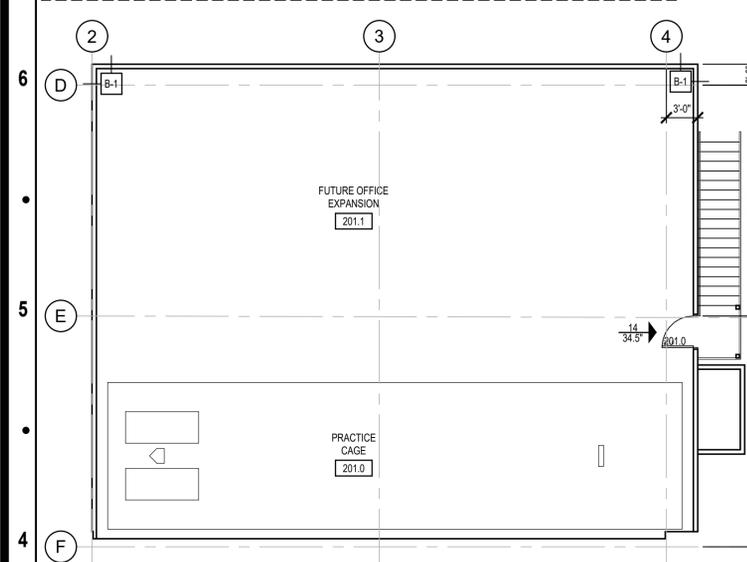
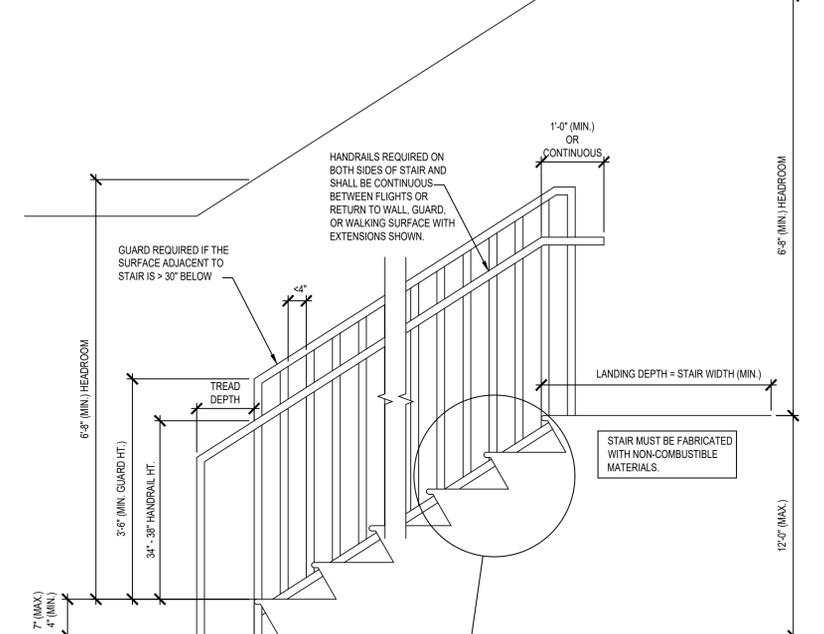


F6 KEY PLAN
SCALE: 1/32" = 1'-0"
PROJECT NORTH

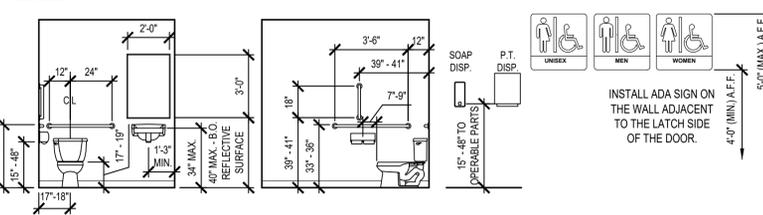


H4 SECOND FLOOR PLAN (ABOVE OFFICE)
SCALE: 1/32" = 1'-0"
PROJECT NORTH

- ACCESSIBILITY NOTES**
- ACCESS TO THESE FACILITIES SHALL BE PROVIDED AT PRIMARY ENTRANCES, AS REQUIRED BY ADA.
 - WALKS & SIDEWALKS SHALL HAVE A CONTINUOUS COMMON SURFACE NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2" AND SHALL BE A MIN. OF 36" IN WIDTH.
 - SURFACES WITH A SLOPE OF LESS THAN 6% GRADIENT SHALL BE AT LEAST AS SLIP RESISTANT AS THAT DESCRIBED AS A MEDIUM SALTED FINISH.
 - SURFACES WITH A SLOPE OF 6% GRADIENT OR GREATER SHALL BE SLIP RESISTANT.
 - SURFACE CROSS SLOPES SHALL NOT EXCEED 1/4" PER FOOT.
 - WALKS, SIDEWALKS & PEDESTRIAN WAYS SHALL BE FREE OF GRATING WHENEVER POSSIBLE. FOR GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE AREAS, GRID OPENINGS IN THE GRATINGS SHALL BE LIMITED TO 1/2" IN THE DIRECTION OF TRAFFIC FLOW.
 - WHEN THE SLOPE IN THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 1 VERTICAL TO 20 HORIZONTAL, IT SHALL COMPLY WITH THE PROVISIONS OF A PEDESTRIAN RAMP.
 - ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE SHALL NOT EXCEED 1/2" WHEN CHANGES IN LEVEL DO OCCUR, THEY SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2 EXCEPT THAT LEVEL CHANGES NOT EXCEEDING 1/4" MAY BE VERTICAL. WHEN CHANGES IN LEVELS GREATER THAN 1/2" ARE NECESSARY, THEY SHALL COMPLY WITH THE REQUIREMENTS FOR CURB OR PEDESTRIAN RAMPS.
 - EVERY REQUIRED EXIT DOORWAY SHALL BE SIZED FOR A DOOR NOT LESS THAN 3 FT. WIDE BY NOT LESS THAN 6'-8" HIGH CAPABLE OF OPENING 90° AND MOUNTED SO THAT THE CLEAR WIDTH OF THE EXIT WAY IS 32" MIN.
 - THRESHOLDS MAY BE A MAX. 1/2" ABOVE ADJACENT FINISH FLOOR.
 - MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 8 1/2 LBS. FOR EXTERIOR DOORS AND 5 LBS. FOR INTERIOR DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED TO THE MAXIMUM ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 LBS.
 - THE BOTTOM 10" OF ALL DOORS, EXCEPT AUTOMATIC AND SLIDING, SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE.
 - PROVIDE LEVER-TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE THE HARDWARE. (34" TO 48" A.F.F.)
 - PROVIDE 17" (MIN.) OR 18" (MAX.) FROM ADJACENT WALL TO CENTERLINE OF WATER CLOSET.
 - PROVIDE A 30"x48" CLEAR SPACE WITHIN THE TOILET ROOM THAT DOES NOT ENCROACH INTO THE DOOR SWING.
 - GRAB BARS LOCATED ON EACH SIDE, OR ONE SIDE AND THE BACK OF PHYSICALLY DISABLED TOILET COMPARTMENTS SHALL BE SECURELY ATTACHED 33" MIN. AND 36" MAX. FROM THE FINISHED FLOOR TO THE TOP OF THE GRAB BAR AND PARALLEL TO THE FLOOR. THE SPACE BETWEEN WALL-MOUNTED GRAB BARS AND THE WALL SHALL BE 1 1/2" GRAB BARS AT THE SIDE SHALL BE 42" LONG, AND THE BACK END SHALL BE LOCATED 12" FROM THE BACK WALL. GRAB BARS AT THE BACK SHALL BE NOT LESS THAN 36" LONG WITH THE END CLOSEST TO THE SIDE WALL MOUNTED 12" FROM THE CENTER OF THE WATER CLOSET. THE DIAMETER OR WIDTH OF THE GRIPPING SURFACES OF A GRAB BAR SHALL BE 1 1/4" TO 1 1/2" OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE.
 - WATER CLOSET HEIGHT SHALL BE 17" (MIN.) OR 19" (MAX.) MEASURED TO THE TOP OF THE TOILET SEAT TO THE FINISHED FLOOR. CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS, NO MORE THAN 44" A.F.F. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. OF FORCE.
 - URINALS SHALL BE 17" (MAX.) ABOVE THE FLOOR AND PROJECT 13 1/2" FROM THE WALL. URINALS SHALL HAVE A CLEAR SPACE OF 30"x48" IN FRONT. FLUSH VALVES SHALL BE AUTOMATIC OR MOUNTED NO MORE THAN 44" A.F.F. IF HAND-OPERATED.
 - IN FRONT OF LAVATORIES, PROVIDE A 30"x48" CLEAR SPACE LOCATED 25" (MAX.) FROM THE LEADING EDGE OF THE LAVATORY TOWARD THE MOUNTING WALL. KNEE CLEARANCE SHALL BE 11" DEEP (MIN.) AT 9" A.F.F. AND 8" DEEP (MIN.) AT 27" A.F.F. BETWEEN 9" AND 27" A.F.F. THE KNEE CLEARANCE SHALL BE PERMITTED TO REDUCE AT A RATE OF 1" IN DEPTH FOR EACH 6" IN HEIGHT.
 - ALL ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO HIGHER THAN 34" A.F.F.
 - HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
 - FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. LEVER-OPERATED, PUSH-TYPE, AND ELECTRONIC CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET IS OPEN FOR AT LEAST 10 SECONDS.
 - LOCATE PAPER TOWEL DISPENSERS, SOAP DISPENSERS, SANITARY NAPKIN DISPENSERS, AND WASTE RECEPTACLES WITH ALL OPERABLE PARTS BETWEEN 15" AND 48" A.F.F.
 - LOCATE TISSUE DISPENSERS ON THE WALL 7" (MIN.) AND 9" (MAX.) FROM THE FRONT EDGE OF THE TOILET SEAT TO THE CENTERLINE OF DISPENSER WITH THE OUTLET BETWEEN 15" AND 48" A.F.F.
 - ACCESSIBLE RESTROOMS SHALL BE PROVIDED WITH SIGNAGE DESIGNED AND LOCATED PER SECTION 703 OF THE ADA DESIGN GUIDELINES.
 - DOORS IN ACCESSIBLE ROUTES SHALL BE DESIGNED TO MEET CLEARANCE REQUIREMENTS PER SECTION 404 OF THE ADA DESIGN GUIDELINES.
 - WALKS, HALLS, CORRIDORS, PASSAGEWAYS, AISLES OR OTHER CIRCULATION SPACES SHALL HAVE 80" MINIMUM CLEAR HEADROOM.
 - OBJECTS PROJECTING FROM WALLS WITH THEIR LEADING EDGES BETWEEN 27" AND 80" ABOVE THE FINISH FLOOR SHALL PROTRUDE NO MORE THAN 4" INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS OR AISLES. OBJECTS MOUNTED AT OR BELOW 27" ABOVE FINISH FLOOR MAY PROTRUDE ANY AMOUNT.
 - OBJECTS THAT ARE BETWEEN 27" AND 80" A.F.F. AND MOUNTED ON POSTS MAY EXTEND BEYOND THE POSTS A MAXIMUM OF 12". OBJECTS MOUNTED BETWEEN POSTS, WHERE THE SPACE BETWEEN THE POSTS IS GREATER THAN 12", THE LOWEST EDGE OF THE OBJECT SHALL BE LOCATED 27" MAX. AND 80" MIN. A.F.F.
 - IF CARPET OR CARPET TILE IS USED ON A GROUND OR FLOOR SURFACE IN A COMMON USE AREA, IT SHALL HAVE FIRM BACKING OR NO BACKING. THE MAXIMUM PILE HEIGHT SHALL BE 1/2" EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND HAVE TRIM ALONG THE EXPOSED EDGE, AND TRIM SHALL COMPLY WITH THE REQUIREMENTS FOR CHANGES IN LEVEL.



E2 CODE-COMPLIANT STAIR PARAMETERS
SCALE: 3/4" = 1'-0"



D1 TYP. ADA TOILET DIMENSIONS
SCALE: =

PROJECT SUMMARY
THIS TENANT OPERATES AN E-COMMERCE BUSINESS AS WELL AS A SOFTBALL PRACTICE FACILITY.

LIFE SAFETY LEGEND

OFFICE	ROOM / SPACE NAME
110	ROOM / SPACE NUMBER

- DEFERRED SUBMITTALS:**
- AUTOMATIC FIRE ALARM SYSTEM CONSTRUCTION DRAWINGS, IF SYSTEM IS REQUIRED
 - AUTOMATIC FIRE SPRINKLER SYSTEM CONSTRUCTION DRAWINGS, IF SYSTEM IS REQUIRED
- LIFE SAFETY / FIRE DEPARTMENT GENERAL NOTES**
- PROVIDE FIRE EXTINGUISHERS AS REQUIRED BY THE FIRE DEPARTMENT FIELD INSPECTOR DURING CONSTRUCTION AND FOR COMPLETED PROJECT. EXTINGUISHERS SHALL ALSO BE COMPATIBLE WITH ANY CHEMICALS PRESENT IN THE SPACE.
 - AN OCCUPANT LOAD SIGN SHALL BE POSTED IN EACH ASSEMBLY ROOM OR SPACE. THE SIGN IS TO BE POSTED CONSPICUOUSLY NEAR THE ENTRANCE. COORDINATE FINAL LOCATION OF SIGN WITH THE FIRE DEPARTMENT FIELD INSPECTOR. THE SIGN IS TO BE PROVIDED AND INSTALLED BY THE OWNER'S REPRESENTATIVE.
 - PROVIDE INTERNALLY ILLUMINATED EXIT SIGNS ABOVE EXITS WITH 3/4" x 6" (MIN.) LETTERS LIGHTED ON CONTRASTING BACKGROUND. PROVIDE TWO (2) SEPARATE POWER SUPPLIES CONFORMING TO ADOPTED CODE. VERIFY FINAL LOCATIONS WITH THE BUILDING INSPECTOR.
 - PROVIDE EMERGENCY EXIT LIGHTING LEVEL PER CODE (ONE FOOT-CANDLE AT FLOOR LEVEL - MINIMUM).
 - FINISHES SHALL NOT EXCEED CLASS A, B, OR C AS INDICATED IN THE BUILDING CODE.
 - UNLESS ALREADY EXISTING, AN APPROVED SET OF NUMERALS, MINIMUM 6" HIGH (4" FOR REAR ENTRANCES) WITH A STROKE WIDTH OF NOT LESS THAN 1 INCH, SHALL BE PLACED ON OR NEAR THE ENTRANCE. THE NUMBERING SHALL BE PLACED IN SUCH A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE BUILDING. SAID NUMERALS SHALL CONTRAST WITH THEIR BACKGROUND. VERIFY REQUIREMENTS WITH THE REGULATORY BODY HAVING AUTHORITY.
 - GENERAL CONTRACTOR SHALL SECURE PERMITS AND INSPECTION APPROVALS REQUIRED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY THIS BUILDING.
 - STORAGE, DISPENSING, OR USE OF ANY FLAMMABLE AND/OR COMBUSTIBLE LIQUIDS, FLAMMABLE AND COMPRESSED GASES AND OTHER HAZARDOUS MATERIALS SHALL COMPLY WITH ADOPTED BUILDING CODE REGULATIONS.
 - IF AN AUTOMATIC FIRE SPRINKLER SYSTEM OR FIRE ALARM SYSTEM IS REQUIRED, THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE ADOPTED BUILDING CODE. SYSTEM DESIGN DRAWINGS SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT FOR REVIEW PRIOR TO INSTALLATION. THIS INCLUDES DETECTION AND SUPPRESSION SYSTEMS FOR KITCHEN HOODS.
 - THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND COORDINATE DEFERRED SUBMITTALS.
 - INSTALL A NO SMOKING SIGN PER LOCAL ORDINANCES CONSPICUOUSLY POSTED AT EVERY ENTRANCE, AS REQUIRED.

2A10BC FIRE EXTINGUISHER, DISTRIBUTE EXTINGUISHERS PER NFPA 101 SUCH THAT ONE CAN BE REACHED BY A TRAVEL DISTANCE OF NO MORE THAN 75' (IF TABLE 506.3.1) MOUNT TOP OF EXTINGUISHERS 48" A.F.F. (MAX.) AND WITH STATE FIRE MARSHALL INSPECTION TAG ATTACHED. VERIFY FINAL SIZES AND LOCATIONS WITH THE REGULATORY BODY HAVING AUTHORITY.

KNOX BOX, MOUNT TOP OF BOX AT 60" - 78" ABOVE GRADE, AND VERIFY FINAL LOCATION WITH THE REGULATORY BODY HAVING AUTHORITY

WATER CLOSETS

BUSINESS (1/25 FOR FIRST 50, 1/50 FOR SECOND 50)			
OCCUPANTS: 74	MEN (37)	WOMEN (37)	
REQUIRED:	1.48	1.48	
STORAGE (1/100)			
OCCUPANTS: 16	MEN (8)	WOMEN (8)	
REQUIRED:	.08	.08	
TOTALS:	1.56	1.56	
PROVIDED:	3	3	

LAVATORIES

BUSINESS (1/40 FOR FIRST 80, 1/80 FOR SECOND 80)			
OCCUPANTS: 74	MEN (37)	WOMEN (37)	
REQUIRED:	0.92	0.92	
STORAGE (1/100)			
OCCUPANTS: 16	MEN (8)	WOMEN (8)	
REQUIRED:	.08	.08	
TOTALS:	1.00	1.00	
PROVIDED:	2	2	

DRINKING FOUNTAIN

REQUIRED	PROVIDED
1	2

SERVICE SINK

REQUIRED	PROVIDED
1	1

MIN. # OF REQ'D PLUMBING FIXTURES (2902.1)

SPACE	AREA / LOAD FACTOR	OCCUPANTS
BUSINESS		
PRACTICE AREA		
FIRST FLOOR	12,844 SF / 300 GROSS	43
SECOND FLOOR	1,281 SF / 300 GROSS	5
OFFICE AREA		
FIRST FLOOR	2,547 SF / 150 GROSS	17
SECOND FLOOR	1,281 SF / 150 GROSS	9
STORAGE	8,033 SF / 500 GROSS	16
TOTAL		90

EGRESS WIDTH (1005.3.2)

MINIMUM REQUIRED (83 OCCUPANTS x 0.2'): 16.6'
PROVIDED (6 DOORS x 34.5' CLR. WIDTH/DOOR): 207.0'

NUMBER OF EXITS (1006.3.2)

FIRST FLOOR
COMMON PATH OF EGRESS TRAVEL (TABLE 1006.2.1)
MAXIMUM ALLOWED: 100'
PROVIDED: <100'

MINIMUM EXITS REQUIRED: 2'
PROVIDED: 6
OCCUPANT LOAD > 29 FOR GROUP S

SECOND FLOOR
COMMON PATH OF EGRESS TRAVEL (TABLE 1006.2.1)
MAXIMUM ALLOWED: 100'
PROVIDED: <100'

MINIMUM EXITS REQUIRED: 1'
PROVIDED: 1
OCCUPANT LOAD <= 29 FOR GROUP S

EXIT ACCESS TRAVEL DISTANCE (1017.2)

MAXIMUM ALLOWED: 250'
PROVIDED: <250'

APPLICABLE GOVERNING CODES

2018	INTERNATIONAL BUILDING CODE
2018	INTERNATIONAL PLUMBING CODE
2018	INTERNATIONAL MECHANICAL CODE
2018	INTERNATIONAL FIRE CODE
2017	NATIONAL ELECTRICAL CODE
CURRENT	ICC / ANSI A117.1 - 2009, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

OCCUPANCY CLASSIFICATION

NONSEPARATED MIXED USE OCCUPANCY (508.3)

MAIN OCCUPANCY: GROUP B BUSINESS (303.1.1) - SOFTBALL PRACTICE AREA USED AS A GROUP A-3 ASSEMBLY, BUT CLASSIFIED AS A GROUP B OCCUPANCY DUE TO OCCUPANT LOAD BEING <50

GROUP B BUSINESS (304) - OFFICE

GROUP S-1 MODERATE HAZARD STORAGE (311.2) - E-COMMERCE PRODUCT STORAGE

TYPE OF CONSTRUCTION

II-B (602.2)

BUILDING HEIGHT LIMITATIONS

GROUP S-1 (S)	ALLOWABLE HEIGHT IN FEET (TABLE 504.3)	75'
	ACTUAL HEIGHT IN FEET	31'
	ALLOWABLE # OF STORIES (TABLE 504.4)	3
	ACTUAL # OF STORIES	1
GROUP B (S)	ALLOWABLE HEIGHT IN FEET (TABLE 504.3)	75'
	ACTUAL HEIGHT IN FEET	31'
	ALLOWABLE # OF STORIES (TABLE 504.4)	4
	ACTUAL # OF STORIES	2

BUILDING AREA LIMITATIONS

GROUP B (SM)	ALLOWABLE AREA (TABLE 506.2)	92,000 SF
	ALLOWABLE AREA INCREASE (EQUATION 5-5)	99,000 SF*
	ADJUSTED ALLOWABLE AREA	161,000 SF
	*EQUATION 5-5: (1,650 / 1,650 - 0.25) 30/30 = .75 .75 x 69,000 = 51,750	
	ACTUAL AREA	78,345 SF

FIRE RESISTANCE

RATING REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601)

ELEMENT	RATING (HRS)
PRIMARY STRUCTURAL FRAME	0
BEARING WALLS	
EXTERIOR	0
INTERIOR	0
NONBEARING WALLS & PARTITIONS - EXTERIOR (TABLE 602)	
FIRE SEPARATION DISTANCE = X (FEET)	
X < 5	2
5 <= X < 10	1
10 <= X < 30	0
X >= 30	0
NONBEARING WALLS & PARTITIONS - INTERIOR	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0
AUTOMATIC SPRINKLER SYSTEM (903.2.9)	
REQUIRED:	YES
PROVIDED:	YES

MEANS OF EGRESS

OCCUPANT LOAD (TABLE 1004.5)

MAXIMUM FLOOR ALLOWANCE PER OCCUPANT

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NUMBER A-2009032812
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Project Number: 2511
Project Type: TENANT FINISH
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Issue: _____ Date: _____
Permit Set _____ 12.10.25
Plan Review Revisions _____ 01.09.26

Sheet Title:
KEY PLAN
SECOND FLOOR PLAN
CODE INFORMATION
A-001

DOOR NOTES

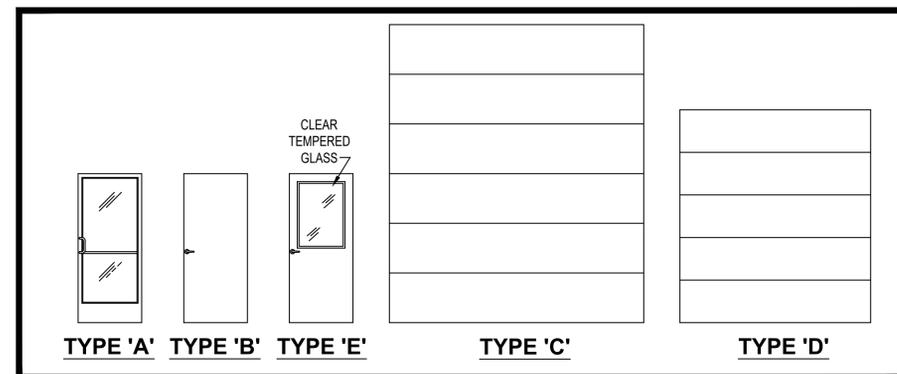
DOORS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

- ALL DOOR HANDLES TO BE LEVER TYPE.
- EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
- PROVIDE DOOR STOPS OF APPROPRIATE TYPE FOR ALL INTERIOR DOORS, MATCH ADJACENT HARDWARE FINISH.
- DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES WILL BE 5 SECONDS MINIMUM.
- MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 8 1/2 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR INTERIOR DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO SLIDING DOORS AND AT THE CENTER PLANE OF HINGED OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED TO THE MAXIMUM ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 POUNDS.
- THE BOTTOM 10" OF ALL DOORS EXCEPT AUTOMATIC DOORS, POWER ASSISTED DOORS, AND SLIDING DOORS SHALL HAVE A SMOOTH, UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.
- EXIT DOORS IN ASSEMBLY AND EDUCATION OCCUPANCIES SERVING AN OCCUPANT LOAD OF 50 OR MORE SHALL BE EQUIPPED WITH PANIC HARDWARE, WITH THE EXCEPTION BELOW (NOTE 7).
- MAIN EXIT DOORS HAVING KEY-OPERATED LOCKING DEVICES ON THE EGRESS SIDE IN GROUP A OCCUPANCIES (SERVING 300 OCCUPANTS OR LESS), GROUPS B, F, M, S, AND PLACES OF RELIGIOUS WORSHIP SHALL HAVE DURABLE SIGNAGE ABOVE THE DOOR IN 1" HIGH LETTERS ON CONTRASTING BACKGROUND STATING: "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED". LOCKING DEVICES SHALL BE READILY DISTINGUISHABLE AS LOCKED.
- LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN THE PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. LOCKABLE EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION.
- HAND-ACTIVATED DOOR OPENING HARDWARE TO BE CENTERED BETWEEN 34" AND 44" ABOVE THE FLOOR.
- EVERY DOORWAY WHICH IS LOCATED WITHIN AN ACCESSIBLE PATH OF TRAVEL SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 3'-0" IN WIDTH AND NOT LESS THAN 6'-8" IN HEIGHT. WHEN INSTALLED, EXIT DOORS SHALL BE CAPABLE OF OPENING SO THAT THE CLEAR WIDTH OF THE EXIT IS NOT LESS THAN 32", MEASURED BETWEEN THE FACE OF THE OPENED DOOR AND THE OPPOSITE STOP.
- MINIMUM MANEUVERING CLEARANCES AT DOORS SHALL BE AS REQUIRED BY THE ICC/ANSI A117.1 ACCESSIBILITY CODE. THE FLOOR OR GROUND AREA WITHIN THE REQUIRED CLEARANCES SHALL BE LEVEL AND CLEAR. THE FLOOR OR LANDING SHALL BE NOT MORE THAN 1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY.
- DOORS SHALL NOT PROJECT MORE THAN 7" INTO THE REQUIRED CORRIDOR WIDTH WHEN FULLY OPENED OR MORE THAN ONE HALF INTO THE REQUIRED WIDTH WHEN IN ANY POSITION.
- WHERE A PAIR OF DOORS IS UTILIZED, AT LEAST ONE OF THE DOORS SHALL PROVIDE A CLEAR, UNOBSTRUCTED OPENING WIDTH OF 32" WITH THE LEAF POSITIONED AT AN ANGLE OF 90° FROM ITS CLOSED POSITION.
- EXIT DOORS SHALL SWING IN THE DIRECTION OF EXIT TRAVEL WHEN SERVING 50 OR MORE OCCUPANTS.

