

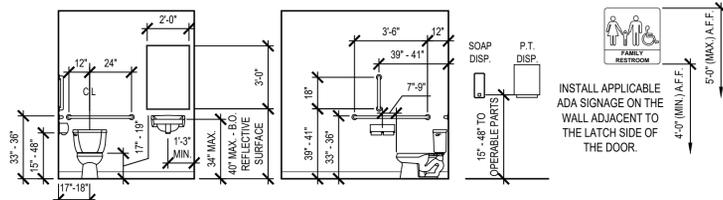
SPIRITUS

PERMIT DRAWINGS (PLAN REVIEW REVISION $\triangle 1$)

FEBRUARY 26, 2024

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 9" 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.



H2 TYP. ADA TOILET DIMENSIONS
SCALE: =

CONSTRUCTION NOTES:

- PERFORM ALL WORK IN ACCORDANCE WITH ACCEPTABLE TRADE PRACTICE TO ENSURE THE HIGHEST QUALITY FINISHED PRODUCT - EXPRESSED OR IMPLIED. PERFORM ALL WORK BY SKILLED MECHANICS IN ACCORDANCE WITH ESTABLISHED STANDARDS OF WORKMANSHIP IN EACH OF THE VARIOUS TRADES.
- WHEN THE PROJECT REQUIREMENTS REQUIRE THAT THE INSTALLATION OF WORK SHALL COMPLY WITH MANUFACTURER'S INSTRUCTIONS, PERFORM THE WORK IN STRICT ACCORDANCE WITH THE MOST CURRENT WRITTEN MANUFACTURER'S INSTRUCTIONS.
- ALL PRODUCTS AND EQUIPMENT SHALL BE DELIVERED IN UNDAMAGED CONDITION AND STORED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO AVOID DISRUPTION OF THE WORK OR DAMAGE TO THE ITEMS. REPLACE DAMAGED OR UNFIT MATERIALS, AT NO COST TO THE OWNER.
- COORDINATE BLOCKING REQUIREMENTS WITH ADJACENT OR RELATED TRADES, ACCESSORIES, EQUIPMENT AND FIXTURES. INSTALL REQUIRED BLOCKING AT NO ADDITIONAL COST TO THE CONTRACTOR.
- ALL WEATHER-EXPOSED SURFACES SHALL HAVE A WEATHER-RESISTIVE BARRIER. EXTERIOR OPENINGS SHALL BE FLASHED IN SUCH A MANNER AS TO MAKE THEM WATERPROOF.
- REPAIR PROPERTY DAMAGE BY THE INSTALLERS TO A LIKE NEW CONDITION, OR REPLACE DAMAGED SURFACES AND MATERIALS OF THE PREVIOUSLY INSTALLED WORK BY OTHER TRADES, INSTALLERS, AND SUBCONTRACTORS.
- ALLOWABLE TOLERANCES - UNLESS OTHERWISE NOTED OR INDICATED, THE FOLLOWING TOLERANCES SHALL APPLY TO ALL WORK:
 - ALL VERTICAL SURFACES SHALL BE PLUMB OR CONSTRUCTED TO THE EXACT SLOPES OR ANGLES INDICATED.
 - ALL HORIZONTAL SURFACES SHALL BE LEVEL OR CONSTRUCTED TO THE EXACT ANGLE INDICATED OR INTENDED.
 - WALL AND SOFFIT INTERSECTIONS SHALL BE 90° OR THE EXACT ANGLE INDICATED OR INTENDED.
 - ALL CORNERS AND EDGES SHALL BE STRAIGHT AND TRUE WITHOUT DENTS, WAVES, BULGES OR OTHER BLEMISHES.
 - ALL JOINTS SHALL BE TIGHT, STRAIGHT, EVEN, AND SMOOTH.
 - ALL OPERABLE ITEMS SHALL OPERATE SMOOTHLY WITHOUT STICKING OR BINDING AND WITHOUT EXCESSIVE FORCE.
- THE CONTRACTOR SHALL NOTIFY THE OWNER WHEN THE WORK IS SUBSTANTIALLY COMPLETE AND READY FOR INSPECTION. UPON INSPECTION, PROVIDE WRITTEN OPERATION AND MAINTENANCE INSTRUCTIONS AND WARRANTIES FOR ALL EQUIPMENT AND MATERIALS INSTALLED. PROVIDE WRITTEN WARRANTIES FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

GENERAL NOTES:

- THE CONTRACTOR SHALL SECURE AND PAY FOR GOVERNMENT LICENSES, INSPECTIONS, TESTING, TEMPORARY UTILITIES AND PERMITS AS REQUIRED BY THE CONSTRUCTION DOCUMENTS AND/OR REGULATORY BODY HAVING AUTHORITY.
- CONTRACTORS SHALL VISIT THE SITE WHILE BIDDING AND SHALL FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND THE REQUIREMENTS OF THE PROJECT AND CONSTRUCTION DOCUMENTS PRIOR TO DEVELOPING THEIR BID. FABRICATION / CONSTRUCTION, AND PURCHASING, MATERIAL QUANTITIES SHALL BE BASED ON ACTUAL FIELD CONDITIONS AND MEASUREMENTS. DO NOT RELY ON SCALING DRAWINGS FOR ACCURATE DIMENSIONS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES, CONFLICTS OR OMISSIONS DISCOVERED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTIONS AND/OR REPAIRS REQUIRED FOR FAILING TO DO SO.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL CONSTRUCTION DOCUMENTS TO THEIR SUBCONTRACTORS AS REQUIRED FOR THEM TO DEVELOP A COMPLETE BID FOR THEIR WORK AND TO HAVE A COMPLETE UNDERSTANDING OF COORDINATION NEEDED WITH OTHER SUBCONTRACTORS FOR RELATED HIDDEN OR EXPOSED WORK TO ENSURE EFFICIENT AND ORDERLY INSTALLATION.
- THE ARCHITECT ASSUMES NO LIABILITY FOR THE SERVICES AND/OR CONSTRUCTION DOCUMENTS OF DESIGN SUBCONSULTANTS COMPILED INTO THE SET OF DOCUMENTS ISSUED BY THE ARCHITECT. THESE DESIGN SERVICES MAY INCLUDE, BUT ARE NOT LIMITED TO, CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, PRE-ENGINEERED METAL BUILDING DESIGN, TILT-UP DESIGN, TRUSS SYSTEM DESIGN, AUTOMATIC FIRE SPRINKLER AND/OR ALARM SYSTEMS, LOW-VOLTAGE ELECTRICAL TELECOMMUNICATION AND SECURITY SYSTEMS AND GUTTER / DOWNSPOUT DESIGN.
- UNLESS SPECIFICALLY NOTED OTHERWISE, THE CONTRACTOR SHALL PROVIDE AND PAY FOR LABOR, MATERIALS, EQUIPMENT, MACHINERY, SCAFFOLDING, SHORING, TOOLS, LAYOUT, ON-SITE DIMENSIONING, TRANSPORTATION, UTILITIES, AND OTHER FACILITIES AND SERVICES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF THE WORK AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS. THIS SHALL ALSO INCLUDE NECESSARY CUTTING, PATCHING AND REPAIRING OF EXISTING CONSTRUCTION MATERIALS IN PLACE. ALL WORK AND MATERIAL SHALL COMPLY WITH THE APPLICABLE GOVERNING CODES LISTED.
- WHERE DETAILS AND DESIGN INTENT ARE NOT CLEAR, THE CONTRACTOR SHALL CONSULT THE ARCHITECT FOR CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL DESIGN AND INSTALL ADEQUATE SHORING AND BRACING FOR STRUCTURAL MODIFICATIONS, INSTALLATIONS AND ERECTION.
- CONTRACTORS SHALL TAKE CARE TO PROTECT ADJACENT AREAS FROM DUST AND DAMAGE DURING THE CONSTRUCTION PROCESS AND SHALL CLEAN UP AFTER THEMSELVES AT THE END OF EACH WORKING DAY. ANY DAMAGE DONE TO ADJACENT AREAS MUST BE REPAIRED TO MATCH ORIGINAL CONDITIONS OR TO THE OWNER'S SATISFACTION. REPAIRS ARE TO BE PAID FOR BY THE CONTRACTOR RESPONSIBLE.
- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY ADDITIONAL WORK OR REVISIONS REQUIRED DUE TO SITE CONDITIONS OR ADDITIONAL REQUIREMENTS OF ANY REGULATORY BODIES HAVING AUTHORITY.
- FOR THE DURATION OF THE PROJECT AND AT ALL TIMES OF EACH DAY, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE CONDITIONS, SECURITY AND SAFETY FOR WORKERS AND THE GENERAL PUBLIC, AS REQUIRED BY THE REGULATORY BODY HAVING AUTHORITY.
- THE GENERAL CONTRACTOR SHALL PURCHASE AND MAINTAIN INSURANCE COVERAGE IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER. VERIFY AND COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR ANY ADDITIONAL REQUIREMENTS.
- THE OWNER OR THE OWNER'S SUBCONTRACTORS MAY OCCUPY PORTIONS OF THE PROJECT DURING THE FINAL STAGE OF CONSTRUCTION. COORDINATE AND COOPERATE WITH THE OWNER TO MINIMIZE CONFLICT AND FACILITATE THE OWNER'S OPERATION.
- THE CONTRACTOR SHALL PROVIDE SECURITY OF THE WORK, INCLUDING TOOLS AND UNINSTALLED MATERIALS. PROTECT THE WORK, STORED PRODUCTS, CONSTRUCTION EQUIPMENT, AND OWNERS PROPERTY FROM THEFT AND VANDALISM, AND PROTECT THE PREMISES FROM ENTRY BY UNAUTHORIZED PERSONNEL UNTIL FINAL ACCEPTANCE BY THE OWNER.
- CONTRACTOR SHALL COORDINATE STAGING AREAS AS REQUIRED BY THE LANDLORD / OWNER.
- THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL EXISTING UTILITIES.
- THE STRUCTURAL ENGINEER AND ARCHITECT MUST BE NOTIFIED AND MUST GIVE APPROVAL PRIOR TO ANY MODIFICATION TO THE ROOF SYSTEM OR ADDING ANY ADDITIONAL ROOF-MOUNTED EQUIPMENT.

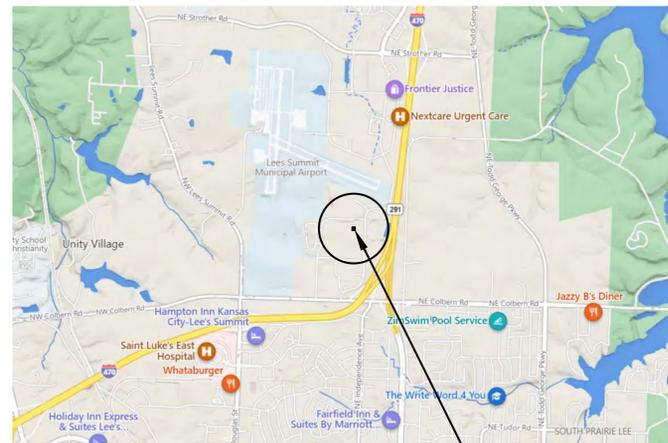
DISCLAIMER:

THESE DRAWINGS ARE CONSIDERED A "BUILDER'S SET" AND BY BEGINNING CONSTRUCTION, THE CONTRACTOR GUARANTEES TO THE ARCHITECT THAT THE CONTRACTOR HAS THE COMPETENCE AND SKILL IN CONSTRUCTION NECESSARY TO BUILD THE PROJECT WITH THESE DRAWINGS. THE CONTRACTOR WILL BE REQUIRED TO ADAPT THE DRAWINGS TO ACTUAL FIELD CONDITIONS AND MAKE LOGICAL ADJUSTMENTS IN FIT, FORM, DIMENSION AND QUANTITY. IN THE EVENT ADDITIONAL DETAIL OR GUIDANCE IS NEEDED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT. FAILURE TO GIVE NOTICE SHALL RELIEVE THE ARCHITECT OF RESPONSIBILITY FOR ANY RESULTANT EXPENSES, REPAIRS OR ADDITIONAL WORK. IT IS UNDERSTOOD AND AGREED THAT IF THE ARCHITECT IS NOT HIRED TO DO CONSTRUCTION OBSERVATION OR ANY OTHER CONSTRUCTION PHASE SERVICES, THAT THE ENTITY HIRED TO PERFORM SUCH SERVICES ASSUMES ALL RESPONSIBILITY FOR THESE SERVICES, AND THE CLIENT WAIVES ANY CLAIMS AGAINST THE ARCHITECT THAT MAY BE IN ANY WAY CONNECTED THERETO.

ABBREVIATIONS*:

*NOTE: THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY ABBREVIATIONS NOT NOTED AND REQUEST CLARIFICATIONS.

@	AT	JOINT	JT	JOINT
ACT	ACQUSTIC CEILING TILE	KS	KNEE SPACE	
ADJ	ADJUSTABLE	L	LONG	
AFF	ABOVE FINISHED FLOOR	LB (#)	LB LONG	
ALUM	ALUMINUM	LVL	LAMINATED VENEER LUMBER	
AND	AND/OR	MAX	MAXIMUM	
ATT	ATTENTION	MDO	MAXIMUM DENSITY OVERLAY	
BD	BOARD	MECH	MECHANICAL	
BE	BETWEEN	MFR	MANUFACTURER	
BF	BARRIER FREE	MICRO	MICROWAVE	
BIT	BITUMINOUS	MIN	MINIMUM	
BLDG	BUILDING	MO	MASONRY OPENING	
BO	BOTTOM OF	MR	MOISTURE RESISTANT	
BTM	BOTTOM	MTD	MOUNTED	
		MTL	METAL	
CPT	CARPET	NIC	NOT IN CONTRACT	
CJ	CERAMIC TILE	NO	NO	
CL	CONTROL JOINT	NOM	NOMINAL	
CLG	CENTER LINE	O.C.	ON CENTER	
CLR	CLEAR	O.D.	OUTSIDE DIAMETER	
CMU	CONCRETE MASONRY UNIT	O.S.	OVERHEAD OR OPPOSITE HAND	
COMP	COMPRESSIBLE	OHB	ORIENTED STRAND BOARD	
CONC	CONCRETE	OZ	OUNCE	
CONT	CONTINUOUS	PREFAB	PREFABRICATED	
D	DRYER	PLAM	PLASTIC LAMINATE	
DEG	DEGREE	PLYWD	PLYWOOD	
DEMO	DEMOLITION	PR	PAIR	
DF	DRINKING FOUNTAIN	PT	PRESSURE TREATED	
DH	DOUBLE-HUNG	PNT	PAINT	
DIA	DIAMETER	PEMB	PRE-ENGINEERED MTL BLDG	
DN	DOWN	QTY	QUANTITY	
DP	DEEP	R	RISER	
DS	DOWN SPOUT	RCP	REFLECTED CEILING PLAN	
DW	DISHWASHER	REF	REFRIGERATOR, REFERENCE	
EA	EACH	REIN	REINFORCED	
EJ	EXPANSION JOINT	REQD	REQUIRED	
EQ	EQUAL	RM	ROOM	
ETR	EXISTING TO REMAIN	RO	ROUGH OPENING	
EXG	EXISTING	RCB	RUBBER COVE BASE	
EXP	EXPOSED TO STRUCTURE	SC	SEALED CONCRETE	
FD	FLOOR DRAIN	SF	SQUARE FEET	
FE	FIRE EXTINGUISHER, FINISHED	SM	SIMILAR	
FF	FINISHED FLOOR	SQ	SQUARE	
FBI	FURNISH AND INSTALL	SS	STAINLESS STEEL	
FLR	FLOOR	ST	STAIN	
FR	FIRE RETARDANT	T	TREAD	
FRP	FIBER-REINFORCED PLASTIC	TBD	TO BE DETERMINED	
FV	FIELD VERIFY	TOP	TOP OF	
GA	GAUGE	TYP	TYPICAL	
GALV	GALVANIZED	UNO	UNLESS NOTED OTHERWISE	
GC	GENERAL CONTRACTOR	VCT	VINYL COMPOSITION TILE	
GFI	GROUND FAULT CIRCUIT INTERRUPTER	VERT	VERTICAL	
GL	GLASS	W	WASHER, WIDE	
GYP	GYPSUM BOARD	W/	WITH	
H	HIGH	WD	WOOD	
HB	HOSE BIB	WH	WATER HEATER	
HT	HEIGHT	WIC	WALK-IN CLOSET	
HDW	HARDWARE	WWF	WELDED WIRE FABRIC	
HRDWD	HARDWOOD			
HM	HOLLOW METAL			
HR	HOUR			
IN	INCH			
INSUL	INSULATION			



F1 VICINITY MAP
SCALE: =

PROJECT LOCATION

Architect:

MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client:

Ward Development
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Consultants:

MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
t: (816) 726-6531

Revisions to technical submissions which are not made or approved by the licensee are prohibited.

