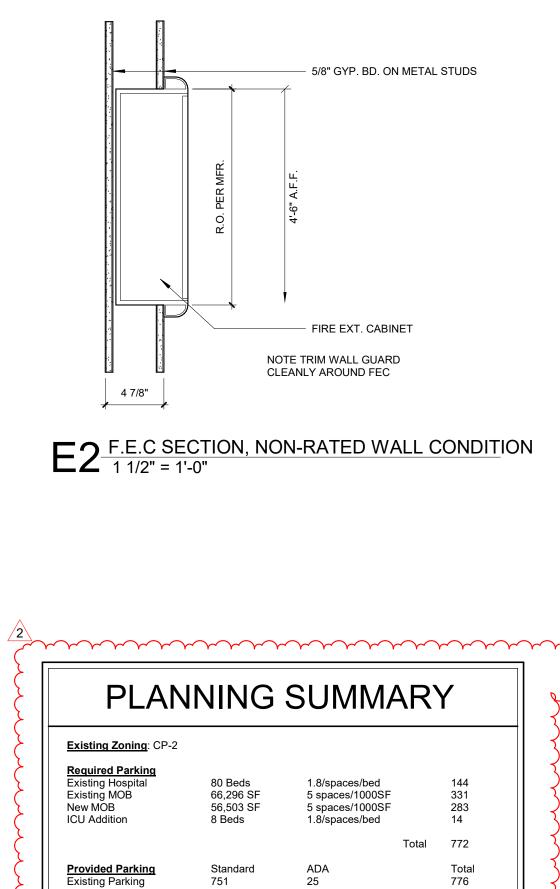
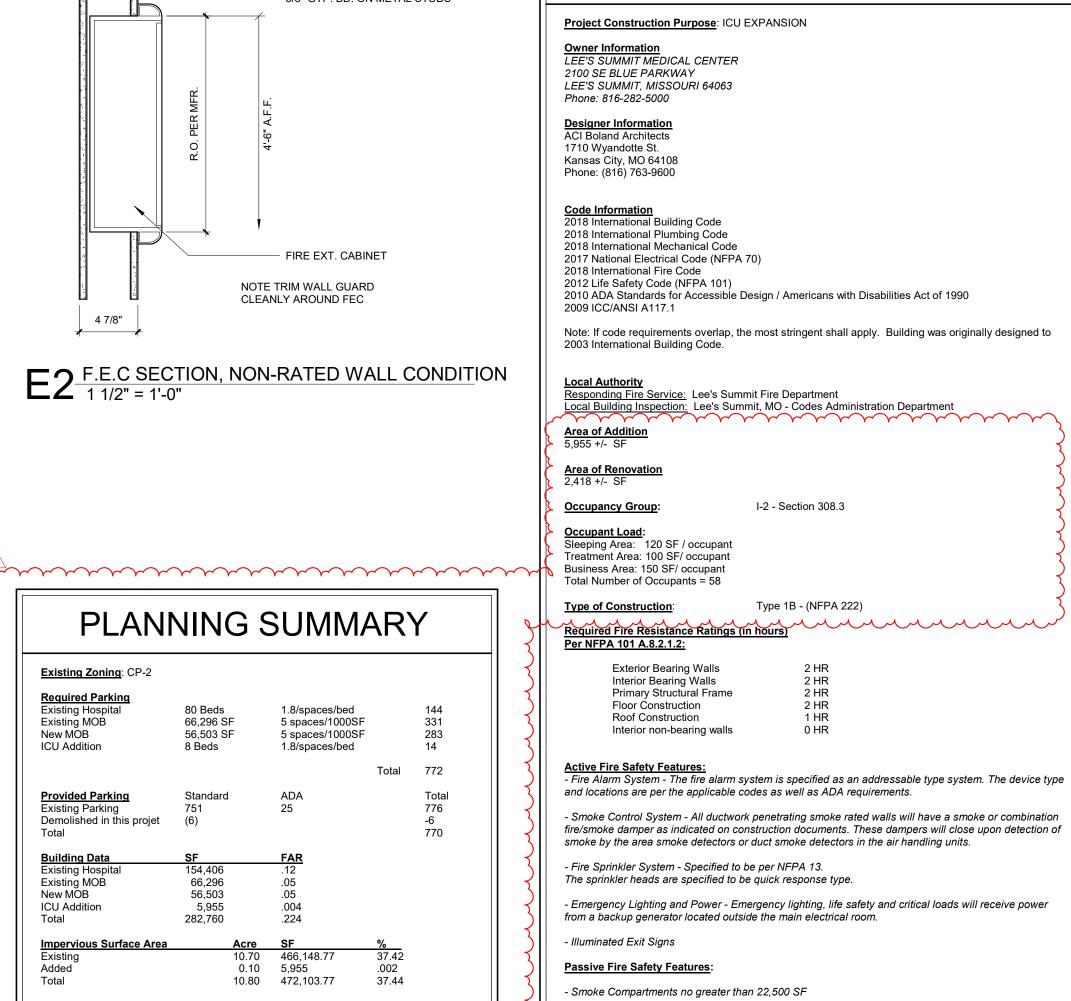
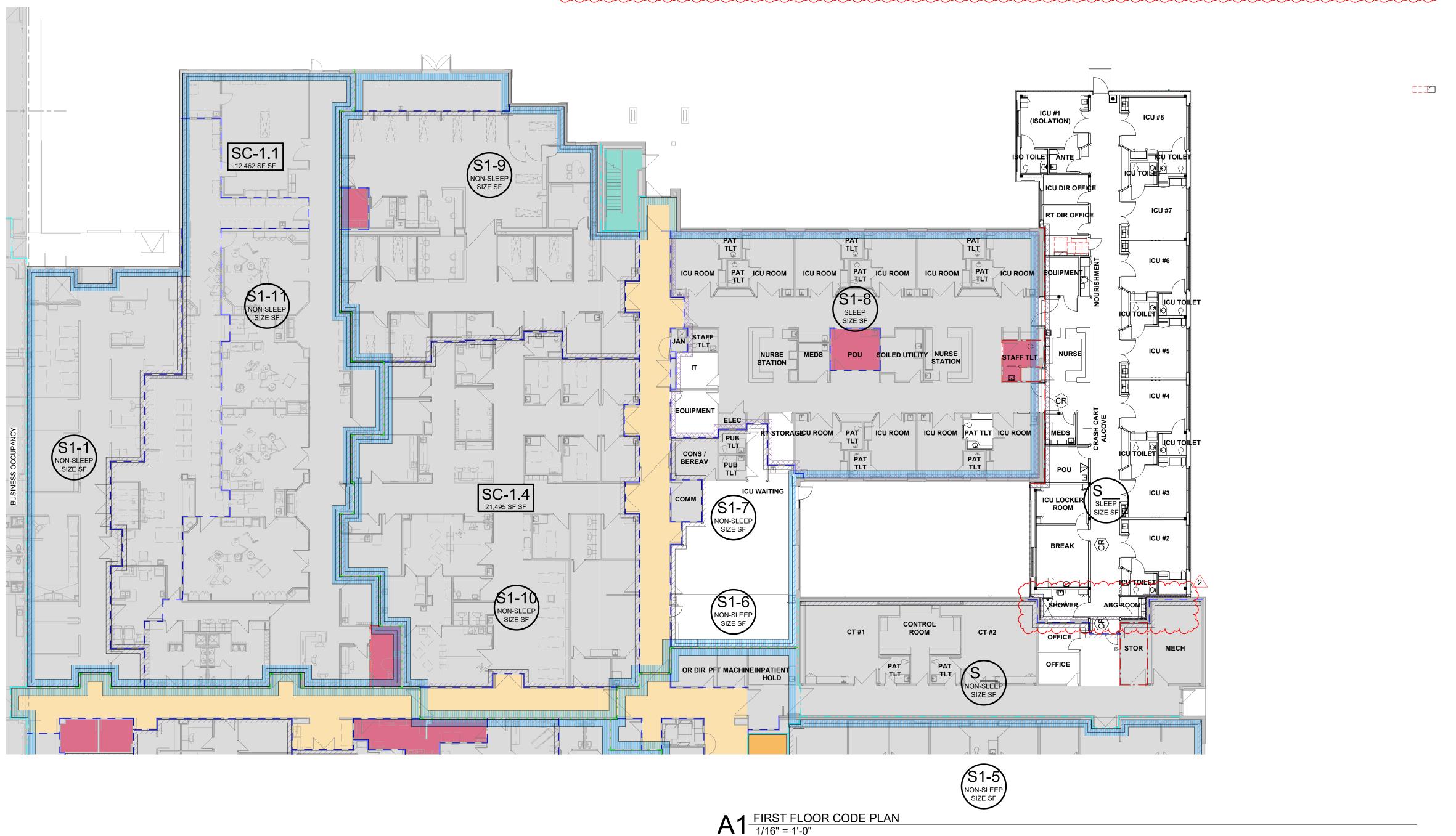