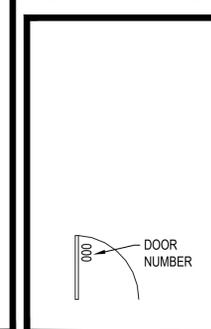
DOOR SCHEDULE

DOOR NO.	DOOR			FRAME				DETAILS			HARDWARE	NOTES	
	TYPE	SIZE	MATERIAL	PUSH FINISH	PULL FINISH	MATERIAL	PUSH FINISH	PULL FINISH	HEAD	JAMB			THRESHOLD
101.0A	B	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	ETR	ETR	HM	ETR	ETR	-	-	-	④	ADD A MAG LOCK TO EXISTING DOOR
101.0B	D	9'-0" WIDE X 10'-0" HIGH (ETR)	STL	ETR	ETR	-	ETR	ETR	-	-	-	⑤	DOOR & HARDWARE - EXISTING TO REMAIN
101.0C	C	12'-0" WIDE X 14'-0" HIGH (ETR)	STL	ETR	ETR	-	ETR	ETR	-	-	-	⑥	DOOR & HARDWARE - EXISTING TO REMAIN
101.1A	A	1 3/4" X 3'-0" X 7'-0" (ETR)	AL	ETR	ETR	AL	ETR	ETR	-	-	-	①	ADD A MAG LOCK TO EXISTING DOOR
101.1B	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	②	
101.2	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	③	
101.3	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	③	
101.4	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	③	
101.5	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	③	
101.6	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	③	
101.7	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	③	
102.0A	B	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	ETR	ETR	HM	ETR	ETR	-	-	-	④	DOOR & HARDWARE - EXISTING TO REMAIN
102.0B	D	9'-0" WIDE X 10'-0" HIGH (ETR)	STL	ETR	ETR	-	ETR	ETR	-	-	-	⑤	DOOR & HARDWARE - EXISTING TO REMAIN
102.0C	C	12'-0" WIDE X 14'-0" HIGH (ETR)	STL	ETR	ETR	-	ETR	ETR	-	-	-	⑥	DOOR & HARDWARE - EXISTING TO REMAIN
102.1A	A	1 3/4" X 3'-0" X 7'-0" (ETR)	AL	ETR	ETR	AL	ETR	ETR	-	-	-	①	DOOR & HARDWARE - EXISTING TO REMAIN
102.1B	E	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	②	
102.1C	E	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	②	
102.2	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	⑦	
102.3	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	⑧	
102.4	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	⑧	
102.5A	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	②	
102.5B	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	②	
102.6	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	②	
103.0A	B	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	ETR	ETR	HM	ETR	ETR	-	-	-	④	DOOR & HARDWARE - EXISTING TO REMAIN
103.0B	D	9'-0" WIDE X 10'-0" HIGH (ETR)	STL	ETR	ETR	-	ETR	ETR	-	-	-	⑤	DOOR & HARDWARE - EXISTING TO REMAIN
103.0C	C	12'-0" WIDE X 14'-0" HIGH (ETR)	STL	ETR	ETR	-	ETR	ETR	-	-	-	⑥	DOOR & HARDWARE - EXISTING TO REMAIN
103.1	B	1 3/4" X 3'-0" X 7'-0" (PAIR)	WD	PNT	PNT	HM	PNT	PNT	-	-	-	⑩	
103.1A	A	1 3/4" X 3'-0" X 7'-0" (ETR)	AL	ETR	ETR	AL	ETR	ETR	-	-	-	①	ADD A MAG LOCK TO EXISTING DOOR
104.0A	B	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	ETR	ETR	HM	ETR	ETR	-	-	-	④	DOOR & HARDWARE - EXISTING TO REMAIN
104.0B	D	9'-0" WIDE X 10'-0" HIGH (ETR)	STL	ETR	ETR	-	ETR	ETR	-	-	-	⑤	DOOR & HARDWARE - EXISTING TO REMAIN
104.0C	C	12'-0" WIDE X 14'-0" HIGH (ETR)	STL	ETR	ETR	-	ETR	ETR	-	-	-	⑥	DOOR & HARDWARE - EXISTING TO REMAIN
104.1A	A	1 3/4" X 3'-0" X 7'-0" (ETR)	AL	ETR	ETR	AL	ETR	ETR	-	-	-	①	DOOR & HARDWARE - EXISTING TO REMAIN
201.0	B	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	-	-	⑨	

DOOR TYPES



DOOR SYMBOLS



DOOR AND FRAME LEGEND

DOOR	MATERIAL	DESCRIPTION
	WD	PAINT-GRADE SOLID CORE WOOD DOOR
	HM	HOLLOW METAL - 18 GAUGE COLD ROLLED STEEL / POLYSTYRENE FOAM CORE (CLASSIFICATION SD1 - LEVEL 2 - MODEL 1) 1 3/4"
	AL	ALUMINUM
	ETR	EXISTING TO REMAIN
FRAME	MATERIAL	DESCRIPTION
	WD	WOOD
	HM	HOLLOW METAL - 16 GAUGE COLD ROLLED STEEL
	AL	ALUMINUM
	ETR	EXISTING TO REMAIN

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR MATERIAL	BASE MATERIAL	WALL FINISH (NORTH)	WALL FINISH (EAST)	WALL FINISH (SOUTH)	WALL FINISH (WEST)	CEILING		NOTES
								MATERIAL	FINISH	
101.0	WAREHOUSE	CONC	-	-	PNT-1	PNT-1	-	EXP	-	1.
101.1	OFFICE	STC	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	
101.2	OFFICE	CPT	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	
101.3	OFFICE	CPT	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	
101.4	OFFICE	CPT	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	
101.5	OFFICE	CPT	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	
101.6	OFFICE	CPT	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	
101.7	OFFICE	CPT	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	
102.1	HALL	STC	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	
102.2	SHOWER	STC	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1 / GYP	-	1., 2.
102.3	MEN	STC	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	1.
102.4	WOMEN	STC	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	1.
102.5	BREAK ROOM	STC	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	
102.6	UTILITY	STC	RCB	PNT-1	PNT-1	PNT-1	PNT-1	ACT-1	-	1.
103.0	PRACTICE AREA	CONC	-	-	-	-	PNT-1	EXP	-	1.
103.1	MECH	CONC	RCB	PNT-1	PNT-1	PNT-1	PNT-1	EXP	-	
201.0	PRACTICE CAGE	FRTPLWD	-	-	PNT-1	-	PNT-1	EXP	-	
201.1	FUTURE OFFICE EXPANSION	FRTPLWD	-	PNT-1	PNT-1	-	PNT-1	EXP	-	

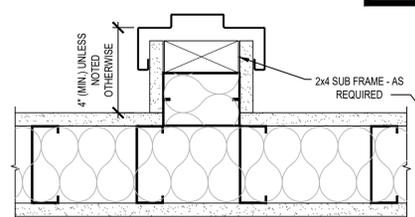
NOTE #1: WALLS WITHIN 2' OF SERVICE SINKS, URINALS, AND WATER CLOSETS MUST BE PAINTED WITH EPOXY-BASED PAINT UP TO A MINIMUM OF 4' A.F.F.
NOTE #2: PAINT GYPSUM BOARD CEILING IN SHOWER STALL WITH EPOXY-BASED PAINT

HARDWARE SETS

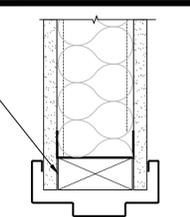
- EXISTING TO REMAIN: 1 1/2 PAIR BUTT HINGES, 1" PUSH / PULL SET, KEVED CYLINDER LOCK, SURFACE-MOUNTED CLOSER, ALUMINUM THRESHOLD, SWEEP AND PILE WEATHERSEAL SET
ADD MAG LOCK WHERE NOTED
- 1 1/2 PAIR BUTT HINGES, LEVER-HANDLE CLASSROOM FUNCTION LOCKSET, SURFACE-MOUNTED CLOSER, WALL STOP
- 1 1/2 PAIR BUTT HINGES, LEVER-HANDLE OFFICE FUNCTION LOCKSET, WALL STOP
- EXISTING TO REMAIN: 1 1/2 PAIR BUTT HINGES, LEVER-HANDLE ENTRY FUNCTION LOCKSET, SURFACE-MOUNTED CLOSER, ALUMINUM THRESHOLD, SWEEP AND WEATHERSEAL SET
ADD MAG LOCK WHERE NOTED
- EXISTING TO REMAIN: BY MANUFACTURER
- EXISTING TO REMAIN: BY MANUFACTURER, REMOTE OPERATOR
- 1 1/2 PAIR BUTT HINGES, LEVER-HANDLE PRIVACY FUNCTION LOCKSET, WALL STOP
- 1 1/2 PAIR BUTT HINGES, PUSH PLATE / PULL SET, SURFACE-MOUNTED CLOSER, WALL STOP
- 1 1/2 PAIR BUTT HINGES, LEVER-HANDLE CLASSROOM FUNCTION LOCKSET
- 3 PAIR BUTT HINGES, INACTIVE LEAF: TOP AND BOTTOM MANUAL FLUSH BOLTS, STRIKE PLATE, ACTIVE LEAF: LEVER-HANDLE CLASSROOM FUNCTION LOCKSET

FINISH LEGEND

ITEM	DESCRIPTION
ETR	EXISTING TO REMAIN
RCB	4" RUBBER COVE BASE*
PNT-1	PAINT*
PNT-2	PAINT*
ACT-1	ACOUSTIC CEILING TILE
EXP	EXPOSED TO STRUCTURE
ANOD	ANODIZED
STC	STAINED CONCRETE
GYP	GYPSUM BOARD
FRTPLWD	FIRE-RETARDANT TREATED PLYWOOD
SS	STAINLESS STEEL
ST	STAIN
CPT	CARPET
EPOXY	EPOXY



HOLLOW METAL DOOR FRAME JAMB DETAIL



HOLLOW METAL DOOR FRAME HEAD DETAIL

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Consultants:

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JSC Engineers
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Structural Engineering:
Needham DBS
15950 College Blvd
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Seal:



Michael Moore, MO Architect #2009032812

Project Number: 2511

Project Type: TENANT FINISH

Project Name and Address:

2FOLD

600 NE Maguire Blvd
Lee's Summit, Missouri 64064

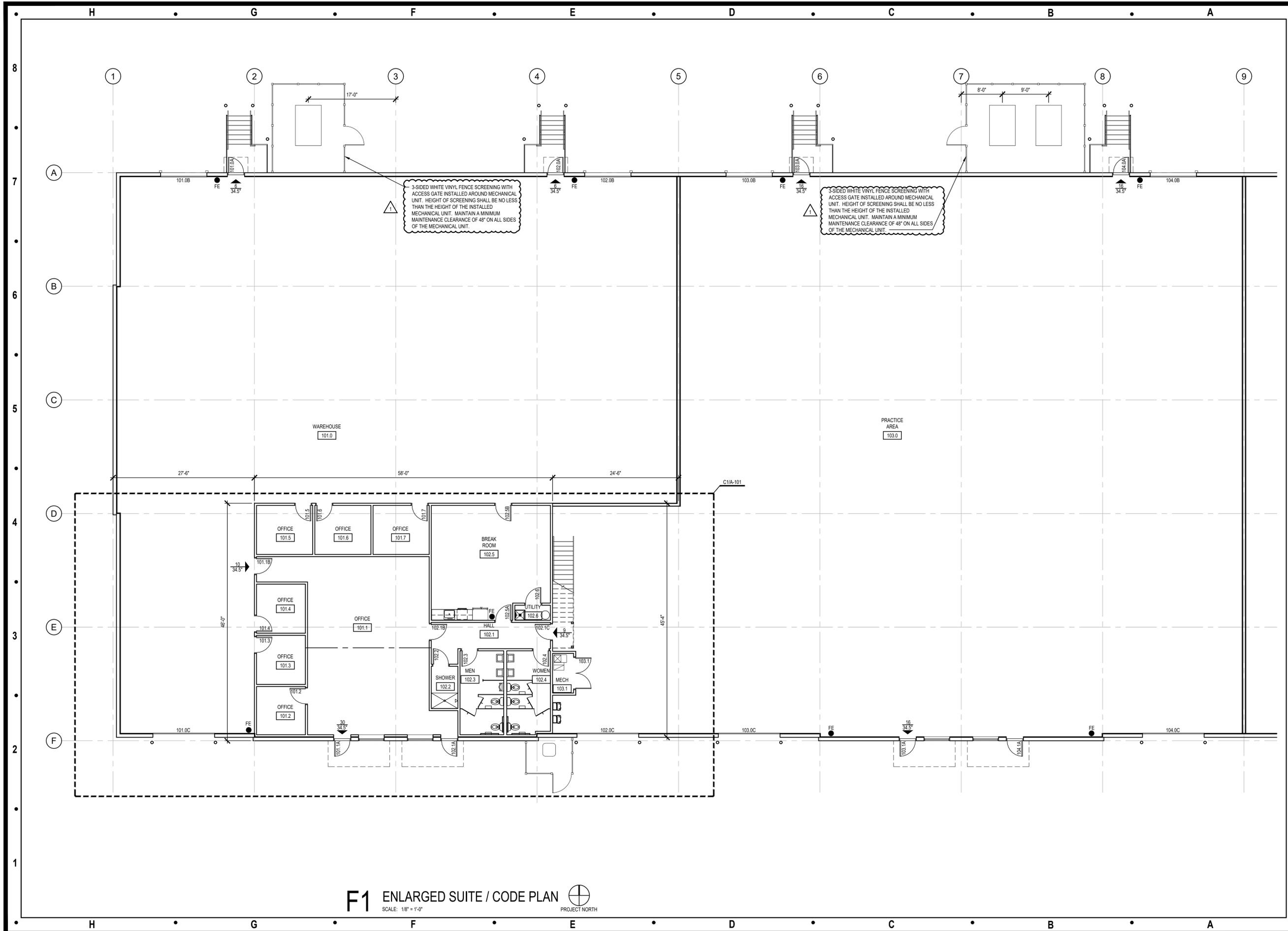
Issue: Date:

Permit Set 12.10.25

Sheet Title:

DOOR AND FINISH SCHEDULES

A-002



F1 ENLARGED SUITE / CODE PLAN
 SCALE: 1/8" = 1'-0"
 PROJECT NORTH

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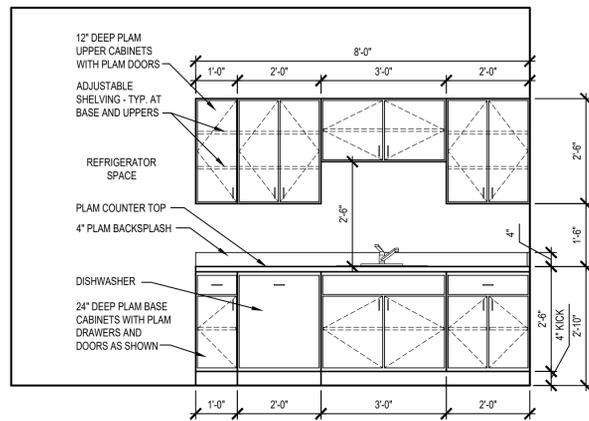
Michael Moores, MO Architect #2009032812

Project Number: 2511
 Project Type: TENANT FINISH
 Project Name and Address:

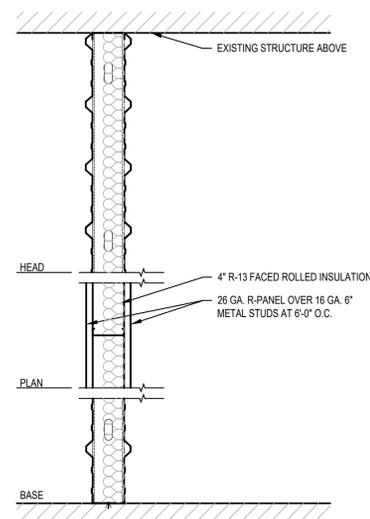
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Issue: Permit Set
 Date: 12.10.25
 Plan Review Revisions: 1 (01.09.26)

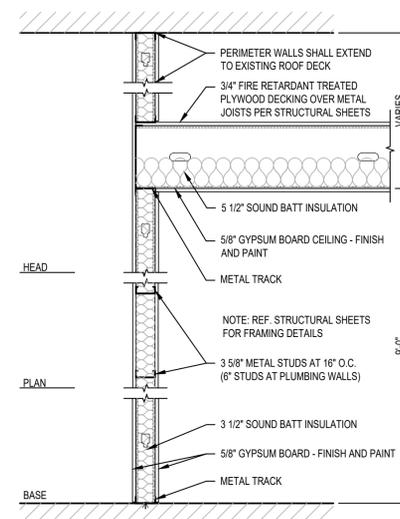
Sheet Title:
 ENLARGED SUITE / CODE PLAN
A-100



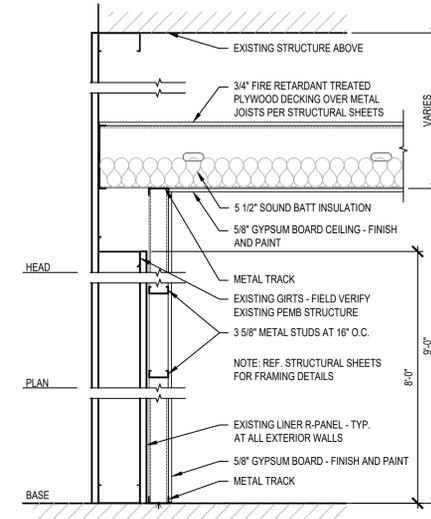
H6 MILLWORK ELEVATION
SCALE: 1/2" = 1'-0"



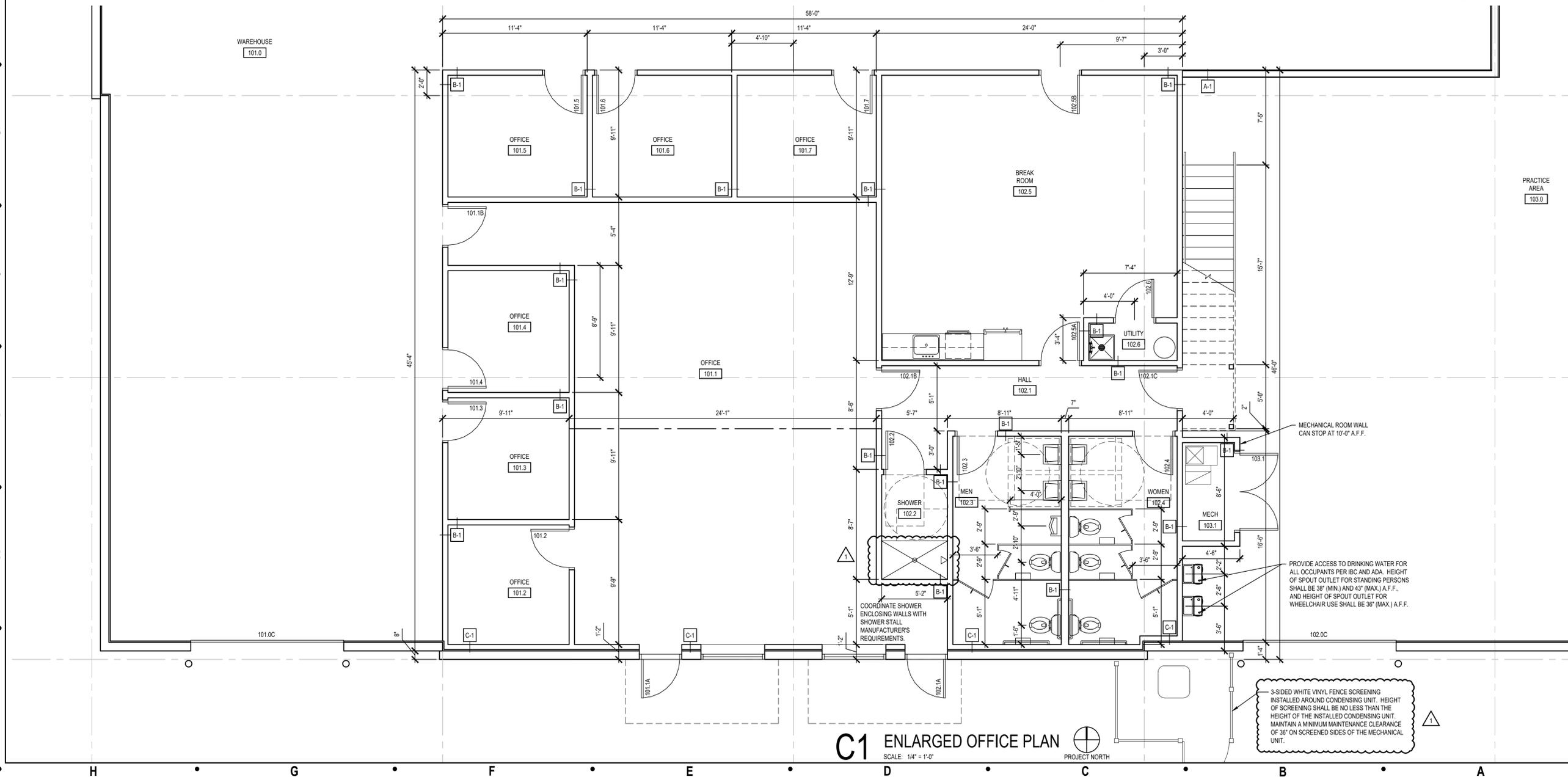
PARTITION TYPE A-1



PARTITION TYPE B-1



PARTITION TYPE C-1



C1 ENLARGED OFFICE PLAN
SCALE: 1/4" = 1'-0"



3-SIDED WHITE VINYL FENCE SCREENING INSTALLED AROUND CONDENSING UNIT. HEIGHT OF SCREENING SHALL BE NO LESS THAN THE HEIGHT OF THE INSTALLED CONDENSING UNIT. MAINTAIN A MINIMUM MAINTENANCE CLEARANCE OF 36" ON SCREENED SIDES OF THE MECHANICAL UNIT.

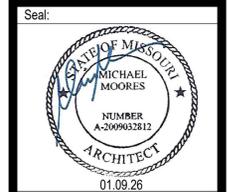
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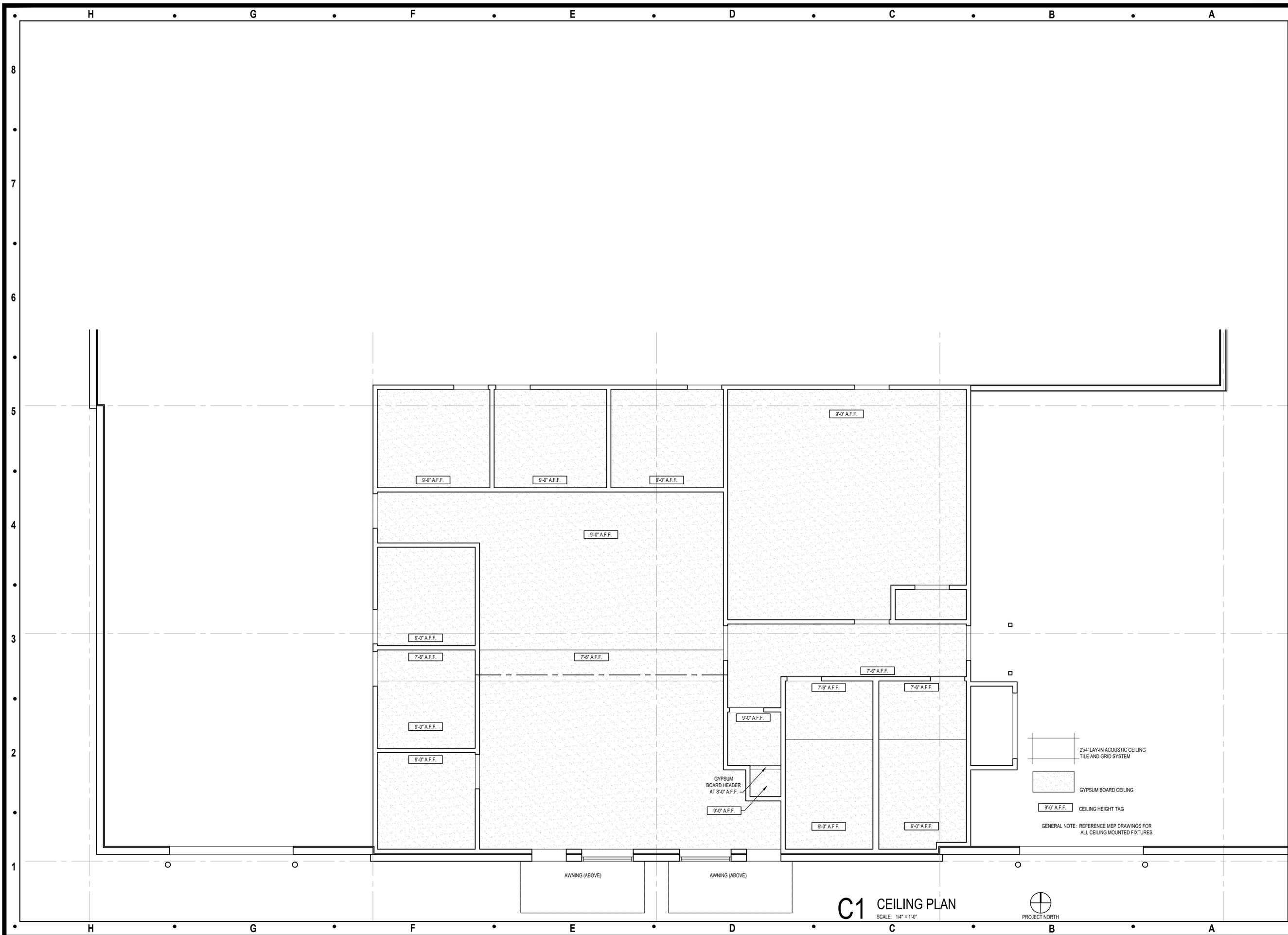
Michael Moore, MO Architect #2009032812
Project Number: 2511
Project Type: TENANT FINISH
Project Name and Address:

2FOLD
600 NE Maguire Blvd
Lee's Summit, Missouri 64064

Issue: Date:
Permit Set 12.10.25
Plan Review Revisions 1 01.09.26

Sheet Title:
ENLARGED OFFICE
PLAN, MILLWORK,
PARTITION TYPES

A-101



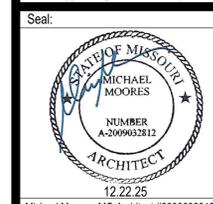
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Michael Moores, MO Architect #2009032812

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 Project Type: TENANT FINISH

Project Name and Address:

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Issue: Permit Set
 Date: 12.10.25

Sheet Title:

CEILING PLAN

A-401

C1 CEILING PLAN
 SCALE: 1/4" = 1'-0"



- 2x4' LAY-IN ACOUSTIC CEILING TILE AND GRID SYSTEM
 - GYPSUM BOARD CEILING
 - 9'-0" A.F.F. CEILING HEIGHT TAG
- GENERAL NOTE: REFERENCE MEP DRAWINGS FOR ALL CEILING MOUNTED FIXTURES.

AWNING (ABOVE)

AWNING (ABOVE)

GYPSUM BOARD HEADER AT 8'-0" A.F.F.

GENERAL NOTES

DESIGN CRITERIA:

1. BUILDING CODE =	2018 INTERNATIONAL BUILDING CODE
2. GRAVITY LOADS:	
DEAD =	15 PSF
LIVE =	80 PSF
3. WIND LOADS:	
PARTITION WALLS =	5 PSF
4. SEISMIC:	
S _{DS} =	0.099g
S ₁ =	0.068g
S _{DS} =	0.106g
S ₁ =	0.109g
IMPORTANCE FACTOR =	1.0
SITE CLASS =	D
SEISMIC DESIGN CATEGORY =	B

- GENERAL:**
- ALL DESIGN AND CONSTRUCTION SHALL COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE AND ALL APPLICABLE LOCAL ORDINANCES.
 - REFERENCE TO 'CONTRACTOR' IN THESE DOCUMENTS SHALL MEAN THE OVERALL SUPERVISING GENERAL CONTRACTOR OR CONSTRUCTION MANAGER.
 - ALL CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE FOLLOWING CODES, STANDARDS AND SPECIFICATIONS (LATEST EDITIONS, UNO.), EXCEPT WHERE NOTED TO THE CONTRARY ON DRAWINGS OR WHERE MORE STRINGENT REQUIREMENTS ARE SPECIFIED OR SHOWN.

ACI 117	"STANDARD SPECIFICATIONS FOR TOLERANCE OF CONCRETE CONSTRUCTION AND MATERIALS"
ACI 301	"SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS"
ACI 318	"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
ACI 530	"BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"
ASIS	"SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS"
SJI	"SPECIFICATIONS, LOAD TABLES AND WEIGHT TABLES FOR STEEL JOISTS AND JOIST GIRDERS"
AISC 360	"SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (INCLUDING COMMENTARIES)"
AISC 303	"CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS & BRIDGES"
AISC	"STEEL DESIGN GUIDE 3 - SERVICEABILITY DESIGN CONSIDERATIONS FOR STEEL BUILDINGS"
SDI	"STEEL DECK MANUAL FOR FLOOR DECKS AND ROOF DECKS"
AWS D1.1	"STRUCTURAL WELDING CODE - STEEL"
AWS D1.3	"STRUCTURAL WELDING CODE - SHEET STEEL"

- STRUCTURAL MEMBERS WILL REQUIRE INTERACTION WITH OTHER ELEMENTS FOR STABILITY AND RESISTANCE TO LATERAL FORCES. ALL FRAMING AND WALLS SHALL BE TEMPORARILY BRACED BY THE CONTRACTOR UNTIL PERMANENT BRACING, WALLS, FLOOR, AND ROOF DECKS HAVE BEEN INSTALLED AND CONNECTIONS BETWEEN THESE HAVE BEEN MADE. SEE MATERIAL SPECIFIC NOTES FOR STEEL AND CONCRETE FOR ADDITIONAL NOTES.
- NEEDHAM & ASSOCIATES IS NOT ASSUMING ANY PROVISIONS OF SUPERVISION OF CONSTRUCTION MEANS, METHODS, OR PROCESSES.
- DO NOT SCALE DRAWINGS.

- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS BEFORE STARTING WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT OR ENGINEER.
- FRAMING CONDITIONS NOT SPECIFICALLY SHOWN OR INDICATED SHALL BE FRAMED SIMILAR TO DETAILS SHOWN FOR THE RESPECTIVE MATERIAL OR CONDITIONS.

- THE SIZE AND LOCATIONS OF ALL EQUIPMENT PADS AND PENETRATIONS THROUGH THE STRUCTURE FOR MECHANICAL, ELECTRICAL AND PLUMBING WORK SHALL BE VERIFIED BY THE CONTRACTOR. PENETRATIONS SHALL BE SUBJECT TO APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR OPENING LOCATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- SUBMITTALS FOR ITEMS WITH DELEGATED DESIGN RESPONSIBILITIES SUCH AS PREMANUFACTURED STAIRS, LIGHT GAGE METAL STUDS, STEEL JOISTS, AND JOIST GIRDERS MUST BE SUBMITTED AND APPROVED BEFORE INSTALLATION CAN BEGIN.

- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE CONDITIONS DURING COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSON AND PROPERTY.
- LOADINGS FOR MECHANICAL EQUIPMENT ARE BASED ON THE UNITS SHOWN ON THE STRUCTURAL DRAWINGS. ANY CHANGES IN TYPE, SIZE, WEIGHT, OR NUMBER OF UNITS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO FABRICATION.

(05 40 00) COLD FORMED METAL FRAMING

- ALL LIGHT GAGE STEEL FRAMING SHALL BE DESIGNED AND FABRICATED PER THE LATEST EDITION OF ASIS "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS". THE LIGHT GAGE SUPPLIER SHALL PROVIDE COMPLETE SHOP DRAWINGS SHOWING THE LOCATION AND TYPE OF ALL LIGHT GAGE STEEL FRAMING, AND OTHER PERTINENT INFORMATION. PROVIDE CALCULATIONS OF ALL LIGHT GAGE, SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF JURISDICTION.
- ALL STUDS, TRACKS, BRIDGING AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A GALVANIZED COATING MEETING THE REQUIREMENTS OF ASTM A525, G60.
- LATERAL DEFLECTION REQUIREMENTS SHALL MEET THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE (IBC) SPECIFIED CRITERIA BASED ON THE SUPPORTED FINISHES UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED IN THE DESIGN DOCUMENTS.
- LIGHT GAGE FRAMING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS PRINTED INSTRUCTIONS AND RECOMMENDATIONS, UNLESS OTHERWISE NOTED. MANUFACTURERS WILL PROVIDE ALL NECESSARY ACCESSORIES.
- ALL STUDS SHALL BE PLUMBED, ALIGNED AND SECURELY ATTACHED TO TOP AND BOTTOM TRACKS BY EITHER WELDING OR SCREW FASTENING AT BOTH INSIDE AND OUTSIDE FLANGES. STUDS SHALL HAVE FULL BEARING AGAINST TRACK WEB, PRIOR TO STUD AND TRACK ATTACHMENT. SPLICES IN STUDS WILL NOT BE PERMITTED. PROVIDE SLIP CONNECTIONS TO STRUCTURE WHERE INDICATED.

- STUD U-TRACK GAGE SHALL MATCH STUD GAGE. USE DEEP FLANGE TRACK. ALL TRACK BUTT JOINTS AND ABUTTING PIECES OF TRACK SHALL BE BUTT WELDED OR SPLICED TOGETHER.
- WALL STUD BRIDGING SHALL BE ATTACHED IN A MANNER TO PREVENT STUD ROTATION. BRIDGING ROWS SHALL BE SPACED WITH MANUFACTURERS RECOMMENDATIONS. CONTRACTOR SHALL NOTE THAT WITHOUT LATERAL SUPPORT FROM BRIDGING AND/OR SHEATHING EACH FACE THE STUDS HAVE REDUCED CAPACITY AND WILL NOT SUPPORT THE FULL DESIGN LOADS.

- SCREWING, POWER ACTUATED FASTENERS, WELDING OR A COMBINATION OF METHODS, SHALL ACCOMPLISH FASTENING OF THE COLD-FORMED METAL FRAMING SYSTEM. THE TYPE, SIZE AND SPACING OF THE FASTENERS SHALL BE AS REQUIRED BY THE MANUFACTURER OR APPROVED CONNECTION DETAILS. ALL CONNECTIONS SHALL BE DESIGNED FOR THE APPROPRIATE LOADS AS PROVIDED IN THE "DESIGN CRITERIA" SECTION OF THESE GENERAL NOTES. AS A MINIMUM, PROVIDE FASTENING PATTERNS IN ACCORDANCE WITH THE TYPICAL DETAILS DEPICTED IN THESE DRAWINGS.
- WELDING SHALL BE DONE WITH E70 ELECTRODES. MINIMUM SIZE OF WELDS SHALL EQUAL THICKNESS OF THINNER MEMBER BEING CONNECTED. ALL WELDERS SHALL BE AWS D1.1 & D1.3 CERTIFIED WELDERS. WELDS SHALL BE TOUCHED UP WITH ZINC RICH PAINT.