Seal:



Michael Moore, MO Architect #2009032812

Project Number: 2313

Project Type: TENANT FINISH

Project Name and Address:

SPIRITUS

2237 NW Town Centre Blvd.
Lee's Summit, Missouri 64064

Issue: Date:

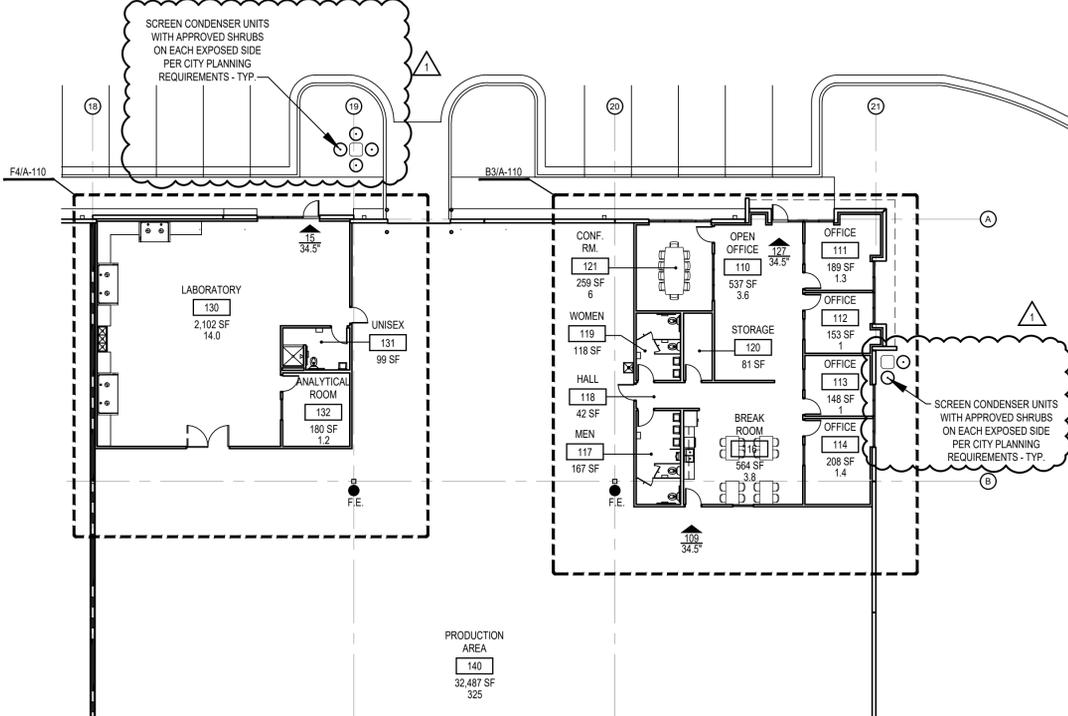
Permit Drawings 02.06.24

Plan Review Revision $\triangle 1$ 02.26.24

Sheet Title:

COVER / MAP
GENERAL NOTES
ADA NOTES

A-001



- ### 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 ENTRANCE) WITH A STROKE WIDTH OF NOT LESS THAN 1/8", 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 PROPERTY. 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 OF 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 SYSTEMS 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.
 - CODE-REQUIRED SMOKE DETECTORS IN RETURN AIR DUCTS SHALL HAVE REMOTE INDICATORS IF IN CONCEALED SPACES OR MORE THAN 10' ABOVE THE FINISHED FLOOR. SMOKE DETECTORS MUST BE READILY VISIBLE TO THE FIRE DEPARTMENT PERSONNEL.
 - INSTALL A "NO SMOKING" SIGN PER LOCAL ORDINANCES CONSPICUOUSLY POSTED AT EVERY ENTRANCE, AS REQUIRED.

LIFE SAFETY LEGEND

OFFICE	ROOM / SPACE NAME
110	ROOM / SPACE NUMBER
174 SF	ROOM / SPACE AREA
2	ROOM / SPACE OCCUPANT LOAD

5 34.5' 34.5'

SEE ELECTRICAL SHEETS FOR EXIT SIGNS / EMERGENCY LIGHTING

● 5LB. 2A10BC FIRE EXTINGUISHER, DISTRIBUTE EXTINGUISHERS PER NFPA 101 SUCH THAT ONE CAN BE REACHED BY A TRAVEL DISTANCE OF NO MORE THAN 75' (PER TABLE 906.3.1). MOUNT TOP OF EXTINGUISHERS 60" A.F.F. (MAX.) AND WITH STATE FIRE MARSHALL INSPECTION TAG ATTACHED. VERIFY FINAL SIZES AND LOCATIONS WITH THE REGULATORY BODY HAVING AUTHORITY.

KB KNOX BOX, MOUNT TOP OF BOX AT 72" ABOVE ADJACENT SURFACE, AND VERIFY FINAL LOCATION WITH THE REGULATORY BODY HAVING AUTHORITY

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

FACTORY AND INDUSTRIAL

WATER CLOSETS (1 PER 100)

REQUIRED		PROVIDED	
MEN	WOMEN	MEN	WOMEN
2	2	2	2

LAVATORIES (1 PER 100)

REQUIRED		PROVIDED	
MEN	WOMEN	MEN	WOMEN
2	2	2	2

BUSINESS

WATER CLOSETS (1 PER 25)

REQUIRED		PROVIDED	
MEN	WOMEN	MEN	WOMEN
1	1	1	1

LAVATORIES (1 PER 40)

REQUIRED		PROVIDED	
MEN	WOMEN	MEN	WOMEN
1	1	1	1

SERVICE / UTILITY SINK

REQUIRED	PROVIDED
1	1

FIRE RESISTANCE

RATING REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601)

ELEMENT	RATING (HRS)
PRIMARY STRUCTURAL FRAME	0
BEARING WALLS	0
EXTERIOR	0
INTERIOR	0
NONBEARING WALLS & PARTITIONS - EXTERIOR (TABLE 705.5)	
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 REQ'D (507.4, 903.9.2)	
SYSTEM PROPOSED:	
ESFR (EARLY SUPPRESSION FAST-RESPONSE)	
SMOKE AND HEAT REMOVAL: NOT REQ'D IF BUILDING IS EQUIPPED WITH ESFR SPRINKLERS.	
FIRE PUMP ROOM WALLS AND LID (913.2.1)	1 HR. RATED
TENANT SEPARATION FIRE BARRIER (508.4)	2 HR. RATED*
*TO ALLOW FOR THE MOST FLEXIBILITY IN FUTURE TENANTS	
DRAWING DESIGNATIONS:	
1 HR. RATED WALL	---
2 HR. RATED WALL	----

MEANS OF EGRESS

OCCUPANT LOAD (TABLE 1004.5)

MAX. FLOOR ALLOWANCE PER OCCUPANT (LOAD FACTOR)

SPACE	AREA / LOAD FACTOR	OCCUPANTS
INDUSTRIAL AREAS	32,487 SF / 100 GROSS	325
BUSINESS	4,988 SF / 150 GROSS	33
TOTAL OCCUPANTS		358

EXITS (CHAPTER 10)

EGRESS WIDTH (1005.3.2)

MINIMUM REQUIRED (352 OCCUPANTS x 0.2'): 70.4'

PROVIDED (4 DOORS x 34.5' CLR. WIDTH/DOOR): 138.0'

NUMBER OF EXITS (TABLE 1006.3.2)

MINIMUM REQUIRED: 2

PROVIDED: 4

EXIT SEPARATION DISTANCE (1007.1.1)

MINIMUM REQ'D: 1/3 THE DIAGONAL OF AREA SERVED

EXIT ACCESS TRAVEL DISTANCE (TABLE 1017.2)

MAXIMUM ALLOWED: 250'

PROVIDED: <250'

PROJECT SUMMARY

THIS IS A NEW TENANT FINISH PROJECT FOR A MANUFACTURING TENANT.

CODE ANALYSIS

APPLICABLE GOVERNING CODES

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

OCCUPANCY CLASSIFICATION

OCCUPANCY GROUPS:

GROUP F-1: MODERATE HAZARD FACTORY INDUSTRIAL (306.2)

GROUP B: BUSINESS (304)

NONSEPARATED MIXED USE (508.3):

NO SEPARATION REQUIRED BETWEEN F-1 AND B (TABLE 508.4)

TYPE OF CONSTRUCTION

V-B (602.5)

THE SHELL WAS DESIGNED AS AN UNLIMITED AREA BUILDING (SPRINKLERED, ONE-STORY) (507.4)

PUBLIC WAY OR YARD WIDTH REQ'D: >= 60' ON ALL SIDES

BUILDING HEIGHT LIMITATIONS

GROUPS F-1, B - FULLY SPRINKLERED (504.1.1, 507.4)

ALLOWABLE HEIGHT IN FEET (TABLE 504.3): 60'

ACTUAL HEIGHT IN FEET: 44'

ALLOWABLE # OF STORIES (TABLE 507.4): 1

ACTUAL # OF STORIES: 1

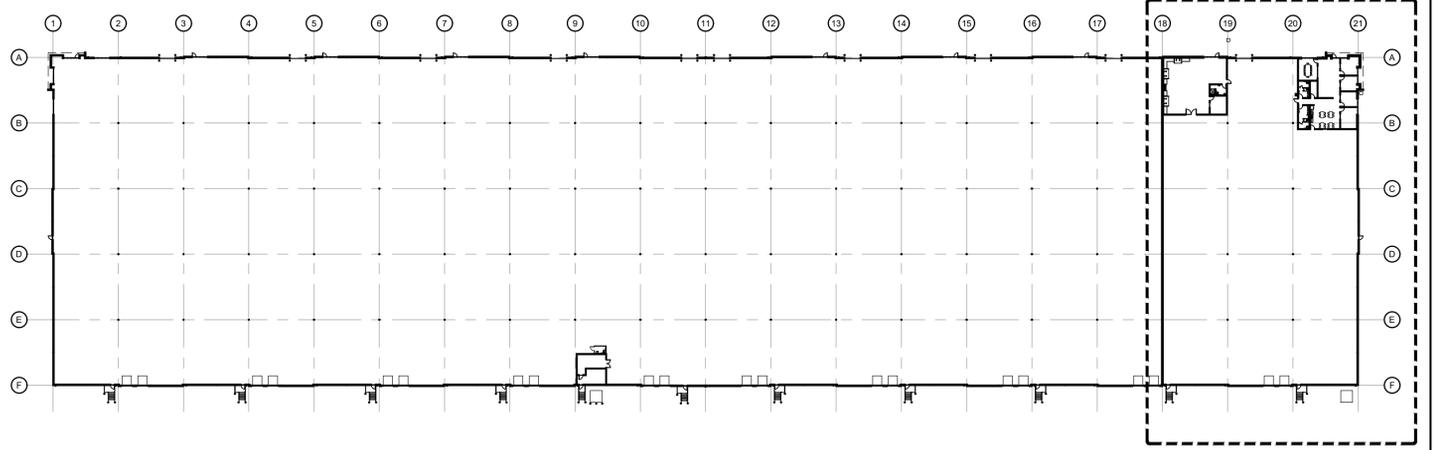
BUILDING AREA LIMITATIONS

GROUPS F-1, B - FULLY SPRINKLERED

ALLOWABLE AREA (507.4): UL SF 249,050 SF

TENANT USE AREAS

FACTORY GROUP F-1 AREA	32,487 SF
BUSINESS GROUP B AREA (OFFICE / LAB)	4,988 SF
TENANT FINISH SUITE AREA	37,475 SF



G1 CODE / FULL SUITE PLAN
SCALE: 1/16" = 1'-0"
PROJECT NORTH

B1 BUILDING KEY PLAN
SCALE: 1/84" = 1'-0"
PROJECT NORTH

Architect:

MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client:

Ward Development
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Consultants:

MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
t: (816) 726-6531

Revisions to technical submissions which are not made or approved by the licensee are prohibited.

Seal:

Michael Moore, MO Architect #2009032812

Project Number: 2313

Project Type: TENANT FINISH

Project Name and Address:

SPIRITUS
2237 NW Town Centre Blvd.
Lee's Summit, Missouri 64064

Issue: _____ Date: _____

Permit Drawings: 02.06.24

Plan Review Revision: 1, 02.26.24

Sheet Title:

**BUILDING KEY PLAN
FULL SUITE PLAN
CODE INFORMATION**

A-002

UL Product iQ®



Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire Resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

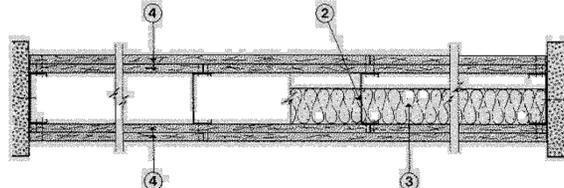
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. U411

August 18, 2023

Nonbearing Wall Rating — 2 Hr.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Floor and Ceiling Runner — (Not Shown) — Min. 25 MSG galv steel, 1 in. return legs, 2-1/2 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC max.

- 1A. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2A, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC, max.

- 1B. Floor and Ceiling Runners — (Not Shown) — For use with Item 2B- Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

- 1C. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2C, channel shaped, min 2-1/2 in. wide fabricated from min 0.015 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC, max.

- DMFCWBS L L C — ProTRAK

- MBA METAL FRAMING — ProSTUD

- RAM SALES L L C — Ram ProTRAK

- STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

- 1D. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2D, channel shaped, min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC, max.

- 1E. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2E, channel shaped, min 2-1/2 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners 24 in. OC, max.

- 1F. Floor and Ceiling Runners — (Not Shown) — Channel shaped, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below, attached to floor and ceiling with fasteners spaced max 24 in. OC.

- 1G. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2G, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC, max.

- 1H. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2H, channel shaped, attached to floor and ceiling with fasteners 24 in. OC, max.

- 1I. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2K, channel shaped, min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC, max.

- 1J. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2L, Channel shaped, attached to floor and ceiling with fasteners 24 in. OC, max.

- 1K. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2M, channel shaped, min 2-1/2 in. deep, formed of min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners 24 in. OC, max.

- 1L. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2N, Channel shaped, min. 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC, max.

- 1M. Floor and Ceiling Runner — (Not shown) - As an alternate to Item 1, For use with Items 2O and 4O - Min 25 MSG galv steel, 1-5/8 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC, max.

- 1N. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2P, proprietary channel shaped runners, 1-1/4 in. wide by min. 2-1/2 in. deep fabricated from min 0.019 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

- 2. Steel Studs — Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2A. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1G, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2B. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 4H, 4D, and 4J — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

- 2C. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1C, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.015 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2D. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1D, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2E. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1E, channel shaped studs, min 2-1/2 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2F. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1G, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2G. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2H. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2I. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1A (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

- 2J. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1H, channel shaped, min 3-5/8 in. wide, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

- 2K. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1I, channel shaped studs, min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2L. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1J, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

- 2M. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1K, channel shaped studs, min 2-1/2 in. deep, formed of min. 25 MSG (0.018 in. min. bare metal thickness), spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2N. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1L, channel shaped studs, min depth 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

- 2O. Framing Members — Steel Studs — (As an alternate to Item 2) For use with Items 1M and 4O - channel shaped studs min 1-5/8 in. deep, formed of 25 MSG galv steel, max stud spacing 24 in. OC. Studs cut 3/8 in. to 3/4 in. less than assembly height.

- 2P. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1N, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 2-1/2 in. deep with 1/4 in. return lips fabricated from min 0.019 in. thick galv steel, spaced 24 in. OC max. Studs cut 3/4 in. less in length than assembly height.

- 3. Batts and Blankets* — (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. See Batts and Blankets (BZJZ) category for names of manufacturers.

- 3A. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product.

- 3B. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

- 3C. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft³.

- 3D. Deleted.

- 3E. Foamed Plastic* — As an alternate to Batts and Blankets (Item 3), for use with Item 4Q — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in.

- 3F. Foamed Plastic* — As an alternate to Batts and Blankets (Item 3), for use with Item 4R — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with min. 20 MSG thickness.

- 4. Gypsum Board* — 5/8 in. thick, outer layer paper, glass mat or vinyl surfaced. (Laminated System) Gypsum board applied vertically in two layers. Inner layer attached to studs with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges, and 12 in. OC in the field and outer layer laminated to inner layer with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. in diameter, spaced not greater than 2 in. OC. Joints of laminated outer layer offset 12 in. from inner layer joints. Outer layer gypsum board attached to floor and ceiling runner track with 1-5/8 in. long Type S steel screws spaced 12 in. OC. Optional. (Direct Attached System). Inner layer attached to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of screw-attached outer layer offset from inner layer joints. Joints of outer layer may be taped or untaped.

- Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

- AMERICAN GYPSUM CO — Types AG-C, AGX-1, M-Glass, AGX-11, LightRoc

- CABOT MANUFACTURING ULCC — Type X, 5/8 Type X, Type BlueGlass Exterior Sheathing

- CERTAINTEED GYPSUM INC — Types EGRG, GlasRoc, GlasRoc-2, Type X-1, Type C, or 5/8" East-Lite Type X, Type LWX

- COC INC — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULUX, USGX, WRC or WRX

- CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX, CLLX

- GEORGIA-PACIFIC GYPSUM L L C — Types S, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPF56, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type-DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

- NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSW-C, FSW-G, FSWR-C, FSL, Type SBWB, RSK

- NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR

- PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C, PG-3, PG-5, PG-9, PG-11, PG-C, PGS-WRS, PGI

- PANEL REY S A — Types GREX, GRIX, PRX, RHX, MDX, ETX, PRC, PRC2, PRX2

- SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

- SAINT-GOBAIN GYPROC MIDDLE EAST FEZ — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIVAir, Gyproc FireStop MR ACTIVAir, Gyproc FireStop M2TECH ACTIVAir, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIVAir, Gyproc DuraLine MR ACTIVAir, Gyproc DuraLine M2TECH ACTIVAir

- THAI GYPSUM PRODUCTS PCL — Type C, M2Tech Type C and Type X

- THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

- UNITED STATES GYPSUM CO — Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULUX, USGX, WRC, WRX

- USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

- USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX

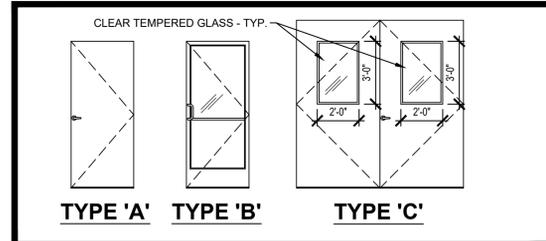
- 4A. Gypsum Board* — (As an alternate to Item 4) — Nom 3/4 in. thick, installed as described in Item 4 with 1-1/4 in. long Type S screws for inner layer and 2-1/4 in. long Type S screws for outer layer.

