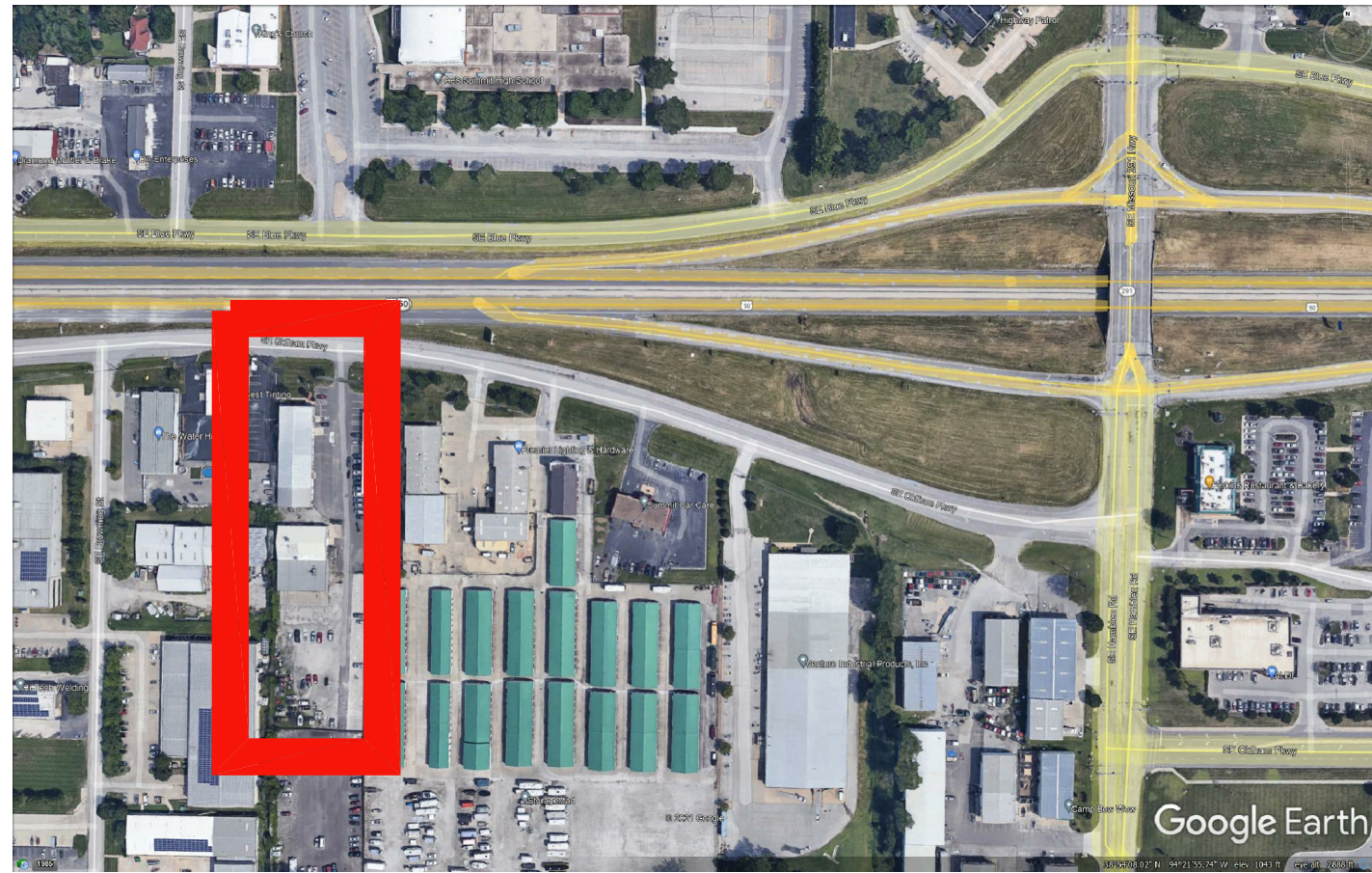


Oct 22, 2021 - 12:00pm - USER: ChrisB
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PROPOSED BUILDING FOR: CRASH CHAMPIONS

451 SE OLDHAM PARKWAY LEE'S SUMMIT MISSOURI

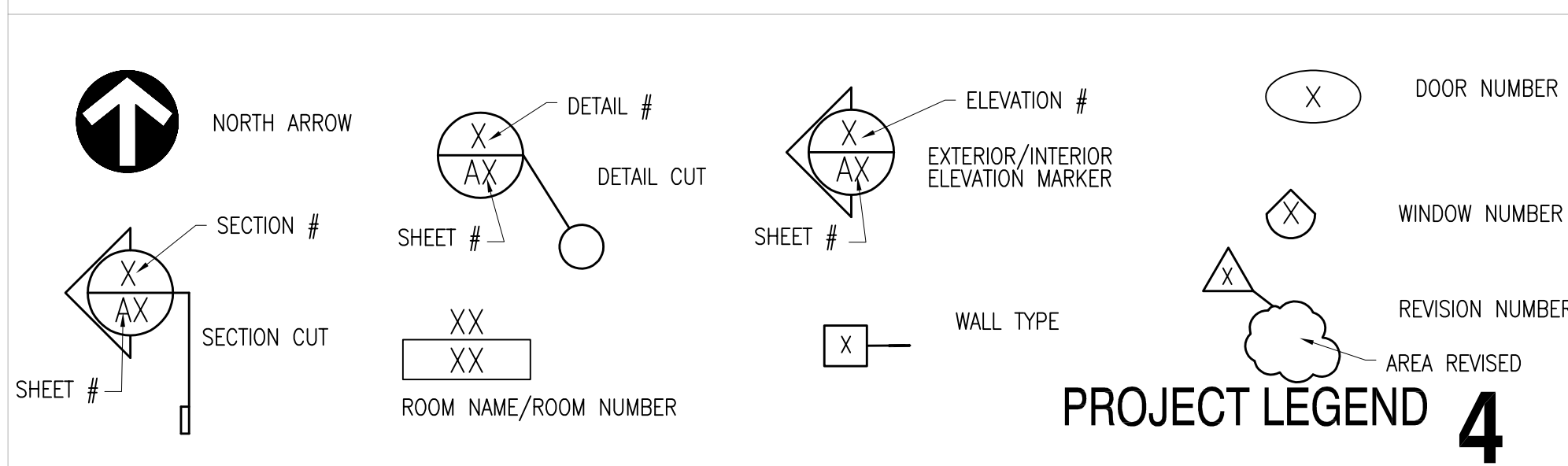


LOCATION MAP 2

N.T.S.

GENERAL NOTES 5

- CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO ANY WORK.
- SUB-CONTRACTOR TO VERIFY FIELD CONDITIONS AND MEASUREMENTS, AND TO PROMPTLY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WITH PLANS.
- REMOVE DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM CONSTRUCTION OPERATIONS FROM THE BUILDING SITE. PROVIDE AN ON-SITE DUMPSTER FOR DISPOSAL OF DEMOLISHED AND RUINED MATERIALS.
- UPON COMPLETION OF WORK, REMOVE TOOLS, EQUIPMENT, AND CONSTRUCTION DEBRIS FROM SITE. REMOVE PROTECTIONS AND LEAVE INTERIOR AREAS BROOM CLEAN.
- PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT GENERAL PUBLIC FROM INJURY DUE TO CONSTRUCTION. PROVIDE PROTECTIVE MEASURES AS REQUIRED TO PROVIDE FREE AND SAFE PASSAGE OF OWNER'S PERSONNEL.
- ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND INDUSTRY STANDARDS.
- FRAMING SUBCONTRACTOR IS REQUIRED TO NOTIFY ARCHITECT FOR VERIFICATION & APPROVAL OF LAYOUT PRIOR TO PROCEEDING WITH FRAMING.
- MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN, KEEP IN SERVICE, AND PROTECT AGAINST DAMAGE DURING CONSTRUCTION.
- DISPOSE OF ALL DEBRIS TO APPROVED DUMP SITE.
- ALL STRUCTURAL WOOD PANELS & WOOD BLOCKING TO BE FIRE TREATED.



ABBREVIATIONS 6

A/C	AIR CONDITIONING	EA	EACH	JB	JUNCTION BOX	RO	ROUGH OPENING
AC	ACCOUSTICAL	EJ	EXPANSION JOINT	JT	JOINT	ROW	RIGHT OF WAY
ACT	ACCOUSTICAL TILE	ELEC	ELECTRIC/ELECTRICAL			RTU	ROOF TOP UNIT
AFF	ABOVE FINISHED FLOOR	EMERG	EMERGENCY ELECTRICAL PANEL	LAV	LAVATORY	SCHED	SCHEDULE
ALT	ALTERNATE	EQ	EQUAL EQUIPMENT	MAX	MAXIMUM MECHANICAL	SF	SQUARE FEET
ALUM	ALUMINUM	EW	EACH WAY EXPANSION	MECH		SIM	SIMILAR
ANOD	ANODIZED	EXH	EXHAUST	MTL	METAL MANUFACTURER	SPEC	SPECIFICATION
APPROX	APPROXIMATELY	EXP	EXPANSION	MFG	MINIMUM MISCELLANEOUS	SPK	SPEAKER
ARCH	ARCHITECTURAL	FD	FLOOR DRAIN FOUNDATION FINISHED FLOOR ELEVATION	MIN		STL	STEEL
ASPH	ASPHALT	FFD	FLOOR DRAIN FOUNDATION FINISHED FLOOR ELEVATION	MISC		STRUC	STRUCTURAL
BD	BOARD	FRP	FIBERGLASS REINFORCED PLASTIC	NIC	NOT IN CONTRACT NOMINAL NOT TO SCALE	TEMP	TEMPORARY
B.F.F.	BELOW FINISHED FLOOR	FT	FOOT	NOM		TYP	TYPICAL
BLDG	BUILDING	FLR	FLOOR	NTS		UL	UNDERWRITER LABORATORIES UNLESS NOTED OTHERWISE UTILITIES
BRG	BEARING	FRP	FIBERGLASS REINFORCED PLASTIC	OC	ON CENTER OUTSIDE DIAMETER OVERHEAD	UNO	
BTU	BRITISH THERMAL UNIT	GA	GAUGE	OH		UTIL	
CCT	CIRCUIT	GALV	GALLON GALVANIZED	PL	PLATE PLUMBING PLYWOOD PANEL	VEST	VESTIBULE
CFM	CUBIC FEET/MINUTE	GND	GROUND	PLYWD		VTR	VENT THROUGH ROOF
CJ	CONTROL JOINT	GYP	GYPSONUM	PNL	PREFABRICATED POUNDS/SQUARE FOOT POUNDS/SQUARE INCH POLYVINYL CHLORIDE	W/	WITH
CLG	CEILING	HB	HOSE BIBB	PSF		WC	WATER CLOSET
CLR	CLEAR	HDWR	HARDWARE	PSI		WD	WOOD
CMU	CONCRETE MASONRY UNIT	HORZ	HORIZONTAL	PVC		WT	WEIGHT
CNDT	CONDUIT	HP	HORSE POWER	QT	QUARRY TILE	WWF	WELDED WIRE FABRIC
CO	CLEAN OUT	HTG	HEATING	R/A	RETURN AIR ROOF DRAIN RECESSED	YD	YARD
COL	COLUMN	HTR	HEATER	RD	ROOF DRAIN		
CONC	CONCRETE	HW	HOT WATER	RCPT	RECESSED		
CONST	CONSTRUCTION	ID	INSIDE DIAMETER	REF	REFERENCE REINFORCING REQUIRED		
CONT	CONTINUOUS	IN	INCHES	REIN			
CT	CERAMIC TILE	INSUL	INSULATION	REQD			
CW	COLD WATER						
DIA	DIAMETER						
DIM	DIMENSION						
DISC	DISCONNECT						
DN	DOWN						
DR	DOOR						
DS	DOWNSPOUT						
DTL	DETAIL						

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general contractor:
ROSE CONSTRUCTION
P.O. Box 100
Olathe, Kansas 66051
(P) 913.782.0777
(F) 913.782.0998
www.buildwithrose.com

architect:
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DESIGN GROUP
ROSE DESIGN GROUP INC.
P.O. Box 100
Olathe, Kansas 66051
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(F) 913.782.0998
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Engineering, Inc.
civil engineer:
PHELPS ENGINEERING, INC.
1270 N. Winchester
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(F) 913.393.1166
www.phelpsengineering.com

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4338 Bellevue
Kansas City, Missouri 64111
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PROJECT TEAM 3

DEFERRED SUBMITTALS:
FOLLOWING BUILDING COMPONENTS SHALL BE SUBMITTED TO LEES SUMMIT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION

- FIRE SPRINKLER SYSTEM
- PRECAST CONCRETE
- FIRE ALARM SYSTEM, W/O MANUAL PULL BOXES

NOTE:
MONUMENT SIGN & BUILDING SIGNAGE IS NOT IN PERMIT DOCUMENTS WILL BE SUBMITTED AS SEPARATE PERMIT(S)

SHEET INDEX

CIVIL:

S1	SITE SURVEY
C0	DEMOLITION PLAN
C1	SITE PLAN
C1.1	ENLARGED SITE PLAN
C1.2	ENLARGED SITE PLAN
C2	ENLARGED GRADING PLAN
C2.1	ENLARGED GRADING PLAN
C3	UTILITY PLAN
C4	EROSION CONTROL PLAN
C4.1	EROSION CONTROL DETAILS
C5	PAVEMENT DETAILS
C5.1	PAVEMENT DETAILS
C5.2	SANITARY & WATER DETAILS
LS-1	LANDSCAPE PLAN

ARCHITECTURAL:

CS	COVER SHEET
C1.0	CODE REVIEW
A1.0	SITE PLAN
A1.1	SITE PLAN PHASES
A2.0	FLOOR PLAN
A2.1	PHASED FLOOR PLANS
A2.2	ROOF PLAN
A3.0	BUILDING ELEVATIONS
A4.0	WALL SECTIONS
A4.1	WALL SECTIONS
A4.2	WALL SECTIONS
A4.3	WALL SECTIONS
A4.4	WALL SECTIONS
A5.0	SCHEDULES
A5.1	INTERIOR ELEVATIONS

STRUCTURAL:

S1	GENERAL NOTES FOUNDATION PLAN
S2	ROOF FRAMING PLAN & SECTIONS
S3	FOUNDATION SECTIONS

MP DESIGN:

M1.0	MECHANICAL PLANS
M2.0	MECHANICAL SCHEDULES
P1.0	PLUMBING PLANS
P1.1	PLUMBING ENLARGED PLANS
P2.0	PLUMBING SCHEDULES & DETAILS

ELECTRICAL DESIGN:

E1.0	ELECTRICAL POWER PLAN
E2.0	ELECTRICAL LIGHTING PLAN2
E3.0	ELECTRICAL DETAILS
E4.0	ELECTRICAL SCHEDULES
E4.1	ELECTRICAL SCHEDULES
E5.1.0	ELECTRICAL SITE PLAN

SHEET INDEX 1

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PROPOSED BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009
DATE ISSUED: 10 / 04 / 21

SHEET NUMBER

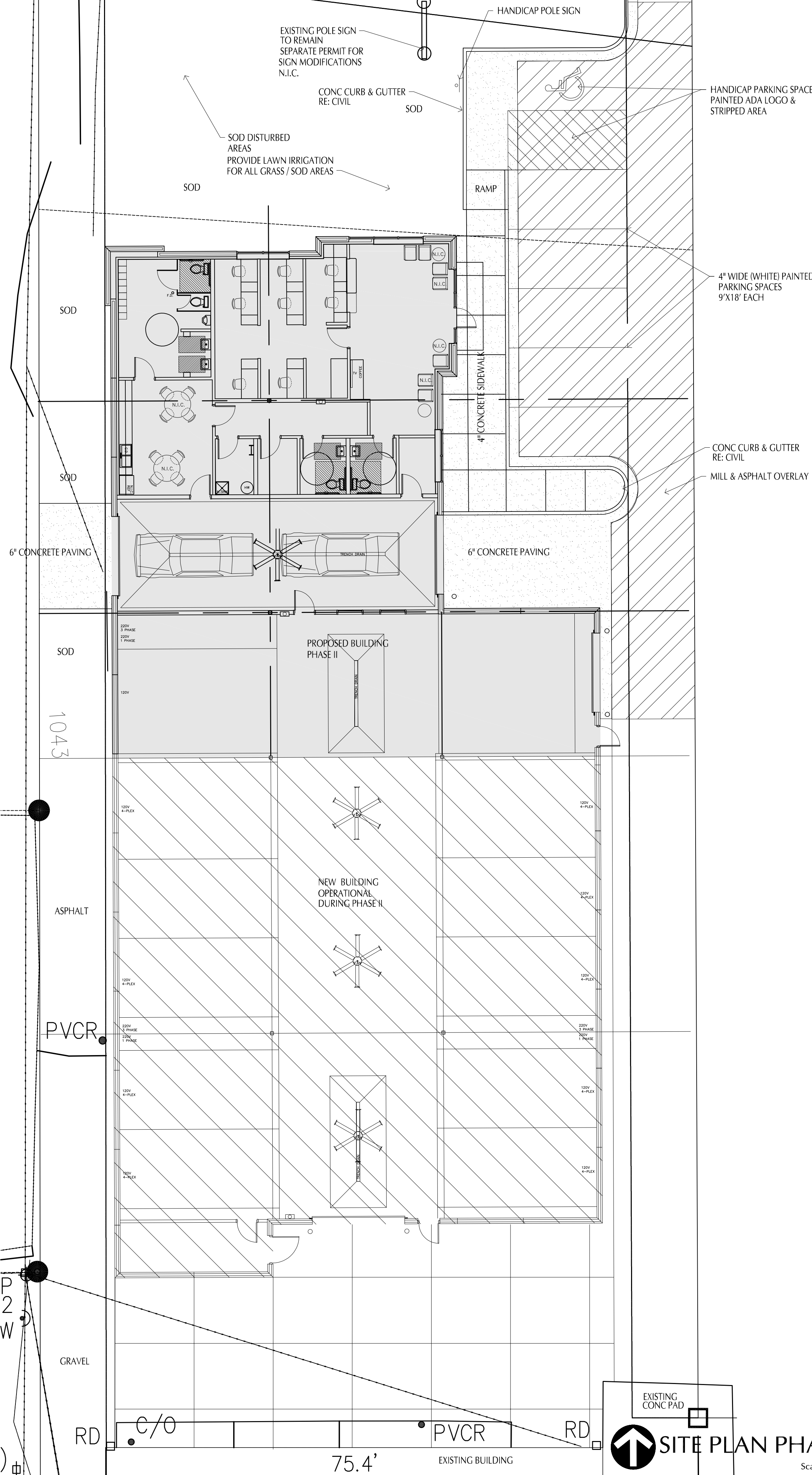
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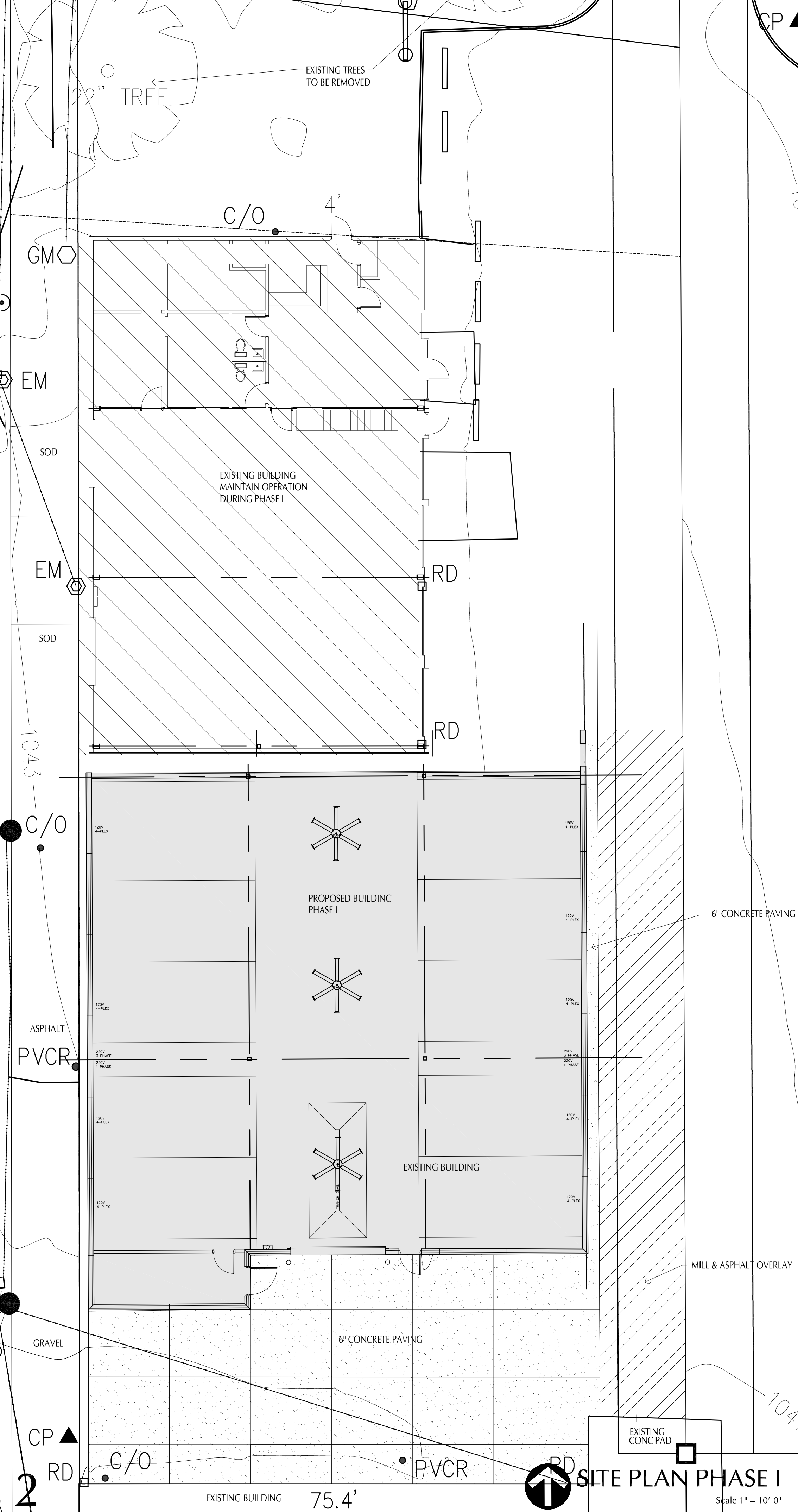
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CODE REVIEW

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↑ SITE PLAN PHASE II
Scale 1" = 10'-0"



↑ SITE PLAN PHASE I
Scale 1" = 10'-0"

PLAN NOTES

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STATE OF MISSOURI
REGISTERED ARCHITECT
NUMBER A-6275
10/04/2021
CHRISTOPHER R. BELL - ARCHITECT
MCA# A-6275



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LEE'S SUMMIT, MISSOURI

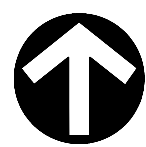
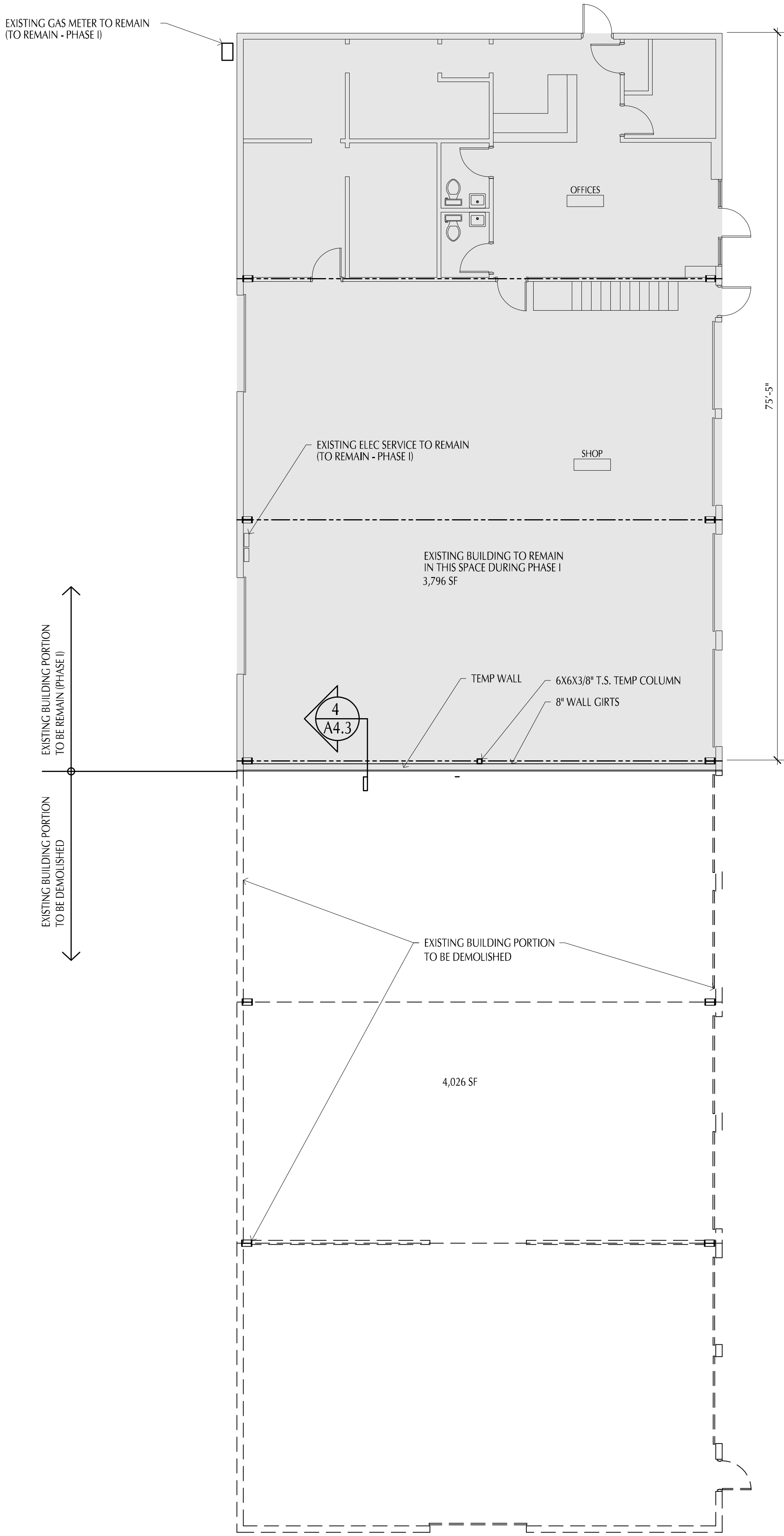
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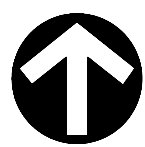
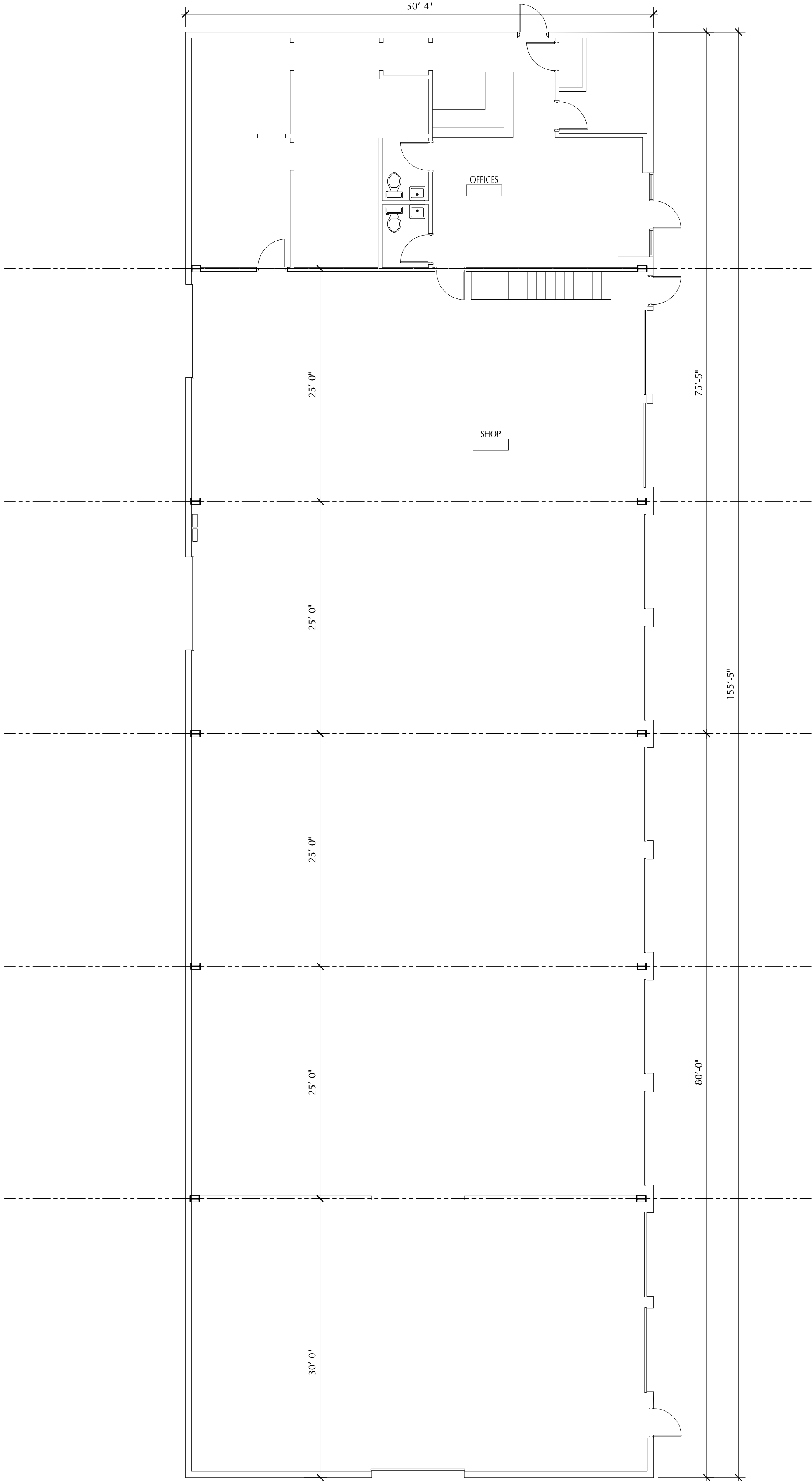
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PHASE ONE DEMOLITION FLOOR PLAN 2

Scale 1/8" = 1'-0"



EXISTING FLOOR PLAN 1

7,822 SF

Scale 1/8" = 1'-0"

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CRASH CHAMPIONS

**451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI**

NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009

DATE ISSUED: 10 / 04 / 21

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DEMOLITION
FLOOR PLAN



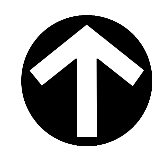
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CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

A2.0



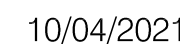
FLOOR PLAN PHASE II 2
4,400 S.F. Scale 1/8" = 1'-0"



FLOOR PLAN PHASE I 1
5,375 S.F. Scale 1/8" = 1'-0"

- 1 RECESSED CAB. & FIRE EXTINGUISHER 2A10BC
- 2 P.LAM WINDOW SILL W/ FURRED OUT WALL BELOW
- 3 OUTLINE OF CANOPY SHOWN DASHED
- 4 ROOF ACCESS STEEL LADDER

Christopher R. Bell



CHRISTOPHER R. BELL - ARCHITECT
MO# A-6275

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CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

A	5/8" GYP BD ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. W/ SOUND ATTENUATION INSULATION TO 12"-0" A.F.F.
B	5/8" GYP BD ON 6" 20 GA. METAL STUDS @ 16" O.C. W/ SOUND ATTENUATION INSULATION TO 12"-0" A.F.F.
C	5/8" GYP BD ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. W/ SOUND ATTENUATION INSULATION TO 15"-0" A.F.F.
D	5/8" GYP BD ON 6" 20 GA. METAL STUDS 16" O.C. SOUND ATTENUATION INSULATION TO STRUCTURE ABOVE
E	5/8" GYP BD (ONE SIDE ONLY) ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. TO 12"-0" A.F.F.
F	5/8" GYP BD (ONE SIDE ONLY) ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. TO 15"-0" A.F.F.
G	5/8" SOUND REDUCTION GYP BD ON 3 5/8" 20 GA. METAL STUDS 16" O.C. W/ SOUND ATTENUATION INSULATION TO STRUCTURE ABOVE
H	5/8" GYP BD ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. TO 4'-0" A.F.F. W/ HARD WOOD CAP, PAINTED

[illegible]

