

DRAWINGS

COVER

ARCHITECTURAL

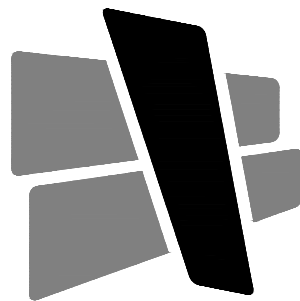
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MIDWEST DISTRIBUTION TI

1220 NW MAIN STREET  
LEE'S SUMMIT, MO  
64086

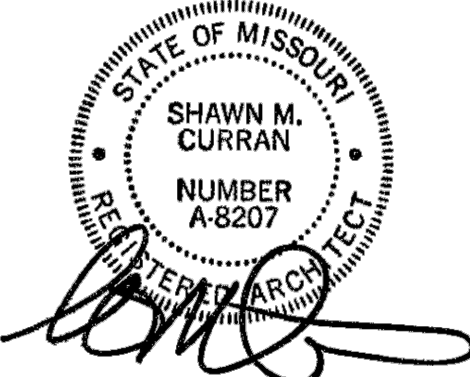
08.29.23  
PERMIT SET

ARCHITECT



CURRAN  
ARCHITECTURE

5719 LAWTON LOOP E. DR. #212  
INDIANAPOLIS, IN 46216  
O : 317 . 288 . 0681  
CONTACT : SHAWN CURRAN



Midwest Distribution TI  
Project # 230139



ALL WORK SHALL BE WARRANTED SATISFACTORY, IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR, OR FOR THE PERIOD OF WARRANTY CUSTOMARY, OR STIPULATED FOR THE TRADE, CRAFT, OR PRODUCT, WHICHEVER IS LONGER. ONLY COMPETENT MECHANICS CAPABLE OF PRODUCING GOOD WORKMANSHIP CUSTOMARY TO THE TRADE SHOULD BE USED. COMMENCING WORK BY A CONTRACTOR OR SUBCONTRACTOR CONSTITUTES ACCEPTANCE OF THE CONDITIONS AND SURFACES CONCERNED. IF ANY SUCH CONDITIONS ARE UNACCEPTABLE, THE GENERAL CONTRACTOR SHALL BE NOTIFIED IMMEDIATELY, AND NO WORK SHALL BE PERFORMED UNTIL THE CONDITIONS ARE CORRECTED.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL FABRICATED ITEMS, AND PHYSICAL SAMPLES OF ALL FINISH MATERIALS SPECIFIED TO THE ARCHITECT FOR REVIEW.

NO ADDITIONAL FUNDS WILL BE APPROVED FOR WORK OMITTED FROM THE CONTRACTOR'S BID DUE TO LACK OF VERIFICATION BY THE CONTRACTOR, EXCEPT AS OTHERWISE APPROVED BY THE OWNER FOR WORK ASSOCIATED WITH HIDDEN CONDITIONS WHICH ARE NOT ACCESSIBLE PRIOR TO CONSTRUCTION.

ALL WOOD SHEATHING TO BE FIRE TREATED UNLESS NOTE OTHERWISE.

|          |                                   |
|----------|-----------------------------------|
| ACT      | ACOUSTICAL CEILING TILE           |
| ADD      | ADDITIONAL                        |
| AFF      | ABOVE FINISHED FLOOR              |
| ALUM     | ALUMINUM                          |
| ANOD     | ANODIZED                          |
| APP      | APPROXIMATE                       |
| ARCH     | ARCHITECT                         |
| AWT      | ARCHITECTURAL WALL TREATMENT      |
| BLDG     | BUILDING                          |
| BLKG     | BLOCKING                          |
| B.O.     | BOTTOM OF                         |
| BOT      | BOTTOM                            |
| BRG      | BEARING                           |
| CAB      | CABINET                           |
| CJ       | CONTROL JOINT                     |
| CL       | CENTER LINE                       |
| CLR      | CLEAR                             |
| CMU      | CONCRETE MASONRY UNIT             |
| CONST    | CONSTRUCTION                      |
| COL      | COLUMN                            |
| CONC     | CONCRETE                          |
| CONT     | CONTINUOUS                        |
| CPT      | CARPET                            |
| CT       | CERAMIC TILE                      |
| CW       | COLD WATER                        |
| DET, DTL | DETAIL                            |
| DF       | DRINKING FOUNTAIN                 |
| DIA      | DIAMETER                          |
| DIM      | DIMENSION                         |
| DWG(S)   | DRAWING(S)                        |
| EA       | EACH                              |
| EC       | EXPOSED CEILING                   |
| EFS      | EXTERIOR INSULATION FINISH SYSTEM |
| EJ       | EXPANSION JOINT                   |
| EL       | ELEVATION                         |
| ENG      | ENGINEER                          |
| EQU      | EQUAL                             |
| EQUIP    | EQUIPMENT                         |
| EXIST    | EXISTING                          |
| EXP      | EXPANSION                         |
| EXT      | EXTERIOR                          |
| FD       | FLOOR DRAIN                       |
| FE       | FIRE EXTINGUISHER                 |
| FEC      | FIRE EXTINGUISHER CABINET         |
| FIN      | FINISH                            |

|          |  |
|----------|--|
| FLR      | FLOOR                                  |
| FR       | FIRE RETARDANT                         |
| FT       | FEET                                   |
| GA       | GAUGE                                  |
| GB       | GRAB BAR                               |
| GC       | GENERAL CONTRACTOR                     |
| GYP BD   | GYPSUM BOARD                           |
| HDWR     | HARDWARE                               |
| HGT      | HEIGHT                                 |
| HM       | HOLLOW METAL                           |
| HORIZ    | HORIZONTAL                             |
| HP       | HIGH POINT                             |
| HVAC     | HEATING, VENTILATING, AIR CONDITIONING |
| HW       | HOT WATER                              |
| INSUL    | INSULATION                             |
| JAN      | JANITOR                                |
| JST      | JOIST                                  |
| JT       | JOINT                                  |
| KD       | KNOCKDOWN                              |
| KIT      | KITCHEN                                |
| LAM      | LAMINATE                               |
| LAV      | LAVATORY                               |
| LLH      | LONG LEG HORIZONTAL                    |
| LLV      | LONG LEG VERTICAL                      |
| MAS      | MASONRY                                |
| MAT      | MATERIAL                               |
| MAX      | MAXIMUM                                |
| MB       | MARKER BOARD                           |
| MECH     | MECHANICAL                             |
| MEZZ     | MEZZANINE                              |
| MFR      | MANUFACTURER                           |
| MIN      | MINIMUM                                |
| MO       | MASONRY OPENING                        |
| MTL      | METAL                                  |
| NIC      | NOT IN CONTRACT                        |
| NR       | NOT RATED                              |
| OC       | ON CENTER                              |
| OD       | OUTSIDE DIAMETER                       |
| OFD      | OVERFLOW DRAIN                         |
| OH       | OPPOSITE HAND                          |
| OPNG     | OPENING                                |
| OPP      | OPPOSITE                               |
| OTO      | OUT TO OUT                             |
| PLAS LAM | PLASTIC LAMINATE                       |
| PLWD     | PLYWOOD                                |

|        |                        |
|--------|------------------------|
| PS     | PROJECTION SCREEN      |
| QT     | QUARRY TILE            |
| R      | RISER                  |
| RA     | RETURN AIR             |
| RB     | RESILIENT BASE         |
| RD     | ROOF DRAIN             |
| REF    | REFERENCE              |
| REFR   | REFRIGERATOR           |
| REQD   | REQUIRED               |
| RO     | ROUGH OPENING          |
| SA     | SUPPLY AIR             |
| SCHED  | SCHEDULE               |
| SCMD   | SOLID CORE METAL DOOR  |
| SCWD   | SOLID CORE WOOD DOOR   |
| SC     | SECTION                |
| SF     | SQUARE FOOT            |
| SIM    | SIMILAR                |
| SPECS  | SPECIFICATIONS         |
| SQ     | SQUARE                 |
| SS     | STAINLESS STEEL        |
| STD    | STANDARD               |
| STL    | STEEL                  |
| STOR   | STORAGE                |
| STRUCT | STRUCTURAL             |
| SUSP   | SUSPENDED              |
| TB     | TACK BOARD             |
| TEL    | TELEPHONE              |
| TLT    | TOILET                 |
| T.O.   | TOP OF                 |
| TRTD   | TREATED                |
| TV     | TELEVISION             |
| TYP    | TYPICAL                |
| UNO    | UNLESS NOTED OTHERWISE |
| UR     | URINAL                 |
| VCT    | VINYL COMPOSITION TILE |
| VERT   | VERTICAL               |
| VIF    | VERIFY IN FIELD        |
| VT     | VINYL TILE             |
| W      | WITH                   |
| W/O    | WITHOUT                |
| WB     | WOOD BASE              |
| WC     | WATER CLOSET           |
| WD     | WOOD                   |
| WH     | WATER HEATER           |
| WP     | WORKING POINT          |

(NOT ALL MAY APPLY)

## 5719 LAWTON LOOP E. DR. #2

F :: 317 . 288 . 0753

## PROJECT INFORMATION

1220 NW MAIN STREET  
LEE'S SUMMIT, MO 64086

## PERMIT SET 08.29.23

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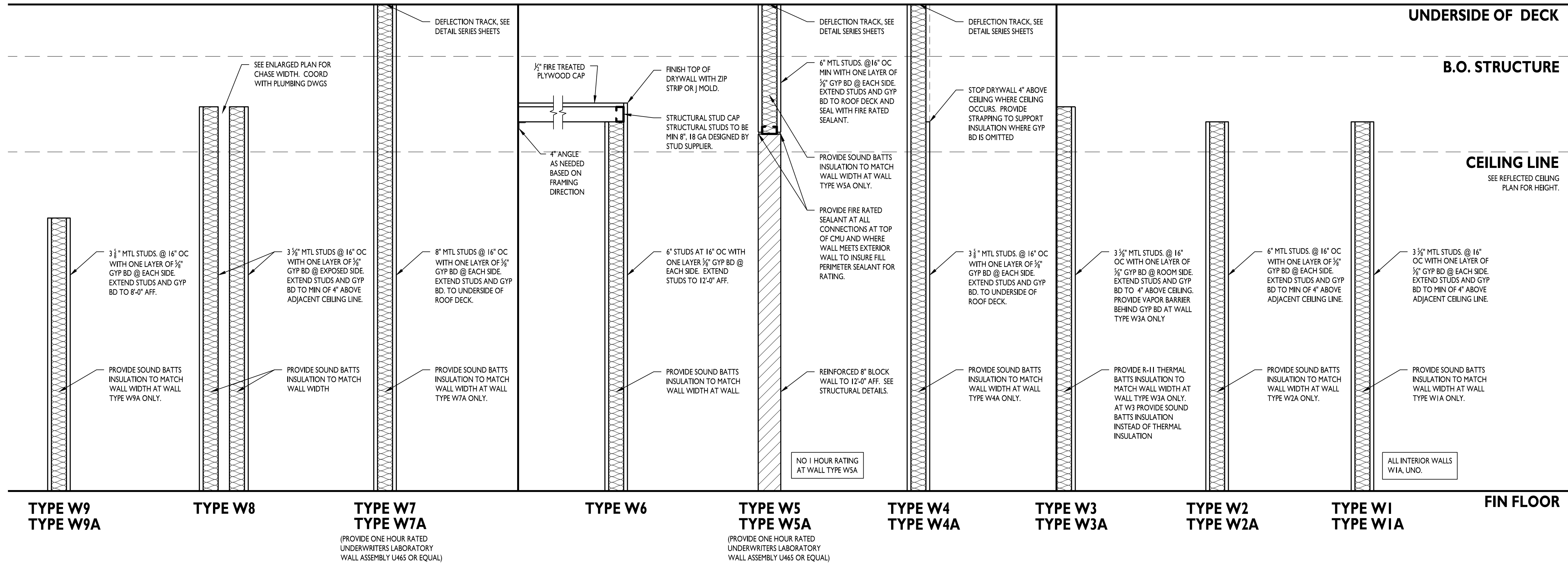
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SCOPE NOTES &  
VARIABLES

WALL TITLES

# ADDI

# A001



|  |  |  |
|--|--|--|
| <p>A. NOTE: WALL HEIGHT AS MARKED ON PLANS IN CONJUNCTION WITH WALL TYPE SYMBOL WILL SUPERCEDE WALL HEIGHTS AS SHOWN ABOVE. SEE SYMBOLS LEGEND THIS SHEET.</p> | <p>D. BRACE METAL STUD WALLS TO TOP OF STRUCTURAL STEEL ELEMENTS, ABOVE CEILING PLANE. COORDINATE REQUIRED BRACE SPACING WITH STRUCTURAL ENGINEER PRIOR TO BEGINNING CONSTRUCTION.</p> | <p>G. DESIGN ALL PARTITIONS TO U240 AT 5 PSF.</p>  |
| <p>B. PROVIDE DEEP LEG DEFLECTION TRACER AT TOP OF ALL METAL STUD WALLS WHERE STUDS EXTEND TO ABOVE OF ROOF DECK OR STRUCTURE ABOVE.</p>                       | <p>E. REFER TO ROOM FINISH SCHEDULE FOR ALL FINISH SELECTIONS, CEILING TYPES AND HEIGHTS AND TYPES, SIZES, AND LOCATIONS ETC.</p>  | <p>H. UNLESS NOTED OTHERWISE, ALL WALLS TO HAVE ONE LAYER DRYWALL EACH SIDE, LEVEL 4 FINISH.</p> |
| <p>C. USE MOLD AND MILDEW RESISTANT GYP BD ON ALL PLUMBING WALLS. USE 5/8" CEMENT BOARD INSTEAD OF GYP BD BEHIND ALL TILE FINISHES.</p>                        | <p>F. ALL STUD WALLS CREATING A CONCEALED WALL SPACE TO HAVE FIRELOCKING AT INTERVALS NOT EXCEEDING 10'-0" PER 718.2.2 IBC 2012.</p>   |  |

NOT TO SCALE

230139

### SCOPE NOTES & WALL TYPES

# A00 I



**CURRAN**  
ARCHITECTURE

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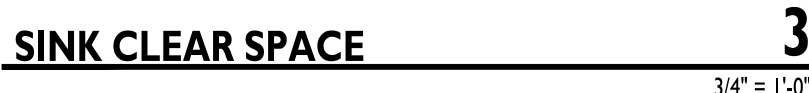
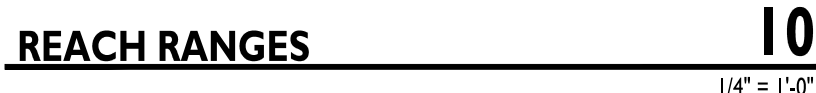
TOILET PAPER: TOILET PAPER DISPENSERS SHALL BE INSTALLED WITHIN 36"  
MAX OF THE BACK WALL.



## PROJECT INFORMATION

## MIDWEST DISTRIBUTION T

1220 NW MAIN STREET  
LEE'S SUMMIT, MO 64086



## TYPICAL ACCESSIBILITY DETAILS

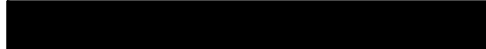
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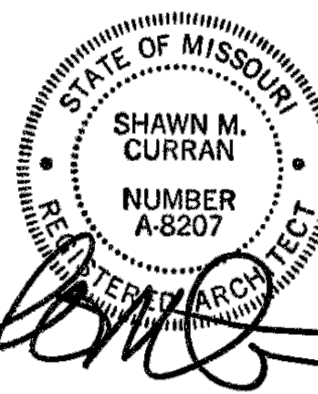


# CURRAN ARCHITECTURE

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## CERTIFICATION



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## PROJECT INFORMATION

## MIDWEST DISTRIBUTION TI

1220 NW MAIN STREET  
LEE'S SUMMIT, MO 64086

## ISSUE DATES

PERMIT SET 08.29.23

230139

RATED WALL  
INFORMATION

# A003

BOXUV-U465 - Fire Resistance Ratings - ANSUL 263

ONLINE CERTIFICATIONS DIRECTORY

[Home](#) [Quick Guide](#) [Contact Us](#) [UL.com](#)

Design No. U465

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

Fire-resistance Ratings - ANSI/UL 263

See General Information for Fire-resistance Ratings - ANSUL 263

Design No. U465

June 07, 2013

Nonbearing Wall Rating – 1 HR.

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 spaced 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

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BOXUV-U465 - Fire Resistance Ratings - ANSUL 263

THAT 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, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX).

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

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 when applied horizontally, or 8 in. OC along vertical and bottom edges and 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.

CGC INC – Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

CERTAINTED GYPSUM INC – Type X, Type C, Type EGRG/ GlasRoc.

CERTAINTED GYPSUM CANADA INC – Type X, Type C, Type EGRG/ GlasRoc.

GEORGIA-PACIFIC GYPSUM L L C – Types DAP, DAPC, DGG, DS.

LAFARGE NORTH AMERICA INC – Type LGFC6A, LGFC-C/A

THAT 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, WRC, WRX, , USGX (Joint tape and compound, Item 5, optional for use with Type USGX).

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

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.

TEMPLE-INLAND – GreenGlass Type X.

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BOXUV-U465 - Fire Resistance Ratings - ANSUL 263

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™, SmartTrack20™

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

PHILLIPS MFG CO L L C – Viper20™ Track

1C. **Floor and Ceiling Runners** – (Not shown) –For use with Item 2C- Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth 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 4D 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 ProTRAK

DMFCWS L L C – ProTRAK

MBA BUILDING SUPPLIES – ProSTUD

RAM SALES L L C – Ram ProTRAK

SOUTHEASTERN STUD & COMPONENTS INC – ProTRAK

STEEL STRUCTURAL SYSTEMS L L C – Tri-S ProTRAK

1E. **Framing Members\* – Floor and Ceiling Runners** – (Not shown - In lieu of Items 1 through 1D – For use with Item 2E and 4E 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-STUD™

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

KIRRI (HONG KONG) LTD – Type KIRRI

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BOXUV-U465 - Fire Resistance Ratings - ANSUL 263

4D. **Gypsum Board\*** – As an alternate to Items 4A, 4A, 4B, and 4C - Nom 5/8 in. thick gypsum panels applied horizontally. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Gypsum panels fastened to framing with 1 in. long Type S steel screws 1-1/2 in. from board edges, 3 in. from board edge and every 8 in. OC in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall.

NATIONAL GYPSUM CO – Types FSK-C, FSK-G, FSW-C, FSW-G, FSW-F, FSW.

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 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 5/16 in., placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-2011, Grade "C".

RADIATION PROTECTION PRODUCTS INC – Type RPP - Lead Lined Drywall

RAY-BAR ENGINEERING CORP – Type Ray-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.

LAFARGE NORTH AMERICA INC – Type LGFC6A, LGFC-C/A

NATIONAL GYPSUM CO – Types FSW

UNITED STATES GYPSUM CO – Type SCX

4H. **Wall and Partition Facings and Accessories\*** – (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.

SERIOUS ENERGY INC – Types QuietRock ES, QuietRock S27.

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

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 min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. 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 panes with beveled, square or tapered edges installed as described in Item 4 and 4A.

CGC INC – Type ULX

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BOXUV-U465 - Fire Resistance Ratings - ANSUL 263

1G. **Framing Members\* – Floor and Ceiling Runners** – (Not shown - In lieu of Items 1 through 1F – For use with Item 2, 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.

STUCCO BUILDING SYSTEMS – CROCESTUD 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 VT10.

1I. **Framing Members\* - Floor and Ceiling Runners** – (Not shown - In lieu of Item 1 – For use with Item 2I, 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 Studs** – 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 – SmartTrack20™, SmartTrack20™

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

PHILLIPS MFG CO L L C – Viper20™

2C. **Steel Studs** – (As an alternate to Item 2, For use with Item 4E) Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction fit into

3B. **Fiber, Sprayed\*** – As an alternate to Batts and Blankets (Item 3) and Item 3A - Spray applied cellulose

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UNITED STATES GYPSUM CO – Type ULX

USG MEXICO S A DE C V – Type ULX

4. **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 5/16 in., placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-2011, Grade "C".

RADIATION PROTECTION PRODUCTS INC – Type RPP - Lead Lined Drywall

4H. **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 C 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

CERTAINTED GYPSUM INC – Type FRPC, Type C

CERTAINTED GYPSUM CANADA INC – Type C

CGC INC – Types C, IP-X2, IPC-AR

GEORGIA-PACIFIC GYPSUM L L C – Types 5, DAPC

LAFARGE NORTH AMERICA INC – Types LGFC-C, LGFC-C/A

NATIONAL GYPSUM CO – Types FSK-C, FSW-C

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type PG-C.

PANEL REY S A – Type PRC

TEMPLE-INLAND – Type TG-C

THAT GYPSUM PRODUCTS PCL – Type C

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

6D. **Steel Framing Members** – (Optional, Not Shown)\* - Furring channels and resilient sound isolation clip 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 6. 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 joint furring channels shall be attached to studs with RESILMOUNT Sound Isolation Clips - Type A237R located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge.
- b. Steel Framing Members\*** – Resilient sound isolation clip used to attach furring channels (Item 6D)a to studs. Clips spaced 24 in. OC, and 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.

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floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2D. **Framing Members\* – Steel Studs** – As an alternate to Items 2 through 2C- For use with Item 1D and 4D 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

DMFCWS L L C – ProSTUD

MBA BUILDING SUPPLIES – ProSTUD

RAM SALES L L C – Ram ProSTUD

SOUTHEASTERN STUD & COMPONENTS INC – ProSTUD

STEEL STRUCTURAL SYSTEMS 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.

KIRRI (HONG KONG) LTD – Type KIRRI

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, fabricated from min 0.020 in. thick galv steel.

STUCCO BUILDING SYSTEMS – CROCESTUD

2H. **Framing Members\* – Steel Studs** – (Not shown - In lieu of Item 2 – For use with Item 1I, 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.

TELLING INDUSTRIES L L C – Viper20™

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

**See Batts and Blankets (B212) 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/cu ft. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/cu ft, in accordance with the application instructions supplied with the product.

U S GREENFIBER L L C – INS735 & INS745 for use with wet or dry application. INS750LD 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

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

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 1/32 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 when gypsum boards are supplied with square edges.

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. Ray not be used with Item 4F or 4I.

6A. **Steel Framing Members (Not Shown)\*** – As an alternate to Item 6, furring channels and resilient sound isolation clip 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 6. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv 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, with one screw on 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. water or hex head Type S steel screw through the center grommet. Furring channels are friction fitted into clips. RSC-1 clip for use with 2-9/16 in. wide furring channels. RSC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.

PAC INTERNATIONAL INC – Types RSC-L, RSC-1 (2.75).

6B. **Framing Members\*** – Optional - Not Shown - Used as an alternate method to attach resilient channels (Item 6). Clips attached at each intersection of the resilient channel and the steel studs (Item 2). Resilient channels are friction fitted into clips, and then clips are secured to the stud with min. 1 in. long Type S-12 pan head steel screws through the center hole of the clip and the resilient channel flange.

KEENE BUILDING PRODUCTS CO INC – Type RC Assurance.

6C. **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 6. Gypsum board attached to furring channels as described in Item 4.
- b. Steel Framing Members\*** – Used to attach furring channels (Item 6C)a 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

6D. **Steel Framing Members** – (Optional, Not Shown)\* - Furring channels and resilient sound isolation clip 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 6. 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 joint furring channels shall be attached to studs with RESILMOUNT Sound Isolation Clips - Type A237R located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge.
- b. Steel Framing Members\*** – Resilient sound isolation clip used to attach furring channels (Item 6D)a to studs. Clips spaced 24 in. OC, and secured to studs with No. 10 x 1-1/2 in. coarse drywall screw through the center hole. Furring channels are friction

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insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC – Cellulose Insulation

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

INTERNATIONAL CELLULOSE CORP – Celbar-RL

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 (B212) category for names of manufacturers.**

4. **Gypsum Board\*** – 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 or 6C (furring channels), gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.

ACADIA DRYWALL SUPPLIES LTD – Type X

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, WRC or WRX.

CERTAINTED GYPSUM INC – Types I, EGRG, GlasRoc, Type X, Type C, SilentFlex, 5/8" East-Lite Type X.

CERTAINTED GYPSUM CANADA INC – Type C, Type X, Type Abuse-Resistant, 5/8" East-Lite Type X.

GEORGIA-PACIFIC GYPSUM L L C – Types 5, 6, 9, C, DAP, DD, DAPC, DGG, DS, GPF56, LS.

LAFARGE NORTH AMERICA INC – Types LGFC-C, LGFC2A, LGFC6, LGFC6A, LGFC-C, LGFC-C/A, LGFC-WD, LGXL.

NATIONAL GYPSUM CO – Types FSK-C, FSK-G, FSW-C, FSW-G, FSW-F, FSW-3, FSW-5, FSW-6, FSL.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Types PG-C, PG-9, PG-11, PG5-WRS.

PANEL REY S A – Types GREX, PRX, RHX, MDX, ETX.

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

TEMPLE-INLAND – Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, TG-C, GreenGlass Type X, Type X ComfortGuard Sound Densifying Gypsum Board.

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STUCCO BUILDING SYSTEMS – RESILMOUNT Sound Isolation Clip - Type A237R

fitted into clips.

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 QR-510 panel is installed between the steel framing and the UL Classified gypsum board layer(s) below to be installed as indicated or 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 livery of UL Classified Gypsum Board.

SERIOUS ENERGY INC – Type QuietRock 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 required UL Classified gypsum board layer (Item 4M) is to be installed over the Mineral and Fiber Boards, Batts and Blankets, Item 3D, and Adhesive, Item 11, are required.

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 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-2011, Grades "A, B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum board (Item 4E) and optional at remaining stud locations. Required behind vertical joints.

9A. **Lead Batten Strips** – (Not Shown, for use with Item 4J) Lead batten strips, 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-2011, Grades "A, B, C or D". 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 9) 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. Lead discs to have a purity of 99.9% meeting the Federal specification QQ-L-2011, Grades "A, B, C or D".

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 99.9% meeting the Federal specification QQ-L-2011, Grades "A, 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).

\*Bearing the UL Classification Mark

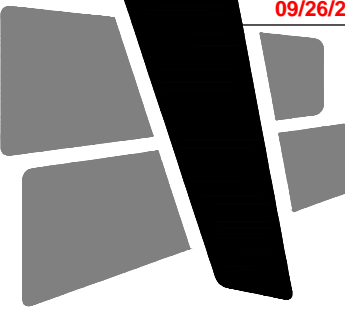
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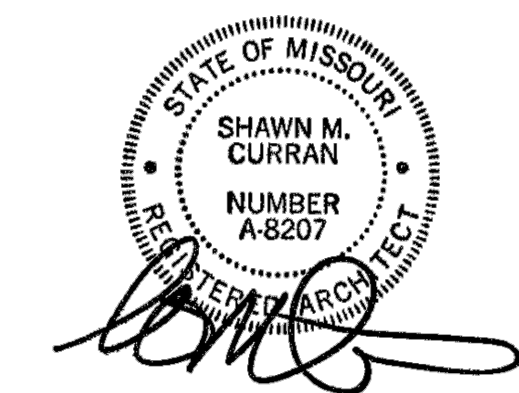




**CURRAN**  
ARCHITECTURE

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CERTIFICATION



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PROJECT INFORMATION

MIDWEST DISTRIBUTION TI

1220 NW MAIN STREET  
LEE'S SUMMIT, MO 64086

ISSUE DATES

|                       |          |
|-----------------------|----------|
| PERMIT SET            | 08.29.23 |
| PERMIT REVIEW COMMENT | 09.11.23 |

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230139

LIFE SAFETY PLAN

**A100**

KEYED NOTES

- EXIT, EXIT SIGN, AND EMERGENCY LIGHTING ABOVE DOOR  
INTERIOR WITH BATTERY BACKUP. EXTERIOR EGRESS  
LIGHTING ABOVE DOOR TIED TO BATTERY BACK UP.
- PROPOSED FIRE EXTINGUISHER LOCATION. VERIFY WITH FIRE  
MARSHAL. FINAL QUANTITY AND LOCATIONS TO BE  
DETERMINED WITH FINAL RACKING PLAN AND FIRE  
DEPARTMENT REVIEW.
- EXISTING PUMP ROOM.
- 1 HOUR RATED DEMISING WALL, CENTERED ON COLUMN  
LINE.

CODE ANALYSIS

APPLICABLE CODES

|                                |  |
|--------------------------------|--|
| BUILDING CODE                  | 2018 INTERNATIONAL BUILDING CODE                 |
| PLUMBING CODE                  | 2017 INTERNATIONAL PLUMBING CODE                 |
| ELECTRICAL CODE                | 2017 NATIONAL ELECTRICAL CODE                    |
| FIRE CODE                      | 2018 INTERNATIONAL FIRE CODE                     |
| MECHANICAL CODE                | 2014 INTERNATIONAL MECHANICAL CODE               |
| FUEL GAS CODE                  | 2018 FUEL GAS CODE                               |
| HANDICAPPED ACCESSIBILITY CODE | 2009 ANSI A117.1<br>ADA ACCESSIBILITY GUIDELINES |

OCCUPANCY (OVERALL BUILDING)

|                         |     |
|-------------------------|-----|
| CLASSIFICATION (302.1): | S-1 |
|-------------------------|-----|

OCCUPANCY (TENANT SPACE)

|                               |     |
|-------------------------------|-----|
| CLASSIFICATION (302.1):       | S-1 |
| ACCESSORY USES (508.2.1):     | B   |
| NON-SEPARATED USES (508.3.2): | N/A |
| SEPARATED USES (508.3.3):     | N/A |

AUTOMATIC SPRINKLER SYSTEM

|                                  |     |
|----------------------------------|-----|
| SPRINKLER SYSTEM REQUIRED (903): | YES |
| SPRINKLER SYSTEM PROVIDED:       | YES |

ALLOWABLE BUILDING HEIGHT

|                       |         |
|-----------------------|---------|
| TABULAR HEIGHT (503): | 2 STORY |
|-----------------------|---------|

ALLOWABLE BUILDING AREA

|                     |           |
|---------------------|-----------|
| TABULAR AREA (503): | 17,500 SF |
|---------------------|-----------|

BUILDING AREA INCREASE

|   |           |
|---|-----------|
| INCREASE FOR SPRINKLERED BUILDING (506.3):  | 300%      |
| UNLIMITED AREA (507):   | UNLIMITED |
| FRONTAGE INCREASE (506.2):  | N/A       |
| IF = (F/P - .25) x W / 30   |           |
| TOTAL ALLOWABLE AREA WITH INCREASES:  | UNLIMITED |
| A <sub>2</sub> = A <sub>t</sub> + (A <sub>c</sub> x I <sub>f</sub> ) + (A <sub>c</sub> x I <sub>s</sub> ) |           |
| A <sub>2</sub> = FILL IN  |           |

ACTUAL BUILDING HEIGHT AND AREA

|                                    |             |
|------------------------------------|-------------|
| BUILDING AREA:                     | 131,615 SF  |
| BUILDING HEIGHT (FEET / # FLOORS): | 42' / 1 FLR |
| TENANT AREA:                       | 45,438 SF   |

TABULAR OCCUPANT LOAD (1004.1.2)

|                               |     |
|-------------------------------|-----|
| WAREHOUSE/STORAGE: 41,934/500 | 84  |
| OFFICE: 3,504/100             | 36  |
| TABULAR OCCUPANTS             | 120 |

ACTUAL OCCUPANT LOAD (1004.1.2)

|  |     |
|--|-----|
|  | 120 |
|--|-----|

FIRE RESISTIVE REQUIREMENTS (601 AND 602)

|                             |      |
|-----------------------------|------|
| CONSTRUCTION TYPE:          | II-B |
| STRUCTURAL FRAME:           | NR   |
| EXTERIOR BEARING WALLS:     | NR   |
| INTERIOR BEARING WALLS:     | NR   |
| EXTERIOR NON-BEARING WALLS: | NR   |
| INTERIOR NON-BEARING WALLS: | NR   |
| FLOOR CONSTRUCTION:         | NR   |
| ROOF CONSTRUCTION:          | NR   |
| SHAFTS:                     | N/A  |

FIRE RESISTANCE RATED CONSTRUCTION (704, 601, 602)

|                           |     |
|---------------------------|-----|
| RATED EXTERIOR WALLS:     | N/A |
| FIRE SEPARATION DISTANCE  | 60+ |
| UNPROTECTED OPENING AREA: | N/A |

INTERIOR WALL AND CEILING FINISH REQUIREMENTS (803)

|                                   |  |
|-----------------------------------|--|
| SEE FINISH SCHEDULE FOR MATERIALS |  |
| ALL MATERIALS ARE CLASS A RATED   |  |

FIRE PROTECTION SYSTEMS

|   |          |
|---|----------|
| STANDPIPE SYSTEM (905):                 | YES      |
| PORTABLE FIRE EXTINGUISHERS (906.1):    | SEE PLAN |
| FIRE ALARM AND DETECTION SYSTEMS (907): | YES      |
| SMOKE CONTROL SYSTEMS (909):            | N/A      |
| SMOKE AND HEAT VENTS (910):             | N/A      |

EGRESS

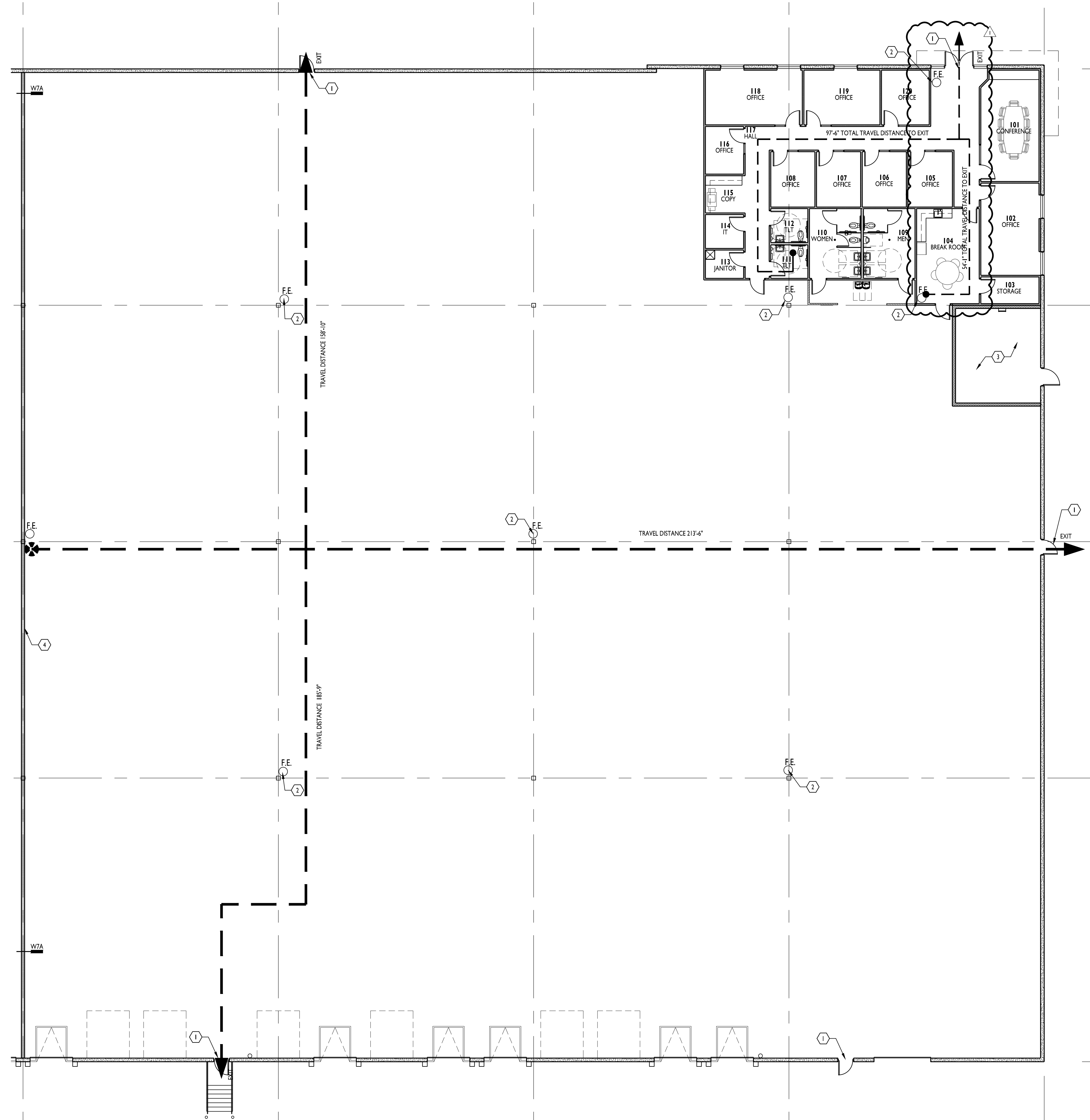
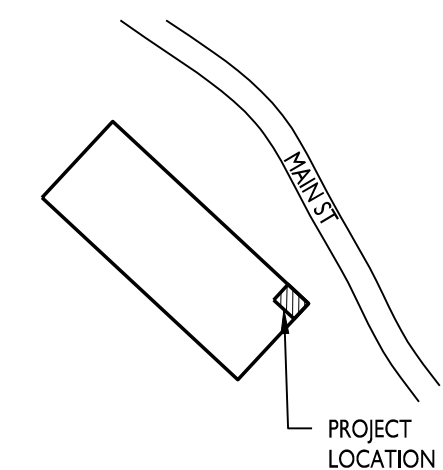
|   |       |
|---|-------|
| MINIMUM WIDTH FACTOR (1005.1):              | 0.15" |
| REQUIRED MINIMUM WIDTH FROM SPACE (1005.1): | 14.4" |
| MINIMUM NUMBER OF EXITS (1015):             | 1     |
| ACTUAL NUMBER OF EXITS:                     | 4     |
| ACTUAL WIDTH OF EXITS:                      | 180"  |
| ALLOWABLE TRAVEL DISTANCE (1016.2):         | 400'  |
| CORRIDOR CONSTRUCTION (1018.1):             | N/R   |
| MINIMUM CORRIDOR WIDTH (1018.2):            | 44"   |
| MAXIMUM DEAD END CORRIDOR (1018.4):         | 50'   |

PLUMBING FIXTURE COUNTS

|   |   |
|---|---|
| REQUIRED FIXTURES S-1 (50 / 50 SPLIT MEN/WOMEN) |   |
| MEN-42 OCCUPANTS                                | 1 |
| TOILETS   | 1 |
| LAVATORIES                                      | 1 |
| WOMEN-42 OCCUPANTS                              | 1 |
| TOILETS   | 1 |
| LAVATORIES                                      | 1 |
| SERVICE SINKS                                   | 1 |
| DRINKING FOUNTAINS                              | 1 |
| REQUIRED FIXTURES B (50 / 50 SPLIT MEN/WOMEN)   |   |
| MEN-18 OCCUPANTS                                | 1 |
| TOILETS   | 1 |
| LAVATORIES                                      | 1 |
| WOMEN-18 OCCUPANTS                              | 1 |
| TOILETS   | 1 |
| LAVATORIES                                      | 1 |
| SERVICE SINKS                                   | 1 |
| DRINKING FOUNTAINS                              | 1 |
| PROVIDED FIXTURES                               |   |
| MEN   | 2 |
| TOILETS   | 1 |
| URINAL  | 3 |
| LAVATORIES                                      | 3 |
| WOMEN   | 3 |
| TOILETS   | 3 |
| LAVATORIES                                      | 1 |
| SERVICE SINKS                                   | 1 |
| DRINKING FOUNTAINS                              | 1 |

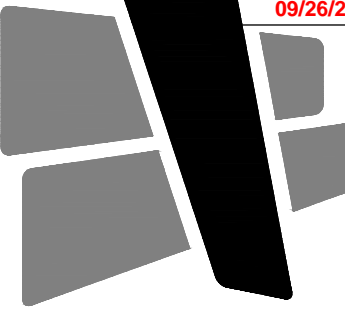


KEY PLAN



OVERALL LIFE SAFETY PLAN  
3/32" = 1'-0"

