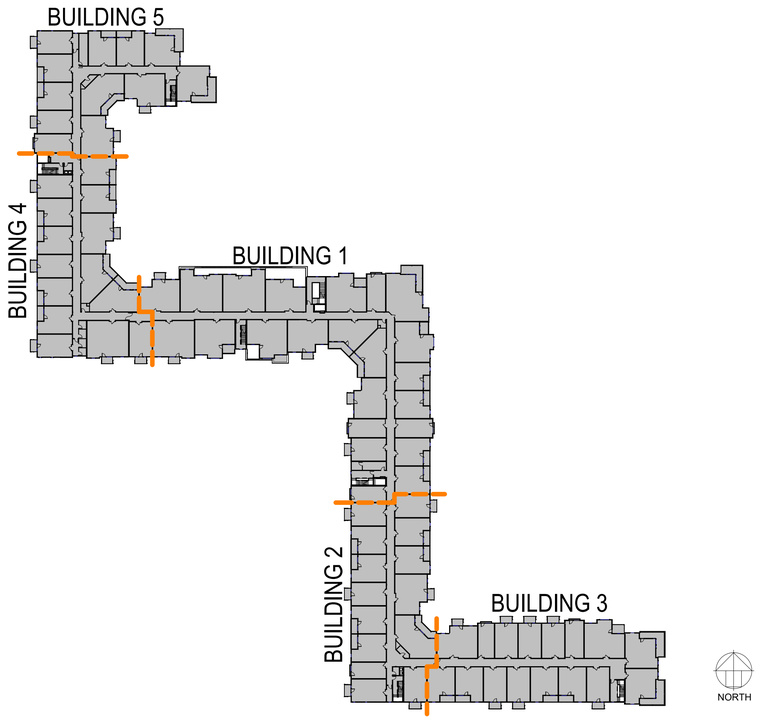


CODE INFORMATION - PROJECT DATA

PROJECT:
LS OLDHAM VILLAGE APARTMENTS
1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

PROJECT DESCRIPTION:
NEW APARTMENT COMPLEX IN LEES SUMMIT, MO ALONG OLDHAM PARKWAY NEAR THE INTERSECTION OF HIGHWAY 50 AND ROUTE 291. THE 4 STORY COMPLEX WILL BE ONE LARGE STRUCTURE CONSISTING OF 5 SEPARATED BUILDINGS. THE ENTIRE STRUCTURE WILL BE FULLY SPRINKLERED. THE SITE WILL CONSIST OF A COMMUNITY PATIO, COURTYARD AND A POOL.

APPLICABLE CODES:

BUILDING CODE:	2018 INTERNATIONAL BUILDING CODE (IBC)
FIRE CODE:	2018 INTERNATIONAL FIRE CODE (IFC)
PLUMBING CODE:	2018 INTERNATIONAL PLUMBING CODE (IPC)
MECHANICAL CODE:	2018 INTERNATIONAL MECHANICAL CODE (IMC)
ELECTRICAL CODE:	2017 NATIONAL ELECTRICAL CODE (NEC)
FUEL GAS:	2018 INTERNATIONAL FUEL GAS CODE (IFGC)
ENERGY CONSERVATION:	LEE'S SUMMIT CITY'S ENERGY CONSERVATION CODE (RE: ARTICLE VIII SEC 7-800 OF THE LEE SUMMIT, MO CODE OF ORDINANCES)
SWIMMING POOL / HOT TUB:	RE: ARTICLE X SEC 7-1000 OF THE LEE SUMMIT, MO CODE OF ORDINANCE
ACCESSIBILITY:	2009 ICC A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

CODE APPROACH:
THE STRUCTURE WILL BE 5 SEPARATE BUILDINGS. REFER TO THE ADJACENT DIAGRAM FOR THE NAMING CONVENTION OF THE 5 BUILDINGS.
BUILDINGS 2, 3, 4, AND 5 : TYPE V-A CONSTRUCTION RESIDENTIAL UNITS
BUILDING 1: TYPE V-A CONSTRUCTION CLUBHOUSE, AMENITIES, AND RESIDENTIAL UNITS

CODE ANALYSIS - BUILDING 1

OCCUPANCY CLASSIFICATION:

BUILDING OCCUPANCIES:	A-3 CLUBHOUSE B LEASING OFFICE R-2 APARTMENTS
SEPARATED OR MIXED USE:	NONSEPARATED MIXED R-2 AND B
ACCESSORY USES:	A3 ACCESSORY TO R-2

CONSTRUCTION TYPE:

CONSTRUCTION TYPE:	V-A
SPRINKLERED:	NFPA 13
PRIMARY STRUCTURAL FRAME:	1 HR
EXTERIOR BEARING WALLS:	1 HR
INTERIOR BEARING WALLS:	1 HR
EXTERIOR NON-BEARING WALLS:	1 HR (BASED ON FSD)
INTERIOR NON-BEARING WALLS:	0 HR
FLOOR CONSTRUCTION:	1 HR
ROOF CONSTRUCTION:	1 HR

BUILDING HEIGHT:

ALLOWABLE BUILDING HEIGHT:	70'
PROPOSED BUILDING HEIGHT:	48' - 1"

NUMBER OF STORIES:

ALLOWABLE NUMBER OF STORIES:	4
PROPOSED NUMBER OF STORIES:	4

BUILDING AREA / FLOOR:

BASE BUILDING AREA:	36,000 SF / FLOOR
FRONTAGE INCREASE:	(F/P - 0.25)W/30 = 50.14 %
ALLOWABLE BUILDING AREA:	42,016 SF / FLOOR

BUILDING 1 CODE REVIEW

Level	Allowable Area	Proposed Area
FIRST FLOOR	42,016 SF	26,902 SF
SECOND FLOOR	42,016 SF	26,907 SF
THIRD FLOOR	42,016 SF	25,776 SF
FOURTH FLOOR	42,016 SF	25,099 SF
	168,064 SF	104,683 SF

CODE ANALYSIS - BUILDING 2

OCCUPANCY CLASSIFICATION:

BUILDING OCCUPANCIES:	R-2 APARTMENTS
SEPARATED OR MIXED USE:	SINGULAR OCCUPANCY R-2
INCIDENTAL USES (10% AREA):	N/A
ACCESSORY USES:	N/A

CONSTRUCTION TYPE:

CONSTRUCTION TYPE:	V-A
SPRINKLERED:	NFPA 13R
PRIMARY STRUCTURAL FRAME:	1 HR
EXTERIOR BEARING WALLS:	1 HR
INTERIOR BEARING WALLS:	1 HR
EXTERIOR NON-BEARING WALLS:	1 HR (BASED ON FSD)
INTERIOR NON-BEARING WALLS:	0 HR
FLOOR CONSTRUCTION:	1 HR
ROOF CONSTRUCTION:	1 HR

BUILDING HEIGHT:

ALLOWABLE BUILDING HEIGHT:	60'
PROPOSED BUILDING HEIGHT:	46' - 1"

NUMBER OF STORIES:

ALLOWABLE NUMBER OF STORIES:	4
PROPOSED NUMBER OF STORIES:	4

BUILDING AREA / FLOOR:

BASE BUILDING AREA:	12,000 SF / FLOOR
FRONTAGE INCREASE:	(F/P - 0.25)W/30 = 41.76 %
ALLOWABLE BUILDING AREA:	17,011 SF / FLOOR

BUILDING 2 CODE REVIEW

Level	Allowable Area	Area
FIRST FLOOR	17,011 SF	11,880 SF
SECOND FLOOR	17,011 SF	11,880 SF
THIRD FLOOR	17,011 SF	11,880 SF
FOURTH FLOOR	17,011 SF	11,880 SF
	68,044 SF	47,522 SF

CODE ANALYSIS - BUILDING 3

OCCUPANCY CLASSIFICATION:

BUILDING OCCUPANCIES:	R-2 APARTMENTS
SEPARATED OR MIXED USE:	SINGULAR OCCUPANCY R-2
INCIDENTAL USES (10% AREA):	N/A
ACCESSORY USES:	N/A

CONSTRUCTION TYPE:

CONSTRUCTION TYPE:	V-A
SPRINKLERED:	NFPA 13R
PRIMARY STRUCTURAL FRAME:	1 HR
EXTERIOR BEARING WALLS:	1 HR
INTERIOR BEARING WALLS:	1 HR
EXTERIOR NON-BEARING WALLS:	1 HR (BASED ON FSD)
INTERIOR NON-BEARING WALLS:	0 HR
FLOOR CONSTRUCTION:	1 HR
ROOF CONSTRUCTION:	1 HR

BUILDING HEIGHT:

ALLOWABLE BUILDING HEIGHT:	60'
PROPOSED BUILDING HEIGHT:	50' - 2 1/4"

NUMBER OF STORIES:

ALLOWABLE NUMBER OF STORIES:	4
PROPOSED NUMBER OF STORIES:	4

BUILDING AREA / FLOOR:

BASE BUILDING AREA:	12,000 SF / FLOOR
FRONTAGE INCREASE:	(F/P - 0.25)W/30 = 59.30 %
ALLOWABLE BUILDING AREA:	19,116 SF / FLOOR

BUILDING 3 CODE REVIEW

Level	Allowable Area	Area
FIRST FLOOR	19,116 SF	13,109 SF
SECOND FLOOR	19,116 SF	13,110 SF
THIRD FLOOR	19,116 SF	13,110 SF
FOURTH FLOOR	19,116 SF	13,110 SF
	76,464 SF	52,439 SF

CODE ANALYSIS - BUILDING 4

OCCUPANCY CLASSIFICATION:

BUILDING OCCUPANCIES:	R-2 APARTMENTS
SEPARATED OR MIXED USE:	SINGULAR OCCUPANCY R-2
INCIDENTAL USES (10% AREA):	N/A
ACCESSORY USES:	N/A

CONSTRUCTION TYPE:

CONSTRUCTION TYPE:	V-A
SPRINKLERED:	NFPA 13R
PRIMARY STRUCTURAL FRAME:	1 HR
EXTERIOR BEARING WALLS:	1 HR
INTERIOR BEARING WALLS:	1 HR
EXTERIOR NON-BEARING WALLS:	1 HR (BASED ON FSD)
INTERIOR NON-BEARING WALLS:	0 HR
FLOOR CONSTRUCTION:	1 HR
ROOF CONSTRUCTION:	1 HR

BUILDING HEIGHT:

ALLOWABLE BUILDING HEIGHT:	60'
PROPOSED BUILDING HEIGHT:	49' -1"

NUMBER OF STORIES:

ALLOWABLE NUMBER OF STORIES:	4
PROPOSED NUMBER OF STORIES:	4

BUILDING AREA / FLOOR:

BASE BUILDING AREA:	12,000 SF / FLOOR
FRONTAGE INCREASE:	(F/P - 0.25)W/30 = 47.44 %
ALLOWABLE BUILDING AREA:	17,693 SF / FLOOR

BUILDING 4 CODE REVIEW

Level	Allowable Area	Area
FIRST FLOOR	17,693 SF	12,608 SF
SECOND FLOOR	17,693 SF	12,608 SF
THIRD FLOOR	17,693 SF	12,608 SF
FOURTH FLOOR	17,693 SF	12,608 SF
	70,772 SF	50,432 SF

CODE ANALYSIS - BUILDING 5

OCCUPANCY CLASSIFICATION:

BUILDING OCCUPANCIES:	R-2 APARTMENTS
SEPARATED OR MIXED USE:	SINGULAR OCCUPANCY R-2
INCIDENTAL USES (10% AREA):	N/A
ACCESSORY USES:	N/A

CONSTRUCTION TYPE:

CONSTRUCTION TYPE:	V-A
SPRINKLERED:	NFPA 13R
PRIMARY STRUCTURAL FRAME:	1 HR
EXTERIOR BEARING WALLS:	1 HR
INTERIOR BEARING WALLS:	1 HR
EXTERIOR NON-BEARING WALLS:	1 HR (BASED ON FSD)
INTERIOR NON-BEARING WALLS:	0 HR
FLOOR CONSTRUCTION:	1 HR
ROOF CONSTRUCTION:	1 HR

BUILDING HEIGHT:

ALLOWABLE BUILDING HEIGHT:	60'
PROPOSED BUILDING HEIGHT:	52' - 1 1/4"

NUMBER OF STORIES:

ALLOWABLE NUMBER OF STORIES:	4
PROPOSED NUMBER OF STORIES:	4

BUILDING AREA / FLOOR:

BASE BUILDING AREA:	18,393 SF / FLOOR
FRONTAGE INCREASE:	(F/P - 0.25)W/30 = 53.27 %
ALLOWABLE BUILDING AREA:	18,393 SF / FLOOR

BUILDING 5 CODE REVIEW

Level	Allowable Area	Area
FIRST FLOOR	18,393 SF	11,192 SF
SECOND FLOOR	18,393 SF	11,192 SF
THIRD FLOOR	18,393 SF	11,192 SF
FOURTH FLOOR	18,393 SF	11,192 SF
	73,572 SF	44,767 SF

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REVISION DATES:

1	ADDENDUM #1	02/18/26

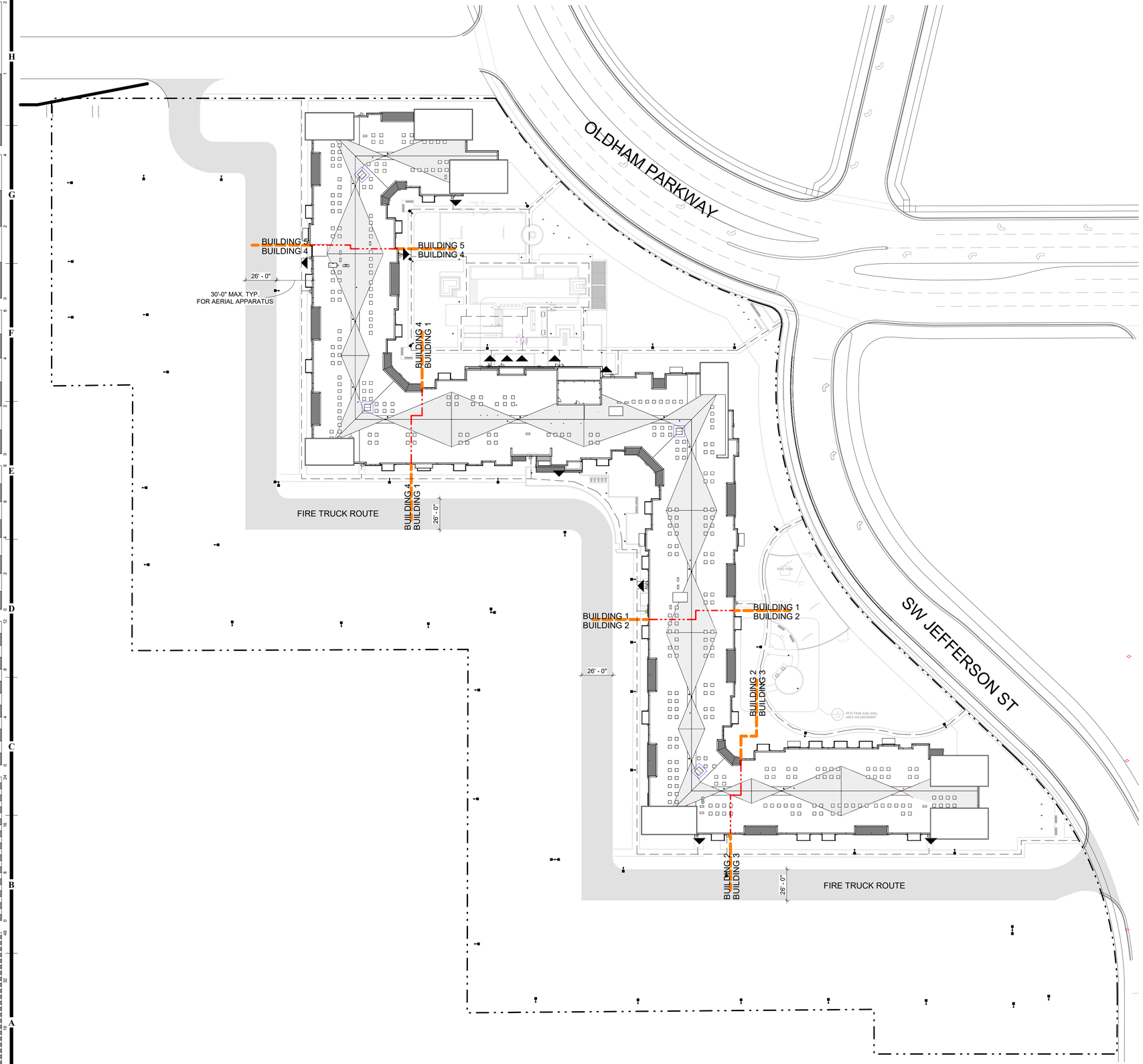
STATE OF MISSOURI
MICHAEL JOHN GOSLINGA
NUMBER A-2016000360
02-19-2026
ARCHITECT

PROFESSIONAL SEAL

G-100

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

CODE REVIEW



GENERAL NOTES - ARCHITECTURAL SITE:

1. ARCHITECTURAL ELEVATION 100'-0" = CIVIL ELEVATION **1027.5'**.
2. ALL SIDEWALKS SHALL SLOPE 1/4 INCH PER FOOT AWAY FROM THE BUILDING, UNLESS NOTED OTHERWISE.
3. ALL GRADES SHALL SLOPE AWAY FROM THE BUILDING AT MINIMUM 5 PERCENT FOR THE FIRST 10 FT UNLESS AT A SIDEWALK ON AN ACCESSIBLE ROUTE.
4. THE CONTRACTOR SHALL FIELD VERIFY THE PRESENCE OF ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION WORK. UNDERGROUND UTILITIES SHOWN ARE HERE MAY NOT BE ACCURATE OR COMPLETE. REFER TO CIVIL.
5. LOCATIONS AND SIZES OF ALL CONCRETE MECHANICAL AND ELECTRICAL PADS SHALL BE COORDINATED BY THE MECHANICAL AND ELECTRICAL CONTRACTORS, WITH THE SELECTED EQUIPMENT MANUFACTURER / SUPPLIER; AND ARE TO BE APPROVED BY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.

SITE LIFE SAFETY LEGEND

- FIRE LANE ROUTE THROUGH SITE
- PROPERTY LINE
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- BUILDING EGRESS POINT
- SITE CIRCULATION PATH - ADA ACCESSIBLE
- K.B. — KNOX BOX

NORTH

A1 LIFE SAFETY SITE PLAN
1" = 40'-0"

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REVISION DATES:

1	ADDENDUM #1	02/18/26
2	ADDENDUM #2	02/27/26

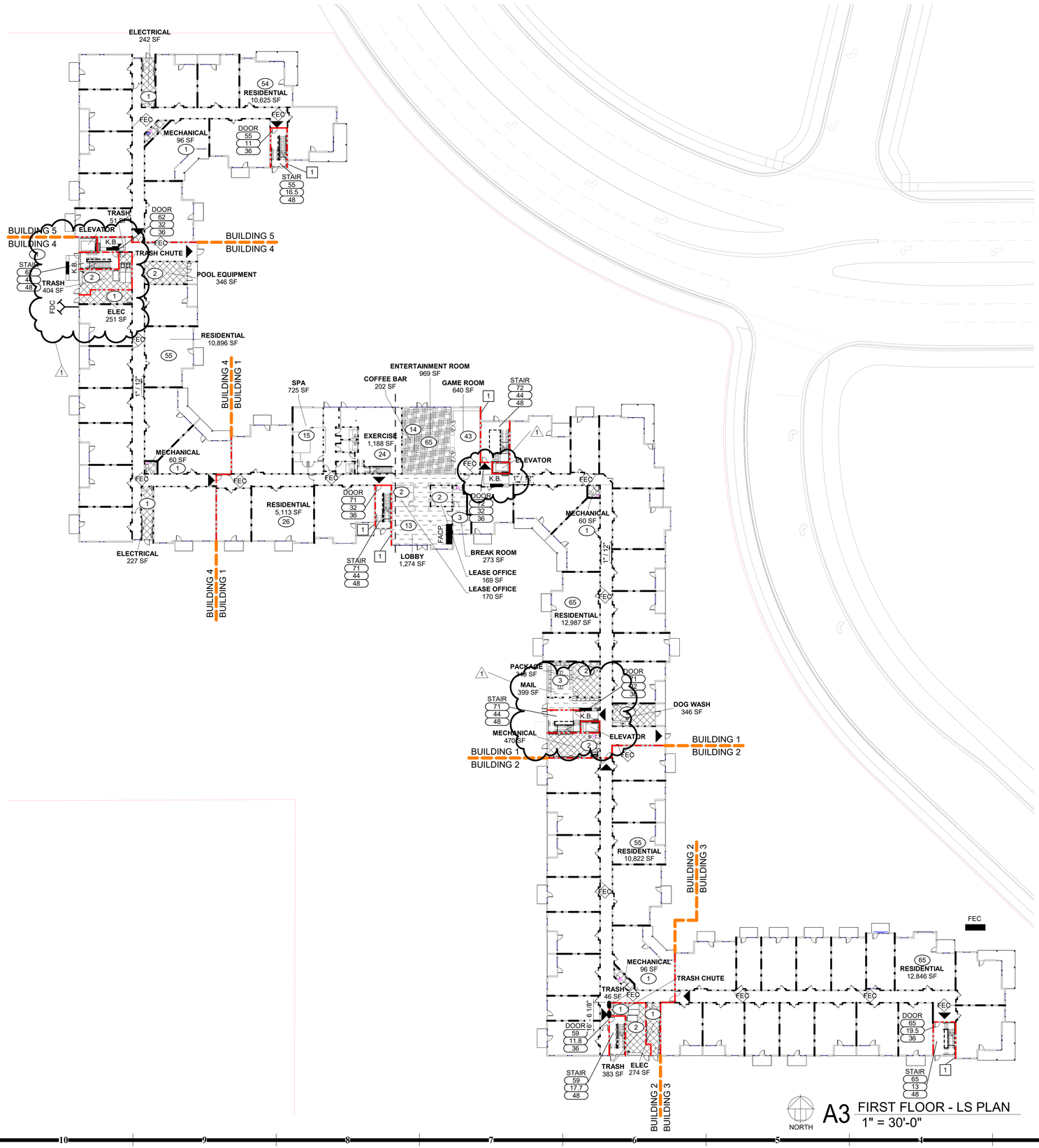
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G-101

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

LIFE SAFETY SITE PLAN



A3 FIRST FLOOR - LS PLAN
1" = 30'-0"

EXIT AND EGRESS REQUIREMENTS (IBC 2018) [SPRINKLERED]	
EGRESS WIDTH FACTORS	
DOORS AND RAMPS <1:12	0.2 INCHES PER PERSON (SECTION 1005.3.2)
STAIRS	0.3 INCHES PER PERSON (SECTION 1005.3.2)
MAXIMUM ALLOWABLE OF TRAVEL DISTANCE	
ASSEMBLY / RESIDENTIAL	250 FEET (TABLE 1017.2)
BUSINESS	300 FEET (TABLE 1017.2)
ALLOWABLE COMMON PATH TRAVEL DISTANCE	
ASSEMBLY	75 FEET (TABLE 1006.2.1)
BUSINESS / STORAGE	100 FEET (TABLE 1006.2.1)
RESIDENTIAL (R-2)	125 FEET (TABLE 1006.2.1)
DEAD END	20 FEET MAX. (SECTION 1020.4)

FUNCTION OF SPACE LEGEND		
USE	SYMBOL	OCCUPANT LOAD FACTOR (GROSS SF / PERSON)
ASSEMBLY UNCONCENTRATED TABLES & CHAIRS		15
BUSINESS		150
EXERCISE		50
MECH / ELEC / STORAGE		300
RESIDENTIAL		200

OCCUPANCY COUNT - FIRST FLOOR

Area Function	Area	Occupancy Ratio	Occupant Count
FIRST FLOOR			
	931 SF		0
	931 SF		0
1			
MECH / ELEC / STOR	60 SF	300 SF	1
	60 SF		1
2			
MECH / ELEC / STOR	96 SF	300 SF	1
	96 SF		1
4			
MECH / ELEC / STOR	60 SF	300 SF	1
	60 SF		1
5			
MECH / ELEC / STOR	96 SF	300 SF	1
	96 SF		1
BUILDING 1			
ASSEMBLY	1,170 SF	15 SF	79
BUSINESS	2,285 SF	100 SF	24
MECH / ELEC / STOR	1,160 SF	300 SF	6
RESIDENTIAL	20,652 SF	200 SF	105
	25,267 SF		214
BUILDING 2			
MECH / ELEC / STOR	704 SF	300 SF	4
RESIDENTIAL	10,822 SF	200 SF	55
	11,526 SF		59
BUILDING 3			
RESIDENTIAL	12,846 SF	200 SF	65
	12,846 SF		65
BUILDING 4			
MECH / ELEC / STOR	1,279 SF	300 SF	7
RESIDENTIAL	10,896 SF	200 SF	55
	12,174 SF		62
BUILDING 5			
MECH / ELEC / STOR	242 SF	300 SF	1
RESIDENTIAL	10,625 SF	200 SF	54
	10,866 SF		55
	73,923 SF		459

FIRST FLOOR EXIT REQUIREMENTS			
AREA	OCCUPANT LOAD	# OF EXITS REQUIRED	EXITS PROVIDED
BUILDING 1	214	2	STAIR 3 / STAIR 4 / STAIR 5 / LOBBY DOOR
BUILDING 2	59	2	STAIR 6 / HE[1] (TO BUILDING 1)
BUILDING 3	65	2	STAIR 7 / HE[1] (TO BUILDING 2)
BUILDING 4	62	2	STAIR 2 / HE[1] (TO BUILDING 1)
BUILDING 5	55	2	STAIR 1 / HE[1] (TO BUILDING 4)
TOTAL FLOOR PLATE	455	2	STAIR 1 / STAIR 2 / STAIR 3 / STAIR 4 / STAIR 5

[1] HE = HORIZONTAL EXIT

LIFE SAFETY KEYNOTES

1 PORTION OF WALL TO BE 1-HOUR RATED BOTH SIDES PER IBC 1023.7

LIFE SAFETY LEGEND

- DIRECTION OF EGRESS TRAVEL
- FEC — FIRE EXTINGUISHER CABINET
- RFAAP — REMOTE FIRE ALARM ANNUNCIATOR PANEL
- FACP — FIRE ALARM CONTROL PANEL
- FDC — FIRE DEPARTMENT CONNECTION
- K.B. — KNOX BOX
- 30 MIN FIRE PARTITION CORRIDOR
- 1 HOUR FIRE PARTITION UNITS
- 1 HOUR FIRE BARRIER
- 2 HOUR FIRE BARRIER
- 2 HOUR FIRE PARTITION
- BUILDING SEPARATION LINE
- (#) NUMBER OF OCCUPANTS
- NNNN — DOOR OR STAIRS
- (NNNN) — NUMBER OF OCCUPANTS
- (NNNN) — REQUIRED WIDTH (INCHES)
- (NNNN) — AVAILABLE WIDTH (INCHES)

CODE COMPLIANCE GENERAL NOTES:

1. PIPES LOCATED IN VERTICAL PIPE CHASES (NOT VERTICAL SHAFTS) SHALL BE FIRE-STOPPED AT EACH FLOOR WITH A LISTED PENETRATION FIRE-STOP SYSTEM OF RATING COMMENSURATE WITH THE FLOOR ASSEMBLY RATING.
2. REFER TO MECHANICAL DRAWINGS FOR SMOKE, FIRE AND SMOKE/FIRE DAMPER LOCATIONS
3. REFER TO ELECTRICAL DRAWINGS FOR LOCATION AND QUANTITY OF SMOKE DETECTORS
4. INDICATED EXIT SIGN LOCATIONS ARE APPROXIMATE. MORE PRECISE LOCATIONS AND ADDITIONAL QUANTITIES MAY BE REQUIRED BY THE AUTHORITY HAVING JURISDICTION. CONFIRM LOCATIONS AND QUANTITIES PRIOR TO INSTALLATION. PROVIDE ADDITIONAL EXIT SIGNS AS REQUIRED BY THE AHJ.

FIRE AND SMOKE RESISTANT WALL IDENTIFICATION:

WHERE THERE ARE ACCESSIBLE CONCEALED CEILINGS AND ATTIC SPACES, PROVIDE PERMANENT IDENTIFICATION WITH SIGNS OR STENCILING FOR ALL FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS, SMOKE PARTITIONS, AND ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS. SUCH IDENTIFICATION SHALL:

1. IDENTIFY RATING AND TYPE OF BARRIER
2. IDENTIFICATION SHALL BE LOCATED WITHIN 15 FEET OF THE END OF EACH WALL
3. AT INTERVALS NOT EXCEEDING 30 FEET MEASURED HORIZONTALLY ALONG THE WALL OR PARTITION.
4. IDENTIFICATION LETTERS SHALL BE A MINIMUM OF 3 INCHES IN HEIGHT WITH A MINIMUM 3/8-INCH STROKE IN A CONTRASTING COLOR. VERIFY EXACT WORDING WITH AHJ.
   - A. "SMOKE PARTITION - SEAL ALL PENETRATIONS".
   - B. "1-HOUR FIRE BARRIER – PROTECT ALL OPENINGS".
   - C. "1-HOUR FIRE/SMOKE BARRIER – PROTECT ALL OPENINGS".
   - D. "2-HOUR FIRE BARRIER – PROTECT ALL OPENINGS".
   - E. "2-HOUR FIRE/SMOKE BARRIER – PROTECT ALL OPENINGS".
   - F. "3-HOUR FIRE BARRIER – PROTECT ALL OPENINGS".
   - G. "3-HOUR FIRE WALL – PROTECT ALL OPENINGS".
5. PROVIDE ANY ADDITIONAL IDENTIFICATION AS NOTED ON THE LIFE SAFETY DRAWINGS.
6. PLACE ADDITIONAL LABELS AS DIRECTED BY AUTHORITIES HAVING JURISDICTION.
7. DO NOT LOCATE STENCILING ON FINISHED SURFACES OR WHERE EXPOSED TO VIEW BY PUBLIC.

EGRESS (MAXIMUM TRAVEL...	
TYPE	DISTANCE

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REVISION DATES:

1	ADDENDUM #1	02/18/26
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STATE OF MISSOURI
MICHAEL JOHN GOSLING
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ISSUE DATE: DECEMBER 22, 2025
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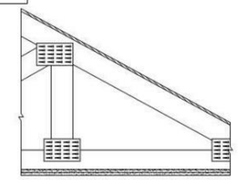
LIFE SAFETY PLANS

ROOF-CEILING SYSTEMS

GA FILE NO. RC 2602 | GENERIC | 1 HOUR FIRE

WOOD TRUSSES, GYPSUM WALLBOARD

Base layer 5/8" type X gypsum wallboard applied at right angles to wood trusses 24" o.c. with 1 1/4" Type W or S drywall screws 24" o.c. **Face** layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to trusses with 1 7/8" Type W or S drywall screws 12" o.c. at joints and intermediate trusses and 1 1/2" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood trusses supporting 1/2" wood structural panels applied at right angles to trusses with 8d nails. Appropriate roof covering.



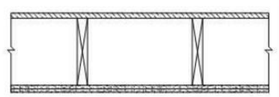
Approx. Ceiling Weight: 5 psf
Fire Test: FM FC 172, 2-25-72; ITS, 8-6-98

FLOOR-CEILING SYSTEMS, WOOD-FRAMED

GA FILE NO. FC 5406 | GENERIC | 1 HOUR FIRE | 35 to 39 STC SOUND

WOOD JOISTS, GYPSUM WALLBOARD

Base layer 5/8" type X gypsum wallboard applied at right angles to 2 x 10 wood joists 24" o.c. with 1 1/4" Type W or S drywall screws 24" o.c.
Face layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to joists with 1 7/8" Type W or S drywall screws 12" o.c. at joints and intermediate joists and 1 1/2" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood joists supporting 1/2" plywood with exterior glue applied at right angles to joists with 8d nails. **Ceiling provides one hour fire resistance protection for framing, including trusses.**



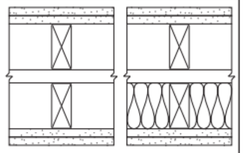
Approx. Ceiling Weight: 5psf
Fire Test: FM FC 172, 2-25-72; ITS, 8-6-98
Sound Test: Estimated

GA FILE NO. WP 3820 | GENERIC | 2 HOUR FIRE | 55 to 59 STC SOUND

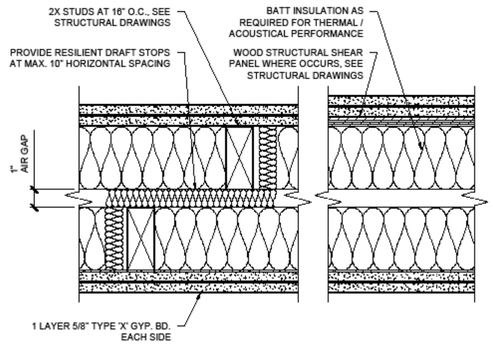
GYPSUM WALLBOARD, WOOD STUDS

Base layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to each side of double row of 2 x 4 wood studs 16" o.c. on separate plates 1" apart with 6d coated nails, 17/8" long, 0.085" shank, 1/4" heads, 24" o.c. **Face** layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to each side with 8d coated nails, 23/8" long, 0.100" shank, 1/4" heads, 8" o.c.

Joints staggered 16" each layer and side. Sound tested with 31/2" glass fiber insulation stapled to studs in stud spaces on one side and with nails for base layer spaced 6" o.c. Horizontal bracing required at mid-height. **(LOAD-BEARING)**



Thickness: 103/4"
Approx. Weight: 13 psf
Fire Test: See WP 4135 (FM WP 360, 9-27-74)
Sound Test: NGC 3056, 4-7-70

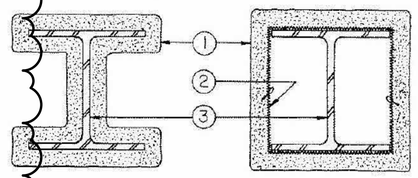


2 HOUR RATED PER GA FILE No. WP 3820

Design No. X772

October 22, 2008

Ratings — 1, 1-1/2, 2, 3 and 4 h.



1. Spray-Applied Fire Resistive Materials* — Applied by mixing with water and spraying in more than one coat to the thicknesses shown below, to steel surfaces which are clean and free of dirt, loose scale, and oil. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 22/19 pcf respectively for Types Z-106, Z-106/G. Min avg and min ind density of 19/18 pcf respectively for Types Z-146 and 7HD. Min avg and min ind density of 40/36 pcf respectively for Types Z-146, Z-146FC and Z-146T cementitious mixture. Min avg and min ind density of 50/45 pcf respectively for Types Z-156, Z-156T and Z-156FC. For method of density determination, see Design Information Section, Sprayed Materials.

The thickness of Spray-Applied Fire Resistive Materials to be applied to all surfaces of the column (Item 1) required for rating periods of 1 h, 1-1/2 h, 2 h, 3 h, 4 h may be determined by the equation:

$$h = \frac{R}{1.05\,(W/D) + 0.61}$$

Where:

h = Spray-Applied Fire Resistive Materials thickness in the range 0.25-5.875 in.

R = Fire resistance rating in hours (1 - 4 h)

D = Heated perimeter of steel column in inches

W = Weight of steel column in lbs per foot

W/D = 0.33 to 6.62

As an alternate to the equation, the minimum thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings of contour sprayed or boxed columns may be determined from the table below:

Min Col Size	W/D	Min Thk In. 1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6X9	0.33	1-1/8	1-1/2	2	2-1/2	3-13/16
W6x16	0.57	13/16	1-1/4	1-11/16	2-1/2	3-5/16
W8x28	0.67	3/4	1-3/16	1-3/8	2	2-11/16
W10x49	0.83	11/16	7/8	1-1/8	1-11/16	2-1/2
W14x228	2.49	5/16	1/2	9/16	7/8	1-1/4
W14x730	6.62	5/16	5/16	5/16	3/8	9/16

The thicknesses contained in the table below are applicable when the Spray-Applied Fire Resistive Materials applied to columns' flange tips are reduced to one-half that shown in the table below:

Min Col Size	W/D	Min Thk In. 1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6x9	0.33	1-1/8	1-5/8	2-1/16	2-15/16	3-13/16
W6x16	0.57	7/8	1-5/16	1-3/4	2-9/16	3-3/8
W8x28	0.67	13/16	1-3/16	1-1/2	2-1/4	2-15/16
W10x49	0.83	3/4	1-1/16	1-3/8	2-1/16	2-3/4
W14x233	2.49	5/16	1/2	11/16	1-3/16	1-5/8
W14x730	6.62	5/16	5/16	5/16	9/16	3/4

As an alternate to the equation, the min thickness of Spray-Applied Fire Resistive Materials Types Z-146, Z-146FC, Z-146T, Z-156, Z-156T and Z-156FC required for various fire resistance ratings of contours sprayed or boxed wide flange columns are shown in the table below:

Column Size In.	Min Thkns In. 1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6x9	1-1/16	1-7/16	1-1/2	2-1/4	3
W6x12	1	1-3/8	1-1/2	2-1/4	3
W6x16	13/16	1-1/4	1-1/2	2-1/4	2-15/16
W8x20	3/4	1-3/16	1-3/8	2	2-1/2
W10x49	11/16	7/8	1-1/8	1-9/16	1-15/16
W21x73	11/16	7/8	1-1/8	1-9/16	1-15/16
W12x106	9/16	7/8	1-1/8	1-9/16	1-15/16
W14x233	5/16	1/2	9/16	7/8	1-1/4
W14x730	5/16	5/16	5/16	3/8	9/16

ARABIAN VERMICULITE INDUSTRIES — Types MK-5, MK-6/CBF, MK-6/ED, MK-6/HY, MK-6/HY Extended Set, MK-6a, Sonophone 1, Sonophone 5, Z-106, Z-106/G.

W R GRACE & CO - CONN — Types MK-4, MK-5, MK-6/HY, MK-6/HY Extended Set, MK-6a, RG, Monokote Acoustic 1, Monokote Acoustic 5, Z-106, Z-106/G, Z-146, Z-146FC, Z-146T, Z-156, Z-156T and Z-156FC (Types Z-146, Z-146FC, Z-146T, Z-156, Z-156FC, Z-156T also investigated for exterior use).

GRACE KOREA INC — Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6/HY Extended Set, MK-6a, Monokote Acoustic 1, Monokote Acoustic 5, Z-106, Z-106/G.

PYROK INC — Type LD.

SOUTHWEST FIREPROOFING PRODUCTS CO — Types 4, 5, 5EF, 5GP, 5MD, 7GP, 7HD, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD.

VERMICULITE PRODUCTS INC — Type MK-4 or MK-5.

2. **Metal Lath** — (Optional for contour application) — 3.4 lb/sq yd galvanized or painted expanded steel lath. Lath shall be lapped 1 in. and tied together with No. 18 SWG galvanized steel wire spaced vertically 6 in. O.C.

3. **Steel Column** — Wide flange steel column, min/max sizes as specified above.

*Bearing the UL Classification Mark

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PERMIT SET

OLDHAM VILLAGE
1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM #1	02/18/26

STATE OF MISSOURI
MICHAEL JOHN GOSLINGA
NUMBER A-2016008368
02-19-2026
ARCHITECT

PROFESSIONAL SEAL

G-503

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

UL LISTING

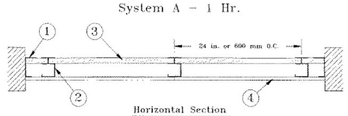
Design No. U415

December 22, 2020

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr

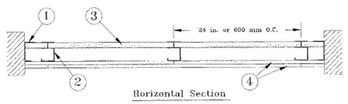
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

System A – 1 Hr.



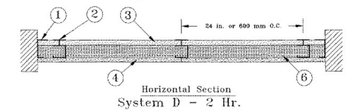
Horizontal Section

System B – 2 Hr.



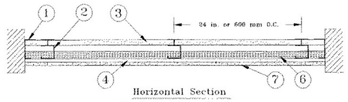
Horizontal Section

System C – 2 Hr.



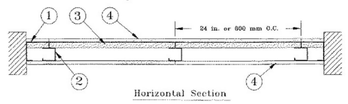
Horizontal Section

System D – 2 Hr.



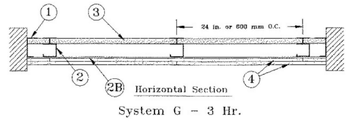
Horizontal Section

System E – 2 Hr.



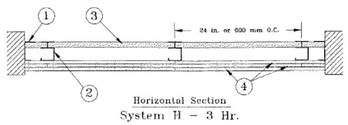
Horizontal Section

System F – 2 Hr.



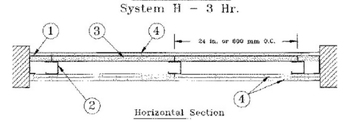
Horizontal Section

System G – 3 Hr.



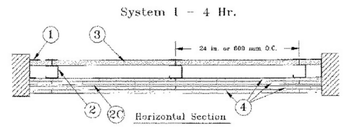
Horizontal Section

System H – 3 Hr.



Horizontal Section

System I – 4 Hr.



Horizontal Section

1. **Floor, Side and Ceiling Runners —** "I" - shaped runner, min 2-1/2 in. deep (min 4 in. deep when System C is used), with unequal legs of 1 in. and 2 in., fabricated from min 24 MSG (min 20 MSG when Item 4A, 4B, 4C, 4D or 7 are used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. "T" - shaped studs (Item 2A) may be used as side runners in place of "I" - shaped runners.

2. **Steel Studs —** "C-H" - shaped studs, min 2-1/2 in. deep (min 4 in. deep when System C is used), fabricated from min 25 MSG (min 20 MSG when Items 2D, 4A, 4B, 4C, 4D or 7 is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor-to-ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when Items 4A, 4B, 4C, or 4D are used).

2A. **Steel Studs** — (Not Shown) — "T" - shaped studs installed back to back in place of "C-H" - shaped studs (Item 2) "T" - shaped studs secured together with steel screws spaced a maximum 12 in. OC. Fabricated from min 23 MSG (min 20 MSG when Item 2D, 4A, 4B or 7 is used) galv steel, min 2-1/2 in. deep (min 4 in. deep when System C is used), with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 to 1/2 in. less than floor to ceiling heights.

2B. **Furring Channels —** (Optional, Not Shown) — For use with single or double layer systems. Resilient furring channels fabricated from min 25MSG corrosion protected steel, installed horizontally, and spaced vertically a max 24 in. OC. Flange portion of channel attached to each intersecting "C-H" or "T" stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When furring channels are used, wallboard to be installed vertically only. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A -4D), or cementitious backer units (Item 7).

2C. **Furring Channels —** For use with System I - "Hat" - shaped, 25 MSG galv steel furring channels attached directly over the inner layers of wallboard to each stud with 2 in. long Type S pan head steel screws. Screws alternate from top flange to bottom flange at each stud intersection. Furring channels spaced vertically max 24 in. OC.

U415 CONTINUED

2D. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

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 max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 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. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75)

2E. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ea) to studs. Clips spaced 24 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A2376

2F. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

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

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 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 GENIECLIP

2G. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

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 2Gb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ga) to studs. Clips spaced 24 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

2H. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Phillips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 2Ha) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

2I. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ia) to studs (Item 2 or 2A). Clips spaced max. 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.
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

3. **Gypsum Board* —** Gypsum liner panels, nom 1 in. thick, 24 in. or 600 mm (for metric spacing) wide. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" portion of "C-H" studs or the gap between the two 3/4 in. legs of the "E" studs. Free edge of end panels attached to long leg of vertical "I" - runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC. When wall height exceeds liner panel length, liner panel may be butted to extend to the full height of the wall. Horizontal joints need not be backed by steel framing. In System I, butt joints in liner panels are staggered min 36 in. Butt joints backed with 6 in. by 22 in. strips of 3/4 in. thick gypsum wallboard (Item 4). Wallboard strips centered over butt joints and secured to liner panels with six 1-1/2 in. long Type G steel screws, three screws along the 22 in. dimension at the top and bottom of the strips.
CGC INC — Type SLX

UNITED STATES GYPSUM CO — Type SLX

USG BORAL DRYWALL SFZ LLC — Type SLX

USG MEXICO S A DE C V — Type SLX

4. **Gypsum Board* —**

System A — 1 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. when installed vertically or 8 in OC when installed horizontally. Horizontal joints need not be backed by steel framing.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, WRC, WRX, USGX.

USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX

System B — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in two layers. Inner or base layer attached to resilient furring channels (Item 2B) with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 12 in. OC when installed vertically and staggered 12 in. from base layer screws or 8 in. OC when installed horizontally and staggered 8 in. from base layer screws. Horizontal joints between inner and outer layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in.

CGC INC — 1/2 in.Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System C — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, secured with 1-1/4 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field when installed vertically or 8 in. OC along the vertical edges and in the field when installed horizontally. Horizontal joints need not be backed by steel framing. Screws along side joints offset 4 in. Requires min 4 in. deep framing per Items 1, 2 and 3. Requires min 3 in. thick mineral wool batts per Item 6.

CGC INC — Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE C V — Types IP-X3 or ULTRACODE

U415 CONTINUED

System D — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached directly to studs with 1 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Horizontal joints need not be backed by steel framing. Requires face layer of 1/2 or 5/8 in. thick cementitious backer units per Item 7 and min 1-1/2 in. thick mineral wool batts per Item 6.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX

USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System E — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. OC when installed vertically or 8 in. when installed horizontally. Horizontal joints need not be backed by steel framing.

CGC INC — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR, 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System F — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically in two layers. Inner or base layer attached to resilient furring channels (Item 2B) with 1 in. long Type S steel screws spaced 24 in. Outer or face layer attached to resilient furring channels (Item 2B) with 1-5/8 in. long Type S steel screws spaced 12 in. OC and staggered 12 in. from base layer screws. Joints between inner and outer layers staggered 24 in.

CGC INC — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System G — 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in three layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in OC when installed horizontally. Middle layer attached to studs with 1-5/8 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 2-1/4 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. . Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

CGC INC — Types C, IP-X2, IPC-AR, ULIX, WRC

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type C

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

USG BORAL DRYWALL SFZ LLC — Type C

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

System H — 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, two layers over the flange of the "C" section of the studs, one layer over the flange of the "H" section of the studs. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

CGC INC — Types C, IP-X2, IPC-AR, ULIX, WRC

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type C

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

USG BORAL DRYWALL SFZ LLC — Type C

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

System I — 4 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 4 ft wide (or 1200 mm for metric spacing) wallboard with square or tapered edges. Total of four layers to be used. First and second (inner) layers applied vertically or horizontally over the steel studs. Horizontal joints need not be backed by steel framing. When applied vertically, joints centered over studs and staggered min 24 in., otherwise all joints staggered min 12 in. First layer secured to studs with 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 24 in. OC. Second layer secured to studs with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Third layer applied vertically over the furring channels (Item 2C) with a 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Fourth layer applied vertically or horizontally with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. When applied vertically, joints to be staggered min 24 in. from third layer, otherwise all joints staggered min 12 in.

CGC INC — Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE C V — Types IP-X3 or ULTRACODE

4A. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. 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. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9) or Lead Discs or Tabs (see Item 10).
RAY-BAR ENGINEERING CORP — Type RB-LBG

4B. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nominal 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 (or #6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Type Nelco

4C. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. 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. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A). 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 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip.
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

U415 CONTINUED

4D. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 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 5/8 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

5. **Joint Tape and Compound —** (Not Shown)

Systems A, B, C, E, F, G, H, I

Joints on outer layers of gypsum boards (Item 4 and 4A) covered with paper tape and joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. Exposed screw heads covered with joint compound.

6. **Batts and Blankets* —**

Systems A, B, E, F, G, H, I

(Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt mineral bearing the UL Classification Marking as to Fire Resistance.

Systems C & D

Min 3 in. (System C) and min 1-1/2 in. (System D) thick mineral wool batts, friction fitted between the studs and floor and ceiling runners.

ROCKWOOL — Type AFB. min. density 1.8 pcf / 28.8 kg/m^3

THERMAFIBER INC — Type SAFB, SAFB FF

7. **Cementitious Backer Units* —** (System D) — Nom 1/2 or 5/8 in. thick panels, square edge, attached to studs over gypsum wallboard with 1-5/8 in. long, Type S-12, corrosion resistant steel screws spaced 8 in. OC and staggered 8 in. from gypsum wall board screws. Joints covered with glass fiber mesh tape. Vertical joints staggered one stud cavity from gypsum wallboard joints. Horizontal joints staggered a min of 12 in. from the gypsum wallboard joints.
UNITED STATES GYPSUM CO — Type DCB

8. **Laminating Adhesive* —** (Optional, Not Shown) — Used to bond outer layer of Cementitious Backer Units (Item 7) to inner layers of Gypsum Board (Item 4) in System D. ANSI A136.1 Type 1 organic adhesive applied with 1/4 in. square notched trowel. See Adhesives (BYWR) in the Fire Resistance Directory or Adhesives (BJLZ) in the Building Materials Directory for names of Classified companies.

9. **Lead Batten Strips —** (Not Shown, For Use With Item 4A) — 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 99.5% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Required behind vertical joints.

9A. **Lead Batten Strips —** (Not Shown, for use with Item 4C) — 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-201f, Grades "B, C or D" . Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and optional at remaining stud locations.

10. **Lead Discs or Tabs —** (Not Shown, For Use With Item 4A) — 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 or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grade "C".

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

11. **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 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4B) and optional at remaining stud locations.

12. **Lead Tabs —** (Not Shown, For Use With Item 4B) — 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 4B) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

*** 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 2020-12-22

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PERMIT SET

OLDHAM VILLAGE

1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM #1	02/18/26

STATE OF MISSOURI
MICHAEL JOHN GOSLING
NUMBER A-2016000360
02-19-2026
ARCHITECT

PROFESSIONAL SEAL

G-504

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

UL LISTING

Design/System/Construction/Assembly Usage Disclaimer

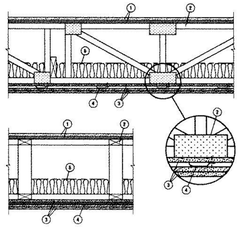
- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information 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 methods of construction.
- Only products which bear UL's Mark are considered Certified.

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

Design No. **L577**
November 06, 2025

Unrestrained Assembly Rating — 2 Hr.
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 — See Guide BXUV or BXUV7

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



1. **Flooring Systems —** The flooring system shall consist of one of the following:

System No. 1

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial asphalt saturated felt.

Finish Flooring — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1800 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Types LRK, HSLRK, CSD

USG MEXICO S A DE C V — Types LRK, HSLRK, CSD

Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

UNITED STATES GYPSUM CO — Types SAM, LEVELROCK® Brand Sound Reduction Board, LEVELROCK® Brand Floor Underlayment SRM-25.

Alternate Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding minimum thickness of floor topping over floor mat.

GRASSWORX L L C — SC Types

System No. 2

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) — Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor- and Roof-Topping Mixtures (CCOX) category for names of Classified Companies. Refer to the manufacturer's instructions accompanying the material and/or contact the manufacturer's technical support for specific mix design and minimum thickness recommended for use with eligible floor mat(s).

Floor Mat Materials* — (Optional) — Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Types Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Types Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.

KEENE BUILDING PRODUCTS CO INC — Types Quiet Qurl 65/075, Quiet Qurl 65/075 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.

KEENE BUILDING PRODUCTS CO INC — Types Quiet Qurl 52/013 and Quiet Qurl 52/013 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.

KEENE BUILDING PRODUCTS CO INC — Types Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT

System No. 3

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in thick commercial asphalt saturated felt.

Finish Flooring — Floor Topping Mixture* — Min. 3/4 in. thickness of floor topping mixture having a minimum compressive strength of 1500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
MAXXON CORP — Types Maxxon Standard and Maxxon High Strength

Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
MAXXON CORP — Type Encapsulated Sound Mat.

Floor Mat Reinforcement — (Optional) Refer to manufacturer's instructions regarding minimum thickness of floor topping for use with floor mat reinforcement.

Metal Lath — (Optional) — 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd loose laid over the floor mat material.

Fiber Glass Reinforcement — (Optional) 0.015 in. thick PVC coated non-woven fiberglass mesh, 0.368 lbs./sq. yd loose laid over the floor mat material.

System No. 4

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood panels secured to trusses with construction adhesive and No.6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
FORMULATED MATERIALS LLC — — Types FR-25, FR-30, SiteMix, SiteMix SL, and Treadstone Advantage

Floor Mat Material* — (Optional) — Floor mat material nominal 2 - 9.5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in.
FORMULATED MATERIALS LLC — Types M1, M2, M3, Elite, Duo, R1, and R2

System No. 5

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial asphalt saturated felt.

Finish Floor - Mineral and Fiber Board* — Min 1/2 in. thick, supplied in sizes ranging from 3 ft by 4 ft to 8 ft by 12 ft. All joints to be staggered a min of 12 in. with adjacent sub-floor joints.
HOMASOTE CO — Types 440-32 Mineral and Fiber Board

System No. 6

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood panels secured to trusses with construction adhesive and No.6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
ARCOSA SPECIALTY MATERIALS — AccuCrete® Types NexGen, Green, Prime and PrePour, AccuRadiant®, AccuLevel® Types G40, G50 and SD30

Floor Mat Material* — (Optional) — Floor mat material nominal 2 - 9.5 mm thick loose laid over the subfloor. Floor topping shall be a min of 3/4 in.
ARCOSA SPECIALTY MATERIALS — AccuQuiet® Types D13, D-18, D25, DX38, EM.125, EM.125S, EM.250, EM.250S, EM.375, EM.375S, EM.750, and EM.750S.

System No. 7

Subflooring — Min 19/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered.

Floor Mat Materials* — (Optional) — Floor mat material nom 1/8 in. (3 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 3/4 in. (19 mm)
HACKER INDUSTRIES INC — FIRM-FILL SCM 125

Alternate Floor Mat Materials — (Optional) — Floor mat material nom 1/4 in. (6 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1 in. (25 mm)
HACKER INDUSTRIES INC — Types FIRM-FILL SCM 250 and FIRM-FILL SCM 250+

Alternate Floor Mat Materials — (Optional) — Floor mat material nom 3/8 in. (10 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/4 in. (32 mm)
HACKER INDUSTRIES INC — Types FIRM-FILL SCM 400 and FIRM-FILL SCM 400+

Alternate Floor Mat Materials — (Optional) — Floor mat material nom 3/4 in. (19 mm) thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in. (38 mm)
HACKER INDUSTRIES INC — Types FIRM-FILL SCM 750 and FIRM-FILL SCM 750+

Alternate Floor Mat Materials — (Optional) — Floor mat material nom 5/64 in. (2 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of floor-topping mixture. Floor topping thickness a min 1 in. over the floor mat.
HACKER INDUSTRIES INC — Type Hacker Sound-Mat.(HSM1.02)

Alternate Floor Mat Materials — (Optional) — Floor mat material nom 1/4 in. (6 mm) thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1-1/4 in. (32 mm) of floor-topping mixture.
HACKER INDUSTRIES INC — Type Hacker Sound-Mat II. (HSM2.06)

Metal Lath — (Optional) — For use with 3/8 in. (10 mm) or greater floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.

Finish Flooring — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.
HACKER INDUSTRIES INC — Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 3310, Firm-Fill 4010, Firm-Fill High Strength, Gyp-Span Radiant

System No. 8

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood panels secured to trusses with construction adhesive and No.6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring — Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
DEPENDABLE LLC — GSL M3.4, GSL K2.6, GSL-CSD or GSL RH

Floor Mat Materials* — (Optional) — Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.
KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.
KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.
KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075, Quiet Qurl 65/075 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.
KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl 52/013 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.
KEENE BUILDING PRODUCTS CO INC — Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT

System No. 9

Subflooring — Min 15/32 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered. Plywood panels secured to trusses with construction adhesive and No.6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Wall and Partition Facings and Accessories* - Sound Barrier (Optional) — Acoustic Sleeper pads stapled to the top of the subfloor and centered over wood trusses. Acoustic Sleeper pads are to be spaced appropriately so that the finish floor panels are fastened through Acoustic Sleeper pads to the trusses.

STC ARCHITECTURAL PRODUCTS L L C DBA STC SOUND CONTROL — Acoustic Sleeper

Finish Flooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Butt joints of panels have the option of being sealed with any UL Classified caulk or sealant found under - Fill, Void or Cavity Materials* (XHHW).

System No. 10

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Finish Flooring - Floor Topping Mixture* — Min 1 in. thickness of floor topping mixture having a min compressive strength of 4500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
SIKA DEUTSCHLAND GMBH — Type SCHONOX AP Rapid Plus

System No. 11

Subflooring - Building Units* — Nom. 1-1/2 in. thick T & G laminated composite plywood sub-floor panels to be perpendicular to the trusses with end joints staggered 4 ft. End joints centered over top chord of trusses. Subfloor panels secured to trusses with construction adhesive and #8 by 3 in. wood screws spaced 12 in. OC in the field and 6 in. OC at the end joints.
RSP INDUSTRIES INC — SAP board

System No. 12

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Commercial asphalt saturated felt, 0.030 in. thick.

Vapor Barrier — (Optional) - Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor- and Roof-Topping Mixtures (CCOX) category for names of Classified Companies. Refer to the manufacturer's instructions accompanying the material and/or contact the manufacturer's technical support for specific mix design and minimum thickness recommended for use with eligible floor mat(s).

Floor Mat Materials* — (Optional, Not Shown) - Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.
Freudenberg Performance Materials LP — EnkaSonic® by Colbond a member of the Low & Bonar group Types 125, 250, 250 Plus, 400, 400 Plus, 750 and 750 Plus.

Floor Mat Reinforcement — (Optional) - Refer to manufacturer's instructions regarding minimum thickness of floor topping for use with floor mat reinforcement.

Metal Lath — (Optional) — Expanded steel diamond mesh, 2.5 lb / sq yd loose laid over floor mat material.

Fiberglass Mesh Reinforcement — (Optional) — Coated non-woven glass fiber mesh grid loose laid over floor mat material.

System No. 13

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Floor Mat Materials* — (Optional) — Floor mat material loose laid over the subfloor. Refer to manufacturer's instructions regarding the minimum thickness of floor topping over each floor mat material.

GRASSWORX L L C — SC Types

Finish Flooring* — Min 3/4 in. thickness of any Floor Topping Mixture bearing the UL Classification Marking as to Fire Resistance. See Floor- and Roof-Topping Mixtures (CCOX) category for names of Classified Companies. Refer to the manufacturer's instructions accompanying the material and/or contact the manufacturer's technical support for specific mix design and minimum thickness recommended for use with eligible floor mat(s).

Floor Mat Reinforcement — (Optional) - Refer to manufacturer's instructions regarding minimum thickness of floor topping for use with floor mat reinforcement.

Metal Lath — (Optional) — Expanded steel diamond mesh, 2.5 lb / sq yd loose laid over floor mat material.

Fiberglass Mesh Reinforcement — (Optional) — Coated non-woven glass fiber mesh grid loose laid over floor mat material.

System No. 14

Subflooring - Building Units* — Nom. 1-3/16 in. thick T & G laminated composite plywood sub-floor panels to be perpendicular to the trusses with end joints staggered 4 ft. End joints centered over top chord of trusses. Subfloor panels secured to trusses with construction adhesive and #8 by 2-3/8 in. wood screws spaced 12 in. OC in the field and 6 in. OC at the end joints.

RSP INDUSTRIES INC — SAP 1.0

System No. 15

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Finish Flooring - Floor Topping Mixture* — Min 3/4 in. thickness of floor topping mixture having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.
ALPHAGYP, LLC — Type AlphaGyp

Floor Mat Materials* — (Optional) — Nom. 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.
KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 55/025 and Quiet Qurl 55/025 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.
KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 60/040 and Quiet Qurl 60/040 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 3/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 1-1/2 in.
KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 65/075, Quiet Qurl 65/075 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a minimum of 3/4 in.
KEENE BUILDING PRODUCTS CO INC — Type Quiet Qurl 52/013 and Quiet Qurl 52/013 N

Alternate Floor Mat Materials* — (Optional) — Floor mat material Nom. 1/4 in. entangled net core with a compressible fabric attached to the bottom loose laid over the subfloor. Floor topping thickness shall be a minimum of 1 in.
KEENE BUILDING PRODUCTS CO INC — Types Quiet Qurl 55/025 MT and Quiet Qurl 55/025 N MT

System No. 16

Subflooring — Nom 23/32 in. thick wood structural panels installed perpendicular to trusses with end joints staggered. Plywood or panels secured to trusses with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Finish Flooring - Floor Topping Mixture* — Min 1 in. thickness of floor topping mixture having a min compressive strength of 2500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

Apex Minerals LLC — Type Apex Multi Underlayment

2. **Trusses —** Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Min truss depth is 12 in. Truss members secured together with min 0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approx. 7/8 in. centers with four rows of teeth per inch of plate width.

3. **Gypsum Board* —** Three layers of 5/8 in. thick by 4 ft wide gypsum board. Top layer boards installed with the long dimension perpendicular to trusses with end joints located under bottom of trusses. End joints in adjacent rows shall be staggered on adjacent trusses. Top layer boards secured to bottom chord of trusses with 1-5/8 in. long Type S bugle head screws, spaced max 8 in. OC. Screws located 1-1/2 to 2 in., and 3/4 in. from side and end joints, respectively. Bottom two layers of gypsum board installed perpendicular to furring channels with end joints centered on the furring channels. Middle layer boards secured to each furring channel with 1 or 1-1/4 in. long Type S-12 bugle head steel screws spaced max 8 in. OC. Screws located 1-1/2 to 2 in. and 5/8 to 3/4 in. from side and end joints, respectively. Face layer boards secured to each furring channel through the middle layer with 1-5/8 or 1-7/8 in. long Type S-12 bugle head steel screws, spaced a max of 8 in. OC. Screws located 1-1/2 to 2 in. and 5/8 to 3/4 in. from side and end joints, respectively. End joints and side joints of the face layer boards shall be staggered a min of 16 in. from the joints in the middle layer. If end joints of the face layer boards are not centered on the furring channels, the end of boards at the end joint shall be attached to the middle layer boards with 1-1/2 in. long Type G steel screws spaced 8 in. OC and located 1-1/2 in. from the end joint. When **Steel Framing Members** (Item 4A) are used - Three layers of 5/8 in. thick by 4 ft wide gypsum board installed with long dimension perpendicular to furring channels Item 4A. Top layer secured with 1 or 1-1/4 in. long Type S bugle head screws, spaced max 8 in. OC. Screws located 1-1/2 to 2 in., and 3/4 in. from side and end joints, respectively. Middle layer boards secured to furring channels with 1-5/8 or 1-7/8 in. long Type S-12 bugle head steel screws spaced max 8 in. OC. Screws located 1-1/2 to 2 in. and 5/8 to 3/4 in. from side and end joints, respectively. Face layer boards secured to each furring channels with 2-1/4 in. long Type S-12 bugle head steel screws, spaced a max of 8 in. OC. Screws located 1-1/2 to 2 in. and 5/8 to 3/4 in. from side and end joints, respectively. Butted end joints shall be staggered minimum 2 ft. within the assembly. Additional furring channels constructed as per Item 4A shall be used to support each end of each gypsum board. These additional furring channels shall be attached to underside of the truss with Genie clips as described in item 4A. Screw spacing along the gypsum board butt joint shall be 8 in. OC. Butted side joints shall be offset min 16 in. When **Steel Framing Members** (Item 4B) are used, three layers of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels (Item 4B). Top layer secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Screws located 1-1/2 to 2 in., and 3/4 in. from side and end joints, respectively. Middle layer boards secured to furring channels with 1-5/8 or 1-7/8 in. long Type S-12 bugle head steel screws spaced max 8 in. OC. Screws located 1-1/2 to 2 in. and 5/8 to 3/4 in. from side and end joints, respectively. Face layer boards secured to each furring channels with 2-1/4 in. long Type S-12 bugle head steel screws, spaced a max of 8 in. OC. Screws located 1-1/2 to 2 in. and 5/8 to 3/4 in. from side and end joints, respectively. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end. The two support furring channels shall be spaced approximately 3 in. in from joint. Screw spacing along the gypsum board butt joint and along both additional channels shall be 8 in. OC. Additional screws shall be placed in the adjacent section of gypsum board into the aforementioned 3 in. extension of the extra butt joint channels as well as into the main channel that runs between. Butt joint furring channels shall be attached with one RESILMOUNT Sound Isolation Clip at each end of the channel. When **Steel Framing Members** (Item 4C) are used, three layers of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels (Item 4C). Top layer secured to furring channels with nom 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field of the board. Screws located 1-1/2 to 2 in., and 3/4 in. from side and end joints, respectively. Middle layer boards secured to furring channels with 1-5/8 or 1-7/8 in. long Type S-12 bugle head steel screws spaced max 8 in. OC. Screws located 1-1/2 to 2 in. and 5/8 to 3/4 in. from side and end joints, respectively. Face layer boards secured to each furring channels with 2-1/4 in. long Type S-12 bugle head steel screws, spaced a max of 8 in. OC. Screws located 1-1/2 to 2 in. and 5/8 to 3/4 in. from side and end joints, respectively. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, an additional single length of furring channel shall be installed and be spaced approximately 3 in. from the butt joint (6 in. from the continuous furring channels) to support the floating end of the gypsum board. Each of these shorter sections of furring channel shall extend one truss beyond the width of the gypsum panel and be attached to the adjacent trusses with one SonusClip at every truss involved with the butt joint.

CGC INC — Types C, IP-X2, IPC-AR, ULIX

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

USG BORAL DRYWALL SFZ LLC — Type C

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

4. **Furring Channels —** Resilient channels, 1/2 in. deep, or inverted hat type furring channels, 7/8 in. deep, formed from 0.019 in. thick galv steel, spaced 12 in. OC perpendicular to trusses. Channels secured to each truss with 1-7/8 in. long Type S steel screws.

4A. **Steel Framing Members* —** (Not Shown) — As an alternate to item 4.

a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 12 in. OC perpendicular to wood structural members. Channels secured to trusses as described in item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2-1/2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. As an alternate, ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the Gypsum Butt joints as described in item 3.

PLITEQ INC — Type GENIECLIP

4B. **Steel Framing Members* —** (Not Shown) — As an alternate to item 4.

a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-5/8 in. wide by 7/8 in deep, spaced 12 in OC, perpendicular to wood structural members. Channels secured to trusses as described in item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the trusses (Item 2). Clips spaced at 24" OC and secured to the bottom of the trusses with one No. 10 x 2-1/2 Coarse Drywall Screw through the center hole. Furring channels are then friction fitted into clips. As an alternate, ends of channels are overlapped 6" and screwed with four No. 8 x 1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Additional clips are required to hold the Gypsum Butt joints as described in item 3.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

4C. **Steel Framing Members —** (Not Shown) — As an alternate to item 4.

a. **Furring Channels —** Formed of No. 25 MSG galv steel, 2-1/2 in. wide by 7/8 in deep, spaced 12 in OC, perpendicular to wood structural members. Channels secured to trusses as described in item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.

b. **Steel Framing Members* —** Used to attach furring channels (Item a) to the trusses (Item 2). Clips spaced at 24" OC and secured to the bottom of the trusses with one No. 10 x 2-1/2 Coarse Drywall Screw through the center hole. Furring channels are then friction fitted into clips. As an alternate, ends of channels are overlapped 6" and screwed with four No. 8 x 1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Additional clips are required to hold the Gypsum Butt joints as described in item 3.
REGUPOL AMERICA — Type SonusClip

4D. **Steel Framing Members* —** (Optional - Not Shown) — Used to attach resilient channels (Item 4) to trusses (Item 2). Clips spaced 48 in. OC and secured to trusses with one No. 8 x 2-1/2 in. coarse drywall screw through center grommet hole. Channels secured to clips with one #10 x 1/2 in. pan-head self-drilling screw. Ends of adjoining channels overlapped 6 in. and secured together with two #8 15 x 1/2 in. Philips Modified screws spaced 2-1/2 in. from the center of the overlap. Gypsum board butt joints require additional resilient channels spaced 1-1/2 in. from the butt joint on either side. One edge of the extra channels will extend to an adjacent truss where it is secured with a clip.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

5. **Batts and Blankets* —** Any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. Insulation secured against the subflooring, held suspended in the concealed space or draped over the resilient channels (or furring channels) and gypsum panel membrane. There is no limit in the overall thickness of insulation.

5A. **Loose Fill Material* —** As an alternate to item 5, any loose fill material bearing the UL Classification Marking for Surface Burning Characteristics. There is no limit in the overall thickness of insulation.

6. **Finishing System —** (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board.

*** 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 2025-11-06

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OLDHAM VILLAGE

1100 SW JEFFERSON ST
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REVISION DATES:

1	ADDENDUM #1	02/18/26

STATE OF MISSOURI
MICHAEL JOHN GOSLIN
NUMBER A-2016000560
02-19-2026
ARCHITECT

PROFESSIONAL SEAL

G-505

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

UL LISTING

GENERAL NOTES - FLOOR PLANS:

1. RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. ARCHITECTURAL ELEVATION 100'-0" = CIVIL ELEVATION 1027.5'
3. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
4. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL SHOWN OR LOCATED 4 INCHES FROM FINISH WALL TO HINGE SIDE OF THE DOOR, ALWAYS ALLOWING A MINIMUM OF 18" FROM THE PULL SIDE (STRIKE SIDE) OF THE DOOR TO THE INTERSECTING WALL, OR OTHER PROTRUDING OBJECTS.
5. ALL CLOSETS AND ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME FINISHES AS THE ADJOINING SPACES.
6. ALL PUBLIC SPACES: THE WALLS WILL BE FINISHED WITH 5/8" GYP. BD. TO A LEVEL 4 FINISH AND PAINTED, UNLESS NOTED OR SPECIFIED OTHERWISE.
7. RE: FINISH LEGEND, FINISH SCHEDULE AND SPECIFICATIONS FOR DOOR AND DOOR FRAME FINISHES.
8. PROVIDE BLOCKING IN WALLS WHERE IDENTIFIED IN PLAN AND ELEVATION; RE: SHEETS G-021, G-022, G-023, AND G-031.1 FOR ADDITIONAL ACCESSIBILITY REQUIREMENTS.

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REVISION DATES:

1	ADDENDUM #1	02/18/26
2	ADDENDUM #2	02/27/26

STATE OF MISSOURI
MICHAEL JOHN GOSLINCAR
NUMBER A-2016000360
02-19-2026
ARCHITECT

PROFESSIONAL SEAL

A-111A

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

FIRST FLOOR - ENLARGED AREA A

NORTH

A1 FIRST FLOOR - ENLARGED AREA A
1/8" = 1'-0"

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Autodesk Docs://1259011-LS-OldhamVillage/1259011_A25_LS-OldhamVillage.rvt

GENERAL NOTES - FLOOR PLANS:

1. RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. ARCHITECTURAL ELEVATION 100'-0" = CIVIL ELEVATION 1027.5'
3. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
4. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL SHOWN OR LOCATED 4 INCHES FROM FINISH WALL TO HINGE SIDE OF THE DOOR, ALWAYS ALLOWING A MINIMUM OF 18" FROM THE PULL SIDE (STRIKE SIDE) OF THE DOOR TO THE INTERSECTING WALL, OR OTHER PROTRUDING OBJECTS.
5. ALL CLOSETS AND ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME FINISHES AS THE ADJOINING SPACES.
6. ALL PUBLIC SPACES: THE WALLS WILL BE FINISHED WITH 5/8" GYP. BD. TO A LEVEL 4 FINISH AND PAINTED, UNLESS NOTED OR SPECIFIED OTHERWISE.
7. RE: FINISH LEGEND, FINISH SCHEDULE AND SPECIFICATIONS FOR DOOR AND DOOR FRAME FINISHES.
8. PROVIDE BLOCKING IN WALLS WHERE IDENTIFIED IN PLAN AND ELEVATION; RE: SHEETS G-021, G-022, G-023, AND G-031.1 FOR ADDITIONAL ACCESSIBILITY REQUIREMENTS.