PROJECT NUMBER 2100

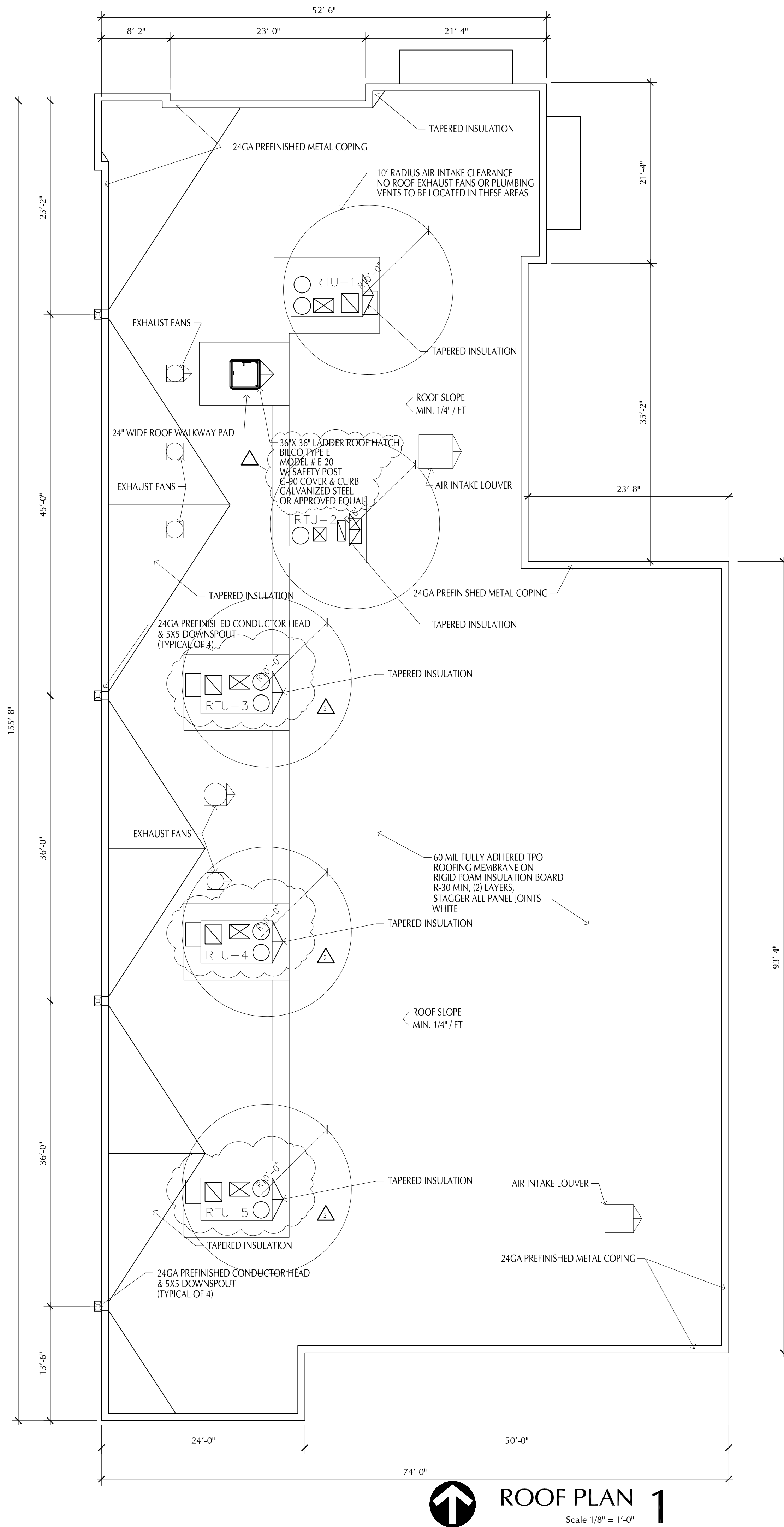
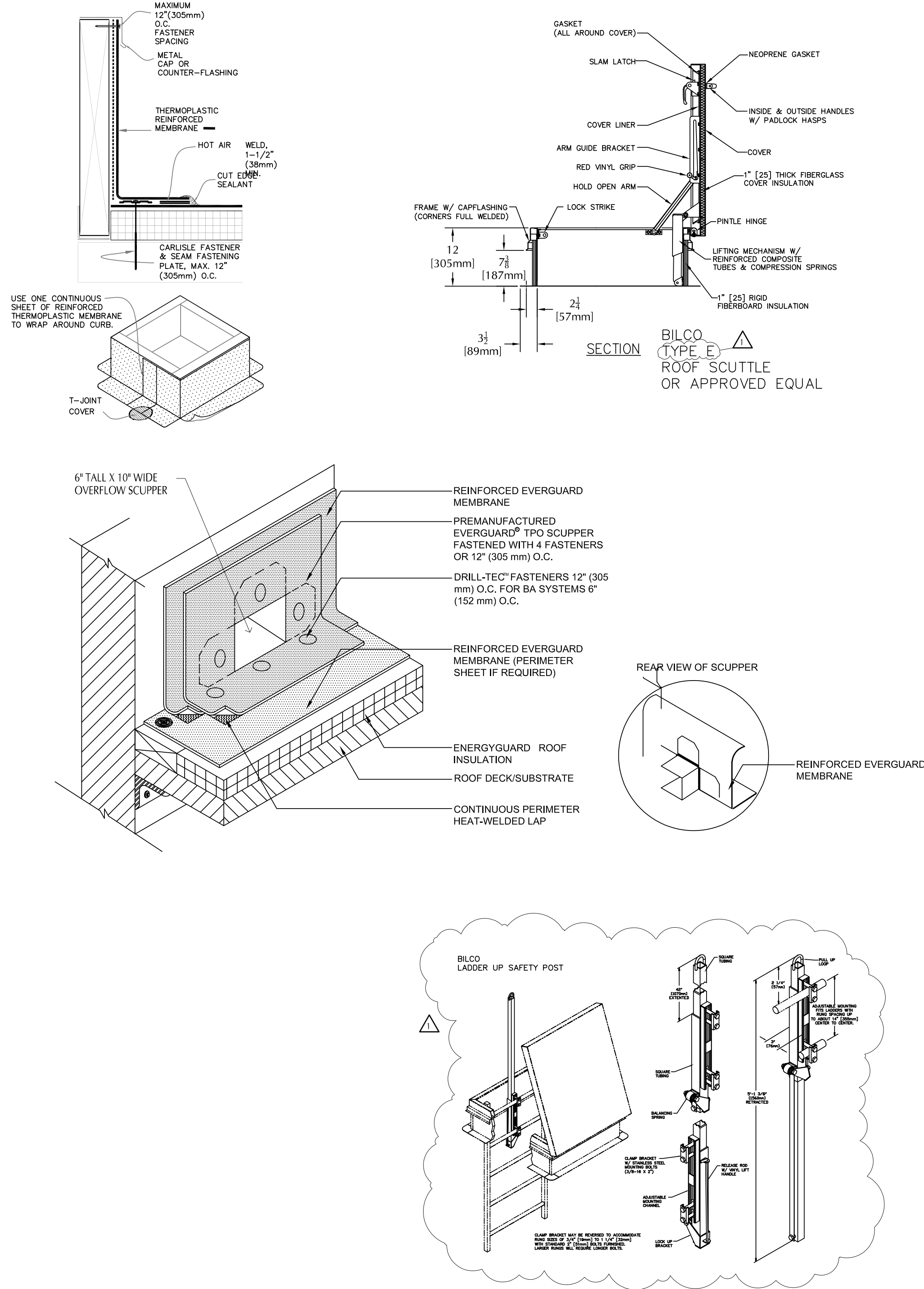
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FLOOR PLAN PHASES

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PLAN NOTES

RIGID FOAM INSULATION BOARD SPEC:
GAF
ENERGYGUARD, 25 PSI
POLYISO INSULATION
GLASS FIBER REINFORCED CELLULSIC
FELT FACERS
OR APPROVED EQUAL

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CRASH CHAMPIONS
COLLISION REPAIR TEAM

PROPOSED BUILDING FOR:
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LEE'S SUMMIT, MISSOURI

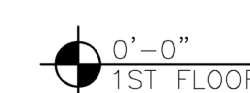
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1	CITY REVIEW COMMENTS	11-10-21
2	ADDED RTU'S FOR SHOP	09-19-22

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DATE ISSUED: 10 / 04 / 21
SHEET NUMBER

A2.2

ROOF PLAN

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



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**PROPOSED BUILDING FOR:
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LEE'S SUMMIT, MISSOURI**

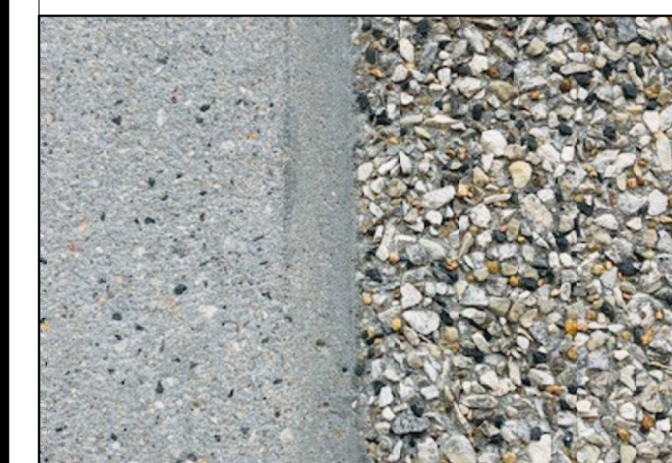
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①	CITY REVIEW COMMENTS	11-10-21

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A3.0	

BUILDING ELEVATIONS



EXPOSED AGGREGATE
OMEGA CONCRETE PRECAST INSULATED WALL PANEL
COLOR: BLACK GRANITE



SANDBLAST EXPOSED AGGREGATE

OMEGA CONCRETE PRECAST INSULATED WALL PANEL
COLOR: GREY



UTILITY SIZE THINBRICK
ENDICOTT BRICK COMPANY
VC8 - GLAZED BLACK
VELOUR TEXTURE

NOTES:

1. PAINT EXTERIOR SIDE OF OVERHEAD SECTIONAL DOOR ONLY, MATCH COLOR OF PRECAST
2. PAINT EXTERIOR H.M. DOORS AND FRAMES MATCH COLOR OF PRECAST
3. PROVIDE KNOX BOX, LOCATION TO BE DETERMINED BY FIRE DEPARTMENT

CANOPY SPECIFICATION:
MAPES ARCHITECTURAL CANOPIES
SUPER LUMIDECK
12" SMOOTH EXTRUDED FASCIA EXTENSION
W/ DOWNSPOUT
2 COAT KYNAR FINISH

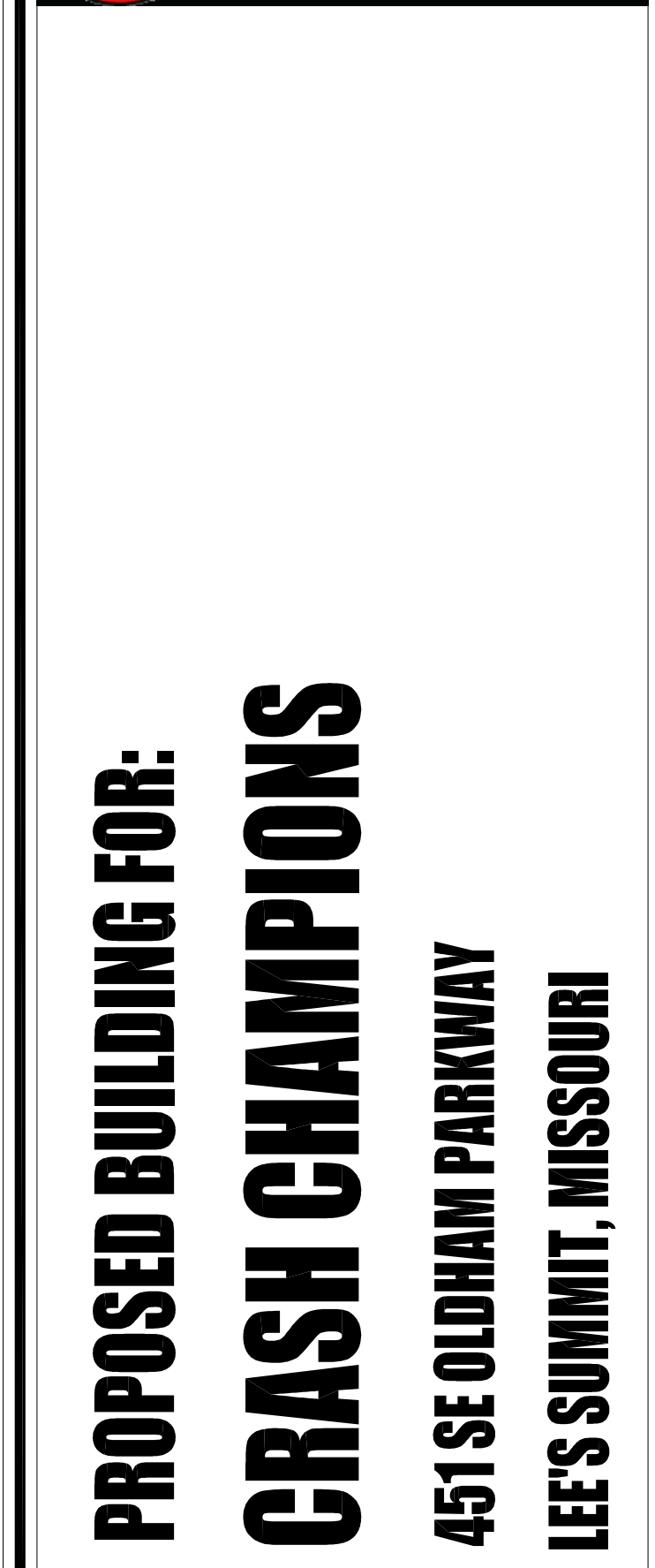
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WALL SECTIONS



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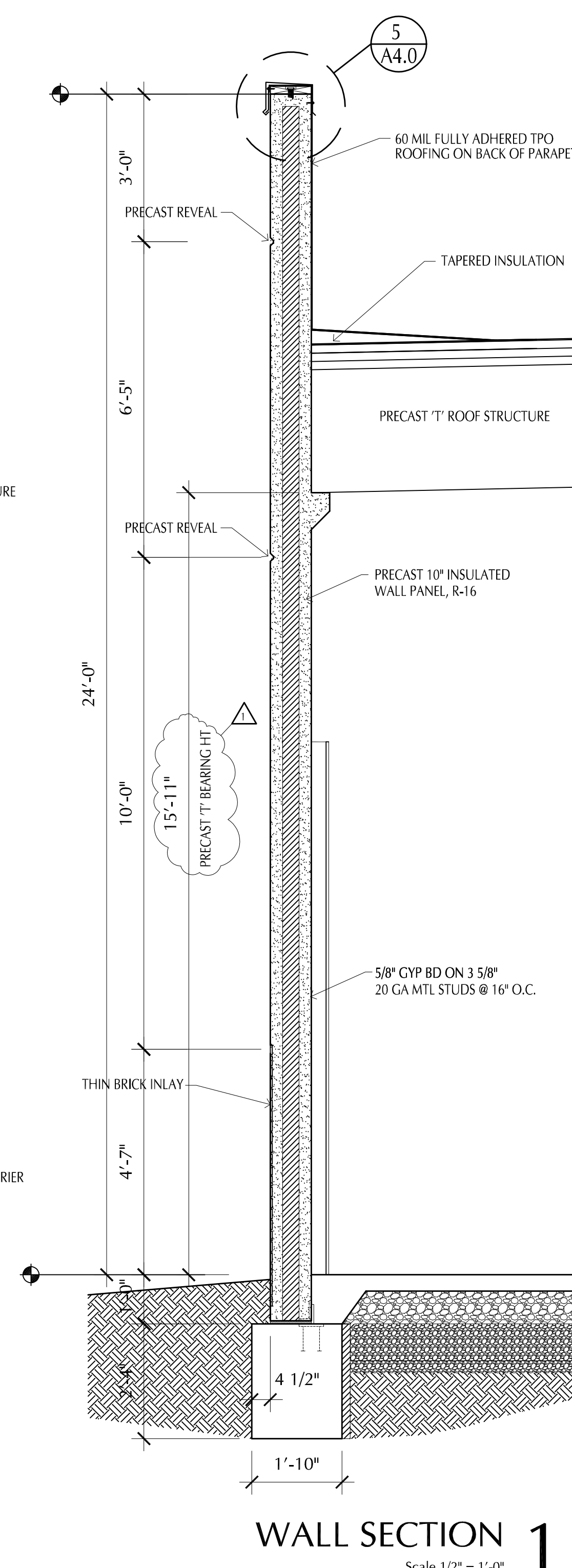
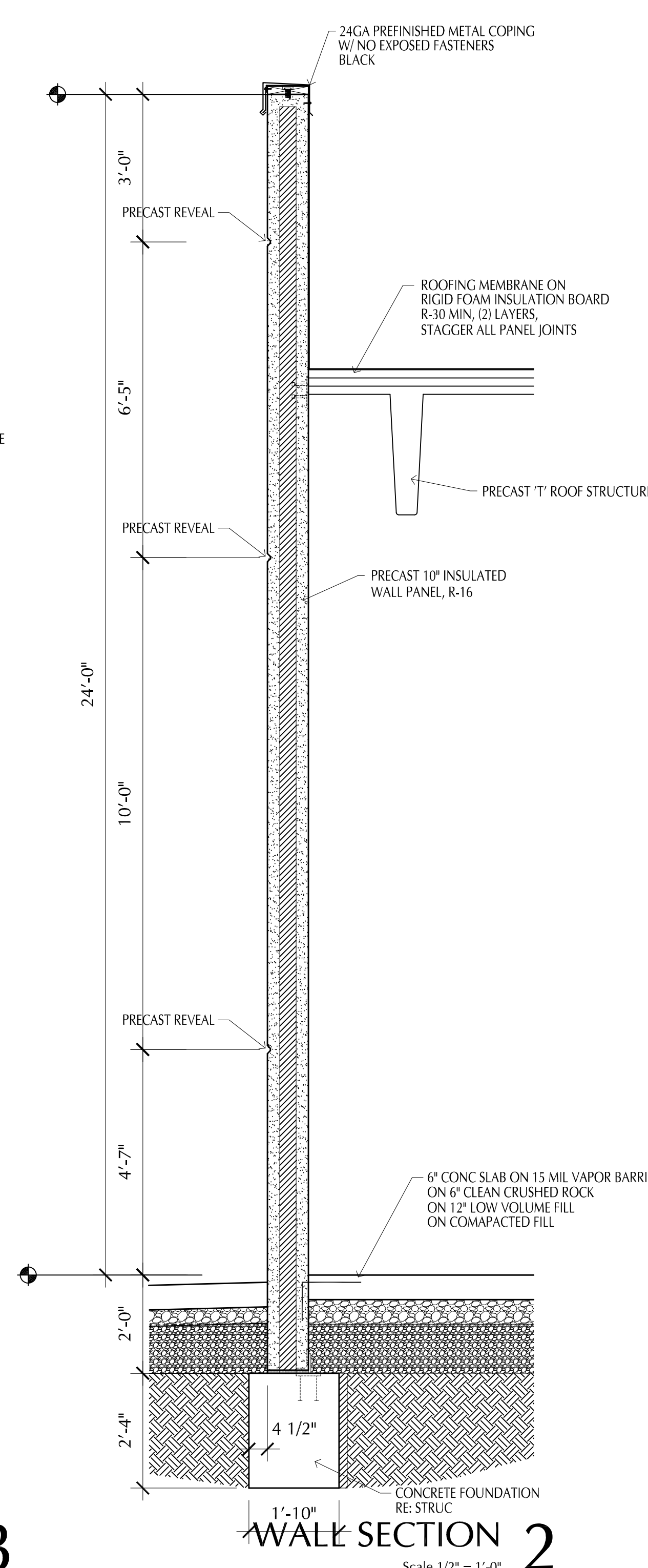
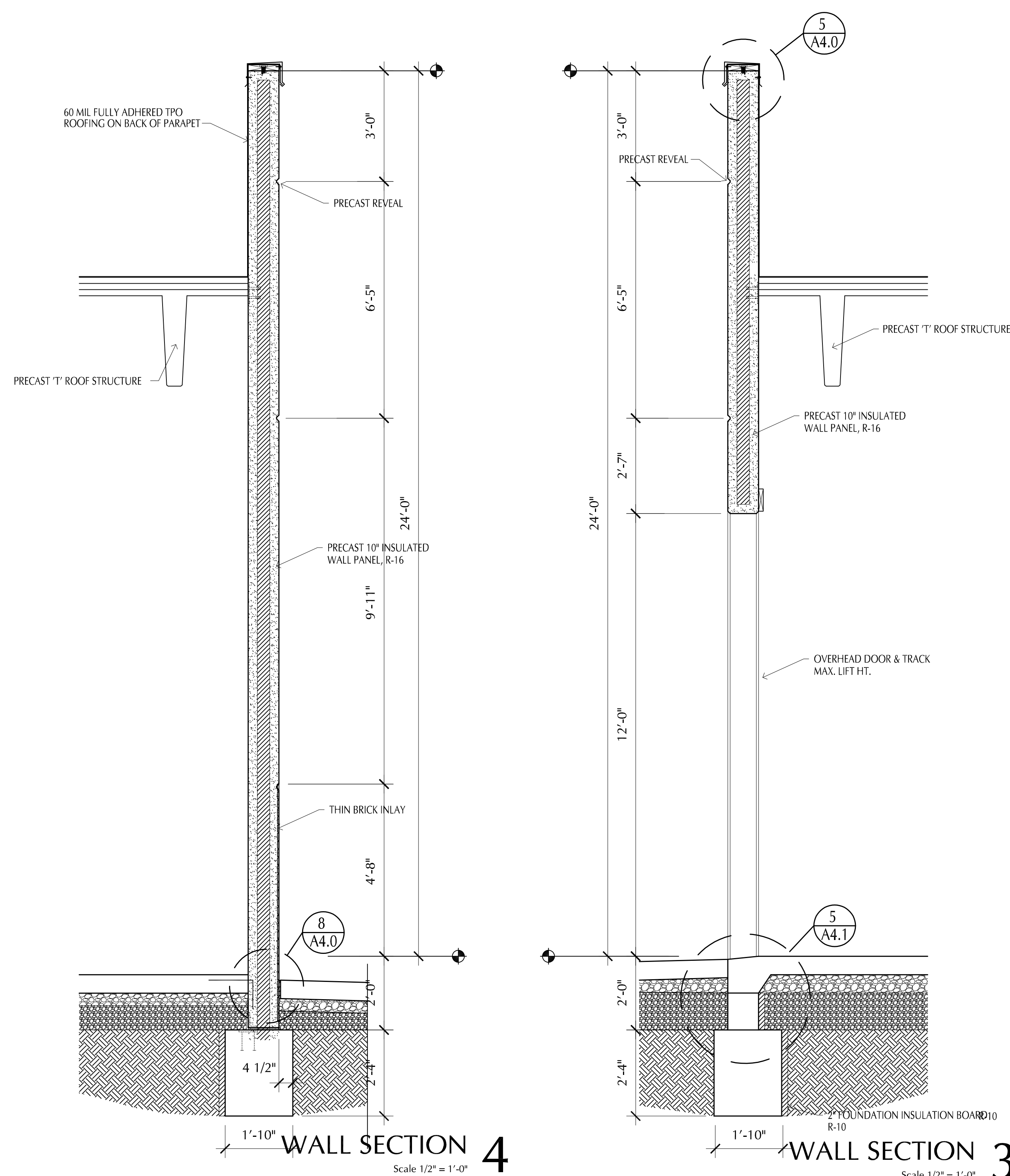
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**PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI**

PROJECT NUMBER	21009
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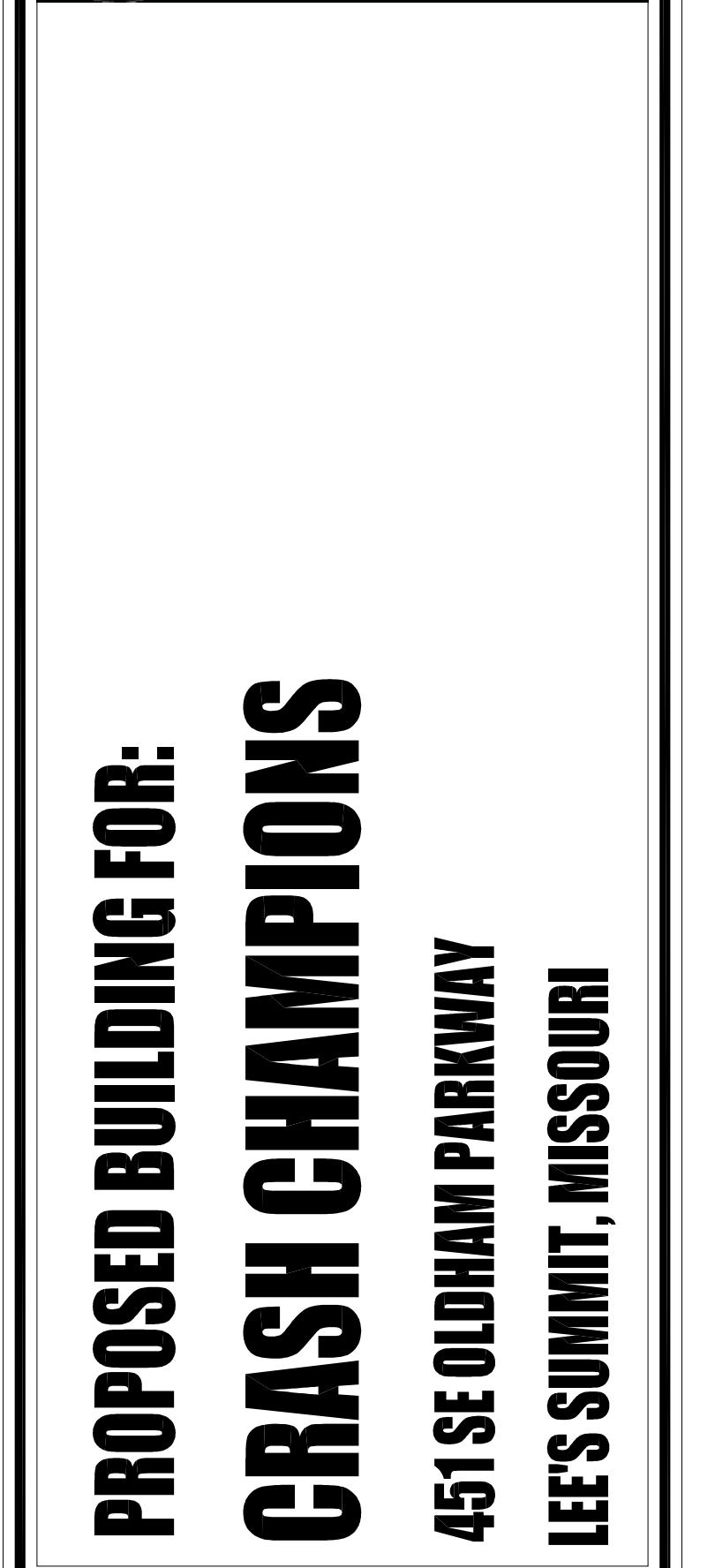
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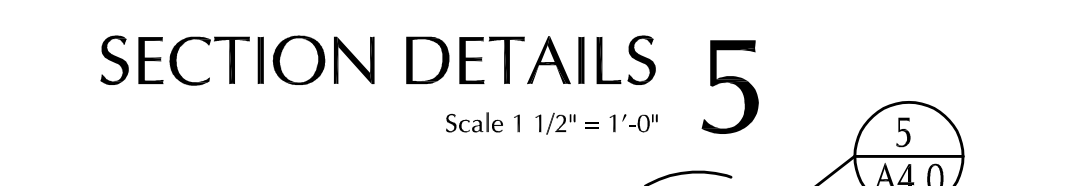
913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051

MISSOURI STATE CERTIFICATE OF
AUTHORITY # 2008034845 www.BuildWithRose.com



PROJECT NUMBER	21009
DATE ISSUED:	10 / 04 / 21
SHEET NUMBER	

WALL SECTIONS



Architectural drawing of a wall section. The drawing shows a vertical precast insulated wall panel (R-16) with a precast reveal. A prefabricated aluminum canopy is attached to the wall. Dimensions are indicated: 7'-0" for the wall height, 4'-0" for the canopy height, 1'-10" for the base width, and 14'-7 1/4" for the total height. A scale of 1/2" = 1'-0" is provided.

Labels in the drawing include:

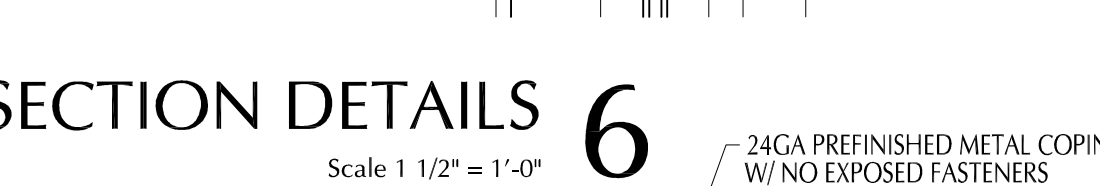
- PRECAST 10" INSULATED WALL PANEL, R-16
- PRECAST REVEAL
- PREFABRICATED ALUM. CANOPY

Dimensions:

- 7'-0"
- 4'-0"
- 1'-10"
- 14'-7 1/4"
- 4'-0"
- 3'-2"
- 5"
- 5"
- 5"

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

WALL SECTION 1



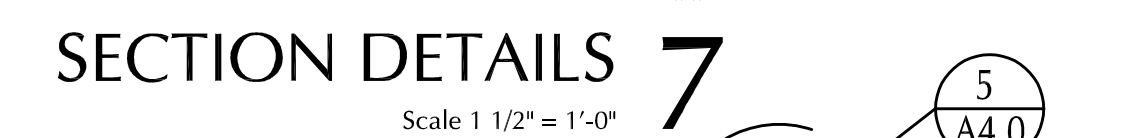
Architectural drawing of a wall section. The drawing shows a vertical wall assembly with a precast reveal, a precast 10" insulated wall panel (R-16), and a prefabricated aluminum canopy. The canopy is supported by a concrete foundation. Dimensions are provided for various components and overall heights.

Labels and Dimensions:

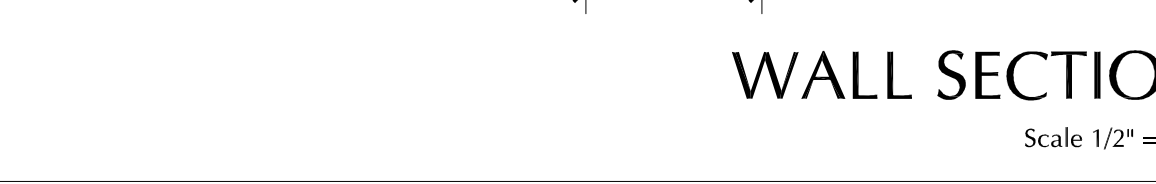
- 7'-0"
- PRECAST REVEAL
- PRECAST 10" INSULATED WALL PANEL, R-16
- 4'-0"
- 6'-4^{3/4}"
- 1'-0"
- PREFABRICATED ALUM. CANOPY
- 4'-0"
- 14'-7^{3/4}"
- 4'-0"
- 3'-2"
- 5"
- 1'-10"
- CONCRETE FOUNDATION RE: STRUC

WALL SECTION 2

Scale 1/2" = 1'-0"

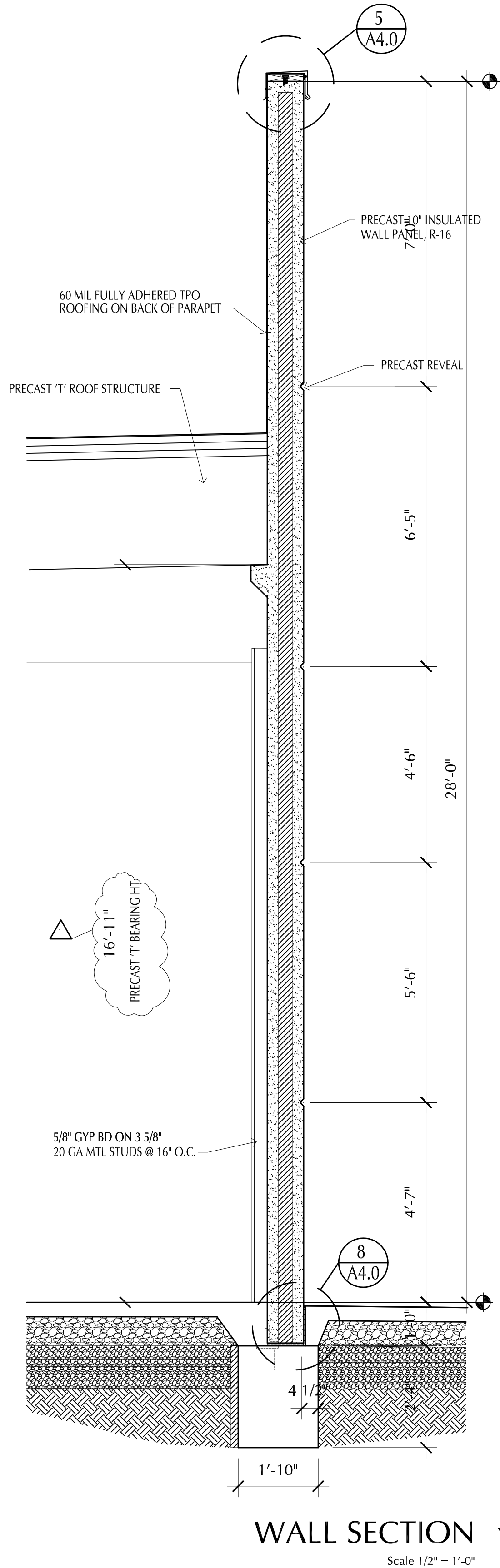
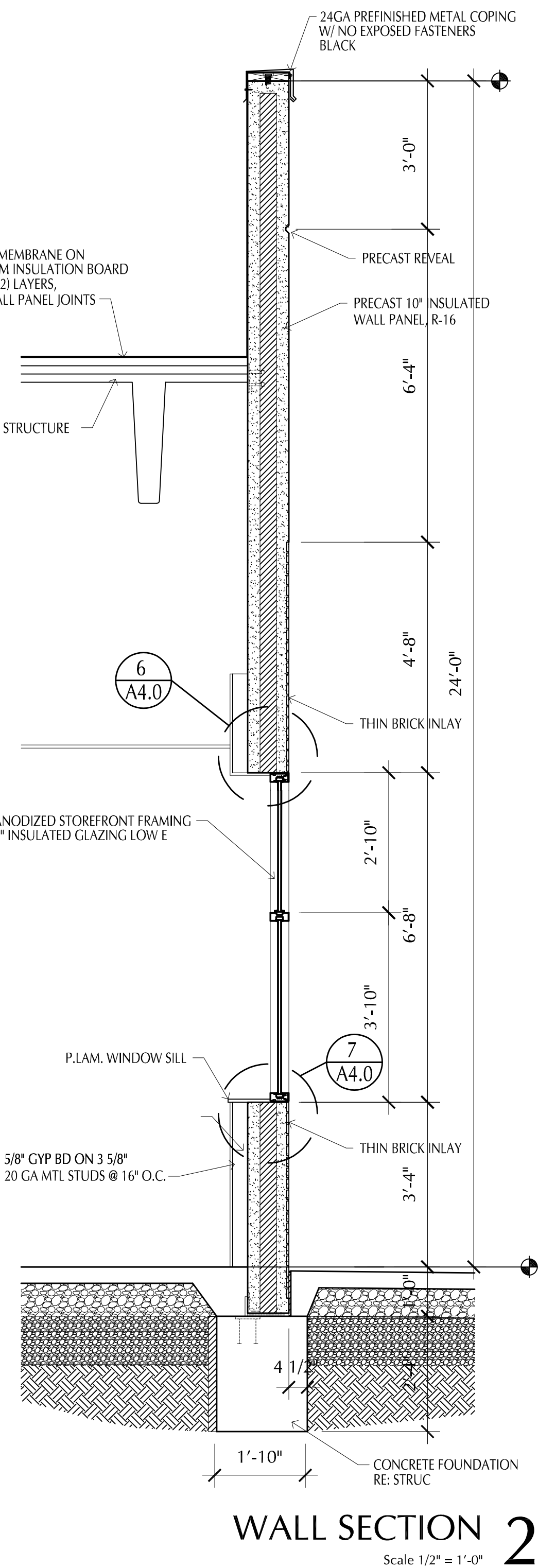
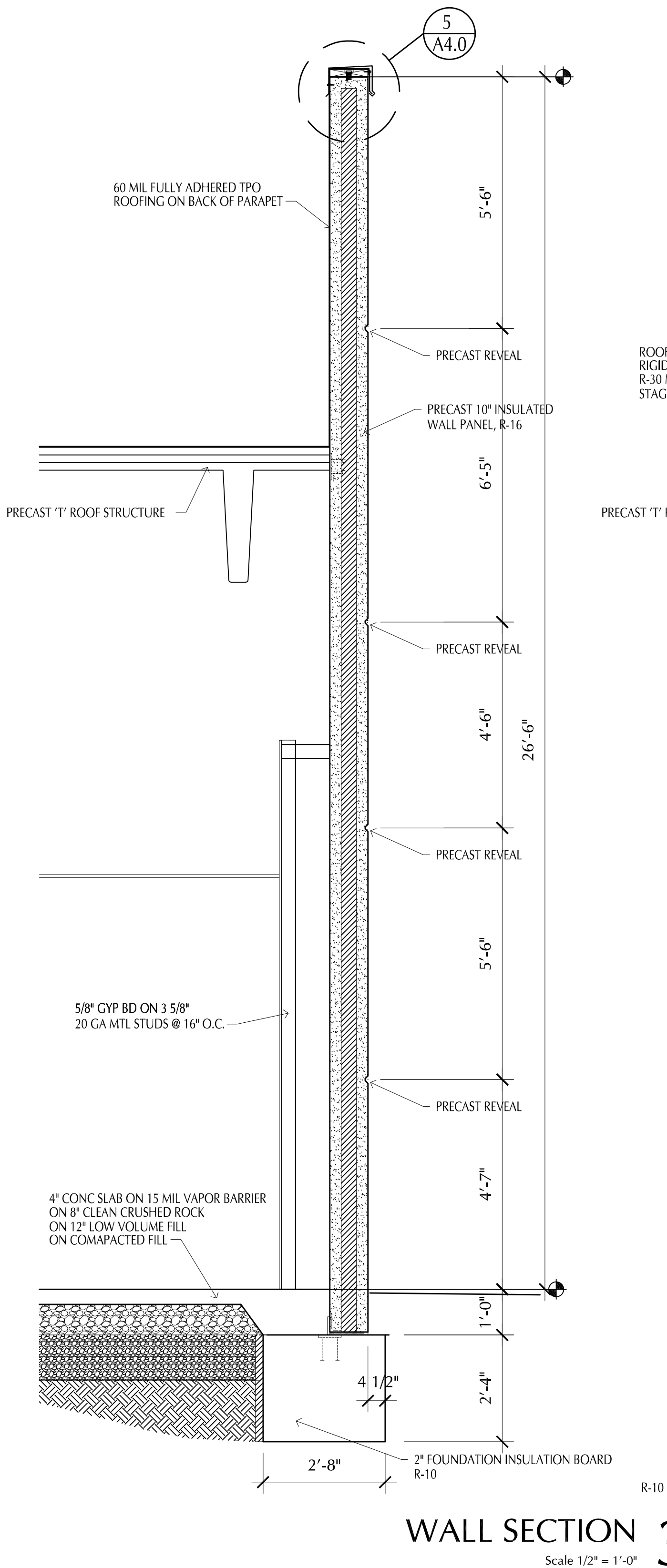
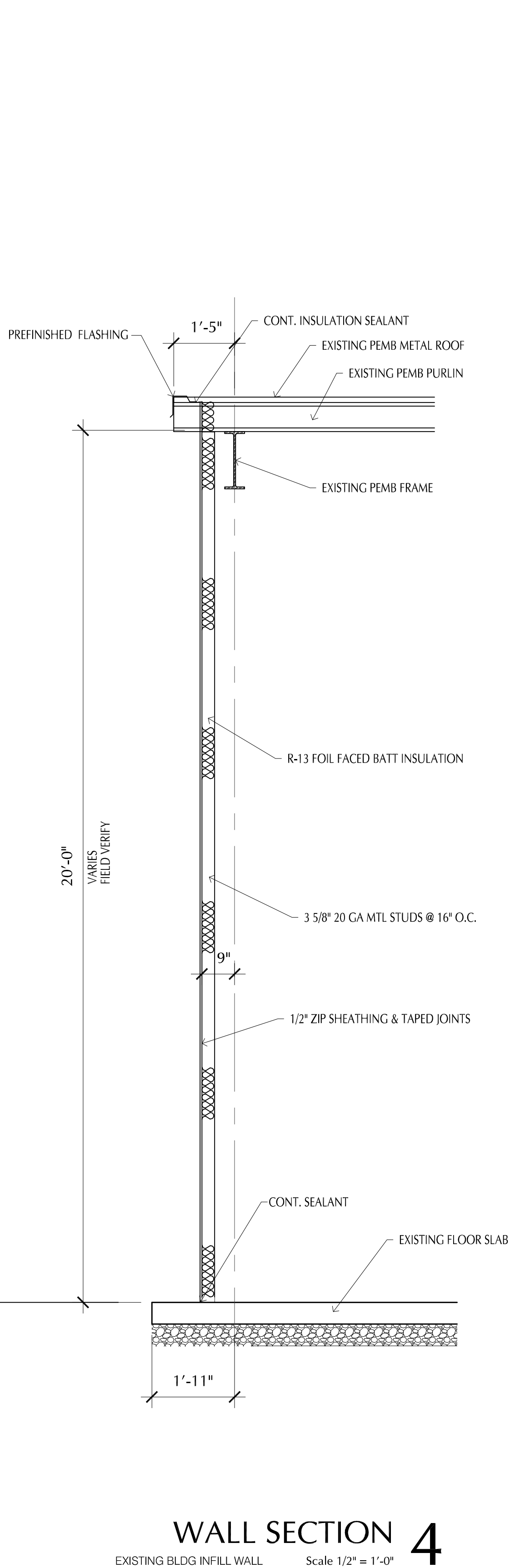


Architectural drawing of a wall section showing various components and dimensions. The drawing includes a vertical wall with a precast reveal, a precast 10-inch insulated wall panel (R-16), and a prefabricated aluminum canopy. Dimensions are provided for various sections: 7'-0" for the top section, 4'-0" for the main wall section, 1'-0" for the base section, and 14'-7 1/8" for the total height. A circular detail callout shows a 5/8" A4.2 bolt. The foundation includes 2-inch foundation insulation (R-10) and a 1'-10" base. The drawing is labeled "WALL SECTION" and "Scale".



