*RENDERING FOR ILLUSTRATIVE PURPOSES ONLY

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# P R O J E C T  T E A M


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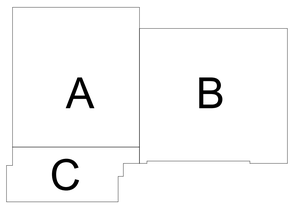
## ABBREVIATIONS

| | |
|---|---|
| AC. | ACOUSTIC/ACOUSTICAL |
| ADD. | ADDENDUM |
| ADD'N. | ADDITION |
| ABC | AGGREGATE BASE COURSE |
| AFF | ABOVE FINISH FLOOR |
| AGG. | AGGREGATE |
| A/C | AIR CONDITIONING |
| AL. | ALUMINUM |
| ALT. | ALTERNATE |
| A.B. | ANCHOR BOLT |
| & | AND |
| ARCH. | ARCHITECT |
| ASP. | ASPHALT |
| @ | AT |
| ACT | ACOUSTIC CEILING TILE/PANEL |
| ∠ | ANGLE |
| BLKG. | BLOCKING |
| BSMT. | BASEMENT |
| BM. | BEAM |
| B.M. | BENCHMARK |
| BD. | BOARD |
| B.O. | BOTTOM OF |
| BLDG. | BUILDING |
| CABT. | CABINET |
| C.I.P. | CAST IN PLACE |
| C.B. | CATCH BASIN |
| CLG. | CEILING |
| CEM. | CEMENT/CEMENTITIOUS |
| CG. | CENTIGRAM |
| CM | CENTIMETER |
| CL. | CENTER LINE |
| CER. | CERAMIC |
| C.T. | CERAMIC TILE |
| CHAN. | CHANNEL |
| C. | CHANNEL |
| CLR. | CLEAR |
| C.O. | CLEAN OUT |
| CLOS. | CLOSET |
| COL. | COLUMN |
| CONC. | CONCRETE |
| CONN. | CONNECTION |
| CONST. | CONSTRUCTION |
| C.J. | CONTROL JOINT |
| | CONSTRUCTION JOINT |
| CONT. | CONTINUOUS |
| CONTR. | CONTRACTOR |
| CORRG. | CORRUGATED |
| CTR. | COUNTER |
| CTSK. | COUNTERSUNK |
| C.M.U. | CONCRETE MASONRY UNIT |
| D.P. | DAMP PROOFING |
| DB. | DECIBEL |
| DIAG. | DIAGONAL |
| DIAM. | DIAMETER |
| DIM. | DIMENSION |
| DISP. | DISPENSER |
| DWL. | DOWEL |
| DN. | DOWN |
| D.S. | DOWNSPOUT |
| DWG. | DRAWING |
| EA. | EACH |
| ELEC | ELECTRIC |
| E.W.C. | ELECTRIC WATER COOLER |
| EL. | ELEVATION |
| ELEV. | ELEVATOR |
| EQ. | EQUAL |
| EQUIP. | EQUIPMENT |
| EXH. | EXHAUST |
| EXPAN. | EXPANSION |
| E.J. | EXPANSION JOINT |
| EXIST. | EXISTING |
| EXT. | EXTERIOR |
| FT. | FEET / FOOT |
| FIN. | FINISH |
| FIXT. | FIXTURE |
| FL. | FLASHING |
| FLR. | FLOOR |
| F.D. | FLOOR DRAIN |
| FLOR. | FLUORESCENT |
| FTG. | FOOTING |
| FND. | FOUNDATION |
| FR. | FRAME |
| F.H.C. | FIRE HOSE CAB. |
| FV. | FIELD VERIFY |
| GA. | GAUGE |
| GL. | GLASS / GLAZING |
| GD. | GRADE |
| G. | GRAM |
| GRL. | GRILLE |
| GRD. | GRID |
| GND. | GROUND |
| G.S. | GALVANIZED STEEL |
| GYP. | GYPSUM |
| GWB/G.B. | GYPSUM BOARD |
| H.R. | HAND RAIL |
| HDN. | HARDENER |
| HDW. | HARDWARE |
| HDWD. | HARDWOOD |
| HTR. | HEATER |
| HT. | HEIGHT |
| H.P. | HIGH POINT |
| H.M. | HOLLOW METAL |
| HORIZ. | HORIZONTAL |
| H.B. | HOSE BIB |
| H.W. | HOT WATER |
| IN. | INCH / INCHES |
| I.D. | INSIDE DIAMETER |
| INSUL. | INSULATION |
| INT. | INTERIOR |
| INV. | INVERT |
| JAN. | JANITOR |
| JT. | JOINT |
| JST. | JOIST |
| K.P. | KICK PLATE |
| LAM. | LAMINATED |
| LB. | POUND |
| LDG. | LANDING |
| LTH. | LATH |
| LAV. | LAVATORY |
| LG. | LENGTH |
| LOC. | LOCATION |
| LT. | LIGHT |
| L.W.C. | LIGHT WEIGHT CONCRETE |
| LVR. | LOUVER |
| LOC. | LOCATION |
| M.O. | MASONRY OPENING |
| MAT'L.. | MATERIAL |
| MFR. | MANUFACTURER |
| MB. | MARKER BOARD |
| MAX. | MAXIMUM |
| MECH. | MECHANICAL |
| MTL. | METAL |
| M.L. | METAL LATH |
| M. | METER |
| MIN. | MINIMUM |
| MLDG. | MOLDING |
| MULL. | MULLION |
| N.G. | NATURAL GRADE |
| NOM. | NOMINAL |
| N.I.C. | NOT IN CONTRACT |
| N.T.S. | NOT TO SCALE |
| NO. / # | NUMBER |
| OBS. | OBSCURE |
| O.C. | ON CENTER |
| OPN'G. | OPENING |
| O.A. | OVERALL |
| O.D. | OUTSIDE DIAMETER |
| O.F.S. | OVERFLOW SCUPPER |
| O.F.D. | OVERFLOW DRAIN |
| O.H.D. | OVERHEAD DOOR |
| PTD. | PAINTED |
| PG. | PAGE |
| PLAM. | PLASTIC LAMINATE |
| PR. | PAIR |
| PNL. | PANEL |
| PTN. | PARTITION |
| ¢ | PENNY |
| PL. | PLATE |
| PLBG. | PLUMBING |
| PLYWD. | PLYWOOD |
| PT. | POINT |
| P.S.I. | POUNDS PER SQ. IN. |
| P.S.F. | POUNDS PER SQ. FT. |
| P.C. | PRECAST |
| P.L. | PROPERTY LINE |
| R. | RISER, RISERS |
| RAD. | RADIUS |
| R.D. | ROOF DRAIN |
| RB. | RESILIENT BASE |
| RE. | REFER TO |
| REG. | REGISTER |
| REQ'D. | REQUIRED |
| REV. | REVISION |
| RFG. | ROOFING |
| RGH. | ROUGH |
| RM. | ROOM |
| RND. | ROUND |
| R.O. | ROUGH OPENING |
| SCHED. | SCHEDULE |
| S.C. | SEALED CONCRETE |
| SCR. | SCREW |
| SECT. | SECTION |
| SEL. | SELECT |
| SHG. | SHEATHING |
| SHT. | SHEET |
| SDG. | SIDING |
| SIM. | SIMILAR |
| SLDG. | SLIDING |
| SM. | SMOOTH |
| SPEC. | SPECIFICATION |
| SQ. | SQUARE |
| ST. | STAINED |
| STD. | STANDARD |
| S.S. / ST.STL. | STAINLESS STEEL |
| STRUC. | STRUCTURE |
| SUSP. | SUSPENDED |
| SW.BD. | SWITCHBOARD |
| SYS. | SYSTEM |
| T. | TREAD |
| T.C. | TOP OF CURB |
| T.G. | TEMPERED GLASS |
| T.O. | TOP OF |
| T.S.D. | TOP OF STEEL DECK |
| T.W. | TEACHERS WARDROBE |
| TYP. | TYPICAL |
| U.N.O. | UNLESS NOTED OTHERWISE |
| V. | VENT |
| VERT. | VERTICAL |
| V.G. | VERTICAL GRAIN |
| VEST. | VESTIBULE |
| V.C.T. | VINYL COMPOSITION TILE |
| VCP | VITREOUS CLAY PIPE |
| W.W.M. | WELDED WIRE MESH |
| W.C. | WATER CLOSET |
| W.H. | WATER HEATER |
| W.F. | WIDE FLANGE |
| W/ | WITH |
| W/O | WITHOUT |
| WD. | WOOD |
| WDW. | WINDOW |
| W.W. | WINDOW WALL |

## LOCATION PLAN

## KEY PLAN




## SHEET INDEX - CORE/SHELL


| SHEET NUMBER | SHEET NAME |
|---|---|
| GENERAL | |
| A0.1 | COVER SHEET |
| A0.2 | CODE FOOTPRINT PLAN |
| A0.3 | PARTITION TYPES AND DETAILS |
| A0.4 | U.L. DESIGN ASSEMBLIES |
| A0.5 | GENERAL NOTES, LEGENDS & SYMBOLS |
| ARCHITECTURE | |
| A1.0 | ARCHITECTURAL SITE PLAN & DETAILS |
| A2.1 | FIRST FLOOR DIMENSION PLAN |
| A2.2 | ROOF PLAN |
| A2.3 | ROOF DETAILS |
| A2.4 | PLAN DETAILS |
| A3.1 | REFLECTED CEILING PLAN |
| A4.1 | DOOR AND FRAME SCHEDULE AND DETAILS |
| A5.1 | EXTERIOR ELEVATIONS |
| A5.2 | GLAZING ELEVATIONS |
| A6.1 | BUILDING SECTIONS |
| A6.2 | WALL SECTIONS |
| A6.3 | WALL SECTIONS |
| A6.4 | WALL SECTIONS |
| A6.5 | SECTION DETAILS |
| A6.6 | SECTION DETAILS |
| STRUCTURAL | |
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| S1.0 | FOUNDATION PLAN |
| S2.0 | LOW ROOF & CANOPY FRAMING PLAN |
| S2.1 | HIGH (MAIN) ROOF FRAMING PLAN |
| S2.2 | BRACING ELEVATIONS |
| S3.0 | FOUNDATION SECTIONS |
| S4.0 | ROOF FRAMING SECTIONS |
| S4.1 | ROOF FRAMING SECTIONS |
| S4.2 | CANOPY FRAMING SECTIONS |
| S4.3 | ROOF FRAMING SECTIONS |
| S4.4 | ROOF FRAMING SECTIONS |


## SHEET INDEX - TI


| SHEET NUMBER | SHEET NAME |
|---|---|
| ARCHITECTURE | |
| TI-A2.1 | TI - FIRST FLOOR PLAN |
| TI-A2.2 | ENLARGED ANNOTATION PLAN - AREA A |
| TI-A2.3 | ENLARGED ANNOTATION PLAN - AREA B |
| TI-A2.4 | ENLARGED ANNOTATION PLAN - AREA C |
| TI-A3.1 | FIRST FLOOR REFLECTED CEILING PLAN |
| TI-A3.2 | ENLARGED RCP - AREA A |
| TI-A3.3 | ENLARGED RCP - AREA B |
| TI-A3.4 | ENLARGED RCP - AREA C |
| TI-A4.1 | DOOR AND FRAME SCHEDULE AND DETAILS |
| TI-A4.2 | ROOM FINISH SCHEDULE & FINISH LEGEND |
| TI-A4.3 | FFE SCHEDULE |
| TI-A7.3 | INTERIOR ELEVATIONS |
| TI-A7.4 | INTERIOR ELEVATIONS |
| TI-A7.6 | INTERIOR DETAILS |
| TI-A7.7 | INTERIOR DETAILS |
| TI-A7.8 | INTERIOR DETAILS |
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| P2.1C | FIRST FLOOR WATER & GAS PLAN - AREA C |
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| P3.1B | FIRST FLOOR GAS & VACUUM PLAN - AREA B |
| P3.1C | FIRST FLOOR GAS & VACUUM PLAN - AREA C |
| P4.1 | ROOF PLUMBING PLAN |
| P5.1 | PLUMBING DETAILS |
| P5.2 | PLUMBING DETAILS |
| P5.3 | PLUMBING DETAILS |
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| P6.2 | PLUMBING SCHEDULES |
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| E7.3 | ELECTRICAL SCHEDULES |
| E7.4 | ELECTRICAL SCHEDULES |
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| T1.1 | FIRST FLOOR TECHNOLOGY PLAN - OVERALL |
| T2.1 | TECHNOLOGY DETAILS |
| T2.2 | NURSE CALL DETAILS |
| T3.1 | TECHNOLOGY SIGNAL FLOWS |


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SAMUEL K. BECKMAN
NUMBER A-2011012130
ARCHITECT
2/8/2023


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License - Missouri #A-2011012130

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| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | RN |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

A0.1

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COVER SHEET

2/9/2023 10:06:02 AM

# OCCUPANT LOAD

| NUMBER | ROOM NAME | AREA | OCC LOAD FACTOR | OCCUPANTS |
|---|---|---|---|---|
| 100 | WAITING | 1004 SF | 7 | 144 |
| 100B | REFRESHMENT | 79 SF | 7 | 12 |
| 102 | RECEPTION | 273 SF | 150 | 2 |
| 103 | CHECK-IN | 58 SF | 150 | 1 |
| 104 | CHECK-IN | 65 SF | 150 | 1 |
| 105 | ADMINISTRATION | 410 SF | 150 | 3 |
| 108 | COMMS | 75 SF | 300 | 1 |
| 109 | EXAM | 105 SF | 100 | 2 |
| 111 | CONSULT | 81 SF | 100 | 1 |
| 115 | PR 2 | 105 SF | 100 | 2 |
| 116 | PR 1 | 99 SF | 100 | 1 |
| 117 | PR 3 | 105 SF | 100 | 2 |
| 118 | NURSE STATION | 239 SF | 100 | 3 |
| 119 | ALCOVE | 29 SF | 100 | 1 |
| 121 | PR 4 - 23 HR | 121 SF | 100 | 2 |
| 122 | MEDS. | 85 SF | 100 | 1 |
| 124 | PR 7 | 99 SF | 100 | 1 |
| 125 | PR 5 - 23 HR | 121 SF | 100 | 2 |
| 126 | PR 8 | 99 SF | 100 | 1 |
| 127 | PR 6 | 105 SF | 100 | 2 |
| 128 | PR 9 | 99 SF | 100 | 1 |
| 129 | OFFICE 4 | 123 SF | 150 | 1 |
| 131 | NOURISH. | 48 SF | 100 | 1 |
| 132 | PR 1 | 102 SF | 100 | 2 |
| 133 | PR 4 | 99 SF | 100 | 1 |
| 134 | PR 2 | 97 SF | 100 | 1 |
| 135 | CLEAN | 119 SF | 100 | 2 |
| 136 | PR 3 | 97 SF | 100 | 1 |
| 137 | STORAGE | 174 SF | 300 | 1 |
| 138 | PR 5 | 97 SF | 100 | 1 |
| 142 | PR 6 | 97 SF | 100 | 1 |
| 144 | PR 7 | 97 SF | 100 | 1 |
| 146 | PR 8 | 97 SF | 100 | 1 |
| 151 | DICTATION | 23 SF | 100 | 1 |
| 152 | GI PROCEDURE | 340 SF | 100 | 4 |
| 153 | SCOPE DECON. | 172 SF | 100 | 2 |
| 154 | SCOPE STORAGE | 73 SF | 300 | 1 |
| 155 | SCOPE REPROCESSING | 111 SF | 100 | 2 |
| 156 | GI PROCEDURE | 304 SF | 100 | 4 |

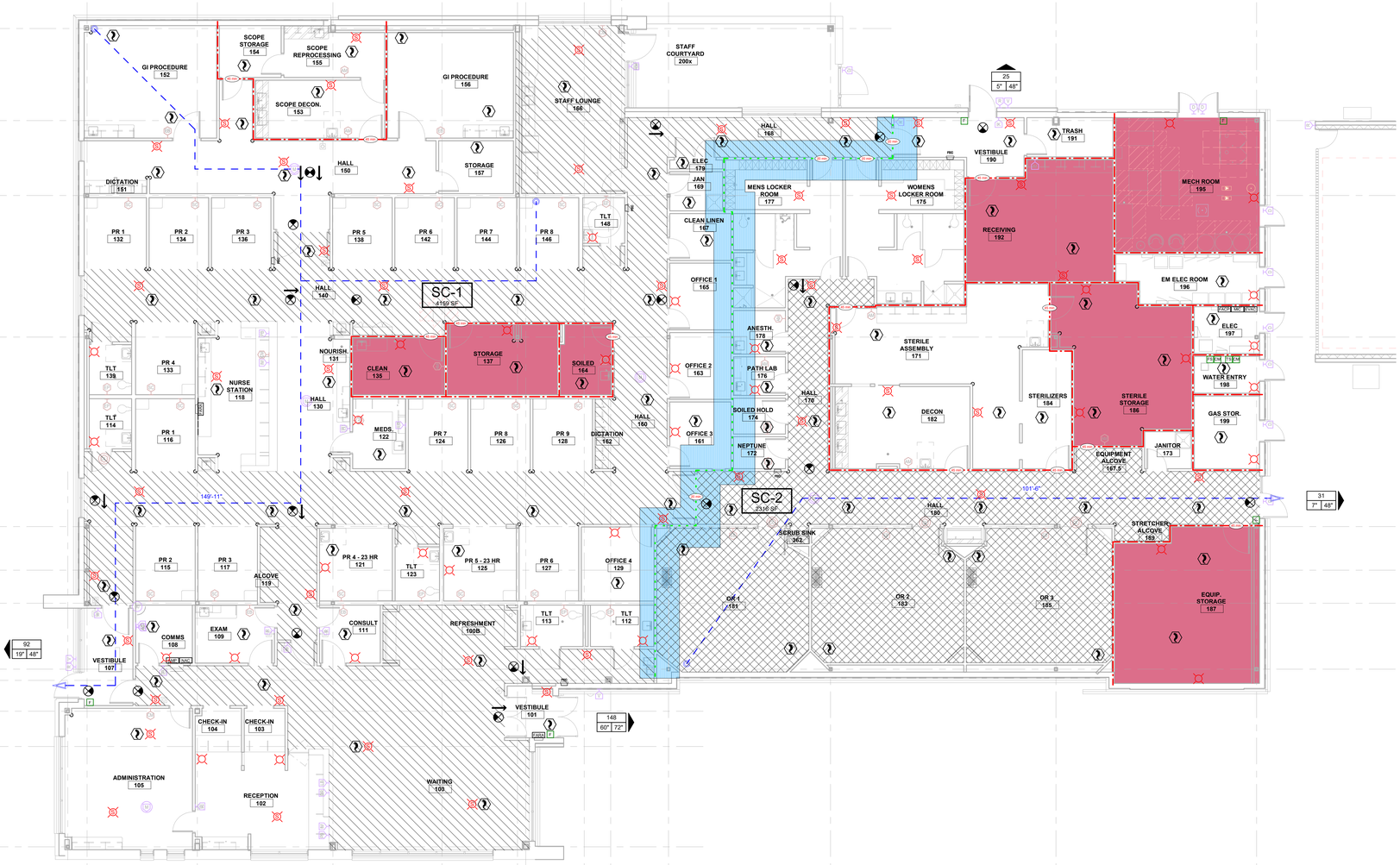
# OCCUPANT LOAD

| NUMBER | ROOM NAME | AREA | OCC LOAD FACTOR | OCCUPANTS |
|---|---|---|---|---|
| 157 | STORAGE | 90 SF | 300 | 1 |
| 161 | OFFICE 3 | 93 SF | 150 | 1 |
| 162 | DICTATION | 30 SF | 100 | 1 |
| 163 | OFFICE 2 | 93 SF | 150 | 1 |
| 164 | SOILED | 80 SF | 300 | 1 |
| 165 | OFFICE 1 | 93 SF | 150 | 1 |
| 166 | STAFF LOUNGE | 398 SF | 150 | 3 |
| 167 | CLEAN LINEN | 66 SF | 300 | 1 |
| 167.5 | EQUIPMENT ALCOVE | 36 SF | 100 | 1 |
| 169 | JAN | 47 SF | 300 | 1 |
| 171 | STERILE ASSEMBLY | 489 SF | 100 | 5 |
| 172 | NEPTUNE | 38 SF | 300 | 1 |
| 173 | JANITOR | 40 SF | 300 | 1 |
| 174 | SOILED HOLD | 43 SF | 300 | 1 |
| 175 | WOMENS LOCKER ROOM | 356 SF | 50 | 8 |
| 176 | PATH LAB | 46 SF | 100 | 1 |
| 177 | MENS LOCKER ROOM | 323 SF | 50 | 7 |
| 178 | ANESTH. | 52 SF | 100 | 1 |
| 179 | ELEC | 11 SF | 300 | 1 |
| 181 | OR 1 | 473 SF | 100 | 5 |
| 182 | DECON | 252 SF | 100 | 3 |
| 183 | OR 2 | 445 SF | 100 | 5 |
| 184 | STERILIZERS | 135 SF | 300 | 1 |
| 185 | OR 3 | 428 SF | 100 | 5 |
| 186 | STERILE STORAGE | 418 SF | 300 | 2 |
| 187 | EQUIP. STORAGE | 468 SF | 300 | 2 |
| 189 | STRETCHER ALCOVE | 13 SF | 100 | 1 |
| 191 | TRASH | 76 SF | 300 | 1 |
| 192 | RECEIVING | 380 SF | 300 | 2 |
| 195 | MECH ROOM | 441 SF | 300 | 2 |
| 196 | EM ELEC ROOM | 151 SF | 300 | 1 |
| 197 | ELEC | 70 SF | 300 | 1 |
| 198 | WATER ENTRY | 55 SF | 300 | 1 |
| 199 | GAS STOR. | 109 SF | 300 | 1 |
| Grand total | | | | 285 |

## AREA OF REFUGE CALCULATION

| SMOKE COMPARTMENT #1 | | SMOKE COMPARTMENT #2 | |
|---|---|---|---|
| 22 PATIENTS X 30 SF= (TOTAL REQUIRED AREA) | | 15 PATIENTS X 30 SF= (TOTAL REQUIRED AREA) | |
| "DEFEND IN PLACE" (REMAIN IN SC#1) AREA PROVIDED FOR SC#1 | **4,159 SF** | "DEFEND IN PLACE" (REMAIN IN SC#2) AREA PROVIDED FOR SC#2 | **2,316 SF** |
| MOVE COMPARTMENTS, (TO COMPARTMENT #2) AREA PROVIDED FOR SC#2 | **2,316 SF** | MOVE COMPARTMENTS, (TO COMPARTMENT #1) AREA PROVIDED FOR SC#1 | **4,159 SF** |

*PER 2018 IBC, SECTION 422.3.2




A1 CODE FOOTPRINT PLAN
1/8" = 1'-0"

NORTH

*THIS DRAWING IS INTENDED TO BE PRINTED IN COLOR. USE BLACK AND WHITE COPIES AT YOUR OWN RISK.

# CODE SUMMARY

**PROJECT CONSTRUCTION PURPOSE**: New Construction of an Ambulatory Surgery Center

**OWNER:**
Hammes Partners Headquarters
1400 N. Water Street, Suite 500
Milwaukee, Wisconsin 53202

**DESIGNER:**
ACI Boland Architects
1710 Wyandotte St.
Kansas City, MO 64108
Phone: (816) 763-9600

**LOCAL AUTHORITY:**
RESPONDING FIRE SERVICE: Lee's Summit Fire Department
LOCAL BUILDING INSPECTION: Lee's Summit, Missouri - Codes Administration Department

**CODE INFORMATION:**
2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL FIRE CODE
2018 INTERNATIONAL RESIDENTIAL CODE
2018 INTERNATIONAL FUEL GAS CODE
2017 NATIONAL ELECTRIC CODE (NFPA 70)
2022 MISSOURI 19 CSR 30-30

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN / AMERICANS WITH DISABILITIES ACT OF 1990
2009 ICC/ANSI A11.71

NOTE: IF CODE REQUIREMENTS OVERLAP, THE MOST STRINGENT SHALL APPLY.

**TYPE OF CONSTRUCTION**: IBC II (000) NFPA

**Allowable Area**

| 2018 IBC Table 506.2 | Allowable | Actual |
|---|---|---|
| Allowable Area | 92,000 | +/- 17,920 |
| (Type II-B Sprinklered One Story) | | |

**Allowable Height**

| 2018 IBC Table 504.3 | Allowable | Actual |
|---|---|---|
| Building Height | 75' | 30'-9" |
| (Type II-B Sprinklered) | | |
| 2012 NFPA 5000 Table 7.4.1 | Allowable | Actual |
| Building Height | 75' | 30'-9" |
| (Type II-B Sprinklered) | | |

**OCCUPANCY GROUP**: IBC NEW AMBULATORY HEALTHCARE NFPA

**OCCUPANT LOAD**:
TOTAL SQUARE FOOTAGE: SF / = 17,920 SF
TOTAL NUMBER OF OCCUPANTS = 284

**DEAD END CORRIDOR LENGTH LIMIT**: 50'

**EXIT ACCESS TRAVEL DISTANCE**: 300' MAXIMUM

**COMMON PATH OF TRAVEL**: 149'-11"

**AREA OF CONSTRUCTION:**
+/- 17,920 SF

**REQUIRED FIRE RESISTANCE RATINGS (IN HOURS) PER NFPA 101 A.8.2.1.2:**

| | |
|---|---|
| EXTERIOR BEARING WALLS | 0 HR |
| INTERIOR BEARING WALLS | 0 HR |
| PRIMARY STRUCTURAL FRAME | 0 HR |
| FLOOR CONSTRUCTION | 0 HR |
| ROOF CONSTRUCTION | 0 HR |
| INTERIOR NON-BEARING WALLS | 0 HR |

**ACTIVE FIRE SAFETY FEATURES:**
*- FIRE ALARM SYSTEM - THE FIRE ALARM SYSTEM IS SPECIFIED AS AN ADDRESSABLE TYPE SYSTEM. THE DEVICE TYPE AND LOCATIONS ARE PER THE APPLICABLE CODES AS WELL AS ADA REQUIREMENTS.*

*- SMOKE CONTROL SYSTEM - ALL DUCTWORK PENETRATING SMOKE RATED WALLS WILL HAVE A SMOKE OR COMBINATION FIRE/SMOKE DAMPER AS INDICATED ON CONSTRUCTION DOCUMENTS. THESE DAMPERS WILL CLOSE UPON DETECTION OF SMOKE BY THE AREA SMOKE DETECTORS OR DUCT SMOKE DETECTORS IN THE AIR HANDLING UNITS.*

*- FIRE SPRINKLER SYSTEM - SPECIFIED TO BE PER NFPA 13. THE SPRINKLER HEADS ARE SPECIFIED TO BE QUICK RESPONSE TYPE.*

*- EMERGENCY LIGHTING AND POWER - EMERGENCY LIGHTING, LIFE SAFETY AND CRITICAL LOADS WILL RECEIVE POWER FROM A BACKUP GENERATOR LOCATED OUTSIDE THE MAIN ELECTRICAL ROOM.*

*- ILLUMINATED EXIT SIGNS*

**PASSIVE FIRE SAFETY FEATURES**:

*- SMOKE COMPARTMENTS NO GREATER THAN 22,500 SF*

# CODE FOOTPRINT LEGEND

## PARTITION TYPES

- 0 HR SMOKE PARTITION (SMOKE RESISTIVE)
- 1 HR SMOKE BARRIER
- 1 HR FIRE BARRIER
- 2 HR FIRE BARRIER
- 2 HR FIRE SMOKE BARRIER
- 3 HR FIRE BARRIER

## AREA DESIGNATIONS

- CORRIDOR
- EXIT ENCLOSURE
- HAZARDOUS ROOM
- SHAFT

## BOUNDARY DESIGNATIONS

- SMOKE COMPARTMENT 1 HR SMOKE BARRIER
- REFUGE AREA - SMOKE COMPARTMENT #1
- NOT IN ARCHITECTURAL SCOPE
- REFUGE AREA - SMOKE COMPARTMENT #2

## SYMBOLS

- SC-1 SIZE SF — SMOKE COMPARTMENT DESIGNATION
- S1 NON-SLEEP SIZE SF — SUITE DESIGNATION
- FIRE EXIT
- 50 / 12" / 36" — OCCUPANT LOAD; EXIT WIDTH PROVIDED; EXIT WIDTH REQUIRED
- NEW FIRE EXTINGUISHER CABINET
- EXISTING FIRE EXTINGUISHER CABINET
- EXIT SIGN
- FIRE DOOR RATING
- 124' — TRAVEL DISTANCE
- FIRE/SMOKE DAMPER
- SMOKE DETECTOR
- HEAT DETECTOR
- STROBE
- STROBE/SPEAKER
- HORN/STROBE
- HORN
- F — FIRE PULL STATION
- FIRE SPRINKLER ZONE VALVE


Samuel K. Beckman - Architect
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2/8/2023

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**MEP CONSULTANT**
**Branch Pattern**
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| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
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CODE FOOTPRINT PLAN

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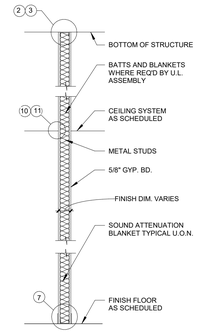
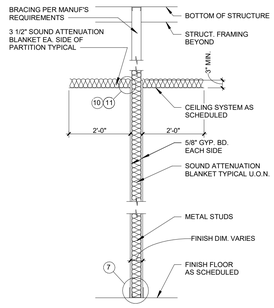
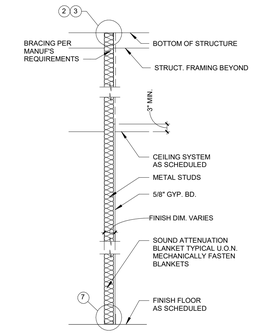



A GYPSUM BOARD BOTH SIDES
NON-RATED - TYPICAL
1/2" = 1'-0"

| U.L. DESIGNATIONS AT RATED WALLS AS INDICATED ON LIFE SAFETY PLAN |
|---|
| 1 HOUR FIRE SEPARATION U.L. U465 FOR 3 5/8" STUDS U.L. U451 FOR 2 1/2" STUDS |

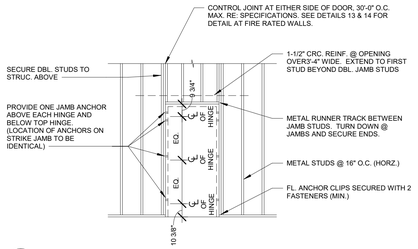



G GYPSUM BOARD CEILING HEIGHT
1/2" = 1'-0"

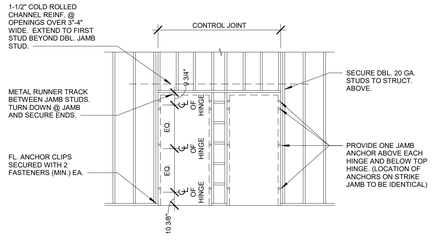



K GYPSUM BOARD ONE SIDE ONLY, CEILING HEIGHT
1/2" = 1'-0"

L GYPSUM BOARD ONE SIDE ONLY, FULL HEIGHT
1/2" = 1'-0"




18 SINGLE DOOR FRAMING DETAILS
1/4" = 1'-0"




19 ADJACENT DOORS FRAMING DETAILS
1/4" = 1'-0"

# PARTITION GENERAL NOTES

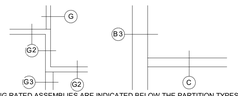
1. UNLESS NOTED OTHERWISE, ALL INTERIOR METAL STUDS ARE 3 5/8" THICK. REFER TO SUFFIX SCHEDULE BELOW FOR LOCATIONS OF METAL STUDS OTHER THAN 3-5/8" THICK. NOTE: STUD THICKNESS (GAUGE) MUST CONFORM TO MANUFACTURER'S RECOMMENDATIONS FOR SPAN (HEIGHT OF STUD)
2. WHERE THE PARTITION TYPE INDICATION IS SHOWN WITH A NUMERICAL SUFFIX, THE METAL STUD THICKNESS SHALL BE AS SCHEDULED BELOW:

| SUFFIX | MTL. STUD THICKNESS |
|---|---|
| 1 | 1-5/8" MTL. STUDS |
| 2 | 2-1/2" MTL. STUDS |
| 3 | 6" MTL. STUDS |

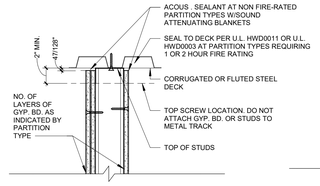
3. UNLESS NOTED OTHERWISE, ALL INTERIOR DRYWALL PARTITIONS INDICATED ON THE FLOOR PLAN DRAWING ARE TYPE 'A' PARTITIONS. WHERE OCCURS, RATINGS ARE AS INDICATED ON THE LIFE SAFETY PLANS.
4. UNLESS NOTED OTHERWISE, ALL CMU PARTITIONS ARE 7-5/8", 8" NOMINAL. REFER TO SUFFIX SCHEDULE BELOW FOR LOCATIONS OF CMU PARTITIONS OTHER THAN 8" NOMINAL.
5. WHERE THE PARTITION TYPE INDICATION IS SHOWN WITH A NUMERICAL SUFFIX, THE CMU THICKNESS SHALL BE AS SCHEDULED BELOW:

| SUFFIX | CMU THICKNESS |
|---|---|
| 1 | ACTUAL 3-5/8", 4" NOMINAL |
| 2 | ACTUAL 5-5/8", 6" NOMINAL |
| 3 | ACTUAL 11-5/8", 12" NOMINAL |

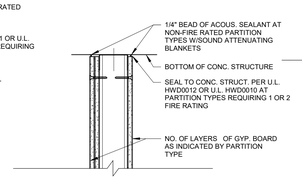
6. UNLESS NOTED OTHERWISE, ALL INTERIOR MASONRY PARTITIONS INDICATED ON THE FLOOR PLAN DRAWING ARE TYPE 'B' PARTITIONS. WHERE OCCURS, RATINGS ARE AS INDICATED ON THE LIFE SAFETY PLANS.
7. ALL STUDS ARE CONTINUOUS FROM FLOOR STRUCTURE TO CEILING STRUCTURE UNLESS NOTED OTHERWISE.
8. METAL STUDS ARE SPACED @ 16" O.C. MAX., UNLESS NOTED OTHERWISE.
9. UNLESS NOTED OTHERWISE, ALL GYPSUM BOARD IS TO BE 5/8" THICK "FIRECODE".
10. THE LOCATION OF A CHANGE IN THE PARTITION TYPE IS INDICATED BY A WALL TAG.



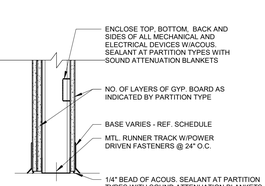

11. THE CORRESPONDING RATED ASSEMBLIES ARE INDICATED BELOW THE PARTITION TYPES.
12. PARTITION TYPE DESIGNATIONS ARE INDICATED ON THE FLOOR PLAN DRAWINGS.
13. PARTITION TYPES DO NOT INCLUDE APPLIED FINISHES CALLED FOR IN THE ROOM FINISH SCHEDULE.
14. AT PARTITION TYPES WHERE MTL. STUDS ARE EXPOSED ON ONE OR BOTH SIDES, CUT STUD 1/4" SHORT AND SCREW BOTH SIDES TO MTL. RUNNER TRACK.



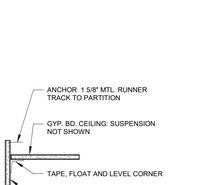

2 TOP ANCHORAGE OF PARTITION TO METAL DECK
1-1/2" = 1'-0"



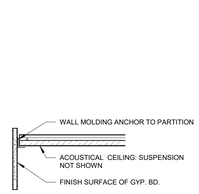

3 TOP ANCHORAGE OF PARTITION TO CONCRETE STRUCTURE SEE 3A AND 3B FOR ADDITIONAL INFORMATION
1-1/2" = 1'-0"




7 FLOOR ANCHORAGE OF PARTITION
1-1/2" = 1'-0"




10 SUSPENDED GYP. BD. CEILING
1-1/4" = 1'-0"




11 CEILING DETAILS FOR GYP. BD. VERTICAL SURFACES
1-1/4" = 1'-0"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| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
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PARTITION TYPES AND DETAILS

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ONLINE CERTIFICATIONS DIRECTORY

# Design No. U465
## BXUV.U465
## Fire-resistance Ratings - ANSI/UL 263

Page Bottom

## Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, systems, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information should be reviewed to determine that it addresses all pertinent code requirements.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

## BXUV - Fire Resistance Ratings - ANSI/UL 263

## BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263

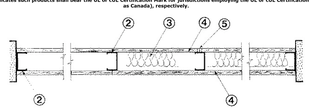
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

# Design No. U465

August 25, 2016

**Nonbearing Wall Rating — 1 HR.**

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




1. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped runners, 3-5/8 in. deep (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — As an alternate to Item 1 — Channel shaped, min 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.

**ALLSTEEL & GYPSUM PRODUCTS INC** — Type SUPREME Framing System

**CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV** — Type SUPREME Framing System

**QUAIL RUN BUILDING MATERIALS INC** — Type SUPREME Framing System

**SCAFCO STEEL STUD MANUFACTURING CO** — Type SUPREME Framing System

**STEEL CONSTRUCTION SYSTEMS INC** — Type SUPREME Framing System

**UNITED METAL PRODUCTS INC** — Type SUPREME Framing System

1B. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**CALIFORNIA EXPANDED METAL PRODUCTS CO** — Viper20™ Track

**CRACO MFG INC** — SmartTrack20™

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

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

1D. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1C — For use with Item 2D and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**CLARKDIETRICH BUILDING SYSTEMS** — CD ProSTUD

**DMFCWBS L L C** — ProSTUD

**MBA METAL FRAMING** — ProSTUD

**RAM SALES L L C** — Ram ProSTUD

**STEEL STRUCTURAL PRODUCTS L L C** — Tri-S ProSTUD

1E. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1D — For use with Item 2E and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**TELLING INDUSTRIES L L C** — TRUE-TRACK™

1F. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1E — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**KIRII (HONG KONG) LTD** — Type KIRII

1G. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Items 1 through 1F — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**STUDCO BUILDING SYSTEMS** — CROCSTUD Track

1H. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.

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

1I. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2H, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

**TELLING INDUSTRIES L L C** — Viper20™ Track

2. **Steel Stud —** Channel shaped, 3-5/8 in. deep (min), formed from min No. 25 MSG galv steel spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.

2A. **Framing Members* — Steel Studs —** As an alternate to Item 2 — Channel shaped studs, min 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

**ALLSTEEL & GYPSUM PRODUCTS INC** — Type SUPREME Framing System

**CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV** — Type SUPREME Framing System

**QUAIL RUN BUILDING MATERIALS INC** — Type SUPREME Framing System

**SCAFCO STEEL STUD MANUFACTURING CO** — Type SUPREME Framing System

**STEEL CONSTRUCTION SYSTEMS INC** — Type SUPREME Framing System

**UNITED METAL PRODUCTS INC** — Type SUPREME Framing System

2B. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1B, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.

**CALIFORNIA EXPANDED METAL PRODUCTS CO** — Viper20™

**CRACO MFG INC** — SmartStud20™

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

2C. **Steel Studs —** (As an alternate to Item 2, For use with Item 4E) — Channel shaped, fabricated from min 20 MSG corrosion-protected galv steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling runners. Studs to be cut 5/8 in. less than assembly height.

2D. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2C — For use with Item 1D and 4G only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.

**CLARKDIETRICH BUILDING SYSTEMS** — CD ProSTUD

**DMFCWBS L L C** — ProSTUD

**MBA METAL FRAMING** — ProSTUD

**RAM SALES L L C** — Ram ProSTUD

**STEEL STRUCTURAL PRODUCTS L L C** — Tri-S ProSTUD

2E. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2D — For use with Item 1E and 4I only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.

**TELLING INDUSTRIES L L C** — TRUE-STUD™

2F. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2E — For use with Item 1F, channel shaped studs, min 3-5/8 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.

**KIRII (HONG KONG) LTD** — Type KIRII

2G. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 through 2F — For use with Item 1G, Proprietary channel shaped studs, minimum 3-5/8 in. wide, Studs to be cut 1/2 in. less than the assembly height.

**STUDCO BUILDING SYSTEMS** — CROCSTUD

2H. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1I, proprietary channel shaped studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.

**TELLING INDUSTRIES L L C** — Viper20™

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

**EB METAL INC** — EB Stud

2J. **Framing Members* — Steel Studs —** In lieu of Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.

**OLMAR SUPPLY INC** — PRIMESTUD

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

**MARINO/WARE, DIV OF WARE INDUSTRIES INC** — Studlink™

3. **Batts and Blankets* —** (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity.

See **Batts and Blankets** (BZJZ) category for names of Classified companies.

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

**U S GREENFIBER L L C** — INS7358 INS745 for use with wet or dry application. INS765LD and INS770LD are to be used for dry application only

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

**NU-WOOL CO INC** — Cellulose Insulation

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

**INTERNATIONAL CELLULOSE CORP** — Cellser-fil.

3D. **Batts and Blankets* —** For use with Item 8. Nom 3 in. thick, minimum 3.4 pcf mineral wool batts, friction fit between the studs and floor and ceiling runners.

See **Batts and Blankets** (BZJZ) category for names of manufacturers.

3E. **Batts and Blankets* —** For use with Item 4P. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics.

See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4. **Gypsum Board* —** 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling runners with 1 in. long, Type S steel screws spaced 8 in. OC, along edges of board and 12 in. OC in the field of the board. Boards oriented vertically and staggered on opposite sides of the assembly. When attached to Items 6 (resilient channels) or 6A, 6B or 6C (furring channels), gypsum board to screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.

**ACADIA DRYWALL SUPPLIES LTD** — Type X, 5/8 Type X, Type Bluegless Exterior Sheathing

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

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

**CGC INC** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

**CERTAINTEED GYPSUM INC** — Types 1, EGRG, GlasRoc, Type X, Type X-1, Type C, SilentFX, 5/8" Easi-Lite Type X

**CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C** — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX

**GEORGIA-PACIFIC GYPSUM L L C** — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPF56, LS, Type X, Veneer Plaster Base - Type X, Water-Rated - Type X, Shielding - Type X, Soffit - Type X, TG-C, GreenGlass Type X, Type X Mold-Guard Gypsum Sheathing Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water-Rated Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLWX, Water-Rated Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water-Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water-Rated - Type DGL2W, Sheathing - Type DGL2W

**NATIONAL GYPSUM CO** — Types eXP-C, FSW, FSX-C, FSX-Q, FSMR-C, FSW-C, FSW-Q, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSL

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Types PG-C, PG-9, PG-11, PGS-WRS

**PANEL REY S A** — Types GREX, PRC, PRC2, PRX, RHH, MDX, ETX

**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIVAr, Gyproc FireStop MR ACTIVAr, Gyproc FireStop M2TECH ACTIVAr, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIVAr, Gyproc DuraLine MR ACTIVAr, Gyproc DuraLine M2TECH ACTIVAr

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

**THAI GYPSUM PRODUCTS PCL** — Type X, Type C

**UNITED STATES GYPSUM CO** — Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

**USG BORAL ZAWAWI DRYWALL L L C SFZ** — Types C, SCX

**USG MEXICO S A DE C V** — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

4A. **Gypsum Board* —** (As alternate to Item 4) — Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field of the board. Screws spaced a max 12 in. OC in the field when panels are applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally.

**CERTAINTEED GYPSUM INC** — Type X, Type X-1, Type C, Type EGRG/ GlasRoc

**CGC INC** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

**CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C** — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD

**GEORGIA-PACIFIC GYPSUM L L C** — Types DAP, DAPC, DGG, DS

**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIVAr, Gyproc FireStop MR ACTIVAr, Gyproc FireStop M2TECH ACTIVAr, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIVAr, Gyproc DuraLine MR ACTIVAr, Gyproc DuraLine M2TECH ACTIVAr

**THAI GYPSUM PRODUCTS PCL** — Type X, Type C

**UNITED STATES GYPSUM CO** — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

**USG BORAL ZAWAWI DRYWALL L L C SFZ** — Types C, SCX

**USG MEXICO S A DE C V** — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

4B. **Gypsum Board* —** (As an alternate to Items 4 or 4A) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4A with screw length increased to 1-1/4 in.

**CGC INC** — Types AR, IP-AR

**UNITED STATES GYPSUM CO** — Types AR, IP-AR

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

4C. **Gypsum Board* —** As an alternate to Items 4, 4A, and 4B — Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered or backed by steel framing.

**GEORGIA-PACIFIC GYPSUM L L C** — Type DGG, GreenGlass Type X

4D. **Gypsum Board* —** As an alternate to Items 4, 4A, 4B, and 4C — Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joint and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 8 in. OC along vertical edges, 12 in. OC in the field of the board. When panels are applied horizontally, fasten to framing with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall for both vertical and horizontal applications.

**NATIONAL GYPSUM CO** — Types eXP-C, FSW, FSX-C, FSX-Q, FSL, FSW-C, FSW-Q, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSL

4E. **Gypsum Board* —** (As an alternate to Items 4 through 4D) — Installed as described in Item 4. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically only and fastened to the studs and plates with 1 in. long, Type S steel screws spaced, 8 in. OC. Not to be used with item 6.

**NATIONAL GYPSUM CO** — SoundBreak XP Type X Gypsum Board

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

**RAY-BAR ENGINEERING CORP** — Type RB-LBG

4G. **Gypsum Board* —** (As an alternate to Items 4 through 4F) — For use with Items 1D and 2D only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly.

**CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C** — Type LGFC6A, LGFC-C/A

**NATIONAL GYPSUM CO** — Types FSW

**UNITED STATES GYPSUM CO** — Type SCX

**USG BORAL ZAWAWI DRYWALL L L C SFZ** — Type SCX

4H. **Gypsum Board* —** (As an alternate to Items 4 through 4G) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock ES

4I. **Gypsum Board* —** (As an alternate to Items 4 through 4F) — For use with Items 1E and 2E only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly.

**UNITED STATES GYPSUM CO** — Type SCX

**USG BORAL ZAWAWI DRYWALL L L C SFZ** — Type SCX

4J. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A).

**MAYCO INDUSTRIES INC** — Type X-Ray Shielded Gypsum

4K. **Gypsum Board* —** (As an alternate to Item 4 and 4A, not for use with Items 1D, 1E, 2D and 2E) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4 and 4A.

**CGC INC** — Type ULX

**UNITED STATES GYPSUM CO** — Type ULX

**USG MEXICO S A DE C V** — Type ULX

4L. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-12 pan head steel screws spaced a max 12 in. apart. Lead batten strips to have a purity of 99.9% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

**CGC INC** — Types C, IP-X2, IPC-AR

**CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C** — Type LGFC-C/A

**GEORGIA-PACIFIC GYPSUM L L C** — Types 5, DAPC, TG-C

**NATIONAL GYPSUM CO** — Types eXP-C, FSX-C, FSW-C

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type PG-C

**PANEL REY S A** — Types PRC, PRC2

**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIVAr, Gyproc FireStop MR ACTIVAr, Gyproc FireStop M2TECH ACTIVAr, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIVAr, Gyproc DuraLine MR ACTIVAr, Gyproc DuraLine M2TECH ACTIVAr

**THAI GYPSUM PRODUCTS PCL** — Type C

**UNITED STATES GYPSUM CO** — Types C, IP-X2, IPC-AR

**USG BORAL ZAWAWI DRYWALL L L C SFZ** — Type C

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR

4M. **Gypsum Board* —** (For use with Item 8) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 8) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 8). Secured to outermost studs and floor and ceiling runners with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound.

**AMERICAN GYPSUM CO** — Type AG-C

**CERTAINTEED GYPSUM INC** — Type FRPC, Type C

**CGC INC** — Types C, IP-X2, IPC-AR

**CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C** — Type LGFC-C/A

**GEORGIA-PACIFIC GYPSUM L L C** — Types 5, DAPC, TG-C

**NATIONAL GYPSUM CO** — Types eXP-C, FSX-C, FSW-C

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type PG-C

**PANEL REY S A** — Types PRC, PRC2

**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIVAr, Gyproc FireStop MR ACTIVAr, Gyproc FireStop M2TECH ACTIVAr, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIVAr, Gyproc DuraLine MR ACTIVAr, Gyproc DuraLine M2TECH ACTIVAr

**THAI GYPSUM PRODUCTS PCL** — Type C

**UNITED STATES GYPSUM CO** — Types C, IP-X2, IPC-AR

**USG BORAL ZAWAWI DRYWALL L L C SFZ** — Type C

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR

4N. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock 527

4O. **Gypsum Board* —** As an alternate to Items 4, 4A, 4B, and 4C — Two layers Nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Horizontal joints on the same side need not be staggered. When applied horizontally, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC and staggered 4 in. OC between layers. When applied vertically, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field, staggered 4 in. OC between layers. Screws spaced a max 12 in. along the top and bottom edges of the wall.

**NATIONAL GYPSUM CO** — Type FSW

4P. **Gypsum Board* —** As an alternate to Item 4. For use with Item 3E. **Batts and Blankets* —** 5/8 in. thick, 4 ft wide attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to Item 6 (resilient channels) or 6A, 6B or 6C (furring channels), gypsum board to screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.

**UNITED STATES GYPSUM CO** — Types ULIX

5. **Joint Tape and Compound —** Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. Paper tape and joint compound may be omitted where joints are sealed with an acoustical sealant.

6. **Resilient Channel —** (Optional — Not Shown) — 25 MSG galv steel resilient channels spaced vertically max 24 in. OC flange portion attached to each intersecting stud with 1/2 in. long Type S-12 pan head steel screws. May not be used with Item 4F or 4I.

6A. **Steel Framing Members* —** (Not Shown) — As an alternate to Item 6, furring channels and Steel Framing Member as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b.

b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap. Wire tie ends to each flange of the channel.

b. **Framing Members* —** Used to attach furring channels (Item a) to studs (Item 2). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-23/32 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.

**PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-1 (2.75)

6B. **Framing Members* —** (Not Shown) — (Optional on one or both sides) — As an alternate to Item 6, furring channel and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ba) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.

**PLITEQ INC** — Type Genie Clip

6C. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured together with four self-tapping No. 8x1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Gypsum board attached to furring channels as described in Item 4. Side joints of gypsum board need not be supported by framing channels but shall be located over the 6 in. wide Type A2370 channel approximately 24 in. from each end of length. Channels to be located on Type A2370 channel approximately 24 in. from each end of length. Gypsum board end joints to be located over Type A2370 channel. Gypsum board side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge.

b. **Steel Framing Members* —** Used to attach furring channels (Item 6Ca) to studs. Clips spaced 24 in. OC., and secured to studs with No. 10 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

**STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237R

7. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the steel framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

**PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM** — Type QuietRock QR-500 and QR-510

8. **Mineral and Fiber Board* —** (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The Mineral and Fiber Board shall be installed after the Item 4 or Item 4A board has been installed over the Mineral and Fiber Boards. Batts and Blankets, Item 3D, and Adhesive, Item 11, are required.

**HOMASOTE CO** — Homasote Type 440-32

9. **Lead Batten Strips —** (Not Shown, For Use With Item 4E) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4J) and optional at remaining stud locations.

9A. **Lead Batten Strips —** (Not Shown, for use with Item 4J) — Lead batten strips, 2 in. wide, max 10 ft long with a ma thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4J) and optional at remaining stud locations.

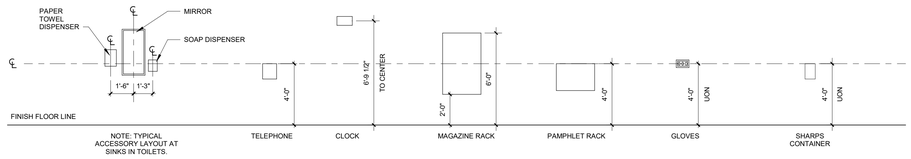
10. **Lead Discs or Tabs —** (Not Shown, For Use With Item 4E) — Used in lieu of or in addition to the lead batten strips (Item 8) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4E) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

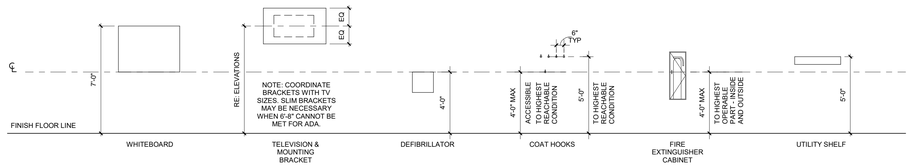
10A. **Lead Discs —** (Not Shown, for use with Item 4J) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

11. **Adhesive —** Not Shown — (For use with Item 8) — Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 8

# GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING CODES AND REGULATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY BUILDING PERMITS.
3. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES OR DISCREPANCIES WITH THE PROJECT DOCUMENTS. ACCESS TO THE SITE AND/OR SPACE UNDER CONSTRUCTION DURING BIDDING AND CONSTRUCTION SHALL BE COORDINATED WITH THE OWNER.
4. DO NOT SCALE DRAWINGS.
5. THE WORD "ALIGN" AND "EQUAL" AS USED IN THESE DOCUMENTS SHALL SUPERSEDE ANY DIMENSIONAL INFORMATION GIVEN.
6. TYPICAL DIMENSIONS ARE TO FACE OF CONCRETE, DRYWALL, CURTAIN WALL, ETC., OR TO COLUMN CENTERLINE. DIMENSIONS AT WINDOWS ARE TYPICALLY TO FACE OF FRAME. REFER TO PLAN DETAILS FOR ADDITIONAL INFORMATION.
7. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. THE SUBSTRATE SHALL BE SMOOTH AND FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS.
8. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP.
9. THE GENERAL CONTRACTOR SHALL INSPECT AND CHECK THE ADEQUACY AND INSTALLATION OF THROUGH-WALL FLASHING PRIOR TO COVERING WITH FINISH MATERIALS. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO INSPECTION AGAINST HOLES OR PENETRATIONS, APPROPRIATE LAPPING AND SEALING, AND OVERALL WORKMANSHIP IN CONFORMANCE WITH THE SPECIFICATIONS.

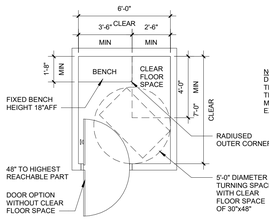


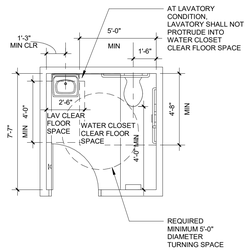

**GENERAL NOTES:**

1. ANY OBJECTS PROJECTING MORE THAN 4 INCHES FROM THE FINISHED FACE OF WALL INTO A CIRCULATION PATH SHALL NOT HAVE A HEAD CLEARANCE OF LESS THAN 80" (6'-8").
2. GENERAL CONTRACTOR TO INSTALL FIRE RETARDANT WOOD BLOCKING FOR ALL EQUIPMENT OVER 50LBS AND FIRE RETARDANT PLYWOOD FOR EQUIPMENT UNDER 50 LBS, AS REQUIRED FOR THE MOUNTING OF ALL EQUIPMENT.

## EQUIPMENT MOUNTING HEIGHTS
1/4" = 1'-0"

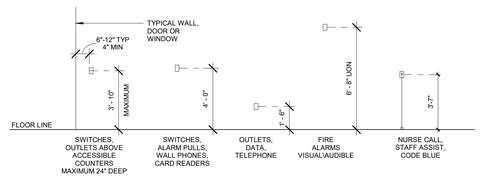



NOTE:
DIMENSIONS AND LAYOUTS SHOWN IN THESE DETAILS ARE INTENDED TO SHOW THE MINIMUM DIMENSIONS AND MAY NOT MATCH FLOOR PLAN CONFIGURATIONS EXACTLY.




Ⓒ ACCESSIBLE DRESSING ROOM

Ⓑ ACCESSIBLE TOILET

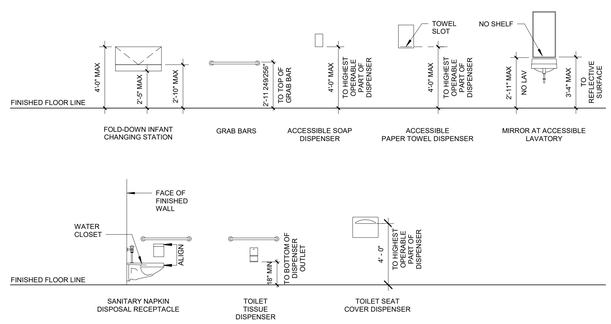



## GENERAL ADA TOILET DIMENSIONS
1/4" = 1'-0"

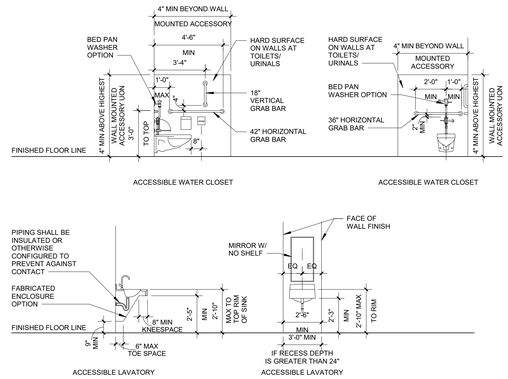
NOTE: INFANT CHANGING STATION SHALL NOT PROTRUDE FROM WALL MORE THAN 4". IF INFANT CHANGING STATION PROTRUDES MORE THAN 4" FROM WALL, BOTTOM OF INFANT CHANGING STATION SHALL BE LESS THAN 27" ABOVE FINISH FLOOR.

NOTE: OPERABLE PARTS SHALL NOT BE LOCATED MORE THAN 48" A.F.F. WHEN IN THE CLOSED POSITION.

NOTE: PROVIDE 1-1/2" MIN. CLEARANCE FROM BOTTOM OF GRAB BAR TO TOP OF SANITARY NAPKIN DISPOSAL RECEPTACLE.




## ELECTRICAL DEVICE MOUNTING HEIGHTS
1/4" = 1'-0"

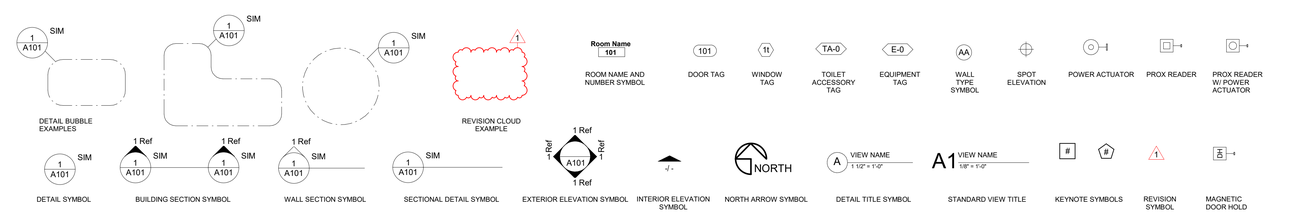






## TOILET ACCESSORY MOUNTING HEIGHTS
1/4" = 1'-0"

## TYPICAL FIXTURE ELEVATION
1/4" = 1'-0"




## SYMBOLS
1/4" = 1'-0"

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

A0.5

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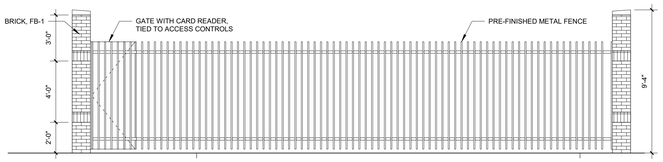
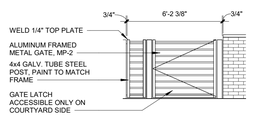
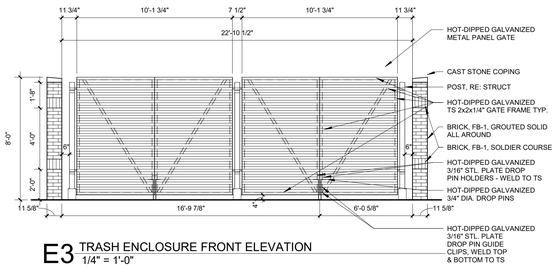
GENERAL NOTES, LEGENDS & SYMBOLS




E6 MECHANICAL YARD WEST ELEVATION
1/4" = 1'-0"



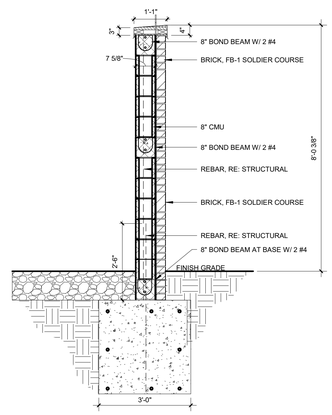

E4 STAFF PATIO GATE
1/4" = 1'-0"



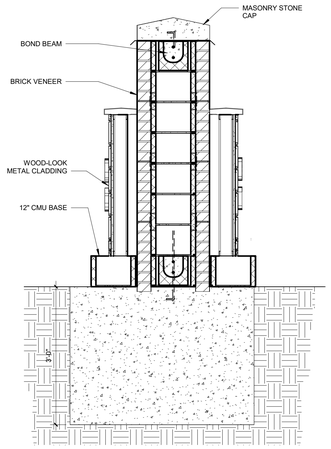

E3 TRASH ENCLOSURE FRONT ELEVATION
1/4" = 1'-0"

## KEYNOTE LEGEND - C&S

| Key Value | Keynote Text |
|---|---|
| P-1 | ROOF ACCESS HATCH AND LADDER. |
| P-4 | FLOOR MOUNTED MECHANICAL EQUIPMENT, RE: MEP |
| P-5 | MANUFACTURED METAL BOLLARDS |
| P-6 | EXTENTS OF CANOPY ABOVE |

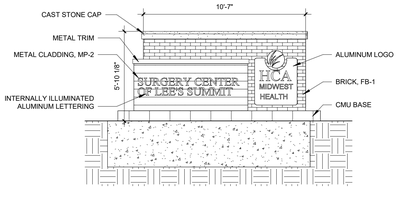



D6 TRASH ENCLOSURE WALL SECTION
1/2" = 1'-0"

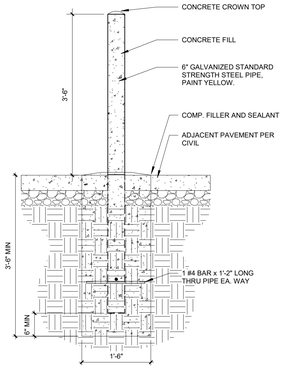



D5 MONUMENT SIGN SECTION
3/4" = 1'-0"

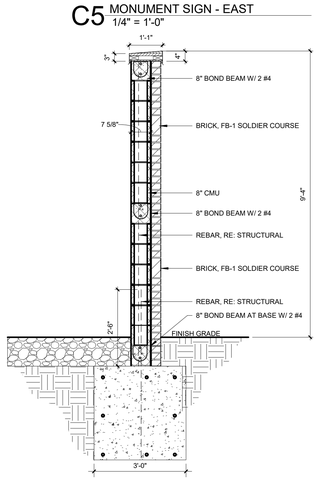
C6 MONUMENT SIGN WEST
1/4" = 1'-0"



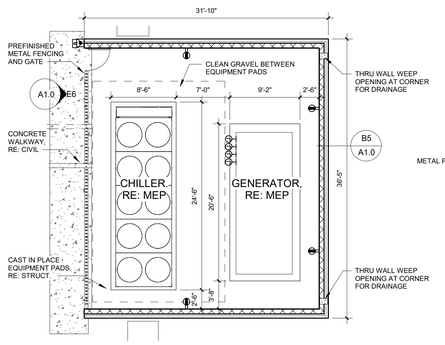

C5 MONUMENT SIGN - EAST
1/4" = 1'-0"



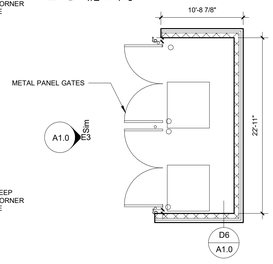

B6 BOLLARD DETAIL
3/4" = 1'-0"



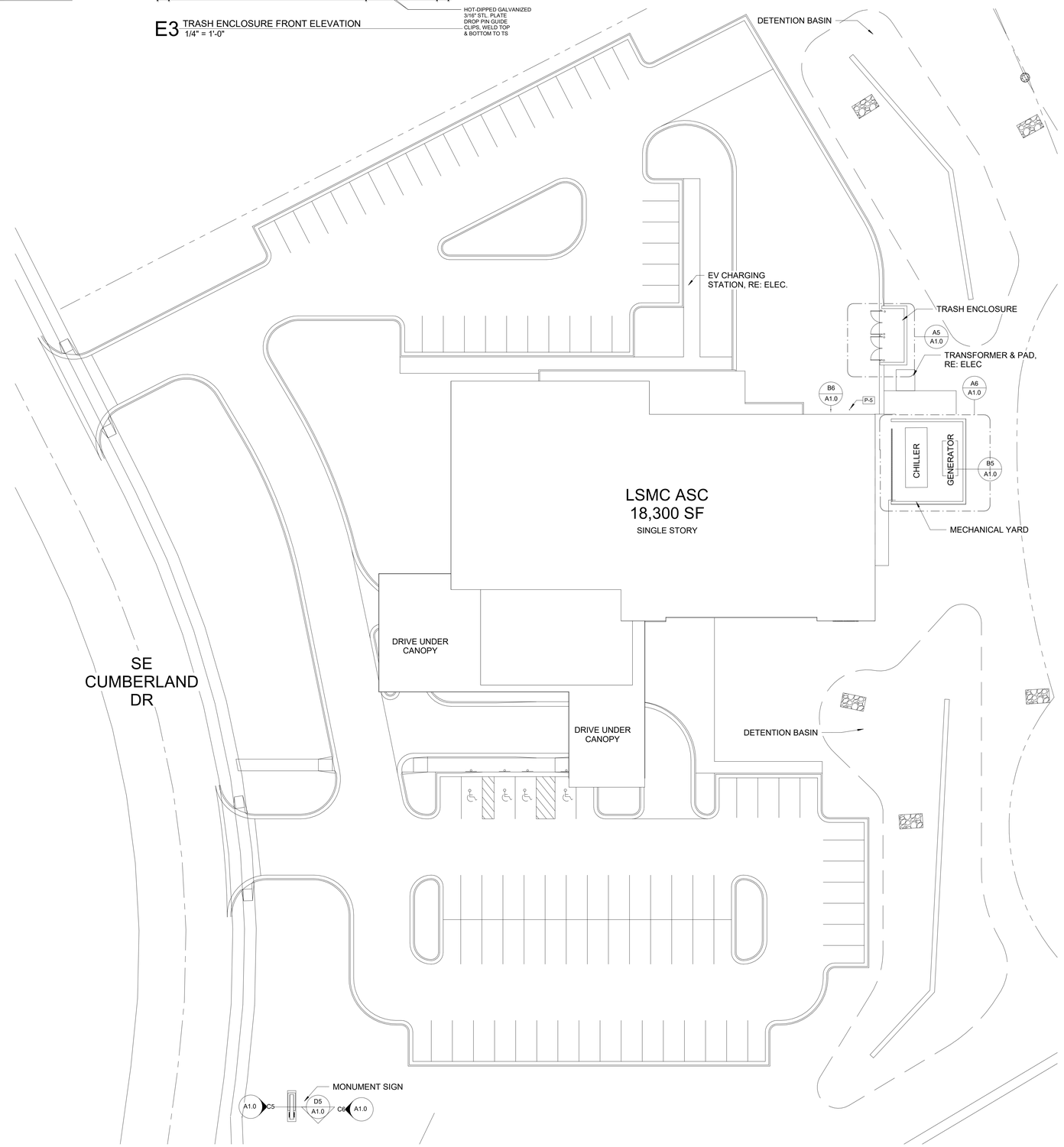

B5 MECHANICAL YARD WALL SECTION
1/2" = 1'-0"




A6 MECH YARD
1/8" = 1'-0"




A5 DUMPSTER ENCLOSURE
1/8" = 1'-0"




A1 ARCHITECTURAL SITE PLAN
1" = 20'-0"

NORTH

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2/8/2023

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# Surgery Center of Lee's Summit
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| Checked By | Checker |

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ARCHITECTURAL SITE PLAN & DETAILS

2/9/2023 10:06:16 AM

# KEYNOTE LEGEND - C&S

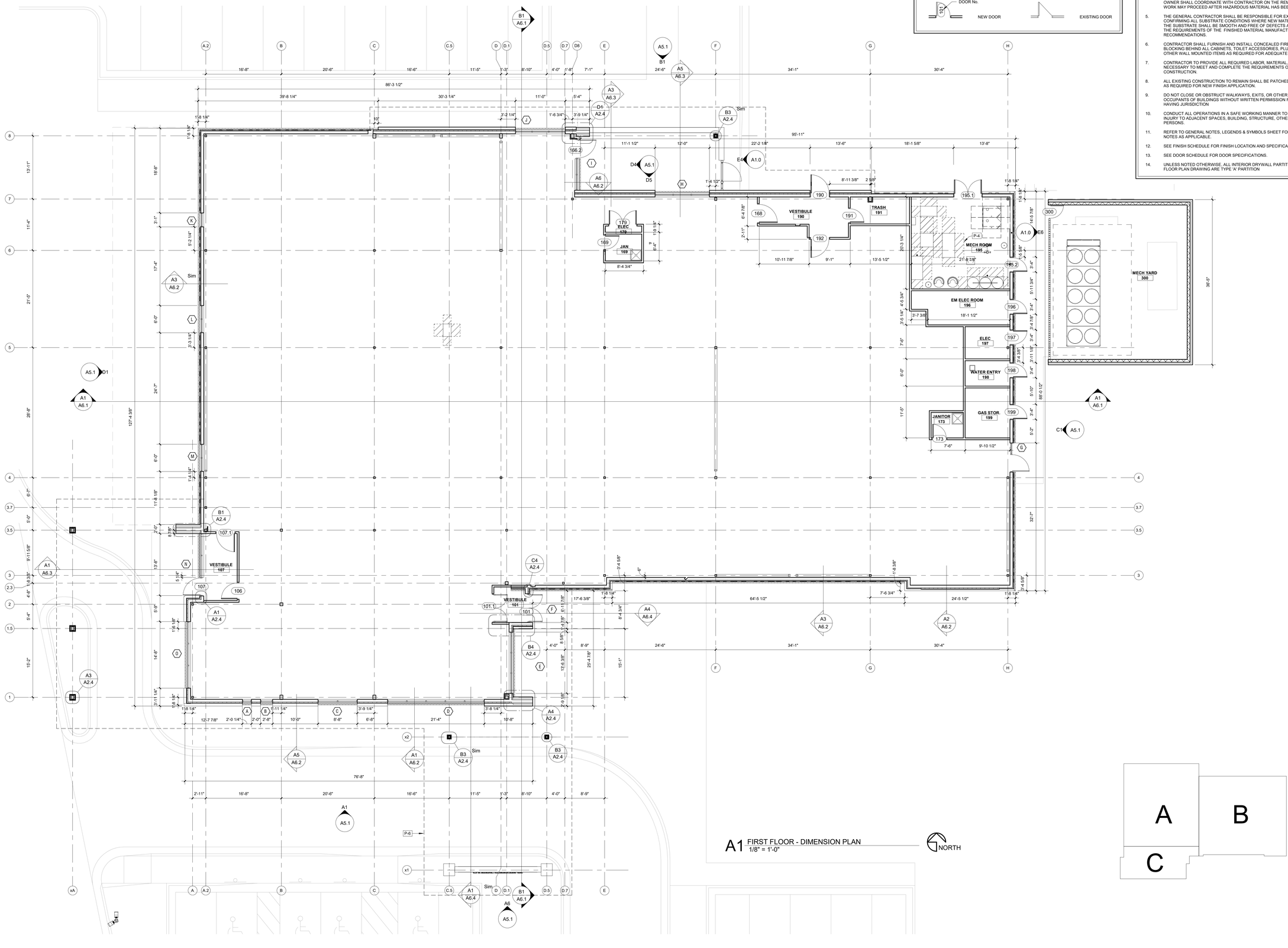
| Key Value | Keynote Text |
|---|---|
| P-1 | ROOF ACCESS HATCH AND LADDER. |
| P-4 | FLOOR MOUNTED MECHANICAL EQUIPMENT, RE: MEP |
| P-5 | MANUFACTURED METAL BOLLARDS |
| P-6 | EXTENTS OF CANOPY ABOVE |

# FLOOR PLAN LEGEND

- NOT IN SCOPE
- NOT IN ARCHITECTURAL SCOPE
- CONCRETE SLAB INFILL
- NEW WALL
- EXISTING WALL
- EXPANSION JOINT
- EXISTING EXPANSION JOINT
- DOOR No. (101)
- NEW DOOR
- EXISTING DOOR

# GENERAL PLAN NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING CODES AND REGULATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY BUILDING PERMITS.
3. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES OR DISCREPANCIES WITH THE PROJECT DOCUMENTS. ACCESS TO THE SITE AND/OR SPACE UNDER CONSTRUCTION DURING BIDDING AND CONSTRUCTION SHALL BE COORDINATED WITH THE OWNER.
4. IF MATERIAL SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB. IMMEDIATELY NOTIFY ARCHITECT AND OWNER. OWNER SHALL COORDINATE WITH CONTRACTOR ON THE REMOVAL OF SUCH ITEMS. WORK MAY PROCEED AFTER HAZARDOUS MATERIAL HAS BEEN REMOVED.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. THE SUBSTRATE SHALL BE SMOOTH AND FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS.
6. CONTRACTOR SHALL FURNISH AND INSTALL CONCEALED FIRE-TREATED WOOD BLOCKING BEHIND ALL CABINETS, TOILET ACCESSORIES, PLUMBING FIXTURES, AND OTHER WALL MOUNTED ITEMS AS REQUIRED FOR ADEQUATE SUPPORT.
7. CONTRACTOR TO PROVIDE ALL REQUIRED LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO MEET AND COMPLETE THE REQUIREMENTS OF THE NEW CONSTRUCTION.
8. ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE PATCHED, REPAIRED, AND PREP AS REQUIRED FOR NEW FINISH APPLICATION.
9. DO NOT CLOSE OR OBSTRUCT WALKWAYS, EXITS, OR OTHER FACILITIES USED BY OCCUPANTS OF BUILDINGS WITHOUT WRITTEN PERMISSION FROM AUTHORITIES HAVING JURISDICTION
10. CONDUCT ALL OPERATIONS IN A SAFE WORKING MANNER TO PREVENT DAMAGE OR INJURY TO ADJACENT SPACES, BUILDING, STRUCTURE, OTHER FACILITIES, AND PERSONS.
12. REFER TO GENERAL NOTES, LEGENDS & SYMBOLS SHEET FOR ADDITIONAL GENERAL NOTES AS APPLICABLE.
12. SEE FINISH SCHEDULE FOR FINISH LOCATION AND SPECIFICATIONS.
13. SEE DOOR SCHEDULE FOR DOOR SPECIFICATIONS.
14. UNLESS NOTED OTHERWISE, ALL INTERIOR DRYWALL PARTITIONS INDICATED ON THE FLOOR PLAN DRAWING ARE TYPE 'A' PARTITION





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# Surgery Center of Lee's Summit
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| Checked By | Checker |

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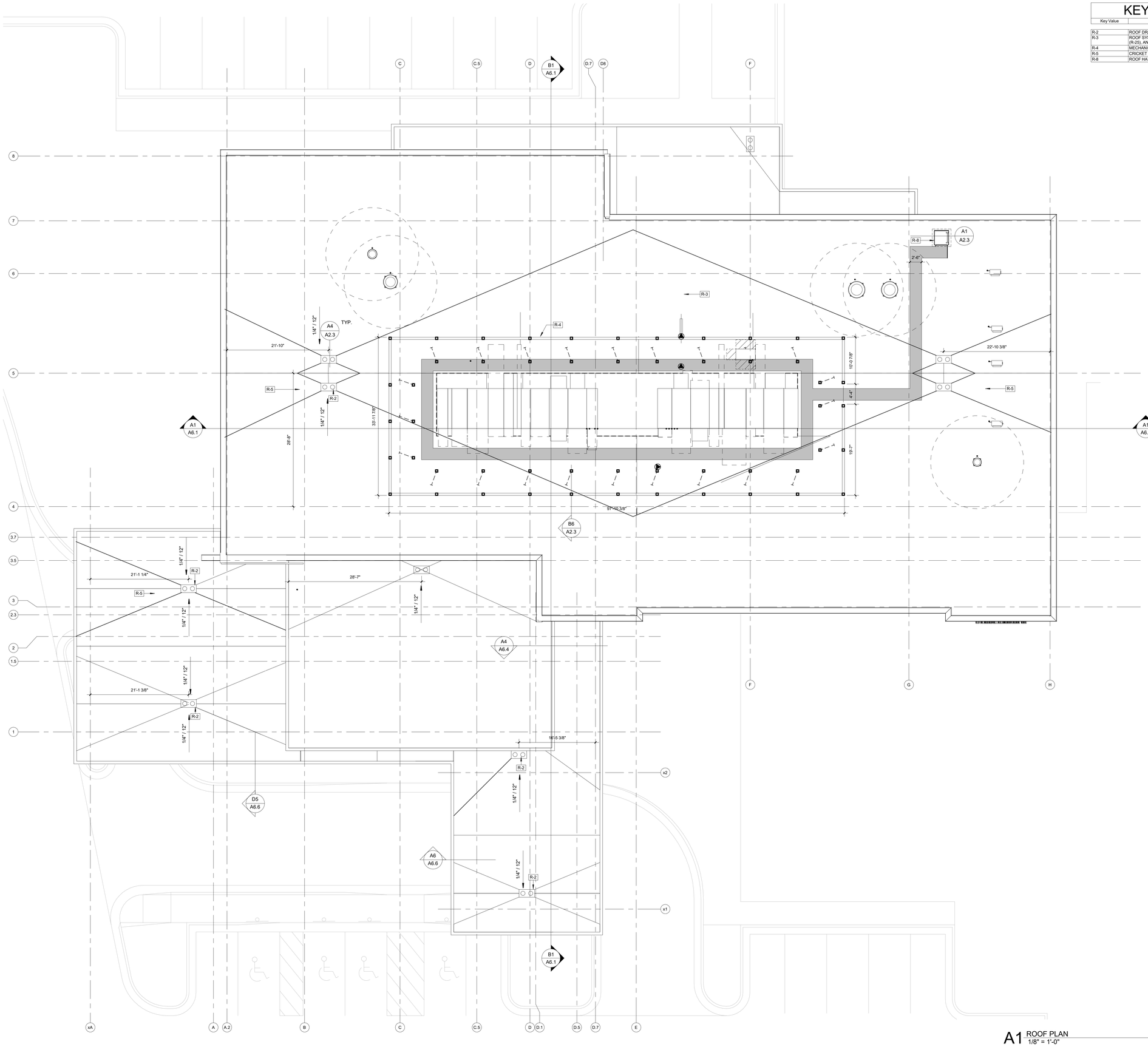
FIRST FLOOR DIMENSION PLAN

BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt

2/9/2023 10:06:20 AM

# KEYNOTE LEGEND - ROOF PLAN

| Key Value | Keynote Text |
|---|---|
| R-2 | ROOF DRAIN AND OVERFLOW, TYP. |
| R-3 | ROOF SYSTEM: SINGLE PLY TPO ROOFING MEMBRANE, 5/8" COVER BOARD, POLYISO ROOF DECK INSULATION (R-25), AND AIR/VAPOR BARRIER ON METAL DECK. PROVIDE TAPERED INSULATION AT CRICKETS, TYP. |
| R-4 | MECHANICAL ROOF SCREEN. |
| R-5 | CRICKET TO SLOPE 1/4" PER FOOT TO ROOF DRAIN, TYP. |
| R-8 | ROOF HATCH AND LADDER, RE: SPEC. |




A1 ROOF PLAN
1/8" = 1'-0"

NORTH

Samuel K. Beckman - Architect
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2/8/2023

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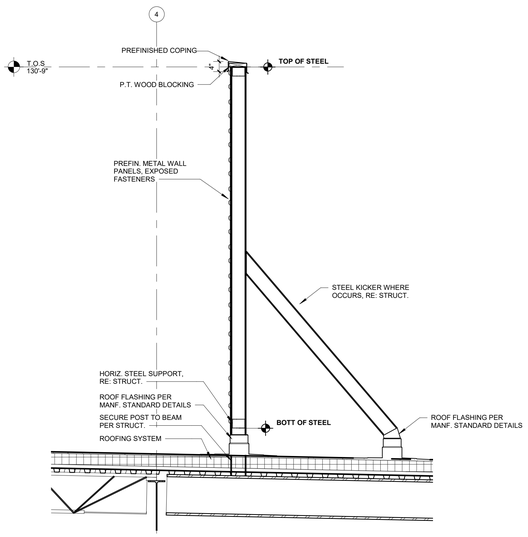
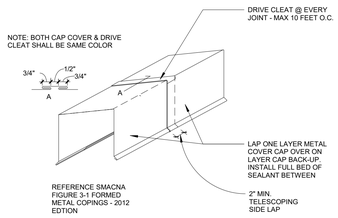
ROOF PLAN

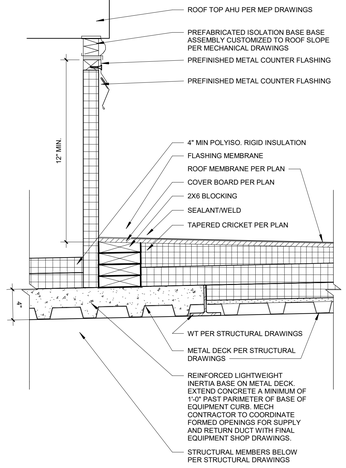
BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt



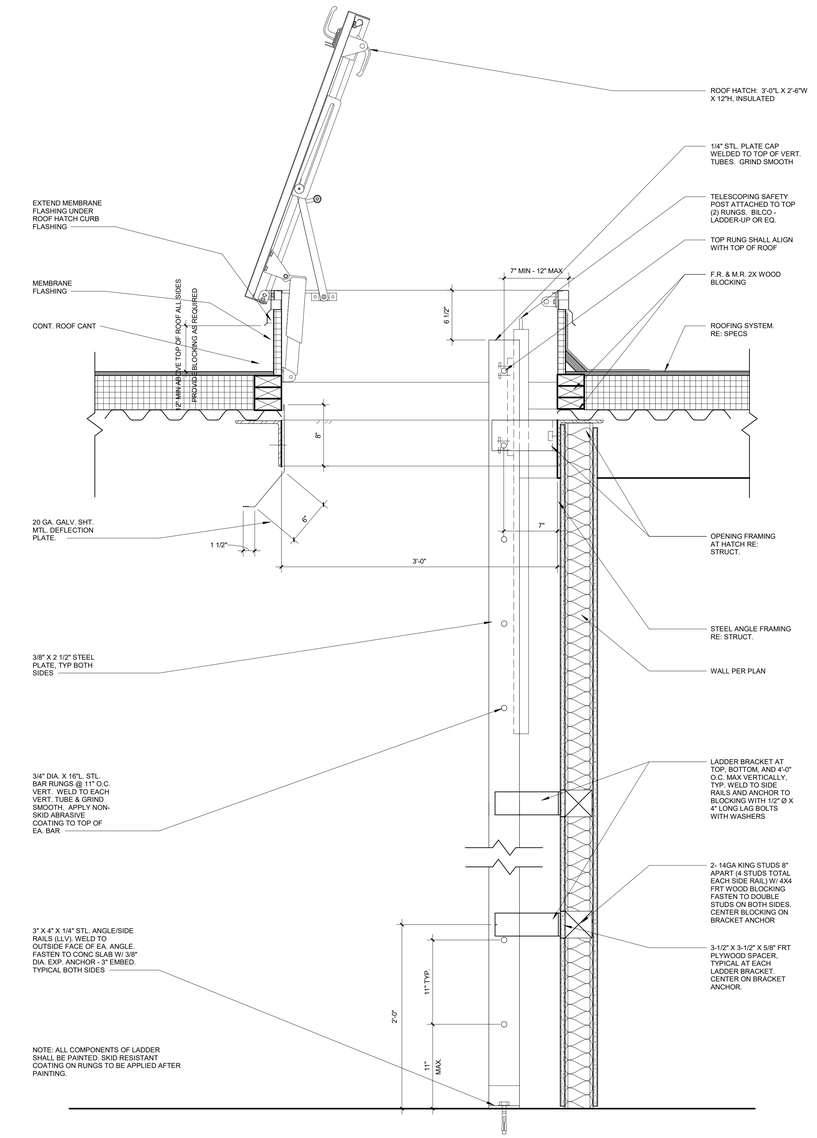

B6 DETAIL AT MECHANICAL ROOFTOP SCREEN
1/2" = 1'-0"



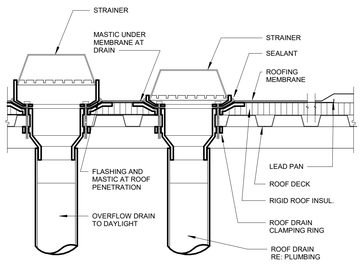

B3 COPING DRIVE CLEAT
3/4" = 1'-0"



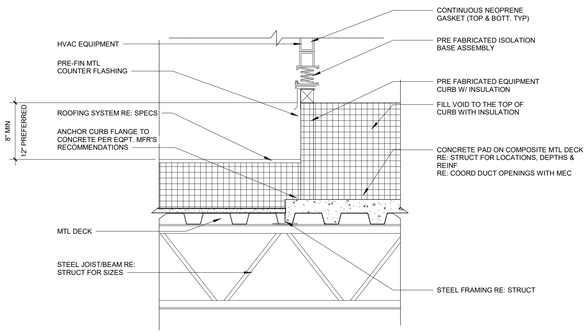

B2 ROOF CURB DETAIL
1 1/2" = 1'-0"



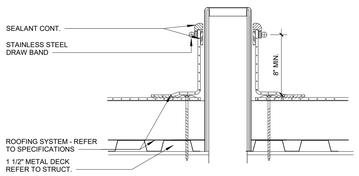

A1 ROOF HATCH AND LADDER
1 1/2" = 1'-0"




A4 ROOF DRAIN
1 1/2" = 1'-0"




A3 ISOLATION BASE FOR HVAC EQPT
1 1/2" = 1'-0"




A2 VENT FLASHING DETAIL
1 1/2" = 1'-0"

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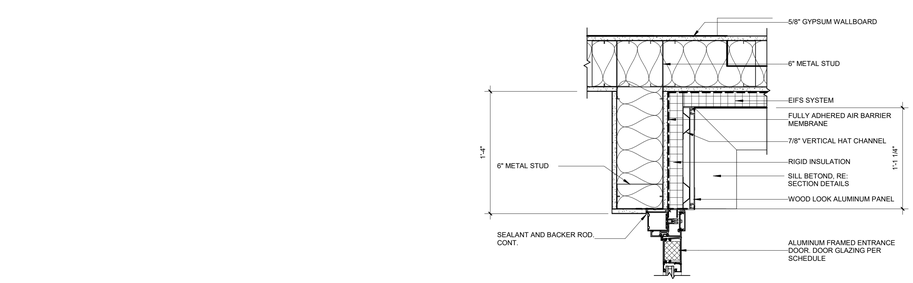
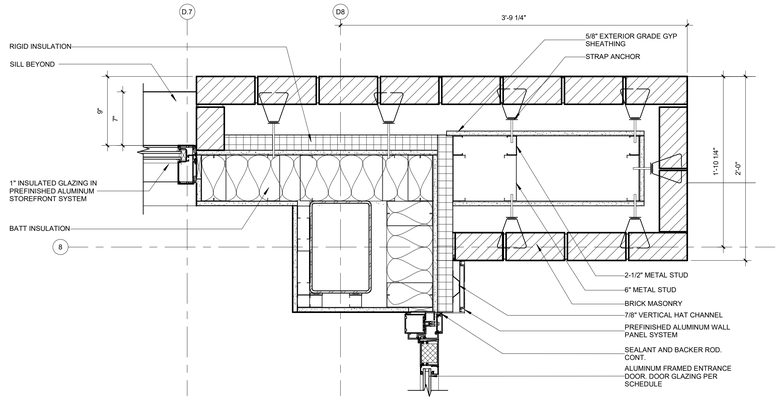
ROOF DETAILS

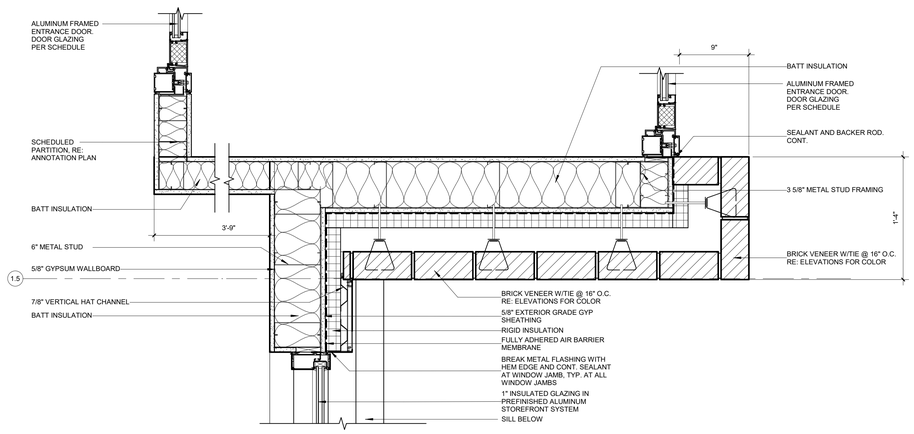
2/9/2023 11:03:52 AM



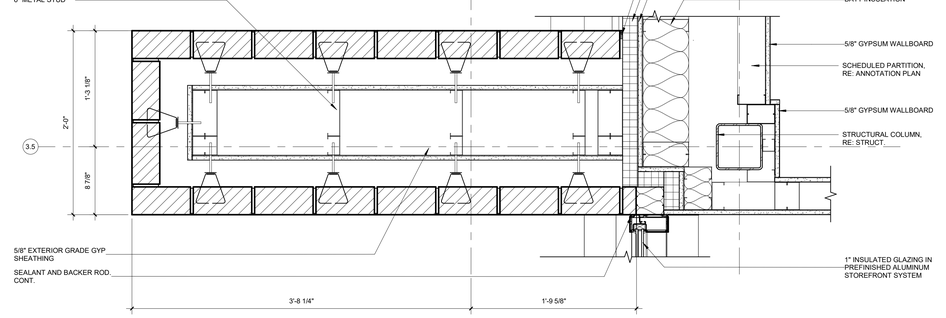

C4 PLAN DETAIL AT SOUTH ENTRANCE
1 1/2" = 1'-0"



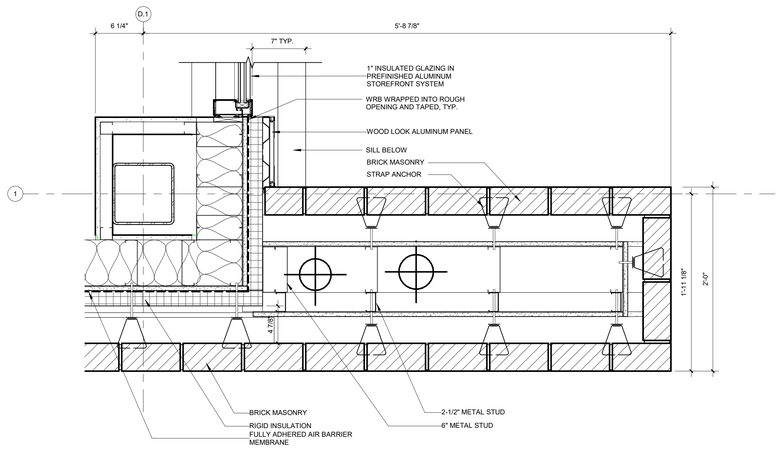

D1 PLAN DETAIL AT WING WALL AT EMPLOYEE PATIO
1 1/2" = 1'-0"



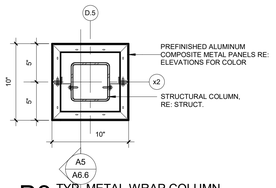

B4 PLAN DETAIL AT SOUTH ENTRANCE
1 1/2" = 1'-0"



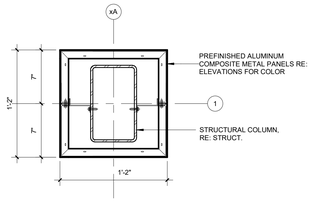

B1 PLAN DETAIL AT WEST WING WALL
1 1/2" = 1'-0"



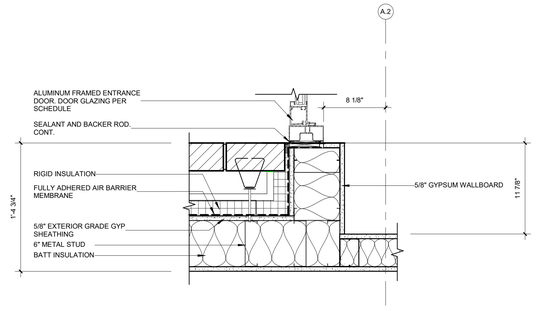

A4 DETAIL AT SOUTH WING WALL
1 1/2" = 1'-0"




B3 TYP. METAL WRAP COLUMN
1 1/2" = 1'-0"




A3 TYP. METAL WRAP COLUMN
1 1/2" = 1'-0"




A1 PLAN DETAIL AT WEST ENTRANCE
1 1/2" = 1'-0"

STATE OF MISSOURI
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913.951.8311

# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

A2.4

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PLAN DETAILS

BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt

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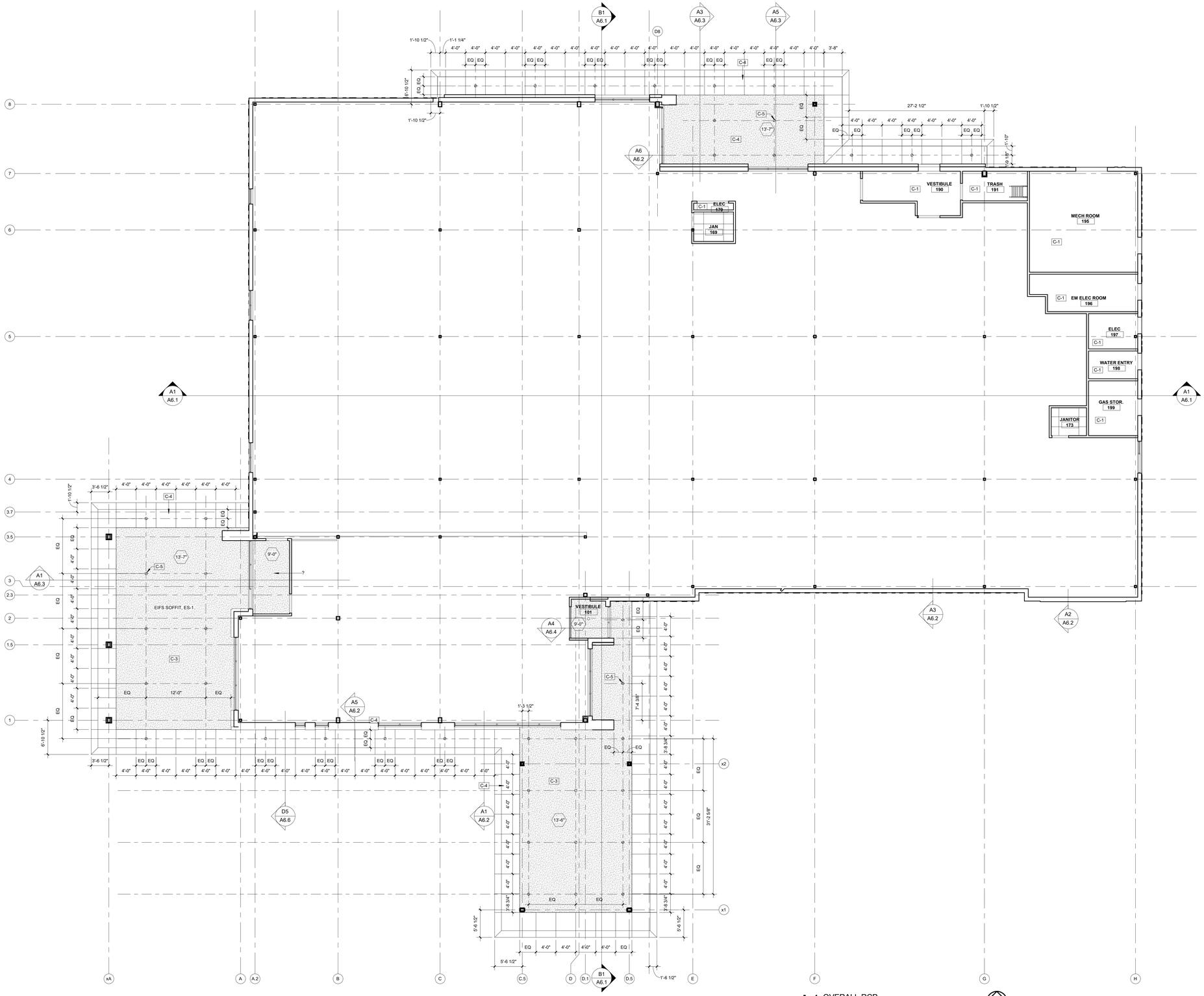



A1 OVERALL RCP
1/8" = 1'-0"

NORTH

## CEILING LEGEND

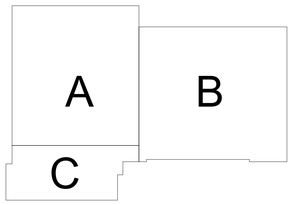
- RECESSED CAN LIGHT FIXTURE RE: ELECT
- 2X4 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- 2X2 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- SURFACE-MOUNTED LIGHT FIXTURE RE: ELECT
- PENDANT LIGHT FIXTURE RE: ELECT
- WALL SCONCE LIGHT FIXTURE RE: ELECT
- 2X4 RECESSED/SURFACE LIGHT FIXTURE W/ PARA-CUBE LENS RE: ELECT
- 2X4 RECESSED/SURFACE PSYCHIATRIC LIGHT FIXTURE RE: ELECT
- C-1 GYP BOARD CEILING - PAINTED W/ CONTROL JOINTS PER SPECS
- 2X2/2X4 LAY-IN ACOUSTICAL CEILING
- EXIT LIGHT WITH FIXTURE MARK CEILING MOUNTED RE: ELECT
- EXIT LIGHT WITH FIXTURE MARK WALL BRACKET RE: ELECT
- SUPPLY AIR GRILLE RE: MECH
- RETURN AIR OR EXHAUST GRILLE RE: MECH
- 9'-0" SOFFIT HEIGHT
- 9'-0" CEILING HEIGHT

## REFLECTED CEILING NOTES

1. EXISTING MEPFP DEVICES SHOWN ARE BASED ON EXISTING DRAWINGS AND/OR FIELD OBSERVATIONS. THE OWNER/ARCHITECT DOES NOT GUARANTEE THE ACCURACY/LOCATION OR QUANTITY OF EXISTING DEVICES.
2. CONTRACTOR TO PROVIDE ALL REQUIRED LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO MEET AND COMPLETE THE REQUIREMENTS OF THE NEW CONSTRUCTION.
3. ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE PATCHED, REPAIRED, AND PREP AS REQUIRED FOR NEW FINISH APPLICATION.
4. PAINT THE UNDERSIDE OF ALL GYPSUM BOARD CEILINGS, BULKHEADS AND SOFFITS (PT-4) UNLESS NOTED OTHERWISE.
5. THIS PLAN SHALL BE USED TO COORDINATE THE CEILING LAYOUT WITH MECHANICAL AND ELECTRICAL WORK. VERIFY THE EXACT QUANTITY REQUIRED.
6. CONTRACTOR TO REFER TO THE ELECTRICAL PLANS FOR ACTUAL LIGHTING SIZES AND FIXTURE TYPES.
7. SEE SPECIFICATIONS AND FINISH SCHEDULE FOR CEILING TYPES.
8. REFER TO FINISH FLOOR PLANS FOR MATERIAL LEGEND OF ALL TYPES.
9. ALL CEILINGS SHALL BE 9'-0 AFF UNLESS OTHERWISE NOTED.

## KEYNOTE LEGEND - RCP

| Key Value | Keynote Text |
|---|---|
| C-1 | EXPOSED TO STRUCTURE ABOVE. |
| C-2 | SPECIALTY CEILING SPC-1. RE: SCHEDULE. |
| C-3 | EIFS SOFFIT, ES-1. |
| C-4 | METAL PANEL SOFFIT, MP-1. |
| C-5 | EXTERIOR LIGHTING FIXTURE. RE: ELECTRICAL |

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|---|---|---|

A3.1

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REFLECTED CEILING PLAN

BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt

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# DOOR SCHEDULE - CS

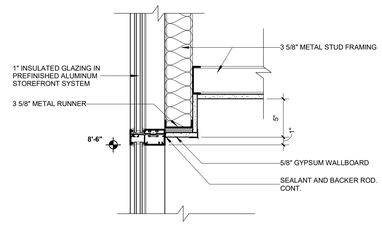
| DOOR # | ROOM NAME | DOOR INFORMATION WIDTH | HEIGHT | NO. OF LEAVES | UNEQUAL LEAF WIDTH | ELEV. | MATL. | FRAME INFORMATION ELEV. | MATL. | GLAZING | LABEL (MIN) | HARDWARE SET | OPENING DETAIL HEAD | JAMB | REMARKS | REV # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 101 | VESTIBULE | 3'-0" | 8'-6" | 2 | | FGS | ALUM | -- | ALUM | -- | -- | 26 | -- | -- | CS; AUTO OPERATOR | |
| 101.1 | WAITING | 3'-0" | 8'-6" | 2 | | FGS | ALUM | -- | ALUM | -- | -- | 25 | -- | -- | CS; AUTO OPERATOR | |
| 106 | VESTIBULE | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 17 | A5/TI-A4.1 | A6/TI-A4.1 | CS | |
| 107 | VESTIBULE | 4'-0" | 8'-0" | 1 | | FGN | ALUM | -- | ALUM | GL-1 | -- | 22 | -- | -- | CS; CARD READER & AUTO OPERATOR, AIPHONE | |
| 107.1 | VESTIBULE | 4'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 19 | A5/TI-A4.1 | A6/TI-A4.1 | CS; CARD READER & AUTO OPERATOR | |
| 166.2 | STAFF LOUNGE | 4'-0" | 8'-0" | 1 | | FGN | ALUM | -- | ALUM | -- | -- | | -- | -- | CS; CARD READER | |
| 168 | VESTIBULE | 4'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 20 min | 10 | -- | -- | CS; CARD READER | |
| 169 | JAN | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 07 | A5/TI-A4.1 | A6/TI-A4.1 | CS | |
| 173 | JANITOR | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 07 | A5/TI-A4.1 | A6/TI-A4.1 | CS | |
| 179 | HALL | 3'-0" | 7'-0" | 2 | | F | WD | 2 | HM | -- | -- | 13 | | | CS | |
| 180.1 | HALL | 4'-0" | 8'-6" | 1 | | FGN | ALUM | -- | ALUM | -- | -- | 23 | -- | -- | CS | |
| 190 | VESTIBULE | 4'-0" | 7'-0" | 1 | | V | HM | 1 | HM | -- | -- | 16 | A3/TI-A4.1 | A4/TI-A4.1 | CS; CARD READER | |
| 191 | TRASH | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 20 min | 03 | -- | -- | CS | |
| 192 | VESTIBULE | 4'-0" | 7'-0" | 1 | | V | WD | 1 | HM | -- | 45 min | 03 | A5/TI-A4.1 | B6/TI-A4.1 | CS;4x4 Plate, SST Edge Protection | |
| 195.1 | MECH ROOM | 3'-0" | 7'-0" | 2 | | F | WD | 2 | HM | -- | -- | 20 | C3/TI-A4.1 | | CS | |
| 195.2 | MECH ROOM | 3'-0" | 7'-0" | 1 | | F | HM | 1 | HM | -- | -- | 14 | C3/TI-A4.1 | B4/TI-A4.1 | CS | |
| 196 | EM ELEC ROOM | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 15 | C3/TI-A4.1 | B4/TI-A4.1 | CS | |
| 197 | ELEC | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 15 | C3/TI-A4.1 | B4/TI-A4.1 | CS | |
| 198 | WATER ENTRY | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 14 | C3/TI-A4.1 | B4/TI-A4.1 | CS | |
| 199 | GAS STOR. | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 14 | C3/TI-A4.1 | B4/TI-A4.1 | CS | |
| 300 | MECH YARD | 3'-0" | 7'-0" | 1 | | -- | STEEL | -- | STEEL | -- | -- | 28 | -- | -- | CS; GATE TO MECH YARD; CARD READER | |

## DOOR AND HARDWARE NOTES

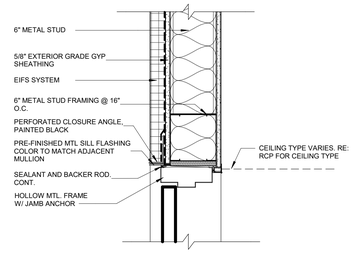
1. ALL MEANS OF EGRESS DOORS SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF SPECIAL TOOLS, A KEY, SPECIAL KNOWLEDGE OR EFFORT. DOUBLE KEYED DEAD BOLTS ARE PROHIBITED.
2. ALL HARDWARE SHALL BE IN COMPLIANCE WITH ADA GUIDELINES AND NATIONAL BUILDERS HARDWARE ASSOCIATION STANDARDS.
3. HARDWARE TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

| DOOR & FRAME MAT'L LEGEND | |
|---|---|
| ALUM | ALUMINUM |
| HM | HOLLOW METAL |
| WD | SOLID CORE WOOD |
| FRP | FIBER REINFORCED PANEL |
| T | TEMPERED |

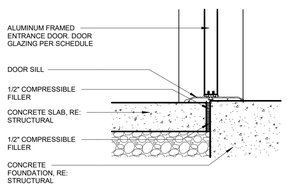
| GLAZING LEGEND | |
|---|---|
| GL-1 | TEMPERED GLASS |
| GL-2 | LAMINATED GLASS |
| GL-3 | FIRE PROTECTION RATED GLASS |
| GL-4 | FIRE RESISTANT RATED GLASS |
| GL-5 | BUTT-GLAZED GLASS PANELS |
| IGU-1 | DOUBLE-GLAZED INSULATING GLASS UNIT |
| IGU-2 | DOUBE-GLAZED INSULATING GLASS UNIT (TEMPERED) |
| IGU-3 | DOUBE-GLAZED INSULATING GLASS UNIT (LAMINATED) |
| IGU-4 | DOUBE-GLAZED INSULATING GLASS UNIT (SPANDREL) |



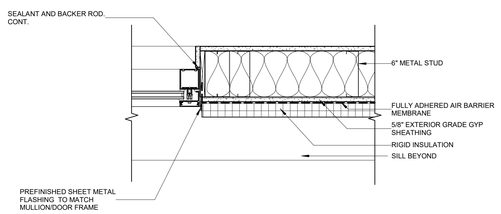

E3 TYP. BULKHEAD DETAIL AT STOREFRONT MULLION
1 1/2" = 1'-0"



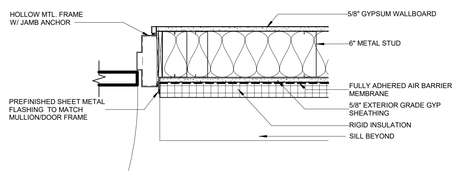

C3 TYP. HEAD DETAIL AT DOOR AND EIFS
1 1/2" = 1'-0"



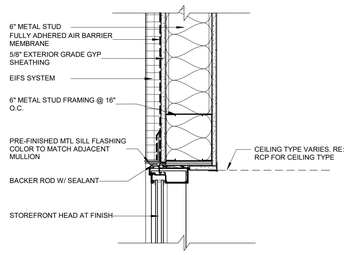

C5 TYP. EXTERIOR DOOR SILL
1 1/2" = 1'-0"



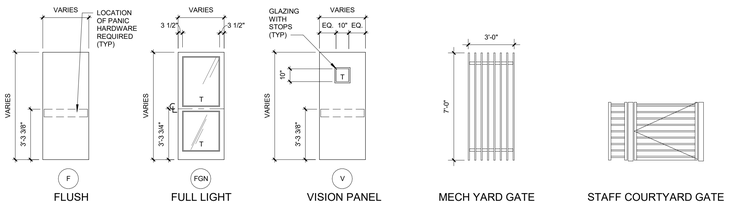

B5 PLAN DETAIL - TYP. STOREFRONT AT EIFS
1 1/2" = 1'-0"



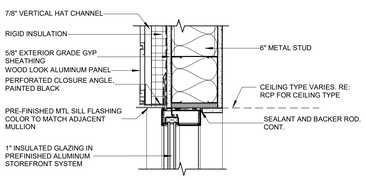

B4 TYP. DOOR JAMP AT EIFS
1 1/2" = 1'-0"



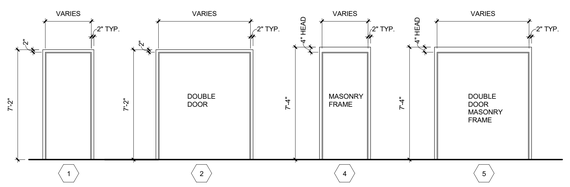

B3 TYP. HEAD DETAIL AT STOREFRONT AND EIFS
1 1/2" = 1'-0"



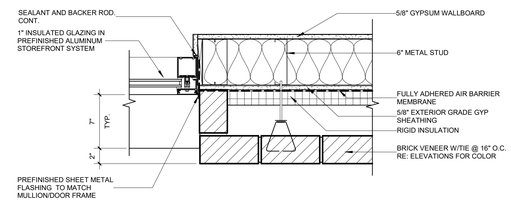

## DOOR ELEVATIONS:



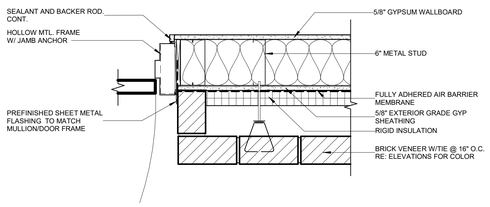

A3 TYP. HEAD DETAIL AT STOREFRONT AND WOOD LOOK METAL PANEL
1 1/2" = 1'-0"




## FRAME ELEVATIONS:




A5 PLAN DETAIL - TYP. STOREFRONT AT BRICK
1 1/2" = 1'-0"




A4 TYP. DOOR JAMP AT BRICK
1 1/2" = 1'-0"

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A4.1

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DOOR AND FRAME SCHEDULE AND DETAILS

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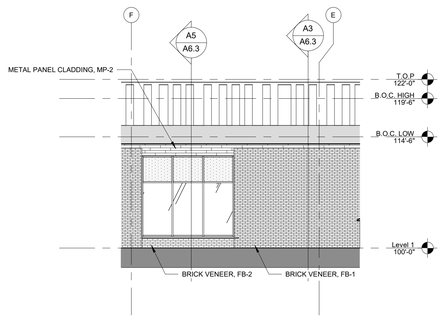
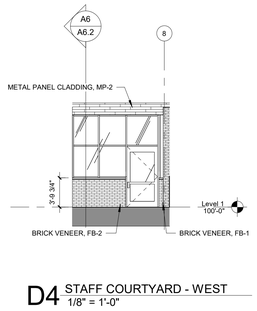
## EXTERIOR FINISH LEGEND

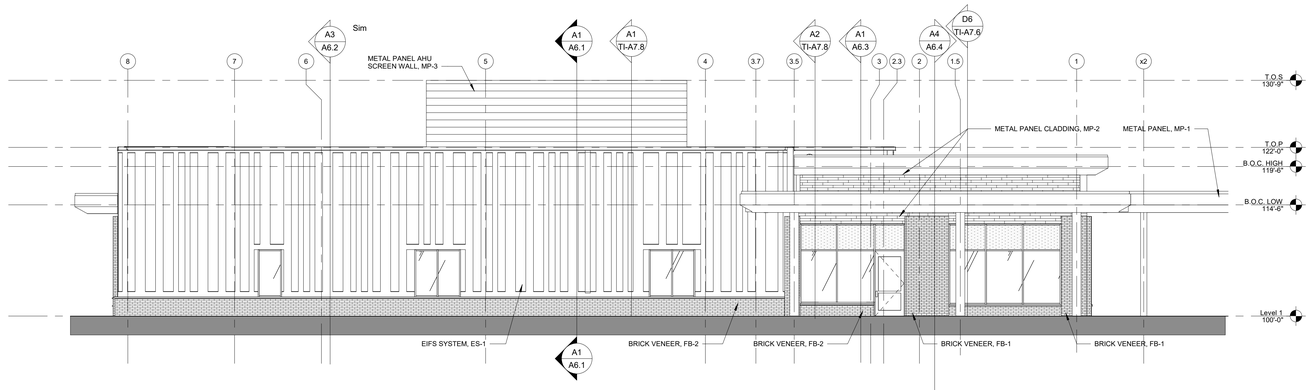
| MARK | MATERIAL | MANUFACTURER | COLOR/PATTERN | DIMENSION |
|---|---|---|---|---|
| ES-1 | EIFS SYSTEM | AS SPECIFIED | TBD | 2" & 3" |
| FB-1 | TAN BRICK | GLEN GERY | PEARL RIVER IRONSPOT | 2 1/4" x 7 5/8" x 3 5/8" |
| FB-2 | DARK BRICK | ENDICOTT | MANGANESE IRONSPOT, SMOOTH | 2 1/4" x 7 5/8" x 3 5/8" |
| MP-1 | METAL PANEL | FIRESTONE | CITYSCAPE | VARIES |
| MP-2 | METAL PANEL | KNOTWOOD | WALNUT | VARIES |
| MP-3 | METAL PANEL | BERRIDGE | HR-16, GRAY ZINC | VARIES |



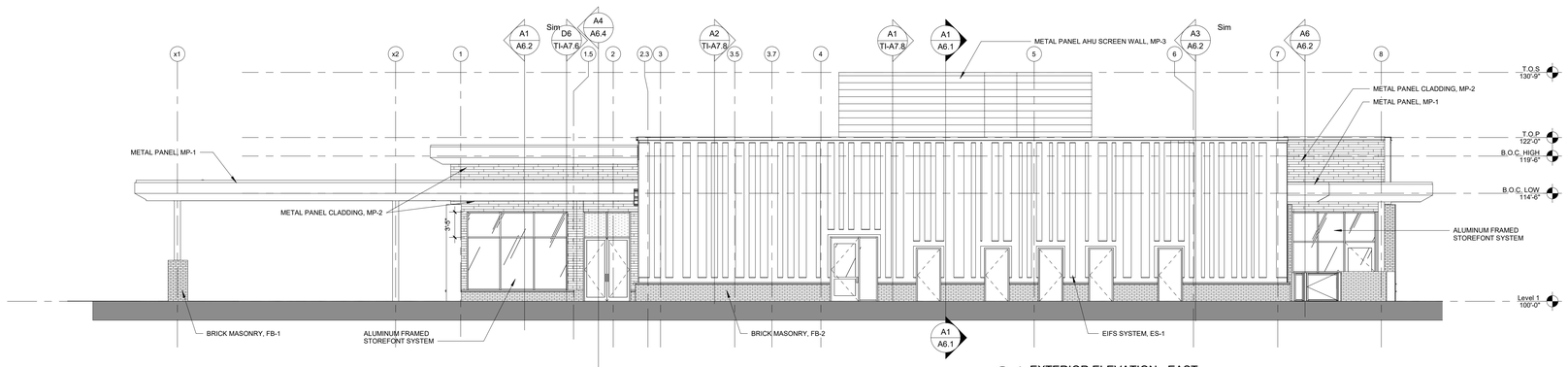

D5 STAFF COURTYARD SOUTH
1/8" = 1'-0"



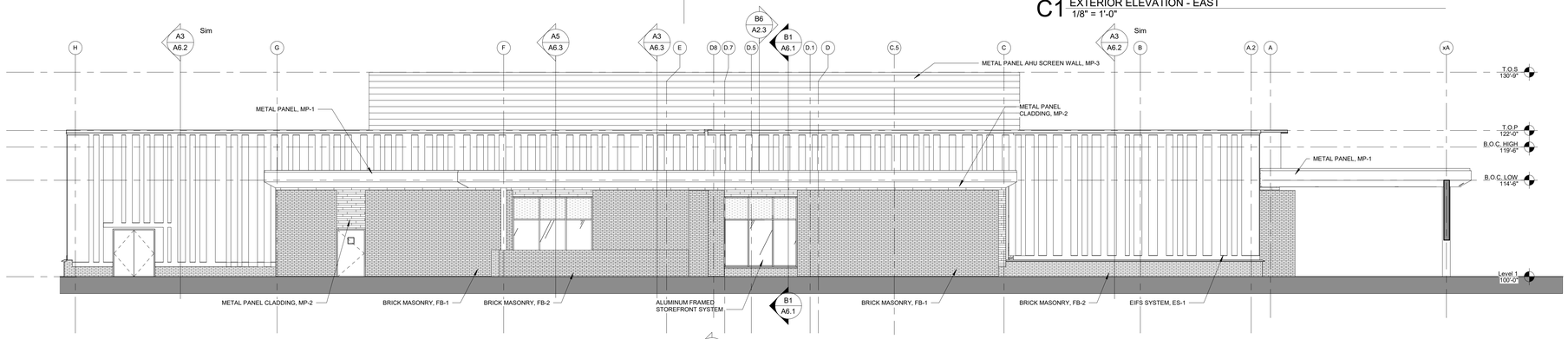

D4 STAFF COURTYARD - WEST
1/8" = 1'-0"



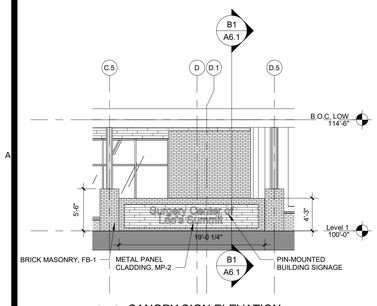

D1 EXTERIOR ELEVATION - WEST
1/8" = 1'-0"



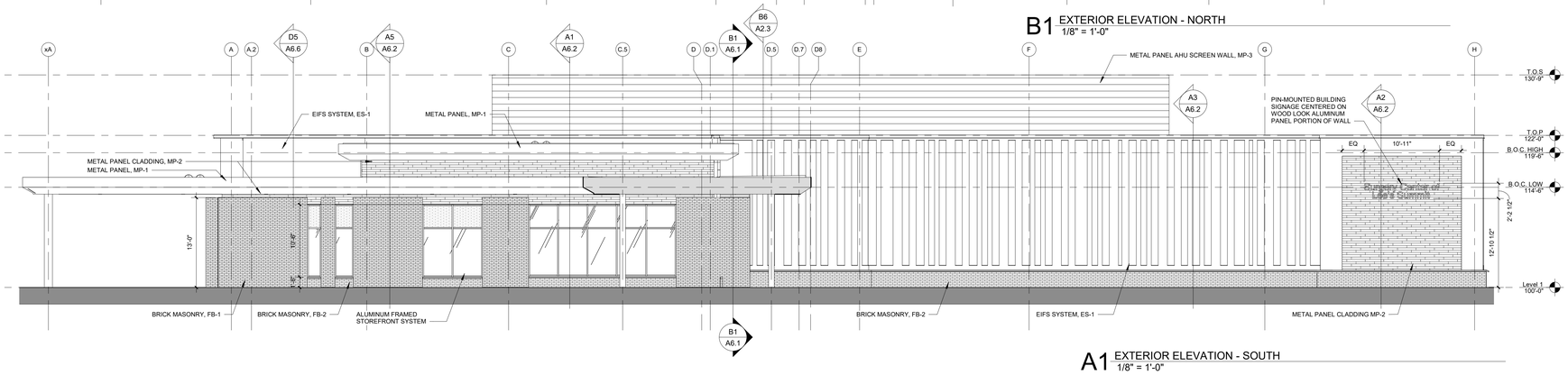

C1 EXTERIOR ELEVATION - EAST
1/8" = 1'-0"




B1 EXTERIOR ELEVATION - NORTH
1/8" = 1'-0"




A6 CANOPY SIGN ELEVATION
1/8" = 1'-0"




A1 EXTERIOR ELEVATION - SOUTH
1/8" = 1'-0"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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
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EXTERIOR ELEVATIONS

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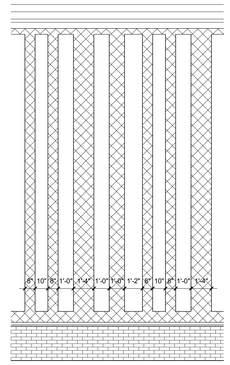
## GENERAL EIFS NOTES

1. GENERAL EIFS NOTES APPLY TO ALL EXTERIOR ELEVATIONS.
2. ALL WALL MOUNTED FIXTURES AND EXTERIOR PENETRATIONS ARE TO BE COORDINATED TO BE LOCATED ON 3" DEPTH FACES OF EIFS.
3. ALL EXTERIOR DOORS, WINDOW FRAMES, AND STOREFRONT FRAMES ARE TO BE PLACED ON 2" EIFS DEPTH AS INDICATED IN EXTERIOR ELEVATIONS
4. EIFS PATTERN TO FOLLOW TYPICAL ELEVATION. PATTERN MAY VARY IN INDICATED LOCATIONS.
5. PROVIDE SLOPED SURFACE TRANSITION AT ALL HORIZONTAL FEATURE BANDS, PER MANUFACTURERS DETAILS.

