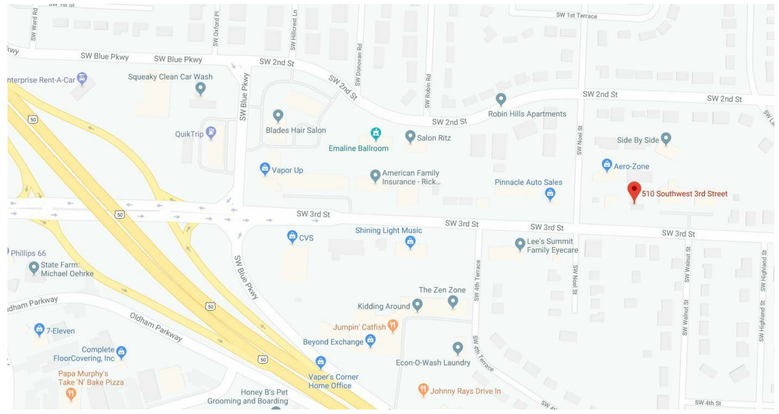
3RD STREET DISPENSARY

510 SW 3rd St., Lee's Summit, MO 64063

PERMIT SET

03/27/2020

COLLINS WEBB #: 19026



VICINITY MAP

GENERAL

SHEET NUMBER	SHEET NAME
CS	COVER SHEET
G001	GENERAL INFORMATION
G102	LIFE SAFETY PLANS
G103	ACCESSIBILITY GUIDELINES
G104	WALL TYPES & SPECIFICATIONS

ARCHITECTURAL

SHEET NO.	SHEET NAME
A101	FLOOR PLAN & DOOR DETAILS
A601	REFLECTED CEILING PLANS
A701	INTERIOR ELEVATIONS
A903	FINISH FLOOR PLAN & DETAILS

MEP

SHEET NUMBER	SHEET NAME
MEP0	MECHANICAL/ELECTRICAL/PLUMBING - COVER SHEET
MEP1	MECHANICAL/ELECTRICAL/PLUMBING - SPECIFICATIONS
MEP2	MECHANICAL/ELECTRICAL/PLUMBING - SPECIFICATIONS
M101	MECHANICAL - PLANS, SCHEDULES & DETAILS
P101	PLUMBING - PLANS, SCHEDULES & DETAILS
E101	ELECTRICAL - PLANS, SCHEDULES & DETAILS
E201	ELECTRICAL - POWER PLANS, SCHEDULES & DETAILS

collins|webb ARCHITECTURE

13A SW 3rd Street Lee's Summit, Mo, 64063 P: 816.249.2270 (www.collinsandwebb.com)

OWNER

MARK WESTHUES
MC PROPERTIES OF MISSOURI, LLC
620 NE LAKE POINTE DR.
LEE'S SUMMIT, MISSOURI 64064

ARCHITECT

COLLINS WEBB ARCHITECTURE
13A SW 3R STEET
LEE'S SUMMIT, MISSOURI 64063
P: 816.249-2270
www.collinsandwebb.com

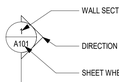
STRUCTURAL ENGINEER

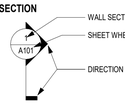
STAND STRUCTURAL ENGINEERING INC.
8234 ROBINSON ST.,
OVERLAND PARK, KS 66204
P: 913.214-2169
www.stand-sei.com

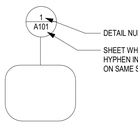
MEP ENGINEER

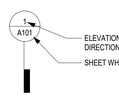
PKMR ENGINEERS, LLC
13300 W. 98TH STREET,
LENEXA, KS 66215
P: 913.492-2400
www.pkmreng.com

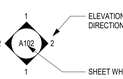
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
Jim Fridgen
04/10/2020

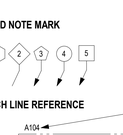


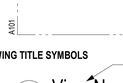


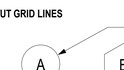


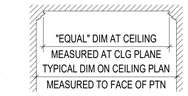


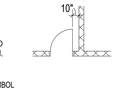


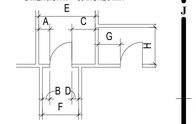


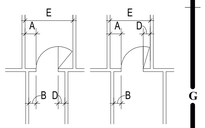


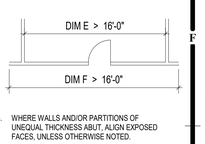












ARCHITECTURAL ABBREVIATIONS

A

&	AND
<	ANGLE
AB	ANCHOR BOLT
ACOUS/ACS	ACOUSTIC(AL)
ACT	ACOUSTICAL CEILING TILE
ACP	ACOUSTICAL CEILING PANEL
ACS PNL	ACCESS PANEL
AD	AREA DRAIN
ADDL	ADDITIONAL
ADH	ADHESIVE
ADJ	ADJUSTABLE
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AFS	ABOVE FINISH SLAB
AGGR	AGGREGATE
ALUM, AL	ALUMINUM
ALT	ALTERNATE
ANOD	ANODIZED
APPROX	APPROXIMATE(LY)
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
ASPH	AT
AVG	AVERAGE

B

BB	BULLETIN BOARD
BD	BOARD
BTWN	BETWEEN
BITUM	BITUMINOUS
BLK / BLKG	BLOCK / BLOCKING
BLDG	BUILDING
BM	BENCHMARK
BMD	BOTTOM OF METAL DECK
BO	BOTTOM OF / BY OTHERS
BOT	BOTTOM
BOS	BOTTOM OF STEEL
BRG	BEARING
BSMT	BASEMENT
BUR	BUILT UP ROOFING SYSTEM

C

[	CHANNEL
CAB	CABINET
CPT	CARPET
CI	CAST IRON
CB	CATCH BASIN
CCR	CARD CONTROL READER
CSWK	CASEWORK
CCT	CUBICLE CURTAIN TRACK
CCTV	CLOSED CIRCUIT TELEVISION
CSP	COMBINATION STANDPIPE
CG	CORNER GUARD
CEM	CEMENT, CEMENTITIOUS
CER	CERAMIC
CT	CERAMIC TILE
CH BD	CHALKBOARD
CL / ℄	CENTER LINE
CLG	CEILING
CLR	CLEAR
CLO	CLOSET
CMU	CONCRETE MASONRY UNIT
CRSC	COLD ROLLED STEEL CHANNEL
CW	COLD WATER
COL	COLUMN
CNTR	COUNTER
CSK	COUNTERSUNK
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CJ	CONTROL JOINT
CG	CORNER GUARD
CORR	CORRUGATED, CORRIDOR
CU	CUBIC

D

D	DEPTH
DBL	DOUBLE
DBL ACT	DOUBLE ACTING
DEG	DEGREE
DEMO	DEMOLISH
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIFF	DIFFUSER
DIM	DIMENSION
DIM PT	DIMENSION POINT
DISP	DISPENSER
DIST	DISTANCE
DK	DECK
DN	DOWN
DR	DRAIN, DOOR
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DT	DRAPERY TRACK
DTL	DETAIL
DW	DISHWASHER
DWG/DWGS	DRAWING / DRAWINGS

E

E	EAST
EA	EACH
EDR	EQUIPMENT DRAWING
EG	EDGE GUARD
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EOS	EDGE OF SLAB
EP	ELECTRICAL PANEL
EPB	ELECTRICAL PANEL BOARD
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
EQL SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ESCAL	ESCALATOR
EST	ESTIMATE(D)
EWC	ELECTRIC WATER COOLER
EXC	EXCAVATED
EXH	EXHAUST
EXIST, (E)	EXISTING
EXP	EXPANSION
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
EX-BR	EXISTING BRICK

F

F/F	FACE TO FACE
FA	FIRE ALARM
FAS	FIRE ALARM STATION
FB	FLAT BAR
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FEC	FIRE EXTINGUISHER CABINET
FE	FIRE EXTINGUISHER
FF	FINISH FACE
FG	FINISH GRADE
FHC	FIRE HOSE CABINET
FH/FEC	FIRE HOSE / FIRE EXTINGUISHER CABINET
FHMS	FLAT HEAD MACHINE SCREW
FHWS	FLAT HEAD WOOD SCREW
FHY	FIRE HYDRANT
FIN	FINISH, FINISHED
FLAM	FLAMMABLE
FLASH	FLASHING
FLEX	FLEXIBLE
FLR	FLOOR
FLUOR	FLUORESCENT
FO	FACE OF
FRT	FIRE RETARDANT TREATMENT
FRZ	FREEZER
FSB	FOLDING SHOWER BENCH
FSTNR	FASTENER
FT	FOOT, FEET
FTG	FOOTING
FURN	FURNITURE
FXTR	FIXTURE

G

G	GAS
GA	GAUGE, GAGE
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFRC	GLASS FIBER REINFORCED CONCRETE
GFRG	GLASS FIBER REINFORCED GYPSUM
GL	GLASS
GLU LAM	GLUE LAMINATED
GLZ	GLAZING
GR	GRADE OR GRADING
GVL	GRAVEL
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER

H

H	HIGH
HB	HOSE BIBB
HC	HOLLOW CORE
HD	HEAD
HDBD	HARDBOARD
HDW,HDW	HARDWARE
HDWD	HARDWOOD
HGT, HT	HEIGHT
HM	HOLLOW METAL
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HPT	HIGH POINT
HR	HOUR
HVAC	HEATING-VENTILATION-AIR CONDITIONING
HW	HOT WATER

I

ID	INSIDE DIAMETER
IN	INCH
INCAND	INCANDESCENT
INCL	INCLUDE, INCLUDING
INFO	INFORMATION
INSUL	INSULATION
INTR	INTERIOR
INV	INVERT
IVT	INTRAVENOUS TRACK

J

JAN	JANITOR
JST	JOIST
JT	JOINT

K

KG	KILOGRAM
KIT	KITCHEN
KPL	KICK PLATE
KS	KNEE SPACE

L

L	LENGTH, LONG
LAB	LABORATORY
LAM	LAMINATE, LAMINATION
LAV	LAVATORY
LB	POUND
LED	LIGHT EMITTING DIODE
LF	LINEAR FOOT
LG	LENGTH
LIN	LINEAR
LL	LEAD LINED
LPT	LOW POINT
LT	LIGHT
LT WT	LIGHT WEIGHT
LTG	LIGHTING
LVR	LOUVER

M

M	METERS
MACH	MACHINE
MATL	MATERIAL
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MEDICINE CABINET
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MED	MEDIUM
MET, MTL	METAL
MEMB	MEMBRANE
MFR / MFG	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLDG	MOLDING
MM	MILLIMETERS
MO	MASONRY OPENING
MOD	MODULE, MODULAR
MTD	MOUNTED
MTG	MOUNTING
MVBL	MOVABLE
MULL	MULLION

N

(N)	NEW
N	NORTH
NA	NOT APPLICABLE
NAT	NATURAL
NE	NORTHEAST
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NRC	NOICE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
NW	NORTHWEST

O

OC	ON CENTER
OA	OVERALL
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED-CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED-OWNER INSTALLED
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
OVHD	OVERHEAD
OZ	OUNCE

P

PA	PUBLIC ADDRESS
PART	PARTIAL
PBD	PARTICLEBOARD
PBX	PRIVATE TELEPHONE EXCHANGE
PCF	POUNDS PER CUBIC FOOT
PCI	POUNDS PER CUBIC INCH
PERF	PERFORATED
PERIM	PERIMETER
PERM	PERMANENT
PERP	PERPENDICULAR
PI	POINT OF INTERSECTION
PL	PLATE
PLAM	PLASTIC LAMINIATE
PLAS	PLASTER, PLASTIC
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PNEU	PNEUMATIC
PNL	PANEL
PNL BD	PANEL BOARD
PNT, P	PAINT
PORT	PORTABLE
PP	PUSH PLATE
PPM	PARTS PER MILLION
PR	PAIR
PRCST	PRECAST
PREP	PREPARATION
PREFAB	PREFABRICATION
PRKG	PARKING
PROJ	PROJECT
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT / PTD	POINT, PAINT / PAINTED
PTN	PARTITION
PTS	PNEUMATIC TUBE STATION
PVC	POLYVINYL CHLORIDE
PVG	PAVING
PVMT	PAVEMENT
PWR	POWER

Q

QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY

R

R	RISER
RA	RETURN AIR
RAD	RADIUS
RB	RESILIENT BASE
RCP	REFLECTED CEILING PLAN
RCPT	RECEPTACLE
RD	ROOF DRAIN
RECT	RECTANGULAR
REF	REFERENCE
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCE (D) (ING) (MENT)
REQD	REQUIRED
REQT	REQUIREMENT
RESIL	RESILIENT
RET	RETURN
REV	REVISION
RF	RESILIENT FLOORING
RH	RIGHT HAND
RHMS	ROUND HEAD MACHINE SCREW
RHWS	ROUND HEAD WOOD SCREW
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RWL	RAIN WATER LEADER

S

S	SOUTH
SA	SUPPLY AIR
SB	SPLASH BLOCK
SC	SOLID CORE
SCHED	SCHEDULE
SCRN	SCREEN
SD	STORM DRAIN
SE	SOUTHEAST
SECT	SECTION
SEG	SEGMENT
SEP	SEPARATION OR SEPARATE
SEP JT	SEPARATION JOINT
SHT	SHEET, SHEETING
SHWR	SHOWER
SHV	SHELVES, SHELVING
SIM	SIMILAR
SK	SINK
SMS	SHEET METAL SCREW
SP	SPACE, SPACED, SPACING
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SQ	SQUARE
SS	SANITARY SEWER
SSK	SERVICE SINK
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STAG	STAGGERED
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
STS	SELF-TAPPING STEEL
SUSP	SUSPENDED
SUSP CLG	SUSPENDED CEILING
SVCE	SERVICE
SW	SOUTHWEST
SYMM	SYMMETRICAL
SYST	SYSTEM

T

T	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TC	TOP OF CONCRETE, TOP OF CURB
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPORARY
THERM	THERMAL
THK	THICK, THICKNESS
THRES	THRESHOLD
THRU	THROUGH
TMPD GL	TEMPERED GLASS
TO	TOP OF
TOR	TOP OF RAILING
TOS	TOP OF STEEL
TOT	TOTAL
TOW	TOP OF WALL
TP	TOP OF PAVEMENT
TPH	TOILET PAPER HOLDER
TRANS	TRANSPARENT
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
TW	TOP OF WALL

U

UC	UNDER COUNTER
UL	UNDERWRITERS LABORATORIES
UNF	UNFINISHED
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
UR	URINAL
UTIL	UTILITY

V

VAC	VACUUM
VB	VALVE BOX
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIT	VITREOUS
VP	VENT PIPE
VOL	VOLUME
VWC	VINYL WALL COVERING

W

W	WEST
W/	WITH
W/O	WITHOUT
W/W	WALL TO WALL
WAINS	WAINSCOT
WC	WATER CLOSET, WALL COVERING
WD	WOOD
WDW	WINDOW
WGL	WIRE GLASS
WCHR	WHEELCHAIR
WM	WIRE MESH
WO	WHERE OCCURS
W/O	WITHOUT
WP	WATERPROOF
WPT	WORKING POINT
WR	WATER RESISTANT
WSCT	WAINSCOT
WSP	WET STANDPIPE
WT	WEIGHT
WTHPRF	WEATHERPROOF
WTRPRF	WATERPROOF
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

X

XFMR	TRANSFORMER

Y

YD	YARD

TYPICAL ARCHITECTURAL REFERENCE SYMBOLS

WALL SECTION

BUILDING SECTION

EXTERIOR ELEVATION

DETAIL REFERENCE

SECTION DETAIL REFERENCE

INTERIOR ELEVATION REFERENCE

PARTITION TYPE IDENTIFICATION MARK

SEE PARTITION SYMBOL DESCRIPTION ON PARTITION TYPE SHEET

EQUIPMENT/ACCESSORY IDENTIFICATION MARK

SEE CORRESPONDING NUMBERED LEGEND ON SHEET WHERE REFERENCE OCCURS

DOOR IDENTIFICATION MARK

SEE DOOR SCHEDULE FOR ADDITIONAL INFORMATION

WINDOW AND LOUVER TYPE MARK

SEE CORRESPONDING NUMBER ON SCHEDULE

LEVEL LINE

ROOM NAME AND NUMBER

REVISION EXTENT

KEYED NOTE MARK

SEE CORRESPONDING NUMBERED LEGEND ON SHEET WHERE REFERENCE OCCURS

MATCH LINE REFERENCE

DRAWING TITLE SYMBOLS

LAYOUT GRID LINES

NORTH ARROW REFERENCE

ARCHITECTURAL DIMENSIONING CONVENTIONS

1. EXCEPT WHERE DIRECTED TO PLACE ITEMS OF THE WORK AT THE "APPROXIMATE LOCATION SHOWN," DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION.
2. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN (OR MAY BE DERIVED FROM THOSE SHOWN OR NOTED) ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, SCHEDULES, CONFIGURATION DETAILS, AND SPECIFICATIONS. SEE THE NOTES BELOW FOR DIMENSIONING CONVENTIONS USED ON THIS PROJECT.
3. EXCEPT WHERE SPECIFICALLY NOTED TO THE CONTRARY, ALL DIMENSIONS SHOWN ON THE ARCHITECTURAL DRAWINGS CONFORM TO THE FOLLOWING CONVENTIONS:
   A. DIMENSIONS UTILIZING THE "CENTERLINE" SYMBOL ARE MEASURED TO:
      - STRUCTURAL OR DIMENSIONAL GRID LINES.
      - CENTERLINE OF CONCRETE OR CONC MASONRY UNIT WALLS (EXCLUSIVE OF FURRING OR APPLIED FINISHES HAVING THICKNESS). REFER TO THE ARCH PLANS AND SECTIONS, THE STRUCT DRAWINGS, OR PARTITION SCHEDULE TO DETERMINE THE THICKNESS OF CONCRETE OR CONC MASONRY UNIT WALLS.
      - CENTERLINE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALLS) AT PARTITIONS FRAMED WITH METAL STUDS. REFER TO "PARTITION SCHEDULE" TO DETERMINE THICKNESS OF EACH PARTITION TYPE.
      - CENTERLINE OF DOOR, WINDOW, OR LOUVER OPENING.
      - CENTERLINE OF EQUIPMENT OR FURNISHING
      - CENTERLINE OF OTHER FEATURES AS INDICATED.
   B. REFER TO ABBREVIATIONS LEGEND FOR SYMBOL USED TO INDICATE CENTERLINE DIMENSION.
   C. DIMENSIONS UTILIZING THE "FACE OF" SYMBOL ARE MEASURED TO:
      - FACE OF CONCRETE OR CONC MASONRY UNIT WALL (EXCLUSIVE OF APPLIED FINISHES HAVING THICKNESS OR FURRING WHICH MAY BE ADDED TO THE FACE OF SUCH WALLS).
      - FACE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALL) AS DEFINED BY THE PARTITION SCHEDULE. UNLESS NOTED AS A "FACE OF FINISH" OR "CLEAR" DIMENSION (SEE NOTE 'E' BELOW), DIMENSIONS ARE NOT MEASURED TO THE FACE OF APPLIED FINISH. REFER TO THE "PARTITION SCHEDULE" TO DETERMINE THE THICKNESS OF EACH PARTITION TYPE.
      - INSIDE EDGE OF FINISHED DOOR OPENING. REFER TO THE DOOR SCHEDULE FOR ADDITIONAL DIMENSIONAL INFORMATION.
      - DIMENSION OR WORK POINT AS INDICATED ON RELATED ARCH DETAIL PLAN, SECTION, ELEVATION, LAYOUT OR CONFIGURATION DETAIL, OR CONSTRUCTION DETAIL.
   D. REFER TO ABBREVIATIONS LEGEND FOR SYMBOL USED TO INDICATE "FACE OF" DIMENSION.
   E. WHERE "FACE OF FINISH" OR "CLEAR" DIMENSIONS ARE SPECIFICALLY NOTED, THE DIM IS MEASURED TO:
      - FINISH FACES AT THE MOST NARROW OR CONSTRICTED POINTS OF SECTION WHERE DIMENSION IS SHOWN, WHEN THE DIMENSION OCCURS ACROSS AN OPEN SPACE. THIS CASE, A "FACE OF FINISH" DIMENSION IS EQUIVALENT TO A "CLEAR" DIMENSION.
      - FINISH FACES AT THE WIDEST OR MOST EXPANSIVE POINTS OF THE SECTION THE DIMENSION IS SHOWN WHEN THE DIMENSION OCCURS ACROSS AN OBJECT OR GROUP OF OBJECTS.
   F. WHERE "EQUAL" DIMENSIONS ARE USED ON REFLECTED CEILING PLANS TO LOCATE CEILING GRID WORK POINTS, MEASURE DIMENSIONS TO:
      - EDGE OF THE INDICATED CEILING AT THE FACE OF THE ADJACENT APPLIED FINISH MEASURED AT THE PLANE OF THE CEILING.

NOTE NO 3 CONTINUED:

- CAUTION: DUE TO THE POSSIBLE APPLICATION OF APPLIED FINISHES - THICKNESS OF WHICH MAY VARY BETWEEN FLOOR AND CEILING AND IS NOT ACCOUNTED FOR (EXCEPT AS INDICATED BY "FOF" OR "CLEAR") BY THE DIMENSION SHOWN ON THE FLOOR PLANS - THE CONTRACTOR MUST ADJUST, AS NECESSARY, THE FLOOR PLAN DIMENSIONS TO REFLECT THE ACTUAL DIMENSIONS FOUND AT PLANE OF THE CEILING.

4. WHERE DIMENSIONS ARE NOT PROVIDED ON FLOOR PLANS TO LOCATE DOOR OPENINGS, APPLY THE FOLLOWING RULES, **IN ORDER**, TO DETERMINE THE LOCATION OF DOOR OPENINGS:
   A. DOOR OPENINGS MAY BE DIMENSIONED ON DRAWINGS OTHER THAN THE FLOOR PLANS. REFER TO THE SECTIONS, ELEVATIONS, DETAILS, AND DOOR SCHEDULE NOTES FOR ADDITIONAL DIMENSIONAL INFORMATION.
   B. WHERE THE HINGE-SIDE OF A DOOR IS SHOWN ADJACENT TO A WALL - OR WALLS - PERPENDICULAR TO THE WALL IN WHICH THE DOOR OPENING OCCURS:
      - AT DOORS OCCURRING IN METAL FRAMED GYPSUM BOARD PARTITIONS, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 4 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.

      - AT DOORS OCCURRING IN WALLS OF CONC MASONRY UNIT CONSTRUCTION, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 10 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.

NOTE NO 4 CONTINUED:

C. WHERE DOOR OCCURS NOT ADJACENT TO A PERPENDICULAR WALL AND EITHER "DIM E" OR "DIM F" IN DIAGRAM BELOW IS 16'-0" OR LESS, LOCATE DOOR UTILIZING THE FOLLOWING MINIMUM DIMENSIONS:

- DIMENSION A = 18 INCHES MIN
- DIMENSION B = 12 INCHES MIN
- DIMENSION C = DOOR WIDTH + 2 INCHES MINIMUM
- DIMENSION D = 4 INCHES MIN AT METAL FRAMED GYP BD PARTITIONS OR - EVEN MULTIPLE OF 1/2 CMU MODULE PLUS 2 INCHES AT CONC MASONRY UNIT WALLS
- DIMENSIONS E AND F = AS SHOWN ON PLANS
- DIMENSION G = 36 INCHES MIN
- DIMENSION H = 60 INCHES MIN

- IF SPACE ALLOWS, CENTER DOOR IN WALL SHOWN ON THE DRAWINGS SO THAT EITHER "DIM A" EQUALS "DIM C" OR "DIM B" EQUALS "DIM D".

D. IF "DIM E" IN DIAGRAMS BELOW IS LESS THAN THE SUM OF 2 TIMES THE DOOR WIDTH PLUS 20 INCHES, LOCATE DOOR SO THAT MINIMUMS STATED BY NOTE NO 4C ABOVE FOR "DIM A", "DIM B," AND "DIM D" ARE MET - MAXIMIZING "DIM A" AND MINIMIZING "DIM D" TO THE EXTENT POSSIBLE.

E. WHERE DOOR IS SHOWN LOCATED IN A LARGE EXPANSE OF OPEN WALL ("DIM E" AND "DIM F" IN DIAGRAM BELOW BOTH EXCEED 16'-0"), PLACE DOOR AT APPROXIMATE LOCATION SHOWN ON THE PLANS. WHERE DOOR OCCURS IN CMU WALL, PLACE DOOR AT APPROXIMATE LOCATION SHOWN WHILE MINIMIZING "CUT" OR PARTIAL CMU MODULES ADJACENT TO THE JAMBS.

5. WHERE WALLS AND/OR PARTITIONS OF UNEQUAL THICKNESS ABUT, ALIGN EXPOSED FACES, UNLESS OTHERWISE NOTED.

GENERAL INFORMATION NOTES:

1. ALL CONTRACTORS AND THEIR SUPERVISORY PERSONNEL SHALL REVIEW THE GENERAL AND SUPPLEMENTARY CONDITIONS TO THE CONTRACT.
2. ALL WORK SHALL CONFORM WITH APPLICABLE BUILDING CODES, REGULATIONS AND ORDINANCES.
3. CONTRACTOR AND/OR OWNER SHALL OBTAIN ALL REQUIRED BUILDING AND OCCUPANCY PERMITS.
4. CONTRACTOR SHALL BECOME FULLY ACQUAINTED WITH CONDITIONS RELATED TO THE WORK.
5. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCES OF CONSTRUCTION AND THE SAFETY OF ALL CONSTRUCTION PERSONNEL AND VISITORS.
6. DRAWINGS CONTAINED IN THIS SET SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS. COPIES OF THESE DRAWINGS SUBMITTED AS SHOP DRAWINGS WILL BE REJECTED AND RETURNED TO THE CONTRACTOR.
7. EACH INSTALLER MUST EXAMINE SUBSTRATE AND/OR CONDITIONS UNDER WHICH THE WORK WILL BE INSTALLED AND REPORT TO THE CONTRACTOR IN WRITING ANY CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY EXECUTION OF THAT INSTALLERS WORK. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED. COMMENCING WITH INSTALLATION SHALL CONSTITUTE ACCEPTANCE OF THE SUBSTRATE AND/OR CONDITIONS.
8. DO NOT SCALE DRAWINGS: FOLLOW WRITTEN DIMENSIONS AND NOTES. CONTACT ARCHITECT FOR CLARIFICATIONS, IF REQUIRED.
9. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF GYP. BOARD/ WALL (FOG), FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS OTHERWISE NOTED OR INDICATED.
10. NOTE: WALL THICKNESSES ARE ACTUAL DIMENSIONS. REFER TO WALL TYPES SHEET FOR THICKNESSES.
11. ALL MASONRY WALL THICKNESSES ACTUAL DIMENSIONS REFER TO WALL TYPES SHEET.
12. "TYPICAL", AS USED IN THESE DOCUMENTS, SHALL MEAN THAT THE CONDITION OR DIMENSION IS REPRESENTATIVE OF, OR THE SAME, FOR SIMILAR CONDITIONS THROUGHOUT.
13. IF THERE IS A DISCREPANCY BETWEEN SMALL SCALE AND LARGE SCALE DRAWINGS, (PLAN, SECTION, & DETAIL DRAWINGS, ETC.) - CONTACT ARCHITECT FOR CLARIFICATION. FOR BIDDING PURPOSES: THE MOST EXPENSIVE AND/OR STRICTEST REQUIREMENTS SHALL GOVERN. FOR CLARIFICATIONS DURING CONSTRUCTION: THE MOST EXPENSIVE AND/OR STRICTEST REQUIREMENTS, AS INDICATED BY THE ARCHITECT, SHALL GOVERN.
14. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS - CONTACT ARCHITECT FOR CLARIFICATION. FOR BIDDING PURPOSES: THE MOST EXPENSIVE AND/OR STRICTEST REQUIREMENTS SHALL GOVERN. FOR CLARIFICATIONS DURING CONSTRUCTION: THE MOST EXPENSIVE AND/OR STRICTEST REQUIREMENTS, AS INDICATED BY THE ARCHITECT, SHALL GOVERN.
15. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS SHALL BE REPORTED TO THE ARCHITECT IN WRITING FOR RESOLUTION, PRIOR TO PROCEEDING WITH THE WORK.
16. ANY AND ALL DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IN WRITING FOR RESOLUTION, PRIOR TO PROCEEDING WITH THE WORK. IN THESE INSTANCES: NO CHANGE ORDERS OR EXTENSIONS OF TIME WILL BE ALLOWED OR ACCEPTED FOR PROCEEDING WITH THE WORK WITHOUT THE ARCHITECT'S WRITTEN DIRECTION AND APPROVAL. ALSO - CONTRACTOR MUST REPAIR AND/OR REPLACE ANY UNAUTHORIZED WORK, AS INDICATED BY THE ARCHITECT, AT NO ADDITIONAL COST TO THE OWNER.
17. ALL DISSIMILAR METAL MATERIALS SHALL BE ISOLATED WITH AN APPROVED NONMETAL ISOLATION MATERIAL.
18. OPEN EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALL PANELS, AND AT PENETRATIONS OF UTILITIES THROUGH THE BUILDING ENVELOPE, ETC. – SHALL BE SEALED, CAULKED, FLASHED OR WEATHER-STRIPPED AS REQUIRED FOR COMPATIBILITY WITH ADJACENT MATERIALS & TO ELIMINATE AIR LEAKAGE AND WATER ENTRY.
19. PROVIDE SEALANT AND/OR CAULKING BETWEEN DISSIMILAR ADJOINING INTERIOR MATERIALS. (I.E. WINDOW SILLS TO GYP. BD., ACT CEILINGS TO MASONRY WALLS, ETC.)
20. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL SHOWN OR LOCATED 4 INCHES FROM FINISH WALL TO FINISH JAMB, ALWAYS ALLOWING A MINIMUM OF 18" FROM THE PULL SIDE OF THE DOOR TO THE INTERSECTING WALL.
21. CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES AND THEIR SERVICE CONNECTIONS WITH THE PROPER UTILITY COMPANY.
22. CONTRACTOR SHALL COORDINATE SIZE, LOCATIONS AND NUMBER OF ALL ROOF OPENINGS AND ROOF ACCESSORIES WITH ALL OTHER TRADES. REFER TO THE ARCHITECTURAL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS.
23. LOCATIONS AND SIZES OF ALL CONCRETE MECHANICAL AND ELECTRICAL PADS SHALL BE COORDINATED BY THE MECHANICAL AND ELECTRICAL CONTRACTORS, WITH THE SELECTED EQUIPMENT MANUFACTURER/SUPPLIER; AND ARE TO BE APPROVED BY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
24. EXCEPT AT FIRE-RATED PARTITIONS, ALL WALL AND COLUMN GYPSUM BOARD FACING SHALL BE HELD AT 5/8 INCH BELOW STRUCTURE, UNLESS DETAILED OR NOTED OTHERWISE.
25. AT ALL TELECOMMUNICATION ROOMS: PROVIDE 3/4" X 8'-0" HIGH FIRE-RETARDANT-TREATED WOOD SHEATHING OR PROVIDE PLYWOOD OVER NON-COMBUSTIBLE SHEATHING; BOTTOM TO BE LOCATED AT 4" A.F.F. VERIFY LENGTHS AND LOCATIONS WITH ELECTRICAL DRAWINGS.
26. GLASS DOORS, ADJACENT PANELS AND ALL GLAZED OPENINGS WITHIN 1'-6" OF THE FLOOR, AND WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF A DOOR, ETC., SHALL BE SAFETY GLAZING AS APPROVED FOR IMPACT BY APPLICABLE BUILDING CODES, AND SHALL BE LABELED AS SUCH.
27. ALL CEILING HEIGHTS AS SHOWN ON PLANS AND DETAILS ARE FROM SLAB OR TILE FLOOR (FINISHED FLOOR) TO FINISH CEILING.
28. PROVIDE INDEPENDENT FRAMING & ATTACHMENTS TO THE STRUCTURE – ADEQUATE TO SUPPORT THE CEILING SYSTEM, LIGHT FIXTURES, DUCTS, DIFFUSERS, SPRINKLER PIPING AND BUS DUCTS.
29. ALL CLOSETS AND ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME FINISHES AS ADJOINING SPACES.
30. CONTRACTOR TO INSTALL WOOD BLOCKING AND PLYWOOD AS REQUIRED FOR THE MOUNTING OF ALL TOILET ACCESSORIES, MILLWORK/ CASEWORK, HANDRAILS, FIRE EXTINGUISHERS, WALL SPEAKERS, POSTER CASES, TELEVISIONS, ELECTRICAL PANELS, FIRE ALARMS, MEP ITEMS, AND AV EQUIPMENT, ETC.
31. REFER TO SPECIFICATIONS FOR ALL REQUIRED TESTING AND INSPECTIONS.
32. ANY/ ALL PROPRIETARY PRODUCTS DESCRIBED AND/OR DRAWN IN THE DOCUMENTS (BUT NOT SPECIFIED) ARE TO MEET THE MANUFACTURER'S STANDARD CRITERIA WHICH IS NOT LIMITED TO THE FOLLOWING: PERFORMANCE REQUIREMENTS, QUALITY ASSURANCE REQUIREMENTS, APPLICABLE CODES AND INDUSTRY STANDARDS, FABRICATION, ASSEMBLY, HANDLING, DELIVERY, STORAGE, INSTALLATION, OPERATION, ADJUSTMENTS, ETC. PROVIDE THE MANUFACTURER'S STANDARD WARRANTY AND STANDARD FINISH WARRANTY. PROVIDE PRODUCT DATA, SHOP DRAWINGS, SAMPLES, AND MAINTENANCE DATA AS REQUIRED. REFER TO DIVISION 01 SPEC. SECTIONS WHICH ALSO APPLY - SUCH AS SUBSTITUTION PROCEDURES, SUBMITTAL PROCEDURES, QUALITY REQUIREMENTS, REFERENCES, EXECUTION, AND CLOSEOUT PROCEDURES. NOTE: ANY SUBSTITUTIONS MUST MEET THE DESIGN INTENT, AS WELL AS THE CRITERIA DESCRIBED ABOVE.
33. PROVIDE MINIMUM WARRANTY PERIOD OF 18 MONTHS FROM SUBSTANTIAL COMPLETION ON ALL PRODUCTS/ SERVICES.

TYPICAL RULES FOR DETERMINING REFLECTED CEILING PLAN LOCATIONS, DIMENSIONS, AND CONFIGURATIONS

GENERAL NOTES

A. THE A-SERIES DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND LOCATION OF ALL EXPOSED ELEMENTS. THE A-SERIES DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND LOCATION OF ALL PARTS OF THE WORK. **EXCEPTION:** DIMENSIONED LOCATIONS SHOWN ON DRAWINGS OF OTHER DISCIPLINES SHALL GOVERN ONLY WHERE:
   1. SPECIFICALLY AND INDIVIDUALLY INDICATED BY SYMBOL, KEYED NOTE, OR NOTATION ON THE ARCHITECTURAL DRAWINGS.
   2. OCCURRING WITHIN A ROOM OR OTHER IDENTIFIABLE SPACE FOR WHICH ARCH SHEET OR SCHEDULE NOTES INDICATE THAT DIMENSIONS PROVIDED ELSEWHERE SHALL GOVERN.

B. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE THE TYPICAL RULES WHICH GOVERN THE LOCATION, CONFIGURATION IN RELATIONSHIP TO OTHER ELEMENTS OF THE WORK, AND FINISHED ALIGNMENT OF ALL ITEMS OCCURRING ON REFLECTED CEILING PLANS OF THE PROJECT.

C. THE A-SERIES FLOOR PLANS, REFLECTED CEILING PLANS, SECTIONS, ELEVATIONS, AND DETAILS ILLUSTRATE THE DIMENSIONED LOCATION OF MANY - BUT NOT ALL - EXPOSED PARTS OF THE WORK. APPLY THE RULES ON THIS SHEET **- IN ORDER -** TO DETERMINE THE LOCATION OF EXPOSED PART OF THE WORK.
   1. WHEN UNIQUELY AND SPECIFICALLY DIMENSIONED ON THE A-SERIES PLANS, SECTIONS, OR ELEVATIONS (OR COMBINATION THEREOF), LOCATE AS DIMENSIONED.
   2. IF NOT SHOWN, OR IF SHOWN BUT NOT DIMENSIONED, BY THE A-SERIES PLANS OR ELEVATIONS, LOCATE AS INDICATED BY THE APPLICABLE RULE.

D. REFER TO THE "ARCHITECTURAL GENERAL NOTES" FOR ADDITIONAL NOTES WHICH MAY BE APPLICABLE TO THE WORK SHOWN ON THIS SHEET.

E. FOR MANY SPACES, THE ARCHITECTURAL REFLECTED CEILING PLANS ESTABLISH AN IDEAL PATTERN FOR LOCATING SPRINKLER HEADS. IN SPACES WHERE HEADS ARE SHOWN, FOLLOW PATTERN ESTABLISHED BY THE DRAWINGS. WHERE ADDL HEADS ARE REQUIRED TO CONFORM WITH CODE, PROVIDE HEADS IN GENERAL CONFORMITY WITH PATTERN ESTABLISHED BY THE DRAWINGS.

F. IN SPACES WHERE SPRINKLER HEADS ARE NOT SHOWN BY THE ARCHITECTURAL REFLECTED CEILING PLANS, PROVIDE HEADS AS REQUIRED BY CODE.

RULE 1

WHEN COMPLETELY DIMENSIONED ON REFLECTED CEILING PLAN

LOCATE ITEMS AS INDICATED WHEN SHOWN DIMENSIONED BY A REFLECTED CEILING PLAN, ENLARGED REFLECTED CEILING PLAN, OR DETAIL.

SPECIFIC DIMENSIONS SHOWN BY REFLECTED CEILING PLANS, ELEVATIONS, OR DETAILS TAKE PRECEDENCE OVER TYPICAL LOCATION RULES.

RULE 2

WHEN NOT DIMENSIONED BUT SHOWN CENTERED

LOCATE ITEMS CENTERED IN SPACE (OR CEILING PLANE) WHEN SHOWN (BUT NOT DIMENSIONED) VISUALLY AT APPROXIMATE CENTER OF SPACE.

RULE 3

WHEN OFF-CENTER IN SPACE BUT CENTERED ON ADJACENT FEATURE

LOCATE ITEMS CENTERED ON ADJACENT OPENING OR FEATURE WHEN SHOWN (BUT NOT DIMENSIONED) OFF-CENTER IN OVERALL SPACE BUT CENTERED AGAINST ADJACENT FEATURE.

RULE 4

WHEN ALIGNED WITH OTHER FEATURES

LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC) ALIGNED WITH ADJACENT ITEMS FOR WHICH DIMENSIONS OR RULES ARE PROVIDED. VISUAL ALIGNMENT IS CRITICAL. THE CONTRACTOR SHALL SELECT ONE ITEM IN EACH LINE (ON BASIS OF TOLERANCES, SEQUENCE OF CONSTRUCTION, TRADE, OR OTHER CRITERIA) TO SERVE AS THE BENCHMARK FOR EACH ALIGNMENT.

RULE 5

ALIGN WITH FEATURES SHOWN DIMENSIONED ELSEWHERE IN SPACE

LOCATE ITEMS ALIGNED WITH OTHER ITEMS SHOWN DIMENSIONED ELSEWHERE IN SPACE (OR CEILING PLANE).

RULE 6

LOCATE FEATURES SYMMETRICALLY

LOCATE ITEMS ALIGNED WITH OTHER ITEMS SHOWN DIMENSIONED ELSEWHERE IN SPACE (OR CEILING PLANE).

RULE 7

WHEN NOT DIMENSIONED BUT OCCURS ON A SQUARE GRID-TYPE CEILING

LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC) AT CENTER OF PANEL ON SQUARE GRID-TYPE CEILINGS

LOCATE SPRINKLER HEADS WITHIN 3" DIAMETER OF IDEAL POINT DIMENSIONED (OR SHOWN BY RULE) ON REFLECTED CEILING PLAN.

RULE 8

WHEN NOT DIMENSIONED BUT OCCURS ON A RECTANGULAR GRID-TYPE CEILING

LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES, ETC) AT CENTER OF SHORT DIRECTION OF RECTANGULAR PANEL; LOCATE AT 1/4, 1/2, OR 3/4 POINT OF LONG DIRECTION OF RECTANGULAR PANEL

LOCATE SPRINKLER HEADS WITHIN 3" DIAMETER OF IDEAL POINT DIMENSIONED (OR SHOWN BY RULE) ON REFLECTED CEILING PLAN.

REFLECTED CEILING PLAN SYMBOLS:

⊕ 9'-0"	CEILING HEIGHT
▨	GYP. BD.
⊞	SUSP CEILING SYSTEM
⊠	SUPPLY
⧄	RETURN
⊠	EXHAUST
▭	2X4 LIGHT FIXTURE
▭	1X4 LIGHT FIXTURE
▣	2X2 LIGHT FIXTURE DIRECT/INDIRECT
─○─	FLUORESCENT STRIP FIXTURE
─▽─	TRACK LIGHTING
◎	PENDANT FIXTURE
○	CAN LIGHT
⧗	FIRE EXIT SIGN
⦿	SPRINKLER HEAD
Ⓢ	SPEAKER
▨	CONTROL JOINT IN GYP BD CEILING
⊞	2'X4' LAY-IN CEILING
⊞	2'X2' LAY-IN CEILING
▩	SECURITY CEILING
□	OPEN TO STRUCTURE
▧	WOOD VENEER
▤	T & G WOOD VENEER
▨	EXTERIOR STUCCO SOFFIT
▥	EXTERIOR METAL PANEL SOFFIT

TYP DOOR LEGEND

NEW CONSTRUCTION **EXISTING** **DEMOLITION**

WALL TYPE LEGEND

▬	EXISTING PARTITION
▭	DEMOLISHED PARTITION
▨	CMU PARTITION
▭	UNRATED PARTITION

collins | webb ARCHITECTURE

13A SW 3rd Street, Lee's Summit, Mo. 64063 P: 816.249.2270 (www.collinsandwebb.com)

PERMIT SET

3RD STREET DISPENSARY

510 SW 3rd St., Lee's Summit, MO 64063

REVISION DATES:

ROGER L. WEBB II
NUMBER A-2016004008
3/27/20

PROFESSIONAL SEAL

G001

ISSUE DATE: 03/27/2020
COLLINS WEBB #: 19026

GENERAL INFORMATION

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/10/2020

3/26/2020 1:59:31 PM

WALL PRIORITY LEGEND

NOTE: ***THIS LEGEND IS FOR GRAPHIC REPRESENTATION ONLY.***

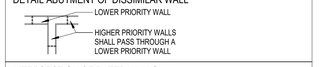
FOUR HOUR FIRE WALL (**4FW**)
THREE HOUR FIRE WALL (**3FW**)
TWO HOUR FIRE WALL (**2FW**)
FOUR HOUR FIRE BARRIER (**4FB**)
THREE HOUR FIRE BARRIER (**3FB**)

TWO HOUR FIRE BARRIER (**2FB**) *(INCLUDES THE FOLLOWING)*
- TWO HOUR SHAFT ENCLOSURE (**2SE**)

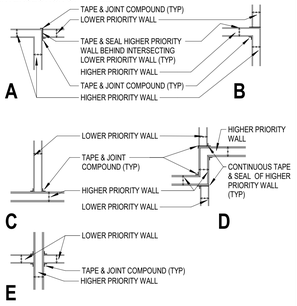
ONE HOUR FIRE BARRIER (**1FB**) *(INCLUDES THE FOLLOWING)*
- ONE HOUR SHAFT ENCLOSURE (**1SE**)

SMOKE TIGHT PARTITION (**X**) *(INCLUDES THE FOLLOWING)*
- SMOKE TIGHT PARTITION TO SMOKE TIGHT CEILING (**XC**)
- SMOKE TIGHT PARTITION WITHIN PLENUM ABOVE CEILING (**XP**)
- SMOKE TIGHT PARTITION SEPARATION OF INTERSTITIAL SPACES (**XI**)

DETAIL ABUTMENT OF DISSIMILAR WALL



INTERSECTION OF RATED WALLS



NOTES:
1. REFER TO WALL TYPES ON SHEET G121-TI FOR WALL COMPONENTS, NUMBER OF GYPSUM BOARD LAYERS, TYPE OF GYPSUM BOARD, AND OTHER SIMILAR INFO.
2. THE HIGHER PRIORITY WALL SHALL PASS THROUGH THE LOWER PRIORITY WALL.
3. TAPING AND SEALING OF HIGHER PRIORITY WALLS SHALL BE CONTINUOUS.
4. ALTERNATE LAYERS OF GYPSUM BOARD SHALL OVERLAP AT CORNER INTERSECTIONS OF MULTI-LAYERED RATED GYPSUM BOARD PARTITIONS.