Architect: MIDWEST ARCHITECTS
Client: Ward Development
Consultants: MEP Engineering: Casburn Consultants
Revisions to technical submissions which are not made or approved by the licensee are prohibited.
Seal: MICHAEL MOORES ARCHITECT
Project Number: 2313
Project Type: TENANT FINISH
Project Name and Address: 2237 NW Town Centre Blvd., Lee's Summit, Missouri 64064
Issue: Permit Drawings Date: 02.06.24
Sheet Title: U.L. LISTING DESIGN NO. U411 A-003

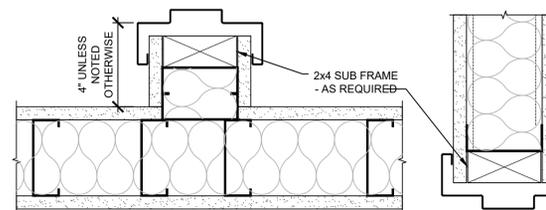
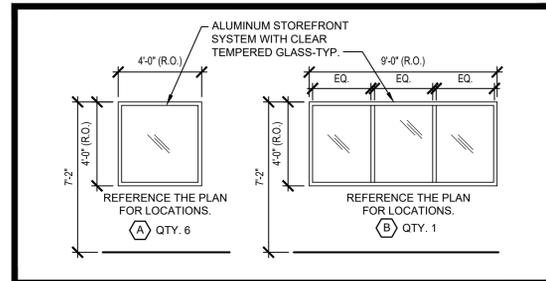
DOOR AND FRAME LEGEND

DOOR	MATERIAL	DESCRIPTION
	WD	PAINT-GRADE FLUSH / SLAB 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

DOOR TYPES



WINDOW TYPES



H2 HOLLOW METAL JAMB DETAILS

SCALE: 3" = 1'-0"

HARDWARE SETS

- (EXISTING TO REMAIN)
3-HINGES
1-1" PUSH / PULL SET
1-KEYED (INTERIOR AND EXTERIOR) CYLINDER LOCK
1-SURFACE-MOUNTED CLOSER
1-ALUMINUM THRESHOLD
1-DOOR SHOE WITH BRUSH
1-WEATHER STRIP SET
- 3-HINGES
1-LEVER-HANDLE OFFICE FUNCTION LOCKSET
1-WALL STOP
- 3-HINGES
1-LEVER-HANDLE CLASSROOM FUNCTION LOCKSET
1-WALL STOP
- 3-HINGES
1-CLASSROOM FUNCTION LOCKSET (PULL SIDE)
1-PANIC DEVICE (PUSH SIDE)
1-CLOSER
1-WALL STOP
- 3-HINGES
1-PUSH / PULL SET
1-CLOSER
1-WALL STOP
- 3-HINGES
1-LEVER-HANDLE CLASSROOM FUNCTION LOCKSET
1-CLOSER
- 6-HINGES, (3) EACH
1-LEVER-HANDLE CLASSROOM FUNCTION LOCKSET ON ACTIVE (EAST) LEAF
1-FLUSH BOLT SET (TOP AND BOTTOM) ON INACTIVE LEAF
- 3-HINGES
1-LEVER-HANDLE PRIVACY FUNCTION LOCKSET
1-CLOSER
1-WALL STOP
- (EXISTING DOOR)
SWAP EXISTING HANDLE SET WITH PANIC DEVICE, SALVAGE HANDLE SET FOR OWNER'S STOCK.

MATERIAL LEGEND

ITEM	DESCRIPTION
HM	HOLLOW METAL
WD	WOOD (PAINT GRADE, SOLID CORE SLAB DOOR)
STL	STEEL
RCB	4" RUBBER COVE BASE
PNT	PAINT
EXP	EXPOSED TO STRUCTURE
AL	ALUMINUM
ANOD	ANODIZED - MATCH EXISTING
SC	SEALED CONCRETE
GYP	GYPSUM BOARD
ACT	ACOUSTIC CEILING TILE
LVT	LUXURY VINYL TILE
CONC	CONCRETE

DOOR SCHEDULE

NO.	DOOR TYPE	SIZE	MATERIAL	PUSH FINISH	PULL FINISH	FRAME			DETAILS - (SEE SHEET A-XXX)			HARDWARE	KEY NOTES / COMMENTS
						MATERIAL	PUSH FINISH	PULL FINISH	HEAD	JAMB	THRESHOLD		
110	B	1 3/4" X 3'-0" X 7'-0" (ETR)	AL	ANOD	ANOD	AL	ANOD	ANOD	-	-	-	①	A, B.
111	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	②	
112	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	②	
113	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	②	
114	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	②	
115	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	③	
116	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	④	
117	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	⑤	
118	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	⑥	
119	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	⑤	
120	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	③	
121	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	②	
130A	B	1 3/4" X 3'-0" X 7'-0" (ETR)	AL	ANOD	ANOD	AL	ANOD	ANOD	-	-	-	①	A, B.
130B	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	⑥	
130C	C	1 3/4" X 4'-0" X 8'-0" (PAIR)	HM	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	⑦	
131	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	⑧	
132	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	②	
140A	A	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	PNT	PNT	HM	PNT	PNT	-	-	-	⑨	
140B	A	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	PNT	PNT	HM	PNT	PNT	-	-	-	⑨	
140C	A	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	PNT	PNT	HM	PNT	PNT	-	-	-	ETR	

- KEY NOTES:
- EXISTING FRAME, DOOR, AND HARDWARE TO REMAIN
 - INSTALL A SIGN ABOVE THIS DOOR THAT READS, "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED"

INTERIOR FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR MATERIAL	BASE MATERIAL	WALL FINISH (NORTH)	WALL FINISH (EAST)	WALL FINISH (SOUTH)	WALL FINISH (WEST)	CEILING		COMMENT KEY NOTES
								MATERIAL	FINISH	
110	OPEN OFFICE	CPT	RCB	PNT	PNT	PNT	PNT	ACT	-	
111	OFFICE	CPT	RCB	PNT	PNT	PNT	PNT	ACT	-	
112	OFFICE	CPT	RCB	PNT	PNT	PNT	PNT	ACT	-	
113	OFFICE	CPT	RCB	PNT	PNT	PNT	PNT	ACT	-	
114	OFFICE	CPT	RCB	PNT	PNT	PNT	PNT	ACT	-	
115	STORAGE	SC	RCB	PNT	PNT	PNT	PNT	ACT	-	
116	BREAK ROOM	SC	RCB	PNT	PNT	PNT	PNT	ACT	-	1.
117	MEN	LVT	RCB	PNT	PNT	PNT	PNT	ACT	-	1.
118	HALL	SC	RCB	PNT	PNT	PNT	PNT	ACT	-	
119	WOMEN	LVT	RCB	PNT	PNT	PNT	PNT	ACT	-	1.
120	STORAGE	SC	RCB	PNT	PNT	PNT	PNT	ACT	-	
121	CONFERENCE ROOM	CPT	RCB	PNT	PNT	PNT	PNT	ACT	-	
130	LABORATORY	SC	RCB	PNT	PNT	PNT	PNT	ACT	-	1.
131	UNISEX	LVT	RCB	PNT	PNT	PNT	PNT	ACT	-	1.
132	ANALYTICAL ROOM	CPT	RCB	PNT	PNT	PNT	PNT	ACT	-	
140	PRODUCTION AREA	-	-	PNT	PNT	PNT	PNT	EXP	-	1, 2.

- COMMENTS:
- 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.
 - PAINT THE OUTSIDE WALLS OF THE OFFICE AND LAB.

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 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 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.
 - COORDINATE ALL DOOR HARDWARE WITH THE OWNER TO ENSURE THE MANUFACTURER'S FUNCTIONS, MODELS, AND KEYING SYSTEMS MEET THE OWNER'S STANDARD REQUIREMENTS.

Architect:

MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client:
Ward Development
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Consultants:
MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
t: (816) 726-6531

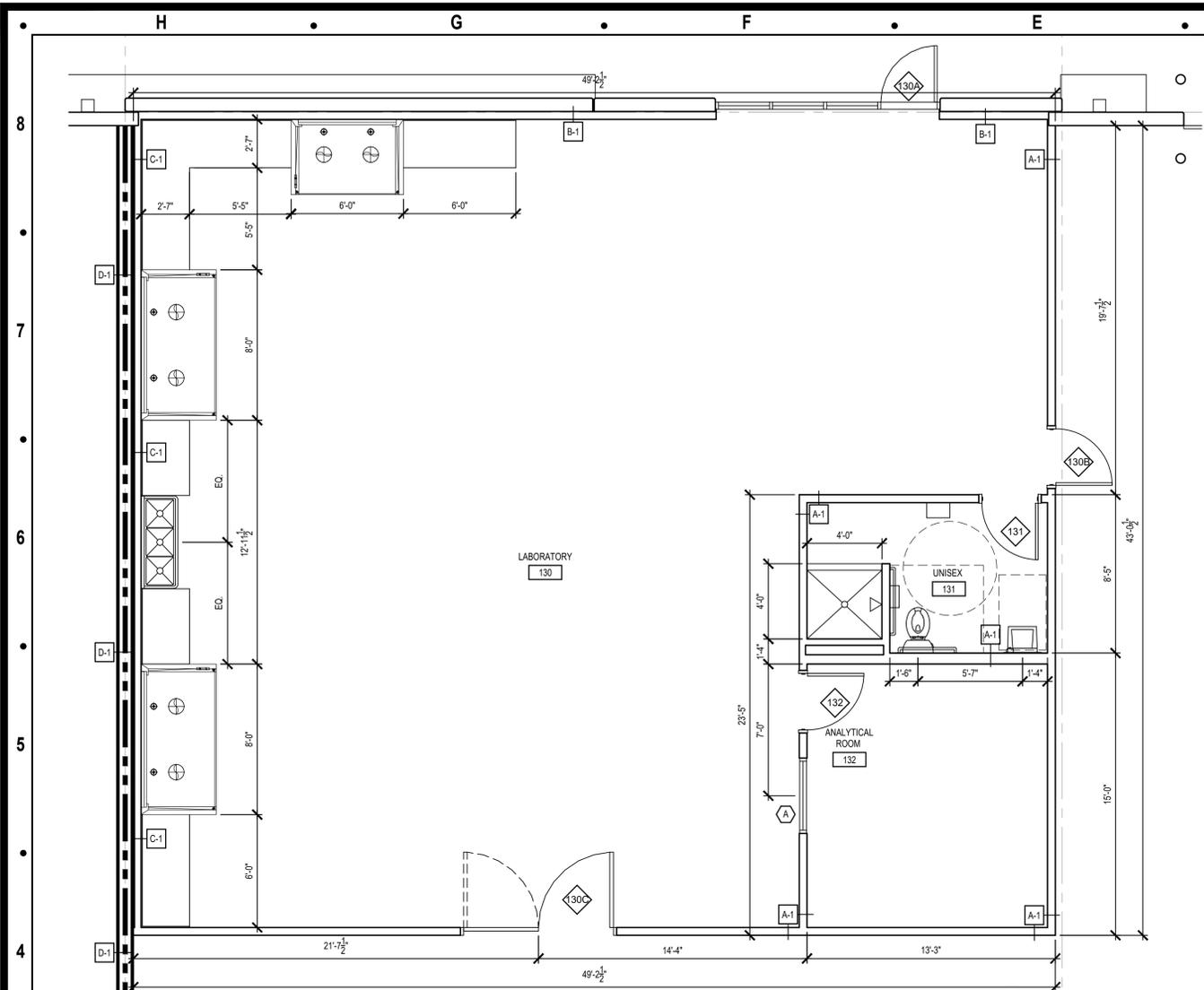
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Seal:
STATE OF MISSOURI
MICHAEL MOORES
NUMBER A-2009032812
ARCHITECT
02.26.24
Michael Moores, MO Architect #2009032812

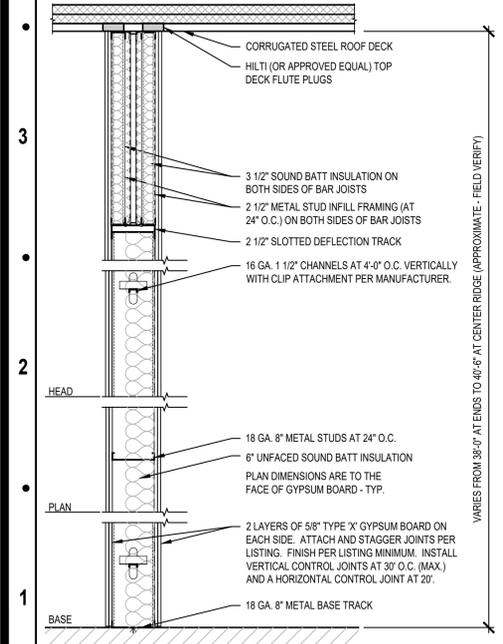
Project Number: 2313
Project Type: TENANT FINISH
Project Name and Address:
2237 NW Town Centre Blvd.
Lee's Summit, Missouri 64064

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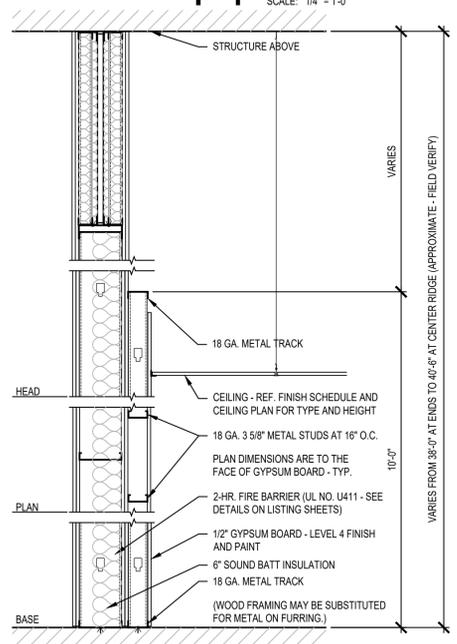
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DOOR / WINDOW / FINISH SCHEDULES AND NOTES
A-005



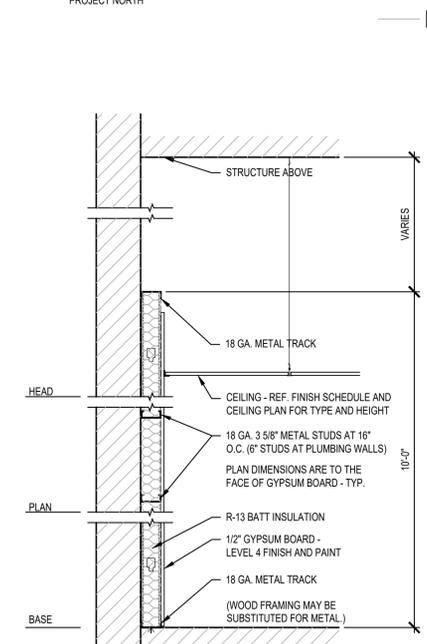
F4 ENLARGED LAB PLAN
SCALE: 1/4" = 1'-0"
PROJECT NORTH



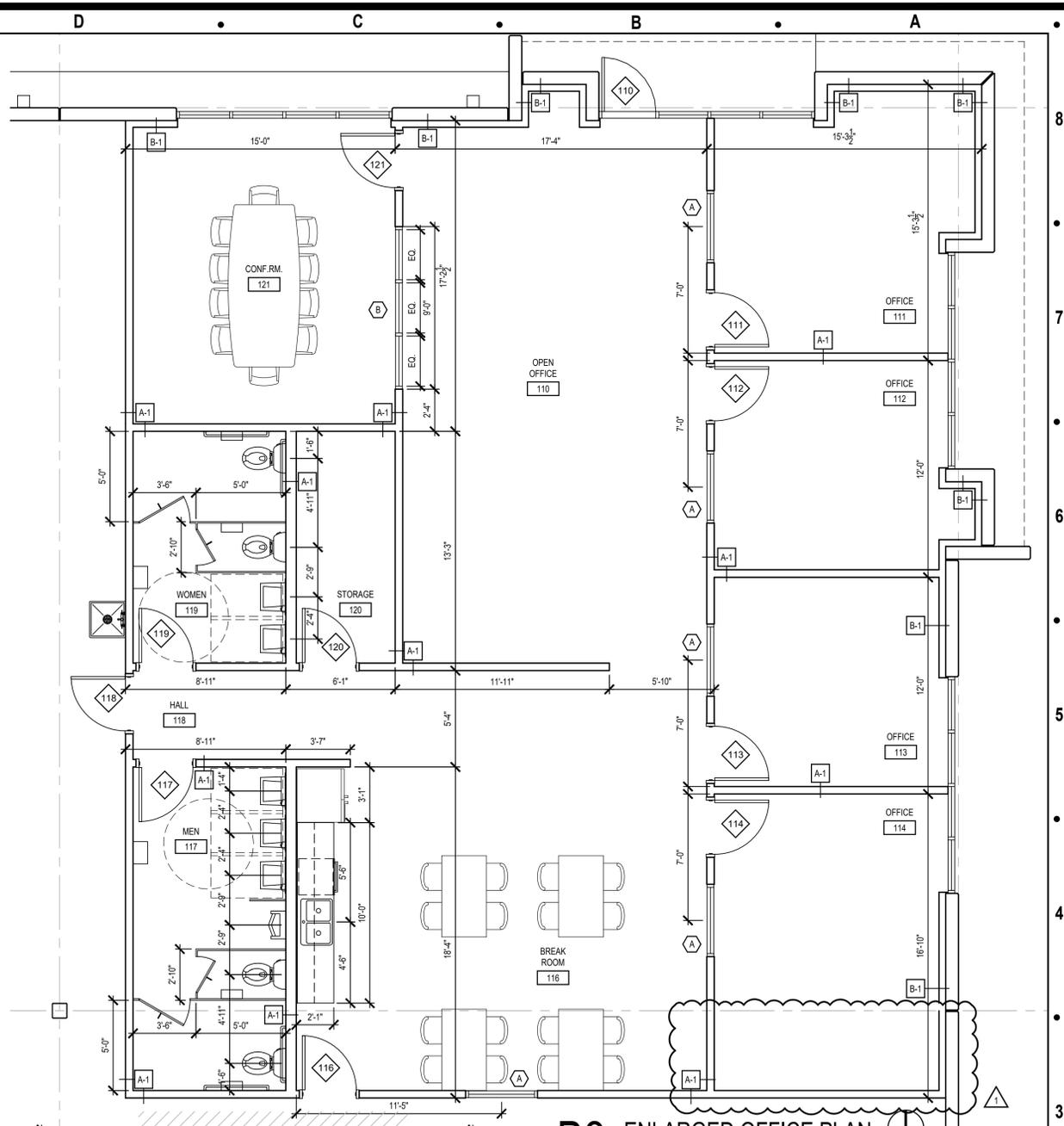
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2-HR FIRE BARRIER (U.L. DESIGN NO. U411)



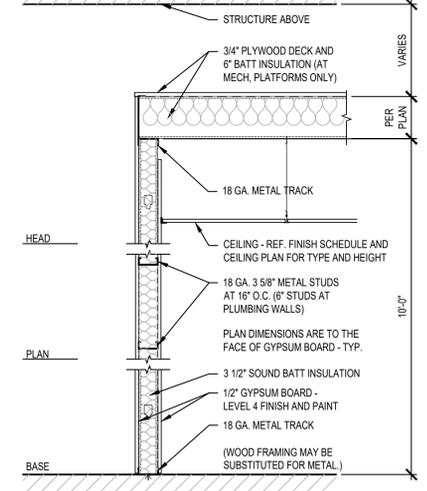
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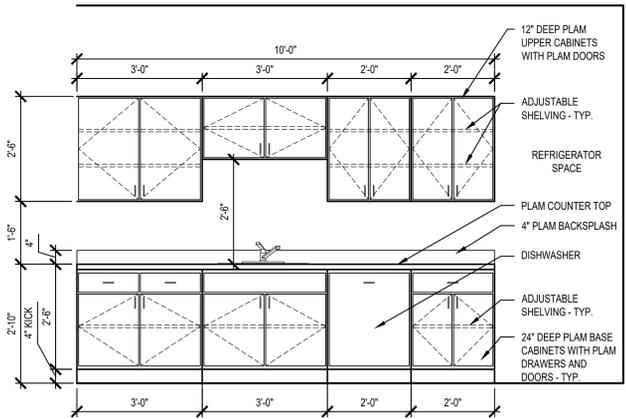
PARTITION TYPE B-1



