30hop SOWP

1020 NW Pryor Road,

Lees Summit, MO 64081

Permit Revision
07.05.2024

Note:
- The entire structure shall be equipped throughout with an approved supervised automatic sprinkler system served by a fire pump. This system shall comply with IBC-2018-903.3.1.1 w/ Lee's Summit Amendments, IFC-2018 w/ Lee's Summit Amendments and with one of the following National Fire Prevention Association Standards: NFPA 13-2019 or a more recent edition of the foregoing standards.

- The building shall be equipped with an approved fire alarm system. This system shall comply with IBC-2018-907 w/ Lee's Summit Amendments, IFC-2018 w/ Lee's Summit Amendments, and one of the following National Fire Prevention Association Standards: NFPA 72-2019 or a more recent edition of the foregoing standards.

Project Location

Location Map

30hop
DEVELOPER

Pappageorge Haymes Partners
ARCHITECT

Pearson Kent McKinley Raaf Engineering, LLC.
MECHANICAL, PLUMBING, ELECTRICAL ENGINEER

C&T Design and Equipment Co., Inc.
KITCHEN EQUIPMENT

2

General Contractor

Goebel and Co, LLC dba Goebel Mitts Construction
Class A License

Contact: Will Mitts (913) 787-1738 will@goebelmitts.com

MEPFP Subcontractors

Electrical - Three Diamond Electric - Blue Springs, MO
Mechanical - B&C Mechanical Services - Shawnee, KS
Plumbing - Integrity Plumbing Services - Blue Springs, MO
Fire Sprinkler - Aegis Fire Protection - Overland Park, KS

Drawing Index

Architectural

A001	Title Sheet
A002	Code Sheet
A003	Symbols and Abbreviations
A004	General Notes
A005	Accessibility Notes and Diagrams
A101	Site Plan
A201	Seating Floor Plan
A202	Floor Plan
A203	Furniture Floor Plan
A204	Floor & Wall Finish Floor Plan
A205	Reflected Ceiling Plan
A301	Wall Types & Schedules
A701	Interior Elevations
A801	Millwork Plan Details & Elevations
A802	Millwork Plan Details & Elevations
A803	Millwork Plan Details & Elevations
A804	Millwork Plan Details & Elevations
A805	Millwork Plan Details & Elevations
A806	Millwork Details
A807	RCP Details

Mechanical & Plumbing

M100	MEP Cover Sheet
M101	Plumbing Plan
M102	Plumbing Plan
M103	Plumbing Details
M201	HVAC Plan
M202	HVAC Details
M203	HVAC Details
M204	HVAC Details
M205	HVAC Details
M206	HVAC Details
M207	HVAC Details
M208	HVAC Details
M209	HVAC Details
M210	HVAC Details
M211	HVAC Details
M212	HVAC Details
M213	HVAC Details
M214	HVAC Details
M215	HVAC Details
M216	HVAC Details

Electrical

E101	Power Plan
E102	Power Plan
E201	Lighting Plan
E301	Electrical Details
E302	Panelboard Schedules

Kitchen

E1-K1.0	Kitchen Equipment Plan
E1-K1.1	Utility Schedule
E1-K2.0	Electrical Rough-In Plan
E1-K3.0	Plumbing Rough-In Plan
E1-K4.0	Special Conditions Plan
E1-K5.0	Elevations

640 N Lasalle
Suite 400
Chicago Illinois 60654
312 337 3344
Architecture
Urban Planning

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JEFF RENTERGHEM
NUMBER
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scale As Noted

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sheet title Title Sheet

sheet number
A001

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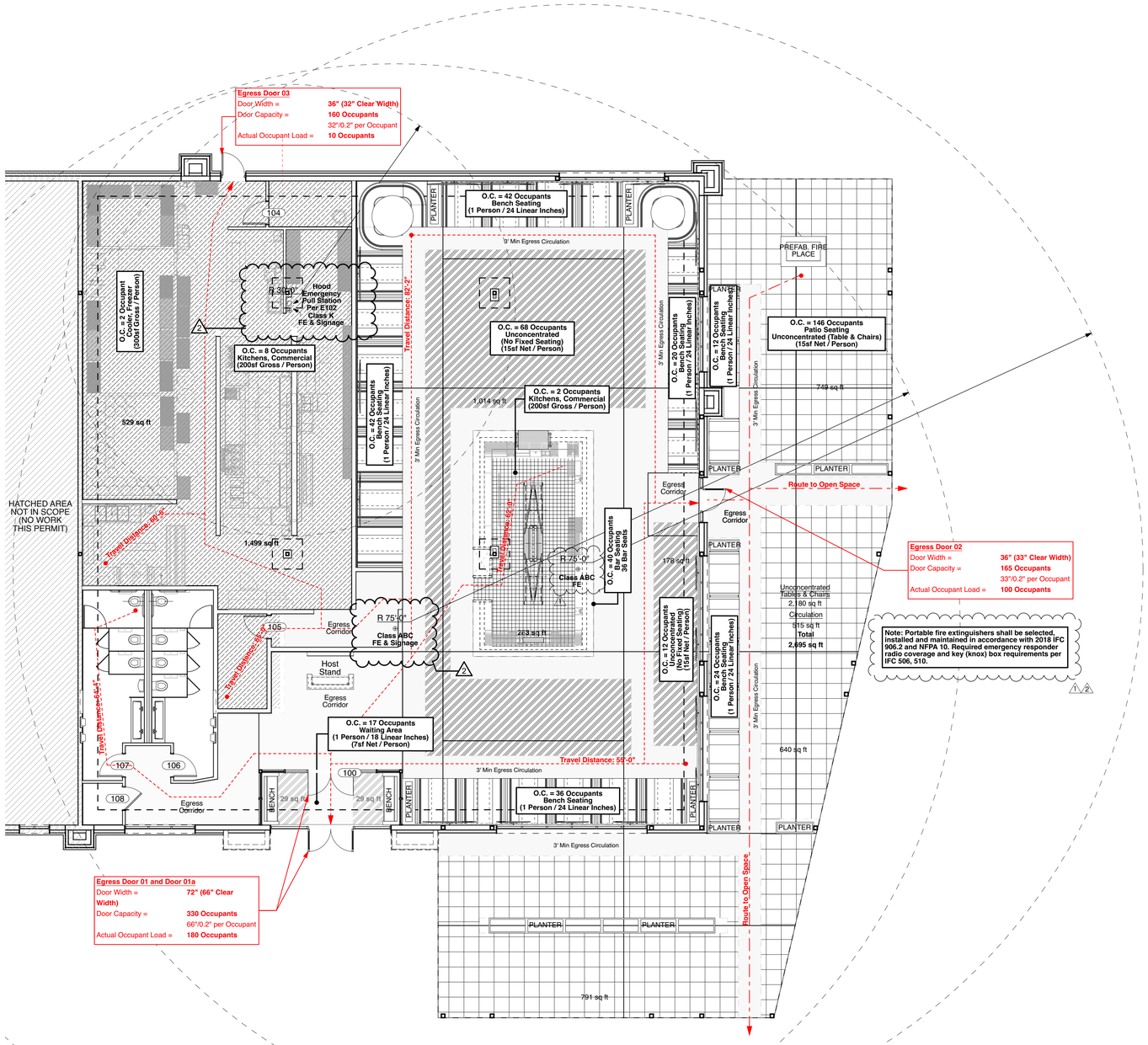

1 Life Safety Plan

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

0 4' 8' 16'

Occupancy Calculations

Description			Counts				Remarks
Location	Area	Function	Occupant Load		Calculated Subtotal	RoundedUp Subtotal	
INTERIOR RESTAURANT							
Dining Room	1,017 sf	Assembly w/o Fixed Seats Unconcentrated (Tables & Chairs)	15 sf / occupant	Net	67.80	68	
Dining Room	178 sf	Assembly w/o Fixed Seats Unconcentrated (Tables & Chairs)	15 sf / occupant	Net	11.87	12	
Dinning Room Fixed Seating	N/A	Booth/Bench Seating	1 occupant / 24 linear inches		20.00	20	(5) 4' Deep Booths, 96"/24" = 4 persons per booth
	N/A	Booth/Bench Seating	1 occupant / 24 linear inches		102.00	102	(17) 6' Deep Booths, 144"/24" = 6 persons per booth
	N/A	Booth/Bench Seating	1 occupant / 24 linear inches		18.00	18	(2) Corner Booths, 432"/24" = 18 persons total
Host Stand	N/A	Assembly w/ Fixed Seats	1 occupant / seat		1.00	1	
Kitchen and Prep	1,499 sf	Kitchens, Commercial	200 sf / occupant	Gross	7.50	8	
Cooler, Freezer, Keg	529 sf	Storage Areas / Mech Equipment	300 sf / occupant	Gross	1.76	2	
Bar Service Areas	283 sf	Kitchens, Commercial	200 sf / occupant	Gross	1.42	2	
Bar Seating	N/A	Fixed Seating	1 occupant / seat		40.00	40	Barstools + H.C. Accessible Counter
Waiting Area	58 sf	Assembly w/o Fixed Seats	7 sf / occupant		8.29	9	
	N/A	Fixed Seating	1 occupant / 18" linear inches		8.00	8	Fixed Seating w/o Dividing Arms, 144"/18" = 8 persons
SUBTOTAL RESTAURANT						**290**	***Total Interior Occupants***
EXTERIOR PATIO							
Open Seating	2,180 sf	Assembly w/o Fixed Seats Unconcentrated (Tables & Chairs)	15 sf / occupant	Net	145.33	146	
Covered Patio Fixed Seating	N/A	Booth/Bench Seating	1 occupant / 24 linear inches		36.00	36	(9) 4' Deep Booths, 96"/24" = 4 persons per booth
SUBTOTAL RESTAURANT						**182**	***Total Exterior Occupants***
SUBTOTAL EXTERIOR POPULATION							
TOTAL PROJECT POPULATION					**472**	**TOTAL OCCUPANT LOAD**	

Plumbing Fixture Calculations

Classification	Occupancy		Requirement				Required				Provided		
			Fixture	Male	Female	Total	Male	Female	Calculated Subtotal	Rounded Up Subtotal	Male	Female	Total
A-2													
Assembly (Restaurants)	Total for Indoor and Outdoor Assembly	472 Occupants	Water Closets	1 per 75	1 per 75	-	3.15	3.15	6.29	7	4	4	**8**
			Lavs	-	-	1 per 200	-	-	2.36	3	2	2	**4**
			Service Sink			1 required	-	-	1.00	1			**8**

CODE SUMMARY

PROJECT DESCRIPTION

Tenant build-out of an existing space for use as a Bar and Restaurant. Accommodation for exterior seating is also in the scope of this work. Core and shell build-out by others and is not covered in this permit submission.

APPLICABLE CODES

2018 International Building Code
2018 International Plumbing Code
2018 International Mechanical Code
2018 International Fuel Gas Code
2018 International Fire Code
2017 National Electric Code Code
ICC/ANSI A117.1-2009, Accessible and Usable Buildings and Facilities

GENERAL PROJECT DATA

Square Footage: Gross Interior 6,992 sf
Occupancy: A-2
Stories: 1
Type V-B (SPRINKLERED) (EXISTING)

REQUIREMENTS BASED ON CONSTRUCTION TYPE

(Based on IBC Chapter 6)
IIB

Primary Structural Frame	0HR
Bearing Wall Exterior	0HR
Bearing Wall Interior	0HR
Nonbearing Walls/Partitions (Interior)	0HR
Floor Construction, Secondary Members	0HR
Roof Construction, Secondary Members	0HR
Separation Wall	2HR

FIRE PROTECTION SYSTEMS

(Based on IBC Chapter 9)
903.2.1.2 - Group A-2: An automatic sprinkler system shall be provided throughout stories containing group A-2 occupancy

907.2.1 - Group A: A manual fire alarm system that activates the occupant notification system shall be installed in Group A occupancies where the occupant load due to the assembly occupancy is 300 or more.

MEANS OF EGRESS / LIFE SAFETY

(Based on IBC Chapter 10)
OCCUPANT LOAD - 480 Occupants
(See table included on this sheet.)
EGRESS WIDTH FACTOR = 0.15" PER OCCUPANT
MINIMUM NUMBER OF EXITS PER STORY
1-500 Occupant Load - minimum 2 Exits
501-1,000 Occupants - minimum 3 Exits
MAXIMUM TRAVEL DISTANCE
A-2: 250' (with sprinklers)
MINIMUM CORRIDOR WIDTH = 44"
MAXIMUM DEAD END CORRIDOR
A-2: 20'
DOOR SWING AND FORCE TO OPEN
Shall Swing in Direction of Egress Travel when total Occupant Load is more than 50 Occupants.
For means of Egress Doors: 15 LBF to release latch, 30 LBF to set the door in motion and 15 LBF to open the door to the minimum required width

MINIMUM NUMBER OF PLUMBING FIXTURES

(Based on IPC 2018)
See "Plumbing Fixture Calculations" Table on this sheet.

Occupant Exit Load

Assembly	
Total Occupant Exit Load	**290 Occupants**
Exit Width Factor	x **0.2**
Required Exit Width	**58" Exit Width**
Provided Exit Width	**131" Exit Width**

Total of (4) 36" Wide Egress Doors provided for a Toal Exiting Width of 324" provides sufficient Occupant Exit Load for Assembly. See Life Safety Plans for Exit Widths and Capacity at Each Exit

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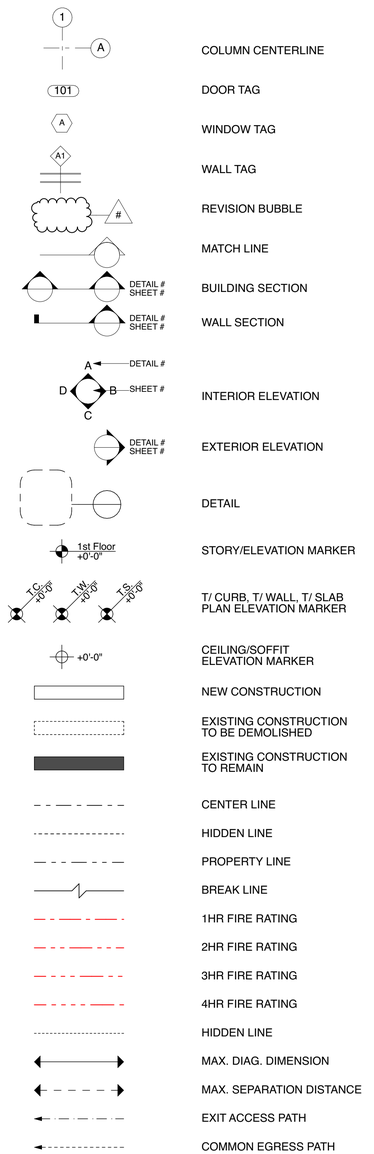
A002

ABBREVIATIONS

A/C.	AIR CONDITIONING
ACC	ACCESSORY
ACOUS.	ACOUSTICAL
ADD'L	ADDITIONAL
ADJ.	ADJACENT
A.F.F.	ABOVE FINISHED FLOOR
AL.	ALUMINUM
ALT.	ALTERNATE
A.P.	ACCESS PANEL
APPROX.	APPROXIMATELY
APP'D	APPROVED
A.R.F.	ABOVE RAISED FLOOR
ARCH	ARCHITECT or ARCHITECTURAL
A.T.	ACOUSTIC TILE
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
B.O. or B/	BOTTOM OF
B.P.	BOOSTER PUMP
BRG.	BEARING
BSMT.	BASEMENT
BTWN.	BETWEEN
C.A.	CLEAR ANODIZED
CABT.	CABINET
CB	CATCH BASIN
CEM.	CEMENT
CER.	CERAMIC
C.I.	CAST IRON
C.J.	CONTROL JOINT
C.L.	CENTER LINE
CLG.	CEILING
CLOS.	CLOSET
CLR.	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
CO	CARBON MONOXIDE DETECTOR
COL.	COLUMN
COMM.	COMMERCIAL
CONC.	CONCRETE
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
COORD.	COORDINATION or COORDINATE(D)
COR.	CORRIDOR
CPT.	CARPET
C.T.	CERAMIC TILE
CTR.	CENTER
C.W.	COLD WATER
C.Y.	CUBIC YARD
D	DRYER
DBL.	DOUBLE
DEPT.	DEPARTMENT
DET.	DETAIL
DF	DRINKING FOUNTAIN
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DIST.	DISTANCE
DL	DEAD LOAD
DN	DOWN
DP	DAMPPROOFING
DR	DOOR
DS	DOWNSPOUT
DW	DISHWASHER
DWG.	DRAWING
DWR.	DRAWER
DU	DWELLING UNIT
E	EAST
EA.	EACH
E.I.F.S.	EXTERIOR INSULATION FINISH SYSTEM
EFF UNIT	EFFICIENY UNIT
E.J.	EXPANSION JOINT
ELECT.	ELECTRICAL
ELEV.	ELEVATOR
EL.	ELEVATION
EM.	EMERGENCY
E.P.	EPOXY PAINT
EQ.	EQUAL
EQUIP.	EQUIPMENT
EST	ESTIMATE
EWC	ELECTRIC WATER COOLER
EXIST.	EXISTING
EXP	EXPOSED
EXT.	EXTERIOR
FAR	FLOOR AREA RATIO
F.D.	FLOOR DRAIN
F.E.C.	FIRE EXTINGUISHER CABINET
F.H.C.	FIRE HOSE CABINET
FIN.	FINISH
FLR.	FLOOR
FLUOR	FLUORESCENT
FP	FIRE PROTECTION
FR	FRAME
FT	FOOT or FEET
FTG.	FOOTING
FURN.	FURNACE
FURG	FURRING
GA.	GAUGE
GALV.	GALVANIZED
G.B.	GYPSUM BOARD
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GFRC	GLASS FIBER REINFORCED CONCRETE
GL	GLASS
GPM	GALLONS PER MINUTE
GYP.	GYPSUM
GYP. BD.	GYPSUM BOARD
H.C.	HANDICAP(PED)
HDWD.	HARDWOOD
HDWR.	HARDWARE
HT.	HEIGHT
HM	HOLLOW METAL
HOR	HORIZONTAL
HP	HORSEPOWER
HR.	HOUR
HVAC	HEATING/VENTILATION/AIR CONDITIONING
H.W.H	HOT WATER HEATER
I.L.O.	IN LIEU OF
ID	INSIDE DIAMETER
IN	INCH
INCL.	INCLUDE(ING)
INSUL. or INS.	INSULATION
INT.	INTERIOR
INV.	INVERT(ED)
JST.	JOIST
JT.	JOINT
KIT	KITCHEN
K.D.	KNOCKED DOWN
K.O.	KNOCKED OUT
LAB	LABORATORY
LAM.	LAMINATED
LAV.	LAVATORY
L.C.	LIGHTWEIGHT CONCRETE
LED	LIGHT EMITTING DIODE
L.F.	LINEAR FEET
L.H.	LEFT HAND
LL	LIVE LOAD
LT.	LIGHT
LVT	LUXURY VINYL TILE
M.	MASTER
MAINT.	MAINTENANCE
MAS.	MASONRY
MAT.	MATERIAL
MAX.	MAXIMUM
MDF	MEDIUM DENSITY FIBERBOARD
MECH.	MECHANICAL
MFR.	MANUFACTURER
MH	MANHOLE
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
MTD.	MOUNTED
MULL.	MULLION
MWK.	MILLWORK
MTL.	METAL

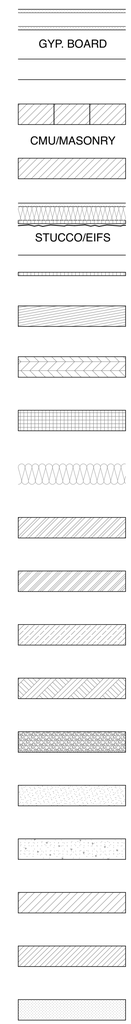
N	NORTH
N/A	NOT APPLICABLE
NFHB	NON-FREEZE HOSE BIBB
N.I.C.	NOT IN CONTRACT
NO. or #	NUMBER
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.A.	OVERALL
O.C.	ON CENTER
O.D.	OVERFLOW DRAIN
OPN'G	OPENING
OPP.	OPPOSITE
PART. BD.	PARTICLE BOARD
PCF	POUNDS PER CUBIC FOOT
PED.	PEDESTAL
PERF.	PERFORATE or PERFORATED
PKG.	PARKING
PL.	PLATE
PLAS.	PLASTER
PLAM	PLASTIC LAMINATE
PLYWD.	PLYWOOD
PNL.	PANEL
PR.	PAIR
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT.	POINT
PVMT.	PAVEMENT
Q.T.	QUARRY TILE
R	RISER(S)
R.A.	RETURN AIR
RAD.	RADIUS
RD	ROOF DRAIN
RE.	RANGE (ELECTRIC)
REC.	RECOMMENDATION(S)
REF or F	REFRIGERATOR
REG.	REGISTER
REINF'D	REINFORCED
REINF'G	REINFORCING
REQ. or REQ'D	REQUIRE, REQUIRED
RES.	RESIDENTIAL
RET.	RETURN
REV.	REVISED
RG	RANGE (GAS)
R.H.	RIGHT HAND
RM.	ROOM
R.O.	ROUGH OPENING
ROW	RIGHT OF WAY
RS	ROUGHT SAWN
S	SOUTH
S4S	SURFACE FOUR SIDES
SAN.	SANITARY
S.B.	SAND BLAST
S.C.	SOLID CORE
SCHED	SCHEDULE
SD	SMOKE DETECTOR
SECT.	SECTION
SEP	SEPARATION
S.F. or SQ.FT.	SQUARE FOOT or FEET
SHT.	SHEET
SHGC	SOLAR HEAT GAIN COEFFICIENT
SIM.	SIMILAR
S.M.	SHEET METAL
SPEC	SPECIFICATIONS
SPKR.	SPEAKER
SPRK.	SPRINKLER
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
STRUCT.	STRUCTURAL
SUSP	SUSPENDED
SW	SWITCH
S.Y.	SQUARE YARD
SYM	SYMMETRICAL
THK	THICK
TEMP'D	TEMPERED
TRANS.	TRANSPARENT
T	TREAD(S)
T.O. or T/	TOP OF
TAN.	TANGENT
TELE	TELEPHONE
TELEP	TELEPHONE POLE
TEMP.	TEMPORARY
TER.	TERRAZZO
T&G	TONGUE AND GROOVE
THK	THICK
TV	TELEVISION
TYP.	TYPICAL
U.L.	UNDERWRITERS LABORATORIES
UNF.	UNFINISHED
U.N.O.	UNLESS NOTED OTHERWISE
V.	VOLT
VAR.	VARIES, VARIABLE
VB	VAPOR BARRIER
VCT	VINYL COMPOSITE TILE
VERT.	VERTICAL
VEST.	VESTIBULE
V.I.F.	VERIFY IN FIELD
V.T.	VINYL TILE
VTR	VENT THROUGH ROOF
W	WEST
WA	WASHER
W/	WITH
WC	WATER CLOSET
WD.	WOOD
W/D	WASHER DRYER
WDW.	WINDOW
WH	WATER HEATER
W.I.C.	WALK IN CLOSET
W/O	WITHOUT
WP	WHIRLPOOL TUB
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
H	HEIGHT
W	WIDTH
D	DEPTH
L	LENGTH
ASK	ARCHITECTURAL SKETCH
ATSK	ARCHITECTURAL TENANT SKETCH
CSK	CIVIL SKETCH
ESK	ELECTRICAL SKETCH
FPSK	FIRE PROTECTION SKETCH
LSK	LANDSCAPE SKETCH
MSK	MECHANICAL SKETCH
PSK	PLUMBING SKETCH
SSK	STRUCTURAL SKETCH

SYMBOLS



COLUMN CENTERLINE
DOOR TAG
WINDOW TAG
WALL TAG
REVISION BUBBLE
MATCH LINE
BUILDING SECTION
WALL SECTION
INTERIOR ELEVATION
EXTERIOR ELEVATION
DETAIL
STORY/ELEVATION MARKER
T/ CURB, T/ WALL, T/ SLAB PLAN ELEVATION MARKER
CEILING/SOFFIT ELEVATION MARKER
NEW CONSTRUCTION
EXISTING CONSTRUCTION TO BE DEMOLISHED
EXISTING CONSTRUCTION TO REMAIN
CENTER LINE
HIDDEN LINE
PROPERTY LINE
BREAK LINE
1HR FIRE RATING
2HR FIRE RATING
3HR FIRE RATING
4HR FIRE RATING
HIDDEN LINE
MAX. DIAG. DIMENSION
MAX. SEPARATION DISTANCE
EXIT ACCESS PATH
COMMON EGRESS PATH

MATERIALS



DETAILED SCALE
SIMPLE SCALE
DETAILED SCALE
SIMPLE SCALE
DETAILED SCALE
SIMPLE SCALE
WOOD/FINISH
PLYWOOD
RIGID INSULATION
BATT INSULATION
STEEL
ALUMINUM
BRONZE/BRASS
EARTH
GRANULAR FILL
SAND
CONCRETE
CMU
BRICK
GYPSUM

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date	5/24/24
sheet title	Symbols and Abbreviations
sheet number	A003

DIVISION 01: GENERAL REQUIREMENTS

GENERAL CONDITIONS NOTES

1. Verify all existing conditions, materials, dimensions and utilities in field prior to execution of the work.
2. Perform all cutting and patching and repair work as required to complete the project. Restore all surfaces to original conditions after installation of other work. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio. Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
3. All work and materials shall be in conformance with applicable building codes and local amendments.
4. General Contractor shall obtain and pay for all building permits required for completion of the project, arrange for all necessary inspections and make all required submittals.
5. Design/Build: Portions of the work indicate that work will be performed on a "Design Build" basis. In such cases, the Contractor shall be solely responsible for the complete design, engineering, and installation of such systems or equipment and shall warranty to the Owner that such work shall adequately meet the needs and requirements of the Owner and of the project as planned and its intended uses as well as comply completely with all applicable codes, ordinances and governing regulations. In no way shall a Design/Build arrangement limit the responsibility of the Contractor to complete his obligations to meet such needs and requirements. Design/Build shall include but not be limited to the following:
   - Fire Protection and Fire Sprinkler Systems
   - Fire Alarm Systems
   - Structural Metal Stud Framing (where required)
   - Booth Partition Steel Connections
6. Coordinate all work with other trades and with the Owner.
7. Submit shop drawings for approval for all shop fabricated construction.
8. Protect property and Owner operations from damage and/or deleterious activities. Repair any damage which may occur at once.
9. Report any discrepancies to the Architect in writing at once.
10. Provide all temporary lighting, power and heat as required to properly perform the work. Maintain temporary systems throughout the duration of the work or until permanent systems are completed.
11. All workers shall be insured in accordance with the project specifications.
12. Maintain the site in a clean and orderly manner. Remove all debris, excess materials, dirt, and similar items and properly dispose of off site.
13. Allowable unit stress and loading in accordance with local codes and existing building limitations.
14. Provide adequate shoring and bracing for work in progress.
15. New work shall be installed plumb, level and true, aligned as indicated with maximum elevations of 1/8" in a ten foot run. Shim existing surfaces to level floor finished and to plumb wall finishes.
16. Provide temporary signage and maintain same throughout duration of project including but not limited to the following:
    - Standpipes, siamese connections, and fire extinguishers.
    - Address, Building Permit copy and Emergency phone numbers at project entrance.

DIVISION 02: EXISTING CONDITIONS

DEMOLITION NOTES

1. Remove existing construction and perform demolition work where indicated on the drawings and required by job conditions and as necessary to prepare the site for the new work as further described in the project drawings.
2. Remove demolished items from the site and dispose of them in a legal manner.
3. Maintain exit and access ways in a clean, unobstructed, and properly illuminated manner at all times.
4. Protect existing construction, spaces and work, where indicated on the drawings to remain, free from dust and damage. Provide temporary enclosures to insure that no water leakage or damage occurs to the interior areas or structure. Maintain site in a closed and secured manner to prevent theft, vandalism, and unauthorized entry.
5. Demolition work shall include, but not be limited to the following:
   - Abandoned wiring, piping, conduits, fixtures, panels and devices.
   - Partitions and finishes as noted on plans and as needed to complete the work.
   - Clips, brackets, supports, hangers, etc. which are not a part of an assembly or structure to remain.
   - All signage, temporary enclosures, barricades, and clean-up work as needed to protect the building and its occupants.
6. Items to remain shall include:
   - Active utilities, services and systems serving areas not a part of this contract.
   - Doors, partitions, and finishes as indicated on plans.
   - All existing windows and exterior storefront.
   - Existing plaster finishes, as noted.
   - Existing sprinkler system fixtures, if utilized as part of new sprinkler system.
7. Cease operations and immediately notify the owner if the safety of existing construction appears to be endangered at any time. Take precautions to support such endangered construction and do not resume operations until authorized by the Architect.
8. The contractor shall be fully responsible for the adequacy and installation of all temporary shoring systems used during the removal of all structural elements, except, as otherwise agreed by the building dept. and the architect.
9. The drawings do not necessarily indicate the full extent of the work required to be performed. Inspect the existing construction carefully to determine the full extent of work to be performed and the problems involved. No extra compensation will be allowed because of failure to estimate the full extent of the work or for any contingencies in connection therewith.
10. All work shall be performed by skilled and properly equipped personnel. Demolition and removal of items scaffold high or higher shall be lowered by controlled methods, not by throwing or dropping, perform cutting and stripping so that the work to remain is undamaged and in such manner that the new work can be properly connected with it.
11. Demolish existing construction only to the extent necessary for the proper installation of new construction and junction with existing work cut back finished surfaces to straight, plumb and level as required.
12. Sawing shall be performed by experienced craftsmen customarily engaged in and properly equipped for the performance of the type of work required by job conditions. Provide wet vacuum equipment as required for control of waste cooling water.
13. Remove existing construction for installation of piping, conduit and tubing as required by mechanical and electrical trades.
14. Drilling and installing sleeves for passage of piping conduit and tubing shall be done by the trade installing the piping, conduit or tubing.
15. Repair, restore, replace or make good damage to existing construction which occurs as a result of demolition operations at no additional cost to the owner.
16. Do not allow materials and debris generated by demolition activities to accumulate, remove daily and dispose of in a legal matter. No on-site sale or burning of demolished materials will be permitted.
17. Leave all spaces broom clean with all ledges and corners properly cleaned.
18. Glass: Provide protection as may be required to prevent glass breakage at no additional cost, replace in kind all broken glass. Glazing broken during demolition and/or construction activities shall be replaced at no cost to the Owner.
19. Existing Work to Remain: Provide such forms of protection as may be necessary to prevent damage to existing work and equipment to remain.
20. Doors and Hardware: Remove carefully to avoid damage, insofar as possible, leave hardware attached to the door where this is not practical place items of hardware in a cloth bag attached to the door.
21. Partitions: Remove partition finish, studs, plates and sills. Where only a partial run is removed, cut back finish material to the center line of the next adjacent support to remain. Leave remaining material with a clean terminal line with no loose material adhering.
22. Mechanical, Electrical, Plumbing: Carefully review plans and determine lines to be removed and those to be kept active or to be reactivated. Protect lines to remain. Provide for minimum service interruption of lines to remain.
23. Remove fixtures and equipment as indicated, when indicated for reuse, clean, store as directed and protect. Identify point of reuse.
24. Remove existing floor finishes and prepare sub-surface to receive new floor as indicated (see finish schedule). Work shall be acceptable to the point that the finish will accept specified finish with no noticeable alteration having been made. Provide concrete topping and/or leveling where required.
25. All existing to remain items to be inspected & verified to be in good working condition. Clean completely for future use. Notify owner immediately if repair or replacement is required.
26. Verify existing space dimensions after demolition and verify location of all utilities to/through the space in field. Notify architect immediately with any discrepancies with plan.

DIVISION 05: METALS

STRUCTURAL STEEL NOTES

1. Structural steel shall be detailed, fabricated and erected in accordance with the AISC 'Specification for the Design, Fabrications and Erection of Structural Steel for Buildings' and the AISC 'Code of Standard Practice' with the exception of the following sections:
   - 1.2 (Definition of Architect/Engineer Only), 1.5, 3.1.4, 4.2, 7.6 (last line only) & 7.11.5.
2. Steel shall conform to the following ASTM Specifications:
   - Structural Shapes: A36
   - Steel Pipe: A53
   - Structural tubing: A 500 Grade B
3. Typical beam connections shall be standard AISC framed beam connections unless otherwise shown. All field connection shall be bolted with 3/4" diameter steel bolts conforming to ASTM Specification A 307, except where shown to be welded.
4. Provide government anchors for beams bearing on masonry where anchor bolts or other anchorages are not specified.

METAL AND STUD FRAMING NOTES

1. Comply with the recommendations of the Gypsum Construction Handbook, latest edition, for framing work unless more stringent requirements are specified in the Contract Documents.
2. Provide wood blocking at all door and window openings.
3. Provide double 20 gauge metal studs at all door jambs.
4. Rigidly attach all framing to building structure. Provide top track slip joints or expansion joints where noted.
5. Do not frame over expansion joints in building structure.
6. Do not anchor studs to top runner at gypsum board partitions. Maintain a 1/2" gap between runner and top of stud. Related drywall finish shall not be anchored to top track.
7. Layout wall prior to erection of framing. Report discrepancies or deviations to Architect in writing at once.
8. All dimensions are to face of drywall UNO. Millwork, tile finishes and similar items are not included in the dimension.
9. Where finishes are applied to only one face of framing, provide horizontal backer brace at mid-height to all studs.

DIVISION 06: WOOD AND PLASTICS

WOOD NOTES

1. Minimum lumber stress grade shall be as follows:
   - Douglas-Fir Larch No. 2 or Southern Pine No. 2 Medium Grain (fb single=1,200 and fb repetitive =1,400).
   - Maximum allowable moisture content shall be 19%.

BLOCKING NOTES

1. Drywall contractor shall provide all labor and materials for blocking and backing as indicated in the drawings. Blocking and backing shall be treated for fire resistance as required by code. Anchor all blocking and backing rigidly to building structure or partition framing.
2. Provide blocking and backing for items including, but not limited to the following:
   A. Toilet accessories, wall mounted bathroom accessories, and accommodations for grab-bars: Install blocking as required or recommended by accessory manufacturer. At accessible spaces, solid wood blocking and backing shall be installed at all bathroom accessories, wall hung sinks and cabinets, and shelving as required for compliance with governing Accessibility regulations. Solid blocking shall meet the loading requirements outlined in the governing Accessibility regulations.
   B. Cabinets, counters, millwork, coat hooks, wall-mounted televisions, and wall-hung art work: Provide blocking and backing as noted in drawings or per manufacturer's recommendations for application. If not specified, provide 2x4 horizontal blocking between studs at top and bottom of wall-mounted cabinets, counters, and millwork. If not noted or manufacturer does not provide recommendations, provide 3/4" plywood blocking for shelving, coat hooks, wall-mounted televisions, and wall hung art work.
   C. Plumbing fixtures, electrical equipment, security cameras and devices, and light fixtures. Provide blocking as required by drawings and per manufacturer's recommendations. Coordinate with other trades for size and location.

PLASTIC LAMINATE COUNTERTOP NOTES

1. Countertops shall be fabricated from particle board slabs 1" thick minimum.
2. Provide back painting or laminate backing on non-exposed face of countertops and backsplashes.
3. Scribe countertops to wall for 0" to 1/4" maximum joint width. Seal resulting joint with silicone sealant, color to match countertop. Provide scribe edge on back of backsplash.
4. Countertops shall be formed with eased edge post formed plastic laminate finish and integral 4" high backsplash at backside of counter.
5. Laminate on counter surface shall be without seams.
6. Provide cutouts for sinks, lavatories, and appliances. Seal edges or finish with plastic laminate material.
7. All plastic laminate work shall be anchored rigidly in place with concealed anchors.
8. Field measure for all countertops prior to fabrication and submit shop drawings for review.

DIVISION 07: THERMAL AND MOISTURE PROTECTION

INSULATION NOTES

1. Install insulation materials in accordance with manufacturer's recommendations. Fill cavities completely and tape joints between boards.
2. Fill gaps between jambs and framing with non-formaldehyde foam filler.
3. Insulate ducts and plumbing pipes subject to sweating. Refer to Mechanical drawings and notes for additional information
4. Provide thermal gaskets or seal air-tight all openings and penetrations through building envelope or between conditioned and unconditioned spaces including:
   - Electrical devices in exterior walls
   - Pipe penetrations
   - Recessed lighting (see electrical notes for additional information).

DIVISION 08: DOORS AND WINDOWS

DOOR NOTES

1. All hollow metal door frames shall be 16 gauge shop primed, and welded UNO. Provide silencers at all frames. Reinforce frames for heavy weight doors as required.
2. Provide blocking and jamb reinforcing as recommended by door frame manufacturer. Refer to framing details for additional requirements.
3. Provide door and frame hardware preparations in accordance with approved hardware submittals.
4. Hollow metal doors shall be shop primed with minimum 18-gauge face sheet metal, 1-3/4" thick UNO.

EXISTING ALUMINUM STOREFRONT, WINDOW, AND ENTRANCE DOOR NOTES

1. Verify existing materials, conditions, and sizes in the field.
2. Replace all broken glass. New glass shall match existing UNO.
3. Provide "FireLite" rated glass at all windows in fire-rated doors to match door rating.
4. Replace all defective or missing window hardware weather-stripping, and flashing. All operable units shall have locks.
5. Caulk, grout, and/or reglaze defective or missing sealants for weather-tight window assembly.
6. All glass, existing and new, shall be clean at time of substantial completion. Remove all tape, labels, paint, dirt and similar items.

HARDWARE NOTES

1. Provide thresholds for all exterior doors, neoprene weather-stripping, typical at heads, jambs, and sills.
2. Provide hardware compatible with door thickness, weight, and material.
3. All exterior doors and doors at tenant demising walls shall have pinned security hinges.
4. All doors shall have locks.
5. All doors shall have 1-1/2 pair hinges for sizes up to 3' x 7'. Larger sizes shall have two pair hinges. All exit doors shall have ball bearing hinges.
6. All double doors shall have top and bottom flush bolts with dust-proof strikes at inactive leaf.
7. Latch bolts shall have 5/8" throw at all latchsets and locksets.
8. Submit hardware component schedule for Architect's review.
9. All doors shall operate in the direction of exit travel without the use of keys.
10. Provide wall bumpers for all doors, where there is no wall adjacent to door to install wall bumper, provide floor bumper.
11. Provide door closers at all interior and exterior doors. Closers shall comply with the Handicap Accessibility Code for closing force.

DIVISION 09: FINISHES

FINISH NOTES

1. All finishes shall be Class 1, 0-25 Flame Spread Rating.
2. Clean and prepare prime surfaces in compliance with the finish materials manufacturer's instructions.
3. Provide a minimum of one (1) prime coat and two (2) finish coats for all painted surfaces, unless noted otherwise. Provide additional coats as may be required to completely cover and conceal substrates. For dark colors and deep clear colors, review final colors and cover with Architect and Owner, apply additional coats as needed until complete cover is achieved and approved by Architect and Owner. All ferrous metal surfaces shall be painted.
4. Do not paint over labels, factory finished metal trim, door hardware, electrical fixtures, equipment, sprinkler heads, or millwork assemblies UNO.
5. Provide a minimum of one gallon of attic stock paint for each color and finish in clearly labeled containers.
6. Paint all hollow metal doors semi-gloss alkyd enamel per Architect's color selection.
7. Existing ceiling and beams to remain exposed. Clean, prepare and paint per Architect's color selection.
8. Paint all exposed ductwork, conduits, and piping semi-gloss alkyd enamel UNO.
9. Provide touch-up painting to match existing paint colors and textures where infill or patch and repair work is required at existing construction.
10. All drywall surfaces shall be painted except where ceramic tile or a wall covering fabric is specified.
11. Provide corner and J-beads at all terminations and corners of gypsum board.
12. All closet/utility shelving shall be medium-density fiberboard with fiberface Grade 1. Provide oil base paint finish.
13. All dimensions to face of drywall UNO.
14. General Contractor shall coordinate final floor finish selections stair construction with existing stair constructions and flooring finishes existing to remain to obtain proper heights and transitions.
15. Review layout of stone, tile, and ceramic tile with Architect prior to installation. All grout lines shall align vertically and horizontally and at all intersections and corners.
16. Cementitious tile backer board shall be used for substrate sheathing at all vertical wall and horizontal ledges to be covered with ceramic tile, unless noted otherwise on the drawings. Provide back up wall framing and continuous edge support as recommended by the board manufacturer..
17. Provide blocking at all bathroom accessories, electrical locations, plumbing, etc., and as required for proper installation and support.
18. Provide thresholds and transitions as required or as noted at all floor material transitions.

DRYWALL NOTES

1. Provide all labor and materials necessary to complete the work in accordance with all applicable codes and governing ordinances.
2. All drywall shall be minimum 5/8" thick UNO.
3. Metal stud framing shall be minimum 25 gauge galvanized or painted sheet metal space maximum 24" O.C. UNO.
4. Comply with the recommendations of the Gypsum Construction Handbook published by the USG Corporation, latest edition, for methods and installation of metal framing and gypsum drywall systems.
5. Provide metal corner reinforcement trim at all outside corner conditions. Trim shall be USG-DUR-A-BEAD or equal.
6. Provide continuous bead of sound sealant at top and bottom of all sound related insulated partitions and at partition penetrations, including electrical openings.
7. Coordinate with other trades for installation of wood blocking.
8. Provide gypsum board edge trim, USG-801-A at exposed edges of all non-full height gypsum drywall partitions except where top of wall has drywall finish.
9. Finish drywall joints and conceal all fasteners using USG 'PERF-A-TAPE' system or equal. Apply finishing compound, sand, and repeat as needed to completely conceal all joints and fasteners.
10. Provide additional supports, brackets, ties, and framing as recommended or required for proper installation and rigid assembly.
11. Clean all surfaces and leave ready for paint. Remove all excess materials and debris from site.
12. Provide water resistant gypsum board at commercial kitchen, bathrooms, and other wet locations.
13. Drywall support systems and framing shall be of sufficient capacity and rigidity to support the assembly with a maximum deflection of L/240 where 'L' represents the length of the span. Deflection limit includes live loads and dead loads simultaneously imposed.

VINYL BASE TRIM AND FLOOR TILE NOTES

1. Verify existing conditions in field. Provide all necessary surface preparation as needed for installation of new work.
2. Where new floor finished are to be installed, provide new base trim.
3. Base trim shall be as follows UNO (see finish schedule and elevations for locations):
   - Tile areas: 4" cove vinyl base 1/8" gauge.
   - Concrete floors: 4" cove vinyl base 1/8" gauge.
4. Allow for individual color selection of base trim for each floor finish type. Base trim shall be as manufactured by VPI, Armstrong, or Roppe from standard colors. All vinyl base trim shall be roll vinyl base, do not use strip vinyl base in any location. Provide seams per manufacturer's recommendations. Seams should be minimized to the greatest extent possible and located in inconspicuous locations
5. Provide pre-formed or molded base trim and tile accessories.
6. Fill gaps between trim and irregular wall surface with manufacturer's recommended filler.
7. Install base trim and tile work with tightly butted joints and seams, mitered to fit with adjoining surfaces. Comply with manufacturer's recommendations for surface preparation and installation.
8. Clean tile surfaces and provide initial sealer polish finish at time of substantial completion.
9. Provide a minimum of 40 sf of tile and 20 lf base trim of each type to tenant for attic stock.

DIVISION 10: SPECIALTIES

FIRE PROTECTION SPECIALTIES NOTES

1. Refer to Division 21: Fire Suppression Notes, Mechanical, Electrical, and Fire Protection drawings.

DIVISION 11: EQUIPMENT

KITCHEN AND BAR EQUIPMENT NOTES

1. Coordinate all kitchen and bar appliance installation requirements and clearances with rough carpentry and millwork, VIF. Notify architect of discrepancies or conflicts immediately.
2. Refer to kitchen consultant drawings for specifications and details.

DIVISION 12: FURNISHINGS

FURNISHING NOTES

1. Coordinate placement of electrical and communications receptacles and distribution with approved furnishings plan.

DIVISION 21: FIRE SUPRESSION

FIRE PROTECTION NOTES

1. The fire protection work shall be executed on a Design Build basis as indicated in the Design Build section on this page and the notes on the Cover Sheet.
2. All work, materials, and methods shall be in strict accordance with rules and regulations of applicable local codes and regulations.
3. Verify all existing conditions, dimensions, and materials in the field.
4. Provide all permits, arrange for all inspections and pay all fees associated with the fire protection work.
5. Work shall comply with applicable code requirements, Owner's requirements, and approved architectural drawings. Refer to General Conditions for additional requirements.

DIVISION 22: PLUMBING

PLUMBING NOTES

1. See Plumbing Drawings for additional requirements. Provide all labor and materials for a complete plumbing system in accordance with all applicable codes. Inspect existing conditions and materials prior to submittal of bid.
2. Provide sleeves for piping through existing and new construction, and seal following pipework installation with U.L. approved fire rated sealant.
3. Arrange piping to permit equipment and fixture removal. Provide shut-off valves at all equipment and fixtures and as indicated on the Plumbing Drawings.
4. Pressure test all piping systems prior to concealment. Fix all leaks at once. Test duration shall be a minimum of one hour.
5. Where work involves the re-use of existing waste piping systems, contractor shall inspect and rod out all piping to provide a clean and freely operating drainage system in compliance with code requirements.
6. Provide equipment submittals to Architect for review. Submittals are required for all equipment, fixtures, faucets, and accessories. Adequately support all piping and fixtures. Provide expansion loops as required.
7. Provide water hammer prevention systems for water piping at each riser and at each fixture.
8. All water distribution shall be copper or galvanized steel pipe.
9. All waste and vent piping shall be provided as indicated on the Plumbing Drawings.
10. Provide code approved grease trap for kitchen and/or galley sinks.
11. Contractor shall protect all fixtures and faucets from damage throughout the duration of the project. Fixtures, faucets, and equipment shall be clean and free from damage and operational flaws at the time of project completion.
12. Provide all cutting and patching as required. Cutting of structural members such as floor joists, beams, trusses, etc. is not permitted without specific written approval from the Architect and/or Engineer.
13. Provide open site drain at all air conditioning coils for condensation.
14. Provide and install all gas piping, fittings and valves.

DIVISION 23: HVAC

ENVIRONMENTAL DESIGN STANDARDS

1. Refer to Mechanical Drawing for Environmental Design Standards.

HVAC NOTES

1. See Mechanical Drawings for additional requirements. Work shall comply with code requirements, Owner's program, and Environmental Design Standards indicated. Refer to General Conditions for other requirements.
2. The contractor shall inspect the job site for existing conditions and for coordination with all other trades and drawings. Claims for additional compensation due to existing conditions or coordination with other trade will not be given consideration.
3. Provide all cutting, patching, shoring and bracing as required.
4. Provide 1" sound lining 15 feet downstream of all air handling equipment. Insulate ducts as needed to prevent condensation.
5. Ductwork and piping shall be concealed, except as noted, run in straight parallel and/or perpendicular to the building construction and installed as high as possible.
6. Provide factory fabricated turning vanes in all square turn elbows.
7. Provide flexible connections at inlet and discharge of all fan powered equipment and as indicated on drawings.
8. Equipment noise level shall not exceed 55 DB at the lot lines.
9. All outside air intakes shall be installed a minimum of 15' from all exhaust outlets and/or contaminants.
10. Flexible ductwork shall be UL 181 type as approved by code and shall have a maximum length of 5'-0". Flexible ductwork shall not be run in locations where it may be exposed.
11. All expansion valves, devices, and connections shall be removed from the airstream of all mechanical equipment as per code requirements.
12. The contractor shall provide all labor, material, equipment and services required to furnish and install, test, and adjust all heating, ventilating, air conditioning systems, complete in all detail and ready for satisfactory operation.
13. The mechanical contractor shall furnish and install a safety relief valve designed to relieve and/or prevent the build-up of excessive refrigerant pressure within the direct expansion system. The pressure relief device shall be set at 400 PSI and shall be installed on the high temperature side at the discharge of the compressor and upstream of the compressor shut-off (stop) valve.
14. The mechanical contractor shall furnish and install a refrigerant relief discharge pipe. The discharge pipe outlet shall be installed a minimum of 12'-0" above the ground a minimum of 10' from any window and shall discharge through a turned down elbow.
15. All dampers shall be locking type.
16. Provide flashing and sealants for weather-tight penetrations thru exterior walls, foundations, or roof.
17. Flues for gas water heater equipment shall be U.L. rated 'B-vent' complete with supports, fire stops, and elbows. Maintain minimum 1" air space between flue and combustible materials.
18. Provide housekeeping pads and equipment supports as needed.
19. All filters shall be clean at time of project completion.

DIVISION 26: ELECTRICAL

ELECTRICAL NOTES

1. See Electrical Drawings for additional requirements.
2. Verify all existing conditions, dimensions and materials in the field. Report all discrepancies to Architect.
3. All conductors shall be copper. Minimum conductor size shall be #12 AWG. All conductors #10 and larger shall have THWN or THW rated insulation. All others shall have THWN.
4. All work and materials shall conform with the Ankeny Codes and other governing regulations.
5. Electrical contractor shall provide all permits and inspections and pay for all fees associated with this work.
6. All conduit shall be thin wall galvanized steel or intermediate wall galvanized steel conduit. Where conduit runs must be exposed, install against walls or ceilings. Install parallel to major building lines. Exposed conduit shall only be permitted in mechanical rooms UNO. All other conduit shall be concealed from view.
7. Ground all equipment and associated electrical work in accordance with code requirements.
8. Provide all lamps for fixtures. Provide all fuses and drivers.
9. Label circuit breakers and disconnect switches to identify equipment and devices controllers. Directories at panel shall be typed.
10. Balance circuit loads at panels as indicated on the Electrical Drawings.
11. Where penetrations for electrical devices occur on opposite sides of the same full height wall. Do NOT locate within the same stud space as a sound prevention measure.
12. Separate lighting circuits from receptacle circuits. Maximum permitted loads on circuits shall be as permitted by code and indicated in the Electrical Drawings.
13. 'Dedicated Circuit' shall be limited to outlets serving like pieces of equipment. 'Separate Circuit' shall serve a single outlet or piece of equipment.
14. All device trim plates shall be metal plates painted semi-gloss to match adjacent wall surface. Receptacle and switch to be as noted.
15. Unless noted otherwise in the Kitchen Drawings, Electrical Drawings, or Appliance Manufacturer's requirements. Provide a dedicated 20A circuit for countertop receptacles for kitchen counter appliances. Receptacles shall be rated for 20A each.
16. Locate electrical meter and panel as indicated on plans. Provide service entrance equipment, cable and conduit as required.
18. Provide conduit and cable for telephones and/or cable TV wiring system.
19. Provide all motorized entrance door equipment, connections and modular jacks with trim plates. Ground system in accordance with code requirements and those of the utility company.

DIVISION 32: EARTHWORK

SITEWORK & PAVING NOTES

1. Permits for all work will be provided by the Contractor.
2. The proposed improvements shall be constructed according to the ordinances and requirements of The District at Prairie Trail design guidelines.
3. Construction along existing roadways shall be coordinated with the City of Omaha to insure that the convenience and safety of the general public and of residences along the roadway shall be provided for in an adequate and satisfactory manner. At no time shall the existing roadways be closed to traffic unless approved by the City of Omaha.
4. The Contractor(s) shall be responsible for the installation and maintenance of adequate signs, barricade and warning devices to inform and protect the public. The cost of furnishing and maintaining signs, barricades and warning devices shall be incidental to the contract and no additional compensation will be allowed.
5. Provide all cutting, patching, shoring, and dewatering necessary to complete the work.
6. Earthwork:
   - Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of support and protection during earthwork operations. Should uncharted utilities be encountered during excavation, consult utility Owner immediately for directions. Existing utilities are to remain in effect during construction.
   - Uniformly grade areas within specified tolerances, compact with uniform levels or slopes between points where elevations are indicated and between such points and existing grades.
   - Determine extent of cut or fill required prior to submitting bid. Provide suitable fill and/or dispose of excess excavated material, waste, trash, and debris off site.

DIVISION 32: EXTERIOR IMPROVEMENTS

LANDSCAPING NOTES

1. Comply with the regulations and requirements of The District at Prairie Trail and the City of Ankeny design guidelines for all materials, plants and methods or installation.
2. Plant species shall be USDA for Zones 4 or 5 and have been raised at a nursery in a similar climatic zone. All plants shall be high grade quality nursery grown. 'Park Grade' plants are not acceptable. Comply with 'American Standard for Nursery Stock' ANSI Z60-1986.
3. Provide on-going maintenance of plant materials until final acceptance by the Owner. Owner shall provide maintenance of plants for a minimum of two years following initial planting. Maintenance shall include watering, fertilizing, weeding, plant replacement, and trimming.

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Architecture
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STATE OF MISSOURI
JEFF RENTERGHEM
NUMBER
A-2024000851
ARCHITECT

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief conform to the City of Lee's Summit Building Codes and Ordinances.