FIRE & SMOKE RESISTIVE LEGEND DEFINITIONS

FIRE WALLS (FW)

DEFINITION
A FIRE RATED WALL THAT IS CONTINUOUS VERTICALLY FROM FOUNDATION TO ROOF TO SEPARATE CONSTRUCTION OF SEPARATE BUILDINGS.

NOT USED

USE
FIRE WALLS SERVE TO CREATE SEPARATE BUILDINGS FOR THE FOLLOWING REASONS.
- CONSTRUCTION TYPE VARIES FROM ONE BUILDING TO ANOTHER.
- COMPLIANCE WITH MAXIMUM ALLOWABLE AREA REQUIREMENTS.
- TO SEPARATE BUILDINGS WITH DIFFERENT LEVELS OF FIRE PROTECTION.
- TO ADDRESS A PROPERTY LINE DEFINING DIFFERENT OWNERSHIP.

SPECIAL CONSIDERATIONS
- THE FIRE WALL REQUIRES SUFFICIENT STRUCTURAL STABILITY UNDER FIRE CONDITIONS TO ALLOW THE COLLAPSE OF CONSTRUCTION ON EITHER SIDE WITHOUT COLLAPSE OF THE WALL.
- OPENINGS ARE REQUIRED TO BE PROTECTED.
- OPENINGS ARE LIMITED BASED ON A PERCENTAGE OF WALL LENGTH.
- EXTENDING THE FIRE WALL THROUGH THE ROOF WITH A PARAPET IS REQUIRED FOR SOME CONSTRUCTION CLASSIFICATIONS.
- THE REQUIRED FIRE RATING OF A FIRE WALL IS BASED ON OCCUPANCY GROUPS AND CLASS OF CONSTRUCTION.
- HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH AND CLOSER.

FIRE BARRIERS (FB)

DEFINITION
A FIRE RATED WALL CONSTRUCTED TO RESTRICT THE SPREAD OF FIRE. CONTINUITY SHALL BE MAINTAINED FROM TOP OF FLOOR TO UNDERSIDE OF THE FLOOR OR ROOF DECK ABOVE.

NOT USED

USE
FIRE BARRIERS HAVE THE FOLLOWING APPLICATIONS.
- TO CREATE HORIZONTAL EXITS.
- TO SEPARATE EXIT PASSAGEWAYS.
- OCCUPANCY SEPARATIONS.
- TO SEPARATE INCIDENTAL USE AREAS.
- ISOLATION OF HAZARDS.
- TO SEPARATE ROOMS WITH DIFFERENT LEVELS OF FIRE PROTECTION.
- SMOKE BARRIERS AND SHAFT ENCLOSURES ARE FIRE BARRIERS. SEE ADDITIONAL REQUIREMENTS.

SPECIAL CONSIDERATIONS
- WITHIN SOME CONSTRUCTION CLASSIFICATIONS, CONSTRUCTION THAT PROVIDES STRUCTURAL SUPPORT OF A FIRE BARRIER IS REQUIRED TO BE OF THE SAME HOURLY FIRE RATING AS THE FIRE BARRIER, OR BETTER.
- OPENINGS ARE REQUIRED TO BE PROTECTED.
- HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH AND CLOSER.

SHAFT ENCLOSURES (SE)

DEFINITION
A SHAFT ENCLOSURE IS A FIRE BARRIER FORMING THE BOUNDARY OF A VERTICAL SHAFT.

NOT USED

USE
PROTECT OPENINGS IN FIRE RATED FLOOR/CEILING ASSEMBLIES.

SPECIAL CONSIDERATIONS
- PENETRATIONS IN SHAFT ENCLOSURES ARE PROHIBITED UNLESS NECESSARY FOR THE FUNCTION OF THE SHAFT. WHERE ALLOWED, OPENINGS ARE REQUIRED TO BE PROTECTED.
- DUCT PENETRATIONS REQUIRE COMBINATION SMOKE AND FIRE DAMPERS EXCEPT FOR EXISTING CONDITIONS THAT ARE GRANDFATHERED.
- HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH, CLOSER, AND PERIMETER SMOKE SEALS.

FIRE PARTITIONS (FP)

DEFINITION
A FIRE RATED PARTITION THAT IS USED FOR THE APPLICATIONS LISTED BELOW. IT SHALL BE CONTINUOUS FROM THE FLOOR TO UNDERSIDE OF A FIRE-RATED FLOOR/CEILING OR ROOF ASSEMBLY. WHERE ALLOWED BY CODE EXCEPTION, A FIRE PARTITION SHALL BE ALLOWED TO TERMINATE AT THE UPPER MEMBRANE OF A FIRE RATED CEILING

NOT USED

USE
FIRE PARTITIONS ARE USED IN CERTAIN OCCUPANCIES TO DO THE FOLLOWING.
- SEPARATE DWELLING UNITS
- SEPARATE SLEEPING SPACES
- SEPARATE CORRIDORS FROM ADJACENT SPACES
- SEPARATE ELEVATOR LOBBIES
- SEPARATE TENANT SPACES IN COVERED MALL BUILDINGS

SPECIAL CONSIDERATIONS
- OPENINGS ARE REQUIRED TO BE PROTECTED.
- HARDWARE FOR SWING DOORS SHALL INCLUDE A LATCH AND CLOSER.

BEARING WALLS (BW)

DEFINITION
AN INTERIOR OR EXTERIOR WALL DESIGNED TO SUPPORT FLOOR OR ROOF LOADS. A BEARING WALL IS FIRE RATED TO MAINTAIN THE INTEGRITY OF ITSELF AS A FIRE RATED STRUCTURAL ELEMENT. A WALL DOES NOT SERVE AS A FIRE SEPARATION FROM ONE SIDE TO THE OTHER SIDE.

NOT USED

USE
A VERTICAL, LOAD BEARING STRUCTURAL ELEMENT.

SPECIAL CONSIDERATIONS
- DOORS AND WINDOWS ARE NOT REQUIRED TO BE RATED.
- HVAC DUCT PENETRATIONS ARE NOT REQUIRED TO BE FIRE-DAMPERED.
- PLUMBING, ELECTRICAL, SPRINKLER SYSTEM, AND CABLE PENETRATIONS ARE REQUIRED TO BE FIRE-STOPPED WITH FIRE SEALANT AT BOTH SIDES, FOR WALLS CONSTRUCTED OF HOLLOW CMU OR STUD FRAMING.

ACTIVE FIRE PROTECTION SYSTEMS:

- AUTOMATIC SPRINKLER SYSTEM - PROVIDED THROUGHOUT (903.2.1)
- STANDPIPE SYSTEM - PROVIDED IN STAIRS THROUGHOUT (905)
- ADDITIONAL CONSTRUCTION REQUIRED AS SHOWN (905)
- ESCALATOR OPING PROTECTED IN ACCORDANCE WITH IBC 712.1.3.1. DRAFT CURTAIN AND CLOSELY SPACED SPRINKLERS.

NOT USED

GENERAL NOTES

1. THE FOLLOWING INFORMATION SERVES TO PROVIDE BUILDING OWNERS WITH CONCISE DEFINITIONS OF WALL TYPES RELATED TO LIFE SAFETY ISSUES. THIS INFORMATION IS NOT MEANT TO BE A SUBSTITUTE FOR APPLICABLE BUILDING CODES.
2. WHEN A WALL HAS MORE THAN ONE CLASSIFICATION, THE MOST RESTRICTIVE REQUIREMENTS FOR EACH CLASSIFICATION SHALL APPLY.
3. FOR NEW CONSTRUCTION, PERIMETER SMOKE-SEALS MAY BE REQUIRED AT FIRE-RATED DOORS IN CERTAIN OCCUPANCIES.

GENERAL DESCRIPTION

PROJECT NAME: 3RD ST. DISPENSARY
PROJECT LOCATION: 510 SW 3RD ST., LEE'S SUMMIT, MO, 64063

ARCHITECT:
COLLINS WEBB ARCHITECTURE
13A SW 3RD STREET
LEES SUMMIT, MISSOURI 64063

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 ELECTRICAL CODE
ICC/ANSI A117.1-2017, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

CODE INFORMATION

		TABLE/SECTION/REFERENCE
BUILDING/PROJECT USE:	NO CHANGE	SECTION 303 OR 304
CONSTRUCTION TYPE	VB NO CHANGE	TABLE 601
OCCUPANCY CLASSIFICATION	NO CHANGE	SECTION 303 OR 304
BASE ALLOWABLE AREA	6,000 SF	TABLE 506.2
ACTUAL TENANT AREA (GROSS)	1,700 SF	
NUMBER OF STORIES	1	TABLE 504.4

FIRE RESISTIVE REQUIREMENTS

		TABLE/SECTION/REFERENCE
PRIMARY FRAME	0 HRS	TABLE 601
NON-BEARING WALLS	0 HRS	TABLE 601
BEARING WALLS INT./ EXT.	0 INT. / 0 EXT. HRS	TABLE 601
FLOOR CONSTRUCTION	0 HRS	TABLE 601
CEILING/ROOF	0 HRS	TABLE 601
CORRIDORS	0 HRS	TABLE 1018.1

FIRE EXTINGUISHERS

1. PROVIDE PORTABLE FIRE EXTINGUISHERS IN OCCUPANCIES AND LOCATIONS AS REQUIRED BY THE FIRE CODE. SEE PLANS FOR SUGGESTED LOCATIONS. NOTIFY ARCHITECT OF ANY PROPOSED RELOCATION OR IF A CONFLICT IS ENCOUNTERED.
2. PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED, INSPECTED, AND MAINTAINED IN ACCORDANCE WITH NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS.

CEILING HEIGHT NOTES: (IBC 1207)

1. ALL MEANS OF EGRESS TO HAVE A MINIMUM CEILING HEIGHT OF 7'-6" A.F.F., NOR SHALL HAVE ANY PROJECTION FROM THE CEILING BE LESS THAN 6'-8" A.F.F.
2. OCCUPIED SPACES, HABITABLE SPACES AND CORRIDORS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-6" A.F.F.
3. BATHROOMS, TOILET ROOMS, KITCHENS, STORAGE ROOMS AND LAUNDRY ROOMS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0" A.F.F.

INTERIOR FINISHES

GROUP A	MAX. FLAME SPREAD	
EXIT ENCLOSURES	CLASS A	803.13 IBC
LOBBIES & CORRIDORS	CLASS A	803.13 IBC
ALL OTHER SPACES	CLASS B	803.13 IBC
TEXTILES	CLASS A (0-25)	IBC 803.1.2
SMOKE DEVELOPED	0-450	IBC 803.1.2

NOTE:
Decorative Materials and Trim (including plastics) must comply with IBC Section 806.

GENERAL EXITING REQUIREMENTS

		TABLE/SECTION/REFERENCE	
EXIT TRAVEL DISTANCE	200 FEET	TABLE 1017.2	IBC
DEAD END CORRIDOR	20 FEET - GROUP M	SECTION 1020.4	IBC
COMMON PATH OF TRAVEL	75' IF OCC. < 50	SECTION 1006.2.1	IBC
MIN. CORRIDOR WIDTH	44", OR 36" IF OCC. < 50	SECTION 1020.2	IBC

POSTING OF OCCUPANT LOAD

EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY FROM THE ROOM OR SPACE. POSTED SIGNS SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN AND SHALL BE MAINTAINED BY THE OWNER OR AUTHORIZED AGENT.

EXIT REQUIREMENTS

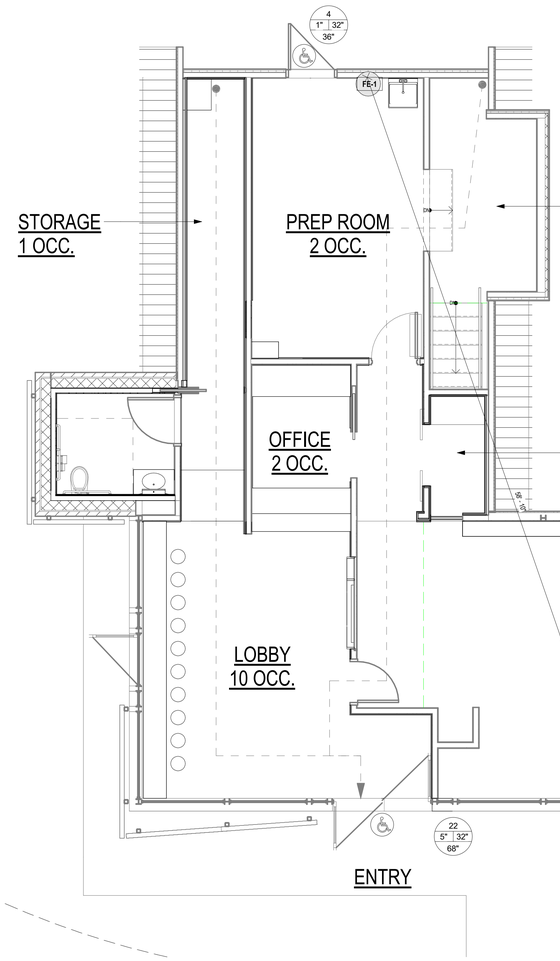
	TABLE/SECTION/REFERENCE
A. REQUIRED CAPACITY	
1. STAIRS - 0.3" / PERSON	1005.1
2. OTHER COMPONENTS - 0.2" / PERSON	1005.1
B. MINIMUM NUMBER	
1. OCCUPANT LOAD OF 1-500 PERSONS - 2 EXITS PER STORY	1006.3.1
2. OCCUPANT LOAD OF 501-1000 PERSONS - 3 EXITS PER STORY	1006.3.1
3. OCCUPANT LOAD OF MORE THAN 1000 PERSONS - 4 EXITS PER STORY	1006.3.1

OCCUPANT LOAD

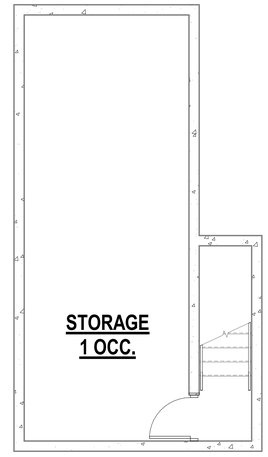
		TABLE/SECTION/REFERENCE
STORAGE AREAS	4 OCC	
BACK OF HOUSE	4 OCC	
RETAIL FLOOR	18 OCC	
RETAIL WAIT	26 OCCUPANTS	TABLE 1004.1.2
TOTAL:		
EXITS REQUIRED	1 EXITS	TABLE 1006.3.2
EXITS PROVIDED	2 EXITS	

PLUMBING FIXTURE REQUIREMENTS

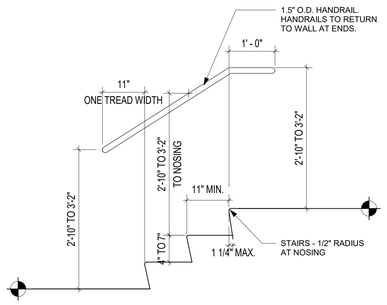
REQUIRED FIXTURE	1	TABLE 2902
PROVIDED FIXTURE	1	
SERVICE SINK PROVIDED	1	



A7 FIRST FLOOR CODE PLAN
1/4" = 1'-0"

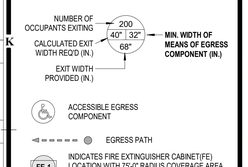


D3 LOWER LEVEL CODE PLAN
1/4" = 1'-0"



A10 HANDRAIL @ STAIRS
3/4" = 1'-0"

FIRE RESISTIVE LEGEND



MAX. EGRESS DISTANCE

MAX EXIT TRAVEL DISTANCE	200
COMMON PATH - WORST CASE	55' - 9"
MAX. EXIT TRAVEL DISTANCE	57' - 6"

collins|webb ARCHITECTURE
13A SW 3rd Street, Lee's Summit, Mo, 64063 P- 816.249.2270 (www.collinsandwebb.com)

PERMIT SET

3RD STREET DISPENSARY

510 SW 3rd St., Lee's Summit, MO 64063

REVISION DATES:

STATE OF MISSOURI
ROGER L. WEBB II NUMBER A-2016004008 ARCHITECT
3/27/20

PROFESSIONAL SEAL

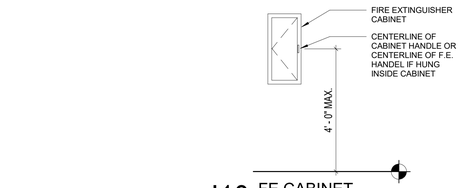
G102

ISSUE DATE: 03/27/2020
COLLINS WEBB #: 19026

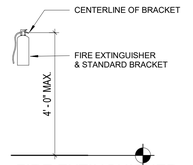
LIFE SAFETY PLANS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/10/2020

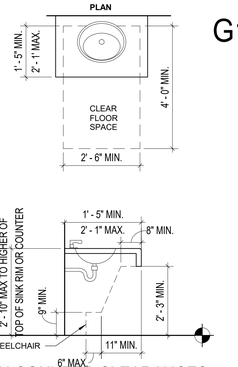
3/26/2020 1:59:31 PM



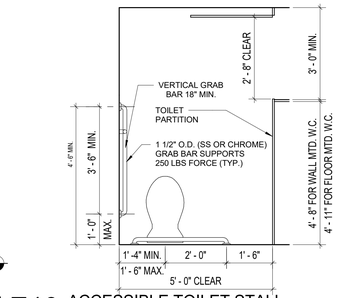
J10 FE CABINET
1/2" = 1'-0"



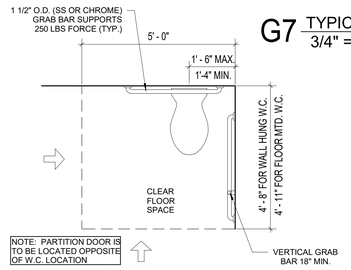
G10 FIRE EXTINGUISHER
1/2" = 1'-0"



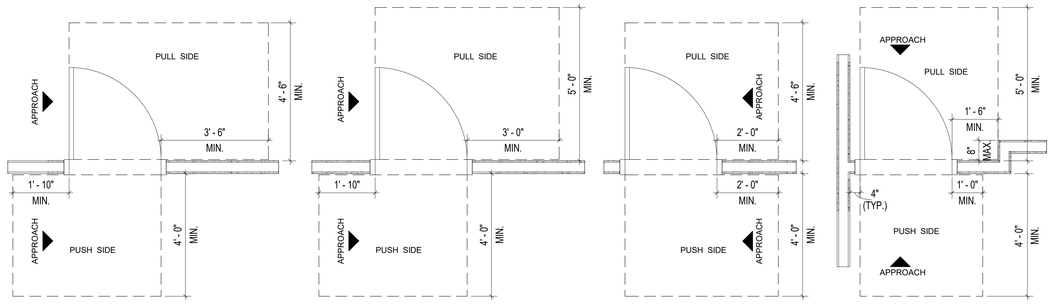
E12 SINK IN COUNTER CLEARANCES
1/2" = 1'-0"



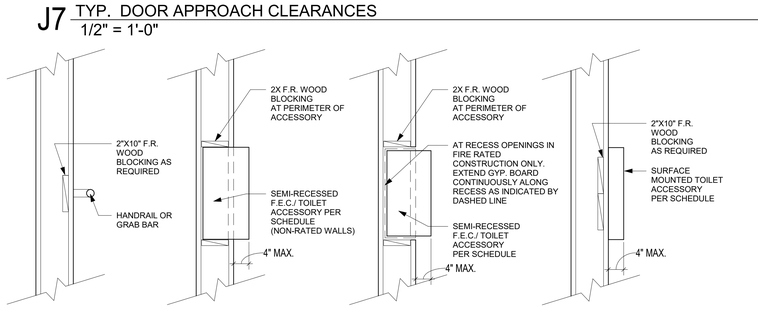
E10 ACCESSIBLE TOILET STALL
1/2" = 1'-0"



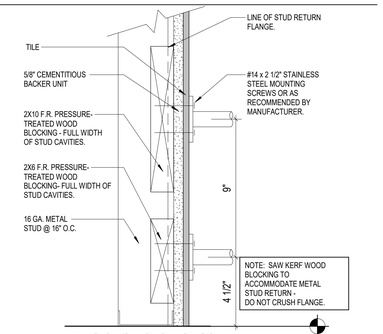
E8 ACCESSIBLE CLEAR FLOOR SPACE
1/2" = 1'-0"



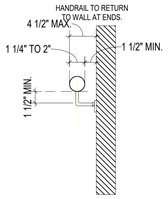
J7 TYP. DOOR APPROACH CLEARANCES
1/2" = 1'-0"



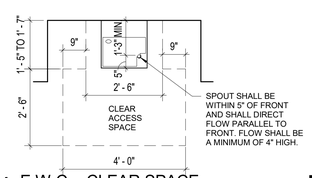
G7 TYPICAL BLOCKING DETAILS
3/4" = 1'-0"



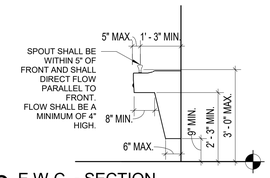
G2 BLOCKING SECTION
3" = 1'-0"



E6 HANDRAIL CLEARANCES
1 1/2" = 1'-0"



E4 E.W.C. - CLEAR SPACE
1/2" = 1'-0"



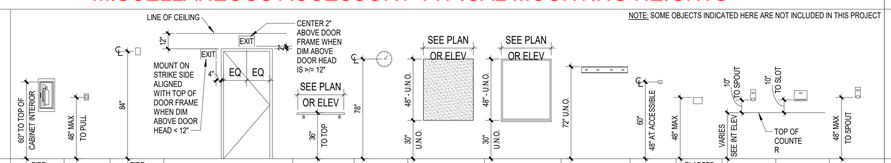
E2 E.W.C. - SECTION
1/2" = 1'-0"

GENERAL NOTES ACCESSIBILITY GUIDELINES:

1. NOTE: ALL DIMENSIONS ARE MEASURED FROM FLOOR, UNLESS NOTED OR SHOWN OTHERWISE.
2. ADA UNOBSTRUCTED REACH RANGES: ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
3. ELEVATORS: STANDARD CALL BUTTONS: 35" TO 48" TO C.L. & PROTRUDE 1" MAX. ADA CALL BUTTONS: 42" TO C.L. (TYP.) & 48" MAX. (3/4" SMALLEST DIM.). ADA VISIBLE SIGNALS: 72" MIN. TO C.L. (2 1/2" SMALLEST DIM.). TACTILE SIGNAL ON HOISTWAY: 60" TO BASE OF CHARACTERS W/ TACTILE STAR & 2" HIGH CHARACTERS.
4. DOOR HARDWARE (TO CENTER OF HARDWARE): STANDARD MOUNTING HEIGHTS: PUSH PLATES = 42", PULL HANDLES = 42", KNOBS/ LEVERS = 40", PANIC EXIT = 42" CENTERLINE OF BAR. KICKPLATES: WIDTH = DOOR WIDTH MINUS 2", CENTER HEIGHT = 16" FROM B.O. DOOR. THRESHOLDS: STANDARD = 1/2" MAX. AT EXT. SLIDING DOORS = 3/4" MAX., ADA HARDWARE = 34" MIN. TO 48" MAX.
5. DRINKING FOUNTAINS & EWC'S (TO SPOUT): STANDARD = 40" TYP., 42" MAX. ADA =36" MAX. (27" MIN. CLEAR KNEE SPACE)
6. COUNTERTOPS (TO SINK RIM/ COUNTERTOP): ADA = 28" MIN. TO 34" MAX.
7. WATER CLOSETS (TO TOP OF SEAT): STANDARD = 14" TO 15". ADA (TO TOP OF SEAT) = 17" TO 19". ADA FLUSH CONTROLS = 44" MAX.
8. URINALS (TO RIM): STANDARD = 24" MAX. ADA =17" MAX. ADA FLUSH CONTROLS = 44" MAX.
9. LAVATORIES (TO SINK RIM/ COUNTERTOP): STANDARD = 36" MAX. ADA = 34" MAX. (29" MIN. CLEAR KNEE SPACE)
10. MIRRORS (TO B.O. REFLECTIVE SURFACE): STANDARD = VARIES. ADA = 40" MAX.
11. GRAB BARS - ADA (TO TOP OF BAR): WATER CLOSETS = 33" MIN. TO 36" MAX. SHOWERS = 33" MIN. TO 36" MAX. (FROM B.O.SHOWER); BATHTUBS: TOP BAR = 33" MIN. TO 36" MAX. BOT. BAR = 9" ABOVE T.O. TUB
12. SHOWER HEADS (FROM FLOOR TO HEAD): STANDARD = 72" TO 84". ADA = SPRAY UNIT W/ HOSE 60" LONG MIN. ADA = FIXED SHOWER HEAD = 48" AFF.
13. SHOWER CONTROLS (TO CONTROL AREA): STANDARD = 48" MAX. (TO TOP). ADA = 38" MIN. TO 48" MAX.
14. SHOWER ROD (FROM FLOOR TO C.L.): STANDARD = 78" MAX.
15. TOILET ROOM PARTITIONS: TOILETS = 12" TO BOT. & 70" TO TOP. URINALS = 18" TO BOT. & 60" TO TOP
16. TOILET PAPER DISPENSERS (TO C.L. OF OUTLET): STANDARD = 24". ADA = 19" MIN. TO 24" MAX.
17. WALL MOUNTED SOAP DISPENSERS (TO C. L. OF PUSH BUTTON): STANDARD = 40", ADA = VARIES. RE: OBSTRUCTED AND UNOBSTRUCTED REACH RANGES. ADA SIDE REACH = 48" MAX. ABOVE SINK IN COUNTER.
18. PAPER TOWEL DISPENSER/ WASTE RECEPTACLE (TO TOWEL SLOT): STANDARD = 40" MAX. ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
19. WARM AIR HAND DRYER (TO PUSH SWITCH): STANDARD = 44" MAX. ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
20. SANITARY NAPKIN DISPENSER (TO C.L. OF COIN SLOT): STANDARD = 40" MAX. ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
21. SANITARY NAPKIN DISPOSAL (TO TOP OF UNIT): STANDARD = 28" MAX. ADA = 19" MIN. TO 24" MAX. (TO OPNG.)
22. TOILET SEAT COVER DISPENSERS (TO OPNG.): STANDARD = 40" MAX. ADA FORWARD REACH = 48" MAX. & 15" MIN. ADA SIDE REACH = 48" MAX. & 15" MIN.
23. SHELVES: ADA = 48" MAX.
24. COAT HOOKS: STANDARD = 68", ADA = 48" MAX.
25. CHALKBOARDS, TACKBOARDS & MARKERBOARDS: STANDARD = 32" TO 39" (TO B.O. BOARD OR CHALKTRAY). STANDARD = 80" (RECOMMENDED, TO T.O. BOARD)
26. THERMOSTATS & CONTROL DEVICES (TO TOP): ADA FORWARD REACH = 48" MAX. ADA SIDE REACH = 48" MAX.
27. LIGHT SWITCHES & CARD READERS (TO C.L.): LOCATE 6" FROM DOOR JAMB. ADA = 48" MAX.
28. CONVENIENCE RECEPTACLES – ELECTRICAL/ TELEPHONE/ DATA (TO C.L.): STANDARD = 18". ADA = 15" MIN.
29. EXIT LIGHTS - WALL MOUNTED: 2" MIN. BELOW CEILING. 2' MIN. ABOVE DOOR FRAME. EQUAL SPACE FROM CEILING TO TOP OF FRAME
30. FIRE EXTINGUISHERS (TO TOP, U.N.O.): GROSS WT. 40 LBS. OR LESS = 60" MAX. GROSS WT. MORE THAN 40 LBS. = 42" MAX. ADA = 40" MAX. (B.O. CABINET)
31. FIRE ALARM PULL STATIONS (TO LEVER): STANDARD = 48" MAX. ADA FORWARD REACH = 48" MAX. ADA SIDE REACH = 48" MAX.
32. SMOKE AND/OR HEAT DETECTORS: STANDARD = CEILING HEIGHT
33. HORN/ SPEAKER/ VISUAL SIGNALS: STANDARD = 80" AFF. OR 6" BELOW CEILING - WHICHEVER IS LOWER.
34. ROOM SIGNAGE (TO C.L.): STANDARD = 60" HIGH AFF. & WITHIN 18" OFLATCH SIDE OF DOOR

MISCELLANEOUS ACCESSORY TYPICAL MOUNTING HEIGHTS

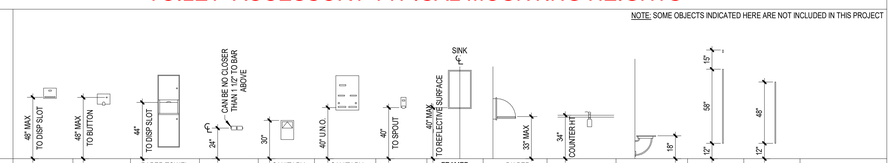
NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



FINISH FLOOR														
ACCESSORY TYPE	FIRE EXTINGUISHER CABINET	MANUAL FIRE PULL	FIRE STROBE/LIGHT/ AUDIBLE ALARM	WALL MOUNTED EXIT SIGN	WALL MOUNTED HANDRAIL	WALL CLOCK	FABRIC COVERED TACK BOARD	MARKER BOARD	MOP & BROOM HOLDER	ROBE HOOK	ELAPSED TIME CLOCK	SOAP DISPENSER	PAPER TOWEL DISPENSER	ALCOHOL DISPENSER
COMMENTS	SEMI RECESSED	SURFACE MOUNTED	SURFACE MOUNTED	WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED

TOILET ACCESSORY TYPICAL MOUNTING HEIGHTS

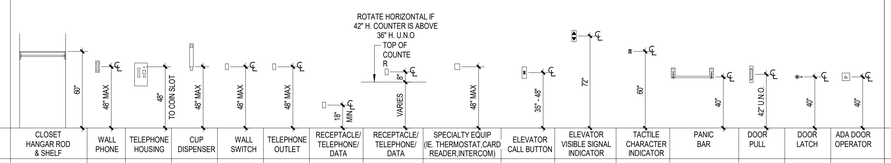
NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



FINISH FLOOR														
ACCESSORY TYPE	PAPER TOWEL DISPENSER	POWER HAND DRYER	PAPER TOWEL DISPENSER & TRASH RECEPTACLE SEMI-RECESSED	TOILET TISSUE DISPENSER	SANITARY NAPKIN DISPOSAL	SANITARY NAPKIN DISPENSER	VANITY SOAP DISPENSER	FRAMED VANITY MIRROR	DIAPER CHANGING STATION	SOAP DISPENSER	FOLDING SHOWER SEAT	TOILET PARTITION	URINAL SCREEN	
COMMENTS	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	RECESSED & SURFACE	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	COUNTERTOP MOUNTED	SURFACE MOUNTED	WALL MOUNTED	WALL MOUNTED	

MISCELLANEOUS ACCESSORY TYPICAL MOUNTING HEIGHTS

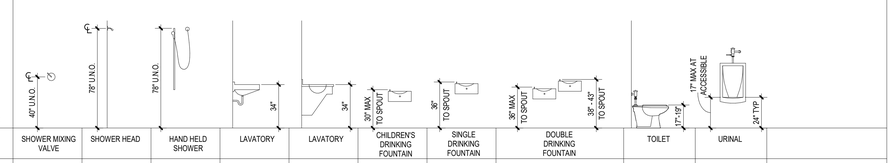
NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



FINISH FLOOR															
ACCESSORY TYPE	CLOSET HANGAR ROD & SHELF	WALL PHONE	TELEPHONE HOUSING	CUP DISPENSER	WALL SWITCH	TELEPHONE OUTLET	RECEPTACLE/ TELEPHONE/ DATA	RECEPTACLE/ TELEPHONE/ DATA	SPECIALTY EQUIP (IE. THERMOSTAT, CARD READER, INTERCOM)	ELEVATOR CALL BUTTON	ELEVATOR VISIBLE SIGNAL INDICATOR	TACTILE CHARACTER INDICATOR	PANIC BAR	DOOR PULL	DOOR LATCH	ADA DOOR OPERATOR
COMMENTS	WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	VARIES

PLUMBING FIXTURE TYPICAL MOUNTING HEIGHTS

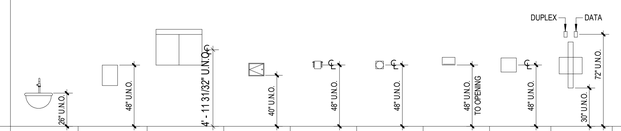
NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



FINISH FLOOR										
ACCESSORY TYPE	SHOWER MIXING VALVE	SHOWER HEAD	HAND HELD SHOWER	LAVATORY	LAVATORY	CHILDREN'S DRINKING FOUNTAIN	SINGLE DRINKING FOUNTAIN	DOUBLE DRINKING FOUNTAIN	TOILET	URINAL
COMMENTS	WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	COUNTER MOUNTED	WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	WALL/FLOOR MOUNTED	WALL MOUNTED

HEALTHCARE ACCESSORY TYPICAL MOUNTING HEIGHTS

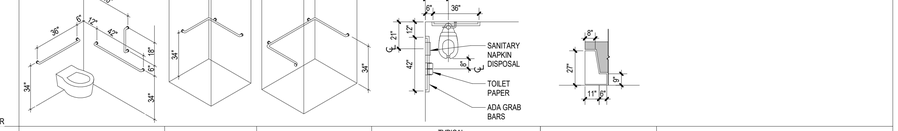
NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



FINISH FLOOR									
ACCESSORY TYPE	CLINIC SINK	SHARPS CONTAINER	FILM ILLUMINATOR	SPECIMEN PASS-THRU	OTOSCOPE	SPHYGMOMAN-METER	GLOVE BOX	MED-GAS SHUT OFF	WALL HUNG COMPUTER
COMMENTS	WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	THRU-WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED

GRAB BAR TYPICAL MOUNTING HEIGHTS & TOILET ACCESSORY PLANS

NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



FINISH FLOOR					
ACCESSORY TYPE	ADA TOILET GRAB BAR	SHOWER STALL GRAB BAR	ROLL-IN SHOWER STALL GRAB BAR	TYPICAL ACCESSORIES AT ACCESSIBLE TOILET	TYPICAL ADA SINK ENCLOSURE PANEL CLEARANCE
COMMENTS	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	NOTE: SANITARY NAPKIN DISPOSAL AT WOMEN'S & UNISEX ONLY	

A11 TYPICAL MOUNTING HEIGHTS
1/4" = 1'-0"

collins|webb ARCHITECTURE
13A SW 3rd Street, Lee's Summit, Mo. 64063 P. 816.249.2270 (www.collinsandwebb.com)

PERMIT SET

3RD STREET DISPENSARY

510 SW 3rd St., Lee's Summit, MO 64063

REVISION DATES:

STATE OF MISSOURI
ROGER L. WEBB II
NUMBER A-2016040008
ARCHITECT
3/27/20

PROFESSIONAL SEAL

G103

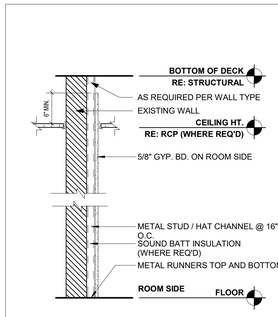
ISSUE DATE: 03/27/2020

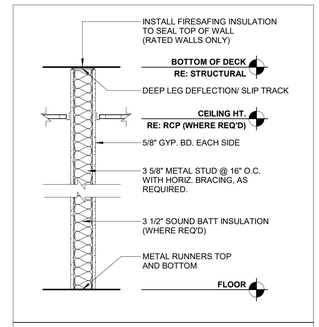
COLLINS WEBB #: 19026

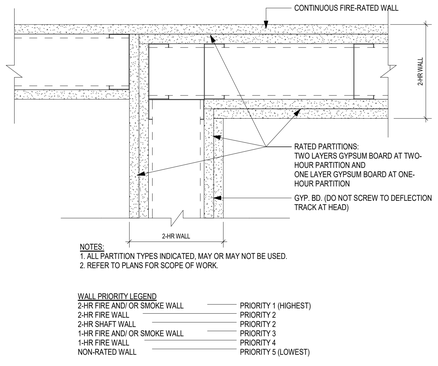
ACCESSIBILITY GUIDELINES

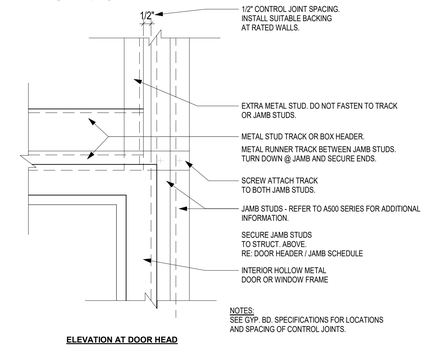
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES - LEE'S SUMMIT, MISSOURI
04/10/2020

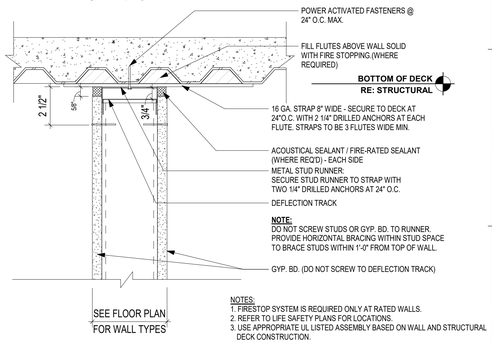
3/26/2020 1:59:32 PM











SPECIFICATIONS

GENERAL REQUIREMENTS APPLICABLE TO ALL MATERIALS FOR THE PROJECT:

1. NO SUBSTITUTIONS OF MATERIALS WITHOUT COMPLETION OF A SUBSTITUTION REQUEST FORM & APPROVAL OF SUBSTITUTION BY BOTH ARCHITECT & OWNER PROJECT MANAGER. FORM CAN BE REQUESTED FROM ARCHITECT.
2. A CONDENSED SET OF SPECIFICATIONS ARE PROVIDED FOR THE PROJECT. STRICT ADHEARANCE TO MANUFACTURER REQUIREMENTS AND INSTALLATION ARE REQUIRED TO BE FOLLOWED WITH SECTIONS PROVIDED WITHIN. IF REQUIRED THE ARCHITECT WILL ISSUE ADDITIONAL SECTIONS TO PROVIDE CLARITY TO PRODUCTS OR INSTALLATION REQUIREMENTS.

ROUGH CARPENTRY

1. PROVIDE SUFFICIENT FIRE RETARDANT TREATED WOOD BLOCKING AT ALL STUDS FOR SECURING OF WALL & CEILING ITEMS, WHETHER FURNISHED BY OWNER OR CONTRACTOR.
2. CONCEALED WOOD IS TO BE FIRE RETARDANT TREATED UNLESS NOTED OTHERWISE.
3. PRESERVATIVE TREATED LUMBER IS REQUIRED FOR ALL ITEMS TO REMAIN IN CONTACT WITH CONCRETE OR MASONRY TO CONFORM TO AWPA STANDARD 5.
4. PLYWOOD SHALL BE CD GRADE APA FIR OR YELLOW PINE. ALL PLY-WOOD TO BE FIRE RATED.
5. BLOCKING SHALL BE CLOSELY FITTED, ACCURATELY SET TO REQUIRED LINES & LEVELS, SECURELY CONNECTED & RIGIDLY FIXED IN PLACE, USING NAILS, SCREWS, &/OR BOLTS AS INDICATED OR REQUIRED BY GOOD PRACTICE AND MANUFACTURER'S RECOMMENDATIONS.

FINISH CARPENTRY

1. WOOD TRIM SHALL BE POPLAR FOR PAINTED FINISH.
2. INSTALL TRIM WORK STRAIGHT & TRUE IN ALIGNMENT & RIGIDLY FASTEN IN PLACE. FIELD VERIFY ALL DIMENSIONS. COORDINATE WHERE BLOCKING OR BACKING IS REQUIRED.
3. MAKE ALL JOINTS TO CONCEAL SHRINKAGE, MITER ALL EXTERIOR CORNERS, COPE ALL INTERIOR CORNERS & SCARF ALL END-TO-END JOINTS. INSTALL PIECES AS LONG AS POSSIBLE TO MINIMIZE JOINTS. JOINTING ONLY WHERE SOLID SUPPORT IS OBTAINED.
4. DEEP SET ALL FASTENERS, FILL, CLEAN & SAND AS REQUIRED FOR PAINT OR STAIN FINISH.

INSULATION

1. PROVIDE INSULATION AS SHOWN IN WALL TYPES.
2. PROVIDE 6 INCH BATT INSULATION OVER THE TOP OF STRUCTURAL FRAMING, CONTINUOUS, AS REQUIRED TO MAINTAIN AN INSULATION BARRIER. MINERAL FIBER BATT INSULATION: FLEXIBLE OR SEMI-RIGID PREFORMED BATT OR BLANKET, COMPLYING WITH ASTM C665; FRICTION FIT; UNFACED FLAME SPREAD INDEX OF 0 (ZERO) WHEN TESTED IN ACCORDANCE WITH ASTM E84.
3. FLAME SPREAD INDEX: 25 OR LESS, WHEN TESTED IN ACCORDANCE WITH ASTM E84.

SEALANTS

1. ACCEPTABLE MANUFACTURERS ARE BOSTIK OR EQUAL & APPROVED.
2. ACRYLIC LATEX CAULK AT INTERIOR TRIM SHALL BE ASTM C834; PAINTABLE TYPE.
3. PROVIDE PRIMERS, JOINT BACKING & OTHER ACCESSORIES AS REQUIRED, & RECOMMENDED BY THE MANUFACTURER.
4. PREPARE SURFACE PER SEALANT MANUFACTURER'S RECOMMENDATIONS, APPLY WITH SUFFICIENT PRESSURE TO FILL ALL VOIDS & FINISH JOINTS TO BE SLIGHTLY CONVEX & WEATHER TIGHT.
5. CAULK OR SEAL ALL JOINTS BETWEEN DISSIMILAR MATERIALS.

