHANICAL EQUIPMENT

PLAN

MARK

R1

R2

S4

S7

COMPONENTS EARTHQUAKE LOAD RESISTANCE

				I LOIO I AI	100					
OCCUPANCY CATEGORY: II						SEISMIC DE	SIGN CATEGORY	/: D		
SYSTEM COMPONENTS		ANCHORAGE TO FLOORS, ROOFS, ETC		SWAY BR	SWAY BRACING			CATION OF PROFESSIO ANCHORAGE AND SWA DETAILS		
						ON CONSTR. DOCUMENTS	SUBSEQUENT SUBMITTAL (SEE NOTE BELOW)		СОММ	ENTS
	I _p	NOT PROVIDED FOR PROJECT	PROVIDED FOR PROJECT	NOT PROVIDED FOR PROJECT	PROVIDED FOR PROJECT	DRAWING NO OR SPEC SECT	SHOP DRAWING	SEPARATE PERMIT & PLANS	SEE NOTES BELOW	PROVIDED BY
AIR DEVICE	1.0	✓		√					1	CONTRACTOR
DUCTWORK	1.0								2	CONTRACTOR
SUSPENDED			✓		✓				2,4	CONTRACTOR
PACKAGED COOLING & HEATING UNIT (AHU-1-4)	1.0		√		√				5	MANUFACTURER
GAS UNIT HEATER	1.0		√		√				4	CONTRACTOR
FCU	1.0	✓		✓					4	CONTRACTOR
VAV BOXES	1.0		√		√				3	CONTRACTOR

NOTE: IT IS THE BASIC INTENT OF THIS CODE BLOCK TO DECLARE IF SWAY BRACING IS BEING PROVIDED ON THE PROJECT. IF SO, TO DECLARE WHETHER OR NOT THE DETAILS ARE SHOWN ON THE PLANS OR WILL BE SHOWN ON A SUBSEQUENT SUBMISSION. IF SEISMIC RESTRAINT IS NOT REQUIRED BY CODE THIS CAN BE STATED IN COMMENTS

NOTE: A. SHOP DRAWINGS SHOULD BE SUBMITTED A MINIMUM OF TWO WEEKS PRIOR TO PLANNED INSTALLATION TO ALLOW FOR PLAN REVIEW AND DISTRIBUTION TO INSPECTOR.

ADDITIONAL TIME MAY BE NEEDED IF SUCH SUBMISSIONS ARE DEFICIENT.

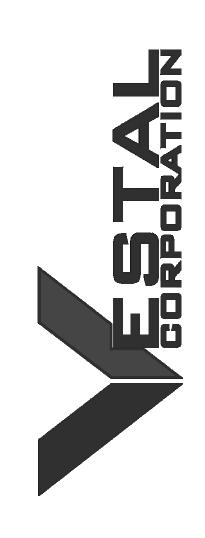
WEIGH 20 POUNDS OR LESS, OR FOR DISTRIBUTION SYSTEMS WEIGHING 5LB/FT OR LESS. HVAC DUCTS HAVING A CROSS-SECTIONAL AREA OF LESS THAN 6 SQUARE FEET.

SWAY BRACING TO ONLY BE PROVIDED WHERE NOTED.

NOT REQUIRED IF UNDER 50LB. SEISMIC DETAIL BY MANUFACTURER.

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**





OFFICE OF ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL **GUARD**

STATE OF MISSOURI -ST. CLAIR READINESS CENTER

375 SOUTH COMMERCIAL AVENUE, ST. CLAIR MISSOURI 63077

PROJECT # T2326-01 FACILITY # 8136304011

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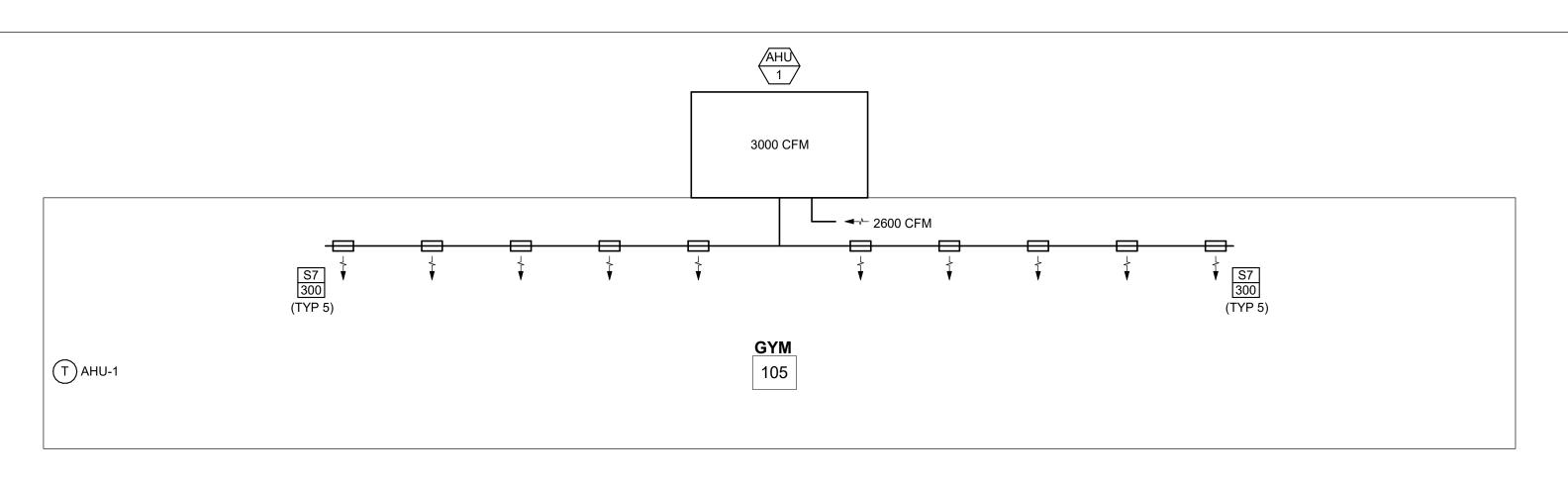
ISSUE DATE: 2023.12.06

CAD DWG FILE: DRAWN BY: CHECKED BY: $\overline{A}YG$ DESIGNED BY: NJA

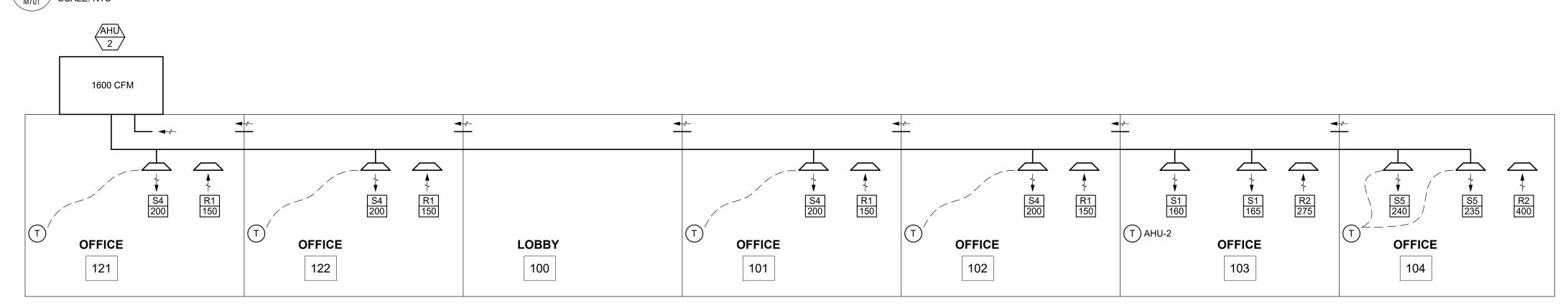
SHEET TITLE:

HVAC SCHEDULES

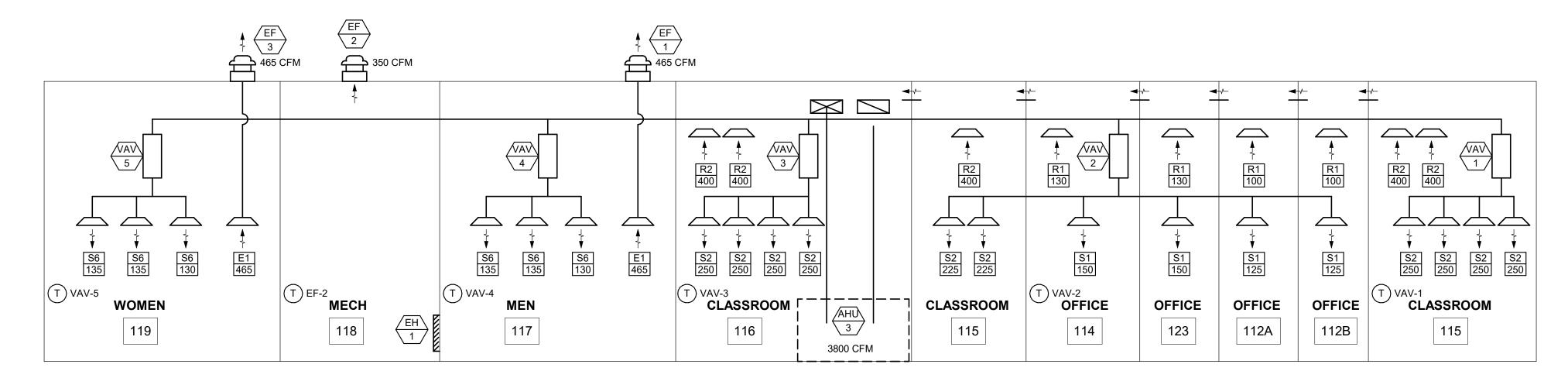
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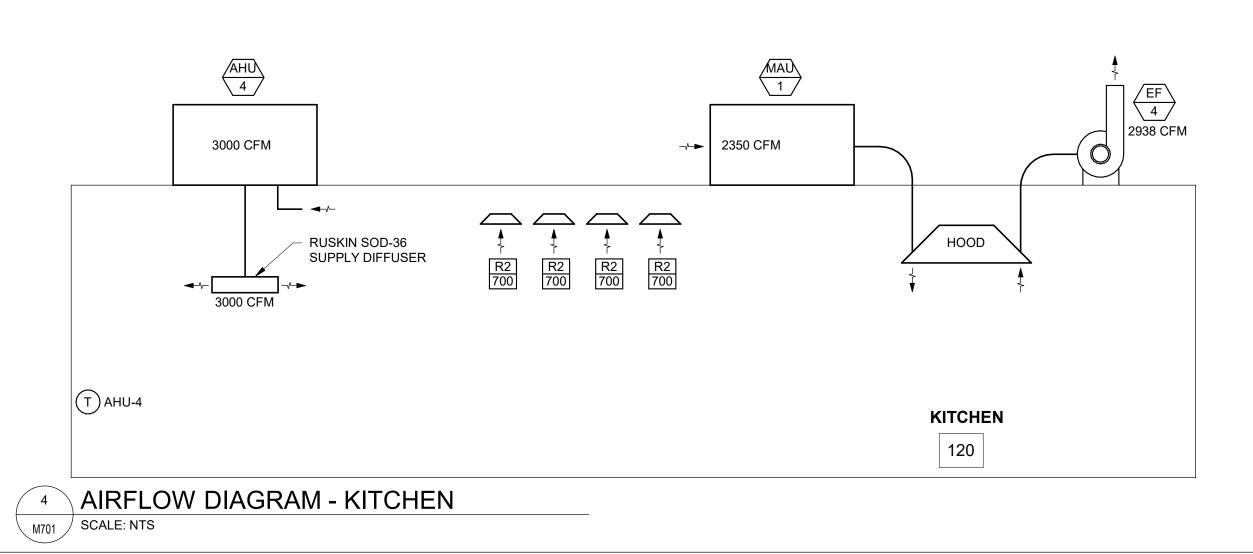
AIRFLOW DIAGRAM - GYM SCALE: NTS



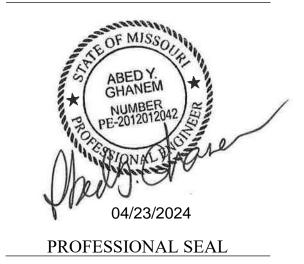
2 AIRFLOW DIAGRAM - EAST OFFICES M701 SCALE: NTS

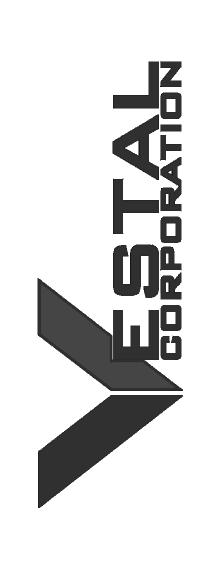


3 AIRFLOW DIAGRAM - SOUTH OFFICES M701 SCALE: NTS



STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR





OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL GUARD

STATE OF MISSOURI -ST. CLAIR READINESS CENTER

375 SOUTH COMMERCIAL AVENUE, ST. CLAIR MISSOURI 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

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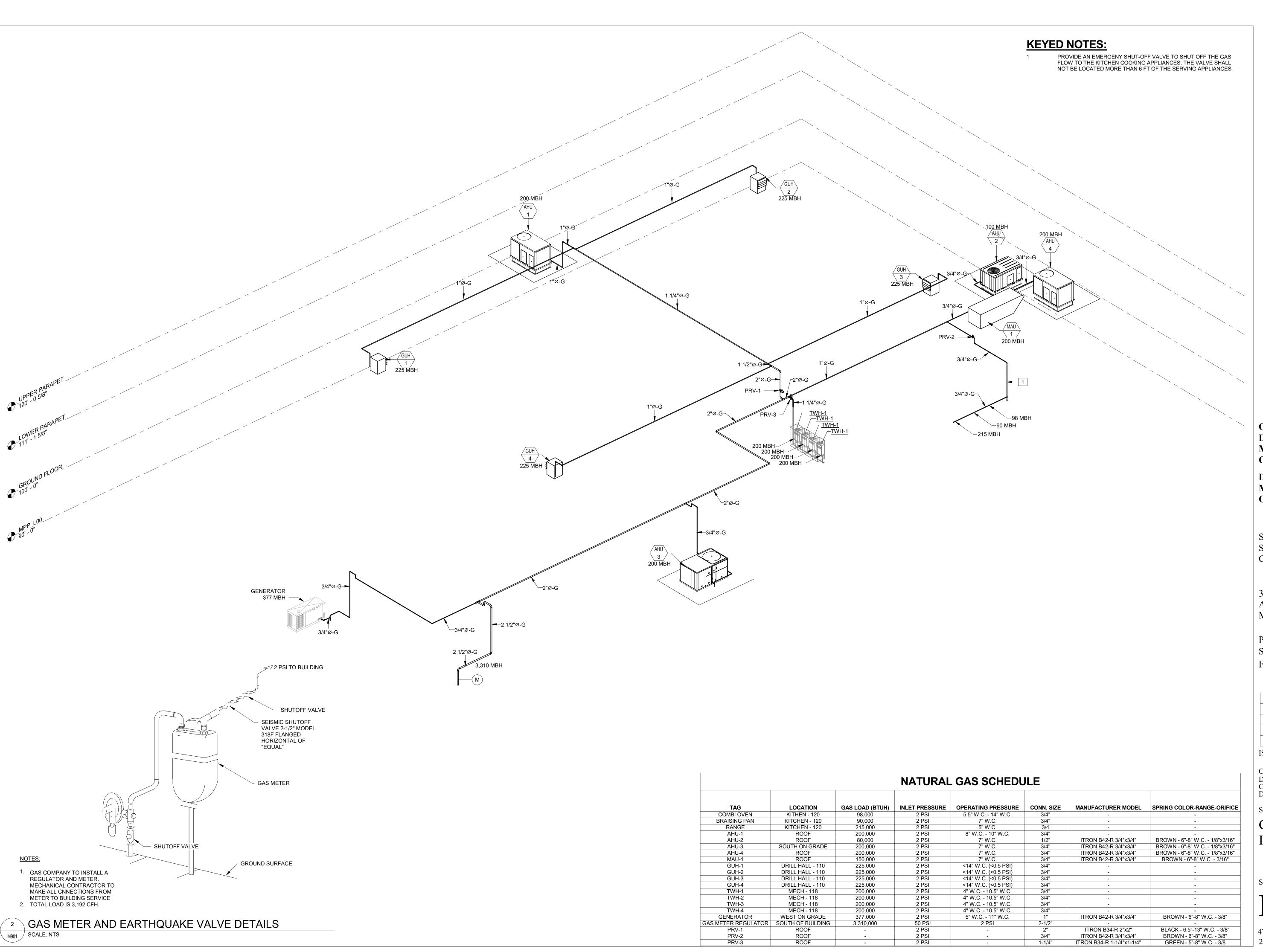
SHEET TITLE:

AIRFLOW SCHEMATICS

SHEET NUMBER:

1V1 / U46 OF 85 SHEETS

2024.04.23







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GAS PIPING ISOMETRIC

SHEET NUMBER:

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PLUMBING LEGEND

	PLUMBING PIPING SYMBOLS		PLUMBING ABBREVIATIONS
_ DCW	- DOMESTIC COLD WATER	AC	ABOVE CEILING AREA
DHW		AFF	ABOVE FINISHED FLOOR
	- DOMESTIC HOT WATER	AP	ACCESS PANEL
DHWR	- DOMESTIC HOT WATER RETURN	BFP	BACKFLOW PREVENTER
		B.O.P	BOTTOM OF PIPE
ST	- STORM DRAINAGE	C.L.	CENTER LINE
OD	OVEREL OW DRAINAGE	со	CLEANOUT
OD	- OVERFLOW DRAINAGE	EWC	ELECTRIC WATER COOLER
—INDS——	- INDUSTRIAL SEWER	EWH	ELECTRIC WATER HEATER
		FCO	FLOOR CLEANOUT
—SAN——	- SANITARY SEWER	FD	FLOOR DRAIN
- — -V- — — — -	- SANITARY VENT	I.E.	INVERT ELEVATION
- · · · · · · · · · · · · · · · · · · ·	SANITAINT VEIVI	GPM	GALLONS PER MINUTE
	LABORATORY GAS SYMBOLS	LAV	LAVATORY
		L/S	LITER PER SECOND
——Ar———	- ARGON	МВ	MOP BASIN
—-CA	- COMPRESSED AIR	N.I.C.	NOT IN CONTRACT
OA .	COMI NECCES AND	OD	OVERFLOW DRAIN
—-Не	- HELIUM	RD	ROOF DRAIN
		RG	REGISTER
N2	- NITROGEN	RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
O2	- OXYGEN	SAN	SANITARY SEWER
		SH	SHOWER
	PLUMBING GENERAL SYMBOLS	SK	SINK
^		sov	SHUT-OFF VALVE
<u></u>	REVISION TAG	SSD	SUBSOIL DRAINAGE
#	KEYED NOTE TAG	T.O.P	TOP OF PIPE
		TR	TRENCH DRAIN
→	FLOW ARROW	UR	URINAL
_	SECTION DESIGNATION	VTR	VENT THRU ROOF
##	SHEET No. WHERE SECTION IS SHOWN	WC	WATER CLOSET
	OTILL FIND. WITHING DECITION TO STICKIN	WCO	WALL CLEANOUT
0	CONNECT TO EXISTING	WHA	WATER HAMMER ARRESTER
B.O.P = #####	SPOT ELEVATION		

GENERAL NOTES - PLUMBING

- 1. THE CONTRACTOR IS TO OBTAIN ALL PERMITS, PATENT RIGHTS, AND LICENSES THAT ARE REQUIRED FOR PERFORMING THE WORK UNDER ALL LAWS, ORDINANCES, RULES AND REGULATIONS, OR ORDERS OF ANY OFFICER AND/OR GOVERNING BODY, HAVING JURISDICTION FOR THE WORK UNDER THIS SECTION. THE CONTRACTOR IS TO GIVE ALL NOTICES NECESSARY IN CONNECTION WITH, PAY ALL FEES RELATING TO AND ALL COSTS AND EXPENSES INCURRED ON ACCOUNT OF THE WORK UNDER THIS SECTION. NO WORK IS TO BE COVERED BEFORE INSPECTION BY THE JURISDICTIONAL INSPECTOR AND THE OWNER'S REPRESENTATIVE. POST PERMITS AS REQUIRED.
- 2. THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC, AND REQUIRE COORDINATION BETWEEN DISCIPLINES. SUCH COORDINATION IS THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACT DOCUMENTS INDICATE THE AVAILABLE INFORMATION ON EXISTING UTILITIES AND SERVICES, AND ON NEW SERVICES TO BE PROVIDED TO THE PROJECT BY UTILITY COMPANIES AND AGENCIES. COORDINATE ALL UTILITY INTERRUPTIONS WITH THE OWNER AND THE UTILITY COMPANY. PLAN WORK SO THAT THESE INTERRUPTIONS ARE KEPT TO A MINIMUM.
- 3. THE EQUIPMENT INDICATED ON THE CONTRACT DOCUMENTS REPRESENT A STANDARD OF QUALITY TO BE MAINTAINED. SUBSTITUTIONS OF EQUAL QUALITY MAY BE SUBMITTED TO THE ENGINEER FOR REVIEW. ALL EQUIPMENT AND MATERIALS ARE TO BE NEW AND UNUSED AND INSTALLED BY ONLY QUALIFIED PERSONNEL. THE CONTRACTOR IS TO INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, IN ADDITION TO ANY STATE AND LOCAL CODES THAT MAY APPLY. WORKMANSHIP: ALL LABOR IS TO BE CAREFULLY SKILLED FOR THIS KIND OF WORK, THOROUGH IN ALL RESPECTS AND UNDER THE DIRECTION OF A COMPETENT FOREMAN.
- EQUIPMENT FURNISHED UNDER THIS CONTRACT IS TO HAVE A PERMANENT LABEL CLEARLY INDICATING THE MAINTENANCE TO BE PERFORMED TO MAINTAIN THE EQUIPMENT IN EFFICIENT OPERATING CONDITION. EQUIPMENT SUPPLIERS ARE TO FURNISH THE FULL AND PARTIAL INPUT AND OUTPUT CAPACITIES TO ENABLE THE DETERMINATION OF COMPLIANCE WITH THE ENERGY CONSERVATION CODE.
- 5. ELECTRONICALLY SUBMIT COPIES OF SHOP DRAWINGS IN PDF FORMAT ON ALL EQUIPMENT AND MATERIALS FOR ENGINEERS REVIEW. SUBMITTAL INFORMATION IS TO INDICATE ALL PERFORMANCE DATA (RATED FOR THE ALTITUDE OF THIS PROJECT) THAT COMPLIES WITH THE SCHEDULED DATA. LIST ALL DEVIATIONS AND REASONS FOR DEVIATION. SUBMITTALS WITHOUT PROPER INFORMATION WILL BE REJECTED.
- 6. SUBMIT TYPED AND BOUND COPIES OF OPERATING AND MAINTENANCE MANUALS PRIOR TO SCHEDULING SYSTEMS DEMONSTRATION FOR THE OWNER. MANUALS ARE TO HAVE INDEX WITH TAB DIVIDERS FOR EACH MAJOR EQUIPMENT SECTION TO FACILITATE LOCATING INFORMATION ON A SPECIFIC PIECE OF EQUIPMENT. ALPHABETICAL LIST OF SYSTEM COMPONENTS, WITH THE NAME, ADDRESS AND 24 HOUR TELEPHONE NUMBER OF THE COMPANY RESPONSIBLE FOR SERVICING EACH ITEM DURING THE FIRST YEAR OF OPERATION.
- 7. DELIVERY AND STORAGE OF MATERIALS: PROVIDE FOR THE SAFETY AND GOOD CONDITION OF ALL MATERIALS AND EQUIPMENT UNTIL FINAL ACCEPTANCE BY THE OWNERS REPRESENTATIVE PROTECT ALL MATERIALS AND EQUIPMENT FROM DAMAGE AND PROVIDE ADEQUATE AND PROPER STORAGE FACILITIES DURING THE PROGRESS OF THE WORK. REPLACE ALL DAMAGED AND DEFECTIVE WORK BEFORE FILING APPLICATION FOR FINAL ACCEPTANCE.
- 8. BEFORE SUBMITTING HIS BID, THE CONTRACTOR FOR THE WORK UNDER THIS SECTION IS TO CAREFULLY STUDY ALL DRAWINGS, AND MAKE A CAREFUL EXAMINATION OF THE PREMISES. HE IS TO DEFINITELY DETERMINE IN ADVANCE, THE METHODS OF INSTALLATION AND CONNECTING THE APPARATUS AND THE MEANS TO BE PROVIDED FOR GETTING THE EQUIPMENT INTO PLACE, AFTER AWARD OF THE CONTRACT, NO SUBSEQUENT ALLOWANCES WILL BE MADE TO THE CONTRACTOR DUE TO HIS FAILURE TO COMPLY WITH THE ABOVE REQUIREMENTS AND ANY OTHER CONDITIONS AFFECTING THE INSTALLATION AND COMPLETION OF ALL WORK.
- 9. ACCURATELY RECORD ALL CHANGES TO THE CONTRACT DOCUMENTS ON ONE SET OF DRAWINGS. TRANSMIT THE INFORMATION TO THE ENGINEER AND OWNER'S REPRESENTITIVE.
- FURNISH WRITTEN CERTIFIED GUARANTEE, IN ACCEPTANCE FORM, TO THE OWNER AGAINST DEFECTIVE WORKMANSHIP, MATERIALS AND OPERATING EQUIPMENT. IN ADDITION TO THE GUARANTEES REQUIRED ELSEWHERE. ALL WORK, MATERIALS AND EQUIPMENT PROVIDED UNDER THE MECHANICAL SECTIONS ARE TO BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK BY THE OWNER. THE CONTRACTOR UNDER THIS GUARANTEE, IS RESPONSIBLE FOR ALL DAMAGE TO ANY PART OF THE PREMISES CAUSED BY EQUIPMENT AND MATERIALS FURNISHED UNDER THIS SECTION. PROVIDE CERTIFICATES FOR ALL EQUIPMENT HAVING WARRANTIES IN EXCESS OF (1) YEAR.
- 11. ALL WORK AND MATERIALS ARE TO BE IN FULL ACCORDANCE WITH THE GOVERNING EDITION OF THE LOCAL PLUMBING CODE AND OTHER APPLICABLE CODES, LAWS OR REGULATIONS OF BODIES LAWFULLY EMPOWERED AND HAVING JURISDICTION OVER THIS PROJECT. NOTHING IN THE PLANS OR THESE SPECIFICATIONS IS TO BE CONSTRUED AS TO PERMIT WORK NOT CONFORMING TO THESE CODES.
- 12. RESOLVE ALL QUESTIONS, DISCREPANCIES OR CONFLICTS WITH ENGINEER BEFORE ANY EQUIPMENT IS ORDERED, MATERIALS FABRICATED OR SYSTEMS INSTALLED.
- 13. PROVIDE IDENTIFICATION TAGS FOR ALL SCHEDULED EQUIPMENT.
- 14. COORDINATE THE INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES AND PROVIDE OFFSETS AND ADJUSTMENTS AS NECESSARY TO ACCOMMODATE STRUCTURE AND OTHER TRADES.
- LEVEL ALL EQUIPMENT CURBS / BASES PRIOR TO INSTALLATION OF ANY EQUIPMENT.
- 16. SEAL ALL WALL AND ROOF PENETRATIONS WATERTIGHT WITH SILICONE CAULKING AND BACKER ROD. U.L. LISTED AND FM APPROVED SEALANTS ARE TO BE USED AT ALL PENETRATIONS OF RATED WALLS, CEILINGS AND FLOORS.
- 17. COORDINATE TO PROVIDE ALL THE MISCELLANEOUS SUPPORT AND FRAMING REQUIRED FOR THE PLUMBING EQUIPMENT.
- 18. COORDINATE AND VERIFY ALL OPENINGS IN STRUCTURAL WALLS, ABOVE CEILINGS, AND FLOORS WITH THE STRUCTURAL CONTRACTOR.
- PROVIDE EQUIPMENT VIBRATION ISOLATION FROM STRUCTURE AND ASSOCIATED PIPING SYSTEMS.
- 20. COORDINATE WITH THE GENERAL CONTRACTOR TO PROVIDE OPENINGS THROUGH CONCRETE FOR PIPE PENETRATIONS AND SIMILAR SERVICES BY CORE DRILLING AND SAWING. REVIEW THE PROPOSED CUTTING WITH THE INSTALLER OF THE WORK TO BE CUT, AND COMPLY WITH HIS RECOMMENDATIONS TO MINIMIZE DAMAGE.
- 21. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE PLUMBING REQUIREMENTS FOR ALL CUTTING AND PATCHING OF EXISTING FACILITIES TO BE COMPLETED BY THE GENERAL CONTRACTOR OR OTHERS.
- USE ADJUSTABLE PIPE HANGERS ON SUSPENDED PIPE. ISOLATE HANGERS COMING IN CONTACT WITH BARE COPPER PIPE WITH DIELECTRIC HANGER LINERS. PROVIDE SUPPORTS BETWEEN PIPING AND BUILDING STRUCTURE WHERE NECESSARY TO PREVENT SWAYING. CONFORM TO THE MICHIGAN STATE PLUMBING CODE FOR HANGER SIZES AND SPACING. DO NOT SUPPORT PIPE FROM OTHER PIPE OR DUCT SYSTEMS INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED MOVEMENT OF PIPING SYSTEM AND TO PERMIT PROPER MOVEMENT BETWEEN PIPE ANCHORS.

- INSTALL PIPE, TUBE AND FITTINGS IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE PERMANENTLY-LEAKPROOF PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE WITHOUT PIPING FAILURE. INSTALL EACH RUN WITH A MINIMUM OF JOINTS AND COUPLINGS, BUT WITH ADEQUATE AND ACCESSIBLE UNIONS FOR DISASSEMBLY, MAINTENANCE OR REPLACEMENT OF VALVES AND EQUIPMENT. REDUCE SIZES BY USE OF REDUCING FITTINGS. INSTALL PIPING WITHOUT SPRINGING OR FORCING. SUPPORT PIPING INDEPENDENTLY AT EQUIPMENT SO ITS WEIGHT WILL NOT BE SUPPORTED BY THE EQUIPMENT. FURNISH ALL DEVICES NECESSARY FOR FINAL CONNECTION, INCLUDING BUT NOT LIMITED TO TAIL PIECES, STOPS AND SUPPLIES. LOCATE PIPING RUNS, EXCEPT AS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY. AVOID DIAGONAL RUNS WHEREVER POSSIBLE. ORIENT HORIZONTAL RUNS PARALLEL WITH WALLS AND COLUMN LINES. HOLD PIPING CLOSE TO WALLS, OVERHEAD CONSTRUCTION, COLUMNS AND OTHER STRUCTURAL AND PERMANENT-ENCLOSURE ELEMENTS OF THE BUILDING. LIMIT CLEARANCE OF 0.5" WHERE FURRING IS SHOWN FOR ENCLOSURE OR CONCEALMENT OF PIPING, BUT ALLOW FOR INSULATION THICKNESS, IF ANY.
- 24. FLUSH OUT PIPING SYSTEMS WITH CLEAN WATER BEFORE PROCEEDING WITH THE REQUIRED TESTS. PROVIDE TEMPORARY EQUIPMENT FOR TESTING, INCLUDING PUMP AND GAUGES. TEST PIPING SYSTEM BEFORE INSULATION IS INSTALLED WHEREVER FEASIBLE. TEST EACH NATURAL SECTION OF EACH PIPING SYSTEM INDEPENDENTLY, BUT DO NOT USE PIPING SYSTEM VALVES TO ISOLATE SECTIONS WHERE TEST PRESSURE EXCEEDS VALVE PRESSURE RATING. FILL EACH SECTION OF WATER, DRAIN OR VENT PIPING WITH WATER AND PRESSURIZE FOR TWO HOURS AT 150% OF OPERATING PRESSURE, BUT NOT LESS THAN 50 PSIG FOR PRESSURE PIPING AND TEN FEET FOR DRAIN AND VENT PIPING. TEST FAILS IF LEAKAGE IS OBSERVED OR IF PRESSURE DROP EXCEEDS 5% OF TEST PRESSURE. REPAIR PIPING SYSTEMS SECTIONS WHICH FAIL BY DISASSEMBLY AND RE-INSTALLATIONS, USING NEW MATERIALS TO THE EXTENT REQUIRED TO OVERCOME LEAKAGE. DO NOT USE CHEMICALS, STOP-LEAK COMPOUNDS, MASTICS OR OTHER TEMPORARY REPAIR METHODS. AFTER TESTING AND REPAIR WORK HAVE BEEN COMPLETED, DRAIN TEST WATER FROM PIPING SYSTEMS.
- 25. FILL ALL DOMESTIC WATER LINES WITH A CHLORINE WATER SOLUTION OF 50 PARTS PER MILLION, MINIMUM. HOLD SOLUTION IN PIPE FOR AT LEAST 24 HOURS. OPEN AND CLOSE ALL VALVES 3 TIMES DURING CHLORINATION. WASTE CHLORINE SOLUTION FROM EACH OUTLET. MEASURE SOLUTION FOR RESIDUAL CHLORINE AT END. IF NOT LESS THAN 10 PPM, REPEAT. ALL NEW POTABLE WATER SYSTEMS ARE TO BE CLEANED AS HEREIN SPECIFIED PRIOR TO TESTING OR APPLICATION OF INSULATION. COMPLY WITH ALL APPLICABLE HEALTH CODES WHICHEVER IS MORE STRINGENT.
- 26. PROVIDE SHUT OFF VALVES ON ALL DOMESTIC AND PROCESS WATER SYSTEMS ON ALL BRANCHES AT EACH EQUIPMENT / FIXTURE GROUP, AS CLOSE TO MAIN AS POSSIBLE.
- BALL VALVES 1" AND SMALLER: NIBCO T585 (THREADED ENDS) OR NIBCO S585 (SOLDERED ENDS). RATED FOR 400 PSI NON-SHOCK WOG 2-PIECE CAST BRONZE BODIES, TFE SEAT, FULL PORT, BRONZE TRIM, BLOWOUT PROOF STEMS BRASS/BRONZE BALL. VALVE ENDS ARE TO HAVE FULL DEPTH ANSI THREADS OR EXTENDED SOLDER CONNECTIONS. BALL VALVES 1 1/4" THRU 3": NIBCO T-590 (THREADED ENDS) OR S-590 (SOLDER ENDS). RATED FOR 400 PSI NON-SHOCK WOG, 3-PIECE CAST BRONZE BODY, TFE SEAT, CONVENTIONAL PORT, BRONZE TRIM, BLOWOUT PROOF STEM, BRONZE BALL, VALVE ENDS ARE TO HAVE FULL DEPTH ANSI THREADS OR EXTENDED SOLDER CONNECTIONS. CHECK VALVES 2 1/2" AND SMALLER: NIBCO T413 (THREADED ENDS) OR NIBCO T413 (SOLDERED ENDS). Y-PATTERN HORIZONTAL SWING-TYPE, CLASS 125, RATED FOR 200 PSI WOG BRONZE ASTM B-62 BODY WITH TFE SEAT DISC. GAS VALVES: ALL SIZES= CORROSION RESISTANT LUBRICATED PLUG TYPE WITH CORROSION RESISTANT BEARINGS SUITABLE FOR INTENDED SERVICE, LEVER OPERATED.
- 28. INSTALL VALVES ON HORIZONTAL PIPING WITH STEMS POINTING UP, AND AS CLOSE TO VERTICAL AS POSSIBLE. INSTALL VALVES AT EACH PIECE OF EQUIPMENT, FIXTURE OR APPLIANCE SO THAT THE SUPPLY AND RETURN SERVICES CAN BE SHUT OFF TO REMOVE THE ITEM WITHOUT DISTURBING THE PIPING SYSTEM. INSTALL VALVES WHERE REQUIRED FOR PROPER OPERATION OF PIPING AND EQUIPMENT, INCLUDING VALVES IN BRANCH LINES TO ISOLATE SECTIONS OF PIPING.
- 29. DOMESTIC WATER PIPING: ABOVE GROUND INSIDE BUILDINGS, SIZE 2" AND UNDER IS TO BE COPPER TUBE, HARD TEMPER, TYPE "L" PIPE WITH WROUGHT COPPER, OR CAST BRONZE FITTINGS AND AND LEAD FREE, 95/5 TIN ANTIMONY SOLDER. BELOW GROUND, SIZE 2" AND UNDER IS TO BE COPPER TUBE, ANNEALED, TYPE K PIPE WITH WROUGHT COPPER, AND SILVER SOLDERED FITTINGS.
- 30. LAY UNDERGROUND PIPING TRUE TO THE GRADES AND ALIGNMENT INDICATED WITH UNBROKEN CONTINUITY OF INVERT. INSTALL GASKETS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR THE USE OF LUBRICANTS, CEMENTS AND OTHER SPECIAL INSTALLATION REQUIREMENTS. CLEAR THE INTERIOR OF CONDUIT OF DIRT AND OTHER SUPERFLUOUS MATERIAL AS THE WORK PROGRESSES. PLACE PLUGS IN THE END OF UNCOMPLETED CONDUIT AT THE END OF THE DAY OR WHENEVER WORK STOPS. FLUSH LINES, IF REQUIRED, TO REMOVE COLLECTED DEBRIS. MAKE JOINTS BETWEEN CAST IRON PIPE AND OTHER TYPES OF PIPE WITH STANDARD MANUFACTURED CAST IRON ADAPTERS AND FITTINGS. SET GRADE CLEANOUTS LOCATED IN UNPAVED AND ASPHALT PAVED AREAS IN 12"x12"x4" CONCRETE PADS.
- CLEAN AND DRY PIPE SURFACES PRIOR TO INSULATING. EXTEND PIPING INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS AND SIMILAR PIPING PENETRATIONS, EXCEPT WHERE OTHERWISE INDICATED. INSTALL PROTECTIVE SHEETMETAL SHIELD AROUND BOTTOM HALF OF PIPE INSULATION AT EACH PIPE SUPPORT SUFFICIENT TO PREVENT CRUSHING OF THE INSULATION, AT CONTRACTORS OPTION, INSTALL PRE-MANUFACTURED HEAVY DENSITY PIPE SHIELDS IN LIEU OF PIPE INSULATION AT EACH PIPE SUPPORT. EXCEPT AS NOTED, COVER VALVES, FLANGES, FITTINGS AND SIMILAR ITEMS IN EACH PIPING SYSTEM WITH EQUIVALENT THICKNESS AND COMPOSITION OF INSULATION AS APPLIED TO ADJOINING PIPE RUN. DO NOT COVER VALVE OPERATORS, THREADED OR SOLDER JOINT STRAINERS OR BLOWDOWN END OF STRAINERS. MARK LOCATION OF UNIONS AND FLANGES COVERED BY INSULATION WITH PERMANENT PAINT OR INK, PAINTED STENCIL OR APPROVED LABEL. MAINTAIN INTEGRITY OF VAPOR-BARRIER JACKETS ON INSULATION OF COLD PIPES AND PROTECT TO PREVENT PUNCTURE OR OTHER DAMAGE. INSULATE BETWEEN PIPE AND PIPE SADDLES. ON UNDERGROUND PIPE INSULATION, INSTALL UNICELLULAR INSULATION ON PIPE WITHOUT SLITTING INSULATION. SEAL ALL TRANSVERSE JOINTS WITH ADHESIVE. PROVIDE COMPOSITE INSTALLATION (INSULATION, JACKET, COVERING, SEALER, MASTIC AND ADHESIVE) COMPLYING WITH THE FOLLOWING: FLAME SPREAD: 25 OR LESS. SMOKE DEVELOPED: 50 OR LESS. METHOD: ASTM E84 (NFPA 255). FIBERGLASS PIPE INSULATION: SCHULLER MICRO-LOK 850, HEAVY DENSITY PIPE INSULATION WITH AP-T JACKET. FIBERGLASS FITTING INSULATION: SCHULLER "ZESTON" FITTING COVERS WITH FACTORY-CUT FIBERGLASS INSULATION INSERT.
- BUILDING PLUMBING SYSTEMS WILL BE EXTENDED TO CONNECT TO EXISTING SERVICE. FIELD VERIFY SIZE, LOCATION, AND CONDITION OF EXISTING SERVICE.
- 33. SANITARY WASTE AND VENT (SWV) PIPING ABOVE GROUND IN RETURN AIR PLENUMS IS SHALL BE CAST IRON, NO HUB, NEOPRENE GASKET, STAINLESS STEEL SLEEVE JOINT, SCHEDULE 40 PVC IS PERMISSIBLE ABOVE GROUND IN NON PLENUM RATED APPLICATIONS. BELOW GROUND SWV PIPING SHALL BE SCHEDULE 40 PVC WITH SOLVENT GLUED FITTINGS AND JOINTS.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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PLUMBING LEGEND

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GENERAL DEMOLITION NOTES - PLUMBING

1. THE DRAWINGS DEPICT ONLY GENERALLY THE EXISTING CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD OBSERVATIONS AND CONFIRM THE LOCATIONS OF EXISTING PLUMBING FIXTURES AND ASSOCIATED PIPING THAT NEED TO BE REMOVED.