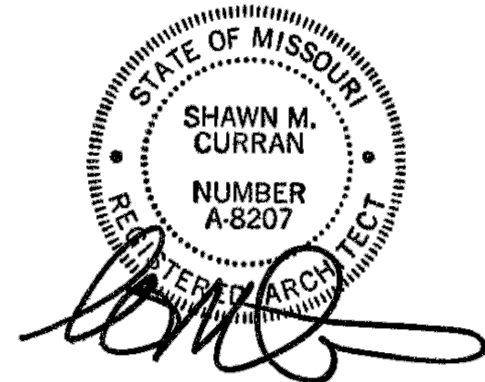




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PROJECT INFORMATION

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230139

FLOOR PLAN

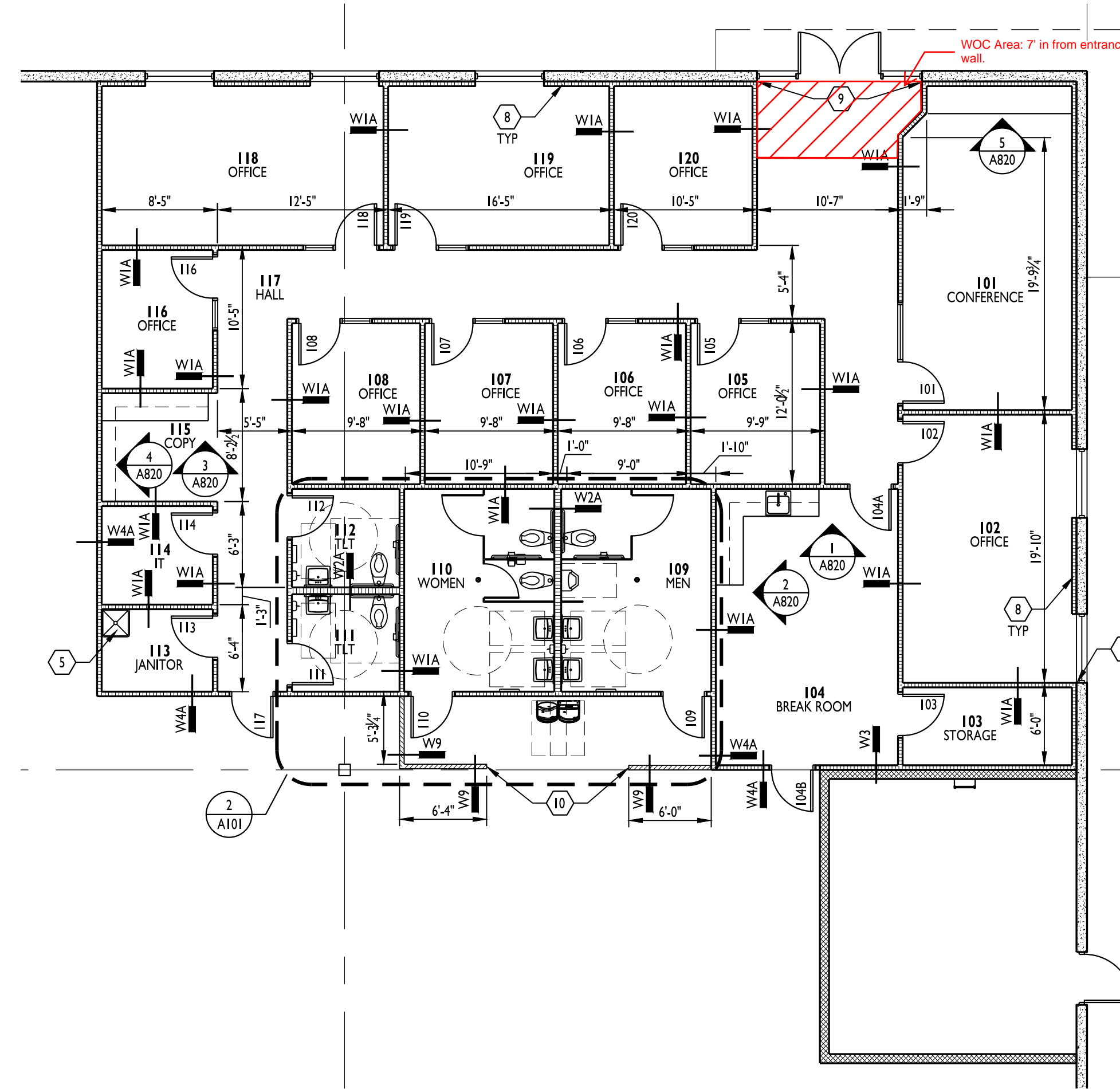
**A101**

GENERAL NOTES

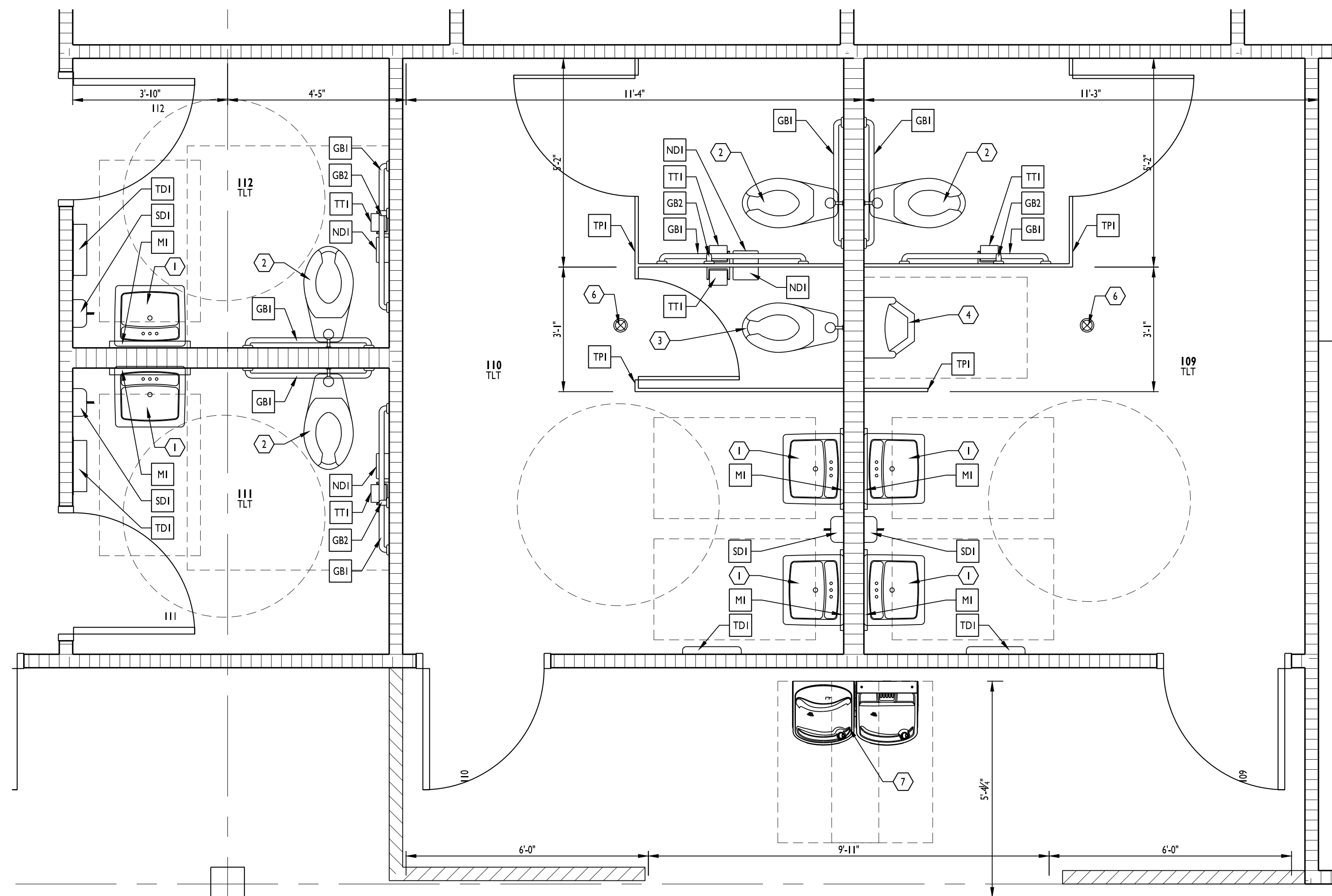
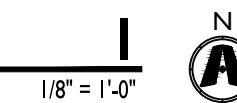
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AND JOB CONDITIONS. ANY DEVIATION FROM WHAT IS NOTED IN DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
- ALL DIMENSIONS SHOWN ARE FACE OF BRICK, MASONRY OR METAL STUD FRAMING, UNLESS OTHERWISE NOTED.
- PROVIDE DEEP LEG DEFLECTION TRACK AT ALL METAL STUD CONNECTIONS WITH STRUCTURE ABOVE, TYPICAL.
- PROVIDE FIRE RATED WOOD BLOCKING IN METAL STUD WALLS FOR ANY WALL SUPPORTED ITEMS.
- PROVIDE APPROVED FIRE RATED STOPPING MATERIALS IN ANY OPENINGS IN FIRE RATED ASSEMBLIES.
- REFER TO DOOR AND WINDOW SCHEDULES FOR ALL MATERIALS, FINISHES, AND HARDWARE INFORMATION.
- REFER TO EXTERIOR ELEVATIONS FOR ALL BRICK, MASONRY, AND OTHER EXPANSION JOINT LOCATIONS.
- ALL MATERIALS LOCATED IN CEILING PLENUM SHALL BE RATED FOR SUCH INSTALLATION OR PROTECTED TO PROVIDE COMPLIANCE. THIS INCLUDES BUT IS NOT LIMITED TO INSULATION (FHC 25/50) POWER AND LOW VOLTAGE WIRING, TELECOMMUNICATIONS CABLING, PLUMBING SUPPLY AND DRAIN LINES AND SUPPORTING BRACKETS AND/OR BLOCKING FOR CEILING HUNG ITEMS.
- PRIOR TO ORDERING ANY PRODUCTS, CONTRACTOR SHALL SUBMIT SAMPLES TO THE ARCHITECT OF ALL FINISH MATERIALS TO BE USED ON THE PROJECT. THE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR ANY MATERIALS ORDERED INCORRECTLY WHEN THAT MATERIAL WAS NOT REVIEWED BY THE ARCHITECT.
- PROVIDE CONCRETE FILLED STEEL PIPE BOLLARDS AT ALL REQUIRED UTILITY EQUIPMENT LOCATIONS SUCH AS GAS METERS, ELECTRICAL TRANSFORMER PANELS, ETC. COORDINATE WITH UTILITY COMPANY AND CONTRACTORS, WHEN APPLICABLE, FOR NECESSARY LOCATIONS. REFER TO CIVIL DRAWINGS FOR BOLLARD SPECIFICATIONS AND ADDITIONAL INFORMATION.
- ALL DOORS, UNLESS OTHERWISE NOTED, TO HAVE HINGE SIDE SET 4" FROM CORNER SHOWN TO OUTSIDE OF FRAME.
- UNLESS SPECIFIED ELSEWHERE, ALL INTERIOR SLABS AND SLAB INFILLS TO BE FF-50/FL-25 OVERALL AND FF-35/FL-25 LOCAL.
- ALL EXIT DOORS TO HAVE TACTILE EXIT SIGNAGE PER 703.4 OF THE ANSI 117.1 2009.

KEYED NOTES

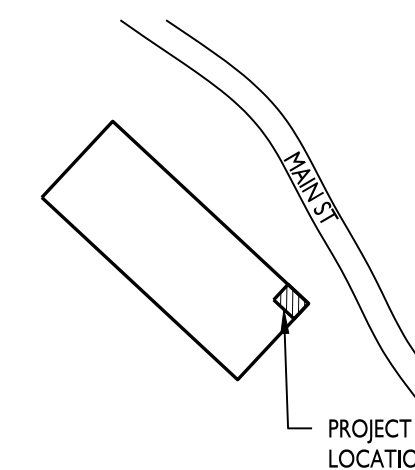
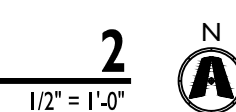
- ADA COMPLIANT WALL MOUNTED LAVATORY. PROVIDE SCALD GUARDS ON SUPPLY/WASTE LINE. REFER TO PLUMBING DWGS. SEE TYPICAL ACCESSIBILITY DETAILS FOR ACCESSIBLE MOUNTING INFORMATION.
- ADA COMPLIANT FLOOR MOUNT TOILET W/ FLUSH VALVE CONTROLS. REFER TO PLUMBING DWGS. SEE TYPICAL ACCESSIBILITY DETAILS FOR ACCESSIBLE MOUNTING INFORMATION.
- STANDARD HEIGHT FLOOR MOUNT TOILET W/ FLUSH VALVE CONTROLS. CENTER IN WIDTH OF STALL.
- ADA COMPLIANT WALL MOUNTED URINAL W/ FLUSH VALVE CONTROL. CENTER IN WIDTH OF STALL. REFER TO PLUMBING DRAWINGS. SEE TYPICAL ACCESSIBILITY DETAILS FOR ACCESSIBLE MOUNTING INFORMATION.
- FIBERGLASS MOP SINK W/ WALL MOUNT FAUCET. PROVIDE FRP ON WALLS BEHIND SINK TO 48" AFF. EXTEND MIN. 2" PAST SINK EDGE.
- FLOOR DRAIN
- ADA COMPLIANT HI-LOW WATER COOLER.
- FURR OUT WALL WITH 3 5/8" METAL STUDS W/ R-11 BATT INSULATION. COVER W/ VAPOR BARRIER AND 5/8" GYP BD. EXTEND TO MIN. 4" ABOVE CEILING LINE.
- ALIGN W/ EDGE OF MULLION.
- PROVIDE 2"x2"x6" POST IN WALL BOLTED TO SLAB TO SUPPORT WALL.



OFFICE FLOOR PLAN



ENLARGED RESTROOM PLAN



KEY PLAN

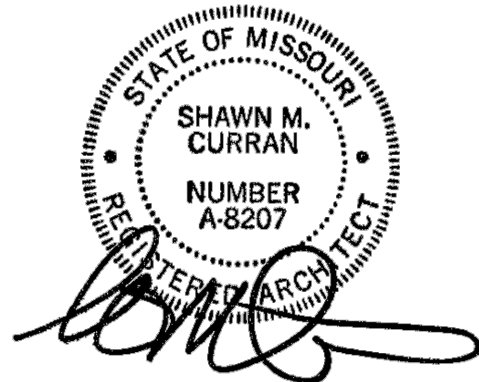




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230139

REFLECTED CEILING PLAN

A110

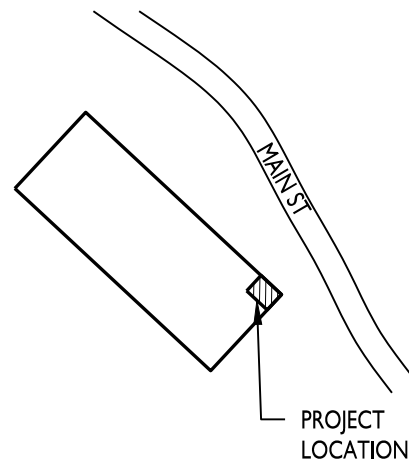
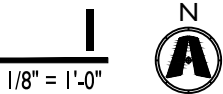
CEILING LEGEND

(NOT ALL MAY APPLY)

- ACOUSTICAL TILE CEILING / GRID. REFER TO FINISH SCHEDULE FOR TYPE AND HEIGHT.
- GYPSUM BOARD BULKHEAD OR CEILING. HEIGHT AS NOTED ON SCHEDULE OR KEYNOTES.

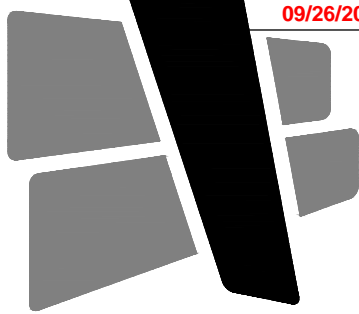


OFFICE REFLECTED CEILING PLAN



KEY PLAN





# CURRAN

## ARCHITECTURE

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## GENERAL DOOR AND GLAZING NOTES

- A. ALL PRE-FINISHED WOOD DOORS SHALL BE SOLID CORE WITH WOOD VENEER, MARSHFIELD OR EQUIVALENT. PROVIDE FINISH SAMPLE AND DOOR CONSTRUCTION DIAGRAM FOR APPROVAL AND HARDWARE BLOCKING COORDINATION. VENEER TO BE WHITE BIRCH OR MAPLE, FREE OF DARK GRAINS UNLESS OTHERWISE NOTED.
- B. WOOD DOORS SHALL ONLY BE INSTALLED IN CONDITIONED SPACE.
- C. ALL HARDWARE TO BE MINIMUM 6 PIN BEST COMPATIBLE SYSTEM. COORDINATE KEYING WITH OWNER.
- D. TEMPERED AND ANNEALED GLASS TO BE CLEANED PER MANUFACTURER REQUIREMENTS. NYLON CLOTH METHODS PREFERRED. DO NOT USE RAZOR BLADES ON GLASS.
- E. GLASS AROUND DOORS AND IN DOORS SHALL BE TEMPERED UNLESS OTHERWISE NOTED IN ELEVATIONS.
- F. ANY RATED DOORS TO HAVE LABEL INSTALLED IN JAMB.
- G. ALL EXITS DOORS TO HAVE TACTILE EXIT SIGNAGE PER 703.4 OF THE ANSI 117.1 2009.
- H. INSTALL OWNER PROVIDED ADA COMPLIANT RESTROOM SIGNAGE. VERIFY WITH ARCHITECT.

## GLAZING TYPES

- A. SECTION OF GLAZING REQUIRED TO BE 1" INSULATED GREY TINTED GLASS.
- B. SECTION OF GLAZING REQUIRED TO BE 1" INSULATED TEMPERED GLASS.
- C. SECTION OF GLAZING REQUIRED TO BE 1/4" GLASS.
- D. SECTION OF GLAZING REQUIRED TO BE 1/4" TEMPERED GLASS.
- E. SECTION OF GLAZING REQUIRED TO BE 1" INSULATED TEMPERED GREY TINTED SPANDREL GLASS.

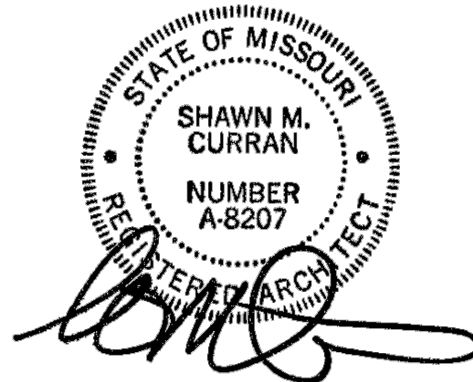
EXTERIOR GLAZING MUST MEET THE FOLLOWING SPECIFICATIONS FOR ENERGY CODE COMPLIANCE:

LOW "E" COATING  
"U" VALUE - MINIMUM OF 0.28  
"SHGC" VALUE - MAXIMUM OF 0.47

## GENERAL FINISH NOTES

- A. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE CONSTRUED THAT THE INSTALLER AND/OR FINISHER HAS INSPECTED AND ACCEPTED THE SUBSTRATE FOR RECEIVING THE WORK. NO CHANGE ORDER WILL BE ISSUED TO RECTIFY CONCEALED, UNKNOWN CONDITIONS OR UNSATISFACTORY SUBSTRATE ONCE THE FINISH WORK HAS PROCEEDED.
- B. USE MANUFACTURER'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.
- C. CONTRACTOR TO NOTIFY ARCHITECT IMMEDIATELY IF A SPECIFIED FINISH ITEM BECOMES UNAVAILABLE.
- D. CONTRACTOR TO SUBMIT SHOP DRAWINGS, FLOORING TRANSITION/GRAPHIC LOCATIONS AND SUBMITTALS OF ALL INTERIOR ITEMS AND FINISH MATERIALS TO ARCHITECT REVIEW PRIOR TO PLACING ANY MATERIAL ORDERS. CONTRACTOR MUST ACCOUNT FOR SUBMITTAL REVIEW, ORDERING AND DELIVERY WHEN SCHEDULING PRODUCT INSTALLATION.
- E. USE SUBFLOOR REDUCER STRIPS (UNDER FLOORING) TO LEVEL MATERIALS OF UNEQUAL HEIGHTS.
- F. PROVIDE JOHNSONITE SLIM-LINE TRANSITION STRIPS WHERE FLOORING MATERIALS OF UNEQUAL THICKNESS MEET. TRANSITION STRIPS AT DOORS TO BE LOCATED UNDER THE CENTERLINE OF THE DOOR IN CLOSED POSITION. COLOR OF TRANSITION STRIPS TO BE SELECTED BY ARCHITECT.
- G. ALL WALL TILE TO BE INSTALLED TO FLOOR WITH NO BASE UNLESS NOTED OTHERWISE.
- H. ANY GRILLES, FIRE EXTINGUISHER CABINETS, ETC., TO BE PAINTED TO MATCH WALL COLOR ON WHICH THEY OCCUR.
- I. PROVIDE OWNER WITH A MINIMUM OF ONE FULL BOX OR 2% OF EACH FINISH PRODUCT/MATERIAL SPECIFIED ON THE PROJECT.
- J. ALL WOODWORK/MILLWORK SHALL CONFORM TO THE QUALITY STANDARDS OF ARCHITECTURAL WOODWORK INSTITUTE (AWI) PREMIUM GRADE. FABRICATOR SHALL BE FAMILIAR WITH AWI STANDARDS.
- K. FABRICATE WOODWORK/MILLWORK ITEMS TO ACTUAL FIELD DIMENSIONS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, SAMPLES, AND/OR MATERIAL LITERATURE FOR ALL ITEMS. SHOP DRAWINGS SHALL SHOW SUFFICIENT DETAIL TO DETERMINE COMPLIANCE WITH THE QUALITY STANDARDS AND DESIGN INTENT.
- L. PROVIDE ALL NECESSARY FURRING AND GROUNDS FOR WOODWORK AND FINISH ITEMS. COORDINATE LOCATION OF BLOCKING WITHIN WALLS FOR ITEMS TO BE SECURED TO SURFACE. ALL FASTENERS SHALL BE CONCEALED.
- M. FINISH ALL SIDES AND BACK OF MILLWORK/CASEWORK.
- N. ALL COUNTERTOPS TO BE 1 1/2" THICK WITH A SQUARE EDGE, UNLESS OTHERWISE NOTED. PROVIDE COUNTER SUPPORTS AS REQUIRED.
- O. PROVIDE GROMMETS IN COUNTERTOPS ABOVE RECEPTACLES. COLOR TO MATCH COUNTER SURFACE. COORDINATE WITH OWNER AND ARCHITECT ON FINAL LOCATION AND SIZE OF GROMMETS BEFORE INSTALLATION.
- P. REFER TO FINISH SCHEDULE, INTERIOR ELEVATIONS AND SPECIFICATIONS FOR ALL MATERIAL INFORMATION AND LOCATIONS.

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### PROJECT INFORMATION

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DOOR AND FINISH  
SCHEDULE

A601

## MATERIALS SCHEDULE

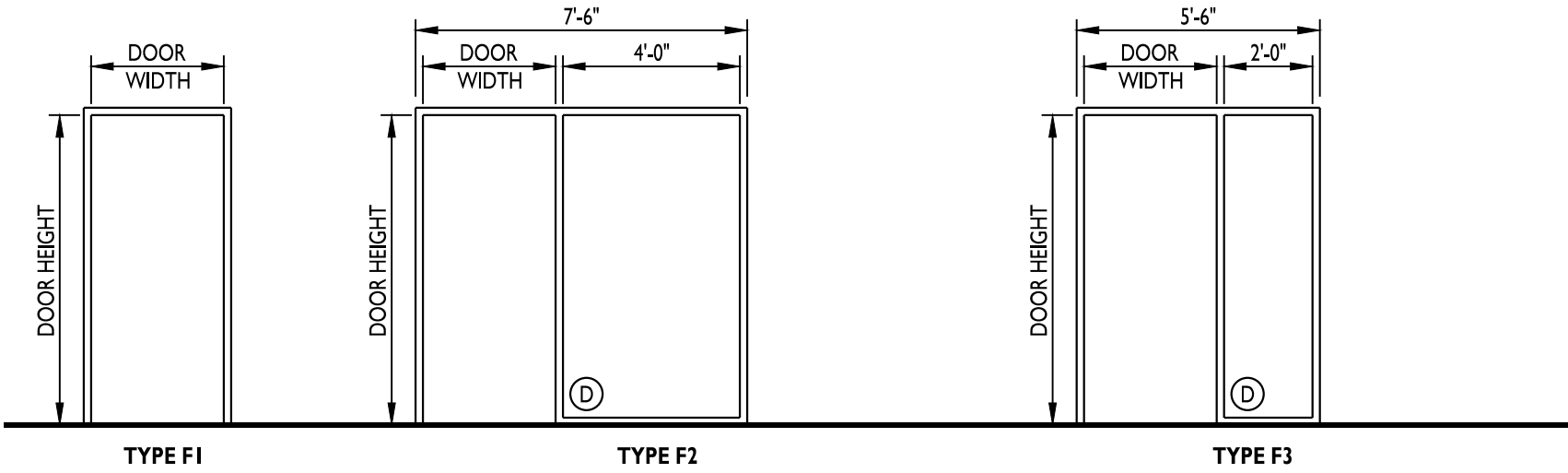
| MARK  | MATERIAL              | MANUFACTURER       | COLOR         | PATTERN / TEXTURE   | NUMBER  | REMARKS |
|-------|-----------------------|--------------------|---------------|---------------------|---------|---------|
| SC-1  | SEALED CONCRETE       | ASHFORD            | CLEAR         | CUR-N-SEAL          |         |         |
| B-1   | WALL BASE             | JOHNSONITE/TARKETT | BLACK         |                     | 40      |         |
| LVT-1 | LUXURY VINYL TILE     | INTERFACE          | ONYX          | DRAWN LINES         | A00907  |         |
| CPT-1 | CARPET                | INTERFACE          | STEEL         | DETOURS             | 104718  |         |
| T-1   | WALL TILE             |                    |               |                     |         |         |
| T-2   | FLOOR TILE            |                    |               |                     |         |         |
| P-1   | PAINT                 | BENJAMIN MOORE     | SUPER WHITE   | EGGSHELL            | OC-152  |         |
| P-2   | PAINT                 | SHERWIN WILLIAMS   | INVIGORATE    | EGGSHELL            | SW 4886 |         |
| P-3   | PAINT                 | BENJAMIN MOORE     | METROPOLIS    | EGGSHELL            | CC-546  |         |
| PL-1  | PLASTIC LAMINATE      | WILSONART          | BOARDWALK OAK | FINE VELVET         | 7983-38 |         |
| PL-2  | PLASTIC LAMINATE      | WILSONART          | GREY PAMPAS   | MATTE FINISH        | 4168-60 |         |
| SS-1  | SOLID SURFACE         | CORIAN             | RAINCLOUD     |                     |         |         |
| ACT-1 | ACOUSTIC CEILING TILE | ARMSTRONG          | WHITE         | CORTEGA SECOND LOOK | 2758    |         |

## ROOM FINISH SCHEDULE

| ROOM # | ROOM NAME  | FLOORING | BASE | NORTH WALL | EAST WALL | SOUTH WALL | WEST WALL | CABINETS / COUNTERTOPS | CEILING MAT / HEIGHT | REMARKS  |
|--------|------------|----------|------|------------|-----------|------------|-----------|------------------------|----------------------|--|
| 101    | CONFERENCE | CPT-1    | B-1  | P-1        | P-1       | P-1        | P-1       | --                     | ACT-1 / 10-2         |  |
| 102    | OFFICE     | CPT-1    | B-1  | P-1        | P-1       | P-3        | P-1       | -                      | ACT-1 / 10-2         |  |
| 103    | STORAGE    | SC-1     | B-1  | P-1        | P-1       | P-1        | P-1       | -                      | ACT-1 / 10-2         |  |
| 104    | BREAK ROOM | LVT-1    | B-1  | P-1        | P-1       | P-1        | P-2       | PL-1 / SS-1            | ACT-1 / 10-2         |  |
| 105    | OFFICE     | CPT-1    | B-1  | P-1        | P-1       | P-3        | P-1       | -                      | ACT-1 / 10-2         |  |
| 106    | OFFICE     | CPT-1    | B-1  | P-1        | P-1       | P-3        | P-1       | -                      | ACT-1 / 10-2         |  |
| 107    | OFFICE     | CPT-1    | B-1  | P-1        | P-1       | P-3        | P-1       | -                      | ACT-1 / 10-2         |  |
| 108    | OFFICE     | CPT-1    | B-1  | P-1        | P-1       | P-3        | P-1       | -                      | ACT-1 / 10-2         |  |
| 109    | MEN        | T-2      | --   | T-1 / P-1  | T-1 / P-1 | T-1 / P-1  | T-1 / P-1 | -                      | ACT-1 / 10-2         | T-1 TO 60" AFF. PROVIDE SCHLUTER STRIP @ TOP OF TILE AND SCHLUTER SANITARY COVE @ FLOORLINE. |
| 110    | WOMEN      | T-2      | --   | T-1 / P-1  | T-1 / P-1 | T-1 / P-1  | T-1 / P-1 | -                      | ACT-1 / 10-2         | T-1 TO 60" AFF. PROVIDE SCHLUTER STRIP @ TOP OF TILE AND SCHLUTER SANITARY COVE @ FLOORLINE. |
| 111    | TLT        | T-2      | --   | T-1 / P-1  | T-1 / P-1 | T-1 / P-1  | T-1 / P-1 | -                      | ACT-1 / 10-2         | T-1 TO 60" AFF. PROVIDE SCHLUTER STRIP @ TOP OF TILE AND SCHLUTER SANITARY COVE @ FLOORLINE. |
| 112    | TLT        | T-2      | --   | T-1 / P-1  | T-1 / P-1 | T-1 / P-1  | T-1 / P-1 | -                      | ACT-1 / 10-2         | T-1 TO 60" AFF. PROVIDE SCHLUTER STRIP @ TOP OF TILE AND SCHLUTER SANITARY COVE @ FLOORLINE. |
| 113    | JANITOR    | SC-1     | B-1  | P-1        | P-1       | P-1        | P-1       | --                     | ACT-1 / 10-2         |  |
| 114    | IT         | SC-1     | B-1  | P-1        | P-1       | P-1        | P-1       | --                     | ACT-1 / 10-2         |  |
| 115    | COPY       | CPT-1    | B-1  | P-1        | P-1       | P-1        | P-1       | PL-1 / PL-2            | ACT-1 / 10-2         |  |
| 116    | OFFICE     | CPT-1    | B-1  | P-1        | P-1       | P-3        | P-1       | -                      | ACT-1 / 10-2         |  |
| 117    | HALL       | CPT-1    | B-1  | P-1        | P-1       | P-1        | P-1       | -                      | ACT-1 / 10-2         |  |
| 118    | OFFICE     | CPT-1    | B-1  | P-1        | P-1       | P-3        | P-1       | -                      | ACT-1 / 10-2         |  |
| 119    | OFFICE     | CPT-1    | B-1  | P-1        | P-1       | P-3        | P-1       | -                      | ACT-1 / 10-2         |  |
| 120    | OFFICE     | CPT-1    | B-1  | P-1        | P-1       | P-3        | P-1       | -                      | ACT-1 / 10-2         |  |

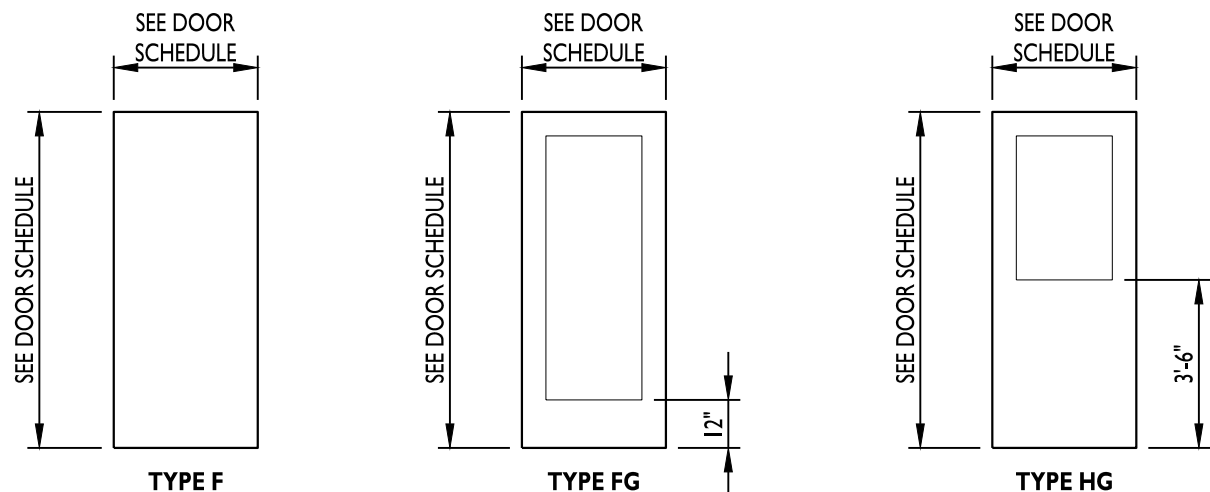
## DOOR SCHEDULE

| MARK | DOOR | SIZE    | MATERIAL | GLAZING | FINISH | RATING | FRAME | MATERIAL | FINISH | RATING | HARDWARE | REMARKS |
|------|------|---------|----------|---------|--------|--------|-------|----------|--------|--------|----------|---------|
| 101  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F2    | WELDED   | PAINT  | --     | 05       |         |
| 102  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F3    | WELDED   | PAINT  | --     | 07       |         |
| 103  | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 05       |         |
| 104A | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 03       |         |
| 104B | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 03       |         |
| 105  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F3    | WELDED   | PAINT  | --     | 05       |         |
| 106  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F3    | WELDED   | PAINT  | --     | 05       |         |
| 107  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F3    | WELDED   | PAINT  | --     | 05       |         |
| 108  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F3    | WELDED   | PAINT  | --     | 05       |         |
| 109  | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 06       |         |
| 110  | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 06       |         |
| 111  | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 02       |         |
| 112  | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 02       |         |
| 113  | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 05       |         |
| 114  | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 05       |         |
| 116  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F3    | WELDED   | PAINT  | --     | 05       |         |
| 117  | F    | 3-0X7-0 | SCWD     | --      | UNFIN  | --     | F1    | WELDED   | PAINT  | --     | 03       |         |
| 118  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F3    | WELDED   | PAINT  | --     | 05       |         |
| 119  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F3    | WELDED   | PAINT  | --     | 05       |         |
| 120  | F    | 3-0X7-0 | SCWD     | D       | UNFIN  | --     | F3    | WELDED   | PAINT  | --     | 05       |         |



### DOOR FRAME TYPES

NOT TO SCALE



### DOOR TYPES

NOT TO SCALE

## DOOR HARDWARE

#### HARDWARE SET #01

- 3 HINGES
- 1 CLASSROOM LOCKSET
- 3 MUTES
- 1 CLOSER
- 1 DOOR STOP

#### HARDWARE SET #02

- 3 HINGES
- 1 PRIVACY LOCKSET
- 1 CLOSER
- 3 MUTES
- 1 DOOR STOP

#### HARDWARE SET #03

- 3 HINGES
- 1 PASSAGE SET
- 3 MUTES
- 1 CLOSER
- 1 DOOR STOP

#### HARDWARE SET #04

- 3 HINGES
- 1 STOREROOM LOCK SET
- 1 ELECTRIC STRIKE
- 3 MUTES
- 1 CLOSER
- 1 DOOR STOP

#### HARDWARE SET #05

- 3 HINGES
- 1 PASSAGE SET
- 3 MUTES
- 1 DOOR STOP

#### HARDWARE SET #06

- 3 HINGES
- 1 PUSH PULL
- 1 CLOSER
- 1 KICKPLATE
- 1 DOOR STOP

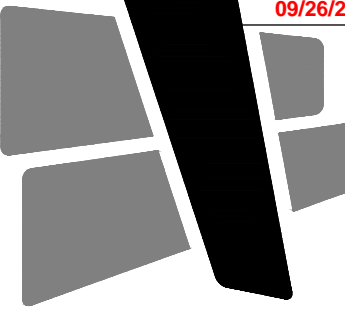
#### HARDWARE SET #07

- 3 HINGES
- 1 CLASSROOM LOCKSET
- 3 MUTES
- 1 DOOR STOP

#### HARDWARE SET #08

- 6 HINGES
- 3 PUSH PULLS
- 2 MUTES
- 2 CLOSERS
- 2 FLOOR STOPS





# CURRAN

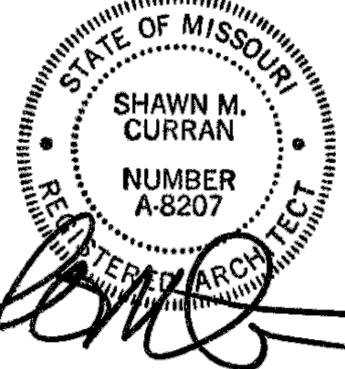
ARCHITECTURE

5719 LAWTON LOOP E. DR. #212  
INDIANAPOLIS, IN 46216  
O :: 317 . 288 . 0681  
F :: 317 . 288 . 0753

## CASEWORK GENERAL NOTES

- UNLESS SPECIFICALLY OTHERWISE NOTED, PROVIDE SELF EDGE ALONG EXPOSED FACES OF ALL COUNTER TOPS.
- PROVIDE WOOD F.R. BLOCKING IN WALL WHERE REQUIRED FOR WALL AND/OR BASE CABINET INSTALLATION. COORDINATE WITH CABINET MANUFACTURER PRIOR TO BLOCKING BEING INSTALLED. AT EXTERIOR WALL PROVIDE TREATED WOOD BLOCKING.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADA COMPLIANT CABINETS, HANDLES, CLEAR SPACES BELOW CABINETS WHERE REQUIRED ETC. WHETHER SHOWN ON THESE DETAILS OR NOT. COORDINATE WITH ARCHITECT IF ANY DISCREPANCIES ARISE.
- IF SEPARATE SPECIFICATIONS ARE INCLUDED WITH THIS PROJECT THOSE DOCUMENTS WILL SUPERCEDE WHAT IS SHOWN AND/OR DETAILED ON THIS DRAWING. OTHERWISE THIS DRAWING AND DETAILS REPRESENT THE MINIMUM REQUIRED STANDARDS OF CONSTRUCTION FOR ALL BASE CABINETS, COUNTER TOPS, UPPER CABINETS, ETC.
- REFER TO FLOOR PLAN FOR ALL LENGTHS OF CABINET RUNS AS WELL AS LOCATIONS. REFER TO THE REFLECTED CEILING PLAN (IF INCLUDED) FOR ALL BULKHEAD LOCATIONS AND HEIGHTS.
- CASEWORK INSTALLER IS RESPONSIBLE FOR COORDINATING INSTALLATION OF ALL DIVISION 22 AND DIVISION 26 ITEMS (INCLUDING CUT OUTS) IN CASEWORK OR COUNTERTOPS. LOCATIONS AND CUT OUT COORDINATION ALSO REQUIRED FOR RECEPTACLES (DIVISION 26) IN MICROWAVE WALL CABINETS, DISHWASHER LOCATIONS, GARBAGE DISPOSAL LOCATIONS, ETC.
- PROVIDE FINISHED ENDS ON CABINETS WHERE END OF CABINET IS EXPOSED BEYOND WALL LINE, UNDER COUNTER, AT KNEE SPACE AND AT ALL SIMILAR EXPOSED AREAS.
- UNLESS NOTED OTHERWISE PROVIDE EQUAL WIDTH FILLER/SCRIBE BETWEEN WALL AND CASEWORK AT ALL LOCATIONS WHERE NONE IS SHOWN. MAXIMUM WIDTH IS TO BE 2".
- CONTRACTOR SHALL FIELD VERIFY AND CHECK ALL CONDITIONS, LOCATIONS AND DIMENSIONS PRIOR TO STARTING ANY WORK. REPORT ANY DISCREPANCIES TO ARCHITECT.
- ANY AND ALL PARTS OF ANY CABINETS OR COUNTERS THAT ARE VISIBLE MUST BE FINISHED WITH MATERIAL TO MATCH ADJACENT FINISHES. NOTIFY AND COORDINATE WITH ARCHITECT IF AREAS OF UNSPECIFIED FINISHES EXIST.
- UNLESS NOTED OTHERWISE REFER TO ROOM FINISH SCHEDULE FOR ALL CABINET FINISHES AND MATERIALS AS WELL AS ALL OTHER ASSOCIATED, MISCELLANEOUS FINISH REQUIREMENTS, UNLESS NOTED OTHERWISE ALL INTERIOR COMPONENTS TO BE WHITE MELAMINE.
- EASE ALL EXPOSED OUTSIDE EDGES AT ALL COMPONENTS FOR ITEMS SHOWN ON THIS SHEET.
- REFER TO ROOM FINISH SCHEDULE FOR ALL WALL BASE REQUIREMENTS.