SEALANT APPLICATIONS BY TYPE:

1. INTERIOR JOINTS: USE NON-SAG POLYURETHANE SEALANT, UNLESS OTHERWISE INDICATED.
2. WALL AND CEILING JOINTS IN NON-WET AREAS: ACRYLIC EMULSION LATEX SEALANT.
3. WALL AND CEILING JOINTS IN WET AREAS: NON-SAG POLYURETHANE SEALANT FOR CONTINUOUS LIQUID IMMERSION.
4. IN SOUND-RATED ASSEMBLIES: USE ONE OF THE FOLLOWING SEALANTS.
   - A. TREMCO® ACOUSTICAL/CURTAINWALL SEALANT
   - B. PECORA AIS-919

ACCESS LADDERS

1. PROVIDE IN COMPLIANCE WITH ANSI A14.3;WITH MOUNTING BRACKETS AND ATTACHMENTS;PRIME / PAINT FINISH.
2. SIDE RAILS:3/8" X 2" MEMBERS SPACED AT 20 INCHES
3. RUNGS: ONE INCH DIAMETER SOLID ROUND BAR SPACED 12 INCHES ON CENTER.
4. SPACE RUNGS 7 INCHES FROM WALL SURFACE.
5. PROVIDE SHOP DRAWINGS INDICATING SIZE, CONNECTION ATTACHMENTS , ANCHORAGE AND DETAILS.

WOOD DOORS

DOORS: REFER TO DRAWINGS FOR LOCATIONS AND ADDITIONAL REQUIREMENTS.

1. QUALITY STANDARD: CUSTOM GRADE, HEAVY DUTY PERFORMANCE, IN ACCORDANCE WITH AWI/AWMAC/WI (AWS), AWMAC/WI (NAAWS) OR WDMA I.S. 1A.
2. WOOD VENEER FACED DOORS: 5-PLY UNLESS OTHERWISE INDICATED.
3. HIGH PRESSURE DECORATIVE LAMINATE (HPDL) FACED DOORS: 5-PLY UNLESS OTHERWISE INDICATED.
4. WHERE PLASTIC LAMINATE (P'LAM) IS INDICATED ON DOOR SCHEDULE, USE EITHER HIGH PRESSURE DECORATIVE LAMINATE (HPDL) FACED DOORS IN COMPLIANCE WITH AWI/AWMAC/WI (AWS), AWMAC/WI (NAAWS) OR WDMA I.S. 1A, OR LOW PRESSURE DECORATIVE LAMINATE (LPDL) FACED DOORS IN COMPLIANCE WITH WDMA I.S. 1A.

DOOR AND PANEL CORES

1. NON-RATED SOLID CORE AND 20 MINUTE RATED DOORS: TYPE PARTICLEBOARD CORE (PC), PLIES AND FACES AS INDICATED.
2. FIRE-RATED DOORS: MINERAL CORE TYPE, WITH FIRE RESISTANT COMPOSITE CORE (FD), PLIES AND FACES AS INDICATED ABOVE; WITH CORE BLOCKING AS REQUIRED TO PROVIDE ADEQUATE ANCHORAGE OF HARDWARE WITHOUT THROUGH-BOLTING.
3. SOUND-RATED DOORS: EQUIVALENT TO TYPE, WITH PARTICLEBOARD CORE (PC) CONSTRUCTION AS REQUIRED TO ACHIEVE STC RATING SPECIFIED; PLIES AND FACES AS INDICATED ABOVE.

DOOR FACINGS

1. VENEER FACING FOR TRANSPARENT FINISH: MAPLE, VENEER GRADE IN ACCORDANCE WITH QUALITY STANDARD INDICATED, PLAIN SLICED (FLAT CUT), WITH BOOK MATCH BETWEEN LEAVES OF VENEER, RUNNING MATCH OF SPLICED VENEER LEAVES ASSEMBLED ON DOOR OR PANEL FACE.
2. TRANSOMS: CONTINUOUS MATCH TO DOORS.
3. HIGH PRESSURE DECORATIVE LAMINATE (HPDL) FACING FOR FIRE DOORS: NEMA LD 3, SGF; ______; TEXTURED, LOW GLOSS FINISH.
4. HIGH PRESSURE DECORATIVE LAMINATE (HPDL) FACING FOR NON-FIRE-RATED DOORS: NEMA LD 3, HGS; COLOR(S) AS INDICATED; TEXTURED, LOW GLOSS FINISH.

DOOR CONSTRUCTION

1. FABRICATE DOORS IN ACCORDANCE WITH DOOR QUALITY STANDARD SPECIFIED.
2. CORES CONSTRUCTED WITH STILES AND RAILS:
3. FACTORY MACHINE DOORS FOR HARDWARE OTHER THAN SURFACE-MOUNTED HARDWARE, IN ACCORDANCE WITH HARDWARE REQUIREMENTS AND DIMENSIONS.
4. FACTORY FIT DOORS FOR FRAME OPENING DIMENSIONS IDENTIFIED ON SHOP DRAWINGS, WITH EDGE CLEARANCES IN ACCORDANCE WITH SPECIFIED QUALITY STANDARD.
5. PROVIDE EDGE CLEARANCES IN ACCORDANCE WITH THE QUALITY STANDARD SPECIFIED.

INSTALLATION

1. INSTALL DOORS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFIED QUALITY STANDARD.
2. INSTALL FIRE-RATED DOORS IN ACCORDANCE WITH NFPA 80 REQUIREMENTS.
3. INSTALL SMOKE AND DRAFT CONTROL DOORS IN ACCORDANCE WITH NFPA 105 REQUIREMENTS.
4. FACTORY-FINISHED DOORS: DO NOT FIELD CUT OR TRIM; IF FIT OR CLEARANCE IS NOT CORRECT, REPLACE DOOR.
5. USE MACHINE TOOLS TO CUT OR DRILL FOR HARDWARE.
6. COORDINATE INSTALLATION OF DOORS WITH INSTALLATION OF FRAMES AND HARDWARE.

FLOORING- COMMON WORK RESULTS

PREPARATION

1. COMPLY WITH REQUIREMENTS AND RECOMMENDATIONS OF FLOOR COVERING MANUFACTURER.
2. FILL AND SMOOTH SURFACE CRACKS, GROOVES, DEPRESSIONS, CONTROL JOINTS AND OTHER NON-MOVING JOINTS, AND OTHER IRREGULARITIES WITH PATCHING COMPOUND.
3. DO NOT FILL EXPANSION JOINTS, ISOLATION JOINTS, OR OTHER MOVING JOINTS. CONCRETE SLAB PREPARATION
4. PERFORM FOLLOWING OPERATIONS IN THE ORDER INDICATED:
   - A. EXISTING CONCRETE SLABS (ON-GRADE AND ELEVATED) WITH EXISTING FLOOR COVERINGS:
     1. VISUAL OBSERVATION OF EXISTING FLOOR COVERING, FOR ADHESION, WATER DAMAGE, ALKALINE DEPOSITS, AND OTHER DEFECTS.
     2. PROVIDE PRELIMINARY CLEANING PER MFR.
     3. INTERNAL RELATIVE HUMIDITY TESTS; IN SAME LOCATIONS AS MOISTURE VAPOR EMISSION TESTS, UNLESS OTHERWISE INDICATED.
     4. SPECIFIED REMEDIATION, IF REQUIRED.
     5. PATCHING, SMOOTHING, AND LEVELING, AS REQUIRED BY MFR.
     6. OTHER PREPARATION SPECIFIED BY MFR.
     7. PROVIDE ADHESIVE BOND AND COMPATIBILITY TEST.
     8. PROVIDE FLOOR PROTECTION.

CARPET TILE

FIELD CONDITIONS

1. STORE MATERIALS IN AREA OF INSTALLATION FOR MINIMUM PERIOD OF 24 HOURS PRIOR TO INSTALLATION. ACCESSORIES
2. SUB-FLOOR FILLER: WHITE PREMIX LATEX; TYPE RECOMMENDED BY FLOORING MATERIAL MANUFACTURER.
3. EDGE STRIPS: EMBOSSED ALUMINUM, COLOR AS SELECTED BY ARCHITECT.
4. ADHESIVESCOMPATIBLE WITH MATERIALS BEING ADHERED

EXAMINATION

1. VERIFY THAT SUB-FLOOR SURFACES ARE SMOOTH AND FLAT WITHIN TOLERANCES SPECIFIED FOR THAT TYPE OF WORK AND ARE READY TO RECEIVE CARPET TILE.
2. CEMENTITIOUS SUB-FLOOR SURFACES: VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH.
3. TEST IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS
3. OBTAIN INSTRUCTIONS IF TEST RESULTS ARE NOT WITHIN LIMITS RECOMMENDED BY FLOORING MATERIAL MANUFACTURER AND ADHESIVE MATERIALS MANUFACTURER.

PREPARATION

1. PREPARE FLOOR SUBSTRATES FOR INSTALLATION OF FLOORING IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS

INSTALLATION

1. STARTING INSTALLATION CONSTITUTES ACCEPTANCE OF SUB-FLOOR CONDITIONS.
2. INSTALL CARPET TILE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND CRI 104 (COMMERCIAL).
3. BLEND CARPET FROM DIFFERENT CARTONS TO ENSURE MINIMAL VARIATION IN COLOR MATCH.
4. CUT CARPET TILE CLEAN. FIT CARPET TIGHT TO INTERSECTION WITH VERTICAL SURFACES WITHOUT GAPS.
5. LAY CARPET TILE IN SQUARE PATTERN, WITH PILE DIRECTION PARALLEL TO NEXT UNIT, SET PARALLEL TO BUILDING LINES.
6. LOCATE CHANGE OF COLOR OR PATTERN BETWEEN ROOMS UNDER DOOR CENTERLINE.
7. FULLY ADHERE CARPET TILE TO SUBSTRATE.
8. TRIM CARPET TILE NEATLY AT WALLS AND AROUND INTERRUPTIONS.
9. COMPLETE INSTALLATION OF EDGE STRIPS, CONCEALING EXPOSED EDGES.

TILING-

PREPARATION

FOLLOW ALL MANUFACTURER RECOMMENTTION FOR PREPARING EXISTING SUBFLOORING AND INSTALLATION PROTECTIONS.

1. PROTECT SURROUNDING WORK FROM DAMAGE.
2. VACUUM CLEAN SURFACES AND DAMP CLEAN.
3. SEAL SUBSTRATE SURFACE CRACKS WITH FILLER. LEVEL EXISTING SUBSTRATE SURFACES TO ACCEPTABLE FLATNESS TOLERANCES.
4. INSTALL BACKER BOARD IN ACCORDANCE WITH ANSI A108.11 AND BOARD MANUFACTURER'S INSTRUCTIONS. TAPE JOINTS AND CORNERS, COVER WITH SKIM COAT OF SETTING MATERIAL TO A FEATHER EDGE.

INSTALLATION - GENERAL

1. INSTALL TILE, THRESHOLDS, AND STAIR TREADS AND GROUT IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF ANSI A108.1A THROUGH ANSI A108.13, MANUFACTURER'S INSTRUCTIONS, AND TCNA (HB) RECOMMENDATIONS.
2. LAY TILE TO PATTERN INDICATED. DO NOT INTERRUPT TILE PATTERN THROUGH OPENINGS.
3. CUT AND FIT TILE TO PENETRATIONS THROUGH TILE, LEAVING SEALANT JOINT SPACE. FORM CORNERS AND BASES NEATLY. ALIGN FLOOR JOINTS.
4. PLACE TILE JOINTS UNIFORM IN WIDTH, SUBJECT TO VARIANCE IN TOLERANCE ALLOWED IN TILE SIZE. MAKE GROUT JOINTS WITHOUT VOIDS, CRACKS, EXCESS MORTAR OR EXCESS GROUT, OR TOO LITTLE GROUT.
5. FORM INTERNAL ANGLES SQUARE AND EXTERNAL ANGLES BULLNOSED.
6. INSTALL CERAMIC ACCESSORIES RIGIDLY IN PREPARED OPENINGS.
7. INSTALL NON-CERAMIC TRIM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
8. INSTALL THRESHOLDS WHERE INDICATED.
9. SOUND TILE AFTER SETTING. REPLACE HOLLOW SOUNDING UNITS.
10. KEEP CONTROL AND EXPANSION JOINTS FREE OF MORTAR, GROUT, AND ADHESIVE.
11. PRIOR TO GROUTING, ALLOW INSTALLATION TO COMPLETELY CURE; MINIMUM OF 48 HOURS.
12. GROUT TILE JOINTS UNLESS OTHERWISE INDICATED. USE STANDARD GROUT UNLESS OTHERWISE INDICATED.
13. AT CHANGES IN PLANE AND TILE-TO-TILE CONTROL JOINTS, USE TILE SEALANT INSTEAD OF GROUT, WITH EITHER BOND BREAKER TAPE OR BACKER ROD AS APPROPRIATE TO PREVENT THREE-SIDED BONDING.

RESILIENT FLOORING -LVT

PREPARATION

1. PREPARE FLOOR SUBSTRATES AS RECOMMENDED BY FLOORING AND ADHESIVE MANUFACTURERS.
2. REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL MINOR LOW SPOTS, CRACKS, JOINTS, HOLES, AND OTHER DEFECTS WITH SUB-FLOOR FILLER TO ACHIEVE SMOOTH, FLAT, HARD SURFACE.
3. PROHIBIT TRAFFIC UNTIL FILLER IS FULLY CURED.

INSTALLATION - GENERAL

1. STARTING INSTALLATION CONSTITUTES ACCEPTANCE OF SUB-FLOOR CONDITIONS.
2. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. SPREAD ONLY ENOUGH ADHESIVE TO PERMIT INSTALLATION OF MATERIALS BEFORE INITIAL SET.
4. FIT JOINTS AND BUTT SEAMS TIGHTLY.
5. SET FLOORING IN PLACE, PRESS WITH HEAVY ROLLER TO ATTAIN FULL ADHESION.
6. WHERE TYPE OF FLOOR FINISH, PATTERN, OR COLOR ARE DIFFERENT ON OPPOSITE SIDES OF DOOR, TERMINATE FLOORING UNDER CENTERLINE OF DOOR.
7. INSTALL EDGE STRIPS AT UNPROTECTED OR EXPOSED EDGES, WHERE FLOORING TERMINATES, AND WHERE INDICATED.
8. SCRIBE FLOORING TO WALLS, COLUMNS, CABINETS, FLOOR OUTLETS, AND OTHER APPURTENANCES TO PRODUCE TIGHT JOINTS.LUXURY VINYL TILE -LVT

FIELD CONDITIONS

1. STORE MATERIALS FOR NOT LESS THAN 48 HOURS PRIOR TO INSTALLATION IN AREA OF INSTALLATION AT A TEMPERATURE OF 70 DEGREES F TO ACHIEVE TEMPERATURE STABILITY. THEREAFTER, MAINTAIN CONDITIONS ABOVE 55 DEGREES F.

ACCESSORIES

1. SUBFLOOR FILLER: WHITE PREMIX LATEX; TYPE RECOMMENDED BY ADHESIVE MATERIAL MANUFACTURER.
2. PRIMERS, ADHESIVES, AND SEAM SEALER: WATERPROOF; TYPES RECOMMENDED BY FLOORING MANUFACTURER.
3. MOLDINGS, TRANSITION AND EDGE STRIPS: SAME MATERIAL AS FLOORING.

EXAMINATION

1. VERIFY THAT SURFACES ARE FLAT TO TOLERANCES ACCEPTABLE TO FLOORING MANUFACTURER, FREE OF CRACKS THAT MIGHT TELEGRAPH THROUGH FLOORING, CLEAN, DRY, AND FREE OF CURING COMPOUNDS, SURFACE HARDENERS, AND OTHER CHEMICALS THAT MIGHT INTERFERE WITH BONDING OF FLOORING TO SUBSTRATE.
2. VERIFY THAT WALL SURFACES ARE SMOOTH AND FLAT WITHIN THE TOLERANCES SPECIFIED FOR THAT TYPE OF WORK, ARE DUST-FREE, AND ARE READY TO RECEIVE RESILIENT BASE.
3. CEMENTITIOUS SUB-FLOOR SURFACES: VERIFY THAT SUBSTRATES ARE DRY ENOUGH AND READY FOR RESILIENT FLOORING INSTALLATION BY TESTING FOR MOISTURE AND PH.
4. OBTAIN INSTRUCTIONS IF TEST RESULTS ARE NOT WITHIN LIMITS RECOMMENDED BY RESILIENT FLOORING MANUFACTURER AND ADHESIVE MATERIALS MANUFACTURER.

PAINTING

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PATCHING OF ALL NAIL HOLES, CRACKS ETC., PRIOR TO FINAL PAINTING.
2. WORK INCLUDES PREPARATION OF SURFACES FOR PAINTING, FINISHING & THE APPLICATION OF PAINT & FINISH PRODUCTS ON ALL SURFACES WHICH ARE NOT FACTORY FINISHED.
3. ALL SURFACES MUST BE DRY, FREE FROM GREASE, OIL, MILDEW & GROUT; SANDED SMOOTH & FREE FROM LOOSE DIRT, DUST OR GRIT.
4. GLOSS SURFACES TO BE DULLED BY LIGHT SANDING.
5. ALL COATS TO BE TINTED TOWARDS FINAL COLOR, MINIMUM 3 COATS. GYPSUM BOARD PRIMERS TO BE FACTORY FORMULATED LATEX BASED FOR INTERIOR APPLICATION, SW PREPRITE 200, B28W200 SERIES OR EQUAL.
6. WOOD PRIMERS TO BE FACTORY FORMULATED ALKYD OR ACRYLIC BASED FOR INTERIOR APPLICATION, SW PREPRITE WOOD, B49W200 OR EQUAL FOR ACRYLIC ENAMEL & SEMIGLOSS FINISHES.
7. FERROUS METAL PRIMERS TO BE FACTORY FORMULATED QUICK DRYING RUST INHIBITIVE ALKYD BASED, SW KERN KROMIK UNIVERSAL METAL PRIMER, B50NZ6/B50WZ1 OR EQUAL.
8. GYPSUM BOARD CEILINGS & SOFFITS FINISH COAT TO BE FACTORY FORMULATED FLAT ACRYLIC LATEX, SW PROMAR 200 INTERIOR, B30W200 SERIES OR EQUAL.
9. GYPSUM BOARD WALLS FINISH COAT TO BE FACTORY FORMULATED SATIN ACRYLIC LATEX, SW B20W200 SERIES OR EQUAL.
10. WOOD & METAL SURFACES FINISH COAT TO BE FACTORY FORMULATED FULL SATIN ALKYD ENAMEL, SW PROMAR 200 INTERIOR B35W200 SERIES OR EQUAL.
12. PROVIDE LEFT OVER STOCK OF EACH FINISH COLOR.

GYPSUM WALL BOARD

1. PROVIDE & INSTALL METAL STUD WALL SYSTEMS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS & THE GYPSUM CONSTRUCTION HANDBOOK AS PUBLISHED BY UGC.
2. METAL STUDS, DIETRICH OR EQUAL, REFERENCE DRAWINGS FOR STUD TYPES. PER ASTM 525, G-90.
3. FURRING CHANNELS, REFERENCE DRAWINGS FOR CHANNEL TYPES USG OR EQUAL.
4. FASTENERS SHALL BE USG BUGLE HEAD SCREWS.
5. JOINT TREATMENT SHALL BE: - PREFILLER-USG DURABOND 90 -
6. TAPE-USG PERF-A-TAPE - FILLER-USG READY-MIXED JOINT COMPOUND
7. PAPER FACED METAL TRIM TO MEET ASTM C1047-
8. CORNER BEADS-USG BEADEX INSIDE & OUTSIDE CORNERS
9. CASING BEADS-USG BEADEX L TRIMS
10. ALL EXTERIOR CORNERS SHALL RECEIVE CORNER BEADS, & EXPOSED EDGES (AT END OF NEW DRYWALL WORK)SHALL RECEIVE CASING BEADS TAPED IN WITH THE JOINT TREATMENT SYSTEM.
11. WALLS TO RECEIVE WALL COVERING SHALL BE BEDDED, TAPED & SANDED TO PROVIDE A SMOOTH, CONTINUOUS SURFACE & PRIMED AS RECOMMENDED BY WALL COVERING MANUFACTURER.
12. REVIEW ALL WORK AFTER PRIME COAT OF PAINT & CORRECT ANY VISIBLE JOINT OR FASTENER TREATMENT OR ROUGHNESS IN THE WORK.
13. FIRE TAPE INNER LAYERS OF GYPSUM BOARD AT RATED WALLS. FINISH TAPE & SAND OUTSIDE LAYER OF GYPSUM BOARD THAT WILL RECEIVE PAINT VINYL OR WALL CARPET.
14. ALL GYPSUM BOARD IS 5/8" (TYPE "X") UNLESS NOTED OTHERWISE (UNO).
16. LISTED BELOW ARE TYP INNER LAYER GUIDELINES FOR JOINT FINISHING:
    - FACTORY EDGE TO FACTORY EDGE CONDITIONS DO NOT REQUIRE TO BE TAPED & FILLED IN LAYERS BELOW FINISH LAYER.
    - ANY CUT EDGES OR CORNERS ON INNER LAYERS WILL REQUIRE TO BE TAPED & FILLED TYP.
    - ANY GAPS OR BROKEN CORNERS, MUST BE TAPED TYP.
17. REFERENCE DRAWING GENERAL NOTE FOR GYP. FINISH LEVELS.

WALL TYPE E

TYPE	WALL DESCRIPTION
E	· 7/8" HAT CHANNEL @ 16" O.C. TO SCHEDULED HEIGHT · 5/8" INTERIOR DENSARMOR PLUS ON ROOM SIDE · 7/8" MIN. CLOSED CELL FOAM, FILL REMAINING CAVITY WITH OPEN CELL FOAM AS NEEDED · NON RATED
E1	~~· 2 1/2" METAL STUD @ 16" O.C. TO SCHEDULED HEIGHT~~ ~~· 5/8" INTERIOR DENSARMOR PLUS ON ROOM SIDE~~ ~~· FOIL FACED BATT INSULATION W/ TAPED SEAMS CONTINUE FOIL AROUND STRUCTURE~~ ~~· NON RATED~~ NOT USED
E2	· 3 5/8" METAL STUD @ 16" O.C. TO SCHEDULED HEIGHT · 5/8" INTERIOR DENSARMOR PLUS ON ROOM SIDE · 1 1/2" MIN. CLOSED CELL FOAM, FILL REMAINING CAVITY WITH OPEN CELL FOAM AS NEEDED · NON RATED
E3	· 1 1/2" METAL STUD @ 16" O.C. TO SCHEDULED HEIGHT · 5/8" INTERIOR DENSARMOR PLUS ON ROOM SIDE · 1 1/2" MIN. CLOSED CELL FOAM, FILL REMAINING CAVITY WITH OPEN CELL FOAM AS NEEDED · NON RATED

WALL TYPE A

TYPE	WALL DESCRIPTION
A	· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE · 5/8" TYPE "X" GYP. BD. EACH SIDE · NO SOUND BATT INSULATION · NON RATED
A1	~~· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE~~ ~~· 5/8" TYPE "X" GYP. BD. ONE SIDE~~ ~~· NO SOUND BATT INSULATION~~ ~~· NON RATED~~ NOT USED
A2	~~· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE~~ ~~· 2 LAYERS - 5/8" TYPE "X" GYP. BD. EACH SIDE~~ ~~· NO SOUND BATT INSULATION~~ ~~· 2 HR RATED RE: UL # U411~~ NOT USED
A3	~~· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE~~ ~~· 5/8" TYPE "X" GYP. BD. EACH SIDE~~ ~~· 3-1/2" SOUND BATT INSUL. TO FULL HEIGHT OF WALL~~ ~~· ACOUSTICAL SEALANT AT FLOOR AND CEILING~~ ~~· NON RATED~~ NOT USED
A4	~~· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE~~ ~~· 5/8" TYPE "X" GYP. BD. EACH SIDE~~ ~~· 3-1/2" SOUND BATT INSUL. TO FULL HEIGHT OF WALL~~ ~~· ACOUSTICAL SEALANT AT FLOOR AND CEILING~~ ~~· 1 HR RATED RE: UL # U465~~ NOT USED
A5	~~· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE~~ ~~· 2 LAYERS - 5/8" TYPE "X" GYP. BD. EACH SIDE~~ ~~· 3-1/2" SOUND BATT INSUL. TO FULL HEIGHT OF WALL~~ ~~· ACOUSTICAL SEALANT AT FLOOR AND CEILING~~ ~~· 2 HR RATED RE: UL # U411~~ NOT USED
A6	~~· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE~~ ~~· 3 LAYERS - 1/2" TYPE "X" GYP. BD. EACH SIDE~~ ~~· NO SOUND BATT INSULATION~~ ~~· 3 HR RATED RE: UL # U419~~ NOT USED
A7	~~· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE~~ ~~· 4 LAYERS - 5/8" TYPE "X" GYP. BD. EACH SIDE~~ ~~· NO SOUND BATT INSULATION~~ ~~· 4 HR RATED RE: UL # U419~~ NOT USED
A8	~~· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE~~ ~~· 3 LAYERS - 1/2" TYPE "X" GYP. BD. EACH SIDE~~ ~~· 3-1/2" SOUND BATT INSUL. TO FULL HEIGHT OF WALL~~ ~~· ACOUSTICAL SEALANT AT FLOOR AND CEILING~~ ~~· 3 HR RATED RE: UL # U419~~ NOT USED
A9	~~· 3-5/8" METAL STUD @ 16" O.C. TO DECK ABOVE~~ ~~· 4 LAYERS - 5/8" TYPE "X" GYP. BD. EACH SIDE~~ ~~· 3 -1/2" SOUND BATT INSUL. TO FULL HEIGHT OF WALL~~ ~~· ACOUSTICAL SEALANT AT FLOOR AND CEILING~~ ~~· 4 HR RATED RE: UL # U419~~ NOT USED

NOTES:
1. ALL PARTITION TYPES INDICATED, MAY OR MAY NOT BE USED.
2. REFER TO PLANS FOR SCOPE OF WORK.

WALL PRIORITY LEGEND

2-HR FIRE AND/ OR SMOKE WALL	PRIORITY 1 (HIGHEST)
2-HR FIRE WALL	PRIORITY 2
2-HR SHAFT WALL	PRIORITY 2
1-HR FIRE AND/ OR SMOKE WALL	PRIORITY 3
1-HR FIRE WALL	PRIORITY 4
NON-RATED WALL	PRIORITY 5 (LOWEST)

C6 WALL CONTINUITY LEGEND - PLAN VIEW

3" = 1'-0"

NOTES:
SEE GYP. BD. SPECIFICATIONS FOR LOCATIONS AND SPACING OF CONTROL JOINTS.

ELEVATION AT DOOR HEAD

A6 CONTROL JOINT FRAMING AT OPENING

3" = 1'-0"

NOTE:
DO NOT SCREW STUDS OR GYP. BD. TO RUNNER. PROVIDE HORIZONTAL BRACING WITHIN STUD SPACE TO BRACE STUDS WITHIN 1'-0" FROM TOP OF WALL.

NOTES:
1. FIRESTOP SYSTEM IS REQUIRED ONLY AT RATED WALLS.
2. REFER TO LIFE SAFETY PLANS FOR LOCATIONS.
3. USE APPROPRIATE UL LISTED ASSEMBLY BASED ON WALL AND STRUCTURAL DECK CONSTRUCTION.

C3 TOP OF WALL - PERP. TO METAL DECK

3" = 1'-0"

NOTE:
DO NOT SCREW STUDS OR GYP. BD. TO RUNNER. PROVIDE HORIZONTAL BRACING WITHIN STUD SPACE TO BRACE STUDS WITHIN 1'-0" FROM TOP OF WALL.

NOTES:
1. FIRESTOP SYSTEM IS REQUIRED ONLY AT RATED WALLS.
2. REFER TO LIFE SAFETY PLANS FOR LOCATIONS.
3. USE APPROPRIATE UL LISTED ASSEMBLY BASED ON WALL AND STRUCTURAL DECK CONSTRUCTION.

A3 TOP OF WALL - PARALLEL TO METAL DECK

3" = 1'-0"

WALL TYPE NOTES:

1. RE: LIFE SAFETY PLAN(S) FOR RATED WALL LOCATIONS.
2. RE: WALL TYPE DETAIL SHEET FOR TYPICAL WALL DETAILS AND ADDITIONAL WALL TYPE INFORMATION.
3. FOR TYPICAL TOP OF WALL CONDITIONS AT JOISTS AND BEAMS, REFER TO THE CLOSURE DETAILS ON THE WALL TYPE DETAILS SHEET.
4. COORDINATE METAL STUD GAUGE WITH PRE-APPROVED EQUIPMENT ANCHORAGE. WHERE A DISCREPANCY OCCURS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
5. WHERE "ACOUSTIC SEALANT" IS INDICATED ON WALL TYPES: PROVIDE ACOUSTIC (SOUND) SEALANT ABOVE TOP TRACK, UNDER BOTTOM TRACK, AND AT ALL PENETRATIONS (BOTH SIDES).
6. WHERE "FIRE-RATED SEALANT" IS INDICATED ON WALL TYPES: PROVIDE FIRE-RATED SEALANT ABOVE TOP TRACK, UNDER BOTTOM TRACK, AT ALL PENETRATIONS (BOTH SIDES), AND AS REQUIRED BY FIRE RATING UL NUMBER.
7. EXTEND FIRE-RATED WALL CONSTRUCTION BEHIND RECESSED OR BUILT-IN EQUIPMENT; SUCH AS FIRE EXTINGUISHER CABINETS (FEC), ELECTRICAL WATER COOLERS (EWC), ELECTRICAL PANELS, ETC., UNLESS NOTED OTHERWISE.
8. PROVIDE AND INSTALL ALL STIFFENERS, BRACING, BACK-UP PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION OF ALL CASEWORK AND OF ALL FLOOR MOUNTED OR SUSPENDED MECHANICAL, ELECTRICAL OR LABORATORY EQUIPMENT.
9. WHERE HVAC OR OTHER MECHANICAL, ELECTRICAL AND PLUMBING ITEMS PENETRATE PARTITIONS: STUDS SHALL BE BRACED AND FRAMED TO STRUCTURE AS REQUIRED TO PROVIDE ADEQUATE SUPPORT. ALL PENETRATIONS THROUGH ACOUSTICAL AND FIRE RATED WALLS SHALL BE SEALED TO PROVIDE FIRE, SMOKE, AND/OR ACOUSTICAL ISOLATION OF SPACES WITH APPROPRIATE ACOUSTICAL/ FIRESTOP MATERIAL.
10. THERE SHALL BE NO BACK-TO-BACK ELECTRICAL, TELEPHONE, OR OTHER OUTLETS, EXCEPT WHERE SPECIFICALLY SHOWN.
11. WALL BASE IS NOT SHOWN ON ALL WALL TYPES FOR CLARITY. REFER TO FINISH SCHEDULE.
12. PROVIDE GLASS-MAT, WATER RESISTANT BACKING BOARD AT ALL WET LOCATIONS.
13. EXCEPT AT FIRE-RATED PARTITIONS, ALL WALL AND COLUMN GYPSUM BOARD FACING SHALL BE HELD AT 5/8 INCH BELOW STRUCTURE, UNLESS NOTED OR SHOWN OTHERWISE.
14. PROVIDE AND INSTALL BLOCKING REQUIRED FOR ALL A.V. EQUIPMENT. G.C. TO COORDINATE WITH TI CONSULTANT FOR FINAL LOCATIONS AND SIZE REQUIREMENTS.
15. COMPRESSIBLE FILLER - ACCEPTABLE MATERIALS WOULD BE FIBERGLASS INSULATION OR FIRESTOPPING. VOIDS TO BE COMPLETELY FILLED AND A FIRESTOP SEALANT OVER ANY ENDS. THIS IS TYPICAL FOR ALL ACOUSTICAL WALL ASSEMBLIES WHERE "COMPRESSIBLE FILLER" IS CALLED FOR. THERE CAN BE NO VOIDS IN THE INSTALLATION.
16. MUD AND TAPE ALL 1ST AND 2ND LAYER GYP. BOARD JOINTS. PROVIDE 3RD LAYER FINISH PER GENERAL NOTES: FLOOR PLAN.
17. PROVIDE A MIN. MSG-12 STUD FOR ALL VERTICAL LONG SPAN WALL TYPES.
18. PROVIDE HORIZONTAL LATERAL BRACING WIRE WELDED TO STUD FOR ALL WALLS, AT APPROPRIATE GAGE AND SPACING SPECIFIED BY SUPPLIER.
19. PROVIDE ACOUSTICAL ISOLATION BRACKET AND/ OR ACOUSTICAL ISOLATION MAT AT ALL ACOUSTICAL WALLS BRACED BACK OR INTERRUPTED BY STRUCTURE. SEE TYPICAL DETAIL THIS SHEET. CONTRACTOR TO COORDINATE WITH STRUCTURAL DWG'S FOR TYP. CONDITIONS/ LOCATIONS.
20. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS - CONTACT ARCHITECT FOR CLARIFICATION.
21. FOR BIDDING PURPOSES: THE MOST EXPENSIVE AND/OR STRICTEST REQUIREMENTS SHALL GOVERN. FOR CLARIFICATIONS DURING CONSTRUCTION: THE MOST EXPENSIVE AND/OR STRICTEST REQUIREMENTS, AS INDICATED BY THE ARCHITECT, SHALL GOVERN.
22. BACK TO BACK ACOUSTICAL WALLS MAY NOT BE BRIDGED, BRACED OR RIGIDLY TIED TOGETHER WITHOUT AN APPROVED ISOLATION SYSTEM.

collins | webb ARCHITECTURE
13A SW 3rd Street, Lee's Summit, Mo. 64063 P: 816.249.2270 (www.collinsandwebb.com)

PERMIT SET

3RD STREET DISPENSARY

510 SW 3rd St., Lee's Summit, MO 64063

REVISION DATES:

ROGER L. WEBB II
NUMBER A-2016004008
3/27/20

PROFESSIONAL SEAL

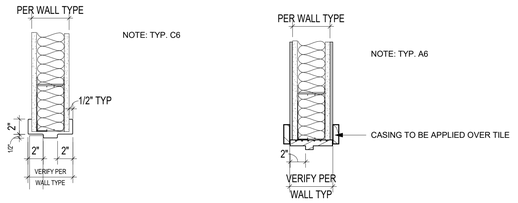
G104

ISSUE DATE: 03/27/2020
COLLINS WEBB #: 19026

WALL TYPES & SPECIFICATIONS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/10/2020

3/26/2020 1:59:32 PM



J11 DOOR DETAIL - HM HEAD
1 1/2" = 1'-0"

J10 DOOR DETAIL - WD HEAD
1 1/2" = 1'-0"

TOILET ACCESSORY SCHEDULE						
TYPE MARK	MANUFACTURER	DESCRIPTION	MODEL	WxDxH	FINISH	COMMENTS
1	HOME RISES	DOUBLE ROLL TOILET PAPER HOLDER W/ SHELF	HOIS56478		OIL RUBBED BRONZE	1
2	CSI BATHWARE	GRAB BAR, 1-1/2" DIA., SS, 42"	BAR-SB42-TW-150-XX	42" x 1-1/2" DIA.	OIL RUBBED BRONZE	1
3	CSI BATHWARE	GRAB BAR, 1-1/2" DIA., SS, 36"	BAR-SB36-TW-150-XX	36" x 1-1/2" DIA.	OIL RUBBED BRONZE	1
4	CSI BATHWARE	GRAB BAR, 1-1/2" DIA., SS,18"	BAR-SB18-TW-150-XX	18" x 1-1/2" DIA.	OIL RUBBED BRONZE	1
5	ELECTRIC MIRROR	MIRROR, LED BACKLIT	FACET BEVEL	24" x 48"		4
6	SCHOOL HOUSE	ROBE HOOK	J HOOK	6"H x 2.25" x 3/8"W	TRUE BLACK	5

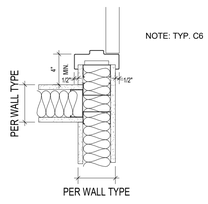
GENERAL NOTES:
A. ALL TOILET ACCESSORY LOCATIONS BASED ON FLOOR PLAN LAYOUT.
B. REFER TO INTERIOR ELEVATIONS FOR ANY ACCESSORIES THAT MAY NOT SHOW UP ON THE PLANS.
C. REFER TO G002 AND MANUFACTURER'S SPECIFICATIONS FOR MOUNTING HEIGHTS.
D. COORDINATE ALL MOUNTING HEIGHTS W/ PLUMBING FIXTURES TO ALLOW PROPER OPERATION & INFORM ARCHITECT IN WRITING OF ANY CONFLICTS.
E. G.C. TO VERIFY DIRECTLY W/ OWNER TO DETERMINE MOUNTING HEIGHTS, U.N.O.

REMARKS:
1. SURFACE MOUNTED.
2. RECESSED.
3. SEMI-RECESSED.
4. MIRRORS TO BE CENTERED AT SINKS, TYP.
5. INSTALL ROBE HOOK CENTERED ON INSIDE OF DOOR @ 48"AFF.
6. OWNER FURNISHED, CONTRACTOR INSTALLED.
7. OWNER FURNISHED, OWNER INSTALLED.

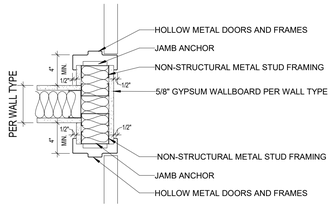
DOOR SCHEDULE										
DOOR NO.	WIDTH	HEIGHT	DOOR TYPE	DOOR MAT.	DOOR FINISH	FRAME TYPE	FRAME MAT.	FRAME FINISH	HARDWARE	REMARKS
001	2' - 8"	7' - 0"	D1	STEEL	P2	F1	HM	P4	GC TO COORDINATE WITH SECURITY CONSULTANT	2
101	3' - 0"	7' - 0"	D1	SCWD	ST1	F1	HM	P4	GC TO COORDINATE WITH SECURITY CONSULTANT	2
102	3' - 0"	6' - 8"	D2	WD/GL	ST1	-	-	-	GC TO COORDINATE WITH SECURITY CONSULTANT	2
103	2' - 8"	7' - 0"	D1	SCWD	ST1	F1	HM	P4	GC TO COORDINATE WITH SECURITY CONSULTANT	2
104	3' - 0"	6' - 8"	D2	WD/GL	ST1	-	-	-	GC TO COORDINATE WITH SECURITY CONSULTANT	2
105	3' - 0"	7' - 0"	D3	SCWD	P4	F1	HM	P4	GC TO COORDINATE WITH SECURITY CONSULTANT	2
106	4' - 0"	6' - 8"	D2	WD/GL	ST1	-	-	-	GC TO COORDINATE WITH SECURITY CONSULTANT	2,3,4
X100	3' - 2"	6' - 10 3/4"	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	GC TO COORDINATE WITH SECURITY CONSULTANT	2
X105	3' - 0"	7' - 0"	EXIST	EXIST	P4	EXIST	EXIST	P4	GC TO COORDINATE WITH SECURITY CONSULTANT	2, 4

DOOR SCHEDULE REMARKS:

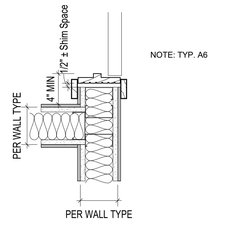
1. **NOT USED.**
2. **CONFIRM HARDWARE FUNCTION, LOCKING AND KEYING WITH OWNER.**
3. **PROVIDE DECORATIVE SLIDING DOOR SYSTEM: FLAT TRACK SLIDING HARDWARE KIT - STEEL TRACK AND HANGERS, NYLON COATED STAINLESS WHEEL FOR SMOOTH OPERATION, WITH DOOR STOPS. FINISH SHALL BE INDUSTRIAL STEEL - ZINC COATED STEEL. OWNER TO VERIFY COLOR.**
4. **EXTERIOR SIDE OF DOOR TO MATCH ADJACENT WALL FINISH.**



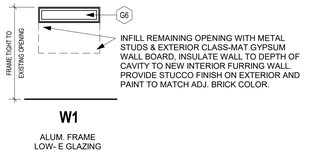
G11 DOOR DETAIL - HM JAMB
1 1/2" = 1'-0"



G10 DOOR DETAIL - HM JAMB - DOUBLE
1 1/2" = 1'-0"



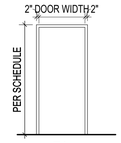
J8 DOOR DETAIL - WD JAMB
1 1/2" = 1'-0"



W1
ALUM. FRAME
LOW- E GLAZING

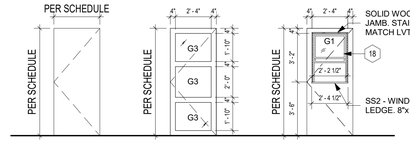
NOTE:
1. PROVIDE PRIVACY WINDOW FILM: 3M FASARA FABRIC/ WASHI SH2PTRK
2. REFER TO GLASS SCHEDULE FOR GLAZING.

WINDOW TYPE ELEVATIONS
1/4" = 1'-0"



F1
PAINTED HM

FRAME TYPES
1/4" = 1'-0"



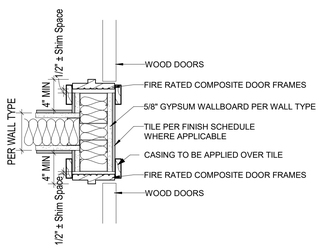
D1
FLUSH SCWD, HM DOOR , OR STEEL
-SEE DOOR SCHEDULE.

D2
WD W/ FROSTED GL. LT.
-SEE DOOR SCHEDULE.

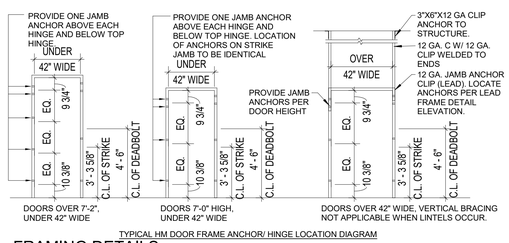
D3
DOOW WITH CUSTOM WINDOW.
FLUSH SCWD

NOTE:
1. DOORS TO BE 1 3/4" THICK, UNLESS NOTED OTHERWISE ON DOOR SCHEDULE.
2. REFER TO GLASS SCHEDULE FOR GLAZING.
3. D3 - CENTER WINDOW IN DOOR DEPTH, PROVIDE 1/4" WOOD JAMB PROJECTION PAST WINDOW FRAME OR THE DOOR. WHICH EVER IS GREATER IN DEPTH.