## EIFS LEGEND

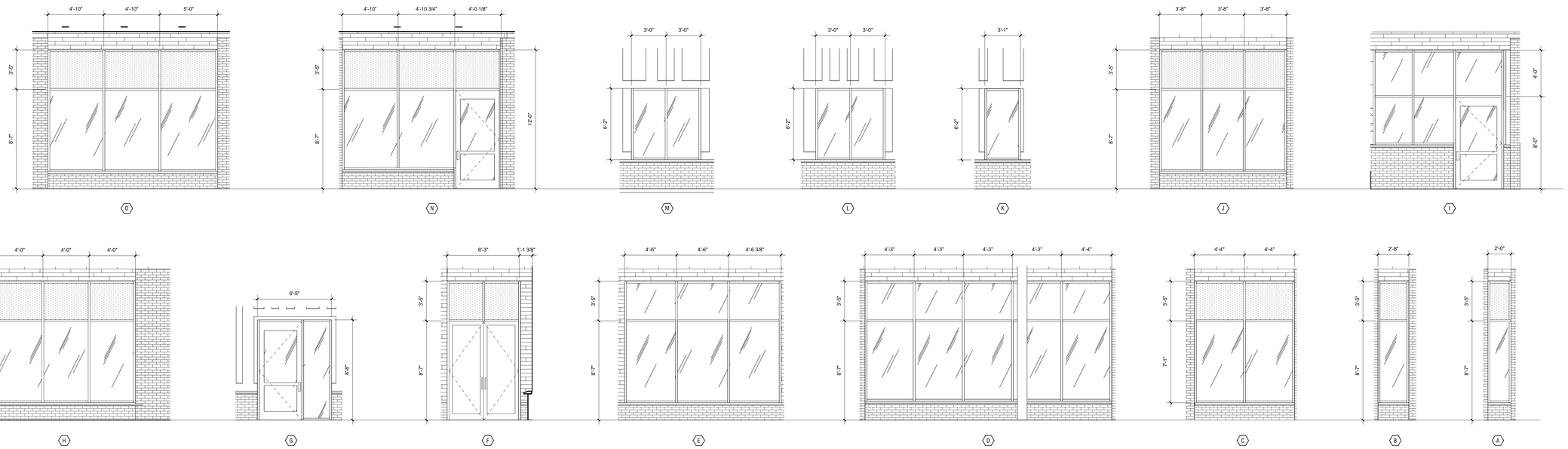
- 2" DEPTH
- 3" DEPTH




## GLAZING LEGEND

- GLASS
- SPANDREL GLASS

C2 TYPICAL EIFS PATTERN
1/4" = 1'-0"

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GLAZING ELEVATIONS

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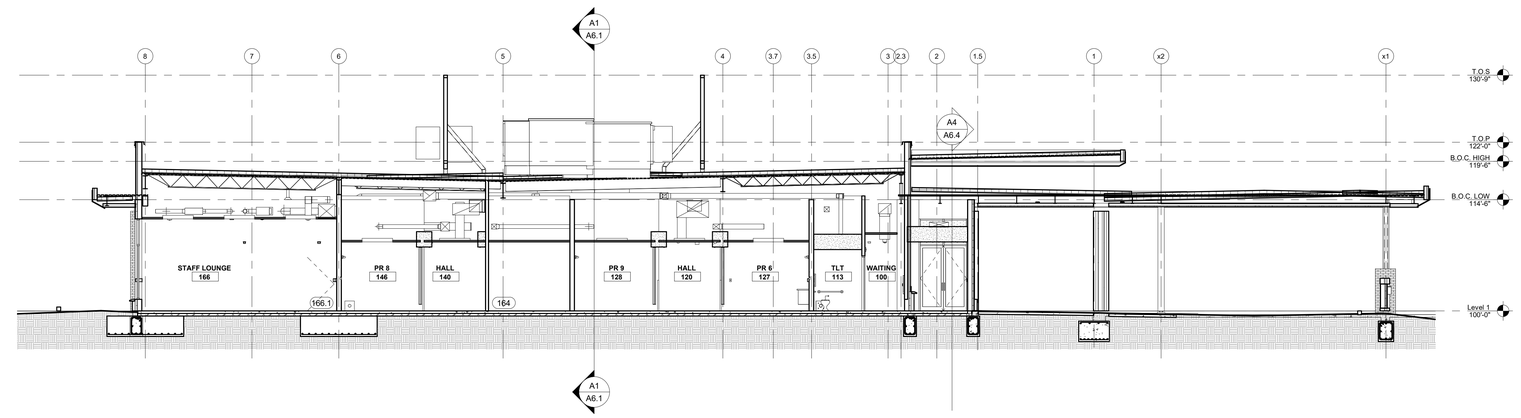
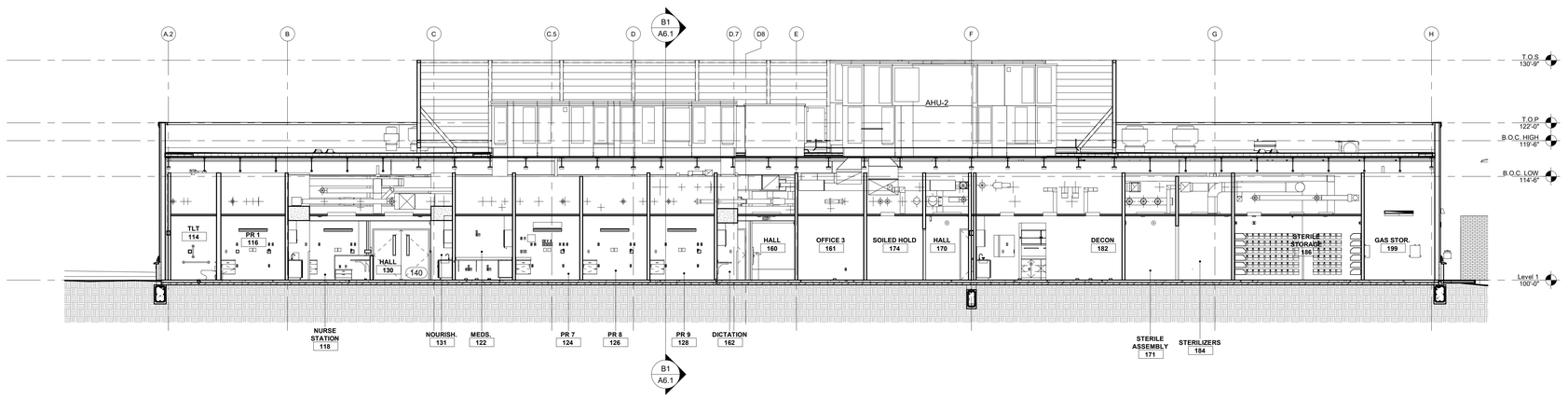



B1 BUILDING SECTION NS - THRU GI & PACU
1/8" = 1'-0"




A1 BUILDING SECTION EW - THRU SPD & PACU
1/8" = 1'-0"

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BUILDING SECTIONS

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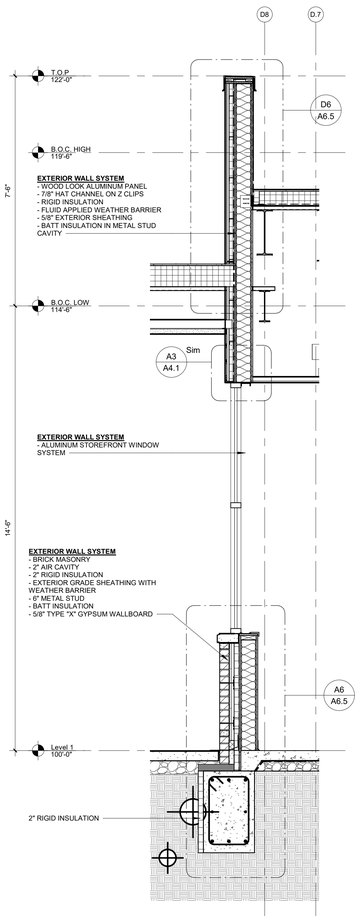
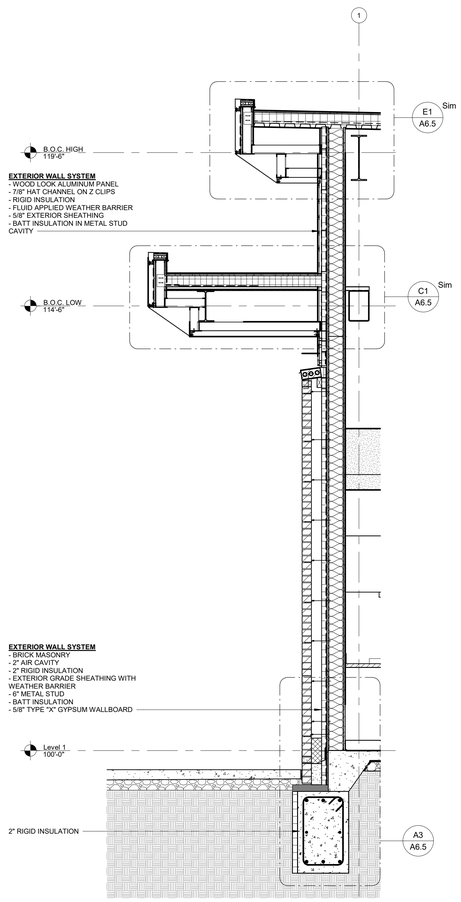
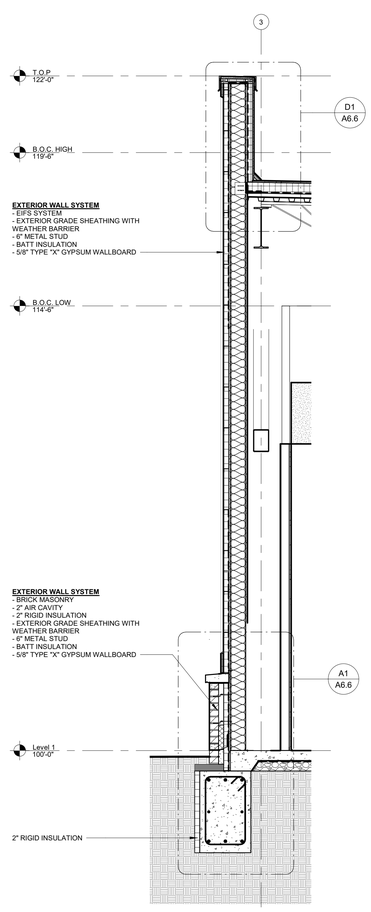


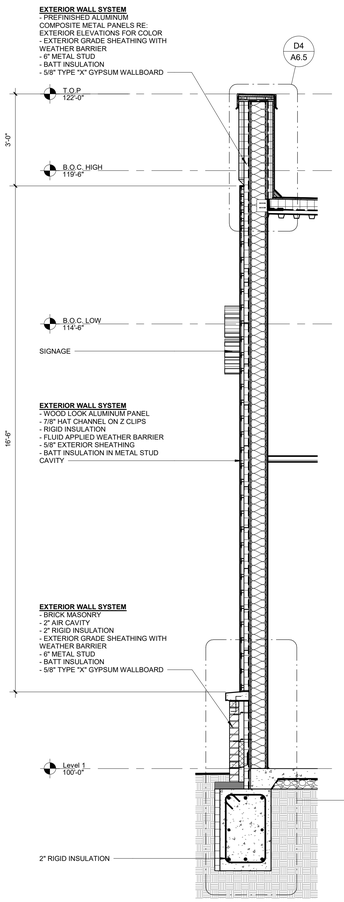

A6 WALL SECTION
1/2" = 1'-0"



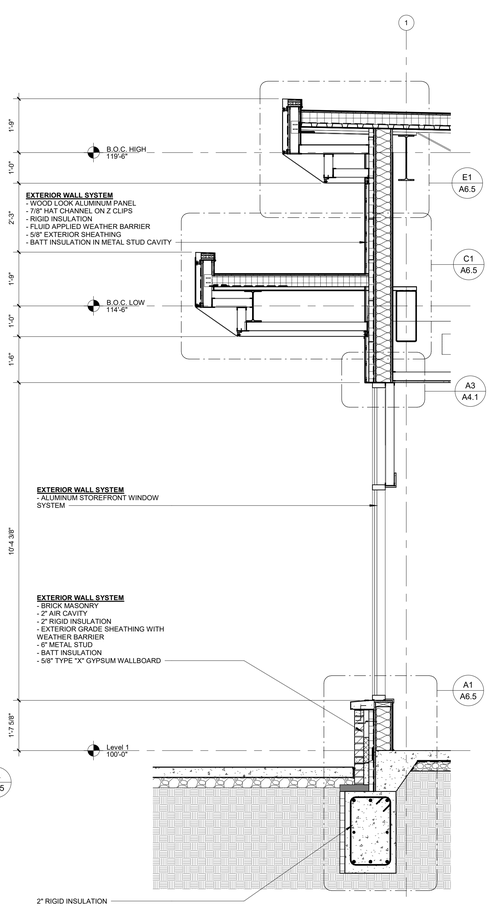

A5 WALL SECTION
1/2" = 1'-0"




A3 WALL SECTION
1/2" = 1'-0"




A2 WALL SECTION
1/2" = 1'-0"




A1 WS_S_STOREFRONT
1/2" = 1'-0"

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WALL SECTIONS

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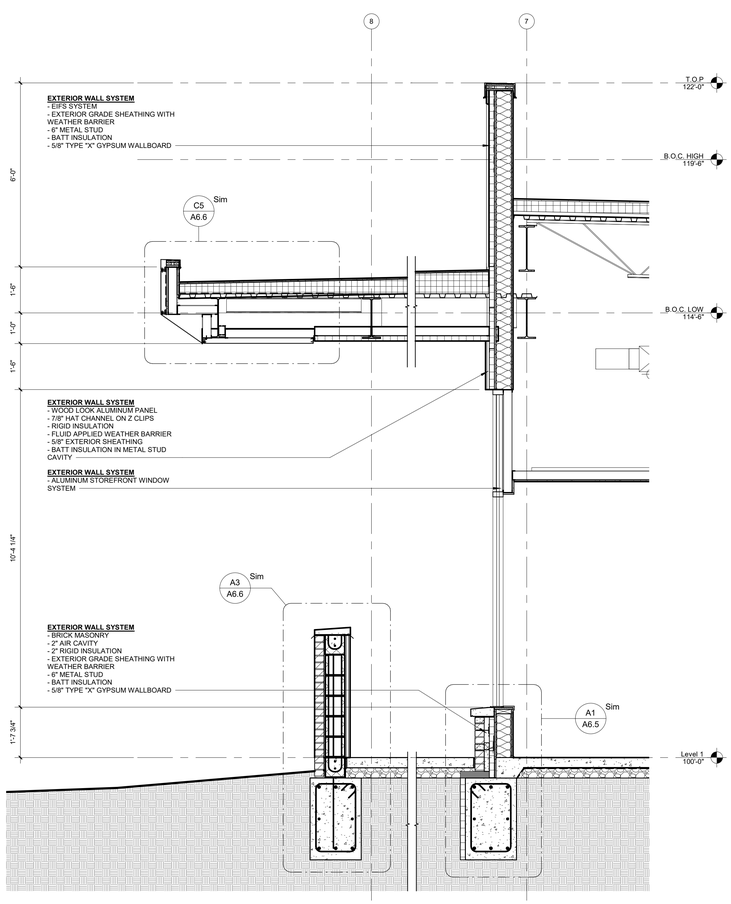
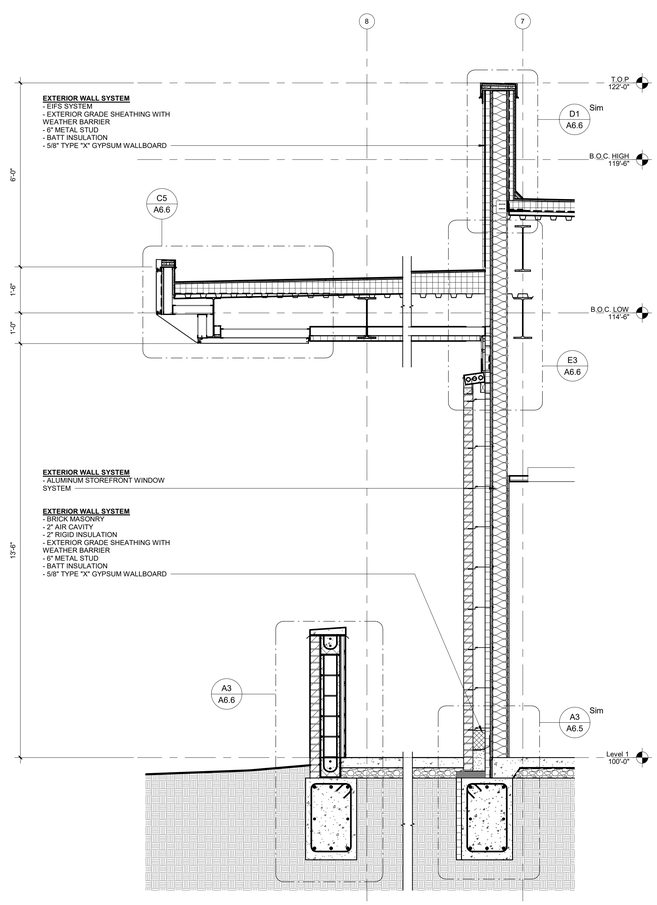
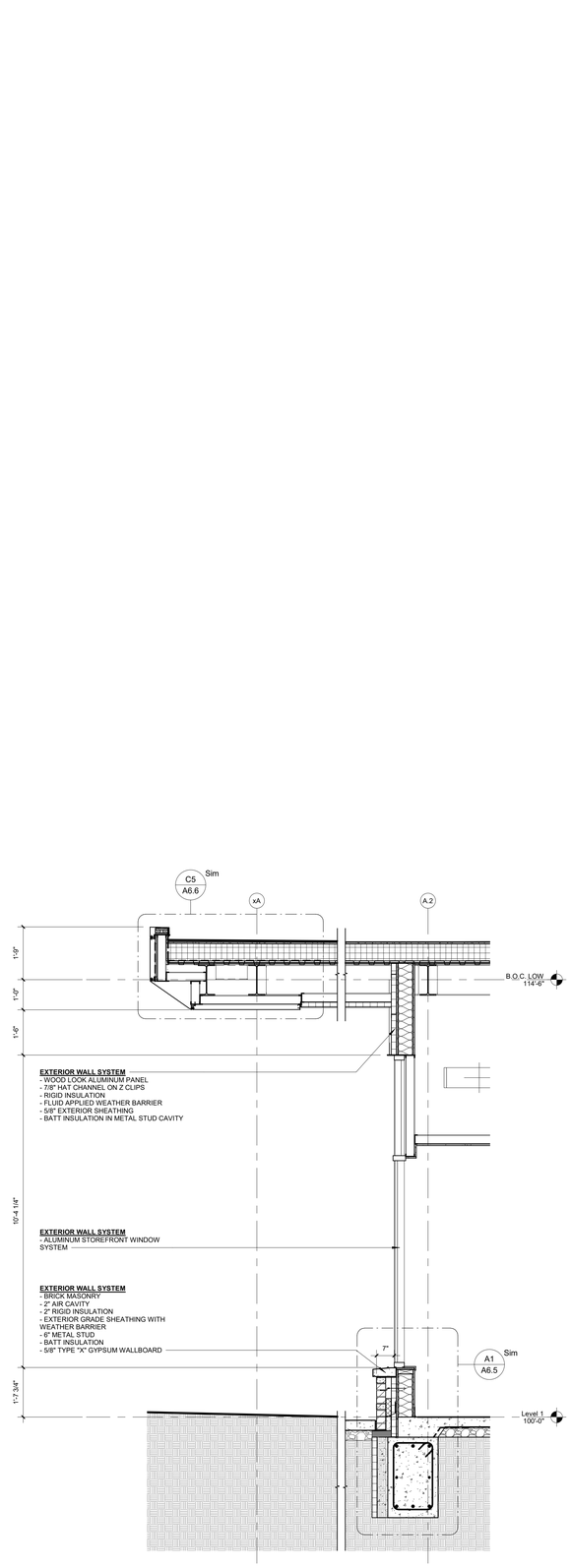



A5 WALL SECTION
1/2" = 1'-0"




A3 WALL SECTION
1/2" = 1'-0"




A1 WALL SECTION
1/2" = 1'-0"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WALL SECTIONS

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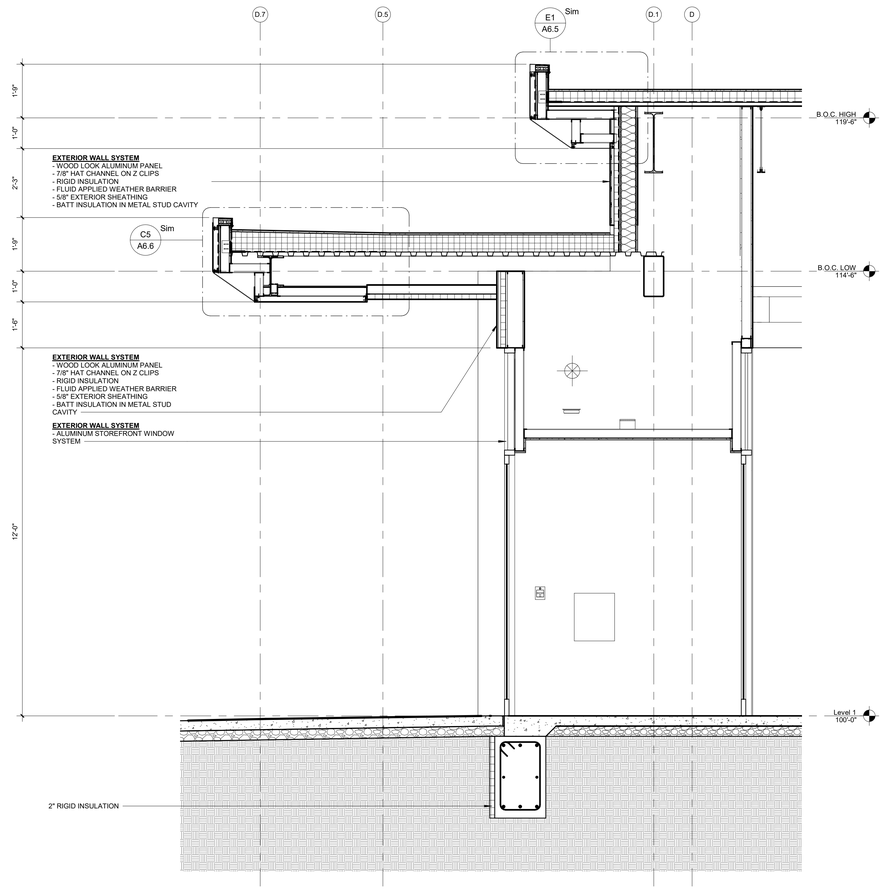
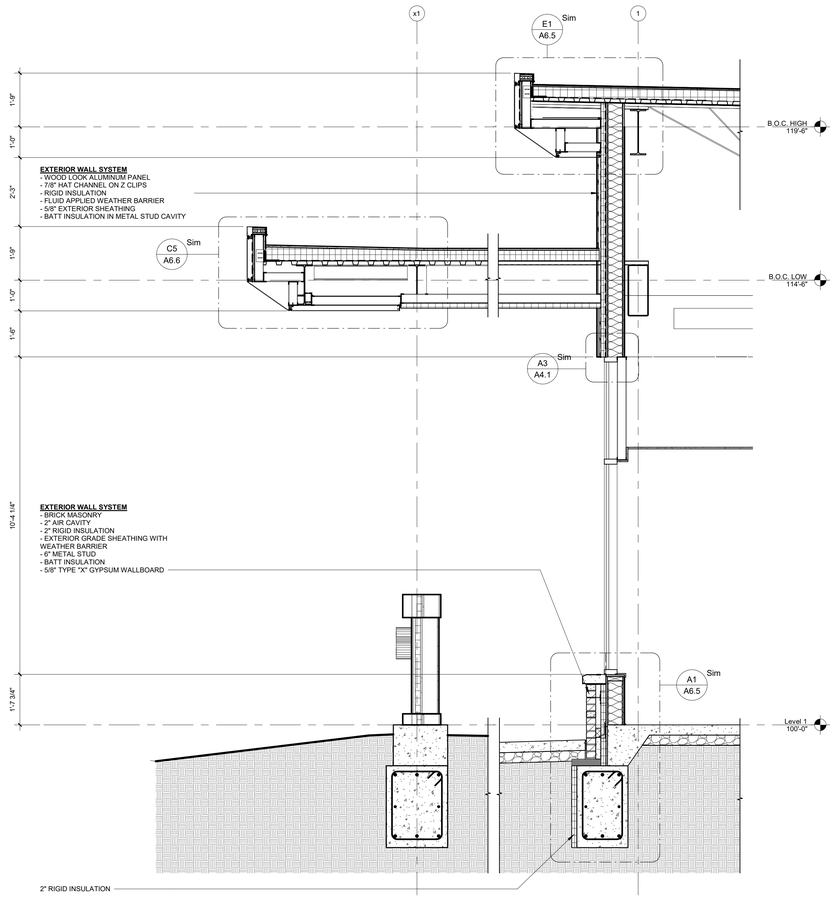



A4 WALL SECTION AT EAST ENTRANCE
1/2" = 1'-0"




A1 WALL SECTION AT FRONT CANOPY
1/2" = 1'-0"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WALL SECTIONS

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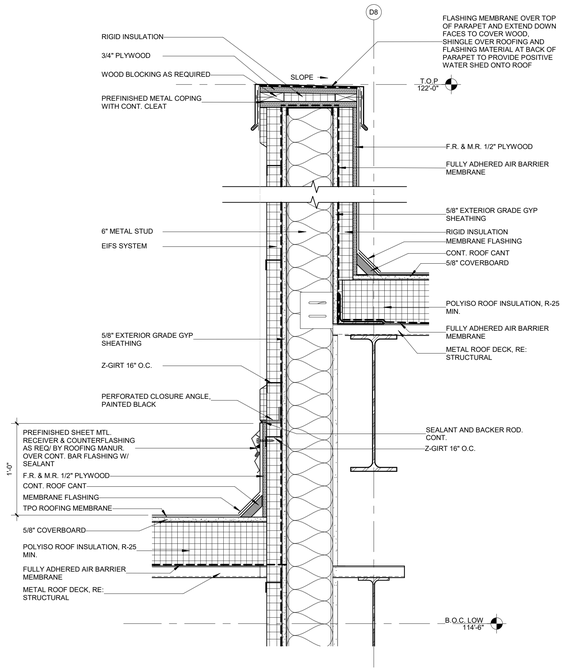
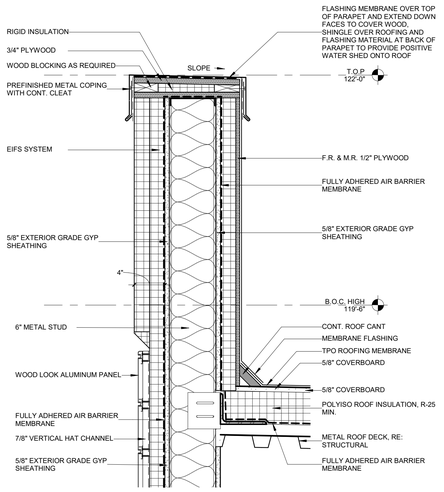
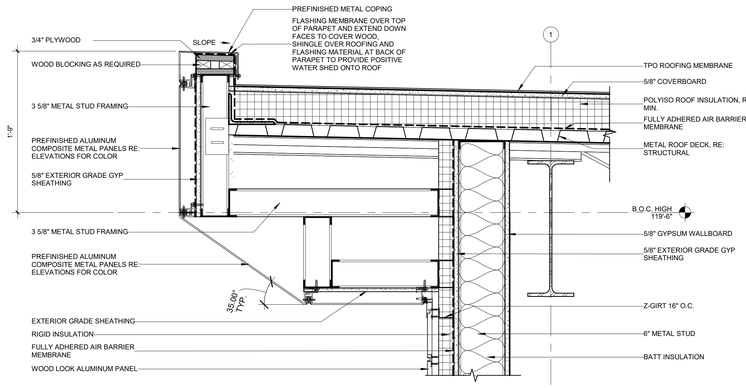


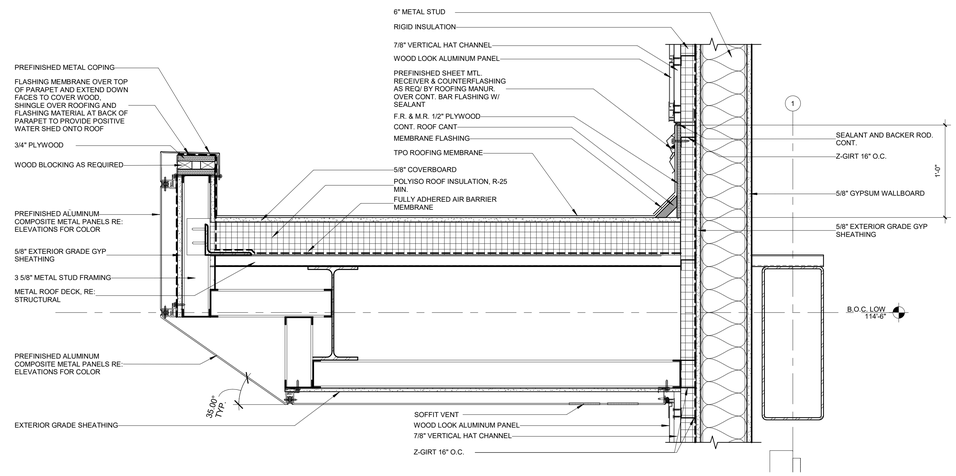

WALL SECTION AT PARAPET AT WOOD LOOK ALUMINUM PANELS
**D6** 1 1/2" = 1'-0"




**D4** WALL SECTION AT PARAPET WITH EXTENDED EIFS
1 1/2" = 1'-0"




**E1** SECTION DETAIL AT UPPER ROOF
1 1/2" = 1'-0"




**C1** SECTION DETAIL AT CANOPY
1 1/2" = 1'-0"




**A6** SECTION DETAIL AT BASE STOREFRONT AND BRICK
1 1/2" = 1'-0"




**A4** SECTION DETAIL AT BASE BRICK AND WOOD-LOOK EXTERIOR PANEL
1 1/2" = 1'-0"




**A3** SECTION DETAIL AT BASE BRICK BUMP OUT
1 1/2" = 1'-0"




**A1** SECTION DETAIL AT BASE STOREFRONT AND BRICK
1 1/2" = 1'-0"

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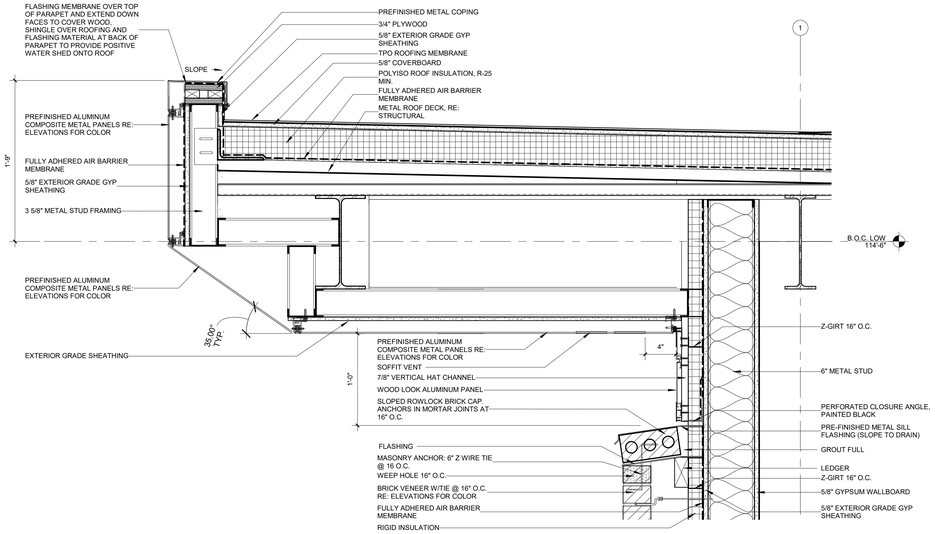
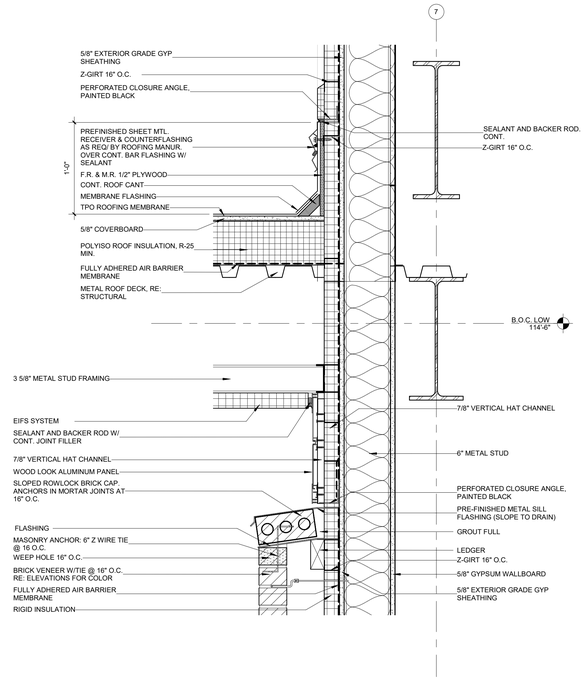
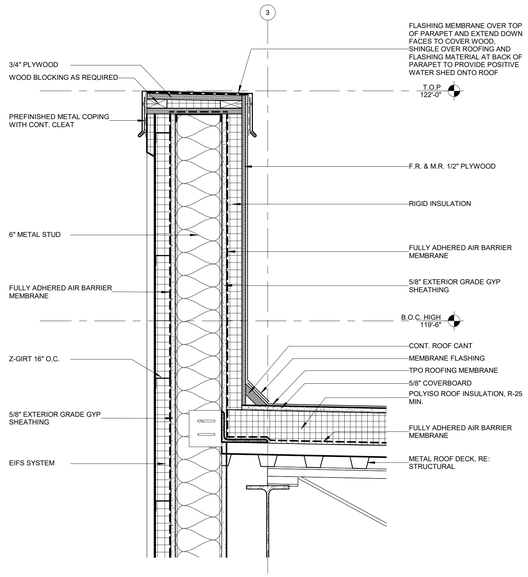
SECTION DETAILS




D5 SECTION DETAIL AT CANOPY AND TOP OF BRICK WALL
1 1/2" = 1'-0"




E3 WALL SECTION AT TOP OF BRICK WALL
1 1/2" = 1'-0"




D1 WALL SECTION AT PARAPET WITH EIFS
1 1/2" = 1'-0"




C5 SECTION DETAIL AT CANOPY
1 1/2" = 1'-0"



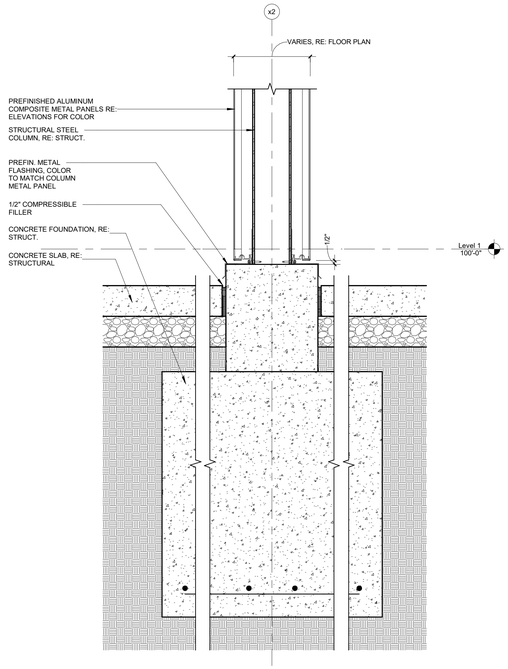

A3 DETAIL AT STAFF COURTYARD
1 1/2" = 1'-0"




A1 SECTION DETAIL AT SOUTH WALL
1 1/2" = 1'-0"




A6 SECTION DETAIL AT EDGE OF ENTRANCE CANOPY
1 1/2" = 1'-0"




A5 TYP. BASE DETAIL AT METAL WRAPPED COLUMN
1 1/2" = 1'-0"

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SECTION DETAILS

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# GENERAL NOTES - STRUCTURAL

## 1. General Information

A. The contractor shall verify dimensions and conditions before construction and notify the engineer of any discrepancies, inconsistencies, or difficulties affecting the work before proceeding.
B. The contractor shall coordinate all disciplines, verifying size and location of all openings, whether shown on structural drawings or not, as called for on architectural, mechanical, or electrical drawings. In the case of work in an existing building the contractor shall scan existing structure to locate all rebar in the area of the new core/opening using ground penetrating radar and notify the engineer of record for review prior to coring/cutting. Conflicts, inconsistencies, or other difficulties affecting structural work shall be called to the architect or engineer's attention for direction before proceeding.
C. All design and construction work for this project shall conform to the requirements of the following governing design codes:
1. International Building Code (IBC 2018) as amended by the city of Lee's Summit, Missouri.
2. Minimum Design Loads for Buildings and Other Structures (ASCE7-16)
3. Specification for Structural Steel Buildings (AISC 360-16)
Member Design Basis is Allowable Stress Design (ASD)
Connection Design Basis is Allowable Stress Design (ASD)
4. Structural Welding Code (AWS D1.1 and D1.3)
5. Building Code Requirements for Structural Concrete (ACI 318-14)
6. Building Code Requirements for Masonry Structures (TMS 402-16)
7. North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100-16)
D. These drawings are for this specific project and no other use is authorized.

## 2. Structural Load Design Criteria

A. Roof Live = 20 psf; Roof Collateral Dead = 25 psf (+ Mech Unit Wt)
B. Snow: Pg=20psf, Pf=14psf, Pfmin=20psf; Is=1.0, Ce=1.0, Ct=1.0, Drift per ASCE/SEI 7
C. Lateral Loads:
1.) Wind: V = 109 mph, Exposure C
Occupancy [Risk] Category II, Iw=1.0 GCpi=+/-0.18
Design wind pressures to be used for the design of exterior component and cladding materials on the designated zones of wall and roof surfaces shall be per section 30.7 and Table 30.7-2 of ASCE/SEI 7. Tabulated pressures shall be multiplied by effective area reduction factors, exposure adjustment factors, and topographic factors where applicable
2.) Seismic: Ss = .101, S1 = .069
Occupancy [Risk] Category II, Ie=1.0,
Site Classification C; Sds = .087; Sd1 = .069
Seismic Design Category B
Basic Seismic Force-resisting System:
Ord. Concent. Braced Steel Frames Not Spec. Det. for Seismic Resist.
Equivalent Lateral Force Procedure
R = 3.0; V = .029W; Omega = 3.0; Cd=3.0
D. This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the International Building Code.

## 3. Concrete

A. All concrete for foundations (walls, grade beams, footings and piers) shall develop minimum ultimate compressive design strength of 3500 psi in 28 days, but not less than 500 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 6 gallons of water per 100 pounds of cement and not over 4 inches of slump.
B. All concrete for interior flatwork (without floor covering) shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 525 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.75 gallons of water per 100 pounds of cement and not over 4 inches of slump. Concrete mix shop drawing shall contain testing data proving concrete design mix shrinkage is less than 0.034% at 28 days when tested according to ASTM C157 (air drying method only).
C. All concrete for interior flatwork (with floor covering) shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 550 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.50 gallons of water per 100 pounds of cement and not over 4 inches of slump. Concrete mix shop drawing shall contain testing data proving concrete design mix shrinkage is less than 0.034% at 28 days when tested according to ASTM C157 (air drying method only).
D. All concrete for exterior flatwork shall have a minimum design compressive strength of 4500 psi in 28 days, with not less than 560 pounds of cement per cubic yard of concrete, not over 5 gallons of water per 100 pounds of cement, with 6% +/- 1% air entrainment, and a maximum of 4 inches of slump.
E. Concrete for elevated rooftop RTU slabs shall be lightweight concrete with a maximum dry density of 115 +/- 3 pounds per cubic foot. Lightweight concrete shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 660 pounds of cement shall be used per cubic yard of concrete, regardless of strength obtained, not over 5 gallons of water per 100 pounds of cement with 5.5% +/- 0.5% air-entrainment and not over 5 inches of slump.
F. The preceding minimum mix requirements may have water-reducing admixtures conforming to ASTM C494 added to the mix at manufacturer's dosage rates for improved workability.
G. The preceding minimum mix requirements may have up to 15% maximum of the cement content replaced with an approved ASTM C618 Class C fly ash, provided the total minimum cementitious content is not reduced.
H. Combined aggregate (coarse plus fine) for all concrete shall be well graded from coarsest to finest with no more than 18 percent and not less than 8 percent retained on an individual sieve, except that less than 8 percent may be retained on coarsest sieve and on No. 50 and finer sieves. Submit this gradation report with the concrete mix design shop drawings.
I. All interior concrete slabs on grade shall be placed over 15 mil, Class A Vapor Barrier per ASTM E1745 with less than 0.01 perms, tested after mandatory conditioning. All joints shall be lapped and sealed per manufacturer's recommendations. All penetrations, as well as damaged vapor barrier material shall also be sealed per manufacturer's recommendation prior to concrete placement. Install barrier per manufacturer recommended details at all discontinuous edges (at interior columns, exterior edge of slab, etc.) to ensure terms of warranty are followed. The vapor barrier shall be placed over free-draining granular material as prescribed by the project soils report.
J. Basement foundation walls shall be braced at the base and top of wall by the contractor until the slab on grade at the base and the floor framing/slab at the top of wall is complete and the concrete has achieved 75% of the design strength. The contractor is responsible for engineering and design of the wall bracing, if required.
K. All concrete is reinforced concrete unless specifically called out as unreinforced. Reinforce all concrete not otherwise shown with same steel as in similar sections or areas. Any details not shown shall be detailed per ACI 315 and meet requirements of ACI 318, current editions.
L. Control joints in dirt formed slab to be as shown on plans. Where not shown, limit controlled areas to not more than 144 square feet, or 12 feet on any side. Slab panel side ratio shall not exceed 1 1/2 to 1. Submit Saw Joint/Control Joint Layout Plan for review and approval by the design team.
M. Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement.
N. Construction joints in beams, slabs, and grade beams shall occur at midspan (middle third) unless noted otherwise. Provide 2 x 4 horizontal keys at construction joints for shear transfer.
O. No aluminum items shall be embedded in any concrete.

## 4. Reinforcing Steel

A. All reinforcing steel shall conform to the requirements of ASTM A615 or A706 grade 60 steel. Welded plain wire fabric shall be supplied in sheets and conform to the requirements of ASTM A185.
B. Clear coverage of concrete over reinforcing steel shall be as follows:
1. Concrete placed against earth: 3"
2. Formed concrete against earth: 2"
3. Slabs: 1"
4. Beams or Columns: 1-1/2"
5. Other 2"
All coverage shall be nominal bar diameter minimum.
C. All dowels shall be the same size and spacing as adjoining main bars (splice lap 48 bar diameters or 24" minimum unless noted otherwise).
D. At corners of all walls, beams, and grade beams supply corner bars (minimum 2'-0" in each direction or 48 bar diameters) in outside face of wall, matching size and spacing of horizontal bars. Where there are no vertical bars in outside face of wall, supply 3 - #4 vertical support bars for corner bars (RE: Detail F/S0.1).
E. Bars marked continuous and all vertical steel shall be lapped 48 bar diameters (2'-0" minimum) at splices and embedments, unless shown otherwise. Splice top bars near midspan and splice bottom bars over supports, unless noted otherwise.
F. At all holes in concrete walls and slabs, add 2 - #5 bars (opening dimension plus 96 diameters long) at each of four sides and add 2 - #5 x 5'-0" diagonally at each of four corners of hole. Openings in 8" thick walls are reinforced similar, but with 1 - #5 instead of 2 - #5, respectively.
G. Unless otherwise covered on architectural plans or specifications, vertical control joints in concrete wall shall be spaced at a maximum of 20'-0" on center and coordinated with the architect. Every other horizontal wall reinforcing bar shall be discontinuous at control joints except heavy top and bottom bars unless noted otherwise (RE: Detail G/S0.1). Provide base seal waterstop style number 772 (by Greenstreak Inc. or approved equal) on dirt face side of wall at all walls below grade.
H. Accessories shall be as specified in latest edition of the ACI Detailing Handbook and the concrete Reinforcing Steel Institute Design Handbook. Maximum accessory spacing shall be 4'-0" on center, and all accessories on exposed surfaces are to have plastic coated feet.
I. All slabs and stairs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way. All exterior porches and stoops not otherwise detailed may be constructed in any standard manner, solid or hollow, but must be reinforced with #4 bars at 12" on center each way minimum. Porches shall be doweled to adjacent walls or grade beams with #4 bars at 12" on center, hooked or embedded 48 diameters into both members. Slope porches 1/8" per foot for drainage unless noted otherwise.
J. Allow 1/2 ton of reinforcing bars #4 or larger to be used as directed in the field for special conditions by the engineer of record (labor for placing same to be included).

## 5. Structural Steel

A. All structural steel beams and columns shall be ASTM A992, grade 50 steel and all miscellaneous steel shall be ASTM A36 grade steel (except at moment connections where plates shall be ASTM A572, grade 50). Hollow Structural Sections (HSS) shall be ASTM A500, grade C. Fabrication and erection shall be in accordance with AISC 303-16 "Code of Standard Practice for Steel Buildings and Bridges" in the 15th Edition of the AISC Steel Construction Manual.
B. All welding shall conform to the recommendations of the AWS.
C. All exterior steel and connections, and brick relief angles shall be hot-dip galvanized.
D. All bolts not otherwise specified shall be 3/4" diameter high strength (ASTM A325-N). All bolts shall be fully pretensioned. All beam connections shall be designed per the AISC Manual of Steel Construction "Framed Beam Connections" for the indicated reactions or at least 0.4 x beam total shear capacity, Vn/Omega, shown in the maximum total uniform load tables, whichever is greater; and, shall account for eccentricity when the bolt line is more than 2" from the center of the support. All connections must be two bolt minimum. Additional connection elements may not be specifically shown in the conceptual details in this set but may be required by the final connection design, such as stiffener plates, doubler plates, supplement/reinforcing plates or other connection material. Connection design and shop drawing preparation shall be completed under the direct supervision of a professional engineer licensed in the state the project is located and shop drawings and connection calculations shall bear his/her seal.
E. All anchor bolts shall be 3/4" diameter, ASTM F1554, Grade 36 unless noted otherwise. Washers of minimum size and thickness for the given anchor diameter in Table 14-2 of the AISC Steel Construction Manual shall be provided at every column anchor bolt. Washers shall have a standard size hole for the anchor bolt. At braced frames washers shall be welded all around to the column base plate with 3/16" fillet weld.
F. Design, fabrication and erection of all open-web bar joists shall comply with the recommendations of the Steel Joist Institute (SJI). Joists shall be designed to support loads given in the standard load tables of SJI Specs and Tables plus an additional point load of 200 lbs. on the top or bottom chord at any location without additional web reinforcing.
G. All K-series joists shall bear 2-1/2" minimum on structural steel beams and be welded to the beams with 2 1/2"-of 1/8" fillet weld each side (minimum).
H. All steel joists shall have horizontal bar or angle bridging per Steel Joist Institute Specifications. Provide rigid x-bridging in addition to and matching horizontal bridging where joists are discontinuous unless horizontal bridging is anchored to wall top and bottom. Joist sweep allowance shall comply with AISC Standard Practice.
I. All openings in steel joist roof to have 3x3x1/4 angle frame set between joists per sections 5 and 5A on sheet S4.0. Support mechanical equipment per section 1/S4.0 or underneath deck with 4x4x5/16 angles laid between joists framed to 4x4x5/16 angles (length equals mechanical unit dimension plus distance each end to next panel point) laid parallel to and welded to top and/or bottom cord of joists to distribute load to joist panel points.
J. All steel joists shall have a midspan camber approximately equal to that recommended by the Steel Joist Institute Specifications.
K. Design and installation of steel decking shall comply with the recommendations of the Steel Deck Institute (SDI). All decking shall be galvanized unless noted otherwise.
L. Allow 3.0 tons structural steel to be used as directed in field for structural drawings. The engineer of record. Cost for shop drawings, fabrication, delivery, detailing, and erection to be included. 50% of structural steel allowance shall be bid as miscellaneous galvanized angle and plate.

## 6. Post Installed Anchors

A. Post-installed anchors shall be used only where specified on the drawings unless approved in writing by the engineer of record. See drawings for anchor diameter, spacing and embedment. Performance values of the anchors shall be obtained for specified products using appropriate design procedures and/or standards as required by the governing building code. Anchors installed in concrete shall have an ICC-ES Evaluation Service Report. Special inspection is required for all post installed anchors. The contractor shall coordinate an on-site meeting with the post installed anchor manufacturer field representative to educate the construction team on the anchor installation guidelines and requirements.
B. Mechanical anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ACI 355.2 and ICC-ES AC193. All anchors shall be installed per the anchor manufacturer's written instructions.
C. Adhesive anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ICC-ES AC308. All anchors shall be installed per the anchor manufacturer's written instructions.
D. Mechanical anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC01. All anchors shall be installed per the anchor manufacturer's written instructions.
E. Adhesive anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC58. All anchors shall be installed per the anchor manufacturer's written instructions.
F. Anchors used in hollow concrete masonry shall have been tested and qualified in accordance with ICC-ES AC106 or ICC-ES AC58 as appropriate. All anchors shall be installed per the anchor manufacturer's written instructions with appropriate screen tubes used for adhesives.

## 7. Foundations

A. The soil investigation was prepared by Alpha-Omega Geotech, the report number is AOG-22-44OE and the telephone number is 913.371.0000.
B. Spread footings, grade beams, and retaining walls are designed to bear on engineered fill or undisturbed soil capable of safely sustaining 2500 psf.
C. Retaining walls are designed for an active (unrestrained conditions) lateral load of 40 pcf equivalent fluid pressure.
D. Basement walls are designed for an at rest (restrained conditions) lateral load of 60 pcf equivalent fluid pressure.
E. Contractor shall provide for dewatering at excavations from either surface water or seepage.
F. All foundation excavations shall be inspected by a qualified soil engineer, approved by the architect and/or structural engineer, prior to placement of steel or concrete. This inspection shall be at the owner's expense.
G. All concrete in the structural portion retaining the backfill shall have attained its design strength prior to being backfilled.
H. Moisture content in soils beneath building locations should not be allowed to change after footing excavations and after grading for slabs on grade are completed. If subgrade materials become desiccated or softened by water or other conditions, recompact materials to the density and water content specified for engineered fill. Do not place concrete on frozen ground.

## 8. Concrete Masonry Units

A. Concrete block used in exterior walls or load bearing walls shall meet the requirements of ASTM C90 and have a minimum net compressive strength of 3050 psi and laid up using type N mortar such that f'm equals 2000 psi. Mortar shall be volume proportion based cement lime mortar. Proportioning shall be completed by box measure. Any block in contact with earth shall be normal weight units, laid using type "S" mortar and grouted solid.
B. The contractor shall provide adequate temporary bracing for all masonry walls during construction.
C. All concrete block shall have 9 gage (or larger) horizontal joint reinforcing (ladder or truss) per architectural drawings and specifications (16" maximum vertical spacing).
D. Cavity wall construction shall be reinforced as designed for specific concrete block used. The horizontal joint reinforcing shall be of the ladder or truss style per specification and continuous between brick and block, as prescribed by the architectural drawings.
E. Concrete block shall be reinforced as follows in 6", 8", 10", and 12" walls:
1. Vertical reinforcing shall be a minimum of 1 - #5 bar in 6" and 8" walls and 2 - #5 bars in 10" and 12" walls per note "A" (on this sheet), at each corner, at each door and window jamb, each side of control joints and in the end void of each length of wall. Lap splices for masonry vertical reinforcing shall be 48 bar diameters, 24" minimum.
2. Horizontal reinforcing:
A. Horizontal joint reinforcing as noted above.
B. Continuous horizontal bars shall be included per section or detail in bond beam or optional running bond beam where noted. Where bond beams are continuous at corners of walls, supply corner bars matching size of horizontal bars (minimum 2'-0" or 48 bar diameters in each direction).
F. Grout, where noted above, shall have a minimum design ultimate compressive strength of 2500 psi at 28 day test and 3/8" maximum aggregate size.
G. Non-load bearing concrete block walls shall be isolated from adjacent structural elements with vertical 3/8" control joints and at the top of the wall with 1" air space or compressible material and support per architectural detail.
H. Unless otherwise covered on architectural plans or specifications, vertical control joints in masonry construction shall be 3/8" wide, full height of wall. Joints shall be spaced at a maximum of 24'-0" on center and coordinated with the architect. All horizontal joint reinforcing shall be discontinuous at control joints in masonry. All bond beam horizontal reinforcing shall be continuous through control joints.
I. Lintels over all openings up to 8'-0" wide in new and existing masonry walls not otherwise covered shall be one 6x4x5/16 angle (LLV) for each 4" width of masonry with 8" bearing (min.) on supporting masonry each end. All exterior lintels to be galvanized.
J. Walls shall be anchored top and bottom by dowels matching wall vertical reinforcing(unless noted otherwise) from floor slab bottom and bracing angles at the top, per details on the drawings.

## 9. Light Gage Metal Structural Framing

A. All load bearing, light gage structural studs, track, and bridging shall be of the type, size, gage, and spacing as shown on the plans, minimum.
B. All materials shall be 33,000 psi minimum yield, except studs of 16 gage or heavier shall have a minimum yield of 50,000 psi.
C. All properties, fabrication, and erection shall be in accordance with latest editions of the AISI "Specifications for the Design of Cold-Formed Structural Members."
D. All framing components shall be cut squarely or at an angle to fit squarely against abutting members. Splicing of axially loaded members is not permitted. Members shall be held firmly in place until properly fastened. Attachments of similar components shall be by welding, screw attachment, or bolting. Wire tying of components is not permitted.
E. Tracks shall be securely anchored to floor and overhead members. Special anchorage requirements required for wind bracing shall be as shown on the plans.
F. Prior to fabrication and/or erection, the contractor shall submit shop drawings complete with detail of erection, fabrication, attachments, anchorages, lintels, etc., for review by the architect/engineer.

## 10. Deferred Submittal and Shop Drawing

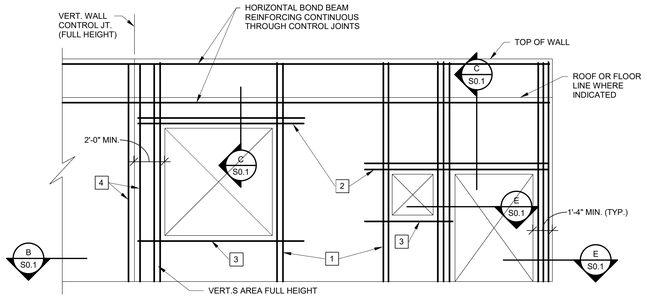
A. Bob D. Campbell and Company, Inc. will review the General Contractor's (GC) shop drawings and related submittals (as indicated below) with respect to the ability of the detailed work, when complete, to be a properly functioning integral element of the overall structural system designed by Bob D. Campbell and Company, Inc.
B. Deferred submittals shall be submitted to the architect of record for review who shall forward to the building official for review and approval. Design calculations for deferred sub mittals shall be submitted at the same time as the shop drawings for review. Design calculations shall be prepared and sealed by a Professional Engineer licensed in the state of the project. The deferred submittal items shall not be installed until the deferred submittal documents have been approved by the building official.
C. Prior to submittal of a shop drawing or any related material to Bob D. Campbell and Company, Inc., the GC shall:
1. Review each submission for conformance with the means, methods, techniques, sequences and operations of construction and safety precautions and programs incidental thereto, all of which are the sole responsibility of the GC.
2. Review and approve each submission.
3. Stamp each submission as approved.
D. Bob D. Campbell and Company, Inc. shall assume that no submission comprises a variation unless the GC advises Bob D. Campbell and Company, Inc. with written documentation.
E. Bob D. Campbell and Company, Inc. shall review shop drawings and related materials with comments provided that each submission has met the above requirements. Bob D. Campbell and Company, Inc. shall return without comment unrequired material or submissions without GC approval stamp.
F. Shop drawings and related material (if any) required are indicated below.
Should Bob D. Campbell and Company, Inc. require more than ten (10) working days to perform the review, Bob D. Campbell and Company, Inc. shall so notify the GC.
1. Concrete mix designs and material certificates including admixtures and compounds applied to the concrete after placement.
2. Reinforcing steel shop drawings including erection drawings and bending details.Bar list will not be reviewed for correct quantities.
3. Rammed Aggregate Pier design calculations and shop drawings
4. Elevations of all reinforced concrete masonry walls at a scale no smaller than 3/8" = 1'-0" showing all required reinforcing.
5. Grout mix designs (for CMU).
6. Construction and control joint plans and/or elevations.
7. Structural steel shop drawings including erection drawings and piece details. Include joist, decking and connector submittals. Include miscellaneous framing specified on the structural drawings, but do not submit framing specified on non-structural drawings for Bob D. Campbell and Company, Inc. review.
8. Deferred Submittal: Structural steel connections (including braced frames) and connection design calculations submitted concurrently with the structural steel shop drawings.
9. Deferred Submittal: Structural steel joists
10. Deferred Steel Joist Railings and guardrails
11. Deferred Submittal: Exterior cold-formed metal framing
12. Deferred Submittal: Exterior curtain wall
13. Miscellaneous anchors steel to be used as directed in field for structural drawings.
14. Standard details and bridging information for light gage metal framing.
Erection plans and details for light gage metal joists and lintels spanning more than 6'-0" shall be submitted. Standard interior wall framing need not be submitted.

## 11. Statement of Structural Special Inspections

A. The structural design for this project is based on completion of special inspections during construction in accordance with section 1704 of the International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.
B. The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.
C. All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the proper design authority, building official and structural engineer.
D. The special inspector shall submit a final signed report stating that the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions of the building code.
E. The following inspections and tests are required with the frequency (continuous or periodic) as defined within the referenced section or standard listed below. The General Contractor shall provide notification to the inspector when items requiring inspection are ready to be inspected and provide access for those inspections.
1. Shop Fabrication – structural steel and steel bar joist per Section 1704.2.5 unless AISC certified shop
2. Steel Construction per Section 1705.2 and the quality assurance requirements of AISC 341-16 Part J (as referenced by AISC 360)
3. Cold-Formed Steel Deck per Section 1705.2.2 and the quality assurance requirements of SDI QA/QC
4. Concrete Construction per Section 1705.3 and Table 1705.3
a. Reinforcing Steel Placement
b. Reinforcing Steel Welding
c. Cast in Place Anchors
d. Post Installed Anchors
e. Design Mix Verification
f. Concrete Sampling and Testing
g. Concrete Placement
h. Concrete Curing
i. Formwork Shape, Location and Dimensions
5. Masonry Construction per Section 1705.4 and the quality assurance requirements of TMS 402/ACI530/ASCE5 and TMS602/A530.1/ASCE6 Level B
6. Verification of Soils per Table 1705.6

## 12. Copyright and Disclaimer

A. All drawings in the structural set (S-series drawings) are the copyrighted work of Bob D. Campbell and company, Inc. These drawings may not be photographed, traced, or copied in any manner without the written permission of Bob D. Campbell and Company, Inc. Exception: Original drawings may be printed for distribution to the owner, architect, and general contractor for coordination, bidding, and construction. Subcontractors may not reproduce these drawings for any purpose or in any manner.
B. I, Jeffrey L. Wright, P.E., registered engineer and a representative of Bob D. Campbell and Company, Inc., do hereby accept professional responsibility as required by the professional registration laws of this state for the structural design drawings consisting of S-series drawings. I hereby disclaim responsibility for all other drawings in the construction document package, they being the responsibility of other design professionals whose seals and signed statements may appear elsewhere in the construction document package.




TYPICAL CMU WALL REINFORCING AT OPENINGS

LEGEND:

1 FULL HEIGHT VERTICAL BARS AS JAMB REINFORCING IN FIRST 2 CELLS ADJACENT TO OPENING. REINFORCE EACH CELL WITH SIZE & QUANTITY OF BAR TO MATCH WALL REINFORCING (1 BAR TYPICAL IN 8" WALLS AND 2 BARS TYPICAL IN 12" WALLS).

2 LINTEL REINFORCING PER SECTION C/S0.1. EXTEND 2'-0" PAST EDGE OF OPENING ON EACH SIDE (TYPICAL).

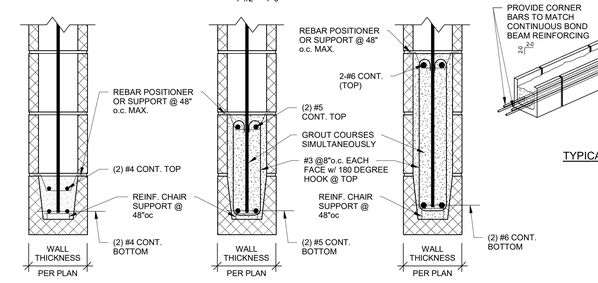
3 2-#5 CONTINUOUS HORIZONTAL BARS AS SILL REINFORCING IN 8" COURSE BELOW OPENING (U.N.O.). EXTEND 2'-0" PAST EDGE OF OPENING ON EACH SIDE (TYPICAL).

4 FULL HEIGHT VERTICAL BARS PER MASONRY VERTICAL REINFORCING SCHEDULE LOCATED IN END CELL AT EACH SIDE OF VERTICAL WALL CONTROL JOINTS.

GENERAL CRITERIA: (SECTION A/S0.1 CONTINUED):

1. VERTICAL REINF. BARS SHALL BE DOWELED TO FOUNDATION WITH A DOWEL OF MATCHING SIZE AND SPACING.
2. CONTRACTOR SHALL COORDINATE AND VERIFY OPENINGS IN MASONRY WALLS. OPENINGS SHALL BE DETAILED ON REINFORCING STEEL SHOP DRAWING ELEVATIONS.
3. VERTICAL CONTROL JOINTS IN MASONRY WALLS SHALL BE 3/8" WIDE, FULL HEIGHT OF WALL. JOINTS SHALL BE SPACED AT A MAXIMUM OF 24'-0" ON CENTER AND NOT LESS THAN 2'-0" FROM THE EDGE OF ANY OPENING. ALL HORIZONTAL JOINT REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS. ALL BOND BEAM HORIZONTAL REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. CONTRACTOR SHALL COORDINATE AND VERIFY ALL CONTROL JOINT LOCATIONS.

## A CMU WALL ELEV.
1 1/2" = 1'-0"




OPENINGS UP TO 4'-0" | OPENINGS 4'-0" TO 7'-4" | OPENINGS 7'-4" TO 12'-0"

TYPICAL LINTELS AT ALL CMU WALLS

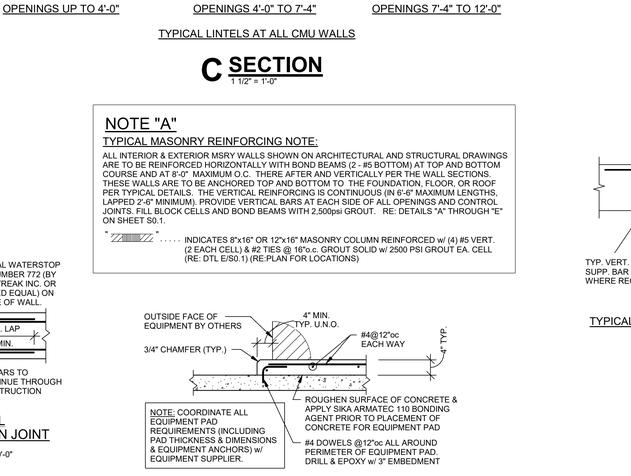
## C SECTION
1 1/2" = 1'-0"

NOTE "A"

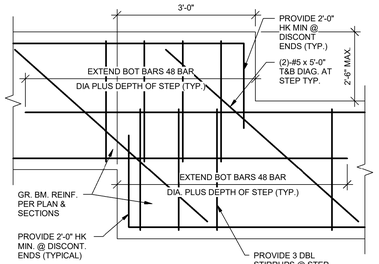
TYPICAL MASONRY REINFORCING NOTE:

ALL INTERIOR & EXTERIOR MSRY WALLS SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS ARE TO BE REINFORCED HORIZONTALLY WITH BOND BEAMS (2 - #5 BOTTOM) AT TOP AND BOTTOM COURSE AND AT 8'-0" MAXIMUM O.C. THERE AFTER AND VERTICALLY PER THE WALL SECTIONS. THESE WALLS ARE TO BE ANCHORED TOP AND BOTTOM TO THE FOUNDATION, FLOOR, OR ROOF PER TYPICAL DETAILS. THE VERTICAL REINFORCING IS CONTINUOUS (IN 6'-0" MAXIMUM LENGTHS, LAPPED 2'-6" MINIMUM). PROVIDE VERTICAL BARS AT EACH SIDE OF ALL OPENINGS AND CONTROL JOINTS. FILL BLOCK CELLS AND BOND BEAMS WITH 2,500psi GROUT. RE: DETAILS "A" THROUGH "E" ON SHEET S0.1.

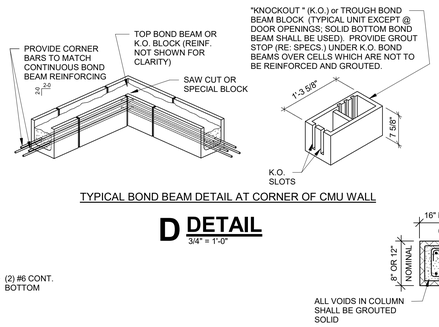
INDICATES 8"x16" OR 12"x16" MASONRY COLUMN REINFORCED w/ (4) #5 VERT. (2 EACH CELL) & #2 TIES @ 16"o.c. GROUT SOLID w/ 2500 PSI GROUT EA. CELL (RE: DTL E/S0.1) (RE:PLAN FOR LOCATIONS)




## G VERTICAL WALL CONTROL JOINT
3/4" = 1'-0"

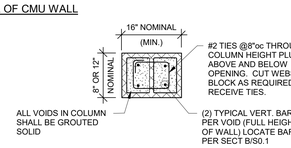



## J TYPICAL GRADE BEAM STEP
3/4" = 1'-0"



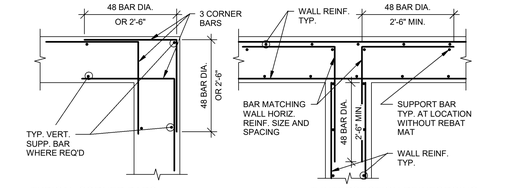

TYPICAL BOND BEAM DETAIL AT CORNER OF CMU WALL

## D DETAIL
3/4" = 1'-0"




TYPICAL MASONRY COLUMN

## E SECTION
3/4" = 1'-0"

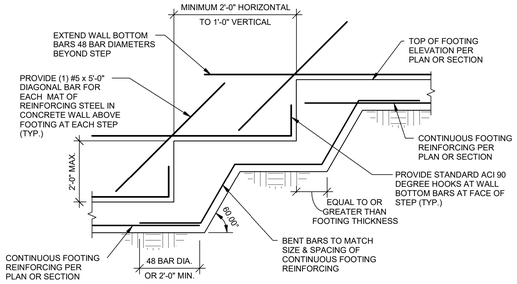



TYPICAL CORNER BARS | T-INTERSECTION REINFORCING

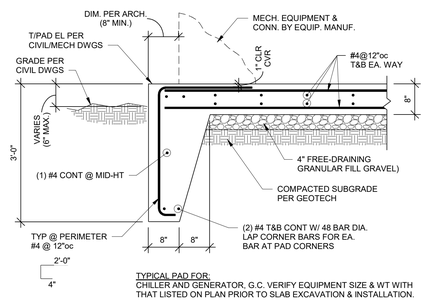
## F SECTION
3/4" = 1'-0"




## H TYPICAL EQUIPMENT PAD
3/4" = 1'-0"




## K TYPICAL FOOTING STEP
1/2" = 1'-0"




TYPICAL PAD FOR: CHILLER AND GENERATOR, G.C. VERIFY EQUIPMENT SIZE & WT WITH THAT LISTED ON PLAN PRIOR TO SLAB EXCAVATION & INSTALLATION.

## L SECTION
3/4" = 1'-0"

STATE OF MISSOURI
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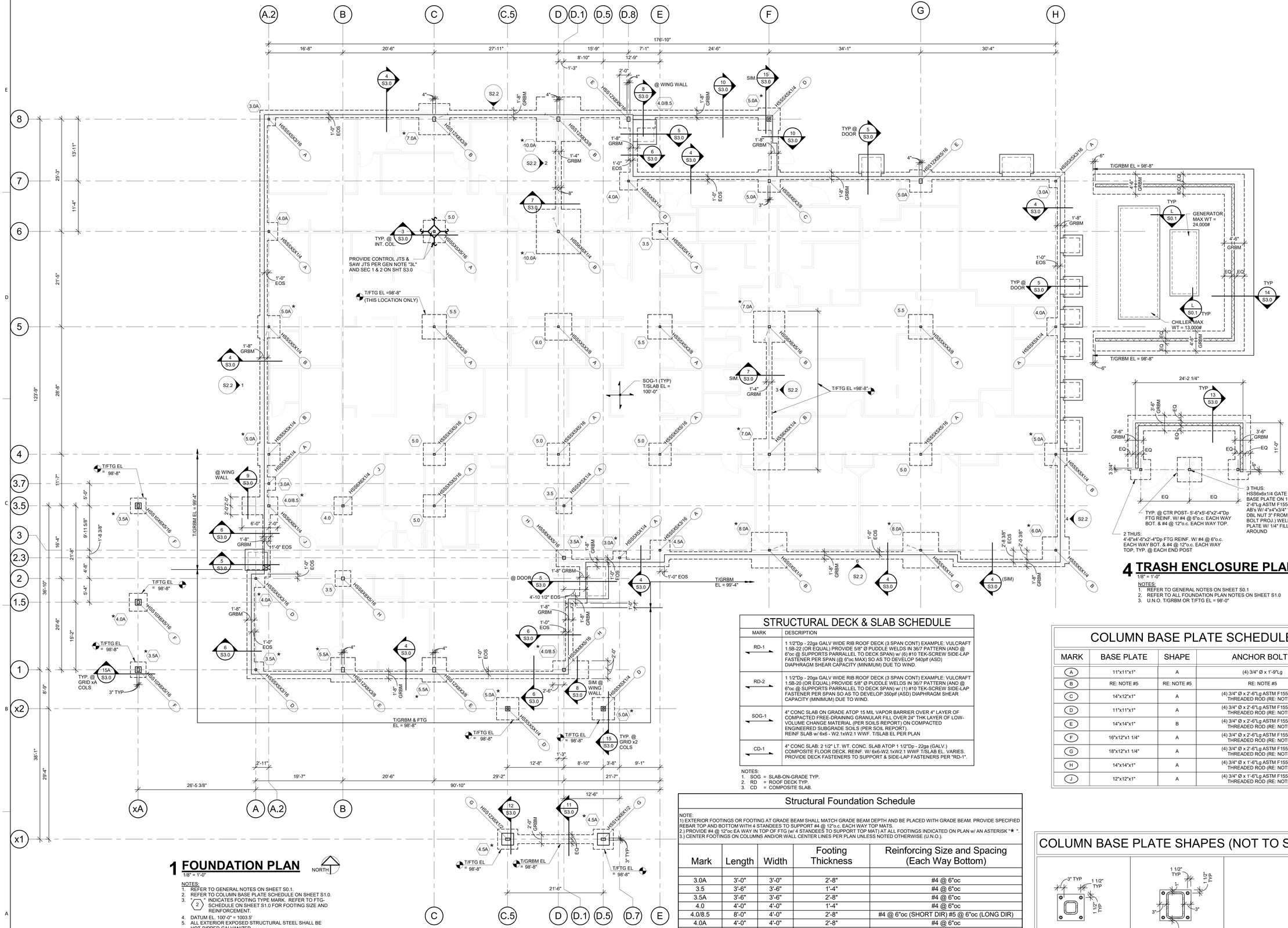
A.2
B
C
C.5
D
D.1
D.5
D.8
E
F
G
H
16'-8"
20'-6"
27'-11"
15'-9"
7'-1"
24'-6"
34'-1"
30'-4"
176'-10"
8'-10"
12'-9"
1'-3"
T/GRBM EL = 98'-8"
T/GRBM EL = 99'-4"
T/GRBM & FTG EL = 98'-8"
T/GRBM EL = 99'-4"
T/FTG EL = 98'-8" (THIS LOCATION ONLY)
PROVIDE CONTROL JTS & SAW JTS PER GEN NOTE "3L" AND SEC 1 & 2 ON SHT S3.0
SOG-1 (TYP) T/SLAB EL = 100'-0"
@ WING WALL
@ DOOR
TYP @ DOOR
TYP @ INT. COL.
TYP @ GRID xA COLS
TYP @ GRID x2 COLS
SIM @ WING WALL
SIM
4'-10 1/2" EOS
GENERATOR MAX WT = 24,000#
CHILLER MAX WT = 13,000#
T/GRBM EL = 98'-8"
24'-2 1/4"
2'-11"
19'-7"
20'-6"
29'-2"
21'-7"
26'-5 3/8"
90'-10"
12'-8"
8'-10"
3'-8"
9'-1"
21'-6"
12'-6"
123'-9"
28'-8"
21'-5"
25'-3"
13'-11"
11'-4"
11'-7"
16'-4"
9'-11 5/8"
1'-8 3/8"
5'-0"
2'-1"
4'-8"
5'-4"
36'-10"
20'-8"
15'-2"
8'-9"
38'-1"
29'-4"
5'-0"
2'-0"
6'-0"
1'-0"
2'-0"
3'-6"
3'-6"
11'-0"
3 3/4"
2'-8 3/8"
2'-0 3/8"
1'-0"
2'-0"
3"
1'-6"
1'-0"
1'-3"
1'-4"
1'-8"
1'-0"
2'-0"
4"
8"
3"
1'-0" EOS
1'-4" GRBM
1'-8" GRBM
1'-0" GRBM
2'-0" GRBM
4'-6" GRBM
3'-6" GRBM
4'-6" EQ
EQ
TYP
T/FTG EL = 98'-8"
T/FTG EL = 98'-8"
T/FTG EL = 98'-8"
T/FTG EL = 98'-8"
T/FTG EL = 98'-8"
T/FTG EL = 98'-8"
T/GRBM EL = 98'-8"
T/GRBM EL = 98'-8"
T/GRBM EL = 99'-4"
HSS6X6X1/4
HSS6X6X5/16
HSS6X6X3/16
HSS6X4X1/4
HSS6X4X5/16
HSS6X4X3/16
HSS6X6X1/2
HSS12X6X1/2
HSS12X8X3/8
HSS12X8X5/16
HSS10X8X5/16
HSS12X6X3/8
HSS12X6X5/16
HSS8X6X1/4
HSS8X6X5/16
HSS8X8X5/16
HSS10X6X5/16
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HSS6X6X3/8
HSS6X6X5/16
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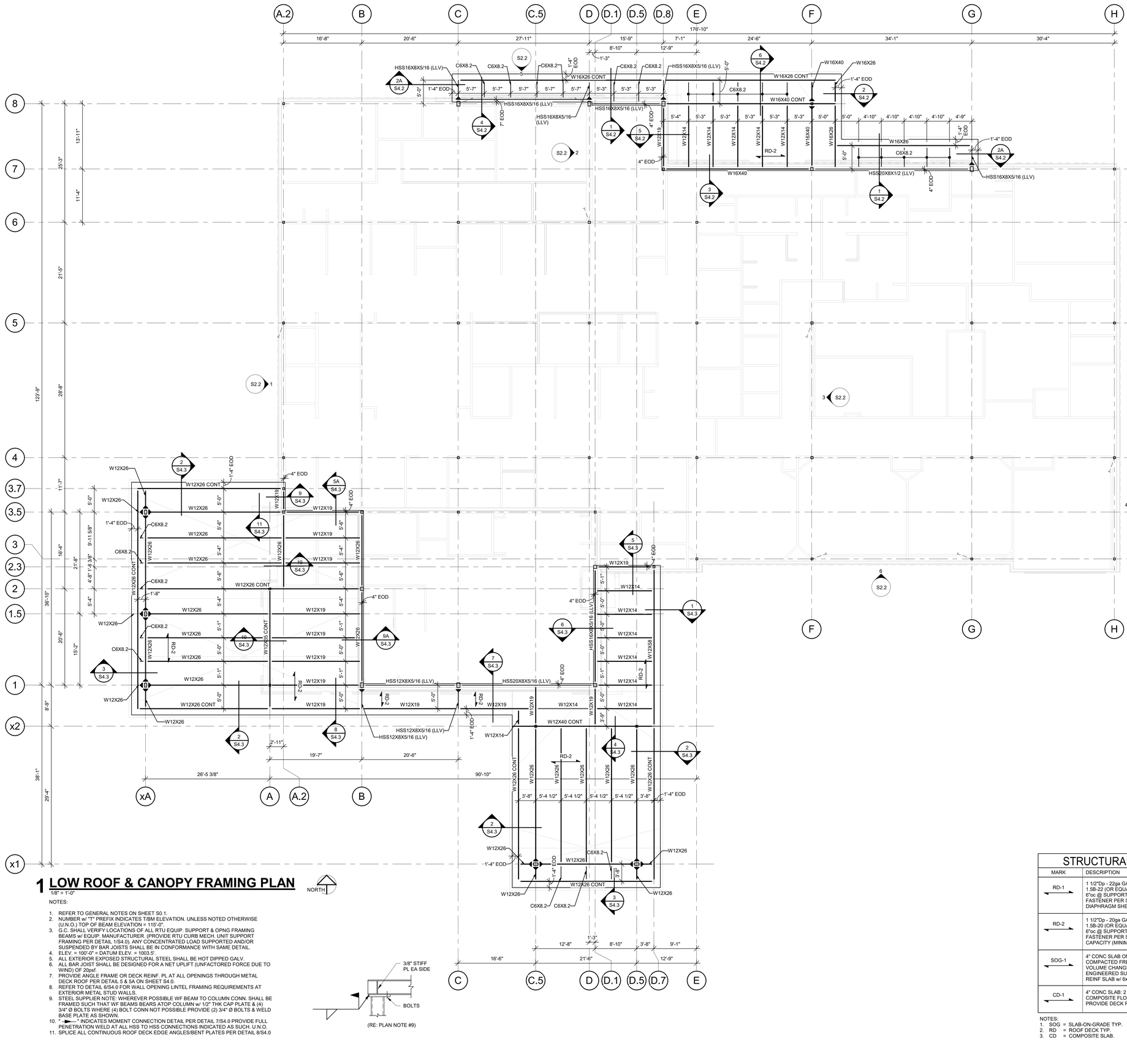
HSS6X4X1/4
HSS6X6X3/16
HSS6X4X3


A.2
B
C
C.5
D
D.1
D.5
D.8
E
F
G
H
176'-10"
16'-8"
20'-6"
27'-11"
15'-9"
7'-1"
24'-6"
34'-1"
30'-4"
8'-10"
12'-9"
1'-3"
8
7
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3.7
3.5
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2.3
2
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1
x2
x1
123'-9"
26'-8"
21'-5"
25'-3"
13'-11"
11'-4"
16'-4"
21'-8"
15'-2"
36'-10"
20'-6"
11'-7"
38'-1"
29'-4"
8'-9"
xA
A
A.2
B
26'-5 3/8"
90'-10"
19'-7"
20'-6"
2'-11"
16'-6"
21'-6"
12'-9"
HSS16X8X5/16 (LLV)
C6X8.2
W16X26 CONT
W16X40
W16X26
W16X40 CONT
HSS16X8X5/16 (LLV)
HSS20X8X1/2 (LLV)
HSS12X8X5/16 (LLV)
HSS20X8X5/16 (LLV)
W12X26
W12X19
W12X14
W12X40 CONT
RD-2
4" EOD
1'-4" EOD
7" EOD
W12X26 CONT
W12X40
W12X14
W12X19
W12X26
W12X40 CONT
W12X14
W12X19
W12X26
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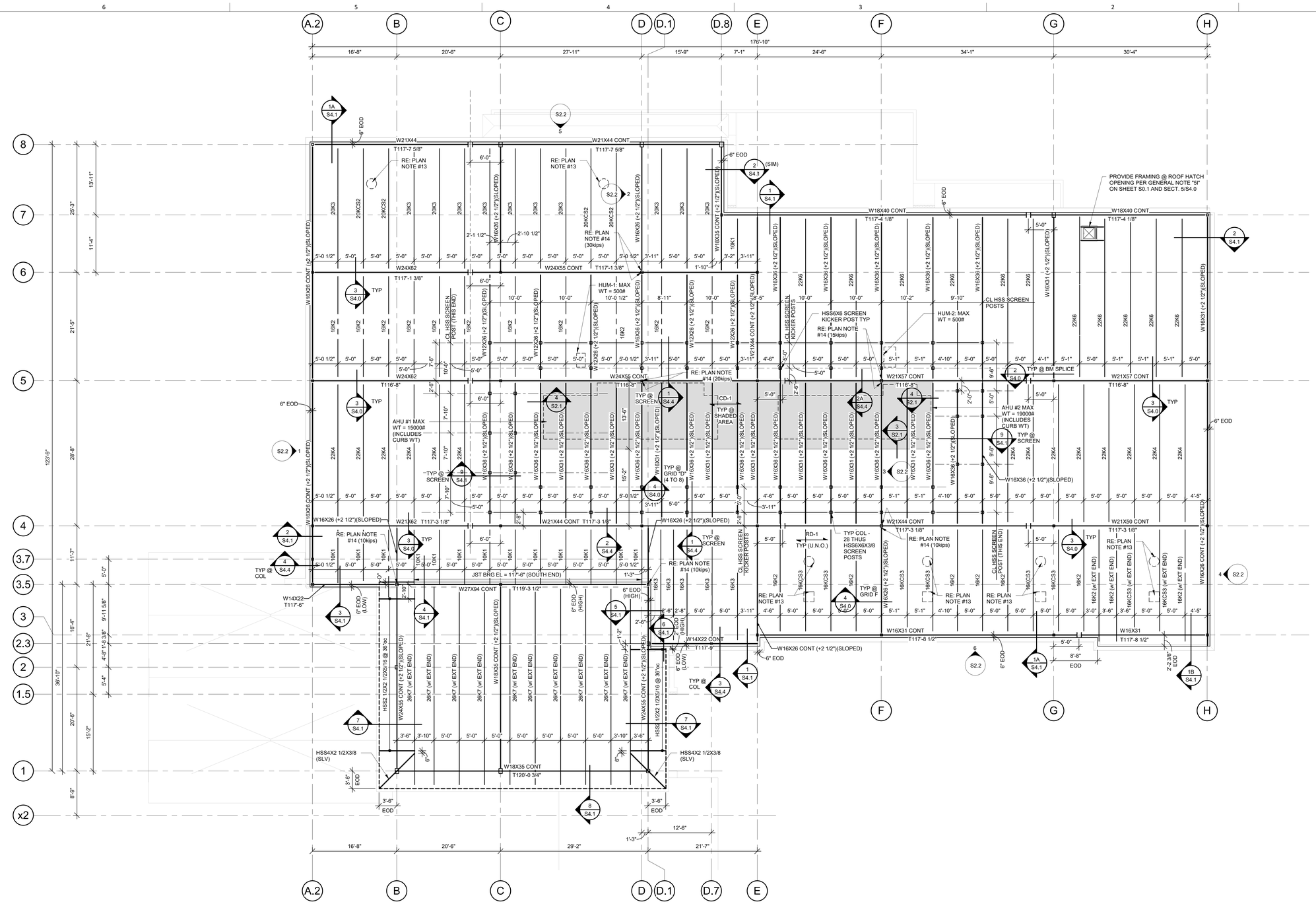
W12X26
W12X26



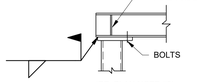

## 1 ROOF FRAMING PLAN

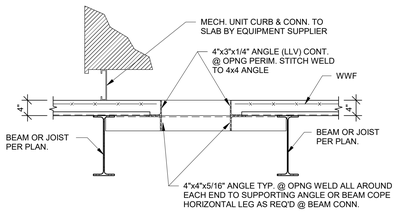
1/8" = 1'-0"

NORTH

NOTES:

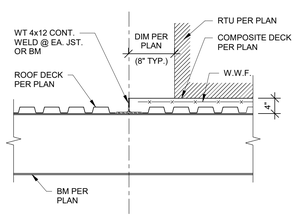
1. REFER TO GENERAL NOTES ON SHEET S0.1.
2. NUMBER w/ "I" PREFIX INDICATES T/BM ELEVATION.
3. G.C. SHALL VERIFY LOCATIONS OF ALL RTU EQUIP. SUPPORT & OPNG FRAMING BEAMS w/ EQUIP. MANUFACTURER. (PROVIDE RTU CURB MECH. UNIT SUPPORT FRAMING PER DETAIL 1/S4.0). ANY CONCENTRATED LOAD SUPPORTED AND/OR SUSPENDED BY BAR JOISTS SHALL BE IN CONFORMANCE WITH SAME DETAIL.
4. ELEV. = 100'-0" = DATUM ELEV. = 1003.5'.
5. ALL EXTERIOR EXPOSED STRUCTURAL STEEL SHALL BE HOT DIPPED GALV.
6. ALL BAR JOIST SHALL BE DESIGNED FOR A NET UPLIFT (UNFACTORED FORCE DUE TO WIND) OF 20psf. (10K1 JOIST DESIGN FOR 30psf NET UPLIFT)
7. PROVIDE ANGLE FRAME OR DECK REINF. PL AT ALL OPENINGS THROUGH METAL DECK ROOF PER DETAIL 5 & 5A ON SHEET S4.0.
8. REFER TO DETAIL 6/S4.0 FOR WALL OPENING LINTEL FRAMING REQUIREMENTS AT EXTERIOR METAL STUD WALLS.
9. STEEL SUPPLIER NOTE: WHEREVER POSSIBLE WF BEAM TO COLUMN CONN. SHALL BE FRAMED SUCH THAT WF BEAMS BEARS ATOP COLUMN w/ 1/2" THK CAP PLATE & (4) 3/4" Ø BOLTS WHERE (4) BOLT CONN NOT POSSIBLE PROVIDE (2) 3/4" Ø BOLTS & WELD BASE PLATE AS SHOWN.
10. " ►— " INDICATES MOMENT CONNECTION DETAIL PER DETAIL 7/S4.0 PROVIDE FULL PENETRATION WELD AT ALL HSS TO HSS CONNECTIONS INDICATED AS SUCH. U.N.O.
11. SPLICE ALL CONTINUOUS ROOF DECK EDGE ANGLES/BENT PLATES PER DETAIL 8/S4.0
12. AT ROOFTOP RTU CONCRETE SLABS PROVIDE FRAMING AT ROOF OPENINGS PER SECTION 2/S2.1.
13. REFER TO SECTION 5/S4.4 FOR SUPPORT OF EQUIPMENT BOOMS & SURGICAL LIGHTS IN OPERATING ROOMS & PROCEDURE ROOMS. RE: ARCHITECTURAL DRAWINGS FOR EXTENT & LOCATION OF LIGHTS/BOOMS. GENERAL CONTRACTOR VERIFY ALL INSTALLATIONS w/ EQUIPMENT SPECS.
14. STEAL SUPPLIER DESIGN NORTH-SOUTH SPANNING BM END CONNECTIONS FOR UNFACTORED (ASD) AXIAL LOAD SHOWN IN PLAN (TENSION OR COMPRESSION).



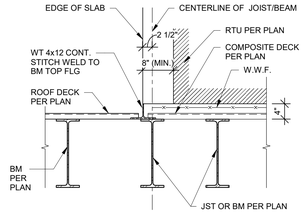

## 2 SECTION

3/4" = 1'-0"




## 3 SECTION

3/4" = 1'-0"




## 4 SECTION

3/4" = 1'-0"

### STRUCTURAL DECK & SLAB SCHEDULE

| MARK | DESCRIPTION |
|---|---|
| RD-1 | 1 1/2"Dp - 22ga GALV WIDE RIB ROOF DECK (3 SPAN CONT) EXAMPLE: VULCRAFT 1.5B-22 (OR EQUAL) PROVIDE 5/8" Ø PUDDLE WELDS IN 36/7 PATTERN (AND @ 6"oc @ SUPPORTS PARRALLEL TO DECK SPAN) w/ (6) #10 TEK-SCREW SIDE-LAP FASTENER PER SPAN (@ 6"oc MAX) SO AS TO DEVELOP 540plf (ASD) DIAPHRAGM SHEAR CAPACITY (MINIMUM) DUE TO WIND. |
| RD-2 | 1 1/2"Dp - 20ga GALV WIDE RIB ROOF DECK (3 SPAN CONT) EXAMPLE: VULCRAFT 1.5B-20 (OR EQUAL) PROVIDE 5/8" Ø PUDDLE WELDS IN 36/7 PATTERN (AND @ 6"oc @ SUPPORTS PARRALLEL TO DECK SPAN) w/ (1) #10 TEK-SCREW SIDE-LAP FASTENER PER SPAN SO AS TO DEVELOP 350plf (ASD) DIAPHRAGM SHEAR CAPACITY (MINIMUM) DUE TO WIND. |
| SOG-1 | 4" CONC SLAB ON GRADE ATOP 15 MIL VAPOR BARRIER OVER 4" LAYER OF COMPACTED FREE-DRAINING GRANULAR FILL OVER 24" THK LAYER OF LOW-VOLUME CHANGE MATERIAL (PER SOILS REPORT) ON COMPACTED ENGINEERED SUBGRADE SOILS (PER SOIL REPORT). REINF SLAB w/ 6x6 - W2.1xW2.1 WWF. T/SLAB EL PER PLAN |
| CD-1 | 4" CONC SLAB: 2 1/2" LT. WT. CONC. SLAB ATOP 1 1/2"Dp - 22ga (GALV.) COMPOSITE FLOOR DECK. REINF. W/ 6x6-W2.1xW2.1 WWF T/SLAB EL. VARIES. PROVIDE DECK FASTENERS TO SUPPORT & SIDE-LAP FASTENERS PER "RD-1". |

NOTES:
1. SOG = SLAB-ON-GRADE TYP.
2. RD = ROOF DECK TYP.
3. CD = COMPOSITE SLAB.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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | JPG |
| Checked By | JLW |

Revision

| Number | Date | Description |
|---|---|---|

S2.1

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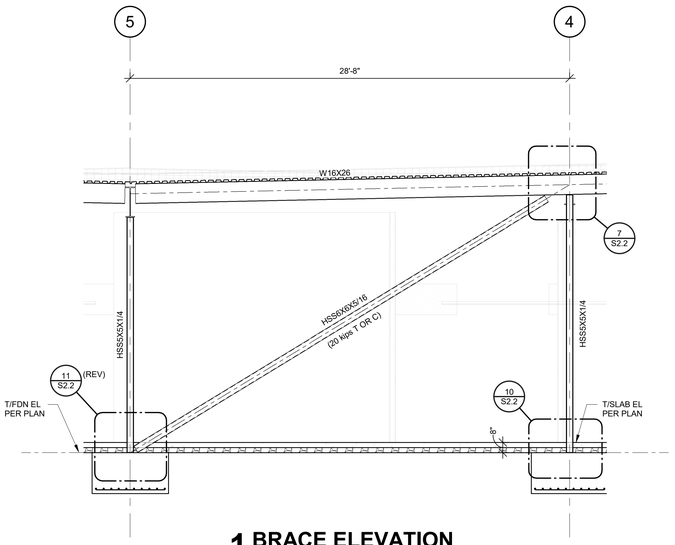
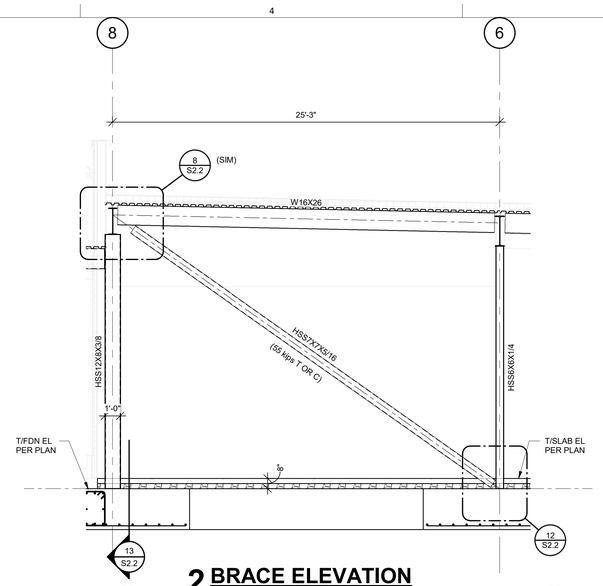
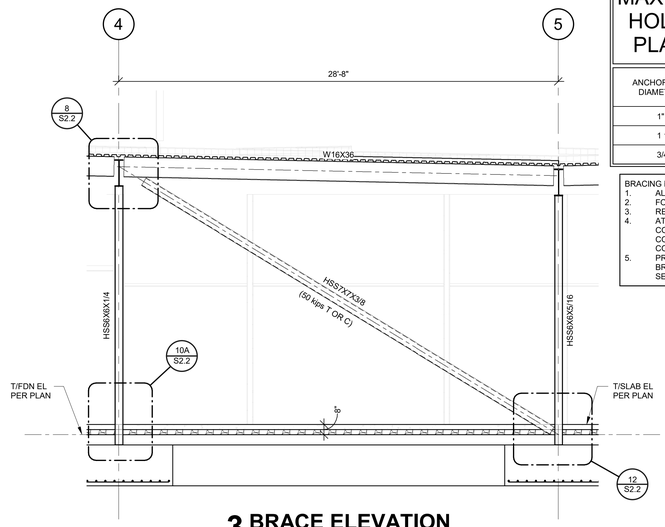
HIGH (MAIN) ROOF FRAMING PLAN




## 1 BRACE ELEVATION
1/4" = 1'-0"



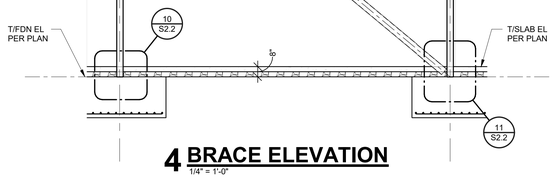

## 2 BRACE ELEVATION
1/4" = 1'-0"



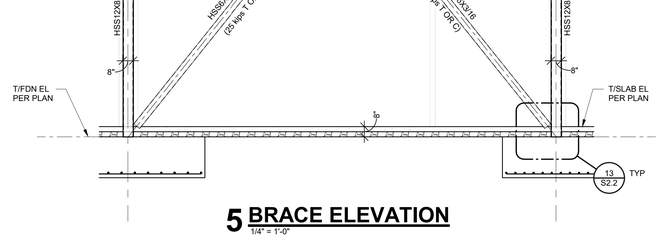

## 3 BRACE ELEVATION
1/4" = 1'-0"

| MAXIMUM SIZES FOR ANCHOR-ROD HOLES IN BASE PLATES/MINIMUM PLATE WASHER SIZE SCHEDULE | | | |
|---|---|---|---|
| ANCHOR-ROD DIAMETER. | MAX. HOLE DIAMETER. IN BASE PLATE | MIN. WASHER SIZE. | MIN. WASHER THICKNESS |
| 1" | 1 7/8" | 3" | 3/8" |
| 1 1/4" | 2 1/8" | 3 1/2" | 1/2" |
| 3/4" | 1 5/16" | 2" | 1/4" |

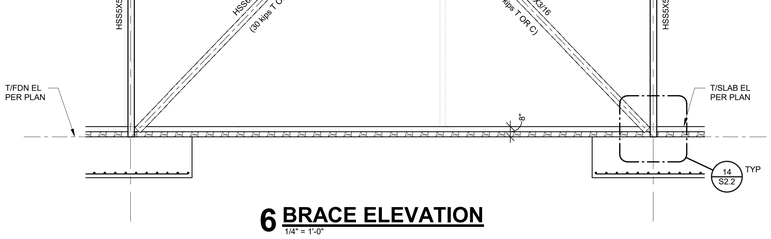
BRACING NOTES:
1. ALL FORCES SHOWN ARE UNFACTORED (ASD) FORCES. (DUE TO WINDS LOADS)
2. FORCES SHOWN (IN PARENTHESIS) ARE TENSION OR COMPRESSION
3. REFER TO BRACING DETAILS THIS SHEET.
4. AT ALL CHEVRON ("K") BRACE, DO NOT COMPLETE WELDED BRACE CONNECTIONS UNTIL ROOF DECK SYSTEM IS INSTALLED. TEMPORARY BRACE CONNECTION SHALL ALLOW FOR DEFLECTIONS OF BEAMS BRACES ARE CONNECTED TO.
5. PROVIDE 1/4" THK STIFF PLATES @ 8'-0"o.c. TYP. EACH SIDE @ ALL WF BEAMS IN BRACED FRAMES (SHOWN IN ELEVATIONS THIS SHEET) & PROVIDE KICKERS PER SECT. 4/S4.0



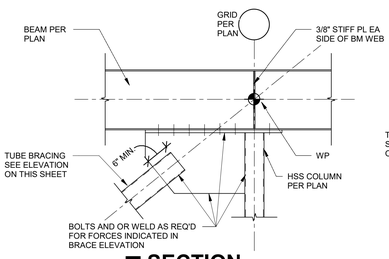

## 4 BRACE ELEVATION
1/4" = 1'-0"



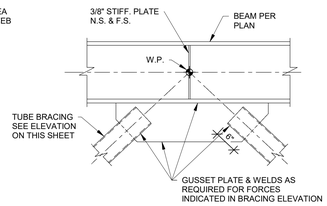

## 5 BRACE ELEVATION
1/4" = 1'-0"



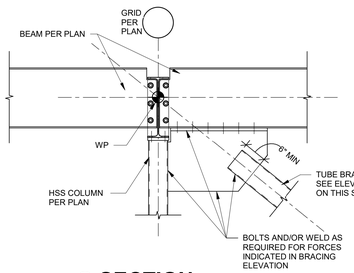

## 6 BRACE ELEVATION
1/4" = 1'-0"



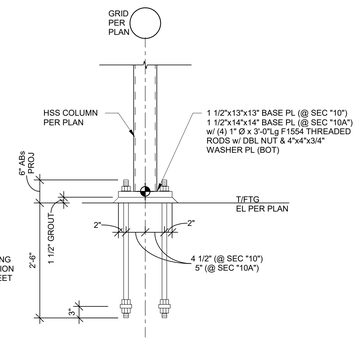

## 7 SECTION
3/4" = 1'-0"



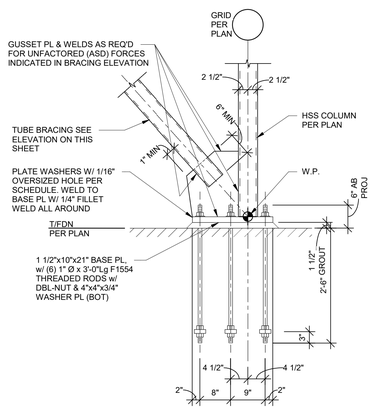

## 9 SECTION
3/4" = 1'-0"



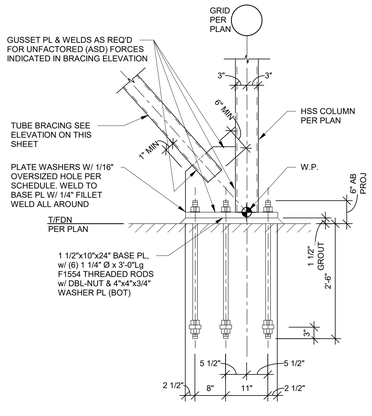

## 8 SECTION
3/4" = 1'-0"



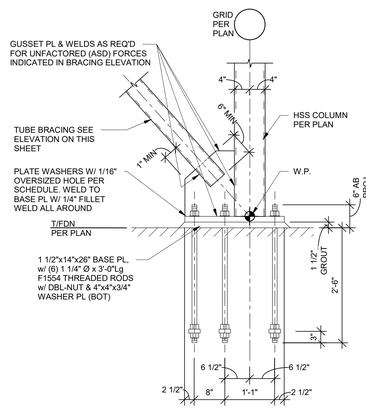

## 10A, 10 SECTION
3/4" = 1'-0"



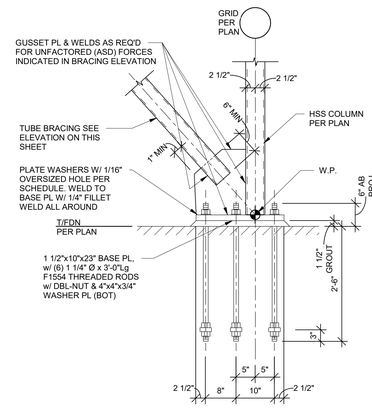

## 11 SECTION
3/4" = 1'-0"




## 12 SECTION
3/4" = 1'-0"




## 13 SECTION
3/4" = 1'-0"




## 14 SECTION
3/4" = 1'-0"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1950 SE Shenandoah Drive
Lee's Summit, MO 64063

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Revision

| Number | Date | Description |
|---|---|---|

S2.2

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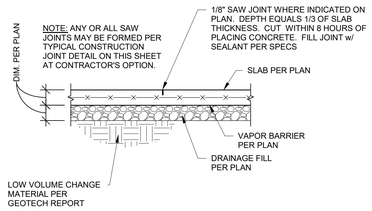
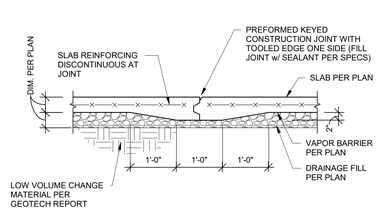
BRACING ELEVATIONS



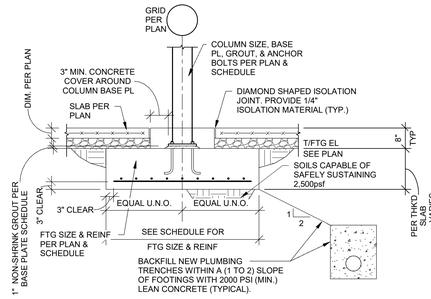

TYPICAL SAW JOINT
NOTED "SJ" ON PLAN

## 1 SECTION
3/4" = 1'-0"



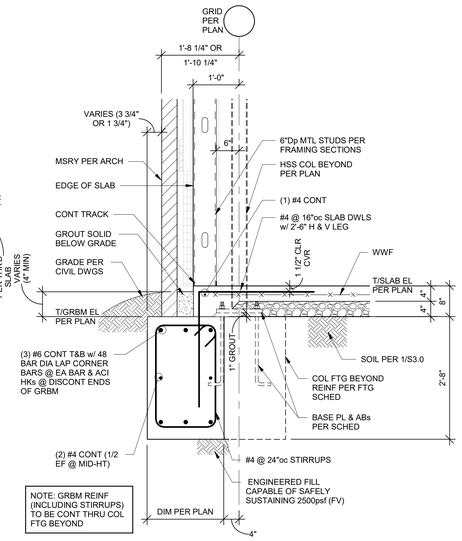

TYPICAL CONSTRUCTION JOINT
NOTED "CJ" ON PLAN

## 2 SECTION
3/4" = 1'-0"

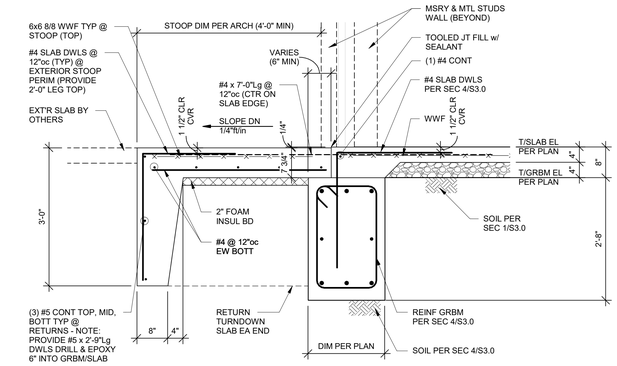



TYPICAL INTERIOR COLUMN FOOTING

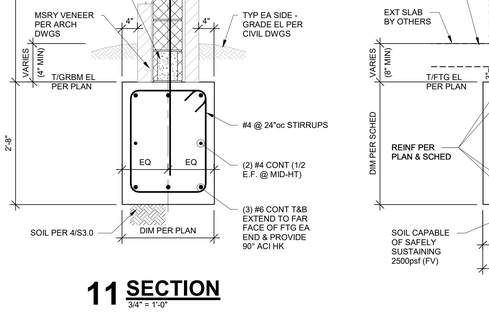
## 3 SECTION
1/2" = 1'-0"




## 4 SECTION
3/4" = 1'-0"




## 5 SECTION
3/4" = 1'-0"




## 6 SECTION
3/4" = 1'-0"







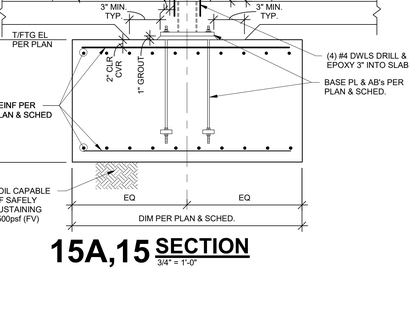
## 7 SECTION
3/4" = 1'-0"




## 8 SECTION
3/4" = 1'-0"




## 9 SECTION
3/4" = 1'-0"




## 10 SECTION
3/4" = 1'-0"




## 11 SECTION
3/4" = 1'-0"




## 12 SECTION
3/4" = 1'-0"




## 13 SECTION
3/4" = 1'-0"




## 14 SECTION
3/4" = 1'-0"




## 15A,15 SECTION
3/4" = 1'-0"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**Branch Pattern**
1508 Grand Boulevard
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913.951.8311


# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | JPG |
| Checked By | JLW |

Revision

| Number | Date | Description |
|---|---|---|

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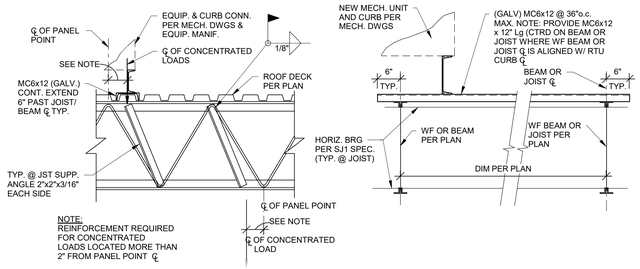
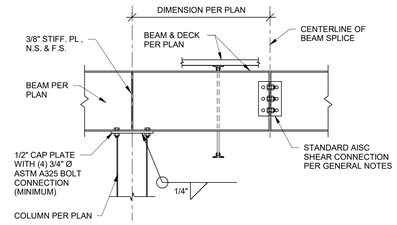
FOUNDATION SECTIONS



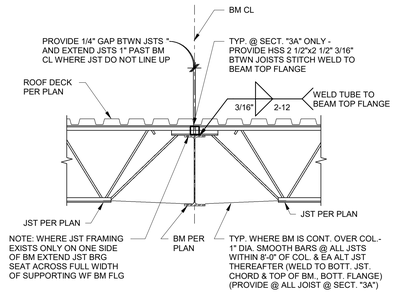

TYPICAL RTU CURB SUPPORT FRAMING

**1 SECTION**
3/4" = 1'-0"

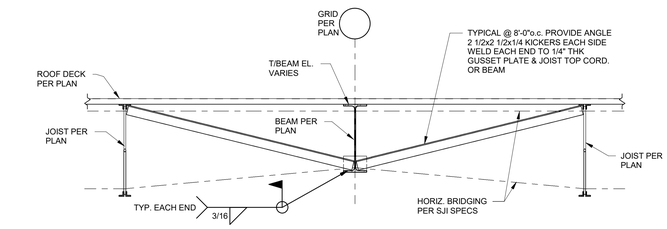



TYPICAL BEAM SPLICE

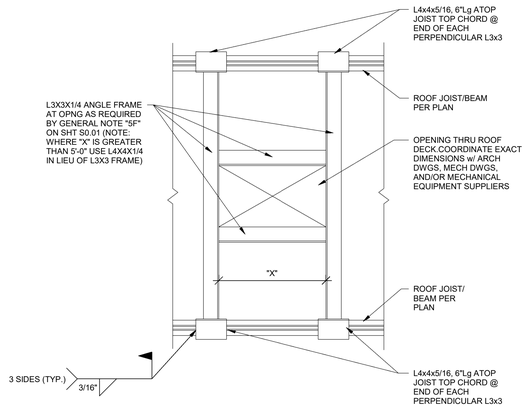
**2 SECTION**
3/4" = 1'-0"




**3 SECTION**
3/4" = 1'-0"

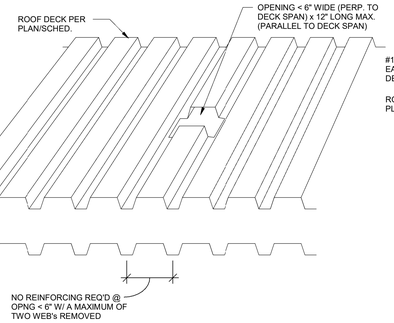


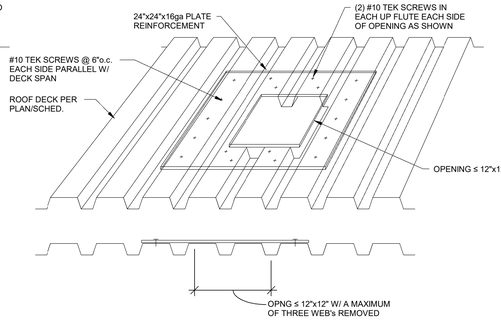

**4 SECTION**
3/4" = 1'-0"




TYPICAL ANGLE FRAME AT
OPENINGS > 12" WIDE IN ROOF DECK

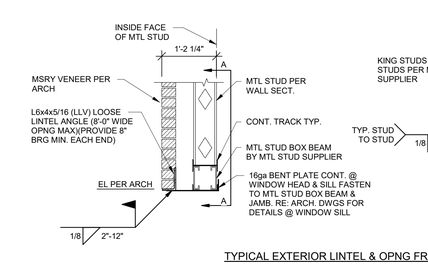
**5 SECTION**
1" = 1'-0"




TYPICAL DECK REINFORCING AT SMALL OPENINGS IN ROOF DECK

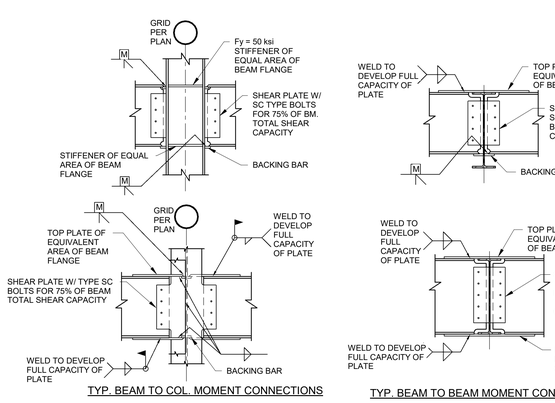
**5A SECTION**
1 1/2" = 1'-0"



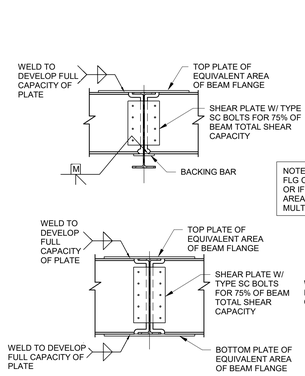

SECTION A-A

TYPICAL EXTERIOR LINTEL & OPNG FRAMING U.N.O.

**6 SECTION**
3/4" = 1'-0"



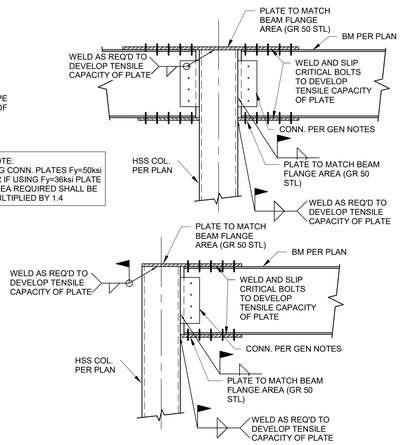

TYP. BEAM TO COL. MOMENT CONNECTIONS




TYP. BEAM TO BEAM MOMENT CONNECTIONS

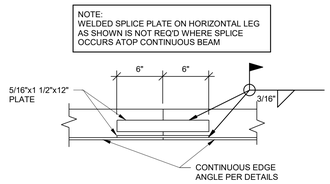
**7 SECTION**
3/4" = 1'-0"

NOTE:
FLG CONN. PLATES Fy=50ksi OR IF USING Fy=36ksi PLATE AREA REQUIRED SHALL BE MULTIPLIED BY 1.4




TYPICAL BEAM TO HSS COLUMN MOMENT CONNECTIONS

NOTE:
WELDED SPLICE PLATE ON HORIZONTAL LEG AS SHOWN IS NOT REQ'D WHERE SPLICE OCCURS ATOP CONTINUOUS BEAM




TYPICAL ROOF DECK ANGLE SPLICE

**8 SECTION**
1 1/2" = 1'-0"

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | JPG |
| Checked By | JLW |

Revision

| Number | Date | Description |
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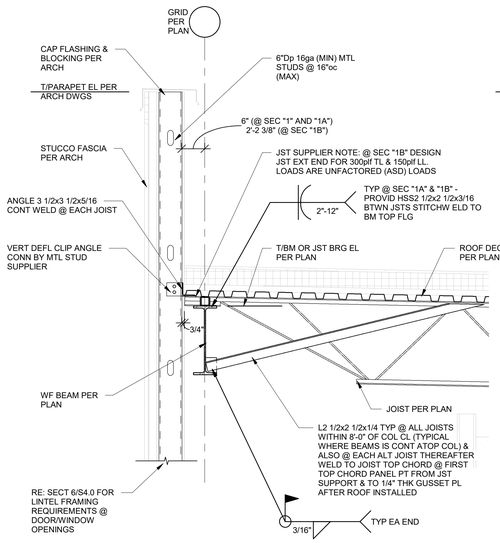
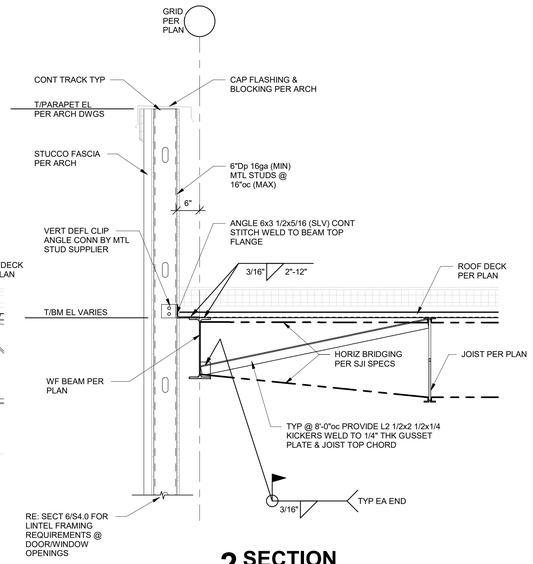
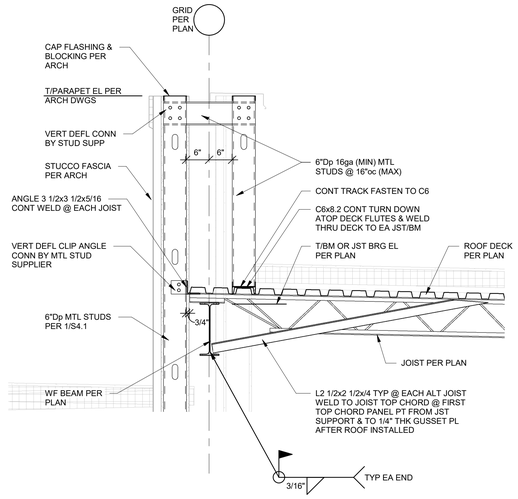
ROOF FRAMING SECTIONS



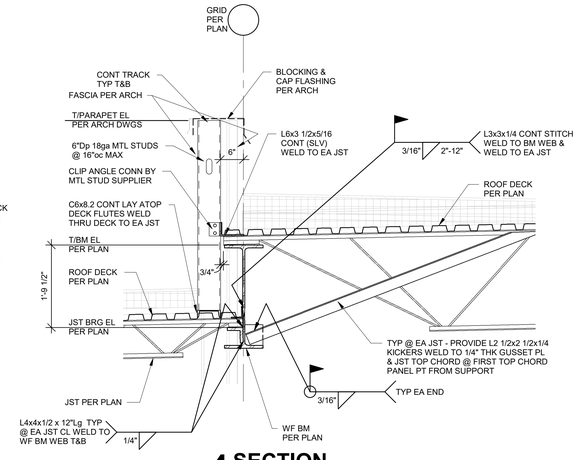

## 1A,1B, 1 SECTION
3/4" = 1'-0"



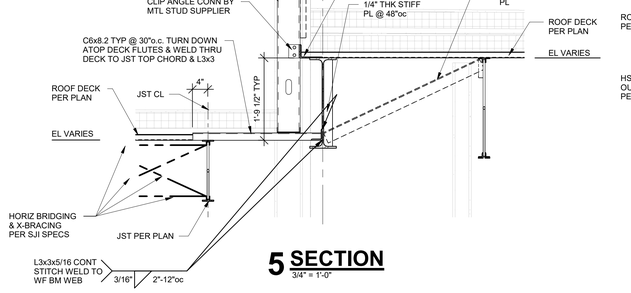

## 2 SECTION
3/4" = 1'-0"



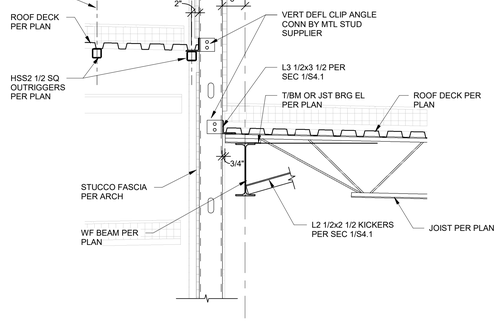

## 3 SECTION
3/4" = 1'-0"



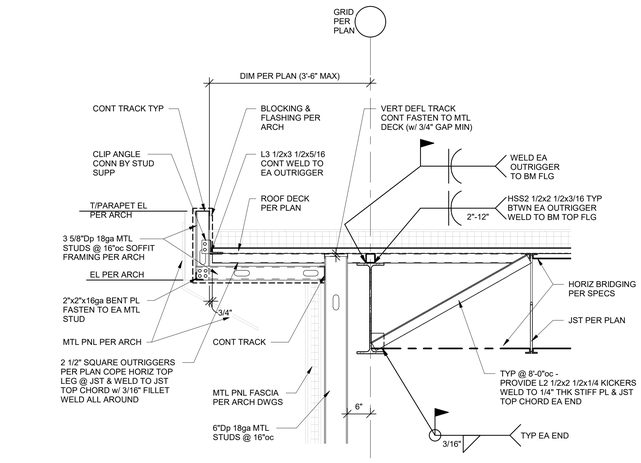

## 4 SECTION
3/4" = 1'-0"



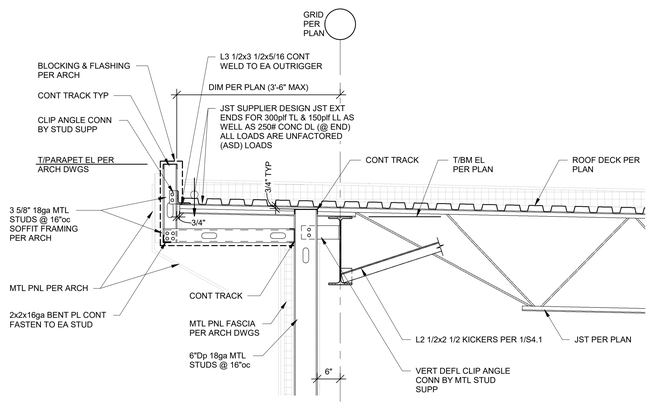

## 5 SECTION
3/4" = 1'-0"



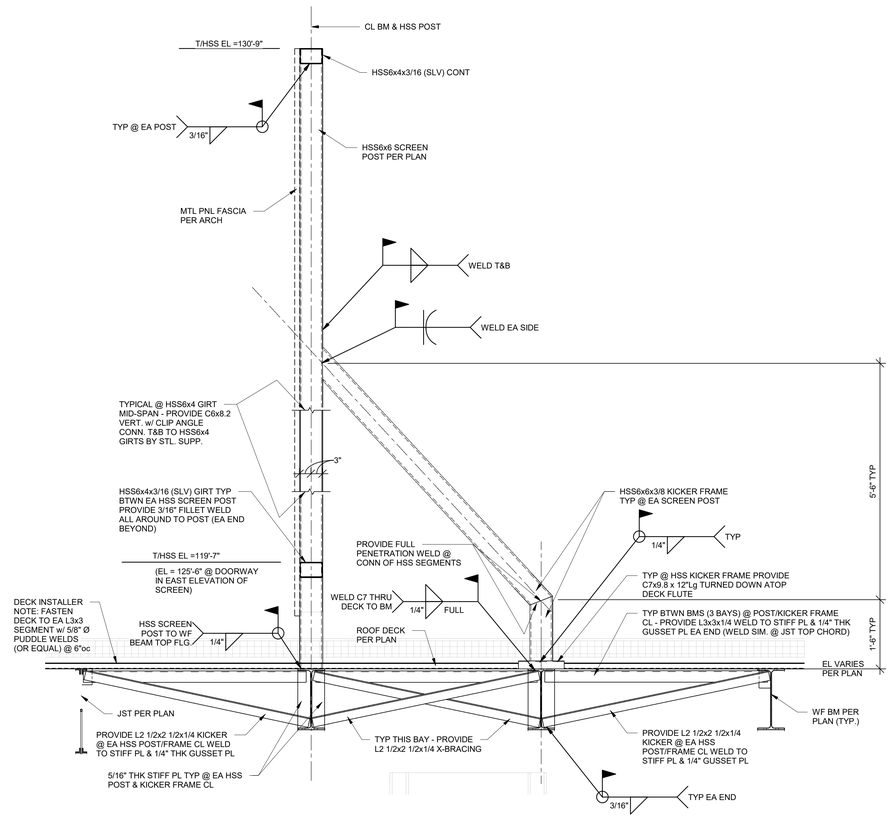

## 6 SECTION
3/4" = 1'-0"




## 7 SECTION
3/4" = 1'-0"




## 8 SECTION
3/4" = 1'-0"




## 9 SECTION
3/4" = 1'-0"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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

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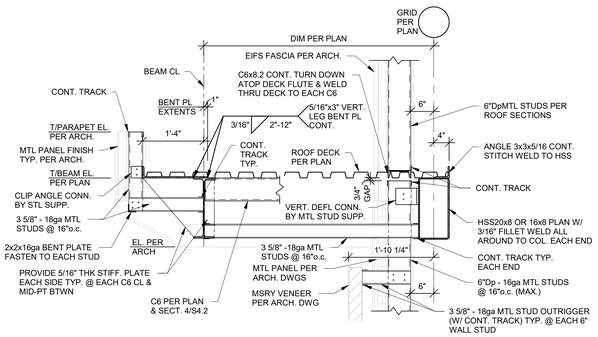
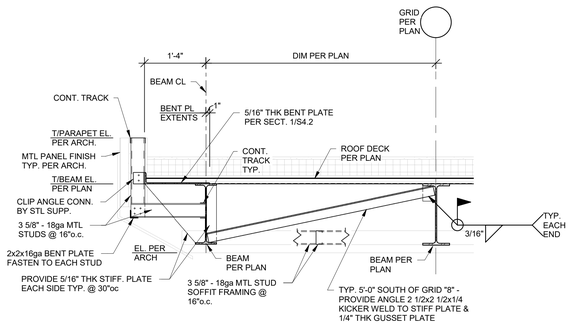
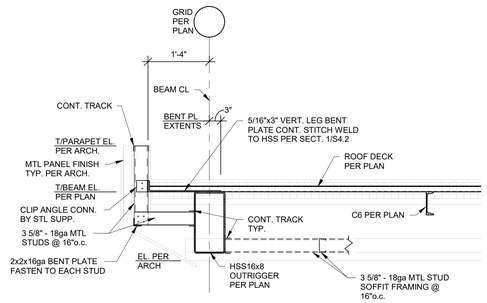
ROOF FRAMING SECTIONS



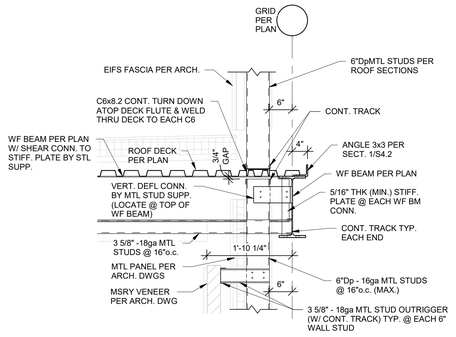

## 1 SECTION
3/4" = 1'-0"



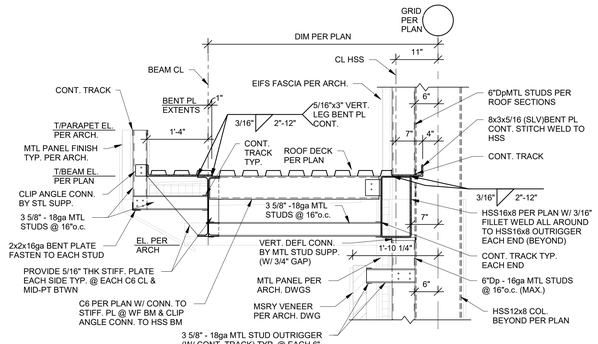

## 2 SECTION
3/4" = 1'-0"



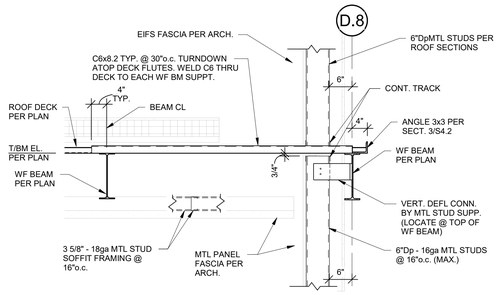

## 2A SECTION
3/4" = 1'-0"



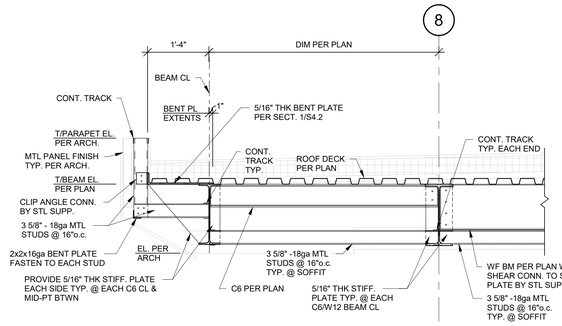

## 3 SECTION
3/4" = 1'-0"




## 4 SECTION
3/4" = 1'-0"




## 5 SECTION
3/4" = 1'-0"




## 6 SECTION
3/4" = 1'-0"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Surgery Center of Lee's Summit
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| Date | 02/08/23 |
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CANOPY FRAMING SECTIONS

2/7/2023 3:26:22 PM
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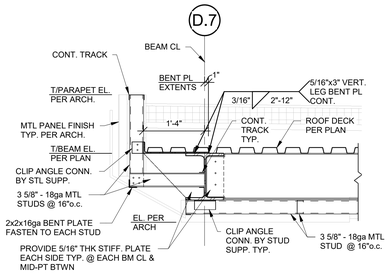
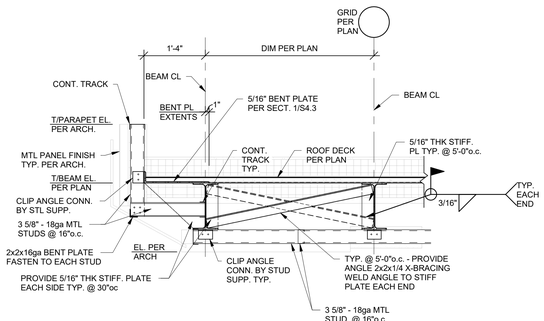
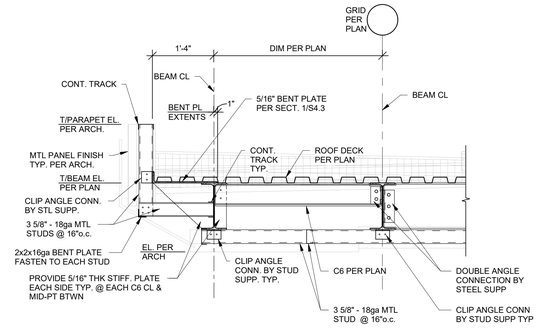


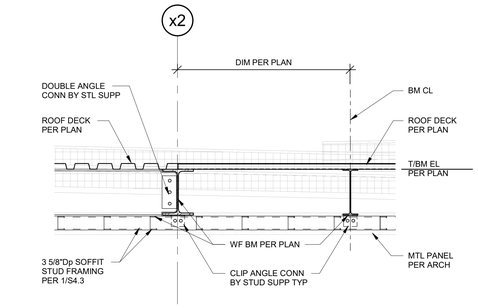

## 1 SECTION
3/4" = 1'-0"



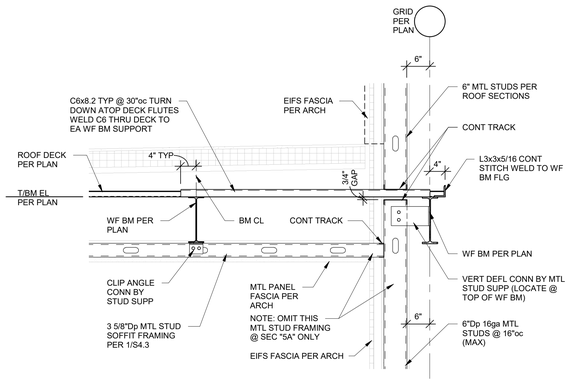

## 2 SECTION
3/4" = 1'-0"



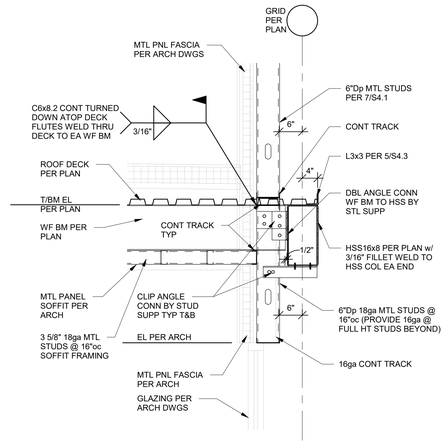

## 3 SECTION
3/4" = 1'-0"



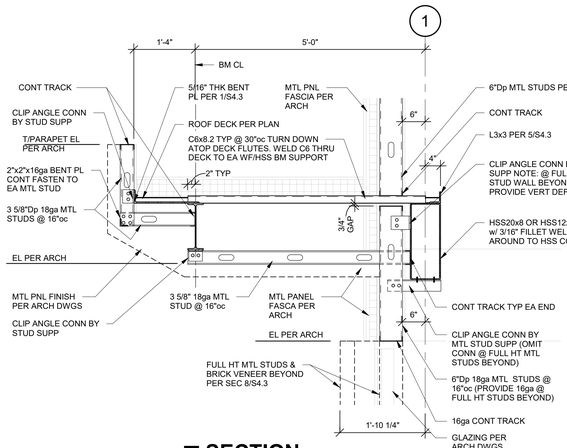

## 4 SECTION
3/4" = 1'-0"



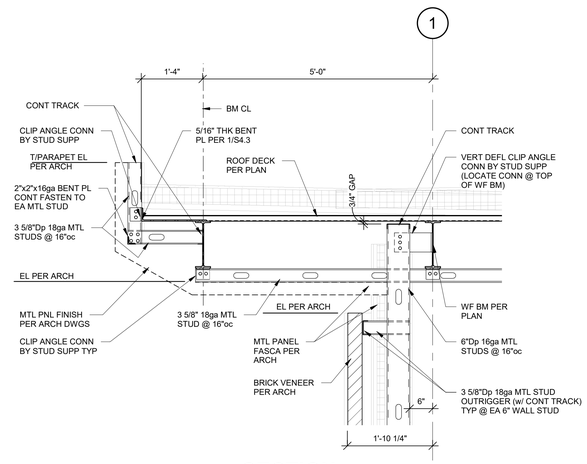

## 5A, 5 SECTION
3/4" = 1'-0"



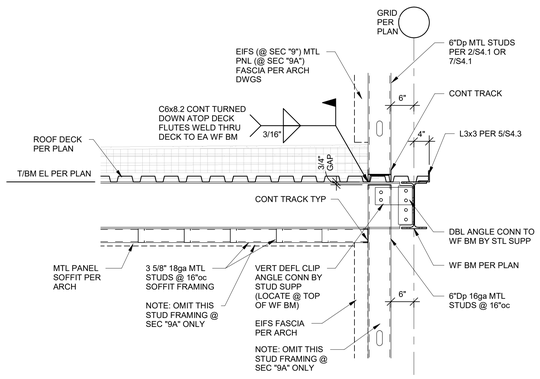

## 6 SECTION
3/4" = 1'-0"



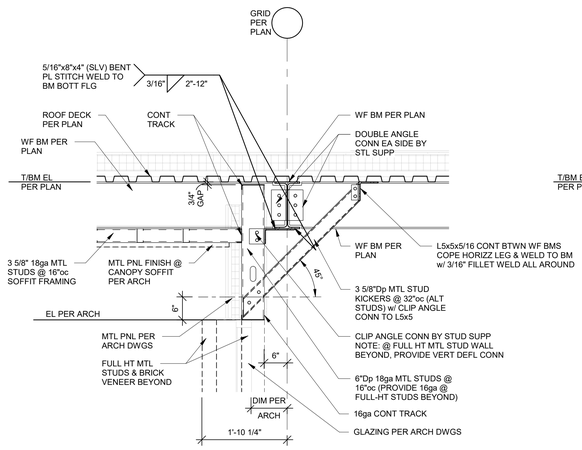

## 7 SECTION
3/4" = 1'-0"



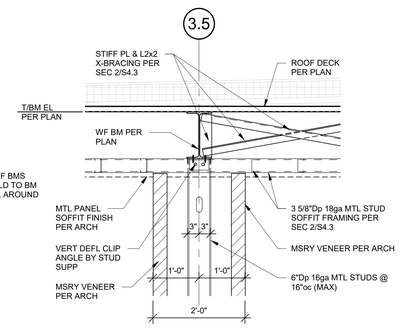

## 8 SECTION
3/4" = 1'-0"




## 9A, 9 SECTION
3/4" = 1'-0"




## 10 SECTION
3/4" = 1'-0"




## 11 SECTION
3/4" = 1'-0"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NUMBER 2010014303
PROFESSIONAL ENGINEER
12/14/2022

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**Branch Pattern**
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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

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S4.3

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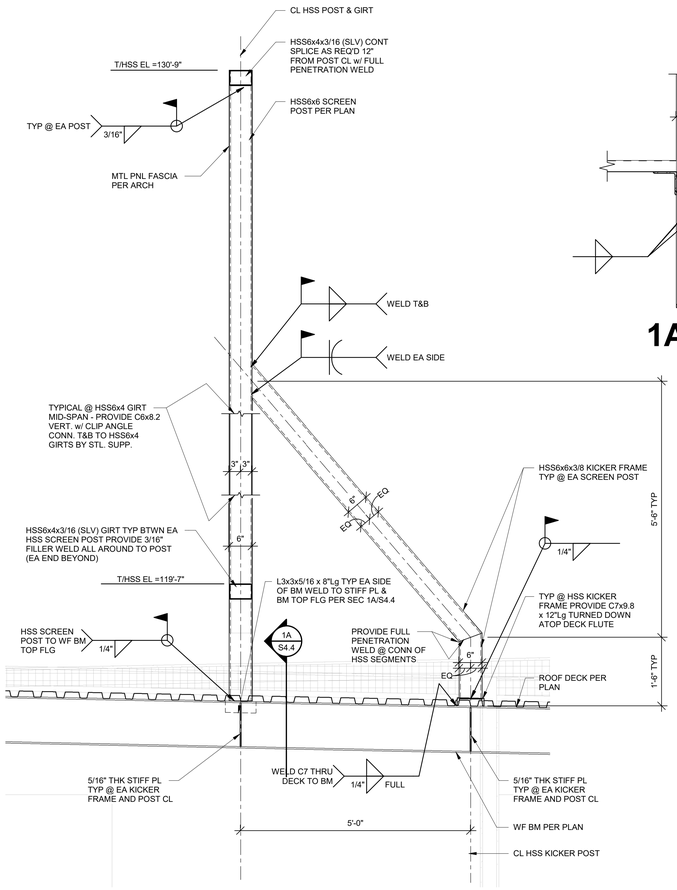
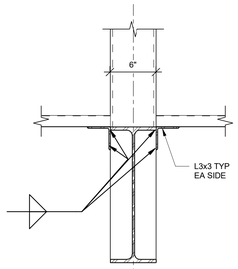
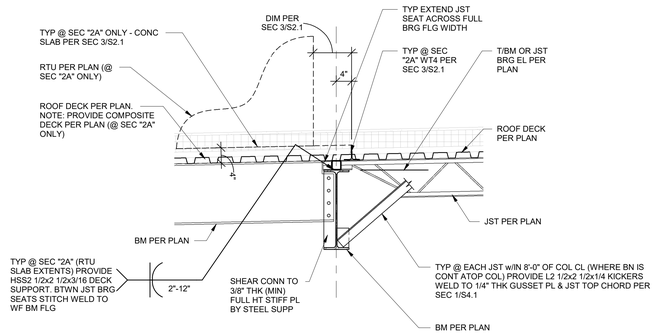
ROOF FRAMING SECTIONS



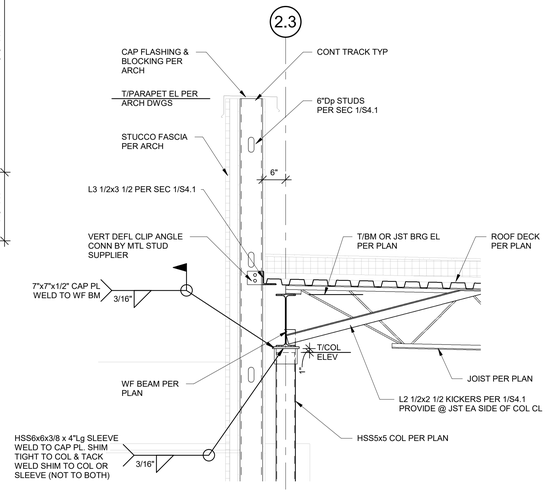

## 1 SECTION
3/4" = 1'-0"



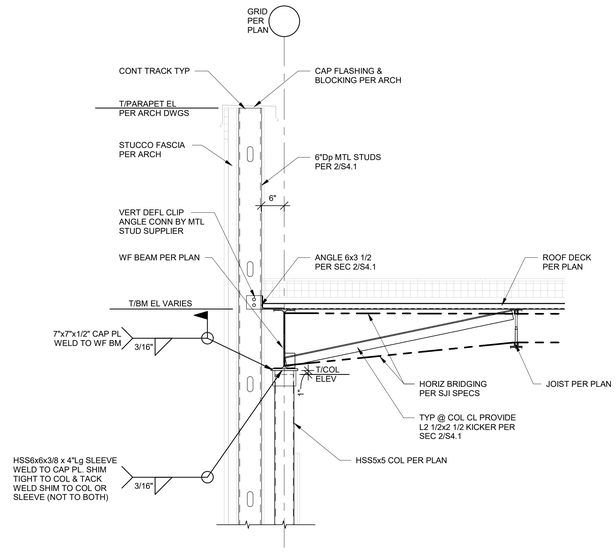

## 1A SECTION
1 1/2" = 1'-0"



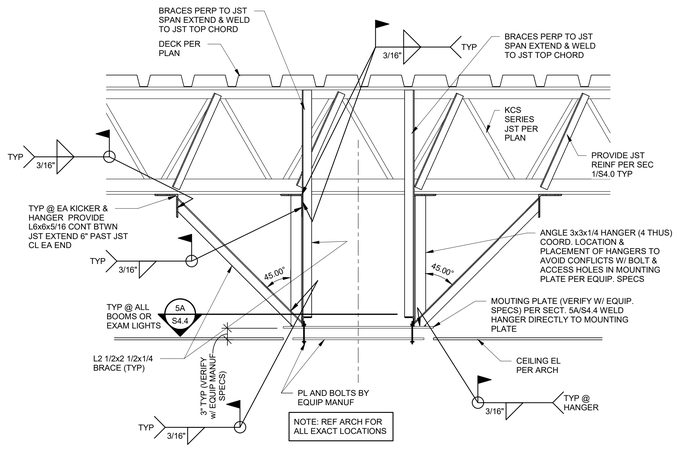

## 2A,2 SECTION
3/4" = 1'-0"



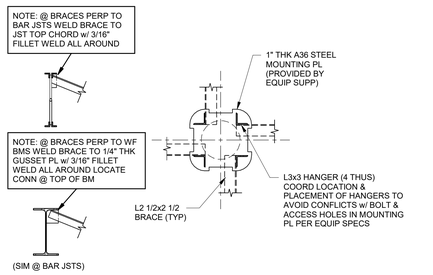

## 3 SECTION
3/4" = 1'-0"




## 4 SECTION
3/4" = 1'-0"




## 5 SECTION
3/4" = 1'-0"




TYPICAL AT STRYKER SINGLE COMMON PLATE MOUNT
(MAX WEIGHT = 1100#; MAX MOMENT = 5.65kip*ft)

## 5A SECTION
3/4" = 1'-0"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Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
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ROOF FRAMING SECTIONS

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# GENERAL PLAN NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING CODES AND REGULATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY BUILDING PERMITS.
3. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES OR DISCREPANCIES WITH THE PROJECT DOCUMENTS. ACCESS TO THE SITE AND/OR SPACE UNDER CONSTRUCTION DURING BIDDING AND CONSTRUCTION SHALL BE COORDINATED WITH THE OWNER.
4. IF MATERIAL SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB. IMMEDIATELY NOTIFY ARCHITECT AND OWNER. OWNER SHALL COORDINATE WITH CONTRACTOR ON THE REMOVAL OF SUCH ITEMS. WORK MAY PROCEED AFTER HAZARDOUS MATERIAL HAS BEEN REMOVED.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. THE SUBSTRATE SHALL BE SMOOTH AND FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS.
6. CONTRACTOR SHALL FURNISH AND INSTALL CONCEALED FIRE-TREATED WOOD BLOCKING BEHIND ALL CABINETS, TOILET ACCESSORIES, PLUMBING FIXTURES, AND OTHER WALL MOUNTED ITEMS AS REQUIRED FOR ADEQUATE SUPPORT.
7. CONTRACTOR TO PROVIDE ALL REQUIRED LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO MEET AND COMPLETE THE REQUIREMENTS OF THE NEW CONSTRUCTION.
8. ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE PATCHED, REPAIRED, AND PREP AS REQUIRED FOR NEW FINISH APPLICATION.
9. DO NOT CLOSE OR OBSTRUCT WALKWAYS, EXITS, OR OTHER FACILITIES USED BY OCCUPANTS OF BUILDINGS WITHOUT WRITTEN PERMISSION FROM AUTHORITIES HAVING JURISDICTION
10. CONDUCT ALL OPERATIONS IN A SAFE WORKING MANNER TO PREVENT DAMAGE OR INJURY TO ADJACENT SPACES, BUILDING, STRUCTURE, OTHER FACILITIES, AND PERSONS.
11. REFER TO GENERAL NOTES, LEGENDS & SYMBOLS SHEET FOR ADDITIONAL GENERAL NOTES AS APPLICABLE.
12. SEE FINISH SCHEDULE FOR FINISH LOCATION AND SPECIFICATIONS.
13. SEE DOOR SCHEDULE FOR DOOR SPECIFICATIONS.
14. UNLESS NOTED OTHERWISE, ALL INTERIOR DRYWALL PARTITIONS INDICATED ON THE FLOOR PLAN DRAWING ARE TYPE 'A' PARTITION

# KEYNOTES - FLOOR PLAN TI

| Key Value | Keynote Text |
|---|---|
| F-1 | BUILT IN MILLWORK FIN-TUBE ENCLOSURE. |
| F-5 | CONSULT BAY GLASS |
| F-7 | BUILT-IN MEDIA CENTER SURROUND COLUMN WRAP |

AREA A
A1 / TI-A2.2

AREA B
A1 / TI-A2.3

AREA C
A1 / TI-A2.4

CARD READER TO BE CONNECTED TO BOTH DOORS

A1 FIRST FLOOR DIMENSION PLAN
1/8" = 1'-0"

NORTH

A | B | C


Samuel K. Beckman - Architect
License - Missouri #A-2011012130
2/8/2023

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Surgery Center of Lee's Summit
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Number Date Description

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TI - FIRST FLOOR PLAN

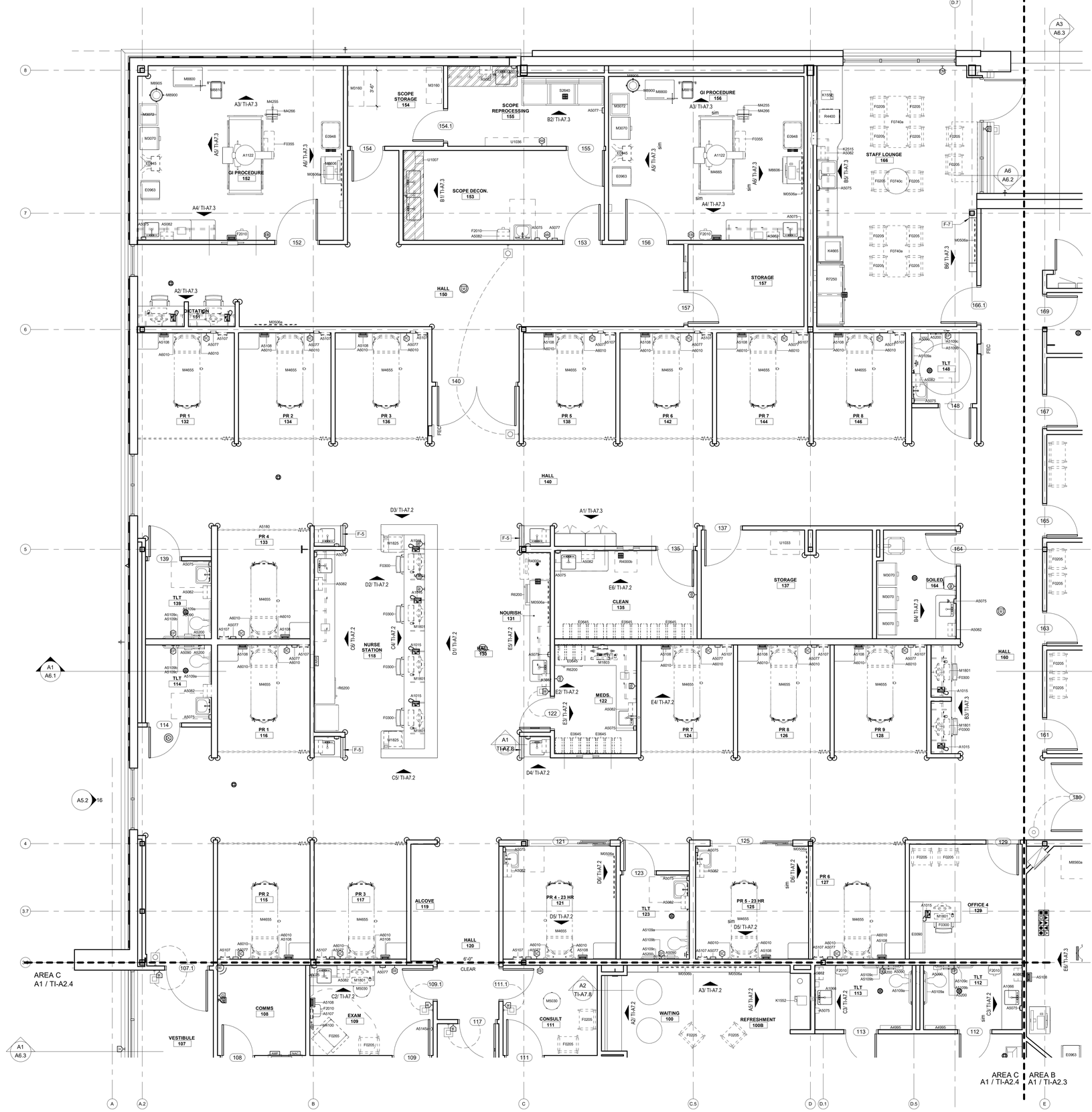
BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt

2/9/2023 10:06:52 AM

BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt

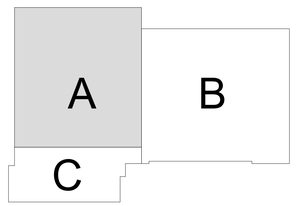
# KEYNOTES - FLOOR PLAN TI

| Key Value | Keynote Text |
|---|---|
| F-1 | BUILT IN MILLWORK F/N-TUBE ENCLOSURE. |
| F-5 | CONSULT BAY GLASS |
| F-7 | BUILT-IN MEDIA CENTER SURROUND COLUMN WRAP |




A1 FIRST FLOOR ENLARGED PLAN - AREA A
1/4" = 1'-0"

NORTH





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SAMUEL K. BECKMAN
NUMBER A-2011012130
ARCHITECT
2/8/2023

Samuel K. Beckman - Architect
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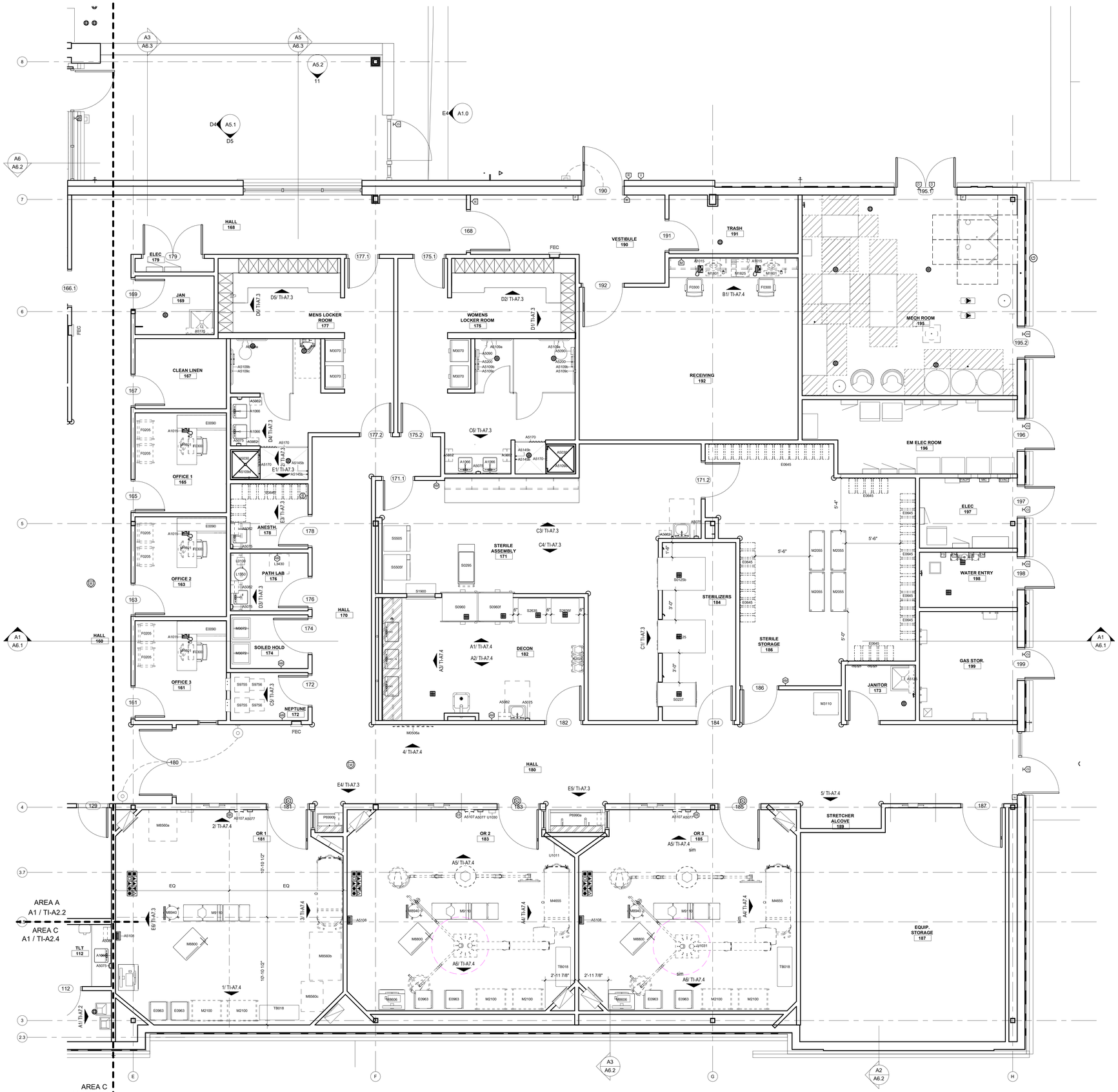
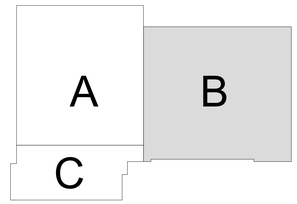
ENLARGED ANNOTATION PLAN - AREA A




A1 FIRST FLOOR ENLARGED PLAN - AREA B
1/4" = 1'-0"

NORTH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SAMUEL K. BECKMAN
NUMBER A-2011012130
ARCHITECT
2/8/2023

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ENLARGED ANNOTATION PLAN - AREA B

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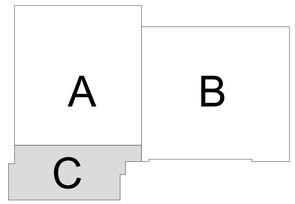
A1 FIRST FLOOR ENLARGED PLAN - AREA C
1/4" = 1'-0"

NORTH





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ENLARGED ANNOTATION PLAN - AREA C

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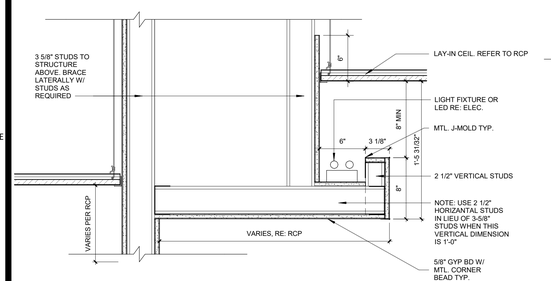
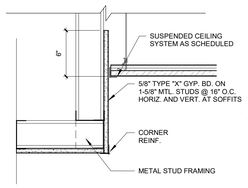
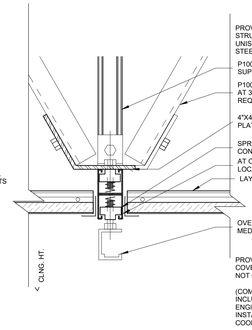
2/9/2023 11:35:02 AM



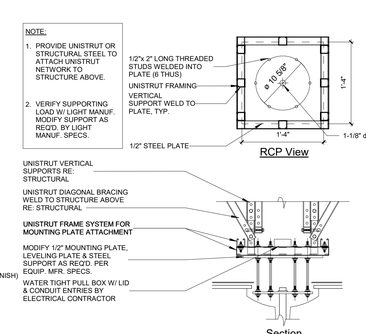

## E6 LIGHT COVE DETAIL
1 1/2" = 1'-0"



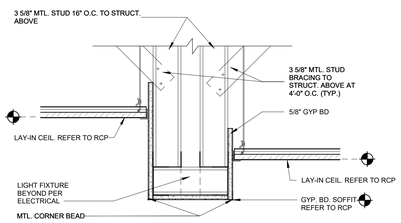

## E5 GYPSUM BOARD SOFFIT
1 1/2" = 1'-0"



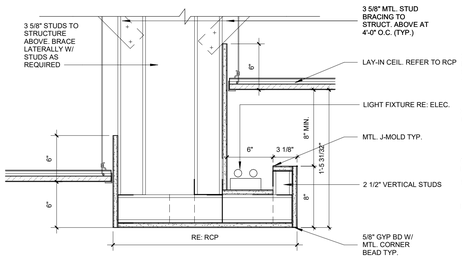

## E4 CEILING DETAIL
3" = 1'-0"



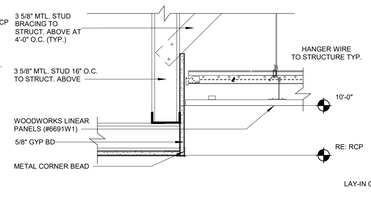

## E3 LIGHT SUPPORT
1" = 1'-0"



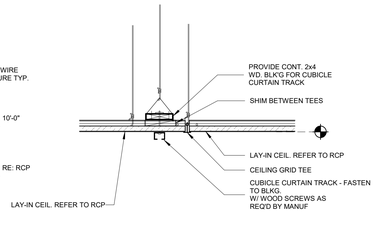

## E2 SOFFIT DTL.
1 1/2" = 1'-0"



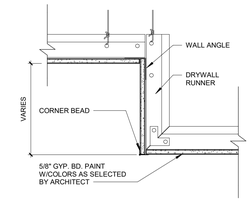

## D6 COVE LIGHTING DETAIL AT PREP RECOVERY BAYS
1 1/2" = 1'-0"



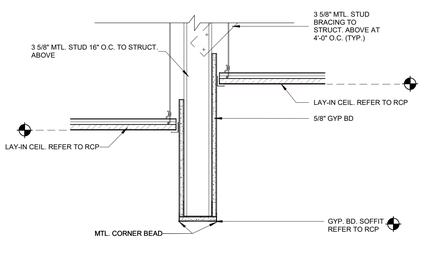

## D5 WOOD CEILING DETAIL
1 1/2" = 1'-0"




## D4 CUBICLE CURTAIN TRACK DTL.
1 1/2" = 1'-0"



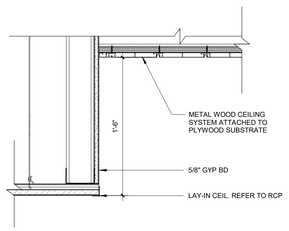

## D3 GYPSUM BOARD CEILING DROP
1 1/2" = 1'-0"




## D2 BULKHEAD DETAIL
1 1/2" = 1'-0"




## C6 LIGHT COVE DETAIL AT NURSE STATION
1 1/2" = 1'-0"




## B6 WOOD CEILING DETAIL 2
1 1/2" = 1'-0"




## A1 OVERALL REFLECTED CEILING PLAN
1/8" = 1'-0"

# REFLECTED CEILING NOTES

1. EXISTING MEPFP DEVICES SHOWN ARE BASED ON EXISTING DRAWINGS AND/OR FIELD OBSERVATIONS. THE OWNER/ARCHITECT DOES NOT GUARANTEE THE ACCURACY/LOCATION OR QUANTITY OF EXISTING DEVICES.
2. CONTRACTOR TO PROVIDE ALL REQUIRED LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO MEET AND COMPLETE THE REQUIREMENTS OF THE NEW CONSTRUCTION.
3. ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE PATCHED, REPAIRED, AND PREP AS REQUIRED FOR NEW FINISH APPLICATION.
4. PAINT THE UNDERSIDE OF ALL GYPSUM BOARD CEILINGS, BULKHEADS AND SOFFITS (PT-4) UNLESS NOTED OTHERWISE.
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7. SEE SPECIFICATIONS AND FINISH SCHEDULE FOR CEILING TYPES.
8. REFER TO FINISH FLOOR PLANS FOR MATERIAL LEGEND OF ALL TYPES.
9. ALL CEILINGS SHALL BE 9'-0 AFF UNLESS OTHERWISE NOTED.