2. DEMOLITION WORK SHALL BE DONE BY THE PLUMBING CONTRACTOR. CONTRACTOR SHALL FOLLOW STANDARD DEMOLITION PROCEDURES TO REMOVE THE EXISTING PIPING AND/OR FIXTURES. CONTRACTOR TO COORDINATE THE DEMO WITH OWNER AND OTHER TRADES.

3. THE CONTRACTOR IS RESPONSIBLE TO FOLLOW BUILDING MANAGEMENT RULES WITH REGARD TO TRASH AND NOISE.

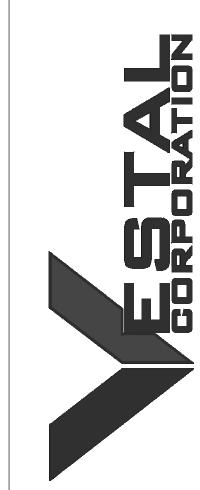
4. THE CONTRACTOR SHALL MAINTAIN IN OPERATION ALL EXISTING UTILITIES DURING CONSTRUCTION.

5. ALL DEMOLITION WORK WILL BE SCHEDULED WITH BUILDING MANAGEMENT AND PERFORMED ONLY FOLLOWING APPROVAL. 6. THE CONTRACTOR SHALL INFORM BUILDING MANAGEMENT AND RECEIVE SCHEDULE APPROVAL FOR ANY REQUIRED UTILITY

7. PATCH WALL AND/OR CEILING/ROOF LOCATIONS AFFECTED BY DEMOLITION/RELOCATION WORK TO MATCH ADJACENT SURFACES.

KEYED NOTES:

- DEMOLISH AND REMOVE WATER HEATERS AND ALL ASSOCIATED PIPING.
- DEMOLISH AND REMOVE FLOOR DRAIN AND ALL ASSOCIATED PIPING. DEMOLISH AND REMOVE SHOWER HEADS AND ALL ASSOCIATED HW & CW PIPING.
- DEMOLISH AND REMOVE TOILETS AND ALL ASSOCIATED PIPING. DEMOLISH AND REMOVE LAVATORIES AND ALL ASSOCIATED PIPING.
- DEMOLISH AND REMOVE URINALS AND ALL ASSOCIATED PIPING.
- DEMOLISH AND REMOVE THREE-COMPARTMENT SINK AND ALL ASSOCIATED PIPING. DEMOLISH AND REMOVE HAND WASHING SINK AND ALL ASSOCIATED PIPING.
- DEMOLISH AND REMOVE ALL HW & CW PIPING.
- DEMOLISH AND REMOVE GREASE INTERCEPTOR AND ALL ASSOCIATED PIPING.
- EXISTING HOSE BIBB TO BE REUSED.
- ICE MACHINE TO BE REUSED
- DRINKING FOUNTAIN TO BE REUSED EXISTING FLOOR DRAIN TO REMAIN.



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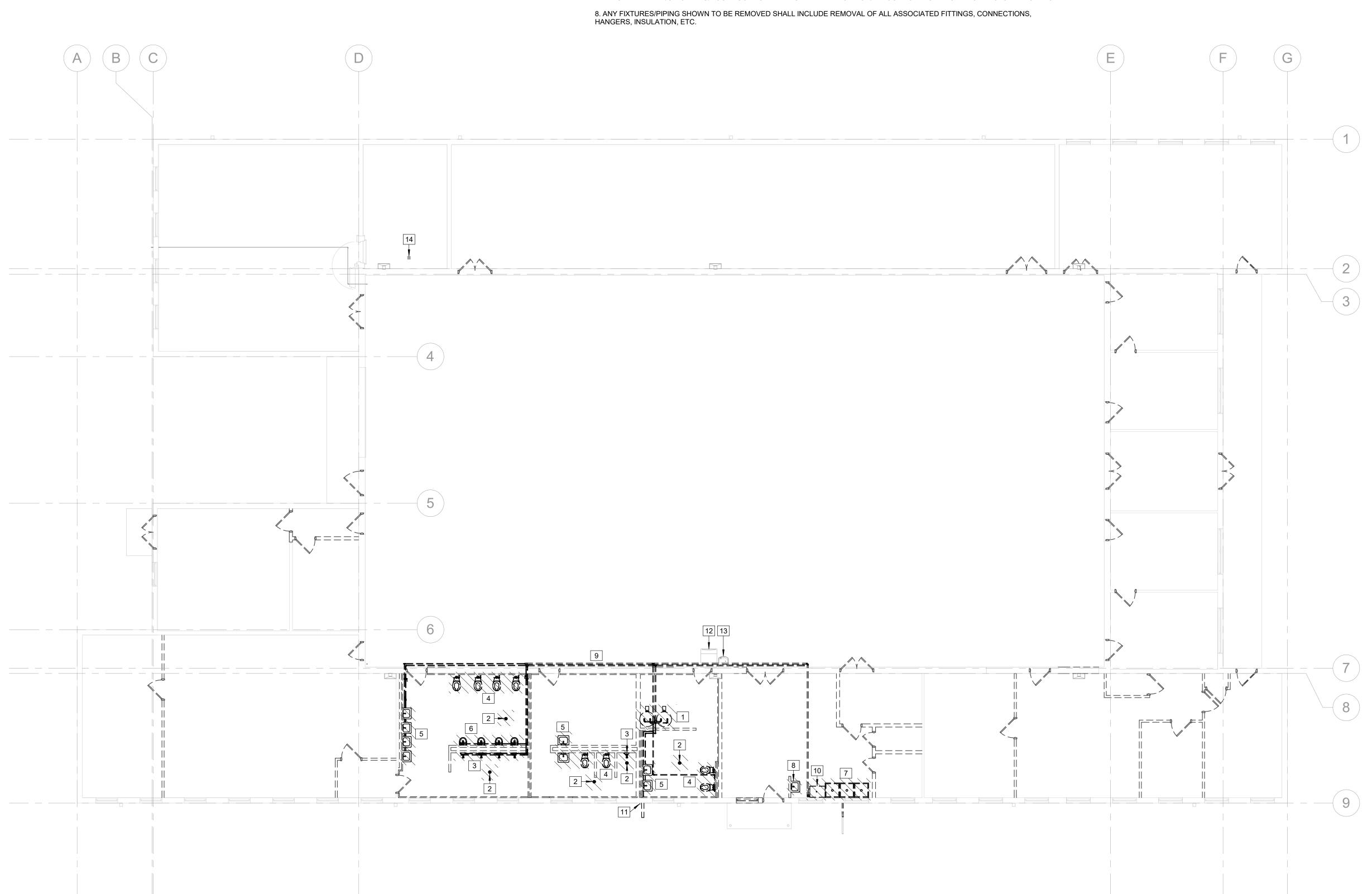
SHEET TITLE:

GROUND FLOOR PLAN - PLUMBING **DEMOLITION**

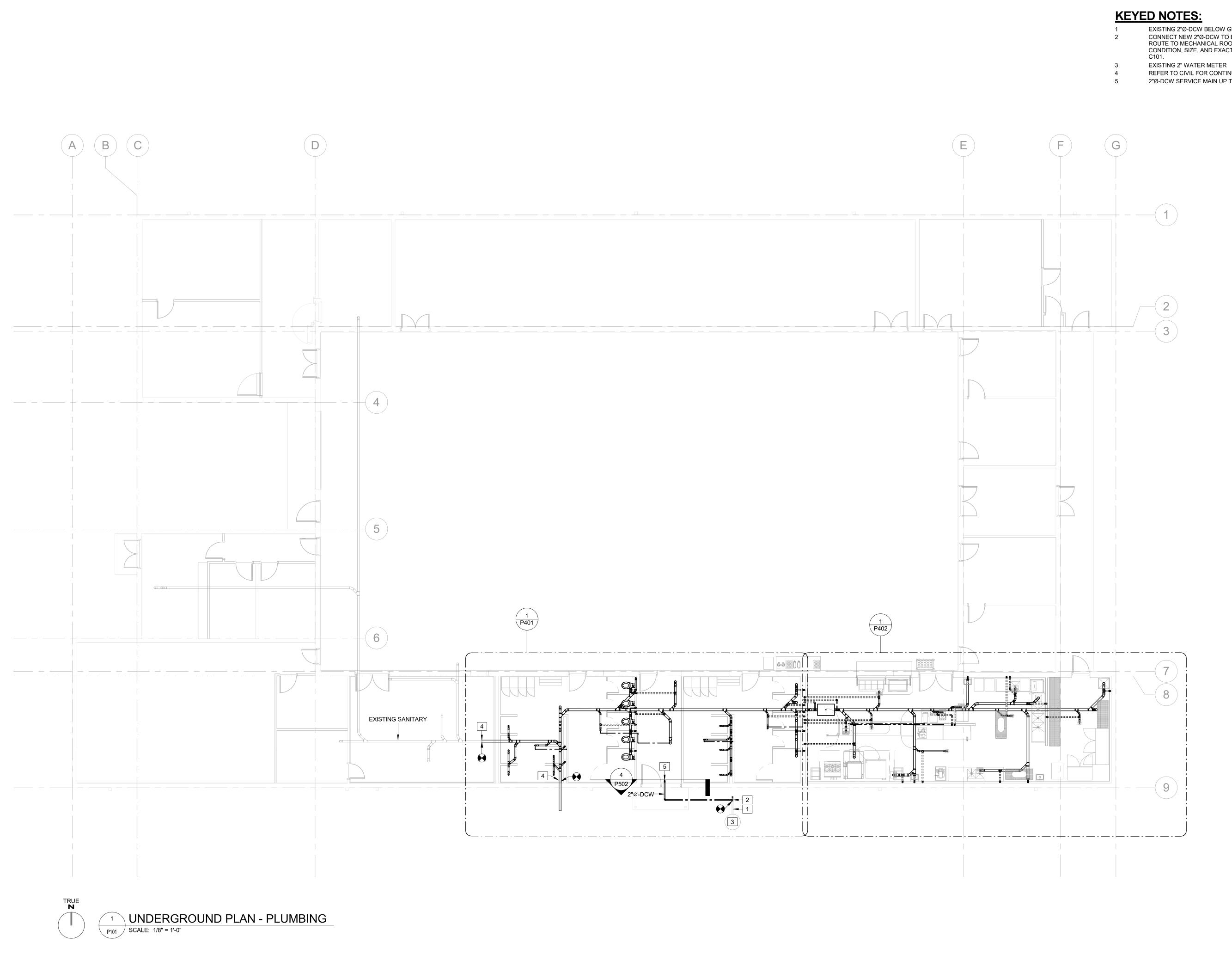
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GROUND FLOOR PLAN - PLUMBING DEMOLITION



EXISTING 2"Ø-DCW BELOW GRADE TO REMAIN.

CONNECT NEW 2"Ø-DCW TO EXISTING 2"Ø-DCW BELOW GRADE AND ROUTE TO MECHANICAL ROOM AS SHOWN ON PLAN. FIELD VERIFY CONDITION, SIZE, AND EXACT LOCATION. REFER TO CIVIL SHEET

REFER TO CIVIL FOR CONTINUATION.

2"Ø-DCW SERVICE MAIN UP THROUGH FLOOR TO RPZ-1.

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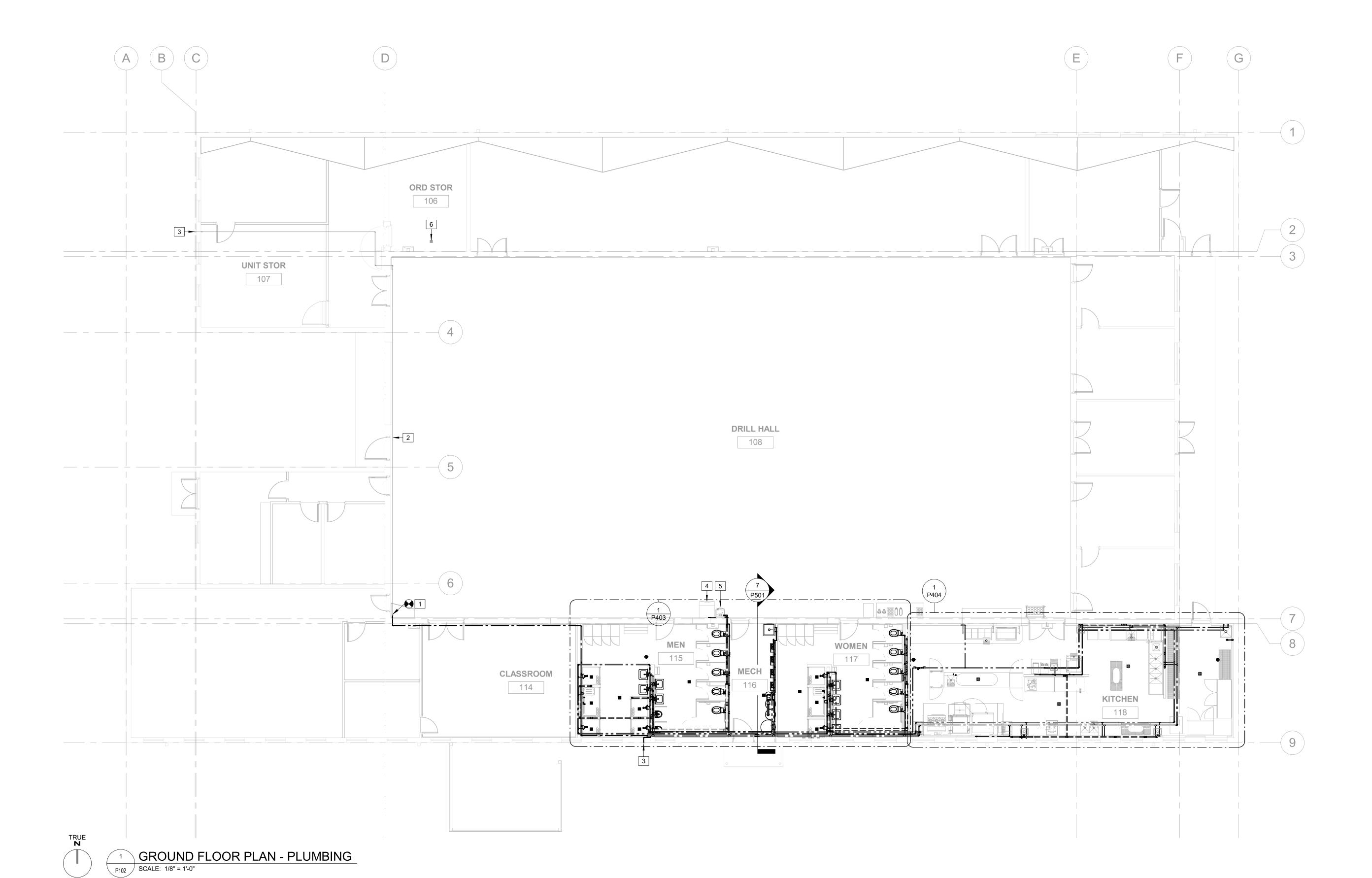
UNDERGROUND PLAN - PLUMBING

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KEYED NOTES:

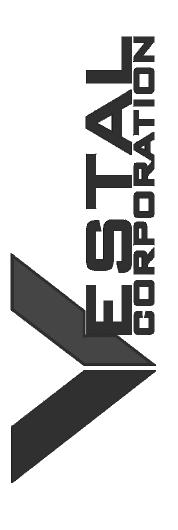
- CONNECT NEW 3/4"Ø-DCW TO EXISTING 3/4"Ø-DCW THAT SERVES EXISTING HOSE BIBB. VERIFY THAT THE EXISTING LINE IS ACTIVE BEFORE MAKING ANY CONNECTIONS. VERIFY EXACT LOCATION,
- SIZE, AND CONDITION.
 EXISTING 3/4"Ø-DCW TO REMAIN.
- EXISTING 3/4"Ø-DCW TO REMAIN.
 EXISTING HOSE BIBB TO BE REUSED.
- PROVIDE NEW 1/2"Ø-DCW AND CONNECT TO ICE MACHINE. ROUTE PUMP DISCHARGE TO MOP SINK IN MECHANICAL ROOM.
- 5 PROVIDE NEW 2"Ø-SAN AND 1/2"Ø-DCW AND CONNECT TO DRINKING
- EXISTING FLOOR DRAIN TO REMAIN.



STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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DEPARTMENT OF MISSOURI NATIONAL GUARD

STATE OF MISSOURI -ST. CLAIR READINESS CENTER

375 SOUTH COMMERCIAL AVENUE, ST. CLAIR MISSOURI 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

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	В	DD	2024.02.19
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ISSUE DATE: 2023.12.06

CAD DWG FILE:

DRAWN BY: MDC

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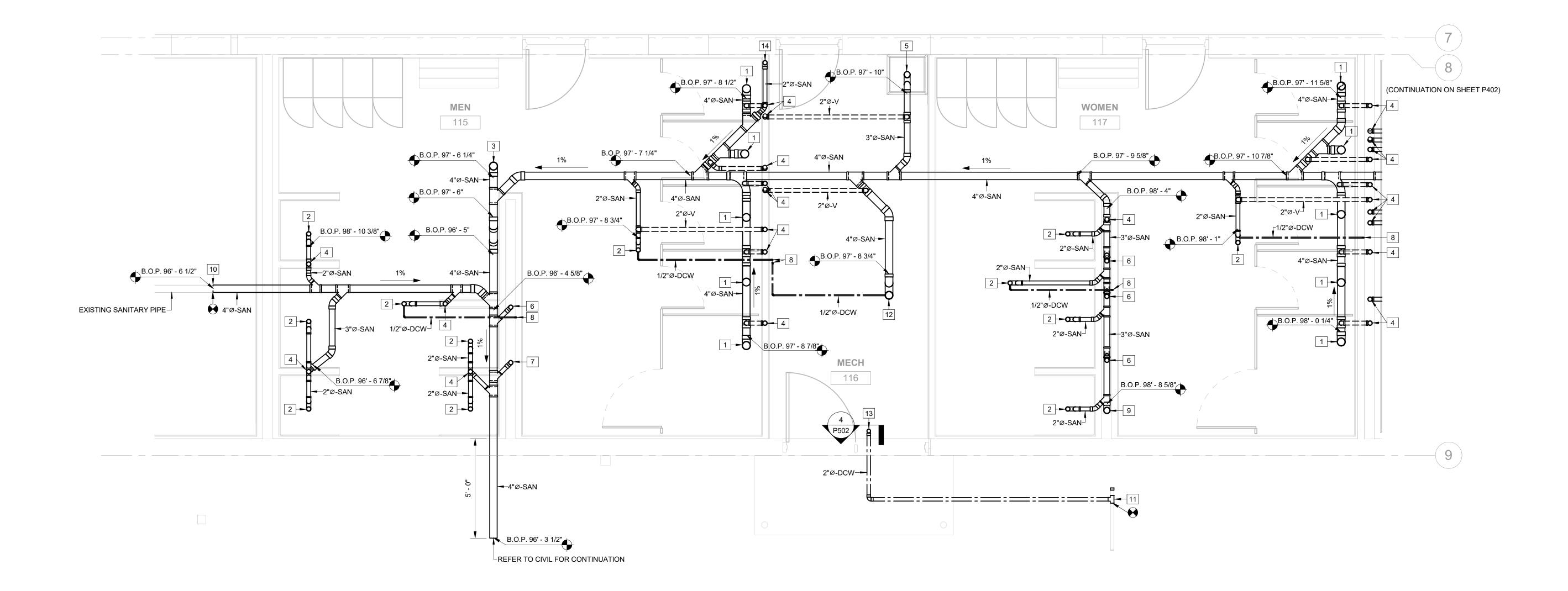
DESIGNED BY: MDC

SHEET TITLE:

GROUND FLOOR PLAN - PLUMBING

SHEET NUMBER:

P102



ENLARGED UNDERGROUND PLAN - RESTROOMS

P401 SCALE: 3/8" = 1'-0"

KEYED NOTES:

- 4"Ø-SAN UP TO WC-1
- 2"Ø-SAN UP TO FD-1 4"Ø-SAN UP TO FCO-1
- 2"Ø-V UP 3"Ø-SAN UP TO MB-1
- 3"Ø-SAN UP TO MB-1 2"Ø-SAN UP TO LAV-1
- 2"Ø-SAN UP TO UR-1
- 1/2"Ø-DCW UP TO TP-1
- 3"Ø-SAN UP TO WCO-1 REFER TO CIVIL FOR CONTINUATION. CONNECT NEW 2"Ø-DCW TO EXISTING 2"Ø-DCW
- BELOW GRADE AND ROUTE TO MECHANICAL ROOM AS SHOWN ON PLAN. FIELD VERIFY CONDITION, SIZE, AND EXACT LOCATION. REFER TO CIVIL SHEET C101.
- 4"Ø-SAN UP TO FD-1
- 2 2"Ø-DCW SERVICE MAIN UP THROUGH FLOOR TO
- 14 2"Ø-SAN UP TO SERVE DRINKING FOUNTAIN.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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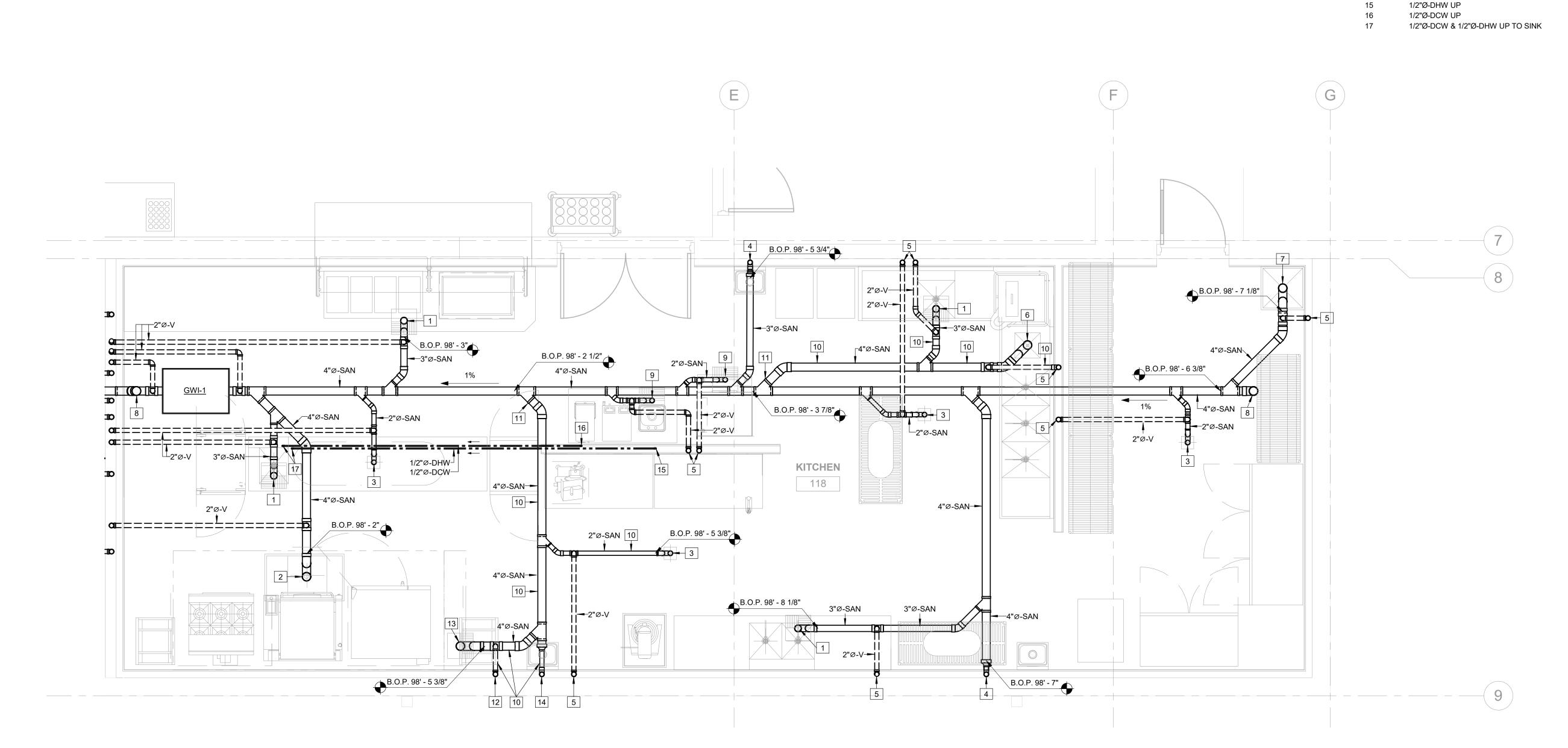
DESIGNED BY: MDC

SHEET TITLE:

ENLARGED UNDERGROUND PLANS - PLUMBING

SHEET NUMBER:

P401



MICHAEL L. PARSON, GOVERNOR

KEYED NOTES:

2"Ø-V UP

3"Ø-SAN UP TO FLOOR SINK 4"Ø-SAN UP TO TRENCH DRAIN 2"Ø-SAN UP TO FLOOR DRAIN 2"Ø-SAN UP TO HAND SINK

4"Ø-SAN UP TO FCO-1 2"Ø-SAN UP TO FLOOR SINK

4"Ø-SAN UP TO FLOOR SINK. PROVIDE CAST IRON DRAIN MATERIAL AND PIPING FOR HIGH TEMPERATURE DISCHARGE FROM

PROVIDE CAST IRON PIPE FOR HIGH TEMPERATURE DISCHARGE.
MAKE TRANSITION BETWEEN PVC AND CAST IRON WITH HUSKY

2"Ø-V UP. PROVIDE CAST IRON PIPING FOR HIGH TEMPERATURE

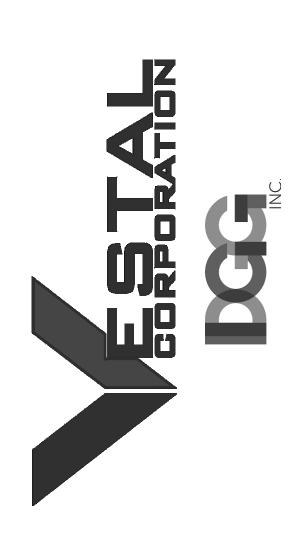
2"Ø-SAN UP TO HAND SINK. PROVIDE CAST IRON PIPING.

4"Ø-SAN UP TO FLOOR SINK. PROVIDE CAST IRON PIPING FOR HIGH TEMPERATURE DISCHARGE.



STATE OF MISSOURI

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SHEET TITLE:

ENLARGED UNDERGROUND PLANS - PLUMBING

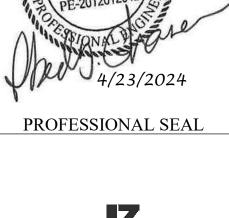
SHEET NUMBER:

P402



KEYED NOTES:

- CONNECT TO EXISTING 3/4"Ø-DCW THAT SERVES THE EXISTING HOSE BIBB ON THE EXTERIOR OF ROOM 107-UNIT STORAGE.
 - EXISTING HOSE BIBB TO BE REUSED.
- 3 PROVIDE NEW 2"Ø-SAN AND 1/2"Ø-DCW AND CONNECT TO DRINKING
- PROVIDE NEW 1/2"Ø-DCW AND CONNECT TO ICE MACHINE. ROUTE PUMP DISCHARGE TO MOP SINK IN MECHANICAL ROOM.



STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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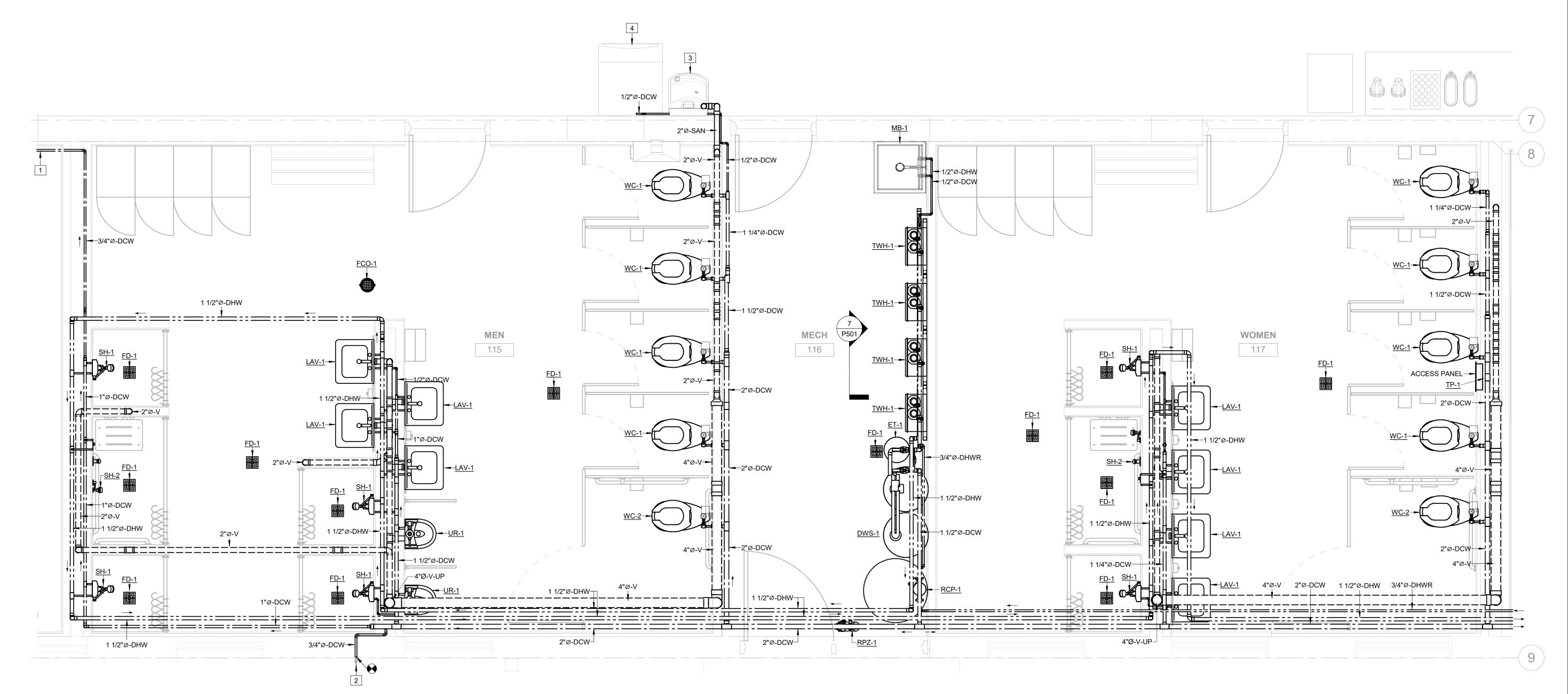
SHEET TITLE:

ENLARGED FLOOR PLANS - PLUMBING

SHEET NUMBER:

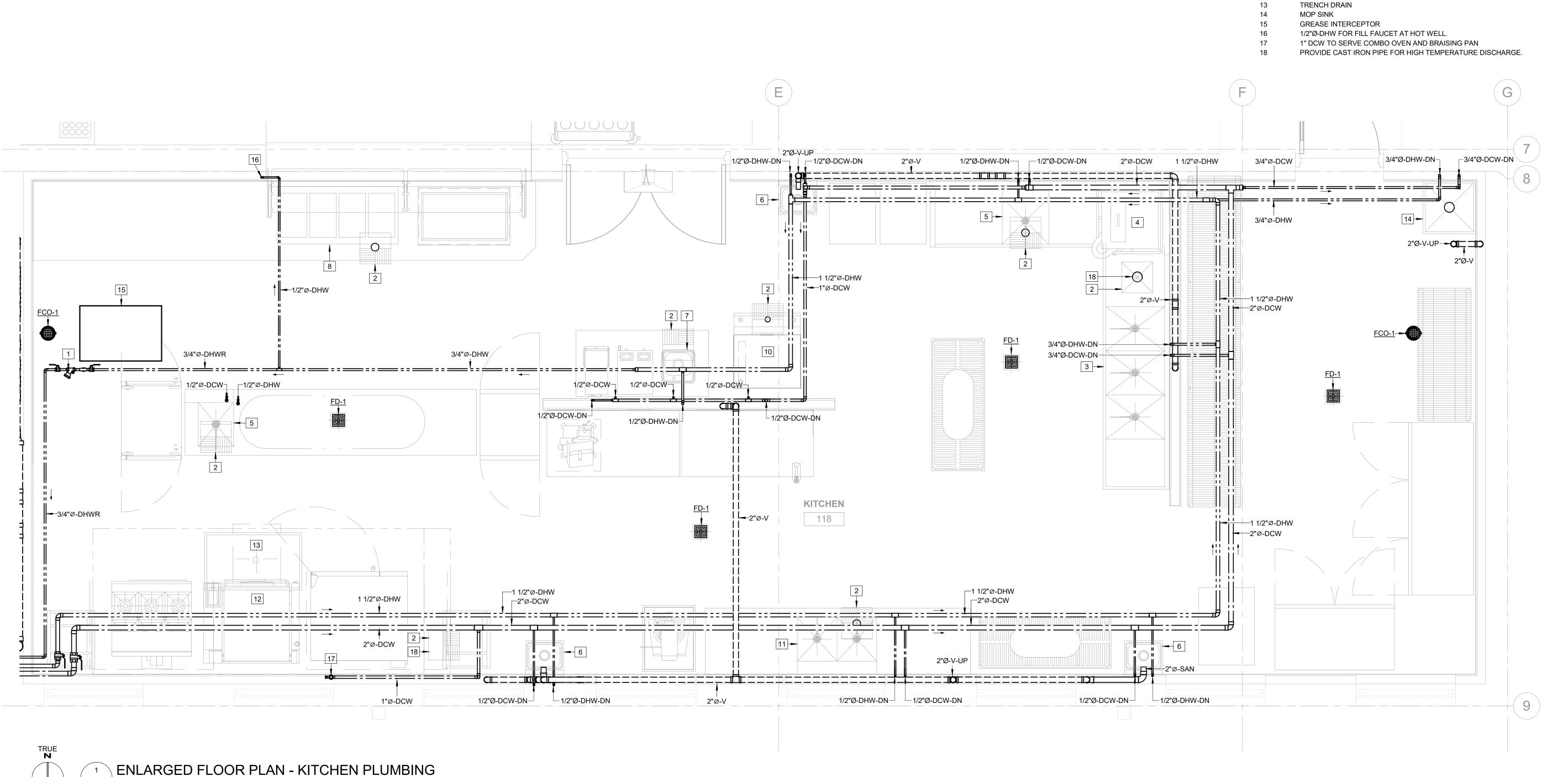
P40.

54 OF 85 SHEETS 2024.04.23



ENLARGED FLOOR PLAN - PLUMBING

P403 SCALE: 1/2" = 1'-0"



P404 SCALE: 1/2" = 1'-0"

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR

KEYED NOTES:

FLOOR SINK (FS-1)

TO DETAIL 5 / P502.

HAND WASHING SINK

ICE MACHINE

CIRCUIT SETTER BALANCING VALVE - REFER TO DETAIL 3 / P502.

DISHWASHING MACHINE - PLUMBING CONTRACTOR SHALL PIPE

DROP-IN SINK - PLUMBING CONTRACTOR SHALL BRANCH SINK

FROM DRAIN ON EQUIPMENT TO FLOOR SINK.

FROM DRAIN ON EQUIPMENT TO FLOOR SINK.

DRAINS AND EXTEND TO FLOOR SINK.

DRAINS AND EXTEND TO FLOOR SINK.

EQUIPMENT TO FLOOR SINK.

SINK DRAINS AND EXTEND TO FLOOR SINK.

TRIPLE COMPARTMENT PRE-RINSE SINK - PLUMBING CONTRACTOR SHALL BRANCH SINK DRAINS AND EXTEND TO FLOOR SINK. REFER

SINGLE COMPARTMENT SINK - PLUMBING CONTRACTOR SHALL PIPE

DROP-IN HOT FOOD UNIT - PLUMBING CONTRACTOR SHALL BRANCH

DROP-IN COLD PAN - PLUMBING CONTRACTOR SHALL BRANCH SINK

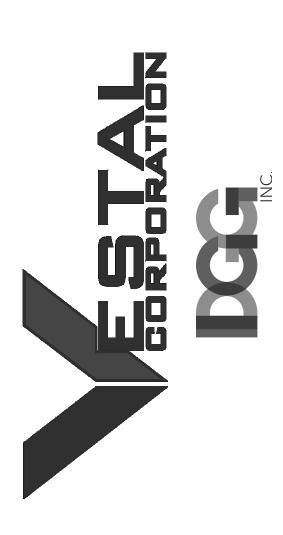
DOUBLE COMPARTMENT SINK - PLUMBING CONTRACTOR SHALL

BRAISING PAN - PLUMBING CONTRACTOR TO PIPE FROM DRAIN ON

BRANCH SINK DRAINS AND EXTEND TO FLOOR SINK.