DOOR TYPE ELEVATIONS
1/4" = 1'-0"

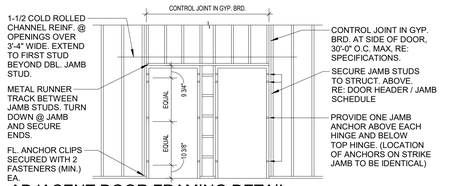


E11 DOOR DETAIL - WD JAMB - DOUBLE
1 1/2" = 1'-0"

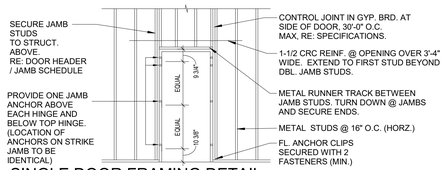


TYPICAL HM DOOR FRAME ANCHOR/ HINGE LOCATION DIAGRAM

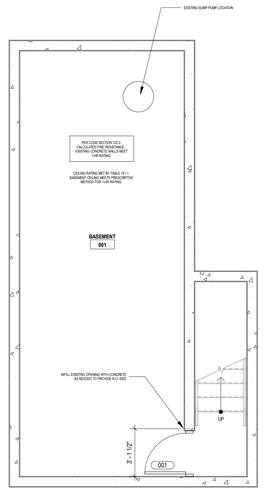
D11 FRAMING DETAILS
1/4" = 1'-0"



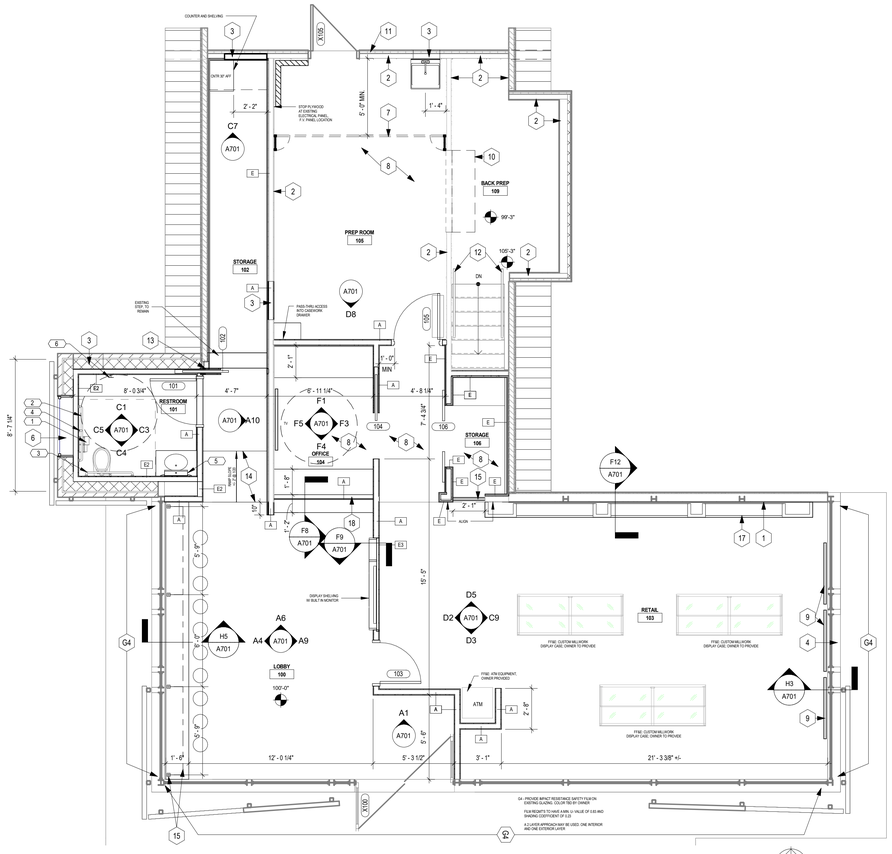
B11 ADJACENT DOOR FRAMING DETAIL
1/4" = 1'-0"



A11 SINGLE DOOR FRAMING DETAIL
1/4" = 1'-0"



A8 LOWER LEVEL FLOOR PLAN
1/4" = 1'-0"
NORTH



A5 FIRST FLOOR PLAN
1/4" = 1'-0"

GENERAL NOTES: FLOOR PLANS

1. RE: GENERAL ARCHITECTURAL SHEETS FOR ADDITIONAL NOTES AND DETAILS THAT ARE APPLICABLE.
2. ARCHITECTURAL ELEVATION 100'-0"
3. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF GYP. BOARD/ WALL (FOG), FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
4. NOTE: WALL THICKNESSES ARE ACTUAL DIMENSIONS AND PER WALL TYPES. SEE GENERAL SHEETS.
5. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL SHOWN OR LOCATED 4 INCHES FROM FINISH WALL TO HINGE SIDE OF THE DOOR, ALWAYS ALLOWING A MINIMUM OF 18" FROM THE PULL SIDE (STRIKE SIDE) OF THE DOOR TO THE INTERSECTING WALL, OR OTHER PROTRUDING OBJECTS.
6. DOORS TO BE SELECTED AND APPROVED BY OWNER.
7. CONSTRUCTION TO BE IN STRICT ACCORDANCE WITH ALL APPLICABLE BUILDING CODES, LOCAL RULES, AND REGULATIONS, AND ALL OTHER CODES, REGULATIONS AND GOVERNING AGENCIES HAVING JURISDICTION WITH ALL APPLICABLE AMENDMENTS UNLESS ALTERED OR CHANGED THROUGH VARIANCES OF OTHER LEGAL PROCEDURES.
8. CONTRACTOR TO COORDINATE ALL LOW VOLTAGE/ SOUND WITH OWNER FOR LOCATIONS OF CONDUIT AND/ OR DEVICES LOCATIONS
9. ALL EXTERIOR STUD WALLS TO RECEIVE SPRAY FOAM INSULATION.

DOOR SCHED. GENERAL NOTES

1. HM REFERS TO HOLLOW METAL
2. AL REFERS TO ALUMINUM
3. WD REFERS TO WOOD
4. SCWD REFERS TO SOLID CORE WOOD
5. ALL EXTERIOR ALUMINUM DOORS & FRAMES ARE TO BE FINISHED TO MATCH ADJACENT ALUMINUM WINDOW FRAME, U.N.O.
6. REFER TO FINISH LEGEND FOR FINISH OF INTERIOR HOLLOW METAL DOORS AND FRAMES.
7. REFER TO SPECIFICATION FOR DOOR HARDWARE SET DESIGNATIONS.
8. 2 HOUR FIRE BARRIER DOORS = 90 MINUTE RATING
   1 HOUR FIRE BARRIER DOORS = 45 MINUTE RATING
   1 HOUR SMOKE BARRIER = 20 MINUTE RATING
9. PROTECT ALL DOORS & FRAMES FROM DAMAGE THROUGHOUT CONSTRUCTION PHASES. ANY DAMAGE TO BE REPAIRED/REPLACED PER OWNER DISCRETION.

GLASS LITE SCHED.

GLAZING TYPE	DESCRIPTION
G1	1/4" TEMPERED CLEAR GLAZING
G2	1/4" CLEAR GLAZING
G3	1/4" TEMPERED FROSTED GLAZING
G4	SAFETY WINDOW FILM APPLIED ON EXISTING GLAZING - COLOR TBD BY OWNER
G5 - not used	3/16" PREMIUM GRADE FIRE RATED GLASS CERAMIC SAFETY GLAZING
G6	1" INSULATED GLAZING - LOW E
G7 - not used	1" TEMPERED INSULATED GLAZING
G8 - not used	1" INSULATED SPANDREL GLAZING
G9 - not used	1" INSULATED TEMPERED SPANDREL GLAZING

FLOOR PLAN KEYED NOTES

1. LAMINATE 5/8" GYPSUM WALL BOARD TO EXISTING WALL.
2. INSTALL 3/4" PLYWOOD OVER EXISTING METAL WALL.
3. INFILL EXISTING DOOR OR WINDOW W/ STEEL STUDS & GYPSUM WALL BOARD AS REQUIRED TO PROVIDE FLUSH TRANSITION TO ADJACENT GYPSUM WALL BOARD.
4. EXISTING DOOR, TO BE PERMANENTLY SEALED. REMOVE HARDWARE & SEAL CLOSED.
5. PROVIDE WOOD TRIM AT OPENING; TRIM TO BE 1/4" PROUD OF SLAT WALL.
6. REMOVE EXISTING SLIDER WINDOW. PROVIDE NEW WINDOW TIGHT TO EXISTING HEAD. INFILL REMAINING OPENING WITH METAL STUDS & EXTERIOR CLASS-MAT GYPSUM WALL BOARD, INSULATE WALL TO DEPTH OF CAVITY TO NEW INTERIOR FURRING WALL. PROVIDE STUCCO FINISH ON EXTERIOR AND PAINT TO MATCH ADJ. BRICK COLOR.
7. PROVIDE FOLDING SECURITY GATE. ILLINOIS ENGINEERED PRODUCTS, PFG 1265 - 6'-6" COLLAPSED HEIGHT. MAX. CENTER DROP PIN @ FLOOR.
8. PROVIDE METAL SECURITY MESH OVER EXISTING PLYWOOD FLOOR. CLARK DIETRICH BARRIER MESH - BM75, 16 GAUGE THICKNESS W/ 3/4" DIAMOND. PROVIDE POURABLE SELF LEVELING COMPOUND COMPATIBLE WITH FLOORING AND ADHESIVE TO ALLOW FOR FLUSH FLOOR TRANSITION TO CONCRETE RETAIL FLOOR.
9. NEW TV MONITORS & MOUNTS. PROVIDE HORIZONTAL TUBE STEEL SUPPORTS, ATTACHED TO EXISTING STEEL MEMBERS.
10. DEMOLISH EXISTING CONCRETE STEP. FRAME NEW STEP IN SMALLEST PROFILE ALLOWED BY CODE.
11. PROVIDE NEW DOOR BELL. VERIFY TYPE & LOCATION WITH OWNER.
12. PROVIDE NEW PAINTED METAL PIPE HANDRAIL.
13. SAW CUT BLOCK WALL TO CREATE OPENING FOR NEW 3'-0" DOOR. INFILL ANY EXISTING EXPOSED WALLS WITH NEW 3 5/8" METAL STUD & GYPSUM WALLBOARD WALL. AT UNDERSIDE OF ROOF SLOPE, LAMINATE 5/8" GYPSUM WALLBOARD.
14. BUSH HAMMER EXISTING CONCRETE FLOOR TO PROVIDE 1:20 SLOPE TRANSITION.
15. FULL HEIGHT "FRAMELESS" 1/4" TEMPERED GLASS PANEL. PROVIDE PRIVACY WINDOW FILM: 3M FASARA FABRIC/ WASH SH2PTRK. CAPTURE GLASS WITH C. R. LAURENCE SHALLOW U-CHANNEL, BLACK, SCBL3812CL
16. COUNTER TOP SUPPORT FRAME. HSS 2-1/2 x 2-1/2 W/ 1/2" X 6-1/2" X 6-1/2" BASE PLATE. RE: **H5 / A701**
17. WOOD SHELVING DISPLAY WALL W/ SLIDING GLASS DISPLAY DOORS. PROVIDE 1/4" TEMPERED GLASS INSET INTO CRL FLAT BLACK TRACK ASSEMBLY; D603 UPPER AND D602 LOWER TRACK W/ STEEL BALL-BEARING WHEELS.
18. CRL PRE-GLAZED VERTICAL SLIDING SERVICE WINDOW. PROVIDE SERIES WITH FIXED TOP PANEL AND SLIDING LOWER PANEL WITHOUT SCREENS, PROVIDE WITH SASH BALANCE. KYNAR PAINTED FRAME TO MATCH ADJ. WALL COLOR. GC TO FV THE RO SIZES.

CWA collins|webb ARCHITECTURE
13A SW 3rd Street, Lee's Summit, Mo. 64063 P. 816.249.2270 (www.collinsandwebb.com)

PERMIT SET

3RD STREET DISPENSARY

510 SW 3rd St., Lee's Summit, MO 64063

REVISION DATES:

STATE OF MISSOURI
ROGER L. WEBB II
NUMBER A-2016004008
ARCHITECT
3/27/20

PROFESSIONAL SEAL

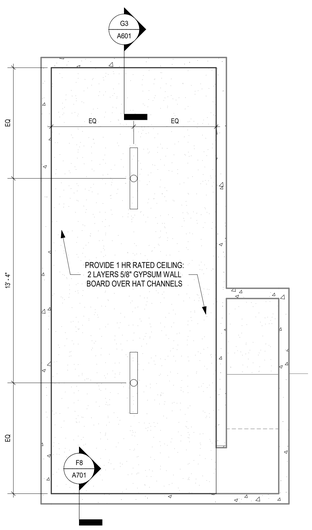
A101

ISSUE DATE: 03/27/2020
COLLINS WEBB #: 19026

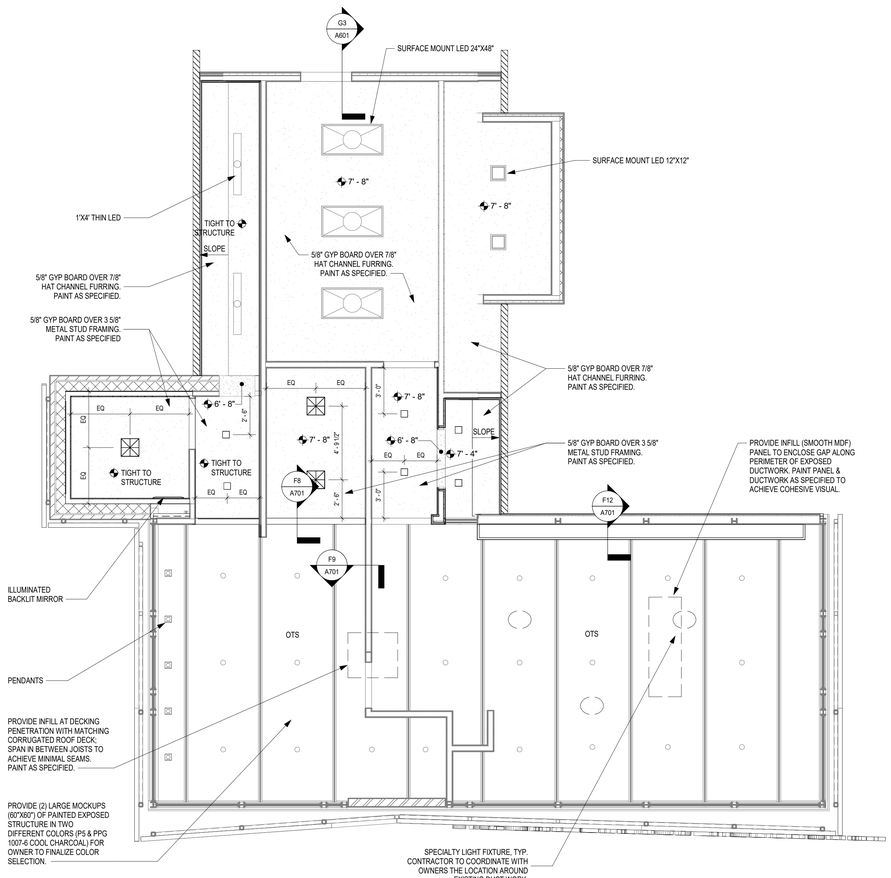
FLOOR PLAN & DOOR DETAILS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/10/2020

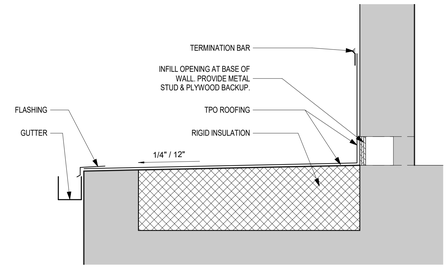
3/26/2020 1:59:24 PM



C9 REFLECTED CEILING PLAN - LOWER LEVEL
1/4" = 1'-0"



A5 REFLECTED CEILING PLAN
1/4" = 1'-0"



G3 DETAIL SECTION - ROOF
1 1/2" = 1'-0"

GENERAL NOTES - REFLECTED CEILING PLANS:

1. RE: SHEET G001 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. DIMENSIONS SHOWN ON THE REFLECTED CEILING PLANS ARE TO THE FACE OF GYP. BOARD (FOG), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
3. ALL CEILINGS TO BE 9'-0" A.F.F., UNLESS NOTED OTHERWISE.
4. ALL CEILING HEIGHTS AS SHOWN ON PLANS AND DETAILS ARE FROM SLAB OR TILE FLOOR (FINISHED FLOOR) TO FINISH CEILING.
5. AT ALL GYP. BD. SOFFITS: EXTEND GYP. BD. UP 6 INCHES ABOVE ADJACENT CEILING.
6. RE: DETAILS FOR ADDITIONAL CONDITIONS AND CEILING HEIGHT INFORMATION.
7. RE: FINISH LEGEND AND FINISH SCHEDULE FOR ROOM CEILING FINISHES.
8. CEILING TILES/GRID TO BE CENTERED IN THE ROOM, UNLESS NOTED OTHERWISE.
9. RECESSED LIGHTING, SPEAKERS, SMOKE DETECTORS, ETC. AND PENDANT LIGHT FIXTURES - SHALL BE CENTERED IN CEILING TILE OR GYP. BD. CEILING, UNLESS NOTED OTHERWISE.
10. RE: INTERIOR ELEVATIONS FOR LOCATION OF WALL MOUNTED LIGHT FIXTURES.
11. RE: ELECTRICAL SHEETS AND SPECIFICATIONS FOR DETAILED INFORMATION ON LIGHT FIXTURE SCHEDULE.
12. RE: MECHANICAL SHEETS AND SPECIFICATIONS FOR DETAILED INFORMATION ON DIFFUSERS.
13. COORDINATE ALL PENDANT MOUNTED LIGHT FIXTURES IN EQUIPMENT AREAS WITH EXPOSED STRUCTURE.
14. COORDINATE ALL CEILING MOUNTED EQUIPMENT WITH CASEWORK BELOW.
15. IF THERE IS A CONFLICT BETWEEN ANY ABOVE-CEILING MECHANICAL / ELECTRICAL / PLUMBING WORK & THE SCHEDULED OR SHOWN CEILING HEIGHT, CONTACT THE ARCHITECT IMMEDIATELY FOR CLARIFICATION.
16. REF. MECH DWGS FOR LOCATIONS OF SOUND ISOLATION BELOW AND OR AROUND MECH.EQUIPMENT.
17. PROVIDE OVERALL CEILING COORDINATION DRAWING SHOWING ALL DEVICES DURING SHOP SUBMITTAL PROCESS.

NOT IN ARCHITECTURAL SCOPE

CEILING PLAN LEGEND

*SOME SYMBOLS MAY NOT BE USED IN THIS PROJECT.

	WOOD VISUAL WC-5A OR WC-5B / PRICE BOTH MATERIALS FOR CLIENT APPROVAL
	ACT-1: OPTIMA SUSPENDED LAY-IN ACOUSTICAL CEILING TILE AND EXPOSED TEE-GRID SYSTEM (2'X6')
	ACT-2: FINE FISSURED, WHITE SUSPENDED LAY-IN ACOUSTICAL CEILING TILE AND EXPOSED TEE-GRID SYSTEM (2'X4')
	5/8" GYPSUM BOARD BULKHEAD, CEILING OR SOFFIT. SEE APPLICABLE DETAILS AND SECTIONS.
	2'X4' SURFACE LED LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE.
	2'X2' SURFACE LED LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE.
	RECESSED CAN LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE.
	RECESSED CAN DIRECTIONAL LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE.
	SURFACE MOUNTED LED LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE AND SIZE.
	SUSPENDED DIRECT/INDIRECT LED LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE AND SIZE.
	LED STRIP LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE AND SIZE.
	DECORATIVE PENDANT MOUNTED LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE.
	WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE.
	EMERGENCY WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR TYPE.
	EMERGENCY EXIT LIGHT FIXTURE (CEILING MOUNTED). SEE ELECTRICAL DRAWINGS FOR TYPE.
	EMERGENCY EXIT LIGHT FIXTURE (WALL MOUNTED). SEE ELECTRICAL DRAWINGS FOR TYPE.
	CEILING MOUNTED RETURN AIR GRILLE. SEE MECHANICAL DRAWINGS FOR TYPE.
	CEILING MOUNTED SUPPLY DIFFUSER. SEE MECHANICAL DRAWINGS FOR TYPE.
	EXHAUST DUCT. SEE MECHANICAL DRAWINGS FOR TYPE.
	CEILING MOUNTED SPEAKER GRILLE. SEE ELECTRICAL DRAWINGS FOR TYPE.
	SPRINKLER HEAD. SEE PLUMBING DRAWINGS FOR TYPE.

collins | webb ARCHITECTURE
13A SW 3rd Street, Lee's Summit, Mo, 64063 P- 816.249.2270 (www.collinsandwebb.com)

PERMIT SET

3RD STREET DISPENSARY

510 SW 3rd St., Lee's Summit, MO 64063

REVISION DATES:

STATE OF MISSOURI
ROGER L. WEBB II
NUMBER A-2016004008
ARCHITECT
3/27/20

PROFESSIONAL SEAL

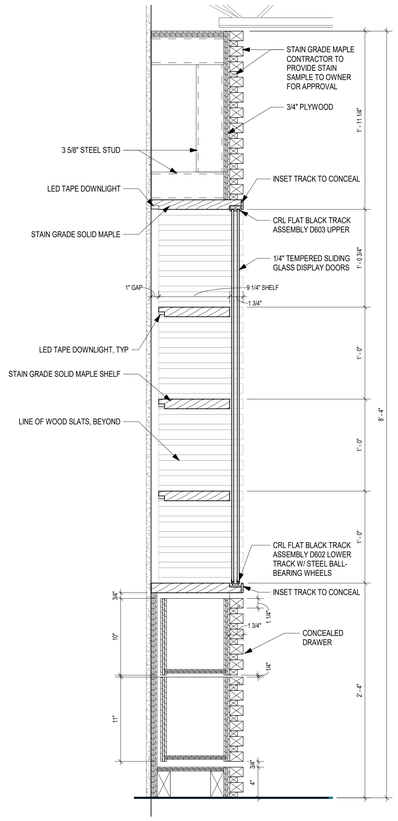
A601

ISSUE DATE: 03/27/2020
COLLINS WEBB #: 19026

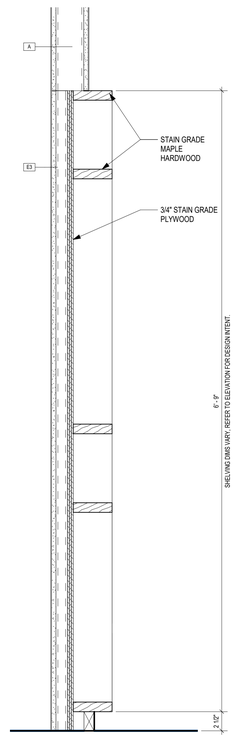
REFLECTED CEILING PLANS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/10/2020

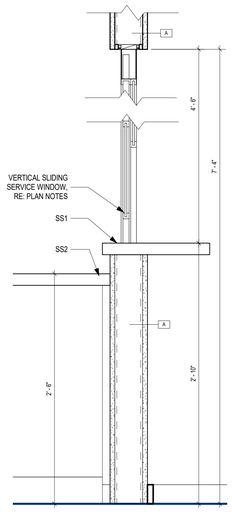
3/26/2020 2:08:10 PM



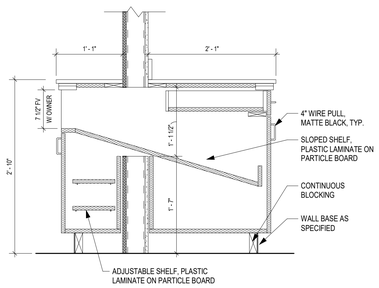
F12 DETAIL SECTION - WOOD SHELVING
1 1/2" = 1'-0"



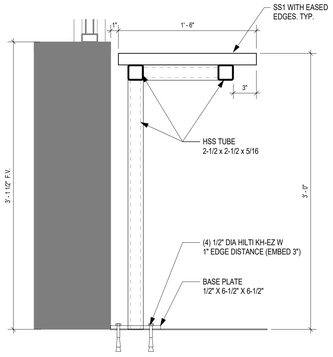
F9 WOOD SHELVING DISPLAY
1 1/2" = 1'-0"



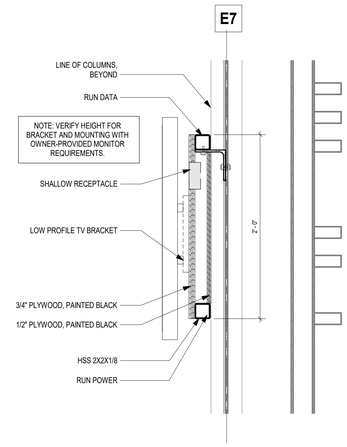
F8 TRANSACTION COUNTER
1 1/2" = 1'-0"



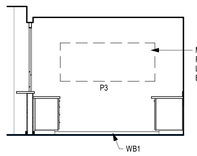
H8 CASEWORK SECTION @ PASS THRU
1" = 1'-0"

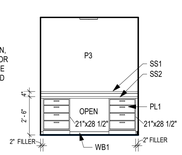


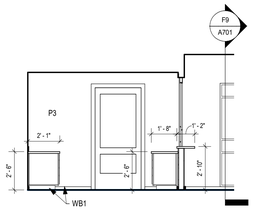
H5 DETAIL SECTION - BAR TOP
1 1/2" = 1'-0"

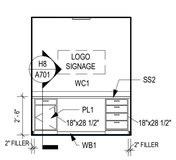


H3 TV MOUNT AT WINDOWS
1 1/2" = 1'-0"







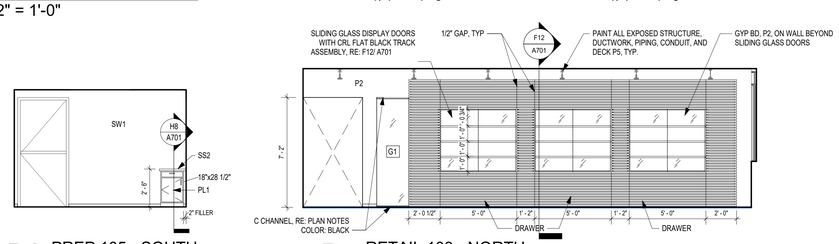


F5 OFFICE 104 - WEST
1/4" = 1'-0"

F4 OFFICE 104 - S
1/4" = 1'-0"

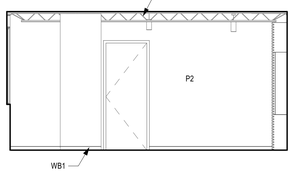
F3 OFFICE 104 - E
1/4" = 1'-0"

F1 OFFICE 104 - N
1/4" = 1'-0"

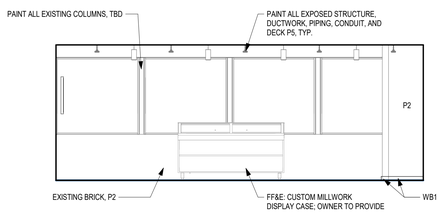


D5 RETAIL 103 - NORTH
1/4" = 1'-0"

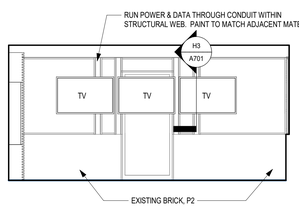
D8 PREP 105 - SOUTH
1/4" = 1'-0"



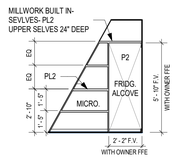
D2 RETAIL 103 - WEST
1/4" = 1'-0"



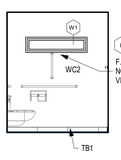
D3 RETAIL 103 - SOUTH
1/4" = 1'-0"



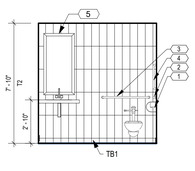
C9 RETAIL 103 - EAST
1/4" = 1'-0"



C7 STOR 102 - N
1/4" = 1'-0"

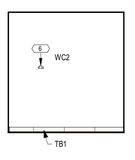


C5 RESTROOM 101 - W
1/4" = 1'-0"

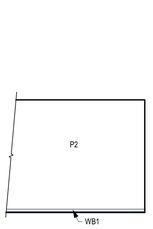


C4 RESTROOM 101 - S
1/4" = 1'-0"

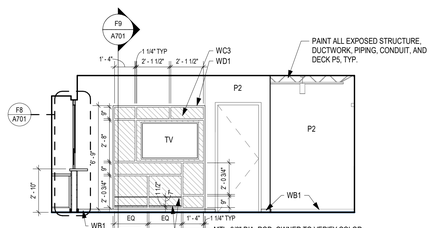
C3 RESTROOM 101 - E
1/4" = 1'-0"



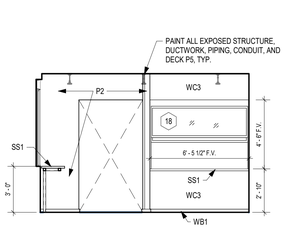
C1 RESTROOM 101 - N
1/4" = 1'-0"



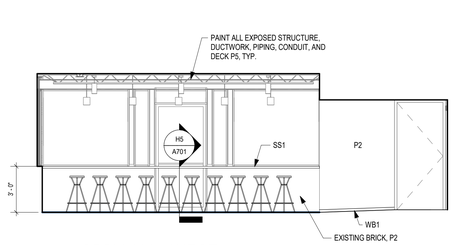
A10 CORR 108 - EAST
1/4" = 1'-0"



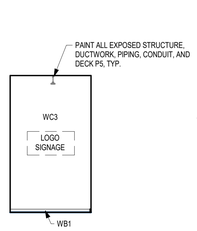
A9 LOBBY 100 - EAST
1/4" = 1'-0"



A6 LOBBY 100 - NORTH
1/4" = 1'-0"



A4 LOBBY 100 - WEST
1/4" = 1'-0"



A1 ENTRY - NORTH
1/4" = 1'-0"

GENERAL NOTES INTERIOR ELEVATIONS:

1. RE: SHEET G001 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. RE: SHEET G002 ACCESSIBILITY GUIDELINES FOR MOUNTING HEIGHTS OF FIXTURES AND ACCESSORIES.
3. RE: A903 FOR FINISH LEGEND AND FINISH SCHEDULE FOR SPECIFIC FINISH INFORMATION AND LOCATIONS.
4. RE: A903 FINISH FLOOR PLANS FOR ADDITIONAL WALL FINISH CLARIFICATIONS.
5. RE: SHEET A903 FOR REVEAL AND CONTROL JOINT DETAILS, WALL PROTECTION DETAILS, AND FLOOR TRANSITION / WALL BASE DETAILS.
6. RE: ENLARGED FLOOR PLAN SHEETS FOR TOILET ACCESSORY SCHEDULE.
7. PROVIDE GYPSUM BOARD CONTROL JOINTS AT DOOR HEADERS WHERE GYPSUM BOARD EXCEEDS 30 FEET (TYP.), UNLESS SHOWN OTHERWISE. JOINTS TO BE LINED UP WITH BOTH SIDES OF DOOR FRAMES FOR DOORS 4'-0" AND OVER AND ALL DOORS THAT ARE LEAD LINED.
8. PROVIDE PRIMER ON ALL WALL SURFACES THAT ARE TO RECEIVE WALLCOVERING.
9. CONTINUE WALL FINISH AS SCHEDULED BEHIND ALL FURNITURE AND EQUIPMENT, INCLUDING UNDER OPEN COUNTERS.
10. TRANSITION ALL WALL AND BASE FINISHES, AND/ OR COLOR CHANGES AT INSIDE CORNERS, UNLESS NOTED OTHERWISE. CONSULT ARCHITECT FOR CLARIFICATION, IF NECESSARY.
11. CONTINUE WALL BASE AT ALL WALLS, FURRED OUT COLUMNS & COLUMN COVERS, AND AT ALL CASEWORK TOE KICKS, SIDE PANELS, AND UNDER OPEN COUNTERS, UNLESS NOTED OTHERWISE.
12. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO MILLWORK/ CASEWORK FABRICATION & INSTALLATION.
13. CONTRACTOR SHALL PROVIDE & INSTALL GROMMETS AT 48" O.C. MAX. AT ALL WORK STATIONS WITH OPEN KNEE SPACE. COORDINATE LOCATIONS DIRECTLY WITH ELECTRICAL/DATA DRAWINGS FOR OUTLET LOCATIONS. COLOR TO BE SELECTED BY ARCHITECT.
14. CONTRACTOR SHALL PROVIDE COUNTERTOP BRACKETS AT OPEN KNEE SPACES WIDER THAN 42" (TYP.). CENTER IN OPEN AREA AND PAINT TO MATCH WALL COLOR, UNLESS NOTED OR SHOWN OTHERWISE.
15. ALIGN ALL WALL TILE JOINTS WITH FLOOR TILE JOINTS, UNLESS NOTED OR SHOWN OTHERWISE.
16. RE: EQUIPMENT DRAWINGS & SPECS. FOR EQUIPMENT ITEMS SHOWN DASHED, PROVIDED BY EQUIP. CONSULTANT AND/ OR SUPPLIED BY OWNER. COORDINATE WITH OTHER TRADES AS NECESSARY.
17. MECH. & ELEC. SYMBOLS AND OUTLETS ARE SHOWN FOR REFERENCE ONLY. COORDINATE LOCATIONS WITH MEP DRAWINGS. CONSULT ARCHITECT FOR CLARIFICATION, IF NECESSARY.

collins | webb ARCHITECTURE
13A SW 3rd Street, Lee's Summit, Mo, 64063 P- 816.249.2270 (www.collinsandwebb.com)

3RD STREET DISPENSARY

510 SW 3rd St., Lee's Summit, MO 64063

PERMIT SET

REVISION DATES:

STATE OF MISSOURI
ROGER L. WEBB II
NUMBER A-2016004008
ARCHITECT
3/27/20

PROFESSIONAL SEAL

A701

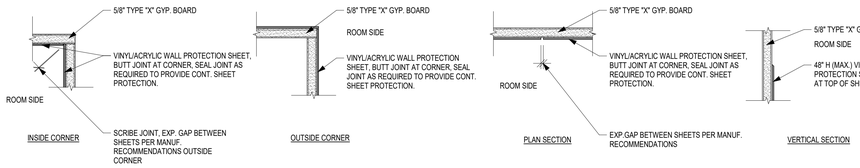
ISSUE DATE: 03/27/2020

COLLINS WEBB #: 19026

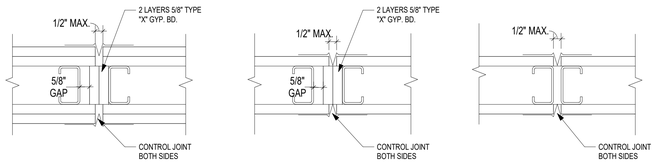
INTERIOR ELEVATIONS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/10/2020

3/26/2020 1:59:28 PM



D9 WALL PROTECTION DETAILS
3" = 1'-0"

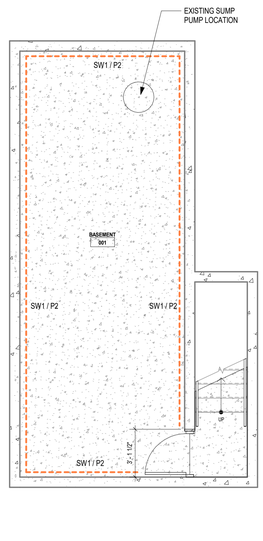


H4 CONTROL JOINT DETAILS
3" = 1'-0"

FINISH LEGEND					
SYMBOL	**MATERIAL**	**MANUFACTURER**	**TYPE**	**COLOR**	**TYP. AREA / REMARKS**
C1	CARPET TILE (18"X36")	BENTLEY MILLS	OUTLIER 8OU23	BRINK 801674	MONOLITHIC INSTALLATION
LVT1	LUXURY VINYL PLANK TILE (9"x59.7"x5mm)	MILLIKEN	NATURAL LOOSE LAY, PIKE	PIK 121-204 DEW	
P1	INTERIOR LATEX PAINT	PPG	FLAT	14-03 SEAGULL	
P2	INTERIOR LATEX PAINT; ZERO VOC	PPG	SATIN	1006-3 EARLY EVENING	GENERAL
P3	INTERIOR LATEX PAINT; ZERO VOC	PPG	SATIN	1007-3 GHOST WRITER	
P4	INTERIOR LATEX PAINT; ZERO VOC	PPG	ACRYLIC ENAMEL; SEMI-GLOSS	1006-3 EARLY EVENING	HM DOOR & FRAMES
P5	INTERIOR DRYFALL PAINT	PPG	DRYFALL	14-03 SEAGULL	OTS IN CORRIDOR & LOBBIES
PL1	PLASTIC LAMINATE	LAB DESIGNS	PREMIUM WOOD GRAIN	W0040WK VAIL WOOD	CABINETS
PL2	PLASTIC LAMINATE	FORMICA	SOLID COLOR	949 WHITE	STORAGE 102
RB1	RUBBER BASE (2 1/2"H)	ROPPE	PINNACLE, STANDARD TOE	TBD	BOH
RE1	RESINOUS EPOXY	STONHARD	STONSHIELD W/ LIGHT TEXTURE	FLAGSTONE	
SS1	SIMULATED SURFACE; QUARTZ	CAMBRIA	LUXURY SERIES / 3CM W/ EASED EDGES	SKAARA BRAE	LOBBY
SS2	SIMULATED SURFACE; QUARTZ	CAMBRIA	DESERT COLLECTION / 2CM W/ EASED EDGES	WHITEHALL	
ST1	WOOD STAIN			CUSTOM STAIN TO MATCH LVT1	
SW1	PVC SLAT WALL	PROSLAT		WHITE	BACK OF HOUSE; INSTALL ABOVE WALL BASE TO CEILING
T1	PORCELAIN TILE (12"x24"x.80CM)	CST TILE / FIANDRE	TAO, POLISHED	WHITE	RESTROOM
T2	PORCELAIN TILE (6"x18"x5/16")	JAECKLE DISTRIBUTORS / RAGNO	AURA DOLCE	AD11 MERINGUE FLAT	RESTROOM
TB1	PORCELAIN TILE BASE - BULLNOSE (4"Hx24") - CUT TO SIZE	CST TILE / FIANDRE	POLISHED WITH BULLNOSE EDGE	WHITE	RESTROOM
TG1	TILE GROUT - EPOXY (1/16" GROUT JOINTS)	LATICRETE		TBD	TO BE USED WITH T1
TG2	TILE GROUT - EPOXY (1/16" GROUT JOINTS)	LATICRETE		TBD	TO BE USED WITH T2
WB1	WOOD BASE (3"H x 3/4")		BIRCH	PAINTED TO MATCH ADJACENT WALL COLOR	
WC1	VINYL WALLCOVERING - 54"	KOROSEAL	CLODAUGH TRAIL	CL05-01 FROST	OFFICE
WC2	VINYL WALLCOVERING - 54"	KOROSEAL	STONE RHYTHM	67440 BLACK/GOLD	RESTROOM
WC3	VINYL WALLCOVERING - 51"	INNOVATIONS	RANGOON SILK	RS8503 SHADOW	LOBBY ACCENT
WD1	WOOD PANELING		SOLID BIRCH	CUSTOM STAIN TO MATCH LVT1 (ST1)	CUSTOM MILLWORK DISPLAY
WM1	ENTRANCE MAT TILE (18"x18"x1/4")	MATS INC	AQUA BLOCK TILE	GRAY	MAIN ENTRY
WT1	WINDOW TREATMENT, ROLLER SHADES	HUNTER DOUGLAS	3% OPENING	TBD	INSTALL AT INTERIOR FACE OF ALL EXTERIOR WINDOWS

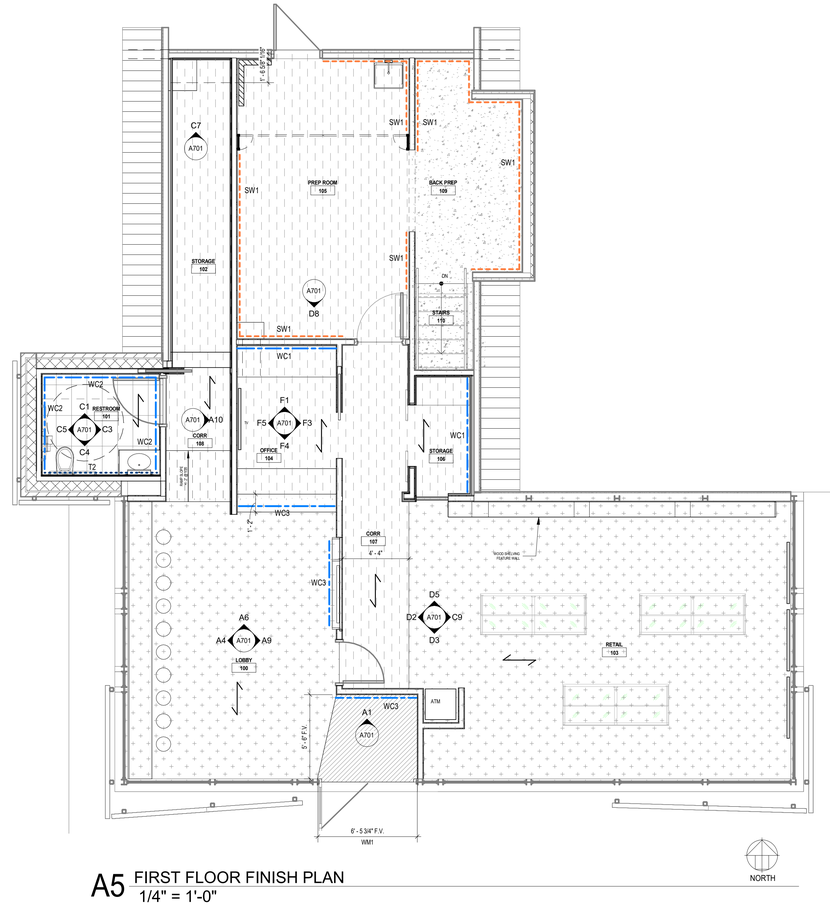
MANUFACTURER	CONTACT NAME	DISTRIBUTOR (IF APPLICABLE)	PHONE	EMAIL	
BENTLEY MILLS	ALI SKILLING		913.387.7667	ALI.SKILLING@BENTLEYMILLS.COM	
CAMBRIA	SHELBY LEWIS		816.506.7134	SHELBY.LEWIS@CAMBRIAUSA.COM	
FIANDRE	SHELLEY DORSH	CENTRAL STATES TILE (CST)	913.645.8380	SHELLEY@CSTTILE.COM	
INNOVATIONS	MICHELLE GRIFFITH	GRIFFITH CONTRACT GROUP	913.220.8285	MICHELLE@GRIFFITHCONTRACTGROUP.COM	
KOROSEAL	TAMRA SMITH		816.728.3971	TSMITH@KOROSEAL.COM	
LAB DESIGNS	STEVE LAMMERS	PARKWOOD CHICAGO	636.346.7406	SLAMMERS@PARKWOODCHICAGO.COM	
MATS INC	JOHN MURPHY		913.219.4657	JOHN@GREENPLANETSALES.COM	
MILLIKEN	RHONDA REED		913.907.7585	RHONDA.REED@MILLIKEN.COM	
PPG PAINT	REBECCA BOYD		816.642.1668	RBOYD@PPG.COM	
RAGNO	MARIANA EASTHAM	JAECKLE DISTRIBUTORS	913.725.0392	MARIANA.EASTHAM@JAECKLEDISTRIBUTORS.COM	
ROPPE	LAURA KNIGHT	ALL SURFACES INC.	913.608.6230	LKNIGHT@ALLSURFACESINC.COM	
STONHARD	JASON MACIULA		214.680.2494	JMACIULA@STONHARD.COM	

ROOM FINISH SCHEDULE												
		FLOORS		WALL FINISH					CASEWORK			
RM. NO.	**ROOM NAME**	**FLOOR**	**WALL BASE**	**NORTH WALL**	**EAST WALL**	**SOUTH WALL**	**WEST WALL**	**CEILING FINISH**	**COUNTERTOP**	**BASE CABINET**	**UPPER CABINET**	**REMARKS**
001	BASEMENT	RE1	RB1	SW1 / P2	SW1 / P2	SW1 / P2	SW1 / P2	GYP, P1	-	-	-	4, 7, 8
100	LOBBY	C1, WM1	WB1	WD1, P2, WC3	P2	P2	P2	EXP, P5	SS1	-	-	
101	RESTROOM	T1	TB1	WC2	WC2	T2	WC2	GYP, P1	-	-	-	2, 6
102	STORAGE	LVT1	WB1	P2	P2	P2	P2	GYP, P1 / EXP, P5	PL2	PL1	PL1	
103	RETAIL	C1	WB1	P2	P2	P2	P2	EXP, P5		-	-	
104	OFFICE	LVT1	WB1	WC1	P3	P3	P3	EXP, P5	SS2	PL1	-	
105	PREP ROOM	LVT1	RB1	SW1	SW1	SW1	SW1	EXP, P5 / GYP, P1				4, 8
106	STORAGE	LVT1	RB1	P3	WC1	P3	P3	GYP, P1	SS2			
107	CORR	LVT1	RB1	P2	P2	P2	P2	GYP, P1 / EXP, P5				
108	CORR	LVT1	RB1	P2	P2	P2	P2	GYP, P1				
109	BACK PREP	RE1 / LVT1	RB1	SW1 / P2	SW1 / P2	SW1 / P2	SW1 / P2	EXP, P5				1, 4, 7, 8
110	STAIRS	RE1	RB1	P2	P2	P2	P2	EXP, P5				
111	RETAIL	C1	WB1	P2	P2	P2	P2	EXP, P5		-	-	



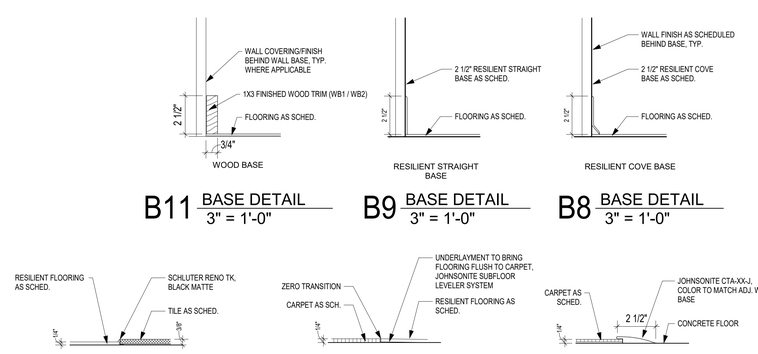
A7 LOWER LEVEL FINISH PLAN
1/4" = 1'-0"

NORTH



A5 FIRST FLOOR FINISH PLAN
1/4" = 1'-0"

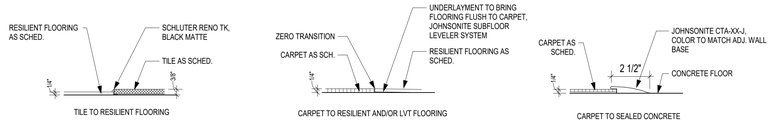
NORTH



B11 BASE DETAIL
3" = 1'-0"

B9 BASE DETAIL
3" = 1'-0"

B8 BASE DETAIL
3" = 1'-0"



A12 TRANSITION DETAIL
3" = 1'-0"

A10 TRANSITION DETAIL
3" = 1'-0"

A8 TRANSITION DETAIL
3" = 1'-0"

GENERAL NOTES - FINISH FLOOR PLANS:

1. RE: G-SHEETS FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. RE: FINISH LEGEND, FINISH SCHEDULE, AND FLOOR FINISH PLANS FOR SPECIFIC FLOOR FINISH INFORMATION AND LOCATIONS.
3. RE: FINISH DETAILS SHEET FOR ADDITIONAL FINISH AND FLOOR TRANSITION CONDITIONS.
4. FLOOR FINISH PATTERN SHALL BE CENTERED IN ROOM, UNLESS NOTED OTHERWISE.
5. ALIGN ALL WALL TILE JOINTS WITH FLOOR TILE JOINTS, UNLESS NOTED OR SHOWN OTHERWISE.
6. FLOOR FINISH MATERIAL AND/ OR PATTERN SHALL BE INSTALLED UNDER TOE KICKS OF CASEWORK/MILLWORK, UNDER OPEN COUNTERTOPS, AND UNDER EQUIPMENT.
7. FLOOR MATERIAL/ COLOR TRANSITIONS TO ALIGN WITH ROOM SIDE OF DOOR STOP, UNLESS NOTED OR SHOWN OTHERWISE.
8. INSTALL TRANSITION STRIPS AT ALL FLOOR FINISH MATERIAL CHANGES, UNLESS NOTED OTHERWISE.