# CEILING LEGEND

- RECESSED CAN LIGHT FIXTURE RE: ELECT
- 2X4 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- 2X2 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- SURFACE-MOUNTED LIGHT FIXTURE RE: ELECT
- PENDANT LIGHT FIXTURE RE: ELECT
- WALL SCONCE LIGHT FIXTURE RE: ELECT
- 2X4 RECESSED/SURFACE LIGHT FIXTURE W/ PARA-CUBE LENS RE: ELECT
- 2X4 RECESSED/SURFACE PSYCHIATRIC LIGHT FIXTURE RE: ELECT
- CJ GYP BOARD CEILING - PAINTED W/ CONTROL JOINTS PER SPECS
- 2X2/2x4 LAY-IN ACOUSTICAL CEILING
- EXIT LIGHT WITH FIXTURE MARK CEILING MOUNTED RE: ELECT
- EXIT LIGHT WITH FIXTURE MARK WALL BRACKET RE: ELECT
- SUPPLY AIR GRILLE RE: MECH
- RETURN AIR OR EXHAUST GRILLE RE: MECH
- 9'-0" SOFFIT HEIGHT
- 9'-0" CEILING HEIGHT

# KEYNOTE LEGEND - RCP

| Key Value | Keynote Text |
|---|---|
| C-1 | EXPOSED TO STRUCTURE ABOVE. |
| C-2 | SPECIALTY CEILING SPC-1, RE: SCHEDULE. |
| C-3 | EIFS SOFFIT, ES-1. |
| C-4 | METAL PANEL SOFFIT, MP-1. |
| C-5 | EXTERIOR LIGHTING FIXTURE, RE: ELECTRICAL |


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2/8/2023
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Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
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| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

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|---|---|---|

TI-A3.1

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FIRST FLOOR REFLECTED CEILING PLAN

## CEILING LEGEND

- RECESSED CAN LIGHT FIXTURE RE: ELECT
- 2X4 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- 2X2 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- SURFACE-MOUNTED LIGHT FIXTURE RE: ELECT
- PENDANT LIGHT FIXTURE RE: ELECT
- WALL SCONCE LIGHT FIXTURE RE: ELECT
- 2X4 RECESSED/SURFACE LIGHT FIXTURE W/ PARA-CUBE LENS RE: ELECT
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- CJ — GYP BOARD CEILING - PAINTED W/ CONTROL JOINTS PER SPECS
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- EXIT LIGHT WITH FIXTURE MARK CEILING MOUNTED RE: ELECT
- EXIT LIGHT WITH FIXTURE MARK WALL BRACKET RE: ELECT
- SUPPLY AIR GRILLE RE: MECH
- RETURN AIR OR EXHAUST GRILLE RE: MECH
- 9'-0" — SOFFIT HEIGHT
- 9'-0" — CEILING HEIGHT

## REFLECTED CEILING NOTES

1. EXISTING MEPFP DEVICES SHOWN ARE BASED ON EXISTING DRAWINGS AND/OR FIELD OBSERVATIONS. THE OWNER/ARCHITECT DOES NOT GUARANTEE THE ACCURACY/LOCATION OR QUANTITY OF EXISTING DEVICES.
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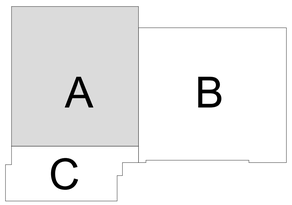
A1 ENLARGED RCP - AREA A
1/4" = 1'-0"

NORTH

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# Surgery Center of Lee's Summit
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|---|---|
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| Job Number | 3-22030 |
| Drawn By | Author |
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Revision

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|---|---|---|

TI-A3.2

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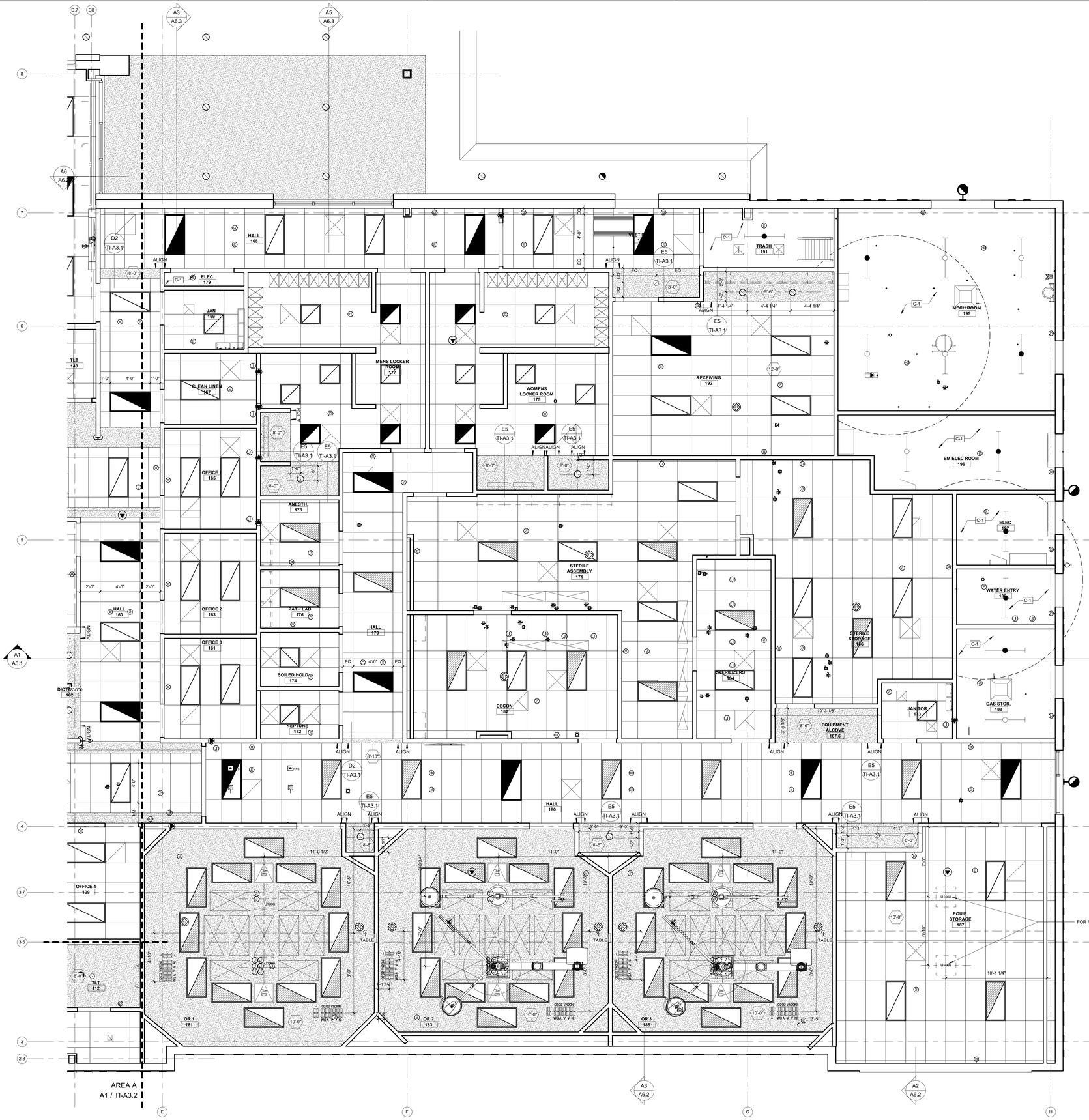
ENLARGED RCP - AREA A

2/9/2023 11:35:04 AM




## CEILING LEGEND

- RECESSED CAN LIGHT FIXTURE RE: ELECT
- 2X4 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- 2X2 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- SURFACE-MOUNTED LIGHT FIXTURE RE: ELECT
- PENDANT LIGHT FIXTURE RE: ELECT
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- EXIT LIGHT WITH FIXTURE MARK CEILING MOUNTED RE: ELECT
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- RETURN AIR OR EXHAUST GRILLE RE: MECH
- 9'-0" SOFFIT HEIGHT
- 9'-0" CEILING HEIGHT

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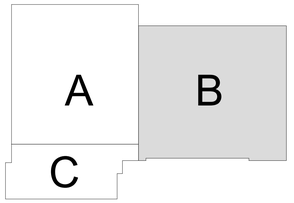


A1 ENLARGED RCP - AREA B
1/4" = 1'-0"

NORTH

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Revision

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|---|---|---|

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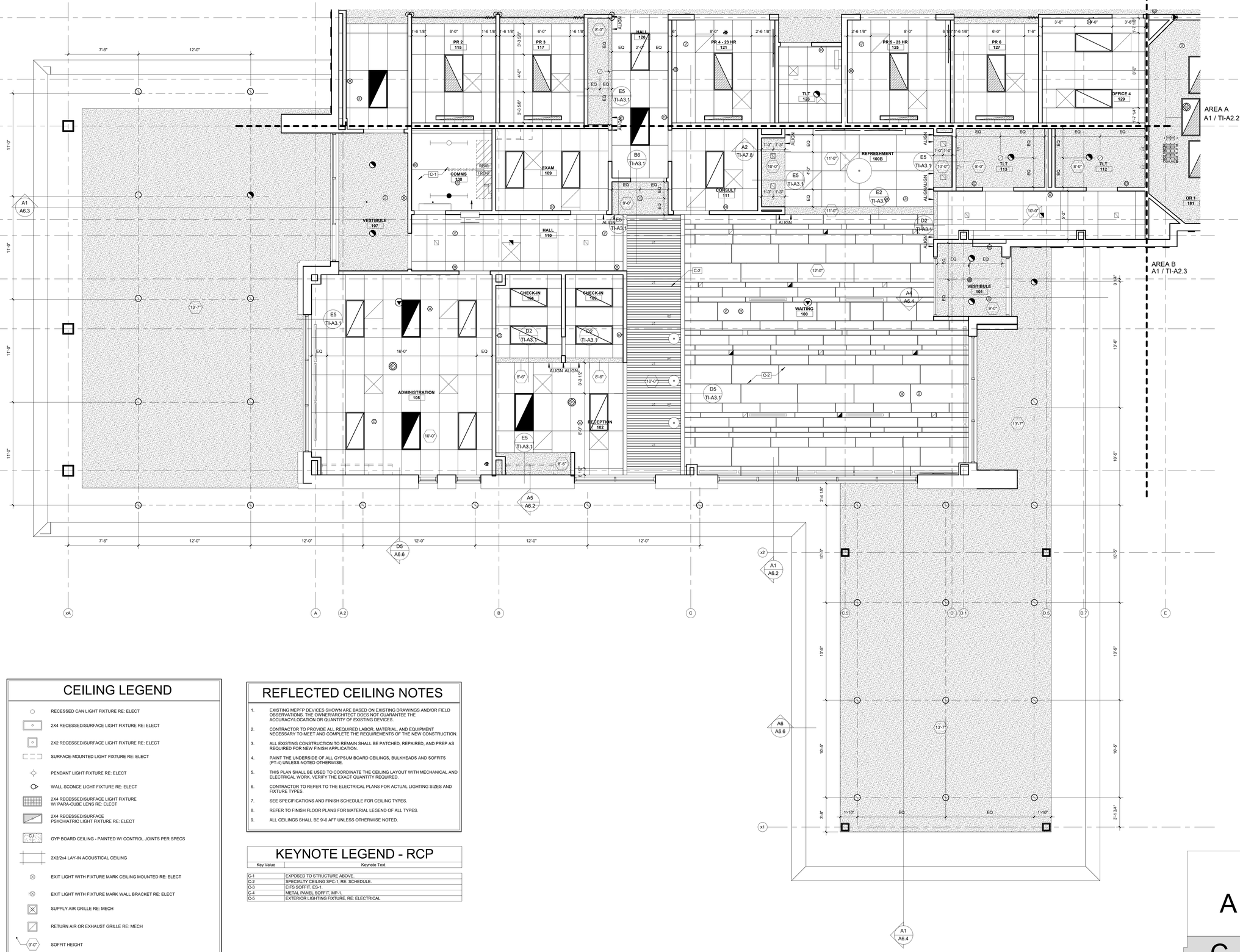
ENLARGED RCP - AREA B

BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt




## CEILING LEGEND

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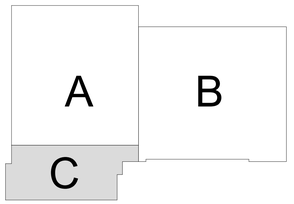
| C-4 | METAL PANEL SOFFIT, MP-1. |
| C-5 | EXTERIOR LIGHTING FIXTURE, RE: ELECTRICAL |

A1 ENLARGED RCP - AREA C
1/4" = 1'-0"

NORTH

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| Date | 02/08/23 |
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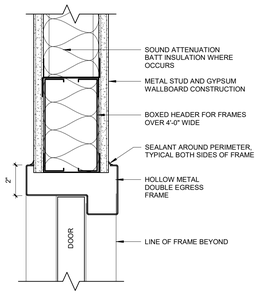
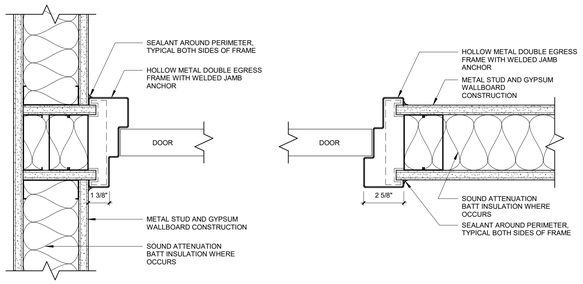
ENLARGED RCP - AREA C

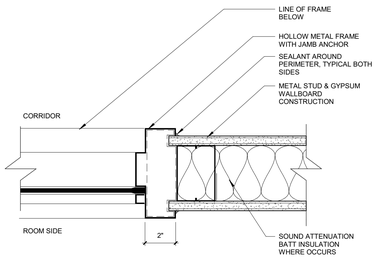
2/9/2023 10:07:24 AM



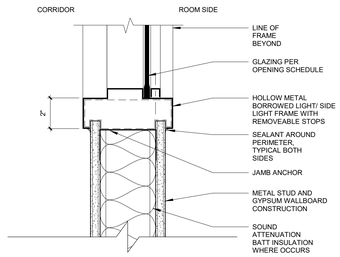

D6 HEAD - HM DOUBLE EGRESS FRAME
3" = 1'-0"



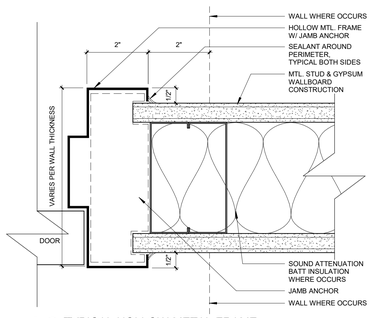

C6 JAMB - HM DOUBLE EGRESS FRAME
3" = 1'-0"



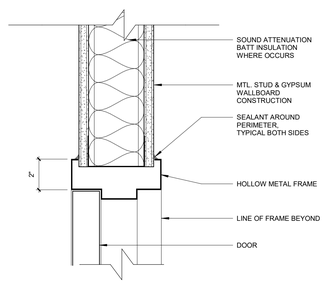

JAMB- HOLLOW MTL. SIDELIGHT/ BORROWED LIGHT FRAME
B6 3" = 1'-0"




SILL- HOLLOW MTL. SIDELIGHT/ BORROWED LIGHT FRAME
B5 3" = 1'-0"




A6 TYPICAL HOLLOW METAL FRAME
6" = 1'-0"




A5 TYPICAL HEAD- HOLLOW METAL DOOR FRAME
3" = 1'-0"

# DOOR SCHEDULE - TI

| DOOR # | ROOM NAME | DOOR INFORMATION WIDTH | HEIGHT | NO. OF LEAVES | UNEQUAL LEAF WIDTH | FRAME INFORMATION ELEV. | MATL. | ELEV. | MATL. | GLAZING | LABEL (MIN) | HARDWARE SET | OPENING DETAIL HEAD | JAMB | REMARKS | REV # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 102 | RECEPTION | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 10 | -- | -- | TI; CARD READER | |
| 103 | HALL | 4'-0" | 7'-0" | | | -- | | 1 | HM | | | | -- | -- | TI | |
| 104 | HALL | 4'-0" | 7'-0" | | | -- | | 1 | HM | | | | -- | -- | TI | |
| 105 | ADMINISTRATION | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 10 | -- | -- | TI; CARD READER | |
| 108 | COMMS | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 10 | -- | -- | TI; CARD READER | |
| 109 | EXAM | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 09 | | | TI | |
| 109.1 | EXAM | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 10 | -- | -- | TI; CARD READER | |
| 111 | CONSULT | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 01 | -- | -- | TI | |
| 111.1 | CONSULT | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 10 | -- | -- | TI; CARD READER | |
| 112 | TLT | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 05 | -- | -- | TI | |
| 113 | TLT | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 05 | -- | -- | TI | |
| 114 | TLT | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 04 | -- | -- | TI | |
| 117 | HALL | 3'-6" | 7'-0" | 1 | | N | WD | 1 | HM | -- | -- | 18 | | | TI; CARD READER | |
| 121 | PR 4 - 23 HR | 8'-0" | 7'-8" | 3 | | R | ALUM | -- | | | -- | 27 | -- | -- | TI; INTEGRAL BLINDS | |
| 122 | MEDS. | 3'-0" | 7'-0" | 1 | | V | WD | 1 | HM | -- | -- | 10 | -- | -- | TI; CARD READER | |
| 123 | TLT | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 04 | -- | -- | TI | |
| 125 | PR 5 - 23 HR | 8'-0" | 7'-8" | 3 | | R | ALUM | -- | | | -- | 27 | -- | -- | TI; INTEGRAL BLINDS | |
| 129 | OFFICE 4 | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 01 | -- | -- | TI | |
| 135 | CLEAN | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 45 min | 02 | -- | -- | TI | |
| 137 | STORAGE | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 45 min | 07 | | | TI | |
| 139 | TLT | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 04 | -- | -- | TI | |
| 140 | HALL | 3'-10" | 7'-0" | 2 | | N | WD | 2 | HM | -- | -- | 12 | | | TI; AUTO OPERATOR | |
| 148 | TLT | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 04 | | | TI | |
| 152 | GI PROCEDURE | 4'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 24 | | | TI; Delayed Retentions Hold Open; 4x4 Plate, SST Edge Protection | |
| 153 | SCOPE DECON. | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 45 min | 02 | | | TI | |
| 154 | SCOPE STORAGE | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 45 min | 07 | -- | -- | TI | |
| 154.1 | SCOPE STORAGE | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 02 | -- | -- | TI | |
| 155 | SCOPE DECON. | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 02 | -- | -- | TI | |
| 156 | GI PROCEDURE | 4'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 24 | | | TI; Delayed Retentions Hold Open; 4x4 Plate, SST Edge Protection | |
| 157 | STORAGE | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 07 | -- | -- | TI | |
| 161 | OFFICE 3 | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 01 | -- | -- | TI | |
| 161B | OFFICE 3 | 2'-0" | 3'-0" | | | | | BL-1 | HM | GL-4 | 20 min | | | | TI; INTEGRAL BLINDS | |
| 163 | OFFICE 2 | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 01 | -- | -- | TI | |
| 164 | SOILED | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 45 min | 07 | -- | -- | TI | |
| 165 | OFFICE 1 | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 01 | -- | -- | TI | |
| 166.1 | STAFF LOUNGE | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 02 | | | TI | |
| 167 | CLEAN LINEN | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 02 | -- | -- | TI | |
| 171.1 | STERILE ASSEMBLY | 3'-0" | 7'-0" | 1 | | F | -- | 1 | HM | -- | 45 min | 02 | -- | -- | TI | |
| 171.2 | STERILE ASSEMBLY | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 45 min | 07 | -- | -- | TI | |
| 172 | NEPTUNE | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 07 | -- | -- | TI; No Closure On Door | |
| 174 | SOILED HOLD | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 07 | -- | -- | TI | |
| 175.1 | WOMENS LOCKER ROOM | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 20 min | 06 | | | TI | |
| 175.2 | WOMENS LOCKER ROOM | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 06 | | | TI | |
| 176 | PATH LAB | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 01 | -- | -- | TI | |
| 177.1 | MENS LOCKER ROOM | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 20 min | 06 | | | TI | |
| 177.2 | MENS LOCKER ROOM | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 06 | | | TI | |
| 178 | ANESTH. | 3'-0" | 7'-0" | 1 | | F | WD | 1 | HM | -- | -- | 01 | -- | -- | TI | |
| 180 | HALL | 3'-4" | 7'-0" | 2 | | N | -- | 2 | HM | GL-4 | 20 min | 11 | | | TI; AUTO OPERATOR | |
| 181 | OR 1 | 4'-0" | 7'-0" | 1 | | N | WD | 1 | HM | -- | -- | 24 | -- | -- | TI; Delayed Retentions Hold Open; 4x4 Plate, SST Edge Protection | |
| 181B | OR 1 | 2'-0" | 3'-0" | | | | | BL-1 | HM | -- | -- | | | | TI; INTEGRAL BLINDS | |
| 182 | DECON | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 45 min | 02 | -- | -- | TI | |
| 183 | OR 2 | 4'-0" | 7'-0" | 1 | | N | WD | 1 | HM | -- | -- | 24 | -- | -- | TI; Delayed Retentions Hold Open; 4x4 Plate, SST Edge Protection | |
| 183.1 | OR 2 | 2'-0" | 3'-0" | | | | | BL-1 | HM | -- | -- | | | | TI; INTEGRAL BLINDS | |
| 184 | STERILIZERS | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 45 min | 02 | -- | -- | TI | |
| 185 | OR 3 | 4'-0" | 7'-0" | 1 | | N | WD | 1 | HM | -- | -- | 24 | -- | -- | TI; Delayed Retentions Hold Open; 4x4 Plate, SST Edge Protection | |
| 185.1 | OR 3 | 2'-0" | 3'-0" | | | | | BL-1 | HM | -- | -- | | | | TI; INTEGRAL BLINDS | |
| 186 | STERILE STORAGE | 3'-6" | 7'-0" | 1 | | F | WD | 1 | HM | -- | 45 min | 07 | -- | -- | TI | |
| 187 | EQUIP. STORAGE | 4'-0" | 7'-0" | 1 | | N | WD | 1 | HM | GL-5 | 45 min | 08 | -- | -- | TI; Delayed Retentions Hold Open; 4x4 Plate, SST Edge Protection | |

# DOOR AND HARDWARE NOTES

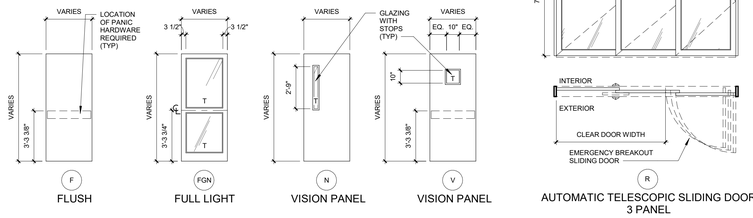
1. ALL MEANS OF EGRESS DOORS SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF SPECIAL TOOLS, A KEY, SPECIAL KNOWLEDGE OR EFFORT. DOUBLE KEYED DEAD BOLTS ARE PROHIBITED.
2. ALL HARDWARE SHALL BE IN COMPLIANCE WITH ADA GUIDELINES AND NATIONAL BUILDERS HARDWARE ASSOCIATION STANDARDS.
3. HARDWARE TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

## DOOR & FRAME MAT'L LEGEND

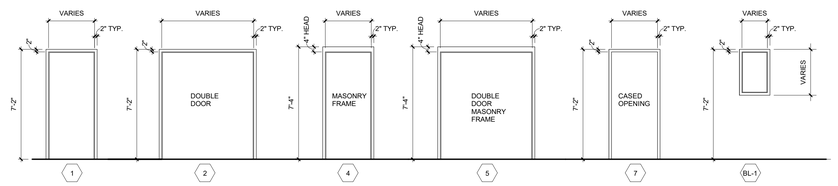
| | |
|---|---|
| ALUM | ALUMINUM |
| HM | HOLLOW METAL |
| WD | SOLID CORE WOOD |
| FRP | FIBER REINFORCED PANEL |
| T | TEMPERED |

## GLAZING LEGEND

| | |
|---|---|
| GL-1 | TEMPERED GLASS |
| GL-2 | LAMINATED GLASS |
| GL-3 | FIRE PROTECTION RATED GLASS |
| GL-4 | FIRE RESISTANT RATED GLASS |
| GL-5 | BUTT-GLAZED GLASS PANELS |
| IGU-1 | DOUBLE-GLAZED INSULATING GLASS UNIT |
| IGU-2 | DOUBE-GLAZED INSULATING GLASS UNIT (TEMPERED) |
| IGU-3 | DOUBE-GLAZED INSULATING GLASS UNIT (LAMINATED) |
| IGU-4 | DOUBE-GLAZED INSULATING GLASS UNIT (SPANDREL) |




## DOOR ELEVATIONS:




## FRAME ELEVATIONS:

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| | |
|---|---|
| Date | 02/08/23 |
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| Checked By | Checker |

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DOOR AND FRAME SCHEDULE AND DETAILS

BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt

# GENERAL ROOM FINISH SCHEDULE NOTES

| | |
|---|---|
| A | REFER TO FINISH PLAN AND INTERIOR ELEVATIONS FOR WALL FINISHES, WALL PROTECTION, CORNER GUARDS, WINDOW TREATMENTS, FLOOR FINISH APPLICATION AND LOCATIONS |
| B | ALL SOLID WOOD, WOOD VENEER, AND PLASTIC LAMINATE GRAIN SHALL BE VERTICALLY ORIENTED UNLESS OTHERWISE NOTED |
| C | DOOR FRAMES, HOLLOW METAL WINDOW FRAMES TO BE PT-3 UNLESS OTHERWISE NOTED |
| D | ALL FACES AND UNDERSIDES OF SOFFITS AND HEADERS TO BE PT-1 UNLESS OTHERWISE NOTED |
| E | WALL EXPANSION JOINTS TO BE PT-1 UNLESS OTHERWISE NOTED |
| F | ALL ELECTRICAL PANELS AND METAL GRILLES SHALL BE PTD TO MATCH ADJACENT WALL SURFACE UNLESS OTHERWISE NOTED |
| G | ALL COLUMN SURROUND FINISHES TO MATCH ADJACENT WALL SURFACE UNLESS OTHERWISE NOTED |
| H | WHERE A WALL IS INDICATED TO HAVE PARTIAL OR FULL HT WALL PROTECTION, THE ENTIRE WALL IS TO BE PTD PRIOR TO WALL PROTECTION INSTALLATION |
| I | EXTEND ALL FINISHES BENEATH, BEHIND, AROUND ALL CASEWORK, EQUIPMENT, SIGNAGE, ETC |
| J | ALL WINDOW SILLS TO BE SSF-1 |
| K | ALL SST SINKS, RE: MEP |

## FINISH FLOOR PLAN LEGEND

| | |
|---|---|
| — · — · — | WALL TREATMENT |
| ——— | FLOOR TRANSITION |
| ◷ | CORNER GUARD |
| ⇄ | FLOOR FINISH DIRECTION |

1. FOR ALL FLOORING TRANSITIONS, REFER TO TYPICAL FLOORING TRANSITION DETAILS ON TI-A7.5, UNLESS OTHERWISE NOTED ON THIS PLAN

2. THIS FINISH PLAN IS TO BE USED FOR ADDITIONAL LOCATION CLARIFICATION OF FINISHES NOTED IN FINISH SCHEDULE

# GENERAL FINISH NOTES

1. SUBMIT SAMPLES OF ALL FINISHES TO ARCHITECT FOR REVIEW PRIOR TO THE ORDERING OF MATERIAL.
2. NO IRREGULARITIES OR IMPERFECTIONS SHALL BE PRESENT IN ANY OF THE MATERIAL BEING INSTALLED. IF SUCH ITEMS ARE IDENTIFIED DURING APPLICATION, WORK SHALL BE STOPPED AND THE ARCHITECT NOTIFIED.
3. PROVIDE ALL MAINTENANCE MANUALS AND WARRANTY INFORMATION FOR EACH FINISH MATERIAL TO OWNER AT COMPLETION OF THE PROJECT.
4. ALL HOLLOW METAL DOOR FRAMES TO BE PAINTED PER FINISH SCHEDULE UNLESS NOTED OTHERWISE.
5. PAINT THE UNDERSIDE OF ALL GYPSUM BOARD CEILINGS, BULKHEADS AND SOFFITS PER FINISH SCHEDULE UNLESS NOTED OTHERWISE.
6. FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE WORK OF FINISH APPLICATIONS.
7. ALL FINISHES SHALL BE INSTALLED AND MAINTAINED PER MANUFACTURER'S RECOMMENDATION AND INDUSTRY STANDARDS.
8. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. SUBSTRATE SHALL BE SMOOTH, FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS.
9. ALL MATERIAL TO COMPLY WITH FLAME SPREAD CLASSIFICATION EITHER CLASS (1) ONE OR CLASS A DEPENDING ON GOVERNING CODE IN EFFECT.
10. SMOKE DEVELOPMENT RATING < 450 FOR ALL FINISHES.

# INTERIOR FINISH LEGEND

| MARK | ITEM | MANUFACTURER | MODEL/ PATTERN | COLOR | SIZE | REMARKS |
|---|---|---|---|---|---|---|
| FLOOR | | | | | | |
| CPT-1 | CARPET | SHAW CONTRACT | SUBTEXT 5T409 | LISTEN 05100 | 9" X 36" | ASHLAR INSTALLATION |
| CS-1 | CONCRETE SEALER | | | | | |
| LVT-1 | LUXURY VINYL TILE | MANNINGTON | AMTICO WOOD | MANOR OAK AROW7970 | 7.25" X 48" | STAGGERED INSTALLATION |
| LVT-2 | LUXURY VINYL TILE | MANNINGTON | SPACIA ABSTRACT | SOFTLINE PEBBLE SS5A3802 | 18" X 18" | ASHLAR INSTALLATION |
| PFT-1 | PORCELAIN FLOOR TILE | DALTILE | ARTICULO AR09, MATTE FINISH | COLUMN GRAY | 12" X 24" | 1/3 OFFSET INSTALLATION |
| RSF-1 | SHEET VINYL | MANNINGTON | BIOSPEC ARMOR | HUSH OR111 | SHEET | USE MATCHING HEAT WELD ROD |
| RSF-2 | SHEET VINYL | MANNINGTON | BIOSPEC ARMOR | PISTACHIO OR110 | SHEET | USE MATCHING HEAT WELD ROD |
| RSF-3 | SHEET VINYL | MANNINGTON | ASSURANCE III | TRAIL 16352 | SHEET | USE MATCHING HEAT WELD ROD |
| TRS-1 | TRANSITION STRIP | MANNINGTON | 633 TILE REDUCER | 701 BLACK | - | RE: TRANSITION DETAILS |
| TRS-2 | TRANSITION STRIP | SCHLUTER | RENO-U | SATIN ANODIZED ALUMINUM | - | RE: TRANSITION DETAILS |
| TRS-3 | TRANSITION STRIP | SCHLUTER | SCHIENE | SATIN ANODIZED ALUMINUM | - | RE: TRANSITION DETAILS |
| WOC-1 | WALK OFF CARPET | SHAW CONTRACT | PORTAL TILE 5T035 | STERLING 34557 | 24" X 24" | ASHLAR INSTALLATION |
| BASE | | | | | | |
| IB-1 | INTEGRAL BASE | MANNINGTON | BIOSPEC ARMOR | HUSH OR111 | 6" COVE | TO BE USED WITH RSF-1. METAL COVE BASE CAP W/ 45 DEGREE SEALANT AT THE TOP W/ 45 DEGREE SEALANT AT THE TOP |
| IB-2 | INTEGRAL BASE | MANNINGTON | BIOSPEC ARMOR | PISTACHIO OR110 | 6" COVE | TO BE USED WITH RSF-2. METAL COVE BASE CAP W/ 45 DEGREE SEALANT AT THE TOP |
| MT-1 | METAL BASE | SCHLUTER | DILEX-AHK | SATIN ANODIZED ALUMINUM | - | COVE SHAPE PROFILE |
| RB-1 | RESILIENT BASE | MANNINGTON | BURKEBASE, TYPE TP | CLAY 527 | 4" COVE WITH TOE | ROLLED GOODS |
| RB-2 | RESILIENT BASE | MANNINGTON | EDGE EFFECTS, ETCHED | CLAY 527 | 4" | MITER CORNERS |
| WALL | | | | | | |
| BR-1 | BUMPER RAIL | INPRO CORPORATION | 1300 WALL GUARD | WHITE SAND 0103 | 4-1/16" | RE: FINISH SCHEDULE, FINISH PLAN AND INTERIOR ELEVATIONS FOR LOCATIONS |
| CG-1 | CORNER GUARD | INPRO CORPORATION | 160BN BULINOSE SURFACE MOUNT | WHITE SAND 0103 | 2" WING, FULL HEIGHT | 90 DEGREE |
| CG-2 | CORNER GUARD | INPRO CORPORATION | 160BN BULINOSE HIGH IMPACT END WALL PROTECTOR | WHITE SAND 0103 | 2" WING, FULL HEIGHT | 90 DEGREE |
| CR-1 | CRASH RAIL | INPRO CORPORATION | 1600 WALL GUARD | WHITE SAND 0103 | 6" | - |
| CWT-1 | CERAMIC WALL TILE | GARDEN STATE TILE | DISTRICT BOERUM HILL, ADWICK | SKY | 12" X 16" PICKET | PATTERN TO RUN VERTICALLY WHEN INSTALLED |
| MT-2 | METAL TRIM | SCHLUTER | JOLLY | SATIN ANODIZED ALUMINUM | - | TO BE USED AT ALL EXPOSED EDGES OF WALL TILE |
| PT-1 | PAINT | SHERWIN-WILLIAMS | EGGSHELL FINISH | AESTHETIC WHITE SW7035 | | OVERALL COLOR |
| PT-1A | PAINT | SHERWIN-WILLIAMS | EPOXY FINISH | AESTHETIC WHITE SW7035 | | OVERALL COLOR |
| PT-1B | PAINT | SHERWIN-WILLIAMS | FLAT FINISH | AESTHETIC WHITE SW7035 | | OVERALL CEILING COLOR |
| PT-2 | PAINT | SHERWIN-WILLIAMS | EGGSHELL FINISH | COLONNADE GRAY SW7641 | | ACCENT COLOR |
| PT-3 | PAINT | SHERWIN-WILLIAMS | SEMI-GLOSS FINISH | KEYSTONE GRAY SW7504 | | ALL HOLLOW METAL DOOR AND WINDOW FRAMES |
| PT-4 | PAINT | SHERWIN-WILLIAMS | EGGSHELL FINISH | RAINWASHED SW6211 | | ACCENT WALLOR |
| PT-4A | PAINT | SHERWIN-WILLIAMS | EPOXY FINISH | RAINWASHED SW6211 | | ACCENT COLOR |
| PT-5 | PAINT | SHERWIN-WILLIAMS | RE: SPECS | IRON ORE SW7069 | | STAFF COURTYARD GATE POSTS |
| PWT-1 | PORCELAIN WALL TILE | DALTILE | ARTICULO AR06, MATTE FINISH | EDITORIAL WHITE | 12" X 24" | 1/3 OFFSET INSTALLATION |
| PWT-2 | PORCELAIN WALL TILE | TRADITIONS IN TILE | | | | |
| WP-1 | WALL PORTECTION | INPRO CORPORATION | RIGID SHEET | WHITE SAND 0103 | 4' X 8' SHEET, .060" THICK | USE WITH MATCHING TRIM PIECES |
| CASEWORK | | | | | | |
| IS-1 | INTEGRAL SINK | WILSONART | AV1513 RECTANGULAR ADA RAMP VANITY | CALM WHITE | 17-1/2" X 15-3/8" X 5-1/4" | RE: ROOM FINISH SCHEDULE |
| IS-2 | INTEGRAL SINK | WILSONART | AD1630 EQUAL DOUBLE BOWL | CALM WHITE | 32-1/16" X 16-5/8" X 9-1/8" | RE: ROOM FINISH SCHEDULE |
| IS-3 | INTEGRAL SINK | WILSONART | AV1812 RECTANGULAR VANITY | CALM WHITE | 19-5/8" X 14-3/4" X 6-7/8" | RE: ROOM FINISH SCHEDULE |
| PLAM-1 | PLASTIC LAMINATE | WILSONART | 7987-38 | PALISADES OAK | 4' X 8' SHEET | USE MATCHING 3MM EDGE BANDING |
| QTZ-1 | QUARTZ | WILSONART | Q4057 | CALACATTA VOLEGNO | 3CM THICK | EASED EDGES |
| SSF-1 | SOLID SURFACE | WILSONART | 9196RS | YUKON RIVERSTONE | 1/2" THICK | EASED EDGES |
| SST-1 | STAINLESS STEEL | - | - | - | - | - |
| CEILING | | | | | | |
| ACT-1 | ACOUSTIC CEILING TILE | ARMSTRONG CEILINGS | FINE FISSURED 1755 | WHITE | 24" X 48" | 15/16" SQUARE LAY-IN & 15/16" PRELUDE SUSPENSION SYSTEM |
| ACT-2 | ACOUSTIC CEILING TILE | ARMSTRONG CEILINGS | CLEAN ROOM VL UNPERFORATED 970 | WHITE | 24" X 48" | 15/16" SQUARE LAY-IN & ALUMINUM CLEAN ROOM SUSPENSION SYSTEM |
| ACT-3 | ACOUSTIC CEILING TILE | ARMSTRONG CEILINGS | ULTIMA HIGH NRC 1945 | WHITE | 24" X 48" | 9/16" BEVELED TEGULAR W/ 9/16" SUPRAFINE SUSPENSION SYSTEM, BLIZZARD WHITE |
| SPC-1 | SPECIALTY CEILING | ARMSTRONG CEILINGS | ACOUSTIBUILT SEAMLESS SYSTEM WITH SIMPLESOFFIT 2604 | WHITE | RE: RCP | - |
| WDC-1 | WOOD CEILING | ARMSTRONG CEILINGS | WOODWORKS VENEER | 6690W1 IN NATURAL VARIATIONS WALNUT (NWN) | 24" X 96" | NOMINAL 4" WIDE PLANKS WITH 3/4" REVEAL 15/16 EDGE |
| MISC. | | | | | | |
| AP-1 | ACRYLIC PANEL | LUMICOR | WALDEN | DAWN | RE: INTERIOR ELEVATIONS | SATIN FINISH. SANDED & MATTE EASED EDGE |
| CC-1 | CUBICLE CURTAIN | PHOENIX TEXTILE | AQUIFER-X | CARIBBEAN #6 | RE: FLOOR PLANS & RCP | USE WITH WHITE MESH |
| CCT-1 | CUBICLE CURTAIN TRACK | INPRO CORPORATION | WHISPER CUBE | WHITE | RE: RCP | |
| GT-1 | GROUT | MAPEI | KERAPOXY | | | |
| SB-1 | SHOWER BASE | INPRO CORPORATION | BIOPRISM SOLID SURFACE SHOWER RECEPTOR - STANDARD ADA | BONE | 36" X36" | - |
| SC-1 | SHOWER CURTAIN | INPRO CORPORATION | CHALET | SNOW | RE: FLOOR PLANS & RCP | USE WITH WHITE MESH |
| SCR-1 | SHOWER CURTAIN ROD | INPRO CORPORATION | STATIONARY ROD | SATIN CHROME | - | - |
| TP-1 | TOILET PARTITION | WILSONART | COMPACT LAMINATE | PALISADES OAK | - | RE: SPEC |
| WT-1 | WINDOW TREATMENT | MECHOSHADE | MECHO 5 STANDARD BRACKET, MANUAL SINGLE REGULAR ROLL SHADE W/ FASCIA, CEILING MOUNT | FASCIA: QUAKER BRONZE. SHADECLOTH:THERMOVEIL 1700 GRAY 1% OPENNESS | LOCATED AT ALL WINDOWS ALONG EXTERIOR WALL. RE: RCP | - |

# ROOM FINISH SCHEDULE

| ROOM NUMBER | ROOM NAME | FLOOR FINISH | BASE FINISH | WALLS | | | | CASEWORK | | | | CEILING | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NORTH | EAST | SOUTH | WEST | BASE CABINETS | WALL CABINETS | COUNTERTOPS | SINKS | | |
| 100 | WAITING | LVT-1, CPT-1 | RB-2 | PT-1 | PT-1 | PT-1 | PT-4 | PLAM- 1 | - | SSF-1 QTZ-1 | - | SPC-1 | |
| 100B | REFRESHMENT | CPT-1 | RB-2 | PT-1 | CWT-1 | PT-1 | PT-4 | PLAM- 1 | - | SSF-1 | - | ACT-1/GPT | |
| 101 | VESTIBULE | WOC-1 | RB-2 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | PT-1B | |
| 102 | RECEPTION | LVT-1 | RB-2 | PT-1 | PT-1 | PT-1 | PT-1 | PLAM- 1 | PLAM- 1 | SSF-1/ QTZ-1 | - | ACT-1/WDC-1/PT-1B | |
| 103 | CHECK-IN | LVT-1 | RB-2 | PT-1 | PT-1 | PT-1 | PT-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 104 | CHECK-IN | LVT-1 | RB-2 | PT-1 | PT-1 | PT-1 | PT-1 | PLAM-1 | - | SSF-1 | - | ACT-1 | |
| 105 | ADMINISTRATION | LVT-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | PLAM- 1 | PLAM- 1 | SSF-1 | - | ACT-1 | |
| 107 | VESTIBULE | WOC-1 | RB-2 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | PT-1B | |
| 108 | COMMS | CS-1 | - | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | EXPOSED | |
| 109 | EXAM | LVT-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | PLAM- 1 | PLAM- 1 | SSF-1 | IS-3 | ACT-1 | |
| 110 | HALL | LVT-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | ACT-1 | |
| 111 | CONSULT | LVT-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | PLAM- 1 | PLAM-1 | SSF-1 | IS-3 | ACT-1 | |
| 112 | TLT | PFT-1 | MT-1 | PT-1A/PWT-1 | PT-1A/CWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PLAM- 1 | - | SSF-1 | IS-1 | GPT | |
| 113 | TLT | PFT-1 | MT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/CWT-1 | PLAM- 1 | - | SSF-1 | IS- 1 | GPT | |
| 114 | TLT | LVT-2 | IB-2 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PLAM- 1 | - | SSF-1 | IS-1 | ACT-1 | |
| 115 | PR 2 | LVT-2 | RB-1 | - | PT-1/ WP-1 | PT-4/WP-1 | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 116 | PR 1 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 117 | PR 3 | LVT-2 | RB-1 | - | PT-1/WP-1 | PT-4/WP-1 | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 118 | NURSE STATION | LVT-2 | RB-1 | PT-1 | PT-1 | PT-1 | PT-4 | PLAM- 1 | PLAM- 1 | SSF-1 | IS-3 | ACT-1 | |
| 119 | ALCOVE | LVT-2 | RB-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | - | - | - | - | GPT | |
| 120 | HALL | LVT-2 | RB-1 | PT-1/WP-1/BR-1/CR-1 | PT-1 | PT-1/WP-1/BR-1/CR-1 | PT-1 | PLAM- 1 | PLAM-1 | SSF-1 | IS-3 | ACT-1 | RE: OVERALL FINISH FLOOR PLAN |
| 121 | PR 4 - 23 HR | LVT-2 | RB-1 | PT-1/WP-1 | PT-1/ WP-1 | PT-4/WP-1 | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 122 | MEDS. | LVT-2 | IB-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PLAM- 1 | PLAM-1 | SSF-1 | IS-3 | ACT-1 | |
| 123 | TLT | LVT-2 | IB-2 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | - | - | - | | ACT-1 | |
| 124 | PR 7 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 125 | PR 5 - 23 HR | LVT-2 | RB-1 | PT-1/WP-1 | PT-1/ WP-1 | PT-4/WP-1 | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 126 | PR 8 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/ WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 127 | PR 6 | LVT-2 | RB-1 | - | PT-1/ WP-1 | PT-4/WP-1 | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 128 | PR 9 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 129 | OFFICE 4 | CPT-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | ACT-1 | |
| 130 | HALL | LVT-2 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | PLAM-1 | PLAM-1 | SSF-1 | IS-3 | ACT-1 | |
| 131 | NOURISH. | LVT-2 | RB-1 | PT-1 | PT-1 | PT-1 | - | PLAM- 1 | PLAM- 1 | SSF- 1 | IS-3 | ACT-1 | |
| 132 | PR 1 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/ WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 133 | PR 4 | LVT-2 | RB-1 | - | PT-1/ WP-1 | PT-4/WP-1 | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 134 | PR 2 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/ WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 135 | CLEAN | LVT-2 | IB-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PLAM- 1 | PLAM- 1 | SSF- 1 | IS- 3 | ACT-1 | |
| 136 | PR 3 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 137 | STORAGE | LVT-2 | RB-1 | PT-1/WP-1 | PT-1/ WP-1 | PT-1/WP-1 | PT-1/WP-1 | - | - | - | - | ACT-1 | |
| 138 | PR 5 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 139 | TLT | LVT-2 | IB-2 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | - | - | - | | ACT-1 | |
| 140 | HALL | LVT-2 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | PLAM- 1 | PLAM-1 | SSF-1 | IS-3 | ACT-1 | |
| 142 | PR 6 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/ WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 144 | PR 7 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/ WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 146 | PR 8 | LVT-2 | RB-1 | PT-4/WP-1 | PT-1/ WP-1 | - | PT-1/WP-1 | PLAM- 1 | - | SSF-1 | - | ACT-1 | |
| 148 | TLT | LVT-2 | RB-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | - | - | - | | ACT-1 | |
| 150 | HALL | LVT-2 | RB-1 | PT-1/WP-1/BR-1/CR-1 | PT-1/ WP-1/BR-1 /CR-1 | PT-1/WP-1/BR-1/CR-1 | PT-1/WP-1/BR-1/CR-1 | - | - | - | - | ACT-1 | RE: OVERALL FINISH FLOOR PLAN |
| 151 | DICTATION | RSF-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | PLAM-1 | SSF-1 | - | GPT | |
| 152 | GI PROCEDURE | RSF-1 | IB-1 | PT-4A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PLAM- 1 | PLAM- 1 | SSF- 1 | IS- 3 | ACT-1 | RE: INTERIOR ELEVATIONS |
| 153 | SCOPE DECON. | RSF-1 | IB-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | SST | SST | SST | SST | ACT-1 | RE: INTERIOR ELEVATIONS |
| 154 | SCOPE STORAGE | RSF-1 | IB-1 | WP-1 | WP-1 | WP-1 | WP-1 | - | - | - | - | ACT-1 | |
| 155 | SCOPE REPROCESSING | RSF-1 | IB-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | SST | SST | SST | SST | ACT-1 | RE: INTERIOR ELEVATIONS |
| 156 | GI PROCEDURE | RSF-1 | IB-1 | PT-4A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PLAM- 1 | PLAM-1 | SSF-1 | IS-3 | ACT-1 | RE: INTERIOR ELEVATIONS |
| 157 | STORAGE | RSF-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | | ACT-1 | |
| 160 | HALL | LVT-2 | RB-1 | PT-1/WP-1/BR-1/CR-1 | PT-1/ WP-1/BR-1 /CR-1 | PT-1/WP-1/BR-1/CR-1 | PT-1/WP-1/BR-1/CR-1 | - | - | - | - | ACT-1 | RE: OVERALL FINISH FLOOR PLAN |
| 161 | OFFICE 3 | CPT-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | | ACT-1 | |
| 162 | DICTATION | LVT-2 | RB-1 | PT-1 | PT-1 | PT-1 | - | - | PLAM-1 | SSF-1 | - | GPT | |
| 163 | OFFICE 2 | CPT-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | ACT-1 | |
| 164 | SOILED | LVT-2 | IB-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PLAM- 1 | - | SSF- 1 | IS- 3 | ACT-1 | |
| 165 | OFFICE 1 | CPT-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | ACT-1 | |
| 166 | STAFF LOUNGE | LVT-2 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1/CWT-1 | PLAM- 1 | PLAM- 1 | SSF- 1 | IS- 2 | ACT-1/GPT | |
| 167 | CLEAN LINEN | RSF-1 | RB-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | - | - | - | - | ACT-1 | |
| 167.5 | EQUIPMENT ALCOVE | RSF-1 | RB-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | - | - | - | - | GPT | |
| 168 | HALL | LVT-2 | RB-1 | PT-1/WP-1/BR-1/CR-1 | PT-1/ WP-1/BR-1 /CR-1 | PT-1/WP-1/BR-1/CR-1 | PT-1/WP-1/BR-1/CR-1 | - | - | - | - | ACT-1 | |
| 169 | JAN | CS-1 | - | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | - | - | - | - | ACT-1 | |
| 170 | HALL | RSF-1 | IB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | ACT-1 | RE: OVERALL FINISH FLOOR PLAN |
| 171 | STERILE ASSEMBLY | RSF-1 | IB-1 | WP-1 | WP-1 | WP-1 | WP-1 | SST | SST | SST | SST | ACT-1 | |
| 172 | NEPTUNE | RSF-1 | IB-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | - | - | - | - | ACT-1 | |
| 173 | JANITOR | RSF-1 | IB-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | - | - | - | - | ACT-1 | |
| 174 | SOILED HOLD | RSF-1 | IB-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | - | - | - | - | ACT-1 | |
| 175 | WOMENS LOCKER ROOM | PFT-1 | MT-1,PFT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A, PWT-1, CWT-1 | PLAM- 1 | - | SSF-1 | IS-1 | ACT-1/GPT | RE: OVERALL FINISH FLOOR PLAN |
| 176 | PATH LAB | RSF-1 | IB-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PLAM- 1 | PLAM- 1 | SSF- 1 | IS- 3 | ACT-1 | |
| 177 | MENS LOCKER ROOM | PFT-1 | MT-1,PFT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A,CWT-1, PWT-1 | PT-1A/PWT-1 | PLAM- 1 | - | SSF-1 | IS-1 | ACT-1/GPT | RE: OVERALL FINISH FLOOR PLAN |
| 178 | ANESTH. | RSF-1 | IB-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PLAM- 1 | PLAM- 1 | SSF- 1 | IS- 3 | ACT-1 | |
| 179 | ELEC | CS-1 | - | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | - | |
| 180 | HALL | RSF-1, RSF-2 | IB-1,2 | PT-1A/WP-1/CR-1 | - | PT-1A/WP-1/CR-1 | - | - | - | - | - | ACT-1 | |
| 181 | OR 1 | RSF-1 | IB-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | - | - | - | - | GPT | RE: INTERIOR ELEVATIONS |
| 182 | DECON | RSF-1 | IB-1 | WP-1 | WP-1 | WP-1 | WP-1 | SST | SST | SST | SST | ACT-1 | |
| 183 | OR 2 | RSF-1 | IB-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | - | - | - | - | GPT | RE: INTERIOR ELEVATIONS |
| 184 | STERILIZERS | RSF-1 | IB-1 | WP-1 | WP-1 | WP-1 | WP-1 | - | - | - | - | ACT-1 | |
| 185 | OR 3 | RSF-1 | IB-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | - | - | - | - | GPT | |
| 186 | STERILE STORAGE | RSF-1 | IB-1 | PT-1A/WP-1 | PT-1/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | - | - | - | - | ACT-1 | |
| 187 | EQUIP. STORAGE | CS-1 | - | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | ACT-1 | |
| 189 | STRETCHER ALCOVE | RSF-1 | RB-1 | - | PT-1A/WP-1 | PT-1A/WP-1 | PT-1A/WP-1 | - | - | - | - | GPT | |
| 190 | VESTIBULE | WOC-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | ACT-1/GPT | |
| 191 | TRASH | CS-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | EXPOSED | |
| 192 | RECEIVING | LVT-1 | RB-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | PT-1/WP-1 | - | PLAM- 1 | SSF-1 | - | ACT-1 | |
| 195 | MECH ROOM | CS-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | EXPOSED | |
| 196 | EM ELEC ROOM | CS-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | EXPOSED | |
| 197 | ELEC | CS-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | EXPOSED | |
| 198 | WATER ENTRY | CS-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | EXPOSED | |
| 199 | GAS STOR. | CS-1 | RB-1 | PT-1 | PT-1 | PT-1 | PT-1 | - | - | - | - | EXPOSED | |
| 200x | STAFF COURTYARD | - | - | - | - | - | - | - | - | - | - | - | RE: EXTERIOR X |
| 300 | MECH YARD | - | - | - | - | - | - | - | - | - | - | - | RE: EXTERIOR X |
| 301 | DUMPSTER | - | - | - | - | - | - | - | - | - | - | - | RE: EXTERIOR X |
| 362 | SCRUB SINK | SV-1 | MT-1 | - | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | - | - | - | - | GPT | X |
| 363 | SCRUB SINK | SV-1 | MT-1 | - | PT-1A/PWT-1 | PT-1A/PWT-1 | PT-1A/PWT-1 | - | - | - | - | GPT | X |


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| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
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ROOM FINISH SCHEDULE & FINISH LEGEND

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# FFE SCHEDULE

| TYPE MARK | DESCRIPTION | RESPONSIBILITY | COMMENTS |
|---|---|---|---|
| A1000 | FIRE EXTINGUISHER CABINET | CFCI | |
| A1015 | PHONE | OFOI | |
| A1066 | MIRROR | CFCI | |
| A1122 | EQUIPMENT BOOM | VFVI | |
| A4015 | CLOCK, ELECTRIC | CFCI | |
| A4995 | TABLE, DIAPER CHANGING, WALL MOUNTED | CFCI | |
| A5030 | FOLDING SHOWER SEAT | CFCI | |
| A5065 | NARCOTICS BOX | OFCI | |
| A5075 | SOAP | OFOI | |
| A5077 | HAND SANITIZER | OFCI | |
| A5082 | PAPER TOWEL | OFCI | |
| A5090 | DISPOSAL, SANITARY NAPKIN | CFCI | |
| A5107 | GLOVE DISPENSER | OFCI | |
| A5108 | SHARPS | OFOI | |
| A5109a | GRAB BAR, HORIZONTAL 36" | CFCI | BLOCKING AS REQUIRED |
| A5109b | GRAB BAR, HORIZONTAL, 42" | CFCI | BLOCKING AS REQUIRED |
| A5109c | GRAB BAR, VERTICAL, 18" | CFCI | BLOCKING AS REQUIRED |
| A5109d | GRAB BAR, HORIZONTAL, L SHAPED, 18" X 33" | CFCI | BLOCKING AS REQUIRED |
| A5135 | UTILITY SHELF | CFCI | BLOCKING AS REQUIRED |
| A5145a | GARMENT HOOK | CFCI | BLOCKING AS REQUIRED |
| A5145b | COAT HOOK | CFCI | BLOCKING AS REQUIRED |
| A5160 | MOP SHELF | CFCI | |
| A5170 | ROD, SHOWER CURTAIN | CFCI | |
| A5180 | CUBICLE CURTAIN W/ TRACK | CFCI | |
| A5181 | DIVISION PANEL | OFOI | |
| A5200 | DISPENSER, TOILET PAPER, 2 ROLL | CFCI | |
| A5210a | TV WALL BRACKET, ADJUST ARM | CFCI | |
| A5210b | TV WALL BRACKET | CFCI | |
| A6010 | BUMPER GUARD | OFOI | |
| E0090 | DESKING SYSTEM | OFOI | |
| E0645 | SHELVING, BIN STORAGE, SLAT WALL | VFCI | |
| E0945 | MOBILE WORKSTATION | OFOI | |
| E0948 | GENERAL STORAGE CART | OFOI | |
| E0963 | CART STORAGE | OFOI | |
| F0205 | SIDE CHAIR, W/ ARMS | OFOI | |
| F0250 | CHAIR, LOUNGE | OFOI | |
| F0265 | CHAIR, RECLINER | OFOI | |
| F0300 | CHAIR, TASK, SWIVEL, W/ ARMS | OFOI | |
| F0306 | CHAIR, WAITING ROOM, BARIATRIC | OFOI | |
| F0355 | FOOTSTOOL | OFOI | |
| F0415 | LATERAL FILE | OFOI | |
| F0430 | BBF | OFOI | |
| F0735 | TABLE, COFFEE | OFOI | |
| F0740 | TABLE | OFOI | |
| F0740a | TABLE | OFOI | |
| F0740c | TABLE | OFOI | |
| F0796b | TABLE, DINING, BAR HT. | OFOI | |
| F2010 | STEP TRASHCAN | OFOI | |
| F7040b | TABLE, BAR HT. | OFOI | |
| K1552 | COFFEE MAKER | OFOI | POWER REQUIRED |
| K2020 | DETERGENT DOSING SYSTEM | VFVI | |
| K2515 | DISHWASHER | OFCI | WATER AND POWER REQUIRED, RE:MEP |
| K4665 | MICROWAVE | OFOI | POWER REQUIRED |
| L0100 | MICROSCOPE | OFOI | |
| L1350 | CENTRIFUGE | OFOI | |
| L3430 | CRYOSTAT | OFOI | POWER REQUIRED |
| M0506a | TELEVISION, 55" | OFCI | POWER AND DATA REQUIRED |
| M0506b | TELEVISION, 65" | OFCI | POWER AND DATA REQUIRED |
| M1801 | COMPUTER | OFOI | |
| M1803 | WORKSTATION, WALL MOUNTED | OFCI | PROVIDE BLOCKING FOR WALL BRACKET, POWER & DATA REQ'D RE: ELEC. |
| M1820 | CREDIT CARD | OFOI | |
| M1825 | PRINTER | OFOI | |
| M1840 | PRINTER/COPIER/FAX COMBINATION | OFOI | |
| M2055 | WIRE SHELVING, 48"Wx18"Dx74"H | OFOI | |
| M2100 | CART | OFOI | |
| M3070 | LINEN HAMPER | OFOI | |
| M3072 | INFECTIOUS WASTE BIN | OFOI | |
| M3073 | INFECTIOUS WASTE BIN, STEP-ON | OFOI | |
| M3110 | BLANKET WARMER | OFOI | |
| M3160 | SCOPE DRYING CABINET | OFOI | POWER REQUIRED |
| M4100 | SPHYG | OFOI | |
| M4255 | STAND, IV, ADJUSTABLE | OFOI | |
| M4266 | INFUSION VOLUMETRIC PUMP | OFOI | |
| M4655 | STRETCHER | OFOI | |
| M4665 | STRETCHER, RECOVERY, SURGICAL | OFOI | |
| M4705 | WHEELCHAIR | OFOI | |
| M5030 | STOOL | OFOI | |
| M7780 | COUNTERTOP SCANNER | OFOI | |
| M7845 | VITALS SIGN MONITOR | OFOI | |
| M8560a | SURGEON CONSOLE | VFVI | |
| M8560b | PATIENT CART, ROBOT | VFVI | |
| M8560c | VISION CART, ROBOT | VFVI | |
| M8606 | ENDOSCOPY CART | OFOI | |
| M8800 | ANESTHESIA CART | OFOI | |
| M8810 | MAYO STAND | OFOI | |
| M8900 | CARRIAGE, PAIL | OFOI | |
| M8905 | PAIL, UTILITY | OFOI | |
| M8940 | STOOL | OFOI | |
| M9110 | OPERATING TABLE | OFOI | |
| P6990a | SCRUB SINK, DOUBLE | CFCI | |
| P6990b | SCRUB SINK, SINGLE | CFCI | |
| R4000a | ICE MACHINE | OFCI | PLUMBING AND POWER REQUIRED, RE:MEP |
| R4000b | ICE MAKER, 90LB STORAGE | OFOI | PLUMBING AND POWER REQUIRED, RE:MEP |
| R4400 | COUNTERTOP ICE/WATER MACHINE | OFCI | PLUMBING AND POWER REQUIRED, RE:MEP |
| R6200 | UC REF. MED GRADE | OFCI | POWER REQUIRED |
| R7250 | REF/FR, 20 CU FT | OFOI | POWER REQUIRED |
| S0125 | MED. STERILIZER | VFCI | |
| S0125b | MED. STERILIZER (FUTURE) | VFCI | |
| S0237 | SMALL. STERILIZER | VFCI | |
| S0295 | LOADING CART | OFOI | |
| S0960 | DISINFECTOR | VFCI | |
| S0960f | DISINFECTOR | VFCI | |
| S1900 | PASS THRU WINDOW | VFCI | |
| S2635 | ULTRASONIC | VFVI | |
| S2635f | SONIC CLEANER (FUTURE) | | |
| S2640 | MEDIVATOR | OFCI | POWER, WATER, DRAIN, COMPRESSED AIR |
| S5505 | STERILIZER | OFOI | PLUMBING AND POWER REQUIRED, RE:MEP |
| S5505f | STERILIZER | OFOI | PLUMBING AND POWER REQUIRED, RE:MEP |
| S9755 | NEPTUNE | OFOI | |
| S9756 | NEPTUNE ROVER | OFOI | |
| TB018 | BACKTABLE | OFOI | |
| U1001 | LOGO | CFCI | |
| U1007 | SCOPE BUDDY | OFOI | POWER REQUIRED |
| U1008 | SURGICAL BOOM | VFVI | |
| U1009 | SURGICAL BOOM | VFVI | |
| U1011 | MARKER BOARD PANEL | CFCI | |
| U1012 | SHREDDER | OFCI | |
| U1024 | MOBILE ADA PHONE | OFOI | |
| U1026 | ENDOSCOPY BOOM | VFVI | |
| U1027 | SURGICAL LIGHT BOOM, STERIS | VFVI | |
| U1028 | LIGHT ISOLATION PANEL | VFVI | |
| U1030 | VERTICAL POWER CONTROL PANEL | VFVI | |
| U1031 | HARMONY EQUIP BOOM | VFVI | CO2 Controller on Boom |
| U1032 | WRAPPING STATION RODS | OFCI | |
| U1033 | ULTRALOAD FREEZER | OFOI | |
| U1034 | CACTUS SINK | OFOI | |
| U1035 | NURSE CALL DOME LIGHT | OFCI | |
| U1036 | SCOPE FILTER MOUNT | OFCI | |


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Revision

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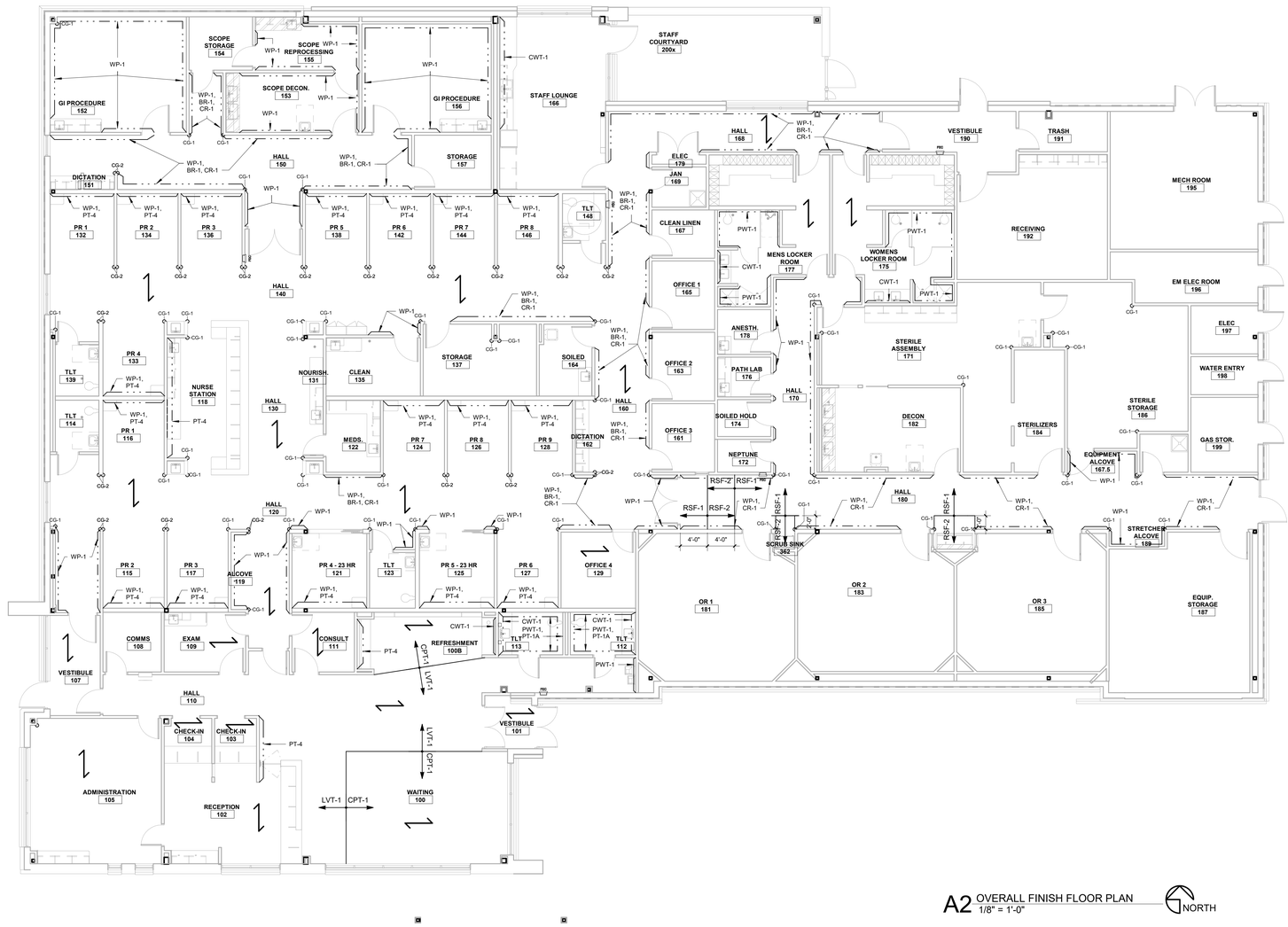


A2 OVERALL FINISH FLOOR PLAN
1/8" = 1'-0"

NORTH

| FINISH FLOOR PLAN LEGEND | |
|---|---|
| | WALL TREATMENT |
| | FLOOR TRANSITION |
| | CORNER GUARD |
| | FLOOR FINISH DIRECTION |

1. FOR ALL FLOORING TRANSITIONS, REFER TO TYPICAL FLOORING TRANSITION DETAILS ON TI-A7.5, UNLESS OTHERWISE NOTED ON THIS PLAN

2. THIS FINISH PLAN IS TO BE USED FOR ADDITIONAL LOCATION CLARIFICATION OF FINISHES NOTED IN FINISH SCHEDULE

STATE OF MISSOURI
SAMUEL K. BECKMAN
NUMBER A-2011012130
ARCHITECT
2/8/2023

Samuel K. Beckman - Architect
License - Missouri #A-2011012130

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Licensee's Certificate of Authority Number:

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**Branch Pattern**
1508 Grand Boulevard
Kansas City, MO 64108
913.951.8311

# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

TI-A7.1

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OVERALL FLOOR FINISH PLANS

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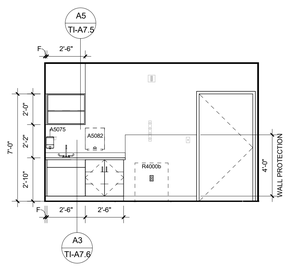
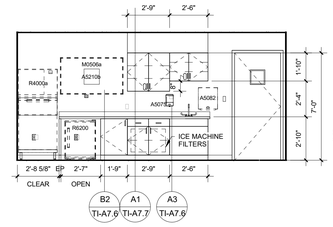


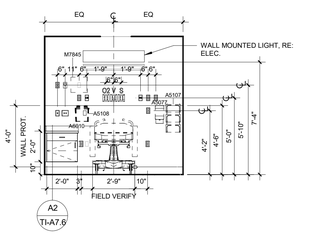

## E6 135 - CLEAN ROOM, SOUTH
1/4" = 1'-0"

| 135 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF- 1 |
| SINKS | IS- 3 |



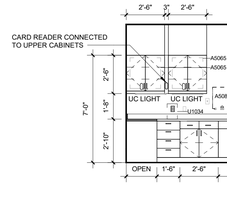

## E5 132 - NOURISHMENT, EAST
1/4" = 1'-0"

| 131 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF- 1 |
| SINKS | IS-3 |



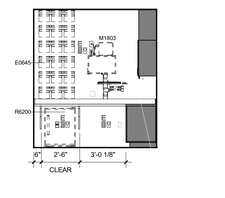

## E4 124 - PR BAY, HEADWALL
1/4" = 1'-0"

| 134 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | - |




## E3 122 - MEDS EAST
1/4" = 1'-0"

| 122 | |
|---|---|
| BASE CABINETS | PLAM-1 |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |

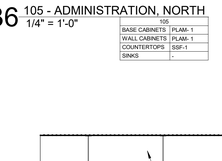



## E2 122 - MEDS NORTH
1/4" = 1'-0"

| 122 | |
|---|---|
| BASE CABINETS | PLAM-1 |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |

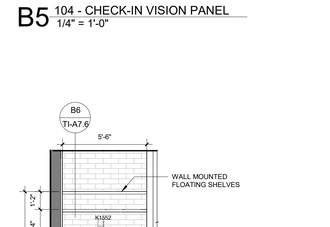
### GENERAL CASEWORK NOTES

1. GENERAL CASEWORK NOTES APPLY TO ALL INTERIOR ELEVATIONS.
2. PROVIDE 3 MM PVC EDGE BANDING ON COUNTERTOP EDGE AND (.018 MIN.) VINYL EDGING ON DRAWER, AND DOOR EDGES UNLESS NOTED OTHERWISE. EDGE BANDING TO MATCH ADJACENT P. LAM. SURFACE.
3. ALL EXPOSED FACES AND SHELVES TO BE WRAPPED WITH P. LAM. UNLESS NOTED OTHERWISE.
4. ALL INTERIOR SURFACES TO BE WHITE MELAMINE U.N.O.
5. PROVIDE WOOD BLOCKING OR 12" HIGH X 16 GA. CONTINUOUS SHEET METAL BRIDGING IN WALL AS REQUIRED FOR ADEQUATE SUPPORT OF ALL CASEWORK.
6. WALL BASE TO BE INSTALLED ON ALL CASEWORK UNLESS NOTED OTHERWISE. REFER TO FINISH SCHEDULE FOR TYPE.
7. ALL CASEWORK PULL HANDLES TO BE HAFELE 103.84.004 BRUSHED NICKEL (5") UNLESS NOTED OTHERWISE.
8. ALL CASEWORK HINGES TO BE BLUM #73T558 CONCEALED 125 DEGREE OPEN UNLESS NOTED OTHERWISE.
9. "F" INDICATES FILLER PANEL, 1-1/2" MIN.
10. PROVIDE FINISHED ENDS AT ALL EXPOSED ENDS OF CASEWORK.
11. ALL ELECTRICAL, MECHANICAL, AND PLUMBING ITEMS SHOWN IN ELEVATION ARE FOR REFERENCE AND LOCATION ONLY. REFER TO MEP DRAWINGS FOR SIZES, TYPES AND QUANTITIES.
12. ALL SOFFITS ABOVE CASEWORK TO BE P. LAM. UNLESS NOTES OTHERWISE.
13. PROVIDE METAL DRIP TRAY WHERE UNDER CABINET WATER FILTERS OR PLUMBING CONNECTIONS OCCUR.



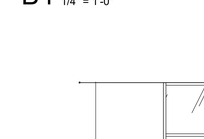

## D6 121 - 23 HR BAY EAST
1/4" = 1'-0"

| 121 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | - |



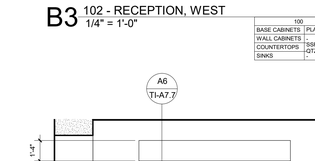

## D5 121 - 23 HR ROOM - HEADWALL
1/4" = 1'-0"

| 121 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | - |



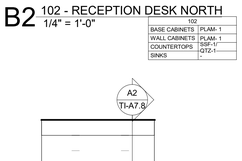

## D4 120 - NURSE STATION - HANDWASH
1/4" = 1'-0"

| 120 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |



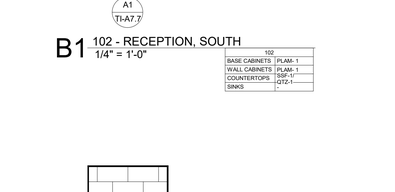

## D3 118 - NURSE, SOUTH
1/4" = 1'-0"

| 140 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |



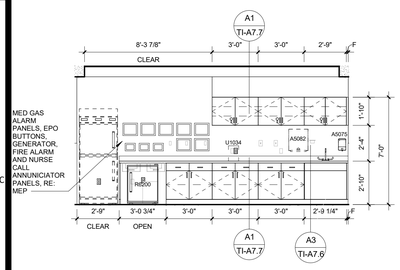

## D2 118 - NURSE STATION PRINTER
1/4" = 1'-0"

| 118 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |



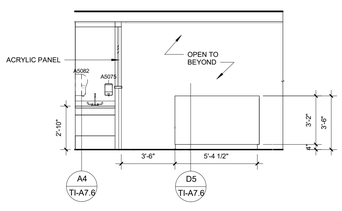

## D1 118 - NURSE STATION, WEST
1/4" = 1'-0"

| 130 | |
|---|---|
| BASE CABINETS | PLAM-1 |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |



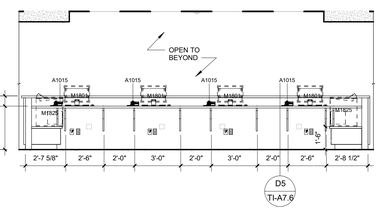

## C6 118 - NURSE STATION, WEST
1/4" = 1'-0"

| 118 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |



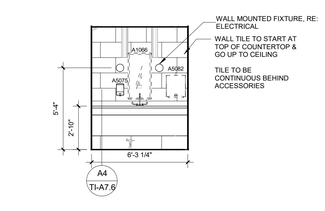

## C5 118 - NURSE STATION, NORTH
1/4" = 1'-0"

| 120 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |



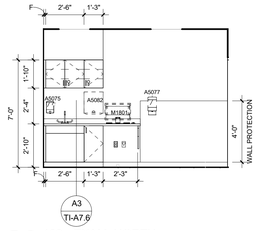

## C4 118 - NURSE STATION, EAST
1/4" = 1'-0"

| 118 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |



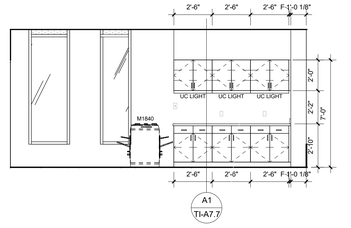

## C3 113 - TOILET, WEST
1/4" = 1'-0"

| 113 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | IS- 1 |



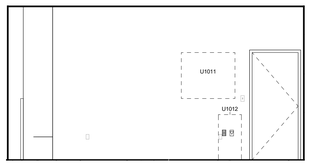

## C2 109 - EXAM, NORTH
1/4" = 1'-0"

| 109 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |



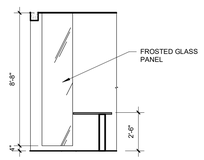

## C1 105 - ADMINISTRATION, SOUTH
1/4" = 1'-0"

| 105 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1 |
| SINKS | - |

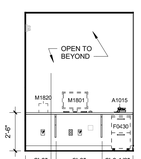



## B6 105 - ADMINISTRATION, NORTH
1/4" = 1'-0"

| 105 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1 |
| SINKS | - |

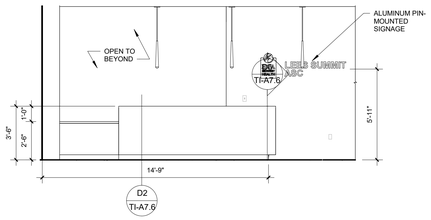



## B5 104 - CHECK-IN VISION PANEL
1/4" = 1'-0"



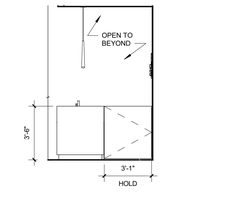

## B4 104 - CHECK-IN, NORTH
1/4" = 1'-0"

| 104 | |
|---|---|
| BASE CABINETS | PLAM-1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | - |



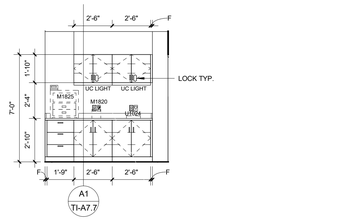

## B3 102 - RECEPTION, WEST
1/4" = 1'-0"

| 100 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1" -QTZ-1- |
| SINKS | - |



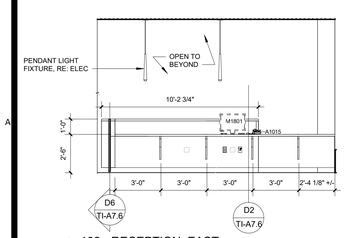

## B2 102 - RECEPTION DESK NORTH
1/4" = 1'-0"

| 102 | |
|---|---|
| BASE CABINETS | PLAM-1 |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 -QTZ-1- |
| SINKS | - |



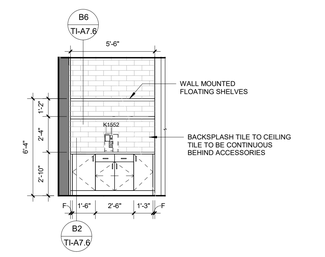

## B1 102 - RECEPTION, SOUTH
1/4" = 1'-0"

| 102 | |
|---|---|
| BASE CABINETS | PLAM-1 |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 |
| SINKS | -QTZ-1 |



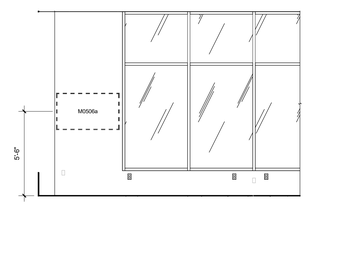

## A6 102 - RECEPTION, EAST
1/4" = 1'-0"

| 102 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1" -QTZ-1- |
| SINKS | - |



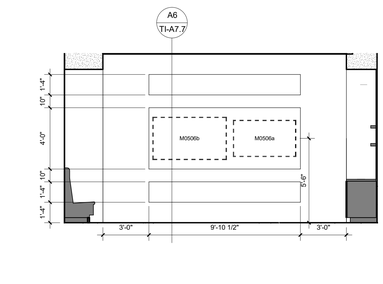

## A5 100B - REFRESHMENT, EAST
1/4" = 1'-0"

| 100B | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | - |



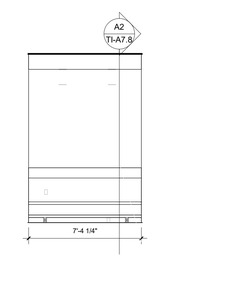

## A4 100 - WAITING, SOUTH
1/4" = 1'-0"

| 100 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 -QTZ-1- |
| SINKS | - |



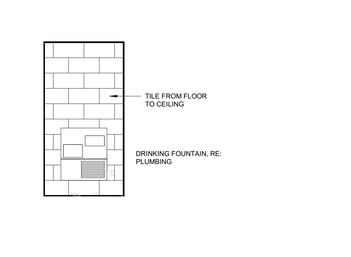

## A3 100 - WAITING, NORTH
1/4" = 1'-0"

| 100B | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | - |




## A2 100 - WAITING ROOM BENCH
1/4" = 1'-0"

| 100 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 -QTZ-1- |
| SINKS | - |




## A1 DRINKING FOUNTAIN EAST
1/4" = 1'-0"

| 100 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 -QTZ-1- |
| SINKS | - |


STATE OF MISSOURI
SAMUEL K. BECKMAN
NUMBER A-2011012130
ARCHITECT
2/8/2023

Samuel K. Beckman - Architect
License - Missouri #A-2011012130

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

# TI-A7.2

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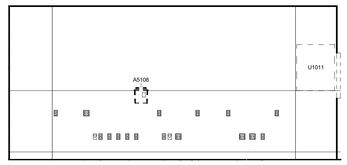
INTERIOR ELEVATIONS

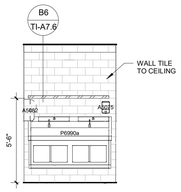
BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt

2/9/2023 10:07:33 AM



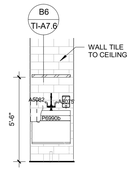

## E6 181 - OR, ROBOT, WEST
1/4" = 1'-0"

| 181 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |



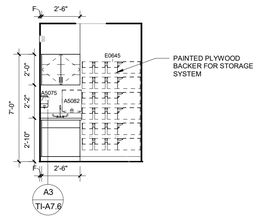

## E5 180 - DBL SCRUB SINK
1/4" = 1'-0"

| 180 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |




## E4 180 - SINGLE SCRUB SINK
1/4" = 1'-0"

| 180 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |

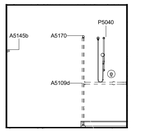



## E3 178 - ANESTH. WORKROOM, WEST
1/4" = 1'-0"

| 178 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF- 1 |
| SINKS | IS- 3 |

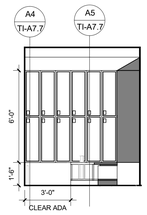
## E2 177 - MENS SHOWER, WEST
1/4" = 1'-0"

| 177 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-1 |



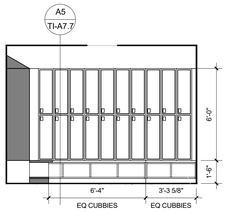

## E1 177 - MENS SHOWER, SOUTH
1/4" = 1'-0"

| 177 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-1 |



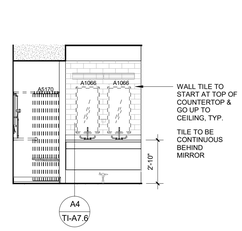

## D6 177 - MENS LOCKER, WEST
1/4" = 1'-0"

| 177 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-1 |



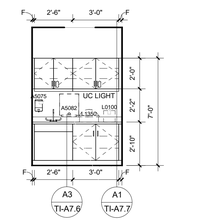

## D5 177 - MENS LOCKER, NORTH
1/4" = 1'-0"

| 177 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-1 |



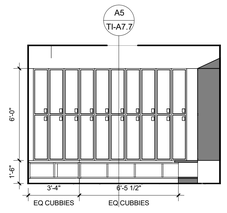

## D4 177 - MENS LOCKER SINK
1/4" = 1'-0"

| 177 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-1 |



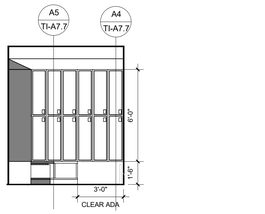

## D3 176 - PATH LAB, WEST
1/4" = 1'-0"

| 176 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF- 1 |
| SINKS | IS- 3 |



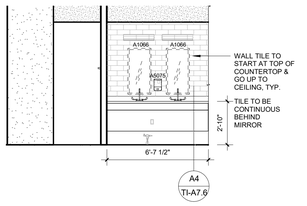

## D2 175 - WOMENS LOCKER, NORTH
1/4" = 1'-0"

| 175 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-1 |



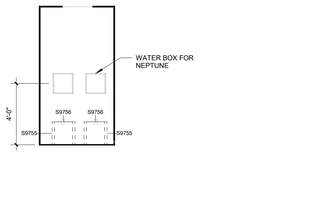

## D1 175 - WOMENS LOCKER, EAST
1/4" = 1'-0"

| 175 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-1 |



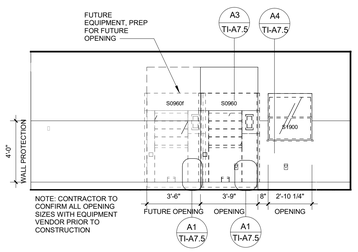

## C6 175 - WOMENS LOCKER ROOM SINK
1/4" = 1'-0"

| 175 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-1 |



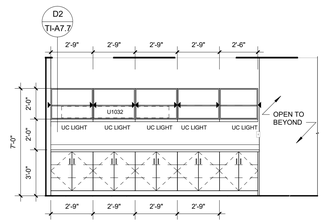

## C5 172 - NEPTUNE WEST
1/4" = 1'-0"

| 172 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |



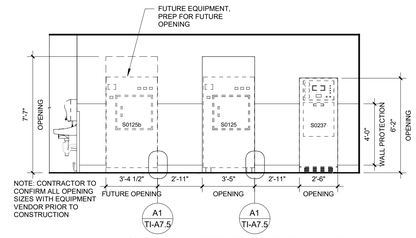

## C4 171 - STERILE ASSEMBLY, SOUTH
1/4" = 1'-0"

| 171 | |
|---|---|
| BASE CABINETS | SST |
| WALL CABINETS | SST |
| COUNTERTOPS | SST |
| SINKS | SST |



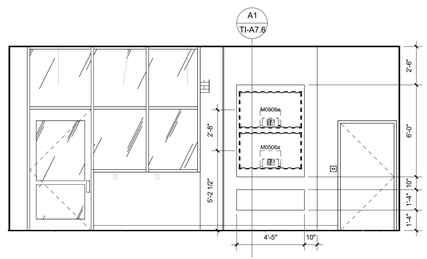

## C3 171 - STERILE ASSEMBLY, NORTH
1/4" = 1'-0"

| 171 | |
|---|---|
| BASE CABINETS | SST |
| WALL CABINETS | SST |
| COUNTERTOPS | SST |
| SINKS | SST |



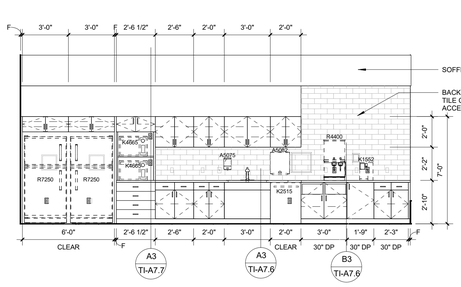

## C1 171 - STERILE ASSEMBLY, EAST
1/4" = 1'-0"

| 171 | |
|---|---|
| BASE CABINETS | SST |
| WALL CABINETS | SST |
| COUNTERTOPS | SST |
| SINKS | SST |



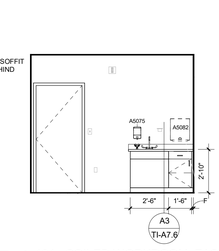

## B6 166 - STAFF LOUNGE, EAST
1/4" = 1'-0"

| 166 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS- 2 |



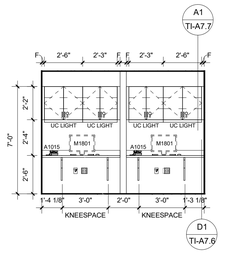

## B5 166 - STAFF LOUNGE, WEST
1/4" = 1'-0"

| 166 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS- 2 |



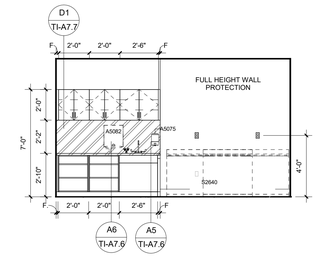

## B4 164 - SOILED WORKROOM, EAST
1/4" = 1'-0"

| 164 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | - |
| COUNTERTOPS | SSF- 1 |
| SINKS | IS- 3 |



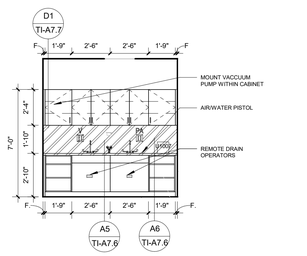

## B3 162 - DICTATION, WEST
1/4" = 1'-0"

| 162 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 |
| SINKS | - |



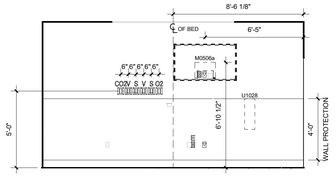

## B2 155 - SCOPE REPROCESSING, SOUTH
1/4" = 1'-0"

| 155 | |
|---|---|
| BASE CABINETS | SST |
| WALL CABINETS | SST |
| COUNTERTOPS | SST |
| SINKS | SST |



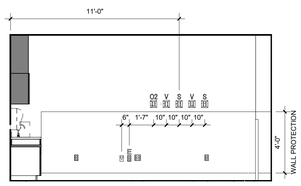

## B1 153 - SCOPE DECON, SOUTH
1/4" = 1'-0"

| 153 | |
|---|---|
| BASE CABINETS | SST |
| WALL CABINETS | SST |
| COUNTERTOPS | SST |
| SINKS | SST |



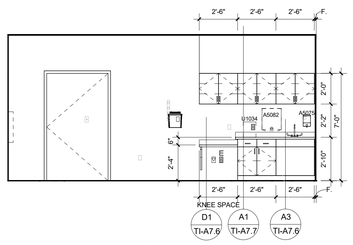

## A6 152 - GI PROCEDURE, EAST
1/4" = 1'-0"

| 152 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF- 1 |
| SINKS | IS- 3 |



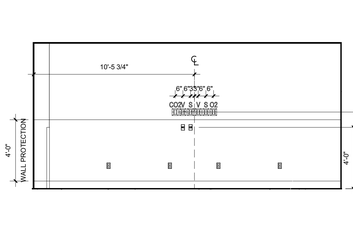

## A5 152 - GI PROCEDURE, WEST
1/4" = 1'-0"

| 152 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF- 1 |
| SINKS | IS- 3 |



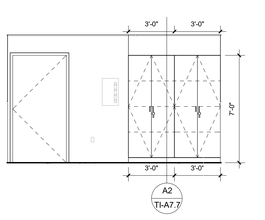

## A4 152 - GI PROCEDURE, SOUTH
1/4" = 1'-0"

| 152 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF- 1 |
| SINKS | IS- 3 |




## A3 152 - GI PROCEDURE, NORTH
1/4" = 1'-0"

| 152 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF- 1 |
| SINKS | IS- 3 |




## A2 151 - DICT., SOUTH
1/4" = 1'-0"

| 150 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |

## A1 140 - ALCOVE, SOUTH
1/4" = 1'-0"

| 140 | |
|---|---|
| BASE CABINETS | PLAM- 1 |
| WALL CABINETS | PLAM-1 |
| COUNTERTOPS | SSF-1 |
| SINKS | IS-3 |

BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

# TI-A7.3

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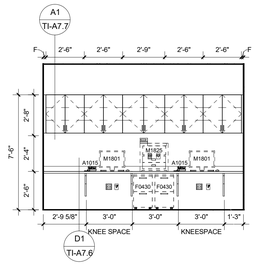
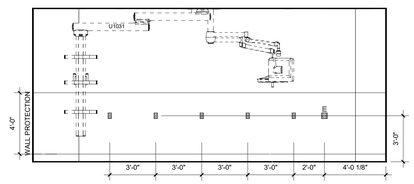
INTERIOR ELEVATIONS

2/9/2023 10:07:37 AM



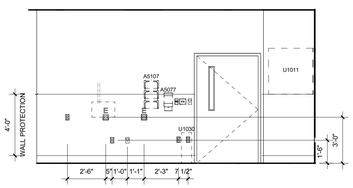

B1 192 - RECEIVING WORK STATION
1/4" = 1'-0"

| 192 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | PLAM- 1 |
| COUNTERTOPS | SSF-1 |
| SINKS | - |



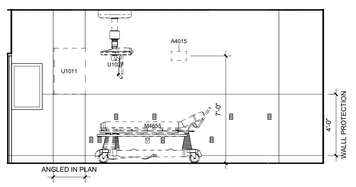

A6 183 - OR, SOUTH
1/4" = 1'-0"

| 183 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |



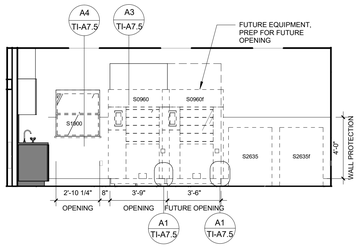

A5 183 - OR, NORTH
1/4" = 1'-0"

| 183 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |



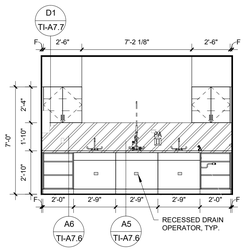

A4 183 - OR, EAST
1/4" = 1'-0"

| 183 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |



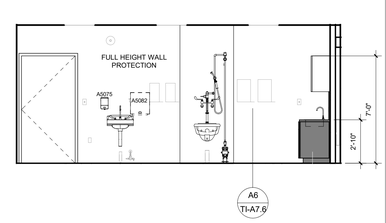

A1 182 - SPD DECON, NORTH
1/4" = 1'-0"

| 182 | |
|---|---|
| BASE CABINETS | SST |
| WALL CABINETS | SST |
| COUNTERTOPS | SST |
| SINKS | SST |



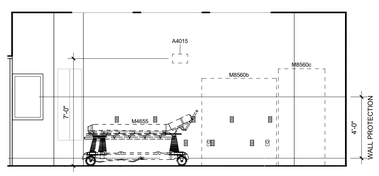

A3 182 - SPD DECON, WEST
1/4" = 1'-0"

| 182 | |
|---|---|
| BASE CABINETS | SST |
| WALL CABINETS | SST |
| COUNTERTOPS | SST |
| SINKS | SST |



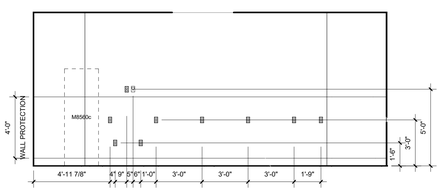

A2 182 - SPD DECON, SOUTH
1/4" = 1'-0"

| 182 | |
|---|---|
| BASE CABINETS | SST |
| WALL CABINETS | SST |
| COUNTERTOPS | SST |
| SINKS | SST |



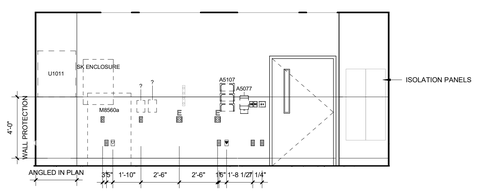

3 181 - OR, ROBOT, EAST
1/4" = 1'-0"

| 181 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |



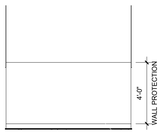

1 181 - OR, ROBOT, SOUTH
1/4" = 1'-0"

| 181 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |



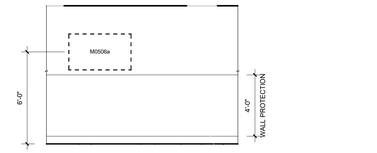

2 181 - OR, ROBOT, NORTH
1/4" = 1'-0"

| 181 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |




5 189 - STRETCHER ALCOVE, SOUTH
1/4" = 1'-0"

| 180 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |




4 180 - HALL, NORTH
1/4" = 1'-0"

| 180 | |
|---|---|
| BASE CABINETS | - |
| WALL CABINETS | - |
| COUNTERTOPS | - |
| SINKS | - |


STATE OF MISSOURI
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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

TI-A7.4

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INTERIOR ELEVATIONS

BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt

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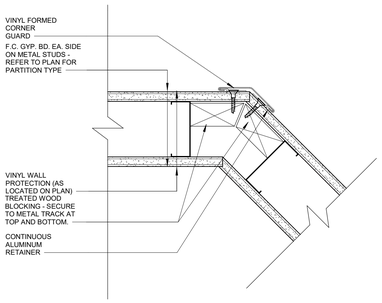
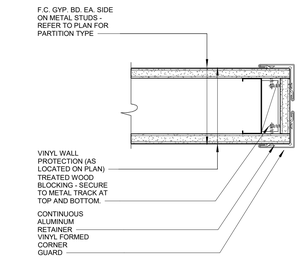
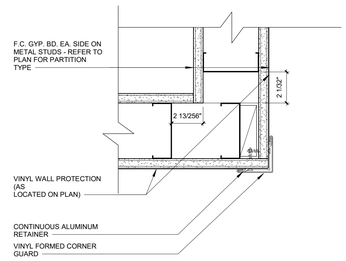


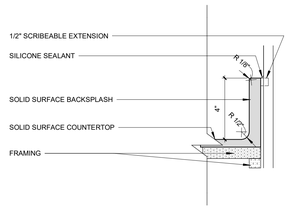

E6 TYPICAL ANGLED VINYL CORNER GUARD
3" = 1'-0"




E5 TYPICAL DOUBLE VINYL CORNER GUARD
3" = 1'-0"



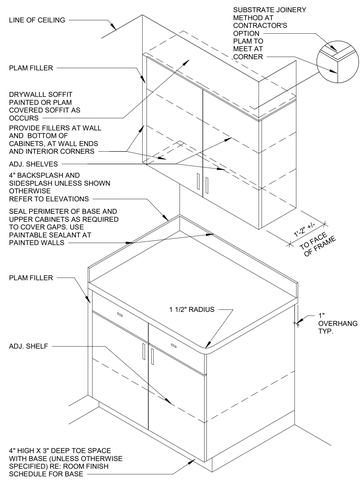

E4 TYPICAL SINGLE VINYL CORNER GUARD
3" = 1'-0"




E3 SECTION DETAIL AT SOLID SURFACE BACKSPLASH
3" = 1'-0"

# GENERAL CASEWORK NOTES

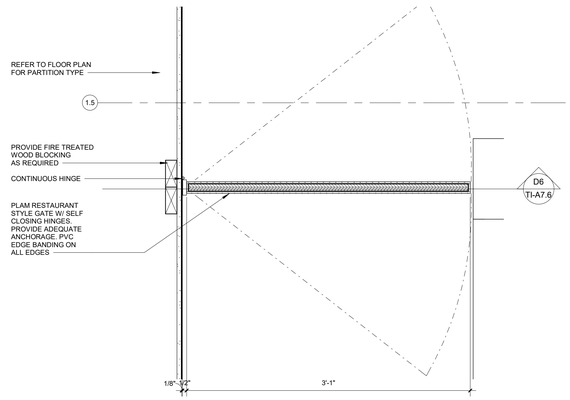
1. GENERAL CASEWORK NOTES APPLY TO ALL INTERIOR ELEVATIONS.
2. PROVIDE 3 MM PVC EDGE BANDING ON COUNTERTOP EDGE AND (.018 MIN.) VINYL EDGING ON DRAWER, AND DOOR EDGES UNLESS NOTED OTHERWISE. EDGE BANDING TO MATCH ADJACENT P. LAM. SURFACE.
3. ALL EXPOSED FACES AND SHELVES TO BE WRAPPED WITH P. LAM. UNLESS NOTED OTHERWISE.
4. ALL INTERIOR SURFACES TO BE WHITE MELAMINE U.N.O.
5. PROVIDE WOOD BLOCKING OR 12" HIGH X 16 GA. CONTINUOUS SHEET METAL BRIDGING IN WALL AS REQUIRED FOR ADEQUATE SUPPORT OF ALL CASEWORK..
6. WALL BASE TO BE INSTALLED ON ALL CASEWORK UNLESS NOTED OTHERWISE. REFER TO FINISH SCHEDULE FOR TYPE.
7. ALL CASEWORK PULL HANDLES TO BE HAFELE 103.84.004 BRUSHED NICKEL (5") UNLESS NOTED OTHERWISE.
8. ALL CASEWORK HINGES TO BE BLUM #737558 CONCEALED 125 DEGREE OPEN UNLESS NOTED OTHERWISE.
9. "F" INDICATES FILLER PANEL, 1-1/2" MIN.
10. PROVIDE FINISHED ENDS AT ALL EXPOSED ENDS OF CASEWORK.
11. ALL ELECTRICAL, MECHANICAL, AND PLUMBING ITEMS SHOWN IN ELEVATION ARE FOR REFERENCE AND LOCATION ONLY. REFER TO MEP DRAWINGS FOR SIZES, TYPES AND QUANTITIES.
12. ALL SOFFITS ABOVE CASEWORK TO BE P. LAM. UNLESS NOTES OTHERWISE.
13. PROVIDE METAL DRIP TRAY WHERE UNDER CABINET WATER FILTERS OR PLUMBING CONNECTIONS OCCUR.



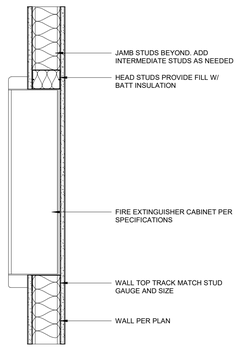

## TYP. CABINET NOTES:

1. PROVIDE PLAM FILLER WHERE CABINETS BUTT UP TO WALLS.
2. ALL COUNTERTOPS HAVE A 4" BACKSPLASH (MATERIAL TO MATCH COUNTERTOP) AND OUTSIDE CORNERS HAVE 1 1/2" RADIUS EXCEPT WHERE NOTED OTHERWISE.
3. CASEWORK MFR. TO SUPPLY (2) - 2" [ GROMMETS PER KNEESPACE. GROMMETS TO BE INSTALLED IN FIELD AS DIRECTED BY OWNER. COLOR TO BE SELECTED BY ARCHITECT.
4. PLASTIC LAMINATE COUNTERTOP EDGES SHALL BE 3 MM PLASTIC. COLOR AS SELECTED BY ARCHITECT)

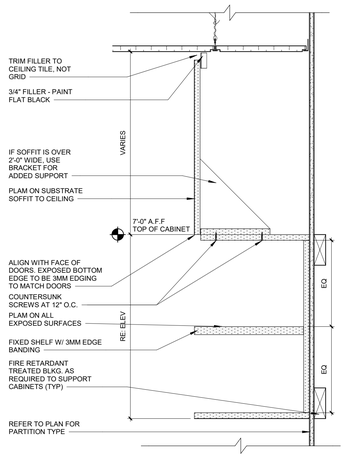
D1 CASEWORK ISOMETRIC
1 1/2" = 1'-0"



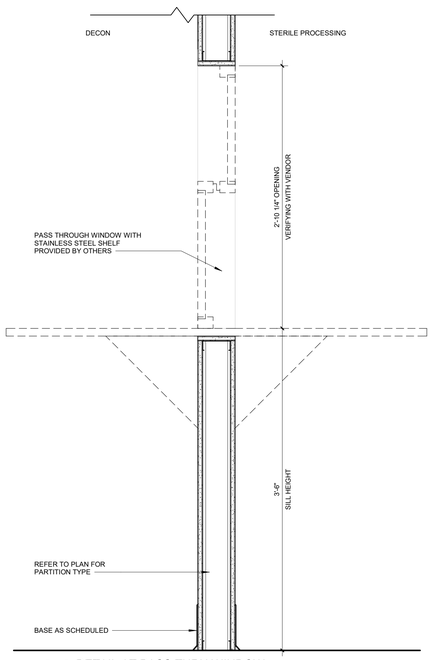

C6 RECPTION DESK DOOR DETAIL
1 1/2" = 1'-0"



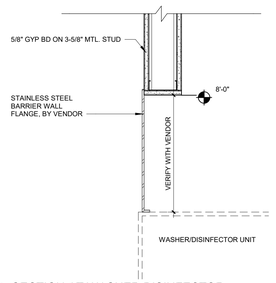

A6 DETAIL AT FIRE EXTINGUISHER
1 1/2" = 1'-0"



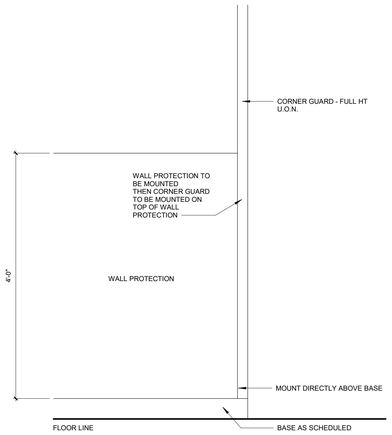

A5 DETAIL AT OPEN UPPER CABINET
1 1/2" = 1'-0"



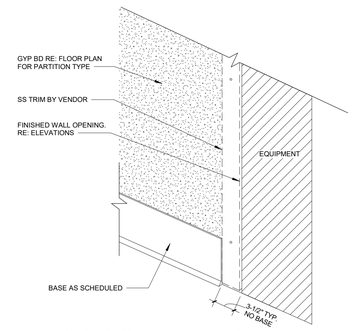

A4 DETAIL AT PASS THRU WINDOW
1 1/2" = 1'-0"




A3 SECTION AT WASHER DISINFECTOR
1 1/2" = 1'-0"




A2 TYP. ELEV. OF WALL PROTECTION/CORNER GUARD
1" = 1'-0"




A1 BASE COPING AT WALL OPENING
1 1/2" = 1'-0"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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

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| Checked By | Checker |

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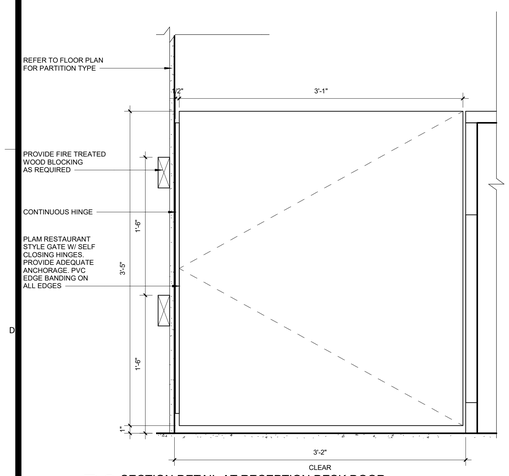
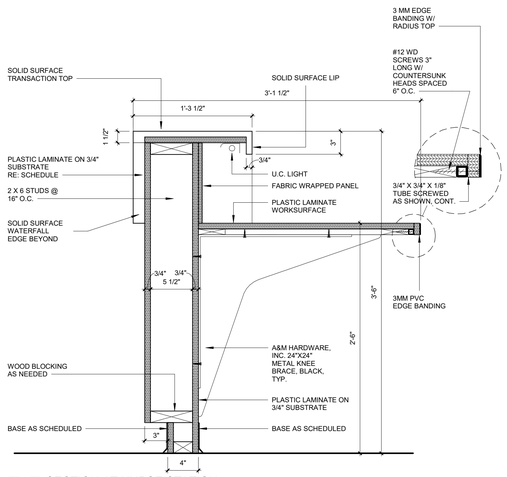
INTERIOR DETAILS

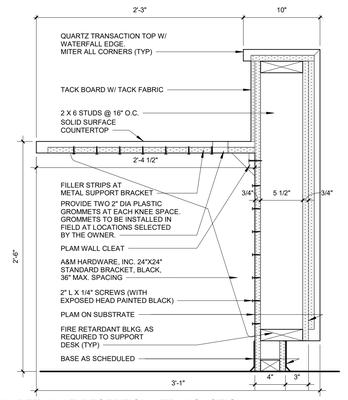
BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt



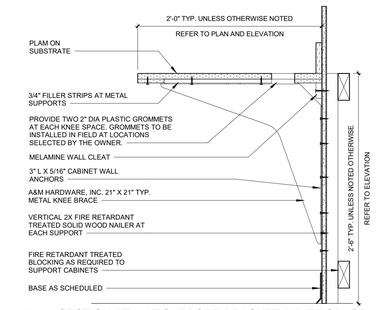

D6 SECTION DETAIL AT RECEPTION DESK DOOR
1 1/2" = 1'-0"



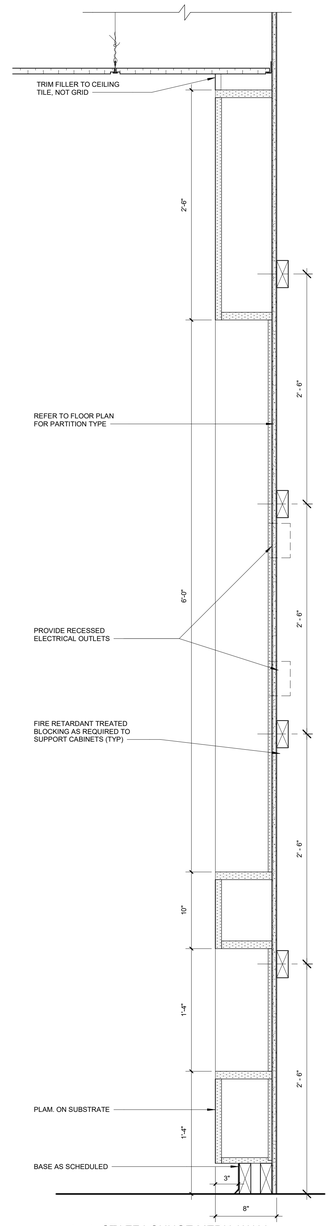

D5 SECTION AT NURSE STATION
1 1/2" = 1'-0"



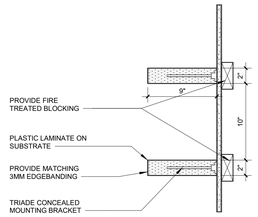

D2 DETAIL AT RECEPTION - TRANSACTION
1 1/2" = 1'-0"



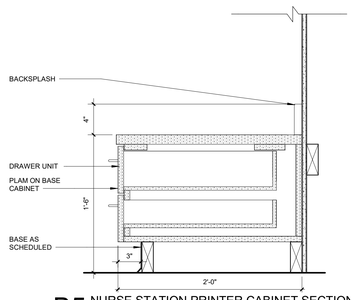

D1 SECTION DTL. AT SUPPORT BRACKET / KNEE SPACE
1 1/2" = 1'-0"



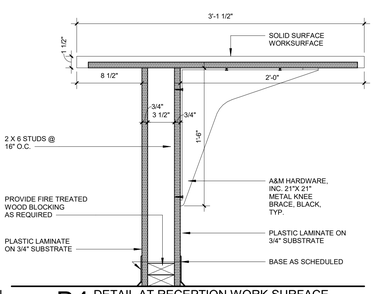

A1 STAFF LOUNGE MEDIA WALL
1 1/2" = 1'-0"



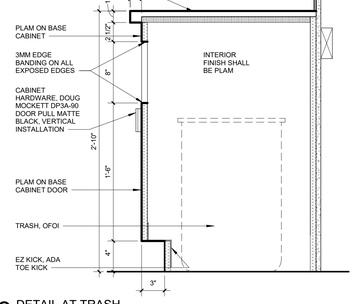

B6 DETAIL AT WALL MOUNTED FLOATING SHELVES
1 1/2" = 1'-0"



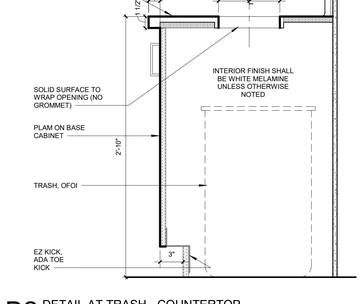

B5 NURSE STATION PRINTER CABINET SECTION
1 1/2" = 1'-0"



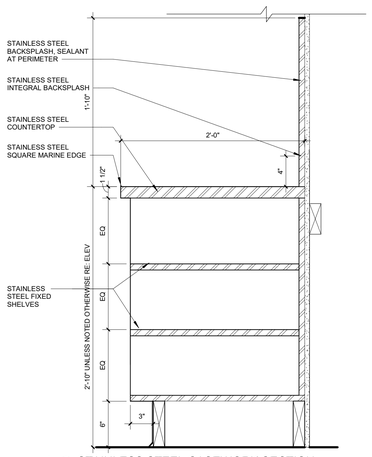

B4 DETAIL AT RECEPTION WORK SURFACE
1 1/2" = 1'-0"



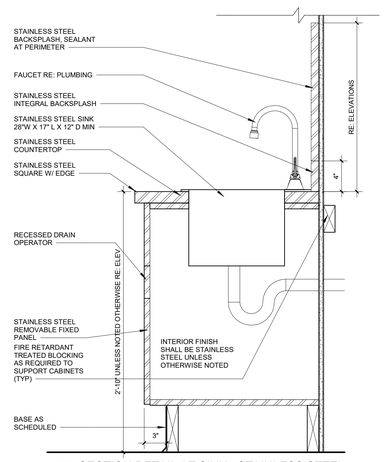

B3 DETAIL AT TRASH
1 1/2" = 1'-0"



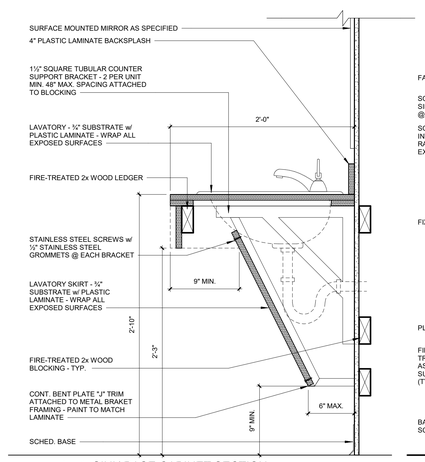

B2 DETAIL AT TRASH - COUNTERTOP
1 1/2" = 1'-0"



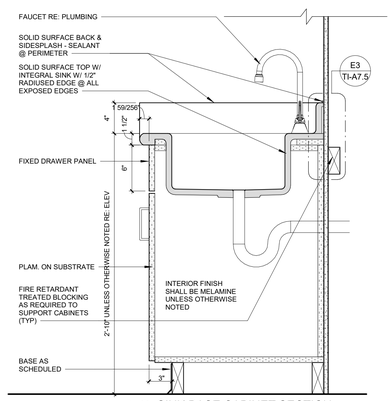

A6 STAINLESS STEEL CASEWORK SECTION
1 1/2" = 1'-0"



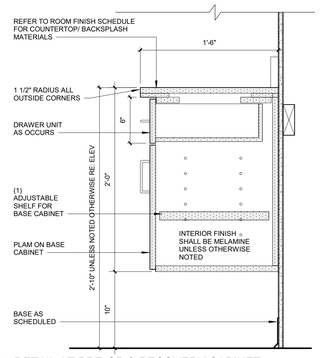

A5 SECTION DETAIL AT SINK - STAINLESS STEEL
1 1/2" = 1'-0"




A4 SINK BASE CABINET SECTION
1 1/2" = 1'-0"




A3 SINK BASE CABINET SECTION
1 1/2" = 1'-0"




A2 DETAIL AT PRE-OP & RECOVERY CABINET
1 1/2" = 1'-0"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Revision

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TI-A7.6

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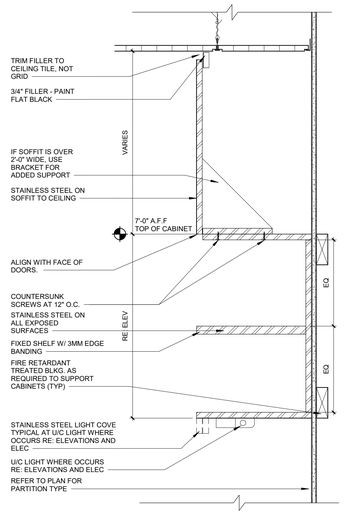
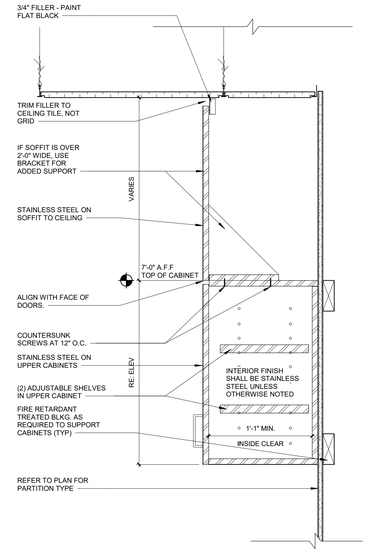
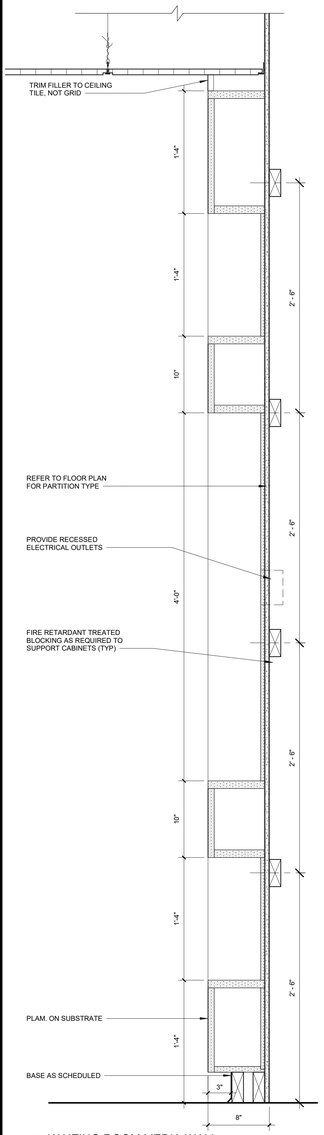
INTERIOR DETAILS



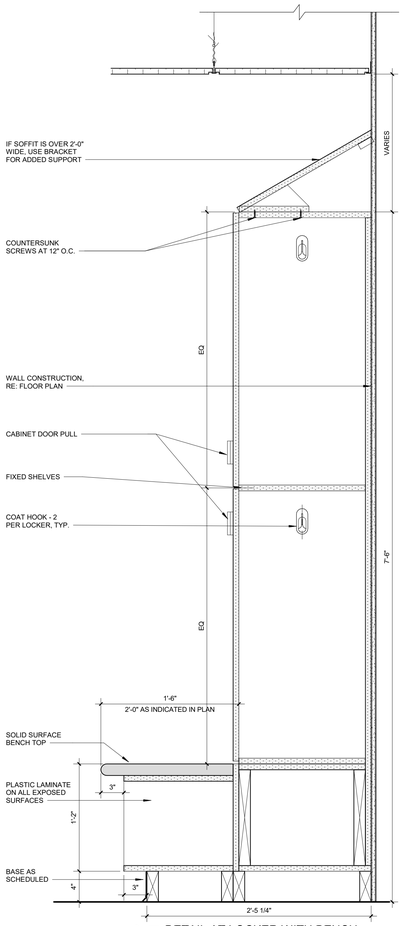

D2 DETAIL AT STAINLESS STEEL OPEN UPPER CABINET
1 1/2" = 1'-0"



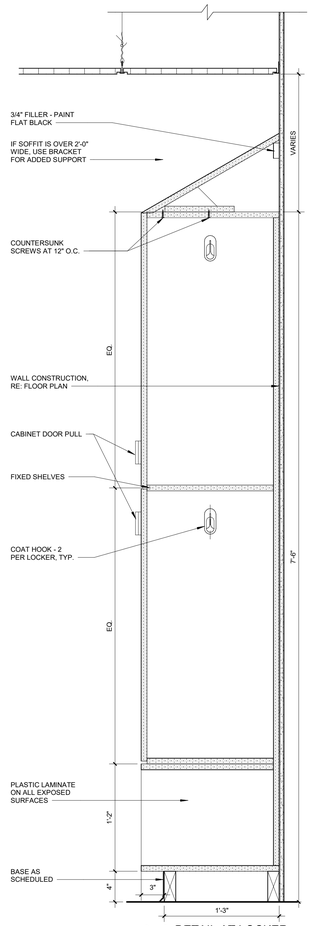

D1 DETAIL AT STAINLESS STEEL UPPER CASEWORK
1 1/2" = 1'-0"



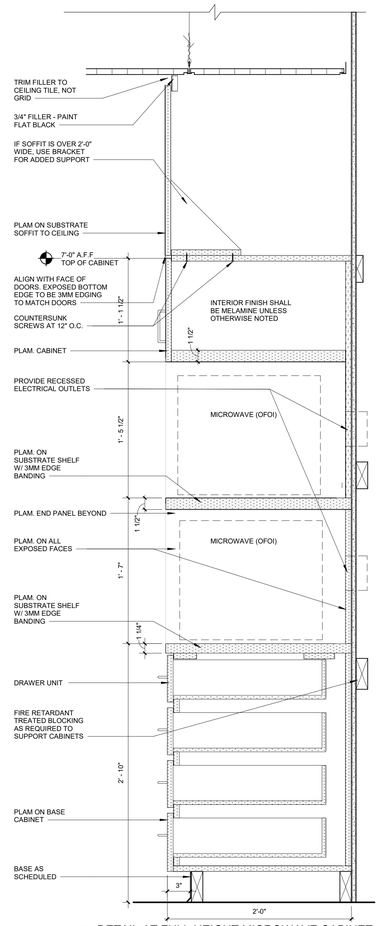

A6 WAITING ROOM MEDIA WALL
1 1/2" = 1'-0"



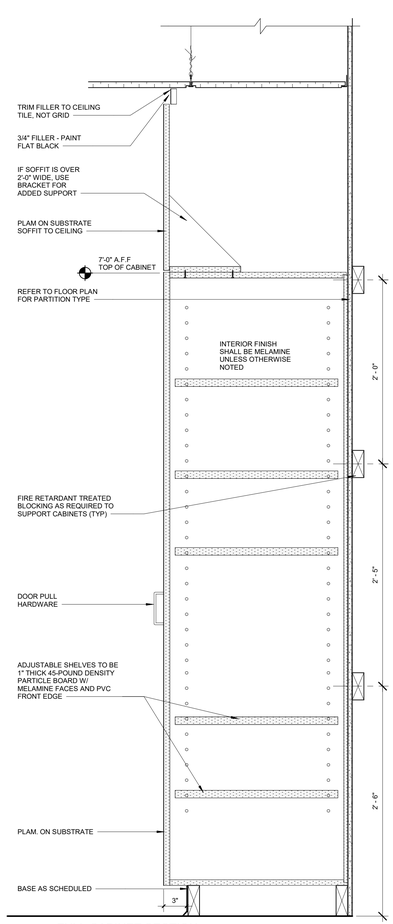

A5 DETAIL AT LOCKER WITH BENCH
1 1/2" = 1'-0"



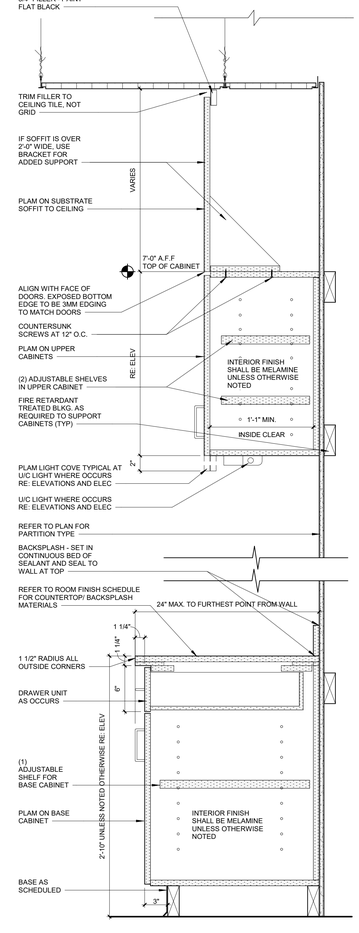

A4 DETAIL AT LOCKER
1 1/2" = 1'-0"




A3 DETAIL AT FULL HEIGHT MICROWAVE CABINET
1 1/2" = 1'-0"




A2 FULL CABINET SECTION
1 1/2" = 1'-0"




A1 CASEWORK SECTION
1 1/2" = 1'-0"

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 02/08/23 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

**TI-A7.7**

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INTERIOR DETAILS

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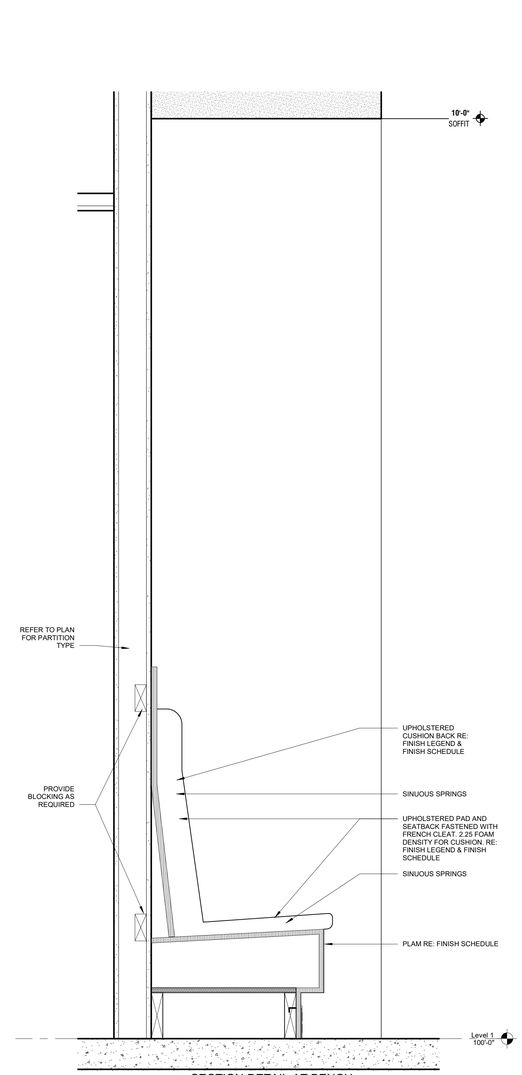
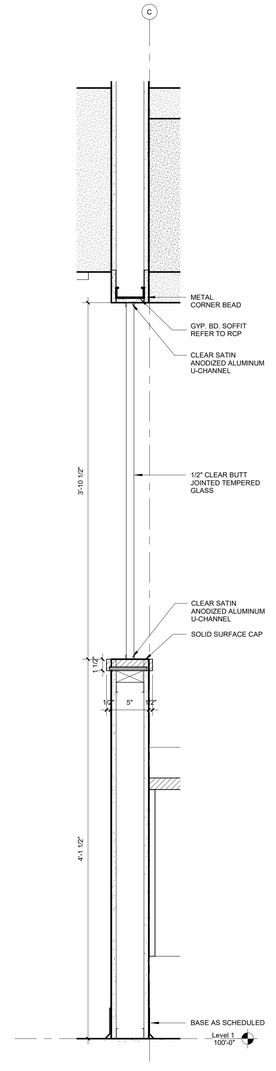



A2 SECTION DETAIL AT BENCH
1 1/2" = 1'-0"




A1 SECTION DETAIL AT ACRYLIC PANEL
1 1/2" = 1'-0"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TI-A7.8

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INTERIOR DETAILS

BIM 360://3-22030 HCA LSMC ASC/3-22030 HCA LSMC_Arch_R21.rvt

BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

# MECHANICAL LEGEND

NOTE: THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS

## PIPING

### HYDRONIC

- HWS — HEATING HOT WATER SUPPLY PIPING
- HWR — HEATING HOT WATER RETURN PIPING
- CWS — CHILLED WATER SUPPLY PIPING
- CWR — CHILLED WATER RETURN PIPING
- HCS — HOT/CHILLED WATER SUPPLY PIPING
- HCR — HOT/CHILLED WATER RETURN PIPING
- CS — CONDENSER WATER SUPPLY PIPING
- CR — CONDENSER WATER RETURN PIPING
- HPWS — HEAT PUMP WATER SUPPLY PIPING
- HPWR — HEAT PUMP WATER RETURN PIPING
- CD — CONDENSATE DRAIN PIPING
- RL — REFRIGERANT LIQUID PIPING
- RG — REFRIGERANT HOT GAS PIPING
- RS — REFRIGERANT SUCTION PIPING

### STEAM

- HPS — HIGH PRESSURE STEAM PIPING
- HPC — HIGH PRESSURE CONDENSATE PIPING
- MPS — MEDIUM PRESSURE STEAM PIPING
- MPC — MEDIUM PRESSURE CONDENSATE PIPING
- LPS — LOW PRESSURE STEAM PIPING
- LPC — LOW PRESSURE CONDENSATE PIPING
- PCR — PUMPED CONDENSATE RETURN

### MISCELLANEOUS

- SMS — SNOW MELT WATER SUPPLY PIPING
- SMR — SNOW MELT WATER RETURN PIPING
- FOS — FUEL OIL SUPPLY PIPING
- FOR — FUEL OIL RETURN PIPING
- FOV — FUEL OIL VENT PIPING
- LPG — LIQUEFIED PETROLEUM GAS PIPING
- G — NATURAL GAS PIPING

## DIRECT DIGITAL CONTROLS

- T — TEMPERATURE SENSOR WITH THERMOWELL
- T — DUCT MOUNTED TEMPERATURE SENSOR
- LLT — LOW LIMIT TEMPERATURE SENSOR
- DPS — DIFFERENTIAL PRESSURE SENSOR
- DPT — DIFFERENTIAL PRESSURE TRANSMITTER
- HI/LO DPT — HI/LO DIFFERENTIAL PRESSURE TRANSMITTER
- AFS — AIR FLOW STATION
- C/C — CHILLED WATER COOLING COIL
- H/C — HOT WATER HEATING COIL
- DX/C — DX COOLING COIL

## VALVES / SYMBOLS

- DIRECTION OF FLOW IN PIPING
- TWO WAY CONTROL VALVE
- THREE WAY CONTROL VALVE
- BUTTERFLY VALVE
- GLOBE VALVE
- BALANCING VALVE
- SOLENOID VALVE
- CONTROL VALVE
- THERMOSTATIC MIXING VALVE
- TRIPLE DUTY VALVE WITH PRESSURE PORTS
- CHECK VALVE
- STRAINER
- STRAINER WITH BLOWOFF
- RELIEF/SAFETY VALVE
- PRESSURE REDUCING VALVE
- VACUUM BREAKER
- VENTURI
- GAS COCK
- SIGHT GLASS
- BALL VALVE
- HI — 3/4" BALL DRAIN VALVE WITH 3/4" HOSE CONNECTION AND CAP ON CHAIN
- THERMOSTATIC TRAP
- F&T TRAP
- GATE VALVE
- PRESSURE GAUGE
- PRESSURE GAUGE WITH PIGTAIL
- THERMOMETER, THERMOMETER W/ TEST WELL
- PRESSURE/TEMPERATURE PORT
- UNION
- FLANGE CONNECTION
- PIPING ELBOW UP
- PIPING ELBOW DOWN
- PIPING TEE UP
- PIPING TEE DOWN
- PIPING CAP
- GAUGE COCK
- WATER HAMMER ARRESTOR
- PIPING REDUCER
- PRESSURE REGULATING VALVE
- FLEXIBLE CONNECTOR
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- PIPE ANCHOR / ROOF PIPING SUPPORT
- EXPANSION JOINT
- PIPE GUIDE
- S — PRESSURE SWITCH
- T — TEMPERATURE SENSOR
- DP — DIFFERENTIAL PRESSURE SENSOR

## HVAC

NOTE: ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS.