CERTIFICATION



THIS DRAWING AND THE IDEAS, DESIGNS AND CONCEPTS CONTAINED HEREIN ARE THE EXCLUSIVE INTELLECTUAL PROPERTY OF CURRAN ARCHITECTURE, AND ARE NOT TO BE USED OR REPRODUCED, WHOLE OR IN PART, WITHOUT THE WRITTEN CONSENT OF CURRAN ARCHITECTURE.  
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### PROJECT INFORMATION

MIDWEST DISTRIBUTION TI

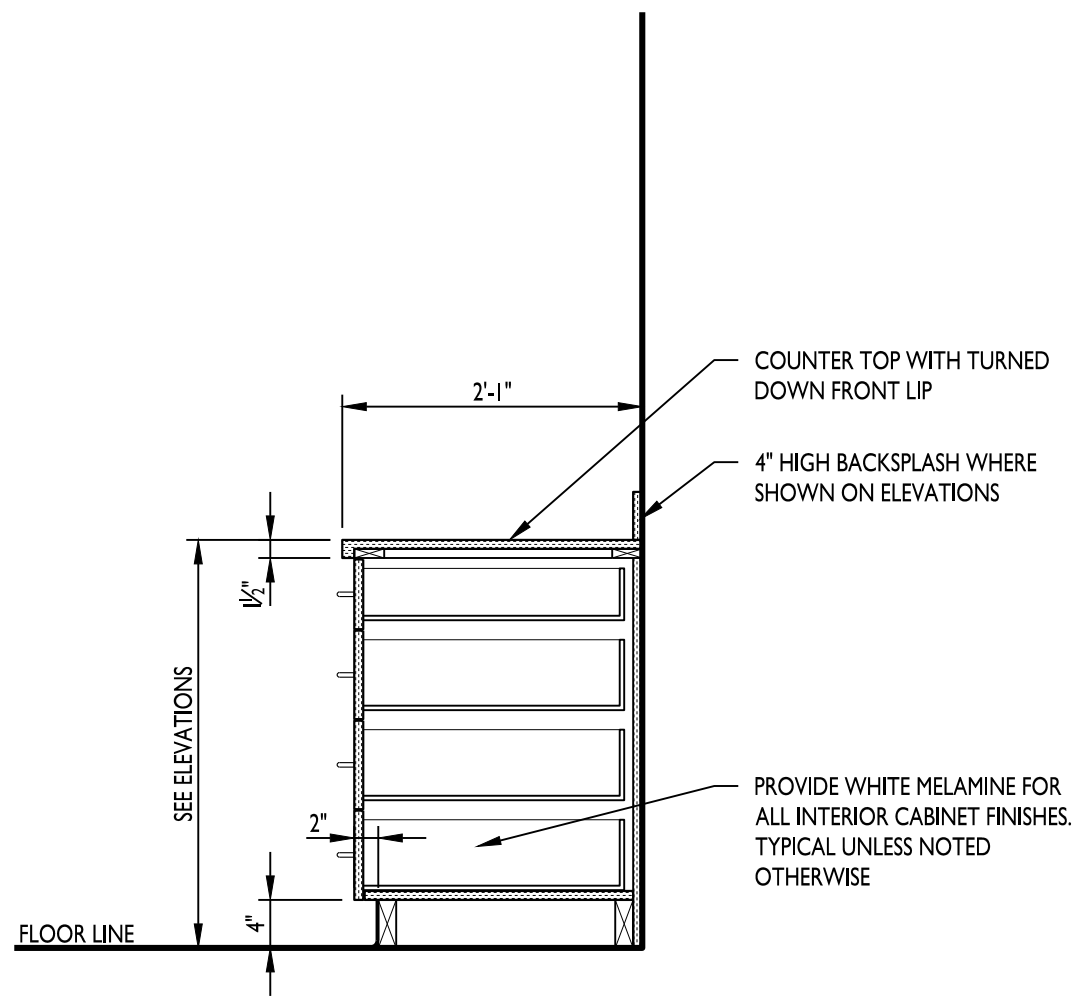
1220 NW MAIN STREET  
LEE'S SUMMIT, MO 64086

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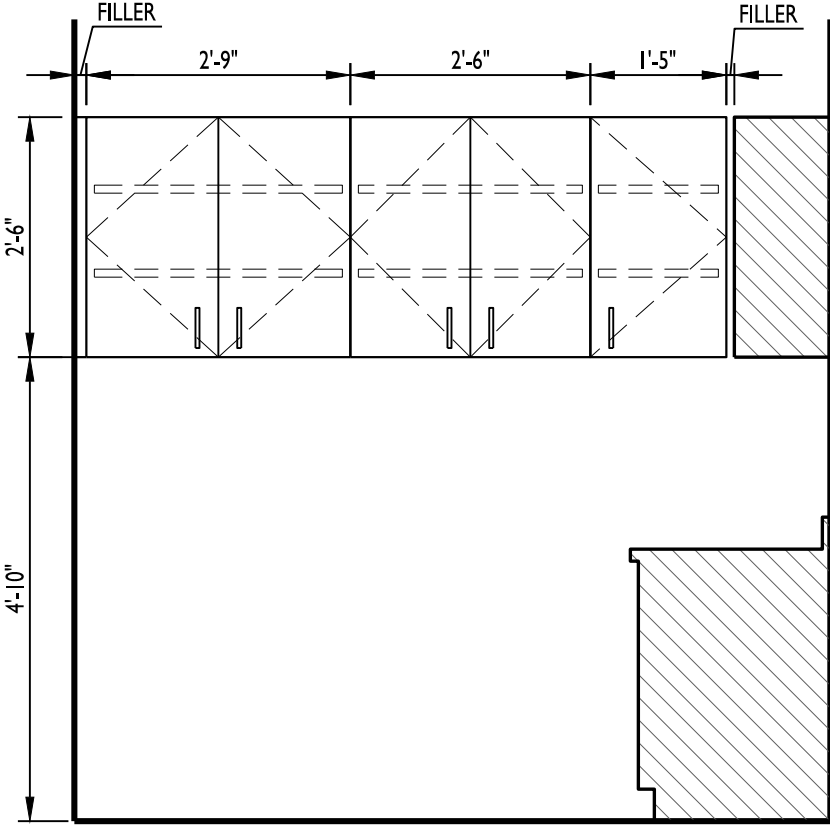
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CASEWORK ELEVATIONS

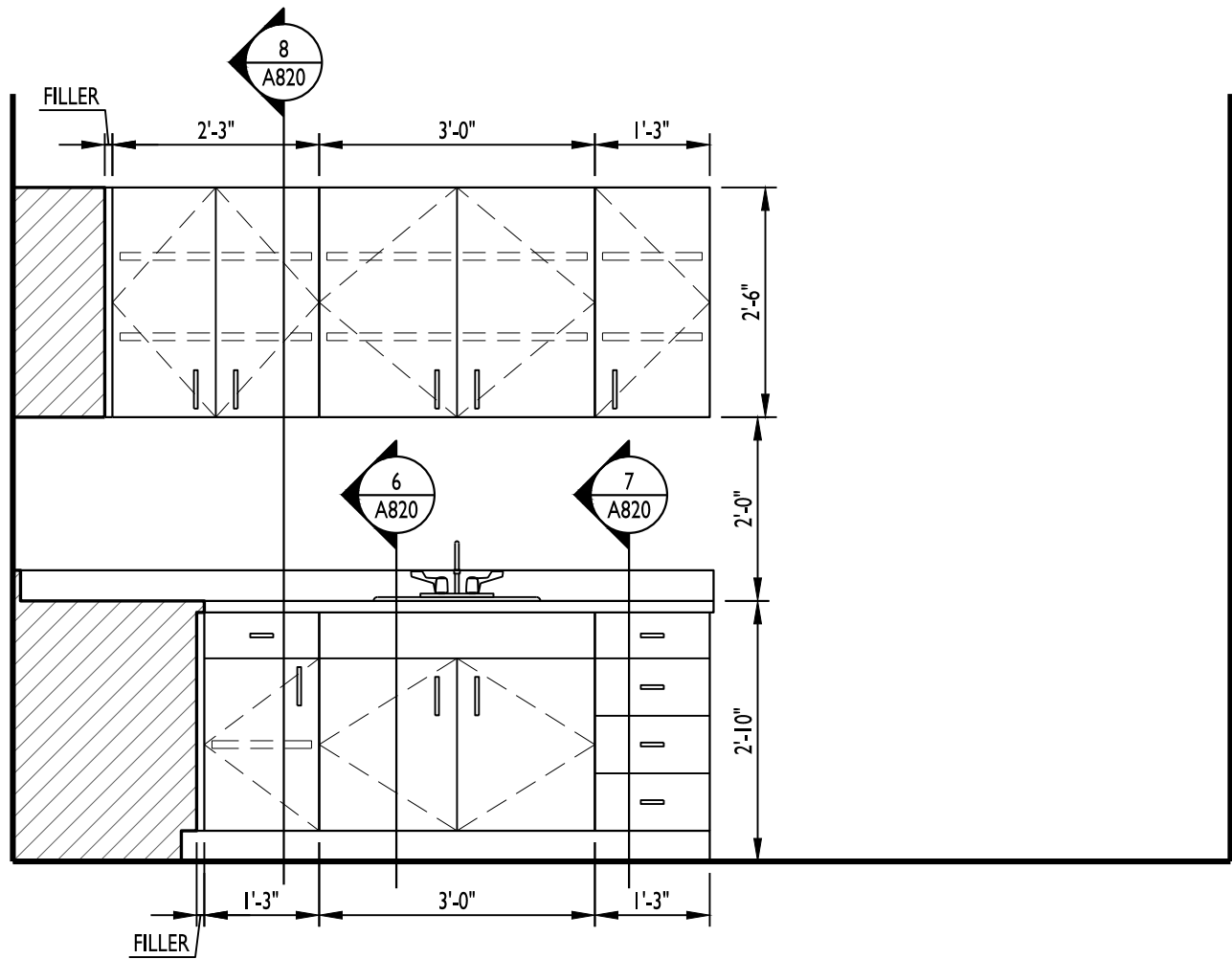
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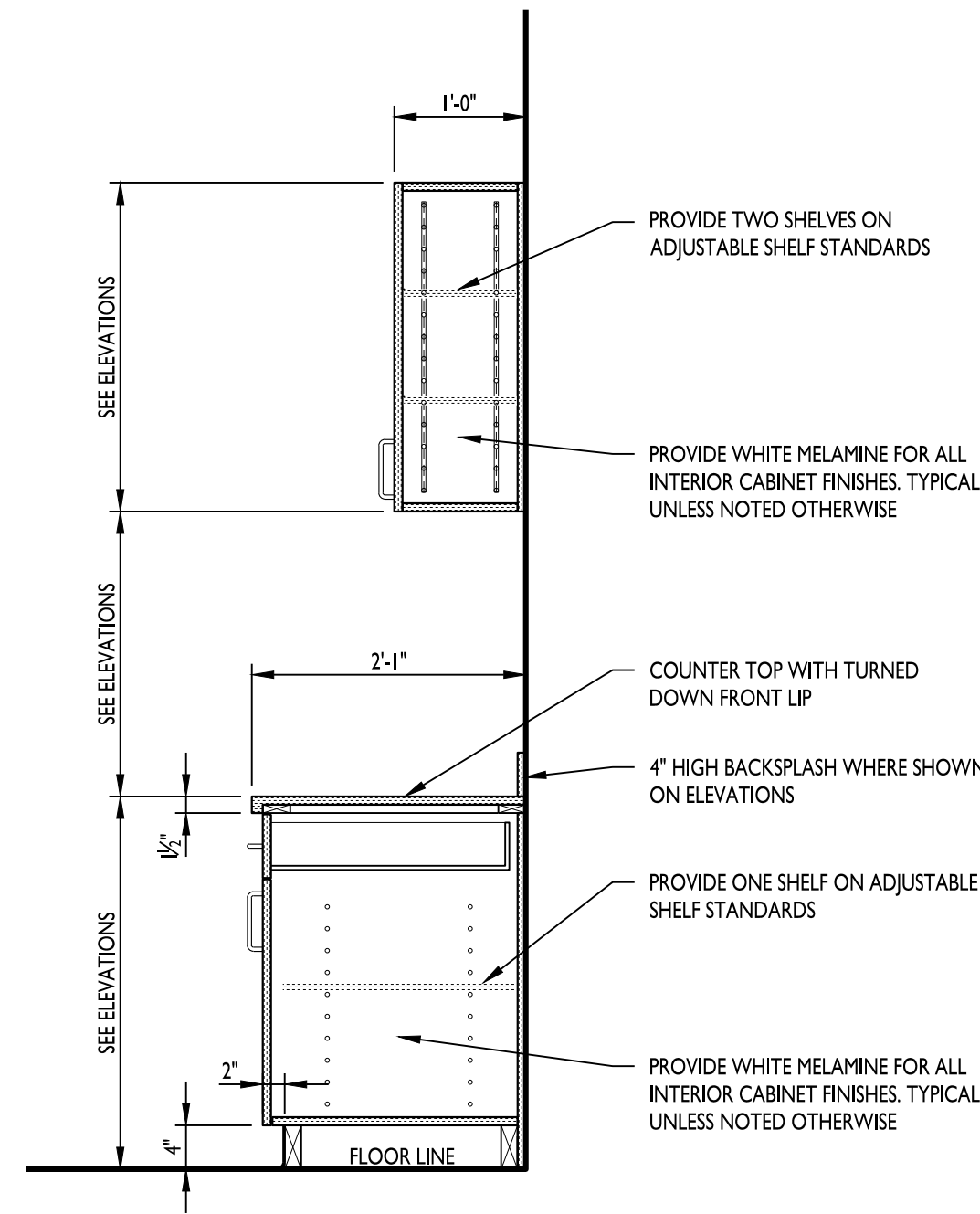
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3/4" = 1'-0"



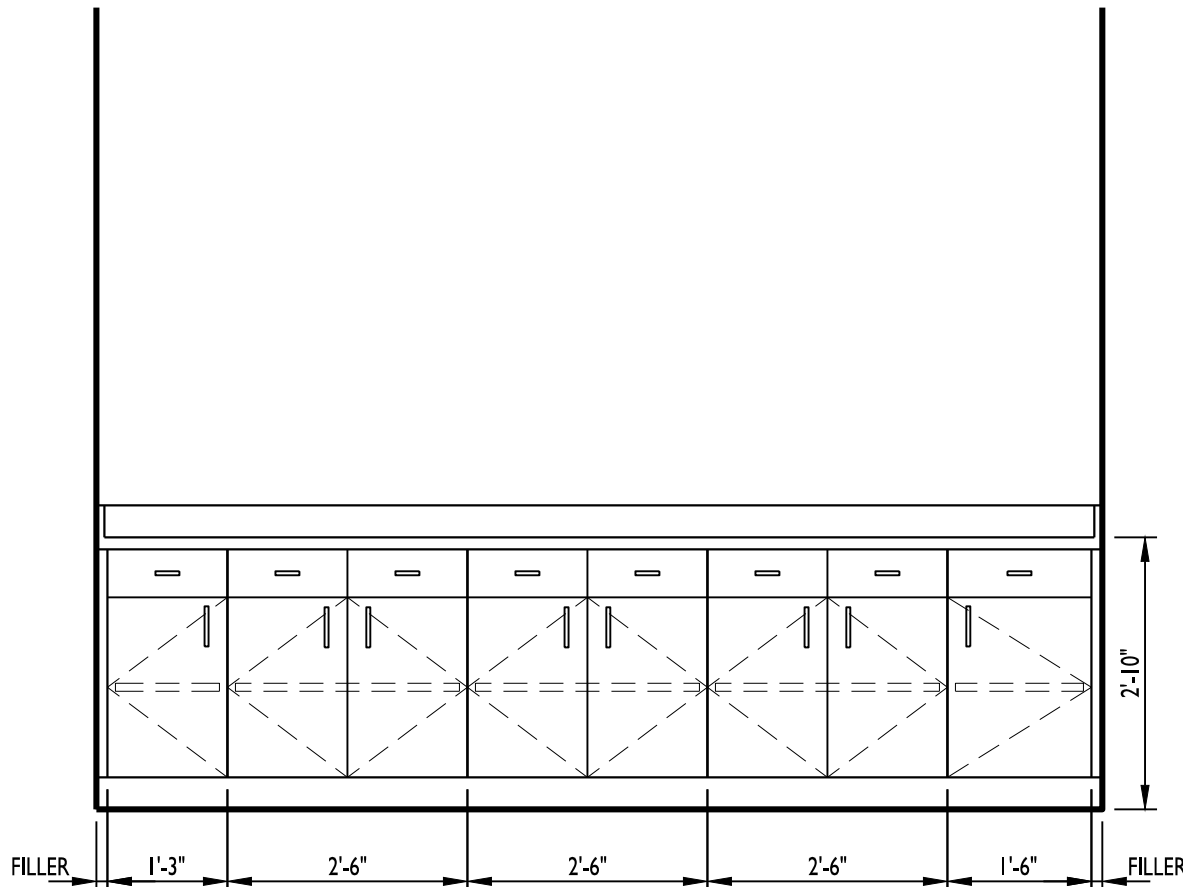
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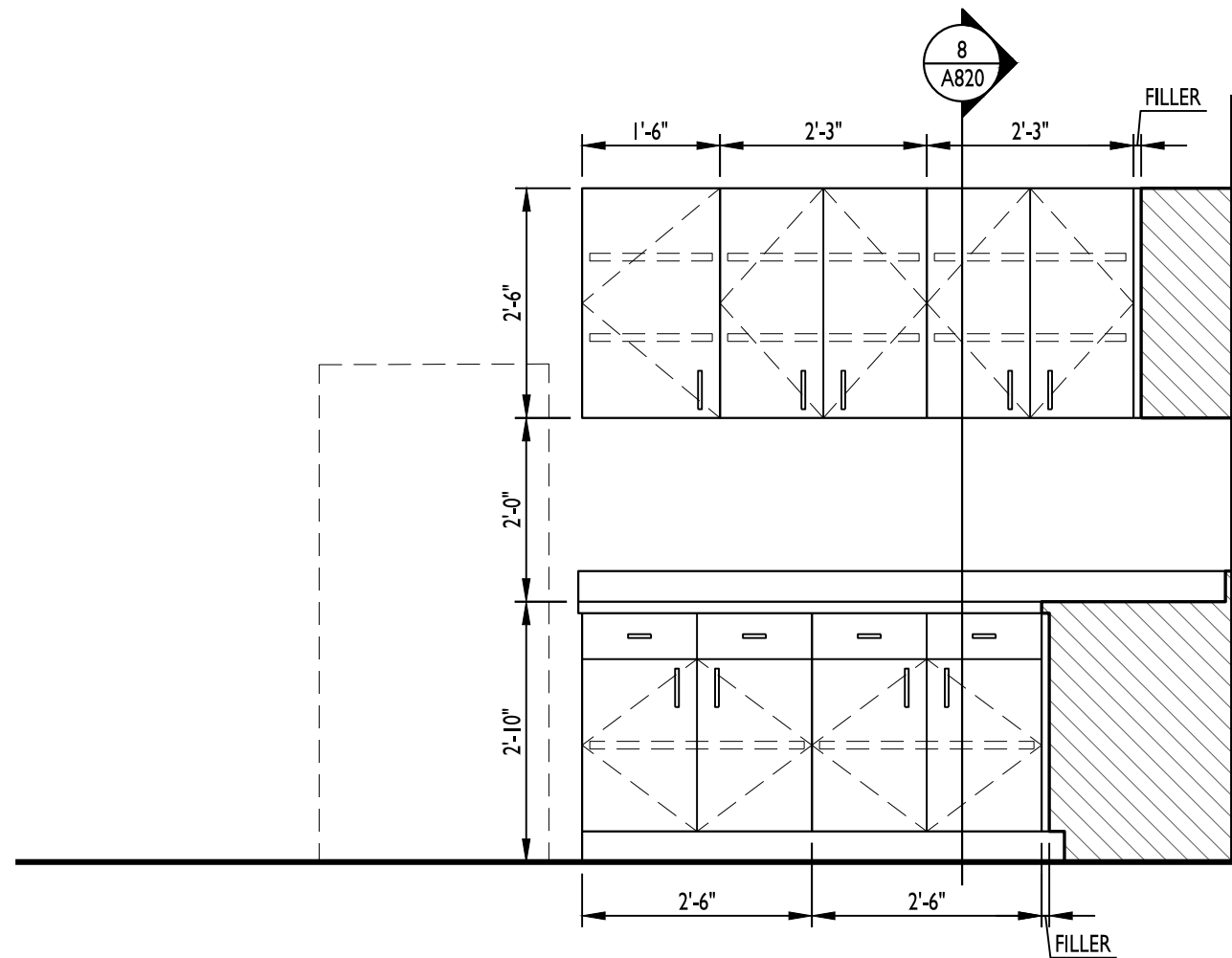
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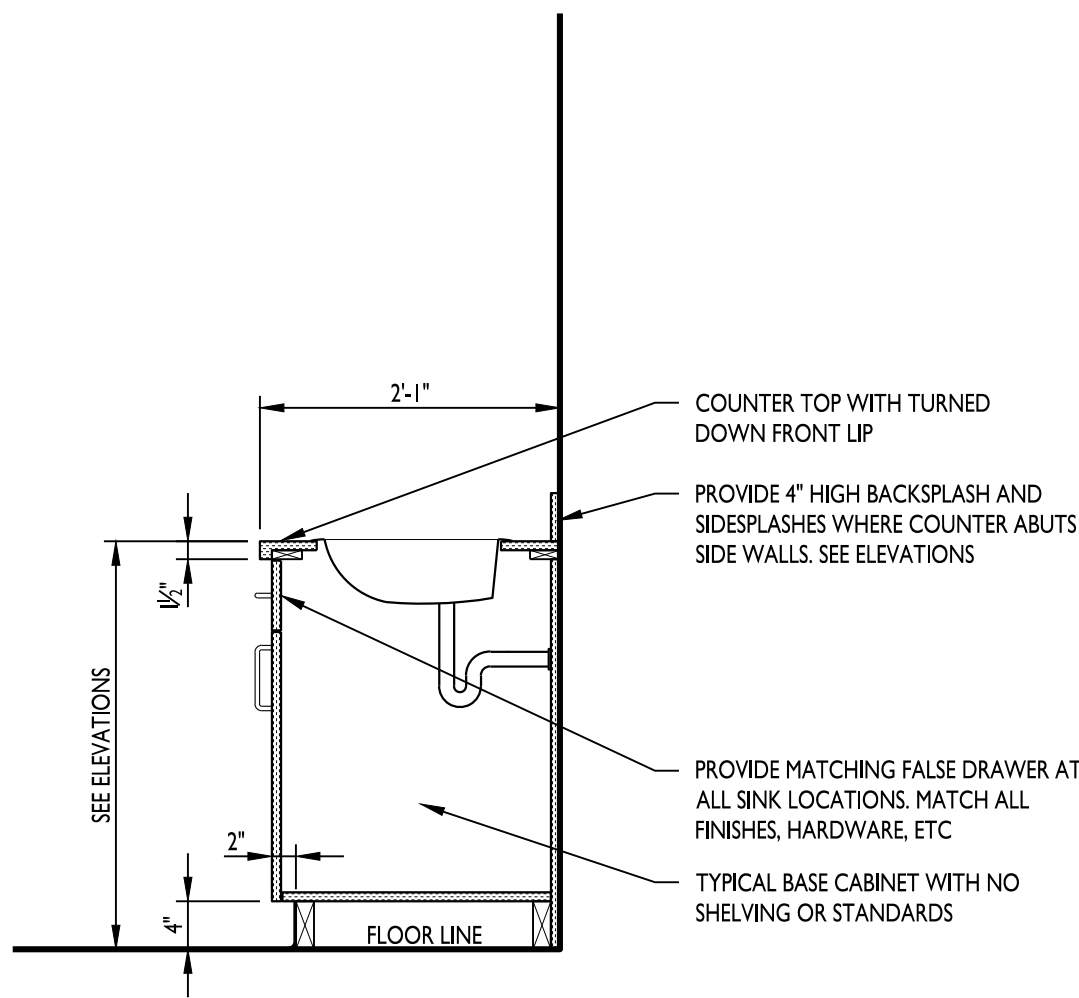
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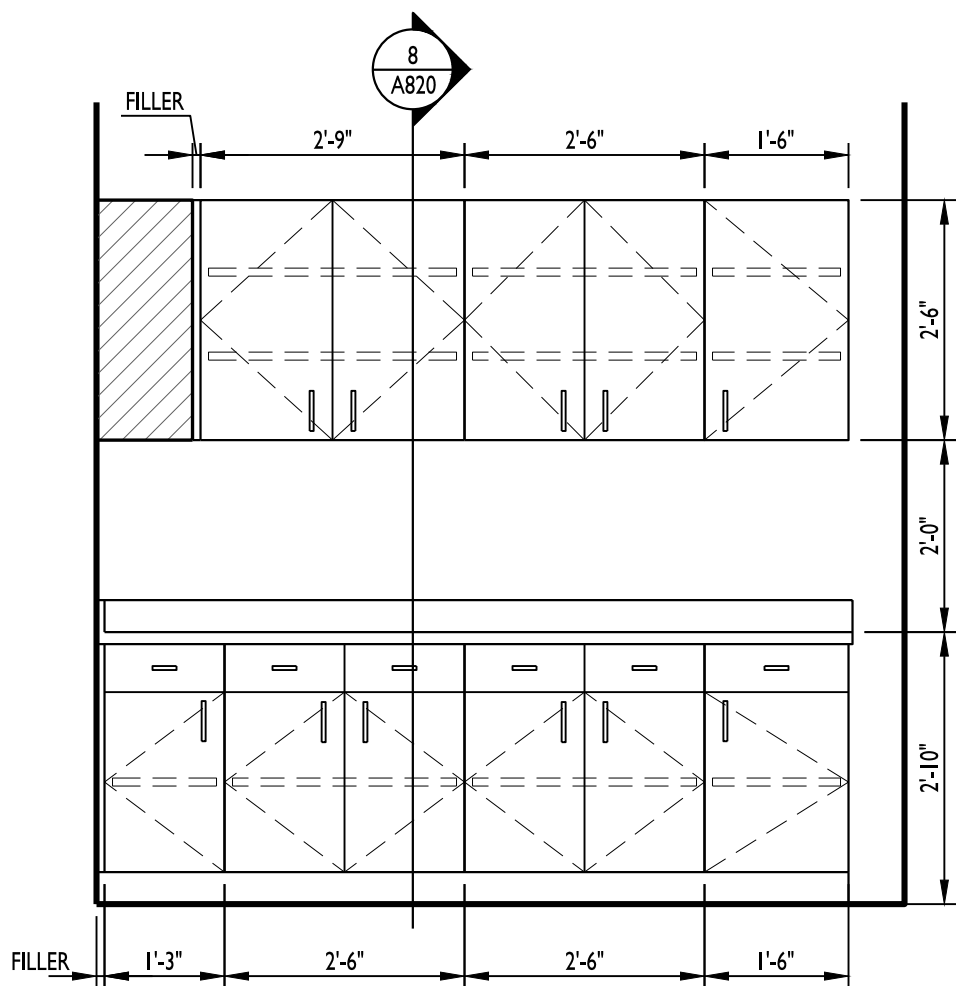
ELEVATION 5  
1/2" = 1'-0"



ELEVATION 2  
1/2" = 1'-0"



ELEVATION 6  
3/4" = 1'-0"



ELEVATION 3  
1/2" = 1'-0"



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DESIGN PARAMETERS

|    |  |  |
|----|--|--|
| 1. | BUILDING CODE  | 2018 INTERNATIONAL BUILDING CODE (IBC) |
|    | OCCUPANCY CATEGORY   | II                                     |
| 2. | LIVE LOADS   |  |
|    | A. ROOF – NON–REDUCIBLE  | 20 PSF                                 |
|    | B. SLAB–ON–GRADE   | 350 PSF                                |
| 3. | ROOF SNOW LOAD   |  |
|    | A. GROUND SNOW LOAD, Pg  | 20 PSF                                 |
|    | B. FLAT ROOF SNOW LOAD, Pf                                       | 20 PSF                                 |
|    | C. SNOW EXPOSURE FACTOR, Ce                                      | 1.0                                    |
|    | D. SNOW LOAD IMPORTANCE FACTOR, I                                | 1.0                                    |
|    | E. THERMAL FACTOR, Ct (BUILDING)                                 | 1.0                                    |
|    | F. SNOW DRIFT  | PER REFERENCED CODE                    |
| 4. | WIND DESIGN DATA   |  |
|    | A. ULTIMATE WIND SPEED (3 SECOND GUST), V                        | 109 MPH                                |
|    | B. WIND IMPORTANCE FACTOR, I                                     | 1.00                                   |
|    | C. WIND EXPOSURE CATEGORY  | C                                      |
|    | D. INTERNAL PRESSURE COEFFICIENT, Gcpi                           | +/- 0.18                               |
|    | E. DESIGN WIND PRESSURE ON COMPONENTS AND CLADDING (1.0W)        |  |
|    | 1) WALLS (500 SQUARE FEET EFFECTIVE WIND AREA)                   |  |
|    | END ZONES  | 23.7 PSF                               |
|    | INTERIOR ZONES   | 23.7 PSF                               |
|    | 2) ROOF (10 SQUARE FEET EFFECTIVE WIND AREA FOR DECK ATTACHMENT) |  |
|    | CORNER ZONES   | 89.1 PSF                               |
|    | END ZONES  | 65.4 PSF                               |
|    | INTERIOR ZONE 1  | 49.6 PSF                               |
|    | INTERIOR ZONE 2  | 28.5 PSF                               |
|    | F. WIDTH OF END ZONES, a   | 18.9 FT                                |
| 5. | EARTHQUAKE DESIGN DATA   |  |
|    | A. SEISMIC IMPORTANCE FACTOR, I                                  | 1.0                                    |
|    | B. MAPPED SPECTRAL RESPONSE ACCELERATION, Ss                     | 9.9 %                                  |
|    | C. MAPPED SPECTRAL RESPONSE ACCELERATION, S1                     | 6.8 %                                  |
|    | D. SITE CLASS  | C                                      |
|    | E. SPECTRAL RESPONSE COEFFICIENT, Sds                            | 0.086                                  |
|    | F. SPECTRAL RESPONSE COEFFICIENT, Sd1                            | 0.068                                  |
|    | G. SEISMIC DESIGN CATEGORY                                       | B                                      |
|    | H. STRUCTURAL SYSTEM   |  |
|    | 1) BASIC SEISMIC FORCE–RESISTING SYSTEM TYPE                     | A. BEARING WALL SYSTEMS                |
|    | 2) VERTICAL ELEMENT TYPE   | 2) ORDINARY PRECAST SHEAR WALLS        |
|    | 3) DESIGN BASE SHEAR, LRFD                                       | 0.029 W                                |
|    | 4) SEISMIC RESPONSE COEFFICIENT, Cs                              | 0.029                                  |
|    | 5) CONTROLLING RESPONSE MODIFICATION FACTOR, R                   | 3                                      |
|    | J. ANALYSIS PROCEDURE  | EQUIVALENT LATERAL FORCE               |
| 6. | DEAD LOAD  |  |
|    | A. EPDM MEMBRANE   | 0.3 PSF                                |
|    | B. RIGID INSULATION  | 0.7 PSF                                |
|    | C. ROOF DECK   | 2.0 PSF                                |
|    | D. LIGHTS, PLUMBING, & HVAC                                      | 3.0 PSF                                |
|    | E. SPRINKLERS  | 2.0 PSF                                |
|    | F. STEEL JOISTS  | 2.0 PSF                                |
|    | G. STEEL GIRDERS   | 2.0 PSF                                |
|    | H. TOTAL DEAD LOAD ON JOISTS                                     | 10.0 PSF                               |
|    | J. TOTAL DEAD LOAD ON COLUMNS                                    | 12.0 PSF                               |

GENERAL NOTES

GENERAL

- STRUCTURAL ELEMENTS ARE NON–SELF SUPPORTING AND REQUIRE INTERACTION WITH OTHER ELEMENTS FOR STABILITY AND RESISTANCE TO LATERAL FORCES. FRAMING AND WALLS SHALL BE TEMPORARILY BRACED BY THE CONTRACTOR UNTIL PERMANENT BRACING, ROOF DECKS, AND WALLS HAVE BEEN INSTALLED AND CONNECTIONS BETWEEN THESE ELEMENTS HAVE BEEN MADE.
- THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION, UNLESS NOTED OTHERWISE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATION OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO.
- THE SIZE AND LOCATION OF EQUIPMENT PADS AND PENETRATIONS THROUGH THE STRUCTURE FOR MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL BE VERIFIED BY THE CONTRACTOR. PENETRATIONS SHALL BE SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR OPENING LOCATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- USE ONLY DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT SCALE DRAWINGS OR USE ANY DIMENSIONS TAKEN FROM ELECTRONIC DRAWING FILES. CONTRACTOR SHALL COORDINATE IN–PLACE DIMENSIONS BASED ON TOLERANCES OF THE RESPECTIVE TRADES.
- ASSUME EQUAL SPACING IF NOT INDICATED ON DRAWINGS.
- THE GENERAL NOTES ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS AND SHALL BE USED IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS. WHERE REQUIREMENTS INDICATED ON THE STRUCTURAL DRAWINGS DIFFER FROM THE GENERAL NOTES, NOTIFY THE ARCHITECT AND THE STRUCTURAL ENGINEER.
- THE STRUCTURAL DRAWINGS ARE NOT INTENDED TO BE AN INDEPENDENT SET OF THE CONSTRUCTION DOCUMENTS. SEE ARCHITECTURAL, MEP, CIVIL AND OTHER DRAWINGS FOR INFORMATION RELATED TO THE STRUCTURAL WORK. CONTRACTOR SHALL VERIFY COORDINATION OF THE DESIRED DETAILS PRIOR TO CONSTRUCTION AND NOTIFY THE ARCHITECT AND THE STRUCTURAL ENGINEER IF ADDITIONAL COORDINATION IS REQUIRED.
- ARCHITECTURAL, MECHANICAL AND ELECTRICAL COMPONENTS AND SYSTEMS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST SEISMIC FORCES AS DETERMINED IN CHAPTER 13 OF ASCE 7.

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL MEET THE FOLLOWING MINIMUM YIELD STRESS (Fy), UNLESS NOTED OTHERWISE:

|                             |                       |                        |
|-----------------------------|-----------------------|------------------------|
|                             | YIELD                 | ASTM SPECIFICATION     |
| A. W, WT SHAPES:            | 50 KSI                | A992                   |
| B. BARS, PLATES, CHANNELS:  | 36 KSI                | A36                    |
| C. SQUARE, RECTANGULAR HSS: | 50 KSI                | A500, GRADE C          |
| D. ANCHOR RODS:             | 36 KSI OR 55 KSI      | F1554                  |
| E. ALL–THREAD RODS:         | 36 KSI                | A36                    |
| F. HEADED STUD ANCHORS:     | 65 KSI TENSILE STRESS | A108, GRADES 1010–1020 |
- ALL STRUCTURAL STEEL SHALL ADHERE TO THE DETAILING, FABRICATION AND ERECTION REQUIREMENTS OF THE LATEST EDITIONS OF THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AND THE AISC CODE OF PRACTICE.
- BOLTS FOR STEEL BEAM AND COLUMN CONNECTIONS SHALL BE 3/4–INCH DIAMETER ASTM A325–N HIGH–STRENGTH BOLTS UNLESS NOTED OTHERWISE. ALL BOLTED CONNECTIONS ARE BEARING TYPE AND SHALL BE SNUG TIGHTENED UNLESS NOTED OTHERWISE. FOR PRETENSIONED OR SLIP–CRITICAL JOINTS, THE METHOD OF INSTALLATION SHALL BE TURN–OF–NUT WITH MATCH MARKING, TWIST–OFF–TYPE TENSION CONTROL BOLT ASSEMBLIES (ASTM F1852), OR DIRECT TENSION INDICATORS (ASTM F959).
- WELDING SHALL MEET ANSI / AWS D1.1, STRUCTURAL WELDING CODE LATEST REVISION. ELECTRODES SHALL BE E70XX, LOW HYDROGEN. ALL STRUCTURAL STEEL WELDS SHALL BE PERFORMED BY A AWS CERTIFIED WELDER.
- WELDS NOT SPECIFICALLY SIZED ON THE STRUCTURAL DRAWINGS SHALL BE THE MINIMUM SIZE PER THE LATEST AWS D1.1.
- PROVIDE DOUBLE NUTS AND DOUBLE WASHERS FOR STEEL COLUMN ANCHOR BOLTS TO ALLOW FOR ADJUSTMENT IN BASE PLATE ELEVATION. PROVIDE 1 1/2 INCH NON–SHRINK GROUT UNDER BASE PLATE AFTER ERECTION. USE 2 1/2 INCHES NON–SHRINK GROUT WHEN COLUMN ANCHOR BOLTS ARE 1 1/4 INCH DIAMETER OR LARGER. NON–SHRINK GROUT SHALL BE NON–METALLIC WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
- SHEAR CONNECTORS SHALL BE A CARBON STEEL HEADED STUD TYPE ASTM A108 GRADES 1010 THRU 1020, AWS D1.1, TYPE B WITH ARC SHIELDS.
- ALL CONNECTIONS ON THE STRUCTURAL DRAWINGS, UNLESS NOTED OTHERWISE, SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED OR RETAINED BY THE STEEL FABRICATOR. THE DESIGN AND DETAILING SHALL COMPLY WITH ALL APPLICABLE CODES AND SPECIFICATION SECTIONS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING THE COSTS FOR ALL MISCELLANEOUS STEEL IN THEIR BID REGARDLESS OF WHETHER THOSE ITEMS ARE INDICATED ON THE STRUCTURAL DRAWINGS. THESE COSTS SHALL INCLUDE BUT ARE NOT LIMITED TO MISCELLANEOUS STEEL ITEMS SHOWN ON ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS SUCH AS SHELF ANGLES, GLAZING SUPPORTS AND LINTELS.
- LEDGER ANGLES AND LINTELS IN EXTERIOR WALL SYSTEMS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123.
- ALL STRUCTURAL STEEL SHALL HAVE A COAT OF LIGHT GRAY PAINT TO PROVIDE PROTECTION AND GOOD APPEARANCE.

STEEL JOISTS

- STEEL JOISTS SHALL BE AS INDICATED ON THE PLANS AND SHALL BE IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI) AND MEET THE FOLLOWING:

|  |
|--|
| A. JOISTS SHALL BE DESIGNED FOR THE UNIFORM LOAD CAPACITY (AS SPECIFIED IN THE SJI STANDARD LOAD TABLES) IN ADDITION TO THE CONCENTRATED LOADS SHOWN ON PLANS AND DETAILS.   |
| B. JOISTS THAT SUPPORT CONCENTRATED LOADS SHALL HAVE THEIR CHORDS DESIGNED TO WITHSTAND ALL BENDING STRESSES, OR THE LOADS SHALL OCCUR WITHIN 3 INCHES OF JOIST PANEL POINTS, OR THE JOIST SHALL BE REINFORCED PER THE "JOIST REINFORCING DETAIL" SHOWN HEREIN. CONCENTRATED LOADS SHALL BE CENTERED ON JOISTS AND NOT ATTACHED TO THE EDGE OF CHORD ANGLES. |
| C. JOISTS SHALL RESIST THE NET UPLIFT PRESSURE AS INDICATED ON THE DETAILS 7 & 8/S4.1. THIS PRESSURE SHALL ACT ALONE. AN ALLOWABLE STRESS INCREASE IS NOT PERMITTED.   |
| D. FOR ALL MEMBERS THAT REQUIRE SPECIFIC ORIENTATION, PROVIDE TAG AT ONE END AND DEFINE LOCATION OF TAGGED END ON ERECTION DRAWINGS.   |
| E. JOIST MANUFACTURER SHALL DETERMINE THE SEAT DEPTH AND WIDTH OF BEARING AND COORDINATE THE SAME WITH THE STEEL FABRICATOR. THE FOLLOWING SEAT DEPTHS ARE ASSUMED ON THE DRAWINGS: 2 1/2 INCHES FOR K–SERIES JOISTS, 5 INCHES FOR LH SERIES JOISTS).  |
| F. JOISTS SHALL BE FABRICATED TO PROVIDE OPENINGS FOR DUCTS AS SHOWN IN THE REQUIRED OPENING IN JOIST DETAIL.  |
- K–SERIES AND LH–SERIES JOISTS SHALL BE WELDED TO SUPPORTING STEEL WITH MINIMUM 1/8 INCH FILLET WELDS 2 INCHES LONG EACH SIDE OR WITH TWO 1/2 INCH DIAMETER ASTM A307 BOLTS OR THE EQUIVALENT, UNLESS NOTED OTHERWISE. WHEN NEAR OR AT A COLUMN, BOLT JOIST TO SUPPORTING STEEL IN CONFORMANCE WITH OSHA.
- JOIST BRIDGING AND ERECTION STABILITY SHALL BE PROVIDED IN ACCORDANCE WITH THE OCCUPATIONAL SAFETY AND HAZARD ADMINISTRATION (OSHA) AND THE SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI).
- JOIST RTU LOADS ARE PROVIDED ON THE ROOF FRAMING PLAN, REFERENCE PLANS AND DETAILS FOR LOAD LOCATIONS, VALUES AND SUPPORT FRAMING.
- JOIST MANUFACTURER SHALL DESIGN THE COMPRESSION CHORD OF ALL JOISTS SUPPORTING ROOF TOP UNITS, SKY LIGHTS, AND OTHER STRUCTURES FOR AN UNBRACED LENGTH APPLICABLE TO THE CONDITIONS AT THE PROJECT WHERE THE UNBRACED LENGTH IS GREATER THAN THE SJI MAXIMUM. (REFERENCE ARCHITECTURAL AND MECHANICAL DRAWINGS)
- DESIGN JOISTS FOR INTERNAL ROOF DRAINLINE AND FIRE SPRINKLER LINE LOCATIONS, IF REQUIRED. ADD 50 PLF FOR 8 INCH DIAMETER AND SMALLER, ADD 75 PLF FOR 10 INCH DIAMETER, ADD 102 PLF FOR 12 INCH DIAMETER, ADD 122 PLF FOR 14 INCH DIAMETER, ADD 200 PLF FOR 18 INCH DIAMETER. REFERENCE MECHANICAL DRAWINGS FOR EXACT LOCATION. CONTRACTOR SHALL OBTAIN FIRE LINE LOCATIONS AND SIZES PRIOR TO SUBMITTAL OF JOIST SHOP DRAWINGS.
- JOIST DESIGNS SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED, EMPLOYED OR RETAINED BY THE JOIST MANUFACTURER.
- SHOP DRAWING SHALL BE REVIEWED BY THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD PRIOR TO JOIST FABRICATION.
- PROVIDE JOISTS CAPABLE OF WITH STANDING DESIGN LOADS INDICATED WITH LIVE LOAD DEFLECTIONS NO GREATER THAN L/240 OF THE SPAN.
- JOISTS SHALL BE CAMBERED ACCORDING TO SJI'S "SPECIFICATIONS". JOIST AND JOIST GIRDERS SHALL BE SHOP PRIMED WITH MANUFACTURER'S STANDARD SHOP PRIMER.