Name: Jeff Renterghem
License No.: A-2024000851
Exp: 12/31/2024

1

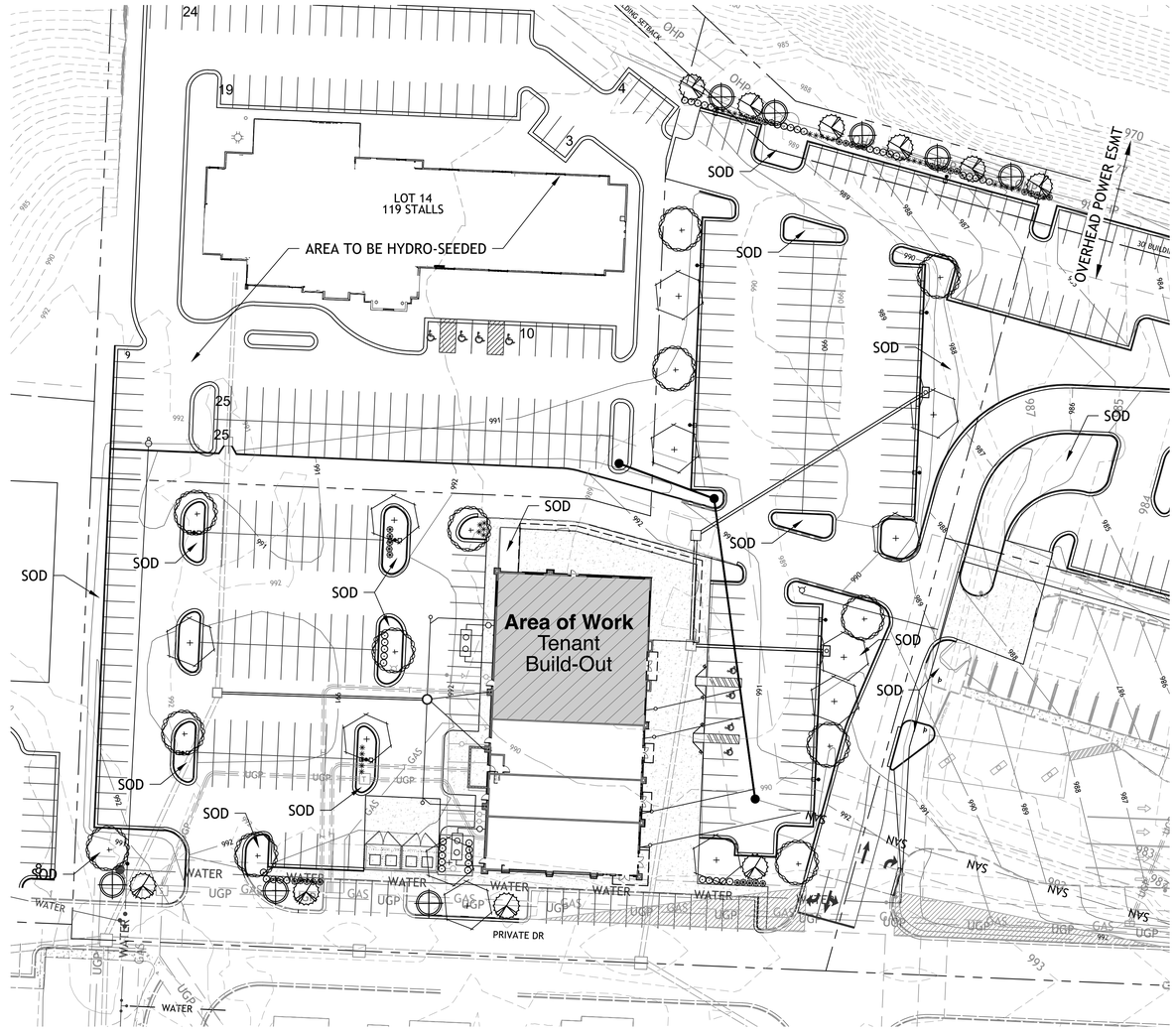
30hop
american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision

orientation

project number	232882
scale	As Noted
date	5/24/24
sheet title	General Notes
sheet number	A004



1 Site Plan - SOWP Lot 13

NOT TO SCALE 0 1/2" 1" 2"

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1	05.24.24	Permit Revision

orientation

project number	232882
scale	As Noted
date	5/24/24
sheet title	Site Plan
sheet number	A101

1 Seating Floor Plan

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

Seating Summary:

Total		
Location	Tables	Seats
Indoor Seating	79	254
Outdoor Seating	31	130
Total	110	384

Indoor Seating					
Type	Description	# of Type	Seats	Seat / Description	Seats / Type
Bar-Top	Bar-Top	36	1	36	36
2-Top	Two-Top (Low)	0	2	0	0
4-Top	Four-Top (Low)	8	4	32	88
	Four-Top (High)	5		20	
	Four-Top (Low Booths)	4		16	
	Four-Top (High Booths)	5		20	
6-Top	Six-Top (Low)	0	6	0	114
	Six-Top (High)	4		24	
	Six-Top (Low Booths)	4		24	
	Six-Top (High Booths)	11		66	
8-Top	Eight-Top (Low Booths)	1	8	8	8
	Eight-Top (High Booths)	1	8	8	8
Total		# of Tables		Total Seats	
		79		254	

Outdoor Seating					
Type	Description	# of Type	Seats	Seat / Description	Seats / Type
2-Top	Two-Top (Low)	14	2	28	28
4-Top	Four-Top (Low)	6	4	24	24
6-Top	Six-Top (Low)	6	6	36	36
8-Top	Eight-Top (High)	4	8	32	32
12-Top	Ten-Top (Low)	1	10	10	10
Total		# of Tables		Total Seats	
		31		130	

640 N Lasalle
Suite 400
Chicago Illinois 60654
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STATE OF MISSOURI
JEFF
RENTERGHEM
NUMBER
A-2024000851
ARCHITECT

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief conform to the City of Lee's Summit Building Codes and Ordinances.

Name: Jeff Renterghem
License No.: A-2024000851
Exp: 12/31/2024

30hop
american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision

orientation

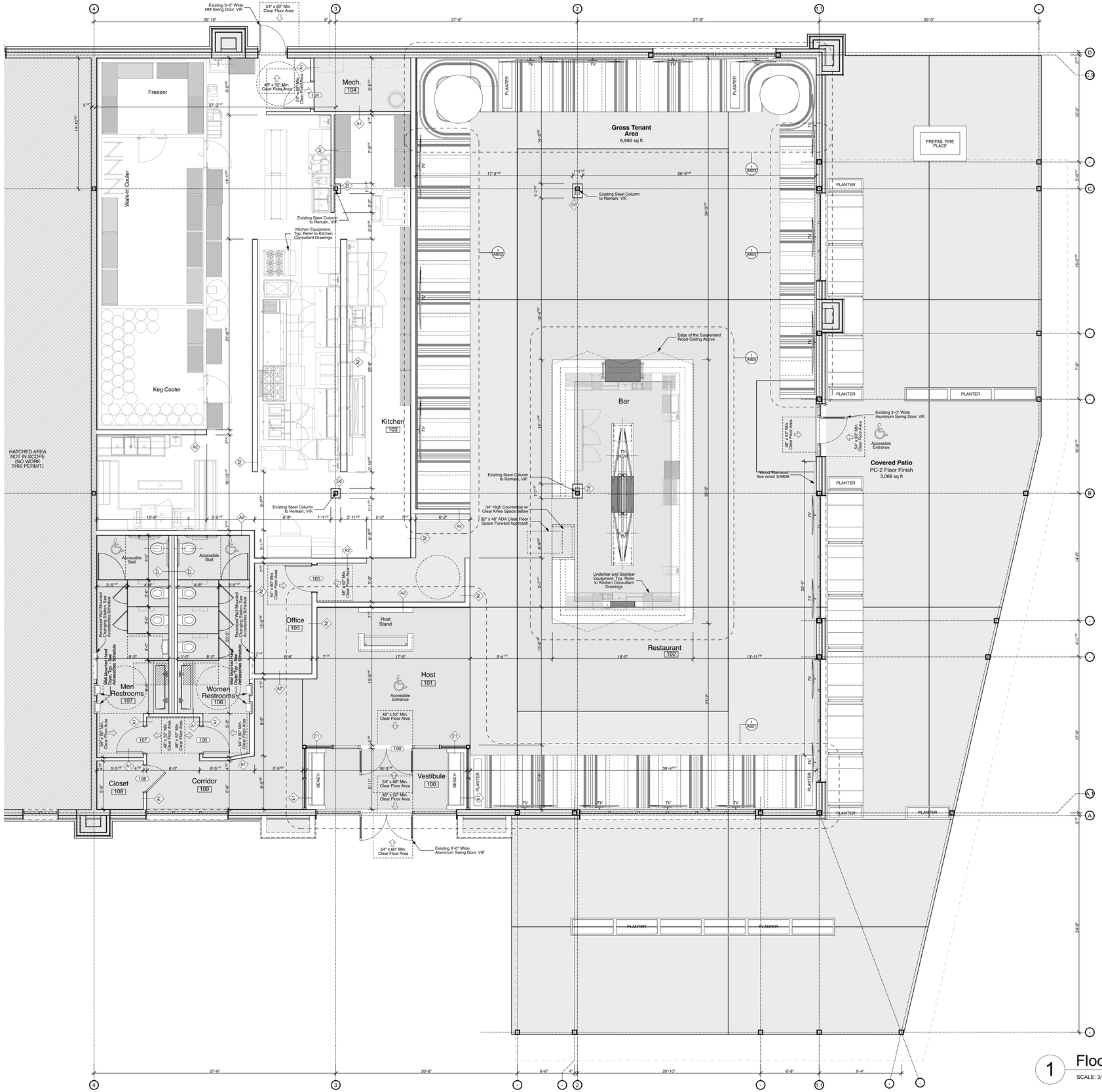
project number 232882

scale As Noted

date 5/24/24

sheet title Seating Floor Plan

sheet number A201



1 Floor Plan

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

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Exp: 12/31/2024

1

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american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision

orientation

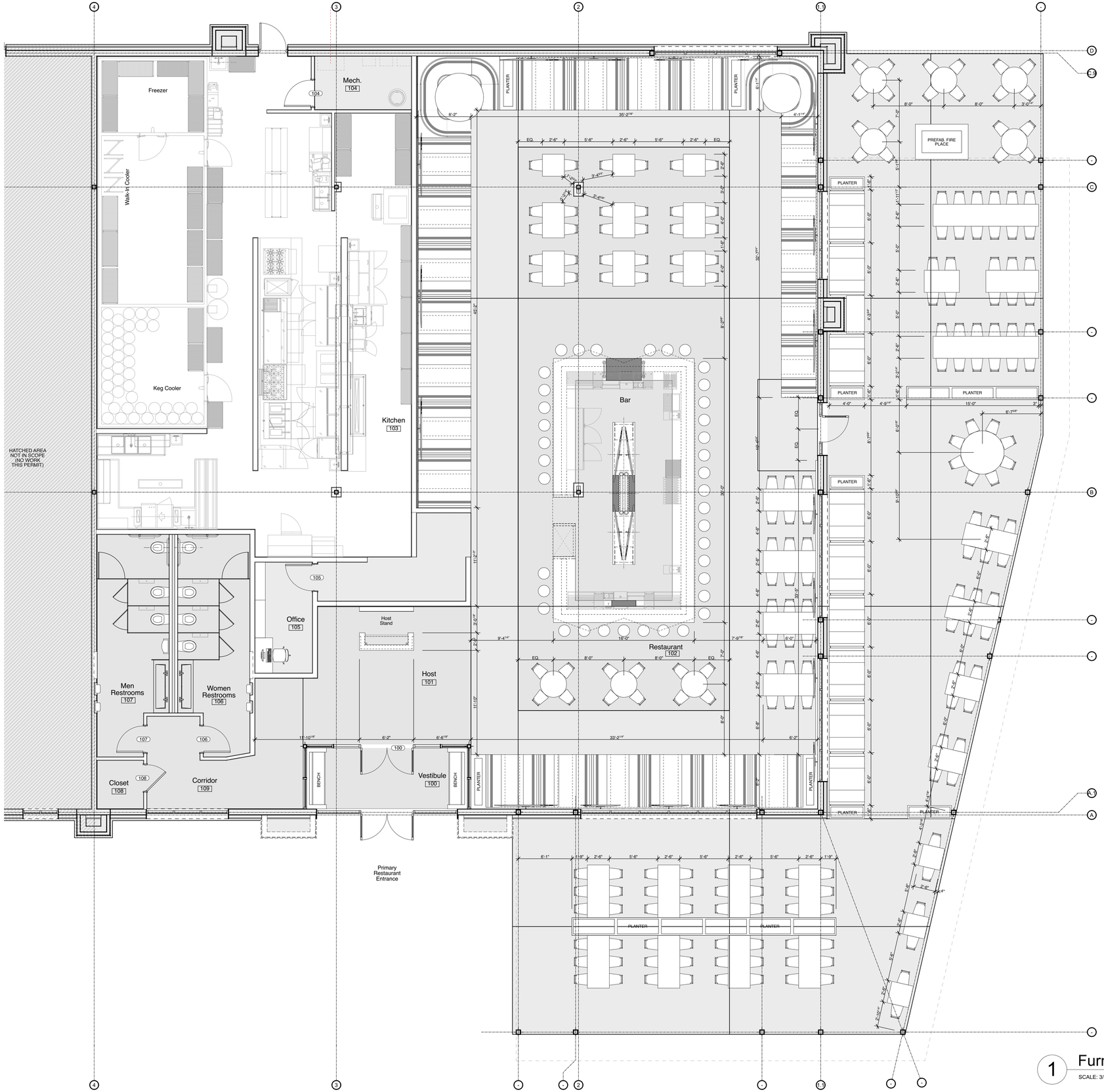
project number 232882

scale As Noted

date 5/24/24

sheet title Floor Plan

sheet number A202



1 Furniture Floor Plan

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

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Name: Jeff Renterghem
License No.: A-2024000851
Exp: 12/31/2024

1

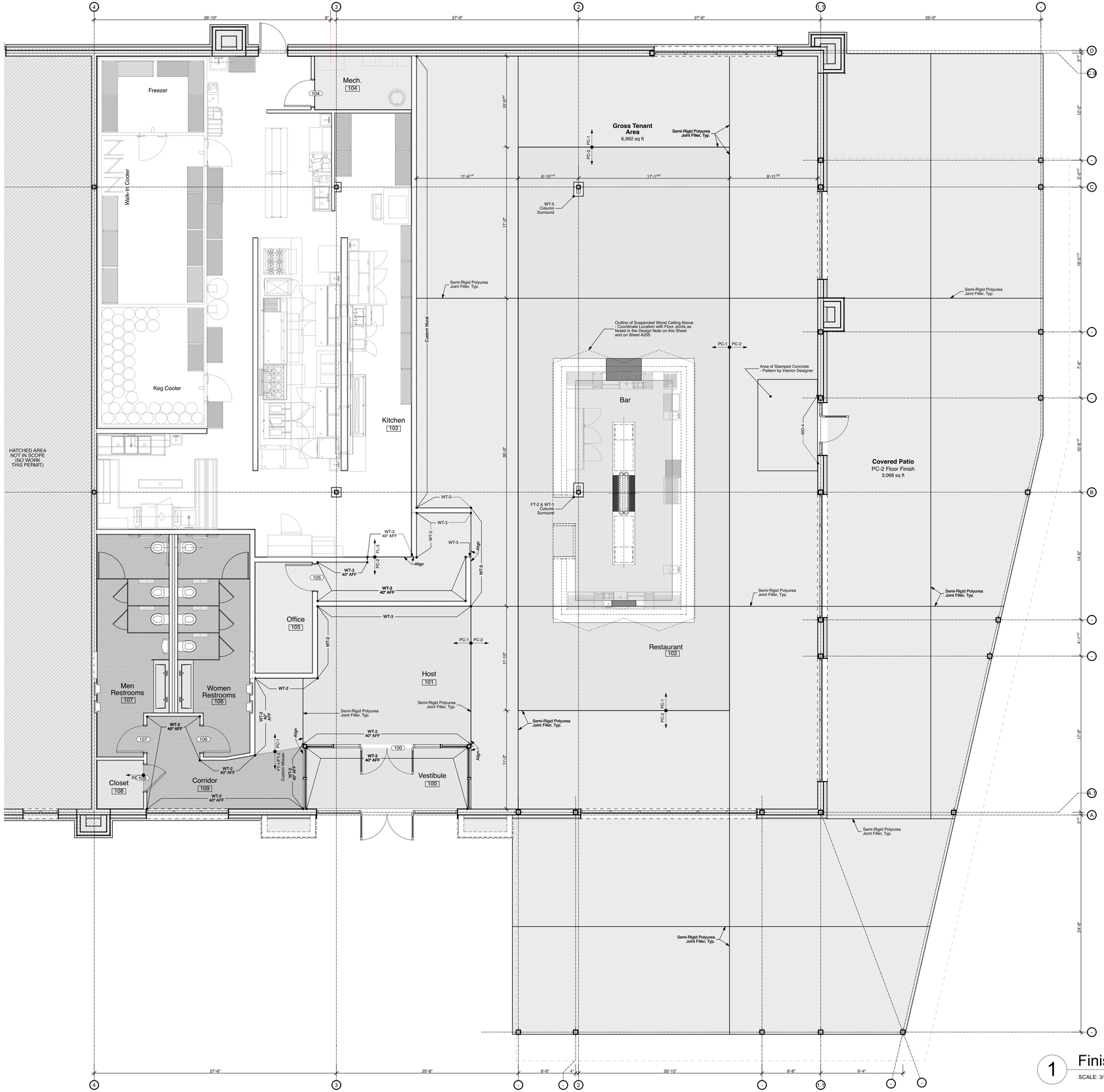
30hop
american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision

orientation

project number	232882
scale	As Noted
date	5/24/24
sheet title	Furniture Floor Plan
sheet number	A203



1 Finish Floor Plan

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

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Exp: 12/31/2024

1

30hop
american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision

orientation

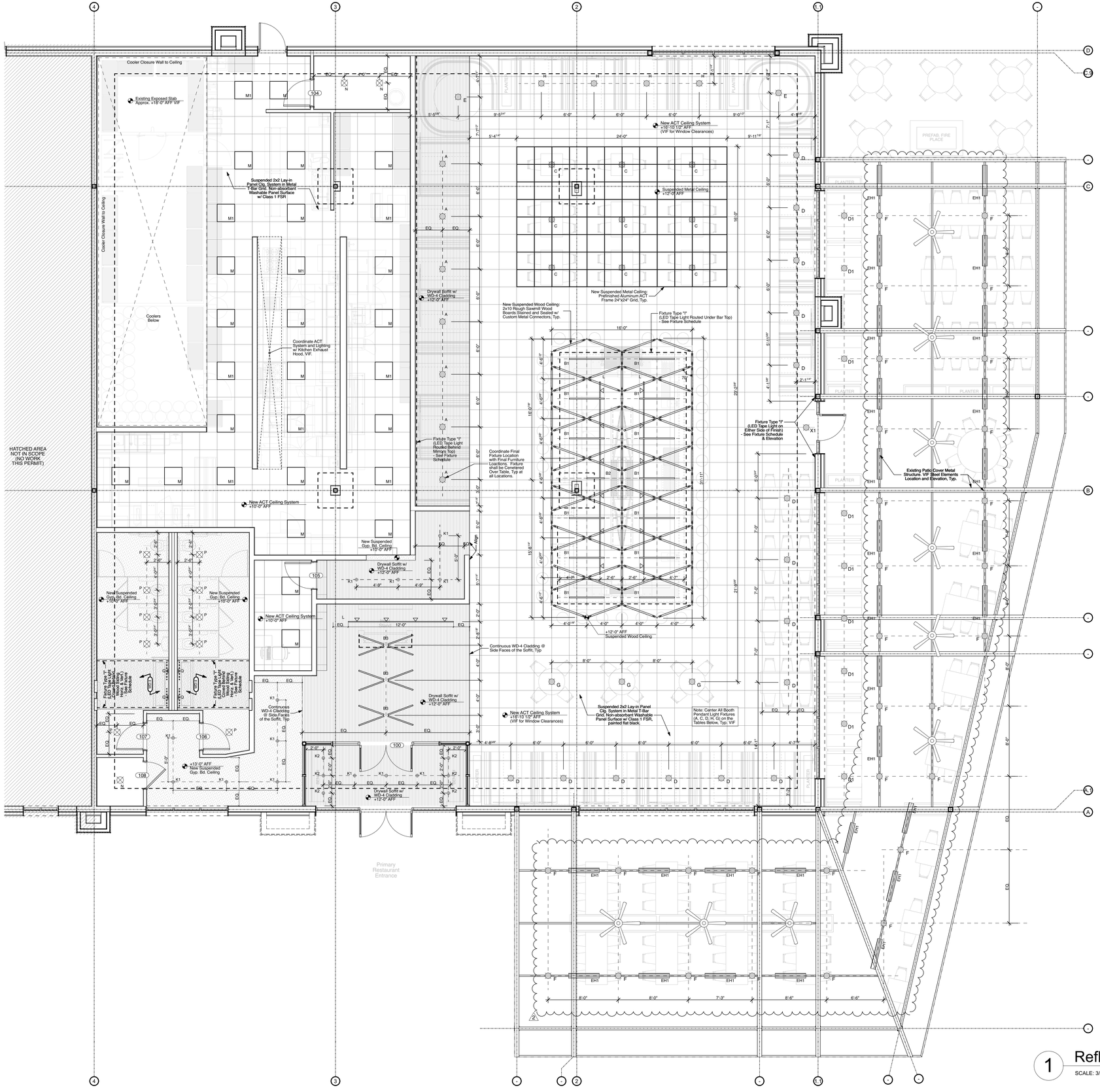
project number 232882

scale As Noted

date 5/24/24

sheet title Floor & Wall Finish Floor Plan

sheet number A204



1 Reflected Ceiling Plan

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

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NUMBER
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License No.: A-2024000851
Exp: 12/31/2024

30hop
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30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision
2	07.03.24	Permit Revision

orientation

project number 232882

scale As Noted

date 7/5/24

sheet title Reflected Ceiling Plan

sheet number A205

Room Finish Schedule

Room No	Room Name	Floor					Walls										Base			Ceiling						Ceiling Height	Remarks
		PC-1	PC-2	FL-1	FL-3	FT-1/FT-2	WT-1	WT-2	WT-3	WT-4	WP-1	FRP-1	PT-1	PT-2	PT-3	PT-4	WD-4	B-1	B-2	B-3	CLG-1	CLG-2	CLG-3	CLG-4	CLG-5	CLG-6		
100	Vestibule		X											X				X								X	12'-0"	
101	Host		X						X					X			X	X		X						X	12'-0"	
102	Restaurant & Bar	X	X	X				X						X		X	X	X	X	X			X	X	X	X	16'-10 1/2" VIF; 13'-8"; 12'-0"	
103	Kitchen				X							X				X		X							X		10'-0"	Provide Protect-All system with a minimum height of 8-0" to match FL-3 floor finish at the dishwasher area.
104	Mech		X										X					X			X						VIF	
105	Office	X											X					X			X						10'-0"	
106	Women's Restroom					X				X	X			X			X		X			X				X	10'-0"	Custom Mosaic by Interior Designer
107	Men's Restroom					X				X	X			X			X		X			X				X	10'-0"	Custom Mosaic by Interior Designer
108	Closet		X										X					X			X						VIF	

FIRE STOP SCHEDULE

REFER TO UL SYSTEM DETAILS FOR MORE INFORMATION

PENETRATED ASSEMBLY	SINGLE PIPE	MULTIPLE PIPES	INSULATED PIPES	MULTIPLE INSULATED PIPES	METAL DUCTWORK	METAL GREASE DUCT	ELECTRICAL BUS DUCT	CABLES
CONCRETE FLOOR SLAB	C-AJ-1175 2HR	C-AJ-1175 2, 3, 4HR	C-AJ-5001 1, 2, 3HR	C-AJ-5001 3HR	C-AJ-7018 2HR	C-AJ-7018 2HR	C-AJ-6002 3HR	C-AJ-3021 2HR C-AJ-3020
CMU WALL NON-BEARING	C-AJ-1175 2HR	C-AJ-1175 2, 3, 4HR	C-AJ-5001 1, 2, 3HR	C-AJ-5001 3HR	C-AJ-7018 2HR	C-AJ-7018 2HR	C-AJ-6002 3HR	C-AJ-3015 2HR
D.W. WALL NON-BEARING	W-L-7011 1, 2HR	W-L-8009 1, 2HR	W-L-5065 2HR	W-L-8010 1, 2HR	W-L-7012 1, 2HR		W-L-6002 2HR	W-L-3076 2HR W-L-3032 2HR W-J-3019 2HR

NOTES:

1. Refer to Underwriter's Fire Resistance Directory for Additional Assembly Requirements. Contractor shall provide Alternate Systems as Required to Suit Assembly & Penetrating Item.
2. Contractor may Submit Alternate Designs which Satisfy Project Requirements for Approval by the Architect.
3. System Shall Provide Firestop Rating Equal to or Greater than Partition or Floor Structure Fire Rating as Indicated on Plans or in Schedules.
4. Provide Accessory Sleeves, Braces, Forms, Supports and Frames as Needed to Complete the Firestop System per U.L. Design Specifications.
5. Seals at Floors shall be Watertight when provided in Parking Areas or at Exterior Conditions. Provide Supplementary Sealants or Gaskets as Required.

FIRE RESISTANCE SCHEDULE - MINIMUM PARTITION RATINGS

REQUIRED HOURLY SEPARATION REQUIREMENTS BETWEEN VARIOUS BUILDING USES	DWELLING	CORRIDOR	ELECTRICAL RM.	SWITCHGEAR / GENERATOR	STORAGE RM. (under 100sf)	STORAGE RM. (over 100sf)	STAIRS (Public)	ELEVATORS	TRASH CHUTE	SHAFTS (over 9sf)	PARKING / LOADING	RETAIL	BUSINESS	COLUMNS
DWELLING	1-HR													
CORRIDOR	1-HR	0												
ELECTRICAL RM.	2-HR	2-HR	2-HR											
SWITCHGEAR / GENERATOR	3-HR	3-HR	3-HR	3-HR										
STORAGE RM. (under 100sf)	1-HR	1-HR	2-HR	3-HR	1-HR									
STORAGE RM. (over 100sf)	2-HR	2-HR	2-HR	3-HR	2-HR	2-HR								
STAIRS (Public)	2-HR	2-HR	2-HR	3-HR	2-HR	2-HR	2-HR							
ELEVATORS	2-HR	2-HR	2-HR	3-HR	2-HR	2-HR	2-HR	0-HR						
TRASH CHUTE	2-HR	2-HR	2-HR	3-HR	2-HR	2-HR	2-HR	2-HR	0					
SHAFTS (over 9sf)	2-HR	2-HR	2-HR	3-HR	2-HR	2HR	2-HR	2-HR	2-HR	0				
PARKING / LOADING	3-HR	3-HR	3-HR	3-HR	3-HR	3HR	3-HR	3-HR	3-HR	3-HR	0			
RETAIL	1 HR	1-HR	2-HR	3-HR	1-HR	2HR	2-HR	2-HR	2-HR	2-HR	3-HR	0		
BUSINESS	1 HR	1-HR	2-HR	3-HR	1-HR	2HR	2-HR	2-HR	2-HR	2-HR	3-HR	1-HR	0	
COLUMNS (ROOF COLUMNS 2-HRS)	3-HR	3-HR	3-HR	3-HR	3-HR	3-HR	3-HR	3-HR	3-HR	3-HR	3-HR	3-HR	3-HR	

See plans and details for additional requirements.
Above ratings reflect minimum requirements to satisfy Code required fire ratings.
Plan indicated wall types or construction details may provide ratings higher than the above indicated minimums.

Notes:

1 HR Rated Fire Separation Required at Demising Partitions Between Units

2 HR Rated Fire Separation Required at Corridor and Stair Walls

4 Fire Stop Schedule

Door Schedule

Description			Door						Frame		Fire Rating	HDW	Notes
Door #	Type	Location	Size W	Size H	Size THK	Material	Glazing	Finish	Type	Finish			
100	A	Vestibule	3'-0"	7'-0"	2"	Aluminum Storefront	IGU, Tempere	Match Adjacent	Aluminum Storefront	Match Adjacent	NR	C-2	1
104	B	Mechanical	3'-0"	7'-0"	1 3/4"	HM	-	Ptd.	HM	Ptd.	NR	C-5	
105	B	Office	3'-0"	7'-0"	1 3/4"	HM	-	Ptd.	HM	Ptd.	NR	C-3	
106	B	Women's Toilet Room	3'-0"	7'-0"	1 3/4"	HM	-	Ptd.	HM	Ptd.	NR	C-1	
107	B	Men's Toilet Room	3'-0"	7'-0"	1 3/4"	HM	-	Ptd.	HM	Ptd.	NR	C-1	
108	B	Closet	3'-0"	7'-0"	1 3/4"	HM	-	Ptd.	HM	Ptd.	NR	C-4	

Note: All doors to open in the direction of egress travel unless noted otherwise, typical. Exterior Doors and Hardware by Others - Refer to Base Building Drawings.
* Coordinate with overhead door for door height and glazing divisions.

Hardware Set C-1

Door Type	Component	Remarks
Restroom (Multi-user)	Lockset	ADA Lever Style Handles
	Closer	ADA Compliant
	Hinges	
	Foot Pull	Hands Free Open from Interior
	Wall Stop	

Hardware Set C-2

Door Type	Component	Remarks
Vestibule Storefront	Lockset	Coordinate Locking Requirements with Owner
		Color Match Lockset to Door
	Door Pull	Pull Side of Door / ADA Compliant
	Push Bar	Full Width of Door
		Push Side of Door / ADA Compliant
	Closer	ADA Compliant
	Hinges	Continuous Geared Hinges - Color Match Door/Storefront.
	Door Sweep	
	Weatherstripping	
	Kickplate	10" (H) - Inside Only - Color Match Door / Storefront

Hardware Set C-3

Door Type	Component	Remarks
Office	Lockset	ADA Lever Style Handles
		Keyed both sides
	Closer	ADA Compliant
	Hinges	
	Wall Stop	

Hardware Set C-4

Door Type	Component	Remarks
Closet	Lockset	ADA Lever Style Handles
		Keyed outside
	Closer	ADA Compliant
	Hinges	
	Wall Stop	
	Kickplate	10" (H) - Inside Only

Hardware Set C-5

Door Type	Component	Remarks
Closet	Lockset	Provide Panic Hardware Exit Device in Direction of Egress. Lever Style Hardware in Direction of Ingress
		Keyed outside
	Closer	ADA Compliant
	Hinges	
	Wall Stop	
	Kickplate	10" (H) - Inside Only

1

3 Door & Hardware Schedules

SCALE: 1:0.94

Material Finish Schedule (Basis-of-Design)

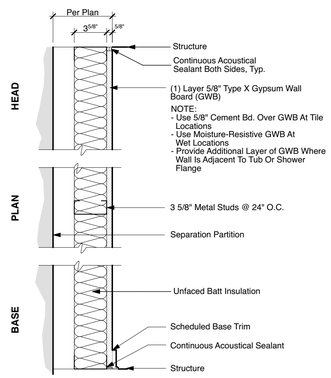
	Description	Location	Manufacturer	Product	Color / Finish	Notes
WALL FINISHES						
WT-1	Accent Tile (Bar Face)	Bar Face	Tile Bar	Tile Bar - Metal 0.75" Pennyround	Stainless Steel	Provide Samples/Mock-up for Owner review and approval See Int. Elevations for Tile Pattern
WT-2	Accent Tile (Planters/Entry)	Planters/Entry	Virginia Tile	WOW USA Sweet Bars - 4.6" x 4.6"	Olive Gloss - WOWSBOL55G	Provide Samples/Mock-up for Owner review and approval See Int. Elevations for Tile Pattern
WT-3	Wall Tile Panel	Host Wall Behind Sign	Virginia Tile	1 x 3 (M) X 5.6MM Tile	Laminam - Oxide Bianco	Vertical pattern; Align Joints
WT-4	Wall Tile (Restrooms)	Restrooms	Daltile	Colorwheel Linear - 2" x 8"	Matte Arctic White - 0790	
WT-5	Wall Tile Panel	Bar Column	Virginia Tile	1 x 3 (M) X 5.6MM Tile	Laminam - Oxide Nero	Vertical pattern; Align Joints
WP-1	Vinyl Wall Covering	Bathroom Walls	Dreamscapes	Custom Wallpaper / Graphic	Custom Graphic	Provide Level 5 Drywall Finish for Smooth Wall Covering Installation
WP-2	Vinyl Wall Covering	Booths	Koroglraphics Artist Canvas	Custom Wallpaper / Graphic	Custom Graphic	Provide Level 5 Drywall Finish for Smooth Wall Covering Installation
FRP-1	Fiber Reinforced Plastic	Kitchen Walls	Crane Composites	GlasBord Smooth Wall Panel	White I 85 - Kitchen Black I 1201 - Bar	Review final FRP colors and locations with Owner prior for approval
PT-1	Latex-Based Paint	Field Paint Color	Sherwin Williams	ProMar 200 Zero VOC	Iron Ore SW7069; Eg-Shel	Provide mock-ups in field for Owner review and approval
PT-2	Latex-Based Paint	Accent Paint Color	Sherwin Williams	ProMar 200 Zero VOC	Color Match: Coordinate with Interior Designer	Provide mock-ups in field for Owner review and approval
PT-3	Acrylic-Based Paint	HM Doors/Frames	Sherwin Williams	Pro-Industrial DTM Acrylic	Iron Ore SW 7069; Semi-Gloss	Provide mock-ups in field for Owner review and approval
PT-4	Acrylic-Based Paint	Exposed Steel (Columns, Channels, Etc.); HVAC	Sherwin Williams	Pro-Industrial DTM Acrylic	Tricorn Black SW6258; Semi-Gloss	Provide mock-ups in field for Owner review and approval
FLOOR FINISHES						
FT-1	Floor Tile (Mosaic)	Floor Mosaic	Daltile	Keystones - Pennyround Solid Colors	Matte Arctic White - D617	
FT-2	Floor Tile (Floor Mosaic / Bar Face)	Floor Mosaic / Bar Face	Daltile	Keystones - Pennyround Solid Colors	Matte Black - D311	
PC-1	Polished, Stained, and Sealed Concrete	Concrete Field Color	Ameripolish	-	White / Gray	Color to be reviewed and approved by Owner
PC-2	Polished, Stained, and Sealed Concrete	Concrete Accent Color	Ameripolish	-	Gray / Black	Color to be reviewed and approved by Owner
FL-1	Vinyl Sheet Flooring	Raised Booth Flooring	Tarkett	iQ Optima	TBD	
FL-3	Welded Vinyl Flooring	Kitchen	Protect-All Flooring	-	Light Gray	Provide Protect-All cove base system with a minimum height of 6" and manufacturer's recommend cove base cap
CEILING						
CLG-1	Spray-Applied Cellulose Acoustical Finish System	All Exposed Ceiling Surfaces	Soprema	Sonaspray FC	Black	Applied to underside of existing exposed composite floor/ ceiling slab and all other exposed ceiling surfaces.
CLG-2	Suspended Gypsum Board Ceiling	Restroom, Corridor, Soffits	-	-	-	Painted Finish
CLG-3	Suspended Painted Light Metal Open Frame	Central Dining Room	USG	GridWare Open Cell Decorative Suspension System	TBD	Ceiling cloud at central Dining Area, USG Gridware Open Cell Decorative System.
CLG-4	Suspended Custom Fabricated Wood Ceiling	Bar Area	-	-	See Details	Custom ceiling clouds; 2x10 rough sawmill wood bolted to metal connectors.
CLG-5	Suspended 2x2 Lay-in Panel Ceiling System in Metal T-Bar Grid	Kitchen, All Dinning Room & Bar	USG	Sheetrock Lay-In Ceiling Panel ClimaPlus	White	Non-Absorbant washable panel surface w/ Class 1 Flame Spread Rating Provide manufacturer's recommended tee grid, color to match ceiling tile
CLG-6	Reclaimed Wood - Slats Over Gyp Board Ceiling	Partially @ Dinning Room	TerraMai	Lost Coast Redwood Mini Slat Modular Panel	Factory Pre-finished	Provide samples for Owner review and approval.
BASE TRIM						
B-1	4" Vinyl Cove Base	-	Armstrong	-	R48MG - Metal Gray	Typical at Painted Walls.
B-2	4" Vinyl Cove Base	-	Armstrong	-	R41EB - Ebony	Typical at Bar Millwork
B-3	Stainless Steel Base Trim	Typical at All Booths, Banquettes & Millwork Knee Walls, and WD-4 Siding	-		Stainless Steel	Continuous at All Booths and Millwork Knee Walls
MILLWORK						
WD-1	Millwork Grade Veneer Plywood	See Interior Elevations / Details	-	Plain Sawn White Oak	Stained (Minwax Wood Finish Water-Based Semi-Transparent Color Stain, Walnut MW1213)	Provide at all exposed surfaces not indicated for other finish. All exposed edges and faces to be finished and stained. Provide samples for Owner review and approval.
WD-2	Solid Hardwood Trim	See Interior Elevations / Details	-	Plain Sawn White Oak	Match WD-1 color & finish	All exposed edges and faces to be finished and stained. Provide samples for Owner review and approval.
WD-3	Solid Hardwood Siding	See Interior Elevations / Details	-	Plain Sawn White Oak	Match WD-1 color & finish	Provide samples for Owner review and approval.
WD-4	Reclaimed Wood - Slats	See Interior Elevations / Details	TerraMai	Lost Coast Redwood Mini Slat Modular Panel	Factory Pre-finished	Provide samples for Owner review and approval.
LM-1	Laminate Particle Board	Bar Cabinets	Formica	Laminate Particle Board	909-SP Black	Provide mock-ups in field for Owner review and approval. Laminate all exposed edges to match panels.
LM-2	Laminate Particle Board	Back Bar Countertop	Formica	Laminate Particle Board	M2178 Brushed Stainless Steel	Provide mock-ups in field for Owner review and approval. Laminate all exposed edges to match panels.

Note: GC to confirm final finishes and finish locations with Owner and Interior Designer.

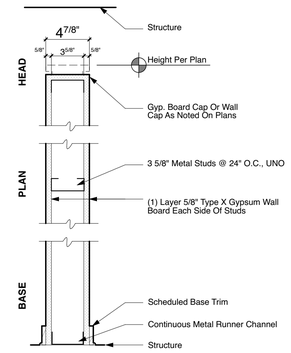
2 Material Finish Schedule

5 Room Finish Schedule

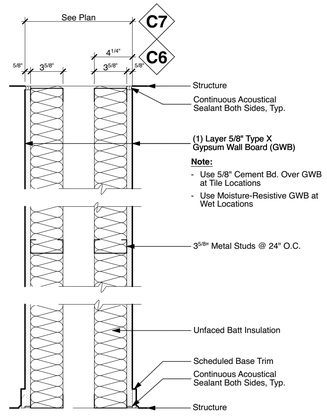
SCALE: 1:0.67



C6 Furred Partition
Non-Bearing
Not Rated

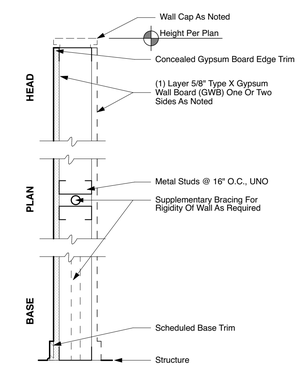


D1 Partial Height Partition
Non-Load Bearing
Non Rated



C7 Furred Plumbing Partition
Non-Bearing
Not Rated

C6 Furred Partition
Non-Bearing
Not Rated

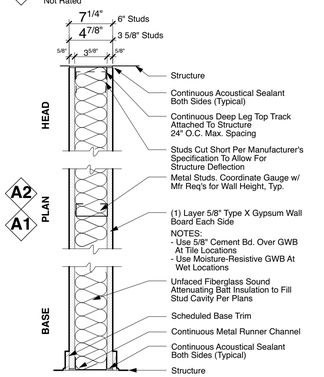


E1 Knee Wall - 1 Sided
3 5/8" Metal Studs With (1) Layer GWB On (1) Side Only - Not Rated

E2 Knee Wall - 2 Sided
3 5/8" Metal Studs With (1) Layer GWB Each Side - Not Rated

E3 Knee Wall - 1 Sided - 6" Studs
6" Metal Studs With (1) Layer GWB On (1) Side Only - Not Rated

E4 Knee Wall - 2 Sided - 6" Studs
6" Metal Studs With (1) Layer GWB Each Side - Not Rated



A1 Interior Partition
3 5/8" Metal Studs @ 24" O.C. With 5/8" GWB Each Side
Non-Load Bearing
Rating: UL #U419 - 1 Hour

A2 Interior Partition
Same As A1 With 6" Metal Studs @ 24" O.C.
Non-Load Bearing
Rating: UL #U419 - 1 Hour

Note: Provide 3/4" Plywood and Add'l Treated Wood Blocking at Back Bar as Req'd for Installation of Wall Mounted Tap Towers, Shelves, TVs, Etc.

1 Wall Types Schedule

SCALE: 1 1/2"= 1'-0" 0 6" 12" 18"

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1

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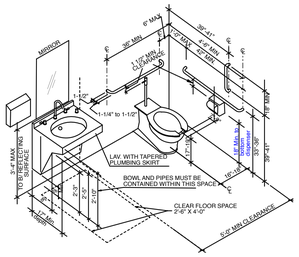
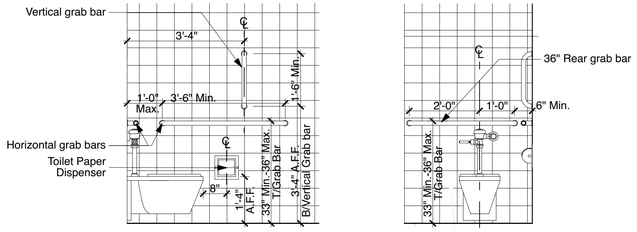
owner

	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision

orientation	
project number	232882
scale	As Noted
date	5/24/24
sheet title	Wall Types & Schedules
sheet number	A301

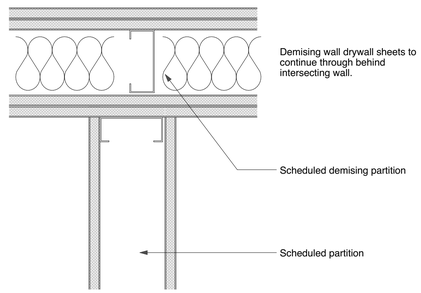




3 Typ. ADA Grab Bars and Mounting Heights

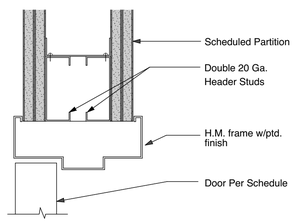
NOT TO SCALE

0 1/2" 1" 2"



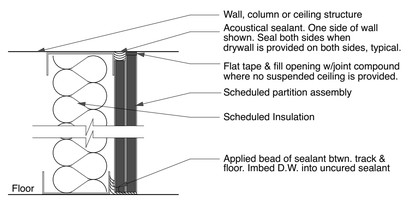
Corner Demising Detail - Typ.

NOT TO SCALE



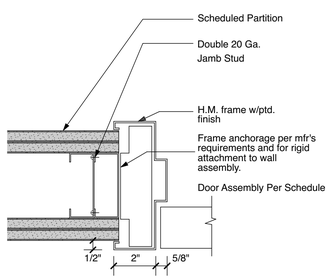
Typical H.M. Door Head Detail

NOT TO SCALE **For 'B' Label Assemblies or Better**



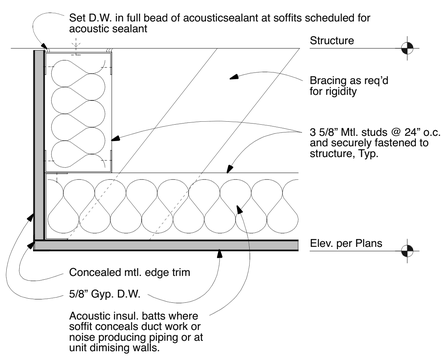
Acoustical Sealant Detail - Typ.

NOT TO SCALE **Typical installation @ Perimeter Demising Partitions**



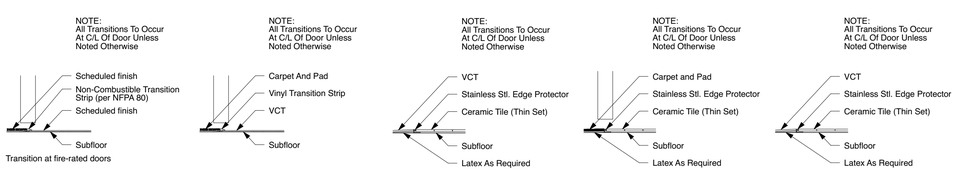
H. M. Entry Door Jamb Detail - Typ.

NOT TO SCALE



Non-Rated Soffit Framing Detail - Typ

NOT TO SCALE



4 Misc. Interior Details

SCALE: 1' = 1'-0"

0 1/2" 1" 2"

Plumbing Fixture Schedule

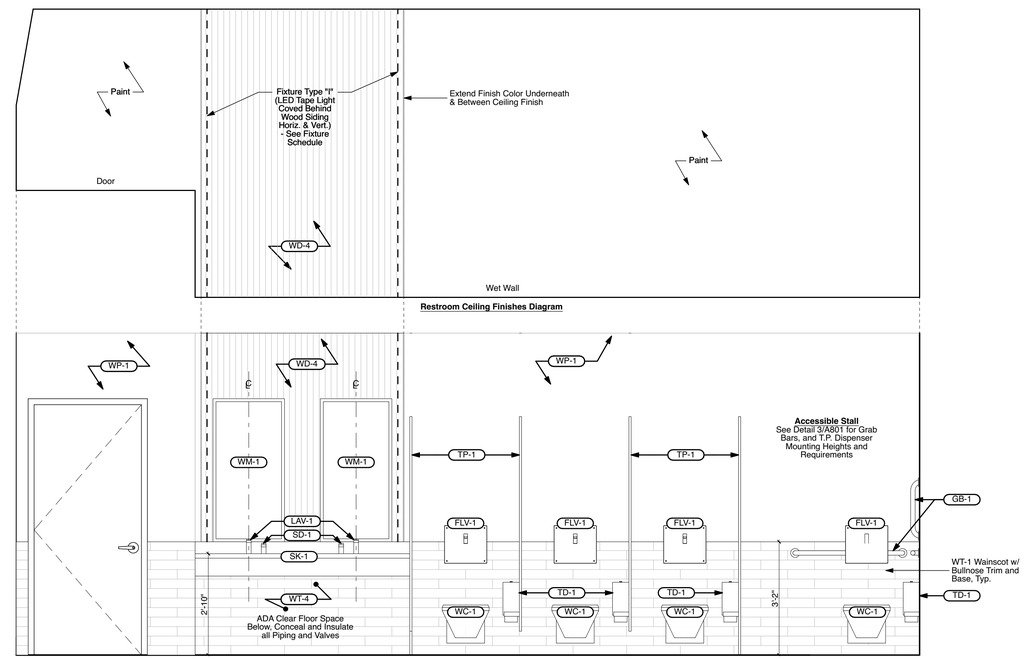
Plumbing Fixtures

Fixture			Style				Remarks
Tag	Type	Description	Manufacturer	Model Name / No.	Color/Finish	Size	
SK-1	Toilet Room Sinks (Women's, Men's)	2-Station Wall-Mounted. 72" Floating Concrete Ramp Sink w/ADA Shroud	Trueform Concrete	FLO-72V-ADA	TBD	72" X 22" X 5"	ADA compliant.
LAV-1	Bathroom Faucet	Hard Wired Sensor Operated Faucet	Sloan	EBF-85	Polished Chrome		ADA compliant.
WC-1	Toilet	Flushometer - Floor Mounted	Kohler	K-96057 Highcliff	White	Rim Height: 17"	Must be ADA compliant.
UR-1	Urinal	Flushometer - Wall Hanging	Kohler	4991-ET 'Bardon'	White	Rim Height: 17"	Must be ADA compliant.
FV-1	Flush Valves - Toilet	Top Spud	Sloan	111-1.6 SFSM	Polished Chrome	-	1.6 gpf. BatteryOperated with True Mechanical and Manual Override. Do Not Place Grab Bars in Front of Sensor.
FV-2	Flush Valves - Urinal	Exposed Urinal Flush Valve	Sloan	Royal 186-0.5 SFSM	Polished Chrome	-	0.5 gpf. BatteryOperated with True Mechanical and Manual Override.

Accessories

Fixture			Style				Remarks
Tag	Type	Description	Manufacturer	Model Name / No.	Color/Finish	Size	
SD-1	Soap Dispenser	Deck Mounted Battery Powered Soap Dispenser, No-Touch, Automatic	Sloan	ESD-800	Chrome		ADA Compliant
HD - 1	Hand Dryer	Surface Mounted Electric Hand Dryer, No-Touch, Automatic	Dyson	Airblade V	SS	15.51"H x 9.21"W x 4"D	Mount per ADA requirements 2 in ea. Women's and Men's Toilet Rooms
TD-1	Toilet Tissue Dispenser						Mount per ADA requirements
GB-1	Grab Bar	1-1/2" Dia. ADA Compliant Grab Bars	American Specialties, Inc.	-	SS	Varies, See Plan	Mount per ADA requirements Provide Blocking per ADA requirements
WM-1	Wall Mirror	Surface Mounted Lighted Mirror	Electric Mirror	Eminence LED Lighted Mirror	TBD	24"W x 36"H	Coordinate height of B/Mirror with ADA requirements See Light Fixture Schedule for Additional Requirements Provide Power to Mirror as Required by Manufacturer
TP-1	Toilet Partition System	Floor-Mounted, Overhead Braced Toilet Partition	ASI-Accurate Partitions	Integrated Privacy - Stainless Steel	SS	-	
CS-1	Baby Changing Station	Horizontal Recess Mounted	Koala Kare	KB110-SSRE	SS	37"W x 23'H x 4 1/4"D	Must be ADA compliant. Mounted in Family Restroom.

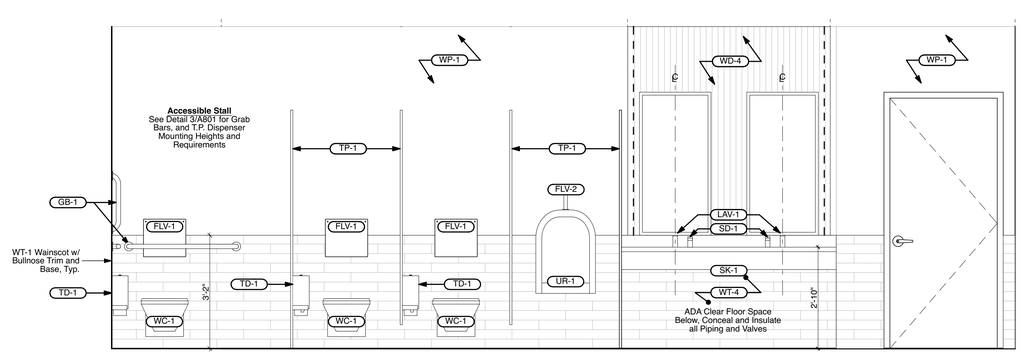
Note: All fixtures and Accessories must meet all National and Local Codes and ADA requirements. Provide Solid Blocking at all Wall Mounted Fixtures and Accessories for Secure Anchoring, verify Location w/ Manufacturer's Specifications. Clear Silicone Caulk Fixtures to Surfaces. Plumbing Fixtures for Base Building by others. Plumbing Fixtures for Kitchen by Kitchen Designer - contractor to coordinate with Kitchen Designer's approved Plans. Brewery Plumbing fixtures by others - contractor to coordinate w/ owner approved Brewery Plans.