GENERAL NOTES - WALL FINISH PLANS:

1. RE: G-SHEETS FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. RE: FINISH LEGEND & FINISH SCHEDULE FOR SPECIFIC FINISH INFORMATION & LOCATIONS.
3. CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING FOR WALL PROTECTION ATTACHMENT. THIS INCLUDES, BUT IS NOT LIMITED TO: HANDRAILS,POSTER CASES, TV MONITORS, BATHROOM ACCESSORIES, FIRE EXTINGUISHERS AND EQUIPMENT. RE: ROUGH CARPENTRY SPECIFICATION SECTION FOR CLARIFICATION.
4. CONTRACTOR SHALL PROVIDE MANUFACTURERS STANDARD ACCESSORY MOLDING OR TRIM FOR WALL PROTECTION ITEMS, UNLESS NOTED OTHERWISE.
5. IF WALL IS LESS THAN 18" WIDE DO NOT PROVIDE HANDRAIL. HANDRAILS SHOULD STOP APPROXIMATELY 3" FROM THE OPEN SWING OF A DOOR. HANDRAILS SHOULD STOP APPROXIMATELY 3" FROM A CORNER GUARD.

ROOM FINISH SCHEDULE REMARKS:

1. ALL PAINTED SURFACES TO RECEIVE EPOXY PAINT, EGGSHELL FINISH.
2. PROVIDE FULL HEIGHT WALL TILE AT WET WALLS, AS INDICATED.
3. PROVIDE WALL TILE TO 5'-0" AFF AT WET WALLS, AS INDICATED.
4. PROVIDE PLYWOOD (4'Wx8'H) PANELS ALONG PERIMETER OF ROOM AS SUBSTRATE TO SLAT WALL.
5. PROVIDE FRP TO 3'-0" AFF.
6. PROVIDE BULLNOSE EDGE AT EXPOSED EDGE OF WALL TILE BASE (TB1).
7. PROVIDE ADD ALTERNATE FOR FULL HEIGHT SLAT WALL (SW1), IN LIEU OF PAINTED SURFACE.
8. PROVIDE DEDUCT ALTERNATE FOR LVT1, IN LIEU OF RESINOUS EPOXY FLOORING (RE1).

FLOOR FINISH LEGEND	
	GRAIN / PATTERN INSTALL DIRECTION
	WM1
	C1: CARPET TILE
	RE1: RESINOUS EPOXY
	T1 (12"x24")
	LVT1: LUXURY VINYL TILE

ALL FLOOR FINISHES ARE **NOT** GRAPHICALLY SHOWN, ONLY THOSE FOR TRANSITION CLARIFICATION.

WALL FINISH LEGEND	
	SLAT WALL (SW1)
	WALL TILE (T)
	WALLCOVERING, (WC1)
	ACCENT PAINT (P)

ALL WALL FINISHES ARE **NOT** GRAPHICALLY SHOWN . REFER TO SHEETS A9.01 AND A7.00 SERIES FOR SPECIFIC LOCATIONS AND MATERIALS.

collins|webb ARCHITECTURE
13A SW 3rd Street, Lee's Summit, Mo, 64063 P. 816.249.2270 (www.collinsandwebb.com)

PERMIT SET

3RD STREET DISPENSARY

510 SW 3rd St., Lee's Summit, MO 64063

REVISION DATES:

STATE OF MISSOURI ROGER L. WEBB II NUMBER A-2016004008 ARCHITECT
3/27/20
PROFESSIONAL SEAL

A903

ISSUE DATE: 03/27/2020
COLLINS WEBB #: 19026

FINISH FLOOR PLAN & DETAILS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/10/2020

3/26/2020 1:59:30 PM

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

- GRID-MOUNTED TROFFER LIGHT FIXTURE
- STRIP LIGHT 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
- $3 — LIGHT SWITCH – 3-WAY
- $4 — LIGHT SWITCH – 4-WAY
- $K — LIGHT SWITCH – KEY
- $D — LIGHT SWITCH – DIMMER
- $PL — LIGHT SWITCH – PILOT LIGHT
- $2P — LIGHT SWITCH – 2 POLE
- $D3 — LIGHT SWITCH – 3-WAY DIMMER
- $M — WALL-MOUNTED MOTION SWITCH
- (M) — CEILING-MOUNTED MOTION SWITCH
- SB — SWITCHBANK – REFER TO DETAILS
- FD1 — DIMMER BOARD
- RCS-1 — REMOTE CONTROL SWITCH AS SCHEDULED
- TC — TIMECLOCK – REFER TO PLANS / DETAILS

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 "TOWNSTONE"
- 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 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
- AV — RECESSED COMBINATION AV AND POWER OUTLET COORD LOCATION OF DEVICE WITH TV MOUNT
- TV — TELEVISION OUTLET (SINGLE GANG BOX WITH (1) 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING)

SECURITY

- FIXED CAMERA
- PTZ — PAN/TILT/ZOOM CAMERA
- PROX — PROXIMITY TYPE CARD READER
- CARD — SWIPE CARD READER
- ES — ELECTRIC STRIKE
- KP — KEYPAD / MAG LOCK
- B — BUTTON / MAG LOCK

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
- XXX — EQUIPMENT TAG. REFER TO CONNECTIONS SCHEDULE FOR ELECTRICAL CONNECTIONS AND LOAD INFO FOR KITCHEN, SHOP, ETC. EQUIPMENT

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 — FD:FIRE DAMPER FS:FIRE/SMOKE DAMPER SD:SMOKE DAMPER BD:BACKDRAFT DAMPER (GRAVITY)
- MD — AUTOMATIC MOTORIZED DAMPER
- 8"Ø A 225 — 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
- H — HUMIDISTAT
- CONTROL WIRING

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

GENERAL SYMBOLS

- INDICATES CONNECT TO EXISTING
- INDICATES ELEVATION
- XXX — EQUIPMENT TAG. REFER TO CONNECTIONS SCHEDULE FOR MECHANICAL CONNECTIONS AND LOAD INFO FOR KITCHEN, SHOP, ETC. EQUIPMENT

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)
- FD — 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
- W&V XX — PLUMBING RISER CALLOUT (REFERS TO RISER DIAGRAM)

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.
- HI / LOW — PRESSURE REDUCING VALVE
- RELIEF VALVE
- WATER HAMMER ARRESTER

ABBREVIATIONS

A/E	ARCHITECT / ENGINEER	ELEV	ELEVATION	MH	MANHOLE
AFF	ABOVE FINISHED FLOOR	EM	EMERGENCY FIXTURE/DEVICE	MLO	MAIN LUGS ONLY
AFG	ABOVE FINISHED GRADE	EWT	ENTERING WATER TEMPERATURE	NFA	NET FREE AREA
AG	ABOVE GRADE	EX	EXISTING ITEM	NL	NIGHT LIGHT
AHU	AUTHORITY HAVING JURISDICTION	FFA	FROM FLOOR ABOVE	OA	OUTSIDE AIR
AHU	AIR HANDLING UNIT	FFB	FROM FLOOR BELOW	ORD	OVERFLOW ROOF DRAIN
ARCH	ARCHITECT	FFCO	FINISHED FLOOR CLEAN OUT	P/C	PLUMBING CONTRACTOR
BFP	BACKFLOW PREVENTER	FGCO	FLUSH GRADE CLEAN OUT	PSI	POUNDS PER SQUARE INCH
BG	BELOW GRADE	FL	FLOW LINE	PVC	POLYVINYLCHLORIDE
BLDG	BUILDING	FLR	FLOOR	RA	RETURN AIR
BMS	BUILDING MANAGEMENT SYSTEM	FP	FIRE PROTECTION	RE/REF	REFER / REFERENCE
C	CONDUIT	FPM	FEET PER MINUTE	RF	RELIEF FAN
CD	CANDELA	FWCO	FLUSH WALL CLEAN OUT	RL	RELOCATED ITEM
CD	COLD DECK	G	GROUND / GANG	RPZ	REDUCED PRESSURE ZONE
CLG	COOLING	G/C	GENERAL CONTRACTOR	RR	RESTROOM
CM	COORDINATE MOUNTING HEIGHT	GFI	GROUND FAULT CIRCUIT INTERUPTER	SA	SUPPLY AIR
CO	CLEAN OUT	GFIP	GFI-PROTECTED DEVICE	SPD	SURGE PROTECTIVE DEVICE
CTE	CONNECT TO EXISTING	GPM	GALLONS PER MINUTE	ST	SHUNT TRIP
DCVA	DOUBLE CHECK VALVE ASSEMBLY	HD	HOT DECK	TA	TRANSFER AIR
DCW	DOMESTIC COLD WATER	HTG	HEATING	TFA	TO FLOOR ABOVE
DDC	DIRECT DIGITAL CONTROLS	IG	ISOLATED GROUND	TFB	TO FLOOR BELOW
DF	DRINKING FOUNTAIN	JB	JUNCTION BOX	TP	TAMPERPROOF
DHW	DOMESTIC HOT WATER	LED	LIGHT EMITTING DIODE	TYP	TYPICAL
DHWR	DOMESTIC HOT WATER RETURN	LWT	LEAVING WATER TEMPERATURE	UNO	UNLESS NOTED OTHERWISE
DIA	DIAMETER	M/C	MECHANICAL CONTRACTOR	VRF	VARIABLE REFRIGERANT FLOW
DN	DOWN	MA	MIXED AIR	VTR	VENT THROUGH ROOF
E/C	ELECTRICAL CONTRACTOR	MAU	MAKE UP AIR UNIT	WCO	WALL CLEANOUT
EA	EXHAUST AIR	MCB	MAIN CIRCUIT BREAKER	WG	WIRE GUARD
EDF	ELECTRIC DRINKING FOUNTAIN	MECH	MECHANICAL	WP	WEATHERPROOF

FIRE SEALING NOTES

1. COORDINATE CONSTRUCTION OF OPENINGS AND PENETRATING ITEMS TO ENSURE THAT THROUGH-PENETRATION FIRESTOP SYSTEMS ARE INSTALLED ACCORDING TO SPECIFIED AND APPLICABLE UL REQUIREMENTS.
2. COORDINATE SIZING OF SLEEVES, OPENINGS, CORE-DRILLED HOLES, OR CUT OPENINGS TO ACCOMMODATE THROUGH-PENETRATION FIRESTOP SYSTEMS.
3. DO NOT COVER UP THROUGH-PENETRATION FIRESTOP SYSTEM INSTALLATIONS UNTIL EXAMINED BY INSPECTOR, IF REQUIRED BY AUTHORITIES HAVING JURISDICTION.
4. COMPATIBILITY: PROVIDE THROUGH-PENETRATION FIRESTOP SYSTEMS THAT ARE COMPATIBLE WITH ONE ANOTHER; WITH THE SUBSTRATES FORMING OPENINGS; AND WITH BOTH ITEMS, IF ANY, PENETRATING THROUGH-PENETRATION FIRESTOP SYSTEMS, UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY THROUGH-PENETRATION FIRESTOP SYSTEM MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE.
5. PROVIDE COMPONENTS FOR EACH THROUGH-PENETRATION FIRESTOP SYSTEM THAT ARE NEEDED TO INSTALL FILL MATERIALS. USE ONLY COMPONENTS SPECIFIED BY THROUGH-PENETRATION FIRESTOP SYSTEM MANUFACTURER AND APPROVED BY QUALIFIED TESTING AND INSPECTING AGENCY FOR FIRESTOP SYSTEMS INDICATED.
6. PROVIDE SLEEVES THROUGH ALL FIRE-RATED WALLS AND FILL VOIDS SURROUNDING SLEEVES AND INTERIOR TO SLEEVES AROUND PIPING WITH FIRE STOP PUTTY WITH U.L. LISTED 3 HOUR RATING INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
7. FIRE SEAL ALL PIPING, CONDUIT, CABLE, ETC PENETRATIONS ROUTED THROUGH FIRE RATED WALLS.
8. PROVIDE FIRE RATED ENCLOSURES OR WRAPS ON LIGHT FIXTURES AND OTHER ITEMS PENETRATING FIRE RATED CEILINGS, FLOOR/CEILING/ CEILING/ROOF ASSEMBLIES TO MAINTAIN UL LISTING FOR CONSTRUCTION.

GEN. RENOVATION NOTES

1. DISCONNECT AND REMOVE ANY EQUIPMENT, PIPING OR DUCTWORK THAT WAS INSTALLED AS PART OF THE BUILDING SHELL THAT IS NOT NEEDED OR CONFLICTS WITH THIS BUILD OUT.
2. EXISTING UNDERGROUND PIPING LOCATIONS ARE ESTIMATED BASED UPON ANTICIPATED ROUTINGS. FIELD VERIFY EXACT LOCATIONS DURING CONSTRUCTION AND PROVIDE ALL NECESSARY MODIFICATIONS.
3. SAWCUT GRADE FLOOR SLABS TO INSTALL NEW PIPING, MECHANICAL SYSTEMS, ELECTRICAL FLOOR BOXES AND ALL ASSOCIATED CONDUIT, ETC. PATCH FLOOR TO MAKE LIKE NEW AFTER INSTALLATION. TAKE CARE TO LOCATE EXISTING CONDUIT, ETC AND AVOID CUTTING EXISTING CONDUITS BY NOT OVER-CUTTING SLAB DEPTH.
4. SAWCUT AND CORE DRILL OPENINGS AS REQUIRED FOR ABOVE GRADE SLAB PENETRATIONS. X-RAY SLABS TO ASCERTAIN STEEL AND EXISTING CONDUIT PENETRATIONS PRIOR TO CUTTING. VERIFY OPENINGS WITH STRUCTURAL ENGINEER PRIOR TO CUTTING.
5. HOMERUN CIRCUITS TO 20 AMP, SINGLE POLE BREAKERS IN PANELBOARDS INDICATED. UTILIZE SPARE BREAKERS MADE AVAILABLE BY DEMOLITION, IF NO SPARE BREAKER IS AVAILABLE, PROVIDE NEW BREAKER.
6. EXISTING CIRCUITING MAY BE RE-USED WHERE POSSIBLE.
7. CONCEAL NEW CIRCUITING IN WALLS WHERE POSSIBLE. FOR NEW DEVICES INSTALLED ON EXISTING SOLID WALLS, CONCEAL CIRCUITING IN WIREMOLD. COORDINATE FINISH AND GENERAL ROUTING OF WIREMOLD WITH ARCHITECT TO BE AS CONCEALED AND/OR ROUTED IN A NEAT AND ORGANIZED CONSISTENT MANNER.
8. ALL LIGHTING FIXTURES THAT ARE RELOCATED OR OTHERWISE AFFECTED BY THE SCOPE OF WORK SHALL BE CLEANED AND RELAMPED.

GEN. MECHANICAL NOTES

1. COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE INTERNATIONAL MECHANICAL CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
2. ANY POWER FOR CONTROL SYSTEMS TO BE PROVIDED BY E/C IS INDICATED ON ELECTRICAL PLANS. ANY ADDITIONAL LINE VOLTAGE OR LOW VOLTAGE POWER REQUIRED BY THE M/C OR SUBCONTRACTORS TO HAVE A FULLY FUNCTIONING SYSTEM SHALL BE PROVIDED BY THE M/C CONTRACTOR OR SUBS.
3. ALL EQUIPMENT SHALL BE ADEQUATELY AND PROPERLY SUPPORTED AND FASTENED FROM STRUCTURE.
4. ALL EQUIPMENT AND ACCESSORIES INSTALLED IN CONCEALED SPACES REQUIRING ACCESS SHALL BE PROVIDED WITH ACCESS DOORS MEETING ANY FIRE REQUIREMENTS OF THE WALL/CEILING THEY ARE INSTALLED.
5. EACH AIR HANDLING UNIT OVER 2000CFM SHALL BE PROVIDED WITH A SMOKE DETECTOR TO SHUT DOWN THE UNIT PER IMC 606 AS REQUIRED BY AHJ. COORDINATE WITH OTHER TRADES.
6. START UP AND ADJUST ALL EQUIPMENT AND VERIFY ALL MECHANICAL SYSTEMS IN OPERATE IN ACCORDANCE WITH THEIR INTENDED PURPOSES. SUBMIT BALANCE AND START UP REPORTS TO THE A/E. REFER TO SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.

GENERAL PLUMBING NOTES

1. COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE INTERNATIONAL PLUMBING CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
2. NO PIPING SHALL BE INSTALLED WHERE IT WILL SUBJECT TO FREEZING TEMPERATURES. PIPING IN EXTERIOR WALLS SHALL BE INSTALLED ON THE WARM SIDE OF BUILDING INSULATION, INSULATED AND THE CHASE SHALL BE VENTILATED WITH GRILLES ALLOWING INDOOR AMBIENT CONDITIONS TO CIRCULATE THROUGH THE CHASE.
3. PROVIDE CLEANOUTS IN THE FOLLOWING LOCATIONS:
   - 3.1. IN ALL HORIZONTAL DRAINS (WITHIN THE BUILDING) NOT MORE THAN 100 FEET APART.
   - 3.2. IN BUILDING SEWERS LOCATED NO MORE THAN 100 FEET APART MEASURED FROM THE UPSTREAM ENTRANCE OF THE CLEANOUT.
   - 3.3. EACH CHANGE OF DIRECTION OF THE BUILDING DRAIN OR HORIZONTAL WASTE OR SOIL LINES GREATER THAN 45 DEGREES. WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING, ONLY ONE CLEANOUT SHALL BE REQUIRED FOR EACH 40 FEET OF DEVELOPED LENGTH OF THE DRAINAGE PIPING.
   - 3.4. AT THE BASE OF EACH WASTE OR SOIL STACK.
   - 3.5. NEAR THE JUNCTION OF THE BUILDING DRAIN AND BUILDING SEWER.

GENERAL ELECTRICAL NOTES

1. COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
2. COORDINATE LOCATIONS OF RECEPTACLES, SWITCHES, ETC. WITH ARCHITECTURAL CASEWORK AND ELEVATIONS.
3. REFER TO MOUNTING HEIGHTS DETAIL FOR MOUNTING HEIGHTS OF ALL DEVICES NOT INDICATED OTHERWISE.
4. PROVIDE ALL EMPTY CONDUITS WITH PULL STRINGS AND BUSHED ENDS.
5. CONTRACTOR SHALL CONCEAL ALL CONDUIT, FITTINGS, AND DEVICES FROM VIEW WHERE REASONABLY POSSIBLE.

COORDINATION NOTES

1. COORDINATE REQUIREMENTS FOR INSTALLATION OF SYSTEMS AND EQUIPMENT WITH ALL OTHER TRADES.
2. THE CONTRACTOR SHALL COORDINATE THE ROUTING AND PATH OF ALL SYSTEMS, CONDUITS, PIPES, DUCTS, ETC WITH THE POSITION AND LAYOUT OF THE STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY OFFSETS, TURNS, RISES AND DROPS FOR SYSTEMS AND COMPONENTS AS NEEDED TO INSTALL THE MEP SYSTEMS TO CLEAR STRUCTURE, CEILINGS, ETC AND OTHER SYSTEMS IN POTENTIAL CONFLICT WITH ROUTING.
3. COORDINATE WORK WITH OTHER TRADES TO INSTALL SYSTEMS ABOVE CEILING HEIGHTS INDICATED ON ARCHITECTURAL PLANS.
4. CHECK SPACE REQUIREMENTS WITH OTHER TRADES AND STRUCTURE/CONSTRUCTION TO ENSURE THAT ALL MATERIALS AND EQUIPMENT CAN BE INSTALLED IN THE SPACE ALLOTTED INCLUDING FINISHED SUSPENDED CEILINGS AND OTHER SPACES, ITEMS, ETC WITHIN THE BUILDING. MAKE MODIFICATIONS THERETO AS REQUIRED AND APPROVED.
5. TRANSMIT TO OTHER TRADES ALL INFORMATION REQUIRED FOR WORK TO BE PROVIDED UNDER THEIR RESPECTIVE SECTIONS IN AMPLE TIME FOR INSTALLATION.
6. WHEREVER WORK INTERCONNECTS WITH WORK OF OTHER TRADES, COORDINATE WITH THOSE TRADES TO ENSURE THAT ALL SUBCONTRACTORS HAVE THE INFORMATION NECESSARY SO THAT THEY MAY PROPERLY INSTALL ALL CONNECTIONS AND EQUIPMENT. IDENTIFY ALL ITEMS OF WORK THAT REQUIRE ACCESS SO THAT THE CEILING TRADE WILL KNOW WHERE TO INSTALL ACCESS DOORS AND PANELS.
7. COORDINATE, PROJECT AND SCHEDULE WORK WITH OTHER TRADES IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE.
8. DRAWINGS SHOW THE GENERAL RUNS OF CONDUITS, PIPING AND DUCTWORK AND APPROXIMATE LOCATION OF OUTLETS. ANY SIGNIFICANT CHANGES IN LOCATION OF ITEMS NECESSARY IN ORDER TO MEET FIELD CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER AND RECEIVE HIS APPROVAL BEFORE SUCH ALTERATIONS ARE MADE. ALL SUCH MODIFICATIONS SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND REPAIR OF SURFACES, AREAS AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
10. ADJUST LOCATION OF PIPING, DUCTWORK, ETC. TO PREVENT INTERFERENCES, BOTH ANTICIPATED AND ENCOUNTERED. DETERMINE THE EXACT ROUTE AND LOCATION OF EACH ITEM PRIOR TO FABRICATION. MAKE OFFSETS, TRANSITIONS AND CHANGES IN DIRECTION IN SYSTEMS AS REQUIRED TO MAINTAIN ADEQUATE CLEARANCES AND HEADROOM.
11. WHEREVER THE WORK IS OF SUFFICIENT COMPLEXITY, PREPARE ADDITIONAL COORDINATION DRAWINGS AND ORGANIZE ON-SITE MEETINGS WITH ALL RELATED SUBCONTRACTORS TO COORDINATE THE WORK BETWEEN TRADES . DRAWINGS SHALL CLEARLY SHOW THE WORK AND ITS RELATION TO THE WORK OF OTHER TRADES, AND BE SUBMITTED FOR REVIEW PRIOR TO COMMENCING SHOP FABRICATION OR ERECTION IN THE FIELD.
12. COORDINATE WITH LOCAL UTILITY PROVIDERS FOR THEIR REQUIREMENTS FOR SERVICE CONNECTIONS AND PROVIDE ALL NECESSARY PAYMENTS, MATERIALS, LABOR AND TESTING TO ACCOMPLISH THE WORK.
13. COORDINATE THE MOUNTING OF SUSPENDED LIGHT FIXTURES UTILIZING INDIRECT LIGHT SO THAT CONDUIT, DUCTWORK, STRUCTURAL MEMBERS, ETC. ARE NOT LOCATED DIRECTLY ABOVE THE LIGHT FIXTURE. MAINTAIN A MINIMUM OF 24" CLEARANCE FROM THESE ITEMS WHENEVER POSSIBLE.

GENERAL NOTES

1. SOME ROOM NAMES MAY NOT BE SHOWN FOR PURPOSE OF CLARIFYING PLAN. REFER TO ARCHITECTURAL PLANS FOR REFERENCE TO ROOM NAMES NOT SHOWN.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND KEEP AT THE JOB SITE, AN UP TO DATE SET OF "RECORD DRAWINGS" SHOWING ALL CHANGES FROM THE ORIGINAL PLANS. THE CONTRACTOR SHALL DELIVER THE "RECORD DRAWINGS" TO THE ENGINEER AT THE CONCLUSION OF THE PROJECT ELECTRONICALLY.
3. THESE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS (NEW AND EXISTING), DIMENSIONS, AND CLEARANCES PRIOR TO THE COMMENCEMENT OF WORK AND SHALL INCLUDE ALL COSTS, EQUIPMENT, MATERIAL, ACCESSORIES, ETC. REQUIRED FOR A FULLY COMPLETE, FUNCTIONAL AND CODE COMPLIANT INSTALLATION.
4. FINAL LOCATIONS OF ALL DEVICES, LIGHT FIXTURES, EQUIPMENT ETC SHALL BE INDICATED ON THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM ARCHITECTURAL PLANS. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM MEP DRAWINGS.
5. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, APPROVALS, LICENSES, ETC AS NEEDED FOR THE COMPLETE INSTALLATION AND PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL FEES AND DATA NEEDED FOR THIS.

DEMOLITION NOTES

1. ALL WORK SHOWN DARK AND DASHED IS TO BE DEMOLISHED. WORK SHOWN LIGHT IS EXISTING TO REMAIN.
2. REFER TO ARCHITECTURAL PLANS FOR FURTHER EXTENT OF DEMOLITION REQUIREMENTS.
3. ALL EXISTING PIPING SCHEDULED FOR DEMOLITION THAT ROUTES BELOW SLAB SHALL BE GROUND FLUSH WITH FLOOR, PLUGGED AND THE FLOOR PATCHED TO MATCH SURROUNDING FLOOR.
4. COORDINATE ALL DEMOLITION WORK WITH OWNER.
5. CONTACT UTILITY LOCATING SERVICE TO LOCATE EXACT LOCATION OF UTILITIES BELOW GRADE.
6. MAINTAIN ALL EXISTING DEVICES, EQUIPMENT, ASSOCIATED CIRCUITS ETC, SHOWN AS EXISTING TO REMAIN OR OTHERWISE UNRELATED TO THE SCOPE OF THE PROJECT IN WORKING ORDER.
7. CONTRACTOR SHALL REMOVE LAY-IN CEILINGS, LIGHT FIXTURES, ETC. AS REQUIRED FOR CONSTRUCTION WHERE NEEDED PRIOR TO DEMOLITION AND REPLACE SAME AFTER CONSTRUCTION. EXISTING CONDUITS ABOVE CEILINGS SHALL BE RELOCATED AND/OR TEMPORARILY REMOVED TO FACILITATE THE INSTALLATION OF NEW EQUIPMENT.
8. THE OWNER SHALL REMOVE ALL ITEMS THEY DESIRED TO SALVAGE PRIOR TO CONSTRUCTION BEGINNING.
9. NOTES AND DRAWINGS ARE BASED UPON A FIELD EXAMINATION OF THE SITE AND MAY NOT INDICATE ALL ITEMS. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE SITE AND THE SCOPE OF WORK FOR THE CONTRACT PRIOR TO BID. ANY EXISTING CONDITION WHICH IS APPARENT OR COULD BE REASONABLY INFERRED FROM A VISIT TO THE SITE SHALL NOT BE THE BASIS FOR A CHANGE IN THE CONTRACT AMOUNT.
10. REFER TO NEW WORK PLANS FOR ANY ITEMS THAT MAY REQUIRE RELOCATION AFTER DEMOLITION.
11. PROPERLY DISPOSE OF ALL DEMOLISHED ITEMS OFF SITE.
12. REMOVE ALL MISCELLANEOUS CONDUITS, PIPES, ETC, THOUGH NOT SPECIFICALLY SHOWN ON PLAN, THAT ARE EITHER UNUSED OR WILL BECOME UNUSED DUE DEMOLITION ACTIVITIES, IN ORDER TO PROVIDE A "CLEAN" SPACE FOR THE OWNER.
13. PROTECT ALL EXISTING SURFACES AND EQUIPMENT DURING CONSTRUCTION. EXISTING ITEMS TO REMAIN SHALL BE ADEQUATELY PROTECTED FROM DEMOLITION AND NEW CONSTRUCTION WORK, AS REQUIRED. ANY ITEMS DAMAGED OR MARRED SHALL BE ADEQUATELY CLEANED OR REPLACED TO THE OWNERS SATISFACTION TO ORIGINAL CONDITION BEFORE CONSTRUCTION.
14. PATCH ANY HOLES IN STRUCTURE CREATED BY REMOVAL OF DUCTWORK, CONDUITS, PIPES, ETC.
15. REMOVE ALL ITEMS SHOWN IN WALLS TO BE DEMOLISHED. ALL ELECTRICAL CONDUIT AND WIRING SHALL BE REMOVED BACK TO PANELBOARDS AND PROPERLY TERMINATED.
16. SAW CUT FLOOR FOR THE INSTALLATION OF NEW SANITARY PIPING. REFER TO PLUMBING PLANS SHOWING NEW WORK.

SHEET INDEX

PKMR ENGINEERS
PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET LENEXA, KS 66215
913.492.2400 WWW.PKMRENG.COM
MO State Certificate of Authority #E-2002020886

PERMIT SET

3RD STREET DISPENSARY

510 SW 3RD ST. LEE'S SUMMIT, MO 64063

REVISION DATES:

1	City Comments	4/3/20

STATE OF MISSOURI — KEVIN J. ZIMMERMAN NUMBER PE-2017029408 — PROFESSIONAL ENGINEER — 4/3/2020

Kevin J. Zimmerman - Engineer
MO# PE-2017029408
PROFESSIONAL SEAL

MEP0

ISSUE DATE: 03/27/2020

PKMR #: 19379

MECHANICAL, ELECTRICAL & PLUMBING COVER SHEET

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
04/10/2020

GENERAL MECHANICAL/ELECTRICAL SPECIFICATIONS

GENERAL MECHANICAL, ELECTRICAL AND PLUMBING REQUIREMENTS

1. APPLICABILITY
   - A. These general requirements apply to all divisions (21, 22, 23, 26, 27, 28). Refer to individual divisions as included for specific information regarding each trade or scope of work.
2. GENERAL REQUIREMENTS
   - A. Furnish & install all labor & materials required for complete, functioning, mechanical & plumbing systems w/ all associated equipment & apparatus as shown on plans.
   - B. 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.
   - C. All materials shall be new & shall bare UL label where applicable.
   - 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 materials, 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. Requirements under Division one & general & supplementary conditions of these specifications shall be part of this section. Contractor shall become thoroughly acquainted w/ its contents as to requirements that affect this Division of work required under this section includes material. Equipment, appliances. Transportation. Services. & labor required to complete entire system as required by drawings & specifications.
   - I. The specifications & drawings for project are complementary, & portions of work described in one, shall be provided as if described in both. In event of discrepancies, notify engineer & request clarification prior to proceeding w/ work involved.
3. EXTENT OF CONTRACT WORK
   - A. Provide MEP systems indicated on drawings, specified or reasonably implied. In addition to specific equipment called out in plans and specifications, provide every device, component, programming, interlocking and accessory necessary for proper operation and completion of totally functional MEP systems.
   - B. In no case will claims for fExtra Workôbe allowed for work about which Contractor could have been informed before bids were taken.
   - C. Contractor shall become familiar with equipment provided by other contractors that require plumbing connections and controls.
   - D. Electrical work required to install and control plumbing equipment, which is not shown on plans or specified under Division 26, shall be included in Contractor's base bid proposal.
   - E. All automatic temperature control devices shall be mounted as indicated in automatic temperature control section of specifications.
   - F. The cost of larger wiring, conduit, control and protective devices resulting from installation of equipment which was not used for basis of design as outlined in specifications shall be paid for by the supplying Contractor at no cost to Owner or Architect Engineer.
   - G. Contractor shall be responsible for providing supervision to other trade Contractors to insure that required connections, interlocking and interconnection of MEP equipment is made to attain intended control sequences and system operation.
   - H. Contractor shall obtain complete MEP data on shop drawings and shall list this data on an approved form that shall be presented on request, to other trade Contractors. Data shall be complete with wiring diagrams received to date and shall contain necessary data on electrical components of plumbing equipment such as HP, voltage, amperes, watts, locked rotor current to allow other trade Contractors to order support or other equipment coordinated as required in his contract.
4. DEFINITIONS
   - A. Whenever used in these specifications or drawings, following terms shall have indicated meanings:
   - B. Furnish: term "Furnish" is used to mean "supply & deliver to project site. Ready for unloading, unpacking, assembly. Installation & similar operations.
   - C. Install: term "Install" is used to describe operations at project site including actual "unloading, unpacking. Assembly. Erection. Placing. Anchoring. Applying, working to dimension. Finishing, curing, protecting, cleaning. & similar operations."
   - D. Provide: term "Provide" means "to Furnish & Install. Complete & ready for intended use." furnished by owner or furnished by others: item will be furnished by owner or others. It is to be installed & connected under requirements of this Division, complete & ready for operation, including items incidental to work, including services necessary for proper installation & operation. Installation shall be included under guarantee required by this Division.
   - E. Engineer: where referenced in this Division, "Engineer" is engineer of record & design professional for work under this Division, & is consultant to, & an authorized representative of, architect. As defined in general &/or supplementary conditions. When used in this Division. It means increased involvement by. & obligations to, engineer, in addition to involvement by. & obligations to, "Architect".
   - F. AHJ: local code &/or inspection agency (authority) having jurisdiction over work.
   - G. The terms "Approved equal", "Equivalent", Or "Equal" are used synonymously & shall mean "accepted by or acceptable to engineer as equivalent to item or manufacturer specified".
   - H. The term "approved" shall mean labeled, listed, Or both. By nationally recognized testing laboratory (e.g. UL. ETL. CSA). & acceptable to AHJ over this project.
5. PREBID SITE VISIT
   - A. Prior to submitting bid. Visit site of proposed work & become fully informed as to conditions under which work is to be done. Failure to do so will not be considered sufficient justification to request or obtain extra compensation over & above contract price.
6. MATERIAL & WORKMANSHIP
   - A. Provide new material, equipment. & apparatus under this contract unless otherwise stated herein. Of best quality normally used for purpose in good commercial practice & free from defects. Model numbers listed in specifications or shown on drawings are not necessarily intended to designate required trim, written descriptions of trim govern model numbers.
   - B. Pipe, fittings, specialties & valves shall be manufactured in USA. Work performed under this contract shall provide neat & "workmanlike" appearance when completed to satisfaction of architect & engineer. Workmanship shall be finest possible by experienced mechanics. Installations shall comply w/ applicable codes & laws. Complete installation shall function as designed & intended w/ respect to efficiency, capacity, noise level. etc. Abnormal noise caused by rattling equipment, piping, ducts, air devices & squeaks in rotating components will not be acceptable. In general materials & equipment shall be of commercial specification grade in quality. Light duty & residential equipment is not acceptable.
   - C. Remove from premises waste material present from work, including cartons, crating, paper, stickers, &/or excavation material not used.
   - D. Clean equipment installed under this contract to present neat & clean installation at completion.
   - E. Repair or replace public & private property damaged as result of work performed under this contract to satisfaction of authorities & regulations having jurisdiction.
7. COORDINATION
   - A. Coordinate work w/ other trades so various components of systems will be installed at proper time will fit available space & will allow proper service access for maintenance. Components which are installed without regard to above shall be relocated at no additional cost to owner.
   - B. Unless otherwise indicated, general contractor will provide chases & openings in building construction required for installation of systems specified herein. Contractor shall furnish general contractor w/ information where chases & openings are required.
   - C. Keep informed as to work of other trades engaged in construction of project & execute work in manner as to not interfere w/ or delay work of other trades. Figured dimensions shall be taken in preference to scale dimensions.
   - D. Contractor shall take his own measurements at building, as variations may occur. Contractor will be held responsible for errors that could have been avoided by proper checking & inspection.
   - E. Provide materials w/ trim that will properly fit types of ceiling, wall. Or floor finishes actually installed. Model numbers listed in specifications or shown on drawings are not intended to designate required trim.
   - F. Obtain equipment submittal information for all pieces of equipment to be connected to from other trades that clearly indicates all connection requirements, locations, sizes, and similar requirements. Obtain this information in ample time to coordinate other trade submittals and equipment coordination. Where requirements differ from that on plans or differs from provisions made in the work, immediately notify the architect/engineer. Do not proceed with work that is incompatible with equipment provided.
   - G. Coordinate construction operations included in different sections of the specifications to ensure efficient and orderly installation of each part of the work. Coordinate construction operations, included in different sections, that depend on each other for proper installation, connection, and operation.
   - H. Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the work. Each contractor shall coordinate its operations with operations, included in different sections, that depend on each other for proper installation, connection, and operation.
   - I. Schedule construction operations in sequence required to obtain the best results where installation of one part of the work depends on installation of other components, before or after its own installation.
   - J. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
   - K. Make adequate provisions to accommodate items scheduled for later installation.
   - L. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.
   - M. Prepare coordination drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities. Content: project-specific information, drawn accurately to scale. Do not base coordination drawings on reproductions of the contract documents or standard printed data. Include the following information, as applicable:
     1) Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
     2) Indicate required installation sequences.
     3) Indicate dimensions shown on the contract drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to architect for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the contract.
   - N. Meetings: conduct project coordination meetings at regular intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.
     1) Attendees: each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with project and authorized to conclude matters relating to the work. Notify architect of meeting.
     2) Agenda: review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress.
     3) Combined contractor's construction schedule: review progress since the last coordination meeting. Determine whether each contractor is on time, ahead or behind schedule, in relation to construction schedule. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the contract time. Discuss impact of various contractor schedules upon other contractors and how to remedy impacts.
     4) Review present and future needs of each contractor present
   - O. After shop drawings have been reviewed and approved by all parties, transmit a set of submittals to each other trade (eg Plumbing, Mechanical, Electrical. Controls, etc) that will interface with installation. Each other contractor shall review the submittal for coordination and return a stamped submittal indicating they have reviewed the submittal for coordination purposes.
8. ARCHITECTURAL VERIFICATION AND RELATED DOCUMENTS
   - A. Contractor shall consult all Architectural Drawings and specifications in their entirety incorporating and certifying all millwork, furniture, and equipment rough-in including utility characteristics such as voltage, phase, amperage, pipe sizes, duct sizes, including height, location and orientation. Shop drawings incorporating these requirements should be submitted to the Architect for approval prior to installation or rough in.
9. ORDINANCES & CODES
   - A. Work performed under this contract shall. At minimum, be in conformance w/ applicable national, state & local codes having jurisdiction.
   - B. Installation work performed under this contract shall be in strict compliance w/ current applicable codes adopted by local AHJ including any amendments & standards as set forth by National Fire Protection Association (NFPA). Underwriters Laboratories (UL), Occupational Safety & Health Administration (OSHA). American Society of Mechanical Engineers (ASME). American Society of Heating, Refrigeration, & Air Conditioning Engineers (ASHRAE). American national standards institute (ANSI), American Society of Testing Materials (ASTM) & other national standards & codes where applicable.
   - C. Where contract documents exceed requirements of referenced codes. Standards, etc., contract documents shall take precedence.
   - D. Procure & pay for permits & licenses required for accomplishment of work herein described. Where required, obtain. Pay for & furnish certificates of inspection to owner. Contractor will be held responsible for violations of law.
10. STANDARDS
    - A. Drawings and specifications indicate minimum construction standard. Should any work indicated be sub standard to any ordinances, laws, codes, rules or regulations bearing on work, Contractor shall promptly notify Architect Engineer in writing before proceeding with work so that necessary changes can be made. However, if the Contractor proceeds with work knowing it to be contrary to any ordinances, laws, rules, and regulations, Contractor shall thereby have assumed full responsibility for and shall bear all costs required to correct non complying work.
11. PROTECTION OF EQUIPMENT & MATERIALS
    - A. Store & protect from damage equipment & materials delivered to job site. Cover as required to protect from dirt & damage. Plug or cap open ends of ductwork & piping systems while stored & installed during construction when not in use to prevent entrance of debris into systems. Equipment & material that has been damaged by construction activities will be rejected, & contractor is obligated to furnish new equipment & material of like kind. Keep premises broom clean from foreign material created during work performed under this contract. Piping, equipment, etc. Shall have neat & clean appearance at completion.
12. SUBSTITUTIONS
    - A. The base bid shall include only products from manufacturers specifically named in drawings & specifications. No substitution will be considered prior to receipt of bids unless written request for approval to bid has been received by engineer at least ten calendar days prior to date for receipt of bids. Request shall include name of material or equipment for substitution & complete description of proposed substitute including drawings, cuts, performance & test data & other information for evaluation. Statement setting forth changes in other materials, equipment or other work that incorporation of substitute would require shall be included.
    - B. The intent of these specifications is to allow ample opportunity for Contractor to use his ingenuity and abilities to perform the work to his and the Owner's best advantage, and to permit maximum competition in bidding on standards of materials and equipment required.
    - C. Material and equipment installed under this contract shall be first class quality, new, unused and without damage.
    - D. In general, these specifications identify required materials and equipment by naming one or more manufacturer's brand, model, catalog number and/or other identification. The first named manufacturer or product is used as the basis for design; other manufacturers named must furnish products consistent with specifications of first named product as determined by Engineer. Base bid proposal shall be based only on materials and equipment by manufacturers named, except as hereinafter provided.
    - E. Where materials or equipment are described but not named, provide required items of first quality, adequate in every respect for intended use. Such items shall be submitted to Architect Engineer for review prior to procurement.
    - F. Materials and equipment proposed for substitutions shall be equal to or superior to that specified in construction, efficiency, utility, aesthetic design, and color as determined by Architect Engineer whose decision shall be final and without further recourse. Physical size of substitute brand shall be no larger than space provided including allowances for access for installation and maintenance. Requests must be accompanied by complete descriptive and technical data including manufacturer's name, model and catalog number, photographs or cuts, physical dimensions, operating characteristics and any other information needed for comparison.
    - G. The burden of proof of merit of proposed substitute is upon proposer. Engineer's decision of approval or disapproval to bid of proposed substitution shall be final. Terms approved", "approved equal", & "equal" refer to approval by engineer as an acceptable alternate bid. No substitutions will be considered that are not bid as an alternate.
    - H. No material substitutions shall be considered for approval after to award of contract. Coordinate & verify w/ other trades whether or not substituted equipment can be installed as shown on construction drawings without modification to associated systems or architectural or engineering design. Include additional costs for architectural & engineering design fees in bid if drawing modifications are required because of substituted equipment.
13. SHOP DRAWINGS
    - A. Equipment to be furnished under this contract, items requiring coordination between contractors & sheet metal ductwork fabrication drawings. Before submitting shop drawings verify equipment submitted is mutually compatible & suitable for intended use & will fit available space & allow ample room for maintenance. Engineer's checking & subsequent approval of such shop drawings will not relieve contractor from responsibility for errors in dimensions, details, size of members, quantities, omissions of components or fittings; coordination of electrical requirements; or for coordinating items w/ actual building conditions. Proceed w/ procurement & installation of equipment only after receiving approved shop drawings relative to each item.
    - B. Submittal data shall be neatly organized, identified & indexed. Each item or model number shall be clearly marked & accessories indicated. Label catalog data w/ equipment identification acronym or number as used on drawings & include performance curves, capacities, sizes, materials, finishes, wiring diagrams & deviations from specified equipment or materials. Mark out inapplicable items. Shop drawings will be returned without review if above mentioned requirements are not met.
    - C. Requirements shall be met electronically & submitted as pdf in files less than 10mb.
    - D. Contractor's stamp, which shall certify that stamped drawings have been checked by contractor, comply w/ drawings & specifications, & have been coordinated w/ other trades.
    - E. Transmit submittals as early as required to support project schedule. Allow for two weeks a/e review time, plus duplication of this time for resubmittals, if required. Transmit submittals as soon as possible after notice to proceed & before construction starts. Engineer's submittal reviews will not relieve contractor from responsibility for errors in dimensions, details, size of members, or quantities; or for omitting components or fittings; or for not coordinating items w/ actual building conditions.
    - F. Final copies shall be furnished to owner as part of O&M documents in hard & electronic formats.
14. OPERATION & MAINTENANCE INSTRUCTIONS
    - A. Collect & compile complete brochure of equipment furnished & installed on this project. Include operational & maintenance instructions, manufacturer's catalog sheets, wiring diagrams, parts lists, approved shop drawings, test & balance reports, & descriptive literature as furnished by equipment manufacturer. Include an inside cover sheet that lists project name, date, owner, architect, consulting engineer, general contractor, sub-contractor, & an index of contents. Submit three copies of literature bound in 3-ring binders w/ index & tabs separating equipment types to architect at termination of work. Final approval of plumbing systems will be withheld until manual is received & deemed complete by architect & engineer. Provide "as-built" drawings (see Division 1 & general conditions).
    - B. These requirements may shall also be provided to the owner in a well organized pdf electronic submission & delivered on a DVD or USB thumbdrive.
15. TRAINING
    - A. Provide factory trained & authorized representative to train owner's designated personnel on operation & maintenance of equipment provided for this project. Provide training to include but not be limited to an overview of system &/or equipment as it relates to facility as whole; operation & maintenance procedures & schedules related to startup & shutdown, troubleshooting, servicing, preventive maintenance & appropriate operator intervention; & review of data included in operation & maintenance manuals. Submit certification letter to architect stating that owner's designated representative has been trained as specified herein. Letter shall include date, time, attendees & subject of training. Contractor & owner's representative shall sign certification letter indicating agreement that training has been provided. Schedule owner training w/ at least 7 days' advance notice.
16. SPARE PARTS
    - A. Furnish to owner, w/ receipt one set of spare filters of each type required for each unit. In addition to spare set of filters, install new filters prior to testing, adjusting, & balancing work & before turning system over to owner.
    - B. Furnish one complete set of belts for each fan.
17. EQUIPMENT LABELS:
    - A. Material and thickness: multilayer, multicolor, plastic labels for mechanical engraving, 1/16 inch thick, and having predrilled holes for attachment hardware. Black letters on white background.
    - B. Minimum label size: length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
    - C. Minimum letter size: 1/4" for name of units if viewing distance is less than 24 inches, 1/2" for viewing distances up to 72ô& proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
18. WARRANTIES
    - A. Warrant each system & each element thereof against all defects due to faulty workmanship design or material for period of 12 months from date of substantial completion unless specific items are noted to carry longer warranty in construction documents or manufacturer's standard warranty exceeds 12 months. Remedy all defects, occurring within warranty period(s) stated in general conditions & Division 1. Warranties shall include labor & material. Make repairs or replacements without any additional costs to owner. Perform remedial work promptly, upon written notice from engineer or owner.
    - B. At time of substantial completion, deliver to owner all warranties in writing & properly executed including term limits for warranties extending beyond one year period. Each warranty instrument being addressed to owner & stating commencement date & term.
19. CUTTING & PATCHING
    - A. Perform cutting of walls, floors, ceilings, etc. As required to install work under this section. Obtain permission from architect prior to cutting. Do not cut or disturb structural members without prior approval from architect. Cut holes as small as possible. General contractor shall patch walls, floors, etc. As required by work under this section. Patching shall match original material & construction. Repair & refinish areas disturbed by work to condition of adjoining surfaces in manner satisfactory to architect.
20. EXCAVATION AND BACKFILL
    - A. Perform necessary excavation to receive work. Provide necessary sheathing, shoring, cribbing, tarpaulins, etc. For this operation, and remove it at completion of work. Perform excavation in accordance with appropriate section of these specifications, and in compliance with osha safety standards.
    - B. Excavate trenches of sufficient width to allow ample working space, and no deeper than necessary for installation work.
    - C. Conduct excavations so no walls or footings are disturbed or injured. Backfill excavations made under or adjacent to footing with selected earth or sand and tamp to compaction required by architect_engineer. Mechanically tamp backfill under concrete and pavings in six inch layers to 95% standard density, reference Division 2.
    - D. Backfill trenches and excavations to required heights with allowance made for settlement. Tamp fill material thoroughly and moistened as required for specified compaction density. Dispose of excess earth, rubble and debris as directed by architect.
    - E. When available, refer to test hole information on architectural or civil drawings or specifications for types of soil to be encountered in excavations.
21. ROUGH-IN
    - A. Coordinate rough-in w/ general construction & other trades. Conceal piping & conduit rough-in except in unfinished areas & where otherwise shown.
22. STRUCTURAL STEEL
    - A. Structural steel used for support of equipment, ductwork & piping shall be new, clean, & conform to ASTM a-36. Support mechanical components from building structure. Do not support mechanical components from ceilings, other mechanical or electrical components, & other non-structural elements.
23. ACCESS DOORS
    - A. Provide access doors in ceilings, walls, etc. Where indicated or required for access or maintenance to concealed valves & equipment installed under this section. Provide concealed hinges, screwdriver-type lock, anchor straps; manufactured by Milcor, Zurn, Titus, or equal. Obtain architect's approval of type, size. Location & color before ordering.
24. PENETRATIONS
    - A. Seal mechanical floor, exterior wall & roof penetrations watertight & weathertight. Seal around mechanical penetrations w/ 3M CP-25 fire barrier caulk (thickness as required & recommended by manufacturer) to maintain resistance rating of fire-rated assemblies. Provide prefabricated roof curbs manufactured by Custom Curb, Pate, Thycurb or approved equal. Provide roof curb w/ factory installed wood nailer; welded, 18 gauge galvanized steel shell, base plate & flashing; 1-1/2" thick, 3 pound rigid insulation; fully mitered 3-inch raised cant; cover of weather-resistant, weather-proof material & pipe collar of weather-resistant material w/ stainless steel pipe clamps. Make roof penetrations by authorized roofing contractor when required.
25. MOTORS & STARTERS
    - A. Provide motors & starting equipment where not furnished w/ equipment package. Motors shall have copper windings, class b insulation, & standard squirrel cage w/ starting torque characteristics suitable for equipment served. Motors for air handling equipment shall be selected for quiet operation. Each motor shall be checked for proper rotation after electrical connection has been completed. Provide dripproof enclosure for locations protected from weather & not in air stream of fan; & totally enclosed fan cooled enclosure for motors exposed to weather. Motors shall be manufactured by Century, GE, Westinghouse, or approved equal. Provide every motor, except fractional horsepower single phase motors w/ an approved type of "built-in" thermal overload protection, w/ motor starter. Each starter shall be provided w/ overload heaters sized to motor rating, & every three phase motor starter shall have overload heaters in each phase. Ambient compensated heaters shall be installed wherever necessary. Unless noted otherwise, motor starters shall be furnished by Division 22/23 contractor for installation & connection by Division 26 contractor. Starters shall be Allen-Bradley, Clark, Furnas, Square D, or approved equal.
26. ELECTRICAL WIRING
    - A. Line voltage wiring shall be provided by Division 26. Line voltage control & interlock wiring for mechanical systems shall also be provided by Division 26 contractor. Low voltage control wiring shall be provided by Division 22/23 contractor. Furnish wiring diagrams to Division 26 contractor as required for proper equipment hookup. Coordinate w/ Division 26 contractor actual wire sizing amps for submitted mechanical equipment to ensure proper installation
27. DISCONNECT SWITCHES
    - A. Provide heavy-duty horsepower rated safety switches rated in accordance with NEMA enclosed switch standard KS 1_1969 and I98 standard.
    - B. Each piece of electrical equipment shall be provided with a disconnecting means.
    - C. Equivalents by: GE, Eaton, Siemens, Square D.
28. REFRIGERANT & OIL
    - A. Provide full refrigerant & oil charge in refrigeration systems. Maintain for full term of warranty.
29. FINAL TESTING & ADJUSTMENTS
    - A. Final system testing. Balancing & adjustments shall be performed by contractor certified by NEBB, AABC or other approved agency. Perform test readings on fans, units, coils, etc. & adjust equipment to deliver specified amounts of air or water. Prepare testing & balancing report log showing air supply quantities, air entering & leaving temperatures & pressures, fan & unit test readings, motor voltage & amp draws. etc., & submit PDF of final compilation of data to architect for evaluation & approval before final inspection of project. Balance air systems to within plus or minus 10 percent for terminal devices & branch lines & plus or minus 5 percent for main ducts & air handling equipment of amount of air shown on drawings. Further adjustments shall be made to obtain uniform temperature in spaces. Adjust equipment to operate as intended by specification. Align bearings & replace bearings that have dirt or foreign material in them w/ new bearings without additional cost to owner. Balance contractor shall include in report any improperly installed or missing balancing devices that would negatively impact system operation. Adjust thermostats & control devices to operate as intended. Adjust burners, pumps, fans, etc. For proper & efficient operation. Certify to architect that adjustments have been made & that system is operating satisfactorily. Further adjustments shall be made to obtain uniform temperature in spaces. Calibrate, set, & adjust automatic temperature controls. Check proper sequencing of interlock systems, & operation of safety controls.
30. EQUIPMENT FURNISHED BY OTHERS
    - A. Provide necessary equipment & accessories that are not provided by equipment supplier or owner to complete installation of cooking equipment, washing equipment, etc., furnished by others, in locations as indicated on drawings &/or described in general notes to this contractor. Equipment & accessories not provided by equipment supplier may include flues, vents, intakes, associated roof jacks & caps to outdoors, dampers. In-line fans, roof fans, control interlocks, etc. As required for proper operation of complete system in accordance w/ manufacturer's instructions. Contractor shall be responsible for correct rough-in dimensions, & shall verify same w/ architect &/or equipment supplier prior to service installations.
31. SETTING, ADJUSTMENT AND EQUIPMENT SUPPORTS
    - A. Work shall include mounting, alignment and adjustment of systems and equipment. Set equipment level on adequate foundation and provide proper anchor bolts and isolation as shown, specified or required by manufacturers in installation instructions. Level, shim and grout equipment bases as recommended by manufacturer. Mount motors, align and adjust drive shafts and belts according to manufacturer's instructions.
    - B. Equipment failures resulting from improper installation or field alignment shall be repaired or replaced by Contractor at no cost to Owner.
    - C. Floor or pad mounted equipment shall not be held in place solely by its own dead weight. Include anchor fastening in all cases.
    - D. Provide floor or slab mounted equipment with 3_1/2ôhigh concrete bases unless specified otherwise. Individual concrete pad shall be no less than 4ô×4ôder and 4ôlonger than equipment, and shall extend no less than 2ôfrom each side of equipment.
    - E. Provide each piece of equipment or apparatus suspended from ceiling or mounted above floor level with suitable structural support, platform or carrier in accordance with best-recognized practice. Verify that structural members of buildings are adequate to support equipment and unless otherwise indicated on plans or specified, arrange for their inclusion and attachment to building structure. Provide hangers with vibration isolators.
    - F. Submit details of hangers, platforms and supports together with total weights of mounted equipment to Architect_Engineer for review before proceeding with fabrication or installation.
32. MISCELLANEOUS REMODELING WORK
    - A. Remove all unused equipment, ductwork, piping & associated supports. Cap ductwork & piping at mains & seal air & water tight. Provide items of HVAC systems modification required because of building remodeling, as noted on drawings or necessary for proper operation. Match existing materials & construction techniques when modifying existing systems unless specified otherwise. Coordinate additional requirements w/ general contractor & architect. Seal airtight existing ductwork required to be abandoned in place or not in use at termination of work. Cap & seal weathertight existing roof curbs & roof openings to be abandoned in place as result of equipment removal. Clean & rebalance existing ductwork, diffusers, registers, & grilles intended for reuse as required or as indicated on drawings. Clean & refurbish existing HVAC equipment intended for reuse as required for proper operation including replacement of filters, belts, motors, remote controls, & safety interlocks.
33. FIRE BARRIERS
    - A. General: for penetrations through fire-resistance-rated constructions, including both empty openings and openings containing penetrating items, provide through-penetration firestop systems that are produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and other gases, and maintain original fire-resistance rating of construction penetrated.
34. WELDING
    - A. Contractor shall be responsible for quality of welding and suitability of welding procedures. All welding shall be in accordance with American Welding Society standard B3.0 and ANSI standard b31.1.
    - B. Welded pipe joints shall be made by certified welding procedures and welders. Welding electrodes shall be type and material recommended by electrode manufacturer for materials to be welded. All pipe and fittings ends shall be beveled a minimum of 30 degrees prior to welding.
    - C. Only welders who have successfully passed welder qualifications tests in previous 12 months for type of welding required shall do welding. Each welder shall identify his work with a code marking before starting any welded pipe fabrication. Contractor shall submit three copies of a list of welders who will work on project listing welders' code, date and types of latest qualification test passed by each welder.
    - D. Welded joints shall be fusion welded in accordance with level AR3 of American Welding Society standard AWS D10.9 fStandard For Qualification Of Welding Procedures And Welders For Pipe And Tubingô Welders qualified under national certified pipe welding bureau will be acceptable.
    - E. Bevel all piping and fittings in accordance with recognized standards by flame cutting or mechanical means. Align and position parts so that branches and fittings are set true. Make changes in direction of piping systems with factory made welding fittings. Make branch connections with welding tees or forged weldolet.

END OF GENERAL MEP REQUIREMENTS

PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET LENEXA, KS 66215
913.492.2400 WWW.PKMRENG.COM
MO State Certificate of Authority #E-2002020886

PERMIT SET

3RD STREET DISPENSARY

510 SW 3RD ST. LEE'S SUMMIT, MO 64063

REVISION DATES:

1	City Comments	4/3/20

STATE OF MISSOURI
KEVIN J. ZIMMERMAN
NUMBER PE-2017029408
PROFESSIONAL ENGINEER
4/9/2020

Kevin J. Zimmerman - Engineer
MO# PE-2017029408
PROFESSIONAL SEAL

MEP1

ISSUE DATE: 03/27/2020

PKMR #: 19379

MECHANICAL, ELECTRICAL & PLUMBING SPECIFICATIONS

RELEASED FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/10/2020

MECHANICAL SPECIFICATIONS

DIVISION 210000 - FIRE SPRINKLER SYSTEM MODIFICATIONS

1. FIRE SPRINKLER GENERAL REQUIREMENTS
   - A. Refer to GENERAL MECHANICAL, ELECTRICAL & PLUMBING requirements
2. SYSTEM DESCRIPTION
   - A. Provide modifications to existing wet or combination wet/dry sprinkler system as required for building, or area of work shown on drawings, complete w/ alarm valves, drain valves, mains, risers, branches, sprinkler heads, test pipes, gauges, exterior electric bell & dialers as shown or required. Coordinate all wiring & conduit for a complete & functional installation.
   - B. An approved automatic sprinkler contractor shall perform all work under this heading. System shall be installed in strict accordance w/ NFPA 13 Underwriters Laboratories (UL), & must be acceptable to owner's insurer, authority having jurisdiction & all applicable local, state & national codes & standards. Where contract documents exceed requirements of referenced codes, standards, etc., contract documents shall take precedence
   - C. Sprinkler system shall be certified. Contractor shall retain certification until contractor turns copies of certificates & permits over to owner. Contractor shall be approved & state licensed for design & installation of fire protection systems. Work done under this section shall be performed only by a contractor whose workmen are experienced & regularly engaged in installation of fire protection systems.
   - D. System shall be hydraulically designed. Design of sprinkler system shall coordinate main & branch lines w/ structure, ceilings, piping, ductwork & light fixtures. Entire building shall be sprinkled.
   - E. Work shall include, but shall not necessarily be limited to following: design & installation of a complete wet-pipe fire protection sprinkler system for project space. Portions of systems subject to freezing or temperatures below 40' f shall be protected against freezing as required by NFPA 13. Contractor shall be responsible for repairs & for all costs incurred from damage caused by freezing of fire protection system.
3. SYSTEM DESIGN
   - A. This contractor shall verify design criteria & rating hazards with owner's insurer prior to designing system. Waterflow & pressure test data shall be acquired before system is calculated & be dated not more than 12 months prior to submittal of sprinkler drawings.
   - B. Contractor shall verify with authority having jurisdiction any minimum safety factor requirements. Regardless, demand shall not be less than 10% below supply at demand point.
   - C. The contractor shall be fully responsible for hydraulic calculations, arrangements for & cost of flow tests, final system design, & layout of all components of system as required for approval by owner's insurer, authority having jurisdiction & all applicable local, state & national codes & standards.
   - D. The contractor shall be fully responsible for coordinating system layout with other contractors. Changes to system design due to lack of coordination shall be paid for by contractor.
   - E. Sprinkler spacing shall conform to NFPA 13. Extended coverage sprinklers shall not be used in unfinished (shell) spaces. Hydraulic area of operation shall not be reduced as allowed by NFPA 13 for areas utilizing quick response sprinklers.
4. SHOP DRAWINGS
   - A. Shop drawings & hydraulic calculations shall be furnished to architect &/or engineer, for his approval. Architect will forward one set to contractor after final approval. Submitted shop drawings shall bear a stamp indicating approval by authority having jurisdiction. Provide drawings electronically in pdf format.
   - B. Shop drawings shall meet requirements of NFPA 13 & shall include following:
     - 1) Submit working plans per NFPA 13 including layout drawings of complete overhead sprinkler system indicating relationship of sprinkler piping & sprinklers to all other overhead items including ceiling grid & tiles, light fixtures, diffusers, registers, grilles, ductwork, etc. Location of risers, piping, etc., shall be as inconspicuous as possible & shall fulfill all functional requirements. System design capabilities & water demands shall also be noted on drawings.
     - 2) Submit complete details & sections as required to clearly define & clarify design, including a materials list describing all proposed materials by manufacturer's name & catalog number.
     - 3) Hydraulic calculations.
     - 4) Product data for all fire sprinkler system components. Provide next to sprinkler riser main, a printed sheet, protected by glass or a transparent plastic cover, giving brief instructions regarding control, emergency procedure & other data as required by NFPA 13. For hydraulically designed systems, a placard must be permanently attached to riser indicating location, & basis of design (discharge density & system demand).
5. SYSTEM MANUAL
   - A. Upon completion of installation, & as a condition of its acceptance, contractor shall compile three 8-1/2" by 11" manuals, firmly bound in heavyweight plastic or paper cover to withstand hard use. Loose-leaf binding is not acceptable. Manuals shall be delivered to architect, & shall contain following items:
     - 1) Identification clearly visible on or through cover, name of project & "fire sprinkler system manual".
     - 2) Neatly typed index at front with all emergency information clearly identified.
     - 3) Complete list of all system components with manufacturer's names, catalog numbers, & all data for ordering parts.
     - 4) One copy of record drawings, as described above.
     - 5) All information required to secure emergency repairs or service.
     - 6) Contractor's "material & test certificate(s) for sprinkler system", as described in NFPA 13.
6. SPRINKLER HEADS
   - A. Sprinkler heads - as required by NFPA 13 manufactured by Central, Viking, Star, Reliable, Grinnell, Automatic. Semi recessed chrome plated brass where exposed. Sidewall where required. Rough brass where concealed & exposed in mechanical rooms. Concealed heads where located in sheet rock ceilings. Provided w/ necessary hardware for mounting into hard or acoustical ceilings. Reference architectural drawings for ceiling types & locations. Where no ceilings occur, provide standard brass upright or pendant as required by construction.
   - B. Sprinkler heads shall be underwriters-approved, automatic spray type. Temperature rating of heads shall be 165 deg f., except furnish 212 deg f. Heads where required.
   - C. Location of sprinkler heads is not shown on drawings but nevertheless shall be furnished & installed to meet requirements of specifications & NFPA. Center heads in 2x2 tile spacing in acoustic ceilings. Location of heads shall be as approved by architect. Provide head guards where required by NFPA. Furnish spare heads & wrenches mounted in metal cases where directed by architect & as required by NFPA.
7. PIPE, FITTINGS, & HANGERS
   - A. Sprinkler piping 2-1/2" & larger shall be schedule 10 or schedule 40 black steel. Sprinkler piping 2" & smaller shall be schedule 40. Pipes shall have welded, threaded, or mechanically joined fittings, based on pipe material & size per NFPA 13 requirements. Piping shall be UL listed & FM approved.
   - B. Acceptable alternatives to schedule 10 & schedule 40 pipe shall be manufactured to standards recognized by NFPA 13. Threaded pipe shall have a corrosion resistance rating of 1.0 or greater. Crimp-type couplings shall not be used. Threadable thinwall pipe with corrosion resistance rating less than 1.0 not permitted.
   - C. Hangers shall be of type & spacing to support pipes & meet approval of UL & FM. Hangers shall be attached to structural components only. Support risers from structure below. Do not support exposed risers from clamps above floor.
   - D. Conceal mains back or above construction in finished areas. Piping shall be designed to provide maximum head room in all areas. Piping shall not pierce ductwork.
   - E. Pitch all dry pipe sprinkler piping to drain according to NFPA requirements, without exception & without traps. Wet pipe sprinkler systems may be pitched to drain or run level, but piping must be installed straight & true, without traps.
   - F. Provide drain valves & inspector test valves as necessary to drain system & meet requirements of NFPA.
8. TESTING & ACCEPTANCE
   - A. Upon completion of each phase of installation, each system shall be tested in conformance with local code requirements & as noted below. Contractor shall furnish all labor & equipment required to properly test all sprinkler equipment installed under this contract & he shall assume all costs involved in making tests, & repairing &/or replacing all damage resulting therefrom.
   - B. Upon completion of systems installation, & prior to acceptance by engineer & owner, this contractor shall make general operating tests to demonstrate that all equipment & systems are in proper working order, & are functioning in conformance with intent of drawings & specifications.
   - C. After completion of installation, test, retest, & make all corrections necessary to secure acceptance by fire marshal &/or any other authority having jurisdiction. Furnish all test equipment & personnel required.
   - D. After completion of all installation, tests, etc., & prior to final acceptance date, contractor shall instruct building owner & his selected personnel in operation of sprinkler system & procedure to conduct quarterly main drain tests as required by NFPA 25.
9. EXECUTION
   - A. All modifications & additions shall be performed without hampering proper operation of remaining system. Shop drawing submittals shall indicate by calculation total system compliance.
   - B. Provide installation of water flow switches & tamper switches on bypass lines & shut off valves. Wiring by electrical contractor. Coordinate w/ fire alarm system.
   - C. Submit drawings & calculations to state fire marshall, owner's insurance company & local building officials for approval.
   - D. Furnish all gauges, pumps, compressors & equipment required to perform tests. Coordinate all scheduling & work with other trades so as to prevent conflicts, & to ensure orderly progress of work, with a minimum of delays. When sprinkler piping is installed without coordinating with other trades & conflicts occur, sprinkler piping shall be relocated as required at no additional cost to owner to resolve conflicts.
   - E. Piping in areas having ceilings, other than underside of roof deck, shall be concealed. Piping in areas without ceilings may be exposed but kept at a minimum distance from deck. All piping shall be clean & free of rust. Install system such that all piping is rigidly secured & supported. All ductwork, lights, structural members & main runs of piping shall take precedence over sprinkler piping. Cutting of structural members for passage of sprinkler pipes or hangers will not be permitted. All horizontal piping in ceiling space shall be at an elevation above top of light fixtures & air outlets to allow for access to light fixtures & air outlets without removing horizontal piping. Route all sprinkler piping & provide all offsets, bends, & elbows around all mechanical, electrical, & structural members as required.
   - F. Contractor shall coordinate with fire alarm contractor &/or electrical contractor connection of fire sprinkler alarm devices to fire alarm system or fire sprinkler monitoring panel as required.
   - G. Where exposed piping passes through finish work, chrome plated (or other finish acceptable to architect) split wall plates or escutcheons shall be installed to fit snugly around piping.
   - H. Piping shall be routed parallel to building lines.
   - I. Seal all fire protection floor, wall & roof penetrations watertight & weathertight. Caulk around fire protection penetrations with approved fire barrier caulk as required to maintain fire resistance rating of fire-rated assemblies.

END OF DIVISION 21000

DIVISION 220000 - PLUMBING

1. PLUMBING GENERAL REQUIREMENTS
   - A. Refer to GENERAL MECHANICAL, ELECTRICAL AND PLUMBING requirements
2. PIPING & INSULATION
   - A. Water service piping shall be copper type K tubing, ductile iron with mechanical joints or PVC AWWA C900 piping properly bedded and supported.
   - B. Water piping - all water piping shall be 95-5 tin-antimony joined type L copper. Underground piping to be continuous tube. Insulate w/ fiberglass w/ ASJ & PVC covers. Thickness in accordance w/ ASHRAE 90.1.
   - C. Waste & vent piping - CI bell & spigot below grade or hubless CI w/ neoprene gasket fittings w/ stainless steel bands above grade. Sched 40 PVC w/ solvent welds may be used where allowed by local code. PVC not allowed in plenums.
   - D. Roof/storm drain piping - CI bell & spigot below grade or hubless CI w/ neoprene gasket fittings w/ stainless steel bands above grade. Sched 40 PVC w/ solvent welds may be used where allowed by local code. PVC not allowed in plenums. Insulate w/ min 1/2" fiberglass pipe wrap w/ ASJ jacket.
   - E. Gas piping - Provide Sched 40 cont. Weld carbon steel w/ corresponding fittings. Provide threaded fittings. Provide iron body-brass plug gas stops. Provide 2 coats paint on exterior gas piping.
   - F. See schedule on plans for additional information.
3. PIPING IDENTIFICATION
   - A. Provide pipe markers and flow direction arrows at 10'_0òmaximum spacing to identify piping in mechanical rooms and 20'_0òmaximum spacing in all other areas.
   - B. Pipe marker nomenclature/colors shall meet applicable ANSI standard and OSHA requirements from Seaton or equal. Submit for approval list of colors and wording prior to purchase of pipe markers.
4. VALVES
   - A. Equivalent valves listed on current comparison charts of specified valve manufacturers by Milwaukee, Stockham, Powell, Red-White, Crane, Apollo, Mueller, Muessco, Watts, Hays, Rockwell-Nordstrom.
   - B. Ball valves - 2" & under - bronze full port w/ teflon seats, bronze ball & insulated handle.
   - C. 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.
   - D. Check valves - 2" & 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, 200psi-wog/125 psi-wsp.
   - E. Plug valves - 1ò& smaller iron body gas cock, 175 PSI_WOG bronze plug washer and nut, screwed ends. 1_1/4ò& larger,semi_steel lubricated plug valve, 175 PSI_WOG coated plug, two bolt cover, and short pattern screwed ends. Provide w/ std. pattern cast handle.
   - F. 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.
   - G. Installation
     - 1) Install necessary valves within piping systems to provide required flow control, to allow isolation for inspection, maintenance and repair of each piece of equipment or fixture, and on each main and branch service loop.
     - 2) Each valve shall be installed so that it is easily accessible for operation, visual inspection, and maintenance and wherever possible, gate, check and ball valves shall be installed on a horizontal run with the handle upright and within 15 degrees of vertical. Butterfly valves shall be installed with the stem in the horizontal position and the handle at 90 degrees from vertical.
     - 3) Valves installed in piping systems shall be compatible with system maximum test pressure, pipe materials, pipe joining method, and fluid or gas conveyed in system.
5. FIXTURES
   - A. See schedules for further requirements and specific fixtures.
   - B. Fixtures: American Standard, Kohler, Crane, Zurn, Toto.
   - C. Stainless steel fixtures: Elkay, Just, Moen Commercial
   - D. Fittings & supports: Josam, Smith, Wade, Zurn, Or Jonespec.
   - E. Seats: Church, Olsonite, Bemis Or Beneke.
   - F. Drinking fountains: Halsey Taylor, Elkay, Oasis, Or Haws.
   - G. Trim by Moen, Delta, Eljer, Kohler, American St&Ard, Crane, Sloan.
   - H. Flushvalves: Sloan, Zurn, Toto
   - I. Drains by Wade, Zurn, Woodford, Smith, Josam.
   - J. Roof drains - cast iron roof drain w/ flange, CI mushroom dome. 2" dam for overflow drains
   - K. Wall hydrants Josam series 71000 w/ connections for IJ" pipe & hose. Non-freezing w/ key, vacuum breaker, locking cover. Equivalent by J.R. Smith, Wade, Woodford or Zurn.
   - L. Downspout nozzels - Wade series 3940 cast bronze downspout nozzles w/ threaded outlet & flange to secure nozzle to wall.
6. PLUMBING EQUIPMENT
   - A. See schedules for further requirements and specific equipment.
   - B. Backflow preventers provide where shown on plans or as required by Code/AHJ the following types of backflow preventers. Provide isolation valve ahead of backflow preventers. Equivalent backflow prevents by Watts, Febco, Lawler.
     - 1) Reduced pressure zone principle (1/4ò-1/2ò): watts series 009 reduced pressure backflow preventer complete with strainers and valves.
     - 2) Reduced pressure zone principle (3/4ò-10ò): watts series 909 reduced pressure backflow preventer complete with strainers and valves. Provide isolation valve ahead of backflow preventers. Provide with air gap fitting and pipe to floor drain.
     - 3) Double check valve (1/2ò-2ò): watts series 007 double check valve assembly complete with ball type test cocks, full port ball valve shut offs and strainer.
     - 4) Double check valve (2-1/2ò-10ò): watts series 707 double check valve assembly complete with ball type test cocks, os&y valve shut offs and strainer. Epoxy coated cast iron check valve bodies with bronze seats.
     - 5) Pressure vacuum breakers (1/2ò-2ò): watts series 800m4qt pressure vacuum breaker with integral ball valve shut offs.
     - 6) Pressure vacuum breakers (3/8ò-1/2ò): watts series 008qt pressure vacuum breaker for anti-spill applications, with integral ball valve shut offs.
     - 7) Atmospheric vacuum breaker (1/4ò-3ò): watts series 288a atmospheric vacuum breaker in plain brass finish.
     - 8) Hose bibb vacuum breakers vacuum breakers for hose end connections shall be Watts series 8 non-removable type.
   - C. Domestic hot water expansion tanks be welded steel, diaphragm type tank, and pre_charged to the minimum operating pressure. Tanks shall be suitable for domestic water service. Provide by Amtrol, Bell & Gossett, Watts.
   - D. Provide thermometers and wells at all water heaters. Provide pressure test plugs and gauges at water/fire services, booster pumps, etc. so that proper testing/ balancing & trouble shooting can be accomplished.
7. PLUMBING 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. All piping shall be properly supported with hangers and supports specifically intended for that purpose. Provide clevis hangers, unistrut brackets and pipe clamps and similar systems. Protect integrity of insulation and provide rigid insulation inserts or pipe saddles as necessary.
   - C. After piping is in place test lines to insure no leaks.
   - D. All piping & equipment shall be supported properly from structure.
   - E. Escutcheons - provide nickel-brass or chrome plated on all exposed pipes when passing thru wall or ceiling of finished rooms.
   - F. Verify floor materials used from architectural plans & provide proper cleanout tops, where they occur in carpet, quarry tile, vinyl tile or ceramic tile.
   - G. 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.
   - H. Emergency Power Off _ For all water heaters/boilers over 399MBH Input, provide an emergency power off switch at the boiler room entrance to shutdown boilers, in the event of an emergency, when the switch is thrown. Switch shall be red and shall be labeled with a red and white phenolic plastic sign with white letters on red background, reading ñEmergency Boiler Shutdownò

END OF DIVISION 22000

DIVISION 230000 - MECHANICAL

1. MECHANICAL GENERAL REQUIREMENTS
   - A. Refer to GENERAL MECHANICAL, ELECTRICAL & PLUMBING requirements
2. SHEET METAL WORK
   - A. HVAC ductwork shall be galv sheet metal of gauges & joint types specified in SMACNA manual. Provide turning vanes in elbows.
   - B. Coordinate routing of ductwork w/ other contractors such that piping, electrical conduit, & associated supports are not routed through ductwork. Construct supply ducts to meet SMACNA positive pressure of 3" WG. Construct return, outdoor & exhaust ductwork upstream of fans to meet SMACNA negative pressure of 1" WG. construct exhaust ductwork downstream of fans to meet SMACNA positive pressure of 1" WG.
   - C. Exposed ductwork to be field painted shall have galvanized metal primer applied in shop after fabrication & prior to shipping.
   - D. Seal ductwork w/ heavy liquid sealant, Hardcast Irongrip 601, Design Polymer DP 1010, United McGill duct sealer or approved equal, applied according to sealant manufacturer's instructions.
   - E. Exposed spiral duct shall be Lindab or approved equal gasketed style.
   - F. Ducts shall be connected to fans, fan casings & fan plenums by means of flexible connectors. Flexible connectors shall be neoprene coated glass cloth canvas connections, Duro-Dyne, Elgen, Ventfabric or equal. Flexible connectors shall have flame spread of 25 or less & smoke developed rating not higher than 50. Make airtight joints & install w/ minimum 1-1/2" slack.
   - G. All ductwork must be supported properly from structure.
3. DUCTWORK 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 5'-0".
   - B. Diffusers & grilles - see schedule. Equivalent by Price, Tuttle & Bailey, Titus, Metal-Aire, Krueger. Coordinate color, mounting w/ duct, ceilings, architect. Select air devices to limit room noise level to no higher than NC-30 unless otherwise shown. Provide devices w/ soft plastic gasket to make an airtight seal against mounting surface. Coordinate final location, frame, & mounting type of air devices w/ architectural reflected ceiling plans. Submit complete shop drawings including information on noise level, pressure drop, throw, cfm for each air device, styles, borders, etc. Clearly marked w/ specified equipment number. Provide ceiling supply air diffusers & return air grilles of lay-in or surface mounted type as required to be compatible w/ ceiling construction. Provide ceiling diffusers & grilles w/ white enamel finish unless noted otherwise. Provide slot plenums by diffuser manufacturer. Plenums shall be internally insulated by manufacturer.
   - C. Provide balancing dampers, manufactured by Ruskin, Greenheck, Nailor Industries, Cesco, Louvers & Dampers, Pottorff or approved equal, where 'shown on drawings & wherever necessary for complete control of air flow. Splitter dampers shall be controlled by locking quadrants; provide young regulator or ventlok end bearings for damper rod. Rectangular volume dampers shall be opposed blade interlocking type. Round volume dampers shall be butterfly type consisting of circular blade mounted to shaft.
   - D. Damper leakage for outside air dampers shall not exceed 6.5 cfm/square foot in full closed position at 4" wg pressure differential across damper. Reference manufacturer & model number for outside air dampers is Ruskin model CD-50.
4. DUCT INSULATION WORK
   - A. Duct insulation shall meet flame/smoke rating of 25/50 per ASTM E 84.
   - B. Line all ductwork. See schedule on plans.
5. EXHAUST FANS
   - A. Equivalent by Cook, Penn, Acme, Greenheck, Jennaire.
   - B. Bearings shall be designed for 200,000 hours operation. Variable pitch motor sheaves shall be standard.
   - C. Fans shall be furnished with acceptable electrical disconnect & birdscreen. Provide single phase motor equipped fans with motor rated start relay. Provide multiphase motor equipped fans with magnetic motor starter. Provide local disconnect means for all fans. Coordinate location of starter & disconnects with other trades.
   - D. Ceiling & Cabinet Exhaust Fans - Available Manufacturers: Cook, Penn, Acme, Greenheck, Jennaire, Panasonic. Shall bear the AMCA Certified Ratings Seal for sound and air performance. Provide speed controls to be furnished to E/C for mounting at fan. Provide wall/roof jacks as indicated on plans.
6. PROGRAMMABLE THERMOSTATS
   - A. Stages of cooling & heating as required by stages on specified equipment. 7-day programming capability w/ 2 occ/unocc periods/day. Auto heat/cool change over. Locking setpoints to prevent tampering. Provide w/ all interfaces to other equipment as required.
   - B. Thermostats by Honeywell, Johnson Controls, White-Rogers, Trane, Carrier or approved equal
7. MECHANICAL EXECUTION
   - A. Coordinate w/ e/c to provide all wiring between equipment, dampers, thermostats & all other required controls & devices. M/C is responsible for all control & interlock wiring unless specifcally shown on electrical drawings. All electrical work shall comply w/ electrical specifications.
   - B. All piping shall be properly supported with hangers & supports specifically intended for that purpose. Provide clevis hangers, unistrut brackets & pipe clamps & similar systems. Protect inetgrity of insulation & provide rigid insulation inserts or pipe saddles as necessary.
   - C. All exterior control wiring shall be in conduit.
   - D. Provide any required interfaces to fire alarm or similar systems.
   - E. Provide ground-mounted units on 4", reinforced concrete base, 6" larger than unit on each side.
   - F. Roof-mounted units on equipment supports or curbs, sloped as req'd. Anchor units to supports. Coordinate all requirements to maintain roof warranties.
   - G. Provide factory-authorized service start up on equipment. Train owner's maintenance personnel on startup, shutdown, troubleshooting, servicing, preventive maintenance.
   - H. Provide clean filters at time of project turnover. Provide
8. FINAL TESTING & ADJUSTMENTS
   - A. Final system testing. Balancing & adjustments shall be performed by contractor certified by NEBB, AABC or other approved agency. Perform test readings on fans, units, coils, etc. & adjust equipment to deliver specified amounts of air or water. Prepare testing & balancing report log showing air supply quantities, air entering & leaving temperatures & pressures, fan & unit test readings, motor voltage & amp draws. etc., & submit PDF of final compilation of data to architect for evaluation & approval before final inspection of project. Balance air systems to within plus or minus 10 percent for terminal devices & branch lines & plus or minus 5 percent for main ducts & air handling equipment of amount of air shown on drawings. Further adjustments shall be made to obtain uniform temperature in spaces. Adjust equipment to operate as intended by specification. Align bearings & replace bearings that have dirt or foreign material in them w/ new bearings without additional cost to owner. Balance contractor shall include in report any improperly installed or missing balancing devices that would negatively impact system operation. Adjust thermostats & control devices to operate as intended. Adjust burners, pumps, fans, etc. For proper & efficient operation. Certify to architect that adjustments have been made & that system is operating satisfactorily. Further adjustments shall be made to obtain uniform temperature in spaces. Calibrate, set, & adjust automatic temperature controls. Check proper sequencing of interlock systems, & operation of safety controls. Verify clean filters are installed.
9. STARTUP SERVICE
   - A. Engage a factory-authorized service representative to perform startup service for all equipment & systems.
   - B. Complete installation & startup checks according to manufacturer's written instructions & also do the following:
     - 1) Inspect for visible damage to any part, casing or component.
     - 2) Verify that labels are clearly visible.
     - 3) Verify service clearances are provided.
     - 4) Verify that controls are connected & operable.
     - 5) Verify that filters are installed.
     - 6) Clean all interior and exterior components of construction debris.
     - 7) Connect & purge gas line.
     - 8) Release and adjust vibration isolators.
     - 9) Inspect operation of barometric dampers.
     - 10) Lubricate all bearings.
     - 11) Inspect all rotating components for direction and correct.
     - 12) Inspect for all rotating components for vibration & binding.
     - 13) Adjust fan belts to proper alignment & tension.
     - 14) Start unit according to manufacturer's written instructions.
     - 15) Start refrigeration system in summer only.
     - 16) Complete startup sheets & attach copy with contractor's startup report.
     - 17) Inspect & record performance of interlocks & protective devices; verify sequences.
     - 18) Operate unit for an initial period as recommended or required by manufacturer.
     - 19) Perform the following operations for both minimum & maximum firing & adjust burner for peak efficiency. Adjust pilot to stable flame.
     - 20) Measure gas pressure on manifold.
     - 21) Measure combustion-air temperature at inlet to combustion chamber.
     - 22) Measure flue-gas temperature at furnace discharge.
     - 23) Calibrate thermostats and sensors.
     - 24) Adjust & inspect high-temperature limits.
     - 25) Inspect all dampers for stroke & interlocks.
     - 26) Start refrigeration system & measure & record the following:
     - 27) Coil leaving-air, dry- & wet-bulb temperatures.
     - 28) Coil entering-air, dry- & wet-bulb temperatures.
     - 29) Outside-air, dry-bulb temperature.
     - 30) Outside-air-coil, discharge-air, dry-bulb temperature.
     - 31) Inspect controls for correct sequencing of heating, mixing dampers, refrigeration, & normal & emergency shutdown.
     - 32) Measure & record the following minimum & maximum airflows. Plot fan volumes on fan curve.
     - 33) Supply-air volume.
     - 34) Return-air volume.
     - 35) Relief-air volume.
     - 36) Outside-air intake volume.
     - 37) Simulate maximum cooling demand & inspect the following:
     - 38) Compressor refrigerant suction & hot-gas pressures.
     - 39) Short circuiting of air through outside coil or from outside coil to outside-air intake.
     - 40) Verify operation of remote panel, including pilot-light operation & failure modes. Inspect the following:
     - 41) High-limit heat exchanger.
     - 42) Warm-up for morning cycle.
     - 43) Freezestat operation.
     - 44) Economizer to limited outside-air changeover.
     - 45) Alarms.
     - 46) After startup & performance testing, change filters, vacuum heat exchanger & cooling & outside coils, lubricate bearings, adjust belt tension, & inspect operation of power vents.
     - 47) Provide one spare set of clean filters & deliver to owner.
   - C. Adjusting
     - 1) Adjust initial temperature & humidity set points.
     - 2) Set field-adjustable switches & circuit-breaker trip ranges as indicated.
     - 3) Occupancy adjustments: when requested within 12 months of date of substantial completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to site outside normal occupancy hours for this purpose, without additional cost.
   - D. Demonstration
   - E. Engage a factory-authorized service representative to train owner's maintenance personnel to adjust, operate, & maintain all HVAC equipment & systems.