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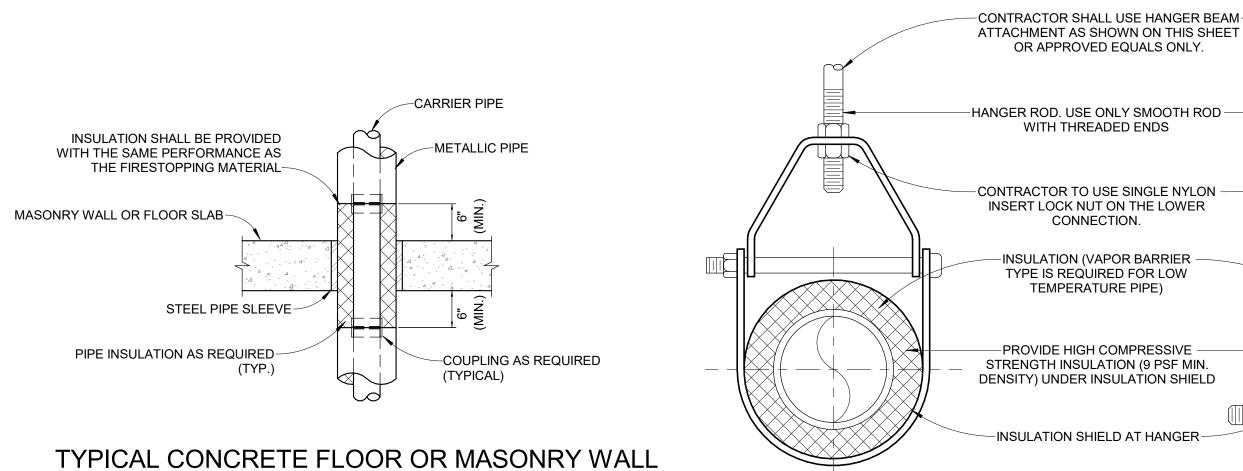
DESIGNED BY: MDC

SHEET TITLE:

ENLARGED FLOOR PLANS - PLUMBING

SHEET NUMBER:

P404



INSULATION SHIELD AT HANGER

ADJUSTABLE CLEVIS HANGER WITH SADDLE

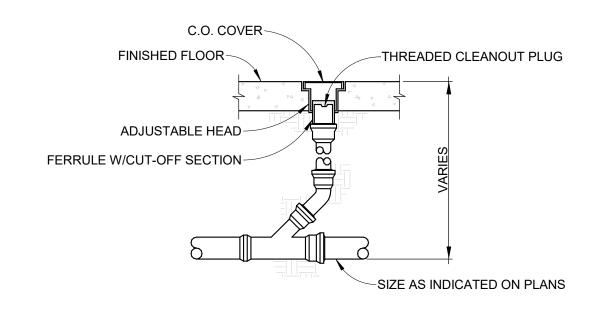
NOTES:

1. ALL HANGER METALLIC MATERIALS SHALL BE 304LSS

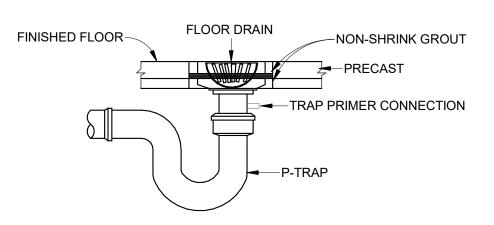
4 PIPE HANGER DETAIL

SCALE: NTS

ADJUSTABLE CLEVIS HANGER

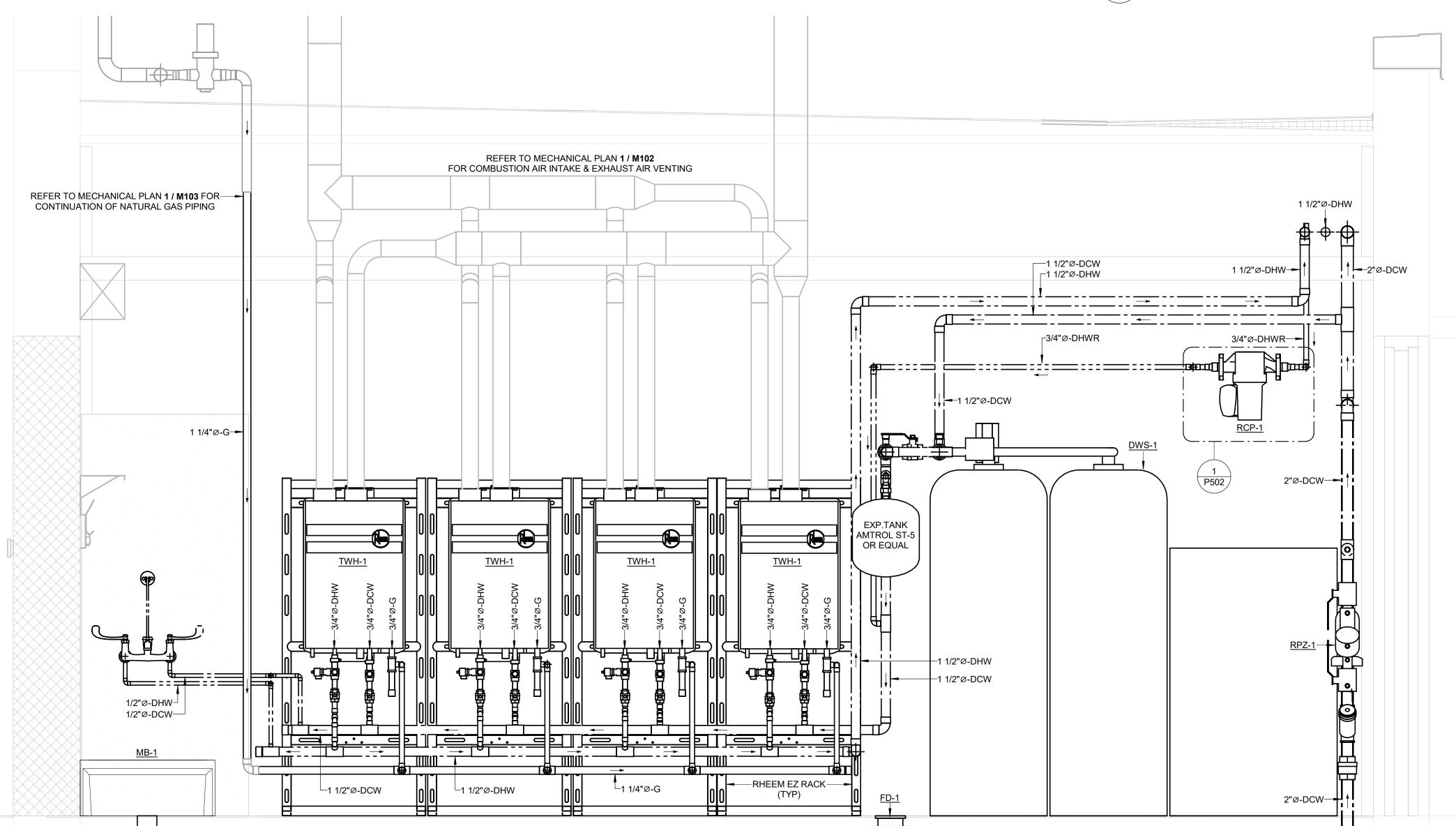






FLOOR DRAIN DETAIL

SCALE: NTS

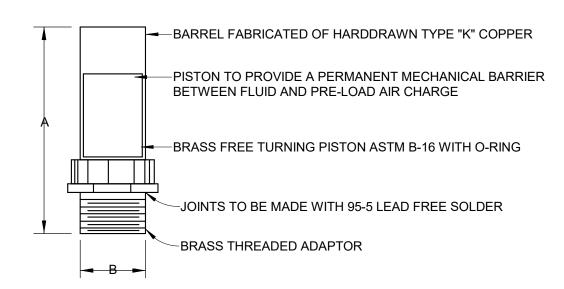


TANKLESS WATER HEATERS & WATER SOFTENER

7 DETAIL
P501 SCALE: NTS

PENETRATION DETAIL

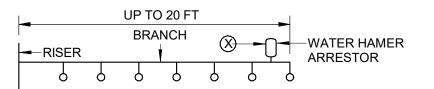
P501 SCALE: NTS



		WATER	HAMMER ARREST	OR SCHE	EDULE		
PIPE	SIZE	P.D.I.	FIXTURE UNIT	A S	IZE	BS	IZE
in.	mm		RATING	in.	mm	in.	mm
1/2"	13	'A'	1-11	5"	127	1/2"	13
3/4"	19	'B'	12-32	5"	127	3/4"	19
1"	1"	'C'	33-60	7"	178	1"	1"
1 1/4"	31	'D'	61-113	7"	178	1 1/4"	31
1 1/2"	38	'E'	114-154	9"	228	1 1/2"	38
2"	50	'F'	155-330	9"	228	2"	50

BASIC RULES

RULE 1: COVERS MULTIPLE FIXTURE BRANCH LINES WHICH DO NOT EXCEED 20 FT. IN LENGTH.

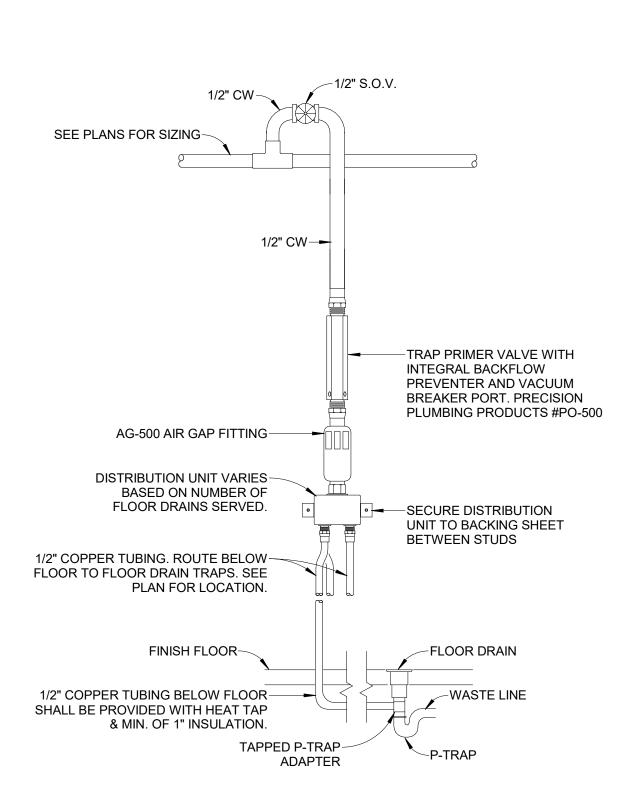


RULE 2: COVERS MULTIPLE FIXTURE BRANCH LINES WHICH DO NOT EXCEED 20 FT. IN LENGTH. THE SUM OF THE FIXTURE UNITS RATINGS OF UNITS AND SHALL BE EQUAL TO OR GREATER THAN THE DEMAND OF THE BRANCHES

4					0	VER 2	0 FT						
RISE	ΞR				Ŷ) - (Ç			Ø) - ()- -	WATER HAMER ARRESTOR
7)	7	1	7	1	7		7	7	7	7		(TYP.)

REFER TO MANUFACTURERS RECOMMENDATION FOR EXACT WATER HAMMER ARRESTOR INSTALLATION.



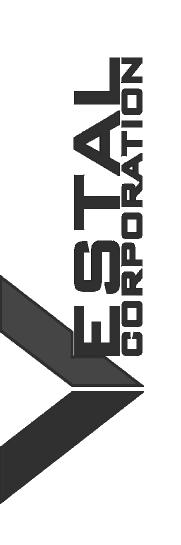


6 TRAP PRIMER W/ DISTRIBUTION UNIT
P501 SCALE: NTS

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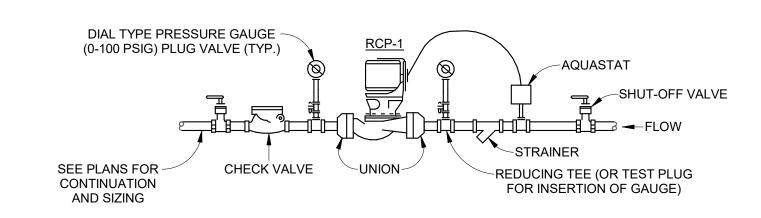
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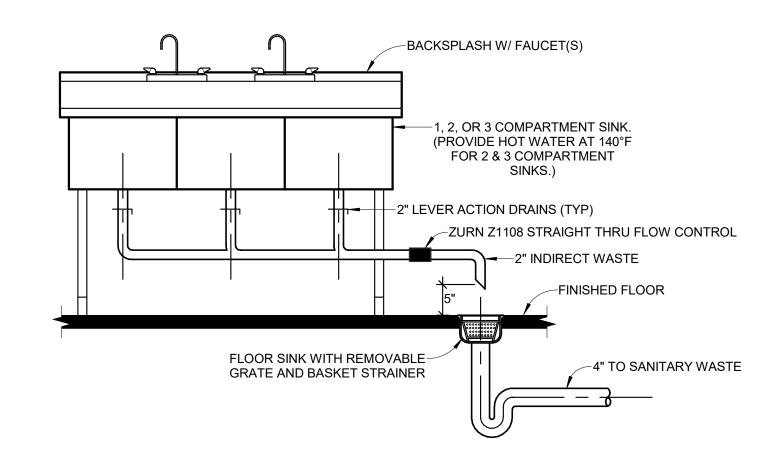
PLUMBING DETAILS

SHEET NUMBER:

P501

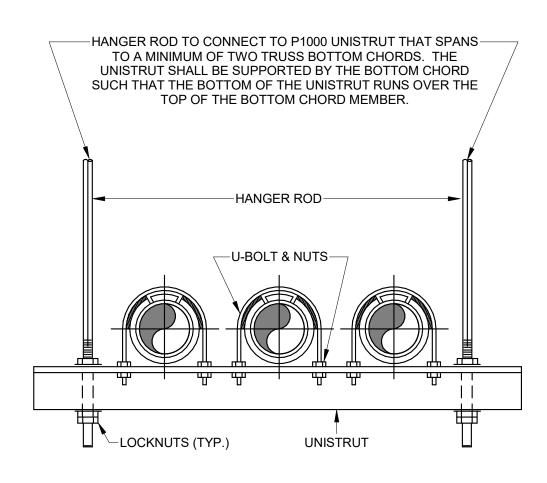


1 INLINE CIRCULATING PUMP (RCP-1) SCALE: NTS



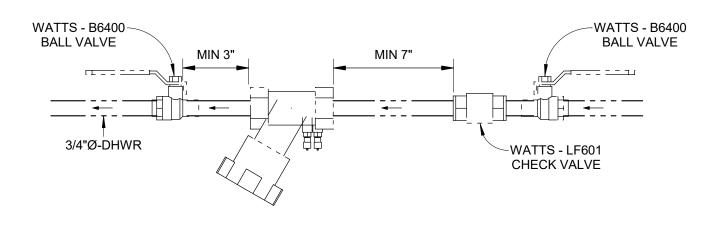
THREE COMPARTMENT KITCHEN SINK DETAIL

SCALE: NTS

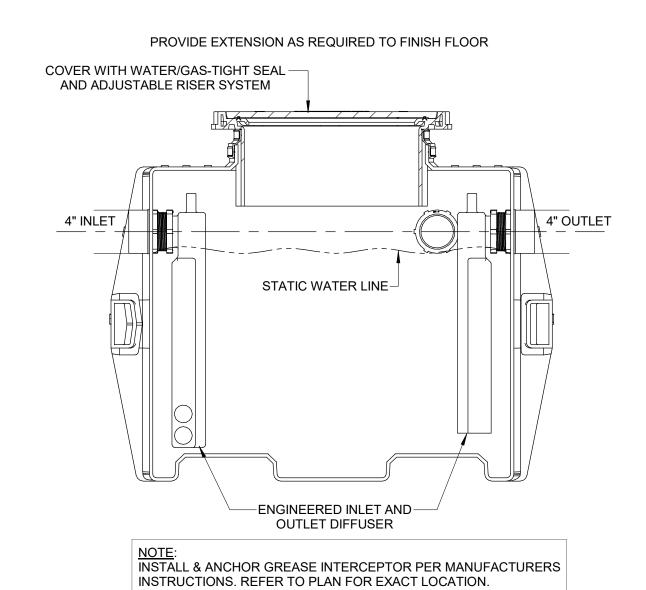


TYPICAL TRAPEZE HANGER DETAIL

SCALE: NTS

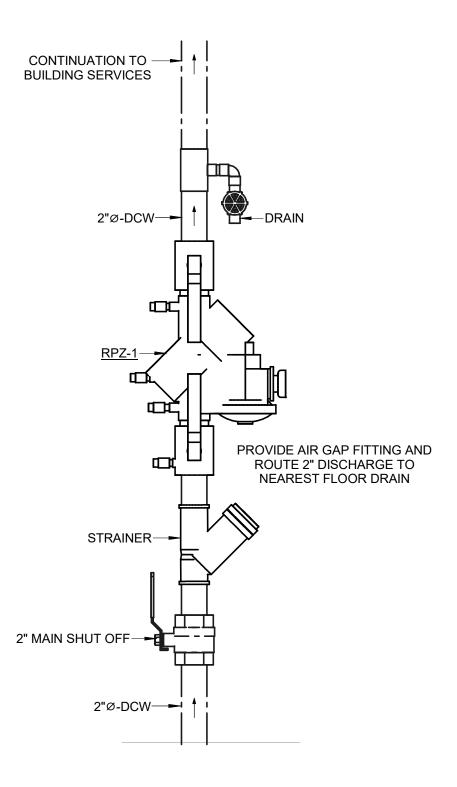


3 CIRCUIT SETTER DETAIL
P502 SCALE: NTS



GREASE INTERCEPTOR DETAIL

SCALE: NTS



4 BACKFLOW PREVENTER DETAIL
P502 SCALE: NTS

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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SHEET TITLE:

PLUMBING DETAILS

SHEET NUMBER:

P502

PLUMBING PIPING AND INSULATION SPECIFICATIONS

PLUMBING SYSTEM COMPONENTS - MATERIAL TYPES AND REQUIREMENTS

SYSTEM TYPE	EXTERIO	INTER	RIOR BELOW GRADE INTERIOR				ABOVE GRADE					
	MATERIAL	JOINT TYPE	INSULTATION THICKNESS	NOTES	MATERIAL	JOINT TYPE	INSULTATION THICKNESS	NOTES	MATERIAL	JOINT TYPE	INSULTATION THICKNESS	NOTES
DOMESTIC WATER PIPING	COPPER - TYPE K	SILVER SOLDERED	1"	1,3	COPPER - TYPE K	SILVER SOLDERED	1"	1,3	COPPER - TYPE L	BRAZED OR SOLDERED	1"	1,3
SANITARY WASTE PIPING	PVC ASTM 1785-SCHEDULE 40	SOLVENT WELD	N/A	2,3	PVC ASTM 1785-SCHEDULE 40	SOLVENT WELD	N/A	2,3	PVC ASTM 1785-SCHEDULE 40	SOLVENT WELD	N/A	2,3,4
SANITARY VENT PIPING	PVC ASTM 1785-SCHEDULE 40	SOLVENT WELD	N/A	2,3	PVC ASTM 1785-SCHEDULE 40	SOLVENT WELD	N/A	2,3	PVC ASTM 1785-SCHEDULE 40	SOLVENT WELD	N/A	2,3,4

NOTES:

- 1. PIPE TUBE AND FITTINGS CARRYING WATER USED IN POTABLE WATER SYSTEMS SHALL MEET THE REQUIREMENTS OF NSF 61.
- WHERE THE WASTE WATER TEMPERATURE WILL BE GREATER THAN 140 F, THE DRAINAGE PIPING MATERIAL SHALL BE RATED FOR THE HIGHEST TEMPERATURE OF THE WASTE WATER. REFER TO DRAWINGS FOR SPECIFICATION.
- 3. ALL PIPING SHALL BE CLEARLY LABLED AND IDENTIFIED ACCORDING TO THE UNIFORM PLUMBING CODE.

 4. ALL PIPING AND INSULATION IN RETURN AIR PLENUM SPACE MUST MEET 25/50 FLAME/SMOKE SPREAD REQUIREMENTS OR BE WRAPPED WITH AN APPROVED FIRE PROTECTION MATERIAL.

			PLUMBING FIXTURE SCHEDULE					
MADIC		MODEL	DECODIDETION		CONNECTIONS			
MARK	RK MANUFACTURER MODEL DESCRIPTION						VENT	
WC-1	AMERICAN STANDARD	2234001.020	WATER CLOSET - FLOOR MOUNTED MADERA® 15" HEIGHT WITH TOUCHLESS SELECTRONIC® PISTON FLUSH VALVE, 1.28 GPF/4.8 LPF. AMERICAN STANDARD SEAT #5901.100 HEAVY DUTY OPEN FRONT, NO COVER.	4'	1"	-	2"	
WC-2	AMERICAN STANDARD	3462001.020	WATER CLOSET - FLOOR MOUNTED MADERA® ADA 16.5 INCH TOILET SYSTEM WITH TOUCHLESS SELECTRONIC® PISTON FLUSH VALVE, 1.28 GPF/4.8 LPF. PROVIDE SAME SEAT AS WC-1.	4'	1"	-	2"	
UR-1	AMERICAN STANDARD	6590001EC.020	URINAL - WASHBROOK® 1.0 GPF/3.8 LPF TOP SPUD SIPHON JET URINAL WITH TOUCHLESS SELECTRONIC® PISTON FLUSH VALVE, 1.0 GPF/3.8 LPF.	2"	3/4"	-	2"	
LAV-1	AMERICAN STANDARD	0356015.020	LUCERNE WALL-HUNG ADA LAVATORY. PROVIDE INNSBROOK SELECTRONIC BATTERY POWERED FAUCET. PROVIDE P-TRAP, SUPPLY STOPS, AND MIXING VALVE. SET MAXIMUM HOT WATER TEMPERATURE TO 110°F. REFER TO ARCHITECTURAL PLANS FOR MOUNTING HEIGHT.	2"	1/2"	1/2"	2"	
MB-1	ZURN	Z1996-24	MOP SERVICE BASIN - 24" X 24" X 10". MOLDED HIGH DENSITY COMPOSITE BASIN, PVC DRAIN BODY, STAINLESS STEEL STRAINER AND GASKETED OUTLET CONNECTION. PROVIDE WITH HOSE & HOSE BRACKET, MOP HANGER, Z1996-SF SERVICE FAUCET: MODEL Z1996-SF, AND #20 GAGE 304 STAINLESS STEEL WALL GUARD. PROVIDE MIXING VALVE FOR WALL-MOUNT FAUCET. SET MAXIMUM HOT WATER TEMPERATURE TO 110°F.	3"	1/2"	1/2"	2"	
SH-1	BRADLEY	WS-1X	INDIVIDUAL PIVOTING WALL SHOWER. PROVIDE WITH THERMOSTATIC MIXING VALVE. PROVIDE WATTS MIXING VALVE - SERIES 1170C-M2. SET MAXIMUM HOT WATER TEMPERATURE TO 110°F.	2"	1/2"	1/2"	2"	
SH-2	BRADLEY	HN300	ADA COMPLIANT IN-WALL SHOWER. PROVIDE WITH ALL OPTIONAL MANUFACTURER ACCESSORIES INCLUDING: HAND SHOWER, BARRIER-FREE SEAT, SHOWERHEAD ANCHOR PLATE, SHOWERHEAD BACK PLATE, SHOWER CURTAIN WITH ROD AND HOOKS, L-SHAPED GRAB BAR, AND THERMOSTATIC MIXING VALVE. SET MAXIMUM HOT WATER TEMPERATURE TO 110°F.	2"	1/2"	1/2"	2"	

	PLUMBING EQUIPMENT SCHEDULE									
MARK	MANUFACTURER	MODEL	VOLTAGE/ PHASE	DESCRIPTION	DRAIN	DCW				
DWS-1	FLECK	9500 140-95-150-M	120/1	TWIN ALTERNATING WATER SOFTENER. 150,000 GRAIN CAPACITY WITH CONTINUOUS SERVICE FLOW RATE OF 25 GPM. PROVIDE SXT ELECTRONIC CONTROLLER AND INSTALL PER MANUFACTURERS INSTRUCTIONS. PROVIDE A THREE VALVE SERVICE BYPASS BETWEEN THE INLET AND OUTLET OF THE WATER SOFTENER AS RECOMMENDED BY THE MANUFACTURER.	-	1-1/2"	-	-		
GWI-1	SCHIER	GB-75	-	GREASE WASTE INTERCEPTOR. 75 GPM FLOWRATE AND 861 LB GREASE CAPACITY. PROVIDE VERTICAL EXTENSION AS NECESSARY FOR BELOW GRADE INSTALLATION. INSTALL PER MANUFACTURERS INSTRUCTIONS.	4"	-	-	2"		

	WATER HEATER SCHEDULE															
MARK	MANUFACTURER	MODEL	FUEL	VOLTAGE/ PHASE	INPUT	NOMINAL CAPACITY (GAL)	RATED CAPACITY (GAL)	FIRST HOUR RATING (GAL)	RECOVERY RATE (GPH)	TEMP RISE (°F)	DESCRIPTION	DRAIN			INTAKE	EXHAUST
TWH-1	RHEEM	RTGH-CM95DVL	NAT. GAS	120/1	199.9 MBH	-	-	264	264	90	HIGH EFF. TANKLESS WATER HEATER - PROVIDE WITH RHEEM MIC-6 MANIFOLD CONTROLLER - MODEL# RTG20213A, AND MANIFOLD CONTROL CABLES - MODEL# RTG20213C. PROVIDE WEBSTONE EXP2 TANKLESS SERVICE VALVE KITS AND TANKLESS PRESSURE RELIEF VALVES, AND INSTALL IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. PROVIDE RHEEM EZ-RACK KITS POSITIONED IN WALL MOUNT CONFIGURATION AND SECURED TOGETHER. REFER TO MANUFACTURER INSTRUCTIONS FOR MOUNTING TANKLESS WATER HEATERS TO EZ-RACK SYSTEM. REFER TO DETAIL 7 / P501 FOR GENERAL PIPING DIAGRAM. SET WATER DELIVERY TEMPERATURE TO 140°F. ROUTE PRESSURE RELIEF PIPING AND CONDENSATE DISCHARGE TO THE NEAREST FLOOR DRAIN IN THE SAME ROOM. PROVIDE WITH AMTROL ST-5 EXP. TANK.	1/2"	3/4"	3/4"	3"	3"

	PUMP SCHEDULE											
MARK	MANUFACTURER	MODEL	VOLTAGE/ PHASE	НР	RPM	WEIGHT (LBS)	MAX OPERATING PRESSURE (PSI)	MAX OPERATING TEMPERATURE (°F)	FLOWRATE (GPM)	HEAD (FT)	DESCRIPTION	CONNECTION DRAIN DHV
RCP-1	BELL & GOSSETT	PL36B	115/1	1/6	3300	13.1	150	225	4	28	DHW INLINE RECIRCULATION PUMP. LEAD FREE BRONZE BODY WITH STAINLESS STEEL FACEPLATE. REFER TO DETAIL 1 / P502.	- 3/4

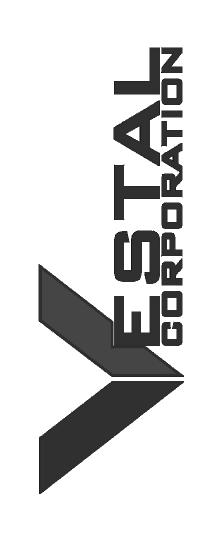
	PLUMBING ACCESSORY SCHEDULE											
MARK	MANUEACTURED	MODEL	DESCRIPTION	CONNECTIONS								
WAKK	MANUFACTURER	WIODEL	DESCRIPTION	DRAIN	DCW	DHW	VENT					
RPZ-1	WATTS	LF909M1-QT-S	BACKFLOW PREVENTOR - REDUCED PRESSURE ZONE ASSEMBLY. PROVIDE AIR GAP FITTING. PIPE FULL SIZE INDIRECT WASTE TO NEAREST FLOOR DRAIN IN THE SAME ROOM.	-	2"	-	-					
TP-1	WATTS	LFTP300	TRAP PRIMER - BRASS BODY WITH EPDM SEALS AND BUILT IN VACUUM BREAKER. PROVIDE DISTRIBUTION UNIT TO SERVE MULTIPLE FLOOR DRAINS WHERE REQUIRED.	-	1/2"	-	-					

	DRAIN AND CLEANOUT SCHEDULE											
MARK	MANUFACTURER	MODEL	DESCRIPTION	CONNECTIONS								
WARK	MANUFACTURER	MODEL	DESCRIPTION	DRAIN	DCW	DHW	VENT					
FD-1	WATTS	FD-100-L	FLOOR DRAIN WITH SQUARE HEAVY DUTY BRONZE NICKEL STRAINER.	2" - 4"	1/2"	-	2"					
FCO-1	ZURN	Z1400-BZ1	DURA-COATED CAST IRON FLOOR CLEANOUT WITH POLISHED NICKEL BRONZE TOP.	4"	-	-	-					
FS-1	ZURN	Z1750	STAINLESS STEEL FLOOR SINK. PROVIDE WITH REMOVABLE HALF-GRATE AND SEDIMENT BUCKET.	2" - 4"	-	-	-					
WCO-1	ZURN	Z1468	WALL CLEAN OUT WITH BRONZE RAISED HEX HEAD PLUG AND STAINLESS STEEL ACCESS COVER.	4"	-	-	-					

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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375 SOUTH COMMERCIAL AVENUE, ST. CLAIR MISSOURI 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

REV.	DESCRIPTION	DATE			
A	SD	2023.12.06			
В	DD	2024.02.19			
С	IFB	2024.04.23			

ISSUE DATE: 2023.12.06

CAD DWG FILE:

DRAWN BY: MDC

CHECKED BY: AYG

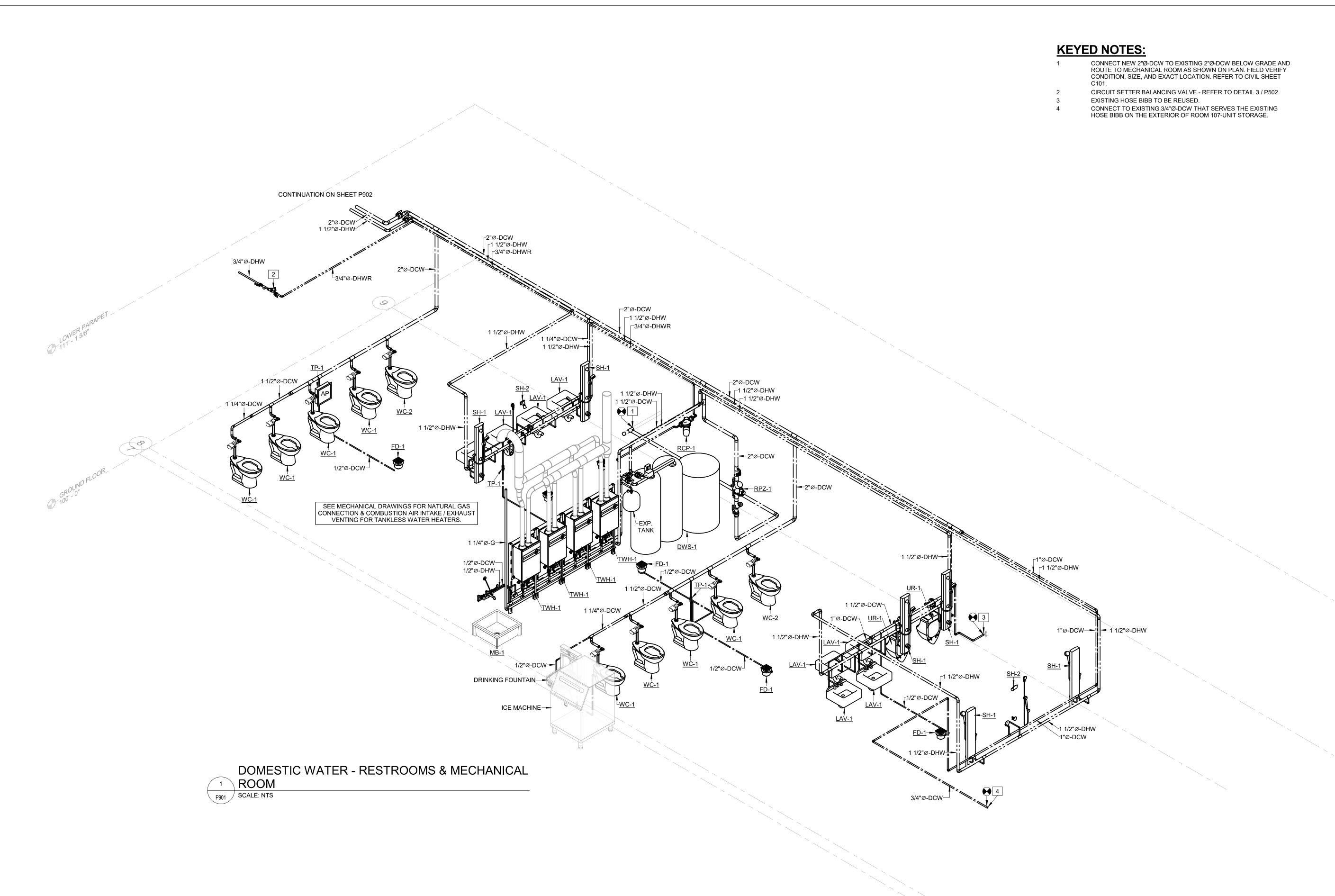
DESIGNED BY: MDC

SHEET TITLE:

PLUMBING SCHEDULE

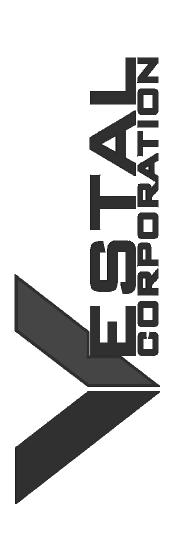
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P60





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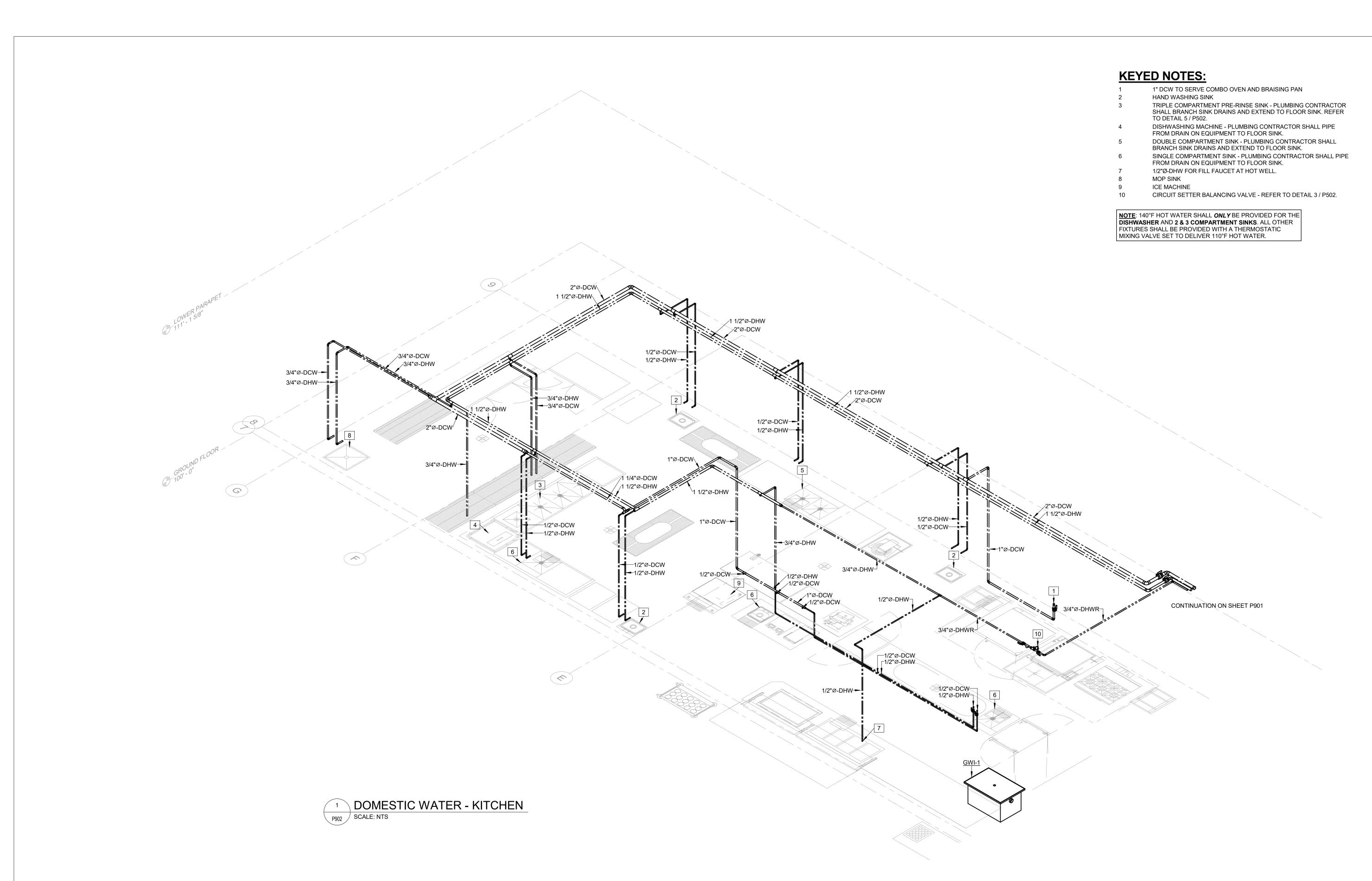
DESIGNED BY: MDC

SHEET TITLE:

PLUMBING ISOMETRICS

SHEET NUMBER:

P901





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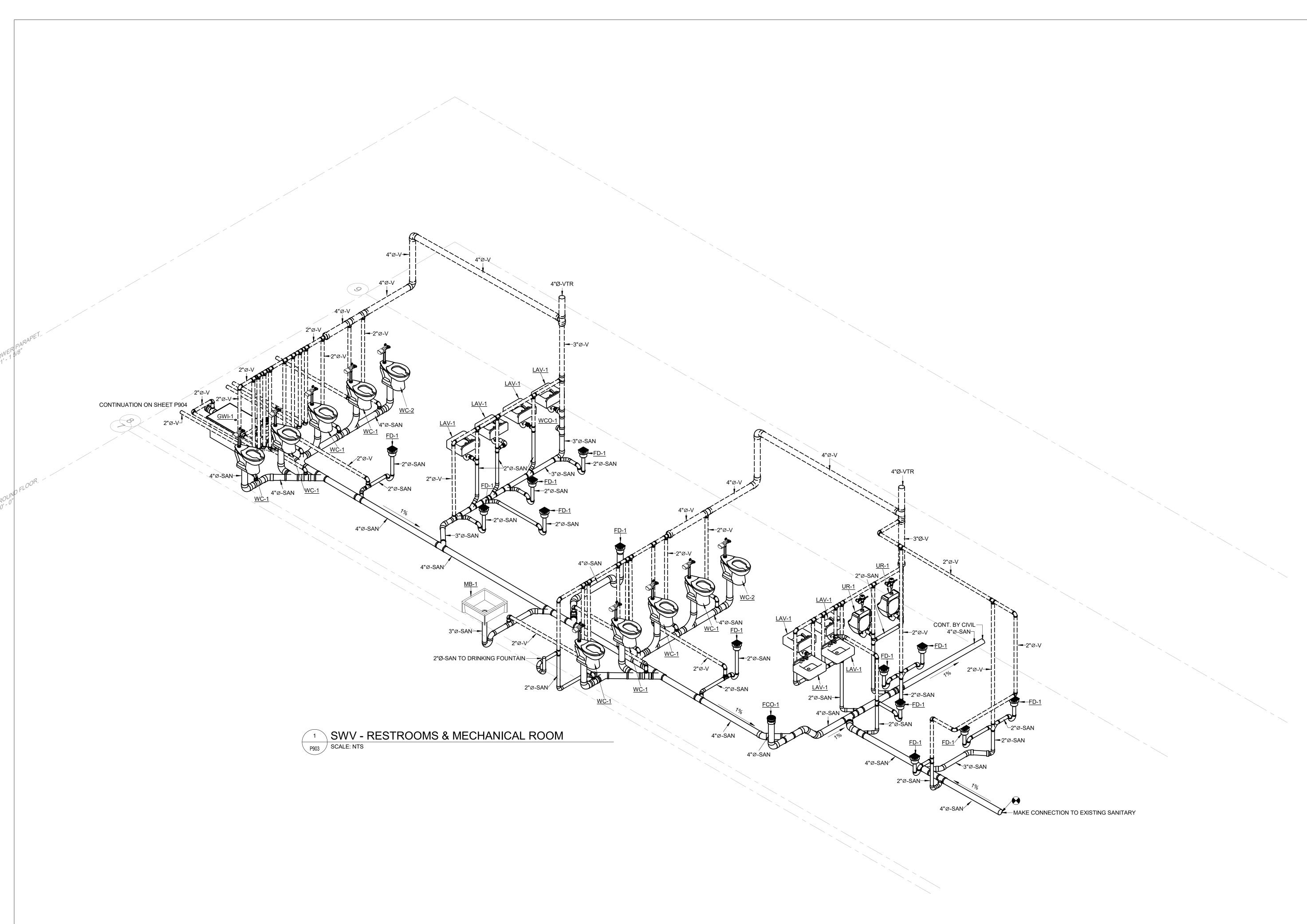
DESIGNED BY: MDC