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REVISION DATES:

1	ADDENDUM #1	02/18/26
2	ADDENDUM #2	02/27/26

STATE OF MISSOURI
MICHAEL JOHN GOSLING
NUMBER A-2016000360
02-19-2026
ARCHITECT

PROFESSIONAL SEAL

A-111B

ISSUE DATE: DECEMBER 22, 2025

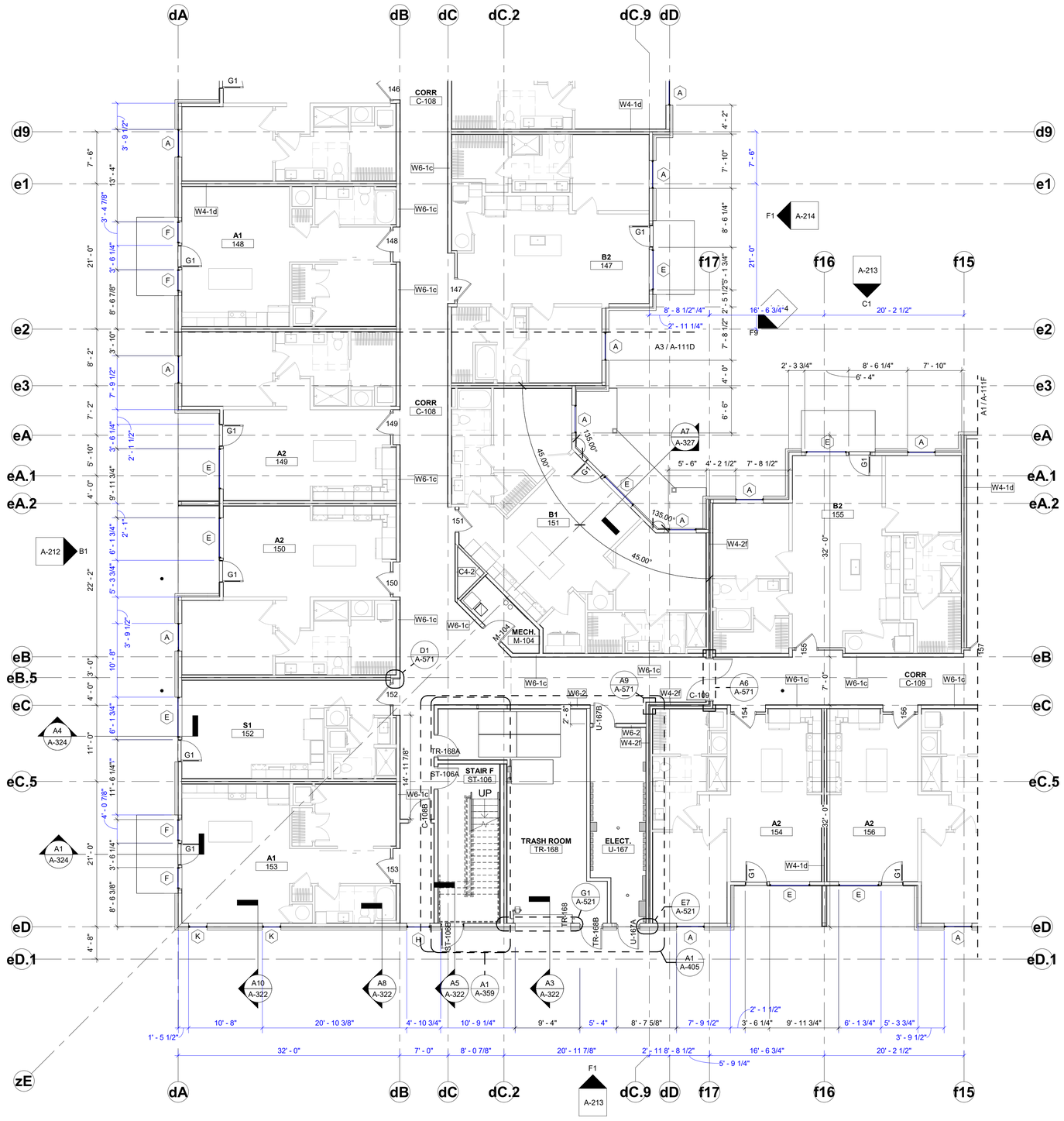
HOEFER WELKER #: 1259011

FIRST FLOOR - ENLARGED AREA B

A1 FIRST FLOOR - ENLARGED AREA B
1/8" = 1'-0"

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A3 FIRST FLOOR - ENLARGED AREA E
1/8" = 1'-0"

NORTH

GENERAL NOTES - FLOOR PLANS:

1. RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. ARCHITECTURAL ELEVATION 100'-0" = CIVIL ELEVATION 1027.5'
3. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
4. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL SHOWN OR LOCATED 4 INCHES FROM FINISH WALL TO HINGE SIDE OF THE DOOR, ALWAYS ALLOWING A MINIMUM OF 18" FROM THE PULL SIDE (STRIKE SIDE) OF THE DOOR TO THE INTERSECTING WALL, OR OTHER PROTRUDING OBJECTS.
5. ALL CLOSETS AND ALCOVES WITHOUT A SPACE IDENTIFICATION NUMBER SHALL HAVE THE SAME FINISHES AS THE ADJOINING SPACES.
6. ALL PUBLIC SPACES: THE WALLS WILL BE FINISHED WITH 5/8" GYP. BD. TO A LEVEL 4 FINISH AND PAINTED, UNLESS NOTED OR SPECIFIED OTHERWISE.
7. RE: FINISH LEGEND, FINISH SCHEDULE AND SPECIFICATIONS FOR DOOR AND DOOR FRAME FINISHES.
8. PROVIDE BLOCKING IN WALLS WHERE IDENTIFIED IN PLAN AND ELEVATION; RE: SHEETS G-021, G-022, G-023, AND G-031.1 FOR ADDITIONAL ACCESSIBILITY REQUIREMENTS.

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REVISION DATES:

2	ADDENDUM #2	02/27/26

STATE OF MISSOURI
MICHAEL JOHN GOSLING
NUMBER A-2016000360
02.19.2026
ARCHITECT

PROFESSIONAL SEAL

A-111E

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

FIRST FLOOR - ENLARGED AREA E

GENERAL NOTES - FLOOR PLANS:

1. RE: SHEET G-011 FOR ADDITIONAL GENERAL NOTES THAT ARE APPLICABLE.
2. ARCHITECTURAL ELEVATION 100'-0" = CIVIL ELEVATION 1027.5'
3. DIMENSIONS SHOWN ON THE FLOOR PLAN ARE TO THE FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND 6D COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
4. DOOR OPENINGS NOT LOCATED BY DIMENSION SHALL BE CENTERED IN WALL SHOWN OR LOCATED 4 INCHES FROM FINISH WALL TO HINGE SIDE OF THE DOOR, ALWAYS ALLOWING A MINIMUM OF 18" FROM THE PULL SIDE (STRIKE SIDE) OF THE DOOR TO THE INTERSECTING WALL, OR OTHER PROTRUDING OBJECTS.
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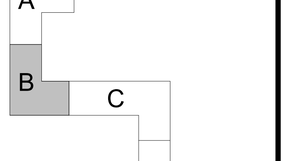
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OLDHAM VILLAGE

1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM #1	02/18/26
2	ADDENDUM #2	02/27/26



PROFESSIONAL SEAL

A-112B

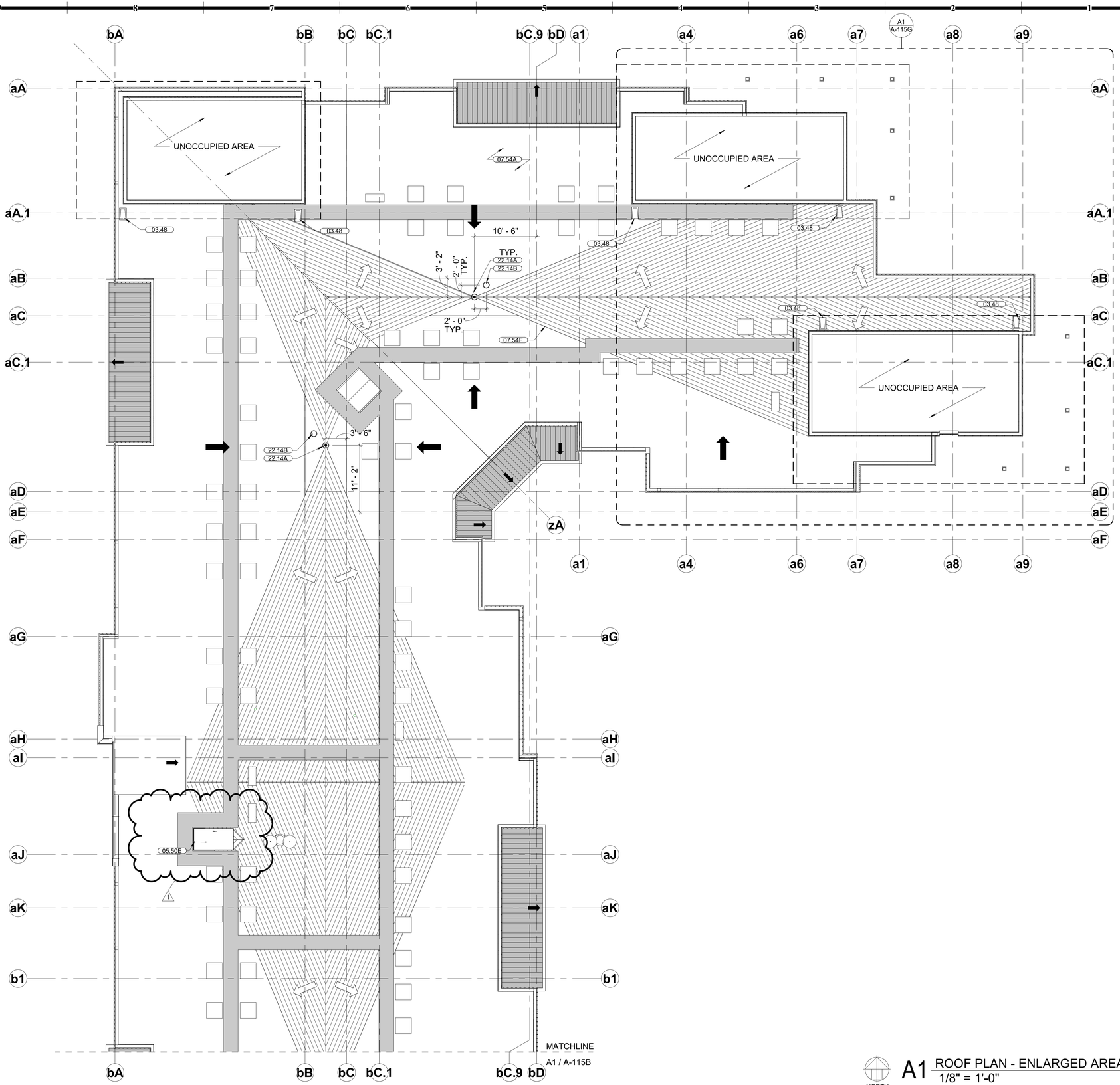
ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

SECOND FLOOR - ENLARGED AREA B

NORTH

A1 SECOND FLOOR - ENLARGED AREA B
1/8" = 1'-0"



GENERAL NOTES - ROOF PLANS:

1. DIMENSIONS SHOWN ON THE ROOF PLAN ARE TO THE FACE OF EXTERIOR WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS NOTED OR SHOWN OTHERWISE.
2. PROVIDE 1/2" FT. TAPERED INSULATION AT ALL ROOF CURBS AND AT EQUIPMENT WHICH EXCEEDS 18 INCHES IN WIDTH.
3. NOT ALL ROOF MOUNTED EQUIPMENT IS SHOWN ON THIS ROOF PLAN. REFER TO ENTIRE DRAWING SET FOR LOCATION OF ITEMS NOT SHOWN.
4. CONTRACTOR SHALL COORDINATE SIZE, LOCATIONS AND NUMBER OF ALL ROOF OPENINGS AND ROOF ACCESSORIES WITH ALL OTHER TRADES. REFER TO THE ARCHITECTURAL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS.
5. THE LIMITS OF CONSTRUCTION SHOWN ON THE ARCHITECTURAL SHEETS APPLY ONLY TO THE LIMITS OF ARCHITECTURAL WORK. THE CONTRACTOR SHALL REFER TO THE ENTIRE SET, INCLUDING CIVIL, MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, COMMUNICATIONS, SECURITY AND TECHNOLOGY DRAWINGS FOR SPECIFIC LIMITS RELATED TO THOSE SCOPES.
6. PROVIDE ROOFING MANUFACTURER'S STANDARD, WARRANTABLE ROOFING AND PENETRATION DETAILS UNLESS OTHERWISE DRAWN.
7. ANY ROOF WORK NOT SPECIFICALLY DETAILED SHALL BE DESIGNED AND EXECUTED IN ACCORDANCE WITH THE APPROPRIATE NRCA MANUAL.
8. ROOF DRAINAGE SLOPES AND CRICKETS ARE SCHEMATIC. CONTRACTOR TO ENSURE PROPER COORDINATION BETWEEN ROOF LOW POINTS AND ASSOCIATED DRAINS. NO PONDING OR STAGNANT WATER WILL BE ALLOWED OR ACCEPTED.
9. THE ELEVATION OF ALL OVERFLOW (EMERGENCY) ROOF DRAINAGE SYSTEMS SHALL BE SET TO PREVENT THE DEPTH OF PONDING WATER FROM EXCEEDING THAT FOR WHICH THE ROOF WAS DESIGNED.
10. PAINT ALL EXPOSED ROOF MOUNTED EQUIPMENT AND PIPING WITH THE EXCEPTION OF ALUMINUM AND STAINLESS STEEL SURFACES. COLOR TO BE DETERMINED BY ARCHITECT.
11. PROVIDE GUARD RAILS WHERE ANY COMPONENT, EQUIPMENT OR SERVICE AREA IS LOCATED CLOSER THAN 10 FEET FROM THE EDGE OF THE ROOF. GUARDS SHALL BE A MIN OF 42" IN HEIGHT AND SHALL RESTRICT THE PASSAGE OF A 20" DIAMETER SPHERE.
12. FRT PLYWOOD TO EXTEND 4'-0" ON EITHER SIDE OF FIRE WALLS. VIF AND REFERENCE HATCH ON PLANS.

ROOF PLAN LEGEND

- SLOPED STRUCTURE
- TAPERED INSULATION 1/4" PER FOOT
- ROOF WALKING PAD
- ROOF HATCH
- ROOF DRAIN
- OD — OVERFLOW ROOF DRAIN

MATERIAL KEYNOTES

03.48	CONCRETE SPLASH BLOCK
05.50E	METAL LADDERS
07.54A	THERMOPLASTIC POLYOLEFIN (TPO) ROOFING SYSTEM
07.54F	TAPERED ROOF INSULATION
22.14A	ROOF DRAIN
22.14B	OVERFLOW ROOF DRAIN

A1 ROOF PLAN - ENLARGED AREA A
1/8" = 1'-0"

NORTH

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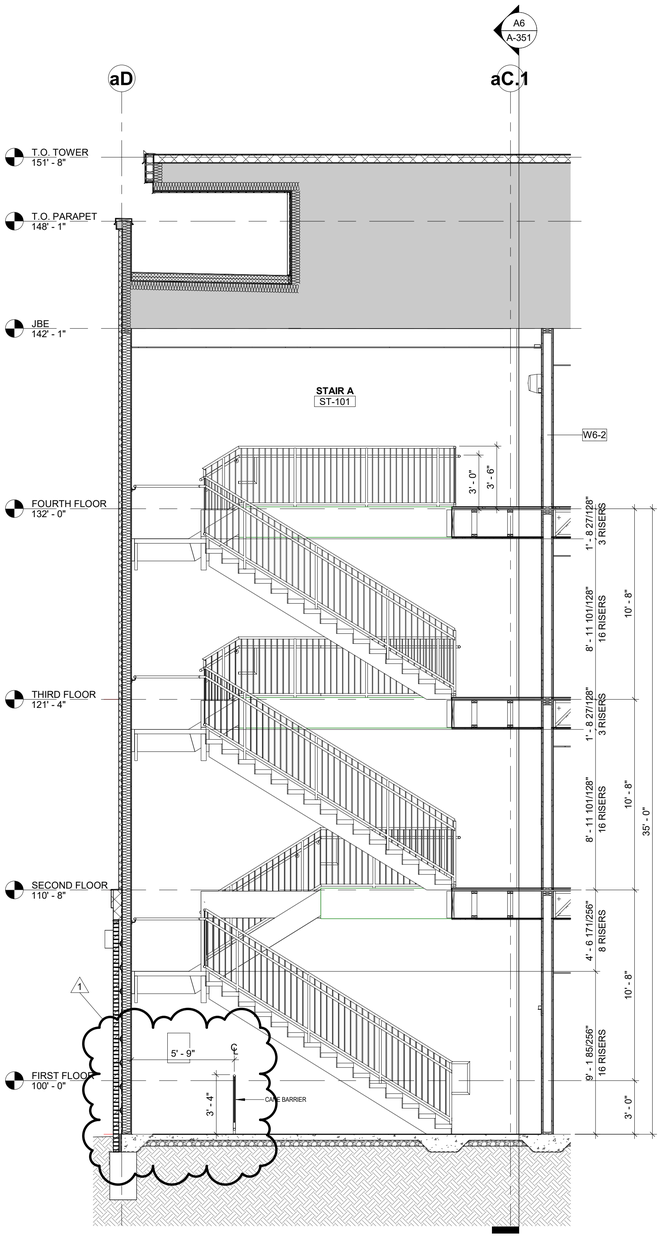
STATE OF MISSOURI
MICHAEL JOHN GOSLING
NUMBER A-2016009360
02-19-2026
ARCHITECT

PROFESSIONAL SEAL

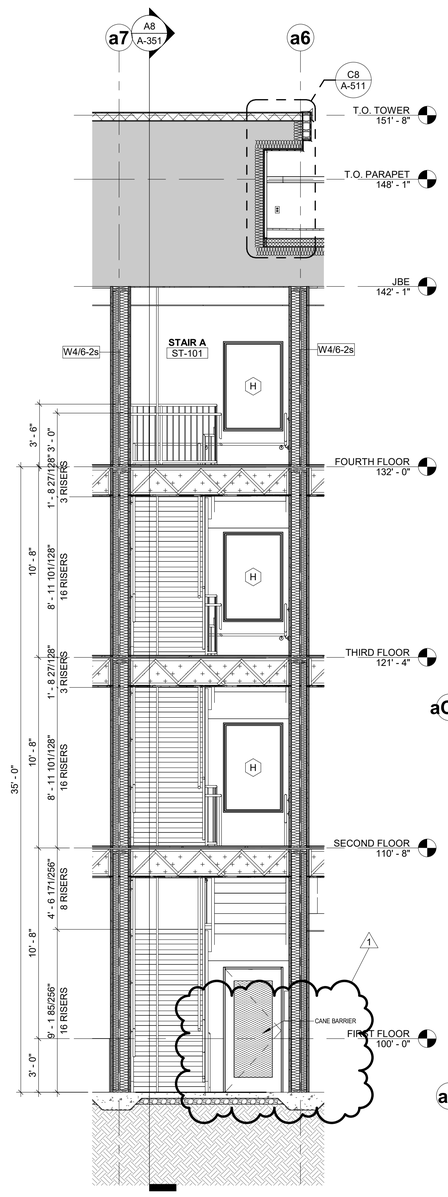
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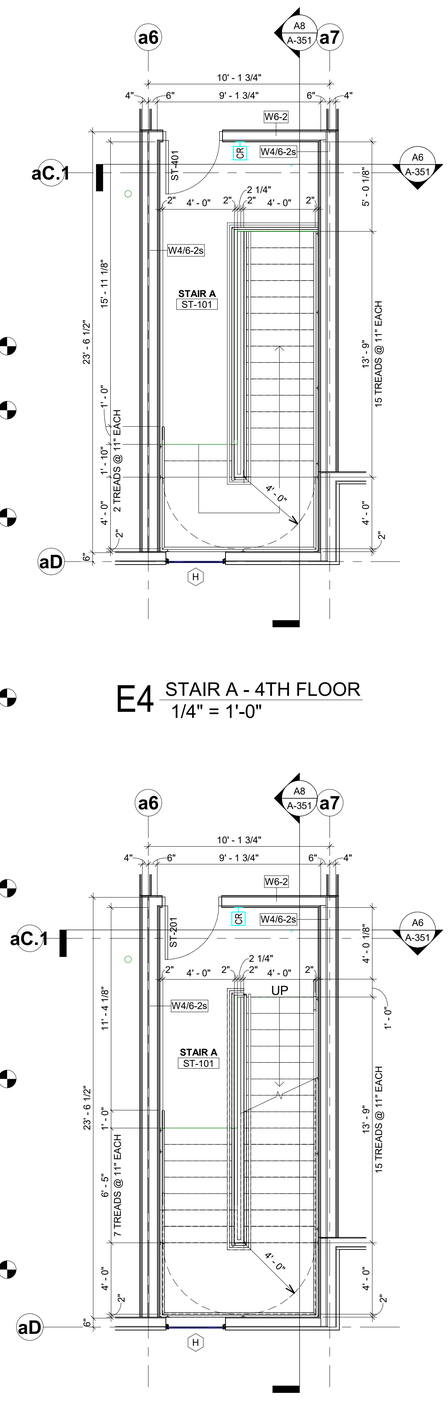
ROOF PLAN - ENLARGED AREA A



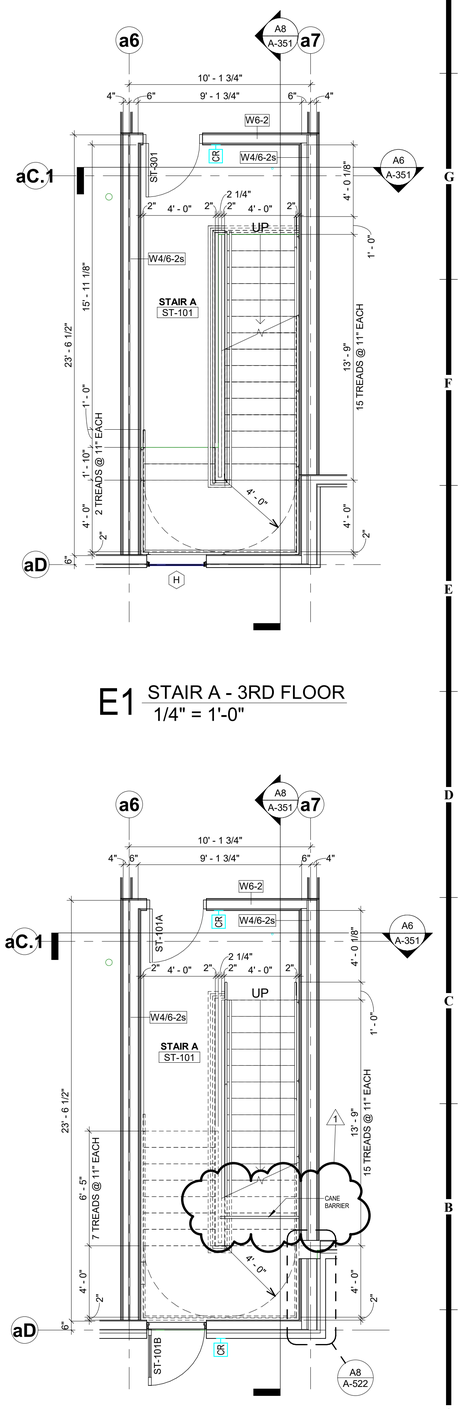
A8 STAIR A - SECTION 2
1/4" = 1'-0"



A6 STAIR A - SECTION 1
1/4" = 1'-0"



E4 STAIR A - 4TH FLOOR
1/4" = 1'-0"



E1 STAIR A - 3RD FLOOR
1/4" = 1'-0"

A4 STAIR A - 2ND FLOOR
1/4" = 1'-0"

A1 STAIR A - 1ST FLOOR
1/4" = 1'-0"

GENERAL NOTES - VERTICAL CIRCULATION:

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7. PROVIDE 20 GA CONT PAINTED METAL CLOSURE AT ALL STRINGER TO WALL GAPS.

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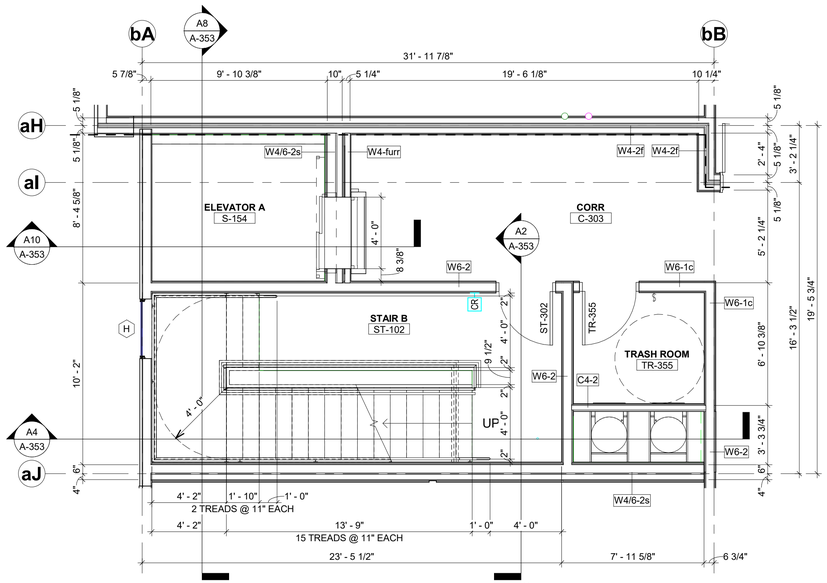
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MICHAEL JOHN GOSLING
NUMBER A-2016009360
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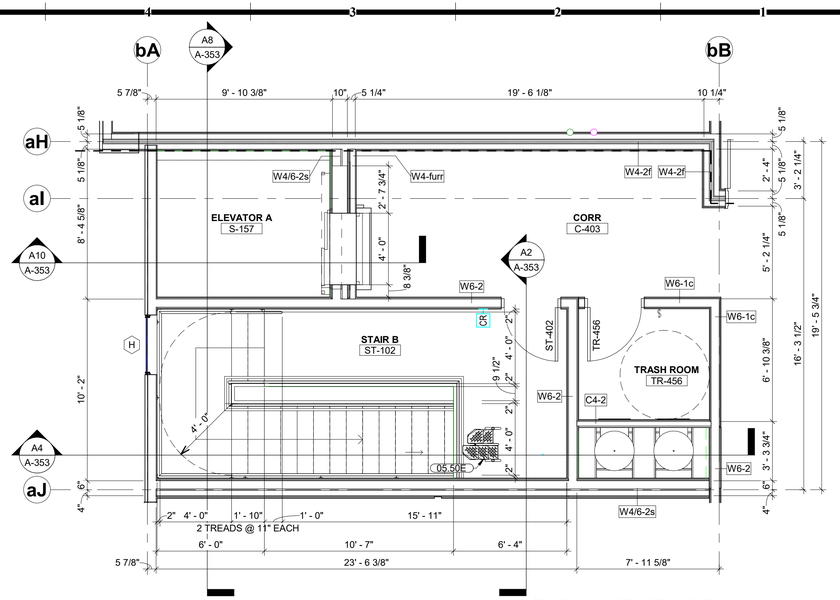
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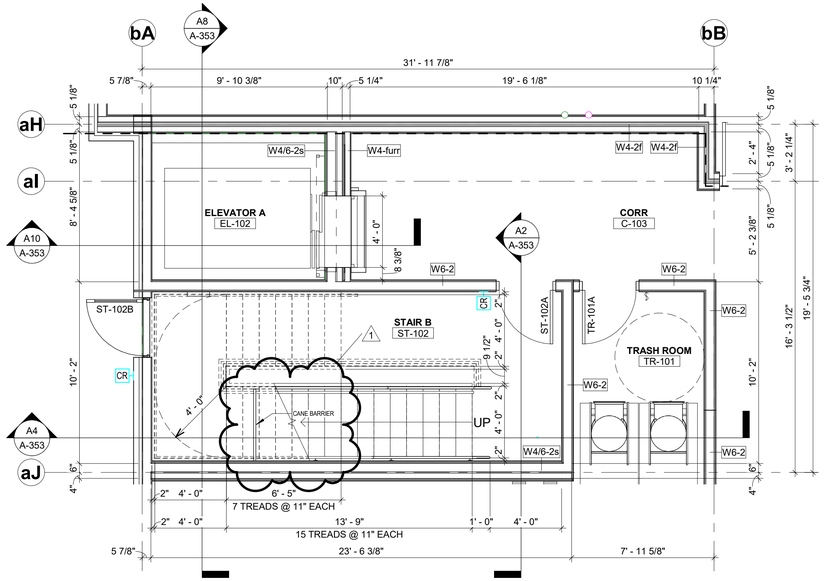
VERTICAL CIRCULATION PLANS - STAIR A



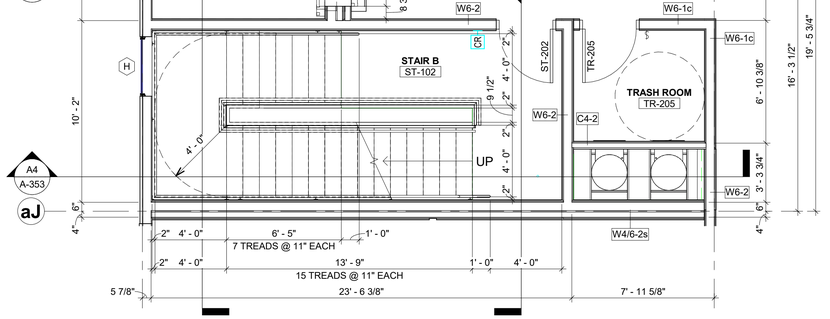
E6 STAIR B - 3RD FLOOR
1/4" = 1'-0"



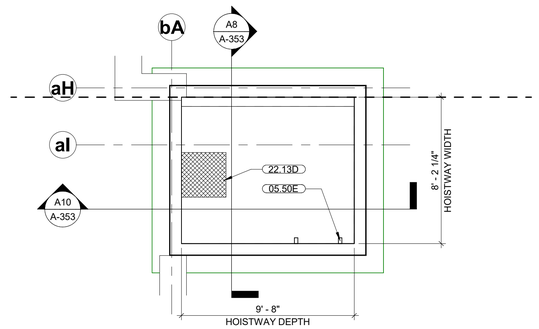
F1 STAIR B - 4TH FLOOR
1/4" = 1'-0"



A6 STAIR B - 1ST FLOOR
1/4" = 1'-0"



C1 STAIR B - 2ND FLOOR
1/4" = 1'-0"



A3 ELEVATOR A - PIT FLOOR
1/4" = 1'-0"

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6. VERTICAL POSTS SUPPORTING GUARDS SHALL BE EQUALLY SPACED AT 60" OC MAX.
7. PROVIDE 20 GA CONT PAINTED METAL CLOSURE AT ALL STRINGER TO WALL GAPS.

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STATE OF MISSOURI
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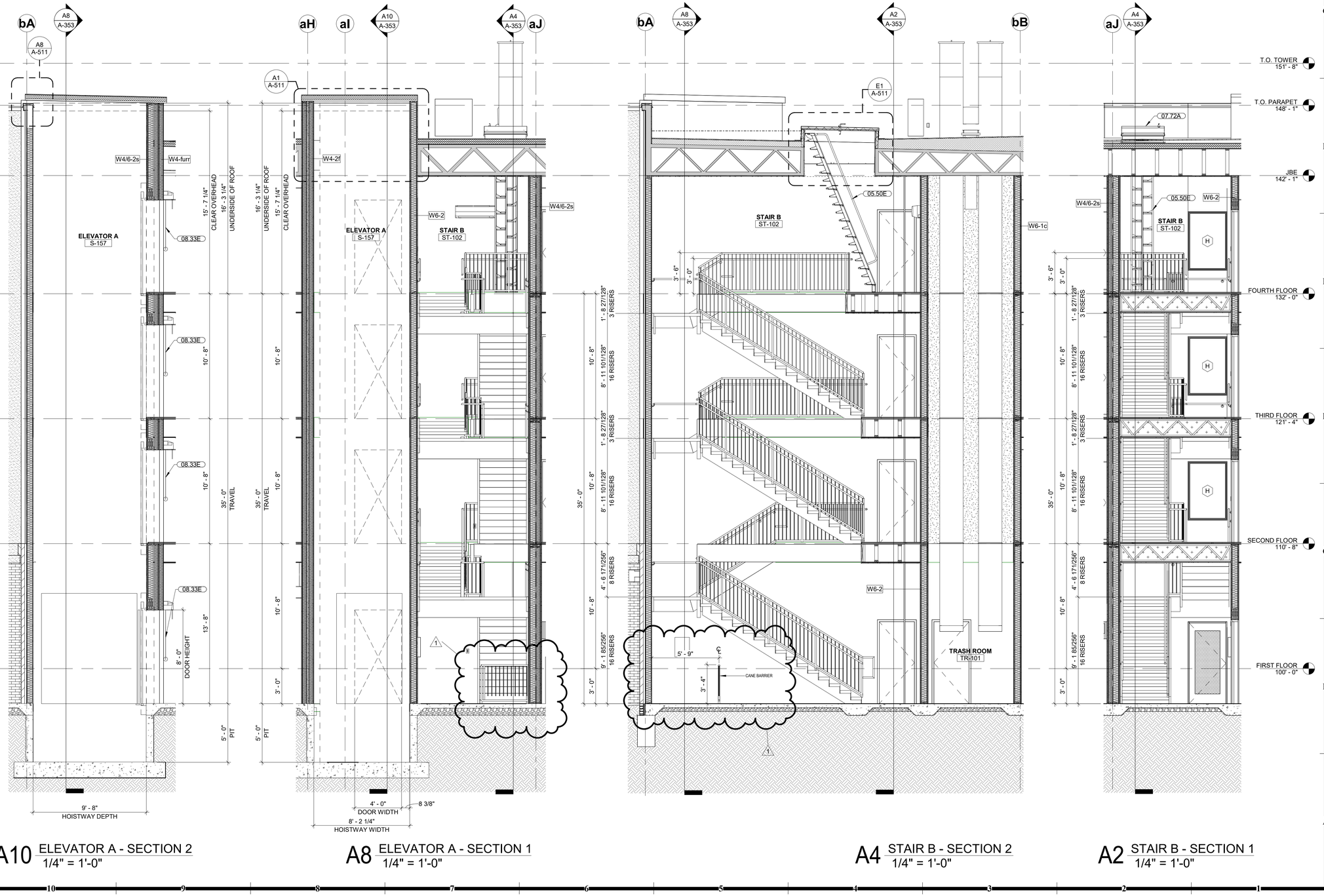
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A-352

ISSUE DATE: DECEMBER 22, 2025

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VERTICAL CIRCULATION PLANS - STAIR B



A10 ELEVATOR A - SECTION 2
1/4" = 1'-0"

A8 ELEVATOR A - SECTION 1
1/4" = 1'-0"

A4 STAIR B - SECTION 2
1/4" = 1'-0"

A2 STAIR B - SECTION 1
1/4" = 1'-0"

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MATERIAL KEYNOTES

05.50E	METAL LADDERS
07.72A	ROOF HATCH
08.33E	SMOKE CURTAIN

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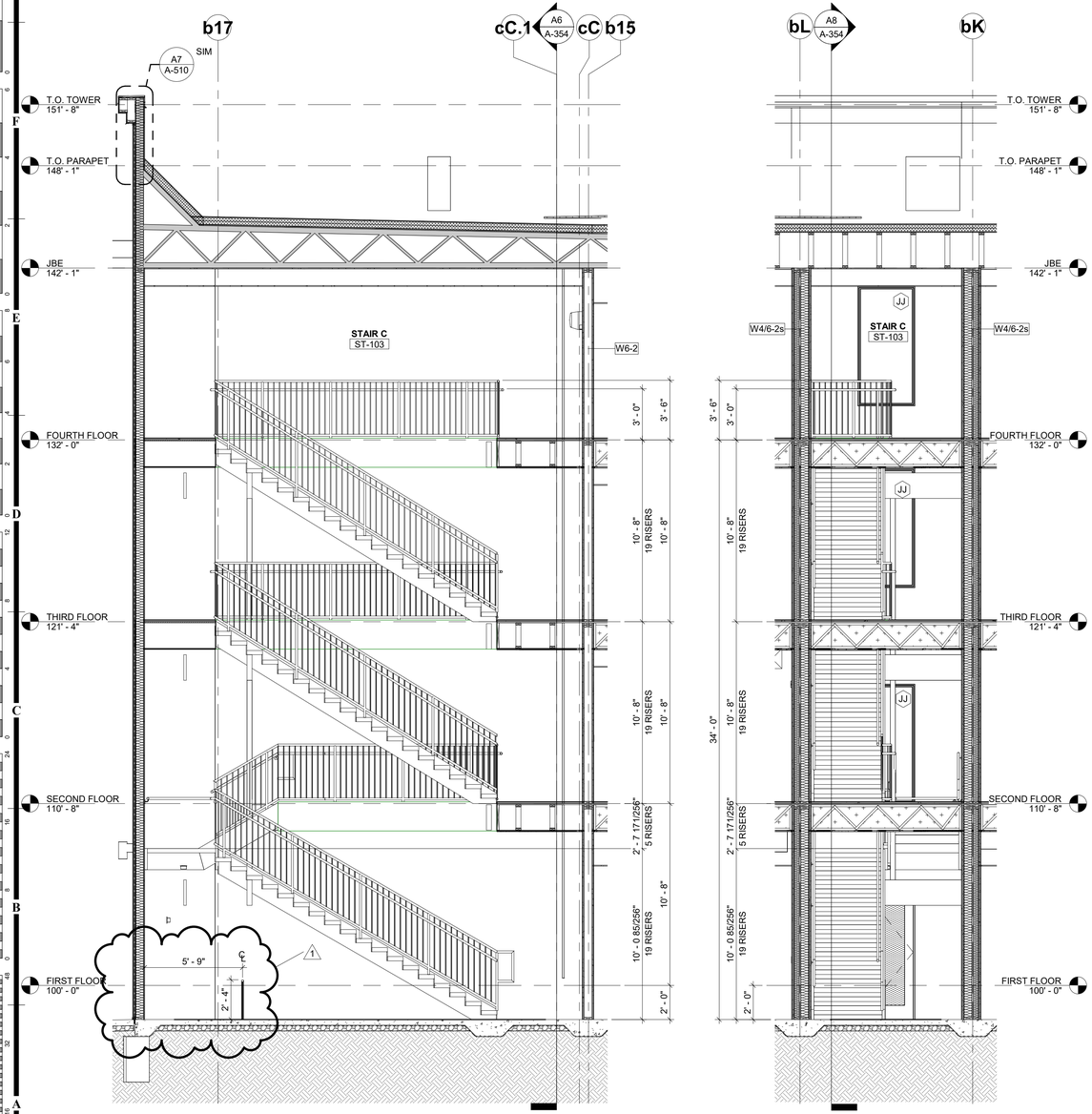
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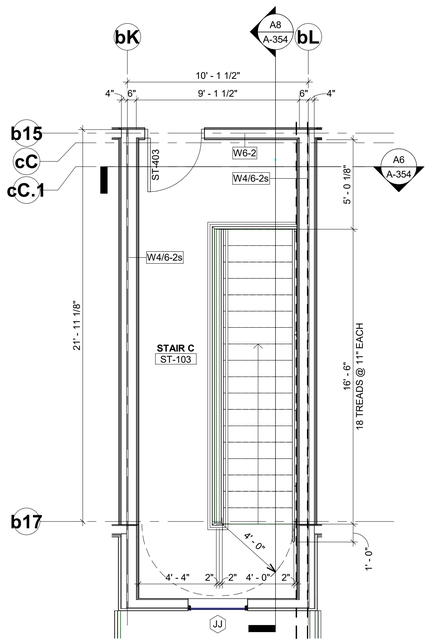
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VERTICAL CIRCULATION PLANS - STAIR B

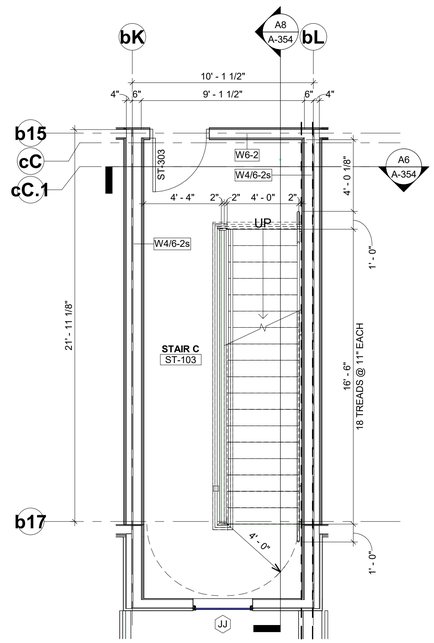


A8 STAIR C - SECTION 2
1/4" = 1'-0"

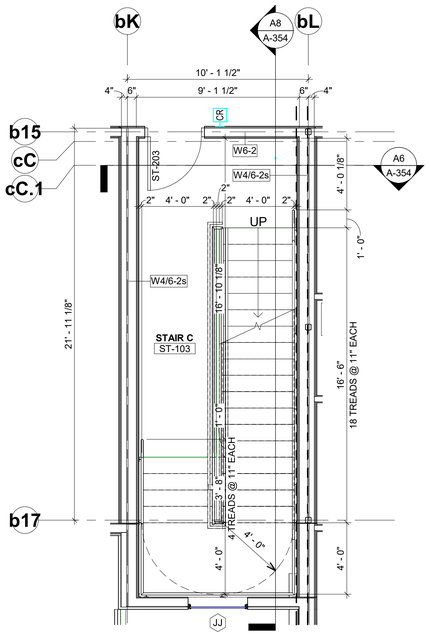
A6 STAIR C - SECTION 1
1/4" = 1'-0"



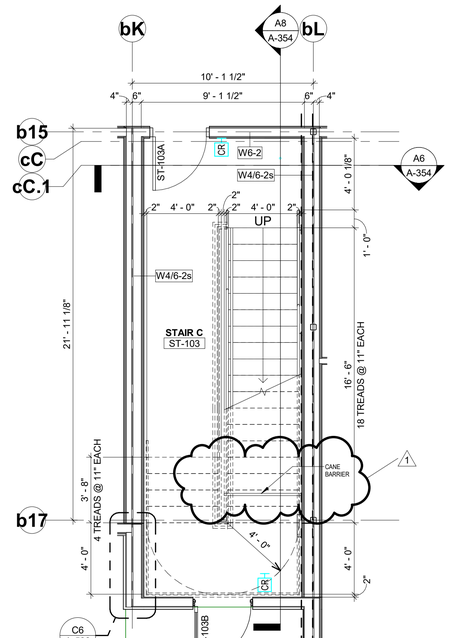
E4 STAIR C - 4TH FLOOR
1/4" = 1'-0"



E1 STAIR C - 3RD FLOOR
1/4" = 1'-0"



A4 STAIR C - 2ND FLOOR
1/4" = 1'-0"



A1 STAIR C - 1ST FLOOR
1/4" = 1'-0"

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ARCHITECT

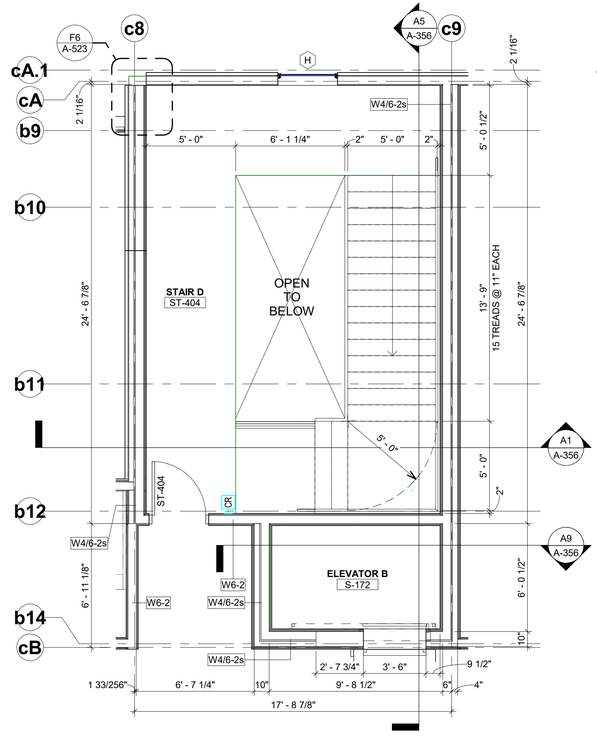
PROFESSIONAL SEAL

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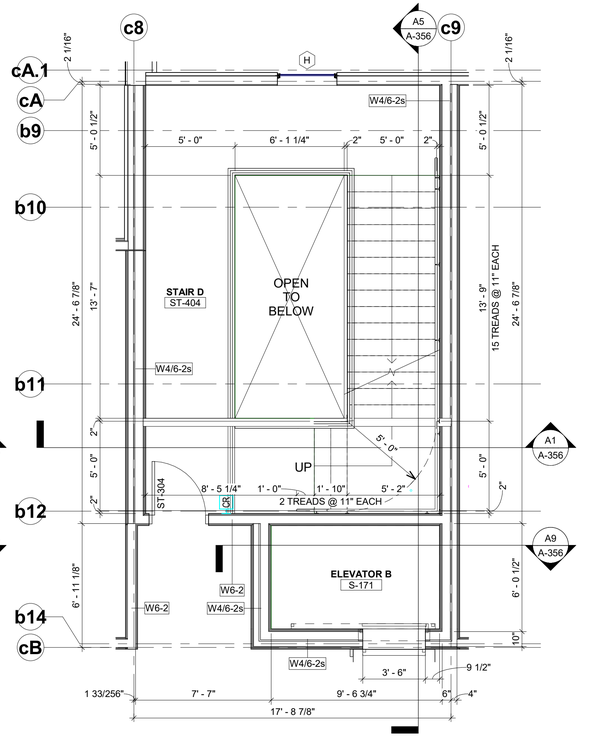
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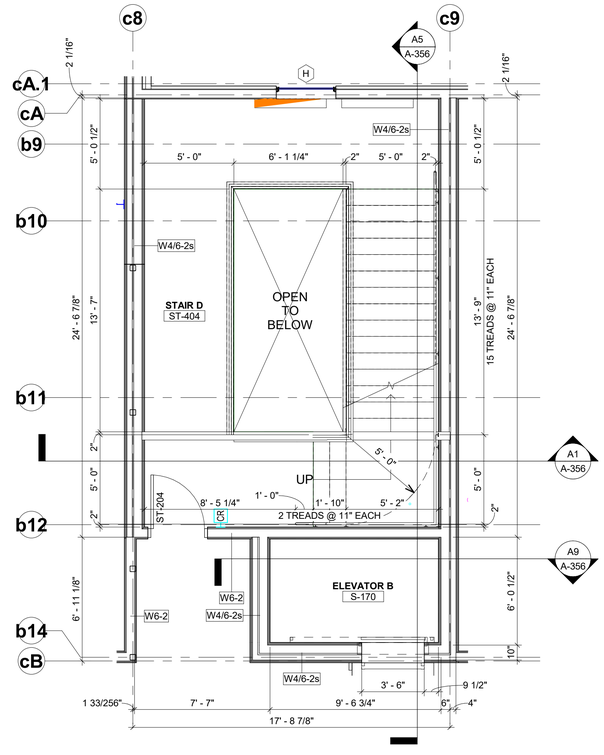
VERTICAL CIRCULATION PLANS - STAIR C



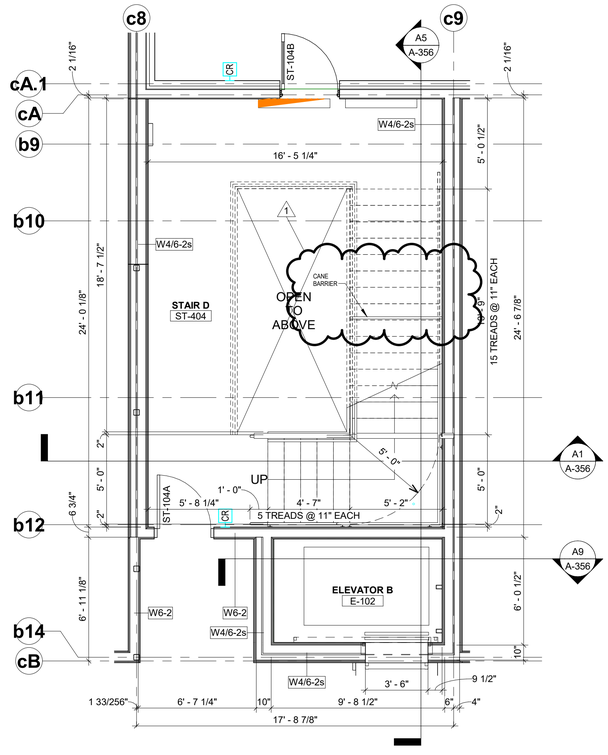
E5 STAIR D - 4TH FLOOR
1/4" = 1'-0"



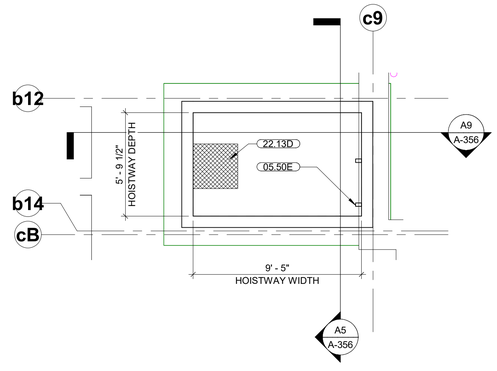
E1 STAIR D - 3RD FLOOR
1/4" = 1'-0"



A8 STAIR D - 2ND FLOOR
1/4" = 1'-0"



A5 STAIR D - 1ST FLOOR
1/4" = 1'-0"



A2 ELEVATOR B - PIT FLOOR
1/4" = 1'-0"

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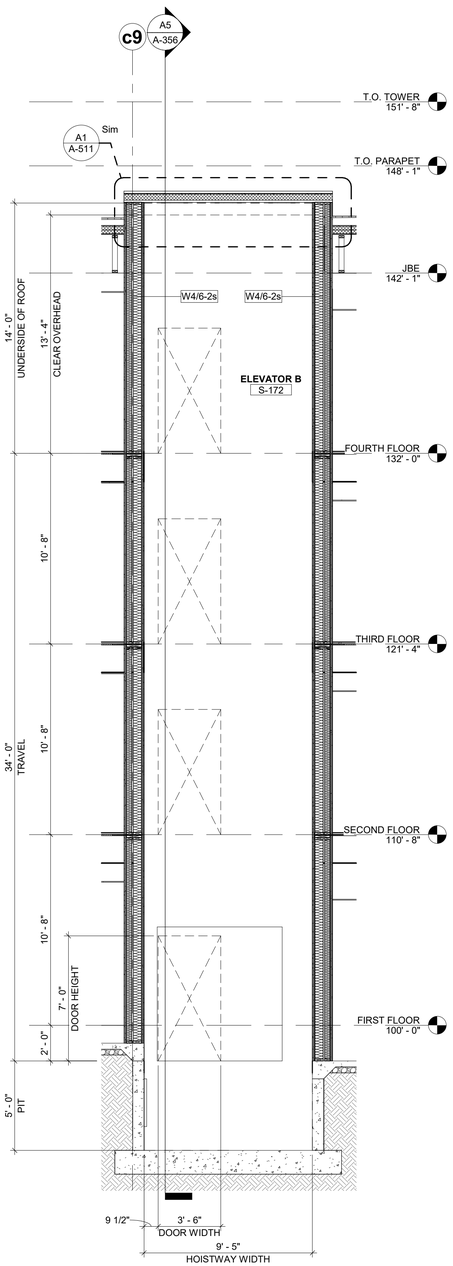
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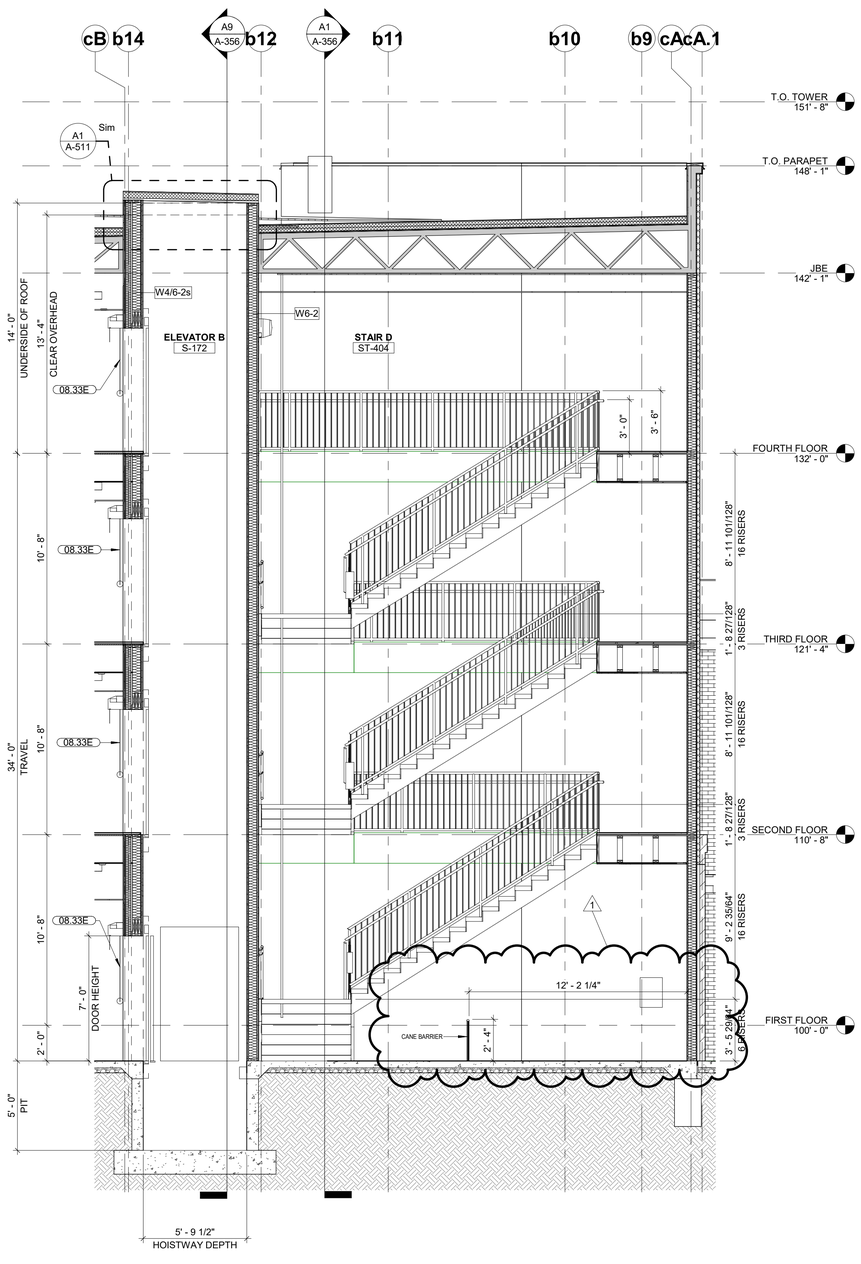
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HOEFER WELKER #: 1259011

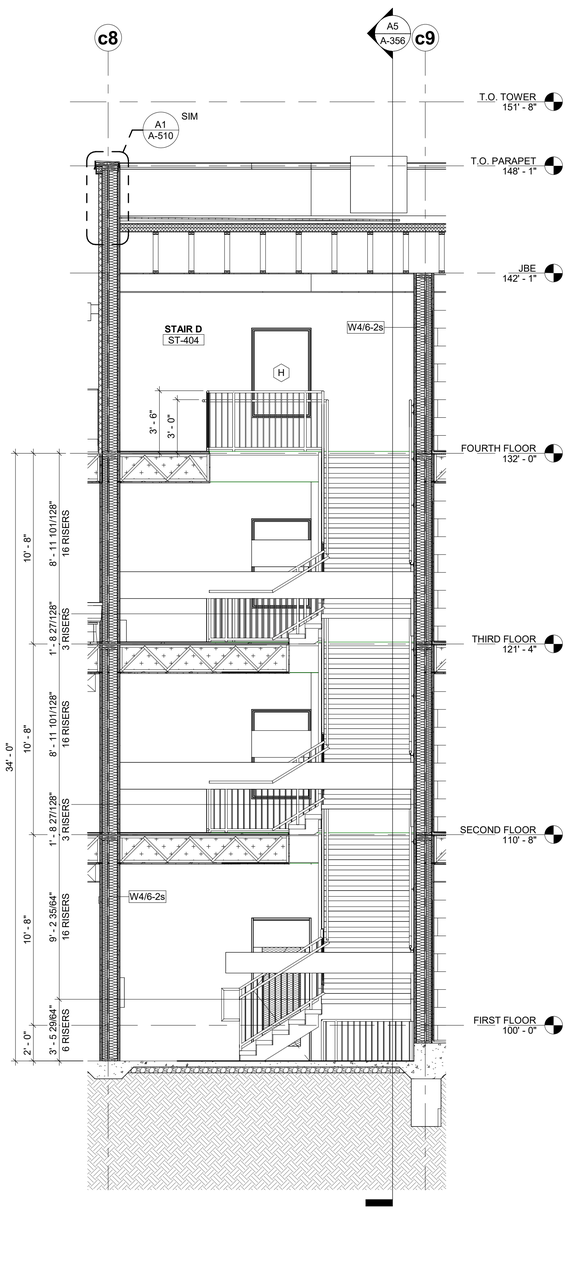
VERTICAL CIRCULATION PLANS - STAIR D



A9 ELEVATOR B - SECTION 1
1/4" = 1'-0"



A5 STAIR D - SECTION 2
1/4" = 1'-0"



A1 STAIR D - SECTION 1
1/4" = 1'-0"

GENERAL NOTES - VERTICAL CIRCULATION:

1. DIMENSIONS SHOWN ARE TO THE FACE OF EXTERIOR WALL, FACE OF MASONRY (FOM), FACE OF CONCRETE WALLS (FOC), AND COLUMN GRID LINES, UNLESS OTHERWISE NOTED OR INDICATED.
2. ALL WINDOW AND DOOR OPENING DIMENSIONS ARE ROUGH OPENINGS, UNLESS NOTED OTHERWISE.
3. STEEL STRINGERS ARE SIZED FOR DESIGN INTENT ONLY. NOTIFY ARCHITECT IMMEDIATELY IF DELEGATED DESIGN REQUIREMENTS REQUIRE REVISED STRINGER SIZES.
4. PROVIDE HANDRAILS AT EACH SIDE OF ALL STAIRS. REFER TO ACCESSIBILITY SHEETS FOR MOUNTING HEIGHTS.
5. PROVIDE 42" HIGH GUARDS ALONG THE OPEN SIDE OF STAIRS AND LANDINGS. ANY OPENINGS IN GUARDS SHALL NOT ALLOW PASSAGE OF A 4" SPHERE.
6. VERTICAL POSTS SUPPORTING GUARDS SHALL BE EQUALLY SPACED AT 60" OC MAX.
7. PROVIDE 20 GA CONT PAINTED METAL CLOSURE AT ALL STRINGER TO WALL GAPS.

MATERIAL KEYNOTES

08.33E	SMOKE CURTAIN

HOEFER WELKER

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1	ADDENDUM #1	02/18/26
2	ADDENDUM #2	02/27/26

STATE OF MISSOURI
MICHAEL JOHN GOSLING
NUMBER A-2016029360
02-19-2026
ARCHITECT

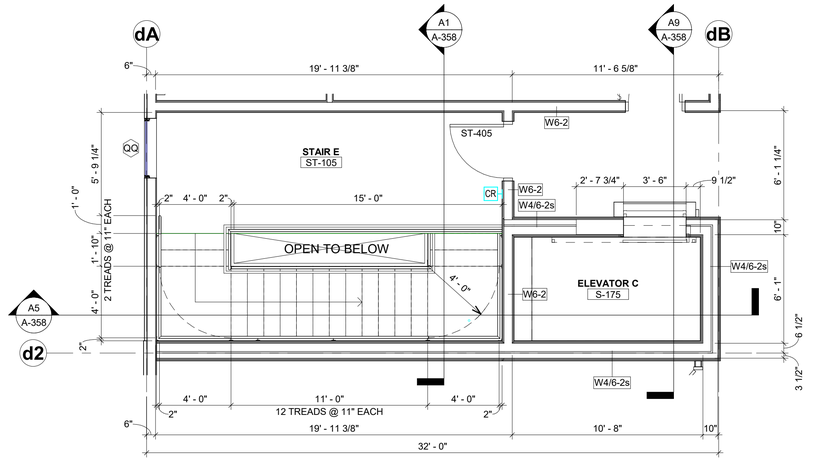
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A-356

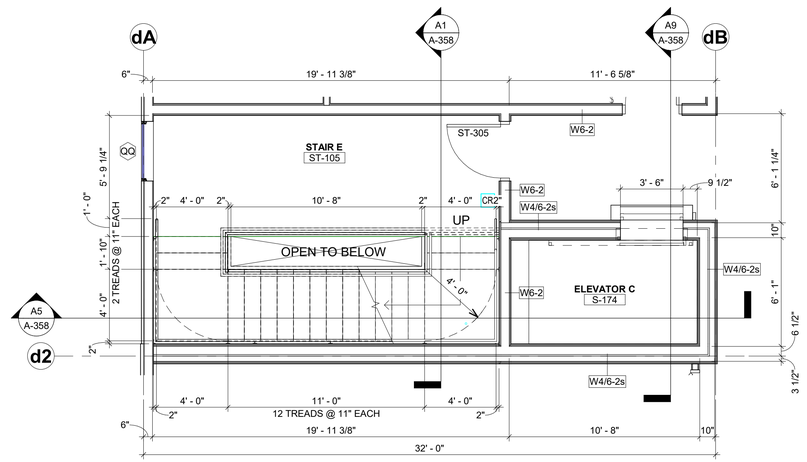
ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

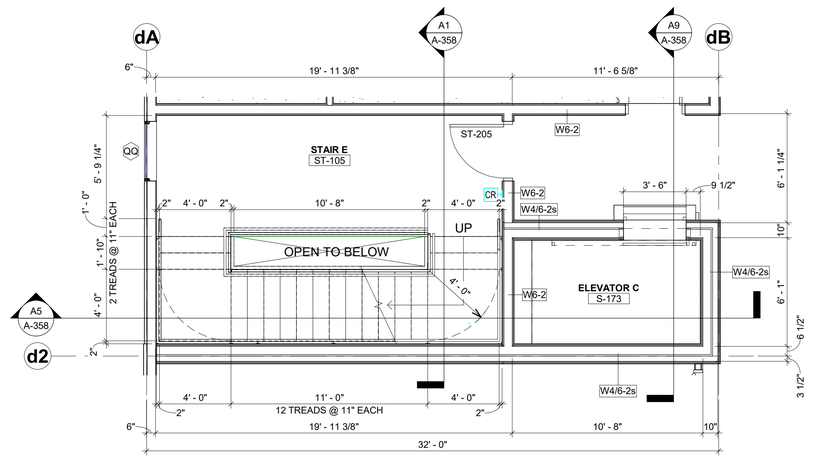
VERTICAL CIRCULATION PLANS - STAIR D



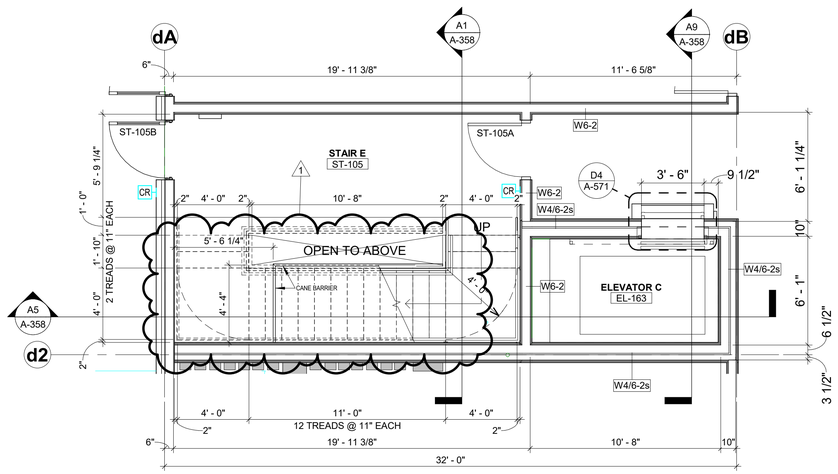
F1 STAIR E - 4TH FLOOR
1/4" = 1'-0"



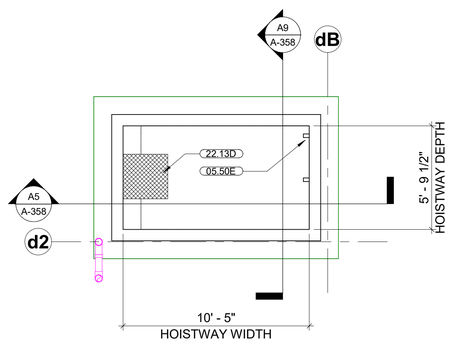
D5 STAIR E - 3RD FLOOR
1/4" = 1'-0"



D1 STAIR E - 2ND FLOOR
1/4" = 1'-0"



A5 STAIR E - 1ST FLOOR
1/4" = 1'-0"



A3 ELEVATOR C - PIT FLOOR
1/4" = 1'-0"

GENERAL NOTES - VERTICAL CIRCULATION:

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REVISION DATES:

1	ADDENDUM #1	02/18/26
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STATE OF MISSOURI
MICHAEL JOHN GOSLING
NUMBER A-2016000360
02-19-2026
ARCHITECT

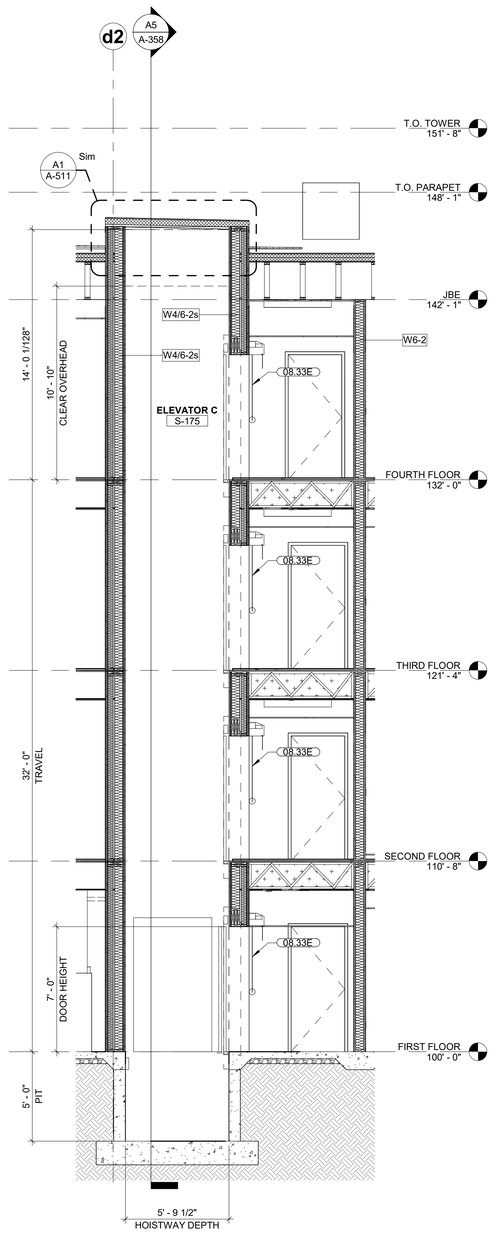
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A-357

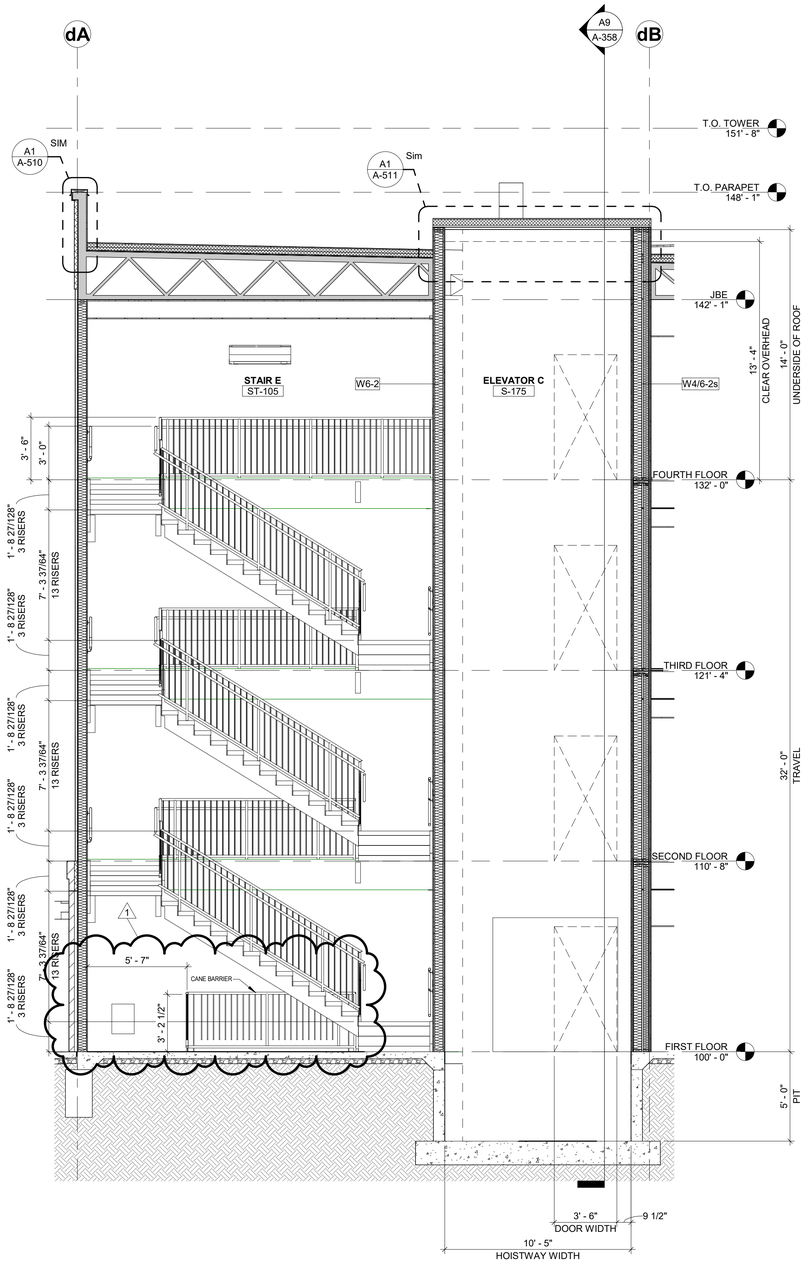
ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

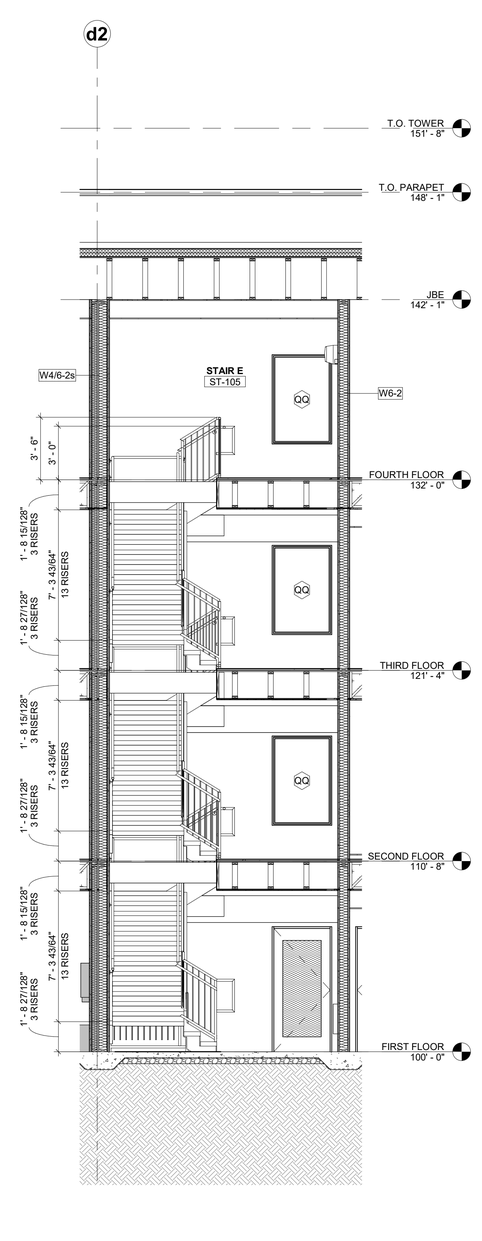
VERTICAL CIRCULATION PLANS - STAIR E



A9 ELEVATOR C - SECTION 1
1/4" = 1'-0"



A5 STAIR E - SECTION 2
1/4" = 1'-0"



A1 STAIR E - SECTION 1
1/4" = 1'-0"

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MATERIAL KEYNOTES

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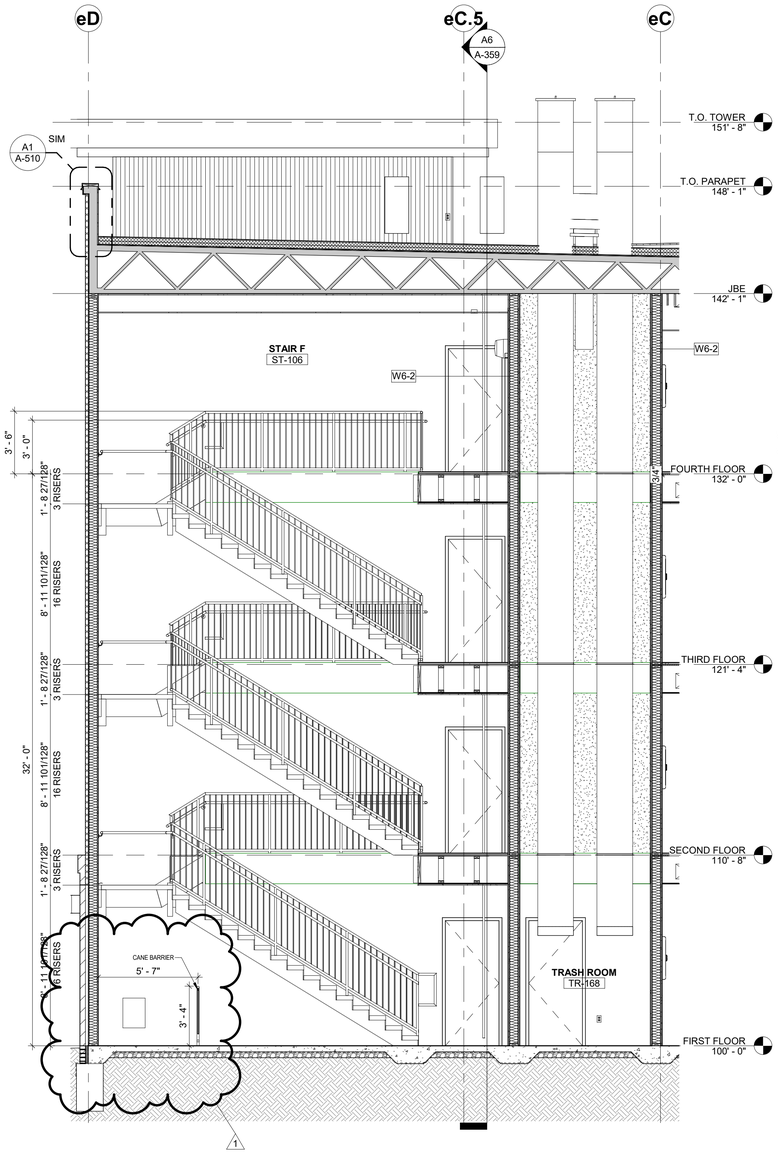
STATE OF MISSOURI
MICHAEL JOHN GOSLINGA
NUMBER A-2016028380
02-19-2026
ARCHITECT