B3 ENLARGED OFFICE PLAN
SCALE: 1/4" = 1'-0"
PROJECT NORTH



PARTITION TYPE A-1



B1 BREAK ROOM CABINETS
SCALE: 1/2" = 1'-0"

Architect:
MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client:
Ward Development
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Consultants:
MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
t: (816) 726-6531

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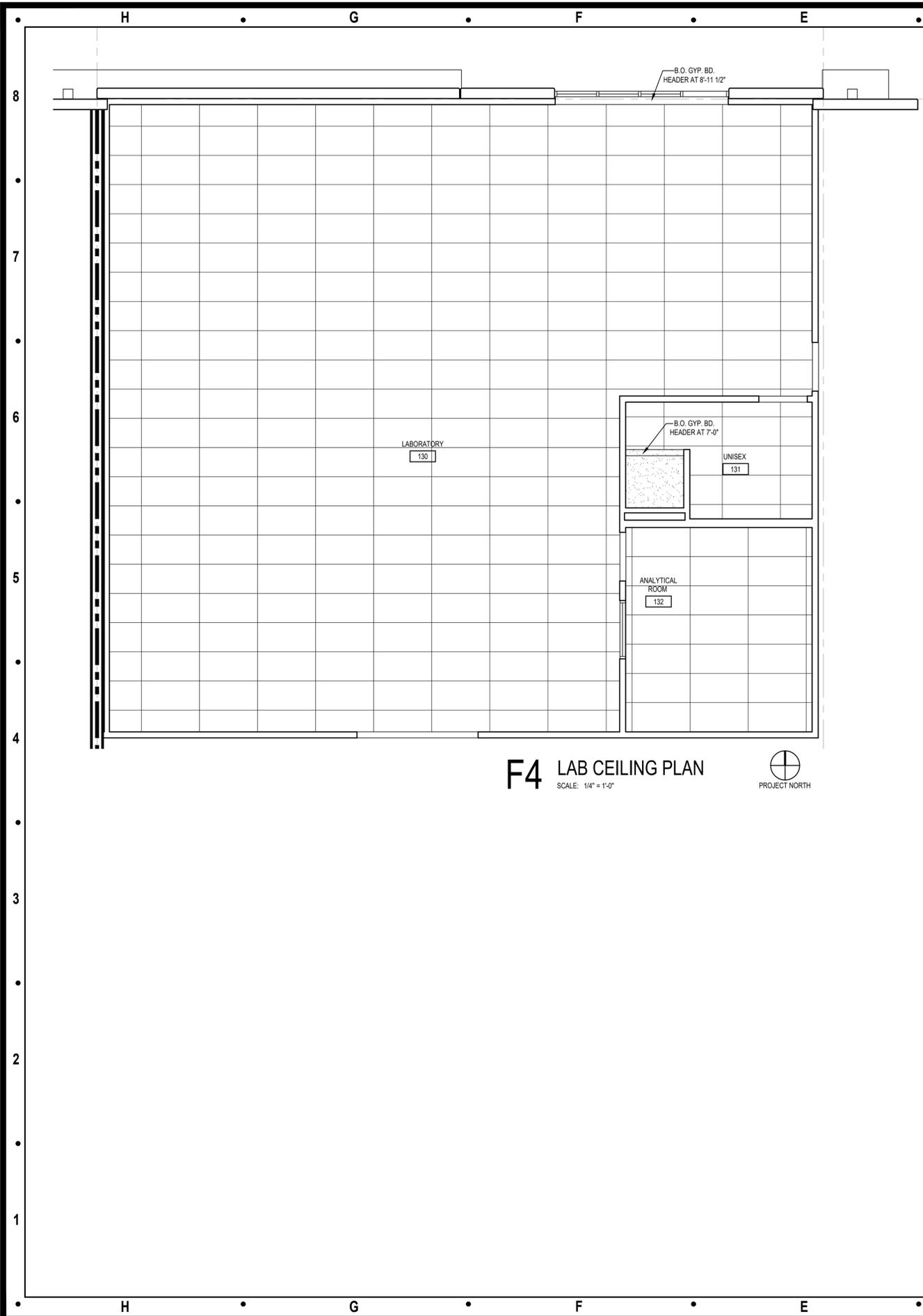
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Project Name and Address:

SPIRITUS
2237 NW Town Centre Blvd.
Lee's Summit, Missouri 64064

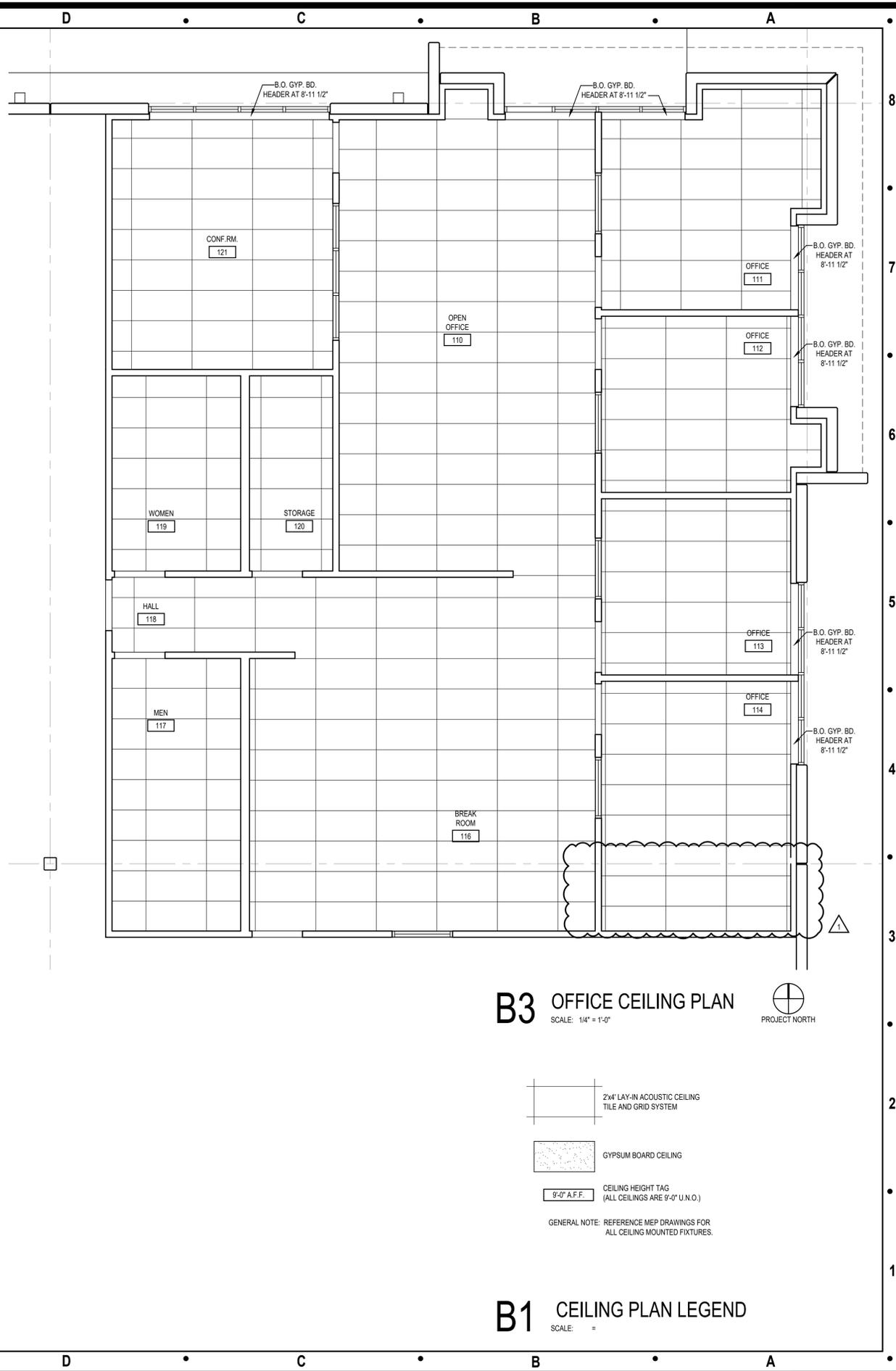
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**ENLARGED PLANS
PARTITION TYPES**

A-110



F4 LAB CEILING PLAN
 SCALE: 1/4" = 1'-0"
 PROJECT NORTH



B3 OFFICE CEILING PLAN
 SCALE: 1/4" = 1'-0"
 PROJECT NORTH

B1 CEILING PLAN LEGEND
 SCALE: =

-  2x4' LAY-IN ACOUSTIC CEILING TILE AND GRID SYSTEM
-  GYPSUM BOARD CEILING
-  9'-0" A.F.F. CEILING HEIGHT TAG (ALL CEILINGS ARE 9'-0" U.N.O.)

GENERAL NOTE: REFERENCE MEP DRAWINGS FOR ALL CEILING MOUNTED FIXTURES.

Architect:
 MIDWEST ARCHITECTS
 1120 NW Eagle Ridge Blvd.
 Grain Valley, Missouri 64029
 t: (816) 229-8115

Client:
 Ward Development
 1120 NW Eagle Ridge Blvd.
 Grain Valley, Missouri 64029
 t: (816) 229-8115

Consultants:
 MEP Engineering:
 Casburn Consultants
 Professional Engineering
 128 SW Hillcrest Lane
 Lee's Summit, MO 64063
 t: (816) 726-6531

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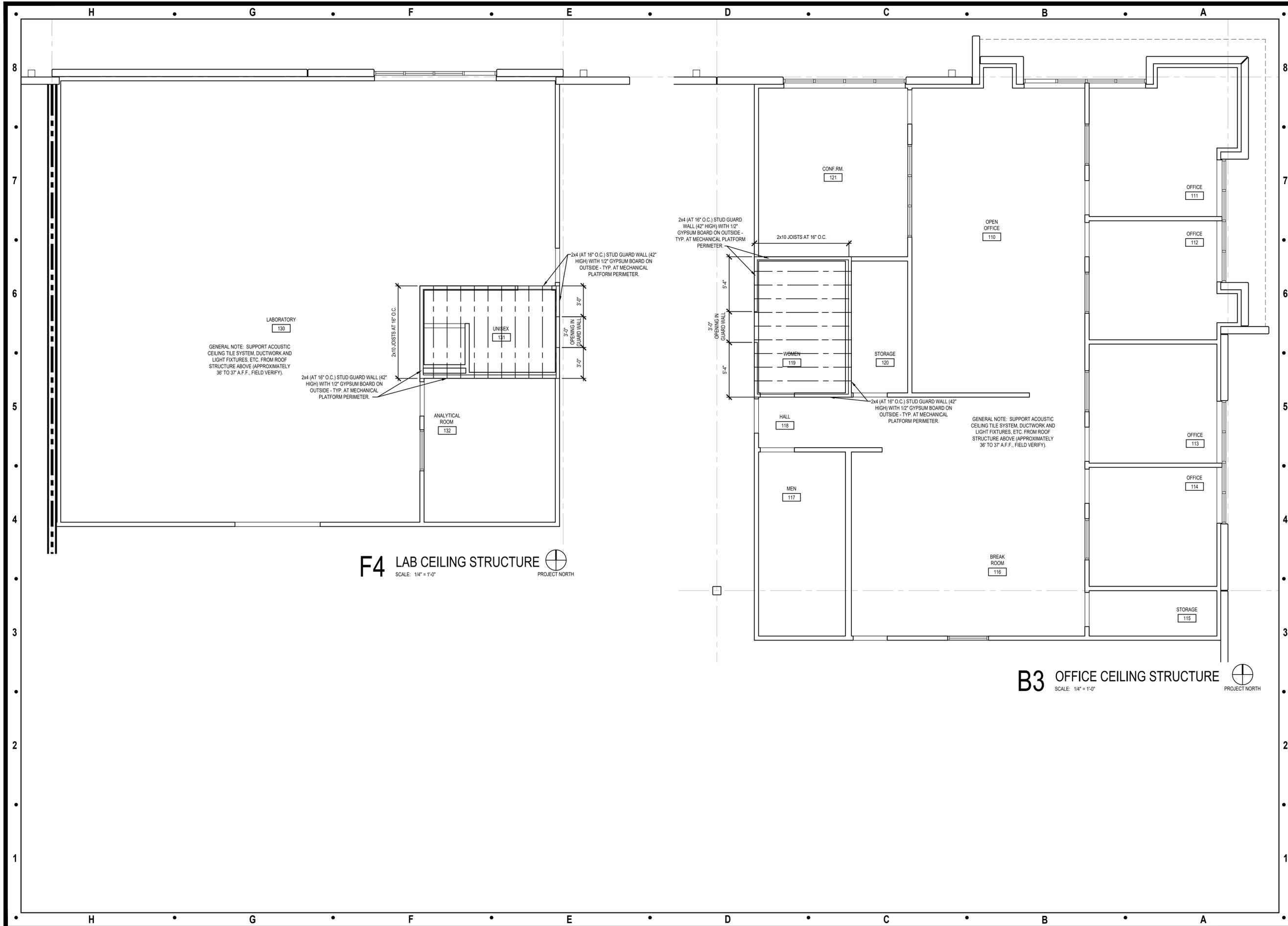
Seal:

 Michael Moores, MO Architect #2009032812

Project Number: 2313
 Project Type: TENANT FINISH
 Project Name and Address:
SPIRITUS
 2237 NW Town Centre Blvd.
 Lee's Summit, Missouri 64064

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Sheet Title:
 CEILING PLANS
A-410



LABORATORY
130

GENERAL NOTE: SUPPORT ACOUSTIC CEILING TILE SYSTEM, DUCTWORK AND LIGHT FIXTURES, ETC. FROM ROOF STRUCTURE ABOVE (APPROXIMATELY 36" TO 37" A.F.F., FIELD VERIFY).

2x4 (AT 16" O.C.) STUD GUARD WALL (42" HIGH) WITH 1/2" GYPSUM BOARD ON OUTSIDE - TYP. AT MECHANICAL PLATFORM PERIMETER.

2x4 (AT 16" O.C.) STUD GUARD WALL (42" HIGH) WITH 1/2" GYPSUM BOARD ON OUTSIDE - TYP. AT MECHANICAL PLATFORM PERIMETER.

F4 LAB CEILING STRUCTURE
SCALE: 1/4" = 1'-0"
PROJECT NORTH

GENERAL NOTE: SUPPORT ACOUSTIC CEILING TILE SYSTEM, DUCTWORK AND LIGHT FIXTURES, ETC. FROM ROOF STRUCTURE ABOVE (APPROXIMATELY 36" TO 37" A.F.F., FIELD VERIFY).

B3 OFFICE CEILING STRUCTURE
SCALE: 1/4" = 1'-0"
PROJECT NORTH

Architect:
MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client:
Ward Development
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Consultants:
MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
t: (816) 726-6531

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Seal:

 Michael Moore, MO Architect #2009032812
 Project Number: 2313
 Project Type: TENANT FINISH
 Project Name and Address:
SPIRITUS
 2237 NW Town Centre Blvd.
 Lee's Summit, Missouri 64064

