A New Project For:

Wright City Fire Protection District - Station 1

60 Bell Road

Wright City, Missouri



- **LCS, LLC**
  Design/Builder
- **Engenuity**
  Civil Engineering
- **Engenuity**
  Electrical Engineer
- **SE/Coady Architects, LLC**
  Architects
- **Jarrell Mechanical Contractors**
  MP Design/Builder
- **Crockett Engineering Consultants**
  Structural Engineers

09/05/25

STATE OF MISSOURI
DAVID GERARD COADY
NUMBER A-7441
ARCHITECT

12/31/25

Architectural seal limited to architectural sheets G001, LS101, A101-A962

PLAN REVIEW INFORMATION

CODE INFORMATION:

- 2015 ICC BUILDING CODES WITH WRIGHT CITY BUILDING CODE SUPPLEMENTALS
- 2015 ICC INTERNATIONAL EXISTING BUILDING CODE WITH WITH WRIGHT CITY BUILDING CODE SUPPLEMENTALS
- 2015 ICC INTERNATIONAL FIRE CODE WITH WRIGHT CITY BUILDING CODE SUPPLEMENTALS
- 2015 ICC INTERNATIONAL MECHANICAL CODE WITH WRIGHT CITY BUILDING CODE SUPPLEMENTALS
- 2015 ICC INTERNATIONAL PLUMBING CODE WITH WRIGHT CITY BUILDING CODE SUPPLEMENTALS
- 2015 NATIONAL ELECTRICAL CODE WITH WRIGHT CITY BUILDING CODE SUPPLEMENTALS
- 2015 ICC INTERNATIONAL ENERGY CONSERVATION CODE WITH WRIGHT CITY BUILDING CODE SUPPLEMENTALS
- 2015 ADA STANDARDS FOR ACCESSIBILITY DESIGN
- 2012 NFPA 101

NAME OF PROJECT: WCFPD - WRIGHT CITY FIRE PROTECTION DISTRICT - STATION 1
STREET ADDRESS: 700 BELL ROAD WRIGHT CITY, MISSOURI

1. TYPE OF PROJECT: FIRE STATION

   TOTAL BUILDING SQUARE FOOTAGE: 19,229 S.F.

   OCCUPANCY:
   LIVING QUARTERS - 6,886 S.F. - R-2 OCCUPANCY
   APPARATUS BAY - 5,965 S.F. - S-1 OCCUPANCY
   ADMIN. AREA: 4,701 S.F. - B OCCUPANCY
   ADMIN. AREA MEETING ROOM: 1,677 S.F. - A-3 OCCUPANCY

2. HEIGHT / AREA (CHAPTER 5):

   USE GROUP: MIXED USE NON-SEPARATED OCCUPANCIES: R-2 RESIDENTIAL / S-1 STORAGE / B-BUSINESS / A-3 ASSEME
   TYPE OF CONSTRUCTION: VB

   ALLOWABLE AREA: (TYPE VB / SPRINKLERED)
   R-2: 28,000 S.F. / 3 STORIES
   S-1: 36,000 S.F. / 3 STORIES
   B: 36,000 S.F. / 3 STORIES
   A-3: 24,000 S.F. / 2 STORIES

3. FIRE SUPPRESSION (CHAPTER 9):
   THROUGHOUT (OCCUPANCY REQUIREMENT) (903.2.1 THROUGH 903.2.11): GROUP R - REQUIRED THROUGHOUT BUILDING
   THROUGHOUT (BUILDING AREA OR HEIGHT INCREASE) (504.3 AND 506.3): N/A

4. INCIDENTAL ACCESSORY OCCUPANCIES (TABLE 509)
   FURNACE ROOM WITH SINGLE PIECE OF EQUIP. . 400 K BTUH INPUT: N/A
   BOILER ROOM WITH SINGLE PIECE OF EQUIP. . 15 PSI & 10 HP: N/A
   LAUNDRY ROOMS OVER 100 SQUARE FEET: AUTOMATIC SPRINKLER SYSTEM PROVIDED
   OTHER THAN AMBULATORY CARE FACILITIES OR GROUP I-2 OCCUPANCIES, WASTE AND LINEN COLLECTION ROOMS OVER 100 S.F.: N/A
   STATIONARY STORAGE BATTERY SYSTEMS HAVING A LIQUID ELECTROLYTE CAPACITY OF MORE THAN 50 GALLONS FOR FLOODED LEAD-ACID, NICKEL CADMIUM OR VRLA, OR MORE THAN 1000 POUNDS FOR LITHIUM-ION AND LITHIUM METAL POLYMER USED FOR FACILITY STANDBY POWER, EMERGENCY POWER OR UNINTERRUPTED POWER SUPPLIES: N/A

5. MIXED USE OPTIONS: (SPECIFY ONE)
   NON-SEPARATED USES (508.3) ALLOWABLE AREA/HEIGHT CONTROLLED BY MOST RESTRICTIVE USE: R-2 / S-1 / B / A-3

6. TABLE 601 - FIRE RATINGS OF STRUCTURAL FRAME:
   STRUCTURAL FRAME INCLUDING COLUMNS, GIRDERS AND TRUSSES: 0
   BEARING WALLS
   EXTERIOR: 0 HR
   INTERIOR: 0 HR
   NON-BEARING WALLS
   EXTERIOR: 0 HR
   INTERIOR: 0 HR
   FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS: N/A
   ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS: N/A
   SEE SECTION 704 FOR REQUIREMENTS FOR PROTECTION OF STRUCTURAL MEMBERS

7. TABLE 602- FIRE RATING OF EXTERIOR WALLS BASED UPON SEPARATION DISTANCE:

	(<5')	(5'TO<10')	(10'TO<30')	(30' OR MORE)
LOAD BRG.	N/A	N/A	0 HR	N/A
NON-LOAD BRG.	N/A	N/A	0 HR	N/A

8. OTHER FIRE RESISTIVE ASSEMBLIES:
   FIRE PARTITIONS (708):
   SEPARATION WALLS AS REQUIRED BY SECTION 420.2 FOR GROUPS I-1, R-1, R-2 AND R-3 (708.1): 1/2 HOUR RATING SEPARATING R-2 SLEEPING UNITS AND WALLS SEPARATING SLEEPING UNITS FROM OTHER OCCUPANCIES CONTIGUOUS TO THEM IN THE SAME BUILDING.
   CORRIDOR WALLS AS REQUIRED BY SECTION 1020.1 (708.1): (R OCCUPANCY 1/2 HR IF OCCUPANT LOAD GREATER THAN 10 - N/A - ACTUAL OCCUPANT LOAD = 6 PER SHIFT)

9. OPENINGS, PENETRATIONS AND JOINTS:

   PENETRATIONS (714) BY METAL CONDUITS AND PIPE, PLASTIC PIPE, DUCTWORK:
   VERTICAL AND HORIZONTAL FIRE RESISTANCE RATED ASSEMBLIES (714.3 AND 714.4): SAME AS ASSEMBLY RATING.
   NON-FIRE RESISTANCE RATED ASSEMBLIES (CONNECTING >2 STORIES) (714.5): SAME AS SHAFT ENCLOSURE.

   JOINTS (715) WHERE WALLS MEET WALLS, WALLS MEET FLOORS OR WALLS MEET ROOF ASSEMBLIES TESTED IN ACCORDANCE WITH UL 2079: SAME AS ASSEMBLY RATING.

OPENINGS (716) ASSEMBLY TYPE	ASSEMBLY RATING	OPENING RATING
DOORS AND SHUTTERS	N/A	N/A
FIRE WALL/FIRE BARRIER>1 HR	N/A	N/A
SHAFT/EXIT ENCLOSURE	N/A	N/A
HORIZONTAL EXITS IN FIRE WALLS	N/A	N/A
1 HR FIRE BARRIERS	1 HR	1 HR
OTHER FIRE BARRIERS	N/A	N/A
FIRE PARTITIONS: CORRIDOR WALLS	.5	1/3
OTHER FIRE PARTITIONS	.5	1/3
SMOKE BARRIERS	N/A	N/A
EXTERIOR WALLS	N/A	N/A

10. DRAFTSTOPPING IN ATTICS:

    718.4.2 / 718.4.3 - NOT REQUIRED IN BUILDINGS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH 903.3.1.1.

INTERIOR FINISHES (T803.11):

	SPRINKLERED	UNSPRINKLERED
VERTICAL EXITS AND EXIT PASSAGEWAYS	CLASS B	N/A
EXIT ACCESS CORRIDORS AND OTHER EXITWAYS	CLASS B	N/A
ROOMS/ENCLOSED SPACES	CLASS C	N/A

11. FIRE ALARM AND DETECTION SYSTEMS (907):

	REQUIRED	NOT REQUIRED	PROVIDED
MANUAL FIRE ALARM			X
AUTOMATIC FIRE DETECTION			X
SINGLE/MULTIPLE STATION			

12. OCCUPANT LOAD (1004):
    R-2 = 6,886/200 = 35 PEOPLE (ACTUAL 6 PER SHIFT)
    S-1 = 5,965/300 = 20 PEOPLE
    B= 4,701/100 = 47 PEOPLE
    A-3= 1,677 / 15 = 112 PEOPLE
    TOTAL: 214 PEOPLE CALCULATED / 6 PER SHIFT ACTUAL LIVING QUARTERS

13. EGRESS WIDTH (PER FLOOR):

		DOORS	TOTAL @ LEVEL OF EXIT DISCHARGE
CALCULATED (1005.1):	LIVING QUARTERS	(.2) x35=7 in	108 in PROVIDED
	APP BAY	(.2) x 20=4 in	108 in PROVIDED
	BUSINESS/ASSEMBLY	(.2) x 159=32 in	108 in PROVIDED

14. NUMBER OF EXITS:
    SPACES WITH 1 EXIT (T1006.2.1) : N/A

15. STORIES WITH ONE EXIT (1006.3.2(2)) # OF STORIES: N/A # OF OCC'S.: N/A TRAVEL DIST.: N/A
    >1 EXIT REQUIRED (1006.2.1): OCCUPANT LOAD: 214 NUMBER OF EXITS REQUIRED: 2
    NUMBER OF EXITS PROVIDED: 8

15. EXIT TRAVEL DISTANCE (1017):
    ACTUAL: 138'
    ALLOWED (T1017.2): 250' (with a sprinkler system)

16. ATTIC AND UNDERFLOOR VENTILATION (1203.2 AND 1203.3): YES
    AREA(S) OF ATTIC IN ADMIN: 6,981 s.f. VENTILATION NFA: YES
    AREA(S) OF ATTIC IN LIVING QUARTERS : 6886 s.f. VENTILATION NFA: YES

17. ROOF COVERING CLASS (1505): CLASS C.

18. RESTROOMS: TOTAL ACTUAL OCCUPANTS = 6 PER SHIFT / 12 TOTAL AT SHIFT CHANGE

TYPE OF BUILDING:	MIN. # REQUIRED FIXTURES MALE	FEMALE	ACTUAL NUMBER OF FIXTURES MALE	FEMALE	UNISEX	
WATER CLOSETS:						
R-2	1/10	1/10	N/A	N/A	1	6 @ SLEEPING ROOMS/ 1 UNISEX RESTROOM
S-1	1/100	1/100	N/A	N/A	1	1 UNISEX RESTROOM
B	1/25	1/25	N/A	N/A	2	2 UNISEX RESTROOMS
A-3	1/125	1/65	1	1		
LAVATORIES:						
R-2	1/10	1/10	N/A	N/A	1	6 @ SLEEPING ROOMS 1 UNISEX RESTROOM
S-1	1/100	1/100	N/A	N/A	1	1 UNISEX RESTROOM
B	1/40	1/40	N/A	N/A	2	2 UNISEX RESTROOMS
A-3	1/200	1/200	1	1		

SERVICE SINK: 1 REQ'D. 1 PROVIDED

DRINKING FOUNTAINS: REQUIRED: 1 ACTUAL: 1 WATER BUBBLERS PROVIDED

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Wright City Fire Protection District
60 Bell Road
Wright City, MO 63390

Revisions:

No:	Date:	Description:

Sheet Info:

TITLE SHEET WITH CODE REVIEW

Drawn By:	Author
Checked By:	Checker
Commission:	025-2125
Date:	2025-09-05

G001

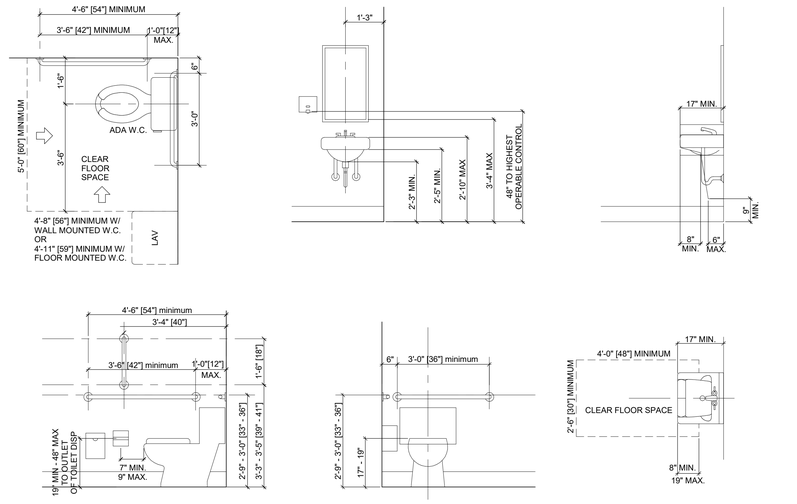
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STANDARD ABBREVIATIONS

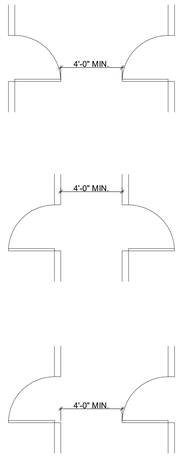
@	AT
AB	ANCHOR BOLT
ACP	ACOUSTICAL CEILING PANEL
ACT	ACOUSTICAL CEILING TILE
ACOUS	ACOUSTICAL
ADJ	ADJUST/ADJACENT
AFF	ABOVE FINISH FLOOR
AL	ALUMINUM
ALT	ALTERNATE
ANCH	ANCHOR
ANOD	ANODIZED
AP	ACCESS PANEL
APPROX	APPROXIMATE
ASPH	ASPHALT
AUTO	AUTOMATIC
AVG	AVERAGE
BD	BOARD
BITUM	BITUMINOUS
BLDG	BUILDING
BM	BEAM
B.M.	BENCH MARK
BRG	BEARING
BTM	BOTTOM
CAB	CABINET
CB	CHALK BOARD
CEM PL	CEMENT PLASTER
CIPC	CAST-IN-PLACE CONCRETE
CJ	CONTROL/CONSTRUCTION JOINT
CLG	CEILING
CLR	CLEAR
CMT	CERAMIC MOSAIC TILE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
COMP	COMPRESSIBLE/COMPACTED
CONC	CONCRETE
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRUGATED
CPT	CARPET
CR	COLD ROLLED
CT	CERAMIC TILE
CTR FLSH	COUNTER FLASHING
CTR SK	COUNTER SINK
CUH	CABINET UNIT HEATER
CUV	CABINET UNIT VENTILATOR
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DNSP	DOWNSPOUT
DR	DOOR
DTL	DETAIL
DW	DRYWALL
DWG	DRAWING
DWL	DOWEL
EA	EACH
ED	ELECTRIC DRYER
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC/ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT
EMER	EMERGENCY
EP	EPOXY
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXIST	EXISTING
EXP	EXPANSION/EXPOSED
EXT	EXTERIOR
FBO	FURNISHED BY OWNER/OTHERS
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HOSE
FHC	FIRE HOSE CABINET
FIN	FINISH
FLR	FLOOR
FLSH	FLASHING
FRT	FIRE RETARDANT TREATED
FUR CH	FURRING CHANNEL
FURN	FURNACE
FTG	FOOTING
GA	GAUGE
GALV	GALVENIZED
GC	GENERAL CONTRACTOR
GD	GAS DRYER
GL	GLASS
GMU	GLAZED (CONCRETE) MASONRY UNIT
GT	GLAZED TILE UNITS
GWB	GYPSUM WALL BOARD
GWH	GAS WATER HEATER
GYP PL	GYPSUM PLASTER
HB	HOSE BIB
HDNR	HARDENER
HD WD	HARD WOOD
HDWRE	HARDWARE
HGT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HTG	HEATING
HVAC	HEATING/VENTILATION/AIR CONDITIONING
HWH	HOT WATER HEATER
IN	INCH
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
JT	JOINT
KD	KNOCK DOWN
KO	KNOCK OUT (PANEL)
LAM	LAMINATED
LAV	LAVATORY
LH	LEFT HANDED
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LVL	LEVEL
LVR	LOUVER
LVT	LUXURY VINYL TILE
MARB	MARBLE
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MED	MEDIUM
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MAN HOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MOD	MODULAR
MTL	METAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OVERHEAD
OPP	OPPOSITE
OPP HD	OPPOSITE HAND
PAV	PAVEMENT
PCC	PRECAST CONCRETE
PERM	PERMANENT
PL	PLASTIC
PL LAM	PLASTIC LAMINATE
PLMB	PLUMBING
PLT	PLATE
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT
PPT	PRESSURE PRESERVATIVE TREATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
RAD	RADIUS
RB	RUBBER BASE
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCING
REQ	REQUIRED
RFG	ROOFING
RH	RIGHT HAND
RM	ROOM
RMF	RUBBER MAT FLOORING (REMOVABLE)
RO	ROUGH OPENING
RSF	RUBBER SHEET FLOORING
RTF	RUBBER TILE FLOORING
RTU	ROOF TOP UNIT
SC	SEALED CONCRETE
SCHED	SCHEDULE
SEC	SECTION
SF	SQUARE FOOT
SH	SHOWER
SHT	SHEET
SI	SQUARE INCH
SIM	SIMILAR
SK	SINK
SLNT	SEALANT
SOG	SLAB ON GRADE
SPC	SPACING
SPEC	SPECIFICATION(S)
SPK	SPEAKER
SPMR	SINGLE PLY MEMBRANE ROOFING
SQ	SQUARE
SS	STAINLESS STEEL
SSK	SERVICE SINK
STD	STANDARD
STD WGT	STANDARD WEIGHT
STL	STEEL
STN	STAIN
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SVF	SHEET VINLY FLOORING
SYM	SYMMETRICAL
SYN	SYNTHETIC
TB	TACK BOARD
TERR	TERRAZZO
T&G	TONGUE AND GROOVE
T.O.	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CURB
TOFW	TOP OF FOUNDATION WALL
TOM	TOP OF MASONRY
TOS	TOP OF SLAB
TOSTL	TOP OF STEEL
TOW	TOP OF WALL
TS	TACK STRIP
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
VARN	VARNISH
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VEN PL	VENEER PLASTER
VERT	VERTICAL
VWC	VINYL WALL COVERING
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WGT	WEIGHT
WP	WATERPROOF
WWF	WELDED WIRE FABRIC

ACCESSIBILITY STANDARDS

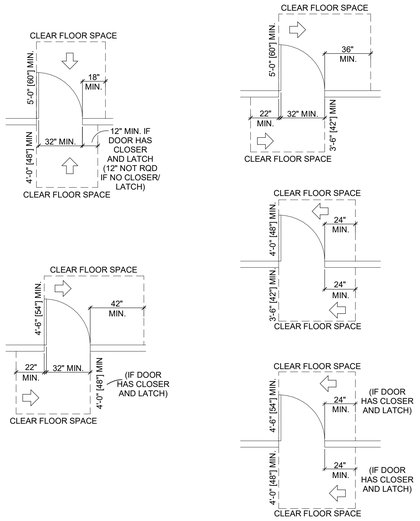
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WATER CLOSETS / LAVATORIES



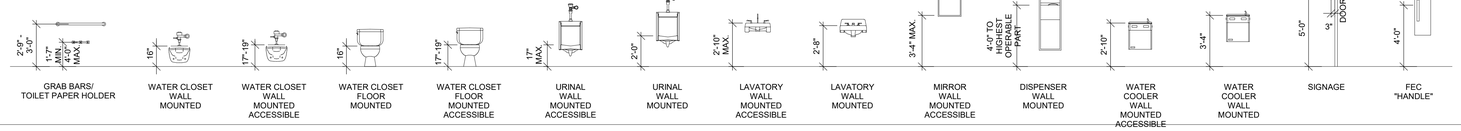
DOORS IN SEQUENCE



DOOR APPROACHES

TYPICAL MOUNTING HEIGHTS

FIXTURE	HEIGHTS FROM FINISH FLOOR
LIGHT SWITCHES	44" TO CENTER (SEE ADJACENT)
ELECTRIC RECEPTACLES	15" TO BOTTOM (4" ABOVE BACKSPLASH WHEN LOCATED ABOVE COUNTERTOP)
FIRE ALARM PULL	44" TO CENTER (SEE ADJACENT)
FIRE ALARM BELL	84" TO CENTER
TOWEL DISPENSER	SEE ELEVATION BELOW
FIRE EXTINGUISHER CABINET	48" MAXIMUM TO HANDLE - MAX. 4" PROJECTION FROM WALL
DRINKING FOUNTAIN	40" TO SPOUT (STANDARD HEIGHT) / 36" TO SPOUT (ACCESSIBLE HEIGHT)
THERMOSTAT	44" TO CENTER
WALL-MOUNTED TELEPHONE	44" TO CENTER
STROBE LIGHT	80" TO TOP (OR 6" BELOW CEILING WHICHEVER IS LOWER)
GRAB BARS/HANDRAILS	33" - 36" TO CENTERLINE
TOILET PAPER DISPENSER	19" A.F.F. MIN. - 48" A.F.F. MAX. TO OUTLET OF DISPENSER
MIRROR	40" (LOWEST REFLECTIVE SURFACE)



GRAPHICAL SYMBOLS

ELEVATION / LEVEL LINE DESIGNATION	TOP OF FLOOR EL (+)1'-0"	ELEVATION HEIGHT DESCRIPTION
BUILDING SECTION	A301	BUILDING SECTION NUMBER DRAWING NUMBER
WALL SECTION	1 A321	WALL SECTION NUMBER DRAWING NUMBER
EXTERIOR ELEVATION	1 A201	EXTERIOR ELEVATION NUMBER DRAWING NUMBER
INTERIOR ELEVATION	1 4 A201 2 3	INTERIOR ELEVATION NUMBER(S) DRAWING NUMBER
DETAIL DESIGNATION	1 A501	DETAIL NUMBER DRAWING NUMBER
ROOM DESIGNATION	ROOM NAME 100	ROOM/SPACE NAME ROOM/SPACE NUMBER
DOOR DESIGNATION	100	DOOR NUMBER IS ASSIGNED TO THE ROOM IT SWINGS INTO
WINDOW DESIGNATION	W1	WINDOW NUMBER
KEY NOTE DESIGNATION	1	NOTE NUMBER
PARTITION WALL DESIGNATION	P1	PARTITION WALL TYPE NUMBER
REVISION DESIGNATION	1	REVISION NUMBER
COLUMN LINE DESIGNATION	1	COLUMN LINE IDENTIFICATION (NUMERICAL OR ALPHABETICAL)

DRAWING LEGEND

NEW ARCHITECTURAL DOOR	EXISTING DOOR TO REMAIN	EXISTING DOOR TO BE REMOVED
NEW DRYWALL PARTITION	EXISTING DRYWALL PARTITION TO REMAIN	EXISTING DRYWALL PARTITION TO BE REMOVED
NEW MASONRY PARTITION	EXISTING MASONRY PARTITION TO REMAIN	EXISTING MASONRY PARTITION TO BE REMOVED

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WCFPD Station 1
Wright City Fire Protection District
60 Bell Road
Wright City, MO 63390

Revisions:

No:	Date:	Description:

Sheet Info:

GENERAL INFORMATION

Drawn By:	Author
Checked By:	Checker
Commission:	025-2125
Date:	2025-09-05

G002

9/5/2025 4:26:33 PM

CONSTRUCTION DOCUMENTS

WRIGHT CITY FIRE HOUSE #1

60 BELL ROAD

A TRACT OF LAND BEING PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 47 NORTH, RANGE 1 WEST, AS RECORDED IN DEED BOOK 1171 PAGE 54 WARREN COUNTY, MISSOURI.

LEGEND

EXISTING		PROPOSED
	UTILITY POLE	
	GUY WIRE	
	LIGHT STANDARD	
	ELECTRIC BOX	
	ELECTRIC METER	
	ELECTRIC MANHOLE	
OE	OVERHEAD ELECTRIC LINE	OE
UE	UNDERGROUND ELECTRIC LINE	UE
	TELEPHONE BOX	
	TELEPHONE MANHOLE	
T	UNDERGROUND TELEPHONE LINE	T
	FIRE HYDRANT	
	WATER METER	
	WATER VALVE	WV
	WATER MANHOLE	
W	WATER LINE	W
	GAS METER	
	GAS VALVE	
	GAS DRIP	
G	GAS LINE	G
	STREET SIGN	
	BOLLARD OR POST	
	MAILBOX	
	SANITARY SEWER	SAN
	STORM SEWER	
	STORM DRAIN GRATE INLET	
	STORM DRAIN AREA INLET	
	STORM DRAIN MANHOLE	
	SANITARY SEWER MANHOLE	
	FLARED END SECTION	
X	FENCE: CHAIN LINK OR WIRE	X
	FENCE: WOOD CONSTRUCTION	
	GUARDRAIL	
513	MINOR CONTOUR INTERVAL	513
510	MAJOR CONTOUR INTERVAL	510
×101.5	SPOT ELEVATION	×101.50
	BUSH OR SHRUB	
D.S.	TREE W/APPROXIMATE DIAMETER SIZE	D.S.
	FOUND SURVEY MONUMENT AS NOTED	
	SET SURVEY MONUMENT AS NOTED	
C.O.	CLEAN-OUT/DOWN-SPOUT	C.O. D.S.
	SWALE	
	UTILITY EASEMENT	
	PROPERTY LINE	

ABBREVIATIONS

ADS	- ADVANCED DRAINAGE SYSTEMS, INC.
ATG	- ADJUST TO GRADE
B.M.	- BENCHMARK
C.I.	- CURB INLET
C.O.	- CLEAN OUT
CMP	- CORRUGATED METAL PIPE
CONC.	- CONCRETE
C.Y.	- CUBIC YARDS
D.C.I.	- DOUBLE CURB INLET
DIP	- DUCTILE IRON PIPE
DIA.	- DIAMETER
DS	- DOWNSPOUT
ELEV.	- ELEVATION
EX	- EXISTING
FD	- FLOOR DRAIN
FF	- FINISH FLOOR
FL	- FLOW LINE
G.I.	- GRATE INLET
GAL.	- GALLON
H.G.	- HYDRAULIC GRADE
HYD	- HYDRANT
MAX	- MAXIMUM
MH	- MANHOLE
MIN	- MINIMUM
N.T.S.	- NOT TO SCALE
O.C.	- ON CENTER
PAVT.	- PAVEMENT
P.C.	- PORTLAND CEMENT
PCC	- PRECAST CONCRETE
P.S.I	- POUNDS/SQUARE INCH
PROP.	- PROPOSED
P.U.M.I.	- PRIVATE UNDER MSD INSPECTION
R.C.	- REINFORCED CONCRETE
R.R.	- RAIL ROAD
RCP	- REINFORCED CONCRETE PIPE
S.F.	- SQUARE FOOT
S.Y.	- SQUARE YARD
SAN	- SANITARY
SCH	- SCHEDULE
SWPPP	- STORM WATER POLLUTION
TBA	- TO BE ABANDONED
TBR	- TO BE REMOVED
TYP.	- TYPICAL
UIP	- USE IN PLACE
VCP	- VITRIFIED CLAY PIPE
YD	- YARD DRAIN
WV	- WATER VALVE

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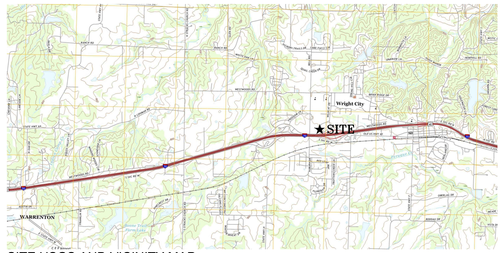
Underground facilities, structures & utilities have been plotted from available surveys, records & information, and therefore, do not necessarily reflect the actual existence, nonexistence, size, type, number of, or location of these facilities, structures, & utilities. The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, & utilities, either shown or not shown on these plans. The underground facilities, structures, & utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMO.