PROFESSIONAL SEAL

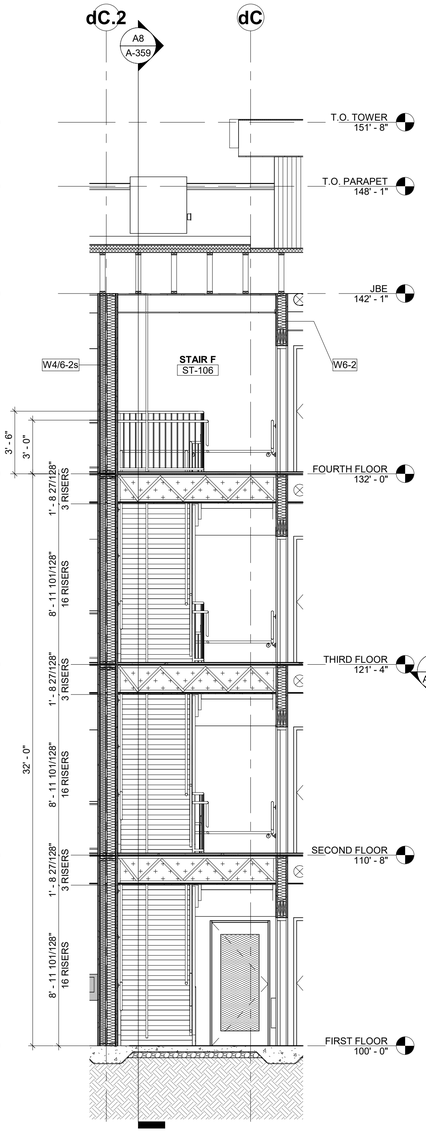
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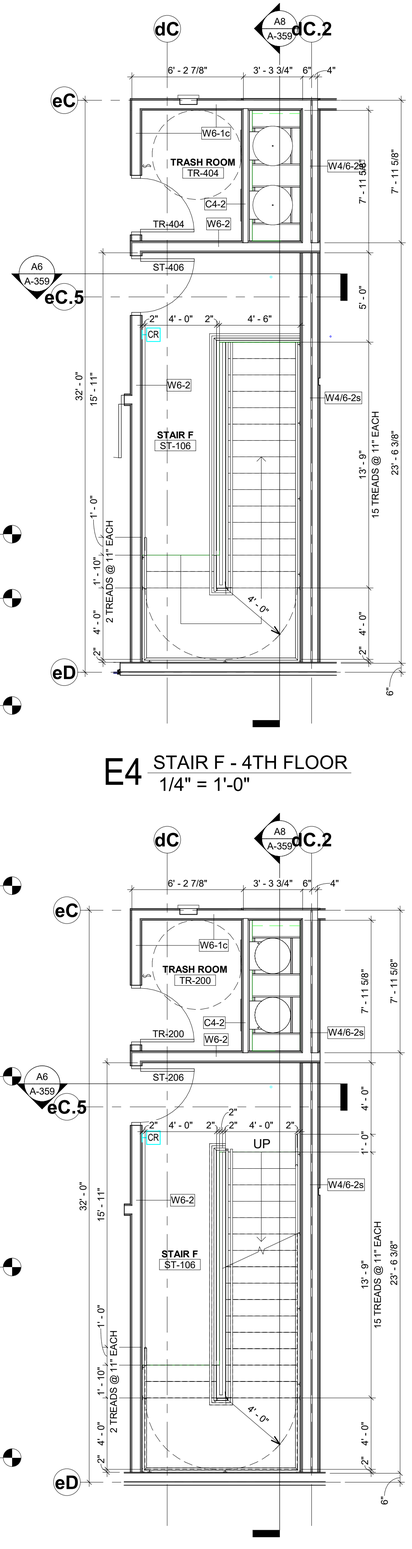
VERTICAL CIRCULATION PLANS - STAIR E



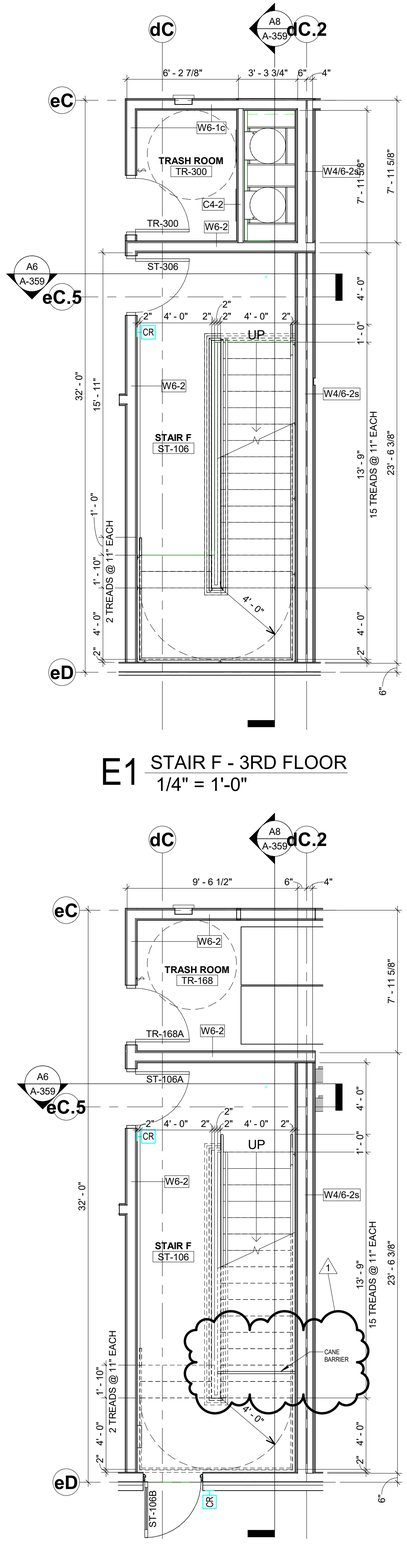
A8 STAIR F - SECTION 2
1/4" = 1'-0"



A6 STAIR F - SECTION 1
1/4" = 1'-0"



E4 STAIR F - 4TH FLOOR
1/4" = 1'-0"



E1 STAIR F - 3RD FLOOR
1/4" = 1'-0"

A4 STAIR F - 2ND FLOOR
1/4" = 1'-0"

A1 STAIR F - 1ST FLOOR
1/4" = 1'-0"

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STATE OF MISSOURI
MICHAEL JOHN GOSLINGA
NUMBER A-2016000340
02-19-2026
ARCHITECT

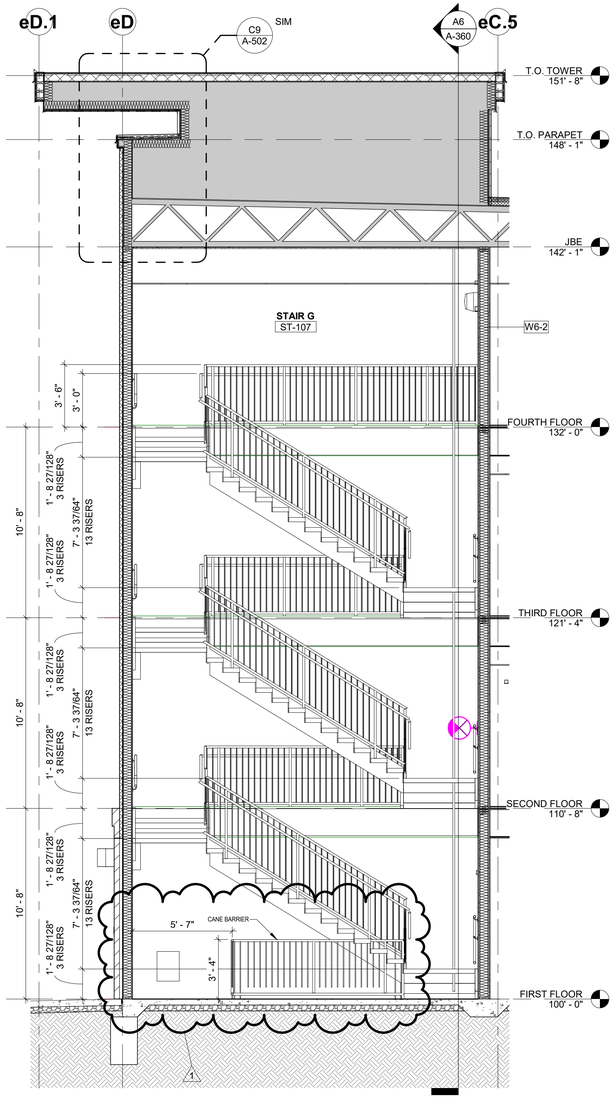
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A-359

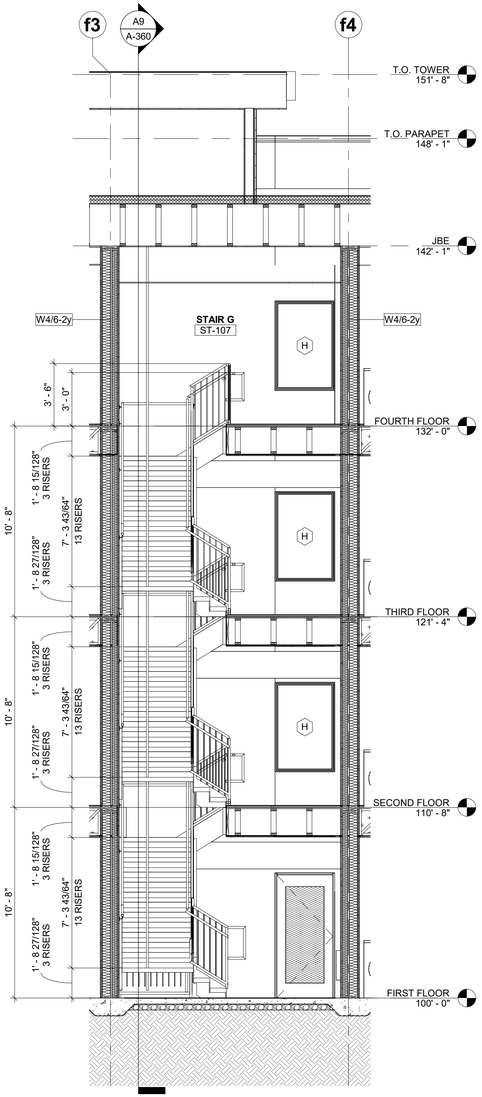
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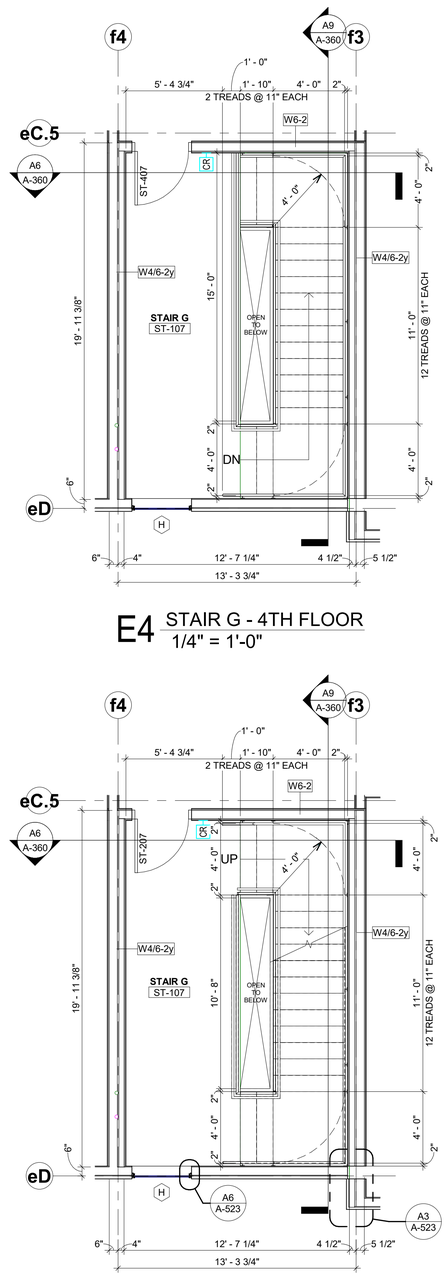
VERTICAL CIRCULATION PLANS - STAIR F



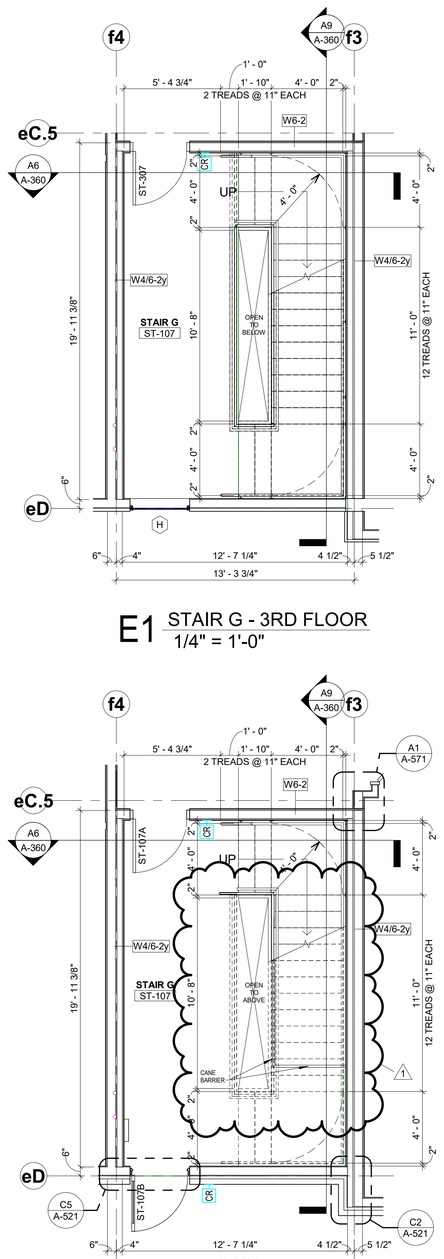
A9 STAIR G - SECTION 2
1/4" = 1'-0"



A6 STAIR G - SECTION 1
1/4" = 1'-0"



E4 STAIR G - 4TH FLOOR
1/4" = 1'-0"



E1 STAIR G - 3RD FLOOR
1/4" = 1'-0"

A4 STAIR G - 2ND FLOOR
1/4" = 1'-0"

A1 STAIR G - 1ST FLOOR
1/4" = 1'-0"

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STATE OF MISSOURI
MICHAEL JOHN GOSLING
NUMBER A-2016009360
02-19-2026
ARCHITECT

PROFESSIONAL SEAL

A-360

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

VERTICAL CIRCULATION PLANS - STAIR G

DOOR SCHEDULE

DOOR #	ROOM: NAME	WIDTH	HEIGHT	DOOR MATERIAL	DOOR TYPE	FRAME MATERIAL	FRAME TYPE	FIRE RATING	HARDWARE	HEAD	JAMB	REMARKS
C-101	CORR	6' - 0"	7' - 0"	HM	F2	HM	F1	180 MIN	09			
C-101B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-102		6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-102B	CORR	3' - 9 3/4"	6' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SINGLE
C-102C	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-103	CORR	3' - 0"	7' - 0"	WD	GF	WD	F1	-	10			STAINED
C-104	CORR	3' - 0"	7' - 0"	WD	GF	WD	F1	-	10			STAINED
C-105	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			PAINTED
C-107	CORR	3' - 1 3/4"	6' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
C-108	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-108B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-109	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-201	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-202B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-203	CORR	3' - 0"	7' - 0"	WD	GF	WD	F1	-	10			STAINED
C-203B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-204	CO-WORK HALL	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			STAINED
C-205	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1		09			
C-207	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-208	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-208B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-209	CORR	3' - 0"	7' - 0"	WD	GF	WD	F1	-	10			STAINED
C-302	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-302B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-303B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-305	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-306	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-307B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-308	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-401	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-402B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-403B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-405	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-407	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
C-408B	CORR	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
C-409	CORR	6' - 0"	8' - 0"	HM	F2	HM	F1	180 MIN	09			
L-101	LOBBY	6' - 1 3/4"	7' - 10 13/16"	AL	B2	AL	AL1	-	01			
L-102	OFFICE	3' - 0"	8' - 0"	GL	F	WD	F1	-	26			STAINED
L-103	OFFICE	3' - 0"	8' - 0"	GL	F	WD	F1	-	26			STAINED
L-104	BREAK ROOM	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	13			PAINTED
L-105	LOUNGE / KITCHEN	6' - 1 3/4"	7' - 10 13/16"	AL	B2	AL	AL1	-	01			BONELLI DBL
L-106	GAME ROOM	3' - 0"	7' - 0"	WD	GF	WD	F1		14			STAINED
L-106A	GAME ROOM	4' - 0"	7' - 0"	WD	GF2	WD	F1	-	07			
L-106B	GAME ROOM	4' - 0"	7' - 0"	WD	GF2	WD	F1	-	07			
L-108	PRIMARY FITNESS	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	12			STAINED
L-108B	PRIMARY FITNESS	3' - 1 3/4"	7' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
L-109	RR / CHANGE	3' - 0"	7' - 0"	WD	F	WD	F1	20 MIN	16			STAINED
L-110	RR / CHANGE	3' - 0"	7' - 0"	WD	F	WD	F1	20 MIN	16			STAINED
L-111	RR / CHANGE	3' - 0"	7' - 0"	WD	F	WD	F1	20 MIN	16			STAINED
L-112	CORR	3' - 0"	7' - 0"	WD	GF	WD	F1	-	15			STAINED
L-112B	FITNESS CORR	3' - 1 3/4"	7' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
L-113	SPA	3' - 0"	7' - 0"	WD	GF	WD	WD	20 MIN	15			STAINED
L-114	SPA	3' - 0"	7' - 0"	GL	F	PER MANF.	PER MANF.	-	27			
L-115	THERAPY ROOM	3' - 0"	7' - 0"	WD	F	WD	F1	20 MIN	16			PAINTED
L-116	THERAPY ROOM	3' - 0"	7' - 0"	WD	F	WD	F1	20 MIN	16			PAINTED
L-140	MAILROOM	3' - 0"	7' - 0"	WD	GF	WD	F1	-	15			STAINED
L-140B	MAILROOM	3' - 1 3/4"	6' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
L-141	PACKAGE ROOM	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	15			STAINED
L-145	PET SPA	3' - 0"	7' - 0"	WD	GF	WD	F1	-	15			STAINED
L-145B	PET SPA	3' - 1 3/4"	6' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
L-206	UPPER LEVEL FITNESS	3' - 0"	7' - 0"	WD	GF	WD	F1	-	15			STAINED
L-206A	UPPER LEVEL FITNESS	3' - 0"	7' - 0"	WD	GF	WD	F1	-	14			STAINED
L-402	RR	3' - 0"	7' - 0"	WD	F	WD	F1	20 MIN	16			STAINED
L-403	RR	3' - 0"	7' - 0"	WD	F	WD	F1	20 MIN	16			STAINED
L-431	COMMUNITY LOUNGE	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	11			STAINED
L-431B	COMMUNITY LOUNGE	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	11			STAINED
M-101	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	14			
M-102	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
M-103	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
M-104	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	14			
M-201	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	14			
M-202	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
M-203	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
M-204	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	14			
M-205	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
M-301	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	14			
M-302	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
M-303	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
M-304	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	14			
M-401	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	14			
M-402	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
M-403	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
M-404	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	14			
M-405	MECH.	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			PAINTED
M-406	MECH.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
P-101	POOL EQUIPMENT ROOM	3' - 0"	7' - 0"	HM	F	HM	F1	-	04			PAINTED
P-102	CHEMICAL CLOSET	2' - 4"	7' - 0"	HM	F	HM	F1	-	06			PAINTED

DOOR SCHEDULE

DOOR #	ROOM: NAME	WIDTH	HEIGHT	DOOR MATERIAL	DOOR TYPE	FRAME MATERIAL	FRAME TYPE	FIRE RATING	HARDWARE	HEAD	JAMB	REMARKS
P-103	CHEMICAL CLOSET	2' - 4"	7' - 0"	HM	F	HM	F1	-	06			PAINTED
S-135	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-201	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-202	FOCUS	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	15			STAINED
S-203	FOCUS	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	15			STAINED
S-204	MEDIA	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	15			STAINED
S-204A	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-204B	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-204C	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-204D	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-206A	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	14			
S-206B	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-207	GOLF SIMULATOR	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	15			STAINED
S-237	FOCUS	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	15			STAINED
S-242	CONF. ROOM	3' - 0"	7' - 0"	WD	GF	WD	F1	20 MIN	15			STAINED
S-243	RESTROOM	3' - 0"	7' - 0"	WD	F	WD	F1	20 MIN	16			STAINED
S-301	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-304A	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-304B	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-304C	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-304D	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-306A	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-306B	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-401	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-404A	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-404B	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-404C	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-404D	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
S-406A	STORAGE	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	15			
ST-101A	STAIR A	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-101B	STAIR A	3' - 1 3/4"	6' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
ST-102A	STAIR B	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-102B	STAIR B	3' - 1 3/4"	6' - 10 13/16"	AL	B1	AL	AL1	-	03			
ST-103A	STAIR C	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-103B	STAIR C	3' - 1 3/4"	7' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
ST-104A	STAIR D	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-104B	STAIR D	3' - 1 3/4"	7' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
ST-105A	STAIR E	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			STAINED
ST-105B	STAIR E	3' - 1 3/4"	6' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
ST-106A	STAIR F	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-106B	STAIR F	3' - 1 3/4"	6' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
ST-107A	STAIR G	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			STAINED
ST-107B	STAIR G	3' - 1 3/4"	6' - 10 13/16"	AL	B1	AL	AL1	-	03			BONELLI SGL
ST-201	STAIR A	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-202	STAIR B	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-203	STAIR C	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-204	STAIR D	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-205	STAIR E	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-206	STAIR F	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-207	STAIR G	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-301	STAIR A	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-302	STAIR B	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-303	STAIR C	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-304	STAIR D	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-305	STAIR E	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-306	STAIR F	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-307	STAIR G	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-401	STAIR A	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-402	STAIR B	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-403	STAIR C	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-404	STAIR D	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-405	STAIR E	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-406	STAIR F	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
ST-407	STAIR G	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	08			
TR-101	TRASH ROOM	8' - 0"	7' - 0"	ST	CD1	PER MANF.	PER MANF.					
TR-101A	TRASH ROOM	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	17			
TR-101B	TRASH ROOM	3' - 0"	7' - 0"	HM	F	HM	F1	-	04			
TR-168	TRASH ROOM	8' - 0"	7' - 0"	ST	CD1	PER MANF.	PER MANF.					
TR-168A	TRASH ROOM	3' - 0"	7' - 0"	WD	F	HM	F1	90 MIN	17			
TR-168B	TRASH ROOM	3' - 0"	7' - 0"	HM	F	HM	F1	-	04			
TR-200	TRASH ROOM	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
TR-205	TRASH ROOM	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
TR-300	TRASH ROOM	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
TR-355	TRASH ROOM	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
TR-404	TRASH ROOM	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
TR-456	TRASH ROOM	3' - 0"	7' - 0"	WD	F	HM	F1	20 MIN	17			
U-101A	ELECT.	3' - 0"	7' - 0"	HM	F	HM	F1	-	02			PANIC HARDWARE
U-101B	CORR	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			PANIC HARDWARE
U-164	ELECT.	3' - 0"	7' - 0"	HM	F	HM	F1	-	02			PANIC HARDWARE
U-164B	CORR	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			PANIC HARDWARE
U-167A	ELECT.	3' - 0"	7' - 0"	HM	F	HM	F1	-	02			PANIC HARDWARE
U-167B	ELECT.	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			PANIC HARDWARE
WR-101	WATER ROOM	3' - 0"	7' - 0"	HM	F	HM	F1	-	04			
WR-101B	WATER ROOM	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	15			
WR-162	WATER ROOM	3' - 0"	7' - 0"	HM	F	HM	F1	-	04			
WR-162B	WATER ROOM	3' - 0"	7' - 0"	HM	F	HM	F1	20 MIN	14			

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PERMIT SET

OLDHAM VILLAGE

1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM #1	02/18/26

STATE OF MISSOURI
MICHAEL JOHN GOSLING
NUMBER A-2016008360
02.19.2026
ARCHITECT

PROFESSIONAL SEAL

A-602

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

DOOR SCHEDULE

GENERAL NOTES - STRUCTURAL

1. General Information

A. The contractor shall verify dimensions and conditions before construction and notify the engineer of any discrepancies, inconsistencies, or difficulties affecting the work before proceeding.
B. The contractor shall coordinate all disciplines, verifying size and location of all openings, whether shown on structural drawings or not, as called for on architectural, mechanical, or electrical drawings. In the case of work in an existing building the contractor shall scan existing structure to locate all rebar in the area of the new core/opening using ground penetrating radar and notify the engineer of record for review prior to coring/cutting. Conflicts, inconsistencies, or other difficulties affecting structural work shall be called to the architect or engineer's attention for direction before proceeding.
C. All design and construction work for this project shall conform to the requirements of the following governing design codes:
1.) International Building Code (IBC 2018) as amended by the city of Lee's Summit, MO.
2.) Minimum Design Loads for Buildings and Other Structures (ASCE7-16)
3.) Structural Welding Code (AWS D1.3-2018)
4.) Building Code Requirements for Structural Concrete (ACI 318-14)
5.) National Design Specification (NDS) for Wood Construction with 2015 Supplements (ANSI/AWC NDS-2015)
6.) Special Design Provisions for Wind and Seismic (AWC SDPWS-2015)
7.) Design and Construction of Post-Tensioned Slabs-on-Ground, 2008
D. These drawings are for this specific project and no other use is authorized.

2. Structural Load Design Criteria

A. Floor Live:
Apartments = 40 psf (plus an additional 15 psf partition)
Stairs = 100 psf
Uninhabitable Atic = 20
Balconies = 60psf
B. Roof Live = 20 psf
C. Snow: Pg = 20 psf, Pf =14 psf, Pm = 20 psf, Is = 1.0, Ce = 1.0, Ct = 1.0, Drift per ASCE/SEI 7
D. Lateral Loads:
1.) Wind: V = 109 mph, Exposure C
Occupancy [Risk] Category II, Iw=1.0 GCpi=+/-0.18
Design wind pressures to be used for the design of exterior component and cladding materials on the designated zones of wall and roof surfaces shall be per section 30.7 and Table 30.7-2 of ASCE/SEI 7. Tabulated pressures shall be multiplied by effective area reduction factors, exposure adjustment factors, and topographic factors where applicable
2.) Seismic: Ss = 0.1, S1 = 0.068
Occupancy [Risk] Category II, Ie=1.0,
Site Classification D; Sds = 0.107; Sd1 = 0.109
Seismic Design Category B
Basic Seismic Force-resisting System:
Light framed walls sheathed with shear panels of all other materials
Equivalent Lateral Force Procedure
R = 2; V = 0.054W; Omega = 2.5; Cd = 2
E. This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the International Building Code.

3. Concrete

A. All concrete for foundations shall develop minimum ultimate compressive design strength of 3500 psi in 28 days, but not less than 500 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 6 gallons of water per 100 pounds of cement and not over 4 inches of slump.
C. All concrete for interior flatwork shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 540 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.40 gallons of water per 100 pounds of cement and not over 4 inches of slump. Concrete mix shop drawing shall contain testing data proving concrete design mix shrinkage is less than 0.034% at 28 days when tested according to ASTM C157 (air drying method only).
D. All concrete for exterior flatwork shall have a minimum design compressive strength of 4500 psi in 28 days, with not less than 560 pounds of cement per cubic yard of concrete, not over 5 gallons of water per 100 pounds of cement, with 6% +/- 1% air entrainment, and a maximum of 4 inches of slump.
F. The preceding minimum mix requirements may have water-reducing admixtures conforming to ASTM C494 added to the mix at manufacturer's dosage rates for improved workability.
G. The preceding minimum mix requirements may have up to 15% maximum of the cement content replaced with an approved ASTM C618 Class C fly ash, provided the total minimum cementitious content is not reduced.
J. All interior concrete slabs on grade shall be placed over 15 mil, Class A Vapor Barrier per ASTM E1745 with less than 0.01 perms, tested after mandatory conditioning. All joints shall be lapped and sealed per manufacturer's recommendations. All penetrations, as well as damaged vapor barrier material shall also be sealed per manufacturer's recommendation prior to concrete placement. Install barrier per manufacturer recommended details at all discontinuous edges (at interior columns, exterior edge of slab, etc.) to ensure terms of warranty are followed. The vapor barrier shall be placed over free-draining granular material as prescribed by the project soils report.
L. All concrete is reinforced concrete unless specifically called out as unreinforced. Reinforce all concrete not otherwise shown with same steel as in similar sections or areas. Any details not shown shall be detailed per ACI 315 and meet requirements of ACI 318, current editions.
M. Control joints in dirt formed slab to be as shown on plans. Where not shown, limit controlled areas to not more than 144 square feet, or 12 feet on any side. Slab panel side ratio shall not exceed 1 1/2 to 1.
N. Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement.
O. Construction joints in beams, slabs, and grade beams shall occur at midspan (middle third) unless noted otherwise. Provide 2 x 4 horizontal keys at construction joints for shear transfer.
P. No aluminum items shall be embedded in any concrete.

4. Reinforcing Steel

A. All reinforcing steel shall conform to the requirements of ASTM A615 or A706 grade 60 steel. Welded plain wire fabric shall be supplied in sheets and conform to the requirements of ASTM A185.
B. Clear minimum coverage of concrete over reinforcing steel shall be as follows:
1.) Concrete placed against earth: 3"
2.) Formed concrete against earth: 2"
3.) Slabs: 1"
4.) Beams or Columns: 1-1/2"
5.) Other 2"
All coverage shall be nominal bar diameter minimum.
C. All dowels shall be the same size and spacing as adjoining main bars (splice lap 48 bar diameters or 30" minimum unless noted otherwise).
D. At corners of all slabs, walls, and continuous foundations, supply corner bars (minimum 2'-6" in each direction or 48 bar diameters) in outside face of wall, matching size and spacing of horizontal bars. Where there are no vertical bars in outside face of wall, supply 3 - #4 vertical support bars for corner bars.
E. Bars marked continuous and all vertical steel shall be lapped 48 bar diameters (2'-6" minimum) at splices and embedments, unless shown otherwise. Splice top bars near midspan and splice bottom bars over supports, unless noted otherwise.
H. Accessories shall be as specified in latest edition of the ACI Detailing Handbook and the concrete Reinforcing Steel Institute Design Handbook. Maximum accessory spacing shall be 4'-0" on center, and all accessories on exposed surfaces are to have plastic coated feet.
I. All slabs and stairs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way. All exterior porches and stoops not otherwise detailed may be constructed in any standard manner, solid or hollow, but must be reinforced with #4 bars at 12" on center each way minimum. Porches shall be doweled to adjacent walls or grade beams with #4 bars at 12" on center, hooked or embedded 48 diameters into both members. Slope porches 1/8" (minimum) per foot for drainage (verify slopes and elevations with architect) unless noted otherwise.

5. Post Installed Anchors

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

6. Foundations

A. The soil investigation was prepared by CFS Engineers, the report number is 24-5632, and telephone number is (913) 627-9040.
B. Spread footings, grade beams, and retaining walls are designed to bear on a ground improvement system (rammed aggregate piers (RAP's) or Vibratory Stone Columns (VSC)) capable of safely sustaining 4000 psf.
C. Contractor shall provide for dewatering at excavations from either surface water or seepage.
D. All foundation excavations shall be inspected by a qualified soil engineer, approved by the architect and/or structural engineer, prior to placement of steel or concrete. This inspection shall be at the owner's expense.
E. Moisture content in soils beneath building locations should not be allowed to change after footing excavations and after grading for slabs on grade are completed. If subgrade materials become desiccated or softened by water or other conditions, recompact materials to the density and water content specified for engineered fill. Do not place concrete on frozen ground.

7. Timber and Wood Framing

A. Quality and construction of wood framing members and their fasteners for load supporting purposes not otherwise indicated on the drawings shall be in accordance with the International Building Code.
B. All studs and top and bottom plates shall be Douglas Fir No. 2 grade visually graded lumber, with an allowable fiber stress in bending of 900 psi minimum and an elastic modulus of 1,600,000psi unless noted otherwise. All joist, truss members, and headers to be No. grade 2 (min.) unless noted otherwise. All lumber for exterior decks and balconies shall be treated Southern Yellow Pine No. 2 grade.
C. Blocking of stud bearing walls and shear walls shall be solid, matching sheathing joints.
D. Joist blocking and bridging shall be solid wood or cross bridging of either wood or metal straps. Spacing, in any case, shall not exceed 8'-0".
E. Wood members and sheathing shall be fastened with number and size of fasteners not less than that set forth in Table 2304.9.1 of the International Building Code. Floor sheathing shall be APA rated tongue and groove Sturd-I-Floor, exposure 1, glued and nailed with 8d ring shank nails or # 10 screws at 12" on center to all supports. Sheathing of shear walls or roof diaphragms shall be edge nailed with 8d common nails at 6" on center and nailed to intermediate framing and/or blocking members with 8d common nails at 12" on center unless otherwise noted on the drawings. All floor sheathing shall be installed with 1/8 inch gaps between panel edges and end joints.
F. Sill plates shall be bolted to concrete walls or steel beams with 1/2" diameter bolts at 32" on center. Sill plates in direct contact with concrete or masonry shall be treated lumber.
G. Joist hangers shall have Uniform Building Code approval and shall be equal to Simpson Strong Tie "LUS" for wood application and "LB" for steel weld-on application.
H. Service condition - dry with moisture content at or below 19% in service.
I. Laminated veneer lumber (LVL) shall have an allowable flexural stress (Fb) of 2,600 psi (reduced by size factor) and an elastic modulus (E) of 1,900,000 psi.
J. Glulam members shall have an allowable flexural stress (Fb) of 3,000 psi and an elastic modulus (E) of 2,100,000 psi.
K. Pre-engineered wood trusses shall be designed in accordance with the Truss Plate Institute's national design standard for metal-plate connected wood truss construction (ANSI/TPI-1 latest edition). Trusses shall be designed and manufactured by an authorized member of the Wood Truss Council of America (WTCA). Truss design shall conform to specified codes, allowable stress increases, deflection limitations and other applicable criteria of the governing code.
L. Shop drawings showing complete erection and fabrication details and calculations (including connections) shall be submitted to the project architect/engineer for review prior to fabrication and/or erection. Such drawings shall bear the seal of a professional engineer, registered in the state of the project location. Shop drawings shall also be submitted to the local government controlling agency when requested by that agency.
M. All trusses shall be securely braced both during erection and permanently, as indicated on the approved truss design drawings and in accordance with TPI's commentary and recommendations for handling, installing and bracing metal-plate connected wood trusses (HIB-91, booklet) and the latest edition of ANSI/TPI-1.
N. The truss manufacturer shall supply all hardware and fasteners for joining truss members together and fastening truss members to their supports. Metal connector plates shall be manufactured by a member of the Wood Truss Council of America (WTCA) and shall be 20 gauge minimum. Connector plates shall meet or exceed ASTM A653, grade 33, with ASTM A924 galvanized coating designation G60.
O. Shipment, handling, and erection of trusses shall be by experienced, qualified persons and shall be performed in a manner so as not to endanger life or property. Apparent truss damage shall be reported to the truss manufacturer for evaluation prior to erection. Cutting or alteration of trusses is not permitted.
P. Contractor shall coordinate truss layout for openings and penetrations required by other trades including for plumbing, HVAC, electrical, roof access hatches, chases, etc.
Q. Pre-engineered floor truss and I-Joist design load and deflection criteria are as follows:

Top Chord Dead Load	= 20 psf
Top Chord Live Load	= Per General Note 2A
Bottom Chord Dead Load	= 5 psf
Allowable Total Load Deflection	= L/360
Allowable Live Load Deflection	= L/480; ½" maximum

R. Pre-engineered roof truss design load and deflection criteria are as follows:

Top Chord Dead Load	= 15 psf
Top Chord Live Load	= 20 psf
Bottom Chord Dead Load	= 10 psf
Bottom Chord Live Load	= 20 psf (non-concurrent with top chord live load)
Allowable Total Load Deflection	= L/300
Allowable Live Load Deflection	= L/360

Roof trusses shall be designed for wind uplift loads as determined by the procedure outlined in ASCE7. Dead load used for uplift load combinations shall be 10 psf top chord and 5 psf bottom chord.

8. Shop Drawing Review

A. Bob D. Campbell and Company, Inc. will review the General Contractor's (GC) shop drawings and related submittals (as indicated below) with respect to the ability of the detailed work, when complete, to be a properly functioning integral element of the overall structural system designed by Bob D. Campbell and Company, Inc.
B. Prior to submittal of a shop drawing or any related material to Bob D. Campbell and Company, Inc., the GC shall:
1.) Review each submission for conformance with the means, methods, techniques, sequences and operations of construction and safety precautions and programs incidental thereto, all of which are the sole responsibility of the GC.
2.) Review and approve each submission.
3.) Stamp each submission as approved.
C. Bob D. Campbell and Company, Inc. shall assume that no submission comprises a variation unless the GC advises Bob D. Campbell and Company, Inc. with written documentation.
D. Bob D. Campbell and Company, Inc. shall review shop drawings and related materials with comments provided that each submission has met the above requirements. Bob D. Campbell and Company, Inc. shall return without comment unrequired material or submissions without GC approval stamp.
E. Shop drawings and related material (if any) required are indicated below. Should Bob D. Campbell and Company, Inc. require more than ten (10) working days to perform the review, Bob D. Campbell and Company, Inc. shall so notify the GC.
1.) Concrete mix designs and material certificates including admixtures and compounds applied to the concrete after placement.
2.) Reinforcing steel shop drawings including erection drawings and bending details. Bar list will not be reviewed for correct quantities.
3.) Construction and control joint plans and/or elevations.
4.) Miscellaneous anchors shown on the structural drawings.
5.) Wood truss design calculations and detailed erection and fabrication drawings. Standard stick framing shop drawings need not be submitted.
6.) Rammed Aggregate Pier design calculations and shop drawings.

9. Statement of Structural Special Inspections

A. The structural design for this project is based on completion of special inspections during construction in accordance with section 1704 of the International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.
B. The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.
C. All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the proper design authority, building official and structural engineer.
D. The special inspector shall submit a final signed report stating that the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions of the building code.
E. The following inspections and tests are required with the frequency (continuous or periodic) as defined within the referenced section or standard listed below. The General Contractor shall provide notification to the inspector when items requiring inspection are ready to be inspected and provide access for those inspections.
1.) Shop Fabrication – pre-engineered wood trusses per Section 1704.2.5 unless TPI certified shop
2.) Concrete Construction per Section 1705.3 and Table 1705.3
a. Reinforcing Steel Placement
b. Reinforcing Steel Welding
c. Cast in Place Anchors
d. Post Installed Anchors
e. Design Mix Verification
f. Concrete Sampling and Testing
g. Concrete Placement
h. Concrete Curing
i. Formwork Shape, Location and Dimensions
3.) Verification of Soils per Table 1705.6
4.) Rammed Aggregate Pier installation
5.) Wood Lateral System (periodic)
a. Wood shearwalls (include sheathing, rim board and bottom plate attachments)
b. Portal frames
c. Shear wall and portal frame holdowns
d. Shear wall tension rod system
6.) Wood Gravity Framing and Placement (adjust frequency of random sampling where indicated as required)
a. Heavy timber/SCL/glulam beams and supports (periodic)
b. Headers and jambs (random sampling)
c. Bearing walls (random sampling)
d. Connector/hardware installation (random sampling)
e. Floor and roof trusses (random sampling)

10. Copyright and Disclaimer

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

STRUCTURAL SHEET LIST

Sheet Number	Sheet Name	Current Revision	Current Revision Date
S-001	GENERAL NOTES	1	01/26/26
S-002	SCHEDULES		
S-003	BUILDING DESIGN LOADS		
S-004	PRIMARY GRID GEOMETRY PLAN - OVERALL		
S-005	SECONDARY GRID GEOMETRY PLAN - OVERALL		
S-010	STEEL SECTIONS		
S-020	TYPICAL WOOD DETAILS & SCHEDULES		
S-021	WOOD SCHEDULES		
S-022	TYPICAL WOOD DETAILS		
S-023	TYPICAL WOOD DETAILS		
S-024	TYPICAL WOOD DETAILS		
S-025	TYPICAL WOOD DETAILS		
S-026	TYPICAL WOOD DETAILS		
S-101	FIRST FLOOR FOUNDATION PLAN - OVERALL		
S-102	SECOND FLOOR FRAMING PLAN - OVERALL		
S-103	THIRD FLOOR FRAMING PLAN - OVERALL		
S-104	FOURTH FLOOR FRAMING PLAN - OVERALL		
S-105	ROOF FRAMING PLAN - OVERALL		
S-106	SHEAR AND BEARING WALL PLAN - OVERALL		
S-111A	FIRST FLOOR FOUNDATION PLAN - AREA A		
S-111B	FIRST FLOOR FOUNDATION PLAN - AREA B		
S-111C	FIRST FLOOR FOUNDATION PLAN - AREA C		
S-111D	FIRST FLOOR FOUNDATION PLAN - AREA D		
S-111E	FIRST FLOOR FOUNDATION PLAN - AREA E		
S-111F	FIRST FLOOR FOUNDATION PLAN - AREA F		
S-112A	SECOND FLOOR FRAMING PLAN - AREA A		
S-112B	SECOND FLOOR FRAMING PLAN - AREA B		
S-112C	SECOND FLOOR FRAMING PLAN - AREA C		
S-112D	SECOND FLOOR FRAMING PLAN - AREA D		
S-112E	SECOND FLOOR FRAMING PLAN - AREA E		
S-112F	SECOND FOOR FRAMING PLAN - AREA F		
S-113A	THIRD FLOOR FRAMING PLAN - AREA A		
S-113B	THIRD FLOOR FRAMING PLAN - AREA B		
S-113C	THIRD FLOOR FRAMING PLAN - AREA C		
S-113D	THIRD FLOOR FRAMING PLAN - AREA D		
S-113E	THIRD FLOOR FRAMING PLAN - AREA E		
S-113F	THIRD FLOOR FRAMING PLAN - AREA F		
S-114A	FOURTH FLOOR FRAMING PLAN - AREA A		
S-114B	FOURTH FLOOR FRAMING PLAN - AREA B		
S-114C	FOURTH FLOOR FRAMING PLAN - AREA C		
S-114D	FOURTH FLOOR FRAMING PLAN - AREA D		
S-114E	FOURTH FLOOR FRAMING PLAN - AREA E		
S-114F	FOURTH FLOOR FRAMING PLAN - AREA F		
S-115A	ROOF FRAMING PLAN - AREA A		
S-115B	ROOF FRAMING PLAN - AREA B		
S-115C	ROOF FRAMING PLAN - AREA C		
S-115D	ROOF FRAMING PLAN - AREA D		
S-115E	ROOF FRAMING PLAN - AREA E		
S-115F	ROOF FRAMING PLAN - AREA F		
S-116A	SHEAR AND BEARING WALL PLAN - AREA A		
S-116B	SHEAR AND BEARING WALL PLAN - AREA B		
S-116C	SHEAR AND BEARING WALL PLAN - AREA C		
S-116D	SHEAR AND BEARING WALL PLAN - AREA D		
S-116E	SHEAR AND BEARING WALL PLAN - AREA E		
S-116F	SHEAR AND BEARING WALL PLAN - AREA F		
S-300	FOUNDATION SECTIONS		
S-301	FOUNDATION SECTIONS		
S-400	FLOOR FRAMING SECTIONS		
S-401	FLOOR FRAMING SECTIONS		
S-402	STAIR AND RATED WALL SECTIONS		
S-403	BALCONY FRAMING SECTIONS		
S-404	STRUCTURAL FRAMING SECTIONS		
S-405	STRUCTURAL FRAMING SECTIONS		
S-406	STRUCTURAL FRAMING SECTIONS		
S-500	ROOF FRAMING SECTIONS		
S-501	ROOF FRAMING SECTIONS		
S-502	ROOF FRAMING SECTIONS		
S-503	ROOF FRAMING SECTIONS		
S-504	ROOF FRAMING SECTIONS		
S-505	ROOF FRAMING SECTIONS		
S-506	ROOF FRAMING SECTIONS		
S-507	ROOF FRAMING SECTIONS		

REBAR DEVELOPMENT LENGTH AND LAP SPLICE SCHEDULE

CONCRETE STRENGTH = 3500 psi (Min.)

BAR SIZE \ CASE	DEVELOPMENT LENGTH OR CLASS A LAP		CLASS B LAP	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	20	16	26	20
#4	27	21	35	27
#5	33	26	43	33
#6	40	31	52	40
#7	58	45	75	58
#8	66	51	86	66
#9	75	58	97	75
#10	84	65	109	84
#11	93	72	121	93

NOTES:
1. UNLESS SPECIFICALLY INDICATED OTHERWISE, USE THE MINIMUM LENGTH FOR A CLASS B LAP SPLICE OR THE MINIMUM DEVELOPMENT LENGTH INDICATED IN THE TABLES ABOVE MULTIPLIED BY THE APPLICABLE FACTOR(S) LISTED BELOW.
2. WHERE THE CLEAR SPACING BETWEEN BARS LAP SPLICED OR EMBEDDED AT ANY SECTION IS LESS THAN 2 BAR DIAMETERS, OR WHERE THE BAR COVER IS LESS THAN OR EQUAL TO THE BAR DIAMETER. INCREASE THE INDICATED BAR SPLICE OR DEVELOPMENT LENGTH BY 50%.
3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
4. MECHANICAL COUPLERS MAY BE SUBSTITUTED FOR TENSION LAP SPLICED BARS PROVIDED THAT THEY MEET THE REQUIREMENTS OF ACI 318-11, 12.14.
5. AT LOCATIONS WHERE REINFORCING WITHIN A STRUCTURAL ELEMENT WILL BE SPLICED, ALTERNATING SPLICES SHALL BE STAGGERED A MINIMUM OF THE CLASS B SPLICE LENGTH UNLESS INDICATED OTHERWISE.

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STATE OF MISSOURI
BRANDON M. FORD
NUMBER PE-2010027598
PROFESSIONAL ENGINEER
1-26-2026

PERMIT SET

OLDHAM VILLAGE
1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	Addendum 1	01/26/26

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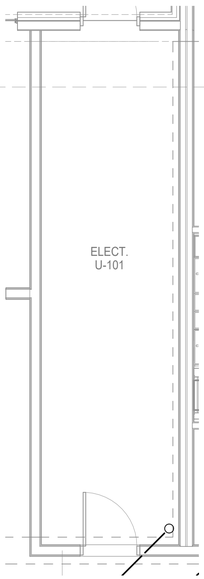
Architect Of Record:
Hoefer Welker

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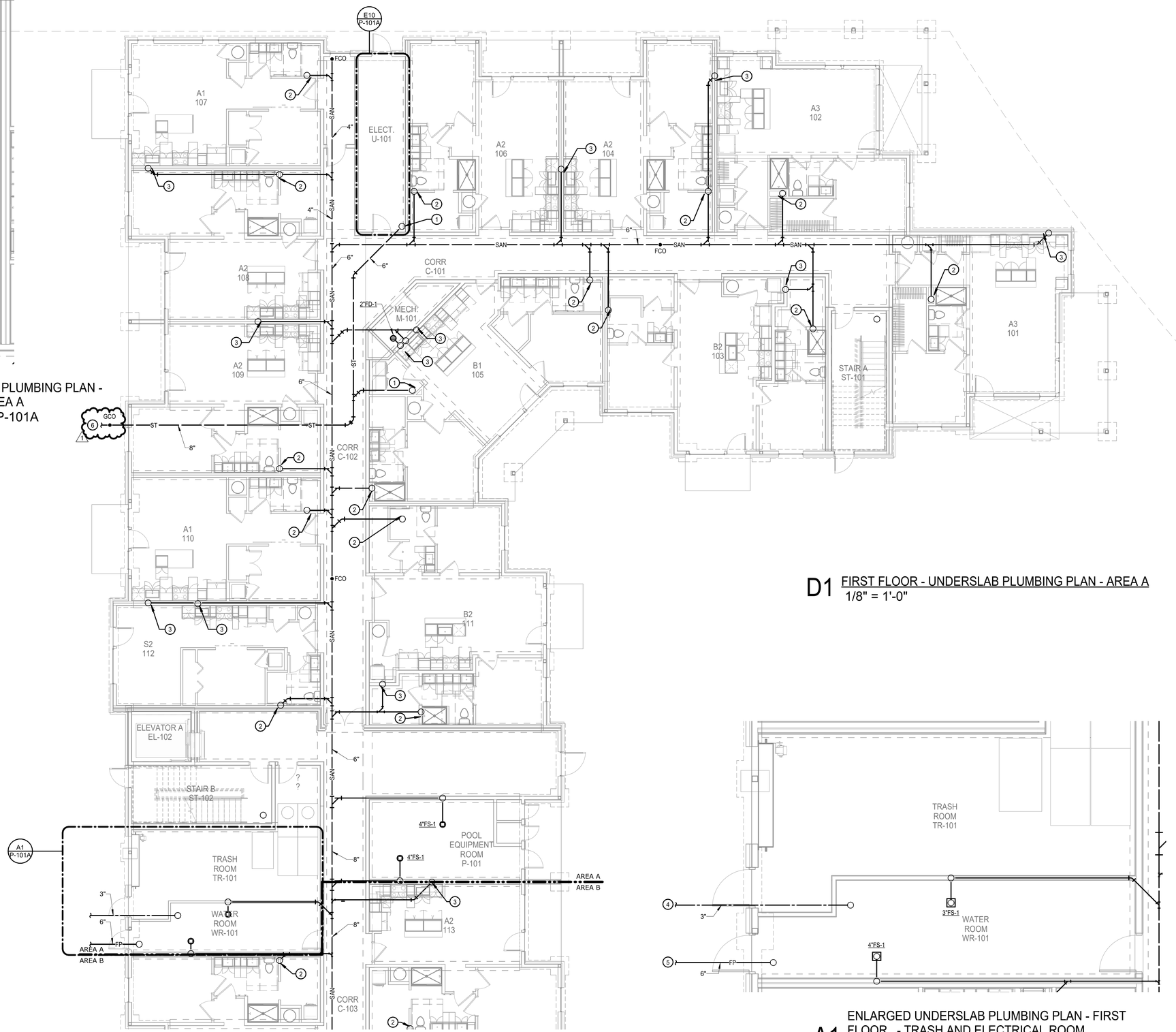
S-001

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

GENERAL NOTES



E10 ENLARGED UNDERSLAB PLUMBING PLAN - ELECTRICAL ROOM - AREA A
1/4" = 1'-0" D1 / P-101A



D1 FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA A
1/8" = 1'-0"

A1 ENLARGED UNDERSLAB PLUMBING PLAN - FIRST FLOOR - TRASH AND ELECTRICAL ROOM
1/4" = 1'-0" D1 / P-101A

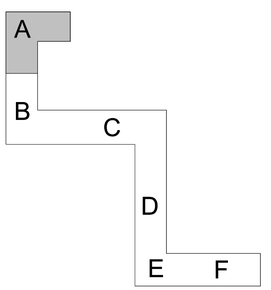
GENERAL NOTES:

1. INFORMATION SHOWN ON THE DRAWINGS IS INTENDED TO CONVEY SCOPE AND IS ARRANGED FOR DRAWING CLARITY. IT IS NOT TO BE TAKEN AS AN AS-BUILT CONDITION. THE SYSTEM INSTALLATION SHALL BE COORDINATED WITH STRUCTURE, CEILINGS, WALLS, AND ALL OTHER TRADES TO PROVIDE FOR A COMPLETE AND WORKING SYSTEM.
2. CAREFULLY COORDINATE PIPE ROUTING WITH NEW AND EXISTING STRUCTURE AS WELL AS ALL OTHER TRADES TO MAINTAIN EQUIPMENT CLEARANCES AND DESIRED CEILING HEIGHTS.
3. COORDINATE ALL PIPING PENETRATIONS WITH STRUCTURAL PRIOR TO CORE DRILLING.
4. WASTE PIPING SHALL BE SLOPED AT 1/8" PER FOOT FOR 3" AND LARGER PIPING AND 1/4" PER FOOT FOR 2" AND SMALLER PIPING.
5. STORM PIPING SHALL BE SLOPED AT 1/8" PER FOOT.
6. PROVIDE WASTE AND STORM CLEANOUTS AS REQUIRED PER CODE AND SPECIFICATIONS. MORE CLEANOUTS MAY BE REQUIRED THAN AS SHOWN ON PLANS.
7. PROVIDE SHUT OFF VALVES ABOVE ACCESSIBLE CEILING OR OTHER ACCESSIBLE LOCATION FOR ALL BRANCH PIPING AND INDIVIDUAL CONNECTIONS TO PLUMBING FIXTURES. WHERE STOPS ARE PROVIDED FOR INDIVIDUAL FIXTURES SHUT OFF VALVES ARE ALSO REQUIRED AT THE BRANCH CONNECTION. PLUMBING STOPS ARE NOT CONSIDERED A SUBSTITUE FOR SHUT OFF VALVES.
8. AVOID ROUTING ANY PIPING THROUGH IT ROOMS OR ELECTRIC ROOMS. IN THE EVENT IT IS ABSOLUTELY NECESSARY, COORDINATE THE EXACT LOCATION SUCH THAT IT IS NOT DIRECTLY ABOVE ANY PANELS OR EQUIPMENT.
9. REFER TO RISER DIAGRAM FOR ADDITIONAL PLUMBING INFORMATION.
10. PROVIDE FIRESTOPPING AT PENETRATIONS OF ALL RATED WALLS. REFER TO CODE PLANS FOR LOCATIONS OF RATED WALLS.
11. ALL HOT WATER RECIRC BALANCE DEVICES SHALL BE 1 GPM CIRCUIT SETTERS UNLESS OTHERWISE NOTED.
12. PROVIDE WATER HAMMER ARRESTORS PER THE REQUIREMENTS OF THE SPECIFICATIONS AND PDI-WH201 FOR ALL FAST ACTING VALVES (FLUSH VALVES, SOLENOID FAUCETS, ETC).

PLAN NOTES:

1. 6" STORM UP THRU FLOOR.
2. 4" SANITARY STACK UP THRU FLOOR.
3. 2" SANITARY STACK UP THRU FLOOR.
4. 3" DOMESTIC WATER SERVICE ENTRANCE. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.
5. 6" FIRE PROTECTION SERVICE ENTRANCE. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.
6. 8" STORM SEWER. PROVIDE CLEANOUT WHERE STORM LEAVES THE BUILDING. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.

KEY PLAN



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project number 2522700

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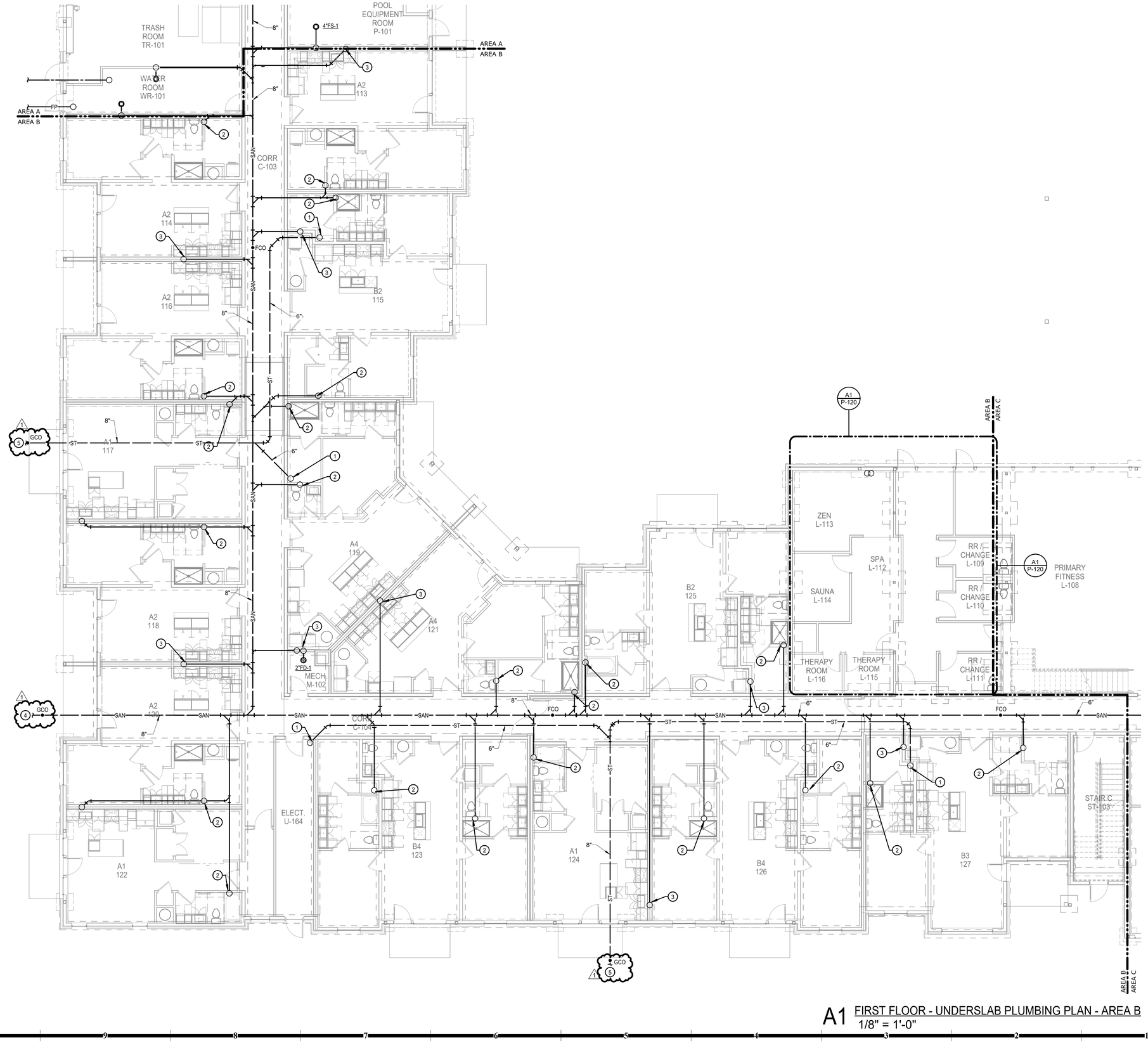
1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
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NUMBER PE - 2006033950
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12/22/25
PROFESSIONAL SEAL

P-101A

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA A



A1 FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA B
1/8" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

1. 6" STORM UP THRU FLOOR.
2. 4" SANITARY STACK UP THRU FLOOR.
3. 2" SANITARY STACK UP THRU FLOOR.
4. 8" SANITARY SEWER SERVICE. PROVIDE CLEANOUT WHERE SANITARY LEAVES THE BUILDING. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.
5. 8" STORM SEWER. PROVIDE CLEANOUT WHERE STORM LEAVES THE BUILDING. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.

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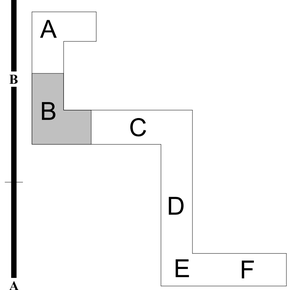
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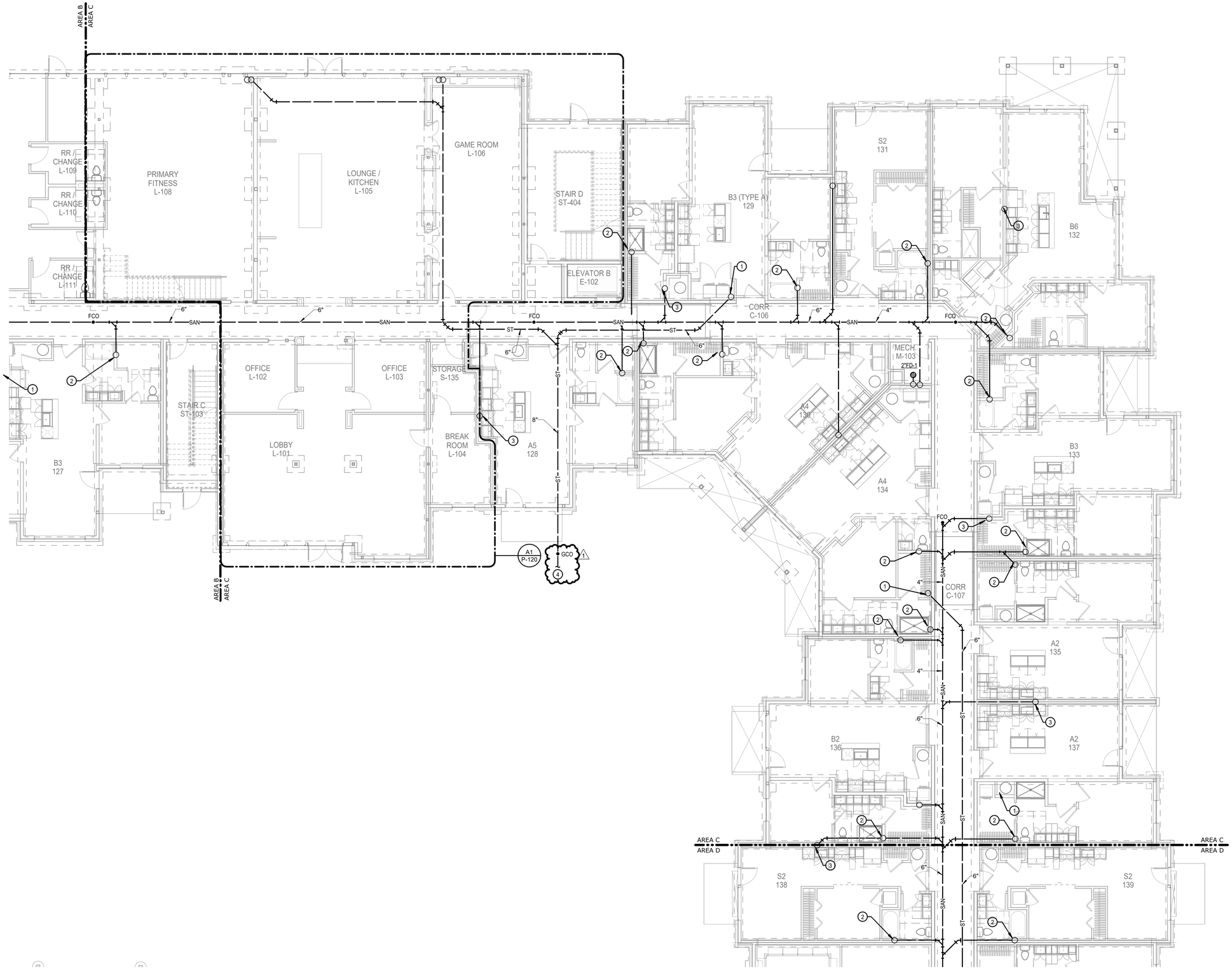
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PROFESSIONAL SEAL

P-101B

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA B



A1 FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA C
1/8" = 1'-0"

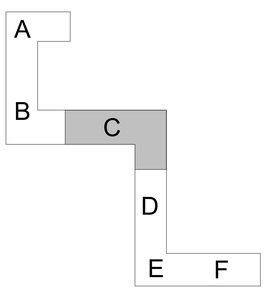
GENERAL NOTES:

1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

1. 6" STORM UP THRU FLOOR.
2. 4" SANITARY STACK UP THRU FLOOR.
3. 2" SANITARY STACK UP THRU FLOOR.
4. 8" STORM SEWER. PROVIDE CLEANOUT WHERE STORM LEAVES THE BUILDING. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.

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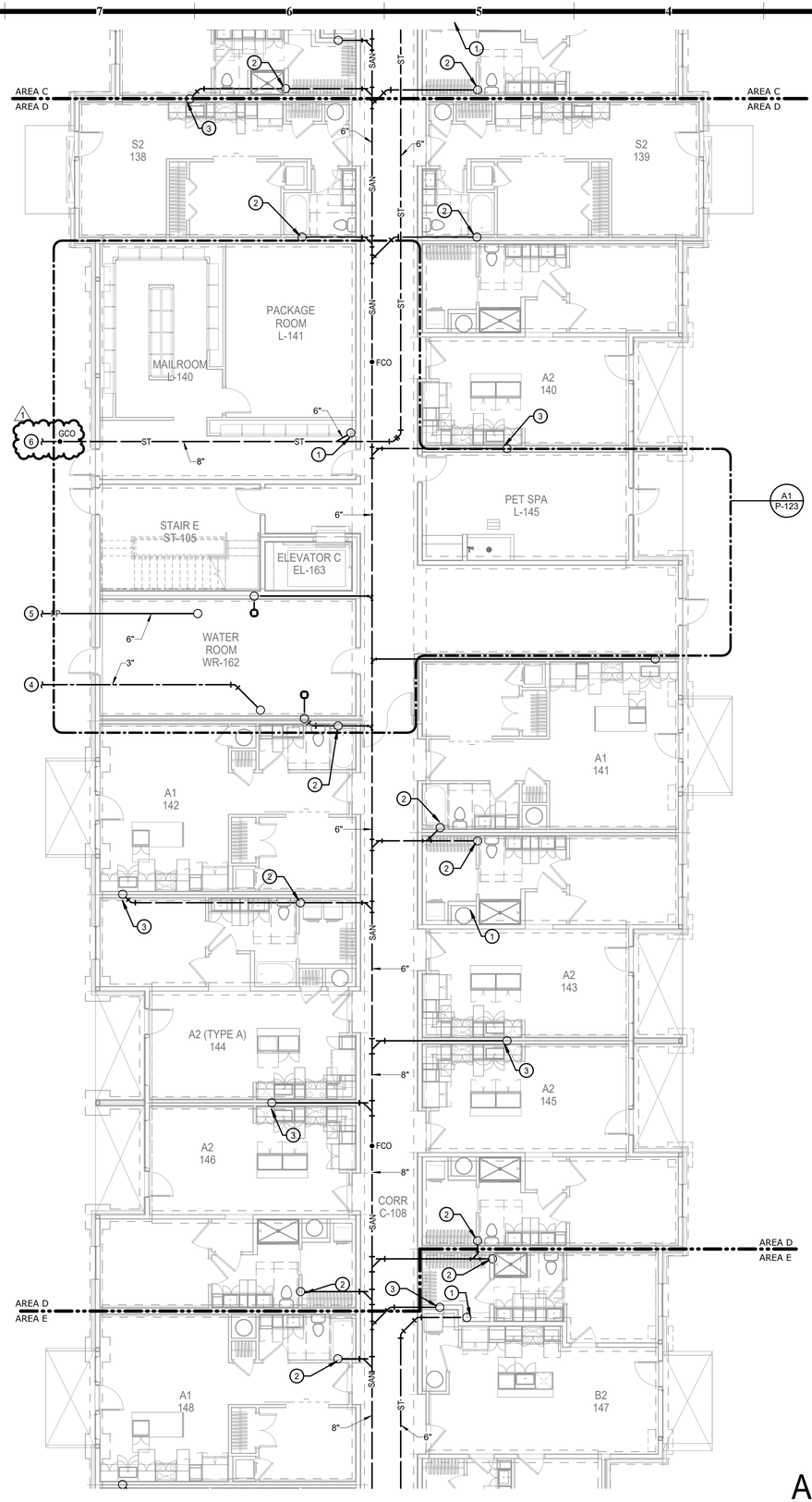
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CHRISTOPHER EDWARD ALBRIGHT
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P-101C

ISSUE DATE: DECEMBER 22, 2025
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FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA C



GENERAL NOTES:

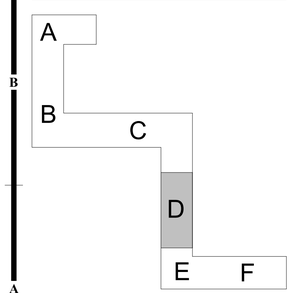
1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

1. 6" STORM UP THRU FLOOR.
2. 4" SANITARY STACK UP THRU FLOOR.
3. 2" SANITARY STACK UP THRU FLOOR.
4. 3" DOMESTIC WATER SERVICE ENTRANCE. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.
5. 6" FIRE PROTECTION SERVICE ENTRANCE. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.
6. 8" STORM SEWER. PROVIDE CLEANOUT WHERE STORM LEAVES THE BUILDING. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.