STEEL DECK

- ROOF DECK

|   |
|---|
| A. ROOF DECK SHALL BE GALVANIZED TYPE "B". DEPTH SHALL BE AS SHOWN ON DRAWINGS. ROOF DECK SHALL BE BOTTOM PRIMED WHITE  |
| B. ROOF DECK IS REQUIRED TO ACT AS A DIAPHRAGM. CONNECTIONS SHALL BE IN ACCORDANCE WITH STEEL DECK INSTITUTE SPECIFICATIONS. REFER TO THE ROOF DIAPHRAGM CONNECTION DIAGRAM FOR ATTACHMENT. |
| C. DECKING SHALL BE CONTINUOUS OVER A MINIMUM OF (3) SPANS UNLESS NOTED OTHERWISE.  |
| D. NO HANGING LOADS SHALL BE ATTACHED TO ROOF DECK.   |

ABBREVIATIONS

|        |  |
|--------|--|
| A.B.   | ANCHOR BOLTS                             |
| ACI    | AMERICAN CONCRETE INSTITUTE              |
| AESS   | ARCHITECTURALLY EXPOSED STRUCTURAL STEEL |
| A.F.F. | ABOVE FINISHED FLOOR                     |
| ARCH.  | ARCHITECTURAL                            |
| BAL.   | BALANCE                                  |
| B.L.   | BLOCK LINTEL                             |
| BLDG.  | BUILDING                                 |
| B.O.   | BOTTOM OF                                |
| B.O.D. | BOTTOM OF DECK                           |
| BRG.   | BEARING                                  |
| C.J.   | CONTRACTION JOINT                        |
| C.L.   | CENTER LINE                              |
| CLR.   | CLEAR                                    |
| CMU    | CONCRETE MASONRY UNIT                    |
| COL.   | COLUMN                                   |
| CONC.  | CONCRETE                                 |
| CONST. | CONSTRUCTION                             |
| CONT.  | CONTINUOUS                               |
| D.B.A. | DEFORMED BAR ANCHOR                      |
| DIA.   | DIAMETER                                 |

|        |                             |
|--------|-----------------------------|
| DWG.   | DRAWING                     |
| E.F.   | EACH FACE                   |
| E.J.   | EXPANSION JOINT             |
| ELEV.  | ELEVATION                   |
| E.O.D. | EDGE OF DECK                |
| E.O.S. | EDGE OF SLAB                |
| EQ.    | EQUAL                       |
| E.W.   | EACH WAY                    |
| EXIST. | EXISTING                    |
| FDN.   | FOUNDATION                  |
| F.F.E. | FINISHED FLOOR ELEV.        |
| F.S.   | FAR SIDE                    |
| FTG.   | FOOTING                     |
| GA.    | GAGE                        |
| GALV.  | GALVANIZED                  |
| G.B.   | GRADE BEAM                  |
| HORIZ. | HORIZONTAL                  |
| H.S.A. | HEADED STUD ANCHOR          |
| IBC    | INTERNATIONAL BUILDING CODE |
| INFO.  | INFORMATION                 |
| J.B.E. | JOIST BEARING ELEVATION     |
| JT.    | JOINT                       |
| K      | UNIT OF 1,000 POUNDS (KIP)  |

DEFERRED STRUCTURAL SUBMITTALS

- THE FOLLOWING STRUCTURAL COMPONENTS SHALL BE DESIGNED AND SUBMITTED BY OTHERS FOR APPROVAL IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.

|  |
|--|
| A. STRUCTURAL STEEL CONNECTIONS OF FRAMING AND BRACING ELEMENTS  |
| B. STEEL JOISTS AND JOIST GIRDERS (CONTRACTOR SHALL OBTAIN FIRE LINE LOCATIONS AND SIZES PRIOR TO SUBMITTAL OF JOIST SHOP DRAWINGS.) |
| C. STEEL, SELF–SUPPORTING STAIRS AND HANDRAIL FRAMING  |
| D. TEMPORARY BRACING AND SUPPORT   |
| E. ROOF ACCESS LADDERS AND SAFETY CAGES  |
| F. SEISMIC ANCHORAGE AND BRACING OF MEP COMPONENTS   |
- DOCUMENTS FOR DEFERRED STRUCTURAL SUBMITTAL ITEMS SHALL BE DESIGNED, SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED. THE DEFERRED SUBMITTAL DOCUMENTS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL AS REQUESTED WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

SHOP DRAWINGS

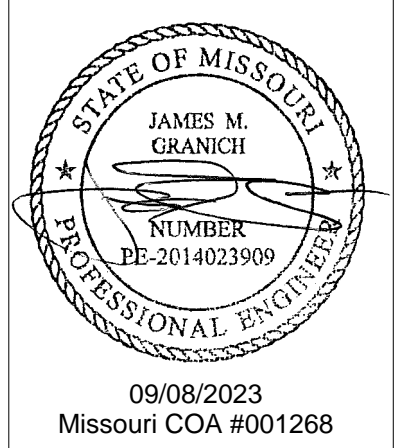
- SHOP DRAWINGS AND SUBMITTALS SHALL BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL FOR THE ENGINEER'S REVIEW. THE STRUCTURAL ENGINEER'S REVIEW IS TO CHECK THE GENERAL CONFORMANCE OF THE SHOP DRAWINGS WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ANY ALTERATIONS FROM THE CONTRACT DOCUMENTS WHICH MAY INCLUDE QUANTITIES, DIMENSIONAL ERRORS OR OTHER ERRORS AND OMISIONS IN THE SHOP DRAWINGS.
- SHOP DRAWINGS SHALL NOT BE REPRODUCTIONS OF THE CONTRACT DOCUMENTS.
- THE FOLLOWING STRUCTURAL COMPONENTS SHALL BE SUBMITTED AS A SHOP DRAWING FOR REVIEW:

|   |
|---|
| A. STRUCTURAL STEEL                       |
| B. STEEL JOISTS                           |
| C. STEEL ROOF DECK AND THEIR ATTACHMENTS. |
| D. ALL DEFERRED SUBMITTAL ITEMS           |

SPECIAL INSPECTIONS

- THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS PER SECTION 1704 OF THE IBC. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO COMPLETION OF THAT PHASE OF WORK. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED AT A POINT IN TIME AGREED UPON BY THE PERMIT APPLICANT AND THE BUILDING OFFICIAL PRIOR TO THE START OF WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE SPECIAL INSPECTOR REGARDING INDIVIDUAL INSPECTION FOR ITEMS LISTED ON THE STATEMENT OF SPECIAL INSPECTIONS AND AS NOTED ON THE BUILDING DEPARTMENT APPROVED PLANS. ADEQUATE NOTICE AND ACCESS TO APPROVED PLANS SHALL BE PROVIDED SO THAT THE SPECIAL INSPECTOR HAS TIME TO BECOME FAMILIAR WITH THE PROJECT.
- FABRICATORS OF STRUCTURAL LOAD–BEARING MEMBERS AND ASSEMBLIES SHALL CONFORM TO THE REQUIREMENTS OF SECTION 1704.2 OF THE IBC.
- THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION PER SECTION 1700 OF THE REFERENCED BUILDING CODE.

|   |
|---|
| A. BOLTS & ANCHORS EMBEDDED IN CONCRETE               |
| B. PLACEMENT OF REINFORCING STEEL IN CONCRETE         |
| C. CONCRETE MIX DESIGN                                |
| D. CONCRETE FORMWORK                                  |
| E. STRUCTURAL STEEL FABRICATIONS                      |
| F. STRUCTURAL STEEL BOLTING AND WELDING               |
| G. ON SITE STRUCTURAL FRAMING                         |
| H. INSPECTION OF ROOF DECK ATTACHMENTS                |
| I. SHEAR WALL ATTACHMENTS AND ANCHORS                 |
| J. POST INSTALLED ANCHORS                             |
| K. ON SITE SOILS, EXCAVATIONS, FILLING AND COMPACTION |
| L. ERECTION OF PRECAST CONCRETE MEMBERS               |



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LEE'S SUMMIT, MISSOURI

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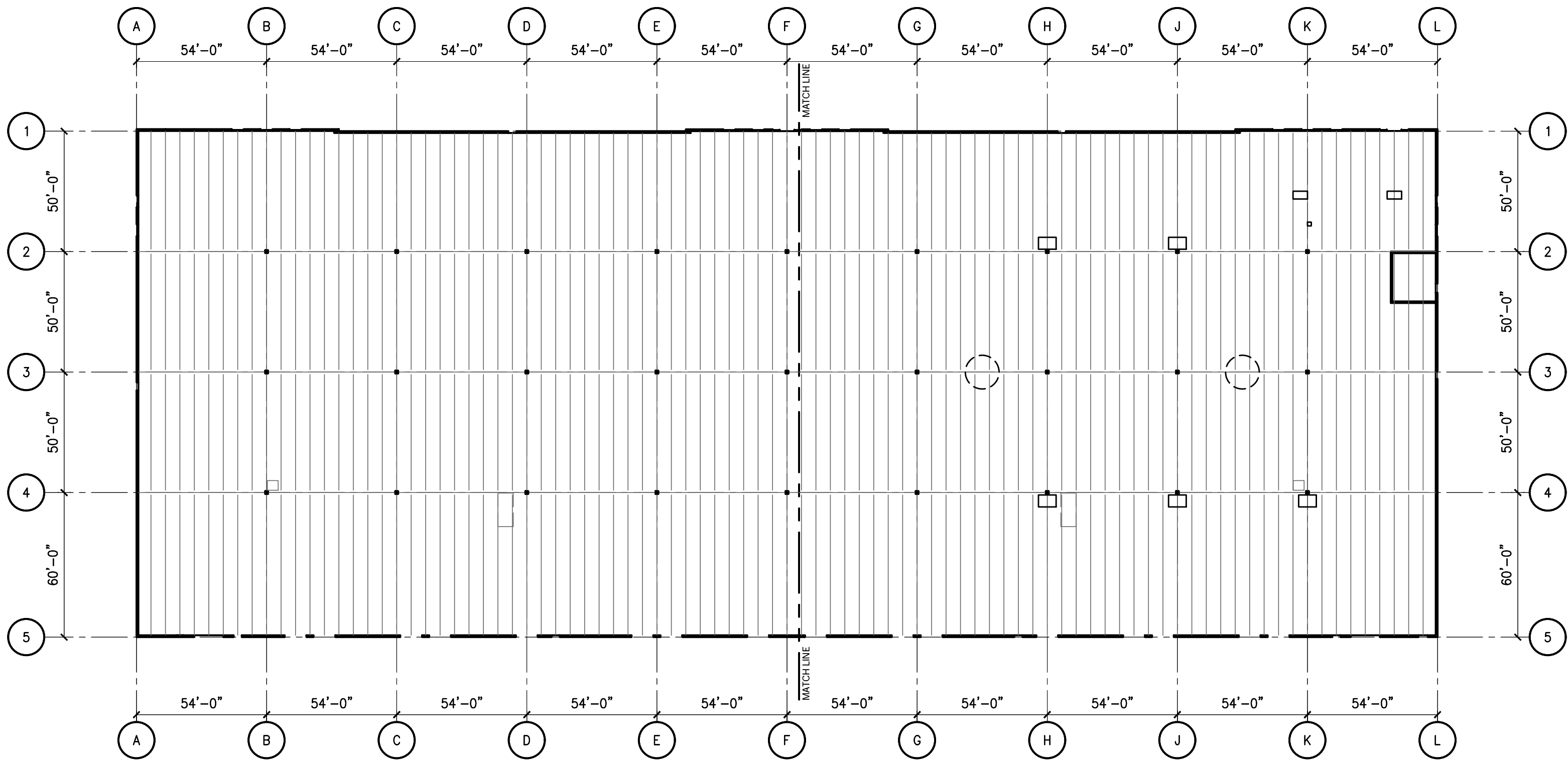
GENERAL  
NOTES

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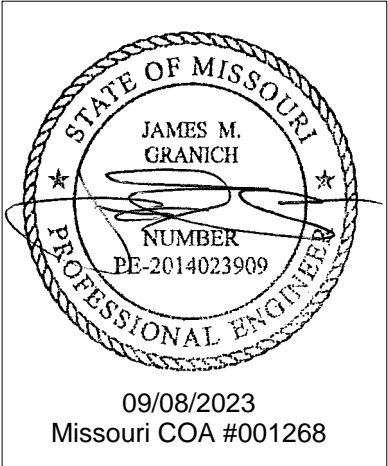
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1 OVERALL FRAMING PLAN  
SCALE: 1"=40'-0"



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OVERALL  
FRAMING PLAN

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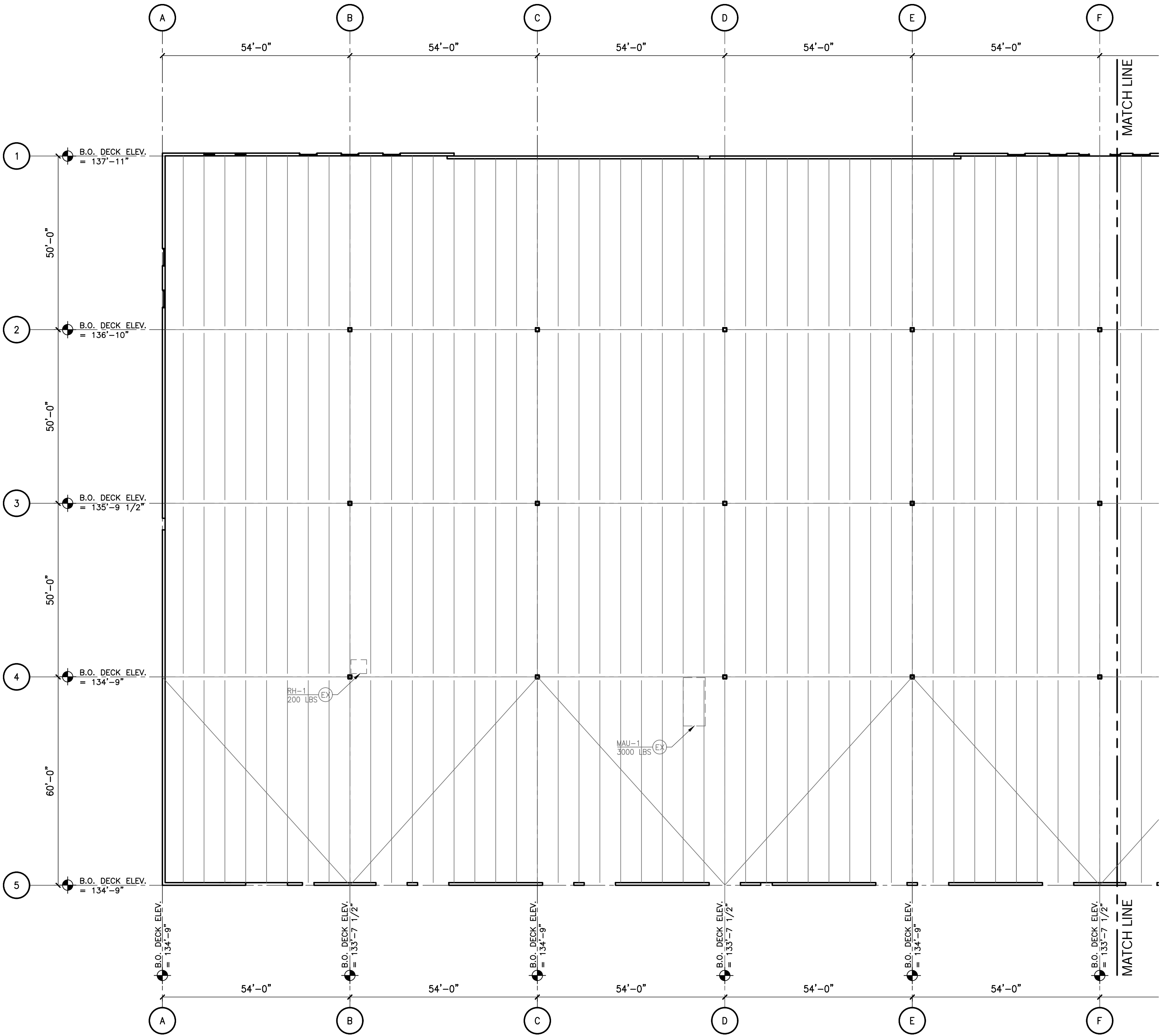
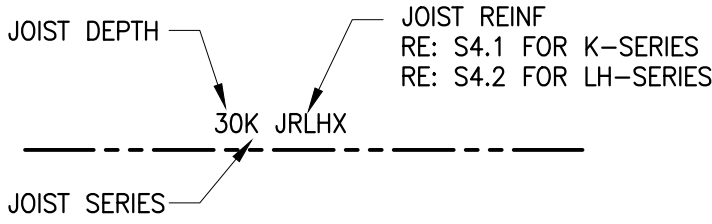
PLAN REFERENCE NOTES:

- Ⓐ ROOF TOP EQUIPMENT, RE: ARCH./MEP.  
PROVIDE ANGLE FRAME AND CURB RE: 1/54.0
- ⊗ EXISTING BASE BUILDING ROOF  
TOP EQUIPMENT

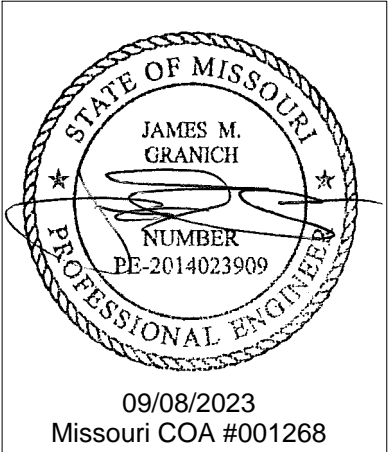
PLAN NOTES

1. JOISTS SHALL BE REINFORCED PRIOR TO THE PLACEMENT OF THE ROOF TOP UNITS.
2. CONTACT E.O.R. IF MECHANICAL EQUIPMENT LOCATIONS ARE DIFFERENT THAN SHOWN.
3. RE: S4. SERIES FOR ADDITIONAL REINFORCEMENT REQUIRED FOR JOISTS PRIOR TO INSTALLATION

JOIST LEGEND



1 ENLARGED PARTIAL FRAMING PLAN  
SCALE: 1"=20'-0"



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ENLARGED  
PARTIAL  
FRAMING PLAN

SHEET NO.

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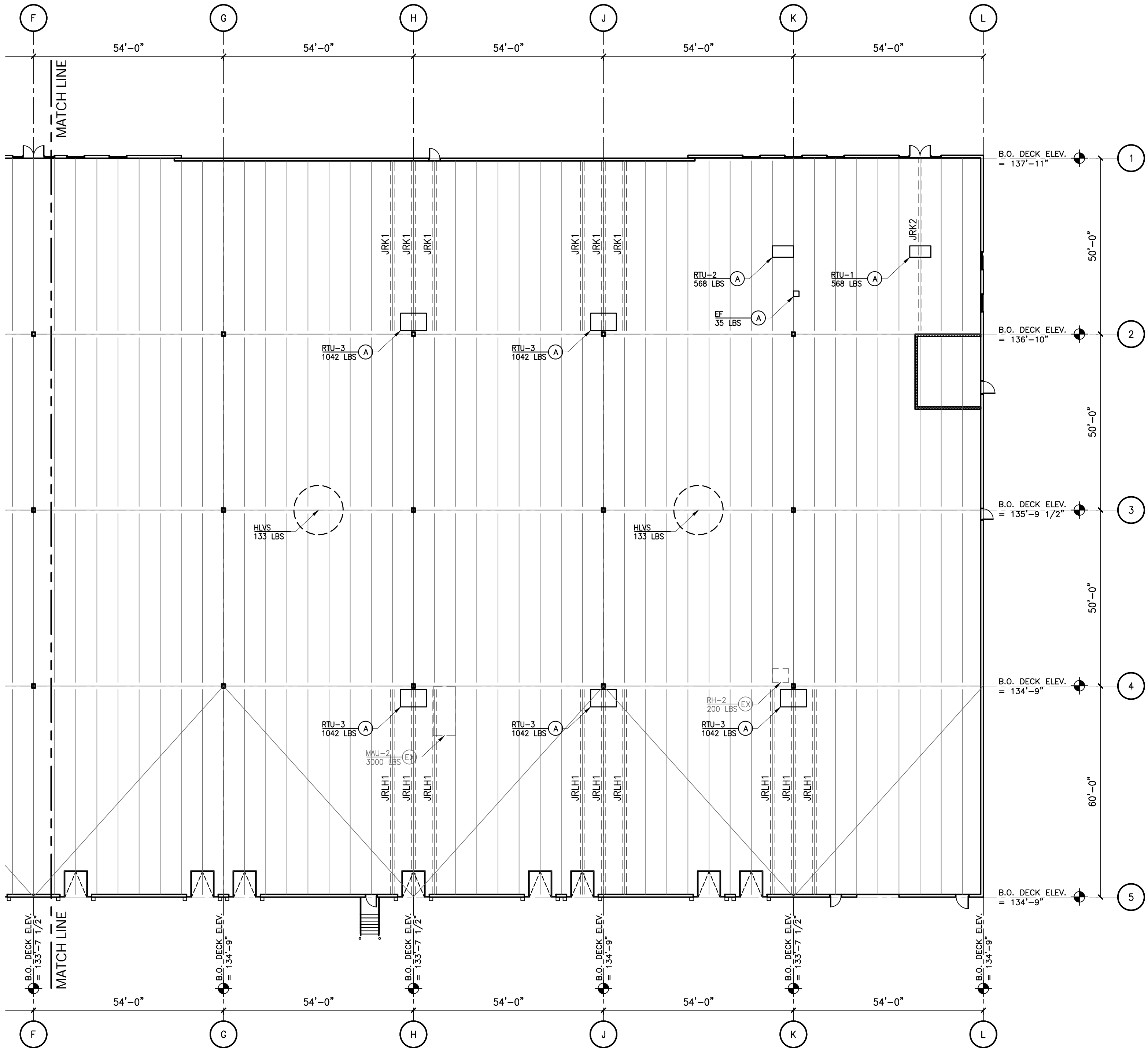
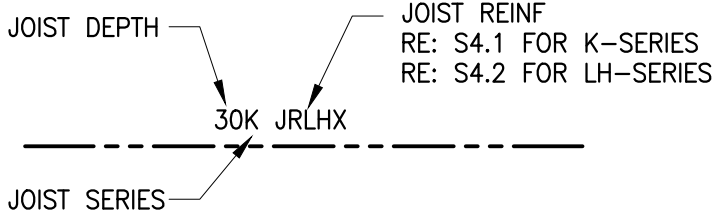
PLAN REFERENCE NOTES:

- Ⓐ ROOF TOP EQUIPMENT, RE: ARCH./MEP. PROVIDE ANGLE FRAME AND CURB RE: 1/S4.0
- ⓧ EXISTING BASE BUILDING ROOF TOP EQUIPMENT

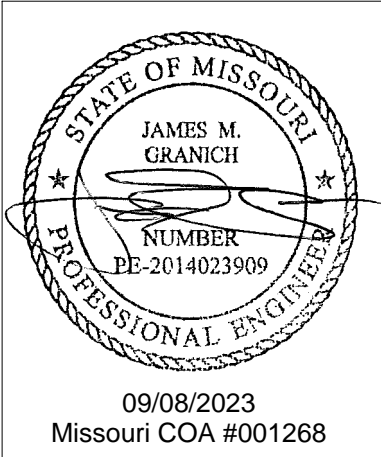
PLAN NOTES

- JOISTS SHALL BE REINFORCED PRIOR TO THE PLACEMENT OF THE ROOF TOP UNITS.
- CONTACT E.O.R. IF MECHANICAL EQUIPMENT LOCATIONS ARE DIFFERENT THAN SHOWN.
- RE: S4, SERIES FOR ADDITIONAL REINFORCEMENT REQUIRED FOR JOISTS PRIOR TO INSTALLATION

JOIST LEGEND



1 ENLARGED PARTIAL FRAMING PLAN  
SCALE: 1"=20'-0"



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ENLARGED  
PARTIAL  
FRAMING PLAN

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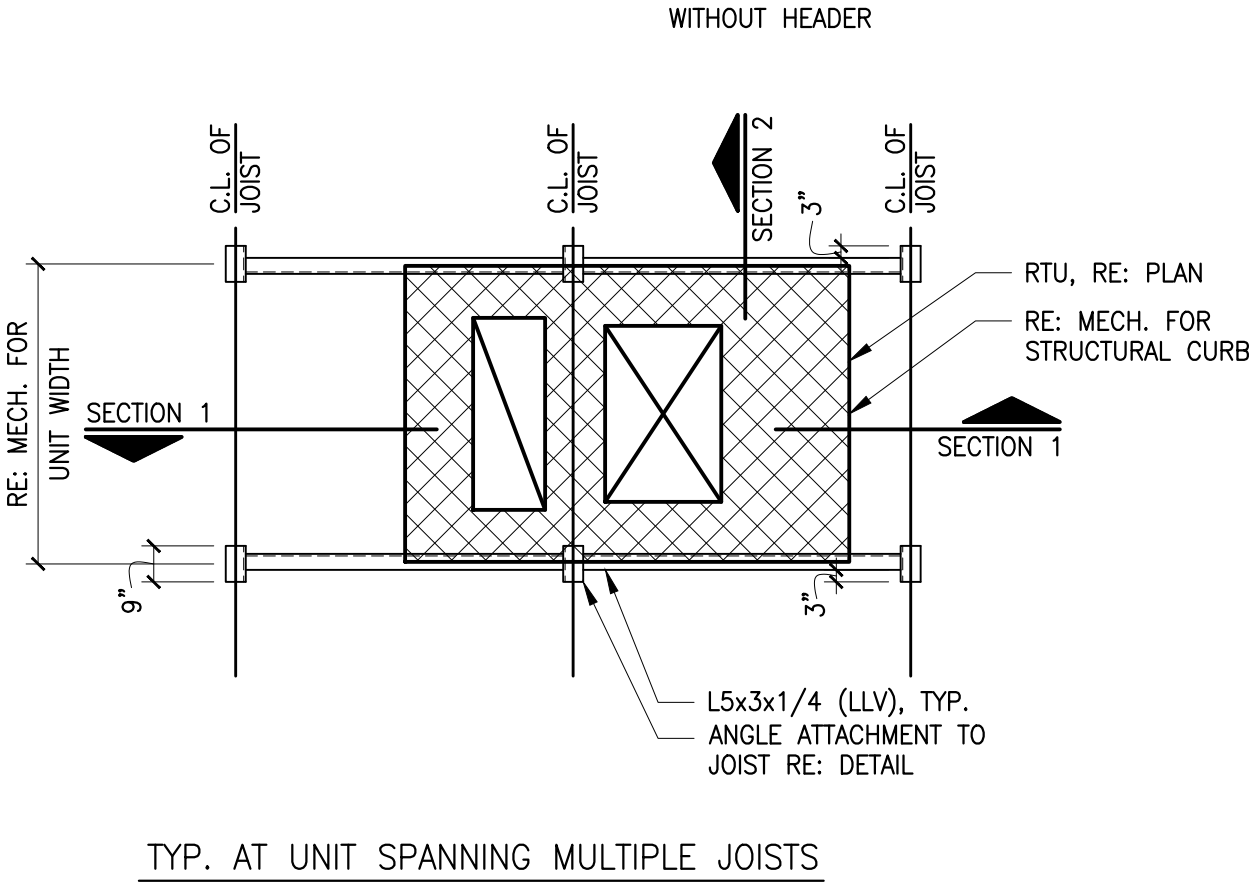
S2.2



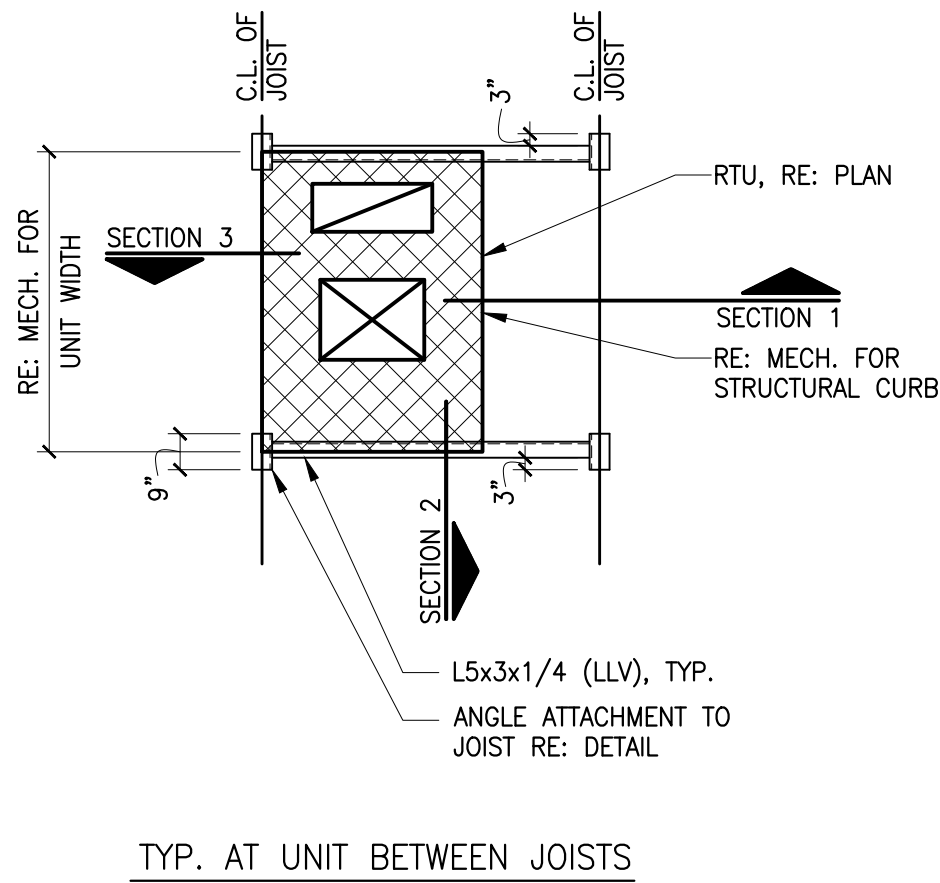
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# 1 MECHANICAL UNIT SUPPORT DETAIL

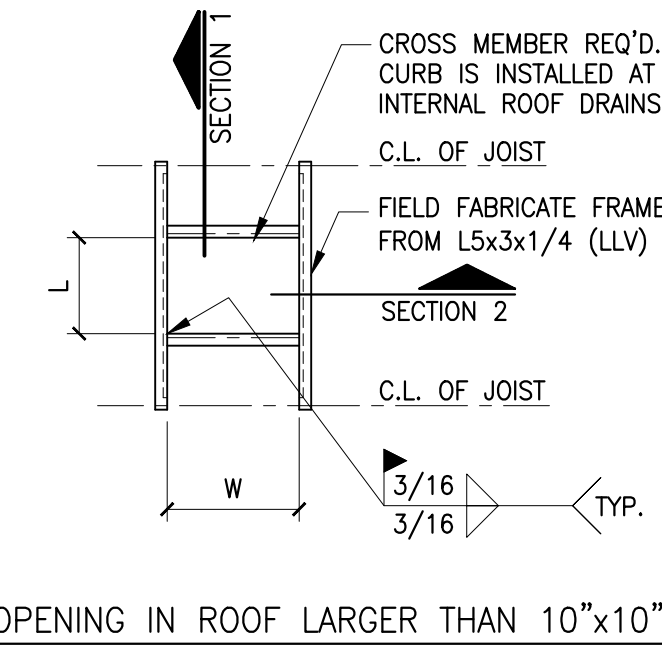
3/4" = 1'-0"



TYP. AT UNIT SPANNING MULTIPLE JOISTS



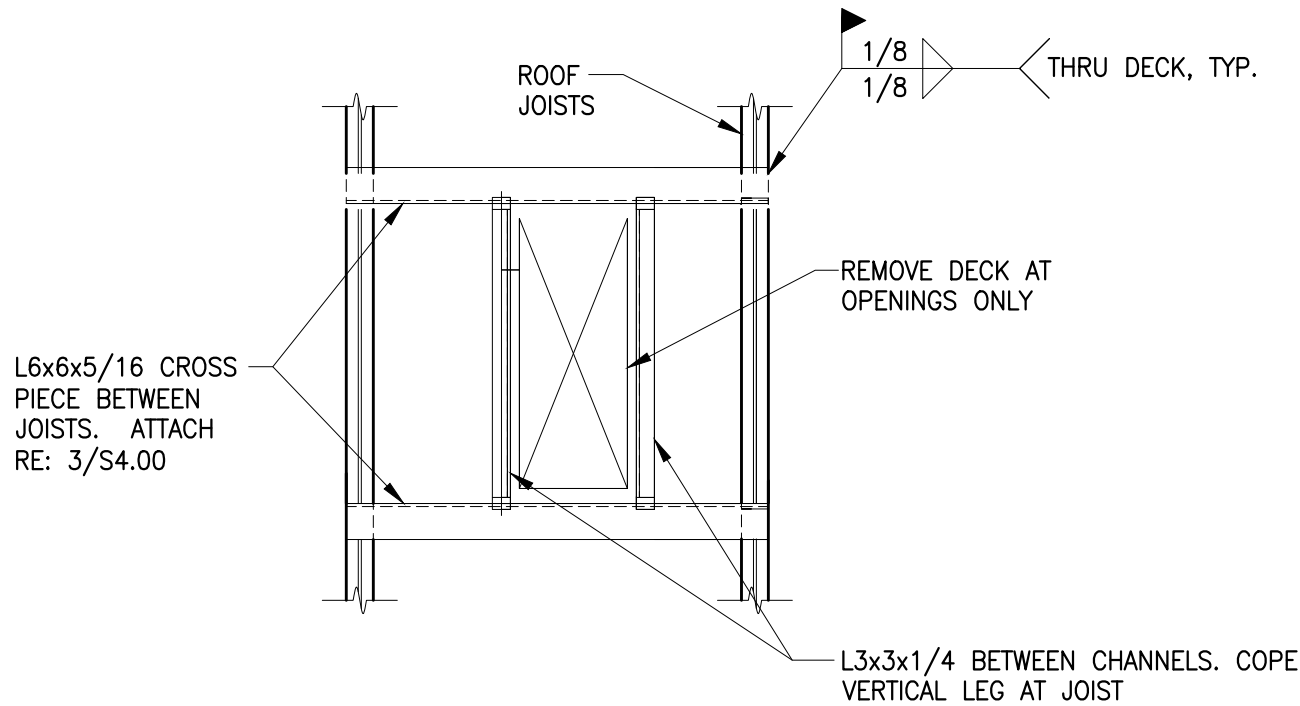
TYP. AT UNIT BETWEEN JOISTS



OPENING IN ROOF LARGER THAN 10"x10"

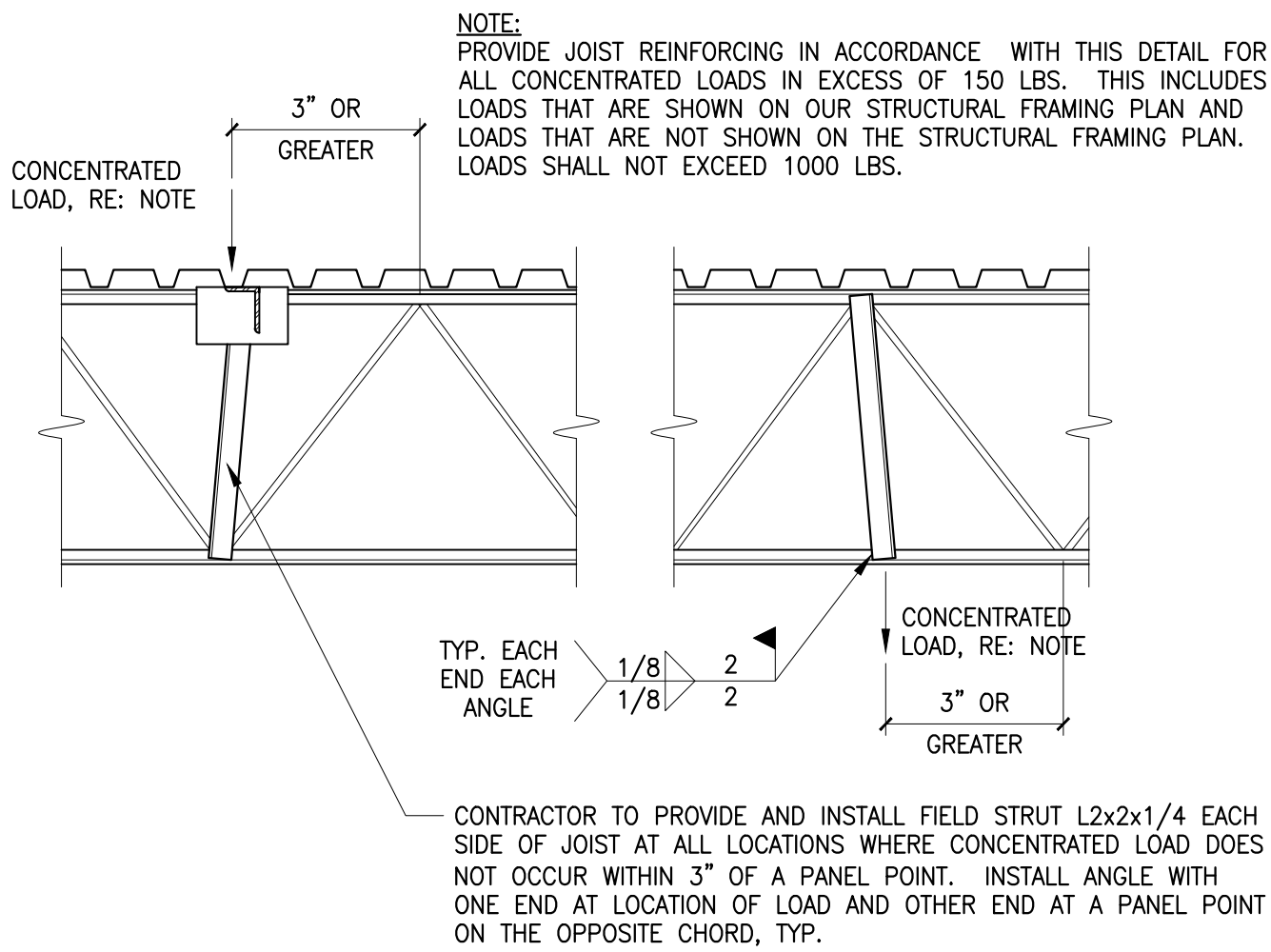
# 3 ROOF OPENING DETAIL

3/4" = 1'-0"



# 2 JOIST REINFORCING DETAIL

3/4" = 1'-0"



- NOTES:
1. INSTALL CURBS, HEADERS, AND FRAMES AND WELD TO SUPPORT STEEL BEFORE DECK IS PLACED.
  2. DESIGN JOISTS SUPPORTING RTU'S FOR TWO POINT LOADS. THE LOCATION OF THE LOADS AND THE SPACING BETWEEN THEM VARY. RE: RTU JOIST DIAGRAM THIS DETAIL AND ROOF FRAMING PLAN FOR POINT LOADS AND LOCATIONS.
  3. RTU CURBS SHALL BE STRUCTURAL, DESIGNED TO SPAN BETWEEN JOISTS AND SUPPORT EDGES OF DECK. CURBS TO BE FABRICATED WITH LEDGE ANGLES (L2x2x1/4) AT MECHANICAL OPENINGS TO SUPPORT METAL DECK INSIDE OPENING NOT USED BY SUPPLY OR RETURN DUCT WORK. HEADERS ARE NOT REQUIRED FOR STRUCTURAL CURBS EXCEPT WHEN THE CURB DOES NOT SPAN BETWEEN TWO JOISTS OR THE CURB CANTILEVERS MORE THAN TWO FEET PAST JOIST.
  4. ATTACH DECK AROUND OPENING PER ROOF DIAPHRAGM CONNECTION DETAIL.
  5. IF CURB IS NOT PLACED WITHIN 3" OF A JOIST PANEL POINT, RE: JOIST REINFORCING DETAIL RE: 7/S4.00.
  6. GENERAL CONTRACTOR SHALL COORDINATE RTU DIMENSIONS AND FRAMING LOCATIONS WITH THE STEEL FABRICATOR, MECHANICAL, AND ERECTION SUBCONTRACTORS.
  7. STEEL SUPPLIER TO FURNISH STOCK ANGLE FOR FIELD FABRICATED SUPPORT FRAMES.
  8. RE: DETAIL 1 FOR CONN. OF DECK PARALLEL TO CURB (WHERE REQ'D.).
  9. RE: MECH. FOR ROOF TOP UNIT ANCHORAGE TO CURBS.

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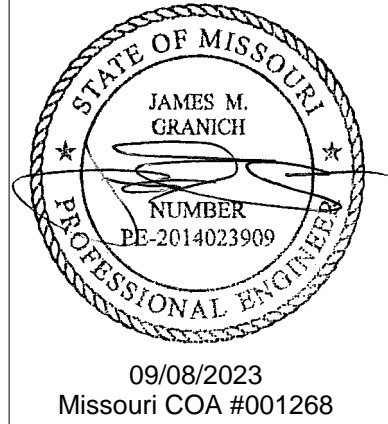
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FRAMING  
DETAILS

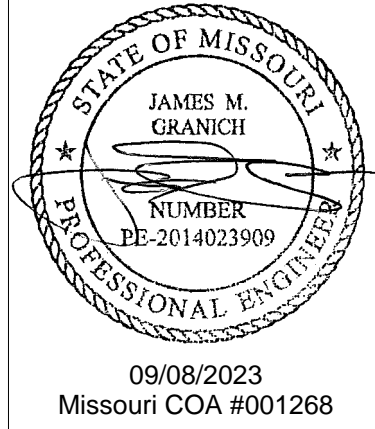
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K-SERIES JOIST  
REINFORCEMENT

SHEET NO.

S4.1

## JOIST INSPECTION NOTES (REQUIRED AT ALL EXISTING JOISTS INDICATED TO BE REINFORCED)

### A. EXISTING WEB MEMBER SHOP WELDS:

VISUAL INSPECTION ACCEPTANCE CRITERIA.....  
(INSPECTION MAY BE PERFORMED WITH PAINT IN PLACE):

1. CRACK PROHIBITION: ANY CRACK SHALL BE UNACCEPTABLE, REGARDLESS OF SIZE OR LOCATION.
2. WELD/BASE-METAL FUSION: NO EVIDENCE OF LACK OF FUSION BETWEEN ADJACENT LAYERS OF WELD METAL AND BETWEEN WELD METAL AND BASE METAL SHALL EXIST.
3. CRATER CROSS SECTION: UNFILLED WELD CRATERS SHALL NOT BE INCLUDED IN THE EFFECTIVE LENGTH OF THE WELD.
4. POROSITY: THE SUM OF SURFACE (PIPING) POROSITY DIAMETERS SHALL NOT EXCEED 1/16 INCH (2 MILLIMETERS) IN ANY 1 INCH (25 MILLIMETERS) OF EFFECTIVE WELD LENGTH.

### B. REPAIR WELDS: (REFERENCE CONTRACTOR NOTES ON JOIST MODIFICATION DETAIL FOR WELD REPAIRS TO BE INCLUDED IN THE BID)

VISUAL INSPECTION ACCEPTANCE CRITERIA.....

(ALL REINFORCING AND REPAIR FIELD WELDS SHALL BE VISUALLY INSPECTED AND SHALL BE ACCEPTABLE IF THE CRITERIA OUTLINED BELOW ARE SATISFIED):

1. CRACK PROHIBITION: ANY CRACK SHALL BE UNACCEPTABLE, REGARDLESS OF SIZE OR LOCATION.
2. WELD/BASE-METAL FUSION: THOROUGH FUSION SHALL EXIST BETWEEN ADJACENT LAYERS OF WELD METAL AND BETWEEN WELD METAL AND BASE METAL.
3. CRATER CROSS SECTION: ALL CRATERS SHALL BE FILLED TO PROVIDE THE SPECIFIED WELD SIZE, EXCEPT FOR THE ENDS OF INTERMITTENT FILLET WELDS OUTSIDE OF THEIR EFFECTIVE LENGTH.
4. WELD PROFILES: WELD PROFILES SHALL BE IN CONFORMANCE WITH ANSI/AWS D1.1 SECTION 5.2.4.
5. UNDERSIZED WELDS: THE SIZE OF A FILLET WELD IN ANY CONTINUOUS WELD MAY BE LESS THAN THE SPECIFIED NOMINAL SIZE (L) WITHOUT CORRECTION BY THE FOLLOWING AMOUNTS (U):

| L<br>SPECIFIED NOMINAL WELD SIZE, IN. [MM] | U,<br>ALLOWABLE DECREASE FROM L, IN. [MM] |
|--|---|
| $\leq 3/16$ [5]                            | $\leq 1/16$ [2]                           |
| $1/4$ [6]                                  | $\leq 3/32$ [2.5]                         |
| $\geq 5/16$ [8]                            | $\leq 1/8$ [3]                            |

IN ALL CASES, THE UNDERSIZE PORTION OF THE WELD SHALL NOT EXCEED 10% OF THE WELD LENGTH.

6. POROSITY: THE SUM OF SURFACE (PIPING) POROSITY DIAMETERS SHALL NOT EXCEED 1/16 INCH (2 MILLIMETERS) IN ANY 1 INCH (25 MILLIMETERS) OF DESIGN WELD LENGTH.