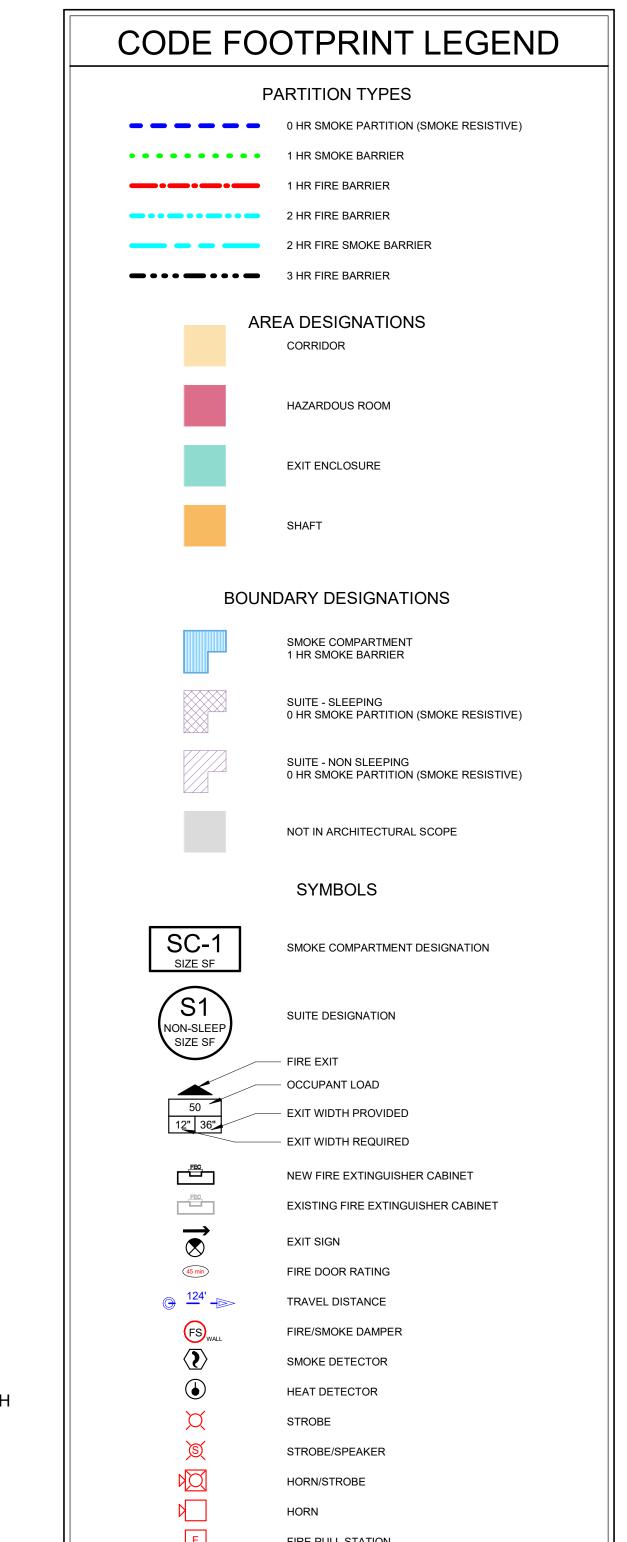
olimins







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



CODE SUMMARY



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

BOLAND ARCHITECTS

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MEDIC/

01/14/2022 3-21112 Job Number Drawn By Checked By Checker

2/11/22 CITY COMMENTS 2/21/22 PERMIT COMMENTS

A0.2

CODE FOOTPRINT PLAN

NORTH

FIRE PULL STATION

FIRE SPRINKLER ZONE VALVE

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### Design No. U469 **BXUV.U469**

Fire Resistance Ratings - ANSI/UL 26 "Reprinted from the Online Certifications Directory with permission from UL"

### 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 Authorities Having Jurisdiction should be consulted before construction. · Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.

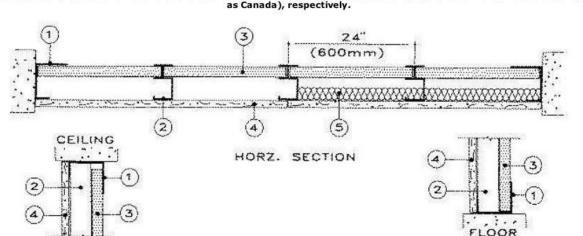
When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate Only products which bear UL's Mark are considered Certified.

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

#### Design No. U469 September 03, 2015

Assembly Rating — 1 HR Nonbearing Wall

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such



1. Floor and Ceiling Runners — "J" - shaped, 2-1/2 in. wide with unequal legs of 1 in. and 2 in., fabricated from 24 MSG galv steel (min 20 MSG steel required when Item 4A is used). Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. 2. Steel Studs — "C-H" shaped studs, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from min 25 MSG galv steel (min 20 MSG steel required when Item 4A is used), spaced 24 in. or 600 mm OC. Vertically restrained walls require studs to be cut 3/8 in. less than floor to ceiling height. 3. Gypsum Board\* — 1 in. thick gypsum wallboard liner panels, supplied in nominal 24 in. or 600 mm widths. Vertical edges inserted in "H" shaped section of "C-H" studs. Free edge of end panels attached to long leg of "J" runners with 1-5/8 in. long Type S head steel screws spaced not greater than 12 in. OC.

BXUV.U469 - Fire Resistance Ratings - ANSI/UL 263 CGC INC — Type SLX.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFCSL

GEORGIA-PACIFIC GYPSUM L L C — Types TP-6, DGUSL, and TRSL

UNITED STATES GYPSUM CO — Type SLX

USG BORAL ZAWAWI DRYWALL L L C SFZ - Type SLX

USG MEXICO S A DE C V − Type SLX.

4. Gypsum Board\* - 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards. ACADIA DRYWALL SUPPLIES LTD - 5/8 Type X, Type Blueglass Exterior Sheathing

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

CERTAINTEED GYPSUM INC - Type C.

CGC INC - Types C, IP-X1, IP-X2, IPC-AR, SCX, ULX, or WRC.

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

**GEORGIA-PACIFIC GYPSUM L L C** — Types 5, DAPC, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type TG-C, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, eathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W, Type DGG, Type DAP, Type DS.

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

THAI GYPSUM PRODUCTS PCL — Type C.

UNITED STATES GYPSUM CO — Types C, FRX-G, IP-X1, IP-X2, IPC-AR, SCX, ULX or WRC.

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

USG MEXICO S A DE C V — Types C, IP-X1, IP-X2, IPC-AR, SCX, ULX, or WRC.

4A. Gypsum Board\* — Not Shown - As an Alternate to Item 4. 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 spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips (Item 6) required behind vertical joints RAY-BAR ENGINEERING CORP — Type RB-LBG

4B. Gypsum Board\* - Not Shown - As an Alternate to Item 4. 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 spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints. To be used with Lead Batten BXUV.U469 - Fire Resistance Ratings - ANSI/UL 263 Strips (see Item 6B) or Lead Discs (see Item 6C). MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

> 4C. Gypsum Board\* - (Not Shown - As an Alternate to Item 4.). Nom 5/8 in, thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over study and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4D. Gypsum Board\* — For use with Item 5D, Batts and Blankets\*and minimum stud depth increased to 4 in. - 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to study with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards. **UNITED STATES GYPSUM CO** — Type ULIX

5. Batts and Blankets\* — (Optional) — Mineral wool batts partially or completely filling stud cavity. ROXUL INC — Type AFB

THERMAFIBER INC — Type SAFB

5A. Fiber, Sprayed\* - As an alternate to Batts and Blankets (Item 5) - (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/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product.  ${f U}$   ${f S}$   ${f GREENFIBER}$   ${f L}$   ${f L}$   ${f C}$  - INS735 & INS745 for use with wet or dry application. INS765LD and INS770LD are to be

5B. Fiber, Sprayed\* — As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic NU-WOOL CO INC — Cellulose Insulation

5C. Fiber, Sprayed\* - As an alternate to Batts and Blankets (Item 5) - 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

5D. Batts and Blankets\* — For use with Item 4D. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies. 6. Lead Batten Strips — For Use with Item 4A - (Not Shown) — Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". 6A. Lead Discs or Tabs — (Not Shown) - Used in lieu of or in addition to the lead batten strips (Item 6) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5) underneath

specification QQ-L-201f, Grade "C". 6B. Lead Batten Strips - (Not Shown, for use with Item 4B) 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.

screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal

long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting

BXUV.U469 - Fire Resistance Ratings - ANSI/UL 263

the Federal specification QQ-L-201f, Grades "B, C or D".

6C. Lead Discs - (Not Shown, for use with Item 4B) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-

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

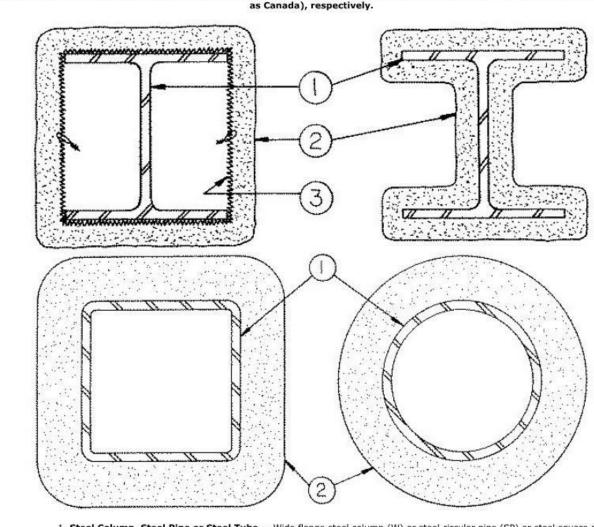
Last Updated on 2015-09-03

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### Design No. X790

November 17, 2014

Ratings - 1, 1-1/2, 2, 3 and 4 Hr. \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such