- LINEAR SLOT DIFFUSER
- INSULATED FLEXIBLE DUCT (MAXIMUM 6'-0" LONG)
- BRANCH DUCT WITH 45° TAP AND MANUAL VOLUME DAMPER
- BRANCH DUCT WITH CONICAL FITTING AND MANUAL VOLUME DAMPER
- ELBOW WITH TURNING VANES
- SUPPLY OR OUTSIDE AIR DUCT UP
- SUPPLY OR OUTSIDE AIR DUCT DOWN
- RETURN OR TRANSFER AIR DUCT UP
- RETURN OR TRANSFER AIR DUCT DOWN
- EXHAUST AIR DUCT UP
- EXHAUST AIR DUCT DOWN
- SD-1 10"ø 250 — TYPE, NECK SIZE, CFM AT SUPPLY DIFFUSER OR REGISTER
- RG-1 10x10 250 — TYPE, THROAT SIZE, CFM AT RETURN GRILLE OR REGISTER
- ER-1 10x10 — TYPE, SIZE AT EXHAUST GRILLE OR REGISTER
- MANUAL VOLUME DAMPER
- SQUARE TO ROUND TRANSITION
- XX — SENSORS:
  T = TEMPERATURE; H = HUMIDISTAT
  T/H = COMBINATION TEMPERATURE/HUMIDISTAT
  T/C = COMBINATION TEMPERATURE/CARBON DIOXIDE
  $CO^2$ = CARBON DIOXIDE; CO = CARBON MONOXIDE
  DP = DIFFERENTIAL PRESSURE; $NO^x$ = NITROGEN OXIDE
- FD — FIRE DAMPER
- RD — RADIATION DAMPER
- FSD — FIRE/SMOKE DAMPER
- SD — SMOKE DAMPER
- M — MOTORIZED DAMPER
- ROUND/OVAL DUCT RISER
- 12x6 — RECTANGULAR DUCT (PLAN DIMENSION SHOWN FIRST)
- 12ø — ROUND DUCT
- 30/24 — FLAT OVAL DUCT (PLAN DIMENSION SHOWN FIRST)
- FLEXIBLE DUCT
- TRANSITION IN DUCT SIZE
- OPPOSED BLADE DAMPER
- PARALLEL BLADE DAMPER

## MISCELLANEOUS

- 1 / M1 — SECTION CUT: UPPER NUMBER INDICATED DRAWING NUMBER; LOWER NUMBER INDICATES SHEET NUMBER
- CONNECTION POINT OF NEW WORK TO EXISTING
- CONNECTION POINT OF DEMOLITION TO EXISTING
- 1 / M1 — DETAIL REFERENCE: UPPER NUMBER INDICATES DETAIL NUMBER; LOWER NUMBER INDICATES SHEET NUMBER
- # — RISER DESIGNATION
- X — NOTE REFERENCE SYMBOL
- EXISTING LINEWORK
- DEMOLITION LINEWORK
- NEW LINEWORK

## ABBREVIATIONS

| | |
|---|---|
| A/C | AIR CONDITIONING |
| AFF | ABOVE FINISHED FLOOR |
| AHU | AIR HANDLING UNIT |
| BOD | BOTTOM OF DUCT |
| BOP | BOTTOM OF PIPE |
| BOS | BOTTOM OF STRUCTURE |
| BTU | BRITISH THERMAL UNIT |
| CH | CHILLER |
| CFM | CUBIC FEET PER MINUTE |
| CRAC | COMPUTER ROOM AIR CONDITIONING UNIT |
| CRCU | COMPUTER ROOM CONDENSING UNIT |
| CT | COOLING TOWER |
| CU | CONDENSING UNIT |
| CUH | CABINET UNIT HEATER |
| (D) | DEMOLISHED |
| DB | DRY BULB |
| DDC | DIRECT DIGITAL CONTROL |
| DN | DOWN DX DIRECT EXPANSION |
| (E) | EXISTING TO REMAIN |
| EAT | ENTERING AIR TEMPERATURE |
| EDB | ENTERING DRY BULB |
| EF | EXHAUST FAN |
| ERV | ENERGY RECOVERY VENTILATOR |
| EWB | ENTERING WET BULB |
| EWT | ENTERING WATER TEMPERATURE |
| FCU | FAN COIL UNIT |
| FD | FIRE DAMPER |
| FSD | FIRE/SMOKE DAMPER |
| GPM | GALLONS PER MINUTE |
| HD | HEAD |
| HP | HORSEPOWER, HEAT PUMP |
| HOA | HAND OFF AUTOMATIC |
| HRV | HEAT RECOVERY VENTILATOR |
| HSTAT | HUMIDISTAT |
| HTG | HEATING |
| IN WC | INCHES OF WATER COLUMN |
| LAT | LEAVING AIR TEMPERATURE |
| LRA | LOCKED ROTOR AMPS |
| LWT | LEAVING WATER TEMPERATURE |
| MAU | MAKE UP AIR UNIT |
| MBH | 1000 BTU PER HOUR |
| MCA | MINIMUM CIRCUIT AMPACITY |
| MFR | MANUFACTURER |
| MMBH | 1,000,000 BTU PER HOUR |
| (N) | NEW |
| N/A | NOT APPLICABLE |
| NC | NOISE CRITERIA; NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| OA | OUTSIDE AIR |
| PH Ø | PHASE |
| PRV | PRESSURE REDUCING VALVE |
| (R) | RELOCATED EXISTING |
| RA | RETURN AIR |
| RH | RELATIVE HUMIDITY |
| RLA | RUNNING LOAD AMPS |
| RPM | REVOLUTIONS PER MINUTE |
| RTU | ROOF TOP UNIT |
| SA | SUPPLY AIR |
| SD | SMOKE DAMPER |
| SF | SQUARE FEET, SUPPLY FAN |
| SP | STATIC PRESSURE |
| SS | STAINLESS STEEL |
| ST | SOUND TRAP, STEAM TRAP |
| STM | STEAM |
| TA | TRANSFER AIR OPENING |
| TD | TRANSFER DUCT |
| TDH | TOTAL DYNAMIC HEAD |
| TSTAT | THERMOSTAT |
| TYP | TYPICAL |
| UH | UNIT HEATER |
| VAC | VACUUM |
| VAV | VARIABLE AIR VOLUME |
| W | WITH |
| W/O | WITHOUT |
| WB | WET BULB |
| WC | WATER COLUMN |
| WPD | WATER PRESSURE DROP |

## MTG. HEIGHTS U.N.O.

| | |
|---|---|
| THERMOSTATS (USER ADJ.) | 48" AFF |
| CONTROLS (CENTERLINE) | 48" AFF |

# MECHANICAL GENERAL NOTES

1. THE PLANS ARE, TO A GREAT EXTENT, DIAGRAMMATIC IN NATURE. DRAWING SCALES SHOULD BE VERIFIED FROM DIMENSIONS ON ARCH. PLANS. THE INFORMATION PRESENTED IS AS EXACT AS COULD BE SECURED. THE CONTRACTOR SHALL OBTAIN EXACT LOCATION, MEASUREMENTS LEVELS, ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT THE WORK TO THE ACTUAL CONDITIONS AT THE PROJECT SITE.
2. CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID TO COVER THE CONDITIONS AT THE SITE INFORMING THEMSELVES OF ALL DETAILS.
3. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS AND ORDINANCES, AND ALL AUTHORITIES HAVING JURISDICTION.
4. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL ENGINEERING REQUIREMENTS, THE OWNER'S DESIGN CRITERIA, UTILITY COMPANY REQUIREMENTS, APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE AND SAFETY, AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.
5. RECORD DRAWINGS - PREPARE AND SUBMIT TO THE OWNER RECORD DRAWINGS INDICATING THE EXACT LOCATION OF ALL EQUIPMENT INCLUDING THE EQUIPMENT'S "AS INSTALLED" SIZE(S). MANUFACTURER, MODEL NUMBERS, AND PERFORMANCE RATINGS.
6. SUPPORTS - EQUIPMENT, PIPING, DUCTWORK OR ANY OTHER ACCESSORY SHALL NOT BE SUPPORTED FROM OTHER PIPING, DUCTWORK, METAL ROOF DECK, LATERAL BRACING BRIDGING, OR CONDUIT. ITEMS SHALL ONLY BE SUPPORTED FROM BUILDING STRUCTURE.
7. COORDINATE EXACT LOCATION OF ALL DUCTWORK, AIR TERMINAL UNITS, PIPING, ETC., WITH STRUCTURAL, ARCHITECTURAL, ELECTRICAL, AND OTHER MECHANICAL SYSTEMS.
8. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL MECHANICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
9. ALL DUCTWORK, PIPING, AND TEMPERATURE CONTROL CONDUIT TO VIBRATING EQUIPMENT SHALL HAVE FLEXIBLE CONNECTORS.
10. COORDINATE ALL ROOF AND CHASE PENETRATIONS WITH STRUCTURAL DRAWINGS AND ROOF INSTALLER.
11. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
12. ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.
13. CONCRETE HOUSEKEEPING PADS TO SUIT MECHANICAL EQUIPMENT SHALL BE SIZED AND LOCATED BY THE MECHANICAL CONTRACTOR. MINIMUM CONCRETE PAD THICKNESS SHALL BE 4 INCHES. PAD SHALL EXTEND BEYOND THE EQUIPMENT A MINIMUM OF 4 INCHES ON EACH SIDE. CONCRETE HOUSEKEEPING PADS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE SIZE AND LOCATION OF CONCRETE HOUSEKEEPING PADS WITH GENERAL CONTRACTOR.
14. PROVIDE MINIMUM 36" ACCESS CLEARANCE TO ALL FAN POWERED BOX AND VAV BOX MAINTENANCE PANELS.
15. CONTRACTOR TO COORDINATE DUCTWORK WITH FIRE RATED WALLS AND FLOORS SHOWN ON ARCHITECTURAL DRAWINGS, MAINTAINING NECESSARY RATING OF WALLS. CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS TO SMOKE-FIRE DAMPERS.
16. ALL SA DUCT BRANCH TAKE-OFFS TO DIFFUSER SHALL BE ONE STANDARD DUCT SIZE LARGER THAN DIFFUSER NEXK UNLESS OTHERWISE NOTED.
17. ALL INLET DUCT SIZES OF VARIABLE AIR VOLUME OR FAN-POWERED BOX UNITS SHALL BE AS PER BOX SCHEDULE ON MECHANICAL SCHEDULE.
18. ALL DUCTWORK DIMENSIONS, AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS AND DUCT SIZE SHALL BE INCREASED TO COMPENSATE FOR DUCT LINING THICKNESS.
19. PROVIDE MIN. OF 5'-0" OF DUCT FROM ROOM TERMINAL UNITS TO FIRST DIFFUSER TAKE-OFFS.
20. CONTRACTOR SHALL COORDINATE LOCATION OF ALL DIFFUSERS AND GRILLES WITH STRUCTURAL, ELECTRICAL, AND ARCHITECTURAL REFLECTED CEILING PLANS.
21. PROVIDE SIZES AND NUMBER OF REFRIGERANT LINES ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
22. BEFORE INSTALLATION, EQUIPMENT CONTRACTOR SHALL VERIFY THAT COILS CAN BE REMOVED WITHOUT INTERFERENCE. CONTRACTOR SHALL PROVIDE ADEQUATE ACCESS AND COIL REMOVAL SPACE FOR ALL EQUIPMENT.
23. ACCESS PANELS ARE REQUIRED (MIN. 18"X18") FOR ACCESS TO EVERY VALVE, DAMPER, AIR TERMINAL UNIT, AND CONTROL SENSOR IF NOT OTHERWISE ACCESSIBLE.
24. ALL PIPING BRANCH TAKE-OFFS TO REHEAT COIL, CABINET HEATERS, AND UNIT HEATERS SHALL BE INSTALLED WITH A MINIMUM OF THREE (3) PIPE DIRECTION CHANGES.
25. ALL HWS/HWR TAKE-OFFS TO REHEAT COILS TO BE A MINIMUM OF 3/4" PIPE SIZE.

# HVAC PIPE INSULATION SCHEDULE

1. PROVIDE REFERENCED INSULATION ON BOTH PIPING AND FLEXIBLE TUBING.

| SERVICE | SIZE | LOCATION | INSULATION MATERIAL | INSULATION THICKNESS | NOTES |
|---|---|---|---|---|---|
| HEATING-HOT-WATER SUPPLY AND RETURN | NPS 1-1/4 AND SMALLER | INTERIOR ABOVE GROUND | MINERAL-FIBER, PREFORMED PIPE INSULATION, TYPE I | 1-1/2 INCH | |
| HEATING-HOT-WATER SUPPLY AND RETURN | NPS 1-1/2 AND LARGER | INTERIOR ABOVE GROUND | MINERAL-FIBER, PREFORMED PIPE INSULATION, TYPE I | 2 INCH | |
| CHILLED WATER | NPS 1-1/4 AND SMALLER | INTERIOR ABOVE GROUND | CELLULAR GLASS | CELLULAR GLASS: 1-1/2 INCH | |
| CHILLED WATER | NPS 1-1/2 AND LARGER | INTERIOR ABOVE GROUND | CELLULAR GLASS | CELLULAR GLASS: 1-1/2 INCH | |
| REFRIGERANT SUCTION AND HOT-GAS | ALL SIZES | INTERIOR ABOVE GROUND | FLEXIBLE ELASTOMERIC | 1 INCH | 1 |
| HOT SERVICE DRAINS AND VENTS | ALL SIZES | INTERIOR ABOVE GROUND | MINERAL-FIBER, PREFORMED PIPE INSULATION, TYPE I OR II | 1 INCH | |
| STEAM & STEAM CONDENSATE PIPING | LESS THAN NPS 3 | OUTDOOR | MINERAL-FIBER, PREFORMED PIPE INSULATION | 3 INCH | |

# MECHANICAL SHEET INDEX



| | |
|---|---|
| M1.1 | FIRST FLOOR HVAC PLAN - OVERALL |
| M5.3 | MECHANICAL SCHEDULES |
| M6.4 | ENLARGED MECHANICAL PLANS |
| M0.1 | MECHANICAL LEGEND & NOTES |
| M1.1A | FIRST FLOOR HVAC PLAN - AREA A |
| M1.1B | FIRST FLOOR HVAC PLAN - AREA B |
| M1.1C | FIRST FLOOR HVAC PLAN - AREA C |
| M1.2 | FIRST FLOOR HVAC ROOM PRESSURIZATION PLAN - OVERALL |
| M2.1A | FIRST FLOOR HYDRONIC PLAN - AREA A |
| M2.1B | FIRST FLOOR HYDRONIC PLAN - AREA B |
| M2.1C | FIRST FLOOR HYDRONIC PLAN - AREA C |
| M3.1 | ROOF MECHANICAL PLAN |
| M4.1 | MECHANICAL DETAILS |
| M4.2 | MECHANICAL DETAILS |
| M5.1 | MECHANICAL SCHEDULES |
| M5.2 | MECHANICAL SCHEDULES |
| M6.1 | MECHANICAL SCHEMATICS |
| M6.2 | MECHANICAL SCHEMATICS |
| M6.3 | ENLARGED MECHANICAL PLANS |
| M7.1 | MECHANICAL CONTROLS |
| M7.2 | MECHANICAL CONTROLS |
| M7.3 | MECHANICAL CONTROLS |




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| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | HW |
| Checked By | AB, RC, MG |

Revision

| Number | Date | Description |
|---|---|---|

M0.1

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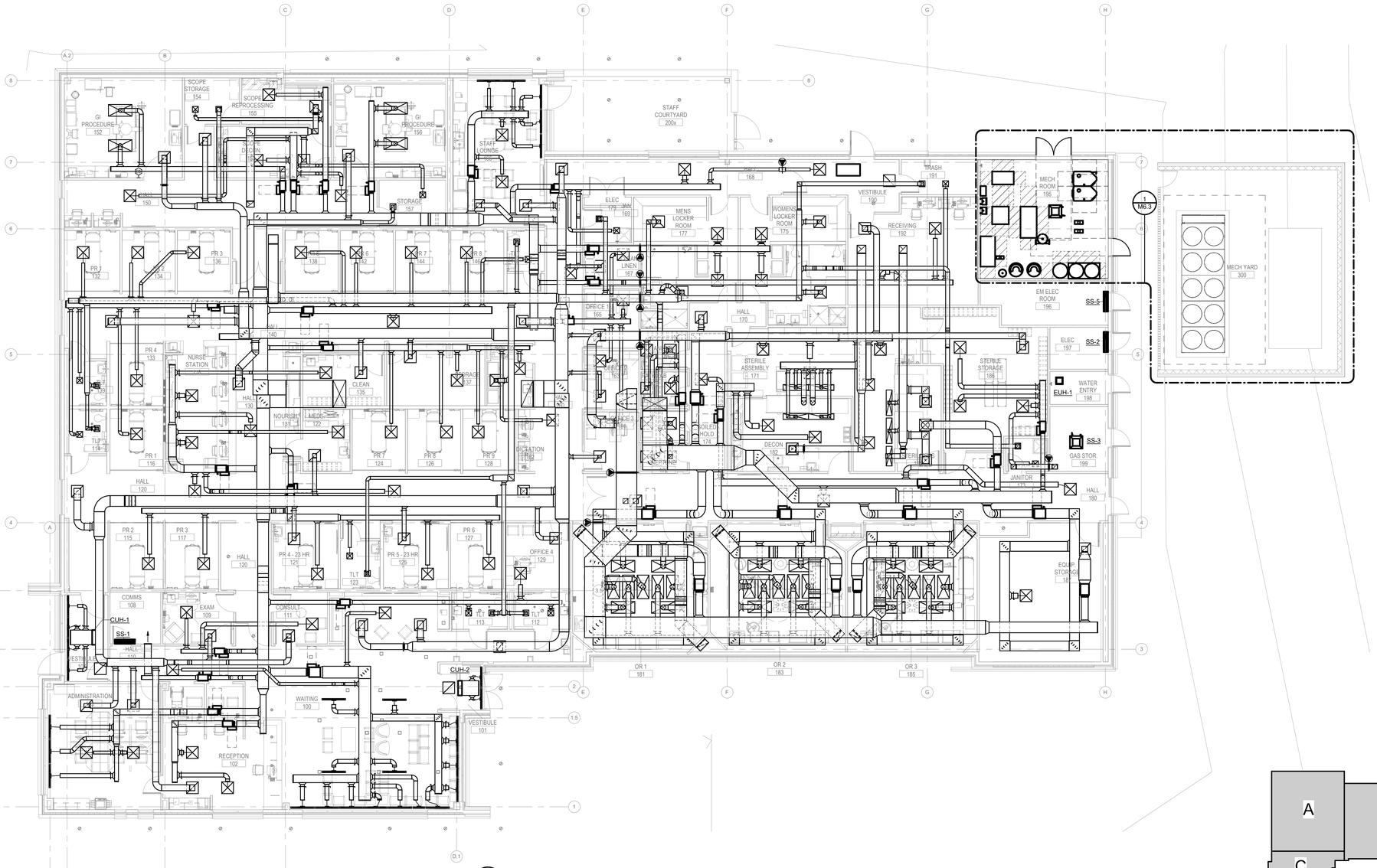
MECHANICAL LEGEND & NOTES

2/7/2023 4:40:32 PM

BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

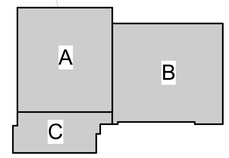
## GENERAL NOTES (THIS SHEET)

1. SEE SHEET M0.1 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.




1 FIRST FLOOR HVAC PLAN OVERALL
SCALE: 1/8" = 1'-0"

0' 4' 8' 16'




KEYPLAN

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NUMBER PE-#009/000026
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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

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FIRST FLOOR HVAC PLAN - OVERALL

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

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BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

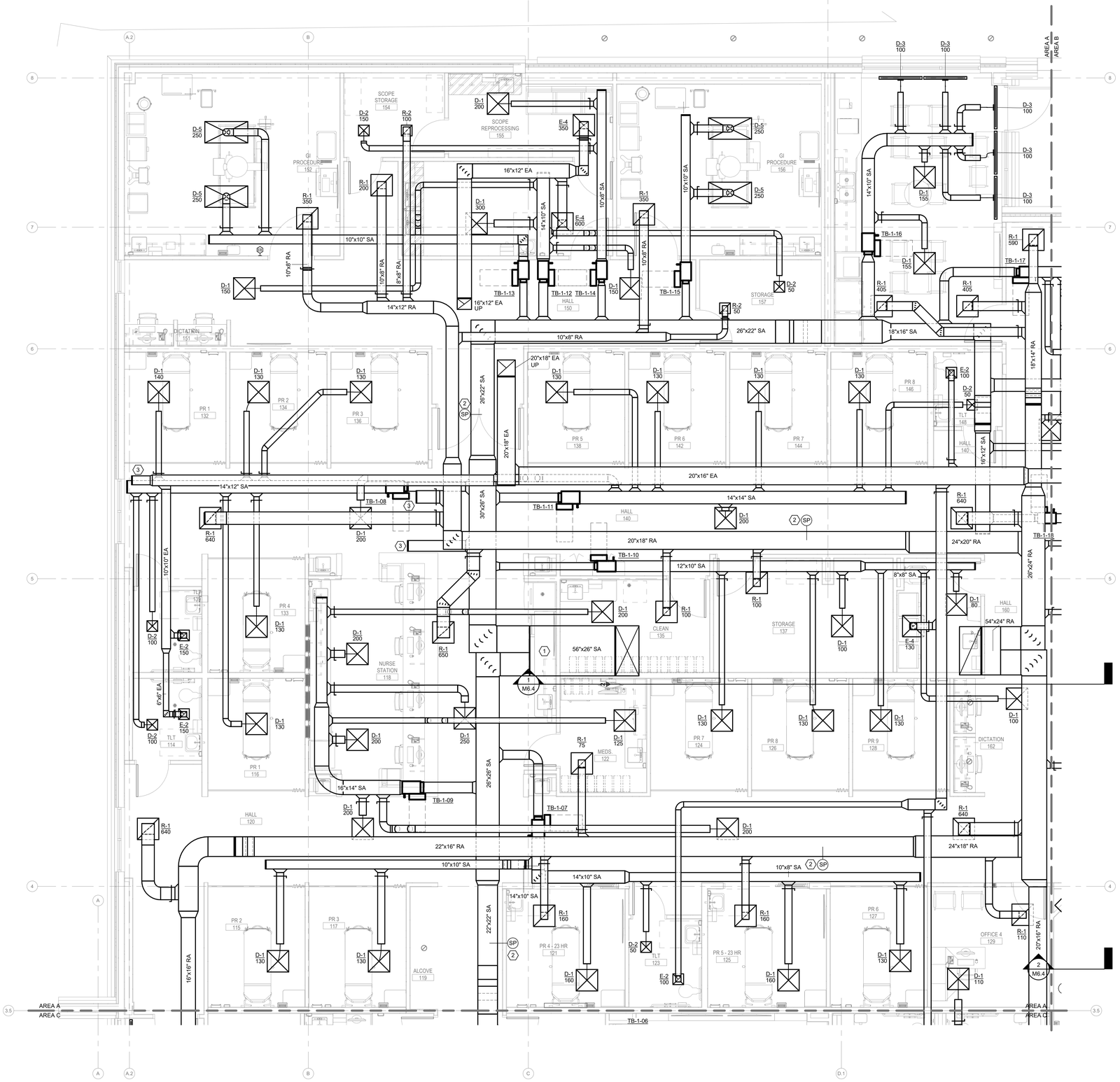
BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

1. SEE SHEET M0.1 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.

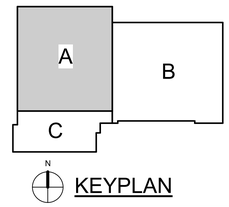
## KEY NOTES (X) (THIS SHEET)

1. WRAP FIRST 20 FT OF DUCT DOWNSTREAM OF AHU WITH 2 PSF VINYL LAGGING WITH 1" INTEGRAL FIBERGLASS. PRODUCT EQUAL TO SOUND SEAL B-20 LAG.
2. PLACE DUCT STATIC PRESSURE SENSOR 2/3s DOWN THE SYSTEM.
3. TAP OFF MAIN AND CAP FOR FUTURE USE.




1 FIRST FLOOR HVAC PLAN - AREA A
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'




KEYPLAN


STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009700026
PROFESSIONAL ENGINEER
02/07/2023

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

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FIRST FLOOR HVAC PLAN - AREA A

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BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

1. SEE SHEET M0.1 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.

## KEY NOTES (X) (THIS SHEET)

1. PROVIDE (2) 8x12 EXHAUST GRILLES. INSTALL ONE GRILLE 6" AFF AND ONE WITHIN 12" OF CEILING.
2. ALL EXHAUST DUCTWORK, FITTINGS, AND FASTENERS SERVING STERILE PROCESSING DEPARTMENT SHALL BE WATER TIGHT AND CONSTRUCTED OF CORROSION PROOF ALUMINUM. SLOPE DUCTWORK DOWNWARDS TOWARDS CANOPIES.
3. ROUTE 6" ROUND DUCT DOWN TO DISINFECTOR/WASHER EXHAUST CONNECTION AND BALANCE TO 60 CFM.
4. PROVIDE 50x12 STAINLESS STEEL EXHAUST CANOPY OVER WASHER/DISINFECTORS TO CAPTURE STEAM DISCHARGE. CONNECT TO EXHAUST SYSTEM EF-4. BALANCE TO 210 CFM. TYP 4.
5. PROVIDE 52x12 STAINLESS STEEL EXHAUST CANOPY OVER STERILIZER DOOR TO CAPTURE STEAM DISCHARGE. CONNECT TO EXHAUST SYSTEM EF-3. PROVIDE 8x8 EXHAUST DUCT CONNECTIONS (OR 8" ROUND) EACH BALANCED TO 220 CFM.
6. PROVIDE 40x12 STAINLESS STEEL EXHAUST CANOPY OVER STERILIZER DOOR TO CAPTURE STEAM DISCHARGE. CONNECT TO EXHAUST SYSTEM EF-3. PROVIDE 8x8 EXHAUST DUCT CONNECTIONS (OR 8" ROUND) EACH BALANCED TO 170 CFM.
7. PROVIDE A LOUVERED EXTERIOR DOOR TO MED GAS ROOM WITH 2SQ FT. OF FREE AREA.
8. PLACE DUCT STATIC PRESSURE SENSOR 2/3s DOWN THE SYSTEM.
9. INSTALL SUPPLY DUCTWORK MAIN LOOP. DUCT TO CEILING RETURN AND SUPPLY. CLOSE OFF RETURN AIR VALVE TB-R-05.
10. INSTALL SIDEWALL RETURN AIR GRILLE 10" AFF. TYP ALL.

1 FIRST FLOOR HVAC PLAN - AREA B
SCALE: 1/4" = 1'-0"

KEYPLAN


STATE OF MISSOURI RICKI MANKTALA NUMBER PE-#009700026 PROFESSIONAL ENGINEER
02/07/2023

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Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
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| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
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| Checked By | Checker |

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| Number | Date | Description |
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FIRST FLOOR HVAC PLAN - AREA B

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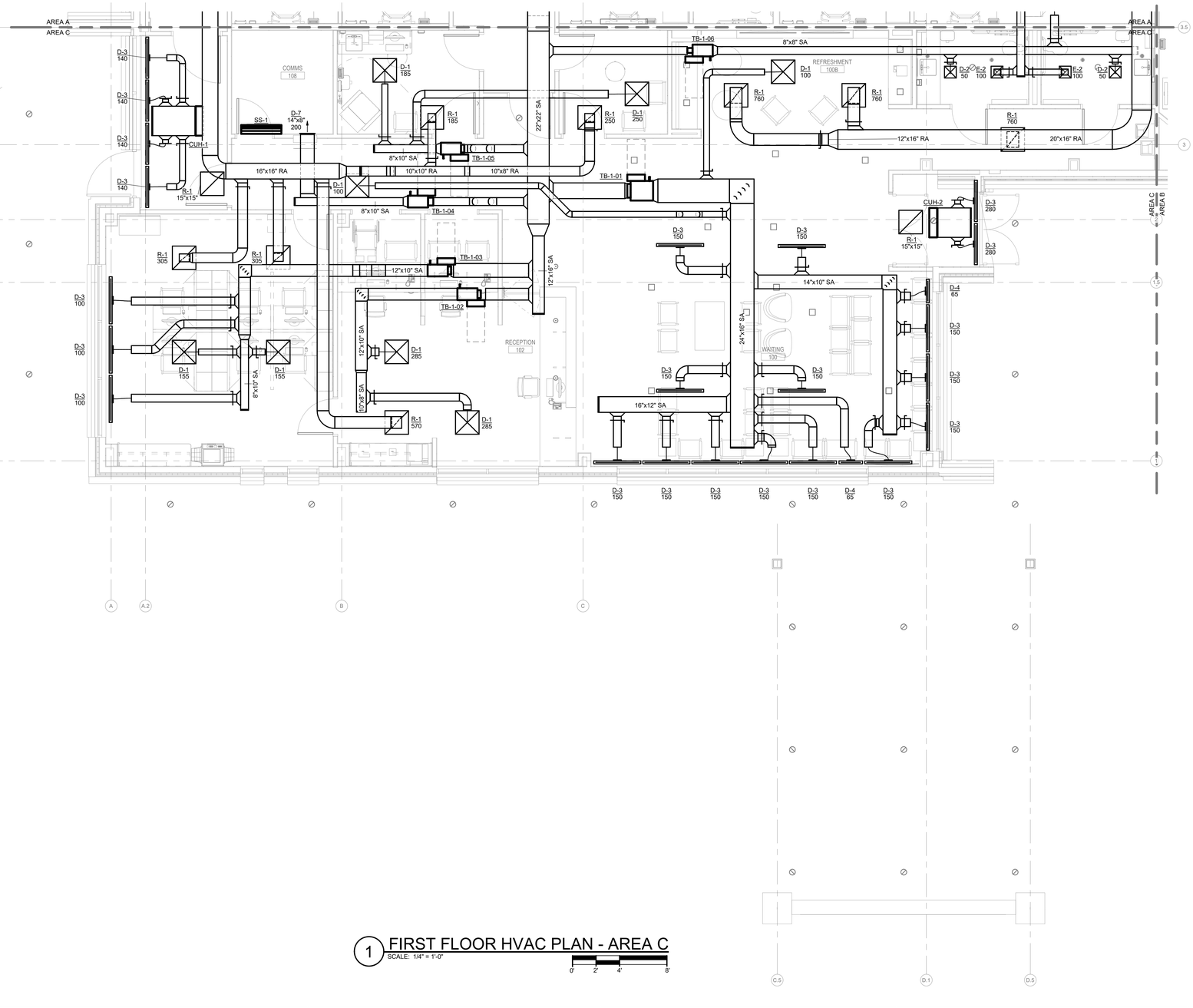
## GENERAL NOTES (THIS SHEET)

1. SEE SHEET M0.1 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.

## KEY NOTES ⓧ (THIS SHEET)

1. NOT USED.




1 FIRST FLOOR HVAC PLAN - AREA C
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'




KEYPLAN

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-2009/000026
PROFESSIONAL ENGINEER
02/07/2023

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
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| | |
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| Date | 2/8/2023 |
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FIRST FLOOR HVAC PLAN - AREA C

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## KEY NOTES (X) (THIS SHEET)

1. ALL TOILET ROOMS SHALL BE BALANCED TO (-50) CFM NEGATIVE.
2. PROVIDE ROOM PRESSURE MONITORING STATION. SIGNALS TO BE TIED INTO BAS. COORDINATE LOCATION & ELEVATION WITH ARCHITECT.
3. BALANCE CONTRACTOR TO BALANCE THIS SPACE TO POSITIVE RELATIVE TO CORRIDOR AND DECONTAMINATION ROOM. SUPPLY SYSTEM HAS BEEN SIZED TO HANDLE UP TO 2100 CFM. INCREASE SUPPLY AIR AS NECESSARY TO ACHIEVE POSITIVE SPACE PRESSURE. FINAL CFM SHALL NOT BE BALANCED LOWER THAN LISTED MINIMUM SUPPLY CFM.
4. BALANCE CONTRACTOR TO BALANCE THIS SPACE NEGATIVE RELATIVE TO CORRIDOR AND STERILE PROCESSING. EXHAUST SYSTEM HAS BEEN SIZED TO HANDLE UP TO 2200 CFM. INCREASE EXHAUST AIR AS NECESSARY TO ACHIEVE NEGATIVE SPACE PRESSURE. FINAL CFM SHALL NOT BE BALANCED LOWER THAN LISTED MINIMUM EXHAUST CFM.
5. BALANCE CONTRACTOR TO BALANCE SCOPE DECONTAMINATION ROOM NEGATIVE RELATIVE TO ENDOSCOPY PROCEDURE ROOMS AND SCOPE REPROCESSING ROOM. EXHAUST SYSTEM HAS BEEN SIZED TO HANDLE UP TO 1100 CFM. INCREASE EXHAUST AIR AS NECESSARY TO ACHIEVE NEGATIVE SPACE PRESSURE. FINAL CFM SHALL NOT BE BALANCED LOWER THAN LISTED MINIMUM EXHAUST CFM.
6. RETURN AIR IN STERILE CORRIDOR SHALL BE BALANCED TO MAINTAIN POSITIVE PRESSURE RELATIONSHIP TO PACU CORRIDORS.
7. BALANCE CONTRACTOR IS ABLE TO MODIFY RETURN CFM LISTED IN ORDER TO ACHIEVE POSITIVE PRESSURE RELATIONSHIP TO ADJACENT SPACES. NOTE: STERILE CORRIDOR MUST BE POSITIVE RELATIVE TO PACU CORRIDOR.

**PATIENT CORRIDOR AIR BALANCE**

SUPPLY MAX: 3,350 CFM
RETURN MAX: 3,150 CFM
DIFFERENTIAL: (+200 CFM)
ROOM PRESSURE: POS.

**SCOPE DECON 153 AIR BALANCE** (5)

SUPPLY MAX: 300 CFM
EXHAUST MAX: -750 CFM

SUPPLY MIN: 300 CFM
EXHAUST MIN: -600 CFM

TRANSFER TO SCOPE DECON 175: -50 CFM

DIFFERENTIAL: (-300 CFM)
ROOM PRESSURE: NEG.

**SCOPE PROCESSING 155 AIR BALANCE**

SUPPLY MAX: 250 CFM
EXHAUST MAX: -350 CFM

SUPPLY MIN: 200 CFM
EXHAUST MIN: -350 CFM

TRANSFER TO SCOPE DECON 175: -150 CFM
TRANSFER FROM SCOPE STORAGE 154: +100 CFM

DIFFERENTIAL: (-150 CFM)
ROOM PRESSURE: NEG.

**CLEAN LINEN 167 AIR BALANCE**

SUPPLY MAX: 110 CFM
RETURN MAX: 60 CFM
DIFFERENTIAL: (+100 CFM)
ROOM PRESSURE: POS.

**ANEST. WORKROOM 178 AIR BALANCE**

SUPPLY MAX: 100 CFM
EXHAUST MAX: 150 CFM
DIFFERENTIAL: (-50 CFM)
ROOM PRESSURE: NEG.

**JAN 169 AIR BALANCE**

SUPPLY MAX: 60 CFM
EXHAUST MAX: 110 CFM
DIFFERENTIAL: (-50 CFM)
ROOM PRESSURE: NEG.

**LOCKER ROOMS (TYP BOTH) AIR BALANCE**

SUPPLY MAX: 300 CFM
EXHAUST MAX: 500 CFM
DIFFERENTIAL: (-200 CFM)
ROOM PRESSURE: NEG.

**SOILED 164 AIR BALANCE**

SUPPLY MAX: 130 CFM
RETURN MAX: 180 CFM
DIFFERENTIAL: (-50 CFM)
ROOM PRESSURE: NEG.

**CLEAN 135 AIR BALANCE**

SUPPLY MAX: 200 CFM
RETURN MAX: 100 CFM
DIFFERENTIAL: (+100 CFM)
ROOM PRESSURE: POS.

**MEDICATION 122 AIR BALANCE**

SUPPLY MAX: 125 CFM
RETURN MAX: 75 CFM
DIFFERENTIAL: (+50 CFM)
ROOM PRESSURE: POS.

(4) **DECON 182 ROOM AIR BALANCE**

SUPPLY MAX: 710 CFM
EXHAUST MAX: -1210 CFM

SUPPLY MIN: 710 CFM
EXHAUST MIN: -1460 CFM

TRANSFER FROM STERILE ASSEMBLY 194: +400 CFM

DIFFERENTIAL: (-500 CFM)
ROOM PRESSURE: -0.01" (NEG.)

**STERILE ASSEMBLY 171 ROOM AIR BALANCE** (3)

SUPPLY MAX: 2100 CFM
EXHAUST MAX: -1030 CFM

SUPPLY MIN: 1690 CFM
EXHAUST MIN: -1030 CFM

TRANSFER TO DECON 196: -400 CFM
TRANSFER TO STERILIZERS 192: -100 CFM

DIFFERENTIAL: +660 CFM
ROOM PRESSURE: +0.01" (POS.)

**TRASH 191 AIR BALANCE**

SUPPLY MAX: 130 CFM
RETURN MAX: 180 CFM
DIFFERENTIAL: (-50 CFM)
ROOM PRESSURE: NEG.

**STERILIZERS 184 ROOM AIR BALANCE**

SUPPLY MAX: 750 CFM
EXHAUST MAX: -1000 CFM

SUPPLY MIN: 750 CFM
EXHAUST MIN: -1000 CFM

TRANSFER FROM STERILIZERS 192: +100 CFM
TRANSFER FROM HALLWAY: +100 CFM

DIFFERENTIAL: (-250 CFM)
ROOM PRESSURE: -0.01" (NEG.)

**OR 1 181 ROOM AIR BALANCE**

SUPPLY MAX: 2160 CFM
RETURN MAX: 1960 CFM
DIFFERENTIAL: +200 CFM
ROOM PRESSURE: +0.02" (POS.)

**UNOCCUPIED SETPOINTS**
SUPPLY MIN: 1000 CFM
RETURN MIN: 800 CFM

**OR 2 183 ROOM AIR BALANCE**

SUPPLY MAX: 1980 CFM
RETURN MAX: 1780 CFM
DIFFERENTIAL: +200 CFM
ROOM PRESSURE: +0.02" (POS.)

**UNOCCUPIED SETPOINTS**
SUPPLY MIN: 1000 CFM
RETURN MIN: 800 CFM

**OR 3 185 ROOM AIR BALANCE**

SUPPLY MAX: 1980 CFM
RETURN MAX: 1780 CFM
DIFFERENTIAL: +200 CFM
ROOM PRESSURE: +0.02" (POS.)

**UNOCCUPIED SETPOINTS**
SUPPLY MIN: 1000 CFM
RETURN MIN: 800 CFM

**NEPTUNE 172 AIR BALANCE**

SUPPLY MAX: 80 CFM
EXHAUST MAX: 130 CFM
DIFFERENTIAL: (-50 CFM)
ROOM PRESSURE: NEG.

**SOILED 174 AIR BALANCE**

SUPPLY MAX: 100 CFM
RETURN MAX: 150 CFM
DIFFERENTIAL: (-50 CFM)
ROOM PRESSURE: NEG.

**JAN 173 AIR BALANCE**

SUPPLY MAX: 70 CFM
EXHAUST MAX: 120 CFM
DIFFERENTIAL: (-50 CFM)
ROOM PRESSURE: NEG.

**STERILE CORRIDOR ROOM AIR BALANCE** (7)

SUPPLY MAX: 1200 CFM
RETURN MAX: 1800 CFM

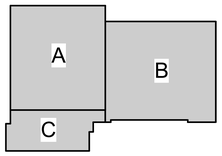
TRANSFER TO STERILE CORRIDOR: +1300 CFM
TRANSFER FROM STERILE CORRIDOR: -600 CFM

DIFFERENTIAL: 0 CFM
ROOM PRESSURE: NEUTRAL

# 1 FIRST FLOOR HVAC ROOM PRESSURIZATION PLAN

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

0' 4' 8' 16'




KEYPLAN

RICKI MANKTALA NUMBER PE-2009020026 PROFESSIONAL ENGINEER STATE OF MISSOURI
02/07/2023

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Surgery Center of Lee's Summit
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FIRST FLOOR HVAC ROOM PRESSURIZATION PLAN - OVERALL

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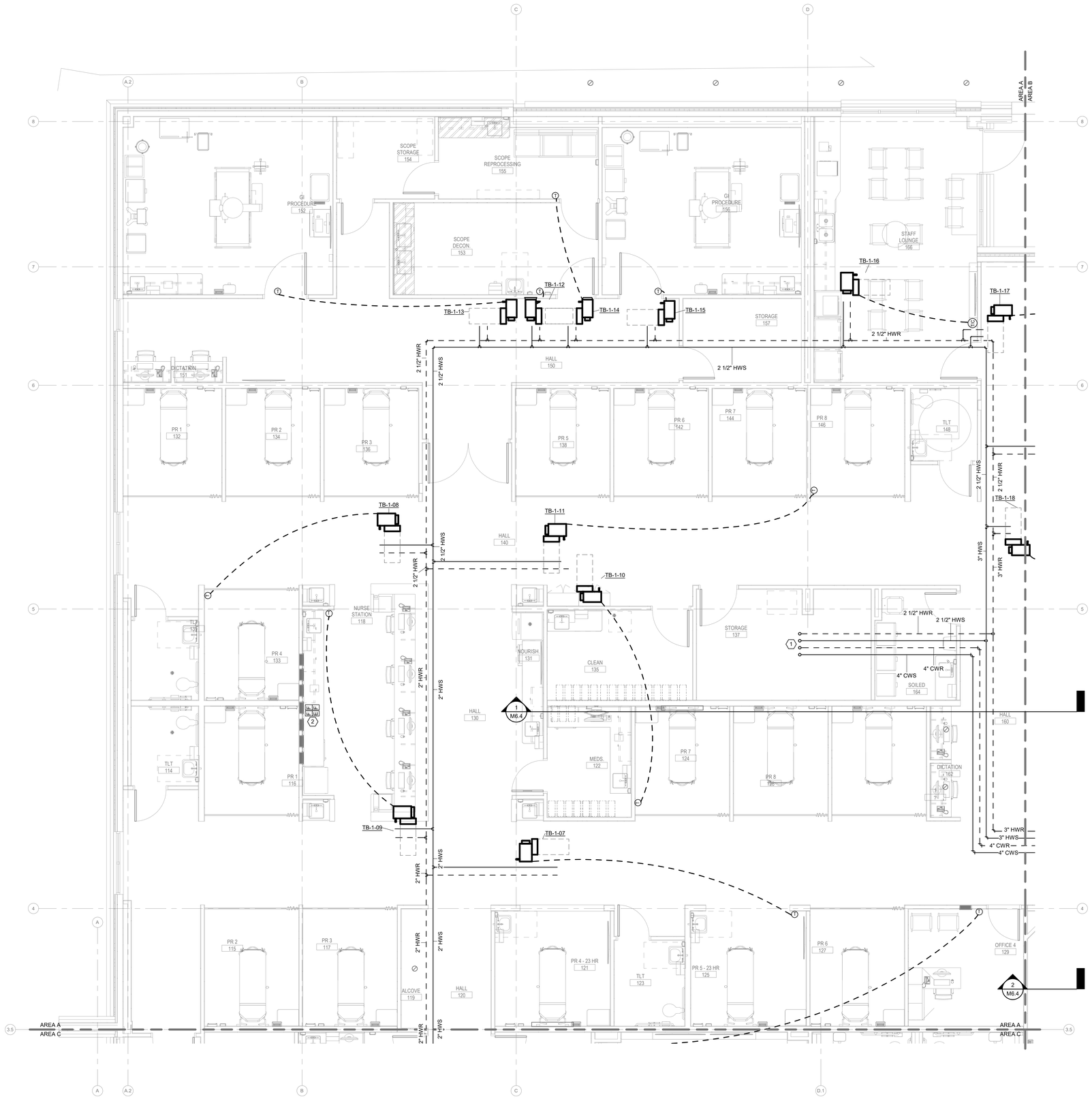
## GENERAL NOTES (THIS SHEET)

1. SEE SHEET M0.1 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.

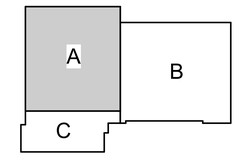
## KEY NOTES (X) (THIS SHEET)

1. 2-1/2" HWS, 2-1/2" HWR, 4" CWS, 4" CWR UP TO AHU-1.
2. STATUS/ALARM PANEL FOR AIR HANDLING UNITS. SWITCHES TO BE IN DIRECT VIEW OF NURSE'S STATION. EPO SWITCH TO CUT POWER TO ASSOCIATED AHU FANS.




1 FIRST FLOOR HYDRONIC PLAN - AREA A
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'




N KEYPLAN


STATE OF MISSOURI RICKI MANKTALA NUMBER PE-#009700026 PROFESSIONAL ENGINEER

02/07/2023

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Revision

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M2.1A

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FIRST FLOOR HYDRONIC PLAN - AREA A

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BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

1. SEE SHEET M0.1 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.

## KEY NOTES (X) (THIS SHEET)

1. 2" HWS, 2" HWR, 4" CWS, 4" CWR UP TO AHU-2.
2. ROUTE 6" CWS/R UNDERGROUND FROM MECHANICAL ROOM TO CHILLER LOCATED IN MECHANICAL YARD. REFER TO MECHANICAL PIPING INSULATION SCHEDULE FOR UNDERGROUND PIPING REQUIREMENTS. PROVIDE HEAT TRACE ON OUTDOOR PIPING.
3. ROUTE RUN OUT AND CAP FOR FUTURE VAV.

AREA A
AREA B

STAFF COURTYARD 200x
HALL 168
ELEC 179
JAN 169
CLEAN LINEN 167
MENS LOCKER ROOM
WOMENS LOCKER ROOM 175
VESTIBULE 190
TRASH 191
RECEIVING 192
MECH ROOM 195
EM ELEC ROOM 196
ELEC 197
WATER ENTRY 198
GAS STOR 199
JANITOR 173
EQUIPMENT ALCOVE 187.5
HALL 180
STRETCHER ALCOVE 189
EQUIP STORAGE 187
OFFICE 1 165
OFFICE 2 163
OFFICE 3 161
ANESTH. 178
PATH LAB 176
SOILED HOLD 174
NEPTUNE 172
HALL 170
STERILE ASSEMBLY 171
DECON 182
STERILIZERS 184
STERILE STORAGE 186
SCRUB SINK 183
OR 1 181
OR 2 183
OR 3 185

TB-1-19
TB-1-20
TB-2-01
TB-2-02
TB-2-03
TB-2-04
TB-2-05
TB-2-06
TB-2-07
TB-2-08
TB-2-09
TB-2-10
TB-R-01
TB-R-02
TB-R-03
TB-R-04
EUH-1
SS-2
SS-3
SS-5

6" CWR
6" CWS
4" HWR
4" HWS
1 1/4" HWR
1 1/4" HWS
2" HWR
2" HWS
3" HWR
3" HWS
4" CWR
4" CWS

1 M6.4
2 M6.4

1 FIRST FLOOR HYDRONIC PLAN - AREA B
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'

A
B
C
N
KEYPLAN

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009700026
PROFESSIONAL ENGINEER
02/07/2023

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Revision

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M2.1B

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FIRST FLOOR HYDRONIC PLAN - AREA B

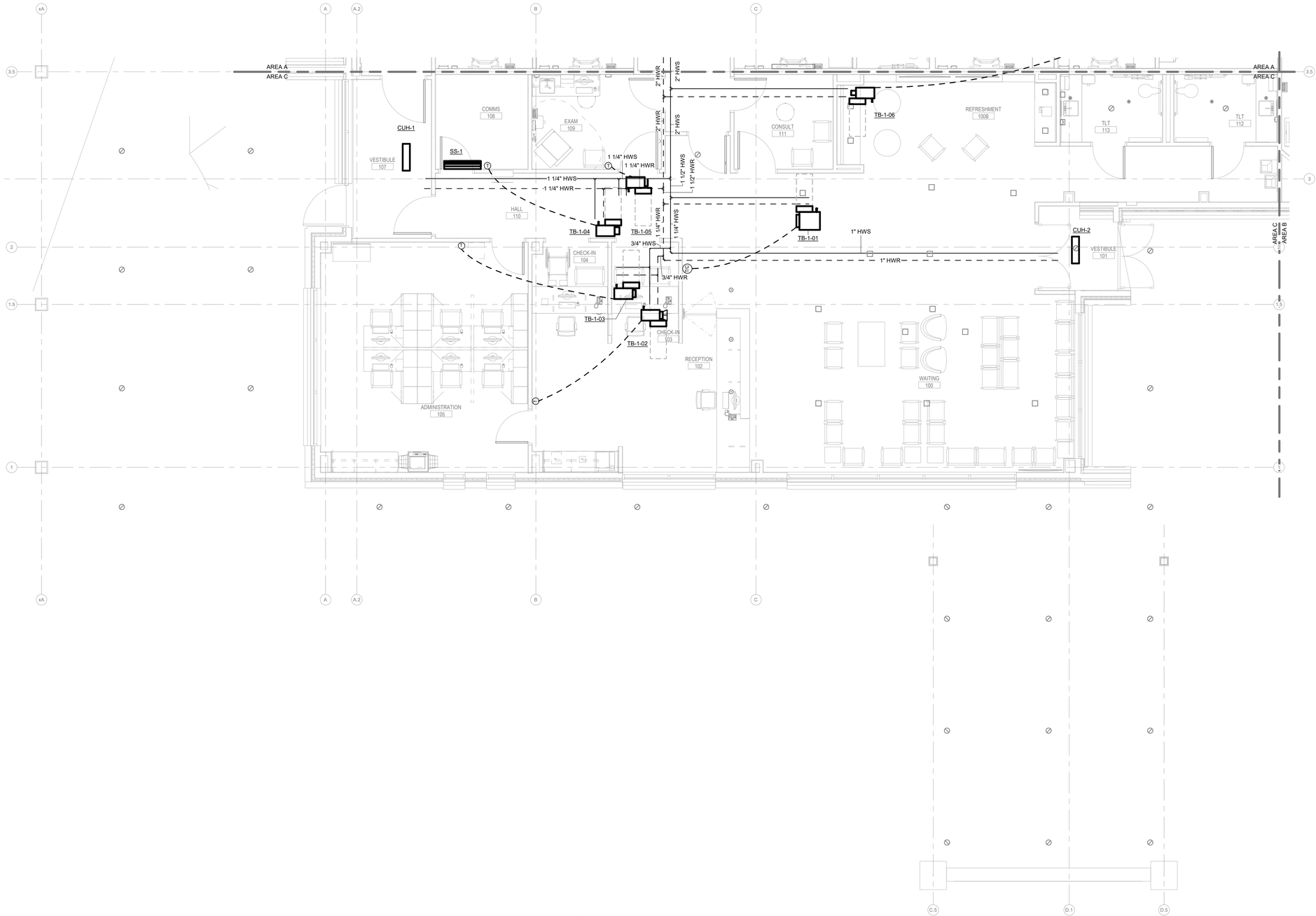
BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

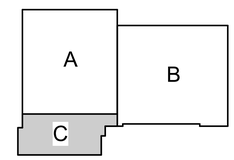
1. SEE SHEET M0.1 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.

## KEY NOTES ⓧ (THIS SHEET)

1. NOT USED.




1 FIRST FLOOR HYDRONIC PLAN - AREA C
SCALE: 1/4" = 1'-0"




KEYPLAN

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009700026
PROFESSIONAL ENGINEER
02/07/2023

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Kansas City, MO 64108
913.951.8311

# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

M2.1C

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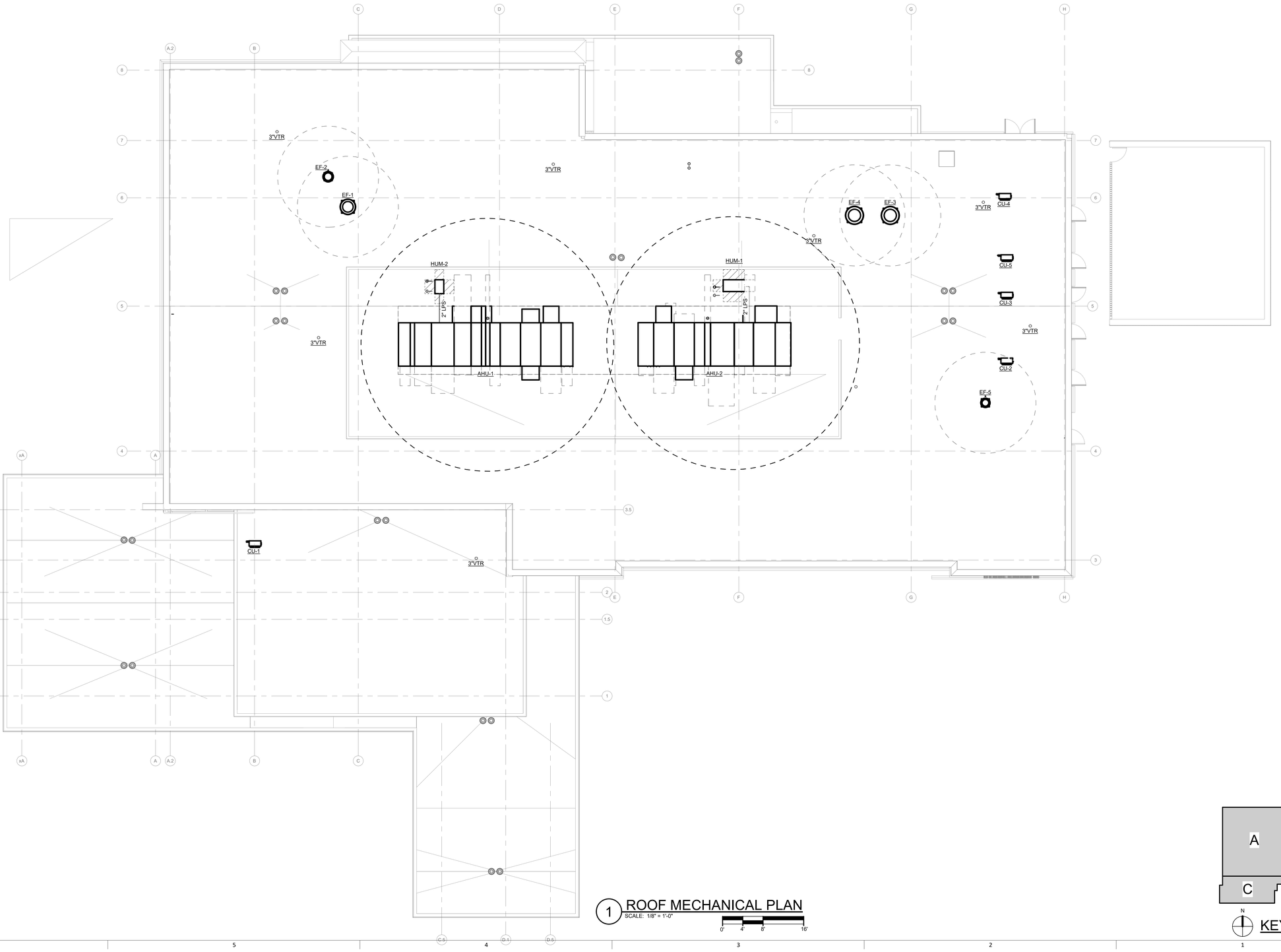
FIRST FLOOR HYDRONIC PLAN - AREA C

2/7/2023 4:41:17 PM

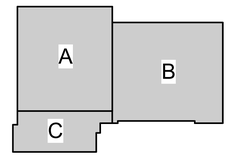
BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

1. SEE SHEET M0.1 AND P0.1 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.




1 ROOF MECHANICAL PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'




KEYPLAN

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009/000026
PROFESSIONAL ENGINEER
02/07/2023

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M3.1

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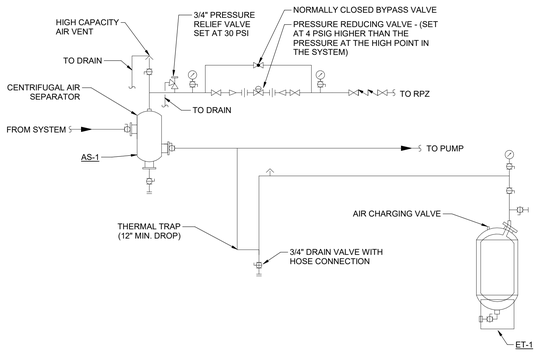
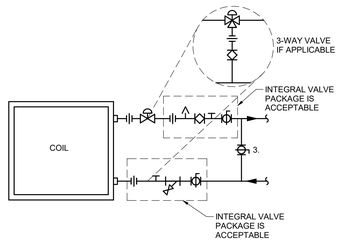
ROOF MECHANICAL PLAN

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

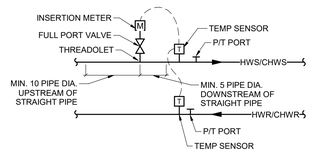



## 1 AIR SEPARATOR & EXPANSION TANK CONN.
SCALE: NONE



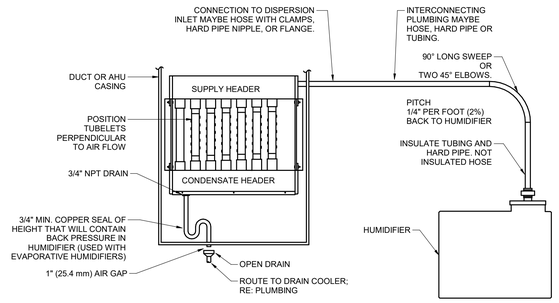

NOTE:
1. REFER TO AIR TERMINAL UNIT SCHEDULE FOR RUNOUT PIPE SIZE. MINIMUM PIPE SIZE SHALL BE 3/4".
2. FIELD INSULATE HWS/R HEADER AND CASING IF NOT FACTORY INSULATED.
3. CONTRACTOR TO PROVIDE FULL-SIZE SYSTEM FLUSH LOOP WITH BALL VALVE AND REMOVE HANDLE ONCE SYSTEM IS PROVEN CLEAN FROM FLUSHING.

## 2 AIR TERMINAL BOX COIL
SCALE: NONE

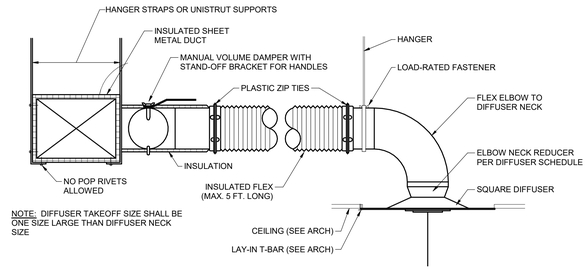



1. THE SPACE INDICATED FOR CLEARANCE UPSTREAM AND DOWNSTREAM OF THE FLOW METER SHALL BE FREE OF DEVICES SUCH AS THERMOMETERS, PETES PLUGS, ETC.
2. MOUNT FLOW METER ON THE TOP OF THE PIPE AND IN THE VERTICAL POSITION.
3. MECHANICAL CONTRACTOR AND CONTROLS SUBCONTRACTOR SHALL COORDINATE TO MAINTAIN SUFFICIENT CLEARANCE TO PERMIT REMOVAL OF DEVICE FROM HOT TAP.

## 3 BUILDING FLOW MEASURING INSTALLATION
SCALE: NONE

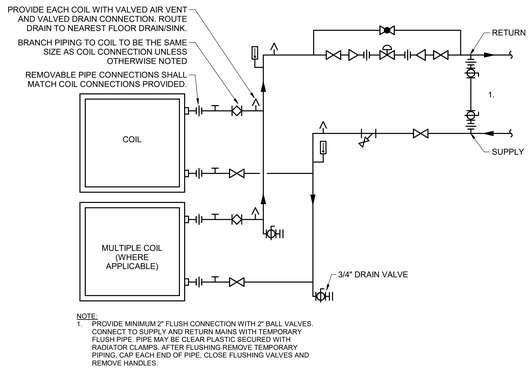



## 4 ELECTRIC STEAM HUMIDIFIER
SCALE: NONE



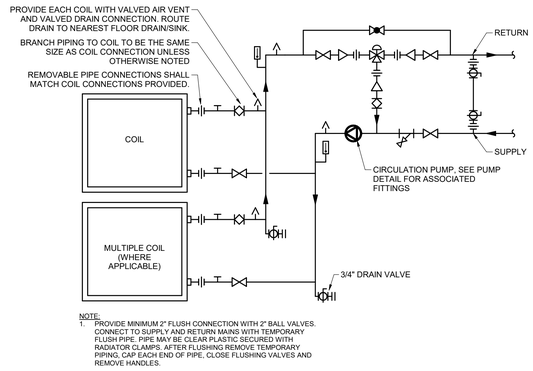

NOTE: DIFFUSER TAKEOFF SIZE SHALL BE ONE SIZE LARGE THAN DIFFUSER NECK SIZE

## 5 DIFFUSER/DUCT CONNECTION
SCALE: NONE



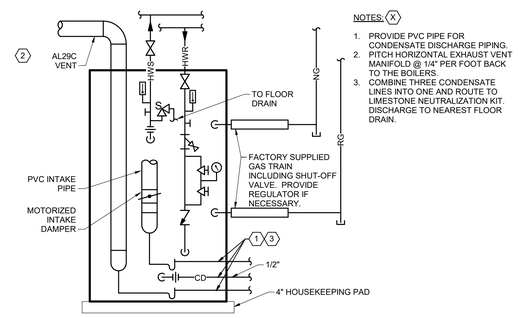

NOTE:
1. PROVIDE MINIMUM 2" FLUSH CONNECTION WITH 2" BALL VALVES. CONNECT TO SUPPLY AND RETURN MAINS WITH TEMPORARY FLUSH PIPE. PIPE MAY BE CLEAR PLASTIC SECURED WITH RADIATOR CLAMPS. AFTER FLUSHING REMOVE TEMPORARY PIPING, CAP EACH END OF PIPE. CLOSE FLUSHING VALVES AND REMOVE HANDLES.

## 6 DOUBLE COIL PIPING
SCALE: NONE



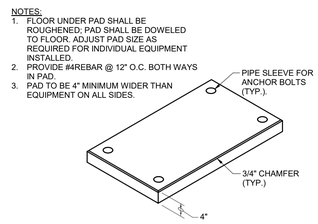

NOTE:
1. PROVIDE MINIMUM 2" FLUSH CONNECTION WITH 2" BALL VALVES. CONNECT TO SUPPLY AND RETURN MAINS WITH TEMPORARY FLUSH PIPE. PIPE MAY BE CLEAR PLASTIC SECURED WITH RADIATOR CLAMPS. AFTER FLUSHING REMOVE TEMPORARY PIPING, CAP EACH END OF PIPE. CLOSE FLUSHING VALVES AND REMOVE HANDLES.

## 7 DOUBLE PUMPED COIL PIPING
SCALE: NONE

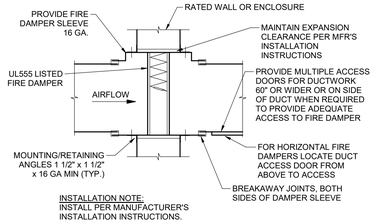



NOTES: (X)
1. PROVIDE PVC PIPE FOR CONDENSATE DISCHARGE PIPING.
2. PITCH HORIZONTAL EXHAUST VENT MANIFOLD @ 1/4" PER FOOT BACK TO THE BOILERS.
3. COMBINE THREE CONDENSATE LINES INTO ONE AND ROUTE TO LIMESTONE NEUTRALIZATION KIT. DISCHARGE TO NEAREST FLOOR DRAIN.

## 8 CONDENSING BOILER
SCALE: NONE

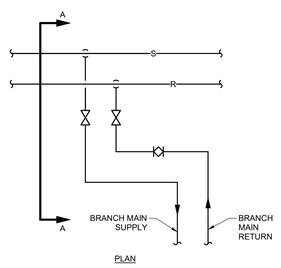



## 9 EQUIPMENT PAD
SCALE: NONE



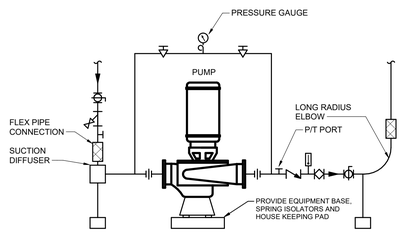

INSTALLATION NOTE:
INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

## 10 FIRE DAMPER INSTALLATION DETAIL
SCALE: NONE

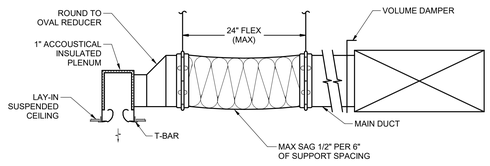



## 11 HYDRONIC BRANCH TAKE-OFF
SCALE: NONE

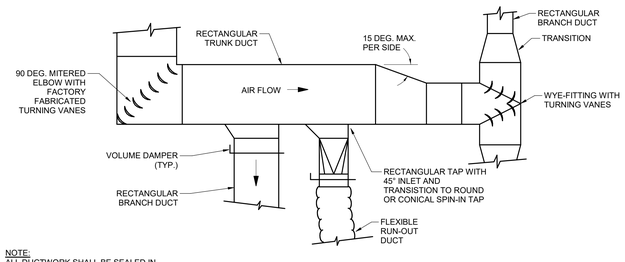
NOTE:
1. SUPPORT PUMP INDEPENDENT OF PIPING IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS REQUIREMENT




## 12 IN-LINE PUMP
SCALE: NONE

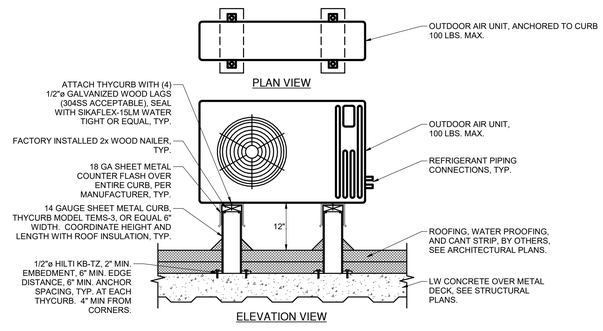



## 13 LINEAR SLOT DIFFUSER
SCALE: NONE




NOTE:
ALL DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH SMACNA FOR SEAL CLASS A. SEE SPEC FOR INSULATION REQUIREMENTS

## 14 LOW PRESSURE DUCT CONNECTION
SCALE: NONE




## 15 OUTDOOR SPLIT SYSTEM MOUNTING
SCALE: NONE

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M4.1

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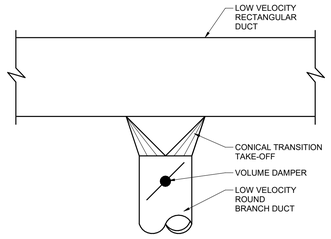
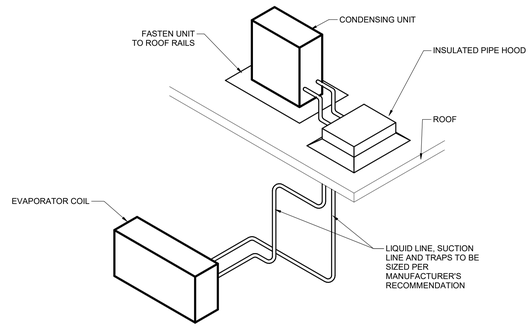
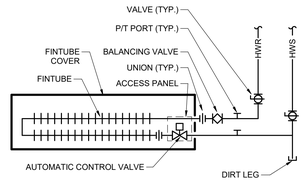
MECHANICAL DETAILS




## 1 ROUND FROM RECTANGULAR TAKE-OFF
SCALE: NONE

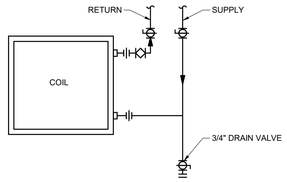



## 2 SPLIT SYSTEM - ROOF MOUNTED CONDENSER
SCALE: NONE

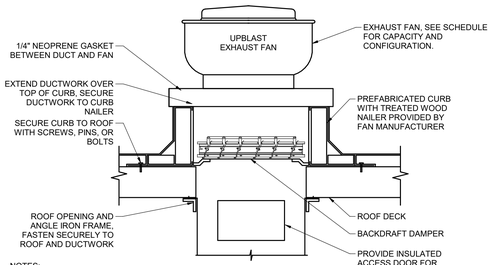



NOTES:
1. EXACT LOCATION OF FITTINGS ETC. TO BE FIELD COORDINATED.
2. CEILING ACCESS OF ISOLATION VALVES ACCEPTABLE.

## 3 TWO-ROW, DOWN-FEED FINTUBE CONNECTION
SCALE: NONE

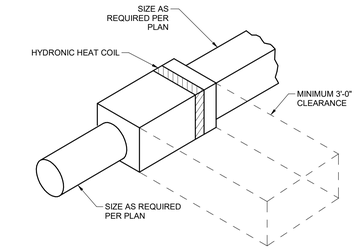



## 4 UNIT HEATER PIPING - HYDRONIC WATER
SCALE: NONE

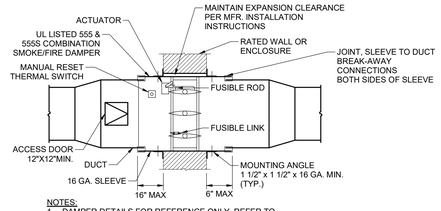



NOTES:
1. REFER TO INSULATION SCHEDULE

## 5 UPBLAST EXHAUST FAN
SCALE: NONE




## 6 VAV BOX CONNECTION
SCALE: NONE




NOTES:
1. DAMPER DETAILS FOR REFERENCE ONLY. REFER TO MANUFACTURER INSTALLATION MANUAL.
2. LABEL ACCESS DOOR "FIRE/SMOKE DAMPER".
3. COMBINATION FIRE/SMOKE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF IBC.
4. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE MADE AVAILABLE TO INSPECTING AUTHORITIES.
5. COORDINATE POWER REQUIREMENT AND LOCAL DISCONNECT SWITCH LOCATION WITH DIVISION 26.
6. PROVIDE COMBINATION FIRE/SMOKE DAMPER 4 INCHES LARGER MIN. UNLESS OTHERWISE NOTED, IN LENGTH AND IN WIDTH THAN THE CONNECTING DUCT. PROVIDE CONCENTRIC DUCT TRANSITION AS REQUIRED.

## 7 FIRE/SMOKE DAMPER
SCALE: 1/8" = 1'-0"

BranchPattern | www.branchpattern.com
PROJECT NUMBER 1201002
BETTER BUILT ENVIRONMENTS

02/07/2023

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M4.2

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MECHANICAL DETAILS

# AIR HANDLING UNIT SCHEDULE

**PROJECT ALTITUDE: 1000 FEET ABOVE SEA LEVEL**

| MARK | MANUFACTURER | MODEL | LOCATION OF UNIT | TYPE OF AIRFLOW | SUPPLY FAN: MAX SYSTEM AIRFLOW (CFM) | SUPPLY FAN: EST EXT SP (IN. WG) | SUPPLY FAN: TOTAL STATIC PRESS. (IN. WG) | SUPPLY FAN: NUMBER OF FANS | SUPPLY FAN: FAN DIA | SUPPLY FAN: OPERATING SPEED (RPM) | SUPPLY FAN: FAN DRIVE | SUPPLY FAN: TOTAL BHP | SUPPLY FAN: NUMBER OF MOTORS | SUPPLY FAN: MAX MOTOR SIZE (HP EA.) | RETURN/RELIEF FAN: MAX SYSTEM AIRFLOW (CFM) | RETURN/RELIEF FAN: EST EXT SP (IN. WG) | RETURN/RELIEF FAN: TOTAL STATIC PRESS. (IN. WG) | RETURN/RELIEF FAN: NUMBER OF FANS | RETURN/RELIEF FAN: FAN DIA | RETURN/RELIEF FAN: TYPE | RETURN/RELIEF FAN: FAN SPEED (RPM) | RETURN/RELIEF FAN: FAN DRIVE | RETURN/RELIEF FAN: TOTAL BHP | RETURN/RELIEF FAN: NUMBER OF MOTORS | RETURN/RELIEF FAN: MAX MOTOR SIZE (HP EA.) | WATER COILS: TYPE | WATER COILS: AIRFLOW (CFM) | WATER COILS: FLUID TYPE | WATER COILS: MIN NUMBER OF ROWS | WATER COILS: MAX FINS PER FOOT | WATER COILS: MIN TOTAL OUTPUT (MBH) | WATER COILS: MIN. SENS OUTPUT (MBH) | WATER COILS: EWT (°F) | WATER COILS: LWT (°F) | WATER COILS: EAT DB/WB (°F) | WATER COILS: LAT DB/WB (°F) | WATER COILS: MAX WATER FLOW (GPM) | WATER COILS: MAX WATER PD (FT. H2O) | WATER COILS: MAX AIR PD (IN. WG) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AHU-1 | TRANE | CSAA035 | ROOF | VAV | 18,000 | 1.75" | 6.1" | 2 | 22.25 | 2,260 | DIRECT | 25.8 | 2 | 15.0 | 18,000 | 0.75" | 2.00" | 2 | 22.25 | DD PLENUM | 2,033 | DIRECT | 13.0 | 2 | 7.5 | HOT | 18,000 | WATER | 1 | 80 | 591 | - | 130.0 | 110.0 | 37.3 | 67.57 | 59.0 | 6.9 | 0.14 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | CHILLED | 18,000 | 30% PG | 6 | 109 | 840 | 581 | 40.0 | 52.0 | 81.3 / 67.0 | 52.0 / 51.47 | 151.5 | 36.3 | 0.77 |
| AHU-2 | TRANE | CSAA035 | ROOF | VAV | 15,000 | 2.50" | 8.0" | 2 | 22.25 | 2,532 | DIRECT | 29.5 | 2 | 20.0 | 15,000 | 1.50" | 2.57" | 2 | 22.25 | DD PLENUM | 1,863 | DIRECT | 10.9 | 2 | 7.5 | HOT | 15,000 | WATER | 1 | 106 | 325 | - | 130.0 | 100.0 | 45.0 | 65.0 | 21.7 | 1.0 | 0.08 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | CHILLED | 16,000 | 30% PG | 8 | 137 | 908 | 527 | 40.0 | 52.0 | 77.34 / 66.99 | 47.5 / 47.4 | 163.8 | 41.7 | 1.01 |

| MARK | FILTERS: BANK NUMBER | FILTERS: MERV | FILTERS: MAX FACE VELOCITY (FPM) | FILTERS: DEPTH (IN.) | FILTERS: MAX AIR PD (IN. WG) | HUMIDIFIER: ISP = ATMOS. NUMBER OF INJECT | HUMIDIFIER: MAX ABSORP DIST (IN.) | HUMIDIFIER: LAT DB/WB (°F) | DESICCANT DEHUMIDIFICATION WHEEL SECTION PERFORMANCE: AIR CONDITIONS (REQUIRED PERFORMANCE) | VENTILATION AIR: MIN AIRFLOW (CFM) | VENTILATION AIR: MAX AIRFLOW (CFM) | VENTILATION AIR: 100% ECONO | ELECTRICAL: SERVICE V/PH/HZ | ELECTRICAL: SERVICE DESCRIPTION | ELECTRICAL: SCCR | ELECTRICAL: FLA | ELECTRICAL: MCA | ELECTRICAL: MOP | MAX TOTAL DIMENSIONS L x W x H (inches) | MAX TOTAL WEIGHT (lbs) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | REGENERATION AIR: ENTERING AIR °F DB | REGENERATION AIR: ENTERING AIR RH, % | REGENERATION AIR: LEAVING AIR °F DB | REGENERATION AIR: LEAVING AIR RH, % | SUPPLY AIR: ENTERING AIR °F DB | SUPPLY AIR: ENTERING AIR RH, % | SUPPLY AIR: ENTERING AIR HR, GR/LB | SUPPLY AIR: LEAVING AIR °F DB | SUPPLY AIR: LEAVING AIR RH, % | SUPPLY AIR: LEAVING AIR HR, GR/LB | | | | | | | | | | | |
| AHU-1 | 1 | MERV 8 | 284 | 2 | 1.00 | | | | N/A | 5,220 | | YES | 480/3/60 | RETURN FANS | SEE SCCR SCHEDULE | 22.00 | 24.75 | 35.0 | 410.8 x 100.0 x 73.4 | 12,290 | 1-10, 12-16,18,19,20 |
| | 2 | MERV 15 | 529 | 12 | 1.20 | | | | | | | | 480/3/60 | SUPPLY FANS | | 42.00 | 47.25 | 60.0 | | | |
| | | | | | | | | | | | | | 115/1/60 | LIGHTS + SWITCH | | 2.61 | 3.26 | 15.0 | | | |
| | | | | | | | | | | | | | 115/1/60 | RECEPTACLE | | 8.00 | 10.00 | 15.0 | | | |
| | | | | | | | | | | | | | 115/1/60 | UV LIGHTS | | 2.60 | 3.25 | 15.0 | | | |
| AHU-2 | 1 | MERV 8 | 237 | 2 | 1.00 | | | | 80.3 / 47.4% / 76.1 / 62.8% / 47.5 / 99.3% | 4,660 | | YES | 480/3/60 | RETURN FANS | SEE SCCR SCHEDULE | 22.00 | 24.75 | 35.00 | 359.5 x 100.0 x 140.9 | 16,625 | 1-11,13-17,19, 20 |
| | 2 | MERV 15 | 500 | 12 | 1.20 | | | | 48.3 / 51.7 / 64.5% / 36.8 | | | | 480/3/60 | SUPPLY FANS | | 42.00 | 47.25 | 60.00 | | | |
| | | | | | | | | | | | | | 460/3/60 | CDQ MOTOR | | 0.34 | 0.37 | 15.00 | | | |
| | | | | | | | | | | | | | 115/1/60 | UV LIGHTS | | 2.60 | 3.25 | 15.00 | | | |
| | | | | | | | | | | | | | 115/1/60 | LIGHTS + SWITCH | | 2.61 | 3.26 | 15.00 | | | |
| | | | | | | | | | | | | | 115/1/60 | RECEPTACLE | | 8.00 | 10.00 | 15.00 | | | |

**NOTES:**

1. BASIS OF DESIGN - TRANE
2. VALUES STATED ARE ADJUSTED FOR ALTITUDE SHOWN.
3. REFER TO AHU DETAILS FOR SECTION LAYOUT.
4. ESTIMATED EXTERNAL STATIC PRESSURE INCLUDES PRESSURE DROP FOR ALL OUTSIDE AIR INTAKE AND DISTRIBUTION COMPONENTS OUTSIDE OF THE UNIT.
5. MAXIMUM AIR PRESSURE DROPS FOR ALL COMPONENTS ARE AT MAXIMUM SYSTEM AIRFLOW.
6. FAN CLASS IN ACCORDANCE WITH AMCA 99-2408.
7. PROVIDE TIMER SWITCH FOR SERVICE LIGHTS.
8. MINIMUM OUTSIDE AIR IN COMPLIANCE WITH APPLICABLE CODE, ASHRAE 170 VENTILATION FOR HEALTHCARE FACILITIES.
9. PROVIDE HEAT TRACING ON ALL PIPING WITHIN PIPING VESTIBULE.
10. PROVIDE CIRCULATOR PUMP ON HEATING COIL. INSTALL WITHIN PIPING VESTIBULE.
11. PROVIDE AHU-2 WITH DESICCANT DEHUMIDIFICATION WHEEL EQUAL TO TRANE CDQ.
12. PROVIDE WITH 28" INSULATED ROOF CURB. AHU OUTDOOR AIR INTAKE MUST BE INSTALLED NO LESS THAN 36" ABOVE ROOF LINE.
13. PROVIDE FIELD INSTALLED HUMIDIFIER DISPERSION ARRAY FROM HUMIDIFIER GENERATOR MANUFACTURER. INSTALL HUMIDIFIER IN BLANK AHU SECTION UPSTREAM OF COOLING COIL.
14. DO NOT SELECT FAN MOTORS WITHIN 10% OF NAMEPLATE RATED HORSEPOWER.
15. FACTORY PROVIDED AND WIRED VFDs. PROVIDE ONE VFD PER FAN. ALL WIRING FROM VFDs TO FAN MOTORS SHALL BE IN CONDUIT.
16. FILTER PRESSURE DROP SHOULD BE SELECTED AT END OF LIFE.
17. AHU-2: PROVIDE TWO OUTSIDE AIR DAMPERS. ONE SHALL BE PROVIDED WITH INTEGRAL AIRFLOW MEASUREMENT TO MAINTAIN VENTILATION, THE OTHER DAMPER SHALL BE OPPOSED BLADE AIRFOIL FOR USE DURING ECONOMIZER OPERATION.
18. AHU-1: PROVIDE ONE OUTSIDE AIR DAMPER WITH INTEGRAL AIRFLOW MEASUREMENT TO MAINTAIN VENTILATION.
19. PROVIDE ALL COIL SECTIONS AND HUMIDIFIER SECTIONS WITH PIPE CABINETS. PIPE CABINETS SHALL EXTEND TO TOP LEVEL OF AHU AS NEEDED. PIPE CABINETS SHALL BE A DEPTH OF 36".
20. REFERENCE MECHANICAL ELECTRICAL COORDINATION SCHEDULE ON ELECTRICAL DRAWINGS FOR SHORT CIRCUIT CURRENT RATING

# CABINET UNIT HEATER SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | SERVES | TYPE | FAN INFORMATION: CFM | FAN INFORMATION: E.S.P. | HEATING COIL: GPM | HEATING COIL: PRESSURE DROP | HEATING COIL: EWT / LWT | HEATING COIL: CAPACITY (MBH) | HEATING COIL: COIL ROWS | ELECTRICAL DATA: HP | ELECTRICAL DATA: VOLT/PH/HZ | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CUH-1 | TRANE FFC060 | VESTIBULE | RECESSED DUCTED | 565 | 0.25 | 4.4 | 8.2 | 130/110 | 54 | 4 | 1/4 | 120/1/60 | 1-4 |
| CUH-2 | TRANE FFC060 | VESTIBULE | RECESSED DUCTED | 565 | 0.25 | 4.4 | 8.2 | 130/110 | 54 | 4 | 1/4 | 120/1/60 | 1-4 |

**NOTES:**

1. FRONT OUTLET, BACK INLET ORIENTATION.
3. PROVIDE WITH FILTER RACK AND FILTER, INTEGRAL THERMOSTAT.
4. RATED FOR 30% PROPYLENE GLYCOL.
5. REFERENCE MECHANICAL ELECTRICAL COORDINATION SCHEDULE ON ELECTRICAL DRAWINGS FOR SHORT CIRCUIT CURRENT RATING

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# AIR CURTAIN SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | SERVES | TYPE | FAN...: CFM | FAN...: MOTOR # | HEATING...: GPM | HEATING...: PRESSURE DROP | HEATING...: EWT / LWT | HEATING...: CAPACITY (MBH) | HEATING...: COIL ROWS | ELECTRICA...: HP | ELECTRICA...: VOLT/PH/HZ | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AC-01 | BERNER ARD12-2072W | RECEIVING | ARCHITECTURAL RECESSED | 2520 | 2 | 9 | 2.7 FT | 140 / 125 | 70 | 4 | (2) 1/2 | 115/1/60 | 1,2 |

**NOTES:**

1. PROVIDE WITH FILTER RACK...
2. UNIT RATED FOR 30%...

# ELECTRIC UNIT HEATER SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | SERVES | LOCATION | CAPACITY (KW) | CAPACITY (MBH) | MAX AMP RATING | SUPPLY (GA) | APPROX. AIR RISE (F) | FAN INFORMATION: MOTOR HP | FAN INFORMATION: CFM | FAN INFORMATION: VOLTS/PH/HZ | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EUH-1 | TRANE UHEC-051A0C0 | WATER ENTRY | WATER ENTRY | 5 | 17.1 | 24.1 | 8 | 3.6 | 1/125 | 1550 | 208/1/60 | 1 |

**NOTES:**

1. PROVOIDE WITH INTEGRAL THERMOSTAT.

# EXPANSION TANK SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | TANK ACCEPTANCE VOLUME (GALLONS) | ACTUAL TANK VOLUME (GALLONS) | DIMENSIONS (W X H) | WEIGHT (LBS) | NOTES |
|---|---|---|---|---|---|---|
| ET-1 | B&G B-100LA | 11 | 26 | 16X39 | 94 | 1,2 |
| ET-2 | B&G B-130LA | 27 | 34 | 20X34-11/16 | 130 | 1 |

**NOTES:**

1. PROVIDE WITH DIAPHRAGM AND 4" HOUSEKEEPING PAD.
2. RATED FOR 30% PROPYLENE GLYCOL.

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# AIR/DIRT SEPARATOR SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | SERVES | GPM | MAX P.D. (FT. HD) | OPENINGS (IN.) | NOTES |
|---|---|---|---|---|---|---|
| AS-1 | SPIROTHERM VDN500 | HEATING WATER | 250 | 1 | 4 | 1 |
| AS-2 | SPIROTHERM VDN600 | CHILLED WATER | 380 | 1 | 6 | 1,2 |

**NOTES:**

1. PROVIDE WITH REMOVABLE STRAINER.
2. RATED FOR 30% PROPYLENE GLYCOL.

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# ELECTRIC STEAM HUMIDIFIER SCHEDULE

| MARK | MANUFACTURER | MODEL | SERVES | LOCATION | INPUT (KW) | PERFORMANCE: CAPACITY (LBS/HR) | PERFORMANCE: REQ. CAP. (LBS/HR) | DESIGN CONDITIONS: MAX AIR VOLUME (CFM) | DESIGN CONDITIONS: OUTSIDE AIR (CFM) | DESIGN CONDITIONS: 0.4% OA HR (GR/LB) | DESIGN CONDITIONS: DESIRED SPACE T (°F) / RH % / HR | ELECTRICAL DATA: VOLTS/PH/HZ | ELECTRICAL DATA: AMPS | MAX ABSOPTION DISTANCE (IN) | OPERATING WEIGHT (LBS) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HUM-1 | CONDAIR | RS OC 180 | AHU-1 | NEXT TO AHU | 65.3 | 180 | 141.2 | 18500 | 5550 | 4.1 | 62 / 50 / 41.3 | 480/3/60 | 78.5 | 12 | 460 | 1-8, |
| HUM-2 | CONDAIR | RS OC 180 | AHU-2 | NEXT TO AHU | 65.3 | 180 | 147.3 | 18000 | 5400 | 4.1 | 70 / 40 / 44 | 480/3/60 | 78.5 | 12 | 460 | 1-8 |

**NOTES:**

1. EACH UNIT SHALL BE MONITORED BY BMS SYSTEM WITH MANUFACTURER PROVIDED COMMUNICATION CARD. PROVIDE HIGH LIMIT HUMIDITY CONTROL, AIR FLOW PROVING SWITCH, MERCURY CONTACTORS.
2. PROVIDE DRAIN COOLER FOR EACH HUMIDIFIER, PIPING SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. PROVIDE AND FIELD-INSTALL ULTRA-SORB DISPERSION ASSEMBLIES MOUNTED. CONNECT WITH ATMOSPHERIC STEAM HOSE-KITS. HUMIDIFIER GRID SIZES TO BE COORDINATED WITH AHU SELECTION.
4. SUPPLY UNIT WITH REVERSE OSMOSIS WATER FROM RO GENERATOR (SEE SEPARATE SCHEDULE).
5. UNIT SHALL INCUDE 316 STAINLESS-STEEL CONSTRUCTION, EVAPORATING CHAMBER INSULATION AND SOLID-STATE RELAY (SSR) CONTROL OPTIONS FOR + 1% RH CONTROL.
6. MAX AIR VOLUME IS BASED ON MAX AHU DESIGN AIR VOLUMES. DISPERSION GRID IS LOCATED IN AHU UPSTREAM OF THE COOLING COIL, DOWNSTREAM OF MIXING BOX.
7. PROVIDE UNIT WITH OUTDOOR RATED, WEATHERPROOF, WATER TIGHT CABINET.
8. REFERENCE MECHANICAL ELECTRICAL COORDINATION SCHEDULE ON ELECTRICAL DRAWINGS FOR SHORT CIRCUIT CURRENT RATING.

*2/2/2023*

# FAN SCHEDULE

| MARK | BASIS OF DESIGN: Manufacturer "Model" | UNIT SERVED | LOCATION OF UNIT: Room No. | TYPE | SERVICE | AIRFLOW TYPE | FAN: MAX. AIRFLOW (cfm) | FAN: EXT SP (in. wg) | FAN: BACKD... DAMPER SP (in. wg) | FAN: TOTAL SP (in. wg) | FAN: DRIVE | FAN: MAX SPEED (rpm) | FAN: BHP (hp) | MOTOR: SIZE (hp) | MOTOR: ELEC. (v/ph/hz) | MAX INLET dBA (dB) | MAX SONES | WEIGHT (lbs) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EF-1 | GREENHECK CUE-140-VG | AHU-1 | ROOF | CENTRIFUGAL UPBLAST | GENERAL EXHAUST | CAV | 2100 | 0.75 | 0.09 | 0.84 | DIRECT | 1,495 | 0.62 | 3/4 | 120/1/60 | 64 | 12.1 | 70 | 1-4 |
| EF-2 | GREENHECK CUE-140-VG | AHU-1 | ROOF | CENTRIFUGAL UPBLAST | SCOPE DECON | CAV | 1100 | 0.3 | 0.06 | 0.36 | DIRECT | 900 | 0.13 | 1/4 | 120/1/60 | 53 | 6.8 | 61 | 1-4 |
| EF-3 | GREENHECK CUE-140-VG | AHU-1 | ROOF | CENTRIFUGAL UPBLAST | STERILIZERS | CAV | 2100 | 0.3 | 0.09 | 0.39 | DIRECT | 1,750 | 0.30 | 0.5 | 120/1/60 | 61 | 10.4 | 75 | 1-4 |
| EF-4 | GREENHECK CUE-160-VG | AHU-1 | ROOF | CENTRIFUGAL UPBLAST | CENTRAL DECON | CAV | 2200 | 0.3 | 0.13 | 0.43 | DIRECT | 1,750 | 0.30 | 0.5 | 120/1/60 | 61 | 10.4 | 75 | 1-5 |
| EF-5 | GREENHECK G-090-VG | AHU-1 | ROOF | CENTRIFUGAL UPBLAST | MED GAS RM | CAV | 350 | 0.3 | 0.12 | 0.42 | DIRECT | 1,360 | 0.05 | 1/10 | 120/1/60 | 51 | 6.0 | 65 | 1-4 |

**NOTES:**

1. ALL AIR VOLUMES STATED ARE ADJUSTED FOR ALTITUDE SHOWN.
2. ACTUAL TOTAL EFFICIENCY CANNOT BE LESS THAN 10% OF THE PEAK TOTAL EFFICIENCY.
3. PROVIDE WITH ADJUSTABLE ECM.
4. PROVIDE WITH MOTORIZED BACKDRAFT DAMPER.
5. EXHAUST FAN SERVING CENTRAL DECON INCLUDES ADDITIONAL CAPACITY OVER CONNECTED CFM FOR BALANCING FLEXIBILITY.

**2/2/2023 14:17**

# AIR-COOLED CHILLER

| MARK | BASIS OF DESIGN: Manufacturer "Model" | LOCATION OF UNIT | REQUIRED CAPACITY (tons) | NOMINAL CAPACITY (tons) | COMPRESSOR: REFRIG (type/pounds) | COMPRESSOR: NUMB... | EVAPORATOR: FLOW (gpm) | EVAPORATOR: EWT (°F) | EVAPORATOR: LWT (°F) | EVAPORATOR: MAX PD (ft. H2O) | EVAPORATOR: UNIT MIN FLOW (gpm) | EFFICIENCY: MAX AT 100% LOAD BTU/W-H | EFFICIENCY: RATED IPLV BTU/W-H | ELECTRICAL: V/PH/HZ | ELECTRICAL: MCA | ELECTRICAL: MOP | PUMP SIZING: MOTOR SIZE (hp) | PUMP SIZING: PUMP FLA | PUMP SIZING: EXT. PRESSURE DROP (ft) | PUMP SIZING: NET POS. SUCTION HEAD (ft) | PHYSICAL DATA: WEIGHT (LBS) | PHYSICAL DATA: H (IN.) | PHYSICAL DATA: W (IN.) | PHYSICAL DATA: L (IN.) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CH-1 | TRANE ACSA1802EUA | OUTDOORS | 148.86 | 180 | R410 / 73 | 6 | 304 | 52 | 40 | 11.06 | 238.6 | 10.096 | 16.844 | 480/3/60 | 399 | 500 | 25 | 34 | 75 | 12.13 | 12,781 | 98 | 88 | 282 | 1-8 |

**NOTES:**

1. USE AMBIENT AIR CONDITION OF 105 DEG F.
2. EVAPORATOR FOULING FACTOR = 0.0001, CONDENSER FOULING FACTOR = 0.00025.
3. EVAPORATOR FLUID: 30% PROPYLENE GLYCOL/WATER SOLUTION BY WEIGHT + CHEMICAL TREATMENT.
4. NPLV IN ACCORDANCE WITH TABLE 3 OF AHRI STANDARD 550/590-2011.
5. PROVIDE WITH SOUND ATTENUATION PACKAGE AND HEAT TRACING.
6. PROVIDE CHILLER WITH INTEGRAL PUMP PACKAGE WITH VFDS. PROVIDE (2) FULLY REDUNDANT PUMPS SIZED FOR FULL FLOW.
7. PUMP EXTERNAL STATIC PRESSURE INCLUDES ALL PRESSURE LOSSES OUTSIDE OF CHILLER. PUMP SELECTED FOR 30% GLYCOL.
8. REFERENCE MECHANICAL ELECTRICAL COORDINATION SCHEDULE ON ELECTRICAL DRAWINGS FOR SHORT CIRCUIT CURRENT RATING

**2/2/2023 14:25**


STATE OF MISSOURI — RICKI MANKTALA — NUMBER PE-2009/000026 — PROFESSIONAL ENGINEER
02/07/2023

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| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

M5.1

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MECHANICAL SCHEDULES

BranchPattern www.branchpattern.com PROJECT NUMBER 120302 BETTER BUILT ENVIRONMENTS

2/7/2023 4:41:28 PM
BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

# TERMINAL BOX SCHEDULE

| MARK | BASIS OF DESIGN | SIZE UNIT | OUTLET SIZE | DESIGN MAX AIRFLOW | HEATING AIRFLOW | OCCUPIED MIN AIRFLOW | UNOCCUPIED MIN AIRFLOW | HOT WATER COIL | | | | ROOM CONDITION SETPOINTS | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | MIN. NO. OF ROWS | CALCULATED OUTPUT | MAX. WATER FLOW | MAX. WATER P.D. | MIN. TEMP. | MAX. TEMP. | MIN. HUMIDITY | MAX. HUMIDITY | |
| | Manuacturer "Model" | | in. | cfm | cfm | cfm | cfm | | mbh | gpm | ft. H2O | °F | °F | %RH | %RH | |
| 1-01 | TITUS DESV | 16 | 24X18 | 2290 | 2290 | 775 | 775 | 4 | 85.0 | 7.2 | 0.56 | 68 | 75 | -- | -- | 1-4 |
| 1-02 | TITUS DESV | 7 | 12X10 | 570 | 570 | 300 | 300 | 3 | 21.4 | 3.2 | 0.43 | 68 | 75 | -- | -- | 1-4 |
| 1-03 | TITUS DESV | 8E | 14X12.5 | 610 | 610 | 185 | 185 | 3 | 22.9 | 2.2 | 0.21 | 68 | 75 | -- | -- | 1-4 |
| 1-04 | TITUS DESV | 5 | 12X8 | 200 | 200 | 60 | 60 | 2 | 6.4 | 0.9 | 0.08 | -- | 78 | -- | -- | 1,2,4,5 |
| 1-05 | TITUS DESV | 6E | 12X10 | 435 | 435 | 305 | 305 | 2 | 12.7 | 1.4 | 0.21 | 70 | 75 | -- | 60% | 1-4 |
| 1-06 | TITUS DESV | 4 | 12X8 | 210 | 210 | 150 | 150 | 2 | 6.6 | 0.9 | 0.15 | 70 | 75 | -- | 60% | 1-4 |
| 1-07 | TITUS DESV | 9 | 14X12.5 | 760 | 760 | 630 | 630 | 2 | 20.4 | 2.9 | 0.21 | 70 | 75 | 30% | 60% | 1-4 |
| 1-08 | TITUS DESV | 9 | 14X12.5 | 860 | 860 | 660 | 660 | 3 | 28.6 | 3.4 | 0.31 | 70 | 75 | 30% | 60% | 1-4 |
| 1-09 | TITUS DESV | 2E | 20X17.5 | 1375 | 1375 | 735 | 735 | 3 | 60.9 | 6.4 | 0.32 | 70 | 75 | -- | 60% | 1-4 |
| 1-10 | TITUS DESV | 8E | 14X12.5 | 570 | 570 | 420 | 420 | 2 | 15.3 | 1.7 | 0.13 | 70 | 75 | 30% | 60% | 1-4 |
| 1-11 | TITUS DESV | 9 | 14X12.5 | 970 | 970 | 635 | 635 | 3 | 28.6 | 3.4 | 0.31 | 70 | 75 | 30% | 60% | 1-4 |
| 1-12 | TITUS DESV | 8E | 14X12.5 | 650 | 650 | 430 | 430 | 3 | 22.6 | 2.1 | 0.20 | 72 | 78 | -- | 605 | 1-4 |
| 1-13 | TITUS DESV | 7 | 12X10 | 500 | 500 | 345 | 345 | 3 | 18.8 | 2.2 | 0.34 | 70 | 75 | -- | 60% | 1-4 |
| 1-14 | TITUS DESV | 6 | 12X8 | 350 | 350 | 365 | 365 | 3 | 13.2 | 1.4 | 0.33 | 72 | 78 | -- | 60% | 1-4 |
| 1-15 | TITUS DESV | 7 | 12X10 | 500 | 500 | 325 | 325 | 3 | 18.8 | 2.2 | 0.34 | 70 | 75 | -- | 60% | 1-4 |
| 1-16 | TITUS DESV | 9 | 14X12.5 | 810 | 810 | 500 | 500 | 3 | 30.5 | 4.1 | 0.36 | 68 | 75 | -- | -- | 1-4 |
| 1-17 | TITUS DESV | 8E | 14X12.5 | 640 | 640 | 245 | 245 | 3 | 24.1 | 2.4 | 0.23 | 68 | 78 | -- | -- | 1-4 |
| 1-18 | TITUS DESV | 6 | 12X8 | 410 | 410 | 150 | 150 | 2 | 11.0 | 2.0 | 0.33 | 70 | 75 | -- | 60% | 1-4 |
| 1-19 | TITUS DESV | 8E | 14X12.5 | 600 | 600 | 915 | 915 | 2 | 16.1 | 1.8 | 0.14 | 68 | 78 | -- | -- | 1-4 |
| 1-20 | TITUS DESV | 7E | 14X12.5 | 530 | 530 | 275 | 275 | 3 | 20.2 | 1.8 | 0.24 | 72 | 78 | -- | -- | 1-4 |
| 2-01 | TITUS DESV | 16 | 24X18 | 2160 | 2160 | 2160 | 1000 | 4 | 81.2 | 6.8 | 0.52 | 62 | 62 | 30% | 60% | 1-4 |
| 2-02 | TITUS DESV | 14 | 20X17.5 | 1980 | 1980 | 1980 | 1000 | 4 | 74.4 | 6.1 | 0.61 | 62 | 62 | 30% | 60% | 1-4 |
| 2-03 | TITUS DESV | 14 | 20X17.5 | 1980 | 1980 | 1980 | 1000 | 4 | 74.4 | 6.1 | 0.61 | 62 | 62 | 30% | 60% | 1-4 |
| 2-04 | TITUS DESV | 14 | 20X17.5 | 1980 | 1980 | 1980 | 1000 | 4 | 74.4 | 6.1 | 0.61 | 62 | 62 | 30% | 60% | 1-4 |
| 2-05 | TITUS DESV | 2E | 20X17.5 | 1200 | 1200 | 290 | 290 | 3 | 39.5 | 2.6 | 0.16 | 68 | 75 | -- | -- | 1-4 |
| 2-06 | TITUS DESV | 6 | 12X8 | 400 | 400 | 270 | 270 | 2 | 10.7 | 1.8 | 0.31 | 70 | 75 | -- | -- | 1-4 |
| 2-07 | TITUS DESV | 8 | 12X10 | 750 | 750 | 750 | 750 | -- | -- | -- | -- | -- | 78 | -- | 60% | 1,2,4,5 |
| 2-08 | TITUS DESV | 16 | 24X18 | 2100 | 1600 | 1600 | 1600 | 3 | 64.5 | 4.8 | 0.47 | 72 | 78 | -- | 60% | 1-4 |
| 2-09 | TITUS DESV | 7E | 14X12.5 | 630 | 630 | 630 | 630 | 2 | 16.9 | 1.9 | 0.27 | 72 | 75 | -- | -- | 1-4 |
| 2-10 | TITUS DESV | 7E | 14X12.5 | 550 | 550 | 550 | 550 | 2 | 14.8 | 1.6 | 0.21 | 72 | 78 | -- | 60% | 1-4 |
| TB-R-01 | PRICE RDV | 14 | 20X17.5 | 2160 | -- | 2160 | 1000 | -- | -- | -- | -- | -- | -- | -- | -- | 1,2,4,6 |
| TB-R-02 | PRICE RDV | 14 | 20X17.5 | 1980 | -- | 1980 | 900 | -- | -- | -- | -- | -- | -- | -- | -- | 1,2,4,6 |
| TB-R-03 | PRICE RDV | 14 | 20X17.5 | 1980 | -- | 1980 | 900 | -- | -- | -- | -- | -- | -- | -- | -- | 1,2,4,6 |
| TB-R-04 | PRICE RDV | 14 | 20X17.5 | 1980 | -- | 1980 | 900 | -- | -- | -- | -- | -- | -- | -- | -- | 1,2,4,6 |

NOTES:

1. BOX SELECTIONS MADE WITH NO LINER AND 0.3" STATIC PRESSURE DOWNSTREAM OF THE BOX.
2. NC LEVELS DETERMINED USING AHRI 885-2005, APPENDIX E.
3. HOT WATER COILS SELECTED AT MAXIMUM AIRFLOW, 130°F EWT, 55°F EAT, 95°F LAT.
4. PROVIDE 8x8 INSULATED ACCESS PANEL.
5. COOLING ONLY UNIT.
6. RETURN VARIABLE AIR VALVE.

# AIR OUTLET AND INLET SCHEDULE

| MARK | MANUF. & MODEL | TYPE | MODULE SIZE, IN | NECK SIZE (W X H OR DIA), IN | MAX AIRFLOW CFM | MATERIAL | FINISH | OBD | BORDER | PERFORMANCE MAX. NC | PERFORMANCE MAX. SPD, IN | NOTES: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D-1 | TITUS OMNI | PLAQUE FACE DIFFUSER | 24 x 24 | 6 | 200 | STEEL | WHITE | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 3 |
| | | | | 8 | 350 | | | | | | | |
| | | | | 10 | 500 | | | | | | | |
| | | | | 12 | 630 | | | | | | | |
| | | | | 14 | 855 | | | | | | | |
| D-2 | TITUS OMNI | PLAQUE FACE DIFFUSER | 12 x 12 | 6 | 120 | STEEL | WHITE | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 3 |
| | | | | 8 | 170 | | | | | | | |
| D-3 | TITUS FL-15 | LINEAR SLOT, (1) 1.5" SLOT, VERTICAL THROW, 8" INLET, TYPE 55 CONCEALED FRAME, COORDINATE FINISH WITH ARCHITECT | 48" | | | STEEL | BLACK | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 1,2 |
| D-4 | TITUS FL-15 | LINEAR SLOT, (1) 1.5" SLOT, VERTICAL THROW, 8" INLET, TYPE 55 CONCEALED FRAME, COORDINATE FINISH WITH ARCHITECT | 24" | | | STEEL | BLACK | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 1,2 |
| D-5 | TITUS TLF | STAINLESS STEEL LAMINAR FLOW DIFFUSER WITH INTEGRAL HEPA FILTERS | 48 x 24 | 10 | 250 | STAINLESS STEEL | WHITE | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 1,3 |
| D-6 | TITUS OMNI-SS | PLAQUE FACE DIFFUSER STAINLESS STEEL CONSTRUCTION | 24 x 24 | 4 | 80 | STAINLESS STEEL | WHITE | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 3 |
| | | | | 6 | 180 | | | | | | | |
| | | | | 8 | 335 | | | | | | | |
| D-7 | TITUS 301FL | SUPPLY 3/4" BLADE SPACING, 0 DEG. DEFLECTION, BLADES PARALLEL TO THE LONG DIMENSION | SEE PLANS | | | STEEL | WHITE | NO | SIDEWALL | 25 | 0.10 | |
| D-8 | TITUS PDR-AA | PERFORATED LAY-IN SUPPLY GRILLE ALL ALUMINUM CONSTRUCTION | 24 x 24 | 12 | 500 | ALUMINUM | WHITE | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 3 |
| | | | | 16 | 1000 | | | | | | | |
| R-1 E-1 | TITUS PAR | PERFORATED LAY-IN | 24 x 24 48 x 24 | 6 X 6 | 100 | STEEL | WHITE | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 3 |
| | | | | 8 X 8 | 200 | | | | | | | |
| | | | | 10 X 10 | 300 | | | | | | | |
| | | | | 12 X 12 | 450 | | | | | | | |
| | | | | 15 X 15 | 650 | | | | | | | |
| | | | | 18 X 18 | 1100 | | | | | | | |
| | | | | 22 X 22 | 1500 | | | | | | | |
| R-2 E-2 | TITUS PAR | PERFORATED LAY-IN | 12 x 12 | 6 | 100 | STEEL | WHITE | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 3 |
| | | | | 6 X 6 | 125 | | | | | | | |
| | | | | 10 X 10 | 360 | | | | | | | |
| E-3 | TITUS PAR-SS | PERFORATED LAY-IN STAINLESS STEEL CONSTRUCTION | 24 x 24 | 6 X 6 | 100 | STAINLESS STEEL | WHITE | NO | LAY-IN OR SURFACE (REF: RCP) | 25 | 0.10 | 3 |
| | | | | 8 X 8 | 200 | | | | | | | |
| | | | | 10 X 10 | 300 | | | | | | | |
| | | | | 12 X 12 | 450 | | | | | | | |
| | | | | 15 X 15 | 650 | | | | | | | |
| | | | | 18 X 18 | 1100 | | | | | | | |
| | | | | 22 X 22 | 1500 | | | | | | | |
| R-3 | TITUS 350RL-SS | RETURN / EXHAUST 3/4" BLADE SPACING, 35 DEG. DEFLECTION, BLADES PARALLEL TO THE LONG DIMENSION STAINLESS STEEL CONSTRUCTION | 12 x 30 | | | STAINLESS STEEL | WHITE | NO | SIDEWALL | 25 | 0.10 | 1 |

NOT...

GEN BORDER TYPES SHALL BE COMPATIBLE WITH ARCHITECTURAL CEILING TYPE FOR THE ROOM IN WHICH THE AIR DEVICE IS LOCATED. CONTRACTOR TO CONFIRM BORDER TYPE PRIOR TO ORDERING.

GEN BRANCH DUCT RUNOUT FOR REGISTER/GRILLE TO BE SAME AS NECK SIZE UNLESS NOTED OTHERWISE.

GEN OR EQUAL

1. PROVIDE WITH INTEGRAL BALANCING DAMPER WITH REMOTE ACTUATOR.
2. PROVIDE WITH INSULATED SUPPLY PLENUM.
3. PROVIDE WITH INSULATED BACK PAN.

# HOT WATER BOILER SCHEDULE - CONDENSING

| MARK | BASIS OF DESIGN | SERVICE | LOCATION OF UNIT | HEAT OUTPUT | DISCHARGE WATER TEMP | DESIGN WATER FLOW | MAX WATER PD | BURNER - GAS | | | | | CONNECTION SIZES | | | | ELECTRICAL | | WEIGHT | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | TYPE | MAX INPUT | MAX GAS PRES | MIN GAS PRES | MIN % EFF | TURNDOWN RATIO | FLUE | COMB AIR | WATER IN/OUT | GAS | POWER | FLA | |
| | Manufacturer "Model" | | Room No. | mbh | °F | gpm | ft | | mbh | in. wc | in. wc | | | in. Ø | in. Ø | in. Ø | in. Ø | v/ph/hz | amps | lbs | |
| B-1 | LOCHINVAR FCB2500 | HEATING | MECH ROOM | 2400 | 130 | 138 | 8.4 | NAT | 2500 | 14 | 4.0 | 96 | 20:01 | 9" | 8" | 4" | 2" | 208/3/60 | 4.5 | 3555 | 1-7 |
| B-2 | LOCHINVAR FCB2500 | HEATING | MECH ROOM | 2400 | 130 | 138 | 8.4 | NAT | 2500 | 14 | 4.0 | 96 | 20:01 | 9" | 8" | 4" | 2" | 208/3/60 | 4.5 | 3555 | 1-7 |

NOTES:

1. ALL CAPACITIES STATED ARE FOR BELOW 2000 FT ALTITUDE.
2. MINIMUM HEAT OUTPUT FOR 110°F EWT, 20°F DELTA T, AND MINIMUM PERCENT EFFICIENCY AT 100% FIRING RATE.
3. MAXIMUM WATER FLOW BASED ON HEAT OUTPUT AND A 20 DEGF DELTA T.
4. MAXIMUM WATER PRESSURE DROP (MAX WATER PD) AT MAXIMUM WATER FLOW.
5. MINIMUM PERCENT EFFICIENCY (MIN. % EFF.) AT 100°F EWT, 40°F DELTA T, AND 60% FIRING RATE.
6. PROVIDE NEUTRALIZATION DRAIN KIT. BOILER PRESSURE RELIEF VALVE TO BE 80 PSI.
7. REFERENCE MECHANICAL ELECTRICAL COORDINATION SCHEDULE ON ELECTRICAL DRAWINGS FOR SHORT CIRCUIT CURRENT RATING.

**1/20/2023 11:49**

# DUCTLESS SPLIT SYSTEM SCHEDULE

| MARK | MANUFACTURER & MODEL | SERVES | LOCATION | FAN CFM MIN / MAX | COIL CAPACITY HEATING CAPACITY (MBH) | COIL CAPACITY COOLING CAPACITY (MBH) | SEER / EER | ELECTRICAL DATA FLA | ELECTRICAL DATA MCA | ELECTRICAL DATA VOLTS/PH/HZ | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SS-1 | TRANE PKA-A36KA7 | COMM 108 | COMM 108 | 705 / 920 | N/A | 36.0 | 18.8 / 10.8 | .57 | 1 | 208/1/60 | 1,2,3,4,5 |
| SS-2 | TRANE PKA-A12LA | ELEC 197 | ELEC 197 | 265 / 455 | N/A | 12.0 | 21 / 13.3 | .19 | 1 | 208/1/60 | 1,2,3,4,5 |
| SS-3 | TRANE PLA-A24EA7 | GAS STOR. 199 | GAS STOR. 199 | 265 / 455 | 29.0 | 24.0 | 24.2 / 14.3 | .49 | 1 | 208/1/60 | 1,2,3,4,5 |
| SS-4 | TRANE PLA-A42EA7 | MECH 195 | MECH 195 | 740 / 1200 | 48.0 | 42.0 | 21 / 11.6 | .95 | 2 | 208/1/60 | 1,2,3,4,5 |
| SS-5 | TRANE PKA-A12LA | EM ELEC 196 | EM ELEC 196 | 265 / 455 | N/A | 12.0 | 21 / 13.3 | .19 | 1 | 208/1/60 | 1,2,3,4,5 |

NOTES

1. PROVIDE WALL MOUNTED THERMOSTAT.
2. PROVIDE REFRIGERANT PIPING TO CONDSENING UNIT PER MANUFACTURERS REQUIREMENTS.
3. UNIT POWER SUPPLIED FROM OUTDOOR UNIT.
   IF REQUIRED, PROVIDE MODEL SI-30 CONDENSATE PUMP WIRED FROM INDOOR UNIT PER PUMP MANUFATURER'S INSTRUCTIONS OR FACTORY INSTALLED PUMP.
4. INTERLOCK FLOAT SWITCH TO DISABLE EVAPORATOR UNIT ON HIGH WATER.
5. RUN ALL PIPING CONCEALED.

# DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE

| MARK | MANUFACTURER & MODEL | SERVES | LOCATION | FULL LOAD CAP. (MBH) | OPERATING TEMPS HEATING (F) MIN / MAX | OPERATING TEMPS COOLING (F) MIN / MAX | HSPF | ELECTRICAL DATA MCA | ELECTRICAL DATA MOPD | ELECTRICAL DATA VOLTS/PH/HZ | NOTES: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CU-1 | TRANE PUY-A36NKA7 | SS-1 | COMM 108 | 36.0 | N/A | -40 / 115 | N/A | 25.0 | 31 | 208/1/60 | 1,2,3,4,5 |
| CU-2 | TRANE PUY-A12NKA7 | SS-2 | ELEC 197 | 12.0 | N/A | -40 / 115 | N/A | 11.0 | 28 | 208/1/60 | 1,2,3,4,5 |
| CU-3 | TRANE PUZ-A24NHA7 | SS-3 | GAS STOR. 199 | 24.0 | -4 /70 | 0 / 115 | 11.2 | 19.0 | 26 | 208/1/60 | 1,2,3,4,5 |
| CU-4 | TRANE PUZ-A42NKA7 | SS-4 | MECH 195 | 42.0 | -4 /70 | 0 / 115 | 0.3 | 25.0 | 31 | 208/1/60 | 1,2,3,4,5 |
| CU-5 | TRANE PUY-A12NKA7 | SS-5 | EM ELEC 196 | 12.0 | N/A | -40 / 115 | N/A | 11.0 | 28 | 208/1/60 | 1,2,3,4,5 |

NOTES:

1. PROVIDE REFRIGERANT AND REFRIGERANT PIPING TO INDOOR UNIT PER MANUFACTURERS REQUIREMENT.
2. PROVIDE WITH WIND GUARD AND ALL ACCESSORIES FOR LOW AMBIENT OPERATION.
3. INSTALL OUTDOOR UNIT ON EQUIPMENT PAD WITH ELEVATED PREFAB EQUIPMENT STAND OR WALL BRACKET AS INDICATED ON DRAWINGS.
4. ACCEPTABLE MANUFACTURERS: CARRIER OR EQUAL.
5. REFERENCE MECHANICAL ELECTRICAL COORDINATION SCHEDULE ON ELECTRICAL DRAWINGS FOR SHORT CIRCUIT CURRENT RATING.