Nov 12, 2021 11:05am - USER: Chris
F:\Users\Drawings-Curran\2109_Oshtobis\Champions Lee's Summit\Production\Planning & Zoning\Architectural\A4.2 WALL SECTIONS.dwg
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Christopher R. Bell
STATE OF MISSOURI
REGISTERED ARCHITECT
NUMBER
A-6275
10/04/2021
CHRISTOPHER R. BELL - ARCHITECT
NOV 12 2021

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CRASH CHAMPIONS
COLLISION REPAIR TEAM

PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
1	CITY REVIEW COMMENTS	11-10-21

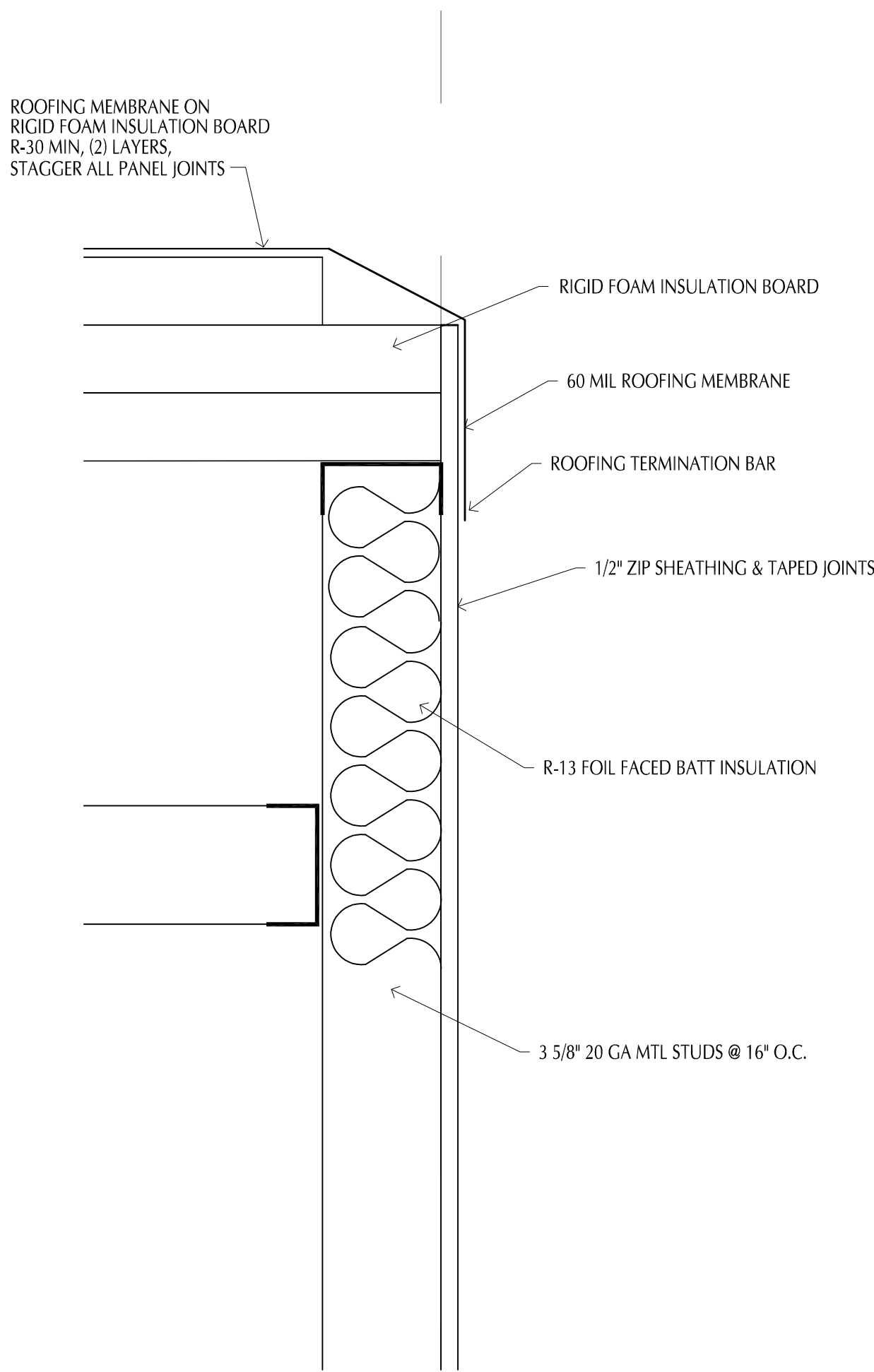
PROJECT NUMBER 21009
DATE ISSUED: 10 / 04 / 21

SHEET NUMBER

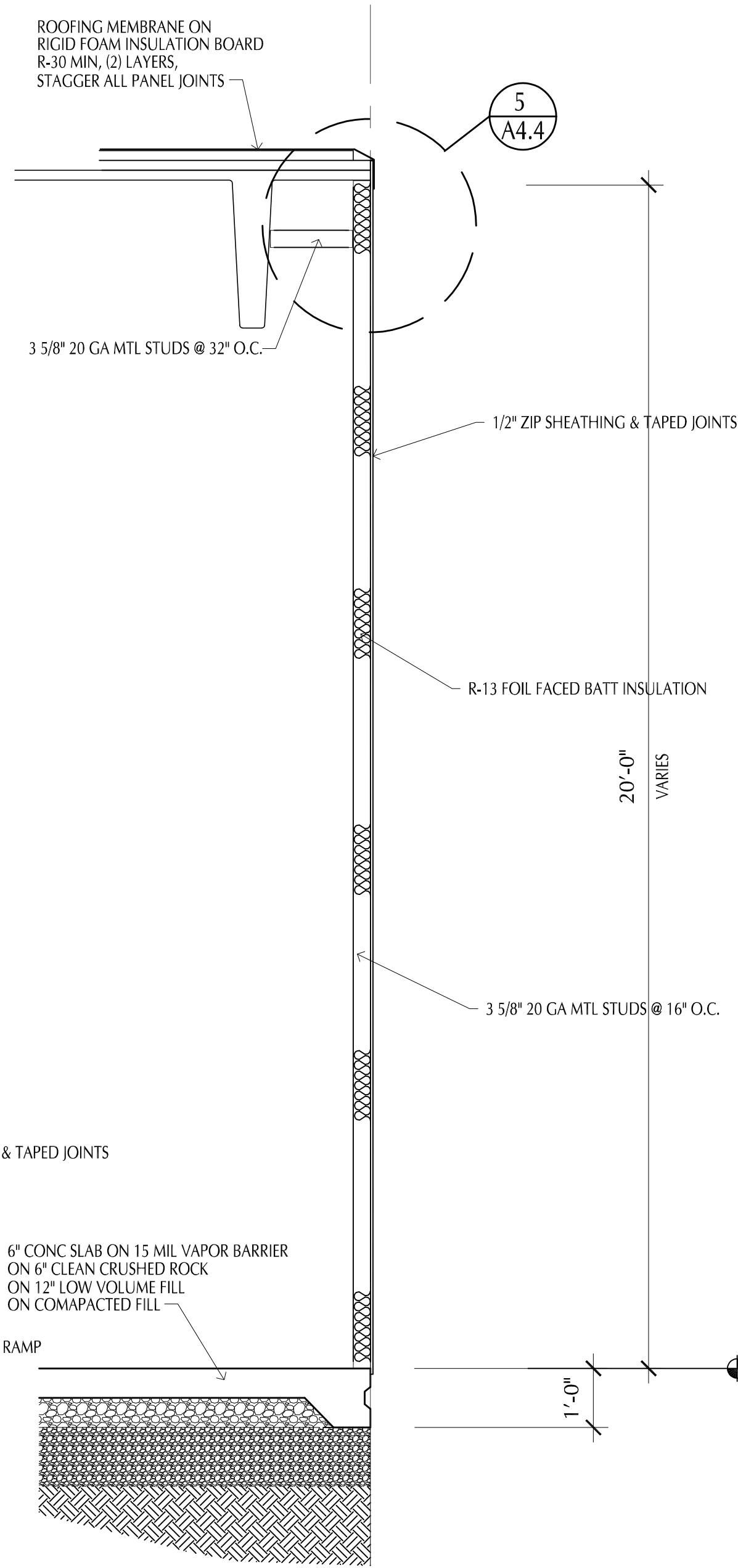
A4.3

WALL SECTIONS

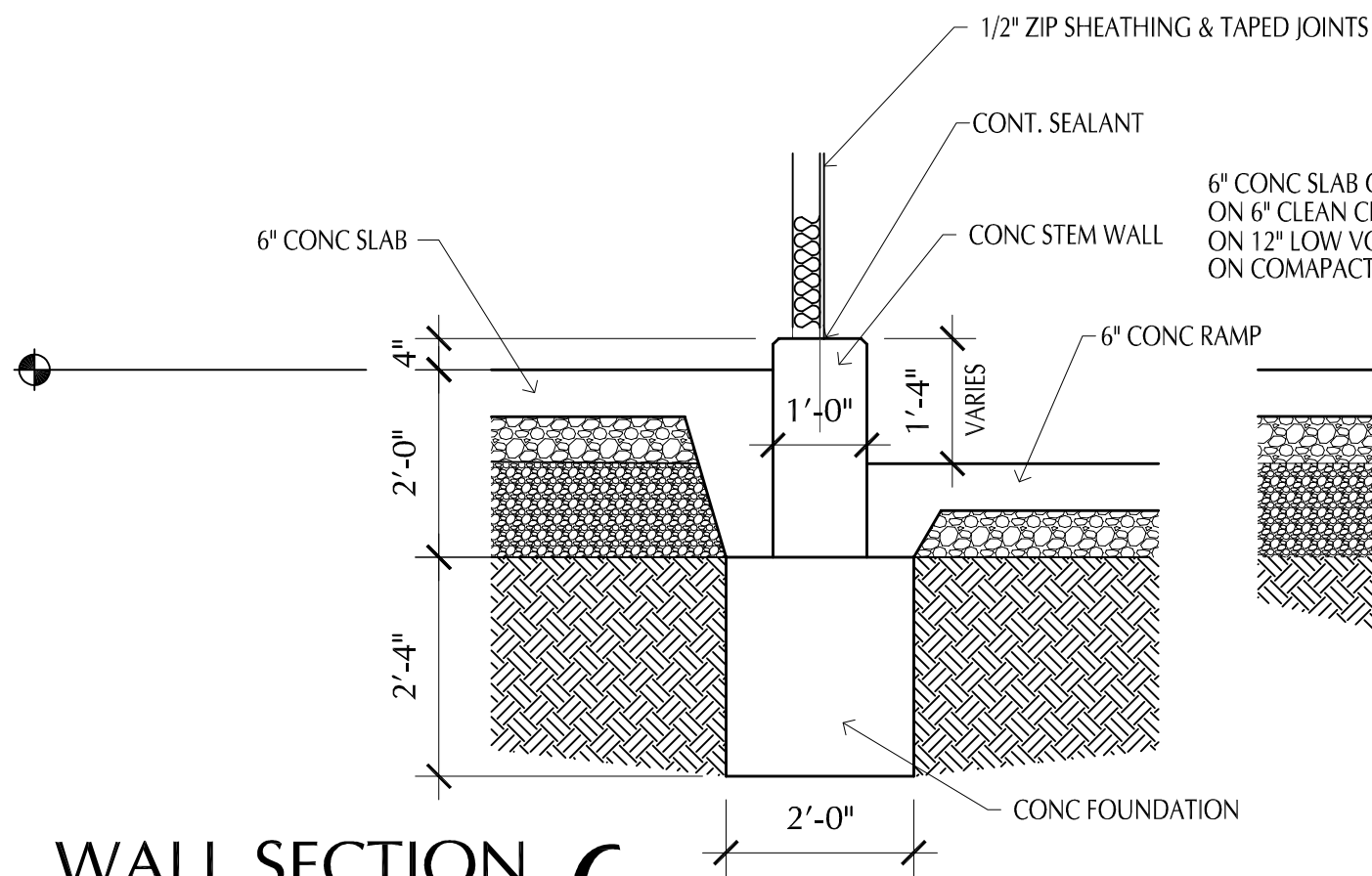
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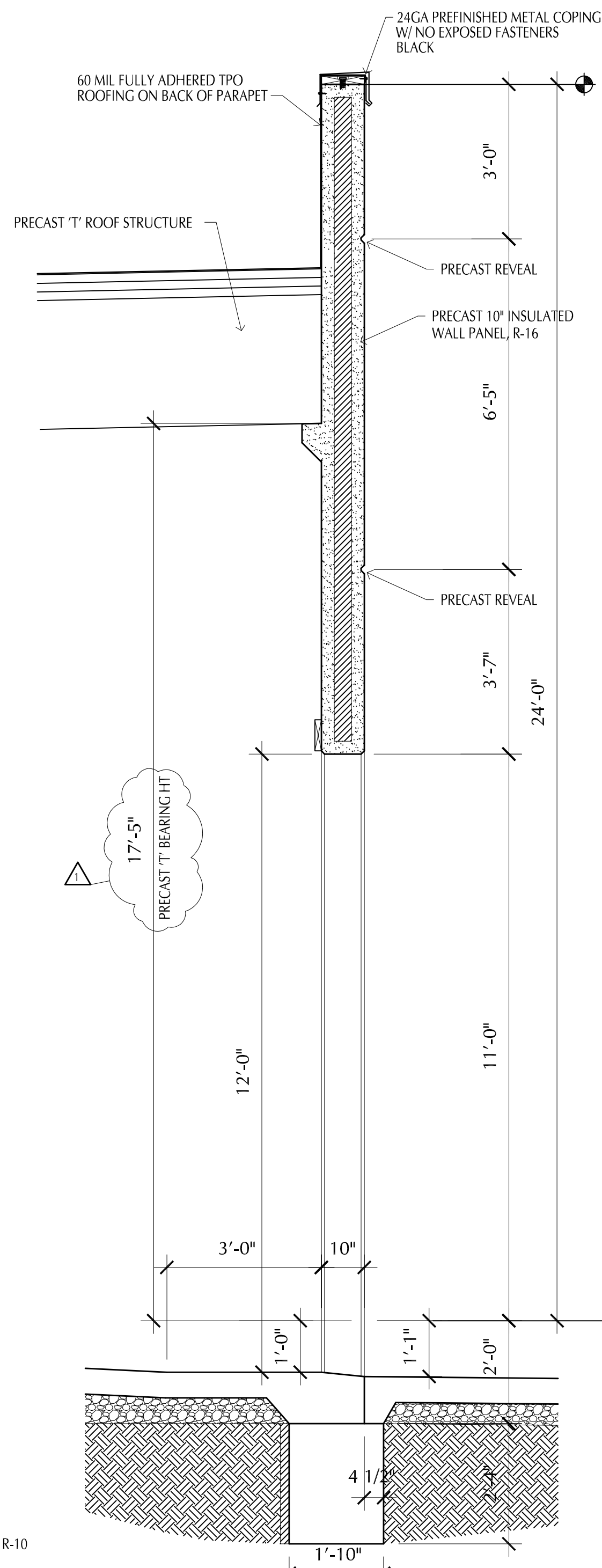
SECTION DETAIL 5
Scale 3" = 1'-0"



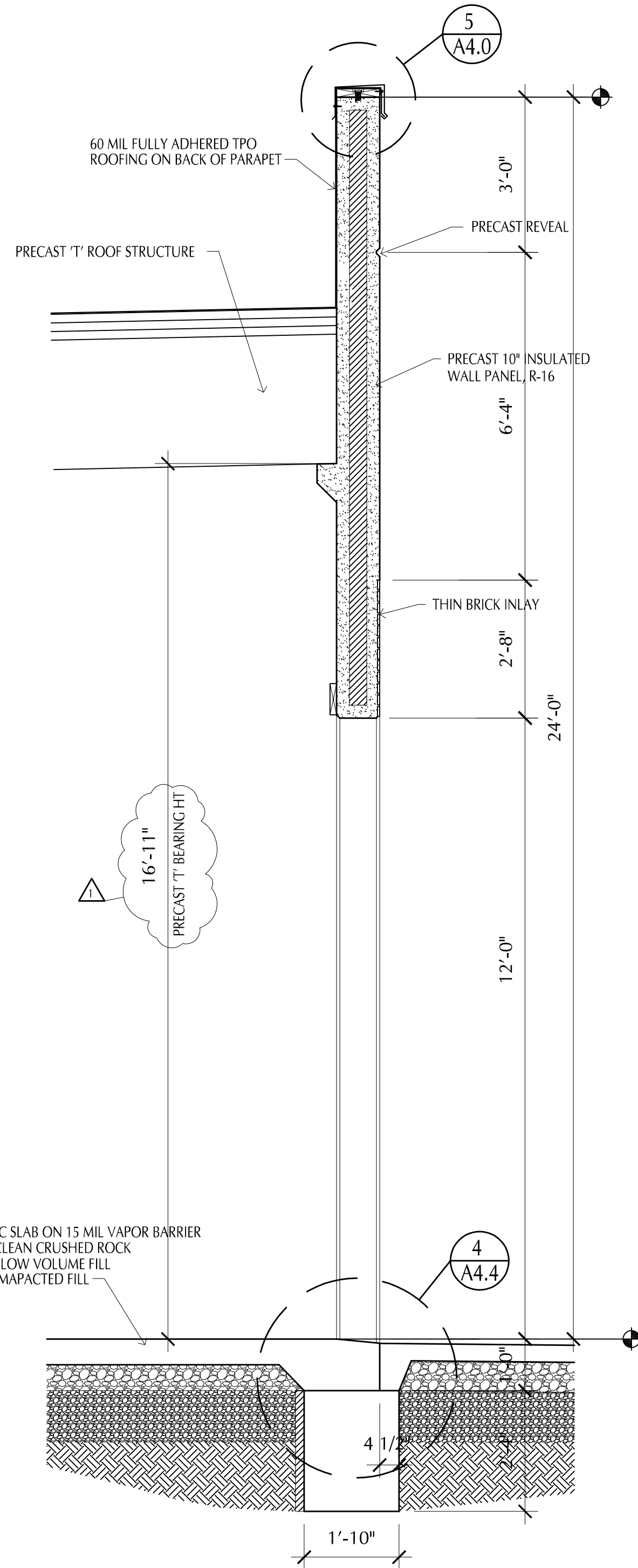
WALL SECTION 3
Scale 1/2" = 1'-0"



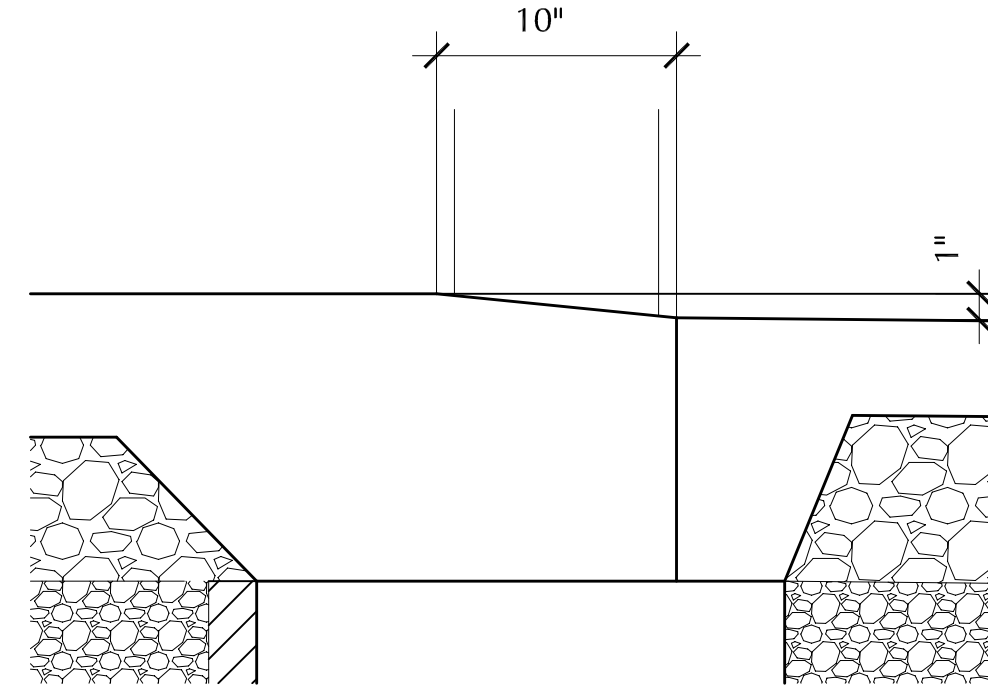
WALL SECTION 6
Scale 1/2" = 1'-0"



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



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



SECTION DETAIL 4
OVERHEAD DOOR SILL Scale 1 1/2" = 1'-0"

PLAN NOTES

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Christopher R. Bell
STATE OF MISSOURI
REGISTERED ARCHITECT
NUMBER A-6275
10/04/2021
CHRISTOPHER R. BELL - ARCHITECT
NOV 2 A-6275



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P.O. BOX 100 OLATHE, KS 66051

MISSOURI STATE CERTIFICATE OF AUTHORITY # 2008034845 www.BuiltWithRose.com



PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

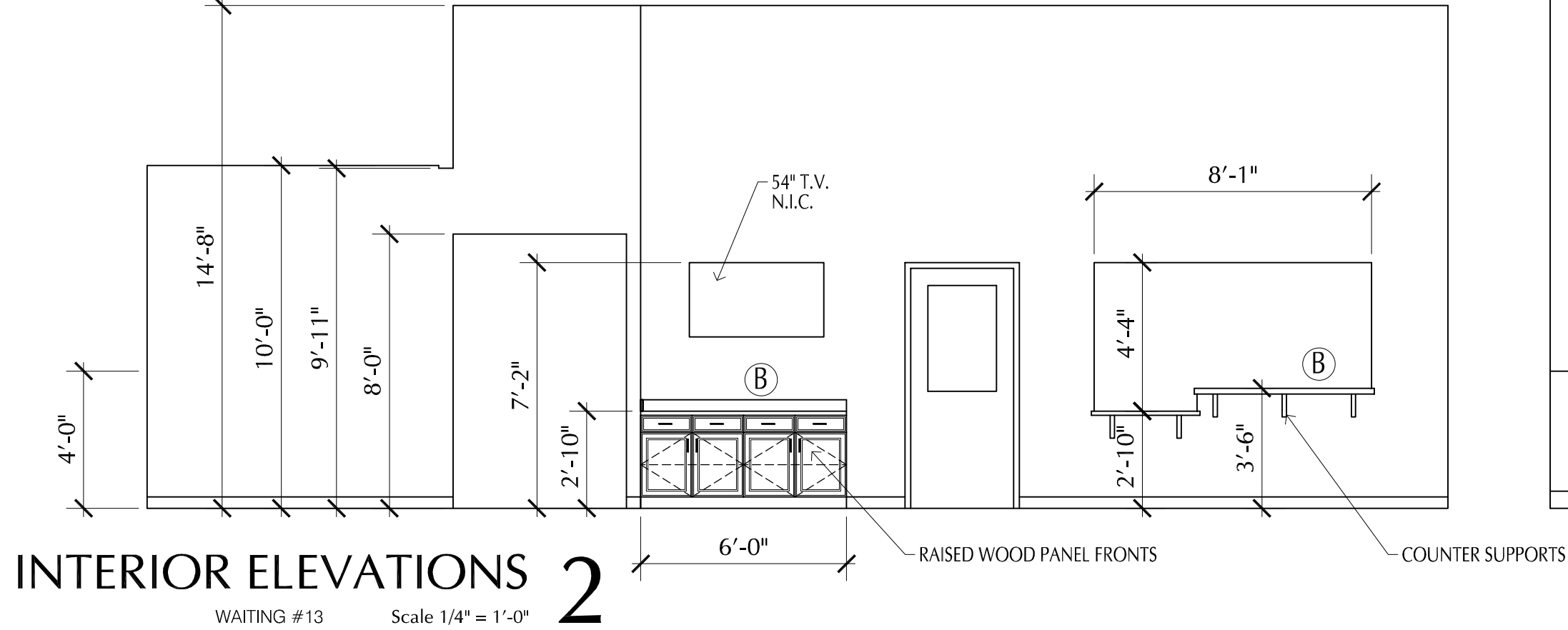
NO.	DESCRIPTION	DATE
1	CITY REVIEW COMMENTS	11-10-21

PROJECT NUMBER 21009
DATE ISSUED: 10 / 04 / 21

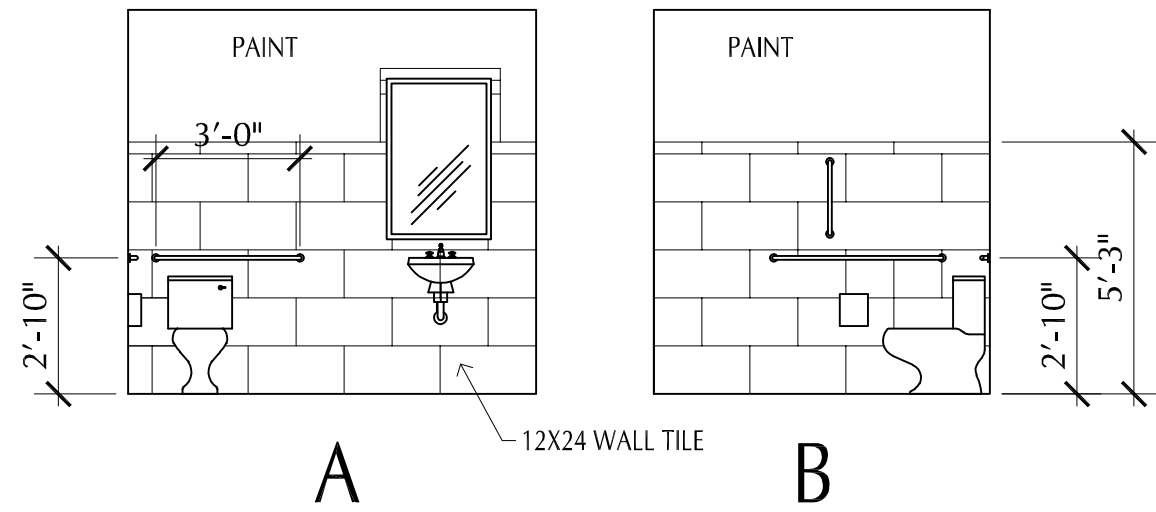
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A4.4

WALL SECTIONS

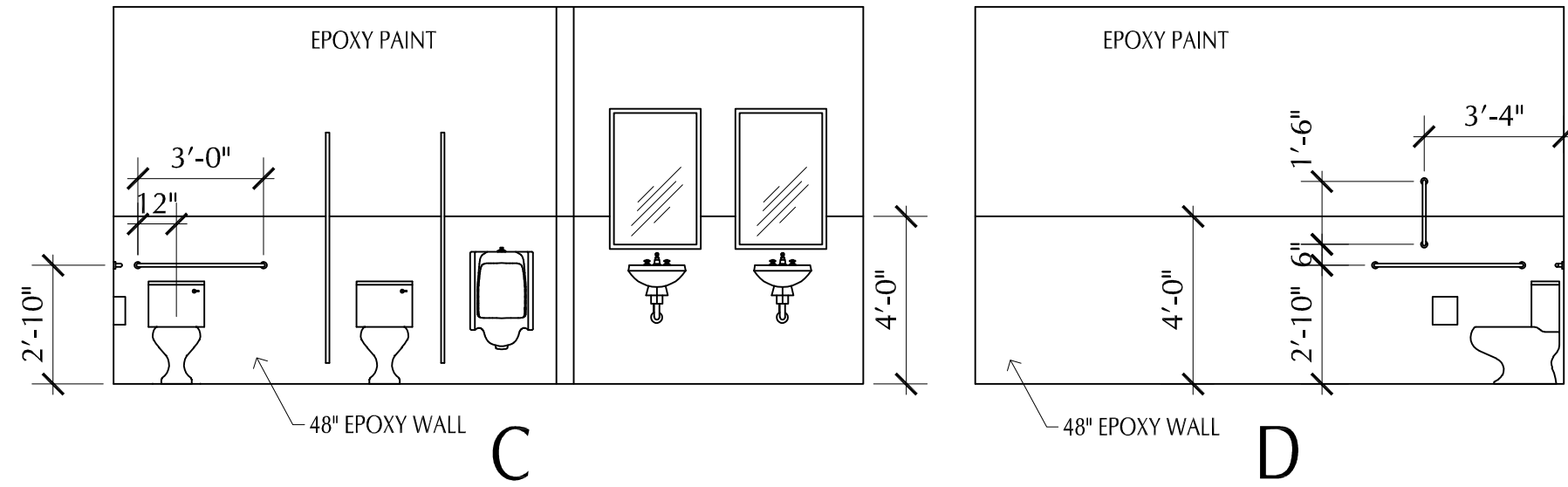
Oct 04, 2021 -- 9:36am -- USER ChrisB
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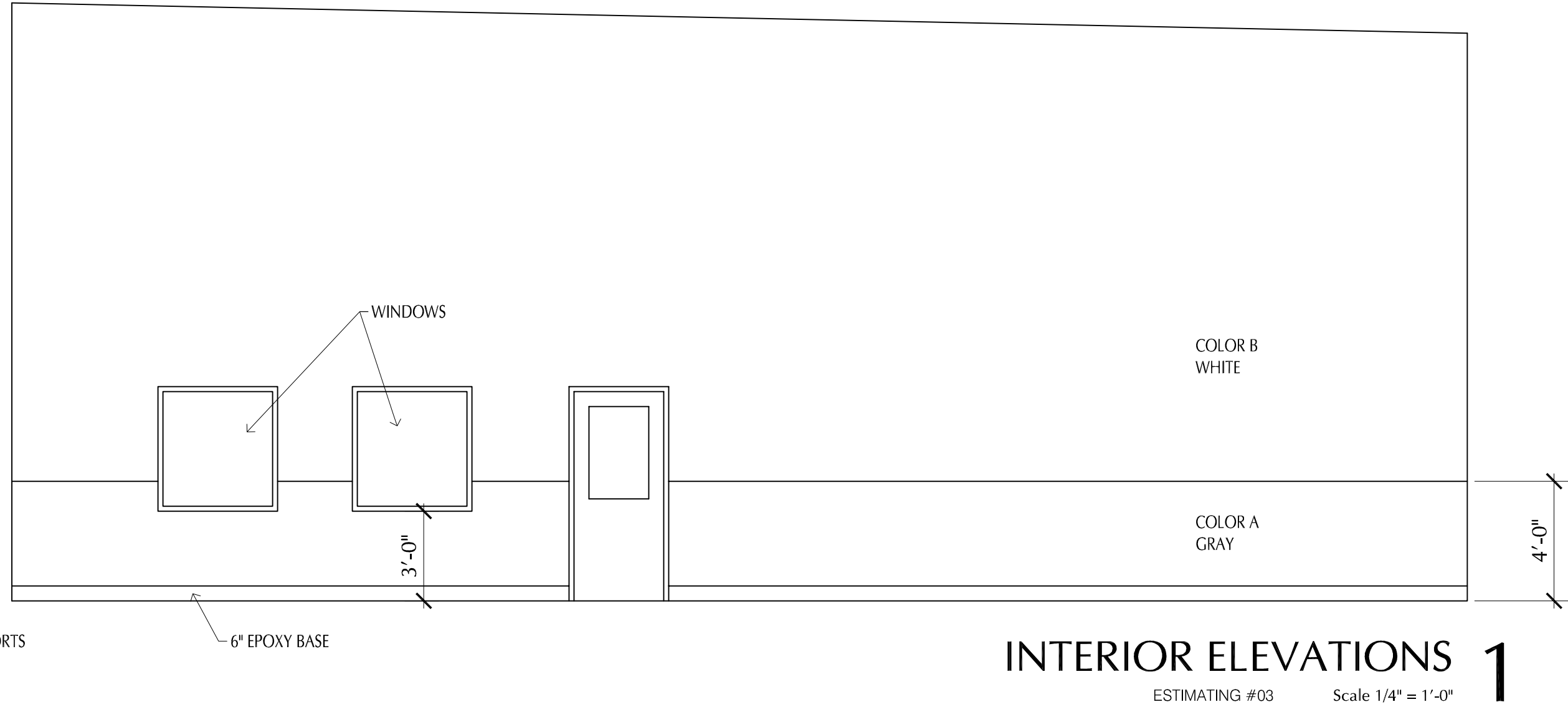
INTERIOR ELEVATIONS 2
WAITING #13 Scale 1/4" = 1'-0"