PREPARED BY:

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DEVELOPER:

WRIGHT CITY FIRE PROTECTION DISTRICT
396 WEST 2ND STREET NORTH
WRIGHT CITY, MO 63390
PH. (636) 745 - 2262



SITE USGS AND VICINITY MAP
U.S.G.S. 7.5 TOPOGRAPHIC MAP, CHESTERFIELD, MO, DATED 2025
SCALE 1" = 4,000'



LOCATION MAP-AERIAL
1"=1000'

SHEET INDEX	
Sheet Number	Sheet Title
C000	COVER SHEET
C100	DEMOLITION PLAN
C200	SITE PLAN
C201	JOINTING PLAN
C300	OVERALL GRADING PLAN
C301	ENLARGED GRADING PLAN
C302	ENLARGED GRADING PLAN
C303	ENLARGED GRADING PLAN
C304	ENLARGED GRADING PLAN
C305	CUT FILL PLAN
C306	SOIL REMEDIATION PLAN
C400	SWPPP
C401	SWPPP DETAILS
C500	UTILITY PLAN
C501	OFFSITE SANITARY SEWER PLAN
C600	SEWER PROFILES
C700	EXISTING DRAINAGE AREA MAP
C701	PROPOSED DRAINAGE AREA MAP
C800	SITE DETAILS
C801	SITE DETAILS
C802	SITE DETAILS

PERTINENT INFORMATION

OWNER:	WRIGHT CITY FIRE PROTECTION DISTRICT
SITE ADDRESS:	60 BELL RD WRIGHT CITY, MISSOURI 63390
PARCEL ID:	4170000014001000
EXISTING ZONING:	RURAL
SITE AREA:	3.0 ACRES
WATER DISTRICT:	PUBIC WATER SUPPLY DISTRICT #2
FIRE DISTRICT:	WRIGHT CITY FIRE PROTECTION DISTRICT
SEWER DISTRICT:	PUBLIC WATER SUPPLY DISTRICT #2
GAS SERVICE:	AMEREN GAS
ELECTRIC SERVICE:	AMEREN MISSOURI ELECTRIC
BUILDING AREA:	±19,000 SQ. FT.
FLOOD MAP	29219C0158D NOVEMBER 4, 2009 FLOOD ZONE X UNSHADED (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN)
ESTIMATE SANITARY SEWER FLOW	18 BUNKS x 60 GALLONS / BUNK / DAY = 1,080 GPD

DIFFERENTIAL CALCULATIONS									
EXISTING					PROPOSED				
	SQUARE FEET	ACRES	PI FACTOR	Q (cfs)		SQUARE FEET	ACRES	PI FACTOR	Q (cfs)
Roof =	0	0.00	4.20	0.000	Roof =	0	0.00	4.20	0.00
Roof (disconnected) =	0	0.00	3.54	0.000	Roof (disconnected) =	22,651	0.52	3.54	1.84
Pavement =	0	0.00	3.54	0.000	Pavement =	44,867	1.03	3.54	3.65
Pervious Pavement		0.00	1.70	0.000	Pervious Pavement		0.00	1.70	0.00
Grass =	130,681	3.00	1.70	5.100	Grass =	63,163	1.45	1.70	2.47
Total =	130,681	3.00		**5.10**	Total Q (cfs) =		3.00		**7.95**

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2025-09-05
Sean M. Ackley
Civil Engineer
MO# PE-2009018679

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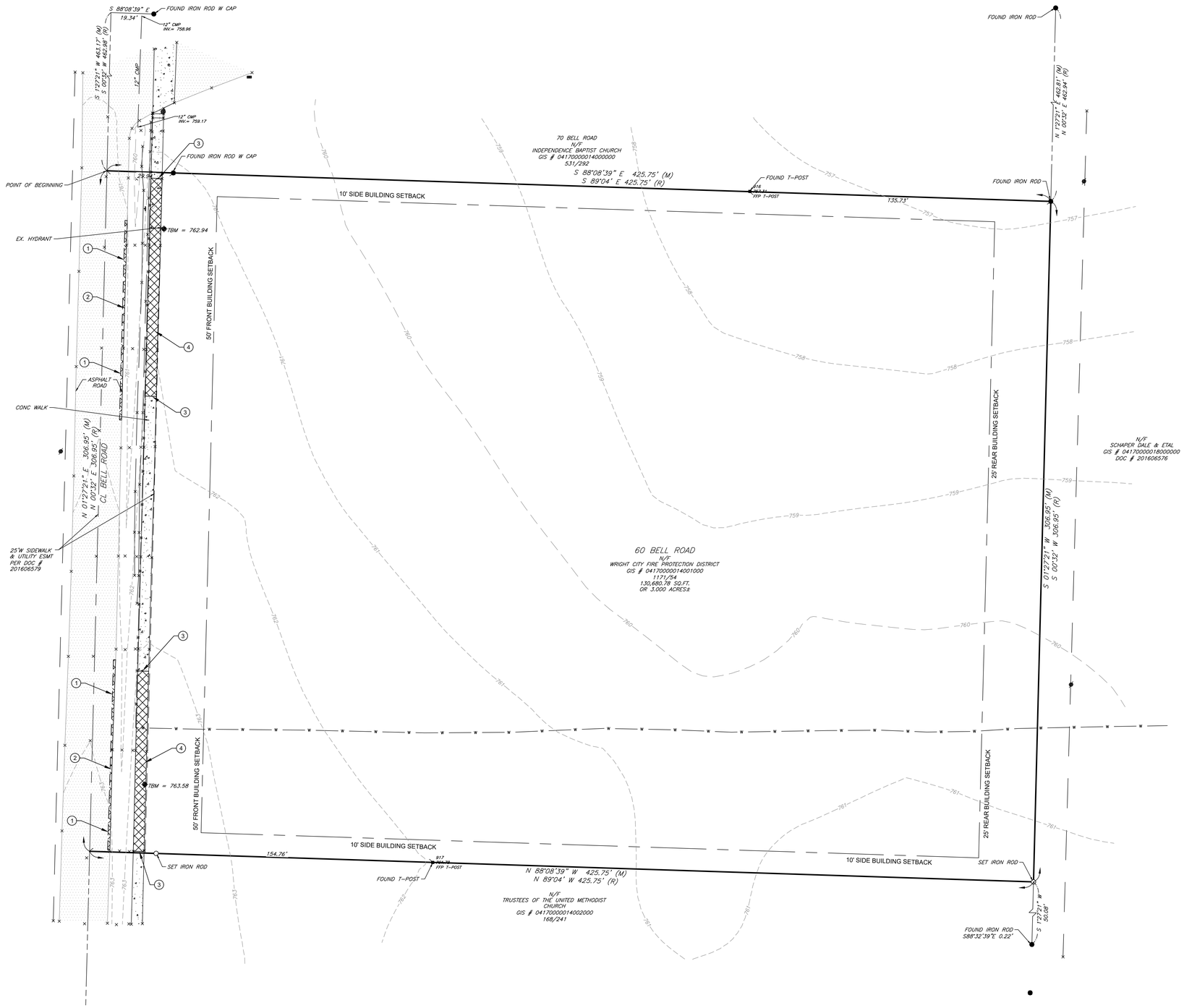
COVER SHEET

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C000

KEYED NOTES

1. SAWCUT ASPHALT PAVEMENT FULL DEPTH
2. REMOVE ASPHALT PAVEMENT
3. SAWCUT CONCRETE SIDEWALK AT NEAREST JOINT
4. REMOVE CONCRETE SIDEWALK



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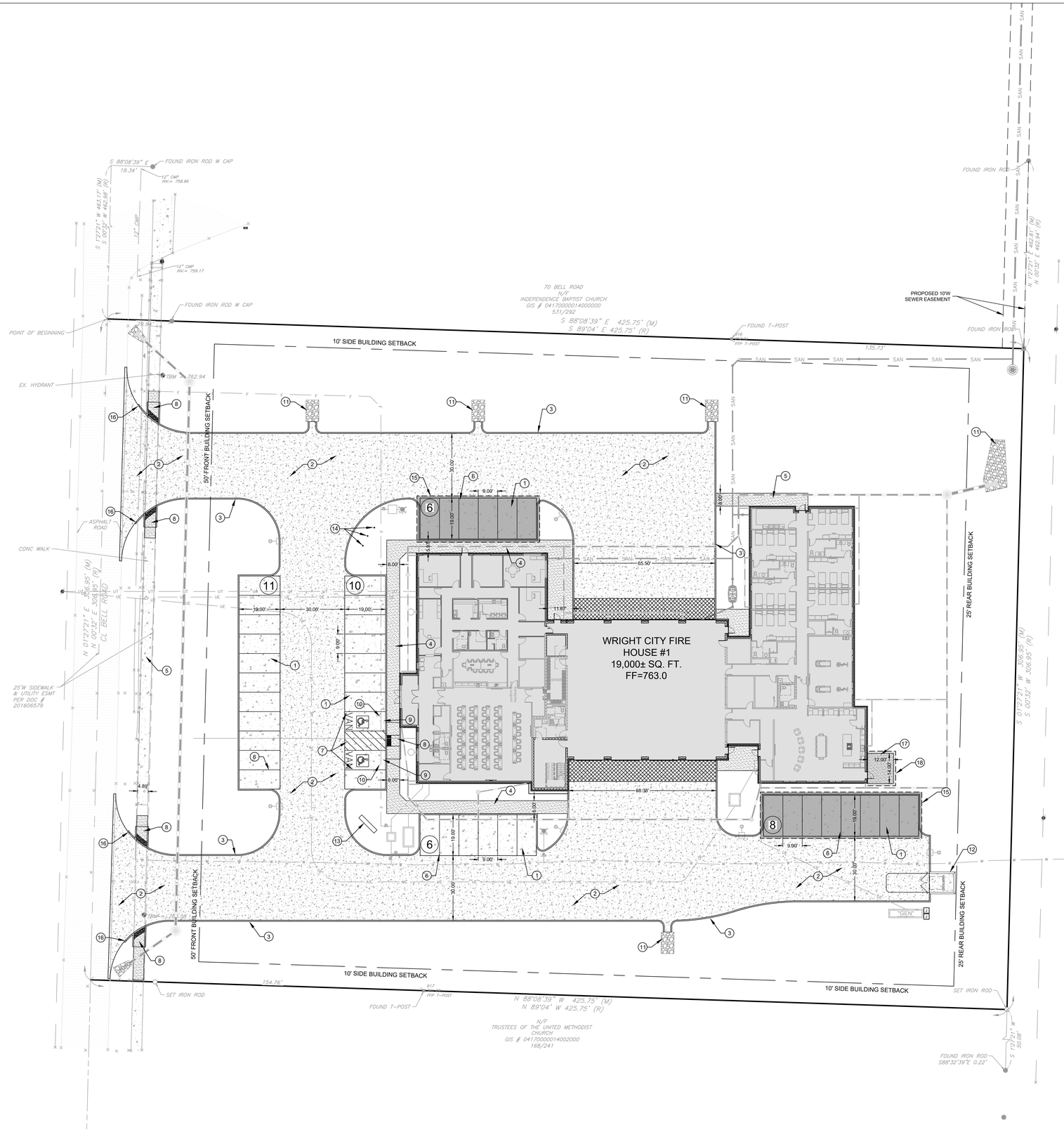
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DEMOLITION PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C100



KEYED NOTES

1. LIGHT DUTY CONCRETE PAVEMENT (DETAIL #1, SHEET C800)
2. HEAVY DUTY CONCRETE PAVEMENT (DETAIL #2, SHEET C800)
3. INTEGRAL 6" CONCRETE CURB (DETAIL #3, SHEET C800)
4. INTEGRAL CONCRETE CURB & WALK (DETAIL #4, SHEET C800)
5. CONCRETE SIDEWALK (DETAIL #5, SHEET C800)
6. PAVEMENT MARKING - 4" WIDE WHITE PAINT
7. PAVEMENT MARKING - 4" WIDE BLUE PAINT (ADA SPACES)
8. ADA RAMP (DETAIL #6 ON SHEET C800)
9. ADA SIGN (DETAIL #7, SHEET C800)
10. WHEEL STOP (DETAIL #8, SHEET C800)
11. LIGHT STONE REVETMENT
12. TRASH ENCLOSURE (SEE ARCH. DWGS. FOR DETAILS)
13. MONUMENT SIGN (SEE PLANS BY OTHERS)
14. FLAGPOLE (SEE PLANS BY OTHERS)
15. COVERED PARKING (ADD ALTERNATE #1) (SEE ARCH. & STRUCTURAL DWGS. FOR DETAILS)
16. TAPER CURB FROM 6" to 0" IN 1'
17. CONCRETE PATIO
18. COVERED PATIO (SEE ARCH. & STRUCTURAL DWGS. FOR DETAILS)

LIGHT STONE REVETMENT
D90 - 6" DIA.
D75 - 10" DIA.
DMAX - 16" DIA.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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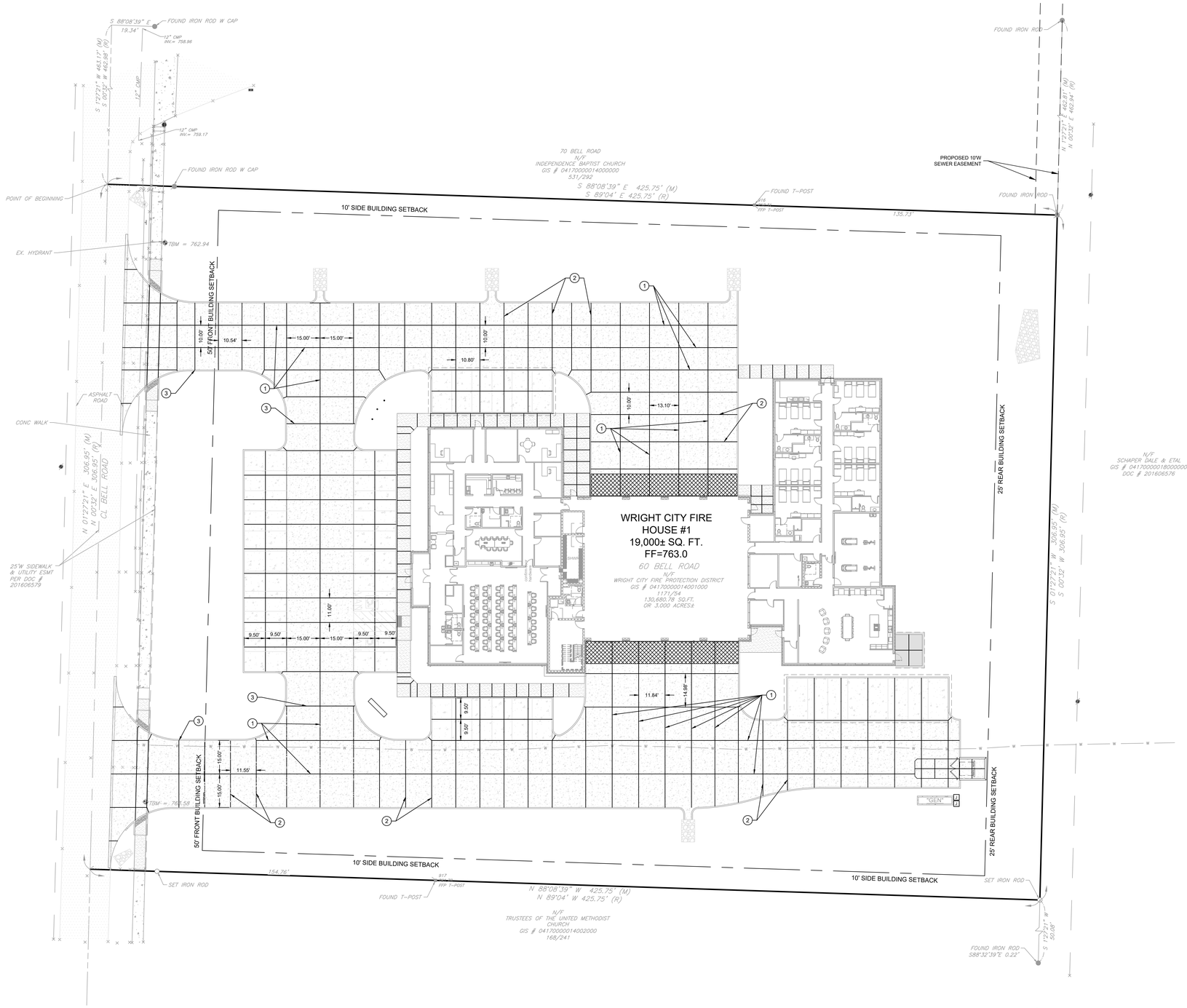
SITE PLAN

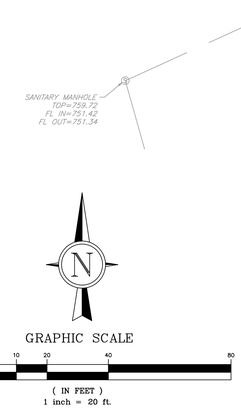
Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C200

KEYED NOTES

1. LONGITUDINAL CONSTRUCTION JOINT (TYP.)
2. TRANSVERSE CONSTRUCTION JOINT (TYP.)
3. EXPANSION JOINT





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2025-09-05
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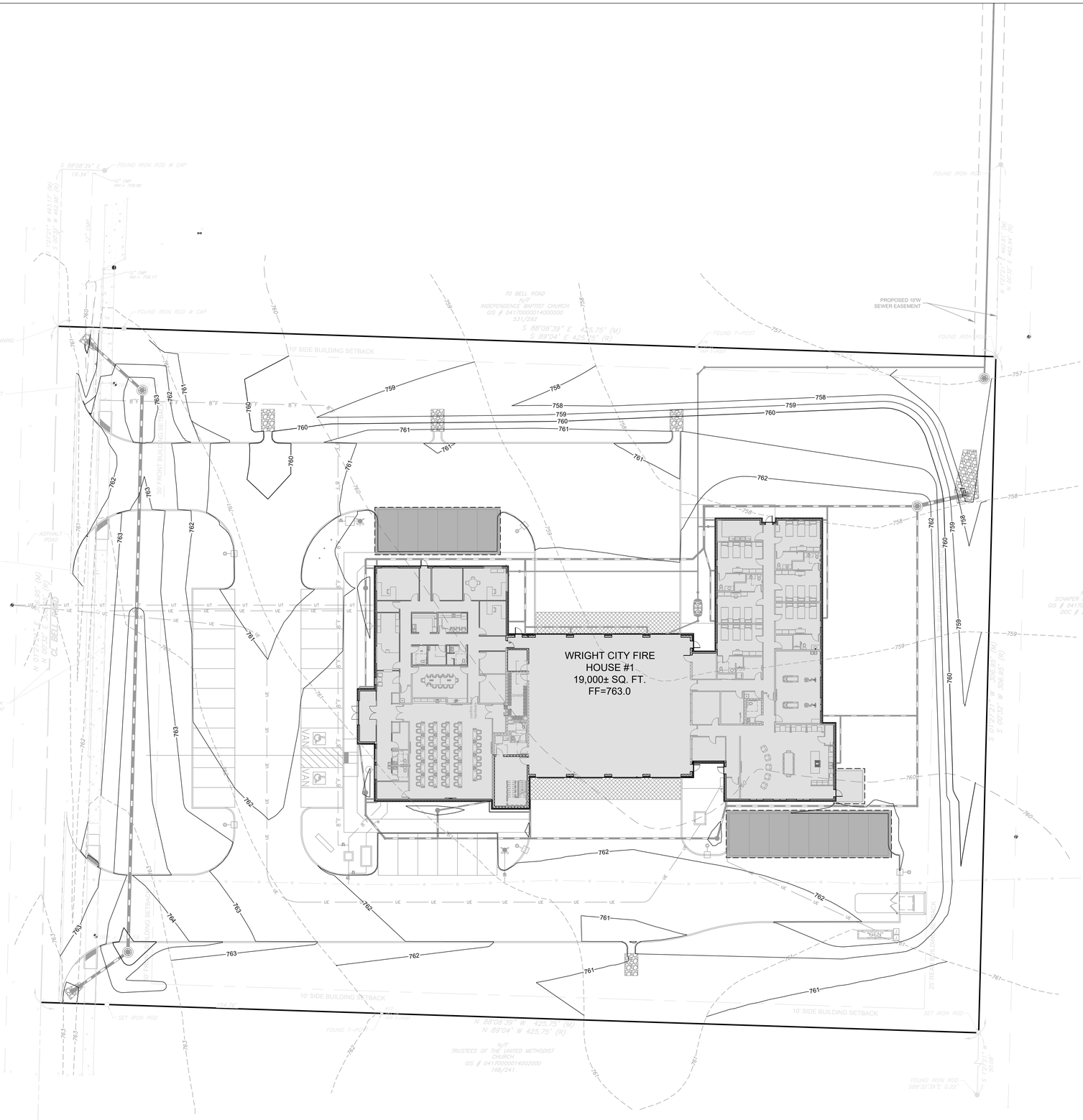
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JOINTING PLAN

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C201



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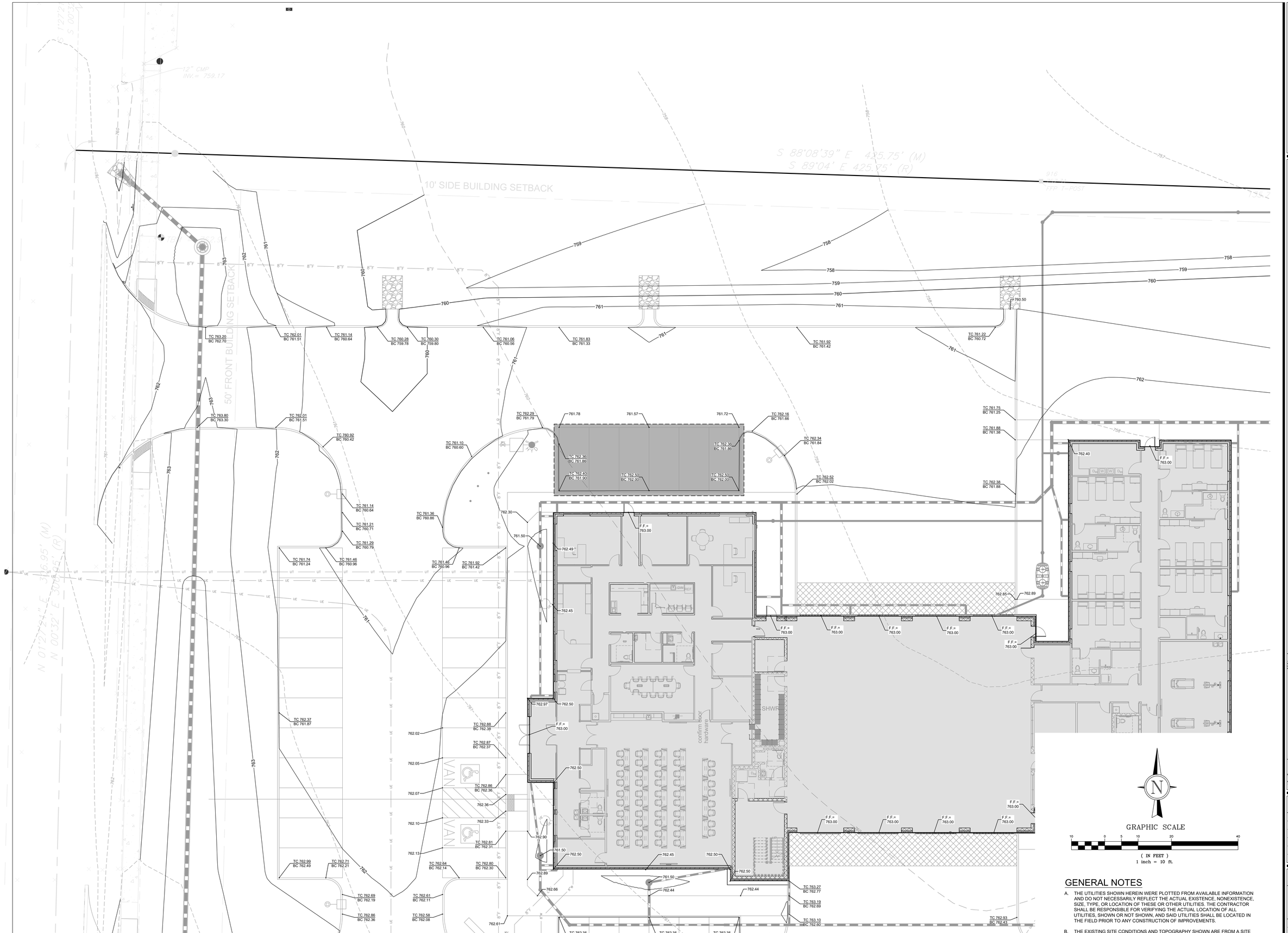
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Sheet Info:

OVERALL
GRADING PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C300



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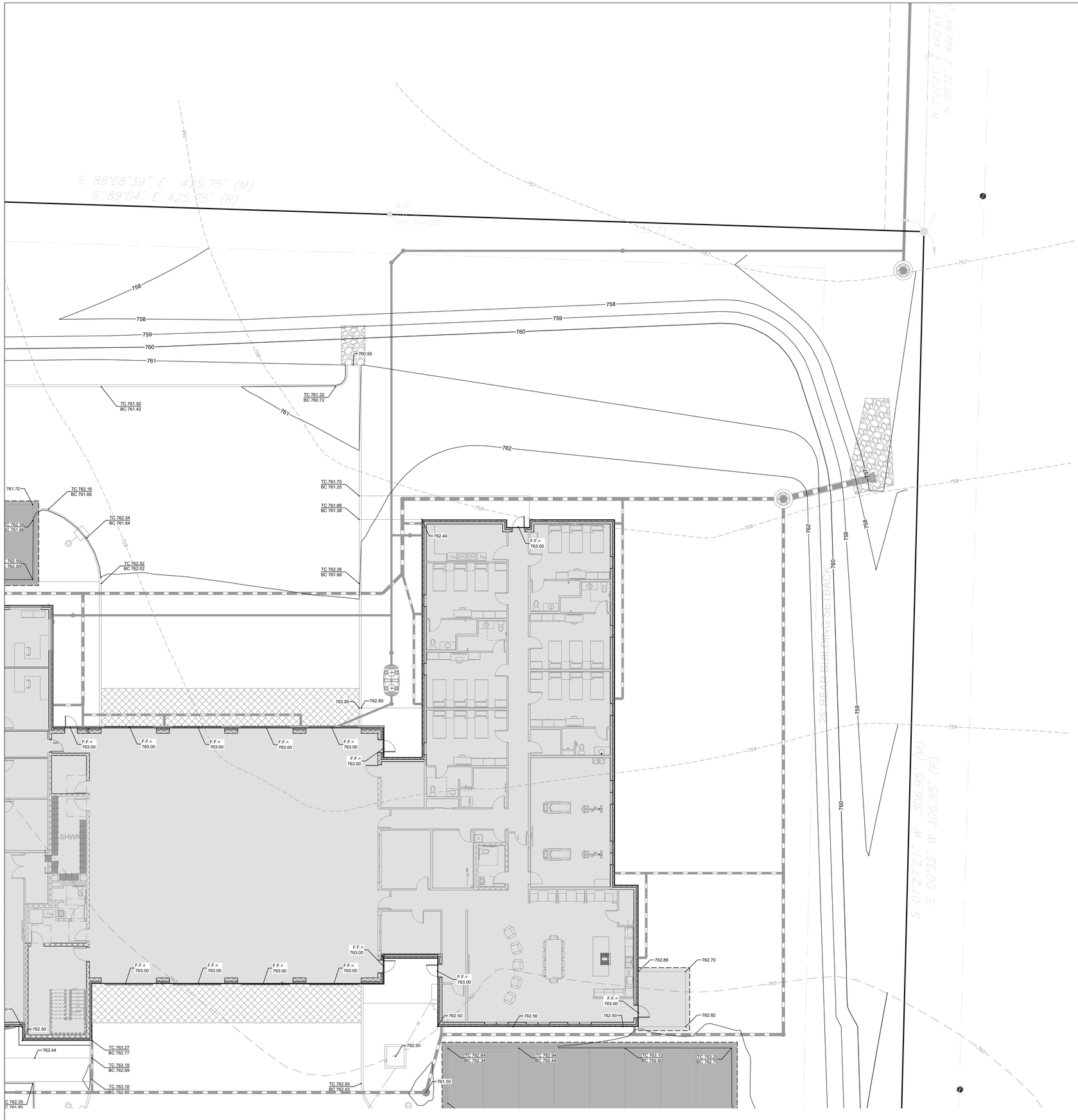
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Sheet Info:

ENLARGED GRADING PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C301



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

GENERAL NOTES

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WWW.THEENGENUITY.COM
FIRM #: 2007
F-2025 (01) 7534

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SEAN M. ACKLEY
NUMBER PE-2009018679
PROFESSIONAL ENGINEER

2025-09-05
Sean M. Ackley
Civil Engineer
MO# PE-2009018679

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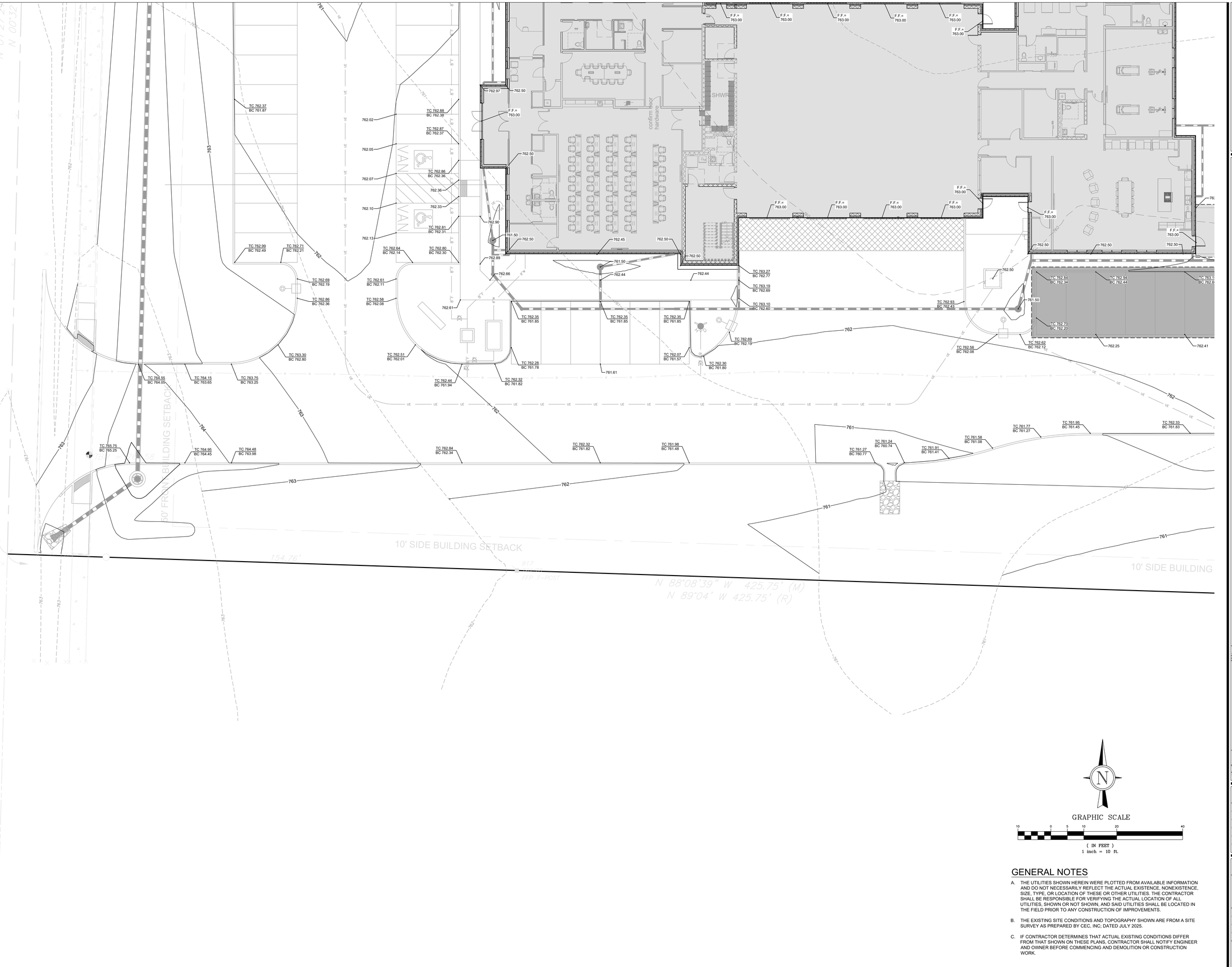
No.	Date	Description

Sheet Info:

ENLARGED GRADING PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C302



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.

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2025-09-05
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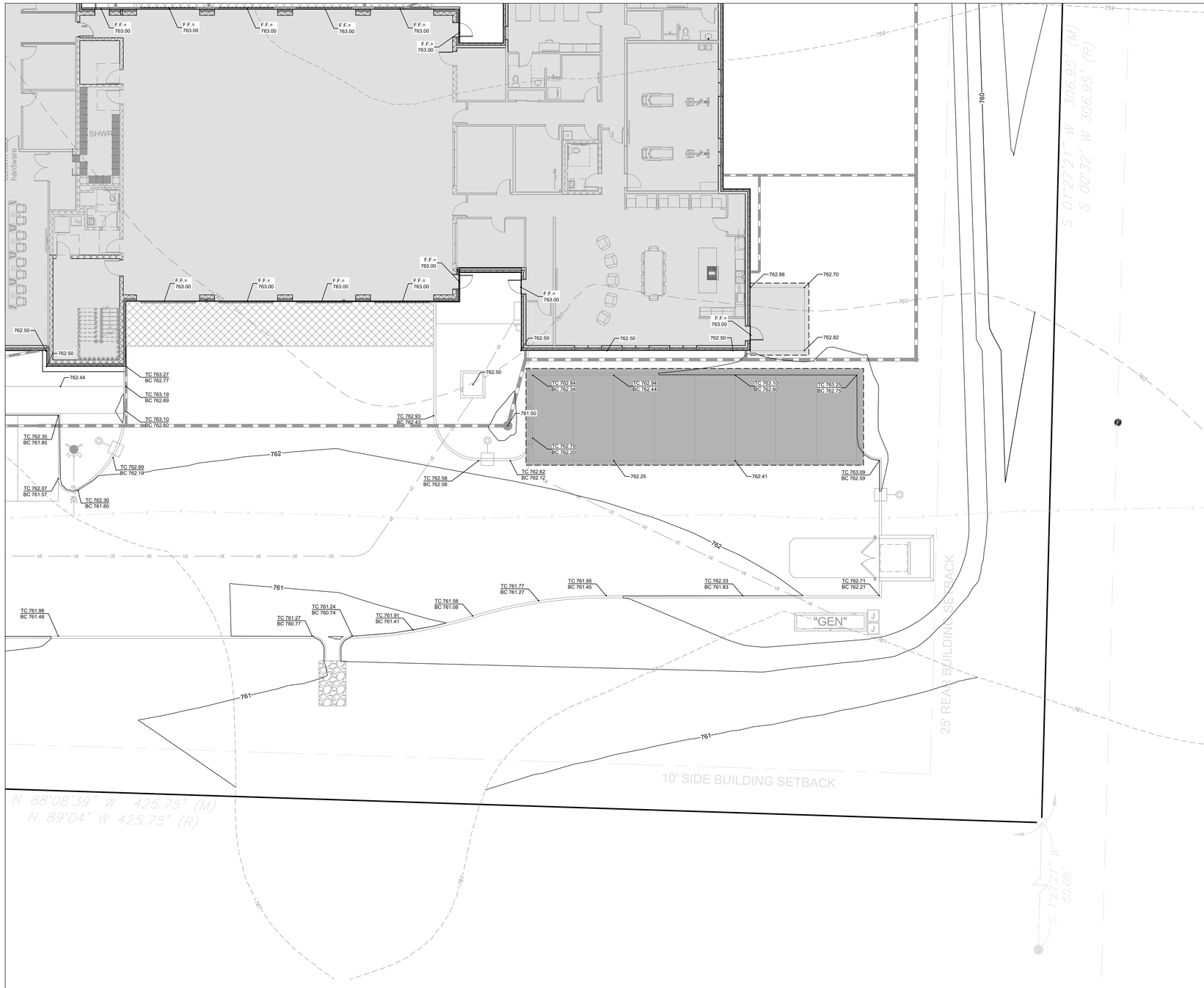
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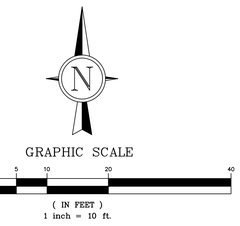
Sheet Info:

ENLARGED GRADING PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C303





GENERAL NOTES

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2025-09-05
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Sheet Info:

ENLARGED GRADING PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C304



Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
CUT FILL	**1.00**	**1.00**	115823.15 Sq. Ft.	219.20 Cu. Yd.	6706.20 Cu. Yd.	6487.00 Cu. Yd.<Fill>
Totals			115823.15 Sq. Ft.	219.20 Cu. Yd.	6706.20 Cu. Yd.	6487.00 Cu. Yd.<Fill>

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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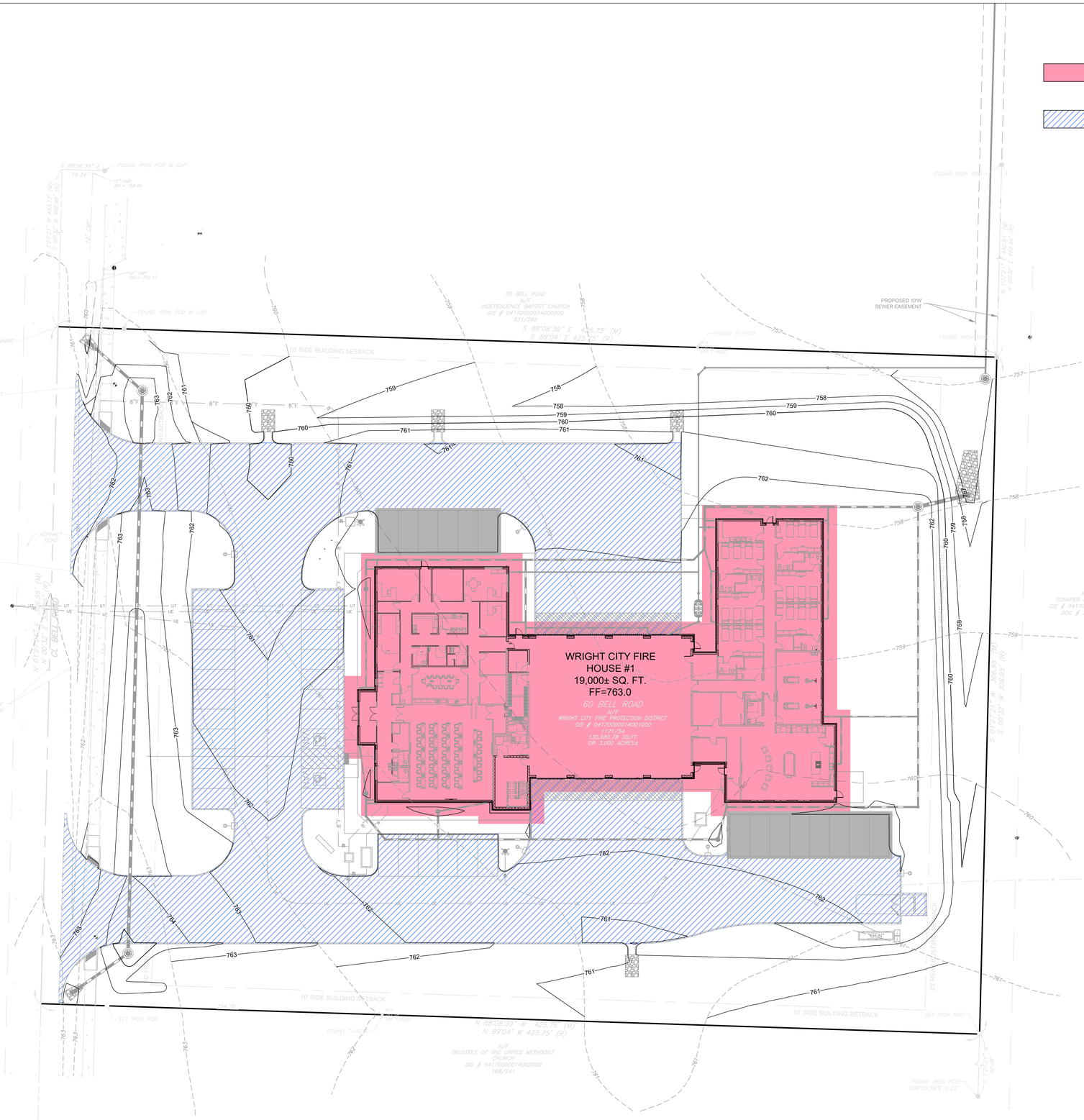
No.	Date	Description

Sheet Info:

CUT FILL PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C305



SOIL REMEDIATION LEGEND

ALTERNATE #2: REMEDIATE SOIL 3' BELOW FINISH FLOOR, 2" BELOW BEARING OF FOUNDATION, AND 5' BEYOND THE FOOTPRINT OF THE FOUNDATION

ALTERNATE #3: REMEDIATE SOIL 12" BELOW ALL PAVEMENT LOCATIONS WITH 1" MINUS ROCK

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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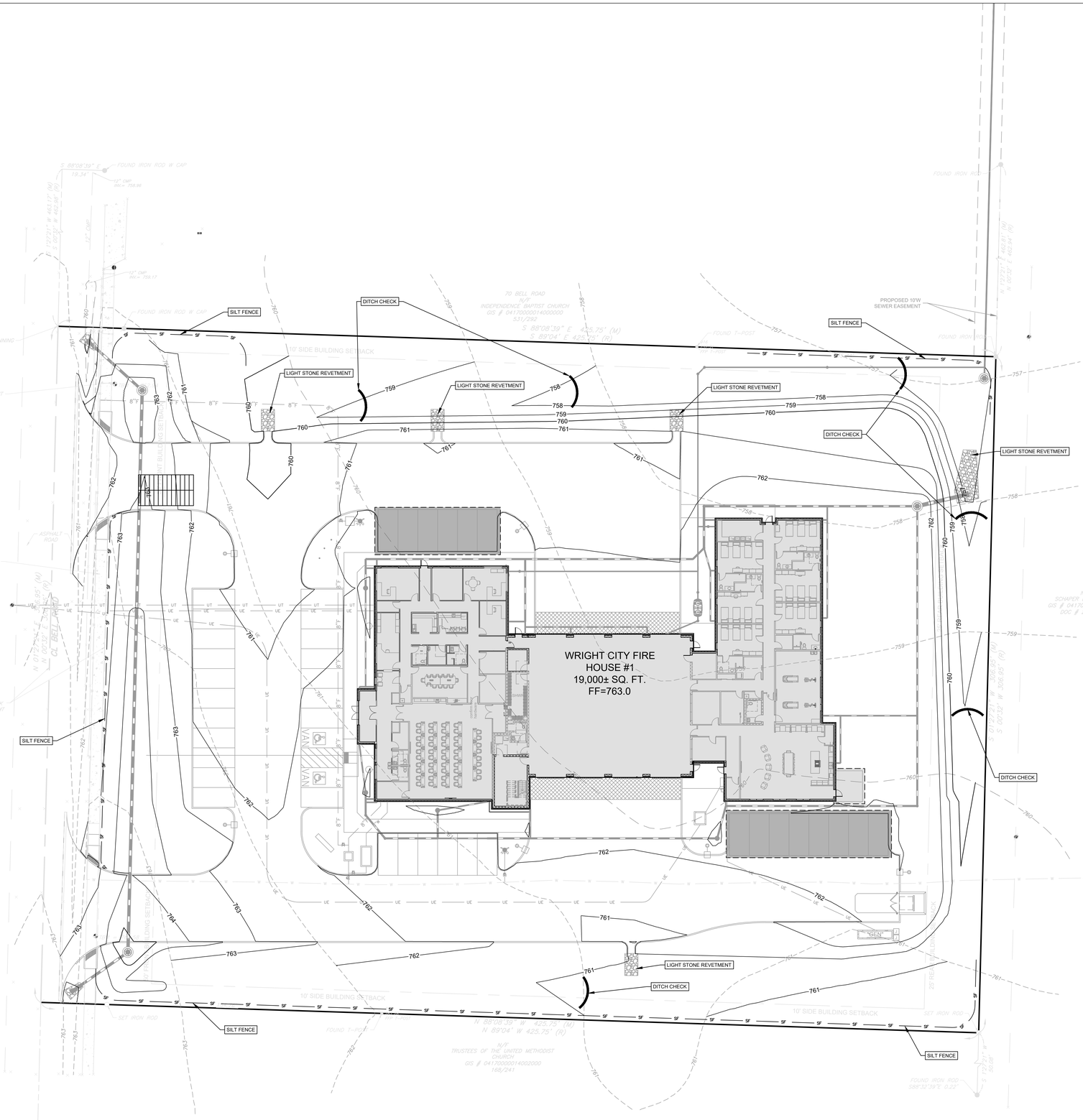
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Sheet Info:

SOIL REMEDIATION PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C306



LIGHT STONE REVETMENT
D90 - 6" DIA.
D75 - 10" DIA.
DMAX - 16" DIA.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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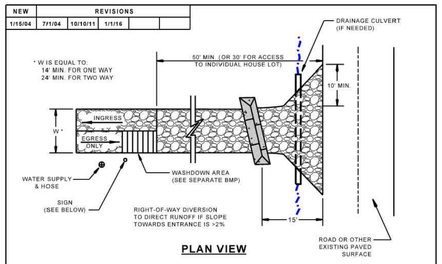
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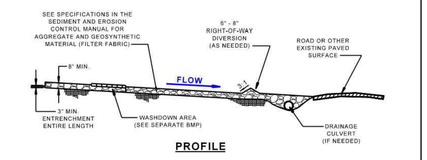
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Project No.:	25-0170
Date:	2025-09-05

C400

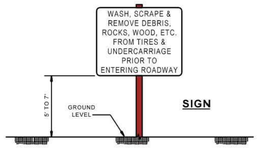
NEW	REVISIONS				
1/15/04	7/1/04	10/10/11	1/1/16		



PLAN VIEW



PROFILE



SIGN

ST. LOUIS COUNTY
DEPARTMENT OF TRANSPORTATION
CREVE COEUR, MISSOURI

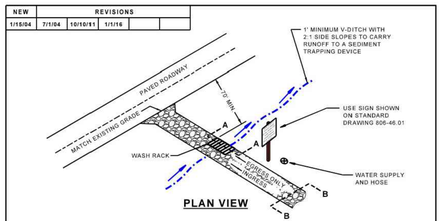
TYPICAL BMP DETAIL

CONSTRUCTION ENTRANCE

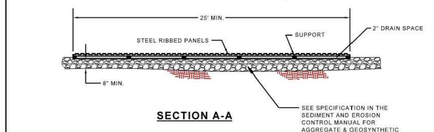
REVISION DATE: January 1, 2016

DRAWING 806-46.01

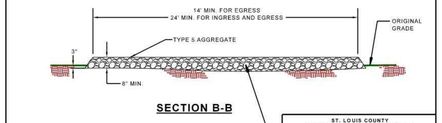
NEW	REVISIONS				
1/15/04	7/1/04	10/10/11	1/1/16		



PLAN VIEW



SECTION A-A



SECTION B-B

ST. LOUIS COUNTY
DEPARTMENT OF TRANSPORTATION
CREVE COEUR, MISSOURI

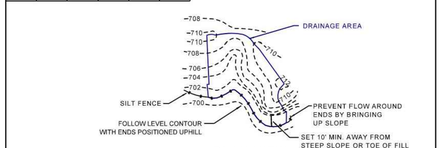
TYPICAL BMP DETAIL

WASHDOWN STATION

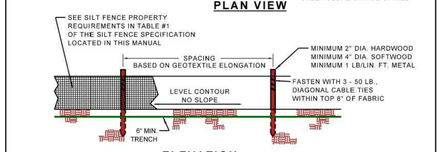
REVISION DATE: January 1, 2016

DRAWING 806-46.00

NEW	REVISIONS				
1/15/04	8/2/07	10/10/11	1/1/16		

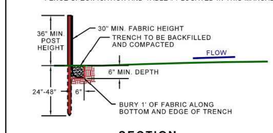


PLAN VIEW



ELEVATION

FOR ADDITIONAL INFORMATION ON SILT FENCE GEOTEXTILE REQUIREMENTS, POST SPACING, HEIGHT AND SIZE, SEE THE SILT FENCE SPECIFICATION AND TABLE #1 LOCATED IN THIS MANUAL.



SECTION

NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT NEEDED.



JOINING SECTIONS OF SILT FENCE

ST. LOUIS COUNTY
DEPARTMENT OF TRANSPORTATION
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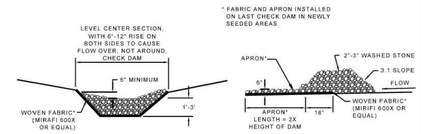
TYPICAL BMP DETAIL

SILT FENCE

REVISION DATE: January 1, 2016

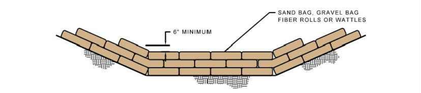
DRAWING 806-70.00

NEW	REVISIONS				
10/10/11	1/1/16				



CROSS SECTION **PROFILE**

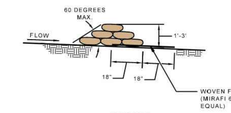
ROCK CHECK DAM



CROSS SECTION

GENERAL NOTES

1. NUMBER OF BAGS AND ARRANGEMENT MAY VARY WITH ON-SITE CONDITIONS.
2. SEE GRAVEL BAG OR WATTLE BMP FOR ADDITIONAL INFORMATION.
3. INSTALL GEOTEXTILE FABRIC PER MANUFACTURER'S SPECIFICATIONS.
4. SEE ADDITIONAL GEOTEXTILE REQUIREMENTS AT THE END OF THE SEDIMENT & EROSION CONTROL MANUAL.



PROFILE

SAND BAG OR GRAVEL BAG FILTER ROLLS OR WATTLES CHECK DAM

ST. LOUIS COUNTY
DEPARTMENT OF TRANSPORTATION
CREVE COEUR, MISSOURI

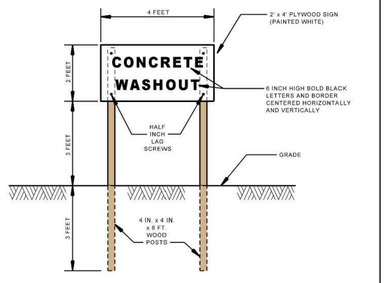
TYPICAL BMP DETAIL

CHECK DAM

REVISION DATE: January 1, 2016

DRAWING 806-35.00

NEW	REVISIONS				
4/15/08	10/10/11	1/1/16			



CONCRETE WASHOUT SIGN DETAIL
(OR EQUIVALENT AS APPROVED BY COUNTY)

GENERAL NOTES

1) DO NOT SCALE DRAWING. FOLLOW DIMENSIONS.
2) ACTUAL LAYOUT DETERMINED IN THE FIELD
3) THE "CONCRETE WASHOUT" SIGN SHALL BE INSTALLED WITHIN 30 FEET OF EACH TEMPORARY CONCRETE WASHOUT FACILITY.

ST. LOUIS COUNTY
DEPARTMENT OF TRANSPORTATION
CREVE COEUR, MISSOURI

TYPICAL BMP DETAIL

CONCRETE WASTE MANAGEMENT
(CONCRETE WASHOUT SIGN)

REVISION DATE: January 1, 2016

DRAWING 806-46.03

SEEDING

PHYSICAL DESCRIPTION - Establishment of vegetation by spreading grass seed designed to protect exposed soil from erosion by eliminating direct impact of precipitation and slowing overland flow rates. Once established, the vegetative cover will also filter pollutants from the runoff. Use only perennial vegetation for final stabilization.

WHERE BMP IS TO BE INSTALLED - To exposed soil after a phase of rough or finish grading has been completed, or areas where no activity will occur for 30 days.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Type of Flow:	Sheet flow
Contributing Slope Length:	30 foot maximum for 3:1 slopes 50 foot maximum for slope between 3:1 and 10:1 100 foot maximum for slopes under 10%
Minimum Rates:	See attached chart(s)
Acceptable Dates:	See attached chart

WHEN BMP IS TO BE INSTALLED - Immediately after rough or finished grading is completed.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Install upstream BMPs to protect area to be seeded.
- ✓ Rough grade area and remove all debris larger than 1-inch in diameter and concentrated areas of smaller debris.
- ✓ Install stabilization grids, if needed.
- ✓ Mix soil amendments (lime, fertilizer, etc.) into top 3 to 6 inches of soil as needed.
- ✓ Plant seed ¼ to ½ inch deep.
- ✓ Roll lightly to firm surface.
- ✓ Cover seeded area with mulch unless seeding completed during optimum spring and summer dates.
- ✓ Install additional stabilization (netting, bonded fiber matrix, etc.) as required.
- ✓ Water immediately - enough to soak 4 inches into soil without causing runoff.
- ✓ If contract / permit allows seeding to be used for final stabilization, only perennial vegetation seeds shall be used.
- ✓ For additional information see Sections 805 and 806.50 of St. Louis County's Standard Specification for Road and Bridge Construction.

O&M PROCEDURES:

- ✓ Inspect every week and after every storm
- ✓ Protect area from vehicular and foot traffic
- ✓ Reseed areas that have not sprouted within 21 days of planting.
- ✓ Repair damaged or eroded areas and reseed and stabilize as needed
- ✓ Do not mow until 4 inches of growth occurs
- ✓ During the first 4 months, mow no more than ⅓ the grass height
- ✓ Re-fertilize during 2nd growing season

SITE CONDITIONS FOR REMOVAL - Does not require removal, but temporary seeding can be removed immediately prior to work returning to an area

SEEDING REQUIREMENTS

Dates for Seeding

Permanent Seeding	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Tall Fescue			O	O	O			O	O			
Smooth Brome			O	O	O			O	O			
Fescue & Brome			O	O	O	G		O	O			
Fescue, Rye & Bluegrass	A	A	O	O	O	P	P	O	O	P	P	A

Temporary Seeding	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Rye or Sudan	A	A	O	O	O	O	O	O	O	O	A	A
Oats		A	O	O	O	O	O	O	O			

O = Optimum seeding dates
A = Acceptable seeding dates
P = Permitted seeding dates with reseeding 2 months later - Initially use 50% of seed and 75% of fertilizer. Reseed with additional 75% seed and remaining fertilizer.

Minimum Fertilizer and Seeding Rates

Permanent Seeding*	Pounds per acre	Pounds Per 1000 sq. ft.
Tall Fescue	300	7,0
Smooth Brome	200	4,6
Mixture # 1	250	5,7
Mixture # 2	210	4,8

Mixture # 1 = Tall Fescue @ 150 pounds per acre and Brome @ 100 pounds per acre.
Mixture # 2 = Tall Fescue @ 100 pounds per acre; Perennial Rye grass @ 100 pounds per acre; and Kentucky Blue grass @ 10 pounds per acre.
* = Seeding rate for slopes in excess of 20% (5:1), shall be 10 pounds per 1000 sq. ft.

