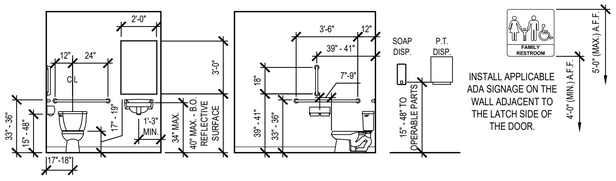
SPIRITUS

PERMIT DRAWINGS

FEBRUARY 06, 2024

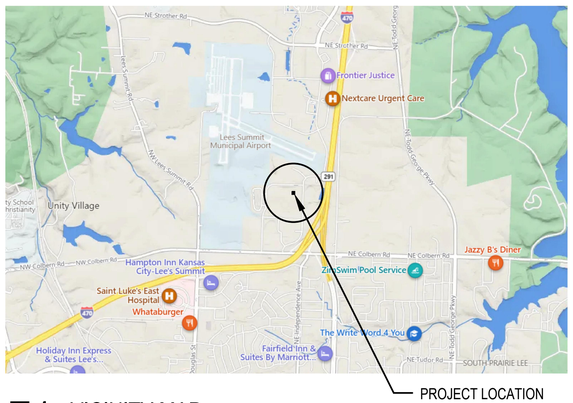
ACCESSIBILITY NOTES:

1. ACCESS TO THESE FACILITIES SHALL BE PROVIDED AT PRIMARY ENTRANCES, AS REQUIRED BY ADA.
2. 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.
3. SURFACES WITH A SLOPE OF LESS THAN 6% GRADIENT SHALL BE AT LEAST AS SLIP RESISTANT AS THAT DESCRIBED AS A MEDIUM SALTED FINISH.
4. SURFACES WITH A SLOPE OF 6% GRADIENT OR GREATER SHALL BE SLIP RESISTANT.
5. SURFACE CROSS SLOPES SHALL NOT EXCEED 1/4" PER FOOT.
6. 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.
7. 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.
8. 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.
9. 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.
10. THRESHOLDS MAY BE A MAX. 1/2" ABOVE ADJACENT FINISH FLOOR.
11. 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.
12. THE BOTTOM 10" OF ALL DOORS, EXCEPT AUTOMATIC AND SLIDING, SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE.
13. 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.)
14. PROVIDE 17" (MIN.) OR 18" (MAX.) FROM ADJACENT WALL TO CENTERLINE OF WATER CLOSET.
15. PROVIDE A 30"x48" CLEAR SPACE WITHIN THE TOILET ROOM THAT DOES NOT ENCROACH INTO THE DOOR SWING.
16. 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.
17. 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.
18. 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.
19. 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.
20. ALL ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO HIGHER THAN 34" A.F.F.
21. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
22. 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.
23. LOCATE PAPER TOWEL DISPENSERS, SOAP DISPENSERS, SANITARY NAPKIN DISPENSERS, AND WASTE RECEPTACLES WITH ALL OPERABLE PARTS BETWEEN 15" AND 48" A.F.F.
24. 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.
25. ACCESSIBLE RESTROOMS SHALL BE PROVIDED WITH SIGNAGE DESIGNED AND LOCATED PER SECTION 703 OF THE ADA DESIGN GUIDELINES.
26. DOORS IN ACCESSIBLE ROUTES SHALL BE DESIGNED TO MEET CLEARANCE REQUIREMENTS PER SECTION 404 OF THE ADA DESIGN GUIDELINES.
27. WALKS, HALLS, CORRIDORS, PASSAGEWAYS, AISLES OR OTHER CIRCULATION SPACES SHALL HAVE 80" MINIMUM CLEAR HEADROOM.
28. 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.
29. 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.
30. 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.



H2 TYP. ADA TOILET DIMENSIONS
SCALE: =

INSTALL APPLICABLE ADA SIGNAGE ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR.



F1 VICINITY MAP
SCALE: =

CONSTRUCTION NOTES:

1. 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.
2. 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.
3. 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.
4. COORDINATE BLOCKING REQUIREMENTS WITH ADJACENT OR RELATED TRADES, ACCESSORIES, EQUIPMENT AND FIXTURES. INSTALL REQUIRED BLOCKING AT NO ADDITIONAL COST TO THE CONTRACT.
5. ALL WEATHER-EXPOSED SURFACES SHALL HAVE A WEATHER-RESISTIVE BARRIER, EXTERIOR OPENINGS SHALL BE FLASHED IN SUCH A MANNER AS TO MAKE THEM WATERPROOF,
6. 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.
7. ALLOWABLE TOLERANCES - UNLESS OTHERWISE NOTED OR INDICATED, THE FOLLOWING TOLERANCES SHALL APPLY TO ALL WORK:
   g. ALL VERTICAL SURFACES SHALL BE PLUMB OR CONSTRUCTED TO THE EXACT SLOPES OR ANGLES INDICATED.
   h. ALL HORIZONTAL SURFACES SHALL BE LEVEL OR CONSTRUCTED TO THE EXACT ANGLE INDICATED OR INTENDED.
   i. WALL AND SOFFIT INTERSECTIONS SHALL BE 90° OR THE EXACT ANGLE INDICATED OR INTENDED.
   j. ALL CORNERS AND EDGES SHALL BE STRAIGHT AND TRUE WITHOUT DENTS, WAVES, BULGES OR OTHER BLEMISHES.
   k. ALL JOINTS SHALL BE TIGHT, STRAIGHT, EVEN, AND SMOOTH.
   l. ALL OPERABLE ITEMS SHALL OPERATE SMOOTHLY WITHOUT STICKING OR BINDING AND WITHOUT EXCESSIVE
8. 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 GUARANTEES FOR ALL EQUIPMENT AND MATERIALS INSTALLED. PROVIDE WRITTEN GUARANTEES FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

GENERAL NOTES:

1. 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.
2. 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.
3. 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.
4. THE ARCHITECT ASSUMES NO LIABILITY FOR THE SERVICES AND/OR CONSTRUCTION DOCUMENTS OF DESIGN SUB-CONSULTANTS 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.
5. 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.
6. WHERE DETAILS AND DESIGN INTENT ARE NOT CLEAR, THE CONTRACTOR SHALL CONSULT THE ARCHITECT FOR CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK.
7. THE CONTRACTOR SHALL DESIGN AND INSTALL ADEQUATE SHORING AND BRACING FOR STRUCTURAL MODIFICATIONS, INSTALLATIONS AND ERECTION.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. THE CONTRACTOR SHALL PROVIDE SECURITY OF THE WORK, INCLUDING TOOLS AND UNINSTALLED MATERIALS. PROTECT THE WORK, STORED PRODUCTS, CONSTRUCTION EQUIPMENT, AND OWNER'S PROPERTY FROM THEFT AND VANDALISM, AND PROTECT THE PREMISES FROM ENTRY BY UNAUTHORIZED PERSONNEL UNTIL FINAL ACCEPTANCE BY THE OWNER.
14. CONTRACTOR SHALL COORDINATE STAGING AREAS AS REQUIRED BY THE LANDLORD / OWNER.
15. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL EXISTING UTILITIES.
16. THE STRUCTURAL ENGINEER AND ARCHITECT MUST BE NOTIFIED AND MUST GIVE APPROVAL PRIOR TO ANY STRUCTURAL MEMBER(S) BEING CUT OR MODIFIED TO ACCOMMODATE THE INSTALLATION OF ANY PIPES, DUCTS OR OTHER CONSTRUCTION.
17. 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	JT	JOINT
ACT	ACOUSTIC CEILING TILE		
ADJ	ADJUSTABLE	KS	KNEE SPACE
AFF	ABOVE FINISHED FLOOR		
ALUM	ALUMINUM	L	LONG
ANOD	ANODIZED	LB (#)	POUND
ATT	ATTENUATION	LVL	LAMINATED VENEER LUMBER
BD	BOARD	MAX	MAXIMUM
BET	BETWEEN	MDO	MEDIUM DENSITY OVERLAY
BF	BARRIER FREE	MECH	MECHANICAL
BIT	BITUMINOUS	MFR	MANUFACTURER
BLDG	BUILDING	MICRO	MICROWAVE
BO	BOTTOM OF	MIN	MINIMUM
BTM	BOTTOM	MO	MASONRY OPENING
		MR	MOISTURE RESISTANT
CPT	CARPET	MTD	MOUNTED
CT	CERAMIC TILE	MTL	METAL
CJ	CONTROL JOINT		
CL	CENTER LINE	NIC	NOT IN CONTRACT
CLG	CEILING	NO	NUMBER
CLR	CLEAR	NOM	NOMINAL
CMU	CONCRETE MASONRY UNIT		
COMP	COMPRESSIBLE	O.C.	ON CENTER
CONC	CONCRETE	O.D.	OUTSIDE DIAMETER
CONT	CONTINUOUS	O.H.	OVERHEAD or OPPOSITE HAND
		OSB	ORIENTED STRAND BOARD
D	DRYER	OZ	OUNCE
DEG	DEGREE		
DEMO	DEMOLITION	PREFAB	PREFABRICATED
DF	DRINKING FOUNTAIN	PLAM	PLASTIC LAMINATE
DH	DOUBLE-HUNG	PLYWD	PLYWOOD
DIA	DIAMETER	PR	PAIR
DN	DOWN	PT	PRESSURE TREATED
DP	DEEP	PNT	PAINT
DS	DOWN SPOUT	PEMB	PRE-ENGINEERED MTL BLDG
DW	DISHWASHER		
		QTY	QUANTITY
EA	EACH		
EJ	EXPANSION JOINT	R	RISER
EQ	EQUAL	RCP	REFLECTED CEILING PLAN
ETR	EXISTING TO REMAIN	REF	REFRIGERATOR, REFERENCE
EXG	EXISTING	REINF	REINFORCED
EXP	EXPOSED TO STRUCTURE	REQD	REQUIRED
		RM	ROOM
FD	FLOOR DRAIN	RO	ROUGH OPENING
FE	FIRE EXTINGUISHER, FINISHED END	RCB	RUBBER COVE BASE
FF	FINISHED FLOOR	SC	SEALED CONCRETE
F&I	FURNISH AND INSTALL	SF	SQUARE FEET
FLR	FLOOR	SIM	SIMILAR
FR	FIRE RETARDANT	SQ	SQUARE
FRP	FIBER-REINFORCED PLASTIC	SS	STAINLESS STEEL
FV	FIELD VERIFY	ST	STAIN
GA	GAUGE	T	TREAD
GALV	GALVANIZED	TBD	TO BE DETERMINED
GC	GENERAL CONTRACTOR	TO	TOP OF
GFI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GL	GLASS	UNO	UNLESS NOTED OTHERWISE
GYP	GYPSUM BOARD		
		VCT	VINYL COMPOSITION TILE
H	HIGH	VERT	VERTICAL
HB	HOSE BIB		
HT	HEIGHT	W	WASHER, WIDE
HDW	HARDWARE	W/	WITH
HRDWD	HARDWOOD	WD	WOOD
HM	HOLLOW METAL	WH	WATER HEATER
HR	HOUR	WIC	WALK-IN CLOSET
		WWF	WELDED WIRE FABRIC
IN	INCH		
INSUL	INSULATION		

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STATE OF MISSOURI
MICHAEL MOORES
NUMBER A-2009032812
ARCHITECT
02.06.24

Michael Moores, MO Architect #2009032812

Project Number: 2313
Project Type: TENANT FINISH

Project Name and Address:

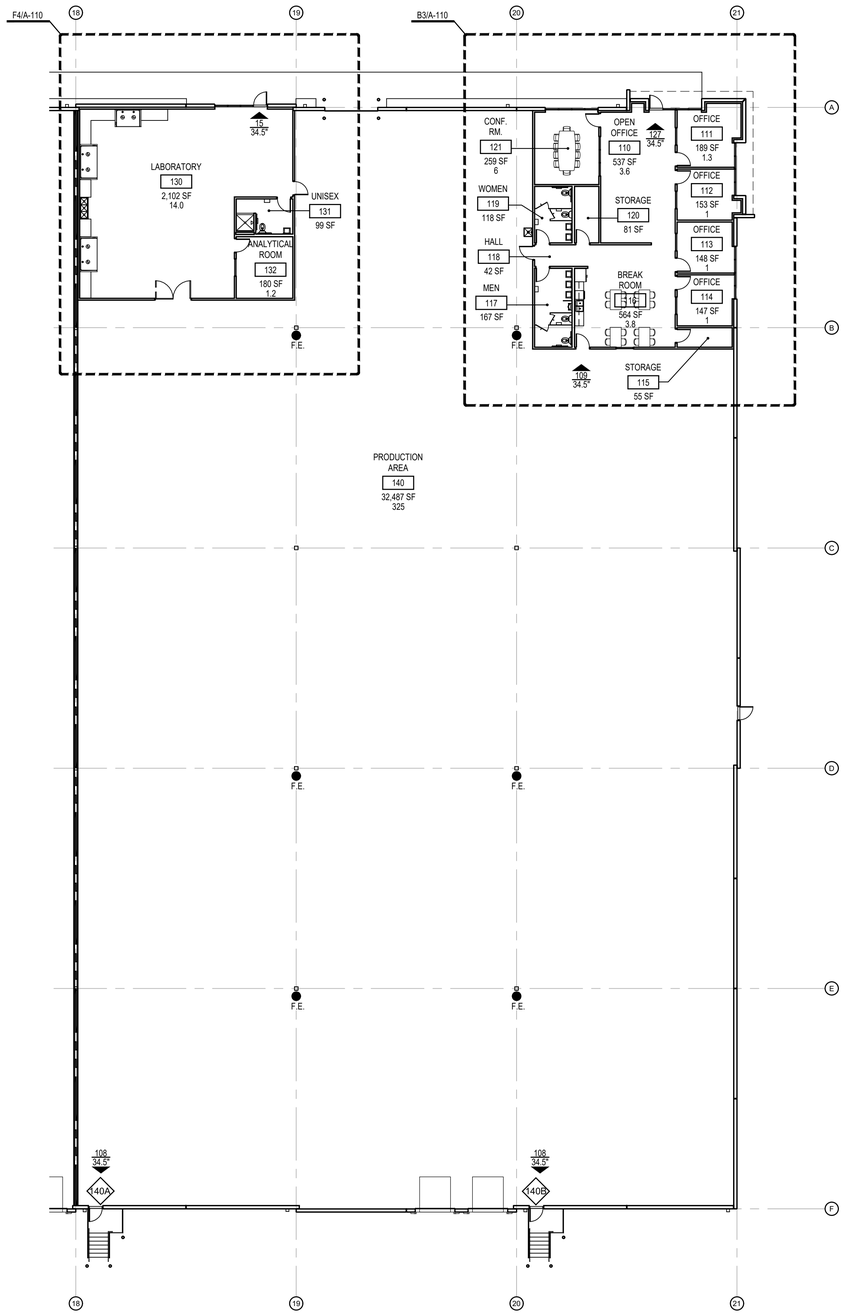
SPIRITUS
2237 NW Town Centre Blvd.
Lee's Summit, Missouri 64064