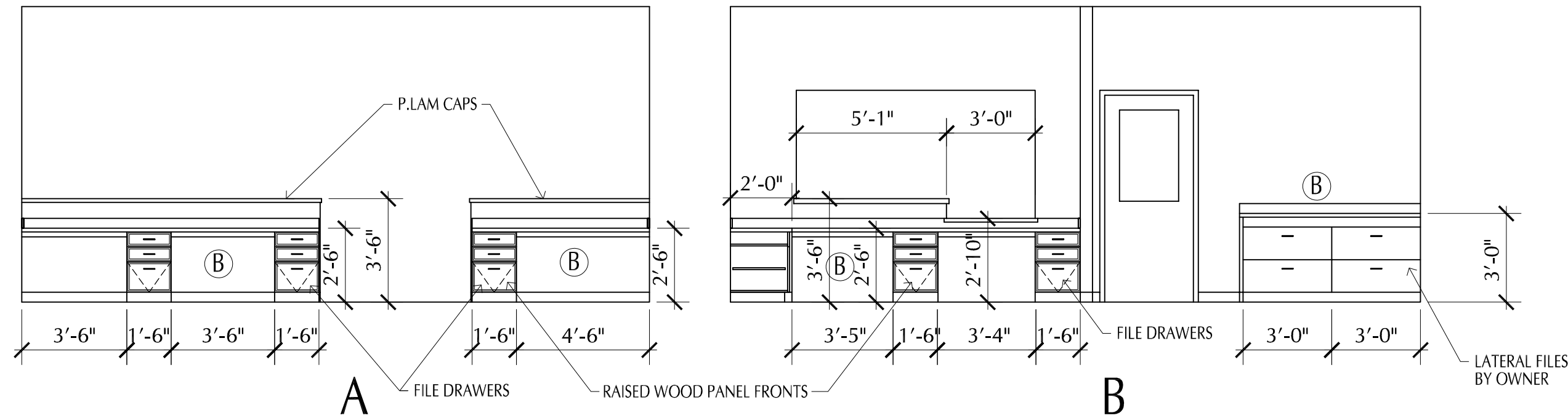
INTERIOR ELEVATIONS 5
MEN'S & WOMEN'S #07 & 08 Scale 1/4" = 1'-0"



INTERIOR ELEVATIONS 4
SHOP RESTROOM #11 Scale 1/4" = 1'-0"



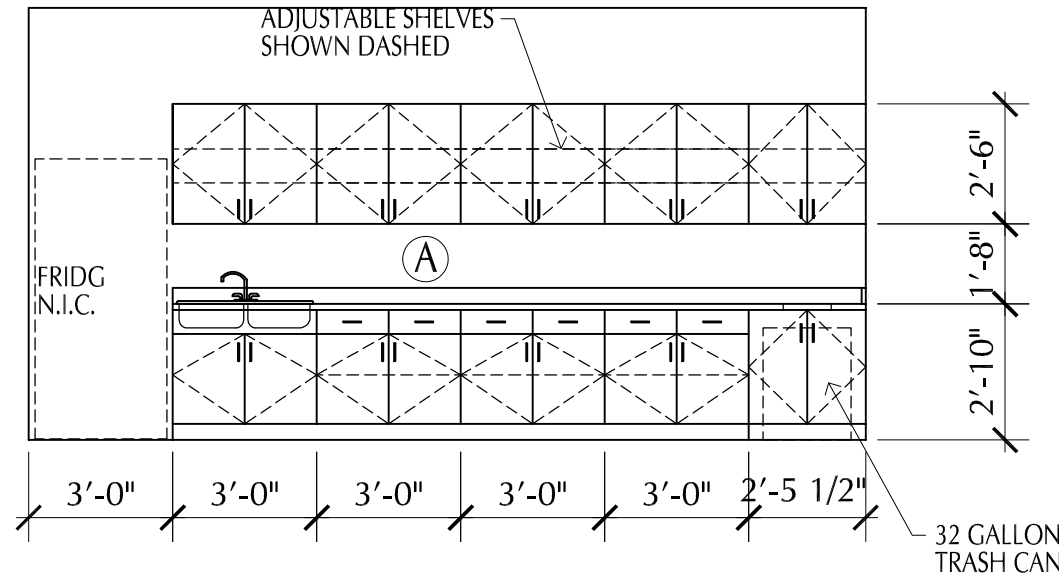
INTERIOR ELEVATIONS 1
ESTIMATING #03 Scale 1/4" = 1'-0"



INTERIOR ELEVATIONS 6
SALES #12 Scale 1/4" = 1'-0"



INTERIOR ELEVATIONS 7
TYP. SHOP #02 ELEVATION Scale 1/4" = 1'-0"



INTERIOR ELEVATIONS 3
BREAK ROOM #04 Scale 1/4" = 1'-0"

MILLWORK SPECIFICATIONS LISTINGS

A TOPS & BACKSPLASH: P.LAM, WILSONART PEARL SOAPSTONE
WILSONART PEARL SOAPSTONE 4886
FRONTS: P.LAM, WILSONART NIGHT FALL 5023
INTERIOR: WHITE MELLAMINE
PULLS: HANDEL PULL, BRUSH SATIN NICHOL
HINGES: CONCEALED, STANDARD GRADE
GLIDES: STANDARD BALL BEARING

B TOPS & BACKSPLASH: FORMICA MINERAL JETT#3450-58MATTE
FRONTS: P.LAM, WOOD BIRCH, STAINED TO MATCH DOORS
INTERIOR: WHITE MELLAMINE
PULLS: HANDEL PULL, BRUSH SATIN NICHOL
HINGES: CONCEALED, STANDARD GRADE
GLIDES: STANDARD BALL BEARING

NOTES:
1. PROVIDE WOOD BACKING IN WALLS FOR
ATTACHMENT OF ALL LOWER & UPPER
CABINETS

TOILET ACCESSORIES (BOBRICK) SPECS:
1. HAND DRYER, B-7128, SURFACE MOUNTED, 2 TOTAL
2. CHANNEL-FRAME MIRRORS
3. GRAB BARS: 1.5" DIA 18 GA TYPE 304 STAINLESS STEEL
4. TOILET PARTITIONS: COMPACT LAMINATE
DURALINE SERIES 1080, FLOOR ANCHORED, W/ STANDARD
CONCEALED STAINLESS STEEL HARDWARE

NOTES:
1. OWNER TO PROVIDE ALL
SOAP & PAPER TOWEL DISPENSERS FOR RESTROOMS
2. PROVIDE WOOD BLOCKING IN WALLS FOR ALL
RESTROOM GRAB BARS & ACCESSORIES
3. PROVIDE INSULATION WRAPS / COVERS FOR
ALL EXPOSED LAVATORY WATER & DRAIN LINES

PLAN NOTES

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THIS BEING THE RESPONSIBILITY OF OTHER DESIGN PROFESSIONALS WHOSE NAMES AND SIGNED DOCUMENTS MAY
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Christopher R. Bell
STATE OF MISSOURI
CHRISTOPHER R. BELL
NUMBER
A-6275
REGISTERED ARCHITECT
10/04/2021
CHRISTOPHER R. BELL - ARCHITECT
A-6275

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CRASH CHAMPIONS
COLLISION REPAIR TEAM

PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009
DATE ISSUED: 10 / 04 / 21

SHEET NUMBER

A5.1

INTERIOR
ELEVATIONS

GENERAL NOTES - STRUCTURAL

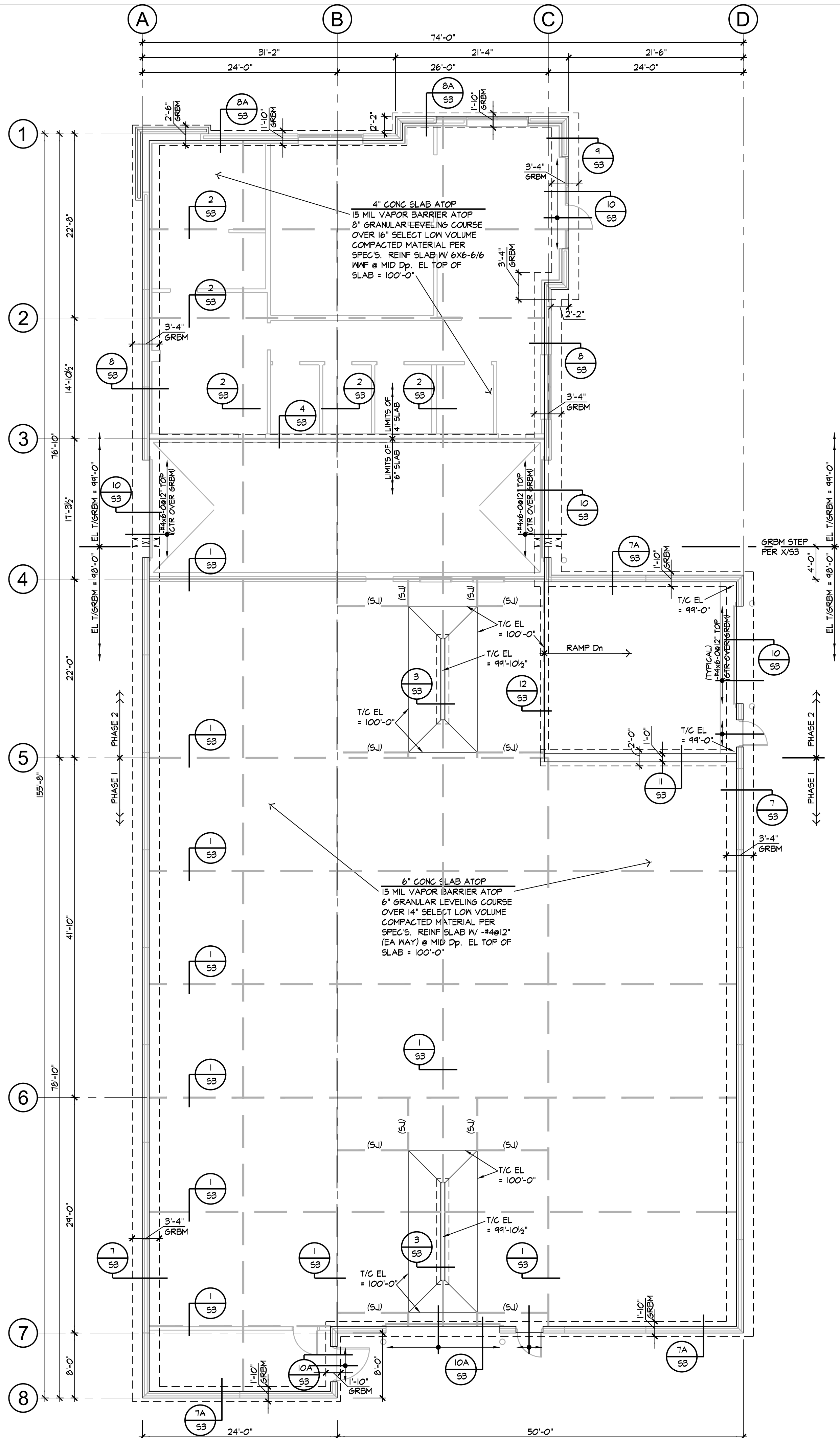
- The contractor shall verify dimensions and conditions before construction and notify the engineer of any discrepancies, inconsistencies, or difficulties affecting the work before proceeding.
 - The contractor shall coordinate all disciplines, verifying size and location of all openings, whether shown on structural drawings or not, as called for on architectural, mechanical, or electrical drawings. Conflicts, inconsistencies, or other difficulties affecting structural work shall be called to the architect or engineer's attention for direction before proceeding.
 - All design and construction work for this project shall conform to the requirements of the 2018 International Building Code, as amended by the City of Lee's Summit, Mo.
 - These drawings are for this specific project and no other use is authorized.
 - Structural Design Load Criteria:
 - Roof Live = 20psf
 - Snow = $P_g + P_g + 20psf$, $P_f = 14psf$, $I_s = 1.0$
 $C_e = 1.0$, $C_t = 1.0$, D_r per ASCE/SEI T-10
 - Lateral Loads:
 - Wind $V = 115$ mph, Exposure 'C'
Occupancy [Risk] Category II, $I_w = 1.0$
 $G_C p_i = +/- 0.18$
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 30.1 and Table 30.1-2 of ASCE/SEI T-10. Tabulated pressures shall be multiplied by effective area reduction factors, exposure adjustment factors, and topographic factors where applicable.
 - Seismic: $S_s = 0.112$, $S_1 = 0.065$
Occupancy [Risk] Category II, $I_e = 1.0$,
Site Classification C, $S_{ds} = 0.04$, $S_{d1} = 0.014$
Seismic Design Category:
Basic Seismic Force-resisting System:
Precast Concrete Shear Walls
 - This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the 2018 International Building Code.
- Concrete:
 - All concrete for foundations (grade beams and footings) shall develop minimum ultimate compressive design strength of 5500 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.
 - All concrete for interior flat work shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 525 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.75 gallons of water per 100 pounds of cement and not over 4 inches of slump. Concrete mix shop drawing shall contain testing data proving concrete design mix shrinkage is less than 0.034% at 28 days when tested according to ASTM C157 (air drying method only).
 - 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.
 - 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.
 - 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.
 - Combined aggregate (coarse plus fine) for all concrete shall be well graded from coarsest to finest with no more than 10 percent and not less than 0 percent retained on an individual sieve, except that less than 0 percent may be retained on coarsest sieve and on No. 50 and finer sieves. Submit this gradation report with the concrete mix design shop drawings.
 - All interior concrete slabs on grade shall be placed over 15 mil, Class A Vapor Barrier per ASTM E1145 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.
 - 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.
 - Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement.
 - No aluminum items shall be embedded in any concrete.
 - Reinforcing Steel:
 - 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 A1064.
 - Clear coverage of concrete over reinforcing steel shall be as follows:

Concrete placed against earth	3"
Formed concrete against earth	2"
Slabs	1"
Other	2"

All coverage shall be nominal bar diameter minimum.
 - At corners of all grade beams supply corner bars (minimum 2'-6" in each direction or 40 bar diameters) in outside face of wall, matching size and spacing of horizontal bars.
 - Bars marked continuous shall be lapped 40 bar diameters (2'-6" minimum) at splices, unless shown otherwise.
 - 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.
 - All slabs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way.
 - Structural Steel:
 - All structural steel beams shall be ASTM A992, grade 50 steel and all miscellaneous steel shall be ASTM A36 grade steel. Hollow Structural Sections (HSS) shall be ASTM A500, grade B. Fabrication and erection shall be in accordance with AISC 303-05 "Code of Standard Practice for Steel Buildings and Bridges" in the 19th Edition of the AISC Steel Construction Manual.
 - All welding shall conform to the recommendations of the AWS.
 - All bolts not otherwise specified shall be 3/4" diameter high strength (ASTM A325-N). All bolts shall be fully pretensioned. All beam connections shall be designed per the AISC Steel Construction Manual "Framed Beam Connections" for the indicated reactions or at least 0.4 x beam total shear capacity. VioOmega, shown in the maximum total uniform load tables, whichever is greater; and shall account for eccentricity when the bolt line is more than 2x from the center of the

- support. All connections must be two bolt minimum. The above loading information is given at the service-load level. Allowable Stress Design is to be used in the selection and completion of the connection design and details.
- All anchor bolts shall be 3/4" diameter, ASTM F1554, Grade 36 unless noted otherwise. Washers of minimum size and thickness for the given anchor diameter in Table 14-2 of the AISC Steel Construction Manual shall be provided at every column anchor bolt.
- Post-Installed Anchors:
 - 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 general contractor shall coordinate an on-site meeting with the post-installed anchor manufacturer field representative and subcontractor performing the anchor installation to educate the construction team on the anchor installation guidelines and requirements. The contractor shall send a record copy of the meeting minutes to the design team.
 - Mechanical anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ACI 308.2 and ICC-ES AC108. All anchors shall be installed per the anchor manufacturer's written instructions.
 - Adhesive anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ICC-ES AC308.2. All anchors shall be installed per the anchor manufacturer's written instructions.
 - Adhesive anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC08. All anchors shall be installed per the anchor manufacturer's written instructions.
 - 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.
 - Foundations:
 - Spread footings, grade beams, and retaining walls are designed to bear on engineered fill or undisturbed soil capable of safely sustaining 2000 psf.
 - Contractor shall provide for dewatering at excavations from either surface water or seepage.
 - 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.
 - Moisture content in soils beneath building locations should not be allowed to change after taking 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.
 - Precast Concrete Members:
 - The contractor/supplier is responsible for the design of all the precast members and connection between them and other structural members. Submit design calculations, sealed by an engineer licensed in the state of the project location, for review by the architect/engineer of record.
 - All precast members are to be designed in accordance with ACI 318-14, 2018 IBC and other applicable codes, standards (see specs) and design criteria shown on design documents.
 - Precast concrete members shall conform to the 2018 IBC for the required fire ratings (refer to architect's documents).
 - All wall panels should be designed for building wind loads, seismic loads, gravity loads, and transmit these loads to the foundation through properly designed connections.
 - Provide blockouts and openings for mechanical/electrical equipment. Refer to mechanical/electrical documents.
 - Shop drawings shall be complete and shall include a layout plan, fabrication details, estimated camber, connection and anchorage details and member identification marks. Identification marks shall appear on manufactured units to facilitate correct field placement.
 - Shop Drawing Review:
 - 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.
 - Prior to submittal of a shop drawing or any related material to Bob D. Campbell and Company, Inc., the GC shall:
 - 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.
 - Review and approve each submission.
 - Stamp each submission as approved.
 - 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.
 - 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.
 - Reinforcing steel shop drawings including erection drawings and bending details. Bar list will not be reviewed for correct quantities.
 - Structural steel shop drawings including erection drawings and piece details. Include decking and connector submittals. Include miscellaneous framing specified on the structural drawings but do not submit framing specified on non-structural drawings for Bob D. Campbell and Company, Inc. review.
 - Precast concrete shop drawings including erection drawings and connection details.
 - Precast concrete connection design calculations.
 - 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.
 - Statement of Structural Special Inspection:
 - The structural design for this project is based on completion of special inspections during construction in accordance with section 1704 of the 2018 International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.
 - 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.
 - Shop Fabrication - structural steel per Section 1704.2.5 unless AISC certified shop
 - Shop Fabrication - precast concrete per Section 1704.2.5 unless PCI certified shop
 - Steel Construction per Section 1705.2 and the quality

- assurance requirements of AISC 341 Chapter J (as referenced by AISC 360)
- Concrete Construction per Section 1705.3 and Table 1705.3
 - Reinforcing Steel Placement
 - Cast in Place Anchors
 - Post Installed Anchors
 - Design Mix Verification
 - Concrete Sampling and Testing
 - Erection of Precast
 - Verification of Soils per Table 1705.6
 - The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.
 - 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.
 - 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.
- Copyright and Disclaimer:
 - 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.
 - I, Michael J. Falta, 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.



FOUNDATION & FLOOR PLAN

1/8" = 1'-0"
NOTE:
1) REFER TO GENERAL NOTES ON THIS SHEET



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DESIGN GROUP

ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051

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PROPOSED BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

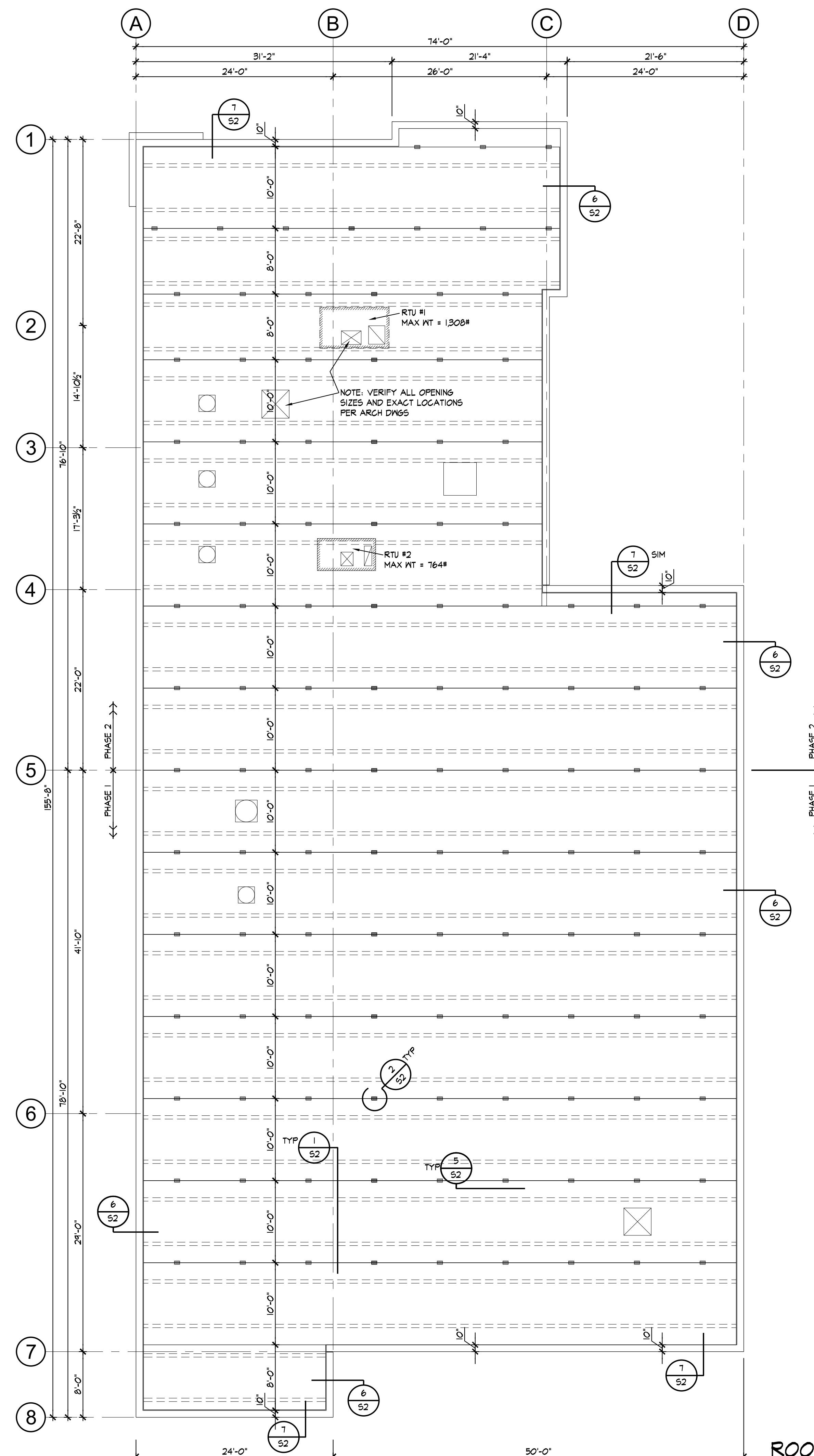
PROJECT NUMBER 21009
DATE ISSUED: 09 / 29 / 21
SHEET NUMBER

S1

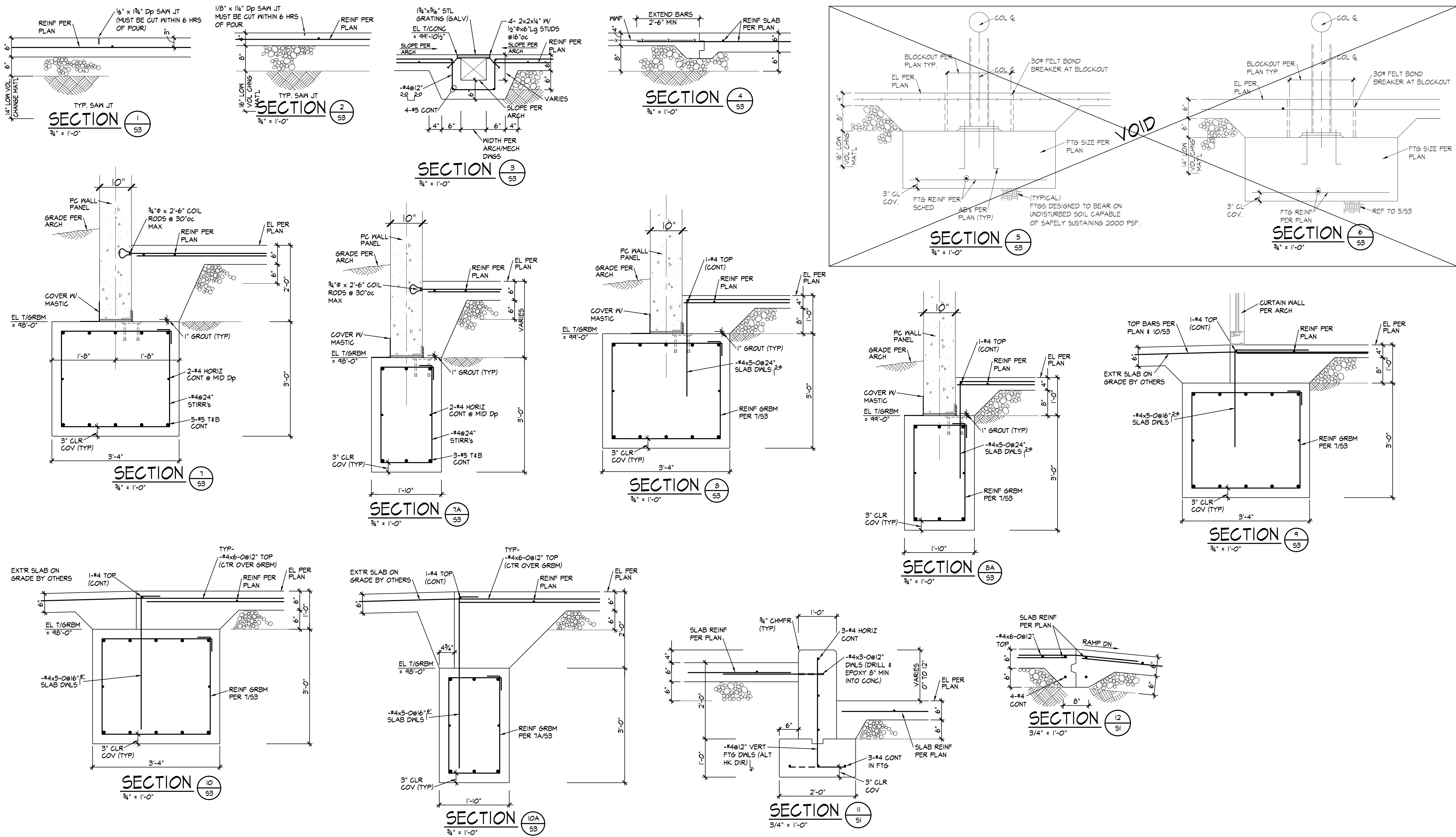
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S2

NOTE:
1.) REFER TO GENERAL NOTES ON SHEET S-



Dec 06, 2021 - 1:19pm - USER jmf
; Q-S-RCI Projects\RCI2112 - Crash Champions - Lee's Summit\RCI2112 Dwg\S-2R.dwg



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913-782-0777 FAX: 913-782-0998
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PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009
DATE ISSUED: 09 / 29 / 21
SHEET NUMBER

S3



SCOTT D. GROSHANS
LICENSE # PE-2019012798



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913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051
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**PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI**

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 2017
1	CITY REVIEW COMMENTS	12 / 06 / 2017
2	OWNER REVISIONS	07 / 29 / 2018
3	SHOP A/C	10 / 05 / 2018

PROJECT NUMBER	21009
DATE ISSUED:	11 / 09 / 21

SHEET NUMBER

M1.0

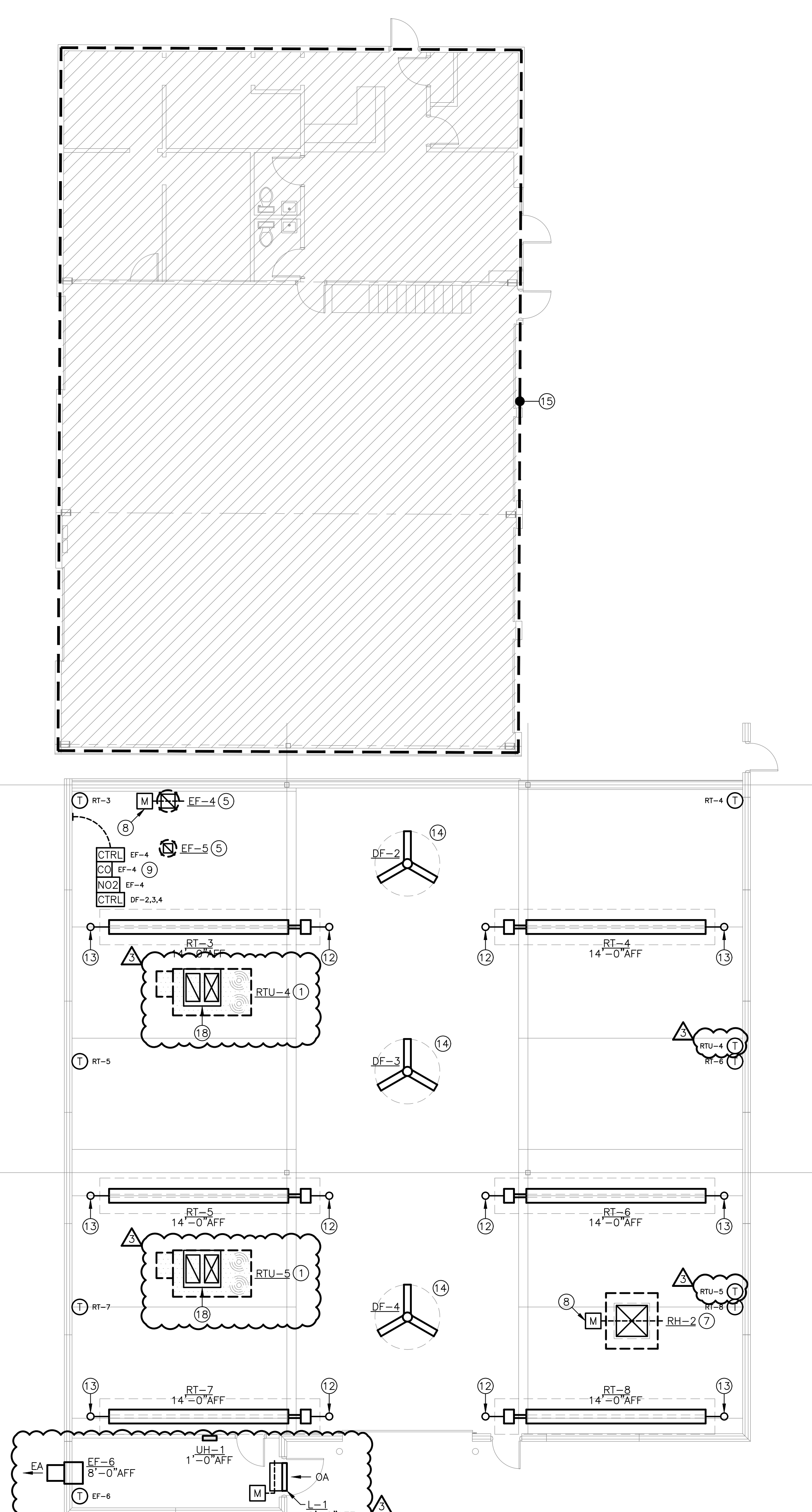
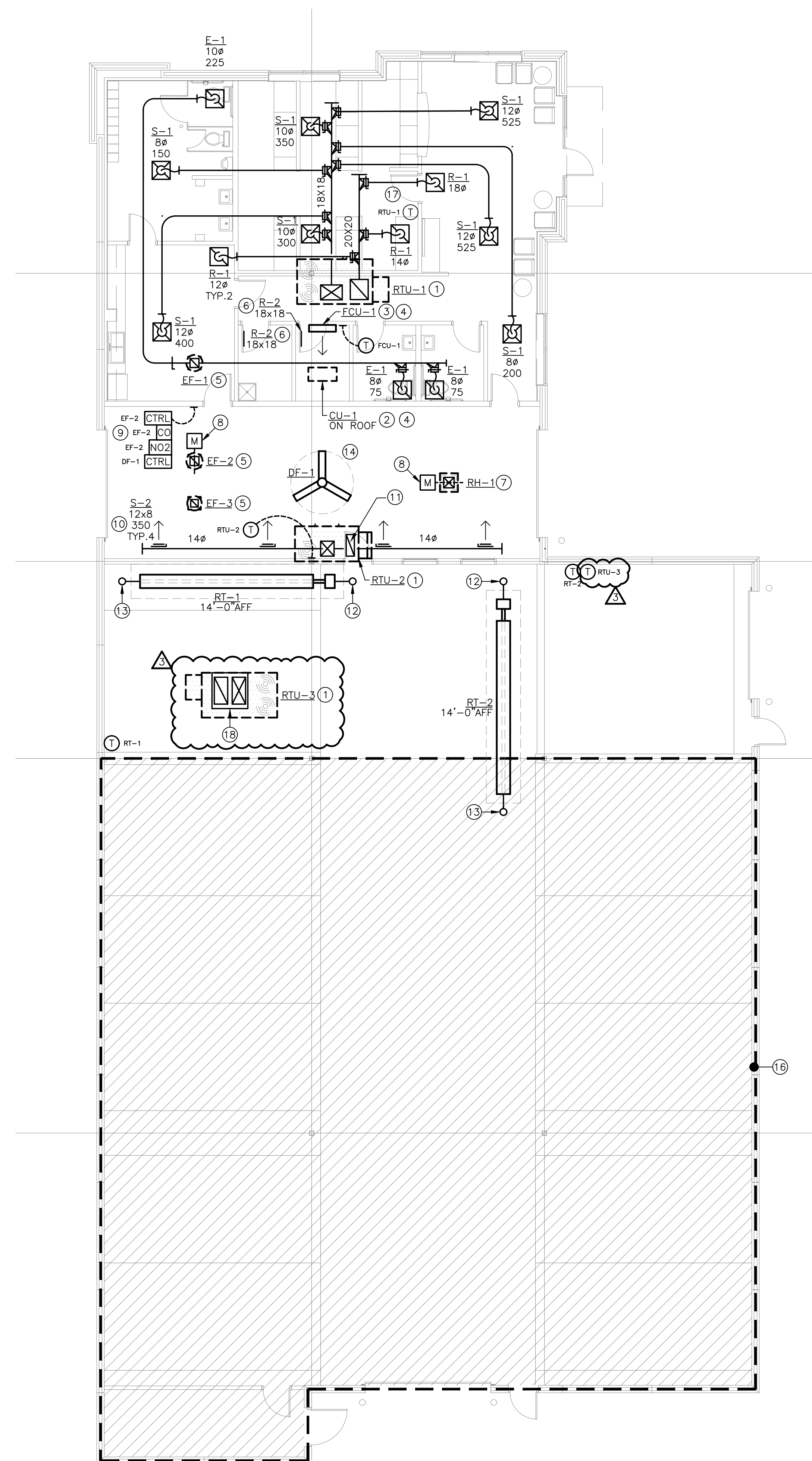
MECHANICAL PLANS

MECHANICAL GENERAL NOTES:

- REFER TO M2.0 FOR MECHANICAL GENERAL NOTES.

⊖ MECHANICAL PLAN NOTES:

1. INSTALL ROOFTOP UNIT WHERE SHOWN ON PLAN. COORDINATE FINAL LOCATION WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS. FILL VOID CURB SPACE WITH MINIMUM THREE LAYERS EACH OF ALTERNATING 5/8" GYP BOARD AND ROLLED BATT INSULATION.
2. INSTALL MINI-SPLIT CONDENSING UNIT ON ROOF WHERE SHOWN ON PLAN. PROVIDE PRE-ENGINEERED ROOF SUPPORTS, THYCURB MODEL # TEMS-1 OR EQUAL.
3. INSTALL MINI-SPLIT INDOOR UNIT ON WALL WHERE SHOWN ON PLAN, AT MINIMUM 7'-6" ABOVE FINISHED FLOOR.
4. PROVIDE REFRIGERANT PIPING FROM FCU-1 TO CU-1 OF SIZES, MATERIAL, SLOPE, AND WITH VALVES AND SPECIALS PER MANUFACTURER'S REQUIREMENTS. INSULATE PIPING PER ENERGY CODE AND PROVIDE PROTECTIVE COATING ON INSULATION EXTERIOR TO THE BUILDING ENVELOPE.
5. INSTALL EXHAUST FAN ON ROOF WHERE SHOWN ON PLAN. MAINTAIN A MINIMUM 10'-0" CLEARANCE BETWEEN EXHAUST FAN DISCHARGE AND ALL HVAC OUTDOOR AIR INTAKES. COORDINATE ROOF PENETRATION WITH OTHER TRADES.
6. INSTALL GRILLE IN DOOR AT MINIMUM 0'-6" ABOVE FINISHED FLOOR.
7. INSTALL ROOF HOOD WHERE SHOWN ON PLAN. COORDINATE ROOF PENETRATION WITH OTHER TRADES.
8. PROVIDE MOTOR-OPERATED DAMPER IN DUCT RISER BELOW ROOF PENETRATION. MATCH DAMPER SIZE WITH HVAC EQUIPMENT CONNECTION SIZE. COORDINATE ACTUATOR VOLTAGE WITH GAS DETECTION SYSTEM REQUIREMENTS.
9. PROVIDE CARBON MONOXIDE / NITROGEN DIOXIDE DETECTION SYSTEM, MONOXIVENT MODEL # FDS-SA-CO-NO OR EQUAL, WITH CONTROLLER AND QUANTITY OR SENSORS AS RECOMMENDED BY THE MANUFACTURER. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
10. INSTALL SUPPLY GRILLE AT 45° ANGLE TOWARD FLOOR.
11. TERMINATE RETURN DUCT RISER AT MINIMUM 1'-0" BELOW ROOF PERMINATION, WITH 1/2" ALUMINUM MESH SCREEN OVER RETURN AIR INLET.
12. PROVIDE 40 COMBUSTION AIR INTAKE UP THROUGH ROOF. TERMINATE WITH KIT FURNISHED WITH TUBE HEATER. REFER TO TUBE HEATER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR INTAKE MATERIAL REQUIREMENTS.
13. PROVIDE 40 COMBUSTION AIR EXHAUST THROUGH ROOF. TERMINATE WITH KIT FURNISHED WITH TUBE HEATER. REFER TO TUBE HEATER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR COMBUSTION EXHAUST MATERIAL REQUIREMENTS.
14. COORDINATE INSTALLATION OF HVLS FAN WITH OTHER TRADES. MAINTAIN OPERATIONAL AND MAINTENANCE CLEARANCES AS REQUIRED BY MANUFACTURER.
15. ALL EXISTING HVAC EQUIPMENT WITHIN INDICATED AREA SHALL REMAIN IN OPERATION FOR DURATION OF PHASE I.
16. ALL HVAC EQUIPMENT WITHIN INDICATED AREA TO BE PROVIDED IN PHASE I.
17. ROUTE INDICATED BRANCH DUCT BETWEEN CONCRETE T'S OF ROOF STRUCTURE AS REQUIRED TO ACCOMMODATE CEILING HEIGHT OF ROOM. COORDINATE WITH OTHER TRADES.
18. PROVIDE STEP-DOWN CEILING DIFFUSER, LENNOX MODEL # RTD11-1855 OR EQUAL.