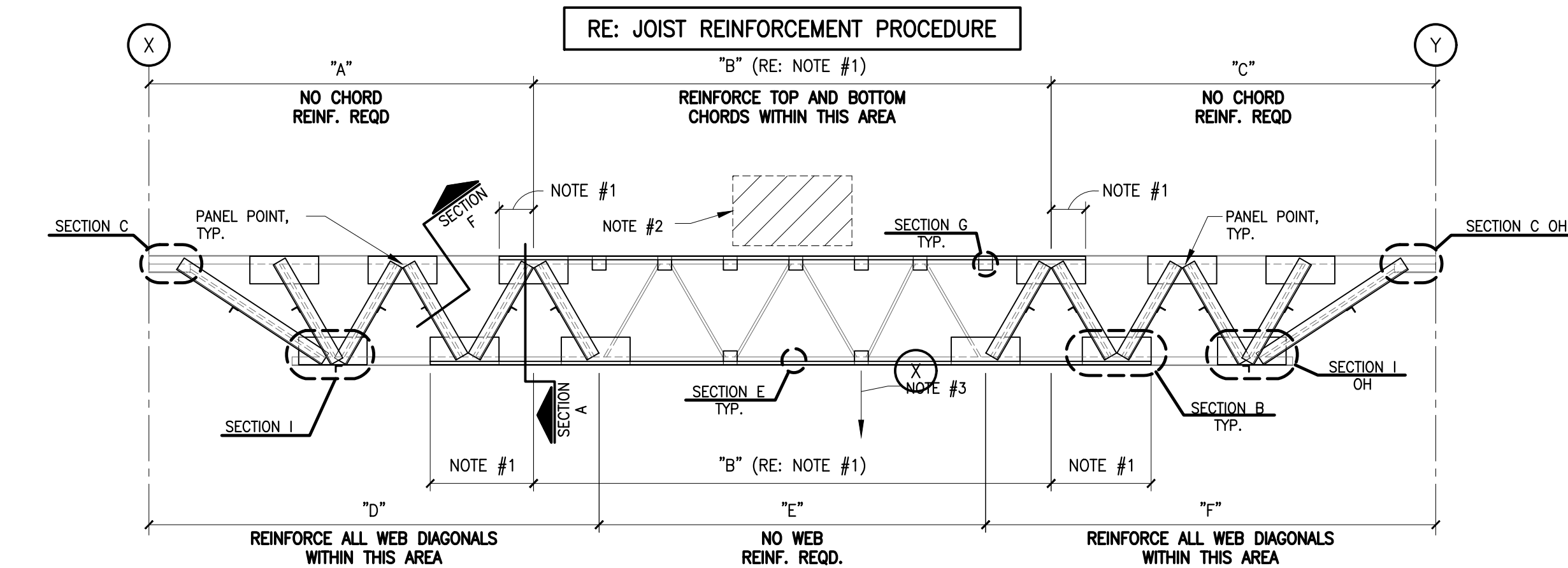
### CONTRACTOR NOTES:

- RE: JOIST AND JOIST GIRDER GENERAL NOTES ON SHEET S0 AND JOIST INSPECTION NOTES ON THIS SHEET FOR REQUIRED INSPECTIONS TO BE PERFORMED PRIOR TO PROCEEDING WITH JOIST MODIFICATIONS.
- ALL WELDING ON EXISTING JOISTS SHALL BE PERFORMED USING EITHER THE GMAW OR FCAW PROCESS ONLY. SMAW OR "STICK" WELDING IS NOT ALLOWED. WIRE FOR FCAW PROCESS SHALL BE E71T-8 AND WIRE FOR GMAW PROCESS SHALL BE ER70S-6 (-GS WIRE IS NOT ALLOWED). WELDS SHALL BE PERFORMED BY OPERATORS CERTIFIED FOR THE PROCESS AND POSITIONS USED. THE TESTING AGENCY'S CERTIFIED WELDING INSPECTOR SHALL BE QUALIFIED AND EXPERIENCED WITH INSPECTION OF WELDS PERFORMED BY THESE PROCESSES. PRIOR TO COMMENCEMENT OF JOIST REINFORCING, CONTRACTOR SHALL PREPARE A MOCK UP FOR INSPECTION AND APPROVAL BY THE CERTIFIED WELDING INSPECTOR BY JOINING TWO 5"x5"x1/8" PLATES WITH A 1/8" FILLET WELD AND ATTACHING A 5/8" DIA x 5" LONG ROD TO ONE PLATE WITH 2" LONG FLARE BEVEL.
- IF EXISTING JOIST BRIDGING INTERFERES WITH INSTALLATION OF REINFORCING, REMOVE BRIDGING AND REPLACE IMMEDIATELY UPON COMPLETION OF REINFORCING INSTALLATION. IF BRIDGING TABS FOR BOLTED BRIDGING INTERFERE WITH INSTALLATION OF REINFORCING, REMOVE TABS AND REPLACE IMMEDIATELY UPON COMPLETION OF REINFORCING INSTALLATION. NEW CONNECTIONS SHALL MATCH EXISTING.
- STEEL ERECTOR SHALL FIELD CUT REINFORCEMENT TO FIT FROM STOCK LENGTHS. WEB REINF SHALL BE INSTALLED AS ONE PIECE AND NOT SPLICED AT ANY POINT ALONG THE LENGTH. REINFORCEMENT SHALL MEET THE STRUCTURAL STEEL REQUIREMENTS IN THE GENERAL NOTES ON SHEET S0.001.
- CONTRACTOR TO INCLUDE IN BID, AN ADDITIONAL 18" TOTAL LENGTH OF 3/16" FILLET WELDS AT EACH JOIST TO BE REINFORCED FOR REQUIRED REPAIRS THAT RESULT FROM THE JOIST INSPECTIONS. THESE REPAIRS MAY INCLUDE, BUT ARE NOT LIMITED TO WEB TO CHORD WELDS, BRIDGING WELDS, JOIST TO SUPPORT WELDS, OR ANY OTHER REPAIR WELDS REQUIRED BASED ON THE EXISTING JOIST INSPECTIONS.
- WHERE REQUIRED AREA OF WEB REINFORCING EXTENDS THROUGH THE JOIST SEAT, AND THE JOIST SEAT BEARS WITHIN AN EXISTING WALL, REMOVE CMU AND GROUT AS REQUIRED FOR INSTALLATION OF REINFORCING. ONCE THE REINFORCING HAS BEEN INSTALLED AND INSPECTED, REPLACE/REPAIR THE CMU AND GROUT TO MATCH EXISTING CONDITION PRIOR TO REMOVAL.
- REMOVE ALL PAINT AND DEBRIS FROM EXISTING JOIST AT LOCATIONS OF NEW WELDS FOR JOIST REINFORCING PRIOR TO INSTALLATION OF JOIST REINFORCING.
- ALL JOIST REINFORCING SHALL BE INSTALLED AND INSPECTED BEFORE APPLYING NEW LOADS. (I.E. RTU'S, BULKHEADS, FANS AND OTHER ROOF SUPPORTED ITEMS).
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF EXISTING BUILDING ELEMENTS THAT PREVENT ACCESS TO INSTALL JOIST REINFORCING, INCLUDING SUSPENDED CEILINGS, DUCTWORK, RTU PLENUMS, LARGE PIPING, ETC.
- PRIOR TO INSTALLATION OF JOIST REINFORCING, CONTRACTOR SHALL REMOVE ALL LIVE LOADS FROM JOISTS TO BE REINFORCED. THIS INCLUDES BUT IS NOT LIMITED TO PONDED WATER, ICE, SNOW (REMOVE SNOW TO EXPOSE ROOFING MATERIAL), STAGED CONSTRUCTION MATERIALS/EQUIPMENT, ETC.
- PRIOR TO INSTALLATION OF JOIST REINFORCING, CONTRACTOR SHALL SURVEY EXISTING JOISTS TO BE REINFORCED FOR EXISTING DAMAGE OR REPAIRS. ANY JOIST DAMAGE FOUND SHALL BE CORRECTED BEFORE INSTALLATION OF REINFORCING. CONTACT ENGINEER OF RECORD FOR REQUIRED JOIST REPAIRS AT EXISTING DAMAGE AND/OR FOR DIRECTION REGARDING NEW REINFORCING AT EXISTING REPAIRS.

## JOIST REINFORCEMENT SCHEDULE

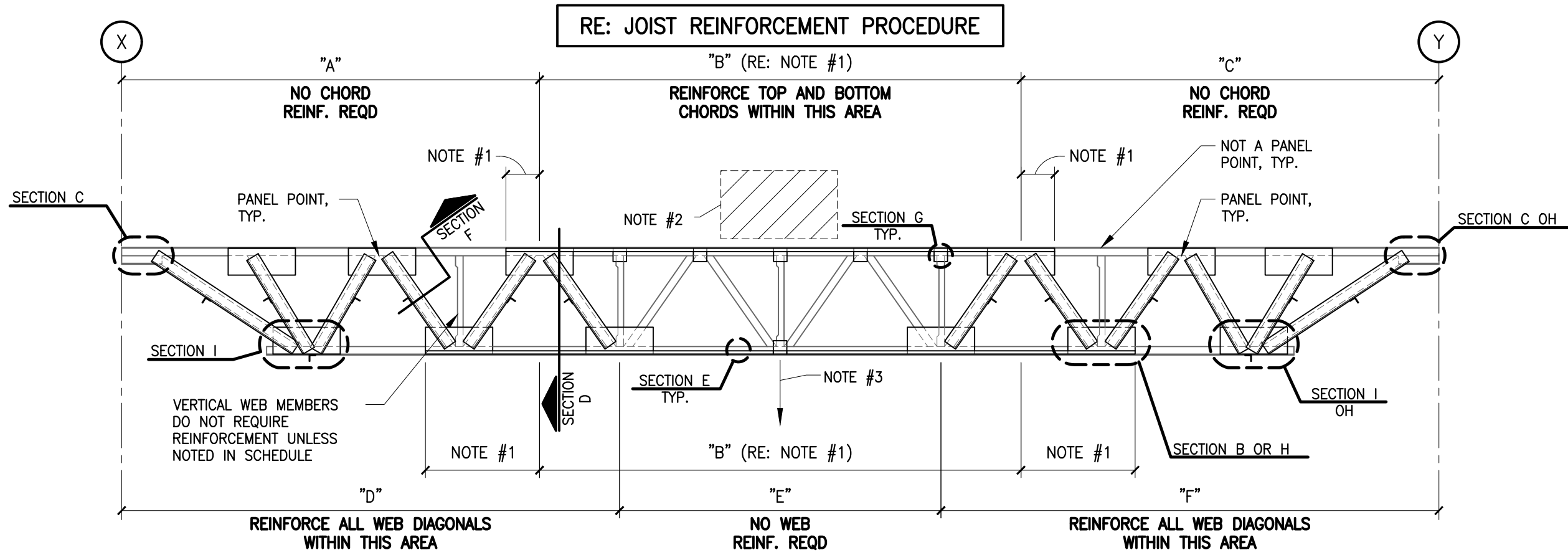
| JOIST REINFORCEMENT DESIGNATION,<br>RE: SHEET S2.2 | CHORD<br>REINF.            | CHORD REINF. |     |     | WEB REINF.                 |     |     | SPAN | GRID<br>"X" | GRID<br>"Y" | NOTES |
|--|----------------------------|--------------|-----|-----|----------------------------|-----|-----|------|-------------|-------------|-------|
|  |                            | "A"          | "B" | "C" | "D"                        | "E" | "F" |      |             |             |       |
| JRK1   | N/A                        | -            | -   | -   | 1/2" DIA. ROD OR L1x1x1/4  | 22' | 6'  | 22'  | 50'         | 1           | 2, 4  |
| JRK2   | 5/8" DIA. ROD OR PL1/2"x1" | 20'          | 10' | 20' | 3/8" DIA. ROD OR L1x1x3/16 | 20' | 10' | 20'  | 50'         | 1           | 2, 4  |

- NOTES:
- DIMENSION "B" IS THE MINIMUM REQUIRED LENGTH OF TOP AND BOTTOM CHORD REINFORCEMENT. FIELD VERIFY PANEL POINT LOCATIONS AND EXTEND TOP AND BOTTOM CHORD REINF. TO OUTER EDGE OF STEEL PLATE AT PANEL POINT.
  - RE: PLAN FOR NEW EQUIPMENT, RE: 1/4" FOR ADDITIONAL REINFORCEMENT. DO NOT SET EQUIPMENT UNTIL ALL REINF. IS IN PLACE AND INSPECTED.
  - RE: ARCH FOR EXACT LOCATION OF SOFFITS AND MECH EQUIPMENT THAT WILL CAUSE CONCENTRATED LOADS IN EXCESS OF 100 LBS. RE: 2/4" FOR ADDITIONAL REINFORCEMENT AT CONCENTRATED LOADS.
  - REINFORCEMENT SHALL BE WELDED AT 12" O.C. ALONG LENGTH, RE: SECTION F



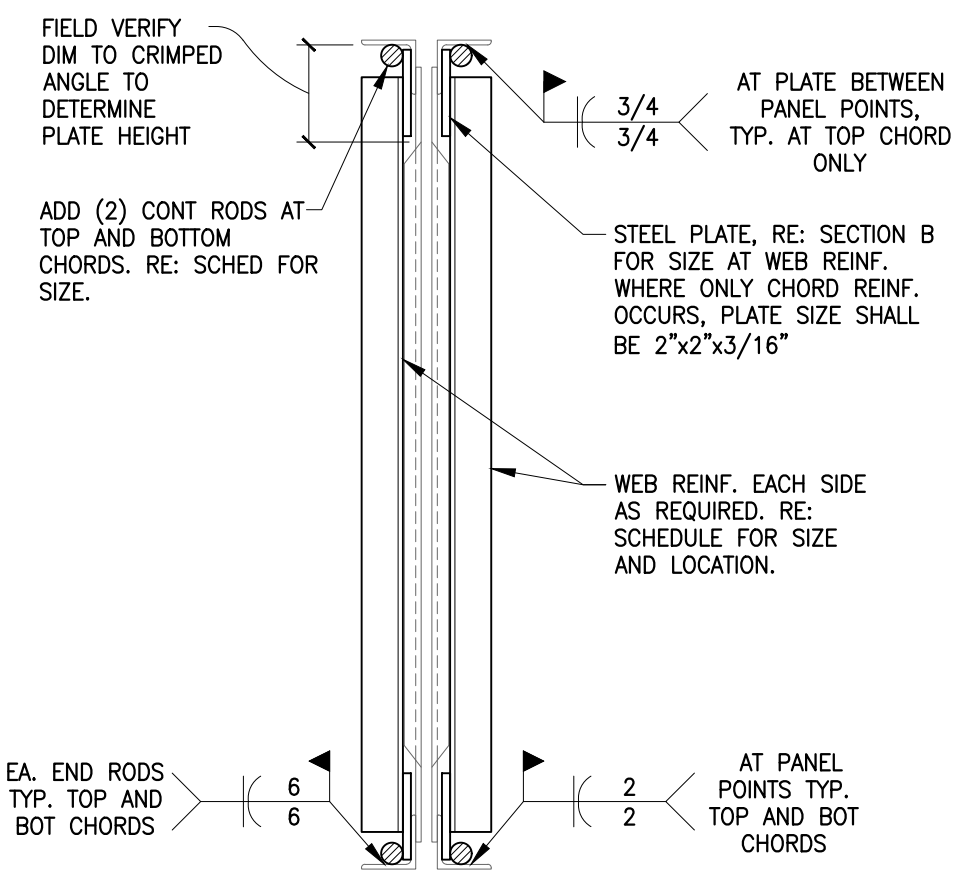
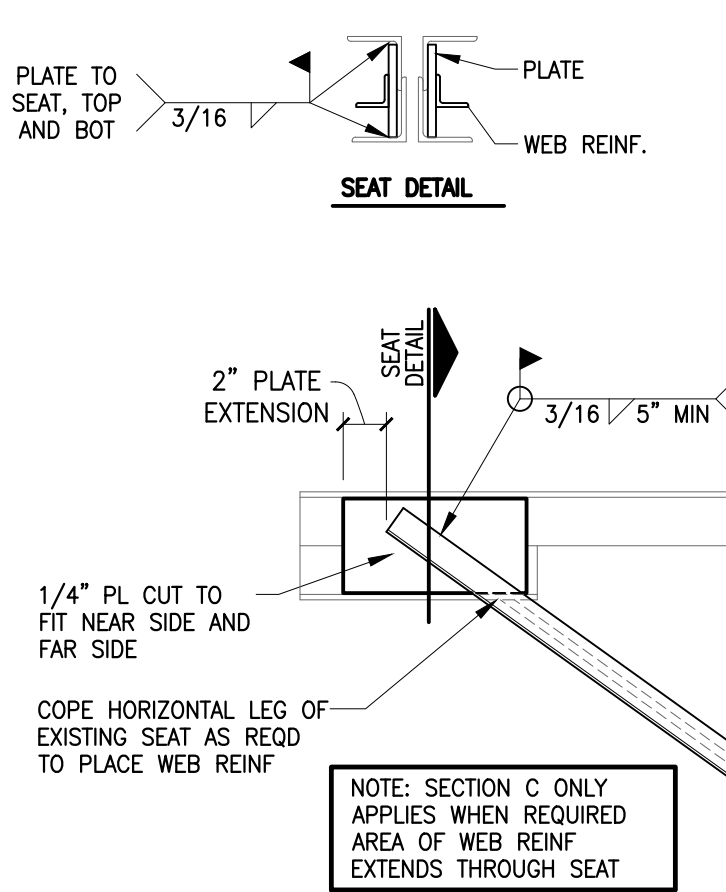
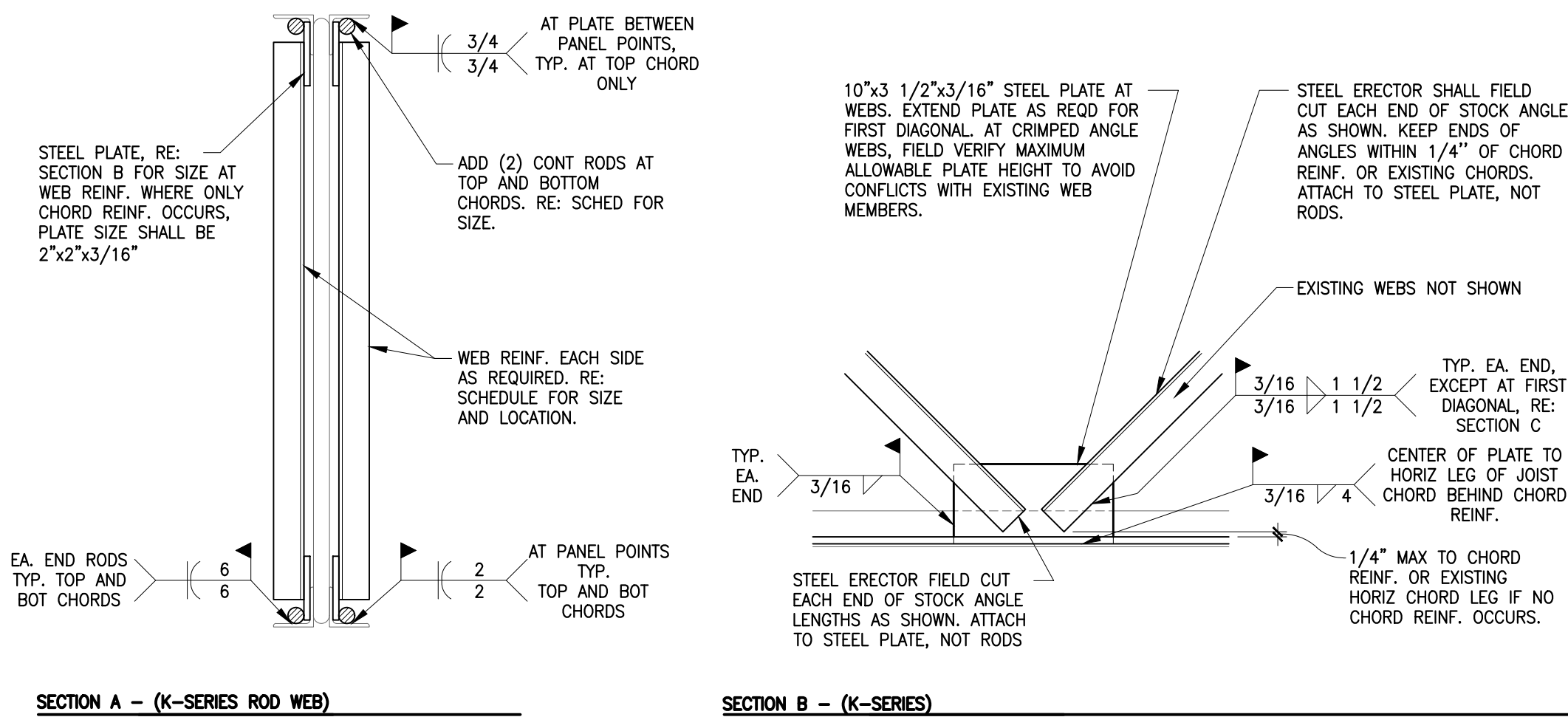
## JOIST ELEVATION WITH ROD WEBS

(NOTE: DIAGRAM IS GENERIC AND ACTUAL NUMBER OF WEBS TO BE REINFORCED IS NOT ACCURATELY SHOWN. ACTUAL NUMBER OF WEB MEMBERS TO BE REINFORCED SHALL BE DETERMINED BASED ON THE LENGTHS SHOWN IN THE JOIST REINFORCEMENT SCHEDULE)



## JOIST ELEVATION WITH ANGLE WEBS

(NOTE: DIAGRAM IS GENERIC AND ACTUAL NUMBER OF WEBS TO BE REINFORCED IS NOT ACCURATELY SHOWN. ACTUAL NUMBER OF WEB MEMBERS TO BE REINFORCED SHALL BE DETERMINED BASED ON THE LENGTHS SHOWN IN THE JOIST REINFORCEMENT SCHEDULE)

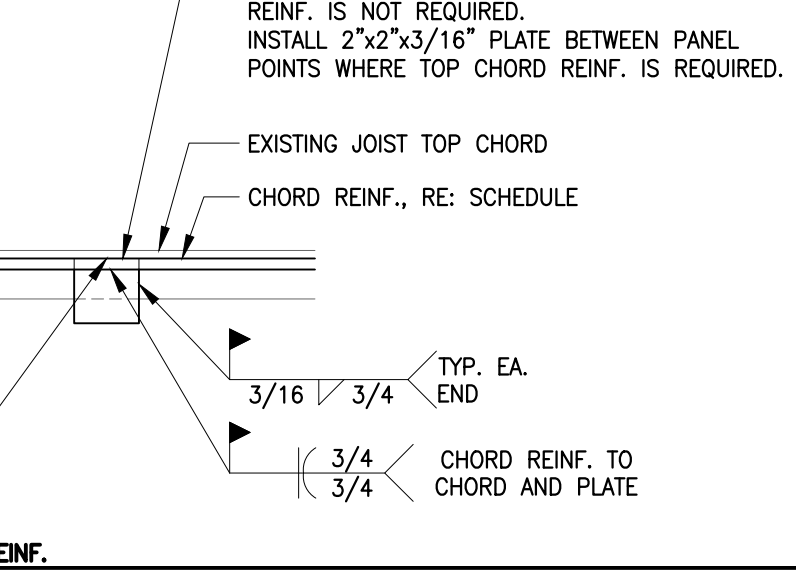
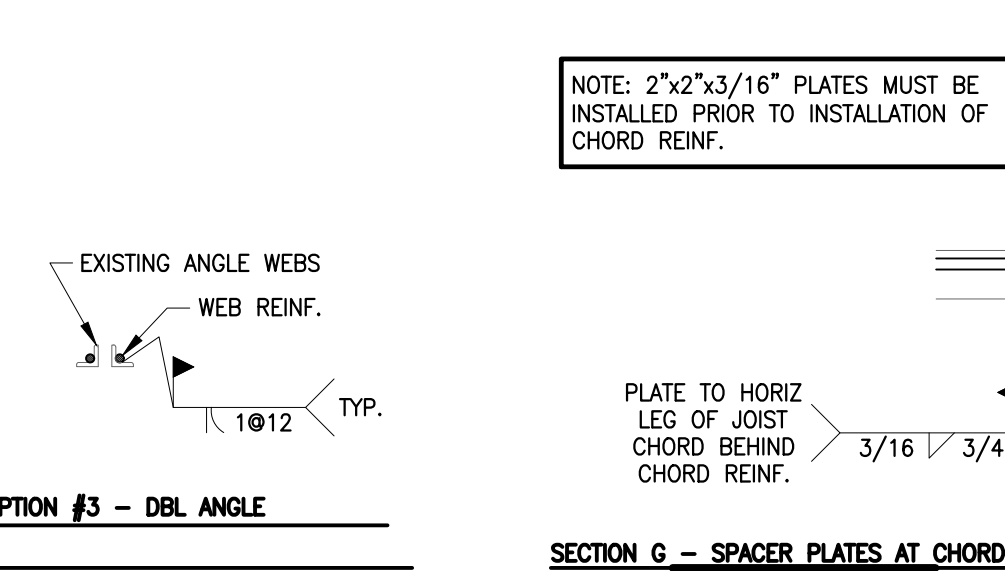
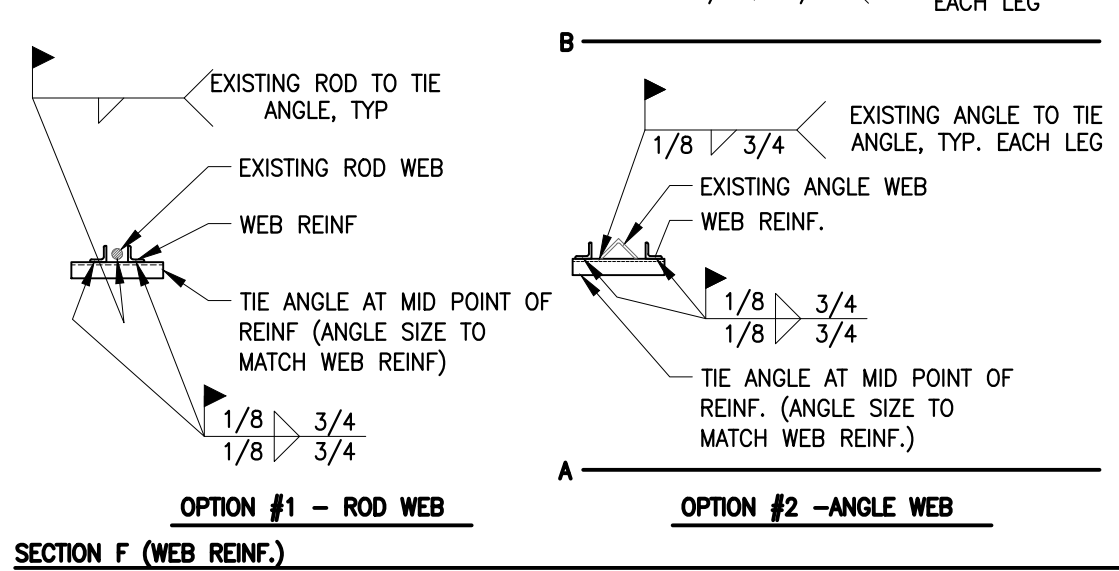
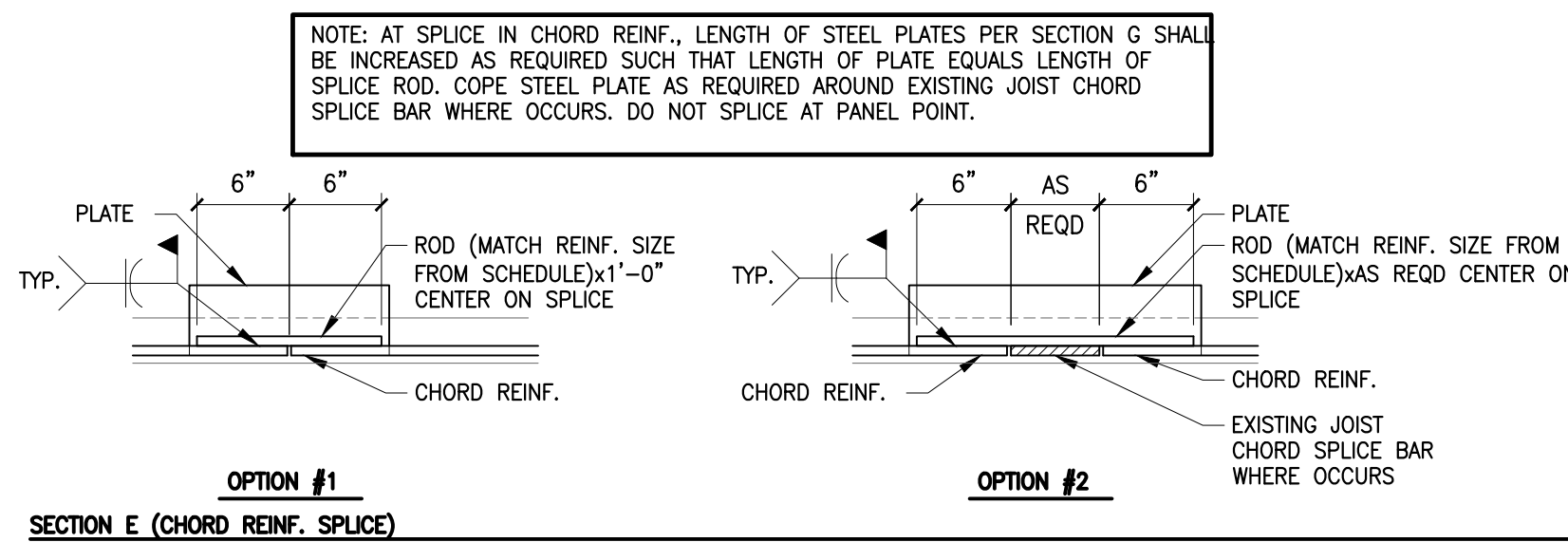


### SECTION A -- (K-SERIES ROD WEB)

### SECTION B -- (K-SERIES)

### SECTION C -- (K-SERIES)

### SECTION D -- (K-SERIES ANGLE WEB)



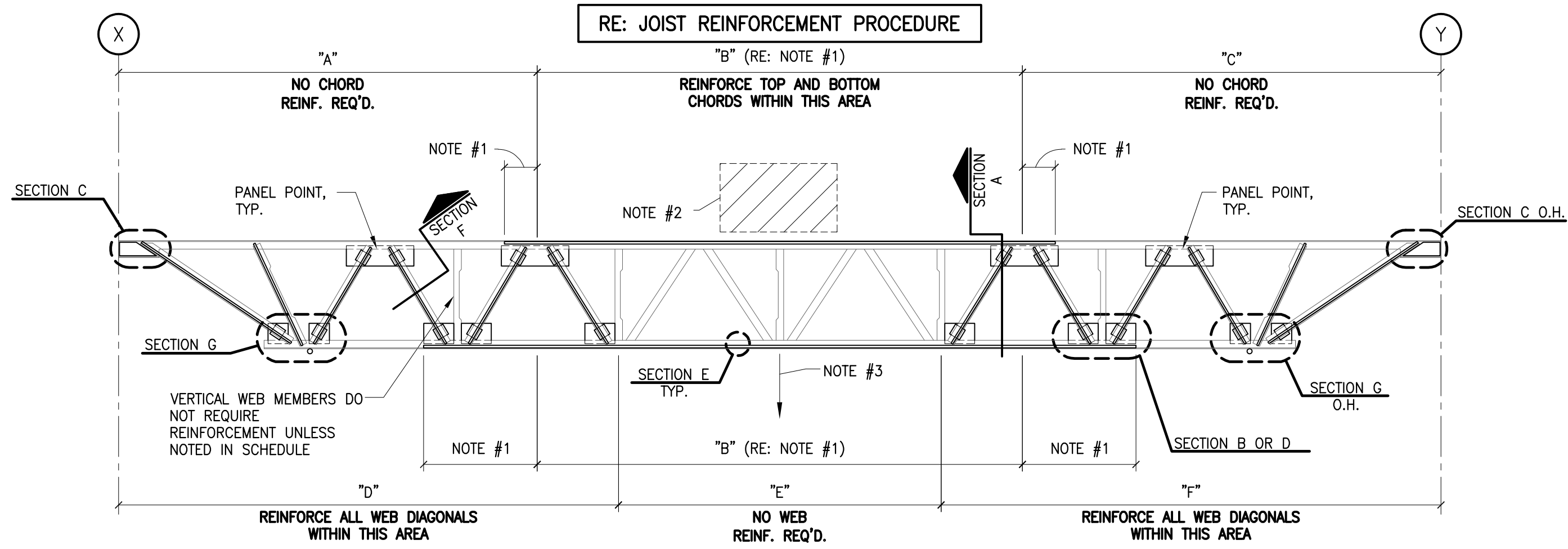
## 1 JOIST REINFORCEMENT DETAIL -- (K-SERIES)

3/4" = 1'-0"

(NOTE: DIAGRAM IS GENERIC AND ACTUAL NUMBER OF WEBS TO BE REINFORCED IS NOT ACCURATELY SHOWN. ACTUAL NUMBER OF WEB MEMBERS TO BE REINFORCED SHALL BE DETERMINED BASED ON THE LENGTHS SHOWN IN THE JOIST REINFORCEMENT SCHEDULE)

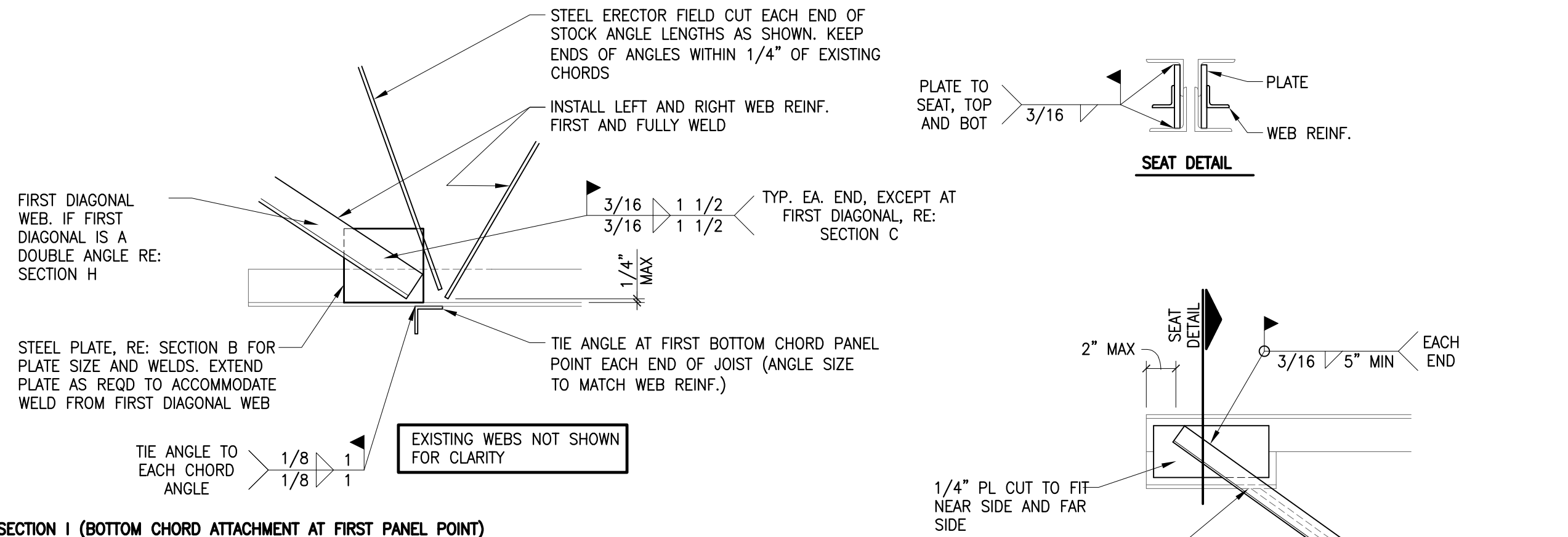


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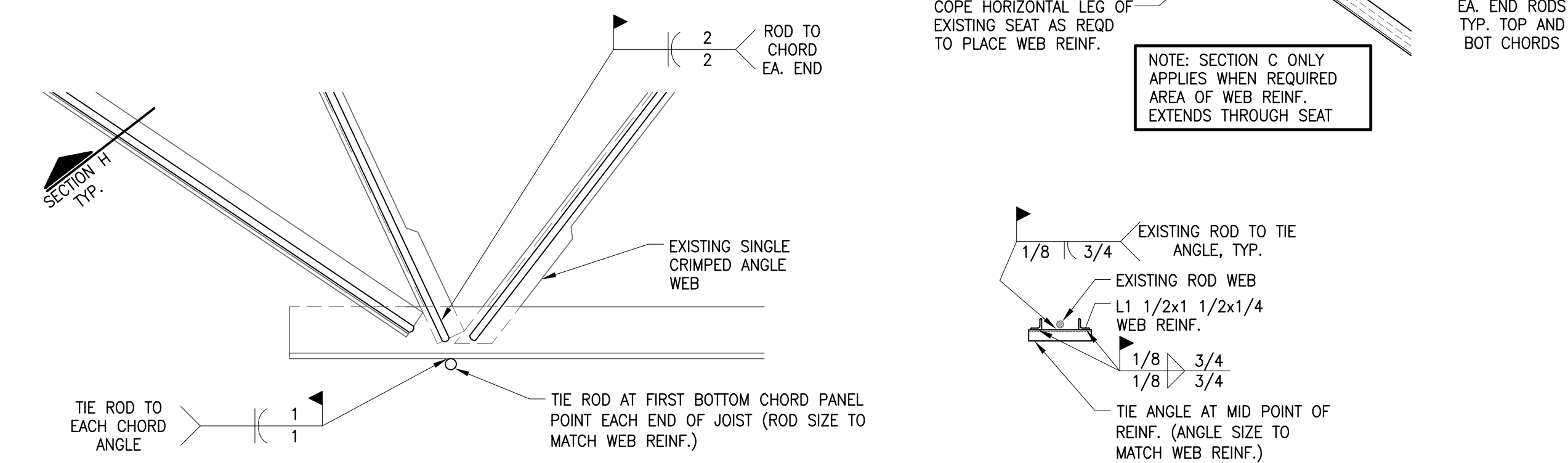


## JOIST ELEVATION WITH ANGLE WEBS

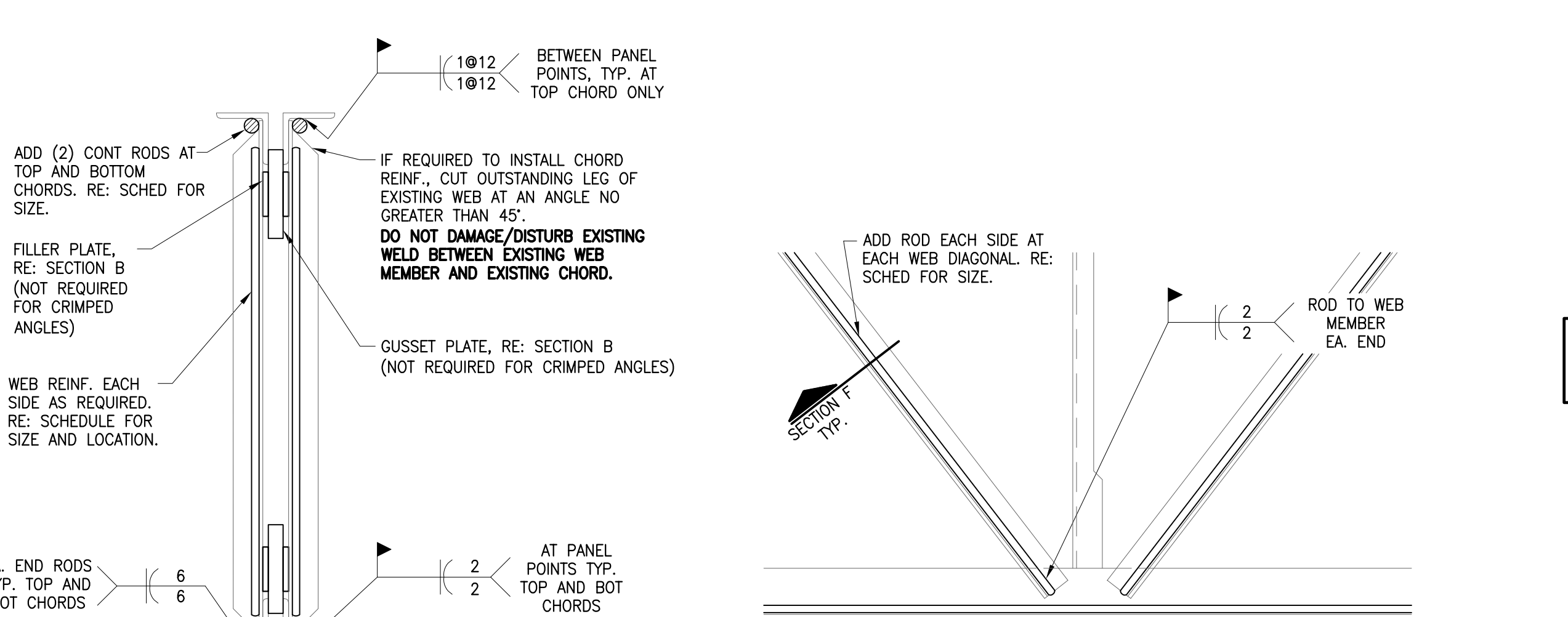
(NOTE: DIAGRAM IS GENERIC AND ACTUAL NUMBER OF WEBS TO BE REINFORCED IS NOT ACCURATELY SHOWN. ACTUAL NUMBER OF WEB MEMBERS TO BE REINFORCED SHALL BE DETERMINED BASED ON THE LENGTHS SHOWN IN THE JOIST REINFORCEMENT SCHEDULE)



SECTION I (BOTTOM CHORD ATTACHMENT AT FIRST PANEL POINT)



SECTION G - (BOTTOM CHORD ATTACHMENT AT FIRST PANEL POINT)



SECTION A - (LH SERIES)

SECTION B - (LH SERIES)

SECTION C - (LH SERIES)

SECTION D - SINGLE/DOUBLE ANGLE WEB COMBINATION (TOP CHORD SIMILAR)

## JOIST INSPECTION NOTES (REQUIRED AT ALL EXISTING JOISTS INDICATED TO BE REINFORCED)

### A. EXISTING WEB MEMBER SHOP WELDS:

VISUAL INSPECTION ACCEPTANCE CRITERIA.....  
(INSPECTION MAY BE PERFORMED WITH PAINT IN PLACE):

1. CRACK PROHIBITION: ANY CRACK SHALL BE UNACCEPTABLE, REGARDLESS OF SIZE OR LOCATION.
2. WELD/BASE-METAL FUSION: NO EVIDENCE OF LACK OF FUSION BETWEEN ADJACENT LAYERS OF WELD METAL AND BETWEEN WELD METAL AND BASE METAL SHALL EXIST.
3. CRATER CROSS SECTION: UNFILLED WELD CRATERS SHALL NOT BE INCLUDED IN THE EFFECTIVE LENGTH OF THE WELD.
4. POROSITY: THE SUM OF SURFACE (PIPING) POROSITY DIAMETERS SHALL NOT EXCEED 1/16 INCH (2 MILLIMETERS) IN ANY 1 INCH (25 MILLIMETERS) OF EFFECTIVE WELD LENGTH.

### B. REPAIR WELDS:

(REFERENCE CONTRACTOR NOTES ON JOIST MODIFICATION DETAIL FOR WELD REPAIRS TO BE INCLUDED IN THE BID)

VISUAL INSPECTION ACCEPTANCE CRITERIA.....

(ALL REINFORCING AND REPAIR FIELD WELDS SHALL BE VISUALLY INSPECTED AND SHALL BE ACCEPTABLE IF THE CRITERIA OUTLINED BELOW ARE SATISFIED):

1. CRACK PROHIBITION: ANY CRACK SHALL BE UNACCEPTABLE, REGARDLESS OF SIZE OR LOCATION.
2. WELD/BASE-METAL FUSION: THOROUGH FUSION SHALL EXIST BETWEEN ADJACENT LAYERS OF WELD METAL AND BETWEEN WELD METAL AND BASE METAL.
3. CRATER CROSS SECTION: ALL CRATERS SHALL BE FILLED TO PROVIDE THE SPECIFIED WELD SIZE, EXCEPT FOR THE ENDS OF INTERMITTENT FILLET WELDS OUTSIDE OF THEIR EFFECTIVE LENGTH.
4. WELD PROFILES: WELD PROFILES SHALL BE IN CONFORMANCE WITH ANSI/AWS D1.1 SECTION 5.2.4.
5. UNDERSIZED WELDS: THE SIZE OF A FILLET WELD IN ANY CONTINUOUS WELD MAY BE LESS THAN THE SPECIFIED NOMINAL SIZE (L) WITHOUT CORRECTION BY THE FOLLOWING AMOUNTS (U):

| L, SPECIFIED NOMINAL WELD SIZE, IN. [MM] | U, ALLOWABLE DECREASE FROM L, IN. [MM] |
|--|--|
| $\leq 3/16$ [5]                          | $\leq 1/16$ [2]                        |
| $1/4$ [6]                                | $\leq 3/32$ [2.5]                      |
| $\geq 5/16$ [8]                          | $\leq 1/8$ [3]                         |

IN ALL CASES, THE UNDERSIZE PORTION OF THE WELD SHALL NOT EXCEED 10% OF THE WELD LENGTH.

6. POROSITY: THE SUM OF SURFACE (PIPING) POROSITY DIAMETERS SHALL NOT EXCEED 1/16 INCH (2 MILLIMETERS) IN ANY 1 INCH (25 MILLIMETERS) OF DESIGN WELD LENGTH.