Temporary Seeding	Pounds per acre	Pounds Per 1000 sq. ft.
Rye or Sudan	150	3,5
Oats	200	2,5

Fertilizer	Permanent Seeding (pounds per acre)	Temporary Seeding (pounds per acre)
Nitrogen	45	30
Phosphate	65	30
Potassium	65	30
Lime - ENM	600	600

ENM = Effective neutralizing material per State evaluation of quarried rock.

TYPICAL DETAILS - Minimum seeding rates and acceptable dates for work attached.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Excavate diversion area except for area of upstream connection.
- ✓ Compact as required to place diversion properly.
- ✓ Install pipe bedding or channel lining as required.

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STATE OF MISSOURI
SEAN M. ACKLEY
NUMBER PE-2009018679
PROFESSIONAL ENGINEER

2025-09-05
Sean M. Ackley
Civil Engineer
MO# PE-2009018679

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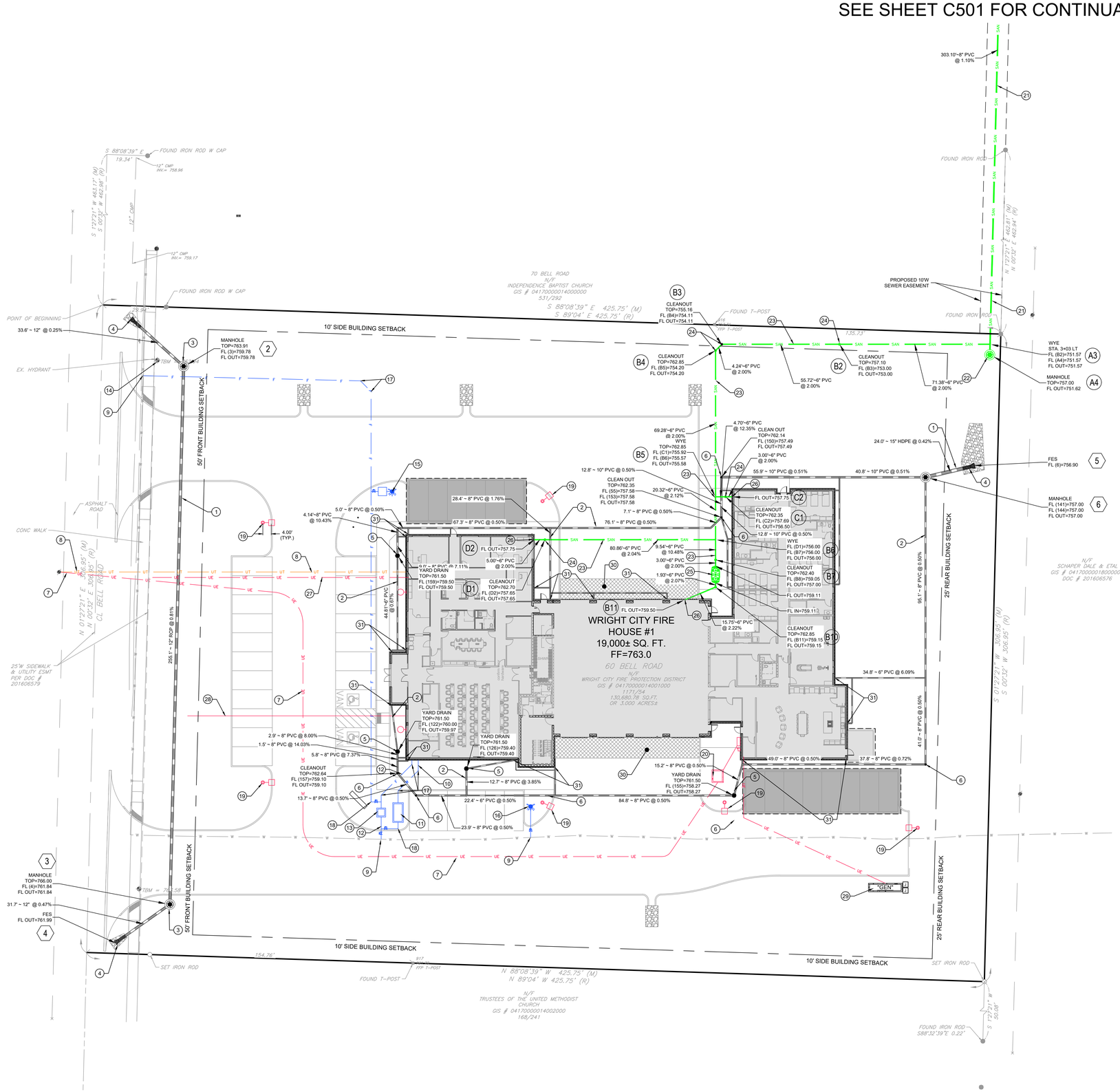
Sheet Info:

SWPPP DETAILS

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C401

SEE SHEET C501 FOR CONTINUATION



KEYED NOTES

1. STORM SEWER PIPE (HDPE)
2. STORM/ROOF LATERAL (PVC)
3. STORM MANHOLE (DETAIL #9, SHEET C801)
4. FLARED END SECTION (DETAIL #10 ON SHEET C801)
5. YARD DRAIN (DETAIL #11, SHEET C801)
6. STORM CLEANOUT (DETAIL #12, SHEET C801)
7. ELECTRIC SERVICE (COORDINATE W/ AMEREN AND ELECTRICAL DWGS.)
8. COMMUNICATION LINE (COORDINATE W/ UTILITY AND ELECTRICAL DWGS.)
9. TAP MAIN PER PWSD #2 SPECIFICATIONS
10. 3" C900 DR18 DOMESTIC WATER SERVICE (PRIVATE) PER PWSD #2 SPECIFICATIONS (COORDINATE W/ PLUMBING DWGS.
11. WATER METER PER PWSD #2 SPECIFICATIONS
12. 6" C900 DR18 FIRE LINE (PRIVATE) PER PWSD #2 SPECIFICATIONS (COORDINATE W/ PLUMBING DWGS.)
13. DETECTOR CHECK PER PWSD #2 SPECIFICATIONS
14. EXISTING FIRE HYDRANT
15. PRIVATE FIRE HYDRANT (PAINTED RED) W/ DETECTOR CHECK IN PYRAMID BOX IN GREENSPACE PER PWSD #2 SPECIFICATIONS)
16. PUBLIC FIRE HYDRANT (PAINTED CHROM YELLOW, BENJAMIN MOORE OIL BASE R9918 OR APPROVED EQUAL) PER PWSD #2 SPECIFICATIONS
17. 45° BEND
18. 90° BEND
19. LIGHT STANDARD (SEE ELECTRICAL DWGS.)
20. TRANSFORMER (COORDINATE W/ AMEREN AND ELECTRICAL DWGS.)
21. SANITARY SEWER (PUBLIC) PER PWSD #2 SPECIFICATIONS
22. SANITARY MANHOLE (PUBLIC) PER PWSD #2 SPECIFICATIONS
23. 6" SANITARY LATERAL, SCH 35 PVC (PRIVATE) PER PWSD #2 SPECIFICATIONS
24. SANITARY CLEANOUT (PRIVATE) PER PWSD #2 SPECIFICATIONS
25. OIL/WATER SEPARATOR (PRIVATE) (SEE PLUMBING DWGS.)
26. COORDINATE HORIZONTAL AND VERTICAL LOCATION W/ PLUMBING DWGS.
27. ELECTRIC CONDUIT FOR FUTURE SIGNAL (SEE ELECTRICAL DWGS.)
28. EMPTY CONDUIT FOR MARQUEE SIGN (SEE ELECTRICAL DWGS.)
29. GENERATOR (SEE ELECTRICAL DWGS.)
30. ALTERNATE: 10' WIDE SECTION WITH SNOWMELT (SEE ELECTRICAL DWGS.)
31. DOWNSPOUT CONNECTION (COORDINATE W/ ARCH DWGS)

PWSD #2 NOTES

A. THE WATER DISTRICT REQUIRES ONE (1) WEEK NOTICE BEFORE THE START OF CONSTRUCTION.

B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY CITY OF MODOT PERMITS REQUIRED TO WORK ALONG THE ROADWAYS.

C. ALL SANITARY SEWER MAINS, MANHOLES, FITTINGS, AND RELATED ITEMS MUST BE INSTALLED PER THE PWSD2 GUIDELINES AND SPECIFICATIONS AS APPROVED BY MODNR ON JULY 30, 2015.

D. ANY PROPOSED CONNECTIONS TO THE EXISTING PUBLIC SANITARY SEWER MAINS MUST BE PER THE WATER DISTRICT'S SPECIFICATIONS.

E. ALL WATER SERVICE LINES, FIRE LINES, AND PRIVATE WATER MAINS MUST BE INSTALLED PER PWSD NO. 2' SPECIFICATIONS.

F. ALL "PRIVATE" FIRE HYDRANTS ARE TO BE PAINTED RED PER PWSD NO. 2 SPECIFICATIONS.

G. ALL SANITARY LATERAL CONNECTIONS MUST BE MADE PER PWSD NO. 2 SPECIFICATIONS.

H. THE ENTIRE LENGTH OF THE SANITARY LATERAL MUST BE INSPECTED BY PWSD NO. 2' PERSONNEL.

I. ALL SANITARY SEWER LATERALS ARE "PRIVATE" AND MAINTAINED BY THE PROPERTY OWNERS.

J. ALL SANITARY LATERALS ARE REQUIRED TO BE SCHEDULE 35 PVC PIPE.

K. ANY SANITARY SEWER LATERAL THAT IS INSTALLED AT A DEPTH GREATER THAN 15' DEEP IS REQUIRED TO BE A SCHEDULE 40 PVC PIPE.

L. ALL SANITARY SEWER LATERALS ARE PROHIBITED FROM CONTAINING BENDS GREATER THAN A 45 DEGREE ANGLE.

M. A CLEANOUT IS REQUIRED WITHIN A 10' DISTANCE FROM THE BUILDING'S FOUNDATION.

N. LATERALS THAT ARE IN EXCESS OF 100' MUST HAVE A CLEANOUT LOCATED AT EVERY 100' OF PIPING.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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B. THE EXISTING SITE CONDITIONS AND TOPOGRAPHY SHOWN ARE FROM A SITE SURVEY AS PREPARED BY CEC, INC; DATED JULY 2025.

C. IF CONTRACTOR DETERMINES THAT ACTUAL EXISTING CONDITIONS DIFFER FROM THAT SHOWN ON THESE PLANS, CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER BEFORE COMMENCING AND DEMOLITION OR CONSTRUCTION WORK.

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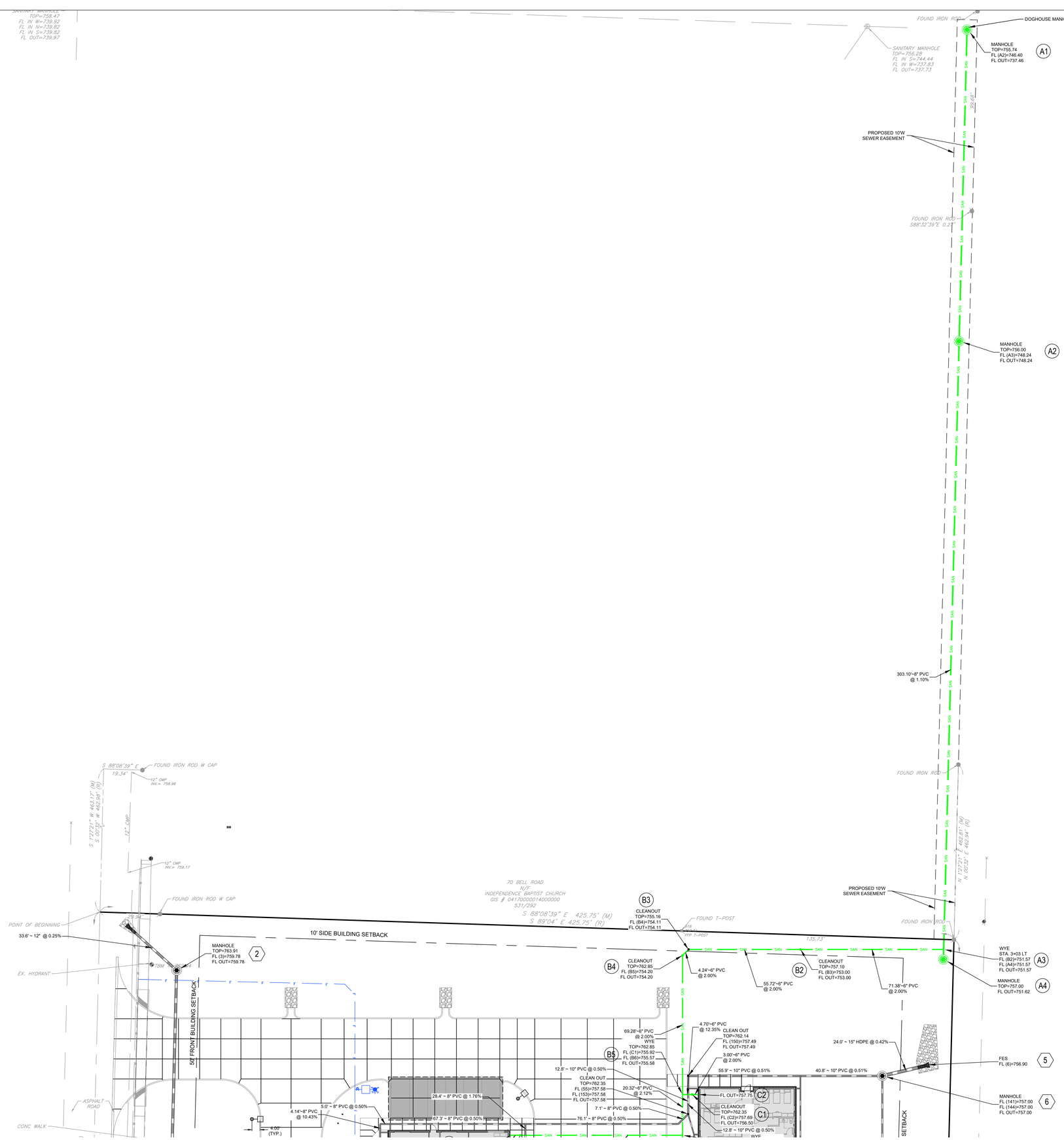
No.	Date	Description

Sheet Info:

UTILITY PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C500



SEE SHEET C500 FOR CONTINUATION

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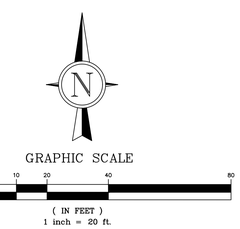
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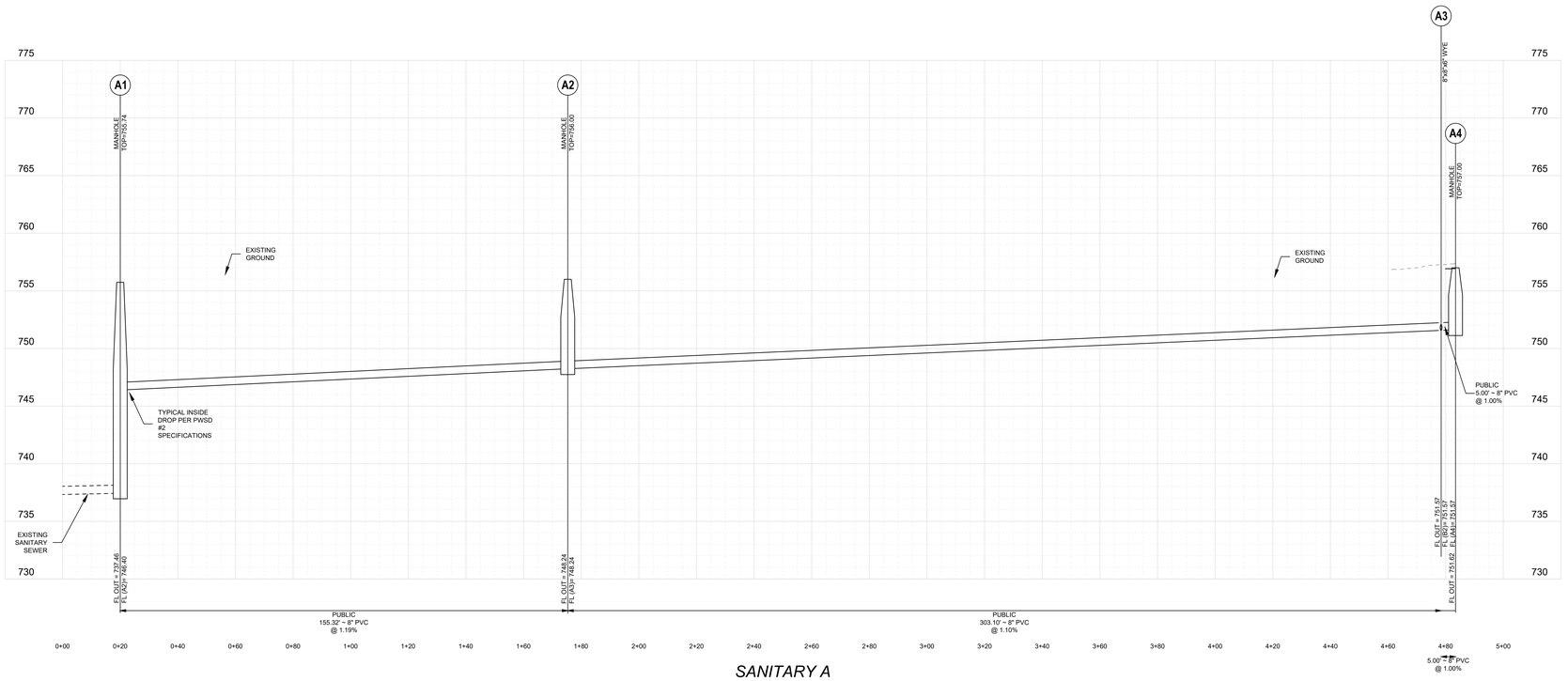
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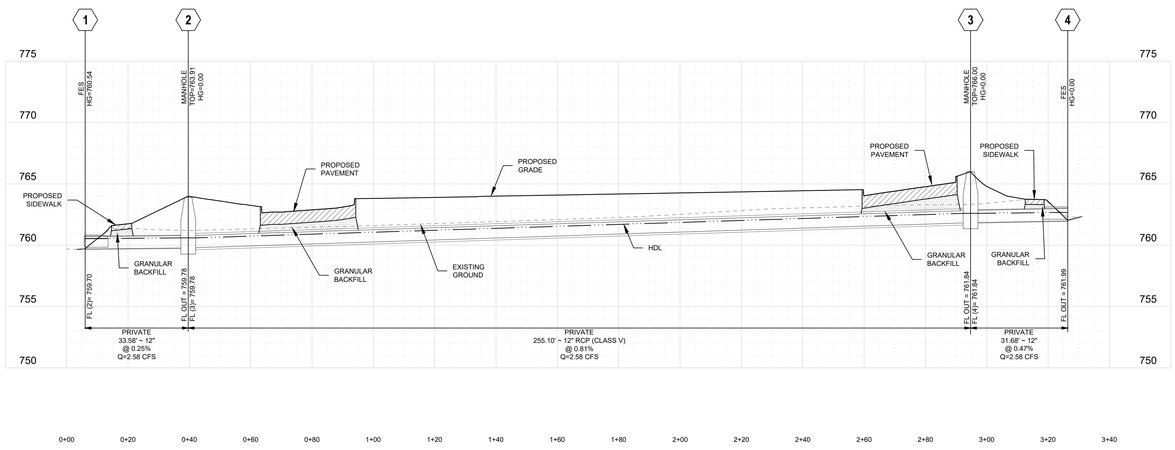
OFFSITE SANITARY SEWER PLAN

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

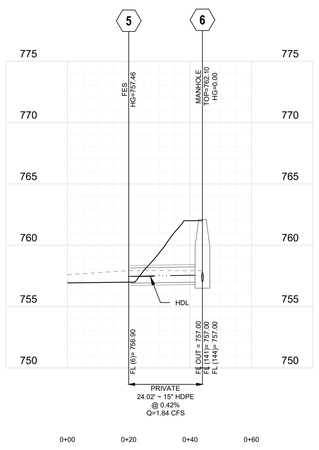
C501



SANITARY A
SCALE: 1"=20' HORZ.
1"=5' VERT.



STORM 01
SCALE: 1"=20' HORZ.
1"=5' VERT.



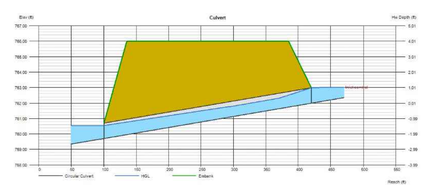
STORM 02
SCALE: 1"=20' HORZ.
1"=5' VERT.

Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Sep 3 2025

Culvert

Invert Elev Dn (ft)	= 759.70	**Calculations**	
Pipe Length (ft)	= 320.36	Qmin (cfs)	= 2.58
Slope (%)	= 0.71	Qmax (cfs)	= 2.58
Invert Elev Up (ft)	= 761.99	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 12.0		
Shape	= Circular	**Highlighted**	
Span (in)	= 12.0	Qtotal (cfs)	= 2.58
No. Barrels	= 1	Qpipe (cfs)	= 2.58
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Culvert	Veloc Dn (ft/s)	= 3.65
Culvert Entrance	= Smooth tapered inlet throat	Veloc Up (ft/s)	= 4.48
Coeff. K,M,c,Y,k	= 0.534, 0.555, 0.0196, 0.9, 0.2	HGL Dn (ft)	= 760.54
		HGL Up (ft)	= 762.68
Embankment		Hw Elev (ft)	= 763.02
Top Elevation (ft)	= 766.00	Hw/D (ft)	= 1.03
Top Width (ft)	= 250.00	Flow Regime	= Inlet Control
Crest Width (ft)	= 40.00		



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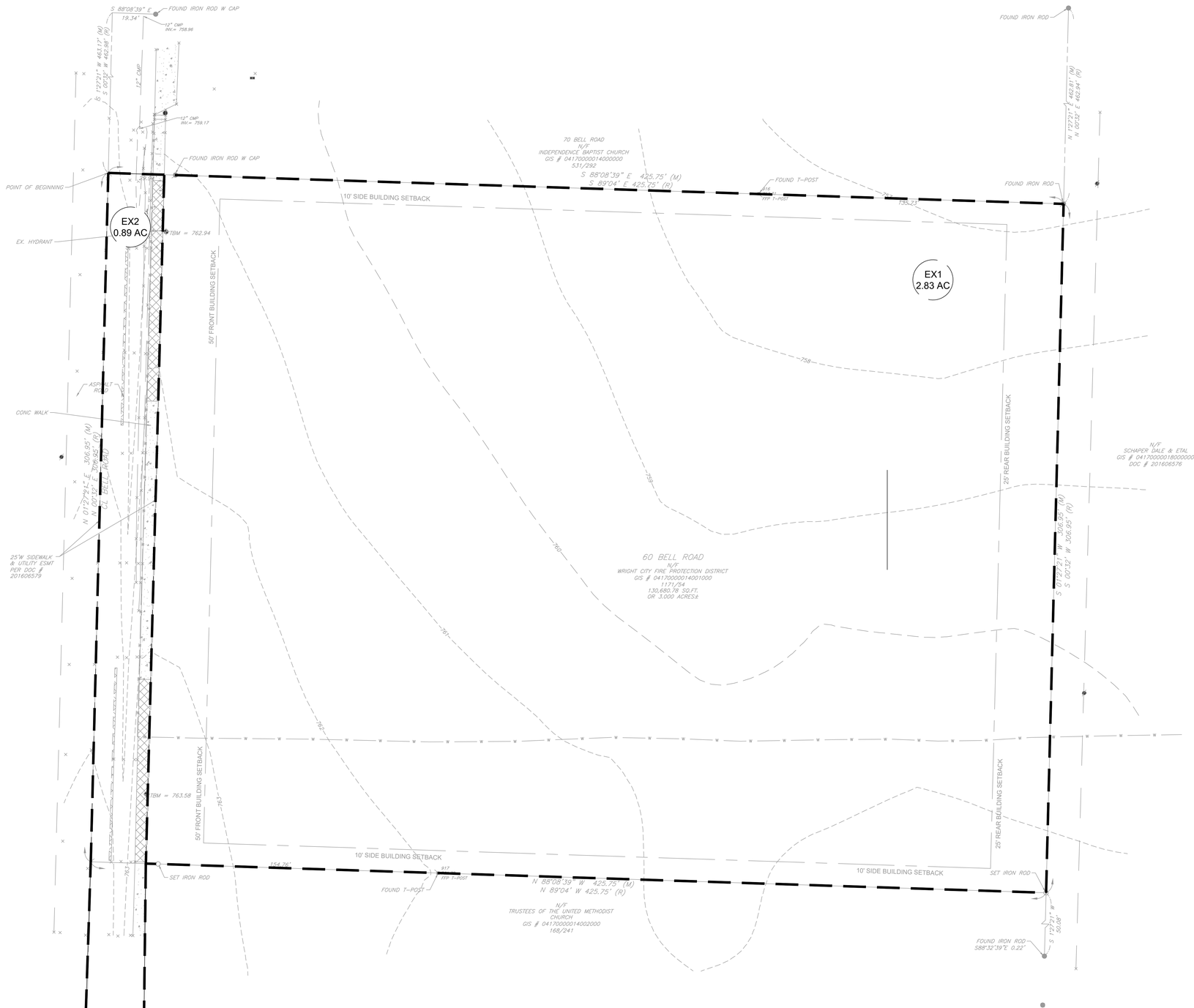
SEWER PROFILES

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C600

EXISTING DRAINAGE AREA

DRAINAGE AREA	STRUCTURE NUMBER	GRASS AREA (ACRES)	P.I. FACTOR (GRASS)	PICP AREA (ACRES)	P.I. FACTOR (PICP)	PVMT AREA (ACRES)	P.I. FACTOR (PVMT)	DISCONNECTED ROOF AREA (ACRES)	P.I. FACTOR (DISCONNECTED ROOF)	TOTAL AREA (ACRES)	TOTAL Q (CFS)
1	N/A	2.83	1.70	0.00	1.70	0.00	3.54	0.00	3.54	2.83	4.81
2	N/A	0.89	1.70	0.00	1.70	0.00	3.54	0.00	3.54	0.89	1.51
TOTAL		**3.72**		**0.00**		**0.00**		**0.00**		**3.72**	**6.32**





GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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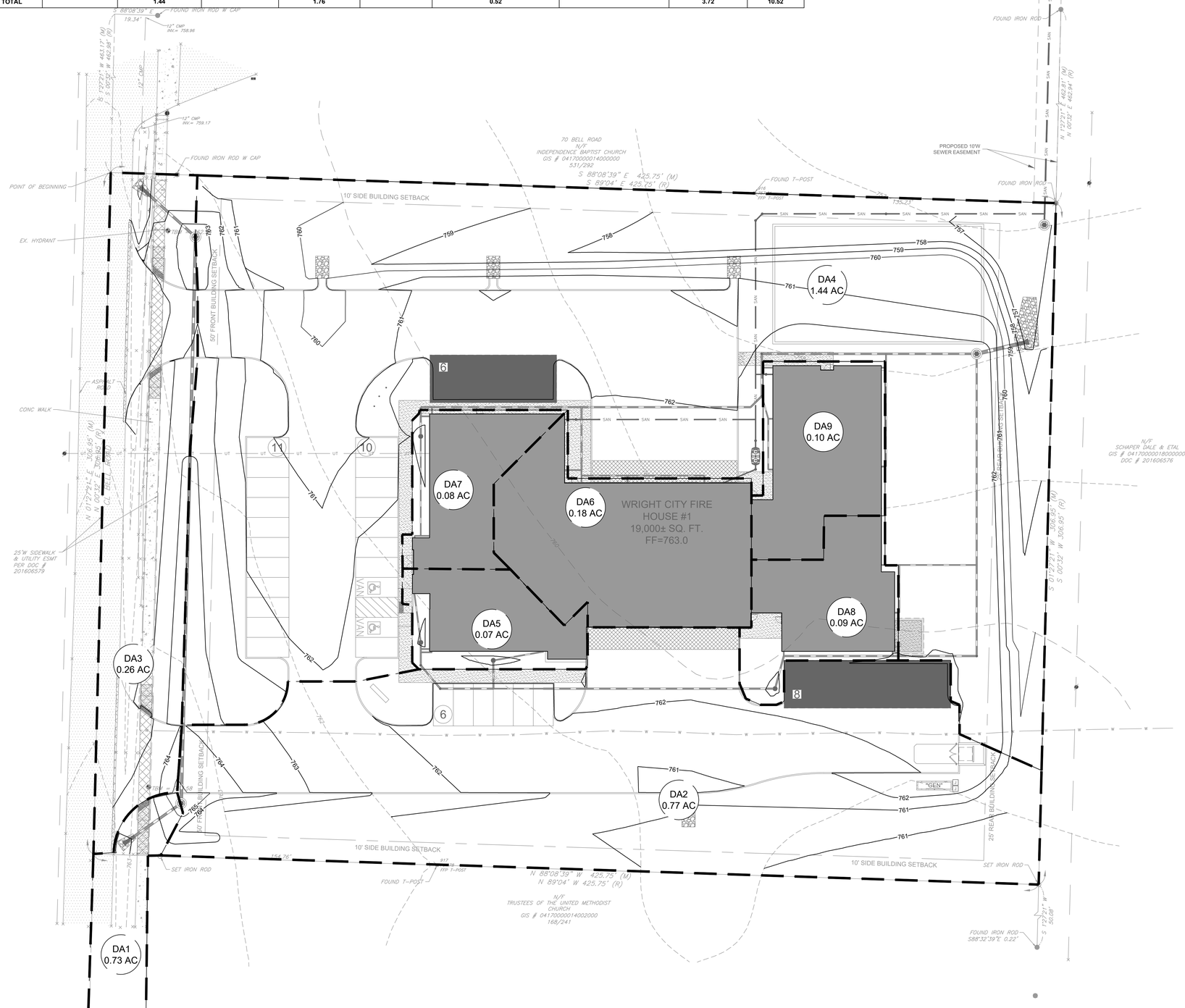
EXISTING DRAINAGE AREA MAP

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C700

DRAINAGE AREAS-15 YEAR STORM

DRAINAGE AREA	STRUCTURE NUMBER	GRASS AREA (ACRES)	P.I. FACTOR (GRASS)	PVMT AREA (ACRES)	P.I. FACTOR (PVMT)	DISCONNECTED ROOF AREA (ACRES)	P.I. FACTOR (DISCONNECTED ROOF)	TOTAL AREA (ACRES)	TOTAL Q (CFS)
1	CULVERT (OFFSITE)	0.00	1.70	0.73	3.54	0.00	3.54	0.73	2.58
2	N/A	0.35	1.70	0.42	3.54	0.00	3.54	0.77	2.08
3	N/A	0.13	1.70	0.13	3.54	0.00	3.54	0.26	0.68
4	N/A	0.96	1.70	0.48	3.54	0.00	3.54	1.44	3.33
5	DOWNSPOUT	0.00	1.70	0.00	3.54	0.07	3.54	0.07	0.25
6	DOWNSPOUT	0.00	1.70	0.00	3.54	0.18	3.54	0.18	0.64
7	DOWNSPOUT	0.00	1.70	0.00	3.54	0.08	3.54	0.08	0.28
8	DOWNSPOUT	0.00	1.70	0.00	3.54	0.09	3.54	0.09	0.32
9	DOWNSPOUT	0.00	1.70	0.00	3.54	0.10	3.54	0.10	0.35
TOTAL		**1.44**		**1.76**		**0.52**		**3.72**	**10.52**



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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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BUILDING VALUE BY DESIGN
17057 N. OUTER FORTY ROAD
SUITE 100
CHESTERFIELD, MO 63005
P: (314) 819-9189
WWW.THEENGENUITY.COM
MISSOURI CERTIFICATE OF AUTHORITY
E-2023-01179534

WCFPD Station 1
Wright City Fire Protection District
60 Bell Road
Wright City, MO 63390

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STATE OF MISSOURI
SEAN M. ACKLEY
NUMBER PE-2009018679
PROFESSIONAL ENGINEER

2025-09-05
Sean M. Ackley
Civil Engineer
MO# PE-2009018679

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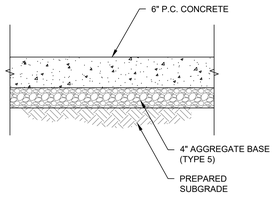
No.	Date	Description

Sheet Info:

PROPOSED DRAINAGE AREA MAP

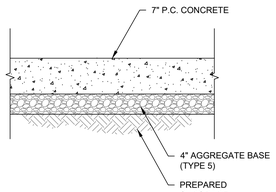
Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C701



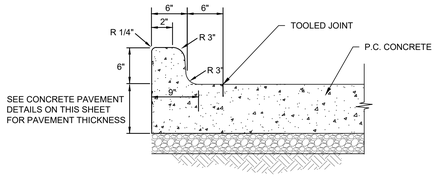
CONTRACTOR TO VERIFY/COORDINATE PAVEMENT DETAILS WITH LATEST GEOTECHNICAL REPORT

1 LIGHT DUTY CONCRETE PAVEMENT (PARKING SPACE)
NOT TO SCALE

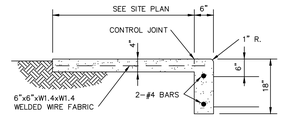


CONTRACTOR TO VERIFY/COORDINATE PAVEMENT DETAILS WITH LATEST GEOTECHNICAL REPORT

2 HEAVY DUTY CONCRETE PAVEMENT (ENTRANCE-DRIVE AISLE-TRASH ENCLOSURE)
NOT TO SCALE

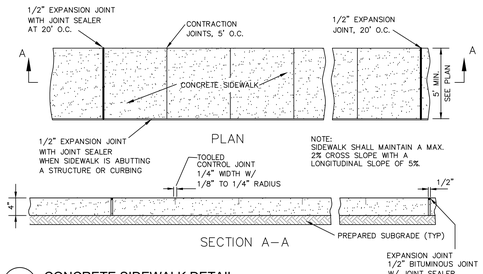


3 INTEGRAL CONCRETE CURB DETAIL
NOT TO SCALE

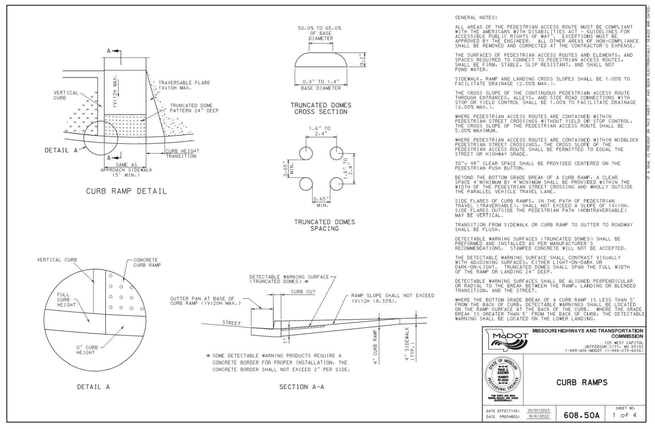


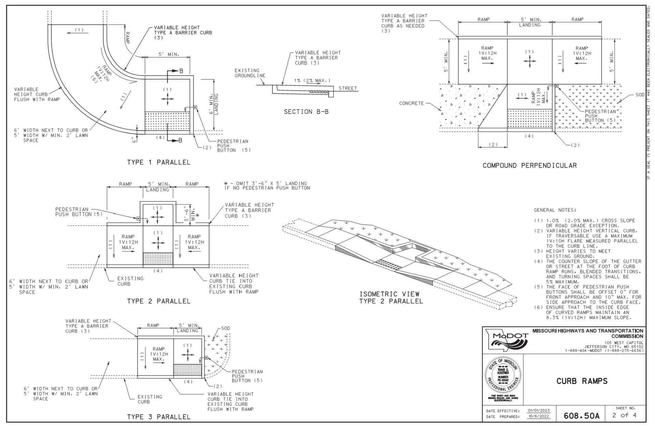
NOTE: EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN THE WALK FOR ITS FULL WIDTH AND DEPTH AT INTERVALS OF APPROX. 50' CONTROL JOINTS AT INTERVALS OF 1.5' TIMES ITS WIDTH.

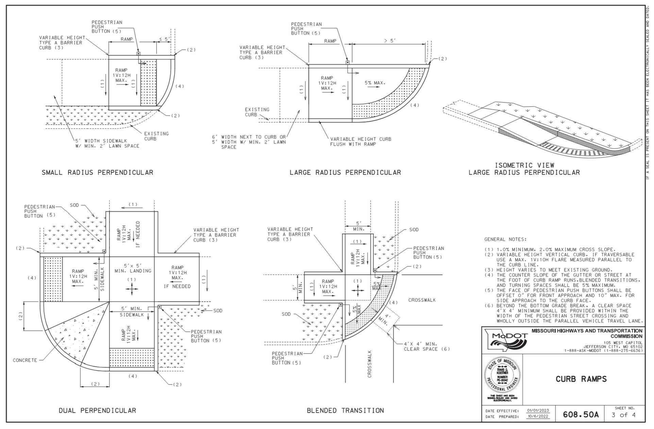
4 MONOLITHIC CURB & WALK DETAIL
NOT TO SCALE



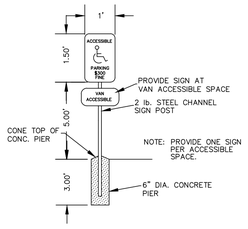
5 CONCRETE SIDEWALK DETAIL
NOT TO SCALE



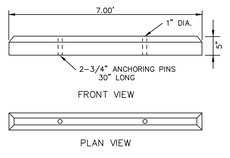




6 ADA RAMP DETAILS
NOT TO SCALE



7 ADA SIGN DETAIL
NOT TO SCALE



8 WHEEL STOP DETAIL
NOT TO SCALE

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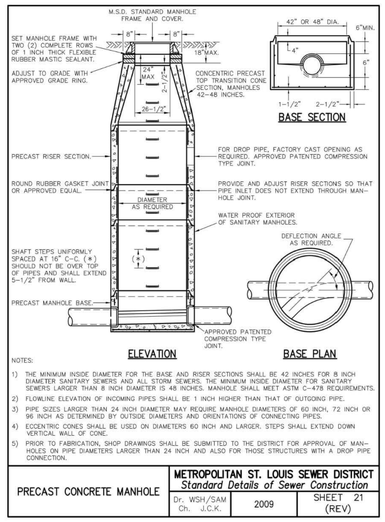
No.	Date	Description

Sheet Info:

SITE DETAILS

Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C800

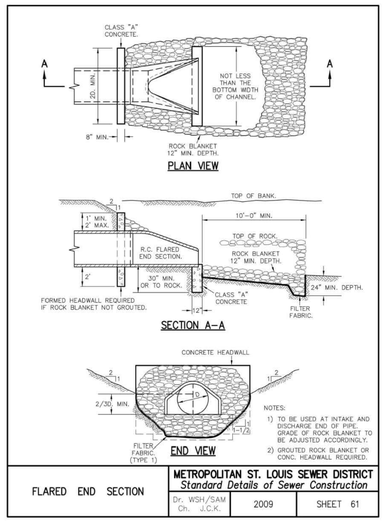


NOTES:

1) THE MINIMUM INSIDE DIAMETER FOR THE BASE AND RISER SECTIONS SHALL BE 42 INCHES FOR 8 INCH DIAMETER SANITARY SEWERS AND ALL STORM SEWERS. THE MINIMUM INSIDE DIAMETER FOR SANITARY SEWERS LARGER THAN 8 INCH DIAMETER IS 48 INCHES. MANHOLE SHALL MEET ASTM C-478 REQUIREMENTS.
2) FLOWLINE ELEVATION OF INCOMING PIPES SHALL BE 1 INCH HIGHER THAN THAT OF OUTGOING PIPE.
3) PIPE SIZES LARGER THAN 24 INCH DIAMETER MAY REQUIRE MANHOLE DIAMETERS OF 60 INCH, 72 INCH OR 96 INCH AS DETERMINED BY OUTSIDE DIAMETERS AND ORIENTATIONS OF CONNECTING PIPES.
4) ECCENTRIC CONES SHALL BE USED ON DIAMETERS 60 INCH AND LARGER. STEPS SHALL EXTEND DOWN VERTICAL WALL OF CONE.
5) PRIOR TO FABRICATION, SHOP DRAWINGS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL OF MAN-HOLES ON PIPE DIAMETERS LARGER THAN 24 INCH AND ALSO FOR THOSE STRUCTURES WITH A DROP PIPE CONNECTION.

PRECAST CONCRETE MANHOLE	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. WSH/SAM Ch. J.C.K.	2009	SHEET 21 (REV)

9 STORM MANHOLE DETAIL
NOT TO SCALE



NOTES:

1) TO BE USED AT INTAKE AND DISCHARGE END OF PIPE. GRADE OF ROCK BLANKET TO BE ADJUSTED ACCORDINGLY.
2) GROUTED ROCK BLANKET OR CONC. HEADWALL REQUIRED.

FLARED END SECTION	METROPOLITAN ST. LOUIS SEWER DISTRICT *Standard Details of Sewer Construction*		
	Dr. WSH/SAM Ch. J.C.K.	2009	SHEET 61

10 FLARED END SECTION DETAIL
NOT TO SCALE

NYLOPLAST DRAIN BASIN WITH DOME GRATE

1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 8" & 10" DOME GRATES FIT ONTO THE DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-010-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 60" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-010-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/MANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE ORIENTATION ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-010-012.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

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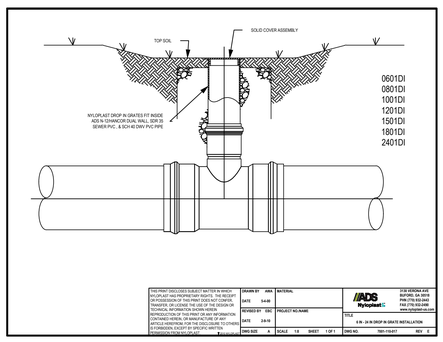
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DATE	03-25-15		
REVISED BY	MMK	PROJECT NO./NAME	
DATE	09-13-16		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

ADS Nyloplast — 3128 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-6389 www.nyloplast-us.com

TITLE: DRAIN BASIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-010-067 REV E

11 YARD DRAIN DETAIL
NOT TO SCALE



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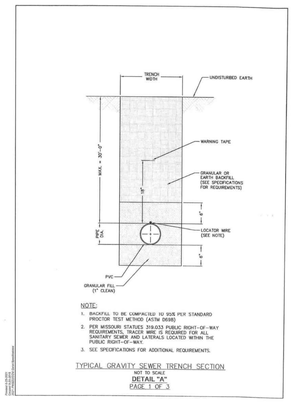
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REVISED BY	DSC	PROJECT NO./NAME	
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DWG SIZE	A	SCALE 1:8	SHEET 1 OF 1

ADS Nyloplast — 3128 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-6389 www.nyloplast-us.com

TITLE: 6 IN - 24 IN DROP IN GRATE INSTALLATION

DWG NO. 7001-110-017 REV A

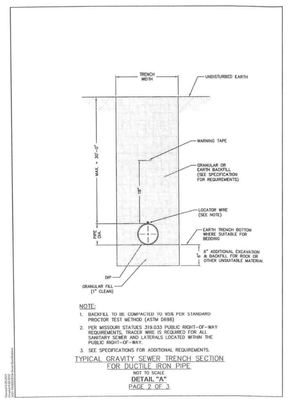
12 STORM CLEANOUT DETAIL
NOT TO SCALE



NOTE:

1. BACKFILL TO BE COMPACTED TO 90% PER STANDARD PROCTOR TEST METHOD (ASTM D698)
2. PER MISSOURI STATUTES 319.033 PUBLIC RIGHT-OF-WAY LOCATOR WIRE SHALL BE INSTALLED WITH ALL NEW SANITARY SEWER AND LATERALS LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY.
3. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

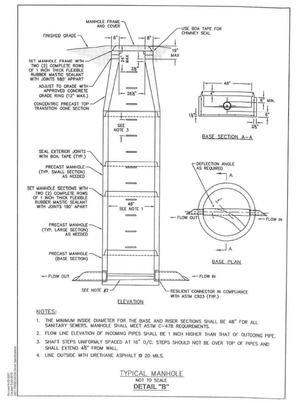
TYPICAL GRAVITY SEWER TRENCH SECTION
NOT TO SCALE
DETAIL "A"
PAGE 1 OF 3



NOTE:

1. BACKFILL TO BE COMPACTED TO 90% PER STANDARD PROCTOR TEST METHOD (ASTM D698)
2. PER MISSOURI STATUTES 319.033 PUBLIC RIGHT-OF-WAY LOCATOR WIRE SHALL BE INSTALLED WITH ALL NEW SANITARY SEWER AND LATERALS LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY.
3. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

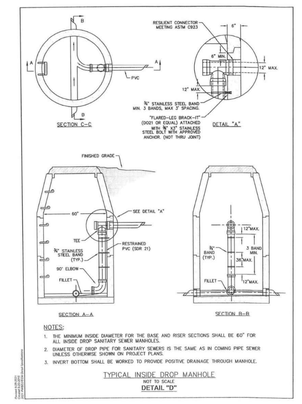
TYPICAL GRAVITY SEWER TRENCH SECTION FOR DUCTILE IRON PIPE
NOT TO SCALE
DETAIL "A"
PAGE 2 OF 3



NOTES:

1. THE MINIMUM INSIDE DIAMETER FOR THE BASE AND RISER SECTIONS SHALL BE 48" FOR ALL SANITARY SEWERS. MANHOLE SHALL MEET ASTM C-478 REQUIREMENTS.
2. FLOW LINE ELEVATION OF INCOMING PIPES SHALL BE 1 INCH HIGHER THAN THAT OF OUTGOING PIPE.
3. SHAFT STEPS UNIFORMLY SPACED AT 16" O/C. STEPS SHOULD NOT BE OVER TOP OF PIPES AND SHALL EXTEND 48" FROM WALL.
4. LINE OUTSIDE WITH URETHANE ASPHALT @ 20 MILS.

TYPICAL MANHOLE
NOT TO SCALE
DETAIL "B"

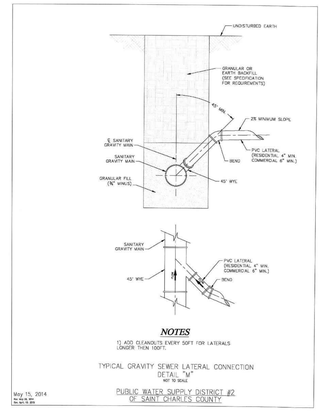


NOTES:

1. THE MINIMUM INSIDE DIAMETER FOR THE BASE AND RISER SECTIONS SHALL BE 60" FOR ALL INSIDE DROP SANITARY SEWER MANHOLES.
2. DIAMETER OF DROP PIPE FOR SANITARY SEWERS IS THE SAME AS IN COMING PIPE SEWER UNLESS OTHERWISE SHOWN BY PSD/U.S. POWER.
3. INVERT BOTTOM SHALL BE WORKED TO PROVIDE POSITIVE DRAINAGE THROUGH MANHOLE.

TYPICAL INSIDE DROP MANHOLE
NOT TO SCALE
DETAIL "D"

13 PWSD#2 SEWER DETAILS
NOT TO SCALE



NOTES

1) ADD CLEANOUTS EVERY 50FT FOR LATERALS LONGER THEN 100FT.

TYPICAL GRAVITY SEWER LATERAL CONNECTION
DETAIL "V"
NOT TO SCALE

May 15, 2014
No. xx-x-xx
No. xx-x-xx

PUBLIC WATER SUPPLY DISTRICT #2
OF SAINT CHARLES COUNTY

ENGENUITY
BUILDING VALUE BY DESIGN
17057 N. OUTER FORTY ROAD
SUITE 100
CHESTERFIELD, MO 63005
P: (314) 819-9189
WWW.THEENGENUITY.COM
COA #: 2005018977
E-2020.0170534

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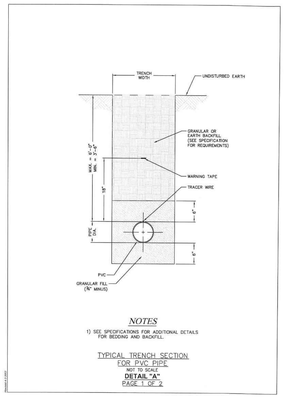
No.	Date	Description

Sheet Info:

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Drawn By:	SMA
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Project No.:	25-0170
Date:	2025-09-05

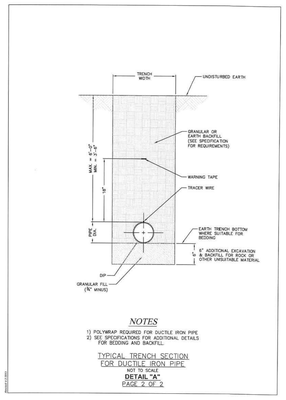
C801



NOTES

1) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.

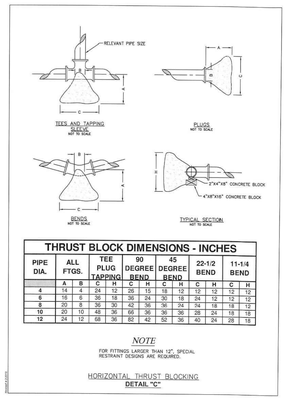
TYPICAL TRENCH SECTION
FOR PVC PIPE
NOT TO SCALE
DETAIL "A"
PAGE 1 OF 2



NOTES

1) POLYWRAP REQUIRED FOR DUCTILE IRON PIPE
2) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.

TYPICAL TRENCH SECTION
FOR DUCTILE IRON PIPE
NOT TO SCALE
DETAIL "A"
PAGE 2 OF 2



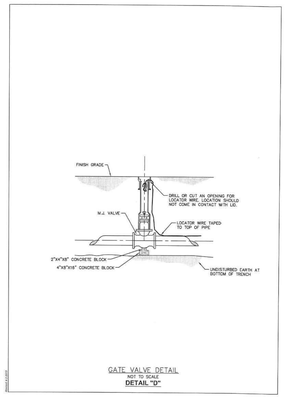
THRUST BLOCK DIMENSIONS - INCHES

PIPE DIA.	ALL FTGS.	TEE PLUG TAPPING		90 DEGREE BEND		45 DEGREE BEND		22-1/2 BEND		11-1/4 BEND	
	A	B	C	H	C	H	C	H	C	H	C	H
4	14	4	24	12	24	15	18	12	12	12	12	12
6	16	6	36	18	36	24	30	18	24	12	12	12
8	20	8	36	30	42	36	36	24	74	18	18	12
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12	24	12	68	36	67	42	52	36	40	24	28	18

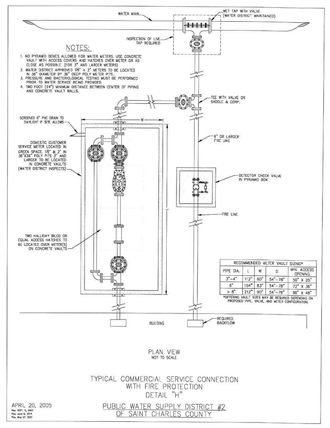
NOTE

FOR FITTINGS LARGER THAN 12", SPECIAL RESTRAINT DESIGNS ARE REQUIRED.

HORIZONTAL THRUST BLOCKING
DETAIL "C"



GATE VALVE DETAIL
NOT TO SCALE
DETAIL "D"

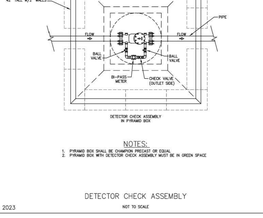

WATER MAIN
NOTES:
1. NO PYRAMID BOXES ALLOWED FOR WATER METERS. USE CONCRETE VAULT WITH ACCESS COVER AND HATCH OVER METER OR AS APPROVED BY WATER DISTRICT PERSONNEL.
2. WATER DISTRICT APPROVES ON "1 or 2" ACTION TO BE LOCATED
3. PRESSURE AND BACTERIOLOGICAL TESTING MUST BE PERFORMED
4. TAIL PIECE (24") SHOWN IS DEFAULT BETWEEN STATION OF PIPING AND CONCRETE VAULT WALLS.
5. TWO FOOT (24") MINIMUM DISTANCE BETWEEN STATION OF PIPING AND CONCRETE VAULT WALLS.
6. PIPING MUST CONFORM TO BE PLACED AT A MINIMUM OF 18" ABOVE CONCRETE FLOOR AND 3" BELOW TOP OF VAULT. (UNDO HALLIDAY BUSHING DIM BE USED)
7. VAULT LIDS ARE REQUIRED TO HAVE ACCESS FRAME AND COVER TO BE PLACED DIRECTLY OVER METER PIT PROVIDING SAFE SPACE FOR REMOVING METER. 2' MIN CLEAR IN ALL DIRECTIONS. 3' MIN CLEAR IN FRONT OF METER.
8. ALL FITTINGS AND VALVES ARE TO BE MECHANICAL JOINT.
9. ALL VALVES, IRON PIPE, FITTINGS, AND COUPLINGS SHALL BE SUPPLIED BY THE WATER DISTRICT.
10. ALL EXPOSED IRON PIPE, FITTINGS, AND COUPLINGS SHALL BE RESTRAINED.
11. PIPE ENTERING AND EXITING THE VAULT WALLS SHALL BE SEALED WITH NON SHRINKAGE GROUT OR MASTIC.
12. VAULT LID INSTALLED IN "PATCH SPACE" AND MADE EASILY ACCESSIBLE AT ANY TIME.
13. VAULTS ARE TO BE PLUMB TO FINISH GRADE. (METER BOX DIAMETERS AND OTHER MEANS OF ACCESS MAY BE APPROVED BY WATER DISTRICT PERSONNEL)
14. TWO FOOT (24") MINIMUM DISTANCE BETWEEN STATION OF PIPING AND CONCRETE VAULT WALLS.
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RECOMMENDED METER VAULT SIZING*

PIPE DIA	L	W	D	MIN. ACCESS OPENING
3"-4"	112"	60"	54"-78"	50" X 25"
6"	134"	83"	54"-78"	72" X 36"
>8"	212"	60"	54"-78"	36" X 48"

*OPTIONAL VAULT SIZES MAY BE REQUIRED DEPENDING ON PROPOSED PIPE, VALVE, AND METER CONFIGURATION.

TYPICAL 3" OR LARGER
SERVICE METER BOX
DETAIL "C"
NOT TO SCALE
PUBLIC WATER SUPPLY DISTRICT #2
OF SAINT CHARLES COUNTY
APRIL 20, 2005



NOTES:
1. PYRAMID BOX SHALL BE CHAMPION PRECAST OR EQUAL
2. PYRAMID BOX WITH DETECTOR CHECK ASSEMBLY MUST BE IN GREEN SPACE

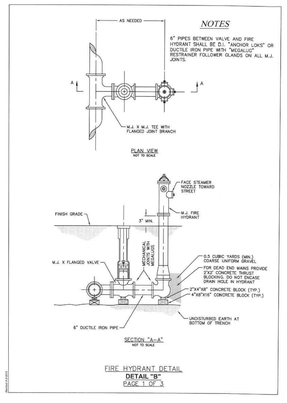
DETECTOR CHECK ASSEMBLY
NOT TO SCALE
APRIL 6, 2023

NOTES:
1. NO PYRAMID BOXES ALLOWED FOR WATER METERS. USE CONCRETE VAULT WITH ACCESS COVER AND HATCH OVER METER OR AS APPROVED BY WATER DISTRICT PERSONNEL
2. WATER DISTRICT APPROVES ON "1 or 2" ACTION TO BE LOCATED
3. PRESSURE AND BACTERIOLOGICAL TESTING MUST BE PERFORMED
4. TAIL PIECE (24") SHOWN IS DEFAULT BETWEEN STATION OF PIPING AND CONCRETE VAULT WALLS.
5. TWO FOOT (24") MINIMUM DISTANCE BETWEEN STATION OF PIPING AND CONCRETE VAULT WALLS.