1 PHASE I
MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

2 PHASE II
MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

5BY5
ENGINEERS

1100 Main Street, 4th Floor
Kansas City, MO 64105
Missouri COA: 2017040776
913-689-9449
contact@5by5eng.com
5by5eng.com

Oct 05, 2022 - 11:00am - USER ScottGroshans
C:\Users\ScottGroshans\OneDrive\Documents\ACTIVE PROJECTS\202100051 Crash Champions Lee's Summit - Rose\Bases-CAD\202100051 MECH.dwg
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LINETYPES LEGEND:

- NEW
--- NEW -- ON ROOF
----- EXISTING
--- EXISTING -- ON ROOF
----- DEMOLITION

DUCTWORK LEGEND:

- DUCT (SINGLE LINE)
DUCT (DOUBLE LINE)

- ROUND O/A OR S/A DOWN

- ROUND O/A OR S/A UP

- ROUND E/A OR R/A DOWN

- ROUND E/A OR R/A UP

- RECTANGULAR O/A OR S/A DOWN

- RECTANGULAR O/A OR S/A UP

- RECTANGULAR E/A OR R/A DOWN

- RECTANGULAR E/A OR R/A UP

- O/A OR S/A DIFFUSER

- E/A OR R/A GRILLE

- AIR DEVICE WITH FLEX DUCT CONNECTION

- AIR DEVICE WITH HARD DUCT CONNECTION

- FLEXIBLE CONNECTION TO EQUIPMENT

- DUCT BREAK/CONTINUATION

- MANUAL BALANCING DAMPER

- MOTOR-OPERATED DAMPER

- BACKDRAFT DAMPER

- FIRE DAMPER

- FIRE/SMOKE DAMPER

- SMOKE DAMPER

- THERMOSTAT

ANNOTATION LEGEND:

- ABC-1 EQUIPMENT / FIXTURE TAG

- PLAN NOTE

- CONNECT TO EXISTING

- AIR FLOW DIRECTION

- G/R/D TAG
80 NECK SIZE
300 AIR FLOW (CFM)

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
APD AIR PRESSURE DROP
BOD BOTTOM OF DUCT
BOP BOTTOM OF PIPE
CAV CONSTANT AIR VOLUME
CFM CUBIC FEET PER MINUTE
CU CONDENSING UNIT
EA EXHAUST AIR
EAT ENTERING AIR TEMPERATURE
EG EXHAUST GRILLE
ESP EXTERNAL STATIC PRESSURE
FCU FAN COIL UNIT
FPM FEET PER MINUTE
HC HEATING CAPACITY
HP HORSEPOWER
IN.WG INCHES WATER GAUGE
LAT LEAVING AIR TEMPERATURE
MAX MAXIMUM
MBH 1,000 BTUH
MIN MINIMUM
NC NOISE CRITERIA
OA OUTDOOR AIR
PSC PUMPED STEAM CONDENSATE
QTY QUANTITY
RA RETURN AIR
REA RELIEF AIR
REFR REFRIGERANT
RG RETURN GRILLE
RTU ROOFTOP UNIT
SA SUPPLY AIR
SC SENSIBLE COOLING CAPACITY
SD SUPPLY DIFFUSER
TC TOTAL COOLING CAPACITY
TRA TO ROOF ABOVE
TSP TOTAL STATIC PRESSURE
VEL VELOCITY

ROOFTOP UNIT SCHEDULE																																
TAG	AREA SERVED	MANUFACTURER	MODEL	SUPPLY FAN				OA MIN FLOW (CFM)	COOLING COIL (DX)												HEATING COIL (NATURAL GAS)				ELECTRICAL			WEIGHT (LBS)	NOTES			
				FAN CONTROL	S/A FLOW (CFM)	MOTOR (HP)	ESP (IN.WG)		TSP (IN.WG)	NOM TONS	REFR TYPE	TC (MBH)	SC (MBH)	EAT				MIN EFF (EER)	(SEER)	STAGES (QTY)	NOM INPUT	HC (MBH)	EAT		MIN EFF (%)	STAGES (QTY)	V/PH			MCA	MOCP	
														(*F DB)	(*F WB)	(*F DB)	(*F WB)						(*F DB)	(*F DB)								(*F DB)
RTU-1	OFFICE	LENNOX	KGB092S	STAGED	2,400	2.0	0.75	1.20	600	7.5	R-410A	84.5	60.0	79.8	65.5	56.7	55.2	11.0	---	2	130	104.0	50.3	90.2	80	2	208/3	42	50	1,350	1-4,6-12	
RTU-2	ESTIMATING	LENNOX	KGB048S	CAV	1,400	0.5	0.50	0.75	280	4	R-410A	46.7	33.2	78.6	64.8	56.8	55.3	11.5	14.0	1	108	86.0	53.6	110.2	80	2	208/3	20	30	800	1-3,5-12	
RTU-3	SHOP	LENNOX	KCC092S	STAGED	2,700	2.0	0.50	0.75	270	7.5	R-410A	84.5	60.0	76.3	63.4	55.8	54.3	11.0	---	2	---	---	---	---	---	---	---	208/3	42	50	1,350	1-3,5-12
RTU-4	SHOP	LENNOX	KCC092S	STAGED	2,700	2.0	0.50	0.75	270	7.5	R-410A	84.5	60.0	76.3	63.4	55.8	54.3	11.0	---	2	---	---	---	---	---	---	---	208/3	42	50	1,350	1-3,5-12
RTU-5	SHOP	LENNOX	KCC092S	STAGED	2,700	2.0	0.50	0.75	270	7.5	R-410A	84.5	60.0	76.3	63.4	55.8	54.3	11.0	---	2	---	---	---	---	---	---	---	208/3	42	50	1,350	1-3,5-12

NOTES:

1. PROVIDE WITH CONTROLLER AND CONTROL DEVICES BY MANUFACTURER. REFER TO SEQUENCES OF OPERATION.

2. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT. COORDINATE DESIRED FEATURES WITH OWNER, PRIOR TO ORDER (E.G. WIFI CAPABILITY).

3. PROVIDE WITH FIXED DRY BULB TYPE ECONOMIZER ASSEMBLY.

4. PROVIDE WITH MANUFACTURER'S STANDARD POWER EXHAUST FAN.

5. PROVIDE WITH MANUFACTURER'S STANDARD BAROMETRIC RELIEF DAMPER AND HOOD.

6. PROVIDE WITH MANUFACTURER'S STANDARD INSULATED ROOF CURB WITH 1'-2" MINIMUM HEIGHT.

7. PROVIDE WITH NON-POWERED WEATHER-PROOF DUPLEX RECEPTACLE.

8. PROVIDE WITH 2" THICK, MINIMUM MERV-8 FILTERS.

9. PROVIDE WITH FACTORY-MOUNTED RETURN AIR SMOKE DETECTOR.

10. PROVIDE WITH CONDENSER COIL GUARDS.

11. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH.

12. UNIT SIZED FOR 100°F AMBIENT CONDENSING TEMPERATURE.



NOTES:

1. PROVIDE WITH CONTROLLER AND CONTROL DEVICES BY MANUFACTURER. REFER TO SEQUENCES OF OPERATION.
2. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT. COORDINATE DESIRED FEATURES WITH OWNER, PRIOR TO ORDER (E.G. WIFI CAPABILITY).
3. PROVIDE WITH FIXED DRY BULB TYPE ECONOMIZER ASSEMBLY.
4. PROVIDE WITH MANUFACTURER'S STANDARD POWER EXHAUST FAN.
5. PROVIDE WITH MANUFACTURER'S STANDARD BAROMETRIC RELIEF DAMPER AND HOOD.
6. PROVIDE WITH MANUFACTURER'S STANDARD INSULATED ROOF CURB WITH 1'-2" MINIMUM HEIGHT.
7. PROVIDE WITH NON-POWERED WEATHER-PROOF DUPLEX RECEPTACLE.
8. PROVIDE WITH 2" THICK, MINIMUM MERV-8 FILTERS.
9. PROVIDE WITH FACTORY-MOUNTED RETURN AIR SMOKE DETECTOR.
10. PROVIDE WITH CONDENSER COIL GUARDS.
11. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH.
12. UNIT SIZED FOR 100°F AMBIENT CONDENSING TEMPERATURE.

MINI-SPLIT HEAT PUMP SCHEDULE																									
TAGS		AREA SERVED	MANUFACTURER	MODEL NUMBERS		UNIT TYPE	REFR TYPE	FCU SUPPLY FAN			COOLING				HEATING			ELECTRICAL					NOTES		
INDOOR UNIT	OUTDOOR UNIT			INDOOR UNIT	OUTDOOR UNIT			S/A FLOW (CFM)	O/A FLOW (CFM)	ESP (IN.WG)	NOM TONS	TC (MBH)	EAT (°F DB)	EFF (°F WB)	(EER)	(SEER)	HC (MBH)	EAT (°F DB)	EFF (HSPF)	FCU V/PH	MCA	V/PH		MCA	MOCP
FCU-1	CU-1	IT ROOM	LENNOX	MWMB024S4	MPB024S4S	SINGLE ZONE	R-410A	700	0	0	2.0	24.0	80.0	67.0	13.7	20.7	25.0	70.0	11.5	208/1	1.0	208/1	18	25	ALL
APPROVED EQUIVALENT MANUFACTURERS: CARRIER, DAIKIN, LENNOX, LG, MITSUBISHI.																									
NOTES:																									
1. PROVIDE WITH MANUFACTURER'S STANDARD MICROPROCESSOR CONTROLS.																									
2. FURNISH WITH WALL-MOUNT PROGRAMMABLE THERMOSTAT.																									
3. PROVIDE INDOOR UNIT WITH MANUFACTURER'S STANDARD CLEANABLE AIR FILTER.																									
4. PROVIDE WITH CONDENSER HAIL GUARDS.																									
5. PROVIDE WITH LOW AMBIENT KIT DOWN TO -10°F.																									

GRILLE, REGISTER, AND DIFFUSER SCHEDULE										
TAG	SERVICE	MANUFACTURER	MODEL	CONSTRUCTION	MOUNTING		FACE SIZE (IN)	MAX NC	MAX APD (IN.WG)	NOTES
					(LOCATION)	(BORDER TYPE)				
E-1	E/A	TITUS	PAR	STEEL	CEILING	LAY-IN	24 x 24	30	0.08	1,3,4
R-1	R/A	TITUS	PAR	STEEL	CEILING	LAY-IN	24 x 24	30	0.08	1,3,4
R-2	R/A	TITUS	T-700	STEEL	DOOR	SURFACE MT	NECK + 2-1/8"	30	0.08	1,3,4
S-1	S/A	TITUS	TMS	STEEL	CEILING	LAY-IN	24 x 24	30	0.10	1,2,3,4
S-2	S/A	TITUS	300RS	STEEL	WALL	SURFACE MT	NECK + 1-1/2"	30	0.10	1,3,4

NOTES:

1. NECK SIZE SHOWN ON PLANS.
2. PROVIDE WITH 4-WAY THROW, UNLESS INDICATED OTHERWISE ON PLANS.
3. PROVIDE WITH WHITE BAKED ENAMEL FINISH.
4. PROVIDE WITH FRAME TYPE TO MATCH CEILING / WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL PLANS.



LOUVER SCHEDULE								
TAG	MANUFACTURER	MODEL	SIZE (W" x H")	AIR FLOW (CFM)	FREE AREA (SQ.FT)	AIR VEL (FPM)	MAX APD (IN.WG)	NOTES
L-1	GREENHECK	EDJ-601	36 x 36	2,400	4.6	508	0.05	ALL

NOTES:

1. PROVIDE WITH MANUFACTURER'S STANDARD ALUMINUM BIRDSCREEN.
2. ARCHITECT TO SELECT FINISH COLOR.
3. FRAME TYPE SHALL MATCH WALL CONSTRUCTION. COORDINATE WITH ARCHITECT.
4. PROVIDE WITH CONTROL DAMPER, WITH 120V POWER-OPEN / SPRING-CLOSED ACTUATOR.
5. INTERLOCK CONTROL DAMPER WITH ROOM EXHAUST FAN, TO OPEN WHEN FAN IS ON.

ROOF HOOD SCHEDULE								
TAG	SERVICE	MANUFACTURER	MODEL	AIR FLOW (CFM)	THROAT (L" x W")	VEL (FPM)	APD (IN.WG)	NOTES
RH-1	EF-2 OA INTAKE	GREENHECK	FGI	650	14 x 14	478	0.05	ALL
RH-2	EF-4 OA INTAKE	GREENHECK	FGI	5,000	40 x 40	450	0.05	ALL

NOTES:

1. PROVIDE WITH 1/2" MESH ALUMINUM BIRDSCREEN.
2. PROVIDE WITH MANUFACTURER'S STANDARD INSULATED ROOF CURB, WITH MINIMUM 1'-2" HEIGHT. REFER TO ARCHITECTURAL PLANS FOR ROOF SLOPE.

UNIT HEATER SCHEDULE								
TAG	MANUFACTURER	MODEL	MOUNTING	OUTPUT (MBH)	INPUT (W)	V/PH	FLA	NOTES
UH-1	QMARK	CWH1201	WALL	6.1	1,800	120/1	15	1.2

NOTES:

1. PROVIDE WITH UNIT MOUNTED THERMOSTAT AND DISCONNECT SWITCH.
2. PROVIDE WITH MANUFACTURER'S STANDARD TRIM FOR WALL MOUNTING.

FAN SCHEDULE												
TAG	AREA SERVED	MANUFACTURER	MODEL	MOUNTING	AIR FLOW (CFM)		ESP (IN.WG)	TSP (IN.WG)	MOTOR (HP)	DRIVE TYPE	V/PH	NOTES
					(DESIGN)	(TAB)						
EF-1	OFFICE GENERAL EA	GREENHECK	G-09S-VG	ROOF	475	375	0.50	0.66	1/6	DIRECT	120/1	1-6
EF-2	ESTIMATING CO/NO2 EA	GREENHECK	G-09S-D	ROOF	650	650	0.15	0.25	1/8	DIRECT	120/1	1,2,5,7
EF-3	ESTIMATING MINIMUM EA	GREENHECK	G-060-D	ROOF	150	150	0.15	0.15	1/60	DIRECT	120/1	1-2,5,8
EF-4	SHOP CO/NO2 EA	GREENHECK	G-163-A	ROOF	5,000	5,000	0.15	0.25	2	DIRECT	120/1	1,2,5,7
EF-5	SHOP MINIMUM EA	GREENHECK	G-080-D	ROOF	350	350	0.15	0.15	1/20	DIRECT	120/1	1-2,5,8
EF-6	AIR COMP ROOM EA	GREENHECK	SE2-18-411-A4	WALL	2,400	2,400	0.15	0.35	1/4	DIRECT	120/1	2,3,5,9,10

NOTES:

1. PROVIDE MINIMUM 1'-2" TALL, INSULATED ROOF CURB WITH DAMPER TRAY. FIELD VERIFY EXISTING ROOF SLOPE.

2. PROVIDE WITH DISCONNECT SWITCH.

3. PROVIDE WITH BACKDRAFT DAMPER.

4. PROVIDE FAN WITH EC MOTOR, WITH POTENTIOMETER DIAL ON MOTOR FOR BALANCING PURPOSES.

5. PROVIDE WITH ALUMINUM BIRDSCREEN AT FAN DISCHARGE.

6. FAN TO OPERATE CONTINUOUSLY DURING OCCUPIED HOURS. COORDINATE WITH ELECTRICAL CONTRACTOR.

7. FAN TO OPERATE SUBJECT TO GAS DETECTION SYSTEM STATE. COORDINATE WITH ELECTRICAL CONTRACTOR.

8. FAN TO OPERATE AT ALL TIMES. COORDINATE WITH ELECTRICAL CONTRACTOR.

9. PROVIDE WITH SHORT WALL HOUSING FLUSH WITH EXTERIOR AND WEATHERHOOD WITH 45° DOWNWARD DISCHARGE.

10. PROVIDE LINE VOLTAGE THERMOSTAT. FAN TO OPERATE WHEN ROOM TEMPERATURE EXCEEDS 85°F (ADJUSTABLE).

NATURAL GAS-FIRED RADIANT TUBE HEATER SCHEDULE													
TAG	AREA SERVED	MANUFACTURER	MODEL	HEATER LENGTH (MIN)	NOM INPUT (MBH)	MIN EFF (%)	NG PRESS (IN.WG)		STAGES	V/PH	FLA	WEIGHT (LBS)	NOTES
							(MIN)	(MAX)					
RT-1	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120 ALL
RT-2	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120 ALL
RT-3	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120 ALL
RT-4	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120 ALL
RT-5	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120 ALL
RT-6	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120 ALL
RT-7	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120 ALL
RT-8	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120 ALL

NOTES:

1. PROVIDE WITH MANUFACTURER'S STANDARD WALL-MOUNTED THERMOSTAT
2. COORDINATE WITH ELECTRICAL CONTRACTOR FOR PROVIDE DISCONNECT SWITCH.
3. FURNISH INFRARED HEATER WITH COMBUSTION AIR INTAKE KIT AND ROOF VENT KIT.
4. FURNISH WITH SINGLE MOUNT BRACKETS AND CHAIN HANGING SETS.

DESTRATIFICATION FAN SCHEDULE									
TAG	AREA SERVED	MANUFACTURER	MODEL	FAN DIAMETER	MOTOR POWER	DRIVE TYPE	V/PH	WEIGHT (LBS)	NOTES
DF-1	ESTIMATING	BIG ASS FANS	B3213-X3	7'-0"	63.8 W	DIRECT EC	120/1	25	ALL
DF-2	SHOP	BIG ASS FANS	B3213-X3	7'-0"	63.8 W	DIRECT EC	120/1	25	ALL
DF-3	SHOP	BIG ASS FANS	B3213-X3	7'-0"	63.8 W	DIRECT EC	120/1	25	ALL
DF-4	SHOP	BIG ASS FANS	B3213-X3	7'-0"	63.8 W	DIRECT EC	120/1	25	ALL

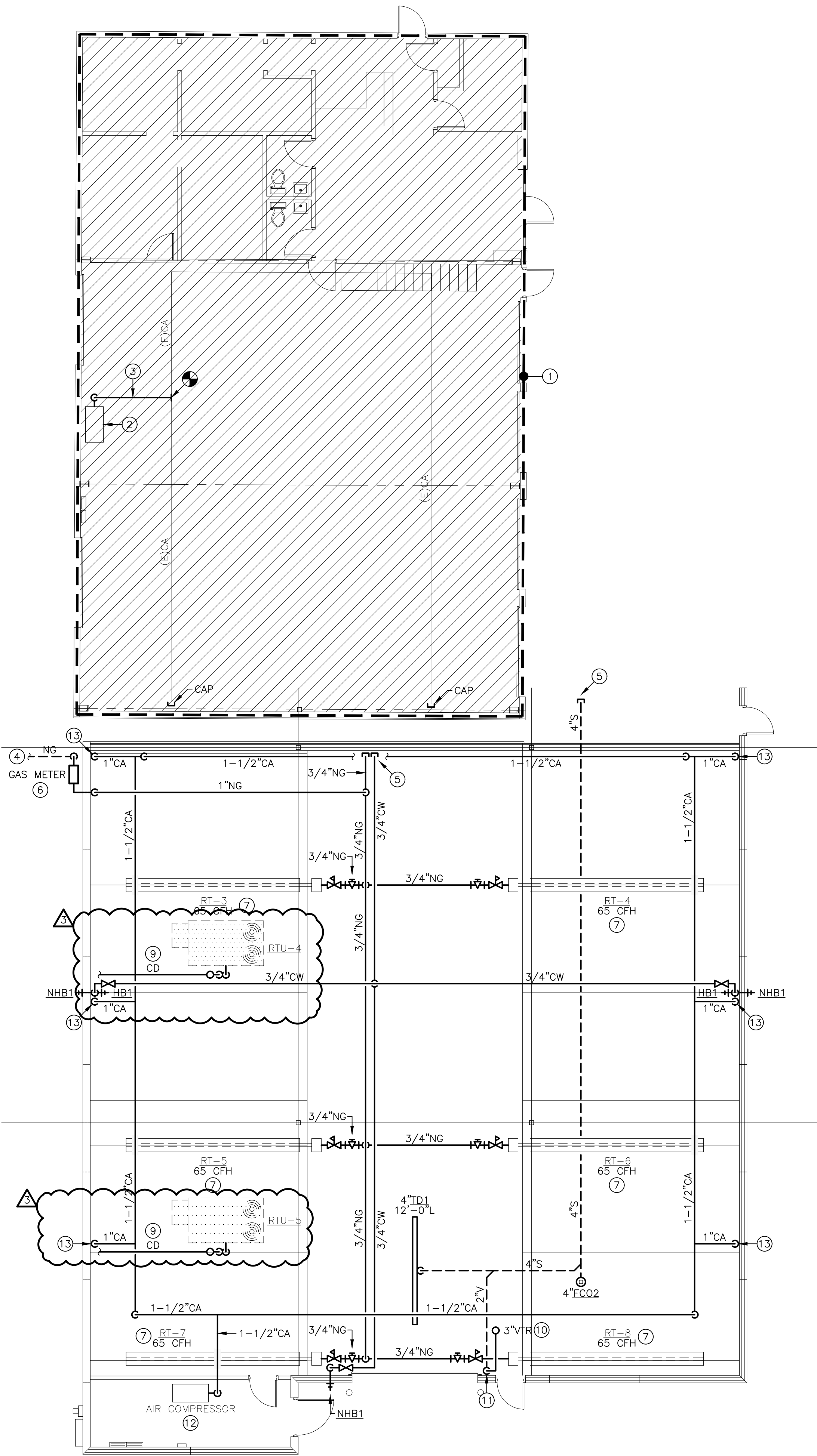
NOTES:

1. COORDINATE FINISH COLOR WITH ARCHITECT, PRIOR TO ORDER.
2. FURNISH WITH WALL CONTROLLER. REFER TO PLAN FOR MULTIPLE FANS TO BE CONTROLLED BY ONE CONTROLLER.

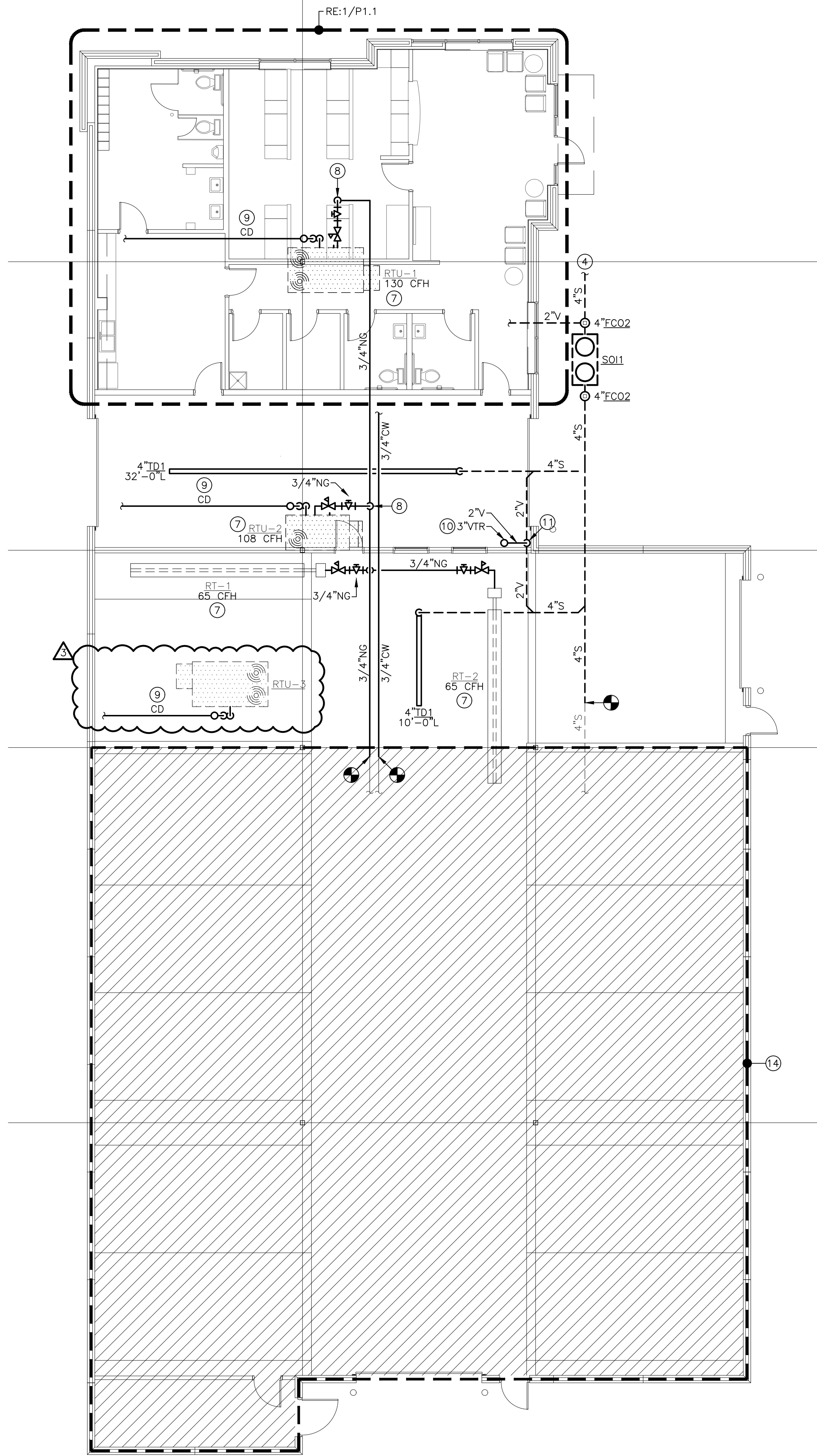
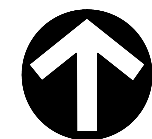
MECHANICAL GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE AND BASED ON PRELIMINARY SITE OBSERVATION AND ORIGINAL DESIGN DRAWINGS (WHEN AVAILABLE). PRIOR TO BID, CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS. CURRENT SYSTEM OPERATION, AS WELL AS COORDINATION REQUIREMENTS. COORDINATE ALL MECHANICAL WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS, AND OTHER TRADES PRIOR TO BID OR START OF WORK.

Oct 05, 2022 - 11:00am - USER ScottGroshans
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1 PHASE I PLUMBING PLAN
SCALE: 1/8" = 1'-0"



2 PHASE II PLUMBING PLAN
SCALE: 1/8" = 1'-0"



PLUMBING GENERAL NOTES:

- REFER TO P2.0 FOR PLUMBING GENERAL NOTES.

PLUMBING PLAN NOTES:

- EXISTING PLUMBING FIXTURES AND UTILITIES WITHIN INDICATED AREA TO REMAIN ACTIVE FOR DURATION OF PHASE I CONSTRUCTION.
- TEMPORARILY RELOCATE EXISTING AIR COMPRESSOR TO LOCATION SHOWN ON PLAN FOR DURATION OF PHASE I CONSTRUCTION.
- PROVIDE PIPING FROM TEMPORARY AIR COMPRESSOR LOCATION TO TIE INTO EXISTING COMPRESSED AIR MAIN OVERHEAD.
- REFER TO CIVIL UTILITY PLAN FOR CONTINUATION OF PIPING OUTSIDE OF BUILDING FOOTPRINT.
- PROVIDE TEMPORARY CAP. REFER TO PHASE II FOR CONTINUATION.
- PROVIDE NEW NATURAL GAS SERVICE ENTRANCE AND METER WHERE SHOWN ON PLAN. REFER TO NATURAL GAS LOAD SCHEDULE FOR LOAD, TOTAL DEVELOPED LENGTH, AND SIZING DETAILS.
- CONNECT NATURAL GAS TO MECHANICAL EQUIPMENT AS SHOWN. PROVIDE DIRT LEG, GAS COCK, AND REGULATOR. REFER TO MECHANICAL EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS. COORDINATE WITH MECHANICAL CONTRACTOR.
- ROUTE NATURAL GAS PIPING UP THROUGH ROOF TO CONNECT TO RTU. COORDINATE ROOF PENETRATION WITH OTHER TRADES.
- PROVIDE CONDENSATE DRAIN WITH P-TRAP, FULL SIZE OF CONNECTION AT ROOFTOP UNIT. ROUTE PIPING ACROSS ROOF DISCHARGE INTO ROOF GUTTER WITH AIR GAP.
- ROUTE 3" VENT UP THROUGH ROOF (VTR). DISCHARGE AT MINIMUM 1'-6" ABOVE FINISHED ROOF. INSTALL AT MINIMUM OF 10'-0" FROM ALL MECHANICAL OUTDOOR AIR INTAKES
- PROVIDE CAST IRON VENT RISER FROM FLOOR PENETRATION TO MINIMUM 8'-0" ABOVE FINISHED FLOOR.
- AIR COMPRESSOR PROVIDED BY OTHERS. PROVIDE COMPRESSED AIR PIPING CONNECTION WITH VALVES AND SPECIALS PER AIR COMPRESSOR MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE 1"CA DROP DOWN WALL. TERMINATE WITH SHUTOFF VALVE. COORDINATE CONNECTION TO OWNER EQUIPMENT WITH OTHER TRADES.
- ALL PLUMBING FIXTURES AND PIPING WITHIN INDICATED AREA TO BE PROVIDED IN PHASE I.

5BY5
ENGINEERS

1100 Main Street, 4th Floor
Kansas City, MO 64105
Missouri COA: 2017040776
913-689-9449
contact@5by5eng.com
5by5eng.com

RELEASED FOR
CONSTRUCTION
Development Services Department
Lee's Summit, Missouri
10/05/2022



SCOTT D. GROSHANS
LICENSE # PE-2019012798

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DESIGN GROUP INC.

ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051
MISSOURI STATE CERTIFICATE OF www.BuildWithRose.com
AUTHORITY # 2008034845



PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21
1	CITY REVIEW COMMENTS	12 / 06 / 21
2	OWNER REVISIONS	07 / 29 / 22
3	SHOP A/C	10 / 05 / 22

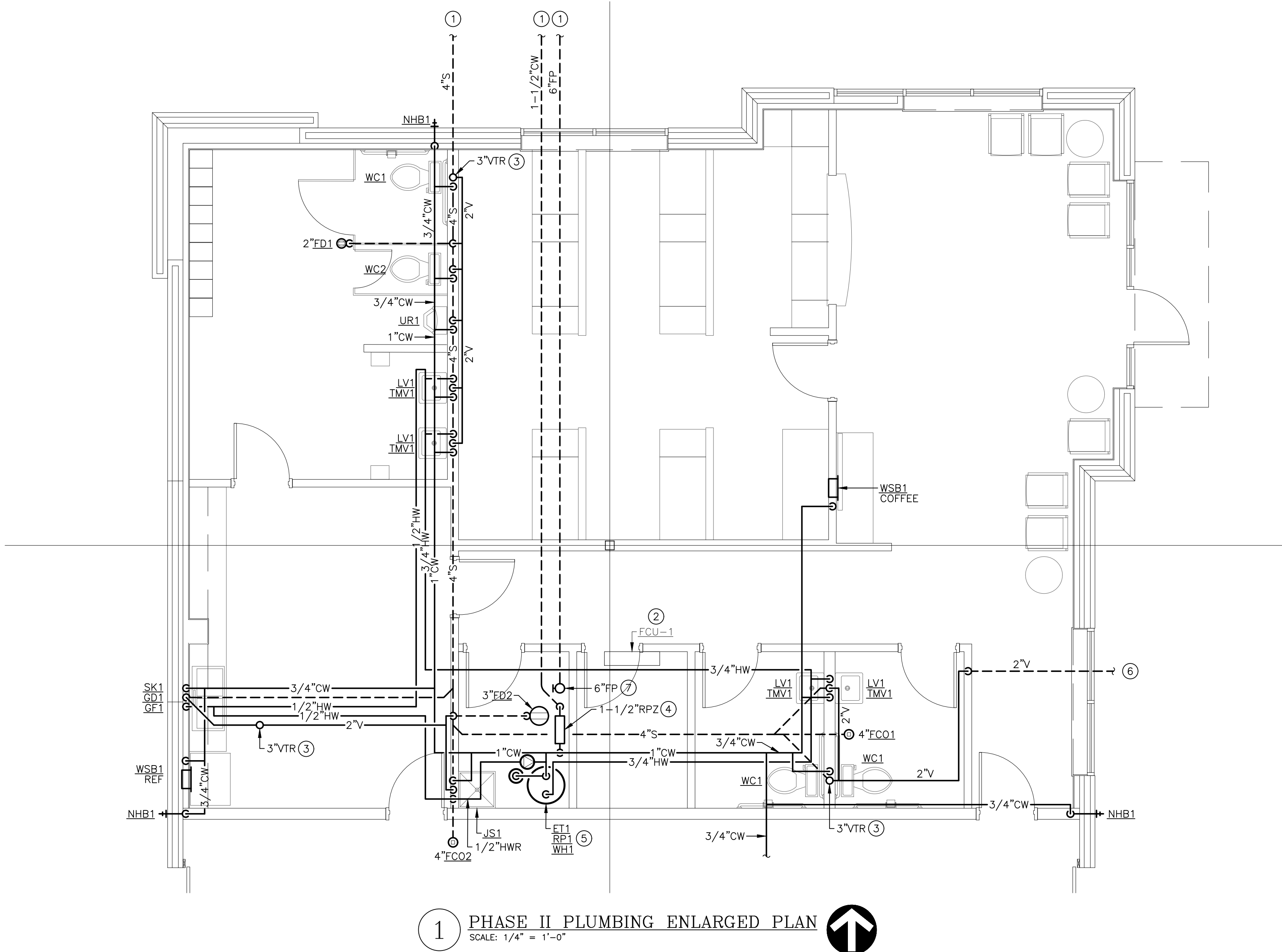
PROJECT NUMBER 21009
DATE ISSUED: 11 / 09 / 21

SHEET NUMBER

P1.0

PLUMBING PLANS

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PLUMBING GENERAL NOTES:

- REFER TO P2.0 FOR PLUMBING GENERAL NOTES.