Issue: Permit Drawings
Date: 02.06.24

Sheet Title:
CEILING STRUCTURE
A-411

	H	G	F	E	D	C	B	A	
	GENERAL ELECTRICAL NOTES				A. PLUMBING SPECIFICATIONS		B. MECHANICAL SPECIFICATIONS		
8	<p>1. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL WIRE.</p> <p>2. TELEPHONE/DATA CABLES TO BE 4-PAIR CAT. 5. CABLE TO BE FURNISHED AND INSTALLED BY COMMUNICATIONS CONTR. ALL CABLING TO BE PLENUM RATED.</p> <p>3. ELECTRICAL CONTRACTOR TO INCLUDE GROUND WIRE IN ALL RACEWAYS. SIZE RACEWAYS AS NECESSARY TO COMPLY WITH N.E.C.</p> <p>4. REFER TO REFLECTED CEILING PLAN AND DETAILS FOR THE EXACT LOCATION OF ALL LIGHTING FIXTURES AND ANY OTHER EQUIPMENT INSTALLED IN THE CEILING SYSTEM. VERIFY EXACT MOUNTING HEIGHTS AND FINISHES WITH CONSTRUCTION COMPANY PRIOR TO ROUGH-IN.</p> <p>5. DUAL LIGHT SWITCH TO BE PROVIDED IN RESTROOMS, ONE FOR FAN VENT, AND ONE FOR LIGHTING.</p> <p>6. EMPTY MUD RING W/ CONDUIT AND PULL STRING NEXT TO LIGHT SWITCH FOR SPEAKER CONTROLS</p> <p>7. PLYWOOD TELEPHONE BACKERBOARD (4'X4') TO HAVE ROUTED 2" EMPTY CONDUIT BACK TO THE EXISTING TELEPHONE SERVICE ENTRANCE AND 110V OUTLET, FIELD COORDINATE.</p> <p>8. THE WORD "PROVIDE" HEREIN SHALL MEAN FURNISH AND INSTALL.</p>				<p>1. ALL PLUMBING SYSTEMS MUST BE COMPATIBLE WITH THE TYPE OF MATERIALS USED BY LANDLORD AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:</p> <p>DRAINAGE AND VENT PIPE FITTING FOR ABOVE GRADE USE SHALL BE SERVICE WEIGHT, HUBLESS, CAST IRON WITH RUBBER SEALING SLEEVE AND STAINLESS STEEL COUPLING JOINTS WITH STAINLESS STEEL CLAMPS AND BOLTS AS MANUFACTURED BY TYLER PIPE OR EQUIVALENT. BELOW GRADE USE SERVICE WEIGHT, BELL AND SPIGOT CAST IRON WITH LEAD AND OAKUM OR GASKETED JOINTS. PVC IS PERMITTED ONLY WITH PRIOR LANDLORD APPROVAL.</p> <p>WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER TUBING, SEAMLESS DRAWN, HARD TEMPERED WITH PLAIN ENDS ASTM B88. FITTING SHALL BE WROUGHT, OR CAST, COPPER WITH SOCKET ENDS FOR LEAD FREE SOLDER.</p> <p>2. ALL VALVES FOR DOMESTIC WATER SHALL BE 125 PSI TEST ALL BRONZE LINE SIZE FULL PORT BALL VALVES QUARTER-TURN INSTALLED IN THE PROPER ORIENTATION. BALL VALVES SHALL BE MANUFACTURED BY ONE OF THE FOLLOWING:</p> <p>NIBCO CRANE WATTS</p> <p>ALL VALVES SHALL BE ACCESSIBLE FOR EASE OF OPERATIONS.</p> <p>3. PIPE IS TO BE SUPPORTED SECURELY FROM HANGERS AS FOLLOWS:</p> <p>4. PIPES SUPPORTED FROM STEEL STRUCTURE SHALL BE SUPPORTED FROM STEEL BEAMS AND JOISTS WITH APPROVED CLAMPS AND OTHER STRUCTURAL ATTACHMENTS.</p> <p>IN AREAS WITH CONCRETE FLAT SLABS AND CONCRETE ON METAL INSERTS, SELF-DRILLING ANCHORS OR POWER-DRIVEN ANCHORS WILL BE ALLOWED.</p> <p>NO PIPE HANGERS WILL BE SUPPORTED FROM THE METAL ROOF DECK. HANGERS SHALL NOT PIERCE PIPING INSULATION VAPOR BARRIER.</p> <p>ALL STEEL HANGERS, RODS, SEAM CLAMPS, ETC., EXPOSED TO PUBLIC VIEW SHALL BE PAINTED TO MATCH ADJACENT FINISH.</p> <p>APPEARANCE AND SPACING OF HANGERS EXPOSED TO PUBLIC VIEW ARE IMPORTANT ASPECTS OF THE FINAL VISUAL ENVIRONMENT. SPECIFIC DETAILS OF SUPPORT METHODS AND LOCATION OF HANGERS MUST BE DEDICATED ON DRAWINGS SUBMITTED TO LANDLORD FOR REVIEW AND ARE SUBJECT TO LANDLORDS APPROVAL. ALL HANGERS MUST BE EVENLY SPACED AND GROUPED AS MUCH AS POSSIBLE WITH SUPPORTS FOR OTHER TRADES TO MINIMIZE VISUAL CLUTTER IN THE UPPER PORTIONS OF ALL SPACES EXPOSED TO PUBLIC VIEW. SUPPORT SYSTEMS MUST BE NEAT AND WORKMANLIKE AND FREE OF EXTRA LENGTH OF SUPPORT RODS BELOW THE SUPPORTED MEMBER/HARDWARE AND ACCESSORIES MUST BE SELECTED WITH A SMOOTH-FINISHED APPEARANCE FOR THE COMPLETED SUPPORT ASSEMBLY. HANGERS EXPOSED TO PUBLIC VIEW SHALL BE OF THE CLEVIS, OR TRAPEZE TYPE, COMPLETE WITH BOLTS, RODS, AND NUTS.</p> <p>MINIMUM HANGER ROD DIAMETER SHALL BE LESS THAN, AND MAXIMUM SPACING OF SUPPORTS FOR STEEL AND COPPER HORIZONTAL PIPING MUST NOT BE GREATER THAN, THE VALUES IN THE LATEST ISSUE OF THE ASHRAE EQUIPMENT HANDBOOK. CAST IRON PIPE MUST BE SUPPORTED AT LEAST EVERY FIVE FEET AND AT EVERY JOINT AND FITTING. CAST IRON PIPE BRANCHES MUST HAVE HANGERS FOUR FOOT ON CENTER MAXIMUM. WHERE REQUIRED TO MEET MINIMUM SPACING OF HANGERS, PLUMBING CONTRACTOR IS RESPONSIBLE FOR INSTALLING ADDITIONAL INTERMEDIATE STRUCTURAL SUPPORTS.</p> <p>PROVIDE CAST BRASS OR CHROME ESCUTCHEONS WITH SET SCREWS, DEEP TYPE, TO COVER SLEEVES OR OF A SIZE TO COVER FITTING PROJECTIONS. PROVIDE ESCUTCHEONS FOR ALL EXPOSED PIPING THROUGH WALLS, FLOORS, AND EXPOSED CEILING.</p> <p>5. ALL PIPE INSULATION IN AREAS EXPOSED TO PUBLIC VIEW SHALL BE INSTALLED IN THE MOST WORKMANLIKE MANNER AND IS SUBJECT TO THE APPROVAL OF PROJECT DESIGNER FOR APPEARANCE.</p> <p>6. FIRE PROTECTION</p> <p>LANDLORD WILL PROVIDE A FIRE SPRINKLER SYSTEM. ALL MODIFICATIONS, ADDITIONS OR RELOCATIONS TO FIRE PROTECTION SYSTEM SHALL BE PERFORMED BY LANDLORD APPROVED SPRINKLER CONTRACTOR AT TENANT'S EXPENSE.</p> <p>SPRINKLER SUB CONTRACTOR SHALL SUBMIT DRAWINGS, AND ALL REQUIRED LANDLORD, STATE, AND CITY REQUIREMENTS FOR APPROVAL AS PART OF THE WORK.</p> <p>THE SPRINKLER SYSTEM SHALL BE FULLY CHARGED AND OPERATIONAL WHEN THE CONTRACTOR IS OFF-SITE.</p> <p>TENANT TO VERIFY WITH LOCAL AUTHORITIES IF A SPRINKLER HEAD IS REQUIRED ABOVE RESTROOM AREA.</p>		<p>1. NOISE AND VIBRATION CONTROL. ALL EQUIPMENT INSTALLED BY MECHANICAL CONTRACTOR SHALL BE PROVIDED WITH VIBRATION ISOLATORS, SOUND TRAPS, DUCT LINING, ACOUSTICAL HOUSINGS, ACOUSTICAL LOUVERS, AND OTHER NOISE AND VIBRATION CONTROL APPARATUS REQUIRED TO LIMIT INTRUSION INTO THE ADJACENT SPACES ACCORDINGLY.</p> <p>A. INTRUSIVE NOISE LEVELS IN ADJACENT SPACES SHALL NOT EXCEED NC-40 WHEN MEASURED IN THESE SPACES.</p> <p>B. TENANT EQUIPMENT NOISE EMITTED TO THE EXTERIOR SHALL NOT EXCEED 55 DBA IN ANY OCCUPIED EXTERIOR SPACES.</p> <p>C. MECHANICAL CONTRACTOR SHALL PROVIDE VIBRATION ISOLATION OF DUCTWORK, PIPING AND EQUIPMENT IN ACCORDANCE WITH PRACTICES DESCRIBED IN THE LATEST ASHRAE HANDBOOK SO THAT THE MEASUREMENTS MADE IN ADJACENT SPACES DO NOT EXCEED 5 DECIBELS.</p> <p>2. FIELD CONDITIONS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS. THE MECHANICAL CONTRACTOR IS REQUIRED TO VISIT THE SITE AND VERIFY FIELD CONDITIONS WHICH MAY AFFECT THE DESIGN AND INSTALLATION BEFORE SUBMITTING A BID.</p> <p>3. ALL ROOF PENETRATIONS SHALL BE BY LANDLORDS APPROVED ROOF CONTRACTOR ONLY.</p> <p>ALL OPENINGS THROUGH STRUCTURALLY SUPPORTED SLABS MUST BE CORE BORED, SLEEVED, GROUTED, SEALED AND MADE WATERPROOF. SLEEVES, EXCEPT FOR WATER CLOSETS, MUST EXTEND AT LEAST TWO INCHES (2) ABOVE THE FINISHED FLOOR. LOCATION OF ALL FLOOR OPENINGS MUST BE APPROVED BY THE LANDLORD IN WRITING. WATERPROOFING MUST BE INSPECTED AND APPROVED BY THE LANDLORD BEFORE ANY FLOOR MATERIAL IS INSTALLED. MECHANICAL CONTRACTOR IS RESPONSIBLE TO TAKE WHATEVER MEASURES ARE NECESSARY INCLUDING, BUT NOT LIMITED TO, THOSE MEASURES PRESCRIBED BY LANDLORD IN THE EXERCISE OF ITS REASONABLE JUDGEMENT TO ASSURE THAT CORE BORING WILL NOT DAMAGE THE LANDLORDS STRUCTURE, CONDUITS, ETC. THE COST OF SUCH TESTS OR REPAIR OF ANY DAMAGE WILL BE BORNE BY THE MECHANICAL CONTRACTOR.</p>		
7	D. ELECTRICAL SPECIFICATIONS						C. HVAC SPECIFICATIONS		
6	<p>1. THE ENTIRE ELECTRICAL SYSTEM SHALL COMPLY WITH THE FOLLOWING:</p> <p>A. NATIONAL ELECTRICAL CODE AND ANY OTHER APPLICABLE LOCAL CODES.</p> <p>B. ALL FEEDER AND BRANCH CIRCUIT WIRING SHALL BE COPPER OR ALUM.</p> <p>C. THE REQUIREMENTS FOR ALL ROOF AND WALL OPENINGS DESCRIBED IN SECTIONS HEREIN.</p> <p>2. MATERIALS, PRODUCTS AND EQUIPMENT INCLUDING COMPONENTS THEREOF, SHALL BE NEW AND SUITABLE FOR THE PURPOSE AND SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND OF THE LOCAL AUTHORITIES HAVING JURISDICTION. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING COMPONENTS THEREOF, SHALL BE SIZED IN CONFORMITY WITH THE REQUIREMENTS OF OTHER RECOGNIZED STANDARDS, SUCH AS, ASTM, IEEE, IPCEA, NFPA AND NEMA WHERE THE REQUIREMENTS OF SUCH STANDARDS ARE MORE STRINGENT THAN THOSE CITED ABOVE.</p> <p>3. ELECTRICAL SERVICE PROVIDED IS 1200 AMP, 277/480V, 3 PHASE.</p> <p>4. ALL CONDUCTORS SHALL BE SOFT DRAWN ANNEALED COPPER. MINIMUM SIZE SHALL BE #12 FOR POWER WIRING AND #14 FOR CONTROL WIRING. WIRE SHALL BE 600 VOLT INSULATED, NEC TYPE THW, OR THHN/THWN. ALL WIRE SHALL BE RUN IN RIGID CONDUIT OR EMT. NO PLASTIC CONDUIT WILL BE PERMITTED, EXCEPT WHERE PERMITTED BY THE NATIONAL ELECTRIC CODES LATEST EDITION.</p> <p>5. LIGHTING AND APPLIANCE PANELBOARDS WITHIN THE SPACE, THEY SHALL BE OF THE THREE PHASE, FOUR WIRE DISTRIBUTED PHASING TYPE, ALL BREAKERS SHALL BE BOLT-ON TYPE. CIRCUITING SHALL BE ARRANGED TO PRESENT, AS NEARLY AS POSSIBLE, AND EVENLY BALANCED LOAD ON ALL PHASES. PANELBOARDS SHALL BE CIRCUIT BREAKER TYPE. ALL CIRCUIT BREAKERS SHALL HAVE INTERRUPTING CAPACITY AT LEAST 10% GREATER THAN THE AVAILABLE FAULT CURRENT AT THE BREAKER LOCATION.</p> <p>6. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL WITH, OR AT LEAST 3 INCHES FROM WATER LINES WHENEVER THEY RUN ALONGSIDE OR ACROSS SUCH LINES. HANGERS SHALL BE FASTENED TO STEEL, CONCRETE OR MASONRY, BUT NOT TO PIPING. HANGERS AND SUPPORT SYSTEMS ARE AN INTEGRAL PART OF THE VISUAL ENVIRONMENT. ALL HANGERS AND SUPPORTS EXPOSED TO PUBLIC VIEW MUST BE SHOWN IN DETAIL ON PLANS SUBMITTED TO LANDLORD FOR APPROVAL OF APPEARANCE. ALL HANGERS MUST BE UNIFORMILY SPACED AND NEATLY INSTALLED WITH NO EXCESS MATERIAL BEYOND WHAT IS REQUIRED FOR THE SUPPORT FUNCTION. SELECT ACCESSORIES AND HARDWARE WITH A SMOOTH, NEAT FINISHED APPEARANCE. PAINT ALL EXPOSED CONDUIT HANGERS TO MATCH THE ADJACENT FINISHES.</p> <p>7. GROUNDING SHALL CONSIST OF COPPER CONDUCTORS IN CONDUIT WITH BOLTED, OR BRAZED CONNECTION TO COLD WATER LINE FOR THE NEUTRAL GROUNDING AND BONDING SHALL COMPLY WITH NEC ARTICLE 250. ALL METALLIC RACEWAYS SHALL BE GROUNDED.</p> <p>8. PROVIDE WIRING DEVICES EQUAL TO THE FOLLOWING: TOGGLE SWITCHES LEVITON CAT #1221, RECEPTACLES- LEVITON CAT # 5262, GFCI RECEPTACLES, LEVITON #6699, PROVIDE AN EMPTY CONDUIT SYSTEM FOR THE TELEPHONE SYSTEMS.</p> <p>9. EQUIPMENT TO BE APPROVED BY THE LOCAL TELEPHONE COMPANY. COORDINATE ALL CONDUIT REQUIREMENTS AND TERMINATION WITH THE LOCAL SOUTHWESTERN BELL TELEPHONE COMPANY OR OTHER TELEPHONE SYSTEM PROVIDER.</p> <p>10. DUPLEX RECEPTACLES AND TELE-COMMUNICATION OUTLETS SHALL BE MOUNTED AT 15" ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED. TOGGLE SWITCHES SHALL MOUNT AT 48" ABOVE FINISH FLOOR. WALL MOUNTED TELEPHONE OUTLETS SHALL BE MOUNTED AT 48" ABOVE FINISH FLOOR.</p>						<p>1. WHERE ANY HVAC UNITS, DUCTWORK AND/OR DIFFUSERS, OR OUTLETS ARE PROVIDED BY MECHANICAL CONTRACTOR, M.C. SHALL ENGAGE THE SERVICES OF A CERTIFIED AIR BALANCE CONTRACTOR TO ADJUST AND COMPLETELY BALANCE GENERAL CONTRACTORS PORTION OF THE SYSTEM TO DESIGN AIR AND CHILLED WATER QUANTITIES, GENERAL CONTRACTOR SHALL PROVIDE TO LANDLORD A COPY OF THE CERTIFIED BALANCE REPORT SHOWING DESIGN AND MEASURED QUANTITIES, STATIC PRESSURE, FAN MOTOR RPM, MOTOR CURRENT AND EXHAUST QUANTITIES.</p> <p>2. CONSTRUCTION OF ALL DUCTWORK SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL IN ACCORDANCE WITH THE BEST RECOMMENDED PRACTICES OF THE AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE) AND IN STRICT COMPLIANCE WITH ALL THE APPLICABLE STANDARDS OF THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATIONS (SMACNA) LATEST EDITIONS. BRANCHES FROM THE MAIN LOW VELOCITY TRUNK DUCTWORK SHALL BE FURNISHED WITH SPLITTER DAMPERS OR SIMILAR BALANCE DEVICES IN THE LATEST STANDARDS OF THE ASSOCIATED AIR BALANCE COUNCIL. ACCESS PANELS ARE REQUIRED FOR THESE DEVICES IN THE CEILINGS.</p> <p>3. DUCT INSULATION: ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE INSULATED WITH A MINIMUM R-5 VALUE GLASS FIBER INSULATION WITH FOIL VAPOR BARRIER, EXCEPT THOSE PORTIONS WHICH ARE LINED FOR ACOUSTICAL PURPOSES, (USE 2" MINIMUM LINER) AND SUPPLY AIR DUCTWORK WITHIN AIR CONDITIONED SPACES (NOT RETURN AIR PLUNUMS.)</p> <p>4. AIR DISTRIBUTION DEVICES: AIR DISTRIBUTION DEVICES SHALL BE GRILLES OR CEILING DIFFUSERS INSTALLED AS REQUIRED TO ACHIEVE DRAFT FREE DISTRIBUTION IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE. DIFFUSERS OR GRILLES SHALL HAVE LOCKABLE, INDIVIDUAL MANUAL VOLUME CONTROL DEVICES.</p> <p>5. PIPING SYSTEMS: ALL PIPING SYSTEMS MUST BE COMPATIBLE WITH THE TYPE OF MATERIALS USED BY THE LANDLORD AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS: PIPE SUPPORTS AND VALVES SHALL BE AS SPECIFIED UNDER PLUMBING SPECIFICATIONS UNLESS OTHERWISE NOTED.</p> <p>6. PIPING SUPPORTS AND VALVES SHALL BE SPECIFIED UNDER PLUMBING SPECIFICATIONS UNLESS OTHERWISE NOTED.</p>		
5									
4									
3									
2									
1									
	H	G	F	E	D	C	B	A	

Architect:

MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client:

Ward Development
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Consultants:

MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
t: (816) 726-6531

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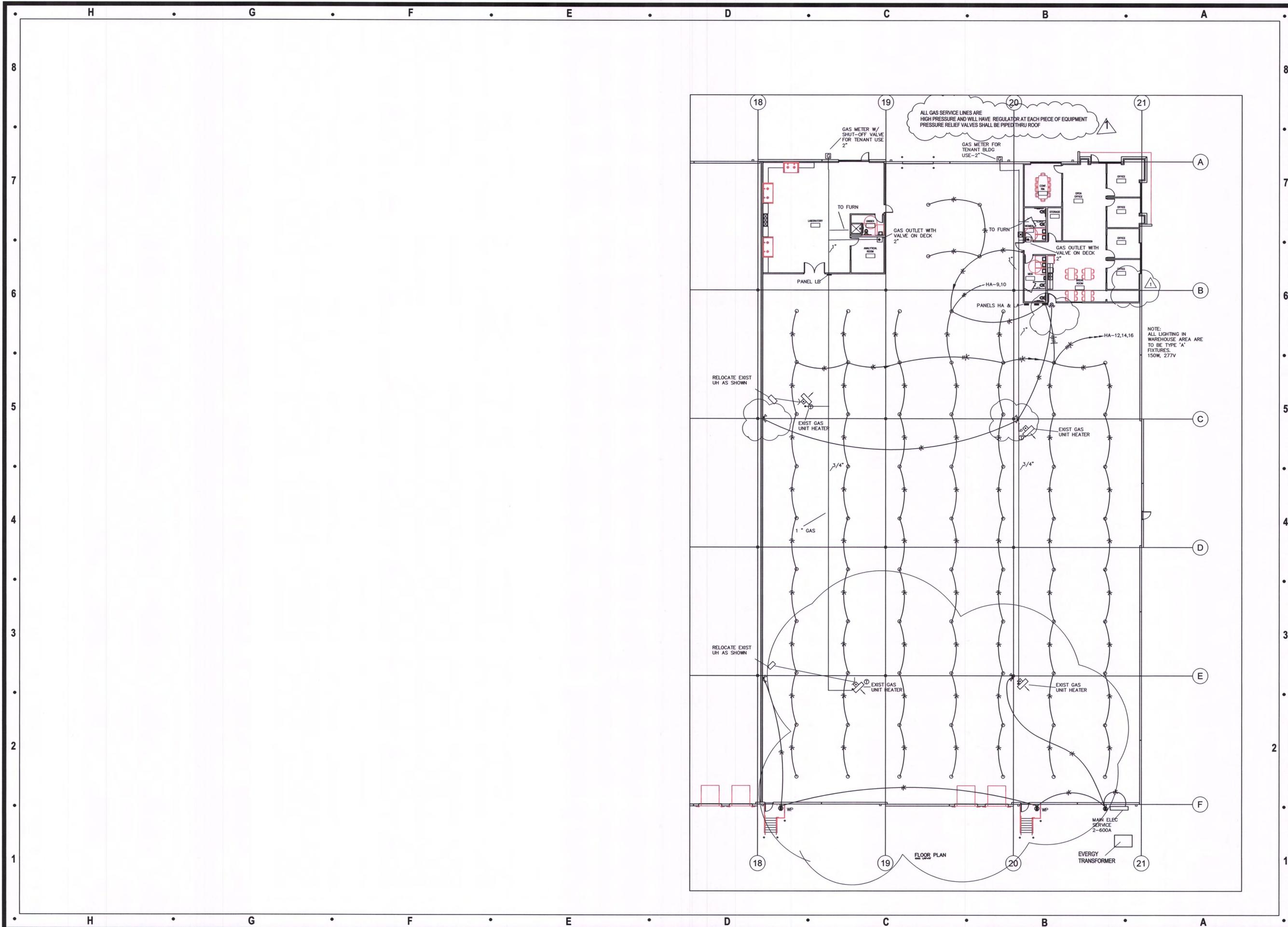
Project Number: 2313
Project Type: TENANT FINISH
Project Name and Address:

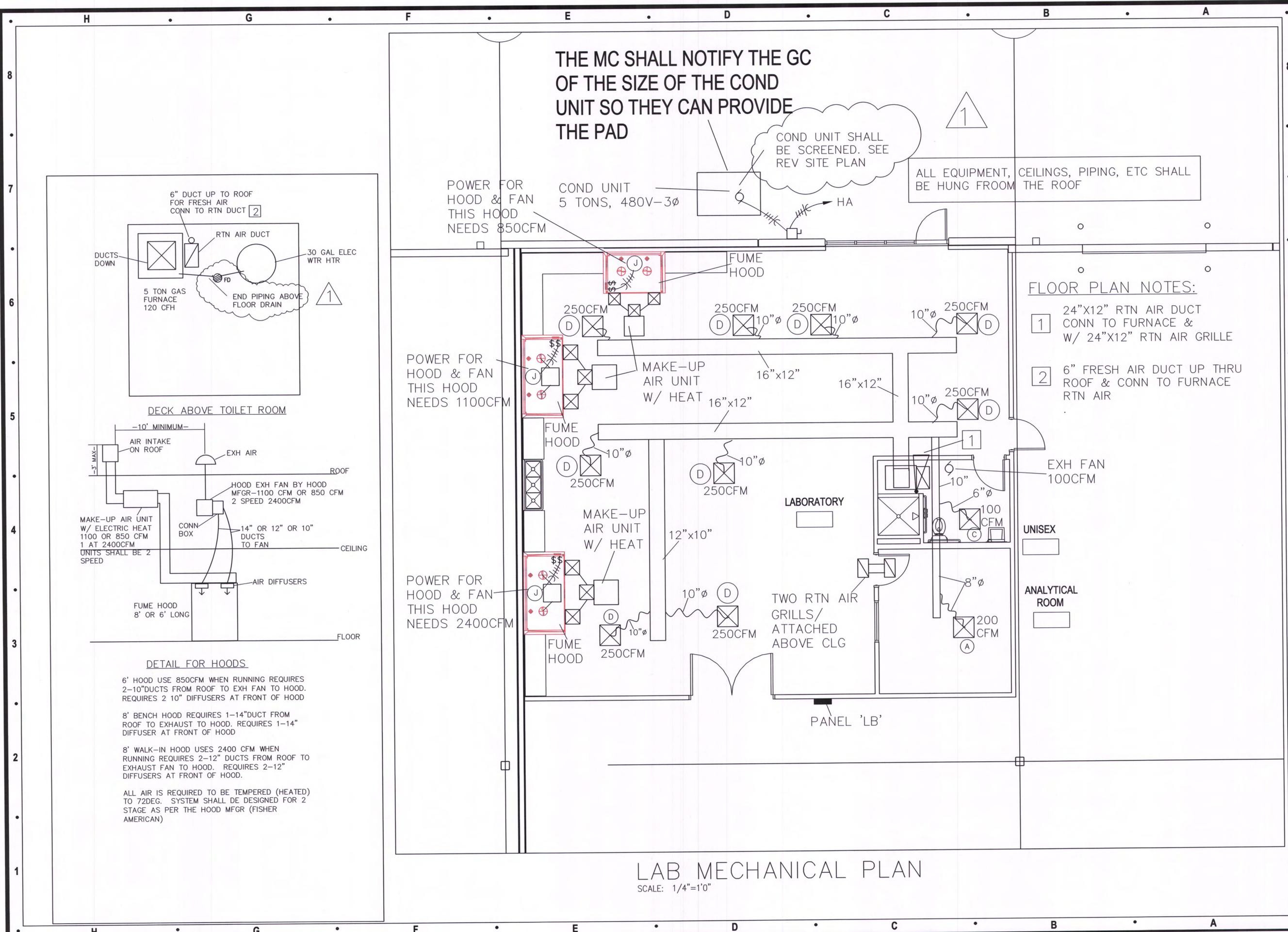
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MEP1





THE MC SHALL NOTIFY THE GC OF THE SIZE OF THE COND UNIT SO THEY CAN PROVIDE THE PAD

COND UNIT SHALL BE SCREENED. SEE REV SITE PLAN

ALL EQUIPMENT, CEILINGS, PIPING, ETC SHALL BE HUNG FROM THE ROOF

POWER FOR HOOD & FAN THIS HOOD NEEDS 850CFM

COND UNIT 5 TONS, 480V-3Ø

POWER FOR HOOD & FAN THIS HOOD NEEDS 1100CFM

POWER FOR HOOD & FAN THIS HOOD NEEDS 2400CFM

FLOOR PLAN NOTES:

- 1 24"x12" RTN AIR DUCT CONN TO FURNACE & W/ 24"x12" RTN AIR GRILLE
- 2 6" FRESH AIR DUCT UP THRU ROOF & CONN TO FURNACE RTN AIR

DETAIL FOR HOODS

6' HOOD USE 850CFM WHEN RUNNING REQUIRES 2-10"DUCTS FROM ROOF TO EXH FAN TO HOOD. REQUIRES 2 10" DIFFUSERS AT FRONT OF HOOD

8' BENCH HOOD REQUIRES 1-14"DUCT FROM ROOF TO EXHAUST TO HOOD. REQUIRES 1-14" DIFFUSER AT FRONT OF HOOD

8' WALK-IN HOOD USES 2400 CFM WHEN RUNNING REQUIRES 2-12" DUCTS FROM ROOF TO EXHAUST FAN TO HOOD. REQUIRES 2-12" DIFFUSERS AT FRONT OF HOOD.

ALL AIR IS REQUIRED TO BE TEMPERED (HEATED) TO 72DEG. SYSTEM SHALL BE DESIGNED FOR 2 STAGE AS PER THE HOOD MFCR (FISHER AMERICAN)

LAB MECHANICAL PLAN
SCALE: 1/4"=1'0"

Architect:
MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client:
Ward Development
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
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MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
t: (816) 726-6531

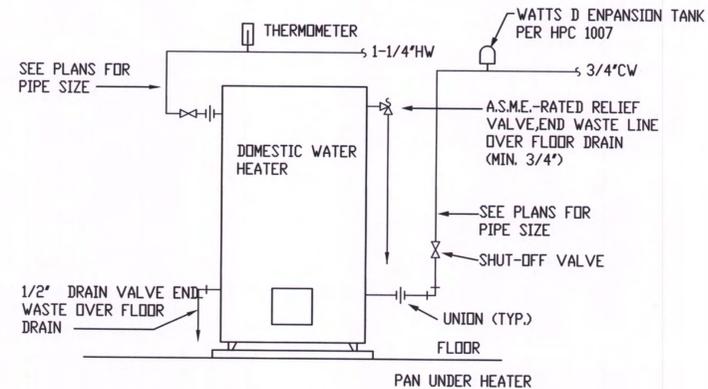
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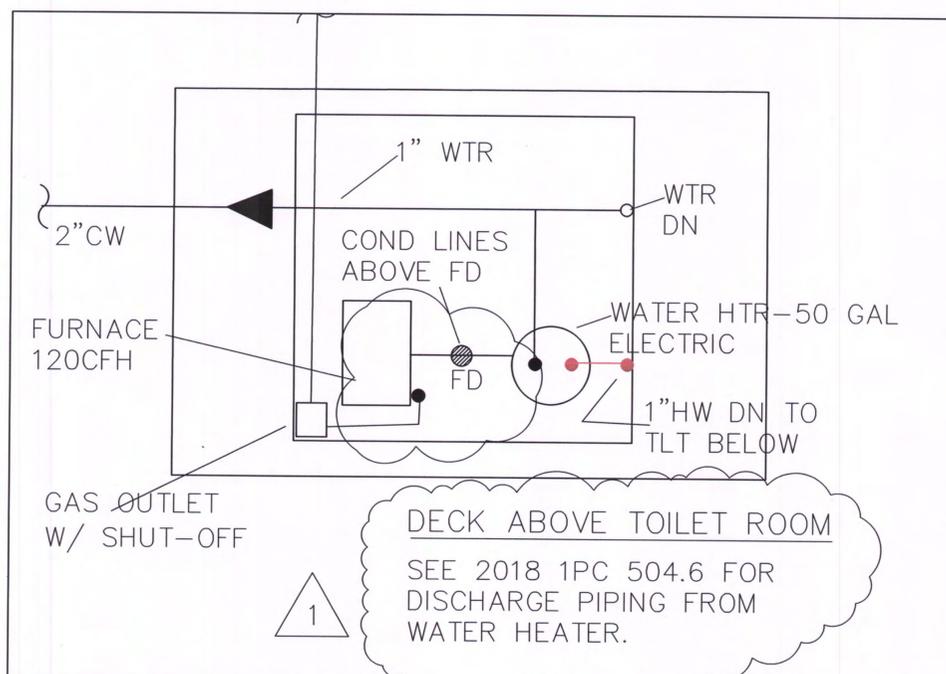
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M-3



ELECTRIC WATER HEATER DETAIL
 NO SCALE APPROX. 1050 LBS. OPERAING WEIGHT

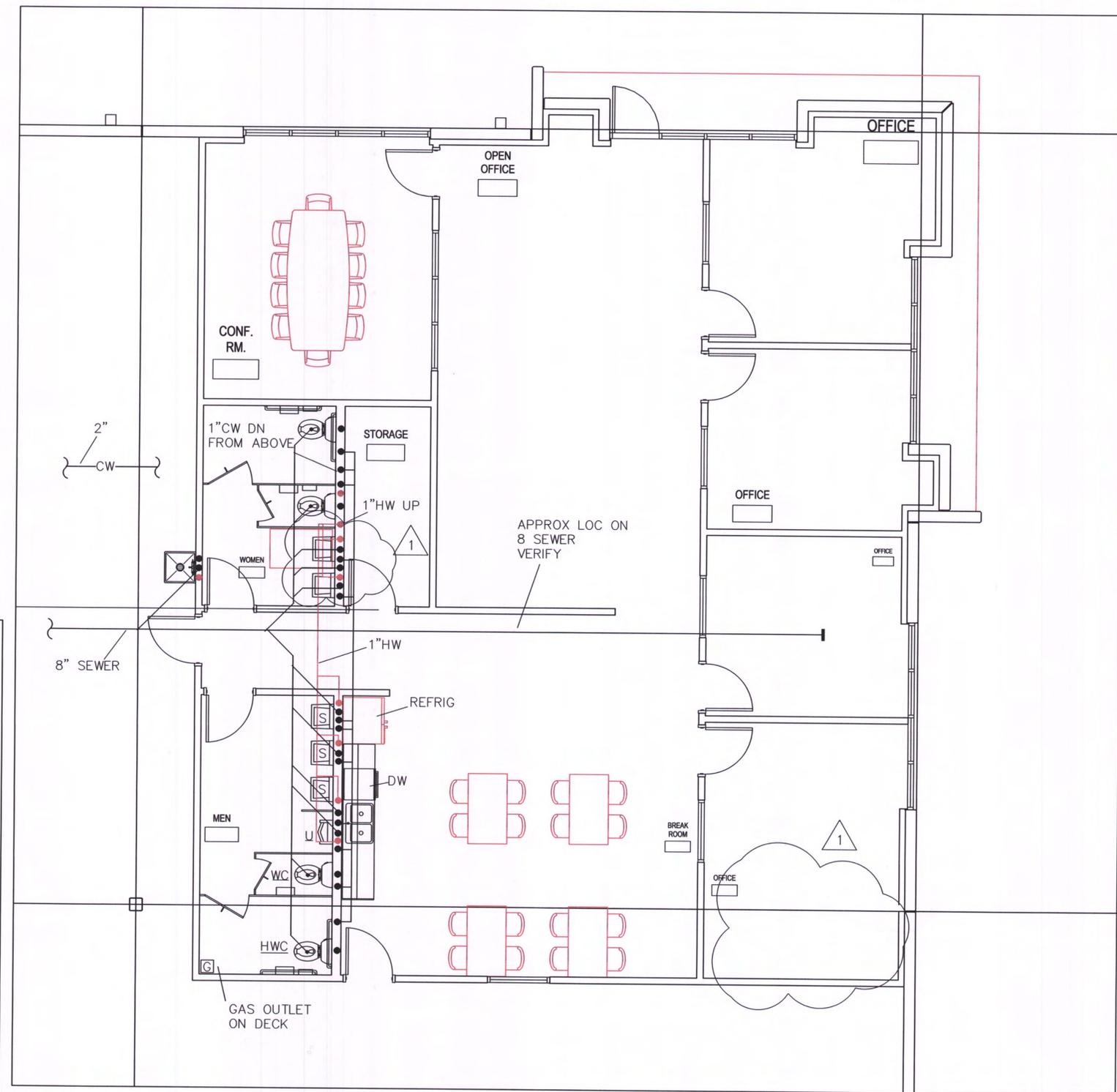
WATER HEATER- A.D. SMITH E6-30R45DV 50 GALLON, ELEC. HEATER REQUIRING 2-4.5 KW, 208V, 3Ø POWER SHORT HEATER TO BE FITTED WITH T&P VALVE W/AGA RATING OF MIN. 10% ABOVE BTU INPUT OF HEATER. VALVES SET FOR 150 PSI AT 210 WATER. THERMO-BOND PROTECTIVE COATED THERMOSTAT TUBE OF LENGTH REQUIRED FOR INSERTION INTO HOTTEST WITHOUT ELBOWS AND/OR COUPLINGS. EXTEND FULL SIZE COPPER DRAIN FROM VALVE TO WITHIN 6" OF FLOOR. APPROVED EQUALS: JR SMITH, RUUD, RHEEM CO. PVI INDUSTRIES, AD SMITH, AND STATE.