SHEET TITLE:

PLUMBING ISOMETRICS

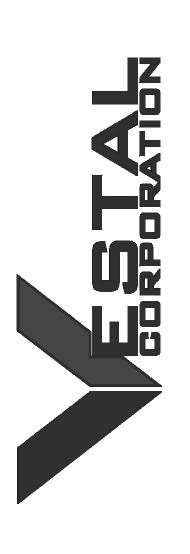
SHEET NUMBER:

P902





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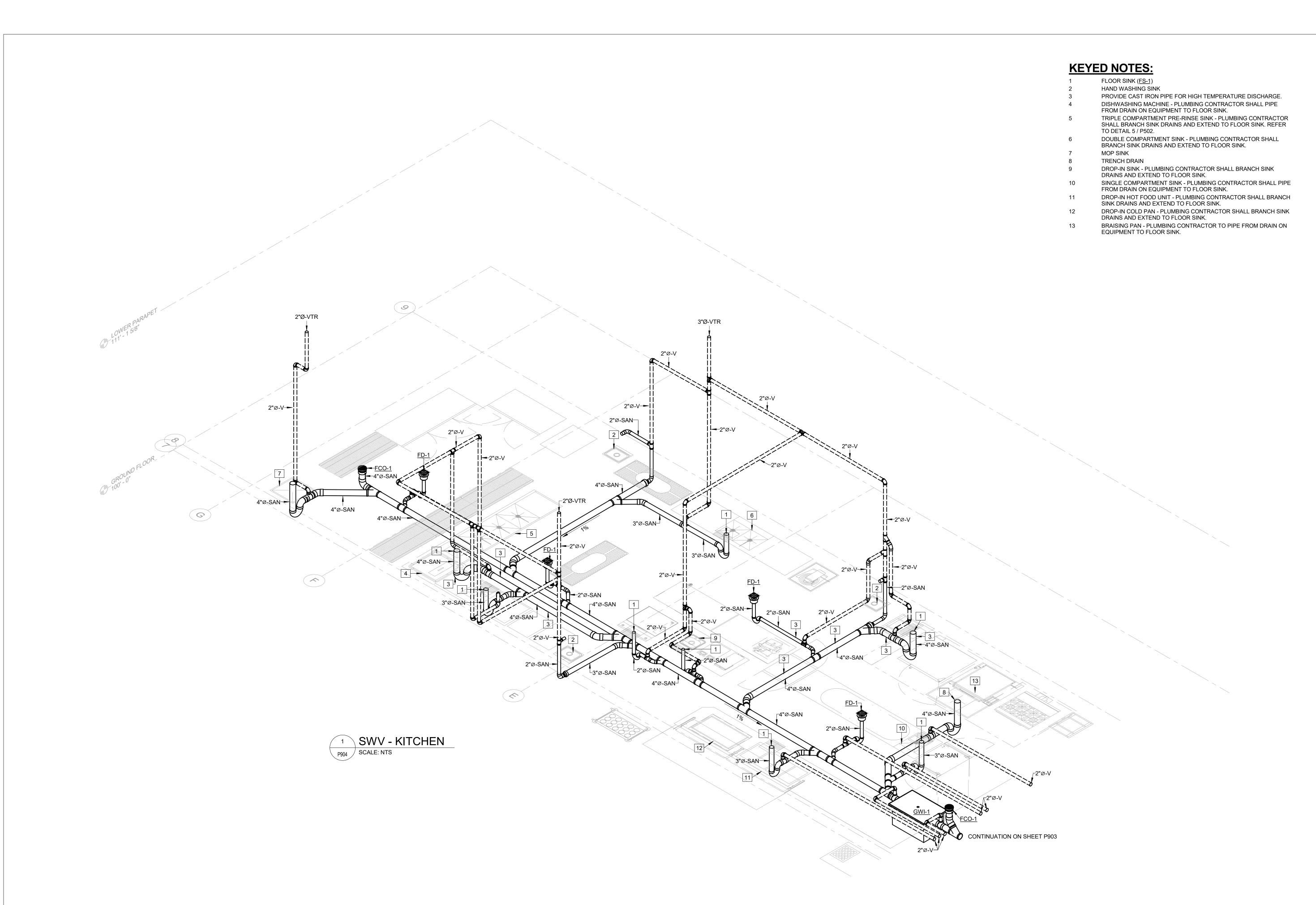
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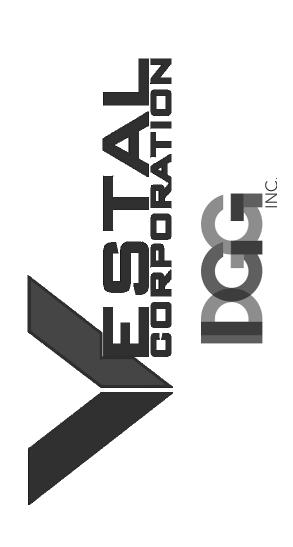
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PLUMBING ISOMETRICS

SHEET NUMBER:

P90

				ELECTRIC	CAL S	YMBOLS, ABBREVIATIONS, A	AND NOTES
	POWER, LIGHTING, AND S	YSTEMS SYMBOLS LEGEND	ONE-LINE	DIAGRAM LEGEND	A	ABBREVIATIONS LEGEND ABOVE FINISHED FLOOR	GENERAL NOTES
	IGHT FIXTURE - LETTER REFERS TO LIGHTING FIXTURE SCHEDULE.	DUPLEX RECEPTACLE - MOUNT AT 18" AFF TO CENTER UNLESS OTHERWISE NOTED EM DUPLEX RECEPTACLE CONNECTED TO		UTILITY TRANSFORMER	AL AWG	ALUMINUM AMERICAN WIRE GAUGE	COORDINATION
L F	LIGHT FIXTURE - LETTER REFERS TO LIGHTING FIXTURE SCHEDULE. FIXTURE CONNECTED TO EMERGENCY POWER.	EMERGENCY POWER- RED DEVICE WITH RED FACEPLATE. MOUNT AT 18" AFF TO CENTER UNLESS OTHERWISE NOTED SPECIAL PURPOSE RECEPTACLE		GENERATOR	A AHJ B	AMPERE AUTHORITY HAVING JURISDICTION	1 PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS. REVIEW THE GENERAL NOTES AND ALL OTHER TRADE DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER OR
] L	IGHT FIXTURE - RELOCATED	TWO DUPLEX RECEPTACLES MOUNTED UNDER A COMMON COVERPLATE - MOUNT	\(\lambda\x\rangle\)	CABLE SIZE CALLOUT	BLDG.	BUILDING	OWNER, AS SPECIFIED, OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMITTING BID.
F	STRIP LIGHT FIXTURE - LETTER REFERS TO LIGHTING FIXTURES SCHEDULE.	AT 18" AFF UNLESS OTHERWISE NOTED. DATA OUTLET - WALL - MOUNT AT 18"AFF TO CENTER UNLESS OTHERWISE NOTED.	$\left\langle \begin{array}{c} X \\ X \end{array} \right\rangle$	EQUIPMENT CALLOUT	CB C CU	CIRCUIT BREAKER CONDUIT COPPER	2 REFER TO ARCHITECTURAL PLANS, SECTIONS AND ELEVATIONS FOR EXACT LOCATION OF ELECTRICAL DEVICES AND LIGHT FIXTURES PRIOR TO ROUGH IN.
T 9	STRIP LIGHT FIXTURE - LETTER REFERS TO LIGHTING FIXTURE SCHEDULE. FIXTURE CONNECTED TO EMERGENCY POWER.	PROVIDE A SINGLE BOX. EXTEND A 1/2"CONDUIT, WITH PULLWIRE, TO ABOVE ACCESSIBLE CEILING AND MARK.		INLINE TRANSFORMER	D DISC DWG	DISCONNECT SWITCH DRAWING	3 ALL CONDUCTOR LENGTHS PROVIDED IN THESE DESIGN DOCUMENTS ARE INTENDED SOLELY FOR USE IN THE DESIGN CALCULATIONS BY THE DESIGN PROFESSIONAL UNLESS SPECIFICALLY NOTED OTHERWISE IN THESE DOCUMENTS. THEY SHALL NOT BE USED BY CONTRACTORS IN BIDDING OF CONSTRUCTING THE PROJECT. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MATERIAL QUANTITIES REQUIRED TO
R	RECESSED DOWN LIGHT- LETTER REFERS TO THE LIGHTING FIXTURE SCHEDULE.	J JUNCTION BOX - CEILING MOUNTED DISCONNECT SWITCH - MOUNT 72" TO TOP OF SWITCH	0,0	AUTOMATIC TRANSFER SWITCH		ELECTRIC METALLIC TUBING	BID AND CONSTRUCT THE COMPLETE PROJECT. 4 CONDUIT RUNS ARE SHOWN DIAGRAMMATIC. INSTALL CONDUIT TO SUIT FIELD
F	RECESSED DOWN LIGHT - LETTER REFERS TO LIGHTING FIXTURE SCHEDULE. FIXTURE CONNECTED TO	JUNCTION BOX - FLOOR MOUNTED	5	CIRCUIT BREAKER	EC EG EGC	ELECTRICAL CONTRACTOR EQUIPMENT GROUNDING EQUIPMENT GROUNDING CONDUCTOR	CONDITIONS. 5 VERIFY RATINGS, LOCATIONS, AND CONNECTIONS OF ALL EQUIPMENT PROVIDED BY
E	EMERGENCY POWER. WALL MOUNTED LIGHT FIXTURE -	→ WIREMOLD MOTOR			F FA	FIRE ALARM	OTHERS AND INSTALLED AND/OR CONNECTED BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO OWNER'S EQUIPMENT.
L S V	ETTER REFERS TO LIGHTING SCHEDULE. VALL MOUNTED LIGHT FIXTURE -	PANEL - SURFACE MOUNTED PANEL - RECESSED MOUNTED		CURRENT TRANSFORMER DISCONNECT SWITCH	FACP F	FIRE ALARM CONTROL PANEL FUSE	6 CONNECTIONS TO EQUIPMENT FURNISHED BY OTHER SHALL BE COORDINATED. OBTAIN MANUFACTURERS' SHOP DRAWINGS PRIOR TO ROUGH IN, IN ALL CONDUIT TO THIS EQUIPMENT.
S	ETTER REFERS TO LIGHTING SCHEDULE. FIXTURE CONNECTED TO EMERGENCY POWER.	DISTRIBUTION / SWITCHBOARD - SURFACE MOUNTED		STARTER SWITCH STARTER / DISCONNECT SWITCH	G G GFCI	GROUND GROUND FAULT CIRCUIT INTERRUPTER	7 CONFIRM WITH MECHANICAL EQUIPMENT MANUFACTURER'S RECOMMENDATIONS FOR EXACT OVERCURRENT PROTECTION DEVICES TYPE AND SIZE PRIOR TO ROUGH IN
L T	BATTERY POWERED EMERGENCY LIGHT - MOUNT ON WALL AT 7'-6" AFF TO CENTER. LETTER REFERS TO LIGHTING FIXTURE SCHEDULE.	HOMERUN CONDUIT		GROUND	GEC	GROUNDING ELECTRODE CONDUCTOR	8 ALL ELECTRICAL EQUIPMENT SHALL BE NRTL LABELED AND LISTED FOR THE USE.
F	FIXTURE CONNECTED TO EMERGENCY POWER.	CONDUIT SIZE TABLES	=	METED	H HP	HORSE POWER	9 ALL EMPTY CONDUIT/RACEWAY SHALL BE INSTALLED WITH PULL STRINGS.
V 11	EXIT LIGHT - CEILING MOUNTED OR WALL MOUNTED. ARROWS AS NDICATED - LETTER REFERS TO	CONDUIT SIZE TABLE FOR # 12 CONDUCTORS (3/4"C MIN)	(M)	METER	I IC	INTERRUPTING CAPACITY	10 PROVIDE PROPERLY SIZED LUGS AT ALL CIRCUIT BREAKERS PANELS AND SWITCHBOARDS, FOR THE CONDUCTORS SHOWN TO CONNECT TO THESE LUGS.
F	LIGHTING FIXTURE SCHEDULE. FIXTURE CONNECTED TO EMERGENCY POWER.	UP TO 8 #12 =3/4"C 9 #12 TO 12 #12 =1"C	(M)	MOTOR	J JB	JUNCTION BOX	11 SUPPLY POWER AND MAKE CONNECTIONS TO ALL MOTORS AND EQUIPMENT REQUIRING ELECTRICAL, INCLUDING ALL FRACTIONAL HORSEPOWER MOTORS. CODE COMPLIANCE
А	SINGLE POLE SWITCH - MOUNT AT 48" AFF TO CENTER. 'a' INDICATES SWITCH LEG.	CONDUIT SIZE TABLE FOR #10, #8, #6, AND #4 CONDUCTORS (3/4"C MIN)		PANEL	K KAIC KV	KILOAMP INTERRUPTING CAPACITY KILOVOLT	12 ALL ELECTRICAL EQUIPMENT SHALL BE NRTL LABELED AND LISTED FOR THE USE.
C	WAY SWITCH - MOUNT AT 48" AFF TO CENTER 'b' INDICATES SWITCH LEG.	#10 UP TO 6 #10 =3/4"C 7 #10 TO 11 #10 =1"C UP TO 3 #8 =3/4"C		SPARE	KVA KW KCMIL	KILOVOLT AMPERE KILOWATT THOUSAND CIRCULAR MILLS	13 ALL ELECTRICAL WORK SHALL COMPLY WITH 2020 NATIONAL ELECTRIC CODE AND ALL LOCAL CODES AND REGULATIONS.
V	MOTOR RATED DISCONNECT SWITCH WITH THERMAL OVERLOAD PROTECTION.	#8 TO 5 #8==1"C 6 #8 TO 10#8==1-1/4"C		SWITCH AND FUSE	L		PENETRATIONS
C	DUAL TECHNOLOGY WALL MOUNTED DCCUPANCY SENSOR SWITCH - MOUNT AT 48" AFF TO CENTER.	#6 UP TO 2 #6==3/4"C 3 #6 TO 4 #6==1"C 5 #6 TO 7#6==1-1/4"C	T		LTG M	LIGHTING	14 EXACT METHOD AND LOCATION OF CONDUIT PENETRATIONS AND/OR OPENINGS IN CONCRETE WALLS AND FLOORS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER.
		#4 UP TO 3 #4==1"C 4 #4 TO 5 #4==1-1/4"C 6 #4 TO 7#4==1-1/2"C			MCB N	MAIN CIRCUIT BREAKER	15 PROVIDE PROPER FIRE PROOFING AND SEALANT FOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
		1. PROVIDE ALL CONDUIT RUNS WITH GREEN EQUIPMENT			NRTL N	NATIONALLY RECOGNIZED TESTING LABORATORY NEUTRAL	GROUNDING
		GROUNDING CONDUCTORS SIZED PER NEC TABLE 250-122. ALLOW FOR THE ADDITIONAL EQUIPMENT GROUNDING CONDUCTORS IN DETERMINING PROPER CONDUIT			NTS P PH	NOT TO SCALE PHASE	16 PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL LINE-VOLTAGE CONDUITS. ALL EQUIPMENT, DEVICES AND FIXTURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC REQUIREMENTS.
		SIZES. 2. USE SIZE #10 CONDUCTORS FOR			PB R	PULL BOX	17 PROVIDE EQUIPMENT BONDING JUMPERS SIZED PER NEC ART.250.102 (C) AT ALL EQUIPMENT WITH METALLIC ENCLOSURES THAT REQUIRE ELECTRICAL CONNECTIONS.
		ANY 20A, 120V BRANCH CIRCUIT RUN OVER 100' IN LENGTH. 3. NO MORE THAN THREE 20A,			RGS	RIGID GALVANIZED STEEL	WIRING DEVICES
		120V, CIRCUITS SHALL BE RUN IN CONDUITS U.O.N			SD SPD SYS	SMOKE DETECTOR SURGE PROTECTIVE DEVICE SYSTEM	18 CONTRACTOR SHALL PERMANENTLY MARK THE INTERIOR OF WIRING DEVICES COVERPLATES AND EXTERIOR OF JUNCTION BOXES OF LUMINARIES AND EQUIPMENT WITH CIRCUIT IDENTIFICATION.
					T TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR	
					U UPS UON	UNINTERRUPTED POWER SUPPLY UNLESS OTHERWISE NOTED	
					V VA V	VOLT AMPERE VOLT OR VOLTAGE	
					W	\A/ATT	

WATT

WEATHERPROOF

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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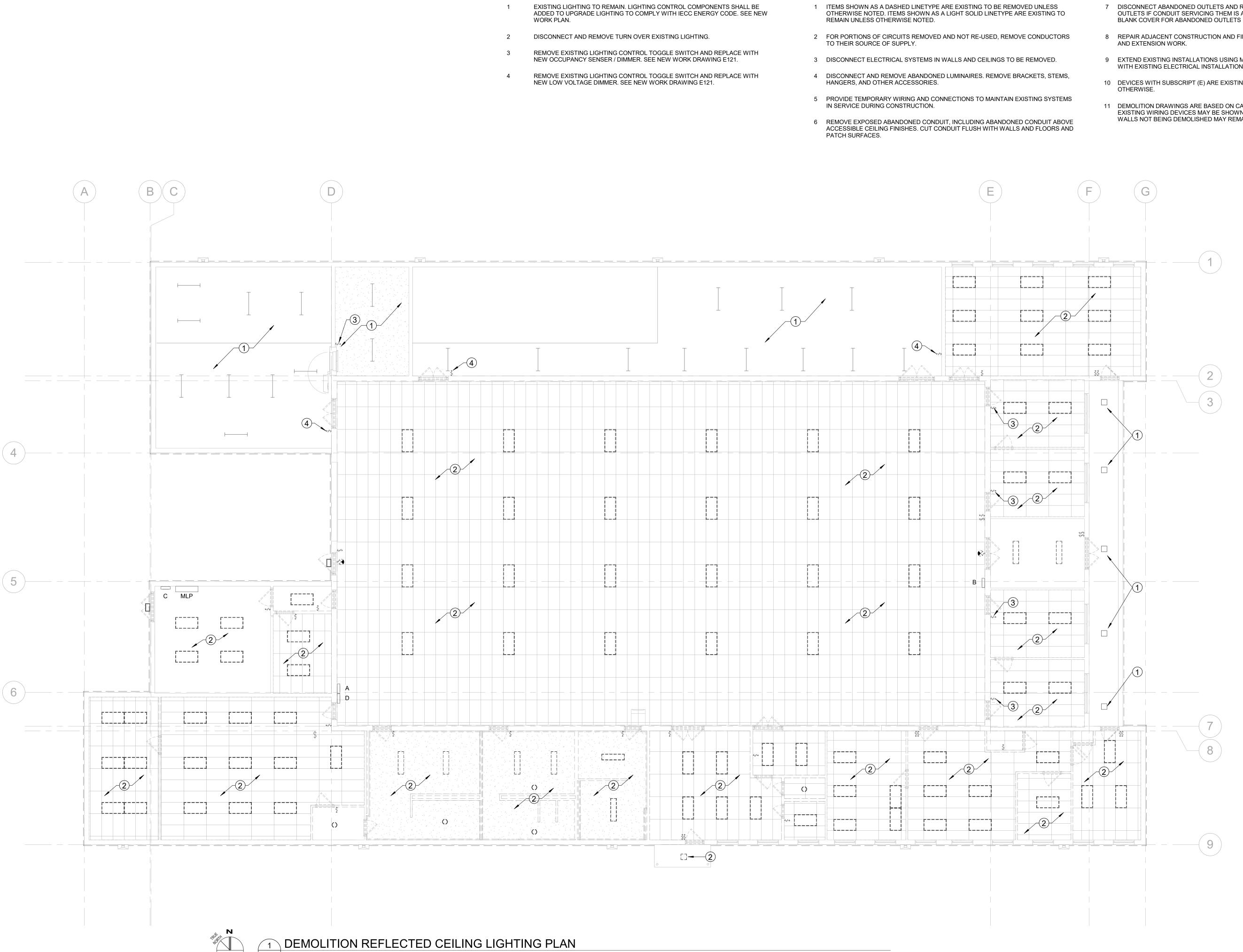
DESIGNED BY: SKS

SHEET TITLE:

SYMBOLS, ABBREVIATIONS, NOTES

SHEET NUMBER:

E001



KEYED NOTES - E101

SYMBOL

GENERAL NOTES - E101

- 7 DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVICING THEM IS ABANDONED AND REMOVED. PROVIDE BLANK COVER FOR ABANDONED OUTLETS NOT REMOVED.
- 8 REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION
- 9 EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING ELECTRICAL INSTALLATIONS, OR AS SPECIFIED.
- 10 DEVICES WITH SUBSCRIPT (E) ARE EXISTING TO REMAIN UNLESS NOTED

GENERAL NOTES - E101

11 DEMOLITION DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND NOT ALL EXISTING WIRING DEVICES MAY BE SHOWN. RECEPTACLES AND DATA OULETS IN WALLS NOT BEING DEMOLISHED MAY REMAIN IN SERVICE.

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DESIGNED BY: SKS

SHEET TITLE:

DEMOLITION LIGHTING PLAN

SHEET NUMBER:

GENERAL NOTES - E102 **KEYED NOTES - E102 KEYED NOTES - E102** ITEMS SHOWN AS A DASHED LINETYPE ARE EXISTING TO BE REMOVED UNLESS OTHERWISE NOTED. ITEMS SHOWN AS A LIGHT SOLID LINETYPE DISCONNECT AND REMOVE POWER TO EXISTING OVERHEAD HEATER. EXISTING PANEL MLP. 400A 120/240V 3-WIRE. DEMOLITION AND EXTENSION WORK. ARE EXISTING TO REMAIN UNLESS OTHERWISE NOTED. EXISTING PANEL 'A'. 225A 120/240V 3-WIRE 30 POLES. DISCONNECT AND REMOVE POWER TO EXISTING ROOFTOP EXHAUST FAN. 2 FOR PORTIONS OF CIRCUITS REMOVED AND NOT RE-USED, REMOVE EXISTING PANEL 'B'. 225A 120/240V 3-WIRE 30 POLES. POWER FOR SECURITY LOCATED IN ORDINANCE VAULT. DISCONNECT AND CONDUCTORS TO THEIR SOURCE OF SUPPLY. REMOVE POWER. PROVIDE NEW 120V CIRCUIT ON EMERGENCY BACKUP PANEL. SEE NEW WORK FLOORPLAN. EXISTING PANEL 'C'. 100A 120/240V 3-WIRE 20 POLES. DISCONNECT ELECTRICAL SYSTEMS IN WALLS AND CEILINGS TO BE REMOVED. OTHERWISE. DISCONNECT AND REMOVE EXISTING RECEPTACLE. PRESERVE BACKBOX EXISTING PANEL 'D'. 125A 120/240V 3-WIRE 24 POLES. AND CONDUIT. PROVIDE NEW RED RECEPTACLE AND COVERPLATE AND WIRE TO NEW 120V EMERGENCY POWER PANEL. SEE NEW WORK PLAN. 4 PROVIDE TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN DISCONNECT AND REMOVE POWER TO EXISTING OUTDOOR CONDENSING EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. DISCONNECT AND REMOVE POWER TO EXISTING KITCHEN EXHAUST HOOD. MAY REMAIN IN SERVICE. REMOVE EXPOSED ABANDONED CONDUIT, INCLUDING ABANDONED DISCONNECT AND REMOVE POWER TO EXISTING INDOOR AIR HANDLING CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. CUT CONDUIT FLUSH WITH WALLS AND FLOORS AND PATCH SURFACES. DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVICING THEM IS ABANDONED AND REMOVED. PROVIDE BLANK COVER FOR ABANDONED OUTLETS NOT 6-7 GYM OFFICE ORD STOR (<u>)</u> 9 106 105 104 77-75 8 8 OFFICE 102 OFFICE 101 DRILL HALL LOBBY EXTERIOR CONDUIT TURNS UP TO UTILITY WEATHERHEAD. UTILITY METER 110 100 LOCATION-5 OFFICE 122 OFFICE **=**11 CLASSROOM 115 6 DEMOLITION POWER PLAN 1/8" = 1'-0"

SYMBOL

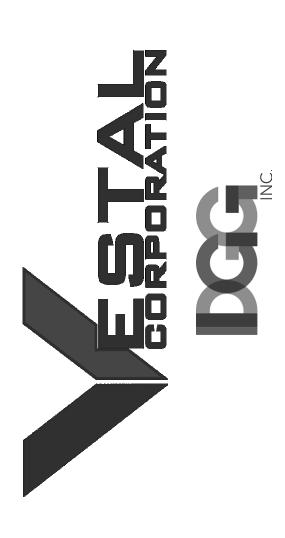
GENERAL NOTES - E102

- REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING
- EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING ELECTRICAL INSTALLATIONS, OR AS
- DEVICES WITH SUBSCRIPT (E) ARE EXISTING TO REMAIN UNLESS NOTED
- DEMOLITION DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND NOT ALL EXISTING WIRING DEVICES MAY BE SHOWN. RECEPTACLES AND DATA OULETS IN WALLS NOT BEING DEMOLISHED

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SHEET TITLE:

DEMOLITION POWER PLAN

SHEET NUMBER:

		LIGHT FIXTURE SCHEDULE					
TYPE	MANUFACTURER	CATALOG NO.	MOUNTING	VOLTAGE	LAMP	WATTS	REMARKS
A1	LITHONIA	2VTL4-40L-ADP-EZ1-LP840-N100	RECESSED	120/277	LED 4000 K	31.4	WITH EMBEDDED LIGHTING CONTROL INTERFACE
A1-EM	LITHONIA	2VTL4-40L-ADP-EZ1-LP840-N100EMG	RECESSED	120/277	LED 4000 K	31.4	WITH EMBEDDED LIGHTING CONTROL INTERFACE
A2	LITHONIA	2VTL4-48L-ADP-EZ1-LP840-N100	RECESSED	120/277	LED 4000 K	38.4	WITH EMBEDDED LIGHTING CONTROL INTERFACE
A2-EM	LITHONIA	2VTL4-48L-ADP-EZ1-LP840-N100EMG	RECESSED	120/277	LED 4000 K	38.4	WITH EMBEDDED LIGHTING CONTROL INTERFACE
В	LITHONIA	LBL4-4000LM-80CRI-40K-MIN1-ZT-MVOLT-NLIGHT	SURFACE	120/277	LED 4000 K	32.4	WITH EMBEDDED LIGHTING CONTROL INTERFACE
С	LITHONIA	WF4-REG-SWW5-90CRI-MW-M6	RECESSED	120	LED 4000 K	9	LISTED FOR WET LOCATIONS
EM	LITHONIA	ELM2L	WALL	120/277	LED	2	EMERGENCY LIGHT
НВ	LITHONIA	IBH-15000LM-SD080-ND-MVOLT-40K-80CRI-WH-WGIBH-nPP16D	SUSPENDED	120/277	LED 4000 K	140	WITH WIRE GUARD, EMBEDDED LIGHTING CONTROL
HB-EM	LITHONIA	IBH-15000LM-SD080-ND-MVOLT-40K-80CRI-WH-WGIBH-nPP16DER	SUSPENDED	120/277	LED 4000 K	140	WITH WIRE GUARD, EMBEDDED LIGHTING CONTROL
S	LITHONIA	CLX-L48-4000LM-SEF-FDL-MVOLT-EZ1-40K-80CRI-WH-HC36M12-N100	SUSPENDED	120/277	LED 4000 K	22.8	WITH EMBEDDED LIGHTING CONTROL INTERFACE
X1	LITHONIA	LQM-S-W-3-R-120/277 M6	WALL OR CEILING	120/277	LED	4	EXIT SIGN, DIRECTIONAL ARROWS PER PLANS
X2	LITHONIA	ECRG-RD-M6	WALL OR CEILING	120/277	LED	2	EMERGENCY LIGHT / EXIT SIGN COMBO

LIGHTING CONTROL SYMBOLS (NOT ALL MAY BE USED):

LIGHTING CONTROL CATALOG NUMBERS ARE THOSE OF ACUITY BRANDS AND ARE MEANT TO ESTABLISH A BASIS OF DESIGN AND PERFORMANCE CRITERIA. 'OR EQUAL' LIGHTING CONTROL SYSTEMS IN COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS MAY BE SUBMITTED FOR APPROVAL. LIGHTING CONTROLS ARE DESIGNED TO INTEGRATE WITH MANUFACTURER'S EMBEDDED LIGHTING CONTROLS.

OC) nCM 10 OCCUPANCY SENSOR (CORRIDOR)

OC nCM PDT 9 OCCUPANCY SENSOR

nPODMA 2P DX ON/OFF & RAISE/LOWER WALL POD

\$ nPODMA ON/OFF WALL POD

\$OC nWSXA PDT LV DX WALL SWITCH OCCUPANCY SENSOR ON/OFF & RAISE/LOWER

LSC nECY-MVOLT-BAC-ENC-SEP LIGHTING NETWORK SYSTEM CONTROLLER

GENERAL NOTES - E121

- EMERGENCY EXIT SIGNS AND EMERGENCY FIXTURES SHALL BE CONNECTED TO UNSWITCHED PORTION OF LIGHTING CIRCUIT.
- DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND NOT ALL EXISTING WIRING DEVICES MAY BE SHOWN. RECEPTACLES AND DATA OULETS IN WALLS NOT BEING DEMOLISHED MAY REMAIN IN SERVICE.
- DEVICES WITH SUBSCRIPT (E) ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.

SYMBOL

KEYED NOTES - E121

INTERCEPT EXISTING LIGHTING CIRCUIT AND INSTALL A 120V LIGHTING CONTROL RELAY POWER PACK TO PROVIDE LOW VOLTAGE LIGHTING CONTROL.



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PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

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A	SD	12/06/2023
В	DD	02/19/2024
С	IFB	04/23/2024

ISSUE DATE: 2024.04.03

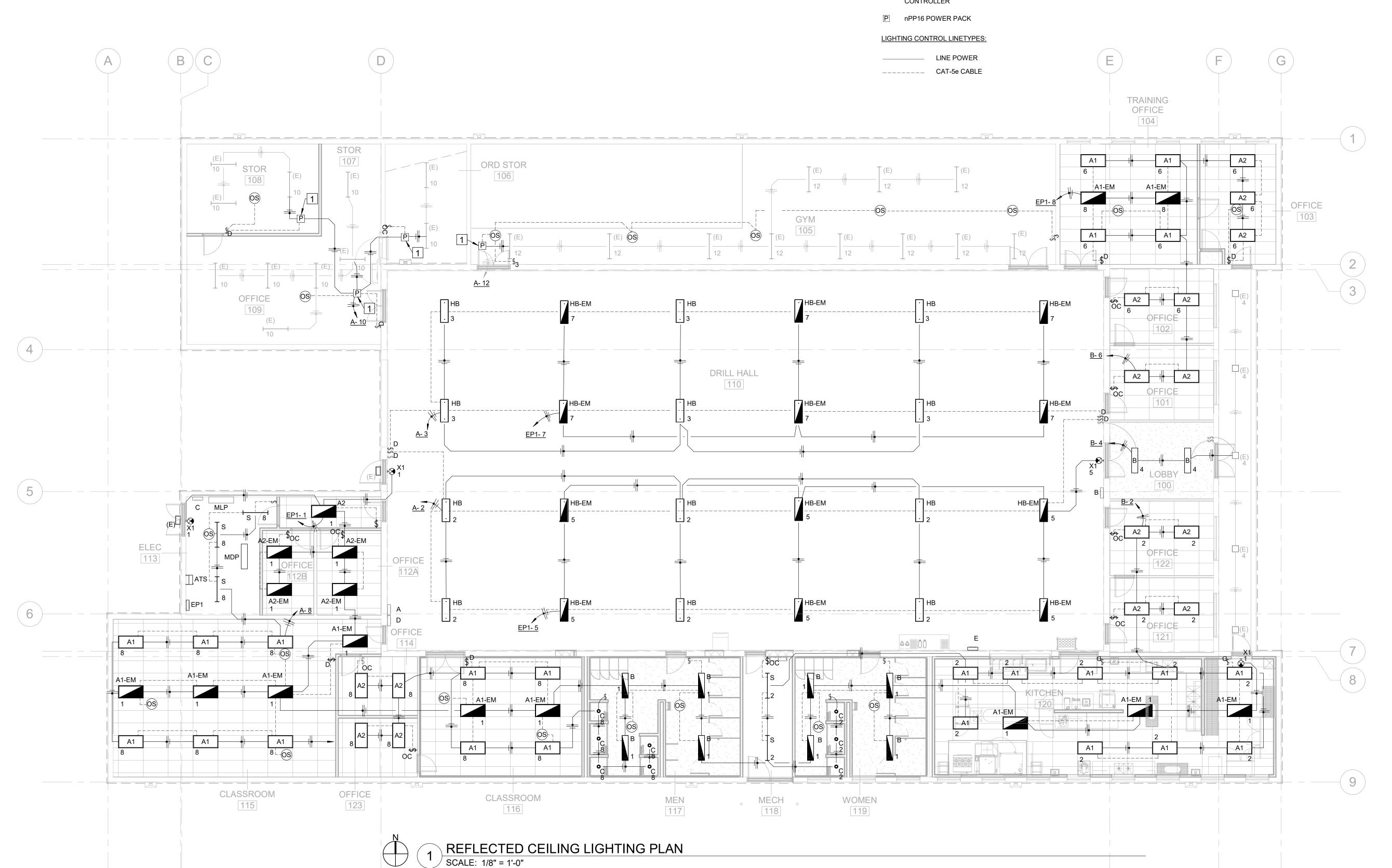
CAD DWG FILE:
DRAWN BY: SKS
CHECKED BY: Checker
DESIGNED BY: SKS

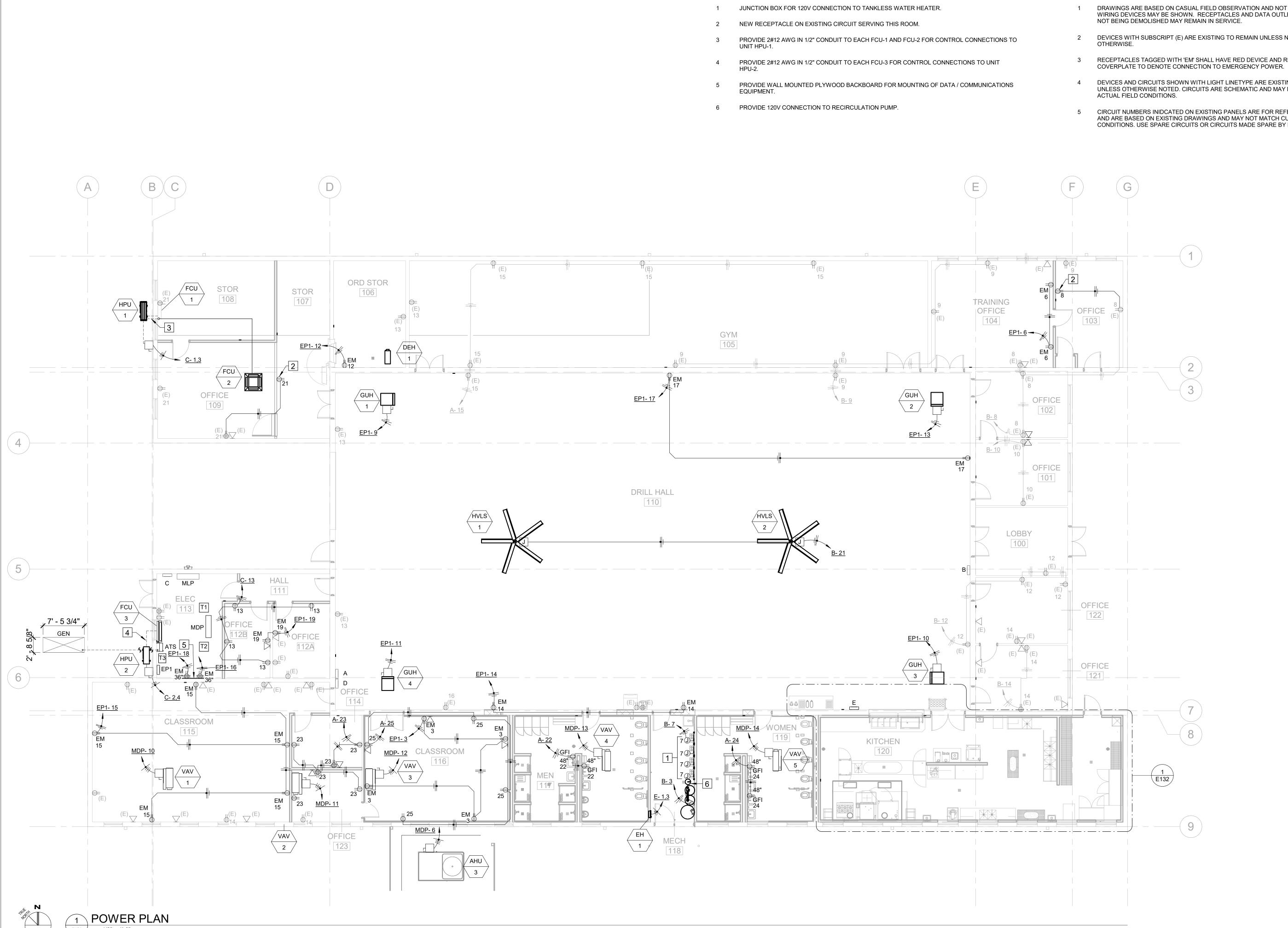
SHEET TITLE:

LIGHTING PLAN

SHEET NUMBER:

E12





GENERAL NOTES - E131

KEYED NOTES - E131

- DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND NOT ALL EXISTING WIRING DEVICES MAY BE SHOWN. RECEPTACLES AND DATA OUTLETS IN WALLS
- DEVICES WITH SUBSCRIPT (E) ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
- RECEPTACLES TAGGED WITH 'EM' SHALL HAVE RED DEVICE AND RED
- DEVICES AND CIRCUITS SHOWN WITH LIGHT LINETYPE ARE EXISTING TO REMAIN UNLESS OTHERWISE NOTED. CIRCUITS ARE SCHEMATIC AND MAY NOT MATCH ACTUAL FIELD CONDITIONS.
- CIRCUIT NUMBERS INIDCATED ON EXISTING PANELS ARE FOR REFERENCE ONLY AND ARE BASED ON EXISTING DRAWINGS AND MAY NOT MATCH CURRENT FIELD CONDITIONS. USE SPARE CIRCUITS OR CIRCUITS MADE SPARE BY DEMOLITION.