Issue:	Date:
Permit Drawings	02.06.24

Sheet Title:

COVER / MAP
GENERAL NOTES
ADA NOTES

A-001



G1 CODE / FULL SUITE PLAN

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

PROJECT NORTH

LIFE SAFETY / FIRE DEPARTMENT GENERAL NOTES

1. 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.
2. 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.
3. 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.
4. PROVIDE EMERGENCY EXIT LIGHTING LEVEL PER CODE (ONE FOOT-CANDLE AT FLOOR LEVEL - MINIMUM).
5. FINISHES SHALL NOT EXCEED CLASS A, B, OR C AS INDICATED IN THE BUILDING CODE.
6. UNLESS ALREADY EXISTING, AN APPROVED SET OF NUMERALS, MINIMUM 6" HIGH (4" FOR REAR ENTRANCE) 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 PROPERTY. SAID NUMERALS SHALL CONTRAST WITH THEIR BACKGROUND. VERIFY REQUIREMENTS WITH THE REGULATORY BODY HAVING AUTHORITY.
7. GENERAL CONTRACTOR SHALL SECURE PERMITS AND INSPECTION APPROVALS REQUIRED BY THE FIRE DEPARTMENT PRIOR TO OCCUPYING THIS BUILDING.
8. 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.
9. 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.
10. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND COORDINATE DEFERRED SUBMITTALS.
11. 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.
12. INSTALL A 'NO SMOKING' SIGN PER LOCAL ORDINANCES CONSPICUOUSLY POSTED AT EVERY ENTRANCE, AS REQUIRED.

LIFE SAFETY LEGEND

OFFICE — 110 — 174 SF — 2

ROOM / SPACE NAME
ROOM / SPACE NUMBER
ROOM / SPACE AREA
ROOM / SPACE OCCUPANT LOAD

5 @ 34.5" — 5 @ 34.5"

OCCUPANT LOAD AND WIDTH AT EXIT POINT

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' (IFC 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	
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, 903.2.9)
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 SPRINKLED (504.1.1, 507.4)
ALLOWABLE HEIGHT IN FEET (TABLE 504.3) 60'
ACTUAL HEIGHT IN FEET 44'

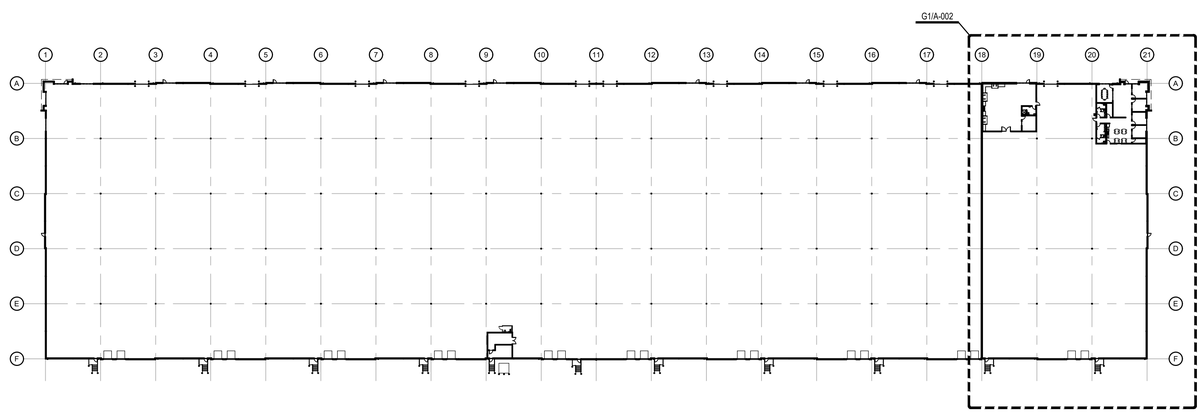
ALLOWABLE # OF STORIES (TABLE 507.4) 1
ACTUAL # OF STORIES 1

BUILDING AREA LIMITATIONS

GROUPS F-1, B - FULLY SPRINKLED
ALLOWABLE AREA (507.4) UL SF
ACTUAL AREA 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



B1 BUILDING KEY PLAN

SCALE: 1/64" = 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

Seal:

STATE OF MISSOURI
MICHAEL MOORES
NUMBER A-2009032812
ARCHITECT
02.06.24

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

Issue:	Date:
Permit Drawings	02.06.24

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.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

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

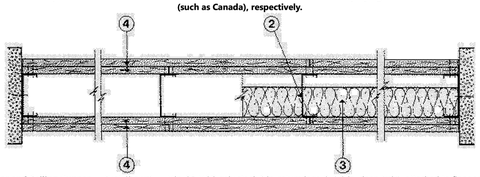
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

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.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CEMCO, LLC — Viper20™ Track

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

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.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

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.
TELLING INDUSTRIES L L C — TRUE-TRACK™

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.
KIRII (HONG KONG) LTD — Type KIRII

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.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

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.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

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

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.
RESCUE METAL FRAMING, L L C — AlphaTRAK

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.
OEG BUILDING MATERIALS — OEG Track

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.
CEMCO, LLC — Viper X Track

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.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D25

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D25

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D25

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D25

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D25

TELLING INDUSTRIES L L C — Type SUPREME D25

UNITED METAL PRODUCTS INC — Type SUPREME D25

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.

PANEL REY S A – SUPRA Track 20EQ/19 mil

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.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CEMCO, LLC — Viper20™

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2B. **Steel Studs —** (As an alternate to Item 2, For use with Item 4D, 4H, 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.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

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.
TELLING INDUSTRIES L L C — TRUE-STUD™

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.
KIRII (HONG KONG) LTD — Type KIRII

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.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

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.
EB METAL INC — NITROSTUD

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.
OLMAR SUPPLY INC — PRIMESTUD

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.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

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.
BAILEY METAL PRODUCTS LTD — Type PLATINUM PLUS

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.
RESCUE METAL FRAMING, L L C — AlphaSTUD

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.
OEG BUILDING MATERIALS — OEG Stud

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.
CEMCO, LLC — Viper X

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.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D25

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D25

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D25

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D25

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D25

TELLING INDUSTRIES L L C — Type SUPREME D25

UNITED METAL PRODUCTS INC — Type SUPREME D25

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.

PANEL REY S A – SUPRA Stud 20EQ/19 mil

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

ROCKWOOL — Type AFB, min. density 1.69 pcf / 27.0 kg/m^3

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts

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/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
Applegate Greenfiber Acquisition LLC — Insulmax and SANCTUARY for use with wet or dry application.

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.
NU-WOOL CO INC — Cellulose Insulation

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/ft^3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

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.

BASF CORP- Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, Walltite® HP+, FE137®, FE158®, Spraytite® 158, Spraytite® SP, Spraytite® 81205, Spraytite® Comfort XL, and Walltite® XL

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

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1

CABOT MANUFACTURING ULC — 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" Easi-Lite Type X, Type LWTX

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

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

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, 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, FSMR-C, FSL, Type SBWB, RSX.

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 FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C, M2Tech Type C andType 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, ULIX, 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
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STATE OF MISSOURI
MICHAEL MOORES
NUMBER A-2009032812
ARCHITECT

02.06.24

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

Issue:	Date:
Permit Drawings	02.06.24

Sheet Title:

U.L. LISTING
DESIGN NO.
U411

A-003

CGC INC — Types AR, IP-AR

UNITED STATES GYPSUM CO — Types AR, IP-AR

USG MEXICO S A DE C V — Types AR, IP-AR

4B. **Gypsum Board* —** (As an alternate to Items 4 and 4A) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attached system. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CERTAINTEED GYPSUM INC — Type C, Type GlasRoc

CGC INC — Type SHX

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

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

UNITED STATES GYPSUM CO — Type SHX, FRX-G

USG MEXICO S A DE C V — Type SHX

4C. **Gypsum Board* —** (As an alternate to Items 4, 4A and 4B) — Two layers of 5/8 in. thick gypsum board applied horizontally or vertically. Inner layer attached to studs with No. 6 by 1 in. long Type S bugle head screws spaced 24 in. OC along the top and bottom tracks starting 2 in. and then 12 in. from the vertical edge. Inner layer screws spaced 24 in. OC along the studs, starting 2 in. and then 12 in. from the top and bottom of the studs and starting 1-1/4 in. from the horizontal joints when installed horizontally. Outer layer attached to studs with 1-5/8 in. long Type S bugle head screws spaced 16 in. OC along the top and bottom tracks starting 1-3/4 in. from the vertical edge. Outer layer screws spaced 16 in. OC along the studs, starting 1-3/4 in. and then 8 in. from the top and bottom of the studs and starting 1-1/4 in. and then 8 in. from the horizontal joints when installed horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers staggered a min of 12 in. When outer layers are installed horizontally, vinyl or casein, dry or premixed joint compound shall be applied in two coats to joints and screw heads of outer layer. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.
GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, 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

4D. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2B) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
RAY-BAR ENGINEERING CORP — Type RB-LBG

4E. **Gypsum Board* —** (As an alternate to Items 4 through 4D) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types QuietRock ES

4F. **Gypsum Board* —** (As an alternate to Items 4 through 4E) —5/8 in. thick, applied vertically or horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attached system. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CERTAINTEED GYPSUM INC — Type SilentFX

4G. **Gypsum Board* —** As an alternate to Item 4 — Nom. 5/8 in. thick, inner layer attached vertically 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 horizontally 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 outer layer must be taped. Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard.
CABOT MANUFACTURING ULC — Type Blueglass Exterior Sheathing

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-11, PGS-WRS

4H. **Gypsum Board* —** (Not Shown) — (As an alternate to Items 4. For direct attachment only to steel studs Item 2B) — For Direct Application to Studs Only- For use as the base layer on one or both sides of the wall. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type S 12 steel screws spaced 8 in. OC at perimeter and 12 in OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Fasteners for face layer gypsum panels when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4. To be used with Lead Batten Strips (see Item 5A) or Lead Discs (see Item 6A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4I. **Gypsum Board* —** (As an alternate to Item 4, not for use with Items 1C and 2C or 1L and 2N) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4.
CGC INC — Type ULX

UNITED STATES GYPSUM CO — Type ULX

USG MEXICO S A DE C V — Type ULX

4J. **Gypsum Board* —** (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2B) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4K. **Gypsum Board —** (As an alternate to Items 4 through 4J, not for use with Items 1C and 2C.) — Two layers of nominal 15 mm thick gypsum board applied vertically. Inner layer attached to studs with No. 3.5 x 1-3/8 in. long bugle head, self-drilling screws spaced 23-5/8 in. OC in the field and 15-3/4 in. OC in the perimeter, with the first screw 2 in. from the edge. Outer layer attached to the studs over the inner layer with No. 3.5 x 1-3/4 in. long bugle head, self-drilling screws spaced 11-13/16 in. OC in the field and 7-7/8 in. OC in the perimeter, with the first screw 3/4 in. from the edge. Outer layer screws staggered from inner layer screws. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layer staggered one stud cavity. Self-adhesive fiberglass mesh (9x9 mesh) tape, nom 2 in. wide, applied over all joints of outer layer panels. Dry or premixed joint compound applied in two coats to joints over the mesh tape and screw heads of outer layer.
GYPSEMNA CO LLC — Types MRFW, FW, TF

4L. **Gypsum Board* —** (As an alternate to Items 4 through 4K) — Two layers of 5/8 in. thick gypsum board applied vertically or horizontally. Inner layer attached to studs with #6 x 1 in. long bugle head screws spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Outer layer attached to studs with #6 x 1-5/8 in. long bugle head screws spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Vertical joints are centered over studs and staggered between layers and on opposite sides of the wall. Horizontal joints on the face layer are staggered 12 in. from the base layer. Horizontal joints need not to be backed by steel framing.
CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD

4M. **Wall and Partition Facings and Accessories* —** (As an alternate to Items 4 through 4L) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527.