2 Women Restroom Elevation

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

0 1' 2' 4'



1 Men Restroom Elevation

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

0 1' 2' 4'

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30hop SOWP
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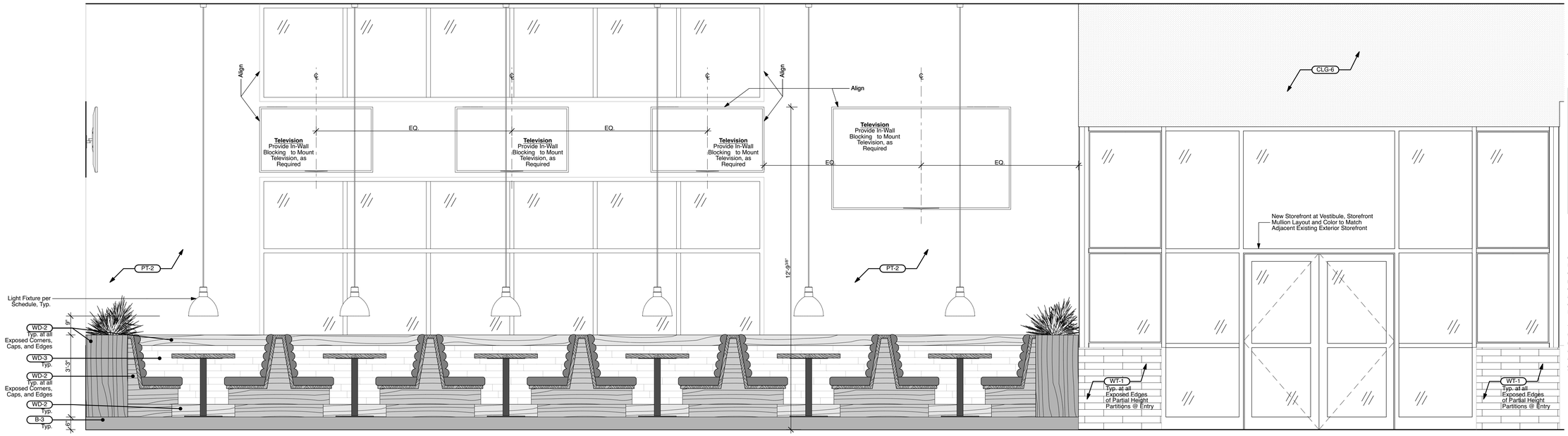
Lees Summit,MO 64081
30hop
owner

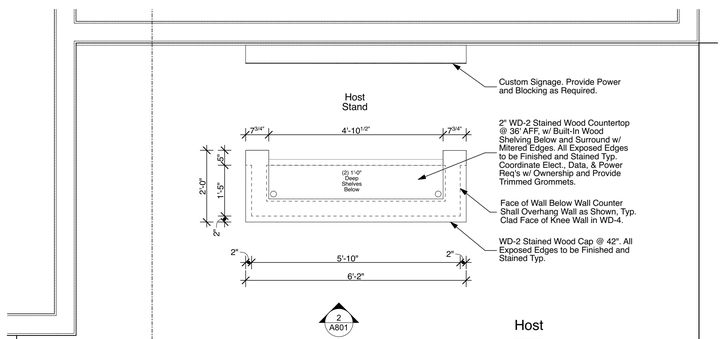
	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision

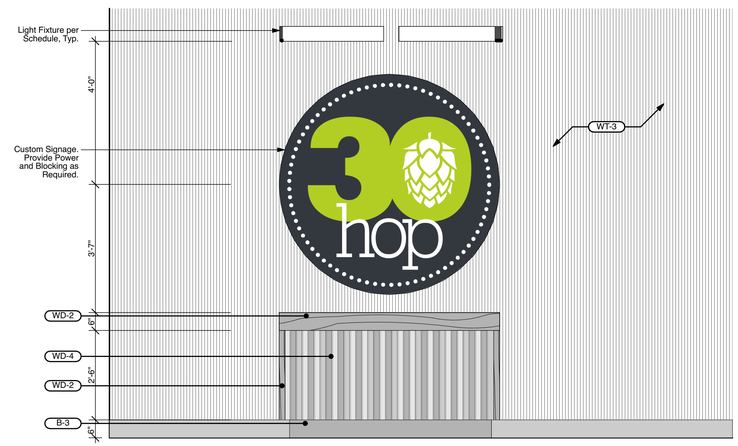
orientation	
project number	232882
scale	As Noted
date	5/24/24
sheet title	Interior Elevations
sheet number	A701



4 Raised Booths @ East

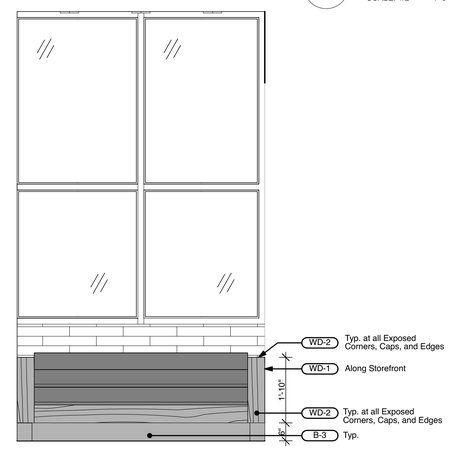
SCALE: 1/2" = 1'-0"





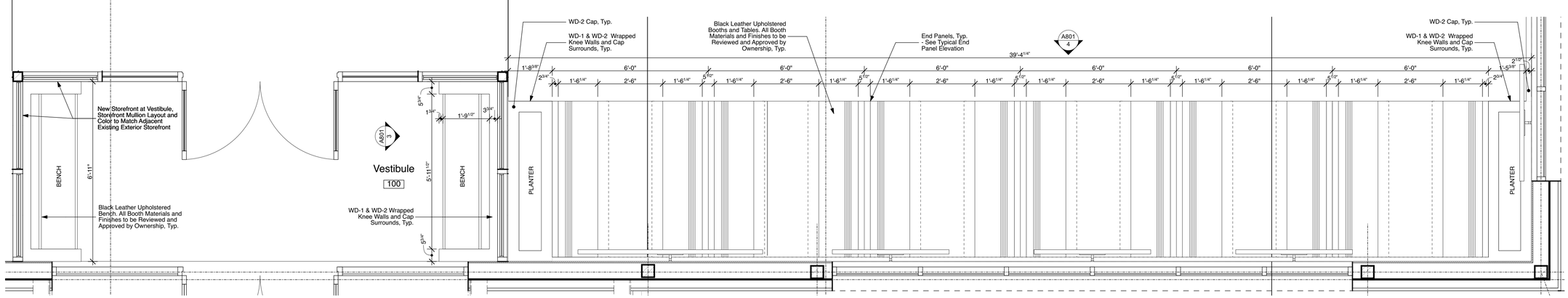
2 Host Stand @ Entry

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



3 Entry Vestibule

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



1 Floor Plan Details

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

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Lees Summit,MO 64081
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owner

	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision

orientation

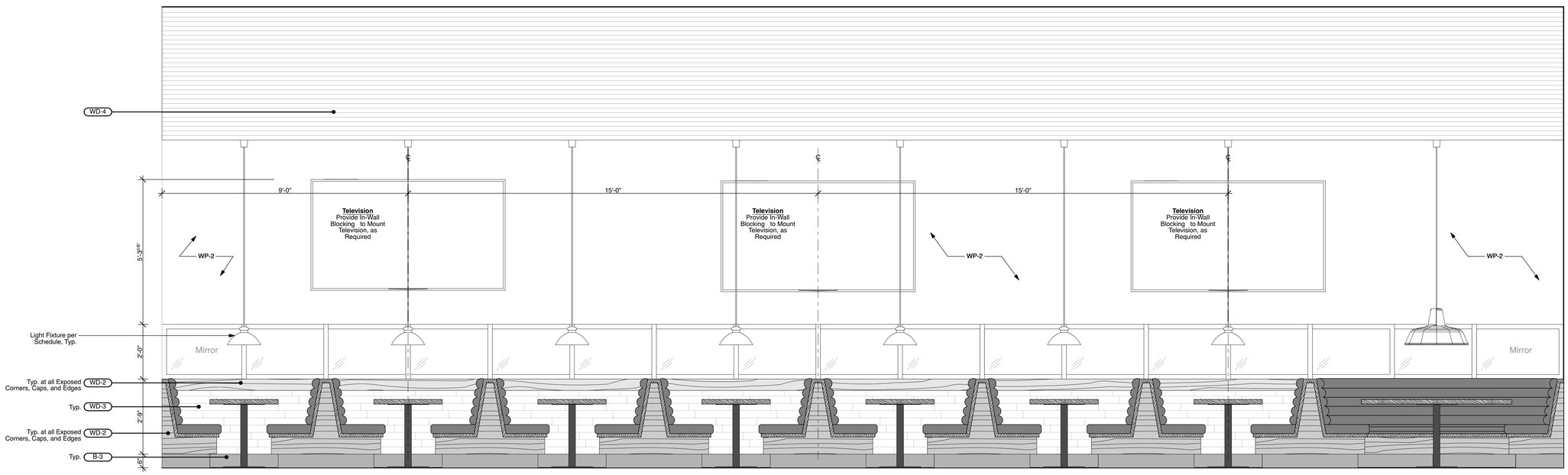
project number 232882

scale As Noted

date 5/24/24

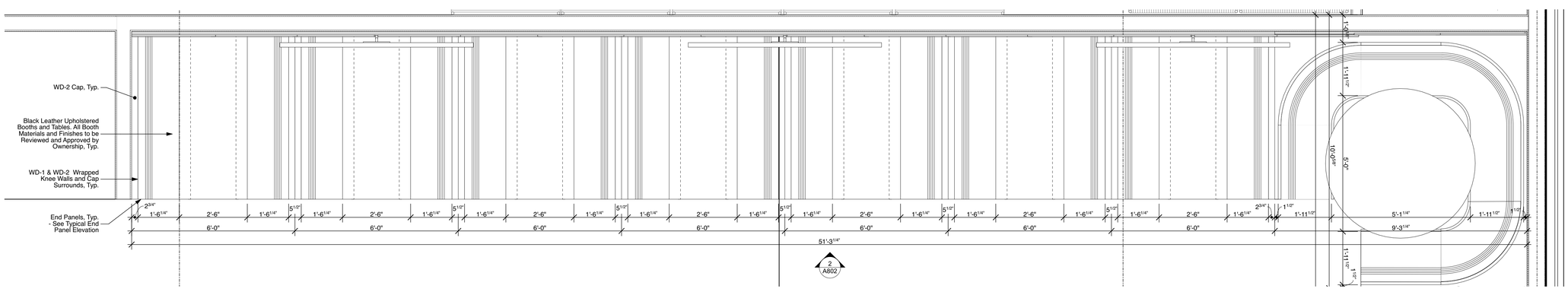
sheet title Millwork Plan Details & Elevations

sheet number A801



2 Low Booths @ South

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



1 Floor Plan Details

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

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	date	description
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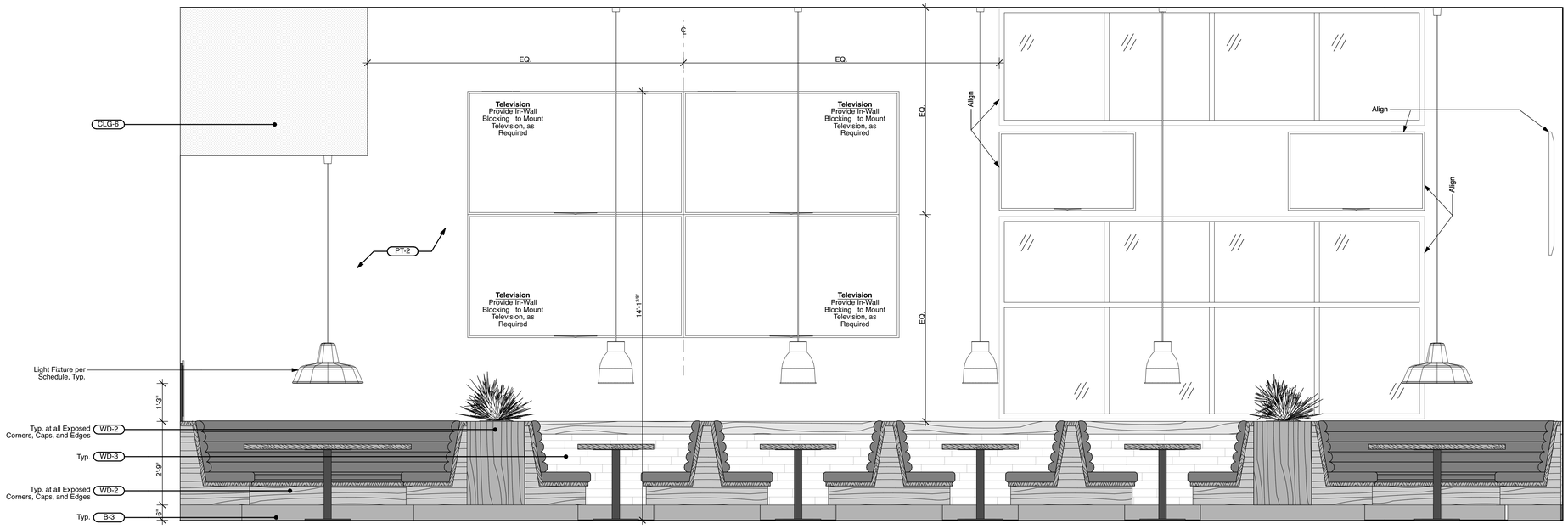
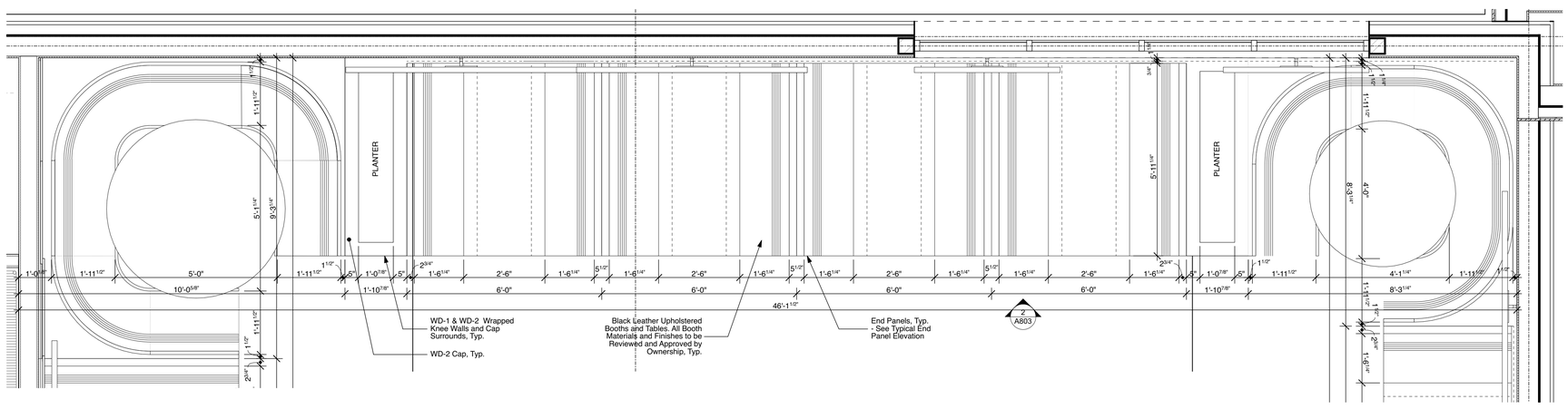
orientation	
project number	232882
scale	As Noted
date	5/24/24
sheet title	Millwork Plan Details & Elevations
sheet number	A802



2 Low Booths @ West

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



1 Floor Plan Details

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

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orientation

project number 232882

scale As Noted

date 5/24/24

sheet title Millwork Plan Details & Elevations

sheet number A803

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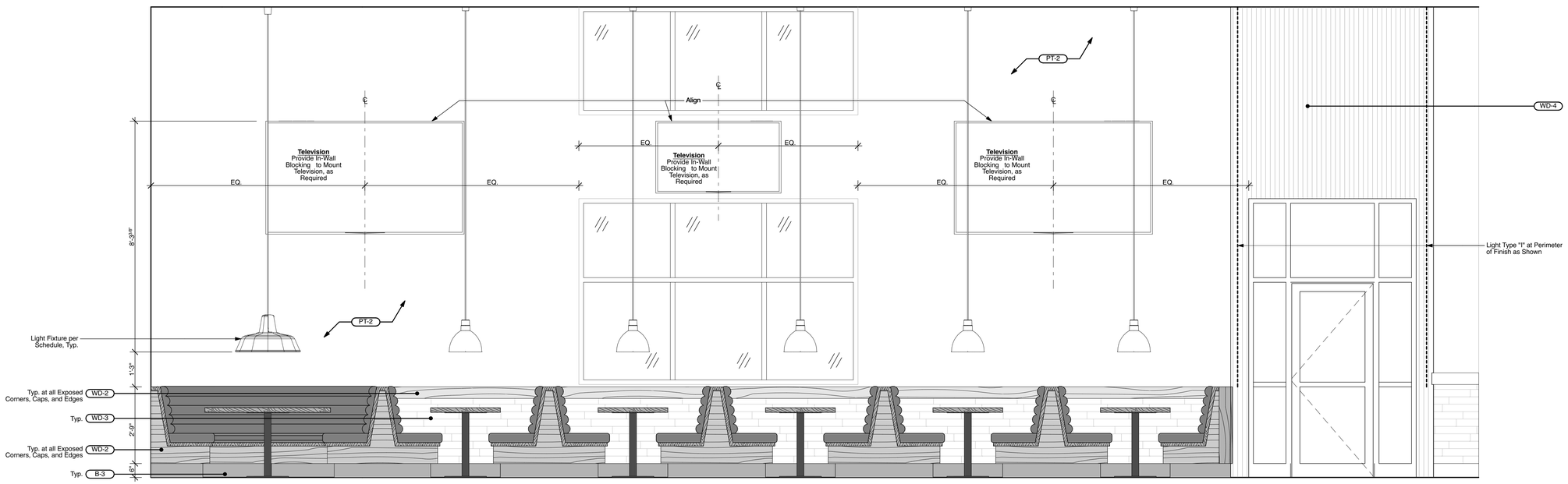
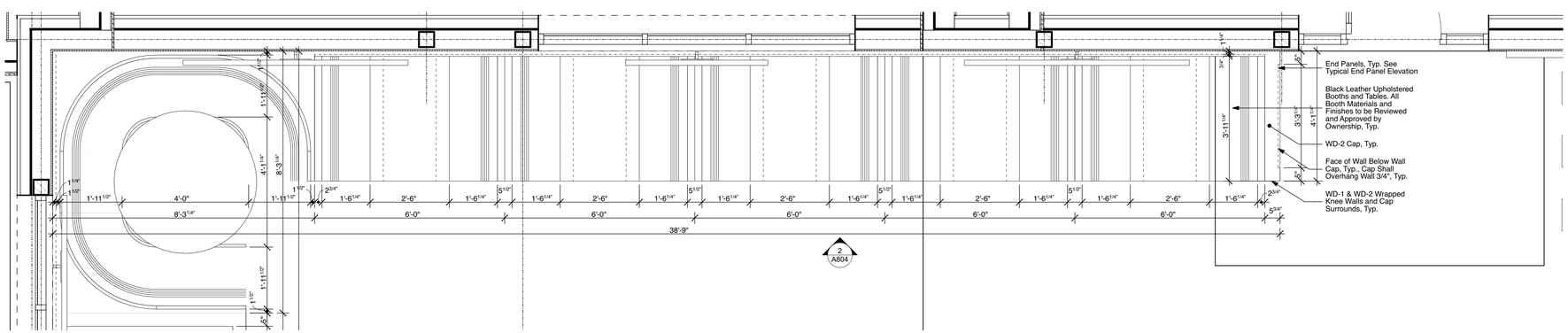
1



2 Low Booths @ North

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



1 Floor Plan Details

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

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	date	description
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orientation

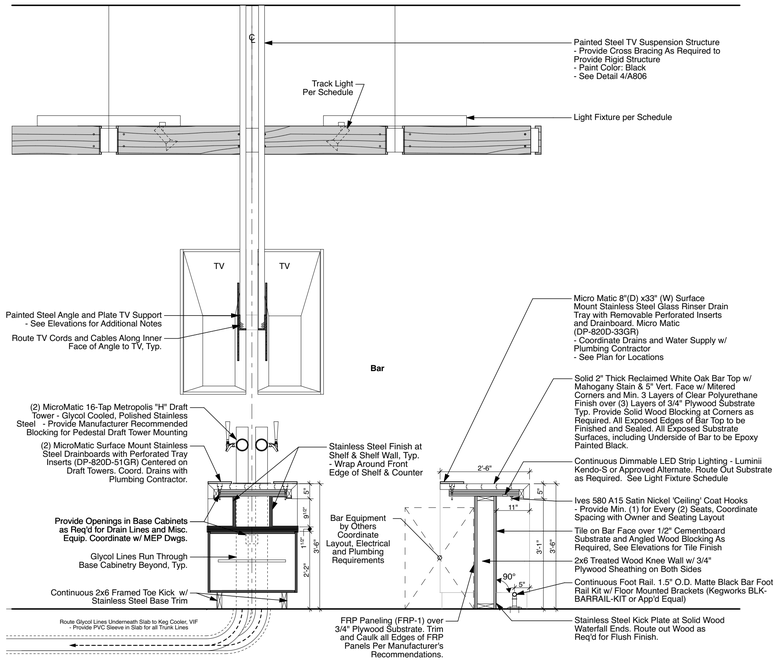
project number 232882

scale As Noted

date 5/24/24

sheet title Millwork Plan Details & Elevations

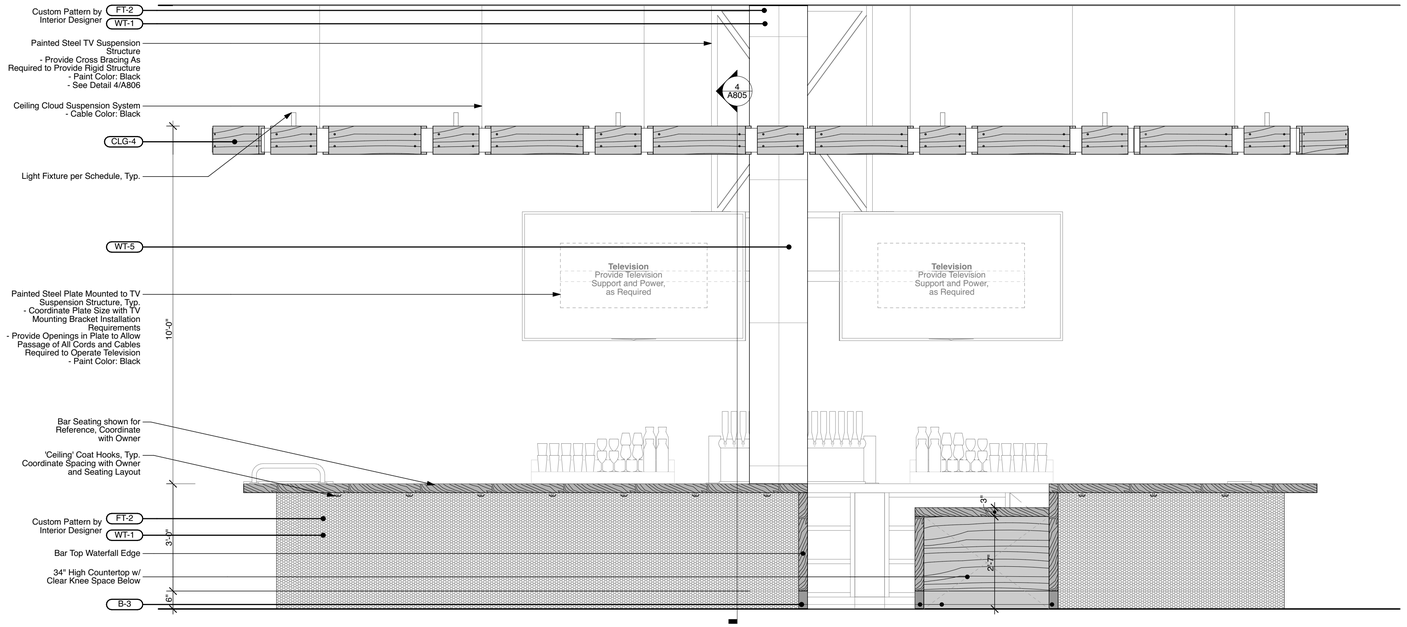
sheet number A804



4 Bar Section Details

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

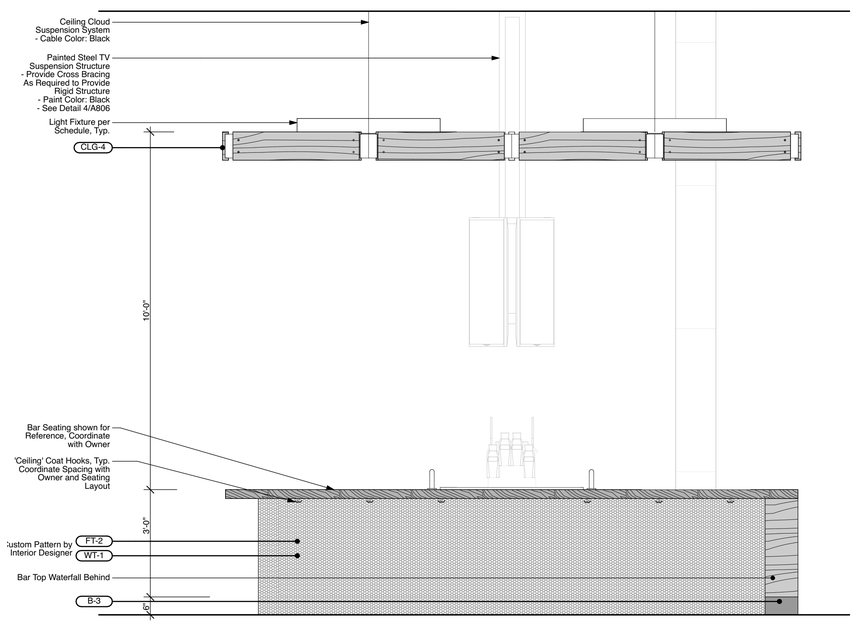
0 1' 2' 4'



2 Bar Seating - Front Elev.

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

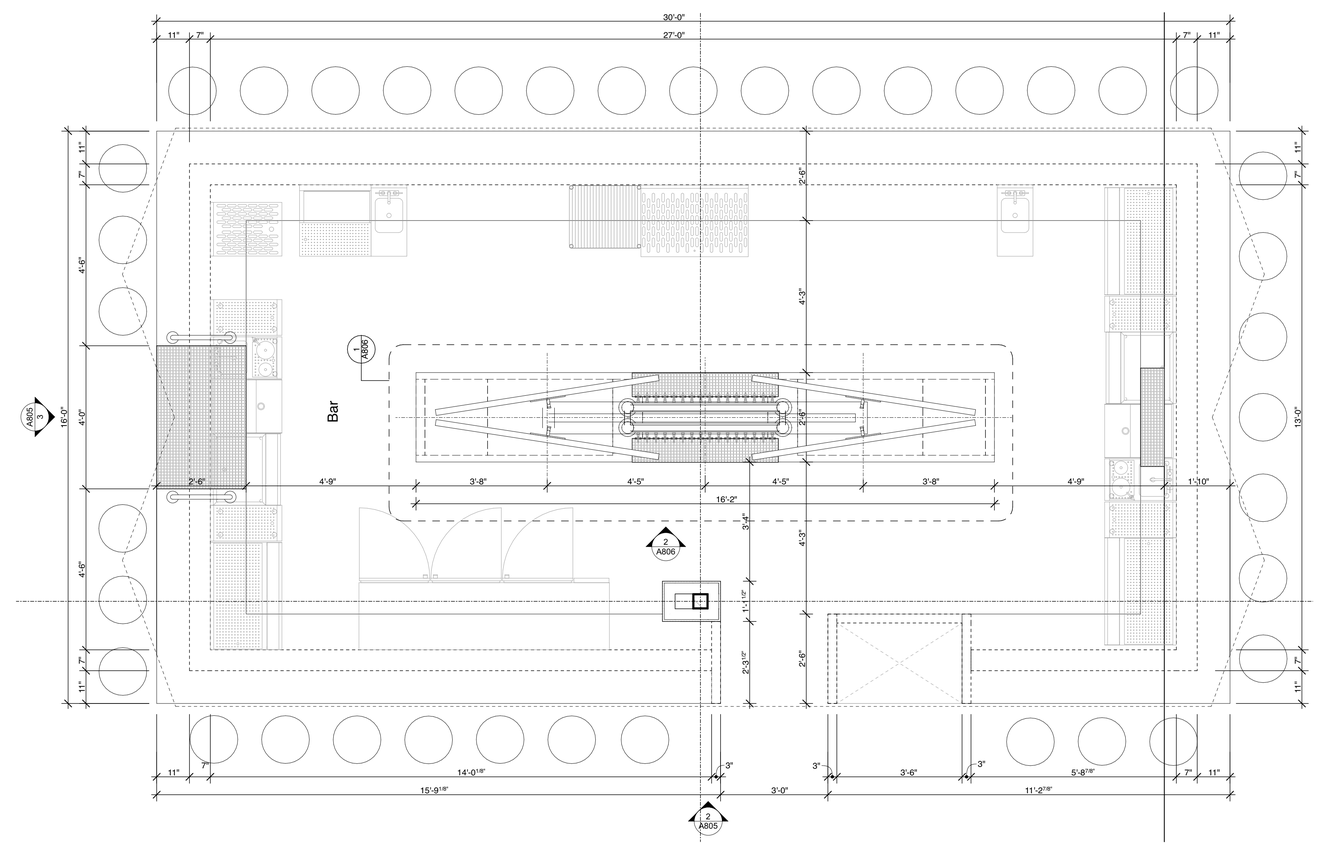
0 1' 2' 4'



3 Bar Seating - Side

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

0 1' 2' 4'



1 Floor Plan Details

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

0 1' 2' 4'

640 N Lasalle
Suite 400
Chicago Illinois 60654

312 337 3344

Architecture
Urban Planning

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STATE OF MISSOURI
JEFF RENTERGHEM
NUMBER
A-2024000851
ARCHITECT

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief conform to the City of Lee's Summit Building Codes and Ordinances.

Name: Jeff Renterghem
License No.: A-2024000851
Exp: 12/31/2024

30hop
american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit
1	05.24.24	Permit Revision

orientation

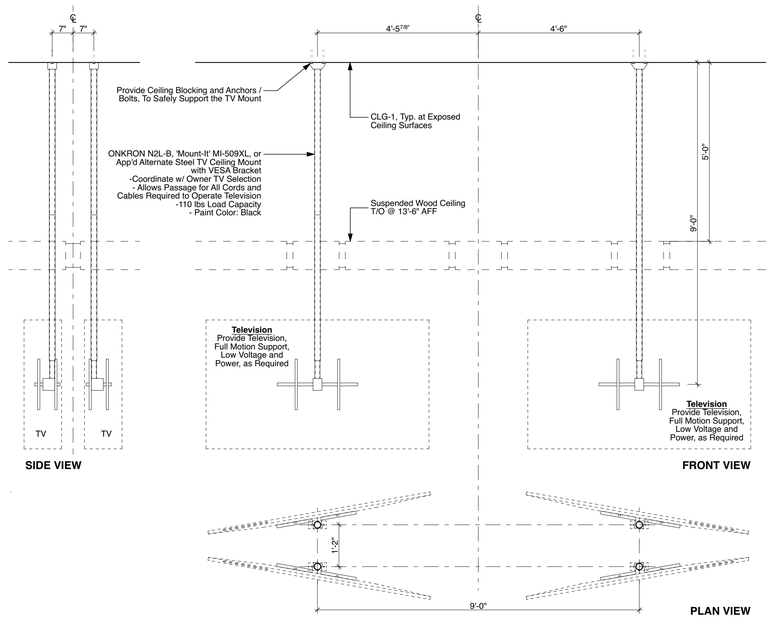
project number 232882

scale As Noted

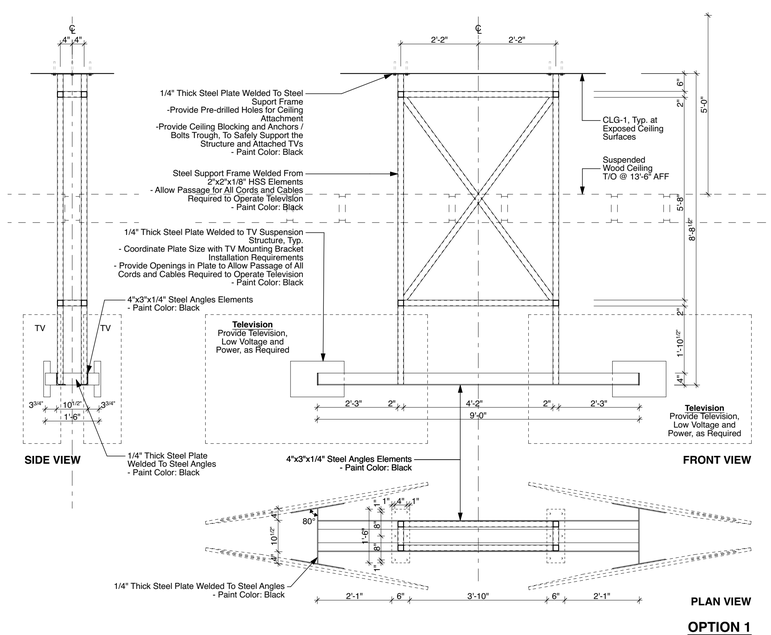
date 5/24/24

sheet title Millwork Plan Details & Elevations

sheet number A805



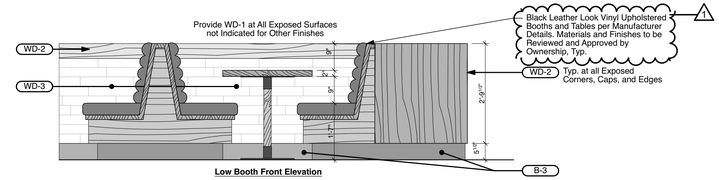
OPTION 2



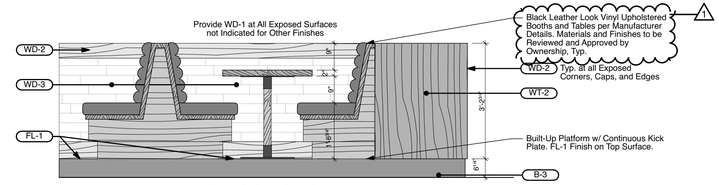
OPTION 1

4 Bar TV Mount

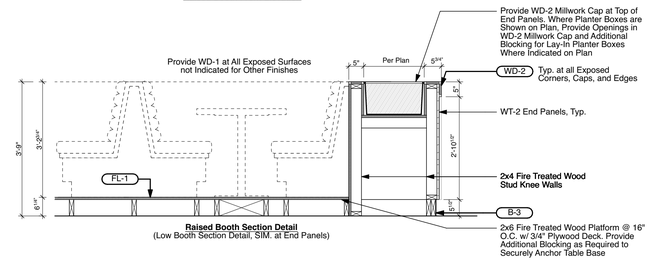
SCALE: 1/2" = 1'-0"



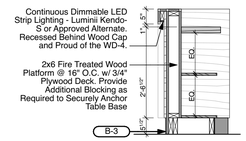
Low Booth Front Elevation



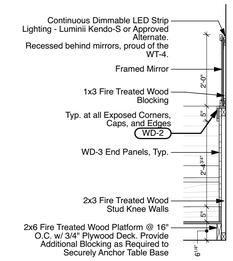
Raised Booth Front Elevation



Raised Booth Section Detail
(Low Booth Section Detail, SIM. at End Panels)

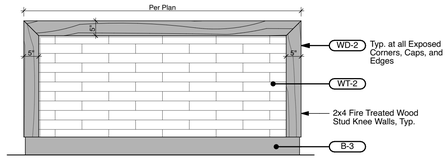


Host Stand Section Detail



Raised Booth Section Detail @ Wall

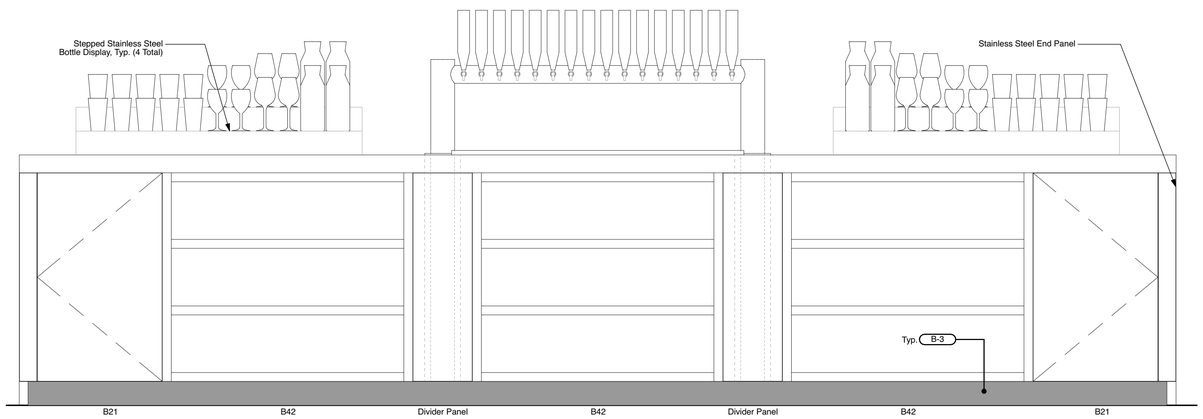
Wood Wainscot Section Detail @ Wall



Typ. End Panel Elevation

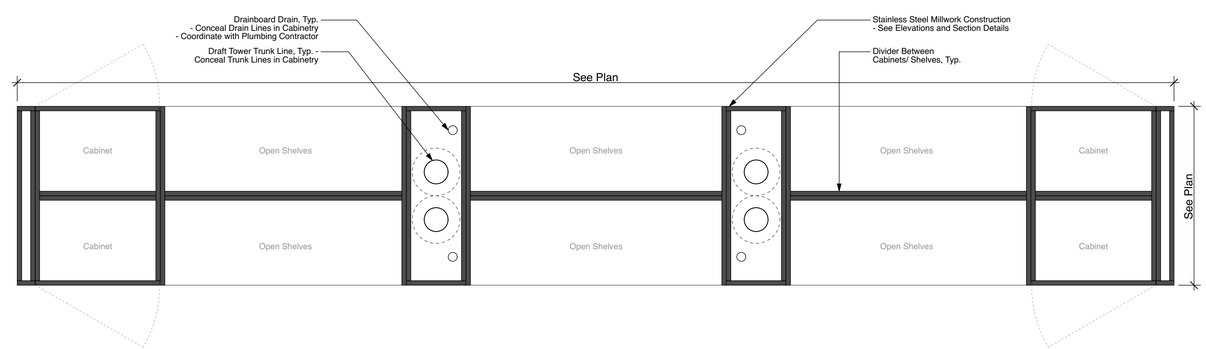
3 Millwork Details

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



2 Back Bar Detail Elevation

SCALE: 1" = 1'-0"



1 Back Bar Detail Plan

SCALE: 1" = 1'-0"

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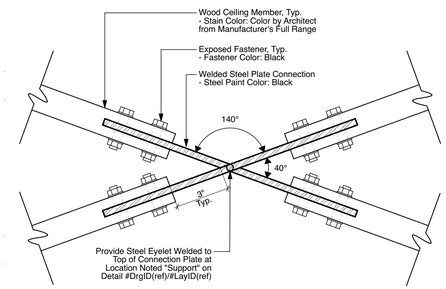
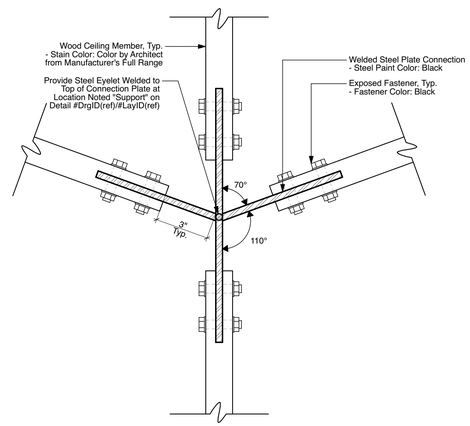
1	05.24.24	Permit Revision

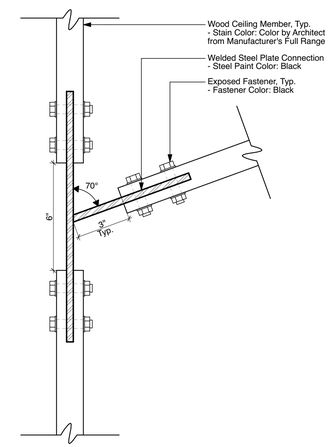
orientation	
project number	232882
scale	As Noted
date	5/24/24
sheet title	Millwork Details
sheet number	A806



Connection A



Connection B



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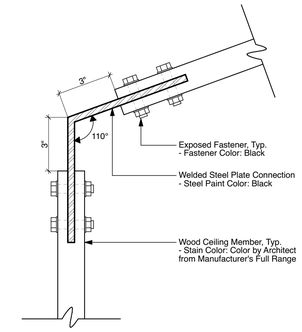
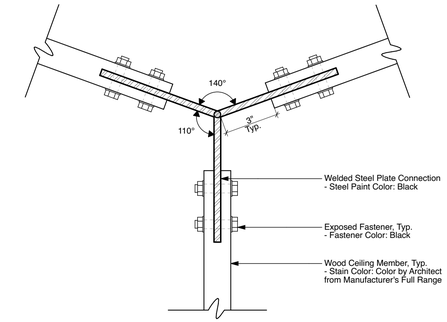
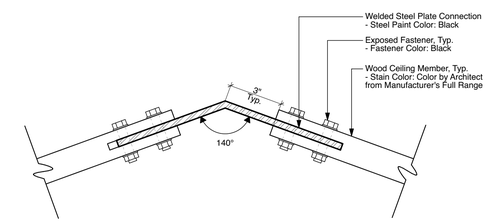


Connection E



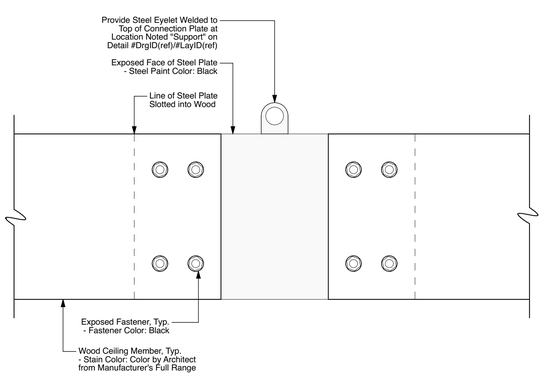
Connection F



Connection D

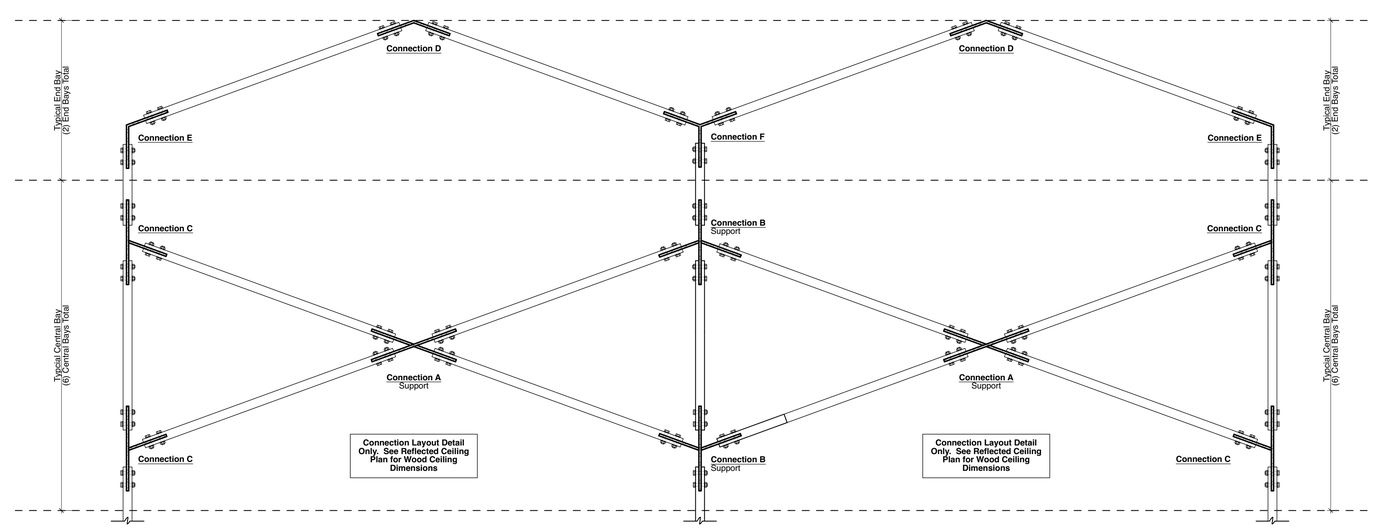
2 Wood Ceiling Connection Details

SCALE: 3" = 1'-0"



3 Wood Ceiling Connection Details

SCALE: 3" = 1'-0"



1 Wood Ceiling Connection Detail Layout

SCALE: 1" = 1'-0"

640 N Lasalle
Suite 400
Chicago Illinois 60654

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1

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orientation	
project number	232882
scale	As Noted
date	5/24/24
sheet title	RCP Details
sheet number	A807

MECHANICAL AND PLUMBING SYMBOL LEGEND

SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED

SHEET METAL

- *HIGH EFFICIENCY ROUND DUCT TAKEOFF (WITH & WITHOUT MANUAL DAMPER)*
- *SPIN–IN ROUND DUCT TAKEOFF (WITH & WITHOUT MANUAL DAMPER)*
- *CONICAL BELLMOUTH ROUND TAKEOFF*
- *ROUND DUCT RUNOUT WITH FLEX DUCT*
- *DUCTWORK ELBOW (WITH & WITHOUT TURNING VANES)*
- *FD:FIRE DAMPER FS:FIRE/SMOKE DAMPER SD:SMOKE DAMPER BD:BACKDRAFT DAMPER (GRAVITY)*
- *AUTOMATIC MOTORIZED DAMPER*
- *SUPPLY DIFFUSER AND DIFFUSER CALLOUT (NECK SIZE, TYPE AND CFM)*
- *LINEAR/SLOT DIFFUSER*
- *RETURN GRILLE OR EXHAUST REGISTER*
- *SUPPLY AIR FLOW INDICATOR*
- *RETURN AND EXHAUST AIR FLOW INDICATOR*
- *THERMOSTAT*
- *TEMPERATURE SENSOR*
- *HUMIDISTAT*
- *CONTROL WIRING*

MECHANICAL PIPING

RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
D	DRAIN (CONDENSATE)
CA	COMPRESSED AIR
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
C/HWS	CHILLED/HOT WATER SUPPLY
C/HWR	CHILLED/HOT WATER RETURN
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CTWS	COOLING TOWER SUPPLY
CTWR	COOLING TOWER RETURN
STM	STEAM (ANY #'S DENOTE PRESSURE)
CR	CONDENSATE RETURN (#'S DENOTE PRESSURE)
RV	REFRIGERANT VENT
RD	RUPTURE DISK

PLUMBING PIPING

· ·	DOMESTIC COLD WATER
· ·	DOMESTIC HOT WATER
· · ·	RECIRCULATING DOMESTIC HOT WATER
SAN	WASTE ABOVE GRADE OR FLOOR
SAN	WASTE BELOW GRADE OR FLOOR
ST	STORM ABOVE GRADE OR FLOOR
ST	STORM BELOW GRADE OR FLOOR
ST/O	STORM OVERFLOW ABOVE GRADE OR FLOOR
ST/O	STORM OVERFLOW BELOW GRADE OR FLOOR
V	PLUMBING VENT
W	WATER SERVICE
G	GAS (NATURAL)
PD	FROM SUMP PUMP DISCHARGE
CA	COMPRESSED AIR
LP	PROPANE
SCW	SOFT DOMESTIC COLD WATER
SHW	SOFT DOMESTIC HOT WATER
SRW	SOFT RECIRCULATING HOT WATER
ACID	ACID WASTE
VACID	ACID WASTE VENT
NP	NON–POTABLE
DI	DEIONIZED WATER
RO	REVERSE OSMOSIS WATER

MEDICAL GAS

MV	MEDICAL VACUUM PIPING
O	OXYGEN PIPING
NO	NITROUS OXIDE PIPING
SA	MEDICAL COMPRESSED AIR PIPING
N	NITROGEN PIPING
CO	CARBON DIOXIDE PIPING
V V	VACUUM VENT PIPING
WAGO	WASTE ANESTHETIC GAS DISPOSAL PIPING
GV	MEDICAL GAS VENT PIPING

MEDICAL GAS OUTLET W/ DESIGNATION (RE: BELOW)

O	OXYGEN
N	NITROGEN
NO	NITROUS OXIDE
WAGD	WASTE ANESTHETIC GAS DISPOSAL
CO	CARBON DIOXIDE
MV	MEDICAL VACUUM
SA	SURGICAL AIR
S	MEDICAL SLIDE

GENERAL SYMBOLS

- *INDICATES CONNECT TO EXISTING*
- *INDICATES ELEVATION*

FIRE SPRINKLER

F	FIRE PROTECTION PIPING
	SPRINKLER HEAD
	SIDEWALL SPRINKLER HEAD
	FIRE PROTECTION SIAMESE CONNECTION
	POST INDICATOR VALVE

PIPING SYMBOLS

- *SHUTOFF VALVE*
- *SHUTOFF VALVE IN RISER*
- *BALANCING VALVE*
- *PLUG VALVE*
- *AUTO FLOW CONTROL VALVE*
- *PIPING ELBOW UP*
- *PIPING ELBOW DOWN*
- *PIPING TEE*
- *PIPING ELBOW*
- *PIPING TEE UP*
- *PIPING TEE DOWN*
- *INCREASER / REDUCER*
- *UNION*
- *CAP*
- *PIPE FLEX*
- *STRAINER*
- *CHECK VALVE*
- *INLINE STRAINER*
- *TEST PLUG*
- *GUIDE*
- *ANCHOR*
- *TRIPLE DUTY VALVE*
- *AUTOMATIC 2–WAY CONTROL VALVE*
- *AUTOMATIC 3–WAY CONTROL VALVE*
- *SOLENOID VALVE*

PIPING SPECIALTIES

- *PRESS/ TEMP GAUGE WITH COCK*
- *THERMOMETER.*
- *PRESSURE REDUCING VALVE*
- *RELIEF VALVE*
- *WATER HAMMER ARRESTER*

PLUMBING FIXTURES/EQUIPMENT

HB	HOSE BIBB
WH	WALL HYDRANT
	CLEAN OUT
RPZ	REDUCED PRESSURE BACKFLOW PREVENTER
DCBP	DOUBLE CHECK BACKFLOW PREVENTER
WC–1 / S–1	PLUMBING FIXTURE AND CALLOUT
FD–1	FD: FLOOR DRAIN, AD: AREA DRAIN, FS: FLOOR SINK
RD–1	RD: ROOF DRAIN ORD: OVERFLOW ROOF DRAIN

ELECTRICAL SYMBOL LEGEND

SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED

CIRCUITING

- *HOME RUN (2#12 1#12G UNO)*
- *INDICATES 2 PHASE, 1 N, & 1 GRD CONDUCTOR*
- *HOME RUN: INDICATES SHARED CIRCUIT*
- *HOME RUN: INDICATES #10 CONDUCTORS ENTIRELY*

UTILITIES

UGE	UNDERGROUND ELECTRICAL
OHE	OVERHEAD ELECTRICAL
TELE	TELECOMMUNICATIONS CONDUIT
UGT	UNDERGROUND TELECOMMUNICATIONS CONDUIT

LIGHTING

- *FLUORESCENT LIGHT FIXTURE*
- *FLUORESCENT STRIP FIXTURE*
- *SURFACE/RECESSED LIGHT FIXTURE*
- *WALL–MOUNTED LIGHT FIXTURE*
- *POLE–MOUNTED LIGHT FIXTURE*
- *EXIT LIGHT*
- *BATTERY–OPERATED EMERGENCY LIGHT (WALL MTD)*
- *BATTERY–OPERATED EMERGENCY LIGHT (CEILING MTD)*
- *WALL–MOUNTED COMBINATION EXIT LIGHT/ BATTERY–OPERATED EMERGENCY LIGHT*
- *LIGHT SWITCH – SINGLE POLE*
- *LIGHT SWITCH – 3–WAY*
- *LIGHT SWITCH – 4–WAY*
- *LIGHT SWITCH – KEY*
- *LIGHT SWITCH – DIMMER*
- *LIGHT SWITCH – PILOT LIGHT*
- *LIGHT SWITCH – 2 POLE*
- *LIGHT SWITCH – 3–WAY DIMMER*
- *WALL–MOUNTED MOTION SWITCH*
- *CEILING–MOUNTED MOTION SWITCH*
- *SWITCHBANK – REFER TO DETAILS*
- *DIMMER BOARD*
- *REMOTE CONTROL SWITCH AS SCHEDULED*
- *TIMECLOCK – REFER TO PLANS / DETAILS*

EQUIPMENT

- *DISCONNECT SWITCH. RE: PLANS FOR INFORMATION.*
- *MAGNETIC MOTOR STARTER*
- *COMBINATION DISCONNECT SWITCH / MOTOR STARTER*
- *TOGGLE–TYPE DISCONNECT. FURNISH WITH THERMAL MOTOR PROTECTION WHERE SERVING FANS/PUMPS.*
- *SURFACE PANELBOARD*
- *RECESSED PANELBOARD*
- *DISTRIBUTION PANELBOARD*
- *SWITCHBOARD. FEEDER/MAIN CIRCUIT BREAKER SECTION AND DISTRIBUTION SECTION.*

GENERAL SYMBOLS

- *INDICATES CONNECT TO EXISTING*
- *INDICATES ELEVATION*

POWER DEVICES

	DUPLEX RECEPTACLE.
	LINE THRU DEVICE INDICATES ABOVE COUNTER
GFI	SPECIAL DUPLEX RECEPTACLE (GFCI, ISOLATED GROUND, ETC.)
	QUADPLEX RECEPTACLE
5–50R	SIMPLEX RECEPTACLE W/NEMA CONFIG AS NOTED
5–50R	MULTI–POLE RECEPTACLE W/NEMA CONFIG AS NOTED
	CEILING MOUNTED RECEPTACLE
	RECEPTACLE/DEVICE MOUNTED IN "TOMBSTONE"
	POKE–THRU WITH POWER
	POKE–THRU WITH TELECOMMUNICATIONS
	POKE–THRU W/POWER AND TELECOM
TG	SINGLE GANG FLOOR BOX (2, 3, 4 GANG SIMILAR)
	DIVIDED POWER POLE
C	CLOCK RECEPTACLE
	PLUG MOLD / WIRE MOLD AS SPECIFIED
J	JUNCTION BOX
T	THERMOSTAT – ELECTRIC
	PUSH BUTTON
	MOTOR

TELEPHONE/DATA

- *TELEPHONE OUTLET (SINGLE–GANG BOX WITH (1) 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING)*
- *LINE THRU DEVICE INDICATES ABOVE COUNTER*
- *DATA OUTLET (DOUBLE–GANG BOX WITH (2) 3/4" CONDUITS TO ABOVE ACCESSIBLE CEILING)*
- *TELEPHONE/DATA OUTLET (DOUBLE–GANG BOX WITH (2) 3/4" CONDUITS TO ABOVE ACCESSIBLE CLG.)*
- 1V *PHONE OUTLET WITH NUMBER OF PHONE JACKS AS INDICATED – SEE DETAILS FOR ADD'L INFO.*
- 1D *DATA OUTLET WITH NUMBER OF PHONE/DATA JACKS AS INDICATED – SEE DETAILS FOR ADD'L INFO.*
- 1D/1V *PHONE/DATA OUTLET WITH NUMBER OF PHONE/DATA JACKS AS INDICATED – SEE DETAILS FOR ADD'L INFO.*
- W *WALL–MOUNTED WIRELESS INTERNET TRANSMITTER*
- W *CEILING–MOUNTED WIRELESS INTERNET TRANSMITTER*

AUDIO/VISUAL

TV	TELEVISION OUTLET (SINGLE GANG BOX WITH (1) 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING)
TR	REVERSE TELEVISION OUTLET – CABLE TO HEAD END
TDC	TEACHER'S DESK CONNECTIONS – RE: DETAILS
S	WALL SPEAKER
S	CEILING SPEAKER
S	WALL SPEAKER – HORN TYPE
S	CEILING SPEAKER – HORN TYPE
S_{SUB}	CEILING SPEAKER – SUBWOOFER
S_{SS}	CEILING SPEAKER – SOUND SYSTEM
V	VOLUME CONTROL
I	INTERCOM CALL STATION
	INTERCOM HANDSET
	SOUND SYSTEM AUDIO JACK
RM	REMOTE MICROPHONE CONTROL
PAS	PUBLIC ADDRESS SYSTEM AMPLIFIER
IMS	INTERCOM MASTER STATION

FIRE ALARM

F	MANUAL PULL STATION
D	CEILING SMOKE DETECTOR
D	DUCT SMOKE DETECTOR
H	HEAT DETECTOR
WF	WATERFLOW SWITCH
TS	TAMPER SWITCH
75	VISIBLE NOTIFICATION DEVICE WITH CANDELA RATING. 75cd RATING UNLESS OTHERWISE NOTED ON PLANS.
30	AUDIBLE/VISIBLE NOTIFICATION DEVICE WITH CANDELA RATING. 75cd UNLESS OTHERWISE NOTED ON PLANS.
	HORN
75	CEILING–MOUNTED STROBE LIGHT WITH CANDELA RATING. MINIMUM OF 75cd RATING.
30	CEILING–MOUNTED COMBINATION HORN/STROBE WITH CANDELA RATING. MIN. OF 75cd RATING.
	CEILING–MOUNTED HORN
	CEILING–MOUNTED SPEAKER
R	RELAY
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FARA	REMOTE ANNUNCIATOR PANEL
FAEC	FIRE ALARM EXTENDER CABINET
DH	DOOR HOLDER
D 120V	SINGLE / MULTI–STATION 120V SMOKE ALARM
ZAM	ZONE ADDRESSABLE MODULE
IAM	INDIVIDUAL ADDRESSABLE MODULE
HFSS	KITCHEN HOOD FIRE SUPPRESSION SYSTEM PANEL
H	KITCHEN HOOD REMOTE PULL STATION
ARA	AREA OF RESCUE ASSISTANCE STATION
ARAM	AREA OF RESCUE ASSISTANCE MASTER STATION

SECURITY

	FIXED CAMERA
PTZ	PAN/TILT/ZOOM CAMERA
PROX	PROXIMITY TYPE CARD READER
CARD	SWIPE CARD READER
BG	BREAK GLASS DETECTOR
ES	ELECTRIC STRIKE
MD	SECURITY MOTION DETECTOR
KP	KEYPAD / MAG LOCK
B	BUTTON / MAG LOCK

15000 - MECHANICAL SPECIFICATIONS

SECTION 15000 – MECHANICAL REQUIREMENTS

1. GENERAL REQUIREMENTS

A. ALL WORK SHALL BE IN ACCORDANCE W/ LATEST EDITION OF INTERNATIONAL BUILDING, MECHANICAL & PLUMBING CODES, CODES AS ADOPTED BY CITY, COUNTY, STATE & ALL OTHER APPLICABLE CODES.
B. FURNISH & INSTALL ALL LABOR & MATERIALS REQUIRED FOR COMPLETE, FUNCTIONING, MECHANICAL & PLUMBING SYSTEMS W/ ALL ASSOCIATED EQUIPMENT & APPARATUS AS SHOWN ON PLANS. "PROVIDE" MEANS TO FURNISH & INSTALL.
C. OBTAIN & PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THIS WORK & SHALL MAKE ARRANGEMENTS FOR MODIFICATIONS TO WATER, GAS & SEWER CONNECTIONS TO BUILDING AS REQUIRED.
D. VISIT SITE & OBSERVE CONDITIONS UNDER WHICH WORK WILL BE DONE. ANY DISCREPANCIES SHALL BE CALLED TO ARCHITECT'S ATTENTION. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN CONTRACT FOR ANY ERROR OR NEGLIGENCE ON CONTRACTOR'S PART.
E. FINAL ACCEPTANCE OF WORK SHALL BE SUBJECT TO CONDITION THAT ALL SYSTEMS, EQUIPMENT, APPARATUS & APPLIANCES OPERATE SATISFACTORILY AS DESIGNED & INTENDED. WORK SHALL INCLUDE REQUIRED ADJUSTMENT OF SYSTEMS & CONTROL EQUIPMENT INSTALLED UNDER THESE SPECIFICATIONS.
F. WARRANT TO OWNER QUALITY OF MATERIAL, EQUIPMENT, WORKMANSHIP & OPERATION OF EQUIPMENT PROVIDED UNDER THESE SPECIFICATIONS FOR ONE YEAR FROM & AFTER COMPLETION OF BUILDING & ACCEPTANCE OF MECHANICAL SYSTEMS BY OWNER.
G. ALL MATERIALS INSTALLED IN PLENUMS SHALL BE NONCOMBUSTIBLE OR HAVE FLAME/SMOKE INDEX OF NO MORE THAN 25/50 IN ACCORDANCE W/ ASTM E 84.
H. ROOF PENETRATIONS – MADE BY AUTHORIZED ROOFING CONTRACTOR WHEN REQUIRED.