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**



PROFESSIONAL SEAL



OFFICE OF ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, DESIGN AND **CONSTRUCTION**

DEPARTMENT OF MISSOURI NATIONAL GUARD

ST. CLAIR READINESS CENTER

375 COMMERCIAL AVE. ST. CLAIR, MO 63077

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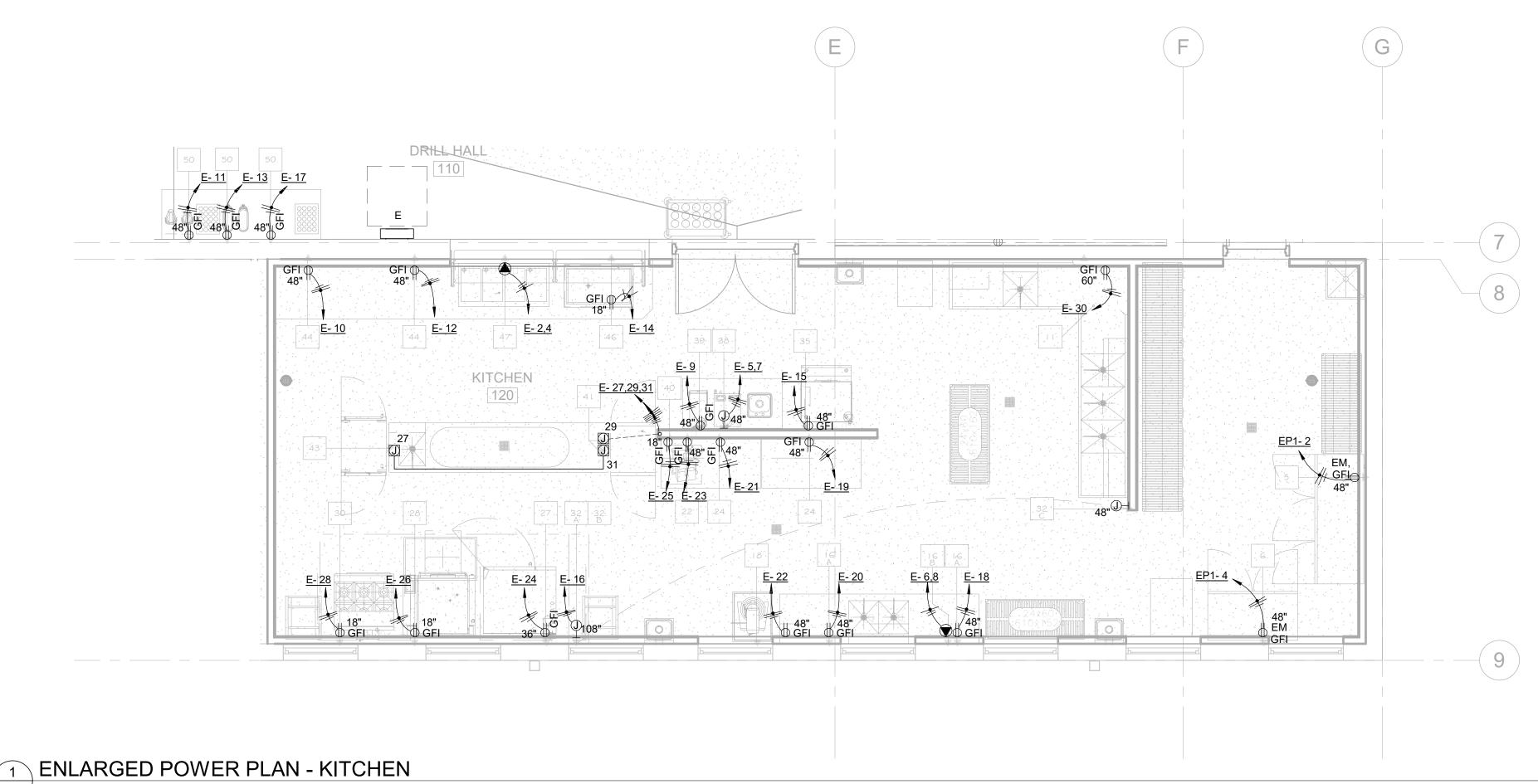
ISSUE DATE: 2024.04.03

CAD DWG FILE:
DRAWN BY: SKS
CHECKED BY: JCA
DESIGNED BY: SKS

SHEET TITLE:

POWER PLAN

SHEET NUMBER:



EQUIPMENT SCHEDULE						
ΓΕΜ NO.	QTY.	DESCRIPTION	REMARKS			
1	1	MOP SINK	BY PLUMBER			
2	1	MOP RACK	BY G.C.			
3	1	WALL SHLEF	BY G.C.			
4	1 LOT	STORAGE SHELVING				
5	1	FREEZER	THREE SECTION WITH FULL HGT DOORS			
6	1	REFRIGERATOR	TWO SECTION WITH FULL HGT DOORS			
7	1	CAN RACK				
8	3	HAND SINKS	WITH SIDE SPLASHES			
9	1	THREE COMPARTMENT SINK/CLEAN DISH TABLE				
10	1	DOUBLE OVER SHELF	LIL LIGHED FOR VENTLEGG OPERATION			
11	1	DISH MACHINE	UL LISTED FOR VENTLESS OPERATION			
12 13	1	SOILED DISH TABLE RACK SHELF				
14	1	SOILED DISH TRANSPORT CART				
15	2	POT AND PAN RACKS				
16	1	PREP TABLE				
17	1	WALL SHELF				
18	1	MIXER	20 QT			
19	1	PORTABLE MIXER STAND				
20	0	SPARE NUMBER				
21	0	SPARE NUMBER				
22	1	SLICER				
23	0	SPARE NUMBER				
24	2	WORK TABLES				
25	1	CAN OPENER				
26	1	WALL SHELF				
27	1	COMBLOVEN	SINGLE DECK			
28	1	BRAISING PAN	30 GALLON			
29	1	TRENCH DRAIN	O PLIPNED WITH CONVENTION OVEN BAG			
30	1	RANGE	6 BURNER WITH CONVECTION OVEN BAS			
31	1	STAINLESS STEEL WALL PANELING				
32	1	HOOD WITH FIRE PROTECTION SYSTEM	DV LIVA C			
33 34	1	DUCT AND FAN RACK	BY HVAC			
35	1	ICE MACHINE				
36	1	BEVERAGE COUNTER				
37	1	DROP IN DUMP SINK				
38	1	COFFEE MAKER	BY VENDOR			
39	1	TEA BREWER	BY VENDOR			
40	1	PASS THRU REFRIGERATOR	SINGLE SECTION WITH HALF HGT DOORS			
41	1	WORK TABLE WITH SINK				
42	1	HANGING UTENSIL RACK				
43	1	HOT HOLDING CABINET	FULL HGT - PASS THRU UNIT			
44	1	SERVING COUNTER				
45	0	SPARE NUMBER				
46	1	DROP IN COLD PAN	3 PAN UNIT			
47	1	DROP IN HOT FOOD UNIT	4 PAN UNIT			
48	1	PROTECTOR GUARD				
49	1	TRAY AND SILVER CART				
50	0	BEVERAGE COUNTER				
-4 1	n	SPARE NUMBER				
51 52	2	TEA DISPENSERS	B Y VENDOR			

GENERAL NOTES - E132

- 1 ELECTRICAL CONTRACTOR SHALL VERIFY DIMENSIONAL LOCATIONS WITH THE KITCHEN EQUIPMENT CONTRACTOR'S SHOP DRAWINGS.
- 2 ELECTRICAL CONTRACTOR SHALL MAKE ALL EXTERNAL AND INTERNAL CONNECTIONS AS NECESSARY TO MAKE FOOD SERVICE EQUIPMENT FUNCTIONAL.
- 3 DEVICE COVERPLATES IN THE FOOD SERVICE KITCHEN SHALL BE STAINLESS STEEL TYPE.

PULLEY ELBOW & CABLE TO ANSUL CABINET BY FIRE PROT. CONTR.

4" X 4" BOX (VERIFY OCTAGON OR

SYSTEM PROVIDED) FLUSH MOUNTED IN

SQUARE WITH

SECTION THRU WALL

E132

AND LOCATED IN EGRESS PATH)

3 32C PULL STATION DETAIL

WALL BY E.C.

EMT CONDUIT TO STUB ABOVE CEILING

4"- 6" AND BE UNOBSTRUCTED FOR ACCESS

1/2" DIA. EMT EMPTY CONDUIT IN WALL TO ABOVE CEILING- NO BENDS

> FIRE PULL STATION — BY FIRE PROT. CONTR.

VERIFY LOCATION OF FIRE PULL(S) W/FIRE MARSHALL PRIOR TO INSTALLATION

(MUST BE 10'-0" MIN FROM HOOD AND NO MORE THAN 48"A.F.F.,

E.C. NOTE! BOX MUST BE MOUNTED IN WALL W/ TABS AT 2:00 AND 8:00 POSITIONS AS SHOWN

ALL J-BOXES AND CONDUIT SHOWN ARE TO BE BY ELECTRICAL CONTR.

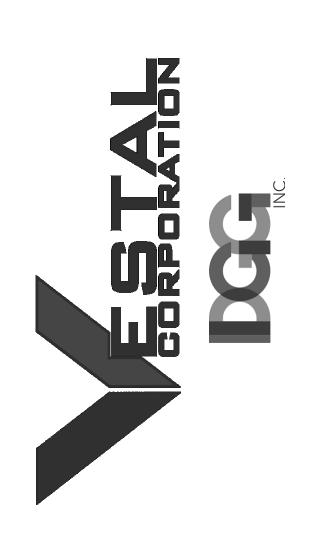
ISOMETRIC

4 RECEPTACLES MOUNTED GREATER THAN 48" FOR KITCHEN EQUIPMENT SHALL BE INSTALLED HORIZONTALLY.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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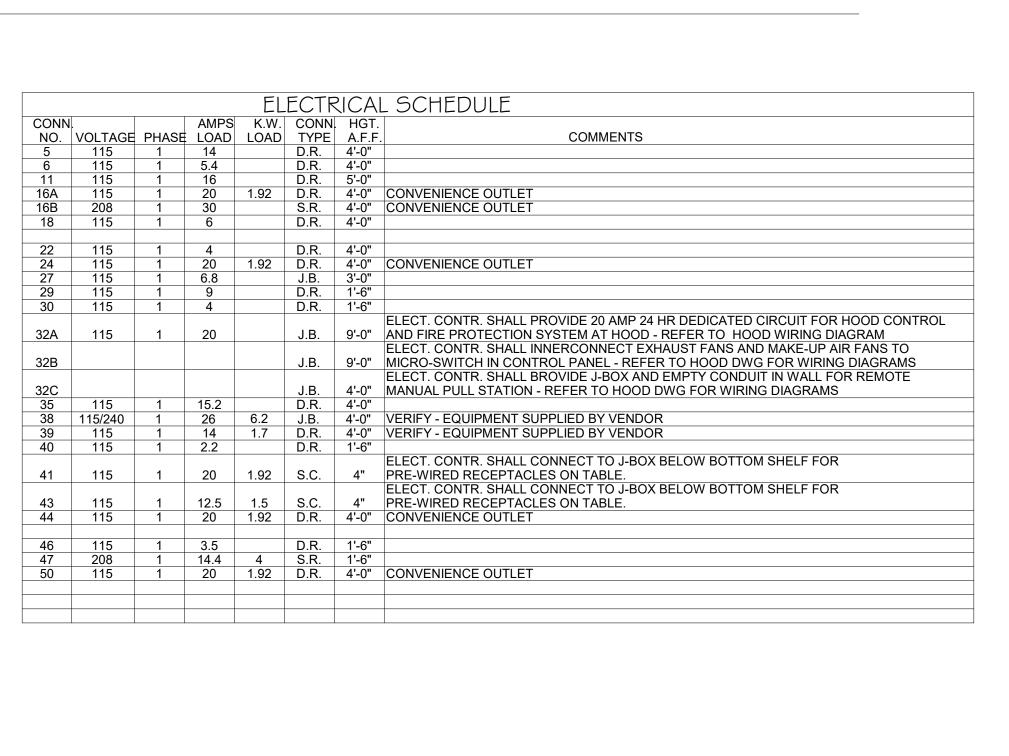
CAD DWG FILE	:
DRAWN BY:	SKS
CHECKED BY:	JCA
DESIGNED BY:	SKS

SHEET TITLE:

ENLARGED PLAN -KITCHEN

SHEET NUMBER:

E132



SYMBOL # KEYED NOTES - E133

PROVIDE CONDUIT AND CONTROL WIRING TO KITCHEN EXHAUST HOOD CONTROLLER FOR HOOD / FAN INTERLOCK.



STATE OF MISSOURI

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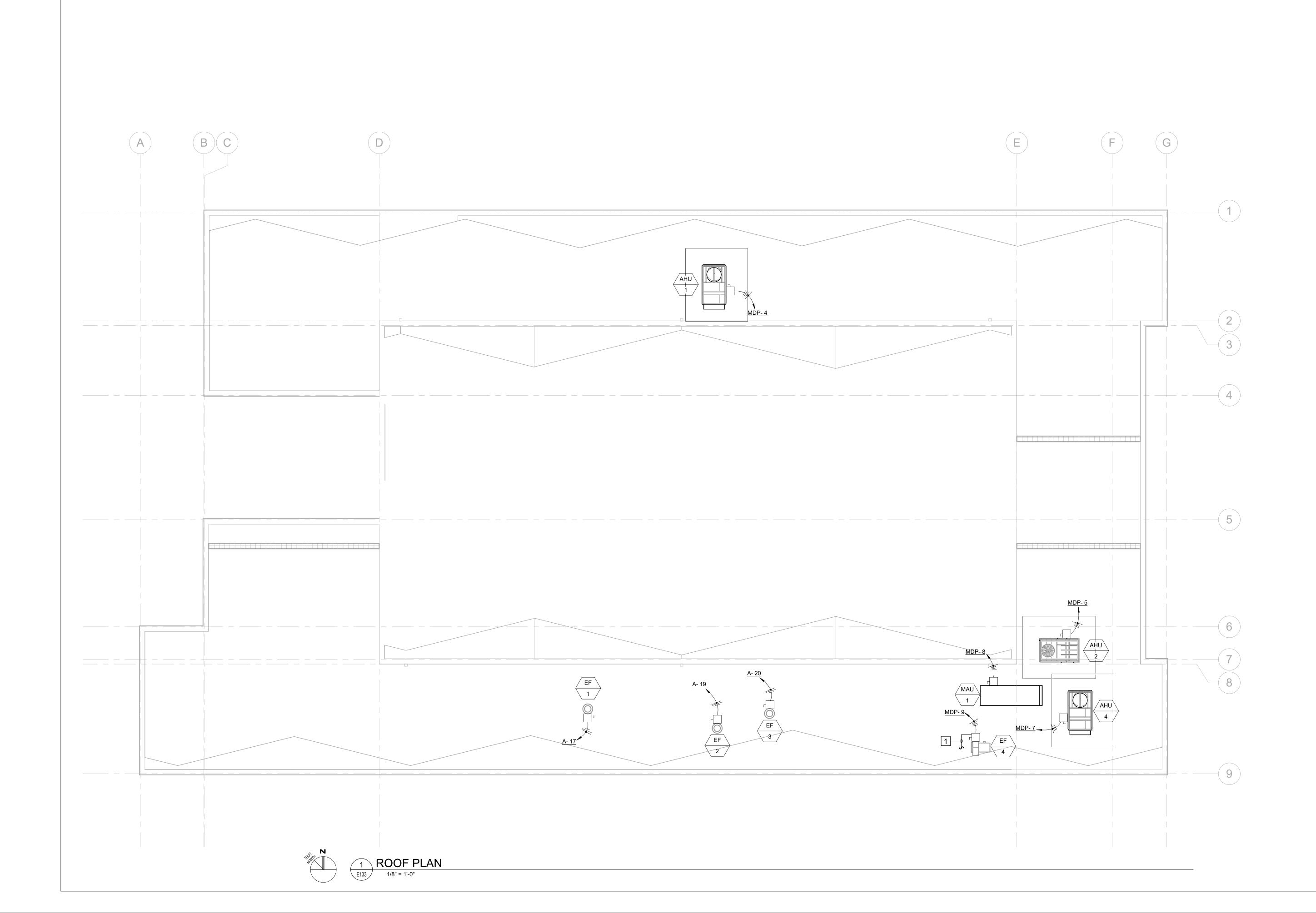
CAD DWG FILE	:
DRAWN BY:	SKS
CHECKED BY:	JCA
DESIGNED BY:	SKS

SHEET TITLE:

ELECTRICAL - ROOF POWER PLAN

SHEET NUMBER:

E133



	MECHANICAL EQUIPMENT DATA SCH	IEDULE															
					_			DISCON	INECT AT EQ	UIPMENT			STARTER				
PLAN MARK	EQUIPMENT	LOCATION	HP	KW	VOLTS	PHASE	MCA	FEEDER	FURN. BY	INST. BY	TYPE	SIZE	FURN BY	INST. BY	TYPE	SIZE	REMARKS
AHU-1	AIR HANDLING UNIT	ROOF			480	3	29	REF. E701	M.C.	M.C.			M.C.				
AHU-2	AIR HANDLING UNIT	ROOF			480	3	14	REF. E701	M.C.	M.C.			M.C.				
AHU-3	AIR HANDLING UNIT	GRADE			480	3	31	REF. E701	M.C.	M.C.			M.C.				
AHU-4	AIR HANDLING UNIT	ROOF			480	3	29	REF. E701	M.C.	M.C.			M.C.				
EF-1	EXHAUST FAN	ROOF	1/12		120	1	<1	2#12,1#12G	ELEC	E.C.	NEMA 3R	30A, NF	E.C.				
EF-2	EXHAUST FAN	ROOF	1/25		120	1	<1	2#12,1#12G	ELEC	E.C.	NEMA 3R	30A, NF	E.C.		`		
EF-3	EXHAUST FAN	ROOF	1/12		120	1	<1	2#12,1#12G	ELEC	E.C.	NEMA 3R	30A, NF	E.C.				
EF-4	EXHAUST FAN	ROOF	3/4		480	3	2	REF. E701	ELEC	E.C.	NEMA 3R	30A, NF	E.C.				INTERLOCK WITH KITCHEN HOOD
EH-1	ELECTRIC UNIT HEATER	MECH 118		3	208	1		2#12,1#12G	M.C.	M.C.	-	-	M.C.				
FCU-1	FAN COIL UNIT	STOR. 108			230	1	1	2#12,1#12G	ELEC	E.C.	NEMA 1	30A, NF	M.C.				
FCU-2	FAN COIL UNIT	OFFICE 109			230	1	1	2#12,1#12G	ELEC	E.C.	NEMA 1	30A, NF	M.C.				
FCU-3	FAN COIL UNIT	ELEC 113			230	1	1	2#12,1#12G	ELEC	E.C.	NEMA 1	30A, NF	M.C.				
GUH-1	GAS FIRED UNIT HEATER	DRILL 110			115	1		2#12,1#12G	M.C.	M.C.	-	-	M.C.				
GUH-2	GAS FIRED UNIT HEATER	DRILL 110			115	1		2#12,1#12G	M.C.	M.C.	-	-	M.C.				
GUH-3	GAS FIRED UNIT HEATER	DRILL 110			115	1		2#12,1#12G	M.C.	M.C.	-	-	M.C.				
GUH-4	GAS FIRED UNIT HEATER	DRILL 110			115	1		2#12,1#12G	M.C.	M.C.	-	-	M.C.				
HPU-1	HEAT PUMP	GRADE			230	1	42	2#8,1#10G	ELEC	E.C.	NEMA 3R	60A, NF	M.C.				POWERS UNITS FCU-1 / FCU-2
HPU-2	HEAT PUMP	GRADE			230	1	19	2#10,1#10G	ELEC	E.C.	NEMA 3R	30A, NF	M.C.				POWERS UNITS FCU-3
HVLS-1	FAN	DRILL 110			115	1	7	2#12,1#12G					M.C.				
HVLS-2	FAN	DRILL 110			115	1	7	2#12,1#12G					M.C.				
MAU-1	MAKE-UP AIR UNIT	ROOF	5		460	3	4.6	REF. E701	M.C.	M.C.	NEMA 3R	30A, NF	M.C.	M.C.	VFD		
VAV-1	VARIABLE AIR VOLUME	CLASS. 115		6	480	3	7.2	REF. E701	M.C.	M.C.			M.C.				
VAV-2	VARIABLE AIR VOLUME	CLASS. 115		6	480	3	7.2	REF. E701	M.C.	M.C.			M.C.				
VAV-3	VARIABLE AIR VOLUME	CLASS. 115		6	480	3	7.2	REF. E701	M.C.	M.C.			M.C.				
VAV-4	VARIABLE AIR VOLUME	MEN 117		2	480	3	3	REF. E701	M.C.	M.C.			M.C.				
VAV-5	VARIABLE AIR VOLUME	WOMEN 119		2	480	3	3	REF. E701	M.C.	M.C.			M.C.				



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CAD DWG FILE:
DRAWN BY: SKS
CHECKED BY: JCA
DESIGNED BY: SKS

SHEET TITLE:

ELECTRICAL -DETAILS

SHEET NUMBER:

E50 O OF 85 SHEE

Switchboard: MDP Location: ELEC 113 **A.I.C. Rating:** 22,000 Mains Type: BKR Mains Rating: 400 A Mounting: SURFACE Wires: 4 Enclosure: TYPE 1 MCB Rating: 400 A FRAME SIZES SHOWN ARE FOR REFERENCE ONLY. THE SELECTED MANUFACTURER SHALL PROVIDE APPROPRIATE FRAME SIZES BASED ON THEIR EQUIPMENT SPECIFICATIONS. CKT 1 T1 - MLP 2 T2 - PANEL E **Circuit Description** # of Poles Frame Size Trip Rating 39646 VA BACK-FEED EXISTING MLP 200 A 200 A 125 A 51316 VA KITCHEN 200 A 3 T3 - PANEL EP1 60 A 14777 VA EMERGENCY POWER PANEL 4 AHU-1 60 A 40 A 5 AHU-2 6 AHU-3 60 A 20 A 9296 VA 60 A 40 A 20583 VA 7 AHU-4 19256 VA 60 A 40 A 8 MAU-1 9 EF-4 10 VAV-1 3054 VA 60 A 20 A 768 VA 60 A 20 A 20 A 60 A 6000 VA 11 VAV-2 60 A 20 A 6000 VA 12 VAV-3 13 VAV-4 14 VAV-5 60 A 20 A 6000 VA 60 A 20 A 2001 VA 20 A 2001 VA 60 A 199955 VA Total Conn. Load: Total Amps: 241 A

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel 1	Totals
Other	25812 VA	100.00%	25812 VA		
Receptacle	46412 VA	60.77%	28206 VA	Total Conn. Load:	199955 VA
Power	120891 VA	100.00%	120891 VA	Total Est. Demand:	183458 VA
Lighting	6840 VA	125.00%	8550 VA	Total Conn.:	241 A
				Total Est. Demand:	221 A
Notes:					

Notes:	Branch Panel: EP1 Location: ELEC 113 Supply From: T3 Mounting: SURFACE Enclosure: Type 1					Volts: Phases: Wires:	-	3 Wye				A.I.C. Rating: 10,000 Mains Type: BKR Mains Rating: 100 A MCB Rating: 100 A		
01/7							_		_			2		
CKT	Circuit Description	Trip	Poles		4000		B		C	Poles	Trip		escription	CK
3	LIGHTING - RESTROOMS, KITCHEN, CLASS, CLASSROOM 116	20 A 20 A	1	987 VA	1680	720 \/A	648 VA			1		FREEZER REFRIGERATOR		4
5	LIGHTING - ASSEMBLY HALL	20 A	1			120 VA	040 VA		360 VA			TRAINING OFFICE 104		6
7	LIGHTING - ASSEMBLY HALL	20 A	1	840 VA	63 \/4			UTU VA	330 VA	1		CLASSROOM 104		8
9	DRILL HALL HEATER	20 A	1	040 77	00 17	1440	1440			1		DRILL HALL HEATER		10
11	DRILL HALL HEATER	20 A	1			1110	1110	1440	180 VA			RECEPTACLE - ORDINA	NCE SECURITY PNI	12
13	DRILL HALL HEATER	20 A	1	1440	360 VA			1110	100 171	1		RECEPTACLES - DRILL		14
15	RECEPTACLES - CLASSROOM 115	20 A	1				360 VA			1		QUAD RECEPTACLE		16
17	RECEPTACLES - DRILL HALL	20 A	1						360 VA	1		QUAD RECEPTACLE		18
19	RECEPTACLES - OFFICES 112A, 112B	20 A	1	360 VA										20
21														22
23														24
25														26
27														28
29														30
		Tota	al Load:	572	9 VA	VA 5508 VA		3540 VA						
		Tota	I Amps:	50 A 48 A 30 A) A					
Legend	:: :lassification	Con	nected l	oad	Dor	nand Fa	ctor	Ectin	nated De	mand		Panal	Totals	
Recept			6288 VA			100.00%		1	6288 VA			Failei	TOLAIS	
Power	3010		5760 VA		+	100.00%			5760 VA			Total Conn. Load:	14777 VA	
Lighting	1		2729 VA		1	125.00%		 	3412 VA			Total Est. Demand:		
9	1		,	-		.20.007	-		♥ 1.12 V/	-		Total Conn.:		-
												Total Est. Demand:		
														,
Notes:														

	Switchboard: MLP Location: ELEC 113 Supply From: T1 Mounting: SURFACE Enclosure: TYPE 1		Volts: 120/24 Phases: 1 Wires: 3	0 Single				
Notes: EXISTING	S PANEL							
СКТ	Circuit Descri	ption	# of Poles	Frame Size	Trip Rating	Load	Remark	s
1	EXHAUST FAN - ASSEMBLY HALL		2	30 A	20 A	3840 VA	EXISTIN	IG FAN
2	EXHAUST FAN - ASSEMBLY HALL		2	30 A	20 A	3840 VA	EXISTIN	IG FAN
3	PANEL A		2	100 A	100 A	10800 VA	EXISTIN	IG PANEL
4	PANEL B		2	100 A	100 A	7822 VA	EXISTIN	IG PANEL
5	PANEL C		2	100 A	100 A	13344 VA	EXISTIN	IG PANEL
6	PANEL D		2	100 A	100 A	0 VA	EXISTIN	IG PANEL
				To	otal Conn. Load: Total Amps:	39646 VA 165 A		
	ssification	Connected Load	Demand Factor	Estimated De			Panel	Totals
Other		9472 VA	100.00%	9472 VA				000403/4
Receptacle	e	13140 VA	88.05%	11570 VA				39646 VA
LOVALOR		12924 VA	100.00%	12924 VA		Total Est.		
		4110 VA	125.00%	5138 VA	\		al Conn.:	
						Total Est.	שemand:	163 A
Power Lighting								

	Branch Panel: A Location: DRILL HALL 110 Supply From: MLP Mounting: SURFACE Enclosure: Type 1					120/240 S 1 3	Single			A.I.C. Rating: 10,000 Mains Type: MLO Mains Rating: 225 A MCB Rating:		
Notes: EXISTIN	IG PANEL											
СКТ	- Circuit Description		Poles	A		В		Poles	Trip	p Circuit Description		СКТ
1	SPARE (FORMER LIGHTING CKT.)	20 A	1	0 VA	840 VA			1	20 A	LIGHTING - ASSEMBLY HA	\LL	2
3	LIGHTING - ASSEMBLY HALL	20 A	1			840 VA	0 VA	1	20 A	SPARE (FORMER LIGHTIN	IG CKT.)	4
5	SPARE (FORMER LIGHTING CKT.)	20 A	1	0 VA	0 VA			1	20 A	SPARE (FORMER LIGHTIN	IG CKT.)	6
7	SPARE (FORMER LIGHTING CKT.)	20 A	1			0 VA	579 VA	1	20 A	LIGHTING - CLASSROOMS	S, OFFICE	8
9	SPARE (FORMER LIGHTING CKT.)	20 A	1	0 VA	251 VA			1	20 A	LIGHTING - ORDNANCE, C	FFICE STOR.	10
11	SPARE (FORMER LIGHTING CKT.)	20 A	1			0 VA	251 VA	1	20 A	LIGHTING - GYM (FORMER	R RANGE)	12
13	(EXISTING) RECEPTACLES, OVERHEAD DOOR	20 A	1	720 VA	720 VA			1	20 A	(EXISTING) RECEPTACLES	S	14
15	(EXISTING) RECEPTACLES - GYM	20 A	1			900 VA	540 VA	1	20 A	(EXISTING) RECEPTACLES	S	16
17	EF-1 (FORMERLY LOCKER EXHAUST FAN)	20 A	1	100 VA	1080 VA			1	20 A	(EXISTING) RECEPTACLES	S WATER FOUNTAIN,	18
19	EF-2 (FORMERLY TOILET EXHAUST FAN)	20 A	1			100 VA	100 VA	1	20 A	EF-3 (FORMERLY KITCHE	N REC.)	20
21	(EXISTING) RECEPTACLES - UNIT STOR.	20 A	1	900 VA	360 VA			1	20 A	RECEPTACLES - MEN'S		22
23	RECEPS. OFFICE 114 (FORMER KITCHEN REC)	20 A	1			1440 VA	360 VA	1	20 A	RECEPTACLES - WOMEN'S	S	24
25	RECEPS. CLASS 116 (FORMER KITCHEN REC)	20 A	1	720 VA	0 VA			1	20 A	Spare		26
27	(EVICTING) Chara	40.4	2			0 VA	0 VA	1	20 A	Spare		28
29	(EXISTING) Spare	40 A	2	0 VA	0 VA			1	20 A	Spare		30
	•	To	tal Load:	569	1 VA	511	O VA	'				
		Tot	al Amps:	47	7 A	43	3 A					
egend:	d: Classification Connected I					ctor	Fstimate	ed Demano	mand Panel Totals			
Recepta			O VA		100.00%			10 VA	-	i ulloi		
Power			VA		100.00%			0 VA		Total Conn. Load:	10800 VA	
ighting) VA		125.00%			50 VA		Total Est. Demand:		
<u> </u>										Total Conn.:	45 A	
										Total Est. Demand:	48 A	
Notes:												

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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ISSUE DATE: 2024.04.03

CAD DWG FILE:
DRAWN BY: SKS
CHECKED BY: JCA
DESIGNED BY: SKS

SHEET TITLE:

PANEL SCHEDULES

SHEET NUMBER:

E60 1 OF 85 SHEE

Location: DRILL HALL 110 Supply From: MLP Mounting: SURFACE Enclosure: Type 1 Notes:					Phases: Wires:				A.I.C. Rating: 10,000 Mains Type: MLO Mains Rating: 225 A MCB Rating:			
	G PANEL											
СКТ	Circuit Description	Trip	Poles		A	В		Poles	Trip	Circuit Desc	ription	CK.
1	SPARE (FORMER LIGHTING CKT.)	20 A	1	0 VA	508 VA			1	20 A	LIGHTING - OFFICES, KITC	•	2
3	REC. FOR WATER SOFTENER. RECIRC. PUMP.	20 A	1			180 VA	448 VA	1	20 A	(EXISTING) LIGHTING - FRO	ONT CANOPY	4
5					394 VA			1	20 A	LIGHTING - OFFICES, TRAI	NING	6
7	TANKLESS WH CONTROL BOXES (FORMER	20 A	1			400 VA	900 VA	1	20 A	(EXISTING) RECEPTACLES	3	8
9	(EXISTING) RECEPTACLES	20 A	1	1080 VA	360 VA			1	20 A	(EXISTING) RECEPTACLES	3	10
11	(EXISTING) RECEPTACLES	20 A	1			900 VA	720 VA	1	20 A	(EXISTING) RECEPTACLES	3	12
13	(EXISTING) CLOCK	20 A	1	0 VA	540 VA			1	20 A	(EXISTING) RECEPTACLES	3	14
15	SPARE (FORMER A/C UNIT)	20 A	2			0 VA	0 VA	2	30 A	SPARE (FORMER A/C UNIT	-)	16
17	of ARE (FORWER A/C CIVIT)	20 A		0 VA	0 VA			2	30 A	SI AILE (I SIMILITA'S SIVII	,	18
	(EXISTING) UNIT SIGN	20 A	1			0 VA	0 VA	2	20 A	SPARE (FORMER A/C UNIT	-)	20
	DRILL HALL OVERHEAD FANS	20 A	1	1392 VA	0 VA				2071	OF THE (FORWER TO OTHER	,	22
23	SPARE (FORMER FURNACE)	20 A	2			0 VA						24
25	or the Continent of the Continent	2071	_	0 VA								26
27												28
29		<u> </u>										30
			tal Load:		4 VA		8 VA					
		Tot	al Amps:	36	6 A	30) A		,			
egend:	ssification	Connect	ted Load	De	emand Fa	ctor	Estimate	ed Deman	nd	Panel ¹	Totals	
Other			2 VA		100.00%			92 VA				
Receptac	le		O VA		100.00%			80 VA		Total Conn. Load:	7822 VA	,
ighting		1350	O VA		125.00%)	168	87 VA		Total Est. Demand:	8159 VA	
										Total Conn.:	33 A	
										Total Est. Demand:	34 A	
lotes:												

	Mounting: SURFACE Enclosure: Type 1			Wires: 3				Mains Rating: 100 A MCB Rating:		
Notes: EXISTING PANEL										
СКТ	Circuit Description	Trip	Poles	A	В	Poles	Trip	Circuit Des	cription	СК
1				0 VA						2
3					0 VA	2	20 A	SPARE (FORMER A/C)		4
5				0 VA			20.4	(EVICTING) EDONT OFFIC	SE LIEATED	6
7					0 VA	2	20 A	(EXISTING) - FRONT OFFIC	JE HEATER	8
9										10
11										12
13										14
15										16
17										18
19										20
21										22
23										24
		To	otal Load:	0 VA	0 VA		•			•
		To	tal Amps:	0 A	0 A					
Legend:	n	Connec	ted Load	Demand Factor	or Estimat	ed Deman	nd	Panel	Totals	
Load Classification					Lotimat		-		- Ctaic	
Load Classification					Ji Listimat					
Load Classification					J Estimat			Total Conn. Load:	0 VA	
Load Classification					J Estimat			Total Conn. Load: Total Est. Demand:	0 VA 0 VA	
Load Classification					JI Estimat			Total Conn. Load: Total Est. Demand: Total Conn.:	0 VA 0 VA 0 A	
Load Classification					JI Estimat			Total Conn. Load: Total Est. Demand:	0 VA 0 VA 0 A	

Volts: 120/240 Single

Phases: 1

A.I.C. Rating: 10,000

Mains Type: MLO

Branch Panel: D

Location: DRILL HALL 110

Supply From: MLP

Notes: EXISTIN	Location: ELEC 113 Supply From: MLP Mounting: SURFACE Enclosure: Type 1			Volts: Phases: Wires:		Single		A.I.C. Rating: 10,000 Mains Type: MLO Mains Rating: 100 A MCB Rating:				
СКТ	Circuit Description	Trip	Poles		4		В	Poles	Trip	Circuit Desc	cription	скт
1	HPU-1	50 A	2	4032 VA	2280 VA			2	30 A	HPU-2		2
3				0.1/4		4032 VA	2280 VA	_		• -		4
5 7	SPARE (FORMER FURNACE)	50 A	2	0 VA		0 VA						6 8
9				0 VA		UVA						10
11	SPARE (FORMER A/C)	20 A	2	• • • • • • • • • • • • • • • • • • • •		0 VA						12
13	RECEPTACLES, OFFICES 112A, 112B	20 A	1	720 VA								14
15												16
17												18
19				700		201	0.14					20
			otal Load: tal Amps:		2 VA) A		2 VA 3 A					
Legend:	: assification	Connec	ted Load	De	emand Fa	ctor	Estimate	ed Demano	1	Panel	Totals	
	Receptacle		VA		100.00%			20 VA	-	. and	· Juio	
Power			24 VA		100.00%			24 VA		Total Conn. Load:	13344 VA	
										Total Est. Demand:		
										Total Conn.:		
										Total Est. Demand:	56 A	
Notes:												

Branch Panel: E Location: DRILL HALL 110 **A.I.C. Rating:** 10,000 Volts: 120/208 Wye Supply From: T2 Phases: 3 Mains Type: BKR Mounting: SURFACE Mains Rating: 225 A MCB Rating: 225 A Wires: 4 Enclosure: Type 1 CKT **Circuit Description** Circuit Description 20 A 2 1500... 1500... 1500... 2 2 20 A HOT FOOD DROP-IN UNIT 3100... 2496... 5 7 COFFEE MAKER 2 30 A PREP TABLE 8 20 A 1 1700... 1920... 20 A 1 1920... 420 VA 9 TEA BREWER 1 20 A SERVING COUNTER 10 11 BEVERAGE COUNTER 1920... 1920... 1 20 A SERVING COUNTER 1 20 A DROP-IN COLD PAN 13 BEVERAGE COUNTER 14 15 ICE MACHINE 20 A 1 1824... 1800... 1 20 A HOOD CONTROL 16 20 A 1 1920... 1920... 1 20 A PREP TABLE 20 A 1 1920... 1920... 1 20 A PREP TABLE 20 A 1 1920... 720 VA 1 20 A MIXER 17 BEVERAGE COUNTER 18 19 WORK TABLE 21 WORK TABLE 23 SLICER 480 VA 816 VA 1 20 A COMBI-OVEN 24 25 PASS-THRU REF. 20 A 1 264 VA 1080... 20 A BRAISING PAN 26 1500... 480 VA 27 HOT HOLDING CABINET 1 20 A RANGE VA 1 20 A RANGE 1920... 1920... 1 20 A DISH MACHINE 29 WORK TABLE RECEPTACLES 31 WORK TABLE RECEPTACLES 20 A 1 1920... 32 33 34 40 39 Total Load: 18040 VA 14864 VA 18412 VA Total Amps: 154 A 124 A 158 A **Estimated Demand** Panel Totals **Load Classification** Connected Load **Demand Factor** 16340 VA 16340 VA 100.00% Total Conn. Load: 51316 VA Receptacle 26984 VA 68.53% 18492 VA Total Est. Demand: 42824 VA 7992 VA 100.00% 7992 VA Total Conn.: 142 A Total Est. Demand: 119 A

KEYED NOTES - E602

- 1 RE-USE EXISTING 50A/2P BREAKER, FORMERLY SERVING A FURNACE, FOR NEW HPU.
- 2 REPLACE EXISTING BREAKER WITH NEW 30A/2P BREAKER FOR NEW HPU.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



PROFESSIONAL SEAL



OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL GUARD

ST. CLAIR READINESS CENTER

375 COMMERCIAL AVE. ST. CLAIR, MO 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

REV.	DESCRIPTION	DATE
A	SD	12/06/2023
В	DD	02/19/2024
С	IFB	04/23/2024

ISSUE DATE: 2024.04.03

CAD DWG FILE:

DRAWN BY: SKS

CHECKED BY: JCA

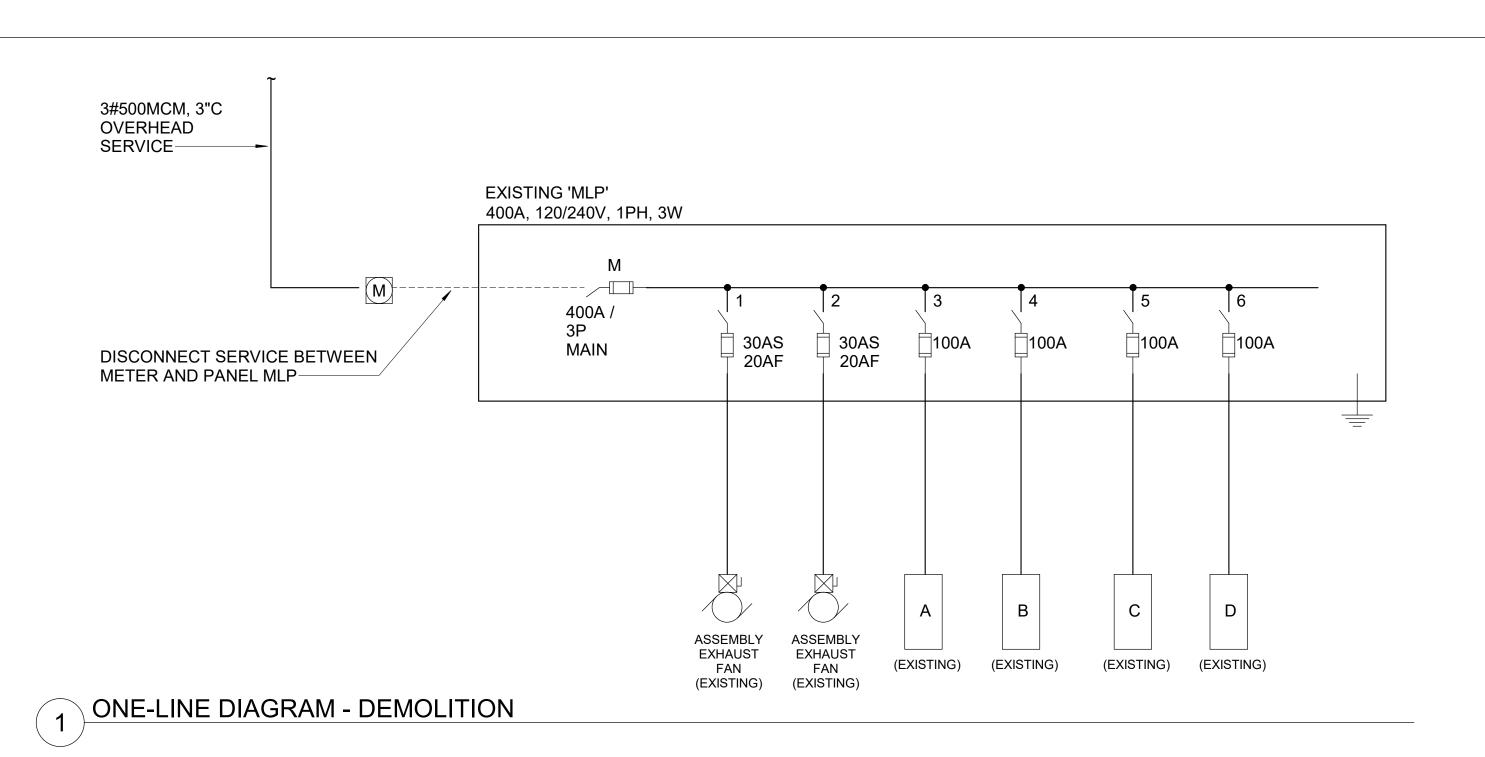
DESIGNED BY: SKS

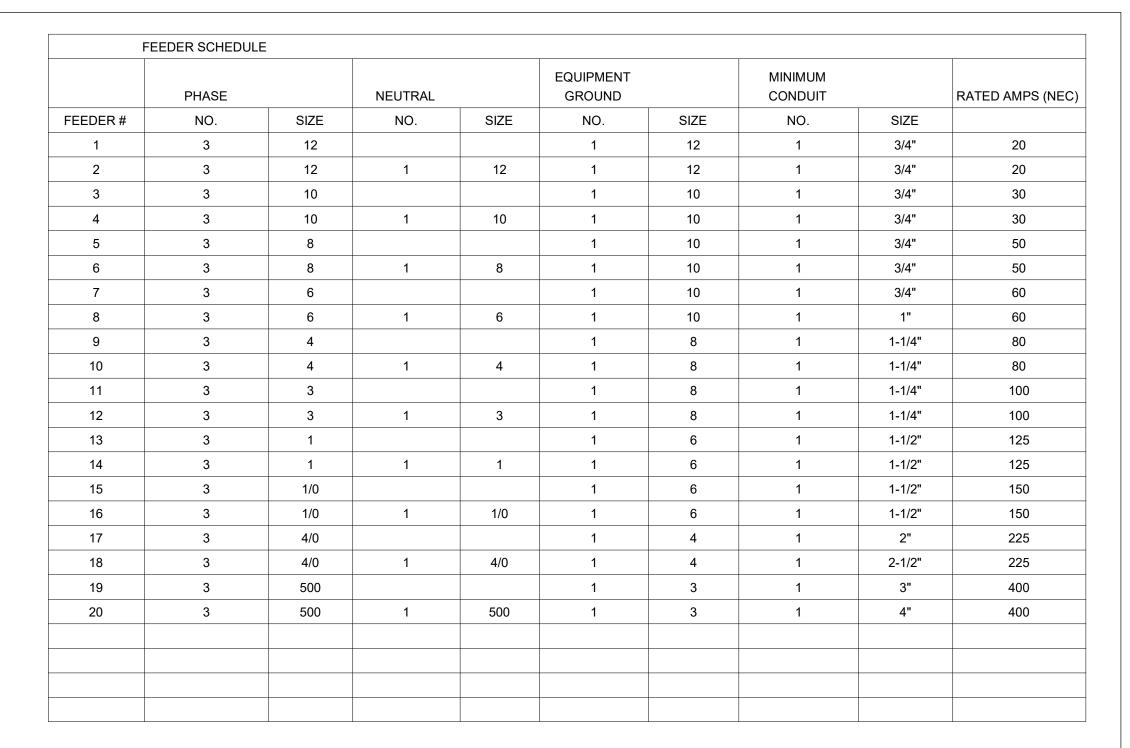
SHEET TITLE:

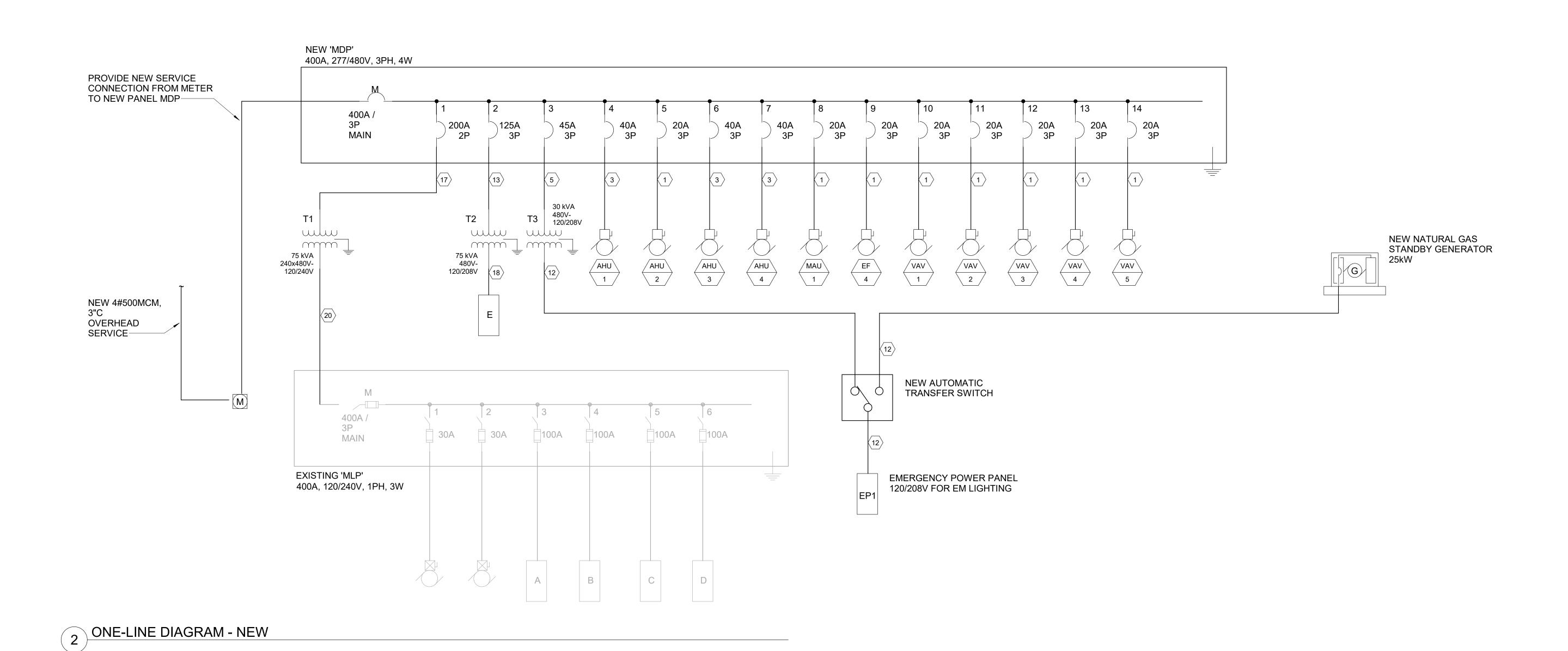
PANEL SCHEDULES

SHEET NUMBER:

E602



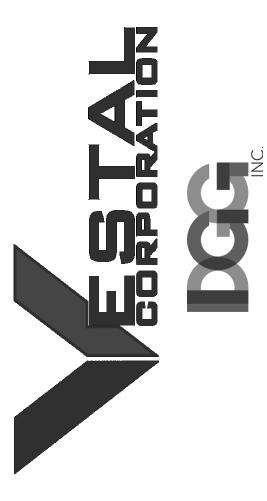




STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



PROFESSIONAL SEAL



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CAD DWG FILE:

DRAWN BY: <u>SKS</u>

CHECKED BY: <u>JCA</u>

DESIGNED BY: <u>SKS</u>

SHEET TITLE:

ONE-LINE RISER DIAGRAM

SHEET NUMBER:

E701

73 OF 85 SHEETS 2024.04.23



OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

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CAD DWG FILE:
DRAWN BY: MDG
CHECKED BY: MDG
DESIGNED BY: MDG

SHEET TITLE:

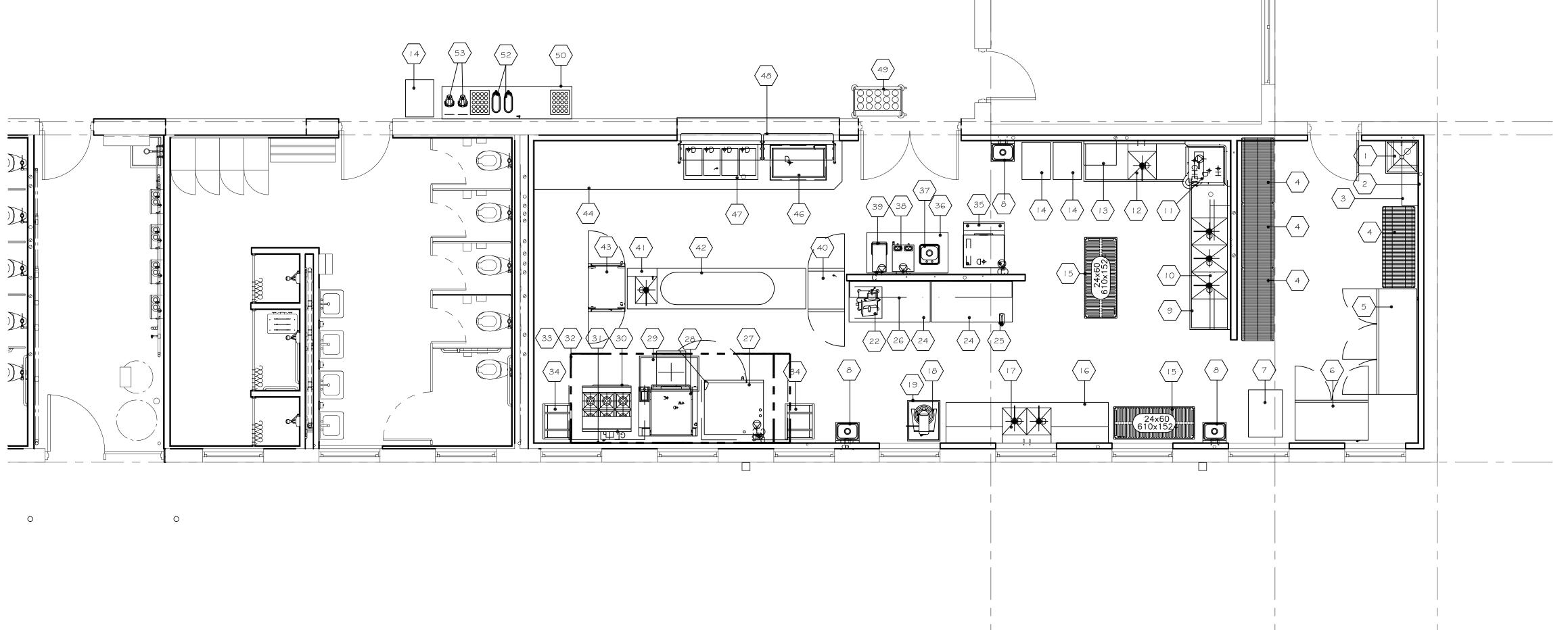
FLOOR PLAN

SHEET NUMBER:

Q-FP-03

74 OF 85 SHEETS 2024.04.23

		EQUIPMENT SCHEDL	JLE
ITEM NO.	QTY.	DESCRIPTION	REMARKS
1	1	MOP SINK	BY PLUMBER
2		MOP RACK	BY G.C.
3	i	WALL SHLEF	BY G.C.
4	1 LOT	STORAGE SHELVING	<i>B</i> 1 0.0.
5	1	FREEZER	THREE SECTION WITH FULL HGT DOORS
6	i	REFRIGERATOR	TWO SECTION WITH FULL HGT DOORS
7		CAN RACK	
8	3	HAND SINKS	WITH SIDE SPLASHES
9	1	THREE COMPARTMENT SINK/CLEAN DISH TABLE	
10	1	DOUBLE OVER SHELF	
1.1	1	DISH MACHINE	UL LISTED FOR VENTLESS OPERATION
12	1	SOILED DISH TABLE	
13	1	RACK SHELF	
14	3	SOILED DISH TRANSPORT CART	
15	2	POT AND PAN RACKS	
16	1	PREP TABLE	
17	1	WALL SHELF	
18	1	MIXER	20 QT
19	1	PORTABLE MIXER STAND	
20	0	SPARE NUMBER	SINGLE SECTION WITH HALF HGT DOORS
21	0	SPARE NUMBER	
22	1	SLICER	
23	0	SPARE NUMBER	
24	2	WORK TABLES	
25		CAN OPENER	
26		WALL SHELF	011015 7504
27		COMBI OVEN	SINGLE DECK
28		BRAISING PAN	30 GALLON
29		TRENCH DRAIN	C DUDNED WITH CONVECTION OVEN DAGE
30		RANGE	6 BURNER WITH CONVECTION OVEN BASE
31		STAINLESS STEEL WALL PANELING	
32		HOOD WITH FIRE PROTECTION SYSTEM	DV LIVA C
33	1	DUCT AND FAN	BY HVAC
34 35	1	RACK ICE MACHINE	
36	1	BEVERAGE COUNTER	
<u>36</u> 37		DROP IN DUMP SINK	
38		COFFEE MAKER	BY VENDOR
39		TEA BREWER	BY VENDOR
40		PASS THRU REFRIGERATOR	SINGLE SECTION WITH HALF HGT DOORS
41		WORK TABLE WITH SINK	JINGLE JECTION WITH HALI HGT DOORS
42		HANGING UTENSIL RACK	<u> </u>
43		HOT HOLDING CABINET	FULL HGT - PASS THRU UNIT
44		SERVING COUNTER	TOLL HOT TAGS THIC DIGHT
45	0	SPARE NUMBER	
46	 	DROP IN COLD PAN	3 PAN UNIT
47		DROP IN HOT FOOD UNIT	4 PAN UNIT
48		PROTECTOR GUARD	T T T W C T T T
49		TRAY AND SILVER CART	
50		BEVERAGE TABLE	BY OWNER
51	0	SPARE NUMBER	DI OWINEIN
52	2	TEA DISPENSERS	BY VENDOR
53	2	COFFEE DISPENSERS	BY VENDOR



 PULLEY ELBOW & CABLE TO ANSUL CABINET BY FIRE PROT. CONTR.

SECTION THRU WALL

PRIOR TO INSTALLATION

AND LOCATED IN EGRESS PATH)

VERIFY LOCATION OF FIRE PULL(S) W/FIRE MARSHALL

(MUST BE 10'-0" MIN FROM HOOD AND NO MORE THAN 48"A.F.F.,

EMT CONDUIT TO STUB ABOVE CEILING
4"- 6" AND BE UNOBSTRUCTED FOR ACCESS

TO ABOVE CEILING- NO BENDS

1/2" DIA. EMT EMPTY CONDUIT IN WALL

4" X 4" BOX (VERIFY OCTAGON OR SQUARE WITH SYSTEM PROVIDED) FLUSH MOUNTED IN WALL BY E.C.

FIRE PULL STATION -

BY FIRE PROT. CONTR.

ALL J-BOXES AND CONDUIT SHOWN

ARE TO BE BY ELECTRICAL CONTR.

E.C. NOTE! BOX MUST BE MOUNTED IN WALL

W/ TABS AT 2:00 AND 8:00 POSITIONS AS SHOWN

ISOMETRIC



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ISSUE DATE: 2024.04.23

CAD DWG FILE:

DRAWN BY: MDG

CHECKED BY: MDG

DESIGNED BY: MDG

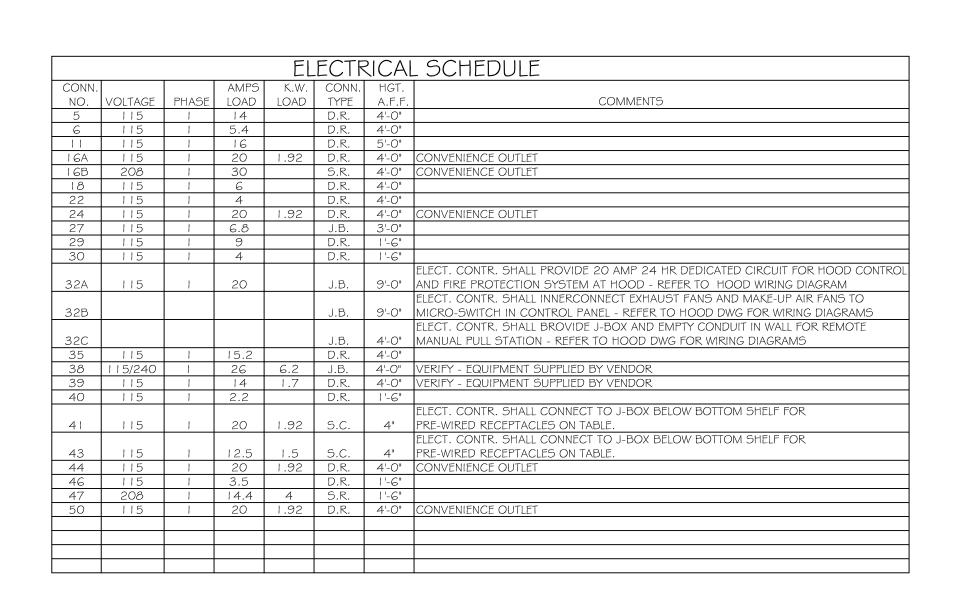
SHEET TITLE:

FOODSERVICE EQUIPMENT SPOT ELECTRICAL PLAN

SHEET NUMBER:

Q-FP-02

75 OF 85 SHEETS 2024.04.23





I. ALL ELECTRICAL OUTLETS AND CONNECTIONS SHOWN ON PLAN ARE FOR FOODSERVICE EQUIPMENT AND ARE FOR REFERENCE ONLY.

ELECTRICAL CONTRACTOR SHALL VERIFY ALL LEFT TO RIGHT DIMENSIONAL LOCATIONS WITH THE KITCHEN EQUIPMENT CONTRACTOR'S

2. ELECTRICAL CONTRACTOR SHALL VERIFY ALL INCOMING SERVICES, MAKE ALL EXTERNAL & INTERNAL CONNECTIONS AND PROVIDE ALL SWITCHES, BREAKERS, PANEL BOARDS, CONDUITS, J-BOXES, ETC. AS NECESSARY TO MAKE FOODSERVICE EQUIPMENT FUNCTIONAL.

3. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL J-BOXES, OUTLETS AND RECEPTACLES IN FIXTURES. FIXTURE FABRICATOR TO LOCATE ALL RECEPTACLES AND/OR SWITCHES WHEN PART OF THE FIXTURE. INTERNAL WIRING SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL

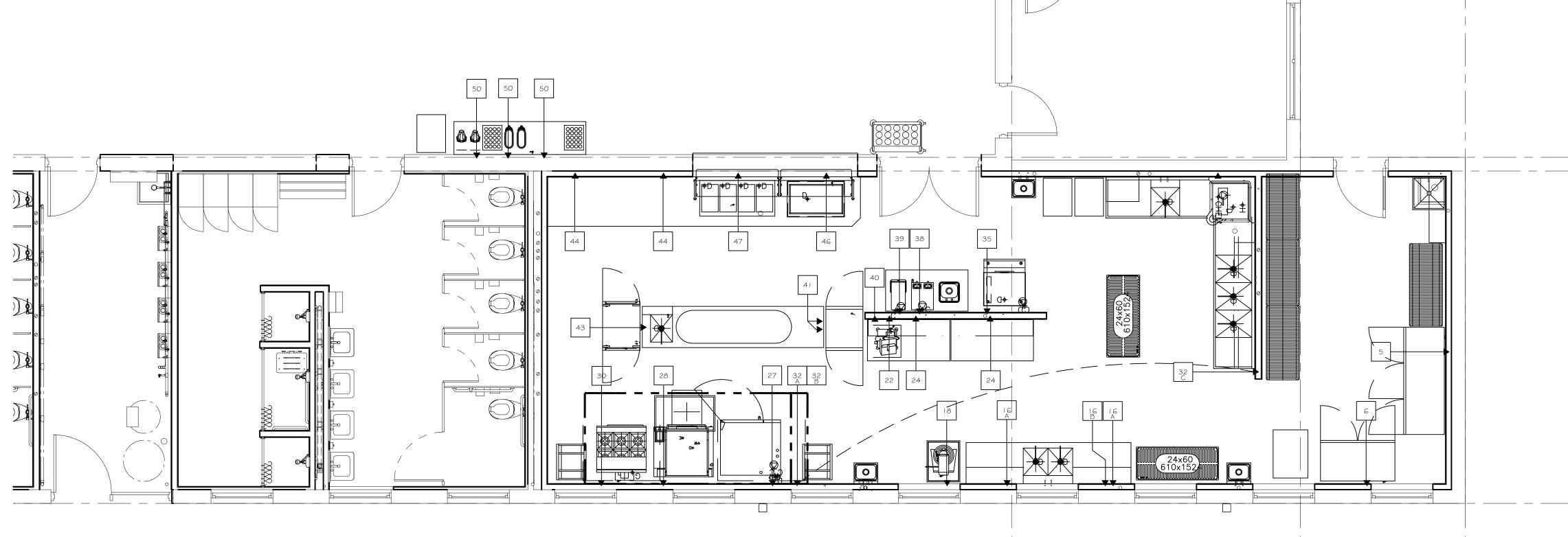
ELECTRICAL NOTES:



HOODS UNLESS OTHER WISE NOTED OR PROVIDED IN A UTILITY DISTRIBUTION SYSTEM.

NOTES; I. MECHANICAL AND ELECTRICAL REQUIREMENTS SHOWN ARE FOR FOOD SERVICE EQUIPMENT ONLY.

2. ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACE FLOOR (FLOOR, WALL OR CEILING) TO THE CENTERLINE OF ROUGH-INS.



NOTE: FLOOR TROUGH TO BE INSTALLED FLUSH TO FINISHED FLOOR TO ELIMINATE TRIP HAZARD.

FLOOR TROUGH TO BE PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR. PLUMBING CONTRACTOR TO INSTALL.

PLUMBING NOTES:

- I. ALL PLUMBING OUTLETS AND CONNECTIONS SHOWN ON PLAN ARE FOR FOODSERVICE EQUIPMENT AND ARE FOR REFERENCE ONLY. PLUMBING CONTRACTOR TO VERIFY ALL LEFT TO RIGHT DIMENSIONAL LOCATIONS WITH THE KITCHEN EQUIPMENT CONTRACTOR'S SHOP DRAWINGS.
- WITH THE RITCHEN EQUIPMENT CONTRACTORS SHOP DRAWINGS.

 2. PLUMBING CONTRACTOR SHALL VERIFY ALL INCOMING SERVICES, MAKE ALL EXTERNAL \$ INTERNAL CONNECTIONS AND PROVIDE ALL PIPING, FITTINGS, BACK FLOW PREVENTOR, PARTS, ETC. AS NECESSARY TO MAKE FOODSERVICE EQUIPMENT FUNCTIONAL.
- 3. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL INDIVIDUAL SHUT-OFF VALVES FOR ALL WATER \$ GAS LINES AS REQUIRED.
 4. ALL FLOOR, WALL \$ CEILING PENETRATIONS MUST BE SEALED WATER
- TIGHT AND VERMIN PROOF.

 5. ALL SYMBOLS NOTED AS 12", 18", 24", ETC. ARE FROM FINISHED FLOOR TO CENTERLINE OF STUB-OUT AT HEIGHT INDICATED ON PLAN. ALL SYMBOLS NOTED AS STUB-UP SHALL BE STUBBED-UP ABOVE FINISHED FLOOR AT HEIGHT INDICATED ON PLAN.
- ALL SYMBOLS NOTED AS STUB-UP SHALL BE STUBBED-UP ABOVE FINISHED FLOOR AT HEIGHT INDICATED ON PLAN.

 6. ALL FLOOR SINKS SHOWN ARE TO BE FLUSH WITH THE FINISHED FLOOR (UNLESS OTHERWISE REQUIRED BY LOCAL BUILDING AND/OR HEALTH CODE.) FLOOR SINKS SHALL BE LOCATED IN MANNER SO AS TO ALLOW FOR SIGHT INSPECTION BY CODE OFFICIALS.
- 7. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL REMOVABLE GRILLS OR COVERS FOR ALL FULLY OR PARTIALLY EXPOSED FLOOR SINKS.

 8. PLUMBING CONTRACTOR SHALL APPLICABLE EXPOSED FLOOPER TUBBING DRAIN LINES EXPOND A ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR ALL APPLICABLE FOR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR TO THE PROVIDE AND INSTALL TO EIL COPPER TUBBING OR THE PROVIDE AND INSTALL TUBBING OR TO THE PROVIDE AND INSTALL TUBBING OR THE PROVIDE AND INSTALL TUBBING OR TO THE PROVIDE AND INSTALL TUBBING OR THE PROVIDE AND INSTALL TU
- 8. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL TYPE "L" COPPER TUBING DRAIN LINES FROM ALL APPLICABLE EQUIPMENT TO FLOOR SINKS. ALL DRAIN LINES FROM ICE BIN/MACHINES, WALK-IN AND/OR BEER REFRIGERATION SYSTEMS, ETC. ARE TO BE INSULATED.
- 9. FLOOR SINKS FOR DISHWASHING MACHINES SHALL HAVE A MINIMUM OF A 3" CAST IRON DRAIN PIPE. PVC WILL MELT OR DEFORM FROM HEAT IO.PLUMBING CONTRACTOR SHALL PROVIDE 140 DEGREE HOT WATER TO
- DISHWASHING MACHINE.

 I I . PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL PRESSURE REGULATING VALVE FOR DISHWASHING MACHINE IF HOT WATER PRESSURE IS IN EXCESS OF 25 LBS. FLOW PRESSURE.
- PRESSURE IS IN EXCESS OF 25 LBS. FLOW PRESSURE.

 I 2.PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL AUTOMATIC SHUTOFF VALVE(S) IN GAS LINE FOR ALL FOODSERVICE EQUIPMENT BELOW
 EXHAUST VENTILATOR.
- EXHAUST VENTILATOR.

 I 3. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL LINE STRAINER AND/OR APPROVED FILTER ON GAS SUPPLY LINE.
- 14.PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL HOT WATER TANK (UNLESS OTHERWISE NOTED.) UNIT SHALL BE SIZED FOR ADEQUATE WATER CONSUMPTION TO MEET ALL APPLICABLE CODES.

 15.KITCHEN EQUIPMENT CONTRACTOR SHALL PROVIDE AND PLUMBING
- CONTRACTOR TO INSTALL APPLIANCE GAS PRESSURE REGULATOR(S) FOR EQUIPMENT (AS REQUIRED.) BLDG. MAIN LINE PRESSURE REGULATOR(S) SHALL BE FURNISHED AND INSTALLED BY THE PLUMB. CONTR.

 16. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL GATE VALVES ON ALL WATER AND GAS LINES.
- 17. PLUMBING CONTRACTOR SHALL PROVIDE CHROME PLATED PIPES AND FITTINGS FOR ALL EXPOSED LINE RUNS (AS REQUIRED.) EXPOSED PIPING SHALL BE HELD OFF THE WALL FOR CLEANING.

 18. PLUMBING CONTRACTOR SHALL PROVIDE AND INSTALL GREASE TRAPS AS REQUIRED BY BUILDING/HEALTH CODE.
- I 9. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL UTILITY SIZES AND LOAD REQUIREMENTS SHOWN ON PLANS. 20. KITCHEN EQUIPMENT CONTRACTOR AND PLUMBING CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS AT THE JOB-SITE.
- 21.ALL WALK-IN DRAIN LINES TO HAVE A MINIMUM SLOPE OF 1" PER 1'-O". ALL DRAIN LINES SHALL BE MOUNTED 1" FROM WALLS.
 22.PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXTERNAL AND/OR INTERNAL HOOK-UPS OF WATER, GAS, STEAM, ETC. TO ALL NEW AND REUSED EQUIPMENT PER PLAN.
- 23. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL INTER-CONNECTIONS REQUIRED DUE TO FIELD JOINTS REQUIRED IN FOODSERVICE EQUIPMENT. KITCHEN EQUIPMENT CONTRACTOR TO COORDINATE AS REQUIRED.
- 24. KITCHEN EQUIPMENT CONTRACTOR TO COORDINATE AS REQUIRED.

 24. KITCHEN EQUIPMENT CONTRACTOR SHALL VERIFY ALL UTILITY LOADS SHOWN ON THIS PLAN. IF DISCREPENCIES ARE FOUND THE KITCHEN EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE CHANGES PEOLIPSED WITH ALL TRADES AND PARTIES INVOLVED.
- THE CHANGES REQUIRED WITH ALL TRADES AND PARTIES INVOLVED.

 25. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH ALL FAUCETS LOOSE FOR PLUMBING CONTRACTOR TO INSTALL ON SINKS, COUNTERS, DISH TABLES, ETC...

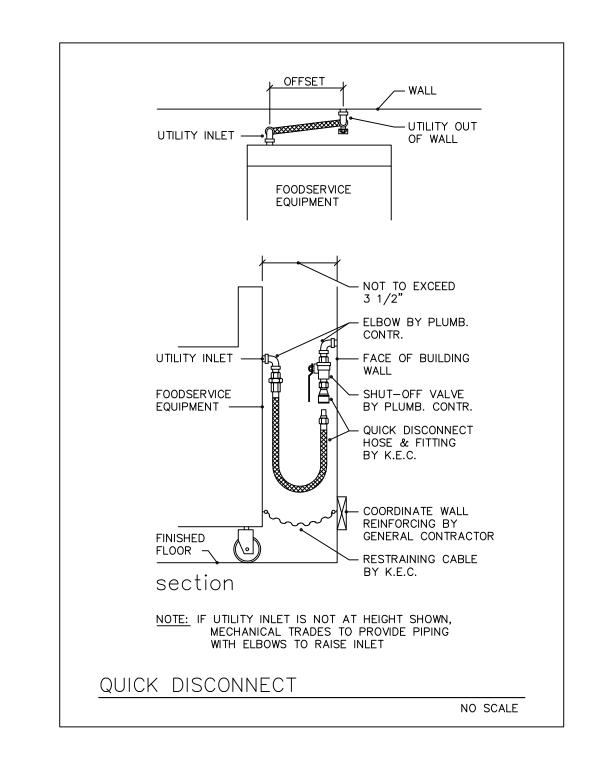
LEGEND

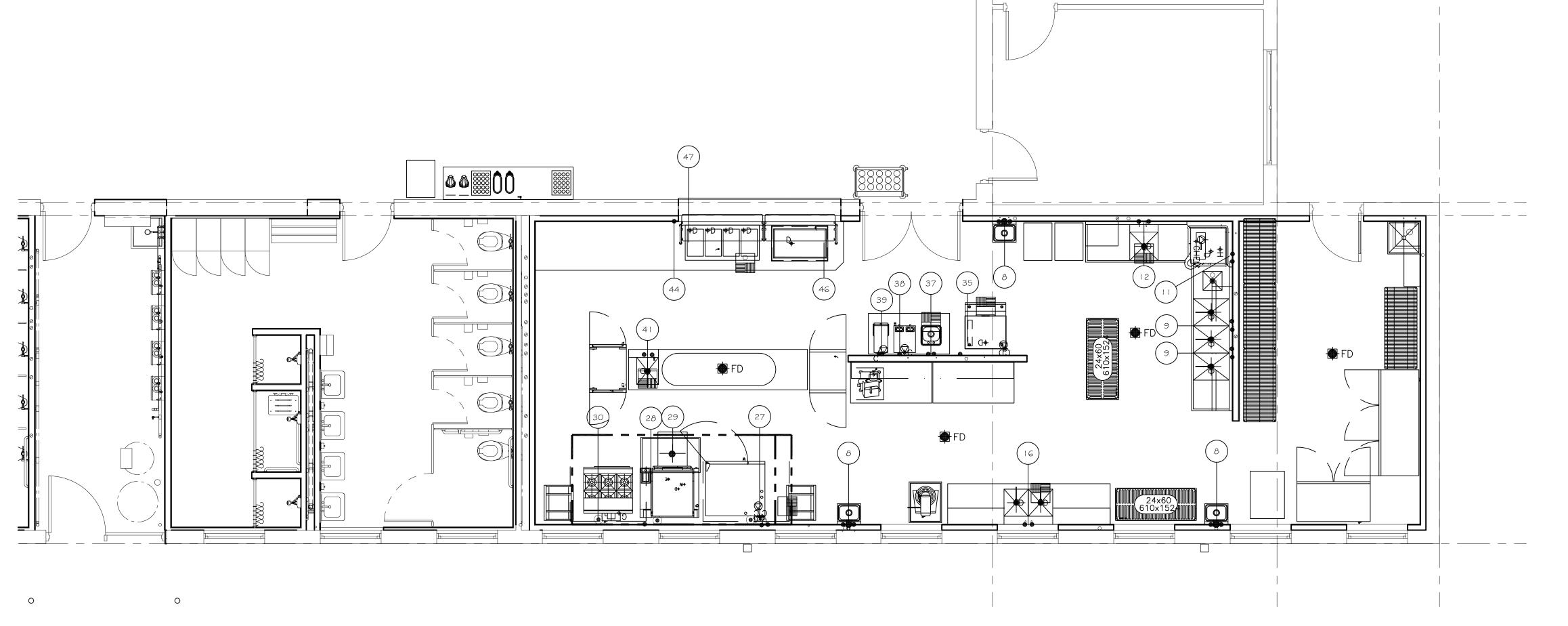
- A. AMPERES
 A.F.F. ABOVE FINISHED FLOOR
- C.O. CONVENIENCE OUTLET C.W. COLD WATER
- D.F.A. DOWN FROM ABOVE E.C. ELECTRICAL CONNECTION
- E.D.R. DUPLEX RECEPTACLE E.J.B. JUNCTION BOX
- E.S.R. SINGLE RECEPTACLE F.D. FLOOR DRAIN
- F.F.D. FUNNEL FLOOR DRAIN F.S. FLOOR SINK
- F.S. FLOOR SINK G.T. GREASE TRAP
- H.D. HUB DRAIN H.P. HORSE POWER
- H.W. HOT WATER
 K.E.C. KITCHEN EQUIPMENT CONTRACTOR
- K.W. KILOWATTS
 P.W. PRE-WIRED
 S.D. STUB-DOWN
- S.O. STUB-OUT
- S.U. STUB-UP
 W#V WASTE WITH VENT
- W\$V WASIE WIIT VENI

I. MECHANICAL AND ELECTRICAL REQUIREMENTS SHOWN ARE FOR FOOD SERVICE EQUIPMENT ONLY.

- 2. ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACE FLOOR (FLOOR, WALL OR CEILING) TO THE CENTERLINE OF ROUGH-INS.
- 3. PLUMB. CONTR. IS RESPONCIBLE FOR REDUCING BUILDING GAS SUPPLY PRESSURE TO ACCEPTABLE LEVELS FOR EQUIPMENT TO OPERATE PROPERLY.







STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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FACILITY # 8136304011

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CAD DWG FILE:
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CHECKED BY: MDG
DESIGNED BY: MDG

SHEET TITLE:

FOODSERVICE EQUIPMENT SPOT PLUMBING

SHEET NUMBER:

Q-FP-03

76 OF 85 SHEETS

2024.04.23

FOR QUESTIONS, CALL THE

St. Louis & Little Rock Office
REGION 72
PHONE: (636) 225 - 3113
EMAIL: reg72@captiveaire.com

St. Louis & Little Rock Office
AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

HOOD INFORMATION - JOB#6644084

			MODEL	,,		MAX			DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM							TOTAL		HOOD CONFIC	
HOOD NO	OOD	TAG		MANUFACTURER	LENGTH	COOKING	TYPE	APPLIANCE			RISER(S)							SUPPLY	HOOD	END TO	
	NO	TAG		MANOFACTORER	LLINGIII	TEMP	1166	DUTY			WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	CFM	CONSTRUCTION	END	ROW
1 Iter	Item 32 6618 SND-2-PSP-F	CARTIVE AIRE	401.01	600		1154207	005	2020			4"	12"	1469	1870	-0.756"	2250	304 SS	AL ONE	ALONE		
		SND-2-PSP-F	CAPTIVEAIRE	12' 6" DEG	DEG	DEG '	HEAVY	235	235 2938			4"	12"	1469	1870	-0.756"	2350	WHERE EXPOSED	ALONE	ALONE	

HOOD INFORMATION

			FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE	HOOD		
HC	DOD	TAG								WIRE			FI	RE SYSTEM	ELECTRICAL	SWITCHES		HANGING
	10	IAG	TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL#	QUANTITY		WEIGHT
	1	Item 32	CAPTRATE SOLO FILTER	9	20"	16"	85% SEE FILTER SPEC	6	RECESSED ROUND	NO	LEFT	12"x27"x24"					YES	871 LBS

HOOD OPTIONS

11000	01 1101	1 <i>D</i>
HOOD NO	TAG	OPTION
1		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 116.00" HIGH X 198.00" LONG 304 SS VERTICAL.
	Item 32	RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 74" HIGH INSULATED 304 SS.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 74" HIGH INSULATED 304 SS.
		SENSOR-CV.

PERFORATED SUPPLY PLENUM(S)

HOOD					1		RISER(S)						
	HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	WIDTH	LENG	DIA	CFM	SP	
1	Itom 22	Front	150"	20"	6"	MUA	12"	28"		1174	0.388"		
	'	Item 32	Front	150	20"	6"	MUA	12"	28"		1174	0.388"	

WALL-MOUNT UTILITY CABINET

				UTILITY CABINET(S)			
HOOD NO			FI	RE SYSTEM	ELECTRICAL		
	LOCATION	SIZE	TYPE	SIZE	MODEL#	QUANTITY	WEIGHT
1	WALL MNT	12"x36"x24"	TANK FS	4.0/4.0			300.00 LBS

SYSTEM DESIGN VERIFICATION (SDV)

IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL. TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS TO RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER DISCREPANCIES.

CUSTOMER APPROVAL TO MANUFACTURE:

Approved as Noted

Approved with NO Exception Taken

Revise and Resubmit

SIGNATURE

Your Title

Date

SND-2 Series with PSP Accessory Specification

The SND-2 series hood with PSP accessory is a low proximity compensating hood system. The hood shall have the size, shape and performance specified on drawings.

Construction shall be type 430 stainless steel with a #3 or #4 polish where exposed. Individual component construction shall be determined by the manufacturer and ETL. Construction shall be dependent on the structural application to minimize distortion and other defects. All seams, joints and penetrations of the hood enclosure to the lower outermost perimeter that directs and captures grease-laden vapor and exhaust gases shall have a liquid-tight continuous external weld in accordance with NFPA 96. Hood shall be wall type with fully welded 10 gauge corner hanging angles. Corner hanging angles have a .625 x 1.500 slot pre-punched at the factory, allowing hanging rods to be used for quick and safe installations. Hanging rod and connection is provided by and installed by others.

Ventilator shall be furnished with U.L. classified aluminum baffle filters, supplied in size and quantity as required by ventilator. The filters shall extend the full length of the hood and the filler panels shall not be more than 6" in width.