1. Steel Column, Steel Pipe or Steel Tube — Wide flange steel column (W) or steel circular pipe (SP) or steel square or rectangular tube (ST), min sizes as shown in the tables below 2. Spray-Applied Fire Resistive Materials\* — Applied by mixing with water and spraying in one or more coats to the thicknesses shown below, to steel surfaces which are clean and free of dirt, loose scale, and oil. Min average and min individual density of 15 and 14 pcf, for Types 300, 300AC, 300ES, 300HS, 300N, 3000, 3000ES and SB. For Types 400AC

and 400ES min average and min individual density of 22 and 19 pcf, respectively. For method of density determination, see Design Information Section, Sprayed Material. The min thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings of contour sprayed or boxed wide flange columns are shown in the table below:

Column				Min Thkns	In.	
Size	W/D	1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6x9	0.33	15/16	1-1/4	1-9/16	2-1/8	2-11/16
W6x12	0.43	13/16	1-1/8	1-7/16	2	2-9/16
W6x16	0.57	11/16	1	1-5/16	1-7/8	2-3/8
W8x28	0.68	5/8	15/16	1-1/4	1-13/16	2-5/16
W10x49	0.83	9/16	13/16	1-1/8	1-5/8	2-1/8
W12x106	1.46	3/8	9/16	13/16	1-1/4	1-11/16

W14v730	6.68	1/4	1/4	1/4	3/9	1/2
W14x730	6.68	1/4	1/4	1/4	3/8	1/2

h = R

75 (W/D) + 15

(for column W/D range of 2.51 to 6.68)

(for column W/D range of 0.33 to 2.51)

h = Spray-Applied Fire Resistive Materials thickness in the range of 1/4 to 4-1/2 in. (rounded up to the nearest 1/16 in.) R = Fire resistance rating period in minutes (60-240 mins.)

D = Heated perimeter of the steel column in inches.

W = Weight of the steel column in lbs per foot.

The thicknesses contained in the table below are applicable when the Spray-Applied Fire Resistive Materials applied to the column's flange tips are reduced to one-half that shown in the table below (for contour application):

			Min Thkns	In.	
Column Size In.	1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6x9	1	1-3/8	1-3/4	2-7/16	3-1/8
W6x12	7/8	1-1/4	1-5/8	2-5/16	3-1/16
W6x16	3/4	1-1/8	1-7/16	2-1/16	2-11/16
W8x28	11/16	1	1-5/16	1-15/16	2-1/2
W10x49	5/8	15/16	1-3/16	1-3/4	2-3/8
W12×106	3/8	5/8	7/8	1-3/8	1-13/16
W14x233	5/16	3/8	9/16	15/16	1-5/16
W14x730	5/16	5/16	5/16	7/16	5/8

The min thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings of contour sprayed

Min Column Size In.	A/P	1 Hr	1-1/2 Hr	Min Thkns In. 2 Hr	3 Hr	4 Hr
SP 4x0.237	0.22	11/16	1	1-3/8	2-1/16	2-3/4
ST 4x4x0.1875	0.18	3/4	1-1/16	1-7/16	2-1/16	2-11/16
ST 4x4x0.3125	0.29	1/2	13/16	1-1/8	1-3/4	2-5/16
ST 4x4x0.375	0.34	7/16	3/4	1	1-9/16	2-1/8
ST 4x4x0.5	0.44	3/8	9/16	7/8	1-3/8	1-7/8
ST20x20x0.75 in	0.72	5/16	1/2	11/16	1-1/16	1-7/16
ST20x20x1 in.	0.95	1/4	3/8	1/2	13/16	1-1/8
ST20x20x1.5 in.	1.39	1/4	1/4	3/8	5/8	13/16
ST20x20x1.75 in.	1.60	1/4	1/4	3/8	1/2	3/4
ST32x32x1.25 in.	1.20	1/4	5/16	7/16	11/16	15/16
ST 36v24v0 5	0.40	5/16	7/16	11/16	1.1/0	1-0/16

ST 36x24x0.5 0.49 5/16 7/16 11/16 1-1/8 1-9/16 As an alternate to the table above, the required thickness of Spray-Applied Fire Resistive Materials to be applied to all

surfaces of the steel pipes or tubes for all rating periods may be determined from the following equation:

188 (A/P) + 45

h = Spray-Applied Fire Resistive Materials thickness in the range of 5/16 to 4-1/4 in. (rounded up to the nearest 1/16 in.) R = Fire resistance rating in minutes (60-240 mins.)

A = Cross-sectional area of pipe or tube. A/P = 0.18 to 0.49.

P = Heated perimeter of steel pipe or tube.

The A/P ratio of a circular pipe is determined by:

d = the outer diameter of the pipe (in.) t = the wall thickness of the pipe (in.)

The A/P ratio of a rectangular tube is determined by:

A/P = t (a + b-2t)a + b

Where:

a = the outer width of the tube (in.) b = the outer length of the tube (in.) t = the wall thickness of the tube (in.) BERLIN CO LTD — Types 300, 300ES, 300N or SB.

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Types 300, 300AC, or 400AC.

ISOLATEK INTERNATIONAL - Type 300, 300AC, 300ES, 300HS, 300N, 400AC, 400ES, SB, 3000 or 3000ES.

NEWKEM PRODUCTS CORP — Types 300, 300ES, 300N or SB.

2A. (As an alternate to Item 2) Spray-Applied Fire Resistive Materials\* — Applied by mixing with water and spraying in one or more coats to the thicknesses shown below, to steel surfaces which are clean and free of dirt, loose scale, and oil. Min average and min individual density of 17.5 and 16 pcf, respectively, for Type 300TW. Min average and min individual density of 22 and 19 pcf, respectively, for Type 400. For method of density determination, see Design Information Section, Sprayed Material.

The min thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings is shown in Item 2. BERLIN CO LTD - Type 400.

**GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C** — Type 400.

 ${\bf ISOLATEK\ INTERNATIONAL-Type\ 300TW\ or\ Type\ 400}.$ 

**NEWKEM PRODUCTS CORP** — Type 400.

2B. (As an alternate to Item 2 and 2A) - Spray-Applied Fire Resistive Materials\* - Prepared by mixing with water according to instructions on each bag of mixture and spray- or trowel-applied to steel surfaces which are free of dirt, oil or scale. Min average density of 17.5 pcf with min individual value of 17.0 pcf. For method of density determination, see Design Information Section, Sprayed Material.

The min thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings is shown in Item 2.

ISOLATEK INTERNATIONAL - Type 280.

3.  $Metal\ Lath\ -$  (Optional for contour application) - 3.4 lb/sq yd galv or painted expanded steel lath. Lath shall be lapped 1 in. and tied together with No. 18 SWG galv steel wire spaced vertically 6 in. OC.

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification

(such as Canada), respectively.

Restrained Beam Ratings — 1, 1-1/2, 2, 3 or 4 Hr (See Item 6) Unrestrained Beam Ratings - 1, 1-1/2, 2, 3 or 4 Hr (See Item 6)

Design No. S729

November 17, 2014

as Canada), respectively.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — So Guide <u>BXUV</u> or <u>BXUV7</u> \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such

1. Steel Supports — W6x16 min size steel beam or steel joist composite or noncomposite and welded or bolted to end supports. May be uncoated or provided with a shop coat of paint. Designed per S.J.I. specifications for a max design stress of 30,000 psi. Top chords shall consist of two angles measuring min 1-1/2 by 1-1/2 by 0.128 in. thick. Bottom chords shall consist of two angles measuring min 1 by 1 by 0.110 in. thick. Bearing plates shall consist of two angles measuring min 1-1/2 by 1-1/2 by 0.153 in. thick and shall be min 5 in. long. All web members, including the end web members shall consist of min 0.564 round bars. Bridging per S.J.I. specifications is required when noncomposite joists are

Roof Covering\* — Consisting of hot mopped, cold application or single-ply materials, compatible with insulation(s)
described herein which provide Class A, B or C coverings. See Roofing Materials and Systems Directory-Roof Covering

3. Roof Insulation\* - Consisting of building units, foamed plastic or mineral and fiber boards, applied in one or more layers. When multiple layers are used, end and side joints shall be offset a min of 12 in. in both directions in order to lap all joints. See category for names of companies providing Classified products — Building Units (BZXX), Foamed Plastic CCVW) or Mineral and Fiber Boards (CERZ). Roof insulation shall be compatible with roof covering materials Class A, B or C system. See Roofing Materials and Systems Directory-Roof Covering Materials (TEVT). 4. Adhesives — (Optional) — May be applied to steel roof deck units or between insulation layers at a max application rate of 0.4 gal per 100 sq ft. See Adhesives (BYWR) category for names of manufacturers

in. OC. Ends overlapped a min 1-1/2 in. and welded to supports, 12 in. OC max. Adjacent units button-punched, welded or fastened with No. 12 by 1/2 in. long self-drilling, self-tapping steel screws. 6. Spray-Applied Fire Resistive Materials\* - Applied by mixing with water and spraying to the beam (or joist) filled with the Spray-Applied Fire Resistive Materials. Surfaces must be clean and free of dirt, loose scale and oil. Min average and min individual density of 15 and 14 pcf, respectively, for Types 300, 300AC, 300ES, 300HS, 300N, 3000, 300ES and SB. For Types 400AC and 400ES min average and min individual density of 22 and 19 pcf, respectively. For method of density determination see Design Information Section.

5. Steel Roof Deck — (Unclassified) — Fluted, No. 22 MSG min galv 1-1/2 in. deep with 3-1/2 in. wide flutes spaced 6

Restrained & Unrestrained Beam	Min Spray Applied Fire Resistive Mtl Thkns In			
Rating Hr	Beam	Joist*		
1	7/16	1-1/16		
1-1/2	3/4	1-1/2		
2	1-1/16	1-13/16		
3	1-11/16	2-7/8		
4	2-5/16	-		

As an alternate to the thicknesses shown above for the steel beam, the thicknesses shown in the following table are applicable when the thickness applied to the beam's lower flange edges is reduced by one-half. The min thickness applied to the lower flange edges is 1/4 in.