PLUMBING PLAN NOTES:

- REFER TO CIVIL UTILITY PLAN FOR CONTINUATION OF PIPING OUTSIDE OF BUILDING FOOTPRINT.
- PROVIDE 3/4" CONDENSATE DRAIN FROM FCU-1 CONDENSATE PUMP DISCHARGE TO FLOOR DRAIN IN ADJACENT WATER ENTRANCE ROOM. TERMINATE INTO FLOOR DRAIN WITH AIR GAP. ROUTE PIPING CONCEALED ABOVE CEILING AND IN WALL CAVITY AS MUCH AS POSSIBLE. PROVIDE ESCUTCHEONS AT WALL AND CEILING PENETRATIONS.
- ROUTE 3" VENT UP THROUGH ROOF (VTR). DISCHARGE AT MINIMUM 1'-6" ABOVE FINISHED ROOF. INSTALL AT MINIMUM OF 10'-0" FROM ALL MECHANICAL OUTDOOR AIR INTAKES
- NEW 1-1/2" DOMESTIC WATER SERVICE ENTRANCE. REFER TO DETAIL 1/P2.0 FOR MORE INFORMATION.
- INSTALL WATER HEATER IN MECHANICAL ROOM WHERE SHOWN ON PLAN. CONNECT WATER PIPING, VALVES, RECIRCULATION PUMP, AND EXPANSION TANK TO WATER HEATER SYSTEM PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DETAIL 2/P2.0.
- 2"V BELOW GRADE FROM SAND/OIL INTERCEPTOR CLEANOUT. REFER TO 2/P1.0 FOR CONTINUATION.
- 6"FP ENTRANCE. PROVIDE BUTTERFLY SHUTOFF VALVE AT 2'-0" ABOVE FINISHED FLOOR WITH BLIND FLANGE. FIRE PROTECTION DOWNSTREAM OF ENTRANCE TO BE DESIGNED AND INSTALLED BY FIRE PROTECTION CONTRACTOR.

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1100 Main Street, 4th Floor
Kansas City, MO 64105
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P1.1

PLUMBING ENLARGED
PLAN

LINETYPES LEGEND:

- NEW — ABOVE SLAB
- NEW --- BELOW SLAB
- - - - - EXISTING - ABOVE SLAB
- - - - - EXISTING - BELOW SLAB
- - - - - DEMOLITION

PIPING LEGEND:

- ↘ ELBOW DOWN
- ↗ ELBOW UP
- ⊗ P-TRAP
- ⊕ TEE DOWN
- ⊖ ELBOW UP
- ⊗ SHUT-OFF VALVE (GENERIC)
- ⊗ BALL VALVE
- ⊗ GLOBE VALVE
- ⊗ BUTTERFLY VALVE
- ⊗ GATE VALVE
- ⊗ CHECK VALVE
- ⊗ BALANCING VALVE
- ⊗ PRESSURE REDUCING VALVE
- ⊗ GAS COCK
- ⊗ WYE-STRAINER
- ⊗ UNION
- ⊗ FLANGE
- ⊗ RELIEF VALVE
- ⊗ AIR VENT (MANUAL / AUTOMATIC)
- ▶ FLOW DIRECTION
- ⊗ PIPE BREAK / CONTINUATION
- FLOOR DRAIN
- ⊗ FLOOR SINK
- FLOOR CLEANOUT
- ⊕ HOSE BIBB

ANNOTATION LEGEND:

- ABC-1 EQUIPMENT / FIXTURE TAG
- PLAN NOTE
- ⊕ CONNECT TO EXISTING

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- BOP BOTTOM OF PIPE
- CFH CUBIC FEET PER HOUR
- CA COMPRESSED AIR
- CO CLEANOUT
- CW DOMESTIC COLD WATER
- DF DRINKING FOUNTAIN
- ET EXPANSION TANK
- FCO FLOOR CLEANOUT
- FD FLOOR DRAIN
- GPM GALLONS PER MINUTE
- HB HOSE BIBB
- HP HORSEPOWER
- HWR HOT WATER RECIRCULATION
- IE INVERT ELEVATION
- IN.WG INCHES WATER GAUGE
- JS JANITOR SINK
- LV LAVATORY
- MAX MAXIMUM
- MB MOP BASIN
- MBH 1,000 BTUH
- MIN MINIMUM
- NG NATURAL GAS
- NHB NON-FREEZE HOSE BIBB
- QTY QUANTITY
- RP RECIRCULATION PUMP
- RPZ REDUCED PRESSURE ZONE BACKFLOW PREVENTER
- S SANITARY WASTE
- SK SINK
- TD TRENCH DRAIN
- TMV THERMOSTATIC MIXING VALVE
- TRA TO ROOF ABOVE
- UR URINAL
- V VENT
- WC WATER CLOSET
- WH WATER HEATER
- WCO WALL CLEANOUT

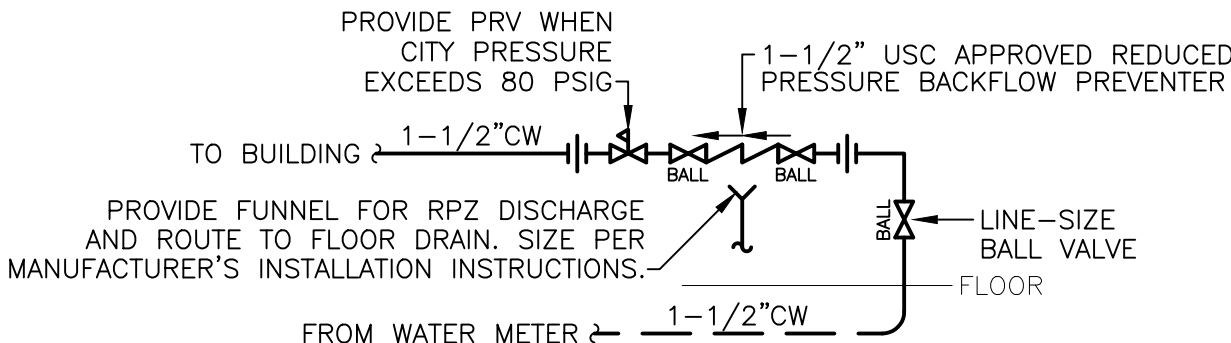
FIXTURE CONNECTION SCHEDULE					
FIXTURE	WASTE	VENT	COLD	HOT	NOTES
COFFEE/TEA MACHINES	SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS				DCVB
FLOOR DRAIN / TRENCH DRAIN	SEE PLAN	2"	---	---	---
HOSE BIBBS	---	---	1/2"	---	VB
JANITOR'S SINK	2"	1-1/2"	1/2"	1/2"	VB
LAVATORY - PUBLIC	2"	1-1/2"	1/2"	1/2"	TMV
SINK - BREAKROOM	2"	1-1/2"	1/2"	1/2"	---
URINAL	2"	2"	1"	---	---
WATER CLOSET (TANK TYPE)	4"	2"	1/2"	---	---

NOTES:
DCVB: DOUBLE CHECK VALVE ASSEMBLY, LINE SIZED, CONFORMING TO ASSE 1022.
TMV: POINT OF USE TYPE THERMOSTATIC MIXING VALVE CONFORMING TO ASSE 1070.
VB: ATMOSPHERIC TYPE VACUUM BREAKER CONFORMING TO ASSE 1020.

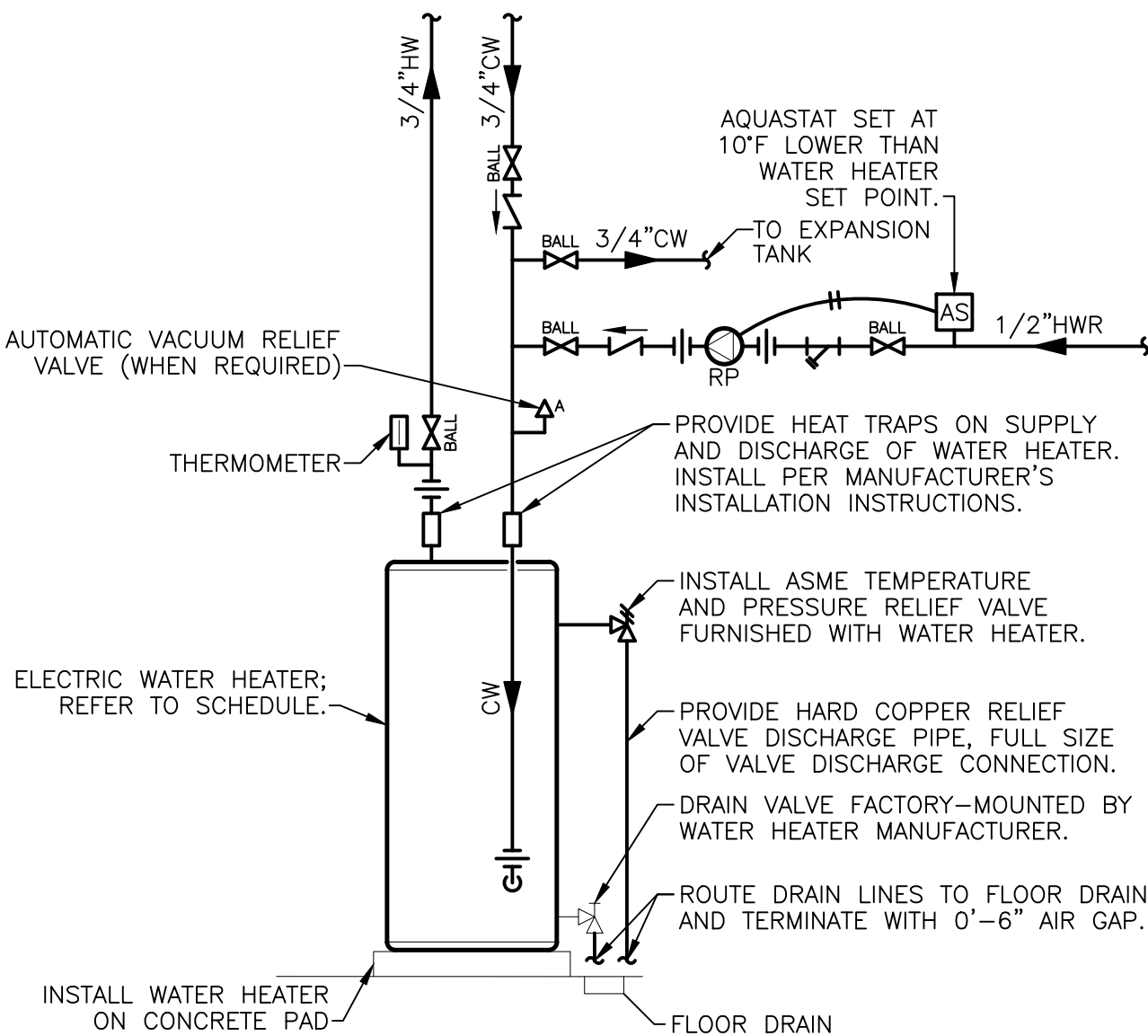
INSTALL BACKFLOW PREVENTION DEVICES ON EQUIPMENT AND FIXTURES PER LOCAL WATER COMPANY REQUIREMENTS. ALL BACKFLOW PREVENTERS SHALL BE IN AN ACCESSIBLE LOCATION FOR PERIODIC INSPECTION AND TESTING.

NATURAL GAS LOAD SCHEDULE				
EQUIPMENT TAG	QTY	DESCRIPTION	CFH INPUT (EACH)	TOTAL CFH
RT-1	1	RADIANT TUBE HEATER	65	65
RT-2	1	RADIANT TUBE HEATER	65	65
RT-3	1	RADIANT TUBE HEATER	65	65
RT-4	1	RADIANT TUBE HEATER	65	65
RT-5	1	RADIANT TUBE HEATER	65	65
RT-6	1	RADIANT TUBE HEATER	65	65
RT-7	1	RADIANT TUBE HEATER	65	65
RT-8	1	RADIANT TUBE HEATER	65	65
RTU-1	1	ROOFTOP UNIT	130	130
RTU-2	1	ROOFTOP UNIT	108	108

- NOTES:
- 1. METER DISCHARGE PRESSURE: 2.0 PSIG
 - 2. TOTAL DEVELOPED LENGTH: 250 FT
 - 3. DESIGN NATURAL GAS PIPING SYSTEM PRESSURE DROP: 1 PSIG
 - 4. INLET PRESSURE FOR ALL GAS-FIRED EQUIPMENT: 7 TO 11 IN.WG.



1 WATER SERVICE ENTRANCE DETAIL
SCALE: NTS



NOTES:

- INSTALL PER MANUFACTURER'S REQUIREMENTS.

2 WATER HEATER DETAIL
SCALE: NTS

PLUMBING FIXTURE SCHEDULE:

INFORMATION BELOW IS FOR GENERAL FIXTURE REQUIREMENTS ONLY. PLUMBING CONTRACTOR SHALL COORDINATE WITH OWNER AND ARCHITECT FOR EXACT FIXTURE REQUIRED FOR THE PROJECT. COORDINATE WITH OWNER FOR INFORMATION ON PROCURING FIXTURES AND ASSOCIATED COSTS. CONTRACTOR SHALL BE CLEAR AS TO WHAT FIXTURES ARE INCLUDED IN THEIR PROPOSED COSTS.

FIXTURES IN THIS SCHEDULE, OR THE APPROVED EQUIVALENT, SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER REQUIREMENTS.

ET1

- EXPANSION TANK: 150 PSIG MAXIMUM WORKING PRESSURE, 4.5-GALLON CAPACITY, 0.45 MAXIMUM ACCEPTANCE FACTOR, AND 3/4" PIPE CONNECTION. SET THE AIR CHARGE PRESSURE TO MATCH EXISTING WATER SYSTEM PRESSURE.

FC01

- FLOOR CLEANOUT: CAST IRON BODY, FLASHING FLANGE WITH CLAMPING COLLAR, ABS PLUG, AND ADJUSTABLE, ROUND, SECURED, HEAVY-DUTY SCORiated NICKEL BRONZE TOP. INSTALL PER MANUFACTURER'S REQUIREMENTS BASED ON FLOORING TYPE USED. PROVIDE ACCESSORIES AS REQUIRED FOR PROPER INSTALLATION. COORDINATE FINISH TYPE WITH ARCHITECTURAL PLANS.

FC02

- HEAVY-DUTY FLOOR CLEANOUT: CAST IRON BODY; FLASHING FLANGE WITH CLAMPING COLLAR; ABS PLUG; AND ADJUSTABLE, ROUND, SECURED, HEAVY-DUTY SCORiated NICKEL BRONZE TOP.

FD1

- PVC FLOOR DRAIN: FLOOR DRAIN WITH ADJUSTABLE 6" ROUND MEDIUM-DUTY CAST NICKEL STRAINER, WITH FLANGED PVC ADAPTER. CLEAN AND POLISH STRAINER AFTER INSTALLATION, PROVIDE A DEEP SEAL TRAP, FLANGED PVC ADAPTER, AND TRAP GUARD.

FD2

- PVC EQUIPMENT FLOOR DRAIN: 5" DEEP ROUND PVC BODY, WITH PVC SOCKET OUTLET, ANCHOR FLANGE, ROUND PVC DEBRIS BUCKET, 9" ROUND CAST IRON GRATE AND FRAME.

GD1

- GARBAGE DISPOSER: LIGHT COMMERCIAL DISPOSER WITH 1/2 HP AUTOMATIC REVERSING MOTOR WITH POWER CORD, STAINLESS STEEL GRIND CHAMBER, AND CAST NICKEL CHROME CUTTING ELEMENT.
- ELECTRICAL REQUIREMENTS: 120V/1Ø, 5.8 FULL LOAD AMPS.
- TRIM: WASTE DISCHARGE KIT.

GF1

- GLASS FILLER: STAINLESS STEEL GOOSENECK GLASS FILLER WITH PLASTIC PUSH LEVER CONTROL. MOUNT TO DECK OF SINK INDICATED ON PLAN. COORDINATE WATER FILTRATION REQUIREMENTS WITH OWNER, PRIOR TO ORDER.

HB1

- HOSE BIBB: ROUGH CHROME-PLATED BRASS, 3/4" FEMALE INLET, 3/4" THREADED HOSE CONNECTION, QUARTER-TURN WHEEL HANDLE, AND INTEGRAL VACUUM BREAKER.

JS1

- JANITOR'S SINK: 24"W x 24"L x 10"H MOLDED FIBER BASIN WITH INTEGRAL STAINLESS STEEL DRAIN BODY.
- FAUCET: FAUCET WITH WALL BRACE, INTEGRAL VACUUM BREAKER, PAIL HOOK, AND 3/4" MALE HOSE THREADED OUTLET. SECURE FAUCET IN WALL WITH BACKBOARD.
- TRIM: TYPE 304 20-GAUGE STAINLESS STEEL WALL SURROUNDS, 3'-0" LONG REINFORCED HOSE WITH 3/4" CHROME COUPLING AND WALL HOOK, EXTRUDED VINYL BUMPER GUARD, AND 2'-0" STAINLESS STEEL MOP HANGER.

LV1

- WALL-MOUNTED LAVATORY (ADA ACCESSIBLE): RECTANGULAR WALL-MOUNTED WHITE VITREOUS CHINA FIXTURE WITH FAUCET LEDGE AND FRONT OVERFLOW.
- FAUCET: 4" CENTERSET, VANDAL-RESISTANT FAUCET WITH LEVER HANDLES AND 0.5 GPM AERATOR.
- TRIM: GRID DRAIN WITH TAILPIECE, QUARTER-TURN BALL TYPE ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS, 1-1/4" 17-GAUGE TUBULAR CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON, CONCEALED ARM CARRIER WITH STANCHIONS TO FLOOR, AND INSULATION KIT FOR WATER AND WASTE PIPES.

RP1

- RECIRCULATION PUMP: WET ROTOR TYPE INLINE PUMP WITH 2,800 RPM MOTOR, LEAD-FREE BRONZE BODY WITH UNION CONNECTIONS, CAPACITY OF 2.0 GPM AT 7.0 FT.WG HEAD. PROVIDE WITH SURFACE-MOUNTED AQUASTAT WITH SINGLE POLE DOUBLE THROW SWITCH FOR CIRCULATOR CONTROL AND ADJUSTABLE DIFFERENTIAL SET TO 10°F. SET AQUASTAT TO SHUT OFF RECIRCULATION PUMP AT WATER HEATER SET POINT AND ON AT 10°F BELOW SET POINT. POWER WITH 120 VOLT CIRCUIT.

SK1

- DOUBLE COMPARTMENT SINK: SIZE TO BE SELECTED BY ARCHITECT, DOUBLE COMPARTMENT, SELF-RIMMING, 18-GAUGE TYPE 302 STAINLESS STEEL, BUILT-IN FLOW FAUCET LEDGE, SET IN BED OF PUTTY.
- FAUCET: SPREAD FAUCET WITH VANDAL-RESISTANT LEVER HANDLES AND 1.5 GPM AERATOR.
- TRIM: QUARTER-TURN BALL TYPE ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS, CUP STRAINERS WITH 1-1/2" 17-GAUGE TAILPIECE, 1-1/2" 17-GAUGE CONTINUOUS WASTE, 1-1/2" 17-GAUGE TUBULAR CHROME PLATED BRASS ADJUSTABLE P-TRAP WITH BRASS CLEANOUT AND ESCUTCHEON.

SO11

- SAND/OIL INTERCEPTOR: MOLDED POLYETHYLENE INTERCEPTOR FOR BELOW-GRADE INSTALLATION, WITH FIELD-ADJUSTABLE RISER SYSTEM, BUILT-IN FLOW CONTROL, 4" INLET AND 4" OUTLET, 250-GALLON LIQUID CAPACITY, AND 100 GPM MAX FLOW RATE. PROVIDE WITH HIGHWAY-RATED COVERS WITH WATER/GAS-TIGHT SEAL AND A MINIMUM 16,000 LBS LOAD CAPACITY, AND ANCHOR KIT FOR HIGH WATER TABLE AREAS.
- SIZING: ESTIMATING AND SHOP DRAINAGE AREA TOTAL = 2,700 FT². MINIMUM 6 FT3 FOR FIRST 100 FT2 AND 1 FT3 FOR EACH ADDITIONAL 100 FT2 = 32 FT³

TD1

- TRENCH DRAIN: 8" WIDE FIBERGLASS TRENCH DRAIN WITH BUILT-IN SLOPE. PROVIDE WITH HEAVY-DUTY SLOTTED DUCTILE IRON GRATE, ENDCAPS, BOTTOM OUTLET, BASKET STRAINER, AND OTHER ACCESSORIES AS REQUIRED TO COMPLETE THE INSTALLATION.

TMV1

- THERMOSTATIC MIXING VALVE: SOLID BRASS BODY, THERMOSTATIC WAX ELEMENT, CORROSION RESISTANT INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 COMPLIANT, CAPABLE OF 2.2 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.5 GPM. MAXIMUM TEMPERATURE STOP SET FOR 110°F. MOUNT BELOW THE PLUMBING FIXTURE WHERE INDICATED ON PLANS.

UR1

- URINAL (ADA ACCESSIBLE): WHITE VITREOUS CHINA FIXTURE WITH FLUSHING RIM, 3/4" TOP SPUD, AND SIPHON FLUSH ACTION.
- VALVE: EXPOSED CHROME-PLATED DIAPHRAGM TYPE FLUSH VALVE WITH CHLORAMINE-RESISTANT DIAPHRAGM AND PROTECTED ORIFICE, 0.125 GALLON PER FLUSH, OSCILLATING ADA COMPLIANT HANDLE WITH VANDAL-RESISTANT CAP, ESCUTCHEON, INTEGRAL SCREWDRIVER STOP, VACUUM BREAKER, SOLID RING PIPE SUPPORT, AND SWEAT ADAPTER KIT.
- TRIM: SUITABLE CARRIER WITH STANCHIONS TO FLOOR.

WC1

- FLOOR-MOUNTED WATER CLOSET (ADA ACCESSIBLE): TANK TYPE WHITE VITREOUS CHINA FIXTURE WITH ELONGATED BOWL, 1.6 GALLON PER FLUSH, SIPHON FLUSH ACTION, AND CLOSE-COUPLED TANK WITH TRIP LEVER ON THE WIDE SIDE OF THE STALL.
- TRIM: WHITE OPEN-FRONT CONTOURED, SOLID PLASTIC, HEAVY-DUTY, SEAT-LESS-COVER WITH SELF-SUSTAINING HINGES AND STAINLESS STEEL BOLTS; QUARTER-TURN BALL TYPE ANGLE STOP VALVE WITH RISER AND CHROME-PLATED ESCUTCHEON.

WC2

- FLOOR-MOUNTED WATER CLOSET (NON-ADA): TANK TYPE WHITE VITREOUS CHINA FIXTURE WITH ELONGATED BOWL, 1.6 GALLON PER FLUSH, SIPHON FLUSH ACTION, AND CLOSE-COUPLED TANK WITH TRIP LEVER ON THE WIDE SIDE OF THE STALL.
- TRIM: WHITE OPEN-FRONT CONTOURED, SOLID PLASTIC, HEAVY-DUTY, SEAT-LESS-COVER WITH SELF-SUSTAINING HINGES AND STAINLESS STEEL BOLTS; QUARTER-TURN BALL TYPE ANGLE STOP VALVE WITH RISER AND CHROME PLATED ESCUTCHEON.

WCO

- WALL CLEANOUT: CAST IRON CLEANOUT TEE, COUNTER-SUNK CAST IRON PLUG WITH GASKET SEAL, AND STAINLESS STEEL ROUND COVER WITH SCREW.

WH1

- WATER HEATER: ELECTRIC, 50 GALLON, 4.5 kW INPUT, 18 GALLON PER HOUR RECOVERY AT 100°F TEMPERATURE RISE AND 140°F OPERATING TEMPERATURE. PROVIDE WITH DUAL-ELEMENT, NON-SIMULTANEOUS HEATING ELEMENTS. PROVIDE ALL WATER CONNECTIONS, VALVES, AND SPECIALS PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
- ELECTRICAL REQUIREMENTS: 208V/1Ø, 21.6 FLA.
- BASIS OF DESIGN: A.O. SMITH MODEL # DEN-50.

PLUMBING GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE. CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS, CURRENT SYSTEM OPERATION, AS WELL AS COORDINATION REQUIREMENTS. COORDINATE ALL PLUMBING WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS, AND OTHER TRADES PRIOR TO START OF WORK.

- PLUMBING WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

- EXACT LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE VERIFIED PRIOR TO ANY INSTALLATION OF CONNECTIONS THEREOF. ALL CONNECTIONS TO EXISTING UTILITIES (E.G. DOMESTIC WATER, SEWER, VENT, AND NATURAL GAS) SHALL BE MADE WITH APPROVAL OF THE ADMINISTRATIVE AUTHORITY AND THE RESPECTIVE UTILITY COMPANIES.

- SANITARY WASTE AND VENT PIPING BELOW GRADE SHALL BE SCHEDULE 40 PVC WITH SOLVENT-WELDED JOINTS.

- SANITARY WASTE AND VENT PIPING ABOVE GRADE SHALL BE NO-HUB CAST IRON IN RETURN AIR PLENUM APPLICATIONS. PVC OR ABS PIPING CAN BE USED IN AREAS OTHER THAN RETURN AIR PLENUMS AS ALLOWED BY CODE.

- SLOPE SANITARY PIPING AS FOLLOWS: 1/4" PER FOOT FOR PIPE SIZES 2-1/2" AND SMALLER, AND 1/8" PER FOOT FOR PIPE SIZES 3" AND LARGER.

- COORDINATE WITH MECHANICAL CONTRACTOR FOR HVAC EQUIPMENT CONDENSATE DRAIN REQUIREMENTS.

- CONDENSATE DRAIN PIPING SHALL BE TYPE M COPPER PIPING WITH WROUGHT FITTINGS AND SOLDERED JOINTS IN RETURN AIR PLENUM APPLICATIONS. PVC CAN BE USED IN AREAS OTHER THAN RETURN AIR PLENUMS AS ALLOWED BY CODE.

- SLOPE CONDENSATE DRAIN PIPING AS FOLLOWS: 1/4" PER FOOT FOR ALL PIPE SIZES.

- PROVIDE WATER SUPPLY SHUT-OFF VALVES ON EACH TOILET ROOM GROUP AND TO MISCELLANEOUS EQUIPMENT.

- PROVIDE SIZE "A" WATER HAMMER ARRESTORS ON SUPPLY TO ALL PLUMBING FIXTURES.

- PROVIDE STOP VALVES ON ALL INDIVIDUAL PLUMBING FIXTURE SUPPLIES.

- COORDINATE SELECTION OF ALL PLUMBING FIXTURES WITH ARCHITECT AND OWNER. ALL HANDICAPPED FIXTURES (WHERE REQUIRED) SHALL COMPLY WITH A.D.A. REQUIREMENTS.

- DOMESTIC WATER PIPING BELOW GRADE SHALL BE TYPE K SOFT COPPER WITH FLARED FITTINGS OR TYPE K HARD COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.
- DOMESTIC WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.

- WHERE ALLOWED BY CODE, CROSS-LINKED POLYETHYLENE (PEX) PIPING MAY BE USED IN LIEU OF COPPER PIPING. ADJUST SIZING OF PIPING FOR REDUCED FREE AREA OF PEX PIPING. PEX PIPE ROUTED IN RETURN AIR PLENUMS MUST MEET THE FLAME SPREAD RATING AND SMOKE DEVELOPED RATING FOR SUCH APPLICATIONS.

- INSULATE NEW DOMESTIC COLD WATER, HOT WATER, HOT WATER RECIRCULATION, AND INTERIOR CONDENSATE DRAIN PIPING WITH MINIMUM 1" FIBERGLASS INSULATION (MINIMUM R-4.0) WITH PAPER COVERING.
- NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH MALLEABLE FITTINGS. SUPPORT PIPING AT INTERVALS NOT TO EXCEED THOSE LISTED IN TABLE 415.1 OF THE INTERNATIONAL FUEL GAS CODE.

- PROVIDE RUST-INHIBITOR PAINT ON NATURAL GAS PIPING LOCATED EXTERIOR TO THE BUILDING. COORDINATE WITH OTHER TRADES.

- PROVIDE A.G.A. APPROVED GAS COCKS AND DIRT LEGS AT CONNECTIONS TO ALL GAS-FIRED EQUIPMENT.

- INSTALL ALL PLUMBING EQUIPMENT, FIXTURES, VALVES, ETC. PER MANUFACTURER'S INSTALLATION REQUIREMENTS. PROVIDE ADDITIONAL APPURTENANCES PER MANUFACTURER'S INSTALLATION REQUIREMENTS.

- INSTALL CLEANOUTS AT EVERY END OF SANITARY PIPING RUNS, AT MINIMUM OF EVERY 100'-0" OF SANITARY PIPING, AND AT EVERY CHANGE IN DIRECTION GREATER THAN 45°. REFER TO SECTION 708 OF THE INTERNATIONAL PLUMBING CODE FOR ADDITIONAL REQUIREMENTS.

- CONTRACTOR SHALL LABEL ALL PIPING, VALVES AND EQUIPMENT WITH MANUFACTURER STANDARD LABELING SYSTEMS. COORDINATE WITH OWNER FOR FINAL EQUIPMENT DESIGNATIONS.

5BY5
ENGINEERS

1100 Main Street, 4th Floor
Kansas City, MO 64105
Missouri COA: 2017040776
913-689-9449
contact@5by5eng.com
5by5eng.com

PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21
1	CITY REVIEW COMMENTS	12 / 06 / 21
2	OWNER REVISIONS	07 / 29 / 22
3	SHOP A/C	10 / 05 / 22

PROJECT NUMBER 21009
DATE ISSUED: 11 / 09 / 21
SHEET NUMBER

P2.0

PLUMBING DETAILS
AND SCHEDULES



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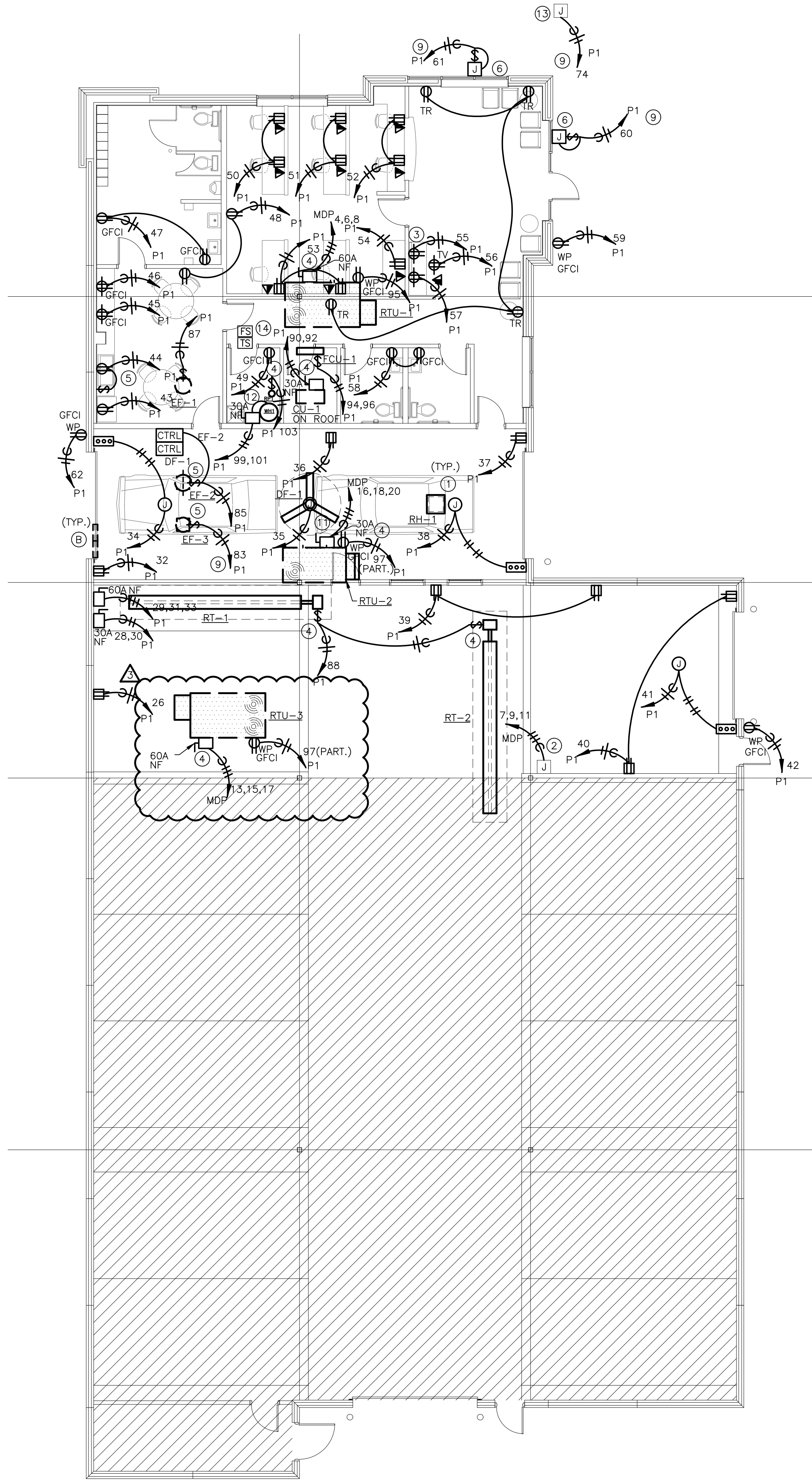
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913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051

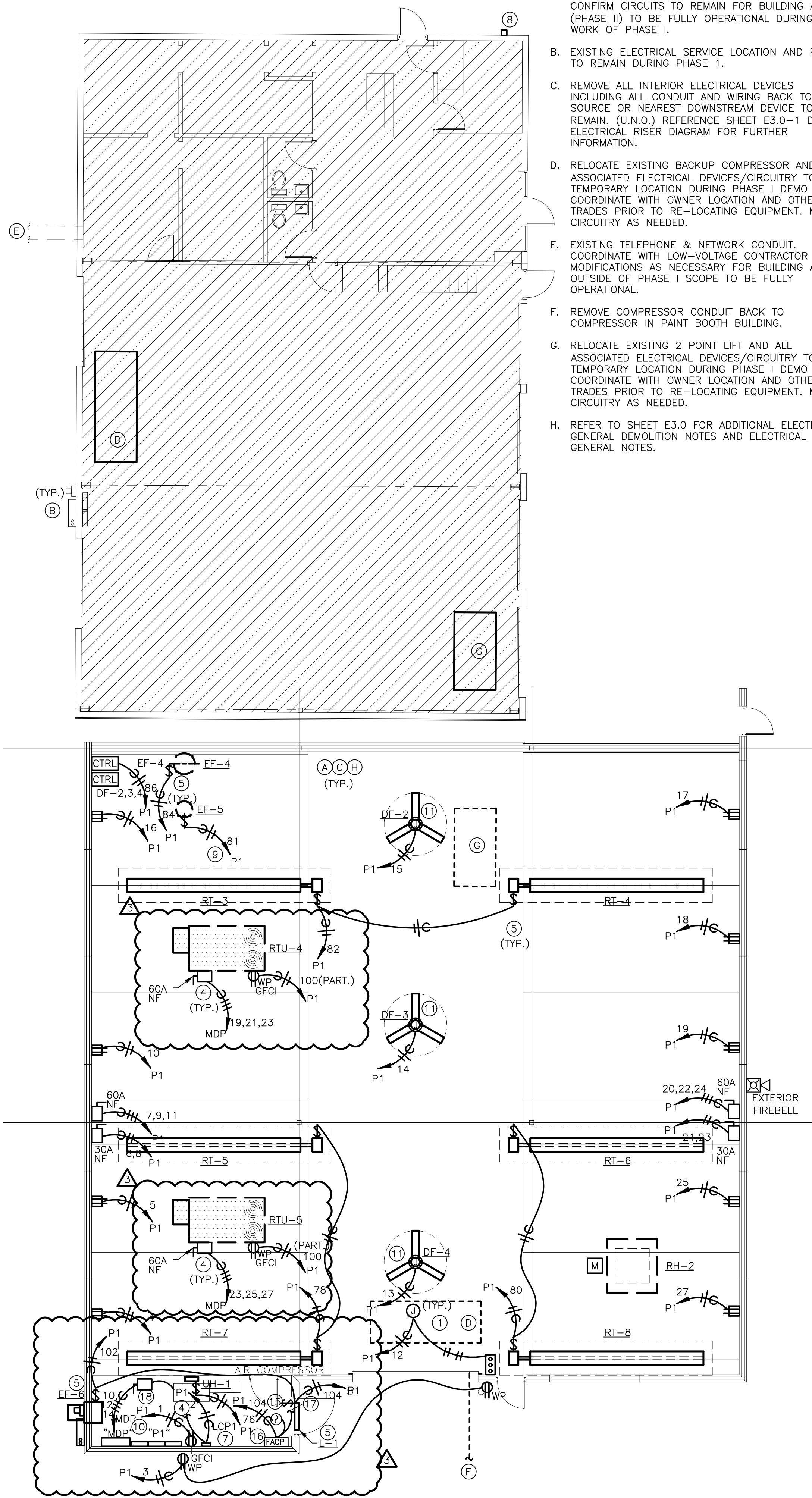
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Oct 05, 2022 - 11:25am - USER ScottGroshans
C:\Users\ScottGroshans\OneDrive\Documents\Projects\2021\00051 Crash Champions Lee Summit - Rose\Bases-CAD\2021\00051 ELEC.dwg
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2 PHASE II ELECTRICAL POWER PLAN
SCALE: 1/8" = 1'-0"



1 PHASE I ELECTRICAL POWER PLAN
SCALE: 1/8" = 1'-0"

ELECTRICAL POWER DEMOLITION (PER PHASE) NOTES:

- DEMO WORK MUST BE COMPLETED PER PHASE. CONFIRM CIRCUITS TO REMAIN FOR BUILDING AREA (PHASE II) TO BE FULLY OPERATIONAL DURING DEMO WORK OF PHASE I.
- EXISTING ELECTRICAL SERVICE LOCATION AND PANELS TO REMAIN DURING PHASE 1.
- REMOVE ALL INTERIOR ELECTRICAL DEVICES INCLUDING ALL CONDUIT AND WIRING BACK TO SOURCE OR NEAREST DOWNSTREAM DEVICE TO REMAIN. (U.N.O.) REFERENCE SHEET E3.0-1 DEMO ELECTRICAL RISER DIAGRAM FOR FURTHER INFORMATION.
- RELOCATE EXISTING BACKUP COMPRESSOR AND ALL ASSOCIATED ELECTRICAL DEVICES/CIRCUITRY TO TEMPORARY LOCATION DURING PHASE I DEMO WORK. COORDINATE WITH OWNER LOCATION AND OTHER TRADES PRIOR TO RE-LOCATING EQUIPMENT. MODIFY CIRCUITRY AS NEEDED.
- EXISTING TELEPHONE & NETWORK CONDUIT. COORDINATE WITH LOW-VOLTAGE CONTRACTOR MODIFICATIONS AS NECESSARY FOR BUILDING AREA OUTSIDE OF PHASE I SCOPE TO BE FULLY OPERATIONAL.
- REMOVE COMPRESSOR CONDUIT BACK TO COMPRESSOR IN PAINT BOOTH BUILDING.
- RELOCATE EXISTING 2 POINT LIFT AND ALL ASSOCIATED ELECTRICAL DEVICES/CIRCUITRY TO TEMPORARY LOCATION DURING PHASE I DEMO WORK. COORDINATE WITH OWNER LOCATION AND OTHER TRADES PRIOR TO RE-LOCATING EQUIPMENT. MODIFY CIRCUITRY AS NEEDED.
- REFER TO SHEET E3.0 FOR ADDITIONAL ELECTRICAL GENERAL DEMOLITION NOTES AND ELECTRICAL GENERAL NOTES.