4N. **Gypsum Board* —** (As an alternate to Item 4 through 4M) — For direct application to studs only - Four layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. When applied horizontally, base layer secured to studs with 1 in. Type S screws spaced 24 in. OC. Second layer installed with joints offset 12 in. from base layer and secured with 1 in. Type S screws spaced 24 in. OC. Third layer installed with joints in line with base layer and secured with 1-1/2 in. Type S screws spaced 16 in. OC. Fourth layer installed with joints in line with second layer and secured with 1-5/8 in. Type S screws spaced 12 in. OC. For all layers, screws offset 4 in. from previous layer. When applied vertically, base layer secured with 1 in. Type S screws spaced 24 in. OC. Second layer secured with joints offset one stud cavity and secured with 1 in. Type S screws spaced 24 in. OC. Third layer installed with joints in line with base layer and secured with 1-1/2 in. Type S screws spaced 12 in. OC. Fourth layer secured with joints in line with second layer and secured with 1-5/8 in. Type S screws spaced 8 in. OC along vertical edges and 12 in. OC in the field. For all layers, screws offset 4 in. from previous layer.
NATIONAL GYPSUM CO — Type FSW

4O. **Gypsum Board* —** (As an alternate to Items 4 through 4N) — Two layers of 5/8 in. thick gypsum board applied vertically or horizontally. Inner layer attached to studs with 1 in. long Type S screws spaced 16 in. OC in the field and vertical edges and along top and bottom tracks. Outer layer attached to studs with 1-5/8 in. long Type S screws spaced 16 in. OC in the field and vertical edges and along the top and bottom tracks. Vertical joints are centered over studs and staggered between layers and on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Horizontal edge joints and horizontal butt joints in adjacent layers need not be staggered.
NATIONAL GYPSUM CO — Type FSLX

4P. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 4) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC along the perimeter and 12 in. OC in the field.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 545

4Q. **Gypsum Board*—** (As an alternate to Item 5 when Foam Plastic insulation (Item 3E) is used) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-5/8 in. long steel screws spaced 8 in. OC.

4R. **Gypsum Board*—** (As an alternate to Item 5 when Foam Plastic insulation (Item 3F) is used) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-1/4 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-7/8 in. long steel screws spaced 8 in. OC.

5. **Lead Batten Strips —** (Not Shown, For Use With Item 4D) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum board (Item 4D) and optional at remaining stud locations. Required behind vertical joints.

5A. **Lead Batten Strips —** (Not Shown, for use with Item 4H) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and optional at remaining stud locations.

6. **Lead Discs or Tabs —** (Not Shown, For Use With Item 4D) — Used in lieu of or in addition to the lead batten strips (Item 5) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4D) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6A. **Lead Discs —** (Not Shown, for use with Item 4H) — Max 5/16 in. diam by max0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

7. **Mineral and Fiber Board* —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
HOMASOTE CO — Homasote Type 440-32

7A. **Mineral and Fiber Board —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 4). Fiber boards installed with 1-1/4 in. long, Type S steel screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 4) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
BLUE RIDGE FIBERBOARD INC — SoundStop

8. **Furring Channels —** (Optional, Not Shown — not for use with Items 4D, 4H, 4J, or 4N) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws.

8A. **Framing Members* —** (Optional on one or both sides, Not Shown — not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b.

b. **Steel Framing Members* —** Used to attach furring channels (Item 8Aa) to studs. Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75)

8B. **Framing Members* —** (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

8C. **Steel Framing Members* —** (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 8Cb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 8Ca) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

8D. **Steel Framing Members* —** (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 8Da) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

8E. **Steel Framing Members* —** (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 8Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 10 x 2 in. screw through the center hole. Furring channels are friction fit into clips.
MASON INDUSTRIES INC — Type CWC-50

8F. **Steel Framing Members* —** (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below:
a **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 4.

b **Steel Framing Members* —** Used to attach furring channels (Item 8Fa) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

9. **Barrier Mesh —** (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

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

Last Updated on 2023-08-18

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Seal:

STATE OF MISSOURI
MICHAEL MOORES
NUMBER A-2009032812
ARCHITECT
02.06.24

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

Issue:	Date:
Permit Drawings	02.06.24

Sheet Title:

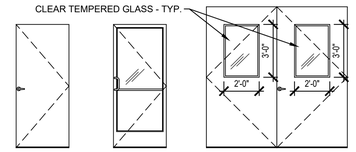
U.L. LISTING - CONT'D
DESIGN NO.
U411

A-004

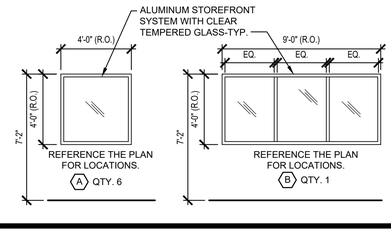
DOOR AND FRAME LEGEND

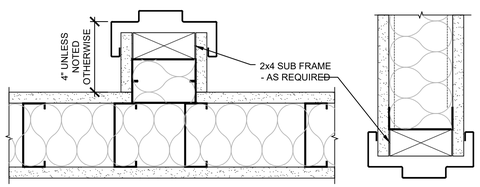
DOOR	MATERIAL	DESCRIPTION
	WD	PAINT-GRADE FLUSH / SLAB SOLID CORE WOOD DOOR.
	HM	HOLLOW METAL - 18 GAUGE COLD ROLLED STEEL / POLYSTYRENE FOAM CORE (CLASSIFICATION SD1 - LEVEL 2 - MODEL 1) 1 3/4"
	AL	ALUMINUM
	ETR	EXISTING TO REMAIN
FRAME	**MATERIAL**	**DESCRIPTION**
	WD	WOOD
	HM	HOLLOW METAL - 16 GAUGE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

DOOR TYPES



WINDOW TYPES





H2 HOLLOW METAL JAMB DETAILS

SCALE: 3" = 1'-0"

HARDWARE SETS

1. (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
2. 3-HINGES
   1-LEVER-HANDLE OFFICE FUNCTION LOCKSET
   1-WALL STOP
3. 3-HINGES
   1-LEVER-HANDLE CLASSROOM FUNCTION LOCKSET
   1-WALL STOP
4. 3-HINGES
   1-CLASSROOM FUNCTION LOCKSET (PULL SIDE)
   1-PANIC DEVICE (PUSH SIDE)
   1-CLOSER
   1-WALL STOP
5. 3-HINGES
   1-PUSH / PULL SET
   1-CLOSER
   1-WALL STOP
6. 3-HINGES
   1-LEVER-HANDLE CLASSROOM FUNCTION LOCKSET
   1-CLOSER
7. 6-HINGES, (3) EACH
   1-LEVER-HANDLE CLASSROOM FUNCTION LOCKSET ON ACTIVE (EAST) LEAF
   1-FLUSH BOLT SET (TOP AND BOTTOM) ON INACTIVE LEAF
8. 3-HINGES
   1-LEVER-HANDLE PRIVACY FUNCTION LOCKSET
   1-CLOSER
   1-WALL STOP
9. (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

	DOOR					FRAME			DETAILS - (SEE SHEET A-XXX)				
NO.	TYPE	SIZE	MATERIAL	PUSH FINISH	PULL FINISH	MATERIAL	PUSH FINISH	PULL FINISH	HEAD	JAMB	THRESHOLD	HARD-WARE	KEY NOTES / COMMENTS
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.
30B	A	1 3/4" X 3'-0" X 7'-0"	WD	PNT	PNT	HM	PNT	PNT	-	H2/A-005	-	6	
30C	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	
40A	A	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	PNT	PNT	HM	PNT	PNT	-	-	-	9	
40B	A	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	PNT	PNT	HM	PNT	PNT	-	-	-	9	
40C	A	1 3/4" X 3'-0" X 7'-0" (ETR)	HM	PNT	PNT	HM	PNT	PNT	-	-	-	ETR	

KEY NOTES:

A. EXISTING FRAME, DOOR, AND HARDWARE TO REMAIN
B. 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 MATERIAL	CEILING FINISH	COMMENT KEY NOTES
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:

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.
2. PAINT THE OUTSIDE WALLS OF THE OFFICE AND LAB.

DOOR NOTES

DOORS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

1. ALL DOOR HANDLES TO BE LEVER TYPE.
2. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
3. PROVIDE DOOR STOPS OF APPROPRIATE TYPE FOR ALL INTERIOR DOORS, MATCH ADJACENT HARDWARE FINISH.
4. 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.
5. 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.
6. 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.
7. 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).
8. 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.
9. 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.
10. HAND-ACTIVATED DOOR OPENING HARDWARE TO BE CENTERED BETWEEN 34" AND 44" ABOVE THE FLOOR.
11. 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 THAT 32", MEASURED BETWEEN THE FACE OF THE OPENED DOOR AND THE OPPOSITE STOP.
12. 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.
13. 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.
14. 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.
15. EXIT DOORS SHALL SWING IN THE DIRECTION OF EXIT TRAVEL WHEN SERVING 50 OR MORE OCCUPANTS.
16. COORDINATE ALL DOOR HARDWARE WITH THE OWNER TO ENSURE THE MANUFACTURER, FUNCTIONS, MODELS, AND KEYING SYSTEMS MEET THE OWNER'S STANDARD REQUIREMENTS.

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02.06.24

Michael Moores, MO Architect #2009032812

Project Number: 2313

Project Type: TENANT FINISH

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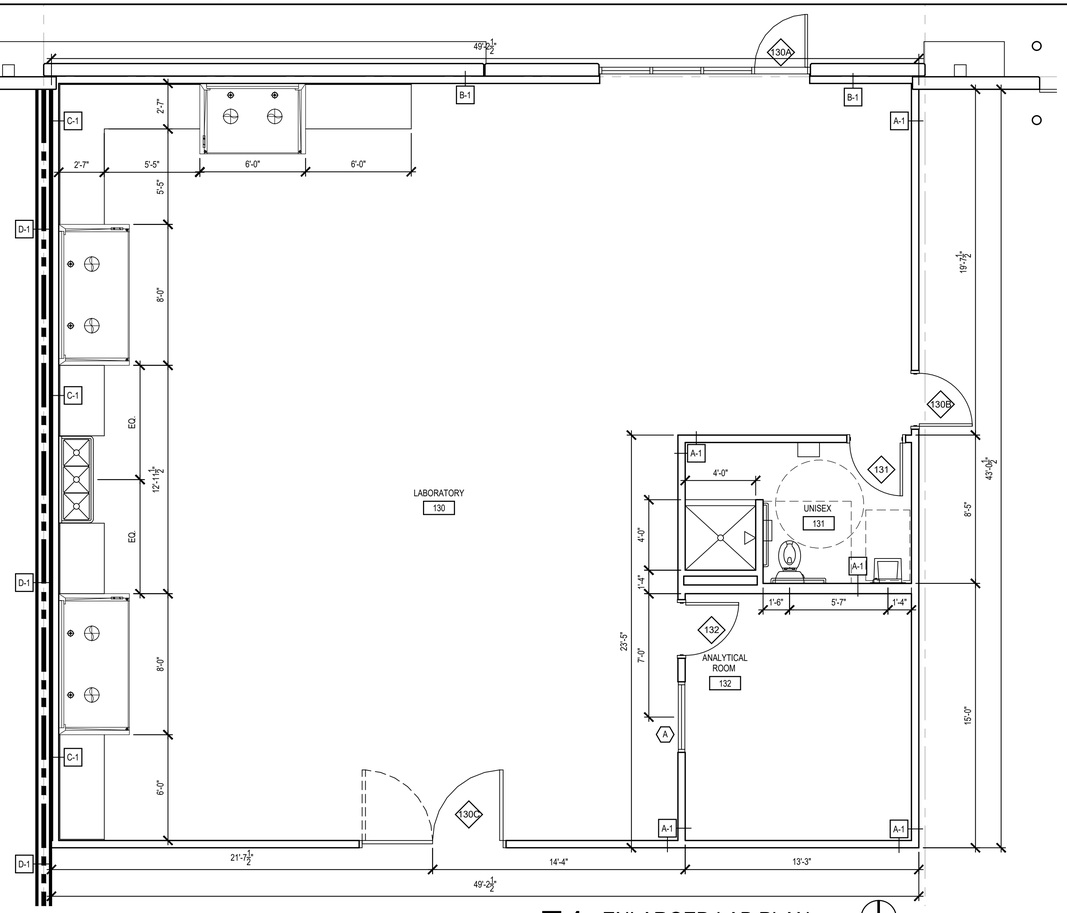
Issue:	Date:
Permit Drawings	02.06.24

Sheet Title:

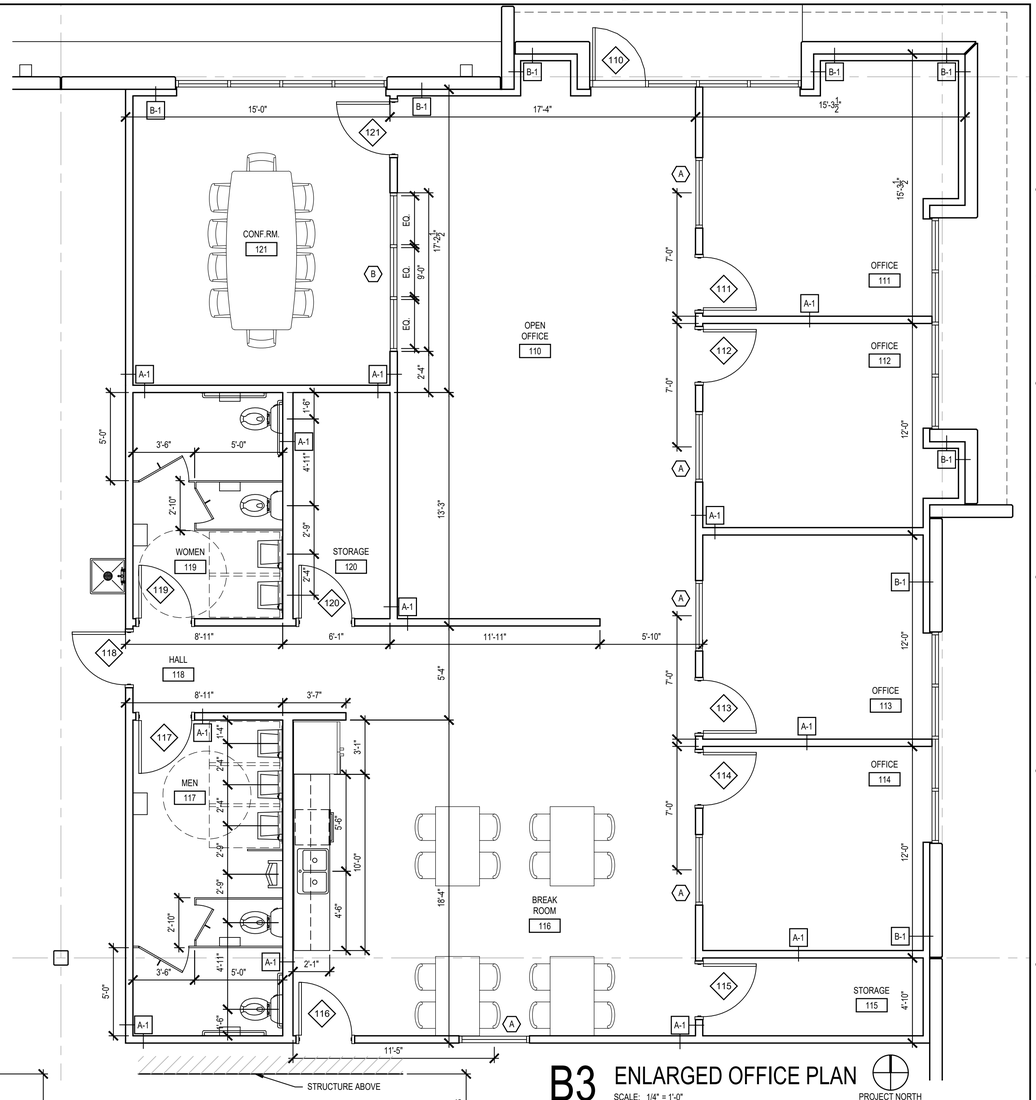
DOOR / WINDOW / FINISH SCHEDULES AND NOTES