# PUMP SCHEDULE

| MARK | BASIS OF DESIGN | SERVICE | LOCATION OF UNIT | TYPE OF FLOW | PUMP TYPE | PUMP MIN FLOW | PUMP MIN HEAD | PUMP FLUID TEMP. (°F) | PUMP MAX NPSH | PUMP MAX BHP | PUMP MIN EFF | MOTOR MAX SIZE | MOTOR MAX SPEED | MOTOR ELEC | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Manuacturer "Model" | | Room No. | | | gpm | ft. H2O | | ft. H2O | | % | hp | rpm | v/ph/hz | |
| HWP-01 | B&G E-80 2.5x2.5x7B | HEATING HOT WATER | MECH | VARIABLE | VERTICAL INLINE | 165 | 65 | 130 | 6.8 | 4.1 | 67% | 7.5 | 3600 | 208/3/60 | 1,2 |
| HWP-02 | B&G E-80 2.5x2.5x7B | HEATING HOT WATER | MECH | VARIABLE | VERTICAL INLINE | 165 | 65 | 130 | 6.8 | 4.1 | 67% | 7.5 | 3600 | 208/3/60 | 1,2 |

**NOTES:**

**GEN REFER TO CHILLER SCHEDULE FOR CHILLED WATER PUMP INFORMATION. CHILLER SHALL COME WITH (2) INTEGRAL CHILLED WATER PUMPS.**

**1. IMPELLOR FOR VARIABLE FLOW PUMPS SHALL BE TRIMMED FOR MAXIMUM DIAMETER THAT WILL NOT EXCEED THE CAPACITY OF THE PUMP MOTOR.**

**2. REFERENCE MECHANICAL ELECTRICAL COORDINATION SCHEDULE ON ELECTRICAL DRAWINGS FOR SHORT CIRCUIT CURRENT RATING.**

**2/3/2023 13:39**

# GLYCOL FEED TANK

| MARK | MANUFACTURER | SERVES | TANK SIZE (GAL) | MOTOR HP | MOTOR VOLT/PH/HZ | NOTES |
|---|---|---|---|---|---|---|
| GT-1 | NEPTUNE | CHILLED WATER | 50 | 1/3 | 120/1/60 | 1 |

**NOTES:**

**1. 50 GALLON POLYETHYLENE TANK WITH 1/3" HINGED PE COVER, CARBON STEEL BOTTOM MOUNT STAND, NEMA 4X CONTROL PANEL W/ 115V CORD. LOW LEVEL SWITCH, 1/3 HP GEAR PUMP, PUMP CONTROLLED BY BMS, "PUMP" UNDER TANK WITH AGITATOR.**

STATE OF MISSOURI RICKI MANKTALA NUMBER PE-#009700026 PROFESSIONAL ENGINEER
02/07/2023

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Lee's Summit, MO 64063

| | |
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| Job Number | 3-22030 |
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M5.2

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MECHANICAL SCHEDULES

2/7/2023 4:41:36 PM



## AIR BALANCE SCHEDULE

| ROOM | AREA (SQ.FT) | CEILING HEIGHT (FT) | ROOM VOLUME (CU. FT.) | ROOM TYPE | REQUIRED AIR CHANGE RATE OA | REQUIRED AIR CHANGE RATE MIN | REQUIRED AIRFLOW (CFM) | DESIGN SUPPLY AIRFLOW (CFM) | RETURN AIRFLOW (CFM) | EXHAUST AIRFLOW (CFM) | ROOM PRESSURE (CFM) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 - Waiting | 995 | 12 | 11,940 | General Waiting Room | 0 | 0 | 775 | 2,290 | 2,290 | -- | 0 |
| 102 - Reception | 275 | 9 | 2,475 | Reception | 0 | 0 | 300 | 570 | 570 | -- | 0 |
| 105 - Administration | 410 | 9 | 3,690 | Office | 0 | 0 | 185 | 610 | 610 | -- | 0 |
| 109 - Exam | 105 | 9 | 945 | Exam Room | 2 | 6 | 120 | 185 | 185 | -- | 0 |
| 111 - Consult | 80 | 9 | 720 | Office | 0 | 0 | 120 | 250 | 250 | -- | 0 |
| 112 - Toilet | 60 | 9 | 540 | Toilet Room/Soiled/Janitor | 0 | 10 | 50 | 50 | -- | 100 | -50 |
| 113 - Toilet | 60 | 9 | 540 | Toilet Room/Soiled/Janitor | 0 | 10 | 50 | 50 | -- | 100 | -50 |
| 114 - Toilet | 50 | 9 | 450 | Toilet Room/Soiled/Janitor | 0 | 10 | 50 | 100 | -- | 150 | -50 |
| 115 - PR 2 | 105 | 9 | 945 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 116 - PR 1 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 117 - PR 3 | 105 | 9 | 945 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 117 - PR 3 | 105 | 9 | 945 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 118 - Nurse Station | 240 | 9 | 2,160 | Nurse Station | 0 | 0 | 120 | 400 | 400 | -- | 0 |
| 120 - Hall | 960 | 9 | 8,640 | Corridor | 0 | 2 | 290 | 400 | 500 | -- | +100 |
| 121 - PR 4 - 23 HR | 120 | 9 | 1,080 | Recovery Room | 2 | 6 | 135 | 160 | 160 | -- | 0 |
| 122 - Meds | 85 | 9 | 765 | Medication Room | 2 | 4 | 100 | 160 | 75 | -- | +50 |
| 123 - Toilet | 55 | 9 | 495 | Toilet Room/Soiled/Janitor | 0 | 10 | 50 | 50 | -- | 100 | -50 |
| 124 - PR 7 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 125 - PR 5 - 23 HR | 120 | 9 | 1,080 | Recovery Room | 2 | 6 | 135 | 160 | 160 | -- | 0 |
| 126 - PR 8 | 130 | 9 | 1,170 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 127 - PR 6 | 105 | 9 | 945 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 128 - PR 9 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 129 - Office 4 | 125 | 9 | 1,125 | Office | 0 | 0 | 40 | 110 | 110 | -- | 0 |
| 131 - Nourish | 240 | 9 | 2,160 | Dietary Storage | 0 | 2 | 75 | 250 | 250 | -- | 0 |
| 132 - PR 1 | 105 | 9 | 945 | Recovery Room | 2 | 6 | 95 | 140 | 140 | -- | 0 |
| 133 - PR 4 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 134 - PR 2 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 135 - Clean | 120 | 9 | 1,080 | Clean Workroom | 2 | 4 | 150 | 200 | 100 | -- | +100 |
| 136 - PR 3 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 137 - Storage | 175 | 9 | 1,575 | Storage | 0 | 0 | 70 | 100 | 100 | -- | 0 |
| 138 - PR 5 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 139 - Toilet | 50 | 9 | 450 | Toilet Room/Soiled/Janitor | 0 | 10 | 50 | 100 | 150 | -- | -50 |
| 140 - Hall | 890 | 9 | 8,010 | Corridor | 0 | 2 | 225 | 400 | 500 | -- | +100 |
| 142 - PR 6 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 144 - PR 7 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 146 - PR 8 | 100 | 9 | 900 | Recovery Room | 2 | 6 | 90 | 130 | 130 | -- | 0 |
| 148 - Toilet | 50 | 9 | 450 | Toilet Room/Soiled/Janitor | 0 | 10 | 50 | 50 | 100 | -- | -50 |
| 150 - Hall | 500 | 9 | 4,500 | Corridor | 0 | 2 | 150 | 300 | 200 | -- | +100 |
| 152 - GI Procedure | 340 | 9 | 3,060 | Endoscopy | 2 | 12 | 325 | 500 | 350 | -- | +150 |
| 153 - Scope Decon | 175 | 9 | 1,575 | Soiled/Decontam Room | 2 | 6 | 250 | 300 | -- | 600 | -300 |
| 154 - Scope Storage | 75 | 9 | 675 | Sterile Storage | 2 | 4 | 115 | 150 | 100 | -- | +50 |
| 155 - Scope Processing | 115 | 9 | 1,035 | Sterilizer Equipment Room | 0 | 10 | 100 | 200 | -- | 350 | -150 |
| 156 - GI Procedure | 305 | 9 | 2,745 | Endoscopy | 2 | 12 | 325 | 500 | 350 | -- | +150 |
| 157 - Storage | 90 | 9 | 810 | Storage | 0 | 0 | 30 | 50 | 50 | -- | 0 |
| 161 - Office 3 | 95 | 9 | 855 | Office | 0 | 0 | 40 | 100 | 100 | -- | 0 |
| 163 - Office 2 | 95 | 9 | 855 | Office | 0 | 0 | 40 | 100 | 100 | -- | 0 |
| 165 - Office | 95 | 9 | 855 | Office | 0 | 0 | 40 | 100 | 100 | -- | 0 |
| 166 - Staff Lounge | 400 | 9 | 3,600 | Break | 0 | 8 | 500 | 810 | 810 | -- | 0 |
| 167 - Clean | 70 | 9 | 630 | Clean Workroom | 2 | 4 | 30 | 110 | 60 | -- | +50 |
| 168 - Hall | 245 | 9 | 2,205 | Corridor | 0 | 2 | 195 | 590 | 590 | -- | 0 |
| 169 - Jan | 50 | 9 | 450 | Toilet Room/Soiled/Janitor | 0 | 10 | 50 | 50 | -- | 100 | -50 |
| 170/180 - Hall | 205 | 9 | 1,845 | Corridor | 0 | 2 | 290 | 1,200 | 1,800 | -- | -600 |
| 171 - Sterile Assembly | 490 | 9 | 4,410 | Clean Workroom | 2 | 4 | 1,690 | 2,100 | -- | 1,030 | +660 |
| 172 - Neptune | 40 | 9 | 360 | Lan (general) | 2 | 6 | 80 | 80 | -- | 130 | -50 |
| 173 - Jan | 40 | 9 | 360 | Toilet Room/Soiled/Janitor | 0 | 10 | 70 | 70 | -- | 120 | -50 |
| 174 - Soiled Hold | 45 | 9 | 405 | Toilet Room/Soiled/Janitor | 0 | 10 | 45 | 100 | -- | 150 | -50 |
| 175 - Womens Locker Room | 355 | 9 | 3,195 | Locker Room | 0 | 8 | 450 | 300 | -- | 500 | -50 |
| 176 - Path Lab | 50 | 9 | 450 | Lan (general) | 2 | 6 | 45 | 120 | 120 | -- | 0 |
| 177 - Mens Locker Room | 325 | 9 | 2,925 | Locker Room | 0 | 8 | 450 | 300 | -- | 500 | -200 |
| 178 - Anesth. | 55 | 9 | 495 | Medical/Anesthesia Gas Storage | 0 | 8 | 100 | 100 | -- | 150 | -50 |
| 181 - OR 1 | 475 | 10 | 4,750 | Class B and C Operating Rooms | 4 | 25 | 2,125 | 2,160 | 1,960 | -- | +200 |
| 182 - Decon | 255 | 9 | 2,295 | Soiled/Decontam Room | 2 | 6 | 630 | 710 | -- | 1,210 | -500 |
| 183 - OR 2 | 450 | 10 | 4,500 | Class B and C Operating Rooms | 4 | 25 | 1,940 | 1,980 | 1,780 | -- | +200 |
| 184 - Sterilizers | 135 | 9 | 1,215 | Sterilizer Equipment Room | 0 | 10 | 750 | 750 | -- | 1,000 | -250 |
| 185 - OR 3 | 435 | 10 | 4,350 | Class B and C Operating Rooms | 4 | 25 | 1,940 | 1,980 | 1,780 | -- | +200 |
| 186 - Sterile Storage | 420 | 9 | 3,780 | Sterile Storage | 2 | 4 | 480 | 480 | 480 | -- | 0 |
| 187 - Equip. Storage | 470 | 10 | 4,700 | Sterile Storage | 2 | 4 | 560 | 560 | 560 | -- | 0 |
| 191 - Trash | 80 | 9 | 720 | Toilet Room/Soiled/Janitor | 0 | 10 | 0 | 130 | -- | 180 | -50 |

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-2009/000026
PROFESSIONAL ENGINEER
02/07/2023

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# Surgery Center of Lee's Summit
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M5.3

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MECHANICAL SCHEDULES

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

2/7/2023 4:41:37 PM

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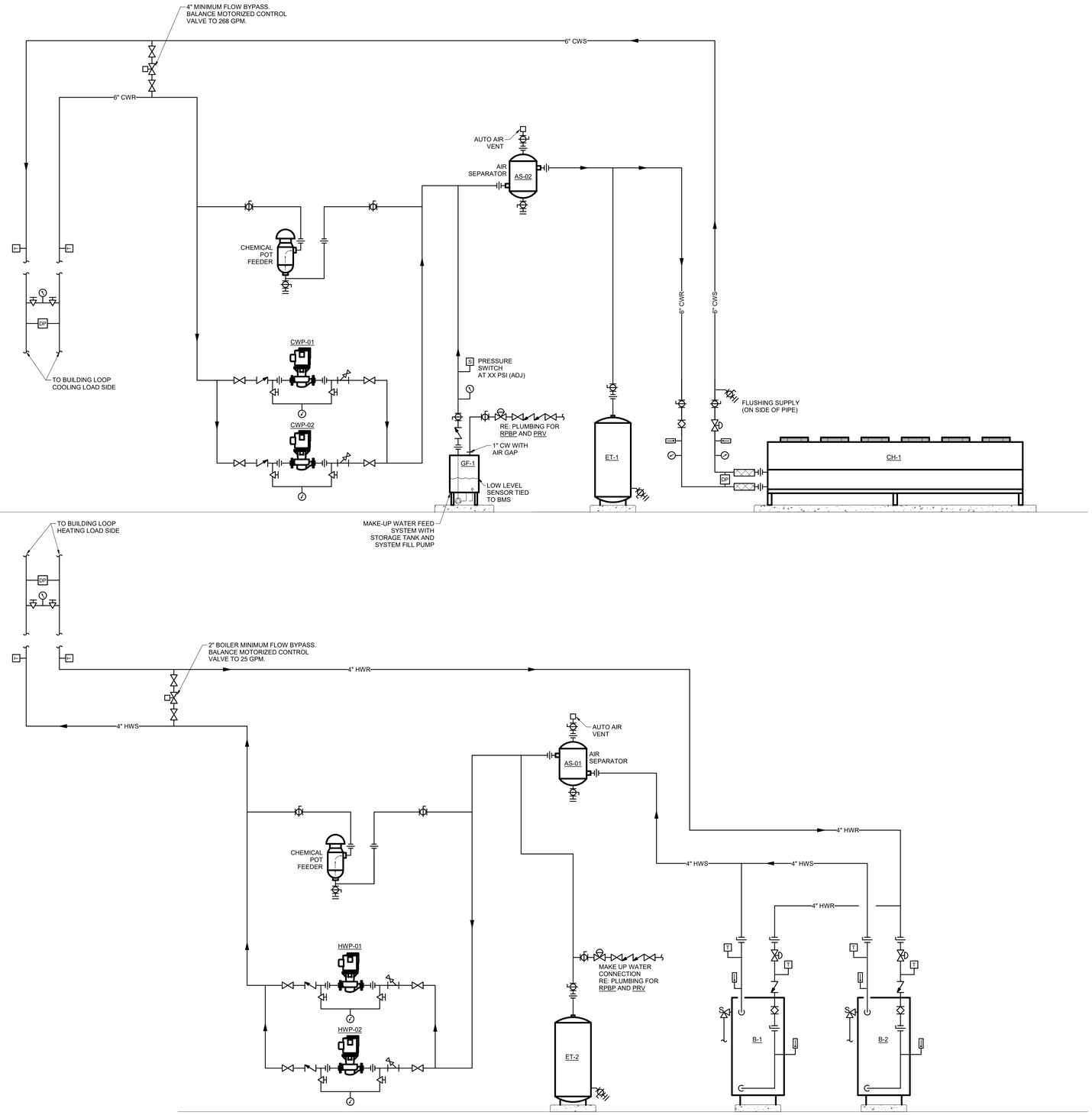


1 CHILLED WATER/HEATING WATER SYSTEM SCHEMATIC
SCALE: NONE


STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009/000026
PROFESSIONAL ENGINEER

02/07/2023

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MECHANICAL SCHEMATICS

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BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

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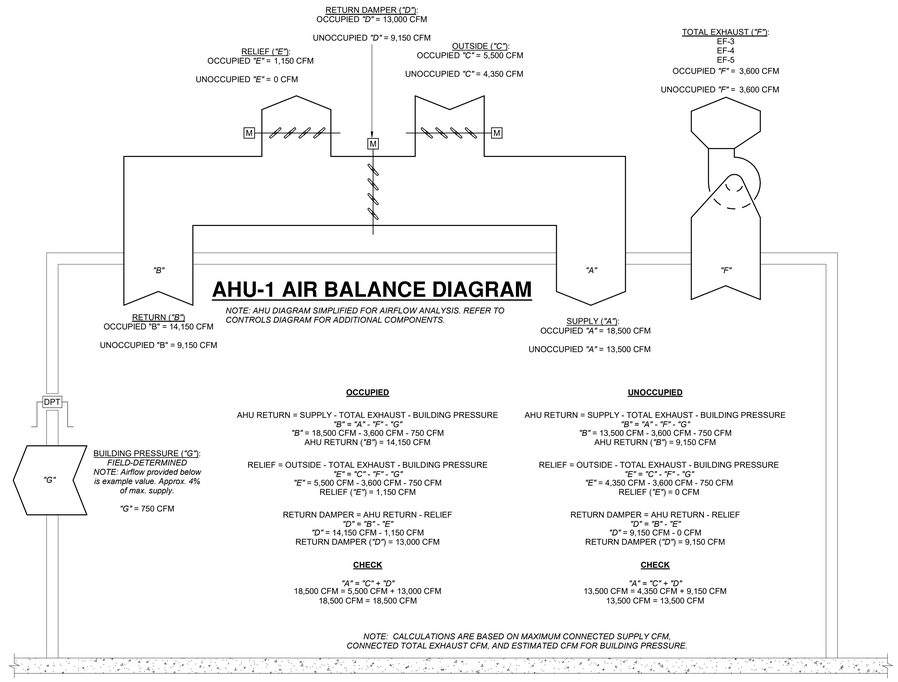
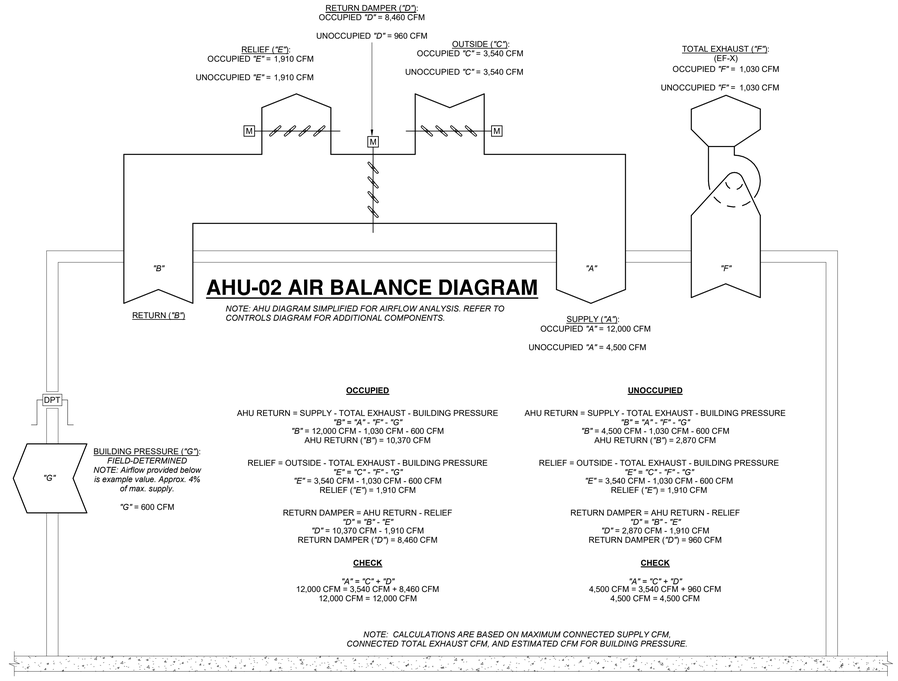
BETTER BUILT ENVIRONMENTS




1 AHU-01 - AIR BALANCE DIAGRAM
SCALE: NONE




2 AHU-02 - AIR BALANCE DIAGRAM
SCALE: NONE

STATE OF MISSOURI
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Revision

| Number | Date | Description |
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M6.2

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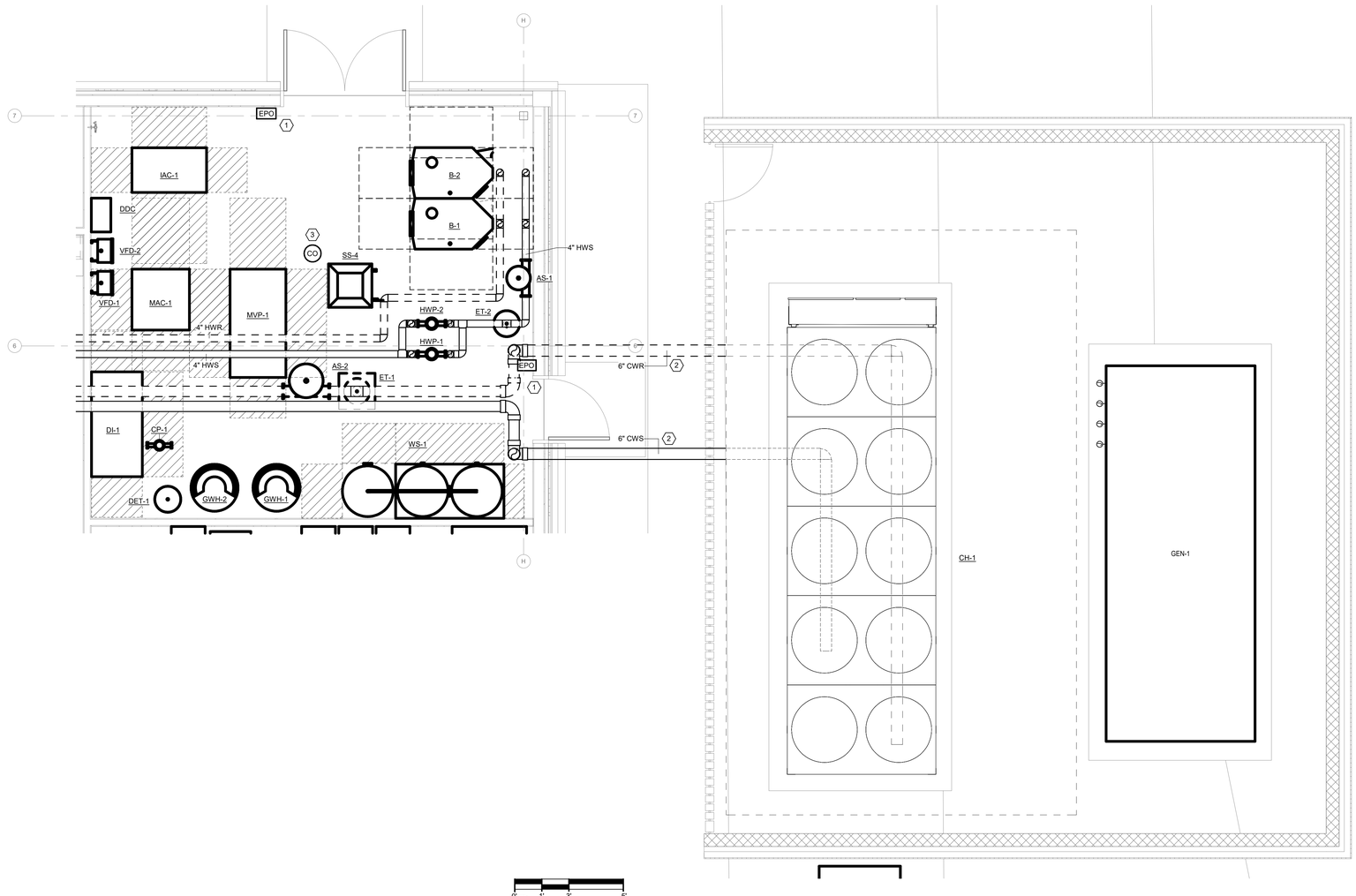
MECHANICAL SCHEMATICS

BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## KEY NOTES (X) (THIS SHEET)

1. PROVIDE EPO SWITCH FOR BOILERS AT EACH EXIT DOOR.
2. ROUTE CHILLED WATER PIPING UNDER GROUND FROM MECHANICAL ROOM OUT TO CHILLER. PROVIDE HEAT TRACE ON ALL OUTDOOR PIPING.
3. PROVIDE CARBON MONOXIDE DETECTOR.




1 ENLARGED MECHANICAL PLAN
SCALE: 3/8" = 1'-0"

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009/000026
PROFESSIONAL ENGINEER
02/07/2023

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

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|---|---|
| Date | 2/8/2023 |
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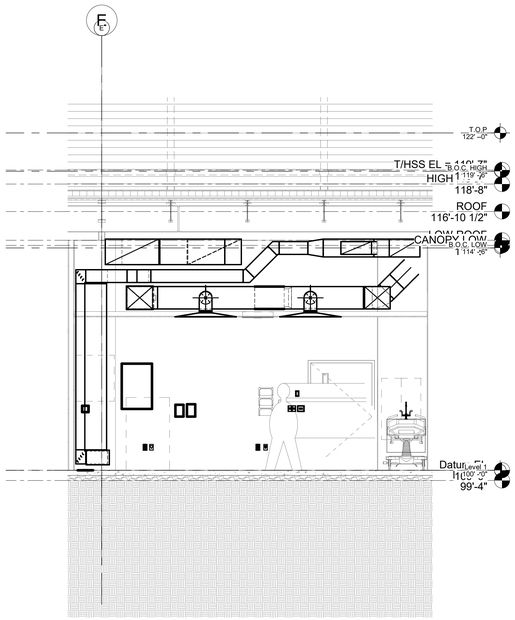
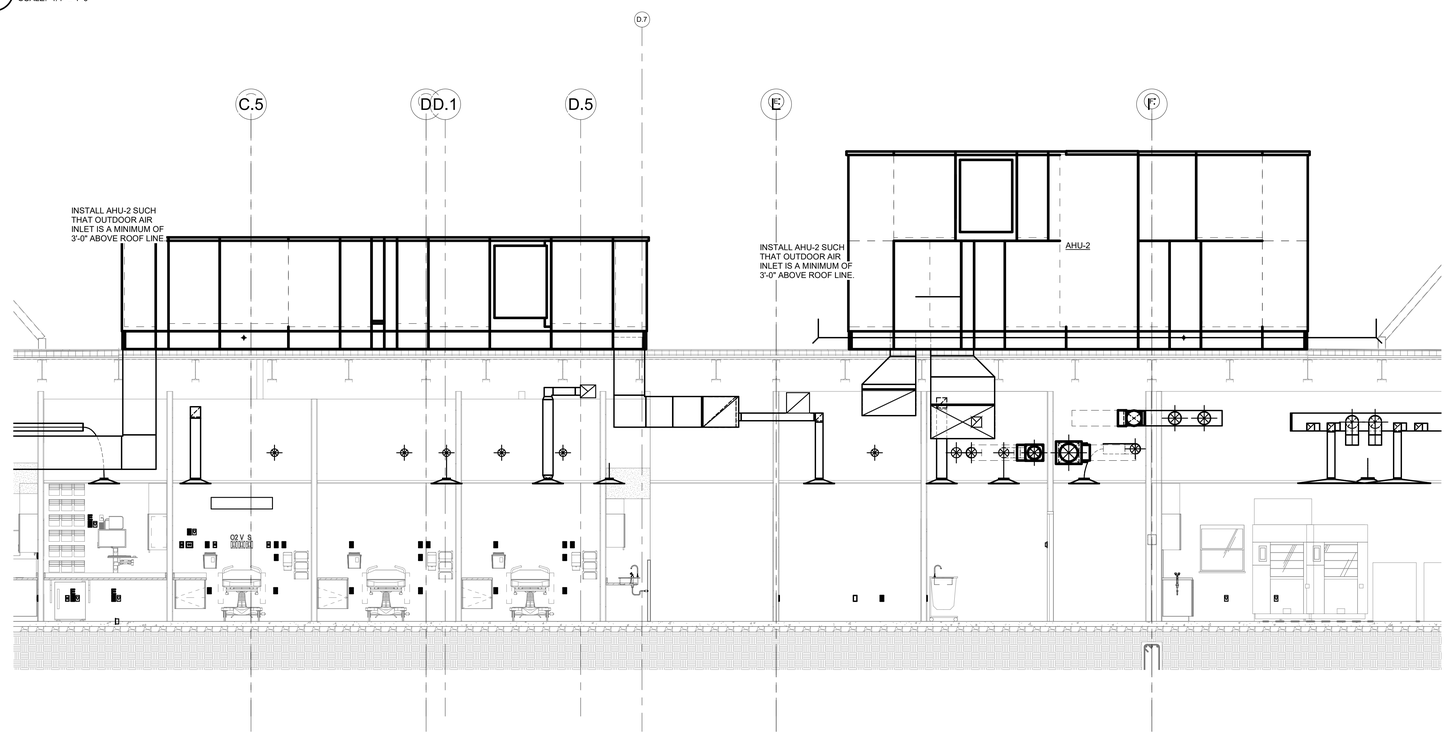
ENLARGED MECHANICAL PLANS




## 2 OR 1 - 181 SECTION VIEW
SCALE: 1/4" = 1'-0"




## 1 AHU SECTION
SCALE: 1/4" = 1'-0"

BranchPattern | www.branchpattern.com
PROJECT NUMBER: 1201002
BETTER BUILT ENVIRONMENTS

STATE OF MISSOURI
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PROFESSIONAL ENGINEER
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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

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ENLARGED MECHANICAL PLANS

**AHU-1 CONTROLS SEQUENCES**

AHU SHALL OPERATE DURING NORMAL BUSINESS HOURS AS A VARIABLE AIR VOLUME SYSTEM. DURING OFF HOURS, UNIT WILL POWER ON IN UNOCCUPIED MODE AS NECESSARY FOR BUILDING CONDITIONING.

**SUPPLY FAN ARRAY:**

A. START:
   1. THE VARIABLE FREQUENCY DRIVES (VFD) WILL "SOFT START" ALL FANS IN THE ARRAY AND SLOWLY (OVER A 2 MINUTE PERIOD) RAMP UP THE AIRFLOW WHENEVER THE UNIT IS STARTED AFTER A SHUTDOWN.

B. OPERATION:
   1. SUPPLY FANS WILL OPERATE CONTINUOUSLY TO MAINTAIN BUILDING PRESSURIZATION.
   2. VARIABLE FREQUENCY DRIVES (VFDs) SHALL CONTROL ALL FANS TO MAINTAIN THE SUPPLY AIR DUCT STATIC PRESSURE SETPOINT (SA-DSP-SP). SETPOINT WILL BE CONTINUALLY ADJUSTED SO THAT AT LEAST ONE (1) TERMINAL BOX WILL BE MAINTAINED AT 90% AIRFLOW BY UTILIZING TRIM AND RESPONSE (T&R) LOGIC AS OUTLINED IN ASHRAE GUIDELINE 36 USING STARTING POINT PARAMETERS FROM TABLE 5.16.1.2. ADJUST PARAMETERS AS REQUIRED DURING COMMISSIONING/TUNING OF SYSTEMS.

C. AIRFLOW VERIFICATION:
   1. SUPPLY FAN AIR MONITORING STATIONS (SA-AFMS) WILL CONTINUOUSLY MONITOR THE ACTUAL SUPPLY AIRFLOW WHICH WILL BE USED FOR THE RETURN FAN ARRAY AIRFLOW CALCULATION AND SYSTEM TROUBLESHOOTING.

D. SHUTDOWN:
   1. THE VFDs SHALL "SOFT STOP" ALL FAN IN THE ARRAY AND SLOWLY (OVER A 2 MINUTE PERIOD) RAMP DOWN THE AIRFLOW WHENEVER THE UNIT IS STOPPED AFTER A SHUTDOWN.

**RETURN FAN ARRAY (SUPPLY FAN TRACKING):**

A. START:
   1. VFDs WILL "SOFT START" ALL FANS IN THE ARRAY AND SLOWLY (OVER A 2 MINUTE PERIOD) RAMP UP THE AIRFLOW WHENEVER THE UNIT IS STARTED AFTER A SHUTDOWN.

B. OPERATION:
   1. RETURN FAN WILL OPERATE CONTINUOUSLY.
      A. RETURN AIR MONITORING STATION (RA-AFMS) WILL CONTINUOUSLY MONITOR THE RETURN AIRFLOW.
      B. RETURN FAN VFDS WILL MODULATE THE FANS TO TRACK THE SUPPLY AIRFLOW TO MAINTAIN THE CALCULATED RETURN FAN AIRFLOW SETPOINT (RFA-SP).
      C. RFA-SP WILL BE CALCULATED EVERY FIFTEEN (15) MINUTES AS FOLLOWS:
         1. AHU OCCUPIED = MEASURED SUPPLY - EXHAUST AIRFLOW (EF-1, EF-2) + FIELD-DETERMINED AIRFLOW FOR POSITIVE BUILDING PRESSURIZATION.
         2. AHU UNOCCUPIED = MEASURED SUPPLY - EXHAUST AIRFLOW (EF) - FIELD-DETERMINED AIRFLOW FOR POSITIVE BUILDING PRESSURIZATION.

C. SHUTDOWN:
   1. THE VFDS WILL "SOFT STOP" ALL FANS OF THE ARRAY AND SLOWLY (OVER A 2 MINUTE PERIOD) RAMP DOWN THE AIRFLOW WHENEVER THE UNIT IS STOPPED AFTER A SHUTDOWN.

**OUTSIDE AIR DAMPER (OAD) AND RETURN AIR DAMPER (RAD):**

A. NORMAL POSITION:
   1. OUTSIDE AIR NORMAL POSITION - CLOSED.
   2. MIXED AIR NORMAL POSITION - OPEN.

B. OPERATION:
   1. OUTSIDE AIR MONITORING STATION (OA-AFMS) WILL CONTINUOUSLY MONITOR THE ACTUAL OUTSIDE AIRFLOW AND WILL MODULATE THE OUTSIDE AIR AND MIXED AIR DAMPERS TO MAINTAIN THE OUTSIDE AIR VOLUME SETPOINTS (OAV-SP) AT THEIR OCCUPIED AND UNOCCUPIED VALUES AS FOLLOWS;
      A. AHU OCCUPIED: REFER TO AHU SCHEDULE FOR OUTSIDE AIRFLOW CFM.
      B. AHU UNOCCUPIED: EXHAUST AIRFLOW + FIELD-DETERMINED AIRFLOW FOR POSITIVE BUILDING PRESSURIZATION.

C. SHUTDOWN:
   1. DAMPERS WILL RETURN TO THEIR NORMAL POSITIONS.

**EXHAUST AIR DAMPER (EAD):**

A. NORMAL POSITION:
   1. EXHAUST AIR DAMPER NORMAL POSITION: CLOSED.

B. OPERATION:
   1. EXHAUST AIR DAMPER WILL MODULATE AS REQUIRED TO MAINTAIN THE BUILDING'S POSITIVE PRESSURE OF 0.03"WG (ADJ.).
   2. IF THE AIRFLOW IS DETERMINED TO NOT BE EXHAUSTING AS DETERMINED BY THE DIFFERENTIAL PRESSURE SENSOR (DPS-EX) THE RETURN FAN SHALL RAMP UP UNTIL EXHAUST FLOW IS ESTABLISHED.

C. SHUTDOWN:
   1. DAMPER WILL RETURN TO ITS NORMAL POSITION.

**HEATING COIL - HOT WATER VALVE:**

A. CALL FOR HEATING:
   1. IF THE MIXED AIR TEMPERATURE IS THREE (3) DEG-F BELOW THE OCCUPIED DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP).

B. OPERATION:
   1. ON A CALL FOR HEATING, THE HOT WATER CONTROL VALVE (HW-CV) WILL MODULATE OPEN AS REQUIRED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP).

**HEATING COIL PUMP:**

A. START/OPERATION:
   1. HEATING COIL PUMP (HWP-4) WILL SART AND OPERATE CONTINUOUSLY WHEN THE OUTSIDE AIR TEMPERATURE (OAT) IS BELOW 40F OR IF THE HEATING COIL VALVE (HW-CV) IS OPEN MORE THAN 10%.

B. SHUTDOWN:
   1. HEATING COIL PUMP WILL BE OFF WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 45F AND THE HEATING COIL VALVE HAS BEEN OPEN LESS THAN 5% FOR 5 MINUTES.

**COOLING COIL - CHILLED WATER VALVE:**

A. CALL FOR COOLING:
   1. IF THE MIXED AIR TEMPERATURE (MAT) IS THREE (3) DEG-F ABOVE THE DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP) AND SYSTEM HAS NOT ENTERED COOLING TEMPERATURE RESET.

B. OPERATION:
   1. ON A CALL FOR COOLING, THE CHILLED WATER CONTROL VALVE (CHW-CV) WILL MODULATE OPEN AS REQUIRED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP).

**MAXIMUM COOLING TEMPERATURE RESET:**

A. QUALIFYING PARAMETERS:
   1. NO FURTHER STATIC PRESSURE RESET HAS OCCURRED FOR THIRTY (30) MINUTES.
   2. THE CRITICAL PRESSURE ZONE'S TERMINAL BOX HEATING VALVE IS OPEN. [CRITICAL ZONE WILL BE FIELD DETERMINED DURING SYSTEM STARTUP.]

B. OPERATION:
   1. WHEN ALL THREE QUALIFYING PARAMETERS HAVE OCCURRED, RESET THE DISCHARGE AIR TEMPERATURE ONE (1) DEG-F HIGHER.
   2. IF QUALIFYING PARAMETERS REMAIN UNCHANGED FOR FIFTEEN (15) MINUTES, RESET THE DISCHARGE AIR TEMPERATURE ONE (1) DEG-F HIGHER.
   3. CONTINUE TEMPERATURE RESET UNTIL ONE OF THE QUALIFYING PARAMETERS CHANGES OR THE DISCHARGE AIR TEMPERATURE REACHES 60F.
   4. WHEN A QUALIFYING PARAMETER HAS CHANGED, RESET THE DISCHARGE AIR TEMPERATURE ONE (1) DEG-F COOLER EVERY FIFTEEN (15) MINUTES UNTIL THE QUALIFYING PARAMETERS REMAIN STABLE.

**HUMIDIFICATION:**

A. START:
   1. WHEN RETURN AIR HUMIDITY SENSOR (RAH) DROPS BELOW THE RETURN AIR HUMIDITY SETPOINT (RAH-SP) MINIMUM, THE DEDICATED STEAM GENERATOR WILL BE ENABLED AND HUMIDIFIER CONTROL VALVE (HUM-CV) WILL FULLY OPEN.

B. OPERATION:
   1. STEAM GENERATOR WILL OPERATE CONTINUOUSLY UNTIL RETURN AIR HUMIDITY SETPOINT (RAH-SP) MAXIMUM IS EXCEEDED.

C. SHUTDOWN:
   1. WHEN RETURN AIR HUMIDITY SETPOINT (RAH-SP) MAXIMUM IS EXCEEDED, THE STEAM GENERATOR WILL BE DISABLED.

**MORNING WARM-UP:**

A. START TIME WILL BE ADAPTIVE BASED ON THE PREVIOUS DAYS TIME TO TEMPERATURE FOR IT'S ASSOCIATED TERMINAL BOXES.
B. DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP) WILL BE SET AT 60 DEG-F WITH MECHANICAL COOLING LOCKED OUT.
C. MIXED, EXHAUST, AND OUTSIDE AIR DAMPERS WILL BE IN THEIR NORMAL POSITIONS
D. UNIT WILL REMAIN IN WARM-UP MODE UNTIL A SIGNAL IS SENT FROM THE BMS INDICATING THAT ALL ASSOCIATED SPACES HAVE REACHED OCCUPIED TEMPERATURES.

**MORNING COOL-DOWN:**

A. START TIME WILL BE ADAPTIVE BASED ON THE PREVIOUS DAYS TIME TO TEMPERATURE FOR ITS ASSOCIATED TERMINAL BOXES.
B. DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP) WILL BE SET AT THE MINIMUM COOLING VALUE.
C. MIXED, EXHAUST, AND OUTSIDE AIR DAMPERS WILL BE IN THEIR NORMAL POSITION.
D. UNIT WILL REMAIN IN COOL-DOWN MODE UNTIL A SIGNAL IS SENT FROM THE BMS INDICATING THAT ALL ASSOCIATED SPACES HAVE REACHED OCCUPIED TEMPERATURES.

**UNIT SHUTDOWN:**

A. IF SHUTDOWN BY EITHER A STOP COMMAND, POWER FAILURE, OR SYSTEM SAFETY; THE UNIT WILL BE SET AS FOLLOWS:
   1. SUPPLY FAN ARRAY - OFF.
   2. RETURN FAN ARRAY - OFF.
   3. OUTSIDE AIR DAMPER - CLOSED.
   4. MIXED AIR DAMPER - OPEN.
   5. EXHAUST AIR DAMPER - CLOSED.
   6. HOT WATER VALVE - CLOSED.
   7. CHILLED WATER VALVE - CLOSED.

B. IF SHUTDOWN BY A FREEZESTAT TRIP:
   1. SUPPLY FAN ARRAY - ON.
   2. RETURN FAN ARRAY - ON.
   3. OUTSIDE AIR DAMPER - CLOSED.
   4. MIXED AIR DAMPER - OPEN.
   5. EXHAUST AIR DAMPER - CLOSED.
   6. HOT WATER VALVE - OPEN.
   7. CHILLED WATER VALVE - CLOSED.

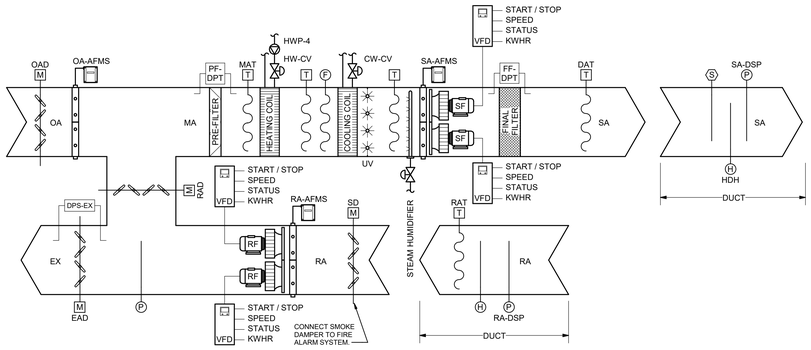
**SYSTEM SAFETIES:**

A. THE FOLLOWING SAFETIES WILL BE ALARMED AND THE UNIT WILL BE SHUTDOWN. A MANUAL RESET WILL BE REQUIRED BEFORE RESTARTING THE AIR HANDLING UNIT.
   1. IF THE DUCT STATIC PRESSURE - HIGH LIMIT SETPOINT IS EXCEEDED.
   2. IF THE BMS RECEIVES A SIGNAL FROM THE FIRE ALARM SYSTEM.

B. IF THE HUMIDIFIER IS RUNNING AND THE HIGH DUCT HUMIDITY (HDH) SENSOR DETECTS HUMIDITY OVER THE HIGH DUCT HUMIDITY - SETPOINT (HDH-SP), THE HUMIDIFIER'S STEAM GENERATOR WILL BE DISABLED AND SIGNAL AN ALARM TO THE BAS. A MANUAL RESET WILL BE REQUIRED BEFORE RESTARTING THE HUMIDIFIER.

C. ALARMS WILL BE GENERATED FOR THE FOLLOWING EVENTS.
   1. EACH INDIVIDUAL SUPPLY FAN AND EACH INDIVIDUAL RETURN FAN WILL BE MONITORED THROUGH INDIVIDUAL CURRENT SENSING SWITCHES. IF A FAN FAILS; A COMMON SUPPLY FAN OR COMMON RETURN FAN ALARM WILL BE SENT.
   2. THE SUPPLY FAN ARRAY DOES NOT MAINTAIN THE PROPER SA-DSP-SP FOR FIFTEEN (15) MINUTES.
   3. VFD WILL ALARM TO BAS.

**REFER TO SHEET M7.1 FOR AHU CONTROL SETPOINTS REFERRED TO IN THESE SEQUENCES.**




1 AHU-01 - CHILLED WATER/HEATING WATER AHU CONTROLS DIAGRAM
SCALE: 1/8" = 1'-0"




2 VAV TERMINAL UNIT CONTROLS DIAGRAM
SCALE: 1/8" = 1'-0"

**OPERATING ROOM (OR) CONTROL SEQUENCES:**

A. THE OR ROOM PRESSURE CONTROLLER SHALL MONITOR THE ROOM PRESSURE RELATIVE TO THE STERILE CORRIDOR TO VERIFY POSITIVE PRESSURE IN THE OR. THE ROOM SHALL OPERATE IN TWO MODES: OCCUPIED AND UNOCCUPIED. THE OCCUPIED-UNOCCUPIED SCHEDULE SHALL BE ADJUSTABLE AS DETERMINED BY THE OWNER.

1. OCCUPIED MODE:
   a. DURING OCCUPIED HOURS THE PRESSURE INDEPENDENT SUPPLY AIR TERMINAL BOX SHALL OPERATE IN A CONSTANT VOLUME MODE TO PROVIDE THE SCHEDULE AIR QUANTITY. THE AIR FLOW VALUE FOR THE OR SHALL BE AS INDICATED ON THE SCHEDULE FOR DESIGN CFM. THE AIRFLOW SET POINT SHALL BE ADJUSTABLE (TYPICALLY BETWEEN 25 AIR CHANGES PER HOUR (ACPH) AND 30 ACPH). THE ROOM PRESSURE CONTROLLER SHALL CONTROL THE RETURN AIR TERMINAL BOX TO PROVIDE THE RETURN AIR QUANTITY AT 400 CFM (ADJUSTABLE) BELOW THE SUPPLY AIR CFM AND TO MAINTAIN A MINIMUM POSITIVE PRESSURE OF +0.01 INCHES WATER COLUMN (W.C.), IN THE OR.
   b. ON A DROP IN TEMPERATURE BELOW HEATING SET POINT, THE SYSTEM SHALL MODULATE THE RE-HEAT COIL NORMALLY OPEN TWO-WAY HEATING CONTROL VALVE TO SATISFY THE TEMPERATURE SET POINT (ADJUSTABLE). ON A RISE IN ROOM TEMPERATURE ABOVE THE SET POINT, THE SYSTEM SHALL MODULATE THE CONTROL VALVE CLOSED.
   c. TWO ALARM POINTS SHALL BE PROVIDED FOR THE OR: ROOM PRESSURE AND AIR CHANGES PER HOUR (ACPH):
      1. ALARM ROOM PRESSURE WHEN THE PRESSURE DIFFERENTIAL FALLS BELOW +0.01 INCHES W.C. PROVIDE 30 SECOND (ADJUSTABLE) ANNUNCIATION DELAY TIME FOR LOCAL AND REMOTE ALARMS.
      2. ALARM ACPH WHEN THE ACPH RATE FALLS BELOW 25 ACPH (ADJUSTABLE) PROVIDE 120 SECOND (ADJUSTABLE) ANNUNCIATION DELAY TIME FOR LOCAL AND REMOTE ALARMS.

2. UNOCCUPIED MODE:
   a. DURING UN-OCCUPIED HOURS THE PRESSURE INDEPENDENT SUPPLY AIR TERMINAL BOX SHALL OPERATE IN A CONSTANT VOLUME MODE TO PROVIDE THE MINIMUM SCHEDULE AIR QUANTITY TO ACHIEVE THE MINIMUM REQUIRED ACPH. THE AIRFLOW SET POINT SHALL BE ADJUSTABLE (TYPICALLY BETWEEN 12 AIR CHANGES PER HOUR (ACPH) AND 15 ACPH). THE ROOM PRESSURE CONTROLLER SHALL CONTROL THE RETURN AIR TERMINAL BOX TO PROVIDE THE RETURN AIR QUANTITY AT 400 CFM (ADJUSTABLE) BELOW THE SUPPLY AIR CFM AND TO MAINTAIN A MINIMUM POSITIVE PRESSURE OF +0.01 INCHES WATER COLUMN (W.C.), IN THE OR.
   b. ON A DROP IN TEMPERATURE BELOW HEATING SET POINT, THE SYSTEM SHALL MODULATE THE RE-HEAT COIL NORMALLY OPEN TWO-WAY HEATING CONTROL VALVE TO SATISFY THE TEMPERATURE SET POINT (ADJUSTABLE). ON A RISE IN ROOM TEMPERATURE ABOVE THE SET POINT, THE SYSTEM SHALL MODULATE THE CONTROL VALVE CLOSED.
   c. TWO ALARM POINTS SHALL BE PROVIDED FOR THE OR: ROOM PRESSURE AND AIR CHANGES PER HOUR (ACPH):
      1. ALARM ROOM PRESSURE WHEN THE PRESSURE DIFFERENTIAL FALLS BELOW +0.01 INCHES W.C. PROVIDE 30 SECOND (ADJUSTABLE) ANNUNCIATION DELAY TIME FOR LOCAL AND REMOTE ALARMS.
      2. ALARM ACPH WHEN THE ACPH RATE FALLS BELOW 12 ACPH (ADJUSTABLE) PROVIDE 120 SECOND (ADJUSTABLE) ANNUNCIATION DELAY TIME FOR LOCAL AND REMOTE ALARMS

**TERMINAL BOX CONTROLS SEQUENCES**

ON A CALL FOR COOLING:
   A. VAV DAMPER WILL MODULATE BETWEEN ITS MINIMUM AND MAXIMUM BALANCED AIRFLOWS TO MAINTAIN THE CURRENT SPACE TEMPERATURE SETPOINTS (ST-SP) COOLING VALUE.

ON A CALL FOR HEATING:
   A. VAV DAMPER WILL MAINTAIN ITS MINIMUM AIRFLOW WHILE THE HEATING COIL'S HOT WATER VALVE MODULATES UP TO THE DISCHARGE AIR TEMPERATURE'S (DAT) MAXIMUM HEATING VALUE TO MAINTAIN THE ST-SP HEATING VALUE.
   B. IF ADDITIONAL HEAT IS REQUIRED, THE VAV DAMPER WILL MODULATE UP TO ITS HEATING AIRFLOW WHILE THE HOT WATER VALVE MODULATES TO MAINTAIN THE MAXIMUM DAT.

STATE OF MISSOURI
RICKI MANKTELA
NUMBER PE-2009026026
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02/07/2023

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MECHANICAL CONTROLS

**AHU-2 CONTROLS SEQUENCES**

AHU SHALL OPERATE DURING NORMAL BUSINESS HOURS AS A VARIABLE AIR VOLUME SYSTEM. DURING OFF HOURS, UNIT WILL POWER ON IN UNOCCUPIED MODE AS NECESSARY FOR BUILDING CONDITIONING.

**SUPPLY FAN ARRAY:**

A. START:
   1. THE VARIABLE FREQUENCY DRIVES (VFD) WILL "SOFT START" ALL FANS IN THE ARRAY AND SLOWLY (OVER A 2 MINUTE PERIOD) RAMP UP THE AIRFLOW WHENEVER THE UNIT IS STARTED AFTER A SHUTDOWN.
B. OPERATION:
   1. SUPPLY FANS WILL OPERATE CONTINUOUSLY TO MAINTAIN BUILDING PRESSURIZATION.
   2. VARIABLE FREQUENCY DRIVES (VFDS) SHALL CONTROL ALL FANS TO MAINTAIN THE SUPPLY AIR DUCT STATIC PRESSURE SETPOINT (SA-DSP-SP). SETPOINT WILL BE CONTINUALLY ADJUSTED SO THAT AT LEAST ONE (1) TERMINAL BOX WILL BE MAINTAINED AT 90% AIRFLOW BY UTILIZING TRIM AND RESPONSE (T&R) LOGIC AS OUTLINED IN ASHRAE GUIDELINE 36 USING STARTING POINT PARAMETERS FROM TABLE 5.16.1.2. ADJUST PARAMETERS AS REQUIRED DURING COMMISSIONING/TUNING OF SYSTEMS.
C. AIRFLOW VERIFICATION:
   1. SUPPLY FAN AIR MONITORING STATIONS WILL CONTINUOUSLY MONITOR THE ACTUAL SUPPLY AIRFLOW WHICH WILL BE USED FOR THE RETURN FAN ARRAY AIRFLOW CALCULATION AND SYSTEM TROUBLESHOOTING.
D. SHUTDOWN:
   1. THE VFDS SHALL "SOFT STOP" ALL FAN IN THE ARRAY AND SLOWLY (OVER A 2 MINUTE PERIOD) RAMP DOWN THE AIRFLOW WHENEVER THE UNIT IS STOPPED AFTER A SHUTDOWN.

**RETURN FAN ARRAY (SUPPLY FAN TRACKING):**

A. START:
   1. VFDS WILL "SOFT START" ALL FANS IN THE ARRAY AND SLOWLY (OVER A 2 MINUTE PERIOD) RAMP UP THE AIRFLOW WHENEVER THE UNIT IS STARTED AFTER A SHUTDOWN.
B. OPERATION:
   1. RETURN FAN WILL OPERATE CONTINUOUSLY.
      A. RETURN AIR MONITORING STATION (RA-AFMS) WILL CONTINUOUSLY MONITOR THE RETURN AIRFLOW.
      B. RETURN FAN VFDS WILL MODULATE THE FANS TO TRACK THE SUPPLY AIRFLOW TO MAINTAIN THE CALCULATED RETURN FAN AIRFLOW SETPOINT (RFA-SP).
      C. RFA-SP WILL BE CALCULATED EVERY FIFTEEN (15) MINUTES AS FOLLOWS:
         1. AHU OCCUPIED = MEASURED SUPPLY - EXHAUST AIRFLOW (EF-3, EF-4, EF-5) - FIELD-DETERMINED AIRFLOW FOR POSITIVE BUILDING PRESSURIZATION.
         2. AHU UNOCCUPIED = MEASURED SUPPLY - EXHAUST AIRFLOW (EF) - FIELD-DETERMINED AIRFLOW FOR POSITIVE BUILDING PRESSURIZATION.
C. SHUTDOWN:
   1. THE VFDS WILL "SOFT STOP" ALL FANS OF THE ARRAY AND SLOWLY (OVER A 2 MINUTE PERIOD) RAMP DOWN THE AIRFLOW WHENEVER THE UNIT IS STOPPED AFTER A SHUTDOWN.

**OUTSIDE AIR DAMPER (OAD) AND RETURN AIR DAMPER (RAD):**

A. NORMAL POSITION:
   1. OUTSIDE AIR NORMAL POSITION - CLOSED.
   2. MIXED AIR NORMAL POSITION - OPEN.
B. OPERATION:
   1. OUTSIDE AIR MONITORING STATION (OA-AFMS) WILL CONTINUOUSLY MONITOR THE ACTUAL OUTSIDE AIRFLOW AND WILL MODULATE THE OUTSIDE AIR AND MIXED AIR DAMPERS TO MAINTAIN THE OUTSIDE AIR VOLUME SETPOINTS (OAV-SP) AT THEIR OCCUPIED AND UNOCCUPIED VALUES AS FOLLOWS:
      A. AHU OCCUPIED: REFER TO AHU SCHEDULE FOR OUTSIDE AIRFLOW CFM.
      B. AHU UNOCCUPIED: EXHAUST AIRFLOW + FIELD-DETERMINED AIRFLOW FOR POSITIVE BUILDING PRESSURIZATION.
C. SHUTDOWN:
   1. DAMPERS WILL RETURN TO THEIR NORMAL POSITIONS.

**EXHAUST AIR DAMPER (EAD):**

A. NORMAL POSITION:
   1. EXHAUST AIR DAMPER NORMAL POSITION: CLOSED.
B. OPERATION:
   1. EXHAUST AIR DAMPER WILL MODULATE AS REQUIRED TO MAINTAIN THE BUILDING'S POSITIVE PRESSURE OF 0.03"WG (ADJ.).
   2. IF THE AIRFLOW IS DETERMINED TO NOT BE EXHAUSTING AS DETERMINED BY THE DIFFERENTIAL PRESSURE SENSOR (DPS-EX) THE RETURN FAN SHALL RAMP UP UNTIL EXHAUST FLOW IS ESTABLISHED.
C. SHUTDOWN:
   1. DAMPER WILL RETURN TO ITS NORMAL POSITION.

**HEATING COIL - HOT WATER VALVE:**

A. CALL FOR HEATING:
   1. IF THE MIXED AIR TEMPERATURE IS THREE (3) DEG-F BELOW THE OCCUPIED DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP).
B. OPERATION:
   1. ON A CALL FOR HEATING, THE HOT WATER CONTROL VALVE (HW-CV) WILL MODULATE OPEN AS REQUIRED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP).

**HEATING COIL PUMP:**

A. START/OPERATION:
   1. HEATING COIL PUMP (HWP-3) WILL SART AND OPERATE CONTINUOUSLY WHEN THE OUTSIDE AIR TEMPERATURE (OAT) IS BELOW 40F OR IF THE HEATING COIL VALVE (HW-CV) IS OPEN MORE THAN 10%.
B. SHUTDOWN:
   1. HEATING COIL PUMP WILL BE OFF WHEN THE OUTSIDE AIR TEMPERATURE IS ABOVE 45F AND THE HEATING COIL VALVE HAS BEEN OPEN LESS THAN 5% FOR 5 MINUTES.

**COOLING COIL - CHILLED WATER VALVE:**

A. CALL FOR COOLING:
   1. IF THE MIXED AIR TEMPERATURE (MAT) IS THREE (3) DEG-F ABOVE THE DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP) AND SYSTEM HAS NOT ENTERED COOLING TEMPERATURE RESET.
B. OPERATION:
   1. ON A CALL FOR COOLING, THE CHILLED WATER CONTROL VALVE (CHW-CV) WILL MODULATE OPEN AS REQUIRED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP).

**MAXIMUM COOLING TEMPERATURE RESET:**

A. QUALIFYING PARAMETERS:
   1. NO FURTHER STATIC PRESSURE RESET HAS OCCURRED FOR THIRTY (30) MINUTES.
   2. THE CRITICAL PRESSURE ZONE'S TERMINAL BOX HEATING VALVE IS OPEN. [CRITICAL ZONE WILL BE FIELD DETERMINED DURING SYSTEM STARTUP.]
   3. THE AHU DISCHARGE AIR DEWPOINT (CALCULATED BY BMS FROM DISCHARGE AIR DRY-BULB TEMPERATURE AND RELATIVE HUMIDITY) HAS NOT EXCEEDED DISCHARGE AIR DEWPOINT MAXIMUM (DADPT-M).
B. OPERATION:
   1. WHEN ALL THREE QUALIFYING PARAMETERS HAVE OCCURRED, RESET THE DISCHARGE AIR TEMPERATURE ONE (1) DEG-F HIGHER.
   2. IF QUALIFYING PARAMETERS REMAIN UNCHANGED FOR FIFTEEN (15) MINUTES, RESET THE DISCHARGE AIR TEMPERATURE ONE (1) DEG-F HIGHER.
   3. CONTINUE TEMPERATURE RESET UNTIL ONE OF THE QUALIFYING PARAMETERS CHANGES OR THE DISCHARGE AIR TEMPERATURE REACHES 60F.
   4. WHEN A QUALIFYING PARAMETER HAS CHANGED, RESET THE DISCHARGE AIR TEMPERATURE ONE (1) DEG-F COOLER EVERY FIFTEEN (15) MINUTES UNTIL THE QUALIFYING PARAMETERS REMAIN STABLE.

**HUMIDIFICATION:**

A. START:
   1. WHEN ANY ONE ROOM DROPS BELOW THE ROOM RELATIVE HUMIDITY MINIMUM SETPOINT (RAH-MNSP), THE DEDICATED STEAM GENERATOR WILL BE ENABLED AND HUMIDIFIER CONTROL VALVE (HUM-CV) WILL FULLY OPEN.
B. OPERATION:
   1. STEAM GENERATOR WILL OPERATE CONTINUOUSLY UNTIL ROOM RELATIVE HUMIDITY MAXIMUM SETPOINT (RAH-MXSP) IS EXCEEDED.
C. SHUTDOWN:
   1. WHEN ANY ONE ROOM EXCEEDS THE RELATIVE HUMIDITY MAXIMUM SETPOINT (RAH-MXSP), THE STEAM GENERATOR WILL BE DISABLED.

**VENTILATION RESET:**

A. IF THE RETURN AIR CARBON DIOXIDE SENSOR - SETPOINT (RACO2 - SP) REACHES IT'S MAXIMUM SETPOINT, THE OUTSIDE AIR DAMPER WILL BE INCREMENTALLY OPENED SLOWLY UNTIL EITHER OF THE TWO FOLLOWING CONDITIONS ARE MET.
   1. THE COOLING DISCHARGE AIR TEMPERATURE CANNOT BE MAINTAINED.
   2. THE HEATING COIL DISCHARGE AIR TEMPERATURE CANNOT BE MAINTAINED.
B. WHEN THE RETURN CARBON DIOXIDE SENSOR SETPOINT REACHES A VALUE OF 700 PPM. OPERATION OF THE OUTSIDE AIR DAMPER WILL RETURN TO MAINTAIN MINIMUM OUTSIDE AIR VOLUMES.

**DESICCANT DEHUMIDIFICATION (CDQ) WHEEL:**

REFER TO TABLE BELOW FOR SEQUENCES OF OPERATION.

**MORNING WARM-UP:**

A. START TIME WILL BE ADAPTIVE BASED ON THE PREVIOUS DAYS TIME TO TEMPERATURE FOR IT'S ASSOCIATED TERMINAL BOXES.
B. DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP) WILL BE SET AT 60 DEG-F WITH MECHANICAL COOLING LOCKED OUT.
C. MIXED, EXHAUST, AND OUTSIDE AIR DAMPERS WILL BE IN THEIR NORMAL POSITIONS
D. UNIT WILL REMAIN IN WARM-UP MODE UNTIL A SIGNAL IS SENT FROM THE BMS INDICATING THAT ALL ASSOCIATED SPACES HAVE REACHED OCCUPIED TEMPERATURES.

**MORNING COOL-DOWN:**

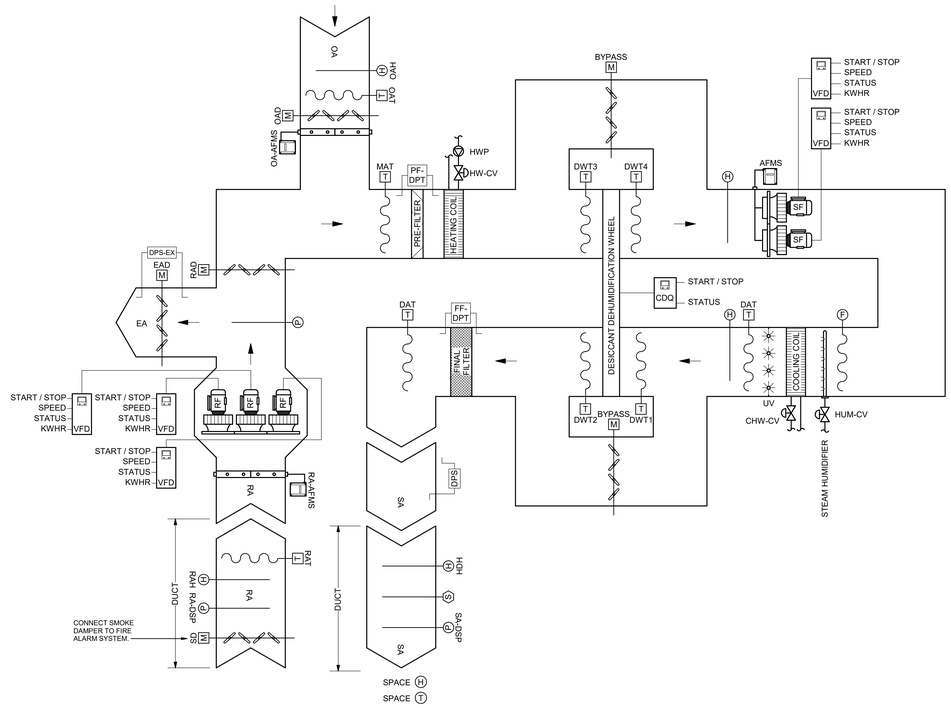
A. START TIME WILL BE ADAPTIVE BASED ON THE PREVIOUS DAYS TIME TO TEMPERATURE FOR ITS ASSOCIATED TERMINAL BOXES.
B. DISCHARGE AIR TEMPERATURE SETPOINT (DAT-SP) WILL BE SET AT THE MINIMUM COOLING VALUE.
C. MIXED, EXHAUST, AND OUTSIDE AIR DAMPERS WILL BE IN THEIR NORMAL POSITION.
D. UNIT WILL REMAIN IN COOL-DOWN MODE UNTIL A SIGNAL IS SENT FROM THE BMS INDICATING THAT ALL ASSOCIATED SPACES HAVE REACHED OCCUPIED TEMPERATURES.

**UNIT SHUTDOWN:**

A. IF SHUTDOWN BY EITHER A STOP COMMAND, POWER FAILURE, OR SYSTEM SAFETY; THE UNIT WILL BE SET AS FOLLOWS:
   1. SUPPLY FAN ARRAY - OFF.
   2. RETURN FAN ARRAY - OFF.
   3. OUTSIDE AIR DAMPER - CLOSED.
   4. MIXED AIR DAMPER - OPEN.
   5. EXHAUST AIR DAMPER - CLOSED.
   6. HOT WATER VALVE - CLOSED.
   7. CHILLED WATER VALVE - CLOSED.
B. IF SHUTDOWN BY A FREEZESTAT TRIP:
   1. SUPPLY FAN ARRAY - ON.
   2. RETURN FAN ARRAY - ON.
   3. OUTSIDE AIR DAMPER - CLOSED.
   4. MIXED AIR DAMPER - OPEN.
   5. EXHAUST AIR DAMPER - CLOSED.
   6. HOT WATER VALVE - OPEN.
   7. CHILLED WATER VALVE - CLOSED.

**SYSTEM SAFETIES:**

A. THE FOLLOWING SAFETIES WILL BE ALARMED AND THE UNIT WILL BE SHUTDOWN. A MANUAL RESET WILL BE REQUIRED BEFORE RESTARTING THE AIR HANDLING UNIT.
   1. IF THE DUCT STATIC PRESSURE - HIGH LIMIT SETPOINT IS EXCEEDED.
   2. IF THE BMS RECEIVES A SIGNAL FROM THE FIRE ALARM SYSTEM.
B. IF THE HIGH DUCT HUMIDITY - SETPOINT (HDH-SP) IS REACHED, THE HUMIDIFIER'S STEAM GENERATOR WILL BE DISABLED. A MANUAL RESET WILL BE REQUIRED BEFORE RESTARTING THE HUMIDIFIER.
C. ALARMS WILL BE GENERATED FOR THE FOLLOWING EVENTS.
   1. EACH INDIVIDUAL SUPPLY FAN AND EACH INDIVIDUAL RETURN FAN WILL BE MONITORED THROUGH INDIVIDUAL CURRENT SENSING SWITCHES. IF A FAN FAILS; A COMMON SUPPLY FAN OR COMMON RETURN FAN ALARM WILL BE SENT.
   2. THE SUPPLY FAN ARRAY DOES NOT MAINTAIN THE PROPER SA-DSP-SP FOR FIFTEEN (15) MINUTES.
   3. VFD WILL ALARM TO BAS.
   4. FAN FILTER STATUS WILL ALARM BAS AND NOTIFY FILTER STATUS ALARM LOCATED AT NURSE'S STATION. REFER TO AHU SCHEDULE FOR MAXIMUM RATED PRESSURE ACROSS PRE-FILTER SECTION AND FINAL FILTER SECTION THAT INDICATE A DIRTY (LOADED) FILTER.




1 AHU-02 - DESICCANT DEHUMIDIFICATION AHU CONTROLS DIAGRAM
SCALE: NONE

**AHU-2 DESSICANT WHEEL CONTROLS SEQUENCES**

| CONTROL MODE | | PSYCHROMETRIC CONDITIONS | CONTROL ACTION | COMMENTS |
|---|---|---|---|---|
| **O1** | OCCUPIED COOLING | - RH(space) < RH(setpoint)<br>- DBT(mixed air) > DBT(supply air)<br>- *h*(outside air) > *h*(return air) | - STOP THE CDQ WHEEL<br>- MODULATE COOLING COIL TO MEET DBT(supply air) SETPOINT<br>- PRE-HEAT COIL IS OFF<br>- OPEN BYPASS DAMPERS | - SPACE RH% BELOW THE DESIRED UPPER LIMIT, CDQ WHEEL IS TURNED OFF<br>- COOLING COIL SATISFIES THE SUPPLY AIR DRY-BULB SETPOINT |
| **O2a** | OCCUPIED COOLING AND DEHUMIDIFICATION (STAGE 1) | - RH(space) > RH(setpoint)<br>- DBT(mixed air) > DBT(supply air) | - ROTATE THE CDQ WHEEL<br>- MODULATE THE COOLING COIL TO MEET DBT(supply air) SETPOINT<br>- PRE-HEAT COIL IS OFF<br>- OPERATE IN THIS MODE UNTIL RH(space) DROPS 5% BELOW THE OCCUPIED RH SETPOINT | - SPACE RH IS ABOVE THE DESIRED UPPER LIMIT<br>- ROTATING THE CDQ WHEEL RESULTS IN ENHANCED DEHUMIDIFICATION<br>- COOLING COIL SATISFIES THE SUPPLY AIR DRY-BULB SETPOINT |
| **O2b** | OCCUPIED COOLING AND DEHUMIDIFICATION (STAGE 2) | - RH(space) > RH(setpoint) + 3%<br>- DBT(mixed air) > DBT(supply air) | - ROTATE THE CDQ WHEEL<br>- MODULATE THE COOLING COIL TO MEET DBT(supply air) SETPOINT<br>- MODULATE PRE-HEAT COIL TO KEEP THE COOLING COIL VALVE POSITION AT 95% OPEN<br>- OPERATE IN THIS MODE UNTIL RH(space) DROPS 5% BELOW THE OCCUPIED RH SETPOINT | - SPACE RH IS ABOVE THE DESIRED UPPER LIMIT<br>- ROTATING THE CDQ WHEEL RESULTS IN ENHANCED DEHUMIDIFICATION<br>- COOLING COIL SATISFIES THE SUPPLY AIR DRY-BULB SETPOINT<br>- PRE-HEATING THE AIR ENTERING THE UPSTREAM SIDE OF THE CDQ WHEEL LOWERS THE DEWPOINT TEMPERATURE AND RAISES THE DRY-BULB TEMPERATURE OF THE AIR LEAVING THE DOWNSTREAM SIDE OF THE WHEEL<br>- PREVENTING THE COOLING COIL VALVE FROM REACHING 100% WIDE OPEN AVOIDS THE SITUATION WHERE THE SUPPLY-AIR TEMPERATURE WILL BEGIN TO RISE ABOVE THE DESIRED SETPOINT |
| **O3** | OCCUPIED HEATING | - DBT(outside air) < DBT (supply air)<br>- OUTSIDE AIRFLOW AT MINIMUM SETPOINT | - STOP THE CDQ WHEEL<br>- COOLING COIL IS OFF<br>- MODULATE THE PRE-HEAT COIL TO MEET THE DBT(supply air) SETPOINT<br>- OPEN BYPASS DAMPERS | - SYSTEM IS IN HEATING MODE, SO CDQ WHEEL IS TURNED OFF<br>- PRE-HEAT COIL SATISFIES THE SA DRY-BULB SETPOINT |

**AHU CONTROL POINT SETPOINT SCHEDULE**

| UNIT | CONTROL POINTS | | SETPOINT VALUE | UNITS | NOTES |
|---|---|---|---|---|---|
| AHU-1 | RFA-SP | RETURN FAN AIRFLOW SETPOINT | CALCULATED BY SYSTEM | | |
| | SA-DSP-SP | SUPPLY AIR DUCT STATIC PRESSURE SETPOINT | FIELD DETERMINED | | |
| | OAV-SP | OUTSIDE AIR VOLUME SETPOINT | REFER TO AHU SCHEDULE | | |
| | DAT-SP | DISCHARGE AIR TEMPERATURE SETPOINT (DRY-BULB) | 55 | °F (DRY-BULB) | |
| | DADPT-M | DISCHARGE AIR DEWPOINT TEMPERATURE MAXIMUM | 40 | °F DP | |
| | RAH-MNSP | ROOM RELATIVE HUMIDITY MINIMUM SETPOINT | 30 | % RH | 1 |
| | RAH-MXSP | ROOM RELATIVE HUMIDITY MAXIMUM SETPOINT | 60 | % RH | 1 |
| | HDH-SP | HIGH DUCT HUMIDITY SETPOINT | FIELD DETERMINED | | |
| | | | | | |
| AHU-2 | RFA-SP | RETURN FAN AIRFLOW SETPOINT | CALCULATED BY SYSTEM | | |
| | SA-DSP-SP | SUPPLY AIR DUCT STATIC PRESSURE SETPOINT | FIELD DETERMINED | | |
| | OAV-SP | OUTSIDE AIR VOLUME SETPOINT | REFER TO AHU SCHEDULE | | |
| | DAT-SP | DISCHARGE AIR TEMPERATURE SETPOINT | 52 | °F (DRY-BULB) | |
| | DADPT-M | DISCHARGE AIR DEWPOINT TEMPERATURE MAXIMUM | 40 | °F DP | |
| | HDH-SP | HIGH DUCT HUMIDITY SETPOINT | 50 | % RH | |
| | RAH-SP | RETURN AIR HUMIDITY SETPOINT (RANGE: MIN TO MAX) | 30-50 | % RH | |

**NOTES**

1 REFER TO PLANS FOR LOCATIONS OF ROOM HUMIDITY SENSORS.

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MECHANICAL CONTROLS

**CHILLED WATER SYSTEM SEQUENCE:**

THE CHILLED WATER SYSTEM SHALL OPERATE WHEN THERE IS A COOLING DEMAND BY ANY AIR HANDLING UNIT CHILLED WATER COIL. THE PIPING SYSTEM IS CONFIGURED IN A VARIABLE PRIMARY CONFIGURATION WITH VARIABLE VOLUME PRIMARY PUMPS.

**CHILLER CONTROL**
THE BAS SHALL ENABLE/DISABLE THE CHILLER SYSTEMS. CHILLER SHALL BE PROVIDED WITH A BACNET INTERFACE TO COMMUNICATE WITH THE BAS. ALL AVAILABLE CHILLER POINTS SHALL BE MAPPED TO THE BAS AND INDICATED ON THE FRONT END WORKSTATION. THE AIR-COOLED CHILLER SHALL BE CONTROLLED BY THE MANUFACTURER'S PACKAGED CONTROLS. THE BUILDING AUTOMATION SYSTEM SHALL HAVE THE CAPABILITY TO TURN ON/OFF THE CHILLER AND ASSOCIATED VARIABLE SPEED PRIMARY PUMPS, AND ADJUST LEAVING WATER TEMPERATURE SET POINTS. BUILDING AUTOMATION SYSTEM SHALL ALSO MONITOR CONDENSER FAN MOTORS, REFRIGERANT CIRCUITS, COMPRESSOR STATUS AND RUN HOURS AND ANY/ALL ALARMS SEEN FROM CHILLER.

THE BAS SHALL CONTROL CHILLERS TO MAINTAIN CHILLED WATER SUPPLY SET POINT OF 40°F (ADJ.) AND A LOW TEMP CHILLED WATER SUPPLY SET POINT OF 35°F (ADJ.).

UPON COMMAND OF A CHILLER TO START, IT SHALL START ONCE THE HARD WIRED FLOW SWITCH DETECTS FLOW.

**PRIMARY PUMP CONTROL**
THE BAS SHALL PERMIT THE OPERATING VARIABLE VOLUME PUMP(S) TO OPERATE YEAR ROUND. TWO PUMPS ARE BEING PROVIDED WITH ONE WILL SERVE AS STANDBY. THE BAS SHALL DETERMINE WHICH PUMP IS THE "LEAD" PUMP. THE BAS SHALL AUTOMATICALLY ALTERNATE THE LEAD PUMP TO THE LAG PUMP AT THE BEGINNING OF EACH MONTH.

CURRENT SWITCHES SHALL PROVIDE INPUT TO BAS FOR "PROOF OF FLOW".

TEMPERATURE SENSORS LOCATED IN THE SUPPLY AND RETURN SHALL BE USED MONITOR CHILLED WATER TEMPERATURE.

THE BAS CONTRACTOR SHALL FURNISH A DIFFERENTIAL PRESSURE SENSOR FOR THE DISTRIBUTION SYSTEM. REFER TO THE DRAWINGS FOR THE SUGGESTED LOCATIONS AND PIPING ARRANGEMENT. THE FINAL LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER BEFORE INSTALLATION. THE SENSORS SHALL BE INSTALLED BY THE HVAC CONTRACTOR AND WIRED BY THE BAS CONTRACTOR. PIPING SHALL BE AS SHOWN ON THE DRAWINGS. THE BAS SHALL MODULATE THE SPEED OF THE WATER SUPPLY PUMP(S) VIA A 4-20 MA SIGNAL TO THE VFD AS REQUIRED TO MAINTAIN THE DIFFERENTIAL PRESSURE SET POINT. THE BAS SHALL STAGE ON PUMPS AS REQUIRED TO MAINTAIN DIFFERENTIALPRESSURE SET POINT AND MINIMUM CHILLED WATER FLOW AS RECOMMENDED BY THE MANUFACTURER. PROVIDE START/STOP OUTPUT AND ALARM INPUTS FOR THE VARIABLE FREQUENCY DRIVE (VFD) FOR EACH PUMP.

ALARM CONTACTS FROM THE PUMP VFDS SHALL BE WIRED TO THE BAS TO PROVIDE AN ALARM SIGNAL AT THE FRONT END WORKSTATION.

**FREEZE PROTECTION**
WHEN AIR TEMPERATURE DROPS BELOW 36°F (ADJ) THE CHILLED WATER PUMPS SHALL ACTIVATE TO FLOW WATER THROUGH CHILLED WATER COILS AS METHOD OF FREEZE PROTECTION.

**FIN TUBE RADIATOR CONTROLS SEQUENCES**

A. CONTROL VALVE ON FIN TUBE RADIATOR SHALL BE TIED INTO VAV BOX VALVE SERVING WAITING ROOM. WHEN VAV HAS A CALL FOR HEAT, FTR CONTROL VALVE SHALL MODULATE OPEN.
B. WHEN HEAT NO LONGER REQUIRED, FTR CONTROL VALVE SHALL MODULATE CLOSE.

**BOILER CONTROLS SEQUENCES**

BUILDING HOT WATER BOILERS B-01, B-02:
A. THE HOT WATER PLANT WILL BE ENABLED WHENEVER THERE IS A CALL FOR HEATING FOR FIFTEEN (15) MINUTES. CALL FOR HEATING WILL BE DEFINED AS ANY HEATING COMPONENT OF THE HVAC SYSTEM NOT BEING ABLE TO MAINTAIN -3 DEG-F FROM THE CURRENT SETPOINT.
B. THE HOT WATER PLANT WILL BE DISABLED WHENEVER THERE HAS BEEN NO CALL FOR HEATING FOR ONE HOUR.
C. SYSTEM MINIMUM FLOW WILL BE PROVIDED BY THE SYSTEM BYPASS OPENED AND THE PACKAGED PUMP SYSTEM DESIGNED TO MAINTAIN MINIMUM FLOW.
D. THE HOT WATER BOILERS AND THEIR RESPECTIVE TWO-POSITION CONTROL VALVES WILL BE ENABLED FROM THE DDC SYSTEM. EACH OF THE BOILERS WILL BE SEQUENCED ON AND OFF OR OPENED AND CLOSED FROM SUPPLY WATER TEMPERATURE AS REQUIRED TO MAINTAIN 130OF (ADJUSTABLE) SUPPLY WATER TEMPERATURE.
E. EACH OF THE BOILERS INTERNAL FACTORY MOUNTED CONTROLS WILL CONTROL THE FIRING OF ITS OWN BOILER. WHENEVER A BOILER IS SHUT OFF, ITS RESPECTIVE TWO-POSITION CONTROL VALVE SHALL CLOSE AND WHENEVER A BOILER IS ACTIVATED, ITS RESPECTIVE TWO-POSITION CONTROL VALVE SHALL OPEN.
F. CYCLE ALL BOILERS USING ITS PRE-PROGRAMMED PARALLEL MODULATION STAGING LOGIC TO MAXIMIZE HIGHER PART-LOAD (LOW FIRE) EFFICIENCY AND MINIMIZE ON/OFF SHORT CYCLING OF ANY BOILER.
G. PROVIDE ALARM STATUS AND HISTORY TO THE BMS
H. SEAMLESSLY INTERFACE WITH THE BMS FOR MONITORING AND ALARMS
I. UTILIZE ITS OWN OUTSIDE AIR TEMPERATURE SENSOR FOR ITS PRE-PROGRAMMED WATER TEMPERATURE RESET CONTROL. RESET THE HEATING WATER TEMPERATURE ACCORDING TO THE FOLLOWING RESET SCHEDULE:

| OUTSIDE AIR TEMPERATURE (OAT) | WATER SUPPLY TEMPERATURE |
|---|---|
| 30˚F | 130˚F |
| 60˚F | 110˚F |

J. THE DDC SYSTEM WILL ENABLE THE HEATING WATER PUMPING SYSTEM TO OPERATE THE PUMPS, HWP-01, -02, ON A LEAD/LAG SEQUENCE, BASED ON THE OWNERS-DEFINED SCHEDULE AND PER THE PUMP CONTROLLER. ONCE THE PUMPING SYSTEM HAS PROVEN FLOW THROUGH THE HEATING WATER SYSTEM DIFFERENTIAL PRESSURE SWITCH, THE BOILER SYSTEM WILL BE ENABLED. THE HEATING WATER PUMPING SYSTEM CONTROLS WILL MODULATE THE PUMPS TO MAINTAIN THE HEATING WATER DIFFERENTIAL PRESSURE SET POINT (AS SENSED BY HEATING WATER SYSTEM DIFFERENTIAL PRESSURE SENSOR). IF THE PUMPING SYSTEM DOES NOT PROVE FLOW, AN ALARM WILL BE SENT TO THE BAS.

**EXHAUST FAN CONTROLS SEQUENCES**

A. EXHAUST FANS SHALL BE ENABLED DURING BUSINESS HOURS WHEN THE BUILDING IS SCHEDULED OCCUPIED AND DISABLED WHEN THE BUILDING IS SCHEDULED UNOCCUPIED.
B. EF-1: SERVES THE DECONTAMINATION ROOM. FAN SHALL OPERATE AT A CONSTANT VOLUME PER THE SCHEDULED EXHAUST REQUIREMENT FOR THIS AREA.
C. EF-2: SERVES THE STERILIZATION ROOMS. FAN SHALL OPERATE AT A CONSTANT VOLUME PER THE SCHEDULED EXHAUST REQUIREMENT FOR THIS AREA.
D. EF-3: SERVES GENERAL EXHAUST FOR BUILDING. FAN SHALL OPERATE AT A CONSTANT VOLUME PER THE SCHEDULED EXHAUST REQUIREMENT FOR THIS AREA.
E. EF-4: SERVES THE MANIFOLD/GAS STORAGE ROOM. FAN SHALL OPERATE AT A CONSTANT VOLUME 24/7. PROVIDE MONITOR AND ALARM.

**CABINET UNIT HEATER CONTROLS SEQUENCES**

A. ON A CALL FOR HEAT FROM THERMOSTAT, CONTROL VALVE SHALL MODULATE OPEN AND FAN SHALL ENERGIZE.
B. WHEN SPACE TEMPERATURE IS SATISFIED, CONTROL VALVE SHALL MODULATE CLOSE AND FAN SHALL POWER OFF.

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MECHANICAL CONTROLS

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BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

# FIRE PROTECTION GENERAL NOTES

1. THE SPRINKLER SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA-13, 2012 INTERNATIONAL FIRE CODE, 2012 INTERNATIONAL BUILDING CODE. ALL ELECTRICAL AND MECHANICAL EQUIPMENT ROOMS SHALL BE SPRINKLED AS ORDINARY HAZARD GROUP 2 (0.2 GPM/SQ. FT). REFER TO FP101 FOR ADDITIONAL COVERAGE REQUIREMENTS. ALL SPRINKLERS SHALL BE QUICK RESPONSE TYPE UNLESS REQUIRED OTHERWISE BY CODE.
2. PIPING SIZED BY HYDRAULIC CALCULATION METHOD IN ACCORDANCE WITH THE CURRENT EDITION OF NFPA 13 AND SHALL BE SO STATED IN THE SUBMITTAL.
3. ALL FIRE PROTECTION WORK SHALL MEET ALL OF THE REQUIREMENTS OF NFPA AND LOCAL AND STATE AUTHORITIES HAVING JURISDICTION. ALL MATERIALS, METHODS, AND DESIGN SHALL BE PER CURRENT EDITION OF NFPA 13 AND SHALL BE SO STATED IN THE SUBMITTAL. FLUSH AND TEST SYSTEM IN ACCORDANCE WITH NFPA 13, 24 AND LOCAL CODES.
4. THE CONTRACTOR SHALL SUBMIT A SEALED SET OF INSTALLATION "SHOP" DRAWINGS, HYDRAULIC CALCULATIONS AND MATERIAL DATA FOR THE ENGINEER'S REVIEW PRIOR TO CONSTRUCTION. ALL WORK TO BE COORDINATED WITH OTHER TRADES.
5. SPRINKLER SYSTEMS SHALL BE INSTALLED BY PERSONNEL WHO HAVE ENGINEERING FACILITIES AND EXPERIENCE IN SUCH WORK AND WHO ARE REGULARLY EMPLOYED TO DO SUCH WORK.
6. SPRINKLERS SHALL BE AS REQUIRED BY NFPA 13. WHERE EXCESSIVE TEMPERATURES ARE ANTICIPATED, HIGH TEMPERATURE HEADS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13. THE CONTRACTOR SHALL INDICATE SPRINKLER TEMPERATURE RATING, ORIFICE SIZE AND TYPE ON FINAL DRAWINGS. SPRINKLERS IN FINISHED AREAS TO BE CONCEALED TYPE. SPRINKLER AND ESCUTCHEON TO BE CHROME PLATED IN UNFINISHED AREAS.
7. COORDINATE EXACT LOCATION OF SPRINKLERS, PIPING AND EQUIPMENT WITH CEILING, ELECTRICAL, MECHANICAL AND STRUCTURAL COMPONENTS OF BUILDING. MAKE MODIFICATIONS WITHOUT ADDITIONAL COST TO THE OWNER.
8. ALL MATERIAL SHALL BE UL LISTED AND NFPA APPROVED.
9. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIRE WALLS WHICH FIRE PROTECTION PIPING PENETRATES. FIRE PROTECTION PIPING SHALL BE FIRE SAFED IN AN APPROVED MANNER WHEN PENETRATING WALLS AND FLOORS. PROVIDE SLEEVES OR OTHER APPROVED MEANS AND SEAL OPENINGS IN WALLS, FLOORS, AND PARTITIONS IN SUCH A MANNER AS TO MAINTAIN THE SMOKE AND FIRE RATING OF THAT WALL, FLOOR OR CEILING.
10. SPACING OF SPRINKLERS: THE SPACING AND SIZES OF PIPES SHALL CONFORM TO THE REQUIREMENTS OF NFPA 13. SPRINKLERS SHALL BE WITHIN 6" OF CENTER OF TILE. PROVIDE SWING JOINT IF REQUIRED TO ACCOMPLISH THIS. SPRINKLERS SHALL BE AT LEAST 6" FROM ANY CEILING FIXTURE. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF SPRINKLERS AND PIPING WITH THE LIGHTING AND AIR DISTRIBUTION DRAWINGS. COORDINATE WITH ANY LIGHTING FIXTURES THAT MAY EXTEND BELOW THE CEILING TO AVOID OBSTRUCTION AS DEFINED BY NFPA 13.
11. PIPING: SPRINKLER PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE AND FITTINGS CONFORMING TO ASTM A-53. MINIMUM SIZE IS ONE INCH.
12. PIPE SUPPORTS, HANGERS, CLAMPS, RODS AND OTHER ACCESSORIES: SHALL BE OF AN APPROVED TYPE AND IN SUFFICIENT NUMBER TO PROPERLY SUPPORT ALL PIPING FURNISHED AND INSTALLED. PIPING SHALL BE SUPPORTED BY ROUND WROUGHT U-TYPE APPROVED ADJUSTABLE HANGERS. PROVIDE ALL HANGERS INCLUDING TRAPEZE HANGERS AS REQUIRED TO COMPLY WITH NFPA 13. IF BAR JOIST CONSTRUCTION IS USED, HANG TO TOP CORD OF BAR JOIST ONLY. PROVIDE ANY ADDITIONAL DRAINS REQUIRED TO COMPLY WITH NFPA 13 AND LOCAL CODES WITHOUT ADDITIONAL COST TO OWNER. HANGERS HAVE NOT BEEN SHOWN FOR CLARITY.
13. ALL WORK TO BE TESTED AT 200 PSI FOR 2 HOURS. TEST TO BE WITNESSED BY KANSAS CITY FIRE DEPARTMENT. CALL THE FIRE DEPARTMENT 24 HOURS IN ADVANCE TO SCHEDULE THE SPRINKLER HYDROSTATIC AND ACCEPTANCE TEST. ALL TEST TO BE PER NFPA.
14. SPRINKLER PIPING TO BE RUN CONCEALED ABOVE THE FINISHED CEILING.
15. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND COORDINATING THE LOCATION OF ALL INSPECTOR'S TEST VALVES. THERE SHOULD BE AT LEAST ONE INSPECTOR'S TEST CONNECTION FOR EACH ZONE AND THE PREACTION SYSTEM. DISCHARGE TEST CONNECTION TO OUTSIDE, OR OTHER ADEQUATE DRAIN. PROVIDE AND INSTALL ACCESS PANELS AS REQUIRED.
16. ALL UNDERGROUND WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA-24 REQUIREMENTS BY A STATE LICENSED CONTRACTOR. UNDERGROUND PIPE TO BE PVC DR-14 WITH MECHANICAL JOINT FITTINGS, RESTRAINED PER NFPA REQUIREMENTS. CONTRACTOR IS RESPONSIBLE TO LEAVE TO NATURAL STATE ALL AREAS AFFECTED BY EXCAVATION AND INSTALLATION OF NEW FIRE MAIN.
17. ALL TRAPPED SECTIONS OF WATER TO BE PROVIDED WITH AUXILIARY DRAINS, AS REQUIRED BY NFPA-13. DRAINS TO BE 1" GLOBE VALVE WITH NIPPLE AND CAP. IF TRAPPED SECTION IS OVER 50 GAL, PIPE TO AN APPROVED LOCATION. INSTALL SIGNS AS REQUIRED. PROVIDED CAPS AT THE END OF EACH MAIN FOR FLUSHING PURPOSES.
18. TAMPER SWITCHES AND FLOW SWITCHES SHALL BE CONNECTED FOR SUPERVISION AND ALARM TO THE FIRE ALARM PANEL. PROVIDE NECESSARY ELECTRICAL WIRING. CONNECTIONS FROM SWITCHES TO FIRE ALARM PANEL. THOROUGHLY REVIEW FINAL LOCATION, TYPE, MOUNTING HEIGHT AND CONTROL OF ALL DEVICES PRIOR TO ROUGH-IN.
19. PROVIDE THE FOLLOWING SYSTEM DATA: PROVIDE COPY TO OWNER'S REP.
    A. HAZARD CLASSIFICATION AREA OF APPLICATION - SQ. FT.
    B. HYDRAULIC DESIGN DENSITY HOSE ALLOWANCES - GPM
    C. HYDRAULIC DESIGN GPM/SQ. FT.
    D. TOTAL SYSTEMS REQUIREMENTS - GPM AT PSI
    E. HYDRAULIC DESIGN SQ. FT. HD
    F. WATER SUPPLY STATIC PRESSURE - PSI
20. PROVIDE TEST DATA AFTER SYSTEM INSTALLATION.
21. THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR COMMUNICATIONS WITH THE PROPERTY OWNER'S PERSONNEL TO REVIEW CONTRACT DOCUMENTS PRIOR TO INSTALLATION.
22. IN GENERAL, PLANS AND DETAILS ARE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED. COORDINATE ALL FIRE PROTECTION WORK WITH ELECTRICAL, PLUMBING AND HVAC WORK SO AS NOT TO CONFLICT IN LOCATION OR PERFORMANCE OF OTHER SYSTEMS.
23. THE CONTRACTOR SHALL KEEP A MASTER SET OF BLUE LINE PRINTS THAT ARE TO BE MARKED UP TO REFLECT "AS BUILT" CONDITIONS ON A DAILY BASIS. THESE "AS BUILT" MARK UPS MAY BE REVIEWED BY THE ARCHITECT, ENGINEER, OR OWNER'S REPRESENTATIVE, AT THEIR REQUEST AND WITHOUT PRIOR NOTIFICATION. THESE "AS BUILT" DRAWINGS WILL BE TURNED OVER TO THE OWNER AT THE CONCLUSION OF THE PROJECT.
24. THE CONTRACTOR SHALL INCLUDE ALL NECESSARY FEES AND CHARGES IN HIS BID.
25. PROVIDE SPARE SPRINKLER FOR EACH SPRINKLER TYPE USED IN BUILDING QUANTITY BY NFPA 13), A SPRINKLER WRENCH AND A SPRINKLER CABINET. THE CABINET SHALL BE MOUNTED ON THE WALL ADJACENT TO THE RISER.
26. FIRE ALARM PANEL FOR REMOTE MONITORING, ALARM, RESET, ETC. WILL BE LOCATED AS INDICATED. REFER TO FIRE ALARM ELECTRICAL DRAWINGS.
27. PROVIDE ELECTRONIC DISC FILE FOR ID OF EVERY ITEM IN THE FIRE PROTECTION SYSTEMS INCLUDING FIRE ALARM SYSTEM.
28. VALVE TYPES FOR BRANCH LINES SHALL BE SUPERVISED BALL VALVES, AND FOR THE MAINS (LARGER LINES) USE SUPERVISED OS&Y.
29. CONTRACTOR SHALL OBTAIN A CURRENT 2 HYDRANT WATER FLOW TEST OR WATER MODEL DATED WITHIN (12) MONTHS FROM TIME OF SHOP DRAWING SUBMITTAL. ALL HYDRAULIC CALCULATIONS SHALL BE BASED ON THIS FLOW TEST.
30. CALCULATIONS SHOULD MAINTAIN A MINIMUM 10% SPRINKLER SYSTEM SAFETY FACTOR.
31. SYSTEM SHALL BE INSTALLED WITH LIGHT HAZARD CLASSIFICATION UNLESS OTHERWISE REQUIRED BY THE AHJ, NFPA, AND IBC REQUIREMENTS. SEE ARCHITECTURAL LIFE SAFETY DRAWINGS AND DETAILS FOR FURTHER BUILDING CLASSIFICATION INFORMATION.
32. CONFIRM WITH LOCAL FIRE CHIEF THAT STANDPIPES ARE NOT REQUIRED FOR THIS BUILDING.
33. FIRE PROTECTION CONTRACTOR SHALL FULLY PARTICIPATE IN THE BUILDING SYSTEMS COORDINATION PROCESS. THIS INCLUDES MEETING WITH THE MECHANICAL, ELECTRICAL AND PLUMBING CONTRACTORS TO DISCUSS PIPE ROUTING, EQUIPMENT LOCATIONS AND POTENTIAL AREAS OF CONFLICT. COORDINATION DRAWINGS MUST BE SUBMITTED SHOWING FIRE SPRINKLER PIPING AND SPRINKLERS FULLY COORDINATED WITH ALL OTHER TRADES. CONFLICTS THAT ARISE IN THE FIELD DURING INSTALLATION WILL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER.
34. FIRE PROTECTION CONTRACTOR SHALL BE AWARE THAT DUCTWORK AND HYDRONIC PIPING TAKES PRECEDENCE OVER SPRINKLER PIPING WITH REGARDS TO ABOVE CEILING SPACE. IT IS ASSUMED THAT FOR COORDINATION PURPOSES THE BRANCH SPRINKLER PIPING CAN RUN ABOVE THE BOTTOM OF BEAMS/JOISTS AS REQUIRED. THE CONTRACTOR SHALL BECOME FAMILIAR WITH CEILING HEIGHTS, BEAM DEPTHS, AND DUCTWORK/PIPING LAYOUT PRIOR TO DRAWING FIRE SPRINKLER SHOP DRAWINGS. CEILING SPACE WITH ROOFS ABOVE ARE ESPECIALLY COMPACT AND CAREFUL ATTENTION SHOULD BE PAID TO PIPE SLOPES AND ROUTING.
35. LIGHT FIXTURE LOCATIONS IN CEILINGS TAKE PRECEDENCE OVER SPRINKLER HEAD LOCATIONS. CEILING DIFFUSERS MAY BE MOVED TO AN ADJACENT TILE IF THE RELOCATION WILL ELIMINATE THE NEED FOR AN ADDITIONAL SPRINKLER HEAD WITH APPROVAL BY THE ENGINEER.
36. THE KANSAS CITY FIRE DEPARTMENT SHALL WITNESS THE FULL FLOW FLUSH TEST PRIOR TO CONNECTION TO THE FIRE SPRINKLER SYSTEM.
37. FIRE PROTECTION WATER ENTRY SIZE IS A MINIMUM. PIPE SIZE MAY INCREASE BASED ON SITE FLOW AND PRESSURE CONDITIONS.

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-2009012026
PROFESSIONAL ENGINEER
02/07/2023

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| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
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FP0.1

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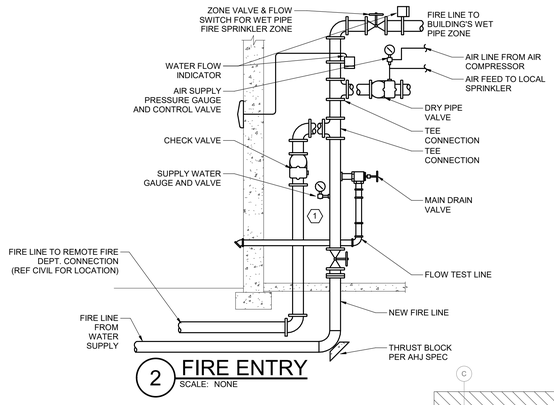
FIRE PROTECTION GENERAL NOTES

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt




2 FIRE ENTRY
SCALE: NONE

## SPRINKLER TYPES ACCORDING TO CEILING TYPES

**NOTES:**
SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPES AND LOCATIONS OUTLINED BELOW

**ACOUSTICAL TILE CEILINGS:**
LOCATE SPRINKLER HEADS CENTERED WITHIN LONG AXIS OF THE TILE, WITHIN 2'x2' GRID. CHROME PLATED SEMI-RECESSED SPRINKLER HEAD WITH CHROME PLATED ESCUTCHEON.

**GYPSUM CEILING:**
LOCATE SPRINKLER HEAD TO COORDINATE WITH ALL CEILING MOUNTED DEVICES. CONCEAL SPRINKLER HEAD WITH COVER. COVER FACTORY PAINTED TO MATCH CEILING FINISH.

**OPEN TO STRUCTURE AREAS:**
EXPOSED UP-TURNED SPRINKLER HEAD. BRUSHED CHROME FINISH. SPRINKLER HEAD PIPING COLOR TO BE PAINTED PER ARCHITECTURAL SPECIFICATIONS.

## FIRE PROTECTION LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| ◯ | STANDPIPE LOCATIONS |
| | AREAS NOT HATCHED ARE LIGHT HAZARD |
| | ORDINARY HAZARD GROUP 1 |
| | ORDINARY HAZARD GROUP 2 |

## LIFE SAFETY WALL LEGEND

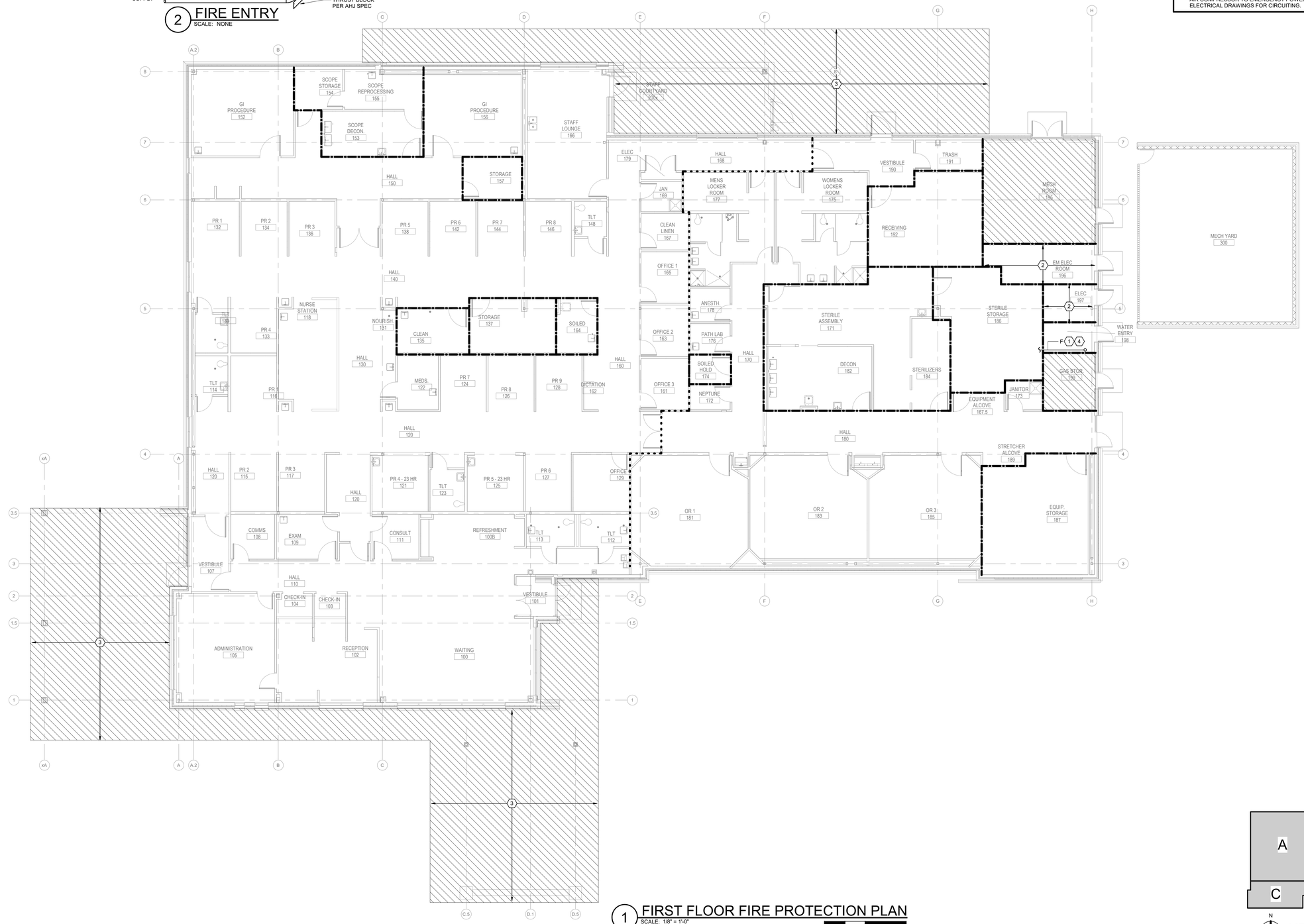
| | |
|---|---|
| | 1-HR FIRE RATED WALL |
| | 1-HR SMOKE RATED WALL |

## GENERAL NOTES (THIS SHEET)

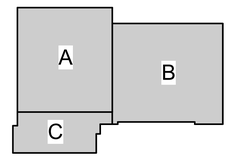
1. REFER TO SHEET FP.01 FOR FIRE PROTECTION GENERAL NOTES.

## KEY NOTES (X) (THIS SHEET)

1. FIRE WATER ENTRY. BACKFLOW DEVICE IS LOCATED ON-SITE NEAR FIRE MAIN TAP PER LEE'S SUMMIT REQUIREMENTS. REFER TO CIVIL PLANS.
2. DO NOT ROUTE PIPES ABOVE ELECTRICAL EQUIPMENT.
3. PROVIDE DRY-PIPE FIRE PROTECTION SYSTEM TO SERVE ENTRY CANOPY. SIZING OF SYSTEM WILL BE PERFORMED BY FIRE PROTECTION ENGINEER.
4. PROVIDE DRY-PIPE VALVE IN FIRE ENTRY ROOM. PROVIDE DRY-PIPE SYSTEM WITH TANK TYPE AIR COMPRESSOR WITH WALL MOUNTING HARDWARE LOCATED IN FIRE ENTRY ROOM. CONNECT AIR COMPRESSOR TO EMERGENCY POWER SYSTEM. REFER TO ELECTRICAL DRAWINGS FOR CIRCUITING.




1 FIRST FLOOR FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'




KEYPLAN

BIM 360://2-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

STATE OF MISSOURI RICKI MANKTALA NUMBER PE-#009700026 PROFESSIONAL ENGINEER
02/07/2023

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Revision

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|---|---|---|

FP1.1

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FIRST FLOOR FIRE PROTECTION PLAN

2/7/2023 4:41:51 PM

# PLUMBING LEGEND

NOTE: THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS

## PIPING

- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DOMESTIC HOT WATER RECIRC.
- 140°F DOMESTIC HOT WATER
- 140°F DOMESTIC HOT WATER RECIRC.
- PS — PRIMARY STORM DRAIN
- SS — SECONDARY STORM DRAIN
- SPD — SANITARY PUMPED DISCHARGE
- SAN — SANITARY WASTE
- CD — CONDENSATE DRAIN
- V — SANITARY VENT
- GW — GREASE WASTE
- AW — ACID WASTE
- AV — ACID VENT
- LPG — LIQUEFIED PETROLEUM GAS (PROPANE)
- NG — NATURAL GAS
- CA — COMPRESSED AIR
- F — FIRE SUPPRESSION

## MISCELLANEOUS

- SECTION CUT: UPPER NUMBER INDICATES DRAWING NUMBER; LOWER NUMBER INDICATES SHEET NUMBER
- CONNECTION POINT OF NEW WORK TO EXISTING
- CONNECTION POINT OF DEMOLITION TO EXISTING
- DETAIL REFERENCE: UPPER NUMBER INDICATES DETAIL NUMBER; LOWER NUMBER INDICATES SHEET NUMBER
- RISER DESIGNATION
- NOTE REFERENCE SYMBOL
- EXISTING LINEWORK
- DEMOLITION LINEWORK
- NEW LINEWORK

## VALVES / SYMBOLS

- DIRECTION OF FLOW IN PIPING
- TWO WAY CONTROL VALVE
- THREE WAY CONTROL VALVE
- BUTTERFLY VALVE
- GLOBE VALVE
- BALANCING VALVE
- SOLENOID VALVE
- CONTROL VALVE
- THERMOSTATIC MIXING VALVE
- TRIPLE DUTY VALVE WITH PRESSURE PORTS
- CHECK VALVE
- STRAINER
- STRAINER WITH BLOWOFF
- RELIEF/SAFETY VALVE
- PRESSURE REDUCING VALVE
- VACUUM BREAKER
- VENTURI
- GAS COCK
- SIGHT GLASS
- BALL VALVE
- 3/4" BALL DRAIN VALVE WITH 3/4" HOSE CONNECTION AND CAP ON CHAIN
- THERMOSTATIC TRAP
- F&T TRAP
- GATE VALVE
- PRESSURE GAUGE
- PRESSURE GAUGE WITH PIGTAIL
- THERMOMETER, THERMOMETER W/ TEST WELL
- PRESSURE/TEMPERATURE PORT
- UNION
- FLANGE CONNECTION
- PIPING ELBOW UP
- PIPING ELBOW DOWN
- PIPING TEE UP
- PIPING TEE DOWN
- PIPING CAP
- GAUGE COCK
- WATER HAMMER ARRESTOR
- PIPING REDUCER
- PRESSURE REGULATING VALVE
- FLEXIBLE CONNECTOR
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- PIPE ANCHOR / ROOF PIPING SUPPORT
- EXPANSION JOINT
- PIPE GUIDE
- VTR — VENT THRU ROOF
- 3"FS-1 — FLOOR SINK, SIZE AND TYPE
- 3"FD-1 — FLOOR DRAIN, SIZE AND TYPE
- 3"RD-1 — ROOF DRAIN, SIZE AND TYPE
- HB / WH — HOSE BIBB / WALL HYDRANT
- CO / WCO — LINE CLEANOUT / WALL CLEANOUT
- FCO — FLOOR CLEANOUT
- GCO — GRADE CLEANOUT
- 0' - 0" — SELF-REGULATING HEATED CABLE – LENGTH AS SHOWN IN DRAWINGS. REFERENCE ELECTRICAL PLANS FOR SPECIFICATION OF COMPLETE HEAT-TRACE SYSTEM. ARROW DENOTES DIRECTION

## ABBREVIATIONS

| | |
|---|---|
| AAV | AIR ADMITTANCE VALVE |
| AFF | ABOVE FINISHED FLOOR |
| BFP | BACKFLOW PREVENTER |
| BHP | BRAKE HORSEPOWER |
| BTU | BRITISH THERMAL UNIT |
| CW | COLD WATER |
| DEG,° | DEGREES |
| DDC | DIRECT DIGITAL CONTROL |
| DN | DOWN |
| DT | DILUTION TANK |
| DW | DIRECT WASTE |
| (E) | EXISTING TO REMAIN |
| ESP | EXTERNAL STATIC PRESSURE |
| EWT | ENTERING WATER TEMPERATURE |
| FDC | FIRE DEPARTMENT CONNECTION |
| FFE | FINISHED FLOOR ELEVATION |
| FHC | FIRE HOSE CABINET |
| FPM | FEET PER MINUTE |
| GCO | GRADE CLEANOUT |
| GPM | GALLONS PER MINUTE |
| HD | HEAD |
| HP | HORSEPOWER |
| HW | HOT WATER |
| HWC | HOT WATER CIRCULATION |
| HZ | HERTZ |
| IE | INVERT ELEVATION |
| IMB | ICE MAKER BOX |
| IN.WC | INCHES OF WATER COLUMN |
| IW | INDIRECT WASTE |
| KW | KILOWATT |
| LBS | POUNDS |
| LWT | LEAVING WATER TEMPERATURE |
| MBH | 1000 BTU PER HOUR |
| MFR | MANUFACTURER |
| MH | MANHOLE |
| (N) | NEW |
| N/A | NOT APPLICABLE |
| NC | NORMALLY CLOSED |
| NO | NORMALLY OPEN |
| PH,ø | PHASE |
| PIV | POST INDICATOR VALVE |
| PRV | PRESSURE REDUCING VALVE |
| QTY | QUANTITY |
| (R) | RELOCATED EXISTING |
| RPM | REVOLUTIONS PER MINUTE |
| RPZ | REDUCED PRESSURE ZONE BACKFLOW PREVENTER |
| SF | SQUARE FEET |
| TDH | TOTAL DYNAMIC HEAD |
| TSP | TOTAL STATIC PRESSURE |
| TW | TEPID WATER |
| U/F | UNDERFLOOR |
| U/G | UNDERGROUND |
| U/S | UNDERSLAB |
| VTR | VENT THROUGH ROOF |
| WC | WATER COLUMN |
| WCO | WALL CLEANOUT |

# PLUMBING GENERAL NOTES

1. THE PLANS ARE, TO A GREAT EXTENT, DIAGRAMMATIC IN NATURE. DRAWING SCALES SHOULD BE VERIFIED FROM DIMENSIONS ON ARCH. PLANS. THE INFORMATION PRESENTED IS AS EXACT AS COULD BE SECURED. THE CONTRACTOR SHALL OBTAIN EXACT LOCATION, MEASUREMENTS LEVELS, ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT THE WORK TO THE ACTUAL CONDITIONS AT THE PROJECT SITE.
2. CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID TO COVER THE CONDITIONS AT THE SITE INFORMING THEMSELVES OF ALL DETAILS.
3. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS AND ORDINANCES, AND ALL AUTHORITIES HAVING JURISDICTION.
4. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL ENGINEERING REQUIREMENTS, THE OWNER'S DESIGN CRITERIA, UTILITY COMPANY REQUIREMENTS, APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE AND SAFETY, AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.
5. RECORD DRAWINGS - PREPARE AND SUBMIT TO THE OWNER RECORD DRAWINGS INDICATING THE EXACT LOCATION OF ALL EQUIPMENT INCLUDING THE EQUIPMENT'S "AS INSTALLED" SIZE(S). MANUFACTURER, MODEL NUMBERS, AND PERFORMANCE RATINGS.
6. SUPPORTS - EQUIPMENT, PIPING, OR ANY OTHER ACCESSORY SHALL NOT BE SUPPORTED FROM OTHER PIPING, DUCTWORK, METAL ROOF DECK, LATERAL BRACING BRIDGING, OR CONDUIT. ITEMS SHALL ONLY BE SUPPORTED FROM BUILDING STRUCTURE.
7. COORDINATE EXACT LOCATION OF ALL PIPING AND EQUIPMENT WITH STRUCTURAL, ARCHITECTURAL, ELECTRICAL, AND OTHER MECHANICAL SYSTEMS.
8. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL MECHANICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
9. ALL PIPING TO VIBRATING EQUIPMENT SHALL HAVE FLEXIBLE CONNECTORS.
10. COORDINATE ALL ROOF AND CHASE PENETRATIONS WITH STRUCTURAL DRAWINGS AND ROOF INSTALLER.
11. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
12. ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.
13. CONCRETE HOUSEKEEPING PADS TO SUIT MECHANICAL EQUIPMENT SHALL BE SIZED AND LOCATED BY THE MECHANICAL CONTRACTOR. MINIMUM CONCRETE PAD THICKNESS SHALL BE 4 INCHES. PAD SHALL EXTEND BEYOND THE EQUIPMENT A MINIMUM OF 4 INCHES ON EACH SIDE. CONCRETE HOUSEKEEPING PADS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE THE SIZES AND LOCATIONS OF CONCRETE HOUSEKEEPING PADS WITH THE GENERAL CONTRACTOR.
14. ACCESS PANELS ARE REQUIRED (MIN. 18"X18", UNLESS NOTED OTHERWISE IN SPECIFICATIONS) FOR ACCESS TO EVERY VALVE AND CONTROL SENSOR IF NOT OTHERWISE ACCESSIBLE. ACCESS PANEL SHALL BE APPROVED BY ARCHITECT/ENGINEER. COORDINATE PANEL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
15. PROVIDE SHUTOFF VALVES IN ALL DOMESTIC WATER PIPING SYSTEM BRANCHES IN WHICH BRANCH PIPING SERVES TWO OR MORE FIXTURES.
16. ROUTE ALL PIPING PARALLEL TO BUILDING WALLS, STRUCTURE AND FEATURES, AS HIGH AS POSSIBLE, AND OFFSET AS NECESSARY TO AVOID STRUCTURAL MEMBERS, MECHANICAL EQUIPMENT AND THE LIKE.
17. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS OF STANDARD AND ACCESSIBLE PLUMBING FIXTURES.
18. SLOPE ALL SANITARY WASTE PIPE SIZES 3" AND UNDER AT 1/4" PER FOOT (2.08%) MINIMUM, UNLESS NOTED OTHERWISE.
19. SLOPE ALL SANITARY WASTE PIPE SIZES 4" AND ABOVE AT 1/8" PER FOOT (1.04%) MINIMUM, UNLESS NOTED OTHERWISE.
20. SLOPE ALL STORM AND OVERFLOW STORM PIPING AT 1/8" PER FOOT (1.04%) MINIMUM, UNLESS NOTED OTHERWISE.
21. SLOPE ALL CONDENSATE DRAINAGE PIPING AT 1/8" PER FOOT (1.04%) MINIMUM, UNLESS NOTED OTHERWISE.
22. DRAWINGS PROVIDED DURING PRELIMINARY SUBMITTALS (SD,DD, 50%CD) ARE SUBJECT TO CHANGE. SIZES, QUANTITY, LOCATION, TYPE, ETC OF PIPING, FIXTURES, EQUIPMENT, ACCESSORIES, ETC ARE NOT FINAL.

# PLUMBING SHEET INDEX



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# MEDICAL GAS LEGEND

## GAS AND VACUUM PIPING

- MA — MEDICAL AIR
- DA — DENTAL AIR
- LA — LABORATORY AIR
- O — OXYGEN
- N2O — NITROUS OXIDE
- OE — ORAL EVACUATION
- MV — MEDICAL-SURGICAL VACUUM
- WAGD — WASTE ANESTHESIA GAS DISPOSAL (WAGD)
- MVW — COMBINATION MEDICAL VACUUM AND WAGD
- CO2 — CARBON DIOXIDE
- N — NITROGEN
- IA — INSTRUMENT AIR
- MAI — MEDICAL AIR COMPRESSOR INTAKE
- VE — VACUUM PUMP EXHAUST

## GAS AND VACUUM VALVES / SYMBOLS

- ZONE VALVE BOX
- ALARM PANEL (REFERENCE SCHEDULES FOR TYPE)
- WALL MOUNTED MEDICAL AIR OUTLET
- WALL MOUNTED OXYGEN OUTLET
- WALL MOUNTED INSTRUMENT AIR OUTLET
- WALL MOUNTED MEDICAL-SURGICAL VACUUM INLET
- WALL MOUNTED DENTAL AIR OUTLET
- WALL MOUNTED CARBON DIOXIDE OUTLET
- WALL MOUNTED NITROUS OXIDE AIR OUTLET
- WALL MOUNTED WAGD INLET
- CEILING MOUNTED GAS AND VACUUM. THICKLINE BASE INDICATES ORIENTATION OF SYMBOL MAY BE USED WITH ANY OUTLETS/INLETS SHOWN ABOVE. (EXAMPLES LEFT TO RIGHT: MEDICAL AIR OUTLET, OXYGEN OUTLET, WAGD INLET)

# PLUMBING PIPE INSULATION SCHEDULE

| SERVICE | SIZE | LOCATION | INSULATION MATERIAL | INSULATION THICKNESS | NOTES |
|---|---|---|---|---|---|
| DOMESTIC COLD WATER | NPS 1 AND SMALLER | INTERIOR | MINERAL-FIBER, PREFORMED PIPE INSULATION | 1/2 INCH | |
| DOMESTIC COLD WATER | NPS 1-1/4 AND LARGER | INTERIOR | MINERAL-FIBER, PREFORMED PIPE INSULATION | 1 INCH | |
| DOMESTIC HOT AND RECIRCULATED HOT WATER <140°F | NPS 1-1/4 AND SMALLER | INTERIOR | MINERAL-FIBER, PREFORMED PIPE INSULATION | 1 INCH | |
| DOMESTIC HOT AND RECIRCULATED HOT WATER <140°F | NPS 1-1/2 AND LARGER | INTERIOR | MINERAL-FIBER, PREFORMED PIPE INSULATION | 1-1/2 INCH | |
| SANITARY WASTE WITH HEAT TRACING | ALL SIZES | INTERIOR | MINERAL-FIBER, PREFORMED PIPE INSULATION | 1 INCH | |
| STORMWATER AND OVERFLOW DRAINAGE | ALL SIZES | INTERIOR | MINERAL-FIBER, PREFORMED PIPE INSULATION | 1 INCH | 1 |
| CONDENSATE AND EQUIPMENT DRAIN WATER <60°F | ALL SIZES | INTERIOR | MINERAL-FIBER, PREFORMED PIPE INSULATION | 1/2 INCH | 2 |

1. INCLUDE INSULATION ON ALL DRAIN BODIES. INITIAL VERTICAL LEADER FROM DRAIN BODY AND ALL HORIZONTAL PIPING ONLY, INSULATION ON VERTICAL LEADERS NOT REQUIRED.
2. INSULATE FLOOR DRAINS, TRAPS, AND SANITARY DRAIN PIPING WITHIN 10 FT OF DRAIN RECEIVING CONDENSATE AND EQUIPMENT DRAIN WATER BELOW 60° F, WITH 1/2 INCH MINERAL-FIBER, PREFORMED PIPE INSULATION (ALL SIZES).


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PROJECT NUMBER: 1201002
BETTER BUILT ENVIRONMENTS

STATE OF MISSOURI — RICKI MANKTELA — NUMBER PE-#009700026 — PROFESSIONAL ENGINEER
02/07/2023

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Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
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| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | JS |
| Checked By | AB, RC, MG |

Revision

| Number | Date | Description |
|---|---|---|

P0.1

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PLUMBING LEGEND & NOTES

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

2/7/2023 4:41:58 PM

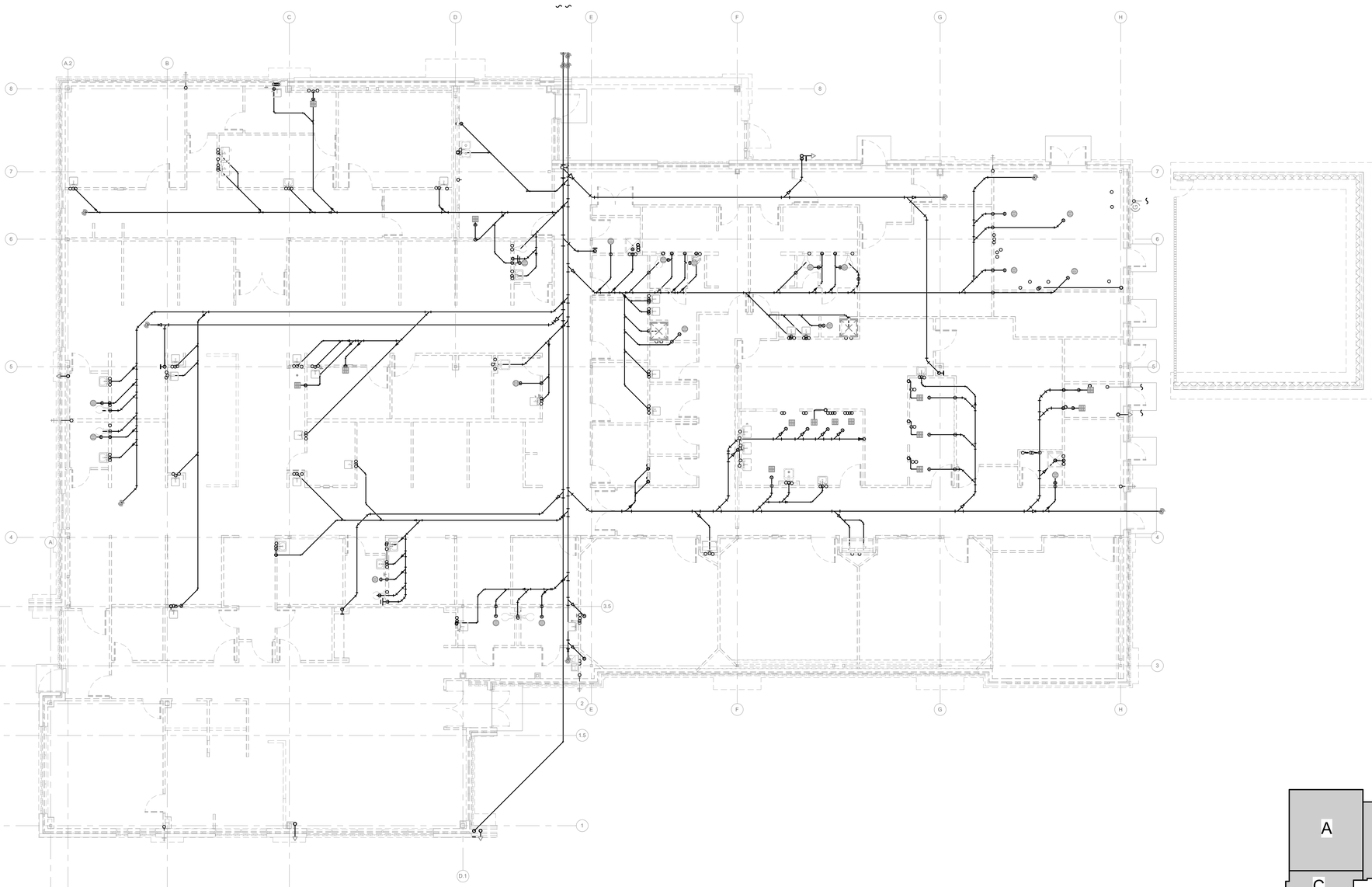
BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

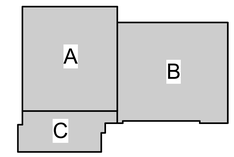
1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. WASTE PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT FOR 4" AND LARGER AND 1/4" PER FOOT OF 3" OR SMALLER.
3. STORM AND STORM OVERFLOW PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT. PROVIDE CLEANOUTS IN BASE OF STACKS AND COORDINATE DRAIN LOCATIONS WITH ARCHITECTURAL FLOOR PLANS.
4. COORDINATE ROUTING OF PLUMBING SYSTEMS WITH ALL OTHER TRADES.
5. MOUNT ALL VALVES IN ACCESSIBLE LOCATIONS. GIVE PREFERENCE TO LOCATIONS IN CORRIDORS, AREAS THAT WILL NOT IMPACT PATIENT CARE (IE STORAGE SPACE), AND ABOVE ACT CEILINGS.
6. PROVIDE ALL FLOOR DRAINS AND FLOOR SINKS WITH TRAP PRIMERS.
7. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.

## KEY NOTES (X) (THIS SHEET)

1. 1-1/2" SAN UP TO EMERGENCY EYE WASH.
2. 2" SAN UP TO LAVATORY/SINK.
3. 2" SAN UP TO ELECTRIC WATER COOLER.
4. 3" SAN UP TO CLINICAL SERVICE SINK.
5. 3" SAN UP TO MOP SINK BASIN.
6. 4" SAN UP TO WATER CLOSET.
7. 2" SAN UP TO URINAL.
8. 2" SAN UP TO SHOWER.
9. 2" SAN UP.
10. 4" SAN UP.
11. NOT USED.
12. 1-1/2" V UP.
13. 2" V UP.
14. 1-1/2" SAN UP.



1 UNDERSLAB PLUMBING PLAN OVERALL
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'




KEYPLAN

RICKI MANKTALA
NUMBER PE-#009700026
PROFESSIONAL ENGINEER
STATE OF MISSOURI
02/07/2023

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|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | JS |
| Checked By | AB, RC, MG |

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UNDERSLAB PLUMBING PLAN - OVERALL

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

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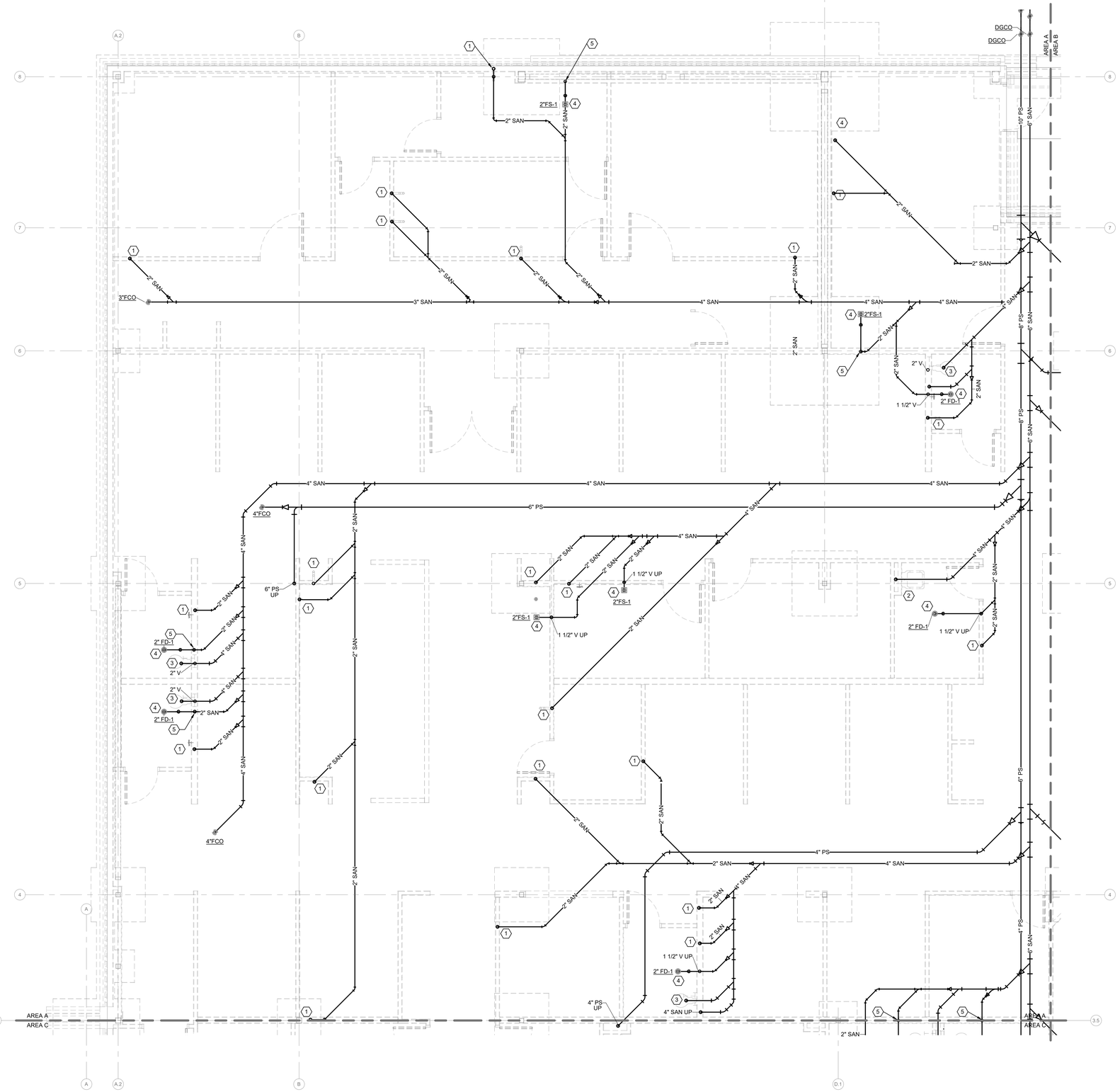
## GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. WASTE PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT FOR 4" AND LARGER AND 1/4" PER FOOT OF 3" OR SMALLER.
3. STORM AND STORM OVERFLOW PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT. PROVIDE CLEANOUTS IN BASE OF STACKS AND COORDINATE DRAIN LOCATIONS WITH ARCHITECTURAL FLOOR PLANS.
4. COORDINATE ROUTING OF PLUMBING SYSTEMS WITH ALL OTHER TRADES.
5. MOUNT ALL VALVES IN ACCESSIBLE LOCATIONS. GIVE PREFERENCE TO LOCATIONS IN CORRIDORS. AREAS THAT WILL NOT IMPACT PATIENT CARE (IE STORAGE SPACE), AND ABOVE ACT CEILINGS.
6. PROVIDE ALL FLOOR DRAINS AND FLOOR SINKS WITH TRAP PRIMERS.
7. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.

## KEY NOTES (X) (THIS SHEET)

1. 2" SAN UP TO LAVATORY/SINK.
2. 3" SAN UP TO CLINICAL SERVICE SINK.
3. 4" SAN UP TO WATER CLOSET.
4. 2" SAN UP.
5. 1-1/2" V UP.




1 UNDERSLAB PLUMBING PLAN - AREA A
SCALE: 1/4" = 1'-0"

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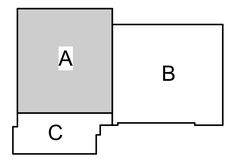


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STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009700026
PROFESSIONAL ENGINEER
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| Job Number | 3-22030 |
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UNDERSLAB PLUMBING PLAN - AREA A

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## GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. WASTE PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT FOR 4" AND LARGER AND 1/4" PER FOOT OF 3" OR SMALLER.
3. STORM AND STORM OVERFLOW PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT. PROVIDE CLEANOUTS IN BASE OF STACKS AND COORDINATE DRAIN LOCATIONS WITH ARCHITECTURAL FLOOR PLANS.
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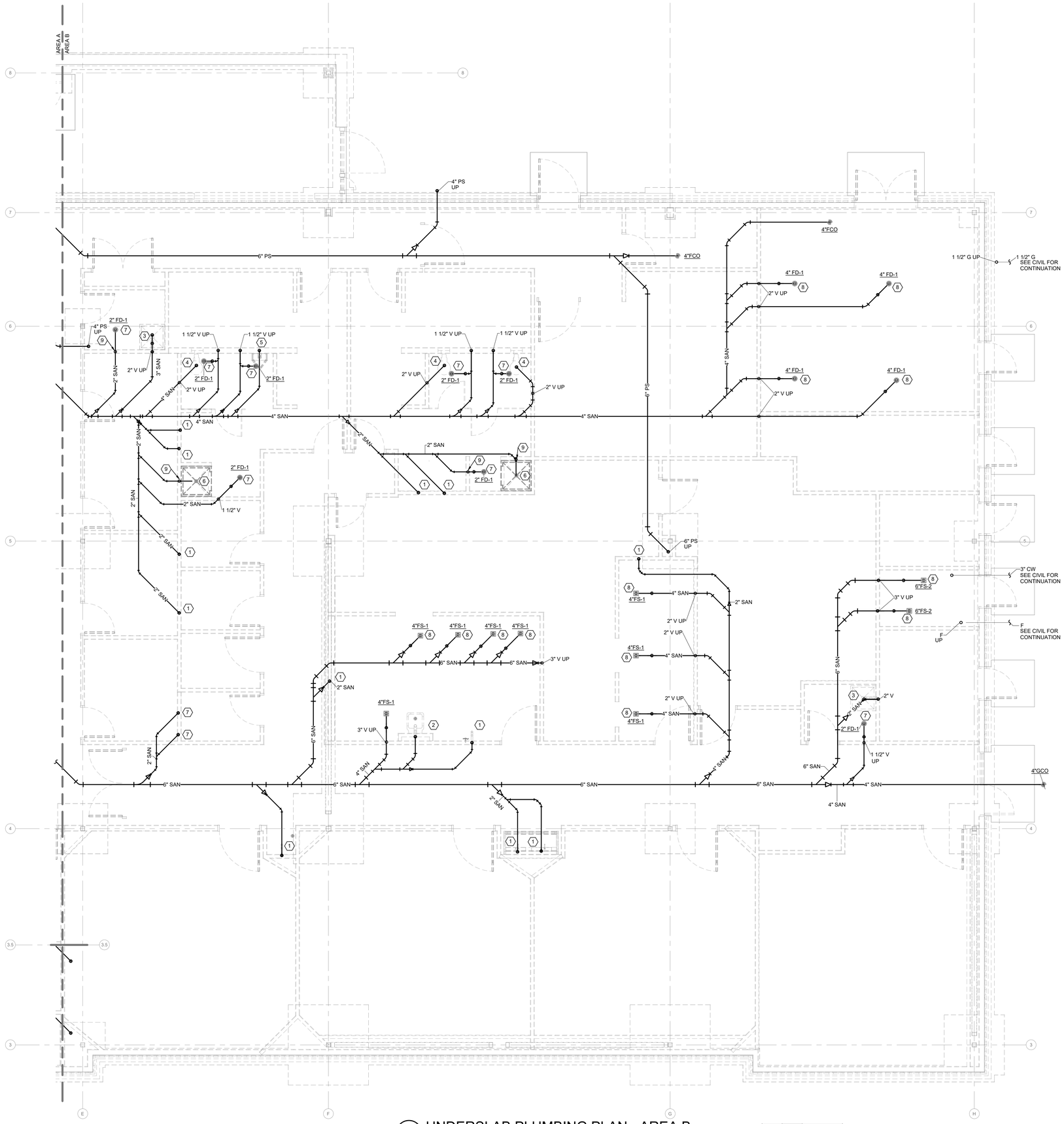
5. MOUNT ALL VALVES IN ACCESSIBLE LOCATIONS. GIVE PREFERENCE TO LOCATIONS IN CORRIDORS, AREAS THAT WILL NOT IMPACT PATIENT CARE (IE STORAGE SPACE), AND ABOVE ACT CEILINGS.
6. PROVIDE ALL FLOOR DRAINS AND FLOOR SINKS WITH TRAP PRIMERS.
7. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.

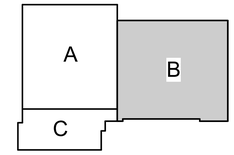
## KEY NOTES (X) (THIS SHEET)

1. 2" SAN UP TO LAVATORY/SINK.
2. 3" SAN UP TO CLINICAL SERVICE SINK.
3. 3" SAN UP TO MOP SINK BASIN.
4. 4" SAN UP TO WATER CLOSET.
5. 2" SAN UP TO URINAL.
6. 2" SAN UP TO SHOWER.
7. 2" SAN UP.
8. 4" SAN UP.
9. 1-1/2" V UP.
10. 2" V UP.




1 UNDERSLAB PLUMBING PLAN - AREA B
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'




N KEYPLAN

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009700026
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| Checked By | Checker |

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UNDERSLAB PLUMBING PLAN - AREA B

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## GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. WASTE PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT FOR 4" AND LARGER AND 1/4" PER FOOT OF 3" OR SMALLER.
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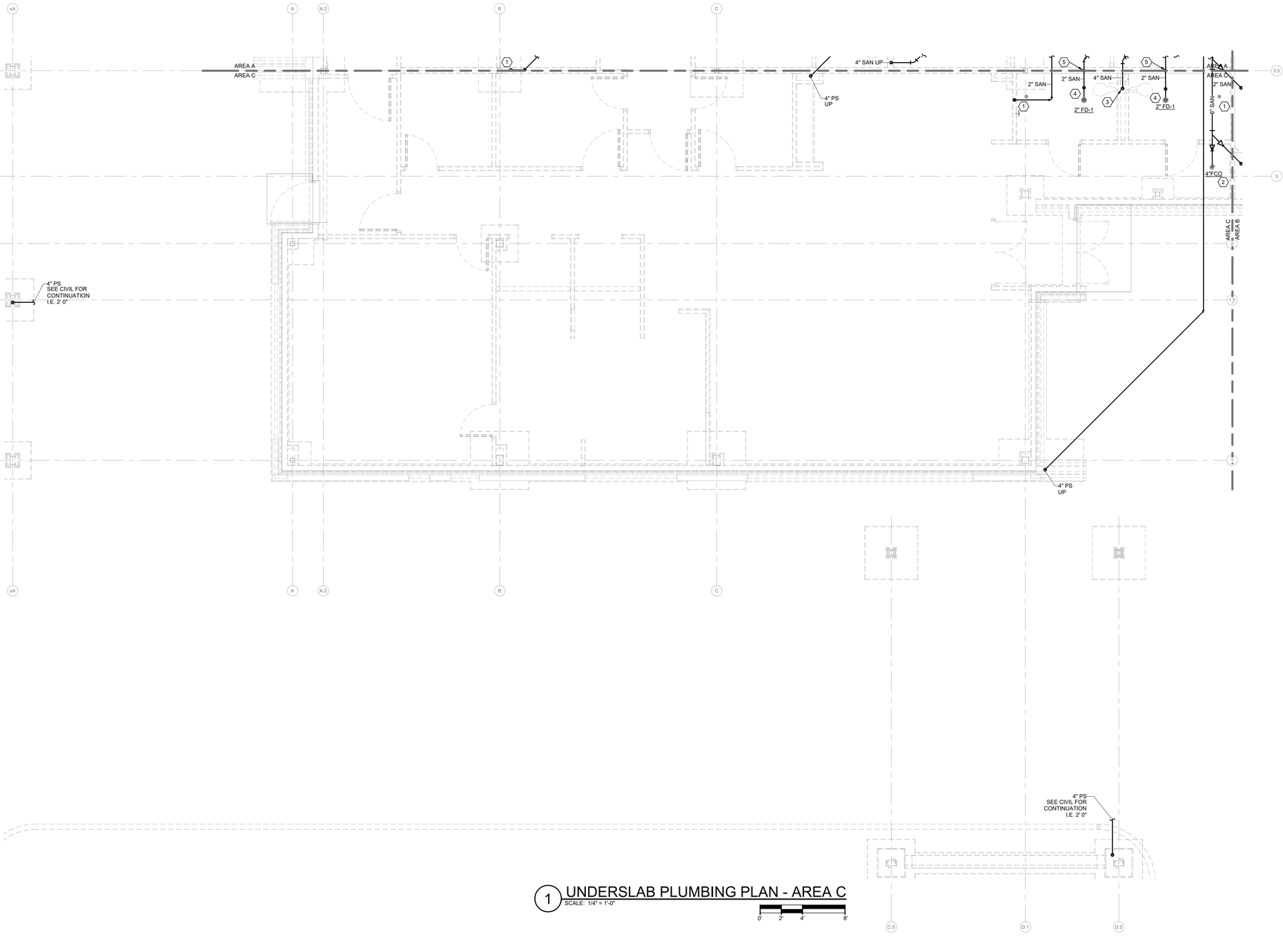
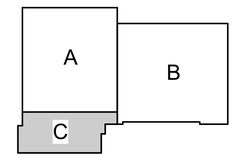
7. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.

## KEY NOTES (X) (THIS SHEET)

1. 2" SAN UP TO LAVATORY/SINK.
2. 2" SAN UP TO ELECTRIC WATER COOLER.
3. 4" SAN UP TO WATER CLOSET.
4. 2" SAN UP.
5. 1-1/2" V UP.