Restrained & Unrestrained Beam Rating Hr	Min Spray Applied Fire Resistive Mtl Thkns In.
1	1/2
1-1/2	7/8
2	1-3/16
3	1-7/8
4	2-5/8

\* Spray-Applied Fire Resistive Materials directly applied to joist contours. As an alternate, metal lath or nonmetallic fabric mesh secured to one side of joist to catch overspray when spraying following joist contours. Metal lath to be fully covered with Spray-Applied Fire Resistive Materials but with no min thickness requirements. BERLIN CO LTD - Types 300, 300ES, 300N or SB.

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Types 300, 300AC, or 400AC.

ISOLATEK INTERNATIONAL — Types 300, 300AC, 300ES, 300HS, 300N, SB, 400AC, 400ES, 3000 or 3000ES.

NEWKEM PRODUCTS CORP — Types 300, 300ES, 300N or SB.

spraying to the beam (or joist) surfaces in one or more coats to the final min thicknesses shown below. Crest areas above the beam (or joist) shall be filled with the Spray-Applied Fire Resistive Materials. Surfaces must be clean and free of dirt, loose scale and oil. Min average and min individual density of 17.5 and 16 pcf, respectively, for Types 300TW. Min average and min individual density of 22 and 19 pcf, respectively, for Type 400. Min average and min individual density of 18 pcf and 17 pcf, respectively, for Type 280. For method of density determination see Design Information Section. GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Type 400.

ISOLATEK INTERNATIONAL — Types 280, 300TW, or 400.

wire, alternating from top to bottom of the joist web membe

8. Metal Lath — (Optional — Not shown) — Diamond mesh, 3/8 in. expanded steel, min 1.7 lb per sq yd fastened to one side of joists using No. 18 SWG steel tie wire, located at the midheight of every other web member or 18 in. OC, whichever is less. Both sides of lath must be completely coated with Spray-Applied Fire Resistive Materials. 9. Bridging - (Not Shown) - Min 1-1/4 by 1-1/4 by 1/8 in. thick steel angles welded to top and bottom chords of each

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

Samuel K. Beckman - Architect

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MEP CONSULTANT W. L. CASSELL & ASSOCIATES, INC. 1600 Baltimore, Suite 300

Kansas City, MO 64108

Licensee's Certificate of Authority Number: Kallen Hanson Phone Number: (816) 842-8437 Fax Number: (816) 842-6441

khanson@wlc-kc.net

6A. Spray-Applied Fire Resistive Materials\*— (As an alternate to Item 6) — Applied by mixing with water and

NEWKEM PRODUCTS CORP — Type 400.

7. Glass Fiber Mesh — (Optional) — Min 3/32 in. square mesh, coated fiberglass scrim fabric, weighing a min of 1.9 oz per sq yd, shall be attached to one side of each joist web member. The method of attachment must be sufficient to hold he mesh and Spray-Applied Fire Resistive Materials during application and curing of the material. An acceptable method of attaching the mesh is by embedding the mesh in min 1/4 in. long beads of hot melted glue. The beads of glue shall be spaced min 12 in. OC along the top chord of the bar joists. Another method of attachment is the use of 1-1/4 in. long, 1/2 in. wide hairpin clips formed from 0.064 in. diam steel

joist. Number and spacing of bridging angles per Steel Joist Institute specification. Bridging coated with the same thickness of Spray-Applied Fire Resistive Materials as the joist, see Item 6.

Job Number

Drawn By Checked By

01/14/2022

3-21112

3 2/21/22 PERMIT COMMENTS

U.L. DESIGN ASSEMBLIES



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



Kansas City | St. Louis 1710 Wyandotte Kansas City, MO 64108 T: 816.763.9600

Licensee's Certificate of Authority Number: Missouri: #000958

## **MEP CONSULTANT**

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#### STRUCTURAL CONSULTANT BOB D. CAMPBELL & CO. 4338 BELLEVIEW AVE

KANSAS CITY, MO 64111

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T: 816.531.4144 Licensee's Certificate of Authority Number:

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LEE'S SUMMIT MEDICAL ICU EXPANSION

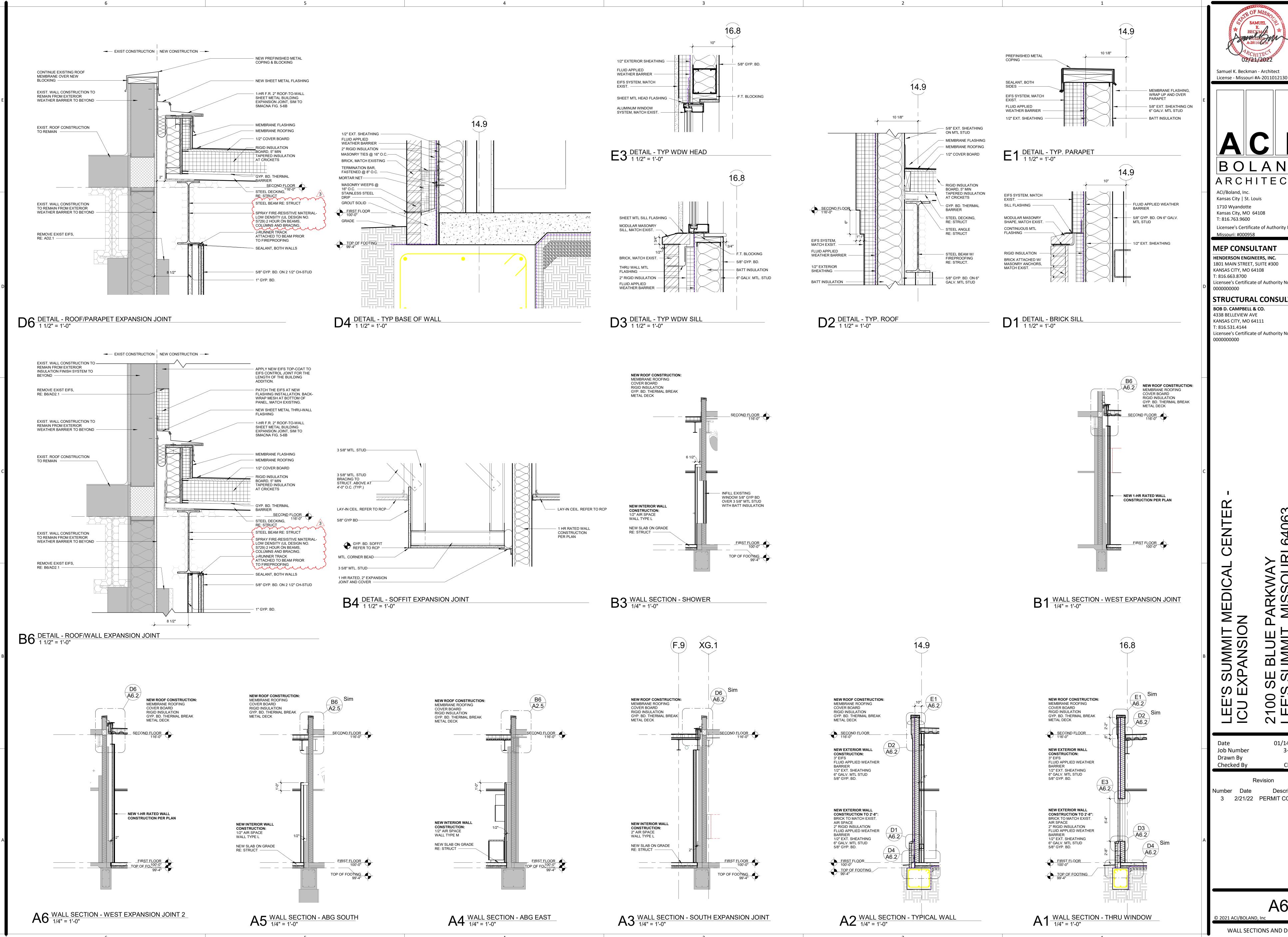
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ber Date Description
2/2/2022 ADDENDUM 1
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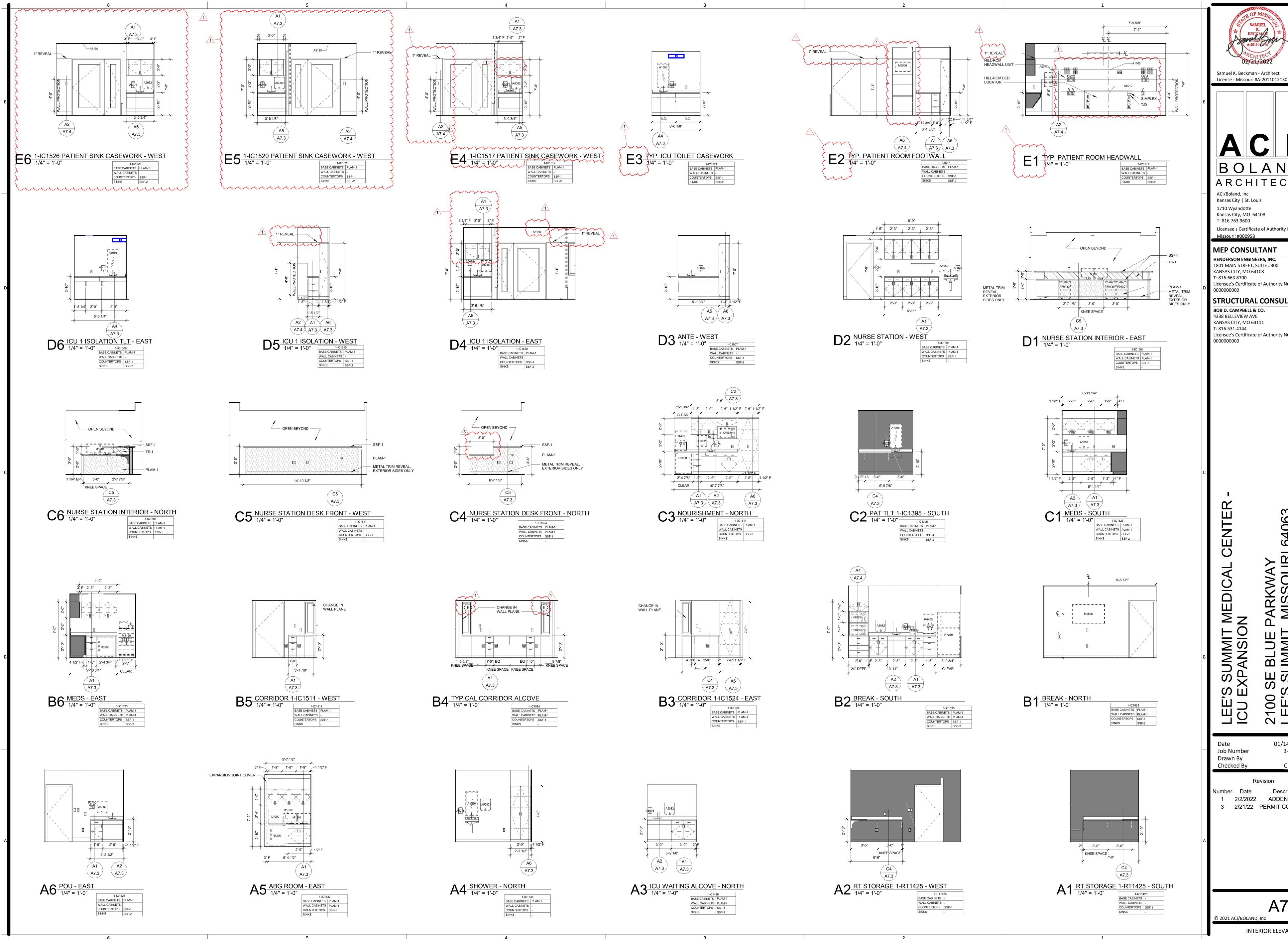
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WALL SECTIONS AND DETAILS