### CONTRACTOR NOTES:

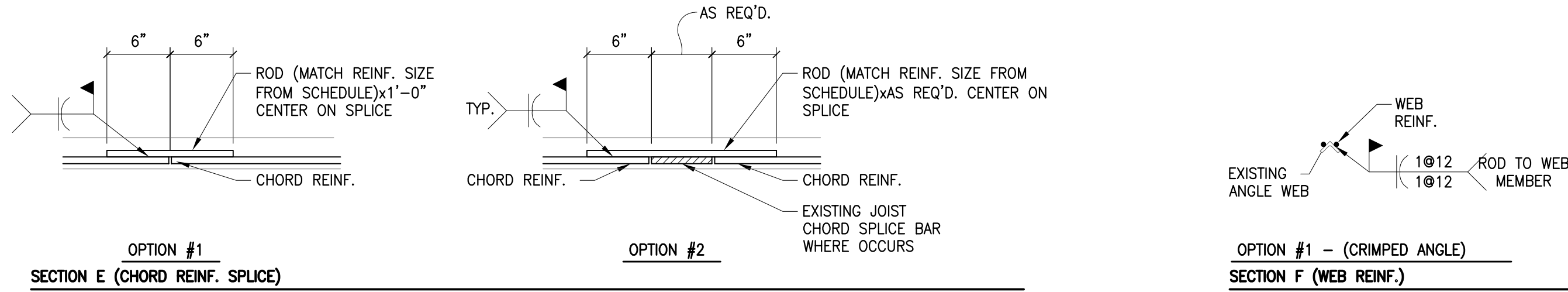
- A. RE: JOIST AND JOIST GIRDER GENERAL NOTES ON SHEET S0 AND JOIST INSPECTION NOTES ON THIS SHEET FOR REQUIRED INSPECTIONS TO BE PERFORMED PRIOR TO PROCEEDING WITH JOIST MODIFICATIONS.
- B. ALL WELDING ON EXISTING JOISTS SHALL BE PERFORMED USING EITHER THE GMAW OR FCAW PROCESS ONLY. SMAW OR "STICK" WELDING IS NOT ALLOWED. WIRE FOR FCAW PROCESS SHALL BE E71T-B AND WIRE FOR GMAW PROCESS SHALL BE ER70S-6 (-OS WIRE IS NOT ALLOWED). WELDS SHALL BE PERFORMED BY OPERATORS CERTIFIED FOR THE PROCESS AND POSITIONS USED. THE TESTING AGENCY'S CERTIFIED WELDING INSPECTOR SHALL BE QUALIFIED AND EXPERIENCED WITH INSPECTION OF WELDS PERFORMED BY THESE PROCESSES. PRIOR TO COMMENCEMENT OF JOIST REINFORCING, CONTRACTOR SHALL PREPARE A MOCK UP FOR INSPECTION AND APPROVAL BY THE CERTIFIED WELDING INSPECTOR BY JOINING TWO 5"x5"x1/8" PLATES WITH A 1/8" FILLET WELD AND ATTACHING A 5/8" DIA x 5" LONG ROD TO ONE PLATE WITH 2" LONG FLARE BEVEL.
- C. IF EXISTING JOIST BRIDGING INTERFERES WITH INSTALLATION OF REINFORCING, REMOVE BRIDGING AND REPLACE IMMEDIATELY UPON COMPLETION OF REINFORCING INSTALLATION. IF BRIDGING TABS FOR BOLTED BRIDGING INTERFERE WITH INSTALLATION OF REINFORCING, REMOVE TABS AND REPLACE IMMEDIATELY UPON COMPLETION OF REINFORCING INSTALLATION. NEW CONNECTIONS SHALL MATCH EXISTING.
- D. STEEL ERECTOR SHALL FIELD CUT REINFORCEMENT TO FIT FROM STOCK LENGTHS. WEB REINF SHALL BE INSTALLED AS ONE PIECE AND NOT SPLICED AT ANY POINT ALONG THE LENGTH. REINFORCEMENT SHALL MEET THE STRUCTURAL STEEL REQUIREMENTS IN THE GENERAL NOTES ON SHEET S0.001.
- E. CONTRACTOR TO INCLUDE IN BID AN ADDITIONAL 18" TOTAL LENGTH OF 3/16" FILLET WELDS AT EACH JOIST TO BE REINFORCED FOR REQUIRED REPAIRS THAT RESULT FROM THE JOIST INSPECTIONS. THESE REPAIRS MAY INCLUDE, BUT ARE NOT LIMITED TO WEB TO CHORD WELDS, BRIDGING WELDS, JOIST TO SUPPORT WELDS, OR ANY OTHER REPAIR WELDS REQUIRED BASED ON THE EXISTING JOIST INSPECTIONS.
- F. WHERE REQUIRED AREA OF WEB REINFORCING EXTENDS THROUGH THE JOIST SEAT, AND THE JOIST SEAT BEARS WITHIN AN EXISTING WALL, REMOVE CMU AND GROUT AS REQUIRED FOR INSTALLATION OF REINFORCING. ONCE THE REINFORCING HAS BEEN INSTALLED AND INSPECTED, REPLACE/REPAIR THE CMU AND GROUT TO MATCH EXISTING CONDITION PRIOR TO REMOVAL.
- G. REMOVE ALL PAINT AND DEBRIS FROM EXISTING JOIST AT LOCATIONS OF NEW WELDS FOR JOIST REINFORCING PRIOR TO INSTALLATION OF JOIST REINFORCING.
- H. ALL JOIST REINFORCING SHALL BE INSTALLED AND INSPECTED BEFORE APPLYING NEW LOADS. (I.E. RTU'S, BULKHEADS, FANS AND OTHER ROOF SUPPORTED ITEMS).
- I. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF EXISTING BUILDING ELEMENTS THAT PREVENT ACCESS TO INSTALL JOIST REINFORCING, INCLUDING SUSPENDED CEILINGS, DUCTWORK, RTU PLENUMS, LARGE PIPING, ETC.
- J. PRIOR TO INSTALLATION OF JOIST REINFORCING, CONTRACTOR SHALL REMOVE ALL LIVE LOADS FROM JOISTS TO BE REINFORCED. THIS INCLUDES BUT IS NOT LIMITED TO PONDED WATER, ICE, SNOW (REMOVE SNOW TO EXPOSE ROOFING MATERIAL), STAGED CONSTRUCTION MATERIALS/EQUIPMENT, ETC.
- K. PRIOR TO INSTALLATION OF JOIST REINFORCING, CONTRACTOR SHALL SURVEY EXISTING JOISTS TO BE REINFORCED FOR EXISTING DAMAGE OR REPAIRS. ANY JOIST DAMAGE FOUND SHALL BE CORRECTED BEFORE INSTALLATION OF REINFORCING. CONTACT ENGINEER OF RECORD FOR REQUIRED JOIST REPAIRS AT EXISTING DAMAGE AND/OR FOR DIRECTION REGARDING NEW REINFORCING AT EXISTING REPAIRS.

## JOIST REINFORCEMENT SCHEDULE

| JOIST REINFORCEMENT DESIGNATION,<br>RE: SHEET S2.2 | CHORD<br>REINF. | CHORD REINF. |     |     | WEB REINF.                | WEB REINF. |     |     | SPAN | GRID<br>"X" | GRID<br>"Y" | NOTES |
|--|-----------------|--------------|-----|-----|---------------------------|------------|-----|-----|------|-------------|-------------|-------|
|  |                 | "A"          | "B" | "C" |                           | "D"        | "E" | "F" |      |             |             |       |
| JRLH1  | N/A             | -            | -   | -   | 1/2" DIA. ROD OR L1x1x1/4 | 24"        | 12" | 24" | 60'  | 4           | 5           | 2,4   |

### NOTES:

1. DIMENSION "B" IS THE MINIMUM REQUIRED LENGTH OF TOP AND BOTTOM CHORD REINFORCEMENT. FIELD VERIFY PANEL POINT LOCATIONS AND EXTEND TOP AND BOTTOM CHORD REINF. TO OUTER EDGE OF STEEL PLATE AT PANEL POINT.
2. RE: PLAN FOR NEW EQUIPMENT, RE: 1/54.0 FOR ADDITIONAL REINFORCEMENT. DO NOT SET EQUIPMENT UNTIL ALL REINF. IS IN PLACE AND INSPECTED.
3. RE: ARCH FOR EXACT LOCATION OF SOFFITS AND MECH EQUIPMENT THAT WILL CAUSE CONCENTRATED LOADS IN EXCESS OF 100 LBS. RE: 2/54.0 FOR ADDITIONAL REINFORCEMENT AT CONCENTRATED LOADS.
4. REINFORCEMENT SHALL BE WELDED AT 12" O.C. ALONG LENGTH, RE: SECTION F.



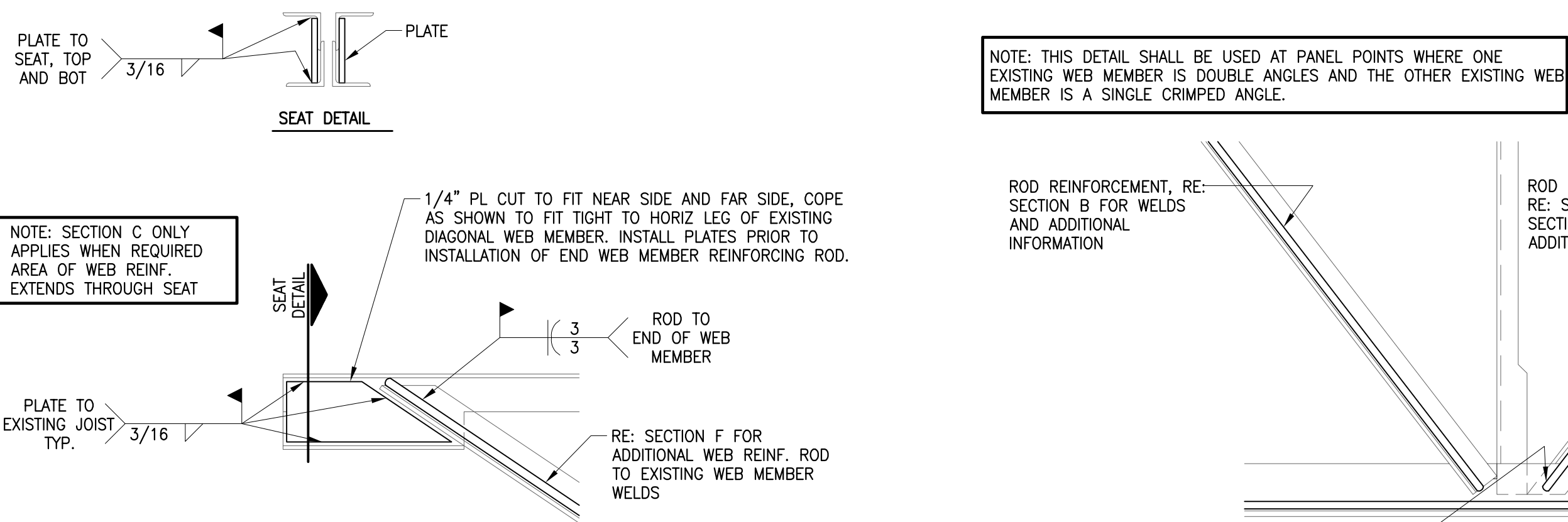
OPTION #1

SECTION E (CHORD REINF. SPLICE)

OPTION #2

OPTION #1 - (CRIMPED ANGLE)

SECTION F (WEB REINF.)



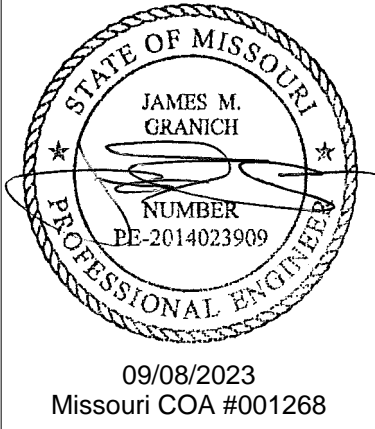
NOTE: SECTION C ONLY APPLIES WHEN REQUIRED AREA OF WEB REINF. EXTENDS THROUGH SEAT

NOTE: THIS DETAIL SHALL BE USED AT PANEL POINTS WHERE ONE EXISTING WEB MEMBER IS DOUBLE ANGLES AND THE OTHER EXISTING WEB MEMBER IS A SINGLE CRIMPED ANGLE.

## 1 JOIST REINFORCEMENT DETAIL - (LH-SERIES)

3/4" = 1'-0"

(NOTE: DIAGRAM IS GENERIC AND ACTUAL NUMBER OF WEBS TO BE REINFORCED IS NOT ACCURATELY SHOWN. ACTUAL NUMBER OF WEB MEMBERS TO BE REINFORCED SHALL BE DETERMINED BASED ON THE LENGTHS SHOWN IN THE JOIST REINFORCEMENT SCHEDULE)



wallace design collective, pc  
structural - civil - landscape - survey  
1703 Wyandotte Street, Suite 200  
Kansas City, Missouri 64108  
816.421.8282 - 800.364.5888

LSCC BUILDING 2 - FORGE TI

LEE'S SUMMIT, MISSOURI

100% SET  
ISSUED  
09-08-2023

### ISSUE LOG

| # | DATE | FOR |
|---|------|-----|
|   |      |     |
|   |      |     |
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|   |      |     |
|   |      |     |

JOB # : 2220003.04

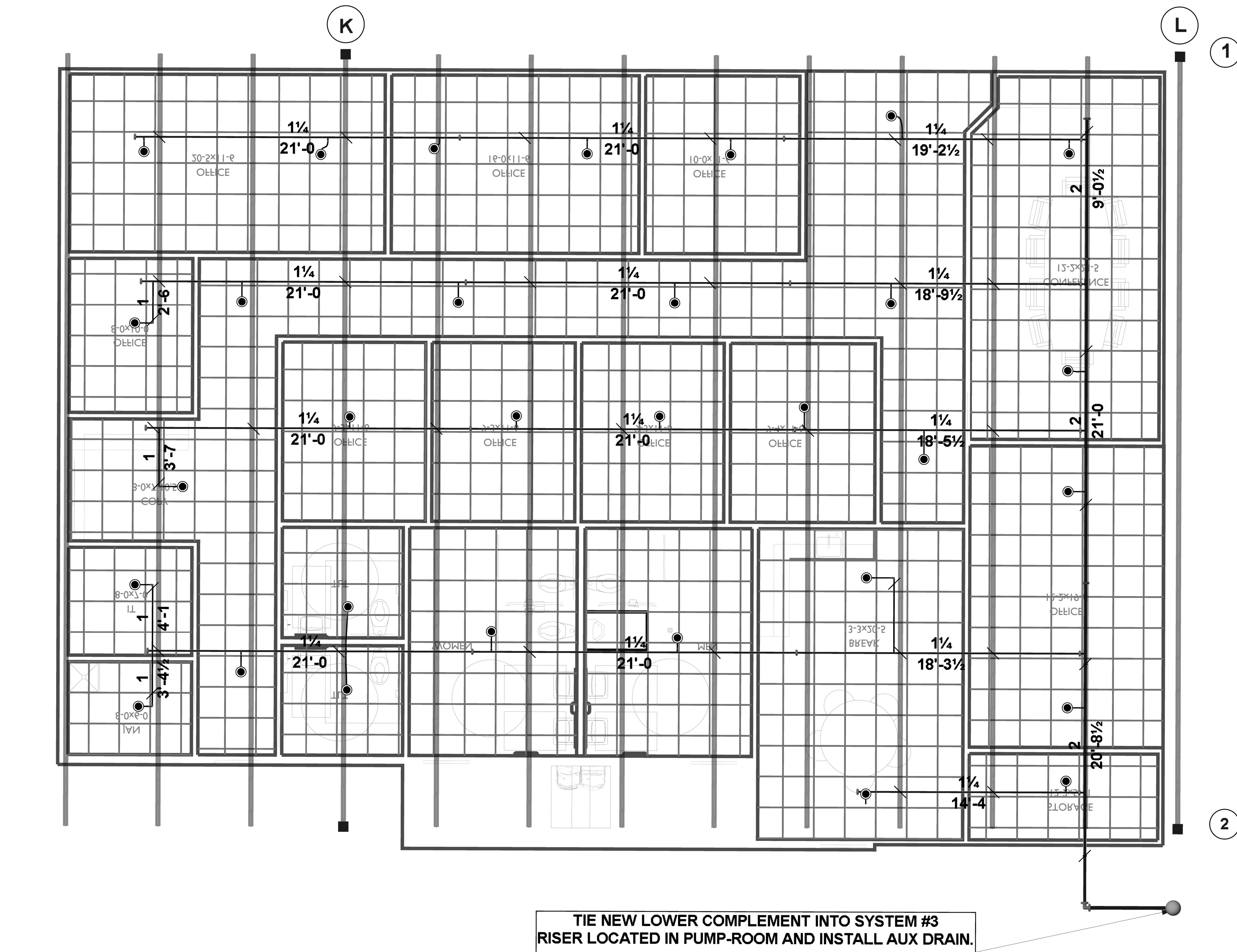
DWN. BY KME CHK. BY JMG

LH-SERIES JOIST  
REINFORCEMENT

SHEET NO.

S4.2

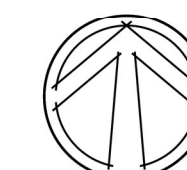
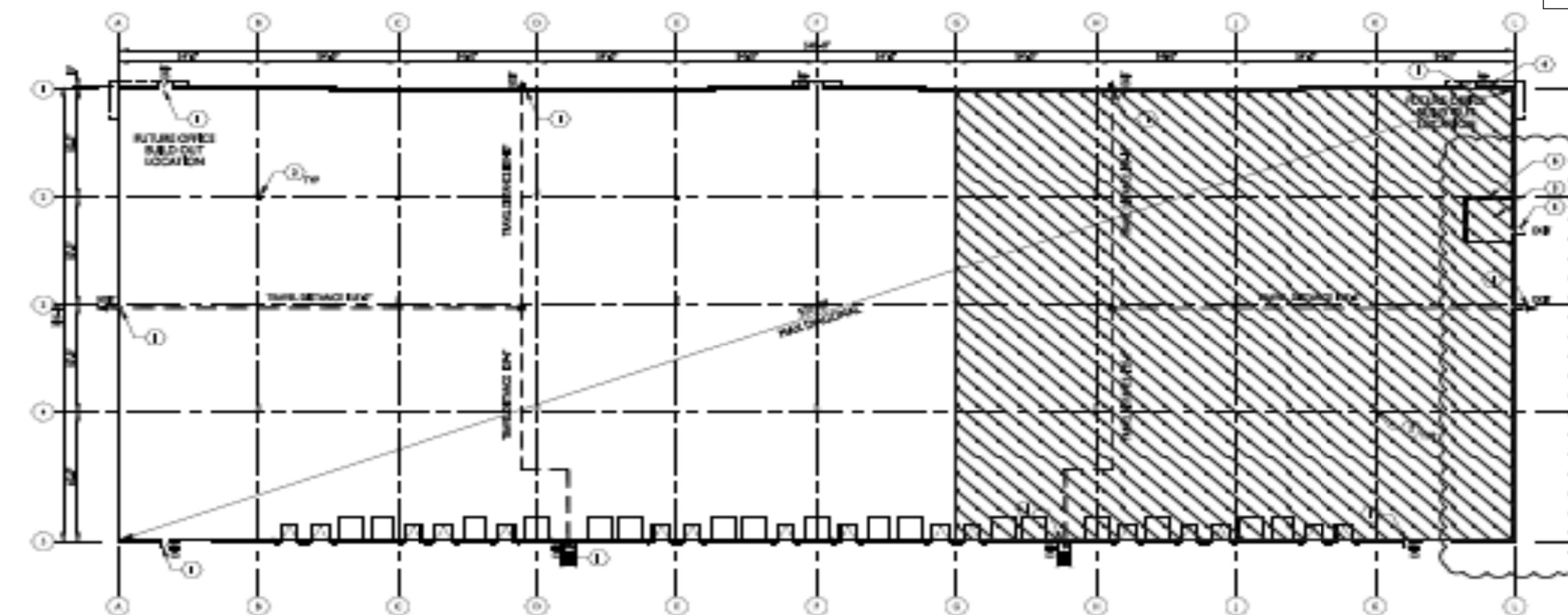




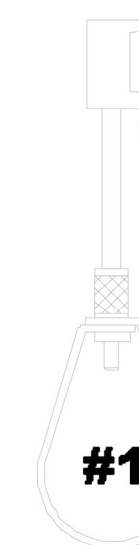
Office Layout

Midwest Distribution LSC Bldg 2

0¼" = 1 Foot



**KEY PLAN**  
- NOT TO SCALE -  
**SCOPE:** New pipe in new  
warehouse office space



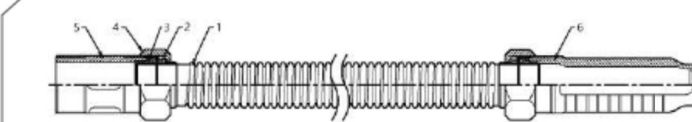
#1: 3/8" TOP BEAM CLAMP, 3/8" ALL THREAD ROD, SPLIT HANGER RING. FOR FIRST FLOOR THE MAIN PIPE IS MAINLY HUNG WITH THIS HANGER.

#2: 3/8" CST-20 STRAIGHT CONCRETE HANGER, 3/8" ALL THREAD ROD, SPLIT HANGER RING. FOR FIRST FLOOR THE BRANCH LINES WILL PRIMARILY BE HUNG WITH THIS HANGER.

JOISTS ABOVE

### Commercial **Flexible Fire Sprinkler Drops**

### Unbraided Flexible Hose



1. Tube
2. Isolation Ring
3. Sealing Gasket
4. Nut
5. Nipple(1")
6. Reducer

## Specifications


|                  |             |     |
|------------------|-------------|-----|
| Max. Temp.       | 225°F       |     |
| Max. Pressure    | 175 psi     |     |
| Min. Bend Radius | 6"          |     |
| K-Factors        | 1/2" Outlet | 5.6 |
|                  | 3/4" Outlet | 8.0 |

## Size &amp; Length

|        |                         |
|--------|-------------------------|
| Outlet | 1/2", 3/4"              |
| Inlet  | 1" NPT                  |
| Length | 28", 40", 48", 60", 67" |

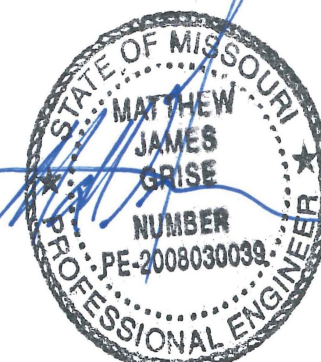
40" FLEX DROPS TO BE USED FOR CENTER OF TILE INSTALLATION

### Sprinkler Legend

| Symbol  | Manufacturer | SIN   | Model | Quantity   | K-Factor | Type    | Size | Response | Finish | Temperature | Notes |
|---|--------------|-------|-------|------------|----------|---------|------|----------|--------|-------------|-------|
|  | Viking       | VK302 | 12979 | 31         | 5.6      | Pendent | 1/2  | Quick    | Chrome | 175°F       |       |
|   |              |       |       | Total = 31 |          |         |      |          |        |             |       |

Design Professional of Record

9/6/2023



## General Fire Protection Notes &amp; Legend

1. Design is based on 2016 NFPA 701 for installation & NFPA 25 for maintenance.
2. All sprinkler material to comply with UL listings, all AHJ requirements, and NFPA standards.
3. Continuous central monitoring of sprinkler systems per NFPA 72 to be by others.
4. All valves to be monitored by tamper switches.
5. All electrical wiring to be by others.
6. Any underground pipe work to be by others.
7. All painting of sprinkler pipe to be by others.
8. All patching and/or painting of penetrated drywall and masonry walls to be by others.
9. Adequate heat to be maintained to prevent pipe freezing.
10. This building is Unobstructed Noncombustible construction.
11. Wet type system.
12. No work done in hydraulically remote area.
13. 1-1/4" grooved pipe shall be schedule 10, 1-1/2" - 4" to be schedule 7
14. 1" to be black schedule 40 steel.

**SCOPE OF WORK:**

**Add new for office space to an existing warehouse**

**Hazard rating:**  
**Light**

\*PIPE IS 1" BLACK SCHEDULE 40 UNO

## Revisions

[illegible]

**Forge Construction**  
1307 Union Ave KCMO 64101

CONTRACTOR

**Midwest Distribution**  
NW Corner of NE Tudor Rd & Main St  
**Lee's Summit, MO 64086**

PLOT DATE: 08/30/23 FILE NAME: FP27203 Midwes

PROJECT

Wet System  
Light

|                       |
|-----------------------|
| AHJ                   |
| Lee's Summit          |
| Designer              |
| BLV                   |
| Scale                 |
| 1/4" = 1'-0"          |
| Total Sprinklers on J |
| 31                    |
| Job Number            |
| FP27203               |
| Date                  |
| 8/18/2023             |
| Sheet Number          |
| FP 1 of 1             |





920 NW Technology Dr.  
Lee's Summit, MO 64086  
Ph: 816-246-4646

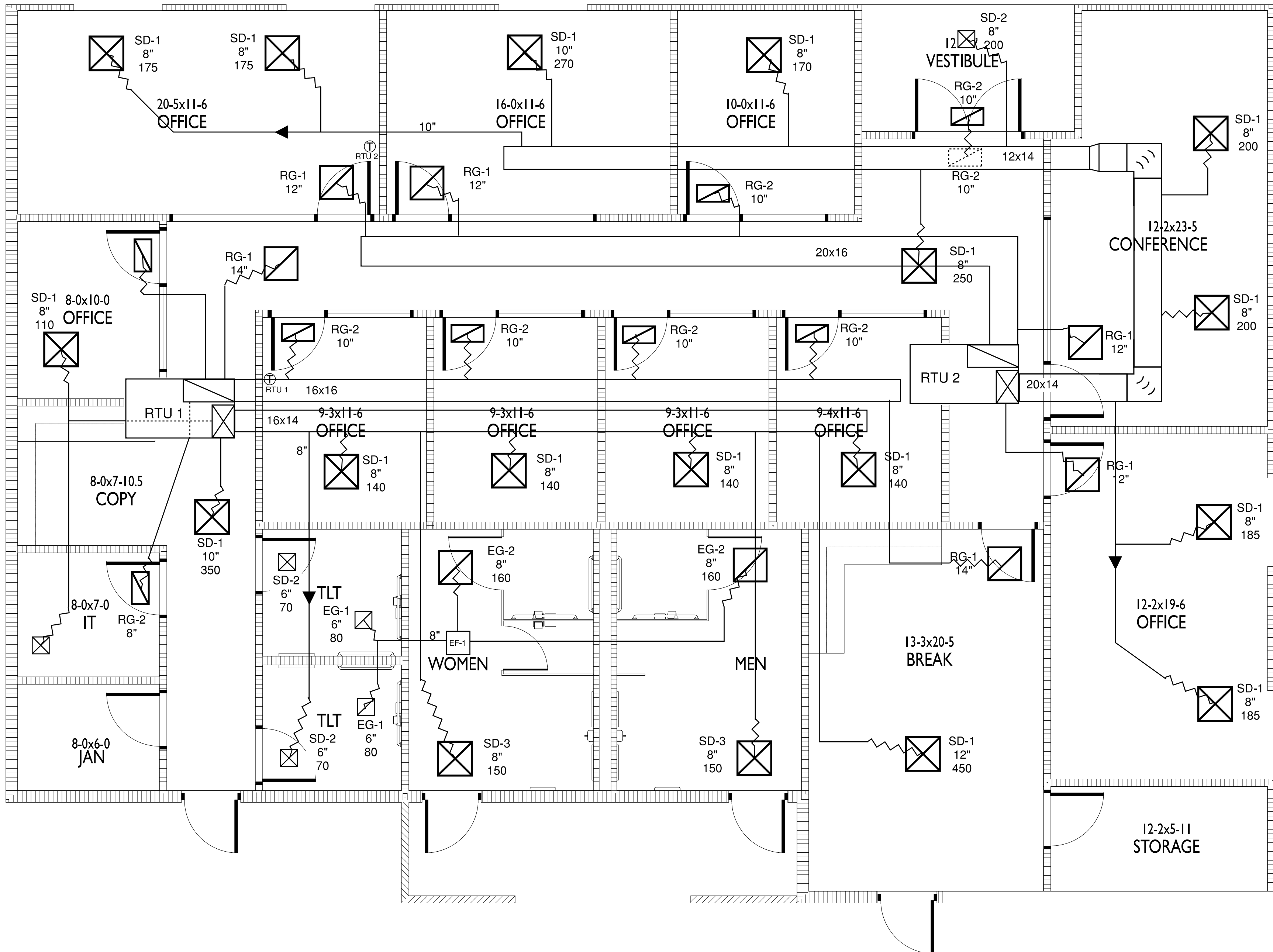
| RTU Schedule |              |              |      |         |            |            |  |        |      |           |            |        |            |    |    |     |     |       |
|--------------|--------------|--------------|------|---------|------------|------------|--|--------|------|-----------|------------|--------|------------|----|----|-----|-----|-------|
| Mark         | Manufacturer | Model        | Ton  | Airflow | Min OA CFM | Fan Stages | Cooling  |        |      | Heating   |            |        | Electrical |    |    |     |     | Notes |
|              |              |              |      |         |            |            | TOTAL MBH  | Stages | EER  | INPUT MBH | OUTPUT MBH | Stages | Volt       | Ph | Hz | FLA | MOC |       |
| RTU-1        | Carrier      | 48FCEA06A2A5 | 5    | 1995    | 71         | 1          | 60   | 1      | 11   | 110       | 88         | 2      | 208        | 3  | 60 | 36  | 45  | 1,3,4 |
| RTU-2        | Carrier      | 48FCEA06A2A5 | 5    | 1995    | 551        | 1          | 60   | 1      | 11   | 110       | 88         | 2      | 208        | 3  | 60 | 36  | 45  | 1,3,4 |
| RTU-3        | Carrier      | 48FCEM14A3A6 | 12.5 | 5000    | 504        | 2          | 150  | 1      | 10.2 | 250       | 205        | 2      | 460        | 3  | 60 | 34  | 45  | All   |
| RTU-4        | Carrier      | 48FCEM14A3A6 | 12.5 | 5000    | 504        | 2          | 150  | 1      | 10.2 | 250       | 205        | 2      | 460        | 3  | 60 | 34  | 45  | All   |
| RTU-5        | Carrier      | 48FCEM14A3A6 | 12.5 | 5000    | 504        | 2          | 150  | 1      | 10.2 | 250       | 205        | 2      | 460        | 3  | 60 | 34  | 45  | All   |
| RTU-6        | Carrier      | 48FCEM14A3A6 | 12.5 | 5000    | 504        | 2          | 150  | 1      | 10.2 | 250       | 205        | 2      | 460        | 3  | 60 | 34  | 45  | All   |
| RTU-7        | Carrier      | 48FCEM14A3A6 | 12.5 | 5000    | 504        | 2          | 150  | 1      | 10.2 | 250       | 205        | 2      | 460        | 3  | 60 | 34  | 45  | All   |
| Notes:       |              |              |      |         |            |            | 1. Provide with 14" roof curb  |        |      |           |            |        |            |    |    |     |     |       |
|              |              |              |      |         |            |            | 2. RA smoke detector to be installed on unit or in RA duct for local shutdown of unit. |        |      |           |            |        |            |    |    |     |     |       |
|              |              |              |      |         |            |            | 3. Provide with programmable thermostat enclosed by lock box.                          |        |      |           |            |        |            |    |    |     |     |       |
|              |              |              |      |         |            |            | 4. Provide with economizer with differential enthalpy control.                         |        |      |           |            |        |            |    |    |     |     |       |
|              |              |              |      |         |            |            | 5. Provid diffuser DB-1 at 25' above finish floor.                                     |        |      |           |            |        |            |    |    |     |     |       |

| Exhaust Fan Schedule |              |        |          |      |            |     |    |     |                 |
|----------------------|--------------|--------|----------|------|------------|-----|----|-----|-----------------|
| Mark                 | Manufacturer | Model  | Mounting | CFM  | Electrical |     |    |     | Notes           |
|                      |              |        |          |      | Volt       | Ph. | Hz | MCA |                 |
| EF-1                 | Dayton       | 4YC86G | Roof     | 480  | 120        | 1   | 60 | 1.3 |                 |
| EF-2                 | Dayton       | 7AE89  | Roof     | 1000 | 120        | 1   | 60 | 4.2 | Spark Resistant |

| Ventilation Schedule |                 |             |            |
|----------------------|-----------------|-------------|------------|
| Mark                 | Square Feet     | Exhaust CFM | Min OA CFM |
| RTU-1                | 1257 x.06 = 75  | 480         | 555        |
| RTU-2                | 1400 x.06 = 84  | 0           | 84         |
| RTU-3                | 8400 x.06 = 504 | 0           | 504        |
| RTU-4                | 8400 x.06 = 504 | 0           | 504        |
| RTU-5                | 8400 x.06 = 504 | 0           | 504        |
| RTU-6                | 8400 x.06 = 504 | 0           | 504        |
| RTU-7                | 8400 x.06 = 504 | 0           | 504        |

| Diffuser Schedule |              |            |           |           |          |        |
|-------------------|--------------|------------|-----------|-----------|----------|--------|
| Mark              | Manufacturer | Model      | Face Size | Neck Size | Mounting | Finish |
| SD-1              | Titus        | TMS        | 24x24     | As noted  | Lay-in   | White  |
| SD-2              | Titus        | TMS        | 12x12     | As noted  | Lay-in   | White  |
| SD-3              | Titus        | TMS        | 12x12     | As noted  | Drywall  | White  |
| RG-1              | Titus        | PAR        | 24x24     | As noted  | Lay-in   | White  |
| RG-2              | Titus        | PAR        | 24x12     | As noted  | Lay-in   | White  |
| EG-1              | Titus        | PAR        | 12x12     | As noted  | Drywall  | White  |
| EG-2              | Titus        | PAR        | 24x24     | As noted  | Lay-in   | White  |
| DB-1              | AES          | ADB 1-12-4 |           | 10x20     | Duct     | Mill   |

| General Notes |  |  |  |  |  |
|---------------|--|--|--|--|--|
| 1.            | All duct to be wrapped w/ 1.5" foil faced fiberglass insulation.                                 |  |  |  |  |
| 2.            | All diffusers to have fiberglass insulation blanket installed on top.                            |  |  |  |  |
| 3.            | Branch take-offs to be air-tite take-offs w/ damper to be balanced to CFM shown                  |  |  |  |  |
| 4.            | All new sheet metal ductwork to be fabricated and installed in accordance with SMACNA standards. |  |  |  |  |
| 5.            | All duct joints to be sealed with water soluble joint compound.                                  |  |  |  |  |
| 6.            | Flexible duct may be used where shown with a maximum length of 5'-0".                            |  |  |  |  |



Office Mechanical Plan

1/4" = 1'-0"

Midwest Distribution



|                         |      |
|-------------------------|------|
| PROJECT NUMBER: 23-2755 |      |
| ISSUE DATE: 8/28/2023   |      |
| REVISIONS               | DATE |
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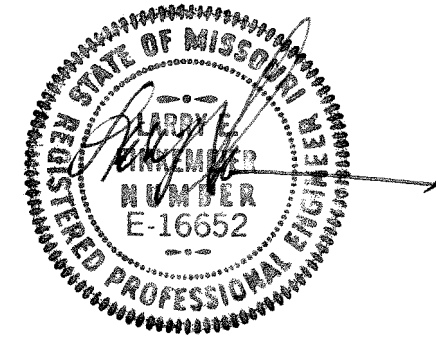
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920 NW Technology Dr.  
Lee's Summit, MO 64086  
Ph: 816-246-4646

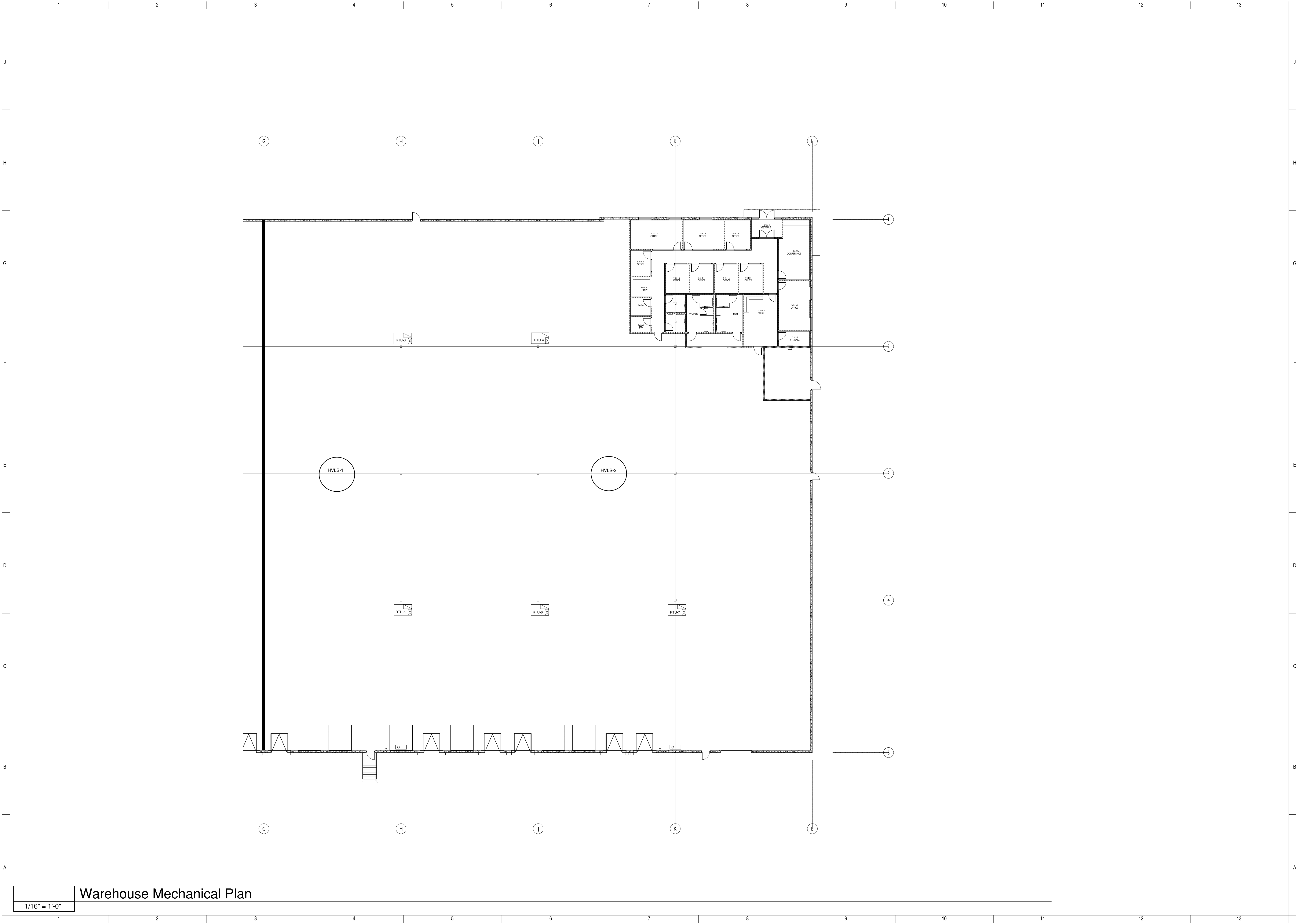
Midwest Distribution



PROJECT NUMBER: 23-2755  
ISSUE DATE: 8/28/2023

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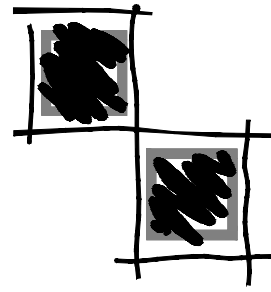
Warehouse Mechanical Plan

1/16" = 1'-0"



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LEE'S SUMMIT LOGISTICS BUILDING B  
Corner of NE Tudor RD and Main Street  
Lee's Summit, MO 64086

Project Number: 23.7317.06

|            |              |
|------------|--------------|
| Date       | 08.24.2023   |
| Phase      | CONSTRUCTION |
| Issued For | PERMIT       |
| Drawn By   | JMS          |
| P.I.C.     | JON          |

|          |  |
|----------|--|
| Revision |  |
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P001

## GENERAL NOTES (TYPICAL ALL SHEETS)

- PLUMBING CONTRACTOR IS RESPONSIBLE TO SEE THAT WORK MEETS AND IS IN ACCORDANCE WITH ALL REQUIREMENTS OF FEDERAL, STATE, AND LOCAL LAWS AND CODES AND/OR REQUIREMENTS, INCLUDING HEALTH CODES AND BUILDING OWNER.
- ALL EXISTING PIPING SHOWN ON DRAWINGS IS SCHEMATIC AND IS BASED ON EXISTING RECORD DRAWINGS PROVIDED BY THE OWNER AND DO NOT REFLECT EXACT EXISTING CONDITIONS. CONTRACTOR TO FIELD VERIFY EXACT DEPTH AND/OR LOCATIONS ON JOB SITE. CONTRACTOR SHALL REROUTE NEW WORK TO ACCOMMODATE EXACT LOCATIONS OF EXISTING UTILITIES, SUBROUTS AND/OR CONNECTIONS.
- CUTTING AND PATCHING OF FLOORS, WALLS, CEILING, ETC., REQUIRED IN STRICT ACCORDANCE WITH THE RULES AND REGULATIONS OF THE ARCHITECT'S AND/OR BUILDING OWNER REQUIREMENTS.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION TO AVOID ROUTING CONFLICTS.
- ANY MATERIAL REMOVED THAT OWNER DOES NOT WISH TO RETAIN SHALL BE REMOVED FROM PROJECT SITE AND DISPOSED OF BY CONTRACTOR.
- INSTALL ELASTOMERIC JOINT SEALER AROUND ALL PIPES PASSING THRU INTERIOR NON-RATED CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS. FOR FIRE RATED INTERIOR CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS SEAL ALL PIPES. INSTALL FIRESTOP MATERIALS IN ALL GAPS PRIOR TO SEALANT APPLICATION. INSTALL SEALER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTION TO ALL EQUIPMENT BY OTHERS. VERIFY CONNECTIONS SIZES AND REQUIREMENTS.
- PIPING ROUTED BELOW COUNTER IN CABINETS SHALL BE ROUTED AS NOTED. NOT TO INTERFERE WITH DRAWERS, SHELVES, EQUIPMENT, ETC., AND SUPPORT FROM BACK WALL OF CABINET.
- PLUMBING CONTRACTOR SHALL PROVIDE PRO-SET SYSTEMS 'TRAP GUARD' IN ALL FLOOR DRAIN TRAPS WITHIN PROJECT SCOPE OF WORK.
- PLUMBING CONTRACTOR SHALL VERIFY WALL THICKNESS WITH ARCHITECT PRIOR TO ORDERING FREEZE PROOF WALL HYDRANTS.