The hood manufacturer shall supply complete computer generated submittal drawings including hood section view(s) and hood plan view(s). These drawings must be available to the engineer, architect and owner for their use in construction, operation and maintenance.

Exhaust duct collar to be 4" high with 1" flange. Duct sizes, CFM and static pressure requirements shall be as shown on drawings. Static pressure requirements shall be precise and accurate; air velocity and volume information shall be accurate within 1-ft increments along the length of the ventilator.

U.L. incandescent light fixtures and globes shall be installed and pre-wired to a junction box. The light fixtures shall be installed with a maximum of 4'0" spacing on center and allow up to a 100 watt standard light bulb.

The hood shall have:

-A double wall insulated front to eliminate condensation and increase rigidity.
 The insulation shall have a flexural modulus of 475 EI, meet UL 181 requirements and be in accordance with NFPA 90A and 90B.
 -An integral front baffle to direct grease laden vapors toward the exhaust filter

-A built-in wiring chase provided for outlets and electrical controls on the hood face and shall not penetrate the capture area or require an external chaseway.
-Low velocity make-up air (up to 90%) is provided through front and side plenums (PSP accessory).
-A removable grease cup for easy cleaning.

The hood shall be ETL Listed as "Exhaust Hood Without Exhaust Damper", ETL Sanitation Listed and built in accordance with NFPA 96. The hood shall be listed for 450°F cooking surfaces at 228 CFM/ft and 600°F cooking surfaces at 294

CAPTIVE-AIRE HOODS ARE
BUILT IN COMPLIANCE WITH
UL 710 AND NFPA 96
AND ARE RECOGNIZED BY ONE

ETL SANITATION LISTED

OR MORE OF THE FOLLOWING:

ETL LISTED FILE# 102900319PRT-001

SPECIFICATION: CAPTRATE GREASE-STOP SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

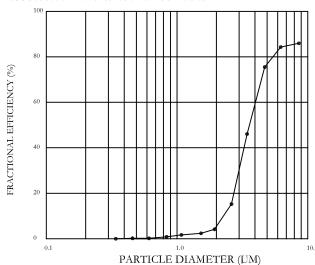
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

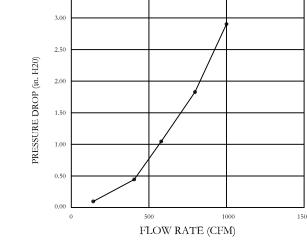
THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05.

MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER

PRESSURE DROP VS. FLOW RATE





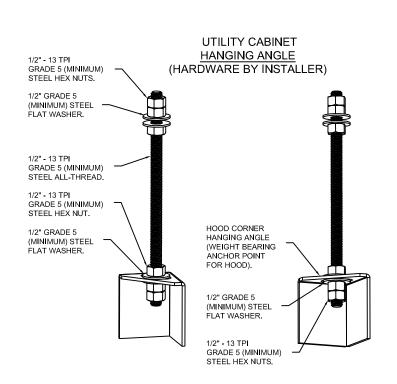
CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:. NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.

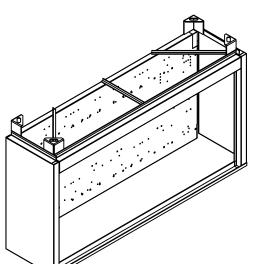


WALL-MOUNT UTILITY CABINET ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH UTILITY CABINET HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

CABINET TO BE HUNG BY HOOD INSTALLER. SEE UTILITY CABINET SCHEDULE FOR CABINET SIZE.





STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



St

6307

MO,

CLAIR,

S

DATE: 2/27/2024

MASTER DRAWING

DRAWN BY:

REVISIONS

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL GUARD

ST. CLAIR READINESS
CENTER

375 COMMERCIAL AVE. ST. CLAIR, MO 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

REV.	DESCRIPTION	DATE
A	SD	12/06/2023
В	DD	02/16/2024
С	IFB	04/23/2024

ISSUE DATE: 2024.04.23

DWG.#: 6644084	CAD DWG FILE:	
	DRAWN BY: MDG	
٧N	CHECKED BY: MDG	
BY:	DESIGNED BY: MDG	

SCALE: 3/4" = 1'-0" SHEET TITLE:

FOODSERVICE EQUIPMENT HOOD DRAWINGS

SHEET NO. SHEET NUMBER:

Q-DT-01

77 OF 85 SHEETS 2024.04.23

Center

Missouri Readiness

DRAWN BY:

63077

SAINT

DATE: 2/27/2024

DWG.#:

6644084

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO.

REVISIONS

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CONSTRUCTION

DEPARTMENT OF

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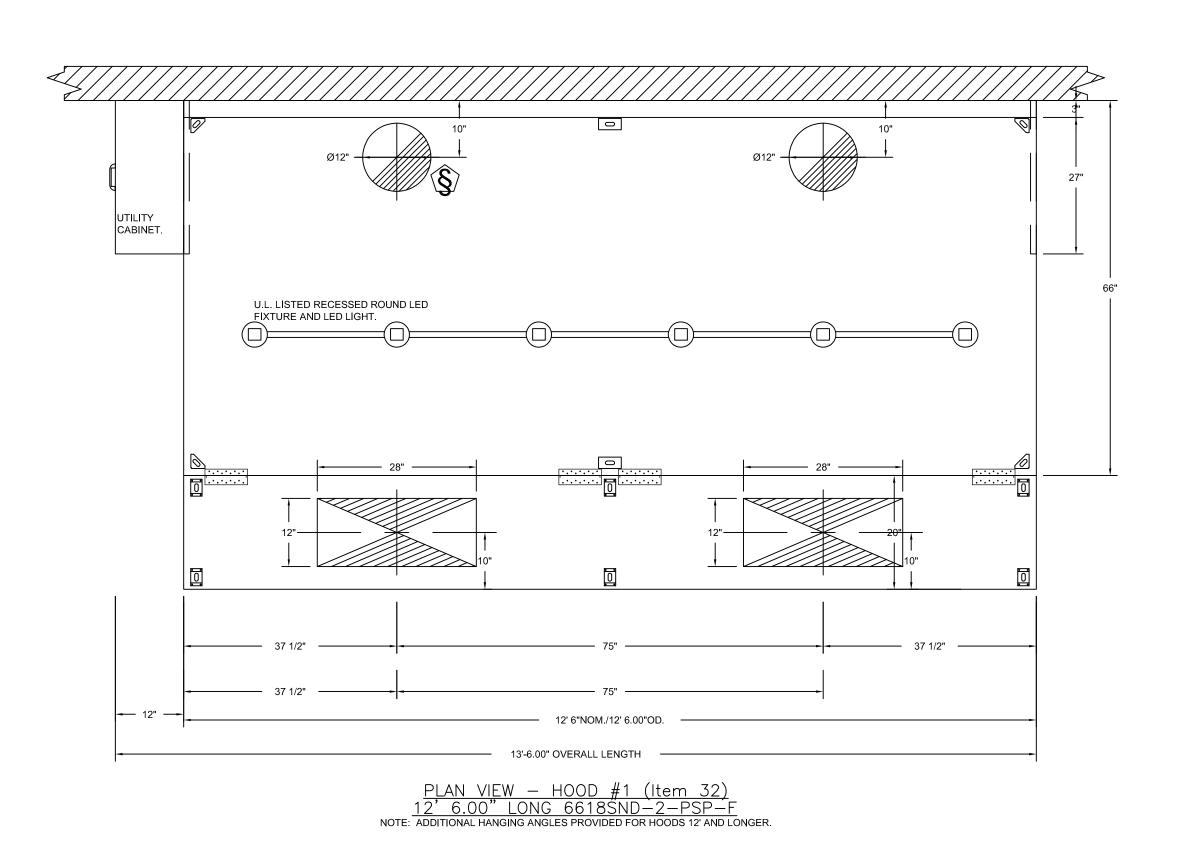
CAD DWG FILE: DRAWN BY: MDG CHECKED BY: MDG DESIGNED BY: MDG

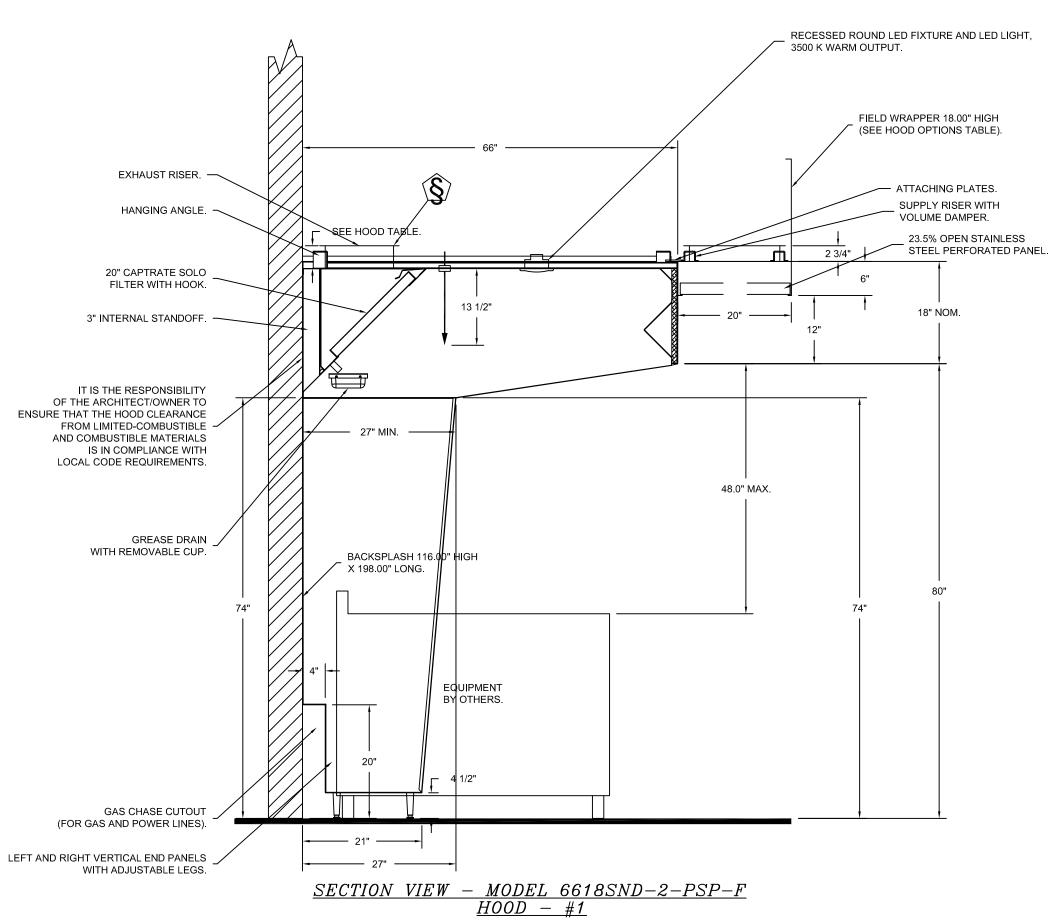
SHEET TITLE:

FOODSERVICE EQUIPMENT HOOD DRAWINGS

SHEET NUMBER:

2024.04.23





STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**

(GAS VAI	LVE(S)		
	FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
	1		SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS

FIRE YSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1,10		0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F28021-32144-OT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F.	2	0
		0 - 0 - 32-00002 QUIK SEAL - 1/2" (UL).	2	0
		0 - 0 - 361091 3/8" BRASS PLUG.	3	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	2	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	1	0
		0 - 0 - 79425 3/8" NPT FEMALE TO 1/2" MALE PROPRESS ADAPTER.	3	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2" NPT FEMALE CONNECTION, VIEGA.	1	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2" NPT FEMALE CONNECTION, VIEGA.	2	0
		0 - 0 - 87-120042-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	2	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, ONE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	8	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	6	0
_		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	8	0
1		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	1	0
		0 - 0 - BI145 3/8" BLACK IRON 90 ELL.	4	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - SLPCON-40FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UPTO 39' GAP. KIT CONTAINS 42 FEET OF BLACK MG WIRE, 42 FEET OF TAN MG WIRE, 40 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	6	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	2	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	2	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	8	0
		16 - 16 - OL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	8	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (UL).	8	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, ONE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0

- FIELD PIPE DROPS AS SHOWN PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS. - FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED. - SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED. - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC. - OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION. - IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE. - FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD. - APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- OL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 6644084. JOB NAME: MISSOURI READINESS CENTER ST. CLAIR R1.

SYSTEM SIZE: TANK-SP-2-WC DESIGN FP: 36. MAXIMUM FP: 40. HOOD # 1 12' 6.00" LONG x 66" WIDE x 18" HIGH.

RISER # 1 SIZE: 12" DIA. RISER # 2 SIZE: 12" DIA.

HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25

- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

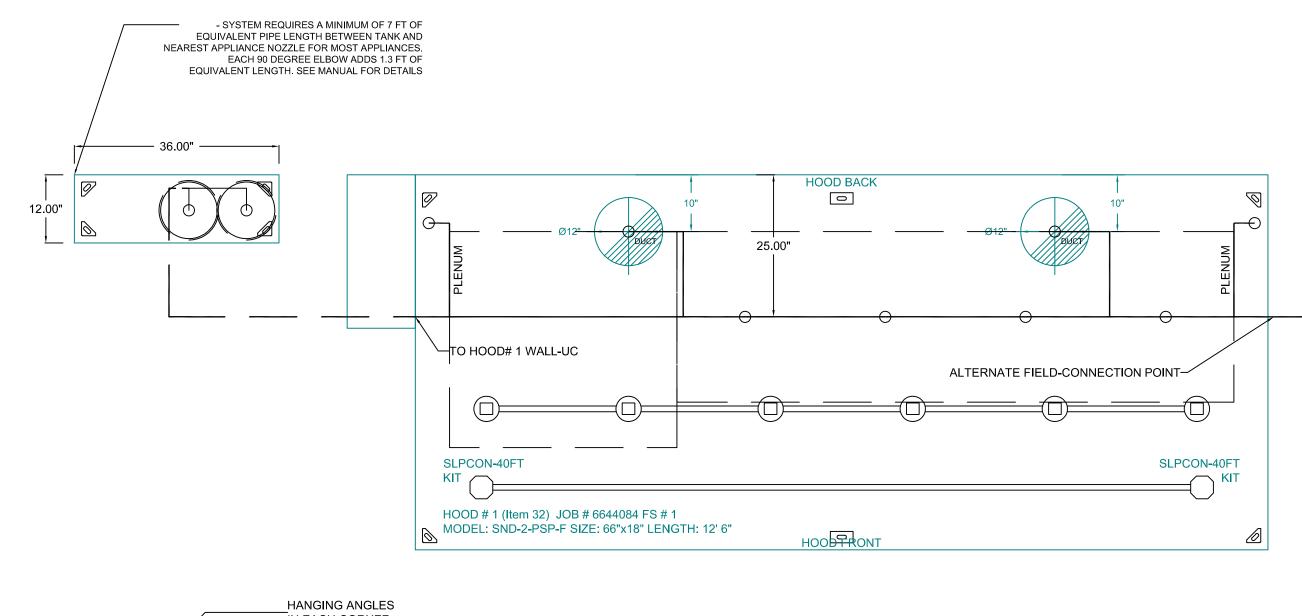
<u>LEGEND - FIRE CABINET TANK SYSTEM</u> 4 GALLON TANK.

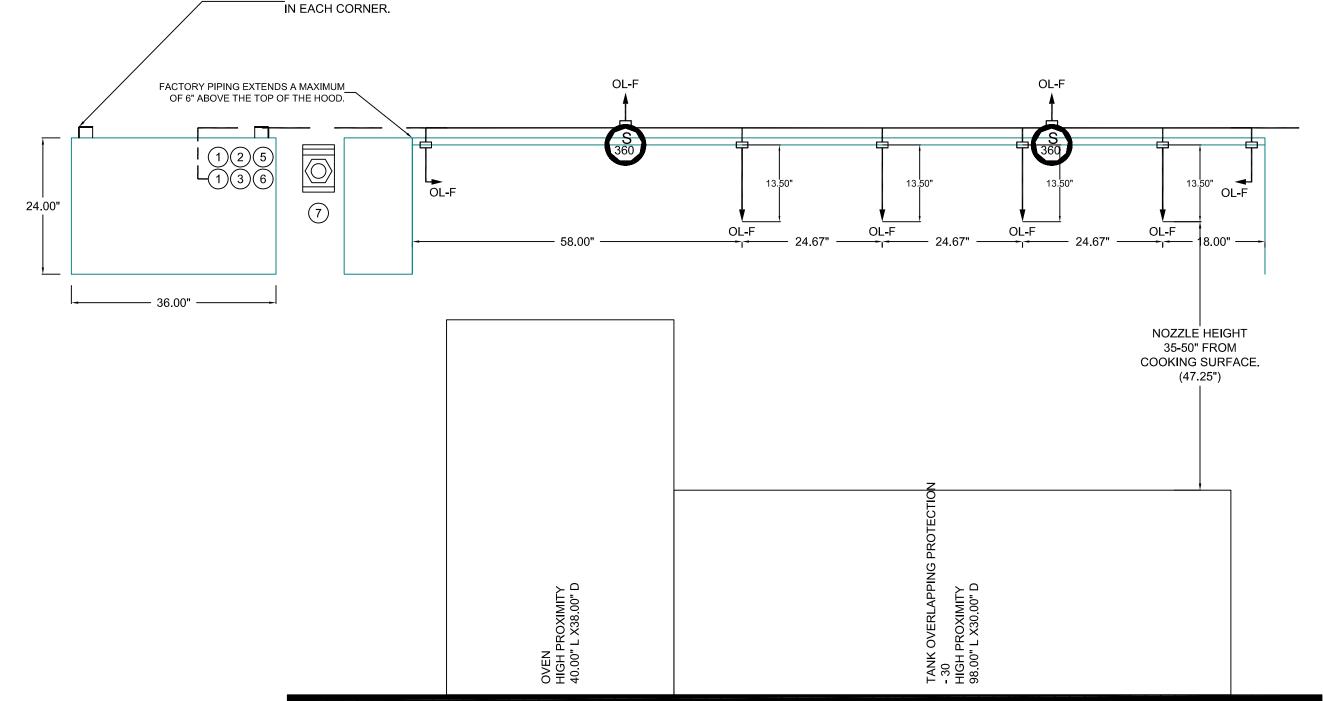
PRIMARY ACTUATOR RELEASE.

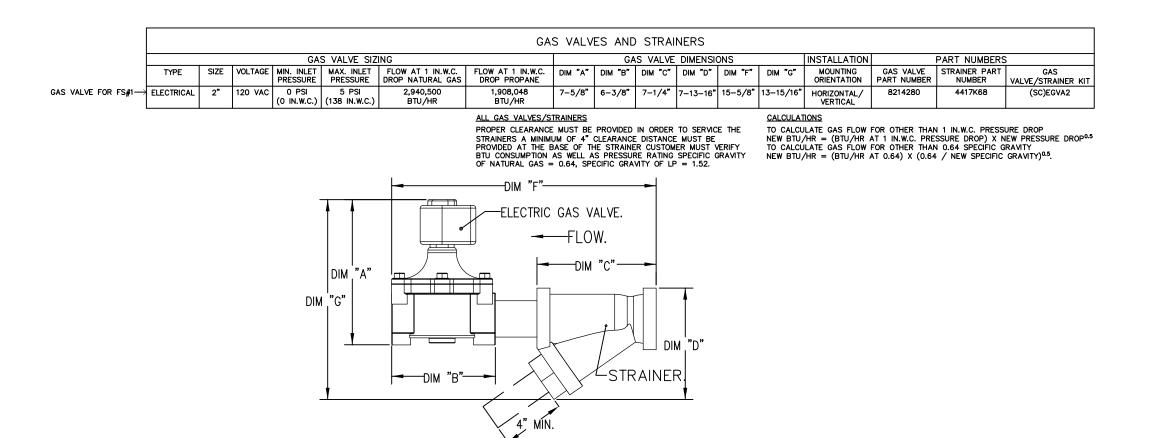
SECONDARY ACTUATOR RELEASE. PRESSURE SUPERVISION SWITCH.

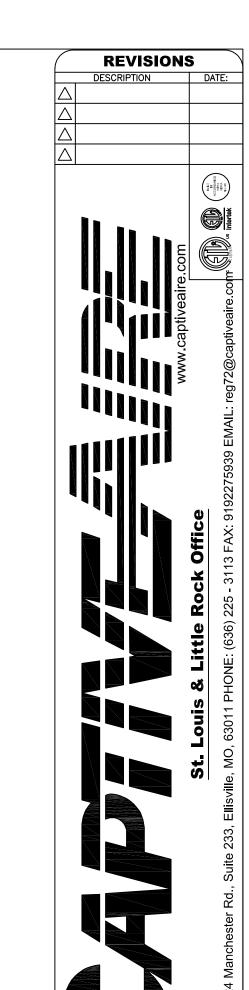
PRIMARY HOSE ASSEMBLY.

SECONDARY HOSE ASSEMBLY. REMOTE MANUAL ACTUATION DEVICE.









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Clair

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Center

Readiness

6307

AIR,

DATE: 2/27/2024

DWG.#:

6644084

SCALE:

3/4" = 1'-0"

MASTER DRAWING

SHEET NO.

DRAWN

OFFICE OF ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, DESIGN AND **CONSTRUCTION**

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**

DEPARTMENT OF MISSOURI NATIONAL **GUARD**

ST. CLAIR READINESS CENTER

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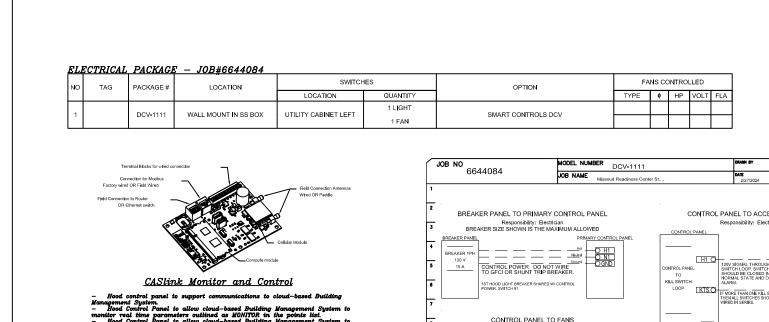
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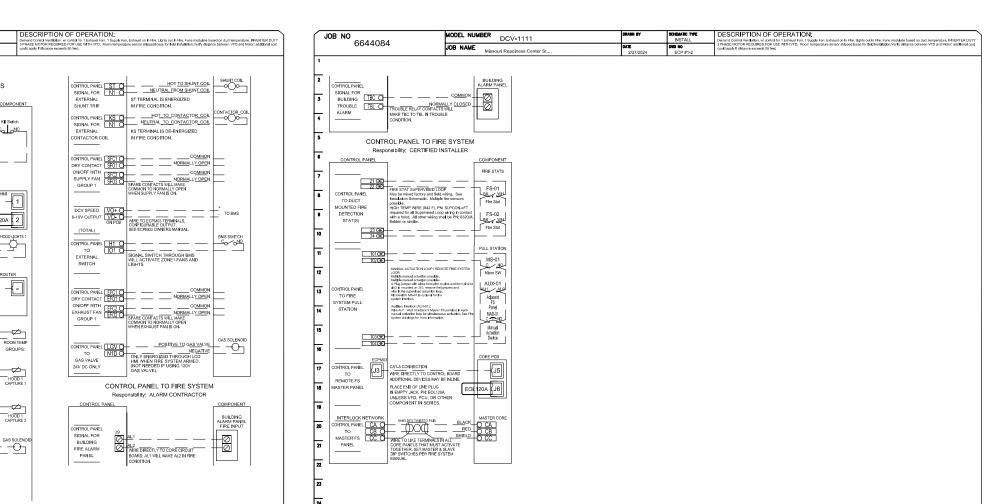
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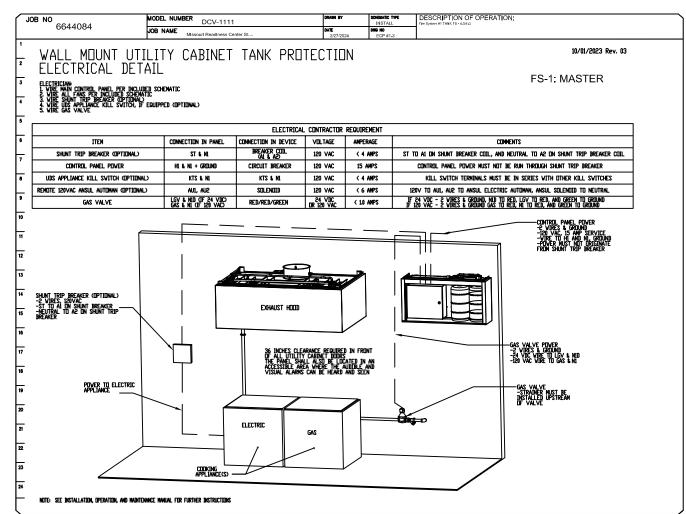
FOODSERVICE EQUIPMENT HOOD DRAWINGS

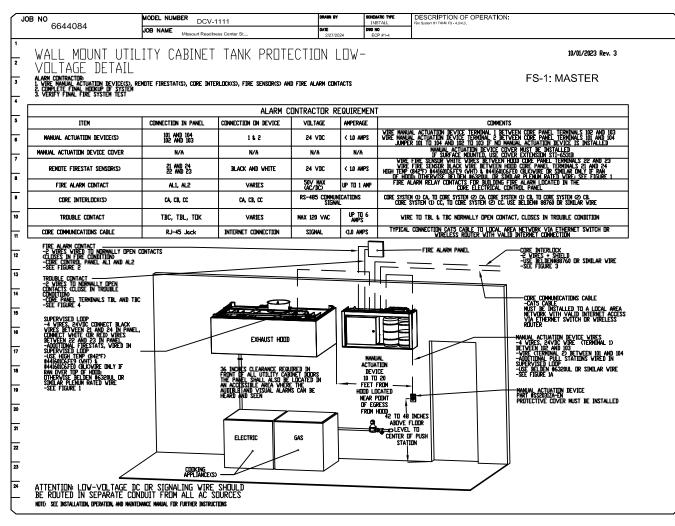
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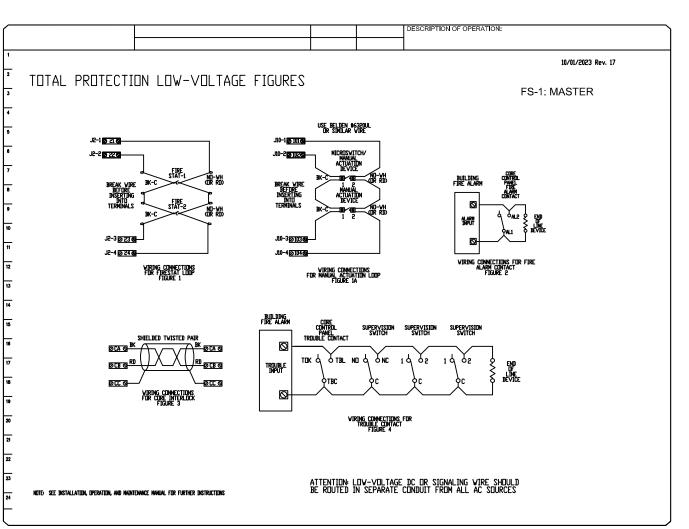
79 OF 85 SHEETS 2024.04.23

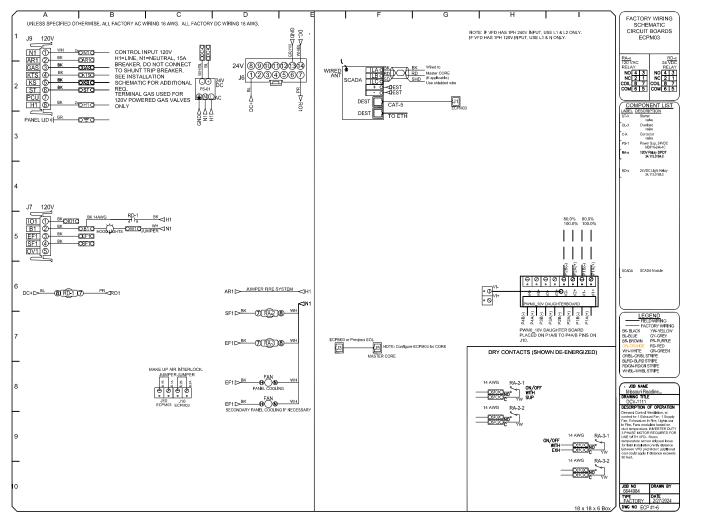


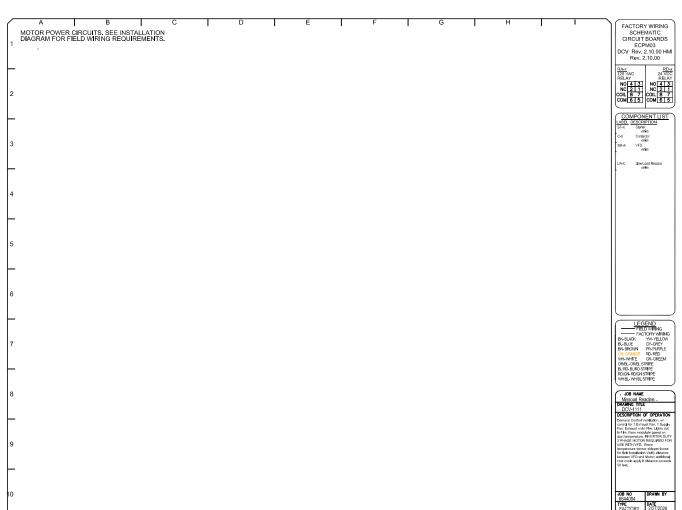


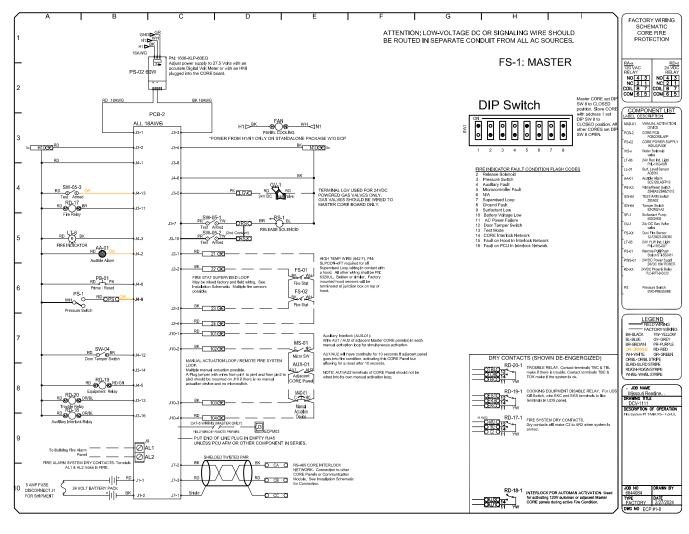












DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS: - CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).

THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.

TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.

A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED

- ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.

 A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
 VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL

SYSTEM IS REDUCED.

- CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.

 THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL
- MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.

 AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.

THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN

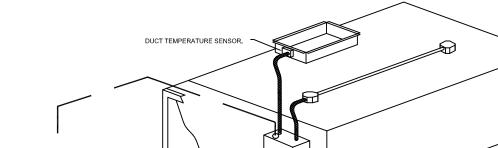
SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE

- COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.

 A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION
- IS DETECTED ON A COVERED HOOD.

 A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERDING FAN OPERATION LOGIC AS PEOURIED BY CODE)
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).

 AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
- A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
 B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
 C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
 G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.



TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:
THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:

VEN TIME:

<u>AUTOMATIC</u>: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD, DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS "DYNAMIC", THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS "STATIC", FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING

EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).

- MANUAL:THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.

 ROOM TEMPERATURE SENSOR.

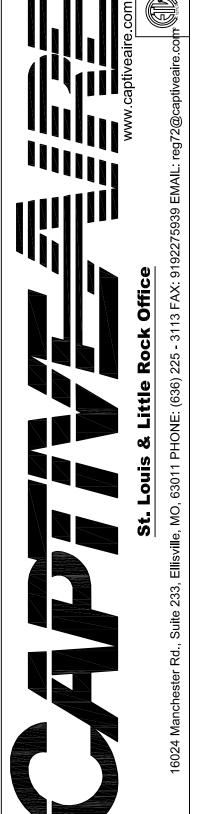
SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.

OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).

FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A

MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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St

Cente

SS

Readine

Missouri

DRAWN

DATE: 2/27/2024

DWG.#:

6644084

SCALE:

1/2" = 1'-0"

MASTER DRAWING

MO,

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL

ST. CLAIR READINESS CENTER

GUARD

375 COMMERCIAL AVE. ST. CLAIR, MO 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

REV.	DESCRIPTION	DATE
A	SD	12/06/2023
В	DD	02/16/2024
С	IFB	04/23/2024

ISSUE DATE: 2024.04.23

CAD DWG FILE:

DRAWN BY: MDG

CHECKED BY: MDG

DESIGNED BY: MDG

SHEET TITLE:

FOODSERVICE EQUIPMENT HOOD DRAWINGS

SHEET NUMBER:

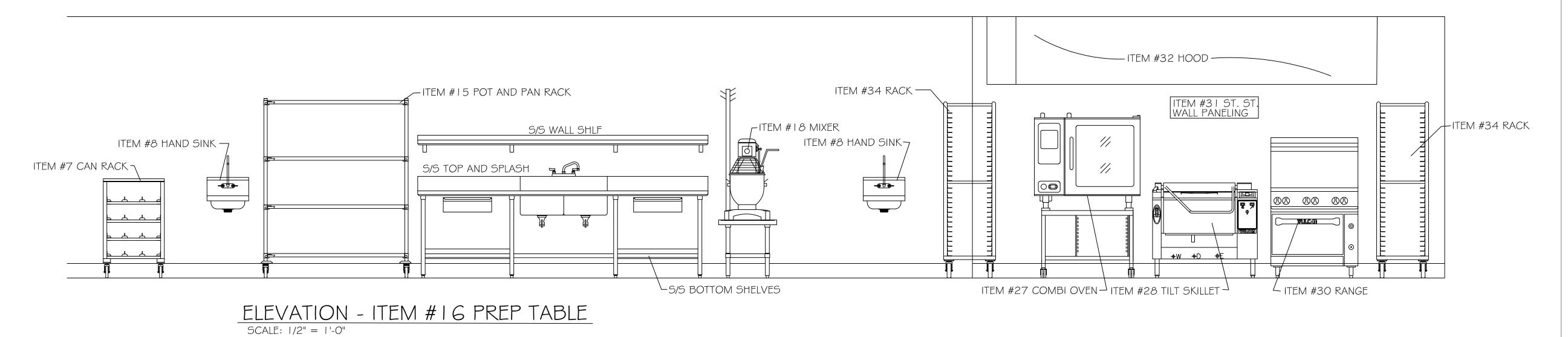
2024.04.23

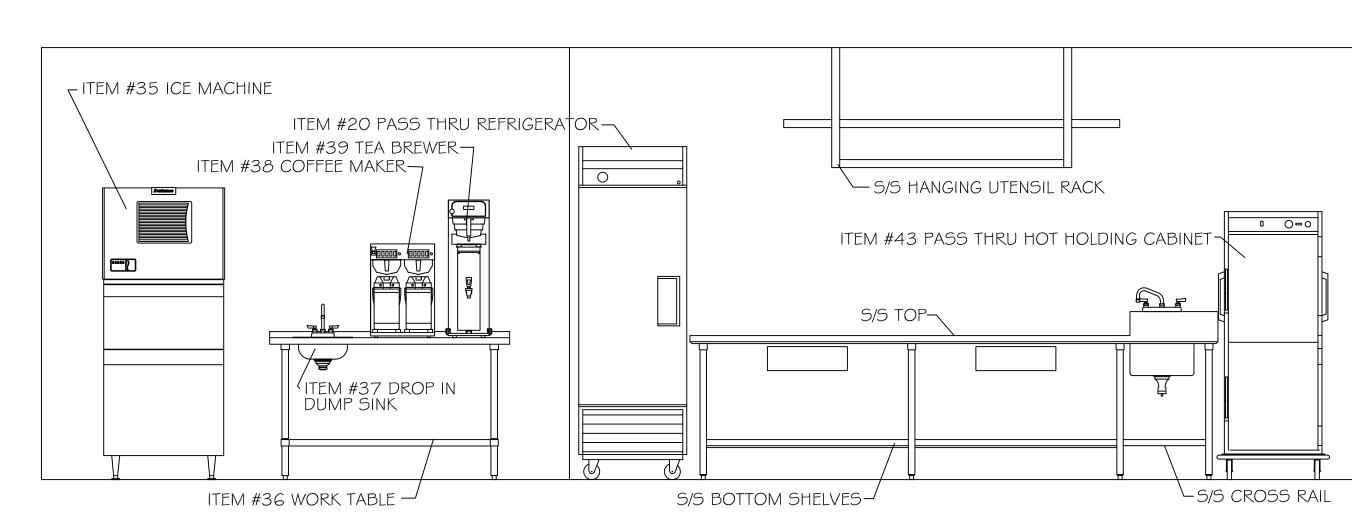


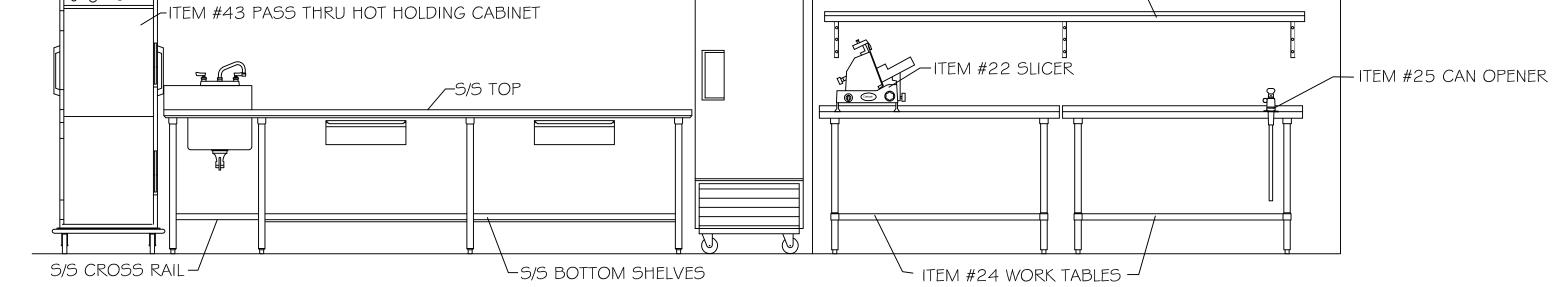
SHEET NO.