1 UNDERSLAB PLUMBING PLAN - AREA C
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'

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# Surgery Center of Lee's Summit
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|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

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UNDERSLAB PLUMBING PLAN - AREA C

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## GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. WASTE PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT FOR 4" AND LARGER AND 1/4" PER FOOT OF 3" OR SMALLER.
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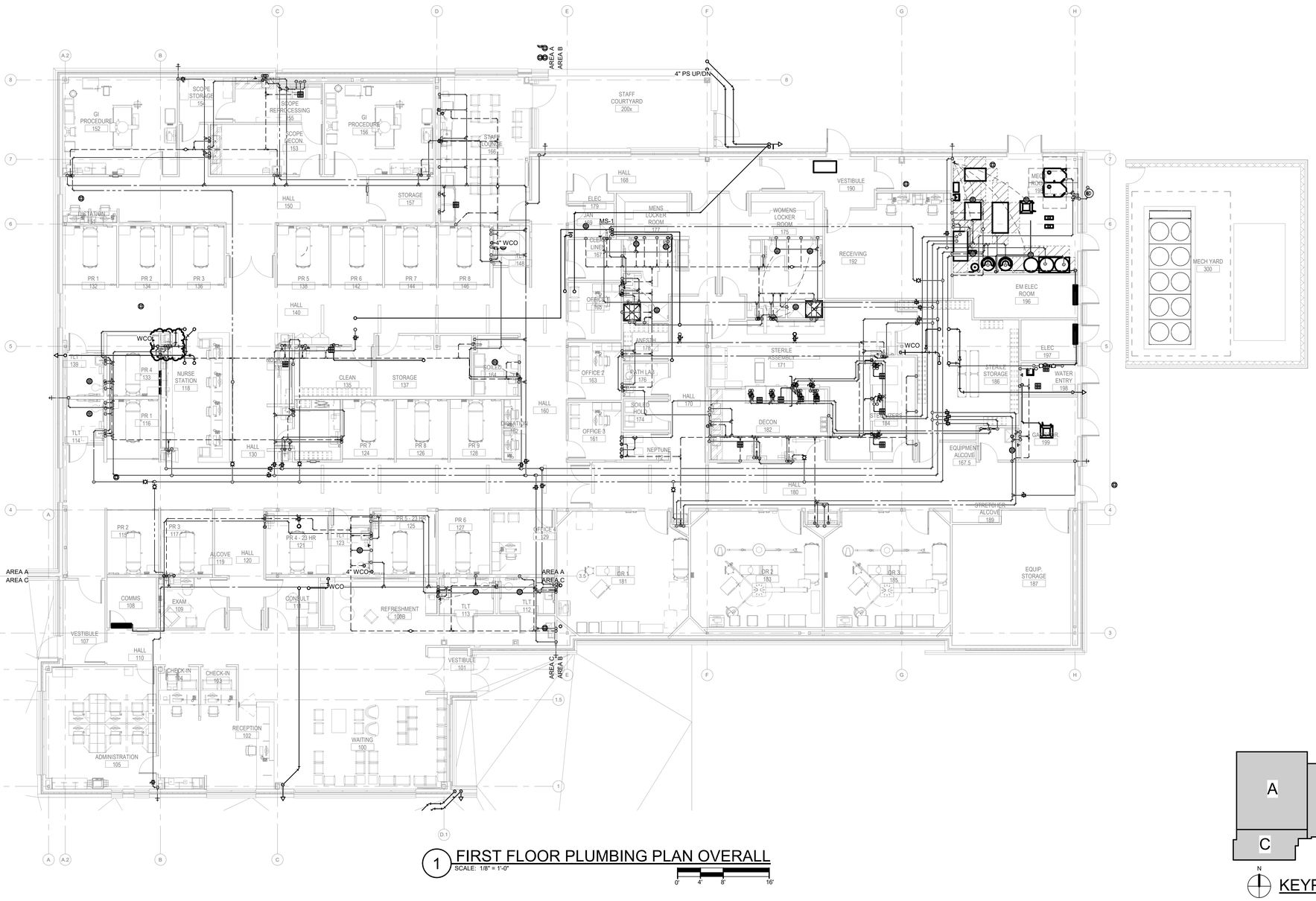


1 FIRST FLOOR PLUMBING PLAN OVERALL
SCALE: 1/8" = 1'-0"

0' 4' 8' 16'




KEYPLAN

RICKI MANKTALA
NUMBER PE-#009700026
PROFESSIONAL ENGINEER
STATE OF MISSOURI
02/07/2023

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| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | JS |
| Checked By | AB, RC, MG |

Revision

| Number | Date | Description |
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| 1 | Date 2 | Revision 1 |

P1.1

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FIRST FLOOR PLUMBING PLAN - OVERALL

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BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
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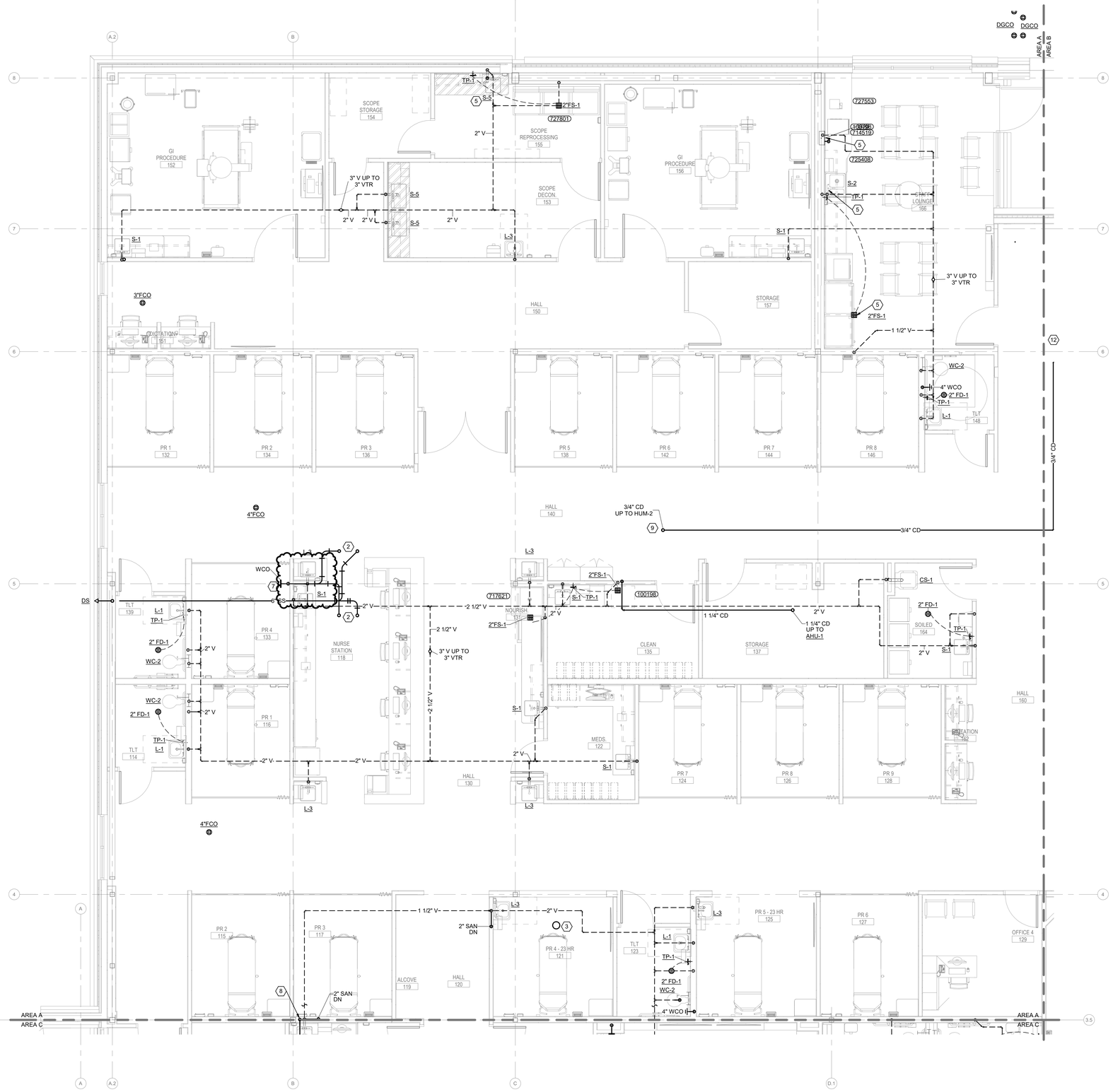
7. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.

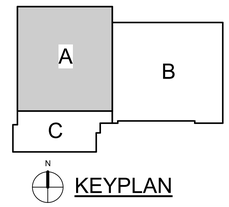
## KEY NOTES (X) (THIS SHEET)

1. 4" PS UP TO RD ON ROOF. 4" SS UP TO OD ON ROOF.
2. 6" PS UP TO RD ON ROOF. 6" SS UP TO OD ON ROOF.
3. DRAIN TUBING FROM RHB ON ROOF ABOVE. ROUTE DRAIN TUBING DOWN IN LAVATORY WALL AND CONNECT TO LAVATORY TAIL PIECE.
4. REFER TO DETAIL 8 ON P5.3 FOR HUMIDIFIER PIPING LAYOUT.
5. DROP SANITARY FROM FIXTURE THROUGH BOTTOM OF CASEWORK AND NOT IN WALL TO AVOID GRADE BEAM BELOW WALL STRUCTURE IN THIS LOCATION.
6. ROUTE 3/4" CD FROM SS-1 DOWN WALL TO NEAREST SINK TAIL PIECE.
7. ALL SANITARY AND STORM STACKS SHALL HAVE A WCO 18"AFF BEFORE GOING UNDERSLAB.




1 FIRST FLOOR DRAIN AND VENT PLAN - AREA A
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'




KEYPLAN

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009/000026
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02/07/2023

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| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|
| 1 | Date 2 | Revision 1 |

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FIRST FLOOR DRAIN & VENT PLAN - AREA A

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

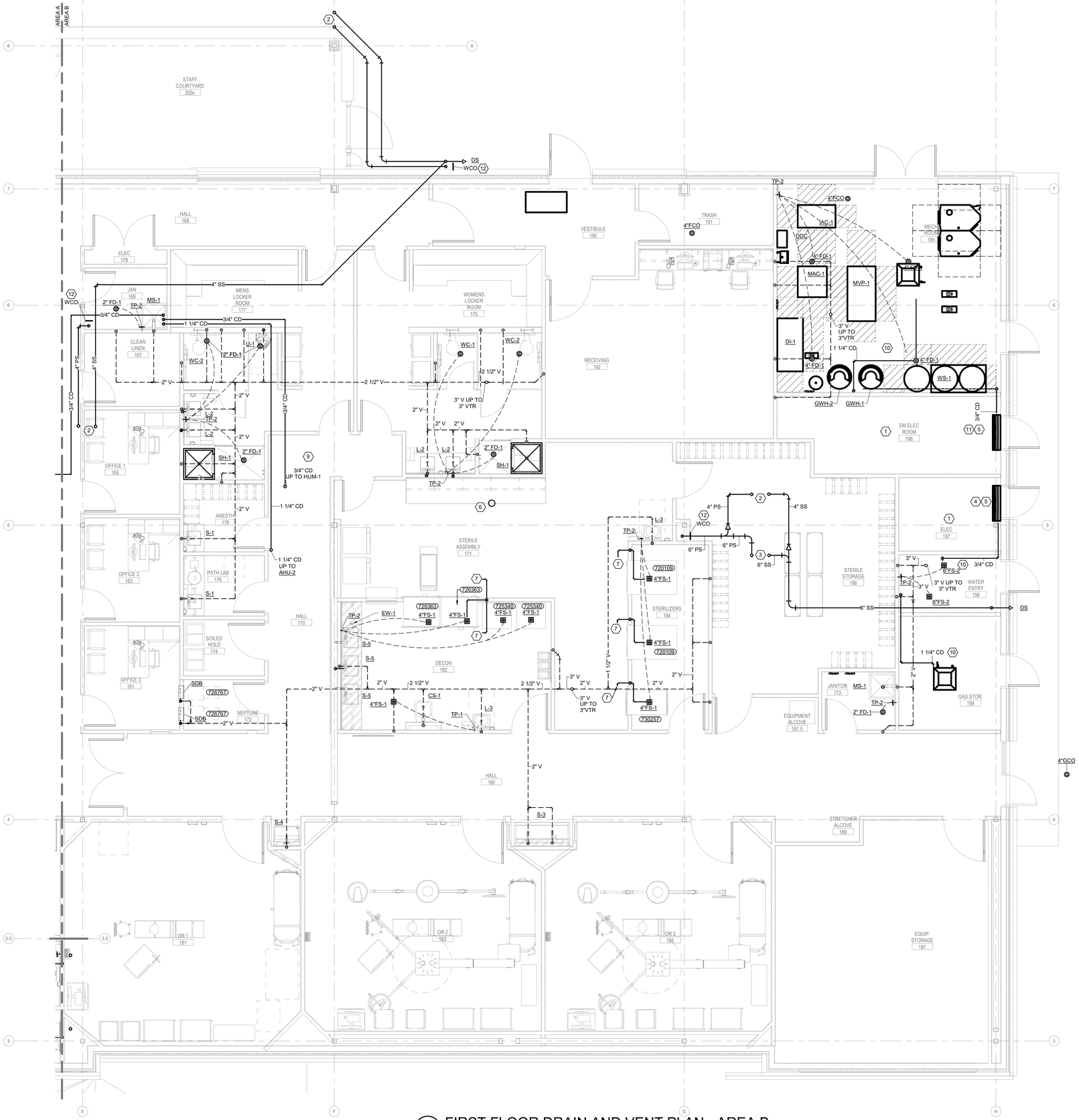
BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

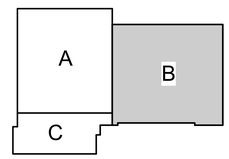
1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. WASTE PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT FOR 4" AND LARGER AND 1/4" PER FOOT OF 3" OR SMALLER.
3. STORM AND STORM OVERFLOW PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT. PROVIDE CLEANOUTS IN BASE OF STACKS AND COORDINATE DRAIN LOCATIONS WITH ARCHITECTURAL FLOOR PLANS.
4. COORDINATE ROUTING OF PLUMBING SYSTEMS WITH ALL OTHER TRADES.
5. MOUNT ALL VALVES IN ACCESSIBLE LOCATIONS. GIVE PREFERENCE TO LOCATIONS IN CORRIDORS, AREAS THAT WILL NOT IMPACT PATIENT CARE (IE STORAGE SPACE), AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.
6. PROVIDE ALL FLOOR DRAINS AND FLOOR SINKS WITH TRAP PRIMERS.
7. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.

## KEY NOTES (X) (THIS SHEET)

1. ROUTING PIPING OVER THIS ROOM IS PROHIBITED UNLESS OTHERWISE NOTED.
2. 4" PS UP TO RD ON ROOF. 4" SS UP TO OD ON ROOF.
3. 6" PS UP TO RD ON ROOF. 6" SS UP TO OD ON ROOF.
4. ROUTE 3/4" CD FROM SS-2 DOWN WALL TO NEAREST 4"FS-1.
5. COORDINATE CONDENSATE ROUTING WITH ELECTRICAL EQUIPMENT CLEARANCES.
6. DRAIN TUBING FROM RHB ON ROOF ABOVE. ROUTE DRAIN TUBING DOWN IN LAVATORY WALL AND CONNECT TO LAVATORY TAIL PIECE.
7. CONNECT 3/4" CD TO EXHAUST HOOD. ROUTE TO NEAREST FLOOR SINK.
8. INSTALL TRAP PRIMER (TP-2) ABOVE ACCESSIBLE CEILING TO SERVE NEIGHBORING FLOOR DRAINS AND FLOOR SINKS AS INDICATED.
9. REFER TO DETAIL 8 ON P5.3 FOR HUMIDIFIER PIPING LAYOUT.
10. ROUTE 1-1/4" CD FROM SS-3 DOWN WALL TO NEAREST 4"FS-1.
11. ROUTE 3/4" CD FROM SS-5 DOWN WALL TO NEAREST 4"FS-1.
12. ALL SANITARY AND STORM STACKS SHALL HAVE A WCO 18"AFF BEFORE GOING UNDERSLAB.




1 FIRST FLOOR DRAIN AND VENT PLAN - AREA B
SCALE: 1/4" = 1'-0"




RICKI MANKTELA NUMBER PE-2009/000026 PROFESSIONAL ENGINEER STATE OF MISSOURI
02/07/2023

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913.951.8311

# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
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**P1.1B**

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FIRST FLOOR DRAIN & VENT PLAN - AREA B

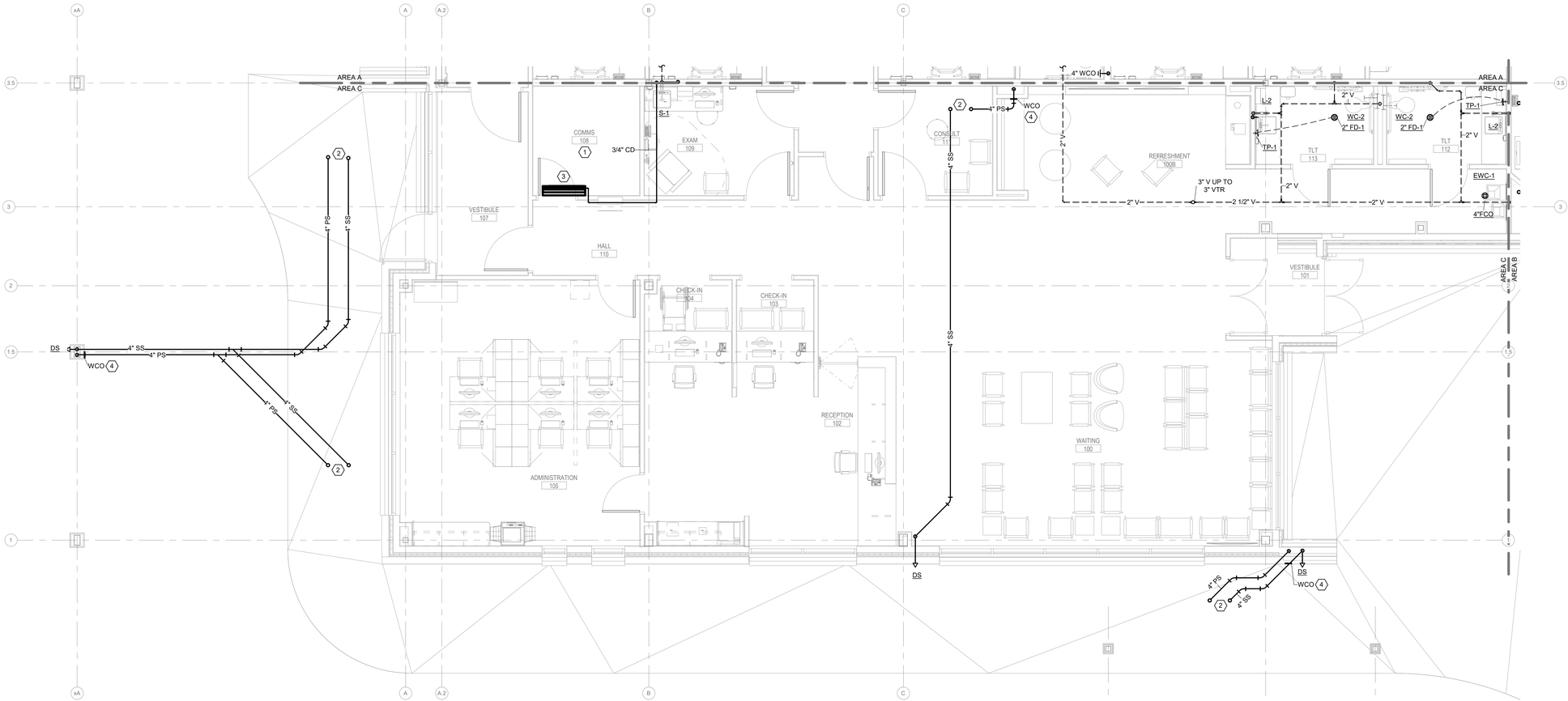
BranchPattern | www.branchpattern.com | PROJECT NUMBER 1201002 | BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

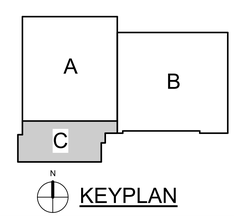
1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. WASTE PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT FOR 4" AND LARGER AND 1/4" PER FOOT OF 3" OR SMALLER.
3. STORM AND STORM OVERFLOW PIPING SHALL BE ROUTED AT A SLOPE OF 1/8" PER FOOT. PROVIDE CLEANOUTS IN BASE OF STACKS AND COORDINATE DRAIN LOCATIONS WITH ARCHITECTURAL FLOOR PLANS.
4. COORDINATE ROUTING OF PLUMBING SYSTEMS WITH ALL OTHER TRADES.
5. MOUNT ALL VALVES IN ACCESSIBLE LOCATIONS. GIVE PREFERENCE TO LOCATIONS IN CORRIDORS, AREAS THAT WILL NOT IMPACT PATIENT CARE (IE STORAGE SPACE), AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.
6. PROVIDE ALL FLOOR DRAINS AND FLOOR SINKS WITH TRAP PRIMERS.
7. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.

## KEY NOTES (X) (THIS SHEET)

1. ROUTING PIPING OVER THIS ROOM IS PROHIBITED UNLESS OTHERWISE NOTED.
2. 4" PS UP TO RD ON ROOF. 4" SS UP TO OD ON ROOF.
3. COORDINATE CONDENSATE ROUTING WITH ELECTRICAL EQUIPMENT CLEARANCES.
4. ALL SANITARY AND STORM STACKS SHALL HAVE A WCO 18" AFF BEFORE GOING UNDERSLAB.




1 FIRST FLOOR DRAIN AND VENT PLAN - AREA C
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'




KEYPLAN

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009/000026
PROFESSIONAL ENGINEER
02/07/2023

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P1.1C

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FIRST FLOOR DRAIN & VENT PLAN - AREA C

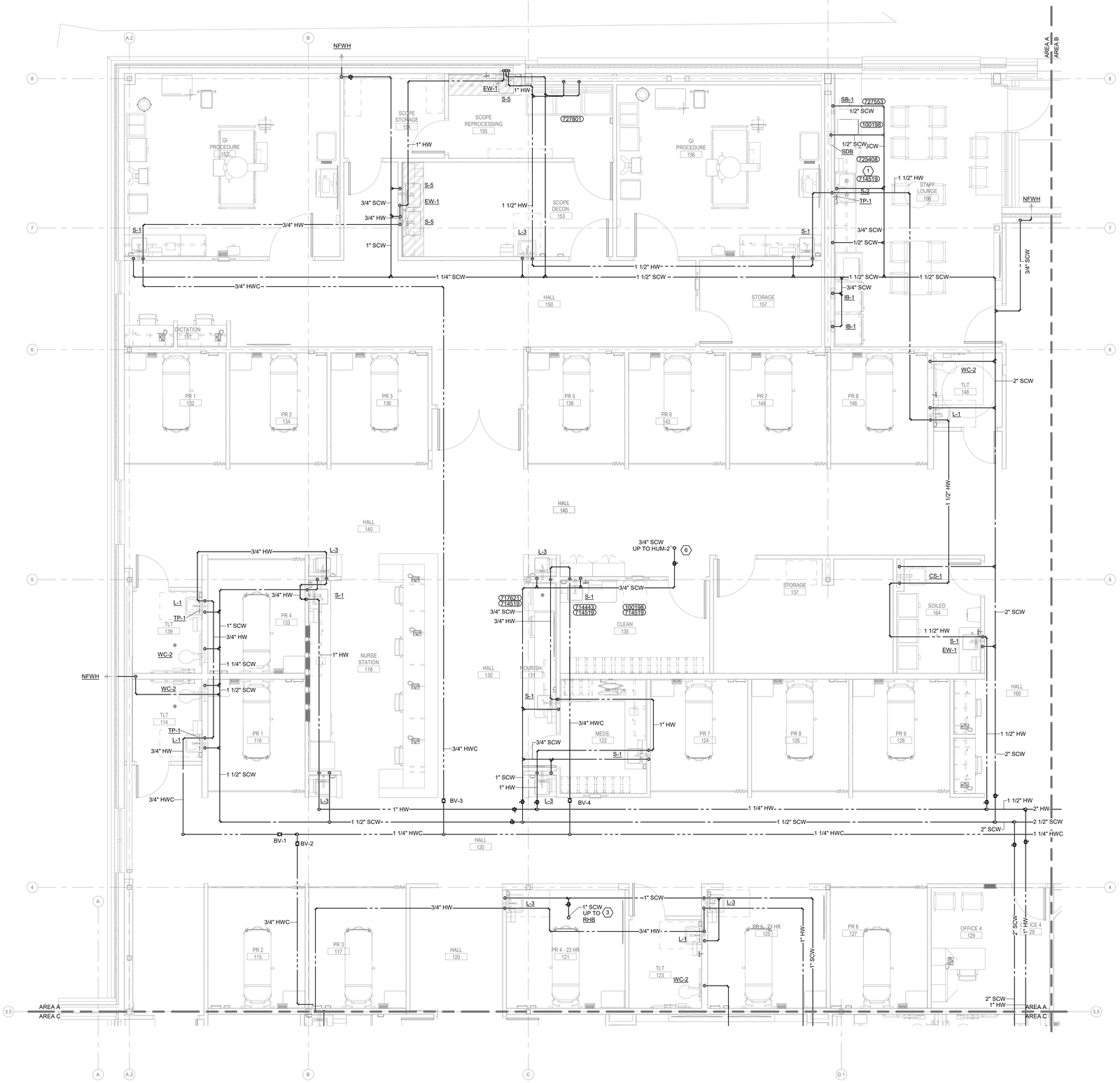
BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

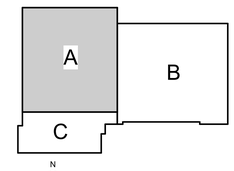
1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. REFER TO PLUMBING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION AND FIXTURE CONNECTION SIZES.
3. COORDINATE ROUTING OF PLUMBING SYSTEMS WITH ALL OTHER TRADES.
4. MOUNT ALL VALVES IN ACCESSIBLE LOCATIONS. GIVE PREFERENCE TO LOCATIONS IN CORRIDORS, AREAS THAT WILL NOT IMPACT PATIENT CARE (IE STORAGE SPACE), AND ABOVE ACT CEILINGS.
5. PIPING DROPS TO FIXTURES ON EXTERIOR WALL SHALL BE ROUTED ON WARM SIDE OF INSULATION TO PROTECT FROM FREEZING.
6. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.

## KEY NOTES (X) (THIS SHEET)

1. INSTALL WALL BOX UNDER SINK WITHIN CABINETRY. INSTALL STAINLESS STEEL, DOUBLE PITCHED DRAIN PAN BELOW FILTER AND PROVIDE 1" DRAIN CONNECTED TO SINK TAILPIECE.
2. PROVIDE HEAT TRACE ON SCW PIPING SERVING HUMIDIFIERS EQUAL TO RAYCHEM XL-TRACE EDGE.
3. 1" SCW SUPPLY UP TO RHB ON ROOF ABOVE. PROVIDE SHUTOFF VALVE IN BRANCH FOR SEASONAL SHUTOFF.




1 FIRST FLOOR WATER AND GAS PLAN - AREA A
SCALE: 1/4" = 1'-0"




KEYPLAN

STATE OF MISSOURI RICKI MANKTALA NUMBER PE-#009700026 PROFESSIONAL ENGINEER
02/07/2023

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P2.1A

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FIRST FLOOR WATER & GAS PLAN - AREA A

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BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. REFER TO PLUMBING FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION AND FIXTURE CONNECTION SIZES.
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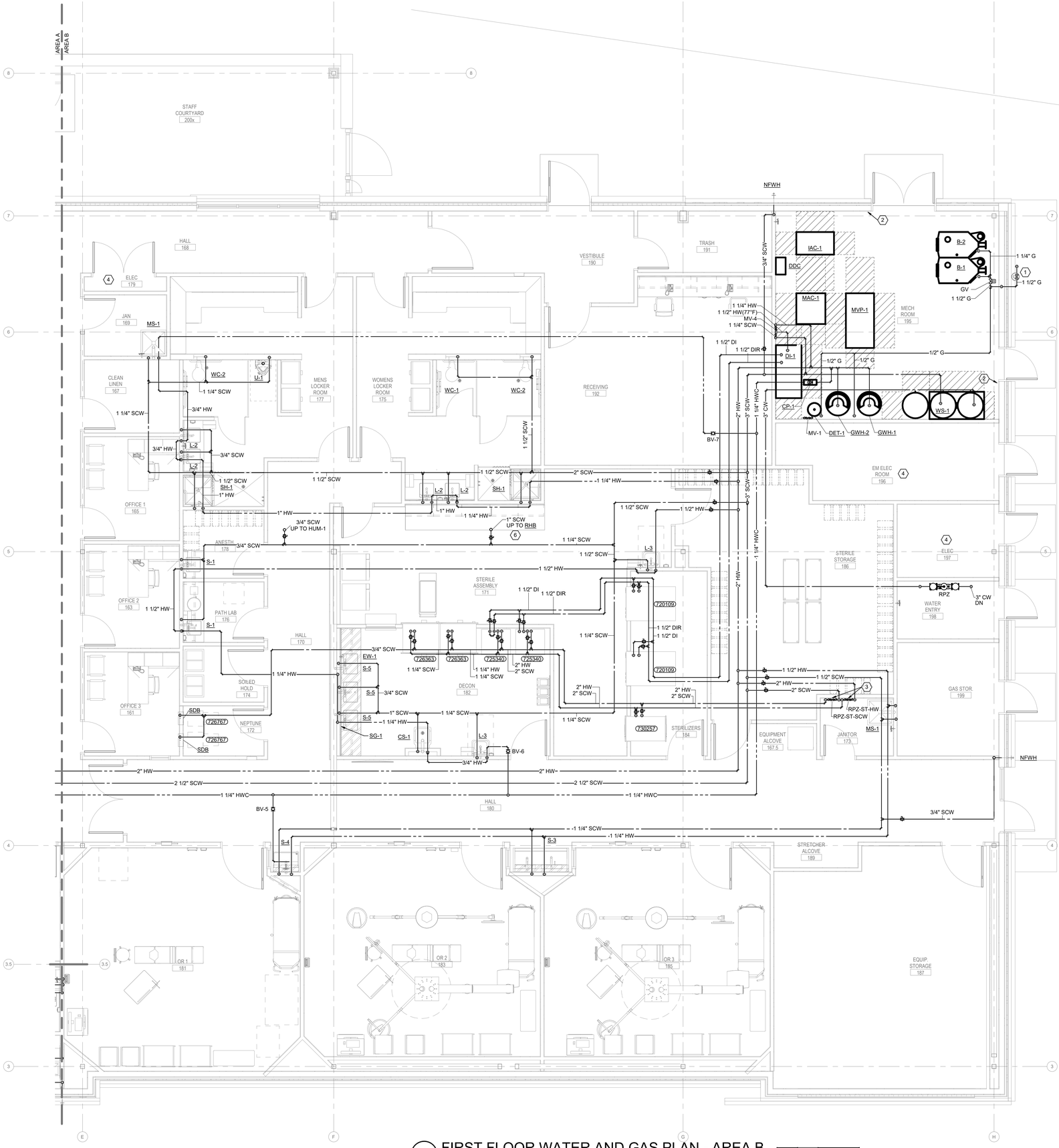
5. PIPING DROPS TO FIXTURES ON EXTERIOR WALL SHALL BE ROUTED ON WARM SIDE OF INSULATION TO PROTECT FROM FREEZING.
6. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.

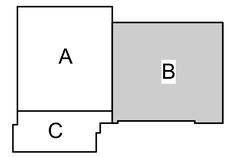
## KEY NOTES (X) (THIS SHEET)

1. NATURAL GAS METER AND BUILDING PRESSURE REGULATOR. COORDINATE WITH UTILITY PROVIDER.
2. LOCATION OF BOILER EMERGENCY SHUTDOWN BUTTON TIED TO 120V ELECTRONIC SOLENOID VALVE IN NATURAL GAS PIPING.
3. PROVIDE LINE SIZE RPZ BACKFLOW PREVENTER TO SERVE THE STERILE/DECON EQUIPMENT FOR SCW AND HW. ROUTE DRAIN TO MOP SINK IN JAN 173. COORDINATE INDIRECT DRAIN SIZE WITH MANUFACTURER.
4. ROUTING PIPE OVER THIS ROOM IS PROHIBITED UNLESS OTHERWISE NOTED.
5. PROVIDE HEAT TRACE ON SCW PIPING SERVING HUMIDIFIERS EQUAL TO RAYCHEM XL-TRACE EDGE.
6. 1" SCW SUPPLY UP TO RHB ON ROOF ABOVE. PROVIDE SHUTOFF VALVE IN BRANCH FOR SEASONAL SHUTOFF.




1 FIRST FLOOR WATER AND GAS PLAN - AREA B
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'




KEYPLAN


STATE OF MISSOURI RICKI MANKTALA NUMBER PE-2009012026 PROFESSIONAL ENGINEER

02/07/2023

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# Surgery Center of Lee's Summit
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P2.1B

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FIRST FLOOR WATER & GAS PLAN - AREA B

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BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

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## KEY NOTES (X) (THIS SHEET)

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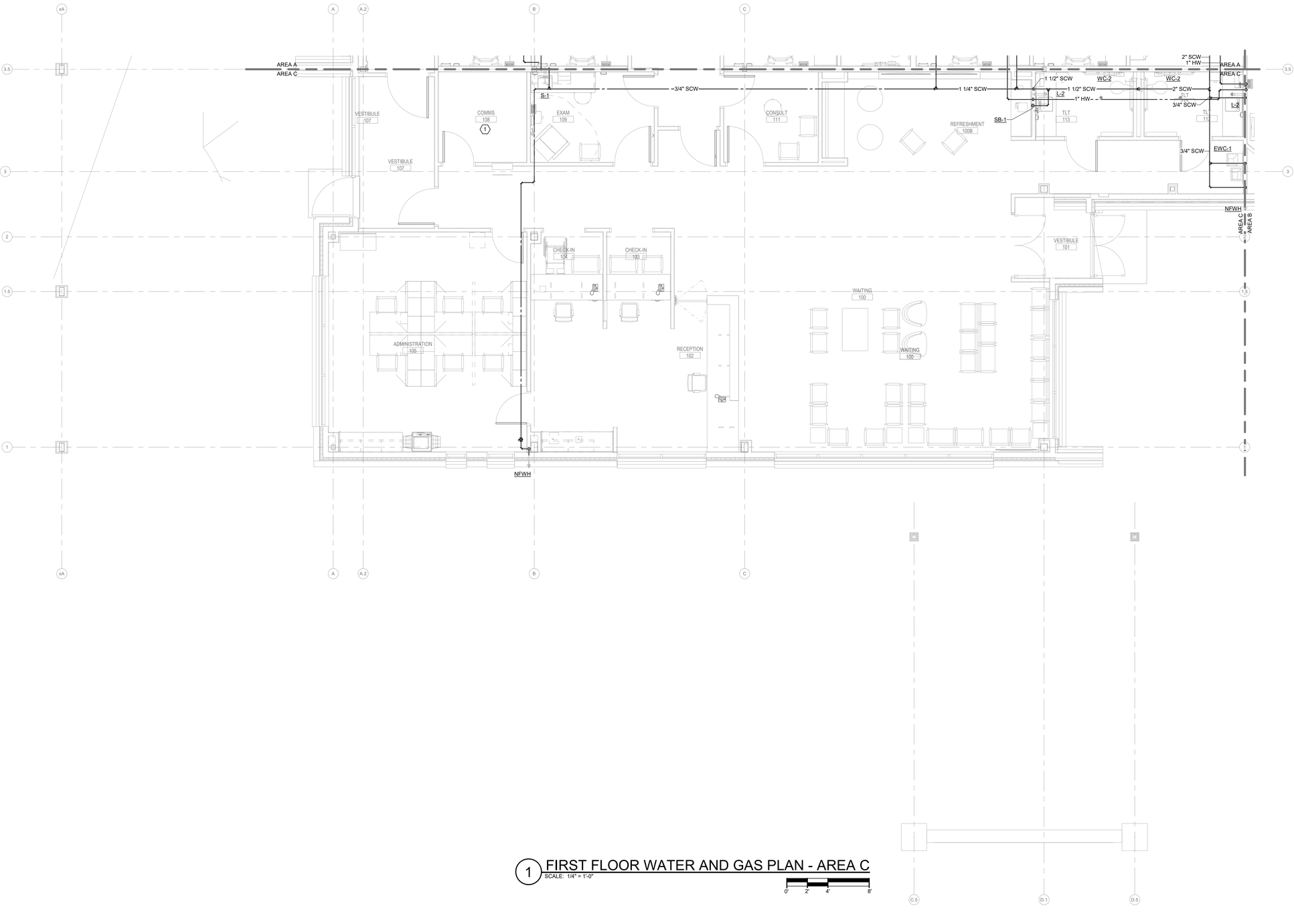
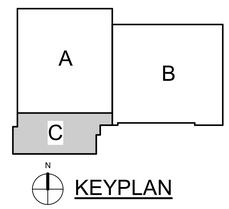



1 FIRST FLOOR WATER AND GAS PLAN - AREA C
SCALE: 1/4" = 1'-0"

0' 2' 4' 8'




KEYPLAN


STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009700026
PROFESSIONAL ENGINEER

02/07/2023

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913.951.8311


# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

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| Checked By | Checker |

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P2.1C

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FIRST FLOOR WATER & GAS PLAN - AREA C

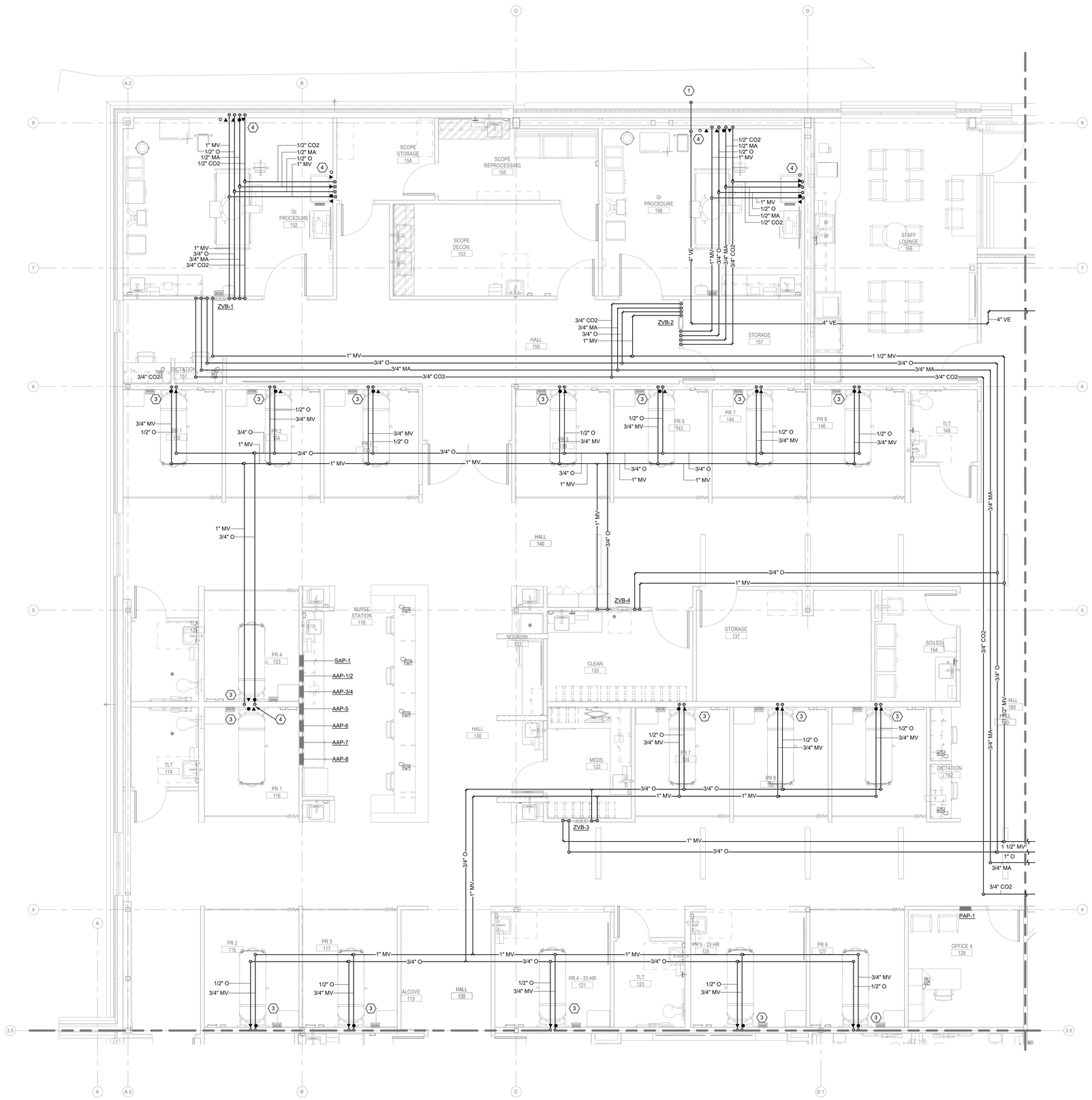
BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. COORDINATE ROUTING OF PLUMBING SYSTEMS WITH ALL OTHER TRADES.
3. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.
4. MOUNT ALL VALVES IN ACCESSIBLE LOCATIONS. GIVE PREFERENCE TO LOCATIONS IN CORRIDORS. AREAS THAT WILL NOT IMPACT PATIENT CARE (IE STORAGE SPACE), AND ABOVE ACT CEILINGS.
5. ALL WALL MEDICAL GAS OUTLETS TO BE OHMEDA DIAMOND COMPATIBLE PIN INDEX. CEILING OUTLETS TO BE DISS TYPE WITH HOSE ASSEMBLIES AND RETRACTORS.
6. POSITIVE PRESSURE GAS PIPING RUNOUTS NO SMALLER THAN 1/2", RUNOUTS SERVING 2 OR MORE CONNECTIONS MUST BE 3/4" MIN.
7. VACUUM GAS PIPING RUNOUTS NO SMALLER THAN 3/4". RUNOUTS SERVING 2 OR MORE CONNECTIONS MUST BE 1" MIN.
8. PLUMBING PLANS GOVERN THE QUANTITY OF MEDICAL GAS STATION INLETS/OUTLETS. REFER TO ARCHITECTURAL ELEVATIONS AND CEILING PLANS FOR COORDINATED AND DIMENSIONED LOCATIONS.

## KEY NOTES (X) (THIS SHEET)

1. DISCHARGE VACUUM PUMP EXHAUST PIPING AS HIGH ON EXTERIOR WALL AS POSSIBLE. DO NOT ROUTE TO THE ROOF. DO NOT LOCATE WITHIN 25' OF ANY BUILDING OPENING.
2. 1" MV DOWN IN WALL. BRANCH 3/4" MV TO VACUUM CONNECTIONS ON BOTH SIDES OF WALL. 3/4" O DOWN IN WALL. BRANCH 1/2" O TO OXYGEN CONNECTIONS ON BOTH SIDES OF WALL. 3/4" MA DOWN IN WALL. BRANCH 1/2" MA TO MEDICAL AIR OUTLETS ON BOTH SIDES OF WALL.
3. WALL MOUNT MED GAS OUTLET ARRAY CONSISTING OF ONE (1) OXYGEN OUTLET, ONE (1) MEDICAL VACUUM INLET AND ONE (1) VACUUM SLIDE.




1 FIRST FLOOR GAS AND VACUUM PLAN - AREA A
SCALE: 1/4" = 1'-0"
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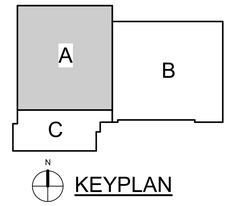


KEYPLAN

STATE OF MISSOURI · RICKI MANKTALA · NUMBER PE-#009700026 · PROFESSIONAL ENGINEER
02/07/2023

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P3.1A

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FIRST FLOOR GAS & VACUUM PLAN - AREA A

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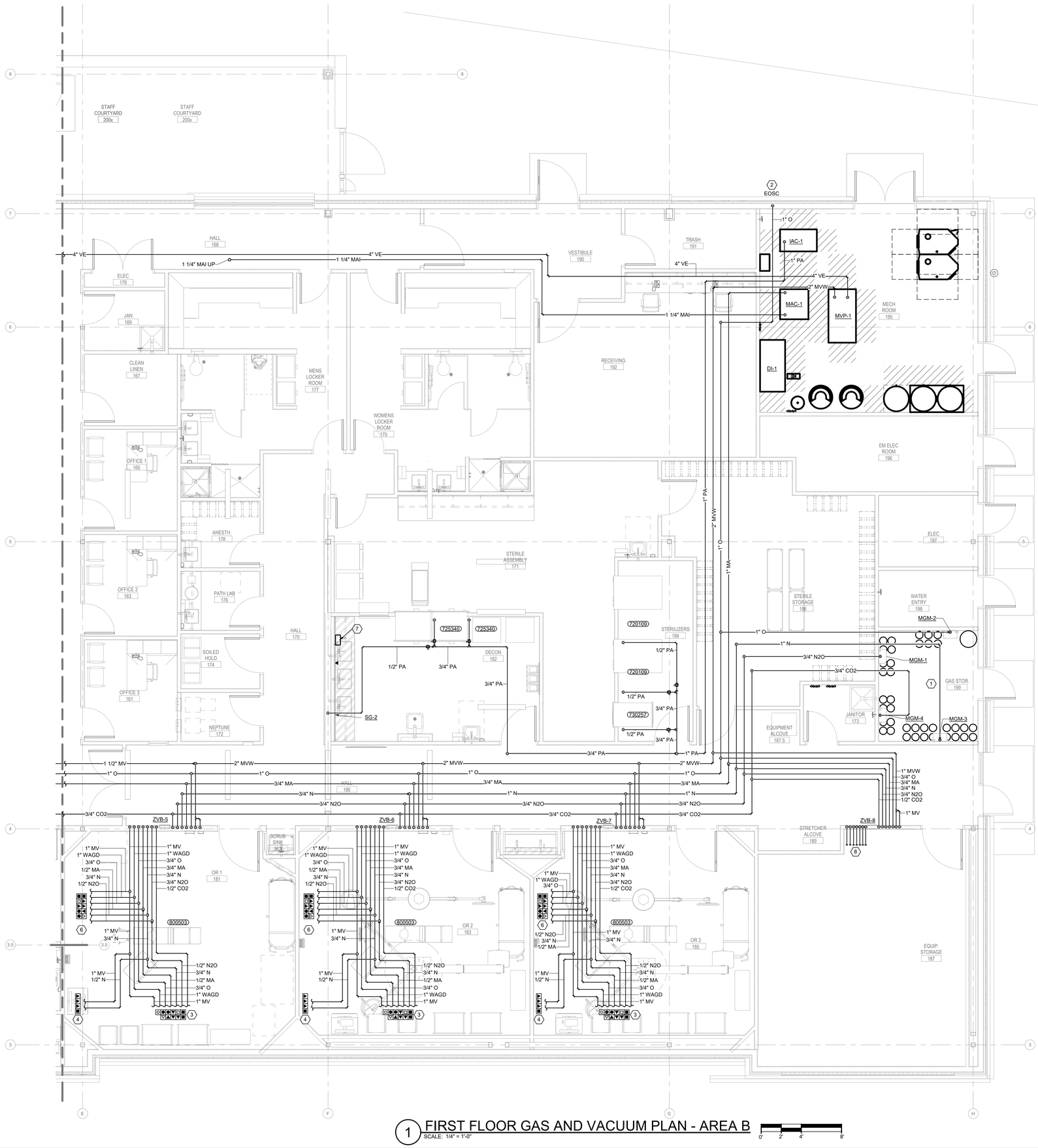


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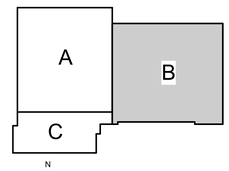


KEYPLAN

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3. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.
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7. VACUUM GAS PIPING RUNOUTS NO SMALLER THAN 3/4". RUNOUTS SERVING 2 OR MORE CONNECTIONS MUST BE 1" MIN.
8. PLUMBING PLANS GOVERN THE QUANTITY OF MEDICAL GAS STATION INLETS/OUTLETS. REFER TO ARCHITECTURAL ELEVATIONS AND CEILING PLANS FOR COORDINATED AND DIMENSIONED LOCATIONS.

## KEY NOTES (X) (THIS SHEET)

1. VENT MANIFOLDS TO EXTERIOR OF THE BUILDING.
2. LOCATION OF EMERGENCY OXYGEN SUPPLY CONNECTION.
3. CEILING MEDICAL GAS OUTLET ARRAY CONSISTING OF TWO (2) OXYGEN, ONE (1) MEDICAL AIR, TWO (2) MEDICAL VACUUM, ONE (1) CO2, ONE (1) N2O, TWO (2) NITROGEN, AND ONE (1) WAGD OUTLETS.
4. CEILING MEDICAL GAS OUTLET ARRAY CONSISTING OF ONE (1) NITROGEN, AND THREE (3) MEDICAL VACUUM OUTLETS.
5. CEILING MED GAS OUTLET ARRAY CONSISTING OF TWO (2) OXYGEN OUTLETS, ONE (1) MEDICAL AIR, THREE (3) MEDICAL VACUUM, ONE (1) WAGD, TWO (2) NITROGEN, AND ONE (1) N2O.
6. MEDICAL GAS PIPING FOR FUTURE OPERATING ROOM EXPANSION. CAP PIPING AND LOCK SHUTOFF VALVES IN THE OFF POSITION.
7. PROCIDE AGILENT IDP-3 POINT OF USE VACUUM PUMP. CONNECT TO WALL OUTLET ON OPPOSITE SIDE OF SINK.

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PROJECT NUMBER 1201002
BETTER BUILT ENVIRONMENTS

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-2009026006
PROFESSIONAL ENGINEER
02/07/2023

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

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|---|---|---|

P3.1B

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FIRST FLOOR GAS & VACUUM PLAN - AREA B

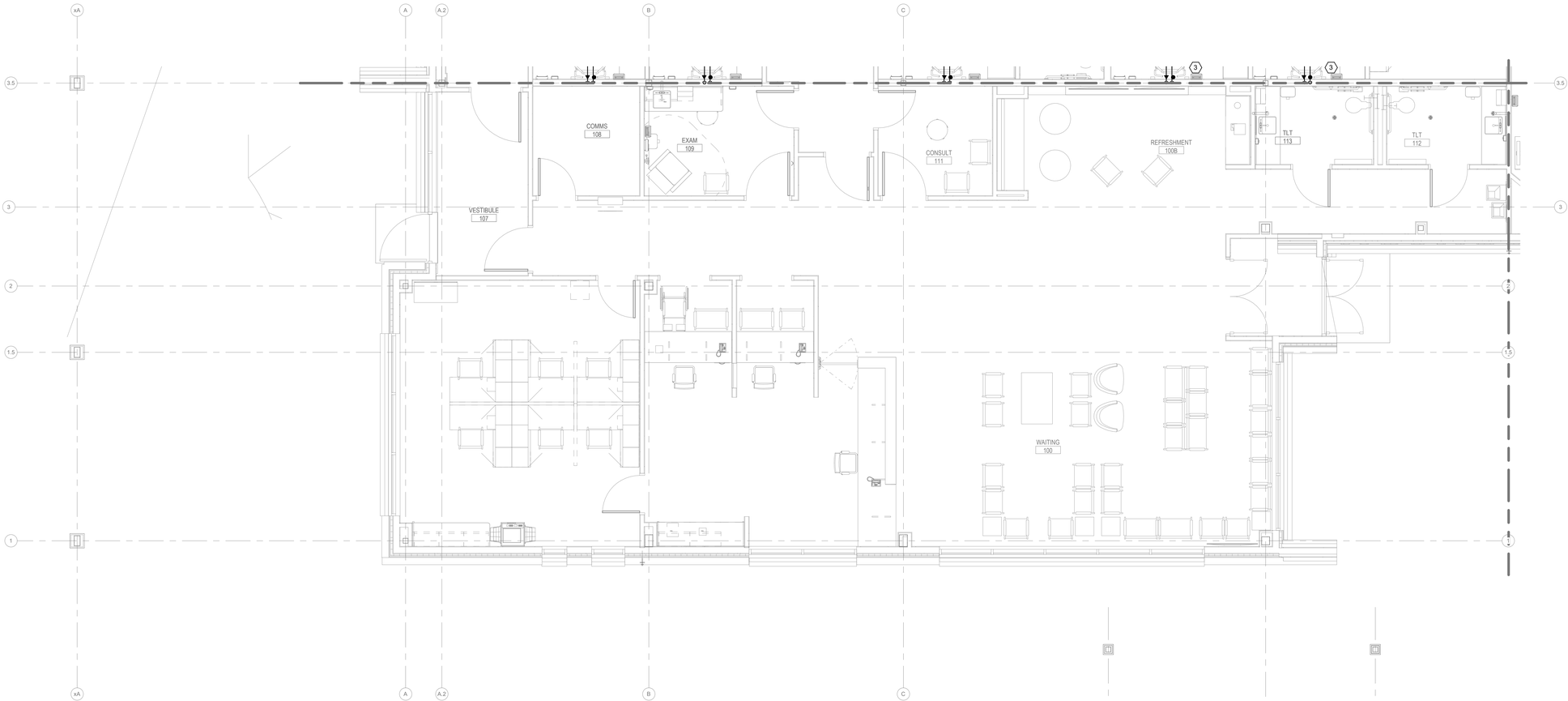
2/7/2023 4:43:09 PM

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

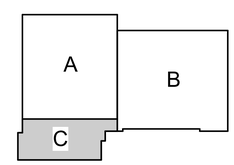
BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING GENERAL NOTES AND LEGEND.
2. COORDINATE ROUTING OF PLUMBING SYSTEMS WITH ALL OTHER TRADES.
3. FIELD COORDINATE CONNECTION REQUIREMENTS FOR ALL MEDICAL, HVAC, AND LIKE EQUIPMENT, EITHER FURNISHED OR PROVIDED BY OTHERS.
4. MOUNT ALL VALVES IN ACCESSIBLE LOCATIONS. GIVE PREFERENCE TO LOCATIONS IN CORRIDORS. AREAS THAT WILL NOT IMPACT PATIENT CARE (IE STORAGE SPACE), AND ABOVE ACT CEILINGS.
5. ALL WALL MEDICAL GAS OUTLETS TO BE OHMEDA DIAMOND COMPATIBLE PIN INDEX. CEILING OUTLETS TO BE DISS TYPE WITH HOSE ASSEMBLIES AND RETRACTORS.
6. POSITIVE PRESSURE GAS PIPING RUNOUTS NO SMALLER THAN 1/2", RUNOUTS SERVING 2 OR MORE CONNECTIONS MUST BE 3/4" MIN.
7. VACUUM GAS PIPING RUNOUTS NO SMALLER THAN 3/4". RUNOUTS SERVING 2 OR MORE CONNECTIONS MUST BE 1" MIN.
8. PLUMBING PLANS GOVERN THE QUANTITY OF MEDICAL GAS STATION INLETS/OUTLETS. REFER TO ARCHITECTURAL ELEVATIONS AND CEILING PLANS FOR COORDINATED AND DIMENSIONED LOCATIONS.




1 FIRST FLOOR GAS AND VACUUM PLAN - AREA C
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'




KEYPLAN


STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-2009020026
PROFESSIONAL ENGINEER

02/07/2023

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

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| Job Number | 3-22030 |
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| Checked By | Checker |

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P3.1C

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FIRST FLOOR GAS & VACUUM PLAN - AREA C

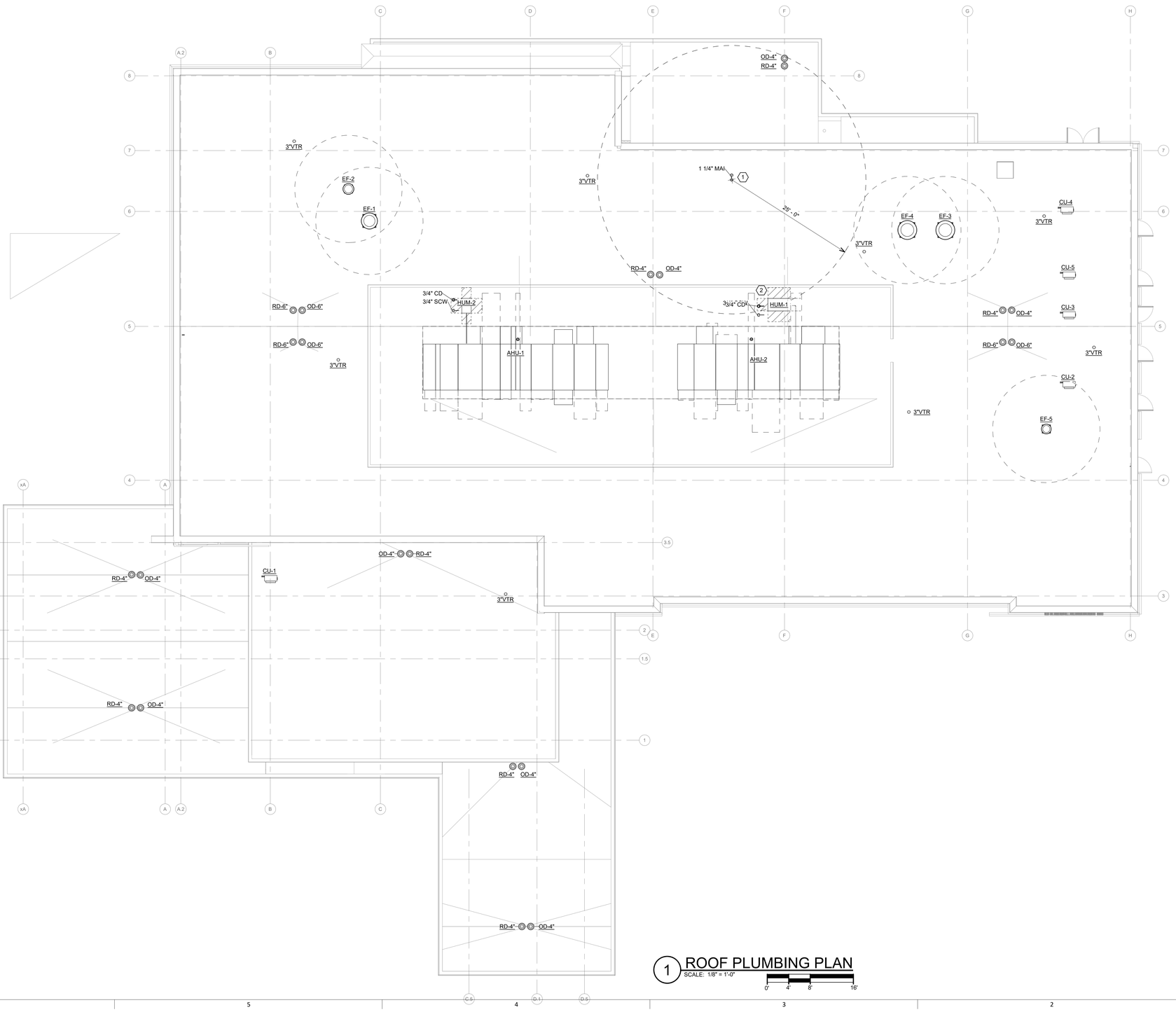
BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

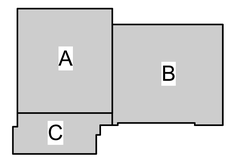
1. SEE SHEET M0.1 AND P0.1 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.

## KEY NOTES ⓧ (THIS SHEET)

1. TERMINATE MEDICAL AIR COMPRESSOR INTAKE WITH GOOSENECK PER DETAIL
2. HUMIDIFIER SERVED WITH 3/4" SOFTENED COLD WATER FROM BELOW. ROUTE 3/4" DRAIN COOLER DISCHARGE TO NEAREST FLOOR OR MOP SINK IN BACK OF HOUSE SPACE. SEE DETAIL 8 ON P5.3.




1 ROOF PLUMBING PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'




KEYPLAN

STATE OF MISSOURI
RICKI MANKTALA
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P4.1

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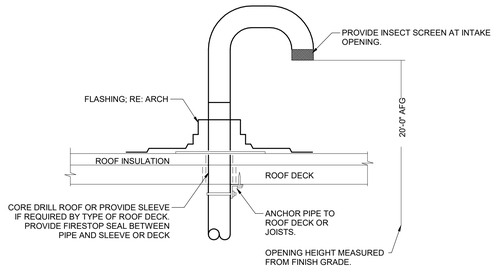
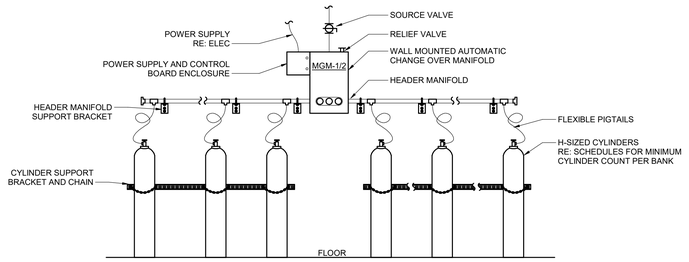
ROOF PLUMBING PLAN



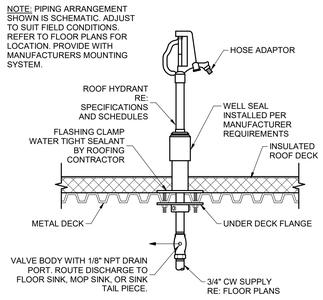

1. REFER TO PLANS FOR PIPE SIZE(S) AND LOCATION(S). LOCATE PENETRATION MINIMUM 18" FROM ADJACENT WALLS, EQUIPMENT CURBS, PARAPETS, EXPANSION JOINTS, ETC.
2. OPENING FOR MEDICAL AIR INTAKE PIPE TO BE A MINIMUM OF 20'-0" ABOVE FINISH GRADE AND A MINIMUM OF 25'-0" FROM ANY OPENING (EXHAUST, FLUE, DOOR, WINDOW, OTHER INTAKES, ETC.) AS REQUIRED PER NFPA 99. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS.

## 1 MEDICAL AIR INTAKE ROOF PENETRATION
SCALE: NONE

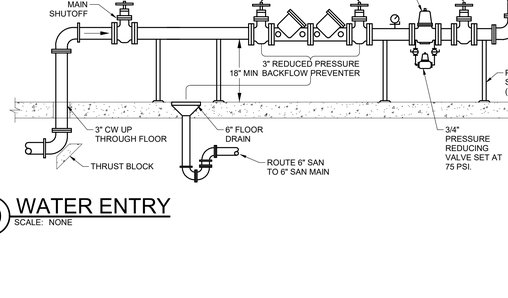



## 2 MEDICAL GAS MANIFOLD DETAIL
SCALE: NONE

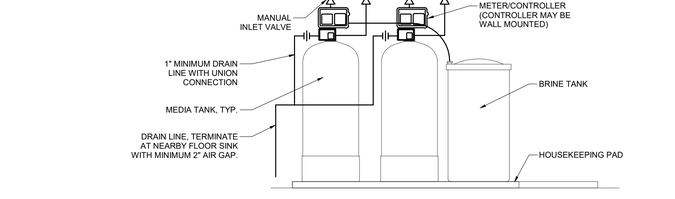
NOTE: PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. REFER TO FLOOR PLANS FOR LOCATION. PROVIDE WITH MANUFACTURERS MOUNTING SYSTEM.




## 3 NON-FREEZE ROOF HYDRANT
SCALE: NONE



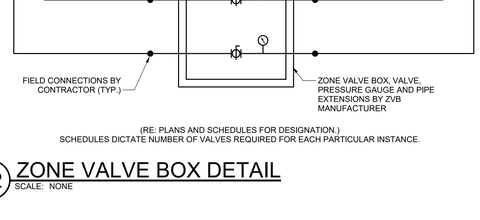

## 4 NON-FREEZE WALL HYDRANT
SCALE: NONE




| HANGER ROD SPACING | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PIPE SIZE | 1" | 1-1/4" | 1-1/2" | 2" | 2-1/2" | 3" | 4" | 6" | 8" | 10" | 12" |
| MAX SPACING | 7 FT. | 8 FT. | 9 FT. | 10 FT. | 11 FT. | 12 FT. | 14 FT. | 17 FT. | 19 FT. | 22 FT. | 23 FT. |

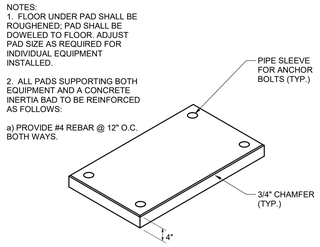
NOTE: TRAPEZE HANGERS APPLY TO ALL MULTIPLE HORIZONTAL RUNS WITH OR WITHOUT VAPOR BARRIER INSULATION. COORDINATE INSTALLATION WITH ALL OTHER CONDITIONS TO ALLOW SPACE FOR OTHER SERVICES.

## 5 TRAPEZE HANGER
SCALE: NONE




NOTES:
1. PIPE AND CONDUIT OF ALL TRADES MAY BE COMBINED ON SAME SUPPORT CHANNEL WHERE PRACTICAL.
2. SUPPORT CHANNEL LENGTH SHALL NOT BE DETERMINED UNTIL ALL PIPING AND CONDUIT TO BE SUPPORTED IS COORDINATED.

## 6 TRAPEZE PIPE HANGER
SCALE: NONE

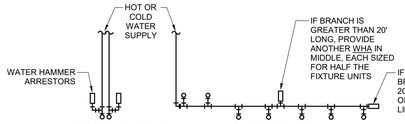



NOTES:
1. FLOOR UNDER PAD SHALL BE ROUGHENED; PAD SHALL BE DOWELED TO FLOOR. ADJUST PAD SIZE AS REQUIRED FOR INDIVIDUAL EQUIPMENT INSTALLED.
2. ALL PADS SUPPORTING BOTH EQUIPMENT AND A CONCRETE INERTIA BAD TO BE REINFORCED AS FOLLOWS:

a) PROVIDE #4 REBAR @ 12" O.C. BOTH WAYS.

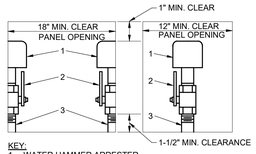
## 7 TYPICAL EQUIPMENT PAD
SCALE: NONE

NOTES:
1. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR THE TABLES SHOWN ABOVE. PROVIDE ACCESSIBILITY TO WHA.
2. INSTALL PER PDI STANDARDS AND MANUFACTURER'S INSTRUCTIONS. PROVIDE A WHA AT ALL QUICK-CLOSING VALVES.
3. FOR INDIVIDUAL SINKS/LAVATORIES WITH SOLENOID VALVES, INSTALL COMBINATION LOOSE KEY ANGLE STOP WITH WATER HAMMER ARRESTOR.
4. WATER HAMMER ARRESTORS MAY BE INSTALLED ABOVE CEILING.




| PDI SIZE | PIPE SIZE | FIXTURE UNIT LOAD |
|---|---|---|
| A | 1/2" | 1-11 |
| B | 3/4" | 12-32 |
| C | 1" | 33-60 |
| D | 1-1/4" | 61-113 |
| E | 1-1/2" | 114-154 |
| F | 2" | 155-330 |

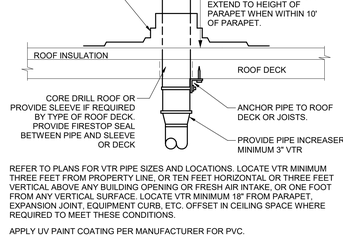
| FIXTURE UNIT TABULATION | | |
|---|---|---|
| FIXTURE | COLD | HOT |
| VALVE WATER CLOSET | 10 | - - |
| TANK WATER CLOSET | 5 | - - |
| URINAL | 5 | - - |
| LAVATORY/SINK | 1.5 | 1.5 |
| JANITOR'S SINK | 3 | 3 |
| SHOWER/BATHTUB | 2 | 2 |




KEY:
1. WATER HAMMER ARRESTER.
2. BALL VALVE, SAME NOMINAL SIZE AS PIPE BRANCH IN CHASE. OPENING IN BALL VALVE TO MATCH PIPE ID.
3. PIPE SAME SIZE AS BRANCH IN CHASE TO WHICH IT IS ATTACHED.

NOTE:
1. PROVIDE REDUCER IF REQUIRED BETWEEN VALVE AND WATER HAMMER ARRESTER.

## 8 WATER HAMMER ARRESTOR AND PANEL
SCALE: NONE




REFER TO PLANS FOR VTR PIPE SIZES AND LOCATIONS. LOCATE VTR MINIMUM THREE FEET FROM PROPERTY LINE, OR TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, OR ONE FOOT FROM ANY VERTICAL SURFACE. LOCATE VTR MINIMUM 18" FROM PARAPET, EXPANSION JOINT, EQUIPMENT CURB, ETC. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS.

APPLY UV PAINT COATING PER MANUFACTURER FOR PVC.

## 9 VENT THROUGH ROOF
SCALE: NONE




## 10 WATER ENTRY
SCALE: NONE




## 11 WATER SOFTENER DIAGRAM
SCALE: NONE




(RE: PLANS AND SCHEDULES FOR DESIGNATION.)
SCHEDULES DICTATE NUMBER OF VALVES REQUIRED FOR EACH PARTICULAR INSTANCE.

## 12 ZONE VALVE BOX DETAIL
SCALE: NONE

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

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| Checked By | AB, RC, MG |

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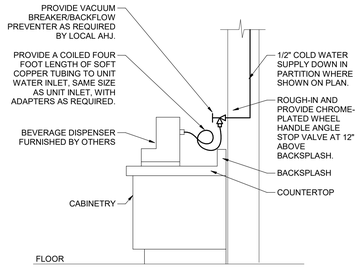
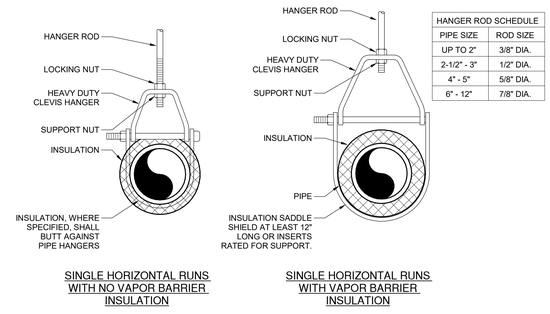
PLUMBING DETAILS

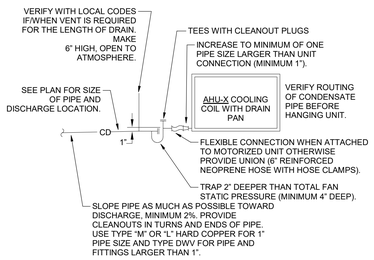



## 1 BEVERAGE DISPENSER WATER
SCALE: NONE



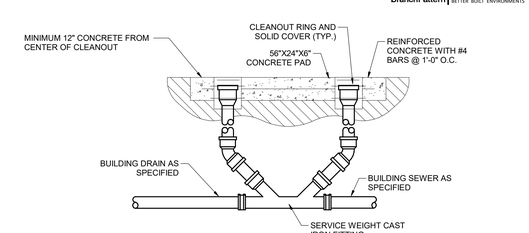

| HANGER ROD SCHEDULE | |
|---|---|
| PIPE SIZE | ROD SIZE |
| UP TO 2" | 3/8" DIA. |
| 2-1/2" - 3" | 1/2" DIA. |
| 4" - 5" | 5/8" DIA. |
| 6" - 12" | 7/8" DIA. |

## 2 CLEVIS HANGER
SCALE: NONE



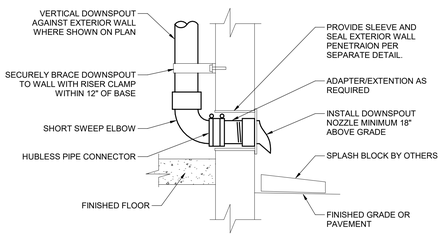

INSULATE WITH 1/2" FIBERGLASS WITH ALL-SERVICE JACKET. CONNECT TO SECONDARY DRAIN ON COIL IF EXITING. ROUTE PIPE AS CONVENIENT AND COORDINATE WITH OTHER ITEMS. DISCHARGE INTO RECEPTOR WITH AIR GAP OF TWO PIPE DIAMETERS. REFER TO LOCAL CODE FOR INDIRECT DRAIN REQUIREMENTS.

## 3 CONDENSATE DRAIN
SCALE: NONE




LOCATE EXTERIOR DOUBLE GRADE CLEANOUT AT END OF RUNS, AT TURNS OF PIPE GREATER THAN 45 DEGREES, AT MAXIMUM 100' INTERVALS ON STRAIGHT RUNS, AND WHERE SHOWN ON PLANS. VERIFY SOIL/ROCK CONDITIONS WITH GEOTECHNICAL REPORT SITE EXAMINATION. USE SERVICE WEIGHT CAST IRON PIPE AND FITTING WITH NEOPRENE GASKET JOINTS. BACKFILL WITH CRUSHED ROCK TO COVER PIPE MINIMUM 6". PROVIDE EARTH BACKFILL AND COMPACT. REPAIR ANY SOD AND/OR PAVEMENT TO MATCH EXISTING. USE CLASS "C" CONCRETE FOR PAD AND JOINT BRACING.

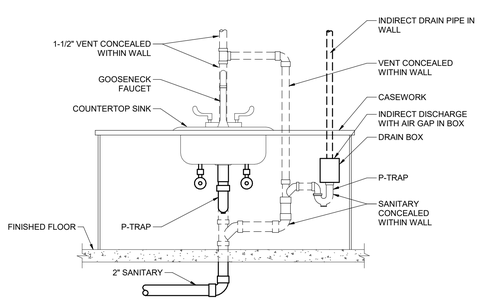
## 4 DOUBLE GRADE CLEANOUT (DGCO)
SCALE: NONE



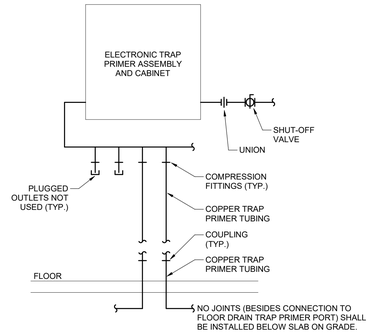

1. ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. REFER TO SPECIFICATIONS FOR DOWNSPOUT NOZZLE, AND TYPE OF PIPE, FITTINGS, AND CONNECTORS.

2. FOR INSTALLATIONS WITHIN WALL CAVITY, INSTALL PIPING ON WARM SIDE OF WALL INSULATION.

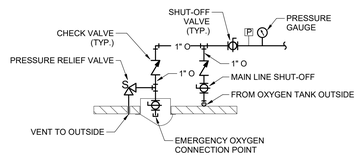
## 5 DOWNSPOUT NOZZLE
SCALE: NONE



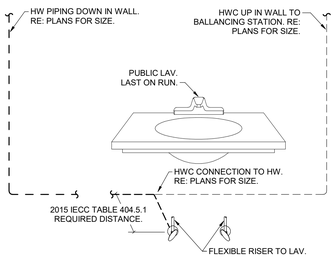

## 6 DRAIN BOX ADJACENT TO SINK/LAVATORY
SCALE: NONE



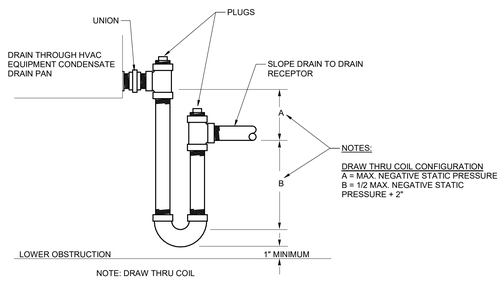

## 7 ELECTRONIC TRAP PRIMER DETAIL
SCALE: NONE



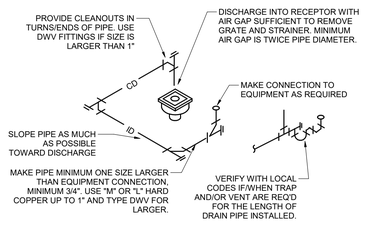

## 8 EMERGENCY OXYGEN SUPPLY CONNECTION
SCALE: NONE




## 9 HOT WATER RECIRC IECC 404.5.1
SCALE: NONE



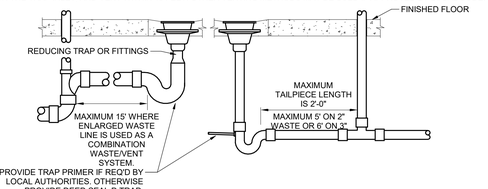

## 10 HVAC CONDENSATE TRAP
SCALE: NONE




ROUTE PIPE INCONSPICUOUSLY AND UNOBTRUSIVELY. HANG PIPE AS REQUIRED. DO NOT INSULATE INDIRECT DRAIN PIPE WITH INSTALLED EXPOSED IN FOOD SERVICE FACILITY. REFER TO LOCAL CODES FOR FURTHER INFORMATION.

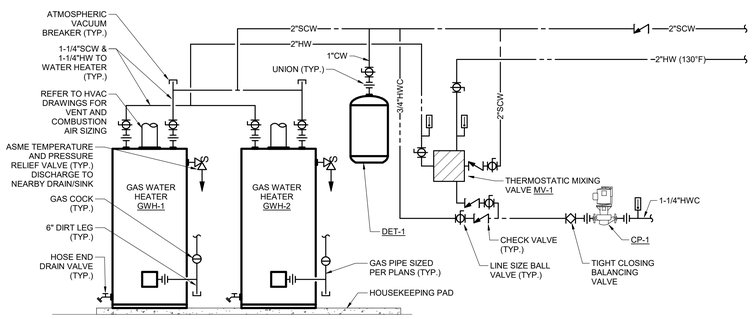
## 11 INDIRECT/CONDENSATE DRAIN
SCALE: NONE

PROVIDE AN INDIVIDUAL VENT ON ALL FLOOR DRAINS. INSTALL VENT IN PARTITION OR CHASE WHERE SHOWN ON PLAN. HORIZONTAL VENT BELOW FLOOR IS NOT PERMITTED. IF FLOOR DRAIN/SINK IS MORE THAN 5' ON A 2" WASTE OR 6' ON A 3" WASTE FROM THE PARTITION, PROVIDE A TRAP AND WASTE LINE TWO PIPE SIZES LARGER THAN THE DRAIN/SINK OUTLET, WITH A REDUCER ON THE TRAP INLET, AND VENT WITHIN 15 FEET. OTHER VENTING METHODS MAY BE USED IF APPROVED BY LOCAL CODE.




LOCATE FLOOR DRAIN/SINK WHERE SHOWN ON DIMENSIONED ARCHITECTURAL PLAN. IF FLOOR STRUCTURE INTERFERES WITH PLACEMENT, MOVE SIDEWAYS IF POSSIBLE, OTHERWISE MOVE BACK. ALWAYS LOCATE WHERE EASILY ACCESSIBLE, BUT NOT IN FOOT TRAFFIC. IF SITUATION IS FLOOR SLAB ON GRADE, PROVIDE BACKFILL PER SPECIFICATIONS. IF FLOOR IS EXISTING, SAW CUT OR CORE DRILL IT. SET DRAIN BODY IN PLACE & POUR AROUND IT. IF SITUATION IS FLOOR NOT ON GRADE, REFER TO "FLOOR PENETRATION" DETAIL FOR VENTS.

## 12 FLOOR DRAIN/SINK INSTALLATION
SCALE: NONE




## 13 GAS FIRED WATER HEATER WITH TMV'S
SCALE: NONE

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PROJECT NUMBER 1201002
BETTER BUILT ENVIRONMENTS

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-2009026086
PROFESSIONAL ENGINEER
02/07/2023

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| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | JS |
| Checked By | AB, RC, MG |

Revision

| Number | Date | Description |
|---|---|---|

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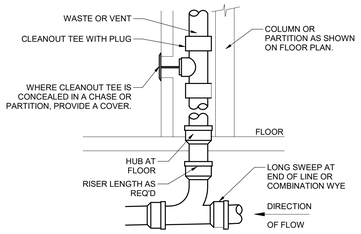
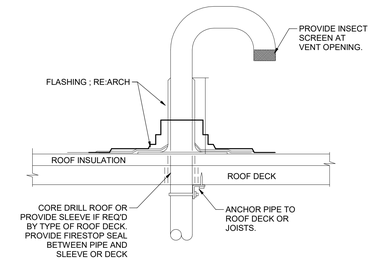
PLUMBING DETAILS



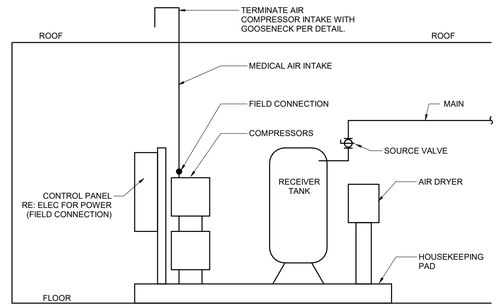

NOTES:
1. PROVIDE WCO AT BASE OF ALL SANITARY WASTE AND STORM RISERS. PROVIDE WCO WHERE SHOWN ON PLANS, AND ON SANITARY WASTE BRANCHES NOT SERVED WITH A FLOOR CLEANOUT. CONSULT LOCAL CODES FOR OTHER WCO REQUIREMENTS. REFER TO PLUMBING FIXTURE SCHEDULE FOR FURTHER INFORMATION.
2. CLEANOUT FACE SHALL BE WITHIN 1-1/2" OF WALL SURFACE. PROVIDE EXTENSION IF REQUIRED.

## 1 WALL CLEANOUT
SCALE: NONE

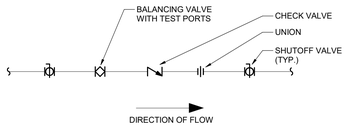



NOTES:
LOCATION OF VENT SHALL COMFORM TO REQUIREMENTS OF NFPA 99 CHAPTER 5.1.3.4.6. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS.

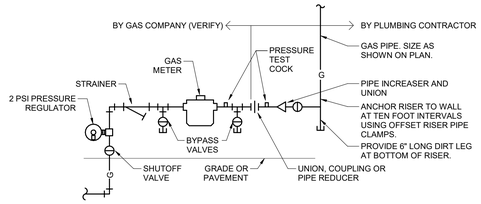
## 2 MEDICAL GAS MANIFOLD VENT
SCALE: NONE




## 3 MEDICAL AIR COMPRESSOR DETAIL
SCALE: NONE

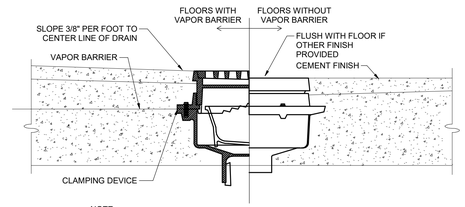



## 4 HWC BALANCING VALVE ASSEMBLY
SCALE: NONE



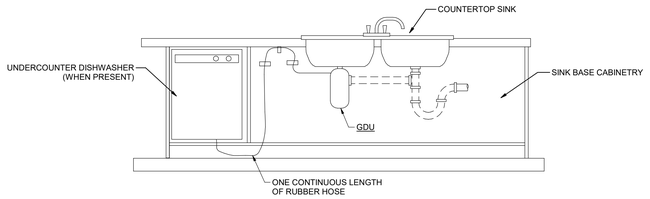

NOTES:
1. COMPLY WITH ALL REQUIREMENTS FOR METERING AND PIPING WITH GAS COMPANY. INSTALL OTHER UTILITIES MINIMUM TEN FEET FROM GAS LINE. PLUMBING CONTRACTOR SHALL PAY ALL GAS COMPANY FEES FOR INSTALLATION. USE WELDED OR SCREWED PIPE AND FITTINGS. GAS COMPANY SHALL EXCAVATE, BACKFILL, AND REPAIR ANY PAVING OR SOD FOR GAS SERVICE LINE INSTALLATION FROM MAIN TO BUILDING.
2. MINIMUM 6" LONG NIPPLE ON BOTH SIDES OF GAS PRESSURE REGULATOR.

## 5 GAS SERVICE WITH REGULATOR
SCALE: NONE

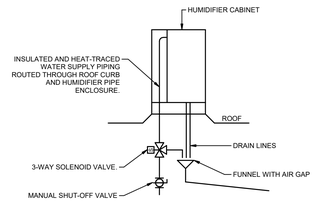



NOTE:
1. FOR FLOOR SLABS WITH VAPOR BARRIER PROVIDE CLAMPING DEVICE CONNECTION.

## 6 FLOOR DRAIN INSTALLATION
SCALE: NONE




## 7 KITCHEN SINK & GARBAGE DISPOSAL
SCALE: NONE




NOTES:
1. INSTALL VALVES AND DRAIN LINES ABOVE ACCESSIBLE CEILING.
2. WHEN HUMIDIFIER ENERGIZES, 3-WAY VALVE SHALL OPEN TO SEND WATER TO HUMIDIFIER. WHEN HUMIDIFIER IS NOT IN USE, VALVE SHALL CLOSE SUPPLY AND ALLOW WATER IN OUTDOOR LINES TO DRAIN.

## 8 HUMIDIFIER PIPING DETAIL
SCALE: NONE

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PROJECT NUMBER: 1201002
BETTER BUILT ENVIRONMENTS

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02/07/2023

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| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | JS |
| Checked By | AB, RC, MG |

Revision

| Number | Date | Description |
|---|---|---|

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PLUMBING DETAILS

BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## MEDICAL VACUUM PUMP SYSTEM SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | SERVES/FUNCTION | TYPE | MOTOR/PUMP HP | MOTOR/PUMP QTY | MOTOR/PUMP NOISE LEVEL (DbA) | CAPACITY SCFM | CAPACITY RECEIVER SIZE (GAL.) | ELECTRICAL DATA VOLTS | ELECTRICAL DATA PH | ELECTRICAL DATA FLA | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MVP-1 | PATTONS 70BI-25-073C | MEDICAL VACUUM PUMP | ROTARY VANE | 7.5 | 2 | 79 | 32 | 120 | 480 | 3 | 25 | 1-6 |

NOTES:
1. FOR FEEDER SIZE AND LOCAL DISCONNECT SWITCH SEE THE ELECTRICAL SHEETS IN THE CONTRACT DRAWINGS.
2. PROVIDE A PRE-PIPED SYSTEM WITH A CONTROL PANEL AND VARIABLE FREQUENCY DRIVE MOUNTED ON A COMMON BASE/FRAME.
3. PROVIDE A SINGLE POINT ELECTRICAL CONNECTION.
4. PROVIDE A DUPLEX SYSTEM: ONE COMPRESSOR FOR NORMAL OPERATION AND THE OTHER IN RESERVE.
5. PROVIDE AN EXHAUST PIPE FOR EACH VACUUM PUMP. THE EXHAUST PIPE WILL BE ROUTED TO THE ROOF WITH A GOOSENECK.
6. REFER TO MECH/ELEC COORDINATION SCHEDULE FOR SCCR.

## MEDICAL AIR COMPRESSOR SYSTEM SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | SERVES/FUNCTION | TYPE | CAPACITY SCFM | CAPACITY PSIG | CAPACITY RECEIVER SIZE (GAL.) | COMPRESSOR MOTOR HP | COMPRESSOR MOTOR QTY | COMPRESSOR MOTOR NOISE LEVEL (DbA) | ELECTRICAL DATA VOLTS | ELECTRICAL DATA PH | ELECTRICAL DATA FLA | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAC-1 | PATTONS 62-22-022C | MEDICAL AIR COMPRESSOR | SCROLL | 7 | 50 | 80 | 2 | 2 | 65 | 480 | 3 | 6 | 1-5 |
| | | | | | | | | | | | | | |

NOTES:
1. FOR FEEDER SIZE AND LOCAL DISCONNECT SWITCH SEE THE ELECTRICAL SHEETS IN THE CONTRACT DRAWINGS.
2. PROVIDE A PRE-PIPED SYSTEM WITH A CONTROL PANEL AND VARIABLE FREQUENCY DRIVE MOUNTED ON A COMMON BASE/FRAME.
3. PROVIDE A SINGLE POINT ELECTRICAL CONNECTION.
4. PROVIDE A DUPLEX SYSTEM: ONE COMPRESSOR FOR NORMAL OPERATION, AND THE OTHER IN RESERVE IN CASE OF COMPRESSOR FAILURE.
5. REFER TO MECH/ELEC COORDINATION SCHEDULE FOR SCCR.

## INSTRUMENT AIR COMPRESSOR SYSTEM SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | SERVES/FUNCTION | TYPE | SYSTEM CAPACITY SCFM | SYSTEM CAPACITY PSIG | SYSTEM CAPACITY RECEIVER SIZE (GAL) | COMPRESSOR MOTOR HP | COMPRESSOR MOTOR QTY | COMPRESSOR MOTOR NOISE LEVEL (DbA) | ELECTRICAL DATA VOLTS | ELECTRICAL DATA PH | ELECTRICAL DATA FLA | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IAC-1 | BEACONMEDAES LES08-115T-RD-071 | STERILE/DECON | SCROLL | 20.8 | 112.4 | 71 | 7.5 | 1 | 59 | 480 | 3 | 13 | 1-5 |
| | | | | | | | | | | | | | |

NOTES:
1. FOR FEEDER SIZE AND LOCAL DISCONNECT SWITCH SEE THE ELECTRICAL SHEETS IN THE CONTRACT DRAWINGS.
2. PROVIDE A PRE-PIPED SYSTEM WITH A CONTROL PANEL AND VARIABLE FREQUENCY DRIVE MOUNTED ON A COMMON BASE/FRAME.
3. PROVIDE A SINGLE POINT ELECTRICAL CONNECTION.
4. PROVIDE A DUPLEX SYSTEM: ONE COMPRESSORS FOR NORMAL OPERATION. ONE IN RESERVE.
5. REFER TO MECH/ELEC COORDINATION SCHEDULE FOR SCCR.

## MEDICAL GAS FACILITY ALARM PANEL SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | PANEL LOCATION | SOURCES ALARMED/MONITORED MA | O | MV | WAGD | N20 | IA | CO2 | ELECTRICAL VOLTS | AMPS | PH | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PAP-1 | POWEREX - MAP10-55 | OFFICE 123 | X | X | X | X | X | X | X | 120 | 2 | 1 | 1,3 |
| SAP-1 | POWEREX - MAP10-55 | NURSE STATION 131 | X | X | X | X | X | X | X | 120 | 2 | 1 | 2,3 |
| | | | | | | | | | | | | | |

NOTES: 1. PRIMARY LOCATION. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALL.
2. SECONDARY LOCATION. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALL.
3. SEE SPECIFICATIONS FOR REQUIRED ALARMING/MONITORING POINTS PER GAS SOURCE.

## MEDICAL GAS ZONE VALVE BOX SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | ZONE VALVE BOX LOCATION | ROOMS SERVED | NUMBER OF GAS VALVES O | MA | MV | WAGD | N2O | N | CO2 | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ZVB-1 | POWEREX - ZVB4BBCC | HALLWAY 150 | GI PROCEDURE 152 | X | X | X | | | | X | 1 |
| ZVB-2 | POWEREX - ZVB4BBCC | HALLWAY 150 | GI PROCEDURE 156 | X | X | X | | | | X | 1 |
| ZVB-3 | POWEREX - ZVB2BC | HALLWAY 120 | RECOVERY 115-117, 121, 124-128 | X | | X | | | | | 1 |
| ZVB-4 | POWEREX - ZVB2BC | HALLWAY 140 | RECOVERY 132-134, 136, 138, 142,144,146 | X | | X | | | | | 1 |
| ZVB-5 | POWEREX - ZVB7ABBBBCC | HALLWAY 180 | OR 181 | X | X | X | X | X | X | X | 1 |
| ZVB-6 | POWEREX - ZVB7ABBBBCC | HALLWAY 180 | OR 183 | X | X | X | X | X | X | X | 1 |
| ZVB-7 | POWEREX - ZVB7ABBBBCC | HALLWAY 180 | OR 185 | X | X | X | X | X | X | X | 1 |
| ZVB-8 | POWEREX - ZVB7ABBBBCC | HALLWAY 180 | EQUIPMENT STOR 187 | X | X | X | X | X | X | X | 1 |

NOTES:
1. MAXIMUM VALVE SIZE IS 2". PANEL MUST BE LOCATED IN A MINIMUM 6" DEEP STUD WALL. VERIFY BOX DEPTH VS VALVE SIZE WITH MANUFACTURER.

## MEDICAL GAS VOLUME TABLE

| | | QUANTITY | STANDARD CU. FT. OF GAS EA. | STANDARD CU. FT. OF GAS TOTAL | LIQUID VOLUME (GAL) EA. | LIQUID VOLUME (GAL) TOTAL |
|---|---|---|---|---|---|---|
| ***LIQUID*** OXYGEN - O2 | "H" CYLINDER | 6 | N/A | N/A | 15 | 132.3 |
| | LOX DEWAR | 1 | N/A | | 42.3 | |
| NITROUS OXIDE - N2O | "H" CYLINDER | 8 | 558 | 4464 | N/A | N/A |
| CARBON DIOXIDE - CO2 | "H" CYLINDER | 8 | 568 | 4544 | N/A | N/A |
| NITROGEN - N2 | "H" CYLINDER | 16 | 229 | 3664 | N/A | N/A |

*Per 2018 IBC Table 307.1(1), maximum allowable gaseous oxidizer quantity is 4500 Cu. Ft. using additional quantities allowed by notes D and E.*
*Per 2018 IBC Table 307.1(1), maximum allowable liquid oxidizer quantity is 4500 Cu. Ft. using additional quantities allowed by notes D and E.*

## RECIRCULATION VALVE SCHEDULE

| MARK | SERVES | GPM | PIPE DIAMETER | NOTES: |
|---|---|---|---|---|
| BV-1 | TOILETS, NURSE STATION | 0.9 | 3/4" | - |
| BV-2 | PREP ROOMS, TOILETS, EXAM | 1.0 | 3/4" | - |
| BV-3 | TOILET, STAFF LOUNGE, SCOPE PROCESSING | 1.6 | 3/4" | - |
| BV-4 | NOURISH, MEDS, CLEAN | 0.7 | 3/4" | - |
| BV-5 | SCRUB SINKS | 0.6 | 3/4" | - |
| BV-6 | STERILE PROCESSING | 0.6 | 3/4" | - |
| BV-7 | LOCKER ROOMS | 0.6 | 3/4" | - |

NOTES:
1. NOT USED

## MEDICAL GAS AREA ALARM PANEL SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | PANEL LOCATION | ZONE VALVE BOXES SERVED | SOURCES MONITORED MA | O | MV | WAGD | N20 | IA | CO2 | ELECTRICAL VOLTS | AMPS | PH | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AAP-1/2 | POWEREX - AAP10 SERIES | NURSE STATION 118 | ZVB-1 & ZVB-2 | X | X | X | | | | X | 120 | 2 | 1 | - |
| AAP-3/4 | POWEREX - AAP10 SERIES | NURSE STATION 118 | ZVB-3 & ZVB-4 | | X | X | | | | | 120 | 2 | 1 | - |
| AAP-5 | POWEREX - AAP10 SERIES | NURSE STATION 118 | ZVB-5 | X | X | X | X | X | X | X | 120 | 2 | 1 | - |
| AAP-6 | POWEREX - AAP10 SERIES | NURSE STATION 118 | ZVB-6 | X | X | X | X | X | X | X | 120 | 2 | 1 | - |
| AAP-7 | POWEREX - AAP10 SERIES | NURSE STATION 118 | ZVB-7 | X | X | X | X | X | X | X | 120 | 2 | 1 | - |
| AAP-8 | POWEREX - AAP10 SERIES | NURSE STATION 118 | ZVB-8 | X | X | X | X | X | X | X | 120 | 2 | 1 | - |
| | | | | | | | | | | | | | | |

NOTES:
1. NONE

## DEIONIZED WATER GENERATOR SCHEDULE

| MARK | MANUFACTURER | MODEL | SERVES | LOCATION | PERFORMANCE CAPACITY (GPD) | ELECTRICAL | NOTES |
|---|---|---|---|---|---|---|---|
| DI-1 | AMERIWATER | OHCS-2050 | STERILE/DECOND EQUIPMENT | MECH ROOM | 800 | SEE NOTE | 1-4 |

NOTES
1. EACH UNIT SHALL BE PROVIDED WITH LOCAL GRAPHICAL USER INTERFACE MONITORED BY BMS SYSTEM WITH MANUFACTURER COMMUNICATION CARD.
2. PROVIDE ALL ACCESSORIES AND CONTROLS FOR A TIR 34 COMPLIANT SYSTEM, INCLUDING BUT NOT LIMITED TO CARBON PREFILTERS, ANTISCALANT INJECTOR, RO GENERATOR, DI POLISHER, 55GAL STORAGE TANK, & 30 GPM DISTRIBUTION PUMP.
3. PROVIDE 2 - 120V/1P/15A DEDICATED GFCI RECEPTACLE, AND 2 - 208V/3P/20A RECEPTACLES.
4. REFER TO MECH/ELEC COORDINATION SCHEDULE FOR SCCR.

## EXPANSION TANK SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | SERVES | TANK VOL. (GAL) | TANK ACCEPTANCE MIN VOLUME (GAL) | SYSTEM VOL. (GAL) | TEMPERATURE HIGH / LOW (F) | NOTES |
|---|---|---|---|---|---|---|---|
| DET-1 | WESSELS TTA-20 | GWH-1 & GWH-2 | 8 | 4.9 | 130.1 | 140/40 | 1-4 |
| | | | | | | | |

NOTES:
1. PROVIDE PRE-CHARGED PRESSURIZED EXPANSION TANK WITH HEAVY DUTY BUTYL RUBBER BLADDER.
2. PROVIDE SUPPORT SYSTEM TO SUSPEND VERTICAL EXPANSION TANK FROM STRUCTURE WITH PIPING SUPPORTED INDEPENDENT OF THE TANK.
3. PROVIDE EXPANSION TANK THAT IS NSF 61.
4. INSTALL IN CW LINE BEFORE WATER HEATER PER MANUFACTURERS RECOMMENDATIONS.

## GAS MANIFOLD SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | LOCATION | CYLINDERS PER BANK | GAS SERVICE | NOTES: |
|---|---|---|---|---|---|
| MGM-1 | POWEREX - MFLD-CYL-NFPA-N2O | MED GAS 224 | 4x4 | NITROUS OXIDE | 2,3 |
| MGM-2 | POWEREX - MFLD-LIQ-NFPA-O2 | MED GAS 224 | 1x6 | OXYGEN | 1,3 |
| MGM-3 | POWEREX - MFLD-CYL-NFPA-N2 | MED GAS 224 | 8x8 | NITROGEN | 2,3 |
| MGM-4 | POWEREX - MFLD-CYL-NFPA-CO2 | MED GAS 224 | 4x4 | CARBON DIOXIDE | 2,3 |
| | | | | | |

NOTES:
1. PROVIDE POWEREX 1X1 LIQUID HEADER AND POWEREX VERTICAL 6 CYLINDER RESERVE HEADER BAR WITH SS PIG TAILS
2. PROVIDE POWEREX STAGGERED HEADER BARS WITH STAINLESS STEEL PIG TAILS
3. VENT MANIFOLD RELIEF VALVES TO THE EXTERIOR, TURN DOWN, AND SCREEN.

## HOT WATER MIXING VALVE SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | MINIMUM GPM | MAXIMUM GPM | INLET WATER TEMP (F) | OUTLET WATER TEMP (F) | PRESSURE DROP (PSI) | ELECTRICAL VOLTS | ELECTRICAL PH | NOTES: |
|---|---|---|---|---|---|---|---|---|---|
| MV-1 | LEONARD PNV-150-LF | 0.25 | 50 | 140 | 130 | 5 | 120 | 1 | 1 |
| MV-2 | LEONARD TA-300-LF | 2.0 | 4.5 | 125 | 85 | 20 | - | - | 2 |
| MV-3 | LEONARD 170A-LF | 0.25 | 1.9 | 125 | 105 | 20 | - | - | 3 |
| MV-4 | LEONARD TM-520B-LF-DT-CP | 1.00 | 75 | 130 | 77 | 10 | - | - | 4 |

NOTES
1 PROVIDE BUILDING AUTOMATION SYSTEM INTERFACE WITH THE MIXING VALVE STATION.
2 MIXING VALVE FOR USE WITH EMERGENCY EYE/FACE WASH
3 POINT-OF-USE MIXING VALVE FOR SINKS AND LAVATORIES.
4 MIXING VALVE FOR USE WITH DI MAKEUP WATER.

## MEDICAL EQUIPMENT CONNECTION SCHEDULE

| CAD ID | DESCRIPTION | PROJECT QUANTITY | ROUGH-IN SIZE (IN.) CW (GPM EA.) | HW (GPM EA.) | PW (GPM EA.) | DW | IW | IA (PSI,SCFM) | CO2 | N | MA | OX | NO | MV | WAGD | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100198 | ICE MAKER - 90 LB | 2 | 1/2" (<1 GPM) | | | | 3/4" | | | | | | | | | 8,9 |
| 714443 | FREESTANDING ICEWATER DISPENSER | 1 | 1/2" (<1 GPM) | | | | 3/4" | | | | | | | | | 2,8 |
| 714519 | ICE MAKER FILTRATION SYSTEM | 4 | 3/4" (<1 GPM) | | | | | | | | | | | | | 11 |
| 717621 | ICE MAKER - 425 LB | 1 | 1/2" (<1 GPM) | | | | 3/4" | | | | | | | | | 8,9 |
| 720109 | STERILIZER - MED | 2 | 1-1/4" (12 GPM) | | SEE NOTE (0.6 GPM) | | 1-1/2" | 1/2" (90 PSI, 3 SCFM) | | | | | | | | 1,3,13,14,15 |
| 725340 | WASHER/DISINFECTOR | 2 | 1-1/4" (14.1 GPM) | 1-1/4" (14.1 GPM) | 1-1/4" (12.6 GPM) | | X | 1/2" (90 PSI, 1.75 SCFM) | | | | | | | | 1,3,11,14,15 |
| 725408 | DISHWASHER | 1 | | 1/2" (3 GPM) | | | X | | | | | | | | | 5 |
| 726363 | ULTRASONIC CLEANER | 2 | 1" (8 GPM) | 1" (8 GPM) | | | X | | | | | | | | | 1,12 |
| 726767 | NEPTUNE DOCKING STATION | 2 | 1" (<1 GPM) | | | | X | | | | | | | | | 1,4,7 |
| 727553 | COFFEE BREWER | 1 | 1/2" (<1 GPM) | | | | | | | | | | | | | 1,3,13,14,15 |
| 730257 | STERILIZER - SMALL | 1 | 1-1/4" (15 GPM) | 1/2" (1 GPM) | | | SEE NOTE | 1/2" (90 PSI, 3 SCFM) | | | | | | | | 1,3,13,14,15 |
| 800503 | SURGICAL BOOM | 3 | | | | | | | SEE PLANS | SEE PLANS | | | | SEE PLANS | | 10 |
| XXXXXX | ULTRASONIC CLEANER | 1 | 3/4" (8 GPM) | 3/4" (8 GPM) | | | 3/4" | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

NOTES:

GENERAL NOTE: COORDINATE EXACT LOCATION AND ELEVATION OF EQUIPMENT ROUGH-INS WITH FFE PLANS AND ELEVATIONS. VERIFY EQUIPMENT CONNECTION SIZES WITH PURCHASED EQUIPMENT.

1. COORDINATE IW (INDIRECT WASTE) CONNECTION SIZE WITH EQUIPMENT PROVIDER. PROVIDE NECESSARY DRAIN TUBING.
2. ROUTE IW TUBING FROM UNIT TO ADJACENT FLOOR DRAIN.
3. ROUTE IW TUBING FROM UNIT TO FLOOR SINK. LOCATE FLOOR SINK UNDERNEATH UNIT. COORDINATE WITH MANUFACTURER.
4. ROUTE IW TUBING FROM EQUIPMENT TO NEARBY DB DRAIN BOX.
5. PROVIDE SDB SUPPLY DRAIN BOX LOCATED UNDERCOUNTER AT 24" AFF FOR UTILITY CONNECTION.
6. PROVIDE COLD WATER SB SUPPLY BOX LOCATED UNDERCOUNTER AT 24" AFF FOR UTILITY CONNECTION. ROUTE CW TUBING UP FROM SB THROUGH HOLE IN BACK OF COUNTERTOP. PROVIDE RUBBER GROMMET FOR HOLE. COORDINATE WITH ARCHITECT PRIOR TO DRILLING GROMMET HOLE.
7. ROUTE 3/4"CW LINE DOWN ALONG THE FACE OF THE WALL. TERMINATE WATER PIPING 1' ABOVE THE EQUIPMENT AND INSTALL A SHUTOFF VALVE IN THE RISER 1'6" ABOVE THE EQUIPMENT.
8. PROVIDE WATTS SD-3 BACKFLOW PREVENTER IN SUPPLY TUBING TO THE EQUIPMENT. LOCATE IN AN ACCESSIBLE LOCATION.
9. PROVIDE SDB SUPPLY DRAIN BOX LOCATED UNDERCOUNTER AT 24" AFF FOR UTILITY CONNECTION. ROUTE CW AND IW TUBING UP FROM SDB THROUGH HOLE IN BACK OF COUNTERTOP. PROVIDE RUBBER GROMMET FOR HOLE. COORDINATE WITH ARCHITECT PRIOR TO DRILLING GROMMET HOLE.
10. BASIS OF DESIGN MEDICAL GAS OUTLET QUANTITY: (2 - MV), (1 - NO), (1-CO2).
11. INSTALL ICE MACHINE WATER FILTRATION SYSTEM ON THE INLET DOMESTIC COLD WATER SUPPLY UPSTREAM OF THE BACKFLOW PREVENTOR.
12. ROUTE IW TUBING FROM UNIT TO FLOOR SINK. TERMINATE IW TUBING WITH CODE REQUIRED AIR GAP.
13. EQUIPMENT REQUIRES 1MEGAOHM RESISTIVITY DI/RO WATER. MAX FLOW RATE OF 0.6 GPM, 4.2GAL/CYCLE, AND 3 GPH OUT OF CYCLE.
14. PROVIDE INLINE REDUCED PRESSURE ZONE BACKFLOW PREVENTOR ON ALL DOMESTIC WATER LINES. INSTALL SHUTOFF VALES ON INCOMING UTILITY LINES IN ACCESSIBLE LOCATION.
15. ROUTE STEAM RELIEF VALVE TO THE EXTERIOR OF THE BUILDING PER ASME BOILER CODE.
16. PROVIDE CONNECTION FROM MV-4.

STATE OF MISSOURI RICKI MANKTALA NUMBER PE-2009/000295 PROFESSIONAL ENGINEER
02/07/2023

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| Checked By | AB, RC, MG |

Revision

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|---|---|---|

P6.1

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PLUMBING SCHEDULES

## WATER SOFTENER SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | GRAIN CAP. (MAX.) @ SALT DOSAGE | CONTINUOUS FLOW (GPM@15) | PEAK FLOW (GPM) | ELECTRICAL VOLTS | ELECTRICAL PH | WEIGHT LBS. | NOTES |
|---|---|---|---|---|---|---|---|---|
| WS-1 | CULLIGAN CTM 450-PF | 4545 @ 225 | 76 | 104 | 120 | 1 | 6,960 | 1-6 |

NOTES
1. FOR FEEDER SIZE AND LOCAL DISCONNECT SWITCH SEE THE ELECTRICAL SHEETS IN THE CONTRACT DRAWINGS.
2. PROVIDE UNIT WITH GROUNDED PLUG-IN ELECTRICAL CONNECTION AND MOUNTED AND WIRED CONTROL TRANSFORMER IF REQUIRED.
3. PROVIDE CONTROLS FOR AUTO REGENERATION - PROGRESSIVE FLOW SET-UP, WATER METER, CONTROLLED WITH DEMAND.
4. PROVIDE A DUPLEX SYSTEM.
5. SUPPLIER TO VERFIY WATER HARDNESS AND SUBMIT SYSTEM CAPACITY CALCULATION WITH SHOP DRAWINGS SUBMITTAL.
6. PROVIDE CONTROLS FOR PROGRESSIVE FLOW.

## FUEL FIRED WATER HEATER SCHEDULE

| MARK | MANUFACTURER & MODEL OR EQUAL | SERVES | FUEL | FUEL INPUT (MBH) | EFF. RANGE (%) | EWT (DEG F) | LWT (DEG F) | RECOVERY RATE (GPH) | TANK STORAGE (GAL) | ELECTRICAL DATA MOPD | VOLTS | PH | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GWH-1 | BRADFORD WHITE - EF-100T-199E-3N(A) | DOMESTIC HOT WATER | NG | 199 | 97% | 40 | 140 | 233 | 80 | 20A | 120 | 1 | 1-6 |
| GWH-2 | BRADFORD WHITE - EF-100T-199E-3N(A) | DOMESTIC HOT WATER | NG | 199 | 97% | 40 | 140 | 233 | 80 | 20A | 120 | 1 | 1-6 |

NOTES:
1. ASME RATED VESSEL. PROVIDE WITH ASME-RATED TEMPERATURE AND PRESSURE RELIEF VALVE, TEMPERATURE AND PRESSURE GAUGES.
2. PROVIDE WITH DIRECT VENT INTAKE AND EXHAUST PIPING AS RECOMMENDED BY MANUFACTURER.
3. PROVIDE VENT PIPING MATERIAL AND ALL NECESSARY SUPPORT ETC. AS RECOMMENDED BY MANUFACTURER.
4. PROVIDE WITH CONDENSATE NEUTRALIZER KIT INSTALLED ON CONDENSATE DRAIN LINE.
5. PROVIDE WITH CONCENTRIC VENT KIT AND BACNET GATEWAY KIT.
6. PROVIDE WITH DEDICATED 15AMP CIRCUIT.

## RECIRCULATING PUMP SCHEDULE

| MARK | MANUFACTURER & "MODEL" OR EQUAL | LOCATION | SERVES | TYPE | GPM | HEAD (FT.) | ELECTRICAL CONNECTION DATA V/P/HZ | MOTOR HP | NOTES: |
|---|---|---|---|---|---|---|---|---|---|
| CP-1 | BELL & GOSSETT ECOCIRC XLN 40-200 | MECH ROOM | BUILDING HWC | CARTRIDGE | 6.0 | 17.0 | 480/3/60 | 1 | 1,2 |

NOTES:
1. PUMP FOR DOMESTIC HOT WATER LOOP WILL RUN CONTINUOUSLY.
2. GPM AND HEAD FLOW RATES ARE CALCULATED DESIGN FLOW RATES.

## PLUMBING FIXTURE & EQUIPMENT CONNECTION SCHEDULE

| FIXTURE | COMPONENT | MANUFACTURER | MODEL | DESCRIPTION | FLOW RATE (GPM/GPF) | ACCESSIBLE | ELECTRICAL | WASTE | VENT | CW | HW |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WC-1 | WATER CLOSET<br>SEAT<br>FLUSH VALVE | ZURN<br>PROFLO<br>ZURN | Z5655-BWL1<br>PFTSCOF2000WH<br>ZEMS6000AV-MOB-HET | FLOOR MOUNT, SIPHON JET, GLAZING, ELONGATED RIM, AND 15" HEIGHT.<br>OPEN FRONT SOLID PLASTIC SEAT.<br>HARDWIRED SENSOR FLUSH VALVE WITH TRUE MANUAL OVERRIDE AND ACCESSORIES. | 1.28 | NO | HARDWIRED | 4" | 2" | 1" | - |
| WC-2 | WATER CLOSET<br>SEAT<br>FLUSH VALVE | ZURN<br>PROFLO<br>ZURN | Z5665-BWL1<br>PFTSCOF2000WH<br>ZEMS6000AV-MOB-HET | FLOOR MOUNT, SIPHON JET, GLAZING, ELONGATED RIM, AND 17" HEIGHT.<br>OPEN FRONT SOLID PLASTIC SEAT.<br>HARDWIRED SENSOR FLUSH VALVE WITH TRUE MANUAL OVERRIDE AND ACCESSORIES. | 1.28 | YES | HARDWIRED | 4" | 2" | 1" | - |
| U-1 | URINAL<br>FLUSH VALVE<br>WALL CARRIER | ZURN<br>ZURN<br>ZURN | Z5750U<br>ZEMS6003AV-ULF<br>Z1222 | TOP SPUD, RE: ARCH FOR MOUNTING HEIGHT.<br>AUTOMATIC SENSOR TYPE FLUSH VALVE WITH TRUE MANUAL OVERRIDE AND ACCESSORIES.<br>PROVIDE WITH WALL CARRIER. | 0.125 | YES | HARDWIRED | 2" | 1-1/2" | 3/4" | - |
| L-1 | LAVATORY<br>FAUCET<br>INSULATION KIT | ZURN<br>ZURN<br>IPS | Z5344<br>Z6920-XL-CWB-N-0.5<br>2018SLSS3003 | WALL HUNG, 4" CENTERS, PROVIDE WITH CARRIER, COORDINATE WITH WALL THICKNESS. AUTOMATIC SENSOR-OPERATED FAUCET WITH ACCESSORIES, WITH MV-3. | 0.5 | YES | HARDWIRED | 2" | 1-1/2" | 1/2" | 1/2" |
| L-2 | LAVATORY<br>FAUCET<br>INSULATION KIT | ZURN<br>ZURN<br>IPS | Z5110<br>Z6915-XL-N<br>2018SLSS3003 | COUNTERTOP, SELF-RIMMING VITREOUS CHINA, 4" CENTERS. MANUALLY OPERATED FAUCET, WITH MV-3. | 0.5 | YES | - | 2" | 1-1/2" | 1/2" | 1/2" |
| L-3 | LAVATORY<br>FAUCET<br>INSULATION KIT | ZURN<br>ZURN<br>IPS | Z5344<br>Z6920-XL-CWB-J-1.5<br>2018SLSS3003 | WALL HUNG, 4" CENTERS, PROVIDE WITH CARRIER, COORDINATE WITH WALL THICKNESS. AUTOMATIC SENSOR-OPERATED FAUCET WITH ACCESSORIES, WITH MV-3. | 1.5 | YES | HARDWIRED | 2" | 1-1/2" | 1/2" | 1/2" |
| S-1 | SINK<br>FAUCET<br>INSULATION KIT | ELKAY<br>ZURN<br>IPS | LRAD1919-55-3<br>Z6920-XL-CWB-K-1.0<br>2018SLSS3003 | SINGLE BOWL, DROP IN, TYPE 304 STAINLESS STEEL SINK BOWL.<br>AUTOMATIC SENSOR-OPERATED FAUCET WITH ACCESSORIES. PROVIDE WITH MV-3 | 1.0 | - | HARDWIRED | 2" | 1-1/2" | 1/2" | 1/2" |
| S-2 | SINK<br>FAUCET<br>INSULATION KIT | ELAKY<br>ZURN<br>IPS | LRAD3319-55-4<br>Z7870CXL<br>2018SLSS3003 | DOUBLE BOWL, DROP IN, TYPE 304 STAINLESS STEEL SINK BOWL.<br>CHROME PLATED BRASS WITH CERAMIC DISC CARTRIDGES, LIMIT STOP AND LEVER HANDLE.<br>PROVIDE WITH GDU. | 2.0 | - | - | 2" | 1-1/2" | 1/2" | 1/2" |
| S-3 | SURGICAL SCRUB SINK & FAUCET<br>INSULATION KIT | JUST MFG<br>IPS | JKS-770-2-S-P<br>2018SLSS3003 | WALL MOUNTED 2 STATION SURGICAL SCRUB SINK WITH SENSOR FAUCET AND KNEE ACTIVATED SOAP. | 1.5 | - | HARDWIRED | 2" | 1-1/2" | 1/2" | 1/2" |
| S-4 | SURGICAL SCRUB SINK & FAUCET<br>INSULATION KIT | JUST MFG<br>IPS | JKS-770-S-P<br>2018SLSS3003 | WALL MOUNTED 1 STATION SURGICAL SCRUB SINK WITH SENSOR FAUCET AND KNEE ACTIVATED SOAP. | 1.5 | - | HARDWIRED | 2" | 1-1/2" | 1/2" | 1/2" |
| S-5 | SINK<br>FAUCET<br>INSULATION KIT | ELKAY<br>ZURN<br>IPS | DLR1919-10-3<br>Z6920-XL-CWB-J 1.5<br>2018SLSS3003 | SINGLE BOWL, DROP IN, TYPE 304 STAINLESS STEEL SINK BOWL.<br>AUTOMATIC SENSOR-OPERATED FAUCET WITH ACCESSORIES. PROVIDE WITH MV-3 | 1.5 | - | HARDWIRED | 2" | 1-1/2" | 1/2" | 1/2" |
| CS-1 | CLINICAL SERVICE SINK | ZURN | Z5410 | VITREOUS CHINA WALL HUNG HEALTHCARE SERVICE SINK WITH RIM GUARDS | - | - | - | 3" | 1-1/2" | (2) 1/2" | (2) 1/2" |
| | FLUSH VALVE | ZURN | Z6017 | CHROME PLATED, CHLORAMINE RESISTANT, DUAL SEAL DIPHRAGM FLUSH VALVE. | - | - | - | - | - | 1-1/4" | - |
| | FAUCET | ZURN | Z843D4-LVB-PE-5XT-FT-YT | CHROME PLATED WALL FAUCET WITH 8" CENTERS, 3/4" THREADED HOSE OUTLET, VACUUM BREAKER, WALL BRACE, PAIL HOOK. | - | - | - | - | - | 1/2" | 1/2" |
| | BEDPAN WASHER | ZURN | Z85500-WM-EVB-HK-SE-SH-VC | CHROME PLATED BEDPAN WASHER WITH FOOT PEDAL ACTIVATION. | - | - | - | - | - | 1/2" | 1/2" |
| EWC-1 | ELECT. WATER COOLER | ELKAY | LZSTL8WSSK | WALL MOUNTED, HI/LO, FRONT & SIDE CONTROLS, INTEGRAL CHILLER, W/ BOTTLE FILLER.<br>PROVIDE WITH MOUNTING PLATE, CARRIER. | - | YES | 6 FLA | 2" | 1-1/2" | 1/2" | - |
| SH-1 | SHOWER VALVE<br>HEAD | SYMMONS | SYM9605-X-PLR-231 | CHROME PLATED BRASS SHOWER VALVE, PRESSURE COMPENSATING ASSE 1016 TYPE P, INTEGRAL CHECKSTOPS, 4.0GPM MAXIMUM FLOW, PROVIDE WITH 1.5GPM HAND SHOWER, 24" SLIDE BAR, SS BRAIDED HOSE AND VACUUM BREAKER. | 1.5 | YES | - | 2" | 1-1/2" | 1/2" | 1/2" |
| SB | SUPPLY BOX | SIOUX CHIEF | 696-10 | 1/4 TURN VALVE WITH HAMMER ARRESTOR, PAINT FACEPLATE TO MATCH (RE: ARCH) | - | - | - | 2" | 1-1/2" | 1/2" | - |
| SDB | DRAIN BOX | SIOUX CHIEF | 696-G2313 | RECESSED ABS WALL DRAIN BOX WITH INTEGRAL PRESSURE TEST NIPPLE, PROVIDE WITH FRAME, BRACKET, WHA AND DEBRIS COVER. | - | - | - | 1-1/2" | - | - | - |
| WHA | WATER HAMMER ARRESTOR | SIOUX CHIEF | 652 | SIZE PER PLAN, PISTON-TYPE WATER HAMMER ARRESTOR, PROVIDE WITH LINE SIZE BALL VALVE FOR ISOLATION AND PROVIDE WITH ACCESS. | - | - | - | - | - | PER DETAIL | - |
| TP-1 | TRAP PRIMER | PPP INC | PRO1-ULP500 | UNDER LAVATORY CHROME PLATED FLOW ACTIVATED TRAP PRIMER VALVE. | - | - | - | - | - | 1/2" | - |
| TP-2 | TRAP PRIMER | PPP INC | MP-500-115V | SURFACE MOUNTED ELECTRONIC TRAP PRIMING ASSEMBLY WITH DISTRIBUTION UNIT. PROVIDE WITH DISTRIBUTION UNIT GREATER THAN OR EQUAL TO THE NUMBER OF FLOOR DRAINS/SINKS SERVED. | - | - | 120V/1P 2A | - | - | 1/2" | - |
| NFWH | WALL HYDRANT | ZURN | Z1310 | RECESSED HOSE BOX WITH WALL FLANGE, LOCKABLE DOOR WITH KEY, REMOVABLE LOOSE KEY HANDLE, VACUUM BREAKER, COORDINATE ROD DEPTH WITH WALL THICKNESS. | - | - | - | - | - | 3/4" | - |
| RHB | ROOF HOSE BIBB | ZURN | Z1388XLL34VBAC | ROOF HOSE BIBB, CAST IRON HYDRANT SUPPORT COMPONENTS, WELL SEAL TIGHTENS BETWEEN HYDRANT SUPPORT AND HYDRANT PIPE, EPDM BOOT TO COVER WELL SEAL AND TOP OF HYDRANT SUPPORT, 2 DEGREE SHIM SUPPLIED FOR INSTALLATION ON PITCHED ROOFS. PROVIDED WITH NIDEL 37HF. PROVIDE WITH VACUUM BREAKER AND CASING GUARD. | - | - | - | - | - | 3/4" | - |
| SG-1 | SPRAY GUN | HEALTHMARK | 6000-6025 | STAINLESS STEEL WATER SPRAY GUN. PROVIDE WITH 3/4" CONNECTOR, 1.5 METER HOSE, TABLE TOP ROSETTE, UNIVERSAL TIP. COORDINATE FINAL LOCATION WITH OWNER. | - | - | - | - | - | 1/2" | - |
| SG-2 | SPRAY GUN | HEALTHMARK | 6000-6025 | STAINLESS STEEL COMPRESSED AIR SPRAY GUN. PROVIDE WITH 3/4" CONNECTOR, 1.5 METER HOSE, TABLE TOP, ROSETTE. CONNECT TO 1/2" IA. COORDINATE FINAL LOCATION WITH OWNER. | - | - | - | - | - | - | - |
| GDU | GARBAGE DISPOSAL UNIT | IN-SINK-ERATOR | EVOLUTION EXCEL | AUTO-REVERSE GRIND SYSTEM, PERMANENTLY LUBRICATED UP AND LOWER BEARINGS. 25.5 LBS | - | - | 120/1/60 1HP 10.2A | 2" | - | - | - |
| MS-1 | MOP SERVICE BASIN | FIAT<br>ZURN | MSB2424<br>Z843MR-CS-RC | MOLDED STONE, 24"x24"x10" WITH STAINLESS STEEL DRAIN.<br>WITH INTERNAL STOPS AND CHECK STOPS, VACUUM BREAKER, PAIL HOOK, WALL BRACKET. | - | NO | - | 3" | 2" | 1/2" | 1/2" |
| EW-1 | EMERGENCY EYE WASH | GUARDIAN | G5022 | DECK MOUNTED EYE/FACE WASH. PROVIDE FIXTURE HEAD ARRANGEMENT<br>COORDINATE WITH EACH SINK FAUCET ASSEMBLY. PROVIDE WITH MV-2 MIXING VALVE. | - | YES | - | - | - | 3/4" | 3/4" |
| GV | GAS SHUT-OFF VALVE | AGS | MERLIN 1049 | 2" NATURAL GAS 120 VOLT SOLENOID VALVE. NORMALLY CLOSED. PROVIDE WITH AGS EGOTW EMERGENCY SHUT-OFF BUTTON WITH CLEAR COVER. PROVIDE AT EACH EXTERIOR DOOR. | - | - | 120V/1P 0.5A | - | - | - | - |
| FD-1 | FLOOR DRAIN | ZURN | ZN415SSZ | CAST IRON FLOOR DRAIN, 6"X6" SQUARE STRAINER, 8"DIA. BODY, SEEPAGE SLOTS, COMBO MEMBRANE CLAMP AND ADJUSTABLE COLLAR, LIGHT DUTY NICKEL BRONZE STRAINER. | - | - | - | PER PLAN | - | - | - |
| FS-1 | FLOOR SINK | ZURN | Z1902 | CAST IRON 12" SQUARE FLOOR SINK, 10" DEEP SUMP, WHITE A.R.E. COATED INTERIOR, (1/2,3/4,FULL) NICKEL BRONZE GRATE FOR LIGHT DUTY (UNDER 2,000 LBS.), ALUMINUM SEDIMENT BUCKET, TRAP PRIMER CONNECTION. | - | - | - | PER PLAN | - | - | - |
| FS-2 | FLOOR SINK | ZURN | ZN1926 | CAST IRON 16" SQUARE FLOOR SINK, 12" DEEP SUMP, WHITE A.R.E. COATED INTERIOR, (1/2,3/4,FULL) NICKEL BRONZE GRATE FOR LIGHT DUTY (UNDER 2,000 LBS.), ALUMINUM SEDIMENT BUCKET, TRAP PRIMER CONNECTION. | - | - | - | PER PLAN | - | - | - |
| RD | ROOF DRAIN | ZURN | ZA-125-100-DR | CAST IRON ROOF DRAIN WITH FLANGE, FLASHING RING WITH GRAVEL STOP, ADJUSTABLE EXTENSION, CAST IRON MUSHROOM LOCKING DOME, AND UNDERDECK CLAMP. | - | - | - | PER PLAN (STORM) | - | - | - |
| OD | OVERFLOW DRAIN | ZURN | ZA-100-W2-DR | CAST IRON ROOF DRAIN WITH FLANGE, FLASHING RING WITH GRAVEL STOP, ADJUSTABLE EXTENSION, CAST IRON MUSHROOM LOCKING DOME, 2" INTERNAL DAM, AND UNDERDECK CLAMP. | - | - | - | PER PLAN (STORM) | - | - | - |
| DS | DOWNSPOUT NOZZLE | ZURN | Z199-SS | NICKEL BRONZE BODY DOWNSPOUT NOZZLE WITH WALL FLANGE, AND REMOVABLE STAINLESS STEEL SCREEN. | - | - | - | PER PLAN (STORM) | - | - | - |
| FCO | FLOOR CLEANOUT | ZURN | ZN1400-BZ1-BP-VP | ADJUSTABLE, COATED CAST IRON BODY, BRONZE THREADED PLUG, ROUND SCORIATED NICKEL BRONZE LIGHT-DUTY TOP. | - | - | - | PER PLAN | - | - | - |
| GCO | GRADE CLEANOUT | ZURN | Z1400-BP | EPOXY COATED CAST IRON BODY WITH EXTRA HEAVY DUTY SCORIATED CAST IRON SECURED TOP. PROVIDE PROVIDE WITH BRONZE PLUG. WITH BRONZE PLUG. | - | - | - | PER PLAN | - | - | - |
| WCO | WALL CLEANOUT | ZURN | Z1446-BP | EPOXY COATED CAST IRON BODY WITH BRONZE PLUG, ROUND STAINLESS STEEL WALL ACCESS COVER, AND SECURING SCREW. | - | - | - | PER PLAN | - | - | - |
| RPZ | REDUCED PRESSURE BACKFLOW PREVENTOR | ZURN | 375 - 3" | 216 GPM @ 13 PSI LOSS MAX. STAINLESS STEEL BODIED VALVE WITH STAINLESS STEEL CHECK ASSEMBLIES, WITH 1/4 TURN BALL VALVES, PROVIDE WITH STRAINER AND FUNNEL DRAIN. | - | - | - | - | - | 3" | - |

GENERAL NOTE: NO AERATORS ON ALL LAVATORIES AND SINKS.

STATE OF MISSOURI RICKI MANKTALA NUMBER PE-#009700026 PROFESSIONAL ENGINEER
02/07/2023

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| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | JS |
| Checked By | AB, RC, MG |

Revision

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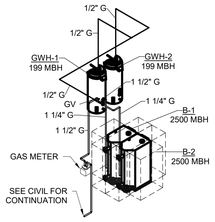
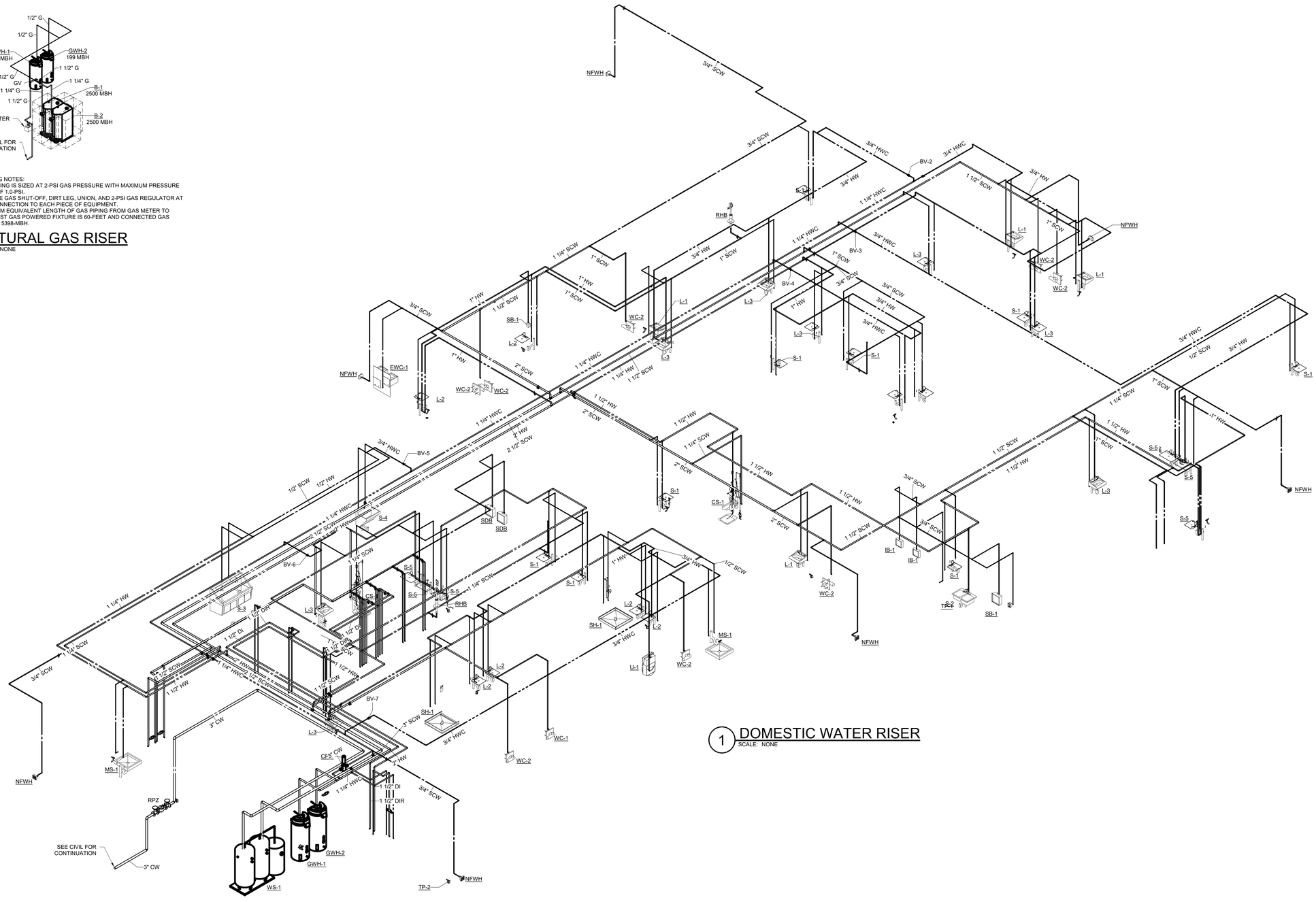
PLUMBING SCHEDULES




GAS PIPING NOTES:
1. GAS PIPING IS SIZED AT 2-PSI GAS PRESSURE WITH MAXIMUM PRESSURE DROP OF 1.0-PSI.
2. PROVIDE GAS SHUT-OFF, DIRT LEG, UNION, AND 2-PSI GAS REGULATOR AT GAS CONNECTION TO EACH PIECE OF EQUIPMENT.
3. MAXIMUM EQUIVALENT LENGTH OF GAS PIPING FROM GAS METER TO FARTHEST GAS POWERED FIXTURE IS 60-FEET AND CONNECTED GAS LOAD IS 5398-MBH.