ELECTRICAL GENERAL NOTES:

- REFER TO SHEET E3.0 FOR ELECTRICAL GENERAL NOTES.

FIRE ALARM GENERAL NOTES:

- SYSTEM SHALL MEET ALL LOCAL AND NATIONAL CODES RECOGNIZED BY THE CITY OF LEAWOOD. CONTRACTOR SHALL SUBMIT FIRE ALARM SHOP DRAWINGS TO THE ENGINEER AND CITY THAT INCLUDE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, CABLE AND DEVICE SPECIFICATIONS AND LOCATIONS.
- REFER TO SHEET E3.0 FOR ADDITIONAL FIRE ALARM GENERAL NOTES.

ELECTRICAL PLAN NOTES:

- PROVIDE JUNCTION BOX FOR OVERHEAD DOOR OPERATOR. PROVIDE OUTLET BOX ADJACENT TO OVERHEAD DOOR FOR PUSH-BUTTON CONTROLS. COORDINATE WITH DOOR OPERATOR SUPPLIER FOR EXACT LOCATIONS AND SPECIFIC ELECTRICAL REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER AND CONTROL WIRING AS REQUIRED.
- PROVIDE JUNCTION BOX FOR CONNECTION TO LIFT EQUIPMENT. VERIFY EXACT LOCATION AND SPECIFIC REQUIREMENTS PRIOR TO ROUGH IN. COORDINATE WITH OWNER LOCATION AND PHASING TO RELOCATE LIFT. CONFIRM AMP RATING REQUIRED PRIOR TO ORDERING ELECTRICAL DEVICES FOR NEW CIRCUIT BREAKER INSTALL IN NEW PANELBOARD "P1". PANELBOARD SCHEDULE IS AN ASSUMED CIRCUIT BREAKER FOR LOAD CALCULATIONS ONLY.
- COORDINATE DEVICE LOCATIONS WITH ARCHITECTURAL CASEWORK ELEVATIONS.
- PROVIDE CONNECTION AND DISCONNECT ON MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR. REFER TO SHEET M2.0 FOR ADDITIONAL INFORMATION.
- PROVIDE RECEPTACLE AND TOGGLE SWITCH FOR GARBAGE DISPOSER. CONCEAL RECEPTACLE BEHIND SINK PRIVACY PANEL. MOUNT SWITCH AT SAME HEIGHT AS ADJACENT ABOVE-COUNTER RECEPTACLES. CIRCUIT SWITCH TO CONTROL RECEPTACLE. COORDINATE EXACT LOCATIONS WITH PLUMBING CONTRACTOR.
- PROVIDE JUNCTION BOX AND DISCONNECT SWITCH FOR EXTERIOR SIGNAGE. COORDINATE ALL REQUIREMENTS WITH SIGN MANUFACTURER. COORDINATE FINAL LOCATION WITH OWNER/ARCHITECT PRIOR TO INSTALL.
- PROVIDE NEW LIGHTING CONTROL PANEL "LCP1". REFERENCE SHEET E4.0 LIGHTING CONTROL DEVICE SCHEDULE FOR ADDITIONAL INFORMATION.
- PROVIDE NEW EXTERIOR INTERMATIC PHOTOCELL LEGRAND EM-24A2. MOUNT ON NORTH SIDE EXTERIOR WALL OF SECOND STORY. ROUTE CIRCUIT FROM PHOTOCELL TO "LCP1" PANEL FOR A COMPLETE AND OPERABLE INSTALL.
- ROUTE CIRCUIT FROM PANEL VIA LCP1. REFERENCE LCP1 SCHEDULE FOR CIRCUIT # AND PROGRAMMING SUMMARY ON SHEET E4.0 FOR FURTHER INFORMATION.
- PROVIDE NEW 600A 120/208 V 3 PHASE PANEL IN GENERAL LOCATION SHOWN. REFERENCE SHEET E3.0 FOR ELECTRICAL RISER DIAGRAM AND SHEET E5.0 PANELBOARD SCHEDULES FOR FURTHER INFORMATION.
- PROVIDE JUNCTION BOX FOR BIG ASS FAN. PROVIDE BIG ASS FAN CONTROL DEVICE. COORDINATE EXACT LOCATION WITH OWNER AND POWER REQUIREMENTS PER MANUFACTURER'S SPECIFICATIONS PRIOR TO INSTALL.
- PROVIDE CONNECTION FOR 4.5kW 280/1 PHASE ELECTRIC WATER HEATER. PROVIDE NEMA 3R 30A DISCONNECT SWITCH FOR WATER HEATER. COORDINATE ALL WORK WITH PLUMBING CONTRACTOR AND ENSURE NEC CLEARANCES ARE MAINTAINED. ROUTE CIRCUIT TO DISCONNECT AND FROM DISCONNECT TO WATER HEATER. REFERENCE PLUMBING SHEETS FOR ADDITIONAL INFORMATION.
- EXTEND CIRCUITRY AS NECESSARY FROM PYLON SIGN TO NEW CIRCUIT BREAKER ON PANEL "P1".
- PROVIDE SPRINKLER FLOW AND TAMPER SWITCH. FIELD VERIFY EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR AND FIRE DEPARTMENT CONNECTION POINT. COORDINATE REQUIREMENTS WITH FIRE SPRINKLER CONTRACTOR.
- PROVIDE SMOKE DETECTION DEVICE IN GENERAL LOCATION SHOWN.
- PROVIDE FIRE CONTROL PANEL IN APPROXIMATE LOCATION SHOWN. FIELD VERIFY EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR AND FIRE DEPARTMENT CONNECTION POINT.
- PROVIDE POWER FOR FIRE ALARM CONTROL PANEL AND CONNECT TO EXTERIOR FIRE ALARM BELL.
- PROVIDE DISCONNECT AND CONNECTION TO AIR COMPRESSOR PROVIDED BY OTHERS. COORDINATE FINAL LOCATION PRIOR TO INSTALL. CONFIRM POWER REQUIREMENTS PRIOR TO ORDERING DISCONNECT/CIRCUIT BREAKER/WIRING. REFERENCE MANUFACTURER SPECIFICATIONS FOR FURTHER INFORMATION.

5BY5
ENGINEERS

1100 Main Street, 4th Floor
Kansas City, MO 64105
Missouri COA: 2017040776
913-689-9449
contact@5by5eng.com
5by5eng.com



SCOTT D. GROSHANS
LICENSE # PE-2019012798

ROSE
DESIGN GROUP INC.

ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051

MISSOURI STATE CERTIFICATE OF
AUTHORITY # 2008034845



PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21
1	CITY REVIEW COMMENTS	12 / 06 / 21
2	OWNER REVISIONS	07 / 29 / 22
3	SHOP A/C	10 / 05 / 22

PROJECT NUMBER 21009
DATE ISSUED: 11 / 09 / 21

SHEET NUMBER

E1.0

ELECTRICAL
POWER PLANS



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913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051
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**PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI**

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 2017
1	CITY REVIEW COMMENTS	12 / 06 / 2017
2	OWNER REVISIONS	07 / 29 / 2018
3	SHOP A/C	10 / 05 / 2018

PROJECT NUMBER	21009
DATE ISSUED:	11 / 09 / 21

SHEET NUMBER

E2.0

ELECTRICAL LIGHTING PLANS

ELECTRICAL LIGHTING DEMOLITION (PER
PHASE) NOTES:

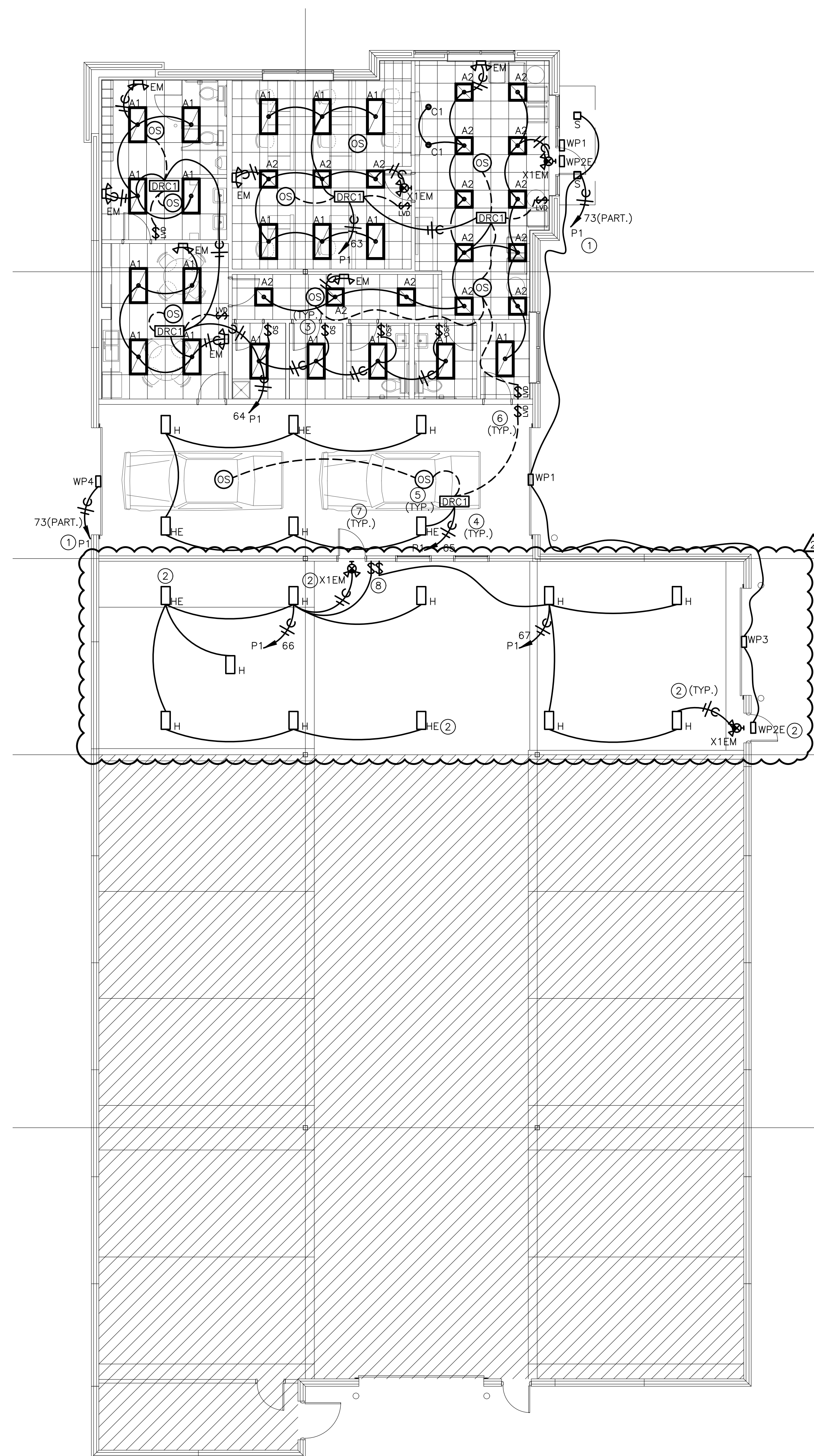
- A. DEMO WORK MUST BE COMPLETED PER PHASE. CONFIRM CIRCUITS WILL REMAIN FOR BUILDING AREA (PHASE II) TO BE FULLY OPERATIONAL DURING DEMO WORK OF PHASE I.
- B. REMOVE ALL INTERIOR LIGHT FIXTURES AND CONTROLS INCLUDING ALL CONDUIT AND WIRING BACK TO SOURCE OR NEAREST DOWNSTREAM DEVICE TO REMAIN IN ENTIRE AREA OF WORK. (U.N.O.)
- C. REFER TO SHEET E3.0 FOR ADDITIONAL ELECTRICAL GENERAL DEMOLITION NOTES AND ELECTRICAL GENERAL NOTES.

ELECTRICAL GENERAL NOTES:

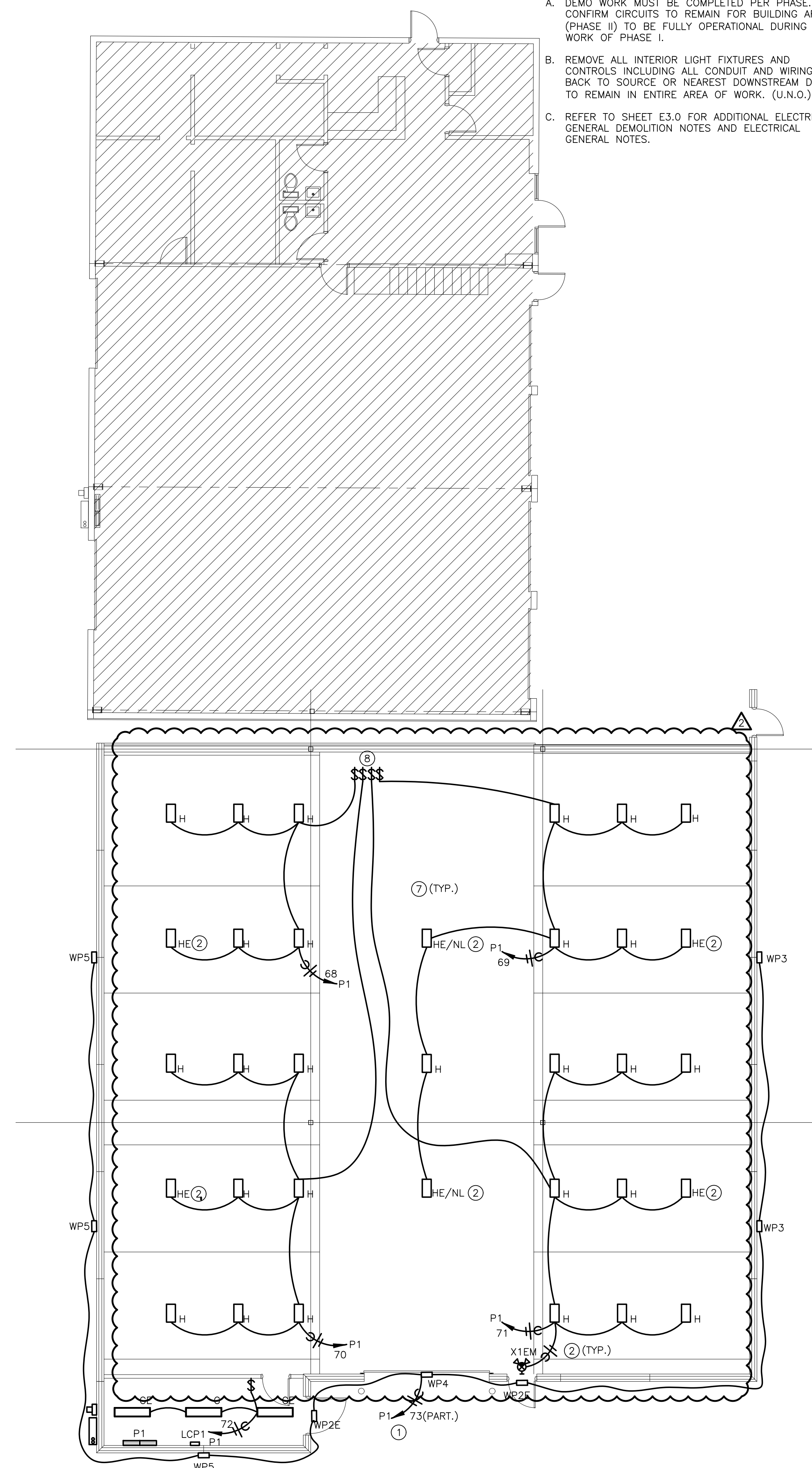
- REFER TO E3.0 FOR ELECTRICAL GENERAL NOTES.

⊖ ELECTRICAL LIGHTING PLAN NOTES:

1. ROUTE CIRCUIT FROM PANEL VIA LCP1. REFERENCE LCP1 SCHEDULE FOR CIRCUIT # AND PROGRAMMING SUMMARY ON SHEET E3.0 FOR FURTHER INFORMATION.
2. ROUTE UNSWITCHED HOT TO ALL EMERGENCY LIGHT FIXTURES AND EXIT SIGNS.
3. PROVIDE AND INSTALL NEW OCCUPANCY SENSING WALL MOUNTED LIGHT SWITCH. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 FOR ADDITIONAL INFORMATION.
4. PROVIDE AND INSTALL NEW ROOM CONTROLLER, CONNECT TO CEILING MOUNT SENSORS AND LOW VOLTAGE SWITCHES IN ROOM PER MANUFACTURERS RECOMMENDATIONS AND AS SHOWN ON THE DRAWINGS. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 FOR ADDITIONAL INFORMATION.
5. PROVIDE AND INSTALL NEW CEILING MOUNTED OCCUPANCY SENSOR. CONNECT TO ROOM CONTROLLERS AND LOW VOLTAGE SWITCHES PER MANUFACTURERS RECOMMENDATIONS AND AS SHOWN ON DRAWINGS. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 FOR ADDITIONAL INFORMATION.
6. PROVIDE LOW VOLTAGE SWITCH FOR LIGHTING CIRCUITS AS SHOWN. CONTROL SWITCH TO ROOM CONTROLLER IN ROOM. REFERENCE SHEET E3.0 FOR LIGHTING CONTROL DEVICE SCHEDULE FOR FURTHER INFORMATION.
7. REFERENCE SHEET E51 FOR SITE LIGHTING FIXTURE SCHEDULE AND SHEET E4.0 FOR LIGHT FIXTURE SCHEDULE FOR FURTHER INFORMATION.
8. LOCATE SHOP AREA LIGHTING SWITCHES AS DIRECTED BY OWNER.



2 PHASE II ELECTRICAL
LIGHTING PLAN
SCALE: 1/8" = 1'-0"



1 PHASE I ELECTRICAL
LIGHTING PLAN
SCALE: 1/8" = 1'-0"



5BY5
ENGINEERS

1100 Main Street, 4th Floor
Kansas City, MO 64105
Missouri COA: 2017040776
913-689-9449
contact@5by5eng.com
5by5eng.com

LINETYPES LEGEND:

- NEW
- EXISTING OR BY OTHERS
- DEMOLITION

LIGHTING LEGEND:

- CEILING MOUNTED LIGHT FIXTURE, 2'x2' OR 2'x4'
- CEILING MOUNTED LIGHT FIXTURE, 2'x2' OR 2'x4' (NIGHT LIGHT OR EMERGENCY CIRCUIT)
- STRIP LIGHT FIXTURE. REFER TO FIXTURE SCHEDULE FOR LENGTH.
- WALL-MOUNT SCONCE OR WALL BRACKET LIGHT FIXTURE.
- RECESSED WALL WASH CAN LIGHT FIXTURE.
- RECESSED, SURFACE, OR STEM HUNG LIGHT FIXTURE.
- SINGLE FACE EXIT LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.
- DOUBLE FACE EXIT LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.
- COMBINATION SINGLE FACE EXIT/EMERGENCY LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.

NOTE: REFER TO LIGHT FIXTURE SCHEDULE AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND MOUNTING HEIGHTS.

POWER LEGEND:

- INDICATES ABOVE COUNTER (TYP)
- DUPLEX RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). ABOVE COUNTER RECEPTACLES SHALL BE +48" AFF (UNO).
- DUPLEX ISOLATED GROUND RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). ABOVE COUNTER RECEPTACLES SHALL BE +48" AFF (UNO).
- DUPLEX RECEPTACLE ON STAND-BY GENERATOR POWER, MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN ABOVE COUNTER SHALL BE +48" AFF (UNO).
- FLOOR-MOUNTED DUPLEX OR FOURPLEX RECEPTACLE MOUNTED IN PVC FLOORBOX, OR POKE-THRU
- SPECIAL RECEPTACLE, NUMBER REFERS TO "NEMA" CONFIGURATION. MOUNT AT +18" AFF TO CENTER OF RECEPTACLE (UNO).
- FOURPLEX RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN TO BE ABOVE COUNTER SHALL BE +48" AFF (UNO)
- FLUSH MOUNT COMBINATION POWER AND VOICE/DATA FLOORBOX.
- SINGLE POLE WALL MOUNT TOGGLE SWITCH. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- WALL MOUNTED OCCUPANCY SENSOR SWITCH. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- WALL MOUNTED OCCUPANCY SENSOR SWITCH WITH 0-10V DIMMING CONTROL. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- WALL MOUNTED LOW VOLTAGE SWITCH WITH 0-10V DIMMING CONTROL. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- CEILING MOUNTED OCCUPANCY SENSOR.
- ROOM CONTROLLER/POWER PACK FOR LIGHT FIXTURE CONTROL. DEVICE SHALL BE CONCEALED IN CEILING.
- VOICE OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48" AFF (UNO).
- DATA OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48" AFF (UNO).
- COMBINATION VOICE/DATA OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48" AFF (UNO).
- FLUSH FLOOR MOUNT VOICE/DATA OUTLET MOUNTED IN PVC FLOORBOX.
- DISCONNECT SWITCH, STARTER, & COMBINATION STARTER/DISCONNECT SWITCH. SIZE AS INDICATED ON DRAWINGS.
- ELECTRICAL PANEL BOARD, FLUSH OR SURFACE MOUNT
- JUNCTION BOX

NOTE: LINE THROUGH DEVICE INDICATES TO BE MOUNTED ABOVE COUNTERTOP OR CABINET. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS IF NOT INDICATED ON POWER PLAN.

REFER TO LIGHTING CONTROL DEVICE SCHEDULE AND ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.

WIRING LEGEND:

- HOMERUN TO PANELBOARD WITH NUMBER AND SIZE OF CONDUCTORS INDICATED ON PLANS.
- GROUNDED CONDUCTOR.
- CONDUIT OR CIRCUIT BREAK/CONTINUATION.
- CONDUIT WITH ENDCAP FOR FUTURE USE.
- GROUNDING SOURCE.

FIRE ALARM LEGEND:

- SMOKE DETECTOR
- COMBINATION AUDIO/VISUAL DEVICE, +80" AFF
- VISUAL DEVICE, +80" AFF
- PULL STATION, +48" AFF
- FIRE/SMOKE DAMPER
- SPRINKLER FLOW AND TAMPER SWITCH
- SUPPLY DUCT/PLENUM MOUNT SMOKE DETECTOR
- RETURN DUCT/PLENUM MOUNT SMOKE DETECTOR
- FIRE ALARM CONTROL PANEL
- FIRE ALARM ANNUNCIATOR PANEL
- FIRE ALARM DOOR HOLD
- FIRE ALARM DOOR RELEASE
- FIRE SPRINKLER FLOW/TAMPER SUPERVISORY PANEL. PROVIDE (2) DEDICATED PHONE LINES AS REQUIRED.

SECURITY AND CONTROLLED ACCESS LEGEND:

- DIGITAL VIDEO RECORDER
- ACCESS CONTROL PANEL
- PAN TILT ZOOM VIDEO CAMERA
- FIXED VIDEO CAMERA
- INTERCOM STATION
- INTERCOM MASTER STATION
- LONG RANGE READER
- REQUEST TO EXIT DEVICE
- PANIC BUTTON
- DOOR CONTACT
- CARD READER
- ELECTRIC STRIKE
- ELECTRIFIED LOCK
- MAGNETIC LOCK

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- ED EXISTING TO BE DEMOLISHED
- EM EMERGENCY
- ER EXISTING TO BE RELOCATED
- ETR EXISTING TO REMAIN
- GFCI GROUND FAULT CURRENT INTERRUPTER
- NL NIGHT LIGHT
- TR TAMPER RESISTANT
- UNO UNLESS NOTED OTHERWISE
- WP WEATHER PROTECTED COVER / GFCI

ELECTRICAL GENERAL DEMOLITION NOTES:

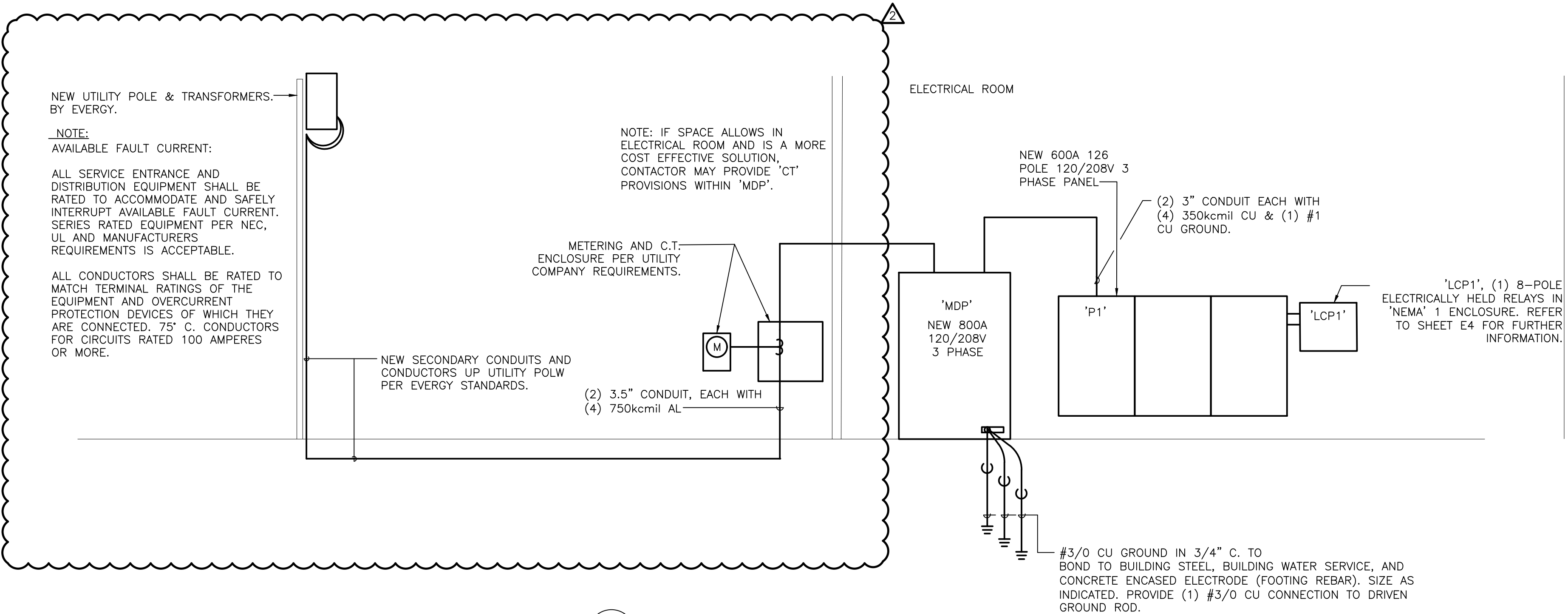
- REFERENCE ARCHITECTURAL DRAWINGS FOR FULL EXTENT OF DEMOLITION WORK AND PHASING. NOTIFY ARCHITECT, ENGINEER, AND/OR OWNER, AS APPLICABLE, OF ANY CONFLICTS OR DISCREPANCIES BETWEEN DRAWINGS AND JOBSITE CONDITIONS PRIOR TO SUBMITTING BID.
- COORDINATE DEMOLITION AND REMOVAL OF EXISTING EQUIPMENT AND LIGHTING SYSTEMS WITH ARCHITECTURAL PHASING DRAWINGS AND OWNER TO ALLOW NECESSARY SYSTEMS TO REMAIN OPERATIONAL DURING CONSTRUCTION.
- UNLESS NOTED OTHERWISE, DISPOSE OF ALL ELECTRICAL EQUIPMENT, LIGHT FIXTURES, AND DEVICES SHOWN TO BE REMOVED. COORDINATE WITH THE OWNER THE ITEMS TO BE SALVAGED, AND THE LOCATION FOR STORAGE. AVOID DAMAGING SALVAGED ITEMS DURING DEMOLITION WORK AND DURING TRANSPORT TO OWNER'S DESIGNATED STORAGE LOCATION.
- WHERE ALTERATION OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, RACEWAYS, OR WIRING DEVICES AFFECTS EXISTING SURFACES/FINISHES: REPAIR/PAINT AFFECTED SURFACE TO MATCH EXISTING ADJACENT SURFACE IN ACCORDANCE WITH OWNER REQUIREMENTS. MAINTAIN FIRE RATING OF ALL FLOORS, WALLS, AND CEILINGS THAT ARE RATED.
- WHERE DEMOLITION WORK INTERRUPTS ELECTRICAL CONTINUITY OF CIRCUITS THAT ARE TO REMAIN IN USE: PROVIDE NECESSARY DEVICES AND RELATED CIRCUITRY TO MAINTAIN ELECTRICAL CONTINUITY IN ACCORDANCE WITH OWNER REQUIREMENTS. RE-CIRCUIT REUSED ELECTRICAL EQUIPMENT, LIGHT FIXTURES, AND WIRING DEVICES PREVIOUSLY POWERED FROM DEMOLISHED EQUIPMENT TO NEW OR TEMPORARY EQUIPMENT AS NEEDED.
- COORDINATE DISCONNECTION OF POWER TO EQUIPMENT BEING DEMOLISHED / REMOVED / RELOCATED WITH OTHER TRADES PRIOR TO START OF WORK. REMOVE ALL ELECTRICAL EQUIPMENT, LIGHT FIXTURES, RACEWAYS, WIRING DEVICES, AND RELATED CIRCUITRY NOT BEING REUSED IN ALL ACCESSIBLE AREAS INCLUDING FLOORS, WALLS, AND CEILINGS THAT ARE TO BE REMOVED. ELECTRICAL EQUIPMENT, RACEWAYS, AND RELATED CIRCUITRY ABANDONED IN PLACE SHALL BE PERMANENTLY DISCONNECTED FROM ALL POWER SOURCES. INSULATED FROM CONTACT WITH OTHER LIVE ELECTRICAL WIRING/DEVICES. AND IDENTIFIED AT TERMINATIONS AS NO LONGER BEING IN SERVICE. CABLES/WIRING NOT BEING REUSED SHALL BE REMOVED UNLESS IDENTIFIED FOR FUTURE USE. CARE SHOULD BE TAKEN DURING THE REMOVAL PROCESS TO PROTECT THE EXISTING REUSED CABLES/WIRING FROM DAMAGE.

ELECTRICAL GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE AND BASED ON PRELIMINARY SITE OBSERVATION AND ORIGINAL DESIGN DRAWINGS (WHEN AVAILABLE). PRIOR TO BID, CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS, CURRENT SYSTEM OPERATION AS WELL AS COORDINATION REQUIREMENTS. COORDINATE ALL MECHANICAL WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS AND OTHER TRADES PRIOR TO BID OR START OF WORK.
- ELECTRICAL WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION. REFER TO ARCHITECTURAL CODE PLANS FOR SPECIFIC CODE REFERENCES.
- COORDINATE ELECTRICAL WORK WITH ALL OTHER PROJECT TRADES (E.G. ARCHITECTURAL, STRUCTURAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, ETC.).
- COORDINATE EXACT LOCATIONS OF ALL LIGHT FIXTURES AND ELECTRICAL DEVICES WITH ARCHITECTURAL DRAWING AND OTHER TRADES PRIOR TO ROUGH-IN. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRE TO PROPERLY INSTALL ALL SYSTEMS.
- INSTALL PULL STRING IN ALL EMPTY CONDUIT/RACEWAY. TERMINATE CONDUIT STUB-UP WITH A NYLON BUSHING.
- COLOR FOR RECEPTACLES, SWITCHES, NETWORK DEVICES AND COVER PLATES SHALL MATCH. COLOR SHALL MATCH AND BE SELECTED AS BRIGHT WHITE UNLESS NOTED OTHERWISE. CONFIRM EXACT COLOR WITH ARCHITECT PRIOR TO ORDER.
- ELECTRICAL CONTRACTOR SHALL INSPECT ALL ELECTRICAL EQUIPMENT TO REMAIN. REPORT ANY DEFICIENCIES TO OWNER PRIOR TO START OF WORK.
- ALL CONDUCTORS SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING (EMT) AS REQUIRED BY THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC). ALL INSTALLATIONS SHALL BE PER NEC REQUIREMENTS.
- AT CONTRACTOR'S OPTION, MC CABLE CAN BE USED FOR CIRCUITING CONNECTIONS TO RECEPTACLES AND LIGHTING. "HOME RUNS" SHALL BE ROUTED IN CONDUIT. ALL INSTALLATIONS SHALL BE PER NEC REQUIREMENTS.
- CONTRACTOR SHALL VERIFY ALL ROUGH-IN LOCATIONS AND QUANTITIES FOR GENERAL USE POWER AND DATA WITH OWNER AND/OR ARCHITECT PRIOR TO INSTALLATION.
- CIRCUITS FOR GENERAL USE POWER SHALL HAVE A MAXIMUM OF 6 RECEPTACLES ON A CIRCUIT (A SINGLE 4-PLEX RECEPTACLE COUNTS FOR 2 OF THE ALLOWED 6 RECEPTACLES).
- ALL WIRE SIZES LISTED ON PLANS ASSUME COPPER CONDUCTORS ARE USED (UNLESS NOTED OTHERWISE).
- CONTRACTOR SHALL LABEL ALL RECEPTACLES, BOXES, PANELBOARDS, ETC. WITH PANEL, CIRCUIT NUMBER, ETC. PER INDUSTRY STANDARDS. COORDINATE WITH OWNER FOR FINAL PANEL AND EQUIPMENT DESIGNATIONS.