- INSTALL SUPPLEMENTARY FRAMING, BLOCKING AND BRACING IN STUD FRAMING TO SUPPORT FIXTURES, SERVICES, HEAVY TRIM, SHELVING, FURNISHINGS, AND SIMILAR WORKS REQUIRING ATTACHMENT TO FRAMING. COMPLY WITH STUD MANUFACTURERS WRITTEN INSTRUCTIONS AND INDUSTRY STANDARDS.
- INSTALL HEADERS AT ALL WALL OPENINGS. FRAME OPENINGS WITH A DOUBLE STUD AT EACH JAMB.

12. INTERIOR NON-LOAD-BEARING WALL STUDS AT 16 IN O.C.:

BASIC SIZE	MAX HEIGHT
362S162-33	10'-0"
362S162-43	15'-0"
362S200-68	20'-0"
600S162-33	10'-0"
600S162-43	15'-0"
600S162-54	20'-0"

13. INTERIOR LOAD-BEARING WALL STUDS AT 16 IN O.C.: MAX. LOAD IS FROM A 20 FOOT TRIBUTARY WIDTH OF CEILING WITH A WEIGHT OF 15 PSF TOTAL = 300L:

BASIC SIZE	MAX HEIGHT
362S162-33	10'-0"
362S162-43	15'-0"
600S162-54	20'-0"

14. CEILING JOIST @ 16" O.C. WITH MAXIMUM SPAN OF 20 FEET AND 15 PSF LOAD

BASIC SIZE	600S200-43
------------	------------

15. STUD SIZE LEGEND: EXAMPLE: 362 S 162 - 33

362	3 OR 4 DIGIT NUMERAL INDICATING WEB DEPTH IN 1/100 INCHES
S	TYPE OF PRODUCT S=C SHAPED STUD, T=TRACK
162	3 DIGIT NUMERAL INDICATING FLANGE WIDTH IN 1/100 INCH
33	2 OR 3 DIGIT NUMERAL INDICATING BASE METAL THICKNESS IN 1/1000 INCH (MILS)

(05 12 00) STRUCTURAL STEEL:

- THE EXTENT OF THE STRUCTURAL STEEL AND METAL FABRICATION IS AS SHOWN ON THE DRAWINGS.
- FOR STEEL AND METAL ITEMS NOT SPECIFICALLY DETAILED ON THE DRAWINGS, THE FABRICATOR SHALL DESIGN AND SUPPLY APPROPRIATE PRODUCTS.
- ALL METAL ITEMS MUST BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS MUST SHOW ALL MATERIAL SIZES, WELDS (USE STANDARD AWS SYMBOLS), DETAILS AND ERECTION INFORMATION.
- ALL STEEL SHALL BE PER THE SIXTEENTH EDITION OF THE AISC "STEEL CONSTRUCTION MANUAL" AND THE 2016 EDITION OF THE AISC "CODE OF STANDARD PRACTICE".
- STEEL FABRICATOR SHALL BE AISC CERTIFIED FACILITY.
- ALL WELDING SHALL CONFORM TO LATEST VERSION OF AWS D1.1. ALL SHOT AND FIELD WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.

PRODUCTS:

STEEL WIDE FLANGE SHAPES: ANGLES, CHANNELS, & PLATES:	ASTM A992
HIGH STRENGTH BOLTS:	ASTM A36 U.N.O.
ORDINARY BOLTS:	ASTM A325
NUTS, HEAVY HEX:	ASTM A307
HARDENED WASHERS:	ASTM A563, GRADE C
BRACING RODS:	ASTM F436
PIPE SECTIONS:	ASTM A572, GRADE 50
HOLLOW STRUCTURAL SECTIONS (HSS):	ASTM A53, GRADE B
BUILT-UP SECTIONS:	ASTM A500, GRADE B
ANCHOR RODS:	ASTM A572, GRADE 50
HEADED STUDS:	ASTM F1554-36
	ASTM A108

- ALL BOLTED CONNECTIONS IN STRUCTURAL STEEL SHALL UTILIZE ASTM A325 BOLTS WITH THREADS INCLUDED IN THE SHEAR PLANE UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL HIGH STRENGTH BOLTS IN CONNECTIONS SUBJECT TO MOMENT, TENSILE FORCES, STRESS REVERSAL OR FATIGUE SHALL BE FULLY TENSIONED.
- ALL STEEL ITEMS, EXCEPT THOSE EMBEDDED IN CONCRETE SHALL HAVE A MINIMUM OF ONE MIL RUST INHIBITIVE PRIMER PER THE FABRICATORS STANDARDS.

EXECUTION:

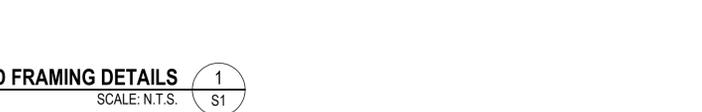
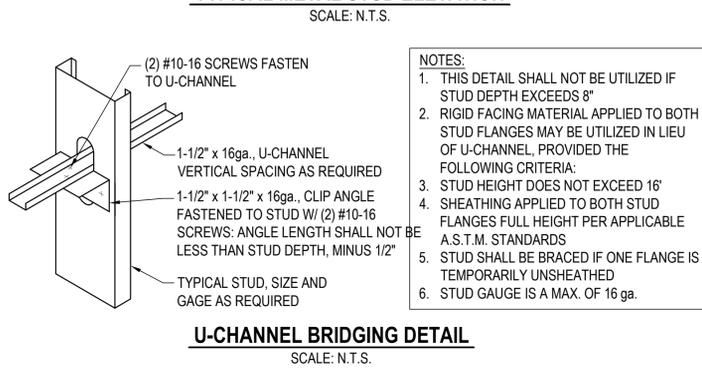
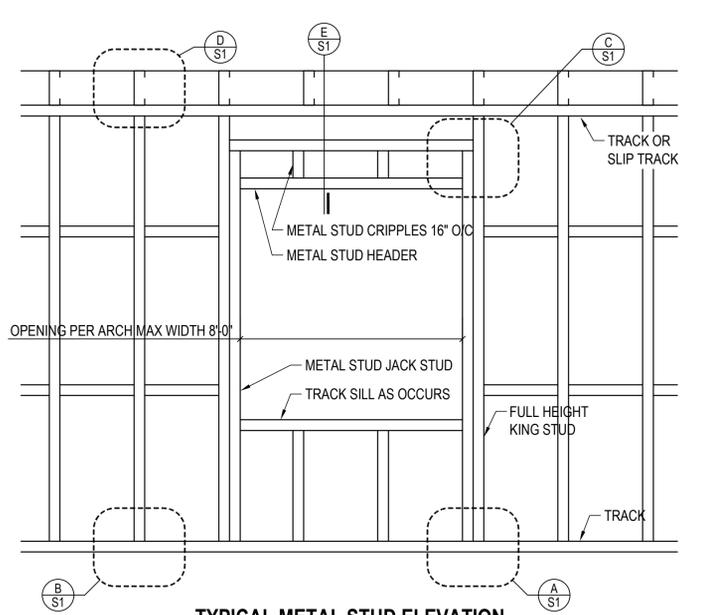
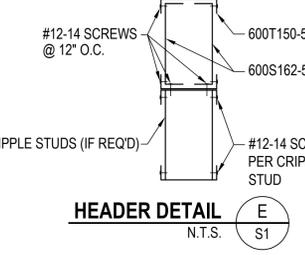
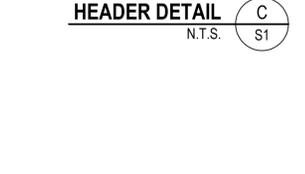
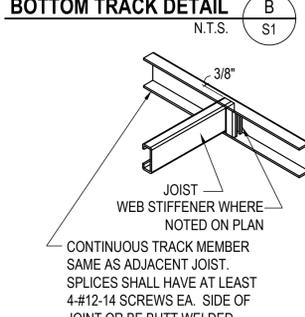
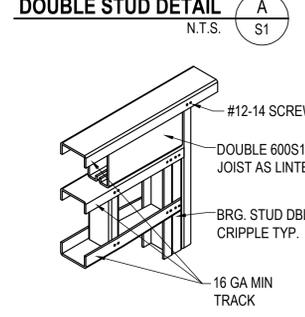
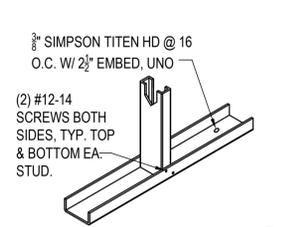
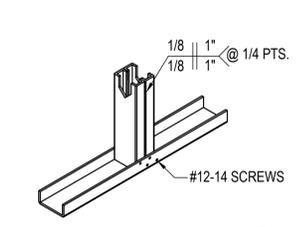
- STEEL COLUMNS SHALL BE SET DIRECTLY ON THE CONCRETE FOUNDATION AND SHALL BE ERECTED IN A PLUMB CONDITION PER AISC TOLERANCES.
- THE STEEL ERECTOR SHALL PROVIDE ALL TEMPORARY SHORING AS REQUIRED TO STABILIZE THE BUILDING DURING CONSTRUCTION.
- ALL FIELD WELDING SHALL BE BY CERTIFIED AWS WELDERS PER AWS D1.1. ALL WELDING SHALL BE DONE WITH E70 ELECTRODES U.N.O.
- ALL FIELD WELDING AND GAS CUT AREAS SHALL BE TOUCHED UP WITH PRIMER BY THE STEEL ERECTOR.
- ALL STEEL SHALL BE CLEANED TO BE FREE FROM DIRT, MUD AND CORROSION AFTER ERECTION. THE ERECTOR SHALL TOUCH UP PAINT AS REQUIRED.
- NON-SHRINK GROUT SHALL BE INSTALLED IMMEDIATELY AFTER COLUMN IS PLUMBED. CONTRACTOR SHALL NOT LOAD COLUMN ANCHOR BOLTS BEFORE PLACEMENT OF NON-SHRINK GROUT WITHOUT TAKING MEASURES TO PREVENT BUCKLING OF ANCHOR RODS UNDER CONSTRUCTION LOAD.

INSPECTION

- INSPECTION BY A REGISTERED DEPUTY BUILDING INSPECTOR EMPLOYED BY A TESTING LAB SHALL BE PROVIDED FOR THE ITEMS IN THE TABLE BELOW.
- A CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED AND SUBMITTED TO THE FIELD INSPECTION DIVISION.
- THE OWNER IS RESPONSIBLE FOR THE SELECTION OF SPECIAL INSPECTION AND TESTING AGENCIES.

DUTIES & RESPONSIBILITIES OF THE INSPECTOR ARE COVERED IN SECTION 1704.1 OF IBC.

ITEM	INSPECTION TYPE	REMARKS
CONCRETE		
SLAB ON GRADE (f _c = 4000 PSI)	PERIODIC	PRIOR TO POURING OF CONCRETE & DURING THE TAKING OF TEST SPECIMENS
GRADE BEAM AND FOUNDATION (f _c = 3000 PSI)	PERIODIC	PRIOR TO POURING OF CONCRETE & DURING THE TAKING OF TEST SPECIMENS & PLACING OF REINFORCED CONCRETE
BOLTS IN CONCRETE	PERIODIC	PRIOR TO AND DURING THE PLACEMENT OF CONCRETE AROUND BOLTS
FIELD WELDING		
STRUCTURAL STEEL (ELECTRODE = E70XX) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS, MULTI-PASS FILLET WELDS, AND SINGLE-PASS FILLET WELDS ≥ 5/16"	CONTINUOUS	DURING THE WELDING
STRUCTURAL STEEL (ELECTRODE = E70XX) SINGLE-PASS FILLET WELDS ≤ 5/16"	PERIODIC	DURING THE WELDING
REINFORCING STEEL (ELECTRODE = E60XX)	CONTINUOUS	DURING THE WELDING
METAL ROOF DECK WELDING	PERIODIC	DURING THE WELDING
REINFORCING STEEL	PERIODIC	PRIOR TO COVER UP
HIGH STRENGTH BOLTS (A325 & A490)	PERIODIC	DURING INSTALLATION OF BOLTS & TIGHTENING
FOUNDATION		
GRADING, EXCAVATION AND FILLING	CONTINUOUS	DURING EARTHWORK EXCAVATION, GRADING AND FILLING (SEE SOILS REPORT) VERIFY CONDITIONS ARE SUBSTANTIALLY IN CONFORMANCE WITH THE SOILS REPORT. VERIFY THAT FOUNDATION EXCAVATIONS EXTEND TO DEPTH AND BEARING STRATA. PROVIDE SOIL COMPACTION TEST RESULTS, DEPTH OF FILL, RELATIVE DENSITY AND BEARING VALUES. PROVIDE SOIL EXPANSION TEST RESULTS, EXPANSION INDEX, RECOMMENDATIONS FOR FOUNDATIONS AND ON-GRADE FLOOR SLAB DESIGN FOR EACH BUILDING SITE.
SPECIAL CASE	PERIODIC	WORK WHICH, IN THE OPINION OF THE BLDG OFFICIAL, INVOLVES UNUSUAL HAZARD OR CONDITIONS.



STANDARD ABBREVIATIONS

A.F.F. : ABOVE FINISHED FLOOR	JT. : JOINT
ALT. : ALTERNATE	LG. : LONG
B.O.F. : BOTTOM OF FOOTING	M.O. : MASONRY OPENING
BLDG. : BUILDING	NOM. : NOMINAL
BOT. : BOTTOM	N.S. : NEAR SIDE
C.L. : CENTER LINE	N.T.S. : NOT TO SCALE
COL. : COLUMN	O.C. : ON CENTER
CONC. : CONCRETE	PEMB : PRE-ENGINEERED METAL BLDG.
CORR. : CORRUGATED	PEMBS : PRE-ENGINEERED METAL BLDG. SUPPLIER
CONST. : CONSTRUCTION	PL. : PLATE
DET. : DETAIL	R. : RADIUS
DIM. : DIMENSION	REINF. : REINFORCING
DWG. : DRAWING	R.F. : RIGID FRAME
E.J. : EXPANSION JOINT	R.O. : ROUGH OPENING
ELEV. : ELEVATION	S.B. : SOIL BORING
EQ. : EQUAL	S.F. : SQUARE FEET
E.W. : EACH WAY	SHT. : SHEET
EXP. : EXPANSION	SIM. : SIMILAR
EXT. : EXTERIOR	S.L. : STRUCTURAL LINE
FDN. : FOUNDATION	SLBB : SHORT LEG BACK-TO-BACK
F.F. : FINISHED FLOOR	SPEC. : SPECIFICATIONS
F.S. : FAR SIDE	STL. : STEEL
FTG. : FOOTING	T.O. : TOP OF
G.B. : GRADE BEAM	TYP. : TYPICAL
HT. : HEIGHT	U.N.O. : UNLESS NOTED OTHERWISE
INSUL. : INSULATION	VERT. : VERTICAL
INT. : INTERIOR	W.W.F. : WELDED WIRE FABRIC

- NOTES:**
- THIS DETAIL SHALL NOT BE UTILIZED IF STUD DEPTH EXCEEDS 8"
 - RIGID FACING MATERIAL APPLIED TO BOTH STUD FLANGES MAY BE UTILIZED IN LIEU OF U-CHANNEL, PROVIDED THE FOLLOWING CRITERIA:
 - STUD HEIGHT DOES NOT EXCEED 16'
 - SHEATHING APPLIED TO BOTH STUD FLANGES FULL HEIGHT PER APPLICABLE A.S.T.M. STANDARDS
 - STUD SHALL BE BRACED IF ONE FLANGE IS TEMPORARILY UNSHEATHED
 - STUD GAUGE IS A MAX. OF 16 ga.

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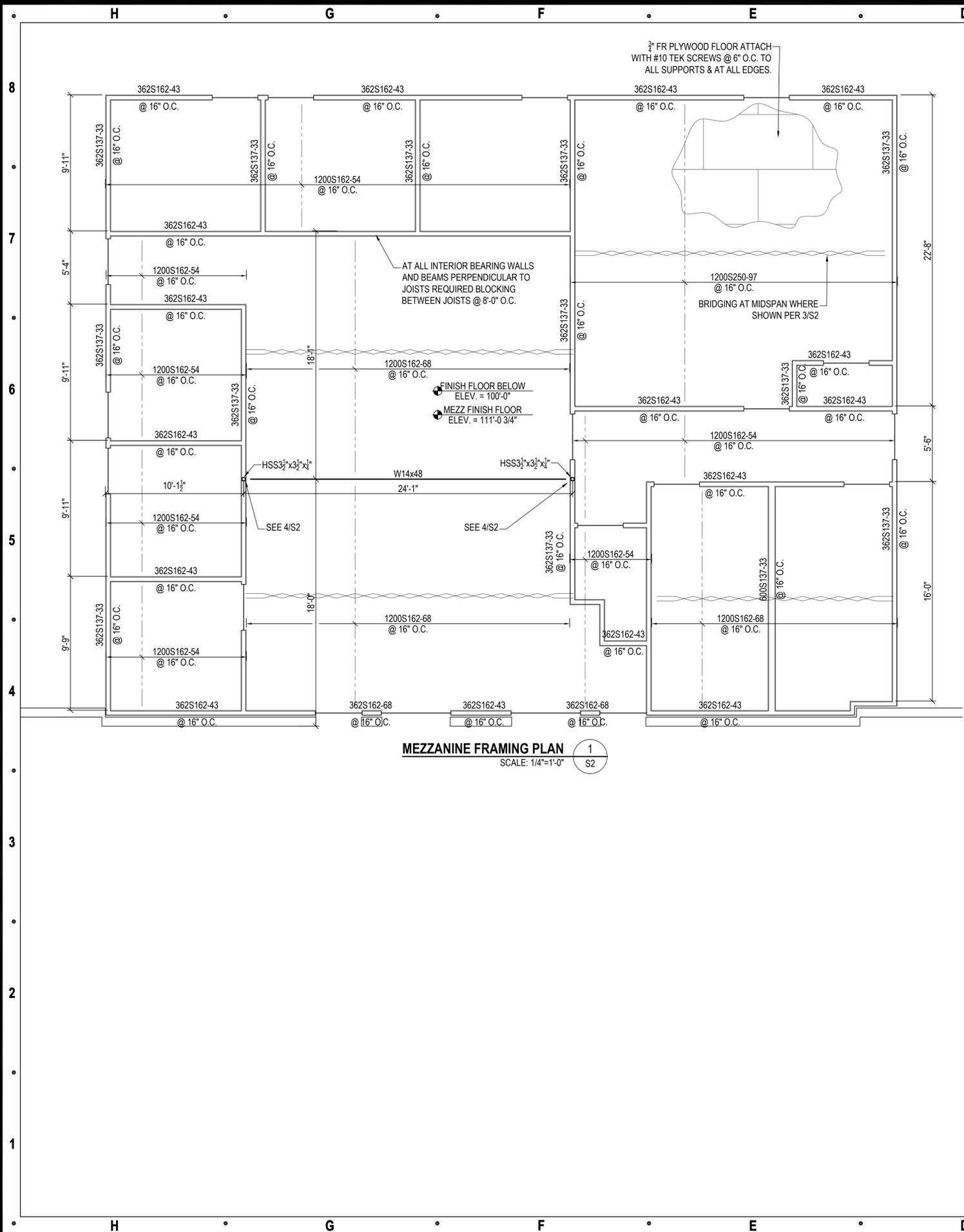
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Project Type: TENANT FINISH
Project Name and Address:

2FOLD
600 NE Maguire Blvd
Lee's Summit, Missouri 64064

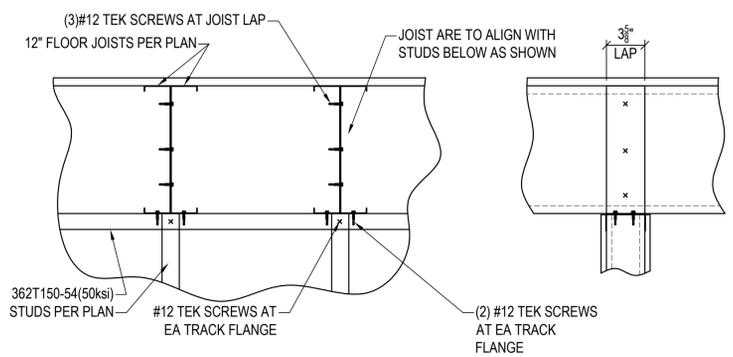
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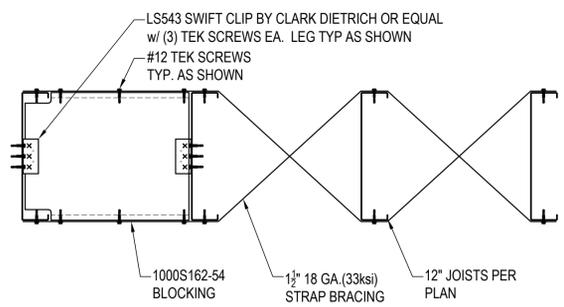
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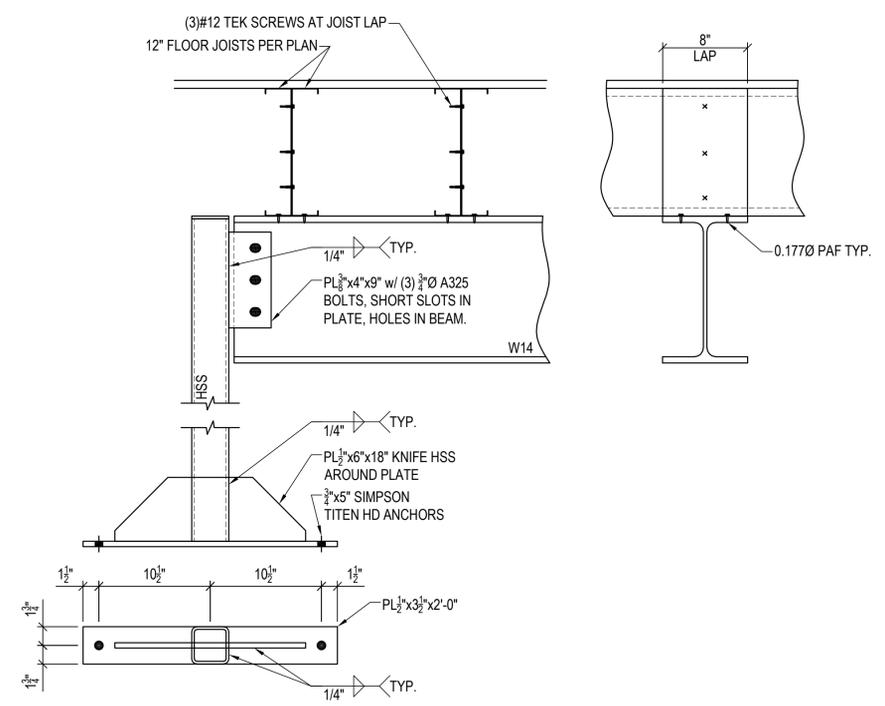
MEZZANINE FRAMING PLAN 1
SCALE: 1/4"=1'-0" S2



DETAIL AT JOIST BEARING AT INTERIOR WALL 2
SCALE: 1 1/2"=1'-0" S2



DETAIL BLOCKING/BRIDGING 3
SCALE: 1 1/2"=1'-0" S2



DETAIL AT COLUMN/BEAM 4
SCALE: 1 1/2"=1'-0" S2

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Issue: Date:
Permit Set 12.17.25

Sheet Title:
FRAMING PLAN & DETAILS

S2

MECHANICAL SPECIFICATIONS

1. **GENERAL PROVISIONS:**
 - A. PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE COMPLETE INSTALLATION OF THE MECHANICAL SYSTEMS OUTLINED.
 - B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATIONS OF COMPLIANCE OR APPROVAL AS REQUIRED BY AUTHORITIES.
 - C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.
 - D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.
 - E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, PIPE, DUCT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.
 - F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.
 - G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECT FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
 - H. INSPECTION OF THE SITE: THIS CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE MEP DRAWINGS, SPECIFICATIONS, DETAIL, AND THE SITE. THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY SPECIAL OR UNUSUAL PROBLEMS, CONFLICTS, OR OBSTRUCTIONS THAT AFFECT HIS BID.
 - I. FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY, THE MECHANICAL AND PLUMBING DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS AND FITTINGS REQUIRED FOR INSTALLATION. DO NOT SCALE DRAWINGS. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DATA AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION SECTIONS WHERE MECHANICAL WORK INTERFACES WITH OTHER TRADES.
 - J. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS OR WITH CODE REQUIREMENTS, THE NOTE OR CODE WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE, JOB OR HIGHER STANDARD SHALL PREVAIL.
 - K. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE FOR EXPOSED WORK. COORDINATE WITH WORK OF OTHER SECTIONS, COMPLY WITH APPLICABLE REGULATIONS AND CODE REQUIREMENTS. PROVIDE PROPER CLEARANCES FOR SERVICING.
 - L. INCLUDE ALL BASIC MATERIALS AND CONSTRUCTION METHODS INCLUDING PIPES, PIPE FITTINGS, AND SPECIALTIES AND SUPPORTING DEVICES, VALVES, PIPE AND VALVE IDENTIFICATION, PUMPS, VIBRATION ISOLATION, ETC.
 - M. FURNISH ADEQUATE ACCESS PANELS AND DOORS TO ALLOW FOR FUTURE PIPING ALTERATIONS, REPLACEMENT, AND MAINTENANCE OF PIPING. PROPERLY IDENTIFY ALL ACCESS PANELS AND DOORS.
2. **OPERATION AND MAINTENANCE MANUALS:**
 - A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.
 - B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATING AND MAINTENANCE MANUALS.
 - C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE BOUND IN A 3-RING BINDER AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER AND CONTRACTORS.
3. **MANUFACTURERS:**
 - A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION, ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN.
 - B. THE ELECTRICAL SYSTEM DESIGN IS BASED IN PART ON THE SPECIFIED EQUIPMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE ELECTRICAL REQUIREMENTS OF THE EQUIPMENT BEING FURNISHED. ANY CHANGES TO THE ELECTRICAL SYSTEM DUE TO EQUIPMENT OTHER THAN THE SPECIFIED EQUIPMENT BEING FURNISHED SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
4. **PIPING**
 - A. CONDENSATE DRAIN AND INDIRECT WASTE (ABOVEGROUND)
 1. PVC DWV PIPE, SCHEDULE 40, SOLVENT JOINT.
 2. INSTALL AT 1/8" PER FOOT SLOPE.
 - B. REFRIGERANT
 1. ASTM B 280, TYPE ACR, HARD DRAWN STRAIGHT LENGTHS, AND SOFT-ANNEALED COILS, SEAMLESS COPPER TUBING.
 2. WROUGHT COPPER, ANSI B16.22, STREAMLINED PATTERN, FITTINGS, BRAZED JOINTS, AWS A 5.8 CLASSIFICATION BAG-1 (SILVER).
 3. TUBING TO BE FACTORY CLEANED, READY FOR INSTALLATION, AND HAVE ENDS CAPPED TO PROTECT CLEANLINESS OF PIPE INTERIORS PRIOR TO SHIPPING.
 4. SIZE AND INSTALLATION OF PIPING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
5. **INSULATION:**
 - A. ALL INSULATIONS AND ACCESSORIES SHALL HAVE A FIRE HAZARD CLASSIFICATION WITH A FLAME SPREAD RATING OF NOT OVER 25, A FUEL CONTRIBUTION RATING OF NOT OVER 50, AND A SMOKE DEVELOPMENT RATING OF NOT OVER 50, IN ACCORDANCE WITH NFPA.
 - B. PIPE INSULATION (ABOVE GRADE):
 1. THE PIPE INSULATION USED SHALL HAVE A THERMAL CONDUCTIVITY OF 0.27 BTU PER IN-HRS-FT²-F OR LESS.
 2. FIBERGLASS INSULATION WITH FACTORY APPLIED VAPOR BARRIER, ASJ, JACKET, FACTORY APPLIED PRESSURE SEALING LONGITUDE LAP JOINT, NO STAPLES, ZESTON PREMOLED PVC FITTING COVERS. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 3. FLEXIBLE CLOSED CELL ELASTOMERIC THERMAL INSULATION, UNSLIT OR PRESLIT WITH PRESSURE SENSITIVE ADHESIVE SYSTEM FOR CLOSURE AND VAPOR SEALING, EQUAL TO ARMSTRONG AP ARMAFLEX OR ARMAFLEX 2000.
 4. INSULATION SCHEDULE:
 - a. REFRIGERANT SUCTION: 1-1/2" FOR PIPING UP TO 1-1/2" Ø, 2" FOR PIPING 1-1/2" Ø AND LARGER.
 - C. DUCTWORK INSULATION:
 1. DUCT COVERING: 3/4 LB/CF, FIBERGLASS BLANKET WITH FACTORY APPLIED VAPOR BARRIER AND FACING. THICKNESS AS SCHEDULED, INSTALLATION IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. DUCT COVERING SHALL BE MINIMUM R-6.
 - a. SUPPLY AIR DUCT: 2"
 - b. RETURN AIR DUCT: 2"
 - c. OUTDOOR AIR / MAKEUP AIR DUCT: 2"
 - D. DUCTWORK THERMAL INSULATION (EXTERIOR):
 1. DUCT COVERING: ARMAFLEX ARMA TUFF, 2" THICK R8 ARMAFLEX CLOSED FOAM LAMINATED WITH A PAINTED COMPOSITE OF POLYMER AND FOIL FOR UV PROTECTION. PRE APPLIED PRESSURE SENSITIVE ADHESIVE, SEAMS SEALED WITH ARMA TUFF SEAL TAPE, ASTM C518, E96A, C209, D471, D1622.
6. **TESTING, BALANCING AND CLEANING:**
 - A. ALL PIPING SHALL BE TESTED FOR LEAKS BEFORE BEING CONCEALED IN WALL CONSTRUCTION OR COVERED WITH INSULATION.
 - B. DUCTWORK AND PIPING SHALL BE BALANCED BY QUALIFIED BALANCING PERSONNEL WHO HAVE PREVIOUS EXPERIENCE WITH BALANCING PROCEDURES AND ARE FAMILIAR WITH TESTING AND BALANCING PROCEDURES OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB).
 1. BALANCING SHALL INCLUDE THE BALANCING OF THE EQUIPMENT AND AIR DISTRIBUTION SYSTEMS TO PROVIDE DESIGN QUANTITIES INDICATED AND VERIFICATION PERFORMANCE OF ALL EQUIPMENT AND AUTOMATIC CONTROLS.
 2. WITH IN 30 DAYS OF THE COMPLETION OF THE TESTING AND BALANCING WORK, SUBMIT THE TEST AND BALANCING REPORT BEARING THE SIGNATURE OF THE TEST AND BALANCE ENGINEER. THE REPORTS SHALL BE CERTIFIED PROOF THAT THE SYSTEMS HAVE BEEN TESTED, ADJUSTED, AND BALANCED IN ACCORDANCE WITH THE REFERENCED STANDARDS; ARE AN ACCURATE REPRESENTATION OF HOW THE SYSTEMS HAVE BEEN INSTALLED AND ARE OPERATING; REPORTS SHALL BE BOUND IN A VINYL BINDER AND THE BINDER LABELLED OR MAY BE AN ELECTRONIC PDF SUBMITTAL.
7. **DUCTWORK:**
 - A. ALL DUCTWORK UNLESS OTHERWISE INDICATED SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A 577, LOCK FORMING QUALITY, WITH 660 ZINC COATING IN ACCORDANCE WITH ASTM A 525, AND MILL PHOSPHATIZED FOR EXPOSED LOCATIONS.
 - B. DUCTWORK METAL GAUGES, REINFORCING, ETC SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION FOR A 2" WATER GAUGE STATIC PRESSURE.
 - C. ALL FITTINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION.
 - D. RECTANGULAR DUCT:
 1. ELBOWS, UNLESS INDICATED OTHERWISE, SHALL BE CONSTRUCTED WITH CENTERLINE RADIUS OF NOT LESS THAN 1.5 DUCT WIDTH OR SQUARE ELBOWS WITH DOUBLE WALL STREAMLINE ELBOWS.
 2. TAKE-OFF FITTINGS: BRANCH DUCT TAKE-OFF FITTINGS FOR SUPPLY AND EXHAUST DIFFUSER/REGISTERS SHALL INCLUDE AN INTEGRAL MANUAL VOLUME DAMPER WITH LOCKING QUADRANT, DAMPER NOT REQUIRED ON RETURN AIR. FOR RECTANGULAR DUCT TAKE-OFFS, UTILIZE A "BUCKLEY" MODEL 3300 & 3300D OR EQUAL. RETURN AIR ACOUSTIC ELBOWS AND SOUND BOOTS SHALL BE A SQUARE ELBOW WITH NO TURNING VANES.
 3. SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE A MINIMUM 1 TO 3.
 - E. ROUND DUCT (SEE INSULATION SECTION FOR SPIRAL DUCT):
 1. PROVIDE RADIUS TYPE FITTINGS FABRICATED OF BRANCH SECTIONS WITH MAXIMUM 15 DEGREE CHANGE OF DIRECTION PER SECTION. UNLESS SPECIFICALLY DETAILED OTHERWISE, USE 45 DEGREE LATERALS FOR BRANCH TAKE-OFF CONNECTIONS. WHERE 90 DEGREE BRANCHES ARE INDICATED PROVIDE CONICAL TYPE TEES.
 2. SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3.
 3. ROUND LONGITUDINAL SEAM DUCT: USE FOR RIGID METAL DUCT ON LEAVING SIDE OF DUCT IN CONCEALED LOCATIONS FOR EXTENSION TO FLEX FOR DIFFUSERS.
 - F. SEAL ALL CONCEALED DUCTWORK JOINTS WITH NON-HARDENING, NON-MIGRATING MASTIC SEALANT, AS RECOMMENDED FOR SEALING SEAMS AND JOINTS IN DUCTWORK. OIL BASED CALKING AND GLAZING COMPOUNDS SHALL NOT BE ACCEPTABLE. DUCTS SHALL BE SEALED TO THE CLASS LEVEL LISTED BELOW:
 - (1) UNCONDITIONED SPACES: CLASS B CLASS C CLASS B
 - (2) CONDITIONED SPACES (PLENUM): CLASS C CLASS B CLASS C