## 2 NATURAL GAS RISER
SCALE: NONE




## 1 DOMESTIC WATER RISER
SCALE: NONE

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PROJECT NUMBER 1201002
BETTER BUILT ENVIRONMENTS

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-#009700026
PROFESSIONAL ENGINEER

02/07/2023

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | JS |
| Checked By | AB, RC, MG |

Revision

| Number | Date | Description |
|---|---|---|

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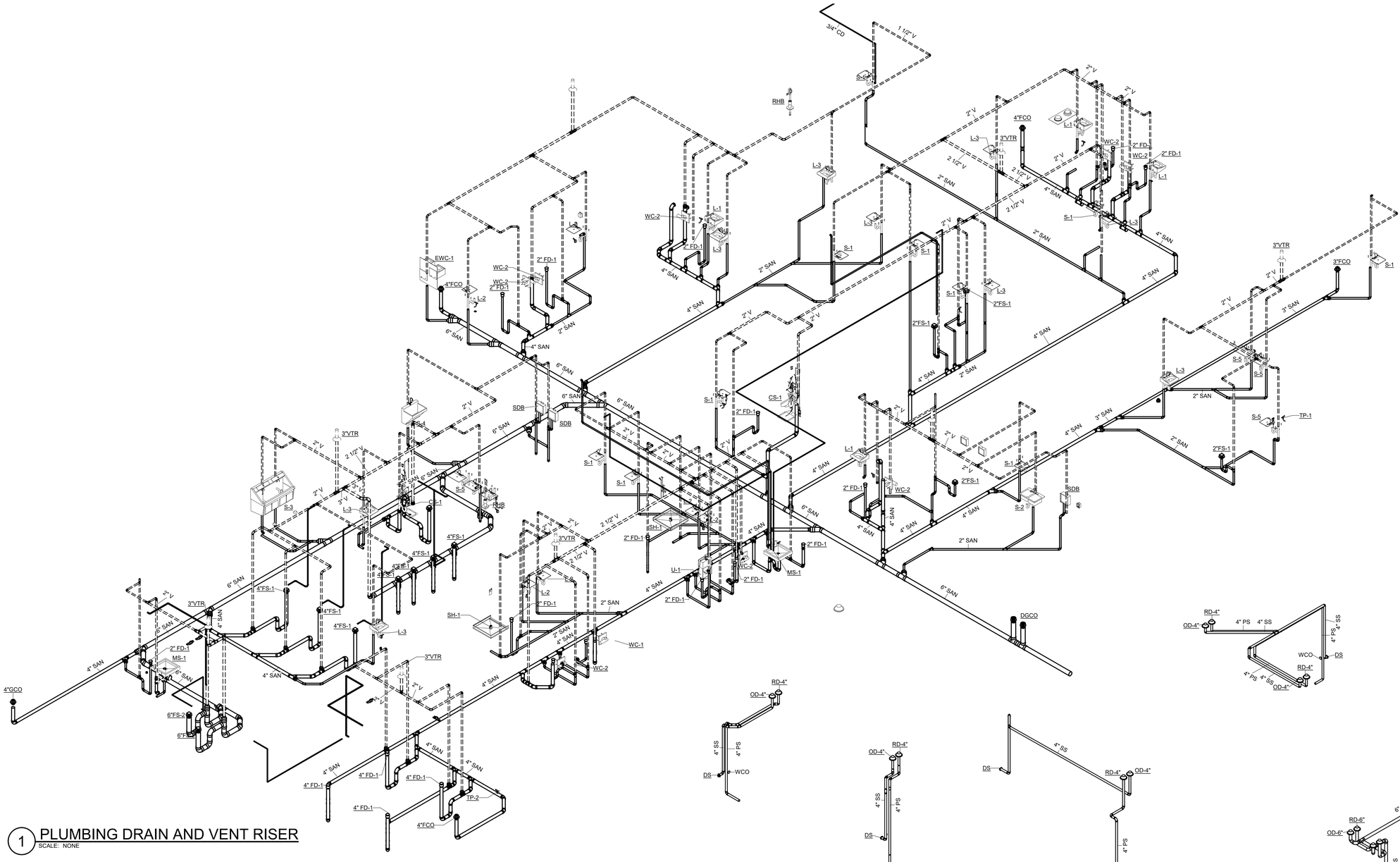
PLUMBING WATER AND NATURAL GAS RISER




1 PLUMBING DRAIN AND VENT RISER
SCALE: NONE

2 PLUMBING STORM RISER
SCALE: NONE

BIM 360://3-22030 HCA LSMC ASC/BP - HCA LSMC_MEP_R21.rvt

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| Job Number | 3-22030 |
| Drawn By | JS |
| Checked By | AB, RC, MG |

Revision

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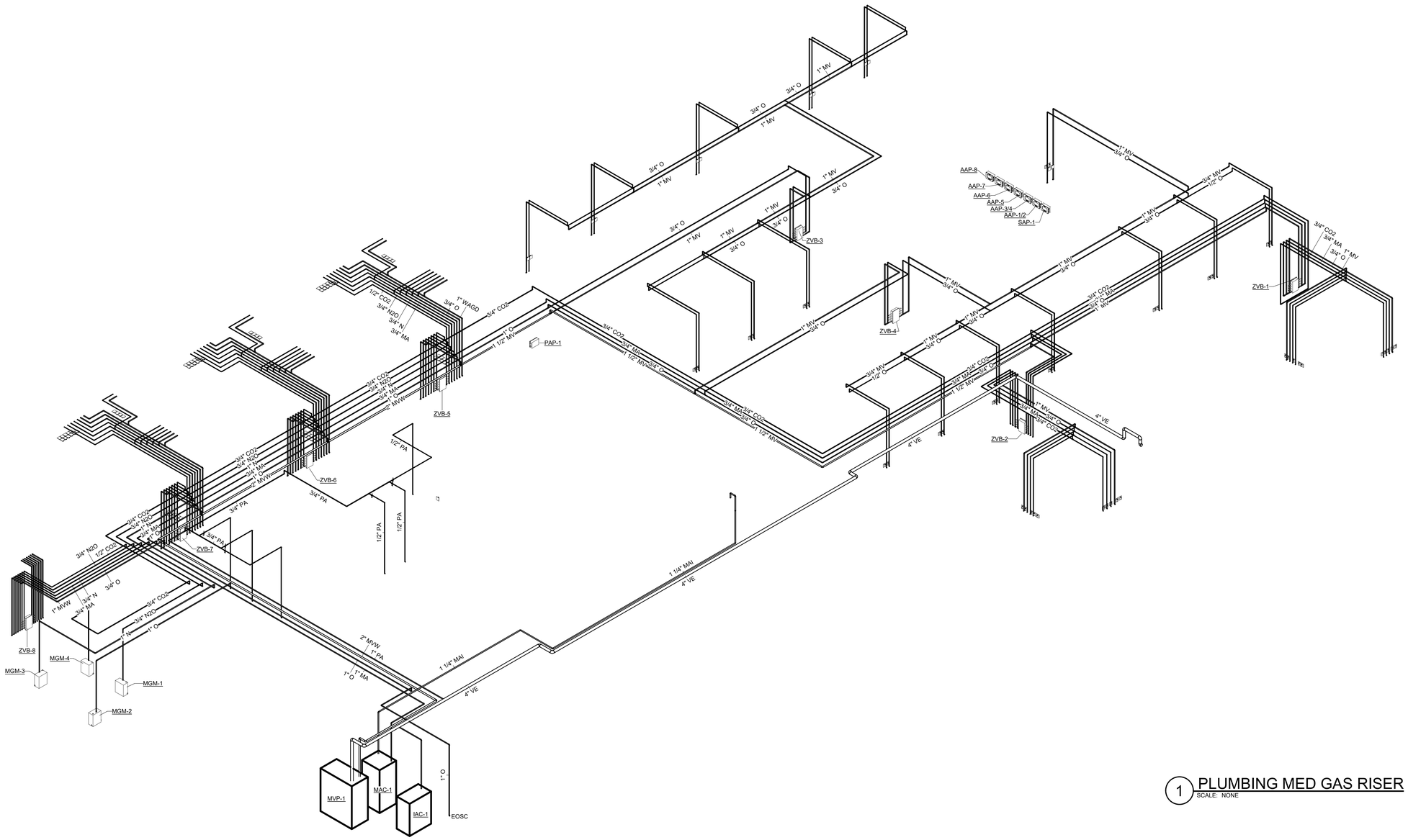
PLUMBING DRAIN AND VENT RISER




1 PLUMBING MED GAS RISER
SCALE: NONE

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PROJECT NUMBER 1201002
BETTER BUILT ENVIRONMENTS

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|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | Author |
| Checked By | Checker |

Revision

| Number | Date | Description |
|---|---|---|

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PLUMBING MED GAS RISER

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# ELECTRICAL LEGEND

THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS

## ONE LINE AND RISER

- PANEL XXX — PANEL
- CURRENT TRANSFORMER, RATED AS SPECIFIED OR REQUIRED
- M — MOTOR: HORSEPOWER AS INDICATED ON PLANS OR DIAGRAMS
- SPD — SURGE PROTECTION DEVICE
- GROUND CONNECTION
- LSIG — CIRCUIT BREAKER, RATING AS SHOWN. LSIG DENOTES ELECTRONIC TRIP UNIT WITH ADJUSTABLE SETTINGS FOR: L= LONG TIME TRIP DELAY, S= SHORT TIME TRIP DELAY, I= INSTANTANEOUS, G= GROUND FAULT
- 800A3P — SWITCH, RATING AS SHOWN
- 400A FRN — FUSE, FUSE AMPACITY AND TYPE AS SHOWN
- M — UTILITY METER (AS REQUIRED BY UTILITY)
- SAFETY SWITCH, NON-FUSED, 240V, U.N.O.
- FUSED DISCONNECT
- COMBINATION STARTER/DISCONNECT (SIZE AS INDICATED)
- ENCLOSED CIRCUIT BREAKER (SIZE AS INDICATED)
- T T-XX — TRANSFORMER, TYPE AND RATING AS SHOWN
- CONDUIT CONNECTION
- G — CIRCUIT BREAKER WITH GROUND FAULT PROTECTION
- G — FUSE WITH GROUND FAULT PROTECTION
- ATS-XX — AUTOMATIC TRANSFER SWITCH
- GROUND CONNECTION WITH TEST WELL
- GROUND ROD
- POLE MOUNTED UTILITY TRANSFORMER
- G — ENGINE GENERATOR
- ST — SHUNT TRIP
- X — SHORT CIRCUIT TAG DESIGNATION
- XXXX — FEEDER TAG DESIGNATION

## CONDUIT DESIGNATIONS

- XX-XXX — PANEL NAME - CIRCUIT NUMBER. BRANCH CIRCUITS HOMERUN USE NUMBER 12 AWG WIRE, UNLESS OTHERWISE NOTED. ALL CIRCUITS SHALL CONTAIN A GROUND AND NEUTRAL CONDUCTOR, UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE MULTI-WIRE CIRCUIT HANDLE TIES AS FINAL FIELD INSTALLED WIRING REQUIRES.
- XX-# — PANEL NAME - CIRCUIT NUMBER. HOME RUNS SHALL USE #12 AWG WIRE UNO.
- CONDUIT AND WIRE CONCEALED, 3/4" UNLESS OTHERWISE NOTED, CONDUIT USED FOR SWITCH LEGS, AND CONDUIT USED FOR CONTROL WIRING
- CONDUIT AND WIRE EMBEDDED IN CONCRETE OR BELOW GRADE
- CONDUIT TURNING DOWN
- CONDUIT TURNING UP
- CONDUIT CONTINUATION
- CONDUIT CAPPED FOR FUTURE USE

## POWER

- PANELBOARD, ELECTRICAL DISTRIBUTION PANEL, OR LOAD CENTER SURFACE MOUNTED
- PANELBOARD, ELECTRICAL DISTRIBUTION PANEL, OR LOAD CENTER RECESS MOUNTED

SUBSCRIPTS ADJACENT DEVICES INDICATE THE FOLLOWING:

G = GFCI; T = TAMPER RESISTANT; AC = MOUNT 6" ABOVE COUNTER/BACKSPLASH; U = DEVICE WITH USB CHARGING PORT; WP = WEATHER PROOF; H = HOSPITAL GRADE; 60" = SPECIAL MOUNTING HEIGHT AS NOTED

- 20 AMP, 125V, NEMA 5-20R SIMPLEX RECEPTACLE
- 20 AMP, 125V, NEMA 5-20R DUPLEX RECEPTACLE
- 20 AMP, 125V, NEMA 5-20R QUAD RECEPTACLE
- 20 AMP, 125V, NEMA 5-20R DUPLEX RECEPTACLE, CONNECTED TO EMERGENCY POWER, RED IN COLOR.
- 20 AMP, 125V, NEMA 5-20R QUAD RECEPTACLE, CONNECTED TO EMERGENCY POWER, RED IN COLOR.
- 20 AMP, 125V, NEMA 5-20R SWITCHED DUPLEX RECEPTACLE
- 20 AMP, 125V, NEMA 5-20R DUPLEX FLOOR RECEPTACLE, 3/4" CONDUIT RUN CONCEALED IN FLOOR SLAB
- 20 AMP, 125V, NEMA 5-20R CEILING FLOOR RECEPTACLE, 3/4" CONDUIT
- 20 AMP, 125V, NEMA 5-20R QUAD FLOOR RECEPTACLE, 3/4" CONDUIT RUN CONCEALED IN FLOOR SLAB
- 20 AMP, 125V, NEMA 5-20R QUAD CEILING RECEPTACLE, 3/4" CONDUIT
- JUNCTION BOX, WALL MOUNTED
- JUNCTION BOX, FLOOR MOUNTED
- JUNCTION BOX, CEILING MOUNTED
- SPECIAL RECEPTACLE, FLOOR MOUNTED, CONFIGURATION AS NOTED ON PLAN
- SPECIAL RECEPTACLE, WALL MOUNTED, CONFIGURATION AS NOTED ON PLAN
- SPECIAL RECEPTACLE, CEILING MOUNTED, CONFIGURATION AS NOTED ON PLAN
- PP — POWER (SERVICE) POLE
- FURNITURE FEED RECEPTACLE, FLOOR MOUNTED, CONFIGURATION AS NOTED ON PLAN. POWER POKE THRU CONNECTION, FLOOR MOUNTED, CONFIGURATION AS NOTED ON PLAN
- FURNITURE FEED RECEPTACLE, WALL MOUNTED, CONFIGURATION AS NOTED ON PLAN
- PLUGMOLD, REFER TO DRAWING FOR LENGTHS
- SAFETY SWITCH, NON-FUSED, 240V, U.N.O.
- FUSED DISCONNECT
- COMBINATION STARTER/DISCONNECT (SIZE AS INDICATED)
- COMBINATION DISCONNECT, WITH RECEPTACLE, REFER TO DRAWING FOR SIZE
- ENCLOSED CIRCUIT BREAKER (SIZE AS INDICATED)
- PHOTOCELL
- EMERGENCY POWER OFF (EPO) BUTTON
- ADA — ADA DOOR OPENER. MOUNT @ 48" AFF
- 0' - 0" — SELF-REGULATING HEATED CABLE – LENGTH AS SHOWN IN DRAWINGS. REFERENCE ELECTRICAL/PLUMBING PLANS FOR SPECIFICATION OF COMPLETE HEAT-TRACE SYSTEM. ARROW DENOTES DIRECTION

## LIGHTING

NOTE: UPPER CASE LETTER DENOTES LUMINAIRES TYPE. LOWER CASE LETTER ADJACENT TO LUMINAIRE INDICATES SWITCH THAT CONTROLS LUMINAIRES. MOUNTING IS NOTED ON LUMINAIRE SCHEDULE

- LIFE SAFETY POWER SHADING
- CRITICAL POWER SHADING
- A — RECESSED LUMINAIRE
- A — SURFACE LUMINAIRE
- A — WALL MOUNTED LUMINAIRE
- A — LINEAR PENDANT LUMINAIRE
- A — PENDANT LUMINAIRE
- A — STRIP TYPE LUMINAIRE, LENGTHS AS NOTED ON LUMINAIRE SCHEDULE
- A — SURFACE MOUNTED DOWNLIGHT
- A — RECESSED MOUNTED DOWNLIGHT
- A — WALL MOUNTED LUMINAIRE
- A — WALL WASH LUMINAIRE
- A — RECESSED STEP LIGHT LUMINAIRE
- TRACK LUMINAIRE
- A A — CEILING MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL CHEVRONS AS REQUIRED
- A — EMERGENCY BATTERY LUMINAIRE (2 HEAD) 84" AFF, UNLESS OTHERWISE NOTED
- A — EMERGENCY BATTERY LUMINAIRE (2 HEAD) WITH MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL CHEVRONS AS REQUIRED MOUNT AT 84" AFF, UNLESS OTHERWISE NOTED
- A A — WALL MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL CHEVRONS AS REQUIRED
- A — SINGLE POLE MOUNTED, EXTERIOR LUMINAIRE
- A — DOUBLE POLE MOUNTED, EXTERIOR LUMINAIRE
- A — QUAD POLE MOUNTED, EXTERIOR LUMINAIRE
- A — BOLLARD LUMINAIRE
- A — CEILING FAN
- $S_x$ — SINGLE POLE SWITCH (SWITCH LOWER CASE LETTER INDICATES DEVICE CONTROL)
  - 3= THREE WAY SWITCH; 4= FOUR WAY SWITCH
  - K= KEYED SWITCH; D= DIMMER SWITCH
  - TO= MOTOR THERMAL OVERLOAD SWITCH; T= TIMER
  - HOA=HAND-OFF-AUTOMATIC; P= PILOT LIGHT
  - OS= OCCUPANCY SENSOR; VS= VACANCY SENSOR
  - LVD= LOW VOLTAGE DIMMER; M=MOTOR SPEED CONTROL
- ## — CEILING MOUNTED SENSOR; VS= VACANCY, OS= OCCUPANCY, DL= DAYLIGHT
- ## — WALL MOUNTED SENSOR; VS= VACANCY, OS= OCCUPANCY, DL= DAYLIGHT

## MISCELLANEOUS

- X — KEY NOTE DESIGNATION
- X — KEY NOTE DESIGNATION
- 1 — REVISION NUMBER DESIGNATION
- NEW TO EXISTING CONNECTION
- DEMO TO EXISTING CONNECTION
- XX — SPECIALTY EQUIPMENT (BY OTHERS)

## FIRE ALARM

- FACP — FIRE ALARM CONTROL PANEL
- FARA — FIRE ALARM REMOTE ANNUNCIATOR PANEL
- FATC — FIRE ALARM CONTROL PANEL
- BACP — BACKUP FIRE ALARM CONTROL PANEL
- HVAC — HVAC FIRE ALARM CONTROL PANEL
- EVAC — VOICE EVACUATION FIRE ALARM CONTROL PANEL
- SCP — FIRE ALARM SMOKE CONTROL PANEL
- NAC — FIRE ALARM NOTIFICATION CIRCUIT PANEL
- MZW — FIRE ALARM MASTER 2-WAY CONTROL PANEL
- AMP — FIRE ALARM AMPLIFIER RACK PANEL
- MIC — FIRE ALARM MICROPHONE PANEL
- SMOKE DETECTOR, ADDRESSABLE PHOTO ELECTRIC
- L — SMOKE DETECTOR, EARLY WARNING LASER DETECTION
- CO — CARBON MONOXIDE DETECTOR
- FD — FLAME DETECTOR
- HD — HEAT DETECTOR
- G — GAS DETECTOR
- DUCT SMOKE DETECTOR, ADDRESSABLE PHOTO ELECTRIC
- FIRE ADA ALARM STROBE MOUNTED AT 80" AFF OR 6" BELOW CEILING WHICHEVER IS LOWER
- FIRE ADA ALARM HORN MOUNTED AT 80" AFF OR 6" BELOW CEILING WHICHEVER IS LOWER
- FIRE ALARM AUDIBLE AND ADA STROBE LIGHT MOUNTED AT 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER
- FIRE ADA ALARM SPEAKER MOUNTED AT 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER
- FIRE ALARM SPEAKER AND ADA STROBE LIGHT MOUNTED AT 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER
- FIRE ADA ALARM STROBE CEILING MOUNTED
- FIRE ADA ALARM HORN CEILING MOUNTED
- FIRE ALARM AUDIBLE AND ADA STROBE LIGHT CEILING MOUNTED
- FIRE ADA ALARM SPEAKER CEILING MOUNTED
- FIRE ALARM SPEAKER AND ADA STROBE LIGHT CEILING MOUNTED
- F — FIRE ALARM MANUAL PULL STATION, ADDRESSABLE DOUBLE ACTION
- MAGNETIC DOOR HOLDER
- FS — FIRE ALARM FLOW SWITCH
- TS — FIRE ALARM TAMPER SWITCH
- CM — FIRE ALARM CONTROL MODULE (W/ INPUT/OUTPUT MODULE)
- RTS — DUCT DETECTOR REMOTE INDICATOR ALARM AND TEST
- M2W — TWO WAY COMMUNICATION MASTER STATION
- 2W — TWO WAY CALL STATION

## STD. MOUNTING HEIGHTS U.N.O.

ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS INDICATED ON ELECTRICAL DRAWINGS. DIMENSION TO CENTERLINE UNO.

| | |
|---|---|
| RECEPTACLES | 18" |
| RECEPTACLES IN EQUIPMENT ROOMS | 46" |
| RECEPTACLES (EXTERIOR) | 24" |
| RECEPTACLES (GARAGES) | 24" |
| ALARMS, SWITCHES AND CONTROLS | 46" |
| TELEPHONE OUTLETS | 18" |
| SAFETY SWITCHES | 46" |
| STARTERS | 48" |
| PANELS (TOP) | 72" |
| CLOCK OUTLETS | 90" |
| FIRE ALARM PULL STATIONS (HANDLE) | 44" |
| STROBES | 96" OR 6" BELOW CEILING, WHICHEVER IS LOWER |
| FIRE ALARM BELLS (EXTERIOR) | 12'-0" |
| FIRE ALARM CONTROL PANEL (TOP) | 66" |
| ANNUNCIATION PANELS | 48" |
| INTERCOM | 46" |
| REMOTE INDICATING LIGHT (EQUIPMENT ROOMS) | 48" |
| REMOTE INDICATING LIGHT (FINISHED AREAS) | CEILING |
| EXIT SIGNS (WALL MOUNTED BOTTOM) | 6" ABOVE DOOR |
| TELEVISION OUTLETS | 18" |
| INTERCOMS | 46" |
| MAXIMUM HEIGHT OF OPERABLE COMPONENTS | 48" TO TOP |
| PHOTOCELLS | 12'-0" |

## ABBREVIATIONS

| | |
|---|---|
| A | AMPS, AIR (COMPRESSED) |
| AC | ABOVE COUNTER |
| AF | FUSE RATING |
| AFC | ABOVE FINISHED CEILING |
| AFEA | AREA FOR EVACUATION ASSISTANCE |
| AFF | ABOVE FINISHED FLOOR |
| AFG | ABOVE FINISHED GRADE |
| AIC | AMPERE INTERRUPTING CURRENT |
| AL | ALUMINUM |
| ATS | AUTOMATIC TRANSFER SWITCH |
| AWG | AMERICAN WIRE GAUGE |
| AV | AUDIO VISUAL |
| BFF | BELOW FINISHED FLOOR |
| BKR | BREAKER |
| BOS | BOTTOM OF STRUCTURE |
| BTU | BRITISH THERMAL UNIT |
| C | CONDUIT |
| CATV | CABLE TELEVISION SYSTEM |
| CCTV | CLOSED CIRCUIT TELEVISION |
| CKT | CIRCUIT |
| CLG | CEILING |
| CM | COFFEE MAKER |
| CT | CURRENT TRANSFORMER |
| CU | COPPER, CONDENSING UNIT |
| CW | CLOTHES WASHER |
| (D) | DEMOLISHED |
| DN | DOWN |
| DPDT | DOUBLE POLE, DOUBLE THROW |
| DPST | DOUBLE POLE, SINGLE THROW |
| DW | DISHWASHER |
| (E) | EXISTING |
| ECD | ELECTRIC CLOTHES DRYER |
| ENCL | ENCLOSURE |
| EPO | EMERGENCY POWER OFF |
| ETR | EXISTING TO REMAIN |
| EWC | ELECTRIC WATER COOLER |
| FBO | FURNISHED BY OTHERS |
| FF | FINISHED FLOOR |
| FHC | FIRE HOSE CABINET |
| FLA | FULL LOAD AMPS |
| FLR | FLOOR |
| FRZR | FREEZER |
| FVNR | FULL VOLTAGE, NON REVERSING |
| GD | GARBAGE DISPOSAL |
| GFI | GROUND FAULT CIRCUIT INTERRUPTER (PERSONAL PROTECTION ON DEVICE) |
| GFP | GROUND FAULT PROTECTED FROM UPSTREAM |
| GFR | GROUND FAULT RELAY |
| GND | GROUND |
| HOA | HAND OFF AUTOMATIC |
| HP | HORSEPOWER |
| HPS | HIGH PRESSURE SODIUM |
| HTG | HEATING |
| HTR | HEATER |
| ISCA | AVAILABLE SHORT-CIRCUIT CURRENT (AMPS) |
| IG | ISOLATED GROUND |
| KCMIL | 1000 CIRCULAR MILS |
| KV | KILOVOLT |
| KVA | KILOVOLT AMPS |
| KVAR | KILOVOLT AMPS REACTIVE |
| KW | KILOWATT |
| KWH | KILOWATT HOUR |
| LED | LIGHT EMITTING DIODE |
| LF | LINEAR FEET |
| LRA | LOCKED ROTOR AMPS |
| MATV | MASTER ANTENNA TELEVISION SYSTEM |
| MCA | MINIMUM CIRCUIT AMPACITY |
| MCB | MAIN CIRCUIT BREAKER |
| MCC | MOTOR CONTROL CENTER |
| MD | MOTORIZED DAMPER |
| MDP | MAIN DISTRIBUTION PANEL |
| MFP | MULTI-FUNCTION PRINTER |
| MFR | MANUFACTURER |
| MH | MANHOLE |
| MSB | MAIN SWITCHBOARD |
| MTD | MOUNTED |
| MW | MICROWAVE |
| (N) | NEW |
| N/A | NOT APPLICABLE |
| NIC | NOT IN CONTRACT |
| N/O.N/C | NORMALLY OPEN, NORMALLY CLOSED |
| N/L | NIGHT LIGHT |
| OC | ON CENTER |
| OV | OVEN |
| PDU | POWER DISTRIBUTION UNIT |
| PH.ø | PHASE |
| PJ | PROJECTOR |
| PLOT | PLOTTER |
| PNL | PANEL |
| PRINT | PRINTER (SMALL) |
| PT | POTENTIAL TRANSFORMER |
| QTY | QUANTITY |
| (R) | RELOCATED |
| RA | RETURN AIR |
| RANGE | RANGE/STOVE |
| RCP | REFLECTED CEILING PLAN |
| REF | REFRIGERATOR |
| REV | REVISION |
| RH | RELATIVE HUMIDITY |
| RLA | RUNNING LOAD AMPS |
| RPM | REVOLUTIONS PER MINUTE |
| SA | SUPPLY AIR |
| SD | SMOKE DETECTOR |
| SF | SQUARE FEET |
| SPDT | SINGLE POLE, DOUBLE THROW |
| SPST | SINGLE POLE, SINGLE THROW |
| SP | STATIC PRESSURE |
| SWBD | SWITCHBOARD |
| TL | TWISTLOCK |
| TV | TELEVISION |
| TYP | TYPICAL |
| U/F | UNDERFLOOR |
| U/G | UNDERGROUND |
| U/S | UNDER SLAB |
| UL | UNDERWRITERS LABORATORIES, INC. |
| UNO | UNLESS NOTED OTHERWISE |
| UPS | UNINTERRUPTIBLE POWER SUPPLY |
| USB | RECEPTACLE W/ INTEGRATED USB PORT |
| V | VOLTAGE |
| VAC | VOLTS ALTERNATING CURRENT, VACUUM |
| VM | VENDING MACHINE |
| W | WATTS |
| W | WITH |
| W/O | WITHOUT |
| WP | WEATHERPROOF |
| WT | WATERTIGHT, WEIGHT |
| XFMR | TRANSFORMER |
| XP | EXPLOSION PROOF |

## ELECTRICAL SHEET INDEX



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| E1.2 | ROOF ELECTRICAL PLAN |
| E2.1 | FIRST FLOOR LIGHTING PLAN - OVERALL |
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| E7.1 | ELECTRICAL SCHEDULES |
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| E7.4 | ELECTRICAL SCHEDULES |



## ELECTRICAL GENERAL NOTES

1. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
2. REVIEW ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND OTHER DRAWINGS FOR ADDITIONAL SCOPE REQUIREMENTS PRIOR TO BID.
3. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
4. WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE CURRENT ADOPTED EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND STANDARDS.
5. OBTAIN PERMITS AND INSPECTIONS REQUIRED.
6. FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT SUPPLIED.
7. CONTRACTOR SHALL REPLACE EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS CONTRACT.
8. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT IN A TIMELY MANNER WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
9. SYSTEMS SHALL BE COMPLETE, AND READY FOR CONTINUOUS OPERATION.
10. DEVICE BOXES SHALL BE MINIMUM 4" SQUARE.
11. PROVIDE NEW UPDATED TYPED PANELBOARD DIRECTORIES FOR PANELS MODIFIED OR INSTALLED AS A PART OF THIS PROJECT.
12. CONDUITS PENETRATING THROUGH ROOF SHALL BE APPROVED BY OWNER'S ROOFING CONTRACTOR. INSTALLATION SHALL BE WATERTIGHT AND PERFORMED BY OWNER'S ROOFING CONTRACTOR AT ELECTRICAL CONTRACTOR'S EXPENSE.
13. FINAL CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER VIBRATING EQUIPMENT SHALL BE WITH FLEXIBLE CONDUIT AND APPROVED FITTINGS THAT DO NOT REDUCE THE USABLE INTERNAL DIAMETER OF THE CONDUIT. REFERENCE SPECIFICATIONS FOR SPECIFIC PRODUCTS. DO NOT SECURE CONDUITS, DISCONNECTS, OR DEVICES TO DUCTWORK OR MECHANICAL EQUIPMENT.
14. WHERE PANELS ARE INSTALLED FLUSH WITH WALLS, EMPTY CONDUITS SHALL BE EXTENDED FROM THE PANEL TO AN ACCESSIBLE SPACE ABOVE OR BELOW. A MINIMUM OF ONE 3/4" CONDUIT SHALL BE INSTALLED FOR EVERY THREE SINGLE POLE SPARE CIRCUIT BREAKERS OR SPACES, OR FRACTION THEREOF, BUT NOT LESS THAN TWO CONDUITS.
15. ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED OR LABELED BY UL OR OTHER RECOGNIZED TESTING FACILITY.
16. PROVIDE AN INSULATED GROUND CONDUCTOR WITH EACH LINE VOLTAGE CIRCUIT.
17. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT REQUIRING A NEUTRAL CONDUCTOR. PROVIDE MULTIPOLE BREAKERS FOR EACH MULTIWIRE BRANCH CIRCUIT SERVING EQUIPMENT OR FURNITURE.
18. REFERENCE DIVISION 22 AND 23 DRAWINGS AND SPECIFICATIONS FOR LOCATION AND REQUIREMENTS OF MECHANICAL AND PLUMBING EQUIPMENT. PROVIDE SERVICE TO AND CONNECT EQUIPMENT AS REQUIRED.
19. PROVIDE FUSES SIZED PER MANUFACTURERS RECOMMENDATIONS.
20. COORDINATE THE EXACT MOUNTING LOCATIONS OF WALL AND FLOOR DEVICES WITH ARCHITECTURAL AND EQUIPMENT PLANS AND ELEVATIONS.
21. REFER TO TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOW-VOLTAGE SYSTEMS INFRASTRUCTURE REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUITS AND BACKBOXES REQUIRED FOR LOW-VOLTAGE SYSTEMS.
22. RACEWAYS SHALL NOT BE ROUTED HORIZONTALLY ABOVE ROOF. RACEWAY SHALL PENETRATE ROOF AT LOCATION OF EQUIPMENT SERVED.
23. FIELD LOCATE EXISTING UNDERGROUND PUBLIC AND OWNER UTILITIES AND BUILDING GROUNDING/LIGHTNING PROTECTION SYSTEMS PRIOR TO ANY EXCAVATION. REPLACE OR REPAIR DAMAGED UTILITIES AND GROUNDING/LIGHTNING PROTECTION SYSTEMS TO ORIGINAL CONDITION.
24. WIRING IN PATIENT CARE AREAS SHALL COMPLY WITH NEC 517.13(A) AND (B).

## ELECTRICAL LIGHTING NOTES

1. COORDINATE THE LOCATION AND MOUNTING HEIGHT OF LUMINAIRES AND DEVICES WITH ARCHITECTURAL DRAWINGS. WHERE LUMINAIRES OR DEVICES ARE NOT SPECIFICALLY INDICATED, COORDINATE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
2. CONNECT EMERGENCY LIGHTING AND EXIT SIGNS AS REQUIRED PER NEC AND NFPA 99.
3. COORDINATE PENDANT HUNG INDUSTRIAL STRIP(S) IN UNFINISHED AREAS WITH PIPING, DUCTWORK, EQUIPMENT, CABLE TRAY, ETC. TO AVOID CONFLICTS. MAKE MINOR ADJUSTMENTS TO LUMINAIRE LOCATIONS AS REQUIRED.
4. RECESSED LIGHT FIXTURES INSTALLED IN GYP. BOARD OR PLASTER CEILINGS SHALL HAVE PLASTER FRAMES INSTALLED PRIOR TO CEILING MATERIAL.
5. FIXTURES RECESSED IN "T-BAR" CEILING SHALL BE SUPPORTED INDEPENDENTLY OF CEILING SYSTEM WITH HANGER WIRES UP TO STRUCTURE. SECURE HANGER WIRES TO CORNERS OF FIXTURE. CLIP FIXTURE TO GRID ON TWO SIDES WITH FACTORY-FURNISHED CLIPS. FINAL ELECTRICAL CONNECTION TO FIXTURE SHALL BE MADE WITH FLEXIBLE CONDUIT OR UL LISTED ASSEMBLY.
6. VERIFY TRIM COMPATIBILITY WITH CEILING TYPE INDICATED IN ARCHITECTURAL REFLECTED CEILING PLAN PRIOR TO ORDERING LUMINAIRES. MODIFY TRIMS AS REQUIRED TO WORK WITH SPECIFIED CEILINGS.
7. LOSS OF UTILITY POWER SHALL ENERGIZE THE EMERGENCY GENERATOR AND TRANSFER POWER FOR LIFE-SAFETY BRANCH ILLUMINATION IS 10 SECONDS OR LESS. COMPONENTS OF SYSTEM SHALL BE UL924 LISTED FOR EMERGENCY TRANSFER.
8. PROVIDE COSTS FOR ADDING 3 ADDITIONAL EXIT SIGNS PER LEVEL AS REQUIRED BY THE FIRE MARSHAL AT THE TIME OF FINAL INSPECTION. LOCATE AS REQUIRED BY FIRE MARSHAL.
9. PROVIDE OCCUPANCY/VACANCY SENSOR RELAYS AND POWER PACKS FOR LIGHTING CONTROL FUNCTION INDICATED. PROVIDE 1 SET OF AUXILIARY CONTACTS IN LOW VOLTAGE SENSORS FOR HVAC CONTROLS.
10. SET VACANCY/OCCUPANCY SENSORS TO 15 MINUTE TIME DELAY UNLESS NOTED OTHERWISE. DO NOT EXCEED MAXIMUM CODE REQUIRED TIME DELAY.
11. CONNECT OCCUPANCY SENSOR(S) AHEAD OF LOCAL LIGHTING CONTROLS.
12. WHERE MULTIPLE VACANCY/OCCUPANCY SENSORS ARE LOCATED IN THE SAME ROOM OR SPACE, CONNECT SO EACH SENSOR CONTROLS ALL LIGHTING (EXCEPT NON-SWITCHED EMERGENCY LIGHTING) WITHIN THAT ROOM OR SPACE.
13. PROVIDE LOW VOLTAGE VACANCY/OCCUPANCY SENSORS WHERE MULTIPLE SENSORS ARE USED TO CONTROL THE SAME LUMINAIRE(S).
14. PROVIDE WALL MOUNTED VACANCY/OCCUPANCY SENSOR TO MATCH THE SPECIFIED DEVICE COLOR.
15. INSTALL WALL MOUNTED OCCUPANCY SENSOR IN VACANCY MODE.
16. VACANCY/OCCUPANCY SENSOR VENDOR SHALL PROVIDE LAYOUT OF DEVICES AND PROPER DEVICE SELECTION FOR COMPLETE COVERAGE OF AREAS. SUBMIT SHOP DRAWINGS WHICH INDICATE LOCATIONS AND DEVICE TYPE AT EACH LOCATION. PROVIDE ADDITIONAL DEVICES AS REQUIRED. CONTRACTOR SHALL ADJUST DEVICES AS REQUIRED SO THE COVERAGE AREA CORRESPONDS TO THE AREA CONTROLLED AND SHALL RETURN TO SITE AS REQUIRED WITHIN 1 YEAR OF FINAL COMPLETION TO READJUST OR REPLACE ANY DEVICE WHICH IS NOT PROPERLY FUNCTIONING. THE LOCATION OF THE VACANCY/OCCUPANCY SENSOR(S) ON THESE DRAWING ARE DIAGRAMMATIC.
17. DO NOT LOCATE VACANCY/OCCUPANCY SENSORS WITHIN 3' OF AN HVAC SUPPLY DEVICE.
18. CEILING MOUNTED VACANCY/OCCUPANCY SENSORS SHALL BE DUAL TECHNOLOGY TYPE.

## FIRE ALARM GENERAL NOTES

1. PROVIDE FIRE ALARM SYSTEM DEVICES, CONDUIT, WIRES, AND CABLE AS DIRECTED BY EQUIPMENT MANUFACTURER. MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL MEET ADOPTED CODES. THE SYSTEM SHALL BE COMPLETE AND OPERATIONAL IN EVERY RESPECT. SHOP DRAWINGS SHALL INCLUDE A SINGLE LINE DIAGRAM THAT INDICATES DEVICES, CONDUIT, WIRE, CABLE SIZES AND EQUIPMENT TO BE USED. SHOP DRAWINGS SHALL BE STAMPED AND SIGNED BY A REGISTERED ENGINEER PROVIDED BY THE FIRE ALARM VENDOR. SYSTEM CALIBRATION AND TESTING SHALL BE BY FACTORY CERTIFIED TECHNICIAN.


STATE OF MISSOURI — ABHINAV PANDEY — NUMBER PE-2018015824 — PROFESSIONAL ENGINEER

02/07/2023

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Surgery Center of Lee's Summit
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| Drawn By | AE |
| Checked By | JB, AP |

Revision

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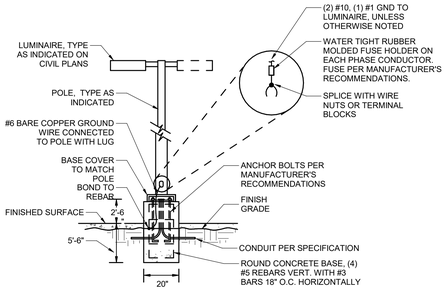
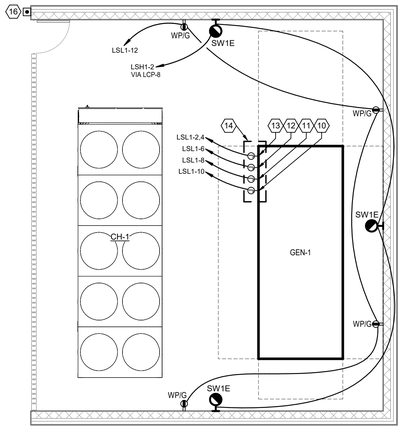
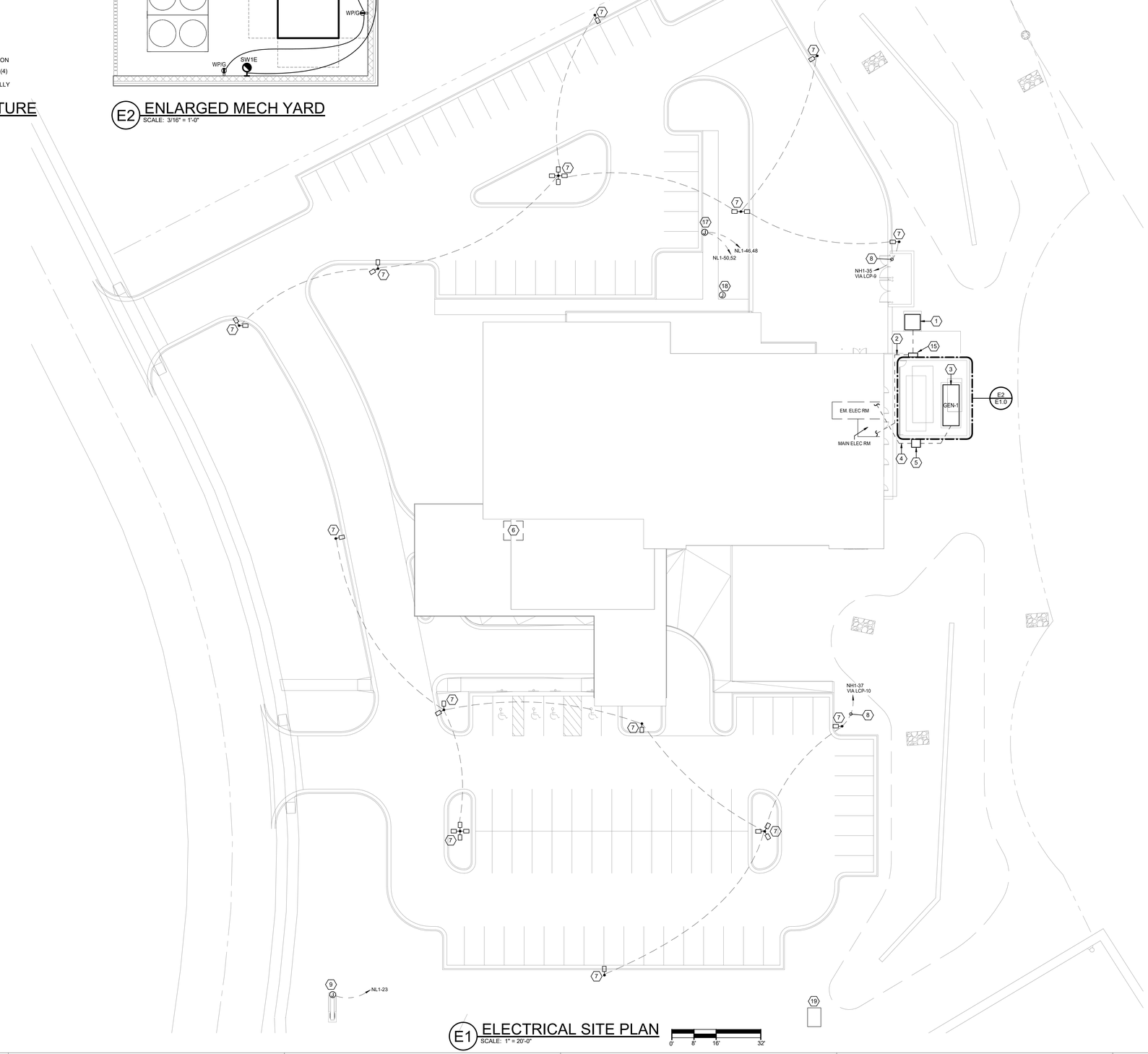
ELECTRICAL LEGEND & NOTES




E3 PARKING LOT LIGHTING FIXTURE
SCALE: NONE




E2 ENLARGED MECH YARD
SCALE: 3/16" = 1'-0"




E1 ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

## GENERAL NOTES (THIS SHEET)

1. REFER TO SHEET E0.1 FOR ELECTRICAL SYMBOL LEGEND AND ADDITIONAL GENERAL NOTES.
2. COORDINATE INSTALLATION OF RACEWAYS, DEVICES, AND EQUIPMENT WITH OTHER TRADES.
3. REFER TO CIVIL DRAWINGS FOR UTILITIES.
4. SITE WIRING AND CABLING SHALL BE UNDERGROUND.
5. PROVIDE TRACER WIRE 12" ABOVE UNDERGROUND CONDUIT AND DUCT BANKS.
6. REFER TO LIGHTING PLAN FOR BUILDING MOUNTED EXTERIOR LIGHTING.
7. MAINTAIN MINIMUM 3'-0" HORIZONTAL AND VERTICAL SEPARATION BETWEEN ELECTRICAL AND TELECOM UNDERGROUND LINES.

## KEY NOTES (X) (THIS SHEET)

1. PROPOSED LOCATION OF NEW PAD MOUNTED UTILITY TRANSFORMER BY EVERY. REFER TO CIVIL UTILITY PLAN FOR EXACT LOCATION. INSTALL TRANSFORMER ON EVERGY APPROVED CONCRETE EQUIPMENT PAD. COORDINATE FINAL LOCATION WITH CIVIL AND OBTAIN WRITTEN APPROVAL FROM EVERGY.
2. UNDERGROUND SECONDARY SERVICE ENTRANCE. PROVIDE CONCRETE ENCASED DUCT BANK. REFER TO ONE-LINE DIAGRAM FOR FEEDER SIZE.
3. EXTERIOR GENERATOR. REFER TO ONE-LINE DIAGRAM AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE FINAL EQUIPMENT PAD SIZE WITH VENDOR SUBMITTED SHOP DRAWINGS. COORDINATE GENERATOR CONNECTIONS WITH VENDOR SUBMITTED SHOP DRAWINGS.
4. UNDERGROUND FEEDERS AND CONTROL CABLING FROM GENERATOR TO EMERGENCY DISTRIBUTION EQUIPMENT. PROVIDE CONCRETE ENCASED DUCT BANK. REFER TO ONE-LINE DIAGRAM FOR FEEDER SIZE. PROVIDE CONDUIT AND WIRING/CABLING AS REQUIRED FOR GENERATOR STARTING CIRCUIT, ALARMS, MONITORING, CONTROLS, AND POWERED ACCESSORIES.
5. PAD-MOUNTED DUAL-PURPOSE DOCKING STATION FOR LOAD BANK AND TEMPORARY GENERATOR. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
6. MAIN TELECOM ROOM AND PROPOSED LOCATION OF INCOMING TELECOM SERVICES. PROVIDE (3) 4" CONDUIT STUBBED THROUGH FLOOR AS REQUIRED. REFER TO TECHNOLOGY DRAWINGS FOR LOCATION AND ADDITIONAL REQUIREMENTS. CONDUIT ROUTING TO SERVICE PROVIDE VAULT SHALL BE DELEGATED DESIGN.
7. SITE LIGHT POLE BY CIVIL. REFER TO CIVIL PHOTOMETRIC PLANS FOR LIGHT FIXTURE SPECIFICATIONS. PROVIDE CIRCUITING TO FIXTURE AS REQUIRED.
8. PROVIDE (2)#8, (1)8G, IN 1"C FOR SITE LIGHT POLE WIRING. MAKE CONNECTIONS TO FIXTURES AS REQUIRED. CIRCUIT VIA EXTERIOR LIGHTING CONTROLLER PROVIDED IN MAIN ELECTRICAL ROOM.
9. CONNECTION TO INTEGRALLY LIT MONUMENT SIGN. FIELD-LOCATE WEATHERPROOF JUNCTION BOX AND DISCONNECT. BOX AND DISCONNECT SHALL BE OBSCURED FROM VIEW AS MUCH AS PRACTICAL (LOCATED ON END OF SIGN, NOT ON SIGN FACES). PROVIDE (2)#10, (1)#10G, IN 3/4"C. VERIFY ELECTRICAL REQUIREMENTS WITH SIGNAGE VENDOR PRIOR TO ROUGH-IN.
10. CONNECTION TO GENERATOR STATOR HEATER.
11. CONNECTION TO GENERATOR BATTERY CHARGER.
12. CONNECTION TO GENERATOR ENGINE OIL HEATER.
13. CONNECTION TO GENERATOR JACKET WATER HEATER. PROVIDE (2)#6, (1)#10G, IN 1"C. VERIFY FINAL HEATER SIZE, WIRING, AND OVERCURRENT PROTECTION PRIOR TO ROUGH-IN.
14. ACCESSORY CIRCUITS FOR GENERATOR. VERIFY FINAL QUANTITIES, SIZES, AND LOCATIONS OF ACCESSORY CIRCUITS PRIOR TO ROUGH-IN. PROVIDE DISCONNECTS, SUPPORTS, CONDUIT, WIRING, AND OTHER COMPONENTS AS REQUIRED BY GENERATOR MANUFACTURER.
15. PAD-MOUNTED CT CABINET RATED 1200A AND UTILITY METER. ENCLOSURES SHALL BE RATED FOR OUTDOOR INSTALLATION. INSTALL PER EVERGY SERVICE STANDARDS. CT CABINET BASIS OF DESIGN IS MILBANK KCPLM-1234PM. ALTERNATE EVERGY-APPROVED CT CABINETS ARE ACCEPTABLE. REFER TO EVERGY SERVICE STANDARDS SECTION 10.9 FOR ADDITIONAL INFORMATION. COORDINATE INSTALLATION WITH EVERGY AND OTHER TRADES.
16. EMERGENCY POWER OFF (EPO) BUTTON FOR SHUTDOWN OF GENERATOR. PROVIDE TAMPER-RESISTANT, WEATHERPROOF COVER. CONNECT EPO BUTTON AS REQUIRED.
17. CONNECTION TO ELECTRIC VEHICLE DUAL-PORT CHARGING STATION. FIELD COORDINATE FINAL LOCATIONS OF CHARGING STATIONS. PROVIDE (4)#8, (1)#8G, IN 1" C FOR EACH CIRCUIT. PROVIDE 40A/2P CIRCUIT BREAKER FOR EACH CHARGING PORT. PRIOR TO INSTALLATION, VERIFY THE ELECTRICAL REQUIREMENTS OF THE ACTUAL TYPE OF CHARGING STATION BEING FURNISHED. COORDINATE ADDITIONAL REQUIREMENTS WITH EVERGY.
18. IN-GRADE RATED PULL BOX, BASIS OF DESIGN IS QUAZITE 12"X12" BOX. PROVIDE (2) 1" SPARE CONDUIT, CAPPED WITH PULL STRING FROM MAIN ELECTRICAL ROOM 197.
19. REFER TO CIVIL PLANS FOR EXACT LOCATION OF VAULT FOR WATER LINE DOUBLE-CHECK VALVE. PROVIDE 3/4" CONDUIT ROUTED FROM VAULT LOCATION TO WATER ENTRY ROOM 198. PROVIDE CABLING AND CONTROL MODULES AS REQUIRED FOR MONITORING OF THE BUILDING SPRINKLER SYSTEM.

BranchPattern
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PROJECT NUMBER 1201002
BETTER BUILT ENVIRONMENTS

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E1.0

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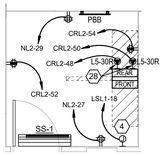
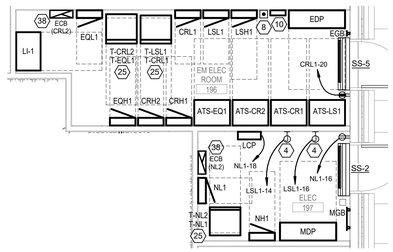
ELECTRICAL SITE PLAN



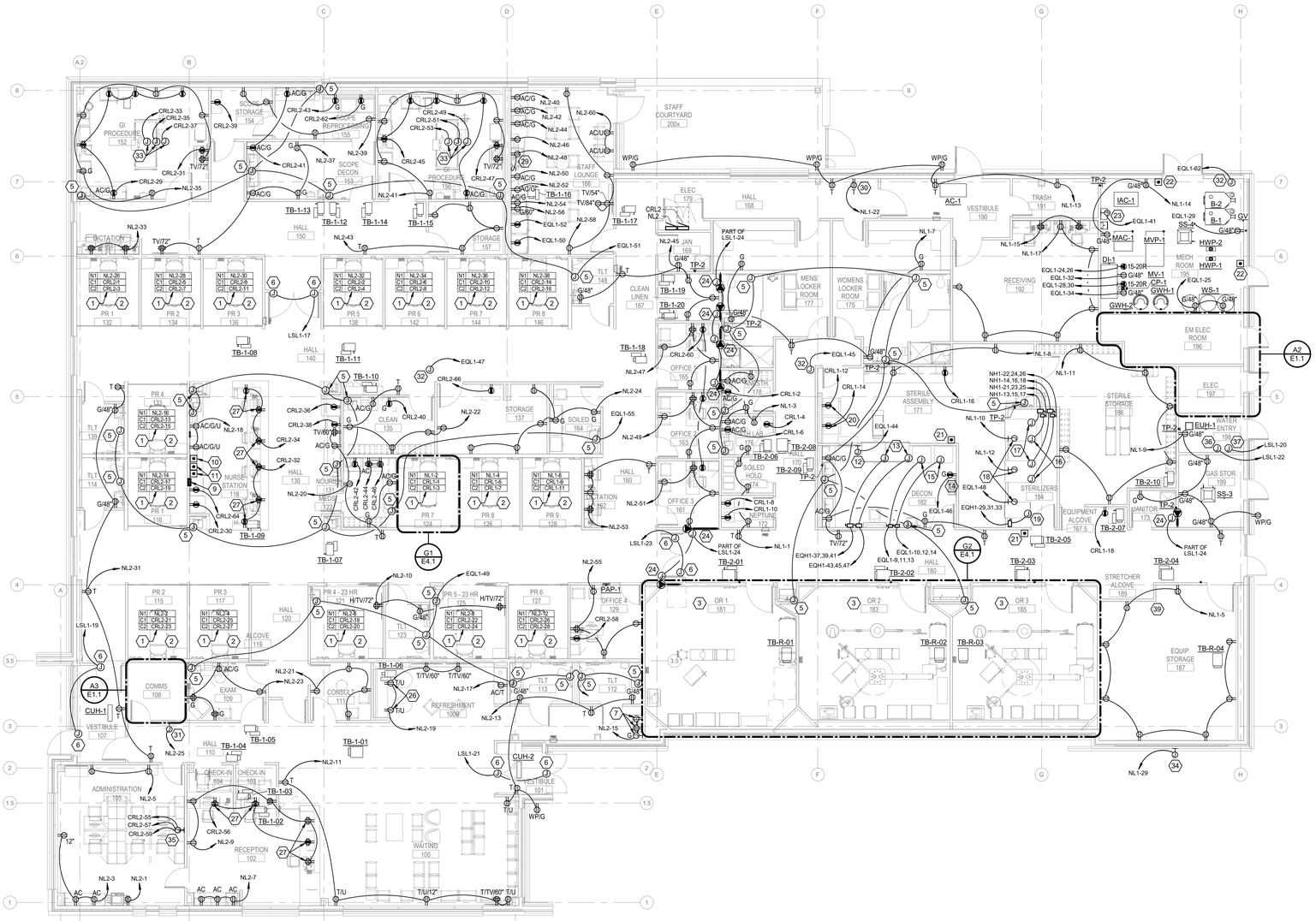




## A3 ENLARGED COMM ROOM 108

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

## A2 ENLARGED MAIN ELECTRICAL ROOMS

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




## A1 FIRST FLOOR POWER PLAN OVERALL

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

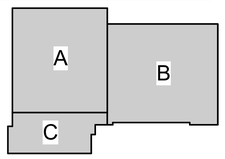
0' 4' 8' 16'

## GENERAL NOTES (THIS SHEET)

1. REFER TO SHEET E0.1 FOR ELECTRICAL SYMBOL LEGEND AND ADDITIONAL GENERAL NOTES.
2. HOSPITAL GRADE RECEPTACLES SHALL BE USED THROUGHOUT.

## KEY NOTES (X) (THIS SHEET)

1. CIRCUIT SCHEDULE FOR RECEPTACLES LOCATED IN THIS ROOM. SEE ENLARGED PLAN FOR LAYOUT.
2. REFER TO DETAIL A1/SHEET E4.1 FOR DEVICE LAYOUT IN THIS ROOM.
3. DO NOT PENETRATE THIS ROOM WITH CONDUIT OR WIRING WHICH SERVES OTHER AREAS.
4. CONNECTION TO FIRE ALARM EQUIPMENT PANEL(S) AND ASSOCIATED POWER SUPPLIES.
5. CONNECTION TO LOW VOLTAGE TRANSFORMER SERVING AUTOMATIC FAUCET AND/OR FLUSH VALVE. PROVIDE A TOGGLE SWITCH DISCONNECT ABOVE FINISHED ACCESSIBLE CEILING. WHERE A HARD CEILING EXISTS, PROVIDE SUITABLE ACCESS PANEL. PROVIDE CONDUIT PATHWAY AND BACKBOXES AS REQUIRED FOR CONCEALED INSTALLATION. COORDINATE EXACT LOCATION WITH PLUMBING ROUGH-IN. WIRING BETWEEN TRANSFORMER AND FAUCETS/VALVES SHALL BE PROVIDED BY DIVISION 22.
6. CONNECTION TO AUTOMATIC DOOR OPERATOR. PROVIDE A TOGGLE SWITCH DISCONNECT ABOVE FINISHED ACCESSIBLE CEILING ADJACENT TO THE EQUIPMENT SERVED. COORDINATE WITH ARCHITECTURAL DRAWINGS AND DOOR HARDWARE SCHEDULE FOR ROUGH-IN OF BACK BOXES FOR DOOR PUSH PADS.
7. RECEPTACLE(S) FOR ELECTRIC WATER COOLER. COORDINATE MOUNTING WITH MANUFACTURER'S REQUIREMENTS. PROVIDE DEAD-FRONT GFCI DEVICE ADJACENT TO WATER COOLER PANEL. CONNECTED TO PROVIDE GFCI PROTECTION TO DOWNSTREAM RECEPTACLE(S).
8. GENERATOR REMOTE ANNUNCIATOR PANEL, 1 OF 2. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN. PROVIDE SURFACE-MOUNT ENCLOSURE IF INSTALLED IN UNFINISHED SPACE. IF OWNER DIRECTS TO INSTALL IN A FINISHED SPACE, PROVIDE FLUSH-MOUNT ENCLOSURE.
9. GENERATOR REMOTE ANNUNCIATOR PANEL, 2 OF 2. FIELD COORDINATE EXACT LOCATION ALONG WALL WITH OTHER ALARM PANELS AND PUSH BUTTONS ABOVE COUNTER. COORDINATE WITH ARCHITECTURAL ELEVATIONS PROVIDE FLUSH-MOUNT ENCLOSURE FOR ANNUNCIATOR PANEL.
10. EMERGENCY POWER OFF (EPO) BUTTON FOR SHUTDOWN OF GENERATOR. CONNECT EPO BUTTONS AS REQUIRED. PROVIDE CLEAR, HINGED COVER.
11. EMERGENCY POWER OFF (EPO) BUTTON FOR SHUTDOWN OF AIR HANDLING UNITS. CONNECT EPO BUTTONS AS REQUIRED. PROVIDE CLEAR, HINGED COVER.
12. CONNECTION TO AUTOMATIC PASSTHROUGH. PROVIDE 120V/1P TOGGLE SWITCH ADJACENT TO UNIT FOR DISCONNECTING MEANS.
13. CONNECTION TO WASHER/DISINFECTOR. PROVIDE (3)#8, (1)#10G, IN 1"C. PROVIDE NEMA-1, 60A/3P NON-FUSED DISCONNECT SWITCH.
14. RECEPTACLE FOR AUTOMATIC DETERGENT DISPENSER.
15. CONNECTION TO ULTRASONIC CLEANER. PROVIDE (3)#12, (1)#12G, IN 3/4" C. PROVIDE NEMA-1, 30A/3P NON-FUSED DISCONNECT SWITCH.
16. CONNECTION TO MEDIUM-SIZE STERILIZER POWER. PROVIDE (3)#12, (1)#12G, IN 3/4" C. PROVIDE NEMA-1, 30A/3P NON-FUSED DISCONNECT.
17. CONNECTION TO MEDIUM-SIZE STERILIZER ELECTRIC STEAM GENERATOR. PROVIDE (3)#4, (1)#8G, IN 1-1/4" C. PROVIDE NEMA-1, 100A/3P NON-FUSED DISCONNECT.
18. CONNECTION TO STERILIZER CONTROLS. PROVIDE 120V/1P TOGGLE SWITCH ADJACENT TO UNIT FOR DISCONNECTING MEANS.
19. CONNECTION TO SMALL-SIZE STERILIZER POWER AND ELECTRIC STEAM GENERATOR. PROVIDE (3)#8, (1)#10G, IN 3/4" C. PROVIDE NEMA-1, 60A/3P NON-FUSED DISCONNECT.
20. RECEPTACLE FOR LOW-TEMP STERILIZER.
21. EMERGENCY POWER OFF (EPO) BUTTON FOR SHUTDOWN OF STERILIZERS. CONNECT EPO BUTTONS AS REQUIRED. PROVIDE CLEAR, HINGED COVER.
22. EMERGENCY POWER OFF (EPO) BUTTON FOR SHUTDOWN OF BOILERS. CONNECT EPO BUTTONS AS REQUIRED. PROVIDE CLEAR, HINGED COVER.
23. CONNECTION TO BAS CONTROL PANEL.
24. CONNECTION TO SMOKE DAMPER.
25. STACKED TRANSFORMER MOUNTING. PROVIDE UNISTRUT FRAME FOR STACKING ONE TRANSFORMER ABOVE THE OTHER AS REQUIRED. PROVIDE BRACING AS REQUIRED TO RESIST LATERAL MOVEMENT.
26. RECEPTACLES INSTALLED AT BASE OF BUILT-IN BENCH. MOUNT RECEPTACLES HORIZONTALLY. COORDINATE WITH ARCHITECTURAL DETAILS.
27. RECEPTACLES INSTALLED IN BUILT-UP CASEWORK. CONDUIT SHALL BE CONCEALED WITHIN CASEWORK, STUBBED UP FROM BELOW AS REQUIRED.
28. MOUNT RECEPTACLES ON THE REAR SIDE OF THE TELECOM EQUIPMENT RACKS, AT BOTTOM OF RACK, WITH CONDUIT STUBBED UP FROM BELOW. CONDUIT ROUTING AND WIRING DEVICE BOXES SHALL NOT BLOCK OR IMPEDE ACCESS TO RACK EQUIPMENT. CONFIRM SPECIAL RECEPTACLE CONFIGURATION WITH OWNER PRIOR TO INSTALLATION.
29. RECEPTACLE BELOW COUNTER FOR GARBAGE DISPOSAL. CONNECT TO ABOVE COUNTER TOGGLE SWITCH.
30. CONNECTION FOR EMPLOYEE TIME CLOCK. COORDINATE FINAL MOUNTING AND CONNECTION TYPE WITH PROVIDED EQUIPMENT.
31. CONNECTION TO VENDOR BADGE MAKER. COORDINATE FINAL MOUNTING AND CONNECTION TYPE WITH PROVIDED EQUIPMENT.
32. CONNECTION TO PIPING HEAT TRACE SYSTEM. REFER TO PLUMBING DRAWINGS FOR HEAT TRACE LOCATION AND SPECIFICATION.
33. CONNECTIONS TO SERVICE COLUMN. PROVIDE #12 AWG CONDUCTORS IN 1/2" CONDUIT FOR EACH CIRCUIT. PROVIDE A #6 AWG INSULATED COPPER BONDING JUMPER FROM THE SERVICE COLUMN RACEWAY ENCLOSURE TO THE CONDUITS CONTAINING THE BRANCH CIRCUIT CONDUCTORS SERVING THE SERVICE COLUMN IN ORDER TO MAKE THE RACEWAY AN EFFECTIVE GROUND-FAULT CURRENT PATH.
34. CONNECTION TO ILLUMINATED BUILDING SIGNAGE. COORDINATE MOUNTING LOCATION WITH ARCHITECTURAL ELEVATIONS. COORDINATE WIRING AND CONTROL REQUIREMENTS WITH SIGNAGE VENDOR PRIOR TO INSTALLATION.
35. CONNECTION TO PRE-WIRED FURNITURE SYSTEM POWER WHIP. RECEPTACLES ARE INTEGRAL TO FURNITURE SYSTEM PANELS AND PROVIDED BY FURNITURE VENDOR. CONNECT PER MANUFACTURER'S INSTRUCTIONS. COORDINATE WITH LOW VOLTAGE FOR ADDITIONAL FURNITURE FEED COMPONENTS.
36. CONNECTION TO DRY-PIPE FIRE PROTECTION SYSTEM AIR COMPRESSOR. PROVIDE 120V/1P TOGGLE SWITCH ADJACENT TO EQUIPMENT FOR DISCONNECTING MEANS. PRIOR TO ORDERING, VERIFY CIRCUIT BREAKER SIZE, WIRING SIZE, AND ADDITIONAL REQUIREMENTS WITH ACTUAL AIR COMPRESSOR SPECIFIED BY THE FIRE PROTECTION ENGINEER.
37. CONNECTION TO DRY-PIPE FIRE PROTECTION SYSTEM MONITORING DEVICES, ALARMS, AND CONTROLS AS REQUIRED.
38. PROVIDE ENCLOSED CIRCUIT BREAKER WITH ELECTRONIC TRIP FOR PROTECTION OF DOWNSTREAM PANELBOARD. REFER TO ONE-LINE DIAGRAM FOR SIZE.
39. PULL (3) 3/4" SPARE CONDUIT WITH PULL STRING TO THIS SPACE FROM EMERGENCY ELEC ROOM 196, TERMINATED ABOVE CEILING.




KEYPLAN

BranchPattern
www.branchpattern.com
PROJECT NUMBER: 1201002
BETTER BUILT ENVIRONMENTS

ABHINAV PANDEY
NUMBER PE-2010015824
PROFESSIONAL ENGINEER
STATE OF MISSOURI
02/07/2023

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**E1.1**

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FIRST FLOOR POWER PLAN - OVERALL

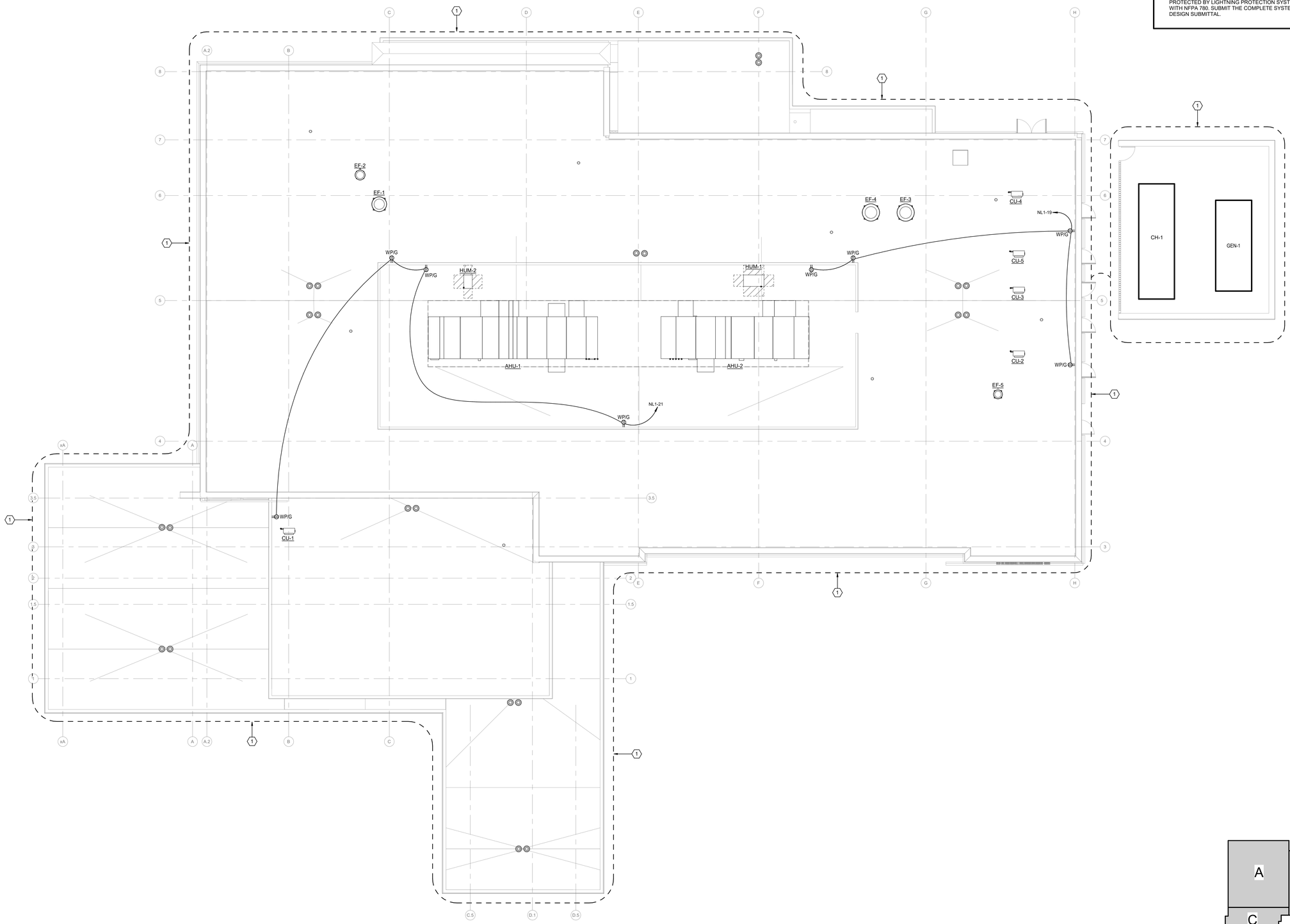
BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

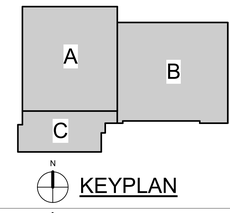
1. REFER TO SHEET E0.1 FOR ELECTRICAL SYMBOL LEGEND AND ADDITIONAL GENERAL NOTES.
2. PROVIDE COMPLETE LIGHTNING PROTECTION SYSTEM IN ACCORDANCE WITH NFPA 780. LIGHTNING PROTECTION SYSTEM SHALL BE FURNISHED WITH UL MASTER LABEL.

## KEY NOTES (X) (THIS SHEET)

1. COUNTERPOISE LOOP FOR LIGHTNING PROTECTION SYSTEM. ALL STRUCTURE AND EQUIPMENT WITHIN THIS BOUNDARY SHALL BE PROTECTED BY LIGHTNING PROTECTION SYSTEM IN ACCORDANCE WITH NFPA 780. SUBMIT THE COMPLETE SYSTEM AS A DELEGATED DESIGN SUBMITTAL.




1 ROOF ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'




KEYPLAN

ABHINAV PANDEY
NUMBER PE-2018015824
PROFESSIONAL ENGINEER
STATE OF MISSOURI
02/07/2023

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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | AE |
| Checked By | JB, AP |

Revision

| Number | Date | Description |
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E1.2

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ROOF ELECTRICAL PLAN

BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

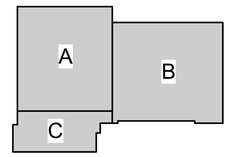
## GENERAL NOTES (THIS SHEET)

1. REFER TO SHEET E0.1 FOR ELECTRICAL SYMBOL LEGEND AND ADDITIONAL GENERAL NOTES.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LUMINAIRES.
3. EXIT SIGNS SHALL BE CONNECTED TO "UNSWITCHED" LEG OF THE CIRCUIT.
4. EXIT SIGN LOCATIONS ARE SHOWN FOR CIRCUITING AND ROUGH-IN ONLY. REFER TO LIFE SAFETY DRAWINGS FOR EXACT LOCATION, ORIENTATION, AND DIRECTIONAL ARROWS. EXIT SIGNS SHALL BE INSTALLED AFTER SITE WALKTHROUGH REVIEW BY FIRE DEPARTMENT AUTHORITY.
5. CONNECT EMERGENCY LIGHTING AND EXIT SIGNS AHEAD OF LOCAL SWITCHING.
6. COORDINATE THE LOCATION AND MOUNTING HEIGHT OF LUMINAIRES AND DEVICES WITH ARCHITECTURAL DRAWINGS. WHERE LUMINAIRES OR DEVICES ARE NOT SPECIFICALLY INDICATED, COORDINATE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
7. VERIFY FIXTURE TRIM COMPATIBILITY WITH CEILING TYPES INDICATED IN ARCHITECTURAL CEILING PLANS AND DETAILS PRIOR TO ORDERING ANY LUMINAIRES.
8. COORDINATE LUMINAIRE LOCATIONS, MOUNTING, AND SUPPORTS WITH MECHANICAL DUCTWORK, PIPING, AND OTHER TRADES TO AVOID CONFLICTS.
9. LOSS OF UTILITY POWER SHALL ENERGIZE EGRESS LIGHTING. LIGHTING SYSTEMS SHALL MEET UL STANDARDS FOR LIFE SAFETY REQUIREMENTS.
10. PROVIDE OCCUPANCY/VACANCY SENSOR RELAYS AND POWER PACKS AS REQUIRED TO PROVIDE THE LIGHTING CONTROL FUNCTION INDICATED. PROVIDE LOW VOLTAGE SENSORS WITH 1 SET OF AUXILIARY CONTACTS FOR INTEGRATION WITH HVAC CONTROLS.
11. SET OCCUPANCY/VACANCY SENSORS TO 15 MINUTE DELAY, UNLESS NOTED OTHERWISE. DO NOT EXCEED MAXIMUM CODE ALLOWED TIME DELAY.
12. CONNECT OCCUPANCY/VACANCY SENSORS AHEAD OF LOCAL LIGHTING CONTROLS.
13. WHERE MULTIPLE OCCUPANCY/VACANCY SENSORS ARE LOCATED IN THE SAME ROOM OR SPACE, CONNECT SENSORS TO CONTROL ALL LIGHTING (EXCEPT NON-SWITCHED EMERGENCY LIGHTING) WITHIN THAT ROOM OR SPACE, UNLESS NOTED OTHERWISE.
14. LOCATIONS OF THE OCCUPANCY/VACANCY SENSORS ON THESE DRAWINGS ARE DIAGRAMMATIC. LIGHTING CONTROL VENDOR SHALL PROVIDE LAYOUT OF DEVICES AND DEVICE SELECTION FOR COMPLETE SENSOR COVERAGE OF AREAS. SUBMIT SHOP DRAWINGS WHICH INDICATE LOCATIONS AND DEVICE TYPE. PROVIDE ADDITIONAL DEVICES AS REQUIRED. CONTRACTOR SHALL ADJUST DEVICES AS REQUIRED FOR COVERAGE OF THE CONTROLLED AREAS. CONTRACTOR SHALL RETURN TO SITE AS REQUIRED WITHIN 1 YEAR OF FINAL COMPLETION TO RE-ADJUST OR REPLACE DEVICES WHICH ARE NOT FUNCTIONING PROPERLY.
15. DO NOT LOCATE CEILING SENSORS WITHIN 3' OF AN HVAC SUPPLY AIR TERMINAL.
16. LIGHTING CONTROL SENSORS SHALL BE DUAL TECHNOLOGY TYPE UNLESS NOTED OTHERWISE.
17. SWITCHES IN PATIENT PREP/RECOVERY ROOMS AND IN PROCEDURE/OPERATING ROOMS SHALL BE LABELED WITH FUNCTIONAL DESCRIPTION. FINAL LABEL SHALL BE APPROVED BY OWNER PRIOR TO ORDERING.
18. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING FOR UNDERCOUNTER LUMINAIRES.

## KEY NOTES (X) (THIS SHEET)

1. MASTER OVERRIDE SWITCH FOR NIGHTTIME SHUTOFF OF ALL "A3E" AND "W1" LIGHT FIXTURES IN ALL PRE-OP AND RECOVERY BAYS.
2. DO NOT PENETRATE THIS ROOM WITH CONDUIT OR CABLING WHICH SERVES OTHER AREAS.
3. PROVIDE 3-BUTTON WALL-MOUNT DIGITAL OVERRIDE SWITCH TO INCLUDE 'ON', 'OFF', AND 'AUTO' MODE FOR EXTERIOR LIGHTING. ROUTE CIRCUIT THROUGH LIGHTING CONTROL PANEL 'LCP'.
4. CHAIN HANG FIXTURES AT 9'-0" AFF IN THIS SPACE. COORDINATE FINAL LOCATIONS WITH PIPING, DUCTWORK, EQUIPMENT, CABLE TRAY, AND ALL TRADES.
5. MASTER OVERRIDE SWITCH FOR LIGHT FIXTURES IN CORRESPONDING CORRIDOR.
6. MOUNT BANK OF SWITCHES ABOVE COUNTER AS INDICATED.
7. PROVIDE COVE LIGHTING AROUND SOFFIT PERIMETER AS INDICATED. CONTROL WITH ADJACENT CORRIDOR FIXTURES VIA LIGHTING CONTROL PANEL. REFER TO ARCHITECTURAL DRAWINGS FOR COVE DETAILS.
8. NOT USED.
9. REFER TO ARCHITECTURAL ELEVATIONS FOR HEIGHT AND LOCATION OF WALL MOUNTED LUMINAIRES.
10. LIGHT FIXTURES AND ASSOCIATED WIRING AND CONTROLS INDICATED BY THIS NOTE AND/OR WITHIN THIS DASHED BOUNDARY ARE INCLUDED AS PART OF THE SHELL BUILDING SCOPE.
11. COORDINATE FINAL MOUNTING LOCATIONS OF LIGHTING SWITCHES WITH STRYKER O.R. ROOM CONTROL TOUCH PANELS IN THIS ROOM. INSTALL SWITCHES IN CONSOLIDATED GROUP ADJACENT TO TOUCH PANELS.
12. MOUNT VANITY FIXTURES VERTICALLY ON EACH SIDE OF MIRROR. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS.
13. MOUNT VANITY FIXTURE HORIZONTALLY CENTERED 6" ABOVE MIRROR. REFER TO ARCHITECTURAL ELEVATIONS.
14. SUSPEND PENDANT AT 8'-0" AFF TO BOTTOM OF FIXTURE.
15. SUSPEND PENDANT AT 7'-0" AFF TO BOTTOM OF FIXTURE.

1 FIRST FLOOR LIGHTING PLAN OVERALL
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'




KEYPLAN

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| Checked By | JB, AP |

Revision

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|---|---|---|

E2.1

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FIRST FLOOR LIGHTING PLAN - OVERALL

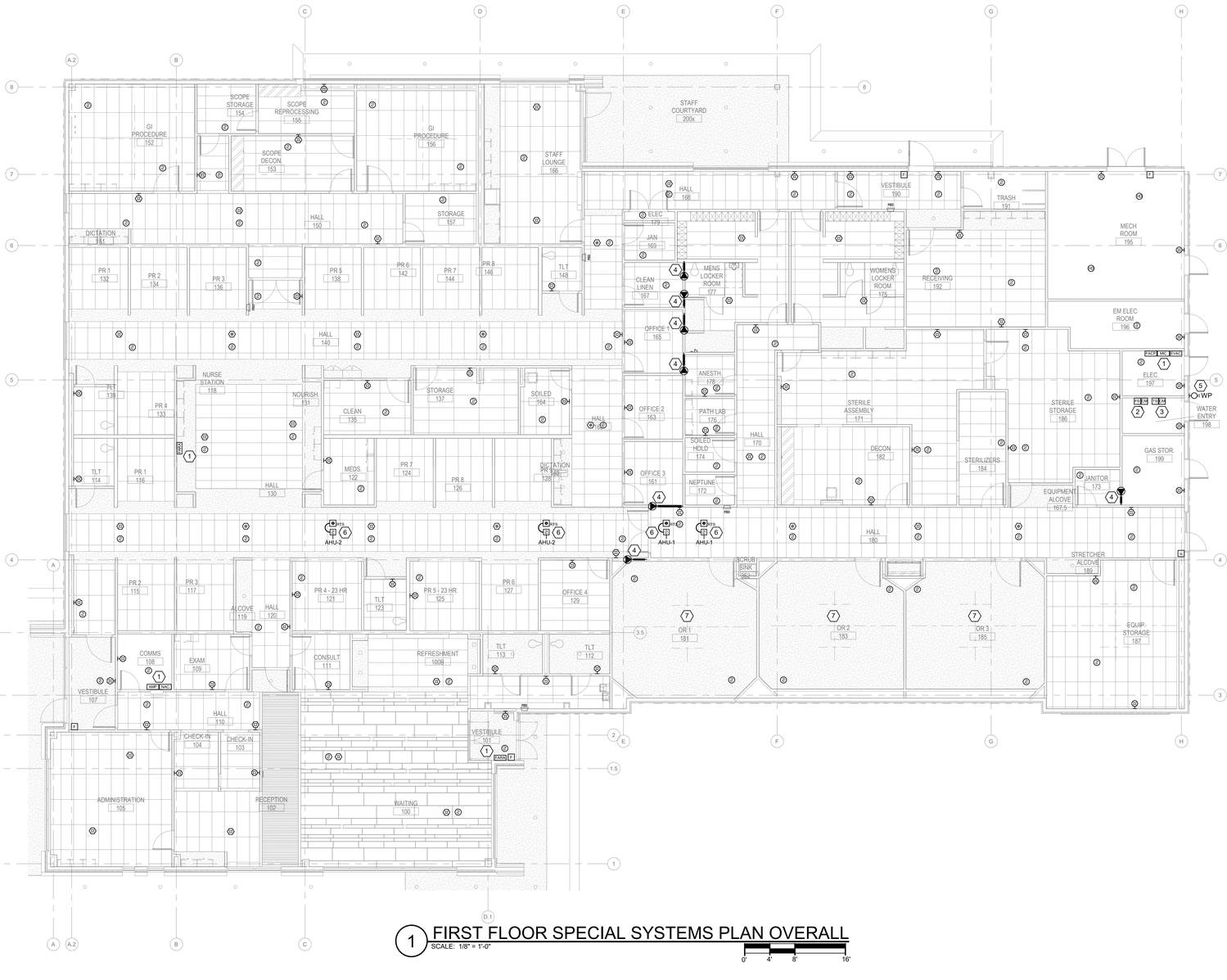
BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

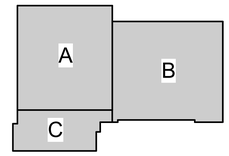
1. REFER TO SHEET E0.1 FOR ELECTRICAL SYMBOL LEGEND AND ADDITIONAL GENERAL NOTES. REFER TO SHEET E5.1 FOR FIRE ALARM RISER.
2. PROVIDE FIRE ALARM SYSTEM DEVICES, CONDUIT, WIRES, CABLES, AND ACCESSORIES AS DIRECTED BY FIRE ALARM EQUIPMENT MANUFACTURER. MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL MEET ADOPTED CODES. THE SYSTEM SHALL BE COMPLETE AND OPERATIONAL IN EVERY RESPECT. SITE SPECIFIC SHOP DRAWINGS SHALL INCLUDE A SINGLE LINE DIGRAM WHICH INDICATES DEVICES, CONDUIT, WIRES, CABLES, EQUIPMENT, AND ACCESSORIES TO BE USED. SITE SPECIFIC SHOP DRAWINGS SHALL BE STAMPED AND SIGNED BY A REGISTERED ENGINEER PROVIDED BY THE FIRE ALARM VENDOR. SYSTEM CALIBRATION AND TESTING SHALL BE BY FACTORY CERTIFIED TECHNICIAN.
3. PROVIDE CONNECTIONS AS REQUIRED TO POWERED DOORS TO ALLOW FREE EGRESS UPON ALARM CONDITIONS.

## KEY NOTES (X) (THIS SHEET)

1. PROVIDE EQUIPMENT FOR A FULLY FUNCTIONING VOICE EVACUATION SYSTEM. INCLUDE AS REQUIRED: POWER SUPPLIES FOR NACS, AMPLIFIERS FOR SPEAKER CIRCUITS, MICROPHONES, ANNUNCIATORS, AND FACP & EVAC PANELS, PROVIDING SLC/IDC, BUS/DATA, AND VOICE CAPABILITIES.
2. PROVIDE CONNECTION TO AND SUPERVISION OF THE PIV AS REQUIRED. VERIFY EXACT LOCATION WITH FIRE SUPPRESSION CONTRACTOR.
3. PROVIDE MODULES FOR SPRINKLER RISERS - WATERFLOW, TAMPER, PRESSURE/FLOW, AND HIGH/LOW AIR SWITCHES. TAMPER & HIGH/LOW AIR SWITCHES SHALL INITIATE SUPERVISORY SIGNAL. WATERFLOW & PRESSURE/FLOW SWITCHES SHALL INITIATE ALARM SIGNAL.
4. PROVIDE DETECTION DEVICES, MODULES, AND RELAYS AS REQUIRED TO CONTROL SMOKE DAMPERS UPON DETECTION OF SMOKE.
5. PROVIDE EXTERIOR HORN/STROBE ABOVE FDC. VERIFY FINAL LOCATION WITH FIRE SUPPRESSION CONTRACTOR. PROVIDE SUPERVISION OF POWER FROM WATERFLOW SWITCH PER NFPA 72.
6. PROVIDE DUCT DETECTOR AND CONNECTIONS TO ASSOCIATED AIR HANDLING UNIT TO SHUTDOWN THE UNIT UPON DETECTION OF SMOKE AND GLOBAL SHUTDOWN OF OTHER APPLICABLE UNITS. PROVIDE APPROPRIATE REMOTE TEST SWITCH FOR TESTING OF DETECTOR. INSTALL DEVICES ABOVE ACCESSIBLE CEILING.
7. DO NOT PENETRATE THIS ROOM WITH CONDUIT OR CABLING WHICH SERVES OTHER AREAS.




1 FIRST FLOOR SPECIAL SYSTEMS PLAN OVERALL
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'




KEYPLAN

ABHINAV PANDEY NUMBER PE-2018015824 PROFESSIONAL ENGINEER STATE OF MISSOURI
02/07/2023

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| Checked By | JB, AP |

Revision

| Number | Date | Description |
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E3.1

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FIRST FLOOR SPECIAL SYSTEMS PLAN - OVERALL

2/7/2023 9:47:46 PM

BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## GENERAL NOTES (THIS SHEET)

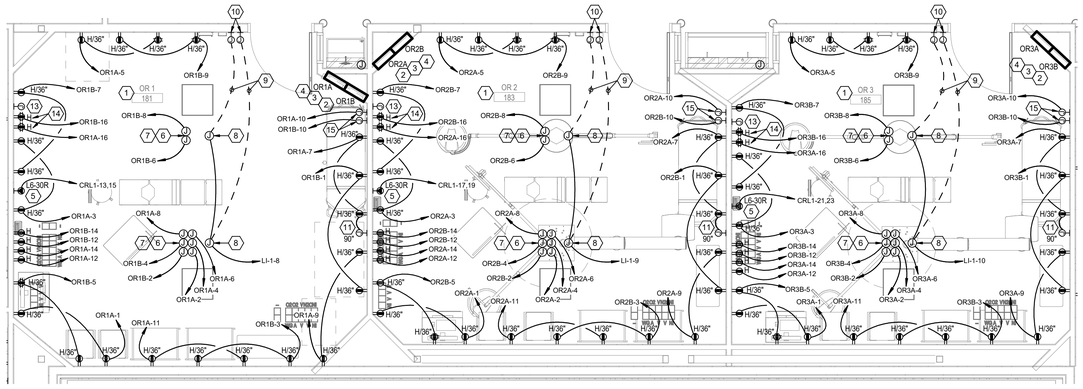
1. REFER TO SHEET E0.1 FOR ELECTRICAL SYMBOL LEGEND AND ADDITIONAL GENERAL NOTES.
2. INSTALLATION SHALL BE IN ACCORDANCE WITH O.R. EQUIPMENT MANUFACTURER'S (STERIS) APPROVED SITE-SPECIFIC SHOP DRAWINGS. CONTRACTOR SHALL COORDINATE SIZE, QUANTITY, AND LAYOUT OF MATERIALS AS REQUIRED TO COMPLY WITH THE MANUFACTURER'S REQUIREMENTS.

## KEY NOTES (X) (THIS SHEET)

1. RECEPTACLES IN THIS ROOM SHALL BE HOSPITAL GRADE. WALL MOUNTED RECEPTACLES IN THIS ROOM SHALL BE 3'-0" AFF TO CENTER, UNLESS NOTED OTHERWISE.
2. FLUSH MOUNT DUPLEX ISOLATION POWER PANELBOARD (TWO SEPARATE ISOLATION PANELS IN A SINGLE ENCLOSURE) WITH INTEGRAL LINE ISOLATION MONITOR. BASIS OF DESIGN IS BENDER 'MIX' SERIES ISOLATION PANEL. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
3. COORDINATE THE EXACT DIMENSIONS OF THE WALL FRAMING WITH THE ISOLATION PANEL MANUFACTURER'S APPROVED SHOP DRAWINGS. MECHANICAL PIPING OR DUCTS SHALL NOT BE ROUTED ABOVE THESE PANELS.
4. PROVIDE TWO 3/4" CONDUIT FROM EACH PANEL TO THE CEILING SPACE ABOVE FOR FUTURE USE. CAP WITH PULL STRING AND LABEL AS SPARE.
5. TYPE L6-30R RECEPTACLE, FLUSH MOUNTED, FOR PORTABLE O.R. LASER UNIT. PROVIDE (2)#10, #10G, 3/4"C. VERIFY RECEPTACLE CONFIGURATION WITH ACTUAL EQUIPMENT TO BE PROVIDED PRIOR TO ROUGH-IN, AND PROVIDE CONDUCTORS AS REQUIRED.
6. CONNECTIONS TO O.R. BOOM RECEPTACLES, ELECTRIC BRAKE, MONITORS, AND 120V ACCESSORIES. PROVIDE #12 AWG CONDUCTORS IN 1/2" CONDUIT FOR EACH CIRCUIT. FOR BOOM RECEPTACLES: CONNECT TWO, NON-ADJACENT RECEPTACLES PER CIRCUIT. PROVIDE SEPARATE COMPARTMENTS WITHIN THE BOOM ASSEMBLY TO SEPARATE THE CRITICAL BRANCH WIRING THAT IS SERVED FROM SEPARATE ISOLATION PANELS. BOOM RECEPTACLES SHALL BE HOSPITAL GRADE WITH FACE PLATES IDENTIFIED WITH THE PANEL AND CIRCUIT NUMBER FROM WHICH THEY ARE SERVED.
7. PROVIDE A #6 AWG INSULATED COPPER BONDING JUMPER FROM THE BOOM RACEWAY ENCLOSURE TO THE CONDUITS CONTAINING THE BRANCH CIRCUIT CONDUCTORS SERVING THE BOOM IN ORDER TO MAKE THE BOOM RACEWAY AN EFFECTIVE GROUND-FAULT CURRENT PATH.
8. CONNECTION TO BOOM SURGICAL LIGHT. BOND SURGICAL LIGHT HOUSING TO THE METALLIC CONDUIT SERVING THE FIXTURE. CONNECT TO 120V CRITICAL BRANCH VIA CENTRAL LIGHTING INVERTER CIRCUIT.
9. PROVIDE 3/4" CONDUIT FOR SURGICAL CONTROL WIRING PROVIDED BY SURGICAL LIGHT VENDOR. MAXIMUM LENGTH IS 25'.
10. PROVIDE BACKBOX AS REQUIRED FOR BOOM LIGHTING WALL CONTROL PANEL. COORDINATE EXACT LOCATION OF CONTROLLER AND ADDITIONAL REQUIREMENTS WITH BOOM VENDOR.
11. CONNECTION TO ELAPSED TIME CLOCK.
12. NOT USED.
13. PROVIDE 12"X12"X4" WALL MOUNTED JUNCTION BOX FOR INTEGRATION RACK. REFER TO E9 SERIES DRAWINGS FOR ADDITIONAL EQUIPMENT VENDOR REQUIREMENTS.
14. RECEPTACLES FOR INTEGRATION RACK. INSTALL PER EQUIPMENT VENDOR REQUIREMENTS.
15. CONNECTION TO STERIS LEVITON BOX. PROVIDE 24"X24"X6" JUNCTION BOX CEILING AT THIS LOCATION, AND WALL MOUNTED LEVITON BOX. REFER TO SITE-SPECIFIC SHOP DRAWINGS FOR ADDITIONAL EQUIPMENT VENDOR REQUIREMENTS.
16. CONNECTION TO PATIENT HEADWALL NORMAL BRANCH RECEPTACLES. SEE ASSOCIATED CIRCUIT SCHEDULE ON THIS SHEET FOR QUANTITY OF CIRCUITS.
17. CONNECTION TO PATIENT HEADWALL CRITICAL BRANCH RECEPTACLES. SEE ASSOCIATED CIRCUIT SCHEDULE ON THIS SHEET FOR QUANTITY OF CIRCUITS.
18. HOMERUN(S) TO PANELBOARD. SEE POWER PLAN (SHEET E1.1A) FOR PANELBOARD AND CIRCUIT NUMBERS.
19. RECEPTACLES PROVIDED ON PATIENT HEADWALL ARE NOT SHOWN ON THIS ENLARGED FLOOR PLAN. REFER TO ASSOCIATED HEADWALL ELEVATION AND SCHEDULE FOR RECEPTACLE QUANTITIES AND CIRCUIT INFORMATION. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT RECEPTACLE LOCATIONS AND DIMENSIONS.

## TYPICAL ELEVATION DEVICE LEGEND

| DEVICE SYMBOL | EQUIVALENT PLAN SYMBOL AS DEFINED ON LEGEND SHEET | DESCRIPTION |
|---|---|---|
| N# | | HOSPITAL GRADE NORMAL DUPLEX RECEPTACLE. ALPHA-NUMERIC SUBSCRIPT INDICATES CIRCUIT ID |
| C# | | HOSPITAL GRADE CRITICAL DUPLEX RECEPTACLE. ALPHA-NUMERIC SUBSCRIPT INDICATES CIRCUIT ID |



G2 ENLARGED O.R. 181, 183, 185
SCALE: 1/4" = 1'-0"

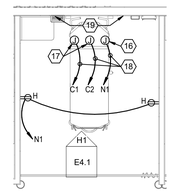



H1 HEADWALL ELEVATION TYPICAL RECOVERY ROOM
SCALE: 1/2" = 1'-0"

TYPICAL PATIENT RECOVERY ROOM
RECEPTACLE CONNECTION SCHEDULE

| CIRCUIT ID | DESCRIPTION | BRANCH | LOAD (VA) * |
|---|---|---|---|
| N1 | 120V RECEPTACLES | NORMAL | 720 |
| C1 | 120V RECEPTACLES | CRITICAL | 540 |
| C2 | 120V RECEPTACLES | CRITICAL | 540 |

* TYPICAL LOAD SERVED. SEE POWER PLANS FOR CIRCUIT NUMBERS IN EACH ROOM.




G1 ENLARGED TYPICAL RECOVERY ROOM
SCALE: 1/4" = 1'-0"

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E4.1

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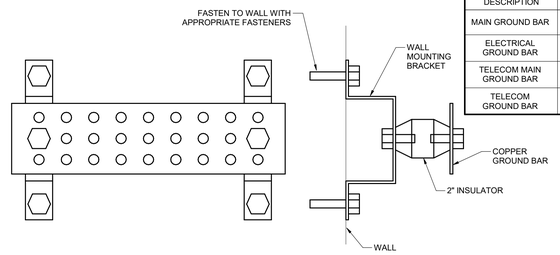
ENLARGED ELECTRICAL PLANS

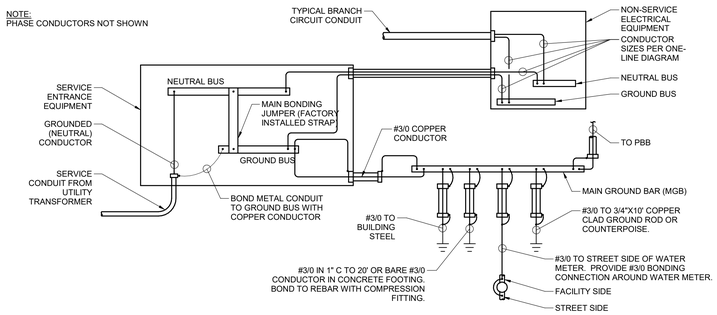
BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

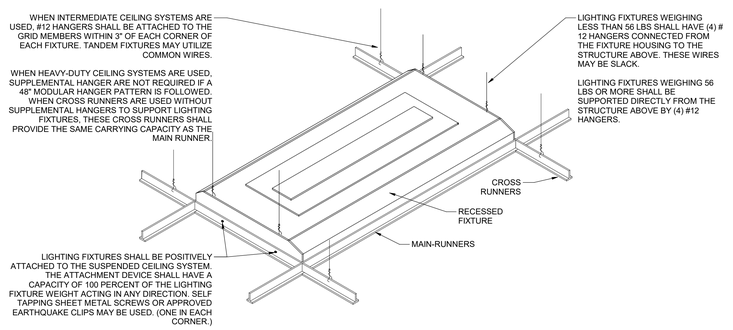
## GROUND BAR SCHEDULE

| DESCRIPTION | ID | SIZE | ERICO CAT. NO. |
|---|---|---|---|
| MAIN GROUND BAR | MGB | 24x4x1/4 | EGB-A-14-4-24-CCT |
| ELECTRICAL GROUND BAR | EGB | 12x4x1/4 | EGB-A-14-4-12-CCT |
| TELECOM MAIN GROUND BAR | PBB | 24x4x1/4 | TMGB-A-24-L33PT |
| TELECOM GROUND BAR | SBB | 12x4x1/4 | TMGB-A-12-L15PT |

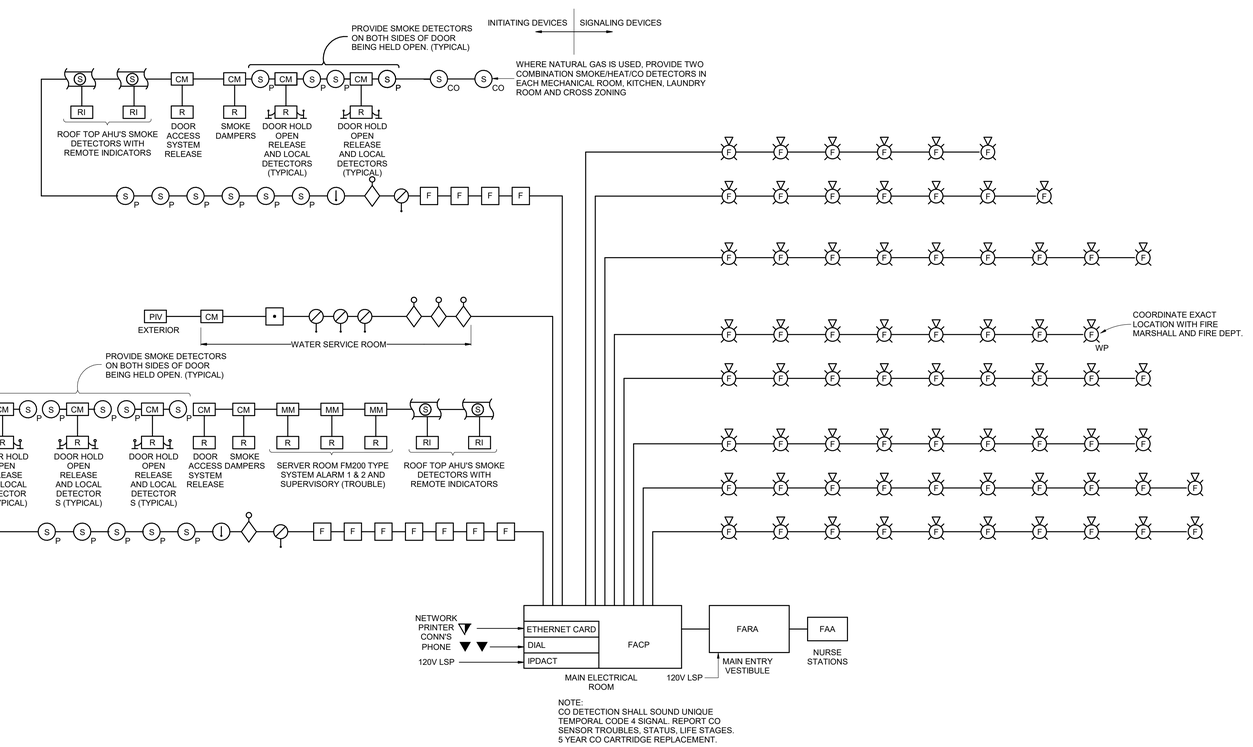



## D5 GROUND BAR
SCALE: NONE

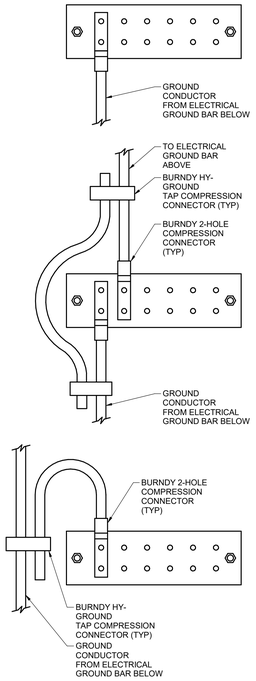



## D4 SERVICE ENTRANCE GROUNDING
SCALE: NONE




## D3 LAY-IN FIXTURE MOUNTING
SCALE: NONE




## D2 GROUND BAR CONNECTION
SCALE: NONE

## D1 FIRE ALARM RISER
SCALE: NONE

### GENERAL FIRE ALARM NOTES

1. PROVIDE FIRE ALARM SYSTEM EQUIPMENT THAT IS INDICATED ON THE RISER AND IN PLANS. REFER TO PLANS FOR ADDITIONAL LOCATIONS AND QUANTITIES.
2. WIRING SHALL BE IN CONDUIT.
3. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
4. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL AND STATE CODES AND ORDINANCES.
5. PROVIDE PERMITS AND INSPECTIONS REQUIRED.
6. GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE. DEFECTS SHALL BE PROMPTLY REMEDIED WITHOUT COST TO THE OWNER.
7. PROVIDE RECORD DRAWINGS TO ARCHITECT/ENGINEER. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, ALTERATIONS REROUTING, ETC.
8. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS INDICATE THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
9. PROVIDE DEVICES, CONDUIT, WIRES, AND CABLE AS DIRECTED BY THE EQUIPMENT MANUFACTURER. MATERIALS, AND WORKMANSHIP SHALL MEET PREVAILING CODES. THE SYSTEM SHALL BE COMPLETE AND OPERABLE IN EVERY RESPECT. SUBMIT SINGLE LINE DIAGRAM OF SYSTEM WITH SHOP DRAWINGS. THIS SINGLE LINE DIAGRAM SHALL SHOW DEVICES, CONDUIT, WIRE, CABLE SIZES, AND EQUIPMENT TO BE USED, AND SHALL BE STAMPED AND SIGNED BY STATE OR LOCAL FIRE DEPARTMENT AS APPLICABLE. SYSTEM CALIBRATION AND TESTING SHALL BE BY A FACTORY CERTIFIED TECHNICIAN.
10. SYSTEM SUPPLIER SHALL PROVIDE ALARM DEVICES WITH THE APPROPRIATE CANDELA AND DECIBEL RATINGS TO COMPLY WITH ADA REQUIREMENTS. PROVIDE ADDITIONAL DEVICES AS REQUIRED.
11. PROVIDE ADDITIONAL NOTIFICATION ALARM CIRCUIT POWER SUPPLIES AS REQUIRED. DOCUMENT POWER SUPPLY LOCATIONS AND PROTECT WITH A NEARBY SMOKE DETECTOR.
12. COORDINATE WITH SPRINKLER SYSTEM(S). PROVIDE TAMPER, FLOW, CONTROL, AND MONITOR DEVICES AS REQUIRED.
13. PATIENT ROOM SMOKE DETECTORS SHALL HAVE RELAY BASES AND PROVIDE INTERFACE WITH NURSE CALL SYSTEM. REFER TO 'BR' SUB SCRIPT ON SMOKE DETECTORS. DIRECT FROM SMOKE DETECTOR OR CONNECTED TO FACP RELAY BANK.
14. ANNUNCIATOR DISPLAY SHALL INCLUDE DESCRIPTIVE ROOM NAME AND LOCATION APPROVED BY ENGINEER / OWNER.
15. AUDIBLE DEVICE LOUDNESS SHALL BE ADJUSTABLE.
16. DOOR HOLD OPENS SHALL HAVE TIME OF DAY FUNCTION. SOME DOORS ARE TO BE RELEASED (CLOSED) IN THE EVENING AT A PROGRAMMABLE TIME.
17. IF SEPARATE DIGITAL DIALER IS PROVIDED IT SHALL BE INSTALLED IN ENGINEER OFFICE.

STATE OF MISSOURI
ABHINAV PANDEY
NUMBER PE-2018015824
PROFESSIONAL ENGINEER
02/07/2023

ACI BOLAND ARCHITECTS
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1508 Grand Boulevard
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913.951.8311

# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | AE |
| Checked By | JB, AP |

Revision

| Number | Date | Description |
|---|---|---|

E5.1

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ELECTRICAL DETAILS

BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

# AUTOMATIC TRANSFER SWITCH SCHEDULE

| ATS TAG | BRANCH | RATING | NUMBER OF POLES | VOLTAGE | SHORT CIRCUIT RATING (KA) | TRANSITION TYPE | BYPASS/ ISOLATION | LOAD PRIORITY | ENGINE START TIME DELAY | TRANSFER TO EMERGENCY TIME DELAY | RE-TRANSFER TO NORMAL TIME DELAY | LOAD SHED FEATURE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ATS-LS1 | LIFE SAFETY | 150A | 4 | 480V | 50 | OPEN | NO | 1 | 1 S | 0 S | 1800 S | NO | |
| ATS-CR1 | CRITICAL | 225A | 4 | 480V | 50 | OPEN | NO | 1 | 1 S | 0 S | 1800 S | NO | |
| ATS-CR2 | CRITICAL | 225A | 4 | 480V | 50 | OPEN | NO | 1 | 1 S | 0 S | 1800 S | NO | |
| ATS-EQ1 | EQUIPMENT | 400A | 4 | 480V | 50 | OPEN | NO | 2.1 | 1 S | 10 S | 1500 S | YES | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
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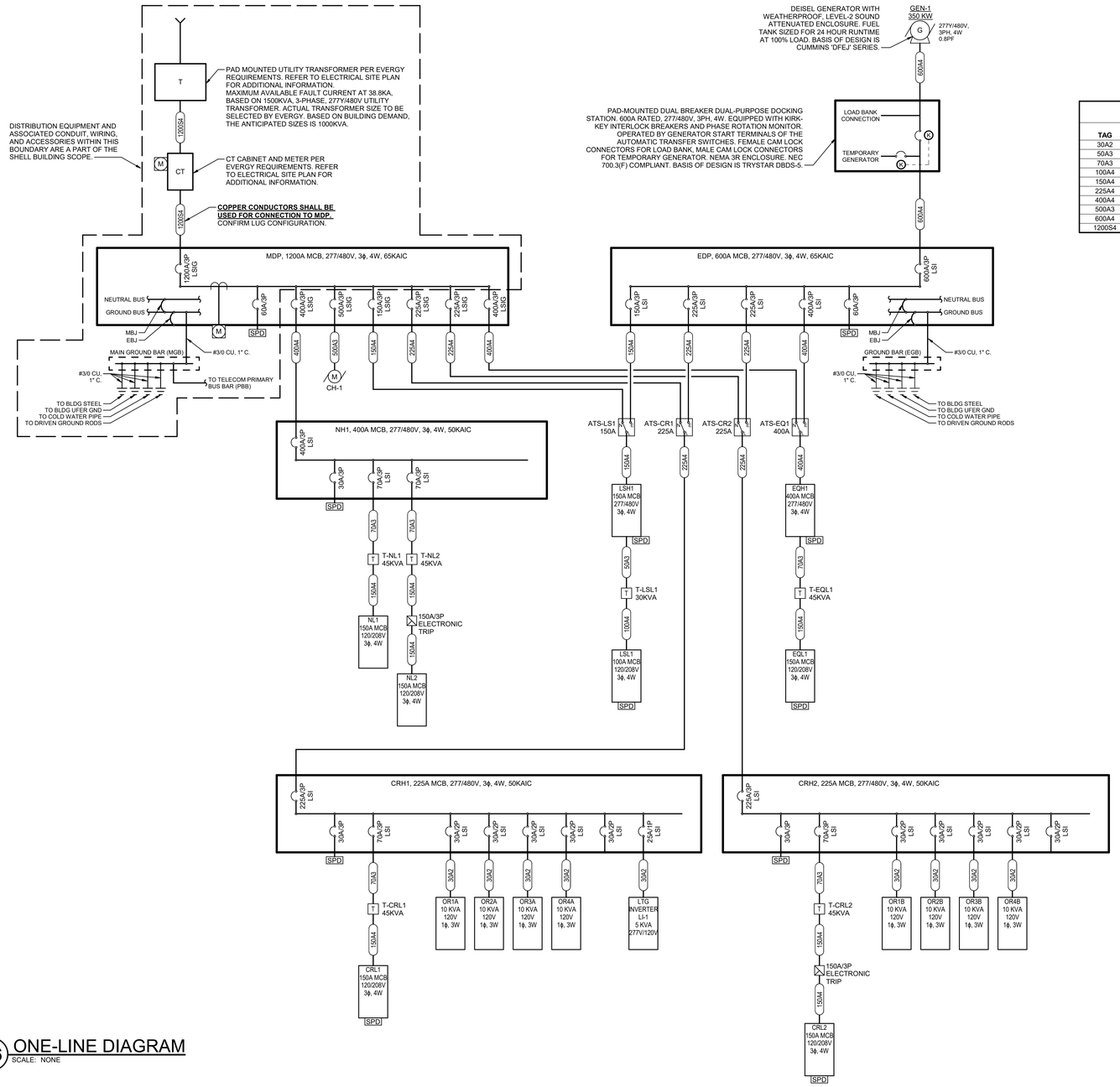


A6 ONE-LINE DIAGRAM
SCALE: NONE

## GENERAL NOTES (THIS SHEET)

1. REFER TO SHEET E0.1 FOR ELECTRICAL SYMBOL LEGEND AND ADDITIONAL GENERAL NOTES.
2. REFER TO ELECTRICAL PANEL SCHEDULES FOR QUANTITIES AND SIZES OF BREAKERS WITHIN EQUIPMENT, INCLUDING SPARES AND SPACES.
3. CLEAR, DETAILED, WRITTEN INSTRUCTION ARE TO BE PERMANENTLY ATTACHED TO THE GENERATOR DOCKING STATION AND THE ELECTRICAL GEAR WHICH IT SERVES.
4. REFER TO DIVISION 26 SPECIFICATIONS FOR INFORMATION ON WHERE ALUMINUM CONDUCTORS ARE ALLOWABLE.

# FEEDER SCHEDULE

| TAG | CU CONDUCTORS AND CONDUIT | AL (COMPACT STRANDED) CONDUCTORS AND CONDUIT |
|---|---|---|
| 30A2 | (2)#10, (1)#10 GND IN 1/2"C | N/A |
| 50A3 | (3)#6, (1)#10 GND IN 1"C | NA |
| 70A3 | (3)#4, (1)#8 GND IN 1 1/4"C | NA |
| 100A4 | (4)#2, (1)#8 GND IN 1 1/2"C | NA |
| 150A4 | (4)#1/0, (1)#6 GND IN 2"C | (4)#3/0, (1)#6 CU GND IN 2"C |
| 225A4 | (4)#4/0, (1)#4 GND IN 2 1/2"C | (4)350 KCMIL, (1)#4 CU GND IN 3"C |
| 400A4 | (4)600 KCMIL, (1)#3 GND IN 4"C | 2 SETS OF (4)300 KCMIL, (1)#1/0 GND IN 3"C |
| 500A3 | 2 SETS OF (3)#4/0, (1)#2 GND IN 2"C | 2 SET OF (3)350 KCMIL, (1)#1/0 GND IN 2 1/2"C |
| 600A4 | 2 SETS OF (4)400 KCMIL, (1)#1 GND IN 3"C | 2 SETS OF (4)600 KCMIL, (1)#3/0 GND IN 3 1/2"C |
| 1200S4 | 4 SETS OF (4)400 KCMIL IN 3"C | 4 SETS OF (4)600 KCMIL IN 3 1/2"C |


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ABHINAV PANDEY
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# Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
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| Checked By | JB, AP |

Revision

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|---|---|---|

E6.1

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ONE-LINE DIAGRAM

# MECH/ELEC EQUIPMENT COORDINATION SCHEDULE

ABBREVIATIONS

| | | | | | |
|---|---|---|---|---|---|
| C | COMBINATION STARTER AND SAFETY SWITCH | MC | MECHANICAL CONTRACTOR | S | SWITCH |
| CB | CIRCUIT BREAKER | N1 | NEMA 1 | SF | SWITCH WITH FUSTAT |
| CP | CONTROL PANEL | N3R | NEMA 3R | SS | SAFETY SWITCH |
| EC | ELECTICAL CONTRACTOR | N4X | NEMA 4X | VFD | VARIABLE FREQUENCY DRIVE |
| I | INTEGRAL WITH EQUIPMENT | NF | NON-FUSED | RCPT | RECEPTACLE |

| EQUIPMENT | | | ELECTRICAL SYSTEM | | | | DISCONNECT | | | CONTROLLER | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAG | DESCRIPTION | NAMEPLATE LOAD | VOLTAGE | PH | MINIMUM kAIC | FEEDER OR BRANCH CIRCUIT | PANEL - CKT | FURNISHED BY / INSTALLED BY | SIZE | TYPE | ENCLOSURE | FURNISHED BY / INSTALLED BY | TYPE | ENCLOSURE | REMARKS |
| AAP-1/2 | MED GAS ALARM PANEL | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | LSL1 - 5 | EC/EC | 20A | CB | - | - | | | |
| AAP-3/4 | MED GAS ALARM PANEL | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | LSL1 - 7 | EC/EC | 20A | CB | - | - | | | |
| AAP-5 | MED GAS ALARM PANEL | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | LSL1 - 9 | EC/EC | 20A | CB | - | - | | | |
| AAP-6 | MED GAS ALARM PANEL | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | LSL1 - 11 | EC/EC | 20A | CB | - | - | | | |
| AAP-7 | MED GAS ALARM PANEL | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | LSL1 - 13 | EC/EC | 20A | CB | - | - | | | |
| AAP-8 | MED GAS ALARM PANEL | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | LSL1 - 15 | EC/EC | 20A | CB | - | - | | | |
| AC-1 | AIR CURTAIN | 1/2 hp | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | NL1 - 20 | EC/EC | 20A | S | N1 | MC/MC | | | |
| AHU-1(R) | AIR HANDLING UNIT RETURN FANS | 24.8 MCA | 480 V | 3 | 10 | (3)#8, (1)#10G IN 3/4"C | EQH1 - 21,23,25 | EC/EC | 60A | SS | N3R | MC/MC | VFD | | |
| AHU-1(S) | AIR HANDLING UNIT SUPPLY FANS | 47.3 MCA | 480 V | 3 | 10 | (3)#6, (1)#10G IN 1"C | EQH1 - 13,15,17 | EC/EC | 60A | SS | N3R | MC/MC | VFD | | |
| AHU-1(U) | AIR HANDLING UNIT UV LIGHTS | 3.3 MCA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 36 | EC/EC | 20A | S | N3R | MC/MC | | | |
| AHU-1(X) | AIR HANDLING UNIT ACCESSORIES | 13.3 MCA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 38 | EC/EC | 20A | S | N3R | MC/MC | | | |
| AHU-2(C) | AIR HANDLING UNIT CDQ MOTOR | 0.4 MCA | 480 V | 3 | 10 | (3)#12, (1)#12G IN 3/4"C | EQH1 - 30,32,34 | EC/EC | 30A | SS | N3R | MC/MC | VFD | | |
| AHU-2(R) | AIR HANDLING UNIT RETURN FANS | 24.8 MCA | 480 V | 3 | 10 | (3)#8, (1)#10G IN 3/4"C | EQH1 - 22,24,26 | EC/EC | 60A | SS | N3R | MC/MC | VFD | | |
| AHU-2(S) | AIR HANDLING UNIT SUPPLY FANS | 47.3 MCA | 480 V | 3 | 10 | (3)#6, (1)#10G IN 1"C | EQH1 - 14,16,18 | EC/EC | 60A | SS | N3R | MC/MC | VFD | | |
| AHU-2(U) | AIR HANDLING UNIT UV LIGHTS | 3.3 MCA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 40 | EC/EC | 20A | S | N3R | MC/MC | | | |
| AHU-2(X) | AIR HANDLING UNIT ACCESSORIES | 13.3 MCA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 42 | EC/EC | 20A | S | N3R | MC/MC | | | |
| B-1 | HOT WATER BOILER | 4.5 FLA | 208 V | 3 | 5 | (3)#12, (1)#12G IN 3/4"C | EQL1 - 1,3,5 | EC/EC | 30A | SS | N1 | MC/MC | | | |
| B-2 | HOT WATER BOILER | 4.5 FLA | 208 V | 3 | 5 | (3)#12, (1)#12G IN 3/4"C | EQL1 - 2,4,6 | EC/EC | 30A | SS | N1 | MC/MC | | | |
| CH-1 | AIR-COOLED CHILLER | 399 MCA | 480 V | 3 | 65 | 2 SETS OF (3)#300 KCMIL, (1)#1G IN 2-1/2"C | MDP - 19,21,23 | EC/EC | 600A | SS | N3R | MC/MC | VFD | | |
| CP-1 | RECIRCULATION PUMP | 2 hp | 208 V | 3 | 5 | (3)#12, (1)#12G IN 3/4"C | EQL1 - 15,17,19 | EC/EC | 30A | SS | N1 | MC/MC | | | |
| CU-1 | SPLIT SYSTEM HEAT PUMP | 25.0 MCA | 208 V | 1 | 5 | (2)#10, (1)#10G IN 3/4"C | EQL1 - 20,22 | EC/EC | 30A | SS | N3R | MC/MC | | | |
| CU-2 | SPLIT SYSTEM HEAT PUMP | 25.0 MCA | 208 V | 1 | 5 | (2)#10, (1)#10G IN 3/4"C | NL1 - 41,43 | EC/EC | 30A | SS | N3R | MC/MC | | | |
| CU-3 | SPLIT SYSTEM HEAT PUMP | 25.0 MCA | 208 V | 1 | 5 | (2)#10, (1)#10G IN 3/4"C | NL1 - 45,47 | EC/EC | 30A | SS | N3R | MC/MC | | | |
| CU-4 | SPLIT SYSTEM HEAT PUMP | 25.0 MCA | 208 V | 1 | 5 | (2)#10, (1)#10G IN 3/4"C | NL1 - 49,51 | EC/EC | 30A | SS | N3R | MC/MC | | | |
| CU-5 | SPLIT SYSTEM HEAT PUMP | 25.0 MCA | 208 V | 1 | 5 | (2)#10, (1)#10G IN 3/4"C | NL1 - 53,55 | EC/EC | 30A | SS | N3R | MC/MC | | | |
| CUH-1 | CABINET UNIT HEATER | 5.8 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | NL2 - 57 | EC/EC | 20A | S | N1 | MC/MC | | | |
| CUH-2 | CABINET UNIT HEATER | 5.8 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | NL2 - 59 | EC/EC | 20A | S | N1 | MC/MC | | | |
| DI-1 | DEIONIZED WATER GENERATOR | - | 120 V | 1 | | | | EC/EC | - | RCPT | | | | | 2 |
| EF-1 | EXHAUST FAN | 1 hp | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 31 | EC/EC | 20A | S | N3R | MC/MC | | | |
| EF-2 | EXHAUST FAN | 1 hp | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 33 | EC/EC | 20A | S | N3R | MC/MC | | | |
| EF-3 | EXHAUST FAN | 1 hp | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 35 | EC/EC | 20A | S | N3R | MC/MC | | | |
| EF-4 | EXHAUST FAN | 1 hp | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 37 | EC/EC | 20A | S | N3R | MC/MC | | | |
| EF-5 | EXHAUST FAN | 1 hp | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 39 | EC/EC | 20A | S | N3R | MC/MC | | | |
| EUH-1 | ELECTRIC UNIT HEATER | 24.0 FLA | 208 V | 1 | 5 | (2)#10, (1)#10G IN 3/4"C | EQL1 - 16,18 | EC/EC | 30A | SS | N1 | MC/MC | | | |
| GT-1 | GLYCOL TANK | - | 120 V | 1 | | | | EC/EC | - | RCPT | - | - | | | 2 |
| GV | GAS SHUT-OFF VALVE | 0.5 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 27 | EC/EC | 20A | S | N1 | MC/MC | | | |
| GWH-1 | FUEL FIRED WATER HEATER | 3.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 21 | EC/EC | 20A | S | N1 | MC/MC | | | |
| GWH-2 | FUEL FIRED WATER HEATER | 3.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 23 | EC/EC | 20A | S | N1 | MC/MC | | | |
| HUM-1 | ELECTRIC STEAM HUMIDIFIER | 78.5 FLA | 480 V | 3 | 18 | (3)#2, (1)#8G IN 1-1/4"C | NH1 - 1,3,5 | EC/EC | 100A | SS | N3R | MC/MC | | | |
| HUM-2 | ELECTRIC STEAM HUMIDIFIER | 78.5 FLA | 480 V | 3 | 18 | (3)#2, (1)#8G IN 1-1/4"C | NH1 - 2,4,6 | EC/EC | 100A | SS | N3R | MC/MC | | | |
| HWP-1 | HEATING HOT WATER PUMP | 7.5 hp | 480 V | 3 | 5 | (3)#12, (1)#12G IN 3/4"C | EQH1 - 38,40,42 | EC/EC | 30A | VFD | N1 | MC/MC | | | |
| HWP-2 | HEATING HOT WATER PUMP | 7.5 hp | 480 V | 3 | 5 | (3)#12, (1)#12G IN 3/4"C | EQH1 - 44,46,48 | EC/EC | 30A | VFD | N1 | MC/MC | | | |
| MAC-1 | MEDICAL AIR COMPRESSOR | 6.0 FLA | 480 V | 3 | 5 | (3)#12, (1)#12G IN 3/4"C | EQH1 - 7,9,11 | EC/EC | 30A | SS | N1 | MC/MC | | | |
| MV-1 | MIXING VALVE | 0.5 FLA FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 43 | EC/EC | 20A | S | N1 | MC/MC | | | |
| MVP-1 | MEDICAL VACUUM PUMP | 25.0 FLA | 480 V | 3 | 10 | (3)#8, (1)#10G IN 3/4"C | EQH1 - 8,10,12 | EC/EC | 60A | SS | N1 | MC/MC | | | |
| PAC-1 | INSTRUMENT AIR COMPRESSOR | 27.0 FLA | 480 V | 3 | 10 | (3)#8, (1)#10G IN 3/4"C | EQH1 - 2,4,6 | EC/EC | 60A | SS | N1 | MC/MC | | | |
| PAP-1 | MED GAS ALARM PANEL | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | LSL1 - 1 | EC/EC | 20A | CB | - | - | | | |
| SAP-1 | MED GAS ALARM PANEL | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | LSL1 - 3 | EC/EC | 20A | CB | - | - | | | |
| SS-1 | SPLIT SYSTEM EVAPORATOR | 1.0 MCA | 208 V | 1 | 5 | (2)#12, (1)#12G IN 1"C | | | | | | | | | 1 |
| SS-2 | SPLIT SYSTEM EVAPORATOR | 1.0 MCA | 208 V | 1 | 5 | (2)#12, (1)#12G IN 1"C | | | | | | | | | 1 |
| SS-3 | SPLIT SYSTEM EVAPORATOR | 1.0 MCA | 208 V | 1 | 5 | (2)#12, (1)#12G IN 1"C | | | | | | | | | 1 |
| SS-4 | SPLIT SYSTEM EVAPORATOR | 1.0 MCA | 208 V | 1 | 5 | (2)#12, (1)#12G IN 1"C | | | | | | | | | 1 |
| SS-5 | SPLIT SYSTEM EVAPORATOR | 1.0 MCA | 208 V | 1 | 5 | (2)#12, (1)#12G IN 1"C | | | | | | | | | 1 |
| TP-2 (169) | TRAP PRIMER | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 59 | EC/EC | 20A | S | N1 | MC/MC | | | |
| TP-2 (171) | TRAP PRIMER | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 57 | EC/EC | 20A | S | N1 | MC/MC | | | |
| TP-2 (173) | TRAP PRIMER | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 57 | EC/EC | 20A | S | N1 | MC/MC | | | |
| TP-2 (175) | TRAP PRIMER | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 59 | EC/EC | 20A | S | N1 | MC/MC | | | |
| TP-2 (177) | TRAP PRIMER | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 59 | EC/EC | 20A | S | N1 | MC/MC | | | |
| TP-2 (182) | TRAP PRIMER | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 59 | EC/EC | 20A | S | N1 | MC/MC | | | |
| TP-2 (195) | TRAP PRIMER | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 57 | EC/EC | 20A | S | N1 | MC/MC | | | |
| TP-2 (198) | TRAP PRIMER | 2.0 FLA | 120 V | 1 | 5 | (2)#12, (1)#12G IN 1/2"C | EQL1 - 57 | EC/EC | 20A | S | N1 | MC/MC | | | |
| WS-1 | WATER SOFTENER | - | 120 V | 1 | | | | EC/EC | | RCPT | | | | | 2 |

**NOTES:**

a. VERIFY/COORDINATE RATINGS FOR EQUIPMENT SUPPLIED BY THE SELECTED MANUFACTURER. WHERE RATINGS ARE OTHER THAN AS REQUIRED FOR SPECIFIED UNIT, DISCONNECTS, MOTOR STARTERS, OVERCURRENT DEVICES AND RELATED REVISIONS SHALL BE PROVIDED ACCORDINGLY. THE CONTRACTOR THAT FURNISHES EQUIPMENT WITH RATINGS OTHER THAN AS NOTED SHALL BE RESPONSIBLE FOR COORDINATION AND COSTS FOR REVISIONS TO ACCOMMODATE SELECTED EQUIPMENT.
b. FRACTIONAL HORSEPOWER SINGLE PHASE MOTORS SHALL BE PROVIDED WITH INTEGRAL OVERLOAD PROTECTION.
c. DISCONNECTS SHALL BE FUSIBLE UNLESS NOTED OTHERWISE.
d. ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUIT TO EQUIPMENT AS INDICATED.
e. LOCATE DISCONNECT AT EQUIPMENT PER NEC UNLESS NOTED OTHERWISE.
f. EQUIPMENT IDs THAT END IN ".X" INDICATE THERE ARE MULTIPLE UNITS THAT ARE IDENTICAL AND PROVIDED ON THE PROJECT. SEE PLANS FOR THE UNIQUE SEQUENTIAL DESIGNATION.

**REMARKS:**

1. UNIT POWERED THROUGH ASSOCIATED CONDENSING UNIT.
2. REFER TO POWER PLANS FOR RECEPTACLE(S) AND CIRCUIT(S) WHICH SERVE THIS UNIT.

# TERMINAL BOX SCHEDULE

| Equipment Name | Panel | Circuit Number |
|---|---|---|
| TB-R-01 | EQL1 | 54 |
| TB-R-02 | EQL1 | 54 |
| TB-R-03 | EQL1 | 54 |
| TB-R-04 | EQL1 | 54 |
| | | |
| TB-2-01 | EQL1 | 56 |
| TB-2-02 | EQL1 | 56 |
| TB-2-03 | EQL1 | 56 |
| TB-2-04 | EQL1 | 56 |
| TB-2-05 | EQL1 | 56 |
| TB-2-06 | EQL1 | 56 |
| TB-2-07 | EQL1 | 56 |
| TB-2-08 | EQL1 | 56 |
| TB-2-09 | EQL1 | 56 |
| TB-2-10 | EQL1 | 56 |

**GENERAL NOTES:**

a. CONNECT 120V TERMINAL BOX CONTROL TRANSFORMER AND LOCAL DISCONNECT AS REQUIRED. DO NOT EXCEED TEN (10) TERMINAL BOXES PER CIRCUIT. COORDINATE WITH MECHANICAL CONTRACTOR AND CONTROLS VENDOR.

# TERMINAL BOX SCHEDULE

| Equipment Name | Panel | Circuit Number |
|---|---|---|
| | | |
| TB-1-01 | EQL1 | 58 |
| TB-1-02 | EQL1 | 58 |
| TB-1-03 | EQL1 | 58 |
| TB-1-04 | EQL1 | 58 |
| TB-1-05 | EQL1 | 58 |
| TB-1-06 | EQL1 | 58 |
| TB-1-07 | EQL1 | 58 |
| TB-1-08 | EQL1 | 58 |
| TB-1-09 | EQL1 | 58 |
| TB-1-10 | EQL1 | 58 |
| | | |
| TB-1-11 | EQL1 | 60 |
| TB-1-12 | EQL1 | 60 |
| TB-1-13 | EQL1 | 60 |
| TB-1-14 | EQL1 | 60 |
| TB-1-15 | EQL1 | 60 |
| TB-1-16 | EQL1 | 60 |
| TB-1-17 | EQL1 | 60 |
| TB-1-18 | EQL1 | 60 |
| TB-1-19 | EQL1 | 60 |
| TB-1-20 | EQL1 | 60 |

# LUMINAIRE SCHEDULE

BranchPattern
www.branchpattern.com
PROJECT NUMBER: 1201002
BETTER BUILT ENVIRONMENTS

| TAG | DESCRIPTION | MANUFACTURER OR APPROVED EQUIVALENT | CATALOG NUMBER OR APPROVED EQUIVALENT | SOURCE INFO | | | | INPUT VA | VOLTAGE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TYPE | LUMENS | COLOR | CRI | | | |
| A1 | 2X4 RECESSED LED LENSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH DIFFUSE ACRYLIC LENS. 0-10V DIMMING DRIVER. | LITHONIA (COLUMBIA, METALUX) | 2GTL-4-30L-GZ10-LP840 | LED | 3000 lm | 4000K | 80 | 24 VA | 277 V | |
| A2 | 2X2 RECESSED LED LENSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH DIFFUSE ACRYLIC LENS. 0-10V DIMMING DRIVER. | LITHONIA (COLUMBIA, METALUX) | 2GTL-2-20L-GZ10-LP840 | LED | 2200 lm | 4000K | 80 | 19 VA | 277 V | |
| A3 | 2X4 RECESSED LED LENSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH DIFFUSE ACRYLIC LENS. 0-10V DIMMING DRIVER. | LITHONIA (COLUMBIA, METALUX) | 2GTL-4-48L-GZ10-LP840 | LED | 4800 lm | 4000K | 80 | 36 VA | 277 V | |
| A3E | 2X4 RECESSED LED LENSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH DIFFUSE ACRYLIC LENS. 0-10V DIMMING DRIVER. 90-MINUTE EMERGENCY BATTERY BACKUP. | LITHONIA (COLUMBIA, METALUX) | 2GTL-4-48L-GZ10-LP840-EL14L | LED | 4800 lm | 4000K | 80 | 36 VA | 277 V | |
| A5 | 2X4 RECESSED LED LENSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH DIFFUSE ACRYLIC LENS. 0-10V DIMMING DRIVER. | LITHONIA (COLUMBIA, METALUX) | 2GTL-4-72L-GZ10-LP840 | LED | 7200 lm | 4000K | 80 | 54 VA | 277 V | |
| B1 | 2X4 RECESSED HIGH EFFICIENCY LED VOLUMETRIC TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH CENTER BASKET, DIFFUSE, SMOOTH ACRYLIC LENS. 0-10V DIMMING DRIVER. | LITHONIA (COLUMBIA, METALUX) | 2BLT4-30LHE-ADSM-EZ1-LP840 | LED | 3000 lm | 4000K | 80 | 23 VA | 277 V | |
| B2 | 2X4 RECESSED HIGH EFFICIENCY LED VOLUMETRIC TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH CENTER BASKET, DIFFUSE, SMOOTH ACRYLIC LENS. 0-10V DIMMING DRIVER. | LITHONIA (COLUMBIA, METALUX) | 2BLT4-40LHE-ADSM-EZ1-LP840 | LED | 4000 lm | 4000K | 80 | 30 VA | 277 V | |
| B3 | 2X4 RECESSED HIGH EFFICIENCY LED VOLUMETRIC TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH CENTER BASKET, DIFFUSE, SMOOTH ACRYLIC LENS. 0-10V DIMMING DRIVER. | LITHONIA (COLUMBIA, METALUX) | 2BLT4-48LHE-ADSM-EZ1-LP840 | LED | 4800 lm | 4000K | 80 | 35 VA | 277 V | |
| C1 | LED RIBBON COVE LIGHT WITH ALUMINUM CHANNEL WITH FLAT, DIFFUSE FROSTED LENS. DIRECT INPUT 277V AC. PROVIDE LENGTHS AS REQUIRED AS SHOWN ON LIGHTING PLANS. PROVIDE POWER FEEDS, JUMPERS, REMOTE DRIVERS, AND ACCESSORIES AS REQUIRED. 1.5 W/FT, 200 LUMEN/FT. | ACOLYTE | RB-90-SWS220-1.540 & CHAS3-F-SV | LED | | 4000K | 90 | | 277 V | |
| D1 | 4" DIAMETER RECESSED LED DOWNLIGHT. GALVANIZED STEEL HOUSING WITH ADJUSTABLE MOUNTING BARS, SERVICEABLE FROM BELOW CEILING. 0-10V DIMMING DRIVER. | GOTHAM (PRESCOLITE, PORTFOLIO) | EVO4-40/10-AR-WD-LSS-MVOLT-EZ1 | LED | 1000 lm | 4000K | 85 | 9 VA | 277 V | |
| D4 | 4" DIAMETER RECESSED LED DOWNLIGHT. GALVANIZED STEEL HOUSING WITH ADJUSTABLE MOUNTING BARS, SERVICEABLE FROM BELOW CEILING. NARROW BEAM DISTRIBUTION. 0-10V DIMMING DRIVER. | GOTHAM (PRESCOLITE, PORTFOLIO) | EVO4-40/15-AR-ND-LSS-MVOLT-EZ1 | LED | 1500 lm | 4000K | 85 | 15 VA | 277 V | |
| D5 | 6" DIAMETER RECESSED LED DOWNLIGHT. GALVANIZED STEEL HOUSING WITH ADJUSTABLE MOUNTING BARS, SERVICEABLE FROM BELOW CEILING. 0-10V DIMMING DRIVER. | GOTHAM (PRESCOLITE, PORTFOLIO) | EVO6-40/20-AR-WD-LSS-MVOLT-GZ10 | LED | 2000 lm | 4000K | 85 | 20 VA | 277 V | |
| D8 | 4" DIAMETER RECESSED LED SHOWER-RATED DOWNLIGHT. NON-CONDUCTIVE DEAD FRONT TRIM. IP66 RATED ROOM SIDE. WET LOCATION LISTED. GALVANIZED STEEL HOUSING WITH ADJUSTABLE MOUNTING BARS, SERVICEABLE FROM BELOW CEILING. 0-10V DIMMING DRIVER. | GOTHAM | EVO4SH-40/15-DFF-SMO-MVOLT-EZ10 | LED | 1300 lm | 4000K | 85 | 14 VA | 277 V | |
| D9 | 6" SQUARE RECESSED LED DOWNLIGHT. GALVANIZED STEEL HOUSING WITH ADJUSTABLE MOUNTING BARS, SERVICEABLE FROM BELOW CEILING. 0-10V DIMMING DRIVER. | GOTHAM (PRESCOLITE, PORTFOLIO) | EVO6SQ-40/20-AR-FL-LSS-MVOLT-EZ1 | LED | 2000 lm | 4000K | 85 | 20 VA | 277 V | |
| D10 | 6" SQUARE RECESSED LED DOWNLIGHT. GALVANIZED STEEL HOUSING WITH ADJUSTABLE MOUNTING BARS, SERVICEABLE FROM BELOW CEILING. 0-10V DIMMING DRIVER. | GOTHAM (PRESCOLITE, PORTFOLIO) | EVO6SQ-40/07-AR-FL-LSS-MVOLT-EZ1 | LED | 750 lm | 4000K | 85 | 8 VA | 277 V | |
| DA2 | 4.5" SQUARE RECESSED LED DOWNLIGHT FOR USE WITH 6" ARMSTRONG CEILING SYSTEM. CONFIRM CEILING SYSTEM TYPE WITH ARCHITECT PRIOR TO ORDERING FIXTURES. CONFIRM FIXTURE FINISHES WITH ARCHITECT PRIOR TO ORDERING. | USAI | B4SDTZ-24C3-40KS-90-S-GW-GW-NCSM-UNV-D6E | LED | 2000 lm | 4000K | 80 | 24 VA | 277 V | |
| DA3 | 3" SQUARE RECESSED LED DOWNLIGHT FOR USE WITH HORIZONTAL WOOD SLAT ARMSTRONG CEILING SYSTEM. CONFIRM CEILING SYSTEM TYPE WITH ARCHITECT PRIOR TO ORDERING FIXTURES. CONFIRM FIXTURE FINISHES WITH ARCHITECT PRIOR TO ORDERING. | USAI | B3SCM-20X3-40KS-50-S-WH-BL-NC1-SB-UNV-D6E | LED | 1400 lm | 4000K | 80 | 20 VA | 277 V | |
| H1 | 48" LED INDUSTRIAL STRIP FIXTURE. COLD-ROLLED STEEL HOUSING WITH SNAP-ON FROSTED, DIFFUSE LENS. | LITHONIA (COLUMBIA, METALUX) | ZL1N-L48-5000LM-FST-MVOLT-40K-80CRI-WH | LED | 5000 lm | 4000K | 80 | 34 VA | 277 V | |
| H1E | 48" LED INDUSTRIAL STRIP FIXTURE. COLD-ROLLED STEEL HOUSING WITH SNAP-ON FROSTED, DIFFUSE LENS. 90-MINUTE EMERGENCY BATTERY BACKUP. | LITHONIA (COLUMBIA, METALUX) | ZL1N-L48-5000LM-FST-MVOLT-40K-80CRI-E10WLCP-WH | LED | 5000 lm | 4000K | 80 | 34 VA | 277 V | |
| M1 | 2X4 RECESSED LED SURGICAL TROFFER. ANTIMICROBIAL FINISH. INSET-STYLE DOORFRAME WITH CLOSED-CELL SILICONE GASKET. SYMMETRIC/ASYMMETRIC DIFFUSE ACRYLIC LENS. UL WET LOCATION LISTED. IP65 RATED. 0-10V DIMMING DRIVER. | KENALL (KURTZON, HEALTHCARE LIGHTING) | M4SEDI-24-100L-40K9-DCC-277-2F-2H-ASYM | LED | 12000 lm | 4000K | 90 | 114 VA | 277 V | |
| M2 | 1X4 RECESSED LED SURGICAL TROFFER. ANTIMICROBIAL FINISH. INSET-STYLE DOORFRAME WITH CLOSED-CELL SILICONE GASKET. SYMMETRIC DIFFUSE ACRYLIC LENS. UL WET LOCATION LISTED. IP65 RATED. 0-10V DIMMING DRIVER WITH SMO-TO-DARK CAPABILITY. | KENALL (KURTZON, HEALTHCARE LIGHTING) | M4SEDI-14-76L-40K9-DCC-277-2F-2H-SYM | LED | 7600 lm | 4000K | 90 | 85 VA | 277 V | |
| P3 | DECORATIVE LED PENDANT. 13.5" DIAMETER GLOBE GLASS SHADE. SMOKE FINISH GLASS WITH SATIN NICKEL HARDWARE. INTEGRAL DIM-TO-WARM LED. 6' FIELD-CUTTABLE CABLE. | TECH LIGHTING | 700-TD-PLNP-K-S-LEDWD | LED | 680 lm | 3000K | 90 | 10 VA | 120 V | 1 |
| P4 | DECORATIVE LED PENDANT. 32" DIAMETER, EXTRUDED AND ROLLED RECTANGULAR ALUMINUM LOOP WITH FLEXIBLE SILICONE DIFFUSER. | KUZCO LIGHTING | PD11132-BK | LED | 4500 lm | 3000K | 90 | 60 VA | 120 V | 1 |
| SW1 | EXTERIOR WALL MOUNTED LED SCONCE. DIE-CAST ALUMINUM HOUSING WITH VISUAL COMFORT, WIDE THROW OPTICS. POWDER COAT FINISH, IP66 RATED, WET LOCATION LISTED. FULLY CUTOFF, ZERO UPLIGHT. ARCHITECT TO CONFIRM FINISH PRIOR TO ORDERING. | LITHONIA (HUBBELL) | WDGE2-P5-40K-80CRI-VW-MVOLT-DDBXD | LED | 6000 lm | 4000K | 80 | 48 VA | 277 V | |
| SW1E | EXTERIOR WALL MOUNTED LED SCONCE. DIE-CAST ALUMINUM HOUSING WITH VISUAL COMFORT, WIDE THROW OPTICS. POWDER COAT FINISH, IP66 RATED, WET LOCATION LISTED. FULLY CUTOFF, ZERO UPLIGHT. 90-MINUTE EMERGENCY BATTERY BACKUP. ARCHITECT TO CONFIRM FINISH PRIOR TO ORDERING. | LITHONIA (HUBBELL) | WDGE2-P5-40K-80CRI-VW-MVOLT-E20WH-DDBXD | LED | 6000 lm | 4000K | 80 | 48 VA | 277 V | |
| UC1 | 18" LENGTH, LED UNDERCABINET FIXTURE. EXTRUDED ALUMINUM HOUSING WITH ANTIMICROBIAL FINISH. EXTRUDED, FROSTED ACRYLIC LENS. CLOSED-CELL EPDM GASKET SEALS BETWEEN LENS AND END CAPS. | KENALL (FAIL-SAFE) | MAUCLED-I-MW-11L40K-18-277 | LED | 1200 lm | 4000K | 80 | 15 VA | 277 V | |
| UC2 | 24" LENGTH, LED UNDERCABINET FIXTURE. EXTRUDED ALUMINUM HOUSING WITH ANTIMICROBIAL FINISH. EXTRUDED, FROSTED ACRYLIC LENS. CLOSED-CELL EPDM GASKET SEALS BETWEEN LENS AND END CAPS. | KENALL (FAIL-SAFE) | MAUCLED-I-MW-11L40K-24-277 | LED | 1300 lm | 4000K | 80 | 15 VA | 277 V | |
| W1 | 48" WALL MOUNTED LED PATIENT HEADWALL FIXTURE. DIRECT/INDIRECT DISTRIBUTION, AMBIENT AND READING MODES. SEPARATELY CONTROLLED UP/DOWN LED COMPARTMENTS. ALUMINUM HOUSING WITH ANTIMICROBIAL FINISH, AND UV-STABILIZED FROSTED ACRYLIC LENS. 0-10V DIMMING DRIVER. | KENALL (FAIL-SAFE) | MPWUD-48-MW-1/1-45L-40K8-DIM1-DV | LED | 11000 lm | 4000K | 82 | 93 VA | 277 V | |
| W9 | CONTEMPORARY LED VANITY LIGHT. BRONZE FINISH WITH RECTANGULAR WHITE GLASS SHADE. | TECH LIGHTING | 700BCMET-Z-930-277 | LED | 1150 lm | 3000K | 90 | 25 VA | 277 V | 1 |
| X1 | UNIVERSAL MOUNT LED EDGE-LIT EXIT SIGN. MINIMUM 90-MINUTE BATTERY BACKUP. ACRYLIC PANELS WITH GREEN LETTERING. UL924 LISTED. REFERENCE LIGHTING PLANS FOR LOCATIONS, NUMBER OF FACES, AND DIRECTIONAL CHEVRONS. | LITHONIA (DUAL-LITE, SURE-LITES) | EDG/EDGR-1/2-G/GMR-EL | LED | | | | 3 VA | 277 V | 2 |

**NOTES:**

a. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LUMINAIRES.
b. CONTRACTOR TO VERIFY LUMINAIRE CATALOG NUMBER AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING.
c. LISTED ALTERNATE MANUFACTURERS ARE PERMITTED TO BID AN EQUIVALENT LUMINAIRE WHICH COMPLIES WITH THE PRODUCT REQUIREMENTS IDENTIFIED IN THIS SCHEDULE AND THE SPECIFICATIONS WITHOUT SUBMITTING A PRIOR APPROVAL REQUEST. ALTERNATE LUMINAIRES WILL BE REVIEWED DURING THE SUBMITTAL PROCESS AND THE MANUFACTURER WILL BE RESPONSIBLE TO PROVIDE A LUMINAIRE WHICH MEETS THE PRODUCT REQUIREMENTS. WHERE AN ALTERNATE MANUFACTURER IS NOT LISTED, A PRIOR APPROVAL REQUEST MUST BE SUBMITTED IN ACCORDANCE WITH THE SPECIFICATIONS IN ORDER TO BID THAT MANUFACTURER'S PRODUCT.
d. PROVIDE VIBRATION DAMPER IN POLE FIXTURES GREATER THAN 10'.
e. GALVANIZE THE INTERIOR AND EXTERIOR OF POLES. PRIME AND PAINT EXTERIOR WITH A MINIMUM OF 3 MILS OF TGIC POWDERS.
f. REMOVE PLASTIC WRAP FROM POLES ONCE RECEIVED ON SITE. STORE POLES OUT OF STANDING WATER OR VEGETATION.