A1 FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA D
1/8" = 1'-0"

KEY PLAN



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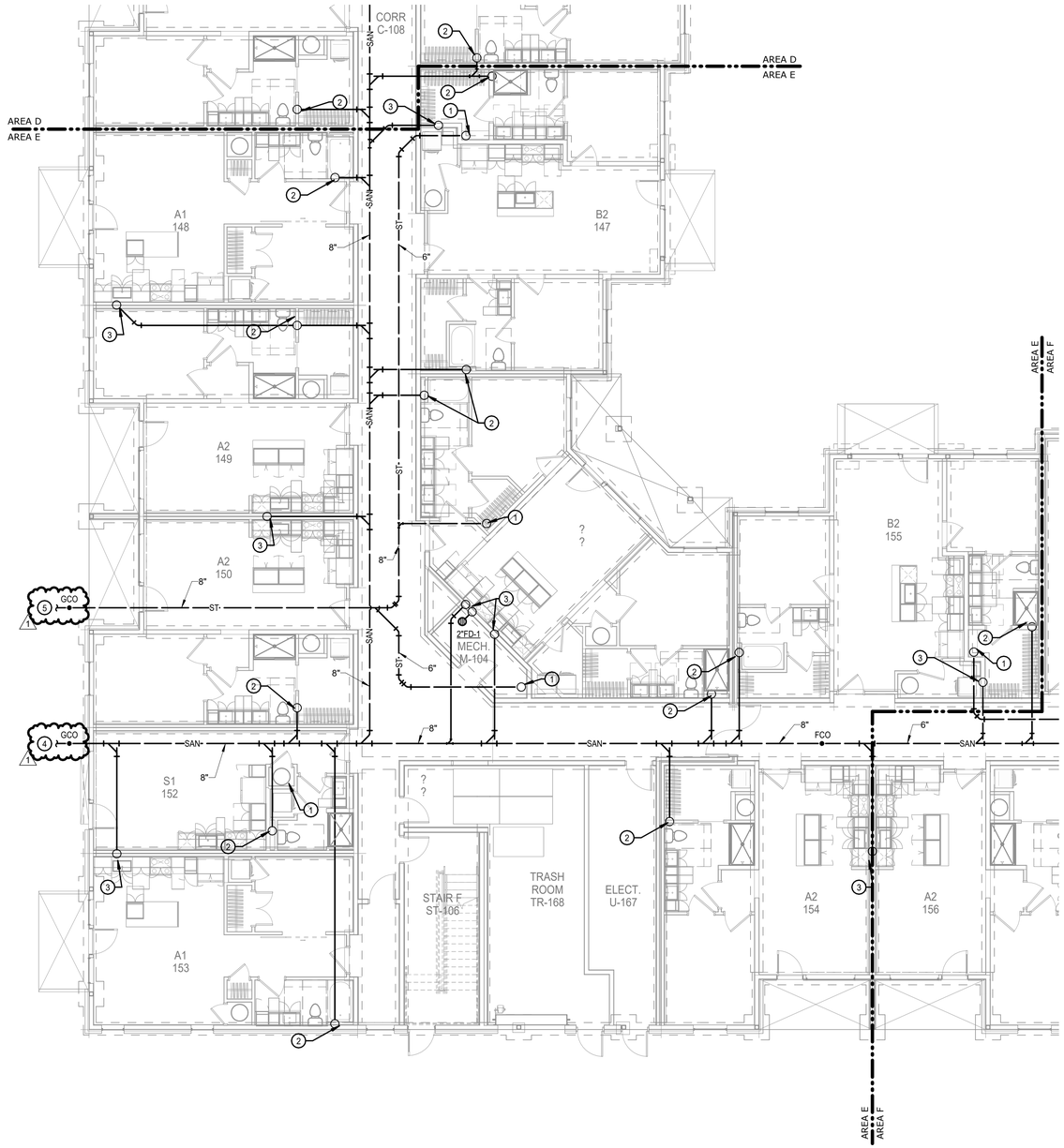
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ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA D



A1 FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA E
1/8" = 1'-0"

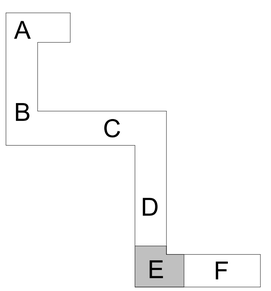
GENERAL NOTES:

1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

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KEY PLAN



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project number 2522700

PERMIT SET

OLDHAM APARTMENT

1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM 1	01/26/2026

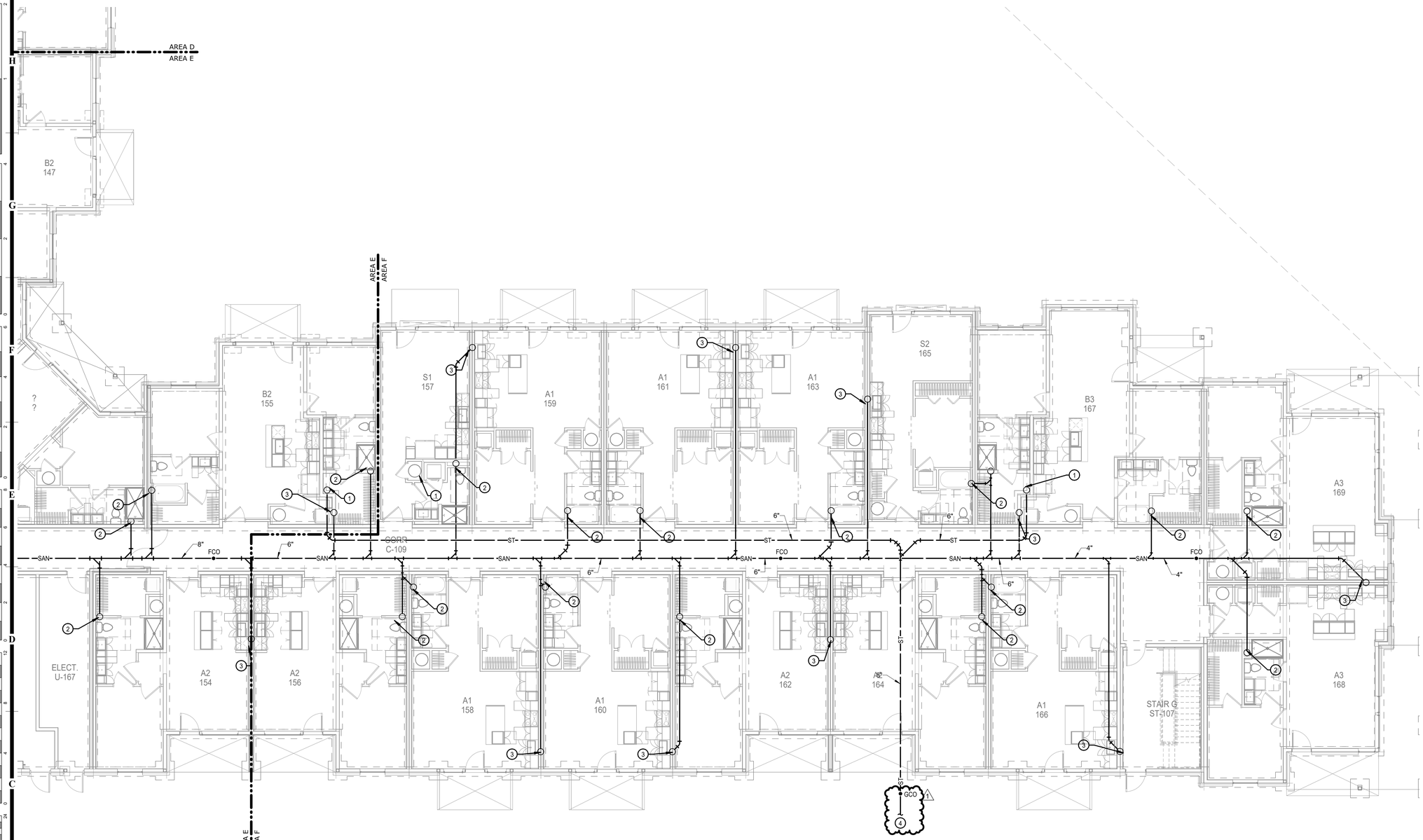
STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2009033905
REGISTERED PROFESSIONAL ENGINEER
12/22/25

PROFESSIONAL SEAL

P-101E

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA E



GENERAL NOTES:

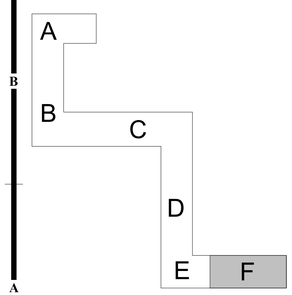
1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

1. 6" STORM UP THRU FLOOR.
2. 4" SANITARY STACK UP THRU FLOOR.
3. 2" SANITARY STACK UP THRU FLOOR.
4. 8" STORM SEWER. PROVIDE CLEANOUT WHERE STORM LEAVES THE BUILDING. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION AND DEPTH WITH SITE UTILITIES CONTRACTOR PRIOR TO INSTALLATION.

A1 FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA F
1/8" = 1'-0"

KEY PLAN



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OLDHAM APARTMENT

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LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM 1	01/26/2026

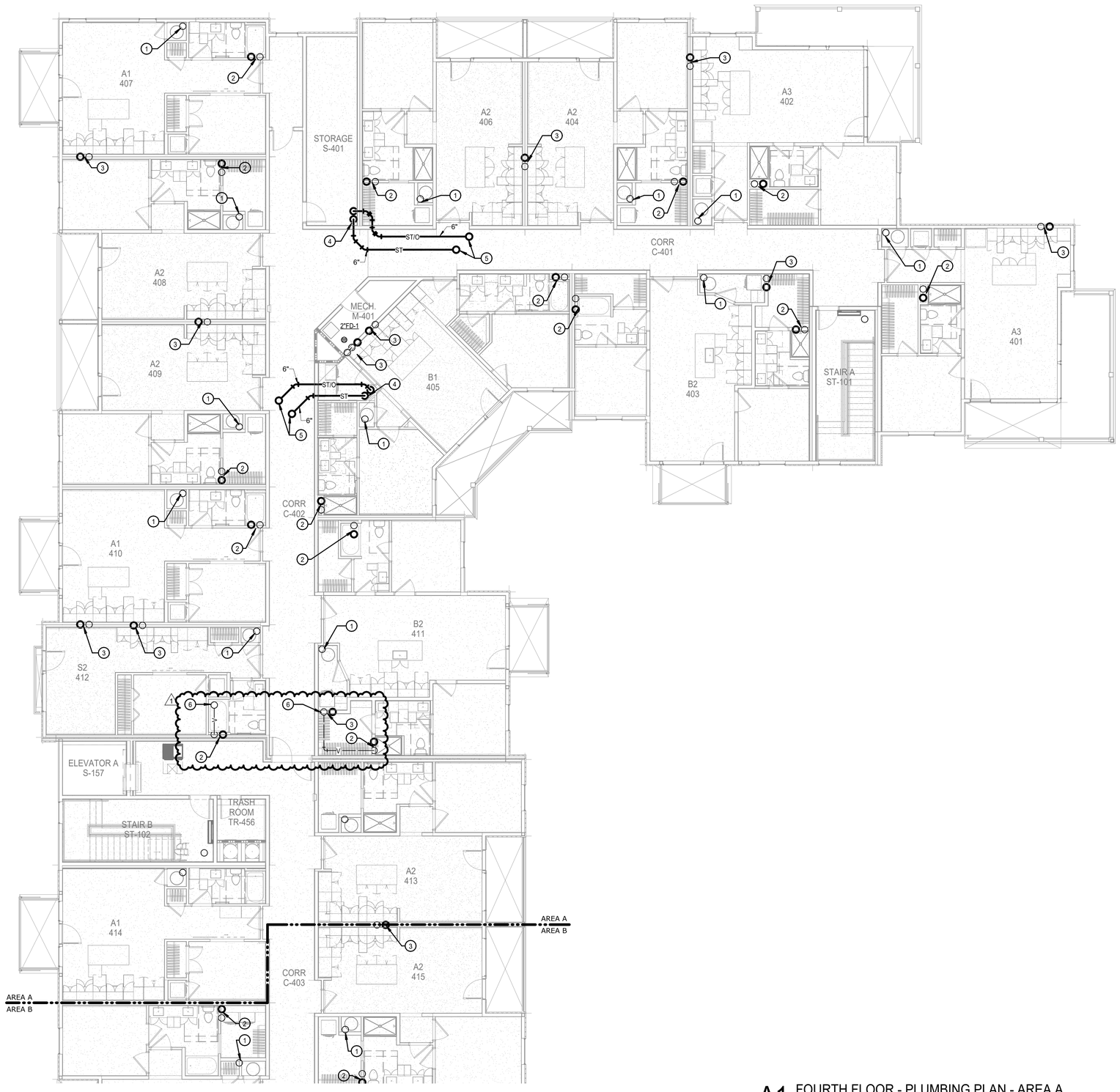
STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2009033805
REGISTERED PROFESSIONAL ENGINEER
12/22/25

PROFESSIONAL SEAL

P-101F

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

FIRST FLOOR - UNDERSLAB PLUMBING PLAN - AREA F



A1 FOURTH FLOOR - PLUMBING PLAN - AREA A
1/8" = 1'-0"

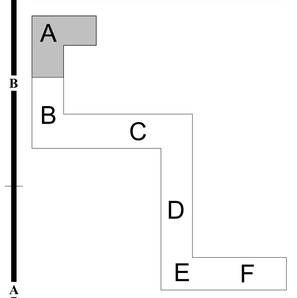
GENERAL NOTES:

1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

1. 1-1/4" CW DOWN THRU FLOORS TO SERVE APARTMENT UNITS.
2. 4" SANITARY STACK AND 3" VENT STACK UP/DOWN THRU FLOORS.
3. 2" SANITARY STACK AND 2" VENT STACK UP/DOWN THRU FLOORS.
4. 6" ST AND 6" ST/O DOWN THRU FLOORS IN CHASE.
5. 6" ST AND 6" ST/O UP THRU ROOF.
6. OFFSET VENT SO VENT THROUGH ROOF IS A MINIMUM OF 4'-6" FROM THE BUILDING SEPARATION FIRE ASSEMBLY. REFER TO ARCHITECTURAL CODE REVIEW AND LIFE SAFETY PLANS.

KEY PLAN



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REVISION DATES:

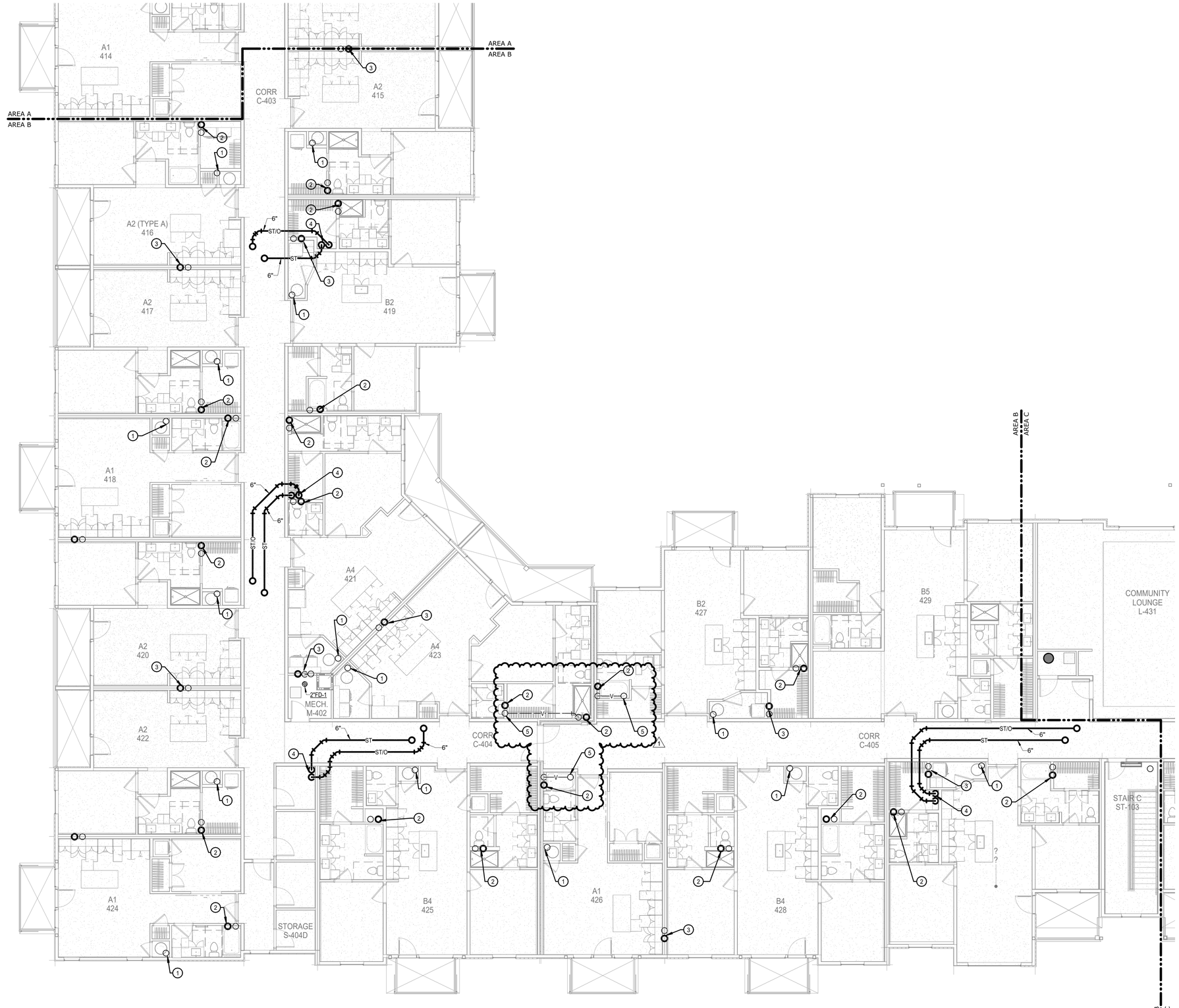
1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE - 2006033607
REGISTERED PROFESSIONAL ENGINEER
12/22/25
PROFESSIONAL SEAL

P-114A

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

FOURTH FLOOR - PLUMBING PLAN - AREA A



A1 FOURTH FLOOR - PLUMBING PLAN - AREA B
1/8" = 1'-0"

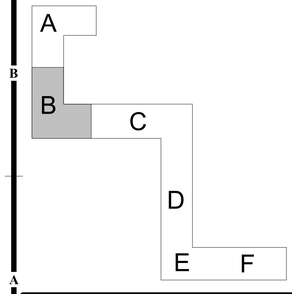
GENERAL NOTES:

1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

1. 1-1/4" CW DOWN THRU FLOORS TO SERVE APARTMENT UNITS.
2. 4" SANITARY STACK AND 3" VENT STACK UP/DOWN THRU FLOORS.
3. 2" SANITARY STACK AND 2" VENT STACK UP/DOWN THRU FLOORS.
4. 6" ST AND 6" ST/O DOWN THRU FLOORS IN CHASE.
5. OFFSET VENT SO VENT THROUGH ROOF IS A MINIMUM OF 4'-6" FROM THE BUILDING SEPARATION FIRE ASSEMBLY. REFER TO ARCHITECTURAL CODE REVIEW AND LIFE SAFETY PLANS.

KEY PLAN



FOURTH FLOOR - PLUMBING PLAN - AREA B

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REVISION DATES:

1	ADDENDUM 1	01/26/2026

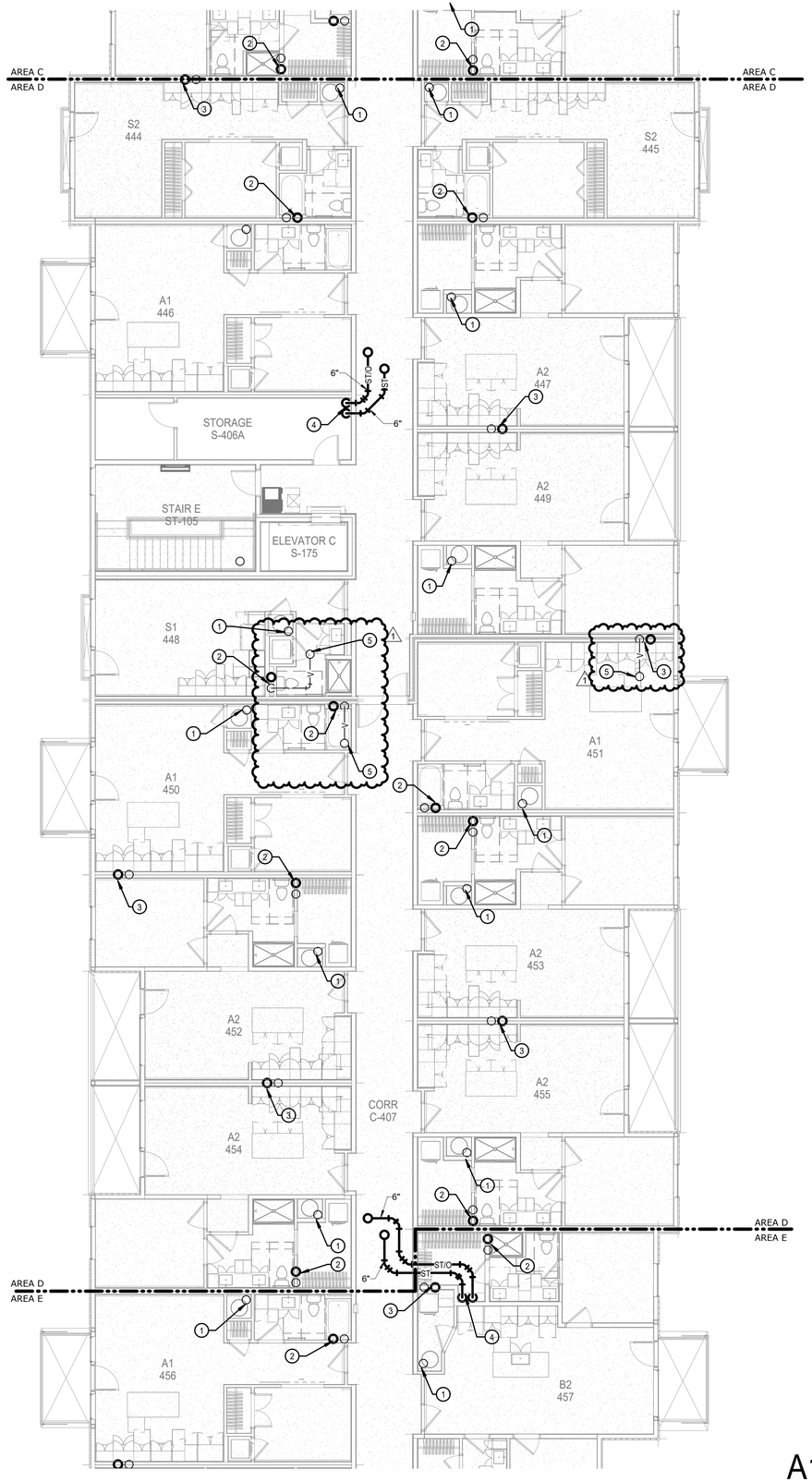
STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2006033959
REGISTERED PROFESSIONAL ENGINEER
12/22/25

PROFESSIONAL SEAL

P-114B

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011



A1 FOURTH FLOOR - PLUMBING PLAN - AREA D
1/8" = 1'-0"

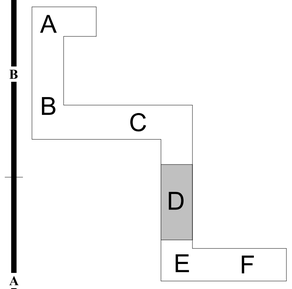
GENERAL NOTES:

1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

1. 1-1/4" CW DOWN THRU FLOORS TO SERVE APARTMENT UNITS.
2. 4" SANITARY STACK AND 3" VENT STACK UP/DOWN THRU FLOORS.
3. 2" SANITARY STACK AND 2" VENT STACK UP/DOWN THRU FLOORS.
4. 6" ST AND 6" ST/O DOWN THRU FLOORS IN CHASE.
5. OFFSET VENT SO VENT THROUGH ROOF IS A MINIMUM OF 4'-6" FROM THE BUILDING SEPARATION FIRE ASSEMBLY. REFER TO ARCHITECTURAL CODE REVIEW AND LIFE SAFETY PLANS.

KEY PLAN



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1	ADDENDUM 1	01/26/2026

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REGISTERED PROFESSIONAL ENGINEER
12/22/25

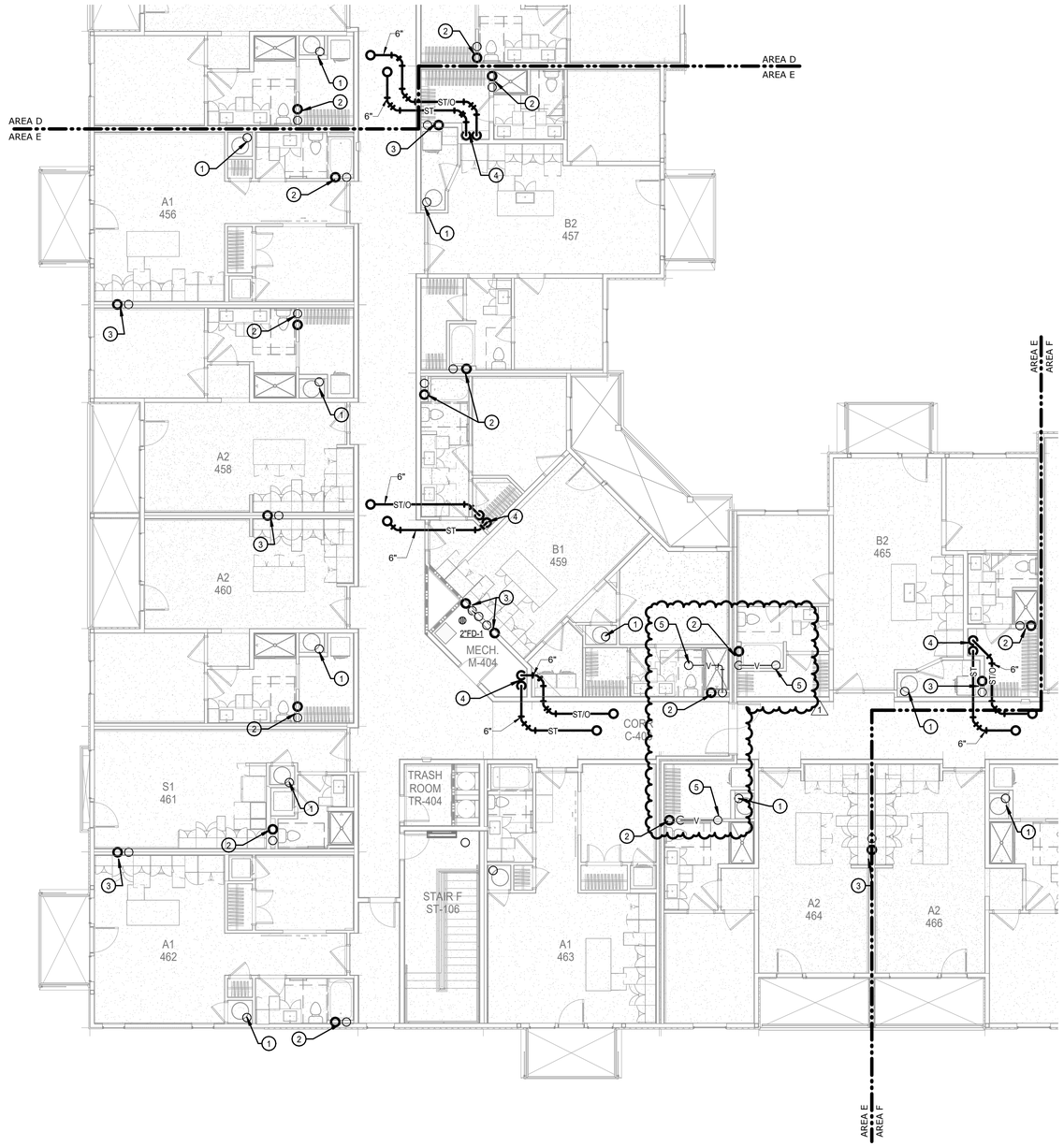
PROFESSIONAL SEAL

P-114D

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

FOURTH FLOOR - PLUMBING PLAN - AREA D



A1 FOURTH FLOOR - PLUMBING PLAN - AREA E
1/8" = 1'-0"

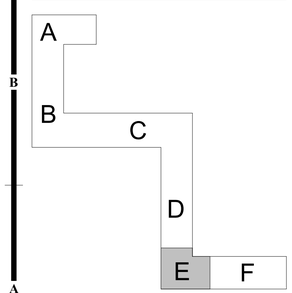
GENERAL NOTES:

1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

1. 1-1/4" CW DOWN THRU FLOORS TO SERVE APARTMENT UNITS.
2. 4" SANITARY STACK AND 3" VENT STACK UP/DOWN THRU FLOORS.
3. 2" SANITARY STACK AND 2" VENT STACK UP/DOWN THRU FLOORS.
4. 6" ST AND 6" ST/O DOWN THRU FLOORS IN CHASE.
5. OFFSET VENT SO VENT THROUGH ROOF IS A MINIMUM OF 4'-6" FROM THE BUILDING SEPARATION FIRE ASSEMBLY. REFER TO ARCHITECTURAL CODE REVIEW AND LIFE SAFETY PLANS.

KEY PLAN



FOURTH FLOOR - PLUMBING PLAN - AREA E

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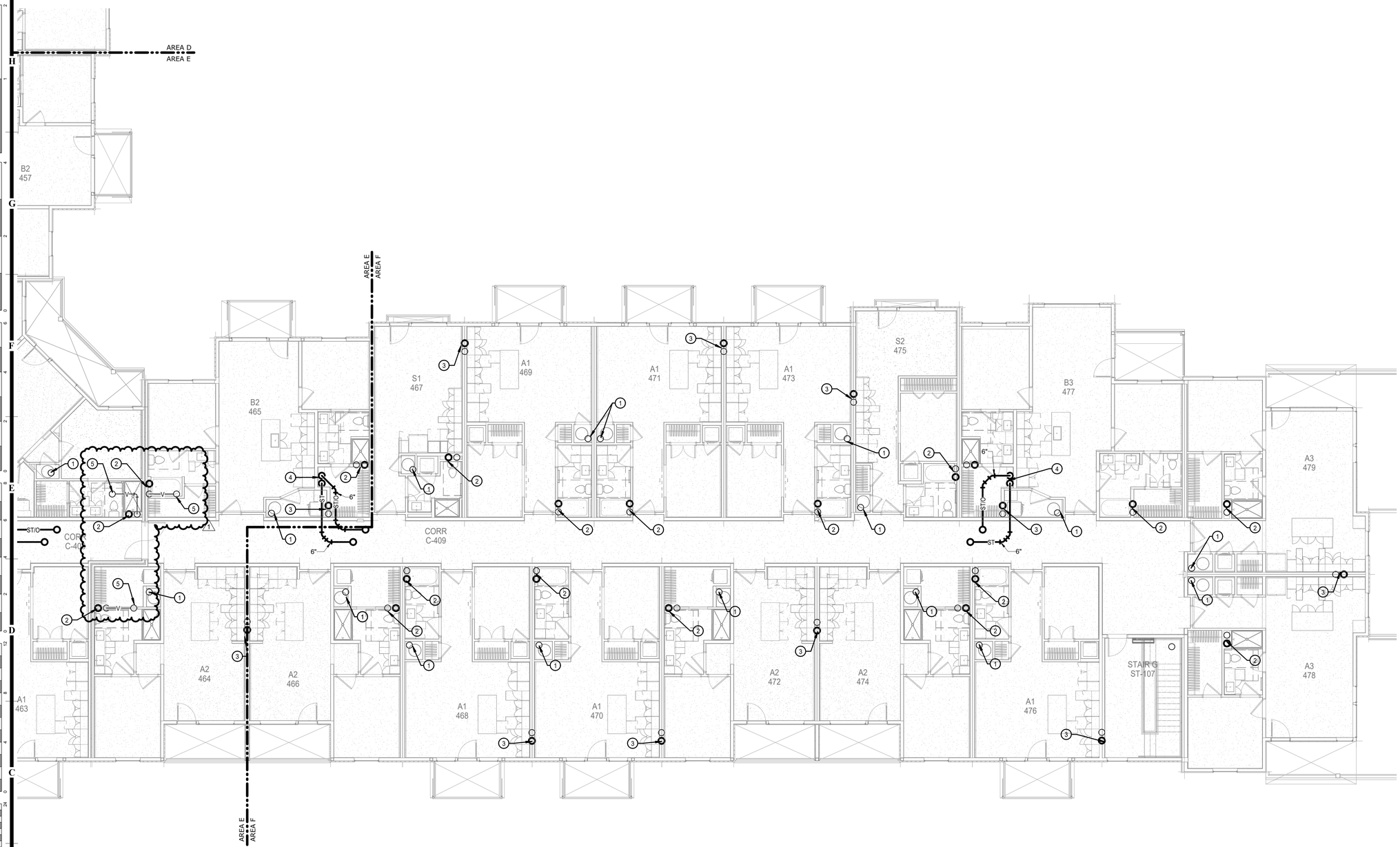
1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2009013958
REGISTERED PROFESSIONAL ENGINEER
12/22/25

PROFESSIONAL SEAL

P-114E

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011



A1 FOURTH FLOOR - PLUMBING PLAN - AREA F
1/8" = 1'-0"

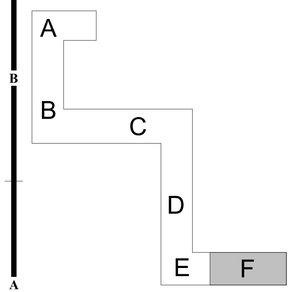
GENERAL NOTES:

1. REFER TO SHEET P-101A FOR GENERAL NOTES.

PLAN NOTES:

1. 1-1/4" CW DOWN THRU FLOORS TO SERVE APARTMENT UNITS.
2. 4" SANITARY STACK AND 3" VENT STACK UP/DOWN THRU FLOORS.
3. 2" SANITARY STACK AND 2" VENT STACK UP/DOWN THRU FLOORS.
4. 6" ST AND 6" ST/O DOWN THRU FLOORS IN CHASE.

KEY PLAN



FOURTH FLOOR - PLUMBING PLAN - AREA F

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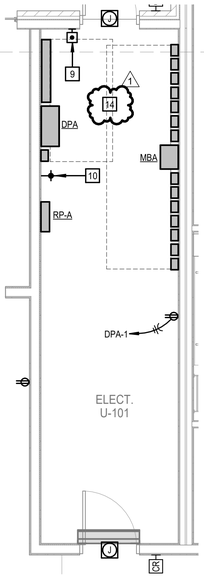
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CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2009033850
REGISTERED PROFESSIONAL ENGINEER
12/22/25

PROFESSIONAL SEAL

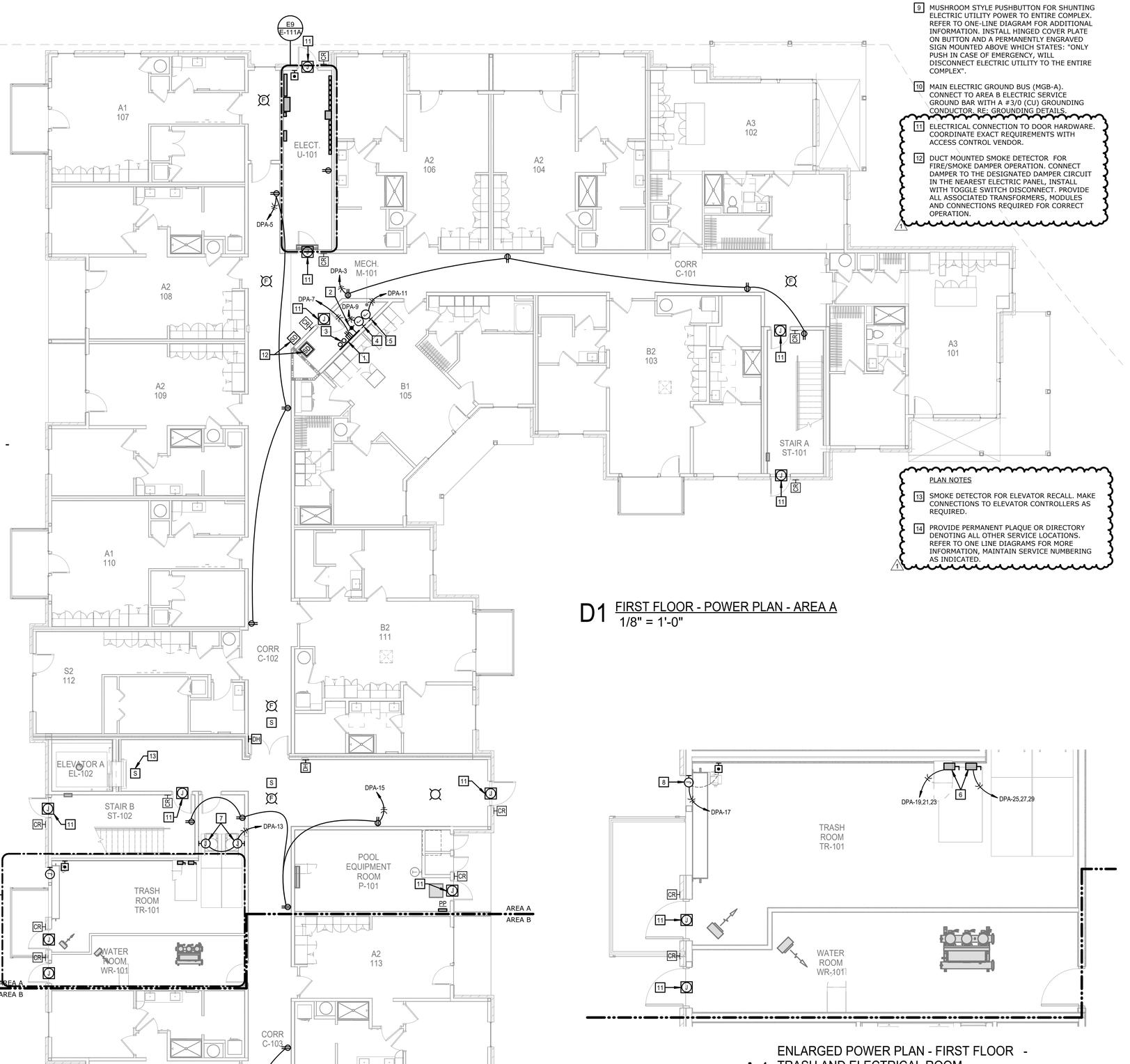
P-114F

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011



E9 ENLARGED POWER PLAN - FIRST FLOOR - TRASH AND ELECTRICAL ROOM
1/4" = 1'-0" D1 / E-111A



PLAN NOTES

9 MUSHROOM STYLE PUSHBUTTON FOR SHUNTING ELECTRIC UTILITY POWER TO ENTIRE COMPLEX. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION. INSTALL HINGED COVER PLATE ON BUTTON AND A PERMANENTLY ENGRAVED SIGN MOUNTED ABOVE WHICH STATES: "ONLY PUSH IN CASE OF EMERGENCY, WILL DISCONNECT ELECTRIC UTILITY TO THE ENTIRE COMPLEX".

10 MAIN ELECTRIC GROUND BUS (MGB-A). CONNECT TO AREA B ELECTRIC SERVICE GROUND BAR WITH A #3/0 (CU) GROUNDING CONDUCTOR. RE: GROUNDING DETAILS.

11 ELECTRICAL CONNECTION TO DOOR HARDWARE. COORDINATE EXACT REQUIREMENTS WITH ACCESS CONTROL VENDOR.

12 DUCT MOUNTED SMOKE DETECTOR FOR FIRE/SMOKE DAMPER OPERATION. CONNECT DAMPER TO THE DESIGNATED DAMPER CIRCUIT IN THE NEAREST ELECTRIC PANEL, INSTALL WITH TOGGLE SWITCH DISCONNECT. PROVIDE ALL ASSOCIATED TRANSFORMERS, MODULES AND CONNECTIONS REQUIRED FOR CORRECT OPERATION.

1

PLAN NOTES

13 SMOKE DETECTOR FOR ELEVATOR RECALL. MAKE CONNECTIONS TO ELEVATOR CONTROLLERS AS REQUIRED.

14 PROVIDE PERMANENT PLAQUE OR DIRECTORY DENOTING ALL OTHER SERVICE LOCATIONS. REFER TO ONE LINE DIAGRAMS FOR MORE INFORMATION, MAINTAIN SERVICE NUMBERING AS INDICATED.

1

D1 FIRST FLOOR - POWER PLAN - AREA A
1/8" = 1'-0"

A1 ENLARGED POWER PLAN - FIRST FLOOR - TRASH AND ELECTRICAL ROOM
1/4" = 1'-0" D1 / E-111A

POWER GENERAL NOTES

1. REFER TO COMBINATION M/E SCHEDULES AND DETAILS FOR MECHANICAL/PLUMBING EQUIPMENT CIRCUITING INFORMATION.
2. REFER TO ENLARGED UNIT PLANS FOR TYPICAL DEVICE LOCATIONS AND CIRCUITING WITHIN UNITS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR MOUNTING LOCATIONS OF ALL WALL MOUNTED ELECTRICAL DEVICES. DEVICES NOT REFERENCED ON THE ARCHITECTURAL DRAWINGS ARE TYPICAL, UNLESS SPECIFICALLY NOTED OTHERWISE ON THIS SHEET (REFER TO TYPICAL MOUNTING HEIGHT DETAIL).
4. SEAL ALL PENETRATIONS AS REQUIRED TO MAINTAIN ALL RATINGS FOR ALL FIRE RESISTANCE/RATED CONSTRUCTION. REFER TO ARCHITECTURAL CODE PLANS FOR RATED WALL AND FLOOR LOCATIONS.
5. WHERE ANY DEVICE JUNCTION BOXES ARE RECESSED WITHIN OPPOSITE SIDES OF A FIRE RATED WALL AND ARE WITHIN 24" OF EACH OTHER MEASURED HORIZONTALLY. FURNISH AND INSTALL A MOLDABLE FIRE STOP PUTTY PACK AROUND EACH JUNCTION BOX TO MAINTAIN FIRE RATING OF WALL.
6. 120V BRANCH CIRCUITING SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE.

0'-100' = #12 AWG
101'-150' = #10AWG
151'-250' = #8 AWG
250'-400' = #6 AWG

GROUND CONDUCTOR AND RACEWAYS SHALL BE INCREASED AS REQUIRED.

FIRE ALARM GENERAL NOTES

1. BIDDING FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR PREPARING SIGNED/SEALED SHOP DRAWINGS AND INSTALLING A DESIGN-BUILD FIRE ALARM SYSTEM FOR THE ENTIRE BUILDING BASED ON THE APPROXIMATE DEVICE LOCATIONS AND SCOPE COORDINATION SHOWN ON THESE PLANS. REFER TO PERFORMANCE SPECIFICATION SECTION 283111.
2. SET CANDELA SETTINGS ON ALL STROBES PER THE REQUIREMENTS OF NFPA 72.

PLAN NOTES

1 4'-0" WIDE x 8'-0" TALL, FIRE-RETARDANT-TREATED PLYWOOD, 3/4" THICK A-C GRADE. MOUNTED 1'-0" AFF. PRIOR TO EQUIPMENT INSTALLATION, PLYWOOD SHALL BE PAINTED WITH TWO COATS OF WHITE, FIRE-RETARDANT LOW-GLOSS PAINT.

2 REMOTE TECHNOLOGY GROUNDING BUSBAR, RE: DETAIL. EXTEND (1) #4 COPPER CONDUCTOR, IN 3/4" RACEWAY, BETWEEN EACH TECHNOLOGY BUSBAR IN BUILDING.

3 (2) 2" CONDUITS ROUTED THROUGH CEILING TO FLOOR ABOVE.

4 ELECTRICAL CONNECTION FOR FIRE ALARM POWER SUPPLIES SERVING THIS AREA. COORDINATE EXACT LOCATION AND QUANTITY REQUIRED WITH FIRE ALARM SHOP DRAWINGS.

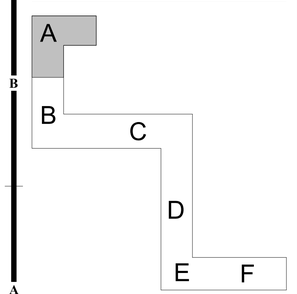
5 ELECTRICAL CONNECTION FOR FUTURE CENTRAL ERRC/DAS SYSTEM EQUIPMENT.

6 60A NEAM 3R FUSED DISCONNECT FOR TRASH COMPACTOR. CIRCUIT WITH (3)#4, #10G, IN 1" C. INSTALL FUSES AS REQUIRED FOR THE MOCP LISTING OF THE COMPACTOR TO BE INSTALLED.

7 ELECTRICAL CONNECTION TO TRASH CHUTE.

8 ELECTRICAL CONNECTION TO MOTORIZED DOOR OPERATOR, EXTEND A 1/2" CONDUIT AND CABLING TO ASSOCIATED PUSH BUTTON LOCATION. MAKE ALL CONNECTIONS REQUIRED TO THE BOTTONS AND OPERATORS PROVIDED BY OTHERS.

KEY PLAN



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REVISION DATES:

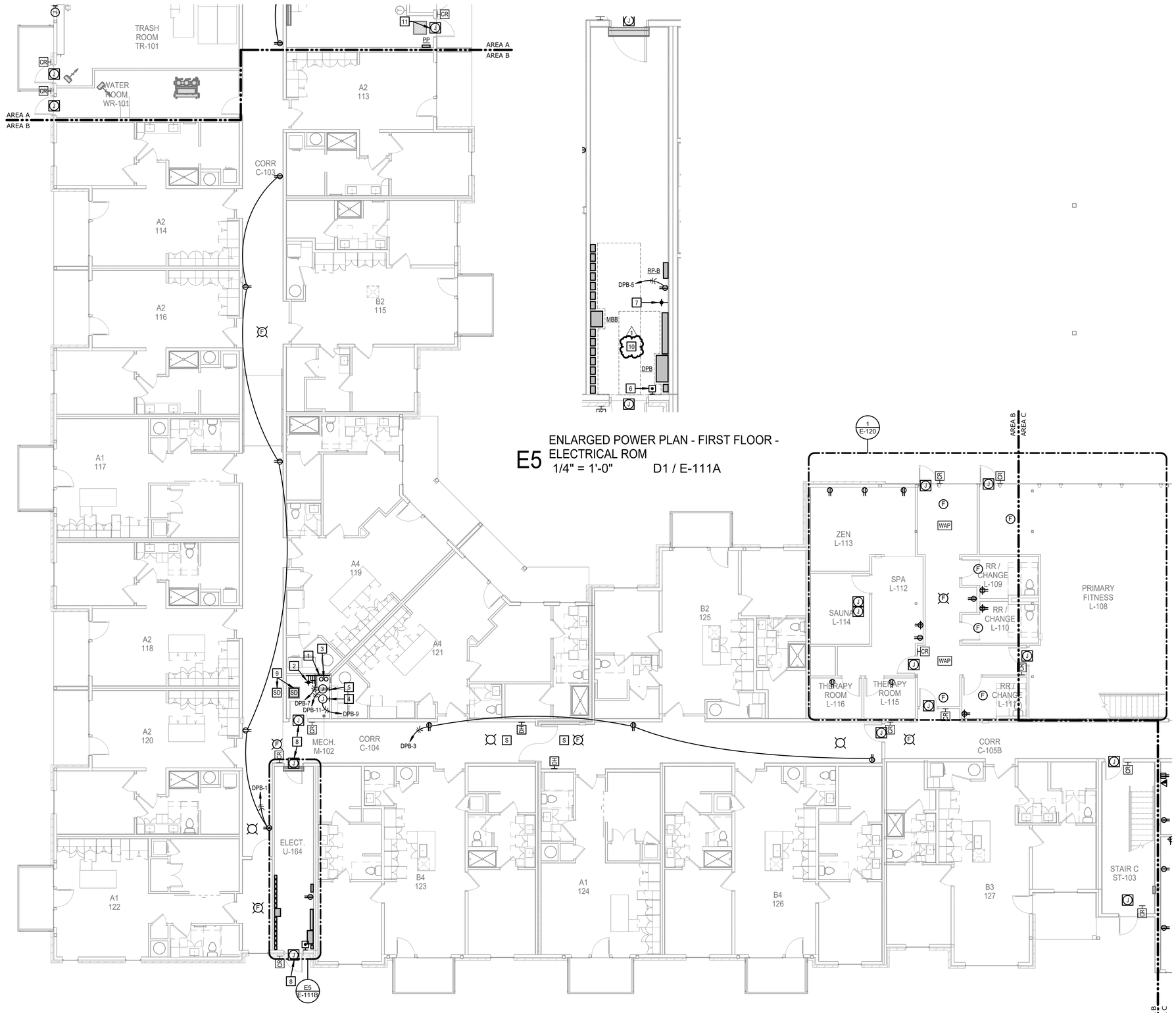
1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2006031356
REGISTERED PROFESSIONAL ENGINEER
12/22/25
PROFESSIONAL SEAL

E-111A

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

FIRST FLOOR - POWER PLAN - AREA A



A1 FIRST FLOOR - POWER PLAN - AREA B
1/8" = 1'-0"

E5 ENLARGED POWER PLAN - FIRST FLOOR - ELECTRICAL ROM
1/4" = 1'-0" D1 / E-111A

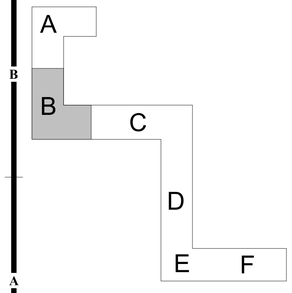
POWER AND FIRE ALARM GENERAL NOTES

1. REFER TO SHEET E-111A FOR TYPICAL GENERAL NOTES APPLICABLE TO ENTIRE PROJECT.

PLAN NOTES

1. 4'-0" WIDE x 8'-0" TALL, FIRE-RETARDANT-TREATED PLYWOOD, 3/4" THICK A-C GRADE. MOUNTED 1'-0" AFF. PRIOR TO EQUIPMENT INSTALLATION, PLYWOOD SHALL BE PAINTED WITH TWO COATS OF WHITE, FIRE-RETARDANT LOW-GLOSS PAINT.
2. REMOTE TECHNOLOGY GROUNDING BUSBAR, RE: DETAIL. EXTEND (1) #4 COPPER CONDUCTOR, IN 3/4" RACEWAY, BETWEEN EACH TECHNOLOGY BUSBAR IN BUILDING.
3. (2) 2" CONDUITS ROUTED THROUGH CEILING TO FLOOR ABOVE.
4. ELECTRICAL CONNECTION FOR FIRE ALARM POWER SUPPLIES SERVING THIS AREA. COORDINATE EXACT LOCATION AND QUANTITY REQUIRED WITH FIRE ALARM SHOP DRAWINGS.
5. ELECTRICAL CONNECTION FOR FUTURE CENTRAL ERRC/DAS SYSTEM EQUIPMENT.
6. MUSHROOM STYLE PUSHBUTTON FOR SHUNTING ELECTRIC UTILITY POWER TO ENTIRE COMPLEX. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION. INSTALL HINGED COVER PLATE ON BUTTON AND A PERMANENTLY ENGRAVED SIGN MOUNTED ABOVE WHICH STATES: "ONLY PUSH IN CASE OF EMERGENCY, WILL DISCONNECT ELECTRIC UTILITY TO THE ENTIRE COMPLEX".
7. MAIN ELECTRIC GROUND BUS (MGB-B). CONNECT TO AREA A AND C ELECTRIC SERVICE GROUND BAR WITH A #3/0 (CU) GROUNDING CONDUCTOR. RE: GROUNDING DETAILS.
8. ELECTRICAL CONNECTION TO DOOR HARDWARE. COORDINATE EXACT REQUIREMENTS WITH ACCESS CONTROL VENDOR.
9. DUCT MOUNTED SMOKE DETECTOR FOR FIRE/SMOKE DAMPER OPERATION. CONNECT DAMPER TO THE DESIGNATED DAMPER CIRCUIT IN THE NEAREST ELECTRIC PANEL, INSTALL WITH TOGGLE SWITCH DISCONNECT. PROVIDE ALL ASSOCIATED TRANSFORMERS, MODULES AND CONNECTIONS REQUIRED FOR CORRECT OPERATION.
10. PROVIDE PERMANENT PLAQUE OR DIRECTORY DENOTING ALL OTHER SERVICE LOCATIONS. REFER TO ONE LINE DIAGRAMS FOR MORE INFORMATION, MAINTAIN SERVICE NUMBERING AS INDICATED.

KEY PLAN



FIRST FLOOR - POWER PLAN - AREA B

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project number 2522700

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REVISION DATES:

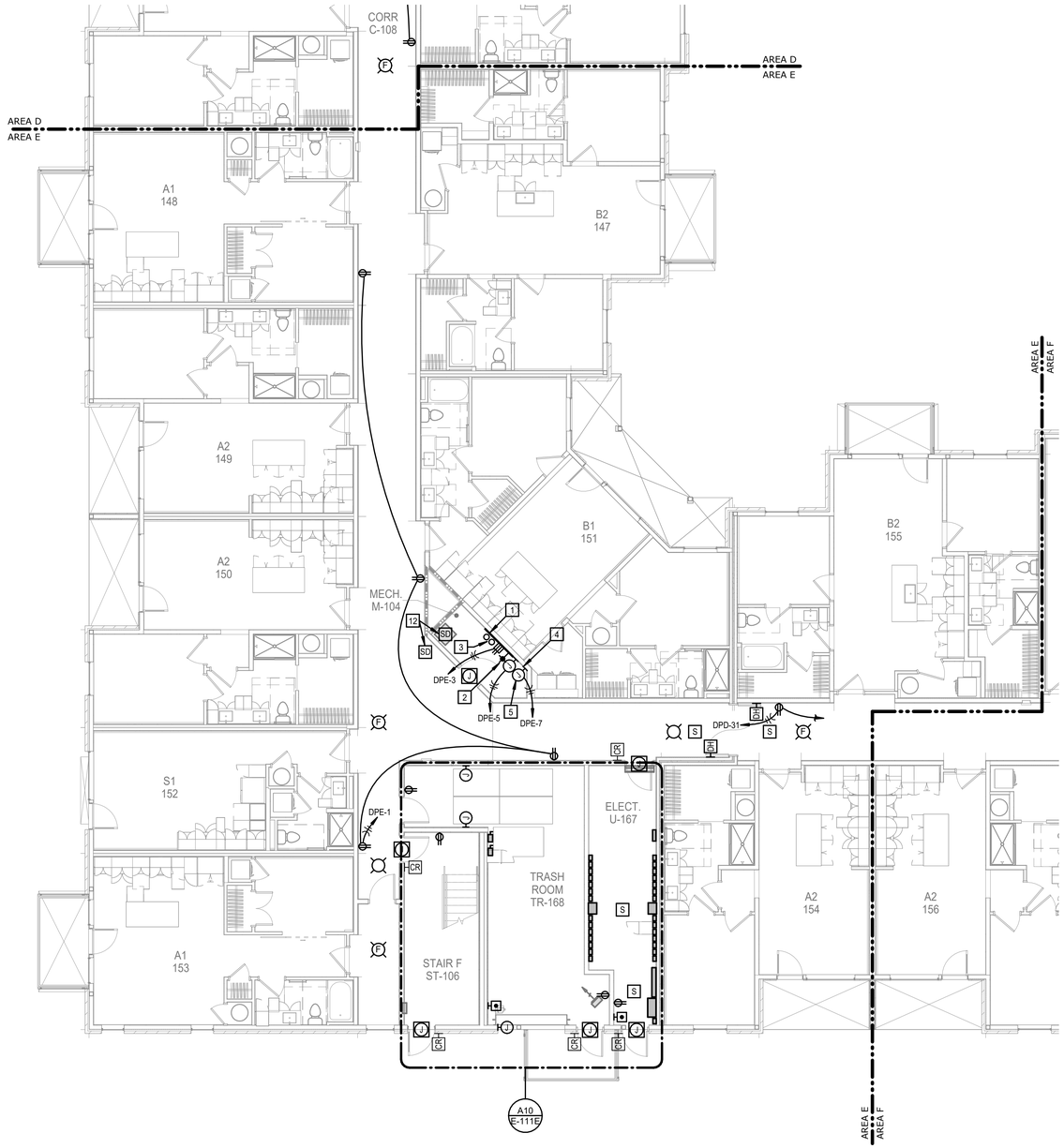
1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE - 2006033850
REGISTERED PROFESSIONAL ENGINEER
12/22/25

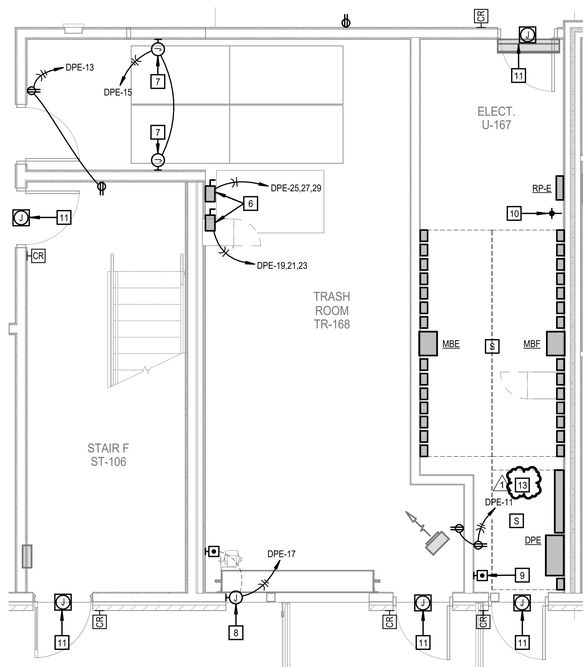
PROFESSIONAL SEAL

E-111B

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011



A1 FIRST FLOOR - POWER PLAN - AREA E
1/8" = 1'-0"



A10 ENLARGED POWER PLAN - FIRST FLOOR - TRASH & ELEC. ROOM - AREA E
1/4" = 1'-0" D1 / E-111A

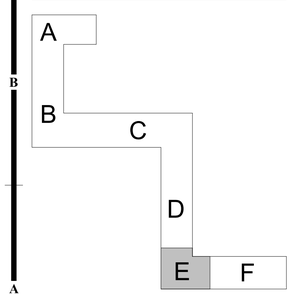
POWER AND FIRE ALARM GENERAL NOTES

1. REFER TO SHEET E-111A FOR TYPICAL GENERAL NOTES APPLICABLE TO ENTIRE PROJECT.

PLAN NOTES

1. 4'-0" WIDE x 8'-0" TALL, FIRE-RETARDANT-TREATED PLYWOOD, 3/4" THICK A-C GRADE. MOUNTED 1'-0" AFF. PRIOR TO EQUIPMENT INSTALLATION, PLYWOOD SHALL BE PAINTED WITH TWO COATS OF WHITE, FIRE-RETARDANT LOW-GLOSS PAINT.
2. REMOTE TECHNOLOGY GROUNDING BUSBAR, RE: DETAIL. EXTEND (1) #4 COPPER CONDUCTOR, IN 3/4" RACEWAY, BETWEEN EACH TECHNOLOGY BUSBAR IN BUILDING.
3. (2) 2" CONDUITS ROUTED THROUGH CEILING TO FLOOR ABOVE.
4. ELECTRICAL CONNECTION FOR FIRE ALARM POWER SUPPLIES SERVING THIS AREA. COORDINATE EXACT LOCATION AND QUANTITY REQUIRED WITH FIRE ALARM SHOP DRAWINGS.
5. ELECTRICAL CONNECTION FOR FUTURE CENTRAL ERRC/DAS SYSTEM EQUIPMENT.
6. 60A NEAM 3R FUSED DISCONNECT FOR TRASH COMPACTOR. CIRCUIT WITH (3)#4, #10G, IN 1" C. INSTALL FUSES AS REQUIRED FOR THE MOCP LISTING OF THE COMPACTOR TO BE INSTALLED.
7. ELECTRICAL CONNECTION TO TRASH CHUTE.
8. ELECTRICAL CONNECTION TO MOTORIZED DOOR OPERATOR, EXTEND A 1/2" CONDUIT AND CABLING TO ASSOCIATED PUSH BUTTON LOCATION. MAKE ALL CONNECTIONS REQUIRED TO THE BOTTONS AND OPERATORS PROVIDED BY OTHERS.
9. MUSHROOM STYLE PUSHBUTTON FOR SHUNTING ELECTRIC UTILITY POWER TO ENTIRE COMPLEX. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION. INSTALL HINGED COVER PLATE ON BUTTON AND A PERMANENTLY ENGRAVED SIGN MOUNTED ABOVE WHICH STATES: "ONLY PUSH IN CASE OF EMERGENCY, WILL DISCONNECT ELECTRIC UTILITY TO THE ENTIRE COMPLEX".
10. MAIN ELECTRIC GROUND BUS (MGB-E). CONNECT TO AREA D AND F ELECTRIC SERVICE GROUND BAR WITH A #3/0 (CU) GROUNDING CONDUCTOR. RE: GROUNDING DETAILS.
11. ELECTRICAL CONNECTION TO DOOR HARDWARE. COORDINATE EXACT REQUIREMENTS WITH ACCESS CONTROL VENDOR.
12. DUCT MOUNTED SMOKE DETECTOR FOR FIRE/SMOKE DAMPER OPERATION. CONNECT DAMPER TO THE DESIGNATED DAMPER CIRCUIT IN THE NEAREST ELECTRIC PANEL, INSTALL WITH TOGGLE SWITCH DISCONNECT. PROVIDE ALL ASSOCIATED TRANSFORMERS, MODULES AND CONNECTIONS REQUIRED FOR CORRECT OPERATION.
13. PROVIDE PERMANENT PLAQUE OR DIRECTORY DENOTING ALL OTHER SERVICE LOCATIONS. REFER TO ONE LINE DIAGRAMS FOR MORE INFORMATION, MAINTAIN SERVICE NUMBERING AS INDICATED.

KEY PLAN



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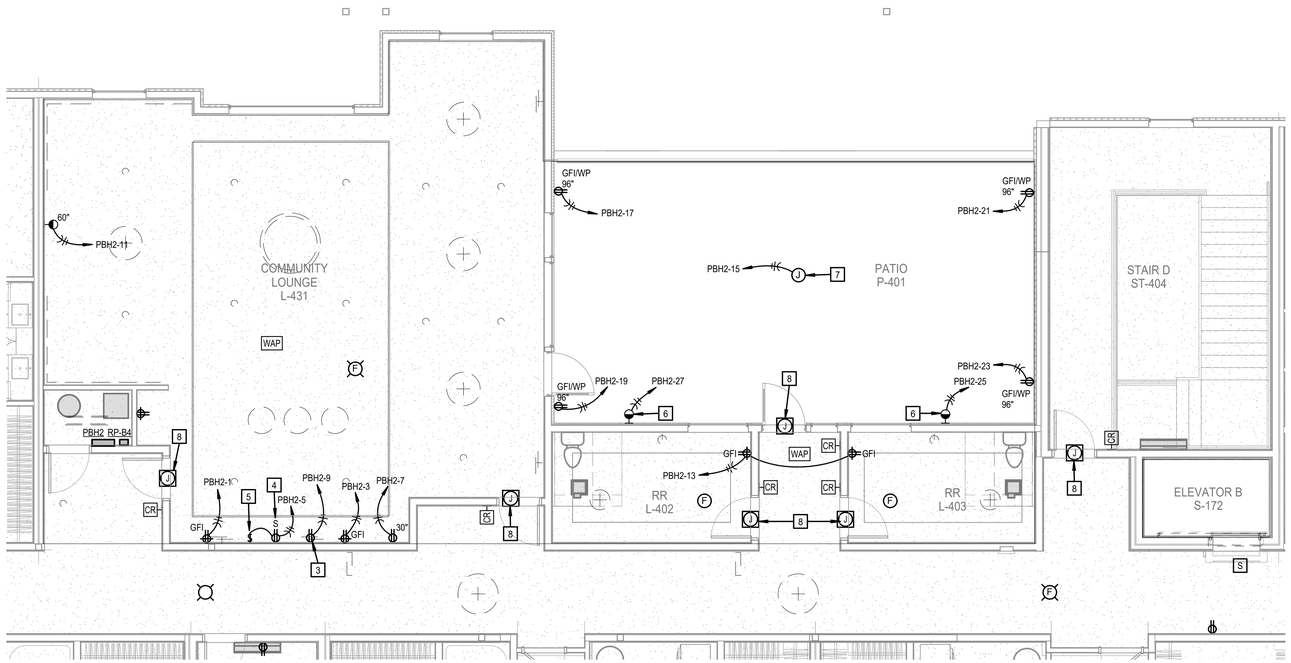
PROFESSIONAL SEAL

E-111E

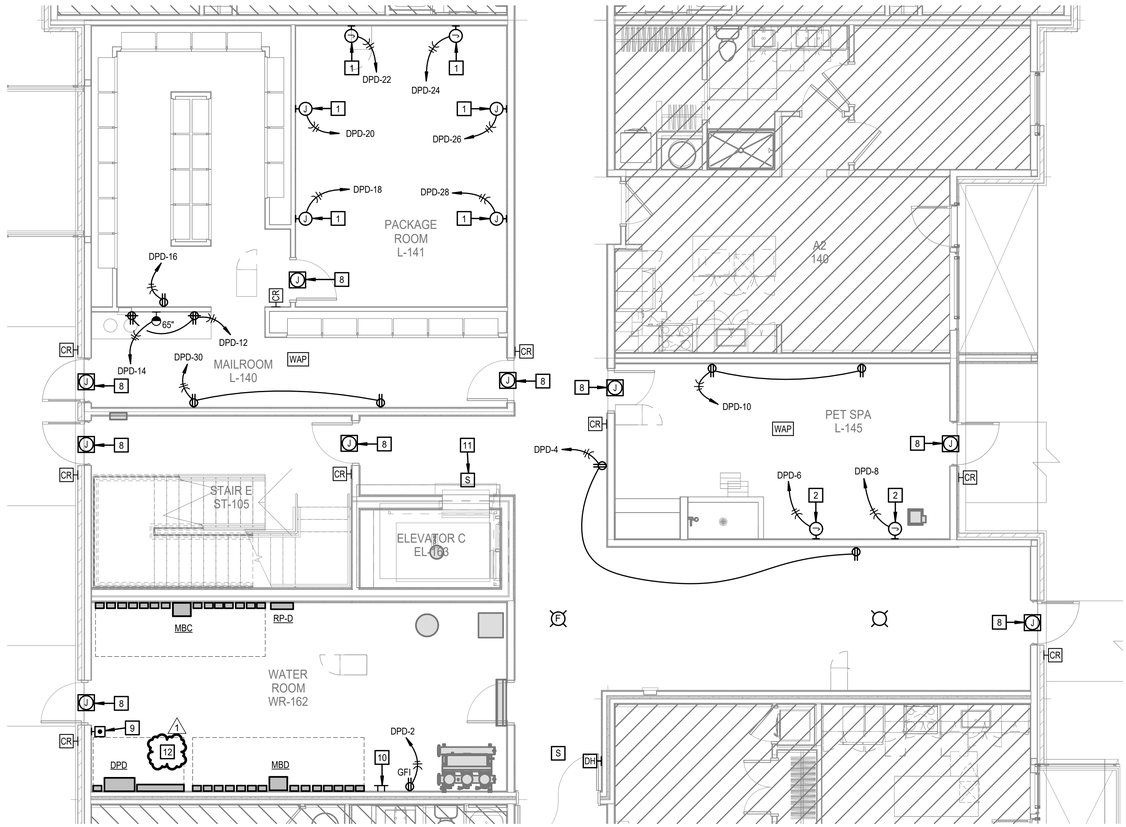
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HOEFER WELKER #: 1259011

FIRST FLOOR - POWER PLAN - AREA E



D10 POWER PLAN - FOURTH FLOOR - COMMUNITY ROOM & PATIO
3/16" = 1'-0" A1 / E-114A



A1 ENLARGED POWER PLAN
3/16" = 1'-0" D1 / E-111A

POWER AND FIRE ALARM GENERAL NOTES

1. REFER TO SHEET E-111A FOR TYPICAL GENERAL NOTES APPLICABLE TO ENTIRE PROJECT.

PLAN NOTES:

1. ELECTRICAL CONNECTION TO PACKAGE LOCKERS.
2. ELECTRICAL CONNECTION TO PET DRYER.
3. ELECTRICAL CONNECTION TO UNDER COUNTER ICE MACHINE/FRIDGE/BEVERAGE COOLER.
4. SPLIT WIRED DUPLEX RECEPTACLE WITH ONE OUTLET SWITCHED FOR DISPOSAL. DESIGNATE SWITCHED RECEPTACLE ON COVERPLATE.
5. INSTALL SWITCH IN SAME 2-GANG JUNCTION BOX AS ADJACENT COUNTERTOP HEIGHT RECEPTACLE.
6. COORDINATE EXACT MOUNTING HEIGHT WITH INTERIOR ELEVATIONS.
7. ELECTRICAL CONNECTION TO NATURAL GAS GRILL/FIREPLACE/FIRE PIT FOR ELECTRIC IGNITION AND SOLENOID VALVE.
8. ELECTRICAL CONNECTION TO DOOR HARDWARE. COORDINATE EXACT REQUIREMENTS WITH ACCESS CONTROL DESIGNER.
9. MUSHROOM STYLE PUSHBUTTON FOR SHUNTING ELECTRIC UTILITY POWER TO ENTIRE COMPLEX. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION. INSTALL HINGED COVER PLATE ON BUTTON AND A PERMANENTLY ENGRAVED SIGN MOUNTED ABOVE WHICH STATES: "ONLY PUSH IN CASE OF EMERGENCY, WILL DISCONNECT ELECTRIC UTILITY TO THE ENTIRE COMPLEX".
10. MAIN ELECTRIC GROUND BUS (MGB-D). CONNECT TO AREA B AND E ELECTRIC SERVICE GROUND BAR WITH A #3/0 (CU) GROUNDING CONDUCTOR. RE: GROUNDING DETAILS.
11. SMOKE DETECTOR FOR ELEVATOR RECALL. MAKE CONNECTIONS TO ELEVATOR CONTROLLERS AS REQUIRED. 1
12. PROVIDE PERMANENT PLAQUE OR DIRECTORY DENOTING ALL OTHER SERVICE LOCATIONS. REFER TO ONE LINE DIAGRAMS FOR MORE INFORMATION, MAINTAIN SERVICE NUMBERING AS INDICATED.

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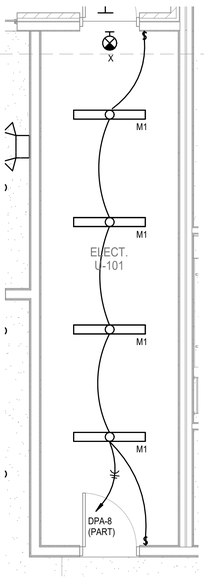
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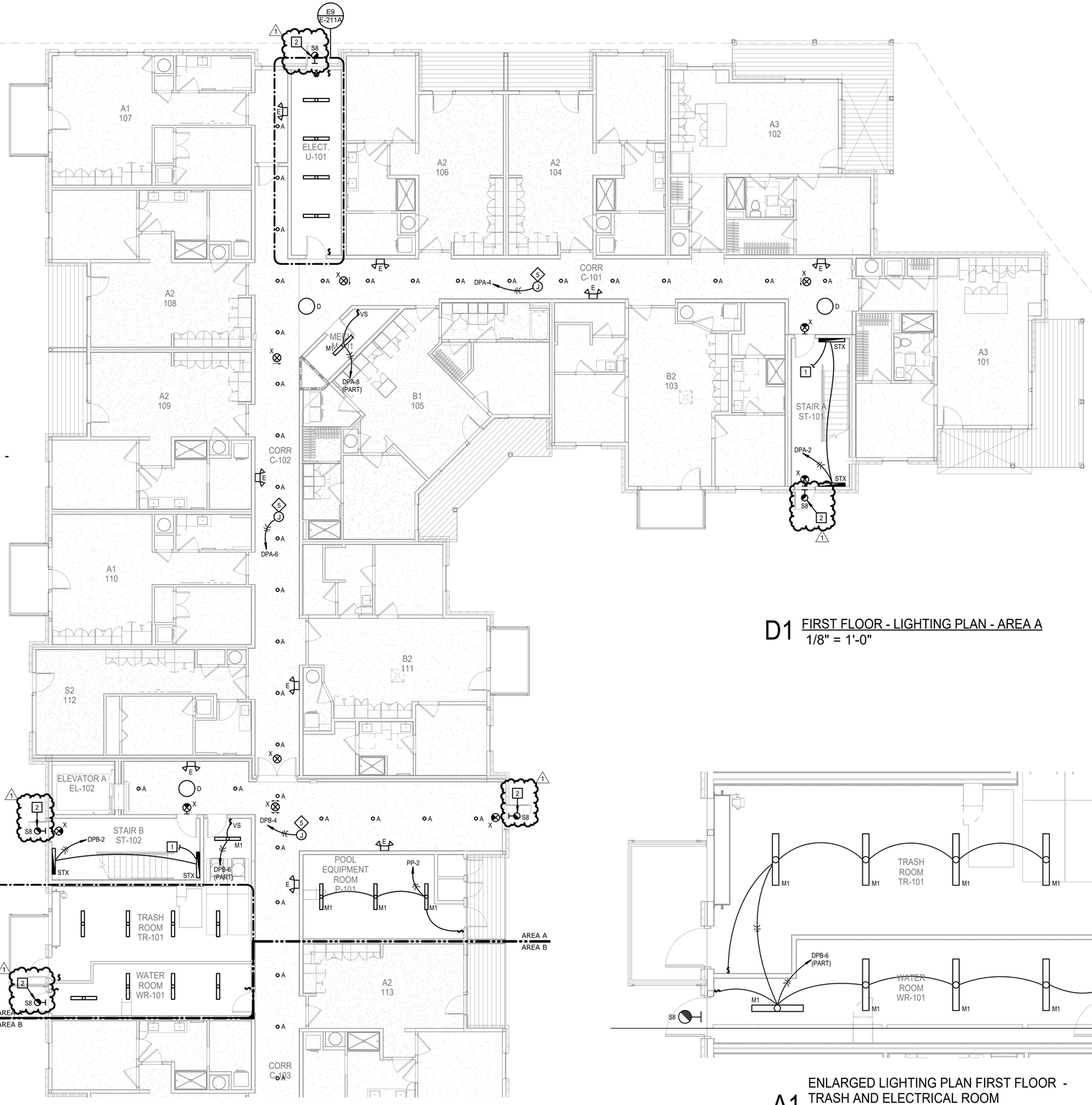
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E-122
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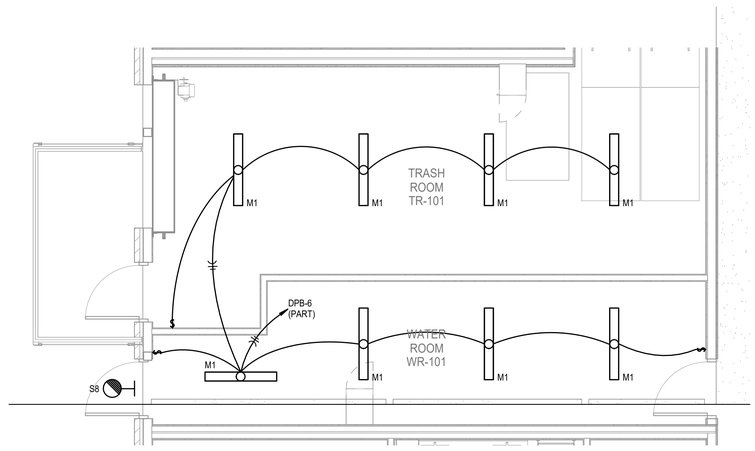
ENLARGED POWER PLAN - MISC



E9 ENLARGED LIGHTING PLAN FIRST FLOOR - ELECTRICAL ROOM
1/4" = 1'-0" D1 / E-211A



D1 FIRST FLOOR - LIGHTING PLAN - AREA A
1/8" = 1'-0"



A1 ENLARGED LIGHTING PLAN FIRST FLOOR - TRASH AND ELECTRICAL ROOM
1/4" = 1'-0" D1 / E-211A

LIGHTING GENERAL NOTES:

1. CIRCUIT ALL EXIT SIGNS WITH AN UNSWITCHED HOT CONDUCTOR FROM THE ASSOCIATED EMERGENCY LIGHTING CIRCUIT SERVING EACH ROOM/AREA.
2. REFER TO ENLARGED UNIT PLANS FOR TYPICAL DEVICE LOCATIONS AND CIRCUITING WITHIN UNITS.
3. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR MOUNTING LOCATIONS OF ALL WALL MOUNTED ELECTRICAL DEVICES. DEVICES NOT REFERENCED ON THE ARCHITECTURAL DRAWINGS ARE TYPICAL, UNLESS SPECIFICALLY NOTED OTHERWISE ON THIS SHEET (REFER TO TYPICAL MOUNTING HEIGHT DETAIL).
4. SEAL ALL PENETRATIONS AS REQUIRED TO MAINTAIN ALL RATINGS FOR ALL FIRE RESISTANCE/RATED CONSTRUCTION. REFER TO ARCHITECTURAL CODE PLANS FOR RATED WALL AND FLOOR LOCATIONS.
5. WHERE ANY DEVICE JUNCTION BOXES ARE RECESSED WITHIN OPPOSITE SIDES OF A FIRE RATED WALL AND ARE WITHIN 24" OF EACH OTHER MEASURED HORIZONTALLY. FURNISH AND INSTALL A MOLDABLE FIRE STOP PUTTY PACK AROUND EACH JUNCTION BOX TO MAINTAIN FIRE RATING OF WALL.
6. FURNISH AND INSTALL ALL REQUIRED LOW VOLTAGE CONTROL WIRING BETWEEN OCCUPANCY SENSORS, POWER PACKS, WALL SWITCHES, ROOM CONTROLLERS, AND RELAY PANELS ETC. WITHIN EACH SPACE AS REQUIRED.
7. ANY CATEGORY CABLING USED FOR LIGHTING CONTROLS MUST NOT BE THE SAME COLOR AS ANY OTHER LOW VOLTAGE SYSTEM IN THE BUILDING. SUCH AS DATA, TELEPHONE, SECURITY, ETC. COORDINATE COLOR NEEDED DURING SHOP DRAWING SUBMITTAL PROCESS, DO NOT ASSUME THE STANDARD COLOR FROM THE MANUFACTURER CAN BE USED.
8. 120V BRANCH CIRCUITING SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE.