Samuel K. Beckman - Architect

BOLAND ARCHITECTS

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01/14/2022

1 2/2/2022 ADDENDUM 1 2/21/22 PERMIT COMMENTS

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INTERIOR ELEVATIONS

**PLUMBING PLAN NOTES:** 1 3/4"MA, 3/4"O2, 1"MV DN

2 COORDINATE MEDICAL GAS TIE-INS AND RECERTIFICATIONS 3 ALL EXISTING MEDICAL GAS PIPING THAT IS BREACHED DURING DEMOLITION PHASE OF WORK AND/OR RECONNECTED TO DURING NEW PHASE OF WORK SHALL BE RECERTIFIED BACK TO MAIN OR BRANCH VALVES AS REQUIRED BY NFPA 99. COORDINATE REQUIREMENTS WITH LOCAL INSPECTOR/CERTIFIER OF RECORD. REFER TO

SPECIFICATIONS SECTION 226100 FOR MORE INFORMATION.  THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF PRELIMINARY SUBMITTAL JACOB M. KATZENBERGER LICENSE # PE-2017038594 IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES

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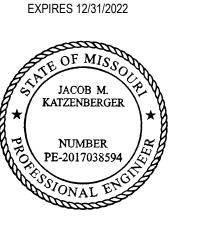


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HENDERSON ENGINEERS 8345 LENEXA DRIVE, SUITE 300 LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001 WWW.HENDERSONENGINEERS.COM 2150002100



02/21/2022

LEE'S SUMMIT MEDICAL ICU EXPANSION

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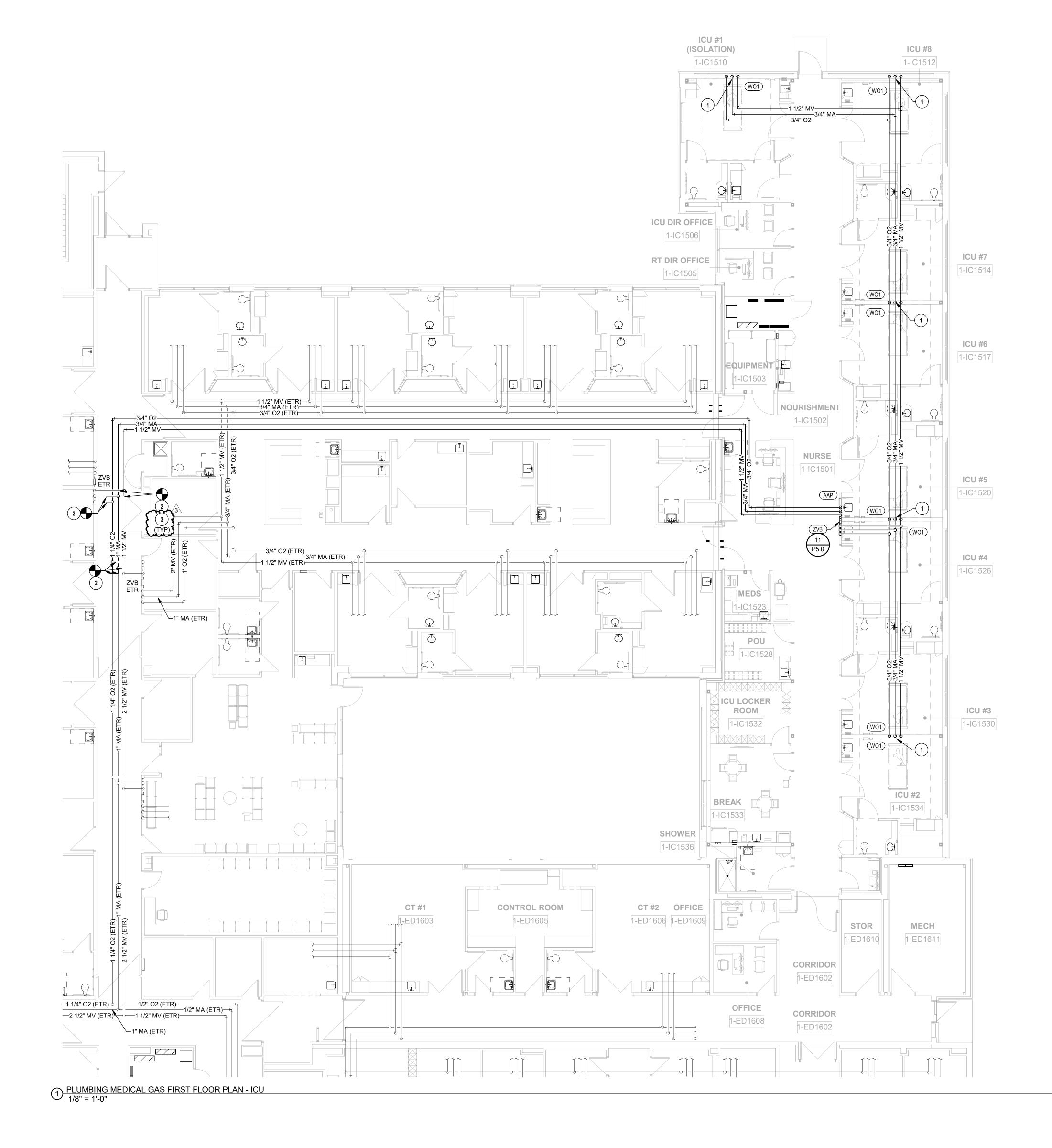
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PLUMBING MEDICAL GAS FIRST FLOOR PLAN



LOCATE VTR MINIMUM THREE FEET FROM PROPERTY LINE, TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE, TWENTY FIVE FEET FROM ANY OPENING OR FRESH AIR INTAKE IN MEDICAL FACILITIES AND ONE FOOT FROM ANY VERTICAL SURFACE. REFER TO LOCAL CODES FOR OTHER VENT TERMINATION REQUIREMENTS. LOCATE VTR MINIMUM 18" FROM ADJACENT WALL, PARAPET, EXPANSION JOINT, ROOF DRAIN, EQUIPMENT CURB, OR OTHER ROOF FEATURE. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS. INSULATE LAST SIX FEET OF VENT PIPE INSIDE BUILDING PER SPECIFICATIONS.