SUPPLY 2"WC OR LESS EXHAUST RETURN
 - G. DUCT SIZES SHOWN ON THE DRAWINGS ARE SHEET METAL SIZES.
 - H. WHETHER SHOWN ON PLANS OR NOT, PROVIDE MANUAL VOLUME DAMPERS IN EACH RUNOUT TO EACH SUPPLY DIFFUSER OR REGISTER. PROVIDE ACCESS PANELS TO DAMPERS LOCATED ABOVE HARD CEILINGS.
 - I. PROVIDE AUXILIARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT DUCTWORK.
 - J. WHERE DUCTS PASS THROUGH FIRE-RATED FLOORS, WALLS, OR PARTITIONS, PROVIDE FIRESTOPPING BETWEEN DUCT AND WALL.
 - K. WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS OR EXTERIOR WALLS, AND ARE EXPOSED TO VIEW, CONCEAL SPACE BETWEEN OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME GAUGE AS DUCT. OVERLAP OPENING ON 4 SIDES BY AT LEAST 1-1/2". FASTEN TO DUCT AND WALL.
8. **FLEXIBLE DUCT:**
 - A. ATCO #086 (R-6), OR EQUAL.
 - B. FACTORY APPLIED INSULATION AND VAPOR BARRIER, 1-1/2" THICK.
 - C. MAXIMUM LENGTH OF 6'-0".
9. **FLUES AND ACCESSORIES:**
 - A. FLUE FOR GAS FIRED CONDENSING WATER HEATER OR FURNACE SHALL BE AS RECOMMENDED BY THE GAS APPLIANCE MANUFACTURER. FLUES SHALL BE SCHEDULE 40 PVC OR CPVC PER THE MANUFACTURER'S INSTALLATION REQUIREMENTS.
 - B. PROVIDE MANUFACTURER'S STANDARD ACCESSORY ITEMS INCLUDING BIRD PROOF TOP, STORM COLLAR, ROOF THIMBLE, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION. ROOF THIMBLES THROUGH THE BUILDING ROOF SHALL BE SUITABLE FOR USE WITH THE ROOF PROVIDED.
 - C. FLUES FOR HEATERS SHALL BE DOUBLE WALL TYPE B EQUAL TO METALFLASHING. PROVIDE MANUFACTURER'S STANDARD FITTING AND ACCESSORIES (ROOF THIMBLE, STORM COLLAR, COUNTER FLASHING, ETC.) AS REQUIRED FOR A COMPLETE INSTALLATION.
10. **EXHAUST FANS:**
 - A. CENTRIFUGAL CEILING EXHAUSTERS SHALL BE ELECTRICALLY POWERED CENTRIFUGAL TYPE FAN SUITABLE FOR MOUNTING IN THE CEILING WITH A PERFORATED OFF-WHITE METAL GRILLE WITH A THUMBSCREW ATTACHMENT FOR EASY ACCESS TO FAN HOUSING. UNIT SHALL CONSIST OF A GALVANIZED STEEL HOUSING LINED WITH ACOUSTICAL INSULATION AND SHALL INCLUDE AN INTEGRAL BACKDRAFT DAMPER ON FAN DISCHARGE. MOTOR SHALL BE A PERMANENT SPLIT-CAPACITOR TYPE MOTOR, PERMANENTLY LUBRICATED WITH THERMAL OVERLOAD PROTECTION. PROVIDE DISCONNECT SWITCH OR OTHER MEANS OF DISCONNECT AT MOTOR IN FAN HOUSING.
11. **ROOFTOP UNITS:**
 - A. UNIT SHALL BE FACTORY-ASSEMBLED AND TESTED, DESIGNED FOR ROOF INSTALLATION, AND SHALL CONSIST OF COMPRESSORS, CONDENSERS, EVAPORATOR COILS, CONDENSER AND EVAPORATOR FANS, REFRIGERATION CONTROLS, GAS FIRED HEAT EXCHANGER, FILTERS AND DAMPERS. CAPACITIES AND ELECTRICAL CHARACTERISTICS SHALL BE AS SCHEDULED ON THE DRAWINGS.
 - B. COMPRESSORS: UNIT SHALL INCLUDE VIBRATION ISOLATORS AND CRANKCASE HEATER. REFRIGERANT CIRCUIT SHALL INCLUDE A FILTER DRYER, SIGHT GLASS, COMPRESSOR SERVICE VALVES, AND LIQUID LINE SERVICE VALVES.
 - C. SAFETY CONTROLS SHALL INCLUDE
 1. LOW PRESSURE CUTOFF, MANUAL RESET.
 2. HIGH PRESSURE CUTOFF, MANUAL RESET.
 3. COMPRESSOR MOTOR OVERLOAD PROTECTION, MANUAL RESET.
 4. ANTI-RECYCLING TIMING DEVICE.
 5. ADJUSTABLE LOW-AMBIENT LOCKOUT.
 6. OIL PRESSURE SWITCH.
 - D. REFRIGERANT COIL: ALUMINUM FINNED BONDED TO SEAMLESS COPPER TUBE BY MEANS OF MECHANICAL EXPANSION. AN EQUALIZING TYPE VERTICAL DISTRIBUTOR SHALL ENSURE EACH COIL CIRCUIT RECEIVES THE SAME AMOUNT OF REFRIGERANT.
 - E. ECONOMIZER SHALL CONSIST OF RETURN AIR DAMPER, OUTDOOR AIR DAMPER, AND BAROMETRIC RELIEF DAMPER. PROVIDE POWERED EXHAUST FAN WITH MANUFACTURER'S STANDARD CONTROLS FOR UNITS SCHEDULED ON DRAWINGS.
 - F. GAS HEAT: INDIRECT FIRED, GAS HEAT EXCHANGER, AUTOMATIC SPARK IGNITION, MANUFACTURER'S STANDARD GAS TRAIN WITH REGULATOR (IF REQUIRED), AGA APPROVED. VERIFY GAS SERVICE PRESSURE TO INDIVIDUAL ROOFTOP UNITS.
 - G. ROOFTOP UNITS SHALL BE WIRED TO SHUTDOWN ON A SIGNAL FROM THE SMOKE DETECTORS AND SHALL AUTOMATICALLY RESET WHEN THE SMOKE DETECTORS ARE RESET.
12. **FURNACE AND CONDENSING UNIT:**
 - A. CONDENSING FURNACE:
 1. GAS FIRED FURNACE SHALL BE FACTORY ASSEMBLED, PRE-WIRED UNIT CONSISTING OF SHEETMETAL CASING, SUPPLY FAN, GAS FIRED HEAT EXCHANGER, AND CONTROLS. CAPACITY SHALL BE AS SCHEDULED.
 2. THE PRIMARY HEAT EXCHANGER SHALL BE ALUMINIZED STEEL CONSTRUCTION WITH A STAINLESS STEEL SECONDARY HEAT EXCHANGER.
 3. THE FURNACE SHALL BE OF THE CONDENSING TYPE, UTILIZING A SEALED COMBUSTION CHAMBER. UNIT SHALL INCLUDE FINNED CAST IRON HEAT EXCHANGER, ALUMINIZED STEEL EXHAUST DECOUPLER SECTION AND FINNED STAINLESS STEEL TUBE CONDENSER SECTION.
 4. THE UNIT SHALL BE EQUIPPED WITH THE MANUFACTURER'S STANDARD CONTROLS INCLUDING 24V CONTROL TRANSFORMER, AUTOMATIC SPARK IGNITION, AUTOMATIC GAS VALVE TRAIN, HIGH TEMPERATURE LIMIT SWITCH, AND FAN TIMED DELAY RELAY.
 5. RETURN AIR INLET ON UNIT SHALL BE PROVIDED WITH 1" THROWAWAY TYPE FILTER AND SLIDE IN FRAME, MOUNTED ON THE UNIT.
 6. FAN SHALL BE A DIRECT DRIVE MULTI-SPEED BLOWER, RESILIENTLY MOUNTED IN THE CASING. MOTOR SHALL BE PROVIDED WITH AUTOMATIC THERMAL OVERLOAD PROTECTION.
 7. FURNACE SHALL BE AGA APPROVED.
 - B. CONDENSING UNIT SHALL BE FACTORY ASSEMBLED AND TESTED AIR-COOLED CONDENSING UNIT CONSISTING OF COMPRESSOR, CONDENSER COIL, FAN, MOTOR, REFRIGERANT RESERVOIR, OPERATING CONTROLS, ETC. CAPACITY AND ELECTRICAL CHARACTERISTICS SHALL BE AS SCHEDULED.
 1. COMPRESSOR: HERMETICALLY SEALED WITH BUILT-IN OVERLOADS AND VIBRATION ISOLATION. COMPRESSOR MOTOR SHALL HAVE THERMAL AND CURRENT SENSITIVE OVERLOAD DEVICES, INTERNAL HIGH PRESSURE PROTECTION, HIGH AND LOW PRESSURE CUTOFF SWITCHES, START CAPACITOR AND RELAY, 2-POLE CONTACTOR, CRANKCASE HEATER, AND TEMPERATURE ACTUATED SWITCH AND TIMER TO PREVENT COMPRESSOR RAPID CYCLE.
 2. COIL SHALL BE COPPER TUBING WITH ALUMINUM FINNED. COMPLETE WITH LIQUID ACCUMULATOR AND LIQUID SUBCOOLER. UNIT SHALL INCLUDE FILTER DRYER, SIGHT GLASS, COMPRESSOR SERVICE VALVE, LIQUID LINE SERVICE VALVE, AND REFRIGERANT PIPING EXTENDED TO EXTERIOR OF CASING.
13. **SMOKE DETECTORS:**
 - A. UNITS MOUNTED IN THE DUCTWORK SHALL BE A DUCT MOUNTED UL LISTED PHOTO-ELECTRIC SELF-CONTAINED SMOKE DETECTOR WITH HOUSING. UNITS SHALL BE EQUAL TO SIMPLEX #4098-4687. THE SAMPLING TUBE SHALL BE #2086-9804. LENGTH AS REQUIRED FOR DUCT.
 - B. DUCT DETECTOR REMOTE TEST STATION SHALL BE SIMPLEX #4098-9842 WITH REMOTE ALARM INDICATOR. POWER-ON INDICATOR, TONE-ALERT, TONE-ALERT SILENCE SWITCH, AND TEST/RESET SWITCH. DEVICES SHALL BE MOUNTED IN APPROVED LOCATION BY LOCAL A.H.J. WHERE DUCT SMOKE DETECTORS ARE NOT RESETTABLE FROM THE PROTECTED PREMISES FIRE ALARM SYSTEM, A LISTED ALARMSUPERVISORY INDICATOR WITH AN INTEGRAL RESET SWITCH SHALL BE PROVIDED.
 - C. PROVIDE AND INSTALL A PHOTO-ELECTRIC SMOKE DETECTOR IN THE RETURN AIR DUCT FOR EACH HVAC UNIT AS INDICATED ON THE FLOOR PLANS. DETECTORS ARE TO BE PROVIDED WITH A SUB-BASE CONTAINING AUXILIARY RELAY CONTACTS. RELAY CONTACTS SHALL BE WIRED INTO UNIT CONTROL WIRING SO AS TO SHUT DOWN UNIT IN THE CASE OF SMOKE DETECTION. PROVIDE ALL CONTROL WIRING. ELECTRICAL CONTRACTOR SHALL PROVIDE 120V POWER TO EACH DETECTOR.
 - D. SMOKE DETECTORS SHALL BE INTERLOCKED. IN ALARM CONDITION OF A SINGLE DETECTOR ALL UNITS SHALL SHUT DOWN.

MECHANICAL SYMBOLS

HVAC EQUIPMENT & DUCTWORK

SENSORS: [XX] ON WALL @+48", UNO [XX] ON CEILING [XX] ON JBOX

CO2 CARBON DIOXIDE SENSOR
HS HUMIDITY SENSOR
SP STATIC PRESSURE SENSOR
TS TEMPERATURE SENSOR
H HUMIDISTAT
T THERMOSTAT

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	MC	MECHANICAL CONTRACTOR
BAS	BUILDING AUTOMATION SYSTEM	MIN	MINIMUM
BD	BACKDRAFT	OA	OUTSIDE AIR
CFM	CUBIC FEET PER MINUTE	RA	RETURN AIR
DDC	DIRECT DIGITAL CONTROL	SA	SUPPLY AIR
DV	DRYER VENT	SD	SMOKE DETECTOR
DX	DIRECT EXPANSION	TFA	TO FLOOR ABOVE
EA	EXHAUST AIR	TFB	TO FLOOR BELOW
FFA	FROM FLOOR ABOVE	TYP	TYPICAL
FFB	FROM FLOOR BELOW	UNO	UNLESS NOTED OTHERWISE
GPM	GALLONS PER MINUTE	(E)	EXISTING WORK TO REMAIN
IN WC	INCHES OF WATER COLUMN	(N)	NEW DEVICE OR EQUIPMENT
MAX	MAXIMUM	(NL)	NEW LOCATION OF RELOCATED DEVICE
MBH	1000 BTU PER HOUR		

STANDARD MOUNTING HEIGHTS

(AFF. UNLESS NOTES OTHERWISE)

TERMOSTATS	48"
CONTROLS	48"

ANNOTATION

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Seal:

STATE OF MISSOURI

JUSTIN R. SMOTHERS

NUMBER PE-2012003568

01/09/2026

Project Number: 25-100
Project Type: TENANT FINISH
Project Name and Address: NE MAGUIRE BLVD
LEE'S SUMMIT, MO 64064

Issue: PLAN REVIEW Date: 01/09/2026

REVISIONS		
#	DESCRIPTION	DATE

Sheet Title: MECHANICAL SPECIFICATIONS

M001

GROUND MOUNTED ROOFTOP UNIT SCHEDULE (FURNISHED BY TENANT)

NOTES:
1. DISCONNECT SWITCH AND SERVICE RECEPTACLE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
2. PROVIDE MERV 8 FILTERS.
3. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH MINIMUM 5°F DEADBAND, SETBACK RANGE BETWEEN 55°F - 85°F & 2 HOUR OCCUPANT OVERRIDE.

TAG	MAKE	MODEL	CAPACITY	AIR FLOW	E.S.P.	COOLING	GAS INPUT	HEATING	OUTSIDE AIR	ELECTRICAL	MCA	MOCP	FLA	WEIGHT	NOTES
RTU-1,2,3	DAIKIN	DBG1204VH	10 TONS	3,600 CFM	0.7 in-wg	114,000.0 Btu/h	210,000 Btu/h	168,000 Btu/h	540 CFM	480 V, 3 Ø, 2 HP, 16,793 VA	22 A	25 A	20.2 A	1,150 lbf	1,2,3

EXHAUST FAN SCHEDULE

NOTES:
1. INTERLOCK CONTROLS TO OPERATE WITH LIGHTING.

TAG	TAG	MAKE	MODEL	AIR FLOW	E.S.P.	VA	ELECTRICAL	WEIGHT	COUNT	NOTES
EF-1	EF-1	PANASONIC	RG-C811HA	50 CFM	0.10 in-wg	11 VA	120 V, 1 Ø, 11 VA	12 lbf	1	1
EF-2	EF-2	PANASONIC	FV-20VQ3	190 CFM	0.10 in-wg	44 VA	120 V, 1 Ø, 44 VA	17 lbf	2	1

GAS FURNACE SCHEDULE

NOTES:
1. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH MINIMUM 5°F DEADBAND, SETBACK RANGE BETWEEN 55°F - 85°F & 2 HOUR OCCUPANT OVERRIDE.
2. PROVIDE MANUFACTURER'S CONCENTRIC VENT KIT. SIZE AND INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS WHILE ADHERING TO LENGTH AND FITTING LIMITATIONS.
3. PROVIDE SIDE RETURN FILTER KIT.

TAG	MAKE	MODEL	AIR FLOW	OUTSIDE AIR	E.S.P.	GAS INPUT	HEAT OUTPUT	ELECTRICAL	MOCP	FLA	WEIGHT	NOTES
F-1	LENNOX	EL297UH110XV60D	2,000 CFM	500 CFM	0.8 in-wg	110,000 Btu/h	107,000 Btu/h	120 V, 1 Ø, 1 HP, 1,536 VA	20 A	12.8 A	174 lbf	1,2,3

CONDENSING UNIT SCHEDULE

NOTES:
1. SET TIME DELAY ON COMPRESSOR RE-START KIT, CRANKCASE HEATER AND COMPRESSOR LOCK-OUT WITH AMBIENT BELOW 35°F.
2. ON MINIMUM 6" HIGH CONCRETE EQUIPMENT PAD, INSTALL LEVEL.
3. WITH LENNOX CK40CT COILS.

TAG	MAKE	MODEL	CAPACITY	ELECTRICAL	MOCP	MCA	FLA	NOTES
CU-1	LENNOX	ML17KC2-060	5 TONS, 60,000.0 Btu/h	208 V, 3 Ø, 5,584 VA	40 A	24 A	15.5 A	1,2,3

LOUVER SCHEDULE

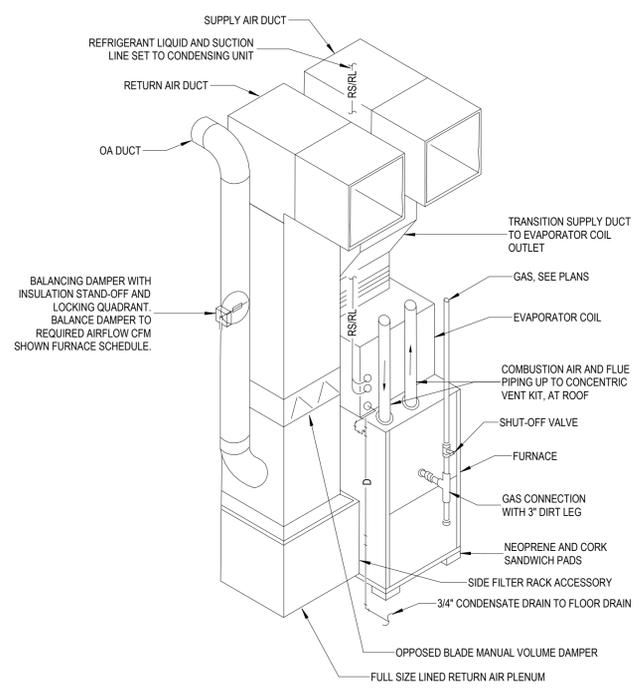
NOTES:
1. PROVIDE WITH ALUMINUM MESH BIRD/INSECT SCREEN.
2. PAINT LOUVER COLOR TO MATCH BUILDING. COORDINATE COLOR WITH GC.

TAG	DESCRIPTION	MAKE	MODEL	SIZE	NOTES
L-1	WALL EXHAUST LOUVER	RUSKIN	ELF6375DX	12" x 12"	1,2
L-2	WALL INTAKE LOUVER	RUSKIN	ELF6375DX	12" x 12"	1,2

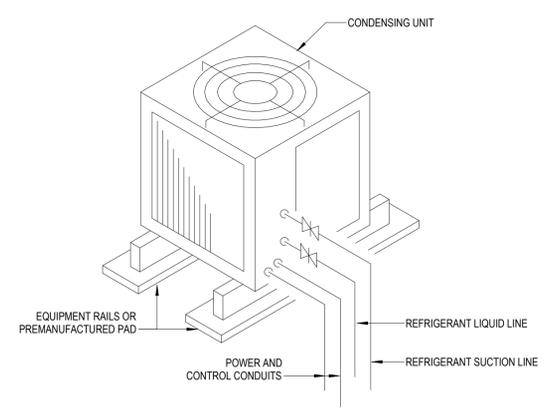
AIR TERMINAL SCHEDULE

NOTES:
1. FRAME TYPE TO MATCH CEILING/WALL CONSTRUCTION, COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.
2. NECK SIZE SHOWN ON DRAWINGS.
3. BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE, U.N.O.
4. COLOR BY ARCHITECT.
5. TRUFAIRE IS AN APPROVED ALTERNATE.
6. PROVIDE WITH OPPOSABLE BLADE DAMPER.

TAG	MAKE	MODEL	FACE TYPE	MOUNTING	FACE SIZE	MAX N.C.	NOTES
CSD1	TITUS	OMNI	PLAQUE	LAY-IN	12" x 12"	25	1-6
DSD1	TITUS	DL	ADJUSTABLE VANES	DIRECT	24" x 8"	25	2-6
DSD2	TITUS	DL	ADJUSTABLE VANES	DIRECT	30" x 8"	25	2-6
WRG1	TITUS	63F	30° SLOTS	ON WALL	48" x 36"	25	1-5
WRG2	TITUS	55FS	0° SLOTS	ON WALL	16" x 8"	25	1-5
WRG3	TITUS	55FS	0° SLOTS	ON WALL	12" x 6"	25	1-5

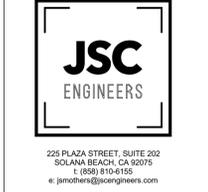


NOTE TO CONTRACTOR:
1. ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST AS REQUIRED TO SUIT ACTUAL INSTALLATION CONDITIONS.



CONDENSING UNIT PIPING DETAIL 1

GAS FURNACE INSTALLATION DETAIL 2



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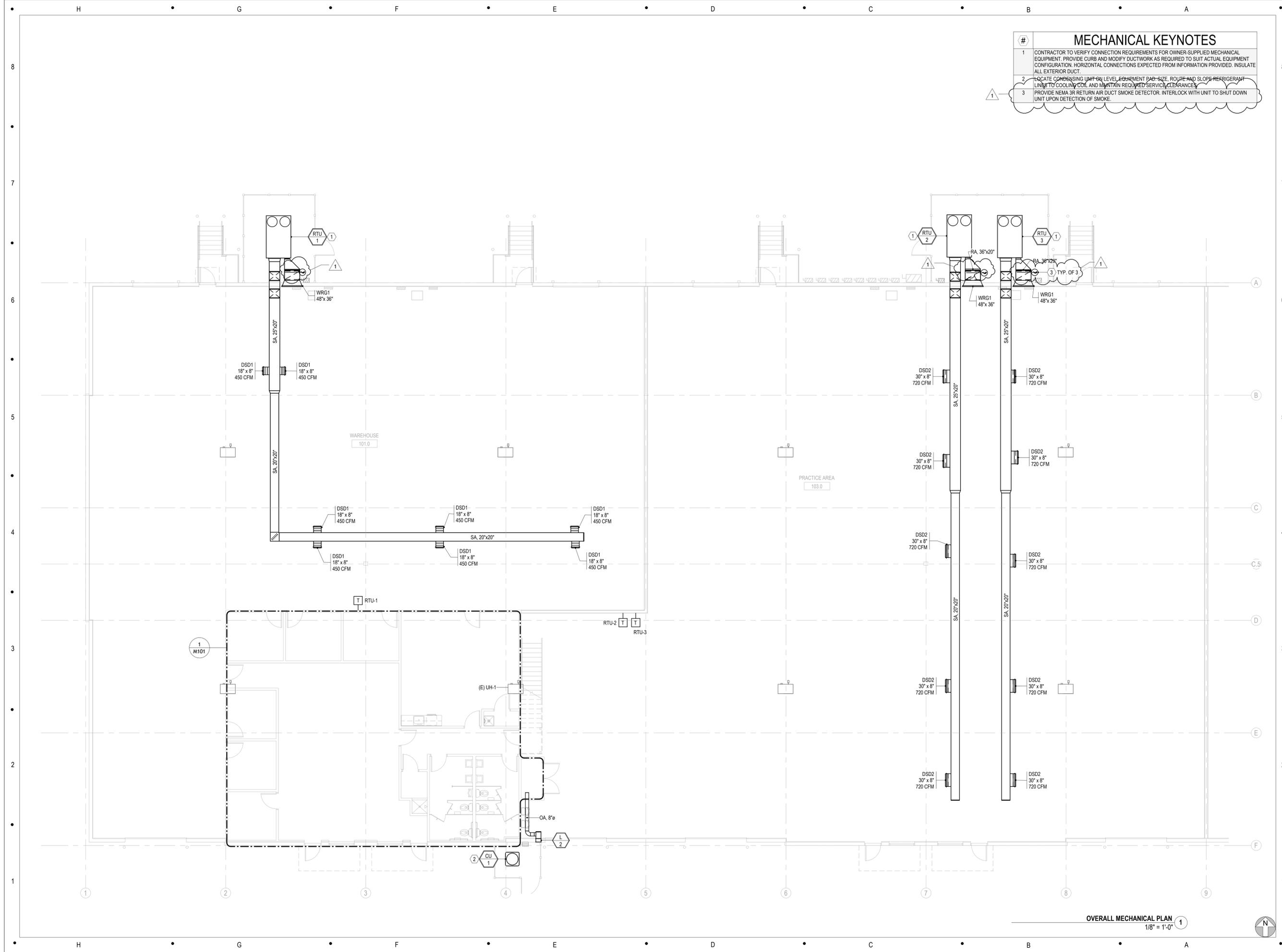
Issue: PLAN REVIEW Date: 01/09/2026

#	DESCRIPTION	DATE
1	PLAN REVIEW REVISIONS	01/09/2026

Sheet Title:
OVERALL MECHANICAL PLAN

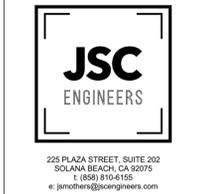
M100

#	MECHANICAL KEYNOTES
1	CONTRACTOR TO VERIFY CONNECTION REQUIREMENTS FOR OWNER-SUPPLIED MECHANICAL EQUIPMENT. PROVIDE CURB AND MODIFY DUCTWORK AS REQUIRED TO SUIT ACTUAL EQUIPMENT CONFIGURATION. HORIZONTAL CONNECTIONS EXPECTED FROM INFORMATION PROVIDED. INSULATE ALL EXTERIOR DUCT.
2	LOCATE CONDENSING UNIT ON LEVEL, EQUIPMENT PAD-SIZE, ROUTE AND SLOPE REFRIGERANT LINES TO COOLING COIL AND MAINTAIN REQUIRED SERVICE CLEARANCES.
3	PROVIDE NEMA 3R RETURN AIR DUCT SMOKE DETECTOR. INTERLOCK WITH UNIT TO SHUT DOWN UNIT UPON DETECTION OF SMOKE.