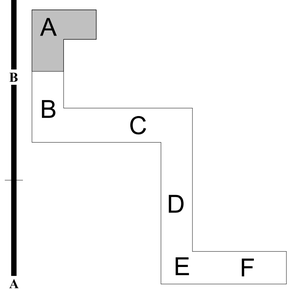
0'-100' = #12 AWG
101'-150' = #10AWG
151'-250' = #8 AWG
250'-400' = #6 AWG

GROUND CONDUCTOR AND RACEWAYS SHALL BE INCREASED AS REQUIRED.

PLAN NOTES:

1 [1] CIRCUIT CONTINUED ON FLOOR ABOVE.
[2] REFER TO SITE PLAN FOR EXTERIOR LIGHTING CIRCUIT INFORMATION.

KEY PLAN



FIRST FLOOR - LIGHTING PLAN - AREA A

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E-211A

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

LIGHTING GENERAL NOTES:

1. REFER TO SHEET E211A FOR TYPICAL GENERAL LIGHTING NOTES APPLICABLE TO ENTIRE PROJECT

PLAN NOTES:

1 REFER TO SITE PLAN FOR EXTERIOR LIGHTING CIRCUIT INFORMATION.

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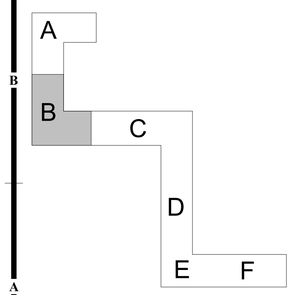
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KEY PLAN



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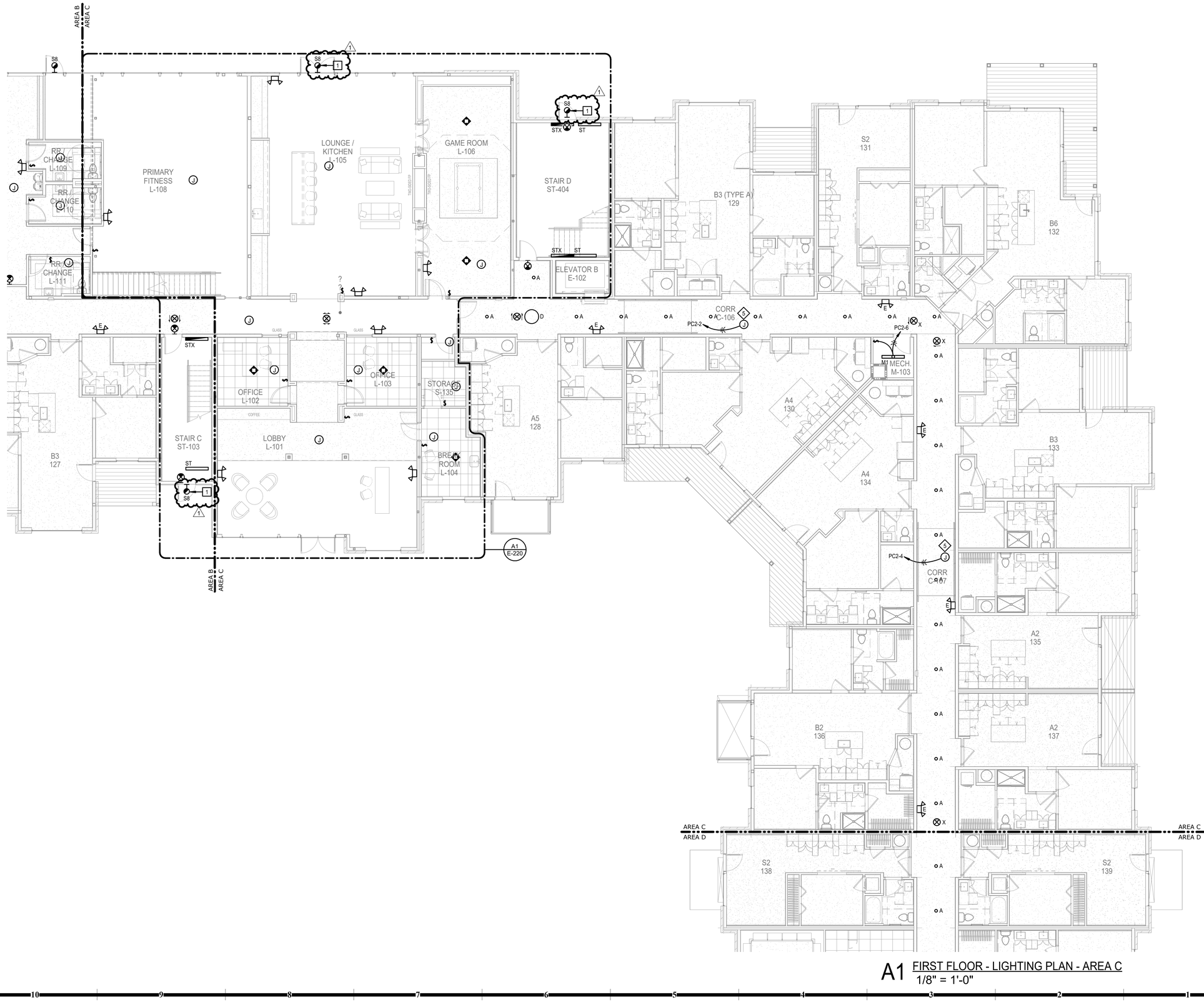
E-211B

ISSUE DATE: DECEMBER 22, 2025

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A1 FIRST FLOOR - LIGHTING PLAN - AREA B
1/8" = 1'-0"

FIRST FLOOR - LIGHTING PLAN - AREA B



A1 FIRST FLOOR - LIGHTING PLAN - AREA C
1/8" = 1'-0"

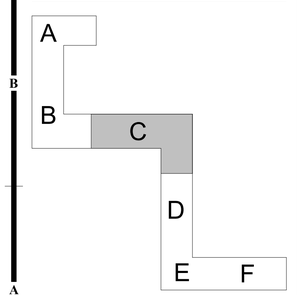
LIGHTING GENERAL NOTES:

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PLAN NOTES:

1 REFER TO SITE PLAN FOR EXTERIOR LIGHTING CIRCUIT INFORMATION.

KEY PLAN



FIRST FLOOR - LIGHTING PLAN - AREA C

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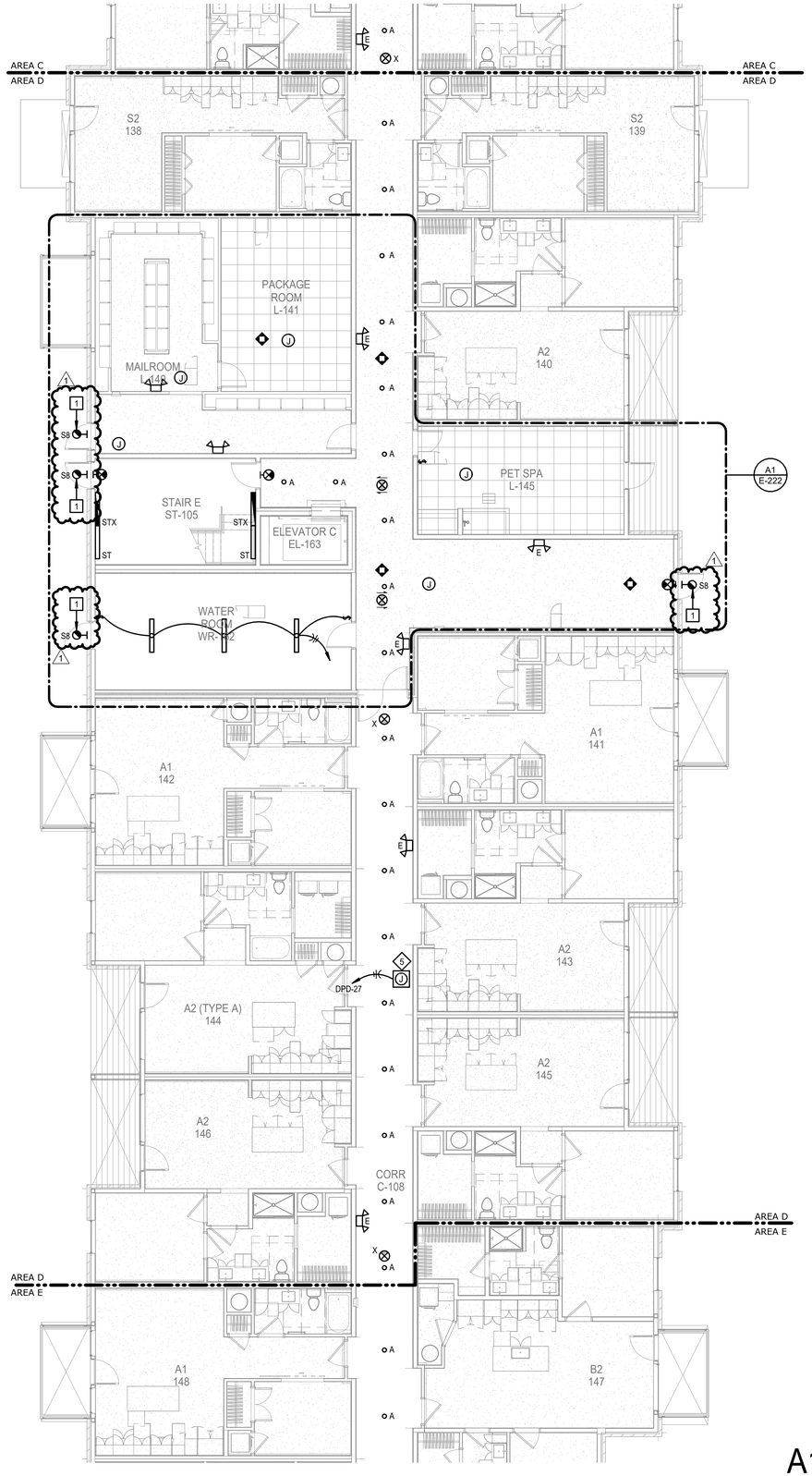
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PROFESSIONAL SEAL

E-211C

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A1 FIRST FLOOR - LIGHTING PLAN - AREA D
1/8" = 1'-0"

LIGHTING GENERAL NOTES:

1. REFER TO SHEET E211A FOR TYPICAL GENERAL LIGHTING NOTES APPLICABLE TO ENTIRE PROJECT

PLAN NOTES:

1 REFER TO SITE PLAN FOR EXTERIOR LIGHTING CIRCUIT INFORMATION.

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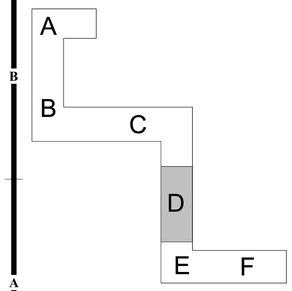
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KEY PLAN



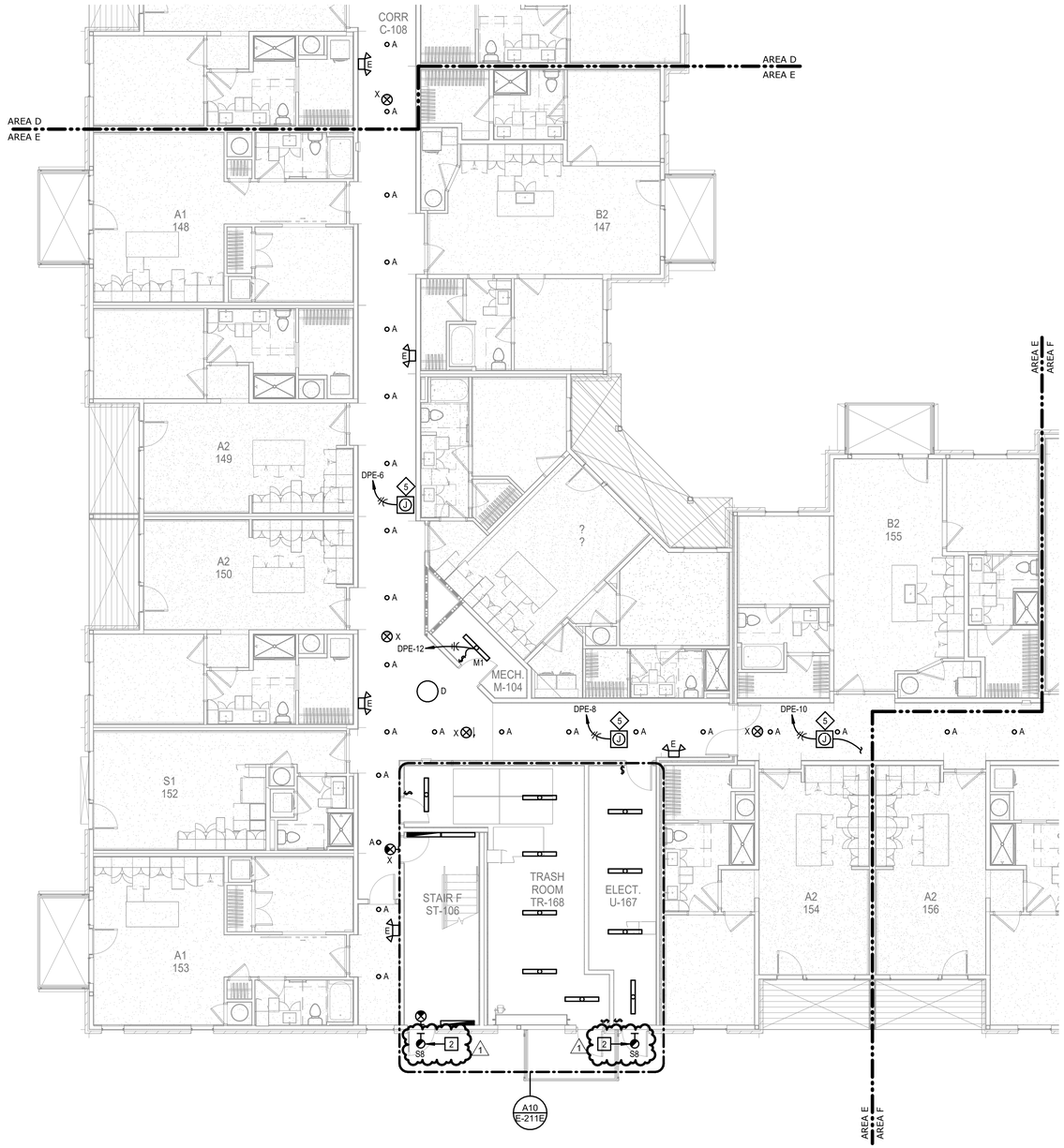
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REGISTERED PROFESSIONAL ENGINEER
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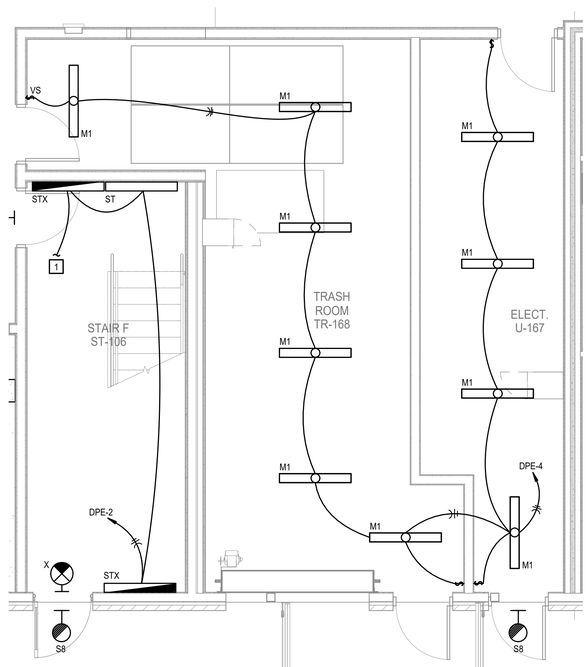
E-211D

ISSUE DATE: DECEMBER 22, 2025
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FIRST FLOOR - LIGHTING PLAN - AREA D



A1 FIRST FLOOR - LIGHTING PLAN - AREA E
1/8" = 1'-0"



A10 ENLARGED LIGHTING PLAN FIRST FLOOR -TRASH & ELEC. ROOM - AREA E
1/4" = 1'-0" D1 / E-211A

LIGHTING GENERAL NOTES:

1. REFER TO SHEET E211A FOR TYPICAL GENERAL LIGHTING NOTES APPLICABLE TO ENTIRE PROJECT

PLAN NOTES:

1. CIRCUIT CONTINUED TO FLOOR ABOVE.
2. REFER TO SITE PLAN FOR EXTERIOR LIGHTING CIRCUIT INFORMATION.

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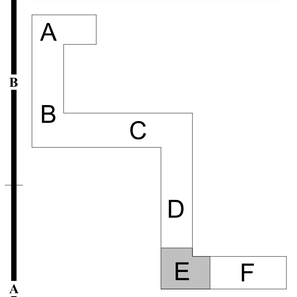
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KEY PLAN



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ISSUE DATE: DECEMBER 22, 2025
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FIRST FLOOR - LIGHTING PLAN - AREA E

AREA D
AREA E

AREA E
AREA F

B2
147

B2
155

S1
157

A1
159

A1
161

A1
163

S2
165

B3
167

A3
169

?
?

DPE-8

DPE-10

DPE-10

CORR
C-109

ELECT.
U-167

A2
154

A2
156

A1
158

A1
160

A2
162

A2
164

A1
166

STAIR G
ST-107

DPE-14

A3
168

AREA E
AREA F

LIGHTING GENERAL NOTES:

1. REFER TO SHEET E211A FOR TYPICAL GENERAL LIGHTING NOTES APPLICABLE TO ENTIRE PROJECT

PLAN NOTES:

1. CIRCUIT CONTINUED TO FLOOR ABOVE.
2. REFER TO SITE PLAN FOR EXTERIOR LIGHTING CIRCUIT INFORMATION.

KEY PLAN

A
B
C
D
E F

A1 FIRST FLOOR - LIGHTING PLAN - AREA F

1/8" = 1'-0"

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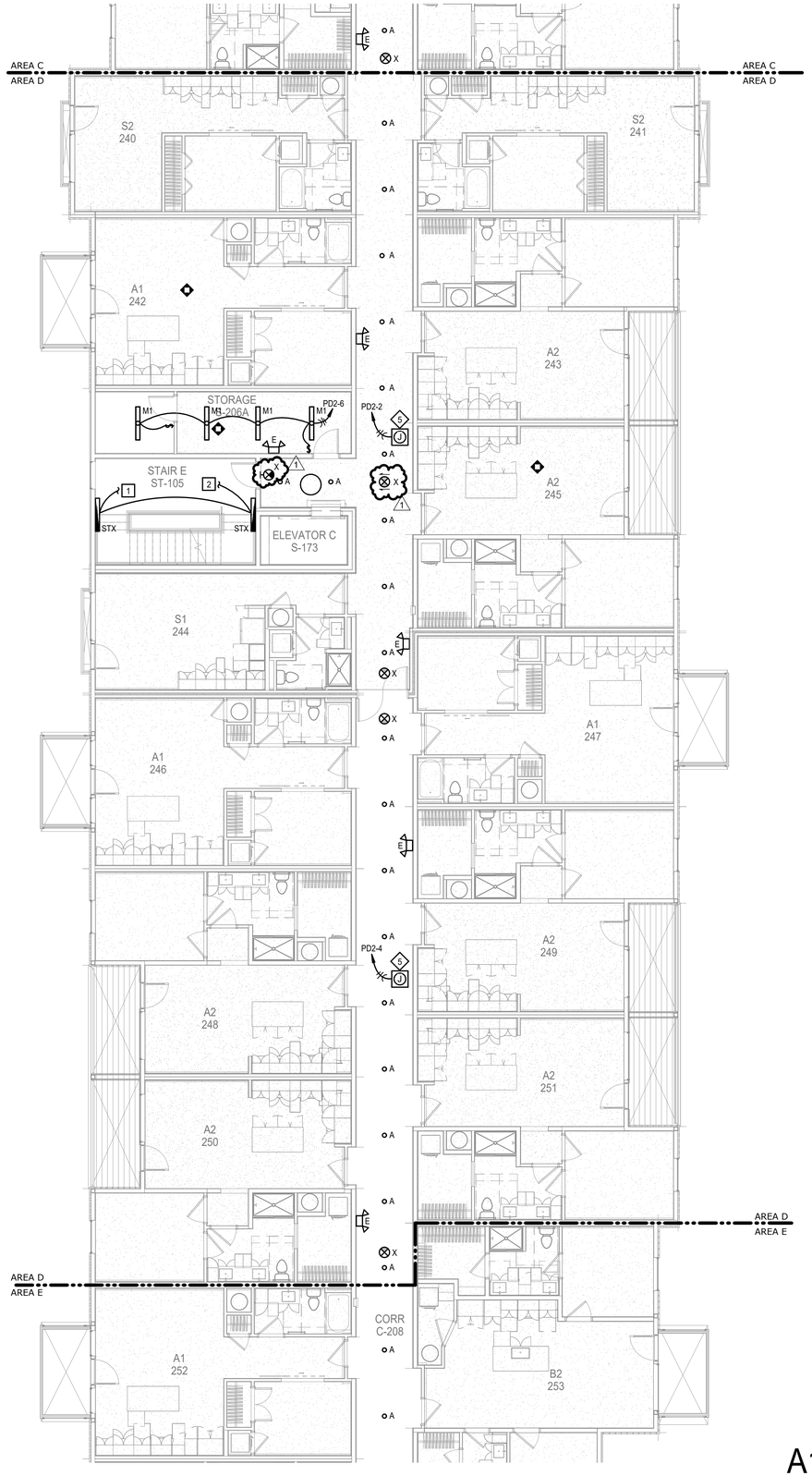
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E-211F

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

FIRST FLOOR - LIGHTING PLAN - AREA F



A1 SECOND FLOOR - LIGHTING PLAN - AREA D
1/8" = 1'-0"

LIGHTING GENERAL NOTES:

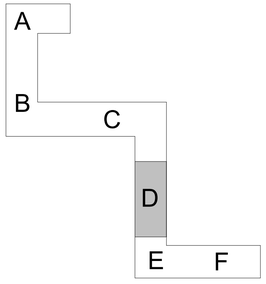
1. REFER TO SHEET E211A FOR TYPICAL GENERAL LIGHTING NOTES APPLICABLE TO ENTIRE PROJECT

PLAN NOTES:

1 CIRCUIT CONTINUED TO FLOOR ABOVE.

2 CIRCUIT CONTINUED TO FLOOR BELOW.

KEY PLAN



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project number 2522700

PERMIT SET

OLDHAM APARTMENT

1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM 1	01/26/2026



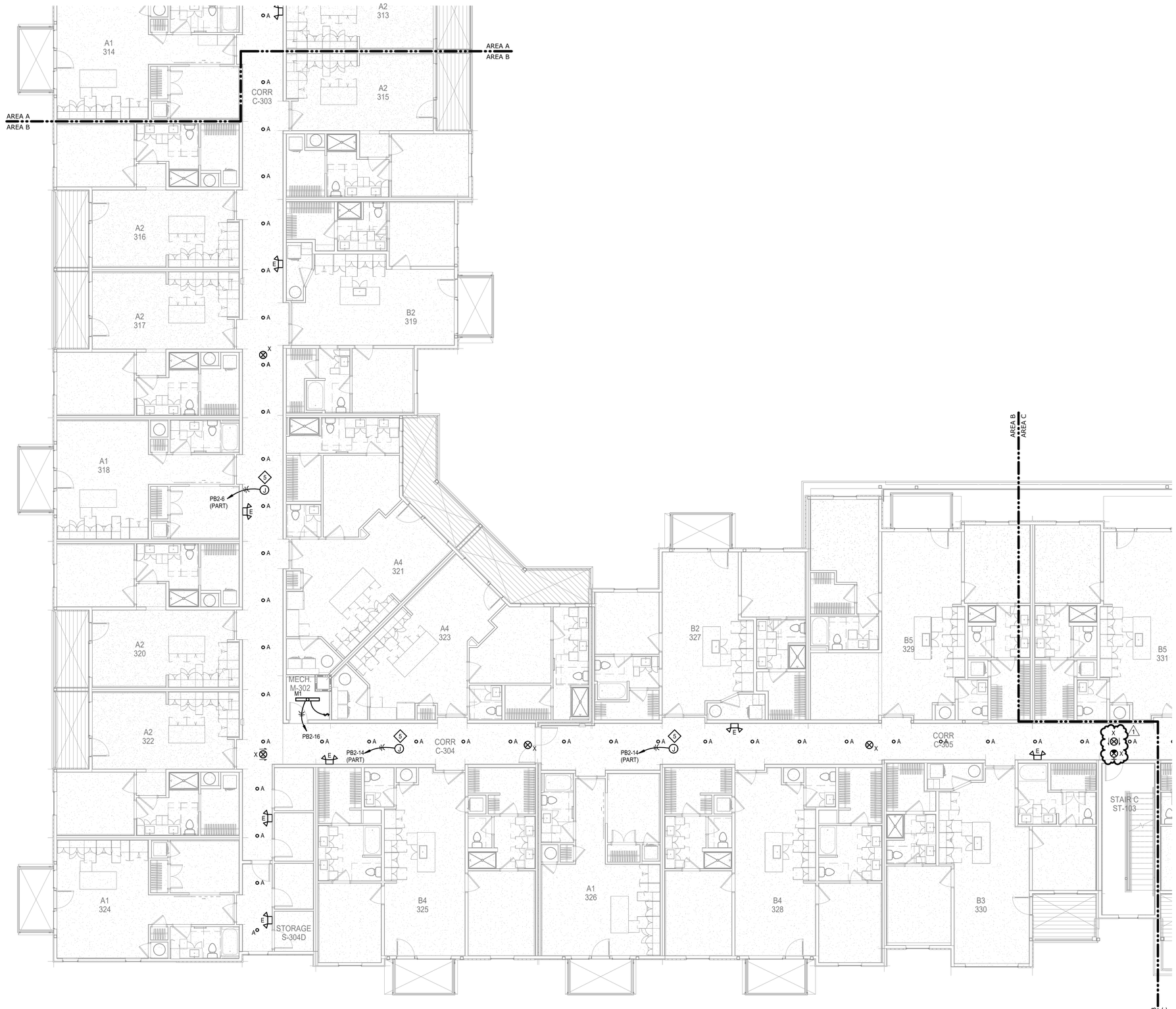
PROFESSIONAL SEAL

E-212D

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

SECOND FLOOR - LIGHTING PLAN - AREA D

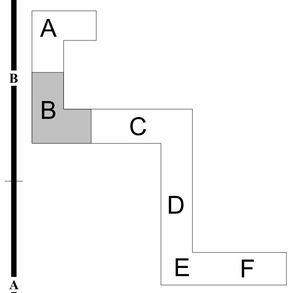


A1 THIRD FLOOR - LIGHTING PLAN - AREA B
1/8" = 1'-0"

LIGHTING GENERAL NOTES:

1. REFER TO SHEET E211A FOR TYPICAL GENERAL LIGHTING NOTES APPLICABLE TO ENTIRE PROJECT

KEY PLAN



THIRD FLOOR - LIGHTING PLAN - AREA B

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REVISION DATES:

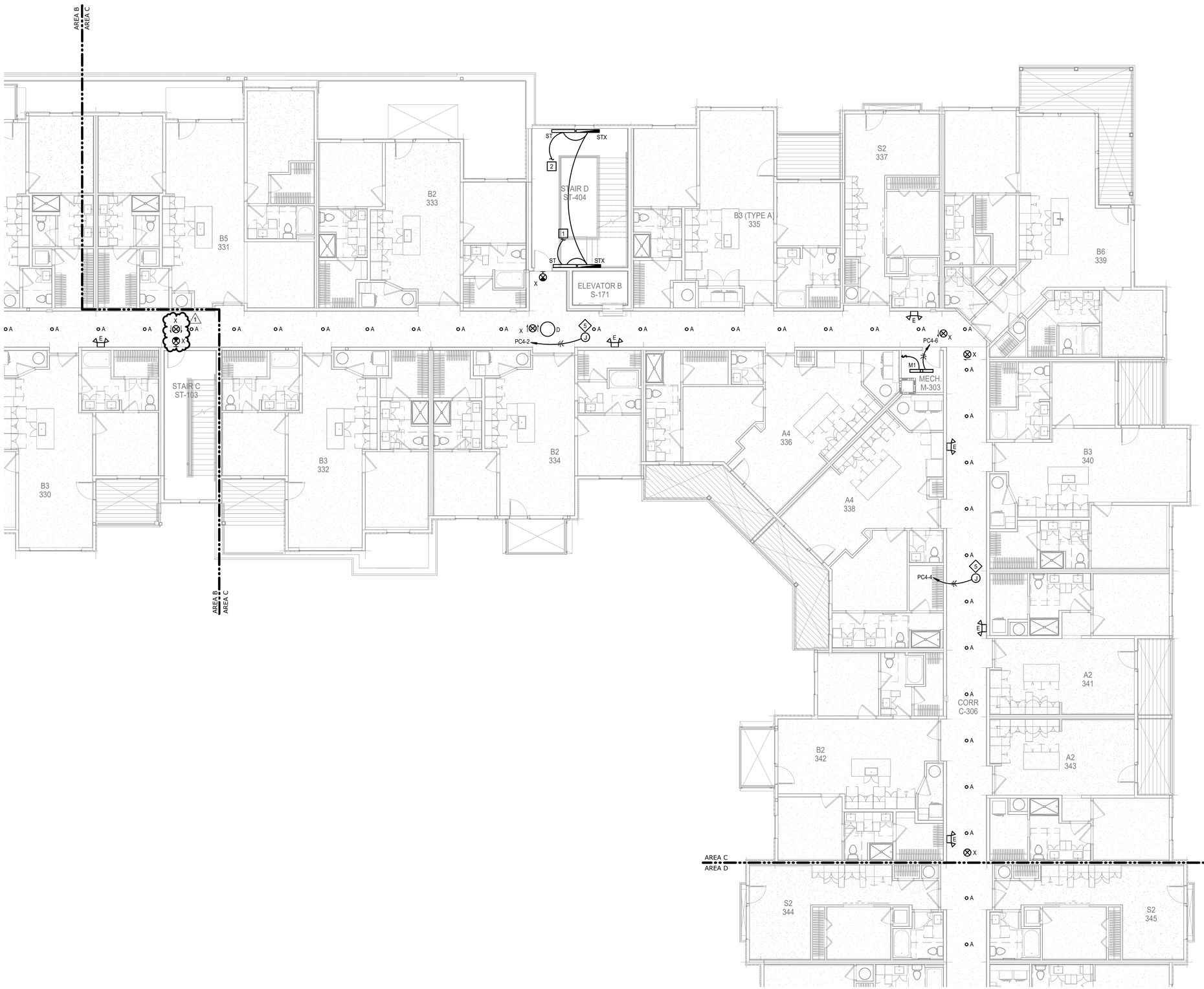
1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2009033959
REGISTERED PROFESSIONAL ENGINEER
12/22/25

PROFESSIONAL SEAL

E-213B

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011



A1 THIRD FLOOR - LIGHTING PLAN - AREA C
1/8" = 1'-0"

LIGHTING GENERAL NOTES:

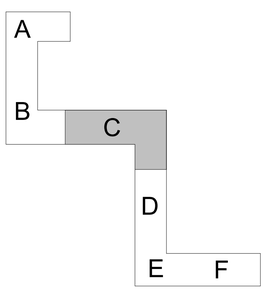
1. REFER TO SHEET E211A FOR TYPICAL GENERAL LIGHTING NOTES APPLICABLE TO ENTIRE PROJECT

PLAN NOTES:

1 CIRCUIT CONTINUED ON FLOOR ABOVE.

2 CIRCUIT CONTINUED ON FLOOR BELOW.

KEY PLAN



THIRD FLOOR - LIGHTING PLAN - AREA C

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REVISION DATES:

1	ADDENDUM 1	01/26/2026

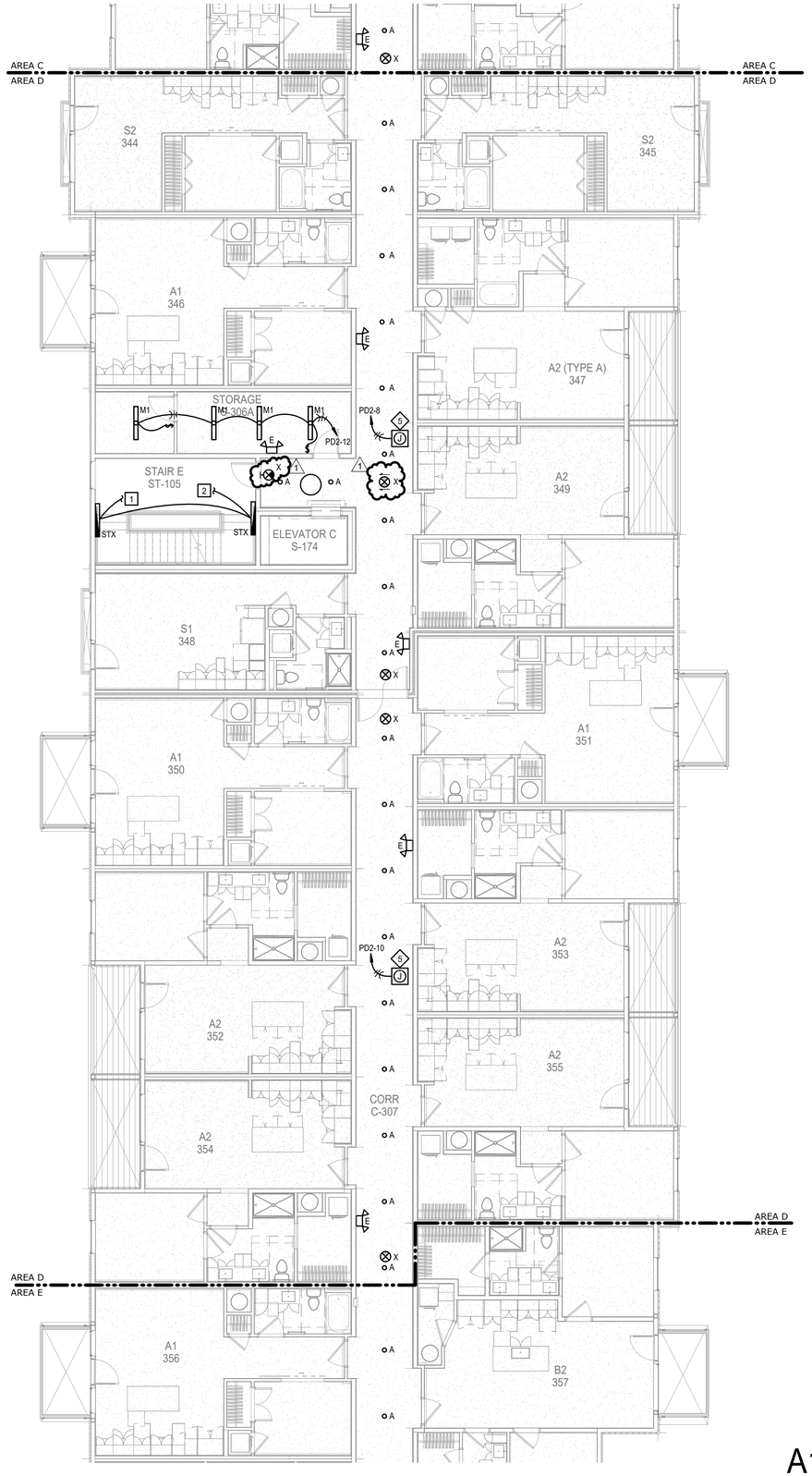
STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE - 2006033950
REGISTERED PROFESSIONAL ENGINEER
12/22/25

PROFESSIONAL SEAL

E-213C

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011



A1 THIRD FLOOR - LIGHTING PLAN - AREA D
1/8" = 1'-0"

LIGHTING GENERAL NOTES:

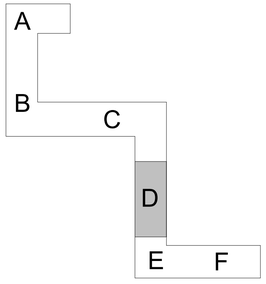
1. REFER TO SHEET E211A FOR TYPICAL GENERAL LIGHTING NOTES APPLICABLE TO ENTIRE PROJECT

PLAN NOTES:

1 CIRCUIT CONTINUED TO FLOOR ABOVE.

2 CIRCUIT CONTINUED TO FLOOR BELOW.

KEY PLAN



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REVISION DATES:

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STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE - 2006033950
REGISTERED PROFESSIONAL ENGINEER
12/22/25

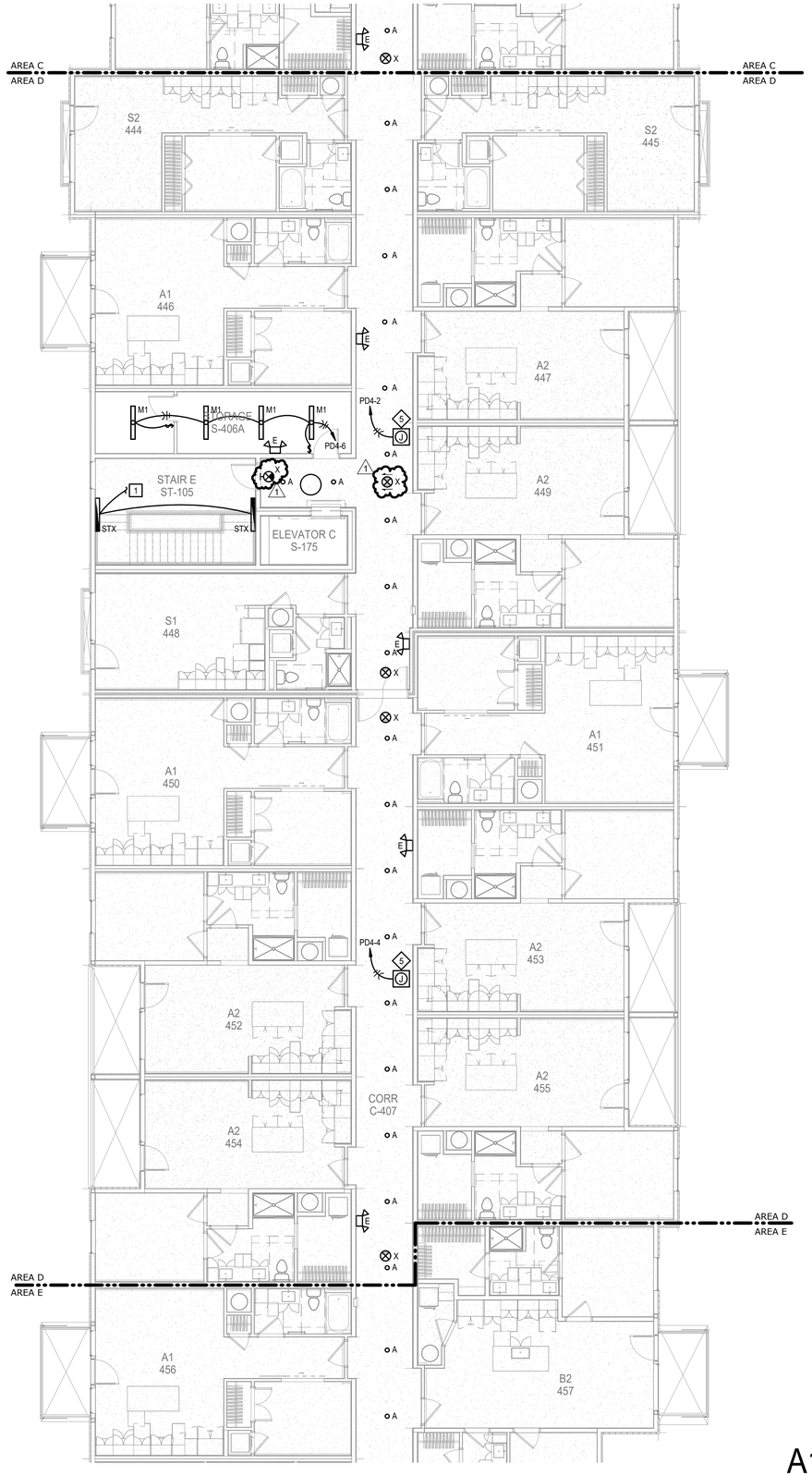
PROFESSIONAL SEAL

E-213D

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

THIRD FLOOR - LIGHTING PLAN - AREA D



LIGHTING GENERAL NOTES:

1. REFER TO SHEET E211A FOR TYPICAL GENERAL LIGHTING NOTES APPLICABLE TO ENTIRE PROJECT

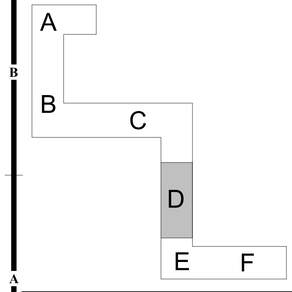
PLAN NOTES:

1 CIRCUIT CONTINUED TO FLOOR BELOW.

A1 FOURTH FLOOR - LIGHTING PLAN - AREA D

1/8" = 1'-0"

KEY PLAN



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REVISION DATES:

1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2006033659
REGISTERED PROFESSIONAL ENGINEER
12/2/25

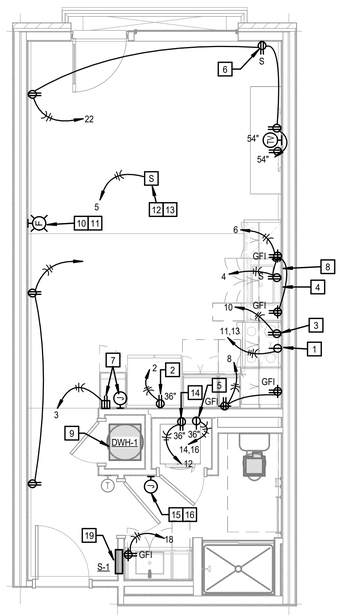
PROFESSIONAL SEAL

E-214D

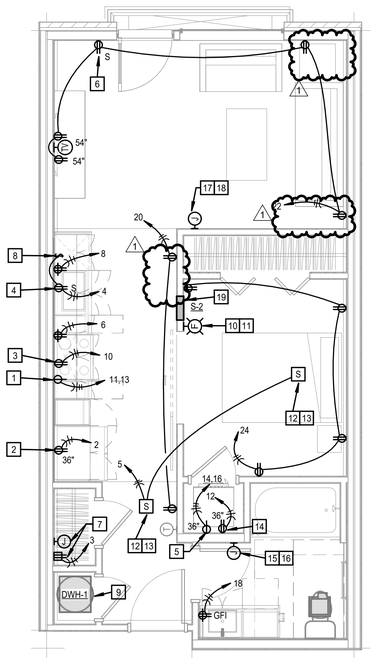
ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

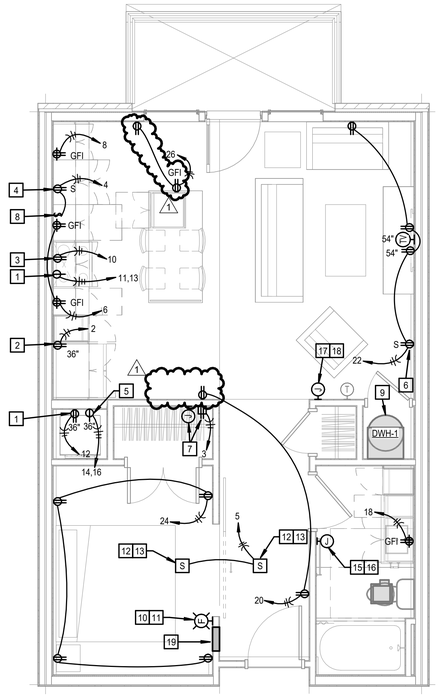
FOURTH FLOOR - LIGHTING PLAN - AREA D



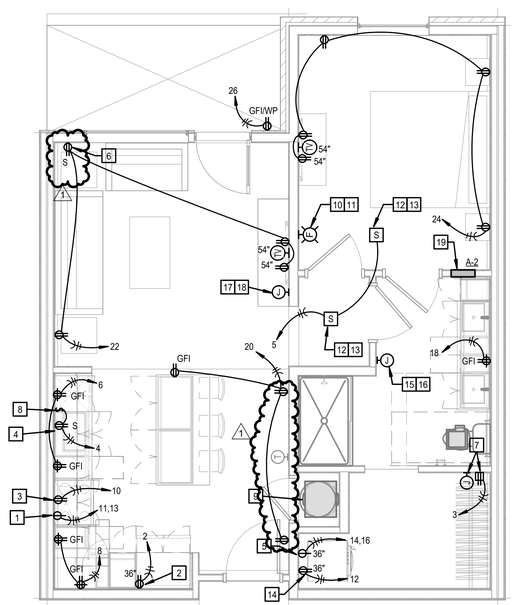
E10 ENLARGED POWER PLAN - UNIT S-1
1/4" = 1'-0"



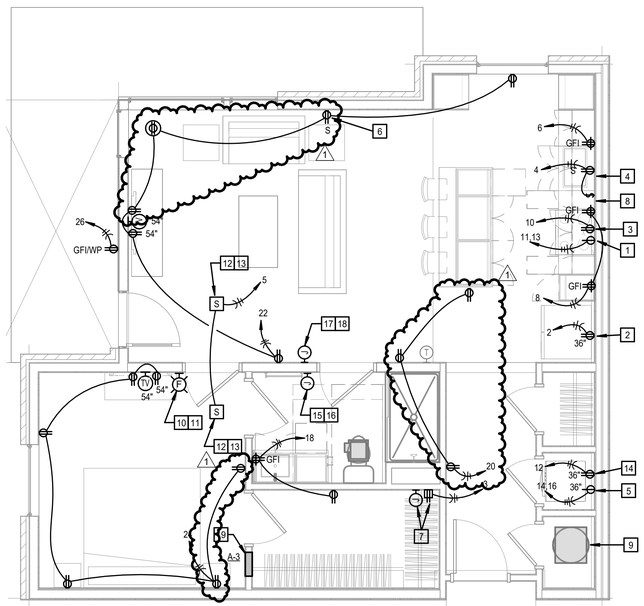
E7 ENLARGED POWER PLAN - UNIT S-2
1/4" = 1'-0"



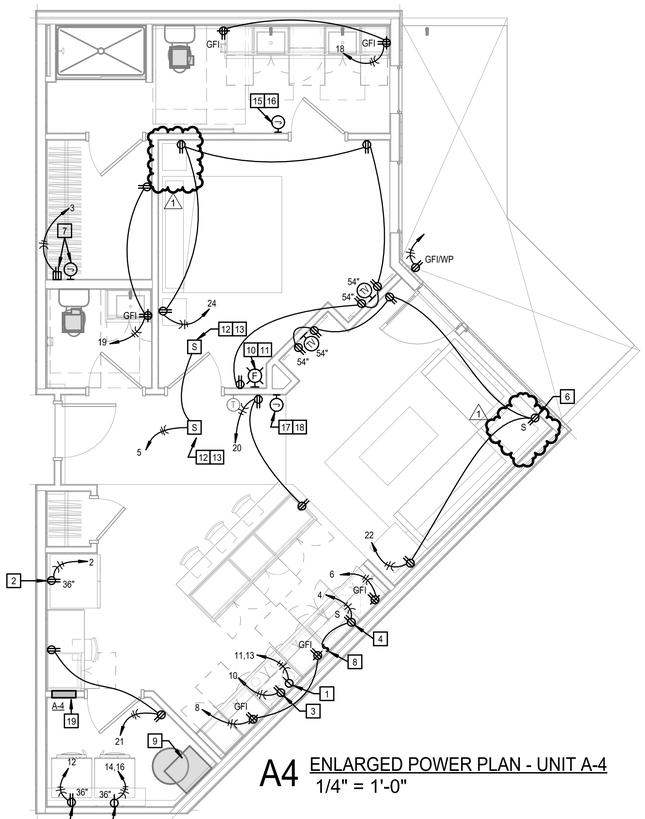
E4 ENLARGED POWER PLAN - UNIT A-1
1/4" = 1'-0"



A10 ENLARGED POWER PLAN - UNIT A-2
1/4" = 1'-0"



A7 ENLARGED POWER PLAN - UNIT A-3
1/4" = 1'-0"



A4 ENLARGED POWER PLAN - UNIT A-4
1/4" = 1'-0"

POWER AND FIRE ALARM GENERAL NOTES

1. REFER TO SHEET E-111A FOR TYPICAL GENERAL NOTES APPLICABLE TO ENTIRE PROJECT.
2. ALL CEILING MOUNTED JUNCTION BOXES IN APARTMENT UNITS ARE TO BE FIRE RATED. PROVIDE FIRE RATED JUNCTION BOXES OR FIRE RATED COVERS ABOVE BOXES.
3. REFER TO TYPICAL UNIT PANEL SCHEDULE AND TYPICAL AHU, CU, EF, AND BF SCHEDULES FOR CIRCUITING INFORMATION TO THE EQUIPMENT SERVING EACH APARTMENT UNIT.ALL APARTMENT UNIT RECEPTACLES ARE TO BE TAMPER RESISTANT TYPE.
4. ALL RECEPTACLES TAGGED WITH "GFI" IN APARTMENT KITCHENS AND BATHROOMS SHALL BE INSTALLED SO THAT ALL OTHER RECEPTACLES ON THE SAME BRANCH CIRCUIT ARE CIRCUITED THROUGH THE GFI RECEPTACLE, AND INSTALLED WITH A "GFCI PROTECTED" STICKER ON THE COVERPLATE.

PLAN NOTES:

1. NEMA 14-50R RECEPTACLE FOR RANGE. INSTALL CORD PROVIDED WITH APPLIANCE. CIRCUIT WITH (3)#6, #10G, NM CABLE. MOUNT JUNCTION BOX HORIZONTALLY.
2. RECEPTACLE DEDICATED FOR REFRIGERATOR.
3. RECEPTACLE FOR MICROWAVE/HOOD IN UPPER CABINET. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ELEVATIONS.
4. SPLIT WIRED DUPLEX RECEPTACLE WITH ONE OUTLET SWITCHED FOR DISHWASHER/DISPOSAL. DESIGNATE WHICH OUTLET IS SWITCHED WITH LABEL ON COVERPLATE.
5. NEMA 14-30R RECEPTACLE FOR DRYER. INSTALL CORD PROVIDED WITH APPLIANCE. CIRCUIT WITH (3)#10, #10G, NM CABLE.
6. HALF SWITCHED, SPLIT WIRED DUPLEX RECEPTACLE. DESIGNATE WHICH OUTLET IS SWITCHED WITH LABEL ON COVERPLATE. REFER TO CORRESPONDING UNIT LIGHTING PLAN FOR SWITCH LOCATION.
7. COMMUNICATIONS SERVICE ENTRANCE CABINET WITH QUAD RECEPTACLE, REFER TO DETAIL.
8. INSTALL SWITCH IN SAME 2-GANG JUNCTION BOX AS ADJACENT RECEPTACLE WITH A SHARED COVERPLATE.
9. REFER TO ROOF PLAN FOR ASSOCIATED CONDENSER UNIT LOCATION.
10. SYSTEM TYPE LOW FREQUENCY FIRE ALARM MINI-HORN TO BE ACTIVATED UPON AN ALARM CONDITION IN THE BUILDING FIRE ALARM SYSTEM.
11. BUILDING MANAGEMENT TO REPLACE STANDARD LOW FREQUENCY MINI-HORNSWITH LOW FREQUENCY COMBINATION MINI-HORN/STROBE TYPE WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. STROBE SHALL BE 30 CD.
12. 120V STAND ALONE SMOKE DETECTOR TO BE CIRCUITED WITH AN UNSWITCHED HOT CONDUCTOR. ALL DETECTORS WITHIN A UNIT SHALL BE INTERCONNECTED AND ON SAME PHASE. ALL DETECTORS TO HAVE BATTERY BACK-UP. DO NOT INSTALL WITHIN 36" OF AIR GRILLES OR WITHIN KITCHENS. EXTEND BUILDING FIRE ALARM INITIATION CIRCUIT WIRING TO THIS LOCATION FOR DRY CONTACT MONITORING BY THE BUILDING FIRE ALARM SYSTEM.
13. BUILDING MANAGEMENT TO REPLACE STAND ALONE AUDIBLE DEVICE WITH COMBINATION AUDIBLE/VISUAL DEVICE WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. STROBE TO BE 177 CD IN BEDROOMS, 60 CD IN LIVING ROOMS.
14. DEDICATED RECEPTACLE FOR CLOTHES WASHER. INSTALL CORD PROVIDED WITH APPLIANCE.
15. JUNCTION BOX FOR FUTURE RESTROOM FIRE ALARM STROBE DEVICE(S), INSTALL WITH BLANK COVERPLATE. MOUNT AT STANDARD FIRE ALARM STROBE MOUNTING HEIGHT. EXTEND LOCAL ALARM WIRING TO NEAREST UNIT SMOKE DETECTOR, AND BUILDING FIRE ALARM NOTIFICATION WIRING TO NEAREST SYSTEM TYPE MINI-HORN IN UNIT.
16. BUILDING MANAGEMENT TO ADD STROBE(S) THAT ANNUNCIATE BOTH LOCAL FIRE ALARM NOTIFICATION AND BUILDING FIRE ALARM NOTIFICATION WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. RESTROOM STROBE(S) TO BE 15 CD MIN.
17. JUNCTION BOX FOR FUTURE LIVING ROOM SYSTEM TYPE HORN/STROBE, INSTALL WITH BLANK COVERPLATE. MOUNTED AT STANDARD FIRE ALARM HORN/STROBE MOUNTING HEIGHT. EXTEND BUILDING FIRE ALARM NOTIFICATION WIRING TO NEAREST SYSTEM TYPE MINI-HORN IN UNIT.
18. BUILDING MANAGEMENT TO ADD SYSTEM TYPE LOW FREQUENCY COMBINATION MINI-HORN/STROBE TO BE ACTIVATED UPON AN ALARM CONDITION IN THE BUILDING FIRE ALARM SYSTEM WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. STROBE TO BE 60 CD.
19. UNIT ELECTRIC PANEL. RE: TYPICAL UNIT PANEL SCHEDULES.

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REVISION DATES:

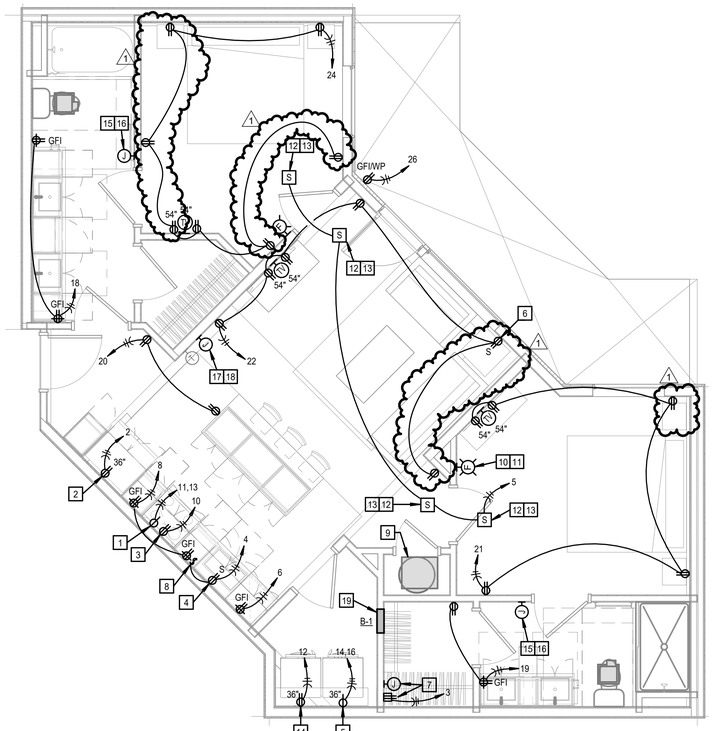
1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE - 2006033920
REGISTERED PROFESSIONAL ENGINEER
12/22/25
PROFESSIONAL SEAL

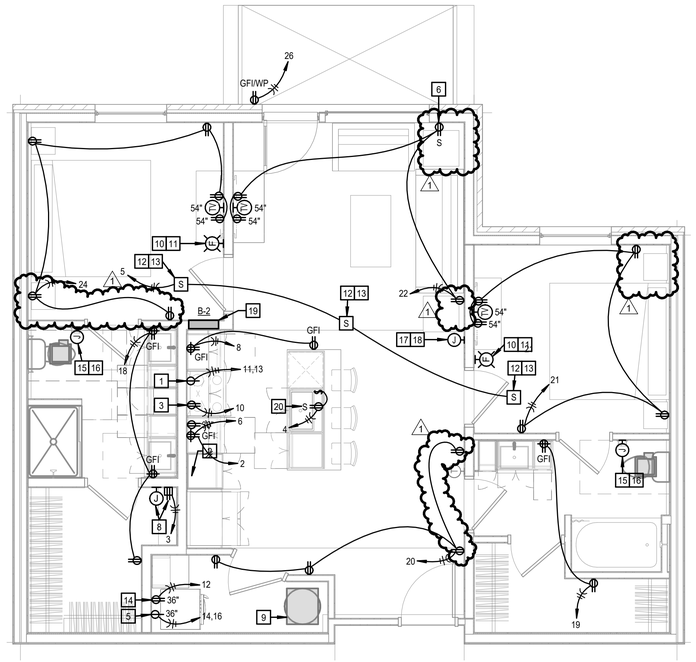
E-411

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

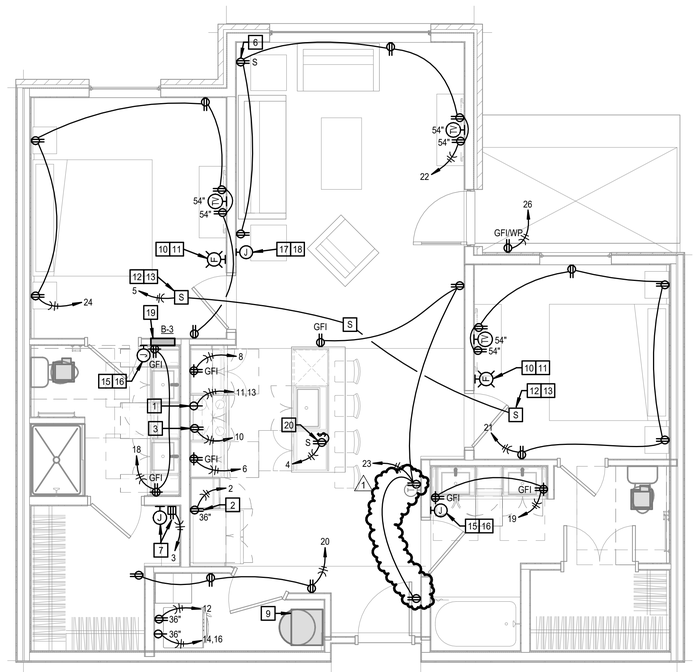
ENLARGED POWER PLANS - UNITS



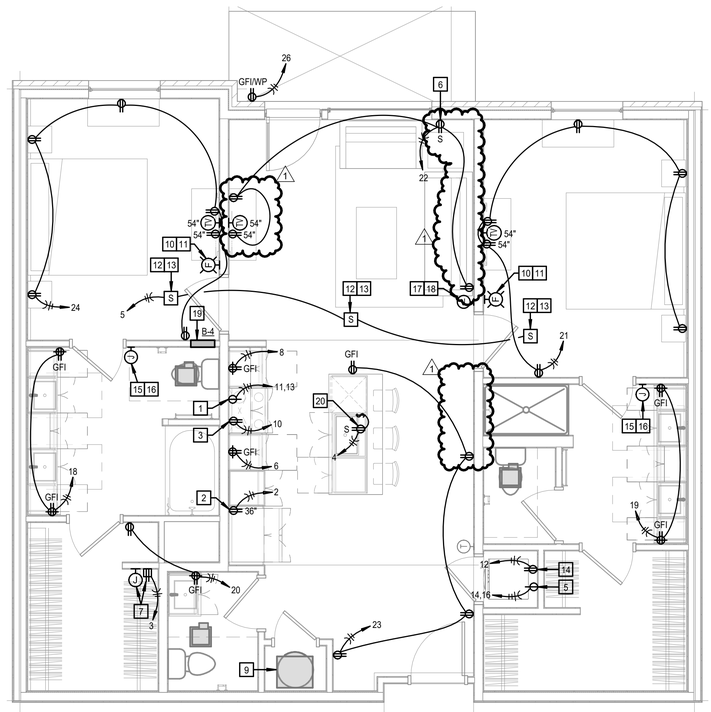
E10 ENLARGED POWER PLAN - UNIT B-1
1/4" = 1'-0"



E6 ENLARGED POWER PLAN - UNIT B-2
1/4" = 1'-0"



A10 ENLARGED POWER PLAN - UNIT B-3
1/4" = 1'-0"



A6 ENLARGED POWER PLAN - UNIT B-4
1/4" = 1'-0"

POWER AND FIRE ALARM GENERAL NOTES

1. REFER TO SHEET E-411 FOR TYPICAL GENERAL NOTES APPLICABLE TO ENTIRE PROJECT.

PLAN NOTES:

1. NEMA 14-50R RECEPTACLE FOR RANGE. INSTALL CORD PROVIDED WITH APPLIANCE. CIRCUIT WITH (3)#6, #10G, NM CABLE. MOUNT JUNCTION BOX HORIZONTALLY.
2. RECEPTACLE DEDICATED FOR REFRIGERATOR.
3. RECEPTACLE FOR MICROWAVE/HOOD IN UPPER CABINET. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ELEVATIONS.
4. SPLIT WIRED DUPLEX RECEPTACLE WITH ONE OUTLET SWITCHED FOR DISHWASHER/DISPOSAL. DESIGNATE WHICH OUTLET IS SWITCHED WITH LABEL ON COVERPLATE.
5. NEMA 14-30R RECEPTACLE FOR DRYER. INSTALL CORD PROVIDED WITH APPLIANCE. CIRCUIT WITH (3)#10, #10G, NM CABLE.
6. HALF SWITCHED, SPLIT WIRED DUPLEX RECEPTACLE. DESIGNATE WHICH OUTLET IS SWITCHED WITH LABEL ON COVERPLATE. REFER TO CORRESPONDING UNIT LIGHTING PLAN FOR SWITCH LOCATION.
7. COMMUNICATIONS SERVICE ENTRANCE CABINET WITH QUAD RECEPTACLE, REFER TO DETAIL.
8. INSTALL SWITCH IN SAME 2-GANG JUNCTION BOX AS ADJACENT RECEPTACLE WITH A SHARED COVERPLATE.
9. REFER TO ROOF PLAN FOR ASSOCIATED CONDENSER UNIT LOCATION.
10. SYSTEM TYPE LOW FREQUENCY FIRE ALARM MINI-HORN TO BE ACTIVATED UPON AN ALARM CONDITION IN THE BUILDING FIRE ALARM SYSTEM.
11. BUILDING MANAGEMENT TO REPLACE STANDARD LOW FREQUENCY MINI-HORNSWITH LOW FREQUENCY COMBINATION MINI-HORN/STROBE TYPE WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. STROBE SHALL BE 30 CD.
12. 120V STAND ALONE SMOKE DETECTOR TO BE CIRCUITED WITH AN UNSWITCHED HOT CONDUCTOR. ALL DETECTORS WITHIN A UNIT SHALL BE INTERCONNECTED AND ON SAME PHASE. ALL DETECTORS TO HAVE BATTERY BACK-UP. DO NOT INSTALL WITHIN 36" OF AIR GRILLES OR WITHIN KITCHENS. EXTEND BUILDING FIRE ALARM INITIATION CIRCUIT WIRING TO THIS LOCATION FOR DRY CONTACT MONITORING BY THE BUILDING FIRE ALARM SYSTEM.
13. BUILDING MANAGEMENT TO REPLACE STAND ALONE AUDIBLE DEVICE WITH COMBINATION AUDIBLE/VISUAL DEVICE WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. STROBE TO BE 177 CD IN BEDROOMS, 60 CD IN LIVING ROOMS.
14. DEDICATED RECEPTACLE FOR CLOTHES WASHER. INSTALL CORD PROVIDED WITH APPLIANCE.
15. JUNCTION BOX FOR FUTURE RESTROOM FIRE ALARM STROBE DEVICE(S), INSTALL WITH BLANK COVERPLATE. MOUNT AT STANDARD FIRE ALARM STROBE MOUNTING HEIGHT. EXTEND LOCAL ALARM WIRING TO NEAREST UNIT SMOKE DETECTOR, AND BUILDING FIRE ALARM NOTIFICATION WIRING TO NEAREST SYSTEM TYPE MINI-HORN IN UNIT.
16. BUILDING MANAGEMENT TO ADD STROBE(S) THAT ANNUNCIATE BOTH LOCAL FIRE ALARM NOTIFICATION AND BUILDING FIRE ALARM NOTIFICATION WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. RESTROOM STROBE(S) TO BE 15 CD MIN.
17. JUNCTION BOX FOR FUTURE LIVING ROOM SYSTEM TYPE HORN/STROBE, INSTALL WITH BLANK COVERPLATE. MOUNTED AT STANDARD FIRE ALARM HORN/STROBE MOUNTING HEIGHT. EXTEND BUILDING FIRE ALARM NOTIFICATION WIRING TO NEAREST SYSTEM TYPE MINI-HORN IN UNIT.
18. BUILDING MANAGEMENT TO ADD SYSTEM TYPE LOW FREQUENCY COMBINATION MINI-HORN/STROBE TO BE ACTIVATED UPON AN ALARM CONDITION IN THE BUILDING FIRE ALARM SYSTEM WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. STROBE TO BE 60 CD.
19. UNIT ELECTRIC PANEL. RE: TYPICAL UNIT PANEL SCHEDULES.
20. UNSWITCHED RECEPTACLE FOR DISHWASHER/DISPOSAL. FURNISH AN AIR SWITCH ON THE DISPOSAL PLUG WITH A REMOTE PUSH ACTUATOR IN THE COUNTER TOP. PRESAIR PBA-01/B370 OR EQUAL. COORDINATE FINISH AND EXACT LOCATION OF ACTUATOR WITH ARCHITECT.

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project number 2522700

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LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2009013982
REGISTERED PROFESSIONAL ENGINEER
12/22/25

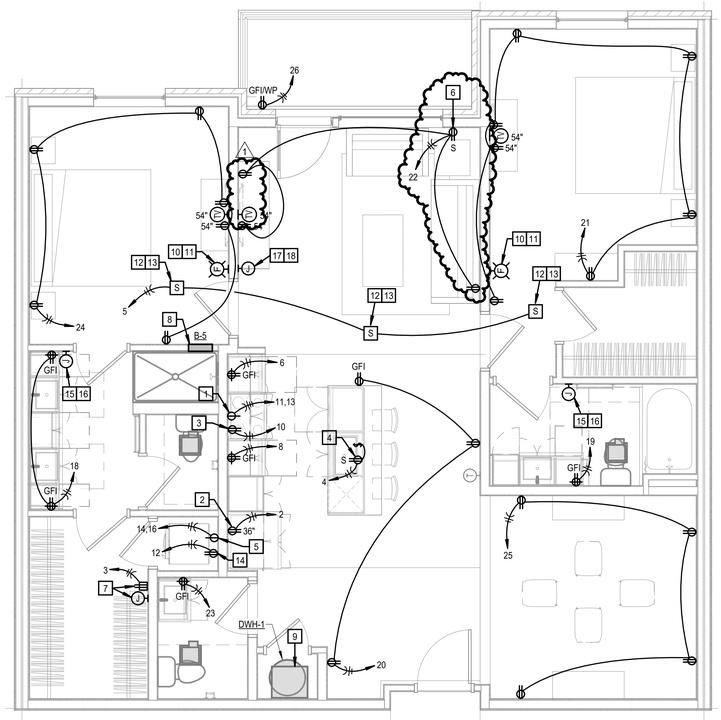
PROFESSIONAL SEAL

E-412

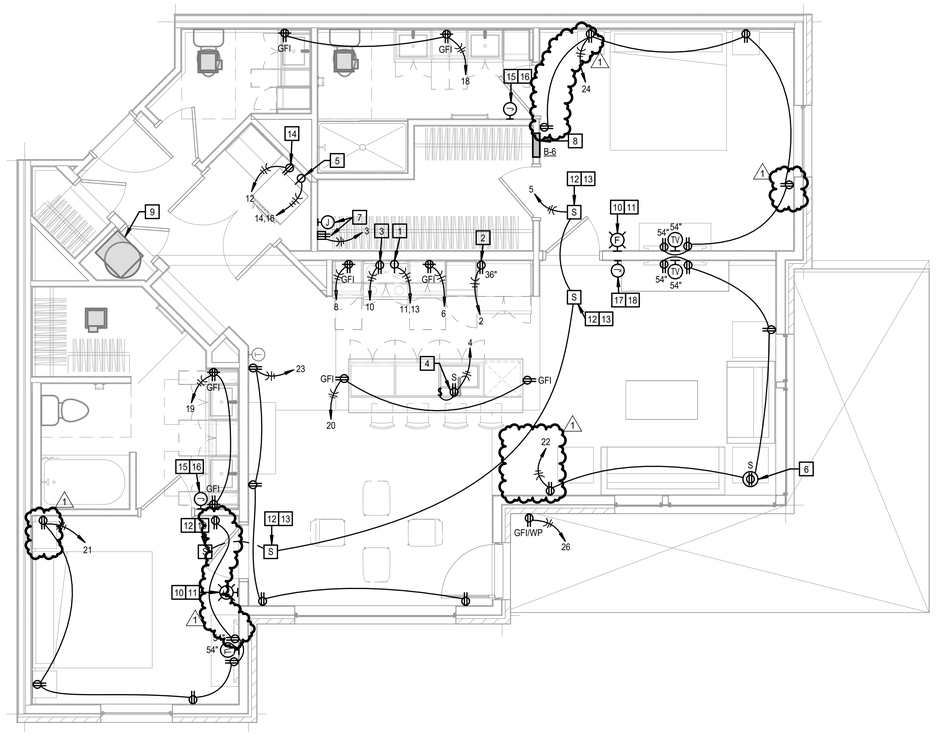
ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

ENLARGED POWER PLANS - UNITS

1/26/2026 3:06:39 PM
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E10 ENLARGED POWER PLAN - UNIT B-5
1/4" = 1'-0"



E6 ENLARGED POWER PLAN - UNIT B-6
1/4" = 1'-0"

POWER AND FIRE ALARM GENERAL NOTES

1. REFER TO SHEET E-411 FOR TYPICAL GENERAL NOTES APPLICABLE TO ENTIRE PROJECT.

PLAN NOTES:

1. NEMA 14-50R RECEPTACLE FOR RANGE. INSTALL CORD PROVIDED WITH APPLIANCE. CIRCUIT WITH (3)#6, #10G, NM CABLE. MOUNT JUNCTION BOX HORIZONTALLY.
2. RECEPTACLE DEDICATED FOR REFRIGERATOR.
3. RECEPTACLE FOR MICROWAVE/HOOD IN UPPER CABINET. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ELEVATIONS.
4. UNSWITCHED RECEPTACLE FOR DISHWASHER/DISPOSAL. FURNISH AN AIR SWITCH ON THE DISPOSAL PLUG WITH A REMOTE PUSH ACTUATOR IN THE COUNTER TOP. PRESAIR PBA-01/B370 OR EQUAL. COORDINATE FINISH AND EXACT LOCATION OF ACTUATOR WITH ARCHITECT.
5. NEMA 14-30R RECEPTACLE FOR DRYER. INSTALL CORD PROVIDED WITH APPLIANCE. CIRCUIT WITH (3)#10, #10G, NM CABLE.
6. HALF SWITCHED, SPLIT WIRED DUPLEX RECEPTACLE. DESIGNATE WHICH OUTLET IS SWITCHED WITH LABEL ON COVERPLATE. REFER TO CORRESPONDING UNIT LIGHTING PLAN FOR SWITCH LOCATION.
7. COMMUNICATIONS SERVICE ENTRANCE CABINET WITH QUAD RECEPTACLE, REFER TO DETAIL.
8. UNIT ELECTRIC PANEL. RE: TYPICAL UNIT PANEL SCHEDULES.
9. REFER TO ROOF PLAN FOR ASSOCIATED CONDENSER UNIT LOCATION.
10. SYSTEM TYPE LOW FREQUENCY FIRE ALARM MINI-HORN TO BE ACTIVATED UPON AN ALARM CONDITION IN THE BUILDING FIRE ALARM SYSTEM.
11. BUILDING MANAGEMENT TO REPLACE STANDARD LOW FREQUENCY MINI-HORNSWITH LOW FREQUENCY COMBINATION MINI-HORN/STROBE TYPE WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. STROBE SHALL BE 30 CD.
12. 120V STAND ALONE SMOKE DETECTOR TO BE CIRCUITED WITH AN UNSWITCHED HOT CONDUCTOR. ALL DETECTORS WITHIN A UNIT SHALL BE INTERCONNECTED AND ON SAME PHASE. ALL DETECTORS TO HAVE BATTERY BACK-UP. DO NOT INSTALL WITHIN 36" OF AIR GRILLES OR WITHIN KITCHENS. EXTEND BUILDING FIRE ALARM INITIATION CIRCUIT WIRING TO THIS LOCATION FOR DRY CONTACT MONITORING BY THE BUILDING FIRE ALARM SYSTEM.
13. BUILDING MANAGEMENT TO REPLACE STAND ALONE AUDIBLE DEVICE WITH COMBINATION AUDIBLE/VISUAL DEVICE WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. STROBE TO BE 177 CD IN BEDROOMS, 60 CD IN LIVING ROOMS.
14. DEDICATED RECEPTACLE FOR CLOTHES WASHER. INSTALL CORD PROVIDED WITH APPLIANCE.
15. JUNCTION BOX FOR FUTURE RESTROOM FIRE ALARM STROBE DEVICE(S), INSTALL WITH BLANK COVERPLATE. MOUNT AT STANDARD FIRE ALARM STROBE MOUNTING HEIGHT. EXTEND LOCAL ALARM WIRING TO NEAREST UNIT SMOKE DETECTOR, AND BUILDING FIRE ALARM NOTIFICATION WIRING TO NEAREST SYSTEM TYPE MINI-HORN IN UNIT.
16. BUILDING MANAGEMENT TO ADD STROBE(S) THAT ANNUNCIATE BOTH LOCAL FIRE ALARM NOTIFICATION AND BUILDING FIRE ALARM NOTIFICATION WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. RESTROOM STROBE(S) TO BE 15 CD MIN.
17. JUNCTION BOX FOR FUTURE LIVING ROOM SYSTEM TYPE HORN/STROBE, INSTALL WITH BLANK COVERPLATE. MOUNTED AT STANDARD FIRE ALARM HORN/STROBE MOUNTING HEIGHT. EXTEND BUILDING FIRE ALARM NOTIFICATION WIRING TO NEAREST SYSTEM TYPE MINI-HORN IN UNIT.
18. BUILDING MANAGEMENT TO ADD SYSTEM TYPE LOW FREQUENCY COMBINATION MINI-HORN/STROBE TO BE ACTIVATED UPON AN ALARM CONDITION IN THE BUILDING FIRE ALARM SYSTEM WHEN ADAPTING UNIT FOR HEARING IMPAIRED RESIDENTS. STROBE TO BE 60 CD.