**REMARKS:**

1. ALTERNATE FIXTURES ARE NOT ACCEPTABLE.
2. PROVIDE DIRECTIONAL ARROWS AS SHOWN ON PLANS, AND PROVIDE MOUNTING AS SHOWN ON PLANS.

# LIGHTING CONTROL PANEL SCHEDULE

| LCP NAME | LCP RELAY NUMBER | LIGHTING CONTROL | MANUAL CONTROL | OCCUPANCY SENSOR | VACANCY SENSOR | DAYLIGHT SENSOR | TIMECLOCK/ PHOTOCELL | SENSOR MOUNTING | SENSOR TIMEOUT (MIN.) | PROGRAMMING NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| LCP | 1 | WAITING 100, VESTIBULE 101, VESTIBULE 107, HALL 110 | NONE | Yes | No | Yes | No | CEILING | 20 | BUILDING SCHEDULE ON/OFF, ON/OFF OVERRIDE WITH 24 HR SWEEPS & FLICKER WARNING. |
| LCP | 2 | HALL 120, HALL 130, HALL 140, HALL 160 | SWITCH | Yes | No | No | No | CEILING | 20 | BUILDING SCHEDULE ON/OFF, ON/OFF OVERRIDE WITH 24 HR SWEEPS & FLICKER W

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## Distribution Panel: MDP

**Location:** ELEC 197 | **Volts:** 480Y/277V | **K.A.I.C. Rating:** 65
**Supply From:** | **Phases:** 3 | **Mains Type:** MCB
**Mounting:** SURFACE | **Wires:** 4 | **Mains / Design Rating:** 1200 A
**Enclosure:** Type 1 | **Bus Rating:** 1200 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | 4,023 | 0 | | | | | | | | | 2 | |
| | 3 | ATS-LS1 | Other; Spare; R; E; L | 150 A | 3 | | | 4,287 | 0 | | | 3 | 60 A | -- | SURGE PROTECTION DEVICE (SPD) | 4 | |
| | 5 | | | | | | | | | 3,703 | 0 | | | | | 6 | |
| | 7 | | | | | 12,688 | 21,576 | | | | | | | | | 8 | |
| | 9 | ATS-CR1 | Spare; R; E; L | 225 A | 3 | | | 10,726 | 17,580 | | | 3 | 225 A | Spare; R; E; L | ATS-CR2 | 10 | |
| | 11 | | | | | | | | | 12,883 | 18,480 | | | | | 12 | |
| | 13 | | | | | 100,0... | 111,4... | | | | | | | | | 14 | |
| | 15 | ATS-EQ1 | Spare; R; E; M | 400 A | 3 | | | 101,7... | 111,0... | | | 3 | 400 A | Spare; R; E; L | NH1 | 16 | |
| | 17 | | | | | | | | | 100,2... | 112,5... | | | | | 18 | |
| | 19 | | | | | 72,333 | -- | | | | | | | | | 20 | |
| | 21 | CHILLER CH-1 | M | 500 A | 3 | | | 72,333 | -- | | | 3 | -- | -- | BUSSED SPACE | 22 | |
| | 23 | | | | | | | | | 72,333 | -- | | | | | 24 | |
| | 25 | | | | | -- | -- | | | | | | | | | 26 | |
| | 27 | BUSSED SPACE | -- | -- | 3 | | | -- | -- | | | 3 | -- | -- | BUSSED SPACE | 28 | |
| | 29 | | | | | | | | | -- | -- | | | | | 30 | |
| | 31 | | | | | -- | -- | | | | | | | | | 32 | |
| | 33 | BUSSED SPACE | -- | -- | 3 | | | -- | -- | | | 3 | -- | -- | BUSSED SPACE | 34 | |
| | 35 | | | | | | | | | -- | -- | | | | | 36 | |
| | 37 | | | | | -- | -- | | | | | | | | | 38 | |
| | 39 | BUSSED SPACE | -- | -- | 3 | | | -- | -- | | | 3 | -- | -- | BUSSED SPACE | 40 | |
| | 41 | | | | | | | | | -- | -- | | | | | 42 | |
| | | | | **Total Load:** | | 322,089 VA | | 317,805 VA | | 320,211 VA | | | | | | | |
| | | | | **Total Amps:** | | 1164 A | | 1147 A | | 1157 A | | | | | | | |

| Load Classification | | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 17,042 VA | 125.00% | 21,303 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 99 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 10,000 VA | 100% | 10,000 VA | 100 % B-C |
| | 145,660 VA | Remaining | 135,660 VA | 50% | 67,830 VA | 100 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 393,600 VA | Remaining | 393,600 VA | 100.00% | 393,600 VA | |
| E | Equipment | | 403,660 VA | 80.00% | 322,928 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Notes:**

**Panel Totals**
**Connected Load (VA):** 960,106 VA
**NEC Demand Load (VA):** 815,805 VA
**Connected Load (A):** 1155 A
**NEC Demand Load (A):** 981 A
**Spare Capacity (A):** 219 A
**Spare Capacity (%):** 18

## Branch Panel: NH1

**Location:** ELEC 197 | **Volts:** 480Y/277V | **K.A.I.C. Rating:** 65
**Supply From:** MDP | **Phases:** 3 | **Mains Type:** MCB
**Mounting:** SURFACE | **Wires:** 4 | **Mains / Design Rating:** 400 A
**Enclosure:** Type 1 | **Bus Rating:** 400 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | 21,767 | 21,767 | | | | | | | | | 2 | |
| | 3 | HUM-1 | E | 100 A | 3 | | | 21,767 | 21,767 | | | 3 | 100 A | E | HUM-2 | 4 | |
| | 5 | | | | | | | | | 21,767 | 21,767 | | | | | 6 | |
| | 7 | | | | | 15,730 | 14,140 | | | | | | | | | 8 | |
| | 9 | T-NL1 | Spare; R; E; L | 70 A | 3 | | | 15,220 | 14,320 | | | 3 | 70 A | R; E | T-NL2 | 10 | |
| | 11 | | | | | | | | | 15,820 | 14,660 | | | | | 12 | |
| | 13 | | | | | 16,000 | 16,000 | | | | | | | | | 14 | |
| ST | 15 | STERILIZER STEAM GEN. | E | 80 A | 3 | | | 16,000 | 16,000 | | | 3 | 80 A | E | STERILIZER STEAM GEN. | 16 | ST |
| | 17 | | | | | | | | | 16,000 | 16,000 | | | | | 18 | |
| | 19 | SPACE FOR SHUNT TRIP | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | SPACE FOR SHUNT TRIP | 20 | |
| | 21 | | | | | | | 2,000 | 2,000 | | | | | | | 22 | |
| ST | 23 | STERILIZER POWER | E | 20 A | 3 | | | | | 2,000 | 2,000 | 3 | 20 A | E | STERILIZER POWER | 24 | ST |
| | 25 | | | | | 2,000 | 2,000 | | | | | | | | | 26 | |
| | 27 | SPACE FOR SHUNT TRIP | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | SPACE FOR SHUNT TRIP | 28 | |
| | 29 | | | | | | | | | 0 | 0 | | | | | 30 | |
| | 31 | SPARE | -- | 60 A | 3 | 0 | 0 | | | | | 3 | 60 A | -- | SPARE | 32 | |
| | 33 | | | | | | | 0 | 0 | | | | | | | 34 | |
| | 35 | LTG: PARKING LOT NORTH | L | 20 A | 1 | | | | | 1,105 | 0 | 1 | 20 A | -- | SPARE | 36 | |
| | 37 | LTG: PARKING LOT SOUTH | L | 20 A | 1 | 1,105 | 0 | | | | | 1 | 20 A | -- | SPARE | 38 | |
| | 39 | LTG: OR & STAFF SUPPORT | L | 20 A | 1 | | | 1,499 | 0 | | | 1 | 20 A | -- | SPARE | 40 | |
| | 41 | LTG: PREP/RECOVERY & GI | L | 20 A | 1 | | | | | 1,217 | 0 | 1 | 20 A | -- | SPARE | 42 | |
| | 43 | LTG: LOBBY & ADMIN | L | 20 A | 1 | 894 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 44 | |
| | 45 | LTG: MAIN ENTRY... | L | 20 A | 1 | | | 520 | -- | | | 1 | -- | -- | BUSSED SPACE | 46 | |
| | 47 | LTG: COURTYARD &... | L | 20 A | 1 | | | | | 240 | -- | 1 | -- | -- | BUSSED SPACE | 48 | |
| | 49 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 50 | |
| | 51 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 52 | |
| | 53 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 54 | |
| | 55 | BUSSED SPACE | -- | -- | 1 | -- | 0 | | | | | | | | | 56 | |
| | 57 | BUSSED SPACE | -- | -- | 1 | | | -- | 0 | | | 3 | 30 A | -- | SURGE PROTECTION DEVICE (SPD) | 58 | |
| | 59 | BUSSED SPACE | -- | -- | 1 | | | | | -- | 0 | | | | | 60 | |
| | | | | **Total Load:** | | 111,402 VA | | 111,092 VA | | 112,575 VA | | | | | | | |
| | | | | **Total Amps:** | | 402 A | | 401 A | | 407 A | | | | | | | |

| Load Classification | | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 6,670 VA | 125.00% | 8,338 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 100 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 10,000 VA | 100% | 10,000 VA | 99 % B-C |
| | 56,500 VA | Remaining | 46,500 VA | 50% | 23,250 VA | 99 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 0 VA | Remaining | 0 VA | 0.00% | 0 VA | |
| E | Equipment | | 271,900 VA | 80.00% | 217,520 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Notes:**
ST - PROVIDE COMPONENTS FOR SHUNT TRIP BREAKER

**Panel Totals**
**Connected Load (VA):** 335,070 VA
**NEC Demand Load (VA):** 259,108 VA
**Connected Load (A):** 403 A
**NEC Demand Load (A):** 312 A
**Spare Capacity (A):** 88 A
**Spare Capacity (%):** 22

## Distribution Panel: EDP

**Location:** EM ELEC ROOM 196 | **Volts:** 480Y/277V | **K.A.I.C. Rating:** 65
**Supply From:** | **Phases:** 3 | **Mains Type:** MCB
**Mounting:** SURFACE | **Wires:** 4 | **Mains / Design Rating:** 600 A
**Enclosure:** Type 1 | **Bus Rating:** 600 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | 4,023 | 0 | | | | | | | | | 2 | |
| | 3 | ATS-LS1 | Other; Spare; R; E; L | 150 A | 3 | | | 4,287 | 0 | | | 3 | 60 A | -- | SURGE PROTECTION DEVICE (SPD) | 4 | |
| | 5 | | | | | | | | | 3,703 | 0 | | | | | 6 | |
| | 7 | | | | | 12,688 | 21,576 | | | | | | | | | 8 | |
| | 9 | ATS-CR1 | Spare; R; E; L | 225 A | 3 | | | 10,726 | 17,580 | | | 3 | 255 A | Spare; R; E; L | ATS-CR2 | 10 | |
| | 11 | | | | | | | | | 12,883 | 18,480 | | | | | 12 | |
| | 13 | | | | | 100,0... | -- | | | | | | | | | 14 | |
| | 15 | ATS-EQ1 | Spare; R; E; M | 400 A | 3 | | | 101,7... | -- | | | 3 | -- | -- | BUSSED SPACE | 16 | |
| | 17 | | | | | | | | | 100,2... | -- | | | | | 18 | |
| | 19 | | | | | -- | -- | | | | | | | | | 20 | |
| | 21 | BUSSED SPACE | -- | -- | 3 | | | -- | -- | | | 3 | -- | -- | BUSSED SPACE | 22 | |
| | 23 | | | | | | | | | -- | -- | | | | | 24 | |
| | 25 | | | | | -- | -- | | | | | | | | | 26 | |
| | 27 | BUSSED SPACE | -- | -- | 3 | | | -- | -- | | | 3 | -- | -- | BUSSED SPACE | 28 | |
| | 29 | | | | | | | | | -- | -- | | | | | 30 | |
| | | | | **Total Load:** | | 138,354 VA | | 134,380 VA | | 135,303 VA | | | | | | | |
| | | | | **Total Amps:** | | 500 A | | 485 A | | 489 A | | | | | | | |

| Load Classification | | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 10,372 VA | 125.00% | 12,965 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 98 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 10,000 VA | 100% | 10,000 VA | 100 % B-C |
| | 89,160 VA | Remaining | 79,160 VA | 50% | 39,580 VA | 98 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 176,600 VA | Remaining | 176,600 VA | 100.00% | 176,600 VA | |
| E | Equipment | | 131,760 VA | 80.00% | 105,408 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Notes:**

**Panel Totals**
**Connected Load (VA):** 408,036 VA
**NEC Demand Load (VA):** 344,697 VA
**Connected Load (A):** 491 A
**NEC Demand Load (A):** 415 A
**Spare Capacity (A):** 185 A
**Spare Capacity (%):** 31

## Branch Panel: LSH1

**Location:** EM ELEC ROOM 196 | **Volts:** 480Y/277V | **K.A.I.C. Rating:** 50
**Supply From:** ATS-LS1 | **Phases:** 3 | **Mains Type:** MCB
**Mounting:** SURFACE | **Wires:** 4 | **Mains / Design Rating:** 150 A
**Enclosure:** NEMA 1 | **Bus Rating:** 150 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | 3,510 | 144 | | | | | 1 | 20 A | L | LTG: MECH YARD | 2 | |
| | 3 | T-LSL1 | Spare; R; E | 50 A | 3 | | | 3,510 | 777 | | | 1 | 20 A | Other; L | LTG: OR & STAFF SUPPORT | 4 | |
| | 5 | | | | | | | | | 3,230 | 473 | 1 | 20 A | L | LTG: PREP/RECOVERY & GI | 6 | |
| | 7 | SPARE | -- | 20 A | 1 | 0 | 369 | | | | | 1 | 20 A | L | LTG: LOBBY & ADMIN | 8 | |
| | 9 | SPARE | -- | 20 A | 1 | | | 0 | 0 | | | 1 | 20 A | -- | SPARE | 10 | |
| | 11 | SPARE | -- | 20 A | 1 | | | | | 0 | 0 | 1 | 20 A | -- | SPARE | 12 | |
| | 13 | BUSSED SPACE | -- | -- | 1 | -- | 0 | | | | | 1 | 20 A | -- | SPARE | 14 | |
| | 15 | BUSSED SPACE | -- | -- | 1 | | | -- | 0 | | | 1 | 20 A | -- | SPARE | 16 | |
| | 17 | BUSSED SPACE | -- | -- | 1 | | | | | -- | 0 | 1 | 20 A | -- | SPARE | 18 | |
| | 19 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 20 | |
| | 21 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 22 | |
| | 23 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 24 | |
| | 25 | | | | | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 26 | |
| | 27 | SURGE PROTECTION DEVICE (SPD) | -- | 30 A | 3 | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 28 | |
| | 29 | | | | | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 30 | |
| | | | | **Total Load:** | | 4,023 VA | | 4,287 VA | | 3,703 VA | | | | | | | |
| | | | | **Total Amps:** | | 15 A | | 16 A | | 13 A | | | | | | | |

| Load Classification | | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 1,619 VA | 125.00% | 2,024 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 94 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 720 VA | 100% | 720 VA | 87 % B-C |
| | 720 VA | Remaining | 0 VA | 0% | 0 VA | 93 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 0 VA | Remaining | 0 VA | 0.00% | 0 VA | |
| E | Equipment | | 9,530 VA | 80.00% | 7,624 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Notes:**

**Panel Totals**
**Connected Load (VA):** 12,013 VA
**NEC Demand Load (VA):** 10,512 VA
**Connected Load (A):** 14 A
**NEC Demand Load (A):** 13 A
**Spare Capacity (A):** 137 A
**Spare Capacity (%):** 92

## Branch Panel: LSL1

**Location:** EM ELEC ROOM 196 | **Volts:** 208Y/120V | **K.A.I.C. Rating:** 10
**Supply From:** T-LSL1 | **Phases:** 3 | **Mains Type:** MCB
**Mounting:** SURFACE | **Wires:** 4 | **Mains / Design Rating:** 100 A
**Enclosure:** NEMA 1 | **Bus Rating:** 100 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | PAP-1 | E | 20 A | 1 | 240 | 750 | | | | | 2 | 50 A | E | J-BOX: GEN JACKET HEATER | 2 | |
| | 3 | SAP-1 | E | 20 A | 1 | | | 240 | 750 | | | | | | | 4 | |
| | 5 | AAP-1/2 | E | 20 A | 1 | | | | | 240 | 600 | 1 | 20 A | E | J-BOX: ENGINE OIL HEATER | 6 | |
| | 7 | AAP-3/4 | E | 20 A | 1 | 240 | 600 | | | | | 1 | 20 A | E | J-BOX: GEN BATT.... | 8 | |
| | 9 | AAP-5 | E | 20 A | 1 | | | 240 | 600 | | | 1 | 20 A | E | J-BOX: GEN STATOR... | 10 | |
| | 11 | AAP-6 | E | 20 A | 1 | | | | | 240 | 720 | 1 | 20 A | R | REC: MECH YARD | 12 | |
| | 13 | AAP-7 | E | 20 A | 1 | 240 | 600 | | | | | 1 | 20 A | E | J-BOX: FIRE ALARM PANEL | 14 | FA |
| | 15 | AAP-8 | E | 20 A | 1 | | | 240 | 600 | | | 1 | 20 A | E | J-BOX: FIRE ALARM PANEL | 16 | FA |
| | 17 | J-BOX: AUTO DOORS 140 | E | 20 A | 1 | | | | | 240 | 600 | 1 | 20 A | E | J-BOX: FIRE ALARM RPS | 18 | FA |
| | 19 | J-BOX: AUTO DOORS 107 | E | 20 A | 1 | 240 | 600 | | | | | 1 | 20 A | E | DRY PIPE ALARM & CTRLS | 20 | FA |
| | 21 | J-BOX: AUTO DOORS 101 | E | 20 A | 1 | | | 240 | 600 | | | 1 | 20 A | E | DRY PIPE AIR COMP. | 22 | FA |
| | 23 | J-BOX: AUTO DOORS 180 | E | 20 A | 1 | | | | | 240 | 350 | 1 | 20 A | E | J-BOX: FIRE/SMOKE... | 24 | |
| | 25 | SPARE | -- | 20 A | 1 | 0 | 0 | | | | | 1 | 20 A | -- | SPARE | 26 | |
| | 27 | SPARE | -- | 20 A | 1 | | | 0 | 0 | | | 1 | 20 A | -- | SPARE | 28 | |
| | 29 | SPARE | -- | 20 A | 1 | | | | | 0 | 0 | 1 | 20 A | -- | SPARE | 30 | |
| | 31 | SPARE | -- | 20 A | 1 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 32 | |
| | 33 | SPARE | -- | 20 A | 1 | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 34 | |
| | 35 | SPARE | -- | 20 A | 1 | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 36 | |
| | 37 | SURGE PROTECTION DEVICE (SPD) | -- | 30 A | 3 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 38 | |
| | 39 | | | | | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 40 | |
| | 41 | | | | | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 42 | |
| | | | | **Total Load:** | | 3,510 VA | | 3,510 VA | | 3,230 VA | | | | | | | |
| | | | | **Total Amps:** | | 30 A | | 30 A | | 27 A | | | | | | | |

| Load Classification | | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 0 VA | 0.00% | 0 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 100 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 720 VA | 100% | 720 VA | 93 % B-C |
| | 720 VA | Remaining | 0 VA | 0% | 0 VA | 93 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 0 VA | Remaining | 0 VA | 0.00% | 0 VA | |
| E | Equipment | | 9,530 VA | 80.00% | 7,624 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Notes:**
FA - PROVIDE RED HANDLE LOCK-ON BREAKER FOR FIRE ALARM EQUIPMENT CIRCUITS

**Panel Totals**
**Connected Load (VA):** 10,250 VA
**NEC Demand Load (VA):** 8,344 VA
**Connected Load (A):** 28 A
**NEC Demand Load (A):** 23 A
**Spare Capacity (A):** 77 A
**Spare Capacity (%):** 77

## Branch Panel: EQH1

**Location:** EM ELEC ROOM 196 | **Volts:** 480Y/277V | **K.A.I.C. Rating:** 50
**Supply From:** ATS-EQ1 | **Phases:** 3 | **Mains Type:** MCB
**Mounting:** SURFACE | **Wires:** 4 | **Mains / Design Rating:** 400 A
**Enclosure:** Type 1 | **Bus Rating:** 400 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | 16,100 | 7,500 | | | | | | | | | 2 | |
| | 3 | T-EQL1 | Spare; R; E; M | 70 A | 3 | | | 17,820 | 7,500 | | | 3 | 40 A | M | PAC-1 | 4 | |
| | 5 | | | | | | | | | 16,270 | 7,500 | | | | | 6 | |
| | 7 | | | | | 1,667 | 6,933 | | | | | | | | | 8 | |
| | 9 | MAC-1 | M | 20 A | 3 | | | 1,667 | 6,933 | | | 3 | 35 A | M | MVP-1 | 10 | |
| | 11 | | | | | | | | | 1,667 | 6,933 | | | | | 12 | |
| | 13 | | | | | 11,667 | 11,667 | | | | | | | | | 14 | |
| ST | 15 | AHU-1 SUPPLY FANS | M | 60 A | 3 | | | 11,667 | 11,667 | | | 3 | 60 A | M | AHU-2 SUPPLY FANS | 16 | ST |
| | 17 | | | | | | | | | 11,667 | 11,667 | | | | | 18 | |
| | 19 | SPACE FOR SHUNT TRIP | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | SPACE FOR SHUNT TRIP | 20 | |
| | 21 | | | | | | | 6,100 | 6,100 | | | | | | | 22 | |
| ST | 23 | AHU-1 RETURN FANS | M | 35 A | 3 | | | | | 6,100 | 6,100 | 3 | 35 A | M | AHU-2 RETURN FANS | 24 | ST |
| | 25 | | | | | 6,100 | 6,100 | | | | | | | | | 26 | |
| | 27 | SPACE FOR SHUNT TRIP | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | SPACE FOR SHUNT TRIP | 28 | |
| | 29 | | | | | | | | | 10,000 | 200 | | | | | 30 | |
| ST | 31 | SMALL STERILIZER POWER | E | 50 A | 3 | 10,000 | 200 | | | | | 3 | 20 A | M | AHU-2 CDQ MOTOR | 32 | ST |
| | 33 | | | | | | | 10,000 | 200 | | | | | | | 34 | |
| | 35 | SPACE FOR SHUNT TRIP | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | SPACE FOR SHUNT TRIP | 36 | |
| | 37 | | | | | 8,000 | 3,067 | | | | | | | | | 38 | |
| | 39 | WASHER-DISINFECTOR | E | 40 A | 3 | | | 8,000 | 3,067 | | | 3 | 20 A | M | HWP-1 | 40 | |
| | 41 | | | | | | | | | 8,000 | 3,067 | | | | | 42 | |
| | 43 | | | | | 8,000 | 3,067 | | | | | | | | | 44 | |
| | 45 | WASHER-DISINFECTOR | E | 40 A | 3 | | | 8,000 | 3,067 | | | 3 | 20 A | M | HWP-2 | 46 | |
| | 47 | | | | | | | | | 8,000 | 3,067 | | | | | 48 | |
| | 49 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 50 | |
| | 51 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 52 | |
| | 53 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 54 | |
| | 55 | | | | | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 56 | |
| | 57 | SURGE PROTECTION DEVICE (SPD) | -- | 30 A | 3 | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 58 | |
| | 59 | | | | | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 60 | |
| | | | | **Total Load:** | | 100,067 VA | | 101,787 VA | | 100,237 VA | | | | | | | |
| | | | | **Total Amps:** | | 361 A | | 368 A | | 362 A | | | | | | | |

| Load Classification | | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 0 VA | 0.00% | 0 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 99 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 6,500 VA | 100% | 6,500 VA | 99 % B-C |
| | 6,500 VA | Remaining | 0 VA | 0% | 0 VA | 100 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 176,600 VA | Remaining | 176,600 VA | 100.00% | 176,600 VA | |
| E | Equipment | | 118,990 VA | 80.00% | 95,192 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Notes:**
ST - PROVIDE COMPONENTS FOR SHUNT TRIP BREAKER

**Panel Totals**
**Connected Load (VA):** 302,090 VA
**NEC Demand Load (VA):** 278,292 VA
**Connected Load (A):** 363 A
**NEC Demand Load (A):** 335 A
**Spare Capacity (A):** 65 A
**Spare Capacity (%):** 16

## Branch Panel: EQL1

**Location:** EM ELEC ROOM 196 | **Volts:** 208Y/120V | **K.A.I.C. Rating:** 10
**Supply From:** T-EQL1 | **Phases:** 3 | **Mains Type:** MCB
**Mounting:** SURFACE | **Wires:** 4 | **Mains / Design Rating:** 150 A
**Enclosure:** NEMA 1 | **Bus Rating:** 150 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | 550 | 550 | | | | | | | | | 2 | |
| ST | 3 | B-1 | E | 20 A | 3 | | | 550 | 550 | | | 3 | 20 A | E | B-2 | 4 | ST |
| | 5 | | | | | | | | | 550 | 550 | | | | | 6 | |
| | 7 | SPACE FOR SHUNT TRIP | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | SPACE FOR SHUNT TRIP | 8 | |
| | 9 | | | | | | | 1,000 | 1,000 | | | | | | | 10 | |
| | 11 | ULTRASONIC CLEANER | E | 20 A | 3 | | | | | 1,000 | 1,000 | 3 | 20 A | E | ULTRASONIC CLEANER | 12 | |
| | 13 | | | | | 1,000 | 1,000 | | | | | | | | | 14 | |
| | 15 | | | | | | | 900 | 2,500 | | | | | | | 16 | |
| | 17 | CP-1 | M | 20 A | 3 | | | | | 900 | 2,500 | 2 | 30 A | E | EUH-1 | 18 | |
| | 19 | | | | | 900 | 2,080 | | | | | | | | | 20 | |
| | 21 | GWH-1 | E | 20 A | 1 | | | 360 | 2,080 | | | 2 | 20 A | E | CU-1 & SS-1 | 22 | |
| | 23 | GWH-2 | E | 20 A | 1 | | | | | 360 | 600 | | | | | 24 | |
| | 25 | REC: WS-1 | R | 20 A | 1 | 360 | 600 | | | | | 2 | 20 A | R | REC: DI-1 | 26 | |
| | 27 | GV GAS SHUTOFF VALVE | E | 20 A | 1 | | | 180 | 600 | | | | | | | 28 | |
| | 29 | REC: GT-1 | R | 20 A | 1 | | | | | 360 | 600 | 2 | 20 A | R | REC: DI-1 | 30 | |
| | 31 | EF-1 | E | 20 A | 1 | 1,920 | 600 | | | | | 1 | 20 A | R | REC: DI-1 | 32 | |
| | 33 | EF-2 | E | 20 A | 1 | | | 1,920 | 600 | | | 1 | 20 A | R | REC: DI-1 | 34 | |
| | 35 | EF-3 | E | 20 A | 1 | | | | | 1,920 | 360 | 1 | 20 A | E | AHU-1 UV LIGHTS | 36 | |
| | 37 | EF-4 | E | 20 A | 1 | 1,920 | 1,200 | | | | | 1 | 20 A | E | AHU-1 ACCESSORIES | 38 | |
| | 39 | EF-5 | E | 20 A | 1 | | | 1,920 | 360 | | | 1 | 20 A | E | AHU-2 UV LIGHTS | 40 | |
| | 41 | J-BOX: BAS PANEL | E | 20 A | 1 | | | | | 600 | 1,200 | 1 | 20 A | E | AHU-2 ACCESSORIES | 42 | |
| | 43 | MV-1 | E | 20 A | 1 | 180 | 480 | | | | | 1 | 20 A | E | J-BOX: 196 PASSTHRU | 44 | |
| | 45 | J-BOX: HEAT TRACE HUM-1 | E | 20 A | 1 | | | 360 | 180 | | | 1 | 20 A | R | REC: 182 DETERGENT | 46 | |
| | 47 | J-BOX: HEAT TRACE HUM-2 | E | 20 A | 1 | | | | | 360 | 1,200 | 1 | 20 A | E | J-BOX: STERILIZER CTRLS | 48 | |
| | 49 | PLMB PWR 112,113,123 | E | 20 A | 1 | 350 | 1,000 | | | | | 1 | 20 A | R | REC: 166 REFRIGERATOR | 50 | |
| | 51 | PLMB PWR GI, TLT 148 | E | 20 A | 1 | | | 300 | 1,000 | | | 1 | 20 A | R | REC: 166 REFRIGERATOR | 52 | |
| | 53 | PLMB PWR OR SUPPORT | E | 20 A | 1 | | | | | 550 | 200 | 1 | 20 A | E | VAV PWR: OR RETURN | 54 | |
| | 55 | PLMB PWR... | E | 20 A | 1 | 550 | 500 | | | | | 1 | 20 A | E | VAV PWR: AHU-2 | 56 | |
| | 57 | AUTO TRAP PRIMERS | E | 20 A | 1 | | | 960 | 500 | | | 1 | 20 A | E | VAV PWR: AHU-1 | 58 | |
| | 59 | AUTO TRAP PRIMERS | E | 20 A | 1 | | | | | 960 | 500 | 1 | 20 A | E | VAV PWR: AHU-1 | 60 | |
| | 61 | SPARE | -- | 20 A | 1 | 0 | 360 | | | | | 1 | 20 A | E | CHILLER HEATER & HEAT... | 62 | |
| | 63 | SPARE (HWP-3) | -- | 20 A | 1 | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 64 | |
| | 65 | SPARE (HWP-4) | -- | 20 A | 1 | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 66 | |
| | 67 | SURGE PROTECTION DEVICE (SPD) | -- | 30 A | 3 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 68 | |
| | 69 | | | | | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 70 | |
| | 71 | | | | | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 72 | |
| | | | | **Total Load:** | | 16,100 VA | | 17,820 VA | | 16,270 VA | | | | | | | |
| | | | | **Total Amps:** | | 134 A | | 149 A | | 136 A | | | | | | | |

| Load Classification | | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 0 VA | 0.00% | 0 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 91 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 6,500 VA | 100% | 6,500 VA | 92 % B-C |
| | 6,500 VA | Remaining | 0 VA | 0% | 0 VA | 99 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 2,700 VA | Remaining | 2,700 VA | 100.00% | 2,700 VA | |
| E | Equipment | | 40,990 VA | 80.00% | 32,792 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Notes:**
ST - PROVIDE COMPONENTS FOR SHUNT TRIP BREAKER.

**Panel Totals**
**Connected Load (VA):** 50,190 VA
**NEC Demand Load (VA):** 41,992 VA
**Connected Load (A):** 139 A
**NEC Demand Load (A):** 117 A
**Spare Capacity (A):** 33 A
**Spare Capacity (%):** 22

BIM 360://3-22030 HCA LSMC ASC\BP - HCA LSMC_MEP_R21.rvt

BranchPattern |

BranchPattern | www.branchpattern.com PROJECT NUMBER 1201002 BETTER BUILT ENVIRONMENTS

## Branch Panel: NL1

**Location:** ELEC 197 **Volts:** 208Y/120V **K.A.I.C. Rating:** 10
**Supply From:** T-NL1 **Phases:** 3 **Mains Type:** MCB
**Mounting:** SURFACE **Wires:** 4 **Mains / Design Rating:** 150 A
**Enclosure:** Type 1 **Bus Rating:** 150 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | REC: 172, 174, 176 | R | 20 A | 1 | 900 | 720 | | | | | 1 | 20 A | R | REC: HEADWALL 124 | 2 | |
| | 3 | REC: 176, 178 | R | 20 A | 1 | | | 900 | 720 | | | 1 | 20 A | R | REC: HEADWALL 126 | 4 | |
| | 5 | REC: 187 | R | 20 A | 1 | | | | | 1,440 | 720 | 1 | 20 A | R | REC: HEADWALL 128 | 6 | |
| | 7 | REC: 175, 177 | R | 20 A | 1 | 720 | 900 | | | | | 1 | 20 A | R | REC: 171, 182 | 8 | |
| | 9 | REC: 173, 198, 199 | R | 20 A | 1 | | | 1,080 | 1,200 | | | 1 | 20 A | E | J-BOX: STERILIZER CTRLS | 10 | |
| | 11 | REC: 186 | R | 20 A | 1 | | | | | 1,080 | 1,200 | 1 | 20 A | E | J-BOX: STERILIZER CTRLS | 12 | |
| | 13 | REC: 190, 191 | R | 20 A | 1 | 1,080 | 360 | | | | | 1 | 20 A | R | REC: 195 | 14 | |
| | 15 | REC: 192 WRKSTN | R | 20 A | 1 | | | 720 | 180 | | | 1 | 20 A | R | REC: ELEC ROOM 197 | 16 | |
| | 17 | REC: 192 | R | 20 A | 1 | | | | | 1,080 | 600 | 1 | 20 A | R | LIGHTING CONTROL PANEL | 18 | |
| | 19 | REC: ROOF EAST | R | 20 A | 1 | 720 | 1,500 | | | | | 1 | 20 A | E | AC-1 | 20 | |
| | 21 | REC: ROOF WEST | R | 20 A | 1 | | | 720 | 180 | | | 1 | 20 A | R | REC: 168 TIMECLOCK | 22 | |
| | 23 | J-BOX: MONUMENT SIGN | E | 20 A | 1 | | | | | 600 | 0 | 1 | 20 A | -- | SPARE | 24 | |
| | 25 | LTG: LOBBY PENDANTS | L | 20 A | 1 | 90 | 0 | | | | | 1 | 20 A | -- | SPARE | 26 | |
| | 27 | J-BOX: BUILDING SIGNAGE | E | 20 A | 1 | | | 360 | 0 | | | 1 | 20 A | -- | SPARE | 28 | |
| | 29 | J-BOX: BUILDING SIGNAGE | E | 20 A | 1 | | | | | 360 | 0 | 1 | 20 A | -- | SPARE | 30 | |
| | 31 | SPARE | -- | 20 A | 1 | 0 | 0 | | | | | 1 | 20 A | -- | SPARE | 32 | |
| | 33 | SPARE | -- | 20 A | 1 | | | 0 | 0 | | | 1 | 20 A | -- | SPARE | 34 | |
| | 35 | SPARE | -- | 20 A | 1 | | | | | 0 | 0 | 1 | 20 A | -- | SPARE | 36 | |
| | 37 | SPARE | -- | 20 A | 1 | 0 | 0 | | | | | 1 | 20 A | -- | SPARE | 38 | |
| | 39 | SPARE | -- | 20 A | 1 | | | 0 | 0 | | | 1 | 20 A | -- | SPARE | 40 | |
| | 41 | CU-2 & SS-2 | E | 30 A | 2 | | | | | 2,080 | 0 | 2 | 40 A | -- | SPARE | 42 | |
| | 43 | | | | | 2,080 | 0 | | | | | | | | | 44 | |
| | 45 | CU-3 & SS-3 | E | 30 A | 2 | | | 2,080 | 2,500 | | | 2 | 40 A | E | EV CHARGING STATION | 46 | |
| | 47 | | | | | | | | | 2,080 | 2,500 | | | | | 48 | |
| | 49 | CU-4 & SS-4 | E | 30 A | 2 | 2,080 | 2,500 | | | | | 2 | 40 A | E | EV CHARGING STATION | 50 | |
| | 51 | | | | | | | 2,080 | 2,500 | | | | | | | 52 | |
| | 53 | CU-5 & SS-5 | E | 30 A | 2 | | | | | 2,080 | 0 | 2 | 40 A | -- | SPARE | 54 | |
| | 55 | | | | | 2,080 | 0 | | | | | | | | | 56 | |
| | 57 | SPARE | -- | 30 A | 2 | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 58 | |
| | 59 | | | | | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 60 | |
| | 61 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 62 | |
| | 63 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 64 | |
| | 65 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 66 | |
| | 67 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 68 | |
| | 69 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 70 | |
| | 71 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 72 | |
| | | | | | **Total Load:** | 15,730 VA | | 15,220 VA | | 15,820 VA | | | | | | | |
| | | | | | **Total Amps:** | 132 A | | 127 A | | 132 A | | | | | | | |

| | Load Classification | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 90 VA | 125.00% | 113 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 97 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 10,000 VA | 100% | 10,000 VA | 97 % B-C |
| | 14,820 VA | Remaining | 4,820 VA | 50% | 2,410 VA | 100 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 0 VA | Remaining | 0 VA | 0.00% | 0 VA | |
| E | Equipment | | 31,860 VA | 80.00% | 25,488 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Panel Totals**
**Connected Load (VA):** 46,770 VA
**NEC Demand Load (VA):** 38,011 VA
**Connected Load (A):** 130 A
**NEC Demand Load (A):** 106 A
**Spare Capacity (A):** 44 A
**Spare Capacity (%):** 30

**Notes:**

## Branch Panel: NL2

**Location:** ELEC 179 **Volts:** 208Y/120V **K.A.I.C. Rating:** 10
**Supply From:** T-NL2 **Phases:** 3 **Mains Type:** MCB
**Mounting:** SURFACE **Wires:** 4 **Mains / Design Rating:** 150 A
**Enclosure:** NEMA 1 **Bus Rating:** 150 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | REC: 105 COPIER | R | 20 A | 1 | 1,000 | 720 | | | | | 1 | 20 A | R | REC: HEADWALL 115 | 2 | |
| | 3 | REC: 105 | R | 20 A | 1 | | | 540 | 720 | | | 1 | 20 A | R | REC: HEADWALL 117 | 4 | |
| | 5 | REC: 105 SHREDDER | R | 20 A | 1 | | | | | 1,080 | 720 | 1 | 20 A | R | REC: HEADWALL 121 | 6 | |
| | 7 | REC: 102 COUNTER | R | 20 A | 1 | 540 | 720 | | | | | 1 | 20 A | R | REC: HEADWALL 125 | 8 | |
| | 9 | REC: 102, 103, 104 | R | 20 A | 1 | | | 1,260 | 900 | | | 1 | 20 A | R | REC: TV 121 & 125 | 10 | |
| | 11 | REC: 100 | R | 20 A | 1 | | | | | 1,080 | 720 | 1 | 20 A | R | REC: HEADWALL 127 | 12 | |
| | 13 | REC: 101, 112, 113 | R | 20 A | 1 | 1,080 | 720 | | | | | 1 | 20 A | R | REC: HEADWALL 116 | 14 | |
| | 15 | REC: 100 EWC | R | 20 A | 1 | | | 1,000 | 720 | | | 1 | 20 A | R | REC: HEADWALL 133 | 16 | |
| | 17 | REC: 100B COUNTER | R | 20 A | 1 | | | | | 800 | 360 | 1 | 20 A | R | REC: 118 COUNTER | 18 | |
| | 19 | REC: 100B TV & BENCH | R | 20 A | 1 | 720 | 1,080 | | | | | 1 | 20 A | R | REC: 122, 132 | 20 | |
| | 21 | REC: 111 | R | 20 A | 1 | | | 720 | 1,080 | | | 1 | 20 A | R | REC: 135, 137 | 22 | |
| | 23 | REC: 109 | R | 20 A | 1 | | | | | 1,080 | 1,080 | 1 | 20 A | R | REC: 137, 164 | 24 | |
| | 25 | J-BOX: 110 BADGE MAKER | E | 20 A | 1 | 0 | 720 | | | | | 1 | 20 A | R | REC: HEADWALL 132 | 26 | |
| | 27 | REC: 108 | R | 20 A | 1 | | | 360 | 720 | | | 1 | 20 A | R | REC: HEADWALL 134 | 28 | |
| | 29 | REC: 108 | R | 20 A | 1 | | | | | 360 | 720 | 1 | 20 A | R | REC: HEADWALL 136 | 30 | |
| | 31 | REC: 107, 114, 131 | R | 20 A | 1 | 1,080 | 720 | | | | | 1 | 20 A | R | REC: HEADWALL 138 | 32 | |
| | 33 | REC: 151 | R | 20 A | 1 | | | 720 | 720 | | | 1 | 20 A | R | REC: HEADWALL 142 | 34 | |
| | 35 | REC: 152 | R | 20 A | 1 | | | | | 1,260 | 720 | 1 | 20 A | R | REC: HEADWALL 144 | 36 | |
| | 37 | REC: 153, 150 TV | R | 20 A | 1 | 1,080 | 720 | | | | | 1 | 20 A | R | REC: HEADWALL 146 | 38 | |
| | 39 | REC: 154, 155 | R | 20 A | 1 | | | 720 | 180 | | | 1 | 20 A | R | REC: 166 COUNTER | 40 | |
| | 41 | REC: 156 | R | 20 A | 1 | | | | | 1,260 | 180 | 1 | 20 A | R | REC: 166 COFFEE | 42 | |
| | 43 | REC: 157 | R | 20 A | 1 | 900 | 180 | | | | | 1 | 20 A | R | REC: 166 ICE WATER | 44 | |
| | 45 | REC: 148, 167, 169 | R | 20 A | 1 | | | 1,080 | 180 | | | 1 | 20 A | R | REC: 166 DISHWASHER | 46 | |
| | 47 | REC: 165 | R | 20 A | 1 | | | | | 900 | 180 | 1 | 20 A | R | REC: 166 DISPOSAL | 48 | |
| | 49 | REC: 163 | R | 20 A | 1 | 900 | 180 | | | | | 1 | 20 A | R | REC: 166 COUNTER | 50 | |
| | 51 | REC: 161 | R | 20 A | 1 | | | 900 | 180 | | | 1 | 20 A | R | REC: 166 COUNTER | 52 | |
| | 53 | REC: 162 | R | 20 A | 1 | | | | | 900 | 180 | 1 | 20 A | R | REC: 166 MICROWAVE | 54 | |
| | 55 | REC: 129 | R | 20 A | 1 | 900 | 180 | | | | | 1 | 20 A | R | REC: 166 MICROWAVE | 56 | |
| | 57 | CUH-1 | E | 20 A | 1 | | | 720 | 900 | | | 1 | 20 A | R | REC: 166, 166 TV | 58 | |
| | 59 | CUH-2 | E | 20 A | 1 | | | | | 720 | 360 | 1 | 20 A | R | REC: 166 BENCH | 60 | |
| | 61 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 62 | |
| | 63 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 64 | |
| | 65 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 66 | |
| | 67 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 68 | |
| | 69 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 70 | |
| | 71 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 72 | |
| | | | | | **Total Load:** | 14,140 VA | | 14,320 VA | | 14,660 VA | | | | | | | |
| | | | | | **Total Amps:** | 118 A | | 120 A | | 122 A | | | | | | | |

| | Load Classification | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 0 VA | 0.00% | 0 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 99 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 10,000 VA | 100% | 10,000 VA | 98 % B-C |
| | 41,680 VA | Remaining | 31,680 VA | 50% | 15,840 VA | 97 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 0 VA | Remaining | 0 VA | 0.00% | 0 VA | |
| E | Equipment | | 1,440 VA | 80.00% | 1,152 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Panel Totals**
**Connected Load (VA):** 43,120 VA
**NEC Demand Load (VA):** 26,992 VA
**Connected Load (A):** 120 A
**NEC Demand Load (A):** 75 A
**Spare Capacity (A):** 75 A
**Spare Capacity (%):** 50

**Notes:**

## Branch Panel: CRH1

**Location:** EM ELEC ROOM 196 **Volts:** 480Y/277V **K.A.I.C. Rating:** 50
**Supply From:** ATS-CR1 **Phases:** 3 **Mains Type:** MCB
**Mounting:** SURFACE **Wires:** 4 **Mains / Design Rating:** 225 A
**Enclosure:** Type 1 **Bus Rating:** 225 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | 5,400 | 2,340 | | | | | 2 | 30 A | Spare; R; E | OR1A | 2 | |
| | 3 | T-CRL1 | Spare; R | 70 A | 3 | | | 5,440 | 2,340 | | | | | | | 4 | |
| | 5 | | | | | | | | | 5,400 | 2,340 | 2 | 30 A | Spare; R; E | OR2A | 6 | |
| | 7 | LI-1 | Spare; L | 25 A | 1 | 2,608 | 2,340 | | | | | | | | | 8 | |
| | 9 | LTG: OR & STAFF SUPPORT | L | 20 A | 1 | | | 606 | 2,340 | | | 2 | 30 A | Spare; R; E | OR3A | 10 | |
| | 11 | LTG: PREP/RECOVERY & GI | L | 20 A | 1 | | | | | 2,803 | 2,340 | | | | | 12 | |
| | 13 | SPARE | -- | 20 A | 1 | 0 | 0 | | | | | 2 | 30 A | -- | SPARE | 14 | |
| | 15 | SPARE | -- | 20 A | 1 | | | 0 | 0 | | | | | | | 16 | |
| | 17 | SPARE | -- | 20 A | 1 | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 18 | |
| | 19 | SPARE | -- | 20 A | 1 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 20 | |
| | 21 | SPARE | -- | 20 A | 1 | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 22 | |
| | 23 | SPARE | -- | 20 A | 1 | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 24 | |
| | 25 | SPARE | -- | 20 A | 1 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 26 | |
| | 27 | SPARE | -- | 20 A | 1 | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 28 | |
| | 29 | SPARE | -- | 20 A | 1 | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 30 | |
| | 31 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 32 | |
| | 33 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 34 | |
| | 35 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 36 | |
| | 37 | SURGE PROTECTION DEVICE (SPD) | -- | 30 A | 3 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 38 | |
| | 39 | | | | | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 40 | |
| | 41 | | | | | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 42 | |
| | | | | | **Total Load:** | 12,688 VA | | 10,726 VA | | 12,883 VA | | | | | | | |
| | | | | | **Total Amps:** | 47 A | | 39 A | | 48 A | | | | | | | |

| | Load Classification | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 6,017 VA | 125.00% | 7,521 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 85 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 10,000 VA | 100% | 10,000 VA | 84 % B-C |
| | 29,740 VA | Remaining | 19,740 VA | 50% | 9,870 VA | 99 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 0 VA | Remaining | 0 VA | 0.00% | 0 VA | |
| E | Equipment | | 540 VA | 80.00% | 432 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Panel Totals**
**Connected Load (VA):** 36,297 VA
**NEC Demand Load (VA):** 27,823 VA
**Connected Load (A):** 44 A
**NEC Demand Load (A):** 33 A
**Spare Capacity (A):** 192 A
**Spare Capacity (%):** 85

**Notes:**

## Branch Panel: CRL1

**Location:** EM ELEC ROOM 196 **Volts:** 208Y/120V **K.A.I.C. Rating:** 10
**Supply From:** T-CRL1 **Phases:** 3 **Mains Type:** MCB
**Mounting:** SURFACE **Wires:** 4 **Mains / Design Rating:** 150 A
**Enclosure:** NEMA 1 **Bus Rating:** 150 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | REC: HEADWALL 124 | R | 20 A | 1 | 540 | 180 | | | | | 1 | 20 A | R | REC: 178 | 2 | |
| | 3 | REC: HEADWALL 124 | R | 20 A | 1 | | | 540 | 1,000 | | | 1 | 20 A | R | REC: 176 CRYOSTAT | 4 | |
| | 5 | REC: HEADWALL 126 | R | 20 A | 1 | | | | | 540 | 600 | 1 | 20 A | R | REC: 176 CENTRIFUGE | 6 | |
| | 7 | REC: HEADWALL 126 | R | 20 A | 1 | 540 | 600 | | | | | 1 | 20 A | R | REC: 172 NEPTUNE | 8 | |
| | 9 | REC: HEADWALL 128 | R | 20 A | 1 | | | 540 | 600 | | | 1 | 20 A | R | REC: 172 NEPTUNE | 10 | |
| | 11 | REC: HEADWALL 128 | R | 20 A | 1 | | | | | 540 | 1,200 | 1 | 20 A | R | REC: 171 LOW-TEMP... | 12 | |
| | 13 | REC: OR#1 LASER | R | 30 A | 2 | 1,080 | 1,200 | | | | | 1 | 20 A | R | REC: 171 LOW-TEMP... | 14 | |
| | 15 | | | | | | | 1,080 | 600 | | | 1 | 20 A | R | REC: 171 | 16 | |
| | 17 | REC: OR#2 LASER | R | 30 A | 2 | | | | | 1,080 | 360 | 1 | 20 A | R | REC: 167 CRASH CART | 18 | |
| | 19 | | | | | 1,080 | 180 | | | | | 1 | 20 A | R | REC: ELEC ROOM 196 | 20 | |
| | 21 | REC: OR#3 LASER | R | 30 A | 2 | | | 1,080 | 0 | | | 1 | 20 A | -- | SPARE | 22 | |
| | 23 | | | | | | | | | 1,080 | 0 | 1 | 20 A | -- | SPARE | 24 | |
| | 25 | SPARE | -- | 30 A | 2 | 0 | 0 | | | | | 1 | 20 A | -- | SPARE | 26 | |
| | 27 | | | | | | | 0 | 0 | | | 1 | 20 A | -- | SPARE | 28 | |
| | 29 | REC: OR#1 INTEGRATION | -- | 20 A | 1 | | | | | 0 | 0 | 1 | 20 A | -- | SPARE | 30 | |
| | 31 | REC: OR#1 INTEGRATION | -- | 20 A | 1 | 0 | 0 | | | | | 1 | 20 A | -- | SPARE | 32 | |
| | 33 | REC: OR#2 INTEGRATION | -- | 20 A | 1 | | | 0 | 0 | | | 1 | 20 A | -- | SPARE | 34 | |
| | 35 | REC: OR#2 INTEGRATION | -- | 20 A | 1 | | | | | 0 | 0 | 1 | 20 A | -- | SPARE | 36 | |
| | 37 | REC: OR#3 INTEGRATION | -- | 20 A | 1 | 0 | 0 | | | | | 1 | 20 A | -- | SPARE | 38 | |
| | 39 | REC: OR#3 INTEGRATION | -- | 20 A | 1 | | | 0 | 0 | | | 1 | 20 A | -- | SPARE | 40 | |
| | 41 | SPARE | -- | 20 A | 1 | | | | | 0 | 0 | 1 | 20 A | -- | SPARE | 42 | |
| | 43 | SPARE | -- | 20 A | 1 | 0 | 0 | | | | | 1 | 20 A | -- | SPARE | 44 | |
| | 45 | SPARE | -- | 20 A | 1 | | | 0 | 0 | | | 1 | 20 A | -- | SPARE | 46 | |
| | 47 | SPARE | -- | 20 A | 1 | | | | | 0 | 0 | 1 | 20 A | -- | SPARE | 48 | |
| | 49 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 50 | |
| | 51 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 52 | |
| | 53 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 54 | |
| | 55 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 56 | |
| | 57 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 58 | |
| | 59 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 60 | |
| | 61 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 62 | |
| | 63 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 64 | |
| | 65 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 66 | |
| | 67 | SURGE PROTECTION DEVICE (SPD) | -- | 30 A | 3 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 68 | |
| | 69 | | | | | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 70 | |
| | 71 | | | | | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 72 | |
| | | | | | **Total Load:** | 5,400 VA | | 5,440 VA | | 5,400 VA | | | | | | | |
| | | | | | **Total Amps:** | 45 A | | 45 A | | 45 A | | | | | | | |

| | Load Classification | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 0 VA | 0.00% | 0 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 100 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 10,000 VA | 100% | 10,000 VA | 100 % B-C |
| | 16,240 VA | Remaining | 6,240 VA | 50% | 3,120 VA | 100 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 0 VA | Remaining | 0 VA | 0.00% | 0 VA | |
| E | Equipment | | 0 VA | 0.00% | 0 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Panel Totals**
**Connected Load (VA):** 16,240 VA
**NEC Demand Load (VA):** 13,120 VA
**Connected Load (A):** 45 A
**NEC Demand Load (A):** 36 A
**Spare Capacity (A):** 114 A
**Spare Capacity (%):** 76

**Notes:**

## Branch Panel: CRH2

**Location:** EM ELEC ROOM 196 **Volts:** 480Y/277V **K.A.I.C. Rating:** 50
**Supply From:** ATS-CR2 **Phases:** 3 **Mains Type:** MCB
**Mounting:** SURFACE **Wires:** 4 **Mains / Design Rating:** 225 A
**Enclosure:** Type 1 **Bus Rating:** 225 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | | | | 14,340 | 2,520 | | | | | 2 | 30 A | Spare; R; E | OR1B | 2 | |
| | 3 | T-CRL2 | Spare; R; E | 70 A | 3 | | | 13,080 | 1,980 | | | | | | | 4 | |
| | 5 | | | | | | | | | 13,980 | 2,520 | 2 | 30 A | Spare; R; E | OR2B | 6 | |
| | 7 | LTG: OR#1, OR#2, OR#3 | L | 20 A | 1 | 2,736 | 1,980 | | | | | | | | | 8 | |
| | 9 | SPARE | -- | 20 A | 1 | | | 0 | 2,520 | | | 2 | 30 A | Spare; R; E | OR3B | 10 | |
| | 11 | SPARE | -- | 20 A | 1 | | | | | 0 | 1,980 | | | | | 12 | |
| | 13 | SPARE | -- | 20 A | 1 | 0 | 0 | | | | | 2 | 30 A | -- | SPARE | 14 | |
| | 15 | SPARE | -- | 20 A | 1 | | | 0 | 0 | | | | | | | 16 | |
| | 17 | SPARE | -- | 20 A | 1 | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 18 | |
| | 19 | SPARE | -- | 20 A | 1 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 20 | |
| | 21 | SPARE | -- | 20 A | 1 | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 22 | |
| | 23 | SPARE | -- | 20 A | 1 | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 24 | |
| | 25 | SPARE | -- | 20 A | 1 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 26 | |
| | 27 | SPARE | -- | 20 A | 1 | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 28 | |
| | 29 | SPARE | -- | 20 A | 1 | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 30 | |
| | 31 | BUSSED SPACE | -- | -- | 1 | -- | -- | | | | | 1 | -- | -- | BUSSED SPACE | 32 | |
| | 33 | BUSSED SPACE | -- | -- | 1 | | | -- | -- | | | 1 | -- | -- | BUSSED SPACE | 34 | |
| | 35 | BUSSED SPACE | -- | -- | 1 | | | | | -- | -- | 1 | -- | -- | BUSSED SPACE | 36 | |
| | 37 | SURGE PROTECTION DEVICE (SPD) | -- | 30 A | 3 | 0 | -- | | | | | 1 | -- | -- | BUSSED SPACE | 38 | |
| | 39 | | | | | | | 0 | -- | | | 1 | -- | -- | BUSSED SPACE | 40 | |
| | 41 | | | | | | | | | 0 | -- | 1 | -- | -- | BUSSED SPACE | 42 | |
| | | | | | **Total Load:** | 21,576 VA | | 17,580 VA | | 18,480 VA | | | | | | | |
| | | | | | **Total Amps:** | 78 A | | 63 A | | 67 A | | | | | | | |

| | Load Classification | | Connected Load | Demand Factor | NEC Demand Load | Phase Balance |
|---|---|---|---|---|---|---|
| L | Lighting | | 2,736 VA | 125.00% | 3,420 VA | |
| C | Continuous | | 0 VA | 0.00% | 0 VA | 82 % A-B |
| R | Total Receptacle Load | 1st 10,000 VA | 10,000 VA | 100% | 10,000 VA | 96 % B-C |
| | 52,200 VA | Remaining | 42,200 VA | 50% | 21,100 VA | 86 % C-A |
| M | Total Motor Load | Largest Motor | 0 VA | 0.00% | 0 VA | |
| | 0 VA | Remaining | 0 VA | 0.00% | 0 VA | |
| E | Equipment | | 2,700 VA | 80.00% | 2,160 VA | |
| A | Appliance | | 0 VA | 0.00% | 0 VA | |
| LC | Load Center (# of... | 0 | 0 VA | 0.00% | 0 VA | |

**Panel Totals**
**Connected Load (VA):** 57,636 VA
**NEC Demand Load (VA):** 36,680 VA
**Connected Load (A):** 69 A
**NEC Demand Load (A):** 44 A
**Spare Capacity (A):** 181 A
**Spare Capacity (%):** 80

**Notes:**

## Branch Panel: CRL2

**Location:** ELEC 179 **Volts:** 208Y/120V **K.A.I.C. Rating:** 10
**Supply From:** T-CRL2 **Phases:** 3 **Mains Type:** MCB
**Mounting:** SURFACE **Wires:** 4 **Mains / Design Rating:** 150 A
**Enclosure:** NEMA 1 **Bus Rating:** 150 A
**Phase Created:** New Construction

| Notes | CKT NO. | Circuit Description | Load Classification | Trip | Poles | A | | B | | C | | Poles | Trip | Load Classification | Circuit Description | CKT NO. | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | REC: HEADWALL 132 | R | 20 A | 1 | 540 | 540 | | | | | 1 | 20 A | R | REC: HEADWALL 138 | 2 | |
| | 3 | REC: HEADWALL 132 | R | 20 A | 1 | | | 540 | 540 | | | 1 | 20 A | R | REC: HEADWALL 138 | 4 | |
| | 5 | REC: HEADWALL 134 | R | 20 A | 1 | | | | | 540 | 540 | 1 | 20 A | R | REC: HEADWALL 142 | 6 | |
| | 7 | REC: HEADWALL 134 | R | 20 A | 1 | 540 | 540 | | | | | 1 | 20 A | R | REC: HEADWALL 142 | 8 | |
| | 9 | REC: HEADWALL 136 | R | 20 A | 1 | | | 540 | 540 | | | 1 | 20 A | R | REC: HEADWALL 144 | 10 | |
| | 11 | REC: HEADWALL 136 | R | 20 A | 1 | | | | | 540 | 540 | 1 | 20 A | R | REC: HEADWALL 144 | 12 | |
| | 13 | REC: HEADWALL 133 | R | 20 A | 1 | 540 | 540 | | | | | 1 | 20 A | R | REC: HEADWALL 146 | 14 | |
| | 15 | REC: HEADWALL 133 | R | 20 A | 1 | | | 540 | 540 | | | 1 | 20 A | R | REC: HEADWALL 146 | 16 | |
| | 17 | REC: HEADWALL 116 | R | 20 A | 1 | | | | | 540 | 540 | 1 | 20 A | R | REC: HEADWALL 121 | 18 | |
| | 19 | REC: HEADWALL 116 | R | 20 A | 1 | 540 | 540 | | | | | 1 | 20 A | R | REC: HEADWALL 121 | 20 | |
| | 21 | REC: HEADWALL 115 | R | 20 A | 1 | | | 540 | 540 | | | 1 | 20 A | R | REC: HEADWALL 125 | 22 | |
| | 23 | REC: HEADWALL 115 | R | 20 A | 1 | | | | | 540 | 540 | 1 | 20 A | R | REC: HEADWALL 125 | 24 | |
| | 25 | REC: HEADWALL 117 | R | 20 A | 1 | 540 | 540 | | | | | 1 | 20 A | R | REC: HEADWALL 127 | 26 | |
| | 27 | REC: HEADWALL 117 | R | 20 A | 1 | | | 540 | 540 | | | 1 | 20 A | R | REC: HEADWALL 127 | 28 | |
| | 29 | REC: 152 | R | 20 A | 1 | | | | | 1,080 | 1,000 | 1 | 20 A | R | REC: 118 WARM CABINET | 30 | |
| | 31 | REC: 152 ENDO CART | R | 20 A | 1 | 360 | 900 | | | | | 1 | 20 A | R | REC: 118 NURSE DESK | 32 | |
| | 33 | J-BOX: 152 GI BOOM | E | 20 A | 1 | | | 360 | 900 | | | 1 | 20 A | R | REC: 118 NURSE DESK | 34 | |
| | 35 | J-BOX: 152 GI BOOM | E | 20 A | 1 | | | | | 360 | 1,000 | 1 | 20 A | R | REC: 132 ICE MAKER | 36 | |
| | 37 | J-BOX: 152 GI BOOM | E | 20 A | 1 | 360 | 1,000 | | | | | 1 | 20 A | R | REC: 132 REFRIGERATOR | 38 | |
| | 39 | REC: 154 DRYING CABINET | R | 20 A | 1 | | | 1,000 | 1,000 | | | 1 | 20 A | R | REC: 135 ICE | 40 | |
| | 41 | REC: 153, 155 | R | 20 A | 1 | | | | | 360 | 720 | 1 | 20 A | R | REC: 122 REFRIGERATOR | 42 | |
| | 43 | REC: 155 MEDIVATOR | R | 20 A | 1 | 1,000 | 360 | | | | | 1 | 20 A | R | REC: 122 WRKSTN | 44 | |
| | 45 | REC: 156 | R | 20 A | 1 | | | 1,080 | 720 | | | 1 | 20 A | R | REC: 122 REFRIGERATOR | 46 | |
| | 47 | REC: 156 ENDO CART | R | 20 A | 1 | | | | | 360 | 1,800 | 1 | 30 A | R | REC: 108 RACK UPS | 48 | |
| | 49 | J-BOX: 156 GI BOOM | E | 20 A | 1 | 360 | 1,800

BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS

## Isolation Panel: OR3A

**Location:** OR 3 185 | **Volts:** 480V PRI. - 120V SEC. | **K.A.I.C. Rating:** 10
**Supply From:** CRH1 | **Phases:** 1 | **Mains Type:** MCB
**Mounting:** Surface | **Wires:** 3 | **Bus Rating:** 30 A
**Enclosure:** Type 1 | **Transformer Size:** 10 kVA | **MCB Rating:** 30 A

| CKT | Circuit Description | Load Class | Trip | Poles | B | | C | | Poles | Trip | Load Class | Circuit Description | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REC: OR#3 SOUTHWEST | R | 20 A | 1 | 360 VA | 360 VA | | | 1 | 20 A | R | OR#3 BOOM 1: RCPT CKT 1 | 2 |
| 3 | REC: OR#3 WEST | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#3 BOOM 1: RCPT CKT 3 | 4 |
| 5 | REC: OR#3 NORTH | R | 20 A | 1 | 540 VA | 360 VA | | | 1 | 20 A | R | OR#3 BOOM 1: DISPLAY MONITOR | 6 |
| 7 | REC: OR#3 EAST & CLOCK | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#3 BOOM 1: CTRLS & BRAKE | 8 |
| 9 | REC: OR#3 SOUTHEAST | R | 20 A | 1 | 360 VA | 180 VA | | | 1 | 20 A | E | OR#3 STRYKER BOX | 10 |
| 11 | REC: OR#3 SOUTH | R | 20 A | 1 | | | 360 VA | 180 VA | 1 | 20 A | R | REC: OR#3 ROBOT | 12 |
| 13 | SPARE | -- | 20 A | 1 | 0 VA | 180 VA | | | 1 | 20 A | R | REC: OR#3 ROBOT | 14 |
| 15 | SPARE | -- | 20 A | 1 | | | 0 VA | 360 VA | 1 | 20 A | R | REC: OR#3 INTEGRATION... | 16 |
| | | | | | **Total Load:** | 2,340 VA | | 2,340 VA | | | | | |
| | | | | | **Total Amps:** | 10 A | | 10 A | | | | | |
| | | | | | **Phase Balance** | 0 % B-A | | 0 % C-A | | | | | |

| | Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|---|
| L | Lighting | | | | | |
| C | Continuous | | | | **Total Conn. Load:** | 4,680 VA |
| R | Receptacle | 4,500 VA | 100.00% | 4,500 VA | **Total Est. Demand:** | 4,644 VA |
| M | Motor | | | | **Total Conn.:** | 10 A |
| LM | Largest Motor | | | | **Total Est. Demand:** | 10 A |
| E | Equipment | 180 VA | 80.00% | 144 VA | **Spare Capacity:** | 20 A |
| A | Appliance | | | | | |

**Notes:**
THIS SCHEDULE REPRESENTS ONE SIDE OF A DUPLEX ISOLATION PANELBOARD. "OR3B" IS THE OTHER SIDE.
ISOLATION PANELBOARDS ARE FITTED WITH (16) 2-POLE BREAKERS, NOT THE 1-POLE BREAKERS SHOWN ON THIS SCHEDULE. BRANCH CIRCUIT VOLTAGE IS 120V LINE-TO-LINE.
BASIS OF DESIGN IS BENDER "MIX" SERIES.

## Isolation Panel: OR3B

**Location:** OR 3 185 | **Volts:** 480V PRI. - 120V SEC. | **K.A.I.C. Rating:** 10
**Supply From:** CRH2 | **Phases:** 1 | **Mains Type:** MCB
**Mounting:** Surface | **Wires:** 3 | **Bus Rating:** 30 A
**Enclosure:** Type 1 | **Transformer Size:** 10 kVA | **MCB Rating:** 30 A

| CKT | Circuit Description | Load Class | Trip | Poles | B | | C | | Poles | Trip | Load Class | Circuit Description | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REC: OR#3 EAST | R | 20 A | 1 | 360 VA | 360 VA | | | 1 | 20 A | R | OR#3 BOOM 1: RCPT CKT 2 | 2 |
| 3 | REC: OR#3 SOUTH | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#3 BOOM 1: RCPT CKT 4 | 4 |
| 5 | REC: OR#3 ENDO CART | R | 20 A | 1 | 540 VA | 360 VA | | | 1 | 20 A | R | OR#3 BOOM 2: DISPLAY MONITOR | 6 |
| 7 | REC: OR#3 WEST | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#3 BOOM 2: CTRLS & BRAKE | 8 |
| 9 | REC: OR#3 NORTH | R | 20 A | 1 | 540 VA | 180 VA | | | 1 | 20 A | E | OR#3 STRYKER BOX | 10 |
| 11 | SPARE | -- | 20 A | 1 | | | 0 VA | 180 VA | 1 | 20 A | R | REC: OR#3 ROBOT | 12 |
| 13 | SPARE | -- | 20 A | 1 | 0 VA | 180 VA | | | 1 | 20 A | R | REC: OR#3 ROBOT | 14 |
| 15 | SPARE | -- | 20 A | 1 | | | 0 VA | 360 VA | 1 | 20 A | R | REC: OR#3 INTEGRATION... | 16 |
| | | | | | **Total Load:** | 2,520 VA | | 1,980 VA | | | | | |
| | | | | | **Total Amps:** | 13 A | | 8 A | | | | | |
| | | | | | **Phase Balance** | 0 % B-A | | 0 % C-A | | | | | |

| | Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|---|
| L | Lighting | | | | | |
| C | Continuous | | | | **Total Conn. Load:** | 4,500 VA |
| R | Receptacle | 4,320 VA | 100.00% | 4,320 VA | **Total Est. Demand:** | 4,464 VA |
| M | Motor | | | | **Total Conn.:** | 9 A |
| LM | Largest Motor | | | | **Total Est. Demand:** | 9 A |
| E | Equipment | 180 VA | 80.00% | 144 VA | **Spare Capacity:** | 21 A |
| A | Appliance | | | | | |

**Notes:**
THIS SCHEDULE REPRESENTS ONE SIDE OF A DUPLEX ISOLATION PANELBOARD. "OR3A" IS THE OTHER SIDE.
ISOLATION PANELBOARDS ARE FITTED WITH (16) 2-POLE BREAKERS, NOT THE 1-POLE BREAKERS SHOWN ON THIS SCHEDULE. BRANCH CIRCUIT VOLTAGE IS 120V LINE-TO-LINE.
BASIS OF DESIGN IS BENDER "MIX" SERIES.

## Isolation Panel: OR1A

**Location:** OR 1 181 | **Volts:** 480V PRI. - 120V SEC. | **K.A.I.C. Rating:** 10
**Supply From:** CRH1 | **Phases:** 1 | **Mains Type:** MCB
**Mounting:** Surface | **Wires:** 3 | **Bus Rating:** 30 A
**Enclosure:** Type 1 | **Transformer Size:** 10 kVA | **MCB Rating:** 30 A

| CKT | Circuit Description | Load Class | Trip | Poles | A | | B | | Poles | Trip | Load Class | Circuit Description | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REC: OR#1 SOUTHWEST | R | 20 A | 1 | 360 VA | 360 VA | | | 1 | 20 A | R | OR#1 BOOM 1: RCPT CKT 1 | 2 |
| 3 | REC: OR#1 WEST | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#1 BOOM 1: RCPT CKT 3 | 4 |
| 5 | REC: OR#1 NORTH | R | 20 A | 1 | 540 VA | 360 VA | | | 1 | 20 A | R | OR#1 BOOM 1: DISPLAY MONITOR | 6 |
| 7 | REC: OR#1 EAST & CLOCK | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#1 BOOM 1: CTRLS & BRAKE | 8 |
| 9 | REC: OR#1 SOUTHEAST | R | 20 A | 1 | 360 VA | 180 VA | | | 1 | 20 A | E | OR#1 STRYKER BOX | 10 |
| 11 | REC: OR#1 SOUTH | R | 20 A | 1 | | | 360 VA | 180 VA | 1 | 20 A | R | REC: OR#1 ROBOT | 12 |
| 13 | SPARE | -- | 20 A | 1 | 0 VA | 180 VA | | | 1 | 20 A | R | REC: OR#1 ROBOT | 14 |
| 15 | SPARE | -- | 20 A | 1 | | | 0 VA | 360 VA | 1 | 20 A | R | REC: OR#1 INTEGRATION... | 16 |
| | | | | | **Total Load:** | 2,340 VA | | 2,340 VA | | | | | |
| | | | | | **Total Amps:** | 10 A | | 10 A | | | | | |
| | | | | | **Phase Balance** | 100 % A-B | | 100 % B-A | | | | | |

| | Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|---|
| L | Lighting | | | | | |
| C | Continuous | | | | **Total Conn. Load:** | 4,680 VA |
| R | Receptacle | 4,500 VA | 100.00% | 4,500 VA | **Total Est. Demand:** | 4,644 VA |
| M | Motor | | | | **Total Conn.:** | 10 A |
| LM | Largest Motor | | | | **Total Est. Demand:** | 10 A |
| E | Equipment | 180 VA | 80.00% | 144 VA | **Spare Capacity:** | 20 A |
| A | Appliance | | | | | |

**Notes:**
THIS SCHEDULE REPRESENTS ONE SIDE OF A DUPLEX ISOLATION PANELBOARD. "OR1B" IS THE OTHER SIDE.
ISOLATION PANELBOARDS ARE FITTED WITH (16) 2-POLE BREAKERS, NOT THE 1-POLE BREAKERS SHOWN ON THIS SCHEDULE. BRANCH CIRCUIT VOLTAGE IS 120V LINE-TO-LINE.
BASIS OF DESIGN IS BENDER "MIX" SERIES.

## Isolation Panel: OR1B

**Location:** OR 1 181 | **Volts:** 480V PRI. - 120V SEC. | **K.A.I.C. Rating:** 10
**Supply From:** CRH2 | **Phases:** 1 | **Mains Type:** MCB
**Mounting:** Surface | **Wires:** 3 | **Bus Rating:** 30 A
**Enclosure:** Type 1 | **Transformer Size:** 10 kVA | **MCB Rating:** 30 A

| CKT | Circuit Description | Load Class | Trip | Poles | A | | B | | Poles | Trip | Load Class | Circuit Description | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REC: OR#1 EAST | R | 20 A | 1 | 360 VA | 360 VA | | | 1 | 20 A | R | OR#1 BOOM 1: RCPT CKT 2 | 2 |
| 3 | REC: OR#1 SOUTH | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#1 BOOM 1: RCPT CKT 4 | 4 |
| 5 | REC: OR#1 ENDO CART | R | 20 A | 1 | 540 VA | 360 VA | | | 1 | 20 A | R | OR#1 BOOM 2: DISPLAY MONITOR | 6 |
| 7 | REC: OR#1 WEST | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#1 BOOM 2: CTRLS & BRAKE | 8 |
| 9 | REC: OR#1 NORTH | R | 20 A | 1 | 540 VA | 180 VA | | | 1 | 20 A | E | OR#1 STRYKER BOX | 10 |
| 11 | SPARE | -- | 20 A | 1 | | | 0 VA | 180 VA | 1 | 20 A | R | REC: OR#1 ROBOT | 12 |
| 13 | SPARE | -- | 20 A | 1 | 0 VA | 180 VA | | | 1 | 20 A | R | REC: OR#1 ROBOT | 14 |
| 15 | SPARE | -- | 20 A | 1 | | | 0 VA | 360 VA | 1 | 20 A | R | REC: OR#1 INTEGRATION... | 16 |
| | | | | | **Total Load:** | 2,520 VA | | 1,980 VA | | | | | |
| | | | | | **Total Amps:** | 13 A | | 8 A | | | | | |
| | | | | | **Phase Balance** | 79 % A-B | | 79 % B-A | | | | | |

| | Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|---|
| L | Lighting | | | | | |
| C | Continuous | | | | **Total Conn. Load:** | 4,500 VA |
| R | Receptacle | 4,320 VA | 100.00% | 4,320 VA | **Total Est. Demand:** | 4,464 VA |
| M | Motor | | | | **Total Conn.:** | 9 A |
| LM | Largest Motor | | | | **Total Est. Demand:** | 9 A |
| E | Equipment | 180 VA | 80.00% | 144 VA | **Spare Capacity:** | 21 A |
| A | Appliance | | | | | |

**Notes:**
THIS SCHEDULE REPRESENTS ONE SIDE OF A DUPLEX ISOLATION PANELBOARD. "OR1A" IS THE OTHER SIDE.
ISOLATION PANELBOARDS ARE FITTED WITH (16) 2-POLE BREAKERS, NOT THE 1-POLE BREAKERS SHOWN ON THIS SCHEDULE. BRANCH CIRCUIT VOLTAGE IS 120V LINE-TO-LINE.
BASIS OF DESIGN IS BENDER "MIX" SERIES.

## Inverter: LI-1

**Location:** EM ELEC ROOM 196 | **Input Voltage:** 277V SINGLE | **Design Size:** 4,800 VA
**Supply From:** CRH1 | **Output Voltage:** DUAL OUTPUT 277V/120V | **Run Time (Mins):** 90
**Mounting:** FLOOR | **Phases:** 1
**Enclosure:** TYPE 1 | **Wires:** 2
**Phase Created:** New Construction

| RELAY NO. | Circuit Description | Load Classification | Trip | Poles | Load | Notes |
|---|---|---|---|---|---|---|
| 1 | LTG: OR#1 | L | 20 A | 1 | 456 VA | 277V |
| 2 | LTG: OR#2 | L | 20 A | 1 | 456 VA | 277V |
| 3 | LTG: OR#3 | L | 20 A | 1 | 456 VA | 277V |
| 4 | SPARE | -- | 20 A | 1 | 0 VA | 277V |
| 5 | SPARE | -- | 20 A | 1 | 0 VA | 277V |
| 6 | LTG: GI PROCEDURE | L | 20 A | 1 | 340 VA | 277V |
| 7 | SPARE | -- | 20 A | 1 | 0 VA | 277V |
| 8 | J-BOX: OR#1 BOOM EXAM LIGHT | L | 20 A | 1 | 300 VA | 120V |
| 9 | J-BOX: OR#2 BOOM EXAM LIGHT | L | 20 A | 1 | 300 VA | 120V |
| 10 | J-BOX: OR#3 BOOM EXAM LIGHT | L | 20 A | 1 | 300 VA | 120V |
| 11 | SPARE | -- | 20 A | 1 | 0 VA | 120V |
| 12 | SPARE | -- | 20 A | 1 | 0 VA | 120V |

| Panel Totals | |
|---|---|
| **Total Connected Load (VA):** | 2,608 VA |
| **Total Demand Load @ 1.25 (VA):** | 3,260 VA |
| **Spare Capacity (VA):** | 1,540 VA |

**Notes:**
BASIS OF DESIGN IS DUAL-LITE 'LSN D-SERIES' SINGLE-PHASE, DUAL-VOLTAGE-OUTPUT LIGHTING INVERTER, WITH INTERNAL BYPASS.
CATALOG NUMBER: D277-48S120/277-A2005U-C2007U-IBS
ARRANGE OUTPUT BREAKERS WITH (7) 277V BREAKERS IN POSITION 1-7, AND (5) 120V BREAKERS IN POSITION 8-12.

## Isolation Panel: OR2A

**Location:** OR 2 183 | **Volts:** 480V PRI. - 120V SEC. | **K.A.I.C. Rating:** 10
**Supply From:** CRH1 | **Phases:** 1 | **Mains Type:** MCB
**Mounting:** Surface | **Wires:** 3 | **Bus Rating:** 30 A
**Enclosure:** Type 1 | **Transformer Size:** 10 kVA | **MCB Rating:** 30 A

| CKT | Circuit Description | Load Class | Trip | Poles | A | | C | | Poles | Trip | Load Class | Circuit Description | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REC: OR#2 SOUTHWEST | R | 20 A | 1 | 360 VA | 360 VA | | | 1 | 20 A | R | OR#2 BOOM 1: RCPT CKT 1 | 2 |
| 3 | REC: OR#2 WEST | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#2 BOOM 1: RCPT CKT 3 | 4 |
| 5 | REC: OR#2 NORTH | R | 20 A | 1 | 540 VA | 360 VA | | | 1 | 20 A | R | OR#2 BOOM 1: DISPLAY MONITOR | 6 |
| 7 | REC: OR#2 EAST & CLOCK | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#2 BOOM 1: CTRLS & BRAKE | 8 |
| 9 | REC: OR#2 SOUTHEAST | R | 20 A | 1 | 360 VA | 180 VA | | | 1 | 20 A | E | OR#2 STRYKER BOX | 10 |
| 11 | REC: OR#2 SOUTH | R | 20 A | 1 | | | 360 VA | 180 VA | 1 | 20 A | R | REC: OR#2 ROBOT | 12 |
| 13 | SPARE | -- | 20 A | 1 | 0 VA | 180 VA | | | 1 | 20 A | R | REC: OR#2 ROBOT | 14 |
| 15 | SPARE | -- | 20 A | 1 | | | 0 VA | 360 VA | 1 | 20 A | R | REC: OR#2 INTEGRATION... | 16 |
| | | | | | **Total Load:** | 2,340 VA | | 2,340 VA | | | | | |
| | | | | | **Total Amps:** | 10 A | | 10 A | | | | | |
| | | | | | **Phase Balance** | 0 % A-B | | 100 % C-A | | | | | |

| | Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|---|
| L | Lighting | | | | | |
| C | Continuous | | | | **Total Conn. Load:** | 4,680 VA |
| R | Receptacle | 4,500 VA | 100.00% | 4,500 VA | **Total Est. Demand:** | 4,644 VA |
| M | Motor | | | | **Total Conn.:** | 10 A |
| LM | Largest Motor | | | | **Total Est. Demand:** | 10 A |
| E | Equipment | 180 VA | 80.00% | 144 VA | **Spare Capacity:** | 20 A |
| A | Appliance | | | | | |

**Notes:**
THIS SCHEDULE REPRESENTS ONE SIDE OF A DUPLEX ISOLATION PANELBOARD. "OR2B" IS THE OTHER SIDE.
ISOLATION PANELBOARDS ARE FITTED WITH (16) 2-POLE BREAKERS, NOT THE 1-POLE BREAKERS SHOWN ON THIS SCHEDULE. BRANCH CIRCUIT VOLTAGE IS 120V LINE-TO-LINE.
BASIS OF DESIGN IS BENDER "MIX" SERIES.

## Isolation Panel: OR2B

**Location:** OR 2 183 | **Volts:** 480V PRI. - 120V SEC. | **K.A.I.C. Rating:** 10
**Supply From:** CRH2 | **Phases:** 1 | **Mains Type:** MCB
**Mounting:** Surface | **Wires:** 3 | **Bus Rating:** 30 A
**Enclosure:** Type 1 | **Transformer Size:** 10 kVA | **MCB Rating:** 30 A

| CKT | Circuit Description | Load Class | Trip | Poles | A | | C | | Poles | Trip | Load Class | Circuit Description | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | REC: OR#2 EAST | R | 20 A | 1 | 360 VA | 360 VA | | | 1 | 20 A | R | OR#2 BOOM 1: RCPT CKT 2 | 2 |
| 3 | REC: OR#2 SOUTH | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#2 BOOM 1: RCPT CKT 4 | 4 |
| 5 | REC: OR#2 ENDO CART | R | 20 A | 1 | 540 VA | 360 VA | | | 1 | 20 A | R | OR#2 BOOM 2: DISPLAY MONITOR | 6 |
| 7 | REC: OR#2 WEST | R | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | R | OR#2 BOOM 2: CTRLS & BRAKE | 8 |
| 9 | REC: OR#2 NORTH | R | 20 A | 1 | 540 VA | 180 VA | | | 1 | 20 A | E | OR#2 STRYKER BOX | 10 |
| 11 | SPARE | -- | 20 A | 1 | | | 0 VA | 180 VA | 1 | 20 A | R | REC: OR#2 ROBOT | 12 |
| 13 | SPARE | -- | 20 A | 1 | 0 VA | 180 VA | | | 1 | 20 A | R | REC: OR#2 ROBOT | 14 |
| 15 | SPARE | -- | 20 A | 1 | | | 0 VA | 360 VA | 1 | 20 A | R | REC: OR#2 INTEGRATION... | 16 |
| | | | | | **Total Load:** | 2,520 VA | | 1,980 VA | | | | | |
| | | | | | **Total Amps:** | 13 A | | 8 A | | | | | |
| | | | | | **Phase Balance** | 0 % A-B | | 79 % C-A | | | | | |

| | Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals | |
|---|---|---|---|---|---|---|
| L | Lighting | | | | | |
| C | Continuous | | | | **Total Conn. Load:** | 4,500 VA |
| R | Receptacle | 4,320 VA | 100.00% | 4,320 VA | **Total Est. Demand:** | 4,464 VA |
| M | Motor | | | | **Total Conn.:** | 9 A |
| LM | Largest Motor | | | | **Total Est. Demand:** | 9 A |
| E | Equipment | 180 VA | 80.00% | 144 VA | **Spare Capacity:** | 21 A |
| A | Appliance | | | | | |

**Notes:**
THIS SCHEDULE REPRESENTS ONE SIDE OF A DUPLEX ISOLATION PANELBOARD. "OR2A" IS THE OTHER SIDE.
ISOLATION PANELBOARDS ARE FITTED WITH (16) 2-POLE BREAKERS, NOT THE 1-POLE BREAKERS SHOWN ON THIS SCHEDULE. BRANCH CIRCUIT VOLTAGE IS 120V LINE-TO-LINE.
BASIS OF DESIGN IS BENDER "MIX" SERIES.

STATE OF MISSOURI
ABHINAV PANDEY
NUMBER PE-2018015824
PROFESSIONAL ENGINEER
02/07/2023

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| | |
|---|---|
| Date | 2/8/2023 |
| Job Number | 3-22030 |
| Drawn By | AE |
| Checked By | JB, AP |

Revision

| Number | Date | Description |
|---|---|---|

E7.4

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ELECTRICAL SCHEDULES

# SYMBOL TYPES

NOTE: THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS

**TELECOM SYMBOLS**

- XX — TELECOM DATA DEVICE MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM DATA DEVICE MOUNTED ON FLOOR. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM DATA DEVICE MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM ANALOG DEVICE MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM ANALOG DEVICE MOUNTED ON FLOOR. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM ANALOG DEVICE MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM DATA/ANALOG COMBINATION DEVICE MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM DATA/ANALOG COMBINATION DEVICE MOUNTED ON FLOOR. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM DATA/ANALOG COMBINATION DEVICE MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.

**AUDIOVISUAL SYMBOLS**

- AV DEVICE MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- AV DEVICE MOUNTED ON FLOOR. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- AV DEVICE MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- AV CAMERA MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- AV CAMERA MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.

**SECURITY SYMBOLS**

- SECURITY DEVICE MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- SECURITY DEVICE MOUNTED ON FLOOR. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- SECURITY DEVICE MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- SECURITY CAMERA MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- SECURITY CAMERA MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.

**NURSE CALL SYMBOLS**

- NURSE CALL DEVICE MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- NURSE CALL DEVICE MOUNTED ON FLOOR. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- NURSE CALL DEVICE MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.

| SYSTEM TYPE | MOUNTING TYPE | TYPE | DESCRIPTION | MOUNTING | INFRASTRUCTURE BOX | INFRASTRUCTURE CONDUIT | REFERENCE | COUNT |
|---|---|---|---|---|---|---|---|---|
| AUDIOVISUAL | CEILING | S1 | LOUDSPEAKER FOR ROOM SYSTEM | CEILING | INTEGRAL TO LOUNDSPEAKER BACKCAN (PROVIDED BY AV CONTRACTOR) | NA, PLENUM CABLING | | 28 |
| AUDIOVISUAL | CEILING | S2 | LOUDSPEAKER FOR ROOM SYSTEM, HARD CEILING | CEILING | 4-11/16" SQUARE BACK BOX WITH BLANK COVER, 18" ABOVE CEILING | (1) 3/4" FLEX TO BACKBOX, (1) 3/4" BETWEEN DEVICES AND (1) 1" HOMERUN TO ROOM AV RACK | | 6 |
| DATA DEVICE | CEILING | WAP | 1-PORT TELECOM OUTLET IN CEILING FOR WIRELESS ACCESS POINT | - | 4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1" C TO ACCESSIBLE CEILING SPACE | | 17 |
| DATA DEVICE | WALL | 2 | 2-PORT TELECOM OUTLET | 1' - 6" AFF | 4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1" C TO ACCESSIBLE CEILING SPACE | | 99 |
| DATA DEVICE | WALL | TC | 1-PORT DATA OUTLET FOR TIME CLOCK | 3' - 10" AFF OR MATCH ELECTRICAL OUTLETS | 4-SQUARE WITH 1 GANG MUD-RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 3/4" C. TO NEAREST ACCESSIBLE CEILING | | 1 |
| DATA DEVICE | WALL | TV | 1-PORT COAXIAL OUTLET FOR DISPLAY | 5' - 0" AFF | 4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1" C TO ACCESSIBLE CEILING SPACE | | 7 |
| DATA DEVICE | WALL | WP | 1-PORT TELECOM OUTLET FOR WALL MOUNT PHONE | 4' - 0" AFF | 4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1" C TO ACCESSIBLE CEILING SPACE | | 23 |
| NURSE CALL | CEILING | DL | DOME LIGHT | CEILING | N/A | N/A, Plenum Cabling | | 34 |
| NURSE CALL | CEILING | DZ | ZONE DOME LIGHT | CEILING | N/A | N/A, Plenum Cabling | | 10 |
| NURSE CALL | WALL | AM | VISUAL NURSE MASTER ANNUNCIATOR | 4' - 0" AFF | PER VENDOR SPECS | 1" C TO NEAREST ACCESSIBLE CEILING | | 12 |
| NURSE CALL | WALL | CM | AUDIO VISUAL NURSE MASTER CONSOLE | 4' - 0" AFF | 4-11/16" SQUARE BOX, 2-1/2" DEEP, WITH 13/16" DEEP 1-DEVICE MUD RING, FLUSH MOUNTED | 1" C TO NEAREST ACCESSIBLE CEILING | | 3 |
| NURSE CALL | WALL | EB | STAFF EMERGENCY PUSH BUTTON STATION | 4' - 0" AFF | 4-11/16" SQUARE BOX, 2-1/2" DEEP, WITH 13/16" DEEP 1-DEVICE MUD RING, FLUSH MOUNTED | 1" C TO NEAREST ACCESSIBLE CEILING | | 8 |
| NURSE CALL | WALL | EP | EMERGENCY PULL CORD STATION | 4' - 0" AFF | 4-11/16" SQUARE BOX, 2-1/2" DEEP, WITH 13/16" DEEP 1-DEVICE MUD RING, FLUSH MOUNTED | 1" C TO NEAREST ACCESSIBLE CEILING | | 6 |
| NURSE CALL | WALL | SC | AUDIO VISUAL DUAL PATIENT STATION WITH PUSH BUTTON / CORDS | 4' - 0" AFF | 4-11/16" SQUARE BOX, 2-1/2" DEEP, WITH 13/16" DEEP 3-DEVICE MUD RING, FLUSH MOUNTED | 1" C TO NEAREST ACCESSIBLE CEILING | | 17 |
| SECURITY | CEILING | M | MOTION DETECTOR | - | N/A | N/A | | 9 |
| SECURITY | WALL | AC | ACCESS CONTROL HEADEND PANEL | 5' - 0" AFF | N/A, SURFACE MOUNT TO FIRE RATED PLYWOOD | N/A | | 2 |
| SECURITY | WALL | D | DOOR POSITION SWITCH | 3' - 10" AFF | N/A, RECESS INTO TOP OF DOOR FRAME 4" FROM STRIKE SIDE, UNO | (1) 3/4" C STUBBED INTO NEAREST ACCESSIBLE CEILING | | 9 |
| SECURITY | WALL | DR | DOOR RELEASE BUTTON | UNDER DESK | N/A, SURFACE MOUNT TO UNDER SIDE OF DESK | (1) 3/4" C STUBBED INTO NEAREST ACCESSIBLE CEILING | | 1 |
| SECURITY | WALL | ID | INTRUSION DETECTION HEADEND PANEL | 5' - 0" AFF | N/A, SURFACE MOUNT TO FIRE RATED PLYWOOD | N/A | | 1 |
| SECURITY | WALL | IK | INTRUSION DETECTION KEYPAD | 3' - 10" AFF | 4-11/16" SQUARE WITH 2-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1-1/4" C STUBBED INTO NEAREST ACCESSIBLE CEILING | | 1 |
| SECURITY | WALL | IM | INTRUSION DETECTION MASTER STATION | 3' - 10" AFF | 4-11/16" SQUARE WITH 2-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1-1/4" C STUBBED INTO NEAREST ACCESSIBLE CEILING | | 3 |
| SECURITY | WALL | LB | LOCK DOWN BUTTON | 3' - 10" AFF | N/A, SURFACE MOUNT TO UNDER SIDE OF DESK | (1) 3/4" C STUBBED INTO NEAREST ACCESSIBLE CEILING | | 1 |
| SECURITY | WALL | PB | PANIC BUTTON | 3' - 10" AFF | N/A, SURFACE MOUNT TO UNDER SIDE OF DESK | (1) 3/4" C STUBBED INTO NEAREST ACCESSIBLE CEILING | | 2 |
| SECURITY | WALL | R | CARD READER | 3' - 10" AFF | 4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 3/4" C STUBBED INTO NEAREST ACCESSIBLE CEILING | | 12 |
| SECURITY | WALL | RM | CARD READER, MULLION MOUNT | 3' - 10" AFF | N/A, GROMMETED HOLE THROUGH MULLION | (1) 3/4" C DROPPED 1' INTO MULLION ROUTED VERTICALLY WITH A 90? BEND ATTACHED TO DECK (SEE DETAILS) | | 2 |
| SECURITY | WALL | V | VIDEO INTERCOM | 3' - 10" AFF | 4-11/16" SQUARE WITH 2-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1" C STUBBED INTO ACCESSIBLE CEILING | | 3 |
| SECURITY CAMERA | CEILING | 90 | SURVEILLANCE CAMERA - INTERIOR 90 DEGREE | - | N/A | N/A, PLENUM CABLING | | 12 |
| SECURITY CAMERA | WALL | 90 | SURVEILLANCE CAMERA - EXTERIOR 90 DEGREE | 8' - 0" AFF | 4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1" C STUBBED INTO NEAREST ACCESSIBLE CEILING | | 2 |
| SECURITY CAMERA | WALL | 270 | SURVEILLANCE CAMERA - EXTERIOR 270 DEGREE | 8' - 0" AFF | 4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1" C STUBBED INTO NEAREST ACCESSIBLE CEILING | | 6 |
| TELECOM | WALL | 1 | 1-PORT TELECOM OUTLET | 1' - 6" AFF | 4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX | (1) 1" C TO ACCESSIBLE CEILING SPACE | | 1 |

# TECHNOLOGY SHEET LIST


| | |
|---|---|
| T0.1 | TECHNOLOGY LEGEND |
| T1.1 | FIRST FLOOR TECHNOLOGY PLAN - OVERALL |
| T2.1 | TECHNOLOGY DETAILS |
| T2.2 | NURSE CALL DETAILS |
| T3.1 | TECHNOLOGY SIGNAL FLOWS |


# ABBREVIATIONS

| | |
|---|---|
| AC | ABOVE COUNTER |
| AFF | ABOVE FINISHED FLOOR |
| C | CONDUIT |
| CFCI | CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED |
| CFOI | CONTRACTOR FURNISHED AND OWNER INSTALLED |
| (E) | EXISTING |
| EF | ENTRANCE FACILITY |
| ER | EQUIPMENT ROOM |
| GND | GROUND |
| IG | ISOLATED GROUND |
| LAN | LOCAL AREA NETWORK |
| LC | LUCENT CONNECTOR |
| Mbps | MEGABITS PER SECOND |
| MM | MULTIMODE |
| OFCI | OWNER FURNISHED AND CONTRACTOR INSTALLED |
| OFOI | OWNER FURNISHED AND OWNER INSTALLED |
| OSP | OUTSIDE CABLE PLANT |
| PBB | PRIMARY BONDING BUSBAR |
| PoE | POWER OVER ETHERNET |
| PoE+ | POWER OVER ETHERNET PLUS |
| RU | RACK UNIT (1.75") |
| QTY | QUANTITY |
| SBB | SECONDARY BONDING BUSBAR |
| SEF | SERVICE ENTRANCE FACILITY |
| SM | SINGLE MODE |
| TIA | TELECOMMUNICATIONS INDUSTRY ASSOCIATION |
| TYP | TYPICAL |
| UG | UNDERGROUND |
| UNO | UNLESS OTHERWISE NOTED |
| UPS | UNINTERRUPTIBLE POWER SUPPLY |
| UTP | UNSHIELDED TWISTED PAIR |
| W/ | WITH |
| W/O | WITHOUT |
| WAO | WORK AREA OUTLET |
| WAP | WIRELESS ACCESS POINT |
| XC | CROSS-CONNECT |

# EQUIPMENT LEGEND

- FLAT PANEL DISPLAY, REFER TO DISPLAY TABLE BELOW FOR ANNOTATION DESCRIPTIONS.
- PROJECTION SCREEN, REFER TO DISPLAY TABLE BELOW FOR ANNOTATION DESCRIPTIONS.
- LADDER RACK
- 4-POST RACK
- 2-POST RACK
- XX — WALL PANEL, "XX" INDICATES TYPE, CHECK ABBREVIATIONS LIST FOR TYPE.

# GENERAL NOTES

1. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO ALL ARCHITECTURAL/ELECTRICAL/STRUCTURAL/CIVIL AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
3. FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
4. WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES.
5. PROVIDE PERMITS AND INSPECTIONS REQUIRED.
6. SYSTEM SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
7. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS REASON TO SUBSa TITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
8. ALL SYSTEMS SHALL BE COMPLETE AND FULLY OPERATIONAL.
9. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY. THE ENGINEER RESERVES THE RIGHT TO APPROVE METHODS AND MATERIALS NOT REFLECTED HEREIN.
10. PROVIDE RECORD DRAWINGS TO THE ARCHITECT/ENGINEER. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, ALTERATIONS, REROUTINGS, ETC.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
12. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING, AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), PULLBOXES, TRANSFORMERS PADS, SAW CUTTING AND PATCHING, CONCRETE PAVING, ETC. REQUIRED. BACKFILL TRENCHES TO 90% COMPACTION AND PATCH TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS.
13. THE DATA GIVEN ON THE DRAWING IS AS EXACT AS COULD BE SECURED. THE CONTRACTOR SHALL OBTAIN EXACT LOCATION, MEASUREMENTS, LEVELS, ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT THE WORK TO THE ACTUAL CONDITIONS AT THE PROJECT SITE.
14. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
15. ROUTE ALL WIRE AND CONDUIT CONCEALED, FOR ALL SYSTEMS, UNLESS NOTED OTHERWISE.
16. ACCURATE RECORDS OF WORK MODIFICATIONS (AS-BUILTS) SHALL BE KEPT DAILY.
17. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL ENGINEERING REQUIREMENTS, THE OWNERS DESIGN CRITERIA, UTILITY COMPANY REQUIREMENTS, APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE AND SAFETY AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.
18. VALIDATE ALL QUANTITIES. DEVICES SHOWN ON PLANS TAKE PRECEDENCE OVER SCHEDULE QUANTITIES.
19. CARD READERS MUST BE WITHIN 6" OF DOOR FRAME, UNO.

# GENERAL INFRASTRUCTURE NOTES

1. IF THE ENCLOSURE, BOXES AND CABINETS SPECIFIED ARE NOT PROVIDED FROM THE MANUFACTURER WITH THE REQUIRED KNOCKOUTS FOR THE SPECIFIED CONDUIT, FIELD CUT ALL REQUIRED KNOCKOUTS TO TERMINATE THE QUANTITY AND SIZE OF THE SPECIFIED CONDUITS.
2. MAINTAIN MAXIMUM SEPARATION BETWEEN AV SYSTEM CONDUIT AND ALL POWER CONDUIT.
3. INSTALL NYLON PULL STRINGS IN ALL CONDUIT.
4. INSTALL ALL CONDUIT IN A CONCEALED FASHION. SURFACE MOUNTED CONDUIT WILL NOT BE ACCEPTED UNLESS SPECIFICALLY IDENTIFIED IN THE DRAWINGS.
5. COVER ALL INSTALLED JUNCTION BOXES AND MUD RINGS WITH BLANK COVER PLATES.
6. ALL CONDUIT SHALL BE A MINIMUM DIAMETER OF 3/4" UNLESS NOTED OTHERWISE.
7. ALL CONDUIT SHALL BE THIN-WALL EMT UNLESS NOTED OTHERWISE. CONDUIT SIZES AND TERMINATION SHALL BE AS NOTED ON THE TECHNOLOGY INFRASTRUCTURE DRAWINGS.
8. MAXIMUM OF TWO 90-DEGREE BENDS OR 50 LINEAR FEET BETWEEN PULL BOXES. ADDITIONAL PULL BOXES NOT SHOWN ON DRAWINGS MAY BE REQUIRED. CONDUIT ROUTING IS AT THE ELECTRICAL CONTRACTOR'S DISCRETION.
9. MOUNT BOXES ON WALLS AT THE HEIGHTS NOTED ON THE TECHNOLOGY INFRASTRUCTURE DRAWINGS IF ELECTRICAL BOXES ARE AT SIMILAR BUT DIFFERENT HEIGHTS, MOUNT BOXES TO MATCH ELECTRICAL BOX HEIGHTS, (18" AFF OR 46" AFF, ETC.). DIMENSIONS SHOWN ON THESE DRAWINGS ARE TO THE CENTER OF BOX UNLESS OTHERWISE NOTED. IF MATCHING HEIGHTS WITH ELEC DOES NOT FOLLOW ADA OR OTHER APPLICABLE CODES OR STANDARDS , SUBMIT A RFI FOR CLARIFICATION.
10. PROVIDE NYLON BUSHINGS ON ALL CONDUIT STUBS AND NON-TERMINATED CONDUIT ENDS.

# GENERAL AV INSTALLATION NOTES

1. INSTALL ALL EQUIPMENT IN COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, SEISMIC CODES, AND INDUSTRY ACCEPTED RIGGING PRACTICES. SUPPORT EQUIPMENT WEIGHT FROM STRUCTURE ABOVE CEILINGS. DURING THE SUBMITTAL PROCESS, PROVIDE SHOP DRAWINGS WHICH DETAIL PROPOSED MOUNTING FOR ALL SUCH EQUIPMENT.

# GENERAL GROUNDING NOTES

1. ISOLATE ALL EQUIPMENT FROM CONDUIT AND BUILDING STEEL.
2. GROUND COMMUNICATIONS SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH ANSI-TIA-EIA GROUNDING STANDARD AND APPLICABLE NEC REQUIREMENTS.
3. ALL RACKS, METALIC BACKBOARDS, CABLE TRAYS, SPLICE CASES, ETC. IN A TECHNICAL EQUIPMENT SPACE (EITHER RESIDING IN OR ENTERING/EXITING) SHALL BE GROUNDED TO THEIR RESPECTIVE GROUND SYSTEM USING A #6 AWG (MINIMUM) COPPER BONDING CONDUCTOR.
4. ALL GROUND WIRES USED FOR TECHNICAL SYSTEM GROUNDING SHALL BE IDENTIFIED AT THEIR TERMINATION POINTS WITH GREEN WRAP/TAPE. THESE GROUNDS SHALL BE LABELED/IDENTIFIED AS "TECHNICAL POWER SYSTEM GROUND".

# RESPONSIBILITY MATRIX

| SYSTEM | SCOPE DESCRIPTION | SPECIFICATION SECTION | FURNISHED BY | INSTALLED BY |
|---|---|---|---|---|
| ALL LOW-VOLTAGE SYSTEMS | BACKBOXES AND CONDUIT | DIVISION 26 | CONTRACTOR | CONTRACTOR |
| | GROUNDING BUSBAR | DIVISION 26 | CONTRACTOR | CONTRACTOR |
| | GROUND AND BONDING TO EQUIPMENT | N/A | OWNER VENDOR | OWNER VENDOR |
| | DISCONTINUOUS PATHWAYS (J-HOOKS, RINGS) | N/A | OWNER VENDOR | OWNER VENDOR |
| | CONTINUOUS PATHWAYS (TRAY) | N/A | N/A | NOT IN CONTRACT |
| COMMUNICATIONS | CABLING | N/A | OWNER VENDOR | OWNER VENDOR |
| | FACEPLATES, CABLE TERMINATIONS AND TESTING | N/A | OWNER VENDOR | OWNER VENDOR |
| | RACKS, ENCLOSURES, LADDER TRAY | N/A | OWNER VENDOR | OWNER VENDOR |
| NETWORK ACTIVE DEVICES | WIRELESS ACCESS POINTS (WAPS) | N/A | OWNER | OWNER VENDOR |
| | NETWORK SWITCHES | N/A | OWNER | OWNER |
| | SERVERS / COMPUTERS / PHONES | N/A | OWNER | OWNER |
| | UPS AND PDU | N/A | OWNER | OWNER VENDOR |
| | CLOCKS | N/A | N/A | NOT IN CONTRACT |
| | MASS NOTIFICATION SYSTEM | DELEGATED | CONTRACTOR | CONTRACTOR |
| | DISTRIBUTED ANTENNA SYSTEM (RADIO / CELL REPEATER OR BOOSTER) | N/A | N/A | NOT IN CONTRACT |
| AV | CABLING, FACEPLATES, CABLE TERMINATIONS AND TESTING | N/A | OWNER VENDOR | OWNER VENDOR |
| | AV CONFERENCING EQUIPMENT | N/A | OWNER VENDOR | OWNER VENDOR |
| | OPERATING ROOM AV EQUIPMENT | N/A | OWNER VENDOR | OWNER VENDOR |
| | CABLE / ANTENNA TELEVISION (CATV) | N/A | OWNER VENDOR | OWNER VENDOR |
| | PUBLIC ADDRESS SYSTEMS | N/A | OWNER VENDOR | OWNER VENDOR |
| | SOUND MASKING | N/A | N/A | NOT IN CONTRACT |
| ELECTRONIC SECURITY | CABLING, FACEPLATES, CABLE TERMINATIONS AND TESTING | N/A | OWNER VENDOR | OWNER VENDOR |
| | ENCLOSURES, HOUSINGS, POWER SUPPLIES | N/A | OWNER VENDOR | OWNER VENDOR |
| | ACCESS CONTROL - DOOR DEVICES | N/A | OWNER VENDOR | OWNER VENDOR |
| | ACCESS CONTROL - CONTROLLER / SERVER | N/A | OWNER VENDOR | OWNER VENDOR |
| | ENTRY INTERCOM | N/A | OWNER VENDOR | OWNER VENDOR |
| | SURVEILLANCE - CAMERAS | N/A | OWNER VENDOR | OWNER VENDOR |
| | SURVEILLANCE - RECORDING / SERVERS (NVR) AND LICENSES | N/A | OWNER VENDOR | OWNER VENDOR |
| | INTRUSION DETECTION (MOTION, GLASS BREAK) | N/A | OWNER VENDOR | OWNER VENDOR |
| | EXTERIOR / SITE SECURITY | N/A | N/A | NOT IN CONTRACT |
| NURSE CALL | CABLING | 27 52 23 | CONTRACTOR | CONTRACTOR |
| | FACEPLATES, CABLE TERMINATIONS AND TESTING | 27 52 23 | CONTRACTOR | CONTRACTOR |
| | ENCLOSURES, HOUSINGS, POWER SUPPLIES | 27 52 23 | CONTRACTOR | CONTRACTOR |
| | DEVICES (PULL STATIONS, DOME LIGHTS) | 27 52 23 | CONTRACTOR | CONTRACTOR |


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Surgery Center of Lee's Summit
1950 SE Shenandoah Drive
Lee's Summit, MO 64063

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| Job Number | 3-22030 |
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| Checked By | Checker |

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| Number | Date | Description |
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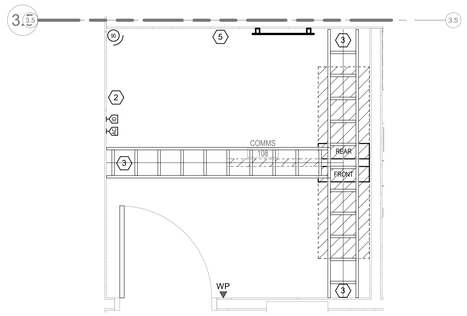
TECHNOLOGY LEGEND

BranchPattern | www.branchpattern.com PROJECT NUMBER: 1201002 BETTER BUILT ENVIRONMENTS



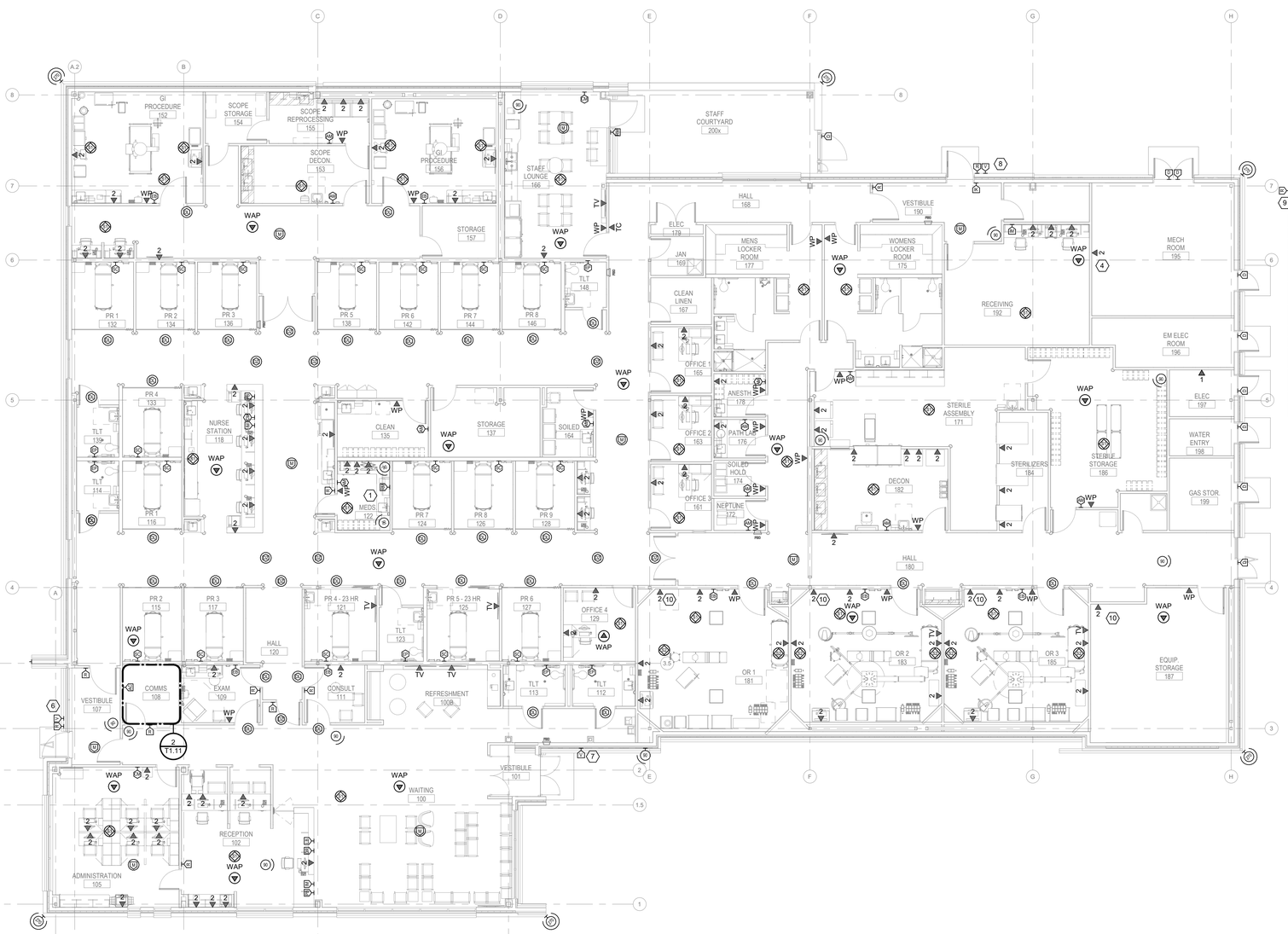

## 2 ENLARGED COMMS 108
SCALE: 1/2" = 1'-0"

## KEY NOTES (THIS SHEET)

1. CONTRACTOR TO COORDINATE INFRASTRUCTURE FOR MED CABINET ACCESS CONTROL. BOTH UPPER CABINET DOORS SHALL BE PROTECTED WITH CARD READERS AND MAG-LOCKS. CONTRACTOR TO COORDINATE BACK BOX NEEDS FOR ACCESS CONTROL COMPONENTS TO ALLOW CARD READER ACCESS TO MED CABINETS. MED CABINET DOORS SHALL BE MONITORED USING DPS.
2. CONTRACTOR TO INSTALL (3) 4" CONDUITS WITH PULL STRING TO SERVICE PROVIDER VAULT FOR INCOMING SERVICES. REFERENCE ELECTRICAL SITE PLAN FOR CONDUIT FLOOR PENETRATION LOCATIONS. CONDUIT ROUTING TO BE DELEGATED DESIGN.
3. CONTRACTOR TO INSTALL 4" EZPATH SYSTEM FOR IT ROOM WALL PENTRATIONS, SIZED APPROPRIATELY FOR CABLE FILL OF CABLES BEING INITIALLY INSTALLED PLUS 25% GROWTH CAPABILITY FOR FUTURE CABLING.
4. CONTRACTORS TO COORDINATE DATA CABLING AND BACK BOX/CONDUIT LOCATOIN FOR BAS PANEL IN MECHANICAL ROOM.
5. CONTRACTOR TO PROVIDE ROOF PENETRATION FOR FUTURE DISTRIBUTED ANTENNA SYSTEM (DAS). REFERENCE ARCHITECTURAL DRAWINGS FOR LOCATION, SIZING, AND PENETRATION DETAILS.
6. DOOR INTERCOM SHALL NOTIFY NURSE STATION MASTER STATION FIRST, THEN RECEPTION MASTER STATION.
7. DOOR INTERCOM SHALL NOTIFY RECEPTION DESK MASTER STATION FIRST, THEN NURSE STATION MASTER STATION.
8. DOOR INTERCOM SHALL NOTIFY RECEIVING DESK MASTER STATION FIRST, THEN RECEPTION MASTER STATION.
9. INSTALL (1) 2" CONDUIT TO COMMS #108 FOR INFRASTRUCTURE PATHWAY FOR MECH YARD CARD READER.
10. NETWORK INFRASTUCTURE FOR STRYKER COR LITE. CONTRACTOR TO COORDINATE CABLE ROUTING TO DEVICE.

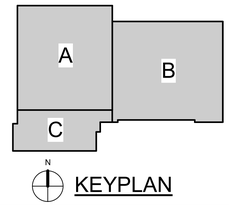
## GENERAL NOTES (THIS SHEET)

1. PROVIDE 3/4" FIRE-RATED PLYWOOD ON ALL WALLS WITHIN I.T. #108. PLYWOOD IS TO COVER WALL TO WALL WITH NO GAPS. PLYWOOD SHALL BE PAINTED WITH FIRE-RATED PAINT TO MATCH ROOM COLOR.
2. NOTE RESPONSIBILITY MATRIX FOR EQUIPMENT TO BE INSTALLED UNDER THIS CONTRACT, LISTS AS "CONTRACTOR" VS. ITEMS FOR AN OWNER-DIRECT VENDOR OUTSIDE OF THIS CONTRACT, LABEL "OWNER VENDOR", SOME OF WHICH IS SHOWN ON PLANS FOR COORDINATION. BACK BOXES AND PATHWAY IS REQUIRED UNDER THIS CONTRACT FOR ALL SHOWN EQUIPMENT, REGARDLESS OF PARTY INSTALLING THE EQUIPMENT.
3. CONTRACTOR TO ENLIST FIRESTOPPING AGENT TO INSTALL ALL FIRESTOPPING AND PENETRATIONS. AGENT SHALL INSTALL EZ-PATH44 FIRESTOPPING PENETRATIONS IN ALL SMOKE / FIREWALLS, MINIMUM OF TRIPLE BANK AT EACH PRIMARY PATHWAY PENTRATION AND ONE AT EACH SECONDARY PATHWAY PENETRATION. ALL OTHER NON-RATED PENETRATIONS SHALL BE NON-RATED EZ-PATH DEVICES USING SAME INSTALLATION METHODS AS RATED PENETRATIONS . COORDINATE WITH OWNER PRIOR FOR SIGN-OFF ON PENETRATION LOCATIONS AND QUANTITIES PRIOR TO INSTALLATION.
4. NETWORK AND DISTRIBUTION RACKS ARE SHOW FOR INFORMATION ONLY. COORDINATE FINAL RACK LAYOUT AND CONFIGURATION WITH OWNER IT AND OBTAIN SIGN-OFF PRIOR TO INSTALLATION. CONTRACTORS TO COORDINATE WITH OTHER TRADES AND OWNER FOR ALL RACK-MOUNTED EQUIPMENT AND POWER NEEDS AND INSTALL ACCORDINGLY.
5. CONTRACTOR TO COORDINATE WITH FINAL OR VENDOR SHOP DRAWINGS FOR LOW VOLTAGE INFRASTRUCTURE LOCATION REQUIREMENTS.
6. CONTRACTOR TO COORDINATE CABLE ROUTING WITH FURNITURE VENDOR.




## 1 FIRST FLOOR TECHNOLOGY PLAN OVERALL
SCALE: 1/8" = 1'-0"

0' 4' 8' 16'




KEYPLAN

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FIRST FLOOR TECHNOLOGY PLAN - OVERALL

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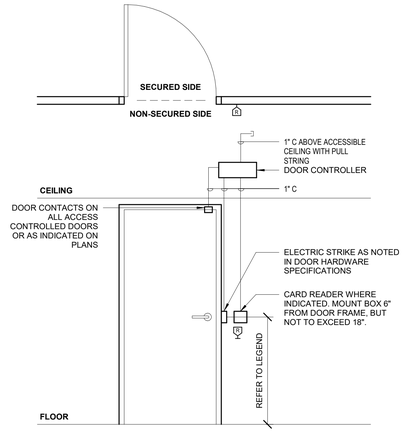
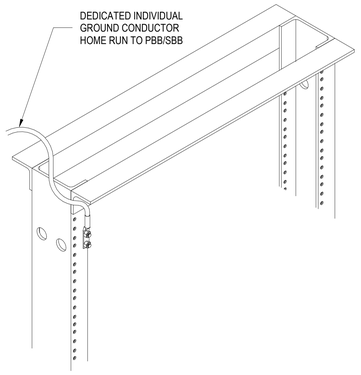
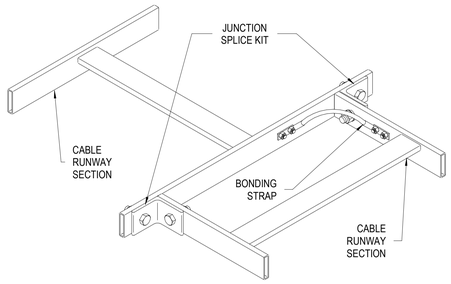
PROJECT NUMBER: 1201002
BETTER BUILT ENVIRONMENTS



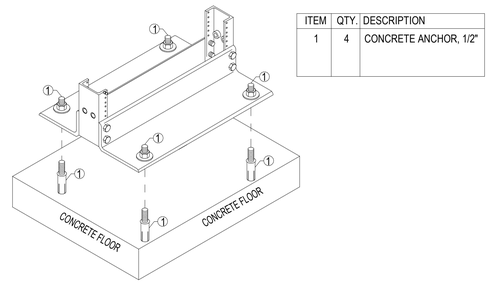

7 SINGLE DOOR DETAIL
SCALE: NONE



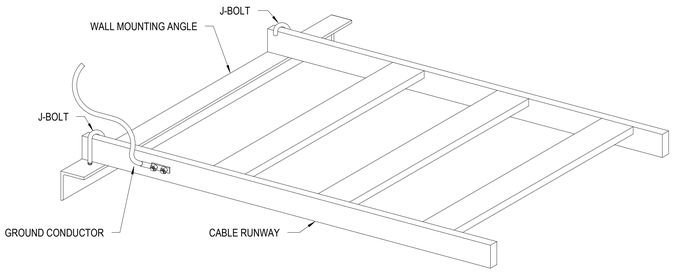

6 STANDING RACK GROUNDING ASSEMBLY
SCALE: NONE



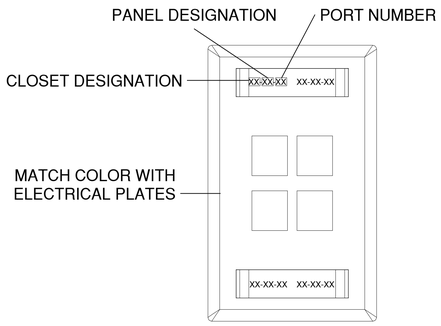

5 JUNCTION SPLICE GROUNDING ASSEMBLY
SCALE: NONE



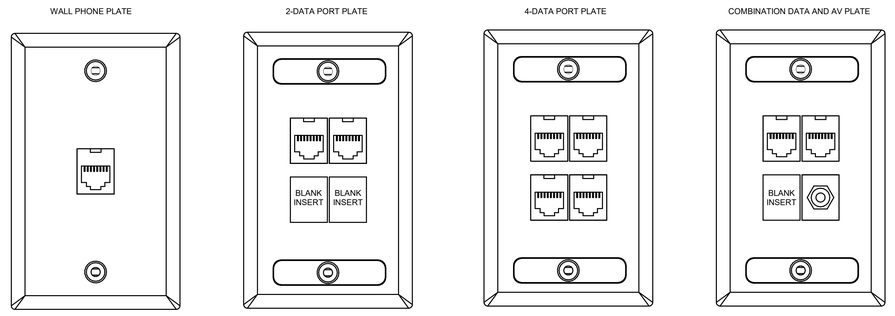

4 FLOOR STANDING RACK MOUNTING ASSEMBLY
SCALE: NONE




3 ANGULAR WALL BRACKET GROUNDING ASSEMBLY
SCALE: NONE




2 FACEPLATE LABEL DETAIL
SCALE: NONE




1 TYPICAL FACE PLATE DETAIL
SCALE: NONE

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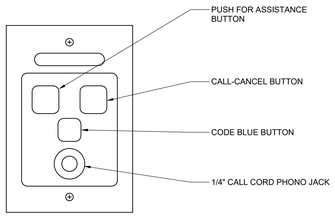
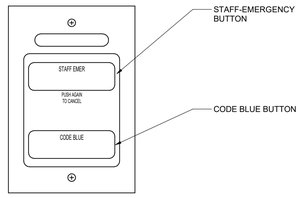
TECHNOLOGY DETAILS

BranchPattern | www.branchpattern.com
PROJECT NUMBER: 1201002
BETTER BUILT ENVIRONMENTS



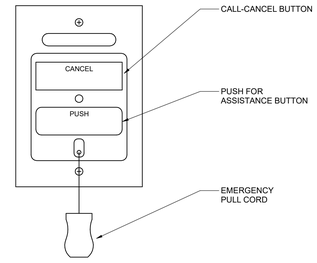

NOTES:
1. CALL ASSURANCE LED TO CONFIRM CALL HAS BEEN PLACED.
2. CALL CORD REMOVAL INITIATES AUTOMATIC CALLS.
3. INSTALLS INTO DEEP, 4-11/16" SQUARE BACK BOX WITH SINGLE-GANG MUDRING.

## 9 NV-VPS2 VISUAL PATIENT STATION
SCALE: 3/8" = 1'-0"



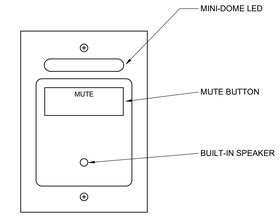

NOTES:
1. CALL ASSURANCE LED TO CONFIRM CALL HAS BEEN PLACED.
2. CONNECTS DIRECTLY TO DOME LIGHT OR PATIENT STATION.
3. INSTALLS INTO DEEP, 4-11/16" SQUARE BACK BOX WITH SINGLE-GANG MUDRING.

## 8 NV-PBE2 EMERGENCY STATION - STAFF EMERGENCY/CODE BLUE
SCALE: 3/8" = 1'-0"



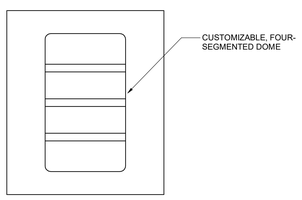

NOTES:
1. CALL ASSURANCE LED TO CONFIRM CALL HAS BEEN PLACED.
2. MUST MEET ADA REQUIREMENTS FOR MOUNTING HEIGHT AND CORD REACH.
3. INSTALLS INTO DEEP, 4-11/16" SQUARE BACK BOX WITH SINGLE-GANG MUDRING.

## 7 NV-EPC2/WPC2 EMERGENCY PULL CORD STATION
SCALE: 3/8" = 1'-0"

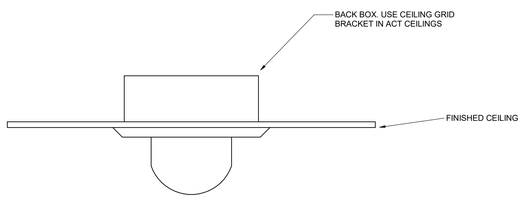



NOTES:
1. DOME COLORS ARE CUSTOMIZABLE FOR MANY DIFFERENT COLOR COMBINATIONS.
2. BUILT-IN SPEAKER CAPABLE OF PRODUCING MULTIPLE AUDIBLE ALERT TYPES.
3. INSTALLS INTO DEEP, 4-11/16" SQUARE BACK BOX WITH SINGLE-GANG MUDRING.

## 6 NV-EDUTY REMOTE CALL ANNUNCIATOR
SCALE: 3/8" = 1'-0"



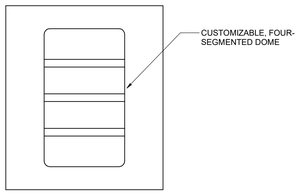

FRONT VIEW




INSTALLED VIEW

NOTES:
1. DOME COLORS ARE CUSTOMIZABLE FOR MANY DIFFERENT COLOR COMBINATIONS.
2. DOME ZONE LIGHTS PROVIDE DIRECTION TOWARDS ALERT DEVICE LOCATION.
3. BUILT-IN BUZZER CAN BE ACTIVATED FOR MULTIPLE ALERT TYPES.
4. REFERENCE TECHNOLOGY LEGEND FOR BACK BOX AND CONDUIT REQUIREMENTS

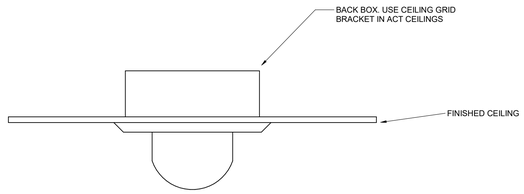
## 5 NV-DOME2 VISUAL/TONE ZONE INDICATOR
SCALE: 3/8" = 1'-0"



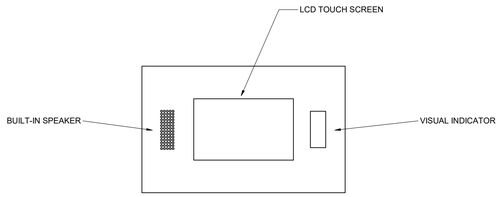

FRONT VIEW

NOTES:
1. DOME COLORS ARE CUSTOMIZABLE FOR MANY DIFFERENT COLOR COMBINATIONS.
2. BUILT-IN BUZZER CAN BE ACTIVATED FOR MULTIPLE ALERT TYPES.
3. REFERENCE TECHNOLOGY LEGEND FOR BACK BOX AND CONDUIT REQUIREMENTS

## 4 NV-DOME2 VISUAL/TONE INDICATOR
SCALE: 3/8" = 1'-0"

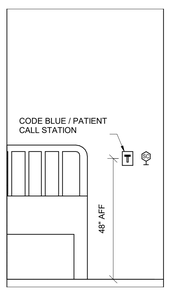



INSTALLED VIEW

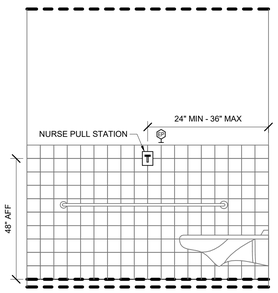



NOTES:
1. SERVES AS STANDALONE COMPLETE CALL SYSTEM.
2. INSTALL INTO DEEP, 3-GANG BACK BOX/MUDRING.

## 3 NV-DMP DIGITAL MULTIPURPOSE PORTAL
SCALE: 3/8" = 1'-0"




## 2 NURSE CALL BED PULL STATION
SCALE: 1 1/2" = 1'-0"




## 1 NURSE CALL BATH PULL STATION DETAIL
SCALE: 1 1/2" = 1'-0"

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NURSE CALL DETAILS

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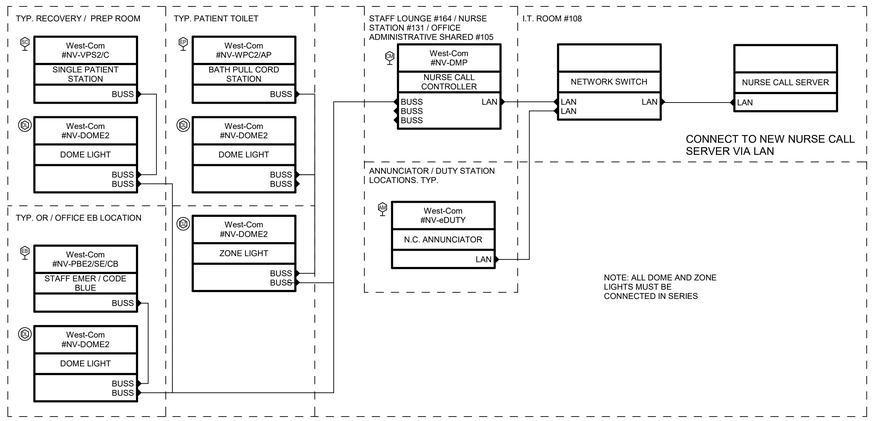


1 NURSE CALL SIGNAL FLOW
SCALE: NONE

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TECHNOLOGY SIGNAL FLOWS