WATER HEATER FOR LAB SHALL BE 30GAL ELECTRICAL, 4500WATT, 208V-1PH



EQUIP. DECK
 SCALE: 1/4"=1'0"

SEE SHEET MPE-2 FOR ROUTING OF GAS PIPING



OFFICE PLUMBING PLAN
 SCALE: 1/4"=1'0"

Architect:
 MIDWEST ARCHITECTS
 1120 NW Eagle Ridge Blvd.
 Grain Valley, Missouri 64029
 t: (816) 229-8115

Client:
 Ward Development
 1120 NW Eagle Ridge Blvd.
 Grain Valley, Missouri 64029
 t: (816) 229-8115

Consultants:
 MEP Engineering:
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 Professional Engineering
 128 SW Hillcrest Lane
 Lee's Summit, MO 64063
 t: (816) 726-6531

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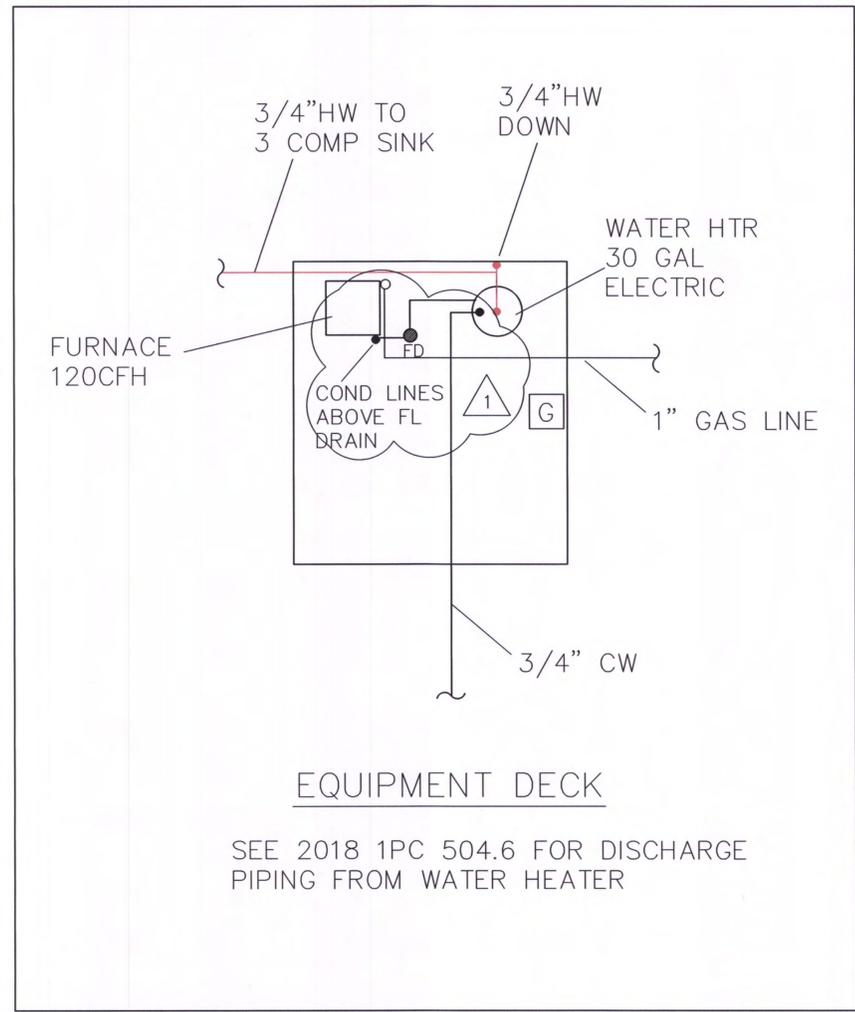
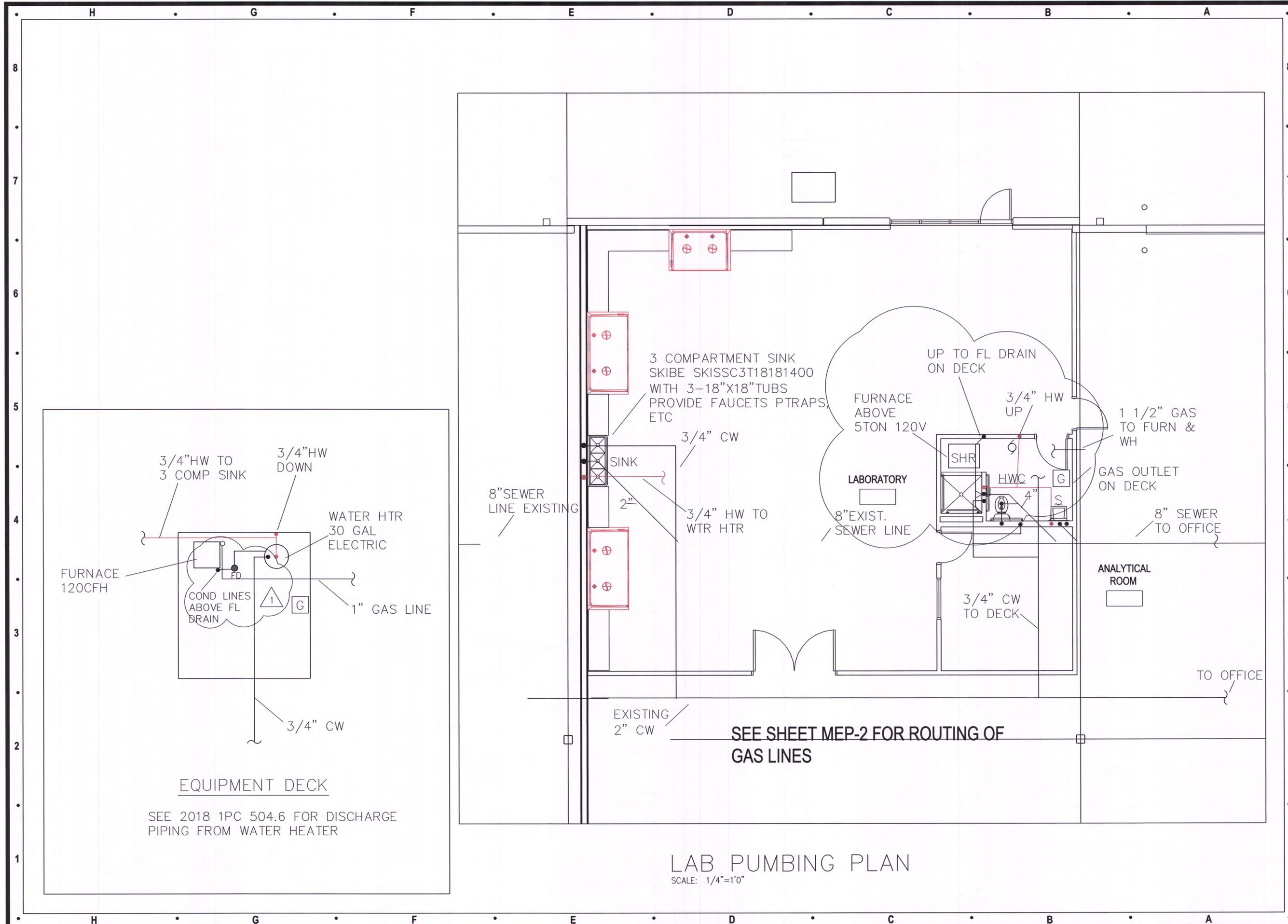
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P-2



LAB PUMBING PLAN
SCALE: 1/4"=1'0"

Architect:
MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client:
Ward Development
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Consultants:
MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
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P-3

SCHEDULE OF PIPE AND FITTING MATERIAL

SERVICE	MATERIAL	JOINTS	FITTINGS	NOTES
ROOF DRAINS	SERVICE WEIGHT CAST IRON (CI)			
CONDENSATE DRAINS	COPPER "M" HARD	SOLDERED OR BRAZED	WROUGHT COPPER OR CAST BRONZE	①
VENTS AND WASTE LINES (ABOVE GROUND)	SERVICE WEIGHT CAST IRON (CI) (PVC WHEN APPROVED BY CITY)	LEAD DR TYSEAL	CAST IRON-PVC APPROVED	①
SOIL LINES (BELOW GROUND) - UNDER SLAB	CAST IRON (CI) (PVC WHEN APPROVED BY CITY)	LEAD DR TYSEAL	CAST IRON-PVC APPROVED	②
REFRIGERANT AND DOMESTIC WATER PIPE - (BELOW GROUND) SMALLER THAN 3"	COPPER "K" SOFT DRAWN	SOLDERED OR BRAZED	WROUGHT COPPER OR CAST BRONZE	⑥ ⑦
DOMESTIC WATER 3" AND LARGER	DUCTILE IRON	MECHANICAL		
DOMESTIC WATER PIPE (ABOVE GROUND)	COPPER "L" HARD ASTM C-200	SOLDERED OR BRAZED	WROUGHT COPPER OR CAST BRONZE	⑦
SEWER LINE PIPING (BELOW GROUND) NOT UNDER SLAB	PVC	ASTM C-425	ASTM C-200	① ②
GAS PIPE (BELOW GROUND)	SCHEDULE 40, BLACK STEEL-X-TRUE COATED AND WRAPPED	CAST IRON	CAST IRON MALLEABLE IRON	③ ④
GAS PIPE (ABOVE GROUND)	SCHEDULE 40 BLACK STEEL	SCREWED	CAST IRON MALLEABLE IRON	③ ⑤

- NOTES**
- PVC OR ABS SCHEDULE 40, SOLVENT WELDED JOINTS MAY BE USED ONLY WITH WRITTEN AUTHORIZATION OF APPROVAL BY LOCAL INSPECTING AUTHORITY SUBMITTED BELOW TO ARCHITECT AND ENGINEER PRIOR TO BIDDING. CONDITIONS OF NOTE BELOW, SCR-35 SANITARY PIPE WHEN APPROVED.
 - NO PVC OR ABS TO BE USED IN TYPE II CONSTRUCTION, THROUGH OR IN RETURN AIR PLENUMS, IN CITIES WHERE SUCH MATERIAL IS NOT ACCEPTABLE; OR BELOW BUILDING SLAB OR DRIVEWAY SURFACES.
 - SCREWED GAS CONNECTION FOR 2" AND SMALLER; WELDED CONNECTION FOR 2" AND LARGER, AND IN RETURN AIR PLENUMS.
 - THREADS AND WELDS PAINTED PRIOR TO WRAPPING, ALL EXTERIOR PIPING (ESPECIALLY ON ROOF) TO BE PAINTED (COLOR BY ARCHITECT) TO MATCH ADJACENT SURFACE. PROVIDE CATHODIC UNDERGROUND PROTECTION ON GAS PIPING AS RECOMMENDED BY LOCAL KPL GAS SERVICE (FOR GOVERNING AUTHORITY)
 - CONNECT ALL GAS TO EQUIPMENT THROUGH GAS COCK, UNION AND DIRT LEG.
 - NO WATER FITTINGS OR CONNECTIONS BELOW FLOOR SLAB. MAKE GRADUAL BEND OR RADIUS.
 - PROVIDE VTR HAMMER ARRESTERS PRIOR TO CONNECTION OF HOT/COLD WATER LINES TO PLUMBING FIXTURES. COLD WATER LINES TO PLUMBING FIXTURES, ALL POTABLE WATER SYSTEMS SOLDERING TO BE 95/5, TIN/ANTIMONIAL OR UL, BOCA, UPC APPROVAL FOR SUBSTITUTION.

PIPING INSULATION SCHEDULE

PIPE SYSTEM	INSULATION	THICKNESS	TEMP.
REFRIGERANT SUCTION		1/2"	-20°F TO 70°F
DOMESTIC HOT & COLD HORIZONTAL MAINS ONLY		1/2"	-20°F TO 70°F
HANDICAP "P" TRAP & HOT WATER UNDER LAVATORY'S		1/2"	-20°F TO 70°F

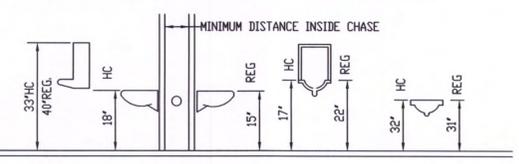
NOTE: ALL HORIZONTAL HOT & COLD WATER MAINS ARE TO BE INSULATED. VERTICAL MAINS AS NOTED OR SHOWN ON PLANS.
INSULATE UNCONDITIONED AND UNCONDITIONAL SPACES.
CONDUCTANCE AT 75°F, 3% MAXIMUM WATER ABSORPTION BY WEIGHT. ARMSTRONG AP ARMAFLEX OR RUBATEX.

PLUMBING CONNECTION/MOUNT.

FIXTURE	HOT WATER	COLD WATER	WASTE	VENT
LAVATORY OR SINK	1/2"	1/2"	1-1/2"	1-1/2"
WATER CLOSET, TANK TYPE	1/2"	1/2"	4"	3"
URINALS		3/4"	2"	1-1/2"
DRINKING FOUNTAINS	1/2"	1/2"	1-1/4"	1-1/4"

FIXTURE	MOUNTING HEIGHT
LAVATORY OR SINK	31" FLOOR TO RIM
HANDICAPPED LAVATORIES	34" FLOOR TO RIM
WATER CLOSET	15" FLOOR TO RIM
HANDICAPPED WATER CLOSET	18" FLOOR TO RIM
STANDARD URINALS	22" FLOOR TO RIM
HANDICAPPED URINALS	17" FLOOR TO RIM
HANDICAPPED DRINKING FOUNTAIN	35" FLOOR TO RIM, 27" KNEE SPACE

PLUMBING CONTRACTOR TO REFERENCE PLUMBING FLOOR PLANS AND DETAIL SHEET AND SPECIFICATIONS FOR SPECIFIC FIXTURE IDENTIFICATION USED.



PLUMBING FIXTURE SCHEDULE

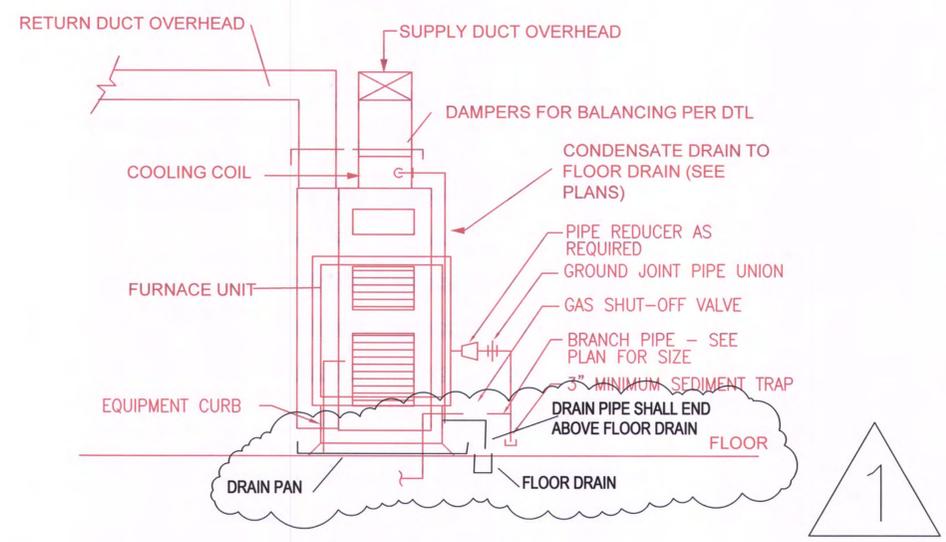
	WATER CLOSET - GERBER, AQUA SAVER 21-702 ROUND VITREOUS CHINA, ELONGATED FLOOR OUTLET, SIPHON JET ACTION, TANK TYPE TOILET W/WHITE, SOLID PLASTIC - KOHLER #KA716 OPEN FRONT SEAT LESS COVER. PROVIDE FLEXIBLE SUPPLY PIPE WITH WHEEL HANDLE STOP. 1/2", 4"WASTE, 2"VENT. HWC - HANDICAPPED WC GERBER, AQUA SAVER 21-718, 18" AFF. TO RIM. KOHLER K-4712 SEAT
	URINAL - AMERICAN STANDARD #6400.014 VITREOUS CHINA WATER SAVER (1.5 GALLONS PER FLUSH) URINAL W/INTEGRAL SPREADER W/SLOAN ROYAL 186 FLUSH VALVE, STRAINER TOP SPUD. 1/2"CW, 2"WASTE, 1-1/2"VENT.
	2 COMPARTMENT SINK - COUNTERTOP ELKAY #GECR-3321, 20 GAUGE, TYPE 302 SELF RIMMING DOUBLE COMPARTMENT SINK. 3 FAUCET HOLES FOR CHICAGO 785-E3 ASSEMBLY FAUCET, 1/2" FLEXIBLE SUPPLIES & STOPS IN SHANKS. PROVIDE CUP STRAINER 1-1/2" P-TRAP. COORDINATE INSTALLATION W/CABINET SUPPLIER. CHICAGO 317, 4" WRIST BLADES, GN-1A-E3 SWING GOOSENECK. PROVIDE 1/2HP GARBAGE DISPOSAL. 1/2" H & CW, 1-1/2" WASTE, 1-1/2" VENT.
	FLOOR DRAIN - JOSAM 32000 CAST IRON, ROUND 7" NIKOLY MEDIUM DUTY LOOSE SET ANTI-TILTING GRATE. SIZE TO SUIT PIPE SIZE AS SHOWN ON DWG. OR EQUAL.
	BATHMASTER - BF7404-00 W/NTROP 20 X 18 WALL HUNG, 4" CENTERSET FAUCET, INCLUDE STRAINER, OR EQUAL FAUCET: DELTA 2567 - LPH H22, A22 CHROME, OR EQUAL
	JANITOR SINK - WILLIAMS MODEL MTB-24"x24" FLOOR MOUNTED BASIN W/AMERICAN STANDARD 8341.075 FAUCET WITH VACUUM BREAKER. INCLUDE VINYL BUMPER FOR EXPOSED SIDE & PROVIDE P-TRAP FOR DRAIN. 1/2"H & CW, 3"WASTE, 2"VENT.