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PERMIT SET

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REVISION DATES:

1	ADDENDUM 1	01/26/2026

STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2009033905
REGISTERED PROFESSIONAL ENGINEER
12/22/25

PROFESSIONAL SEAL

E-413

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

ENLARGED POWER PLANS - UNITS

OCCUPANCY CONTROL DEVICE SCHEDULE

SYMBOL	DESCRIPTION	DETECTION TYPE	SETTINGS (TYPICAL)	MANUFACTURER/MODEL	NOTES
$_{VS}	WALL MOUNTED SWITCH/VACANCY SENSOR LINE VOLTAGE - SINGLE RELAY	PASSIVE INFRARED	ON: MANUAL OFF: 20 MINUTE DELAY	PER SUBMITTAL	1,2
$_{VD}	WALL MOUNTED SWITCH/VACANCY SENSOR LINE VOLTAGE - SINGLE RELAY - WITH DIMMING	DUAL TECHNOLOGY	ON: MANUAL OFF: 20 MINUTE DELAY	PER SUBMITTAL	1,2
$_{LS\#}	WALL MOUNTED LIGHTING SYSTEM ON/OFF SWITCH # INDICATES QUANTITY OF ZONES CONTROLLED AT EACH LOCATION	-	-	PER SUBMITTAL	1,2
$_{LD\#}	WALL MOUNTED LIGHTING SYSTEM DIMMER SWITCH # INDICATES QUANTITY OF ZONES CONTROLLED AT EACH LOCATION	-	-	PER SUBMITTAL	1,2
$_{LT\#}	WALL MOUNTED LIGHTING SYSTEM TOUCHSCREEN # INDICATES ROOM NUMBER WHERE TOUCHSCREEN IS LOCATED	-	-	PER SUBMITTAL	1,2
$_{DT}	CEILING MOUNTED LIGHTING SYSTEM OCCUPANCY SENSOR	DUAL TECHNOLOGY	-	PER SUBMITTAL	1,3,4
PC	CEILING MOUNTED LIGHTING SYSTEM INTERIOR PHOTOCELL	CLOSED LOOP	-	PER SUBMITTAL	1
PC$_{WP}$	CEILING MOUNTED LIGHTING SYSTEM EXTERIOR PHOTOCELL	OPEN LOOP	-	PER SUBMITTAL	1

NOTE 1: THE MANUFACTURERS AND MODELS LISTED ARE BASIS OF DESIGN, ALL PRODUCT SUBSTITUTIONS SUBMITTED MUST BE APPROVED AS EQUAL. RE: PLANS FOR QUANTITIES.
NOTE 2: ALL WALL MOUNTED LIGHTING CONTROLS MUST HAVE MATCHING FINISHES TO THOSE LISTED IN SPECIFICATION SECTION 262726 - WIRING DEVICES.
NOTE 3: SENSOR LOCATIONS SHOWN ON FLOOR PLANS ARE GENERIC, CONTRACTOR TO MODIFY LOCATIONS AS REQUIRED BASED COVERAGE CAPABILITIES OF SUBMITTED PRODUCTS.
NOTE 4: MODIFY LOCATIONS OF CEILING MOUNTED OCCUPANCY SENSORS AS REQUIRED SO THAT NO OCCUPANCY SENSOR IS WITHIN 4'-0" OF AN HVAC SUPPLY DIFFUSER.

LIGHTING CONTROL REQUIREMENTS & DESCRIPTIONS - PER SPACE TYPE

TYPE	LIGHTING CONTROL REQUIREMENTS FOR SPACE
1	CONTROL METHOD: OCCUPANCY ON - OCCUPANCY OFF: POWER PACKS/CONTROLLERS: -LOCAL DEVICES IN ACCESSIBLE LOCATIONS AS REQUIRED TO ACHIEVE CONTROL METHOD INDICATED. OCCUPANCY SENSOR(S): -TYPE AND MINIMUM QUANTITY NOTED ON PLANS, MODELS/SETTINGS AS NEEDED TO PROVIDE SMALL MOTION COVERAGE IN ENTIRE ROOM. -SET TIME DELAYS FOR SHUT-OFF AT 20 MINUTES.
2	CONTROL METHOD: MANUAL ON - OCCUPANCY OFF - MANUAL ON/OFF CONTROLS: POWER PACKS/CONTROLLERS: -LOCAL DEVICES IN ACCESSIBLE LOCATIONS AS REQUIRED TO ACHIEVE CONTROL METHOD INDICATED. OCCUPANCY SENSOR(S): -TYPE, LOCATION(S), AND MINIMUM QUANTITY NOTED ON PLANS. MODELS/SETTINGS AS NEEDED TO PROVIDE SMALL MOTION COVERAGE IN ENTIRE ROOM. -SET TIME DELAYS FOR SHUT-OFF AT 20 MINUTES. ON/OFF ZONE SWITCHES: -LOCATION(S) AND QUANTITIES SHOWN ON FLOOR PLANS. -ZONE QUANTITIES FOR EACH SWITCH LOCATION DENOTED ON FLOOR PLANS. -ZONE DESIGNATIONS ARE DENOTED FOR EACH SWITCH WHEN DIFFERENT ZONES ARE CONTROLLED FROM DIFFERENT SWITCHES WITHIN THE SAME ROOM. -ZONES ARE DENOTED ON EACH ASSOCIATED LIGHT FIXTURE WHEN MULTIPLE ZONES ARE PRESENT WITHIN ROOM, USING LOWER CASE LETTERS AS FOLLOWS: "a", "b", ETC. -ON AND OFF CONTROL FOR EACH ZONE, WITH SEPARATE ENGRAVED BUTTONS FOR ON AND OFF. DENOTE EACH ZONE AND FUNCTION WITH SYMBOL OR ENGRAVING.
3	CONTROL METHOD: MANUAL ON - OCCUPANCY OFF - MANUAL DIMMING CONTROLS: POWER PACKS/CONTROLLERS: -LOCAL DEVICES IN ACCESSIBLE LOCATIONS AS REQUIRED TO ACHIEVE CONTROL METHOD INDICATED. OCCUPANCY SENSOR(S): -TYPE, LOCATION, AND MINIMUM QUANTITY NOTED ON PLANS. MODELS/SETTINGS AS NEEDED TO PROVIDE SMALL MOTION COVERAGE IN ENTIRE ROOM. -SET TIME DELAYS FOR SHUT-OFF AT 20 MINUTES. DIMMABLE ZONE SWITCHES: -LOCATION(S) AND QUANTITIES SHOWN ON FLOOR PLANS. -ZONE QUANTITIES FOR EACH SWITCH LOCATION DENOTED ON FLOOR PLANS. -ZONE DESIGNATIONS ARE DENOTED FOR EACH DIMMER LOCATION WHEN DIFFERENT ZONES ARE CONTROLLED FROM DIFFERENT DIMMERS WITHIN THE SAME ROOM. -ZONES ARE DENOTED ON EACH ASSOCIATED LIGHT FIXTURE WHEN MULTIPLE ZONES ARE PRESENT WITHIN ROOM, USING LOWER CASE LETTERS AS FOLLOWS: "a", "b", ETC. -ON AND OFF CONTROL FOR EACH ZONE, WITH SEPARATE ENGRAVED BUTTONS FOR ON AND OFF. DENOTE EACH ZONE AND FUNCTION WITH SYMBOL OR ENGRAVING. -RAISE AND LOWER CONTROL FOR EACH ZONE, WITH SEPARATE ENGRAVED BUTTONS FOR RAISE AND LOWER. DENOTE EACH ZONE AND FUNCTION WITH SYMBOL OR ENGRAVING. AUTOMATIC DAYLIGHT HARVESTING PHOTOCELL(S), WHEN APPLICABLE: -AUTOMATICALLY RAISE/LOWER LIGHTING OUTPUT OF EACH LIGHTING ZONE, EITHER FULLY ARE PARTIALLY, WITHIN EACH DAYLIGHT ZONE(S) NOTED ON FLOOR PLANS. -DEDICATED CLOSED LOOP PHOTOCELL FOR EACH ROOM WITH DAYLIGHT ZONE(S).
4	CONTROL METHOD: SCHEDULED ON - SCHEDULED OFF (WITH OCCUPANCY OVERRIDE) - MANUAL SCENE SELECTION AND TOUCHSCREEN CONTROLS: POWER PACKS/CONTROLLERS: -LOCAL DEVICES IN ACCESSIBLE LOCATIONS AS REQUIRED TO ACHIEVE CONTROL METHOD INDICATED. OCCUPANCY SENSOR(S): -TYPE, LOCATION, AND MINIMUM QUANTITY NOTED ON PLANS. MODELS/SETTINGS AS NEEDED TO PROVIDE SMALL MOTION COVERAGE IN ENTIRE ROOM. -SET TIME DELAYS FOR SHUT-OFF AT 20 MINUTES. 7" DIAGONAL TOUCHSCREEN: -LOCATION SHOWN ON FLOOR PLAN. -EACH ZONE IS CIRCUITED TO A DEDICATED PACK/CONTROLLER. -PROVIDE PROGRAMMING AND SETUP FOR SEPARATE CONTROL OF EACH ZONE IN ROOM, AND SETUP OF AT LEAST (6) PRE-PROGRAMMED SCENES. -USER FRIENDLY MENU'S FOR SCENE SELECTION AND INDIVIDUAL ZONE CONTROL. -PIN CODE ENTRY FOR MAKING ANY ADJUSTMENTS TO SCHEDULING OR MODIFICATIONS TO THE PRE-PROGRAMMED SCENES. AUTOMATIC DAYLIGHT HARVESTING PHOTOCELL(S), WHEN APPLICABLE: -AUTOMATICALLY RAISE/LOWER LIGHTING OUTPUT OF EACH LIGHTING ZONE, EITHER FULLY ARE PARTIALLY, WITHIN EACH DAYLIGHT ZONE(S) NOTED ON FLOOR PLANS. -DEDICATED CLOSED LOOP PHOTOCELL FOR EACH ROOM WITH DAYLIGHT ZONE(S). SCHEDULING: -TIME OF DAY BASED SCHEDULING. COORDINATED DESIRED ON/OFF TIMES WITH OWNERSHIP DURING PROGRAMMING. -TWO PRE-PROGRAMMED SCENES TO BE INITIATED AT SCHEDULED WINDOWS OF OPERATION (DAY AND NIGHT HOURS). MANUAL CONTROLS OVERRIDE SCENE SETTINGS. -ROOM TO REVERT TO SCHEDULED PRE-PROGRAMMED SCENE AFTER 20 MINUTES OF NO OCCUPANCY DETECTED. IF STILL WITHIN SCHEDULED WINDOW OF OPERATION.
5	CONTROL METHOD: SCHEDULED ON - SCHEDULED OFF (WITH OCCUPANCY OVERRIDE): POWER PACKS/CONTROLLERS: -LOCAL DEVICES IN ACCESSIBLE LOCATIONS AS REQUIRED TO ACHIEVE CONTROL METHOD INDICATED. OCCUPANCY SENSOR(S): -TYPE, LOCATION, AND MINIMUM QUANTITY NOTED ON PLANS. MODELS/SETTINGS AS NEEDED TO PROVIDE SMALL MOTION COVERAGE IN ENTIRE ROOM. -SET TIME DELAYS FOR SHUT-OFF AT 20 MINUTES. REMOTE DIMMING: -FIXED MAXIMUM OUTPUT LEVEL SETTING FROM CENTRAL SYSTEM FOR EACH ZONE. AUTOMATIC DAYLIGHT HARVESTING PHOTOCELL(S), WHEN APPLICABLE: -AUTOMATICALLY RAISE/LOWER LIGHTING OUTPUT OF EACH LIGHTING ZONE, EITHER FULLY ARE PARTIALLY, WITHIN EACH DAYLIGHT ZONE(S) NOTED ON FLOOR PLANS. -DEDICATED CLOSED LOOP PHOTOCELL FOR EACH ROOM WITH DAYLIGHT ZONE(S). SCHEDULING: -TIME OF DAY BASED SCHEDULING. COORDINATED DESIRED ON/OFF TIMES WITH OWNERSHIP DURING PROGRAMMING. -TWO PRE-PROGRAMMED SCENES TO BE INITIATED AT SCHEDULED WINDOWS OF OPERATION (DAY AND NIGHT HOURS). MANUAL CONTROLS OVERRIDE SCENE SETTINGS. -ROOM TO REVERT TO SCHEDULED PRE-PROGRAMMED SCENE AFTER 20 MINUTES OF NO OCCUPANCY DETECTED. IF STILL WITHIN SCHEDULED WINDOW OF OPERATION.
PP	ADDITIONAL EGRESS LIGHTING PROVISIONS NEEDED: POWER PACKS/CONTROLLERS: -SEPARATE DEVICES AND ENCLOSURES AS REQUIRED TO SEPARATELY CIRCUIT THE LIGHT FIXTURES IN EACH ZONE WHICH ARE NOTED TO BE CONNECTED TO EGRESS CIRCUITS. -MUST MEET UL924 REQUIREMENTS FOR REVERTING CONTROL OF ALL EGRESS LIGHTING TO FULL ON DURING A LOSS OF NORMAL POWER TO THE ROOM/BUILDING.

GENERAL NOTES:
NOTE 1: WHERE NOTED ABOVE, SCHEDULED BUILDING HOURS OF OPERATION ARE AS FOLLOWS: 6:30 AM TO 6:30 PM.
NOTE 2: CONTRACTOR MUST INCLUDE SHOP DRAWINGS WITH LIGHTING CONTROLS SUBMITTAL SHOWING WIRING SCHEMATICS/DIAGRAMS OVERLAYED ON FLOOR PLANS FOR EACH ROOM.
NOTE 3: ALL WALL MOUNTED LIGHTING CONTROLS MUST HAVE MATCHING FINISHES TO THOSE LISTED IN SPECIFICATION SECTION 262726 - WIRING DEVICES.
NOTE 4: PROVIDE A DIGITAL LIGHTING CONTROL SYSTEM FROM A MANUFACTURER LISTED IN SPECIFICATION SECTION 260923 - LIGHTING CONTROL DEVICES. WIRELESS SYSTEMS ARE NOT PERMITTED.
NOTE 5: CONTRACTOR TO MODIFY OCCUPANCY SENSOR LOCATIONS, AND/OR INCREASE QUANTITIES, AS REQUIRED BASED ON COVERAGE CAPABILITIES OF SUBMITTED PRODUCTS.
NOTE 6: CONTRACTOR MUST COORDINATE WITH LIGHT FIXTURE SCHEDULE, AND MOST IMPORTANTLY THE LIGHT FIXTURE SUBMITTAL, TO VERIFY DIMMING TYPE NEEDED FOR EACH RELAY/CONTROLLER.
NOTE 7: PROGRAM DAYLIGHT HARVESTING SETPOINTS AT NIGHT WITH ALL LIGHT FIXTURES AT FULL LIGHT OUTPUT. PHOTOCELL TO DIM LIGHTING BASED ON THIS SETPOINT IN A CLOSED LOOP SYSTEM.
NOTE 8: CONTRACTOR TO MODIFY PHOTOCELL LOCATIONS AS REQUIRED BASED ON SUBMITTED PRODUCTS.
NOTE 9: ANY CATEGORY CABLING USED FOR LIGHTING CONTROLS MUST BE OF A SPECIAL COLOR AND NOT BE THE SAME COLOR AS ANY OTHER LOW VOLTAGE SYSTEM IN THE BUILDING. SUCH AS DATA TELEPHONE, SECURITY, ETC. COORDINATE COLOR NEEDED DURING SHOP DRAWING SUBMITTAL PROCESS, DO NOT ASSUME THE STANDARD COLOR FROM THE MANUFACTURER CAN BE USED.

LIGHT FIXTURE SCHEDULE - DECORATIVE

TYPE	DESCRIPTION	MOUNTING	SOURCE	VOLTS	MANUFACTURER	V-A
A1	6" RECESSED DOWNLIGHT, HIGH OUTPUT, STRIGHT OR SLOPED CEILING	RECESSED	LED	UNV	TBD	
A2	4" RECESSED DOWNLIGHT, WALL WASH	RECESSED	LED	UNV	TBD	
A3	6" RECESSED DOWNLIGHT	RECESSED	LED	UNV	TBD	
A4	3" MONOPOINT PENDANT, ADJUSTABLE.	PENDANT	LED	UNV	TBD	
B	EXTRA LARGE PENDANT, TALL	PENDANT	LED	UNV	TBD	
C	LED TAPE LIGHT, FLAT CHANNEL	SURFACE	LED	UNV	TBD	
C1	LARGE PENDANT	PENDANT	LED	UNV	TBD	
C2	LARGE PENDANT	PENDANT	LED	UNV	TBD	
C3	MEDIUM PENDANT	PENDANT	LED	UNV	TBD	
C4	MEDIUM PENDANT	PENDANT	LED	UNV	TBD	
C5	MEDIUM PENDANT	PENDANT	LED	UNV	TBD	
C6	MEDIUM PENDANT	PENDANT	LED	UNV	TBD	
C7	SMALL PENDANT	PENDANT	LED	UNV	TBD	
C8	SMALL PENDANT	PENDANT	LED	UNV	TBD	
FAN	FAN. NO LIGHT KIT, LARGE	PENDANT	LED	UNV	TBD	
G	SEMI FLUSHMOUNT	SURFANCE CEILING	LED	UNV	TBD	
G1	SEMI FLUSHMOUNT	SURFANCE CEILING	LED	UNV	TBD	
G2	SEMI FLUSHMOUNT	SURFANCE CEILING	LED	UNV	TBD	
G3	SEMI FLUSHMOUNT	SURFANCE CEILING	LED	UNV	TBD	
G4	SEMI FLUSHMOUNT	SURFANCE CEILING	LED	UNV	TBD	
K1	ART LIGHT, ADJUSTABLE	SURFACE WALL	LED	UNV	TBD	
K2	SCONCE	SURFACE WALL	LED	UNV	TBD	
K3	SCONCE	SURFACE WALL	LED	UNV	TBD	
K4	SCONCE	SURFACE WALL	LED	UNV	TBD	
K5	SCONCE	SURFACE WALL	LED	UNV	TBD	
K6	SCONCE	SURFACE WALL	LED	UNV	TBD	
K7	SCONCE, TASK LIGHT	SURFACE WALL	LED	UNV	TBD	
K8	SCONCE	SURFACE WALL	LED	UNV	TBD	
K9	SCONCE	SURFACE WALL	LED	UNV	TBD	
M	2' X 2' RECESSED DIRECT INDIRECT TROFFER	RECESSED	LED	UNV	TBD	
A	7.5" SURFACE MOUNT DISK LIGHT. MATTE FINISH DIFFUSER, DIMMABLE DRIVER, COORDINTATE EXTERIOR FINISH WITH ARCHITECT.	SURFACE CEILING	LED 3000K 1500 LM	UNV	OXYGEN FLEET DISK LED OR APPROVED EQUAL	8
D	MEDIUM PENDANT	PENDANT	LED	UNV	TBD	
K	UNIT ENTRY SCONCE	SURFACE WALL	LED	UNV	TBD	
FAN1	EXTERIOR WET LOCATIONS LISTED 52" FAN. BLACK FINISH.	PENDANT	LED	UNV	OXYGEN ADORA OR APPROVED EQUAL	49
H1	LARGE SCONCE	SURFACE WALL	LED	UNV	TBD	
H2	MEDIUM SCONCE	SURFACE WALL	LED	UNV	TBD	
H3	SMALL SCONCE ON UNIT PATIOS	SURFACE WALL	LED	UNV	TBD	

NOTE 1: ALL ITEMS LISTED SHALL BE CONSIDERED THE BASIS OF DESIGN.

LIGHT FIXTURE SCHEDULE - UNITS

TYPE	DESCRIPTION	MOUNTING	SOURCE	VOLTS	MANUFACTURER	V-A
K	UNIT ENTRY SCONCE	SURFACE WALL	LED	UNV	TBD	
F1	CEILING FAN WITH LIGHT KIT	PENDANT	LED	UNV	TBD	
T	MULTI LIGHT ROUND DINING ROOM PENDANT. BLACK FINISH, INTEGRAL LED, DIMMABLE DRIVER.	PENDANT	LED 3000K	UNV	DAINOLITE WLS-2884LEDC-AGB NEO VL RING CROWN OR APPROVED EQUAL	84
T1	4" DISC LIGHT WITH WHITE TRIM RING	SURFACE CEILING	LED 3000K 400 LM	UNV	BARRON LIGHTING FJX COOPER HALO OR APPROVED EQUAL	6
T2	ISLAND PENDANT, CLEAR GLASS SHADE, INTEGRAL LED, DIMMABLE DRIVER.	PENDANT	LED 3000K 1000+ LM	UNV	BOCK LIGHTING CAMPANA SONNEMAN CHELSEA OR APPROVED EQUAL	10
T3	WET LOCATION LISTED SHOWER/TUB LIGHTS	SURFACE CEILING	LED	UNV	JUNO V2010 TRIM COOPER HALO OR APPROVED EQUAL	8
UM	BACKLIT MIRROR	SURFACE WALL	LED	UNV	TBD	

NOTE 1: ALL ITEMS LISTED SHALL BE CONSIDERED THE BASIS OF DESIGN.

LIGHT FIXTURE SCHEDULE - EXTERIOR/UTILITY

TYPE	DESCRIPTION	MOUNTING	SOURCE	VOLTS	MANUFACTURER	V-A
L1	LED PEDESTRIAN POLE. SQUARE WOOD FINISH POLE WITH 7" ROUND PEDANT FIXTURE. SINGLE ARM, 36" ARM LENGTH.	12' SQUARE POLE	LED 3000K 80+ CRI	UNV	STRUCTURA HAVEN PENDANT OR APPROVED EQUAL	60
L2	36" HEIGHT SQUARE LIGHTED BOLLARD. PROVIDE ILLUMINATED SIDES DEPENDING UPON LOCATION. WOOD FINISH, FLAT METAL TOP, MEDIUM OUTPUT.	BOLLARD	LED 3000K 80+ CRI	UNV	STRUCTURA SPAR SERIES OR APPROVED EQUAL	6
L3	LED STEP LIGHT. 3" X 5" FIXTURE, GRAPHITE FINISH, MOUNT FINISH WITHIN 2"X4" JUNCTION BOX.	RECESSED	LED 3000K 80+ CRI	120	WAC LIGHTING WL-LED100 OR APPROVED EQUAL	4
L4	3" IN GROUND LANDSCAPE LIGHT. BLACK FINISH, GLARE SHIELD , MEDIUM DISTRIBUTION.	IN GROUND	LED 3000K 80+ CRI	120	HYDREL PALM OR APPROVED EQUAL	18
L5	LED PATHWAY LIGHT. SURFACE MOUNTED AT EXTERIOR PATIO FLOOR. PROVIDE SURFACE MOUNT TRASNFORMER CANOPY. 24" HEIGHT, COORDINATE FINISH WITH ARCHITECT. PROVIDE WITH 12V TRANSFORMER.	SURFACE FLOOR	LED 3000K 80+ CRI	120	HEVI LITE HL-6500 OR APPROVED EQUAL	3
S1	LED SITE LIGHTING FIXTURE.16 LED SQUARES, 4 SQUARES, MEDIUM OUTPUT, TYPE T4W (TYPE IV WIDE), FULL CUTOFF WITH HOUSE SIDE SHIELD. BRONZE FINISH. PROVIDE WITH 25'-0" POLE.	ROUND STEEL POLE	LED 3500K 15,753 LUMENS 80+ CRI	UNV	COOPER GALLEON (FIXTURE) COOPER RSS (POLE)	213
S2 S2-HSS	LED SITE LIGHTING FIXTURE.16 LED SQUARES, 4 SQUARES, MEDIUM OUTPUT, TYPE T4FT (TYPE IV FORWARD THROW), BRONZE FINISH. PROVIDE WITH 25'-0" POLE. HSS: PROVIDE FIXTURE WITH HOUSE SIDE SHIELDING.	ROUND STEEL POLE	LED 3500K 15,681 LUMENS 80+ CRI	UNV	COOPER GALLEON (FIXTURE) COOPER RSS (POLE)	213
S4	LED SITE LIGHTING FIXTURE.16 LED SQUARES, 4 SQUARES, MEDIUM OUTPUT, TYPE SL3 (TYPE III WITH SPILL CONTROL), FULL CUTOFF WITH HOUSE SIDE SHIELD BRONZE FINISH. PROVIDE WITH 25'-0" POLE.	ROUND STEEL POLE	LED 3500K 18,014 LUMENS 80+ CRI	UNV	COOPER GALLEON (FIXTURE) COOPER RSS (POLE)	213
S5	LED SITE LIGHTING FIXTURE.16 LED SQUARES, 4 SQUARES, MEDIUM OUTPUT, TYPE SL3 (TYPE V SQUARE WIDE), BRONZE FINISH. PROVIDE WITH 25'-0" POLE.	ROUND STEEL POLE	LED 3500K 22,792 LUMENS 80+ CRI	UNV	COOPER GALLEON (FIXTURE) COOPER RSS (POLE)	213
S6	LED SITE LIGHTING FIXTURE.16 LED SQUARES, 4 SQUARES, MEDIUM OUTPUT, TYPE 5MQ (TYPE V SQUARE MEDIUM), BRONZE FINISH. PROVIDE WITH 25'-0" POLE.	ROUND STEEL POLE	LED 3500K 22,727 LUMENS 80+ CRI	UNV	COOPER GALLEON (FIXTURE) COOPER RSS (POLE)	213
S7	SQUARE UP/DOWN WALL SCONCE. MEDIUM BEAM UP, MEDIUM BEAM DOWN, COORDINATE FINISH WITH ARCHITECT. FROSTED LENS.	SURFACE WALL	LED 3000K 80+ CRI	UNV	LIGMAN LIGHTING JET 36 OR APPROVED EQUAL	66
S8	LED WALL PACK. TYPE V DISTRIBUTION, COORDINATE FINISH WITH ARCHITECT. PROVIDE WITH INTEGRAL EMERGENCY BATTERY.	SURFACE WALL	LED 3000K 80+ CRI	UNV	WILLIAMS WP1Z OR APPROVED EQUAL	5
X	EDGE LIT EXIT SIGN. RED LETTERS, SINGLE/DUAL FACE AND ARROWS PROVIDED AS INDICATED ON PLANS. PROVIDE MOUNTING KIT AS NEEDED BASED ON PLANS.	SURFACE	LED	120	SURE-LITES EU SERIES	5
E	DUAL HEAD EMERGENCY LIGHT. WHITE FINISH. INTEGRAL 90 MINUTE BATTERY.	SURFACE WALL	LED	UNV	SURE-LITES APEL	5
ST(STX)	4' LENGTH INDIRECT LINEAR STAIRWELL FIXTURE. PERFORATED LENS FOR PARTIAL DIRECT LIGHTING. STX PROVIDE WITH INTEGRAL EMEGENCY BATTERY	SURFACE WALL	LED 3000K 1100 LM 80+ CRI	UNV	HE WILLIAMS AIW OR APPROVED EQUAL	37
M1	COMMERCIAL GRADE LED STRIP. SQUARE LENS, PROVIDE WITH CHAIN KIT, FROSTED LENS, 4' LENGTH. PROVIDE CORROSIVE ENVIRONMENT RATING WHERE LOCATED IN POOL EQUIPMENT ROOMS.	SUSPENDED	LED 3000K 80+ CRI	UNV	HE WILLIAMS 75S SERIES	32

1 ADDENDUM 1 01/26/2026

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smith & boucher engineers
25618 west 103rd St olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 2522700

PERMIT SET

OLDHAM APARTMENT
1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

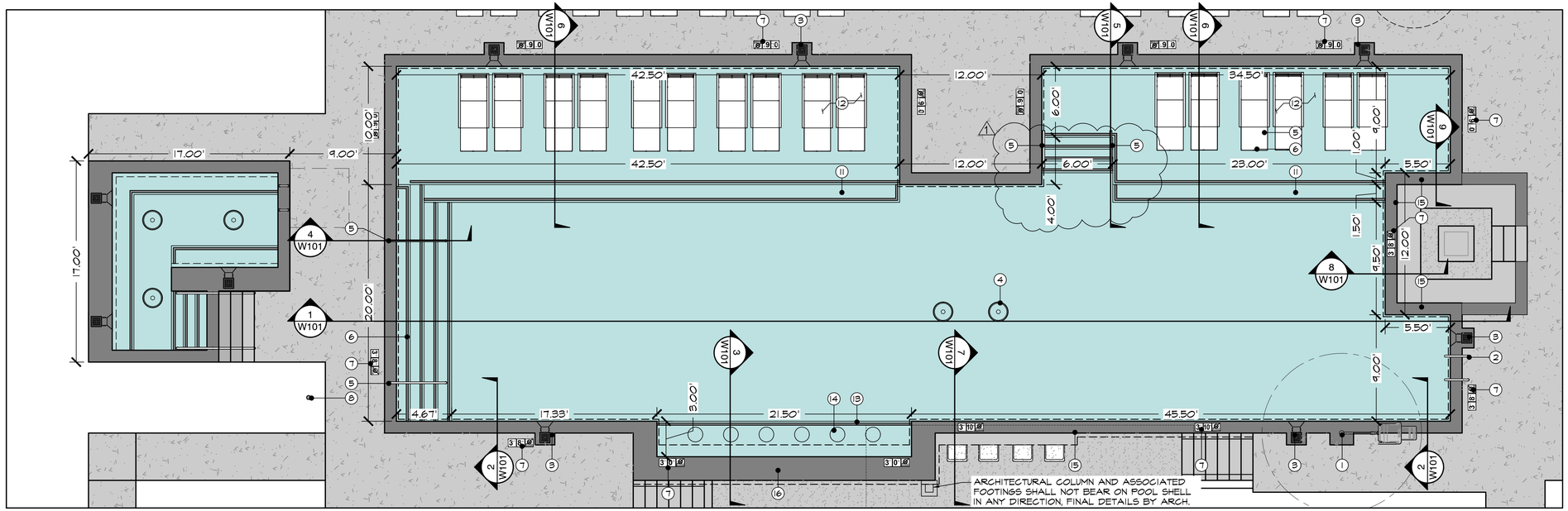
STATE OF MISSOURI
CHRISTOPHER EDWARD ALBRIGHT
NUMBER PE-2006033859
REGISTERED PROFESSIONAL ENGINEER
12/22/25
PROFESSIONAL SEAL

E-503

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

ELECTRICAL - SCHEDULES AND DETAILS

PROJECT NAME: OLDHAM APARTMENT
AUTOCAD FILE LOCATION \ NAME: C:\SB\Smith & Boucher Inc\SANDBOX\345 - Documents\25\2522700 Oldham Village\Drawings\08-2522700_E-503 - ELECTRICAL - SCHEDULES AND DETAILS.dwg
LAST CORRECTION BY ◆ DATE ◆ TIME: Acybulski Monday, January 26, 2026 2:32:48 PM
PLOTTED BY ◆ DATE ◆ TIME: Prasanta Patro Monday, January 26, 2026 3:09:06 PM



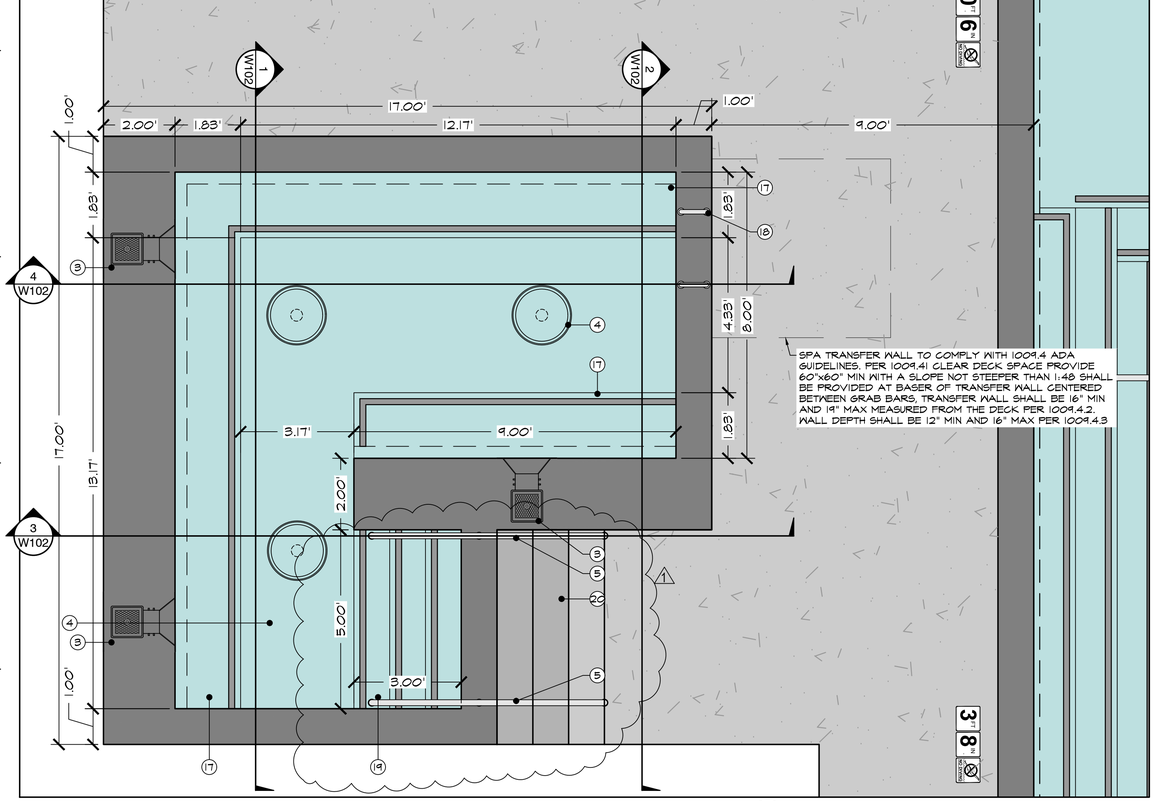
POOL LAYOUT PLAN

SCALE: 1"=5'-0"

0 5 10 15 feet

SCALE: 1" = 5'-0"

NORTH



SPA LAYOUT PLAN

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

0 2 4 6 feet

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

NORTH

POOL CONSTRUCTION NOTES

1. PROVIDE 4" PERFORATED UNDERDRAIN IN GRAVEL BED BELOW POOL SHELL. DRAIN AT MINIMUM 2% SLOPE TO CURB INLET LOCATED ALONG STREET TO THE NORTH.
2. CONTRACTOR SHALL HAVE SOILS BELOW POOL SHELL INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION. AREAS OF UNDOCUMENTED FILL MAY REQUIRE REMOVAL PRIOR TO PLACEMENT OF CONCRETE. SEE SHEET W101 FOR ADDITIONAL INFORMATION.
3. ANY METAL WITHIN 5' OF WATERS EDGE SHALL BE BONDED
4. POOL DECK SHALL SLOPE AWAY FROM SWIMMING POOL
5. POOL ENCLOSURE & GATE TO MEET LOCAL & NATIONAL STANDARDS
6. POOL SHELL SHALL BE WATERPROOFED WITH AN APPROVED WATERPROOFING SYSTEM. SUBMIT PRODUCT DATA TO THE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.
7. ARCHITECTURAL COLUMN AND ASSOCIATED FOOTINGS SHALL NOT BEAR ON POOL SHELL IN ANY DIRECTION. FINAL DETAILS BY ARCH.

NOTE: THIS IS NOT A DIVING POOL



DETAILS LEGEND

KEY	DETAIL	DESCRIPTION	SHEET
①	ADA POOL LIFT	ADA ACCESSIBLE POOL LIFT, SPECTRUM AQUATICS MOTION TREK 350, WATER DEPTH SHALL NOT EXCEED 48" AT LIFT LOCATION	12/W102 5/W105
②	POOL LADDER	BONDED S.R. SMITH POOL LADDER	4 W105
③	SKIMMER	HAYWARD 1082 POOL SKIMMER	10 W106
④	POOL MAIN DRAIN	SUPERFLO 360 PEBBLE TOP DRAIN	14 W106
⑤	POOL HANDRAIL	BONDED STAINLESS STEEL HANDRAIL AT POOL ENTRY STEPS	4,5/W103 6/W105
⑥	POOL STAIRS	14" DEPTH STAIR TREADS & 10" RISERS w/ 2" WIDE TILE OF CONTRASTING COLOR AT BOTH VERTICAL AND HORIZONTAL LEADING EDGE OF EA. STEP, TYP.	15/W102 4,5/W103
⑦	DEPTH / NO DIVING MARKERS	6"x6" NO DIVING MARKERS AND 6"x6" DEPTH MARKERS (TYP) NON-SKID TILE MARKERS ON TOP OF WALL AND INSIDE FACE OF POOL WALL w/ 4" HIGH BLOCK LETTERS AND NUMBER, EMBED FLUSH w/ POOL DECK	23 W105
⑧	EMERGENCY SHUTOFF	STI STOPPER STATION SERIES EMERGENCY SWIMMING POOL SHUTOFF AND SPA ACTIVATOR/TIMER MOUNTED AT 36" HEIGHT ON BLACK STEEL POST	3 W106
⑨	EMERGENCY PHONE	PROVIDE EMERGENCY TELEPHONE AT POOL ENCLOSURE. PROVIDE SIGNAGE WITH PROPERTY ADDRESS AND EMERGENCY SERVICES PHONE NUMBER. AT NEXT TO PHONE.	-
⑩	POOL SIGNAGE	PROVIDE SIGNAGE AFFIXED TO FENCE INDICATING POOL RULES, NO LIFEGUARD ON DUTY, AND NO DIVING	-
⑪	IN-POOL BENCH	SHOTCRETE POOL SHELL TO FORM IN-POOL BENCH w/ 2" WIDE TILE OF CONTRASTING COLOR AT BOTH VERTICAL AND HORIZONTAL LEADING EDGE OF BENCH, TYP.	6 W103
⑫	ENTRY REEF	6" DEEP ENTRY REEF w/ 2" WIDE TILE OF CONTRASTING COLOR AT BOTH VERTICAL AND HORIZONTAL LEADING EDGE OF REEF EDGE, TYP.	5,6,9 W103
⑬	POOL LEDGE	POOL LEDGE TO BE PROVIDE AT POOL SWIM-UP BAR. 2" WIDE TILE OF CONTRASTING COLOR AT BOTH VERTICAL AND HORIZONTAL LEADING EDGE OF LEDGE, TYP.	3 W103
⑭	BAR STOOLS	REINFORCED SHOTCRETE TO FORM BAR STOOLS AT SWIM-UP BAR (TYP. OF 6)	3 W103
⑮	EXPOSED POOL BOND BEAM TYPE #1	12" WIDE REINFORCED SHOTCRETE POOL WALL, STONE OVER EXPOSED WALL TO MATCH BUILDING	7-9 W103
⑯	EXPOSED POOL BOND BEAM TYPE #2	24" WIDE REINFORCED SHOTCRETE POOL WALL, STONE OVER EXPOSED WALL TO MATCH BUILDING	3 W103
⑰	SPA BENCH	CONTOURED SPA BENCH w/ SLOPED BACKREST	W104
⑱	TRANSFER RAIL	SR SMITH EB-12B DOUBLE GRAB BARS BY SR. SMITH OR APPROVED EQUAL (INSTALL TO MEET TRANSFER WALL CODES) AT NARROW SPA BOND BEAM WALL	4 W104
⑲	SPA STAIRS	12" DEPTH STAIR TREADS & 10" RISERS w/ 2" WIDE TILE OF CONTRASTING COLOR AT BOTH VERTICAL AND HORIZONTAL LEADING EDGE OF EA. STEP, TYP.	3 W104
⑳	STAIRS AT SPA	SITE STAIRS TO BE PROVIDE AT SPA, BY OTHERS	BY OTHERS

POOL FINISHES LEGEND

MATERIAL	DESCRIPTION
COPING	2" TH. STONE COPING, FINAL SELECTION TBD
WATERLINE TILE	6" CONTINUOUS BAND OF MOSAIC GLASS WATERLINE TILE
PLASTER	WHITE QUARTZITE PLASTER PLASTER
MARKER TILE	2"x2" NON-SKID TILE AT HORIZONTAL & VERTICAL LEADING EDGES OF ALL STEPS - CONTRASTING COLOR TO POOL PLASTER

NOTE: PROVIDE PHYSICAL SAMPLES OF ALL MATERIALS TO THE ARCHITECT FOR REVIEW PRIOR TO PROCUREMENT.

POOL SAFETY NOTES

1. PROVIDE SHEPHERD'S CROOK. SHEPHERD'S CROOK SHALL BE AFFIXED TO A MINIMUM 12' LONG NON-TELESCOPING POLE.
2. PROVIDE RING BUOY w/ MINIMUM 60' THROW LINE
3. EMERGENCY POOL SHUTOFF TO BE PROVIDED NEAR POOL
4. EMERGENCY SPA SHUTOFF TO BE PROVIDED NEAR SPA
5. PROVIDE LAND LINE EMERGENCY TELEPHONE WITHIN ENCLOSED POOL AREA ALONG WITH SIGN INDICATING THE LOCATION PER ISPSC 412.2
6. PROVIDE A FIRST AID KIT
7. ACCESS TO POOL ENCLOSURE SHALL BE LIMITED TO REGULAR POOL HOURS. THIS INCLUDES RESTRICTING ACCESS FROM DOORS WHICH OPEN TO POOL ENCLOSURE
8. POOL COVER (BY OTHERS) SHALL BE PROVIDED DURING OFF-SEASON. IF NO COVER IS PROVIDED SEASONAL FENCING SHALL BE PROVIDED AROUND SWIMMING POOL
9. SAFETY SIGNAGE ADVISING ON THE DANGER OF DIVING INTO SHALLOW AREAS AND ON THE PREVENTION OF DROWNING SHALL BE PROVIDED AS REQUIRED BY THE AUTHORITY THAT GOVERNS SUCH POOLS PER ISPSC 412.1
10. SIGNS SHALL BE POSITIONED FOR EFFECTIVE VISUAL OBSERVATION BY USERS AS REQUIRED BY THE AUTHORITY THAT GOVERNS SUCH POOL PER 412.3
11. OCCUPANT LOAD/MAXIMUM OCCUPANCY SIGN TO BE POSTED IN POOL AREA NEAR MAIN ENTRY/EXIT GATE
12. ADDITIONAL SIGN TO BE POSTED IN A CONSPICUOUS PLACE WITH ADDRESS TO PROVIDE IN CASE OF EMERGENCY
13. SANITARY SIGNAGE TO BE PROVIDED:
    - ALL PERSONS USING THE SWIMMING POOL SHALL TAKE A CLEANSING SHOWER BATH BEFORE ENTERING THE SWIMMING POOL. A BATHER LEAVING THE POOL TO USE THE TOILET SHALL TAKE A SECOND CLEANSING BATH BEFORE RETURNING TO THE SWIMMING POOL ROOM.
    - ANY PERSON HAVING AN INFECTIOUS OR COMMUNICABLE DISEASE SHALL BE EXCLUDED FROM A PUBLIC SWIMMING POOL, SEMI-PUBLIC SWIMMING POOL, SPA POOL, AND PUBLIC BATHING PLACE. PERSONS HAVING ANY CONSIDERABLE AREA OF EXPOSED SUB-EPIDERMAL TISSUE, OPEN BLISTERS, CUTS, ETC., SHALL BE WARNED THAT THESE ARE LIKELY TO BECOME INFECTED AND ADVISED NOT TO USE THE POOL.
    - NO RUNNING, BOISTEROUS OR ROUGH PLAY, EXCEPT SUPERVISED WATER SPORTS, SHALL BE PERMITTED IN THE POOL, ON THE DECKS, DIVING BOARDS, FLOATS, PLATFORMS, OR IN DRESSING ROOMS, SHOWER ROOMS, ETC.
14. SPA SIGNAGE TO BE PROVIDED:
    - NO PERSON SUFFERING FROM A COMMUNICABLE DISEASE TRANSMISSIBLE VIA WATER SHALL USE THE SPA POOL.
    - ALL CHILDREN UNDER FOURTEEN (14) YEARS OF AGE SHALL BE ACCOMPANIED BY A RESPONSIBLE ADULT OBSERVER.
15. NO LIFEGUARD SIGNAGE TO BE PROVIDED WITH TEXT 4" IN HEIGHT AND 1.5" WIDE IN ALL CAPITALS:
    - "WARNING - NO LIFEGUARD ON DUTY."
    - "CHILDREN SHOULD NOT USE POOL WITHOUT AN ADULT IN ATTENDANCE."

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1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM 1	1/26/2026

STATE OF MISSOURI
KURT L KRAISINGER
NUMBER 2003016227
LANDSCAPE ARCHITECT
1.26.2026

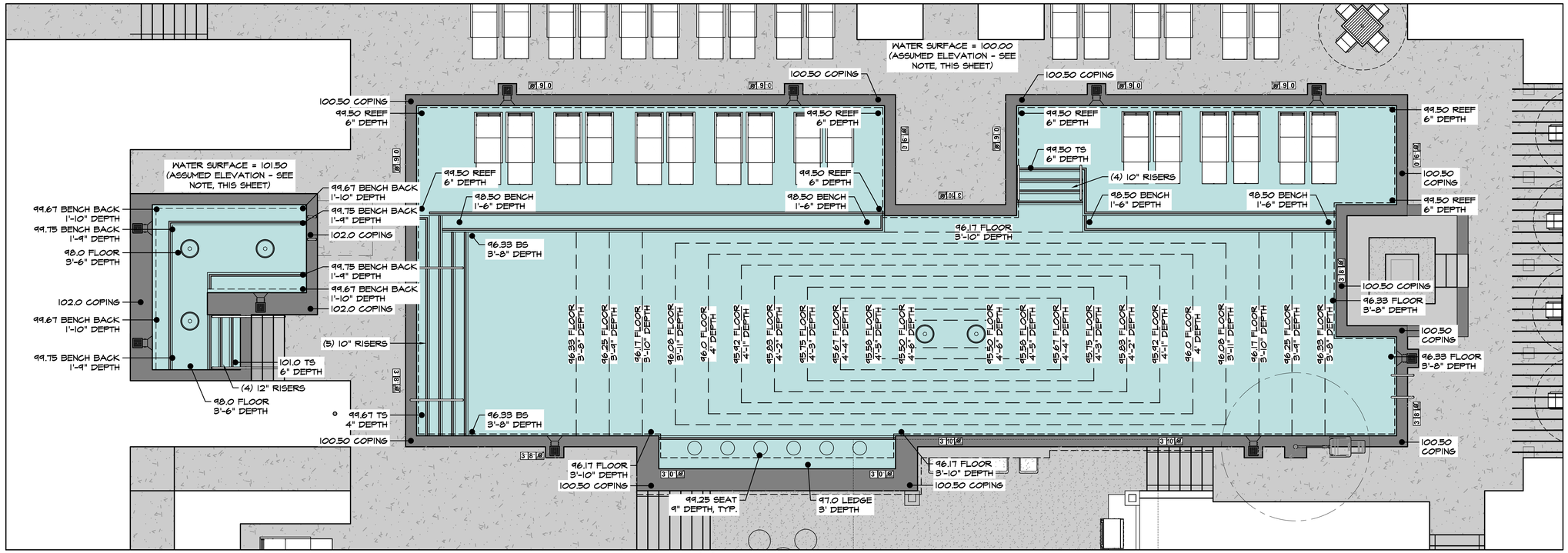
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W001

ISSUE DATE: DECEMBER 22, 2025

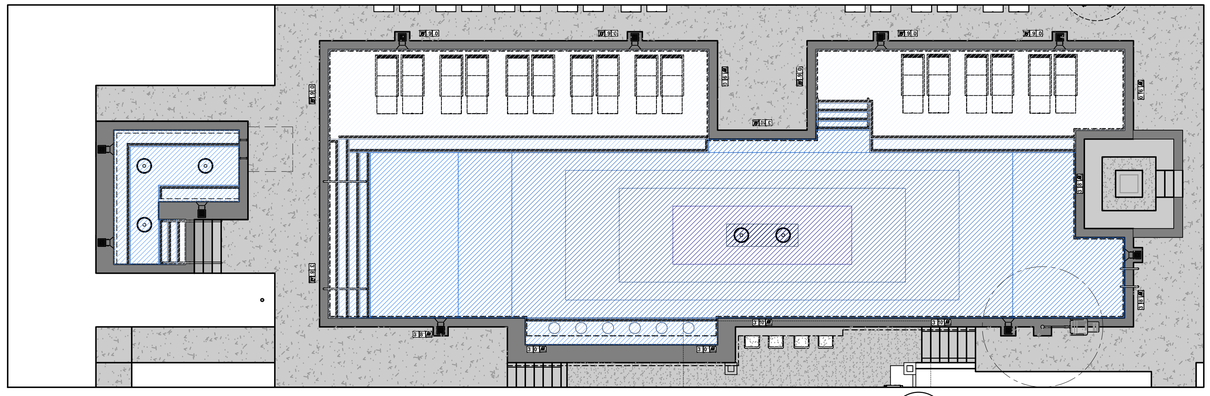
HOEFER WELKER #: 1259011

POOL LAYOUT PLAN



POOL DEPTH PLAN
SCALE: 1"=5'-0"

0 5 10 15 feet
SCALE: 1" = 5'-0"
NORTH



ILLUSTRATIVE WATER DEPTH PLAN
SCALE: 1/8"=1'-0"

0 8 16 24 feet
SCALE: 1/8" = 1'-0"
NORTH

POOL WATER DEPTH

- 0' - 6" WATER DEPTH
- 6" - 1'-6" WATER DEPTH
- 1'-6" - 2'-6" WATER DEPTH
- 2'-6" - 3'-6" WATER DEPTH
- 3'-6" - 3'-8" WATER DEPTH
- 3'-8" - 3'-10" WATER DEPTH
- 3'-10" - 4' WATER DEPTH
- 4' - 4'-2" WATER DEPTH
- 4'-2" - 4'-4" WATER DEPTH
- 4'-4" - 4'-6" WATER DEPTH
- 4'-6"+ WATER DEPTH

POOL CONSTRUCTION NOTES

1. ALL ELEVATIONS SHOWN ON THIS SHEET ARE BASED ON AN ASSUMED WATER ELEVATION OF 100.00. SPOT ELEVATIONS DO NOT CORRELATE TO A SURVEY OR ANY BENCHMARK. SEE SHEET L101 FOR FULL POOL DECK GRADES. POOL CONTRACTOR TO CORRELATE POOL GRADES SHOWN ON THIS SHEET TO TRUE POOL DECK GRADES ON L101.
2. POOL SHELL SHALL BE WATERPROOFED WITH AN APPROVED WATERPROOFING SYSTEM. SUBMIT PRODUCT DATA TO THE ARCHITECT FOR APPROVAL PRIOR TO CONSTRUCTION.

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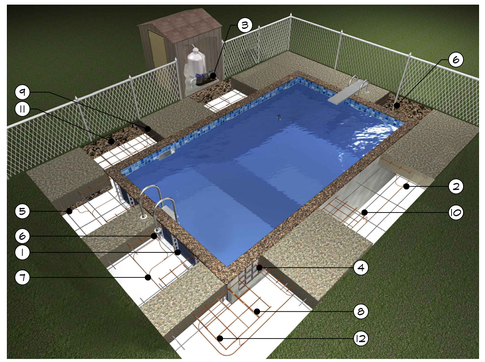
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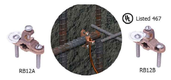
REVISION DATES:
1 ADDENDUM 1 1/26/2026

STATE OF MISSOURI
KURT L KRAUSINGER
NUMBER 2003016227
LANDSCAPE ARCHITECT
1·26·2026
PROFESSIONAL SEAL

W002
ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

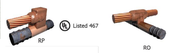
POOL DEPTH PLAN



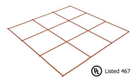














1 ONE-HOLE TINNED COPPER LAY-IN LUG

PART #	CONDUCTOR RANGE (AWG)	BOLT HOLE SIZE
TCLI4I4DB	4 - 14	#10

- SUITABLE FOR DIRECT BURIAL.



2 COPPER SPLIT BOLT

PART #	RANGE FOR EQUAL MAIN (AWG)	MINIMUM TAP
GESB6	4 Sol. - 8 Sol.	16 Sol.

- SUITABLE FOR DIRECT BURIAL.



3 COPPER OFFSET TERMINAL LUG

PART #	CONDUCTOR RANGE (AWG)	BOLT HOLE SIZE
GEOL2	14 Str. - 6 Str.	#8

- SUITABLE FOR DIRECT BURIAL.

4 & 5 REBAR & WATER PIPE GROUND CLAMPS

PART #	PIPE & REBAR RANGE	CONDUCTOR RANGE (AWG)
RBI2A	⅜" - 1"	10 Sol. - 2 Str.
RBI2B	⅜" - 1"	10 Sol. - 2 Str.

- SUITABLE FOR DIRECT BURIAL.

6 CPC PIPE CLAMPS

PART #	MATERIAL	NOM. PIPE SIZE RANGE	PIPE OUTSIDE DIAMETER
CPC1.5/2	TINNED BRONZE	1.5" - 2"	1" - 2.4"
CPC2.5/3	TINNED BRONZE	2.5" - 3"	2.25" - 3.5"

- SUITABLE FOR DIRECT BURIAL.
- CONDUCTOR RANGE #6 - 250 MCM.
- OTHER SIZES AVAILABLE.

7 & 8 CABLE TO CABLE ULTRAWELD EXOTHERMIC CONNECTION MOLDS

PART #	WELD METAL		REQUIRED HANDLE
	ULTRASHOT	NUMTUBE	
PTBS6SB	US25	NUMTUBE25	MHI
PSBS6SL	US25	NUMTUBE25	MH3 (INCLUDED)
PSBS6SL	US25	NUMTUBE25	MH3 (INCLUDED)

9 & 10 CABLE TO REBAR ULTRAWELD EXOTHERMIC CONNECTION MOLDS

PART #	WELD METAL		REQUIRED HANDLE	PACKING MATL #
	ULTRASHOT	NUMTUBE		
RPSBSB	US25	NUMTUBE25	MHI	WRPSLV
RP4LBSA	US25	NUMTUBE25	INCLUDED	CERPMI
RO8BSB	US65	NUMTUBE65	MHI	WRPSLV
RO4BSB	US65	NUMTUBE65	MHI	WRPSLV
RO6BSB	US65	NUMTUBE65	MHI	WRPSLV

11 REBAR GROUNDING ASSEMBLY

PART #	REBAR SIZE	CONDUCTOR TYPE (AWG)	CONDUCTOR LENGTH (FT)
RBS6A96X5	3	6 Sol.	5

- PREFABRICATED REBAR GROUNDING ASSEMBLY WITH EXOTHERMICALLY WELDED CONNECTION.
- STANDARD 24" LONG REBAR.
- CAN BE WIRE TIED OR WELDED CAGE PRIOR TO CONCRETE POUR

12 UL LISTED PREFABRICATED #8 SOLID COPPER GROUND MESH

PART #	WIDTH (FT)	LENGTH (FT)	CONDUCTOR SPACING (IN)	APPROX. WT. (LBS)
GMB508I2	3	50	12	32
GMB758I2	3	75	12	42
GMB1008I2	3	100	12	51

- OTHER MESH SIZES AND WIRE GAUGES AVAILABLE

TYPICAL POOL GROUNDING & BONDING VIGNETTE

BONDING LOOP GENERAL NOTES

EQUIPMENT BONDING NOTES

1. ALL METALLIC ITEMS TO BE BONDED AT PUMP ROOM PER NEC 680.26.

2. BOND ALL ITEMS AS NOTED ON THIS POOL BONDING LOOP PLAN, TO INCLUDE LADDERS, STANCHION ANCHORS, FLOATABLE ANCHORS, RAILING, PUMPS, DECK JUNCTION BOXES AND ALL OTHER METALLIC WITHIN 5'-0" OF THE POOL.

3. REINFORCEMENT STEEL AROUND POOL TO BE BONDED TO AT EACH POURED SECTION OR EVERY 20 FEET (WHICHEVER IS LESS). USE ONLY LUGS LISTED AND LABELED FOR BONDING REBAR TO A COPPER CONDUCTOR. LUGS SHOULD ALSO BE RATED FOR DIRECT BURIAL, AS LUGS WILL BE ENCLOSED WITHIN CONCRETE AFTER INSTALLED.

4. ALL METAL FITTINGS WITHIN OR ATTACHED TO THE POOL SURFACE TO BE BONDED

5. ALL FENCE POST AND GATES WITHIN 5 FEET FROM POOL SURFACE TO BE BONDED.

6. ALL PUMP MOTORS AT THE POOL TO BE BONDED TO THE BONDING LOOP UNLESS DOUBLE INSULATED. THIS INCLUDES WATER CIRCULATING, CHEMICAL FEED AND HEATER PUMPS.

7. ALL METAL RACEWAYS, PIPES, FIXED PARTS (AWNING, DOOR FRAMES, WINDOW FRAMES), AND CABLES WITHIN 5 FEET FROM THE POOL SURFACE TO BE BONDED.

8. ALL METALLIC CANOPIES, STAND, TOWERS OR OBSERVATION STANDS WITHIN 12' ABOVE THE MAXIMUM WATER LEVEL OF THE POOL AND LOCATED IN THIS AREA TO BE BONDED. BOND EACH SUPPORT LOCATED IN POOL DECK.

9. ITEMS WITH MULTIPLE ANCHOR SOCKETS, LEGS, ETC TO BE BONDED AT EACH LOCATION IN THE POOL DECK.

10. ALL PIPING TO AND FROM THE PUBLIC BATHING PLACE, INCLUDING INLET AND OUTLET PIPES SHALL BE METALLICALLY BONDED TOGETHER AND ADEQUATELY CONNECTED TO THE SAME GROUNDING ELECTRODE USED TO GROUND THE NEUTRAL CONDUCTOR OF THE ELECTRICAL SYSTEM. METAL FENCES SHALL BE GROUNDED AT BOTH SIDES OF THE ENTRANCE GATE.

11. ALL ELECTRICAL DEVICES SUCH AS PORTABLE ANNOUNCING SYSTEMS, RADIOS, AND SOFT DRINK DISPENSERS THAT MIGHT BE USED AROUND THE POOL AND IMMEDIATE ENVIRONMENT SHALL BE PROHIBITED WITHIN REACH OF BATHERS. FURTHER SPECIAL GROUNDING OF SUCH FIXTURES MUST BE PROVIDED.

12. BONDING LOOP CONDUCTOR AROUND POOL SHALL BE A SOLID COPPER CONDUCTOR AWG, NOT SMALLER THAN A #6 AWG.

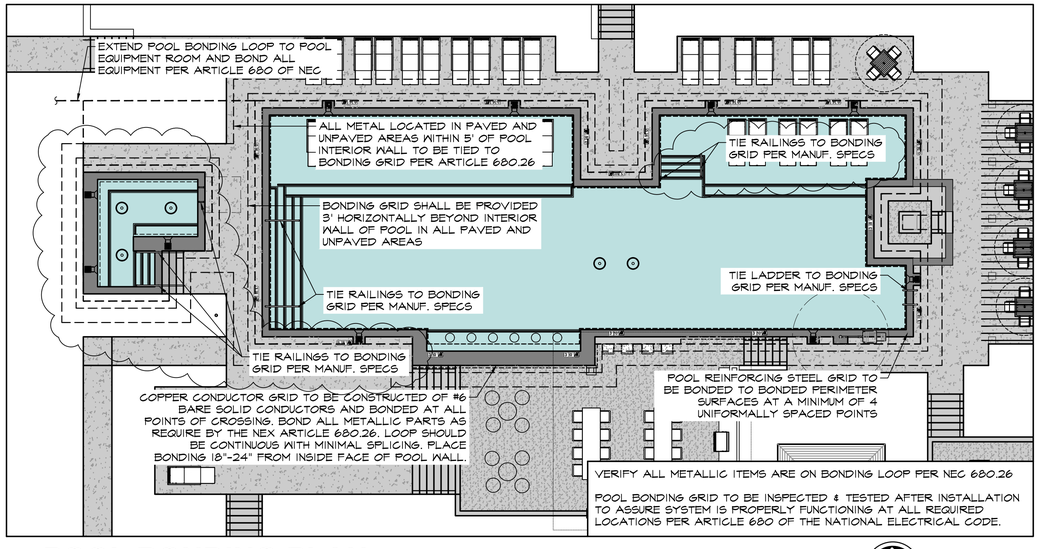
13. BONDING LOOP AROUND POOL TO BE AS CONTINUOUS AS POSSIBLE WITH A MINIMUM NUMBER OF SPLICES

14. CONNECTIONS FROM POOL BONDING LOOP CONDUCTOR TO OTHER BONDED ITEMS CAN BE MADE WITH A MINIMUM #8 AWG SOLID COPPER

15. ALL BONDING CONNECTIONS TO BE MADE WITH DEVICES LISTED AND LABELED FOR THIS ENVIRONMENT. BONDING CONNECTORS SHALL BE BRASS, COPPER, COPPER ALLOY, OR STAINLESS STEEL.

16. EXOTHERMIC WELDING IS A PERMITTED METHOD FOR BONDING THE COPPER BONDING LOOP TO THE REINFORCEMENT STEEL.

17. ALL CONNECTIONS BETWEEN BONDED ITEMS AND POOL BONDING LOOP TO BE UNDER 2 OHMS RESISTANCE.



POOL BONDING PLAN

SCALE: 1" = 10'-0"

0 10 20 30 feet

SCALE: 1" = 10'-0"

NORTH

POOL GROUNDING & BONDING TECHNICAL NOTES

TECHNICAL NOTES:
*680.26 EQUIPOTENTIAL BONDING * (SUMMARIZED)
(A) PERFORMANCE. THE EQUIPOTENTIAL BONDING REQUIRED BY THIS SECTION SHALL BE INSTALLED TO REDUCE VOLTAGE GRADIENTS IN THE POOL AREA.

(B) BONDED PARTS. THE PARTS SPECIFIED IN 680.26(B)(1) THROUGH (B)(7) SHALL BE BONDED TOGETHER USING SOLID COPPER CONDUCTORS, INSULATED COVERED, OR BARE, NOT SMALLER THAN 8 AWG OR WITH RIGID METAL CONDUIT OF BRASS OR OTHER IDENTIFIED CORROSION-RESISTANT METAL. CONNECTIONS TO BONDED PARTS SHALL BE MADE IN ACCORDANCE WITH 250.8**. AN 8 AWG OR LARGER SOLID COPPER BONDING CONDUCTOR PROVIDED TO REDUCE VOLTAGE GRADIENTS IN THE POOL AREA SHALL NOT BE REQUIRED OR ATTACHED TO REMOTE PANELBOARDS, SERVICE EQUIPMENT, OR ELECTRODES

(1) CONDUCTIVE POOL SHELLS. BONDING TO CONDUCTIVE POOL SHELLS SHALL BE PROVIDED AS SPECIFIED IN 680.26(B)(1)(a) OR (B)(1)(b). POURED CONCRETE, PNEUMATICALLY APPLIED OR SPRAYED CONCRETE, AND CONCRETE BLOCK WITH PAINTED PLASTERED COATINGS SHALL ALL BE CONSIDERED CONDUCTIVE MATERIALS DUE TO WATER PERMEABILITY AND POROSITY. VINYL LINERS AND FIBERGLASS COMPOSITE SHELLS SHALL BE CONSIDERED TO BE NONCONDUCTIVE MATERIALS.
(a) STRUCTURAL REINFORCING STEEL. UNENCAPSULATED STRUCTURAL REINFORCING STEEL SHALL BE BONDED TOGETHER BY STEEL TIE WIRES OR THE EQUIVALENT. WHERE STRUCTURAL REINFORCING STEEL IS ENCAPSULATED IN A NONCONDUCTIVE COMPOUND, A COPPER CONDUCTOR GRID SHALL BE INSTALLED IN ACCORDANCE WITH 680.26(B)(1)(b).
(b) COPPER CONDUCTOR GRID. A COPPER CONDUCTOR GRID SHALL BE PROVIDED AND SHALL COMPLY WITH (b)(1) THROUGH (b)(4).
(1) BE CONSTRUCTED OF MINIMUM 8 AWG BARE SOLID COPPER CONDUCTORS BONDED TO EACH OTHER AT ALL POINTS OF CROSSING. THE BONDING SHALL BE IN ACCORDANCE WITH 250.8 OR APPROVED MEANS.
(2) CONFORM TO THE CONTOUR OF THE POOL.
(3) BE ARRANGE DIN A 300mm (12in) BY 300mm (12in) NETWORK OF CONDUCTORS IN A UNIFORMLY SPACED PERPENDICULAR GRID PATTERN WITH A TOLERANCE OF 100mm (4in)
(4) BE SECURED WITHIN OR UNDER THE POOL NO MORE THAN 150mm (6in) FROM THE OUTER CONTOUR OF THE POOL SHELL.

(2) PERIMETER SURFACES. THE PERIMETER SURFACE SHALL EXTEND FOR 1m (3ft) HORIZONTALLY BEYOND THE INSIDE WALLS OF THE POOL AND SHALL INCLUDE UNPAVED SURFACES AS WELL AS POURED CONCRETE SURFACES AND OTHER TYPES OF PAVING. PERIMETER SURFACES LESS THAN 1m (3ft) SEPARATED BY A PERMANENT WALL OR BUILDING 1.5m (5ft) IN HEIGHT OR MORE SHALL REQUIRE EQUIPOTENTIAL BONDING ON THE ROLL SIDE OF THE PERMANENT WALL OR BUILDING. BONDING TO PERIMETER SURFACES SHALL BE PROVIDED AS SPECIFIED IN 680.26(B)(2)(a) OR (2)(b) AND SHALL BE ATTACHED TO THE POOL REINFORCING STEEL OR COPPER CONDUCTOR GRID AT A MINIMUM OF FOUR (4) POINTS UNIFORMLY SPACED AROUND THE PERIMETER OF THE POOL. FOR NONCONDUCTIVE POOL SHELLS, BONDING AT FOUR POINTS SHALL NOT BE REQUIRED.
(a) STRUCTURAL REINFORCING STEEL. STRUCTURAL REINFORCING STEEL SHALL BE BONDED IN ACCORDANCE WITH 680.26(B)(1)(a).
(b) ALTERNATE MEANS. WHERE STRUCTURAL REINFORCING STEEL IS NOT AVAILABLE OR IS ENCAPSULATED IN A NONCONDUCTIVE COMPOUND, A COPPER CONDUCTOR(S) SHALL BE UTILIZED WHERE THE FOLLOWING REQUIREMENTS ARE MET:
(1) AT LEAST ONE MINIMUM 8 AWG BARE SOLID COPPER CONDUCTOR SHALL BE PROVIDED
(2) THE CONDUCTORS SHALL FOLLOW THE CONTOUR OF THE PERIMETER SURFACE
(3) ONLY LISTED SPLICES SHALL BE PERMITTED
(4) THE REQUIRED CONDUCTOR SHALL BE 450mm TO 600mm (18in TO 24") FORM THE INSIDE WALLS OF THE POOL.

(3) METALLIC COMPONENTS. ALL METALLIC PARTS OF THE POOL STRUCTURE, INCLUDING REINFORCING METAL NOT ADDRESSED IN 680.26(B)(1)(a), SHALL BE BONDED. WHERE REINFORCING STEEL IS ENCAPSULATED WITH A NONCONDUCTIVE COMPOUND, THE REINFORCING STEEL SHALL NOT BE REQUIRED TO BE BONDED.

(4) UNDERWATER LIGHTING.

(5) METAL FITTINGS.

(6) ELECTRICAL EQUIPMENT.

(7) FIXED METAL PARTS. ALL FIXED METAL PARTS SHALL BE BONDED INCLUDING, BUT NOT LIMITED TO, METAL-SHEATHED CABLES AND RACEWAYS, METAL PIPING, METAL AWNINGS, METAL FENCES, AND METAL DOOR AND WINDOW FRAMES.

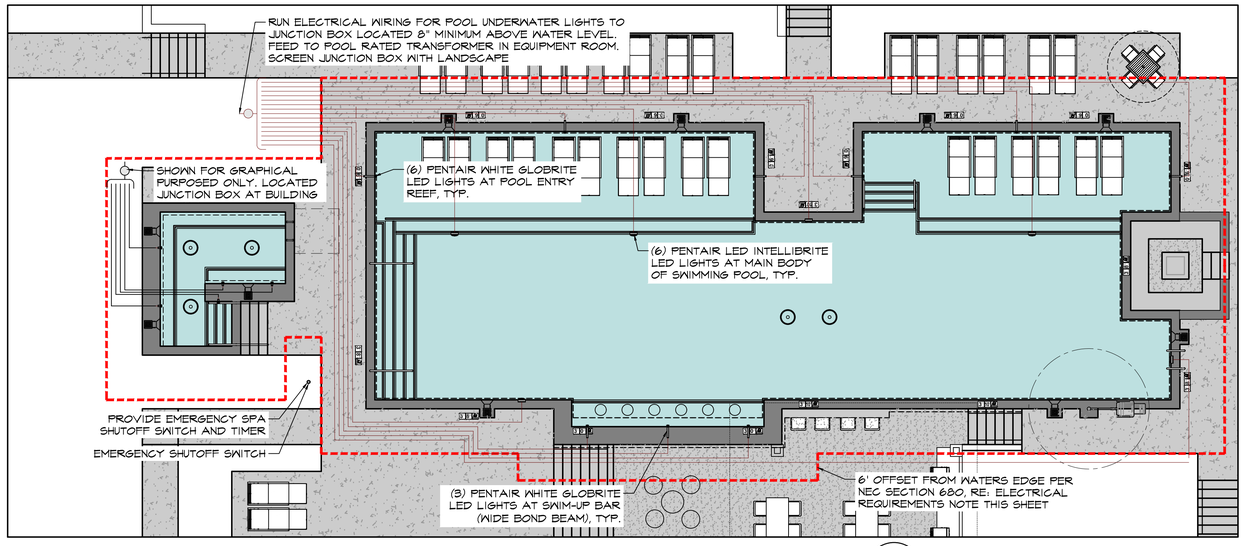
EXCEPTION NO 1: THOSE SEPARATED FROM THE POOL BY PERMANENT BARRIER THAT PREVENTS CONTACT BY A PERSON SHALL NOT BE REQUIRED TO BE BONDED.
EXCEPTION NO 2: THOSE GREATER THAN 1.5m (5ft) HORIZONTALLY FROM THE INSIDE WALLS OF THE POOL SHALL NOT BE REQUIRED TO BE BONDED.
EXCEPTION NO 3: THOSE GREATER THAN 3.7m (12ft) MEASURED VERTICALLY ABOVE THE MAXIMUM WATER LEVEL OF THE POOL, OR AS MEASURED VERTICALLY ABOVE ANY OBSERVATION STANDS, TOWERS, OR PLATFORMS, OR ANY DIVING STRUCTURES, SHALL NO BE REQUIRED TO BONDED.