PROVIDE METAL 360° **INSULATION SHIELD AND HIGH** DENSITY INSULATION OR PRE ENGINEERED THERMAL SIZE AND QUANTITY HANGER-SHIELD INSERT OF OF HANGER RODS PER CALCIUM SILICATE INSULATION. MANUFACTURER'S FOR PIPES 4" AND SMALLER, RECOMMENDATIONS PRE-ENGINEERED THERMAL HANGER-SHIELD INSERT OF FLEXIBLE UNICELLULAR PROVIDE TWO-PIECE INSULATION MAY BE PROVIDED PIPE CLAMP (TYP) **CUT INSULATION TO** SUPPORT NUT FIT AROUND TRAPEZE HANGER. SEAL BOTH ENDS OF EXPOSED INSULATION WITH UNINSULATED STEEL JOINT SEALANT OR PLASTIC PIPE PROVIDE PLASTIC GALVANIC ISOLATOR FOR COPPER PIPE JNINSULATEL COPPER PIPE COLD INSULATED PIPE INSULATION PROVIDE 1-5/8"x1-5/8" 14 GA. CHANNEL SUPPORT -HOT INSULATED

PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITONS. REFER TO SPECIFICATIONS FOR MORE INFORMATION. PIPE AND CONDUIT OF ALL TRADES MAY BE COMBINED ON THE SAME SUPPORT CHANNEL. COORDINATE SUPPORT CHANNEL LENGTH WITH PIPING AND CONDUIT TO BE SUPPORTED. SUPPORT CHANNEL SPACING SHALL BE DETERMINED BY SMALLEST PIPE TO BE SUPPORTED. CHANNEL SUPPORT MAY BE USED AS A WALL BRACKET, ATTACH TO WALL WITH ANCHOR BOLTS PER SPECIFICATIONS. FOR HORIZONTAL INSULATED PIPING, ATTACH CLAMPS AS INDICATED ABOVE, FOR VERTICAL INSULATED PIPING, ATTACH CLAMPS TO THE PIPE AND SEAL INSULATION AT BOTH CLAMP ENDS.

UNDERDECK CLAMP AND SUMP RECEIVER ARE NOT REQUIRED WHEN ROOF DRAIN BODY IS CAST INTO CONCRETE ROOF. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. INSULATE ROOF DRAIN SUMP AND PIPE PER SPECIFICATIONS. LOCATE DRAINS WHERE SHOWN ON ARCHITECTURAL PLANS. VERIFY WITH STRUCTURAL PLANS FOR ROOF LOW

SUPPLEMENTARY STEEL FRAMING AROUND ROOF OPENING. COORDINATE ROOF DRAIN

OVERFLOW DRAIN WEIR ELEVATION 2" ABOVE PRIMARY ROOF DRAIN WEIR ELEVATION.

POINTS. COORDINATE WITH STRUCTURAL DRAWINGS REGARDING PROVISION FOR

INSTALLATION WITH ARCHITECTURAL DETAILS AND ROOFING INSTALLATION. SET

PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD

CONDITIONS. PROVIDE CONNECTIONS AS RECOMMENDED BY EQUIPMENT

ROOF DRAIN. REFER TO

PLANS FOR OUTLET SIZE

**INSULATED ROOF** 

AND CONNECTORS.

CLOSE TO JOINT AS

OFF ROOF DRAIN.

COLD WATER

SUPPLY DOWN IN

PARTITION WHERE

SHOWN ON FLOOR

"K" SOFT COPPER

TO CUBER WATER

INLET, SIZE PER

BACKFLOW

LOCATION

PROVIDE 1/2"

1-1/2" VENT UP

IN PARTITION

2" WASTE LINE

FINISHED FLOOR

ROUGH-IN.

BALL VALVE ON

MANUFACTURER'S

RECOMMENDATIONS.

DOUBLE CHECK VALVE

UPSTREAM STRAINER.

INSTALL IN ACCESSIBLE

PREVENTER WITH

PROVIDE ADAPTER AND

FOUR FOOT LONG TYPE

**TUBING AND CONNECT** 

PROVIDE PIPE HANGER AS

SLOPE PIPE AS INDICATED

SPECIFICATIONS. REFER TO

ON FLOOR PLAN AND IN

PLANS FOR PIPE SIZE.

STRUCTURE

4 TRAPEZE PIPE HANGER NTS

GRAVEL STOP AND

SECURE FLASHING

MEMBRANE CLAMP TO

EXTENSION SLEEVE, WITH

HEIGHT AS REQUIRED TO

ACCOMMODATE ROOF INSULATION THICKNESS —

PROVIDE LONG SWEEP

PROVIDE WYE COMBO

ONE ROOF DRAIN IS

HORIZONTAL PIPE

ROOF DRAIN INSTALLATION

OPEN TO

UPPER END -

BIN DRAIN

CONNECT TO

**OUTLETS AS** 

ICE MACHINE

IS FURNISHED

**INSTALL WATER** 

FILTER FURNISHED

WITH ICE MACHINE.

DISCHARGE INDIRECT

DRAIN LINE TO

P-TRAP WITH AIR

2" DWV COPPER

P-TRAP WITH

FUNNEL OR

INCREASER

REQUIRED.

BY OTHERS

CUBER AND ICE

INDIRECT DRAIN

ATMOSPHERE AT

ELBOW AT START OF RUN.

FITTING WHERE MORE THAN

CONNECTED TO A SINGLE

SUMP RECEIVER

UNDERDECK CLAMP

ROOF DRAIN OR OVERFLOW PROVIDE SLEEVE AND SEAL EXTERIOR WALL PENETRATION SPECIFICATIONS REFER TO SPECIFICATIONS SECURELY BRACE THREADED ADAPTER FOR TYPE OF PIPE, FITTINGS, DOWNSPOUT TO WALL WITH RISER CLAMP INSTALL DOWNSPOUT COVER MINIMUM 18" ABOVE GRADE. REMOVE SCREW WITHIN 12" OF BASE SECURING COVER FLAPPER. FLAPPER SHORT SWEEP ELBOW SHALL OPEN WITH FLOW POSSIBLE TO TAKE WEIGHT PIPE STAND PITCH DOWNSPOUT COVER SLIGHTLY HUBLESS PIPE CONNECTOR TOWARD FINISH GRADE SEAL AIR GAP AROUND PIPE

FINISHED FLOOR-

ADAPTER(S) AS REQUIRED

CONDENSATE STUB(S) ON

EQUIPMENT. PROVIDE

DRAIN PIPE SIZED TO

MATCH EQUIPMENT

1.1

ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. PROVIDE

CONNECTIONS SHOWN IN EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.

REFER TO SPECIFICATIONS FOR PIPE AND FITTING MATERIALS AND INSTALLATION. PROVIDE

DIELECTRIC UNION IF CONNECTING DISSIMILAR METALS. AT MOTORIZED EQUIPMENT ABOVE

CEILING, PROVIDE NEOPRENE TUBE AND STAINLESS STEEL SCREW CLAMPS FOR FLEXIBLE

CONNECTION. FOR PIPE SIZE(S) REFER TO FLOOR PLANS. OR CODE REQUIREMENTS FOR

HVAC UNIT TONNAGE. PROVIDE HANGERS OR SUPPORTS PER SPECIFICATIONS. DO NOT

COMBINE CONDENSATE DRAIN PIPES WITH NON-CONDENSATE INDIRECT DRAINS.

COLD PIPE

REFER TO SPECIFICATIONS FOR INSULATION TYPES,

INSULATION THICKNESSES, HANGER TYPES, HANGER ROD

WATER TIGHT WITH SILICONE

SEALANT

FINISHED GRADE

OR PAVEMENT

CONNECTIONS TO STRUCTURE AND HANGER SPACING.

SLOPE PIPE AS MUCH AS

PROVIDE CLEANOUTS IN

ENDS AND TURNS OF

PIPE: ADAPTER WITH

CONDENSATE INTO

RECEPTOR WHERE

ROOF-TOP UNIT.

SHOWN ON PLANS WITH

AIR GAP PER CODE. ON

DISCHARGE AWAY FROM

ROOF DRAIN IF REQUIRED

CLEVIS HANGER,

SHOWN FOR CLARITY.

SIZE HANGER FOR

HOT PIPE OUTSIDE

CUT INSULATION TO

SEAL EXPOSED

**HOT PIPE** 

**INSULATION ENDS** 

WITH JOINT SEALANT

FIT AROUND HANGER.

DIAMETER.

BY LOCAL AUTHORITIES.

SERVICE AREA, OR AT

THREADED CLEANOUT

POSSIBLE TOWARD

DISCHARGE, 2%

MINIMUM

PLUG

DISCHARGE

TO CONNECT DRAIN PIPE TO

**CONNECTION SIZE OR CODE** 

REQUIRED SIZE WHICHEVER

IS LARGER. 3/4" MINIMUM.

H = 1" + UNIT STATIC

PRESSURE (IN. W.C.)

H FOR DRAW-THRU UNITS;

1" FOR BLOW-THRU UNITS; -

H/2 + PIPE DIAMETER FOR

H + PIPE DIAMETER FOR

4" MINIMUM TRAP DEPTH. -

CLEARANCE TO FLOOR, OR

REFER TO SPECIFICATIONS

INSULATION REQUIREMENTS.

MAINTAIN MINIMUM 1"

6" TO ROOF OR CEILING —

FOR CONDENSATE

2 CONDENSATE DRAIN INSTALLATION NTS

SECURE PIPE HANGER

TO STRUCTURE (TYP)

THREADED STEEL

CLEVIS HANGER,

HANGER FOR COLD

THICKNESS. DO NOT

PROVIDE A SECTION

OF HIGH DENSITY

INSULATION OR

BILLETS AT EACH

HANGER OF COLD

**INSULATED PIPE** 

**INSULATION SHIELD FOR** 

JACKET OVER HIGH DENSITY

LAPPING INSULATION

STYROFOAM BILLETS.

MAINTAIN VAPOR BARRIER

5 PIPE HANGER DETAIL NTS

PROVIDE SHORT

**INSULATION OR** 

STYROFOAM

PLUS INSULATION

WITH HANGER.

SHOWN FOR CLARITY. SIZE

PIPE OUTSIDE DIAMETER

PENETRATE INSULATION

WASHER BOTH

SIDES (TYP).