SHOWER - SEMI HANDICAPPED SHALL BE 48"x48" SINGLE PIECE PLASTIC WITH MOVEABLE SHOWER HEAD HANDICAP HAND RAILS, TEMPERATURE LIMITING ON WATER, WATER CONTROL AT HANDICAP HEIGHT. PROVIDE SHOP DWG TO WARD FOR APPROVAL

DIFFUSER & REGISTER SCHEDULE

INDENT.	MANUF.	MODEL	SIZE	FINISH	
(A)	TITUS	TMS-8"	24"x24"	WHITE	SUPPLY
(B)	TITUS	TMS-6"	12"x12"	WHITE	SUPPLY
(C)	TITUS	355RL	24"x24"	WHITE	RETURN
(D)	TITUS	TMS-10"	24"x24"	WHITE	SUPPLY

CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND DUCT SIZES FOR DIFFUSERS
VERIFY DIFF SIZES FOR MUA DIFF.'S



TYPICAL FURNACE ELEVATION
NO SCALE
PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST AS REQUIRED.
FURNACE FOR THIS PROJECT IS HORIZONTAL

GAS FIRED MECHANICAL EQUIPMENT SCHEDULE

- FURN A: FURNACES SHALL BE CARRIER CONFORT 92 SERIES WITH 120,000BTU HEATING, 90% EFFICIENT WITH 100 CFM OF FRESH AIR ENTERING INTO THE RETURN AIR DUCT. COMBUSTION AIR AND FLUE GASES SHALL GO OUT THE ROOF IN PVC PIPING. EQUIVALENT BY TRANE & LENNOX IS ACCEPTABLE.
 - CU-A: PROVIDE MATCHING 5 TON CONDENSING UNIT, 480V-3ø
 - EF-E: EXHAUST FAN - SERVING TOILETS. BROAN #684, 100 CFM, 120V, 1ø PROVIDE DAMPER AND FLASH WATER TIGHT.
 - HOODS: HOODS ARE IN 3 SIZES, 6FT & 8FT. MECH CONTR WILL NEED TO INSTALL THE EXHAUST FANS THAT COME WITH THE HOODS AND WILL BE ON THE WALL ABOVE THE HOOD. THE HOODS WILL BE ATTACHED TO THE FAN WITH THE DIA DUCT (10" OR 12") AS REQ'D. THEN THE EXHAUST WILL BE RUN OUT THE ROOF WITH A EXH. HOOD. IN ADDITION THE MC WILL BE REQUIRED TO PROVIDE AND INSTALL A MAKE UP AIR UNIT AT EACH HOOD. THEY SHALL SUPPLY 1100CFM OR 2400CFM FOR 1-8' HOOD & 850 CFM FOR 6' HOOD. UNITS SHALL HAVE ELECTRIC HEAT TO HEAT OUTSIDE AIR TO 72 DEG. PER CODE. PROVIDE TEMP SENSORS AND CONTROL AS NEEDED. PROVIDE DUCTWORK FROM MUA UNIT TO DIFFUSERS MTD IN FRONT OF HOOD IN THE CLG
- UNIT HEATERS ARE EXISTING BUT 2 NEED TO BE RELOCATED. SEE SHEET MEP1

Architect: MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client: Ward Development
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Grain Valley, Missouri 64029
t: (816) 229-8115

Consultants: MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
t: (816) 726-6531

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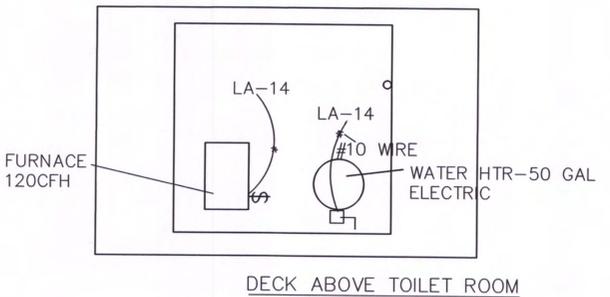
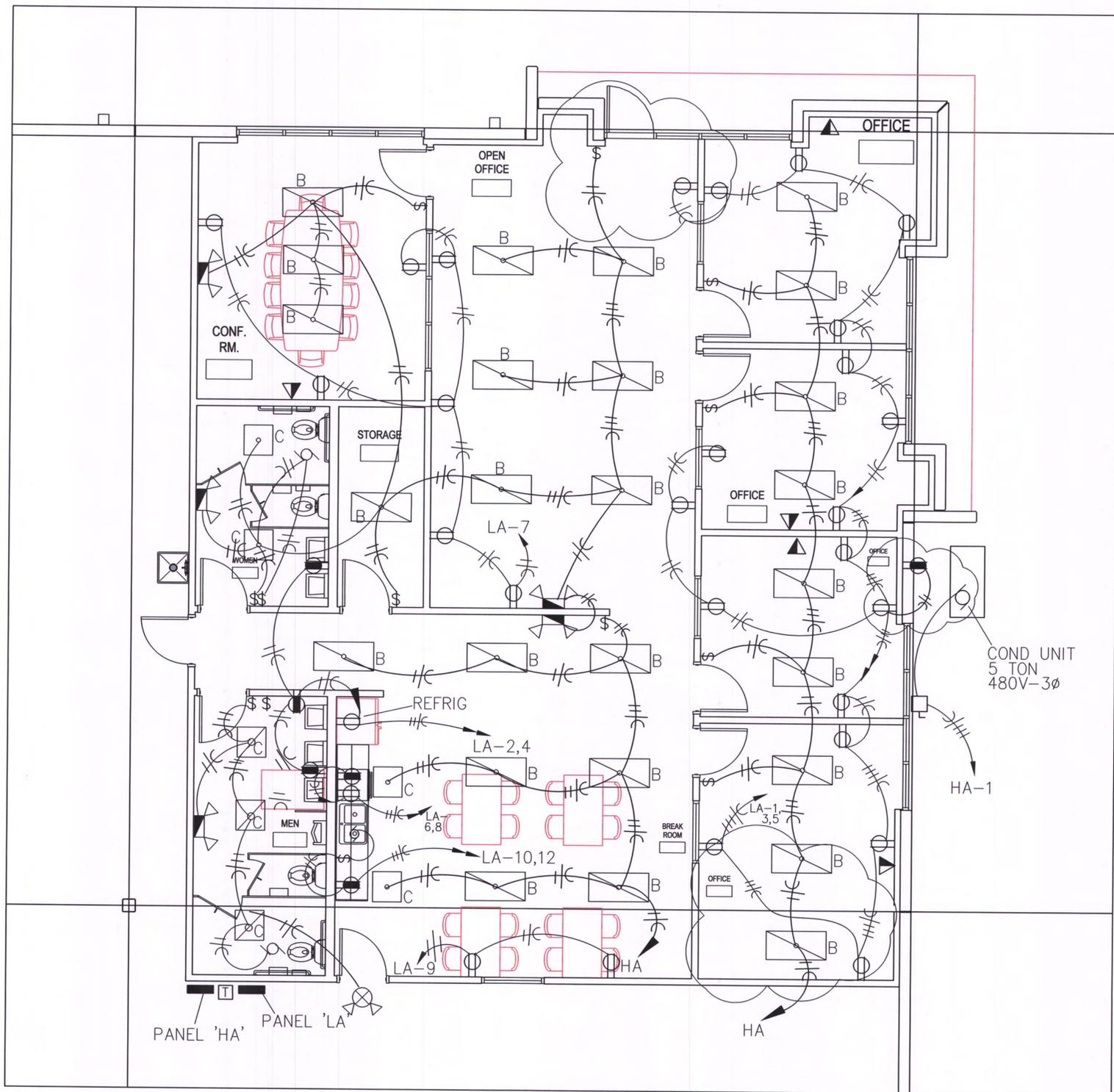
Seal: [Professional Engineer Seal]

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Date: [Blank]

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Plan review revisions Feb 02.26.24

Sheet Title: MP-1



OFFICE ELECTRICAL PLAN
SCALE: 1/4"=1'0"

Architect:
MIDWEST ARCHITECTS
 1120 NW Eagle Ridge Blvd.
 Grain Valley, Missouri 64029
 t: (816) 229-8115

Client:
 Ward Development
 1120 NW Eagle Ridge Blvd.
 Grain Valley, Missouri 64029
 t: (816) 229-8115

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 128 SW Hillcrest Lane
 Lee's Summit, MO 64063
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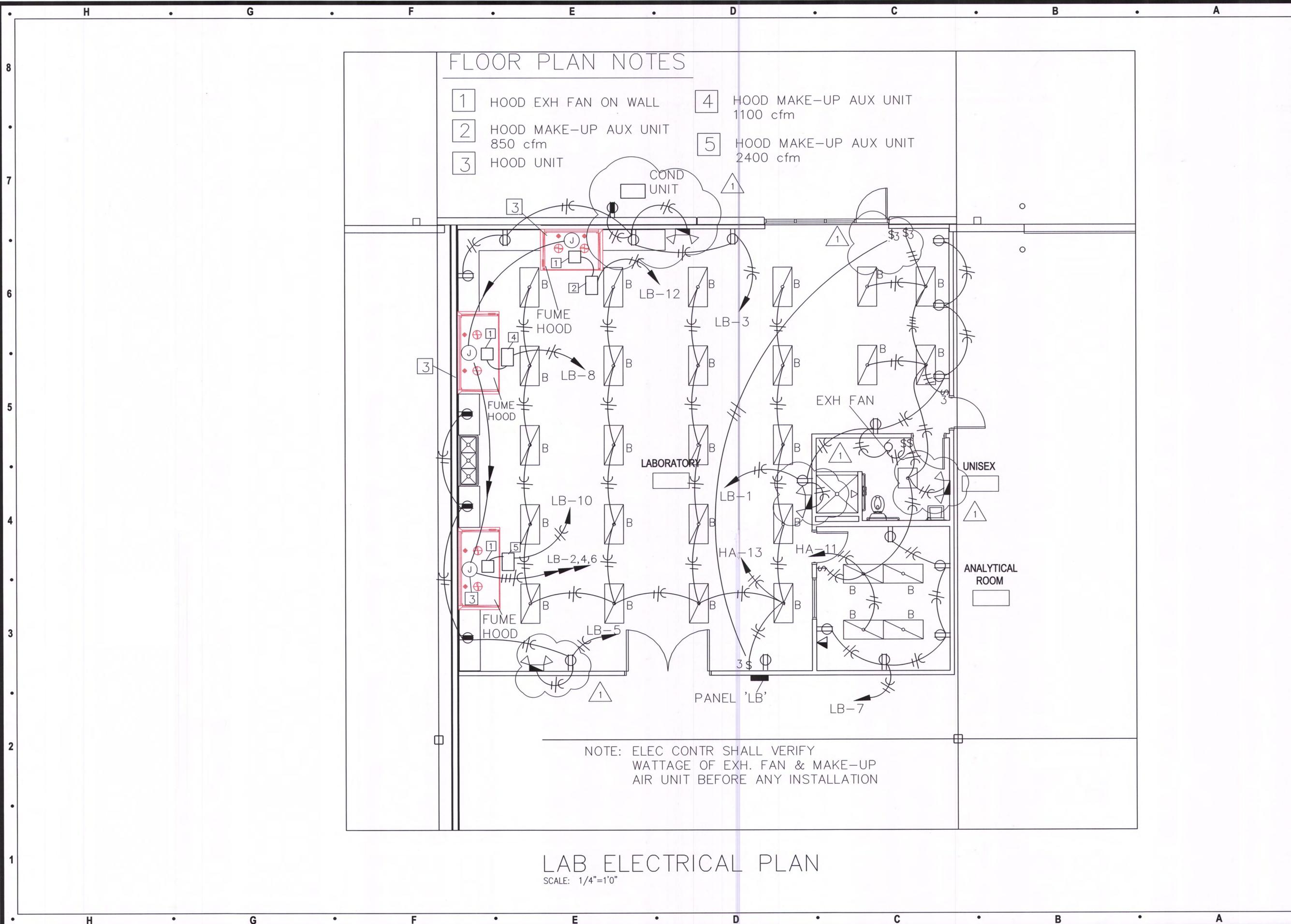
Seal:

 2/26/24

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E-2



FLOOR PLAN NOTES

- 1 HOOD EXH FAN ON WALL
- 2 HOOD MAKE-UP AUX UNIT 850 cfm
- 3 HOOD UNIT
- 4 HOOD MAKE-UP AUX UNIT 1100 cfm
- 5 HOOD MAKE-UP AUX UNIT 2400 cfm

NOTE: ELEC CONTR SHALL VERIFY WATTAGE OF EXH. FAN & MAKE-UP AIR UNIT BEFORE ANY INSTALLATION

LAB ELECTRICAL PLAN
SCALE: 1/4"=1'0"

Architect:
MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client:
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1120 NW Eagle Ridge Blvd.
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E-3

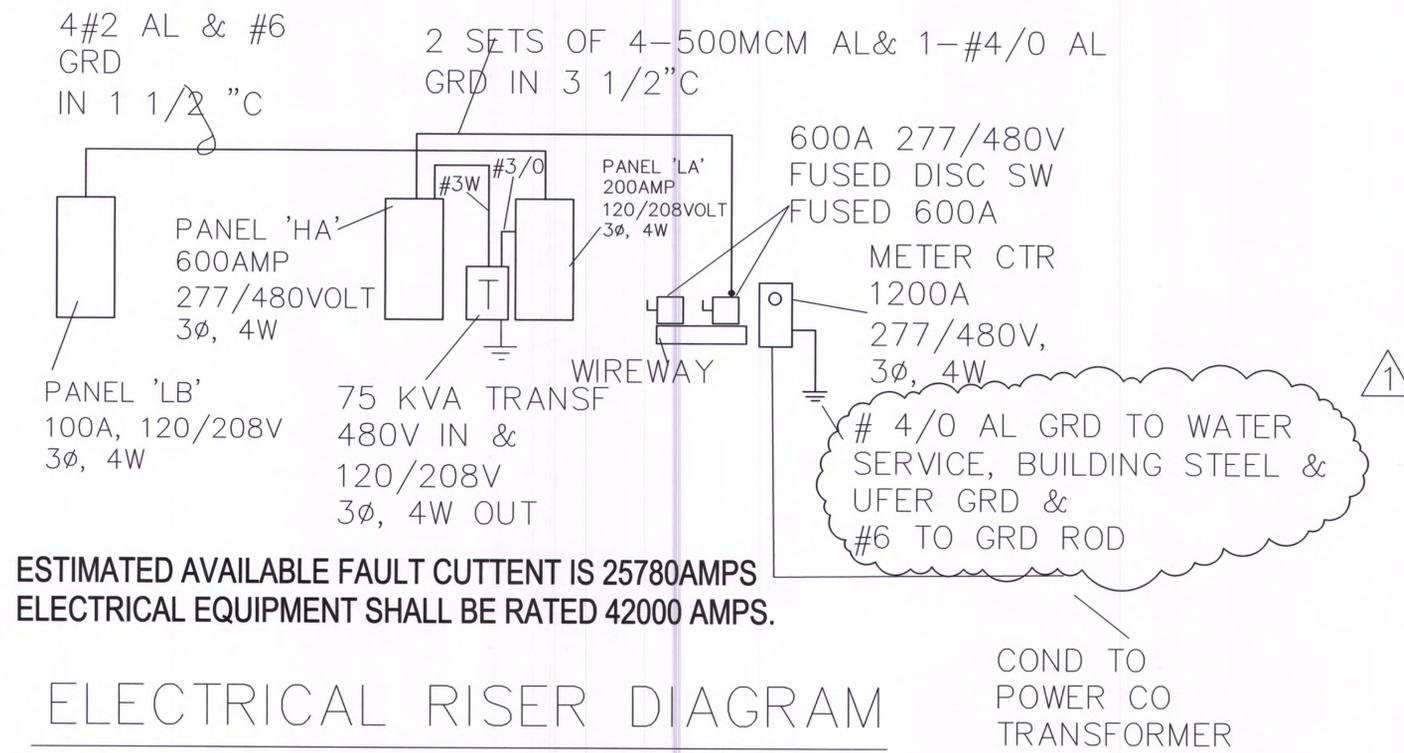
PANEL LA MOUNTING SURFACE BUS 200A MAIN 200A TYPE BOLT-IN						
LOCATION WAREHOUSE VOLT 120/208 3 Ø 4 WIRE						
CKT. NO.	DESCRIPTION	BKR.	CKT. V.A.	CKT. V.A.	BKR.	DESCRIPTION
1	RECEPTS	20	1400	800	20	REFRIG
3	RECEPTS	20	1400	400	20	TLT REC
5	RECEPTS	20	1400	1200	20	DISHWASHER
7	RECEPTS	20	1400	800	20	KIT REC
9	RECEPTS	20	800	800	20	KIT REC
11	WH LIGHTING	20	120	1000	20	DISPOSAL
13	PANEL 'LB'	100/3	30KW	9000	30/3	WATER HEATER
15						
17						
19	SPARES	20				SPACES
21	SPARES	20				SPACES
23	SPARES	20				SPACES
25	SPARES	20				SPACES
27	SPARES	20				SPACES
29	SPARES	20				SPACES
31	SPARES	20				SPACES
33	SPARES	20				SPACES
35	SPARES	20				SPACES
37	SPARES	20				SPACES
39	SPARES	20				SPACES
41	SPARES	20				SPACES
				TOTAL VOLT AMPS		

PANEL HA MOUNTING SURFACE BUS 600A MAIN MLO TYPE BOLT-IN						
LOCATION WAREHOUSE VOLT 277/480 3 Ø 4 WIRE						
CKT. NO.	DESCRIPTION	BKR.	CKT. V.A.	CKT. V.A.	BKR.	DESCRIPTION
1	COND UNIT					COND UNIT
3	5 TON					5 TON
5						
7	LIGHTING	20	450	2000	20	WAREHOUSE LIGHTING
9	LIGHTING	20	1000	600	20	WAREHOUSE LIGHTING
11	LAB LIGHTING	20	3000	3000	20	WAREHOUSE LIGHTING
13	LAB LIGHTING	20	1000	3000	20	WAREHOUSE LIGHTING
15	PANEL TR 75 KVA	100/3	75KW	3000	20	WAREHOUSE LIGHTING
17						
19						SPACE
21	SPARE	20				SPACE
23	SPARE	20				SPACE
25	SPARE	20				SPACE
27	SPARE	20				SPACE
29	SPARE	20				SPACE
31	SPARE	20				SPACE
33	SPARE	20				SPACE
35	SPARE	20				SPACE
37	SPARE	20				SPACE
39	SPARE	20				SPACE
41	SPARE	20				SPACE
				TOTAL VOLT AMPS		

PANEL LB MOUNTING SURFACE BUS 200A MAIN 100A TYPE BOLT-IN						
LOCATION WAREHOUSE VOLT 120/208 3 Ø 4 WIRE						
CKT. NO.	DESCRIPTION	BKR.	CKT. V.A.	CKT. V.A.	BKR.	DESCRIPTION
1	RECEPTS	20	1000	1000	20	FUME HOOD
3	RECEPTS	20	800	1000	20	FUME HOOD
5	RECEPTS	20	1000	1000	20	FUME HOOD
7	RECEPTS	20	1000	1200	20	FUME EXH AND MUA
9	WATER HEATER	40/2	4500	1200	20	FUME EXH AND MUA
11				1200	20	FUME EXH AND MUA
13	SPARE	20				SPACE
15	SPARE	20				SPACE
17	SPARE	20				SPACE
19	SPARE	20				SPACE
21	SPARE	20				SPACE
23	SPARE	20				SPACE
25	SPARE	20				SPACE
27	SPARE	20				SPACE
29	SPARE	20				SPACE
				TOTAL VOLT AMPS		

LIGHT FIXTURE SCHEDULE

- A RAB #H17 HIGH BAY LED, 150WATT, 277V, 4000K, WITH CORD PROVIDE WITH HOOK TO HANG FROM ROOF
- B EIKO #SLM2462C5840U 2'X4' LEDSLIM PANEL 6200 LUMENS, 4000K, 50 WATT, 120 V
- C SIMILAR TO TYPE B EXCEPT 2'X2'LED, 120DDEDIT
- D WILLIAMS 6" ROUND LED DOWNLIGHT #6DR-TL-L20/840-M-VOLT HOUSING AND #L CS TRIM FOR SHOWER
- ⊗ COMBO EXIT/ EMERGENCY LIGHT LITHONIA #LHQM LED RHO
- EMERGENCY LIGHT LITHONIA #ELM2 LED



ELECTRICAL RISER DIAGRAM

Architect: MIDWEST ARCHITECTS
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Client: Ward Development
1120 NW Eagle Ridge Blvd.
Grain Valley, Missouri 64029
t: (816) 229-8115

Consultants: MEP Engineering:
Casburn Consultants
Professional Engineering
128 SW Hillcrest Lane
Lee's Summit, MO 64063
t: (816) 726-6531

Revisions to technical submissions which are not made or approved by the licensee are prohibited.

Seal: [Professional Engineer Seal]

Project Number: 2313
Project Type: TENANT FINISH
Project Name and Address: SPIRITUS 2237 NW Town Centre Blvd. Lee's Summit, Missouri 64064

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