SECTION 15100 – PLUMBING

1. PIPING

A. WATER PIPING – ALL WATER PIPING SHALL BE 95–5 TIN–ANTIMONY JOINED TYPE L COPPER. INSULATE W/ FIBERGLASS W/ ASJ & PVC COVERS. THINCKNESS IN ACCORDANCE W/ ASHRAE 90.1.
B. WASTE & VENT PIPING – CI BELL & SPIGOT OR HUBLESS CI W/ NEOPRENE GASKET FITTINGS W/ STAINLESS STEEL BANDS. SCHED 40 PVC W/ SOLVENT WELDS MAY BE USED WHERE ALLOWED BY LOCAL CODE. PVC NOT ALLOWED IN PLENUMS.
C. GAS PIPING – PROVIDE SCHED 40 CONT. WELD CARBON STEEL W/ CORRESPONDING FITTINGS. PROVIDE THREADED FITTINGS. PROVIDE IRON BODY–BRASS PLUG GAS STOPS. PAINT ALL EXPOSED GAS PIPING ON THE EXTERIOR OF THE BUILDING INCLUDING ON THE ROOF.

2. VALVES

A. BALL VALVES – 2" & UNDER – BRONZE FULL PORT W/ TEFLON SEATS, BRONZE BALL & INSULATED HANDLE.
B. BALANCING VALVES – ARMSTRONG MODEL CBV I OR CBV II, 125 PSI–WP AT 250 DEGREES F., METER CONNECTIONS W/ BUILT–IN CHECK VALVES SCREWED OR FLANGED ENDS. PROVIDE POLYURETHANE INSULATION COVER.
C. CHECK VALVES – 2" 7 SMALLER SCREWED OR SOLDER BRONZE CHECK VALVE, 200 PSI–WOG/125 PSI–WSP, TEFLON OR BRONZE DISC & SEAT RING. 2–1/2" & LARGER FLANGED, ASTM 126 IRON BODY, BRONZE TRIMMED, 200 PSI–WOG/125 PSI–WSP.
D. BUTTERFLY VALVES – 3" & LARGER LEVER ASTM A126 CI DRILLED & TAPPED FULL LUG BODY, 200 PSI–WOG, EXTENDED NECK, BRONZE DISC, STAINLESS STEEL STEM, FIELD–REPLACEABLE EPDM SLEEVE & STEM SEALS.
E. EQUIVALENT VALVE MANUFACTURERS: MILWAUKEE, STOCKHAM, POWELL, RED–WHITE, CRANE, APPOLO, MUELLER, MUESSCO, WATTS, HAYS, ROCKWELL–NORDSTROM.

FIXTURES – SEE SCHEDULES

A. FIXTURES: AMERICAN STANDARD, KOHLER, CRANE, ZURN, TOTO
B. STAINLESS STEEL FIXTURES: ELKAY, JUST, MOEN COMMERCIAL
C. FITTINGS & SUPPORTS: JOSAM, SMITH, WADE, ZURN, OR JONESPEC.
D. SEATS: CHURCH, OLSONITE, BEMIS OR BENEKE.
E. DRINKING FOUNTAINS: HALSEY TAYLOR, ELKAY, OASIS, OR HAWS.
F. TRIM BY DELTA, ELJER, KOHLER, AMERICAN STANDARD, CRANE, SLOAN.
G. FLUSHVALVES: SLOAN, ZURN, TOTO
H. DRAINS BY WADE, ZURN, WOODFORD, SMITH, JOSAM.

EQUIPMENT – SEE SCHEDULES

A. WATER HEATER – STATE, RHEEM, NATIONAL, A.O. SMITH. PORCELAINIZED GLASSLINED TANK. COLD WATER INLET DROP TUBE. MAGNESIUM ANODE RODS. U.L. SEAL, 160 PSI, FACTORY TEMPERATURE & PRESSURE RELIEF VALVE. N.S.F. CONSTRUCTION. 3 YR WARRANTY.
B. RECIRCULATION PUMPS – HORIZONTAL, OIL–LUBRICATED, ALL BRONZE. NON–OVERLOADING MOTOR.

EXECUTION

A. PROVIDE UNIONS OR FLANGED JOINTS IN EACH PIPE LINE PRECEDING CONNECTIONS TO EQUIPMENT TO ALLOW REMOVAL FOR REPAIR OR REPLACEMENT. PROVIDE ALL SCREWED & CONTROL VALVES W/ UNIONS ADJACENT TO EACH CONNECTION. PROVIDE SCREWED END VALVES W/ UNION ADJACENT TO VALVE UNLESS VALVE CAN BE OTHERWISE EASILY REMOVED FROM LINE.
B. AFTER PIPING IS IN PLACE TEST LINES TO ENSURE NO LEAKS.
C. ALL PIPING & EQUIPMENT SHALL BE SUPPORTED PROPERLY FROM STRUCTURE.
D. ESCUTCHEONS – PROVIDE NICKEL–BRASS OR CHROME PLATED ON ALL EXPOSED PIPES WHEN PASSING THRU WALL OR CEILING OF FINISHED ROOMS.
E. VERIFY FLOOR MATERIALS USED FROM ARCHITECTURAL PLANS & PROVIDE PROPER CLEANOUT TOPS, WHERE THEY OCCUR IN CARPET, QUARRY TILE, VINYL TILE OR CERAMIC TILE.
F. PROVIDE WATER HAMMER ARRESTORS FOR ALL PLUMBING BANKS W/ FIXTURES UTILIZING FLUSH VALVES IN ANY CAPACITY. LOCATE ARRESTER BETWEEN LAST TWO FIXTURES SERVED ON BRANCH LINE.

SECTION 15300 – HVAC

GENERAL

A. PROVIDE COMPLETE HVAC SYSTEM AS SHOWN ON DRAWINGS INCLUDING ALL NECESSARY EQUIPMENT, DUCTWORK, DIFFUSERS, GRILLES, & FILTERS. PROVIDE OPERATING & MAINTENANCE INSTRUCTIONS ON ALL EQUIPMENT.
B. ALL HVAC WORK SHALL BE DONE IN STRICT ACCORDANCE W/ ALL REQUIREMENTS OF LOCAL BUILDING CODE, ASHRAE, NEC, NFPA, & ALL OTHER APPLICABLE CODES HAVING JURISDICTION.

DUCTWORK

A. HVAC DUCTWORK SHALL BE GALV SHEET METAL OF GAUGES & JOINT TYPES SPECIFIED IN SMACNA MANUAL. PROVIDE TURNING VANES IN ELBOWS.
B. EXPOSED SPIRAL DUCT SHALL BE DOUBLE WALL SPIRAL INTERIOR INSULATED WITH PERFORATED LINER WITH 1" INSULATION R VALUE OF 4 MINIMUM.
C. VOLUME DAMPERS SHALL BE MANUAL LOCKING BLADE TYPE.
D. DISHWASHER EXHAUST DUCT SHALL BE NEW COMMERCIAL QUALITY, BRIGHT TYPE 302 STAINLESS STEEL. CONSTRUCTION SHALL BE WELDED. DUCTWORK SHALL SLOPE TO DRAIN.
E. GREASE DUCT SHALL BE NEW COMMERCIAL QUALITY BLACK STEEL FOR GREASE DUCTS. CONSTRUCTION SHALL BE WELDED, STEEL MINIMUM OF 16 GAUGE.
F. ALL DUCTWORK MUST BE SUPPORTED PROPERLY FROM STRUCTURE.
G. WRAP ALL SUPPLY & OUTSIDE AIR HVAC DUCTWORK W/ CERTAINTEED 1–1/2" THICK INSULATION W/ VAPOR BARRIER IN CONCEALED LOCATIONS. ALSO LINE FIRST 10' OF SUPPLY DUCTWORK FOR SOUND ATTENUATION (IN ADDITION TO WRAP) LINE ALL RETURN AIR DUCTS & TRANSFER BOOTS W/ ½" LINER. DO NO WRAP EXPOSED SPIRAL DUCTS.
H. EXTERNAL FIRE INSULATION FOR GREASE DUCTS – 2 HR. FIRE RESISTANCE RATING SHALL BE PABCO SUPER FIRETMP–L. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS. EQUIVALENT BY 3M DUCTWRAP, PROVIDE (2) 1 ½" LAYERS.

SPECIALTIES

A. FLEXIBLE DUCTS – THERMAFLEX OR EQUAL SOUND RATED TYPE G–KM INSULATED. (DUCT W/O PUBLISHED ACOUSTICAL ATTENUATION RATINGS NOT ACCEPTABLE) TAKE OFF FITTING SHALL BE HI–EFF STYLE W/ LOCKING DAMPER. MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL BE 7'–0".
B. DIFFUSERS & GRILLES – SEE SCHEDULE. EQUIVALENT BY PRICE, TUITTLE & BAILEY, TITUS, MATEL–AIRE, KRUEGER, NAILOR. COORDINATE COLOR, MOUNTING W/ DUCT, CEILINGS, ARCHITECT.
C. LOUVERS – GREENHECK TYPE FSK–400 FABRICATED GALVANIZED STEEL LOUVER W/ TRIM FLANGE. EQUIVALENT BY RUSKIN, LOUVERS & DAMPERS, GREENHECK, AMERICAN WARMING 7 VENTILATING, INDUSTRIAL LOUVERS, ACME. COORDINATE FINISH W/ ARCHITECT.

PIPING

A. REFRIGERANT PIPING – COPPER TUBE TYPE ACR, HARD TEMPER NITROGENIZED REFRIGERANT TUBE, ASTM B–88. TYPE L OR K. BRAZED JOINTS. INSULATE W/ ARMAFLEX IN THICKNESS PER ASHRAE 90.1. PROVIDE EXTERIOR RATED OR COATED ARMAFLEX OUTDOORS.

EQUIPMENT

A. EXHAUST FANS – EQUIVALENT BY COOK, PENN, ACME, GREENHECK, JENNAIRE, TWIN CITY. PROVIDE W/ SPEED CONTROLS FOR ALL FANS LESS THAN 1/3HP TO BE FURNISHED TO E/C FOR MOUNTING AT FAN. PROVIDE W/ 14" MIN. CURB. PROVIDE GREASE TRIM & VENTILATED CURB EXTENSIONS FOR GREASE FANS.
B. HOOD FIRE–EXTINGUISHING EQUIPMENT – PROVIDE STAND ALONE, AUTOMATIC EXTINGUISHING SYSTEM FOR EXHAUST HOODS & DUCT SYSTEM MEETING REQUIREMENTS OF NFPA 96 & 17. INCLUDE ALL TANKS, PIPING, HEADS, ALARMS, INDICATORS, VALVES & CHARGE TO PROPERLY PROTECT EXHAUST SYSTEM. SYSTEM SHALL COMPLETELY SHUT–DOWN POWER & GAS TO ALL APPLIANCES LOCATED BENEATH HOOD IN EVENT OF ALARM CONDITIONS. GAS SHUT DOWN SHALL BE BY MECHANICAL GAS VALVE. COORDINATE ALL WIRING W/ EQUIPMENT & REQUIREMENTS LOCAL JURISDICTION.
C. MAKE–UP AHU – SEE SCHEDULE. HEAVY GAUGE GALV STEEL CONSTRUCTION. 1" METAL MESH FILTERS, BELT DRIVEN DWDI, FC FAN. FAN & MOTOR ASSEMBLY MTD ON VIBRATION ISOLATORS. SHAFT SHALL BE MTD IN HD, SEALED BALL BEARINGS. ADJUSTABLE SHEAVES. 150% HP DRIVES AGA DIRECT GAS FIRED & C.G.A. APPROVED. CONTROLS SHALL INCLUDE MAIN GAS PRESSURE REGULATOR, MODULATING GAS VALVE, ELECTRIC SPARK IGNITION PILOT RE–LIGHT SYSTEM, SAFETY PILOT, HIGH LIMIT & 24V CONTROL TRANS. EQUIVALENTS BY CAPTIVEAIR, GREENHECK, ENGINEERED AIR, REZNOR, HASTINGS, STERLING.

EXECUTION

F. COORDINATE W/ E/C TO PROVIDE ALL WIRING BETWEEN EQUIPMENT, DAMPERS, THERMOSTATS & ALL OTHER REQUIRED CONTROLS & DEVICES. PROVIDE ANY REQUIRED INTERFACES TO FIRE ALARM OR SIMILAR SYSTEMS.
G. PROVIDE GROUND–MOUNTED UNITS ON 4", REINFORCED CONCRETE BASE, 4" LARGER THAN UNIT ON EACH SIDE.
H. ROOF–MOUNTED UNITS ON EQUIPMENT SUPPORTS OR CURBS. ANCHOR UNITS TO SUPPORTS
I. PROVIDE FACTORY–AUTHORIZED SERVICE START UP ON EQUIPMENT. TRAIN OWNER'S MAINTENANCE PERSONNEL ON STARTUP, SHUTDOWN, TROUBLESHOOTING, SERVICING, PREVENTIVE MAINTENANCE.

SECTION 15900 – SYSTEM TESTING & BALANCING

A. CONTRACTOR SHALL PROCURE SERVICES OF INDEPENDENT TAB CONTRACTOR WHICH SPECIALIZES IN TAB OF HVAC SYSTEMS, TO BALANCE, ADJUST, & TEST AIR MOVING EQUIPMENT & DISTRIBUTION & EXHAUST SYSTEMS & ALL WATER FLOW CIRCUITS. WORK SHALL BE DONE UNDER ENGINEER EMPLOYED TAB. ALL INSTRUMENTS USED SHALL BE ACCURATELY CALIBRATED & MAINTAINED IN GOOD WORKING ORDER. IF REQUESTED TESTS SHALL BE CONDUCTED IN PRESENCE OF A/E RESPONSIBLE FOR PROJECT &/OR REPRESENTATIVE. TAB CONTRACTOR SHALL BE CERTIFIED BY NEBB OR AABC & ALL WORK SHALL BE PERFORMED IN ACCORDANCE W/ ORGANIZATIONS PUBLISHED PROCEDURE MANUALS.
B. TESTING & BALANCING (TAB) OF BUILDING HVAC SYSTEMS WILL BE COMPLETED NEAR END OF CONSTRUCTION. M/C HAS RESPONSIBILITY TO COOPERATE W/ MAKE ADJUSTMENTS FOR & PROVIDE EQUIPMENT NECESSARY FOR TAB CONTRACTOR TO COMPLETE JOB.
C. PRIOR TO REQUESTING TAB CONTRACTOR TO PERFORM WORK, INSTALLING CONTRACTOR SHALL MAKE ALL NECESSARY INSPECTIONS & ADJUSTMENTS TO ENSURE THAT SYSTEMS ARE COMPLETELY INSTALLED & OPERATING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS & CONTRACT DOCUMENTS.
D. CHECKS SHALL BE PERFORMED ON EACH SYSTEM INSTALLED UNDER THIS CONTRACT. REPORT SHEET SHALL BE PREPARED FOR EACH SYSTEM INDICATING CHECKS MADE, CORRECTIVE ACTION TAKEN WHERE REQUIRED, DATE & NAME OF INSPECTOR. SUBMIT (1) COPY TO TAB CONTRACTOR & (1) INDICATING CHECKS MADE, CORRECTIVE ACTION TAKEN WHERE REQUIRED, DATE & NAME OF INSPECTOR. SUBMIT (1) COPY TO TAB CONTRACTOR & (1) TO A/E. TAB CONTRACTOR WILL NOT BEGIN UNTIL CHECKLIST HAS BEEN RECEIVED & REVIEWED.
E. TAB CONTRACTOR SHALL AT MINIMUM: VERIFY & INSPECT THAT SYSTEMS ARE CLEAN, FAN ROTATION, BEARINGS, CLEARANCES, ALIGNMENT, VIBRATION ISOLATORS, FILTERS, DAMPER OPERATION & POSITION. EQUIPMENT IS INSTALLED, TRANSFER OPENINGS IN WALLS, AIR LEAKS, COIL FINS/DAMAGE.
F. BALANCING CONTRACTOR SHALL PREPARE CERTIFIED REPORT OF ALL TESTS PERFORMED. REPORT SHALL BE WRITTEN ON STANDARD FORMS PREPARED BY NEBB OR AABC OR FACSIMILES THEREOF. BALANCING CONTRACTOR SHALL SUBMIT 3 COPIES OF THIS REPORT TO M/C WHO SHALL SUBMIT THEM TO A/E FOR REVIEW & DISTRIBUTION.
G. AIR HANDLING UNIT AS INSTALLED SHOWING OUTDOOR, RETURN & SUPPLY AIR CONNECTIONS, COIL & DAMPERS ARRANGEMENTS. PSYCHROMETRIC CHART ON EACH AHU, W/ COOLING COIL, SHOWING OUTDOOR RETURN, MIXED AIR TEMPS AT MINIMUM OUTDOOR AIR CONDITION, COIL LEAVING AIR CONDITION AT FULL COOLING COIL FLOW. TAB REPORT SHALL INCLUDE ALL NEBB OR AABC FORMS COMPLETED AS REQUIRED BY CERTIFICATION.
H. TAB CONTRACTOR SHALL CYCLE EACH AHU THROUGH CONTROL SEQUENCE OF OPERATION TO VERIFY PROPER OPERATION. ANY INCONSISTENCY W/ CONTRACT DOCUMENTS SHALL BE REPORTED TO A/E & TEMP CONTROL CONTRACTOR. TEMP CONTROL CONTRACTOR SHALL TAKE ACTION TO CORRECT ANY CONTROL INCONSISTENCY AS REPORTED BY TAB CONTRACTOR.
I. DURING INSTALLATION OF HVAC SYSTEMS TAB CONTRACTOR SHALL PERIODIC INSPECTION VISITS TO PROJECT SITE. PROPER PLACEMENT & INSTALLATION OF CONTROL & BALANCING DEVICES SHALL BE VERIFIED BY THESE INSPECTIONS. M/C SHALL MAKE ALL CORRECTIONS IN CONTROL & BALANCING DEVICE LOCATIONS AS REQUESTED BY TAB CONTRACTOR. FOLLOWING EACH VISIT TAB CONTRACTOR SHALL REPORT TO A/E ALL ITEMS NOTED, ACTION TAKEN & PROGRESS OF INSTALLATION.

16000 - ELECTRICAL SPECIFICATIONS

SECTION 16000 – ELECTRICAL REQUIREMENTS

GENERAL REQUIREMENTS

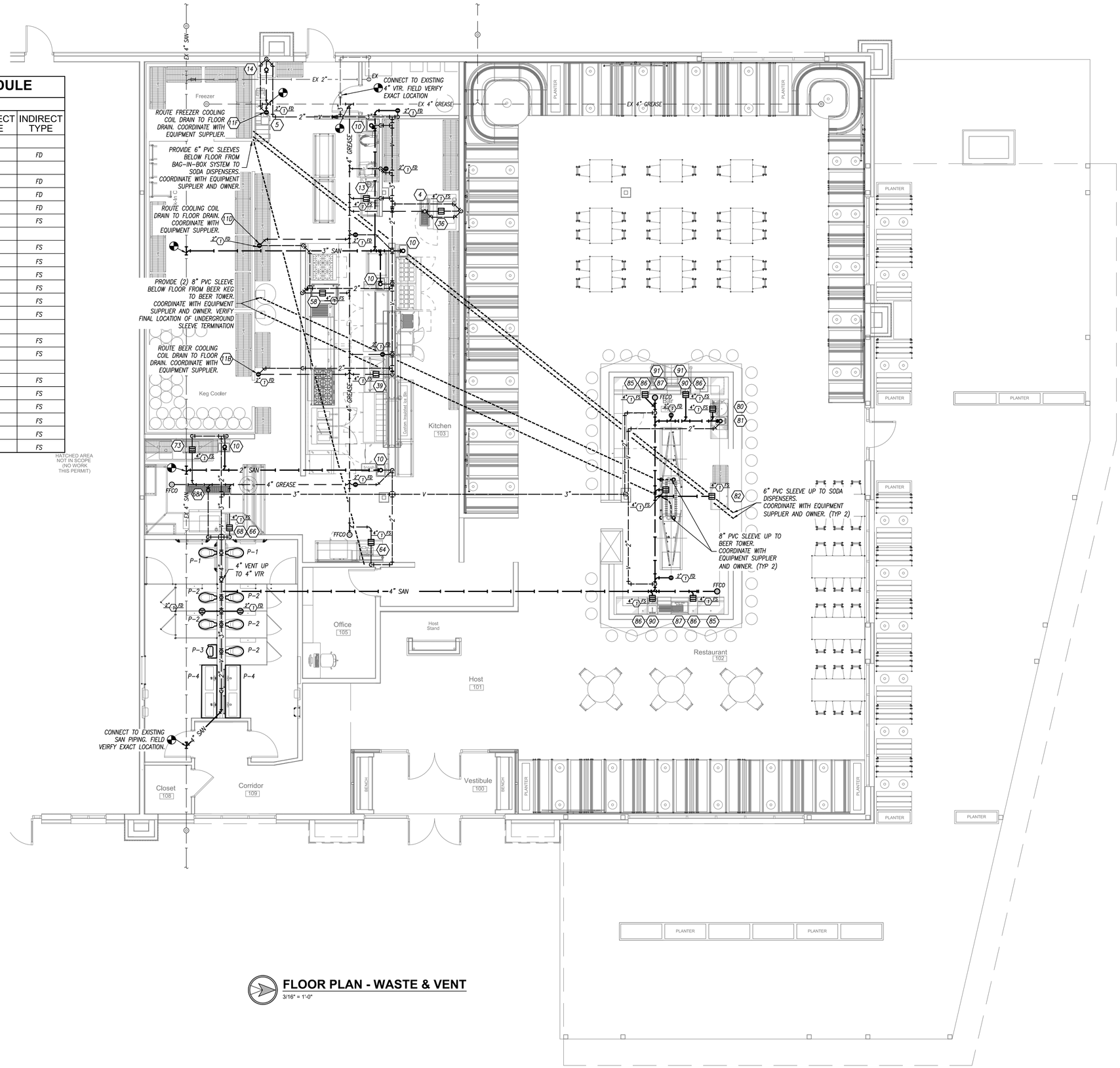
A. ALL WORK SHALL BE IN ACCORDANCE W/ LATEST EDITION OF INTERNATIONAL BUILDING CODE, NATIONAL ELECTRICAL CODE, NFPA, CODES AS ADOPTED BY CITY, COUNTY, STATE & ALL OTHER APPLICABLE CODES.
B. ALL MATERIALS & EQUIPMENT SHALL BE NEW & SHALL BEAR U.L. LABEL WHERE APPLICABLE. PROVIDE WATERPROOF EQUIPMENT ENCLOSURES WHERE REQUIRED.
C. OBTAIN & PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THIS WORK & SHALL MAKE ARRANGEMENTS FOR MODIFICATIONS TO ELECTRICAL CONNECTIONS TO BUILDING AS REQUIRED.
D. CONTRACTOR SHALL PROVIDE ALL LABOR & MATERIALS REQUIRED TO HAVE COMPLETE FUNCTIONING ELECTRICAL LIGHTING & POWER SYSTEMS TOGETHER W/ ALL ASSOCIATED EQUIPMENT & APPARATUS AS SHOWN ON PLANS.
E. WHERE AN ELECTRICAL DEVICE IS REQUIRED BY CODE BUT NOT SHOWN, IT SHALL BE PROVIDED AS THOUGH FULLY SHOWN & SPECIFIED.
F. CONTRACTOR SHALL VISIT SITE & OBSERVE CONDITIONS UNDER WHICH WORK WILL BE DONE. ANY DISCREPANCIES SHALL BE CALLED TO ARCHITECT'S ATTENTION. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION FOR ANY ERROR OR NEGLIGENCE ON CONTRACTOR'S PART.
G. FINAL ACCEPTANCE OF WORK SHALL BE SUBJECT TO CONDITION THAT ALL SYSTEMS, EQUIPMENT, APPARATUS & APPLIANCES OPERATE SATISFACTORILY AS DESIGNED & INTENDED. WORK SHALL INCLUDE REQUIRED ADJUSTMENT OF SYSTEMS & CONTROL EQUIPMENT INSTALLED UNDER THESE SPECIFICATIONS.
H. W

KITCHEN EQUIPMENT-ELECTRICAL SCHEDULE

ITEM NO	QTY	EQUIPMENT DISCRIPTION	WASTE DIRECT SIZE	WASTE DIRECT HGT AFF	WASTE INDIRECT SIZE	WASTE INDIRECT TYPE
4	1	FLOOR TROUGH	4"	–		
5	1	BAG–IN–BOX SYSTEM			1"	FD
10	5	HAND SINK	1–1/2"	16"		
11B	1	BEER COOLER COIL			1"	FD
11D	1	COOLER COIL			1"	FD
11F	1	FREEZER COIL			1"	FD
13	1	2 COMPARTMENT SINK			2"	FS
14	1	MOP SINK	3–1/2"	–		
36	1	ICE MAKER W/ BIN			2"	FS
39	1	HOT FOOD SERVING COUNTER			2"	FS
58	1	COMBI OVEN			2"	FS
64	1	SODA DISPENSER			2"	FS
66	1	SOILED DISHTABLE			2"	FS
68	1	DISHWASHER			2"	FS
68A	1	FLOOR TROUGH	4"	–		
73	1	3 COMPARTMENT SINK			2"	FS
80	1	UNDERCOUNTER DISHWASHER			2"	FS
81	1	HAND/DUMP SINK	1–1/2"	16"		
82	1	DRAINBOARD			2"	FS
85	2	DRAINBOARD			2"	FS
86	4	DRAIN BOARD			2"	FS
87	2	ICE BIN			2"	FS
90	2	UNDERBAR SINK			2"	FS
91	2	DRAIN PAN			2"	FS

REMARKS:
1. EQUIPMENT ON SCHEDULE FURNISHED BY OTHERS.
2. EQUIPMENT SUBJECT TO CHANGE, FIELD VERIFY EQUIPMENT W/ OWNER AND ARCHITECT.
3. FIELD VERIFY PLUMBING REQUIREMENTS FOR ALL EQUIPMENT.
4. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
5. COORDINATE EXACT LOCATION OF EQUIPMENT WITH OWNER.

HATCHED AREA NOT IN SCOPE (NO WORK THIS PERMIT)



FLOOR PLAN - WASTE & VENT

3/16" = 1'-0"

640 N Lasalle Suite 400 Chicago Illinois 60654
312 337 3344
Architecture Urban Planning

Pappageorge Haymes Partners
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STATE OF MISSOURI
BRYAN LEINWETTER
NUMBER PE-2020020297
PROFESSIONAL ENGINEER
5/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

pkmr ENGINEERS
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785.273.2447 WWW.PKMRENG.COM
24-107

30hop american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit

orientation	
project number	232882
scale	As Noted
date	5/02/2024
sheet title	Plumbing Plan
sheet number	M101

KITCHEN EQUIPMENT-ELECTRICAL SCHEDULE

ITEM NO	QTY	EQUIPMENT DISCRIPTION	WATER DCW SIZE	WATER DHW SIZE	WATER HEIGHT AFF	GAS SIZE	GAS MBH	GAS HEIGHT AFF
5	1	BAG-IN-BOX SYSTEM	1/2"		60"			
6	1	HOTPLATE				3/4"	120	12"
10	5	HAND SINK	1/2"	1/2"	20"			
13	1	2 COMPARTMENT SINK	1/2"	1/2"	20"			
14	1	MOP SINK	1/2"	1/2"	20"			
25	1	CHARBROILER				3/4"	45	12"
28	1	GRIDDLE				3/4"	168	12"
30	1	HOTPLATE				3/4"	240	12"
32	1	CHEESE MELTER				3/4"	30	60"
34	3	FRYER				3/4"	140	12"
36	1	ICE MAKER W/ BIN	3/8"		60"			
58	1	COMBI OVEN	3/4"		48"	3/4"	98	12"
64	1	SODA DISPENSER	1/2"		60"			
66	1	SOILED DISHTABLE	1/2"	1/2"	20"			
68	1	DISHWASHER		3/4"	20"			
73	1	3 COMPARTMENT SINK	1/2"	1/2"	20"			
80	1	UNDERCOUNTER DISHWASHER	1/2"	1/2"	20"			
81	1	HAND/DUMP SINK	3/8"	3/8"	20"			
90	2	UNDERBAR SINK	3/8"	3/8"	20"			

REMARKS:
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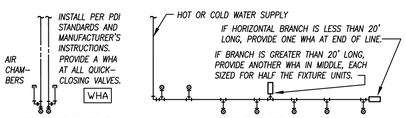


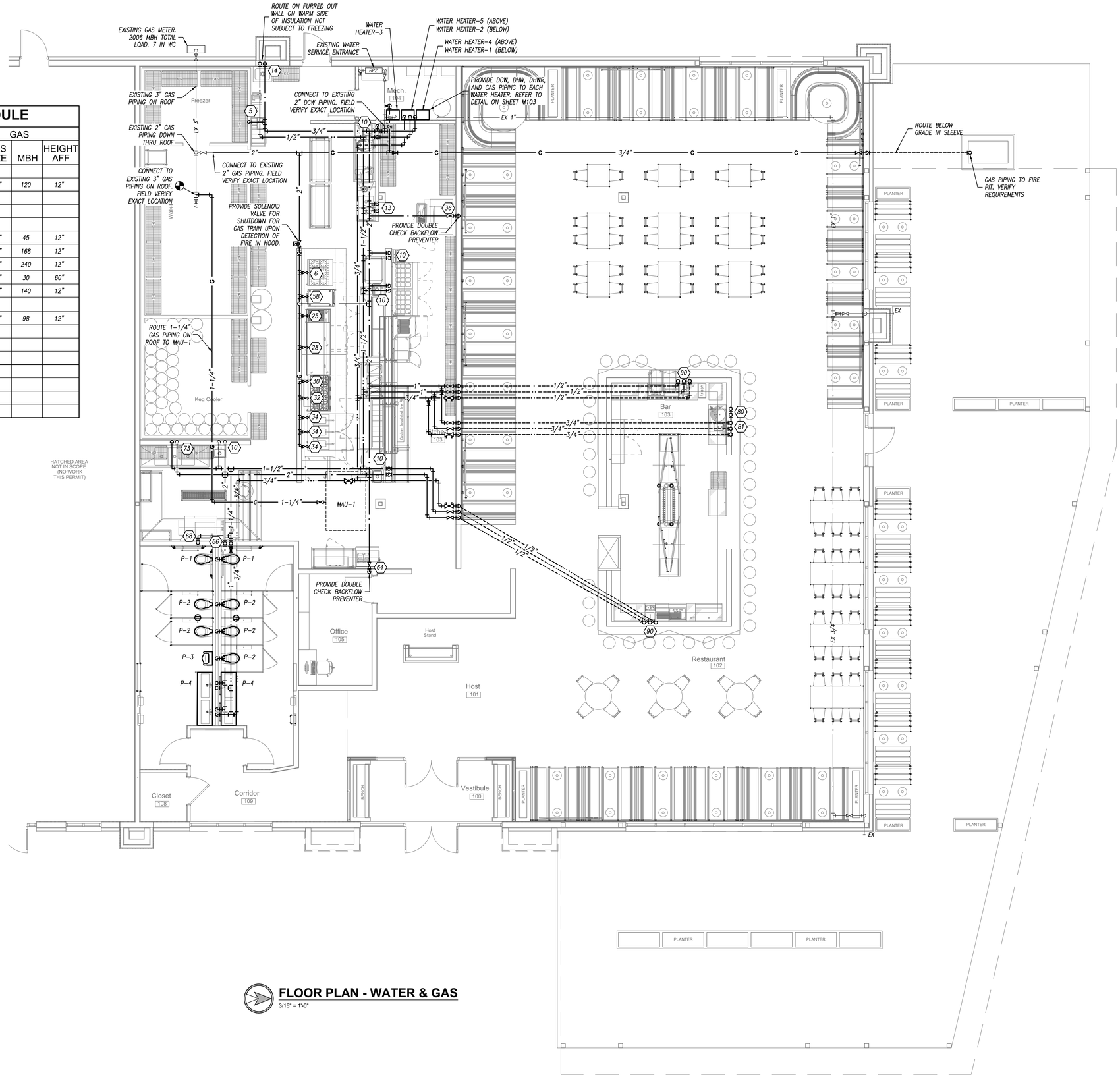
PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	154-330

FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	--
TANK WATER CLOSET	5	--
URINAL	5	--
LAVATORY/SINK	1.5	1.5
JANITOR'S SINK	3	3
SHOWER/BATHTUB	2	2

FOR BATTERIES OF FIXTURES, PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE # 1010 AND ANSI # A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR PER THE TABLES SHOWN ABOVE. PROVIDE ACCESSIBILITY TO "WHA" WHERE REQUIRED BY LOCAL CODE.

WATER HAMMER ARRESTERS

NOT TO SCALE



FLOOR PLAN - WATER & GAS

3/16" = 1'-0"

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STATE OF MISSOURI
BRYAN LEINWETTER
NUMBER PE-2020020297
PROFESSIONAL ENGINEER
5/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

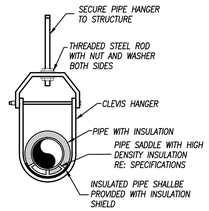
pkmr ENGINEERS
24-107
PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
2949 SW WANAMAKER DR., TOPEKA, KANSAS 66614
785.273.2447 WWW.PKMRENG.COM

30hop american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

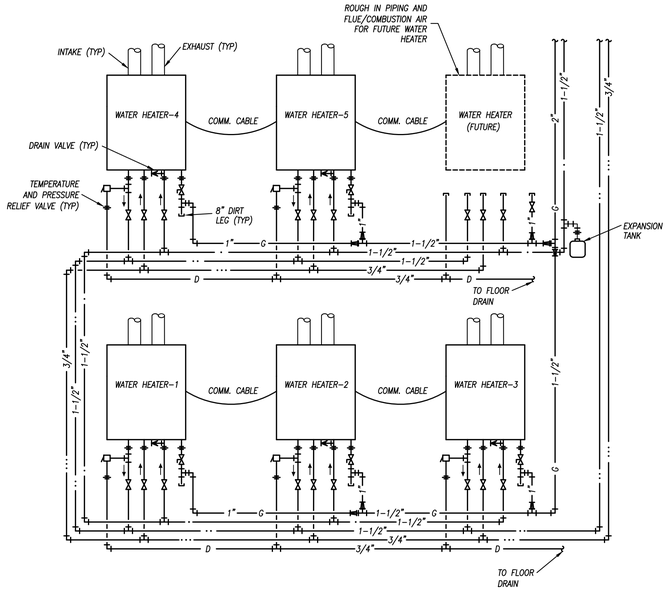
	date	description
	05.02.24	Issue For Permit

orientation
project number 232882
scale As Noted
date 5/02/2024
sheet title Plumbing Plan
sheet number M102



PIPE HANGER DETAIL

NOT TO SCALE



NOTES:
1. INSTALL GAS WATER HEATERS PER MANUFACTURER'S RECOMMENDATIONS AND ALL LOCAL CODES. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND CODE REQUIRED CLEARANCES.
2. PROVIDE COLD WATER AND HOT WATER MANIFOLD TO ALLOW EQUAL FLOW THROUGH EACH WATER HEATER. ALL COLD WATER AND HOT WATER PIPING ASSOCIATED WITH MANIFOLD SHALL BE SYMMETRIC. INSTALL PIPING PER MANUFACTURER'S RECOMMENDATIONS.

TANKLESS GAS WATER HEATER DETAIL

NO SCALE

PLUMBING FIXTURE SCHEDULE

PLAN MARK	FIXTURE MODEL	FIXTURE DESCRIPTION	FITTINGS MODEL	FITTINGS DESCRIPTION	PIPE SIZES WASTE	VENT	DCW	DHW
P-1	KOHLER K-96057 CHURCH 9500C	ADA COMPLIANT WATER CLOSET: FLUSH VALVE, WHITE ELONGATED BOWL, FLOOR MOUNTED, 1.6 GALLON SIPHON JET FLUSHING ACTION SEAT: WHITE, SOLID PLASTIC, OPEN FRONT, ELONGATED	SLOAN ROYAL 111 SFSM-1.6	BATTERY POWERED, SENSOR ACTIVATED, FLUSH METER CHROME PLATED WITH SENSOR UNIT AND BATTERIES WITH VACUUM BREAKER FLUSH CONNECTION, AND SPUD COUPLING FOR 1 1/2" TOP SPUD. PROVIDE WITH WALL AND SPUD FLANGES. 1.6 GALLON FLUSH WITH OVERRIDE COVER.	4"	2"	1-1/4"	--
P-2	KOHLER K-96053 CHURCH 9500C	WATER CLOSET: FLUSH VALVE, WHITE ELONGATED BOWL, FLOOR MOUNTED, 1.6 GALLON SIPHON JET FLUSHING ACTION SEAT: WHITE, SOLID PLASTIC, OPEN FRONT, ELONGATED	SLOAN ROYAL 111 SFSM-1.6	BATTERY POWERED, SENSOR ACTIVATED, FLUSH METER CHROME PLATED WITH SENSOR UNIT AND BATTERIES WITH VACUUM BREAKER FLUSH CONNECTION, AND SPUD COUPLING FOR 1 1/2" TOP SPUD. PROVIDE WITH WALL AND SPUD FLANGES. 1.6 GALLON FLUSH WITH OVERRIDE COVER.	4"	2"	1-1/4"	--
P-3	KOHLER 4991-ET	ADA COMPLIANT URINAL: WHITE WALL HUNG URINAL 0.5 GALLON SIPHON JET FLUSHING ACTION. MOUNT FIXTURE RIM AT 17" ABOVE FLOOR WITH FLOOR MOUNTED, HEAVY DUTY TUBULAR STEEL SUPPORT CARRIER	SLOAN ROYAL 186 SFSM-0.5	BATTERY POWERED, SENSOR ACTIVATED, FLUSH METER CHROME PLATED WITH SENSOR UNIT AND BATTERIES WITH VACUUM BREAKER FLUSH CONNECTION, AND SPUD COUPLING FOR 3/4" TOP SPUD. PROVIDE WITH WALL AND SPUD FLANGES. 0.5 GALLON FLUSH.	2"	2"	1"	--
P-4	TRUEFORM CONCRETE FLO-72VA-ADA	ADA COMPLIANT DUAL STATION LAVATORY: WALL HUNG LAVATORY 70"x21". PROVIDE FLEXIBLE METAL WATER RISERS, DECK MOUNTED SOAP DISPENSERS. MOUNT TOP OF RIM AT 34" ABOVE FLOOR. COORDINATE COLOR WITH ARCHITECT.	(2) SLOAN EBF-85	SENSOR OPERATED ELECTRONICS FAUCET: CHROME FINISH 1/2" CONNECTIONS, VANDAL RESISTANT, 0.5 GPM., NO POP UP HOLE CHROME PLATED BRASS GRID DRAIN, TAILPIECE, AND P-TRAP INSULATE THE TAILPIECE, P-TRAP, AND WATER RISERS PROVIDE WITH THERMOSTATIC MIXING VALVE AND BATTERIES	2"	2"	1/2"	1/2"

WATER HEATER SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	GALLONS	CAPACITY	ELECTRICAL	NOTES
WATER HEATER-1	NAVIEN	NPE-240A2	TANKLESS	13,300 BTUH MIN - 199,000 BTUH MAX	120V, 200W	1,2,3
WATER HEATER-2	NAVIEN	NPE-240A2	TANKLESS	13,300 BTUH MIN - 199,000 BTUH MAX	120V, 200W	1,2,3
WATER HEATER-3	NAVIEN	NPE-240A2	TANKLESS	13,300 BTUH MIN - 199,000 BTUH MAX	120V, 200W	1,2,3
WATER HEATER-4	NAVIEN	NPE-240A2	TANKLESS	13,300 BTUH MIN - 199,000 BTUH MAX	120V, 200W	1,2,3
WATER HEATER-5	NAVIEN	NPE-240A2	TANKLESS	13,300 BTUH MIN - 199,000 BTUH MAX	120V, 200W	1,2,3

NOTES LEGEND
1 - PROVIDE INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS, INCLUDING INTAKE AND EXHAUST VENTING.
2 - PROVIDE INTERNAL CIRCULATION PUMP, 0.5 GALLON BUFFER TANK, TEMPERATURE/PRESSURE RELIEF VALVE.
3 - PROVIDE READY-LINK COMMUNICATION CABLE AND CONDENSATE NEUTRALIZER KIT.

EXPANSION TANK SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	TOTAL VOLUME
DOMESTIC HOT WATER	AMTROL	ST-12	4.4

FLOOR DRAIN SCHEDULE

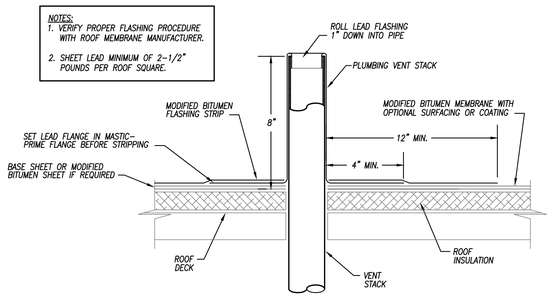
PLAN MARK	MANUFACTURER	MODEL NUMBER	SERVICE	TOP/GRATE SIZE	WASTE SIZE	REMARKS
FD-1	SIOUX CHIEF	842-PB	FLOOR DRAIN	5-1/2"Ø	2"	1,3
FS-1	SIOUX CHIEF	861	FLOOR SINK	12"x12"	4"	2

REMARKS:
1. PROVIDE WITH NICKEL BRONZE STRAINER.
2. PROVIDE WITH STAINLESS STEEL SCREEN AND PVC HALF OPEN STRAINER
3. PROVIDE WITH TRAP SEAL

FIRE SPRINKLER NOTES:

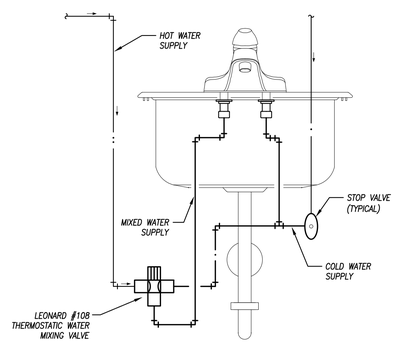
1. EXISTING SPACE HAS A FIRE SPRINKLER SYSTEM. AN APPROVED FIRE SPRINKLER CONTRACTOR TO VERIFY EXACT SPACING AND LAYOUT. RELOCATE EXISTING SPRINKLER HEADS AND EXTEND SPRINKLER PIPING AS REQUIRED FOR COMPLETE COVERAGE. CONTRACTOR TO FIELD VERIFY EXACT REQUIREMENTS.
2. THE FIRE SPRINKLER SYSTEM MUST BE INSTALLED AND COMPLY WITH NFPA, LATEST EDITION, THE LIFE SAFETY CODE, AND THE INTERNATIONAL FIRE CODE.
3. SUBMIT PLANS AND SUBMITTALS TO THE FIRE MARSHAL. THE SYSTEM SHALL BE INSPECTED FOR COMPLIANCE BY THE FIRE INSPECTOR.

NOTES:
1. VERIFY PROPER FLASHING PROCEDURE WITH ROOF MEMBRANE MANUFACTURER.
2. SHEET LEAD MINIMUM OF 2-1/2" POUNDS PER ROOF SQUARE.



VENT STACK

NOT TO SCALE



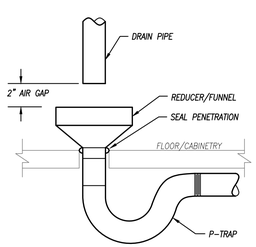
MIXING VALVE SCHEMATIC

NOT TO SCALE

PIPING MATERIAL & INSULATION SCHEDULE

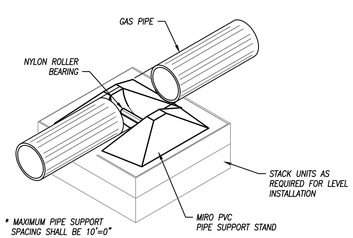
PIPING SYSTEM	SIZE	TYPE/SCHED	MATERIAL	ACCEPTABLE FITTINGS	FIELD TEST PRESSURE/TIME	ALLOWABLE IN PLENUMS	INSULATION TYPE	INSULATION THICKNESS
DOMESTIC COLD WATER	1/2"-2-1/2"	L	COPPER	SOLDER, PRO-PRESS	130 PSI - 1/2HR	YES	FIBERGLASS W/ ASJ	1/2"
DOMESTIC HOT WATER & HW RETURN	1/2"-2-1/2"	L	COPPER	SOLDER, PRO-PRESS	130 PSI - 1/2HR	YES	FIBERGLASS W/ ASJ	1"
DOM. HOT & COLD BELOW GRADE	1/2"-1-1/4"	K	COPPER	CONTINUOUS TUBING, BRAZED	130 PSI - 1/2HR	YES	ELASTOMERIC	3/4" (HOT ONLY)
DOMESTIC COLD WATER	3"-6"	L	COPPER	BRAZED, PRO-PRESS	130 PSI - 1/2HR	YES	FIBERGLASS W/ ASJ	1/2"
DOMESTIC HOT WATER	3"-6"	L	COPPER	BRAZED, PRO-PRESS	130 PSI - 1/2HR	YES	FIBERGLASS W/ ASJ	1-1/2"
NATURAL GAS - ABOVE GRADE	2-1/2 & Up	SCH. 40	STEEL- SEEMED	WELDED	75 PSI - 1HR	YES	----	----
NATURAL GAS - ABOVE GRADE	1/2"-2"	SCH. 40	STEEL- SEEMLESS	THREADED IRON	75 PSI - 1HR	YES	----	----
NATURAL GAS BELOW GRADE	ALL	SDR-11	POLYETHYLENE	FUSION JOINTS	100 PSI - 1HR	NO	----	----
SOIL & WASTE ABOVE GRADE	1-1/2"-6"	NO HUB / SERVICE WT.	CAST IRON	NO HUB	10 FT - 1/2HR	YES	----	----
SOIL & WASTE ABOVE GRADE	2"-8"	SCH. 40	PVC	SOLVENT JOINED	10 FT - 1/2HR	NO	----	----
SOIL & WASTE BELOW GRADE	2"-8"	SCH. 40	PVC	SOLVENT JOINED	10 FT - 1/2HR	NO	----	----
DRINKING FOUNT. DRAIN	ALL	----	----	----	----	YES	ELASTOMERIC	1/2"
CONDENSATE DRAIN ON ROOF	3/4"-2"	SCH. 40	PVC	SOLVENT JOINED	10 FT - 1/2HR	NO	----	----
CONDENSATE DRAIN INTERIOR	1/2"-2"	L	COPPER	SOLDER, PRO-PRESS	10 FT - 1/2HR	YES	FIBERGLASS W/ ASJ	1/2" (PLENUM ONLY)
FIRE SERVICE BELOW GRADE	4"-8"	AWWA C151	DUCTILE IRON	AWWA C111. MECH JOINTS	130 PSI - 1/2HR	YES	----	----
DOM. WATER SERVICE BELOW GRADE	4"-8"	AWWA C151	DUCTILE IRON	AWWA C111. MECH JOINTS	130 PSI - 1/2HR	YES	----	----
DOM. WATER SERVICE BELOW GRADE	1"-3"	K	COPPER	CONTINUOUS TUBING, BRAZED	130 PSI - 1/2HR	YES	----	----
DOM. WATER SERVICE BELOW GRADE	1"-3"	DR 9	HDPE	CONTINUOUS TUBING, FUSED	130 PSI - 1/2HR	NO	----	----

NOTES
1. ALL PIPING AND MATERIALS IN PLENUMS MUST MEET ASTM E84 FLAME/SMOKE RATING OF 25/50.
2. ALL INSULATION THICKNESSES SHALL MEET ASHRAE 90.1 - 2007 REQUIREMENTS AT A MINIMUM.
3. REFER TO SPECIFICATIONS FOR MORE DETAILED INFORMATION.



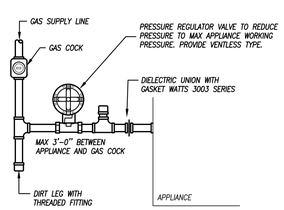
AIR GAP DETAIL

NOT TO SCALE



ROOF SUPPORT FOR GAS LINE

NOT TO SCALE



TYPICAL GAS CONNECTION

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Bryan Leinwetter - Engineer
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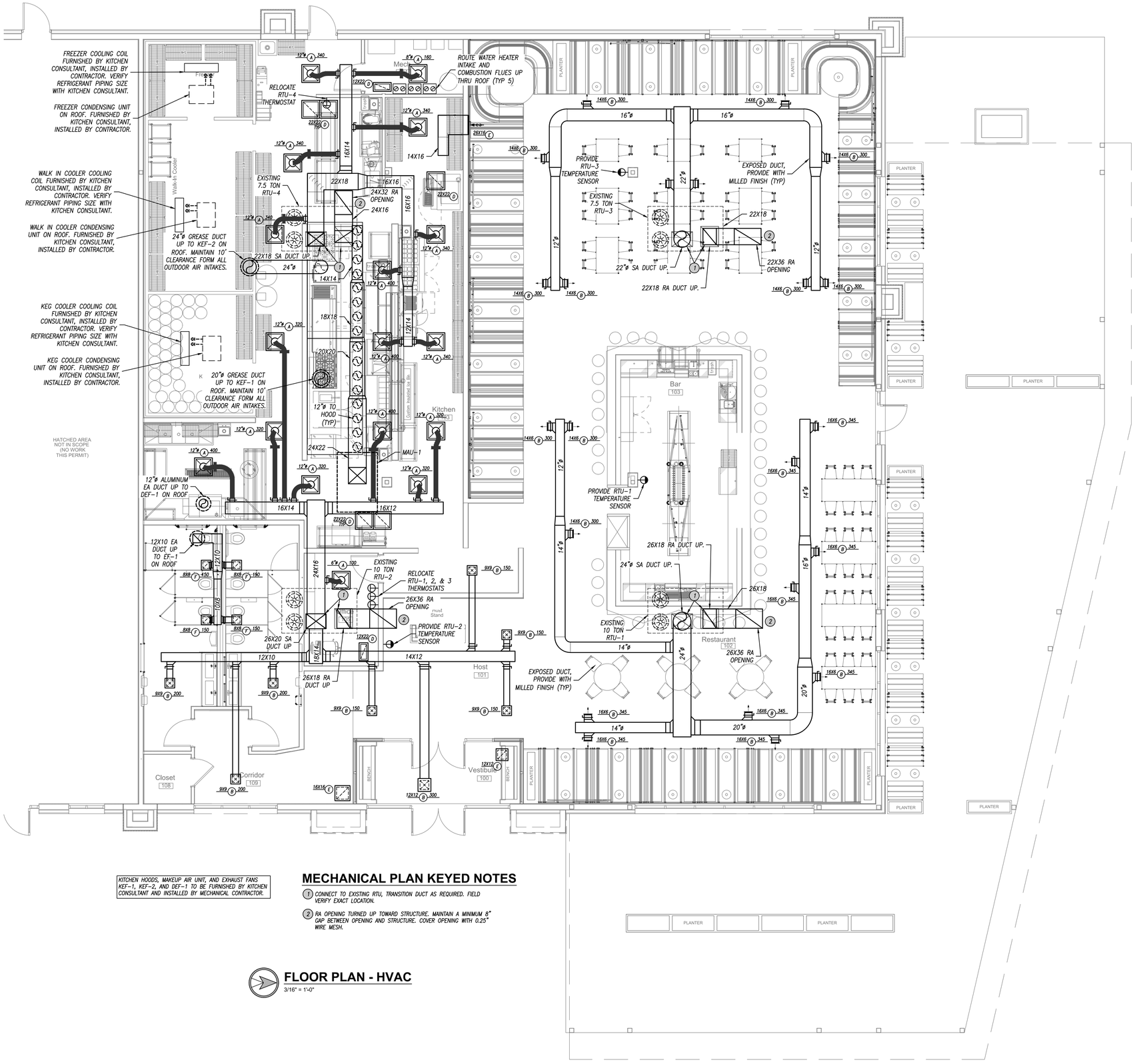
30hop
american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit

orientation
project number 232882
scale As Noted
date 5/02/2024
sheet title Plumbing Details
sheet number M103



KITCHEN HOODS, MAKEUP AIR UNIT, AND EXHAUST FANS KEF-1, KEF-2, AND DEF-1 TO BE FURNISHED BY KITCHEN CONSULTANT AND INSTALLED BY MECHANICAL CONTRACTOR.