OVERALL MECHANICAL PLAN
1/8" = 1'-0" 1





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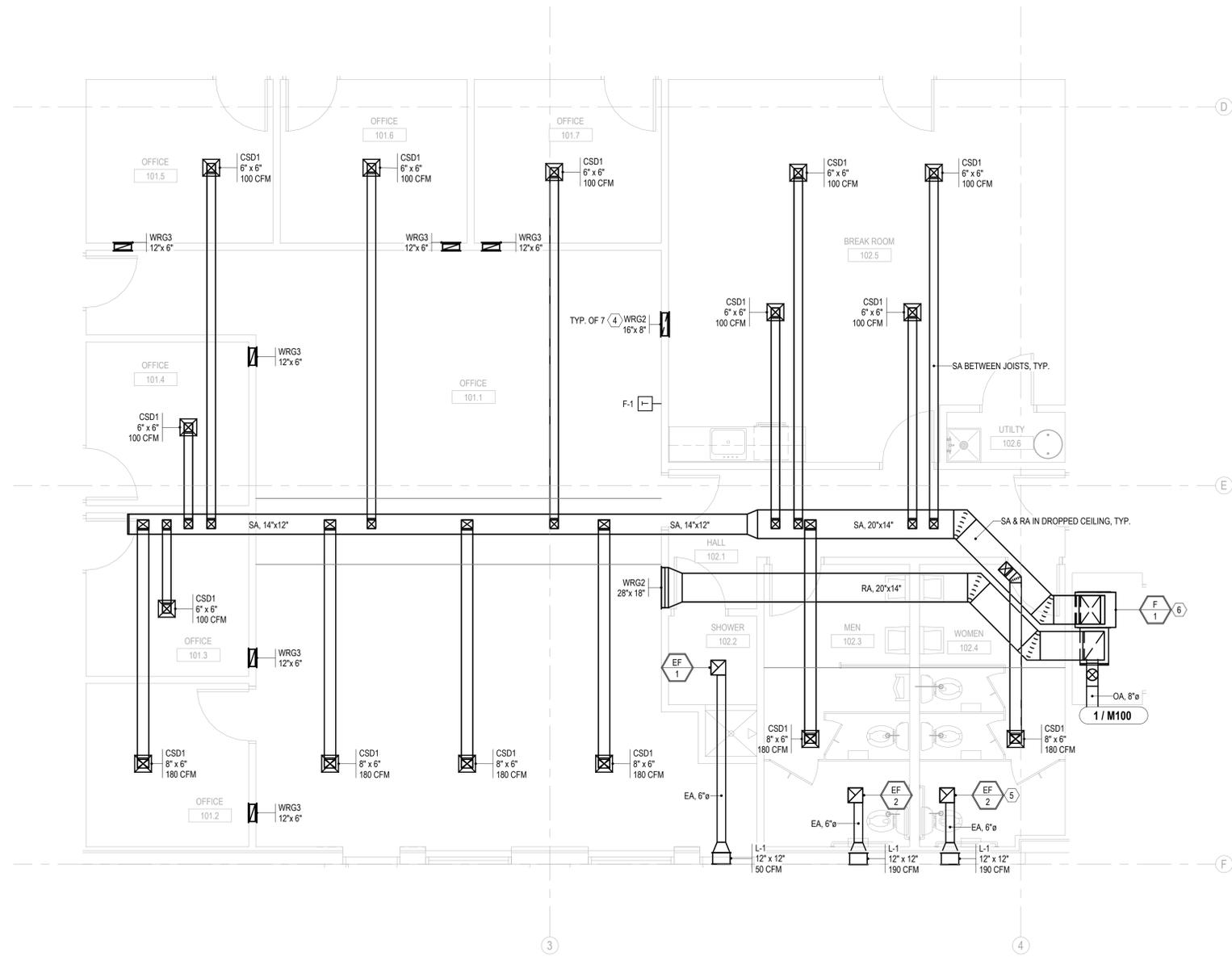
Issue: PLAN REVIEW Date: 01/09/2026

REVISIONS		
#	DESCRIPTION	DATE

Sheet Title:
ENLARGED MECHANICAL PLAN

M101

#	MECHANICAL KEYNOTES
4	PROVIDE RETURN AIR GRILLE AT 8" AFF ON OFFICE/BREAKROOM SIDE OF WALL AND ANOTHER RETURN GRILLE AT 12" ON OPEN OFFICE SIDE OF WALL. IF WALL IS INSULATED, PROVIDE CONNECTING DUCT INTERNAL TO WALL.
5	LOCATE EXHAUST FAN DISCHARGE A MINIMUM OF 10'-0" FROM ANY MECHANICAL EQUIPMENT FRESH AIR INTAKE.
6	PROVIDE CONCENTRIC VENT FOR FURNACE WITH MANUFACTURER'S SPECIFIED SIZE AND LENGTH LIMITATIONS. LOCATE VENT A MINIMUM OF 10'-0" FROM OUTSIDE AIR INTAKE. ROUTE TO NEAREST WALL OR ROOF AND COORDINATE FINAL LOCATION WITH GENERAL CONTRACTOR.



ENLARGED MECHANICAL PLAN, OFFICE 1
1/4" = 1'-0"



PLUMBING SPECIFICATIONS

1. **GENERAL PROVISIONS:**
 - A. PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE COMPLETE INSTALLATION OF THE PLUMBING SYSTEMS OUTLINED.
 - B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATIONS OF COMPLIANCE OR APPROVAL AS REQUIRED BY AUTHORITIES.
 - C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.
 - D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.
 - E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, PIPE, DUCT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.
 - F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.
 - G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECT FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
 - H. INSPECTION OF THE SITE: THIS CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE MEP DRAWINGS, SPECIFICATIONS, DETAIL, AND THE SITE. THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY SPECIAL OR UNUSUAL PROBLEMS, CONFLICTS, OR OBSTRUCTIONS THAT AFFECT HIS BID.
 - I. FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY, THE MECHANICAL AND PLUMBING DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS AND FITTINGS REQUIRED FOR INSTALLATION. DO NOT SCALE DRAWINGS. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DATA AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION SECTIONS WHERE MECHANICAL WORK INTERFACES WITH OTHER TRADES.
 - J. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS OR WITH CODE REQUIREMENTS, THE NOTE OR CODE WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE JOB OR HIGHER STANDARD SHALL PREVAIL.
 - K. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE FOR EXPOSED WORK. COORDINATE WITH WORK OF OTHER SECTIONS. COMPLY WITH APPLICABLE REGULATIONS AND CODE REQUIREMENTS. PROVIDE PROPER CLEARANCES FOR SERVICING.
 - L. INCLUDE ALL BASIC MATERIALS AND CONSTRUCTION METHODS INCLUDING PIPES, PIPE FITTINGS, AND SPECIALTIES AND SUPPORTING DEVICES, VALVES, PIPE AND VALVE IDENTIFICATION, PUMPS, VIBRATION ISOLATION, ETC.
 - M. FURNISH ADEQUATE ACCESS PANELS AND DOORS TO ALLOW FOR FUTURE PIPING ALTERATIONS, REPLACEMENT, AND MAINTENANCE OF PIPING. PROPERLY IDENTIFY ALL ACCESS PANELS AND DOORS.
2. **OPERATION AND MAINTENANCE MANUALS:**
 - A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPIL OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.
 - B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATING AND MAINTENANCE MANUALS.
 - C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE BOUND IN A 3-RING BINDER AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER AND CONTRACTORS.
3. **MANUFACTURERS:**
 - A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN.
 - B. THE ELECTRICAL SYSTEM DESIGN IS BASED IN PART ON THE SPECIFIED EQUIPMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE ELECTRICAL REQUIREMENTS OF THE EQUIPMENT BEING FURNISHED. ANY CHANGES TO THE ELECTRICAL SYSTEM DUE TO HVAC EQUIPMENT OTHER THAN THE SPECIFIED EQUIPMENT BEING FURNISHED SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
4. **PLUMBING:**
 - A. PROVIDE AN APPROVED WATER HAMMER ARRESTOR FOR EACH PLUMBING FIXTURE SUPPLY AS REQUIRED BY FIXTURE MANUFACTURER.
 - B. ALL EXPOSED PIPE IN FINISHED AREAS SHALL BE CHROME PLATED BRASS PIPE, NO FERROUS PIPE.
 - C. PROVIDE CLEANOUTS AT EACH CHANGE IN DIRECTION AND AT 100 FOOT INTERVALS IN STRAIGHT RUNS.
 - D. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES AND TRAPS.
 - E. CLEANOUTS:
 1. VINYL TILE FLOOR (FCO); JR SMITH #4140, OR EQUAL.
 2. QUARRY TILE FLOOR (FCO); JR SMITH #4200, OR EQUAL.
 3. CARPETED FLOOR (FCO); JR SMITH #4020-Y, OR EQUAL.
 4. UNFINISHED FLOOR (FCO); JR SMITH #4020, OR EQUAL.
 5. WALL (WCO); JR SMITH #4472, OR EQUAL, 24" ABOVE THE FLOOR.
 6. GRADE (GCO); JR SMITH #4256, OR EQUAL, WITH HEAVY DUTY CAST IRON BODY AND COVER.
 - F. ALL SEWER PIPING LOCATED INSIDE THE BUILDING SHALL BE INSTALLED WITH THE FOLLOWING SLOPES.
 1. INSTALL 2-1/2" AND SMALLER PIPE AT 1/4" PER FOOT FALL.
 2. INSTALL 3" AND LARGER PIPE AT 1/8" PER FOOT FALL.
 3. CONDENSATE DRAIN SHALL BE INSTALLED AT 1/8" PER FOOT FALL.
 - G. PROVIDE DIELECTRIC UNIONS WITH APPROPRIATE END CONNECTION TO MATCH THE PIPE SYSTEM IN WHICH INSTALLED (SCREWED, SOLDERED, OR FLANGED); PROVIDE DIELECTRIC UNIONS ON ALL PIPING CONNECTIONS TO HOT WATER HEATERS AND EXPANSION JOINTS.
 - H. ALL SEWER PIPING LOCATED EXTERIOR TO THE BUILDING SHALL BE INSTALLED WITH THE FOLLOWING SLOPES.
 1. INSTALL 4" AND SMALLER PIPE AT A MINIMUM OF 2% SLOPE.
 2. INSTALL 6" AND LARGER PIPE AT A MINIMUM OF 1% SLOPE.
5. **PIPING:**
 - A. DOMESTIC COLD, HOT, AND HOT WATER RECIRCULATING (ABOVEGROUND).
 1. TYPE L HARD DRAWN COPPER TUBING, ASTM B-88 WITH WROUGHT BRONZE SOLDERED FITTINGS.
 2. GATE VALVE: CRANE #428 OR EQUAL.
 3. GLOBE VALVE: CRANE #7 OR EQUAL.
 4. BALL VALVE: CRANE #932 OR EQUAL.
 5. (NOT ALLOWED IN RETURN AIR PLENUM) PEX, HIGH DENSITY CROSS-LINKED POLYETHYLENE TUBING IS PERMITTED FOR USE. TUBING SHALL BE MANUFACTURED TO THE REQUIREMENTS OF ASTM F876 AND MEET THE STANDARD GRADE HYDROSTATIC PRESSURE RATING FROM THE PLASTIC PIPE INSTITUTE IN ACCORDANCE WITH TR-403. PEX MECHANICAL, CRIMP/INSERT FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PIPE SIZE SHOW ON THE DRAWINGS ARE NOMINAL COPPER PIPE SIZES. INCREASE PEX PIPING SIZE AS REQUIRED TO EQUAL OR EXCEED COPPER PIPE SIZE INSIDE DIAMETER.
 - B. SANITARY SEWER AND VENTS (INTERIOR TO BUILDING).
 1. ALL UNDERGROUND SANITARY WASTE, DRAIN, AND VENT PIPING FROM WITHIN THE BUILDING TO 5'-0" BEYOND FOUNDATION WALL SHALL BE ASTM D2865 PVC DWV PIPE, SCHEDULE 40, WITH SOLVENT-WELDED JOINTS.
 2. ABOVEGROUND SANITARY WASTE, DRAIN, AND VENT PIPING SHALL BE COATED HUB-AND-SPIGOT SERVICE WEIGHT CAST IRON.
 3. SEWER LINES SHALL BE LOCATED IN GENERAL AS SHOWN ON THE DRAWINGS. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR IN SUCH A MANNER AS TO MAINTAIN PROPER CLEARANCES AND SUFFICIENT SLOPE TO ENSURE DRAINAGE.
 4. ALL PIPE HANGERS AND SUPPORTS SHALL BE STANDARD PRODUCTS OF GRINNELL, FEE AND MASON, OR ANVIL. HANGER SPACING SHALL BE IN ACCORDANCE WITH MSS-SP-69.
 - C. CONDENSATE DRAIN AND INDIRECT WASTE (ABOVEGROUND)
 1. DWV, WROUGHT COPPER, ANSI B-16.29.
 - D. NATURAL GAS PIPING:
 1. SCHEDULE 40 BLACK STEEL PIPING, 2" AND SMALLER WITH SCREWED JOINTS AND 150 LB. MALLEABLE IRON SCREWED FITTINGS. PIPE 2-1/2" AND LARGER SHALL USE STANDARD WEIGHT BLACK STEEL WELDING FITTINGS WITH WELDED JOINTS.
 2. GAS VALVES SHALL BE ROCKWELL #42143, PLUG VALVE.
 3. SUPPORT PIPING AT DETAILS NOT TO EXCEED THOSE LISTED IN TABLE 415.1 OF THE I.F.G.C.
 4. PROVIDE A G.A. APPROVED SHUT OFF VALVES AND DIRT LEGS AT CONNECTIONS TO ALL EQUIPMENT.
 5. ALL ELEVATED PRESSURE GAS PIPING (GREATER THAN 14" W.C.) SHALL BE LABELED EVERY 40' WITH SIGNS INDICATING "ELEVATED PRESSURE."
 6. EPOXY PAINT ALL EXTERIOR GAS PIPING TO PREVENT CORROSION.
 - E. ALL PIPE HANGERS AND SUPPORTS SHALL BE STANDARD PRODUCTS OF GRINNELL, FEE AND MASON, OR ANVIL. HANGER SPACING SHALL BE IN ACCORDANCE WITH MSS-SP-69.
 - F. SLEEVES
 1. PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK. ALL SLEEVES SHALL BE OF SUFFICIENT SIZE TO PERMIT PIPE MOVEMENT DUE TO EXPANSION AND CONTRACTION AND TO ACCOMMODATE PIPE INSULATION.
 2. INTERIOR PARTITIONS: 16 GAUGE GALVANIZED STEEL, PACK BETWEEN PIPE AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.
 - G. PROVIDE CHROME PLATED ESCUTCHEONS ON ALL PIPE ENTERING FINISHED AREAS.
6. **INSULATION:**
 - A. ALL INSULATIONS AND ACCESSORIES SHALL HAVE A FIRE HAZARD CLASSIFICATION WITH A FLAME SPREAD RATING OF NOT OVER 25, A FUEL CONTRIBUTION RATING OF NOT OVER 50, AND A SMOKE DEVELOPMENT RATING OF NOT OVER 50, IN ACCORDANCE WITH NFPA.
 - B. PIPE INSULATION (ABOVE GRADE):
 1. THE PIPE INSULATION USED SHALL HAVE A THERMAL CONDUCTIVITY OF 0.27 BTU PER INHR/SQ-FT/F OR LESS.
 2. FLEXIBLE CLOSED CELL ELASTOMERIC THERMAL INSULATION, UNSLIT OR PRESLIT WITH PRESSURE SENSITIVE ADHESIVE SYSTEM FOR CLOSURE AND VAPOR SEALING, EQUAL TO ARMSTRONG AP ARMAFLEX OR ARMAFLEX 200.
 3. INSULATION SHALL BE CONTINUOUS THROUGH WALLS, CEILINGS, AND PARTITIONS. TERMINATIONS AT VALVES OR EQUIPMENT SHALL BE PROPERLY SEALED TO MAINTAIN THERMAL INTEGRITY AND VAPOR BARRIER.
 4. PROVIDE CONTINUOUS PIPE INSULATION ON ALL DOMESTIC HOT WATER, CIRCULATING HOT WATER, AND COLD WATER PIPING EXPOSED TO CONDENSATION RISK, IN ACCORDANCE WITH 2021 IECC C403.11.3.
 5. INSULATION THICKNESS SHALL COMPLY WITH THE FOLLOWING MINIMUMS:
 - a. DOMESTIC HOT WATER, LESS THAN 1.5": 1" THICK
7. **TESTING, BALANCING AND CLEANING:**
 - A. ALL PIPING SHALL BE TESTED FOR LEAKS BEFORE BEING CONCEALED IN WALL CONSTRUCTION OR COVERED WITH INSULATION.
 - B. SEWER AND VENT PIPING SHALL BE HYDROSTATICALLY TESTED WITH NO LESS THAN 10 FEET OF HEAD FOR A PERIOD OF NOT LESS THAN 15 MINUTES, PER THE LOCAL PLUMBING CODE, WITH NO LEAKS.
 - C. DOMESTIC WATER PIPING SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF NOT LESS THAN 1-1/2 TIMES THE OPERATING PRESSURE, BUT NOT LESS THAN 60 PSI, FOR A PERIOD OF NOT LESS THAN 2 HOURS, WITH NO LEAKS.
 - D. BEFORE DOMESTIC WATER PIPING IS PLACED IN SERVICE, ALL DOMESTIC WATER DISTRIBUTION SYSTEMS, INCLUDING THOSE FOR COLD WATER AND HOT WATER SYSTEMS, SHALL BE FLUSHED, STERILIZED AND CHLORINATED IN ACCORDANCE WITH THE HEALTH DEPARTMENT REGULATIONS. THE SYSTEMS SHALL BE THOROUGHLY FLUSHED OF ALL DIRT AND FOREIGN MATTER, THEN FILLED WITH WATER TREATED WITH 90 PPM OF CHLORINE. DURING THE FILLING PROCESS, VALVES AND FAUCETS SHALL BE OPENED SEVERAL TIMES TO ASSURE TREATMENT OF THE ENTIRE SYSTEM. THE TREATED WATER SHALL BE LEFT IN THE SYSTEM FOR 24 HOURS AFTER WHICH TIME THE SYSTEM SHALL BE FLUSHED; IF THE RESIDUAL CHLORINE IS NOT LESS THAN 10 PPM, THE FLUSHING SHALL BE REPEATED. AFTER STERILIZATION SAMPLES OF WATER FROM THE SYSTEM SHALL BE APPROVED BY THE BOARD OF HEALTH.
 - E. NATURAL GAS SYSTEMS SHALL BE TESTED WITH COMPRESSED AIR AT A PRESSURE OF NOT LESS THAN 1-1/2 TIMES THE OPERATING PRESSURE, BUT NOT LESS THAN 50 PSIG FOR A PERIOD OF 2 HOURS WITH NO LEAKS.
8. **FLUES AND ACCESSORIES:**
 - A. FLUE FOR GAS FIRED CONDENSING WATER HEATER SHALL BE AS RECOMMENDED BY THE GAS APPLIANCE MANUFACTURER. FLUES SHALL BE SCHEDULE 40 PVC OR CPVC PER THE MANUFACTURER'S INSTALLATION REQUIREMENTS. PROVIDE MANUFACTURER'S STANDARD ACCESSORY ITEMS INCLUDING BIRD PROOF TOP, STORM COLLAR, ROOF THIMBLE, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION. ROOF THIMBLES THROUGH THE BUILDING ROOF SHALL BE SUITABLE FOR USE WITH THE ROOF PROVIDED.
 - C. FLUES FOR HEATERS SHALL BE DOUBLE WALL TYPE B EQUAL TO METALBESTOS. PROVIDE MANUFACTURER'S STANDARD FITTING AND ACCESSORIES (ROOF THIMBLE, STORM COLLAR, COUNTER FLASHING, ETC.) AS REQUIRED FOR A COMPLETE INSTALLATION.
9. **EXPANSION TANK:**
 - A. DIAPHRAGM-TYPE EXPANSION TANK: SIZE AS INDICATED ON THE DRAWINGS, CONSTRUCTED OF CARBON STEEL FOR 125 PSIG WORKING PRESSURE, 375°F MAXIMUM OPERATING TEMPERATURE. SEPARATE AIR CHARGE FROM THE WATER BY A FLEXIBLE DIAPHRAGM SECURELY SEALED INTO THE TANK. PROVIDE TAPS FOR PRESSURE GAGE AND AIR CHARGING FITTING, AND A DRAIN VALVE. SUPPORT TANK FROM WALL WITH STRUCTURAL STEEL FRAME ADEQUATELY SIZED TO SUPPORT THE WEIGHT. TANK SHALL BE CONSTRUCTED IN ACCORDANCE WITH, TESTED, AND LABELED ASME PRESSURE CODE, SECTION VIII, DIVISION 1.

PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
	SANITARY SEWER (ABOVE GRADE)
	SANITARY SEWER (BELOW GRADE)
	GREASE WASTE (BELOW GRADE)
	CONDENSATE DRAIN
	VENT PIPING
	G = GAS PIPING LESS THAN 2 PSI
	MPG = GAS PIPING 2 PSI
	GAS PIPE ON ROOF, G OR MPG
	COLD WATER PIPING
	HOT WATER PIPING
	RECIRCULATING HOT WATER
	COMPRESSED AIR
	PIPE ELBOW DOWN
	PIPE ELBOW UP
	GATE VALVE
	BACKFLOW PREVENTER
	CHECK VALVE
	BALL VALVE
	STRAINER
	PRESSURE REDUCING VALVE
	PLUG VALVE
	CONTROL VALVE
	FLOOR CLEANOUT (FCO)
	CLEANOUT AT GRADE (GCO)
	WALL CLEANOUT (WCO)
	FLOOR DRAIN
	FLOOR SINK
	CAPPED PIPE
	HOSE BIBB, CW, HW STUB

STANDARD MOUNTING HEIGHTS

PLUMBING	(AFF, AFG, UNLESS NOTED OTHERWISE)
ADA ACCESSIBLE LAVATORIES	34" FLOOR TO RIM
ADA ACCESSIBLE WATER CLOSET	17" TO 19" FLOOR TO TOP OF SEAT
JANITOR'S SINK FAUCET FITTINGS	42" FLOOR TO CENTERLINE

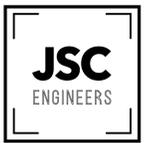
ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	MIN	MINIMUM
AFG	ABOVE FINISHED GRADE	N/C	NORMALLY CLOSED
AHU	AIR HANDLING UNIT	N/O	NORMALLY OPEN
BFF	BELOW FINISHED FLOOR	ORD	OVERFLOW ROOF DRAIN
BFG	BELOWS FINISHED GRADE	PDI	PLUMBING DRAINAGE INSTITUTE
BOP	BOTTOM OF PIPE	PVC	POLYVINYL CHLORIDE
BOS	BOTTOM OF STRUCTURE	PRV	PRESSURE REDUCING VALVE
BTU	BRITISH THERMAL UNIT	RPM	REVELUTIONS PER MINUTE
CPVC	CHLORINATED POLYVINYL CHLORIDE	SF	SQUARE FEET, SUPPLY FAN
DN	DOWN	TDH	TOTAL DYNAMIC HEAD
DFU	DRAINAGE FIXTURE UNIT	TFA	TO FLOOR ABOVE
ETR	EXISTING TO REMAIN	TFB	TO FLOOR BELOW
FD	FLOOR DRAIN	UL	UNDERWATER LABORATORIES
FFA	FROM FLOOR ABOVE	UNO	UNLESS NOTED OTHERWISE
FFB	FROM FLOOR BELOW	V	VOLT(S)
FF	FINISHED FLOOR	VCP	VITRIFIED CLAY PIPE
FLA	FULL LOAD AMPS	VS	VENT STACK
FLR	FLOOR	VTR	VENT THROUGH ROOF
GPM	GALLON PER MINUTE	W	WITH
IE	INVERTED ELEVATION	W/O	WITHOUT
IN WC	INCHES OF WATER COLUMN	WC	WATER COLUMN
KW	KILOWATT	WS	WATER STACK
MAX	MAXIMUM	WSF	WATER SUPPLY FIXTURE UNIT
MBH	1000 BTU PER HOUR		

ANNOTATION

- # PLAN WORK NOTE
- MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
- PLUMBING FIXTURE DESIGNATION
- CONNECTION POINT OF NEW WORK TO EXISTING
- DETAIL REFERENCE UPPER NUMBER INDICATED DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
- SECTION CUT DESIGNATION

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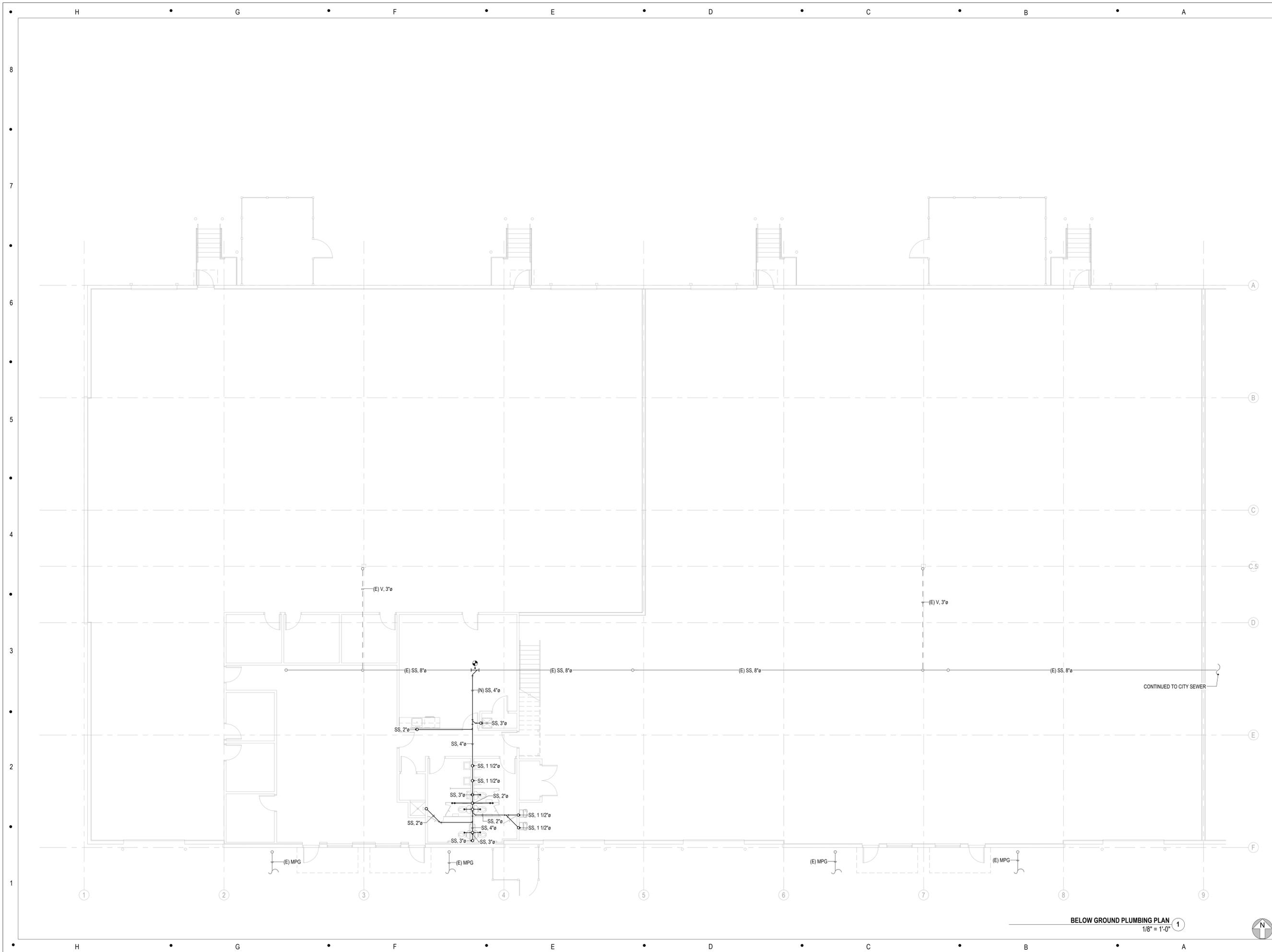
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PLUMBING SPECIFICATIONS

P001



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Sheet Title:
BELOW GROUND PLUMBING PLAN

P100

BELOW GROUND PLUMBING PLAN 1
1/8" = 1'-0"



PLUMBING FIXTURE SCHEDULE

NOTES:
 1. WITH PROVENT SYSTEMS TRAP GUARD, OR EQUAL.
 2. ADA CHAIR HEIGHT 17" TO TOP OF SEAT.
 3. 2" VENT STANDARD AT WATER CLOSET. 3" WET VENT AT LOCATION BELOW URINAL.

TAG	DESCRIPTION	MAKE	MODEL	COLD W.	HOT W.	WASTE	VENT	TRAP	POWER	COUNT	NOTES
DF	DRINKING FOUNTAIN	ELKAY	LZS8WSAP	1/2"		1 1/2"	1 1/2"	1 1/4"	120 V, 1 Ø, 600 VA	2	
FD	FLOOR DRAIN	SILOX CHIEF	832			2"	1 1/2"	1 1/2"		2	1
LAV	LAVATORY	KOHLER	BASIN: K-5400 FAUCET: K27389-4	1/2"	1/2"	1 1/2"	1 1/2"	1 1/4"		4	
MS	MOP SINK	BASIN: PROFLOW FAUCET: AMERICAN STANDARD	BASIN: K-5400 FAUCET: K27389-4	3/4"	3/4"	3"	2"	3"		1	
SH	SHOWER	DRAIN: SCHLUTER VALVE & TRIM: KOHLER	BASIN: PFMB2424, FAUCET: 8354.112	1/2"	1/2"	2"	1 1/2"	2"		1	
SK	BREAKROOM SINK	BASIN & FAUCET: KOHLER	TRIM: K-TS35920-4-CP, VALVE: K-28304-K-NA	1/2"	1/2"	2"	1 1/2"	1 1/2"		1	
UR	URINAL	BASIN: AMERICAN STANDARD VALVE: SLOAN	BASIN: VAULT K-3821-NA, FAUCET: EDALYN K-28360-CP	1 1/4"		3"	2"	2"		1	
WC-1	WATER CLOSET	AMERICAN STANDARD	BASIN: 6590.001 VALVE: 186 XL	1/2"		3"	<varies>			3	
WC-2	WATER CLOSET ADA	AMERICAN STANDARD	CADET FLOWISE	1/2"		3"	2"			2	2

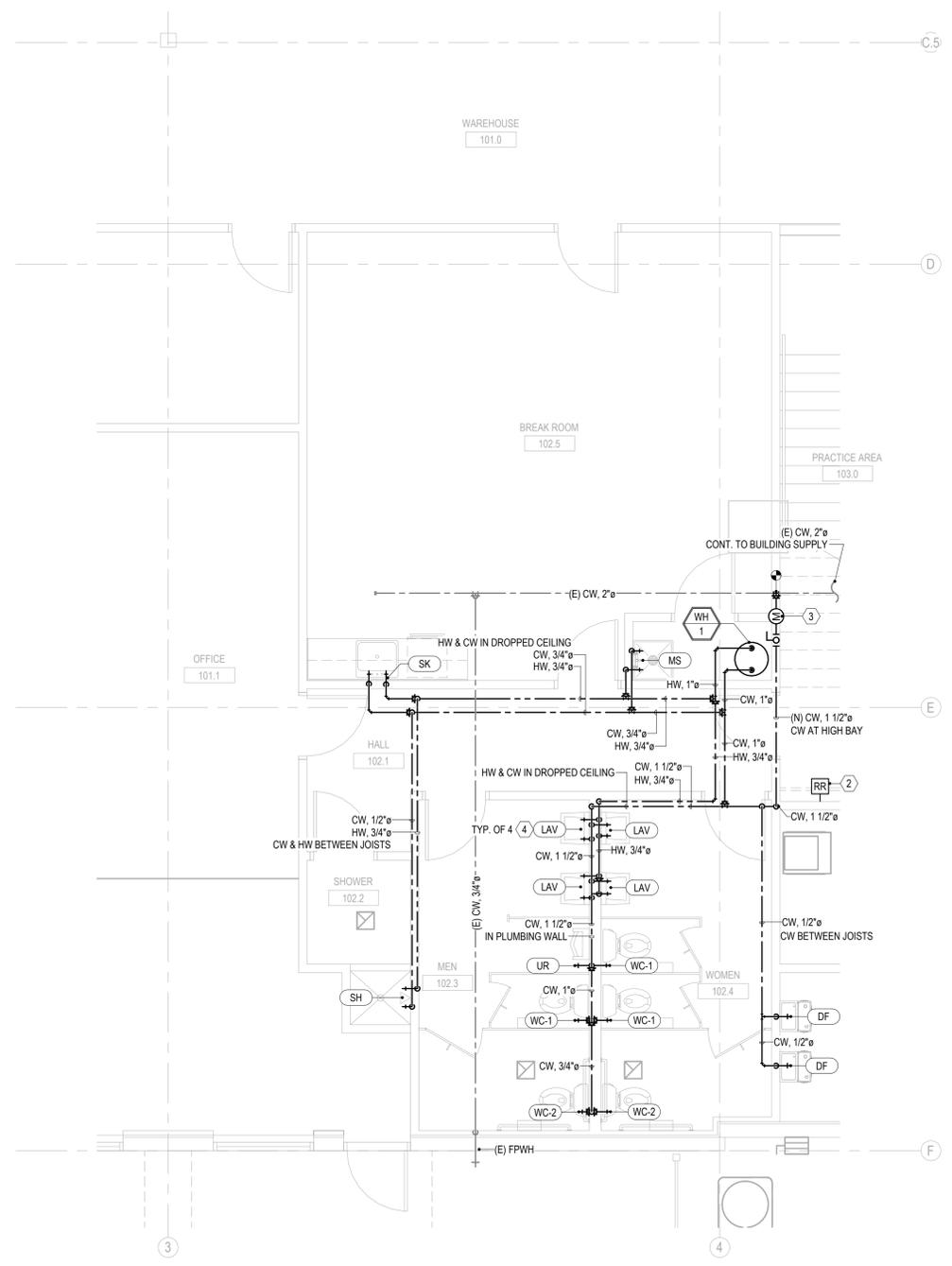
PLUMBING KEYNOTES

#	DESCRIPTION
1	PROVIDE TEMPERATURE AND PRESSURE RELIEF VALVE WITH 3/4" DISCHARGE PIPING, ROUTE TO MOP SINK.
2	REMOTE WATER METER READER. VERIFY PLACEMENT WITH ARCHITECT AND TENANT.
3	ELECTRONIC WATER METER AT HIGH BAY CEILING. FURNISH AND INSTALL UNIONS ON EACH SIDE OF THE WATER METER FOR REMOVAL/REPLACEMENT. FURNISH AND INSTALL REMOTE READER WHERE INDICATED ON THE FLOOR PLAN.
4	PROVIDE THERMOSTATIC MIXING VALVE COMPLIANT WITH ASSE 1070 AND SET HOT WATER TEMPERATURE ENTERING LAVATORY TO 110°F.