FIRE ALARM SYSTEM NOTES:

- CONTRACTOR SHALL PROVIDE ALL ENGINEERING, LABOR, MATERIALS, TRANSPORTATION, TOOLS AND APPLIANCES REQUIRED IN THE PERFORMANCE OF ALL OPERATIONS REQUIRED FOR THE INSTALLATION OF A COMPLETE, FULLY FUNCTIONAL AND CODE COMPLIANT FIRE ALARM SYSTEM OR SYSTEM MODIFICATION IN THE AREAS OF WORK.
- THE FIRE ALARM SYSTEM CONTRACTOR MUST PROVIDE A SYSTEM DESIGN WHICH MEETS ALL APPLICABLE CODES. NOTE THAT ENGINEERING DRAWINGS ARE CONCEPTUAL AND PROVIDE FOR INFRASTRUCTURE AND BASIC LAYOUT OF THE SYSTEM. THE FIRE ALARM SYSTEM CONTRACTOR MUST CHECK THE PROVIDED LAYOUT AND AUGMENT THE DESIGN AS NEEDED TO PROVIDE A COMPLIANT SYSTEM. ANY DESIGN INCONSISTENCIES OR CONFLICTS WITHIN THIS DOCUMENT MUST BE RESOLVED THROUGH THE REQUEST FOR INFORMATION PROCESS.
- THE CONTRACTOR MUST CERTIFY THE DOCUMENTS THEY PRODUCE MEET AND COMPLY WITH ALL APPLICABLE CODES AND THE SYSTEM IS DESIGNED IN ACCORDANCE WITH SAID CODES. NOTING NON-COMPLIANCE ON DRAWINGS OR DOCUMENTS IS NOT ACCEPTABLE. ANY DESIGN INCONSISTENCIES OR CONFLICTS WITHIN THIS DOCUMENT SHALL BE RESOLVED PRIOR TO BID.
- THE APPROXIMATE LOCATIONS OF RELATED DEVICES ARE INDICATED ON ORIGINAL DRAWINGS. THESE DRAWINGS ARE NOT INTENDED TO GIVE COMPLETE AND EXACT DETAILS IN REGARD TO LOCATION OF DEVICES, APPARATUS, ETC. EXACT DEVICE LOCATIONS AND QUANTITY ARE TO BE DETERMINED BY ACTUAL MEASUREMENT AT THE BUILDING AND WILL IN ALL CASES BE SUBJECT TO THE APPROVAL OF THE OWNER. ALL DRAWING LOCATION CHANGES, ADDITIONS OR DELETIONS SHALL BE MADE BY A LICENSED FIRE PROTECTION ENGINEER OR LICENSED FIRE ALARM PLANNER REPRESENTING THE FIRE ALARM SYSTEMS CONTRACTOR, AND APPROVED BY THE OWNER. THE OWNER RESERVES THE RIGHT TO MAKE ANY REASONABLE CHANGES IN THE LOCATIONS INDICATED WITHOUT ADDITIONAL COST.
- PROVIDE TEMPORARY FIRE ALARM DETECTION AND NOTIFICATION FUNCTIONS IN CONSTRUCTION AREAS AS REQUIRED BY THE PHASING OF THE PROJECT. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO BID.



1 ELECTRICAL RISER DIAGRAM
SCALE: N/A

5BY5
ENGINEERS

1100 Main Street, 4th Floor
Kansas City, MO 64105
Missouri COA: 2017040776
913-689-9449
contact@5by5eng.com
5by5eng.com

RELEASED FOR
CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
10/05/2022

STATE OF MISSOURI
SCOTT D. GROSHANS
PE-2019012798
PROFESSIONAL ENGINEER
10/05/2022

SCOTT D. GROSHANS
LICENSE # PE-2019012798

ROSE
DESIGN GROUP LLC

ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051
MISSOURI STATE CERTIFICATE OF www.BuildWithRose.com
AUTHORITY # 2008034845



PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21
1	CITY REVIEW COMMENTS	12 / 06 / 21
2	OWNER REVISIONS	07 / 29 / 22
3	SHOP A/C	10 / 05 / 22

PROJECT NUMBER 21009
DATE ISSUED: 11 / 09 / 21
SHEET NUMBER

E3.0

ELECTRICAL DETAILS &
GENERAL NOTES

Oct 05, 2022 -- 11:00am -- USER ScottGroshans
C:\Users\ScottGroshans\AppData\Local\Microsoft\OneDrive\OneDrive - 5BY5 Engineers Dropbox\5BY5 ACTIVE PROJECTS\202100051 Crash Champions Lees Summit -- Rose\Bases-CAD\202100051 ELEC.dwg
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LIGHT FIXTURE SCHEDULE											
TYPE	MANUFACTURER AND MODEL #	LIGHT SOURCE	WATTS	MINIMUM LUMENS	VOLTAGE	CRI	COLOR TEMP	DIMMABLE	FINISH	DESCRIPTION	NOTES
A1	METALUX 24FR-LD4-65-UNV-L835-CD1	INTEGRAL LED	60	6700	UNV	80	3500	0-10V / 10%	WHITE	2'X4' LED RECESSED TROFFER.	1-5
A2	METALUX 22FR-LD4-32-UNV-L835-CD1	INTEGRAL LED	30	3300	UNV	80	3500	0-10V / 10%	WHITE	2'X2' LED LIGHT TROFFER WITH CENTER BASKET, 3500K COLOR TEMPERATURE DIMMABLE UNIVERSAL VOLTAGE DRIVER.	1-5
C1	PORTFOLIO LD6B-20-DO10-EUB10208035-6LBM1LI	INTEGRAL LED	22	2000	UNV	80	3500	0-10V / 10%	WHITE	6" ROUND LED CAN LIGHT FIXTURE WITH LED LIGHT SOURCE, 3500K COLOR TEMPERATURE.	1-5
EM	SURE LITES XR-6/9-C	INTEGRAL LED	6	1100	UNV	80	-	0-10V / 10%	WHITE	EMERGENCY WALL MOUNTED FIXTURE. FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK.	1-5
H	BUILDERS PACK TR08-165W-2FT-40K-PDN	INTEGRAL LED	165	20900	UNV	80	4000	0-10V / 10%	WHITE	LED HIGHBAY CABLE MOUNTED, 20,900 LUMEN PACKAGE. 4000K PROVIDE WITH WIREGUARD. PROVIDE WITH POWER CORD AND AIRCRAFT CABLE. CONFIRM LENGTHS NEEDED PRIOR TO ORDERING.	1-5
HE	BUILDERS PACK TR08-165W-2FT-40K-PDN -EM	INTEGRAL LED	165	20900	UNV	80	4000	0-10V / 10%	WHITE	LED HIGHBAY CABLE MOUNTED, 20,900 LUMEN PACKAGE. 4000K PROVIDE WITH WIREGUARD. PROVIDE WITH POWER CORD AND AIRCRAFT CABLE. CONFIRM LENGTHS NEEDED PRIOR TO ORDERING.FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK.	1-5
G	HE WILLIAMS - 75S-4-L65-8-40-DMA-DIM-UNV	INTEGRAL LED	43	6500	UNV	80	4000	0-10V / 10%	WHITE	LED LINEAR RIGID STEM MOUNTED.	1-5
GE	HE WILLIAMS - 75S-4-L65-8-40-DMA-EM/10WLP-DIM-UNV	INTEGRAL LED	43	6500	UNV	80	4000	0-10V / 10%	WHITE	LED LINEAR RIGID STEM MOUNTED. FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK.	1-5
S	SATCO S21517	INTEGRAL LED	19	1250	UNV	80	4000	0-10V / 10%	WHITE	9" SQUARE SURFACE MOUNT WET RATED EXTERIOR CANOPY FIXTURE.	1-5
X1	SURELITE SLX70RWH	INTEGRAL LED	1	-	UNV	NA	NA	NA	ARCHITECT TO CONFIRM	LED EXIT LIGHT FIXTURE WITH BATTERY PACK, RED LETTERS AND FIELD CONFIGURED ARROWS.	1-5
X1EM	SURELITE SLX70RWH	INTEGRAL LED	10.3	-	UNV	NA	NA	NA	ARCHITECT TO CONFIRM	COMBINATION EMERGENCY EGRESS /SINGLE FACE LED EXIT LIGHT FIXTURE WITH BATTERY PACK, RED LETTERS AND FIELD CONFIGURED ARROWS.	1-5
NOTES: 1. COORDINATE ALL LIGHT FIXTURE SELECTIONS AND/OR SUBSTITUTIONS WITH ARCHITECT, OWNER AND/OR ENGINEER PRIOR TO ORDER. 2. PROVIDE LIGHTING CONTROLS THAT ARE COMPATIBLE WITH FIXTURES PROVIDED. 3. COORDINATE WITH ARCHITECT, OWNER AND/OR ENGINEER FOR DIMMING REQUIREMENTS PRIOR TO INSTALLATION. 4. PROVIDE ALL COMPONENTS AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION. 5. EQUIVALENTS MUST BE SUBMITTED AND APPROVED PRIOR TO BID.											

LIGHTING CONTROL DEVICE SCHEDULE									
TAG	MANUFACTURER AND MODEL SERIES	SENSOR DESCRIPTION	COVERAGE AREA (WxD OR RADIUS Ø)	VOLTAGE	MODE SETTINGS	TIME DELAY	DEVICE FINISH COLOR	SENSOR NOTES	
WALL SWITCH OCCUPANCY SENSORS									
OS	WATTSTOPPER PW-301	SINGLE-RELAY PASSIVE INFRARED OCCUPANCY SENSOR WALL SWITCH WITH MANUAL OVERRIDE BUTTON.	MAJOR 30' x 35' MINOR 15' x 20'	120/277V	MANUAL ON AUTO OFF	5 MIN	WHITE	1	
OSF	WATTSTOPPER PW-XX	SINGLE-RELAY PASSIVE INFRARED OCCUPANCY SENSOR WALL SWITCH WITH MANUAL OVERRIDE BUTTON. FAN/LIGHTING CONTROL	MAJOR 30' x 35' MINOR 15' x 20'	120/277V	AUTO ON AT 50% AUTO OFF	5 MIN	WHITE	1	
CEILING MOUNTED DAYLIGHT / OCCUPANCY SENSORS									
OS	WATTSTOPPER LMDC-100	CEILING MOUNT ULTRASONIC DIGITAL OCCUPANCY SENSOR. 360 DEGREE COVERAGE. PLUG-AND-PLAY CONFIGURATION, (2) RJ45 PORTS, LCD DISPLAY, IR RECEIVER, CONFIGURATION BUTTONS.	ULT MAJOR 25' X 25' PIR 32' Ø	24V	-	20 MIN	WHITE	2	
POWER SUPPLIES/ROOM CONTROLLERS									
DRC1	WATTSTOPPER LMRC-211	DIGITAL SINGLE-RELAY ON/OFF/DIMMING ROOM CONTROLLER. 0-10V DIMMING. MAXIMUM 20A TOTAL LOAD RATING. PLUG-AND-PLAY CONFIGURATION, (4) RJ45 PORTS, LED STATUS INDICATORS, CONFIGURATION BUTTONS, PLENUM RATED.	-	120/277V LOAD, 24VDC CONTROL OUTPUT	AUTO ON AT 50%, AUTO OFF	-	-		
LOW VOLTAGE SWITCHES									
LVD	WATTSTOPPER LMDM-101	DIGITAL DIMMING WALL SWITCH.	-	24VDC	-	-	WHITE	2,3,4	
LIGHTING CONTROL PANEL									
LCP1	LEGRAND LP8S-8-G- 115	8 RELAY CONTROL PANEL WITH DIGITAL TIME CLOCK	-	120V	-	-	-		
GENERAL NOTES: A. SENSOR LAYOUT BASED ON WATTSTOPPER COVERAGE PATTERNS. ADJUST QUANTITIES AND LOCATIONS FOR ALTERNATE MANUFACTURERS LISTED BELOW PER MANUFACTURER SPECIFIC SPACING B. nLIGHT, SENSOR SWITCH, COOPER-GREENGATE, CRESTRON, HUBBELL BUILDING AUTOMATION, AND LEVITON ARE CONSIDERED EQUIVALENT MANUFACTURES FOR SUBMISSION AS AN APPROVED MANUFACTURER, CONTINGENT ON LISTINGS APPROPRIATE FOR THE APPLICATION. C. DURING SHOP DRAWINGS, PROVIDE LIGHTING PLANS SHOWING LOCATION, MOUNTING HEIGHT, ORIENTATION AND COVERAGE AREAS FOR EACH OCCUPANCY SENSOR FOR REVIEW AND APPROVAL BY ENGINEER. ALSO INCLUDE ON PLANS OTHER CEILING MOUNTED SYSTEMS, SHOWING COORDINATION WITH CEILING DEVICES INCLUDING BUT NOT LIMITED TO HVAC SUPPLY AND RETURN GRILLES, D. PROVIDE ALL SENSORS BY THE SAME MANUFACTURER. E. PROVIDE COPIES OF SENSOR AND POWER SUPPLY OPERATION INSTRUCTIONS TO OWNER. F. PROVIDE WALL SWITCH AND CEILING SENSORS WITH AN ADJUSTABLE TIME DELAY RANGE OF 0-30 MIN, UNO. G. DO NOT INSTALL LINE VOLTAGE SENSORS ON GFCI PROTECTED CIRCUITS. H. FIELD-SET DEVICES TO THE ON MODE INDICATED IN TABLE, DISABLE ANY VISIBLE/AUDIBLE ALERT SETTINGS, AND SET SENSITIVITIES TO MAXIMUM LEVELS. I. PROVIDE ALL LOW VOLTAGE WIRING BETWEEN SENSORS, DEVICES, AND POWER SUPPLIES AS REQUIRED AND PER MANUFACTURER RECOMMENDATIONS. J. WHERE OCCUPANCY SENSORS USE BOTH PIR AND ULTRASONIC TECHNOLOGIES, PROGRAM OFF MODES (MAINTAIN OCCUPANCY AND RE-TRIGGER) TO TRIGGER ON A SIGNAL FROM EITHER K. WHERE MULTIPLE LOW VOLTAGE SWITCHES ARE CONNECTED WITHIN THE SAME SPACE, PROGRAM THE SWITCHES TO CONTROL THE LIGHTING IN THE EXACT SAME MANNER, UNO.									
SENSOR NOTES: 1. CONNECT NEUTRAL CONDUCTOR TO SENSOR. 2. PROVIDE CUSTOM BUTTON ENGRAVING PER ENGINEER'S DIRECTION. 3. PROVIDE POWER SUPPLY WITH UNSWITCHED HOT CONDUCTOR CONNECTION. COORDINATE DEVICE LOCATIONS IN FIELD. 4. +A1-J50 NUMBER DENOTES HOW MANY SWITCHES NEEDED FOR CONTROL. (1) DIMMING SWITCH PER FIXTURE TYPE IN AREA.									

5BY5
ENGINEERS

1100 Main Street, 4th Floor
Kansas City, MO 64105
Missouri COA: 2017040776
913-689-9449
contact@5by5eng.com
5by5eng.com

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
10/05/2022



SCOTT D. GROSHANS
LICENSE # PE--2019012798

10/05/2022



ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051

MISSOURI STATE CERTIFICATE OF AUTHORITY # 2008034845
www.BuildWithRose.com



CRASH CHAMPIONS
COLLISION REPAIR TEAM

PROPOSED BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21
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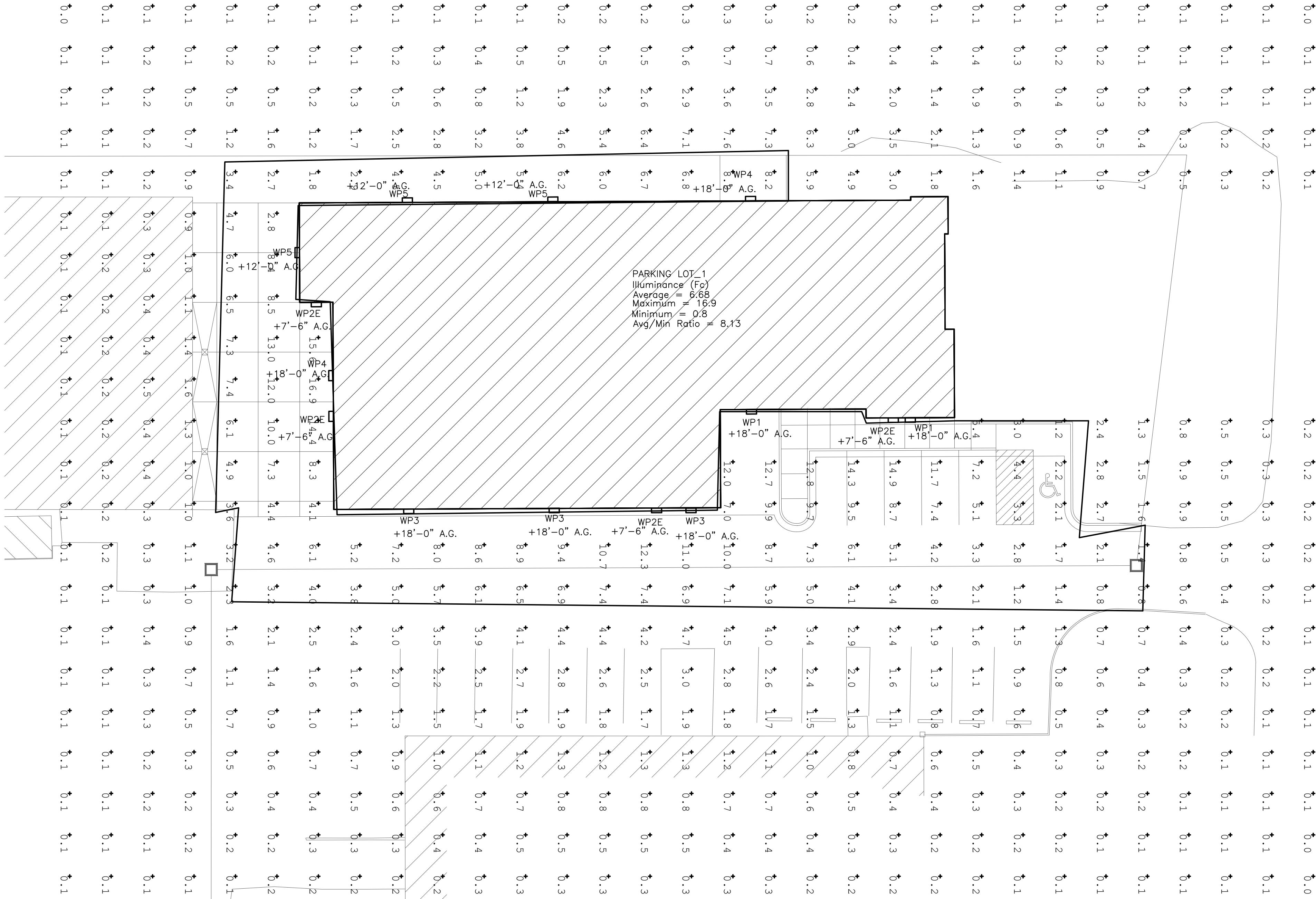
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SCHEDULES

Oct 05, 2022 -- 11:00am -- USER ScottGroshans
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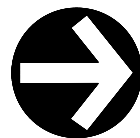
PANELBOARD MDP																		
NOTES		BUS AMPS:			800A		LOCATION:			STORAGE A106			GROUND BUS:			YES		NOTES
		MAIN SIZE / TYPE:			MCB		NEMA RATING:			NEMA 1			ISOL. GROUND BUS:			NO		
		VOLTS/PHASE:			208Y/120V, 3PH, 4W		AFC VALUE:			FIELD VERIFY #1			FEED THRU LUGS:			NO		
		MOUNTING:			SURFACE		AIC RATING:			65,000			SECTIONS:			1 OF 1		
		CKT	CIRCUIT DESCRIPTION		BREAKER	WIRE	LOAD	CONNECTED PER PHASE (VA)			LOAD	WIRE	BREAKER	CIRCUIT DESCRIPTION		CKT		
					AMPS	P	SIZE	(VA)	A	B	C	(VA)	SIZE	P	AMPS			
		1						40,034	40,034			0					2	
		3	PANEL "P1"		600	3	O.L.	43,126		48,176		5,050					4	
		5						45,168			50,218	5,050	#6	3	50	RTU-1	6	
		7						4,810	9,860			5,050					8	
		9	VEHICLE LIFT		50	3	#6	4,810		13,220		8,410					10	
		11						4,810			13,220	8,410	#1	3	100	AIR COMPRESSOR	12	
		13						5,050	13,460			8,410					14	
		15	RTU-3		50	3	#6	5,050		7,450		2,400					16	
		17						5,050			7,450	2,400	#10	3	30	RTU-2	18	
		19						5,050	7,450			2,400					20	
		21	RTU-4		50	3	#6	5,050		5,050		0					22	
		23						5,050			5,050	0				SPACE	24	
		25						5,050	5,050			0					26	
		27	RTU-5		50	3	#6	5,050		5,050		0					28	
		29						5,050			5,050	0				SPACE	30	
		31						5,050	5,050			0					32	
		33	SPACE					0		0		0					34	
		35						0			0	0					36	
		37						0	0			0					38	
		39	SPACE					0		0		0					40	
		41						0			0	0					42	
		PER PHASE SUB-TOTALS							80,904	78,946	80,988	LEGEND:						
		TOTAL CONNECTED PANELBOARD (VA)							240,838			LCP1- VIA LIGHTING CONTROL PANEL						
		TOTAL CONNECTED PANELBOARD (AMPS)							668			GFCI - GROUND FAULT CURRENT INTERRUPTER						
		TOTAL PANELBOARD DEMAND (VA)							238,112			EX - EXISTING						
		TOTAL PANELBOARD DEMAND (AMPS)							661			OL - RE: ONE-LINE DIAGRAM						
		GENERAL NOTES:							WP - WEATHER PROOF ENCLOSURE									
		1. CONFIRM FAULT CURRENT RATING WITH EVERY PRIOR TO ORDERING EQUIPMENT.																

PANELBOARD P1															
		BUS AMPS:		600A		LOCATION:		STORAGE A106		GROUND BUS:		YES			
		MAIN SIZE / TYPE:		MLO		NEMA RATING:		NEMA 1		ISOL. GROUND BUS:		NO			
		VOLTS/PHASE:		208Y/120V, 3PH, 4W		AFC VALUE:		FIELD VERIFY #1		FEED THRU LUGS:		NO			
		MOUNTING:		SURFACE		AIC RATING:		65,000		SECTIONS:		3			
NOTES	CKT	CIRCUIT DESCRIPTION	BREAKER AMPS	P	WIRE SIZE	LOAD (VA)	CONNECTED PER PHASE (VA)			LOAD (VA)	WIRE SIZE	BREAKER P	AMPS	CIRCUIT DESCRIPTION	CKT
							A	B	C						
WP.GFCI	1	RECEPT. - ELEC. ROOM	20	1	#12	180	430			250	#12	1	20	LIGHTING CONTROL PANEL 'LCP1'	2
	3	RECEPT. - EXTERIOR BLDG.	20	1	#12	360		720		360	#12	1	20	RECEPT. - SHOP	4
	5	RECEPT. - SHOP	20	1	#12	360			2,960	2,600	#6	2	30	MIG/MAG WELDER	6
	7					5,500	8,100			2,600					8
#2	9	SPOT WELDER	60	3	#4	5,500		5,860		360	#12	1	20	RECEPT. - SHOP	10
	11					5,500			6,600	1,100	#12	1	20	OVERHEAD DOOR	12
	13	BIG ASS FAN - SHOP	20	1	#12	900	1,800			900	#12	1	20	BIG ASS FAN - SHOP	14
	15	BIG ASS FAN - SHOP	20	1	#12	900		1,260		360	#12	1	20	RECEPT. - SHOP	16
#2	17	RECEPT. - SHOP	20	1	#12	360			720	360	#12	1	20	RECEPT. - SHOP	18
	19	RECEPT. - SHOP	20	1	#12	360	360			0					20
	21	MIG/MAG WELDER	30	2	#6	2,600		8,100		5,500	#4	3	60	SPOT WELDER	22
	23					2,600			8,100	5,500					24
#2	25	RECEPT. - SHOP	20	1	#12	360	6,220			5,860	#12	1	20	RECEPT. - SHOP	26
	27	RECEPT. - SHOP	20	1	#12	360		2,960		2,600	#6	2	30	MIG/MAG WELDER	28
	29					5,500			8,100	2,600					30
	31	SPOT WELDER	60	3	#4	5,500	5,860			360	#12	1	20	RECEPT. - SHOP	32
#2	33					5,500		6,600		1,100	#12	1	20	OVERHEAD DOOR	34
	35	BIG ASS FAN - SHOP	20	1	#12	900			1,260	360	#12	1	20	RECEPT. - SHOP	36
	37	RECEPT. - SHOP	20	1	#12	360	1,460			1,100	#12	1	20	OVERHEAD DOOR	38
	39	RECEPT. - SHOP	20	1	#12	1,080		1,800		720	#12	1	20	RECEPT. - SHOP	40
WP, GFCI	41	OVERHEAD DOOR	20	1	#12	900			900	0	#12	1	20	RECEPT. - EXTERIOR BLDG.	42
	SECTION 2:														
	43	FRIG. - BREAKROOM	20	1	#12	1,000	1,900			900	#12	1	20	RECEPT. - GARBAGE DISPOSAL	44
	45	MICROWAVE - BREAKROOM	20	1	#12	1,200		1,380		180	#12	1	20	RECEPT. - BREAKROOM	46
WP.GFCI	47	RECEPT. - RESTROOM	20	1	#12	360			720	360	#12	1	20	RECEPT. - BREAK/OFFICE	48
	49	RECEPT. - JAN. CLOSET	20	1	#12	180	1,260			1,080	#12	1	20	RECEPT. - OFFICE	50
	51	RECEPT. - OFFICE	20	1	#12	1,080		2,160		1,080	#12	1	20	RECEPT. - OFFICE	52
	53	RECEPT. - OFFICE	20	1	#12	1,080			2,160	1,080	#12	1	20	RECEPT. - OFFICE	54
WP.GFCI	55	RECEPT. - COFFEE	20	1	#12	900	1,980			1,080	#12	1	20	RECEPT. - TV WAITING AREA	56
	57	RECEPT. - COFFEE BAR AREA	20	1	#12	180		540		360	#12	1	20	RECEPT. - RESTROOMS	58
	59	RECEPT. - EXTERIOR BLDG.	20	1	#12	180			1,380	1,200	#12	1	20	EXTERIOR BLDG SIGN	60
	61	EXTERIOR BLDG. SIGN	20	1	#12	1,200	1,380			180	#12	1	20	RECEPT. - EXTERIOR BLDG	62
LCP1	63	LTG - OFFICE	20	1	#12	1,200		2,400		1,200	#12	1	20	LTG - BREAK/RESTROOMS	64
	65	LTG - SHOP	20	1	#12	1,200			2,400	1,200	#12	1	20	LTG - SHOP	66
	67	LTG - SHOP	20	1	#12	1,200	2,400			1,200	#12	1	20	LTG - SHOP	68
	69	LTG - SHOP	20	1	#12	1,200		2,400		1,200	#12	1	20	LTG - SHOP	70
LCP1	71	LTG - SHOP	20	1	#12	1,200			1,350	150	#12	1	20	LTG - ELEC. ROOM	72
	73	LTG - EXTERIOR BLDG	20	1	#12	1,200	2,400			1,200	EX	EX	EX	PYLON SIGNAGE	74
	75	SPARE	20	1		0		1,800		1,800	#12	1	20	UH-1	76
	77	SPARE	20	1		0			1,032	1,032	#12	1	20	RT-5 / RT-7	78
#2	79	SPARE	20	1		0	1,032			1,032	#12	1	20	RT-6 / RT-8	80
	81	EF-5	20	1	#12	200		1,232		1,032	#12	1	20	RT-3 / RT-4	82
	83	EF-3	20	1	#12	200			3,080	2,880	#10	1	30	EF-4	84
	SECTION 3:														
#2	85	EF-2	20	1	#12	450	650			200	#12	1	20	EF-4 CONTROLLER	86
	87	EF-1	20	1	#12	528		1,560		1,032	#12	1	20	RT-1 / RT-2	88
	89	SPACE				0			1,872	1,872	#10	2	25	CU-1	90
	91	SPACE				0		1,872		1,872					92
#2	93	SPACE				0			104	104	#12	2	15	FCU-1	94
	95	RECEPT. - RTU-1	20	1	#12	180			284	104					96
	97	RECEPT. - RTU-2, RTU-3	20	1	#12	360	610			200	#12	1	20	RECEPT. - RTU-4, RTU-5	98
	99	WH-1	30	2	#10	2,250		2,610		360	#12	1	20		100
#2	101					2,250			3,120	870	#12	1	20		102
	103	RP-1	20	1	#12	500	700			200	#12	1	20	L-1 CONTROLS	104
	105	SPACE	-	-	-	0		0		0	-	-	-	SPACE	106
	107	SPACE	-	-	-	0			0	0	-	-	-	SPACE	108
#2	109	SPACE	-	-	-	0		0		0	-	-	-	SPACE	110
	111	SPACE	-	-	-	0		0		0	-	-	-	SPACE	112
	113	SPACE	-	-	-	0			0	0	-	-	-	SPACE	114
	115	SPACE	-	-	-	0		0		0	-	-	-	SPACE	116
#2	117	SPACE	-	-	-	0		0		0	-	-	-	SPACE	118
	119	SPACE	-	-	-	0			0	0	-	-	-	SPACE	120
	121	SPACE	-	-	-	0		0		0	-	-	-	SPACE	122
	123	SPACE	-	-	-	0			0	0	-	-	-	SPACE	124
#2	125	SPACE	-	-	-	0			0	0	-	-	-	SPACE	126
	PER PHASE SUB-TOTALS						40,414	43,486	46,038	LEGEND:					
	TOTAL CONNECTED PANELBOARD (VA)						129,938			LCP1- VIA LIGHTING CONTROL PANEL					
	TOTAL CONNECTED PANELBOARD (AMPS)						361			GFCI - GROUND FAULT CURRENT INTERRUPTER					
TOTAL PANELBOARD DEMAND (VA)						126,942			EX - EXISTING						
TOTAL PANELBOARD DEMAND (AMPS)						352			OL - RE: ONE-LINE DIAGRAM						
GENERAL NOTES:															
WP - WEATHER PROOF ENCLOSURE															
1. CONFIRM FAULT CURRENT RATING WITH EVERY PRIOR TO ORDERING EQUIPMENT.															
2. CONFIRM LENGTH OF CIRCUIT NEEDED TO SIZE WIRE. SIZE SHOWN IS LONGEST LENGTH SIZE PER MANUFACTURER RECOMMENDATIONS.															
3. FIELD VERIFY PYLON SIGNAGE POWER REQUIREMENTS PRIOR TO ORDERING CIRCUIT BREAKER. NOTIFY ENGINEER OF DISCREPANCIES.															

Oct 05, 2022 -- 11:00am -- USER ScottGroshans
C:\Users\ScottGroshans\OneDrive\Documents\Projects\2021\00051 Crash Champions Lee's Summit -- Rose\Bases-CAD\2021\00051 ELEC.dwg
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1 ELECTRICAL SITE LIGHTING PHOTOMETRICS PLAN
SCALE: 1/16" = 1'-0"



SITE LIGHT FIXTURE SCHEDULE											
TYPE	MANUFACTURER AND MODEL #	LIGHT SOURCE	WATTS	MINIMUM LUMENS	VOLTAGE	CRI	COLOR TEMP	DIMMABLE	FINISH	DESCRIPTION	NOTES
WP1	MCGRAW EDISON - GLEON-SA3D-740-U-SL4	INTEGRAL LED	191	22,500	UNV	80	4000	NA	DARK BRONZE	LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. MOUNT AT 18'-0" A.G.	1-5
WP2E	MCGRAW EDISON - IST-SA1-E-740-U-T4FT-XX-CBP	INTEGRAL LED	25	2200	UNV	80	4000	NA	DARK BRONZE	EXTERIOR LED WALL PACK. FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK.	1-5
WP3	MCGRAW EDISON - GLEON-SA3A-740-U-SL4	INTEGRAL LED	96	13,500	UNV	80	4000	NA	DARK BRONZE	LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. .	1-5
WP4	MCGRAW EDISON - GLEON-SA3D-740-U-SL2-HSS	INTEGRAL LED	191	19,600	UNV	80	4000	NA	DARK BRONZE	LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. PROVIDE WITH HOUSE SHIELD.	1-5
WP5	MCGRAW EDISON - GLEON-SA1A-740-U-SL2-HSS	INTEGRAL LED	34	4,000	UNV	80	4000	NA	DARK BRONZE	LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. PROVIDE WITH HOUSE SHIELD.	1-5

NOTES:

- COORDINATE ALL LIGHT FIXTURE SELECTIONS AND/OR SUBSTITUTIONS WITH ARCHITECT, OWNER AND/OR ENGINEER PRIOR TO ORDER.
- PROVIDE LIGHTING CONTROLS THAT ARE COMPATIBLE WITH FIXTURES PROVIDED.
- COORDINATE WITH ARCHITECT, OWNER AND/OR ENGINEER FOR DIMMING REQUIREMENTS PRIOR TO INSTALLATION.
- PROVIDE ALL COMPONENTS AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION.
- EQUIVALENTS MUST BE SUBMITTED AND APPROVED PRIOR TO BID.

ELECTRICAL GENERAL NOTES:

- REFER TO SHEET E3.0 FOR ELECTRICAL GENERAL NOTES.

ELECTRICAL GENERAL DEMOLITION NOTES:

- DEMO WORK MUST BE COMPLETED PER PHASE. CONFIRM CIRCUITS TO REMAIN FOR PHASE II TO BE FULLY OPERATIONAL DURING DEMO WORK OF PHASE I.
- REMOVE ALL INTERIOR ELECTRICAL DEVICES INCLUDING ALL CONDUIT AND WIRING BACK TO SOURCE OR NEAREST DOWNSTREAM DEVICE TO REMAIN. (U.N.O.) REFERENCE SHEET E3.0-1 DEMO ELECTRICAL RISER DIAGRAM FOR FURTHER INFORMATION.
- ABANDON ALL EXISTING FLOOR BOXES IN PLACE.
- REFER TO SHEET E3.0 FOR ADDITIONAL ELECTRICAL GENERAL DEMOLITION NOTES AND ELECTRICAL GENERAL NOTES.

⊖ ELECTRICAL SITE LIGHTING PHOTOMETRIC PLAN NOTES:

- PHOTOMETRICS ARE CALCULATED REFERENCING IES FILES OF SPECIFIED LIGHT FIXTURES ON SCHEDULE. ANY LIGHT FIXTURE ALTERNATIVES AS WELL AS MOUNTING HEIGHTS MAY DIFFER IN PHOTOMETRIC SUMMARY AND SHALL BE CALCULATED AS REQUIRED.
- POLE MOUNTED LIGHT FIXTURE. PROVIDE WITH 20'-0" STEEL SQUARE POLE. POLE SHALL BE PROVIDED WITH A HARMONIC DAMPNER. PROVIDE AND INSTALL POLE PER LIGHT FIXTURE MANUFACTURER RECOMMENDATIONS. REFERENCE LIGHT POLE BASE ON THIS SHEET DETAIL 2. CONFIRM FINISH COLOR WITH ARCHITECT PRIOR TO ORDERING. REFERENCE LIGHT FIXTURE SCHEDULE ON THIS SHEET FOR FURTHER INFORMATION.
- ALL FIXTURES TO BE INSTALLED IN GENERAL LOCATION SHOWN. COORDINATE WITH ALL TRADES PRIOR TO INSTALL.

5BY5
ENGINEERS

1100 Main Street, 4th Floor
Kansas City, MO 64105
Missouri COA: 2017040776
913-689-9449
contact@5by5eng.com
5by5eng.com

RELEASED FOR
CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
10/05/2022



SCOTT D. GROSHANS
LICENSE # PE-2019012798

ROSE
DESIGN GROUP INC.

ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998
P.O. BOX 100 OLATHE, KS 66051

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PROPOSED BUILDING FOR:
CRASH CHAMPIONS
451 SE OLDHAM PARKWAY
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21
1	CITY REVIEW COMMENTS	12 / 06 / 21
2	OWNER REVISIONS	07 / 29 / 22
3	SHOP A/C	10 / 05 / 22

PROJECT NUMBER 21009
DATE ISSUED: 11 / 09 / 21

SHEET NUMBER

ES1.0

ELECTRICAL SITE LIGHTING
PHOTOMETRICS