MECHANICAL PLAN KEYED NOTES

1. CONNECT TO EXISTING RTU, TRANSITION DUCT AS REQUIRED. FIELD VERIFY EXACT LOCATION.
2. RA OPENING TURNED UP TOWARD STRUCTURE. MAINTAIN A MINIMUM 8" GAP BETWEEN OPENING AND STRUCTURE. COVER OPENING WITH 0.25" WIRE MESH.

FLOOR PLAN - HVAC

3/16" = 1'-0"

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BRYAN LEINWETTER
NUMBER PE-2020020297
PROFESSIONAL ENGINEER
5/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

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project number 232882

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date 5/02/2024

sheet title HVAC Plan

sheet number M201

DUCTWORK INSULATION SCHEDULE

DUCT				INSULATION			
PURPOSE	DUTY	LOCATION	STYLE	MATERIAL	APPLICATION	THICKNESS	NOTES
SUPPLY	LOW PRESSURE/VELOCITY	CONCEALED	RECTANGULAR	FIBERGLASS	LINED	1/2"	---
		CONCEALED	ROUND	MINERAL FIBER	WRAPPED	1-1/2"	---
		EXPOSED	RECTANGULAR	FIBERGLASS	LINED	1/2"	---
		EXPOSED	ROUND	FIBERGLASS	LINED	1/2"	---
RETURN	LOW PRESSURE/VELOCITY	CONCEALED	RECTANGULAR	FIBERGLASS	LINED	1/2"	---
		CONCEALED	ROUND	MINERAL FIBER	WRAPPED	1-1/2"	---
		EXPOSED	RECTANGULAR	FIBERGLASS	LINED	1/2"	---
		EXPOSED	ROUND	FIBERGLASS	LINED	1/2"	---
		RETURN/TRANSFER BOOTS	RECTANGULAR	FIBERGLASS	LINED	1/2"	---
EXHAUST	LOW PRESSURE/VELOCITY	CONCEALED	RECTANGULAR	FIBERGLASS	LINED	1/2"	---
		CONCEALED	ROUND	FIBERGLASS	LINED	1/2"	1
		EXPOSED	RECTANGULAR	FIBERGLASS	LINED	1/2"	---
		EXPOSED	ROUND	FIBERGLASS	LINED	1/2"	1
	GREASE HOOD EXHAUST	ALL	ALL	2 HOUR UL LISTED FIRE RATED WRAP SYSTEM			---
	DISHWASHER EXHAUST	ALL	ALL	NONE			---

NOTES:

1. PROVIDE LINER ONLY WITHIN 10' OF FAN FOR ACCOUSTICS.

GENERAL REMARKS (APPLICABLE TO ALL TYPES):

1) ALL DUCTWORK, INSULATION AND MATERIALS IN PLENUMS MUST MEET ASTM E84 FLAME/SMOKE RATING OF 25/50.
2) ALL INSULATION THICKNESSES SHALL MEET ASHRAE 90.1 – 2010 REQUIREMENTS AT A MINIMUM.
3) REFER TO SPECIFICATIONS FOR MORE DETAILED INFORMATION FOR INSULATION PRODUCTS AND SYSTEMS.

EXHAUST FAN SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	MOUNTING	SERVICE	CFM	STATIC PRESSURE	ELECTRICAL	DRIVE	DISCONNECT	DAMPER	NOTES
EF-1	GREENHECK	GB-100	ROOF	EXHAUST	600	3/4"	1/4 HP, 120V, 1 PH.	BELT	YES	MOTORIZED	1,2

NOTES LEGEND

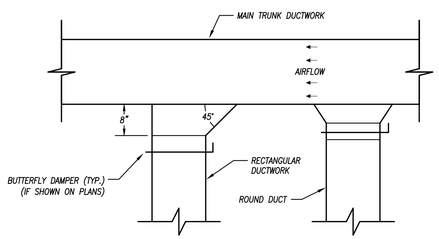
1. PROVIDE TIMECLOCK TO RUN FAN CONTINUOUSLY WHEN BUILDING IS OCCUPIED
2. PROVIDE ROOF CURB AND BIRD SCREEN

GRILLE, REGISTER & DIFFUSER SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	SERVICE	MOUNT TYPE	VOLUME DAMPER	MATERIAL	MATERIAL COLOR	NOTES
A	PRICE	PFD	SUPPLY	GRID	NO	STEEL	WHITE	2
B	PRICE	SMD-1	SUPPLY	FLANGE	YES	STEEL	WHITE	
C	PRICE	SDGE	SUPPLY	ROUND DUCT	YES	STEEL	GALVANIZED	
D	PRICE	PDR	RETURN	GRID	NO	STEEL	WHITE	1
E	PRICE	535	RETURN	FLANGE	NO	STEEL	WHITE	
F	PRICE	535	EXHAUST	FLANGE	YES	STEEL	WHITE	

NOTES LEGEND

1. PROVIDE WITHOUT SCREW HOLES WHERE USED IN A GRID CEILING
2. PAN TO FIT A 2'X2' GRID.



DUCTWORK TAKEOFF

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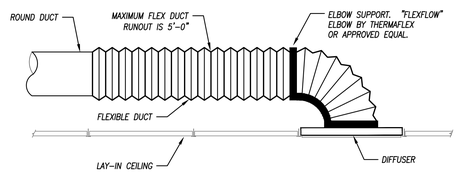

NOTES:
1. NOTE: INSTALL FLEXIBLE DUCTWORK SUPPORTS AT ALL ROUND NECK OUTLETS/INLETS UNLESS OTHERWISE NOTED ON DRAWINGS.
2. FLEXIBLE DUCTWORK IS NOT TO BE USED IN UNACCESSIBLE LOCATIONS. (ABOVE GYP. BOARD CEILINGS, ETC.)

FLEXIBLE DUCT CONNECTION TO DIFFUSER

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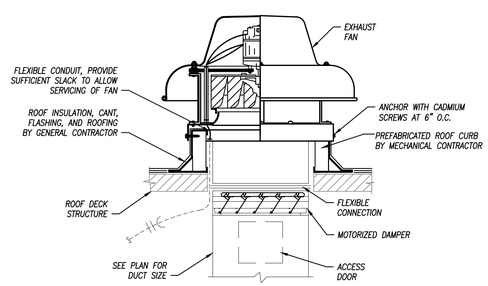
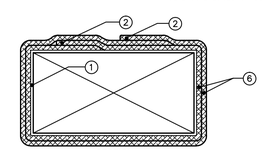


EXHAUST FAN DETAIL

NOT TO SCALE

NOTES:
1. BANDING MATERIAL, 3/4" WIDE, MINIMUM 0.015" THICK, CARBON STEEL FOR CONSTRUCTION REQUIREMENTS OF ZERO CLEARANCE TO COMBUSTIBLES OR 1 HR. RATINGS. STAINLESS STEEL BANDING IS USED FOR 2 HR. REQUIREMENTS.
2. 3M FIREMATER DUCT WRAP, 1-1/2" THICK, 24" OR 48" WIDE, 300" STANDARD LENGTH (2 LAYERS) 8 LBS PER CUBIC FT TO BE UTILIZED.
3. HOLD INTERIOR WRAP OF INSULATION USING 1" WIDE FILAMENT TAPE (NO. 898) MANUFACTURED BY 3M COMPANY.
4. SEAL CUTE EDGES OF BLANKET WITH ALUMINUM FOIL TAPE.

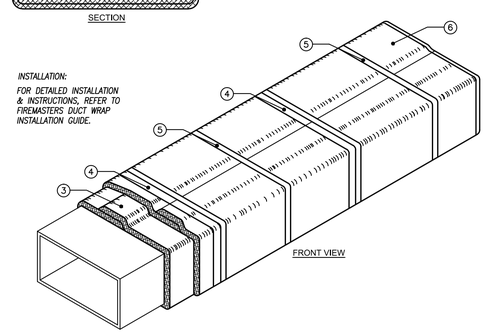


SECTION

LEGEND	
1	DUCT
2	3" MINIMUM PERIMETER OVERLAP
3	3" PERIMETER OVERLAP
4	3" LONGITUDINAL OVERLAP
5	FILAMENT TAPE & BANDING
6	2 LAYERS FIREMASTERS DUCTWRAP

INSTALLATION:

FOR DETAILED INSTALLATION & INSTRUCTIONS, REFER TO FIREMASTERS DUCT WRAP INSTALLATION GUIDE.



FRONT VIEW

GREASE DUCT FIRE RATING DIAGRAM

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orientation

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sheet title HVAC Details

sheet number M202

FOR QUESTIONS, CALL THE
Iowa Office
REGION 71
PHONE: (515) 318 - 5908
EMAIL: reg71@captiveaire.com

PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.

HOOD INFORMATION – JOB#6744776

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG END TO END	ROW
1	Main - L	6030 ND-2-PSP-F	CAPTIVEAIRE	12' 0"	450 DEG	I	MEDIUM	200	2400			4"	16"	2400	1719	-0.797"	2000	430 SS WHERE EXPOSED	LEFT	ALONE
2	Main - R	6030 ND-2-PSP-F	CAPTIVEAIRE	12' 0"	600 DEG	I	HEAVY	275	3300			4"	18"	3300	1867	-1.151"	2000	430 SS WHERE EXPOSED	RIGHT	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S) TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
1	Main - L	CAPTRATE SOLO FILTER	9	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	LEFT	12"x60"x30"	TANK FS	4.0/4.0/4.0/4.0			YES	1252 LBS
2	Main - R	CAPTRATE SOLO FILTER	9	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	NO	RIGHT	12"x60"x30"			DCV-2111_MA4	1 LIGHT 1 FAN	YES	940 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1	Main - L	FIELD WRAPPER 18.00" HIGH FRONT, LEFT.
		BACKSPLASH 128.00" HIGH X 348.00" LONG 430 SS VERTICAL.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		STRUCTURAL FRONT PANEL.
2	Main - R	FIELD WRAPPER 18.00" HIGH FRONT, RIGHT.
		STRUCTURAL FRONT PANEL.
		RISER SENSOR INSTALL 6IN PLEN.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	PDS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1	Main - L	Front	156"	14"	12"	MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
2	Main - R	Front	156"	14"	12"	MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"
						MUA			12"	249	0.079"

CLEARANCE TO COMBUSTIBLES

HOODS #	SURFACE	*CLEARANCE
1	TOP	18"
	FRONT	0"
	BACK	18"
	LEFT	0"
	RIGHT	18"
2	TOP	18"
	FRONT	0"
	BACK	18"
	LEFT	18"
	RIGHT	0"

- *0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.

SPECIFICATION: CAPTRATE• GREASE-STOP• SOLO FILTER

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

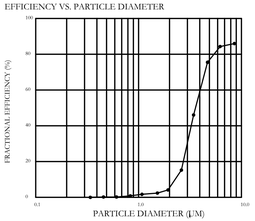
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

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

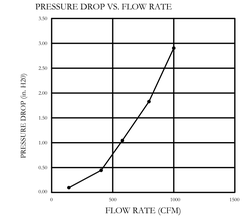
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER

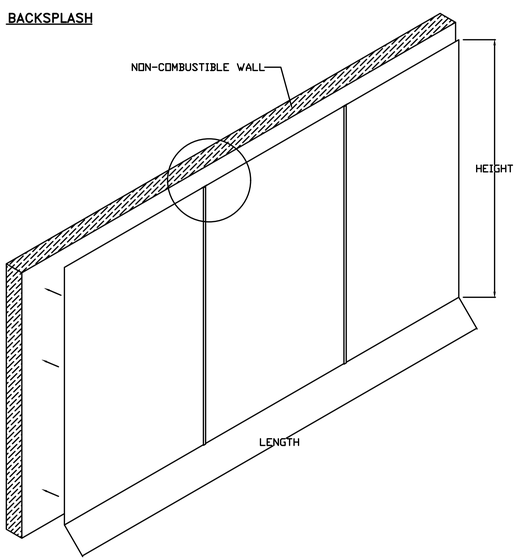


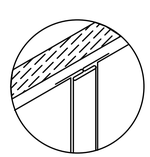
PRESSURE DROP VS. FLOW RATE



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

BACKSPLASH

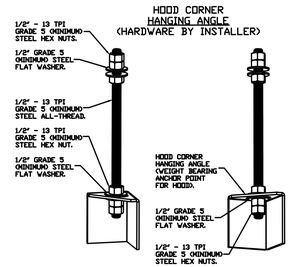




BACKSPLASH PANELS SLIDE INTO DIVIDER BAR

- BACKSPLASH IS NOT INSULATED AND IS UNSUITABLE FOR INSTALL AGAINST COMBUSTIBLE WALLS

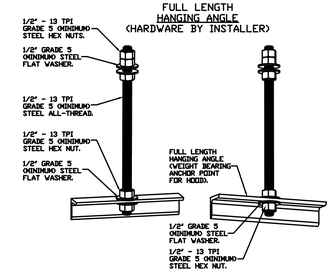
HOOD CORNER HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

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

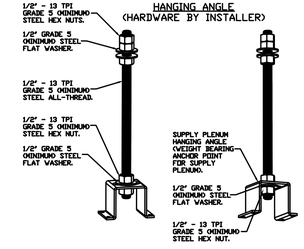
FULL LENGTH HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

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

SUPPLY PLENUM HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

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

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Urban Planning

Pappageorge Haymes Partners
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PROFESSIONAL ENGINEER
5/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

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30hop american grill • craft beer • rooftop patio

30hop SOWP
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30hop
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	date	description
	05.02.24	Issue For Permit

REVISIONS

DESCRIPTION	DATE:

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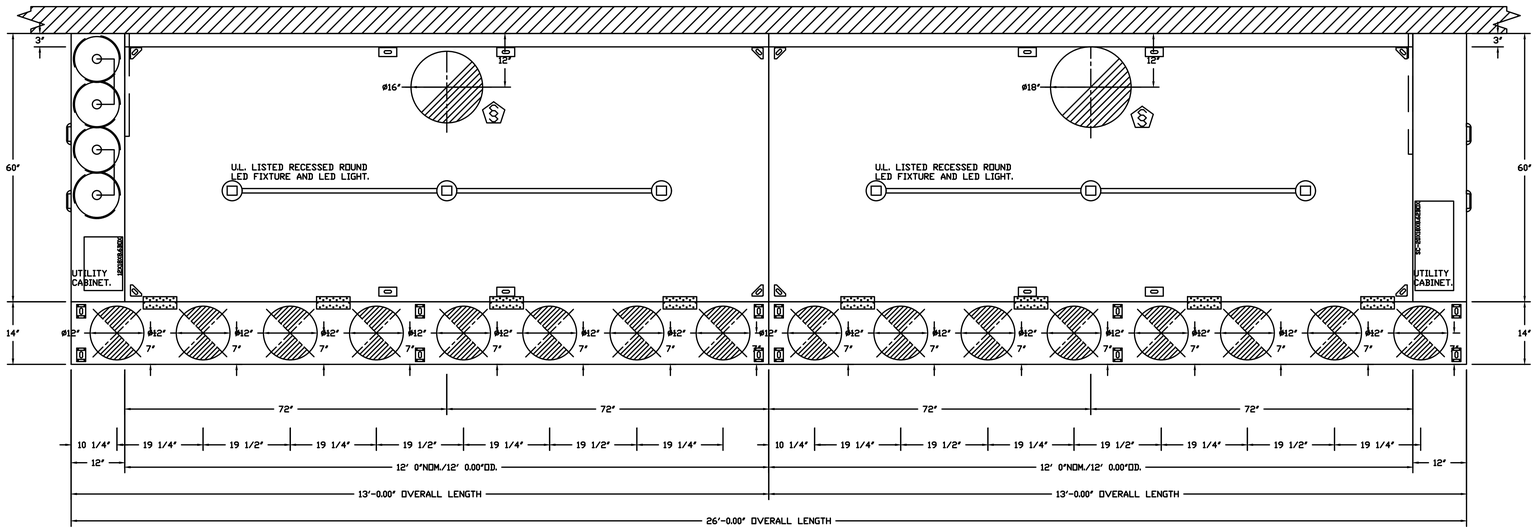
30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024
DWG.#: 6744776
DRAWN BY: jsievers
SCALE: 3/4" = 1'-0"
MASTER DRAWING

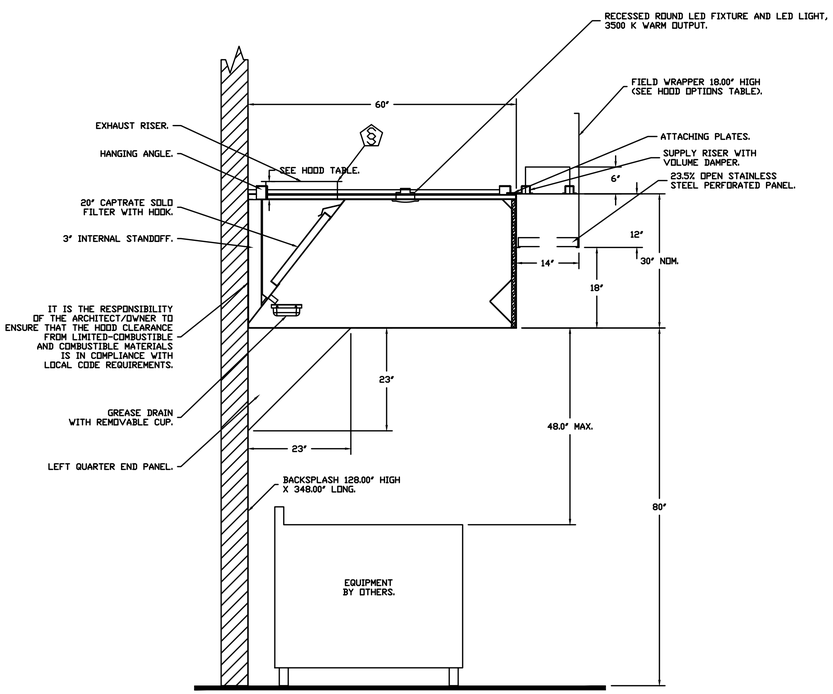
SHEET NO. 1

orientation
project number 232882
scale As Noted
date 5/02/2024
sheet title HVAC Details
sheet number M203

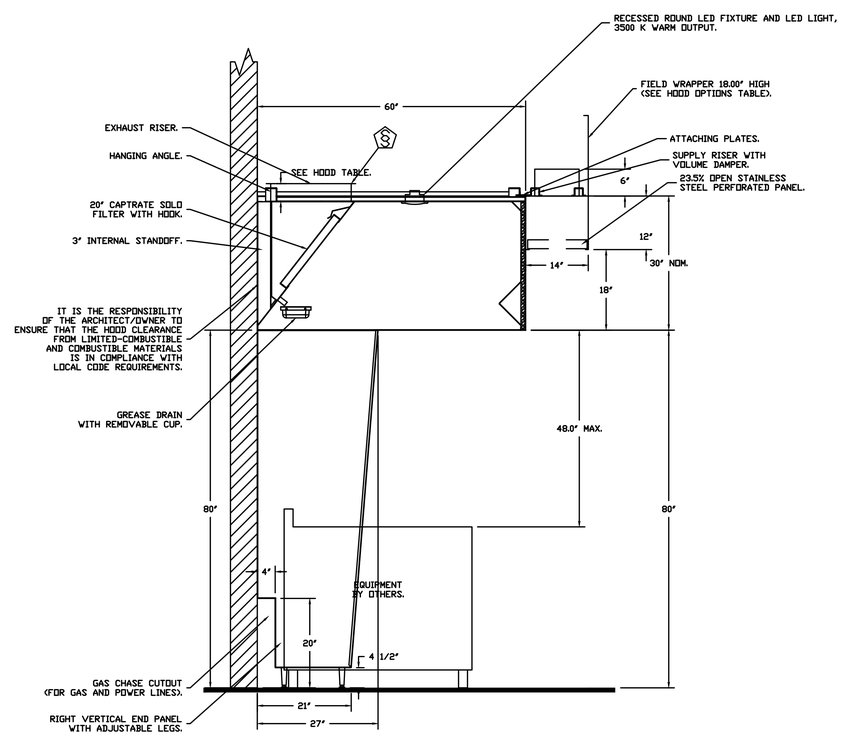


PLAN VIEW – HOOD #1 (Main – L)
12' 0.00" LONG 6030ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.

PLAN VIEW – HOOD #2 (Main – R)
12' 0.00" LONG 6030ND-2-PSP-F
NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.



SECTION VIEW – MODEL 6030ND-2-PSP-F
HOOD – #1 (Main – L)



SECTION VIEW – MODEL 6030ND-2-PSP-F
HOOD – #2 (Main – R)

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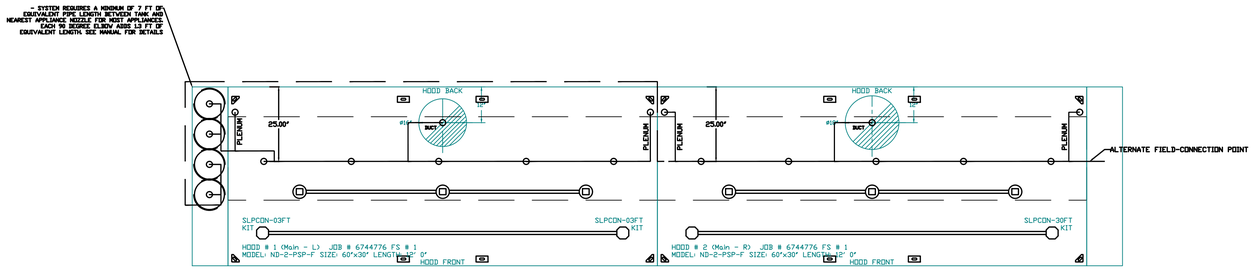
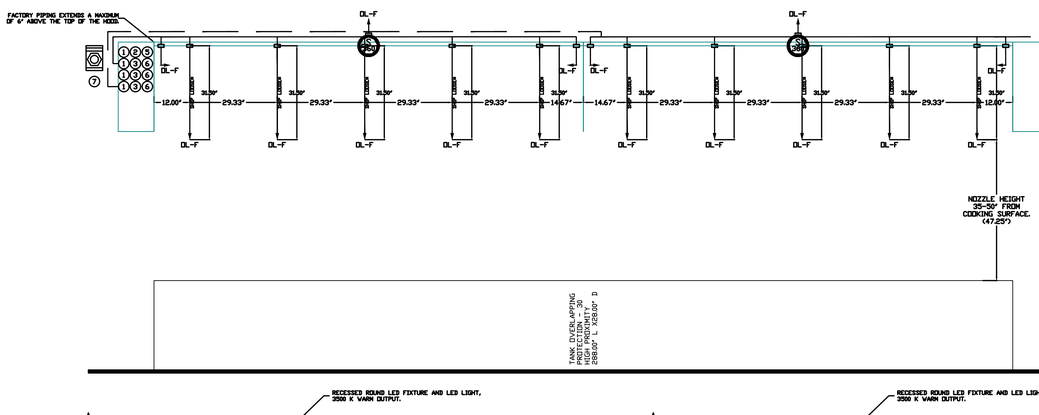
30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

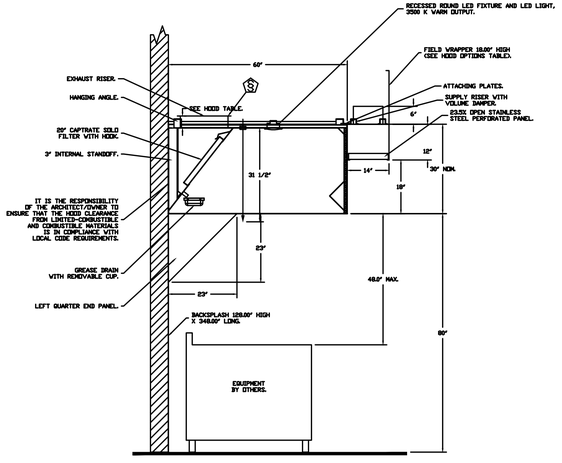
DATE: 4/17/2024
DWG.#: 6744776
DRAWN BY: jslevers
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 2

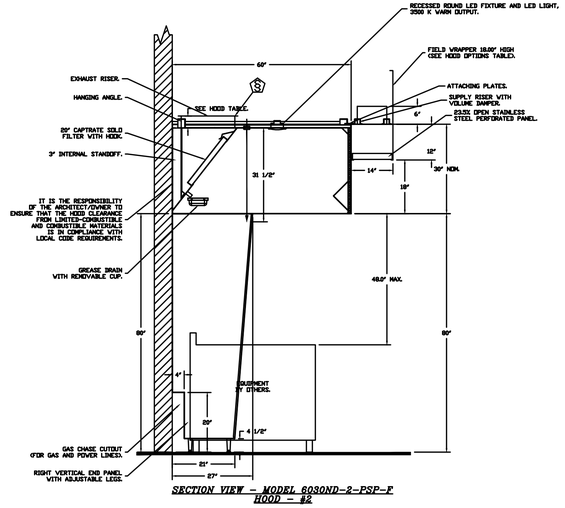
orientation	
project number	232882
scale	As Noted
date	5/02/2024
sheet title	HVAC Details
sheet number	M204







SECTION VIEW - MODEL 6030ND-2-PSP-F
HOOD - #1



SECTION VIEW - MODEL 6030ND-2-PSP-F
HOOD - #2

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

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

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

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

JOB #: 6744776.
JOB NAME: 30 HOP - LEE'S SUMMIT, MO_R1.

SYSTEM SIZE: TANK-SP-4 DESIGN FP: 74, MAXIMUM FP: 80.
HOOD # 1 12' 0.00" LONG x 60" WIDE x 30" HIGH.
RISER # 1 SIZE: 16" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.
HOOD # 2 12' 0.00" LONG x 60" WIDE x 30" HIGH.
RISER # 1 SIZE: 18" DIA.
HOOD # 2 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND - FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

INCLUDES: FIELD INSTALLATION AND HOOKUP DURING NORMAL BUSINESS HOURS BY CERTIFIED INSTALLERS ONLY IN THE LOCATION NOTED ABOVE. TWO SITE VISITS ONLY (ONE VISIT TO SET PULL STATION & SYSTEM HOOKUP AND ONE VISIT FOR DNE TEST) ADDITIONAL VISITS WILL RESULT IN ADDITIONAL CHARGES). DNE MECHANICAL OR ELECTRICAL GAS VALVE PER SYSTEM AT A MAXIMUM SIZE OF 2", PERMIT, AND SYSTEM TEST.
EXCLUDES: UNION LABOR & PREVAILING WAGE (LABOR & WAGES WILL BE ADDED IF APPLICABLE), GAS VALVE INSTALLATION, ELECTRICAL HOOKUP AND CONNECTIONS, HANGING OF FIRE CABINET, SHUNT TRIP, HANDHELD EXTINGUISHER(S), ON-SITE RE-PIPING DUE TO EQUIPMENT LAYOUT CHANGES.

FIRE SYSTEM INFORMATION - JOB#6744776

FIRE SYSTEM NO	TAG	TYPE	SIZE	MAX FP	DESIGN FP	INSTALLATION	
						SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0/4.0/4.0	80	74	FIRE CABINET LEFT	LEFT, HOOD 1

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS

FIRE SYSTEM PARTS LIST KEY

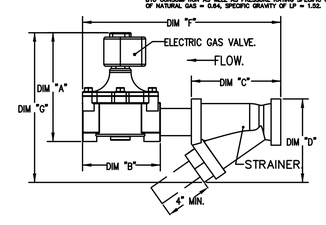
FIRE SYSTEM NO	TAG	KEY NUMBER - PART DESCRIPTION	QTY BY FACTORY	QTY BY DIST
1		0 - 0 - TANK FIRE SUPPRESSION POST-DISCHARGE PROCEDURE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - TANK FIRE SUPPRESSION MAINTENANCE GUIDE UTILITY CABINET LABEL SHEET.	1	0
		0 - 0 - 12-F39821-32144-OT-360 DUCT FIRE THERMOSTAT WITH 12 FOOT WIRE LEADS. NO, CLOSE ON TEMP RISE AT 360°F.	2	0
		0 - 0 - 32-00002 QUIK SEAL - 1/2" (U.L.).	2	0
		0 - 0 - 361091 3/8" BRASS PLUG.	3	0
		0 - 0 - 4429K153 1/2" MALE NPT TO 1/2" FEMALE NPT ELBOW, BRASS.	4	0
		0 - 0 - 4429K422 1/2" X 1/4" BRASS REDUCING BUSHING.	2	0
		0 - 0 - 79425 3/8" NPT FEMALE TO 1/2" MALE PROPRESS ADAPTER.	3	0
		0 - 0 - 79525 1/2" 90 PRO-PRESS ELBOW WITH 1/2 NPT FEMALE CONNECTION, VIEGA.	2	0
		0 - 0 - 79580 1/2" X 1/2" PRO-PRESS TEE X 1/2 NPT FEMALE CONNECTION, VIEGA.	4	0
		0 - 0 - 87-120045-001 SECONDARY ACTUATOR VALVE (SVA) - SINGLE ACTUATOR, REQUIRES PRIMARY RELEASE ACTUATOR, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-120045-001 HOSE, SECONDARY ACTUATOR HOSE, 7.5" BRAIDED STAINLESS STEEL, TANK FIRE SUPPRESSION.	3	0
		0 - 0 - 87-300001-001 TANK - PRESSURIZED TANK USED FOR TANK FIRE SUPPRESSION.	4	0
		0 - 0 - 87-300030-001 PRIMARY ACTUATOR KIT (PAK) - ACTUATOR AND RELEASE SOLENOID ASSEMBLY, DNE NEEDED PER FIRE SYSTEM, SUPERVISED, TANK FIRE SUPPRESSION.	1	0
		0 - 0 - 87-300152-001 HARDWARE, SVA BOLTS, TANK FIRE SUPPRESSION.	16	0
		0 - 0 - 9055455PC PRO PRESS 1/2 PRESS X PRESS 90 ELBOW LD.	12	0
		0 - 0 - 9097200PC PRO PRESS PC611 1/2 PRESS TEE LD.	15	0
		0 - 0 - 98694A115 HARDWARE, DATANKLOCK LOCKING BRACKET SQUARE NUTS 5/16" ZINC, TANK FIRE SUPPRESSION.	8	0
		0 - 0 - A0034332 JUNCTION BOX FOR MANUAL PULL STATION. 1.5" DEEP BACK BOX, RED COLOR.	1	0
		0 - 0 - A31484 1/4" NPT SCHRADER VALVE AND CAP, JB INDUSTRIES. 1/4" FLARE X 1/4" MPT HALF UNION. USED ON TANK SERVICE PORT.	2	0
		0 - 0 - BI145 3/8" BLACK IRON 90 ELL.	6	0
		0 - 0 - DATANKLOCK DISCHARGE ADAPTER TANK LOCKING PLATE FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - SLPCON-03FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN END TO END HOODS WITH LESS THAN A 2' GAP. KIT CONTAINS 3 FEET OF BLACK MG WIRE, 5 FEET OF TAN MG WIRE, 3 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	2	0
		0 - 0 - SLPCON-30FT SUPERVISED LOOP CONNECTION KIT. CONTAINS THE PARTS NEEDED TO CONNECT THE SUPERVISED LOOP BETWEEN HOODS WITH UPTO 25' GAP. KIT CONTAINS 32 FEET OF BLACK MG WIRE, 32 FEET OF TAN MG WIRE, 30 FEET OF FLEXIBLE CONDUIT, AND TWO 7/8" CONNECTORS.	1	0
		0 - 0 - TANK STRAP TANK STRAP - USED FOR TANK FIRE SUPPRESSION.	12	0
		0 - 0 - TFS-UCTANKBRACKET TANK BRACKET FOR FIRE SYSTEM TANK INSTALLATION IN UTILITY CABINETS, TANK FIRE SUPPRESSION.	4	0
		0 - 0 - WK-283952-000 DISCHARGE ADAPTER, TANK FIRE SUPPRESSION.	4	0
		16 - 16 - 79210 1/2" X 3/8" NPT MALE ADAPTER, VIEGA.	16	0
		16 - 16 - DL-F NOZZLE - TANK PROTECTION APPLIANCE COVERAGE NOZZLE (INCLUDES METAL BLOW OFF CAP, LANYARD, USED WITH CHROME-PLATED PIPE).	16	0
		26 - 26 - QSA-3/8 QUIK SEAL - 3/8" (U.L.).	16	0
		34 - 34 - A0034331 24VDC SINGLE ACTION MANUAL ACTUATION DEVICE (PUSH/PULL STATION) WITH PROTECTIVE COVER, DNE (1) NORMALLY OPEN CONTACT. RED COLOR.	1	0

GAS VALVES AND STRAINERS

	GAS VALVE SIZING						GAS VALVE DIMENSIONS						INSTALLATION	PART NUMBERS		
	TYPE	SIZE	VOLTAGE	MIN. INLET PRESSURE	MAX. INLET PRESSURE	FLOW AT 1 IN.W.C. DROP NATURAL GAS	FLOW AT 1 IN.W.C. DROP PROPANE	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"	MOUNTING ORIENTATION	GAS VALVE PART NUMBER	STRAINER PART NUMBER	GAS VALVE/STRAINER KIT
GAS VALVE FOR FS#1	ELECTRICAL	2"	24 VDC	0 PSI (0 IN.W.C.)	5 PSI (138 IN.W.C.)	2,040,000 BTU/HR	1,606,048 BTU/HR	7-5/8"	6-3/8"	7-1/4"	7-13-16"	15-5/8"	13-15/16"	HORIZONTAL	82142B0-24VDC	4417K08	(SC)(SVC)-24

ALL GAS VALVES/STRAINERS
PROPER CLEARANCE MUST BE PROVIDED IN ORDER TO SERVICE THE STRAINERS A MINIMUM OF 4" CLEARANCE DISTANCE MUST BE PROVIDED AT THE BASE OF THE STRAINER CUSTOMER MUST VERIFY BTU CONSUMPTION AS WELL AS PRESSURE RATING SPECIFIC GRAVITY OF NATURAL GAS = 0.64, SPECIFIC GRAVITY OF LP = 1.52.

CALCULATIONS
TO CALCULATE GAS FLOW FOR OTHER THAN 1 IN.W.C. PRESSURE DROP
NEW BTU/HR = (BTU/HR AT 1 IN.W.C. PRESSURE DROP) X NEW PRESSURE DROP$^{0.5}$
TO CALCULATE GAS FLOW FOR OTHER THAN 0.64 SPECIFIC GRAVITY
NEW BTU/HR = (BTU/HR AT 0.64) X (0.64 / NEW SPECIFIC GRAVITY)$^{0.5}$.



REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

CAPTIVEAIRE
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30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jslevers

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

MASTER DRAWING

SHEET NO. 3

640 N Lasalle Suite 400 Chicago Illinois 60654
312 337 3344
Architecture Urban Planning

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STATE OF MISSOURI
BRYAN LEINWETTER
NUMBER PE-2020020297
PROFESSIONAL ENGINEER
5/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

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30hop - american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit

orientation
project number 232882
scale As Noted
date 5/02/2024
sheet title HVAC Details
sheet number M205

DOAS/RTU FAN SCHEDULE - JOB#6744776

FAN UNIT ND	TAG	QTY	DOAS/RTU MODEL #	MANUFACTURER	BLOWER	RETURN AIR CFM	MAX OUTSIDE AIR CFM	TOTAL CFM	VEIGHT (LBS)	ESP	HP	PHASE	VOLT	MCA	MOCP
4	MAU-1	1	CAS-HVAC2-1.300-18-10T	CAPTIVEAIRE	18WF-2-RTU	0	4000	4000	2080	0.000	5.00	3	208	68.2A	80A

FAN UNIT ND	ELECTRICAL INFORMATION	COOLING INFORMATION												REHEAT INFORMATION					GAS HEAT INFORMATION					
		OUTSIDE AIR		MIXED AIR		LEAVING AIR			CAPACITY		IEER	ISMRE	DISCHARGE		CAPACITY		MOISTURE REMOVAL RATE	GAS TYPE	INPUT BTU#	OUTPUT BTU#	TEMP RISE	REQUIRED INPUT GAS PRESSURE	NOTES
		DB	WB	DB	WB	DB	WB	DP	TOTAL	SENS.			DB	WB	DESIRED	MAX							
4		94.0°F	76.0°F	94.0°F	76.0°F	71.9°F	66.0°F	63.2°F	144.0 MBH	89.9 MBH	18.6	4.3	-1.0°F	-1.0°F	17.3 MBH	0 MBH	49.1 LBS/HR	NATURAL	300000	243000	52°F	7 IN. W.C. - 14 IN. W.C.	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15

NOTES:
1. INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL
2. DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE
3. INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER
4. REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE
5. EC MOTOR CONDENSING FANS
6. ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE
7. SUCTION LINE ACCUMULATOR
8. FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY. 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER
9. AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT)
10. 2" EXTERIOR DUAL-WALL CONSTRUCTION W/ R-13 INSULATION-MINIMUM 26GA EXTERIOR W/ 14GA BASE
11. 81% EFFICIENT FURNACE, WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 6:1 TURNDOWN WITH NG AND 5:1 TURNDOWN WITH LP
12. SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE
13. FULLY MODULATING HOT GAS REHEAT
14. HAIL GUARD FOR CONDENSING COIL
15. FACTORY INSTALLED COMPRESSOR SOUND BLANKET

FAN OPTIONS

FAN UNIT ND	TAG	QTY	DESCRIPTION
1	KEF-1	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR180HFA - SHIP LOOSE - FOR GREASE DUCTS
		1	HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS
		1	2 YEAR PARTS WARRANTY
2	KEF-2	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR240HFA - SHIP LOOSE - FOR GREASE DUCTS
		1	HINGE KIT (HD)- SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS
		1	2 YEAR PARTS WARRANTY
3	DEF-1	1	1 15-BDD DAMPER
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCO), CCW ROTATION
		1	FULL CRATING FOR EXHAUST FANS
		1	SCR-11 BIRD SCREEN
		1	2 YEAR PARTS WARRANTY
4	MAU-1	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE
		1	RTU TOTAL CFM MONITORING
		1	INTAKE FIRESTAT SET TO 135°F
		1	FREEZESTAT
		1	DISCHARGE FIRESTAT SET TO 240°F
		1	SHIP LOOSE GAS STRAINER 3/4"
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
		1	RTU2 DOWN DISCHARGE
		1	2" MERV 13 FILTERS FOR RTU2 (QTY. 4)
		1	2" MERV 8 FILTERS FOR RTU2 (QTY. 4)
		1	OCCUPIED SCHEDULING
		1	RTU2 HAIL GUARD
		1	10 TON MODULATING COOLING (OPTION, 208/230V. R410A REFRIGERANT, VARIABLE SPEED COMPRESSOR, ECM CONDENSING FANS
		1	MOISTURE ELIMINATOR FOR SIZE 2, 10 TON RTU NO REHEAT
		1	RTU2 CURB DUCT HANGER
		1	120V FIRE INPUT
		1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS
		1	CONTROL PANEL ENCLOSURE HEATER 100W - RECOMMENDED FOR WINTER DESIGN TEMPERATURES LESS THAN 0°F
		1	RTU HEATED FURNACE CONDENSATE DRAIN KIT. REQUIRED FOR WINTER DESIGN TEMP OF 0 DEGREES F AND LOWER
		1	LOW PRESSURE GAS SWITCH
		1	CLOGGED FILTER SWITCH - NOTIFICATION ON HMI
		1	RTU2 CONVENIENCE OUTLET (GFCI), 15 AMP - REQUIRES SEPARATE 120V CONNECTION. INCLUDES RECEPTACLE, COVER AND J-BOX
		1	RTU 2 FIXED 100% RETURN AIR INTAKE CONTROL
		1	RTUV2H065 COMPRESSOR SOUND BLANKET 230/460/575V - FACTORY INSTALLED
		1	UNIT MOUNTED VFD CONFIGURED FOR DCV
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE
		1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)

FAN ACCESSORIES

FAN UNIT ND	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF-1	YES						
2	KEF-2	YES						
3	DEF-1		YES					

CURB ASSEMBLIES

ND	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-1	48 LBS	CURB	26.500"W X 26.500"L X 24.000"H INSULATED.
2	# 2	KEF-2	43 LBS	CURB	21.500"W X 21.500"L X 24.000"H INSULATED.
3	# 3	DEF-1	18 LBS	CURB	19.500"W X 19.500"L X 14.000"H.
4	# 4	MAU-1	111 LBS	CURB	49.500"W X 75.000"L X 20.000"H INSULATED.

CONTROLS DESIGN SERVICE

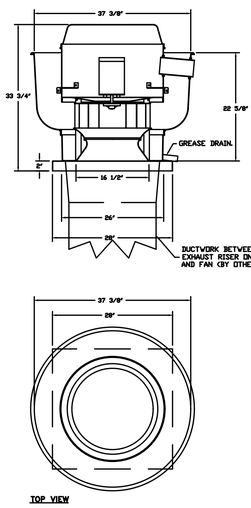
BIANNUAL ANALYSIS OF EQUIPMENT PERFORMANCE REQUIRED BY THE MANUFACTURER TO OPTIMIZE SYSTEM POST INSTALL. DETAILED PERFORMANCE REPORT TO BE PRESENTED TO OWNERSHIP ON QUARTERLY BASIS FOR THE FIRST YEAR.

HMI SCHEDULE				
UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #4	HMI #1 - UNIT HMI # 1	MOUNTED IN UNIT	NOT AVERAGED	55
FAN #4	HMI #2 - SPACE HMI # 1	OFFICE	NOT AVERAGED	56

EXHAUST FAN INFORMATION - JOB#6744776

FAN UNIT ND	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	VEIGHT (LBS)	SONES
1	KEF-1	1	DU180HFA	CAPTIVEAIRE	2400	1.200	1134	ODP,PREMIUM	2.000	0.9980	3	208	8.3	554 FPM	189	13.1
2	KEF-2	1	DU240HFA	CAPTIVEAIRE	3300	1.200	789	ODP,PREMIUM	3.000	1.3360	3	208	10.2	750 FPM	314	12.6
3	DEF-1	1	DU33HFA	CAPTIVEAIRE	600	0.500	1307	TEAO-ECM	0.333	0.1470	1	115	4.3	297 FPM	103	11.9

FAN #1 DU180HFA - EXHAUST FAN (KEF-1)



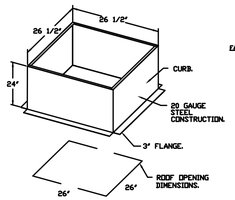
TOP VIEW

FEATURES:
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL VIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SVITCH.

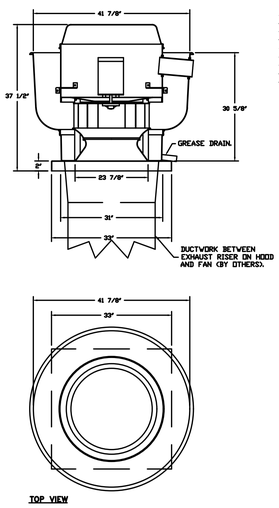
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH VOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES VITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS
- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR180HFA
- SHIP LOOSE - FOR GREASE DUCTS.
- HINGE KIT - SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
- 2 YEAR PARTS WARRANTY.



FAN #2 DU240HFA - EXHAUST FAN (KEF-2)



TOP VIEW

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- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL VIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
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- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SVITCH.

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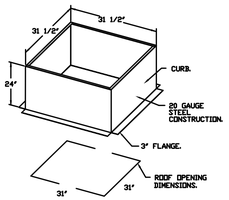
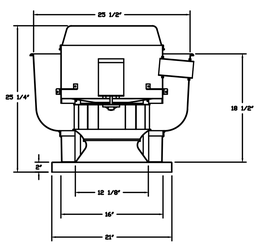
OPTIONS
- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DR240HFA - SHIP LOOSE - FOR GREASE DUCTS.
- HINGE KIT (HD)- SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
- 2 YEAR PARTS WARRANTY.



TOP VIEW

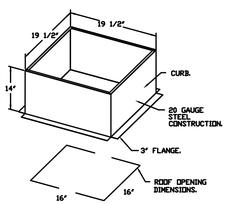
TOP VIEW

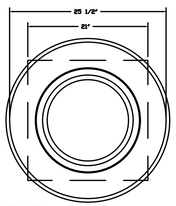
FAN #3 DU33HFA - EXHAUST FAN (DEF-1)



FEATURES:
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- VARIABLE SPEED CONTROL.
- INTERNAL VIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- NEMA 3R SAFETY DISCONNECT SVITCH.

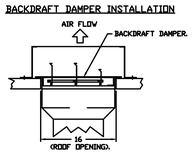
OPTIONS
- 1 15-BDD DAMPER.
- ECM VIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCO), CCW ROTATION.
- FULL CRATING FOR EXHAUST FANS.
- SCR-11 BIRD SCREEN.
- 2 YEAR PARTS WARRANTY.





TOP VIEW

BACKDRAFT DAMPER INSTALLATION



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Suite 400 Urban Planning
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DESCRIPTION	DATE:

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Ankeny, IA, 64002

DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jsievers

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

MASTER DRAWING

SHEET NO. 4

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STATE OF MISSOURI
BRYAN LEINWETTER
NUMBER PE-2020020297
PROFESSIONAL ENGINEER
5/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

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30hop
american grill • craft beer • rooftop patio

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Lees Summit,MO 64081
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owner

	date	description
	05.02.24	Issue For Permit

orientation

project number 232882

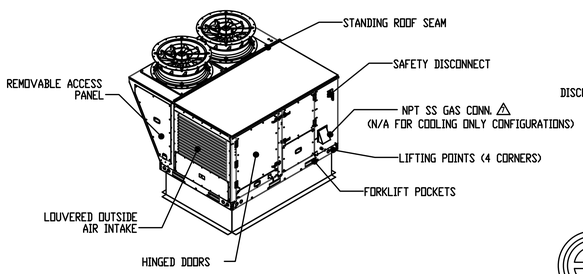
scale As Noted

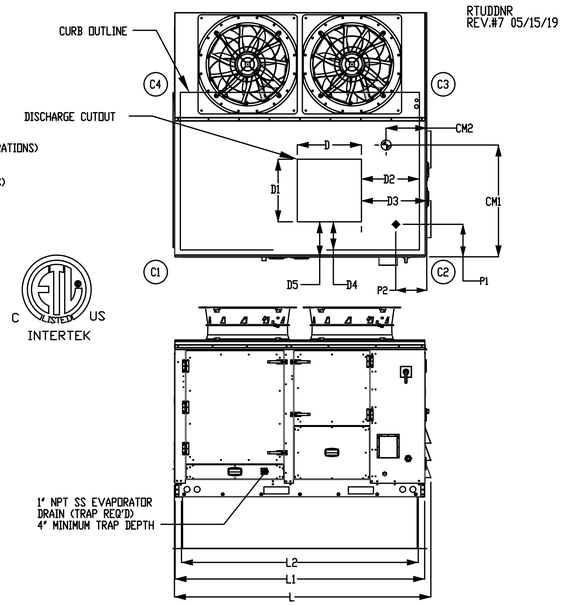
date 5/02/2024

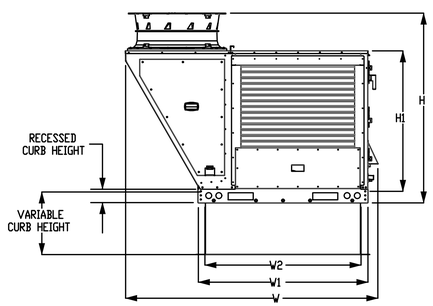
sheet title HVAC Details

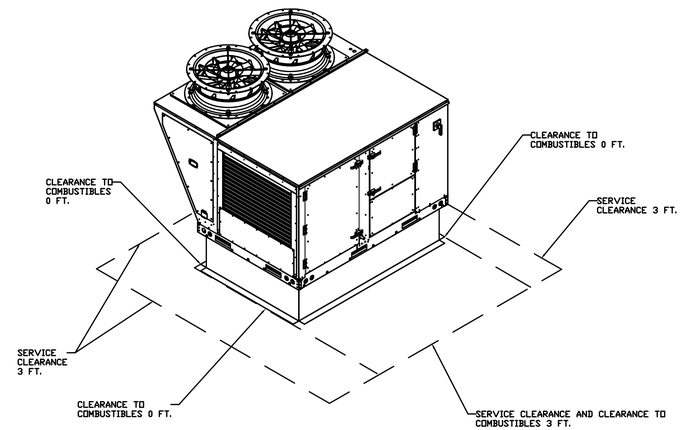
sheet number M206

ROOFTOP UNIT DOWN DISCHARGE NO RETURN









RTU INFORMATION*														
UNIT SIZE	AVAILABLE NOMINAL TONNAGE	INTAKE FILTERS	SUPPLY FILTERS △4	FURNACE CAPACITY (MBH) △5	ELECTRIC CAPACITY (KW) △5	APPROXIMATE WEIGHT (LBS) △6	CENTER OF MASS		CORNER WEIGHTS (LBS)				ENTERING POWER	
							CM1	CM2	C1	C2	C3	C4	P1	P2
2	8, 10	25 X 20 X 2 (2)	16 X 20 (8)	50 - 200	15 - 60	1650	32	36	441	537	369	303	5 1/4	7 1/4

RTU DIMENSIONS*															
UNIT SIZE	UNIT LENGTH (L)	OUTSIDE BASE LENGTH (L1)	INSIDE BASE LENGTH (L2)	UNIT HEIGHT (H)	MOUNTED HEIGHT (H1)	UNIT WIDTH (W)	BASE WIDTH (W1)	INSIDE BASE WIDTH (W2)	RECESSED CURB HEIGHT	DISCHARGE DIMENSIONS						CURB SIZE
										D	D1	D2	D3	D4	D5	
2	81 3/4	79 3/4	75 3/4	60	45	80 3/4	54	49 3/4	3 1/2	20 1/2	20	19 3/4	22	9	12	75 x 49 1/2

*ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED

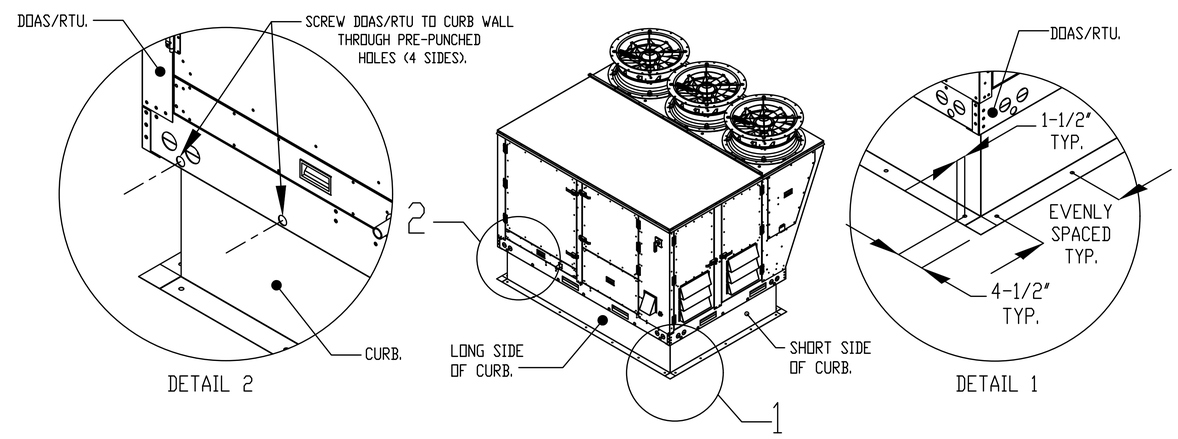
NOTES:

1. ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS
2. DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN
3. FLOOR MOUNT ISOLATORS LOCATED 1" FROM END OF BASE IN EITHER DIRECTION. ACCOUNT FOR AN ADDITION 5" FOR ISOLATOR HEIGHT
4. QUANTITIES SUBJECT TO CHANGE DEPENDING ON FILTER TYPES
5. ONLY APPLICABLE FOR INDIRECT HEAT OR ELECTRIC HEAT CONFIGURATIONS
6. SUBTRACT 100 LBS. FOR COOLING ONLY CONFIGURATIONS
7. 3/4" NPT SS GAS CONN. FOR 50-200 MBH FURNACES
   1" NPT SS GAS CONN. FOR 300-500 MBH FURNACES

TYPICAL DOAS/RTU ROOF MOUNTING INSTALLATION INSTRUCTIONS

1. SECURE THE CURB TO THE ROOF FRAMING MEMBERS BY DRILLING 1/4" PILOT HOLES IN THE CURB FLANGES AT LOCATIONS SHOWN IN THE DIAGRAM BELOW. USING 3/8" X 2" ZINC PLATED STEEL LAG BOLTS, AND ZINC PLATED WASHERS, SCREW THROUGH THE CURB FLANGES AND INTO THE ROOF FRAMING MEMBERS. A MINIMUM OF (5) LAG BOLTS ON EACH SHORT SIDE, AND (7) LAG BOLTS ON EACH LONG SIDE IS REQUIRED.

2. SECURE THE UNIT BASE TO THE SIDE WALLS OF THE CURB USING (24) 1/4"-14 X 2" SELF-DRILLING, STEEL ZINC PLATED SCREWS. PRE-PUNCHED HOLES HAVE BEEN PROVIDED FOR EACH SCREW LOCATION.