## PLUMBING SYMBOLS

|        |                                   |
|--------|-----------------------------------|
| —      | EXISTING TO REMAIN                |
| —      | NEW PIPING                        |
| —▶—    | FLOW ARROW                        |
| —CW—   | COLD WATER                        |
| —HW—   | HOT WATER                         |
| —HWR—  | HOT WATER RETURN                  |
| —NG—   | NATURAL GAS                       |
| —V—    | SANITARY VENT ABOVE GROUND/FLOOR  |
| --V--  | SANITARY VENT BELOW GROUND/FLOOR  |
| —W—    | SANITARY WASTE BELOW GROUND/FLOOR |
| ✂      | BALANCE VALVE                     |
| ✂      | GAS SHUT-OFF COCK                 |
| ✂      | SHUT OFF VALVE                    |
| ⊙      | IN-LINE PUMP                      |
| ■ OR ● | FLOOR DRAIN OR EQMT FLOOR DRAIN   |
| ○— WH  | WALL HYDRANT                      |
| WCO—   | WALL CLEAN OUT                    |
| FFCO   | FINISHED FLOOR CLEANOUT           |
| ⊙ VTR  | SANITARY VENT THROUGH ROOF        |
| DWH-1  | EQUIPMENT TYPE AND DESIGNATION    |
| ○      | PLUMBING FIXTURE DESIGNATION      |
| ETR    | EXISTING TO REMAIN                |
| ⊙      | CONNECT TO EXISTING               |

## 220 100 PLUMBING SPECIFICATIONS

- SCOPE:
  - The work included under this contract consists of providing all labor, materials, tools, transportation, services, etc., necessary to complete the installation and to provide complete working systems of the Plumbing Systems, including hot and cold water, waste and vent, storm drainage, fixtures, equipment and other items described in these specifications, as illustrated in the accompanying drawings or as directed by the Architect/Engineer.
  - Extend piping systems as indicated on contract documents or to point of connection as follows:
    - Points of connection within the existing building.
- DOMESTIC WATER SERVICE AND SYSTEMS:
  - Contractor shall verify water service availability, including size and available pressure to service the building.
    - The pressure provided to fixtures within the building shall not exceed that allowed by local code or shall not exceed 80 PSIG. Provide pressure regulator(s) as required to limit the maximum pressure.
- PIPING, FITTINGS AND VALVES:
  - Provide hot and cold water supply to each and every fixture, piece of equipment and to systems where makeup water is required.
  - Provide service valves for each item of equipment, at branch piping, fixture groups, individual fixtures and elsewhere as indicated or required. Provide balance valves, strainers, check valves and other valves as indicated or required by the application.
  - Provide a union or flanged connection between each item of equipment and its service valve. Copper to ferrous pipe connections shall have isolation coupling, flange or union.
  - Domestic water, interior, above ground -
    - Pipe, copper tube -
      - 2-1/2" and Smaller - Type "L" hard temper copper, wrought or cast copper fittings, Lead free 95/5 or Eagle Hard Silivabrite or "CB" solder joints, or roll grooved mechanical joints or pressure seal joint fittings with EPDM O-ring seals.
    - Provide valves where indicated on the drawings, where required by code, or required for service.
      - 1/4 turn Service -
        - 1) 1/2" thru 2" - Nibco 585-66-LF bronze lead free, 600 PSIG, full port, stainless steel ball and stem.
        - 2) Provide isolation valves where indicated on drawing, including at branches, terminations, each piece of equipment and elsewhere as required by code.
      - Securely anchor and support piping, valves and fittings, with adequate provisions for expansion and contraction. Grade lines, free of traps, to low point at cut-off and drain valve.
      - Hot and cold supply lines to have manufactured pre-charged piston type water hammer arresters sized and installed in accordance with PDI-VH 201. Install at each solenoid actuated quick closing valve location including but not limited to dishwashers, clothes washers, ice makers, electronic faucets and similar items. Sioux Chief, JR Smith or equal. Provide access panel where required.
  - Natural Gas --
    - Pipe above ground:
      - 2" and smaller - Schedule 40 black steel piping with threaded fittings.
    - Valves & Connectors:
      - Shutoff Service -
        - 1) 1/2" thru 1" - Nibco GB-1A, brass body, chrome plated brass ball, PTFE seats, screwed ends, 5 PSIG per CGA, lever handle.
        - 2) 1/2" thru 2" - Nordstrom 142, iron lubricated tapered plug valve, 200 PSIG, threaded ends.
      - Regulator, 3/4" thru 1-1/2" - Fisher type S, spring loaded diaphragm, 1.5" WC to 2.5 PSIG discharged pressure, threaded, vented to atmosphere.
      - Flex Connectors, Metraflex GASCT 300 series stainless steel braided hose with carbon steel threaded ends.
    - Natural gas piping in return air plenum, where permitted shall be either installed in vented fabricated enclosure, sleeved and vented; or welded or one piece.
    - Paint exterior natural gas piping with corrosion inhibiting paint, color to be selected.
  - Sanitary sewer, vent, interior --
    - Pipe - Standard weight cast iron hubless with no-hub shielded mechanical joints; solid wall schedule 40 PVC, ABS with solvent cement joints, vents may be galvanized malleable iron.
    - Plastic piping shall not be allowed in return air plenums.
    - Floor or equipment drains shall be provided at all locations where equipment is indirect wasted. Floor drains shall be provided outside all ADA showers for roll-in applications or where there is no threshold.
    - All gravity drainage shall be graded per code but not less than 1/8" per foot unless noted otherwise, except that piping sizes up thru 2-1/2" shall be sloped at 1/4" per foot. Piping sizes up thru 4" to be sloped at 1/4" per foot where possible and where required by local codes.
    - Vents shall be sloped upward in direction of flow.
  - Sanitary sewer, vent, below grade --
    - Pipe - Standard weight cast iron hubless with no-hub heavy duty mechanical joint fittings; solid wall schedule 40 PVC, ABS with solvent cement joints.
    - All gravity drainage shall be graded per code but not less than 1/8" per foot unless noted otherwise, except that piping sizes up thru 2-1/2" shall be sloped at 1/4" per foot. Piping sizes up thru 4" to be sloped at 1/4" per foot where possible and where required by local codes.
    - Vents below grade shall be 2" minimum size and shall be sloped up in direction of flow.
- CLEANOUTS, TEST TEES, TRAPS AND TRAP SEALS:
  - Provide cleanout at the base of each stack or riser, at ends of runs greater than 100', each 135 degree aggregate change of direction in horizontal piping, where indicated on the drawings or as required by code. Plugs, extra heavy cast brass, screwed. Scoriated tops in unfinished areas, carpet markets in carpet floors, tile top in tile floors, stainless steel cover in finished walls. Cleanouts shall be the same size as pipe up to 4" diameter, 4" cleanouts for larger pipe unless otherwise noted.
  - All traps shall be deep seal type with liquid seal not less than specified by code.
  - Where trap primers are not specified provide all floor and hub drains with trap seal with EPDM or silicone diaphragm, conforming to requirements of ASSE 1072 or 1017.2. Provent Proset Series SG22 or TG22, Sioux Chief series 835, Rectorseal SS series or acceptable equal.
- SLEEVES AND SEALS, FLASHINGS, ROOF PIPE SUPPORTS AND UV PROTECTION:
  - Flash all pipes and vents extending through roof. Flashing details shall be in accordance with roof manufacturer's requirements.
  - Continuous roof piping penetrations shall be made weather tight, conform to roof manufacturer warranty.
  - Roof pipe supports shall be prefabricated with UV resistant rubber base, unistrut channel and pipe clamp, length and height for consistent pipe elevation to suit application. MI-Fab C6 series or acceptable equal.
  - Plastic piping without UV inhibitors which is exposed to UV radiation from sunlight shall be protected by coating with a UV resistant paint.
- CROSS- CONNECTIONS AND INTERCONNECTIONS:
  - No plumbing device or piping shall be installed which will provide cross-connection or interconnection between a distributing supply or waste so as to make possible the backflow or back-siphonage of polluted water into the potable water supply system. Where the possibility of back-siphonage exists, water supply to the fixture shall be introduced through a suitable backflow preventer device suitable for the hazard protected. Installed backflow preventers must be approved through the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research.
    - They may be an air gap, anti-syphon valve, atmospheric vacuum breaker, pressure vacuum breaker, double check, reduced pressure backflow preventer or as otherwise required by the authority having jurisdiction.
- PLUMBING EQUIPMENT:
  - Water heaters, pumps, expansion tanks and other equipment shall be as scheduled or by acceptable equal by one of the following:

Water Heaters and Accessories:  
Water Heaters: A.O. Smith, State, Rheem, Bradford White  
Expansion Tanks: Watts, Amtrol, Armstrong, Elbi, Taco, Wessels.
  - Water Heater Installation
    - Pipe water heater drains and/or pan drains to indirect waste per code and as noted or detailed. Water heater P&T relief valves shall be piped independently, indirectly wasted 6" above receptor per code and as noted or detailed.
    - Install vacuum relief valve on each bottom fed storage water heater, installed above the top of the water heater on cold water inlet piping.
    - Mount water heaters on concrete floor pads, suspended from structure on steel rods, on steel floor stands or wall bracket steel frames as indicated on drawings.
    - Suspended heaters up to 50 gallons may be mounted utilizing prefabricated steel support platform, HoldRite SVHP series or acceptable equal.
    - Where water heaters are mounted overhead, on wood floor or other location requiring containment, mount water heaters in drain pan with 1" minimum drain, HoldRite QP series, acceptable equal or field fabricated equivalent.

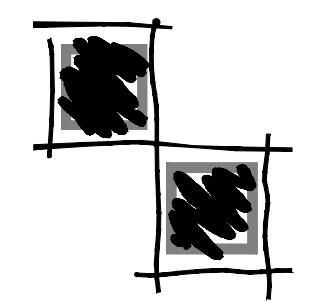
- Water piping connections to water heaters shall be metallic, no plastic piping is permitted within 18" of a water heater connection. Stainless steel flexible connectors with union ends may be used, HoldRite or acceptable equal. Provide 18" minimum flexible corrugated copper or braided stainless steel connector hoses with compression ends for water heaters with 3/4" water connections.
  - Provide equipment accessories including but not limited to operating controls, limit switches, oil sensors, high level controls, timers, aquastats, energy management system interface, etc. as indicated on drawings and as required for a complete operating system.
  - INSULATION:
    - Pipe insulation shall conform to the International Energy Conservation Code.
    - Insulate all cold water, hot water piping, Owens Corning or acceptable equal.
      - Cold water piping insulation: 1" fiber glass sectional pipe covering with universal vapor barrier jacket.
      - Hot Water piping insulation: 1" (pipe sizes up thru 1-1/4") 1-1/2" (pipe sizes 1-1/2" and above) fiber glass sectional pipe covering with universal all service jacket.
    - At Contractor's option, Armacel AP Armaflex unicellular insulation or acceptable equal with 25/50 flame and smoke rating with equal thermal performance may be substituted for fiberglass products.
    - Seal all joints on cold water insulation to maintain vapor barrier.
    - Insulation shall run continuously thru hangers and supports without interruption.
    - Refer to plumbing fixture schedule for protective insulation of fixture drains and water piping for compliance with ADA requirements for People with Disabilities.
      - Pipe coverings may be omitted where protection from injury (such as shrouds or casework) is provided by other trades.
      - Provide comparable protection for accessory items such as disposers where items are exposed to contact beneath ADA designated fixtures.
  - PIPE SUPPORTS AND ROUTING:
    - Hangers and Supports
      - Piping shall be supported in accordance with industry standards including support methods, sizes and spacing. All supports and installation shall conform to MSS SP58 and 69 and Fed Spec WW-H-171E and A-A-1192A.
      - Pipe Slopes: Install hangers and supports to provide indicated or required pipe slopes to provide for drainage and venting.
      - Each piping system shall be independently supported with no piping bearing on another and installed such that no weight of piping is borne by the equipment.
      - Space hangers and supports within maximum piping span length indicated in MSS SP-58. Install building attachments at required locations for proper piping support.
      - Hangers shall be designed to allow for expansion and contraction of pipe lines and shall be of adequate size to permit covering when required. Provide protective saddles and blocking where supporting insulated piping to prevent crushing insulation.
    - Routing
      - Piping shall be routed as shown on drawings, parallel to building lines unless otherwise shown, coordinated with building structure and other trades. Adjust pipe routing and drop locations with necessary pipe offsets or changes in elevation to accommodate beams and other obstructions.
  - EQUIPMENT AND PIPE LABELS:
    - Equipment labels shall be provided for all plumbing equipment and shall be self-adhesive engraved plastic, blue with white lettering, sized, minimum 1-1/2" high, and located for viewing from ground or floor level. Label shall indicate drawing designation or unique equipment number.
    - Pipe labels for domestic water, waste, vent and gas piping shall be preprinted, color-coded, with 1-1/2" lettering indicating service, and showing flow direction, locate pipe labels where piping is exposed or above accessible ceilings in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and locations as follows:
      - Near each valve and control device.
      - Near each branch connection, excluding short takeoffs for fixtures and terminal units. Where flow pattern is not obvious, mark each pipe at branch.
      - Near major equipment items and other points of origination and termination.
      - Spaced at maximum intervals of 50 feet along each run. Reduced intervals to 25 feet in areas of congested piping and equipment.
      - On piping above removable acoustical ceilings, omit intermediately spaced labels.
  - MISCELLANEOUS
    - Indirect wastes shall discharge full size thru an air gap to a floor, equipment drain, sanitary floor sink or hub drain. The floor or equipment drain grate shall be fitted with a funnel, the sanitary floor sink shall have a partial grate or the grate shall be omitted. Drains shall be located so they are accessible and not a tripping hazard.
    - Provide escutcheons at all penetrations of exposed walls and ceilings. Escutcheons shall be chrome plated brass in occupied areas, prime paint finish for unoccupied areas unless otherwise noted. Escutcheons for exterior or moist areas shall be brass.
  - PROTECTION OF WORK
    - Protection
      - Protect and cover piping and fixture waste and water openings to prevent entry of dirt and debris.
      - Cover and protect fixtures and plumbing equipment to prevent damage.
  - TEST, ADJUSTMENTS AND CLEANING:
    - Soil, waste and vent piping testing:
      - Initial Piping Water Test: Fill with water to the top of the highest point of the system extending through roof. Systems may be tested in whole or part. The system shall remain leak free under test for a minimum period of Fifteen (15) minutes.
        - Gravity Drain Test: Either 10' water column or at a pressure not less than 10% above that the piping will be subjected to during nominal operation
        - Pressure Piping Test: Either 25 PSIG or at a pressure not less than 10% above that the piping will be subjected to during nominal operation.
        - Where applicable, isolate new portions of the system(s) piping with test tee and Oatey Clean Seal inflatable plug prior to testing.
      - Final Piping Test: The completed system(s) shall be visually inspected to determine compliance with all codes and standards. Where required by the building official, the completed system shall be smoke tested with all traps water filled and system pressured to 1" WC for a minimum period of fifteen (15) minutes.
    - Water and gas line testing:
      - Water piping shall be purged and tested with compressed air or water at 50 PSIG above the operating pressure but not to exceed the pressure rating of piping system materials for a period of 2 hours with no measurable pressure drop.
      - Natural gas lines shall be inspected and blown out with dry compressed air or nitrogen to purge of debris and tested at 1-1/2 times the operating pressure or a minimum of 25 PSIG pressure with no measurable pressure drop. All test procedures including duration of test shall be in accordance with NFPA 54 and the International Fuel Gas Code.
      - Where applicable, isolate new portions of pressure piping from existing piping with valves prior to testing.
  - Contractor to submit all test data and other documentation for record.
- FIXTURE BRANCH PIPING:
  - Fixture branch and connection sizes shall be as shown in the plumbing fixture schedule on the drawings and not less than required by code.
  - Minimum waste or vent size below slab on grade shall be 2".
- PLUMBING FIXTURES:
  - Refer to plumbing fixture schedule for plumbing fixtures and accessories. Include all fittings and accessories as required for a complete working system.
  - Where required for ADA compliance, provide lavatory and sink offset drain and tailpiece assembly.
  - At contractor option, flexible stainless steel braided hose, 125 PSIG rated, with non-toxic liner and compression fittings may be used in lieu of chrome plated brass riser tube. Where ADA compliance is required, provide flexible insulation wrap on braided water supplies in lieu of specified molded vinyl wrap.

END OF SECTION



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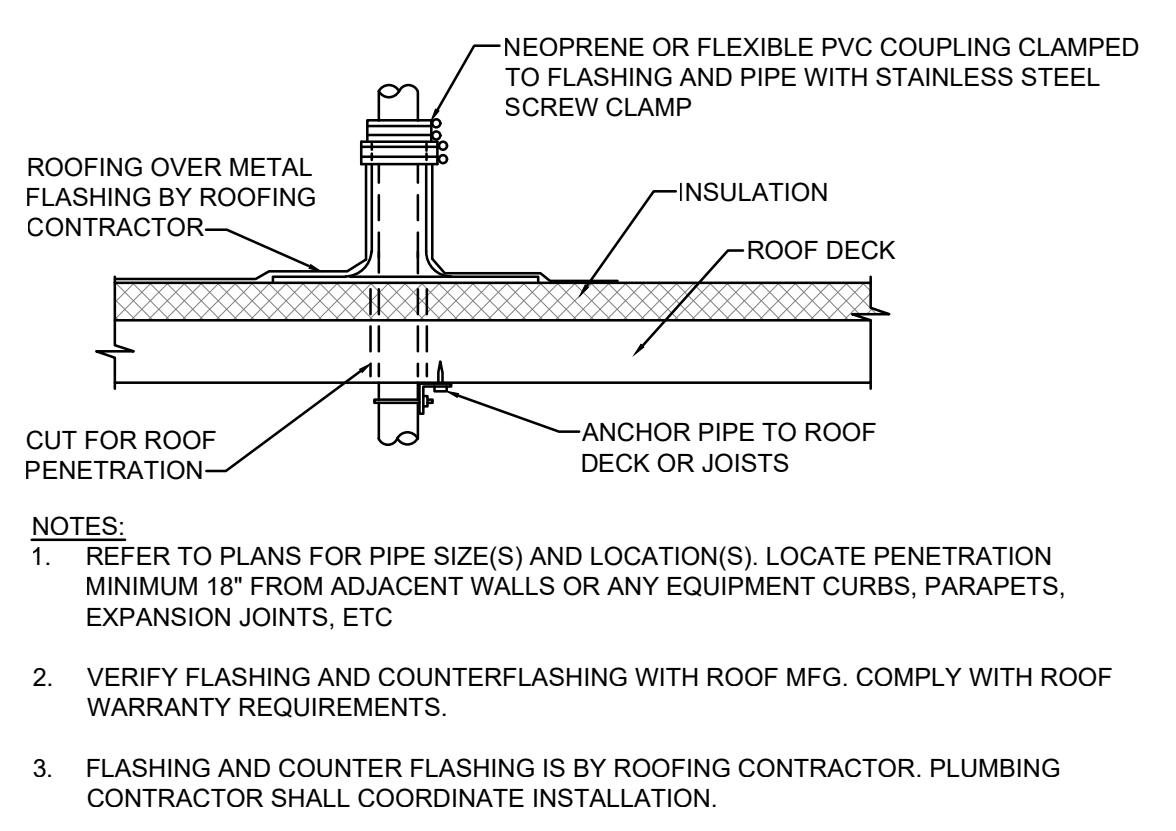
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Project Number: 23.7317.06

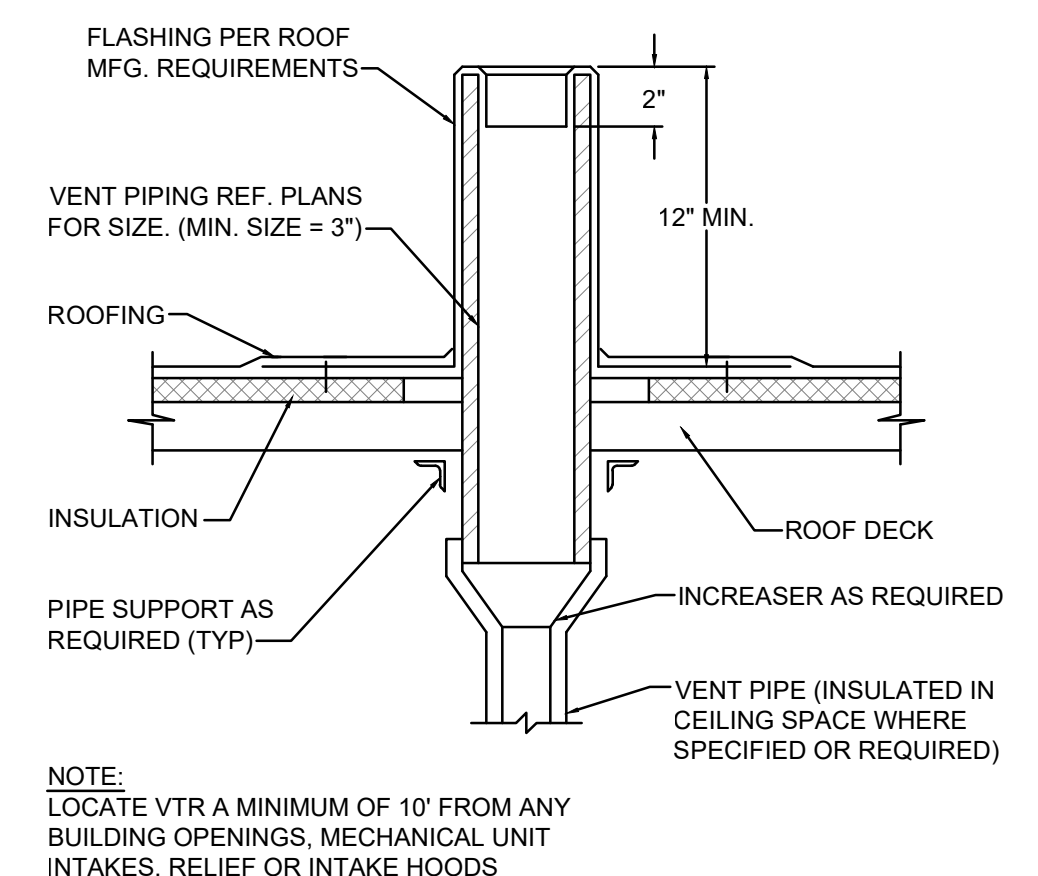
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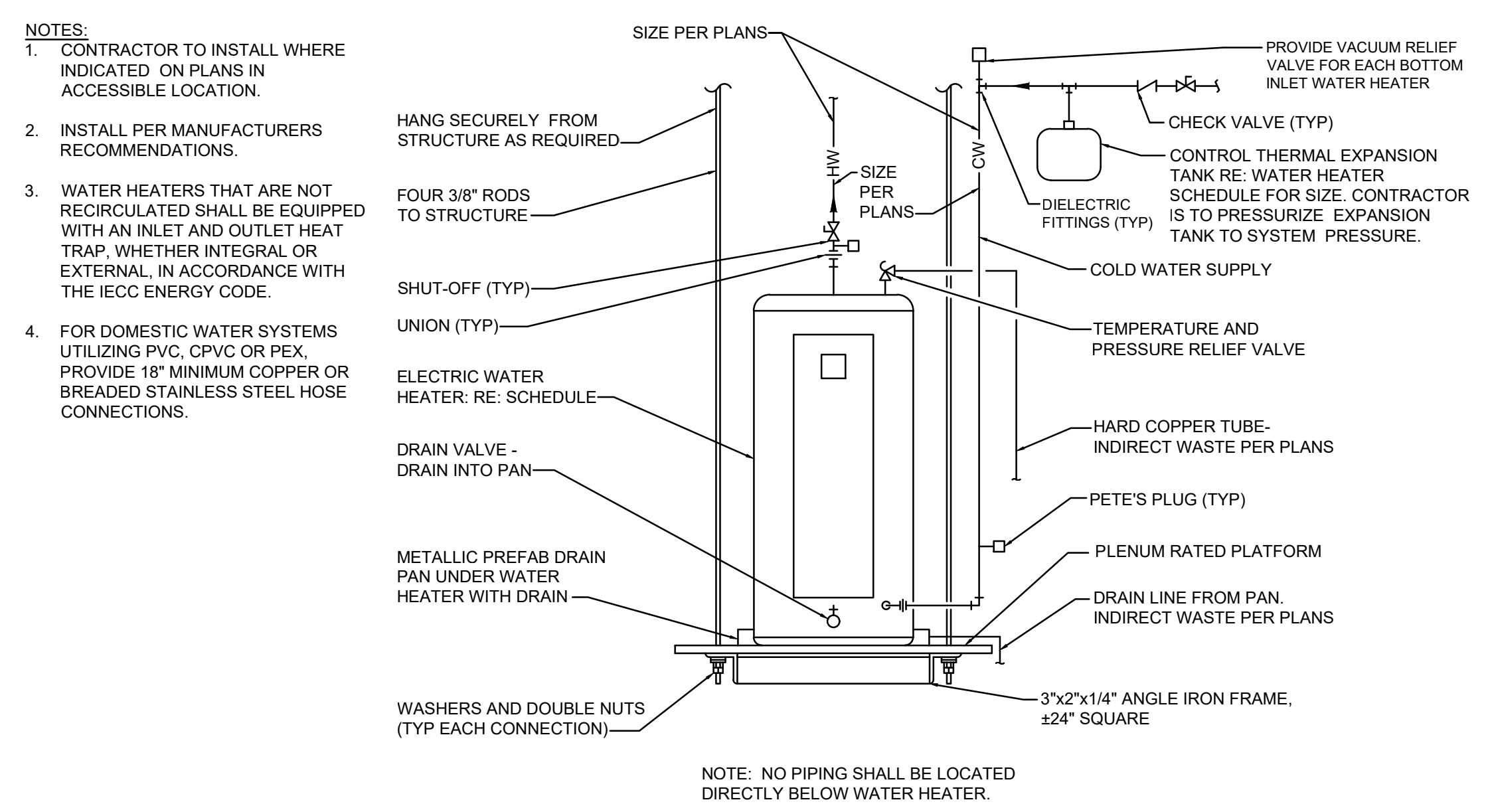
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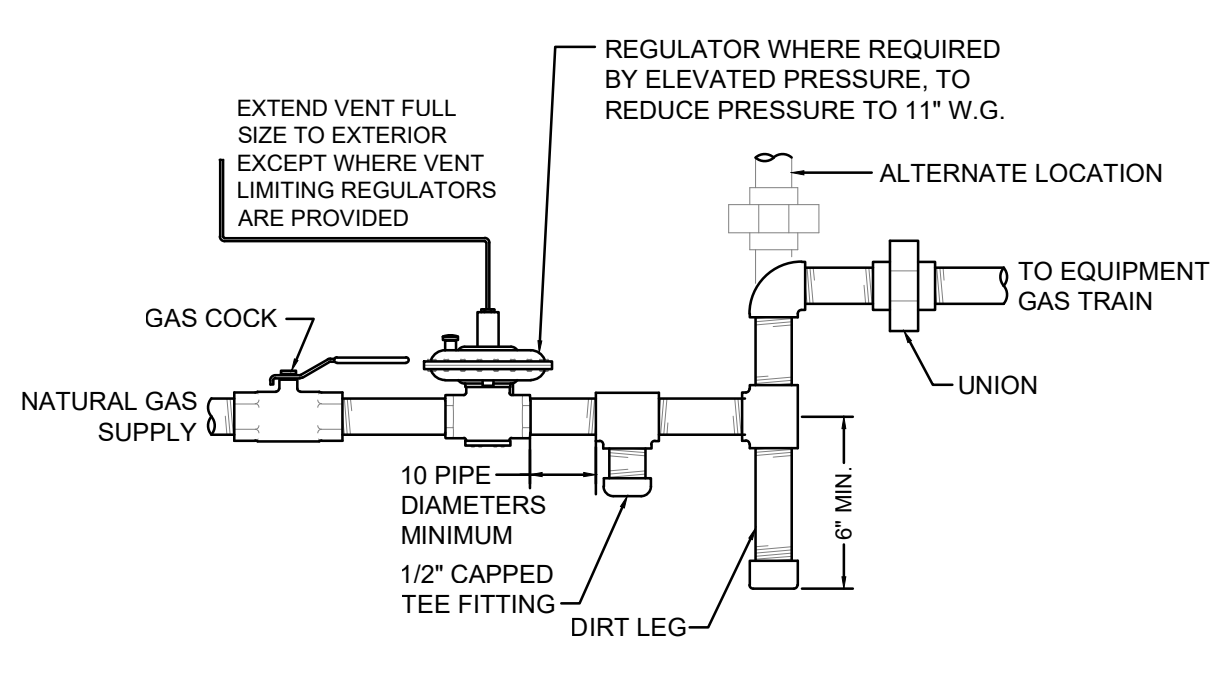
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**VENT THRU ROOF DETAIL**  
NO SCALE



**ELECTRIC WATER HEATER DETAIL**  
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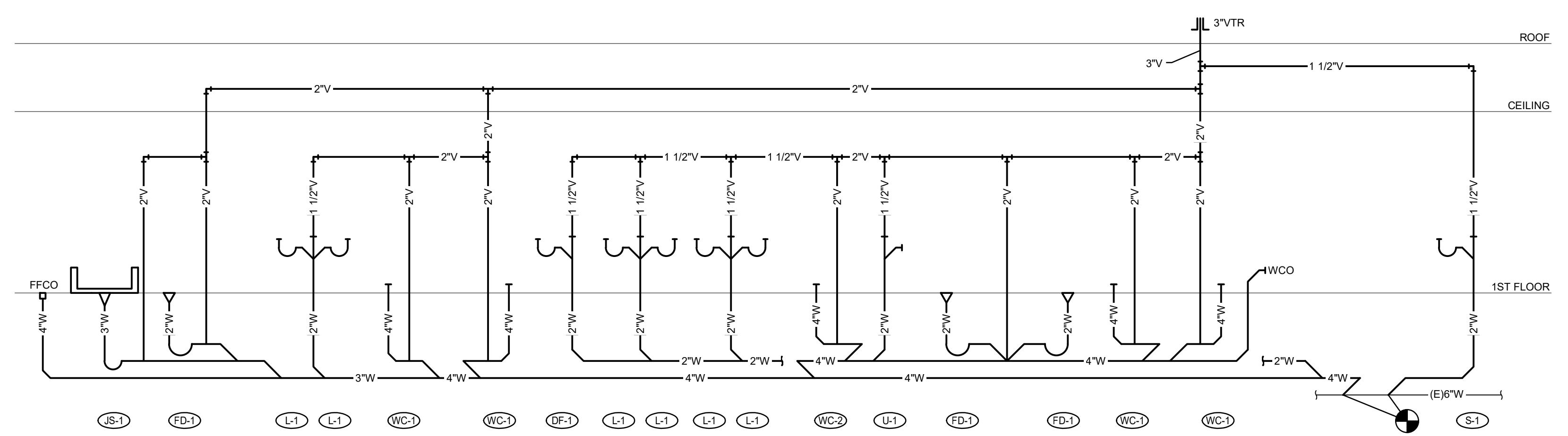
**GAS EQUIPMENT  
CONNECTION DETAIL**  
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**PLUMBING FIXTURE SCHEDULE**

| MARK NO. | FIXTURE TYPE (ADA)      | MANUFACTURER      | MODEL NO.                       | DESCRIPTION  | MINIMUM CONNECTION SIZE |      |        |        |
|----------|-------------------------|-------------------|---------------------------------|--|-------------------------|------|--------|--------|
|          |                         |                   |                                 |  | CW                      | HW   | WASTE  | VENT   |
| WC-1     | WATER CLOSET            | AMERICAN-STANDARD | 3043.001 "MADERA"               | FLOOR MOUNTED FLUSH VALVE, WHITE VITREOUS CHINA, HIGH EFFICIENCY, DIRECT FED SIPHON JET ACTION, FULLY GLAZED 2" TRAP WAY, ELONGATED BOWL, WITH 1-1/2" TOP SPUD, 16-1/2" RM HEIGHT, SLOAN "G2 OPTIMA PLUS" 8111-1.6-OR (1.6 GPF) BATTERY OPERATED ELECTRONIC DIAPHRAGM FLUSH VALVE WITH MANUAL RELEASE, VACUUM BREAKER AND ANGLE STOP. ACCESSORIES: BEMIS 1055SSC WHITE OPEN FRONT SEAT LESS COVER WITH SELF SUSTAINING CHECK HINGES, BOLTS AND CAPS. NOTE: MOUNT FLUSH VALVE TO WIDE SIDE OF FIXTURE.  | 1"                      | -    | 4"     | 2"     |
| WC-2     | WATER CLOSET            | AMERICAN-STANDARD | 2234.001 "MADERA"               | FLOOR MOUNTED FLUSH VALVE, WHITE VITREOUS CHINA, HIGH EFFICIENCY, DIRECT FED SIPHON JET ACTION, FULLY GLAZED 2" TRAP WAY, ELONGATED BOWL, WITH 1-1/2" TOP SPUD, 15" RM HEIGHT, SLOAN "G2 OPTIMA PLUS" 8111-1.6-OR (1.6 GPF) BATTERY OPERATED ELECTRONIC DIAPHRAGM FLUSH VALVE WITH MANUAL RELEASE, VACUUM BREAKER AND ANGLE STOP. ACCESSORIES: BEMIS 1055SSC WHITE OPEN FRONT SEAT LESS COVER WITH SELF SUSTAINING CHECK HINGES, BOLTS AND CAPS.   | 1"                      | -    | 4"     | 2"     |
| U-1      | URINAL (ADA)            | AMERICAN-STANDARD | 6590.001 "WASHBROOK"            | WHITE VITREOUS CHINA, WALL-HUNG, HIGH EFFICIENCY WASHOUT FLUSH ACTION, INTEGRAL FLUSHING RM, 3/4" TOP SPUD, 2" OUTLET, SLOAN "OPTIMA PLUS" G2 8186-1.0 (1.0 GPF) BATTERY OPERATED ELECTRONIC FLUSH VALVE WITH MANUAL RELEASE, VACUUM BREAKER AND ANGLE STOP. ACCESSORIES: J. R. SMITH URINAL SUPPORT. NOTE: MOUNT FIXTURE RM 17" ABOVE FINISH FLOOR.   | 3/4"                    | -    | 2"     | 1-1/2" |
| L-1      | LAVATORY (ADA)          | AMERICAN-STANDARD | "LUCERNE" 0355.012 (4" CENTERS) | WALL HUNG, VITREOUS CHINA, 20" X 16", FRONT OVERFLOW, INTEGRAL BACK, AMERICAN STANDARD 7075.004 "COLONY PRO" DECK-MOUNTED FAUCET WITH CERAMIC OPERATING CARTRIDGE, 4" CENTERS, INTEGRAL SPOUT, AND LEVER HANDLES, LESS DRAIN, POP-UP HOLE AND ROD. ACCESSORIES: PROVIDE LEAD FREE BRONZE THERMOSTATIC MIXING VALVE WITH 0.25 GPM MINIMUM FLOW RATE, INTEGRAL CHECK VALVES, DISCHARGE SET AT 105 F, MOUNTED DOWNSTREAM OF FIXTURE STOPS, PROVIDE GRID DRAIN, 17 GA. SEMI-CAST BRASS P-TRAP WITH CLEANOUT, CHROME-PLATED RISERS WITH LOOSE KEY ANGLE STOPS AND J.R. SMITH CONCEALED ARM LAVATORY SUPPORT, PROVIDE WITH FULLY MOLDED FLEXIBLE VINYL INSULATION KIT COVER TRAP, SUPPLIES AND STOPS, TRUEBRO E-Z LAV GUARD. NOTE: MOUNT FIXTURE RM 31" ABOVE FLOOR. | 1/2"                    | 1/2" | 1-1/2" | 1-1/2" |
| S-1      | SINK (ADA)              | DAYTON            | DCFU2416                        | SINGLE COMPARTMENT UNDERMOUNT SINK, 18 GA, TYPE 304 STAINLESS STEEL, 6-1/2" DEEP BOWL, AMERICAN STANDARD 7074.300 "COLONY PRO" SINGLE HOLE, DECK MOUNTED FAUCET WITH CERAMIC OPERATING CARTRIDGE, SINGLE LEVER HANDLE, AND PULL DOWN SPRAY. ACCESSORIES: STRAINER WITH 1-1/2" TAILPIECE, 1-1/2" 17 GA. SEMI-CAST BRASS P-TRAP WITH CLEANOUT, CHROME-PLATED RISERS WITH ANGLE STOPS, GARBAGE DISPOSAL: MOEN GX933C PRO SERIES 1/3 HP WITH POWER CORD.   | 1/2"                    | 1/2" | 2"     | 1-1/2" |
| JS-1     | JANITOR SINK            | ZURN              | Z1996-24                        | SIZE 24" X 24" X 10", COMPOSITE SERVICE SINK WITH COMPOSITE DRAIN, STAINLESS STEEL STRAINER, 3" DRAIN CONNECTION, ZURN Z843M1 WITH QUARTER TURN CERAMIC OPERATING CARTRIDGES, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL BRACE, 3/4" MALE HOSE THREAD OUTLET, 369 LEVER HANDLES, FLANGED ADJUSTABLE SUPPLY ARM AND INTEGRAL SUPPLY STOPS AND CHECK VALVES. ACCESSORIES: EXTRUDED VINYL BUMPER GUARDS ON EXPOSED SIDES, RUBBER HOSE WITH STAINLESS STEEL WALL BRACKET.  | 1/2"                    | 1/2" | 3"     | 2"     |
| DF-1     | DRINKING FOUNTAIN (ADA) | ELKAY             | EZSTL8WSLK                      | BL/LEVEL CABINET WITH BOTTLE FILLER, ADA BARRIER-FREE BL/LEVEL COOLER, 8.0 G.P.H. (60" F WATER WITH 90" F AIR TEMPERATURE), PUSH BAR ACTIVATION, STAINLESS STEEL COOLER TOP, HEAVY GAUGE VINYL CLAD STEEL CABINET WITH GREY FINISH, CANE APRON ON UPPER BOWL, ELECTRONIC ACTUATED INTEGRAL BOTTLE FILLER STATION ON LOWER FOUNTAIN, 120V/1PH/60HZ. ACCESSORIES: 17 GA. SEMI-CAST BRASS P-TRAP WITH CLEANOUT, CHROME-PLATED SUPPLY AND STOP, J.R. SMITH FLOOR MOUNTED TYPE SUPPORT WITH "PRO-SET" UPRIGHTS. NOTES: MOUNT WITH SPOUT 35" ABOVE FINISH FLOOR.   | 1/2"                    | -    | 1-1/2" | 1-1/2" |
| IM-1     | ICE MAKER WALL BOX      | OATEY             | 39134                           | RECESSED ICE MAKER WALL BOX WITH QUARTER TURN VALVE AND 1/2" INLET, ABS COVER.   | 1/2"                    | -    | -      | -      |
| FD-1     | FLOOR DRAIN             | SIOUX CHIEF       | 832 SERIES                      | GENERAL PURPOSE, PVC BODY WITH ADJUSTABLE STRAINER HEAD, ROUND NICKEL BRONZE STRAINER, AND SEEPAGE OPENINGS. OUTLET SIZE PER PLANS. NOTE: PROVIDE WITH RECTORSEAL TRAP SEAL IN OUTLET OF FLOOR DRAIN. MATCH OUTLET SIZE.   | -                       | -    | 2"     | 1-1/2" |

**WATER HEATER SCHEDULE (ELECTRIC)**

| MARK NO.   | MANUFACTURER | MODEL NO.      | TANK LINING | TANK CAPACITY (GAL) | RECOVERY (GPH @ 90 F) | INPUT (KW) | THERMAL EXPANSION TANK MODEL NO. | ELECTRICAL |   |    | NOTES |
|--|--------------|----------------|-------------|---------------------|-----------------------|------------|----------------------------------|------------|---|----|-------|
|  |              |                |             |                     |                       |            |                                  | VOLT       | ø | HZ |       |
| DWH-1  | RHEEM        | PROE38 S2 RUB5 | GLASS       | 38                  | 21                    | 4.5        | PLT-5                            | 240        | 1 | 60 | 1.2   |
| NOTES:<br>1. PROVIDE WITH TEMPERATURE AND PRESSURE RELIEF VALVE AND DRAIN.<br>2. PROVIDE WITH CONTROL THERMAL EXPANSION TANK, WATTS MODEL SCHEDULED WITH WATTS SCV SERVICE CHECK VALVE.<br>3. COORDINATE |              |                |             |                     |                       |            |                                  |            |   |    |       |



**WASTE/VENT RISER DIAGRAM**  
NO SCALE



1730 Walnut Street  
Kansas City, Missouri  
64108

816.221.1411  
Fax: 816.221.1429

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Project Number: 23.7317.06

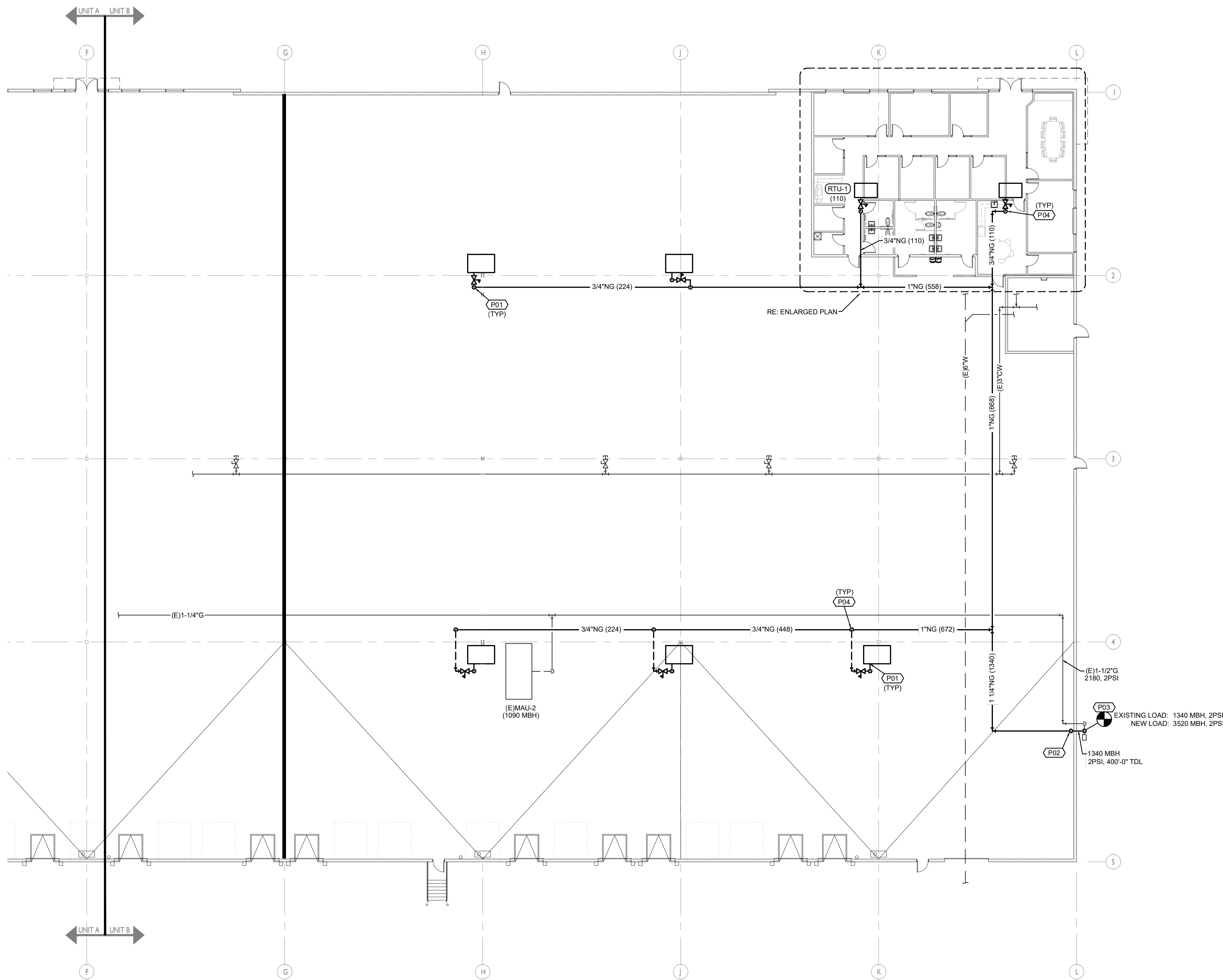
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| Phase      | CONSTRUCTION |
| Issued For | PERMIT       |
| Drawn By   | JMS          |
| P.I.C.     | JON          |

Revision  
△  
△  
△

# P101

### FLOOR PLAN NOTES

- CONNECT TO MECHANICAL UNIT WITH GAS COCK, DIRT LEG, AND UNION. PROVIDE PRESSURE REGULATOR WITHIN 10'-0" OF UNIT CONNECTION. INLET: 2PSI, OUTLET: 7"WC.
- ROUTE GAS PIPING UP TIGHT TO INTERIOR AND SUSPENDED ACROSS CEILING SPACE AS INDICATED.
- CONNECT TO EXISTING GAS PIPING AS CLOSE TO GAS METER AS POSSIBLE.
- ROUTE GAS PIPING UP THROUGH ROOF, RE: DETAIL.