(C) POOL WATER. WHERE NONE OF THE BONDED PARTS IS IN DIRECT CONNECTION WITH THE POOL WATER, THE POOL WATER SHALL BE IN DIRECT CONTACT WITH AN APPROVED CORROSION-RESISTANT CONDUCTIVE SURFACE THAT EXPOSES NOT LESS THAN 5800mm SQ (9in SQ) OF SURFACE AREA TO THE POOL WATER AT ALL TIMES. THE CONDUCTIVE SURFACE SHALL BE LOCATED WHERE IT IS NOT EXPOSED TO PHYSICAL DAMAGE OR DISLODGEMENT DURING USUAL POOL ACTIVITIES, AND IT SHALL BE BONDED IN ACCORDANCE WITH 680.26(B).

250.8 CONNECTION OF GROUNDING AND BONDING EQUIPMENT**
(A) PERMITTED METHODS. EQUIPMENT GROUNDING CONDUCTORS, GROUNDING ELECTRODES CONDUCTORS, AND BONDING JUMPERS SHALL BE CONNECTED BY ONE OR MORE OF THE FOLLOWING MEANS:
(1) LISTED PRESSURE CONNECTORS
(2) TERMINAL BARS
(3) PRESSURE CONNECTORS LISTED AS GROUNDING AND BONDING EQUIPMENT
(4) EXOTHERMIC WELDING PROCESS
(5) MACHINE SCREW-TYPE FASTENERS THAT ENGAGE NOT LESS THAN TWO THREADS OR ARE SECURED WITH A NUT
(6) THREAD-FORMING MACHINE SCREWS THAT ENGAGE NOT LESS THAN TWO THREADS IN THE ENCLOSURE
(7) CONNECTIONS THAT ARE PART OF A LISTED ASSEMBLY
(8) OTHER LISTED MEANS

(B) METHODS NOT PERMITTED. CONNECTION DEVICES OR FITTINGS THAT DEPEND SOLELY ON SOLDER SHALL NOT BE USED

*NEC 2017 EQUIPOTENTIAL BONDING ARTICLE 680.26
**NEC 2017 CONNECTION OF GROUNDING AND BONDING EQUIPMENT ARTICLE 250.8



POOL ELECTRICAL PLAN

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

0 8 16 24 feet

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

NORTH

ELECTRICAL REQUIREMENTS

6' OFFSET FROM WATERS EDGE PER NEC SECTION 680:
SECTION 680.90 - OVERHEAD CONDUCTOR CLEARANCES. REQUIRES THAT CONDUCTORS/CABLES BE INSTALLED BETWEEN 22.5'-27' ABOVE WATER LEVEL OF POOL (DEPENDING ON VOLTAGE AND CABLE TYPE). THIS WOULD PRESUMABLY APPLY TO FESTOON LIGHTING, AS OPPOSED TO THE BELOW REFERENCED 12' RULE FOR OVERHEAD LIGHTING.
SECTION 680.22 - OUTLET LOCATIONS. NO ELECTRICAL OUTLETS LOCATED CLOSER THAN 6' FROM INSIDE OF POOL WALL. ALL OUTLETS LOCATED BETWEEN 6'-20' FROM INSIDE OF POOL WALL SHALL BE GFCI PROTECTED. AT LEAST ONE OUTLET IS REQUIRED TO BE PROVIDED WITHIN THIS DISTANCE RANGE FROM THE POOL.
SECTION 680.22(B)(1) - ANY LUMINAIRE INSTALLED ABOVE THE POOL OR WITHIN 5' OF THE INSIDE WALL OF THE POOL SHALL BE INSTALLED AT A HEIGHT OF 12' ABOVE THE POOL WATER LEVEL.
SECTION 680.22(B)(6) - LISTED LOW-VOLTAGE LUMINAIRES ARE PERMITTED CLOSER THAN 5' FROM THE INSIDE WALLS OF THE POOL PROVIDED THEY ARE SUPPLIED BY A LISTED TRANSFORMER OR POWER SUPPLY THAT IS SWIMMING POOL AND SPA RATED.
SECTION 680.22(B)(4) - LINE VOLTAGE LUMINAIRES OR LIGHTING OUTLETS INSTALLED BETWEEN 5'-10' FROM THE INSIDE WALLS OF THE POOL MUST BE GFCI PROTECTED
SECTION 680.26(B)(1) - ALL FIXED METAL PARTS WITHIN 5' HORIZONTALLY AND 12' VERTICALLY OF POOLS MUST BE BONDED.
SECTION 680.26(B)(2) - ALL PERIMETER SURFACES WITHIN 3' SURROUNDING POOL (PAVED AND UNPAVED) SHALL BE BONDED

ELECTRICAL NOTES

1. ELECTRICAL LAYOUT ON THIS SHEET IS A DIAGRAMMATIC EXHIBIT, FIELD ADJUST AS NECESSARY TO AVOID OBSTACLES

LIGHTING REQUIREMENTS

8 LUMENS PER SF OF POOL WATER SURFACE AREA REQUIRED

SWIMMING POOL : 2,549 SF WATER SURFACE AREA
- LUMENS REQUIRED : 20,392 LUMENS
- LUMENS PROVIDED : 21,200 LUMENS

(6) PENTAIR INTELLIBRITE COLOR CHANGING LED LIGHTS @ 2,600 LUMENS EA.
(8) PENTAIR GLOBRITE COLOR CHANGING LED LIGHTS @ 700 LUMENS EA.

SPA : 162 SF WATER SURFACE AREA
- LUMENS REQUIRED : 1,296 LUMENS
- LUMENS PROVIDED : 2,100 LUMENS

(5) PENTAIR MICROBRITE COLOR CHANGING LED LIGHTS @ 500 LUMENS EA.

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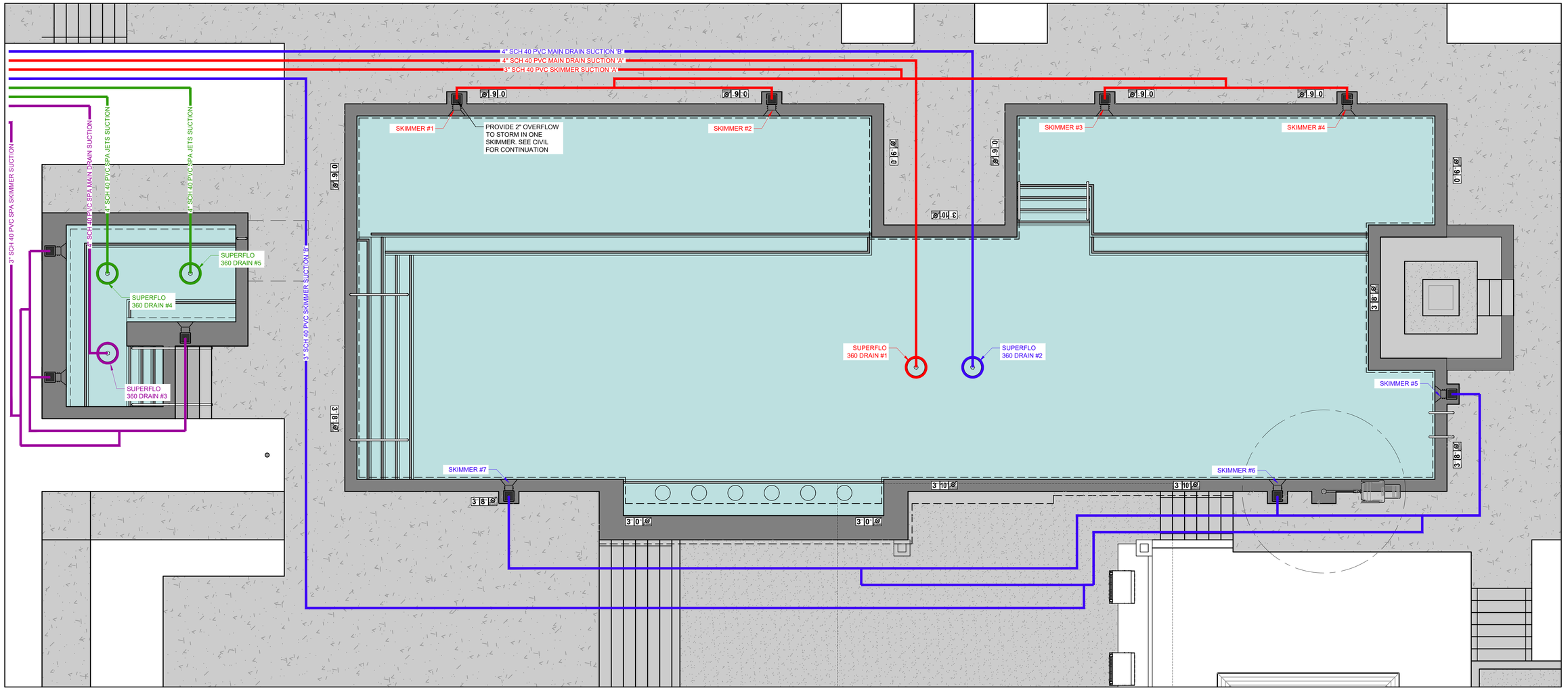
1	ADDENDUM 1	1/26/2026

STATE OF MISSOURI
KURT L. KRAISINGER
NUMBER 2003016227
LANDSCAPE ARCHITECT
1.26.2026
PROFESSIONAL SEAL

W003

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

POOL ELECTRICAL PLAN



POOL SUCTION PLUMBING PLAN

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

NORTH

LEGEND

- POOL FILTRATION SUCTION 'A'
- POOL FILTRATION SUCTION 'B'
- SPA FILTRATION SUCTION
- SPA JETS SUCTION

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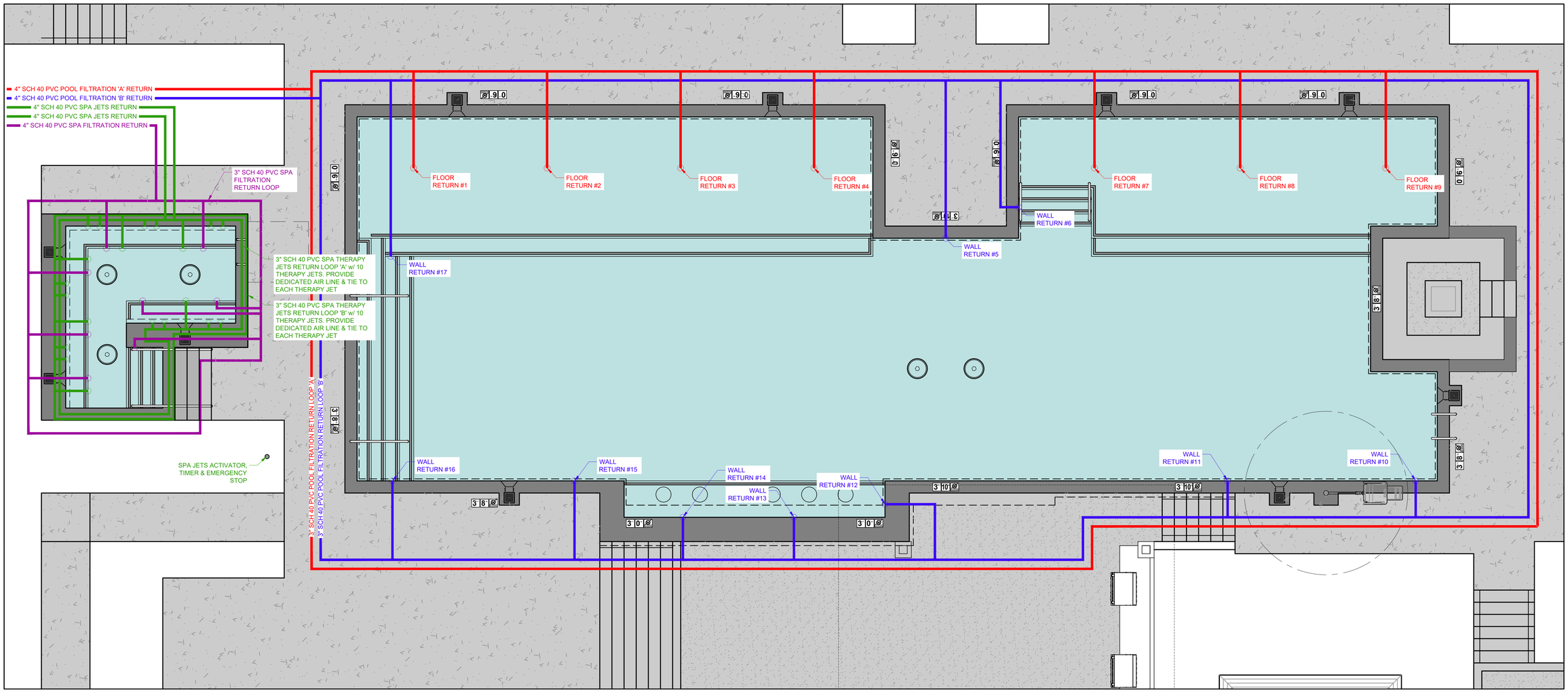
PROFESSIONAL SEAL

W004

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

POOL SUCTION PLUMBING PLAN



POOL RETURN PLUMBING PLAN

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

NORTH

LEGEND

- POOL FILTRATION RETURN 'A'
- POOL FILTRATION RETURN 'B'
- SPA FILTRATION RETURN
- SPA JETS RETURN

SPA THERAPY JETS

PROVIDE DEDICATED SPA JETS BLOWER AIR LINE (NOT SHOWN) FOR EACH THERAPY JETS LOOP. PROVIDE AIR BREAK IN EACH LINE AT BUILDING.

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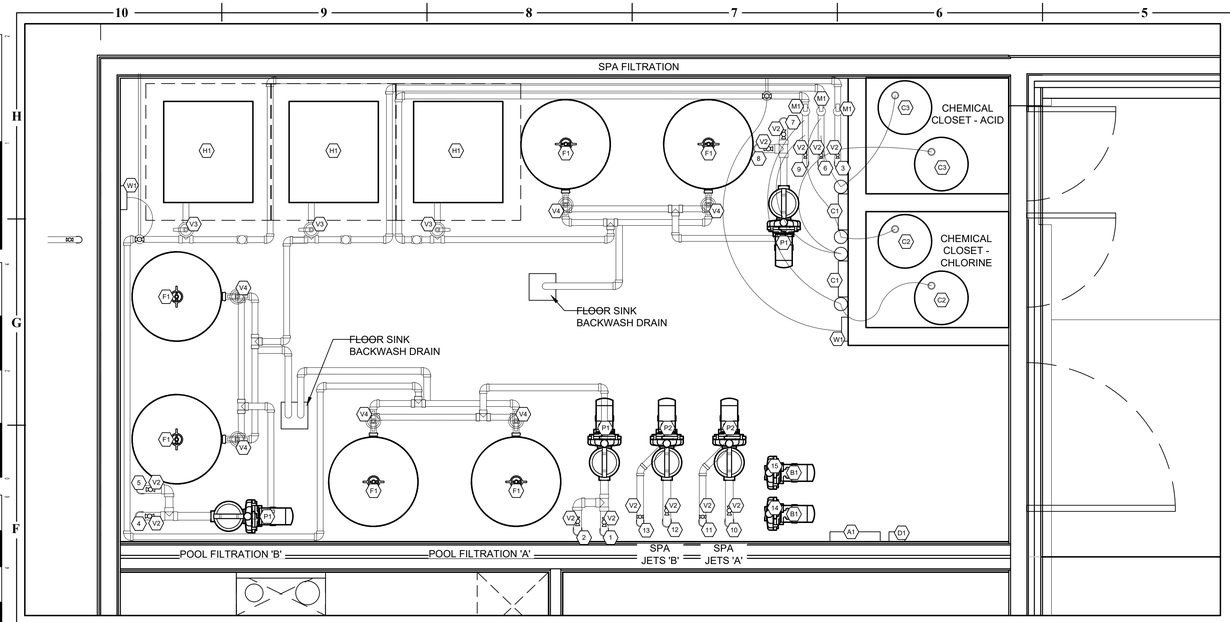
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POOL RETURN PLUMBING PLAN



EQUIPMENT ROOM PLAN

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

0 2 4 6 feet

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

NORTH

POOL EQUIPMENT ROOM LEGEND

- P1 PENTAIR INTELLIFLO 3 3HP VARIABLE SPEED PUMP
- P2 PENTAIR WHISPERFLO XFVS 5-HP VARIABLE SPEED PUMP
- B1 REGENAIR 1 HP SPA BLOWER. FEED TO SPA JETS AIR LINE
- F1 PENTAIR TR-100C 30" SAND FILTER
- H1 PENTAIR ETi 400 NATURAL GAS HEATER W/ CONDENSATION NEUTRALIZER
- C1 PENTAIR COMMERCIAL INTELLICHEM WATER CHEMISTRY CONTROLLER
- C2 CHLORINE TANK WITH STENNER PUMP
- C3 ACID TANK WITH STENNER PUMP
- V1 CHEMICAL RESISTANT, CORROSION RESISTANT CHECK VALVE
- V2 BALL VALVE
- V3 HEATER BYPASS
- V4 BACKWASH VALVE
- M1 FLOW VIZ FLOW METER
- A1 PENTAIR INTELLICENTER
- W1 FRESH WATER FEED & ACTUATOR - JANDY LEVOLOR AUTOFILL. CONTRACTOR TO FIELD LOCATE AUTOFILL SENSOR PER MANUFACTURER'S INSTRUCTIONS
- D1 KIDDE C3010-D BATTERY POWERED CARBON MONOXIDE DETECTOR

1. 4" SCH 40 PVC FROM POOL MAIN DRAIN #1
2. 3" SCH 40 PVC FROM POOL SKIMMER LOOP 'A'
3. 4" SCH 40 PVC TO POOL FILTRATION RETURN LOOP 'A'
4. 4" SCH 40 PVC FROM POOL MAIN DRAIN #2
5. 3" SCH 40 PVC FROM POOL SKIMMER LOOP 'B'
6. 4" SCH 40 PVC TO POOL FILTRATION RETURN LOOP 'B'
7. 4" SCH 40 PVC FROM SPA MAIN DRAIN #3
8. 3" SCH 40 PVC FROM SPA SKIMMER LOOP
9. 4" SCH 40 PVC TO SPA FILTRATION RETURN LOOP
10. 4" SCH 40 PVC FROM SPA SUPERFLO 360 DRAIN #4
11. 4" SCH 40 PVC TO SPA THERAPY JETS RETURN LOOP 'A'
12. 4" SCH 40 PVC FROM SPA SUPERFLO 360 DRAIN #5
13. 4" SCH 40 PVC TO SPA THERAPY JETS RETURN LOOP 'B'
14. 2" SCH 40 PVC TO SPA JETS AIR LINE 'A'. PROVIDE HARTFORD LOOP AIR BREAK IN LINE
15. 2" SCH 40 PVC TO SPA JETS AIR LINE 'B'. PROVIDE HARTFORD LOOP AIR BREAK IN LINE

POOL & SPA PROJECT DATA

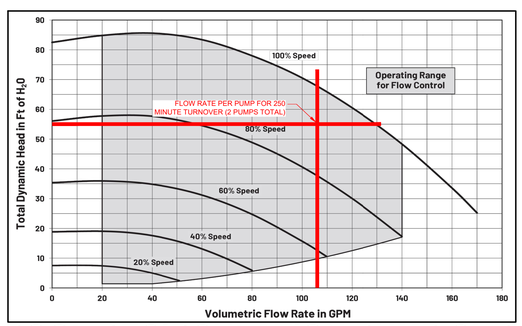
SWIMMING POOL	
MIN POOL DEPTH	6" (REEF), 3'-8" (POOL)
MAX POOL DEPTH	4'-6"
POOL SURFACE AREA	2,548 SF
POOL PERIMETER	275 LF
POOL VOLUME	53,175 GAL. / 7,109 CF
AVERAGE DEPTH	2.79'
TURNOVER AT 1.5x AVERAGE DEPTH	4.18 HOUR (250 MINUTE)
250 MINUTE TURNOVER RECIRCULATION RATE	212 GPM
TOTAL DYNAMIC HEAD (TDH)	+/-55'
POOL SKIMMERS	7
POOL RETURNS	18
POOL MAIN DRAIN	(2) VGB SUPERFLOW 360 PEBBLE TOP DRAINS (ONE PER PUMP - DRAINS ARE CERTIFIED UNBLOCKABLE)
FILTRATION PUMP	(2) PENTAIR INTELLIFLO3 3-HP VARIABLE SPEED PUMPS (106 GPM PER PUMP)
FILTER	(2) SETS OF DUAL PENTAIR TR-100C SAND FILTERS
FILTER AREA	19.64 SF (9.82 PER PUMP)
FILTER RATE	10.79 GPM/SF
HEATER	(3) PENTAIR ETi 400 NATURAL GAS HEATERS W/ CONDENSATION NEUTRALIZERS
POOL SANITIZER	LIQUID CHLORINE & ACID
CHEMICAL AUTOMATION	PENTAIR COMMERCIAL INTELLICHEM
POOL AUTOMATION	PENTAIR INTELLICENTER (SHARED WITH SPA)

SPA	
MIN SPA DEPTH	1'-9" (BENCH)
MAX SPA DEPTH	3'-6"
SPA SURFACE AREA	162 SF
SPA PERIMETER	64 LF
SPA VOLUME	3,306 GAL.
TOTAL DYNAMIC HEAD (TDH)	+/-50'
SPA SKIMMERS	2
SPA FILTRATION RETURNS	8
SPA MAIN DRAIN	DUAL VGB SUPERFLOW 360 PEBBLE TOP DRAINS
SPA TURNOVER	30-MINUTE
30-MINUTE TURNOVER FLOW RATE	110 GPM
FILTRATION PUMP	PENTAIR INTELLIFLO 3 3-HP VARIABLE SPEED PUMP
FILTER	DUAL PENTAIR TR-100C SAND FILTERS
FILTER AREA	9.82 SF
FILTER RATE	11.20 GPM/SF
SPA HEATER	PENTAIR ETi 400 NATURAL GAS HEATER W/ CONDENSATION NEUTRALIZER
SPA SANITIZER	LIQUID CHLORINE & ACID
CHEMICAL AUTOMATION	PENTAIR COMMERCIAL INTELLICHEM
SPA AUTOMATION	PENTAIR INTELLICENTER AUTOMATION (SHARED WITH POOL)

SPA THERAPY JETS	
THERAPY JETS	(14) THERAPY BACK JETS & (6) THERAPY CALF JETS
THERAPY JETS FLOW RATE	15 GPM EA (405 GPM TOTAL)
THERAPY JETS PUMP	PENTAIR WHISPERFLO XF VS 5 HP VARIABLE SPEED PUMP
THERAPY JETS BLOWER	REGENAIR R4 SERIES 1 HP BLOWER
THERAPY JETS DRAIN	DUAL VGB SUPERFLOW 360 PEBBLE TOP DRAINS

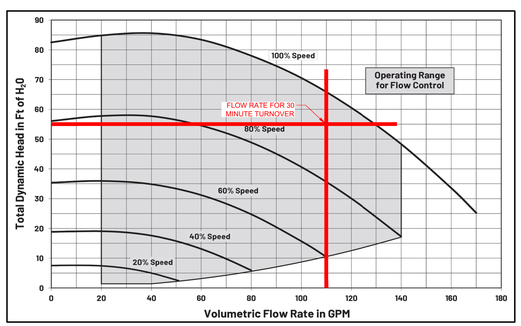
POOL EQUIPMENT ROOM PROVISIONS

1. PROVIDE SEPARATE FRESH AIR INTAKE & EXHAUST FOR EACH HEATER PER MANUFACTURER'S SPECIFICATIONS.
2. PROVIDE 1.2 MILLION BTU NATURAL GAS FOR HEATERS.
3. PROVIDE 1.5" FRESH WATER LINE FOR POOL & SPA AUTOFILL.
4. PROVIDE (2) FLOOR SINK BACKWASH DRAINS CAPABLE OF GRAVITY DRAINING AT A RATE OF115 GPM AT EQUIPMENT PAD.
5. PROVIDE SEPARATE CHANNEL DRAIN IN CENTER OF ROOM. SLOPE FLOOR TO THIS DRAIN.
6. PROVIDE 200-AMP ELECTRICAL PANEL AT EQUIPMENT ROOM
7. POOL EQUIPMENT AND LINES TO BE LABELED w/ LABELING MACHINE AND NOT HAND WRITTEN ON PLUMBING OR EQUIPMENT. PROVIDE A LAMINATED WATERPROOF AS-BUILT DIAGRAM OF EQUIPMENT ROOM LAYOUT AT SERVICE CONTROL PANEL w/ 3D BINDER OF ALL EQUIPMENT CUT SHEETS
8. PLUMBING LAYOUT ON THIS SHEET IS A DIAGRAMMATIC EXHIBIT. FIELD ADJUST AS NECESSARY TO AVOID FOOTINGS, TREES AND OTHER OBSTACLES
9. ALL PUMPS SHALL BE CONTROLLED BY A VALVE (VARIABLE SPEED PUMPS SHALL ALSO HAVE THEIR SPEED SETTING LOCKED) SO AS NOT TO EXCEED THE DESIGN FLOW RATES INDICATED ON POOL/SPA PROJECT DATA, THIS SHEET. EXCEEDING THESE FLOW RATES COULD CREATE VELOCITIES THAT WILL DAMAGE PLUMBING.
10. ALL POOL EQUIPMENT SHALL BE HELD ABOVE FLOOR ON HOUSEKEEPING PADS
11. AVOID MIXING CHLORINE AND ACID - DOING SO WILL CREATE POTENTIALLY FATAL GASSES. CHLORINE AND ACID SHALL NOT BE STORED TOGETHER INSIDE OF THE BUILDING.
12. CONTRACTOR SHALL FIELD LOCATE HARTFORD LOOP AIR LINE FOR SPA THERAPY JETS.
13. PROVIDE SEPARATE MECHANICAL VENTILATION FOR EQUIPMENT ROOM & CHEMICAL CLOSET.
14. ALL VENT FANS, DOOR HARDWARE AND OTHER ITEMS LOCATED IN THE CHEMICAL CLOSET SHALL BE COROSSION RESISTANT.
15. EQUIPMENT ROOM & CHEMICAL CLOSETS SHALL BE RECESSED TO CREATE VERTICAL SEPARATION FROM ADJACENT FINISHED SPACES.
16. PROVIDE MECHANICAL VENTILATION OR AIR CONDITIONING SUFFICIENT TO MAINTAIN AMBIENT TEMPERATURES BELOW 100 DEGREES FAHRENHEIT IN THE EQUIPMENT ROOM. EXCEEDING THIS TEMPERATURE CAN RISK VOIDING EQUIPMENT WARRANTIES.
17. PROVIDE MINIMUM 42" WIDE LOUVERED DOOR INTO EQUIPMENT ROOM.



POOL RECIRCULATION PUMP CURVE

PENTAIR INTELLIFLO 3 3HP PUMP



SPA RECIRCULATION PUMP CURVE

PENTAIR INTELLIFLO 3 3HP PUMP

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STATE OF MISSOURI
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NUMBER 2003016227
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1.26.2026

PROFESSIONAL SEAL

W006

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

EQUIPMENT ROOM PLAN

GENERAL POOL STRUCTURAL NOTES

1. GENERAL INFORMATION

1.1 SPECIAL INSPECTIONS

1.1.1 THE CONTRACTOR OR OWNER SHALL PROVIDE SPECIAL INSPECTION WHICH REQUIRES THE EXPERTISE OF AN APPROVED SPECIAL INSPECTOR IN ORDER TO ENSURE COMPLIANCE WITH THE CODE AND THE APPROVED CONSTRUCTION DOCUMENTS. SPECIAL INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS PERFORMED BY THE BUILDING OFFICIAL.

1.1.2 CONTINUOUS SPECIAL INSPECTION IS REQUIRED TO BE PERFORMED BY THE SPECIAL INSPECTOR WHO IS CONTINUOUSLY PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED. THE FOLLOWING REQUIRES CONTINUOUS SPECIAL INSPECTION:

1.1.2.1 AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATED SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.

1.1.2.2 DURING CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.

1.1.3 PERIODIC SPECIAL INSPECTION IS REQUIRED TO BE PERFORMED BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED. THE FOLLOWING REQUIRES PERIODIC SPECIAL INSPECTION:

1.1.3.1 FOR PLACEMENT OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.

1.2 SEE SHEET N002 FOR ADDITIONAL POOL NOTES

1.3 A SOILS INVESTIGATION SHALL BE DONE PER THE REQUIREMENTS OF INTERNATIONAL BUILDING CODE (IBC) SECTIONS 1705.6 AND 1803 OR THE INTERNATIONAL RESIDENTIAL CODE (IRC) SECTION R401.4.

1.4 THE CONTRACTOR SHALL PROTECT THE POOL STRUCTURE, DURING CONSTRUCTION AND UNTIL THE POOL IS FILLED, FROM THE PRESENCE OF HIGH GROUND WATER, SOIL EROSION, OR OTHER CONDITIONS WHICH ADVERSELY AFFECT THE POOL STRUCTURE.

1.5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SOIL STABILIZATION, BRACING, AND EXCAVATION SAFETY DURING THE CONSTRUCTION OF THE POOL STRUCTURE AND SHALL COMPLY WITH ALL OSHA WORK SAFETY REQUIREMENTS AND ALL OTHER GOVERNING REGULATIONS.

1.6 THE POOL WALL MATERIAL SHALL BE CONSTRUCTED AGAINST TEMPORARY FORMWORK AND BACKFILLED WITH A MINIMUM OF 6" OF CLEAN GRANULAR DRAINAGE FILL MATERIAL, BEHIND THE POOL WALLS AND AT THE BASE OF THE POOL WALLS.

1.7 CONCRETE FORMING: DESIGN, ENGINEER, ERECT, SHORE, BRACE, AND MAINTAIN FORNORK, SHORES, AND RESHORES IN ACCORDANCE WITH ACI 301, TO SUPPORT VERTICAL, LATERAL, STATIC, AND DYNAMIC LOADS, SO THAT RESULTING CONCRETE CONFORMS TO THE REQUIRED SHAPES, LINES, AND DIMENSIONS. DESIGN FORMWORK TO LIMIT DEFLECTION OF FORM-FACING MATERIAL TO 1/240 OF CENTER-TO-CENTER SPACING OF SUPPORTS

1.8 THE FORMWORK MUST BE CONSTRUCTED IN A STABLE MANNER WITH ADEQUATE BRACING TO PROVIDE A SOUND SUBSTRATE FOR THE POOL WALL CONSTRUCTION.

1.9 ALL FORMWORK SHALL BE REMOVED PRIOR TO PLACEMENT OF THE BACKFILL AND AFTER THE POOL WALLS HAVE ACHIEVED A MINIMUM OF 75% OF CONCRETE DESIGN COMPRESSIVE STRENGTH.

1.10 THE BACKSIDE OF THE POOL WALLS MUST BE REVIEWED TO VERIFY THAT NO SAND SEAMS OR AREAS OF DEFECTIVE GUNITE OR SHOTCRETE EXIST AND THE WALL CONSTRUCTION MUST BE APPROVED PRIOR TO BEGINNING THE BACKFILL OPERATION.

1.11 THE BACKFILL MATERIAL SHALL BE CLEAN GRANULAR DRAINAGE FILL MATERIAL CAREFULLY PLACED IN A CONTROLLED AND COMPACTED MANNER PER THE SPECIFIED REQUIREMENTS.

1.12 THE POOL UNDERDRAIN SYSTEM SHALL BE PLACED WITHIN THE ZONE OF CLEAN GRANULAR DRAINAGE FILL MATERIAL BELOW THE POOL FLOOR. A GEOTEXTILE FILTER FABRIC SHALL BE PLACED BETWEEN THE GRANULAR DRAINAGE MATERIAL AND THE UNDERLYING SOILS. CONTACT LANDSCAPE ARCHITECT IMMEDIATELY IN THE EVENT ANY SUBSURFACE ABNORMALITIES (INCLUDING BUT NOT LIMITED TO ACTIVE SPRINGS OR HIGH WATER TABLE) ARE ENCOUNTERED DURING POOL EXCAVATION.

1.12.1 THE GEOTEXTILE FABRIC SHALL BE A POLYPROPYLENE FABRIC WHICH IS RESISTANT TO ULTRAVIOLET DEGRADATION AND TO BIOLOGICAL AND CHEMICAL ENVIRONMENTS NORMALLY FOUND IN SOILS. THE GEOTEXTILE FABRIC SHALL BE MIRAFI HP270N WITH AOS OF 40, MIRAFI FW700 WITH AN AOS OF 70, OR AN APPROVED EQUAL.

1.13 ALL WATER STOPS SHALL BE FLEXIBLE PVC WATERSTOPS MEETING CE CRD-C572. INSTALL IN ALL CONSTRUCTION JOINTS IN THE CAST-IN-PLACE CONCRETE POOL CONSTRUCTION AS SHOWN IN THE DRAWING WITH THE LONGEST LENGTHS PRACTICAL WITH SPECIALLY FABRICATED SECTIONS AT INTERSECTIONS, WHERE APPLICABLE. HEAT WELD ALL JOINTS AND INSTALL IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS. PROVIDE SPECIALLY FABRICATED SECTIONS AT INTERSECTIONS WHERE APPLICABLE.

1.14 THE CONTRACTOR'S SUBMITTED BASE BID CONSTRUCTION COST SHALL INCLUDE ALL MEANS AND METHODS NECESSARY FOR THE CONSTRUCTION OF THE POOL WALLS AND ASSOCIATED EARTHWORK.

2. REINFORCING STEEL

2.1 REINFORCING STEEL IN SHOTCRETE SHALL HAVE NON-CONTACT LAP AND SPACING PER INTERNATIONAL BUILDING CODE (IBC) SECTIONS 1913.4.2 AND 1913.4.3 OR

2.2 REINFORCING STEEL IN SHOTCRETE MAY HAVE CONTACT LAP SPLICES ONLY IF THE LAPS ARE STACKED PARALLEL TO THE DIRECTION OF THE SHOTCRETE (E.G., ONE BAR IS BEHIND THE OTHER AND NOT STACKED SIDE BY SIDE).

2.3 ALL REINFORCING STEEL TO BE ASTM A615 GRADE 60 OR BETTER. LAP ALL BARS MIN OF 59 DIAMETERS OR 2'-0" MINIMUM. WIRE TIE AT LEAST 50% OF ALL LAPS WITH AT LEAST 16 GA WIRE OR EQUAL, BEND ALL TIES DOWN.

2.3.1 THE MEANS AND METHODS OF WIRE TIES AND CHAIRS IS NOT THE RESPONSIBILITY OF THE DESIGN TEAM. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY SUPPORT OF THE REINFORCING BARS SUCH THAT THE LOCATION DOES NOT DEFORM DURING CONCRETE PLACEMENT. THE TIES AND CHAIRS SHALL MEET THE REQUIREMENTS OF ACI 301.

2.4 REINFORCING STEEL SHALL HAVE A MINIMUM OF 2" CLEARANCE TO SOIL AND INSIDE FACE OF SHELL.

2.5 PLACE STEEL REINFORCEMENT IN CENTER OF CONCRETE UNLESS NOTED OTHERWISE.

2.6 ALL REINFORCING BARS INSTALLED INTO PREVIOUSLY CAST CONCRETE, SHOTCRETE, OR GUNITE SHALL BE ANCHORED INTO THE CONCRETE USING HILTI HY-200 ADHESIVE ANCHORING SYSTEM OR AN APPROVED EQUAL. ALL HOLES SHALL BE DRILLED WITH THE RECOMMENDED BIT SIZE, TO THE MINIMUM EMBEDMENT LENGTH SPECIFIED, AND SHALL BE THOROUGHLY CLEANED OUT WITH A BRUSH AND COMPRESSED AIR PRIOR TO INSTALLING THE ADHESIVE AND BARS. ALL ADHESIVE MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS MUST BE FOLLOWED. THE CONTRACTOR SHALL PERFORM A QUALITY CONTROL PROGRAM DURING THE DRILLING AND CLEANING OF THE HOLES, INSTALLING THE ADHESIVE, AND INSTALLING THE BARS TO ENSURE THAT THE RECOMMENDED PROCEDURES AND REQUIREMENTS ARE BEING IMPLEMENTED.

2.7 THE CONTRACTOR SHALL SUBMIT THE POOL REINFORCING STEEL SHOP DRAWING FOR A REVIEW A MINIMUM OF 14 DAYS PRIOR TO STARTING CONSTRUCTION. THE SUBMITTED SHOP DRAWINGS SHALL INCLUDE THE BAR SIZE AND SPACING, BENDING DIAGRAMS, AND SPECIAL BAR PLACEMENT AND BENDING DIAGRAMS FOR THE REINFORCING AROUND THE CONVERTERS, MAIN DRAIN, AND OTHER NON-TYPICAL LOCATIONS. ALL BENT BARS SHALL BE SHOP FABRICATED AND COLD BENT UNLESS SPECIFICALLY APPROVED OTHERWISE.

3. CONCRETE

3.1 POOL SHELL SHALL BE MONOLITHIC SHOTCRETE (THICKNESS PER REINFORCING SCHEDULE, DETAIL 1, SHEET N002) FREE OF JOINTS OR SEAMS (SUCH AS IN POURED POOL SHELL). SHELL SHALL BE PLACED IN ONE DAY IF POSSIBLE, IF NOT FEATHER CUT OFF SECTIONS.

3.2 CONCRETE SHALL BE PER ASTM C31 AND SHALL HAVE A MINIMUM 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.

3.2.1 MINIMUM WATER TO CEMENT RATIO SHALL BE 0.52 WITH A MAXIMUM SLUMP OF 4" +/-1" OR 2" +/-1" FOR SHOTCRETE. THE SLUMP MAY BE INCREASED WITH THE USE OF ADMIXTURES.

3.2.2 CONCRETE SHALL HAVE 5% TO 8% AIR-ENTRAINMENT. AIR-ENTRAINING ADMIXTURE SHALL MEET ASTM C260 AND SHALL BE COMPATIBLE WITH ALL OTHER CONCRETE ADDITIVES, PARTICULARLY THE SHRINKAGE REDUCING ADMIXTURE.

3.2.3 ALL CEMENT SHALL MEET ASTM C150, TYPE I OR II.

3.2.4 ALL AGGREGATE SHALL MEET ASTM C33 AND SHALL BE PROPORTIONED SUCH THAT THE MIX SHALL CONTAIN A MINIMUM OF 50% COARSE AGGREGATE. COARSE AGGREGATE SHALL MEET ASTM C33, NO. 57 AND NO. 67.

3.2.5 CONCRETE SHALL HAVE 3.0 POUNDS PER CUBIC YARD OF +/-1.5" LONG SYNTHETIC MACRO FIBER REINFORCEMENT COMPLYING WITH ASTM C116. USE STRUX 90/40 BY GRACE CONCRETE PRODUCTS OR FIBERMESH 650 BY PROPEX CONCRETE SYSTEMS.

3.2.6 CONCRETE SHALL HAVE 128 OUNCES OF SHRINKAGE REDUCING ADMIXTURE PER CUBIC YARD. ECLIPSE 45000 BY GRACE CONSTRUCTION PRODUCTS OR MASTERLIFE SRA20 BY BASF CHEMICAL COMPANY ARE ACCEPTABLE SHRINKAGE-REDUCING ADMIXTURES.

3.2.7 CONCRETE SHALL HAVE WATER-REDUCING ADMIXTURE MEETING ASTM C494, TYPE A OR TYPE F. WATER-REDUCING ADMIXTURES SHALL BE COMPATIBLE WITH ALL OTHER CONCRETE ADDITIVES AND SHALL BE USED AT A DOSAGE PER THE MANUFACTURER'S RECOMMENDATIONS.

3.2.8 ALL ADMIXTURES SHALL CONTAIN NO MORE THAN 0.1% CHLORIDE IONS.

3.3 THE CONTRACTOR SHALL IMPLEMENT ANY NECESSARY PLACEMENT, FINISHING, AND CURING OPERATIONS TO ACCOMMODATE ANY SPECIAL REQUIREMENT OF THE CONCRETE MIX DESIGN AND CONCRETE ADDITIVES.

3.3.1 THE DESIGN INTENT IS TO MINIMIZE CRACKING AND SHRINKAGE CRACKS. THE CONTRACTOR SHALL CAREFULLY COORDINATE THE TIMING OF CONCRETE POURS WITH THE MIX DESIGNS AND FINISH SCHEDULES TO ASSURE THAT CRACKING IS REDUCED. THE CONTRACTOR SHALL CONTACT THE DESIGN TEAM IF CONCERNS OR QUESTIONS ARE PRESENT.

3.4 WET CURE THE POOL FLOOR SLAB FOR A MIN. OF 7 DAYS PRIOR TO STARTING CONSTRUCTION OF THE POOL WALLS. WET CURE THE POOL WALLS DURING GUNITE OR SHOTCRETE PLACEMENT AND CONTINUE THE WET CURING OF THE POOL WALLS FOR A MIN OF 7 DAYS FOLLOWING THE COMPLETION OF THE WALLS.

3.5 THE POOL WALLS SHALL ONLY BE CONSTRUCTED USING WET-GUN SHOTCRETE OR DRY-GUN GUNITE CONSTRUCTION.

3.5.1 THE CONTRACTOR SHALL SUBMIT DESIGN MIXES FOR CAST-IN-PLACE CONCRETE, WET-GUN GUNITE, AND GROUT FOR REVIEW A MINIMUM OF 14 DAYS PRIOR TO STARTING CONSTRUCTION.

3.5.2 SHOTCRETE INCLUDES BOTH WET-MIX AND DRY-MIX (GUNITE).

3.5.3 SHOTCRETE SHALL BE DONE AT A HIGH VELOCITY OF 350 TO 400 FEET-PER-SECOND.

3.5.4 SHOTCRETE TERMINOLOGY SHALL FOLLOW THE AMERICAN SHOTCRETE ASSOCIATION'S POSITION STATEMENT #2.

3.5.5 REBOUND, TRIMMING, AND LOOSE DEBRIS SHALL BE REMOVED FROM THE STRUCTURE AND SHALL NOT BE USED IN ANY MANNER WITHIN THE STRUCTURE OR VESSEL.

DRY-GUN GUNITE:

3.5.6 GUNITE SHALL BE PROPORTIONED FOR ONE PART CEMENT TO FOUR PARTS SAND BY VOLUME. THE COLUMN PROPORTIONS SHALL BE BASED ON A UNIT WEIGHT METHOD, NOT AN ABSOLUTE VOLUME METHOD.

3.5.7 CEMENT AND SAND SHALL BE DRY MIXED.

3.6 ALL CONCRETE WORK SHALL BE IN STRICT CONFORMANCE WITH THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE". ALL GUNITE AND SHOTCRETE WORK SHALL CONFORM WITH ACI 506.

3.7 THE CONSTRUCTION JOINT BETWEEN POURED FLOOR AND GUNITE OR SHOTCRETE POOL WALL SHALL BE SANDBLASTED CLEAN AND A LAYER OF GROUT PASTE SHALL BE APPLIED IMMEDIATELY PRIOR TO STARTING GUNITE OR SHOTCRETE WALL CONSTRUCTION. THE GROUT PASTE MUST NOT BE ALLOWED TO DRY PRIOR TO STARTING THE WALL CONSTRUCTION.

3.8 CAST-IN-PLACE CONCRETE, GUNITE, AND SHOTCRETE, SHALL BE TESTED DURING PLACEMENT AS FOLLOWS:

3.8.1 PROVIDE ONE SET OF FOUR TEST CYLINDERS PER ASTM C31 FOR EACH DAYS POUR OR FOR EACH 30 CUBIC YARDS OF MATERIAL PLACED, WHICHEVER IS GREATER.
TEST AT POINT OF DISCHARGE PER ASTM C143 FOR EACH SET OF TEST CYLINDERS TAKEN.

3.8.1.1 COMPRESSIVE STRENGTH TEST: ONE SET OF FOUR CYLINDERS PER ASTM C39. TEST ONE CYLINDER AT 7-DAYS, TWO CYLINDERS AT 28- DAYS AND HOLD ONE IN RESERVE TO BE TESTED AS DIRECTED.

3.8.2 AIR CONTENT: VOLUMETRIC METHOD PER ASTM C 173 OR PRESSURE METHOD PER ASTM C231 FOR EACH SET OF TEST CYLINDERS TAKEN.

3.8.3 CONCRETE TEMPERATURE: ONE TEST PER ASTM C1064 FOR EACH SET OF TEST CYLINDERS TAKEN HOURLY WHEN AIR TEMPERATURE IS BELOW 40 DEGREES F OR ABOVE 90 DEGREES F.

3.8.4 GUNITE OR SHOTCRETE TEST PANELS SHALL BE FABRICATED BY GUNNING ONTO A HEAVY PLYWOOD OR STEEL PLATE FORM SHOOTING FROM EACH POSITION TO BE ENCOUNTERED DURING THE POOL CONSTRUCTION.

3.8.4.1 THE TEST PANELS SHALL BE A MINIMUM OF 24"X24" BY 8" THICK AND SHALL BE OF ADEQUATE SIZE TO TAKE A SET OF FOUR 4" DIAMETER CORE SAMPLES FROM EACH TEST PANEL.

3.8.4.2 THE TEST PANELS SHALL BE CURED TO MATCH THE CURING METHODS UTILIZED ON THE POOL WALLS AND THE CORE SAMPLES SHALL BE HANDLED, SOAKED AND TESTED PER ACI 506, ASTM C42, AND ASTM C39. TEST ONE CORE AT 7-DAYS, TWO CORES AT 28-DAYS , AND HOLD ONE CORE IN RESERVE TO BE TESTED AS DIRECTED.

3.8.5 ALL CONCRETE TESTING AND SAMPLING SHALL BE PERFORMED BY PERSONNEL TRAINED AND CERTIFIED IN CONCRETE SAMPLING.

3.8.6 TEST RESULTS SHALL BE SUBMITTED TO ARCHITECT, ENGINEER, AND CONTRACTOR WITHIN 24 HOURS OF COMPLETING TESTS. CONCRETE TESTING SHALL BE PERFORMED BY AN APPROVED TESTING AGENCY.

3.9 CONCRETE MIX DESIGN SHALL BE SINGED OFF BY THE CONCRETE PLANT TO VERIFY THE MIX DESIGN DOES NOT HAVE ISSUES WITH ALKALI SILICA REACTION. INCLUDED IN THIS MIX DESIGN SHALL COMPLY WITH ONE OF THE FOLLOWING:

A. EXPANSION RESULT OF AGGREGATE: NOT MORE THAN 0.04 PERCENT AT ONE-YEAR WHEN TESTED IN ACCORDANCE WITH ASTM C1239.

B. EXPANSION RESULTS OF AGGREGATE AND CEMENTITIOUS MATERIALS IN COMBINATION: NOT MORE THAN 0.10 PERCENT AT AN AGE OF 16 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C1567.

C. ALKALI CONTENT IN CONCRETE: NOT MORE THAN 4LB./CU. YD FOR MODERATELY REACTIVE AGGREGATE, WHEN TESTED IN ACCORDANCE WITH ASTM C1293 AND CATEGORIZED IN ACCORDANCE WITH ASTM C1778, BASED ON ALKALI CONTECT BEING CALCULATED IN ACCORDANCE WITH AC1301.

4. FOUNDATIONS

4.1 ALL EARTHWORK AND COMPACTED FILL SHALL MEET THE REQUIREMENTS OF THE PROJECT GENERAL NOTES AND ALL THE FOLLOWING EARTHWORK RELATED NOTES.

4.2 THE POOL WALLS ARE DESIGNED FOR AN EQUIVALENT FLUID PRESSURE OF 62.4 PCF. THE BOTTOM OF THE POOL STRUCTURE SHALL BE SUPPORTED ON SOILS CAPABLE OF PROVIDING AN ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.

4.3 A GEOTECHNICAL ENGINEER SHALL DETERMINE IF THE EXPOSED SUBGRADE SOILS ARE ACCEPTABLE TO SUPPORT THE POOL FILL MATERIAL OR IF UNSTABLE OR UNSUITABLE SOILS EXIST WHICH REQUIRE REMOVAL AND REPLACEMENT.

4.3.1 THE CONTRACTOR SHALL VERIFY WITH THE GEOTECHNICAL ENGINEER THAT THE SOILS BELOW AND ADJACENT TO THE POOL STRUCTURE ARE SATISFACTORY FOR SUPPORT OF THE POOL STRUCTURE AND MEET THE SPECIFIED REQUIREMENTS PRIOR TO STARTING CONSTRUCTION OF THE POOL STRUCTURE. THE GEOTECHNICAL ENGINEER PERFORMING THE FIELD SHALL SUBMIT A LETTER STATING THAT THE SOIL MATERIALS ADJACENT TO THE POOL STRUCTURE ARE ACCEPTABLE AND MEET THE SPECIFIED REQUIREMENTS.

4.4 ALL POOL FLOOR AREAS SHALL BE CONSTRUCTED ON A MINIMUM NEW 18" THICK ZONE OF GRANULAR DRAINAGE FILL MATERIAL, PLACED OVER RECONDITIONED AND APPROVED NATIVE SOILS OR ADDITIONAL ENGINEERED FILL SOILS

4.4.1 OVEREXCAVATE BELOW AND BEYOND THE GEOMETRY OF THE POOL STRUCTURE AS REQUIRED TO CONSTRUCT THE SPECIFIED ZONE OF DRAINAGE FILL MATERIAL.

4.4.2 FOLLOWING THE EXCAVATION OPERATIONS, THE NATIVE SOILS ENCOUNTERED SHOULD BE PROOFROLLED TO IDENTIFY ANY SOFT OR UNSTABLE AREAS. ANY EXISTING FILL MATERIAL OR OTHER UNSTABLE OR UNSUITABLE MATERIALS IDENTIFIED SHOULD BE REMOVED.

4.4.3 THE NATIVE SOILS ENCOUNTERED BELOW OR ADJACENT TO THE POOL STRUCTURE SHALL BE REMOVED PRIOR TO PLACING ANY NEW FILL MATERIAL IF THE SPECIFIED MOISTURE CONTENT IS NOT WITHIN -2% AND +2% OF THEIR OPTIUM VALUE.

4.4.4 THE GEOTECHNICAL ENGINEER SHALL REVIEW THE EXCAVATION, THE PROOF ROLLING OPERATION, AND APPROVED THE BASE SOILS PRIOR TO STARTING PLACEMENT OF ANY FILL MATERIAL.

4.5 THE CLEAN GRANULAR DRAINAGE FILL MATERIAL BELOW THE POOL FLOOR AND BEHIND THE POOL WALLS SHALL BE A CLEAN, WELL-GRADED, CRUSHED ROCK MEETING ASTM C33 COARSE AGGREGATE GRADING REQUIREMENTS FOR NO. 57 OR NO. 67 AGGREGATE.

4.6 ANY GENERAL FILL SOILS PLACED BELOW OR BEYOND THE ZONE OF GRANULAR SOILS WITHIN OR BEYOND THE AREA OF THE POOL MUST BE APPROVED, CLEAN, ON-SITE SOILS.

4.7 ALL PROPOSED ON-SITE OR BORROW FILL MATERIAL MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER.

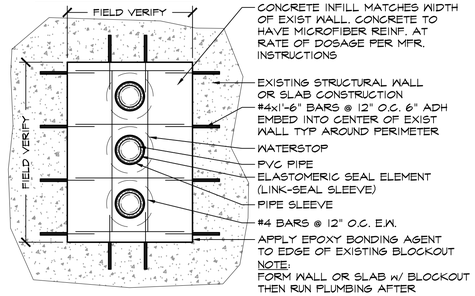
4.8 ALL FILL MATERIAL SHALL BE PLACED IN MAXIMUM 8" THICK LOOSE LIFTS AND BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698, STANDARD PROCTOR PROCEDURES.

4.9 ALL SOILS SHOULD BE PLACED WITH A MOISTURE CONTENT BETWEEN -2% AND +2% OF THEIR OPTIMUM MOISTURE CONTENT VALUE.

4.10 GRANULAR SOILS SHALL BE PLACED AT A WORKABLE MOISTURE CONTENT. THE PLACEMENT OF ALL FILL MATERIAL SHALL BE MONITORED, TESTED, AND APPROVED BY THE GEOTECHNICAL ENGINEER.

4.11 THE CONTRACTOR SHALL COORDINATE WITH A GEOTECHNICAL ENGINEER TO VERIFY THAT THERE ARE NOT ANY UNDERLYING SUBSTRATES THAT COULD CREATE INSTABILITIES OR SETTLEMENTS, E.G. CAVES, MINES, BURIED TANKS, OR DEFORMITIES DUE TO KARST TOPOGRAPHY.

TYP. BLOCKOUT OPTION 1

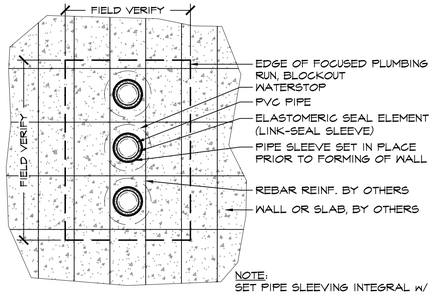


TYP. BLOCKOUT OPTION 2 EXAMPLE IMAGE

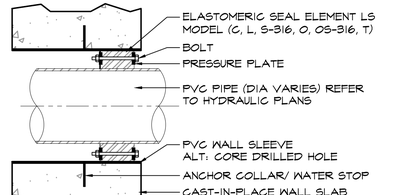


THIS IS A DIAGRAM SHOWING THE GENERAL PLACEMENT OF PLUMBING AT EACH BLOCKOUT. CONTRACTOR SHALL FIELD VERIFY EXACT POOL PLUMBING PLACEMENT THROUGH WALLS AND STRUCTURAL SLAB.

TYP. BLOCKOUT OPTION 2

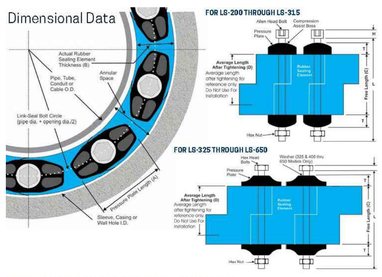


LINK-SEAL® MODULAR SEALS WITH CAST OR CORE DRILLED WALL OPENING MANUFACTURED BY PIPELINE SEAL & INSULATOR, INC.
HOUSTON, TEXAS, U.S.A.
TEL: 800-423-2410
E-MAIL: INFO@PSIPSI.COM



LINK-SEAL MODULAR SEALS

Dimensional Data



* DIMENSIONAL DATA FOR MODELS C, L, O, S-316, S61, LS-316 & OS-316

LINK-SEAL® Model No.	Rubber Sealing Elements: Actual Thickness (B)	Free Length (C)	Avg. Length After Tightening (A)	(A)	(T)	Pressure Plates: Allen Head Hex Access Flats	(W)	Bolts: Thread Size	(L)	Weight for 1.0 Lin. Sections (lbs)	Min. Required Sealing Width
LS 200	0.40"	1.75"	1.38"	1.06"	0.25"	4mm Allen (0.157")	4.95mm (0.195")	M5 0.8	65mm (2.559")	0.70	2.25"
LS 275	0.61"	1.75"	1.38"	0.97"	0.25"	4mm Allen (0.157")	4.95mm (0.195")	M5 0.8	65mm (2.559")	0.75	2.25"
LS 300	0.69"	2.97"	1.97"	1.56"	0.44"	6mm Allen (0.236")	7.87mm (0.310")	M8 1.25	90mm (3.543")	2.15	3.00"
LS 315	0.81"	2.97"	1.97"	1.44"	0.44"	6mm Allen (0.236")	7.87mm (0.310")	M8 1.25	90mm (3.543")	2.30	3.00"
LS 325	0.88"	2.63"	2.00"	0.13"	1.00"	13mm (0.511")	5.30mm (0.215")	M8 1.25	110mm (4.33")	5.50	4.00"
LS 340	1.00"	2.70"	2.25"	1.40"	0.66"	13mm (0.511")	5.30mm (0.215")	M8 1.25	110mm (4.33")	5.80	4.00"
LS 360	1.24"	2.70"	2.25"	1.05"	0.77"	13mm (0.511")	5.30mm (0.215")	M8 1.25	110mm (4.33")	6.10	4.00"
LS 400	1.38"	3.50"	2.75"	3.50"	1.06"	17mm (0.669")	6.40mm (0.250")	M10 1.5	120mm (5.118")	12.00	5.00"
LS 410	1.43"	3.97"	2.97"	2.52"	0.88"	17mm (0.669")	6.40mm (0.250")	M10 1.5	120mm (5.118")	9.00	5.00"
LS 425	1.06"	3.00"	2.25"	3.50"	1.19"	17mm (0.669")	6.40mm (0.250")	M10 1.5	120mm (5.118")	10.00	5.00"
LS 475	1.56"	3.88"	2.62"	2.62"	0.88"	17mm (0.669")	6.40mm (0.250")	M10 1.5	120mm (5.118")	10.00	5.00"
LS 500	2.25"	3.75"	2.75"	3.62"	1.06"	19mm (0.748")	7.50mm (0.300")	M12 1.75	140mm (5.511")	22.50	5.00"
LS 525	2.06"	3.75"	2.97"	3.62"	1.06"	19mm (0.748")	7.50mm (0.300")	M12 1.75	140mm (5.511")	21.00	5.00"
LS 575	1.81"	3.75"	3.00"	3.00"	1.00"	19mm (0.748")	7.50mm (0.300")	M12 1.75	140mm (5.511")	15.50	5.00"
LS 615	3.09"	4.00"	3.00"	6.00"	1.90"	24mm (0.944")	10.57mm (0.416")	5/8 11	185mm (7.283")	60.60	6.00"
LS 650	2.73"	3.90"	3.00"	5.95"	1.10"	19mm (0.748")	7.50mm (0.300")	M12 1.75	140mm (5.511")	20.10	6.00"

Installation Techniques - LINK-SEAL® Modular Seals

1. Center the pipe, cable or conduit in each opening or casing. Make sure the pipe will be adequately supported on both ends. LINK-SEAL® modular seals are **not** intended to support the weight of the pipe.
2. Loosen rear pressure plate with nut just enough so links move freely. Connect both ends of belt around the pipe.
3. Check to be sure all bolt heads are facing the installer. Extra slack or sag is normal. Do **not** remove links if extra slack exists.

NOTE: On smaller diameter pipe, links may need to be stretched.

4. Slide belt assembly into annular space. For larger size belts, start inserting LINK-SEAL® modular seal assembly at the 6 o'clock position and work both sides up toward the 12 o'clock position in the annular space.
5. LS-200 through LS-315 Using a hand socket or off-set wrench ONLY, start at 12 o'clock. Do not tighten any bolt more than 4 turns at a time. Continue in a clockwise manner until links have been uniformly compressed. (Approx. 2 or 3 rotations)



5a. LS-325 through LS-650 Using a hand socket or off-set wrench ONLY, start at 12 o'clock. Do not tighten any bolt more than 4 turns at a time. Continue in a clockwise manner until links have been uniformly compressed (Approx. 2 or 3 rotations).



6. Make 2 or 3 more passes at 4 turns per bolt MAXIMUM, tightening all bolts clockwise until all sealing elements "bulge" around all pressure plates. On type 316 stainless steel bolts, hand tighten ONLY without power tool.



7. If the seal doesn't appear to be correct using the instructions provided, call GPT at 1-800-423-2410.



Installation Notes: The LINK-SEAL® modular seal bolt heads are usually recessed below the wall opening or the edge of casing pipe and therefore a socket or offset wrench must be used.

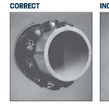
Installation Techniques - LINK-SEAL® Modular Seals

ALWAYS WEAR PPE WHEN USING LINK-SEAL® MODULAR SEALS

LINK-SEAL® Modular Seal - Do's
1. Make sure pipe is centered.
2. Install the belt with the pressure plates evenly spaced.
3. Install the exact number of links indicated in sizing charts.
4. Check to make sure pipe is supported properly during backfill operations. **NOTE:** LINK-SEAL® modular seals are not intended to support the weight of the pipe.
5. Make sure all assembly and pipe surfaces are free from dirt.
6. For Tight Fits, use non-polluting liquid detergent to assist installation.

LINK-SEAL® Modular Seal - Don'ts
1. Don't install the belt with the pressure plates aimed in irregular directions. (Staggered)
2. Don't install LINK-SEAL® modular seals where weld-beads or other irregular surfaces exist without consideration of the sealing requirements.
3. Don't torque each bolt completely before moving on to the next.
4. Don't use high speed power tools (450 rpm or more)
5. Do not use power tools on LINK-SEAL® modular seal 316 stainless steel bolts.
6. Don't use grease installing LINK-SEAL® modular seals.

CORRECT



INCORRECT



If the seal doesn't appear to be correct using the techniques provided, Call GPT at 1-800-423-2410.

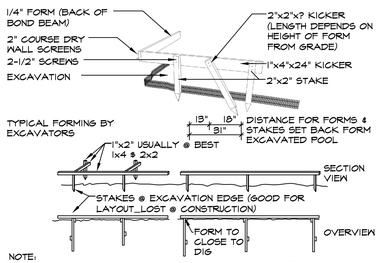
Hand Tools: Review provided chart below. (Tools not provided.) Tools can be purchased from hardware store, auto parts store, or home improvement store.

LINK-SEAL® Model	Tool Size/ Type Req.	Bolt Head Type
LS-200,LS-275	4mm, Allen	
LS-300,LS-315	6mm, Allen	
LS-325,LS-340,LS-360	13mm, Hex	
LS-400,LS-410,LS-425, LS-475

POOL WALL AND FLOOR REINFORCING SCHEDULE:								
WATER DEPTH	SPRING LINE	RADIUS "R"	POOL WALL				FLOOR SLAB	
			THICKNESS "T"	SOIL SIDE VERT. REINF.	SOIL SIDE HORIZ. REINF.	POOL SIDE WALL REINF.	THICKNESS	REINF.
0'-0" TO 5'-0"	0'-0" TO 3'-4"	3"	8" MIN UNLESS NOTED OTHERWISE	#4 @ 12" O.C.	#4 @ 12" O.C.	-	8" MIN.	#4 @ 12" O.C. E.W.
5'-0" TO 8'-0"	3'-6" TO 7'-6"	6"	12" MIN	#4 @ 12" O.C.	#4 @ 12" O.C.	TO MATCH SOIL SIDE	8" MIN.	#4 @ 12" O.C. E.W.
8'-0" TO 10'-0"	6'-2" TO 8'-2"	1'-10"	12" MIN	#4 @ 9" O.C.	#4 @ 12" O.C.	TO MATCH SOIL SIDE	8" MIN.	#4 @ 12" O.C. E.W.

POOL REINFORCING SCHEDULE NOTES:	
1	SEE POOL PLAN FOR SECTIONS AND DETAILS AT THE SHALLOW AREAS OF THE POOL.
2	THE SPRINGLINE ELEVATION IS THE VERTICAL WATER DEPTH WHERE THE RADIUS LENGTH INTERSECTS THE SURFACE OF THE POOL FLOOR.
3	PROVIDE 2" OF CONCRETE, OR GUNITE COVER ON ALL WALL REINFORCING BARS.
4	SUPPORT FLOOR SLAB REINFORCING BARS ON BAR SUPPORTS @ 36" O.C. EACH WAY WITH CONCRETE BLOCK OR CHAIRS PER ACI 301. SEE DETAILS FOR BAR SUPPORT HEIGHTS.
5	REINFORCING STEEL SHOWN IN SCHEDULE IS MINIMUM REQUIRED. CONTRACTOR SHALL PROVIDE ADDITIONAL STEEL AS REQUIRED PER SECTIONS

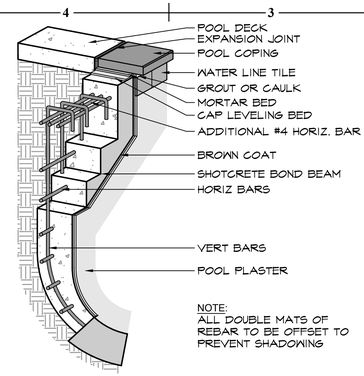
1 POOL REINFORCING SHEDULE
SCALE: NTS



NOTE:
1. KEEP THE FIRST STAKE BACK 13" FROM WATER. THIS KEEPS THE STAKE FIRM AND EXTRACT DURING EXCAVATION T CONSTRUCTION ALONG WITH 18" STAKE & KICKER.

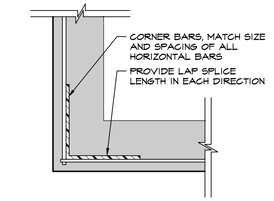
2. STAKE LENGTH VARIES TO SITE CONDITIONS & SOIL CONDITIONS. FIRMLY EMBED IN SOIL SO STAKES DO NOT MOVE.

2 STRUCTURAL FRAMING FORMWORK
SCALE: NTS



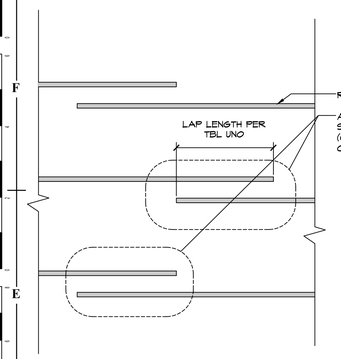
NOTE:
ALL DOUBLE MATS OF REBAR TO BE OFFSET TO PREVENT SHADOWING

3 BOND BEAM REBAR VIGNETTE
SCALE: NTS ILLUSTRATIVE VIEW



TYPICAL DETAIL @ ALL POOL WALL HORIZ. BARS PROVIDE CORNERBARS TO MATCH HORIZ. BARS ON INSIDE AND OUTSIDE FACE OF WALL WHERE APPLICABLE

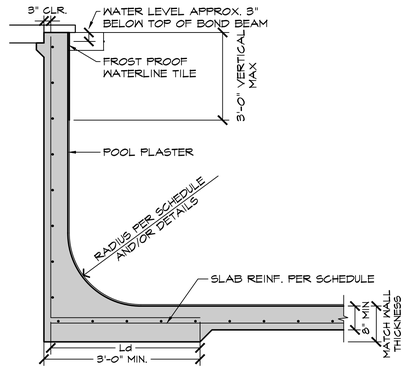
4 CORNER BAR DETAIL
SCALE: NTS



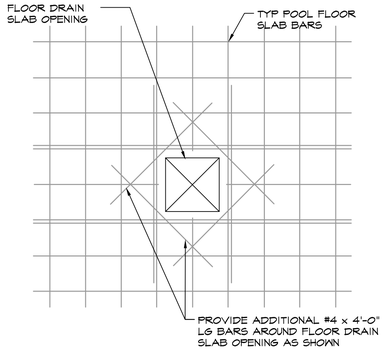
DETAIL NOTES	
1.	f'c=4,000 PSI (27.5 KPA)
2.	Fy PER TABLE BELOW.
3.	CLASS B SPLICES [ACI318 12.15.1]
4.	INCREASE LAP 20% FOR EPOXY-COATED BARS
5.	INCREASE LAP 30% FOR LIGHTWEIGHT CONCRETE

MIN REINFORCING LAP LENGTH (Ld)				
BAR SIZE	NOMINAL DIA	GRADE	Fy, MIN YIELD STRENGTH	MIN LAP LENGTH
#3	3/8" (10 MM)	40	40,000 PSI (300 MPA)	20" (500 MM)
#4	1/2" (13 MM)	60	60,000 PSI (300 MPA)	25" (625 MM)
#5	5/8" (16 MM)	60	60,000 PSI (420 MPA)	32" (800 MM)
#6	3/4" (19 MM)	60	60,000 PSI (420 MPA)	38" (950 MM)
[ASTM A615 (A615M)]				[ACI318 12.15.1]

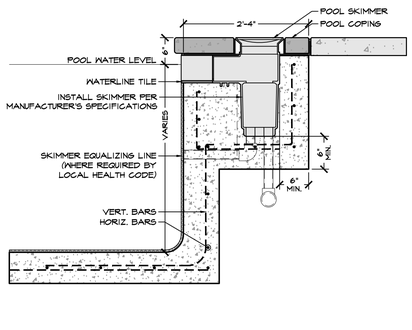
5 SHOTCRETE NON-CONTACT LAP SPLICES
SCALE: NTS



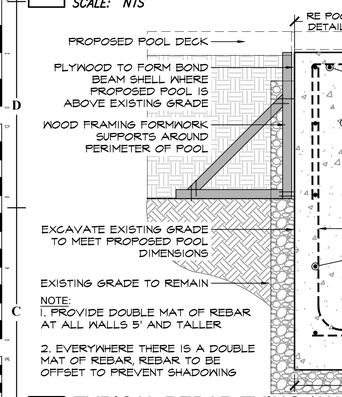
6 WALL TO BOTTOM TRANSITION
SCALE: 1/2" = 1'-0" SECTION



7 TYPICAL REBAR AT POOL DRAIN
SCALE: 1" = 1'-0" SECTION



8 REINFORCING AT SKIMMER
SCALE: N.T.S. CROSS SECTION



NOTE:
1. PROVIDE DOUBLE MAT OF REBAR AT ALL WALLS 5' AND TALLER

2. EVERYWHERE THERE IS A DOUBLE MAT OF REBAR, REBAR TO BE OFFSET TO PREVENT SHADOWING

9 TYPICAL REBAR TYING / WALL FRAMING FORMWORK
SCALE: NTS SECTION

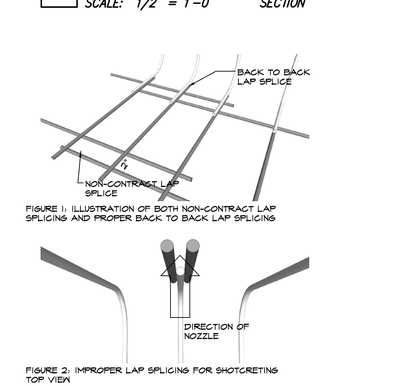
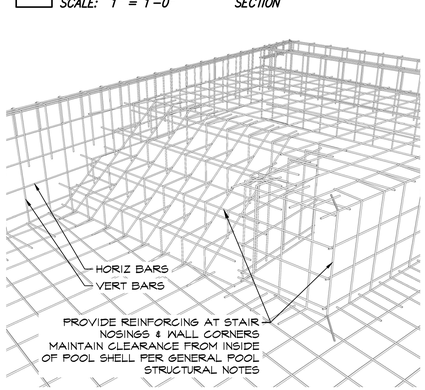


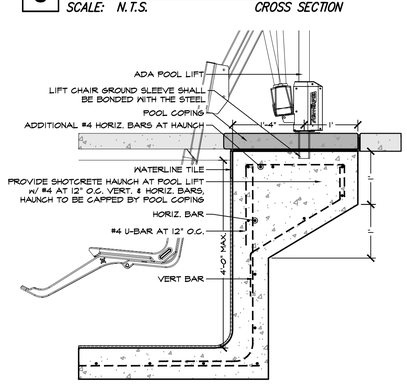
FIGURE 1: ILLUSTRATION OF BOTH NON-CONTRACT LAP SPLICING AND PROPER BACK TO BACK LAP SPLICING

FIGURE 2: IMPROPER LAP SPLICING FOR SHOTCRETING TOP VIEW

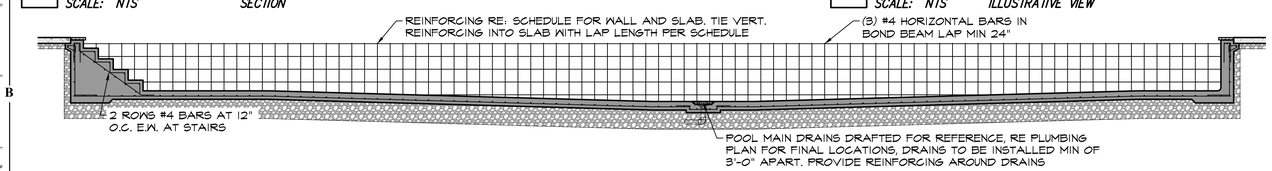
10 LAP SPLICING SHOTCRETE
SCALE: NTS ILLUSTRATIVE VIEW



11 TYPICAL REBAR LAYOUT
SCALE: N.T.S. VIGNETTE



12 ADA LIFT INSTALLATION
SCALE: N.T.S. CROSS SECTION



13 TYPICAL POOL REINFORCING CROSS SECTION
SCALE: NTS

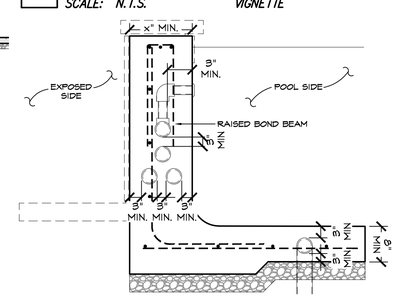
NOTE

1. THIS IS A DIAGRAM ILLUSTRATION FOR POOL REINFORCING. SEE POOL PLAN AND CROSS SECTIONS FOR DEPTHS AND SLOPES

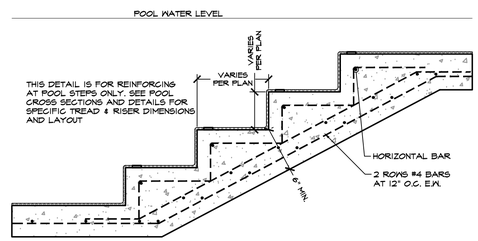
2. FOOTING DESIGNS ARE BASED ON AN ASSUMED STABLE, NON-EXPANSIVE SOIL WITH AN ALLOWABLE FOUNDATION PRESSURE OF 1500 PSF WITH A MAXIMUM DIFFERENTIAL SETTLEMENT OF ½ INCH. CONTRACTOR SHALL HIRE A GEOTECHNICAL ENGINEER TO DETERMINE WHETHER OR NOT SOIL MEETS THIS MINIMUM CRITERIA AND IF IT DOES NOT, SHALL NOTIFY ENGINEER SO THAT THE FOUNDATION MAY BE REDESIGNED ACCORDINGLY.