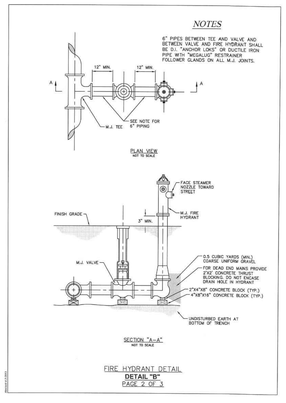
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PLAN VIEW
NOT TO SCALE

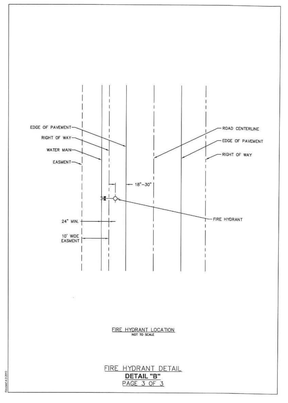
TYPICAL COMMERCIAL SERVICE CONNECTION
WITH FIRE PROTECTION
DETAIL "K"
PUBLIC WATER SUPPLY DISTRICT #2
OF SAINT CHARLES COUNTY
APRIL 20, 2025



FIRE HYDRANT DETAIL
DETAIL "B"
PAGE 1 OF 3



FIRE HYDRANT DETAIL
DETAIL "B"
PAGE 2 OF 3



FIRE HYDRANT LOCATION
NOT TO SCALE

FIRE HYDRANT DETAIL
DETAIL "B"
PAGE 3 OF 3

14 PWSD#2 WATER DETAILS
NOT TO SCALE

ENGENUITY
BUILDING VALUE BY DESIGN
17057 N. OUTER FORTY ROAD
SUITE 210
CHESTERFIELD, MO 63005
P: (314) 819-9189
www.THEENGENUITY.com
F: (636) 01179534

WCFPD Station 1
Wright City Fire Protection District
60 Bell Road
Wright City, MO 63390

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STATE OF MISSOURI
SEAN M. ACKLEY
NUMBER PE-2009018679
PROFESSIONAL ENGINEER

2025-09-05
Sean M. Ackley
Civil Engineer
MO# PE-2009018679

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Revisions:

No.	Date	Description

Sheet Info:

SITE DETAILS

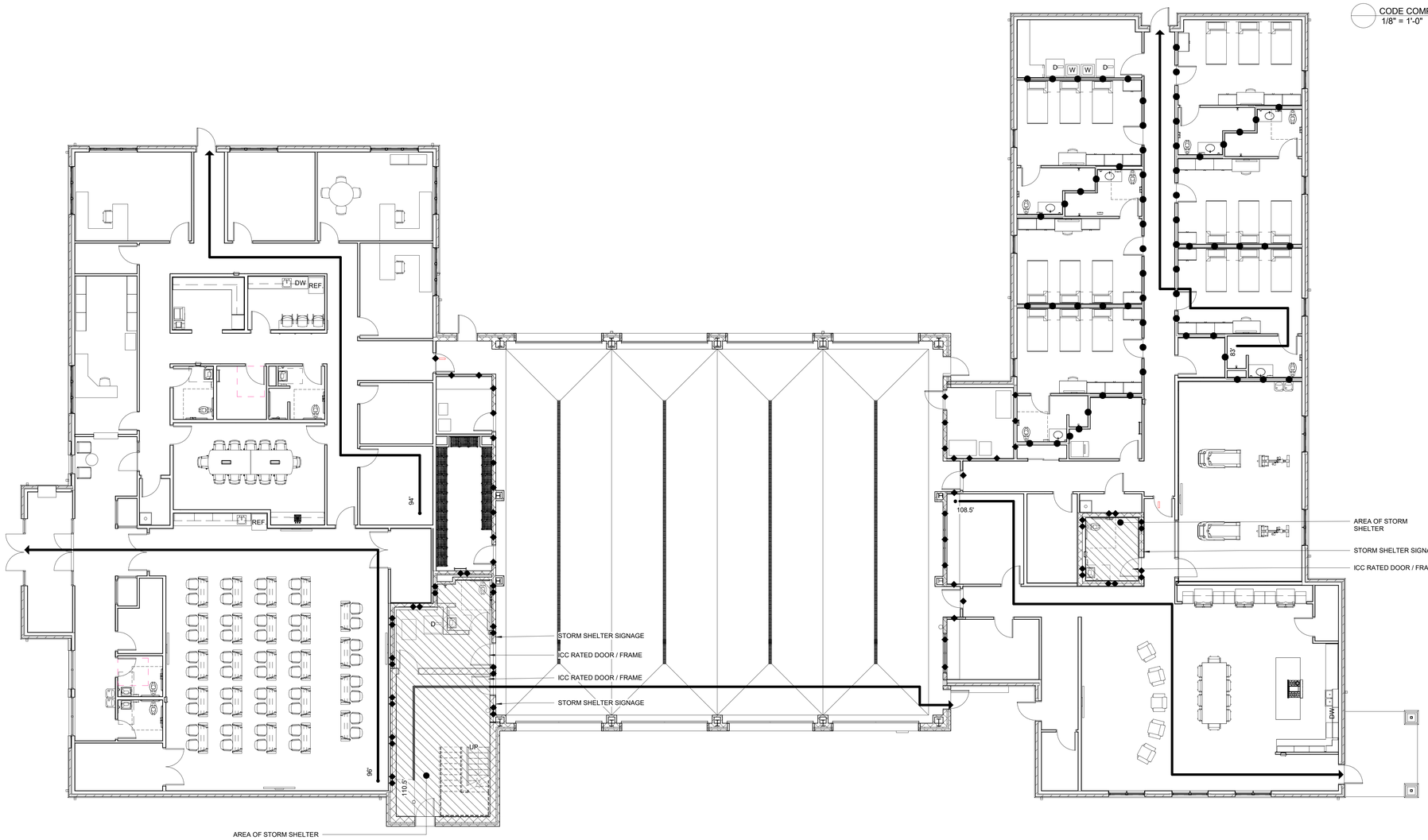
Drawn By:	SMA
Checked By:	SMA
Project No.:	25-0170
Date:	2025-09-05

C802

LEGEND

- ABLE TO RESIST PASSAGE OF SMOKE
- 1/2 HOUR FIRE
- 1 HOUR FIRE
- 1 HOUR FIRE / SMOKE
- 2 HOUR FIRE
- 2 HOUR FIRE / SMOKE
- 3 HOUR FIRE
- 3 HOUR FIRE / SMOKE
- 4 HOUR FIRE
- 4 HOUR FIRE / SMOKE

- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- FHV — FIRE HOSE VALVE CABINET OR STANDPIPE CONNECTION
- ANN — FIRE ALARM ANNUNCIATOR PANEL
- FIRE DEPARTMENT CONNECTION
- EXIT STAIR



1 LS101 LIFE SAFETY PLAN
1/8" = 1'-0"

CODE COMPLIANCE LEGEND
1/8" = 1'-0"

ICC 500-2014: COMMUNITY STORM SHELTER - TORNADO

STORM SHELTER OCCUPANCY:
BASED ON ACTUAL OCCUPANTS:
LIVING QUARTERS:
FIRE FIGHTERS: 6/SHIFT = 12 TOTAL AT SHIFT CHANGE
TOTAL OCCUPANT LOAD = 12

TABLE 501.1.1 - OCCUPANT DENSITY
STANDING OR SEATED - 5 S.F. / OCCUPANT
WHEELCHAIR - 10 S.F. / OCCUPANT (1 FOR EVERY 200 SHELTER OCCUPANTS)

TOTAL REQUIRED:
11 OCCUPANTS x 5 S.F. = 55 S.F.
1 OCCUPANT x 10 S.F. = 10 S.F.
TOTAL REQUIRED S.F. = 65 S.F.

501.1.2.2 ALTERNATIVE CALCULATION OF USABLE SQUARE FOOTAGE:
ACTUAL USABLE SQUARE FOOTAGE = 71 S.F.

501.2 NUMBER OF DOORS:
BASED UPON THE OCCUPANT LOAD FOR THE NORMAL OCCUPANCY OF THE SPACE ACCORDING TO THE APPLICABLE CODE.
-1 REQUIRED - EMERGENCY ESCAPE OPENING NOT REQUIRED DUE TO OCCUPANT LOAD LESS THAN 16.

ADMINISTRATION AREA:
STORM SHELTER OCCUPANCY BASED ON ACTUAL NUMBER OF BUILDING OCCUPANTS:
TOTAL OCCUPANT LOAD = 50

TABLE 501.1.1 - OCCUPANT DENSITY
STANDING OR SEATED - 5 S.F. / OCCUPANT
WHEELCHAIR - 10 S.F. / OCCUPANT (1 FOR EVERY 200 SHELTER OCCUPANTS)

TOTAL REQUIRED:
49 OCCUPANTS x 5 S.F. = 245 S.F.
1 OCCUPANT x 10 S.F. = 10 S.F.
TOTAL REQUIRED S.F. = 255 S.F.

501.1.2.2 ALTERNATIVE CALCULATION OF USABLE SQUARE FOOTAGE:
ACTUAL USABLE SQUARE FOOTAGE =
HOSE TOWER: 205 S.F.
DECON.: 56 S.F.
261 S.F.

501.2 NUMBER OF DOORS:
BASED UPON THE OCCUPANT LOAD FOR THE NORMAL OCCUPANCY OF THE SPACE ACCORDING TO THE APPLICABLE CODE.
-1 REQUIRED - EMERGENCY ESCAPE REQUIRED DO TO ENTRY DOORS BEING SEPARATED BY LESS THAN 1/3 OF THE DIAGONAL

504.1 SIGNAGE FOR COMMUNITY SHELTER
PROVIDE SIGNAGE AS REQUIRED BY ICC 500 AT EACH STORM SHELTER ENTRY DOOR.

601.1 FIRE-RESISTANT CONSTRUCTION
FIRE BARRIERS AND HORIZONTAL ASSEMBLIES SEPARATING SPACES OR AREAS DESIGNATED AS STORM SHELTERS FROM OTHER BUILDING AREAS SHALL HAVE A MINIMUM FIRE-RESISTANCE RATING OF 2 HOURS

702.1.1 VENTING AREA REQUIRED FOR TORNADO SHELTERS
COMMUNITY (≤ 50 OCCUPANTS) 5 SQ. IN. / OCCUPANT

702.2 REQUIRED SANITATION FACILITIES, TORNADO SHELTERS
COMMUNITY (≤50 OCCUPANTS) 1 TLT. / 0 HANDWASHING (1 EA. PROVIDED)

2 LS101 STORM SHELTER
3/4" = 1'-0"

SE/Coady 2
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Wright City Fire Protection District
60 Bell Road
Wright City, MO 63390

Revisions:

No:	Date:	Description:

Sheet Info:

LIFE SAFETY PLAN

Drawn By:	Author
Checked By:	Checker
Commission:	025-2125
Date:	2025-09-05

LS101

9/5/2025 4:26:38 PM

FLOOR PLAN GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, LAWS, AND REGULATIONS.
2. REFER TO CIVIL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DOCUMENTS FOR ADDITIONAL INFORMATION.
3. INTERIOR WALL DIMENSIONS ARE FROM FACE OF GYPSUM BOARD.
4. REFER TO ROOM FINISH SCHEDULE, DOOR SCHEDULE AND WALL TYPES FOR ADDITIONAL INFORMATION.
5. THE PAINTING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL PAINT AND TOUCH UP WORK WHICH SHALL BE COMPLETED AFTER THE INSTALLATION OF ALL EQUIPMENT.
6. EACH CONTRACTOR SHALL FOLLOW THE PROGRESS OF THE GENERAL DEMOLITION WORK TO ASSURE THE ACCESSIBILITY AND SAFETY OF EQUIPMENT AND SYSTEMS TO REMAIN IN SERVICE AND TO PROVIDE FOR THE TIMELY REMOVAL AND/OR RELOCATION OF EQUIPMENT, PIPING, ETC.
7. CONTRACTOR TO COORDINATE WITH THE OWNER FOR THE INSTALLATION OF EQUIPMENT SUPPLIED UNDER A SEPARATE CONTRACTS.
8. ALL FURNITURE AND EQUIPMENT INDICATED ON PLAN IS FOR REFERENCE ONLY (OWNER PROVIDED AND INSTALLED), UNLESS OTHERWISE INDICATED.
9. PROVIDE CONTROL JOINTS ON THE STRIKE SIDE OF ALL DOOR JAMBS LOCATED IN NEW PARTITIONS.
10. PENETRATIONS THROUGH NEW FIRE RATED WALLS SHALL BE FIRESTOPPED BY THE RESPECTIVE TRADE CONTRACTOR. PROVIDE A FIRESTOPPING MATERIAL EQUAL TO THE FIRE RATING OF THE WALL, FLOOR, CEILING OR ROOF BEING PENETRATED.
11. ALL WALLS TO BE PARTITION TYPE P1 UNLESS NOTED OTHERWISE. REFER TO SHEET A601 FOR PARTITION TYPES.
12. REFER TO SPECIFICATIONS FOR REQUIRED INTERIOR SIGNAGE. COORDINATE FINAL LOCATION OF NON-ROOM SPECIFIC SIGNAGE WITH OWNER.
13. ALL PLUMBING WALLS AND EXTERIOR WINDOW HEADS/JAMBS THAT ARE TO HAVE GWB ARE TO HAVE MOISTURE RESISTANT GWB.

KEYED NOTES - FLOOR PLAN

1	ACCESSIBLE DRINKING FOUNTAIN. REFER TO PLUMBING DOCUMENTS.
2	ACCESSIBLE WATER CLOSET. REFER TO PLUMBING DOCUMENTS.
3	FURNITURE. N.I.C. - TYPICAL.
4	MOP BASIN. REFER TO THE PLUMBING DOCUMENTS.
5	SEMI RECESSED FIRE EXTINGUISHER CABINET (FPC-1) AND FIRE EXTINGUISHER (FE-1). AT RATED WALL LOCATIONS (REFER TO LIFE SAFETY PLANS), THE FIRE EXTINGUISHER CABINET IS TO BE A MODEL FOR USE IN RATED WALLS.
6	WALL MOUNTED FIRE EXTINGUISHER.
7	MULTI-FUNCTION DEVICE. REFER TO THE ELECTRICAL DOCUMENTS.
8	DISHWASHER. REFER TO EQUIPMENT PLAN.
9	STEEL LADDER TO ATTIC ACCESS HATCH.
10	INSTALL WALL BLOCKING AND POWER/DATA ROUGH-INS AT THE DESIGNATED LOCATION FOR TV LOCATION. VERIFY FINAL LOCATIONS/HEIGHT WITH THE OWNER PRIOR TO INSTALLATION. REFER TO ELECTRICAL DOCUMENTS.
11	ROLL-IN SHOWER. RESTROOM FLOOR TO SLOPE TO SHOWER DRAIN. REFER TO THE INTERIOR ELEVATIONS AND THE PLUMBING DOCUMENTS.
12	PROVIDE ICC 500 STORM SHELTER SIGNAGE.
13	ICE MACHINE. REFER TO EQUIPMENT PLAN.
14	REFRIGERATOR. REFER TO EQUIPMENT PLAN.
15	BUILT IN SHELVING UNIT WITH 5 ADJUATABLE SHELVES. SIZE TO PROVIDE OPENING FOR REFRIGERATOR.
16	METAL CABINETS WITH STAINLESS STEEL COUNTERTOP. REFER TO INTERIOR ELEVATIONS.
17	WINDOWS TO HAVE MOISTURE RESISTANT GYPSUM WALL BOARD AT HEADS AND JAMBS.
18	GEAR EXTRACTOR. REFER TO EQUIPMENT SCHEDULE.
19	GEAR DRYER. REFER TO EQUIPMENT SCHEDULE.
20	TRENCH DRAIN. REFER TO PLUMBING DRAWINGS.
21	SCBA. REFER TO PLUMBING DRAWINGS.
22	COMPRESSOR. REFER TO EQUIPMENT SCHEDULE.
23	SCBA TANKS. REFER TO PLUMBING DRAWINGS.
24	COAT ROD/SHELF.
25	GYM EQUIPMENT (BY OWNER). VERIFY QUANITY AND LOCATIONS WITH OWNER.
26	WASHER. REFER TO EQUIPMENT SCHEDULE.
27	DRYER. REFER TO EQUIPMENT SCHEDULE.
28	BED. REFER TO EQUIPMENT SCHEDULE.
29	WARDROBE CABINET.
30	DESK.
31	TRENCH DRAINS. REFER TO PLUMBING DRAWINGS. REFER TO STRUCTURAL DRAWINGS FOR LOCATIONS OF SLOPED FLOORS.
32	SOLID SURFACE WINDOW SILL AT ALL WINDOWS.
33	RANGE. REFER TO EQUIPMENT PLAN.
34	SINK. REFER TO PLUMBING DRAWINGS.
36	DOWNSPOUTS
37	STAIRS AND STEEL PIPE RAILING.
38	METAL SHIPS LADDER.
39	METAL GRATE FLOORING
40	STEEL GUARD RAILING
41	HOSE RACK. REFER TO EQUIPMENT SCHEDULE.
42	DISPLAY CASE
43	BABY BOX. REFER TO EQUIPMENT SCHEDULE. VERIFY ROUGH OPENING REQUIREMENTS.
44	GATE FOR ACCESS TO REPELLING STATION.

1 A101 PARTIAL FLOOR PLAN - WEST
3/16" = 1'-0"

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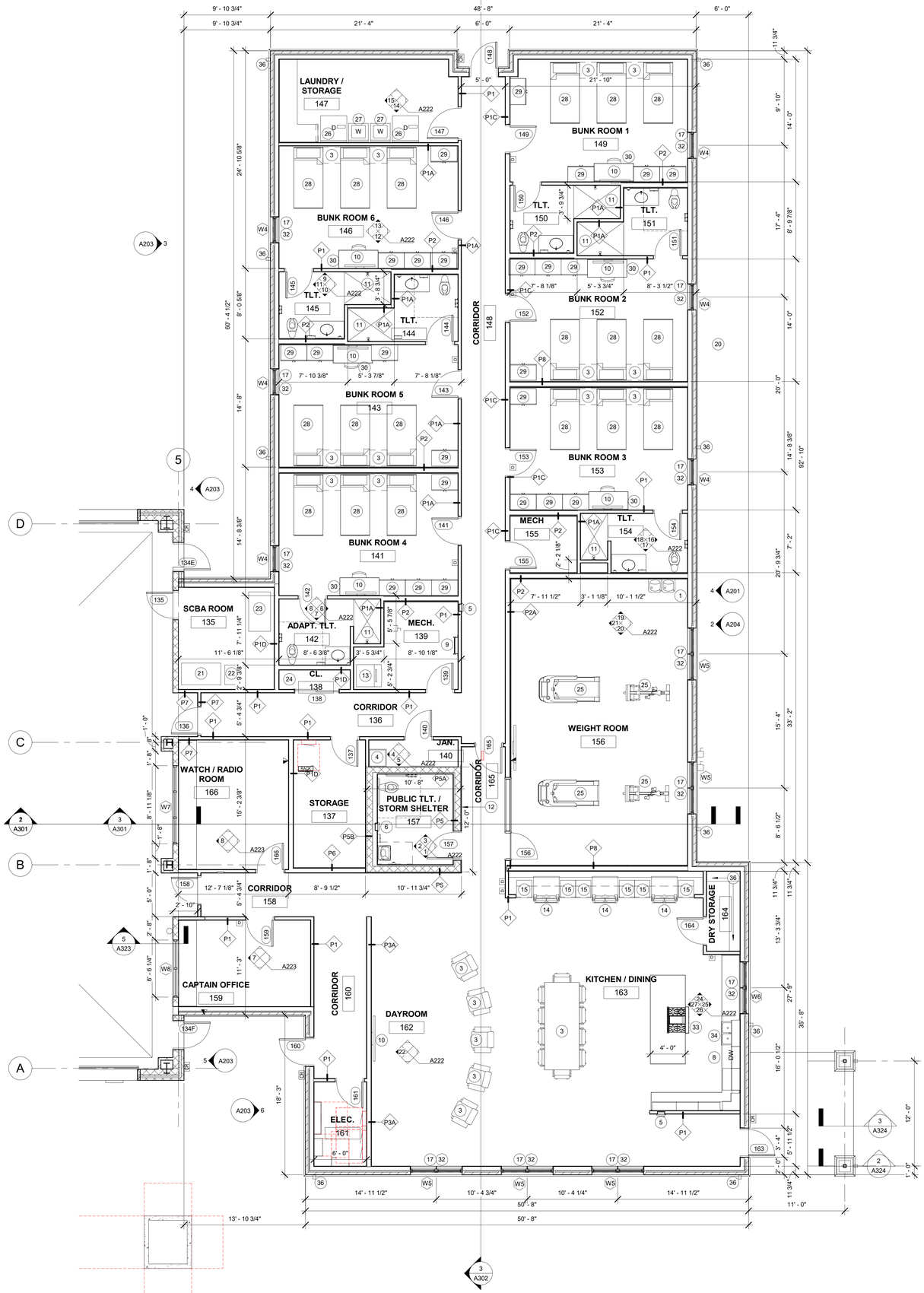
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PARTIAL FLOOR PLAN - WEST

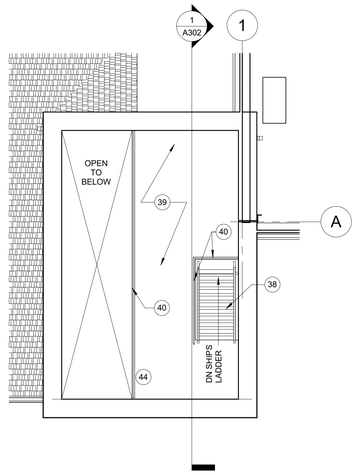
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Date:	2025-09-05

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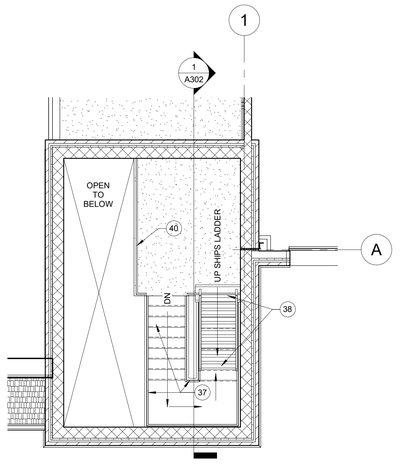
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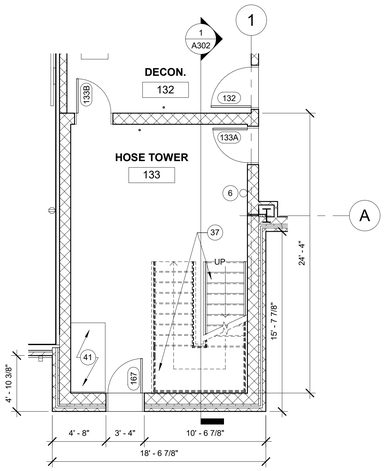
1 A102 PARTIAL FLOOR PLAN - EAST
3/16" = 1'-0"



4 A102 HOSE TOWER UPPER LEVEL
3/16" = 1'-0"



3 A102 HOSE TOWER MEZZ
3/16" = 1'-0"



2 A102 HOSE TOWER FLOOR PLAN
3/16" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, LAWS, AND REGULATIONS.
2. REFER TO CIVIL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DOCUMENTS FOR ADDITIONAL INFORMATION.
3. INTERIOR WALL DIMENSIONS ARE FROM FACE OF GYPSUM BOARD.
4. REFER TO ROOM FINISH SCHEDULE, DOOR SCHEDULE AND WALL TYPES FOR ADDITIONAL INFORMATION.
5. THE PAINTING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL PAINT AND TOUCH UP WORK WHICH SHALL BE COMPLETED AFTER THE INSTALLATION OF ALL EQUIPMENT.
6. EACH CONTRACTOR SHALL FOLLOW THE PROGRESS OF THE GENERAL DEMOLITION WORK TO ASSURE THE ACCESSIBILITY AND SAFETY OF EQUIPMENT AND SYSTEMS TO REMAIN IN SERVICE AND TO PROVIDE FOR THE TIMELY REMOVAL AND/OR RELOCATION OF EQUIPMENT, PIPING, ETC.
7. CONTRACTOR TO COORDINATE WITH THE OWNER FOR THE INSTALLATION OF EQUIPMENT SUPPLIED UNDER A SEPARATE CONTRACTS.
8. ALL FURNITURE AND EQUIPMENT INDICATED ON PLAN IS FOR REFERENCE ONLY (OWNER PROVIDED AND INSTALLED), UNLESS OTHERWISE INDICATED.
9. PROVIDE CONTROL JOINTS ON THE STRIKE SIDE OF ALL DOOR JAMBS LOCATED IN NEW PARTITIONS.
10. PENETRATIONS THROUGH NEW FIRE RATED WALLS SHALL BE FIRESTOPPED BY THE RESPECTIVE TRADE CONTRACTOR. PROVIDE A FIRESTOPPING MATERIAL EQUAL TO THE FIRE RATING OF THE WALL, FLOOR, CEILING OR ROOF BEING PENETRATED.
11. ALL WALLS TO BE PARTITION TYPE P1 UNLESS NOTED OTHERWISE. REFER TO SHEET A601 FOR PARTITION TYPES.
12. REFER TO SPECIFICATIONS FOR REQUIRED INTERIOR SIGNAGE. COORDINATE FINAL LOCATION OF NON-ROOM SPECIFIC SIGNAGE WITH OWNER.
13. ALL PLUMBING WALLS AND EXTERIOR WINDOW HEADS/JAMBS THAT ARE TO HAVE GWB ARE TO HAVE MOISTURE RESISTANT GWB.