END OF DIVISION 23000

ELECTRICAL SPECIFICATIONS

SECTION 26000 - ELECTRICAL

1. GENERAL ELECTRICAL REQUIREMENTS
   - A. Refer to GENERAL MECHANICAL, ELECTRICAL & PLUMBING requirements.
   - B. Wiring of Mechanical Equipment
     - 1) Provide all raceways & power wiring for all division 23 equipment requiring electrical connections, including, but not limited to, pumps, water heaters, & HVAC equipment, & all line voltage control & interlock wiring not provided under division 23. Connect per manufacturers' wiring diagrams. Coordinate with division 23 for disconnects furnished w/ equipment, & provide all disconnect switches as required. After installing wiring, verify that each motor load has correct phase rotation.
     - 2) Verify actual "maximum overcurrent protection" (MOCP) device ratings & "minimum circuit ampacity" (MCA) conductor sizing for mechanical equipment from equipment nameplate. Base electrical installations on actual required amperages, which may vary somewhat from conductor & equipment sizes shown on drawings; however, in no case, reduce size of conductors indicated on drawings without authorization from engineer. Provide properly sized electrical wiring & equipment without extra cost to owner. Notify engineer of all changes required in electrical installation due to equipment variances so that effects on feeders, branch circuits, panelboards, fuses & circuit breakers can be checked prior to purchasing & installation. Be responsible for coordinating w/ division 23 to verify actual ampacities & correct sizes of all conductors & overcurrent protective devices for all equipment, & correct overload heaters for all motors, when starters are provided under division 26.
   - C. Wiring of Thermostats. Time, & Temperature Controls
     - 1) Provide all raceways, power wiring, & line-voltage control and interlock wiring not provided under division 23, for all thermostats, temperature control devices, & controls, including, but not limited to, night-stats, water heater interlocks, time switches & override timers. See mechanical drawings for locations & temperature control diagrams. Low-voltage conductors for thermostats & temperature control system may be run exposed above finished accessible ceilings, if approved & listed for this purpose, but shall be installed in conduit within walls & where exposed in work areas.
2. CONDUIT & CONDUCTORS
   - A. Follow circuiting shown on plans. Use no conduit smaller than 3/4" & no conductors smaller than #12 ga. Unless noted otherwise.
   - B. Conductors #10 and smaller shall be solid.
   - C. If no conductor size is indicated on drawings for branch circuit, provide conductors & conduit sized per NFPA 70 & based on indicated branch circuit overcurrent protective device (OCPD) rating & number of poles.
   - D. Wire shall be in non-flexible metallic conduit (EMT, IMC or RMC) for:
     - 1) All circuits & feeders greater than 30A.
     - 2) Kitchen circuits.
     - 3) Home runs.
   - E. MC cable acceptable for branch convenience circuits & lighting circuits. Do not daisy chain light fixtures. Provide cable whips of sufficient lengths to allow for relocating each light fixture within 5-foot radius of its installed location, but not exceeding 6 feet in unsupported lengths.
     - 1) Do not use MC cable for following: homeruns to panelboards, where exposed to view or damage, hazardous locations, in concrete, block walls or wet locations, & when disallowed by local AHJ or landlord.
     - 2) Provide health care rated MC for patient care areas (as defined by the NEC) when not in conduit.
   - F. Conduit installed below grade shall be schedule 80 PVC heavy wall plastic conduit meeting NEMA standards & UL listed for underground & exposed use. Provide GRS radius bends & risers as conduits rise above grade or above floor slab.
   - G. Lighting & receptacle circuit conductors shall be copper THHN-THWN-2 600 volt, 75 deg c, color coded as described under applicable codes. No romex, plastic flex tubing etc permitted. Light fixture wire insulation shall have temp rating not less than individual fixture manufacturers recommended rating.
   - H. Circuits w/ no. 8 or larger conductors, motor circuits, power & feeder circuits & building service feeders shall be copper THHN-THWN-2 600 volt, 75 deg c.
   - I. All materials used to terminate, splice or tap conductors: designed for, properly sized for, & UL listed for specific application & conductors involved, & installed in strict accordance w/ manufacturer's recommendations, using the manufacturer's recommended tools.
   - J. Where wiring is indicated as installed, but connection is indicated "future" or "by other division, trades, or contracts", leave minimum 3-foot "pigtail" at box, tape ends of conductors, & cover box.
   - K. Number of conductors in specific raceway "home run" is indicated w/ cross lines (tick marks) on each "circuit run" on drawings. In general, direction of branch circuit "home run" routing is indicated on drawings, complete w/ circuit numbers & panelboard designation. Continue all such "home run" wiring to designated panelboard, as though "circuit runs" were indicated in their entirety.
   - L. Wiring shall have insulation of proper color to match NEC color code. In larger sizes, where properly colored insulation is not available, use vinyl plastic electrical tape of appropriate color around each conductor at all termination points, junction & pull boxes.
3. GROUNDING
   - A. Supplement grounded neutral of secondary distribution system w/ equipment grounding system, installed so that metallic structures, enclosures, raceways, junction boxes, outlet boxes, cabinets, machine frames, portable equipment & other conductive items operate continuously at ground potential & provide low impedance path for ground fault currents.
   - B. System shall comply w/ national electrical code, drawings & as specified.
   - C. Provide equipment ground bus in base of low voltage, switchgear brazed or otherwise adequately connected by an approved method to ground rods.
   - D. Provide in conduit green insulated copper ground conductor to main metallic water service entrance & connect by means of adequate ground clamps.
   - E. Equipment grounding conductors for branch circuit home runs shown on drawings shall indicate an individual & separate ground conductor for that branch circuit which shall be terminated at branch circuit panelboard, switchboard, or other distribution equipment.
   - F. Provide low voltage distribution system w/ separate green insulated equipment grounding conductor for each single or three-phase feeder. Single phase 120 volt branch circuits for lighting & power shall consist of phase & neutral conductors & green ground conductor installed in common conduit which shall serve as grounding conductor.
   - G. Grounding conductors shall be as shown on plans or if not specifically shown shall be no smaller than that required by NEC.
4. RACEWAY INSTALLATION
   - A. Install all conductors & cable in raceways continuous without taps or splices. Splice or tap only in approved boxes & enclosures w/ approved solderless connectors, or crimp connectors & terminal blocks for control wiring, & keep to minimum required. Insulate all splices, taps, & joints as required by codes.
   - B. Install all circular raceways concealed above suspended ceilings or concealed in walls or floors wherever possible except where otherwise indicated.
     - 1) All conduit, junction boxes, etc. Above ceilings shall be supported from structure. Pipe sleeves, hangers & supports shall be furnished & set & contractor shall be responsible for proper & permanent locations.
     - 2) Support all conductors & cables in vertical installations, as required by NFPA 70, by installing cable supports or plug-type conduit riser supports, or wire-mesh safety grips.
   - C. Provide GRS for all conduits run underground, exposed to weather, or exposed to other hazardous conditions. Provide GRS installed below grade w/ corrosion resistant bonded-plastic or approved mastic coating. This shall include 90-degree elbow below grade & entire vertical transition to above grade.
   - D. Provide interlocking spacers for multiple runs of UG conduits in same trench.
   - E. All other raceway may be EMT where approved by local code. Use compression type fittings for EMT, w/ all fittings UL listed for environment in which they are used.
   - F. Use FMC for final connection to each motor & transformer, & to any device that would otherwise transmit motion, vibration, or noise. Use LFMC where exposed to liquids, vapors or sunlight.
     - 1) Provide all FMC & LFMC w/ an insulated bonding conductor.
   - G. Install raceways parallel & perpendicular to building lines.
   - H. Install raceways to requirements of structure & to requirements of all other work on project. Install raceway to clear all openings, depressions, pipes, ducts, reinforcing steel, & other immovable obstacles. Install raceways set in forms for concrete structure in such manner that installation will not affect strength of structure.
   - I. Install raceways continuous between connections to outlets, boxes & cabinets w/ minimum possible number of bends & not more than equivalent of four 90-degree bends between connections. Use manufactured elbows for all 45- & 90-degree bends, unless approved by engineer in advance. Make other bends smooth & even & without flattening raceway or flaking galvanizing or enamel. Radii of bends shall be as long as possible & never shorter than corresponding trade elbow. Use long radius elbows where necessary, indicated, or both.
   - J. Securely fasten raceways in place w/ approved straps, hangers & steel supports as required. Attach raceway supports to building structure. Hang single raceways for feeders w/ malleable split ring hangers w/ rod & turnbuckle suspension from inserts spaced not over 10 feet apart in construction above.
   - K. Clamp groups of horizontal feeder raceways to steel channels that are suspended from inserts spaced not over 10 feet apart in construction above. Securely clamp vertical feeder raceways to structural steel members attached to structure. Install cable clamps for support of vertical feeders where required. Add raceway supports within 12 inches of all bends, on both sides of bends. Do not support raceways from suspended ceiling components.
   - L. Ream raceway ends, thoroughly clean raceways before installation, & keep clean after installation. Plug or cover openings & boxes as required to keep raceways clean during construction & fish all raceways clear of obstructions before pulling conductors wires. Provide raceways of ample size for pulling of wire & not smaller than code requirements & not less than 3/4", unless indicated otherwise on drawings.
   - M. Protect all raceway installations against damage during construction. Repair all raceways damaged or moved out of line after roughing-in to meet engineer's approval without additional cost to owner.
   - N. Align & install true & plumb all raceway terminations at panelboards, switchboards, motor control equipment & junction boxes.
   - O. Install approved expansion/deflection fittings where raceways pass through (if embedded) or across (if exposed) expansion joints.
   - P. Install pull wire in each empty raceway that is left for installation of conductors or cables under other divisions or contracts. Use polypropylene or monofilament plastic line. Leave min. 24" slack at each end.
   - Q. Make all joints & connections in manner that will ensure mechanical strength & electrical continuity.
   - R. Effectively seal raceways, by installing conduit fitting at boundary of two spaces, & filling it w/ an approved pliable material, after conductors or cables have been installed & tested, whenever raceways pass from non-cooled to cooled spaces or transition from outside facility or enclosure to inside, whether buried or exposed.
5. BUSHINGS & LOCKNUTS
   - A. Rigidly terminate conduits entering sheet metal enclosures to enclosure w/ bushing & locknut on inside & locknut or an approved hub on outside. Conduit shall enter enclosure squarely.
   - B. Provide bushings & locknuts made of galvanized malleable iron w/ sharp, clean-cut threads. Where EMT enters box, provide approved EMT compression connectors.
   - C. Use insulated, grounding, or combination, bushings wherever connection is subject to vibration or moisture when required by NFPA 70, or both.
6. JUNCTION & OUTLET BOXES
   - A. All boxes including light fixture, switch, receptacle, & similar outlet boxes: National Electrical, Appleton, Steel City, Raco, or approved equal, galvanized steel knockout boxes, suitable in design to purpose they serve & space they occupy. Size as required for specific function or as required by NFPA 70, whichever is larger.
     - 1) Lighting fixture boxes in ceilings shall not be less than 4" octagonal knockout type.
   - B. Set all outlet boxes in walls, columns, floors, or ceilings so they are flush w/ finished surface, accurately set, & rigidly secured in position. Provide plaster rings, extension rings &/or masonry rings as req'd for flush mounting. Provide approved cast outlet boxes, w/ hubs & weatherproof covers, in all areas subject to damp, wet, or harsh conditions.
   - C. Coordinate locations of outlet boxes. Outlets are only approx located on small scale drawings. Use great care in actual location by consulting various large scale detailed drawings used by other division trades, & by securing definite locations from architect.
   - D. All outlets, shall be mounted w/ bottom at 18" AFF & switches w/ bottom at 44" AFF floor unless noted otherwise on plans. Refer to arch for other required elevations & cabinetry coordination.
7. ELECTRICAL IDENTIFICATION
   - A. Manufactured labels for each panelboard & transformer. Typewritten panel schedules mounted in panels
   - B. Printed tape style label for each receptacle indicating panel & circuit #.
   - C. Manufactured labels for all disconnect switches indicating equipment served.
   - D. Branch circuits - identify each circuit w/ wire markers when enclosure label & wire colors do not provide enough information to identify each circuit without tracing. Feeders & branch circuit home runs w/ wire marker w/ panel & ckt #. Box covers above lay-in ceilings neatly marked w/ indelible marker.
   - E. Fire alarm - nameplate on each fire alarm terminal cabinet. Label all wiring.
8. DIGITAL LIGHTING CONTROLS
   - A. Provide DLM systems consisting of lighting control panels, room controllers, motion sensors, daylight sensors, & other other controls as necessary to achieve lighting switching & dimming control indicated on the drawings.
   - B. Provide all interconnecting wiring, controls, programming & owner training for the system(s).
   - C. Provide systems by: Cooper, Hubbell, Leviton, Phillips, Sensor Switch, Watt Stopper, Lutron.
   - D. Execution:
     - 1) Calibrate all sensor time delays & sensitivity for proper detection of occupants & energy savings. Adjust time delays.
     - 2) Provide documentation of room by room system configuration including: sensor parameters, time delays, sensitivities, & daylighting setpoints, sequence of operation, load parameters.
     - 3) Post start-up tuning - 30 days after occupancy contractor shall adjust sensors to meet the owner's requirements. Provide a detailed report to the architect / owner of post start-up activity.
9. PANELBOARDS
   - A. Branch circuit 208/240v panels shall be capacity shown w/ tin plated copper bussing & braced for minimum of 10,000a aic or as otherwise noted or required (series rated acceptable). Bolt on circuit breakers. 480v panels same except 14,000a aic min. or as otherwise noted. Minimum 20" wide w/ galv steel enclosure w/ hinged door & keyed lock. Coord trim w/ mounting location. Typewritten card directory.
   - B. Distribution panels shall be capacity shown & shall be Square D I-Line w/ tin plated copper bussing. 65kaic min or as otherwise noted/req'd. Bolt on circuit breakers (series rated acceptable). Galv steel enclosure. CB's labeled w/ plastic printed labels to load served.
   - C. Equivalent by Square D, Siemens, Cutler Hammer, Or GE.
10. CIRCUIT BREAKERS IN EXISTING PANELBOARDS
    - A. Provide new circuit breakers, for installation in existing panelboards, of same manufacturer, type & short circuit current interrupting ratings as existing panelboard circuit breakers.
11. WIRING DEVICES
    - A. Color of devices as directed by architect.
    - B. Convenience outlets:
      - 1) Spec grade 20 amp duplex w/ ground & SS wall plates. Other outlets shall be verified w/ equipment suppliers for proper NEMA configurations. Provide GFCI rated devices where indicated & as req'd per code.
      - 2) Equivalent devices by Cooper/Eaton, Hubbell, Leviton, Pass & Seymour/Legrand
    - C. Switches:
      - 1) Light switches - spec grade 20 amp toggle switches w/ SS wall plates.
      - 2) Wall motion switches - spec grade, pir, override.
      - 3) Ceiling motion switches - spec grade, dual technology, model as req'd by room configuration, all necessary power packs & relays.
      - 4) Wall motion switches (bathroom) - dual relay, spec grade, PIR, 2nd relay for operation of exhaust fan delay.
      - 5) Dimmer Switches: Modular, full-wave, solid-state units with integral, quiet on-off switches, with audible frequency and EMI/RFI suppression filters. Continuously adjustable slider; with single-pole or three-way switching. Comply with UL 1472. 600W or 1200W as required by load.

        Incandescent Lamp Dimmers: 120 V; control shall follow square-law dimming curve. On-off switch positions shall bypass dimmer module.

        LED Dimmers: Modular; compatible with dimming drivers in fixture(s); if other than 0-10V dimming is provided, verify dimmer is compatible with driver for full range of dimming (100-10%).
      - 6) Equivalent devices by Leviton, Bryant, Hubbell, Wattstopper, Lithonia, Sensor Switch.
    - D. Weatherproof cover plates:
      - 1) Provide GFCI receptacles for weatherproof receptacles.
      - 2) For wet locations: in-use NEMA 3R, UL-labeled plates die cast metal and lockable.
      - 3) For damp locations: UL-listed for wet locations w/ cover(s) closed; die-cast aluminum or type 302 SS; single-cover for switches & vertically mounted receptacles; double-cover for horizontally mounted receptacles; self-closing covers.
      - 4)
12. DISCONNECT (SAFETY) SWITCHES
    - A. Disconnect (safety) switches: Square D, Siemens, Cutler Hammer, or General Electric fused or non-fused (as indicated on drawings or required) NEMA KS1, heavy duty, externally operated, visible-blade safety switches; NEMA enclosure type indicated on drawings or suitable for environment in which installed. Based on fusible switch & fuse sizes indicated, include class R, J, or L fuse provisions as applicable.
    - B. Where indicated, provide fusible switches permanently labeled as suitable for use as service entrance equipment, w/ integral & separate neutral & ground assemblies, suitable for sizes of conductors indicated. Do not double-lug any terminations not specifically listed as suitable for more than one conductor.
    - C. Provide switches where not furnished w/ starting equipment, at all other points required by NFPA 70, & where indicated on drawings.
13. LUMINAIRES, LAMPS & BALLASTS
    - A. Refer to lighting fixture schedule plans for fixture types.
    - B. Equivalent luminaires by Hubbell, Infinity, Lithonia, Williams, Eaton [Cooper].
    - C. Fluorescent Fixtures:
      - 1) Lamps shall be type recommended by fixture manuf. Lamp none above manuf recommended max wattage. Color temperature shall be coordinated throughout project, with generally 4100k interior lamps and min 85 CRI. Equivalent lamps by G.E., Venture, Phillips Or Sylvania.
      - 2) Ballasts - Fluorescent - electronic, <20%THD, Equivalent by Advance, G.E., Motorola, Or Magnetek.
    - D. LED Fixtures:
      - 1) Lamps & modules: Philips, General Electric, Osram/Sylvania, Cree, Nichia.
      - 2) LED components, lamps, drivers, and fixtures shall comply with: PCC 47 CFR Part 15; UL 8750; ANSI/NEMA Standards C78.377, NEMA SSL-1, C82.77, IESNA Standards TM-16-05, RP-16, LM-79, LM-80 and TM-21.
      - 3) Drivers shall be integral to the fixture unless otherwise shown or specified.
    - E. Emergency ballasts/drivers/batteries/inverters - shall be Bodine, Iota. Coordinate voltages and outputs for min. 90 minute operation with fixtures scheduled and controls indicated and provided.
    - F. Execution:
      - 1) Provide lighting fixtures w/ lamps & accessories req'd for hanging. Coord mounting of lighting fixtures w/ architect & G/C. Additional fixture supports shall be provided by E/C. Supports shall comply w/ latest edition of NEC. Provide lighting fixture securing clips as required. Consult arch plans for ceiling types & provide surface & recessed lighting fixtures w/ appropriate mounting components & accessories.
      - 2) Fixtures mounted in fire rated ceilings shall be provided & installed w/ fire rated enclosures to maintain ceiling integrity.
      - 3) Poles & support components: comply w/ AASHTO LTS-4. Provide steel poles in color as specified or selected by architect. Provide bolt covers. Provide concrete base for pole & ground rod.
14. ADJUSTING. ALIGNING & TESTING
    - A. Adjust, align, & test all electrical equipment on this project provided under this division & all electrical equipment furnished by others for installation or wiring under this division for proper operation. Test all systems & equipment according to requirements in NETA ATS (latest edition) & all additional requirements specified
    - B. In following sections. Maintain following on project premises at all times: true RMS reading voltmeter, true RMS reading ammeter, & megohmmeter insulation resistance tester. Provide test data readings as requested or as required by engineer
15. SYSTEM START UP
    - A. Prior to starting up electrical systems:
      - 1) Check all components & devices.
      - 2) Lubricate items accordingly.
      - 3) Tighten screws & bolts for connectors & terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486a & UL 486b.
      - 4) Check & record building's service entrance voltage, grounding conditions, grounding resistance, & proper phasing.
    - B. Replace all burned-out lamps & lamps used for temporary construction lighting in permanent light fixtures.
    - C. After all systems have been inspected & adjusted, confirm all operating features required by drawings & specifications & make final adjustments as necessary.

END OF DIVISION 26000

---

pkmr ENGINEERS

PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET LENEXA, KS 66215
913.492.2400 WWW.PKMRENG.COM
MO State Certificate of Authority #E-2002020886

PERMIT SET

3RD STREET DISPENSARY

510 SW 3RD ST. LEE'S SUMMIT, MO 64063

REVISION DATES:

1	City Comments	4/3/20

KEVIN J. ZIMMERMAN
NUMBER
PE-2017029408
4/3/2020

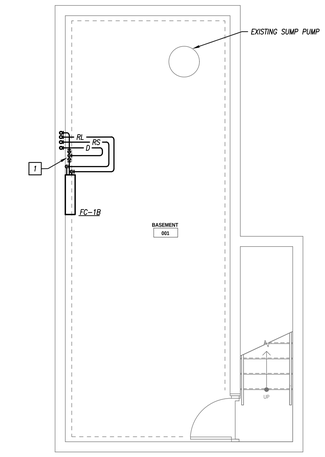
Kevin J. Zimmerman - Engineer
MO# PE-2017029408
PROFESSIONAL SEAL

MEP2

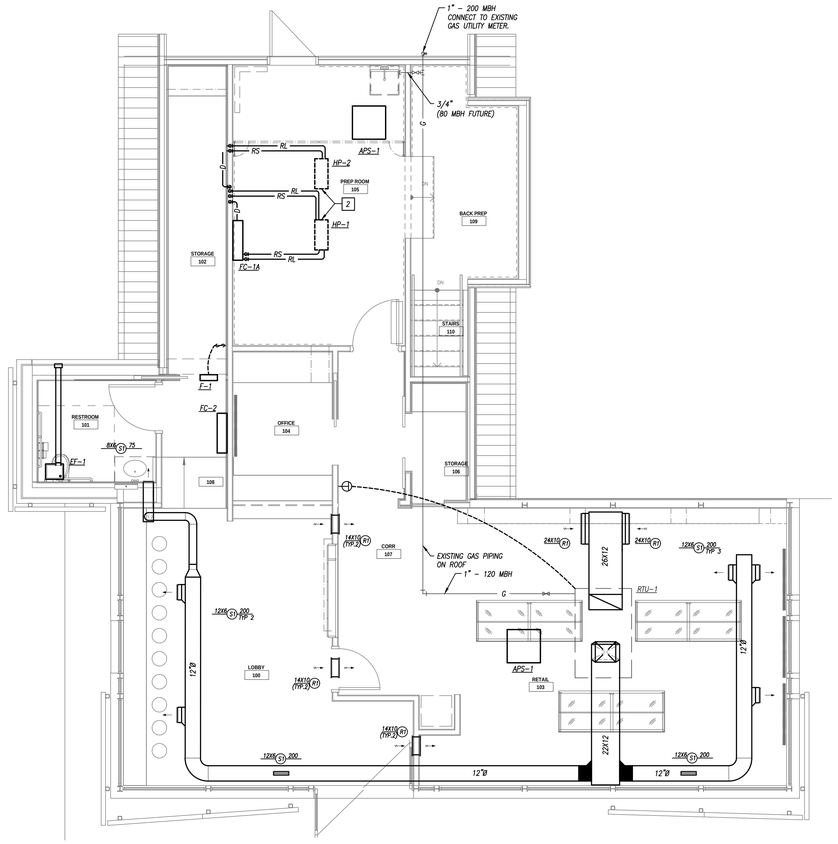
ISSUE DATE: 03/27/2020
PKMR #: 19379

MECHANICAL, ELECTRICAL &
PLUMBING SPECIFICATIONS

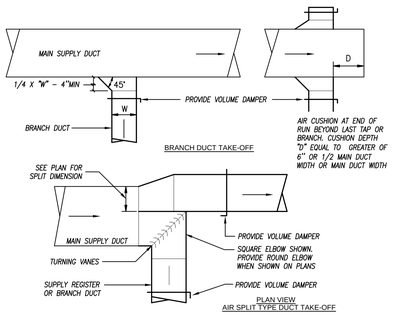
RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/10/2020



BASEMENT - FLOOR PLAN - HVAC
1/4" = 1'-0"

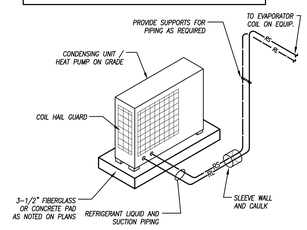


FIRST - FLOOR PLAN - HVAC
1/4" = 1'-0"

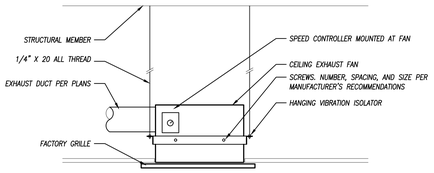


DUCTWORK TAKEOFFS
NOT TO SCALE 552-01

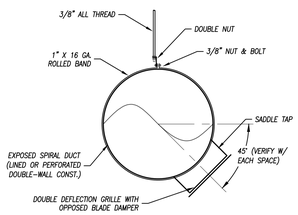
NOTES:
1. CONDENSING UNIT MANUFACTURER TO SIZE ALL REFRIGERANT LINES AND PROVIDE ALL ACCESSORIES FOR VERTICAL RUNS AS REQUIRED.
2. INSULATE REFRIGERANT SUCTION LINES – REFER TO SPECIFICATIONS.



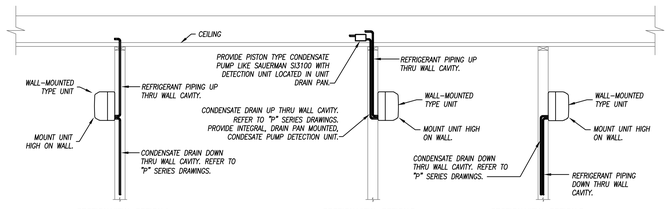
MINI SPLIT CONDENSING UNIT / HEAT PUMP DETAIL
NOT TO SCALE NEW DETAIL

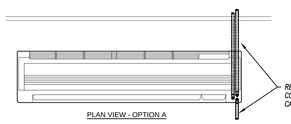


CABINET EXHAUST FAN MOUNTING DETAIL
NOT TO SCALE 562-06



ROUND DUCTWORK AND SIDEWALL GRILLE DETAIL
NOT TO SCALE 555-08





NOTES:
1. INSTALL ALL COMPONENTS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. INDOOR UNITS SHALL HAVE AN OVERFLOW DRAIN PAN INTERLOCK SWITCH.
3. REFRIGERANT LINES AND CONDENSATE DRAINS SHALL BE INSULATED AS SCHEDULED.

WALL-MOUNTED INDOOR UNIT DETAILS
NOT TO SCALE 576-01

GENERAL NOTES

1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. ROUND BRANCH DUCT RUNOUTS AND FLEXIBLE DUCT SHALL BE THE SAME SIZE AS THE DIFFUSER NECK UNLESS NOTED OTHERWISE.
3. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 5'-0".
4. ALL AIR DISTRIBUTION DEVICES SHALL HAVE LOCKABLE VOLUME CONTROL DEVICES.
5. ALL 90 DEGREE TURNING ELBOWS SHALL BE SMOOTH ROUND OR SQUARE WITH TURNING VANES.
6. DUCT SIZES SHOWN ON PLANS ARE INSIDE FREE AREA.
7. FOR BALANCING THE OUTSIDE AIRFLOW QUANTITIES, REFER TO HVAC SCHEDULES.

PLAN KEYED NOTES

1 ROUTE CONDENSATE DRAIN TO OPEN HUB DRAIN. REFER TO PLUMBING PLAN.

2 INSTALL HEAT-PUMPS AT ATTIC SPACE.

AIR PURIFICATION SYSTEM SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	TYPE	FAN DATA CFM	FAN DATA HP	ELECTRICAL	CONTROL	REMARKS
APS-1	GLOBAL PLASMA SOLUTIONS	GPS-300	CEILING CASSETTE	300	122W	120V / 1PH	SWITCH	1,2

REMARKS:
1. UNIT SHALL BE PROVIDED WITH WASHABLE MESH PREFILTER, CARBON FILTER, 99.97% HEPA FILTER, UVC LAMP, NEEDLEPOINT BI-POLAR IONIZATION, SWSI MOTORIZED IMPELLER.
2. PROVIDE WITH WIRELESS REMOTE CONTROL.

EXISTING ROOFTOP UNIT SCHEDULE (GAS HEAT)

PLAN MARK	MANUFACTURER	MODEL	CFM	O.A. CFM	FAN DATA E.S.P.	FAN DATA HP	COOLING COIL EAT (DB/WB)	COOLING COIL LAT (DB/WB)	COOLING COIL T/S CAPACITY	GAS HEATING INPUT (MBH)	GAS HEATING OUTPUT (MBH)	GAS HEATING EAT/LAT (ÂºF)	ELECTRICAL VOLT/PH	ELECTRICAL MCA	ELECTRICAL MOCP	REMARKS
RTU-1	TRANE	YSC048-H	1,600	320	0.50	1.0	80/67	59.6/58.4	45.5/35.5	120.0	96.0	56/111	230V / 3PH	24.1	35	1,2,3

REMARKS:
1. COOLING CAPACITIES BASED ON 105° AMBIENT TEMPERATURE.
2. FURNISH WITH INTEGRAL SINGLE-POINT ELECTRICAL DISCONNECT.
3. FURNISH WITH ROOF CURB AND HAIL GUARDS.

EXHAUST FAN SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	TYPE	SERVICE	FAN DATA CFM	FAN DATA E.S.P. (IN)	FAN DATA BHP	FAN DATA HP	FAN DATA DRIVE	FAN DATA SONES	FAN DATA RPM	ELECTRICAL	CONTROL	NOTES	REMARKS
EF-1	COOK	GC-146	CEILING CABINET	BATHROOM	90	0.250	---	36W	DIRECT	1.3	900	120V / 1PH	SWITCH		
F-1	BROAN	510	ROOM-TO-ROOM FAN	STORAGE	180	---	---	---	DIRECT	4.5	1,575	120V / 1PH	SWITCH		

REMARKS:
1. UNIT SHALL BE PROVIDED WITH SOLID STATE SPEED CONTROL.
2. PROVIDE WITH CONTROLLER SWITCH
3. PROVIDE WITH STARTER AND WIRE TO START SWITCH.
4. PROVIDE WITH ALL UL REQUIRED GREASE TRIM AND COMPONENTS.

GRILLE, REGISTER & DIFFUSER SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	MATERIAL	STYLE	DESCRIPTION	MOUNT TYPE	FACE SIZE (IN)	NECK SIZE (IN)	VOLUME DAMPER	MAX APD (IN. WG.)	MAX NC	FINISH COLOR	REMARKS
SUPPLY													
S1	TITUS	300RS	STEEL	WALL/CEILING GRILLE	DOUBLE DEFLECTION 3/4" SPACING AEROBLADE	FLANGE	DUCT + FRAME	AS INICATED	YES – 0.8.	0.07	30	WHITE	
RETURN													
R1	TITUS	350RL	STEEL	SQUARE WALL	35 DEG SINGLE DEFLECTION AEROBLADE 3/4" SPACING	WALL	AS INDICATED	AS INDICATED	NO	0.08	25	WHITE	

GENERAL REMARKS:
1. PROVIDE ALL GRD WITH ALL NECESSARY MOUNTING HARDWARE.
2. PROVIDE GRD WITHOUT SCREWHOLES WHEN INSTALLED IN LAY-IN CEILINGS
3. VERIFY CEILING CONFIGURATION, COLOR AND SPECIFICS WITH ARCHITECTURAL CEILING PLANS.

NOTES:
1. PROVIDE WITH INSULATED PLENUM
2. LENGTH AS INDICATED ON PLANS.
3. PROVIDE ROUND NECK ADAPTER WHERE SHOWN WITH ROUND CONNECTION.
4. COORDINATE FINISH WITH ARCHITECT. PROVIDE GALVANIZED OR MILL FINISH WHERE DUCTWORK IS NOT TO BE PAINTED. PROVIDE PRIMED PAINTABLE FINISH WHEN DUCTWORK IS TO BE PAINTED.

FAN COIL SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	CFM	E.S.P. (IN. W.C.)	TOTAL COOLING CAPACITY (MBH)	TOTAL HEATING CAPACITY (MBH)	ELECTRICAL VOLTAGE	ELECTRICAL MCA	ELECTRICAL MOCP	REMARKS
FC-1A	MITSUBISHI	MSZ-GL09NA	300	0.5	9.0	10.9	230V / 1PH	1.0	15	1,2
FC-1B	MITSUBISHI	MSZ-GL09NA	300	0.5	9.0	10.9	230V / 1PH	1.0	15	1,2
FC-2	MITSUBISHI	MSZ-GL12NA	400	0.5	12.0	14.4	230V / 1PH	1.0	15	1,2

REMARKS:
1. CAPACITIES AND AIRFLOWS ARE MANUFACTURER'S VALUES AT RATED CONDITIONS, NOT ACTUAL OPERATING CONDITIONS.
2. PROVIDE WITH WIRELESS REMOTE CONTROLLER.

HEAT PUMP UNIT SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	MINIMUM SEER	AMBIENT TEMP. (ÂºF)	ELECTRICAL VOLTS / PH	ELECTRICAL M.C.A.	ELECTRICAL M.O.C.P.	REMARKS
HP-1	MISTUBISHI	MXZ-2C20NA	20.0	22.0	17.0	105°	230V / 1PH	29.5	40	1,2
HP-2	MISTUBISHI	MUZ-GL12NA	12.0	14.4	23.1	105°	230V / 1PH	9.0	15	1,2

REMARKS:
1. HEAT PUMP SHALL OPERATE DOWN TO -13°F.
2. PROVIDE WITH INTEGRAL CIRCUIT BREAKER DISCONNECT.

PKMR ENGINEERS
PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET LENEXA, KS 66215
913.492.2400 WWW.PKMRENG.COM
MO State Certificate of Authority #E-2002020886

3RD STREET DISPENSARY

510 SW 3RD ST. LEE'S SUMMIT, MO 64063

PERMIT SET

REVISION DATES:

1	City Comments	4/3/20

STATE OF MISSOURI
KEVIN J. ZIMMERMAN
NUMBER PE-2017029408
PROFESSIONAL ENGINEER
4/3/2020

Kevin J. Zimmerman - Engineer
MO# PE-2017029408
PROFESSIONAL SEAL

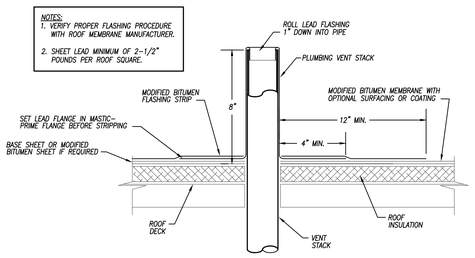
M101

ISSUE DATE: 03/27/2020

PKMR #: 19379

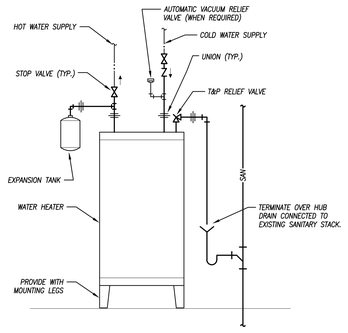
MECHANICAL - PLANS, SCHEDULES & DETAILS

RELEASED FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/10/2020



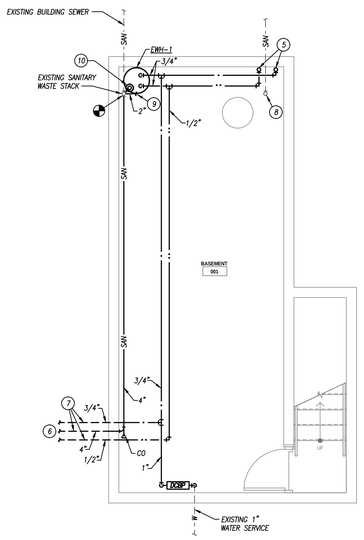
VENT STACK

NOT TO SCALE



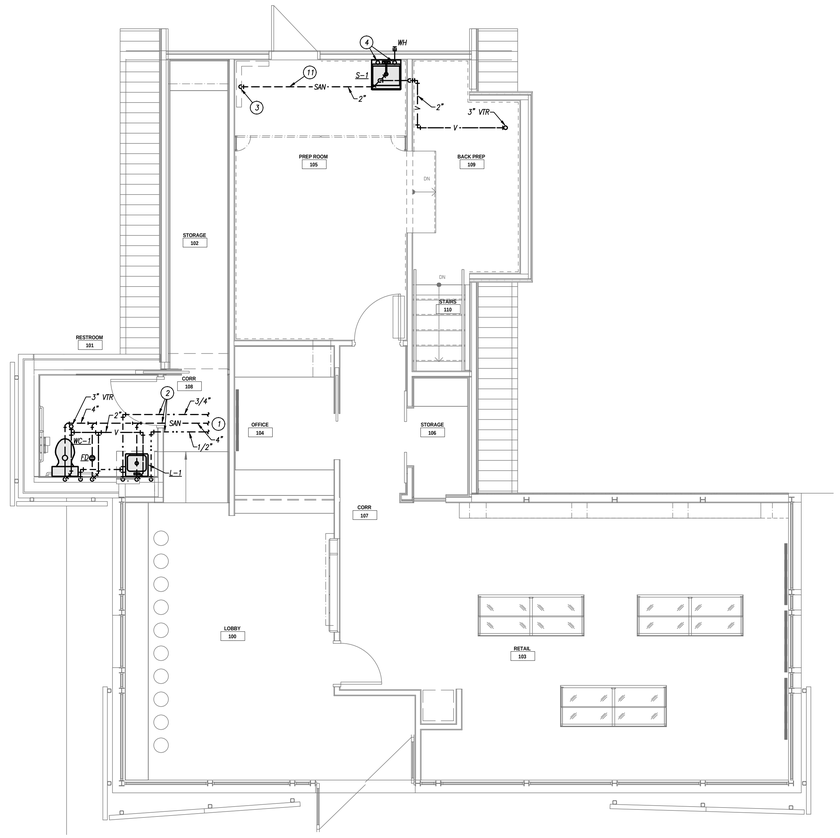
ELECTRIC WATER HEATER

NOT TO SCALE



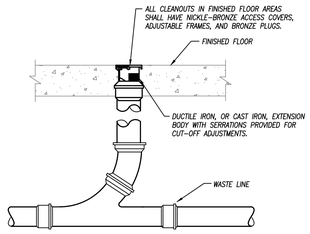
BASEMENT - FLOOR PLAN - PLUMBING

1/4" = 1'-0"



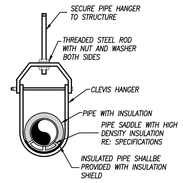
FIRST - FLOOR PLAN - HVAC

1/4" = 1'-0"



FLOOR CLEANOUT DETAIL

NOT TO SCALE



PIPE HANGER DETAIL

NOT TO SCALE

FLOOR DRAIN SCHEDULE

PLAN MARK	MANUFACTURER	MODEL NUMBER	SERVICE	TOP/GRATE SIZE	WASTE SIZE	REMARKS
FD	WADE	1100	FLOOR DRAIN	6"Ø	2"	1

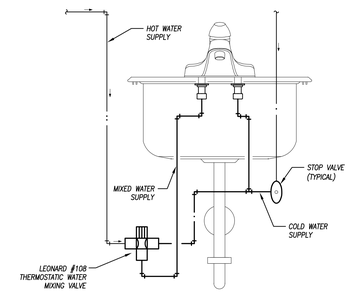
REMARKS:
1. PROVIDE WITH NICKEL BRONZE TOP.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE MODEL	FIXTURE DESCRIPTION	FITTINGS AND TRIM		REMARKS	PLUMBING FIXTURE PIPE SIZES			
			FITTINGS MODEL	FITTINGS AND DESCRIPTION		WASTE	VENT	DCW	DHW
L-1	NAMEEK'S 064200-LI CERASTYLE "MONA"	ADA-COMPLIANT WALL-HUNG LAVATORY. 20"x10.75" WHITE CERAMIC BOWL. FAUCET HOLES COORDINATED WITH FAUCET AND TRIM. PROVIDE CONCEALED ARM CARRIER. MOUNT TOP OF RIM AT 34" A.F.F.	KOHLER K-14406-4-BGD	BATHROOM SINK FAUCET WITH WIDESPREAD HANDLES. BRUSHED GOLD FINISH.	1,2,3,4,5	2"	1-1/2"	1/2"	1/2"
WC-1	KHOLER K-3589	ADA-COMPLIANT, 1.6 GPF, FLUSH TANK WATER CLOSET. PRESSURE-ASSISTED SIPHON JET. WHITE VITREOUS CHINA ELONGATED BOWL AND TANK. 16-1/2" HIGH. TWO PIECE, 12" ROUGH-IN. FURNISH WITH FLUSH ACTUATOR ON WIDE SIDE OF STALL.	KHOLER K-4731-GC-0 KHOLER K-9466-L-BL	WHITE, SOLID PLASTIC, QUIET CLOSE, OPEN-FRONT SEAT FOR ELONGATED BOWL. STAINLESS STEEL HINGE ARMS AND HARDWARE. MATTE BLACK, LEFT HAND TRIP LEVER.	3,6	4"	2"	1/2"	---
S-1	FIAT L-1	23"x21.5"x12" DEEP WALL-MOUNTED LAUNDRY TUB. FURNISH WITH BRACKETS FOR INSTALLATION. 20 GALLON CAPACITY. WHITE FINISH.	FIAT A-1	BRASS FAUCET WITH SWING SPOUT FOR MOUNTING ON REAR DECK OF TUB.	1,2,3,4	2"	2"	1/2"	1/2"

REMARKS:
1. PROVIDE CHROME-PLATED BRASS TAILPIECE AND GRID DRAIN.
2. PROVIDE CHROME-PLATED BRASS P-TRAP.
3. PROVIDE LOOSE KEY STOPS AND FLEXIBLE RISERS.
4. PROVIDE CONCEALED ARM TYPE CARRIER WITH SQUARE, TUBULAR STEEL UP-RIGHTS AND BLOCK TYPE BASES.
5. INSULATE EXPOSED TAILPIECE, P-TRAP, AND WATER RISERS. REFER TO SPECIFICATIONS FOR INSULATION METHODS.
6. PROVIDE FLUSH VALVE HANDLE ON WIDE SIDE OF STALL.
7. PROVIDE HANDLE STOPS AND FLEXIBLE RISERS.
8. PROVIDE CHROME-PLATED BRASS TAILPIECE AND BASKET STRAINER.