ROD WITH NUT AND

DRAW-THRU UNITS;

BLOW-THRU UNITS;

ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. RE: SPECIFICATIONS FOR DOWNSPOUT COVER, TYPE OF PIPE, FITTINGS, AND CONNECTORS

HOT WATER RECIRCULATION BRANCH PIPE INSULATION └─ CHECK VALVE TYPICAL BALL TYPE STRAINER - AUTOMATIC FLOW CONTROL VALVE SHUT-OFF VALVE -WITH UNION BODY; REFER TO FLOOR PLANS FOR FLOW RATE AND PIPE SIZE.

REFER TO SPECIFICATIONS, SCHEDULES, AND NOTES FOR MORE INFORMATION. MAKE CONNECTIONS AND PROVIDE INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. ARRANGEMENT SHOWN IS SCHEMATIC: PROVIDE REDUCERS AND ADAPTERS AS REQUIRED.

SHUT-OFF VALVE IN WATER HAMMER ACCESSIBLE LOCATION, ARRESTER PER ABOVE CEILING IF ANY SPECIFICATIONS AND SCHEDULE, PDI SIZE "A" 3/4" COLD WATER PIPE EXTERIOR BUILDING INSTALLED ABOVE HARD CEILING. PROVIDE ACCESS PROVIDE HYDRANT WITH DOOR PER SPECIFICATIONS -LENGTH OF SHAFT TO SUIT **INSTALL RISER INSIDE** THICKNESS OF WALL: PARTITION WHERE AVAILABLE: REFER TO PLANS WALL HYDRANT IF RISER IS EXPOSED, ANCHOR RECESSED IN BOX PER TIGHT TO EXTERIOR WALL SPECIFICATIONS AND SCHEDULE. ELBOWS AS REQUIRED -CUT WALL AS REQUIRED, INSTALL WALL HYDRANT VALVE INTERIOR TO WALL **GROUT OR OTHERWISE** REPAIR WALL NEATLY WALL CLAMP AROUND FACE OF WALL HYDRANT TO SEAL INTERIOR FLOOR PENETRATION WEATHERTIGHT **INSTALL HYDRANT** APPROXIMATELY 24" ABOVE EXTERIOR GRADE, GRADE. ADJUST HEIGHT AS PAVEMENT, OR SIDEWALK REQUIRED TO SUIT MASONRY SEAMS, IF EXISTING. ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST AS REQUIRED TO SUIT FIELD CONDITIONS. INSTALL PER MANUFACTURER'S INSTRUCTIONS. IN NON-FREEZING CLIMATES, PIPE MAY BE INSTALLED CONCEALED IN EXTERIOR WALL RATHER THAN EXTERIOR TO WALL AS SHOWN. REFER TO PLANS FOR LOCATION.

3 WALL HYDRANT INSTALLATION NTS

ROOF HYDRANT, RE: **SPECIFICATIONS** AND SCHEDULES STAINLESS SHROUD HOSE CONNECTION WITH INTEGRAL HOSE VACUUM BREAKER -BRASS VALVE FLOAT ASSEMBLY CONTINUOUS WELDED SEAM -COORDINATE ROOF MEMBRANE FLASHING ROOF INSULATION WITH DIVISION 11 ROOF DECKING **INSTALL UNDER DECK** ANGLE FRAMING FLANGE FURNISHED WITH HYDRANT TIGHT TO STRUCTURE 1/4" X 1-1/2" SET SCREW WATER HAMMER STAINLESS SHROUD ARRESTER, PDI SIZE "A" 3/4" COLD WATER SUPPLY 1" GALVANIZED NIPPLE WITH SHUT-OFF VALVE SUPPLY TUBING, **RE: FLOOR PLANS** 

> PIPING ARRANGEMENT SHOWN IS SCHEMATIC, ADJUST TO SUIT FIELD CONDITIONS. RE: FLOOR PLANS

6 ROOF HYDRANT DETAIL NTS

MEDICAL GAS PIPING SCHEMATIC NTS

MEDICAL AIR OXYGEN MEDICAL VACUUM TO MEDICAL GAS OUTLETS AS SHOWN ON PLANS LOCKING TYPE SHUT-OFF VALVES TYPICAL AT BRANCHES OR MAINS AND WHERE INDICATED ON THE DRAWINGS PROVIDE **IDENTIFICATION LABELS** ON PIPING PER SPECIFICATIONS -120V/1Ø POWER SUPPLY; **COORDINATE WITH DIVISION 26** RECESSED MEDICAL GAS/VACUUM **BOX SHALL BE LOCATED WITH** COMBINATION ALARM PANEL AND INTERVENING WALL BETWEEN ZONE VALVE BOX WITH SHUT-OFF VALVES. PRESSURE/VACUUM BOX AND OUTLETS IT SERVES. SEE GAUGES, REMOVABLE WINDOW WITH PLANS FOR LOCATION. PULL RING, CONTINUOUS DIGITAL DISPLAY OF ALL MEDICAL GASES AND VACUUM WITH INTERFACING CAPABILITIES TO AUTOMATED BUILDING MANAGEMENT SYSTEM PROVIDE IDENTIFICATION FOR AREA SERVED -

PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS.

MEDICAL GAS DEVICE SCHEDULE OXYGEN MEDICAL AIR OXIDE DIOXIDE MANUFACTURER NITROGEN EVACUATION NOTES ALERT-2 SERIES **AMICO** A, B, E

3 INLETS 3 OUTLETS 1 OUTLET

PROVIDE COMPLETE INSTALLATION OF SYSTEMS PER NFPA 99 REQUIREMENTS AND MANUFACTURER'S RECOMMENDATIONS INSTALL ITEMS AT LOCATIONS AND ELEVATIONS INDICATED ON ARCHITECTURAL DRAWINGS. COORDINATE LOCATIONS WITH OTHER TRADES.

ALERT-1 SERIES

ALERT-1 SERIES

DEVICES SHALL BE COMPATIBLE WITH OWNERS EXISTING EQUIPMENT AS NECESSARY WALL OUTLETS SHALL BE QUICK-DISCONNECT TYPE, PURITAN-BENNETT COMPATIBLE. INSTALL DEVICES WITH CENTERLINE OF BOXES AT 60" AFF, UNLESS INDICATED OTHERWISE.

AREA ALARM PANEL

WALL OUTLETS

ZONE VALVE BOX

ZVB

NOTES:

MAKE VALVES IN COMBINATION PANEL SAME SIZE AS PIPE THEY SERVE. REFER TO FLOOR PLANS FOR SIZES. FROM TOP TO BOTTOM IN ALARM VALVE COMBINATION PANELS, ORDER OF SERVICES SHALL BE CARBON DIOXIDE, NITROUS OXIDE, NITROGEN, MEDICAL AIR, OXYGEN,

MEDICAL VACUUM, AND/OR EVACUATION. PROVIDE A SLIDE BESIDE EACH VACUUM INLET. LINLESS INDICATED OTHERWISE ON ARCHITECTURAL DRAWINGS

AMICO

AMICO

PLUI	MBING PIPE MATE	RIAL SCHEDULE
PIPING SYSTEM	ABBREVIATION	PIPING MATERIAL
SANITARY DRAINAGE & VENT (ABOVE GRADE)	S, W OR V	HUBLESS CAST IRON
STORM DRAINAGE (ABOVE GRADE)	ST OR OST	HUBLESS CAST IRON
SANITARY DRAINAGE & VENT (BELOW GRADE)	S, W OR V	SERVICE WEIGHT CAST IRON (PVC DWV OPTIONAL)
STORM DRAINAGE (BELOW GRADE)	ST	SERVICE WEIGHT CAST IRON (PVC DWV OPTIONAL)
POTABLE WATER (ABOVE GRADE)	CW, HW OR HWR	TYPE L HARD DRAWN COPPER
NON-POTABLE WATER (ABOVE GRADE)	NPW	TYPE L HARD DRAWN COPPER
CONDENSATE DRAIN - 1" & SMALLER	CD	TYPE M HARD DRAWN COPPER (PVC DWV OPTIONAL)
MEDICAL GASES	MA, O OR VAC	TYPE L HARD DRAWN COPPER CLEANED FOR OXYGEN SERVICE

# EIVELIDE DE ANOLI COMMECTION COMEDIU E

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
6" FLOOR DRAIN			6"	3"
DRINKING FOUNTAIN	1/2"		2"	1 1/2"
FLOOR DRAIN			2"	2"
JANITOR'S SINK	1/2"	1/2"	3"	2"
LAVATORY/HAND SINK	1/2"	1/2"	2"	1 1/2"
SINK	1/2"	1/2"	2"	2"
WATER CLOSET (FLUSH VALVE)	1 1/4"		4"	2"

NOTE: PIPE SIZES SHOWN ARE MINIMUM

## PLUMBING FIXTURE SCHEDULE

FIXTURES IN THIS SCHEDULE OR THEIR APPROVED EQUIVALENT ARE PROVIDED BY THE PLUMBING CONTRACTOR. SUBMIT SHOP DRAWINGS ON EACH OF THESE ITEMS. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION AND INSTALLATION REQUIREMENTS. VERIFY ROUGH-IN REQUIREMENTS WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE PLUMBING FIXTURE MOUNTING HEIGHTS. PROVIDE PLUMBING FIXTURES AND DRAINS AS LISTED ON DRAWINGS AND DESCRIBED HEREIN. FIXTURE NUMBERS ARE ZURN PRODUCTS. ALL PRODUCTS TO BE PURCHASED FROM FERGUSON ENTERPRISES. CONTACT ALTON LASSITER OFFICE (615) 316-1848 CELL (615) 812-6500 OR RANDY AKIN (615) 316-1853 OR EMAIL HCA@ferguson.com