A-005



F4 ENLARGED LAB PLAN

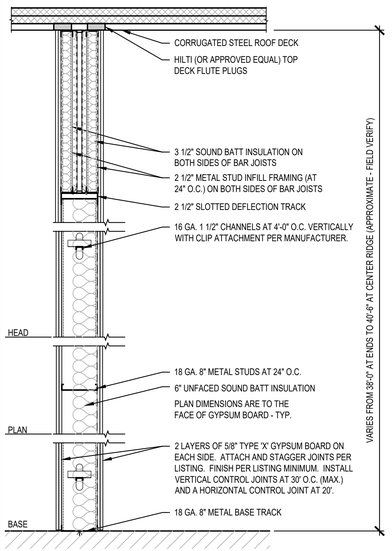
SCALE: 1/4" = 1'-0"



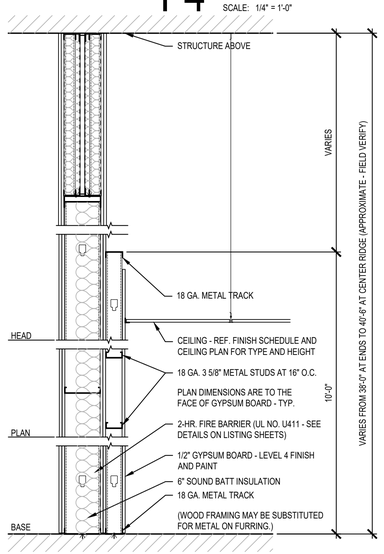
B3 ENLARGED OFFICE PLAN

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

PROJECT NORTH



PARTITION TYPE D-1
2-HR FIRE BARRIER (U.L. DESIGN NO. U411)



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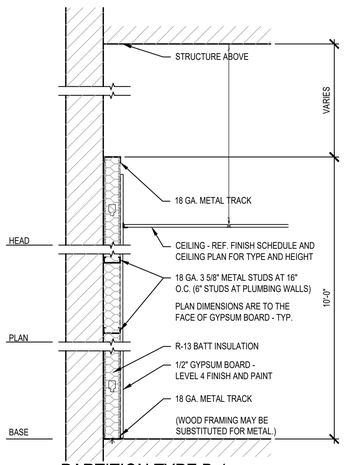

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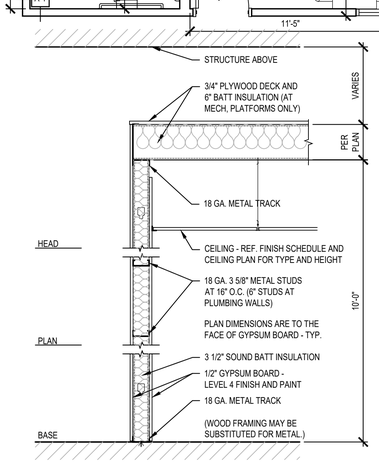

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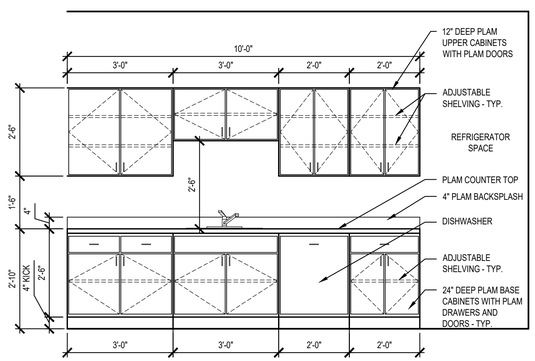

B1 BREAK ROOM CABINETS

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

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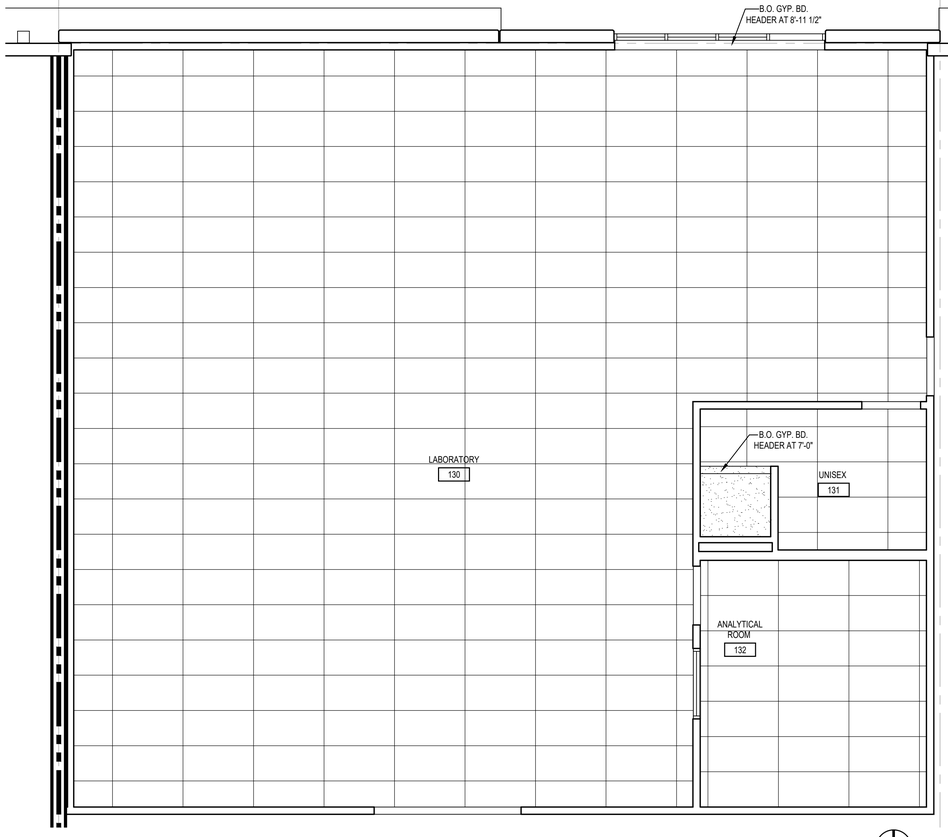
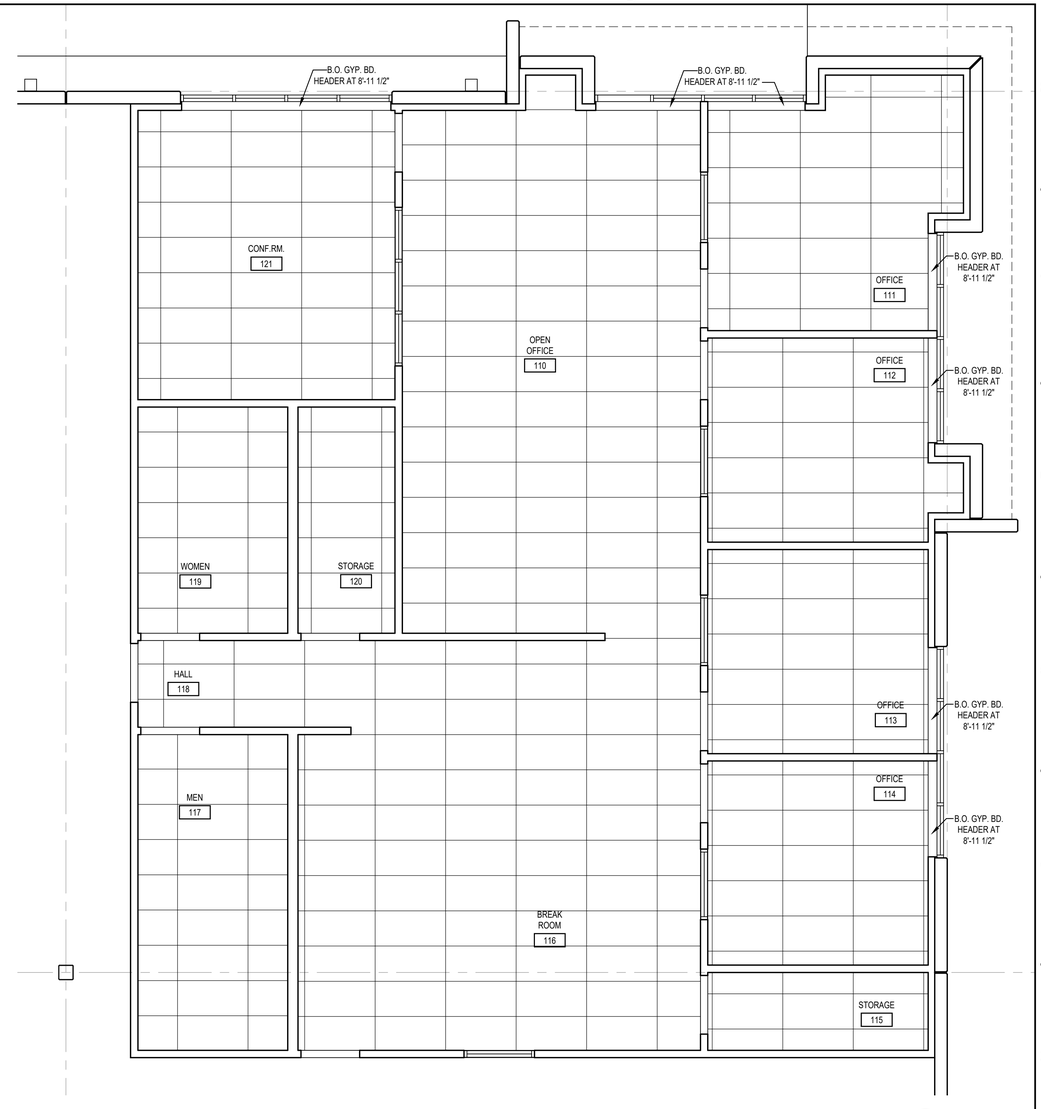
ENLARGED PLANS
PARTITION TYPES

A-110



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

PROJECT NORTH



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

PROJECT NORTH

2'x4' 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.

B1 CEILING PLAN LEGEND
SCALE: =

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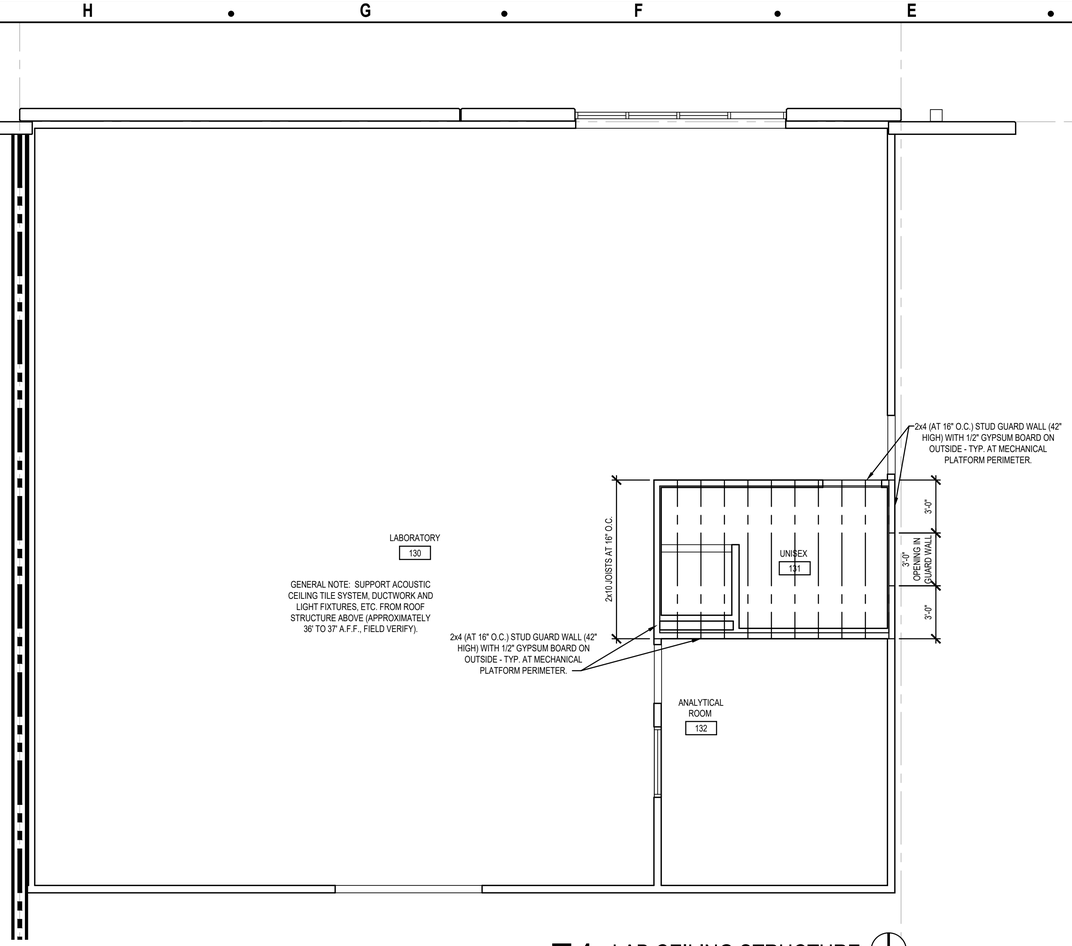
CEILING PLANS