REVISIONS

DESCRIPTION	DATE:
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30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jsievers

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

MASTER DRAWING

SHEET NO. 5

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5/10/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

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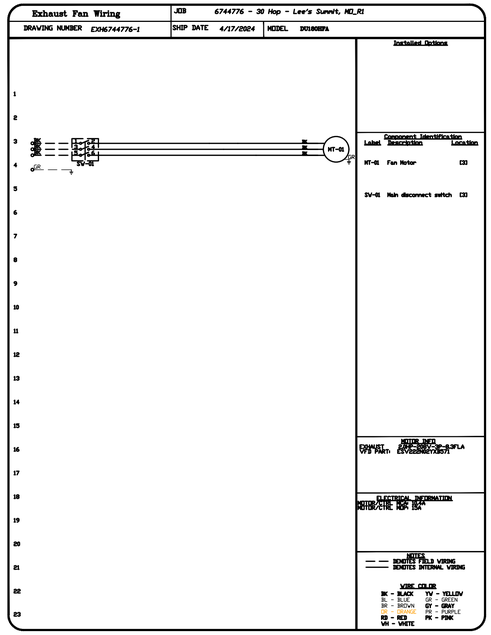
24-107

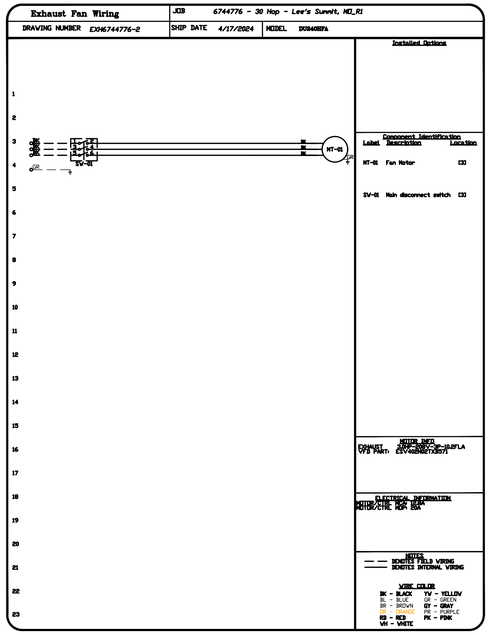
30hop
american grill • craft beer • rooftop patio

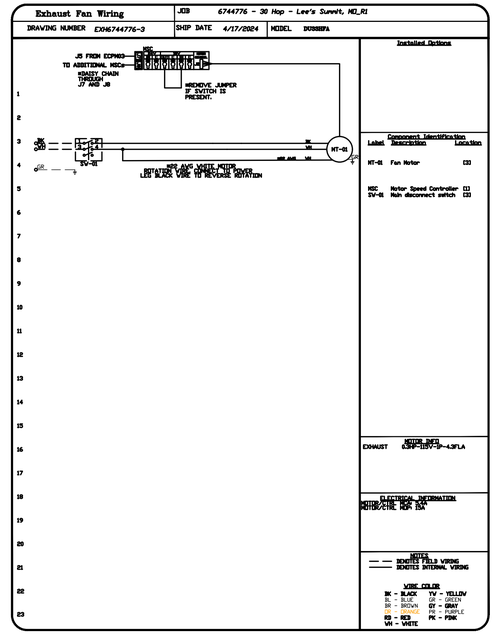
30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

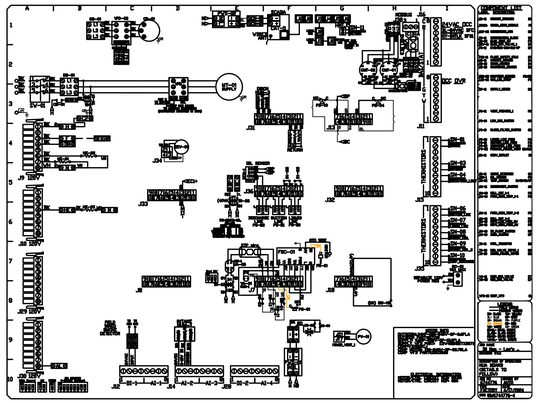
	date	description
	05.02.24	Issue For Permit

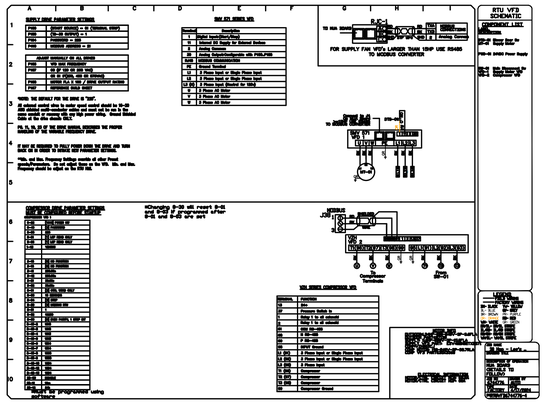
orientation	
project number	232882
scale	As Noted
date	5/02/2024
sheet title	HVAC Details
sheet number	M207

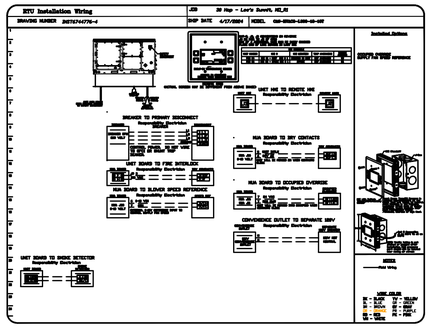












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DESCRIPTION	DATE:

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30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024
DWG.#: 6744776
DRAWN BY: jslevers
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 6

30hop
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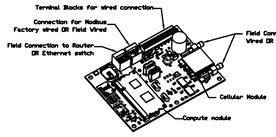
30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit

orientation	
project number	232882
scale	As Noted
date	5/02/2024
sheet title	HVAC Details
sheet number	M208

ELECTRICAL PACKAGE – JOB#6744776

NO	TAG	PACKAGE #	LOCATION	SWITCHES LOCATION	SWITCHES QUANTITY	OPTION	FANS CONTROLLED TAG	TYPE	Φ	HP	VOLT	FLA
1		DCV-2111_MA4	UTILITY CABINET RIGHT	UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS DCV	KEF-1	EXHAUST	3	2.000	208	8.3
				HOOD # 2	1 FAN		KEF-2	EXHAUST	3	3.000	208	10.2
							MAU-1	SUPPLY	3	5.000	208	15.0
2		SC-11001000_DISH-HMI	WALL MOUNT IN SS BOX	SHIP LOOSE W/ PREVIRE	1 FAN	SMART CONTROLS BASIC	DEF-1	EXHAUST	1	0.333	115	4.3



CASlink Monitor and Control

- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
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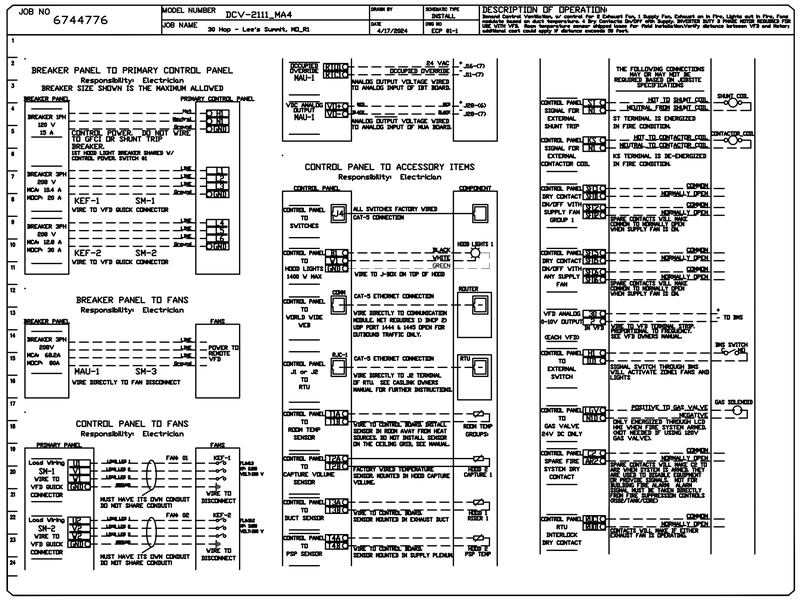
MONITORING AND CONTROL POINTS LIST

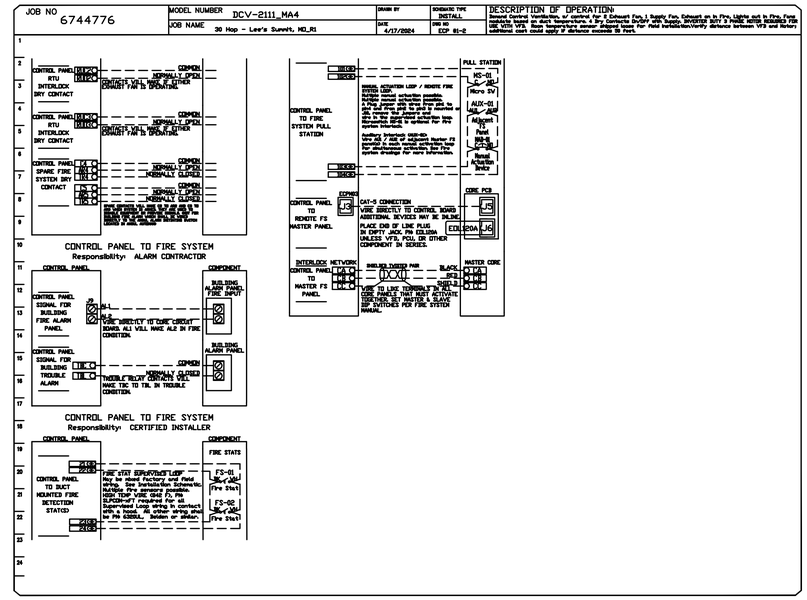
DCV Packages	Function
Room Temperature	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR
Fan Amperage	MONITOR
Fan Power	MONITOR
VFD Faults	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
PCU Faults	MONITOR
PCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressure	MONITOR
Prep Time Button	MONITOR & CONTROL
Fans Button	MONITOR & CONTROL
Lights Button	MONITOR & CONTROL
Wash Button	MONITOR & CONTROL

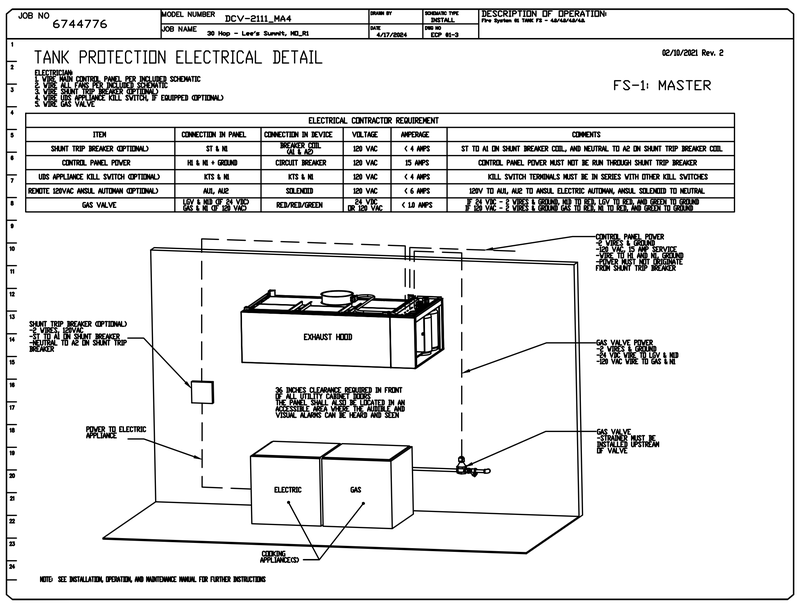
SC Packages	Function
Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR
MUA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR
Controller Faults	MONITOR
Fan Faults	MONITOR
Fan Status	MONITOR
PCU Faults	MONITOR
PCU Filter Clog Percentages	MONITOR
Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressure	MONITOR
Fans Button(s)	MONITOR & CONTROL
Lights Button(s)	MONITOR & CONTROL
Wash Button	MONITOR & CONTROL

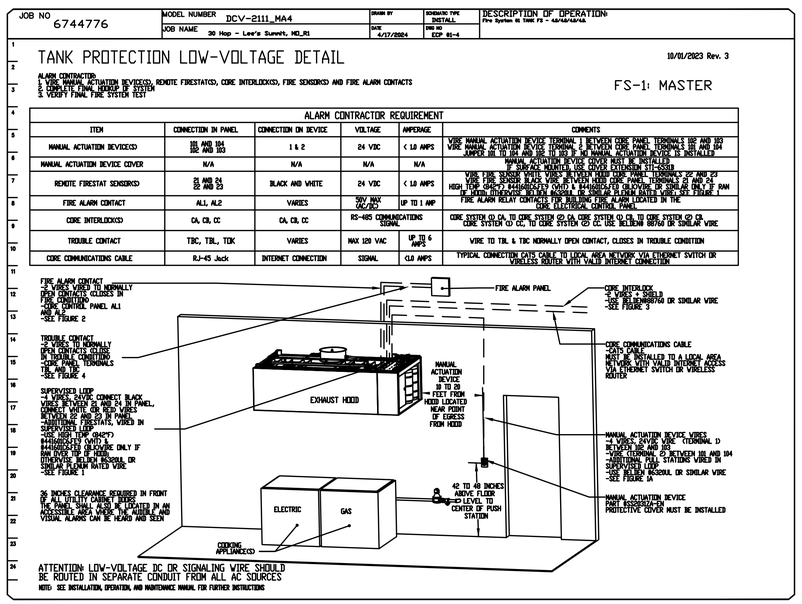
CONTROLS DESIGN SERVICE

BIANNUAL ANALYSIS OF EQUIPMENT PERFORMANCE REQUIRED BY THE MANUFACTURER TO OPTIMIZE SYSTEM POST INSTALL. DETAILED PERFORMANCE REPORT TO BE PRESENTED TO OWNERSHIP ON QUARTERLY BASIS FOR THE FIRST YEAR.









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24-107

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30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jsievers

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

MASTER DRAWING

SHEET NO. 8

30hop
american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
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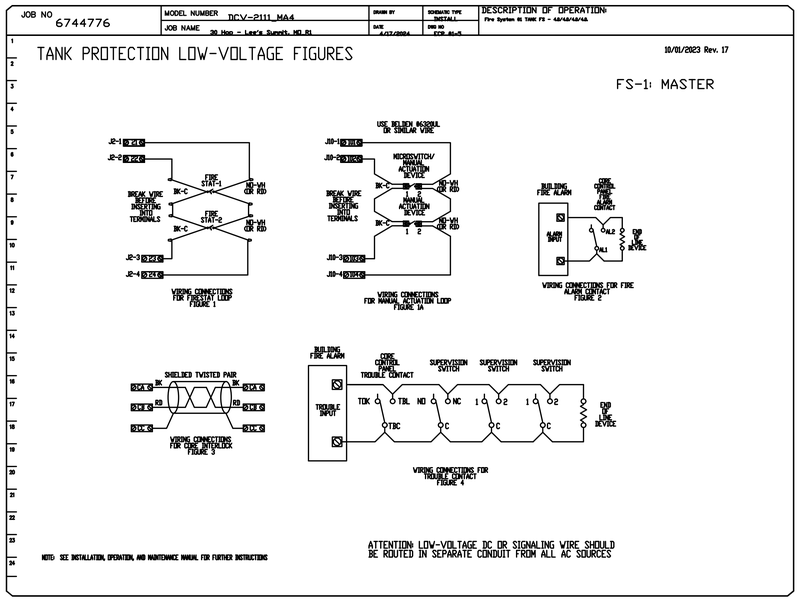
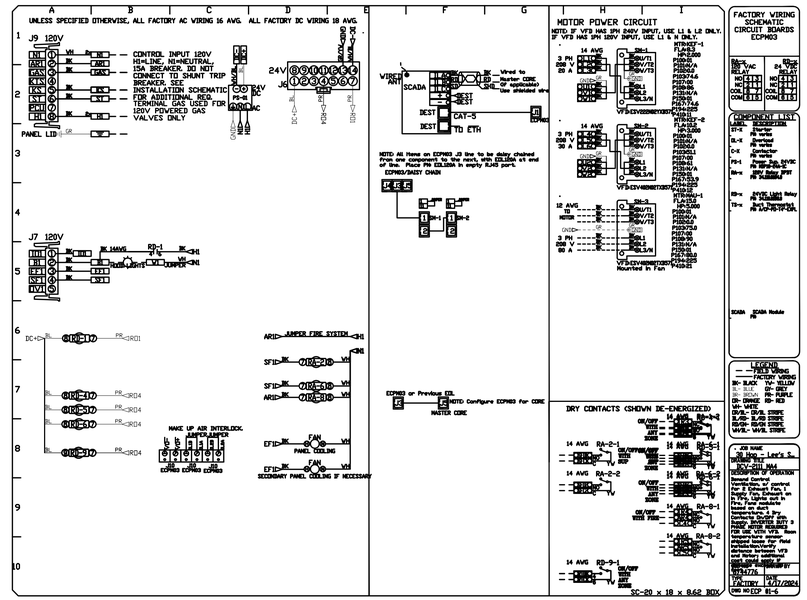
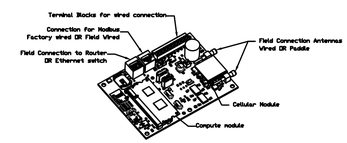
30hop
owner

	date	description
	05.02.24	Issue For Permit

orientation
project number 232882
scale As Noted
date 5/02/2024
sheet title HVAC Details
sheet number M209







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Duct Temperature(s)	MONITOR
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Fire Condition	MONITOR
CORE Fire System	MONITOR
Building Pressures	MONITOR
Prep Time Button	MONITOR & CONTROL
Fans Button	MONITOR & CONTROL
Lights Button	MONITOR & CONTROL
Wash Button	MONITOR & CONTROL

SC Packages	Function
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Duct Temperature(s)	MONITOR
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Controller Faults	MONITOR
Fan Faults	MONITOR
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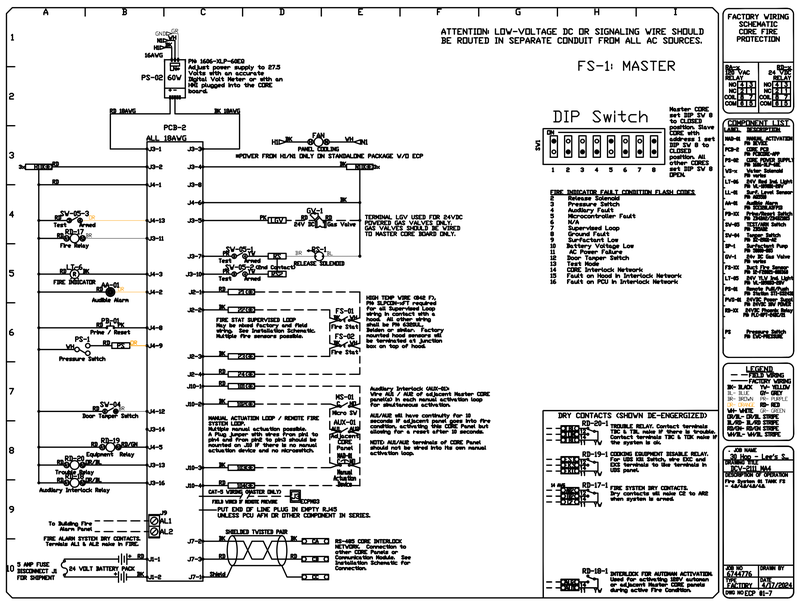

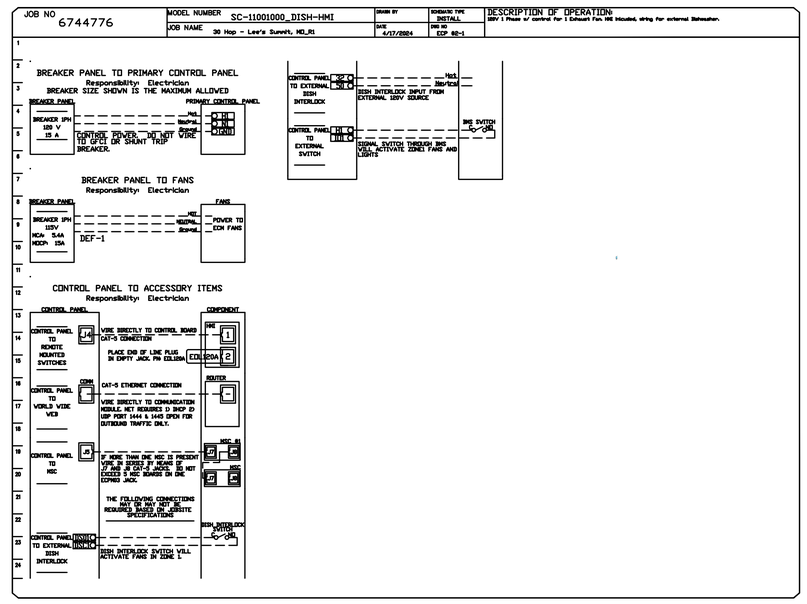

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DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jslevers

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

MASTER DRAWING

SHEET NO. 9

orientation

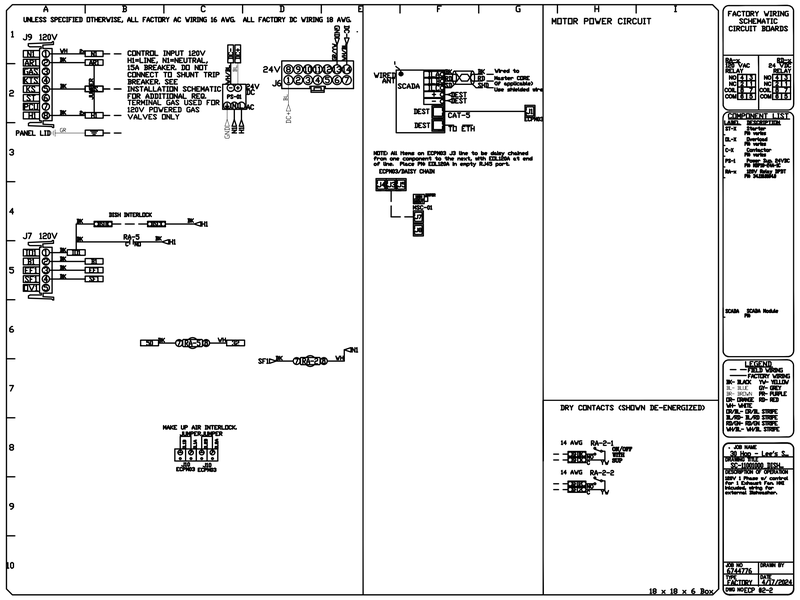
project number 232882

scale As Noted

date 5/02/2024

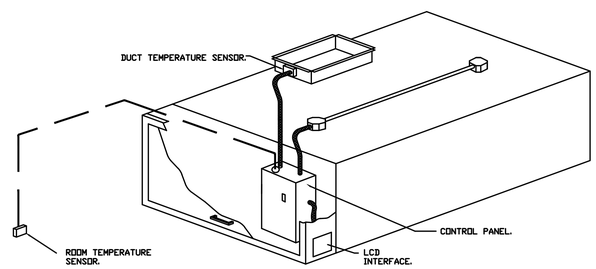
sheet title HVAC Details

sheet number M210



DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
  A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
  B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
  C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
  F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
  G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.



TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:

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

- AUTOMATIC: THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS 'DYNAMIC', THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS 'STATIC', FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
- MANUAL: THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
- SCHEDULE: A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
- OTHER: THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
- FIRE: UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.

REVISIONS

DESCRIPTION	DATE:

CAPTIVEAIRE
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30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jsievers

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

MASTER DRAWING

SHEET NO. 10

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BRYAN LEINWETTER
NUMBER PE-2020020297
PROFESSIONAL ENGINEER
5/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

pkmr ENGINEERS
24-107
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30hop
owner

date	description
05.02.24	Issue For Permit

orientation
project number 232882
scale As Noted
date 5/02/2024
sheet title HVAC Details
sheet number M211

DUCTWORK #1 PARTS – JOB#6744776 DOUBLE WALL MAIN

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
H1-E1	DW20DWRISER-2R-S	2400				-0.7965	8.36	0.00	1	DOUBLE WALL RISER COVER - USED ON 16" INNER RISER, 4' LONG - 2 LAYERS REDUCED CLEARANCE - 20" STAINLESS STEEL OUTER RISER SHELL ASSEMBLY. INCLUDES INSULATION & SINGLE V CLAMPS FOR INNER & OUTER CONNECTIONS.
H2-E1	DW22DWRISER-2R-S	3300				-1.1505	10.73	0.00	1	DOUBLE WALL RISER COVER - USED ON 18" INNER RISER, 4' LONG - 2 LAYERS REDUCED CLEARANCE - 22" STAINLESS STEEL OUTER RISER SHELL ASSEMBLY. INCLUDES INSULATION & SINGLE V CLAMPS FOR INNER & OUTER CONNECTIONS.
P1	DW1647DWLT-2R-S	2400				-0.0182	70.12	1718.87	1	DOUBLE WALL DUCT - 16" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 20" STAINLESS STEEL OUTER SHELL.
P2	DW1635DWLT-2R-S	2400				-0.0136	52.26	1718.87	1	DOUBLE WALL DUCT - 16" INNER DUCT, 35' LONG - 2 LAYERS REDUCED CLEARANCE - 20" STAINLESS STEEL OUTER SHELL.
P3	DW1647DWAJD-2R-S	2400				-0.0132	103.34	1718.87	1	DOUBLE WALL ADJUSTABLE DUCT - 16" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 20" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P4 ASSEMBLED W/P5	DW1635DWLTTP-2R-S	2400				-0.013	53.98	1718.87	1	DOUBLE WALL DUCT - 16" INNER DUCT, 35' LONG - 2 LAYERS REDUCED CLEARANCE - 20" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATE.
P5 ASSEMBLED W/P4 □=B	DW3116TP	2400					13.00	1718.87	1	DUCT TO CURB TRANSITION, 31-1/2" CURB TO 16" DUCT, 16 GA ALUMINIZED. MISC. NON-STANDARD TRANSITION PLATE.
SYSTEM AT P5						-0.8545	0.00			
P6	DW1847DWLT-2R-S	3300				-0.0142	77.59	1867.42	1	DOUBLE WALL DUCT - 18" INNER DUCT, 47' LONG - 2 LAYERS REDUCED CLEARANCE - 22" STAINLESS STEEL OUTER SHELL.
P7	DW1835DWLT-2R-S	3300				-0.0106	57.50	1867.42	1	DOUBLE WALL DUCT - 18" INNER DUCT, 35' LONG - 2 LAYERS REDUCED CLEARANCE - 22" STAINLESS STEEL OUTER SHELL.
P8	DW1847DWAJD-2R-S	3300				-0.0103	107.98	1867.42	1	DOUBLE WALL ADJUSTABLE DUCT - 18" INNER DUCT - 2 LAYERS REDUCED CLEARANCE - 22" STAINLESS STEEL OUTER SHELL. MIN LENGTH = 11' / MAX LENGTH = 48.5' / ADJUSTMENT = 30.5" / ADJUSTABLE SECTION MAY NEED TO BE CUT. INCLUDES SINGLE AND DOUBLE WALL "V" CLAMPS.
P9 ASSEMBLED W/P10	DW1835DWLTTP-2R-S	3300				-0.011	58.74	1867.42	1	DOUBLE WALL DUCT - 18" INNER DUCT, 35' LONG - 2 LAYERS REDUCED CLEARANCE - 22" STAINLESS STEEL OUTER SHELL - USED WITH TRANSITION PLATES
P10 ASSEMBLED W/P9 □=B	DW3118TP	3300					13.00	1867.42	1	DUCT TO CURB TRANSITION, 31-1/2" CURB TO 18" DUCT, 16 GA ALUMINIZED. MISC. NON-STANDARD TRANSITION PLATE.
SYSTEM AT P10						-1.1965	0.00			
RC1	DW20DWRISER-2R-S						8.36		1	DOUBLE WALL RISER COVER - USED ON 16" INNER RISER, 4' LONG - 2 LAYERS REDUCED CLEARANCE - 20" STAINLESS STEEL OUTER RISER SHELL ASSEMBLY. INCLUDES INSULATION & SINGLE V CLAMPS FOR INNER & OUTER CONNECTIONS.
RC2	DW22DWRISER-2R-S						10.73		1	DOUBLE WALL RISER COVER - USED ON 18" INNER RISER, 4' LONG - 2 LAYERS REDUCED CLEARANCE - 22" STAINLESS STEEL OUTER RISER SHELL ASSEMBLY. INCLUDES INSULATION & SINGLE V CLAMPS FOR INNER & OUTER CONNECTIONS.
	3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW16DWCLASY-2R-S						7.96		1	DUCT - 16" DUCT - 20" DOUBLE "V" CLAMP - 2R INSULATION & SINGLE "V" CLAMP INCLUDED - REDUCED CLEARANCE.
	DW18DWCLASY-2R-S						8.70		1	DUCT - 18" DUCT - 22" DOUBLE "V" CLAMP - 2R INSULATION & SINGLE "V" CLAMP INCLUDED - REDUCED CLEARANCE.
TOTAL WEIGHT							663.95			

DOUBLE WALL FACTORY BUILT DUCTWORK

- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (FT)
5"	7'
6"	7'
7"	7'
8"	7'
10"	7'
12"	7'
14"	7'
16"	7'
18"	5'
20"	5'
22"	5'
24"	5'
26"	5'
28"	5'
30"	5'
32"	5'
34"	5'
36"	5'

VERTICAL			
TYPE	WALL SUPPORT (FT)	CURB SUPPORT (FT)	FLOOR SUPPORT (FT)
2R & 2R HT (5"-16")	20'	24'	24'
2R (18")	18'	24'	24'
3R & 3Z (5"-24")	10'	24'	24'
3Z (26" -36")	10'	20'	20'

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

REVISIONS

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30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jsievers

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

MASTER DRAWING

SHEET NO. 11

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Architecture Urban Planning

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PROFESSIONAL ENGINEER
5/02/24
Bryan Leinwetter - Engineer
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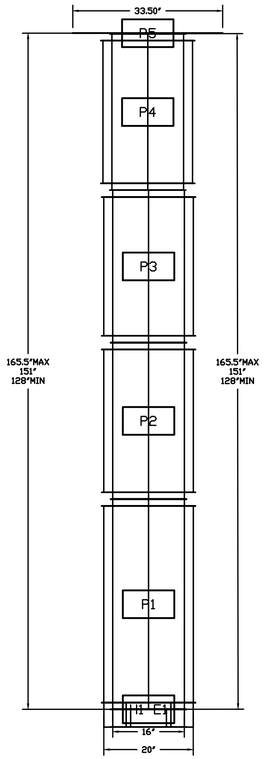
owner

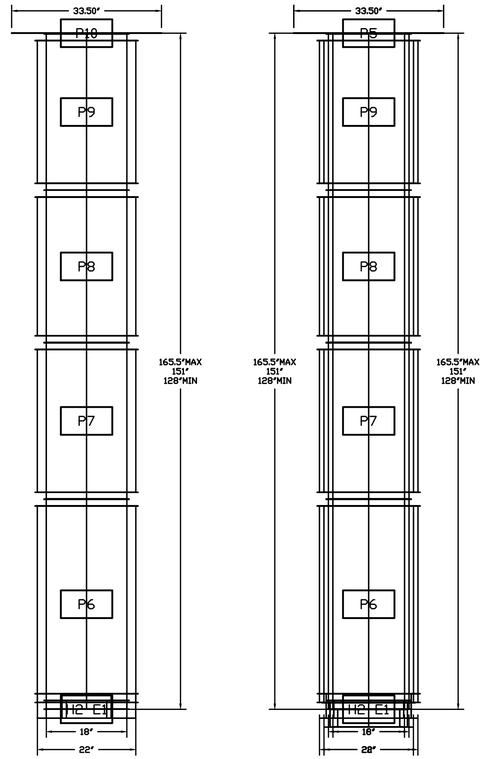
	date	description
	05.02.24	Issue For Permit

orientation	
project number	232882
scale	As Noted
date	5/02/2024
sheet title	HVAC Details
sheet number	M212

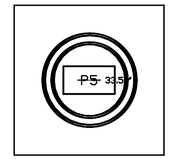
DUCTWORK #1 FRONT VIEW
MAIN



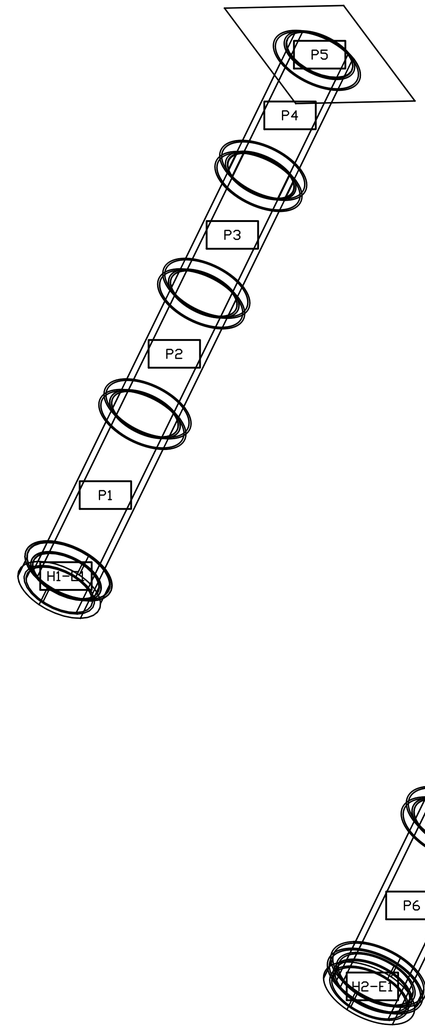
DUCTWORK #1 SIDE VIEW
MAIN

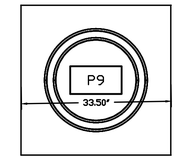


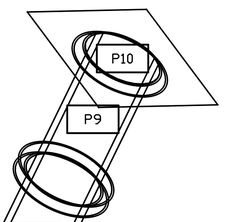
DUCTWORK #1 TOP VIEW
MAIN



DUCTWORK #1 SE VIEW
MAIN







REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

CAPTIVEAIRE
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30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jsievers

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

MASTER DRAWING

SHEET NO. 12

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	date	description
	05.02.24	Issue For Permit

orientation	
project number	232882
scale	As Noted
date	5/02/2024
sheet title	HVAC Details
sheet number	M213

DUCTWORK #2 PARTS – JOB#6744776 DISH

TAG	PART #	CFM	GPM	ZONE	COVEREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	DW1045ASY	300				-0.0053	4.62	550.04	1	SINGLE WALL DUCT 45 DEGREE ELBOW, 10" DUCT, ASSEMBLY.
P2	DW1011LT	300				-0.0006	3.90	550.04	1	SINGLE WALL DUCT 10" DIAMETER, 11" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P3	DW1018AJDKIT	300				-0.0004	7.95	550.04	1	SINGLE WALL DUCT ADJUSTABLE, 10" DIAMETER, 17.5" LONG, FLANGE AT ONE END WITH A 10" ADJUSTABLE COLLAR - STAINLESS STEEL.
P4	DW10YTEASY	600				-0.069	10.46	1100.08	1	SINGLE WALL DUCT Y TEE, 10" DUCT, ASSEMBLY.
P5	DW1011LT	300				-0.0006	3.90	550.04	1	SINGLE WALL DUCT 10" DIAMETER, 11" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P6	DW1018AJDKIT	300				-0.0004	7.95	550.04	1	SINGLE WALL DUCT ADJUSTABLE, 10" DIAMETER, 17.5" LONG, FLANGE AT ONE END WITH A 10" ADJUSTABLE COLLAR - STAINLESS STEEL.
P7	DW1045ASY	300				-0.0053	4.62	550.04	1	SINGLE WALL DUCT 45 DEGREE ELBOW, 10" DUCT, ASSEMBLY.
P8	DW10SUBRASY						2.54		1	DUCT SUPPORT BRACKET KIT, 10" DUCT, USED FOR HANGING DUCT. 12 GA STEEL, CLEAR ZINC COATING. - 2 RINGS, 4 BRACKETS, & HARDWARE BAG 2.
P9	DW1047LT	600				-0.0117	15.72	1100.08	1	SINGLE WALL DUCT 10" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P10	DW1035LT	600				-0.0087	11.78	1100.08	1	SINGLE WALL DUCT 10" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P11	DW1048AJDKIT	600				-0.0066	18.63	1100.08	1	SINGLE WALL DUCT ADJUSTABLE, 10" DIAMETER, 47.5" LONG, FLANGE AT ONE END WITH A 10" ADJUSTABLE COLLAR - STAINLESS STEEL.
P12	DW10VESU18						19.56		1	DUCT VERTICAL SUPPORT KIT, 10" DUCT, 18" CLEARANCE TO COMBUSTIBLES. PARTS ARE ZINC COATED. HARDWARE KIT #3 USED ON DWXXVESU & DWXXVESU18.
P13 ASSEMBLED W/P14	DW1035LT	600				-0.009	11.78	1100.08	1	SINGLE WALL DUCT 10" DIAMETER, 35" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P14 ASSEMBLED W/P13 D=T	DW1910TP	600					6.62	1100.08	1	DUCT TO CURB TRANSITION, 19-1/2" CURB TO 10" DUCT, 16 GA ALUMINIZED STEEL. MISC. NON-STANDARD TRANSITION PLATE.
SYSTEM AT P14						-0.1113	0.00			
	3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	DW10CLASY						0.82		12	DUCT "V" CLAMP WITH NEW DESIGN 14 GA BRACKETS, 10" DUCT, ASSEMBLY.
TOTAL WEIGHT							141.47			

SINGLE WALL FACTORY BUILT DUCTWORK

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- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16" PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

DUCT DIAMETER	HORIZONTAL SUPPORT (FT)	VERTICAL WALL SUPPORT (FT)	VERTICAL CURB SUPPORT (FT)
5"	10'	10'	24'
6"	10'	10'	24'
7"	10'	10'	24'
8"	10'	10'	24'
10"	10'	10'	24'
12"	10'	10'	24'
14"	10'	10'	24'
16"	10'	10'	24'
18"	10'	10'	24'
20"	10'	10'	24'
22"	10'	10'	24'
24"	10'	10'	24'
26"	10'	10'	24'
28"	10'	10'	24'
30"	10'	10'	24'
32"	10'	10'	24'
34"	10'	10'	24'
36"	10'	10'	24'

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES. CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

REVISIONS

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30 Hop - Lee's Summit, MO_R1

Ankeny, IA, 64002

DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jslevers

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

MASTER DRAWING

SHEET NO. 13

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Chicago Illinois 60654

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	date	description
	05.02.24	Issue For Permit

orientation

project number 232882

scale As Noted

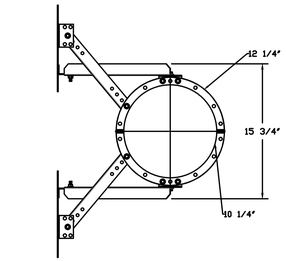
date 5/02/2024

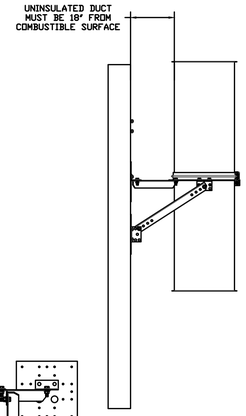
sheet title HVAC Details

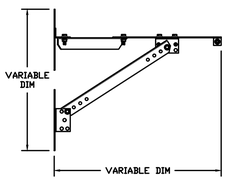
sheet number M214

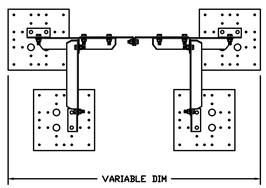
SUPPORT SYSTEM DETAILS #2

DW10VESU18 - VERTICAL WALL SUPPORT

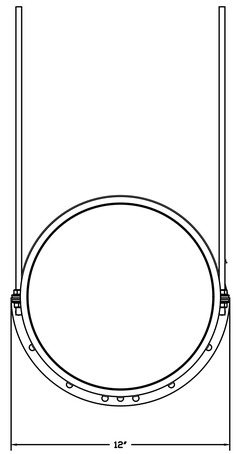


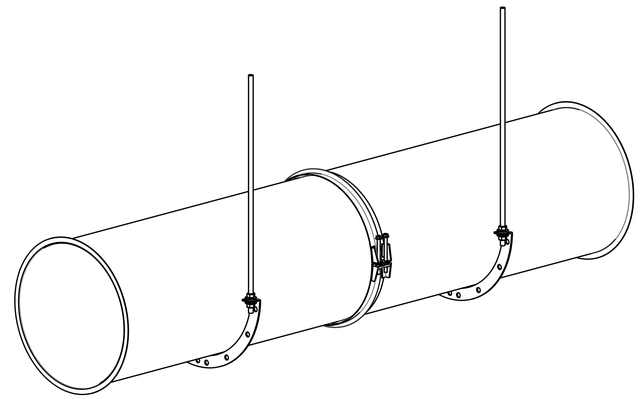






DW10SUBRASY - HORIZONTAL SUPPORT





30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024

DWG.#: 6744776

DRAWN BY: jslevers

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

MASTER DRAWING

SHEET NO. 14

REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

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5/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

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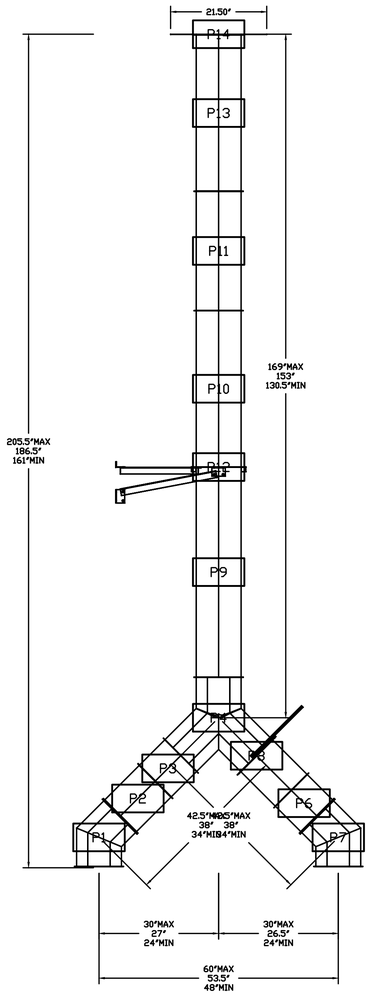
Lees Summit,MO 64081
30hop
owner

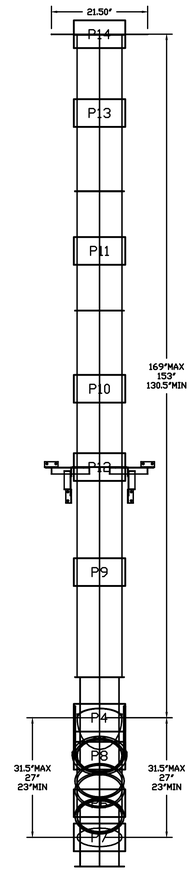
	date	description
	05.02.24	Issue For Permit

orientation
project number 232882
scale As Noted
date 5/02/2024
sheet title HVAC Details
sheet number M215

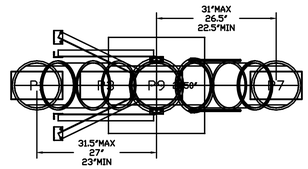
DUCTWORK #2 FRONT VIEW
DISH



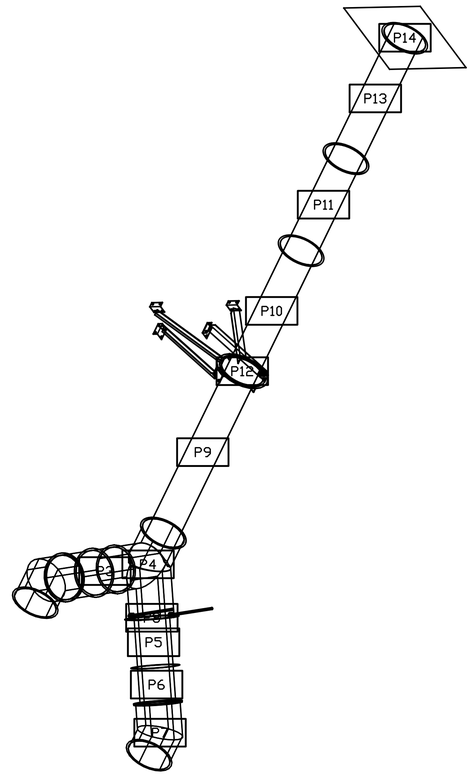
DUCTWORK #2 SIDE VIEW
DISH



DUCTWORK #2 TOP VIEW
DISH



DUCTWORK #2 SE VIEW
DISH



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1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit

REVISIONS

	DESCRIPTION	DATE:
1		
2		
3		
4		

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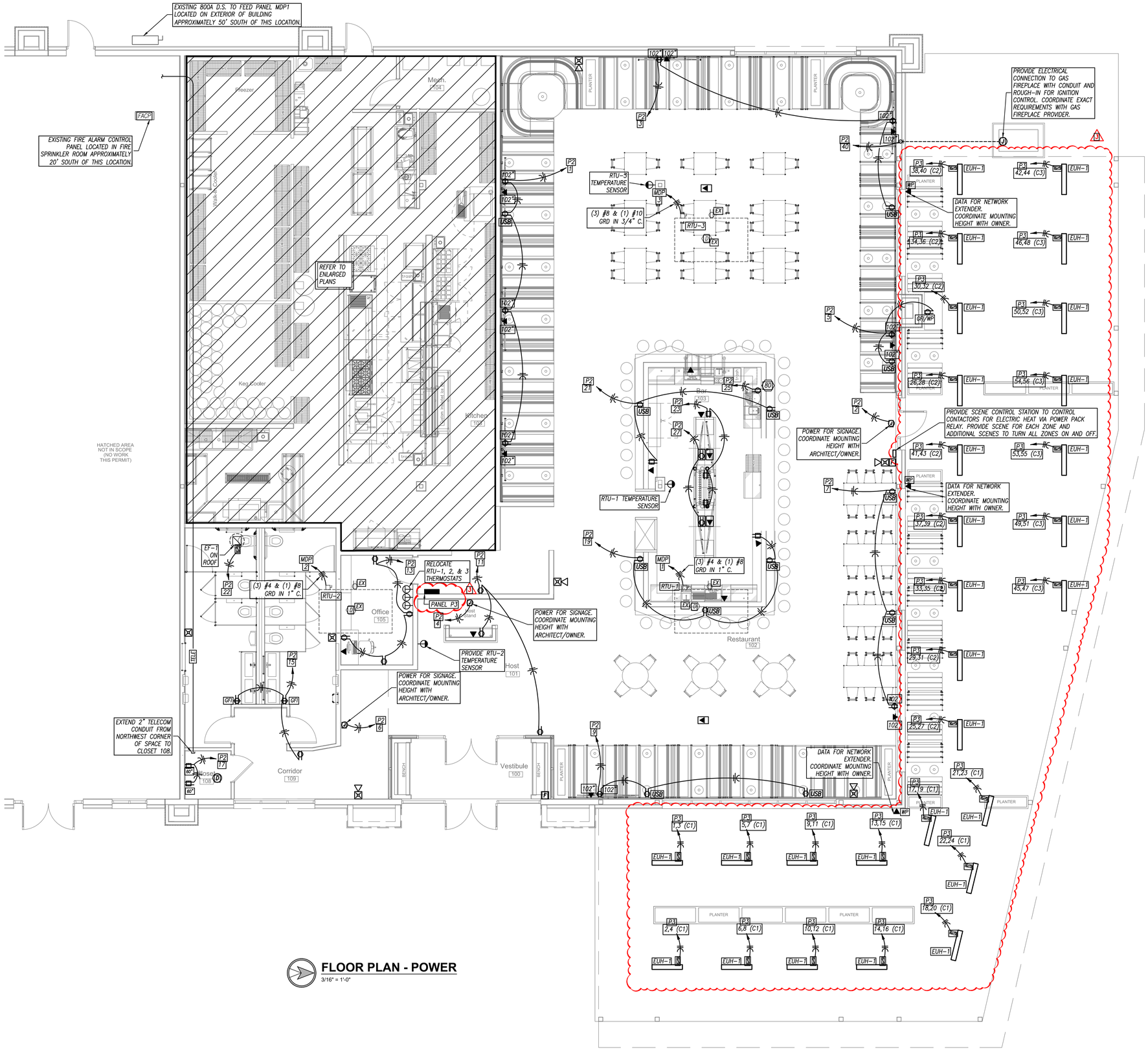
30 Hop - Lee's Summit, MO_R1
Ankeny, IA, 64002

DATE: 4/17/2024
DWG.#: 6744776
DRAWN BY: jslevers
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 15

orientation	
project number	232882
scale	As Noted
date	5/02/2024
sheet title	HVAC Details
sheet number	M216



FLOOR PLAN - POWER

3/16" = 1'-0"

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STATE OF MISSOURI
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owner

	date	description
	05.02.24	Issue For Permit
1	07.02.24	Permit Revision

orientation	
project number	232882
scale	As Noted
date	7/02/2024
sheet title	Power Plan
sheet number	E101

KITCHEN EQUIPMENT-ELECTRICAL SCHEDULE

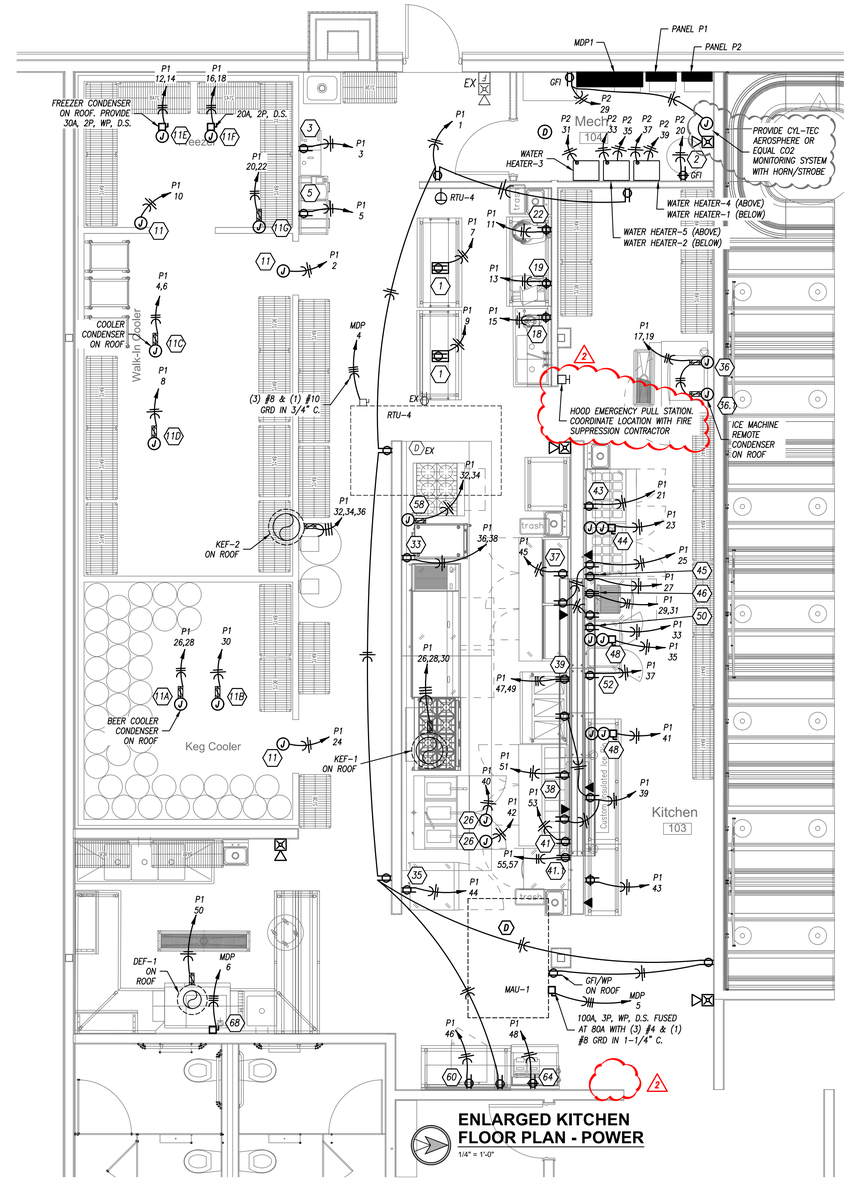
ITEM NO	QTY	EQUIPMENT DISCRIPTION	AMPS	VOLTAGE/ PHASE	WIRE SIZE	HEIGHT (AFF)	NOTES
1	2	S/S WORK TABLE	15.0	120V/1ø	(3) #12, 1/2"C.		
2	1	BULK CO2 TANK	15.0	120V/1ø	(3) #12, 1/2"C.	48"	
3	1	PORTABLE OIL FILTER	15.0	120V/1ø	(3) #12, 1/2"C.	20"	
5	1	BAG-IN-BOX SYSTEM	15.0	120V/1ø	(3) #12, 1/2"C.	60"	
11	3	COOLER/FREEZER LIGHTS AND ACCESSORIES	10.0	120V/1ø	(3) #12, 1/2"C.		2
11A	1	BEER COOLER CONDENSER	16.1	208V/1ø	(3) #10, 3/4"C.		
11B	1	BEER COOLER COIL	15.0	120V/1ø	(3) #12, 1/2"C.		
11C	1	COOLER CONDENSER	19.6	208V/1ø	(3) #10, 3/4"C.		
11D	1	COOLER COIL	15.0	120V/1ø	(3) #12, 1/2"C.		
11E	1	FREEZER CONDENSER	20.6	208V/1ø	(3) #10, 3/4"C.		
11F	1	FREEZER COIL	15.0	208V/1ø	(3) #12, 3/4"C.		
11G	1	DRAIN LINE HEATER	15.0	240V/1ø	(3) #12, 1/2"C.		
18	1	FOOD PROCESSOR	12.0	120V/1ø	(3) #12, 1/2"C.	48"	
19	1	FOOD SLICER	4.8	120V/1ø	(3) #12, 1/2"C.	48"	
22	1	PLANTARY MIXER	15.0	120V/1ø	(3) #12, 1/2"C.	48"	
26	2	EXHAUST HOOD SYSTEM	15.0	120V/1ø	(3) #12, 1/2"C.		
33	1	REFRIGERATED EQUIPMENT STAND	6.0	120V/1ø	(3) #12, 1/2"C.	20"	
35	1	UNDERCOUNTER FREEZER	2.6	120V/1ø	(3) #12, 1/2"C.	20"	
36	1	ICE MAKER	11.0	208V/1ø	(3) #12, 1/2"C.	60"	
36.1	1	REMOTE CONDENSER	1.0	208V/1ø	(3) #12, 1/2"C.		
37	1	PREP REFRIGERATOR	5.8	120V/1ø	(3) #12, 1/2"C.	20"	
38	1	PREP REFRIGERATOR	6.0	120V/1ø	(3) #12, 1/2"C.	20"	
39	1	HOT FOOD SERVING COUNTER	18.8	208V/1ø	(3) #10, 3/4"C.	20"	
41	1	REFRIGERATED WORKTOP	2.5	120V/1ø	(3) #12, 1/2"C.	20"	
41.1	1	INDUCTION RANGE	15.0	208V/1ø	(3) #12, 1/2"C.	48"	
43	1	MEGA TOP PREP REFRIGERATOR	5.8	120V/1ø	(3) #12, 1/2"C.	20"	
44	1	HEAT LAMP	18.3	120V/1ø	(3) #10, 1/2"C.	56"	1
45	1	REFRIGERATED WORKTOP	2.5	120V/1ø	(3) #12, 1/2"C.	20"	
46	1	PANINI GRILL	13.3	240V/1ø	(3) #12, 1/2"C.	48"	
48	2	HEAT LAMP	23.3	120V/1ø	(3) #12, 1/2"C.	56"	1
50	1	REFRIGERATED WORKTOP	2.0	120V/1ø	(3) #12, 1/2"C.	20"	
52	1	FOOD PAN WARMER	8.3	120V/1ø	(3) #12, 1/2"C.	48"	
58	1	COMBI GAS OVEN	12.0	120V/1ø	(3) #12, 1/2"C.	48"	
60	1	UNDERCOUNTER REFRIGERATOR	2.5	120V/1ø	(3) #12, 1/2"C.	20"	
64	1	SOAD DISPENSER	2.4	120V/1ø	(3) #12, 1/2"C.	60"	
68	1	DISHWASHER	111.3	208V/3ø	(3) #1/0 & (1) #6 GRD, 2"C.	20"	
80	1	UNDERCOUNTER DISWASHER	15.0	120V/1ø	(3) #12, 1/2"C.	20"	

NOTES:

1. PROVIDE (2) JUNCTION BOXES, ONE FOR HEAT LAMP AND ONE FOR REMOTE CONTROL ENCLOSURE. PROVIDE DISCONNECT SWITCH ABOVE ACCESSIBLE CEILING, UPSTREAM OF REMOTE CONTROL AND HEAT LAMP. SEE KITCHEN EQUIPMENT DRAWINGS FOR EXACT MOUNTING HEIGHT AND MANUFACTURE'S INSTRUCTIONS FOR EXACT WIRING REQUIREMENTS.
2. PROVIDE CONNECTION TO ALL ACCESSORIES (HEAT TAPE, PRESSURE RELIEF PORT, LIGHT/THERMOMETER SWITCH, VAPOR LIGHT, ETC) PER MANUFACTURER'S INSTRUCTIONS.