3. DOUBLE MAT OF REBAR SHALL BE PROVIDE AT ALL SHOTCRETE WALLS 5' AND GREATER IN HEIGHT. REBAR TO BE OFFSET TO PREVENT SHADOWING

4. DOUBLE MAT OF REBAR SHALL BE PROVIDED AT ALL SHOTCRETE WALL GREATER THAN 12" THICK. REBAR TO BE OFFSET TO PREVENT SHADOWING



14 BOND BEAM PLUMBING CLEARANCES
SCALE: N.T.S. CROSS SECTION



15 REINFORCING AT POOL STEPS
SCALE: N.T.S. CROSS SECTION

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REVISION DATES:

1	ADDENDUM 1	1/26/2026

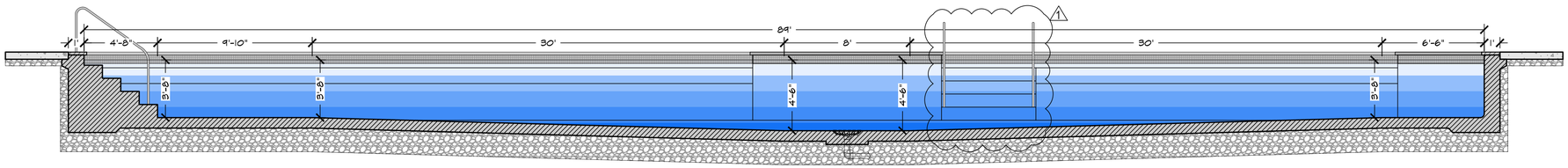
STATE OF MISSOURI
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER

PROFESSIONAL SEAL

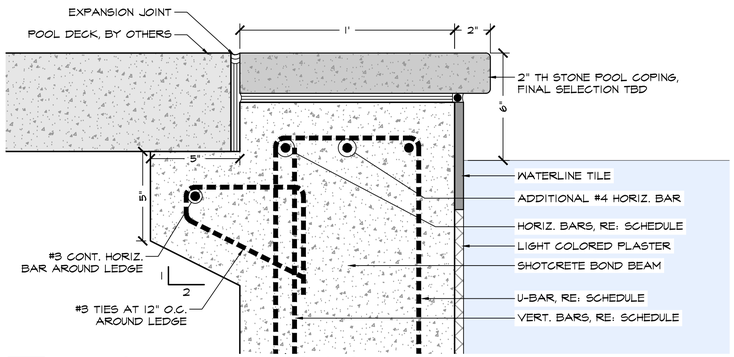
W102

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

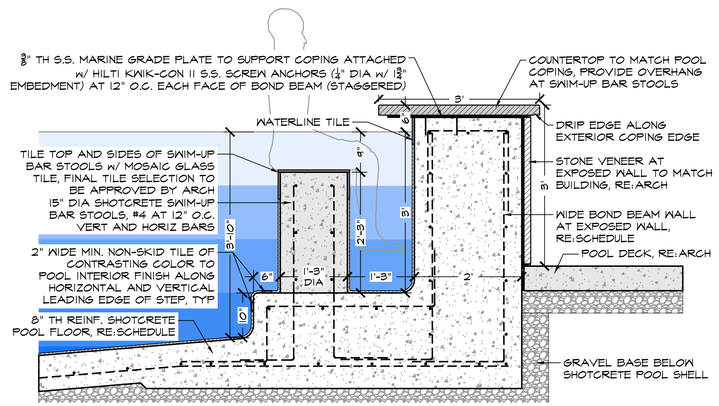
POOL STRUCTURAL DETAILS



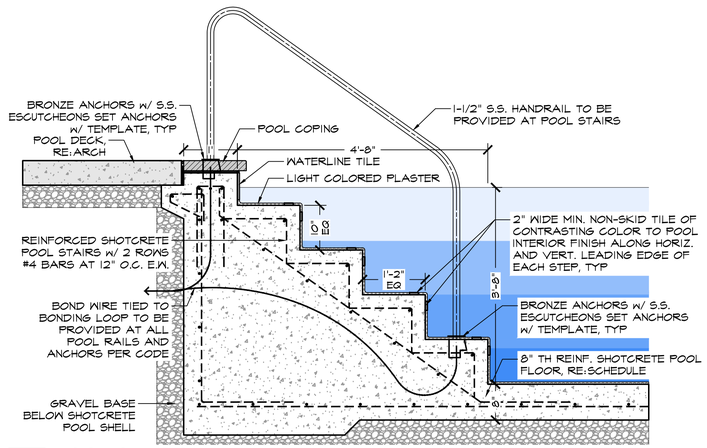
1 POOL CROSS SECTION
SCALE: 1/4" = 1'-0" SECTION



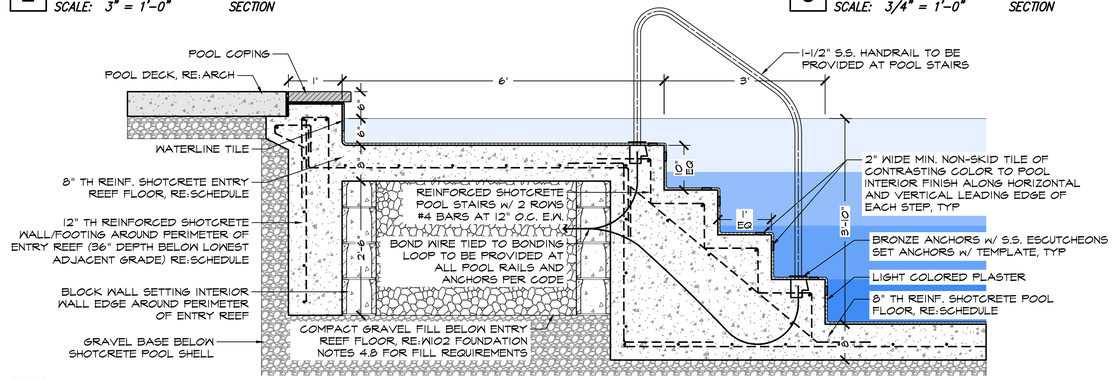
2 TYP. BOND BEAM AND COPING
SCALE: 3" = 1'-0" SECTION



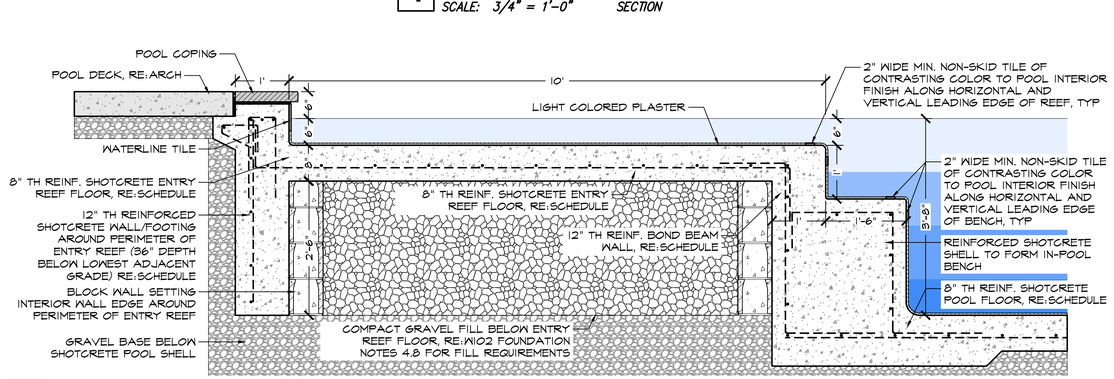
3 SWIM-UP BAR STOOLS
SCALE: 3/4" = 1'-0" SECTION



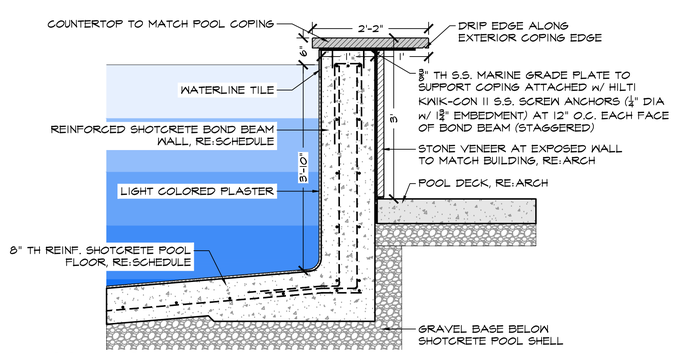
4 POOL STAIRS
SCALE: 3/4" = 1'-0" SECTION



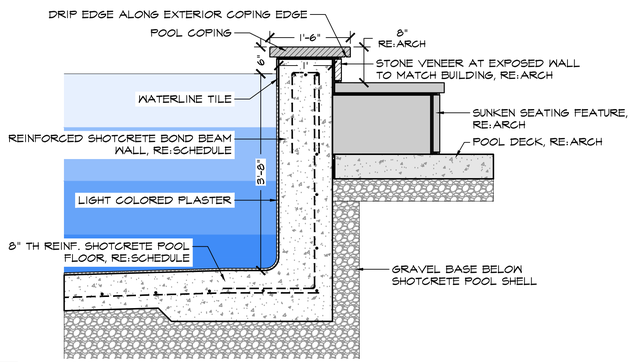
5 POOL STAIRS AT REEF
SCALE: 3/4" = 1'-0" SECTION



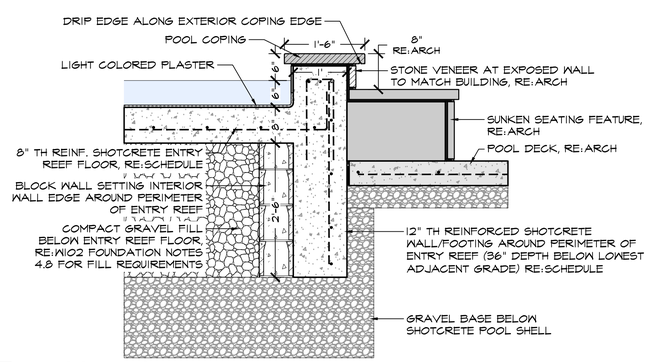
6 ENTRY REEF AND IN-POOL BENCH
SCALE: 3/4" = 1'-0" SECTION



7 EXPOSED BOND BEAM WALL
SCALE: 3/4" = 1'-0" SECTION



8 EXPOSED BOND BEAM WALL
SCALE: 3/4" = 1'-0" SECTION



9 EXPOSED BOND BEAM WALL
SCALE: 3/4" = 1'-0" SECTION

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⚠ ADDENDUM 1	1/26/2026

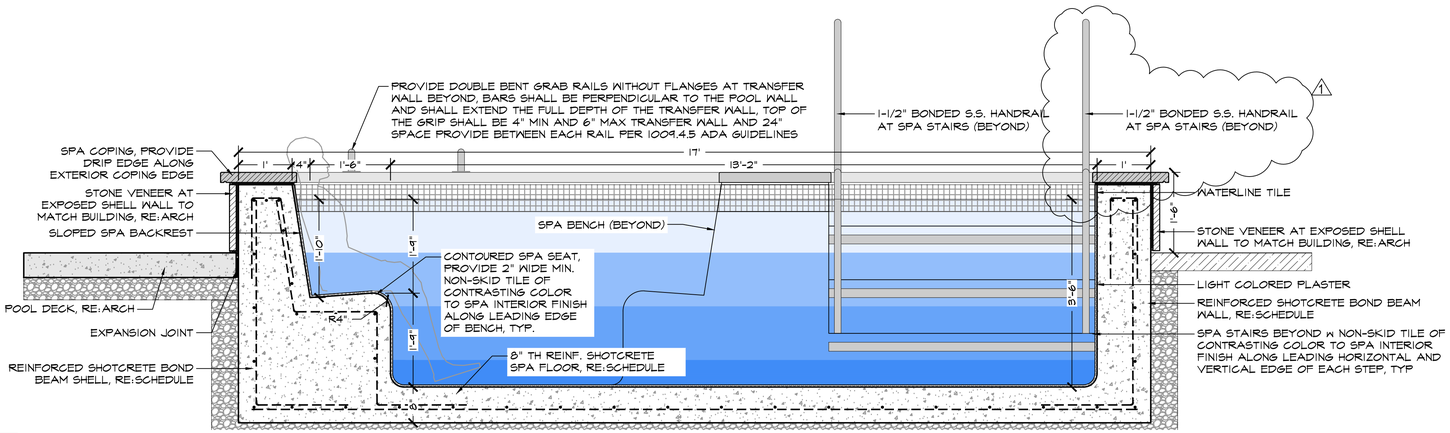
STATE OF MISSOURI
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER

PROFESSIONAL SEAL

W103

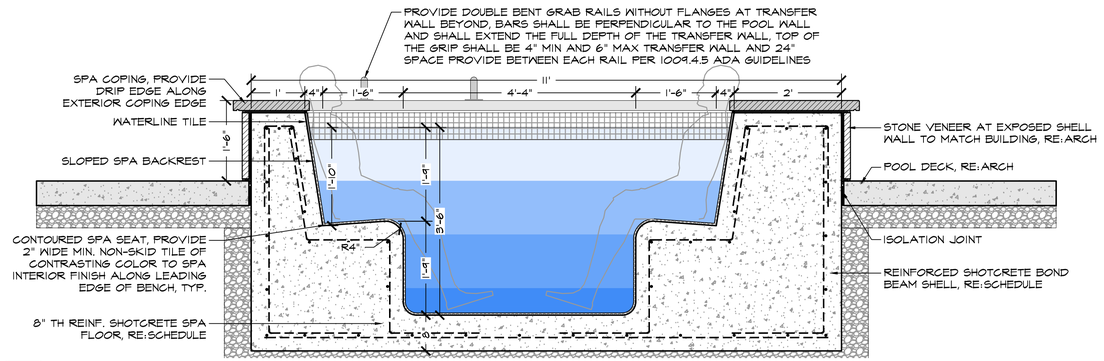
ISSUE DATE: DECEMBER 22, 2025
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POOL CROSS SECTIONS



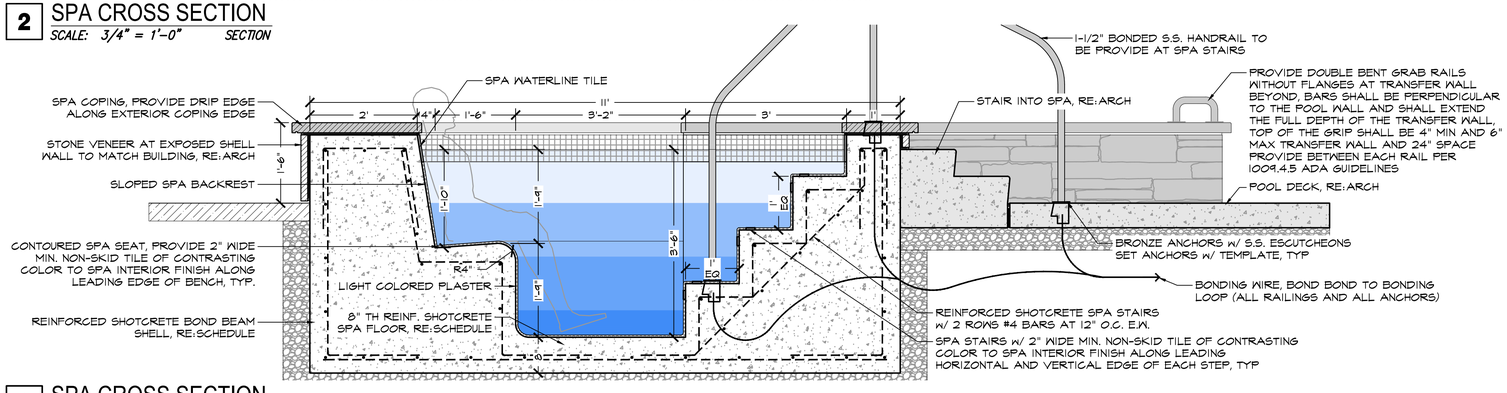
1 SPA CROSS SECTION

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



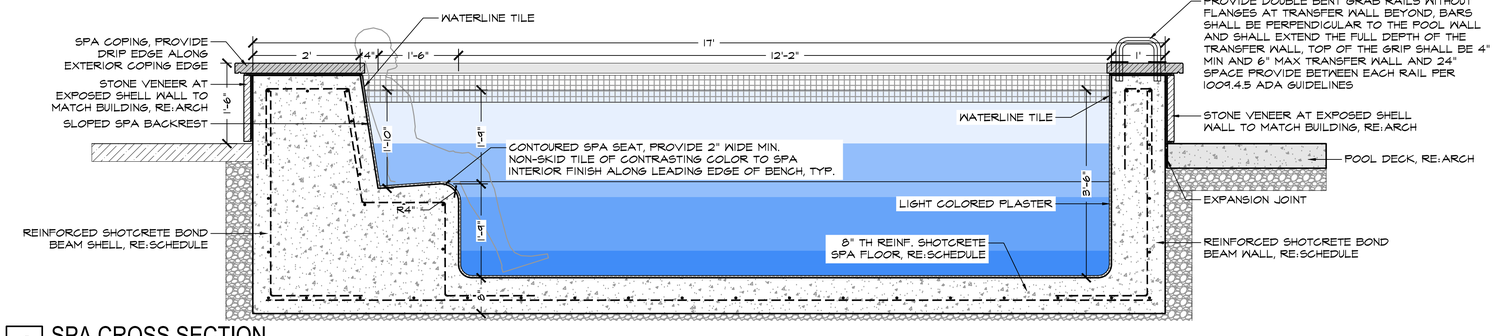
2 SPA CROSS SECTION

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



3 SPA CROSS SECTION

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



4 SPA CROSS SECTION

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

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REVISION DATES:

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STATE OF MISSOURI
JAMES M. GRANICH
NUMBER PE-2014023909
PROFESSIONAL ENGINEER

PROFESSIONAL SEAL

W104

ISSUE DATE: DECEMBER 22, 2025

HOEFER WELKER #: 1259011

SPA CROSS SECTIONS

1. CALL 811 FROM ANYWHERE IN THE USA AND YOUR CALL WILL BE ROUTED TO YOUR LOCAL ONE-CALL CENTER WHERE OPERATORS WILL ASK YOU FOR THE LOCATION OF YOUR DIGGING/DRILLING JOB AND ROUTE YOUR CALL TO THE AFFECTED UTILITY COMPANIES. YOUR LOCAL UTILITY COMPANIES WILL THEN SEND A PROFESSIONAL LOCATOR TO YOUR JOB TO MARK CONFLICTS WITHIN A FEW DAYS.

2. CALL AT LEAST 3 DAYS BEFORE EXCAVATING TO AVOID SERIOUS FINES AND REPAIR EXPENSES. MARK THE PLANNED EXCAVATION AREAS WITH WHITE PAINT. PAINT SHALL BE WATER-BASED QUIK-MARK BY KRYLON OR EQUAL.

3. PROVIDE: ADDRESS, CITY, COUNTY, FOREMAN'S NUMBER, COMPANY, NATURE OF WORK, DATE WORK WILL BEGIN, PERMIT NUMBER, THOMAS GUIDE PAGE AND GRID5.

4. UTILITY MARKERS GENERALLY EXPIRE AFTER 14 DAYS AFTER WHICH THE PROCESS MUST BE REPEATED. NO EXCAVATION PERMIT IS VALID WITHOUT FIRST CALLING 811. HAND-DIG TO 24" ON EITHER SIDE OF ALL UTILITIES. IT IS THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO EACH CALL 811.

5. EXCAVATION REQUIREMENTS VARY DEPENDING ON LOCAL LAWS. COLOR CODES MAY VARY AND LOCAL REQUIREMENTS SHALL SUPERSEDE THIS GENERAL WARNING. FOR MORE INFORMATION, CHECK OUT THE COMMON GROUND ALLIANCE AT WWW.CALL811.COM.

6. COLOR KEY:
WHITE - PROPOSED EXCAVATION
PINK - TEMP. SURVEY MARKINGS
RED - ELECTRIC
YELLOW - GAS/OIL/STEAM
ORANGE - COMMUNICATIONS/CATV
BLUE - WATER
PURPLE - RECLAIMED WATER
GREEN - SEWER

811 Know what's below. Call before you dig.

1 DIGGING / DRILLING ALERT
SCALE: N.T.S.

NOTES

1. ALL DIMENSIONS SHALL BE FIELD-MEASURED AFTER THE ANCHOR SOCKETS ARE SET IN THEIR FINAL POSITION

2. MATERIALS: TYPE 304SS OR TYPE 316L SS.
TUBE DIAMETER: 1.9INCHES
WALL THICKNESS: 0.145"
END-LOOPS: NONE
FINISH: 600 GRIT
BEND RADIUS: NOMINAL 6" RADIUS

3. MANUFACTURER (OR APPROVED EQUAL):
S.R. SMITH, LLC
P.O. BOX 4002
1017 SW BERG PARKWAY
CANBY, OR 97013 USA

OFFICE: 888.677.7776
FAX: 503.266.0299
WEBSITE: WWW.SRSMITH.COM

4. HANDRAIL IS BONDED WHEN IT IS PROPERLY CLAMPED INTO THE BONDED ANCHOR SOCKETS VIA THE WEDGE ASSEMBLY. SEE BONDING DETAIL

5. DOUBLE HANDRAILS ARE REQUIRED FOR SPAS IF RISERS ARE GREATER THAN 9" OR IF THE SPA BENCH IS NOT AT THE SAME LEVEL AS ONE OF THE STAIR TREADS (LA COUNTY)

DETAIL KEYNOTES

1. TOTAL WIDTH, CENTER TO CENTER = (24" MIN, 72" MAX)

2. STRAIT SECTION WIDTH =

3. SLOPING SECTION WIDTH =

4. HEIGHT ABOVE DECK = 32" + 4" SOCKET = 36" (28" MIN, 44" MAX)

5. CENTERLINE TO FACE OF TILE DIMENSION SHALL BE USED FOR THE STRAIGHT SECTION WIDTH DIMENSION (2) ABOVE

6. SLOPING ELEVATION =

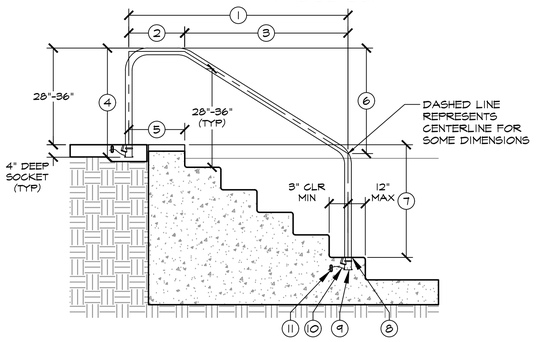
7. MOUNTING ELEVATION =
(10" MIN, 48" MAX)

8. ESCUTCHEON PLATE, CHROME PLATED CAST BRASS, TYPICAL EA END. S.R. SMITH PART NUMBER 1EP-100

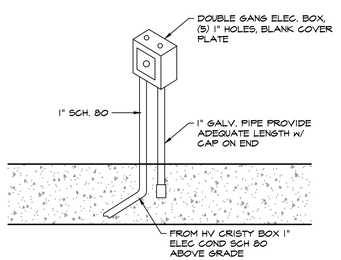
9. 4" BRONZE INSTITUTIONAL ANCHOR WITH BRONZE WEDGE, BONDED, TYPICAL EA END. S.R. SMITH PART NUMBER 1AS-100

10. #8 AWG BARE COPPING BONDING WIRE

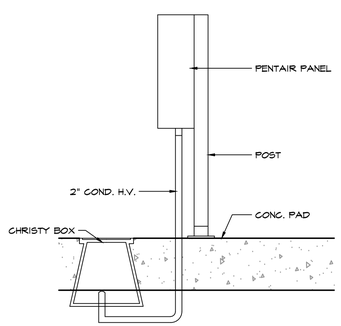
11. BONDING CLAMP. HARGER LIGHTNING AND GROUNDING (WWW.HARGER.COM) P/N RB12A OR RB12B OR EQUAL, TYPICAL EA END.



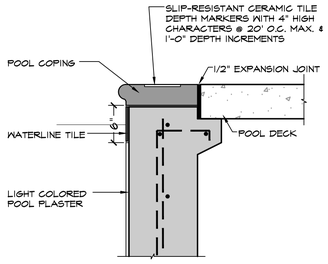
6 3-BEND HANDRAIL DETAIL
SCALE: NTS SECTION



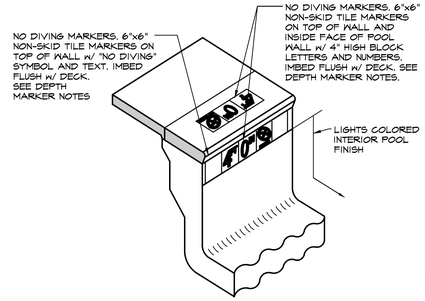
10 HIGH VOLTAGE STUB-UP
SCALE: NTS SECTION



11 HIGH VOLTAGE PANEL MOUNT
SCALE: NTS SECTION



2 POOL MARKER DETAIL
SCALE: 1" = 1'-0" SECTION



DEPTH / WARNING MARKER NOTES:

1. DEPTH MARKERS SHALL BE LOCATED A MAXIMUM OF 25'-0" OR LESS CENTER TO CENTER AROUND THE FULL PERIMETER OF THE SWIMMING POOL.

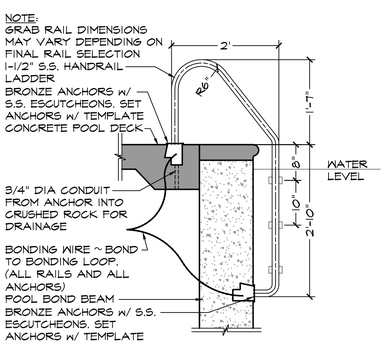
2. THE MAXIMUM DEPTH OF THE SWIMMING POOL SHALL BE MARKED ON BOTH SIDES OF THE SWIMMING POOL AT THE MAIN DRAIN.

3. THE DEPTH SHALL BE MARKED AT 6" DEPTH INTERVALS. SEE DEPTH MARKERS SCHEDULE ON POOL PLAN DRAWING FOR MORE INFORMATION.

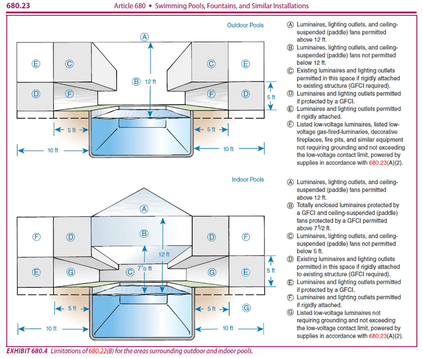
4. "NO DIVING" SYMBOL TILES SHALL BE LOCATED ON THE DECK WITH EACH SET OF DEPTH MARKERS IN 0" TO 5'-0" OF WATER.

5. LETTER, NUMBER AND GRAPHIC MARKERS SHALL BE SLIP RESISTANT, OF A CONTRASTING COLOR FROM THE DECK AND AT LEAST 4" IN HEIGHT

3 POOL MARKER DETAIL
SCALE: NTS ILLUSTRATIVE VIEW



4 POOL LADDER
SCALE: 3/4" = 1'-0" SECTION


680.23 Article 680 • Swimming Pools, Fountains, and Similar Installations

Outdoor Pools

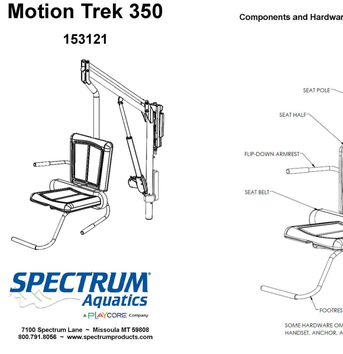
A. Luminaires, lighting outlets, and ceiling-suspended (paddle) fans permitted above 12 ft.
B. Luminaires, lighting outlets, and ceiling-suspended (paddle) fans not permitted below 12 ft.
C. Existing luminaires and lighting outlets permitted in this space if rigidly attached to existing structure (GFCI required).
D. Luminaires and lighting outlets permitted if protected by a GFCI.
E. Luminaires and lighting outlets permitted if rigidly attached.
F. Listed low-voltage luminaires, listed low-voltage gas-fired-luminaries, decorative fireplaces, fire pits, and similar equipment not requiring grounding and not exceeding the low-voltage contact limit, powered by supplies in accordance with 680.23(A)(2).

Indoor Pools

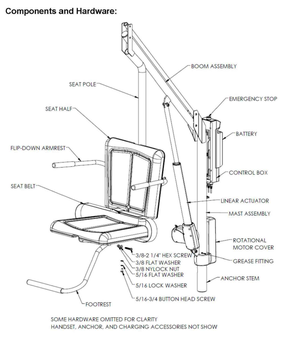
A. Luminaires, lighting outlets, and ceiling-suspended (paddle) fans permitted above 12 ft.
B. Totally enclosed luminaires protected by a GFCI and ceiling-suspended (paddle) fans protected by a GFCI permitted above 7½ ft.
C. Luminaires, lighting outlets, and ceiling-suspended (paddle) fans not permitted below 5 ft.
D. Existing luminaires and lighting outlets permitted in this space if rigidly attached to existing structure (GFCI required).
E. Luminaires and lighting outlets permitted if protected by a GFCI.
F. Luminaires and lighting outlets permitted if rigidly attached.
G. Listed low-voltage luminaires not requiring grounding and not exceeding the low-voltage contact limit, powered by supplies in accordance with 680.23(A)(2).

EXHIBIT 680.4 Limitations of 680.22(B) for the areas surrounding outdoor and indoor pools.

7 REQUIRED POOL CLEARANCES
SCALE: NTS SECTION



Components and Hardware:



Installation Overview
Read all instructions before attempting to assemble or install the lift.

Clear Deck Space:
To be compliant with ADA guidelines, the lift must be installed in a location that is clear from obstacles and other hazards. Clear deck space is defined by the figure to the right. This rectangle is 48" long (along the pool wall) and 36" wide.



Pool/Spa Depth:
To comply with ADA guidelines the lift must be installed where the water depth does not exceed 48". If the entire pool is deeper than 48" this requirement does not apply.

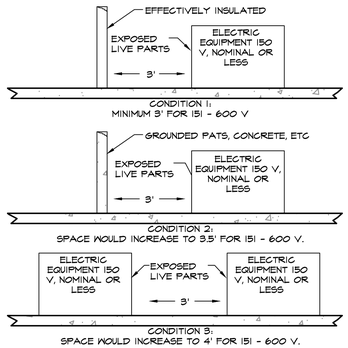
Anchor Location/Installation:
The lift anchor centerline must be no less than 6", but no greater than 22" from the pool/spa wall (or any feature that sticks out past the pool/spa wall, such as a coping). The lift is installed in a single 2.375" I.D. anchor.

New Construction Anchor Installation

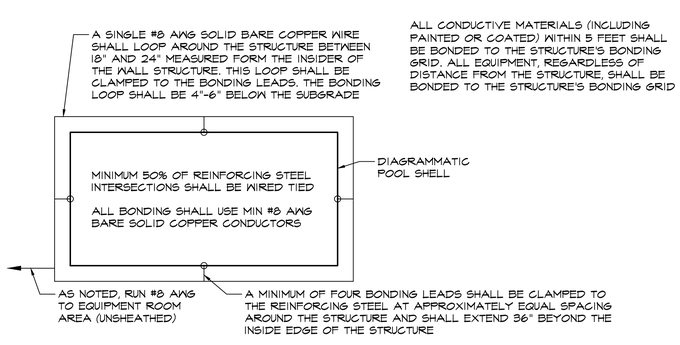
a. Place the anchor in the desired location following above guidelines.
b. Locate a bonding source to bond (ground) the anchor. The steel rebar-bonding grid of the pool deck is the best choice for bonding the anchor. Attach a No. 8 solid copper wire (NEC Section 680-22) from the bonding bolt on the base of the anchor to the bonding grid.
c. Secure anchor in place at the proper height – anchor may be cemented in place. Set the anchor so that the finished top is 1/8" to 1/4" below finished deck level – allowing for anchor cap to be put in place when the lift is not in use.
d. Use the carpenter's level to level the anchor making sure the lift mast will be vertically straight up and down (perpendicular to the deck) in all directions. It is important that the mast be vertically straight to ensure ease of rotation when the lift is fully loaded.
e. Place tape over the anchor hole before pouring concrete deck – not allowing concrete to enter anchor opening.
f. Pour concrete deck and finish.

Allow the concrete to cure for at least 7-days before installing and using the lift.

5 ADA CHAIR LIFT BY SPECTRUM AQUATICS
SCALE: N.T.S. MANUF. CUT SHEET



8 PLACEMENT OF PANEL BOARD
SCALE: NTS SECTION



9 STANDARD BONDING DETAIL
SCALE: NTS SECTION

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KANSAS CITY, MO
641P:
913.307.3700
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OLDHAM VILLAGE
1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

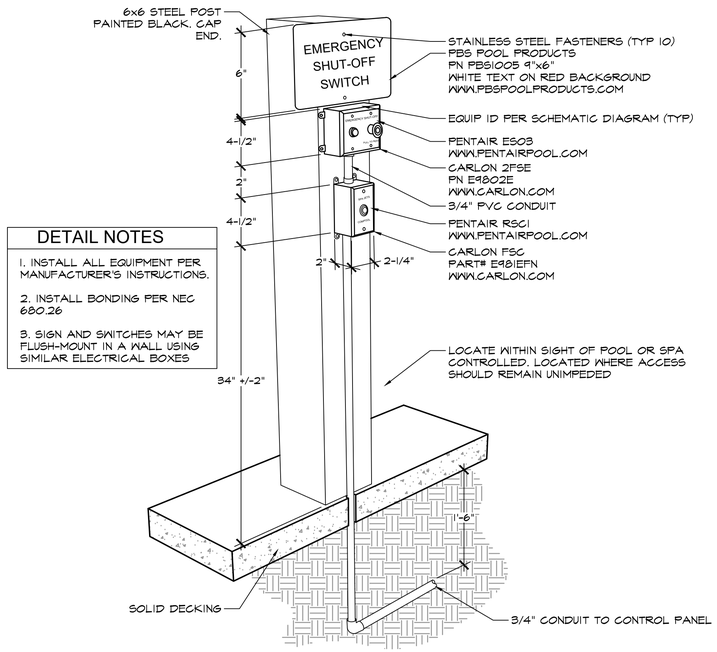
1	ADDENDUM 1	1/26/2026

STATE OF MISSOURI
KURT L. KRAISINGER
NUMBER 2003016227
LANDSCAPE ARCHITECT
1-26-2026
PROFESSIONAL SEAL

W105

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

POOL DETAILS



DETAIL NOTES

1. INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS.
2. INSTALL BONDING PER NEC 680.26
3. SIGN AND SWITCHES MAY BE FLUSH-MOUNT IN A WALL USING SIMILAR ELECTRICAL BOXES

3 EMERGENCY SHUT-OFF & JET PUMP START

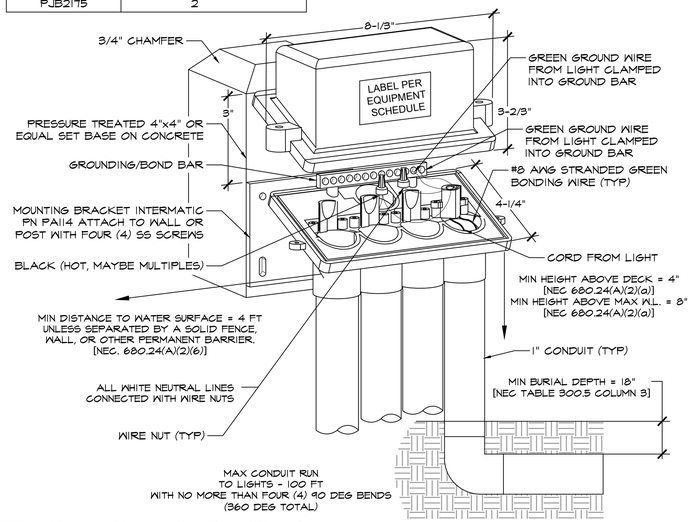
SCALE: NTS SECTION

NOTES

1. INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS
2. INSTALL BONDING PER NEC 680.26
3. SUBMERGED LIGHTS SHALL BE PROTECTED BY A GFCI OR GFCB

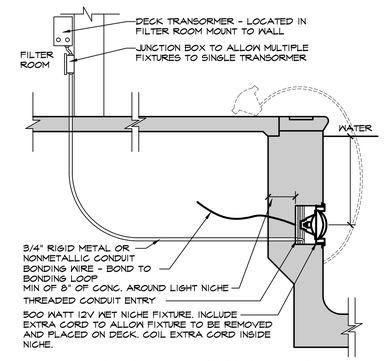
INTERMATIC JUNCTION BOX

MODEL	LIGHT CAPACITY
PJB4175	4
PJB2175	2



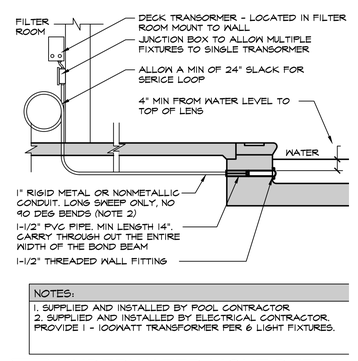
4 LIGHTING JUNCTION BOX DETAIL

SCALE: NTS SECTION



1 UNDERWATER POOL LIGHT

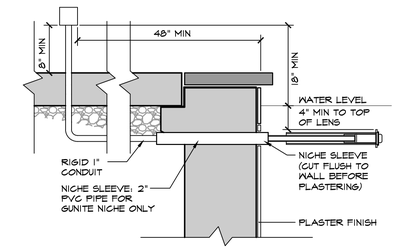
SCALE: 3/4" = 1'-0" SECTION



NOTES:
1. SUPPLIED AND INSTALLED BY POOL CONTRACTOR
2. SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE 1 - 100WATT TRANSFORMER PER 6 LIGHT FIXTURES.

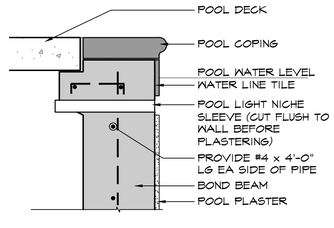
2 UNDERWATER LIGHT DETAIL

SCALE: NTS SECTION



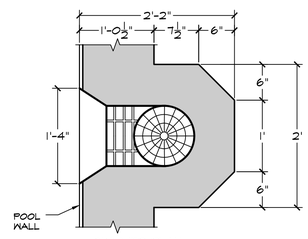
5 LIGHT PLACEMENT DETAIL

SCALE: NTS SECTION

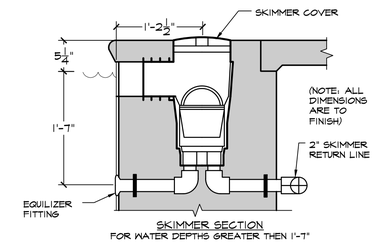


6 TYPICAL POOL LIGHTS

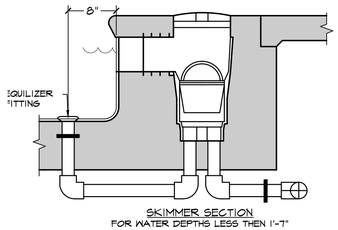
SCALE: 1" = 1'-0" SECTION



SKIMMER PLAN



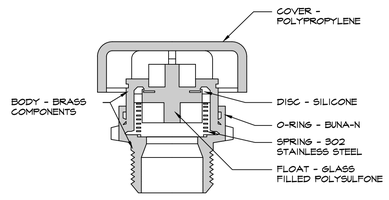
SKIMMER SECTION
FOR WATER DEPTHS GREATER THEN 1'-7"

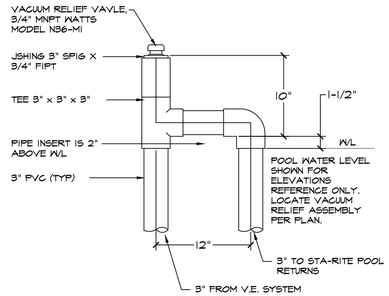


SKIMMER SECTION
FOR WATER DEPTHS LESS THEN 1'-7"

10 TYP. SKIMMER DETAIL

SCALE: NTS SECTION

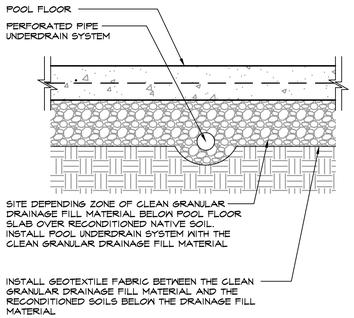




NOTE:
1. LOCATE VACUUM RELIEF ASSEMBLTY PER PLAN. IF FIELD CONDITIONS PREVENT CRITICAL ELEVATIONS TO BE ACHIEVED AT THE DESIRED LOCATION, NOTIFY THE DESIGNER IMMEDIATELY. DO NOT INSTALL VALVE HORIZONTALLY.
2. THE TYPE SS SPRING MAY PREMATURELY FAIL IN SALTWATER APPLICATIONS. IT IS ADVISABLE TO KEEP A SPARE VACUM RELIEF VALVE ON HAND.
3. VACUM RELIEF VALVE BY WATTS INDUSTRIES, INC. (WWW.WATTS.COM) OR APPROVED EQUAL.

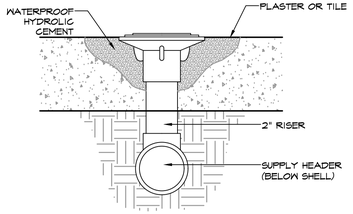
11 VACUUM RELIEF ASSEMBLY

SCALE: NTS SECTION



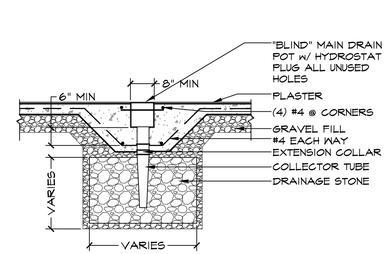
7 TYPICAL UNDERDRAIN DETAIL

SCALE: 1" = 1'-0" SECTION



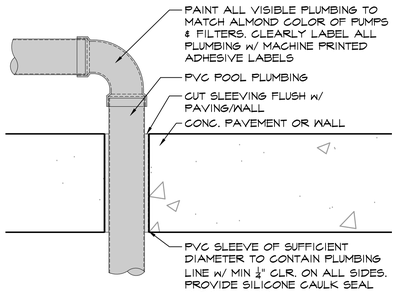
12 STATIC FLOOR RETURN

SCALE: NTS SECTION



8 MAIN DRAIN w/ HYDROSTAT

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

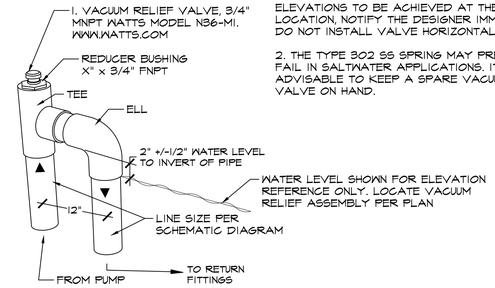


13 PLUMBING SLEEVING

SCALE: NTS SECTION

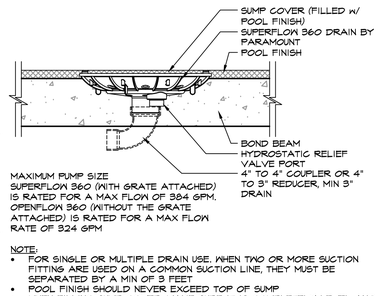
DETAIL NOTES

1. LOCATE VACUUM RELIEF ASSEMBLY PER PLAN. IF FIELD CONDITIONS PREVENT CRITICAL ELEVATIONS TO BE ACHIEVED AT THE DESIRED LOCATION, NOTIFY THE DESIGNER IMMEDIATELY. DO NOT INSTALL VALVE HORIZONTALLY
2. THE TYPE 302 SS SPRING MAY PREMATURELY FAIL IN SALTWATER APPLICATIONS. IT IS ADVISABLE TO KEEP A SPARE VACUUM RELIEF VALVE ON HAND.



9 VACUUM RELIEF ASSEMBLY

SCALE: NTS SECTION



MAXIMUM PUMP SIZE SUPERFLOW 360 (WITH GRATE ATTACHED) IS RATED FOR A MAX FLOW OF 384 GPM. OPENFLOW 360 (WITHOUT THE GRATE ATTACHED) IS RATED FOR A MAX FLOW RATE OF 324 GPM

NOTE:
- FOR SINGLE OR MULTIPLE DRAIN USE. WHEN TWO OR MORE SUCTION FITTING ARE USED ON A COMMON SUCTION LINE, THEY MUST BE SEPARATED BY A MIN OF 3 FEET
- POOL FINISH SHOULD NEVER EXCEED TOP OF SUMP
- WHEN FILLING SUMP COVER, MAKE SURE IT IS COMPLETELY LEVEL AND DOES NOT BOW OR SINK.
- DRAIN COVERS ARE NOT TO BE PLACED ON SEATING AREAS OR BACKREST THE PRESSURE CAN BE USED ON FLOOR ONLY

14 PARAMOUNT SUPERFLOW 360 DRAIN

SCALE: NTS SECTION

HOEFER WELKER

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OLDHAM VILLAGE

1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM 1	1/26/2026

STATE OF MISSOURI
KURT L KRAISINGER
NUMBER 2003016227
LANDSCAPE ARCHITECT
1-26-2026

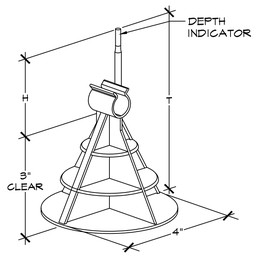
PROFESSIONAL SEAL

W106

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

POOL DETAILS

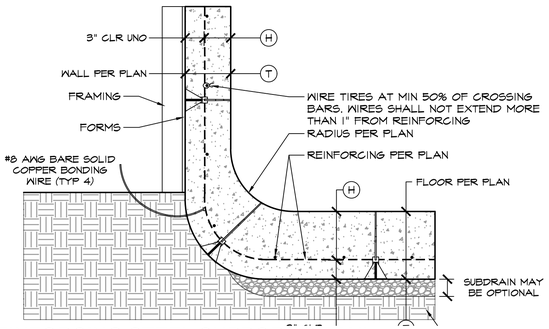
NUBIE® REBAR CHAIRS
WWW.WATERSHAPEPRODUCTS.COM



DETAIL NOTES

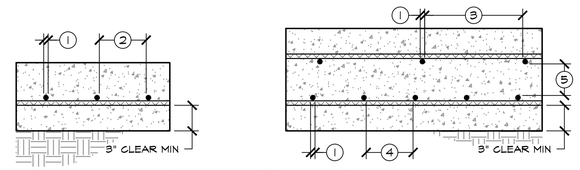
1. WALL THICKNESS AND REINFORCING PER PLAN.
2. NUBIE® REBAR CHAIRS ARE RECOMMENDED TO ENSURE REINFORCING CLEARANCE TO SOIL AND CONCRETE COVERAGE OVER THE TOP

NUBIE® PART NUMBERS			
PART NUMBER	COLOR	DEPTH INDICATOR HEIGHT "H"	MIN SHELL THICKNESS "T"
NB300-25	RED	2.5"	5.5"
NB300-30	ORANGE	3"	6"
NB300-35	WHITE	3.5"	6.5"
NB300-40	GRAY	4"	7"
NB300-45	BLACK	4.5"	7.5"
NB300-50	BLUE	5"	8"
NB300-55	YELLOW	5.5"	8.5"
NB300-60	GREEN	6"	9"
NB300-65	PURPLE	6.5"	9.5"
NB300-70	BROWN	7"	10"



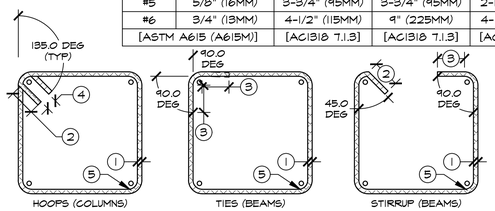
3 REINFORCING STEEL SUPPORT DETAIL
SCALE: NTS SECTION

MINIMUM CLEARANCES BETWEEN PARALLEL BARS					
BAR SIZE	NOMINAL DIA (1)	SINGLE CURTAIN (2)	TOP CURTAIN (3)	BOTTOM CURTAIN (4)	CENTERLINE SEPARATION (5)
#3	3/8" (10MM)	2-1/2" (65MM)	4-1/2" (115MM)	2-1/2" (65MM)	4-1/2" (115MM)
#4	1/2" (13MM)	2-1/2" (65MM)	6" (150MM)	3" (75MM)	4-1/2" (115MM)
#5	5/8" (16MM)	2-1/2" (65MM)	7-1/2" (190MM)	3-3/4" (95MM)	4-1/2" (115MM)
#6	3/4" (13MM)	4-1/2" (115MM)	9" (225MM)	4-1/2" (115MM)	4-1/2" (115MM)
[ASTM A615 (A615M)]		[IBC 1913.4.2]			

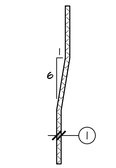


1 SHOTCRETE REINFORCING CLEARANCES
SCALE: NTS SECTION

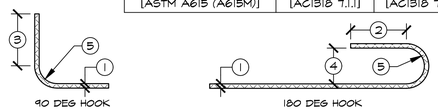
HOOPS, TIES AND STIRRUPS					
BAR SIZE	NOMINAL DIA (1)	135DEG STD TIE HOOK LENGTH (2)	90DEG STD TIE HOOK LENGTH (3)	MIN INSIDE BEND DIA (4)	CENTERLINE BEND RADIUS (5)
#3	3/8" (10MM)	3" (75MM)	2-1/2" (60MM)	1-1/2" (40MM)	15/16" (24MM)
#4	1/2" (13MM)	3" (75MM)	3" (75MM)	2" (50MM)	1-1/4" (32MM)
#5	5/8" (16MM)	3-3/4" (95MM)	3-3/4" (95MM)	2-1/2" (65MM)	1-9/16" (40MM)
#6	3/4" (13MM)	4-1/2" (115MM)	9" (225MM)	4-1/2" (115MM)	2-5/8" (70MM)
[ASTM A615 (A615M)]		[ACI318 7.1.3]	[ACI318 7.1.3]	[ACI318 7.2.2]	FOR DRAFTING



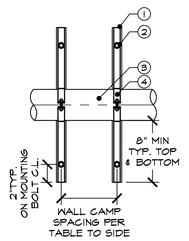
4 REINFORCING HOOKS, TIES & STIRRUPS
SCALE: NTS SECTION



STANDARD HOOKS AND BENDS					
BAR SIZE	NOMINAL DIA (1)	180DEG STD HOOK LENGTH (2)	90DEG STD HOOK LENGTH (3)	MIN INSIDE BEND DIA (4)	CENTERLINE BEND RADIUS (5)
#3	3/8" (10MM)	2-1/2" (65MM)	4-1/2" (115MM)	2-1/4" (60MM)	1-5/16" (35MM)
#4	1/2" (13MM)	2-1/2" (65MM)	6" (150MM)	3" (60MM)	1-3/4" (45MM)
#5	5/8" (16MM)	2-1/2" (65MM)	7-1/2" (190MM)	3-3/4" (75MM)	2-3/16" (60MM)
#6	3/4" (13MM)	3" (65MM)	9" (225MM)	4-1/2" (115MM)	2-5/8" (70MM)
#7	7/8" (13MM)	3-1/2" (90MM)	10-1/2" (265MM)	5-1/4" (135MM)	3-1/16" (80MM)
#8	1" (25MM)	4" (100MM)	12" (300MM)	6" (150MM)	3-1/2" (90MM)
#9	1-1/8" (29MM)	4-1/2" (115MM)	13-1/2" (340MM)	9" (225MM)	5-1/16" (130MM)
#10	1-1/4" (32MM)	5" (125MM)	15" (375MM)	10" (250MM)	5-5/8" (145MM)
[ASTM A615 (A615M)]		[ACI318 7.1.1]	[ACI318 7.1.2]	[ACI318 7.2]	FOR DRAFTING



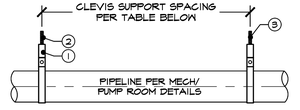
2 REINFORCING HOOKS, BENDS & OFFSETS
SCALE: NTS SECTION



DETAIL KEYNOTES
1. 'STRUTTECH' SERIES 200 TYPE VF PROTRUDED CHANNEL - MOUNT TO WALL w/ (2) ½" DIA 304 SS BOLTS AS SHOWN
2. MOUNTING BOLTS SHALL BE IMBEDDED IN CONCRETE WALL 5" MIN
3. PIPELINE PER MECHANICAL/PUMP ROOM DETAILS
4. 'STRUTTECH' #304 S.S. CLAMP w/ BOLTS PER TABLE BELOW

CLAMP SIZES		
PIPE SIZES	MAX. SPACING	CLAMP MODEL #
1½" AND SMALLER	3'-0"	FC-FFI50-SS
2"	5'-0"	FC-FF200-SS
3"	8'-0"	FC-FF300-SS
4"	12'-0"	FC-FF400-SS
6"	12'-0"	FC-FF600-SS
8"	10'-0"	FC-FF800-SS
10"	5'-0"	FC-FFI000-SS
12"	5'-0"	FC-FFI200-SS

5 PIPE WALL HANGER
SCALE: NTS



DETAIL KEYNOTES
1. POLYESTER OR VINYLESTER FIBERGLASS ADJUSTABLE RING CLEVIS HANGER PER 'STRUTTECH' TO SIZE SHOWN ON TABLE BELOW
2. ADJUST BOLT LENGTH TO MATCH DIMS SHOWN ON MECH/PUMP ROOM DETAILS
3. 304 STAINLESS STEEL SUPPORT BOLT PER 'STRUTTECH' TO SIZE SHOWN ON TABLE BELOW

HANGER SIZES			
PIPE SIZES	MAX. SPACING	BOLT MODEL #	SIZE
1½" & SMALLER	3'-0"	AL-500	½" DIA
2"	5'-0"	AL-500	½" DIA
3"	8'-0"	AL-500	½" DIA
4" TO 6"	12'-0"	AL-625	⅝" DIA
8"	8'-0"	AL-625	⅝" DIA
12" TO 24"	5'-0"	AL-625	1" DIA

6 PIPE CEILING HANGER
SCALE: NTS

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OLDHAM VILLAGE

1100 SW JEFFERSON ST
LEE'S SUMMIT, MO 64081

REVISION DATES:

1	ADDENDUM 1	1/26/2026

STATE OF MISSOURI
KURT L. KRAUSINGER
NUMBER 2003016227
LANDSCAPE ARCHITECT
1-26-2026

PROFESSIONAL SEAL

W107

ISSUE DATE: DECEMBER 22, 2025
HOEFER WELKER #: 1259011

POOL DETAILS

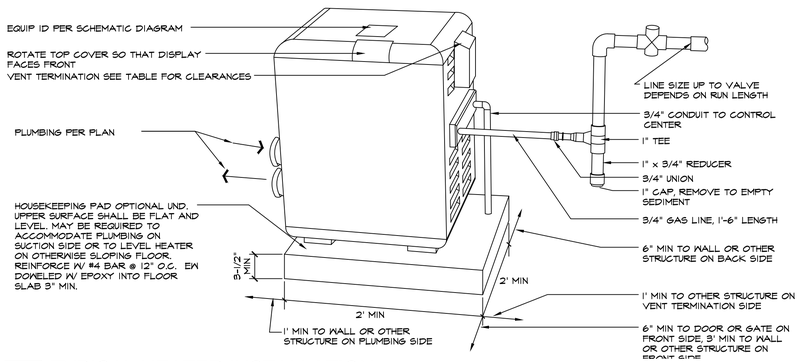
DETAIL NOTES:

1. INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS.
2. INSTALL BONDING PER NEC 680.26
3. INSTALL PER LOCAL CODES. THIS MAY REQUIRE THE ADDITION OF A PRESSURE RELIEF VALVE NOT TO EXCEED 50 PSI

VENT TERMINATION CLEARANCES	
DESCRIPTION	MIN CLEARANCE DIM
VERTICAL THROUGH ROOF	2' (600MM) ABOVE ALL STRUCTURES WITHIN 10' (3,000MM)
VERTICAL TO UNDERSIDE OF ROOF OR DECK OVERHANG	3' (900MM)
CLEARANCE FROM WALLS	6" (150MM)
CLEARANCE FROM ANY OPENING INTO A BUILDING	4' (1,200MM)
CLEARANCE FROM ELECTRIC METERS, PANELS, GAS METERS, REGULATORS, AND RELIEF EQUIPMENT	4' (1200MM)
CLEARANCE FROM PROPERTY LINE	1'-6" (450MM)
CLEARANCE FROM A/C OR HEAT PUMP	3' (900MM)
CLEARANCE ABOVE FINISHED GRADE AND NORMAL SNOW LEVEL	1' (300MM)

TYPE "B" DOUBLE-WALL VENT w/ TYPE "B" DOUBLE-WALL CONNECTOR IN FEET					
VENT SIZE	MODEL 175 HEIGHT MIN/MAX	MODEL 200 HEIGHT MIN/MAX	MODEL 250 HEIGHT MIN/MAX	MODEL 300 HEIGHT MIN/MAX	MODEL 350 HEIGHT MIN/MAX
6"	6' / 100'	6' / 100'	18' / 100'	30' / 100'	NOT REC.
7"	6' / 100'	6' / 100'	8' / 100'	10' / 100'	15' / 100'
8"	6' / 100'	6' / 100'	6' / 100'	6' / 100'	8' / 100'
9" & 10"	6' / 50'	6' / 50'	6' / 50'	6' / 100'	8' / 100'

TYPE "B" DOUBLE-WALL VENT w/ SINGLE WALL CONNECTOR IN FEET					
VENT SIZE	MODEL 175 HEIGHT MIN/MAX	MODEL 200 HEIGHT MIN/MAX	MODEL 250 HEIGHT MIN/MAX	MODEL 300 HEIGHT MIN/MAX	MODEL 350 HEIGHT MIN/MAX
6"	6' / 15'	6' / 15'	6' / 15'	NOT REC.	NOT REC.
7"	6' / 8'	6' / 8'	6' / 8'	10' / 20'	15' / 50'
8"	NOT REC.	NOT REC.	NOT REC.	6' / 20'	8' / 20'
9"	NOT REC.	NOT REC.	NOT REC.	NOT REC.	6' / 6'
10"	NOT REC.	NOT REC.	NOT REC.	NOT REC.	NOT REC.



4 TYPICAL HEATER INSTALLATION
SCALE: NTS

POLYETHYLENE (PE) GAS LINE BURIAL DEPTHS		
LOCATION	NORMAL SOIL	CONSOLIDATED ROCK
SERVICE LINES: PRIVATE PROPERTY	18"	18"
SERVICE LINES: UNDER STREETS, ROADS, AND DRIVEWAYS	24"	18"
TRANSMISSION LINES AND MAINS CLASS 1 LOCATION	30"	18"
TRANSMISSION LINES AND MAINS: CLASS 2, 3, AND 4 LOCATION	36"	24"
TRANSMISSION LINES AND MAINS: DRAINAGE DITCHES OF PUBLIC ROADS AND RAILROAD CROSSINGS	36"	24"
TRANSMISSION LINES AND MAINS: NAVIGABLE RIVERS, STREAMS OR HARBORS (MEASURED TOP OF PIPE TO NATURAL BOTTOM)	48"	24"

DETAIL NOTES:

7. A HYDROSTATIC PRESSURE TEST SHALL HOLD MIN 20 PSI WITH ZERO DROP IN 72 HOURS.

8. PE 2406/2708 MOPE YELLOW PIPE BY CHARTER PLASTICS.

9. PROPANE MAX OPERATING PRESSURE IS 30 PSI @ 73.4½F

DETAIL NOTES:

1. POLYETHYLENE PIPE SHALL CONFORM TO ASTM D2513-05D STANDARD SPECIFICATION FOR THERMOPLASTIC GAS PRESSURE PIPE, TUBING, AND FITTINGS.

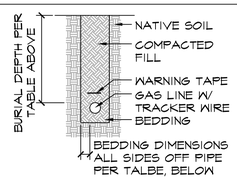
2. POLYETHYLENE PIPE DIMENSIONS SHALL BE BASED ON IRON PIPE SIZE STANDARDS INSTEAD OF COPPER TUBE SIZE PER TABLE BELOW

3. POLYETHYLENE COLOR SHALL BE YELLOW.

4. GAS PLUMBING SHALL BE INSTALLED WITH AN ELECTRICALLY CONTINUOUS INSULATED NUMBER 18 AWG COPPER TRACER WIRE TERMINATING ABOVE GRADE AT ALL ENDS OF THE GAS LINES.

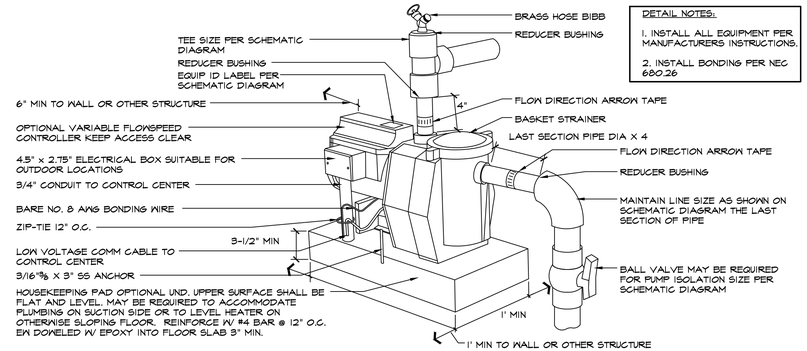
5. PVC AND COPPER SHALL NOT BE USED FOR GAS PLUMBING.

6. APPROVED PLASTIC-TO-METAL TRANSITION GITTINGS SHALL BE USED TO RISE ABOVE GRADE.



POLYETHYLENE (PE) PIPE SPECIFICATIONS						
NOMINAL SIZE	OUTSIDE DIA (IPS STD)	MIN WALL THICHNESS	DIA RATIO (DR)	MIN BEND RADIUS	NET GAS MAX PRESS	MIN BEDDING DIMENSIONS
1/2"	0.830"	0.091"	9.3	18"	81 PSI	2"
3/4"	1.060"	0.096"	11	21"	68 PSI	2"
1"	1.315"	0.120"	11	27"	68 PSI	2"
1-1/4"	1.360"	0.151"	11	34"	68 PSI	2"
1-1/2"	1.900"	0.173"	11	38"	68 PSI	2"
2"	2.375"	0.216"	11	48"	68 PSI	2"
3"	3.500"	0.304"	11.5	84"	64 PSI	3"
4"	4.500"	0.333"	13.5	108"	54 PSI	4"
5"	6.625"	0.491"	13.5	160"	54 PSI	6"

15 POLYETHELINE GAS PIPING
SCALE: NTS ILLUSTRATIVE VIEW



DETAIL NOTES:

1. INSTALL ALL EQUIPMENT PER MANUFACTURERS INSTRUCTIONS.

2. INSTALL BONDING PER NEC 680.26

1 TYPICAL PUMP INSTALLATION
SCALE: NTS

MAX FLOW RATES (PER OUTLET) MOUNTING POSITIONS (xxx=COLOR SUFFIX)					
MODEL	32CDLTxxx (AND 32CDLTFRxxx, 32CDLTVxxx)	32CDAVxxx (AND 32CDAVFRxxx, 32CDAVVxxx, 32CDAVAGxxx)	32PDxxx (MIN. 2" PIPE)	32CDBTxxx, 32CDBTFRxxx	32CDPHxxx (AND 32CDPHFRxxx, 32CDPHVxxx, 32CDPHTSxxx) (MIN 2" PIPE)
FLOOR	316 GPM @ 3.4 FPS	146 GPM @ 1.3 FPS	236 GPM @ 3.4 FPS	120 GPM @ 1.2 FPS	120 GPM @ 1.2 FPS
WALL	208 GPM @ 2.6 FPS	142 GPM @ 1.2 FPS	136 GPM @ 1.9 FPS	N.A.	N.A.

ACCEPTABLE PIPE SIZE FOR MAXIMUM RECOMMENDED SYSTEM FLOW RATE PER APSP-7 (6FEET/SECOND IN THE BRANCH LINE)				
PIPE SIZE	1½"	2"	2½"	3"
FLOW RATE IN GPM	45	80	110	160

WATER VELOCITY AND FLOW RATES
THE MAX WATER VELOCITY THROUGH DRAIN COVERS IS LIMITED BY LOCAL REGULATIONS. FOR EXAMPLE SOME STATE HEALTH DEPARTMENTS LIMIT THE VELOCITY THROUGH PUBLIC DRAIN COVERS TO 1.5' PER SECOND. THIS VELOCITY IS LOWER THATN THE FLOW RATING PROVIDED BY THE ANSI/APSP-16 2011 CERTIFICATION, THEREFORE THE LOCAL LIMIT APPLIES NAD MUST BE FOLLOWED. NEVER EXCEED THE FLOW RATING LISTED ON THE COVER EVEN IF THE LOCAL CODE DOES NOT PROVIDE A VELOCITY LIMIT.

PIPING-GENERAL
FOR NEW INSTALLATIONS, THE PIPING BETWEEN DRAINS MUST BE SIZED TO LIMIT THE VELOCITY TO 6 FEET PER SECOND. THIS LIMIT APPLIES TO THE BRANCH PIPING AND ALL FITTINGS BETWEEN MULTIPLE OUTLETS AND THE TREE LEADING BACK TO THE PUMP. IF CODE REQUIRES A LOWER WATER VELOCITY, COMPLY WITH THE CODE. SEE THE CHART ABOVE FOR INFORMATION ON PIPE SIZE FLOW RATINGS AT 6 FEET PER SECOND.

13 GENERAL PIPING NOTES
SCALE: NTS ILLUSTRATIVE VIEW

METAL FLUE COLAIR	PART NO.
4 x 6"	711101-0016
4 x 8"	711101-0017

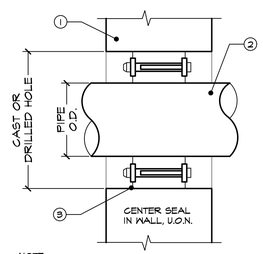
1. SEE TABLE 10, TO DETERMINE ALLOWABLE VENT SIZES FOR YOUR HEATER.
NOTICE: TABLE 10 IS FOR INSTALLATIONS IN WHICH THE TOTAL LATERAL VENT LENGTH (THAT IS HORIZONTAL DISTANCE FROM THE FLUE COLLAR TO THE COLLAR TO THE MAIN VERTICAL PORTION OF THE VENT) IS LESS THAN 1/2 THE TOTAL VENT HEIGHT (THE VERTICAL DISTNAGE FROM THE FLUE COLLAR TO THE VENT TERMINATION) AND WHICH HAVE THREE OR LESS ELBOWS IN THE SYSTEM. FOR VENTING SYSTEMS WHICH DO NOT MEET THESE CONDITIONS, CONSULT THE NATIONAL FUEL GAS CODE, ANSI Z223.1 (U.S.).

READ "VERTICAL VENTING - NEGATIVE PRESSURE" BEFORE USING THIS TABLE.

TABLE 10 - PERMITTED MINIMUM AND MAXIMUM VENT HEIGHTS BY SIZE AND HEATER MODEL

TYPE "B" DOUBLE-WALL VENT WITH TYPE"B" DOUBLE-WALL CONNECTOR IN FEET (METERS)					
VENT SIZE	MODEL 175 HEIGHT MIN./MAX.	MODEL 200 HEIGHT MIN./MAX.	MODEL 250 HEIGHT MIN./MAX.	MODEL 300 HEIGHT MIN./MAX.	MODEL 400 HEIGHT MIN./MAX.
6"	6' (1.8)/100' (30.5)	6' (1.8)/100' (30.5)	18' (5.5)/100' (30.5)	30' (9)/100' (30.5)	NOT REC
7"	6' (1.8)/100' (30.5)	6' (1.8)/100' (30.5)	8' (2.4)/100' (30.5)	10' (3)/100' (30.5)	15' (4.6)/100' (30.5)
8"	6' (1.8)/100' (30.5)	6' (1.8)/100' (30.5)	6' (1.8)/100' (30.5)	6' (1.8)/100' (30.5)	8' (2.4)/100' (30.5)
9" AND 10"	6' (1.8)/50' (15.3)	6' (1.8)/50' (15.3)	6' (1.8)/50' (15.3)	6' (1.8)/100' (30.5)	6' (1.8)/100' (30.5)
TYPE "B" DOUBLE-WALL VENT WITH SINGLE-WALL CONNECTOR IN FEET (METERS)					
VENT SIZE	MODEL 175 HEIGHT MIN./MAX.	MODEL 200 HEIGHT MIN./MAX.	MODEL 250 HEIGHT MIN./MAX.	MODEL 300 HEIGHT MIN./MAX.	MODEL 400 HEIGHT MIN./MAX.
6"	6' (1.8)/15' (4.6)	6' (1.8)/15' (4.6)	6' (1.5)/15' (4.6)	NOT REC	NOT REC
7"	6' (1.8)/8' (2.4)	6' (1.8)/8' (2.4)	6' (2.4)/8' (2.4)	10' (3)/20' (6)	15' (4.6)/50' (15.3)
8"	NOT REC	NOT REC	NOT REC	6' (1.8)/20' (6)	8' (2.4)/20' (6)
9"	NOT REC	NOT REC	NOT REC	NOT REC	6' (1.8)/6' (1.8)
10"	NOT REC	NOT REC	NOT REC	NOT REC	NOT REC

12 PIPE/WALL SEAL (LINK SEAL)
SCALE: NTS



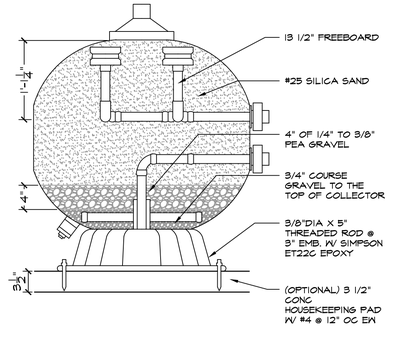
NOTE:
VERIFY ACTUAL PIPE OUTSIDE DIAM. DIM. PRIOR TO ORDERING SEAL

PIPE AND EQUIPMENT SUPPORT:
-FLOOR PENETRATIONS
-WALL PENETRATIONS
-PIPE SUPPORTS
-NOISE AND VIBRATION SUPPRESSION

DETAIL KEYNOTES
1. CAST-IN-PLACE CONCRETE OR MASONRY WALL AS DETAILED ELSEWHERE
2. PIPE AS SHOWN ON PLAN AND AS DETAILED ELSEWHERE
3. PIPE SEAL PER "LINK-SEAL" TO SIZE SHOWN ON TABLE - INSTALL PER MFR. REQUIREMENTS

PIPE SIZE (NORMAL)	OUTSIDE DIA (IPS O.D.)	CAST OR DRILLED CONC. HOLE INSIDE DIAM. (I.D.)	LINK SEAL PRODUCT #	NO. OF LINKS PER SEAL
1/2"	0.810	2.0	LS-200	4
3/4"	1.050	2.5	LS-275	5
1"	1.315	3.0	LS-300	4
1-1/4"	1.660	3.0	LS-275	7
1-1/2"	1.900"	3.5	LS-300	5
2"	2.375	4.0	LS-300	6
2-1/2"	2.875	4.0	LS-300	9
3"	3.500	5.0	LS-300	8
3-1/2"	4.000	6.0	LS-325	5
4"	4.500	6.0	LS-300	10
5"	5.563	8.0	LS-425	6
6"	6.625	10.0	LS-475	10
8"	8.625	12.0	LS-475	12
10"	10.75	14.0	LS-400	10
12"	12.75	16.0	LS-400	12
14"	14.00	16.0	LS-325	15
16"	16.00	18.0	LS-325	17
18"	18.00	23.0	LS-500	16
20"	20.00	25.0	LS-500	18
22"	22.00	27.0	LS-500	19
24"	24.00	29.0	LS-500	21
26"	26.00	31.0	LS-500	23
28"	28.00	33.0	LS-500	24
30"	30.00	35.0	LS-500	26
32"	32.00	37.0	LS-500	28
34"	34.00	39.0	LS-500	29
36"	36.00	41.0	LS-500	30

14 PIPE/WALL SEAL (LINK SEAL)
SCALE: NTS



2 TYP. SAND FILTER INSTALLATION
SCALE: NTS

3 STANDARD RETURN FITTING
SCALE: 1" = 1'-0" SECTION

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POOL DETAILS