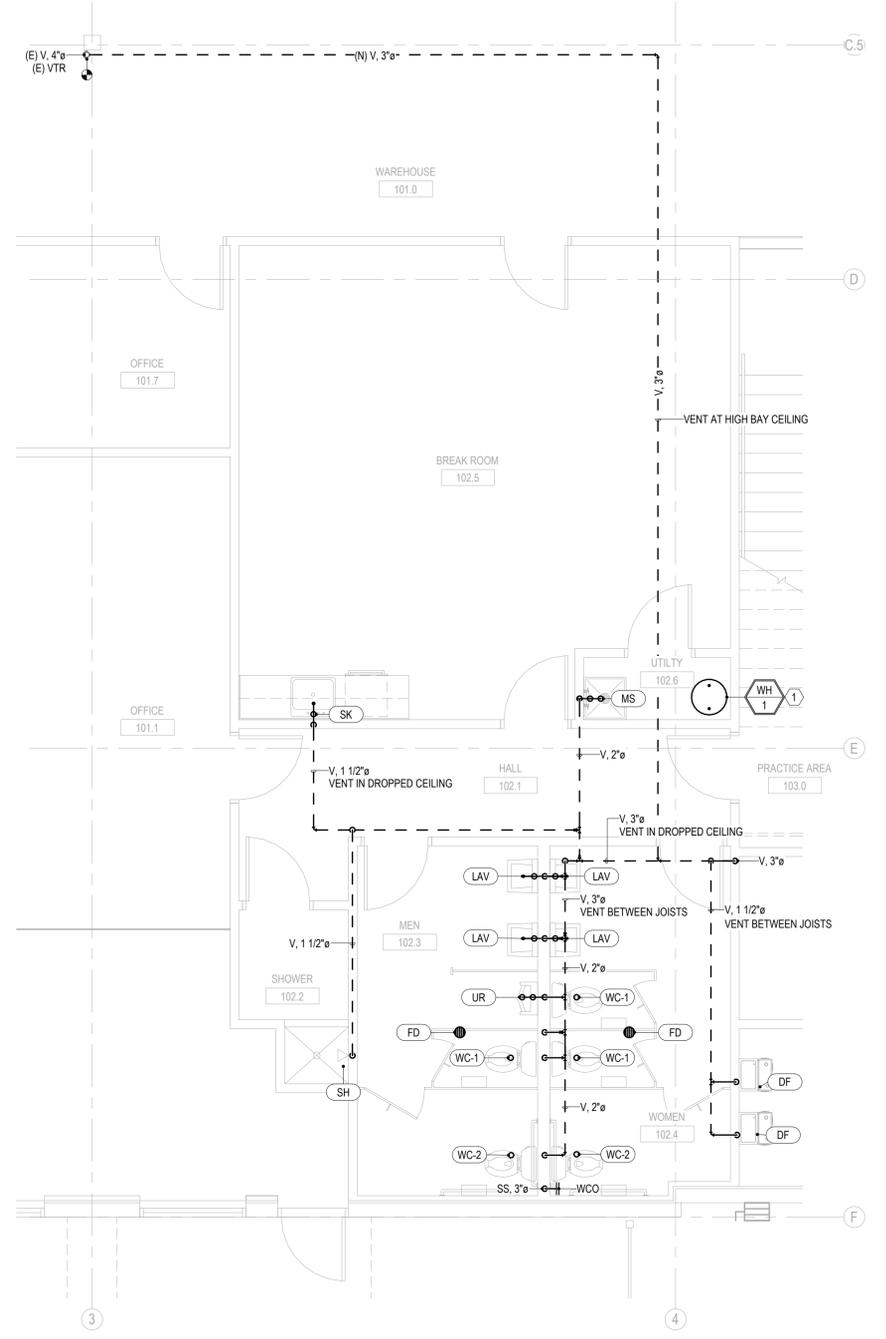
PLUMBING EQUIPMENT SCHEDULE

NOTES:
 1. PROVIDE THERMAL EXPANSION TANK, AMTROL ST-5 OR EQUAL. ADJUST PRE-CHARGE TO EQUAL THE INCOMING WATER PRESSURE.

TAG	DESCRIPTION	MAKE	MODEL	TANK SIZE	TEMP. RISE	FLOW AT RISE	ELECTRICAL	NOTES
WH-1	ELECTRIC STORAGE WATER HEATER	AO SMITH	DEL-40	40.0 gal	60 °F	30 gal/h	208 V, 1 Ø, 4,500 VA	1



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



WASTE AND VENT PLAN
1/4" = 1'-0" 2

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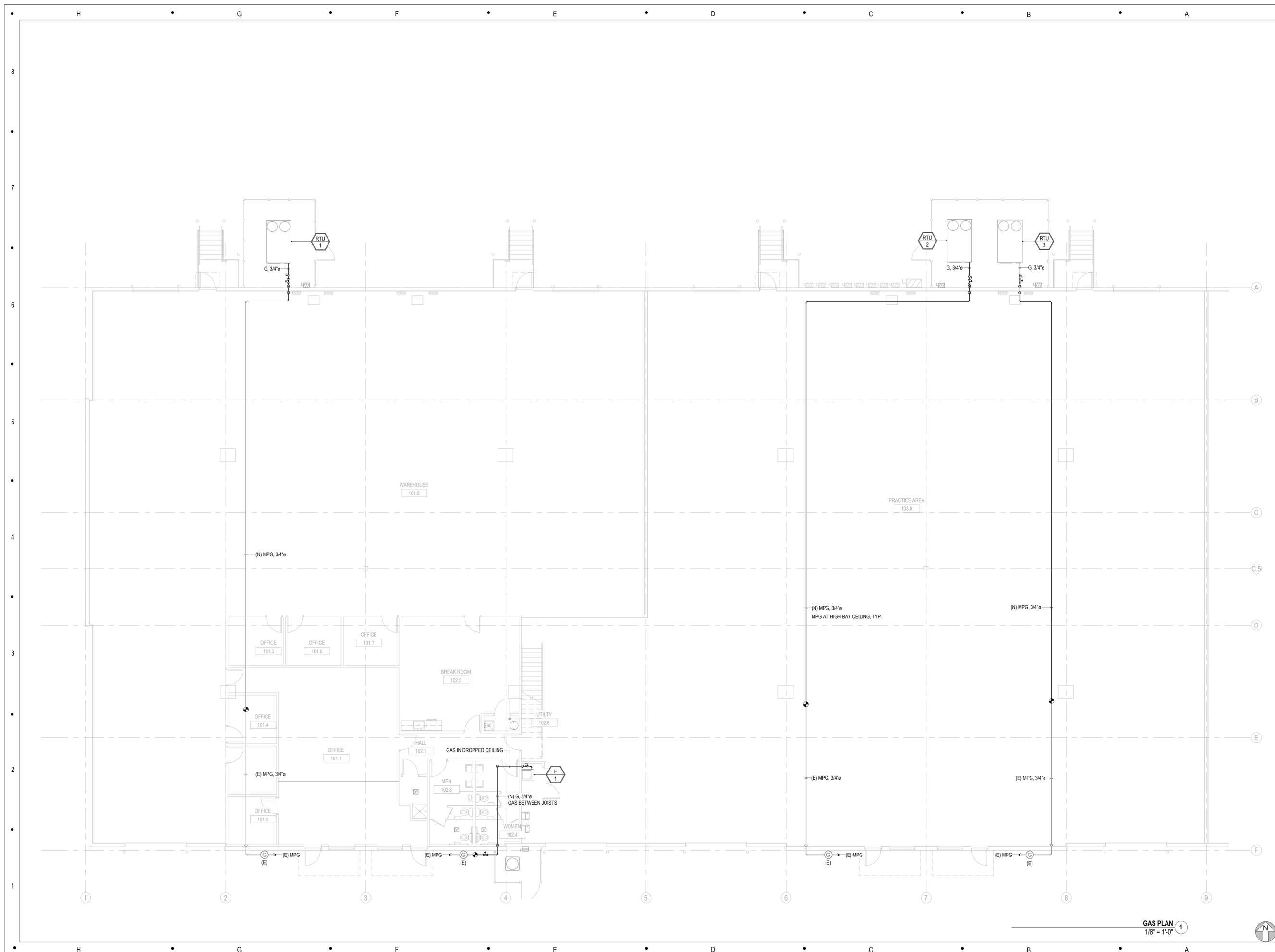
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Sheet Title:
WASTE, VENT & WATER PLAN

P101



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Sheet Title: GAS PLAN

P102

GAS PLAN
1/8" = 1'-0" 1

ELECTRICAL SPECIFICATIONS

PART I - GENERAL

- A. GENERAL**
- FURNISH AND INSTALL A COMPLETELY WIRED AND OPERATIONAL ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO, THESE MAJOR ITEMS.
 - LIGHTING FIXTURES AS INDICATED AND SPECIFIED ON THE PLANS.
 - ELECTRICAL PANELS, SERVICE, CONDUIT, WIRING, ETC., FOR ALL OUTLETS AND EQUIPMENT.
 - OBTAIN AND REVIEW ALL OTHER DRAWINGS INCLUDING REFLECTED CEILING PLAN, INTERIOR AND EXTERIOR ELEVATIONS, FURNITURE PLANS AND ALL MLL WORK DRAWINGS. COORDINATE INSTALLATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT PRIOR TO ROUGH-IN.
 - OBTAIN SUBMITTAL AND SHOP DRAWINGS FROM OTHER TRADES AND EQUIPMENT TO COORDINATE INSTALLATION ACCORDINGLY.
 - INSTALLATION SHALL COMPLY WITH ALL CURRENT APPLICABLE CODES AND GOVERNING AGENCIES HAVING JURISDICTION.
 - FIRE ALARM SYSTEM, IF REQUIRED PER IBC, SHALL BE DESIGN-BUILD BY OWNER'S/OWNER'S FIRE ALARM CONTRACTOR. DESIGN SHALL BE IN ACCORDANCE WITH NFPA 72. FIRE ALARM CONTRACTOR SHALL SUBMIT STAMPED DRAWINGS TO AHJ FOR REVIEW AND APPROVAL. FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR TESTING AND VERIFYING THAT THE AUDIBILITY OF THE FIRE ALARM SYSTEM MEETS A MINIMUM OF 15 DBA ABOVE AMBIENT NOISE LEVELS. ADD HORNS WHERE REQUIRED TO MAINTAIN MINIMUM LEVELS.
 - PROVIDE FIRE STOP ON ALL PIPING THAT PENETRATES RATED WALLS. METHOD OF FIRE STOP SHALL MEET WALL RATING. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS. THIS CONTRACTOR SHALL PROVIDE FIRE RATED ENCLOSURES AROUND ALL ROUGH-IN BOXES, PANELS, ETC. THAT ARE LOCATED IN FIRE RATED WALLS AND SHALL FIRE CAULK ALL OPENINGS IN RATED ASSEMBLIES.

- B. CODES, REGULATIONS, AND STANDARDS**
- THE INSTALLATION SHALL COMPLY WITH APPLICABLE LOCAL AND STATE CODES AND ORDINANCES, WITH THE REGULATIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND WITH THE REQUIREMENTS OF THE POWER, TELEPHONE, AND CATV COMPANIES FURNISHING SERVICES TO THIS INSTALLATION.
 - THE LATEST EDITIONS OF THE FOLLOWING INDUSTRY STANDARDS, SPECIFICATIONS, AND CODES ARE MINIMUM REQUIREMENTS:
 - THE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION STANDARDS.
 - THE NATIONAL ELECTRICAL CODE, INCLUDING LOCAL AMENDMENTS.
 - UNDERWRITER LABORATORIES INCORPORATED STANDARDS.
 - AMERICAN NATIONAL STANDARDS INSTITUTE.
 - INTERNATIONAL BUILDING CODE.

- C. INSPECTION OF SITE**
- PRIOR TO SUBMITTING A BID FOR ELECTRICAL WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE PROPOSED CONSTRUCTION AND SHALL THOROUGHLY ACQUAINT HIMSELF WITH EXISTING UTILITIES, AND WORKING CONDITIONS TO BE ENCOUNTERED, ETC. ALLOWANCE WILL NOT BE MADE FOR NONCOMPLIANCE WITH THIS CONDITION AFTER BIDDING.
 - ELECTRICAL INSTALLATION SHALL MEET THE EXISTING CONDITIONS.

- D. STORAGE AND HANDLING OF MATERIAL**
- DELIVER MATERIALS AND EQUIPMENT TO THE PROJECT IN THE MANUFACTURER'S ORIGINAL, UNOPENED, LABELED CONTAINERS. PROTECT AGAINST MOISTURE, TAMPERING, OR DAMAGE FROM IMPROPER HANDLING OR STORAGE. CONTRACTOR SHALL PROTECT AND BE RESPONSIBLE FOR ANY DAMAGE TO WORK OR MATERIALS UNTIL FINAL ACCEPTANCE BY THE OWNER, AND SHALL MAKE GOOD WITHOUT COST TO THE OWNER, ANY DAMAGE OR LOSS THAT MAY OCCUR DURING THIS PERIOD.
 - ARRANGE FOR TIMELY DELIVERY OF MATERIALS AND EQUIPMENT TO THE JOB SITE IN ORDER TO MINIMIZE THE LENGTH OF TIME BETWEEN DELIVERY AND INSTALLATION.
 - COVER AND PROTECT ANY MATERIAL WHICH MAY BE AFFECTED BY THE WEATHER WHILE IN TRANSIT OR STORED AT THE PROJECT SITE. ANY MATERIAL FOUND DEFECTIVE OR NOT INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS MAY BE REJECTED BY THE ENGINEER.

- E. CLEANUP**
- KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS, OR RUBBISH CAUSED BY EMPLOYEES OR WORK UNDER THIS DIVISION OF THE SPECIFICATIONS. AT THE COMPLETION OF THE WORK REMOVE ALL SURPLUS MATERIALS, TOOLS, ETC., AND LEAVE THE PREMISES BROOM-CLEAN.

- F. EXCAVATION, CUTTING, AND FITTING**
- PERFORM ALL EXCAVATION AND BACK FILLING REQUIRED FOR WORK PERFORMED UNDER THIS DIVISION OF THE SPECIFICATIONS. USE EXCAVATED MATERIALS FOR BACKFILL UNLESS OFF SITE MATERIALS ARE DEEMED NECESSARY.
 - PERFORM THE EXCAVATION, CUTTING, FITTING, REPAIRING, AND FINISHING OF THE WORK NECESSARY FOR THE INSTALLATION OF THE EQUIPMENT OF THIS SECTION. HOWEVER, NO CUTTING OF THE WORK OF OTHER TRADES OR OF ANY STRUCTURAL MEMBERS SHALL BE DONE WITHOUT THE CONSENT OF THE ARCHITECT.

- G. DRAWINGS**
- THE DRAWINGS INDICATE THE GENERAL ARRANGEMENT AND LOCATIONS OF THE ELECTRICAL WORK. DATA PRESENTED ON THESE DRAWINGS ARE AS ACCURATE AS PLANNING CAN DETERMINE, BUT FIELD VERIFICATION OF ALL DIMENSIONS, LOCATIONS, LEVELS, ETC., TO SUIT FIELD CONDITIONS IS REQUIRED. REVIEW ALL ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS AND ADJUST ALL WORK TO MEET THE REQUIREMENTS OF CONDITIONS SHOWN. THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER ALL OTHER DRAWINGS. DISCREPANCIES BETWEEN DIFFERENT PLANS, OR BETWEEN DRAWINGS AND SPECIFICATIONS, OR REGULATIONS AND CODES GOVERNING THE INSTALLATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING BEFORE THE DATE OF BID OPENING. IF DISCREPANCIES ARE NOT REPORTED, THE CONTRACTOR SHALL BID THE GREATER QUANTITY OR BETTER QUALITY, AND APPROPRIATE ADJUSTMENTS WILL BE MADE AFTER CONTRACT AWARD. CONTRACTOR SHALL BE RESPONSIBLE TO FIELD MEASURE AND CONFIRM MOUNTING HEIGHTS AND LOCATION OF ELECTRICAL EQUIPMENT WITH RESPECT TO COUNTERS, RADIATION, ETC. DO NOT SCALE DISTANCES OFF THE ELECTRICAL DRAWINGS, USE ACTUAL BUILDING DIMENSIONS.

- H. COOPERATION WITH OTHER CONTRACTORS**
- COOPERATE WITH THE OTHER TRADES SO THAT THE INSTALLATION OF THE ELECTRICAL OUTLETS AND EQUIPMENT WILL BE PROPERLY COORDINATED. CONDUIT, LIGHTING FIXTURES, AND OTHER EQUIPMENT LOCATIONS SHALL BE VERIFIED WITH OTHER TRADES TO AVOID CONFLICT WITH THE PIPING, DUCTWORK, STEEL, BEAMS, OR OTHER OBSTRUCTIONS.
 - CAREFULLY VERIFY THE LOCATIONS OF THE OUTLET BOXES AND DETERMINE THAT THEY HAVE NOT BEEN DISTURBED DURING THE INSTALLATION OF MATERIALS OF OTHER TRADES.
 - COORDINATE THE LOCATION OF THE TRENCHES AND CONDUITS FOR ELECTRICAL AND TELEPHONE UTILITY SERVICES WITH THE GENERAL CONTRACTOR.
 - COORDINATE HVAC AND PLUMBING EQUIPMENT CONNECTION REQUIREMENTS WITH HVAC AND PLUMBING CONTRACTORS.

- I. RECORD DRAWINGS**
- THE ELECTRICAL CONTRACTOR SHALL MAINTAIN A SET OF DRAWINGS AT THE JOB SITE FOR THE EXCLUSIVE PURPOSE OF MAINTAINING A RECORD OF ALL WORK INSTALLED AND TO SHOW ANY DEVIATIONS FROM THE WORK INDICATED ON THE DRAWINGS.
 - AT THE COMPLETION OF THE PROJECT, ONE SET OF REPRODUCIBLE DRAWINGS, SHOWING ALL RECORD CONDITIONS, SHALL BE DELIVERED TO THE OWNER FOR ACCEPTANCE PRIOR TO FINAL PAYMENT.

PART II - PRODUCTS AND EXECUTION

- A. MATERIALS**
- ALL MATERIALS SHALL BE NEW AND OF QUALITY AS SPECIFIED ON THE PLANS OR SPECIFICATIONS AND MUST CARRY THE UNDERWRITER'S LABORATORIES APPROVAL COVERING THE PURPOSE FOR WHICH THEY ARE USED, IN ADDITION TO MEETING ALL REQUIREMENTS OF THE CURRENT APPLICABLE CODES AND REGULATIONS.

- B. SHOP DRAWINGS AND APPROVALS**
- THE ITEMS SPECIFIED HEREIN AND ON DRAWINGS ARE USED AS A STANDARD OF QUALITY. ANY MATERIALS OF EQUAL QUALITY AND AESTHETIC VALUE WILL BE GIVEN CONSIDERATION AS A SUBSTITUTE FOR THE MATERIALS SPECIFIED. NO APPROVAL WILL BE GIVEN TO A SPECIFIC CATALOG NUMBER, MODEL, OR TYPE OF EQUIPMENT, PRIOR TO BIDDING. AFTER BIDDING, THE DECISION OF THE ARCHITECT AND/OR ENGINEER DETERMINING EQUAL MATERIALS WILL BE FINAL.
 - THE CONTRACTOR SHALL SUBMIT (3) IDENTICAL BOUND SETS OF SHOP DRAWINGS ON THE FOLLOWING ITEMS TO THE G.C.:
 - LIGHTING FIXTURE CUTS AND PERFORMANCE DATA.
 - OUTLINE DRAWINGS AND DATA SHEETS OF EACH PANELBOARD, LOAD CENTERS, AND DISTRIBUTION PANELS.
 - OUTLINE DRAWINGS OF ALL SWITCH GEAR COMPONENTS.
 - WIRING DEVICES AND COVERPLATES.
 - ALL CIRCUIT BREAKERS INSTALLED IN PANELBOARDS, LOAD CENTERS, AND DISTRIBUTION PANELS.

- C. SYSTEM GROUNDING**
- GROUNDING SHALL COMPLY WITH REQUIREMENTS OF ARTICLE 250. ALL EXPOSED NONCURRENT CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, METALLIC RACEWAY SYSTEMS, METALLIC CABLE ARMOR, GROUNDING CONDUCTOR OF NONMETALLIC SHEATHED CABLES, GROUNDING CONDUCTOR IN NONMETALLIC RACEWAYS, AND GROUNDED CONDUCTORS OF THE WIRING SYSTEM SHALL BE GROUNDED.
 - A GROUND BUS SEPARATE FROM THE NEUTRAL BUS SHALL BE PROVIDED IN ALL DISTRIBUTION PANELS AND PANELBOARDS. PROPER TORQUE ON GROUND BUS SHALL BE VERIFIED, PER MANUFACTURER'S RECOMMENDATIONS, PRIOR TO ENERGIZING EQUIPMENT.
 - GROUND BUSES AND NEUTRAL BUSES IN ALL DISTRIBUTION PANELS, LOAD CENTERS, PANELBOARDS, AND THOSE PROVIDED IN ANY EQUIPMENT SHALL BE ISOLATED EXCEPT WHERE REQUIRED TO BE CONNECTED AS SPECIFIED ABOVE FOR THE SERVICE ENTRANCE.
 - WHEN INDICATED ON THE DRAWINGS, EQUIPMENT GROUNDING CONDUCTORS SHALL BE EXTENDED FROM THE GROUND BUS IN THE DISTRIBUTION EQUIPMENT TO THE RECEPTACLE, FIXTURE OR DEVICE LUGS WHERE THEY ARE PROVIDED. WHERE LUGS ARE NOT PROVIDED, EQUIPMENT GROUNDING CONDUCTORS SHALL BE CONNECTED TO EQUIPMENT ENCLOSURES. THE CONNECTIONS SHALL BE ARRANGED SUCH THAT REMOVAL OF THE RECEPTACLE, EQUIPMENT GROUNDING CONDUCTORS, OR GROUND JUMPERS FROM GROUND BUSING SHALL NOT AFFECT THE GROUNDING SYSTEM.
 - RACEWAYS MAY NOT BE USED AS A GROUNDING CONDUCTOR FOR POWER AND LIGHTING CIRCUITS. ALL CONDUIT SHALL HAVE SEPARATE CODE SIZED GREEN GROUND WIRE INSTALLED IN THE CONDUIT TO INSURE A CONTINUOUS GROUNDING PATH.
 - IN INACCESSIBLE LOCATIONS, MAKE CONNECTIONS BY EXOTHERMIC WELD PROCESS.
 - IN ACCESSIBLE LOCATIONS, CONNECTIONS SHALL BE MADE WITH BOLTED THROUGH, APPROVED SOLDERLESS BRONZE GROUNDING DEVICES.

- D. WIRE**
- CONDUCTOR SIZES SHOWN ON THE DRAWINGS ARE BASED ON COPPER WIRE. UNLESS OTHERWISE SPECIFIED, ALL WIRE SHALL BE TYPE XHHW OR USE FOR FEEDERS OR BRANCH CIRCUITS LARGER THAN 4 AWG, TYPE THHN/THWN INSULATION FOR FEEDERS AND BRANCH CIRCUITS 4 AWG AND SMALLER. ALL BRANCH CIRCUIT WIRING SHALL BE COPPER.
 - ALUMINUM CONDUCTORS MAY BE UTILIZED FOR SERVICE ENTRANCE AND PANEL FEEDERS. CONDUCTORS SHALL BE ALUMINUM ALLOY AA-8000 SERIES.
 - THE WIRES SHALL BE MARKED WITH COLOR TO SIMPLIFY CIRCUIT IDENTIFICATION. UNLESS OTHERWISE REQUIRED BY LOCAL ORDINANCES GROUND WIRES SHALL BE GREEN, NEUTRAL WIRES SHALL BE 120V-WHITE (277V-GREY); LIVE WIRES 480Y/277V SHALL BE BROWN (PHASE A), ORANGE (PHASE B), AND YELLOW (PHASE C); AND LIVE WIRES 208Y/120V AND 120/240V SHALL BE BLACK (PHASE A), RED (PHASE B), AND BLUE (PHASE C), WHERE BOTH 208Y/120V AND 120/240V EXIST IN THE SAME BUILDING, THE CONDUCTORS OF EACH CONFIGURATION SHALL BE SEPARATELY IDENTIFIED (NOT THE SAME COLORS). "HIGH-LEG" PHASE OF DELTA SYSTEM SHALL ALWAYS BE MARKED ORANGE. CIRCUIT SHALL BE LABELED IN EACH J-BOX.
 - ALL CONDUCTORS SHALL BE RATED 600 VOLT.
 - SPLICES IN EXTERIOR PULL BOXES AND MANHOLES SHALL BE WEATHERPROOF USING "SCOTCHCAST" SPLICE KIT OR APPROVED EQUAL. SEAL ENDS OF CONDUITS AND DUCTS WITH "DUCTSEAL" OR APPROVED EQUAL. PROVIDE SOLID CONDUCTOR FOR 10 AWG AND SMALLER.
 - NO WIRE SHALL BE INSTALLED IN THE CONDUIT SYSTEM UNTIL THE CONDUIT SYSTEM IS COMPLETE. USE MINERAL OIL 100 OR EQUIVALENT AS A LUBRICANT TO FACILITATE THE INSTALLATION OF THE CONDUCTORS IN THE CONDUIT SYSTEM.
 - MC CABLE WITH COPPER CONDUCTORS AND GROUND WIRE MAY BE USED WHERE PERMITTED.

- E. CONDUIT**
- ALL WIRING SHALL BE INSTALLED IN LISTED METALLIC CONDUIT EXCEPT AS PERMITTED IN OTHER SECTIONS. RIGID GALVANIZED STEEL WITH A 20 MIL PVC COATING MAY BE USED WHEN IN CONTACT WITH EARTH. IMC MAY BE USED IN INDOOR LOCATIONS NOT IN CONTACT WITH THE EARTH. EMT MAY BE USED IN INDOOR LOCATIONS NOT IN CONTACT WITH EARTH, NOT IN CONCRETE SLABS OR WALLS AND NOT SUBJECT TO DAMAGE. PVC MAY BE USED IN OR BELOW CONCRETE AND DIRECT BURIED IN EARTH. FLEXIBLE STEEL CONDUIT SHALL BE USED FOR INDOOR FINAL CONNECTIONS TO EQUIPMENT IN LENGTHS NOT TO EXCEED 72", LIQUID-TIGHT FLEXIBLE STEEL CONDUIT SHALL BE FOR OUTDOOR FINAL CONNECTIONS TO EQUIPMENT NOT TO EXCEED 48".
 - WHERE CONDUIT ENTERS OUTLET BOXES, FIXTURES OR CABINETS, FIRMLY FASTEN WITH STEEL SET SCREW, COMPRESSION CONNECTIONS, OR DOUBLE LOCKNUTS FOR GRC. ALL CONNECTIONS SHALL HAVE BUSHINGS OR INSULATED THROAT CONNECTORS. FIRMLY FASTEN CONDUIT TO THE BUILDING CONSTRUCTION. RUN EXPOSED CONDUIT PARALLEL TO THE BUILDING LINES, SUPPORTED BY APPROPRIATE HANGERS (UNISTRUT, T & B OR APPLIFLEX, OR EQUAL).
 - COVER METALLIC CONDUIT IN CONTACT WITH EARTH WITH POLYETHYLENE TAPED SPIRAL WRAPPED, 1/2 LAPPED TO PROVIDE 20 MIL THICKNESS. TAPE SHALL BE SCOTCH NO. 50 TAPE. CONDUIT AND DUCTS NOT UNDER BUILDINGS AND FEEDER DUCTS SHALL BE INSTALLED PER N.E.C. 300-5. MAKE EXPOSED JOINTS WITH COMPOUND TO BE WATER TIGHT.
 - SCHEDULE 40 PVC CONDUIT SHALL BE PERMITTED UNDERGROUND WITH PROPER FITTINGS, ALL UL APPROVED AND CEMENTED JOINTS. PENETRATIONS THROUGH FLOOR SLABS AND BENDS GREATER THAN 22" SHALL BE WRAPPED RIGID GALVANIZED STEEL ELBOWS.
 - FITTINGS AND CONDUIT BODIES SHALL BE STEEL. DIECAST FITTINGS ARE NOT ACCEPTABLE.
 - CONDUIT SIZES SHALL BE AS REQUIRED BY CODE AND AS INDICATED OR SPECIFIED.
 - ALL EMPTY CONDUIT SYSTEMS SHALL HAVE A 200 LB. TEST NYLON PULL STRING TO FACILITATE INSTALLATION OF FUTURE WIRE.
 - WIRING, CONDUITS, AND THE BUILDING STRUCTURE, EXCEPT THAT CERTAIN MOTOR AND LIGHTING FEEDER CONDUITS MAY BE RUN EXPOSED IN CERTAIN AREAS AS INDICATED ON THE DRAWINGS.
 - CONDUITS SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO THE STRUCTURE WALLS.