REMARKS:

1. EQUIPMENT ON SCHEDULE FURNISHED BY OTHERS.
2. EQUIPMENT SUBJECT TO CHANGE, FIELD VERIFY EQUIPMENT W/ OWNER AND ARCHITECT.
3. FIELD VERIFY ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT.
4. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
5. COORDINATE EXACT LOCATION OF EQUIPMENT WITH OWNER.



ENLARGED KITCHEN FLOOR PLAN - POWER

1/4" = 1'-0"

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6/10/24

Bryan Leinwetter - Engineer
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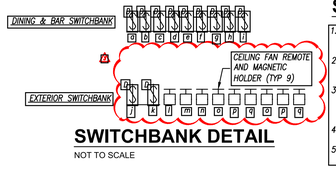
owner

	date	description
	05.02.24	Issue For Permit
1	05.22.24	Permit Revision
2	06.10.24	Permit Revision

orientation	
project number	232882
scale	As Noted
date	6/10/2024
sheet title	Power Plan
sheet number	E102

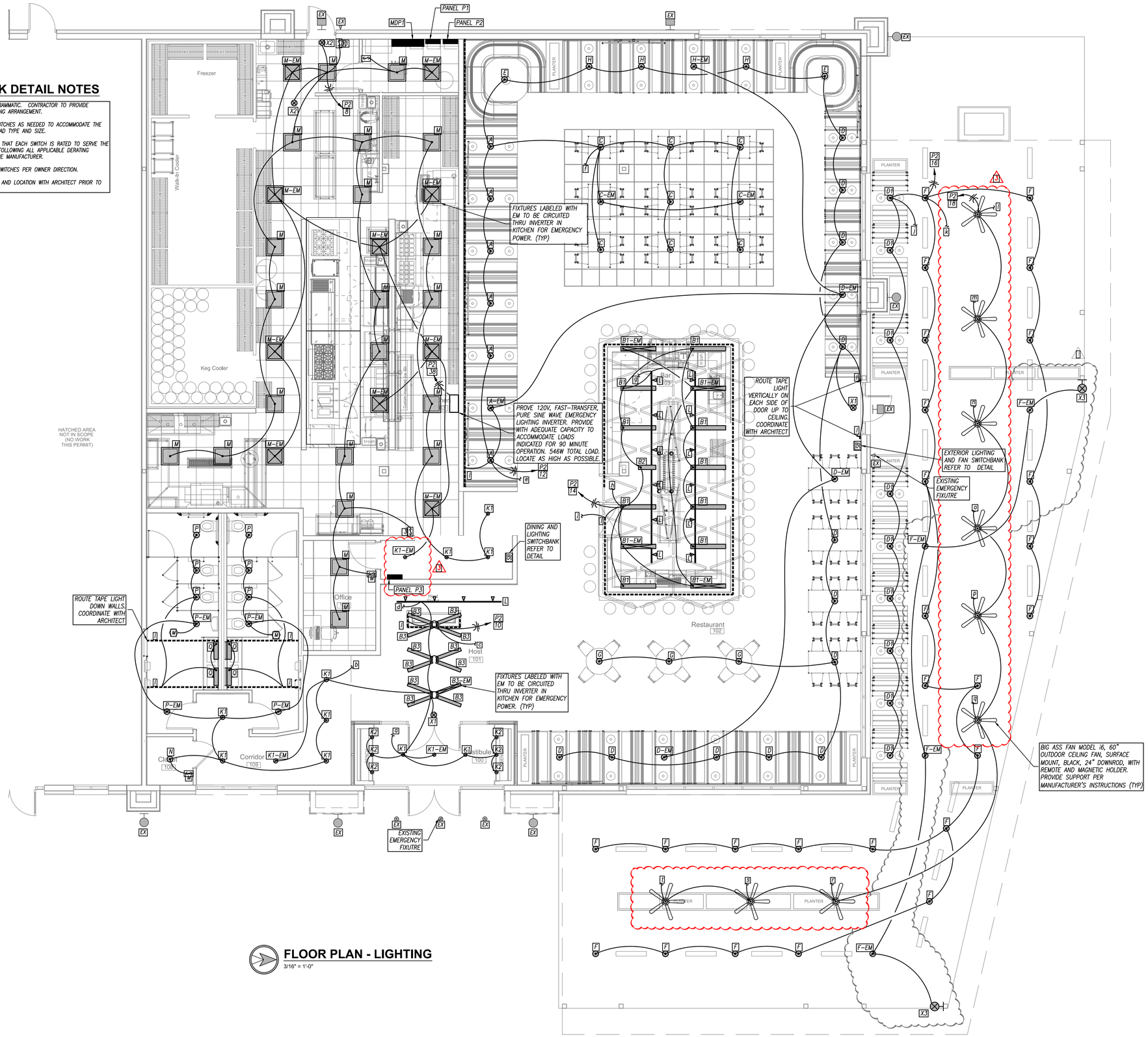


SWITCHBANK DETAIL

NOT TO SCALE

SWITCHBANK DETAIL NOTES

1. SWITCHBANK SHOWN IS DIAGRAMMATIC. CONTRACTOR TO PROVIDE SWITCHES TO MATCH SWITCHING ARRANGEMENT.
2. CONTRACTOR TO SUPPLY SWITCHES AS NEEDED TO ACCOMMODATE THE CORRESPONDING LIGHTING LOAD TYPE AND SIZE.
3. CONTRACTOR SHALL ENSURE THAT EACH SWITCH IS RATED TO SERVE THE CONNECTED LIGHTING LOAD, FOLLOWING ALL APPLICABLE DERATING FACTORS AS OUTLINED BY THE MANUFACTURER.
4. CONTRACTOR SHALL LABEL SWITCHES PER OWNER DIRECTION.
5. VERIFY EXACT ARRANGEMENT AND LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.



FLOOR PLAN - LIGHTING

3/16" = 1'-0"

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	date	description
	05.02.24	Issue For Permit
1	05.22.24	Permit Revision
2	07.02.24	Permit Revision

orientation	
project number	232882
scale	As Noted
date	7/02/2024
sheet title	Lighting Plan
sheet number	E201

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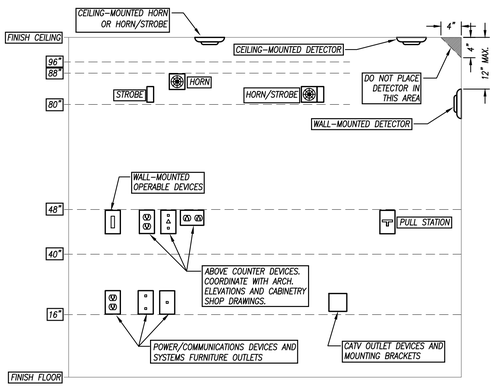


GENERAL NOTES:
1. MOUNTING HEIGHTS SHOWN IN THIS DETAIL ARE TYPICAL UNLESS OTHERWISE NOTED ON THE PLANS.
2. SEE ARCHITECTURAL ELEVATIONS FOR SPECIAL CONDITIONS. NOTIFY ARCHITECT IMMEDIATELY OF ANY CONFLICTS.
3. ALL INSTALLATIONS SHALL COMPLY WITH ADA.

VISUAL FIRE ALARM NOTIFICATION DEVICES (STROBE)
LOCATE DEVICE SO THE BOTTOM OF THE DEVICE IS BETWEEN 80" AND 96" A.F.F. (NFPA) OR 6" BELOW CEILING, WHICHEVER IS LOWER (ADA 2010).

AUDIBLE FIRE ALARM NOTIFICATION DEVICES (HORN)
LOCATE DEVICE SO THAT THE TOP OF UNIT IS NOT MORE THAN 90" A.F.F. AND NOT LESS THAN 6" BELOW CEILING (NFPA)

FIRE ALARM ACTIVATION DEVICES (PULL STATION)
LOCATE FRONT-APPROACH DEVICES SO THAT THE HIGHEST OPERABLE PORTION OF THE DEVICE IS NOT MORE THAN 48" A.F.F (ADA 2010) AND NOT LESS THAN 42" A.F.F. (NFPA).

POWER/COMMUNICATION DEVICES:
OUTLETS SHALL BE LOCATED AT 16" A.F.F. TO THE BOTTOM OF THE BOX. ABOVE COUNTER DEVICES SHALL BE LOCATED AT 2" ABOVE THE BACKSPLASH OF THE COUNTER TO THE BOTTOM OF THE DEVICES. VERIFY WITH ARCHITECTURAL DETAILS.

WALL-MOUNTED OPERABLE DEVICES:
OPERABLE DEVICES SHALL BE LOCATED AT 48" A.F.F. TO THE TOP OF THE OPERABLE PORTION OF THE DEVICE.

WALL-MOUNTED OPERABLE DEVICES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
LIGHT SWITCHES, DIMMERS, CONTROLS, ETC.
PUSH BUTTONS
NURSE/PATIENT CALL DEVICES (INLUDING THOSE FOR STAFF USE)
OTHER CONTROL OR "CALL" DEVICES

MOUNTING HEIGHTS FOR WALL-MOUNTED DEVICES
NOT TO SCALE

LIGHT FIXTURE SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	SIZE	MOUNTING	FINISH	MIN LUMEN/MAX WATTS	CRI/CCT	NOTES
A	JUSTICE DESIGN	CER-6300-BIS-MBLK-INC	—	PENDANT	BLACK	8 WATTS	—	2
B1	AXIS	ED2-500-90-27-UB-4-BLK/BLK-120-DP-45D	4"	SUSPENDED	BLACK	2,000 LUMENS/14 WATTS	90/2700K	1
B2	AXIS	ED2-500-90-27-UB-2-BLK/BLK-120-DP-45D	2"	SUSPENDED	BLACK	1,000 LUMENS/7 WATTS	90/2700K	1
B3	AXIS	SCD-300-90-27-FL-3-BLK-120-DP	3"	SUSPENDED	BLACK	1,500 LUMENS/10 WATTS	90/2700K	1
C	DMF	XCP-R-9-C-4-S-D-12-WF-0-00-00-27-BK-U	3"	PENDANT	BLACK	1,250 LUMENS/15 WATTS	90/2700K	1
D	BASELITE	D614-46-BLC	—	SUSPENDED	YELLOW	8 WATTS	—	1,2
D1	BASELITE	D614-46-STEM	—	PENDANT	YELLOW	8 WATTS	—	1,2,3,4
E	BASELITE	MW529-41-CBLC	—	SUSPENDED	BLACK	8 WATTS	—	1,2
F	BASELITE	P-HP1-41-STEM-FR3-CC1	—	PENDANT	BLACK	8 WATTS	—	1,2,3,4
G	BASELITE	WBC20-41-CABLE AND CORD MOUNT	—	SUSPENDED	BLACK	8 WATTS	—	1,2
H	BASELITE	PEO-90-BLC	—	SUSPENDED	GREEN	8 WATTS	—	1,2
I	DIODE	DI-24V-BLBSC2-27-SL-AL OMNI DRIVE X (ODX)	—	SURFACE	—	3 WATTS PER FT	90/2700K	1
J	NOT USED							
K1	DMF	M4NCRS/DRD2M-12-927-FL-A/M4TRS-BK	4"	RECESSED	BLACK	1,250 LUMENS, 14 WATTS	90/2700K	1
K2	DMF	M4NCRS/DRD4M-10-927-FL-A/M4TRS-BK	4"	RECESSED	BLACK	1,000 LUMENS, 12 WATTS	90/2700K	1
L	JUNO	T381-G2-27K-90-PDIM-FL-BL-HCLBL200	—	TRACK	BLACK	1,000 LUMENS, 11 WATTS	90/2700K	1,5
M	LITHONIA	2GTL-2-40L-FW-LPB40	2X2	RECESSED	WHITE	4,000 LUMENS, 35 WATTS	80/4000K	1
N	JUNO	ICTJB-JSF-13IN-18LM-30K-90-120FRPC-WH	13"	SURFACE	WHITE	1,800 LUMENS, 20 WATTS	90/3000K	1
P	BASELITE	SFM1-41-WJB41/2-FR3-CC1	—	SURFACE	BLACK	8 WATTS	—	1,2
Q	ELECTRIC MIRROR	EMINENCE 24WX36H EMN3-24X36-01L-OS-RC6.0-TD2-WG3-30K	—	SURFACE WALL	—	81 WATTS	90/3000K	1
X1	LITHONIA	EDG-1-GMR / ELA-US12	—	PENDANT	—	—	—	1,6
X2	LITHONIA	EDG-1-GMR	—	SURFACE	—	—	—	1,6
X3	LITHONIA	WLTE-8-1-G	—	SURFACE WALL	BLACK	—	—	1,3,4,6

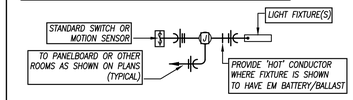
NOTES LEGEND

1. PROVIDE DIMMABLE LED DRIVER UNIVERSAL VOLTAGE.
2. PROVIDE WITH PHILIPS 6W, A19 WARM GLOW LED DIMMABLE BULB.
3. PROVIDE WET LOCATION RATED FIXTURE.
4. PROVIDE COLD LOCATION RATED BALLAST.
5. PROVIDE 1 CIRCUIT SURFACE TRACK – REFER TO PLANS FOR TRACK LENGTH AND CONFIGURATION. PROVIDE ALL NECESSARY POWER FEEDS AND ACCESSORIES FOR COMPLETE INSTALLATION. TRACK AND COMPONENT FINISHES TO MATCH FIXTURE. PROVIDE EACH TRACK RUN WITH 3 AMP CURRENT LIMITER.
6. PROVIDE EMERGENCY BATTERY MINIMUM OF 1000 LUMENS FOR 90 MINUTES.

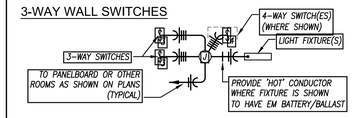
TYPICAL WIRING OF CONTROLS AND LIGHT FIXTURES

THE WIRING AND/OR TIC MARKS SHOWN BELOW ARE NOT SHOWN ON PLANS FOR CLARITY. PROVIDE WIRING FROM JUNCTION BOX(ES) TO SWITCHES/CONTROLLERS AND LIGHTS AS SHOWN BELOW FOR EACH ROOM/AREA.

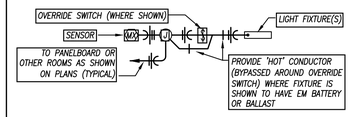
LINE VOLTAGE STANDARD WALL SWITCHES



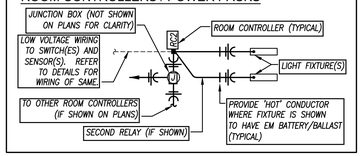
3-WAY WALL SWITCHES



LINE VOLTAGE CEILING SENSORS



ROOM CONTROLLERS / POWER PACKS



ROOM CONTROLLER SCHEDULE

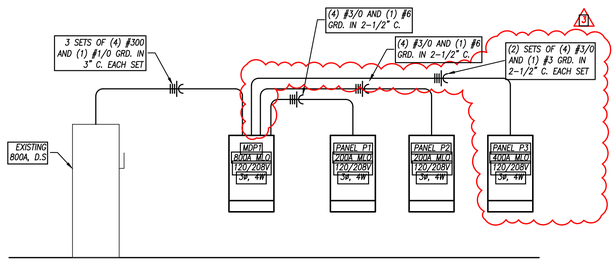
MARK	MANUFACTURER	MODEL	RELAYS NO.	RELAYS TYPE	VOLTAGE
RCD1	WATTSTOPPER	LMRC-211	1	DIMMING (0-10V)	120 V
RCD2	WATTSTOPPER	LMRC-212	2	DIMMING (0-10V)	120 V
RC1	WATTSTOPPER	LMRC-101	1	ON/OFF	120 V
RC2	WATTSTOPPER	LMRC-102	2	ON/OFF	120 V

LIGHTING CONTROL DEVICE SCHEDULE

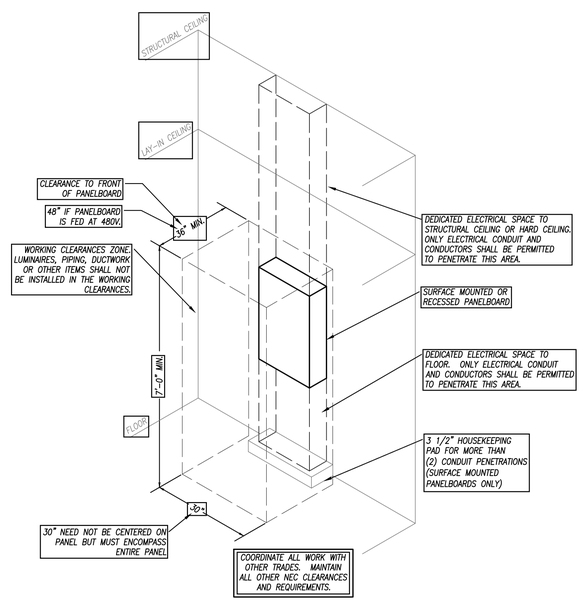
MARK	MANUFAC.	MODEL	DESCRIPTION	VOLTAGE
CEILING SENSORS				
M1	WATTSTOPPER	LMDC-100	DUAL-TECHNOLOGY CEILING SENSOR. 24V OPERATION WITH CAT5 CONNECTION.	24 V
M2	WATTSTOPPER	DT-355	DUAL-TECHNOLOGY CEILING SENSOR. LINE VOLTAGE.	120 V
SWITCHES				
L#	WATTSTOPPER	LMSW-100 SERIES	DIGITAL DECORA PUSHBUTTON SWITCH WITH LED PILOT LIGHT. CAT5 CONNECTION TO CONTROLLER. # REFERS TO QUANTITY OF BUTTONS ON FACE.	24 V
LD1	WATTSTOPPER	LMDM-101	DIGITAL DECORA DIMMING SWITCH WITH LED PILOT AND INDICATING LIGHTS. CAT5 CONNECTION TO CONTROLLER.	24 V
WALL SENSORS				
M	WATTSTOPPER	DSW-100	DUAL-TECHNOLOGY WALL SENSOR. LINE VOLTAGE.	120 V

GENERAL LIGHTING NOTES

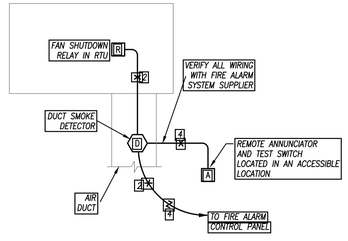
1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. LIGHT FIXTURES INDICATED AS EMERGENCY FIXTURES ARE TO FUNCTION AS NIGHT LIGHTS UNLESS SPECIFICALLY SHOWN SWITCHED.
3. ALL CIRCUITING SHOWN ON THIS PLAN IS DIAGRAMMATIC.
   3.1. ALL FIXTURES SHALL BE FED FROM JUNCTION BOXES WITH LIGHT FIXTURE WHIPS (<6'). DAISY-CHAINING OF FIXTURES IS NOT ALLOWED.
   3.2. SWITCH BOX LOCATIONS SHALL BE WIRED SO THAT A NEUTRAL WIRE IS AVAILABLE AT THE SWITCH BOX LOCATION, EITHER IN THE BOX OR AVAILABLE TO BE ADDED VIA RACEWAY OR AN ACCESSIBLE WALL CAVITY.
   3.3. WALL SWITCHES FOR SEPARATE LOAD TYPES (EM/NORMAL, 120/277V, ETC.) SHALL NOT BE IN A SINGLE BOX.
   3.4. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



ELECTRICAL RISER DIAGRAM
NO SCALE



TYPICAL PANELBOARD INSTALLATION DETAIL
NOT TO SCALE



DUCT SMOKE DETECTOR DIAGRAM
NOT TO SCALE

CONTACTOR SCHEDULE

NAME	DESCRIPTION	ELECTRICAL AMPS, WIRE	POLES	CIRCUITS	NOTES
C1	ZONE 1 ELECTRIC HEATERS	30A, 2W	24	P3 1-24	1,2
C2	ZONE 2 ELECTRIC HEATERS	30A, 2W	18	P3 25-41,43	1,2
C3	ZONE 3 ELECTRIC HEATERS	30A, 2W	14	P3 42,44-56	1,2

NOTES LEGEND
1. PROVIDE HOA SWITCH THROUGH FRONT COVER.
2. CONTRACTOR SHALL BE CONTROLLED VIA SCENE CONTROLLER. OPEN CONTRACTS SHALL TURN ELECTRIC HEAT OFF AND CLOSED CONTACTS SHALL TURN ELECTRIC HEAT ON.

ELECTRIC UNIT HEATER SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	CAPACITY (WATTS)	ELECTRICAL	NOTES
EUH-1	KING ELECTRIC	RK2030-RMT-BLK	3000 WATTS	208V., 1Ø, 20 AMP	1

NOTES LEGEND
1. PROVIDE WITH REMOTE CONTROLLER AND SERVICE DISCONNECT. CONTROLLER SHALL CONTROL MULTIPLE HEATERS ON THE SAME ZONE. SEE POWER PLANS AND CONTRACTOR SCHEDULE FOR ZONES. INSTALL PER MANUFACTURERS INSTRUCTIONS
2. CONNECT EACH HEATER VIA (2) #12 & (1) #12 GRD IN 3/4" C. THOUGH LIGHTING CONTACTOR INDICATED ON PLANS

PAPPAGEORGE HAYMES

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STATE OF MISSOURI
BRYAN LEINWETTER
NUMBER PE-2020020297
PROFESSIONAL ENGINEER
7/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

pkmr ENGINEERS
PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
2949 SW WANAMAKER DR., TOPEKA, KANSAS 66614
785.273.2447 WWW.PKMRENG.COM

24-107

30hop American grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit
1	05.22.24	Permit Revision
2	07.02.24	Permit Revision

orientation	
project number	232882
scale	As Noted
date	7/02/2024
sheet title	Electrical Details
sheet number	E301

DISTRIBUTION PANELBOARD SCHEDULE

PANEL DESIGNATION			
MDP1	MAIN BUS AMPS: 800	VOLTAGE: 208/120	MOUNTING: SURFACE
	MAIN BREAKER AMPS: 800	PHASE/WIRE: 3Ø, 4W	LOCATION: MECH 104
	SCCR RATING (AIC): 35,000		

CIRCUIT NO.	CIRCUIT DESIGNATION	KVA	CIRCUIT BREAKER POLE	FRAME	TRIP	FEEDER SETS	# OF WIRES	SIZE	GROUND	CONDUIT
1	RTU-1	18.5	3	100	70	1	3	#4	#8	1"
2	RTU-2	18.5	3	100	70	1	3	#4	#8	1"
3	RTU-3	12.6	3	100	50	1	3	#6	#10	3/4"
4	RTU-4	12.6	3	100	50	1	3	#6	#10	3/4"
5	MAU-1	22.1	3	100	80	1	3	#3	#8	1-1/4"
6	DISHWASHER-GFI	40.1	3	200	150	1	3	#1	#6	2"
7	PANELBOARD P1	74.6	3	200	200	1	4	#3/0	#6	2"
8	PANELBOARD P2	90.9	3	200	200	1	4	#3/0	#6	2"
9	PANELBOARD P3	96.9	3	400	400	2	4	#3/0	#3	2"
10	SPACE	0.0	3			-	-	-	-	-

3

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED LOAD	DEMAND FACTOR	CODE MIN. (VA)
LIGHTS	4,520	1.25	5,650
RECEPTACLES	13,140	10KVA + 50% REST	11,570
MOTORS	7,910	1.25 x LARGEST + SUM OF REST	8,833
AIR CONDITIONING	84,367	0.00	0
SPACE HEATING	96,880	1.00	96,880
HEAT PUMP	0	1.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	83,700	1.00	83,700
MISC. LOADS 1	0	1.00	0
TOTAL CONNECTED LOAD (VA):	326,747	SIZING LOAD (VA):	230,182
TOTAL CONNECTED LOAD (AMPS):	907.0	SIZING LOAD (AMPS):	638.9

REMARKS:
1. EATON POW-R-LINE 4X PANELBOARD OR EQUAL.
2. SINGLE SECTION, 44" WIDE PANELBOARD.
3. FURNISH PANELBOARD WITH EXTERNAL SPD.

3

SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **P3**
MOUNTING: SURFACE
LOCATION: CORRIDOR
MAIN LUG AMPS: 400 SCCR RATING (AIC): 22,000
MAIN BREAKER: M.L.O.
VOLTAGE: 208/120
PHASE/WIRE: 3Ø, 4W

DESCRIPTION	PHASE A	PHASE B	PHASE C	C/B TRIP	C/B POLE	CIRCUIT #		C/B POLE	C/B TRIP	PHASE A	PHASE B	PHASE C	DESCRIPTION
ELECTRIC HEATER	1730			20	2	1	2	2	20	1730			ELECTRIC HEATER
-		1730		-	-	3	4	-	-		1730		-
ELECTRIC HEATER			1730	20	2	5	6	2	20			1730	ELECTRIC HEATER
-	1730			-	-	7	8	-	-	1730			-
ELECTRIC HEATER		1730		20	2	9	10	2	20		1730		ELECTRIC HEATER
-			1730	-	-	11	12	-	-			1730	-
ELECTRIC HEATER	1730			20	2	13	14	2	20	1730			ELECTRIC HEATER
-		1730		-	-	15	16	-	-		1730		-
ELECTRIC HEATER			1730	20	2	17	18	2	20			1730	ELECTRIC HEATER
-	1730			-	-	19	20	-	-	1730			-
ELECTRIC HEATER		1730		20	2	21	22	2	20		1730		ELECTRIC HEATER
-			1730	-	-	23	24	-	-			1730	-
ELECTRIC HEATER	1730			20	2	25	26	2	20	1730			ELECTRIC HEATER
-		1730		-	-	27	28	-	-		1730		-
ELECTRIC HEATER			1730	20	2	29	30	2	20			1730	ELECTRIC HEATER
-	1730			-	-	31	32	-	-	1730			-
ELECTRIC HEATER		1730		20	2	33	34	2	20		1730		ELECTRIC HEATER
-			1730	-	-	35	36	-	-			1730	-
ELECTRIC HEATER	1730			20	2	37	38	2	20	1730			ELECTRIC HEATER
-		1730		-	-	39	40	-	-		1730		-
ELECTRIC HEATER			1730	20	2	41	42	2	20			1730	ELECTRIC HEATER
-	1730			-	-	43	44	-	-	1730			-
ELECTRIC HEATER		1730		20	2	45	46	2	20		1730		ELECTRIC HEATER
-			1730	-	-	47	48	-	-			1730	-
ELECTRIC HEATER	1730			20	2	49	50	2	20	1730			ELECTRIC HEATER
-		1730		-	-	51	52	-	-		1730		-
ELECTRIC HEATER			1730	20	2	53	54	2	20			1730	ELECTRIC HEATER
-	1730			-	-	55	56	-	-	1730			-
SPACE		-		-	1	57	58	1	-		-		SPACE
SPACE			-	-	1	59	60	1	-			-	SPACE
TOTALS	17300	15570	15570							17300	15570	15570	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	0	1.25	0
RECEPTACLES	0	10KVA + 50% REST	0
MOTORS	0	1.25 x LARGEST + SUM OF REST	0
AIR CONDITIONING	0	0.00	0
SPACE HEATING	96,880	1.00	96,880
HEAT PUMP	0	1.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0
SIZING LOAD:			96,880
SIZING LOAD (AMPS):			269

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	34,600	288.1
B	31,140	259.3
C	31,140	259.3
TOTALS	96,880	268.9

REMARKS:
1. EATON POW-R-LINE 2X OR EQUAL

SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **P1**
MOUNTING: SURFACE
LOCATION: MECH 104
MAIN LUG AMPS: 225 SCCR RATING (AIC): 35,000
MAIN BREAKER: M.L.O.
VOLTAGE: 208/120
PHASE/WIRE: 3Ø, 4W

DESCRIPTION	PHASE A	PHASE B	PHASE C	C/B TRIP	C/B POLE	CIRCUIT #		C/B POLE	C/B TRIP	PHASE A	PHASE B	PHASE C	DESCRIPTION
REC-KITCHEN -GFI	1080			20	1	1	2	1	20	1200			WALK-IN COOLER-GFI
PORTABLE OIL FILTER-GFI		1800		20	1	3	4	2	25		2360		COOLER CONDENSER
BAG-IN-BOX SYSTEM-GFI			1800	20	1	5	6	-	-			2360	-
S/S WORK TABLE-GFI	1800			20	1	7	8	1	20	1800			COOLER COIL
S/S WORK TABLE-GFI		1800		20	1	9	10	1	20		1200		FREEZER-GFI
PLANTARY MIXER-GFI			1800	20	1	11	12	2	25			2480	FREEZER CONDENSER
FOOD SLICER-GFI	580			20	1	13	14	-	-	2480			
FOOD PROCESSOR-GFI		1440		20	1	15	16	2	20		1800		FREEZER COIL
ICE MAKER-GFI			1450	20	2	17	18	-	-			1800	-
-	1450			-	-	19	20	2	20	1800			DRAIN LINE HEATER-GFI
MEGA TOP PREP REF-GFI		700		20	1	21	22	-	-		1800		-
HEAT LAMP-GFI			2200	25	1	23	24	1	20			1200	BEER COOLER-GFI
REC-KITCHEN -GFI	540			20	1	25	26	2	20	1940			BEER COOLER CONDENSER
REFRIGERATED WORKTOP-GFI		300		20	1	27	28	-	-		1940		-
PANINI GRILL-GFI			1600	20	2	29	30	1	20			1800	BEER COOLER COIL
-	1600			-	-	31	32	1	20	1440			COMBI GAS OVEN-GFI
REFRIGERATED WORKTOP-GFI		240		20	1	33	34	1	-		-		SHUNT TRIP
HEAT LAMP-GFI			2800	30	1	35	36	1	20			720	REFRIGERATED EQUIP STAND-GFI
FOOD WARMER-GFI	1000			20	1	37	38	1	-	-			SHUNT TRIP
REC-KITCHEN -GFI		540		20	1	39	40	1	20		1800		EXHAUST HOOD
HEAT LAMP-GFI			2800	25	1	41	42	1	20			1800	EXHAUST HOOD
REC-KITCHEN -GFI	360			20	1	43	44	1	20	720			UNDERCOUNTER FREEZER-GFI
PREP REFRIGERATOR-GFI		700		20	1	45	46	1	20		300		UNDERCOUNTER FRIDGE-GFI
HOOT FOOD SERVING-GFI			2260	25	2	47	48	1	20			290	SODA DISPENSER-GFI
-	2260			-	-	49	50	1	-	-			SPACE
PREP REFRIGERATOR-GFI		720		20	1	51	52	1	-		-		SPACE
REFRIGERATED WORKTOP-GFI			300	20	1	53	54	1	-			-	SPACE
INDUCTION RANGE-GFI	1800			20	2	55	56	1	-	-			SPACE
-		1800		-	-	57	58	1	-		-		SPACE
SPARE-GFI			-	-	1	59	60	1	-			-	SPACE
TOTALS	12470	10040	17010							11380	11200	12450	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	0	1.25	0
RECEPTACLES	2,520	10KVA + 50% REST	2,520
MOTORS	0	1.25 x LARGEST + SUM OF REST	0
AIR CONDITIONING	0	1.00	0
SPACE HEATING	0	0.00	0
HEAT PUMP	0	1.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	35,800	1.00	35,800
MISC. LOADS 1	0	1.00	0
SIZING LOAD:			61,870
SIZING LOAD (AMPS):			172

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	23,850	198.6
B	21,240	176.9
C	29,460	245.3
TOTALS	74,550	206.9

REMARKS:
1. EATON POW-R-LINE 2X OR EQUAL.

SINGLE-SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **P2**
MOUNTING: SURFACE
LOCATION: MECH 104
MAIN LUG AMPS: 225 SCCR RATING (AIC): 35,000
MAIN BREAKER: M.L.O.
VOLTAGE: 208/120
PHASE/WIRE: 3Ø, 4W

DESCRIPTION	PHASE A	PHASE B	PHASE C	C/B TRIP	C/B POLE	CIRCUIT #		C/B POLE	C/B TRIP	PHASE A	PHASE B	PHASE C	DESCRIPTION
REC-RESTAURANT	720			20	1	1	2	1	20	1000			LIGHT UP SIGN
REC-RESTAURANT		540		20	1	3	4	1	20		1000		LIGHT UP SIGN
REC-RESTAURANT			540	20	1	5	6	1	20			1000	LIGHT UP SIGN
REC-RESTAURANT	540			20	1	7	8	1	20	1150			LIGHTING-KITCHEN/OFFICE
REC-RESTAURANT		540		20	1	9	10	1	20		750		LIGHTING-HOST/RR
REC-HOST			540	20	1	11	12	1	20			540	LIGHTING-RESTAURANT
REC-OFFICE	720			20	1	13	14	1	20	1160			LIGHTING-BAR
REC-RESTROOMS		540		20	1	15	16	1	20		320		LIGHTING-PATIO
REC-CLOSET			720	20	1	17	18	1	20			1500	PATIO CEILING FANS
REC-BAR - GFI	900			20	1	19	20	1	20	1800			BULK CO2 TANK
REC-BAR - GFI		720		20	1	21	22	1	15		700		EF-1
REC-BAR - GFI			1080	20	1	23	24	1	15			520	DEF-1
UNDERCOUNTER DISHWASHER-GFI	1800			20	1	25	26	3	20	1000			KEF-1
REC-BAR TVS		360		20	1	27	28	-	-		1000		-
REC-MECH			360	20	1	29	30	-	-			1000	-
WATER HEATER-1	200			20	1	31	32	3	20	1230			KEF-2
WATER HEATER-2		200		20	1	33	34	-	-		1230		-
WATER HEATER-3			200	20	1	35	36	-	-			1230	-
WATER HEATER-4	200			20	1	37	38	1	20	600			LIGHTING INVERTER
WATER HEATER-5		200		20	1	39	40	1	20		500		FIRE PIT
SPARE			-	20	1	41	42	1	20			-	SPARE
SPARE	-			20	1	43	44	1	20	-			SPARE
SPARE		-		20	1	45	46	1	20		-		SPARE
SPARE			-	20	1	47	48	1	20			-	SPARE
SPARE	-			20	1	49	50	1	-	-			SPACE
SPARE		-		20	1	51	52	1	-		-		SPACE
SPARE			-	20	1	53	54	1	-			-	SPACE
SPACE	-			-	1	55	56	1	-	-			SPACE
SPACE		-		-	1	57	58	1	-		-		SPACE
SPACE			-	-	1	59	60	1	-			-	SPACE
TOTALS	5080	3100	3440							7940	5500	5790	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	4,520	1.25	5,650
RECEPTACLES	10,620	10KVA + 50% REST	10,310
MOTORS	7,910	1.25 x LARGEST + SUM OF REST	8,833
AIR CONDITIONING	0	1.00	0
SPACE HEATING	0	0.00	0
HEAT PUMP	0	1.00	0
CONTINUOUS	0	1.25	0
NON-CONTINUOUS	7,800	1.00	7,800
MISC. LOADS 1	0	1.00	0
SIZING LOAD:			32,593
SIZING LOAD (AMPS):			90

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	13,020	108.4
B	8,600	71.6
C	9,230	76.9
TOTALS	30,850	85.6

REMARKS:
1. EATON POW-R-LINE 2X OR EQUAL.

640 N Lasalle 312 337 3344 Architecture
Suite 400 Urban Planning
Chicago Illinois 60654

Pappageorge Haymes Partners
www.pappageorgehaymes.com

PAPPAGEORGE HAYMES

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STATE OF MISSOURI
BRYAN LEINWETTER
NUMBER
PE-2020020297
PROFESSIONAL ENGINEER
7/02/24
Bryan Leinwetter - Engineer
MO# PE-2020020297

pkmr ENGINEERS
PEARSON KENT MCKINLEY RAAP ENGINEERS LLC
2949 SW WANAMAKER DR., TOPEKA, KANSAS 66614
785.273.2447 WWW.PKMRENG.COM

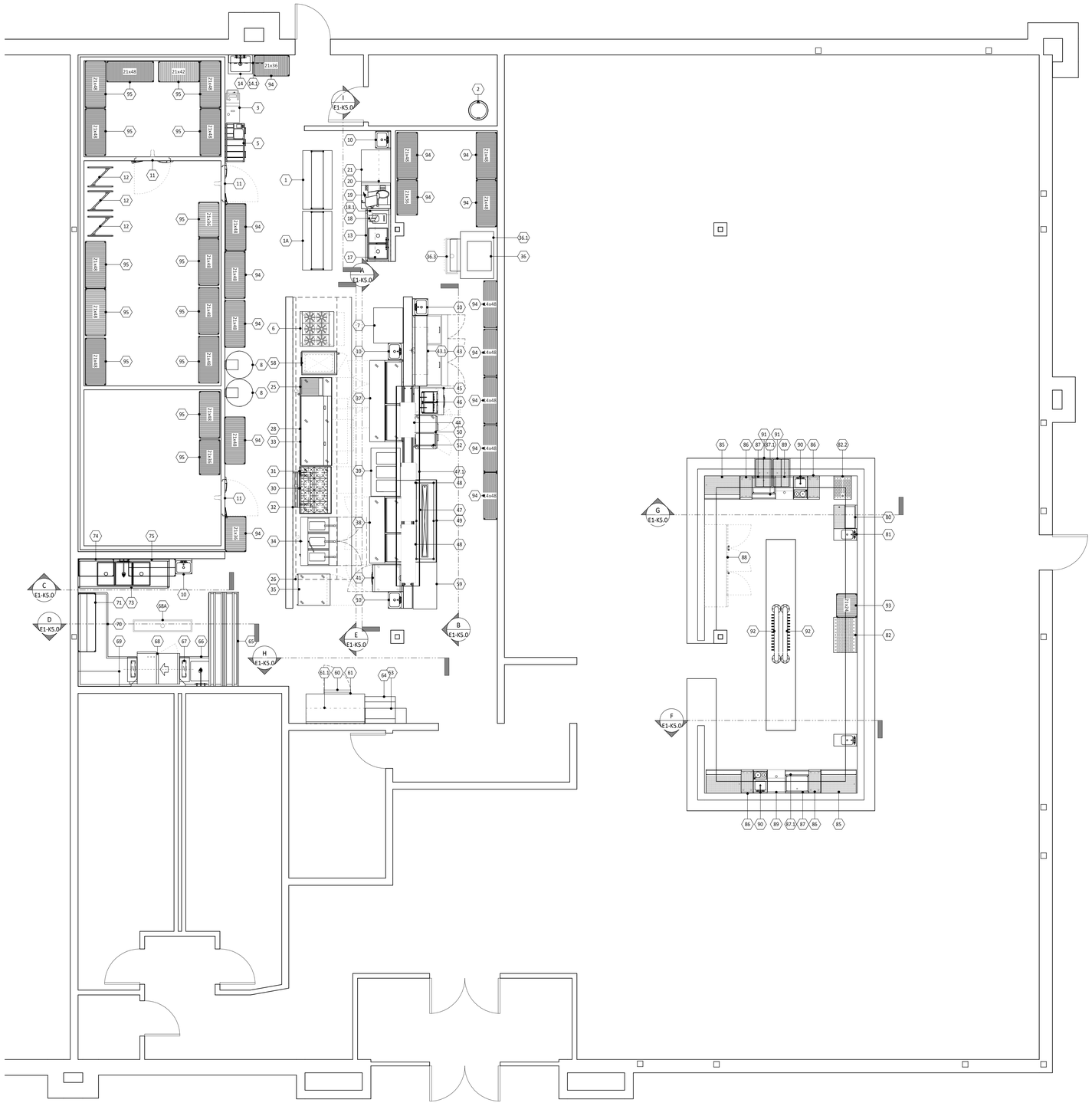
24-107

30hop
american grill • craft beer • rooftop patio

30hop SOWP
1020 NW Pryor Road,
Lees Summit,MO 64081
30hop
owner

	date	description
	05.02.24	Issue For Permit
3	07.02.24	Permit Revision

orientation	
project number	232882
scale	As Noted
date	7/02/2024
sheet title	Panelboard Schedules
sheet number	E302



EQUIPMENT LAYOUT PLAN
SCALE: 1/4" = 1'-0"

EQUIPMENT LIST

ITEM NO.	QTY.	ITEM DESCRIPTION	ITEM REMARKS
1	1	S/S WORK TABLE	
1A	1	S/S WORK TABLE	
2	1	BULK CO2 TANK	BY OTHERS
3	1	PORTABLE OIL FILTER	BY OTHERS
5	1	BAG-IN-BOX SYSTEM	BY OTHERS
6	1	36" HD RANGE, GAS	
7	1	S/S WORK TABLE	
8	2	RTI OIL SYSTEM	BY OTHERS
10	5	HAND SINK	
11	1	WALK-IN COMBO	
12	3	NESTING PAN RACK	
13	1	TWO (2) COMPARTMENT SINK	
14	1	MOP SINK	
14.1	1	UTILITY SHELF	
17	1	S/S WALL SHELVING	
18	1	FOOD PROCESSOR	
18.1	1	IMMERSION HAND MIXER	
19	1	MEAT SLICER	
20	1	S/S WALL SHELVING	
21	1	S/S WORK TABLE	
25	1	CHARBOILER, GAS	
26	1	EXHAUST HOOD SYSTEM	
26.1	1	EXHAUST FAN	
26.2	1	EXHAUST FAN	
26.3	1	DOAS UNIT	
28	1	GRIDDLE, GAS	
30	1	HOTPLATE, GAS	
31	1	REFRIGERATED EQUIPMENT STAND	
32	1	CHEESEMELTER, GAS	
33	1	REFRIGERATED EQUIPMENT STAND	
34	1	BATTERY FRYER, GAS	
35	1	REACH-IN UNDERCOUNTER FREEZER	
36	1	ICE MAKER	
36.1	1	ICE BIN	
36.2	1	REMOTE CONDENSER	
36.3	1	FLOOR TROUGH	BY OTHERS
37	1	REFRIGERATED PREP TABLE	
38	1	REFRIGERATED PREP TABLE	
39	1	HOT FOOD SERVING COUNTER	
41	1	REFRIGERATED WORK TOP	
43	1	MEGA TOP PREP REFRIGERATOR	
43.1	1	S/S WALL SHELVING	
44	1	HEAT LAMP	
45	1	REFRIGERATED WORK TOP	
46	1	PANINI GRILL	
47	1	PASS-THRU SHELF	
47.1	1	PASS-THRU SHELF	
48	2	HEAT LAMP	
49	1	S/S WORK TABLE	
50	1	REFRIGERATED WORK TOP	
52	1	FOOD PAN WARMER	
58	1	MULTI-COOK OVEN	BY OTHERS
59	1	S/S WORK TABLE	
60	1	UNDERCOUNTER REFRIGERATOR	
61	1	S/S WORK TABLE	
61.1	1	S/S WALL SHELVING	
63	1	DISHTABLE SORTING SHELF	
64	1	ICE/BEVERAGE DISPENSER	BY OTHERS
65	1	DISHTABLE SORTING SHELF	
66	1	SOILED DISHTABLE, "L" SHAPE	
67	1	DISHWASHER VENT DUCT RISER	
67.1	1	CONDENSATE EXAUST FAN	
68	1	WAREWASHER, RACK CONVEYOR	BY OTHERS
68A	1	FLOOR TROUGH	BY OTHERS
69	1	DISHTABLE SORTING SHELF	
70	1	CLEAN DISHTABLE, "L" SHAPE	
71	1	WIRE SHELVING UNIT	
73	1	THREE (3) COMPARTMENT SINK	
74	1	WIRE SHELVING UNIT	
75	1	WIRE SHELVING UNIT	
80	1	UNDERCOUNTER GLASSWASHER	BY OTHERS
81	1	WET WASTE SINK	
82	1	DRAINBOARD	
82.2	1	DRAINBOARD	
85	2	DRAINBOARD	
86	4	DRAINBOARD	
87	2	ICE BIN	BY OTHERS
87.1	2	SPEED RAIL	
88	1	REFRIGERATED BACK BAR CABINET	
89	2	BOTTLE STORAGE UNIT	
90	2	UNDERBAR SINK UNIT	
91	2	DRIP TROUGH	BY OTHERS
92	2	BEER PIPE TOWER	BY OTHERS
93	1 LOT	WIRE SHELVING UNIT	
94	1 LOT	WIRE SHELVING UNIT	
95	1 LOT	WIRE SHELVING UNIT	

A SYMBOL OF QUALITY AND CUSTOMER SATISFACTION
SINCE 1971

C&T Design and Equipment Co., Inc.

2750 Tobey Drive
Indianapolis, Indiana 46219
Phone: 317.898.9602
www.c-tdesign.com
DESIGN & SALES TO ALL TYPES OF FOOD SERVICE OPERATIONS

PROJECT MANAGER: JACK GRABEEL
EMAIL ADDRESS: JGRABEEL@c-tdesign.com

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30 HOP
LEE'S SUMMIT, MO

ISSUE DATE:

Rev.	Date	Description

PROJECT No: 2024-064
DRAWN BY: Author
SHEET SCALE: 1/4" = 1'-0"

SHEET TITLE:
KITCHEN EQUIPMENT PLAN

SHEET NUMBER:
E1-K1.0

4/26/2024 4:08:28 PM

ELECTRICAL NOTES

1. ELECTRICAL SYSTEM IS DESIGNED FOR 240 VOLTS, 3-PHASE, 4 WIRE AT 60 HERTZ.
2. OUTLETS AND ROUGH-INS SHOWN PERTAIN TO AND ARE FOR FOODSERVICE FIXTURES AND EQUIPMENT ONLY. SEE ARCHITECTURAL AND/OR ENGINEERING PLANS FOR ANY ADDITIONAL ROUGH-IN REQUIREMENTS.
3. THIS ELECTRICAL PLAN IS INTENDED TO SHOW ROUGH-IN LOCATIONS AND LOAD REQUIREMENTS. ALL DIMENSIONS ARE SHOWN FROM FINISHED SURFACES TO THE CENTERLINE OF THE ROUGH-IN LOCATION UNLESS OTHERWISE NOTED.
4. UNLESS OTHERWISE NOTED, ALL ELECTRICAL WORK FOR FABRICATED FOODSERVICE EQUIPMENT SHALL BE COMPLETELY WIRED BY KITCHEN EQUIPMENT DIVISION TO A JUNCTION BOX OR PULL BOX MOUNTED ON THE EQUIPMENT IN AN ACCESSIBLE LOCATION. FINAL CONNECTIONS TO PANEL BOARDS TO BE THE RESPONSIBILITY OF THE E.C.
5. FINAL CONNECTIONS TO ALL EQUIPMENT AND ALL REQUIRED MATERIALS TO BE THE RESPONSIBILITY OF THE E.C.
6. E.C. TO FURNISH AND INSTALL THE FOLLOWING:
   - A. ALL JUNCTION BOXES, ELECTRICAL OUTLETS, COVER PLATES, ETC., NOT BUILT INTO FIXTURES OR EQUIPMENT. ALL OUTLETS, JUNCTION BOXES, COVER PLATES, ETC., IN DISHROOMS, OR AS INDICATED ON SCHEDULES, MUST BE VAPOR-PROOF.
   - B. SHUNT TRIP CIRCUIT BREAKERS/CONTACTORS OR DISCONNECTS FOR FIRE CONTROL SYSTEM SHUT-OFF OF FOODSERVICE EQUIPMENT BELOW HOODS/VENTILATORS AS REQUIRED BY N.F.P.A.-96 AND LOCAL CODES.
   - C. DISCONNECTS OR OTHER DEVICES AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES.
7. WHEN APPLICABLE, E.C. TO INSTALL F.S.E.C.-PROVIDED ELECTRICAL COMPONENTS, PROVIDE ALL CONDUIT AND WIRING, AND INTERCONNECT BETWEEN THE FOLLOWING:
   - A. REMOTE REFRIGERATION EQUIPMENT TO EVAPORATOR COILS.
   - B. CONTROL PANELS TO WATER-TYPE VENTILATORS AND EXHAUST OR SUPPLY FANS PER MANUFACTURER'S SPECIFICATIONS.
   - C. KITCHEN EXHAUST HOODS/VENTILATORS TO FIRE CONTROL SYSTEM AND SHUT-OFFS.
8. ALL ELECTRICAL AMPERAGE NOTED ON ROUGH-IN SCHEDULE INDICATES FULL LOAD AMP DRAW -- NOT RECOMMENDED CIRCUIT BREAKER SIZE. E.C. IS RESPONSIBLE FOR PROPER BREAKER SIZING WITH THIS INFORMATION.
9. PEDESTAL RECEPTACLES ARE NOT TO EXCEED 4-1/2" AFF.
10. E.C. TO FURNISH AND INSTALL GROUND FAULT RECEPTACLE OR FURNISH GROUND FAULT CIRCUIT BREAKER FOR ANY RECEPTACLE WITHIN FIVE FEET (5'-0") OF SINK.