PLU	MBING FIXTURE SCHEDULE
PLUMBING	DECORUDINA

PLUMBING PLAN MARK	DESCRIPTION
P103	WATER CLOSET PATIENT, FLOOR MOUNTED, 1.6 GALLON: ZURN Z5666-BWL-BA-AM 1.6GPF BOWL ZURN Z-6000-AV-BWN-WS1 BEDPAN FLUSH VALVE
P302	PROFLO PFTSCOF2000WH COMM ELONGATED OF CLOSET SEAT  LAVATORY, WALL HUNG, GOOSENECK: PUBLIC, BARRIER FREE ZURN Z5344 WHITE 20X18 4CC WALL MOUNT LAVATORY ZURN Z812A4-XL-FC-05 GOOSENECK, WRIST BLADES WILKINS ZW3870XLT4PC 3/8" POINT OF USE THERM MIXING VALVE 4-PORT PROFLO PFGD101 1-1/4X6 CP 17GA OFFSET GRID DRAIN PROFLO PFPTB400 1-1/4" 17GA P TRAP PROFLO PFXQAC32C 1/4 TURN ANGLE STOP (2) PROFLO PFX146324 20" FLEX SS RISER (2) PROFLO PFX146342 12" 3/8" FLEX RISER (2) PROFLO PFE7 1/2" CP ESCUTCHEON (2) PROFLO PF203WH TRAP WRAP KIT ZURN ZZ1231 WALL CARRIER
P306	LAVATORY, SOLID SURFACE, BARRIER-FREE, GOOSENECK:
	SOLID SURFACE COUNTER WITH INTEGRAL BOWL BY OTHERS ZURN Z812A4-XL-FC1.5 CP 1.5GPM, GN WRIST BLADE HDL, PLAIN END SPOUT PROFLO PFGD101 1-1/4X6 CP 17GA OFFSET GRID DRAIN PROFLO PFPTB400 1-1/4" 17GA P TRAP PROFLO PFXQAC32C 1/4 TURN ANGLE STOP (2) PROFLO PFX146324 20" FLEX SS RISER (2) PROFLO PFE7 1/2" CP ESCUTCHEON (2) PROFLO PF203WH TRAP WRAP KIT
P606	SHOWER, 60" SOLID SURFACE BASE: WALLS, GRAB BAR, SOAP DISH, FOLD-UP SEAT FURNISHED BY OTHERS INPRO E3060LCCDBO 30"X60" LOW CURB SHOWER BASE, CENTER DRAIN, BONE SYMMONS SYM9605-X-PLR-231 SHOWER FAUCET W/ ADA HH SPRAY PROFLO PF140NC CP SHOWER DRAIN
P710	ROOF DRAIN, 15" DIAMETER: ZURN ZA-100-DR, ALUMINUM DOME, ADJUSTABLE DRAIN RISER EXTENSION ASSEMBLY WITH HUBLESS OUTLET.
P711	ROOF DRAIN, OVERFLOW: ZURN ZA-100-W2-DR, ALUMINUM DOME, ADJUSTABLE DRAIN RISER EXTENSION ASSEMBLY, INTERNAL 2" DAM
P724	DOWNSPOUT COVER: ZURN ZS199-DC
P801	WALL HYDRANT, EXTERIOR: ZURN Z-1310, NON-FREEZE WITH VACUUM BREAKER AND STAINLESS STEEL FACE INSTALL 18" ABOVE FINISHED GRADE
P900	WATER HAMMER ARRESTER: SIOUX CHIEF #650-S SERIES "HYDRA-RESTER", HARD DRAWN COPPER BODY WITH MALE SWEAT FITTING, PISTON TYPE WITH DUAL LUBRICATED EPDM "O" RING SEALS, AND ASSE 1010 CERTIFICATION. PROVIDE PDI SIZE "A", UNLESS SHOWN OTHERWISE ON THE PLANS.
P901	WATER SUPPLY BOX: OATEY # 38689, 20 GAUGE STEEL BOX, 18 GAUGE STEEL FACEPLATE, BOTTOM INLET WATER SUPPLY WITH 1/2" x 1/4" COMPRESSION ANGLE STOP VALVE. TRIM: LOOP 2 FEET OF 1/4" TYPE "K" SOFT COPPER TUBING AND MAKE FINAL
P902	CONNECTION TO PIECE OF EQUIPMENT.  WALL CLEANOUT: JAY R. SMITH # 4530S, CAST IRON CLEANOUT TEE, COUNTER SUNK PLUG, STAINLESS STEEL ROUND COVER AND SCREW, AND IRON PLUG WITH GASKET SEAL. REFER TO SPECIFICATIONS FOR INSTALLATION.
P903	FLOOR CLEANOUT: JAY R. SMITH, CAST IRON BODY, FLASHING FLANGE WITH CLAMPING COLLAR, ABS PLUG, AND ADJUSTABLE, ROUND, SECURED, NICKEL BRONZE, TOP. # 4031L (-F-C), SCORIATED TOP FOR EXPOSED, FLUSH WITH FINISHED FLOOR, APPLICATION(S), # 4031L (-F-C-Y), STAINLESS STEEL MARKER FOR INSTALLATION IN CARPETED FLOOR AREA(S), # 4151 (-F-C), 1/8" RECESS FOR INSTALLATION IN TILED FLOOR AREA(S), # 4191 (-F-C), 1/2" RECESS FOR INSTALLATION IN TERRAZZO AND SIMILAR POURED FLOOR AREA(S). REFER TO SPECIFICATIONS FOR INSTALLATION.
P904	REDUCED PRESSURE ZONE BACKFLOW PREVENTER: WATTS # LF009QT-S, MEETING ASSE 1013, LEAD FREE CAST BRONZE BODY, QUARTER TURN TEST COCKS, QUARTER TURN BALL VALVES, BRONZE STRAINER, AND # 909AG AIR GAP FITTING.
P905	ROOF NON-FREEZE POST HYDRANT: MAPA PRODUCTS # MPH-24FP FREEZE PROOF POST HYDRANT MEETING ASSE #1057 WITH BLACK POWDER COATED CAST ALUMINUM WEATHER-GUARD DOME HANDLE, STAINLESS STEEL SHROUD WITH WELDED STAINLESS STEEL FLANGE, UNDER DECK CLAMP, BRONZE GLOBE ANGLE VALVE, 3/4" HOSE CONNECTION, QUICK DISCONNECT WITH BUILT-IN VACUUM BREAKER, STAINLESS STEEL RESERVOIR.
P906	FLOW CONTROL VALVE: FLOWDESIGN # ICSS "AUTOFLOW", SERIES 300 STAINLESS UNION BODY WITH NICKEL PLATED UNION NUT, STAINLESS STEEL PRESSURE COMPENSATING CARTRIDGE, MEETING NSF 61 ANNEX G, NAMEPLATE AND 1/2" VALVE BODY SIZE UNLESS SHOWN OTHERWISE ON PLANS. PROVIDE 1.0 GPM FLOW RATE CARTRIDGE UNLESS SHOWN OTHERWISE ON PLANS.
P907	WATER HAMMER ARRESTER: PRECISION PLUMBING PRODUCTS, HARD DRAWN COPPER BODY WITH WROUGHT COPPER FITTINGS, PISTON TYPE WITH LUBRICATED EPDM "O" RING SEALS, MEETING ASSE 1010 OR PDI WH-201. PROVIDE PDI SIZES "A" THROUGH "F" AS SHOWN ON PLANS. PROVIDE SIZE "A" UNLESS SHOWN OTHERWISE ON THE PLANS.
P908	DOUBLE CHECK VALVE BACKFLOW PREVENTER: WATTS # LF007QT-S, MEETING ASSE 1015, LEAD FREE CAST BRONZE BODY, SCREW DRIVER SLOTTED TEST COCKS, QUARTER TURN BALL VALVES, AND STRAINER.
P909	HUB DRAIN FLOOR SINK: JAY R. SMITH # 3811T (-DBS), 7" DEEP x 6" DIAMETER CAST IRON BODY WITH ACID RESISTING ENAMELED INTERIOR AND EXTERIOR FUNNEL WITH 2" CAST IRON SCREWED OUTLET, SCREWED x HUBLESS ADAPTER, HUBLESS CAST IRON P-TRAP AND ALUMINUM DOME BOTTOM STRAINER.

EXPANSION LOOP:

DOMESTIC WATER (FOR COPPER PIPE SIZES 3" AND

INSTALL PER MANUFACTURER RECOMMENDATIONS.

HANGING DOWN MUST HAVE THE 180° RETURN SUPPORTED.

SMALLER): METRAFLEX # MLSUPC8 COPPER. REFER TO PLANS FOR PIPE SIZE.

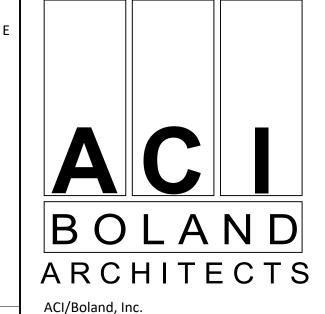
LOOPS 2" AND LARGER INSTALLED IN ANY ORIENTATION OTHER THAN

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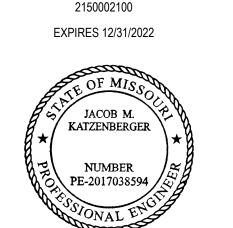
A, B, D, F, G



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