- F. OUTLET, PULL, AND JUNCTION BOXES**
- EACH SWITCH, LIGHT, RECEPTACLE OR OTHER OUTLET, SHALL BE PROVIDED WITH A CODE SIZED, STEEL OUTLET BOX. JUNCTION AND PULL BOXES SHALL BE METAL AND CODE SIZED.
 - BOXES INSTALLED IN POURED CEMENT FLOORS SHALL BE FLUSH TYPE CAST IRON OR STEEL WITH WATER TIGHT GASKETED COVERS. WHERE BOXES ARE INSTALLED IN FLOORS WITH TILE OR CARPET FLOOR COVERING, COVERS SHALL BE OF THE ACCESSIBLE TYPE TO ACCOMMODATE THE FLOOR COVERING.
 - BOXES INSTALLED FOR THE ALARM, COMPUTER, AND SECURITY SYSTEM SHALL BE PROVIDED WITH APPROPRIATE COVER PLATES.

- G. WIRING DEVICES (COMMERCIAL)**
- WALL SWITCHES SHALL BE SPECIFICATION GRADE AC SILENT TYPE SWITCHES, 20A 120/277 VOLT.
 - RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX TYPE, NEMAS-20R, 20 AMPERE, 120VOLT GROUNDING TYPE. SPECIAL APPLICATION RECEPTACLES SHALL BE INDICATED ON PLANS. MOUNT WITH THE GROUND DOWN. DEVICE PLATES SHALL BE EQUAL TO SIERRA SMOOTH-LINE PLASTIC WALL PLATES. COLOR SHALL BE WHITE, UNLESS OTHERWISE NOTED.
 - RECEPTACLES IN OUTDOOR AND WET LOCATIONS SHALL BE INSTALLED WITH A HINGED OUTLET COVER/ENCLOSURE CLEARLY MARKED AND U.L. LISTED SUITABLE FOR WET LOCATIONS WHILE IN USE, EQUAL TO TAYMAC SPECIFICATION GRADE.

- H. PANEL BOARDS**
- CIRCUIT BREAKER TYPE AS INDICATED ON DRAWINGS. UNLESS INDICATED OTHERWISE, ALL PANELS SHALL HAVE PANEL BOARD TYPE CONSTRUCTION WITH BOLT-ON CIRCUIT BREAKERS FOR 3 @ PANELS.
 - MANUFACTURERS SHALL BE GENERAL ELECTRIC, SQUARE D, SEIMENS, OR Eaton WITH VOLTAGE, SIZES, AND RATINGS AS INDICATED ON DRAWINGS.
 - WIRE TERMINATION FOR PANEL BOARDS AND CIRCUIT BREAKERS SHALL BE LISTED AS SUITABLE FOR 75 DEGREES C.
 - PROVIDE A TYPEWRITTEN CIRCUIT INDEX BEHIND CLEAR PLASTIC COVER ON INSIDE OF DOOR. INFORMATION SHALL INCLUDE ROOM AND TYPE LOAD SERVED. ALL CIRCUIT BREAKERS SHALL BE IDENTIFIED, INCLUDING SPARES. INDEX CARD FRAME SHALL BE METAL SECURED TO DOOR.
 - THE CIRCUIT BREAKERS SHALL BE OPERABLE IN ANY POSITION AND BE REMOVABLE FROM THE FRONT OF THE PANEL BOARD WITHOUT DISTURBING THE ADJACENT UNITS. BRANCH BREAKERS SHALL BE OF SUCH DESIGN THAT COMBINATION OF SINGLE-POLE, DOUBLE-POLE, AND THREE-POLE BREAKERS CAN BE ASSEMBLED ON THE SAME PANEL. EACH BRANCH CIRCUIT SHALL BE CLEARLY NUMBERED. BRANCH AND MAIN TERMINALS SHALL BE SOLDERLESS TYPE. HANDLE TIES TO FORM MULTI-POLE BREAKERS NOT ACCEPTABLE.

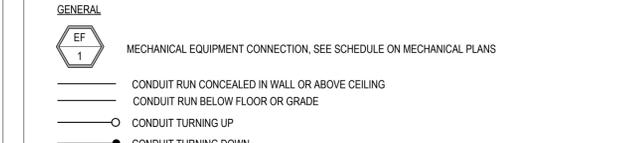
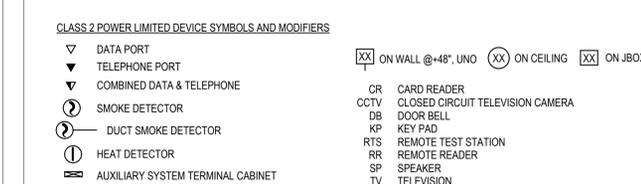
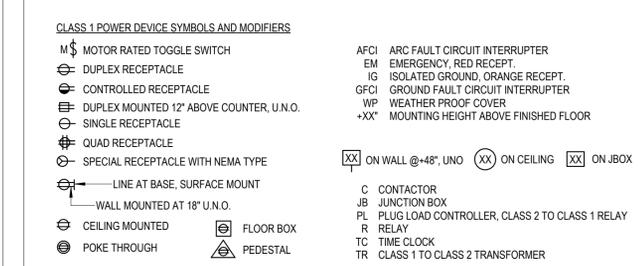
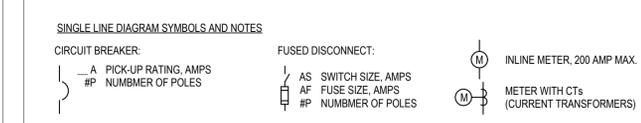
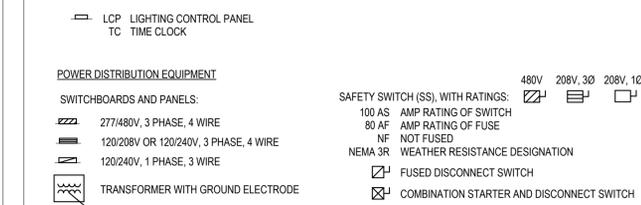
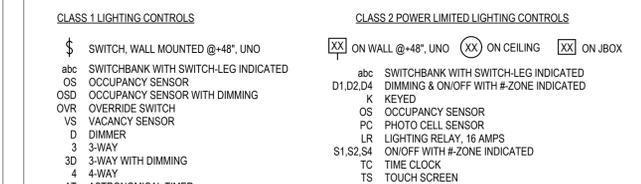
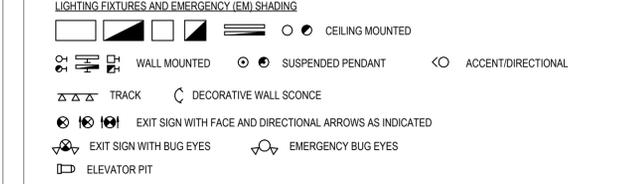
- I. LIGHTING FIXTURES**
- PROVIDE ALL LIGHTING FIXTURES, WIRED AND CONNECTED. THE DRAWINGS INDICATE THE FIXTURES FOR EACH LOCATION. PROVIDE LAMPS FOR ALL FIXTURES. REPLACEABLE LAMPS SHALL BE BY THE SAME MANUFACTURER. VERIFY CEILING CONSTRUCTION BEFORE ORDERING RECESSED UNITS. PROVIDE PLASTER FRAMES AND HANGERS AS REQUIRED. CEILING CONSTRUCTION, ARCHITECTURAL ACCESSORIES, VOLTAGE, AND DRIVERS TO MEET THE EXISTING CEILING CONDITION.

- J. LIGHTING CONTROL**
- FURNISH AND INSTALL TIME SWITCHES, PHOTOCELLS, CONTRACTORS AND FULL LIGHTING CONTROL SYSTEMS AS REQUIRED FOR LIGHTING CONTROLS INDICATED ON THE DRAWINGS.
 - TIME SWITCHES SHALL BE EQUAL TO NULIGHT, PARAGON, GENERAL ELECTRIC, TORQ, OR INTERMATIC AND SHALL HAVE SIZE AND NUMBER OF POLES AS REQUIRED.
 - PHOTOCELLS SHALL BE EQUAL TO NULIGHT, TORQ OR INTERMATIC WITH VOLTAGE AS INDICATED.

- K. GUARANTEE**
- GUARANTEE ALL MATERIAL FURNISHED AND ALL WORKMANSHIP PERFORMED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF WORK. ANY DEFECTS DEVELOPING WITHIN THIS PERIOD, TRACEABLE TO MATERIAL FURNISHED AS A PART OF THIS SECTION OR WORKMANSHIP PERFORMED HEREUNDER, SHALL BE MADE GOOD AT NO EXPENSE TO THE OWNER.

ELECTRICAL SYMBOLS

NOTE: THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS NECESSARILY USED ON THE DRAWINGS.



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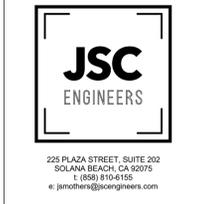
Project Number: 25-100
Project Type: TENANT FINISH
Project Name and Address:
NE MAGUIRE BLVD
LEES SUMMIT, MO 64064

Issue: _____ Date: _____
PLAN REVIEW 01/09/2026

REVISIONS		
#	DESCRIPTION	DATE

Sheet Title:
ELECTRICAL SYMBOLS AND SPECIFICATIONS

E001



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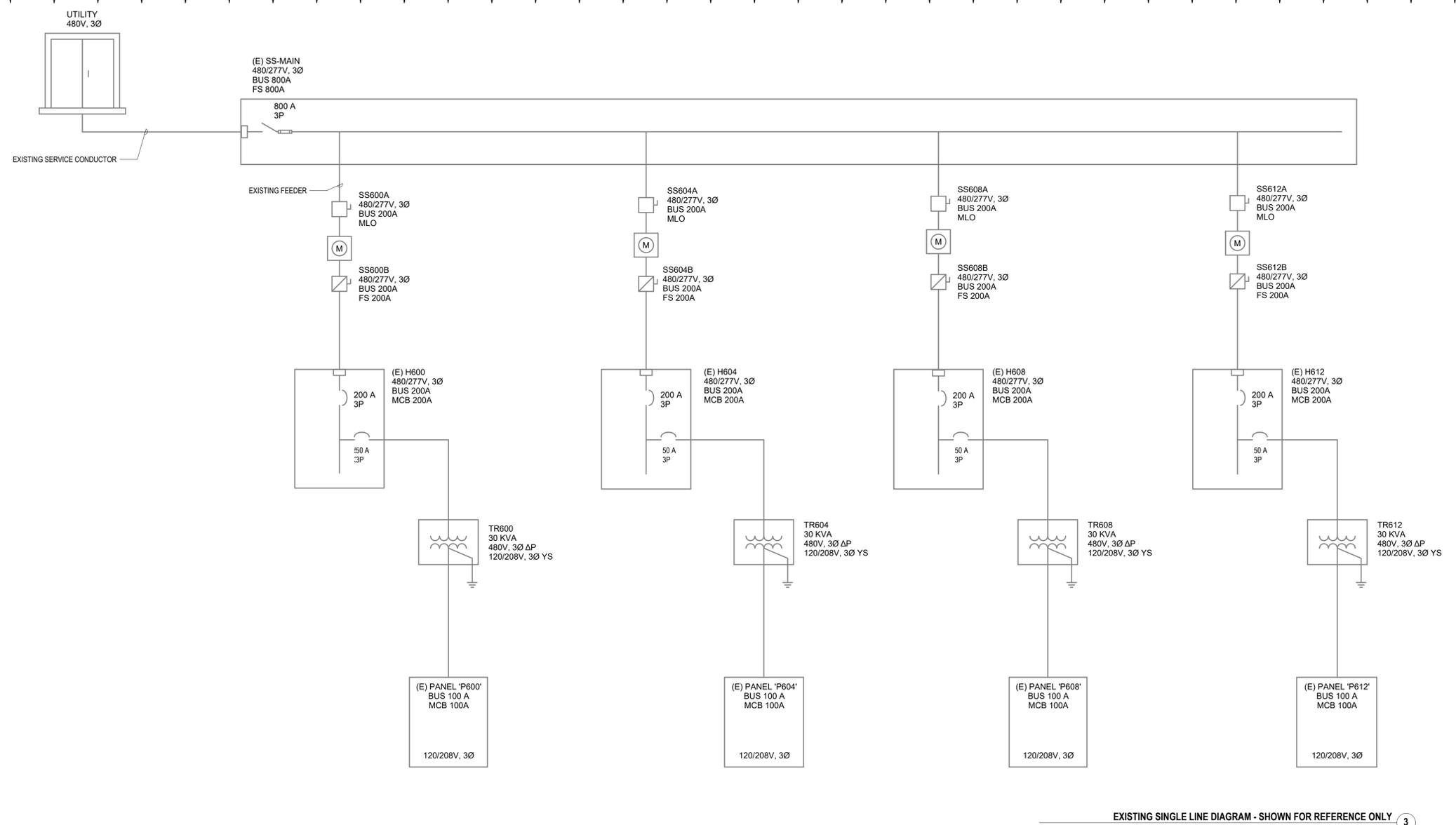
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LEES SUMMIT, MO 64064

Issue: PLAN REVIEW Date: 01/09/2026

REVISIONS		
#	DESCRIPTION	DATE
1	PLAN REVIEW REVISIONS	01/09/2026

Sheet Title:
ELECTRICAL SINGLE LINE & SCHEDULES

E002



EXISTING PANEL: H600												
LOCATION: WAREHOUSE 101.0			DISTRIBUTION SYSTEM: 480/277V, 3Ø			MAINS TYPE: MCB			ENCLOSURE: TYPE 1			
SUPPLY FROM: SS600B			ENCLOSURE: TYPE 1			BUS RATING: 200 A			A.I.C. RATING: EXISTING			
MOUNTING: SURFACE			A.I.C. RATING: EXISTING			MAIN BREAKER: 200 A			FEED THROUGH LUGS: No			
CIRCUIT NOTES:												
CKT	DESCRIPTION	NOTES	TRIP	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP	NOTES	DESCRIPTION	CKT
1	RTU-1		30 A	3	5,598	12		1	20 A		WAREHOUSE LIGHTS	2
3	--	--	--	--	5,598	312		1	20 A		MEZANNINE LIGHTS	4
5	--	--	--	--			5,598	1	--		SPACE ONLY	6
7	SPACE ONLY	--	1	--	--	--	--	1	--		SPACE ONLY	8
9	SPACE ONLY	--	1	--	--	--	--	1	--		SPACE ONLY	10
11	SPACE ONLY	--	1	--	--	--	--	1	--		SPACE ONLY	12
13	SPACE ONLY	--	1	--	--	--	--	1	--		SPACE ONLY	14
15	SPACE ONLY	--	1	--	--	--	--	1	--		SPACE ONLY	16
17	SPACE ONLY	--	1	--	--	--	--	1	--		SPACE ONLY	18
19	SPACE ONLY	--	1	--	--	--	--	1	--		SPACE ONLY	20
21	SPACE ONLY	--	1	--	--	--	--	1	--		SPACE ONLY	22
23	SPACE ONLY	--	1	--	--	--	--	1	--		SPACE ONLY	24
25	TRANSFORMER 'TR600'		50 A	3	4,536	--	--	1	--		SPACE ONLY	26
27	--	--	--	--	--	3,036	--	1	--		SPACE ONLY	28
29	--	--	--	--	--	--	5,306	1	--		SPACE ONLY	30
LOAD VA:					10,146 VA	8,946 VA	10,904 VA					
LOAD AMPS:					37 A	32 A	40 A					
LOAD CLASSIFICATION				TOTALS								
RECEPTACLE	6,480 VA	100.00%	6,480 VA	CONNECTED VA:	29,995 VA							
NON-CONTINUOUS	20,204 VA	100.00%	20,204 VA	DEMAND VA:	30,823 VA							
CONTINUOUS	3,311 VA	125.00%	4,139 VA	CONNECTED AMPS:	36 A							
				DEMAND AMPS:	37 A							

EXISTING PANEL: P600												
LOCATION: WAREHOUSE 101.0			DISTRIBUTION SYSTEM: 120/208V, 3Ø			MAINS TYPE: MCB			ENCLOSURE: NEMA 1			
SUPPLY FROM: TR600			ENCLOSURE: NEMA 1			BUS RATING: 100 A			A.I.C. RATING: EXISTING			
MOUNTING: SURFACE			A.I.C. RATING: EXISTING			MAIN BREAKER: 100 A			FEED THROUGH LUGS: No			
CIRCUIT NOTES:												
1. 'G'FOF TYPE CIRCUIT BREAKER.												
2. WITH HANDLE PADLOCK ACCESSORY.												
3. VIA TIMECLOCK.												
CKT	DESCRIPTION	NOTES	TRIP	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP	NOTES	DESCRIPTION	CKT
1	SPACE ONLY		--	1	--	720		1	20 A		WAREHOUSE RECEPTS.	2
3	DUCT SMOKE DETECTOR		20 A	1		100	20		20 A	2	MAGENTICE DOOR LOCKS	4
5	OFFICE LIGHTS		20 A	1				1,766	1,440		SMALL OFFICE RECEPTACLES	6
7	(E) UNIT HEATER UH-1		20 A	1	1,656	1,440			20 A		SMALL OFFICE RECEPTACLES	8
9	(E) UNIT HEATER UH-1		20 A	1		1,656	1,260		20 A		OPEN OFFICE RECEPT.	10
11	FRONT ENTRY SIGN	3	20 A	1			1,200	540	1	20 A	WAREHOUSE RECEPTS.	12
13	SPACE ONLY		--	1	--	720			1	20 A	MEZZANINE RECEPTS.	14
15	SPACE ONLY		--	1	--	--	--		1	--	SPACE ONLY	16
17	SPACE ONLY		--	1	--	--	--		1	--	SPACE ONLY	18
19	SPACE ONLY		--	1	--	--	--		1	--	SPACE ONLY	20
21	SPACE ONLY		--	1	--	--	--		1	--	SPACE ONLY	22
23	SPACE ONLY		--	1	--	--	--		1	--	SPACE ONLY	24
25	SPACE ONLY		--	1	--	--	--		1	--	SPACE ONLY	26
27	SPACE ONLY		--	1	--	--	--		1	--	SPACE ONLY	28
29	SPACE ONLY		--	1	--	--	360		1	20 A	WAREHOUSE & SERVICE RECEPTS.	30
LOAD VA:					4,536 VA	3,036 VA	5,306 VA					
LOAD AMPS:					40 A	25 A	46 A					
LOAD CLASSIFICATION				TOTALS								
RECEPTACLE	6,480 VA	100.00%	6,480 VA	CONNECTED VA:	12,878 VA							
NON-CONTINUOUS	3,411 VA	100.00%	3,411 VA	DEMAND VA:	13,625 VA							
CONTINUOUS	2,987 VA	125.00%	3,734 VA	CONNECTED AMPS:	36 A							
				DEMAND AMPS:	38 A							

EXISTING PANEL: H604

LOCATION: WAREHOUSE 101.0 DISTRIBUTION SYSTEM: 480/277V, 3Ø MAINS TYPE: MCB
 SUPPLY FROM: SS604B ENCLOSURE: TYPE 1 BUS RATING: 200 A
 MOUNTING: SURFACE A.I.C. RATING: EXISTING MAIN BREAKER: 200 A
 FEED THROUGH LUGS: No

CIRCUIT NOTES:
 1. 'GFCI' TYPE CIRCUIT BREAKER.
 2. WITH HANDLE PADLOCK ACCESSORY.
 3. VIA TIMECLOCK.

CKT	DESCRIPTION	NOTES	TRIP	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP	NOTES	DESCRIPTION	CKT
1	SPACE ONLY		--	1	--	12			1	20 A	WAREHOUSE LIGHTS	2
3	SPACE ONLY		--	1					1		SPACE ONLY	4
5	SPACE ONLY		--	1					1		SPACE ONLY	6
7	SPACE ONLY		--	1					1		SPACE ONLY	8
9	SPACE ONLY		--	1					1		SPACE ONLY	10
11	SPACE ONLY		--	1					1		SPACE ONLY	12
13	SPACE ONLY		--	1					1		SPACE ONLY	14
15	SPACE ONLY		--	1					1		SPACE ONLY	16
17	SPACE ONLY		--	1					1		SPACE ONLY	18
19	SPACE ONLY		--	1					1		SPACE ONLY	20
21	SPACE ONLY		--	1					1		SPACE ONLY	22
23	SPACE ONLY		--	1					1		SPACE ONLY	24
25	TRANSFORMER TR604		50 A	3	5,706	--	--	--	1		SPACE ONLY	26
27			--	--	--	7,286	--	--	1		SPACE ONLY	28
29			--	--	--	--	3,060	--	1		SPACE ONLY	30
					LOAD VA:	5,718 VA	7,286 VA	3,060 VA				
					LOAD AMPS:	22 A	28 A	11 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS
RECEPTACLE	4,500 VA	100.00%	4,500 VA	CONNECTED VA: 16,064 VA
NON-CONTINUOUS	3,312 VA	100.00%	3,312 VA	DEMAND VA: 16,818 VA
CONTINUOUS	4,512 VA	125.00%	5,640 VA	CONNECTED AMPS: 19 A
KITCHEN EQUIPMENT	3,740 VA	90.00%	3,366 VA	DEMAND AMPS: 20 A

PANEL NOTES:

EXISTING PANEL: P604

LOCATION: WAREHOUSE 101.0 DISTRIBUTION SYSTEM: 120/208V, 3Ø MAINS TYPE: MCB
 SUPPLY FROM: TR604 ENCLOSURE: NEMA 1 BUS RATING: 100 A
 MOUNTING: SURFACE A.I.C. RATING: EXISTING MAIN BREAKER: 100 A
 FEED THROUGH LUGS: No

CIRCUIT NOTES:
 1. 'GFCI' TYPE CIRCUIT BREAKER.
 2. WITH HANDLE PADLOCK ACCESSORY.
 3. VIA TIMECLOCK.

CKT	DESCRIPTION	NOTES	TRIP	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP	NOTES	DESCRIPTION	CKT	
1	WATER HEATER WH-1		2	30 A	2	2,250	--	--	1	20 A	SPACE ONLY	2	
3			--	--	--	2,250	1,080	--	1		WAREHOUSE RECEPTS.	4	
5	RESTROOM RECEPTS.		20 A	1	--	--	540	--	1		SPACE ONLY	6	
7	(E) UNIT HEATER UH-1		20 A	1	1,656	360	--	--	1	20 A	BREAK ROOM COUNTER RECEPTS.	8	
9	(E) UNIT HEATER UH-1		20 A	1	1,656	1,500	--	--	1	20 A	GARBAGE DISPOSER	10	
11	BREAK ROOM RECEPTS.		20 A	1	--	--	1,080	1,440	1	20 A	1	DISHWASHER	12
13	SMALL OFFICE RECEPTACLES		20 A	1	1,440	--	--	--	1		SPACE ONLY	14	
15	REFRIGERATOR		1	20 A	1	800	--	--	1		SPACE ONLY	16	
17	SPACE ONLY		--	1					1		SPACE ONLY	18	
19	SPACE ONLY		--	1					1		SPACE ONLY	20	
21	SPACE ONLY		--	1					1		SPACE ONLY	22	
23	SPACE ONLY		--	1					1		SPACE ONLY	24	
25	SPACE ONLY		--	1					1		SPACE ONLY	26	
27	SPACE ONLY		--	1					1		SPACE ONLY	28	
29	SPACE ONLY		--	1					1		SPACE ONLY	30	
					LOAD VA:	5,706 VA	7,286 VA	3,060 VA					
					LOAD AMPS:	51 A	64 A	26 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS
RECEPTACLE	4,500 VA	100.00%	4,500 VA	CONNECTED VA: 16,062 VA
NON-CONTINUOUS	3,312 VA	100.00%	3,312 VA	DEMAND VA: 16,803 VA
CONTINUOUS	4,500 VA	125.00%	5,625 VA	CONNECTED AMPS: 45 A
KITCHEN EQUIPMENT	3,740 VA	90.00%	3,366 VA	DEMAND AMPS: 47 A

PANEL NOTES:

EXISTING PANEL: H608

LOCATION: PRACTICE AREA 103.0 DISTRIBUTION SYSTEM: 480/277V, 3Ø MAINS TYPE: MCB
 SUPPLY FROM: SS608B ENCLOSURE: TYPE 1 BUS RATING: 200 A
 MOUNTING: SURFACE A.I.C. RATING: EXISTING MAIN BREAKER: 200 A
 FEED THROUGH LUGS: No

CIRCUIT NOTES:
 1. 'GFCI' TYPE CIRCUIT BREAKER.
 2. WITH HANDLE PADLOCK ACCESSORY.
 3. VIA TIMECLOCK.

CKT	DESCRIPTION	NOTES	TRIP	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP	NOTES	DESCRIPTION	CKT
1	RTU-2		30 A	3	5,598	15	--	--	1	20 A	PRACTICE AREA LIGHTS	2
3			--	--	--	5,598	--	--	1		SPACE ONLY	4
5			--	--	--	--	5,598	--	1		SPACE ONLY	6
7	SPACE ONLY		--	1					1		SPACE ONLY	8
9	SPACE ONLY		--	1					1		SPACE ONLY	10
11	SPACE ONLY		--	1					1		SPACE ONLY	12
13	SPACE ONLY		--	1					1		SPACE ONLY	14
15	SPACE ONLY		--	1					1		SPACE ONLY	16
17	SPACE ONLY		--	1					1		SPACE ONLY	18
19	SPACE ONLY		--	1					1		SPACE ONLY	20
21	SPACE ONLY		--	1					1		SPACE ONLY	22
23	SPACE ONLY		--	1					1		SPACE ONLY	24
25	TRANSFORMER TR608		50 A	3	4,727	--	--	--	1		SPACE ONLY	26
27			--	--	--	5,153	--	--	1		SPACE ONLY	28
29			--	--	--	--	3,311	--	1		SPACE ONLY	30
					LOAD VA:	10,340 VA	10,751 VA	8,909 VA				
					LOAD AMPS:	38 A	40 A	32 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS
RECEPTACLE	1,440 VA	100.00%	1,440 VA	CONNECTED VA: 30,000 VA
NON-CONTINUOUS	28,425 VA	100.00%	28,425 VA	DEMAND VA: 30,034 VA
CONTINUOUS	135 VA	125.00%	169 VA	CONNECTED AMPS: 36 A
				DEMAND AMPS: 36 A

PANEL NOTES:

EXISTING PANEL: P608

LOCATION: PRACTICE AREA 103.0 DISTRIBUTION SYSTEM: 120/208V, 3Ø MAINS TYPE: MCB
 SUPPLY FROM: TR608 ENCLOSURE: NEMA 1 BUS RATING: 100 A
 MOUNTING: SURFACE A.I.C. RATING: EXISTING MAIN BREAKER: 100 A
 FEED THROUGH LUGS: No

CIRCUIT NOTES:
 1. 'GFCI' TYPE CIRCUIT BREAKER.
 2. WITH HANDLE PADLOCK ACCESSORY.
 3. VIA TIMECLOCK.

CKT	DESCRIPTION	NOTES	TRIP	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP	NOTES	DESCRIPTION	CKT	
1	SPACE ONLY		20 A	1	--	1,861	--	--	3	40 A	CONDENSER CU-1	2	
3	CONTINUOUS		20 A	1	--	--	100	1,861	--	--	SPACE ONLY	4	
5	PRACTICE AREA RECEPTS.		20 A	1	--	--	--	900	1,861	--	SPACE ONLY	6	
7	(E) UNIT HEATER UH-1		20 A	1	1,656	1,200	--	--	1	20 A	1	ELECTRIC WATER COOLER	8
9	(E) UNIT HEATER UH-1		20 A	1	1,656	1,536	--	--	1	20 A	1	FURNACE F-1	10
11	PRACTICE AREA RECEPTS.		20 A	1	--	--	540	--	1	20 A	2	ELECTRONIC WATER METER AND READER	12
13	MAGNETIC DOOR LOCK		20 A	1	10	--	--	--	1		SPACE ONLY	14	
15	SPACE ONLY		--	1					1		SPACE ONLY	16	
17	SPACE ONLY		--	1					1		SPACE ONLY	18	
19	SPACE ONLY		--	1					1		SPACE ONLY	20	
21	SPACE ONLY		--	1					1		SPACE ONLY	22	
23	SPACE ONLY		--	1					1		SPACE ONLY	24	
25	SPACE ONLY		--	1					1		SPACE ONLY	26	
27	SPACE ONLY		--	1					1		SPACE ONLY	28	
29	SPACE ONLY		--	1					1		SPACE ONLY	30	
					LOAD VA:	4,727 VA	5,153 VA	3,311 VA					
					LOAD AMPS:	41 A	45 A	28 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS
RECEPTACLE	1,440 VA	100.00%	1,440 VA	CONNECTED VA: 13,192 VA
NON-CONTINUOUS	11,632 VA	100.00%	11,632 VA	DEMAND VA: 13,222 VA
CONTINUOUS	120 VA	125.00%	150 VA	CONNECTED AMPS: 37 A
				DEMAND AMPS: 37 A

PANEL NOTES:

EXISTING PANEL: H612

LOCATION: PRACTICE AREA 103.0 DISTRIBUTION SYSTEM: 480/277V, 3Ø MAINS TYPE: MCB
 SUPPLY FROM: SS612B ENCLOSURE: TYPE 1 BUS RATING: 200 A
 MOUNTING: SURFACE A.I.C. RATING: EXISTING MAIN BREAKER: 200 A
 FEED THROUGH LUGS: No

CIRCUIT NOTES:
 1. 'GFCI' TYPE CIRCUIT BREAKER.
 2. WITH HANDLE PADLOCK ACCESSORY.
 3. VIA TIMECLOCK.