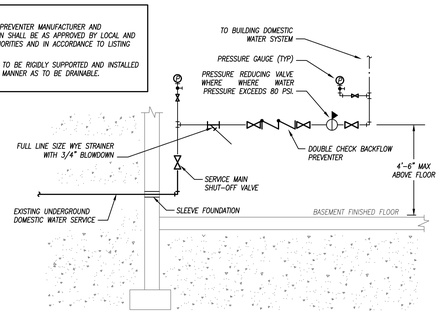
GENERAL NOTES (APPLICABLE TO ALL FIXTURES):
1) ALL PUBLIC LAVATORIES AND SINKS SHALL BE PROVIDED WITH ANTI-SCALD ASSE 1070 LISTED VALVE ON HOT WATER SUPPLY.
2) VERIFY PLUMBING MATERIALS AND EQUIPMENT COORDINATE BETWEEN TRADES. VERIFY CABINET SIZES, COUNTERTOP MATERIALS, WALL THICKNESSES, ETC ARE APPROPRIATE FOR SPECIFIED EQUIPMENT PRIOR TO ORDER.



HAND WASHING SINK/LAVATORY TEMPERED WATER SCHEMATIC

NOT TO SCALE

NOTES:
1. BACKFLOW PREVENTER MANUFACTURER AND INSTALLATION SHALL BE AS APPROVED BY LOCAL AND STATE AUTHORITIES AND IN ACCORDANCE TO LISTING OF DEVICE.
2. ALL PIPING TO BE RIGIDLY SUPPORTED AND INSTALLED IN SUCH A MANNER AS TO BE DRAINABLE.



WATER SERVICE DOUBLE CHECK BACKFLOW PREVENTER DETAIL

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"-1-1/4"	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	1" (HOT ONLY)
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	----	----
CONDENSATE DRAIN ON ROOF	3/4"-2"	SCH. 40	PVC	SOLVENT JOINED	10 FT - 1/2HR	NO	----	----
CONDENSATE DRAIN INTERIOR	3/4"-2"	SCH. 40	CPVC	SOLVENT JOINED	10 FT - 1/2HR	YES	FIBERGLASS W/ ASJ	1/2" (PLENUM ONLY)
CONDENSATE DRAIN INTERIOR	1/2"-2"	L	COPPER	SOLDER, PRO-PRESS	10 FT - 1/2HR	YES	FIBERGLASS W/ ASJ	1/2" (PLENUM ONLY)

1 NOTES
1. ALL PIPING AND MATERIALS IN PLENUMS MUST MEET ASTM E84 FLAME/SMOKE RATING OF 25/50.
2. ALL INSULATION THICKNESSES SHALL MEET ADOPTED IECC AND ASHRAE 90.1 - 2016 REQUIREMENTS AT A MINIMUM.
3. REFER TO SPECIFICATIONS FOR MORE DETAILED INFORMATION.

WATER HEATER SCHEDULE - ELECTRIC

PLAN MARK	MANUFACTURER	MODEL NUMBER	GALLONS	USE	STYLE	# HTG. ELEMENTS	WATTS	RECOVERY @ 90ºF RISE	VOLTAGE/ PHASE	REMARKS
EWH-1	STATE	ENG 30 DORT	30	LIGHT COMM.	STANDARD	2	4500/4500	21	240V / 1PH	1

REMARKS:
1. PROVIDE WITH EXPANSION TANK.
2. DUAL HEATING ELEMENTS SHALL NOT RUN SIMULTANEOUSLY.

GENERAL NOTES

1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. REFER TO PLUMBING FIXTURE / DRAIN SCHEDULES FOR PIPING SIZES FOR INDIVIDUAL CONNECTIONS TO FIXTURES AND RISERS NOT SHOWN ON PLANS.
3. NO SANITARY OR VENT PIPING BELOW GRADE SHALL BE LESS THAN 2".
4. NO DOMESTIC WATER PIPING SHALL BE SMALLER THAN 3/4" UNLESS NOTED OTHERWISE.
5. ALL VENT PIPING SHOWN IS DIAGRAMMATIC. USE APPROPRIATE FITTINGS FOR VENT PIPING BELOW FLOOD RIM OF FIXTURE.
6. NOT ALL INTERIOR CLEANOUTS ARE SHOWN FOR DRAWING CLARITY. CONTRACTOR SHALL INSTALL ALL CODE-REQUIRED CLEANOUTS (RE: GENERAL NOTES ON COVER SHEET). COORDINATE EXACT LOCATIONS OF CLEANOUTS WITH ARCHITECT.
7. PROVIDE TRAP SEAL DEVICE FOR ALL FLOOR DRAINS.

PLAN KEYED NOTES

1. REFER TO BASEMENT PLAN FOR CONTINUATION.
2. 1/2" DHW, 3/4" DCW, AND 4" SANITARY PIPE ROUTED UNDERGROUND.
3. CONNECT LAUNDRY TUB SANITARY PIPE TO EXISTING MAIN GOING DOWN IN BASEMENT.
4. LAUNDRY TUB AND WALL HYDRANT DOMESTIC WATER PIPED FROM BELOW.
5. 1/2" DHW AND 3/4" DCW UP TO SERVE LAUNDRY TUB AND WALL HYDRANT.
6. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
7. 1/2" DHW, 3/4" DCW, AND 4" SANITARY PIPE ROUTED UNDERGROUND TO SERVE RESTROOM ON FIRST FLOOR.
8. CAP EXISTING SANITARY PIPE.
9. 2" SANITARY PIPE FROM LAUNDRY TUB ON FIRST FLOOR TO CONNECT TO EXISTING SANITARY STACK. REFER TO FIRST FLOOR PLAN FOR CONTINUATION.
10. 2" OPEN HUB DRAIN FOR CONDENSATE DISPOSAL AND WATER HEATER T&P RELIEF.
11. SANITARY PIPE ROUTED IN BASEMENT CEILING.

pkmr ENGINEERS
PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET LENEXA, KS 66215
913.492.2400 WWW.PKMRENG.COM
MO State Certificate of Authority #E-2002020886

3RD STREET DISPENSARY

510 SW 3RD ST. LEE'S SUMMIT, MO 64063

PERMIT SET

REVISION DATES:

1	City Comments	4/3/20

STATE OF MISSOURI
KEVIN J. ZIMMERMAN
NUMBER PE-2017029408
PROFESSIONAL ENGINEER
4/3/2020

Kevin J. Zimmerman - Engineer
MO# PE-2017029408
PROFESSIONAL SEAL

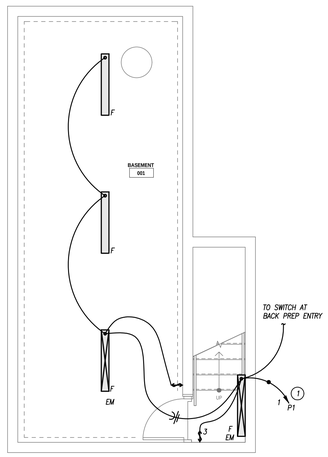
P101

ISSUE DATE: 03/27/2020

PKMR #: 19379

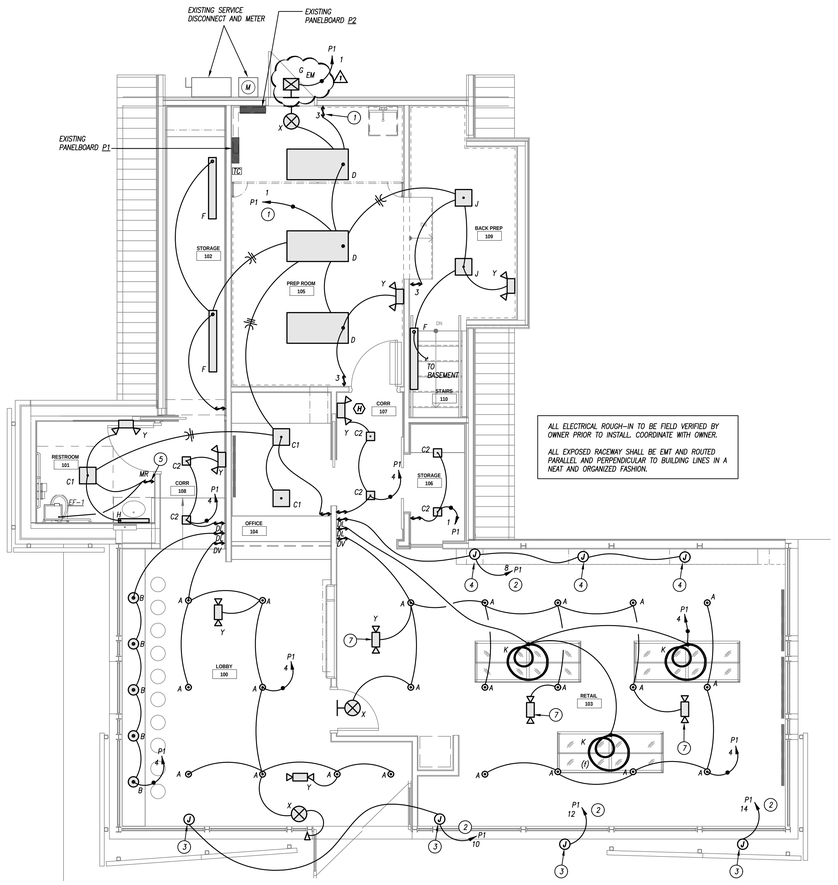
PLUMBING - PLANS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
CITY OF LEE'S SUMMIT, MISSOURI
04/10/2020



BASEMENT - FLOOR PLAN - LIGHTING

1/4" = 1'-0"



FLOOR PLAN - LIGHTING

1/4" = 1'-0"

LIGHTING CONTROLS

SYMBOLS

- S_M — WALL SWITCH MOTION SENSOR (DUAL TECHNOLOGY): PASSIVE INFRARED AND ULTRASONIC, 120/277V, DECORA STYLE SENSOR. (WATTSTOPPER DSW-100, OR EQUAL)
- S_{MR} — WALL SWITCH MOTION SENSOR (DUAL RELAY): DUAL TECHNOLOGY, DUAL RELAY, 120V, DECORA STYLE SENSOR. (WATTSTOPPER DSW-302, OR EQUAL)
- S_{DV} — WALL SWITCH DIMMER CONTROL: ON/OFF SWITCH WITH SLIDING DIMMER CONTROL, 0-10V DIMMING. (LUTRON MAESTRO, #DVSCSTV, OR EQUAL). EXTEND 0-10V WIRING TO FIXTURES AND DIMMER AS REQUIRED.
- S_{DL} — WALL SWITCH DIMMER CONTROL: ON/OFF SWITCH WITH SLIDING DIMMER CONTROL, LINE VOLTAGE DIMMING, FIELD SELECTABLE DIMMING TYPE. (LUTRON MAESTRO, #MA-PRO, OR EQUAL).

TRAINING AND PROGRAMMING

OWNER TRAINING:
- PROVIDE RECORD OF TIME DELAY SETTINGS ON ALL SENSOR DEVICES FOR OWNER USE.

SENSOR ADJUSTMENTS AND SETTINGS:
- SYSTEMS SHALL BE SET/PROGRAMMED TO OPERATE TYPICALLY IN MANUAL ON/AUTO OFF MODE.
  1. SET WALL MOUNTED MOTION SENSOR TO MANUAL ON MODE.
- PROVIDE FINAL SETTINGS/ADJUSTMENTS PER OWNER'S DIRECTION.

CONTROLS SEQUENCES

WALL-MOUNTED LINE VOLTAGE SENSORS (SINGLE RELAY):
- TURN ON LIGHTS IN ROOM/AREA UPON BUTTON ON SENSOR BEING ACTIVATED BY OCCUPANT.
- TURN OFF LIGHTS AFTER NO MOTION IS DETECTED AND DELAY EXPIRES.
- SET DELAY TO 15 MINUTES UNLESS NOTED OTHERWISE.

WALL-MOUNTED LINE VOLTAGE SENSORS (DUAL RELAY):
- TURN ON LIGHTS / EXHAUST FAN IN ROOM/AREA UPON BUTTON(S) ON SENSOR BEING ACTIVATED BY OCCUPANT.
- TURN OFF LIGHTS AND FAN AFTER NO MOTION IS DETECTED AND DELAY EXPIRES.
- SET DELAY TO 10 MINUTES FOR LIGHTS, 30 MINUTES FOR EXHAUST FAN, UNLESS NOTED OTHERWISE.

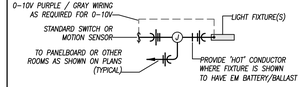
SALES AREAS:
- MANUAL ON AND ON/OFF/DIMMING CONTROL OF LIGHTING VIA 0-10V DIMMING SWITCHES.

BACK OF HOUSE AREAS:
- MANUAL ON AND ON/OFF CONTROL OF LIGHTING VIA TOGGLE SWITCHES.

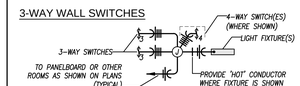
TYPICAL WIRING OF CONTROLS AND LIGHT FIXTURES

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



LIGHT FIXTURE SCHEDULE

FIXTURE TYPE	MANUFACTURER	CATALOG NUMBER / SERIES	DESCRIPTION	SOURCE	VOLT	NOTES
A	LITHONIA OR PRE-BID APPROVED EQUAL	LDN4CYL SERIES	4" ROUND SURFACE MOUNTED LED CYLINDER. ALUMINUM HOUSING, SEMI-SPECULAR LOW IRIDESCENT FINISH ALUMINUM REFLECTOR WITH 55 DEGREE BEAM ANGLE. INTEGRAL CONCEALED LENSED LED SOURCE. LED DRIVER PRE-WIRED FOR 0-10V DIMMING APPLICATIONS.	ONE (1) 20 WATT, 2000 LUMEN, L20 LED MODULE. 3000K CCT.	120	1
B	EUROFASE OR PRE-BID APPROVED EQUAL	DEMARK	6.75" X 4" TALL DOUBLE OVAL PENDANT. COORDINATE FINISH WITH ARCHITECT. POWER THROUGH AIRCRAFT CABLE. LINE VOLTAGE DIMMING DRIVER IN CANOPY. COORDINATE COLOR WITH ARCHITECT.	ONE (1) 6 WATT, 500 LUMEN MODULE. 3000K CCT.	120	1
B-ALT	EUROFASE OR PRE-BID APPROVED EQUAL	NAVADA	1" DIAMETER X 16" TALL LED CYLINDER PENDANT. COORDINATE FINISH WITH ARCHITECT. DROP CORD PENDANT, COORDINATE CORD TYPE AND COLOR WITH ARCHITECT. MONOPOINT CANOPY MOUNT. LINE VOLTAGE DIMMING.	ONE (1) 6 WATT, 500 LUMEN MODULE. 3000K CCT.	120	1,3
C1	TECH LIGHTING OR PRE-BID APPROVED EQUAL	LOOM 14 FLUSH SQUARE	14" SQUARE SURFACE MOUNTED LED FIXTURE WITH TRIANGULAR BAFFLES. 3.5" DEEP. COORDINATE FINISH WITH ARCHITECT. LINE VOLTAGE DIMMING DRIVER.	ONE (1) 20 WATT, 783 LUMEN MODULE. 3500K CCT.	120	1
C2	TECH LIGHTING OR PRE-BID APPROVED EQUAL	90 SMALL FLUSH MOUNT	5.3" SQUARE SURFACE MOUNTED LED FIXTURE WITH WHITE OPAL GLASS SHADE. 2.3" DEEP. COORDINATE FINISH WITH ARCHITECT. T20 LAMP BASE.	ONE (1) 5W LED T20 DIMMABLE LAMP. 3500K CCT.	120	1
D	WILLIAMS OR PRE-BID APPROVED EQUAL	PTS SERIES	2X4 SHALLOW SURFACE MOUNT FIXTURE. STEEL HOUSING AND FRAME WITH WHITE POWDER COAT FINISH. WELDED SEAMLESS CORNERS, 0-10V DIMMING DRIVER.	ONE (1) 32 WATT, 3800 LUMEN, L38 LED MODULE. 3500K CCT.	120	1
F	LITHONIA	ZL1N	4'-0" LONG LENSED STRIP FIXTURE. STEEL HOUSING WITH ALL PARTS PAINTED AFTER FABRICATION. INTEGRAL LED DRIVER PRE-WIRED FOR DIMMING APPLICATIONS.	ONE (1) 42 WATT, 5000 LUMEN, L50 LUMEN PACKAGE. 3500K CCT.	120	1,2
G	LUMARK	CROSSTOUR XTOR SERIES	LOW-PROFILE EXTERIOR WALL-MOUNTED FIXTURE. ONE-PIECE, DIE-CAST ALUMINUM HOUSING, IMPACT-RESISTANT, TEMPERED GLASS LENS. FORWARD THROW OPTICS. INTEGRAL LED DRIVER WITH HEAT SINK. POWDER COAT FINISH; COORDINATE WITH ARCHITECT/BUILDING OWNER. UL LISTED WET LOCATION. FURNISH WITH OPTIONAL PHOTOCELL FOR ON/OFF CONTROL OF LIGHT FIXTURE.	ONE (1) LED ARRAY. 26 WATTS, 2575 LUMENS. 3500K CCT.	120	1,2
H	ELECTRIC MIRROR	FACET BEVEL COLLECTION	MIRROR WITH 1" BACKLIT WHITE BEVELED EDGE. RAISED MIRROR, COPPER-FREE, CORROSION-RESISTANT GLASS. COORDINATE SIZE WITH ARCHITECT.	695 LUMENS PER FT, 100 LUMENS PER WATT. 3000K CCT.	120	1
J	LITELINE	FORUM	1' x 1' STATIC GRID LED FLAT PANEL, MITERED FRAME, EDGE LIT LOW GLARE OPTICS. ALL PARTS PAINTED WHITE AFTER FABRICATION. INTEGRAL 0-10V DIMMING LED DRIVER.	ONE (1) 20 WATT, 2100 LUMEN MODULE. 3500K CCT.	120	1
K	KUZCO	AMPERSAND PD22332	32" DIAMETER X 8" TALL CURVED DECORATIVE PENDANT. THIN CURVED RIBBON WITH WHITE ACRYLIC DIFFUSER, WRAPPED TO CREATE AN INFINITY SPIRAL EFFECT. INTEGRAL LED, REMOTE DRIVER PRE-WIRED FOR ELV OR TRIAC DIMMING. AIRCRAFT CABLE HUNG TO ARCHITECT'S SPECIFIED MOUNTING HEIGHT.	ONE (1) 66W, 4550 LUMEN LED ARRAY. 3000K CCT.	120	1
X	WILLIAMS OR PRE-BID APPROVED EQUAL	EXIT SERIES	LED EXIT SIGN, THERMOPLASTIC HOUSING, RED LETTERING, SEALED NI-CAD BATTERY, MINIMUM 90 MINUTE CAPACITY. DRAWINGS INDICATE ARROWS, DRAWINGS INDICATE SINGLE OR DOUBLE FACE. UNIVERSAL MOUNT. PROVIDE WITH METALLIC TWO-HEAD REMOTE HEAD AND ADDITIONAL BATTERY WHERE SHOWN ON PLAN.	LED, 5W	120	1
Y	SURE-LITES	APEL SERIES	ULTRA LOW-PROFILE 2" DEEP X 9" X 4.5" EMERGENCY LIGHTING UNIT. FLAME-RATED, UV-STABLE THERMOPLASTIC HOUSING. TWO (2) SEMI-RECESSED, ADJUSTABLE "EYEBALL" HEADS WITH GLASS LENS. BLACK FINISH. MAINTENANCE-FREE BATTERY FOR 90 MINUTE OPERATION OF LAMPS. INTEGRAL TEST SWITCH AND AC-ON INDICATOR.	TWO (2) 0.75 WATT 1W LED HEADS.	120	1

NOTES:
1. FURNISH WITH AND INSTALL ALL NECESSARY HARDWARE AND MOUNTING BRACKETS.
2. WHERE FIXTURE IS LABELED "DW", PROVIDE WITH IOTA ILB-CP10 (10W CONSTANT POWER EMERGENCY BATTERY PACK) OR APPROVED EQUAL.
3. PROVIDE DEDCT ALTERNATE PRICING FOR TYPE "B".

GENERAL NOTES (APPLICABLE TO ALL FIXTURES):
1) REFER TO SPECIFICATIONS FOR ADDITIONAL FIXTURE/DRIVER/BALLAST REQUIREMENTS.
2) LUMENS LISTED FOR LED FIXTURES ARE GENERALLY DELIVERED LUMENS UNLESS NOTED OTHERWISE.
3) WHERE SHOWN ON PLAN, PROVIDE WITH WEATHERPROOF REMOTE HEAD MOUNTED TO SOFFIT OR WALL ABOVE DOOR. 90 MINUTE BATTERY TO BE SIZED FOR BOTH THE EXIT SIGN AND EM HEAD.

GENERAL 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.

PLAN KEYED NOTES

1. ROUTE TO A SINGLE EXISTING 20A-1P CIRCUIT BREAKER IN EXISTING 120/240V/3PH PANEL. ENSURE BREAKER IS NOT CONNECTED TO HIGH LEG PHASE.
2. ROUTE THROUGH EXISTING TIME CLOCK/PHOTOCELL CONTACTOR ASSEMBLY AND ROUTE THROUGH CONTACTOR PROVIDED BY SECURITY COMPANY. COORDINATE WITH OWNER.
3. POWER FOR EXTERIOR SIGN. COORDINATE WITH SIGNAGE VENDOR AND PROVIDE ROUGH-IN AS REQUIRED.
4. POWER FOR DISPLAY CASE LIGHTING. COORDINATE WITH DISPLAY CASE VENDOR AND PROVIDE ROUGH-IN AS REQUIRED.
5. PROVIDE ONE RELAY FOR LIGHTING, ONE RELAY FOR EXHAUST FAN.
6. LOCATION SHOWN FOR CLARITY ONLY. LOCATE ADJACENT TO ELECTRICAL PANEL.
7. MOUNT TO BOTTOM OF ROOF DECK.

pkmr ENGINEERS
PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET LENEXA, KS 66215
913.492.2400 WWW.PKMRENG.COM
MO State Certificate of Authority #E-2002020886

3RD STREET DISPENSARY

510 SW 3RD ST. LEE'S SUMMIT, MO 64063

PERMIT SET

REVISION DATES:

1	City Comments	4/3/20

STATE OF MISSOURI
KEVIN J. ZIMMERMAN
NUMBER PE-2017029408
PROFESSIONAL ENGINEER
4/3/2020

Kevin J. Zimmerman - Engineer
MO# PE-2017029408
PROFESSIONAL SEAL

E101

ISSUE DATE: 03/27/2020

PKMR #: 19379

ELECTRICAL - PLANS, SCHEDULES & DETAILS

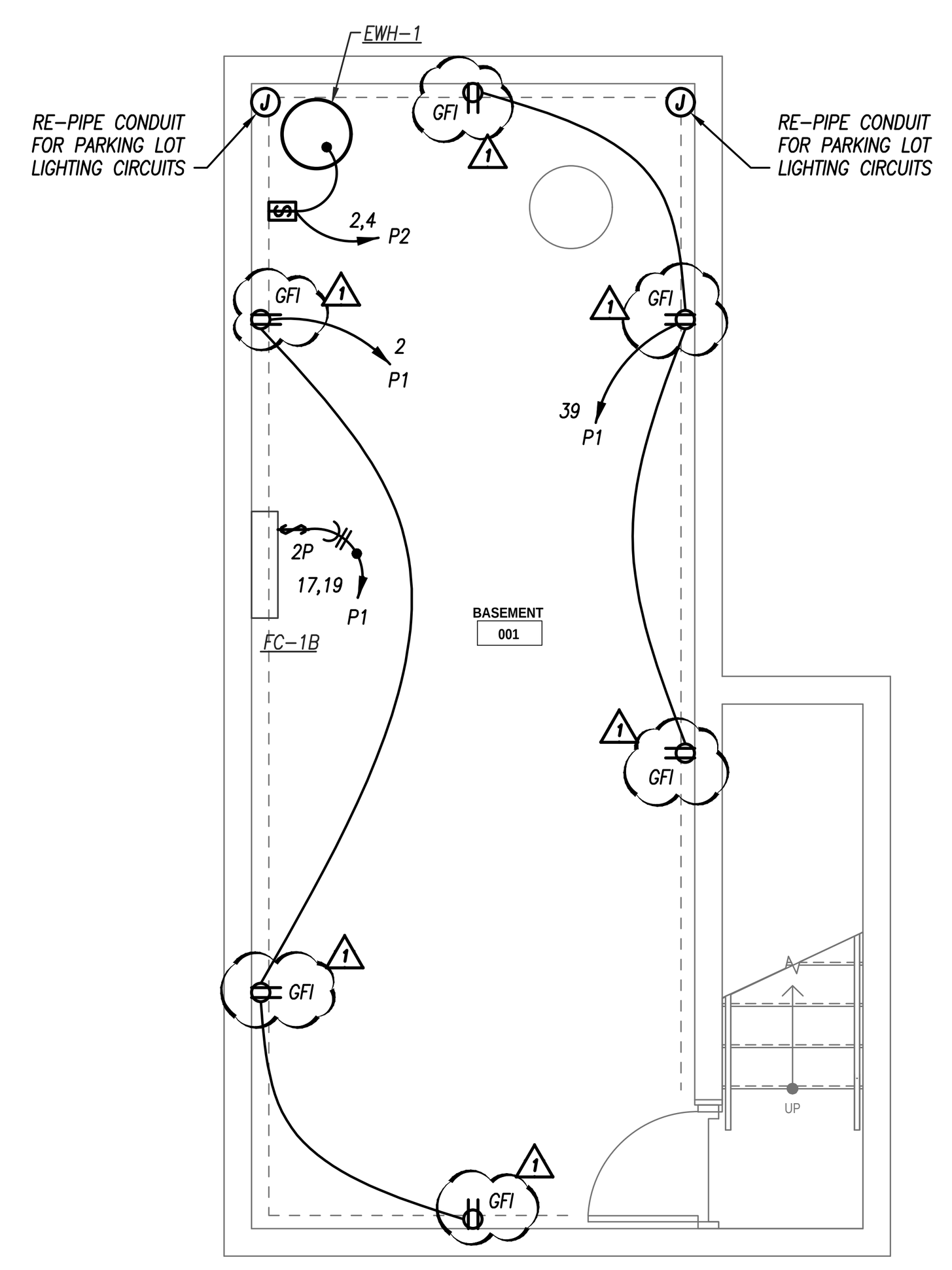
RELEASED FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/10/2020

GENERAL NOTES

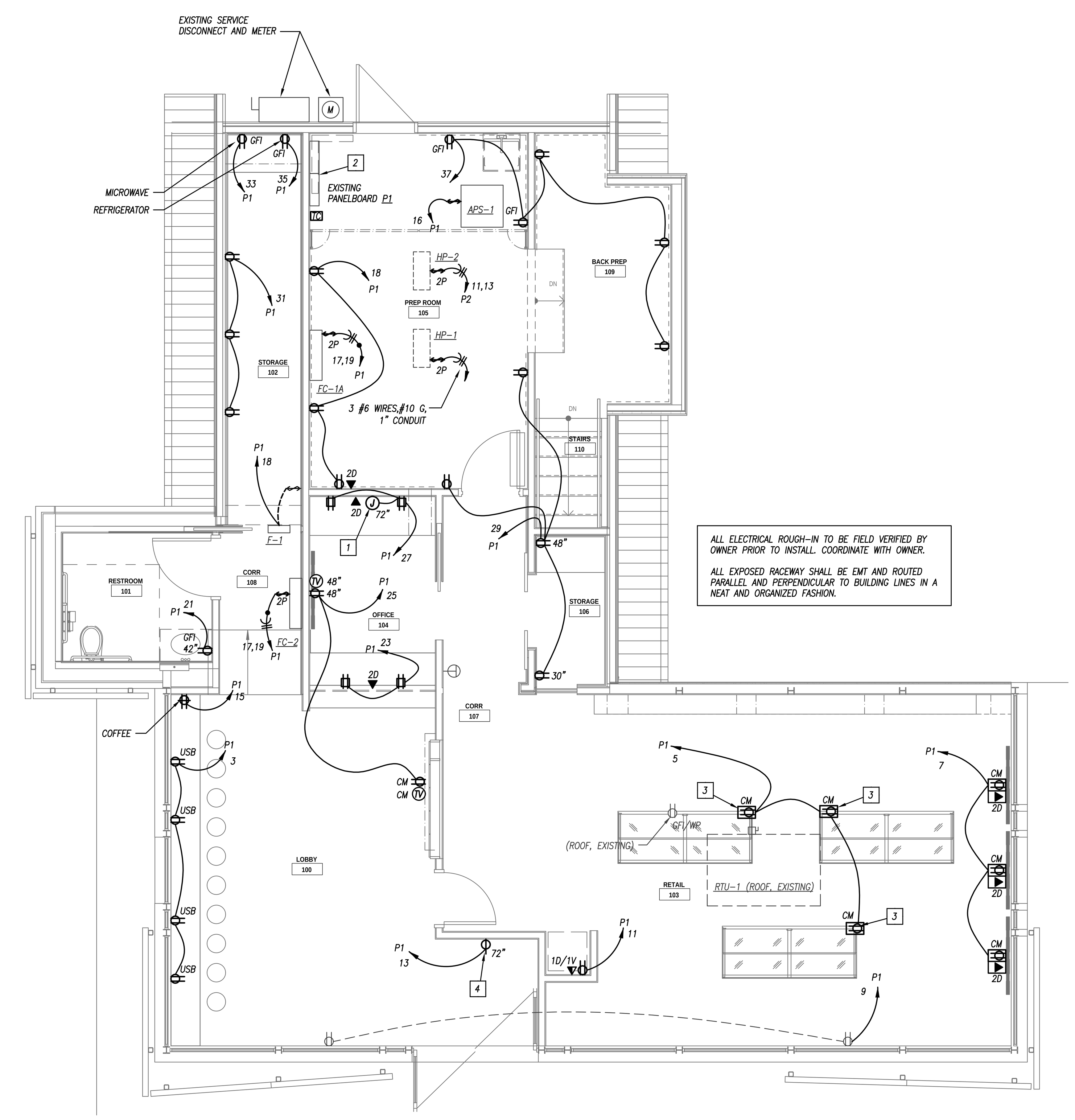
1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
2. LIGHT FIXTURES INDICATED AS EMERGENCY FIXTURES ARE TO FUNCTION AS NIGHT LIGHTS UNLESS SPECIFICALLY SHOWN SWITCHED.
3. ALL CIRCUITING SHOWN ON THIS PLAN IS DIAGRAMMATIC.
   - 3.1. ALL FIXTURES SHALL BE FED FROM JUNCTION 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.

PLAN KEYED NOTES

1. JUNCTION BOX FOR SIGN. COORDINATE EXACT REQUIREMENTS WITH OWNER.
2. PROVIDE NEW COVER FOR EXISTING PANEL. FIELD VERIFY EXACT PANEL MAKE AND MODEL. COORDINATE WITH OWNER.
3. RECEPTACLE MOUNTED TO STRUCTURE FOR BUDTENDER. COORDINATE EXACT LOCATION WITH OWNER.
4. SEMI-RECESSED CLOCK RECEPTACLE.



BASEMENT - FLOOR PLAN - POWER
1/4" = 1'-0"



FLOOR PLAN - POWER
1/4" = 1'-0"

SINGLE SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **P1**
MOUNTING: SURFACE
LOCATION: BACK OF HOUSE
MAIN LUG AMPS: 225
MAIN BREAKER: M.L.O.
VOLTAGE: 240/120
PHASE/WIRE: 1Ø, 3W

DESCRIPTION	PHASE A	PHASE B	C/B TRIP	C/B POLE	CIRCUIT #	CIRCUIT #	C/B POLE	C/B TRIP	PHASE A	PHASE B	DESCRIPTION
LTS - BACK OF HOUSE	512		20	1	1	2	1	20	540		REC - BASEMENT
REC - SALES		720	20	1	3	4	1	20		711	LTS - LOBBY + RETAIL
REC - SALES	540		20	1	5	6	1	20	1200		LTS - EXTERIOR LOT
REC - SALES		540	20	1	7	8	1	20		1000	DISPLAY CASE LIGHTING
REC - SALES	360		20	1	9	10	1	20	1500		EXTERIOR SIGNAGE
REC - SALES		1200	20	1	11	12	1	20		1500	EXTERIOR SIGNAGE
REC - LOBBY	250		20	1	13	14	1	20	1500		EXTERIOR SIGNAGE
REC - COFFEE MAKER		900	20	1	15	16	1	15		122	APS-1
FCU-1A, FCU-1B, FCU-2	315		15	2	17	18	1	15	72		FAN F-1
		315			19	20	1	20		1500	EXTERIOR SIGNAGE
REC - BATHROOM	180		20	1	21	22	1	20	–		SPARE
REC - OFFICE		720	20	1	23	24	1	20		–	SPARE
REC - TV'S	1700		20	1	25	26	1	20	–		SPARE
REC - OFFICE		1000	20	1	27	28	1	20		–	SPARE
REC - PREP. + STORAGE	720		20	1	29	30	1	20	–		SPARE
REC - STORAGE		540	20	1	31	32	1	20		–	SPARE
REC - MICROWAVE	900		20	1	33	34	1	–	–		SPACE
REC - REFRIGERATOR		1200	20	1	35	36	1	–		–	SPACE
REC - BACK PREP	900		20	1	37	38	1	–	–		SPACE
REC - BASEMENT		540	20	1	39	40	1	–		–	SPACE
TOTALS	0	0							0	0	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	9,423	1.25	11,779
RECEPTACLES	13,450	10KVA + 50% REST	11,725
MOTORS	0	1.25 x LARGEST + SUM OF REST	0
AIR CONDITIONING	630	1.00	630
SPACE HEATING	0	0.00	0
CONTINUOUS	194	1.25	243
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0
MISC. LOADS 2	0	1.00	0
		SIZING LOAD:	24,376
		SIZING LOAD (AMPS):	102

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	11,189	93.2
B	12,508	104.2
TOTALS	23,697	98.7

REMARKS:

1.PANEL IS EXISTING TO REMAIN. PROVIDE NEW COVER.

SINGLE SECTION PANELBOARD SCHEDULE

PANEL DESIGNATION: **P2 (EXISTING)**
MOUNTING: SURFACE
LOCATION: BACK OF HOUSE
MAIN LUG AMPS: 125
MAIN BREAKER: 100
VOLTAGE: 240/120
PHASE/WIRE: 3Ø, 4W (NOTE 2)

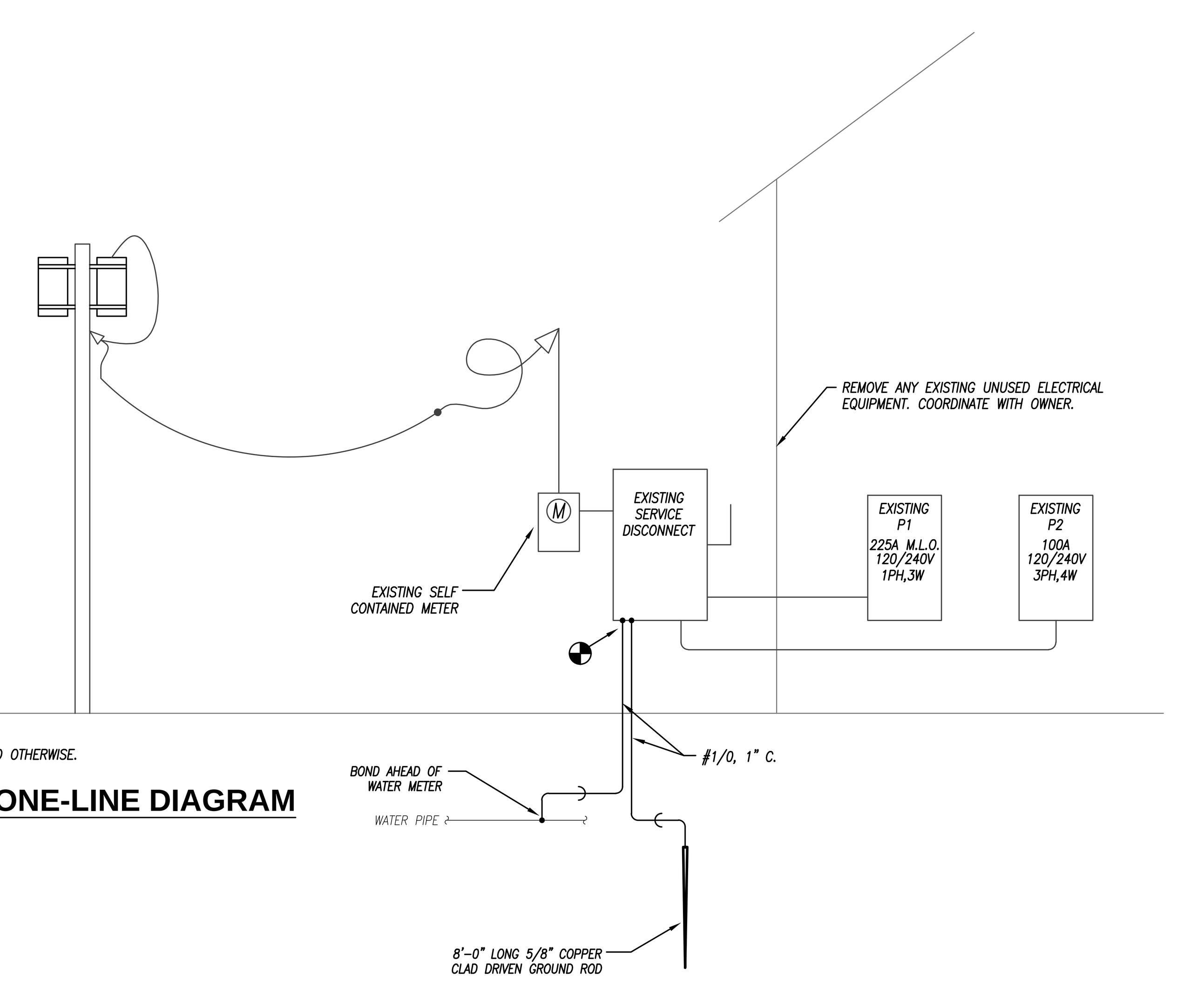
DESCRIPTION	PHASE A	PHASE B	PHASE C	C/B TRIP	C/B POLE	CIRCUIT #	CIRCUIT #	C/B POLE	C/B TRIP	PHASE A	PHASE B	PHASE C	DESCRIPTION
RTU - 1 (EXISTING)	3145			35	3	1	2	2	25	2000			WATER HEATER
		3145				3	4				2000		
			3145			5	6	1	20			–	SPARE
HP-1	3100			40	2	7	8	1	20	–			SPARE
		3100				9	10	1	–		–		208V SPACE
HP-2			1035	15	2	11	12	1	20			–	SPARE
	1035					13	14	1	20	–			SPARE
208V SPACE		–		–	1	15	16	1	–		–		208V SPACE
SPARE			–	20	1	17	18	1	–			–	SPACE
SPARE	–			20	1	19	20	1	–	–			SPACE
208V SPACE		–		–	1	21	22	1	–		–		208V SPACE
SPARE			–	20	1	23	24	1	–			–	SPACE
SPARE	–			20	1	25	26	1	–	–			SPACE
208V SPACE		–		–	1	27	28	1	–		–		208V SPACE
SPARE			–	20	1	29	30	1	–			–	SPACE
TOTALS	7280	6245	4180							2000	2000	0	TOTALS

PANELBOARD SIZING LOAD			
LOAD DESCRIPTION	CONNECTED	DEMAND	CODE MIN. (VA)
LIGHTS	0	1.25	0
RECEPTACLES	0	10KVA + 50% REST	0
MOTORS	9,435	1.25 x LARGEST + SUM OF REST	11,794
AIR CONDITIONING	0	1.00	0
SPACE HEATING	0	0.00	0
HEAT PUMP	8,270	1.00	8,270
CONTINUOUS	4,000	1.25	5,000
NON-CONTINUOUS	0	1.00	0
MISC. LOADS 1	0	1.00	0
		SIZING LOAD:	25,064
		SIZING LOAD (AMPS):	70

CONNECTED PHASE LOADS		
PHASE	VA	AMPS
A	9,280	77.3
B	8,245	68.7
C	4,180	34.8
TOTALS	21,705	60.3

REMARKS:

1. PANEL IS EXISTING TO REMAIN, PROVIDE NEW COVE
2. SERVICE IS A 240V-3PH WILD LEG SERVICE. THIS PANEL ASSUMES THE B-PHASE TO GROUND TO BE 208V. FIELD VERIFY EXACT CONFIGURATION. DO NOT CONNECT 120V LOADS TO THE 208V PHASE.



NOTE: ALL WORK IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.

EXISTING ELECTRICAL ONE-LINE DIAGRAM
NO SCALE

PEARSON KENT MCKINLEY RAAF ENGINEERS LLC
13300 W 98TH STREET LENEXA, KS 66215
913.492.2400 WWW.PKMRENG.COM
MO State Certificate of Authority #E-2002020886

PERMIT SET

3RD STREET DISPENSARY

510 SW 3RD ST. LEE'S SUMMIT, MO 64063

REVISION DATES:

1 City Comments 4/3/20

STATE OF MISSOURI PROFESSIONAL ENGINEER KEVIN J. ZIMMERMAN NUMBER PE-2017029408 4/3/2020
Kevin J. Zimmerman - Engineer
MO# PE-2017029408
PROFESSIONAL SEAL

E201

ISSUE DATE: 03/27/2020
PKMR #: 19379

ELECTRICAL - PLANS, SCHEDULES & DETAILS

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/10/2020