KEYED NOTES - FLOOR PLAN

1	ACCESSIBLE DRINKING FOUNTAIN. REFER TO PLUMBING DOCUMENTS.
2	ACCESSIBLE WATER CLOSET. REFER TO PLUMBING DOCUMENTS.
3	FURNITURE. N.I.C. - TYPICAL.
4	MOP BASIN. REFER TO THE PLUMBING DOCUMENTS.
5	SEMI RECESSED FIRE EXTINGUISHER CABINET (FPC-1) AND FIRE EXTINGUISHER (FE-1). AT RATED WALL LOCATIONS (REFER TO LIFE SAFETY PLANS), THE FIRE EXTINGUISHER CABINET IS TO BE A MODEL FOR USE IN RATED WALLS.
6	WALL MOUNTED FIRE EXTINGUISHER.
7	MULTI-FUNCTION DEVICE. REFER TO THE ELECTRICAL DOCUMENTS.
8	DISHWASHER. REFER TO EQUIPMENT PLAN.
9	STEEL LADDER TO ATTIC ACCESS HATCH.
10	INSTALL WALL BLOCKING AND POWER/DATA ROUGH-INS AT THE DESIGNATED LOCATION FOR TV LOCATION. VERIFY FINAL LOCATIONS/HEIGHT WITH THE OWNER PRIOR TO INSTALLATION. REFER TO ELECTRICAL DOCUMENTS.
11	ROLL-IN SHOWER. RESTROOM FLOOR TO SLOPE TO SHOWER DRAIN. REFER TO THE INTERIOR ELEVATIONS AND THE PLUMBING DOCUMENTS.
12	PROVIDE ICC 500 STORM SHELTER SIGNAGE.
13	ICE MACHINE. REFER TO EQUIPMENT PLAN.
14	REFRIGERATOR. REFER TO EQUIPMENT PLAN.
15	BUILT IN SHELVING UNIT WITH 5 ADJUATABLE SHELVES. SIZE TO PROVIDE OPENING FOR REFRIGERATOR.
16	METAL CABINETS WITH STAINLESS STEEL COUNTERTOP. REFER TO INTERIOR ELEVATIONS.
17	WINDOWS TO HAVE MOISTURE RESISTANT GYPSUM WALL BOARD AT HEADS AND JAMBS.
18	GEAR EXTRACTOR. REFER TO EQUIPMENT SCHEDULE.
19	GEAR DRYER. REFER TO EQUIPMENT SCHEDULE.
20	TRENCH DRAIN. REFER TO PLUMBING DRAWINGS.
21	SCBA. REFER TO PLUMBING DRAWINGS.
22	COMPRESSOR. REFER TO EQUIPMENT SCHEDULE.
23	SCBA TANKS. REFER TO PLUMBING DRAWINGS.
24	COAT ROD/SHELF.
25	GYM EQUIPMENT (BY OWNER). VERIFY QUANITY AND LOCATIONS WITH OWNER.
26	WASHER. REFER TO EQUIPMENT SCHEDULE.
27	DRYER. REFER TO EQUIPMENT SCHEDULE.
28	BED. REFER TO EQUIPMENT SCHEDULE.
29	WARDROBE CABINET.
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PARTIAL FLOOR PLAN - EAST

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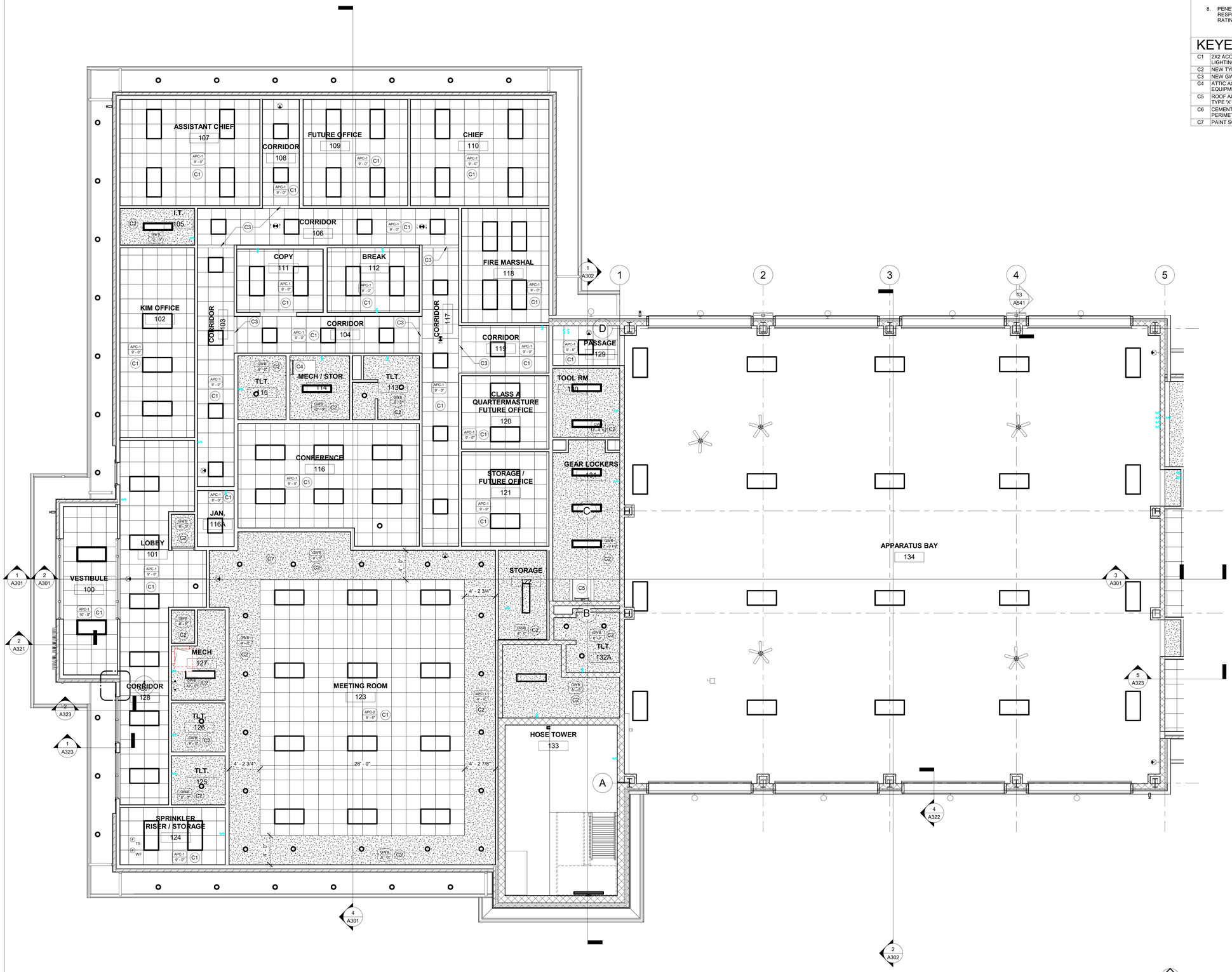
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REFLECTED CEILING GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, LAWS, AND REGULATIONS.
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KEYED NOTES - REFLECTED CEILING PLAN

C1	2X2 ACOUSTIC PANEL CEILING TILES/GRID SYSTEM. REFER TO HVAC AND ELECTRICAL DOCUMENTS FOR LIGHTING AND DIFFUSER LOCATIONS.
C2	NEW TYPE "X" GWB CEILING (PAINTED).
C3	NEW GWB BULKHEAD (PAINTED). BOTTOM OF BULKHEAD TO BE 1" BELOW LOWEST ADJACENT CEILING.
C4	ATTIC ACCESS HATCH AND LADDER. PROVIDE PLYWOOD WALKWAY IN ATTIC TO ACCESS MECHANICAL EQUIPMENT. COORDINATE WITH MEP.
C5	ROOF ACCESS LADDER AND ROOF HATHC ABOVE. PROVIDE 2X6 WALLS ON SIDES OF OPENING WITH 5/8" TYPE 'X' GWB AND R-20 BATT INSULATION TO UNDERSIDE OF ROOF DECK.
C6	CEMENT BOARD SOFFIT PANELS OVER 7/16" ZIP SHEATHING. PROVIDE CEMENT BOARD TRIM AT SOFFIT PERIMETER AND AT PANEL EDGES. PAINT.
C7	PAINT SOFFIT PT-4.



1 A121 REFLECTED CEILING PLAN - WEST
3/16" = 1'-0"

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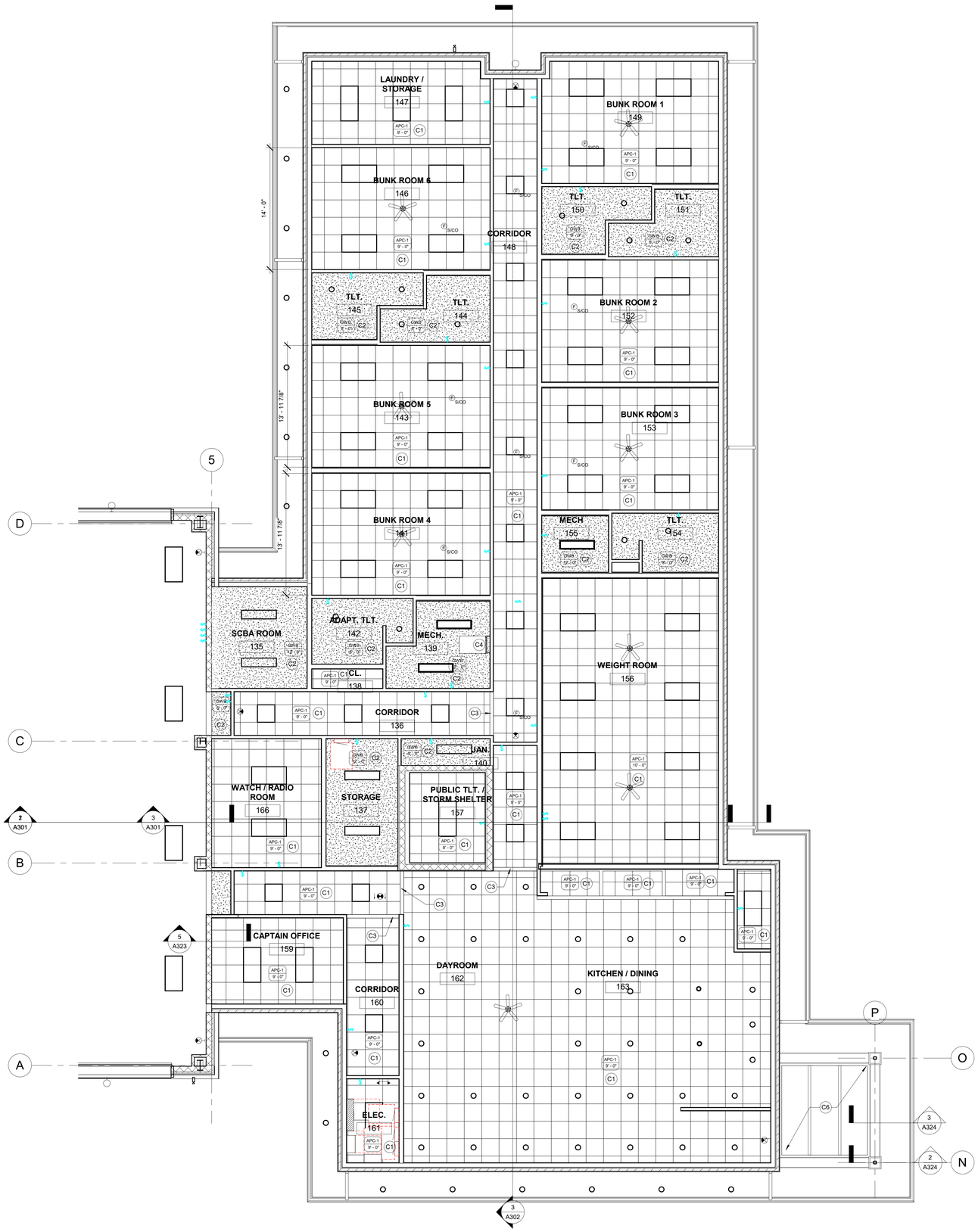
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PARTIAL REFLECTED CEILING PLAN - WEST

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Commission:	025-2125
Date:	2025-09-05

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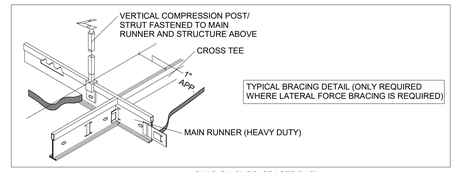
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3/16" = 1'-0"

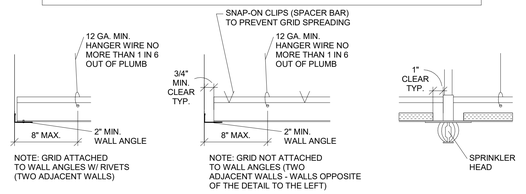
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KEYED NOTES - REFLECTED CEILING PLAN

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C4	ATTIC ACCESS HATCH AND LADDER. PROVIDE PLYWOOD WALKWAY IN ATTIC TO ACCESS MECHANICAL EQUIPMENT. COORDINATE WITH MEP.
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C7	PAINT SOFFIT PT-4.





NOTES (SEISMIC DESIGN CATEGORY D CEILINGS):

1. ALL GRID TO BE HEAVY DUTY.
2. ALL VERTICAL HANGER WIRES TO BE STRAIGHT, 12 GA. MINIMUM AT A MAXIMUM OF 4'-0" O.C.
3. VERTICAL HANGER WIRES MUST BE SHARPLY BENT AND WRAPPED WITH THREE TURNS IN 3" OR LESS (FOR FIELD TIED CONNECTIONS).
4. HANGER WIRES MAY NOT ATTACH TO OR BEND AROUND INTERFERING EQUIPMENT. USE TRAPEZES TO AVOID OBSTACLES.
5. LATERAL FORCE BRACING IS ONLY REQUIRED FOR CEILINGS GREATER THAN 1,000 SF.
   A. INSTALL 4-WAY DIAGONAL 12 GA. WIRE BRACING & VERTICAL STRUT EVERY 12'-0" O.C. MAXIMUM EACH WAY ON MAIN RUNNERS, 2" MAXIMUM FROM CROSS TEES, AND WITHIN 6'-0" OF WALLS. WIRES ARE NOT SHOWN HERE FOR CLARITY. POST IS MADE UP OF 3/4" STEEL TUBING WITH .049" WALL THICKNESS. MAXIMUM UNSUPPORTED LENGTH IS 5'-2". IF MORE THAN 5'-2" IS REQUIRED, NOTIFY ARCHITECT. POST TO HAVE SPRING AND CONNECTION FITTINGS AT TOP AND BOTTOM. (RIGID BRACING TO LIMIT DEFLECTION TO 1/4" UNDER SEISMIC ACTION). INSTALL ACCORDING TO MANUFACTURER'S DIRECTIONS. POST ASSEMBLIES ARE AVAILABLE FROM DONN CORPORATION.
   B. LATERAL FORCE BRACING CONNECTION STRENGTH MUST BE A MINIMUM OF 250 LBS.

NOTE: COMPLY WITH CISCA RECOMMENDATIONS AND IBC/ASTM/ASCE REQUIREMENTS FOR SEISMIC DESIGN CATEGORY D.

NOTE: PROVIDE SEISMIC BRACING FOR LIGHT FIXTURES TO MEET CODE.

2 A122 CEILING SUSPENSION DETAIL - TYPICAL.
1/8" = 1'-0"

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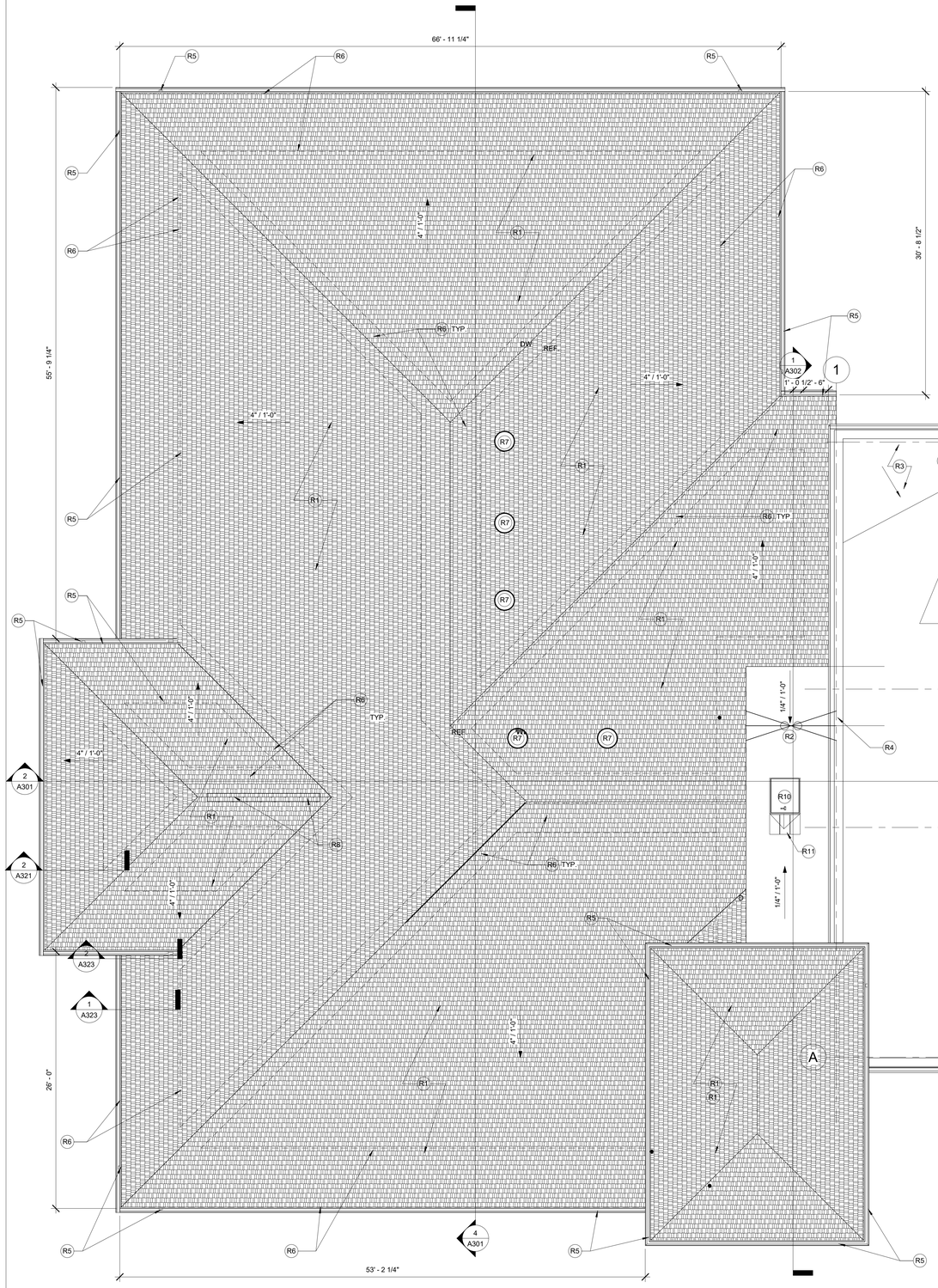
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ROOF PLAN GENERAL NOTES

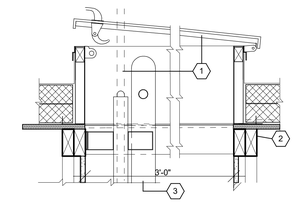
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4. CONTRACTOR TO COORDINATE WITH THE OWNER FOR THE INSTALLATION OF EQUIPMENT SUPPLIED UNDER A SEPARATE CONTRACTS.

KEYED NOTES - ROOF PLAN

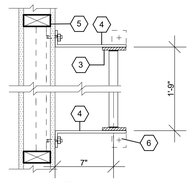
R1	60 MIL. FULLY ADHERED TPO ROOFING MEMBRANE OVER 2 LAYERS OF R-15 POLYISO INSULATION (BOTTOM LAYER MECHANICALLY FASTENED, TOP LAYER ADHERED - STAGGER JOINTS) OVER 6 MIL VAPOR BARRIER OVER 1/4" ROOF BOARD OVER METAL DECK OVER SLOPED ROOF STRUCTURE. REFER TO STRUCTURAL AND MEP DOCUMENTS.
R2	ROOF DRAIN AND OVERFLOW. ROOF DRAIN DROP TO BE ROUTED TO STORM SEWER PIPING. OVERFLOW DRAIN DROP TO BE PIPED TO SHEEPS TONGUE THAT SPILLS ON SITE. REFER TO PLUMBING AND CIVIL DOCUMENTS.
R3	POLYISO INSULATION ROOF CRICKET OVER BASE ROOF INSULATION (1/2" PER 1'-0" CRICKET SLOPE).
R4	PREFINISHED ALUMINUM COPING.
R5	PREFINISHED ALUMINUM GUTTER AND DOWNSPOUTS.
R6	ICE & WATER GUARD. EXTEND FROM EDGE OF EAVE AND RAKE TO MINIMUM 24" BEYOND INSIDE FACE OF EXTERIOR WALL LINE AND 36" FROM RIDGE & 18" ON EACH SIDE OF HIP/VALLEY.
R7	POWER ROOF VENTILATOR. SEE VENTILATION NOTES THIS SHEET.
R8	RIDGE VENT. SEE VENTILATION NOTES THIS SHEET.
R9	SCUPPER AND CONDUCTOR HEAD. REFER TO DETAIL _____
R10	ROOF HATCH. REFER TO 2/141
R11	ROOF WALK PADS. TYPICAL.



1 A141 ROOF PLAN - WEST
3/16" = 1'-0"



SECTION



PLAN

KEYED NOTES:

1. ROOF SCUTTLE - 2'-6" X 3'-0" ROOF HATCH WITH "LADDER-UP" SAFETY POST MODEL S-20 BY BILCO CO. OR EQUAL. SECURE SCUTTLE TO ROOF FRAMING WITH THRU BOLTS ACCORDING TO MANUFACTURER'S DIRECTIONS. HINGE PINS ARE TO BE WELDED NON-REMOVABLE.
2. REFER TO STRUCTURAL DOCUMENTS FOR GIRDER TRUSS FRAMING AT PERIMETER OF OPENING
3. 2 1/2" X 3/8" FLAT STEEL BAR SIDE RAILS, AND 1" DIA. STEEL RUNGS PUNCHED INTO RAILS 12" CENTERS AND WELDED RAILS TO BE CAPABLE OF WITHSTANDING 300 LB. LOAD.
4. PROVIDE 2 1/2" X 3/8" THICK FLAT BENT STEEL BRACKETS AT MAX. 4'-0" CENTERS. WELD TO SIDE RAILS. ANCHOR TOP TO GIRDER TRUSS FRAMING.
5. AT WOOD STUD WALL, PROVIDE 1 1/2" C.R. STEEL REINFORCING CHANNELS WITH WELDED 3/8" THRU BOLTS TO RECEIVE BRACKETS. ANCHOR TO STUDS W/ STELL ANGLE MOUNTING BRACKETS.
6. PROVIDE 2 1/2" X 2 1/2" X 3/8" WELDED CLIP ANGLES SECURED TO CONCRETE FLOOR WITH 1/2" X 2 3/4" WEDGE "RED HEAD" OR "MOLLY" ANCHOR BOLTS.

2 A141 ROOF ACCESS LADDER AND HATCH DETAILS
1 1/2" = 1'-0"

ATTIC VENTILATION REQUIREMENTS:

MAIN ADDITION:
7984 S.F. UNDER VENTILATED ROOF
7984/150 = 53.23 S.F. x 144 = 7,665 SQ. IN.
7665 / 2 = 3,833 SQ. IN HIGH / 3,833 SQ. IN LOW

PROVIDE (5) ATLAS HIGHPOINT POWER VENT HT OR EQUAL (COLOR TO BE SELECTED) W/ AUTOMATIC THERMOSTAT / HUMIDISTAT PROVIDE VENTED ALUMINUM SOFFIT..ONE HIGHPOINT POWER VENT HT CAN EXHAUST 1170 CFM.
7984 S.F. x 7 = 5,589 CFM
5,589 CFM / 1170 CFM = 4.8 VENTS REQUIRED.
5 VENTS X 1170 CFM = 5,850 CFM / 150 = 39 S.F. X 144 = 5,616 SQ. IN.

LOW INTAKE VENTILATION REQUIRED
PROVIDE VENTED ALUMINUM SOFFIT.
PROVIDE A MINIMUM OF 5,616 SQ. IN. OF INTAKE AIRFLOW IN SOFFIT.
233 L.F. x 3 WIDE = 699 S.F. OF SOFFIT.
5,616 SQ. IN OF VENTILATION REQUIRED
5,616 SQ. IN. OF VENTILATION REQUIRED / 699 OF SOFFIT AREA = 8.03 NET FREE AIR PER SQ. FT REQUIRED

VESTIBULE:
202 S.F./150 = 1.35 S.F. x 144 SQ. IN. = 195 SQ. IN.
195/2 = 98 SQ. IN HIGH / 98 SQ. IN LOW

HIGH EXHAUST VENTILATION REQUIRED: 98 SQ. IN
GAF RIDGE VENTS OR EQUAL: 13 LF X 9 SQ. IN = (117 SQ. IN)

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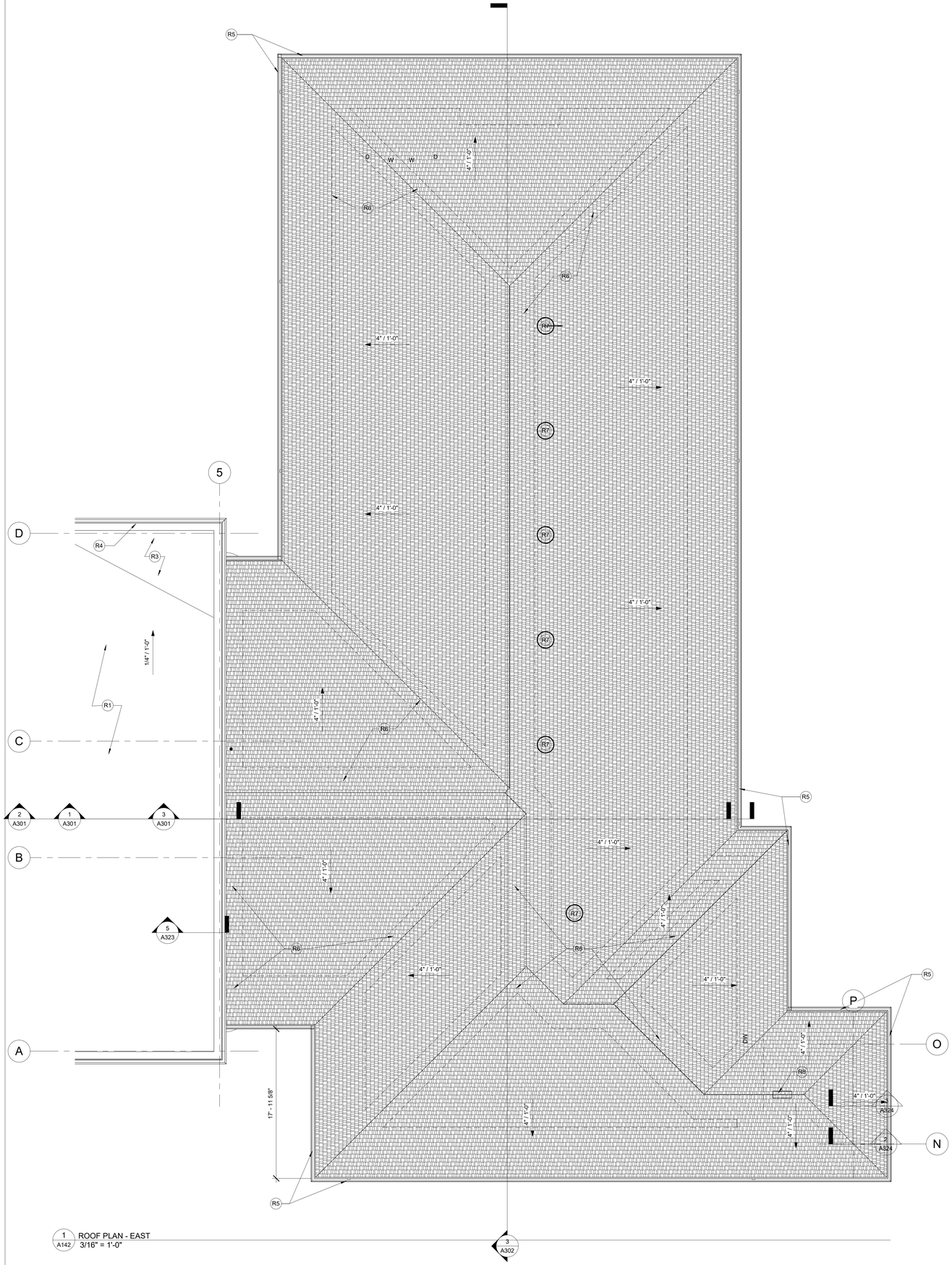
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Date:	2025-09-05

A141

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1 A142 ROOF PLAN - EAST
3/16" = 1'-0"

9/5/2025 4:23:56 PM

ROOF PLAN GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, LAWS, AND REGULATIONS.
2. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DOCUMENTS FOR ADDITIONAL INFORMATION.
3. THE PAINTING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL PAINT AND TOUCH UP WORK WHICH SHALL BE COMPLETED AFTER THE INSTALLATION OF ALL EQUIPMENT.
4. CONTRACTOR TO COORDINATE WITH THE OWNER FOR THE INSTALLATION OF EQUIPMENT SUPPLIED UNDER A SEPARATE CONTRACTS.