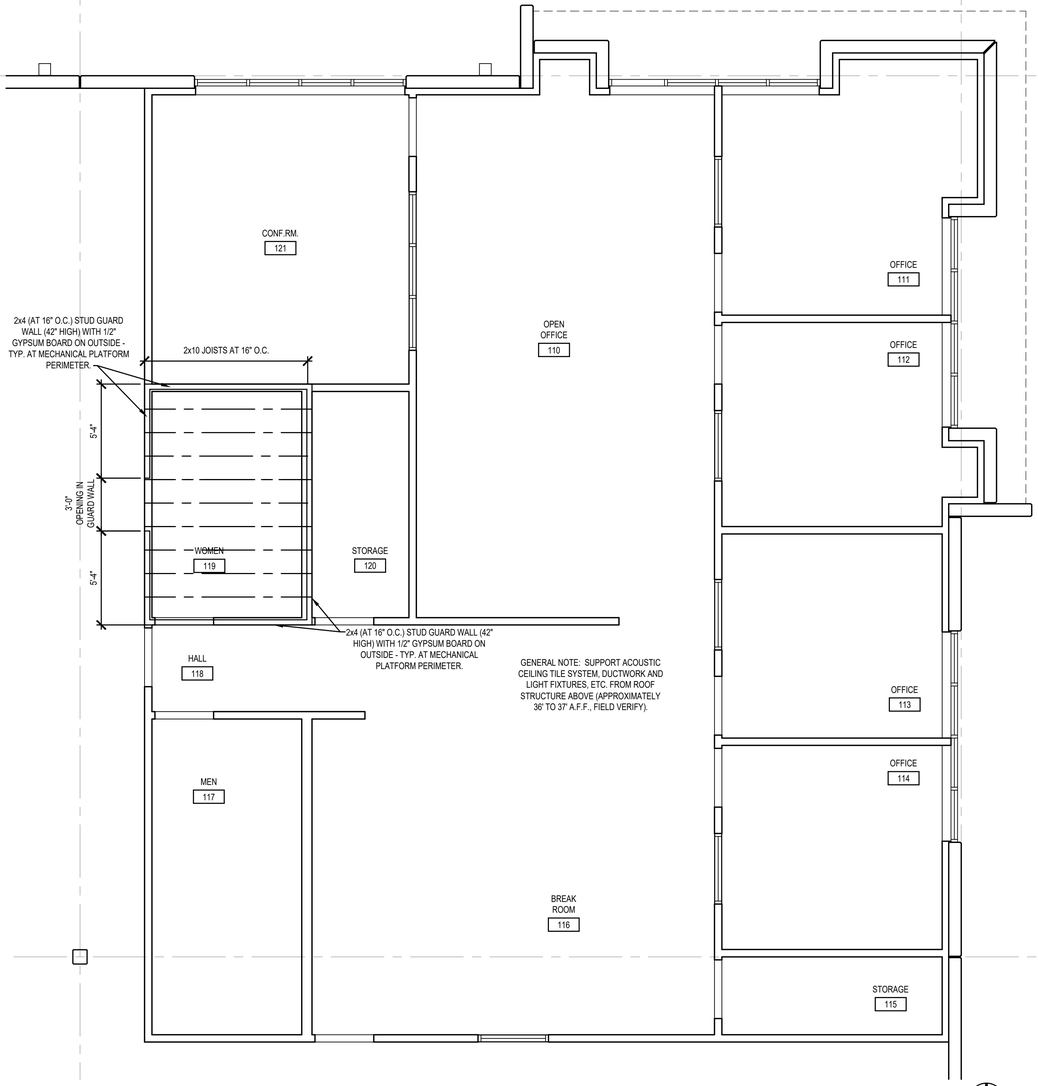
A-410



F4 LAB CEILING STRUCTURE

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

PROJECT NORTH



B3 OFFICE CEILING STRUCTURE

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

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CEILING STRUCTURE

A-411

GENERAL ELECTRICAL NOTES

1. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL WIRE.
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.
3. ELECTRICAL CONTRACTOR TO INCLUDE GROUND WIRE IN ALL RACEWAYS. SIZE RACEWAYS AS NECESSARY TO COMPLY WITH N.E.C.
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 CONSTURCTION COMPANY PRIOR TO ROUGH-IN.
5. DUAL LIGHT SWITCH TO BE PROVIDED IN RESTROOMS, ONE FOR FAN VENT, AND ONE FOR LIGHTING.
6. EMPTY MUD RING W/ CONDUIT AND PULL STRING NEXT TO LIGHT SWITCH FOR SPEAKER CONTROLS
7. PLYWOOD TELEPHONE BACKERBOARD (4'X4') TO HAVE ROUTED 2" EMPTY CONDUIT BACK TO THE EXISTING TELEPHONE SERVICE ENTRANCE AND 110V OUTLET, FIELD COORDINATE.
8. THE WORD "PROVIDE" HEREIN SHALL MEAN FURNISH AND INSTALL.

D. ELECTRICAL SPECIFICATIONS

1. THE ENTIRE ELECTRICAL SYSTEM SHALL COMPLY WITH THE FOLLWING:
   - A. NATIONAL ELECTRICAL CODE AND ANY OTHER APPLICABLE LOCAL CODES.
   - B. ALL FEEDER AND BRANCH CIRCUIT WIRING SHALL BE COPPER OR ALUM.
   - C. THE REQUIREMENTS FOR ALL ROOF AND WALL OPENINGS DESRIBED IN SECTIONS HEREIN.
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.
3. ELECTRICAL SERVICE PROVIDED IS 1200 AMP, 277/480V, 3 PHASE.
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.
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.
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 HARDWIRE WITH A SMOOTH, NEAT

   FINISHED APPEARANCE. PAINT ALL EXPOSED CONDUIT HANGERS TO MATCH THE ADJACENT FINISHES.
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.
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.
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.
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.

A. PLUMBING SPECIFICATIONS

1. ALL PLUMBING SYSTEMS MUST BE COMPATIBLE WITH THE TYPE OF MATERIALS USED BY LANDLORD AND SHALL COMPLY WITH THE FOLLOWING

   REQUIREMENTS:

   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.

   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.
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 FOLLWING:

   NIBCO
   CRANE
   WATTS

   ALL VALVES SHALL BE ACCESIBLE FOR EASE OF OPERATIONS.
3. PIPE IS TO BE SUPPORTED SECURELY FROM HANGERS AS FOLLOWS:
4. PIPES SUPPORTED FROM STEEL STRUCTURE SHALL BE SUPPORTED FROM STEEL BEAMS AND JOISTS WITH APPROVED CLAMPS AND OTHER STRUCTURAL ATTACHMENTS.

   IN AREAS WITH CONCRETE FLAT SLABS AND CONCRETE ON METAL INSERTS, SELF-DRILLING ANCHORS OR POWER-DRIVEN ANCHORS WILL BE

   ALLOWED.

   NO PIPE HANGERS WILL BE SUPPORTED FROM THE METAL ROOF DECK.

   HANGERS SHALL NOT PIERCE PIPING INSULATION VAPOR BARRIER.

   ALL STEEL HANGERS, RODS, SEAM CLAMPS, ETC., EXPOSED TO PUBLIC VIEW SHALL BE PAINTED TO MATCH ADJACENT FINISH.

   APPEARANCE AND SPACING OF HANGERS EXPOSED TO PUBLIC VIEW ARE IMPORTANT ASPECTS OF THE FINAL VISUAL ENVIROMENT, 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 MEMBERHARDWARE

   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.

   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.

   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.
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.
6. FIRE PROTECTION

   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.

   SPRINKLER SUB CONTRACTOR SHALL SUBMIT DRAWINGS, AND ALL REQUIRED LANDLORD, STATE, AND CITY REQUIREMENTS FOR APPROVAL AS PART OF THE WORK.

   THE SPRINKLER SYSTEM SHALL BE FULLY CHARGED AND OPERATIONAL WHEN THE CONTRACTOR IS OFF-SITE.

   TENANT TO VERIFY WITH LOCAL AUTHORITIES IF A SPRINKLER HEAD IS REQUIRED ABOVE RESTROOM AREA.

B. MECHANICAL SPECIFICATIONS

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.
   - A. INTRUSIVE NOISE LEVELS IN ADJACENT SPACES SHALL NOT EXCEED NC-40 WHEN MEASURED IN THESE SPACES.
   - B. TENANT EQUIPMENT NOISE EMITTED TO THE EXTERIOR SHALL NOT EXCEED 55 DBA IN ANY OCCUPIED EXTERIOR SPACES.
   - 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 MEASURENTS MADE IN ADJACENT SPACES DO NOT EXCEED 5 DECIBELS.
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.
3. ALL ROOF PENETRATIONS SHALL BE BY LANDLORDS APPROVED ROOF CONTRACTOR ONLY.

   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.

C. HVAC SPECIFICATIONS

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.
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 REQUIERED FOR THESE DEVICES IN THE CEILINGS.
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.)
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.
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.
6. PIPING SUPPORTS AND VALVES SHALL BE SPECIFIED UNDER PLUMBING SPECIFICATIONS UNLESS OTHERWISE NOTED.

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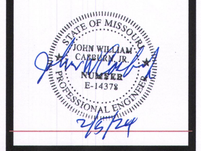

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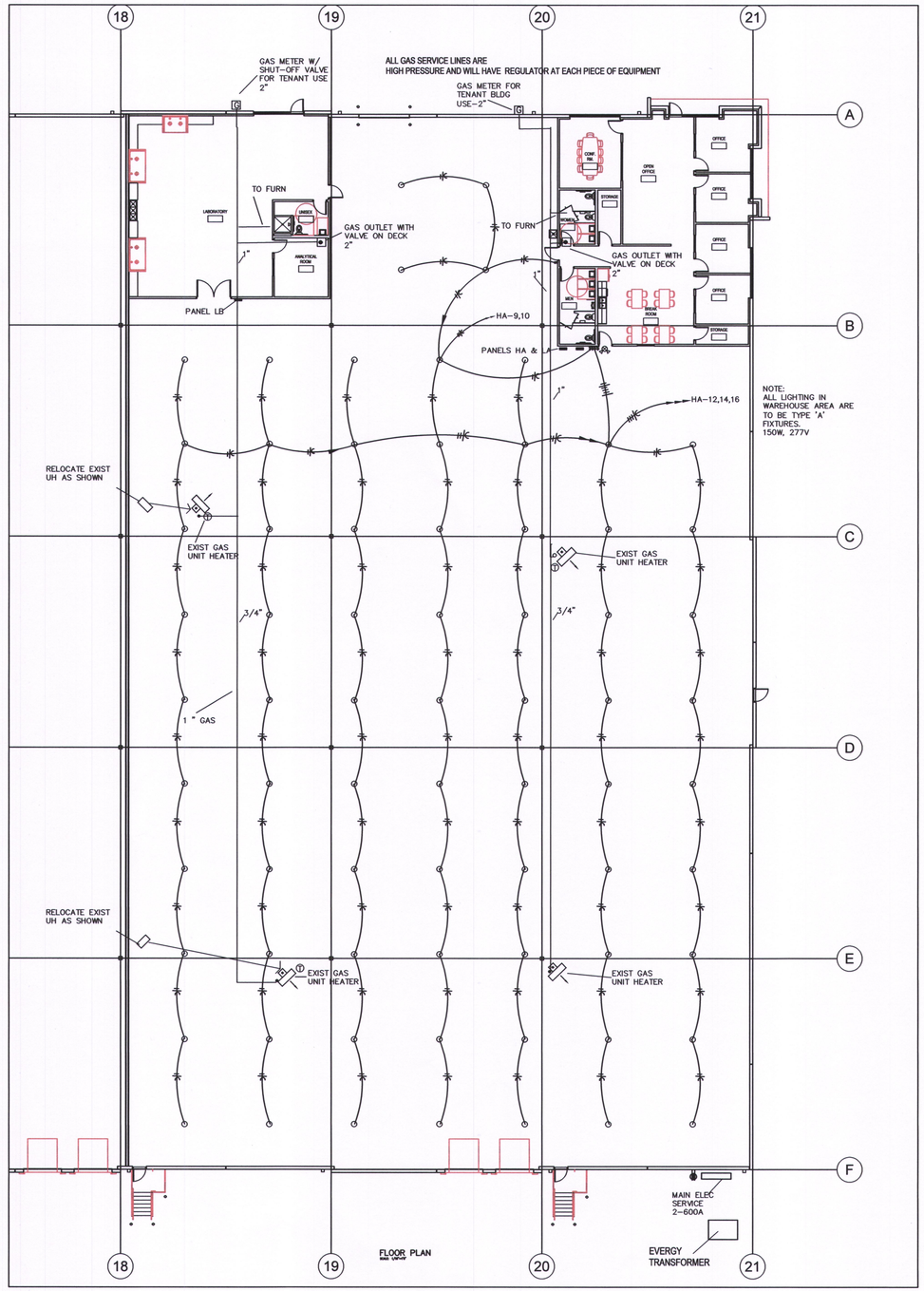
MEP1