4

FOO
EQ
DR







-ITEM #20 PASS THRU REFRIGERATOR

ITEM #26 WALL SHELF -

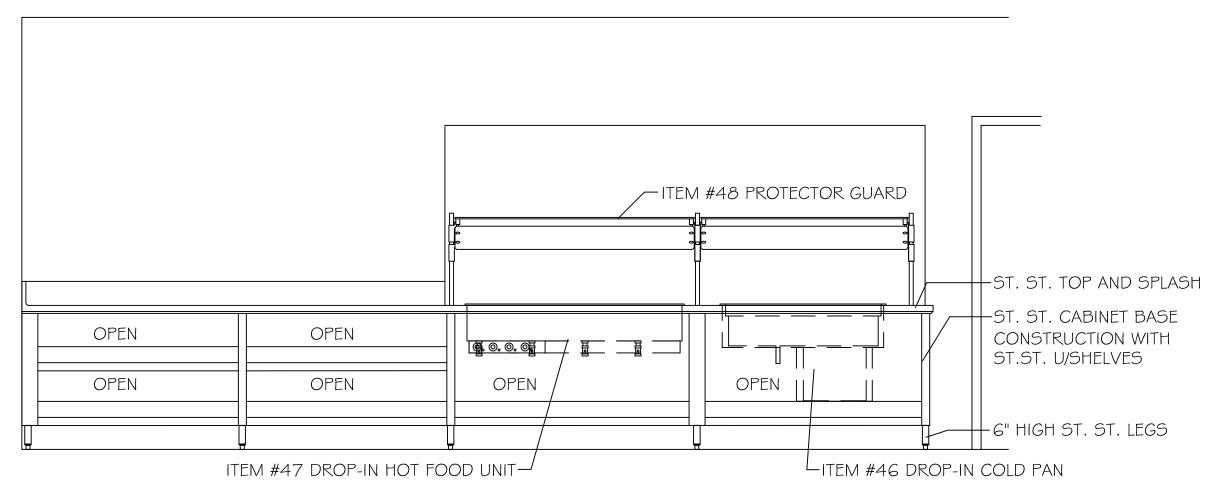
ELEVATION - ITEM #4 | WORK TABLE WITH SINK

SCALE: 1/2" = 1'-0"

ELEVATION - ITEM #41 WORK TABLE WITH SINK

SCALE: 1/2" = 1'-0"

S/S HANGING UTENSIL RACK —



ELEVATION - ITEM #44 SERVING COUNTER

SCALE: 1/2" = 1'-0"

REV. DESCRIPTION DATE

A SD 12/06/2023

B DD 02/16/2024

C IFB 04/23/2024

ISSUE DATE: 2024.04.23

OFFICE OF ADMINISTRATION

MANAGEMENT, DESIGN AND

DIVISION OF FACILITIES

CONSTRUCTION

DEPARTMENT OF

GUARD

CENTER

MISSOURI NATIONAL

ST. CLAIR READINESS

375 COMMERCIAL AVE.

ST. CLAIR, MO 63077

PROJECT # T2326-01

FACILITY # 8136304011

SITE # 6304

ISSUE DATE: 2024.04.23

CAD DWG FILE:
DRAWN BY: MDG
CHECKED BY: MDG
DESIGNED BY: MDG

SHEET TITLE:

FOODSERVICE EQUIPMENT ELEVATIONS

SHEET NUMBER:

2024.04.23

Q-DT-05
81 OF 85 SHEETS

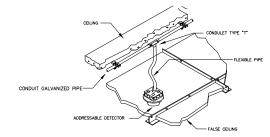
GENERAL NOTES

- ALL WORK AND CONNECTIONS SHALL BE ACCORDING WITH THE CURRENT EDITION OF NFPA-72 (EDITION 2022) AND NFPA-70 (NEC EDITION 2023). ALL WIRING EXPOSED TO PHYSICAL DAMAGE MUST BE INSTALLED IN $\frac{1}{2}$ " EMT CONDUITS.
- ALL WIRING AND EMT CONDUIT ROUTES SHALL BE COORDINATED WITH ALL TRADES. NOTIFICATION CIRCUITS FOR ALL AREAS MUST BE TAKEN FROM NAC OUTPUTS FROM PANEL. USE FIRE ALARM CABLE, RISER-FPLR, 2-16 AWG SOLID BARE COPPER CONDUCTORS WITH POLYOLEFIN INSULTAION, PVC JACKET WITH RIPCORD FOR SIGNALING LINE CIRCUIT (SLC) AND NOTIFICATION CIRCUITS.
- CONTRACTOR TO SUPPLY/INSTALL LASER SMOKE DETECTORS FOR DRILL HALL. DETECTORS SHALL MOUNT TO BOTTOM SIDE OF JOISTS. DETECTOR SPACING AND SPECIFICATIONS SHALL BE INCLUDED IN SHOP DRAWINGS.
- LASER SMOKE DETECTORS IN DRILL HALL SHALL BE SUPPLIED WITH 24V FROM REMOTE POWER SUPPLIES.
- NOTIFICATION DEVICES IN PLANT SPACE SHALL BE SUPPLIED WITH 24V FROM REMOTE POWER SUPPLIES.
- REMOTE POWER SUPPLIES SHALL BE SUPPLIED WITH 127VAC IN AN INDEPENDENT CIRCUIT.

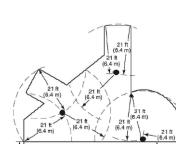
KEYED NOTES

BEAM DETECTOR INSTALLATION HEIGHT DETAIL

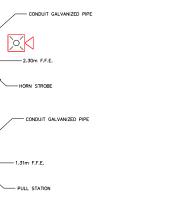
- PROVIDE CONTROL PANEL AS INDICATED.
- PROVIDE SMOKE DETECTORS AS INDICATED. PROVIDE THERMAL DETECTOR AS INDICATED.
- PROVIDE LASER SMOKE DETECTORS AS INDICATED.
- PROVIDE MANUAL PULL STATIONS AS INDICATED.
- PROVIDE HORN STROBES AS INDICATED. ALL HORN STOBES IN THE SAME LINE OF SIGHT SHALL BE SYNCHRONIZED.

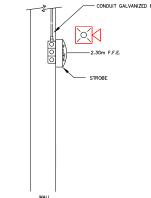


DETECTOR INSTALLATION DETAIL DETECTOR SPACING DETAIL

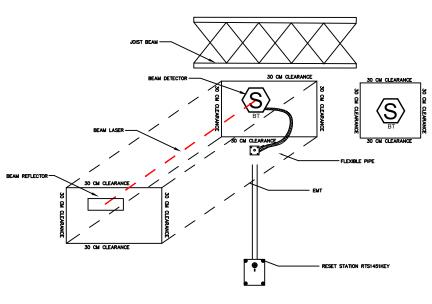


DETECTOR SPACING IN IRREGULAR AREAS DETAIL





STROBE INSTALLATION DETAIL



BEAM DETECTOR INSTALLATION HEIGHT DETAIL

DESCRIPTION

NFS-320 INTELLIGENT ADDRESSABLE FIRE ALARM SYSTEM

SMOKE DETECTION, IMAGER 80° COVERAGE

DUAL MONITOR MODULE, ADDRESSABLE

L-SERIES 2-WIRE, HORN STROBE, RED, WALL

L-SERIES STROBE, RED, WALL

L-SERIES 2-WIRE, HORN STROBE, RED, WALL

EOL Re GEN EOL 10K

LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE

MONITOR MODULE W/FLASHSCAN, ADDRESSABLE

PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE

MONBETALE	ST. CLAIR READINESS CENTER

GUARD

375 COMMERCIAL AVE. ST CLAIR, MO 63077

OFFICE OF ADMINISTRATION

MANAGEMENT, DESIGN AND

DIVISION OF FACILITIES

CONSTRUCTION

DEPARTMENT OF

MISSOURI NATIONAL

STATE OF MISSOURI

MICHAEL L. PARSON,

GOVERNOR

PROFESSIONAL SEAL

PROJECT # T2326-01 SITE# 6304 FACILITY # 8136304011

REV.	DESCRIPTION	DATE
A	DD	02/19/2024
В	IFB	04/23/2024

ISSUE DATE: 2023.12.06

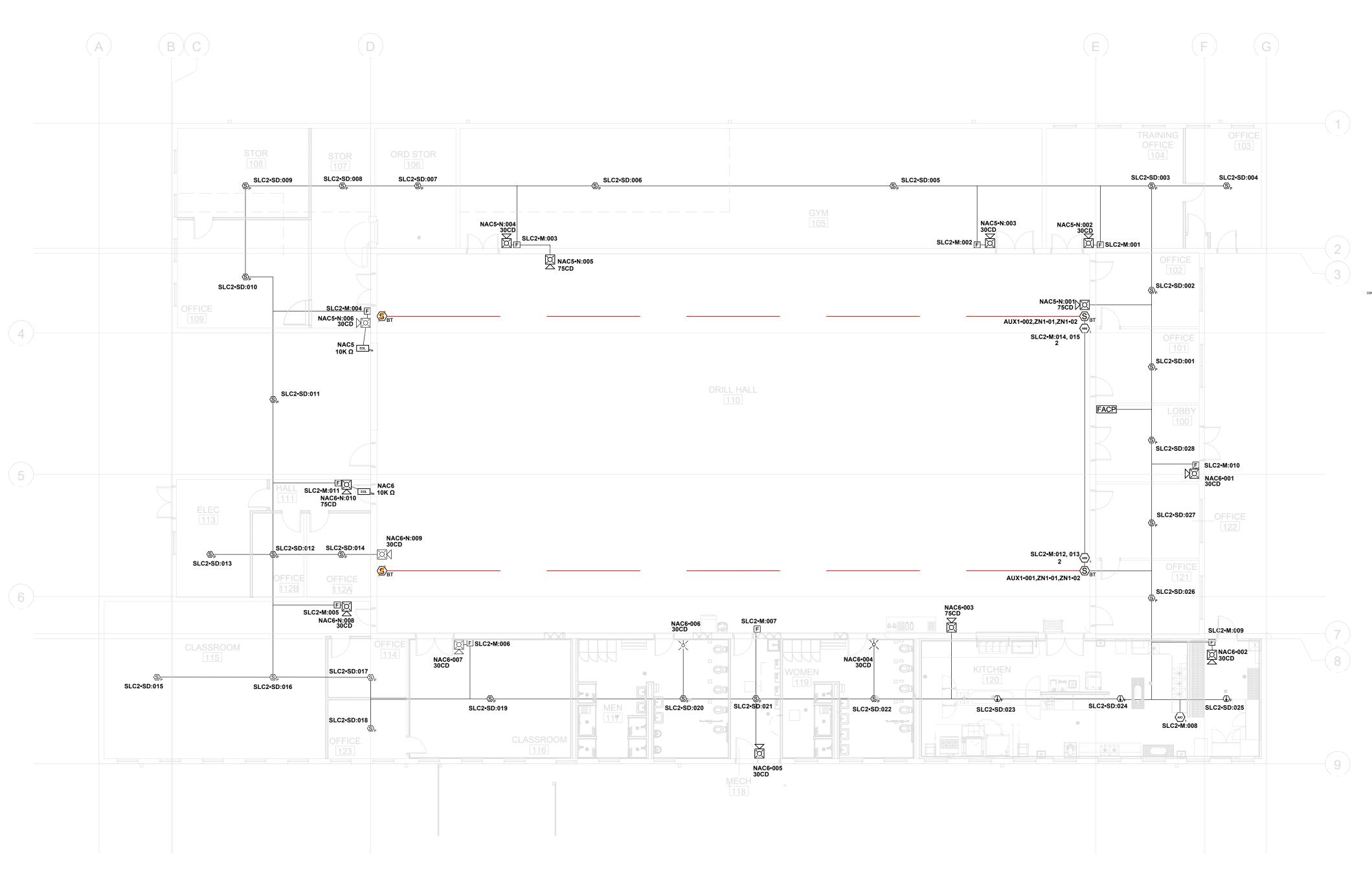
CAD DWG FILE: DRAWN BY: RHL CHECKED BY: JCA DESIGNED BY: RHL

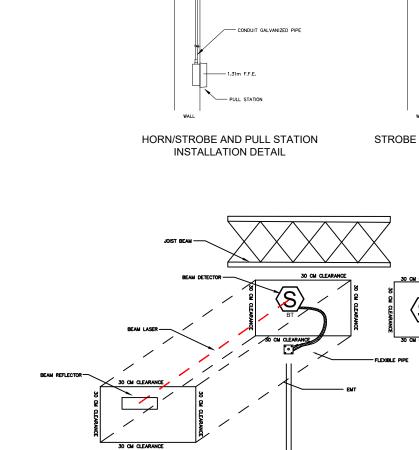
SHEET TITLE:

FIRE ALARM SYSTEM

SHEET NUMBER:

82 OF 85 SHEETS 2024.04.23





SYMBOL

FIRE ALARM SYSTEM PLAN FA100 1/16" = 1'-0"

						Symbol Legend							
SYMBOL	DESCRIPTION	MANUFACTURER	PART NUMBER	MODEL Q	UANTITY	BACKBOX REQUIREMENTS MOUNTING HEIGHT PROVIDED BY INSTALLED BY	USER TEXT UL	FM	NYC B.S.A	.Chicago	ULC	CSFM	NYC M.E.A.
FACP	NFS-320 INTELLIGENT ADDRESSABLE FIRE ALARM SYSTEM	NOTIFIER	NFS-320	NFS-320	1								
(♣) _F	INTELLIGENT THERMAL HEAT DETECTOR, LOW PROFILE, FIXED 135F	NOTIFIER	FST-951	FST-951	3		S2101	Approve	d		S2101	7270-0028:0502	
S BT	OSID SMOKE DETECTION, EMITTER BATTERY OPERATED	XTRALIS	OSE-SP-01	OSE-SP-01	2		Listed	Listed			Listed	N/A	
S _{BT}	SMOKE DETECTION, IMAGER 80° COVERAGE	XTRALIS	OSI-90	OSI-90	2		Listed	Listed			Listed	N/A	
⟨S⟩ _P	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE	NOTIFIER	FSP-951	FSP-951	25		S911	Approve	1		S911	7272-0028:0503	
2 (AIM) ₁	DUAL MONITOR MODULE, ADDRESSABLE	NOTIFIER	FDM-1	FDM-1	2		\$635	Approved	N/A		CS669	7300-0028:202	143-01-E
(AIO) ₁	MONITOR MODULE W/FLASHSCAN, ADDRESSABLE	NOTIFIER	FMM-1	FMM-1	1		S635	Approved	d		CS669	7300-0028:202	447-99-E
F	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE	NOTIFIER	NBG-12LX	NBG-12LX	10		S692	Approved	d .		N/A	7150-0028:199	Not Approved
₽ 30cd	L-SERIES STROBE, RED, WALL	SYSTEM SENSOR	SRL	SRL	2								
[5] 30cd	L-SERIES 2-WIRE, HORN STROBE, RED, WALL	SYSTEM SENSOR	P2RL	P2RL	11								
75cd	L-SERIES 2-WIRE, HORN STROBE, RED, WALL	SYSTEM SENSOR	P2RL	P2RL	4								
EOL	GEN EOL 10K	GENERIC	GEOL10K	GEOL10K	2								

					Appliance List						Appliance List by C	ircuit
Job number: 1 Job name: Draw	ring1									Circuit	Device	Device Custom Labe
Device	Address C	Circuit V. Drop	Panel Card Pa	rt Number	Description	Zone	User Label	Custom Label	Coordinate	00:SLC2-M:001	ADDRESSABLE PULL STATIO	
PHOTOELECTRIC DETECTOR	SD:001	SLC2 0.0021V	00		LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-M:002	ADDRESSABLE PULL STATIO	1
ADDRESSABLE PULL STATION	M:001	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE					00:SLC2-M:003	ADDRESSABLE PULL STATIO	1
PHOTOELECTRIC DETECTOR	SD:002	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-M:004	ADDRESSABLE PULL STATIO	N .
ADDRESSABLE PULL STATION	M:002	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE					00:SLC2-M:005	ADDRESSABLE PULL STATIO	N .
PHOTOELECTRIC DETECTOR	SD:003	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-M:006	ADDRESSABLE PULL STATIO	1
ADDRESSABLE PULL STATION	M:003	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE					00:SLC2-M:007	ADDRESSABLE PULL STATIO	1
PHOTOELECTRIC DETECTOR	SD:004	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-M:008	MONITOR MODULE	
ADDRESSABLE PULL STATION	M:004	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE					00:SLC2-M:009	ADDRESSABLE PULL STATIO	1
PHOTOELECTRIC DETECTOR	SD:005	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-M:010	ADDRESSABLE PULL STATIO	N .
ADDRESSABLE PULL STATION	M:005	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE					00:SLC2-M:011	ADDRESSABLE PULL STATIO	1
PHOTOELECTRIC DETECTOR	SD:006	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-M:012, 013	DUAL MONITOR MODULE	
ADDRESSABLE PULL STATION	M:006	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE						DUAL MONITOR MODULE	
PHOTOELECTRIC DETECTOR	SD:007	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:001	PHOTOELECTRIC DETECTOR	
ADDRESSABLE PULL STATION	M:007	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE					00:SLC2-SD:002	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:008	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:003	PHOTOELECTRIC DETECTOR	
MONITOR MODULE	M:008	SLC2 0.004V	00	FMM-1	MONITOR MODULE W/FLASHSCAN, ADDRESSABLE					00:SLC2-SD:004	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:009	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:005	PHOTOELECTRIC DETECTOR	
ADDRESSABLE PULL STATION	M:009	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE					00:SLC2-SD:006	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:010	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:007	PHOTOELECTRIC DETECTOR	
ADDRESSABLE PULL STATION	M:010	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE					00:SLC2-SD:008	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:011	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:009	PHOTOELECTRIC DETECTOR	
ADDRESSABLE PULL STATION	M:011	SLC2 0.004V	00	NBG-12LX	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE					00:SLC2-SD:010	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:012	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:011	PHOTOELECTRIC DETECTOR	
DUAL MONITOR MODULE	M:012, 013	SLC2 0.008V	00	FDM-1	DUAL MONITOR MODULE, ADDRESSABLE					00:SLC2-SD:012	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:013	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:013	PHOTOELECTRIC DETECTOR	
DUAL MONITOR MODULE	M:014, 015	SLC2 0.008V	00	FDM-1	DUAL MONITOR MODULE, ADDRESSABLE					00:SLC2-SD:014	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:014	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:015	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:015	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:016	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:016	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:017	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:017	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:018	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:018	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:019	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:019	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:020	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:020	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:021	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:021	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:022	HEAT DETECTOR	
PHOTOELECTRIC DETECTOR	SD:022	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:023	HEAT DETECTOR	
HEAT DETECTOR	SD:023	SLC2 0.0021V	00	FST-951	INTELLIGENT THERMAL HEAT DETECTOR, LOW PROFILE, FIXED 135F					00:SLC2-SD:024	HEAT DETECTOR	
HEAT DETECTOR	SD:024	SLC2 0.0021V	00	FST-951	INTELLIGENT THERMAL HEAT DETECTOR, LOW PROFILE, FIXED 135F					00:SLC2-SD:025	PHOTOELECTRIC DETECTOR	
HEAT DETECTOR	SD:025	SLC2 0.0021V	00	FST-951	INTELLIGENT THERMAL HEAT DETECTOR, LOW PROFILE, FIXED 135F					00:SLC2-SD:026	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:026	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE					00:SLC2-SD:027	PHOTOELECTRIC DETECTOR	
PHOTOELECTRIC DETECTOR	SD:027	SLC2 0.0021V	00	FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE							
PHOTOELECTRIC DETECTOR				FSP-951	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE						-	-

V I I	ELLIGENT PHOTO SENSOR, WHIT	I E							0
١TI	ELLIGENT PHOTO SENSOR, WHIT	ΓΕ							
١TI	ELLIGENT PHOTO SENSOR, WHIT	ΓΕ							
				_					
		•				Applia	ance List by	Circuit	
	Manufacturer	Model	Part No.		С	ircuit	Device	Device Cu	stom La
	NOTIFIER	FSP-951	FSP-951		[SLC2•M:0	12, 013]:ZN1-01	BEAM DETECTOR		
					[SLC2•M:0	12, 013]:ZN1-02	BEAM DETECTOR		
	NOTIFIER	NBG-12LX	NBG-12LX		[SLC2•M:0	14, 015]:ZN1-01	BEAM DETECTOR		
					[SLC2•M:0	14, 015]:ZN1-02	BEAM DETECTOR		
	NOTIFIER	FST-951	FST-951		0:0-0	•	BEAM DETECTOR		
					0:0-0		BEAM DETECTOR		
	SYSTEM SENSOR	SRL	SRL		0:0-0		BEAM DETECTOR		
					0:0-0		BEAM DETECTOR		
	SYSTEM SENSOR	P2RL	P2RL		00:AUX1-0	01	BEAM DETECTOR		
					00:AUX1-0	02	BEAM DETECTOR		
	NOTIFIER	FMM-1	FMM-1		00:NAC5-N	:001	N/A		
					00:NAC5-N	:002	N/A		
	GENERIC	GEOL10K	GEOL10K		00:NAC5-N	:003	N/A		
					00:NAC5-N	:004	N/A		
	XTRALIS	OSE-SP-01	OSE-SP-01		00:NAC5-N	:005	N/A		
					00:NAC5-N	:006	N/A		
	NOTIFIER	FDM-1	FDM-1		00:NAC6-0	01	N/A		
					00:NAC6-0	02	N/A		
	XTRALIS	OSI-90	OSI-90		00:NAC6-0	03	N/A		
					00:NAC6-0	04	STROBE		
					00:NAC6-0	05	N/A		
	NOTIFIER	NFS-320	NFS-320		00:NAC6-0	06	STROBE		
					00:NAC6-0	07	N/A		
	GENERIC	3/4"	GN-201		00:NAC6-N	:008	N/A		
	GENESIS (HONEYWELL CABLE	43061004	43061004		00:NAC6-N	:009	N/A		
	GENESIS (HONEYWELL CABLE	43131004	43131004		00:NAC6-N	:010	N/A		
.AF	NWINDY CITY	1602PFA-BLK	1602PFA-BL	LK	00:NAC6-N	:011	N/A		
	WINDY CITY	7611323	7611323						

						Ca	ble/Circuit	t Report				
Cable Length Overage: 0	.00000	00%										
Source	Card	Circuit	Circuit Type	Circuit Abbr W	iring Style	Manufacturer	Part No.	Type	Description	Gauge	Length	Colo
P1	00	SLC2	Signaling line	U	Class B	GENESIS (HONEYWELL CABL	E) 43061004	Fire Alarm	18/2 SOL JKT FPLR 1M RL RED	#18	931'-4 1/2	Red
P1	00	NAC5	Notification	V1	Class B	WINDY CITY	7611323	N/A	16 AWG 2 CONDUCTOR BARE COPPER, TWISTED, SHIELDED, PLENUM FA, FPLP	#16	481'-9 1/2	Red
P1	00	NAC6	Notification	V1	Class B	WINDY CITY	7611323	N/A	16 AWG 2 CONDUCTOR BARE COPPER, TWISTED, SHIELDED, PLENUM FA, FPLP	#16	1128'-2 1/2	2 Red
P1	00	AUX1	Power	P2	Class B	GENESIS (HONEYWELL CABL	E) 43131004	Fire Alarm	14/2 SOL JKT FPLR 1M RL RED	#14	129'-4	Red
evice[SLC2:M:012, 013]		ZN1	Initiating	Z	Class B	WINDY CITY	1602PFA-BL	N/A	16 AWG 2 CONDUCTOR BARE COPPER, TWISTED, NON-SHIELDED, PLENUM FIRE ALARM	#16	4'-2 1/2	Red
Device[SLC2:M:014, 015]		ZN1	Initiating	Z	Class B	WINDY CITY	1602PFA-BL	(N/A	16 AWG 2 CONDUCTOR BARE COPPER, TWISTED, NON-SHIELDED, PLENUM FIRE ALARM	#16	1'-11 1/2	Red

		Battery Calculations for Panel:	P1			
		Part No:NFS-320 - NFS-320 INTELLIGENT ADDRESSABLE FIR	E ALARM SYSTEM			
Part No.	Qty.	Description	Standby	Total Standby	Alarm	Total Alarn
		Panel Equipment				
IFS-320 MAIN BOARD) 1	MAINBOARD FOR NFS-320 SYSTEM	250.0000mA	250.0000mA	390.0000mA	390.0000m
			Total Panel Stby	250.0000mA	Total Panel Alarm	390.0000m
		Peripheral Devices				
FSP-951	25	LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE (Signaling line)	0.2000mA	5.0000mA	4.5000mA	112.5000m
NBG-12LX	10	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE (Signaling line)	0.3750mA	3.7500mA	5.0000mA	50.0000m
FST-951	3	INTELLIGENT THERMAL HEAT DETECTOR,, WHITE, LOW PROFILE, FIXED 135F (SLC)	0.2000mA	0.6000mA	4.5000mA	13.5000m
FMM-1	1	MONITOR MODULE W/FLASHSCAN, ADDRESSABLE (Signaling line)	0.3750mA	0.3750mA	5.1000mA	5.1000m
FDM-1	2	DUAL MONITOR MODULE, ADDRESSABLE (Signaling line)	0.7500mA	1.5000mA	5.7000mA	11.4000m
OSI-90) 2	SMOKE DETECTION, IMAGER 80° COVERAGE (Initiating)	0.0000mA	0.0000mA	0.0000mA	0.0000m
P2RL	. 4	L-SERIES 2-WIRE, HORN STROBE, RED, WALL (Notification) 75CD 88dB	0.0000mA	0.0000mA	119.0000mA	476.0000m
P2RL	. 10	L-SERIES 2-WIRE, HORN STROBE, RED, WALL (Notification) 30CD 88dB	0.0000mA	0.0000mA	73.0000mA	730.0000m
GEOL10K	2	GEN EOL 10K (Notification)	0.0000mA	0.0000mA	0.0000mA	0.0000m
SRL	. 2	L-SERIES STROBE, RED, WALL (Notification) 30CD	0.0000mA	0.0000mA	63.0000mA	126.0000m
OSI-90) 2	SMOKE DETECTION, IMAGER 80° COVERAGE (Power)	10.0000mA	20.0000mA	10.0000mA	20.0000m
			Total Peripheral Stby	31.2250mA	Total Periph Alarm	1544.5000m
			Total Standby Amps	281.2250mA	Total Alarm Amps	2007.5000m
				St	tandby time: 24 Hrs	6.749AI
					Alarm time: 5 Min	0.167Al
				В	attery requirement:	6.917A
		Compensation Factors	- Standby: 1.2 Alarm:	I.2 Requiremen	nt with compensation	on: 8.3A

				Circu	it Calculation	s Pane	l: P1 Card: 0	0				
Terminal Voltage: 2	20.4V:DC Amperage: 2.000	00A										
Cable: 18/2 SOL JK	T FPLR 1M RL RED #18											
	l on Lump Sum Length.											
Design Criteria: Am	nbient temperature: 167°F N	lax. operating voltage drop:	18%									
Circuit Descript	tion T	ype	Γotal Len FSP-9	51, 4.500mA	NBG-12LX, 5.000	0mA FST-951, 4	.500mA FMM-1,	, 5.100mA FDM-1, 5.	700mA T	otal Amps Gaug	e V Drop % V Drop	Resistance Max L
SLC2	Signaling line/NOTIFIE	R SLC, ONYX FLASHSCAN	688'-4	25		10	3	1	2	11.2250mA #1	8 0.59 0.1201V	10.7 Ohms 21050
		0!!(0 - 11 - 4!	D1	. D4 . O l . 00				٦			
		Circuit	Calculations	Panel	: P1 Card: 00							
Terminal Voltage: 2	20.4V:DC Amperage: 2.000	00A										
Cable: 16 AWG 2 C	ONDUCTOR BARE COPPER	, TWISTED, SHIELDED, PLE	NUM FA, FPLP #16									
Calculations based	l on Lump Sum Length.											
		lay aparating valtage drap:	18%									
Design Criteria: Am	nbient temperature: 167°F N	_,							-			
Design Criteria: Am Circuit Descript		_,		2RL, 75CD, 11	19.000mA Total	Amps Gauge V	Drop % V Drop I	Resistance Max Ler	1			
		n P2RL, 30CD, 73.000		2RL, 75CD, 11	19.000mA Total 2 530.0	Amps Gauge V	Drop % V Drop 3.71 0.756V	Resistance Max Ler				
Circuit Descript	tion Type Total Le	n P2RL, 30CD, 73.000		2RL, 75CD, 11	19.000mA Total 2 530.0	Amps Gauge V	Drop % V Drop 3.71 0.756V					
Circuit Descript	tion Type Total Le	n P2RL, 30CD, 73.000		2RL, 75CD, 11	19.000mA Total 2 530.0	Amps Gauge V 000mA #16	Drop % V Drop 3.71 0.756V					
Circuit Descript	tion Type Total Le	n P2RL, 30CD, 73.000			19.000mA Total 2 530.0 Panel: P1	000mA #16	Drop % V Drop 3.71 0.756V					
Circuit Descript	tion Type Total Le Notification 285'-3 1/	n P2RL, 30CD, 73.000	MA GEOL10K P		2 530.0	000mA #16	Drop % V Drop 3.71 0.756V					
Circuit Descript NAC5 Terminal Voltage: 2	tion Type Total Le Notification 285'-3 1/ 20.4V:DC Amperage: 2.000	n P2RL, 30CD, 73.000	GEOL10K P		2 530.0	000mA #16	Drop % V Drop 3.71 0.756V					
Circuit Descript NAC5 Terminal Voltage: 2 Cable: 16 AWG 2 Co	tion Type Total Le Notification 285'-3 1/	n P2RL, 30CD, 73.000	GEOL10K P		2 530.0	000mA #16	Drop % V Drop 3.71 0.756V					
Circuit Descript NAC5 Terminal Voltage: 2 Cable: 16 AWG 2 C Calculations based	tion Type Total Le Notification 285'-3 1/ 20.4V:DC Amperage: 2.000 CONDUCTOR BARE COPPER	n P2RL, 30CD, 73.000 2	Circuit Calc		2 530.0	000mA #16	Drop % V Drop 3.71 0.756V					
Circuit Descript NAC5 Terminal Voltage: 2 Cable: 16 AWG 2 C Calculations based	tion Type Total Le Notification 285'-3 1/ 20.4V:DC Amperage: 2.000 CONDUCTOR BARE COPPER If on Lump Sum Length. Inbient temperature: 167°F M	n P2RL, 30CD, 73.000 2	Circuit Calc	culations	2 530.0 Panel: P1	000mA #16 Card: 00	3.71 0.756V	1.4 Ohms 1385'-0		ance May Lon		

	Circ	uit Calculations Pa	nel: P1	Card:	00 Circ	uit:AU	X1
Circuit Name: AUX1							
	Circuit	Type: Power/Non-resettable Ter	minal Volta	age: 20.2V:	DC Amp	erage: 2.0	000A
	Cable: 14/2 SOL JKT FPLR 1M RL RED #14						
		Calculations based o	n Running	Total Leng	jth.		
		Design Criteria: Ambient temperature:	167°F Max	x. operatin	g voltage d	rop: 18%	
Device	Part No	Appliance Desc	D	istance	Current	Voltage	Voltage Drop
	NFS-320	Panel				20.2V	
001	OSI-90	SMOKE DETECTION, IMAGER 80° CC	VERAGE	44'-1 1/2	10.0000mA	20.1951V	(0.0049V)
002	OSI-90	SMOKE DETECTION, IMAGER 80° CO	VERAGE	41'-0 1/2	10.0000mA	20.1926V	(0.0025V)
85'-2 1/2 20.0000mA							
Total Current: 20.0000mA							
(Total VDrop Percent:0.04%) Total Voltage Drop : 0.0074V							

STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**



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OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF MISSOURI NATIONAL GUARD

ST. CLAIR READINESS CENTER

375 COMMERCIAL AVE. ST CLAIR, MO 63077

PROJECT # T2326-01 SITE # 6304 FACILITY # 8136304011

REV.	DESCRIPTION	DATE
A	DD	02/19/2024
В	IFB	04/23/2024

ISSUE DATE: 2023.12.06

CAD DWG FILE: DRAWN BY: RHL CHECKED BY: JCA DESIGNED BY: RHL

SHEET TITLE:

FIRE ALARM SYSTEM **DETAILS AND** CALCULATIONS

SHEET NUMBER:

FA101

FACP NFS-320 INTELLIGENT ADDRESSABLE FIRE ALARM SYSTEM (Intelligent Thermal Heat Detector, Low Profile, Fixed 135F) (S)_{BT} OSID SMOKE DETECTION, EMITTER BATTERY OPERATED Smoke detection, imager 80° coverage (S)_P LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE DUAL MONITOR MODULE, ADDRESSABLE MONITOR MODULE W/FLASHSCAN, ADDRESSABLE F PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE L-SERIES STROBE, RED, WALL L-SERIES 2-WIRE, HORN STROBE, RED, WALL L-SERIES 2-WIRE, HORN STROBE, RED, WALL 83 OF 85 SHEETS GEN EOL 10K 2024.04.23

DESCRIPTION

SYMBOL

Description
25 LOW PROFILE INTELLIGENT PHOTO SENSOR, WHITE

14 L-SERIES 2-WIRE, HORN STROBE, RED, WALL

DUAL MONITOR MODULE, ADDRESSABLE

2 SMOKE DETECTION, IMAGER 80° COVERAGE

MONITOR MODULE W/FLASHSCAN, ADDRESSABLE

OSID SMOKE DETECTION, EMITTER BATTERY OPERATED

NFS-320 INTELLIGENT ADDRESSABLE FIRE ALARM SYSTEM

85'-2 1/2 14/2 SOL JKT FPLR 1M RL RED

85'-2 1/2 14/2 SOL JKT FPLR 1M RL RED

4.0533950194102317255 16 AWG 2 CONDUCTOR BARE COPPER, TWISTED, NON-SHIELDED, PLENUM FIRE ALAR MVINDY CITY

856.92000260854649696 16 AWG 2 CONDUCTOR BARE COPPER, TWISTED, SHIELDED, PLENUM FA, FPLP WINDY CITY

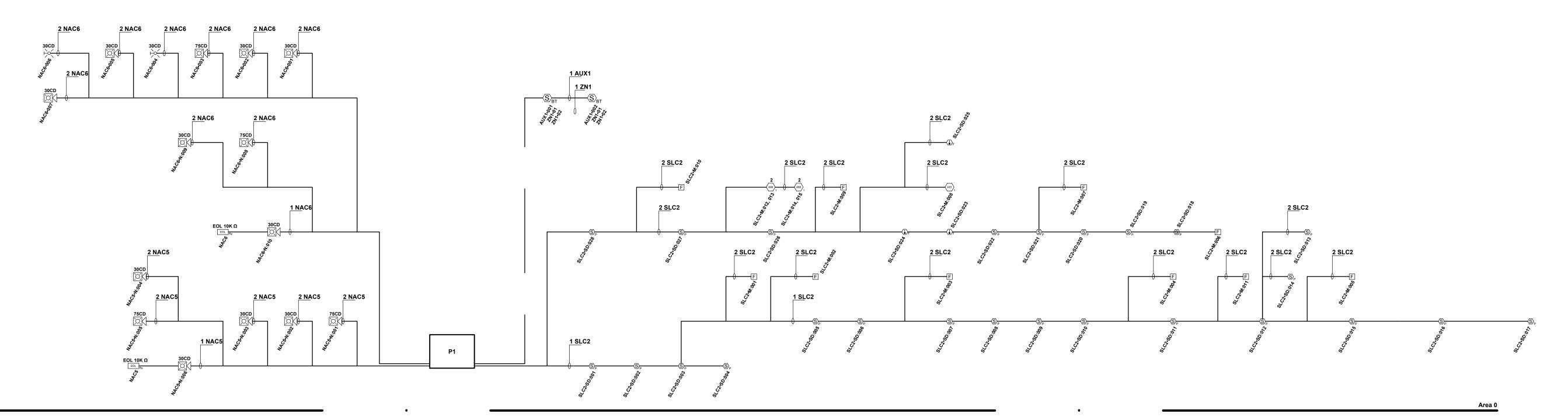
2 L-SERIES STROBE, RED, WALL

GEN EOL 10K

774'-3 Electrical Metallic Tubing (EMT) 686'-4 1/2 18/2 SOL JKT FPLR 1M RL RED

10 PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE

3 INTELLIGENT THERMAL HEAT DETECTOR,, WHITE, LOW PROFILE, FIXED 135F



STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR



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SHEET TITLE:

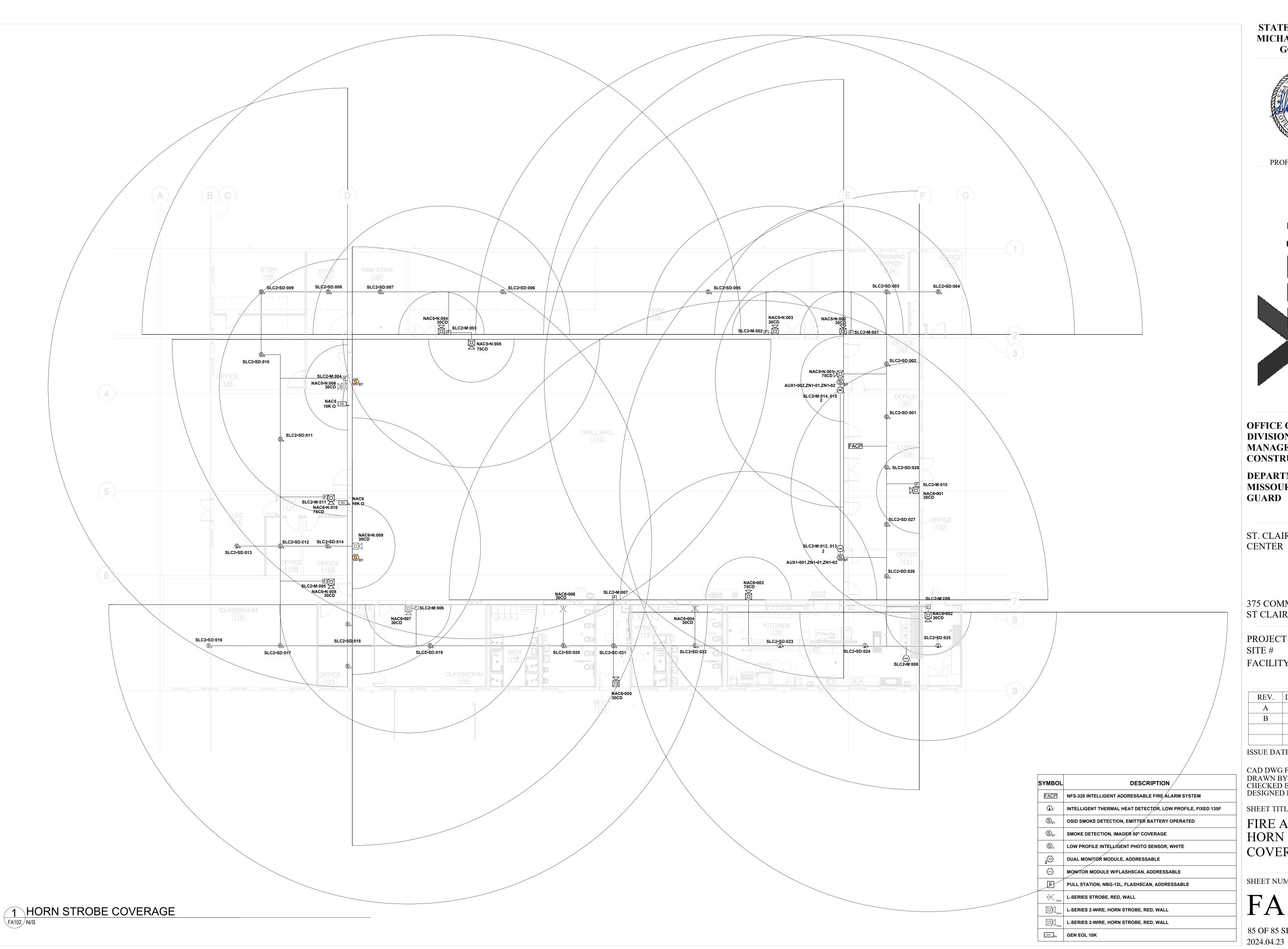
FIRE ALARM SYSTEM RISER DIAGRAM

SHEET NUMBER:

FAIU.

1 RISER DIAGRAM
FA102 N/S

84 OF 85 SHEETS 2024.04.23



STATE OF MISSOURI MICHAEL L. PARSON, **GOVERNOR**



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CAD DWG FILE:
DRAWN BY: RHL
CHECKED BY: JCA
DESIGNED BY: RHL

SHEET TITLE:

FIRE ALARM SYSTEM HORN STROBE COVERAGE

SHEET NUMBER:

FA103

85 OF 85 SHEETS