CKT	DESCRIPTION	NOTES	TRIP	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP	NOTES	DESCRIPTION	CKT
1	RTU-3		30 A	3	5,598	15	--	--	1	20 A	PRACTICE AREA LIGHTS	2
3			--	--	--	5,598	--	--	1		SPACE ONLY	4
5			--	--	--	--	5,598	--	1		SPACE ONLY	6
7	SPACE ONLY		--	1					1		SPACE ONLY	8
9	SPACE ONLY		--	1					1		SPACE ONLY	10
11	SPACE ONLY		--	1					1		SPACE ONLY	12
13	SPACE ONLY		--	1					1		SPACE ONLY	14
15	SPACE ONLY		--	1					1		SPACE ONLY	16
17	SPACE ONLY		--	1					1		SPACE ONLY	18
19	SPACE ONLY		--	1					1		SPACE ONLY	20
21	SPACE ONLY		--	1					1		SPACE ONLY	22
23	SPACE ONLY		--	1					1		SPACE ONLY	24
25	TRANSFORMER TR612		50 A	3	6,216	--	--	--	1		SPACE ONLY	26
27			--	--	--	3,576	--	--	1		SPACE ONLY	28
29			--	--	--	--	2,020	--	1		SPACE ONLY	30
					LOAD VA:	11,829 VA	9,174 VA	7,618 VA				
					LOAD AMPS:	44 A	34 A	28 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS
RECEPTACLE	720 VA	100.00%	720 VA	CONNECTED VA: 28,620 VA
NON-CONTINUOUS	27,785 VA	100.00%	27,785 VA	DEMAND VA: 28,649 VA
CONTINUOUS	115 VA	125.00%	144 VA	CONNECTED AMPS: 34 A
				DEMAND AMPS: 34 A

PANEL NOTES:

EXISTING PANEL: P612

LOCATION: PRACTICE AREA 103.0 DISTRIBUTION SYSTEM: 120/208V, 3Ø MAINS TYPE: MCB
 SUPPLY FROM: TR612 ENCLOSURE: NEMA 1 BUS RATING: 100 A
 MOUNTING: SURFACE A.I.C. RATING: EXISTING MAIN BREAKER: 100 A
 FEED THROUGH LUGS: No

CIRCUIT NOTES:
 1. 'GFCI' TYPE CIRCUIT BREAKER.
 2. WITH HANDLE PADLOCK ACCESSORY.
 3. VIA TIMECLOCK.

CKT	DESCRIPTION	NOTES	TRIP	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP	NOTES	DESCRIPTION	CKT
1	PRACTICE AREA GENERAL RECEPTS.		20 A	1	720	1,920	--	--	1	20 A	PITCHING MACHINES	2
3	SPACE ONLY		--	1		--	1,920	--	1	20 A	PITCHING MACHINES	4
5	CONTINUOUS		20 A	1	--	--	100	1,920	1	20 A	PITCHING MACHINES	6
7	(E) UNIT HEATER UH-1		20 A	1	1,656	1,920	--	--	1	20 A	PITCHING MACHINES	8
9	(E) UNIT HEATER UH-1		20 A	1	1,656	--	--	--	1		SPACE ONLY	10
11	SPACE ONLY		--	1					1		SPACE ONLY	12
13	SPACE ONLY		--	1					1		SPACE ONLY	14
15	SPACE ONLY		--	1					1		SPACE ONLY	16
17	SPACE ONLY		--	1					1		SPACE ONLY	18
19	SPACE ONLY		--	1					1		SPACE ONLY	20
21	SPACE ONLY		--	1					1		SPACE ONLY	22
23	SPACE ONLY		--	1					1		SPACE ONLY	24
25	SPACE ONLY		--	1					1		SPACE ONLY	26
27	SPACE ONLY		--	1					1		SPACE ONLY	28
29	SPACE ONLY		--	1					1		SPACE ONLY	30
					LOAD VA:	6,216 VA	3,576 VA	2,020 VA				
					LOAD AMPS:	54 A	32 A	17 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS
RECEPTACLE	720 VA	100.00%	720 VA	CONNECTED VA: 11,812 VA
NON-CONTINUOUS	10,992 VA	100.00%	10,992 VA	DEMAND VA: 11,837 VA
CONTINUOUS	100 VA	125.00%	125 VA	CONNECTED AMPS: 33 A
				DEMAND AMPS: 33 A

PANEL NOTES:

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EXISTING SWITCH: SS-MAIN

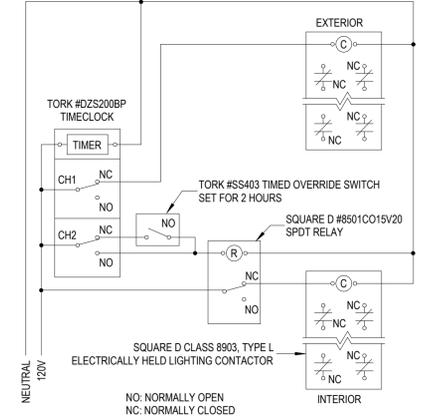
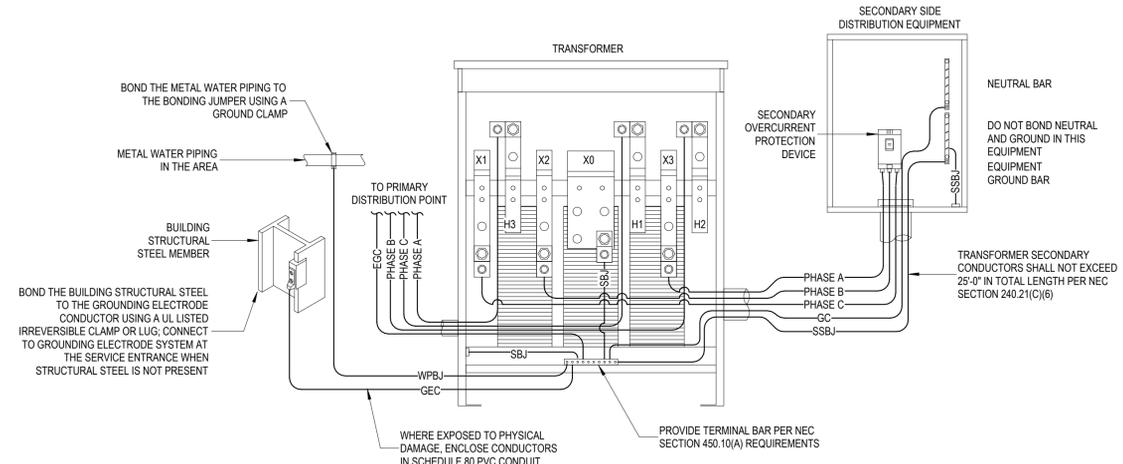
LOCATION: SUPPLY FROM: UTILITY MOUNTING: SURFACE
 DISTRIBUTION SYSTEM: 480/277V, 3Ø ENCLOSURE: NEMA 3R A.I.C. RATING: EXISTING
 TYPE: FUSED SWITCH RATING: 800 A FUSE RATING: 800 A

NOTES:

CKT	DESCRIPTION	NOTES	TRIP	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP	NOTES	DESCRIPTION	CKT
1	(E) SS600A		200 A	3	10,146	10,340		3	200 A		(E) SS608A	2
3	--	--	--	--		8,946	10,751	--	--	--	--	4
5	--	--	--	--			10,904	8,909	--	--	--	6
7	(E) SS604A		200 A	3	5,718	11,829		3	200 A		(E) SS612A	8
9	--	--	--	--		7,286	9,174	--	--	--	--	10
11	--	--	--	--			3,060	7,618	--	--	--	12
					LOAD VA:	38,032 VA	36,156 VA	30,490 VA				
					LOAD AMPS:	140 A	134 A	110 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	DEMAND LOAD	TOTALS
RECEPTACLE	13,140 VA	88.05%	11,570 VA	
NON-CONTINUOUS	79,726 VA	100.00%	79,726 VA	CONNECTED VA: 104,679 VA
CONTINUOUS	8,073 VA	125.00%	10,091 VA	DEMAND VA: 104,753 VA
KITCHEN EQUIPMENT	3,740 VA	90.00%	3,366 VA	CONNECTED AMPS: 126 A
				DEMAND AMPS: 126 A

MARK	DESCRIPTION	SIZED PER
EGC	EQUIPMENT GROUNDING CONDUCTOR	NEC TABLE 250.122
GC	GROUNDING CONDUCTOR (NEUTRAL)	SEE ONE-LINE DIAGRAM
GEC	GROUNDING ELECTRODE CONDUCTOR	NEC TABLE 250.66
SBJ	SYSTEM BONDING JUMPER	NEC TABLE 250.102(C)(1)
SSBJ	SUPPLY-SIDE BONDING JUMPER	NEC TABLE 250.102(C)(1)
WPBJ	WATER PIPING BONDING JUMPER	NEC TABLE 250.102(C)(1)



- NOTES:
- SEE PANEL SCHEDULES FOR CIRCUITS THAT ARE TO BE CONTROLLED BY TIMECLOCK AND CONTACTORS.
 - ANY LOCAL SWITCHING INDICATED ON THE PLANS SHALL BE ON THE LOAD SIDE OF THE CONTACTOR.
 - THE ELECTRICAL CONTRACTOR SHALL PROGRAM ALL TIMECLOCKS AND INDIVIDUAL DIGITAL TIMECLOCK CHANNELS. COORDINATE ALL ON, OFF, AND HOLIDAY SETTINGS WITH THE OWNER. INTERIOR CONTROL ZONES SHALL HAVE THE ASTRONOMIC FUNCTION FOR THE CHANNEL TURNED OFF.
 - MOUNT TIMECLOCK, RELAYS, AND CONTACTORS ADJACENT TO THE ASSOCIATED PANELBOARD(S). ALL CONTACTORS AND RELAYS SHALL BE PROVIDED WITH INDIVIDUAL ENCLOSURES. AT THE CONTRACTOR'S OPTION, OPEN RELAYS AND CONTACTORS ARE PERMITTED WHEN MOUNTED WITHIN A COMMON ENCLOSURE. COORDINATE MOUNTING LOCATION OF OVERRIDE SWITCH WITH THE OWNER.
 - PROVIDE TO THE OWNER A VOLUNTARY BID ALTERNATE TO UTILIZE A RELAY PANEL WITH A DIGITAL TIMECLOCK AND LOW VOLTAGE OVERRIDE SWITCH IN LIEU OF THE COMPONENTS SHOWN WITHIN THIS DETAIL.

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Seal:

01/09/2026

Project Number: 25-100
 Project Type: TENANT FINISH

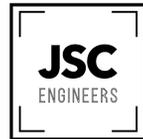
Project Name and Address:

2FOLD
 NE MAGUIRE BLVD
 LEE'S SUMMIT, MO 64064

Issue: PLAN REVIEW Date: 01/09/2026

#	DESCRIPTION	DATE
1	PLAN REVIEW REVISIONS	01/09/2026

Sheet Title:
ELECTRICAL SCHEDULES & DETAILS
E004



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Project Number: 25-100
Project Type: TENANT FINISH
Project Name and Address:

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Issue: PLAN REVIEW Date: 01/09/2026

#	DESCRIPTION	DATE
1	PLAN REVIEW REVISIONS	01/09/2026

Sheet Title:
OVERALL POWER PLAN

E100

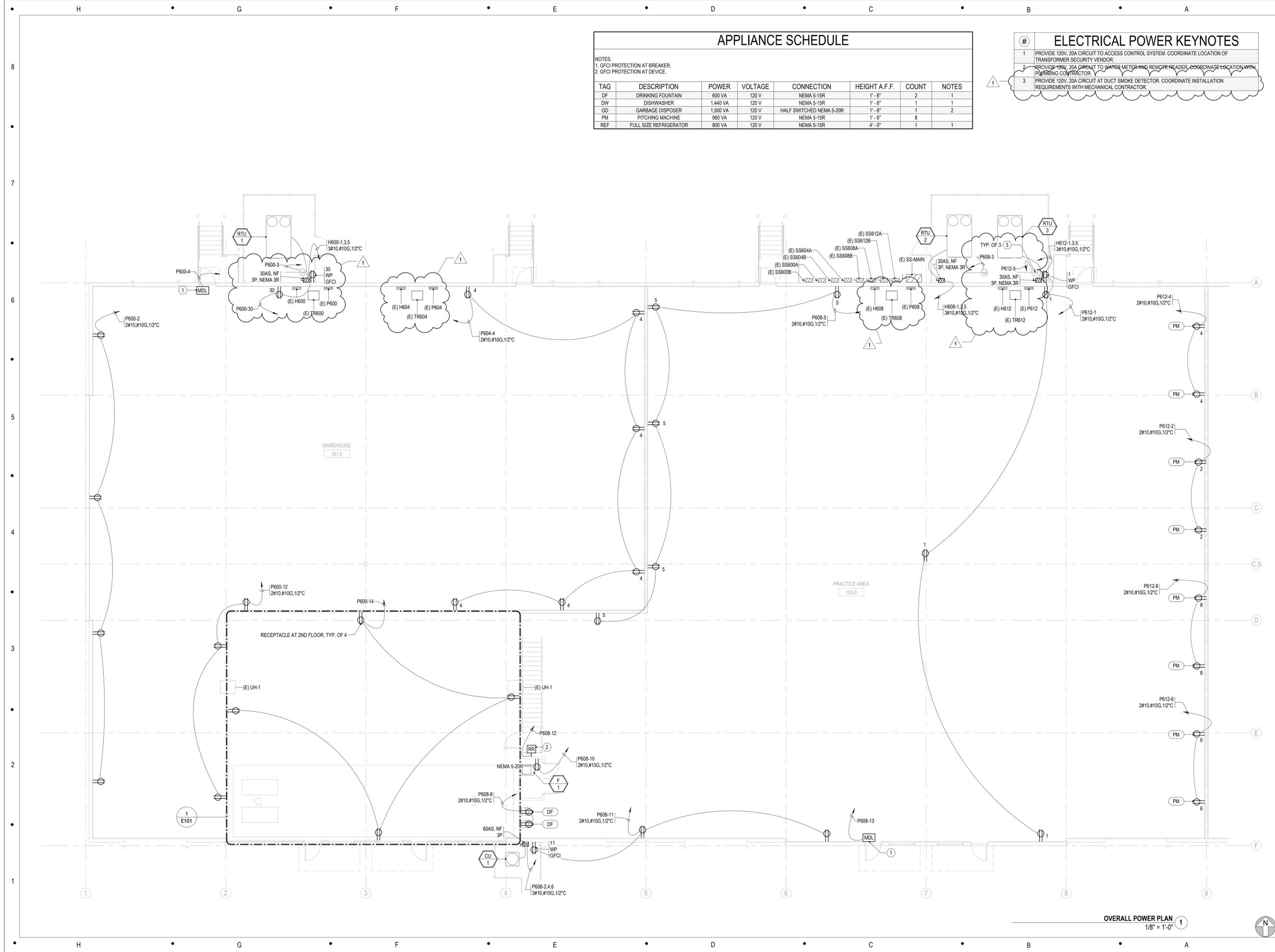
APPLIANCE SCHEDULE

NOTES:
1. GFCI PROTECTION AT BREAKER.
2. GFCI PROTECTION AT DEVICE.

TAG	DESCRIPTION	POWER	VOLTAGE	CONNECTION	HEIGHT A.F.F.	COUNT	NOTES
DF	DRINKING FOUNTAIN	600 VA	120 V	NEMA 5-15R	1' - 6"	2	1
DW	DISHWASHER	1,440 VA	120 V	NEMA 5-15R	1' - 6"	1	1
GD	GARBAGE DISPOSER	1,500 VA	120 V	HALF SWITCHED NEMA 5-20R	1' - 6"	1	2
PM	PITCHING MACHINE	960 VA	120 V	NEMA 5-15R	1' - 6"	8	
REF	FULL SIZE REFRIGERATOR	800 VA	120 V	NEMA 5-15R	4' - 0"	1	1

ELECTRICAL POWER KEYNOTES

- 1 PROVIDE 120V, 20A CIRCUIT TO ACCESS CONTROL SYSTEM. COORDINATE LOCATION OF TRANSFORMER SECURITY VENDOR.
- 2 PROVIDE 120V, 20A CIRCUIT TO WATER METER AND REMOVE READER. COORDINATE LOCATION WITH PLUMBING CONTRACTOR.
- 3 PROVIDE 120V, 20A CIRCUIT AT DUCT SMOKE DETECTOR. COORDINATE INSTALLATION REQUIREMENTS WITH MECHANICAL CONTRACTOR.



OVERALL POWER PLAN
1/8" = 1'-0" 1



ELECTRICAL POWER KEYNOTES

1 PROVIDE 120V, 20A CIRCUIT TO ACCESS CONTROL SYSTEM. COORDINATE LOCATION OF TRANSFORMER SECURITY VENDOR.

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Project Number: 25-100
Project Type: TENANT FINISH

Project Name and Address:

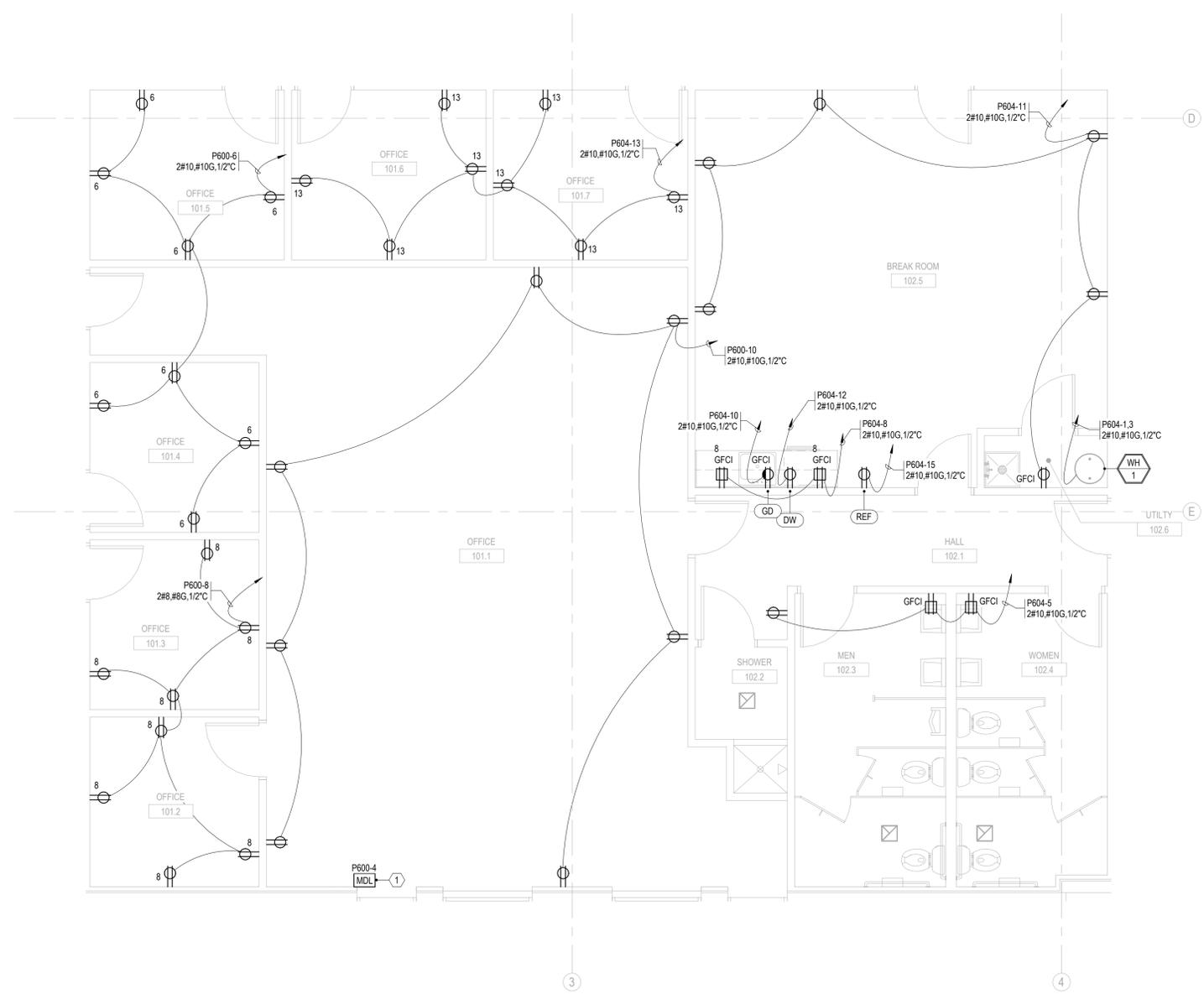
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Issue: PLAN REVIEW Date: 01/09/2026

REVISIONS		
#	DESCRIPTION	DATE

Sheet Title:
ENLARGED POWER PLAN

E101



ENLARGED POWER PLAN, OFFICE 1
1/4" = 1'-0"





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Project Number: 25-100
Project Type: TENANT FINISH
Project Name and Address:

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LEES SUMMIT, MO 64064

Issue: PLAN REVIEW Date: 01/09/2026

#	DESCRIPTION	DATE
1	PLAN REVIEW REVISIONS	01/09/2026

Sheet Title:
OVERALL LIGHTING PLAN

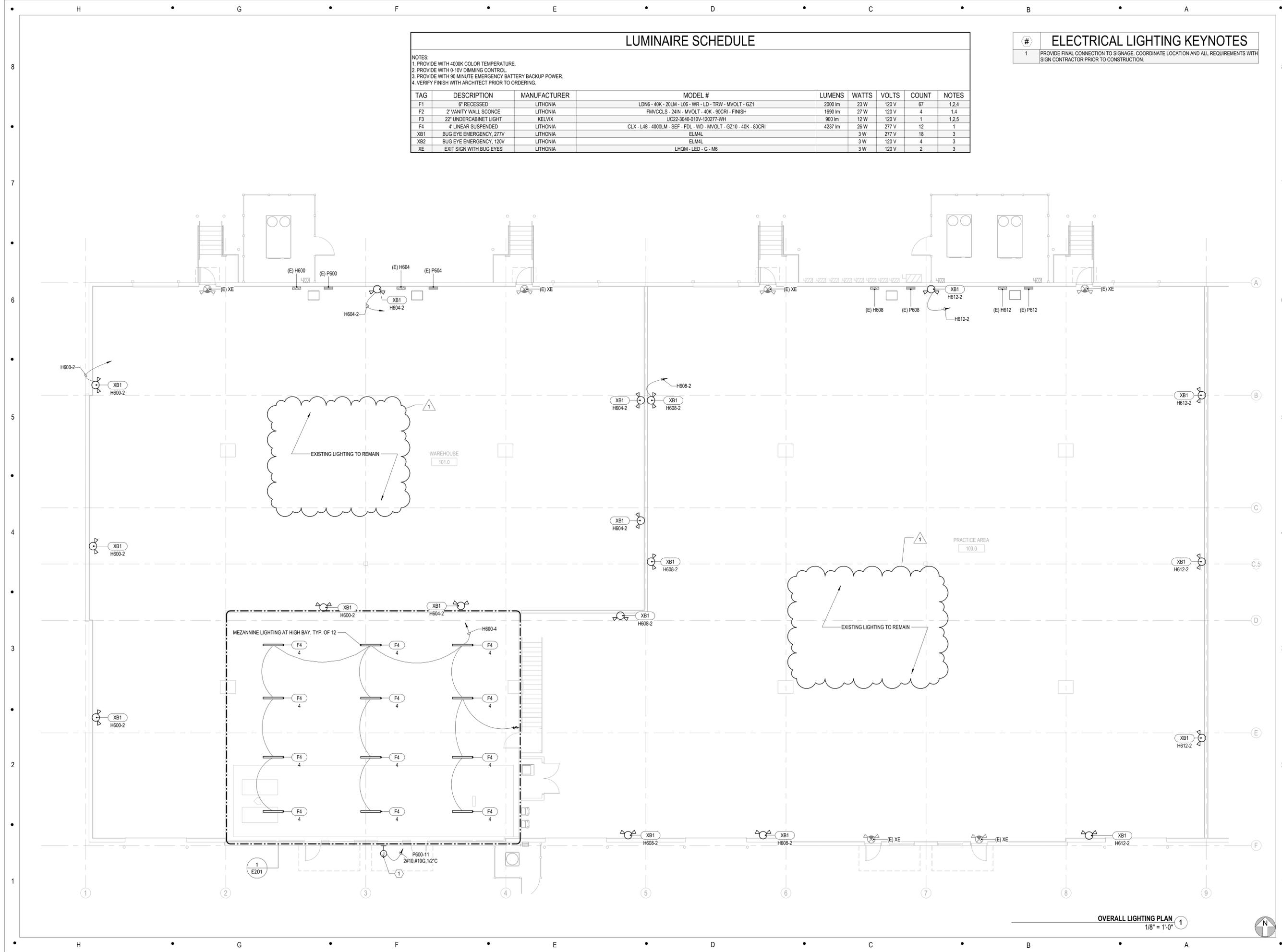
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LUMINAIRE SCHEDULE

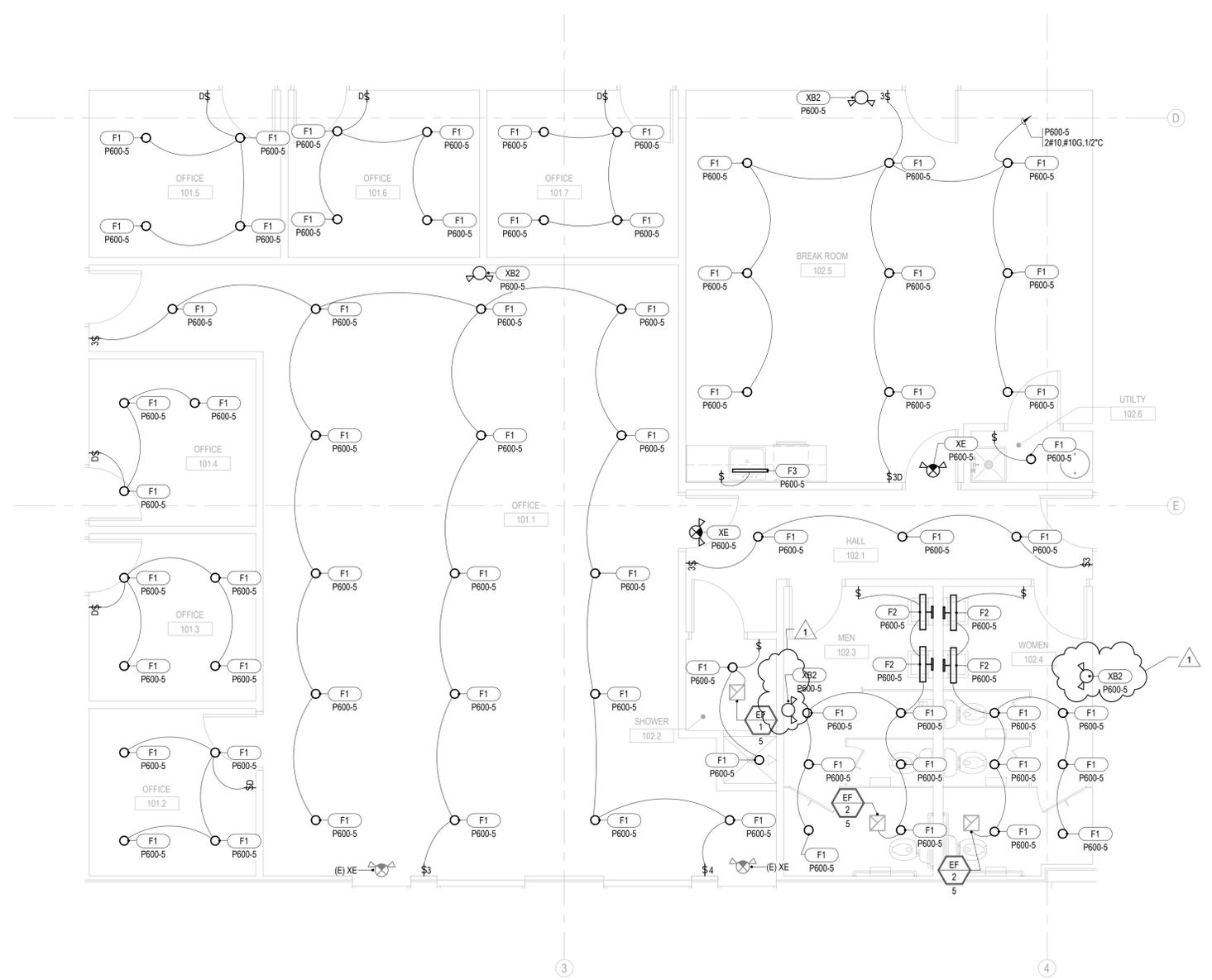
NOTES:
1. PROVIDE WITH 4000K COLOR TEMPERATURE.
2. PROVIDE WITH 0-10V DIMMING CONTROL.
3. PROVIDE WITH 90 MINUTE EMERGENCY BATTERY BACKUP POWER.
4. VERIFY FINISH WITH ARCHITECT PRIOR TO ORDERING.

TAG	DESCRIPTION	MANUFACTURER	MODEL #	LUMENS	WATTS	VOLTS	COUNT	NOTES
F1	6" RECESSED	LITHONIA	LDN6 - 40K - 20LM - L06 - WR - LD - TRW - MVOLT - GZ1	2000 lm	23 W	120 V	67	1,2,4
F2	2' VANITY WALL SCONCE	LITHONIA	FMVCLS - 24IN - MVOLT - 40K - 90CRI - FINISH	1690 lm	27 W	120 V	4	1,4
F3	22" UNDERCABINET LIGHT	KELVIX	UC22-3040-010V-120277-WH	900 lm	12 W	120 V	1	1,2,5
F4	4' LINEAR SUSPENDED	LITHONIA	CLX - L48 - 4000LM - SEF - FDL - WD - MVOLT - GZ10 - 40K - 80CRI	4237 lm	26 W	277 V	12	1
XB1	BUG EYE EMERGENCY, 277V	LITHONIA	ELM4L	3 W	277 V	18	3	
XB2	BUG EYE EMERGENCY, 120V	LITHONIA	ELM4L	3 W	120 V	4	3	
XE	EXIT SIGN WITH BUG EYES	LITHONIA	LHQM - LED - G - M6	3 W	120 V	2	3	

#	ELECTRICAL LIGHTING KEYNOTES
1	PROVIDE FINAL CONNECTION TO SIGNAGE. COORDINATE LOCATION AND ALL REQUIREMENTS WITH SIGN CONTRACTOR PRIOR TO CONSTRUCTION.



OVERALL LIGHTING PLAN 1
1/8" = 1'-0"



ENLARGED LIGHTING PLAN, OFFICE 1
1/4" = 1'-0"



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01/09/2026

Project Number: 25-100
Project Type: TENANT FINISH

Project Name and Address:

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#	DESCRIPTION	DATE
1	PLAN REVIEW REVISIONS	01/09/2026

Sheet Title:
ENLARGED LIGHTING PLAN

E201