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NUMBER E-14378
PROFESSIONAL ENGINEER
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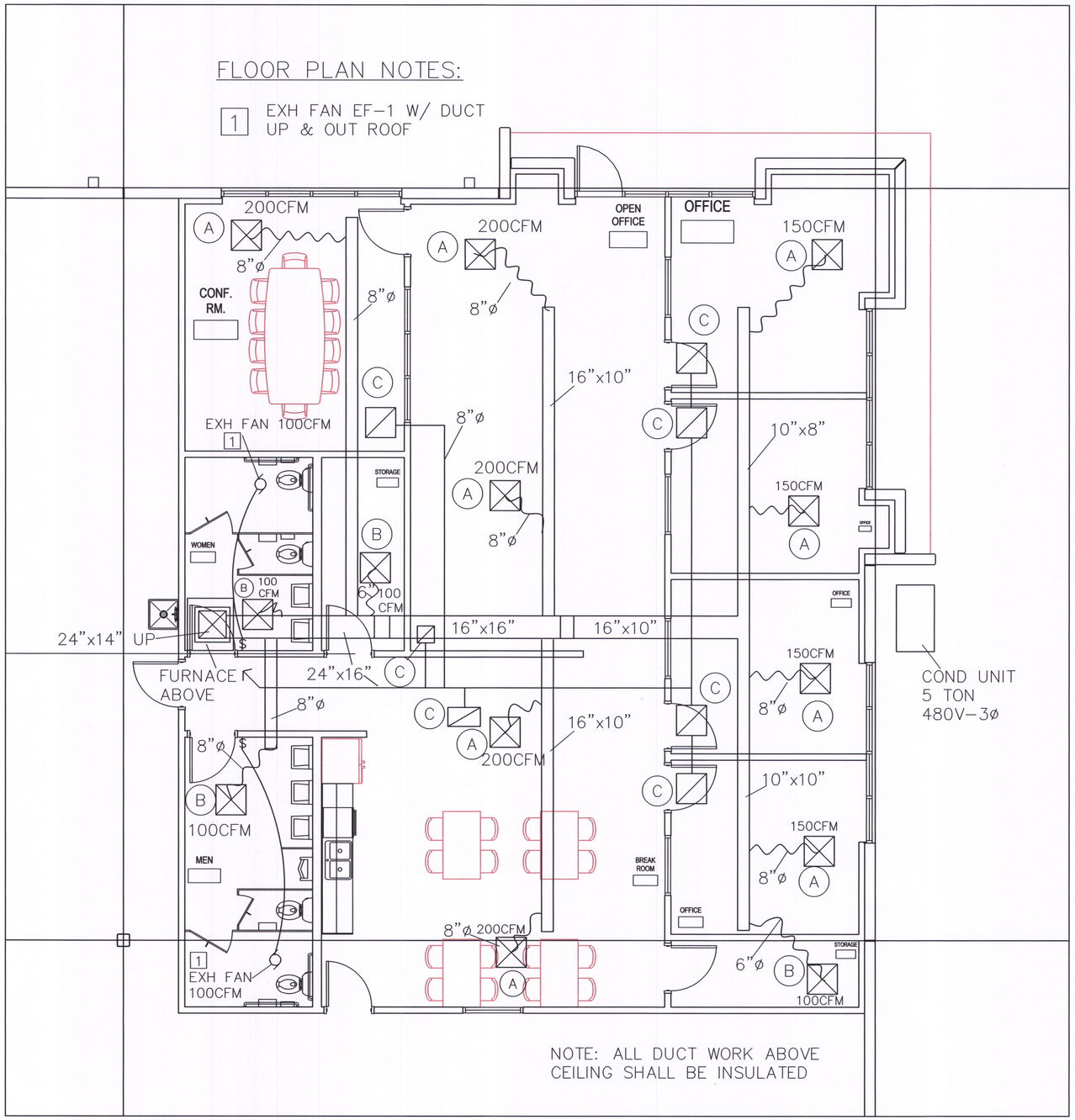
MEP2

FLOOR PLAN NOTES:

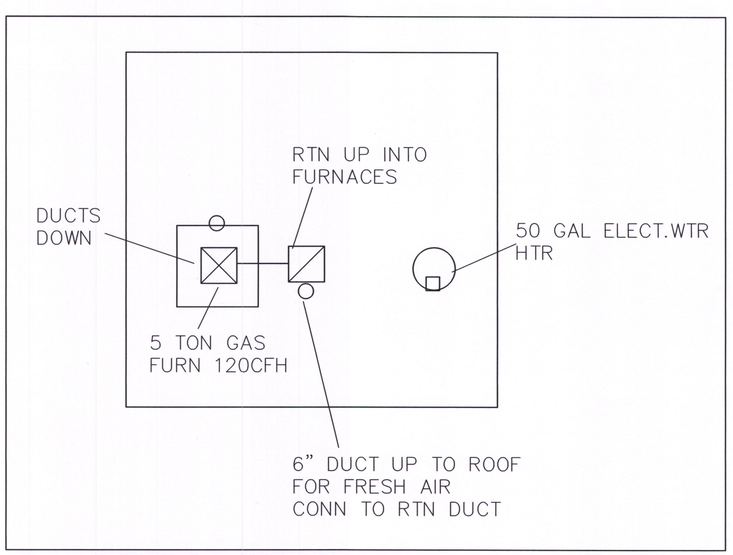
1 EXH FAN EF-1 W/ DUCT UP & OUT ROOF



NOTE: ALL DUCT WORK ABOVE CEILING SHALL BE INSULATED

OFFICE MECHANICAL PLAN

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



DECK PLAN

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

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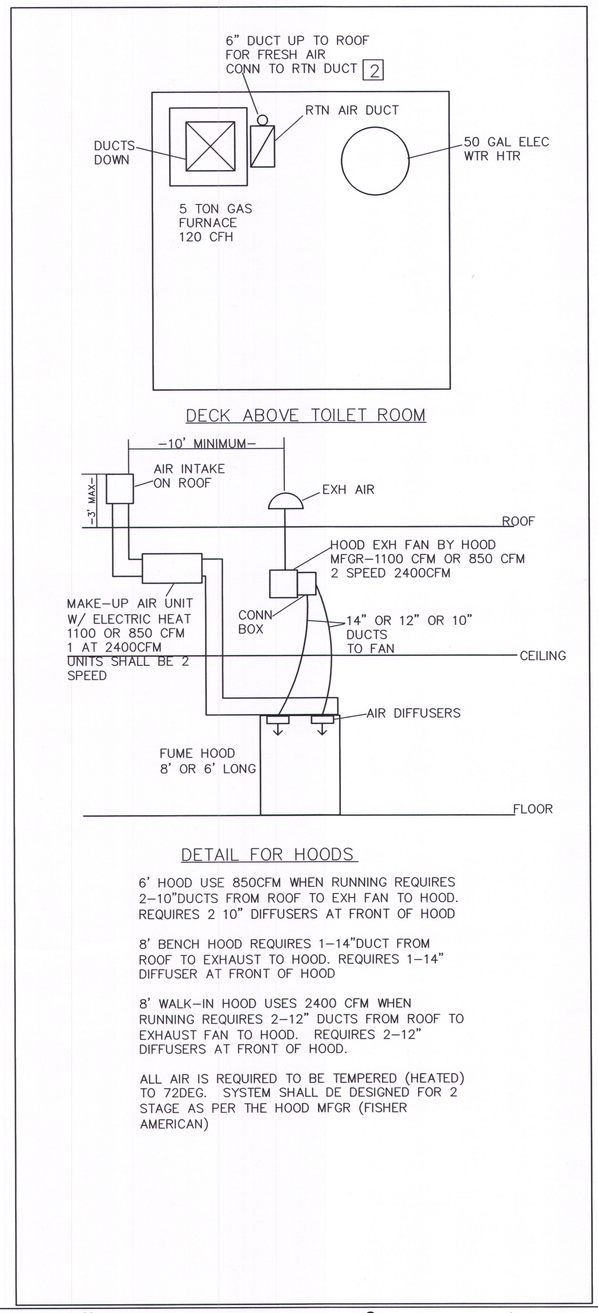

DETAIL FOR HOODS

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 DE DESIGNED FOR 2 STAGE AS PER THE HOOD MFGR (FISHER AMERICAN)

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

POWER FOR HOOD & FAN THIS HOOD NEEDS 850CFM

COND UNIT 5 TONS, 480V–3ø

HA

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

FUME HOOD

250CFM

10"ø

MAKE–UP AIR UNIT W/ HEAT

16"x12"

POWER FOR HOOD & FAN THIS HOOD NEEDS 1100CFM

FUME HOOD

250CFM

10"ø

MAKE–UP AIR UNIT W/ HEAT

12"x10"

POWER FOR HOOD & FAN THIS HOOD NEEDS 2400CFM

FUME HOOD

250CFM

10"ø

TWO RTN AIR GRILLS/ ATTACHED ABOVE CLG

LABORATORY

UNISEX

ANALYTICAL ROOM

EXH FAN 100CFM

100 CFM

200 CFM

8"ø

6"ø

10"

PANEL 'LB'

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

.

LAB MECHANICAL PLAN

SCALE: 1/4"=1'0"

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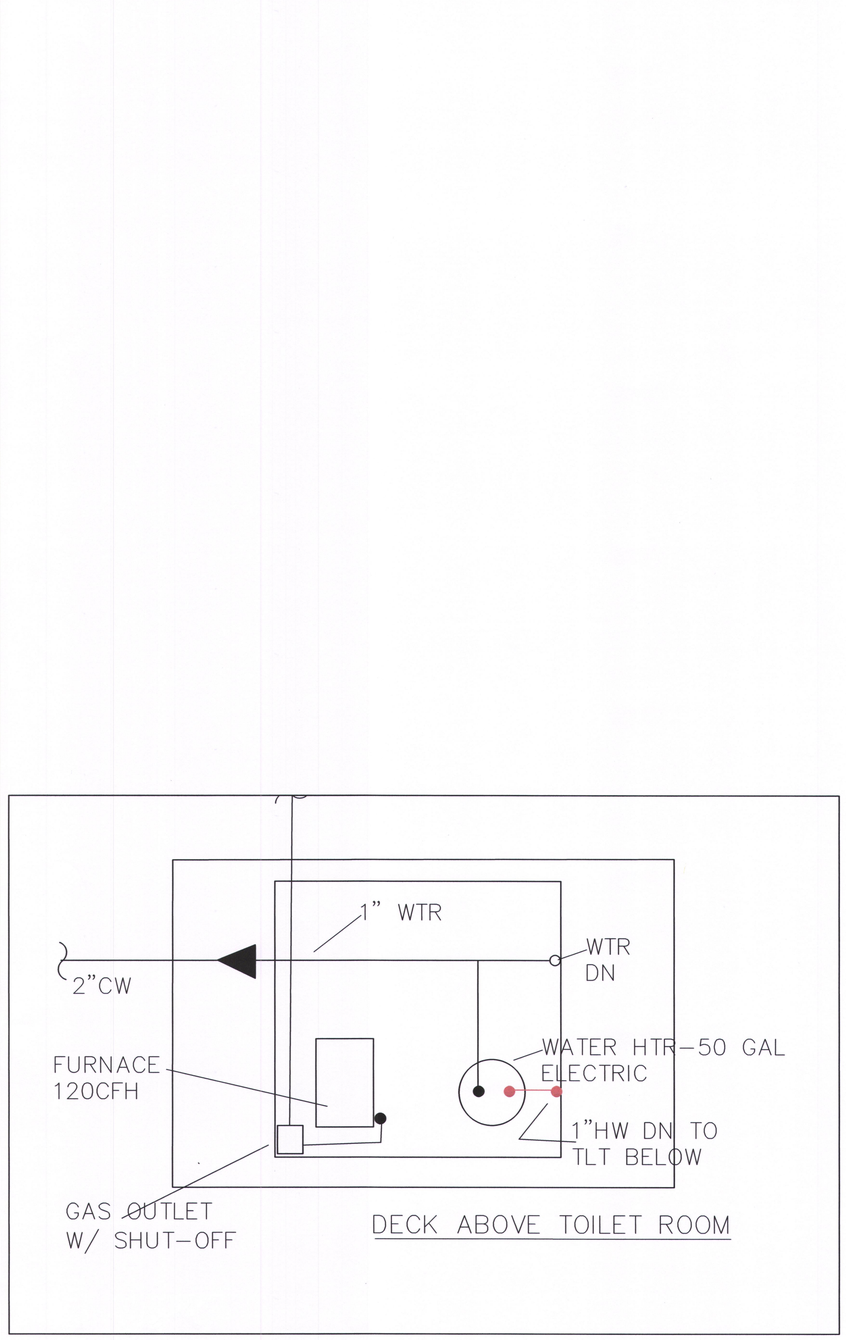
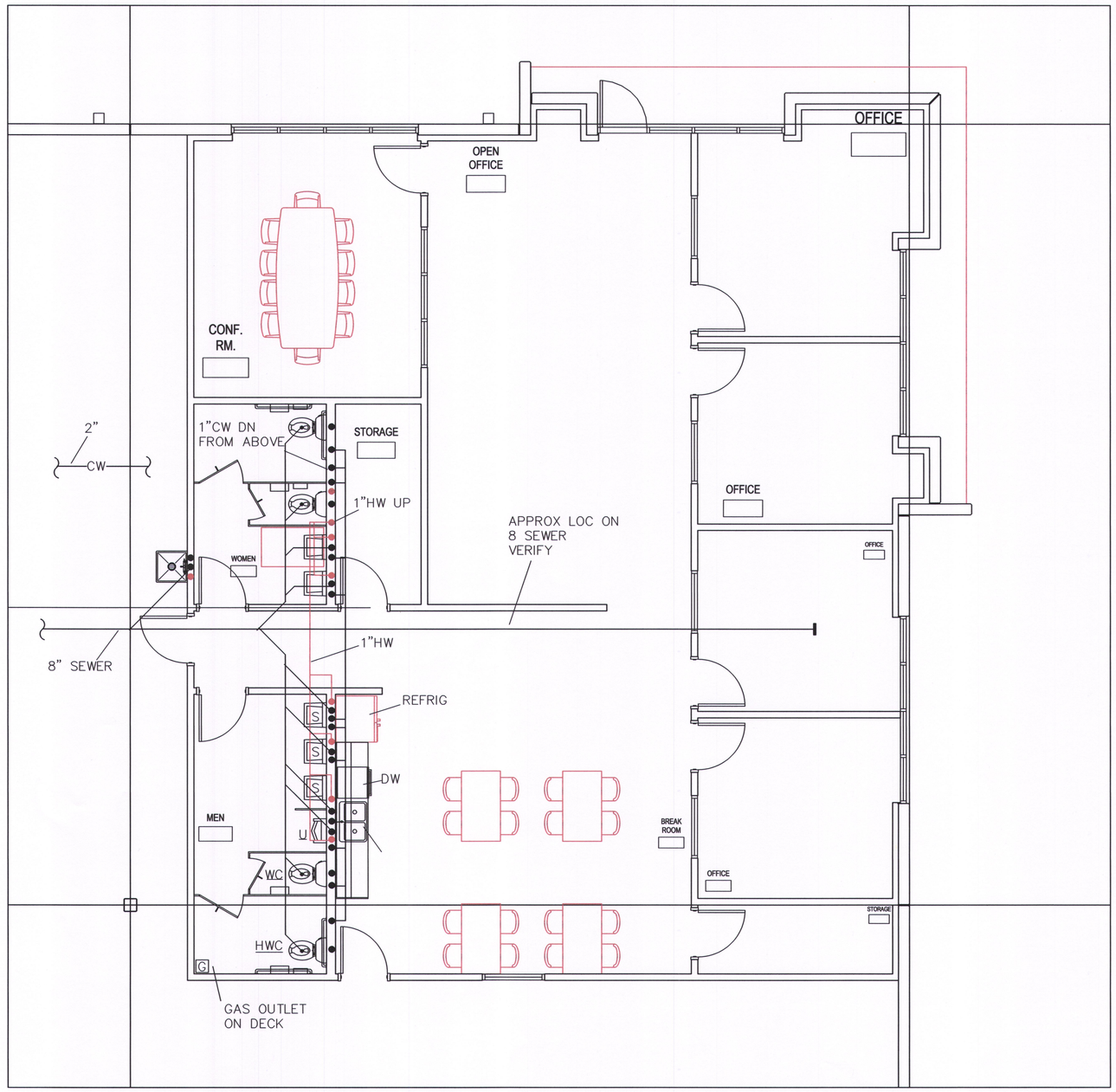
M-3