ABBREVIATIONS

ABBREV.	DESCRIPTION
ADD'L	ADDITIONAL
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AMP	AMPERAGE
BFC	BELOW FINISHED CEILING
BTC	BRANCH TO CONNECTION
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CW	COLD WATER
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
DFA	DROP SERVICE FROM ABOVE
E.C.	ELECTRICAL CONTRACTOR
°F	DEGREES FAHRENHEIT
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
FLA	FULL LOAD AMPS
FLUSH	MOUNT ITEM FLUSH WITH SURFACE
FS	FLOOR SINK
F.S.E.C.	FOODSERVICE EQUIPMENT CONTRACTOR
FT	FLOOR TROUGH
GA.	GAUGE
G.C.	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GHT	GARDEN HOSE THREAD
GPM	GALLONS PER MINUTE
HD	HUB DRAIN
HGT.	HEIGHT
HP	HORSEPOWER
HR	HOUR
H.V.A.C.	HEATING, VENTILATION AND AIR CONDITIONING
HW	HOT WATER
in.	INCH
kW	KILOWATT
MBTU	1,000 BTU
M.C.	MECHANICAL CONTRACTOR
MTD	MOUNTED
N.I.F.S.E.C.	NOT IN FOODSERVICE EQUIPMENT CONTRACT
NPT	NATIONAL PIPE THREAD
P.C.	PLUMBING CONTRACTOR
PED	PEDESTAL-MOUNTED
PH	PHASE
R.C.	ROOFING CONTRACTOR
RECP.	RECEPTACLE
REQ'MTS	REQUIREMENTS
S.C.	STRUCTURAL CONTRACTOR
S/S	STAINLESS STEEL
STUB-UP	STUB SERVICE UP FROM FINISHED FLOOR

ELECTRICAL SCHEDULE

ITEM NO.	QTY.	ITEM DESCRIPTION	ITEM REMARKS	ELECT. NO.	AMPS	WATTS	HP	VOLTS	PHASE	CONN TYPE	PLUG TYPE	ELECT. HGT. (AFF)	ELECTRICAL REMARKS
1	1	S/S WORK TABLE		E1	20.0			120V	1	CORD & PLUG	NEMA 6-20P		E.C. TO DROP SPECIAL PURPOSE RECEPTACLE DOWN FROM ABOVE.
1A	1	S/S WORK TABLE		E1A	20.0			120V	10	CORD & PLUG	NEMA 6-20P		E.C. TO DROP SPECIAL PURPOSE RECEPTACLE DOWN FROM ABOVE.
2	1	BULK CO2 TANK	BY OTHERS	E2	15.0			120V	1	CORD & PLUG	NEMA 5-15P	48"	E.C. TO PROVIDE DUPLEX RECEPTACLE. CONFIRM UTILITIES W/PROVIDER
3	1	PORTABLE OIL FILTER	BY OTHERS	E3	9.0			120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE. CONFIRM UTILITIES W/PROVIDER
5	1	BAG-IN-BOX SYSTEM	BY OTHERS	E5	15.0			120V	1	CORD & PLUG	NEMA 5-15P	60"	E.C. TO PROVIDE DUPLEX RECEPTACLE. CONFIRM UTILITIES W/PROVIDER
6	1	36" HD RANGE, GAS		E6	3.4			120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
8	2	RTI OIL SYSTEM	BY OTHERS	E8									CONFIRM UTILITIES W/PROVIDER
11	1	WALK-IN COMBO		E11	10.0			120V	1	DIRECT			LIGHTS, HEATERS, AND CONTROLS. E.C. TO CONNECT TO FINAL LOCATION. E.C. TO REFERENCE APPROVED SHOP DRAWINGS FOR ADDITONAL INFORMATION.
18	1	FOOD PROCESSOR		E18	12.0		1 1/2	120V	1	CORD & PLUG	NEMA 5-15P	48"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
18.1	1	IMMERSION HAND MIXER		E18.1	10.0		1	120V	1	CORD & PLUG	NEMA 5-15P	48"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
19	1	MEAT SLICER		E19	1.4		1/2	120V	1	CORD & PLUG	NEMA 5-15P	48"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
26	1	EXHAUST HOOD SYSTEM		E26	15.0			120V	1	DIRECT			LIGHTING AND CONTROLS. E.C. TO CONNECT TO FINAL LOCATION. E.C. TO REFERENCE APPROVED SHOP DRAWINGS FOR ADDITIONAL INFORMATION.
26.1	1	EXHAUST FAN		E26.1	8.3		2	208V	3	DIRECT			REMOTE FAN LOCATION. E.C. TO REFERENCE APPROVED SHOP DRAWINGS FOR ADDITIONAL INFORMATION.
26.2	1	EXHAUST FAN		E26.2	10.2		3	208V	3	DIRECT			REMOTE FAN LOCATION. E.C. TO REFERENCE APPROVED SHOP DRAWINGS FOR ADDITIONAL INFORMATION.
26.3	1	DOAS UNIT		E26.3	80.0		5	208V	3	DIRECT			REMOTE DOAS LOCATION. E.C. TO REFERENCE APPROVED SHOP DRAWINGS FOR ADDITIONAL INFORMATION.
31	1	REFRIGERATED EQUIPMENT STAND		E31	6.0		1/4	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
33	1	REFRIGERATED EQUIPMENT STAND		E33	6.0		1/4	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
34	1	BATTERY FRYER, GAS		E34	12.0			120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
35	1	REACH-IN UNDERCOUNTER FREEZER		E35	1.8		1/5	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
36	1	ICE MAKER		E36	11.0			208/240V	1	DIRECT		60"	E.C. TO CONNECT TO FINAL LOCATION.
36.2	1	REMOTE CONDENSER		E36.2	1.0			208/240V	1	DIRECT			REMOTE CONDENSER LOCATION. E.C. TO CONNECT TO FINAL LOCATION.
37	1	REFRIGERATED PREP TABLE		E37	5.8		1/4	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
38	1	REFRIGERATED PREP TABLE		E38	6.0		1/3	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
39	1	HOT FOOD SERVING COUNTER		E39	12.5	2,600		208V	1	CORD & PLUG	NEMA 6-20P	20"	E.C. TO PROVIDE SPECIAL PURPOSE RECEPTACLE.
41	1	REFRIGERATED WORK TOP		E41	2.3		1/7	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
43	1	MEGA TOP PREP REFRIGERATOR		E43	2.8		1/5	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
44	1	HEAT LAMP		E44	13.3	1,600		120V	1	DIRECT		56"	E.C. TO PROVIDE ELECTRICAL SERVICE FOR CONTROL BOX AND CONNECT TO FINAL LOCATION. E.C. TO REFERENCE ELEVATION DRAWINGS FOR ADDITIONAL INFORMATION.
45	1	REFRIGERATED WORK TOP		E45	2.5		1/5	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
46	1	PANINI GRILL		E46	15.0	3,200		240V	1	CORD & PLUG	NEMA 6-15P	42"	E.C. TO PROVIDE SPECIAL PURPOSE RECEPTACLE.
48	2	HEAT LAMP		E48	23.3	2,800		120V	1	DIRECT		56"	E.C. TO PROVIDE ELECTRICAL SERVICE FOR CONTROL BOX AND CONNECT TO FINAL LOCATION. E.C. TO REFERENCE ELEVATION DRAWINGS FOR ADDITIONAL INFORMATION.
50	1	REFRIGERATED WORK TOP		E50	2.0		1/6	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
52	1	FOOD PAN WARMER		E52	8.3	1,000		120V	1	CORD & PLUG	NEMA 5-15P	42"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
58	1	MULTI-COOK OVEN	BY OTHERS	E58	25.0	10,300		208/240V	3	CORD & PLUG	NEMA 15-30P	48"	E.C. TO PROVIDE SPECIAL PURPOSE RECEPTACLE. CONFIRM UTILITIES W/PROVIDER.
60	1	UNDERCOUNTER REFRIGERATOR		E60	2.3			120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.
64	1	ICE/BEVERAGE DISPENSER	BY OTHERS	E64	2.4			120V	1	CORD & PLUG	NEMA 5-15P	60"	E.C. TO PROVIDE DUPLEX RECEPTACLE. CONFIRM UTILITES W/PROVIDER.
67.1	1	CONDENSATE EXAUST FAN		E67.1	4.3		1/3	120V	1	DIRECT			REMOTE FAN LOCATION. E.C. TO REFERENCE APPROVED SHOP DRAWINGS FOR ADDITIONAL INFORMATION.
68	1	WAREWASHER, RACK CONVEYOR	BY OTHERS	E68	111.3	45,300	3.9	208V	3	DIRECT		20"	E.C. TO CONNECT TO FINAL LOCATION. E.C. TO PROVIDE ELECTRICAL SERVICE FOR BOOSTER HEATER. CONFIRM UTILITIES W/PROVIDER.
80	1	UNDERCOUNTER GLASSWASHER	BY OTHERS	E80	3.5			120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE. CONFIRM UTILITIES W/PROVIDER
88	1	REFRIGERATED BACK BAR CABINET		E88	7.0		1/4	120V	1	CORD & PLUG	NEMA 5-15P	20"	E.C. TO PROVIDE DUPLEX RECEPTACLE.

PLUMBING SCHEDULE

					SUPPLY			WASTE				GAS				
ITEM NO.	QTY.	ITEM DESCRIPTION	ITEM REMARKS	PLUMB. NO.	CW SIZE	HW SIZE	PLUMB. HGT. (AFF)	DIRECT WASTE SIZE	DIRECT WASTE HGT. (AFF)	INDIRECT WASTE SIZE	INDIRECT CONN TYPE	MECH. NO.	GAS SIZE	BTU/HR	GAS HGT. (AFF)	PLUMBING REMARKS
5	1	BAG-IN-BOX SYSTEM	BY OTHERS	P5	1/2"		60"			1"	FD					P.C. TO CONNECT C.W. SUPPLY AND CONNECT TO FINAL LOCATION. P.C. TO EXTEND DRAIN LINES TO FLOOR DRAIN.
6	1	36" HD RANGE, GAS										G6	3/4"	198,000	12"	P.C. TO CONNECT UNIT W/PROVIDED QUICK DISCONNECT HOSE.
10	5	HAND SINK		P10	1/2"	1/2"	20"	1 1/2"	16"							P.C. TO CONNECT C.W. AND H.W. SUPPLY LINES AND CONNECT TO FINAL LOCATION. P.C. TO CONNECT DIRECT DRAIN.
13	1	TWO (2) COMPARTMENT SINK		P13	1/2"	1/2"	20"			2"	FS					P.C. TO CONNECT C.W. AND H.W. SUPPLY LINES AND CONNECT TO FINAL LOCATION. P.C. TO MANIFOLD TWO (2) DRAIN LINES AND EXTEND TO FLOOR SINK.
14	1	MOP SINK		P14	1/2"	1/2"	36"	3 1/2"	0"							P.C. TO CONNECT C.W. AND H.W. SUPPLY LINES AND CONNECT TO FINAL LOCATION. P.C. TO CONNECT DIRECT DRAIN.
25	1	CHARBOILER, GAS										G25	3/4"	45,000	12"	P.C. TO CONNECT UNIT W/PROVIDED QUICK DISCONNECT HOSE.
26.3	1	DOAS UNIT										G26.3	3/4"	300,000		REMOTE DOAS LOCATION. P.C. TO REFERENCE APPROVED SHOP DRAWINGS FOR ADDITIONAL INFORMATION.
28	1	GRIDDLE, GAS										G28	3/4"	162,000	12"	P.C. TO CONNECT UNIT W/PROVIDED QUICK DISCONNECT HOSE.
30	1	HOTPLATE, GAS										G30	3/4"	240,000	12"	P.C. TO CONNECT UNIT W/PROVIDED QUICK DISCONNECT HOSE.
32	1	CHEESEMELTER, GAS										G32	3/4"			P.C. TO CONNECT TO UNIT VIA UNION.
34	1	BATTERY FRYER, GAS										G34	1"	255,000	12"	P.C. TO CONNECT UNIT W/PROVIDED QUICK DISCONNECT HOSE.
36	1	ICE MAKER		P36	3/8"		60"			1"	FD					P.C. TO CONNECT C.W. SUPPLY LINE AND RUN TO AND THRU WATER FILTER SYSTEM ADD CONNECT TO FINAL LOCATION. P.C. TO EXTEND DRAIN LINES TO FLOOR DRAIN.
36.3	1	FLOOR TROUGH	BY OTHERS	P36.3				4"	0"							P.C. TO CONFIRM UTILITIES W/PROVIDER
39	1	HOT FOOD SERVING COUNTER								1"	FD					P.C. TO EXTEND DRAIN LINES TO FLOOR DRAIN.
49	1	S/S WORK TABLE								1"	FD					P.C. TO EXTEND DRAIN LINES TO FLOOR DRAIN.
64	1	ICE/BEVERAGE DISPENSER	BY OTHERS	P64	1/2"		48"			1"	FD					P.C. TO CONNECT C.W. SUPPLY LINE AND RUN TO AND THRU WATER FILTER SYSTEM AND CONNECT TO FINAL LOCATION. P.C. TO EXTEND DRAIN LINES TO FLOOR DRAIN. CONFIRM UTILITIES W/PROVIDER.
66	1	SOILED DISHTABLE, "L" SHAPE		P66	1/2"	1/2"	20"			2"	FS					P.C. TO CONNECT C.W. AND H.W. SUPPLY LINES AND CONNECT TO FINAL LOCATION. P.C. TO EXTEND DRAIN LINES TO FLOOR SINK.
68	1	WAREWASHER, RACK CONVEYOR	BY OTHERS	P68		3/4"	20"			2"	FS					P.C. TO CONNECT H.W. SUPPLY LINE AND RUN TO AND THRU WATER BOOSTER HEATER AND CONNECT TO FINAL LOCATION. P.C. TO EXTEND DRAIN LINE TO FLOOR SINK. CONFIRM UTILITIES W/PROVIDER.
68A	1	FLOOR TROUGH	BY OTHERS	P68A				4"	0"							P.C. TO CONFIRM UTILITIES W/PROVIDER
73	1	THREE (3) COMPARTMENT SINK		P73	1/2"	1/2"	20"			2"	FS					P.C. TO CONNECT C.W. AND H.W. SUPPLY LINES AND CONNECT TO FAUCET. P.C. TO MANIFOLD THREE (3) DRAIN LINES AND EXTEND TO FLOOR SINK.
80	1	UNDERCOUNTER GLASSWASHER	BY OTHERS	P80	1/2"	1/2"	10"			2"	FS					P.C. TO CONNECT C.W. AND H.W. SUPPLY LINES AND CONNECT TO FINAL LOCATION. P.C. TO EXTEND DRAIN LINES TO FLOOR SINK. CONFRIM UTILITIES W/PROVIDER.
81	1	WET WASTE SINK		P81	1/2"	1/2"	10"	1 1/2"	6"							P.C. TO CONNECT C.W. AND H.W. SUPPLY LINES AND CONNECT TO FINAL LOCATION. P.C. TO CONNECT DIRECT DRAIN.
82	1	DRAINBOARD								2"	FS					P.C. TO EXTEND DRAIN LINES TO FLOOR SINK.
82.2	1	DRAINBOARD								2"	FS					P.C. TO EXTEND DRAIN LINES TO FLOOR SINK.
85	2	DRAINBOARD								2"	FS					P.C. TO EXTEND DRAIN LINES TO FLOOR SINK.
86	4	DRAINBOARD								2"	FS					P.C. TO EXTEND DRAIN LINES TO FLOOR SINK.
87	2	ICE BIN	BY OTHERS							2"	FS					P.C. TO EXTEND DRAIN LINES TO FLOOR SINK. CONFIRM UTILITIES W/PROVIDER
90	2	UNDERBAR SINK UNIT		P90	1"	3/8"	10"			2"	FS					P.C. TO CONNECT C.W. AND H.W. SUPPLY LINES AND BRANCH TO CONNECT TO FINAL LOCATIONS. P.C. TO EXTEND DRAIN LINES TO FLOOR SINK.
91	2	DRIP TROUGH	BY OTHERS							2"	FS					P.C. TO EXTEND DRAIN LINES TO FLOOR SINK. CONFIRM UTILITIES W/PROVIDER

NOTE:
EXISTING AND/OR EQUIPMENT PROVIDED BY OTHERS MAY REQUIRE ADDITIONAL ROUGH-INS NOT SHOWN IN THESE PLANS. CONFIRM UTILITY REQUIREMENTS WITH PROVIDER.

NOTE:
ELECTRICAL SERVICE SHOWN IS FOR FOODSERVICE EQUIPMENT ONLY. ELECTRICAL SERVICE REQUIRED FOR ROOM LIGHTING, CONVENIENCE OUTLETS, DATA PORTS, TELEPHONE LINES, ETC., TO BE ADDITIONAL. CONFIRM WITH ARCHITECT.

NOTE:
P.C. TO SET AND LEVEL ALL SINKS AND TABLE, FASTEN TO THE WALL WITH SUPPLIED Z-CLIPS AND CAULK TOP EDGES

NOTE:
E.C. TO INSTALL HEAT LAMPS TO THE BOTTOM OF TOP SHELF AS SHOWN IN KITCHEN EQUIPMENT PLANS, AND MOUNT CONTROLS AS SHOWN ON ELEVATION PLAN.

PLUMBING NOTES

1. ROUGH-INS SHOWN PERTAIN TO AND ARE FOR FOODSERVICE FIXTURES AND EQUIPMENT ONLY. SEE ARCHITECTURAL AND/OR ENGINEERING PLANS FOR ADDITIONAL PLUMBING REQUIREMENTS.
2. THIS PLUMBING PLAN IS INTENDED TO SHOW ROUGH-IN LOCATIONS, HEIGHTS AND LOAD REQUIREMENTS. ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACES TO THE CENTERLINE OF THE ROUGH-IN LOCATION, UNLESS OTHERWISE NOTED.
3. FINAL CONNECTIONS TO ALL EQUIPMENT TO BE PERFORMED BY P.C., INCLUDING ALL REQUIRED MATERIALS SUCH AS STOPS, VALVES, FILTERS, TRAPS, CHECK VALVES, PIPING, TUBING, PRESSURE REGULATING VALVES, ET AL.
4. P.C. TO FURNISH AND INSTALL THE FOLLOWING:
   - A. ALL WATER, WASTE, GAS, AND STEAM SERVICE TO POINT OF ROUGH-IN AS SHOWN ON PLAN. ROUGH-IN OUTLETS TO STUB 4 in. OUT OF WALLS AT HEIGHT INDICATED FROM FINISHED FLOOR TO CENTERLINE OF OUTLET. FLOOR ROUGH-INS TO STUB UP 4 in. ABOVE FINISHED FLOOR OR CURB. ALL FLOOR OPENINGS ARE TO BE SEALED WATER-TIGHT.
   - B. PRESSURE REDUCING AND/OR REGULATION VALVES FOR DISHWASHERS, BOOSTER HEATERS, AND AS OTHERWISE NOTED IN KITCHEN AREA.
   - C. ALL FLOOR SINKS, COMPLETE WITH TOP GRATES INDICATED AND REMOVABLE SEDIMENT BUCKETS, SET FLUSH WITH FINISHED FLOOR (UNLESS OTHERWISE NOTED).
   - D. ALL WASTE LINES (DIRECT OR INDIRECT) EXCEPT AS NOTED. MINIMUM DIAMETER OF LINE SHALL BE AS INDICATED ON PLAN REGARDLESS OF CONNECTION SIZE, AND SHALL BE PITCHED DOWNWARD. MAINTAIN DRAINS AS HIGH AS POSSIBLE ABOVE FLOOR. ALL WASTE LINES SHALL HAVE ADEQUATE CLEAN-OUT PROVISIONS.
   - E. INDIRECT WASTE LINES FOR WALK-IN COOLERS/FREEZERS TO BE PITCHED AT 4 in./12 ft. (MINIMUM) AND WITH A "P"-TRAP AT THE END OF THE RUN ABOVE THE FLOOR DRAIN.
   - F. HEATER TAPE RATED AT 36 WATTS PER LINEAL FOOT OF DRAIN LINE AS WELL AS INSULATION OF ALL DRAIN LINES INSIDE FREEZER COMPARTMENTS.
   - G. ALL REQUIRED GREASE TRAPS BELOW OR FLUSH WITH FLOOR.
   - H. WHEN GAS COOKING EQUIPMENT IS USED, INSTALL FIRE CONTROL GAS SHUT-OFF VALVE(S) AS SUPPLIED BY FIRE SUPPRESSION SYSTEM CONTRACTOR.
   - I. VACUUM BREAKERS AS REQUIRED AS WELL AS INSTALLATION OF THOSE PROVIDED BY K.E.C. FOR USE WITH DISPOSERS.
   - J. INSULATION ON ALL STEAM, HOT WATER, AND CONDENSATE LINES IN THE KITCHEN AREA. ALL SUCH LINES ARE TO BE COLOR-CODED ACCORDING TO LOCAL CODES.
5. ALL VENT PIPES TO BE CONCEALED IN WALLS OR COLUMN CHASES. USE LOOP VENTS FOR ISLAND FIXTURES.
6. ALL EXPOSED PIPING AND FITTINGS IN THE KITCHEN AREA TO BE CHROME-PLATED OR STAINLESS STEEL.
7. ALL LINES ROUTED THROUGH EQUIPMENT SHALL NOT INTERFERE WITH INTENDED USE OR SERVICING OF EQUIPMENT.
8. AREA FLOOR DRAINS HAVE NOT BEEN SHOWN ON NOTED. QUANTITIES AND LOCATIONS TO BE COORDINATED WITH G.C.

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PROJECT No: 2024-064
DRAWN BY: Author
SHEET SCALE: 12" = 1'-0"
SHEET TITLE: UTILITY SCHEDULE
SHEET NUMBER: E1-K1.1

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ELECTRICAL NOTES

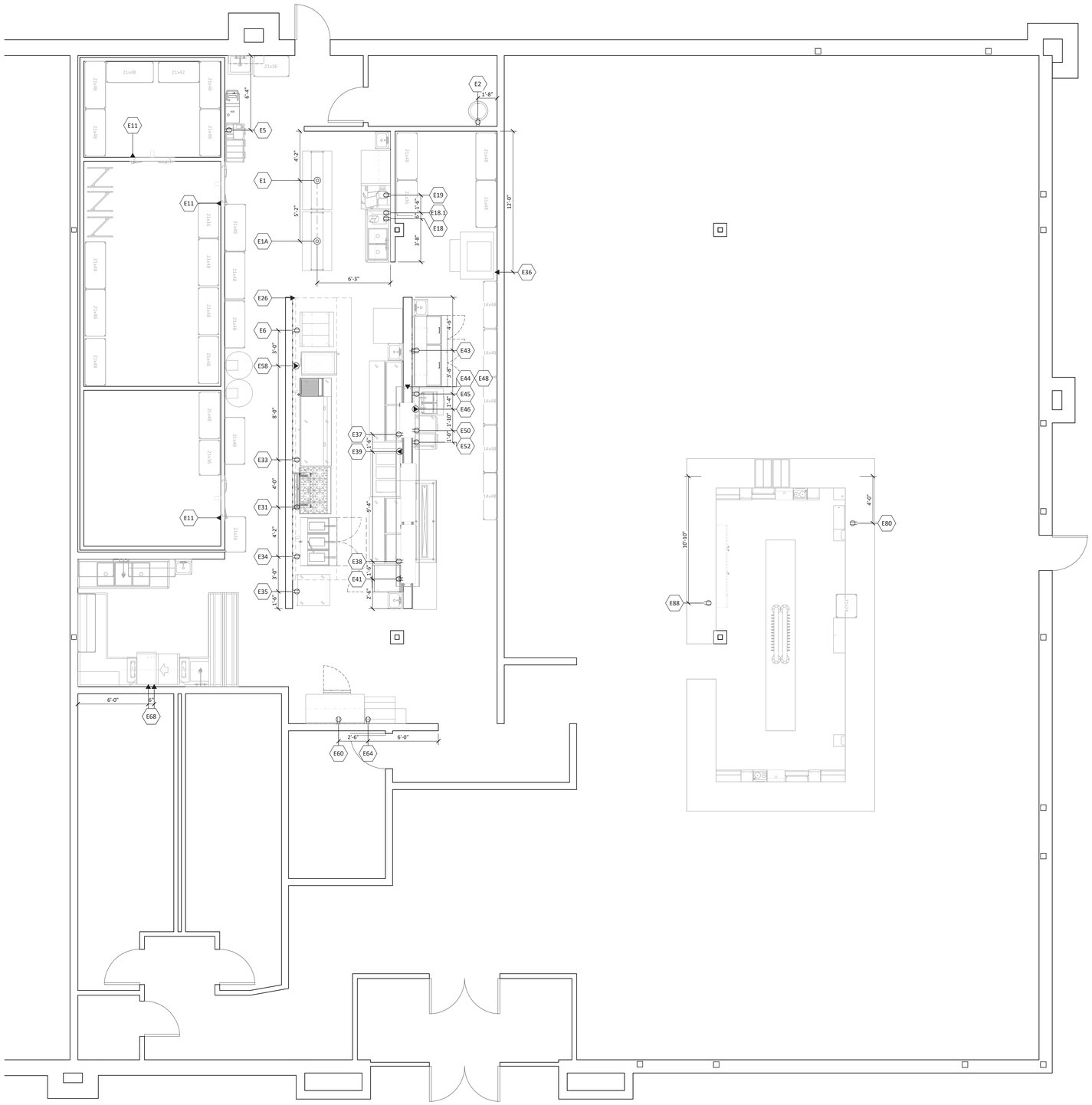
1. ELECTRICAL SYSTEM IS DESIGNED FOR 240 VOLTS, 3-PHASE, 4 WIRE AT 60 HERTZ.
2. OUTLETS AND ROUGH-INS SHOWN PERTAIN TO AND ARE FOR FOOD-SERVICE FIXTURES AND EQUIPMENT ONLY. SEE ARCHITECTURAL AND/OR ENGINEERING PLANS FOR ANY ADDITIONAL ROUGH-IN REQUIREMENTS.
3. THIS ELECTRICAL PLAN IS INTENDED TO SHOW ROUGH-IN LOCATIONS AND LOAD REQUIREMENTS. ALL DIMENSIONS ARE SHOWN FROM FINISHED SURFACES TO THE CENTERLINE OF THE ROUGH-IN LOCATION UNLESS OTHERWISE NOTED.
4. UNLESS OTHERWISE NOTED, ALL ELECTRICAL WORK FOR FABRICATED FOODSERVICE EQUIPMENT SHALL BE COMPLETELY WIRED BY KITCHEN EQUIPMENT DIVISION TO A JUNCTION BOX OR PULL BOX MOUNTED ON THE EQUIPMENT IN AN ACCESSIBLE LOCATION. FINAL CONNECTIONS TO PANEL BOARDS TO BE THE RESPONSIBILITY OF THE E.C.
5. FINAL CONNECTIONS TO ALL EQUIPMENT AND ALL REQUIRED MATERIALS TO BE THE RESPONSIBILITY OF THE E.C.
6. E.C. TO FURNISH AND INSTALL THE FOLLOWING:
   - A. ALL JUNCTION BOXES, ELECTRICAL OUTLETS, COVER PLATES, ETC., NOT BUILT INTO FIXTURES OR EQUIPMENT. ALL OUTLETS, JUNCTION BOXES, COVER PLATES, ETC., IN DISHROOMS, OR AS INDICATED ON SCHEDULES, MUST BE VAPOR-PROOF.
   - B. SHUNT TRIP CIRCUIT BREAKERS/CONTACTORS OR DISCONNECTS FOR FIRE CONTROL SYSTEM SHUT-OFF OF FOODSERVICE EQUIPMENT BELOW HOODS/VENTILATORS AS REQUIRED BY N.F.P.A.-96 AND LOCAL CODES.
   - C. DISCONNECTS OR OTHER DEVICES AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES.
7. WHEN APPLICABLE, E.C. TO INSTALL F.S.E.C.-PROVIDED ELECTRICAL COMPONENTS, PROVIDE ALL CONDUIT AND WIRING, AND INTERCONNECT BETWEEN THE FOLLOWING:
   - A. REMOTE REFRIGERATION EQUIPMENT TO EVAPORATOR COILS.
   - B. CONTROL PANELS TO WATER-TYPE VENTILATORS AND EXHAUST OR SUPPLY FANS PER MANUFACTURER'S SPECIFICATIONS.
   - C. KITCHEN EXHAUST HOODS/VENTILATORS TO FIRE CONTROL SYSTEM AND SHUT-OFFS.
8. ALL ELECTRICAL AMPERAGE NOTED ON ROUGH-IN SCHEDULE INDICATES FULL LOAD AMP DRAW -- NOT RECOMMENDED CIRCUIT BREAKER SIZE. E.C. IS RESPONSIBLE FOR PROPER BREAKER SIZING WITH THIS INFORMATION.
9. PEDESTAL RECEPTACLES ARE NOT TO EXCEED 4-1/2" AFF.
10. E.C. TO FURNISH AND INSTALL GROUND FAULT RECEPTACLE OR FURNISH GROUND FAULT CIRCUIT BREAKER FOR ANY RECEPTACLE WITHIN FIVE FEET (5'-0") OF SINK.

ABBREVIATIONS

ABBREV.	DESCRIPTION
ADD'L	ADDITIONAL
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AMP	AMPERAGE
BFC	BELOW FINISHED CEILING
BTC	BRANCH TO CONNECTION
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CW	COLD WATER
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
DFA	DROP SERVICE FROM ABOVE
E.C.	ELECTRICAL CONTRACTOR
°F	DEGREES FAHRENHEIT
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
FLA	FULL LOAD AMPS
FLUSH	MOUNT ITEM FLUSH WITH SURFACE
FS	FLOOR SINK
F.S.E.C.	FOODSERVICE EQUIPMENT CONTRACTOR
FT	FLOOR TROUGH
GA.	GAUGE
G.C.	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GHT	GARDEN HOSE THREAD
GPM	GALLONS PER MINUTE
HD	HUB DRAIN
HGT.	HEIGHT
HP	HORSEPOWER
HR	HOUR
H.V.A.C.	HEATING, VENTILATION AND AIR CONDITIONING
HW	HOT WATER
in.	INCH
kW	KILOWATT
MBTU	1,000 BTU
M.C.	MECHANICAL CONTRACTOR
MTD	MOUNTED
N.I.F.S.E.C.	NOT IN FOODSERVICE EQUIPMENT CONTRACT
NPT	NATIONAL PIPE THREAD
P.C.	PLUMBING CONTRACTOR
PED	PEDESTAL-MOUNTED
PH	PHASE
R.C.	ROOFING CONTRACTOR
RECP.	RECEPTACLE
REQ'MTS	REQUIREMENTS
S.C.	STRUCTURAL CONTRACTOR
S/S	STAINLESS STEEL
STUB-UP	STUB SERVICE UP FROM FINISHED FLOOR

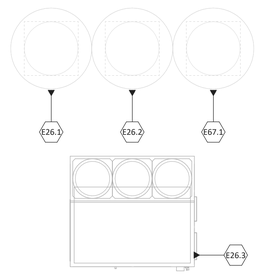
ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION	
▲	POWER SUPPLY	(DIRECT)
J	JUNCTION BOX	(DIRECT)
	SIMPLEX RECEPTACLE	
	DUPLEX RECEPTACLE	
	QUADRAPLEX RECEPTACLE	
	SPECIAL PURPOSE RECEPTACLE	
	FLOOR RECEPTACLE	(FLUSH or PEDESTAL)
	CEILING RECEPTACLE	(FLUSH or DROP-CORD)
△	EMPTY CONDUIT	
h	DISCONNECT SWITCH	
F	FIRE PULL STATION	
	TELEPHONE or DATA LINE	



ELECTRICAL ROUGH-IN PLAN
SCALE: 1/4" = 1'-0"

REMOTE MAKE-UP AIR AND EXHAUST FAN LOCATIONS. CONFIRM LOCATION W/ ARCHITECT.



EXHAUST/MAKE-UP AIR -- ELECTRICAL
SCALE: 1/4" = 1'-0"

REMOTE CONDENSERS LOCATION. CONFIRM LOCATION W/ ARCHITECT.

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

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PROJECT No: 2024-064
DRAWN BY: Author
SHEET SCALE: As indicated
SHEET TITLE: ELECTRICAL ROUGH-IN PLAN
SHEET NUMBER: E1-K2.0

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PLUMBING NOTES

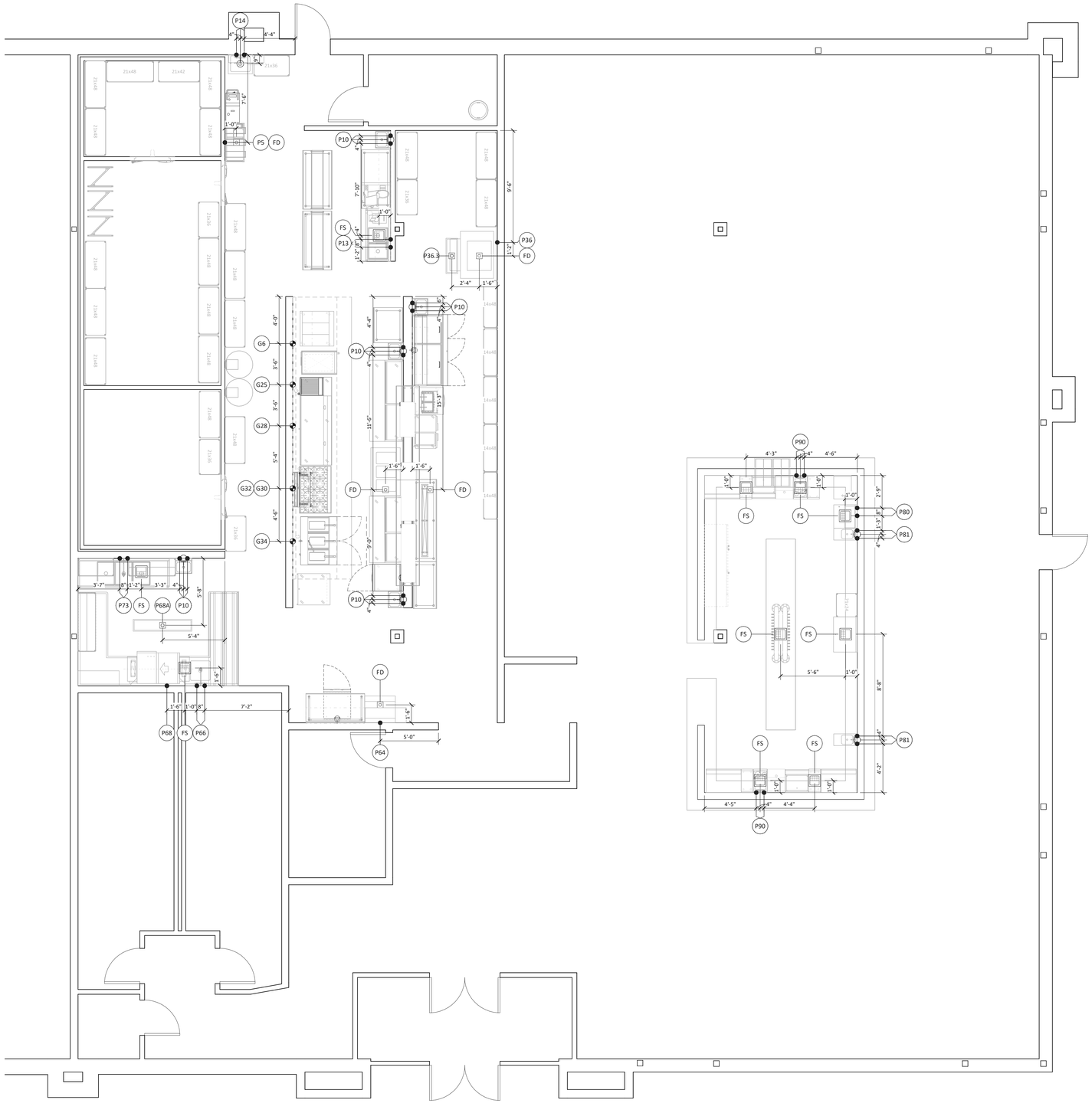
1. ROUGH-INS SHOWN PERTAIN TO AND ARE FOR FOODSERVICE FIXTURES AND EQUIPMENT ONLY. SEE ARCHITECTURAL AND/OR ENGINEERING PLANS FOR ADDITIONAL PLUMBING REQUIREMENTS.
2. THIS PLUMBING PLAN IS INTENDED TO SHOW ROUGH-IN LOCATIONS, HEIGHTS AND LOAD REQUIREMENTS. ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACES TO THE CENTERLINE OF THE ROUGH-IN LOCATION, UNLESS OTHERWISE NOTED.
3. FINAL CONNECTIONS TO ALL EQUIPMENT TO BE PERFORMED BY P.C., INCLUDING ALL REQUIRED MATERIALS SUCH AS STOPS, VALVES, FILTERS, TRAPS, CHECK VALVES, PIPING, TUBING, PRESSURE REGULATING VALVES, ET AL.
4. P.C. TO FURNISH AND INSTALL THE FOLLOWING:
   - A. ALL WATER, WASTE, GAS, AND STEAM SERVICE TO POINT OF ROUGH-IN AS SHOWN ON PLAN. ROUGH-IN OUTLETS TO STUB 4 in. OUT OF WALLS AT HEIGHT INDICATED FROM FINISHED FLOOR TO CENTERLINE OF OUTLET. FLOOR ROUGH-INS TO STUB UP 4 in. ABOVE FINISHED FLOOR OR CURB. ALL FLOOR OPENINGS ARE TO BE SEALED WATER-TIGHT.
   - B. PRESSURE REDUCING AND/OR REGULATION VALVES FOR DISH-WASHERS, BOOSTER HEATERS, AND AS OTHERWISE NOTED IN KITCHEN AREA.
   - C. ALL FLOOR SINKS, COMPLETE WITH TOP GRATES INDICATED AND REMOVABLE SEDIMENT BUCKETS, SET FLUSH WITH FINISHED FLOOR (UNLESS OTHERWISE NOTED).
   - D. ALL WASTE LINES (DIRECT OR INDIRECT) EXCEPT AS NOTED. MINIMUM DIAMETER OF LINE SHALL BE AS INDICATED ON PLAN REGARDLESS OF CONNECTION SIZE, AND SHALL BE PITCHED DOWNWARD. MAINTAIN DRAINS AS HIGH AS POSSIBLE ABOVE FLOOR. ALL WASTE LINES SHALL HAVE ADEQUATE CLEAN-OUT PROVISIONS.
   - E. INDIRECT WASTE LINES FOR WALK-IN COOLERS/FREEZERS TO BE PITCHED AT 4 in./12 ft. (MINIMUM) AND WITH A "P"-TRAP AT THE END OF THE RUN ABOVE THE FLOOR DRAIN.
   - F. HEATER TAPE RATED AT 36 WATTS PER LINEAL FOOT OF DRAIN LINE AS WELL AS INSULATION OF ALL DRAIN LINES INSIDE FREEZER COMPARTMENTS.
   - G. ALL REQUIRED GREASE TRAPS BELOW OR FLUSH WITH FLOOR.
   - H. WHEN GAS COOKING EQUIPMENT IS USED, INSTALL FIRE CONTROL GAS SHUT-OFF VALVE(S) AS SUPPLIED BY FIRE SUPPRESSION SYSTEM CONTRACTOR.
   - I. VACUUM BREAKERS AS REQUIRED AS WELL AS INSTALLATION OF THOSE PROVIDED BY K.E.C. FOR USE WITH DISPOSERS.
   - J. INSULATION ON ALL STEAM, HOT WATER, AND CONDENSATE LINES IN THE KITCHEN AREA. ALL SUCH LINES ARE TO BE COLOR-CODED ACCORDING TO LOCAL CODES.
5. ALL VENT PIPES TO BE CONCEALED IN WALLS OR COLUMN CHASES. USE LOOP VENTS FOR ISLAND FIXTURES.
6. ALL EXPOSED PIPING AND FITTINGS IN THE KITCHEN AREA TO BE CHROME-PLATED OR STAINLESS STEEL.
7. ALL LINES ROUTED THROUGH EQUIPMENT SHALL NOT INTERFERE WITH INTENDED USE OR SERVICING OF EQUIPMENT.
8. AREA FLOOR DRAINS HAVE NOT BEEN SHOWN OR NOTED. QUANTITIES AND LOCATIONS TO BE COORDINATED WITH G.C.

ABBREVIATIONS

ABBREV.	DESCRIPTION
ADD'L	ADDITIONAL
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AMP	AMPERAGE
BFC	BELOW FINISHED CEILING
BTC	BRANCH TO CONNECTION
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CW	COLD WATER
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
DFA	DROP SERVICE FROM ABOVE
E.C.	ELECTRICAL CONTRACTOR
°F	DEGREES FAHRENHEIT
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
FLA	FULL LOAD AMPS
FLUSH	MOUNT ITEM FLUSH WITH SURFACE
FS	FLOOR SINK
F.S.E.C.	FOODSERVICE EQUIPMENT CONTRACTOR
FT	FLOOR TROUGH
GA.	GAUGE
G.C.	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GHT	GARDEN HOSE THREAD
GPM	GALLONS PER MINUTE
HD	HUB DRAIN
HGT.	HEIGHT
HP	HORSEPOWER
HR	HOUR
H.V.A.C.	HEATING, VENTILATION AND AIR CONDITIONING
HW	HOT WATER
in.	INCH
kW	KILOWATT
MBTU	1,000 BTU
M.C.	MECHANICAL CONTRACTOR
MTD	MOUNTED
N.I.F.S.E.C.	NOT IN FOODSERVICE EQUIPMENT CONTRACT
NPT	NATIONAL PIPE THREAD
P.C.	PLUMBING CONTRACTOR
PED	PEDESTAL-MOUNTED
PH	PHASE
R.C.	ROOFING CONTRACTOR
RECP.	RECEPTACLE
REQ'MTS	REQUIREMENTS
S.C.	STRUCTURAL CONTRACTOR
S/S	STAINLESS STEEL
STUB-UP	STUB SERVICE UP FROM FINISHED FLOOR

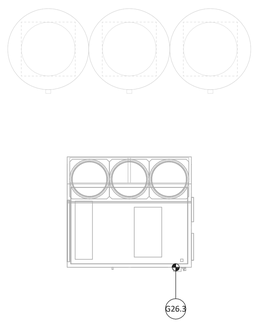
PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
	WATER SERVICE (HOT or COLD)
	WATER SERVICE (FILTERED)
	GAS SERVICE
	CHILLED WATER (SUPPLY or RETURN)
	DIRECT WASTE
	STEAM SERVICE (SUPPLY or RETURN)
	8" x 8" FLOOR SINK (SHOWN w/ HALF GRATE)
	12" x 12" FLOOR SINK (SHOWN w/ HALF GRATE)
	FLOOR DRAIN
	FUNNEL FLOOR DRAIN
	HUB DRAIN
	BEVERAGE CHASE (SODA or BEER)



PLUMBING ROUGH-IN PLAN
SCALE: 1/4" = 1'-0"

REMOTE MAKE-UP AIR AND EXHAUST FAN LOCATIONS. CONFIRM LOCATION W/ ARCHITECT.



EXHAUST/MAKE-UP AIR -- PLUMBING
SCALE: 1/4" = 1'-0"

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PROJECT No: 2024-064
DRAWN BY: Author
SHEET SCALE: As indicated
SHEET TITLE: PLUMBING ROUGH-IN PLAN
SHEET NUMBER: E1-K3.0

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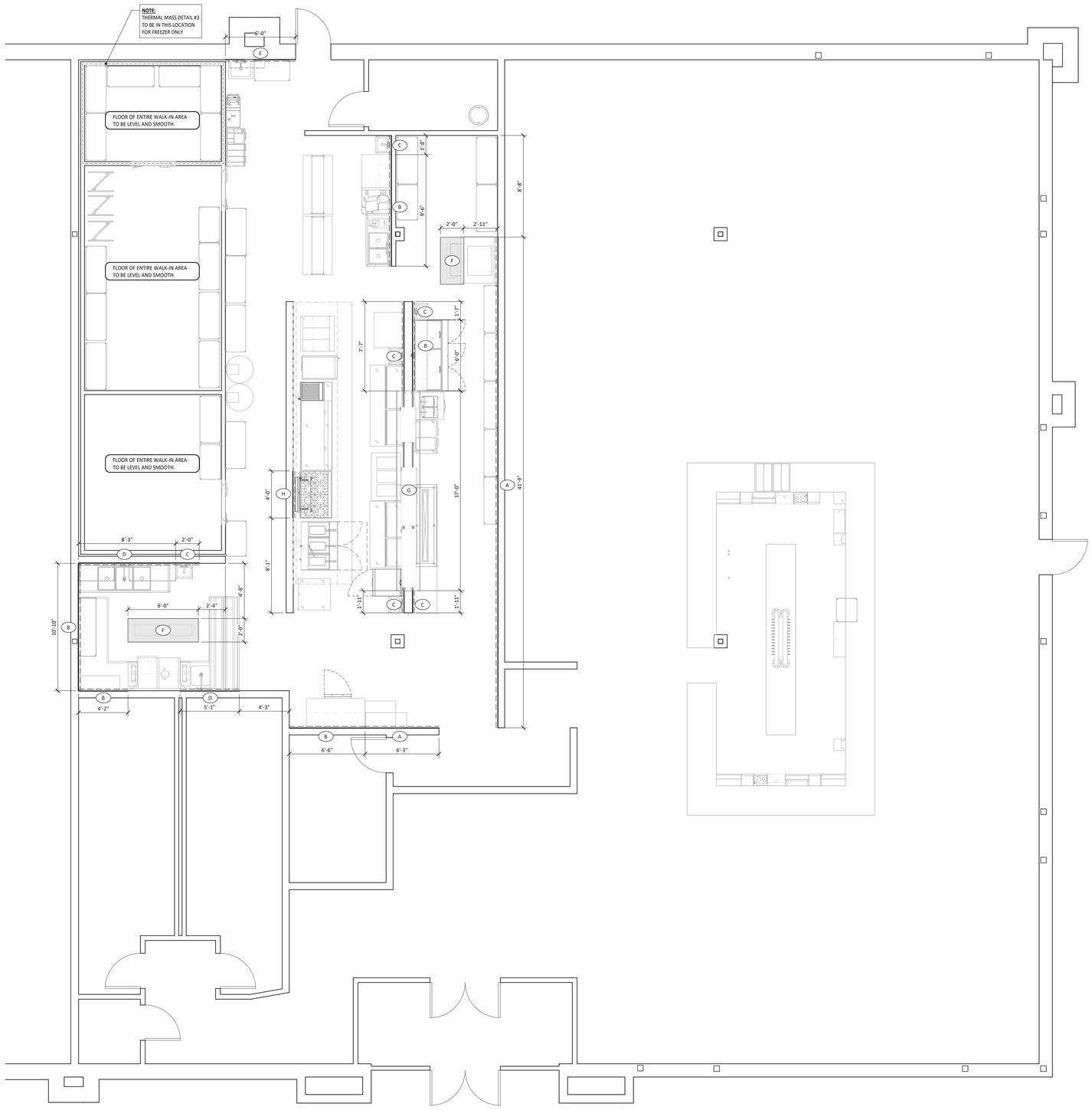
NOTES:

1. WALL BACKING TO BE USED AT ALL LOCATIONS DESIGNATED UNLESS WALL IS COMPOSED OF MASORY BLOCK.
2. WALL BACKING DIMENSIONS ARE FROM FINISHED WALLS UNLESS OTHERWISE NOTED.
3. EXTEND BACKING TO THE NEAREST STUDS.
4. G.C. TO CONFIRM WITH OWNER FOR ANY ADDITIONAL WALL-MOUNTED ITEMS NOT SHOWN.

SPECIAL CONDITIONS NOTES

NOTE ID	DESCRIPTION
A	(2 LOCATIONS) G.C. TO PROVIDE ADEQUATE WALL BACKING FROM 36" AFF TO 84" AFF FOR WALL MOUNTED WATER FILTER.
B	(5 LOCATIONS) G.C. TO PROVIDE ADEQUATE WALL BACKING FROM 42" AFF TO 84" AFF FOR WALL MOUNTED SHELF.
C	(5 LOCATIONS) G.C. TO PROVIDE ADEQUATE WALL BACKING FROM 24" AFF TO 72" AFF FOR WALL MOUNTED HAND SINK.
D	(2 LOCATIONS) G.C. TO PROVIDE ADEQUATE WALL BACKING FROM 42" AFF TO 84" AFF FOR PRE-RINSE FAUCET WALL BRACKET.
E	G.C. TO PROVIDE ADEQUATE WALL BACKING FROM 12" AFF TO 60" AFF FOR MOP SINK FAUCET WALL BRACKET.
F	(2 LOCATIONS) G.C. TO BOX OUT AREA PRIOR TO POURING OF FLOOR FOR INSTALLATION OF FLOOR TROUGH BY F.S.E.C.
G	G.C. TO PROVIDE FINISHED OPENING IN WALL FOR PASS-THRU WINDOW. G.C. VERIFY DIMENSIONS OF OPENINGS WITH OWNER.
H	G.C. TO PROVIDE ADEQUATE WALL BACKING FROM 36" AFF TO 78" AFF FOR WALL MOUNTED EQUIPMENT.



SPECIAL CONDITIONS LAYOUT PLAN
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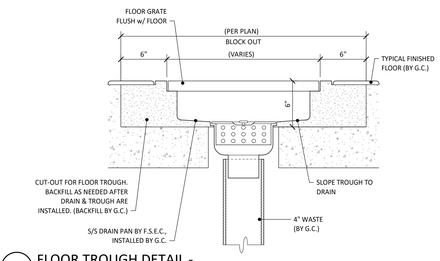

1 FLOOR TROUGH DETAIL -
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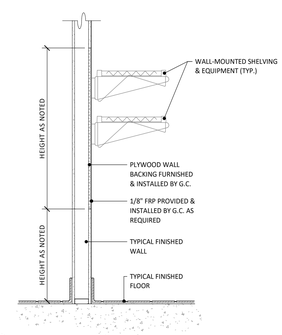

2 TYPICAL WALL BACKING DETAIL -
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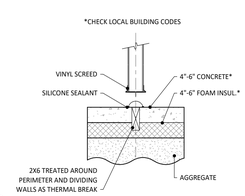

3 INSULATED CONCRETE DETAIL -
SCALE: NOT TO SCALE

C&T Design and Equipment Co., Inc.
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DESIGN & SALES TO ALL TYPES OF FOOD SERVICE OPERATIONS

PROJECT MANAGER: JACK GRABEEL
EMAIL ADDRESS: JGRABEEL@c-tdesign.com

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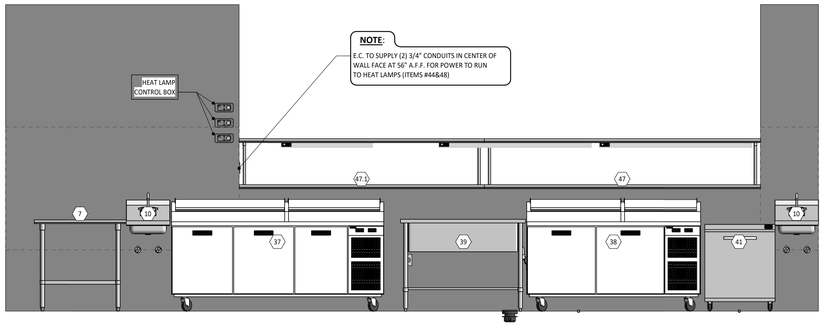
LEE'S SUMMIT, MO

ISSUE DATE:

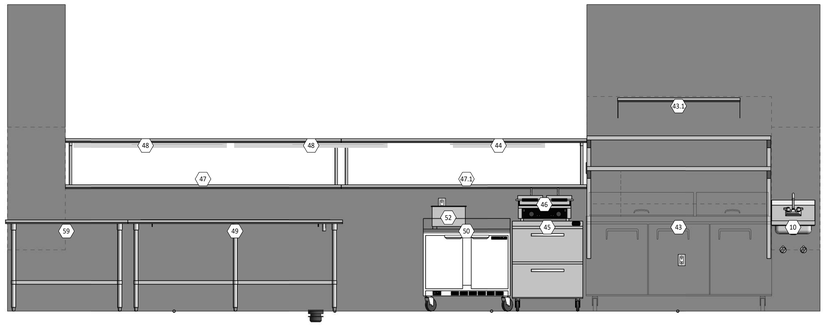
Rev.	Date	Description

PROJECT No: 2024-064
DRAWN BY: Author
SHEET SCALE: As indicated
SHEET TITLE: SPECIAL CONDITIONS PLAN
SHEET NUMBER: E1-K4.0

4/26/2024 4:08:30 PM



A PASS-THRU -- COOK SIDE
SCALE: 1/2" = 1'-0"



B PASS-THRU -- SERVICE SIDE
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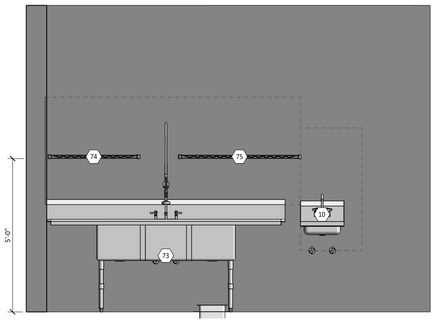
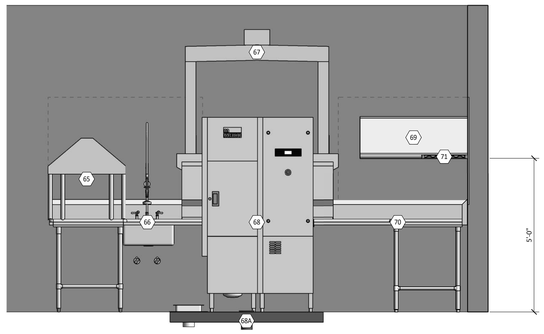
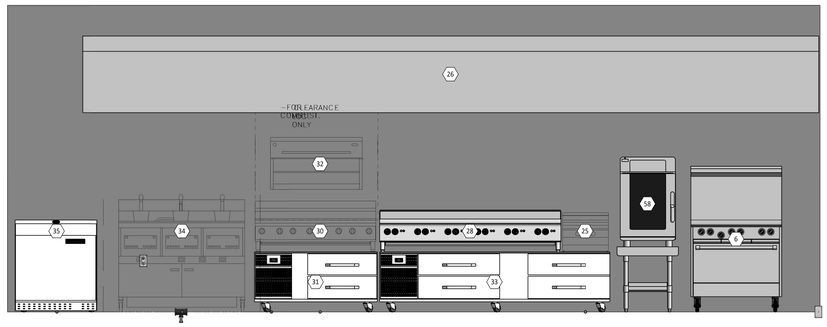


C THREE-COMPARTMENT SINK
SCALE: 1/2" = 1'-0"



D DISHMACHINE WALL
SCALE: 1/2" = 1'-0"



E COOKLINE
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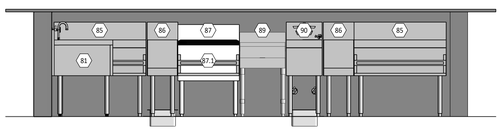

F BACK BAR
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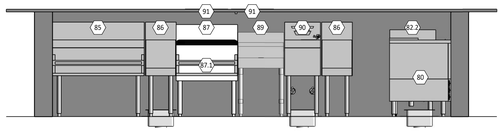
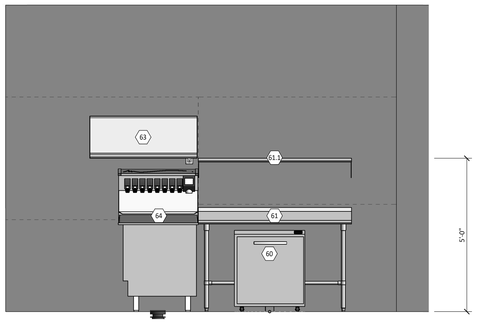
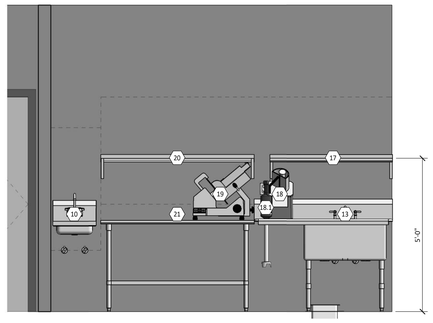


G FRONT BAR
SCALE: 1/2" = 1'-0"



H SODA MACHINE WALL
SCALE: 1/2" = 1'-0"



I UTILITIY SINK WALL
SCALE: 1/2" = 1'-0"

NOT FOR CONSTRUCTION

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ISSUE DATE: 04/26/24

Rev.	Date	Description

PROJECT No: 2024-064
DRAWN BY: Author
SHEET SCALE: As indicated
SHEET TITLE: ELEVATIONS
SHEET NUMBER: E1-K5.0