OVERALL FLOOR PLAN - PLUMBING  
SCALE: 1/16" = 1'-0"



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64108

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Revision  
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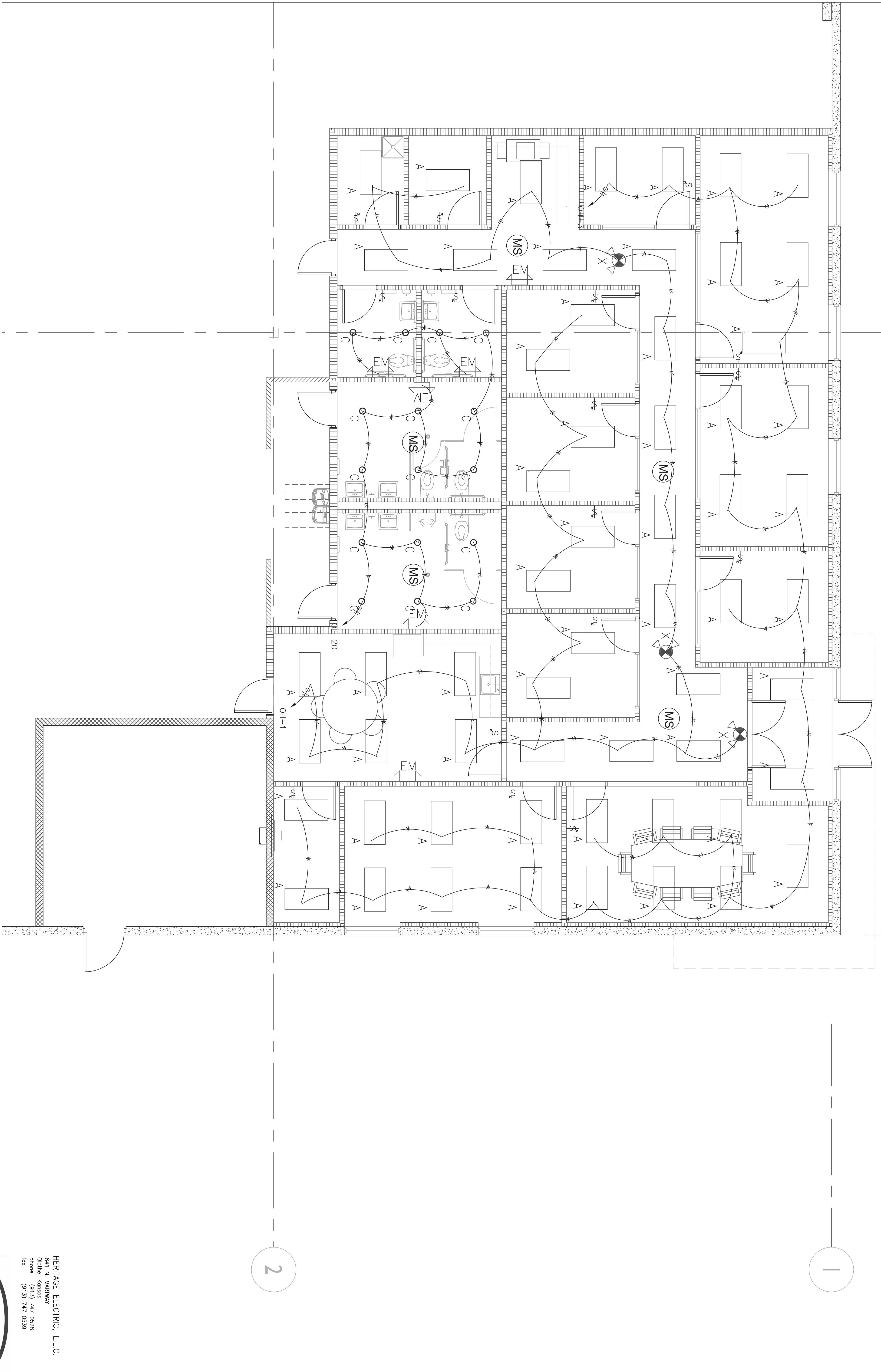
P101

## FLOOR PLAN NOTES

1. NEW ELECTRIC WATER HEATER SUSPENDED FROM STRUCTURE. ROUTE WASTE FROM T&P AND DRAIN VALVE TO JANITOR'S SINK AND INDIRECT WASTE.
2. 2" COLD WATER AND 3/4" HOT WATER DOWN AND IN WALL. ROUTE FULL SIZE AND CONNECT 1" COLD WATER TO EACH WATER CLOSET, 3/4" COLD WATER TO URINAL, 1/2" COLD WATER TO DRINKING FOUNTAIN, AND 1/2" HOT AND COLD WATER TO EACH LAVATORY.
3. 2" VENT UP TO 3" VTR.
4. 1 1/2" COLD WATER DOWN AND IN WALL. CONNECT 1" COLD WATER TO EACH WATER CLOSET, AND 1/2" COLD WATER TO EACH LAVATORY.
5. 3/4" HOT WATER DOWN IN WALL. CONNECT 1/2" HOT WATER TO EACH LAVATORY.
6. CONNECT TO NEAREST EXISTING COLD WATER PIPING OF EQUAL OR GREATER SIZE. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING PIPING PRIOR TO CONNECTION.
7. CONNECT TO NEAREST EXISTING SANITARY PIPING OF EQUAL OR GREATER SIZE BELOW SLAB. FIELD VERIFY EXACT SIZE, LOCATION, AND ELEVATION OF EXISTING PIPING PRIOR TO CONNECTION.

PARTIAL FLOOR PLAN - PLUMBING  
SCALE: 1/4" = 1'-0"



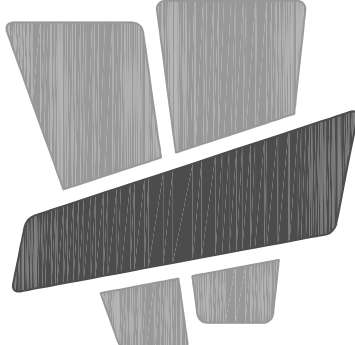


1 1/4" = 1' OFFICE LIGHTING PLAN

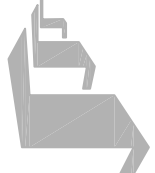
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PROJECT INFORMATION

LEES SUMMIT LOGISTICS  
BUILDING B LOT 2

X CORNER OF  
NE TUDOR RD & MAIN ST  
LEES SUMMIT, MO 64086



8/22/23

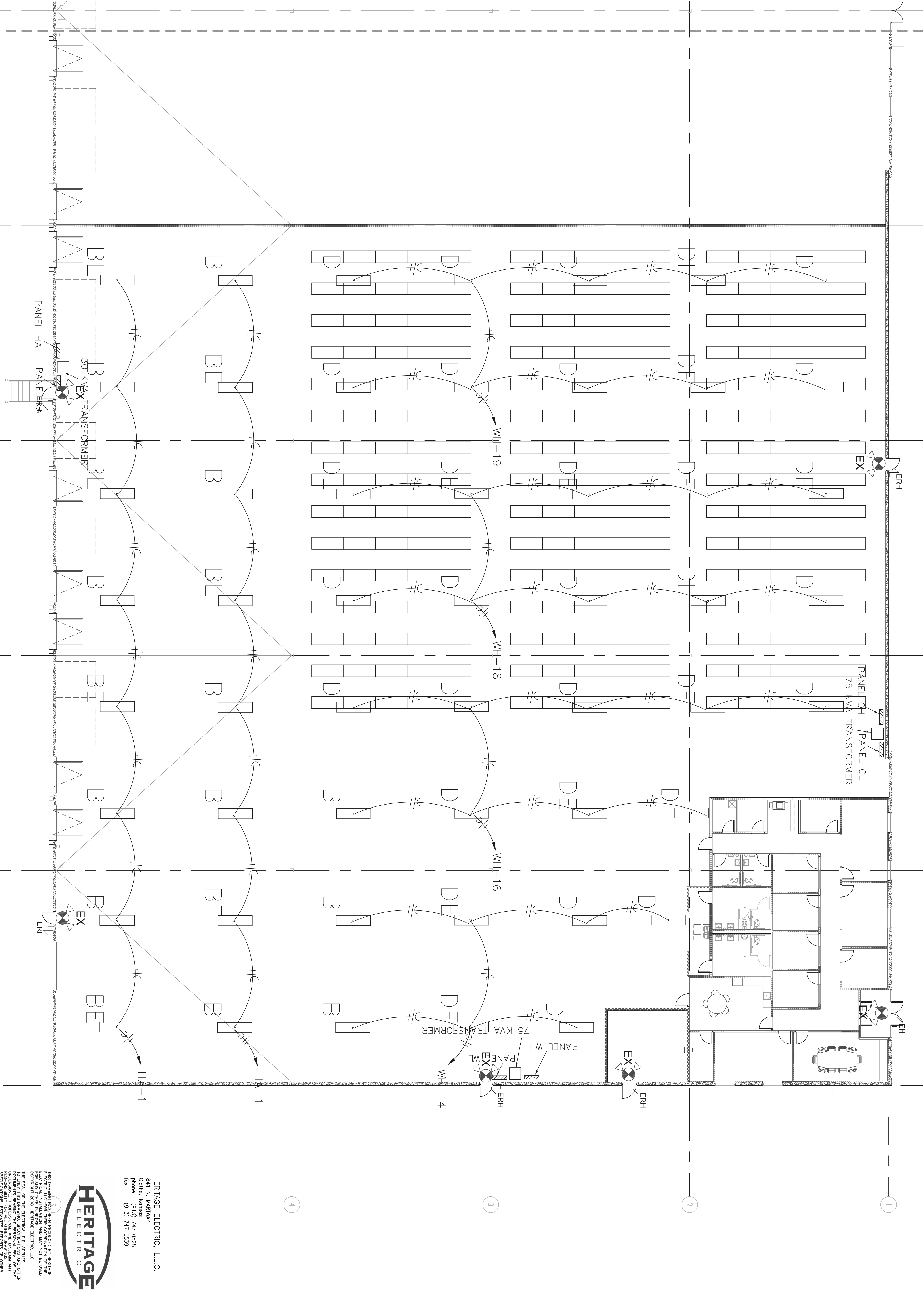
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PERMIT SET 08/22/23  
CITY COMMENTS 09/18/23

220018

LIGHTING PLAN

E1.00



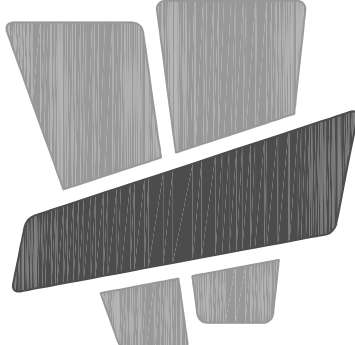


1 WAREHOUSE LIGHTING PLAN  
3/32" = 1'

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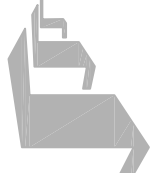


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LEES SUMMIT LOGISTICS  
BUILDING B LOT 2

X CORNER OF  
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LEES SUMMIT, MO 64086

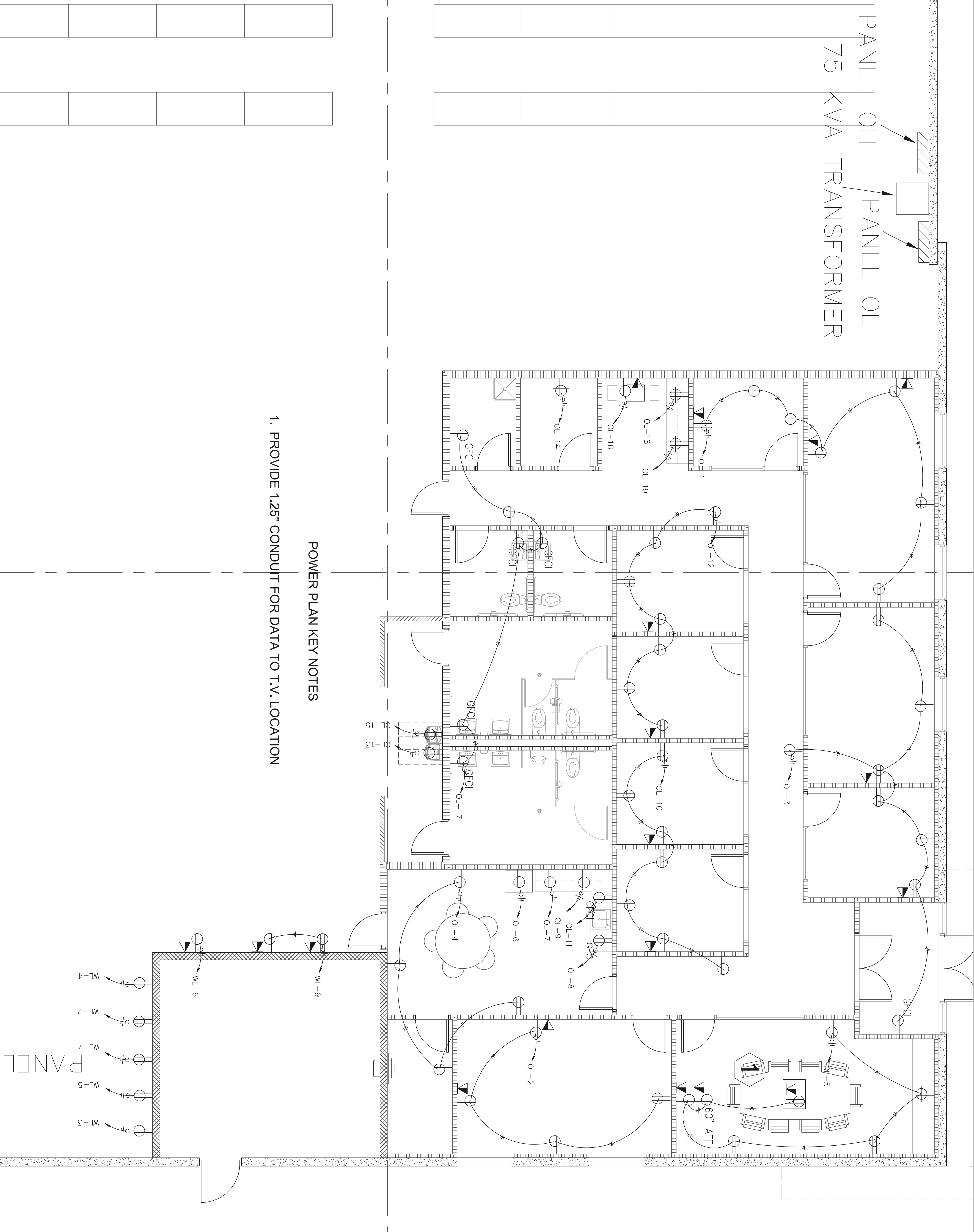


| ISSUE DATES            |          |
|------------------------|----------|
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| CITY COMMENTS 09.18.23 |          |
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220018  
WAREHOUSE LIGHTING  
PLAN

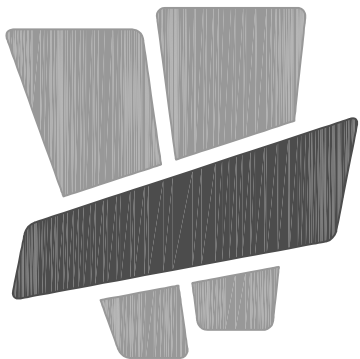
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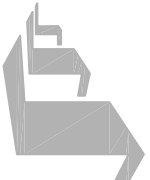
1 OFFICE POWER PLAN

1/4" = 1'



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**PROJECT INFORMATION**

LEES SUMMIT LOGISTICS  
BUILDING B LOT 2

X CORNER OF  
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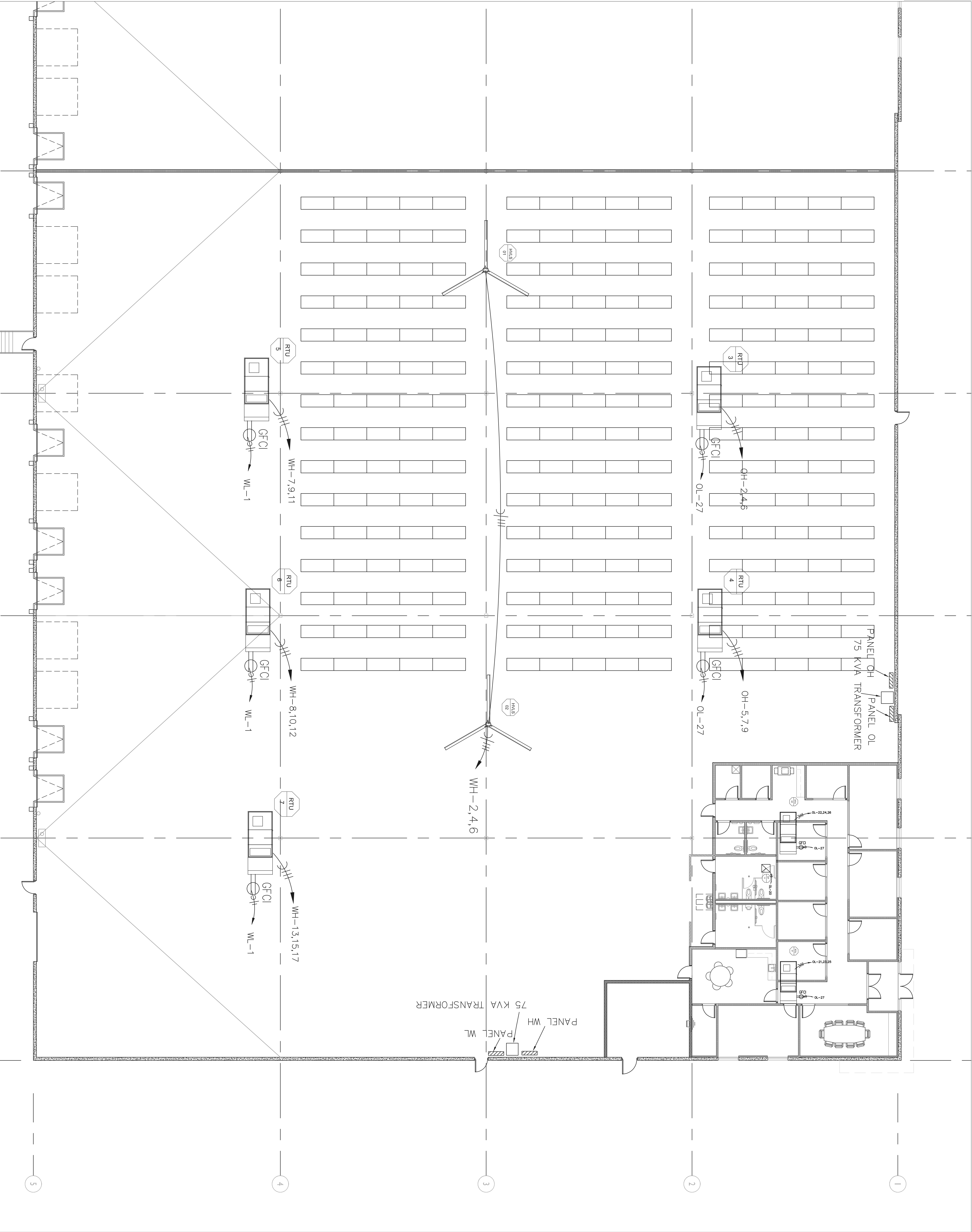
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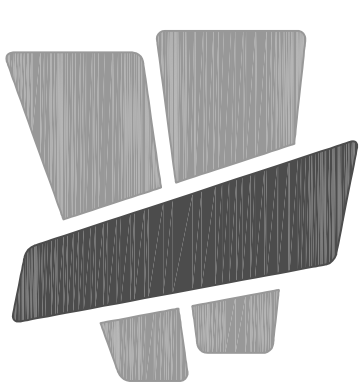
220018  
OFFICE POWER PLAN

E2.00

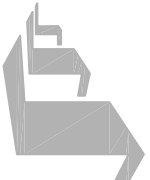




**1** HVAC POWER PLAN  
3/32" = 1'



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**PROJECT INFORMATION**  
**LEES SUMMIT LOGISTICS**  
**BUILDING B LOT 2**

X CORNER OF  
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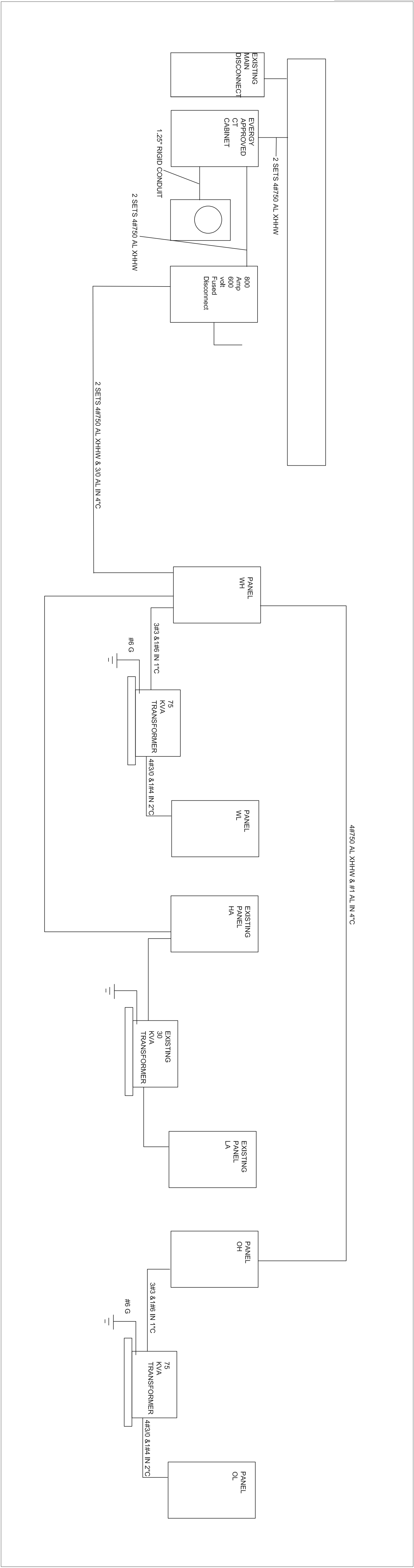
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| CITY COMMENTS 09.18.23 |          |

220018  
HVAC POWER PLAN

**E3.00**





**1** RISER DIAGRAM  
N.T.S

| LIGHT FIXTURE SCHEDULE |              |   |       |          |       |  |
|------------------------|--------------|---|-------|----------|-------|--|
| TYPE                   | MANUFACTURER | CATALOG NO.                             | LAMPS | MOUNTING | VOLTS | REMARKS                                |
| A                      | HE WILLIAMS  | BP-24-L/S/8CS-DIM-UNV                   | LED   | CEILING  | UNV   | DR EQUAL                               |
| C                      | HE WILLIAMS  | 6DR-TLL60-840-DIM-UNV<br>DW-DIF-CS-N-F1 | LED   | CEILING  | UNV   | DR EQUAL                               |
| B                      | GE Lighting  | ABCIX304790Q                            | LED   | CEILING  | 277   | EXISTING FIXTURE<br>RELOCATE           |
| BE                     | GE Lighting  | ABCIX304790Q                            | LED   | CEILING  | 277   | EXISTING FIXTURE<br>RELOCATE           |
| D                      | HE WILLIAMS  | GH-2-L300-840-F-A-DIM-UN<br>V           | LED   | CEILING  | 277   | PROVIDE WITH INTEGRAL<br>MOTION SENSOR |
| DE                     | HE WILLIAMS  | GH-2-L300-840-F-A-DIM-UN<br>V           | LED   | CEILING  | 277   | SAME AS TYPE D ONLY<br>WITH EM BALLAST |
| EM                     | CDMPASS      | CUS2Q                                   | LED   | WALL     | UNV   | DR EQUAL                               |
| X1                     | Compass      | CCR                                     | LED   | WALL     | UNV   | DR EQUAL                               |
| EX                     | CDMPASS      | CCR                                     | LED   | WALL     | UNV   | EXISTING                               |
| ERH                    | CDMPASS      | CUWZ-PC                                 | LED   | WALL     | UNV   | EXISTING                               |

| BRANCH CIRCUIT COPPER CONDUCTOR AND CONDUIT SIZING |                            |                             |                                |                                |                               |
|--|----------------------------|-----------------------------|--------------------------------|--------------------------------|-------------------------------|
| DIVERGENT<br>PROTECTION<br>DEVICE RATING<br>(AMPS) | REQUIRED<br>CONDUCTOR SIZE | EQUIPMENT<br>CONDUCTOR SIZE | SINGLE PHASE 2<br>CONDUIT SIZE | SINGLE PHASE 3<br>CONDUIT SIZE | THREE PHASE 4<br>CONDUIT SIZE |
| 15   | 12 AWG                     | 12 AWG                      | 3/4"                           | 3/4"                           | 3/4"                          |
| 20   | 12 AWG                     | 12 AWG                      | 3/4"                           | 3/4"                           | 3/4"                          |
| 25   | 10 AWG                     | 10 AWG                      | 3/4"                           | 3/4"                           | 3/4"                          |
| 30   | 10 AWG                     | 10 AWG                      | 3/4"                           | 3/4"                           | 3/4"                          |
| 35   | 8 AWG                      | 10 AWG                      | 3/4"                           | 3/4"                           | 3/4"                          |
| 40   | 8 AWG                      | 10 AWG                      | 3/4"                           | 3/4"                           | 3/4"                          |
| 45   | 8 AWG                      | 10 AWG                      | 3/4"                           | 3/4"                           | 3/4"                          |
| 50   | 8 AWG                      | 10 AWG                      | 3/4"                           | 3/4"                           | 3/4"                          |
| 60   | 6 AWG                      | 10 AWG                      | 1"                             | 1"                             | 1-1/4"                        |
| 70   | 4 AWG                      | 8 AWG                       | 1"                             | 1-1/4"                         | 1-1/4"                        |
| 80   | 4 AWG                      | 8 AWG                       | 1"                             | 1-1/4"                         | 1-1/4"                        |
| 90   | 3 AWG                      | 8 AWG                       | 1"                             | 1-1/2"                         | 1-1/2"                        |
| 100  | 3 AWG                      | 8 AWG                       | 1-1/4"                         | 1-1/2"                         | 1-1/2"                        |

NOTES:

1. UNLESS OTHERWISE NOTED ON THE DRAWINGS
2. UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL BRANCH CIRCUITS AND FEEDERS TO BE PROVIDED WITH A NEUTRAL WIRE.
3. ALL SIZING BASED ON 3 CURRENT CARRYING CONDUCTORS IN A RACEWAY OR CABLE CONDUCTORS SHALL BE DERATED IN ACCORDANCE WITH THE NEC IF 4 OR MORE CONDUCTORS ARE PLACED IN A RACEWAY OR CABLE

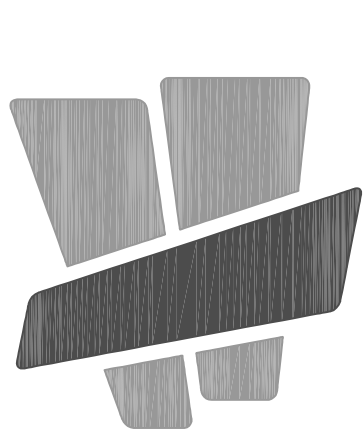
ELECTRICAL GENERAL NOTES

1. WORK INCLUDED, FURNISH ALL LABOR, MATERIAL, SERVICES AND SKILLED SUPERVISION NECESSARY FOR THE CONSTRUCTION, ERECTION, INSTALLATION, CONNECTIONS, TESTING AND ADJUSTMENTS OF ALL CIRCUITS AND ELECTRICAL EQUIPMENT SPECIFIED HEREIN, OR NOTED ON THE DRAWINGS, AND ITS DELIVERY TO THE OWNER COMPLETE IN ALL RESPECTS READY FOR USE.
2. CONTRACT DRAWINGS, THE CONTRACT DRAWINGS ARE SHOWN IN PART DIAGRAMATIC, INTENDED TO CONVEY THE SCOPE OF WORK, INDICATING THE GENERAL ARRANGEMENT OF EQUIPMENT, CONDUIT AND OUTLETS, VERIFY SPACES FOR THE INSTALLATION OF THE MATERIALS BASED ON ACTUAL DIMENSIONS OF EQUIPMENT FURNISHED. IF A QUESTION EXISTS AS TO THE EXACT INTENDED LOCATION OF OUTLETS OR EQUIPMENT, OBTAIN INSTRUCTIONS FROM THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH WORK.
3. MINIMUM SIZE OF CONDUIT SHALL BE 1/2" UNLESS NOTED OTHERWISE.
4. ALL WIRING FOR LIGHTING, RECEPTACLE AND POWER CIRCUITS WHERE NOT SHOWN ON DRAWINGS SHALL BE WITH #12 CONDUCTORS, NUMBER AS REQUIRED IN CONDUIT SIZED PER N.E.C. PROVIDE EQUIPMENT GROUNDING CONDUCTOR FOR ALL BRANCH CIRCUITS AND FEEDERS, HOMERUNS TO PANEL SHALL BE IN INDIVIDUAL CONDUITS, UNLESS NOTED OTHERWISE, WITH CIRCUITS AS SHOWN.
5. THE USE OF TYPE MC/ AND TYPE MC CABLE IS PERMITTED IN ALL AREAS PER NEC AND LOCAL CODE REQUIREMENTS.
6. THE USE OF ALUMINUM CONDUCTORS WITH AMPACITY EQUIVALENT TO COPPER IS PERMITTED IN ALL AREAS PER NEC REQUIREMENTS.
7. ALL JUNCTION BOXES, PULL BOXES, AND PANELBOARDS SHALL BE RIGIDLY ATTACHED TO STRUCTURE.
8. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACE AVAILABLE, AND WITHOUT INTERFERENCES.
9. ALL CONDUIT, BOXES, ETC. SHALL BE CONCEALED OR MOUNTED FLUSH WITH CEILING OR WALL CONSTRUCTION, CONDUITS SHALL BE MOUNTED AS HIGH AS POSSIBLE, NO SURFACE MOUNTED CONDUIT, BOXES, ETC. WILL BE PERMITTED WITHOUT PERMISSION OF THE ENGINEER PRIOR TO INSTALLATION. ALL CONDUIT PENETRATIONS SHALL BE FIRE-CAULKED AS REQUIRED.

Scope:  
Provide electrical for new TI in existing warehouse  
All Electrical work shall be as per NEC 2017.  
All work shall be done by qualified electricians.  
All branch wiring shall be copper.  
Devices shall be 20a commercial grade and color shall be by architect.

SPECIFICATIONS

1. CONDUIT ABOVE GRADE SHALL BE EMT UNLESS OTHERWISE NOTED
2. CONDUIT BELOW GRADE SHALL BE RIGID PVC UNLESS OTHERWISE NOTED
3. CONNECTIONS SHALL BE MADE USING SET SCREW CONNECTORS
4. MC CABLE IS ACCEPTABLE FOR FINAL CONNECTIONS TO LIGHT FIXTURES PROVIDE WITH 10' WHP ON ALL HIGHBAYS
5. BRANCH WIRING SHALL BE #12 THHN COPPER UNLESS OTHERWISE NOTED
6. WIRING SHALL BE AS PER CURRENT NATIONAL ELECTRICAL CODE
7. WIRING SHALL BE #12 THHN COPPER UNLESS OTHERWISE NOTED
8. INSTALLATION SHALL ADHERE TO ADA STANDARDS
9. ALUMINUM XHHW-#2 CABLE MAY BE USED FOR FEEDERS LARGER THEN #2 OTHERWISE COPPER
10. REFER TO KPM&L STANDARDS MANUAL FOR 480 SERVICES
11. ALL LIGHTING/EQUIPMENT IN WAREHOUSE SHALL BE MOUNTED TO PROVIDE A MIN OF 36" CLEAR HEIGHT



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PROJECT INFORMATION

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BUILDING B LOT 2

X CORNER OF  
NE TUDOR RD & MAIN ST  
LEES SUMMIT, MO 64086



8/22/23

| ISSUE DATES            |          |
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| PERMIT SET             | 08/29/23 |
| CITY COMMENTS 09.18.23 |          |

HERITAGE ELECTRIC, LLC.  
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Olathe, Kansas 66061  
phone (913) 747 0528  
fax (913) 747 0538



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220018  
RISER DIAGRAM

E4.00

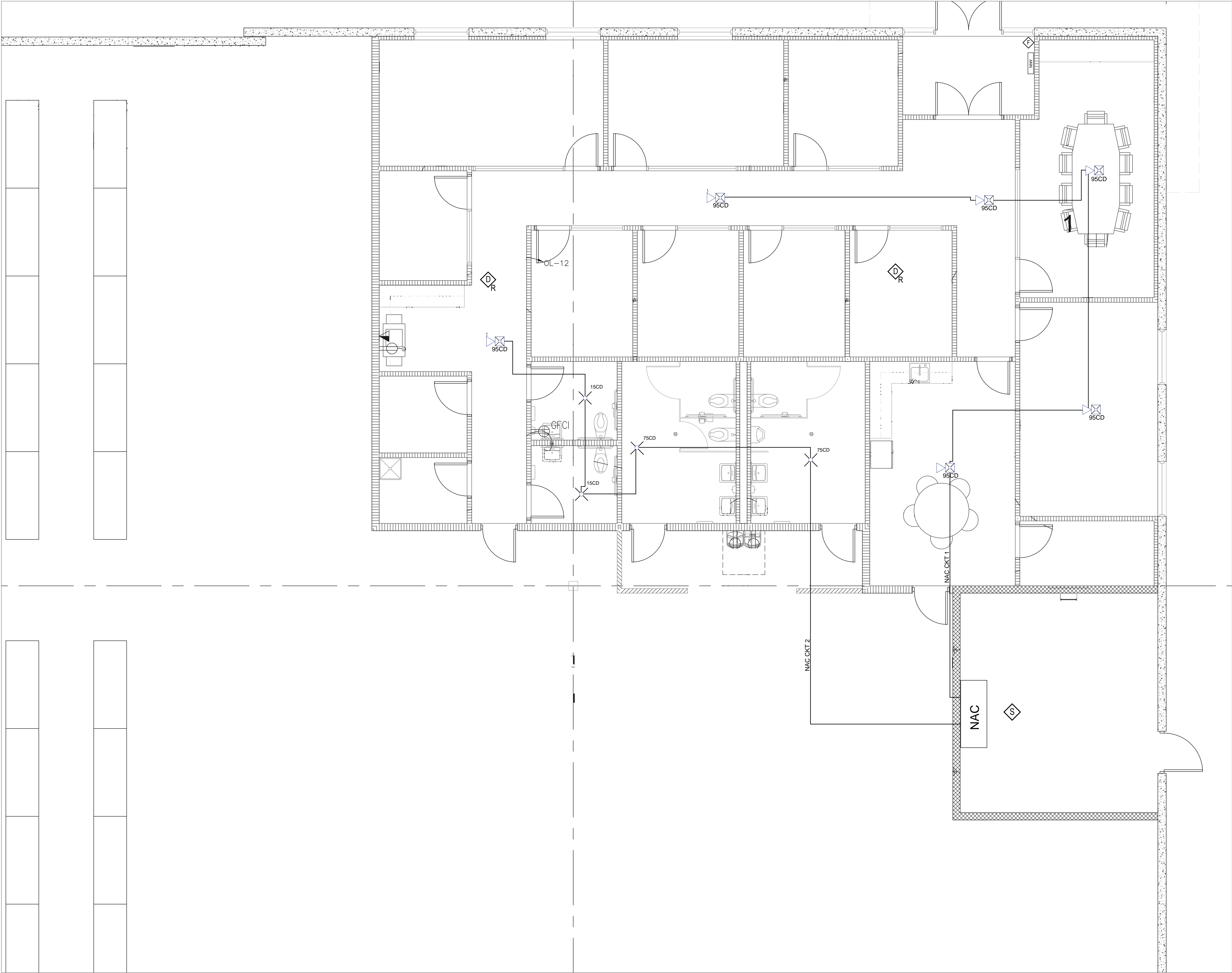












EST. 2007  
ANOTHER PROBLEM SOLVED  
UL LISTED  
P:816-918-9917  
E:tanastasio@apsinstallations.com  
Spring Hill, Ks

RELEASED FOR  
CONSTRUCTION  
As Noted on Plans Review  
Development Services Department  
Lee's Summit, Missouri  
09/26/2023

CURRAN  
ARCHITECTURE

5719 LAWTON LOOP E. DR. #212  
INDIANAPOLIS, IN 46216  
O :: 317 . 288 . 0681  
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PROJECT INFORMATION

LEE'S SUMMIT LOGISTICS  
BUILDING B LOT 2

X CORNER OF  
NE TUDOR RD & MAIN ST  
LEE'S SUMMIT, MO 64086

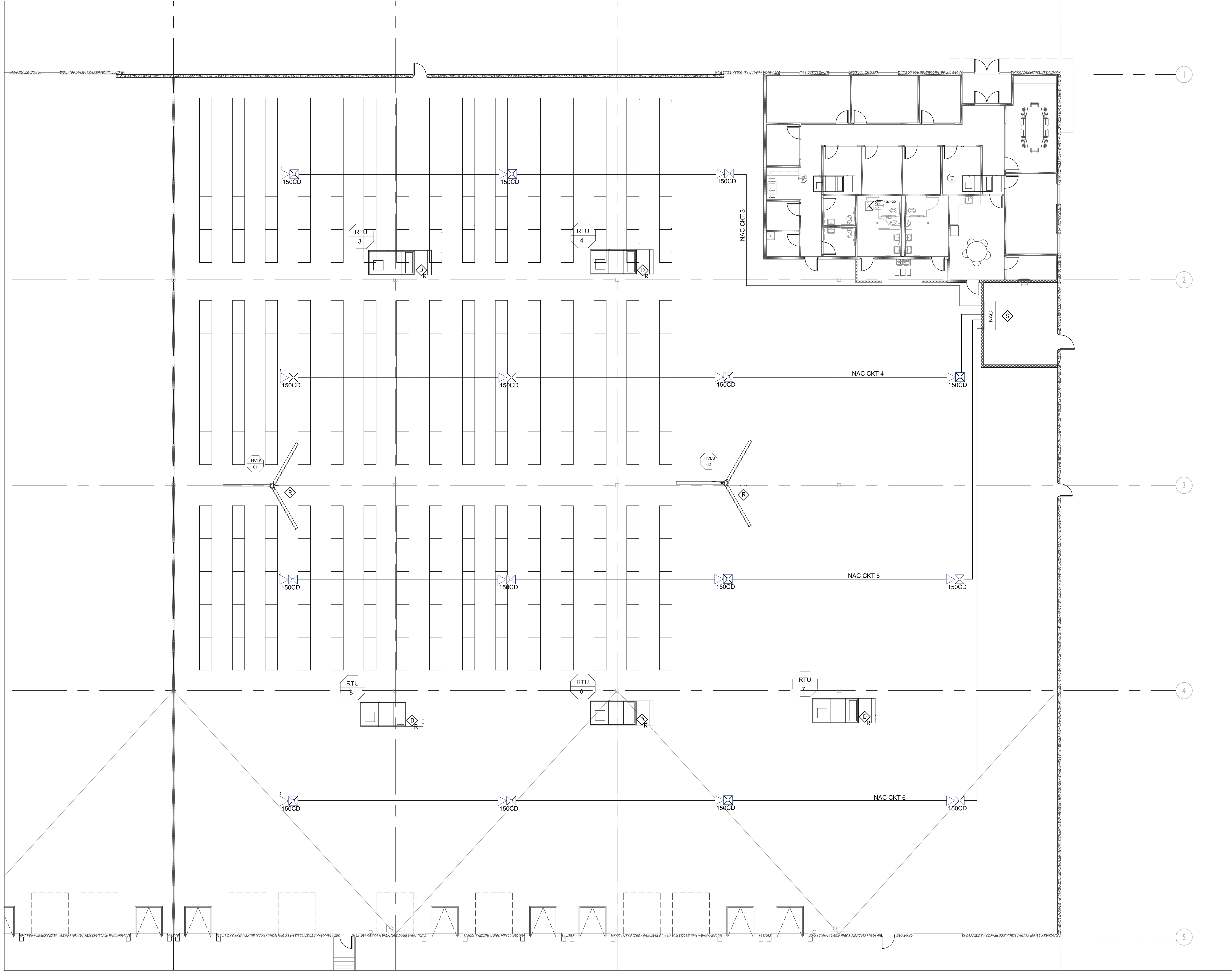
STATE OF MISSOURI  
JOHN WILLIAMS  
ARCHITECT  
NUMBER  
6-14378  
PROFESSIONAL ENGINEER  
9/18/23

ISSUE DATES

PERMIT SET 08.29.23

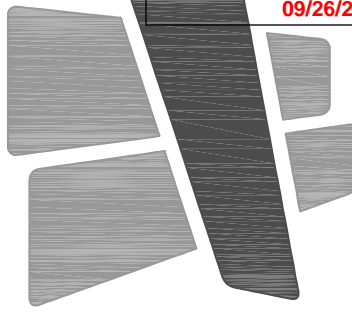
220018  
OFFICE FIRE ALARM LAYOUT





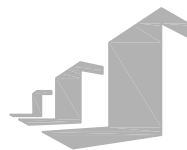
P:816-918-9917  
E:tanastasio@apsinstallations.com  
Spring Hill, Ks

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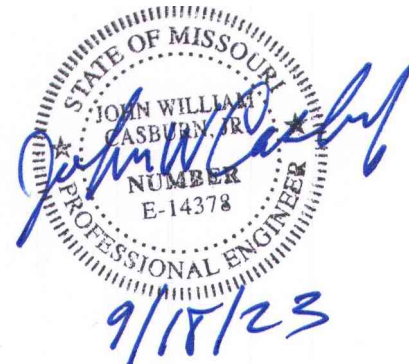
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LEE'S SUMMIT, MO 64086



ISSUE DATES

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220018  
WAREHOUSE FIRE ALARM LAYOUT



1 WAREHOUSE FIRE ALARM LAYOUT  
3/32" = 1'

FA.02