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

SEE SHEET MPE-2 FOR ROUTING OF GAS PIPING



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

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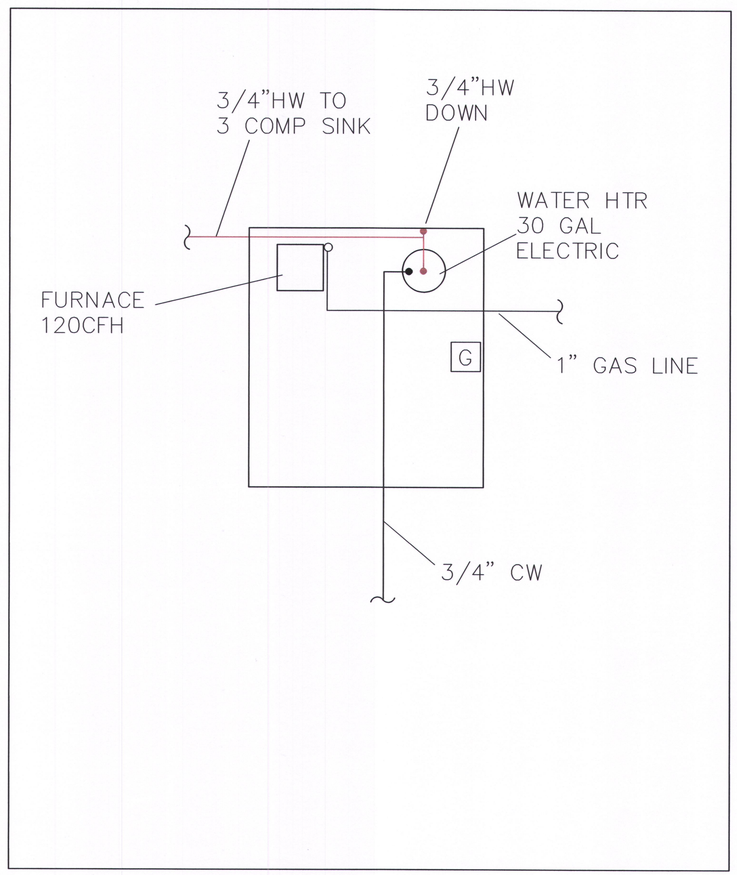

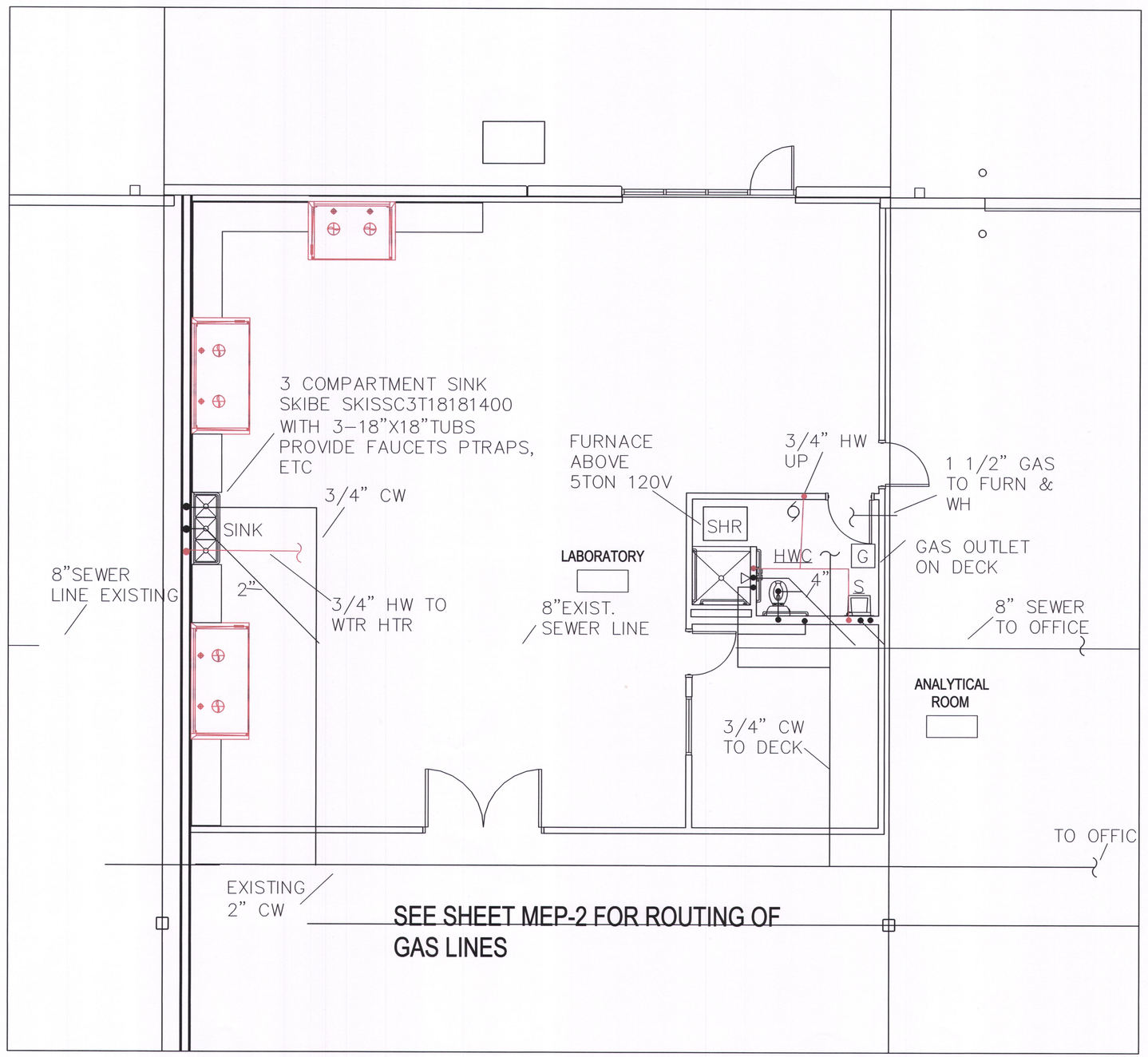

LAB PUMBING PLAN

SCALE: 1/4"=1'0"

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SCHEDULE OF PIPE AND FITTING MATERIAL

SERVICE	MATERIAL	JOINTS	FITTINGS	NOTES
ROOF DRAINS	SERVICE WEIGHT CAST IRON (CI)			
CONDENSATE DRAINS	COPPER "M" HARD	SOLDERED OD BRAZED	WROUGHT COPPER OR CAST BRONZE	(1)
VENTS AND WASTE LINES (ABOVE GROUND)	SERVICE WEIGHT CAST IRON (CI) (PVC WHEN APPROVED BY CITY)	LEAD OR TYSEAL	CAST IRON-PVC APPROVED	(1)
SOIL LINES (BELOW GROUND) - UNDER SLAB	CAST IRON (CI) (PVC WHEN APPROVED BY CITY)	LEAD OR 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 ABD 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

(1) 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 (B)TE BELOW. SCR-35 SNAITARY PIPE WHEN APPROVED.

(2) 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.

(3) SCREWED GAS CONNECTION FOR 2" AND SMALLER; WELDED CONNECTION FOR 2" AND LARGER, AND IN RETURN AIR PLENUMS.

(4) 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 LOACL KPL GAS SERVICE (FOR GOVERNING AUTHORITY)

(5) CONNECT ALL GAS TO EQUIPMENT THROUGH GAS COCK, UNION AND DIRT LEG.

(6) NO WATER FITTINGS OR CONNECTIONS BELOW FLOOR SLAB. MAKE GRADUAL BEND OR RADIUS.

(7) PROVIDE WTR HAMMER ARRESTERS PRIOR TO CONECTION 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 LAVATORYS		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 INCONDITIONED AND UNCONDITIONAL SPACES.

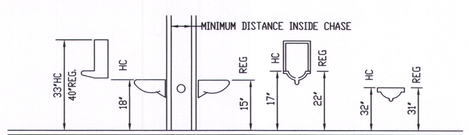
CONDUCTANCE AT 75°F, 3% MAXIMUM WATER ABSORBTION BY WEIGHT. ARMSTRONG AP ARMAFLEX OR RUBATEX.

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"	4"	3"
URINALS		3/4"	2"	1-1/2"
DRINKING FOUNTAINS		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 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

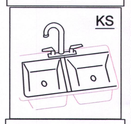
PLUMBING CONTRACTOR TO REFERENCE PLUMBING FLOOR PLANS AND DETAIL SHEET AND SPECIFICATIONS FOR SPECIFIC FIXTURE INDENTIFICATION USED.



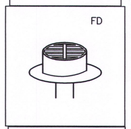
PLUMBING FIXTURE SCHEDULE

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" A.F.F. TO RIM. KOLHER K-4712 SEAT

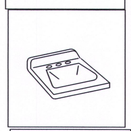
URINAL - AMERICAN STANDARD #6400.014 VITREOUS CHINA WATER SAVER (1.5 GALLONS PER FLUSH) URINAL W/INTEGRAL SPREADER W/SLOAN ROYAL 186 FLUSH VALVE, STRAINER TOP SPUD. 1/2"CW, 2"WASTE, 1-1/2"VENT.



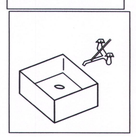
2 COMPARTMENT SINK - COUNTERTOP ELKAY #GECR-3321, 20 GUAGE, TYPE 302 SELF RIMMING DOUBLE COMPARTMENT SINK. 3 FAUCET HOLES FOR CHICAGO 785-E3 ASSENBLY FAUCET, 1/2" FLEXIBLE SUPPLIES & STOPS IN SHANKS. PROVIDE CUP STRAINER 1-1/2" P-TRAP. COORDINATE INSTALLATION W/CABINET SUPPLIER. CHICAGO 317, 4" WRIST 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" NIKOLOY MEDIUM DUTY LOOSE SET ANTI-TILTING GRATE. SIZE TO SUIT PIPE SIZE AS SHOWN ON DWG. OR EQUAL.



BATHMASTER: BF7404-00 WNTHROP 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.

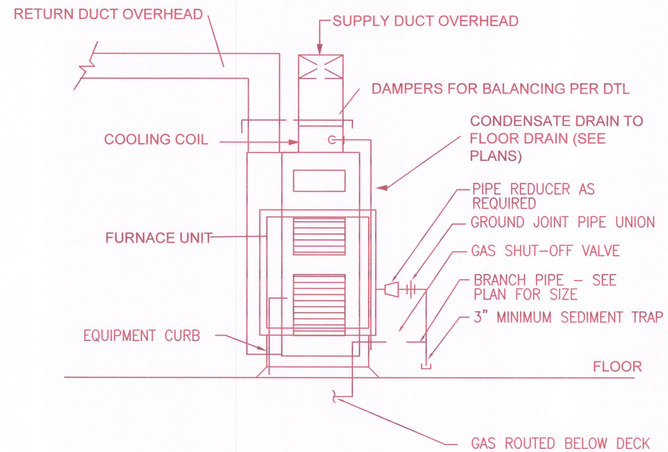
SHOWER - SEMI HANDICAPPED SHALL BE 48"X48" SINGLE PIECE PLASTIC WITH MOVEABLE SHOWER HEAD HANDICAP HAND RAILS, TEMPERATURE LIMITING ON WATER, WATER CONTROL AT HANDICAP HEIGHT. PROVIDE SHOP DWG TO WARD FOR APPROVAL

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% EFFICENT 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 CONTROLC 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

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STATE OF MISSOURI JOHN WILLIAM CASBURN NUMBER E-14378 PROFESSIONAL ENGINEER
2/5/24

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:

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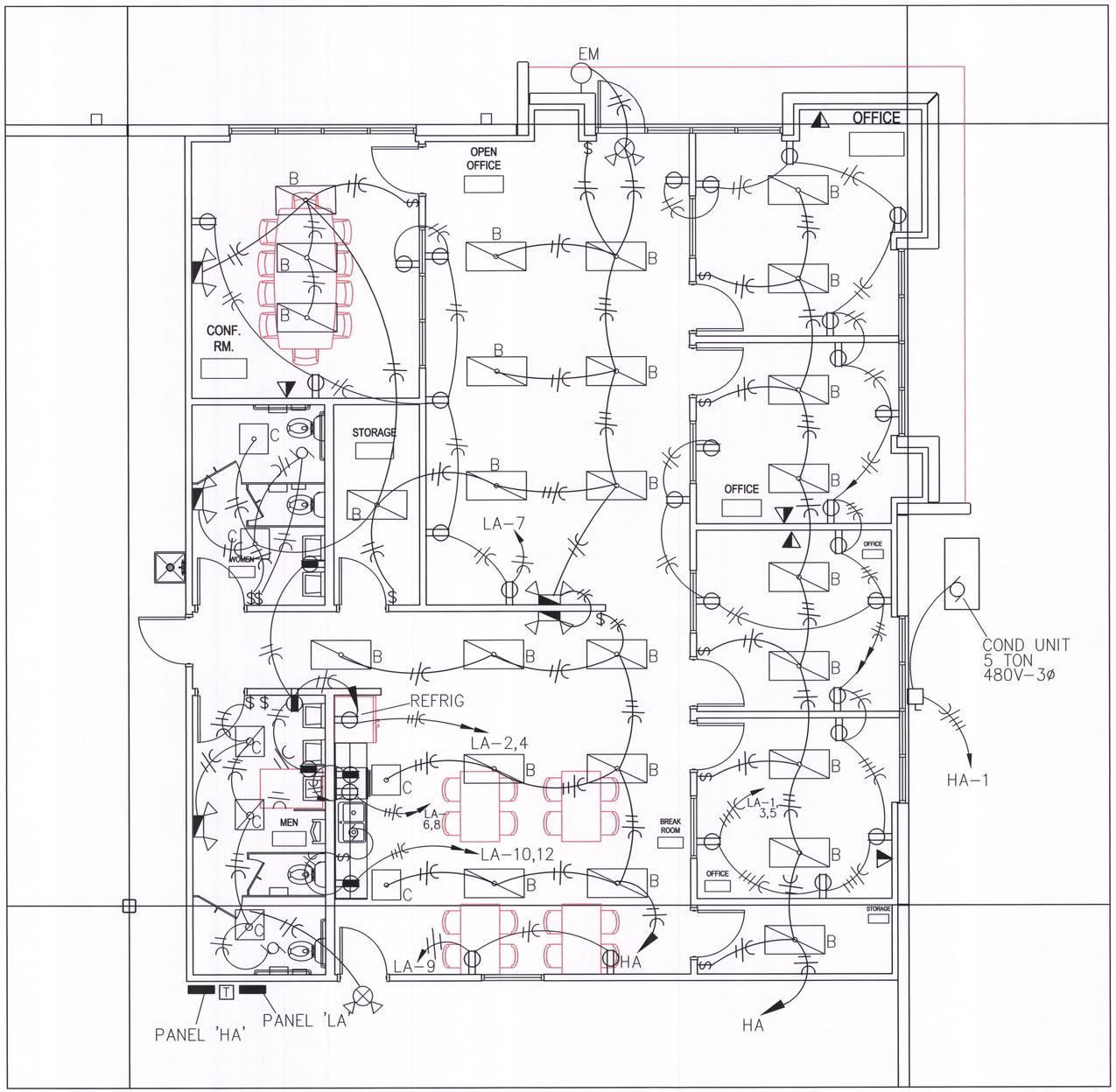
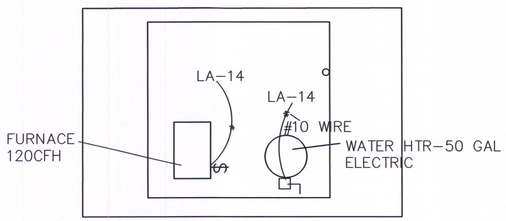


OFFICE ELECTRICAL PLAN

SCALE: 1/4"=1'0"



DECK ABOVE TOILET ROOM

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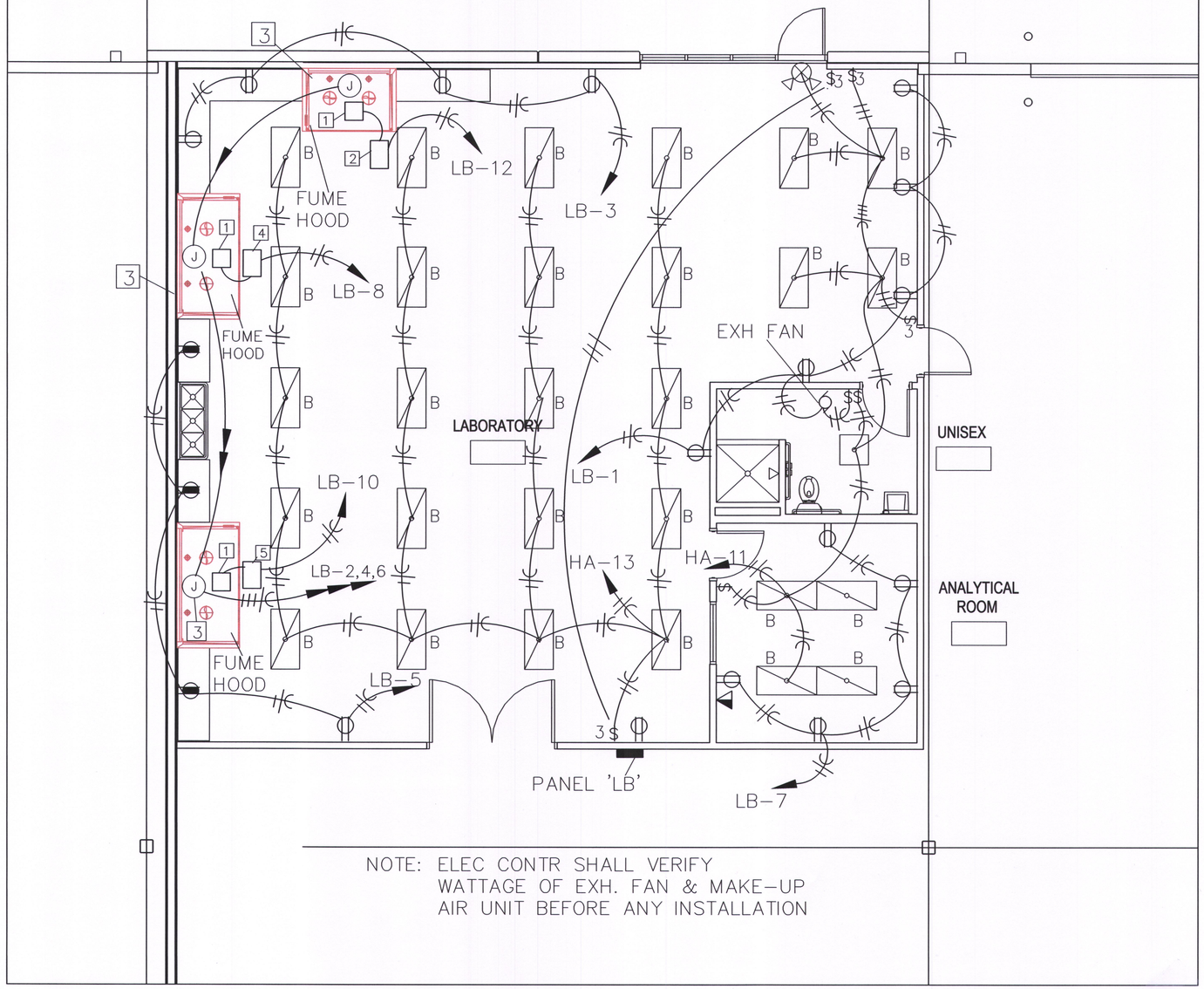
FLOOR PLAN NOTES

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"

PRELIMINARY PLAN

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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	CKT. NO.
1	RECEPTS	20	1400	800	20	REFRIG	2
3	RECEPTS	20	1400	400	20	TLT REC	4
5	RECEPTS	20	1400	1200	20	DISHWASHER	6
7	RECEPTS	20	1400	800	20	KIT REC	8
9	RECEPTS	20	800	800	20	KIT REC	10
11	WH LIGHTING	20	120	1000	20	DISPOSAL	12
13	PANEL 'LB'	100/3	30KW			SPACES	14
15						SPACES	16
17						SPACES	18
19	SPARES	20				SPACES	20
21	SPARES	20				SPACES	22
23	SPARES	20				SPACES	24
25	SPARES	20				SPACES	26
27	SPARES	20				SPACES	28
29	SPARES	20				SPACES	30
31	SPARES	20				SPACES	32
33	SPARES	20				SPACES	34
35	SPARES	20				SPACES	36
37	SPARES	20				SPACES	38
39	SPARES	20				SPACES	40
41	SPARES	20				SPACES	42
				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	CKT. NO.
1	COND UNIT					COND UNIT	2
3	5 TON					5 TON	4
5							6
7	LIGHTING	20	450	2000	20	WAREHOUSE LIGHTING	8
9	LIGHTING	20	1000	600	20	WAREHOUSE LIGHTING	10
11	LAB LIGHTING	20	3000	3000	20	WAREHOUSE LIGHTING	12
13	LAB LIGHTING	20	1000	3000	20	WAREHOUSE LIGHTING	14
15	PANEL TR 75 KVA	100/3	75KW	3000	20	WAREHOUSE LIGHTING	16
17						SPACE	18
19						SPACE	20
21	SPARE	20				SPACE	22
23	SPARE	20				SPACE	24
25	SPARE	20				SPACE	26
27	SPARE	20				SPACE	28
29	SPARE	20				SPACE	30
31	SPARE	20				SPACE	32
33	SPARE	20				SPACE	34
35	SPARE	20				SPACE	36
37	SPARE	20				SPACE	38
39	SPARE	20				SPACE	40
41	SPARE	20				SPACE	42
				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	CKT. NO.
1	RECEPTS	20	1000	1000	20	FUME HOOD	2
3	RECEPTS	20	800	1000	20	FUME HOOD	4
5	RECEPTS	20	1000	1000	20	FUME HOOD	6
7	RECEPTS	20	1000	1200	20	FUME EXH AND MUA	8
9	SPARE	20		1200	20	FUME EXH AND MUA	10
11	SPARE	20		1200	20	FUME EXH AND MUA	12
13	SPARE	20				SPACE	14
15	SPARE	20				SPACE	16
17	SPARE	20				SPACE	18
19	SPARE	20				SPACE	20
21	SPARE	20				SPACE	22
23	SPARE	20				SPACE	24
25	SPARE	20				SPACE	26
27	SPARE	20				SPACE	28
29	SPARE	20				SPACE	30
				TOTAL VOLT AMPS			

LIGHT FIXTURE SCHEDULE

A RAB #H17 HIGH BAY LED, 150WATT, 277V, 4000K, WITH CORD PROVIDE WITH HOOK TO HANG FROM ROOF

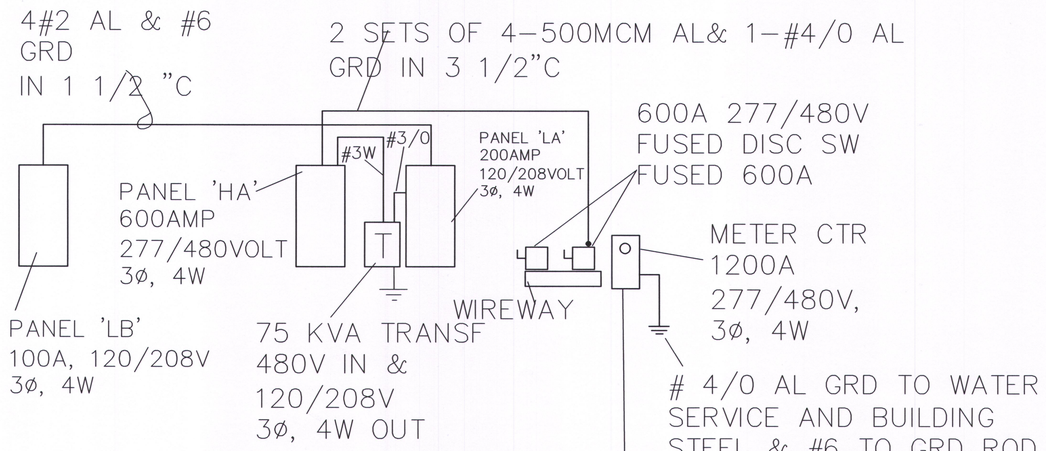
B EIKO #SLM2462C5840U 2'X4' LEDSLIM PANEL 6200 LUMENS, 4000K, 50 WATT, 120 V

C SIMILAR TO TYPE B EXCEPT 2'X2'LED, 120DDEDIT V

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



ESTIMATED AVAILABLE FAULT CUTTENT IS 25780AMPS
ELECTRICAL EQUIPMENT SHALL BE RATED 42000 AMPS.

ELECTRICAL RISER DIAGRAM

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