KEYED NOTES - ROOF PLAN

R1	60 MIL. FULLY ADHERED TPO ROOFING MEMBRANE OVER 2 LAYERS OF R-15 POLYISO INSULATION (BOTTOM LAYER MECHANICALLY FASTENED, TOP LAYER ADHERED - STAGGER JOINTS) OVER 6 MIL VAPOR BARRIER OVER 1/4" ROOF BOARD OVER METAL DECK OVER SLOPED ROOF STRUCTURE. REFER TO STRUCTURAL AND MEP DOCUMENTS.
R2	ROOF DRAIN AND OVERFLOW. ROOF DRAIN DROP TO BE ROUTED TO STORM SEWER PIPING. OVERFLOW DRAIN DROP TO BE PIPED TO SHEEPS TONGUE THAT SPILLS ON SITE. REFER TO PLUMBING AND CIVIL DOCUMENTS.
R3	POLYISO INSULATION ROOF CRICKET OVER BASE ROOF INSULATION (1/2" PER 1'-0" CRICKET SLOPE).
R4	PREFINISHED ALUMINUM COPING.
R5	PREFINISHED ALUMINUM GUTTER AND DOWNSPOUTS.
R6	ICE & WATER GUARD. EXTEND FROM EDGE OF EAVE AND RAKE TO MINIMUM 24" BEYOND INSIDE FACE OF EXTERIOR WALL LINE AND 36" FROM RIDGE & 18" ON EACH SIDE OF HIP/VALLEY.
R7	POWER ROOF VENTILATOR. SEE VENTILATION NOTES THIS SHEET.
R8	RIDGE VENT. SEE VENTILATION NOTES THIS SHEET.
R9	SCUPPER AND CONDUCTOR HEAD. REFER TO DETAIL _____
R10	ROOF HATCH. REFER TO 2/141
R11	ROOF WALK PADS. TYPICAL

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PARTIAL ROOF PLAN - EAST

Drawn By:	SE/Coady
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

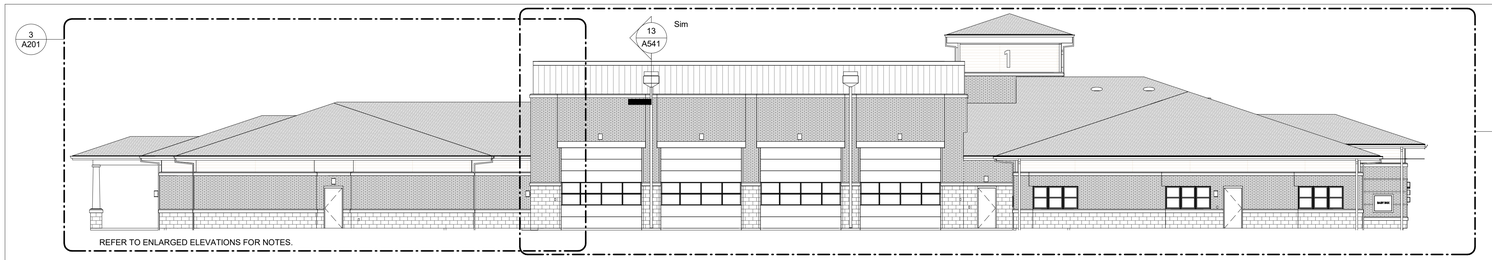
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EXTERIOR ELEVATION GENERAL NOTES

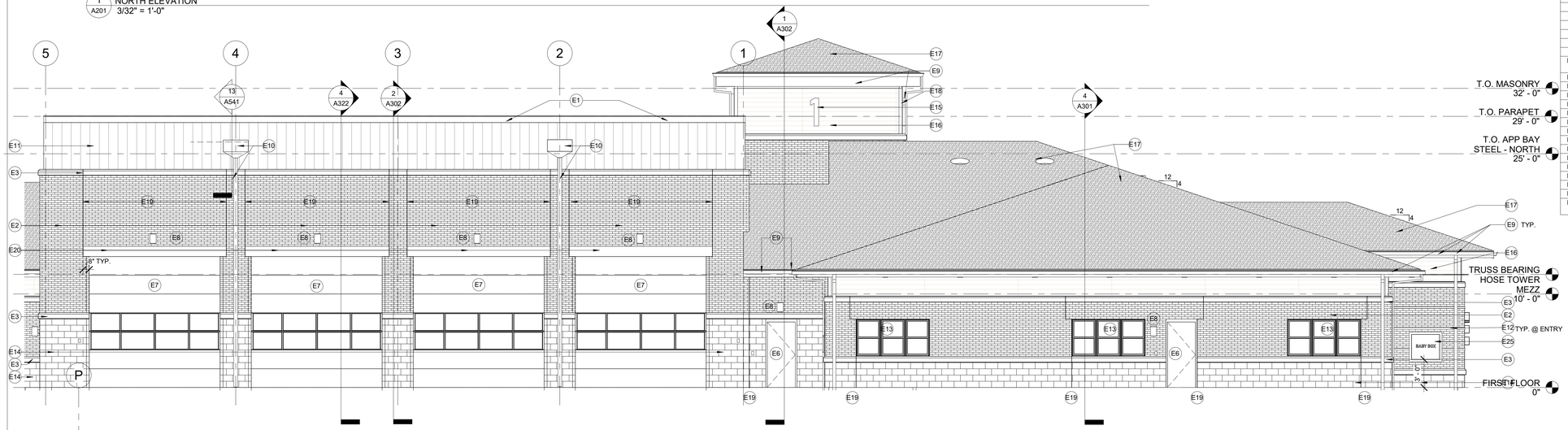
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KEYED NOTES - EXTERIOR ELEVATIONS

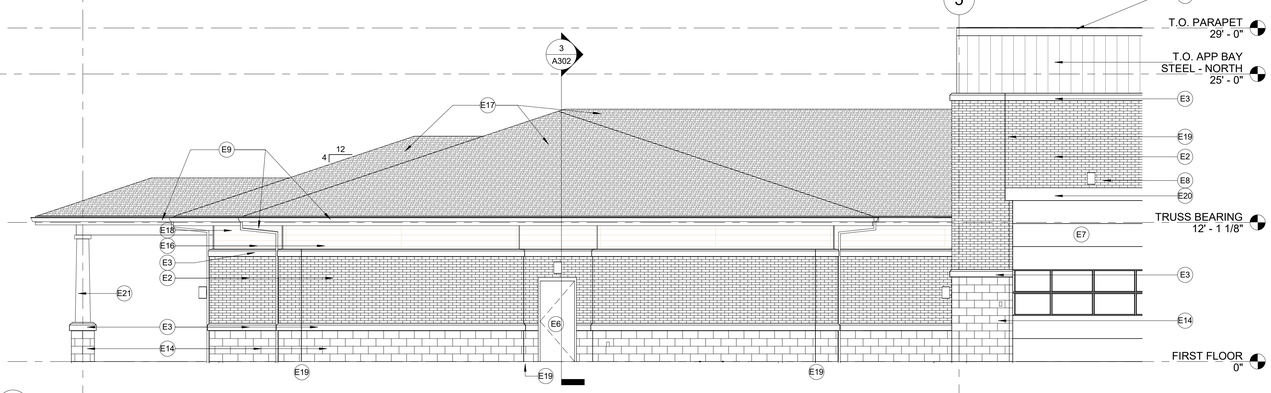
E1	PREFINISHED ALUMINUM COPING.
E2	FACE BRICK. (BRICK 1)
E3	CAST STONE SILL.
E4	ALUMINUM STOREFRONT WINDOW. REFER TO WINDOW TYPES, SHEET A601.
E5	ALUMINUM STOREFRONT ENTRANCE. REFER TO DOOR FRAME TYPES, SHEET A601.
E6	INSULATED HOLLOW METAL ENTRANCE DOOR. REFER TO FLOOR PLAN AND DOOR SCHEDULE.
E7	INSULATED OVERHEAD DOOR. REFER TO DOOR SCHEDULE.
E8	WALL MOUNTED LIGHT FIXTURE. REFER TO ELECTRICAL DOCUMENTS.
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E11	PREFINISHED INSULATED METAL WALL PANELS.
E12	PROJECTED BRICK - (BRICK 2)
E13	WINDOW. REFER TO FLOOR PLAN AND WINDOW TYPES.
E14	SPLIT FACE CMU.
E15	BACK LIT SIGNAGED. REFER TO SIGNAGE ALLOWANCE.
E16	HORIZONTAL LAP SIDING.
E17	ASPHALT SHINGLES. REFER TO ROOF PLAN.
E18	SIDING CORNER TRIM. TYP.
E19	MASONRY CONTROL JOINT.
E20	CAST STONE LINTEL AT OVERHEAD DOORS.
E21	CEMENT BOARD COLUMN COVER. REFER TO SECTIONS AND DETAILS.
E22	STORM SHELTER EMERGENCY ESCAPE DOOR. REFER TO DOOR SCHEDULE.
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E24	SIGNAGE. REFER TO SIGNAGE ALLLOWANCE.
E25	BABY BOX. REFER TO EQUIPMENT SCHEDULE. VERIFY ROUGH OPENING REQUIREMENTS. REFER TO STRUCTURAL FOR LINTEL / HEADER REQUIREMENTS AND ELECTRICAL DOCUMENTS.



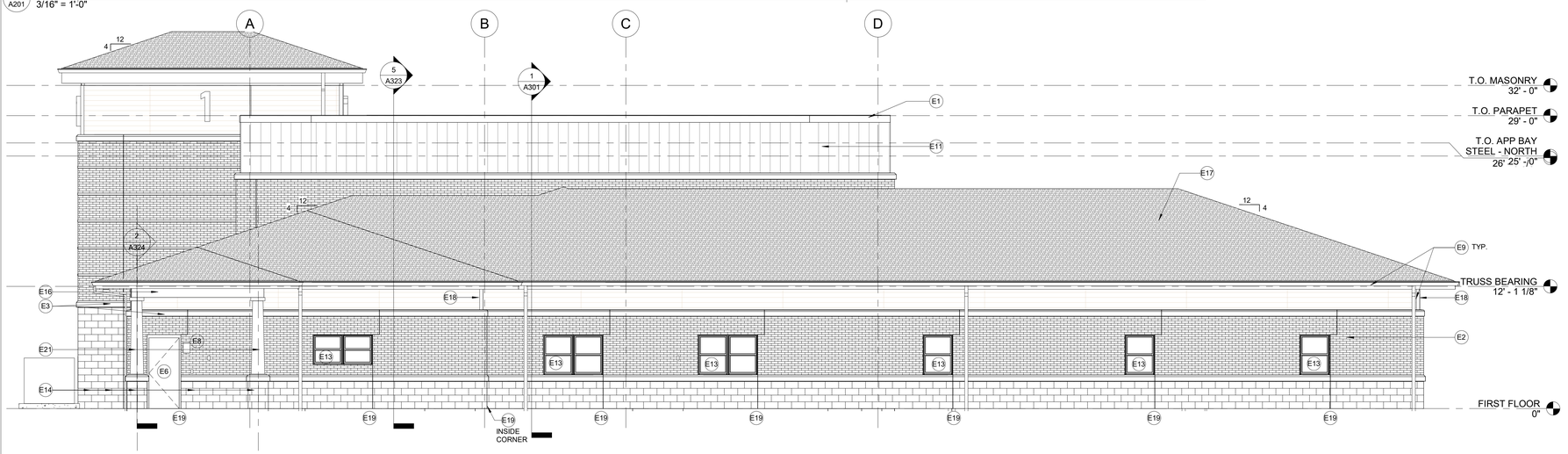
1 A201 NORTH ELEVATION
3/32" = 1'-0"



2 A201 PARTIAL NORTH ELEVATION - WEST
3/16" = 1'-0"



3 A201 PARTIAL NORTH ELEVATION -EAST
3/16" = 1'-0"



4 A201 EAST ELEVATION
3/16" = 1'-0"

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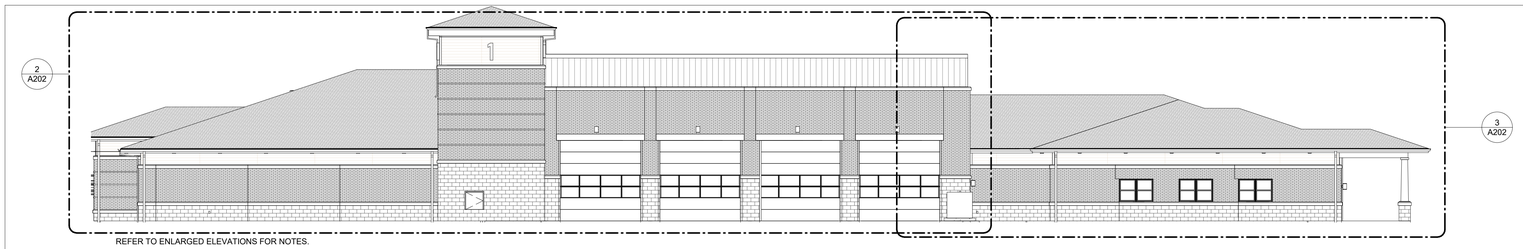
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EXTERIOR ELEVATION GENERAL NOTES

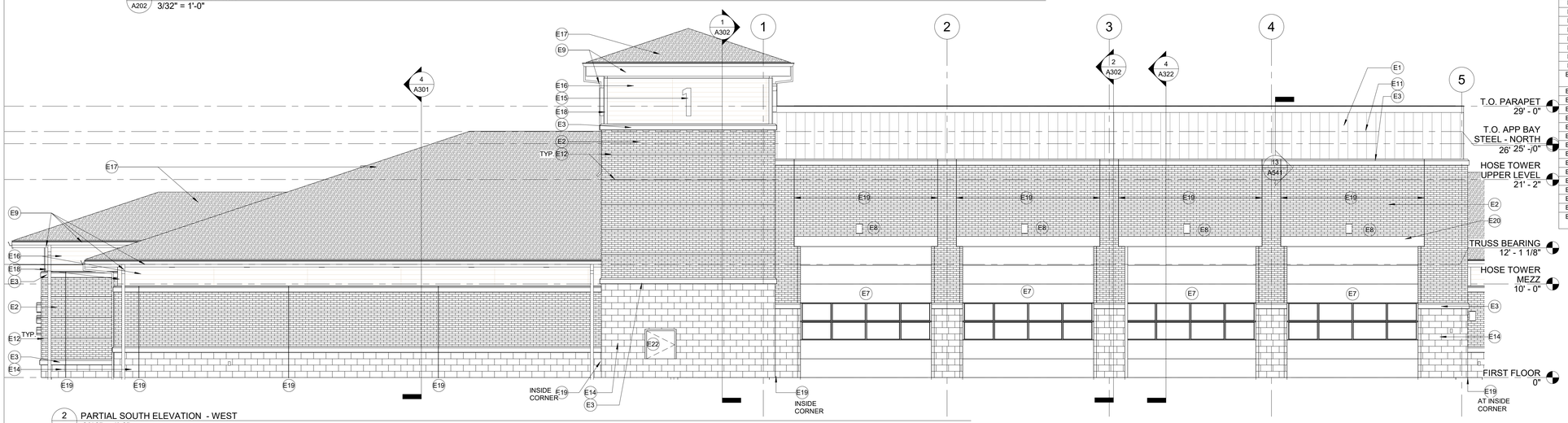
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KEYED NOTES - EXTERIOR ELEVATIONS

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E2	FACE BRICK. (BRICK 1)
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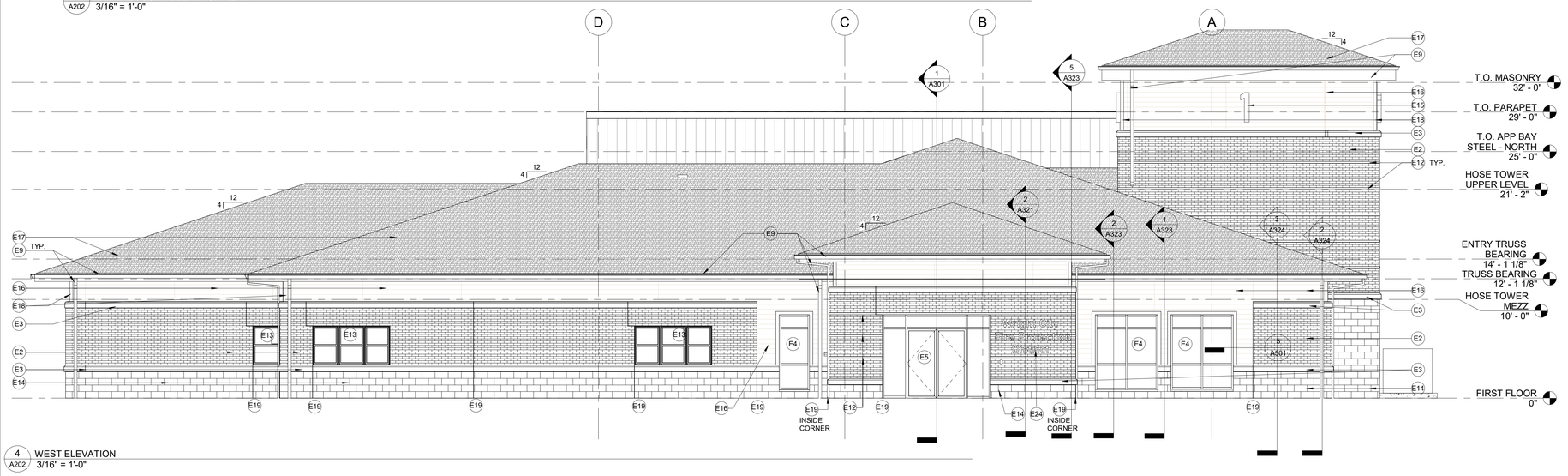


1 A202 SOUTH ELEVATION
3/32" = 1'-0"

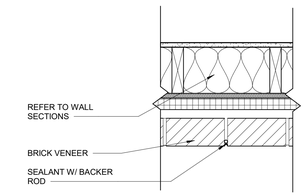


2 A202 PARTIAL SOUTH ELEVATION - WEST
3/16" = 1'-0"

3 A202 PARTIAL SOUTH ELEVATION - EAST
3/16" = 1'-0"



4 A202 WEST ELEVATION
3/16" = 1'-0"



5 A202 TYP. CONTROL JOINT DETAIL
1 1/2" = 1'-0"

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A202

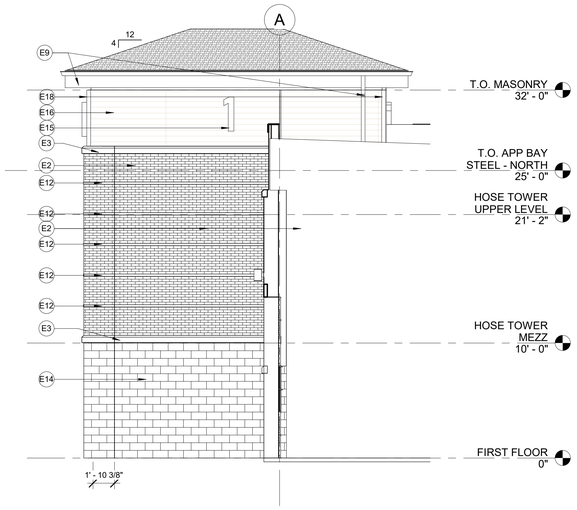
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EXTERIOR ELEVATION GENERAL NOTES

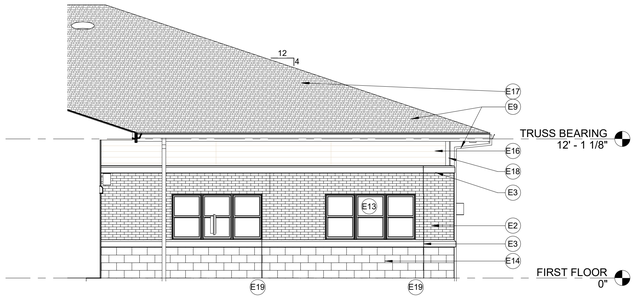
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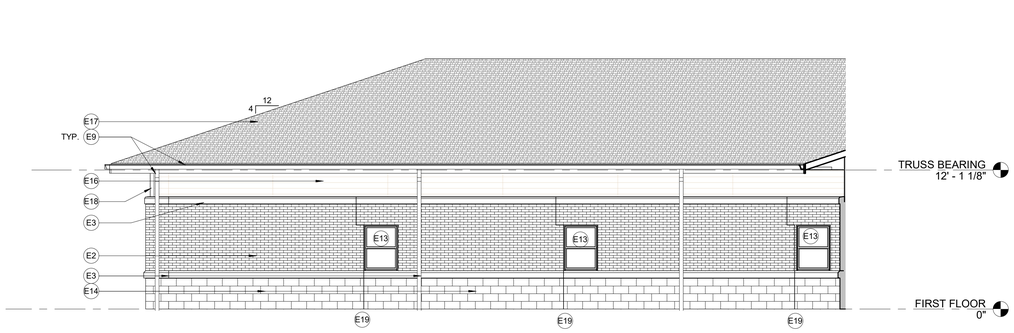
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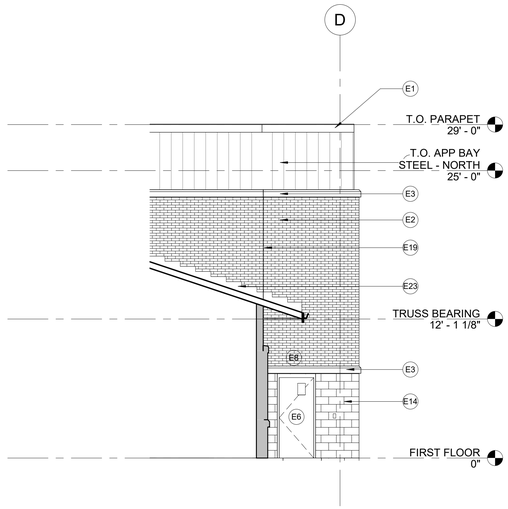
2 A203 EAST ELEVATION - PARTIAL AT HOSE TOWER
3/16" = 1'-0"



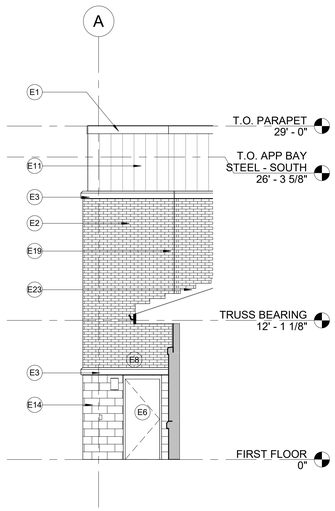
1 A203 EAST ELEVATION - PARTIAL
3/16" = 1'-0"



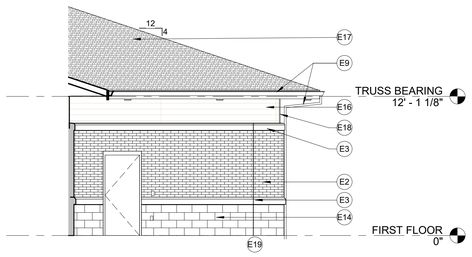
3 A203 WEST ELEVATION - PARTIAL AT LIVING QUARTERS
3/16" = 1'-0"



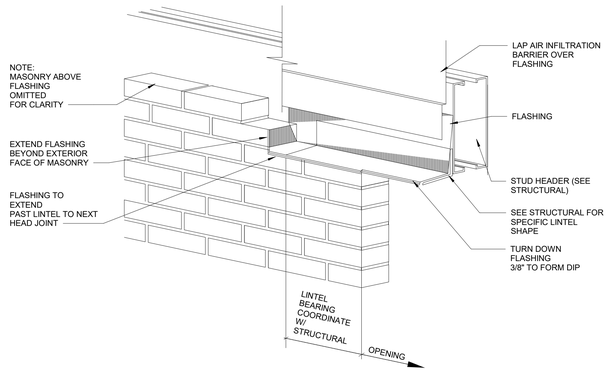
4 A203 EAST ELEVATION - PARTIAL AT APP. BAY
3/16" = 1'-0"



5 A203 EAST ELEVATION - PARTIAL AT APP. BAY 2
3/16" = 1'-0"



6 A203 WEST ELEVATION - PARTIAL AT LIVING QUARTERS
3/16" = 1'-0"



7 A203 LINTEL FLASHING DETAIL
1 1/2" = 1'-0"

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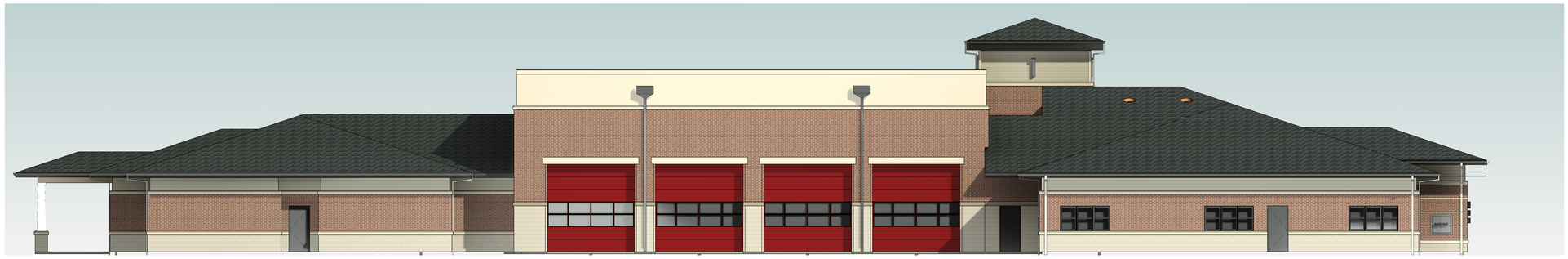
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EXTERIOR ELEVATIONS

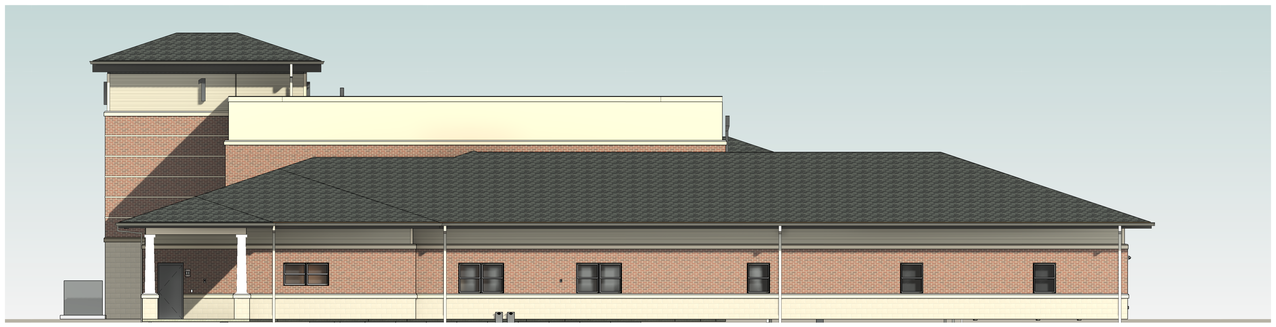
Drawn By:	Author
Checked By:	Checker
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A203

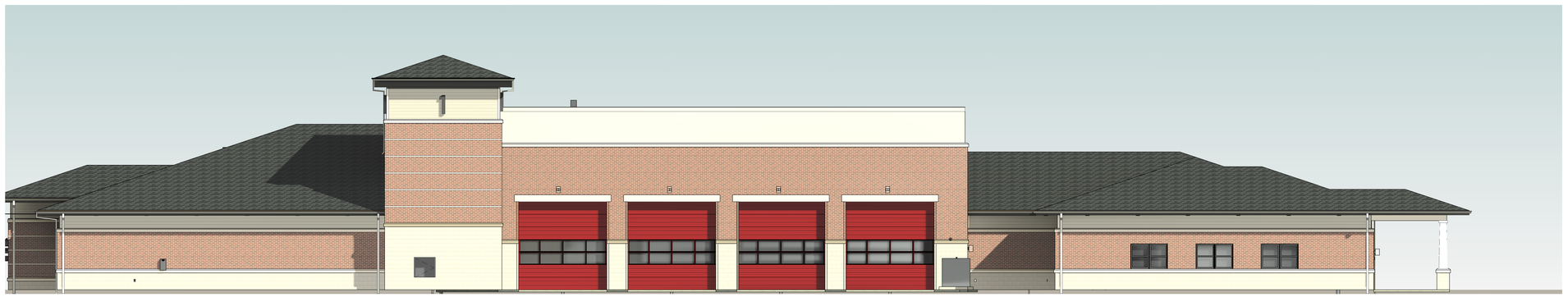
9/5/2025 4:24:10 PM



1 A204 NORTH ELEVATION - RENDERING
1/8" = 1'-0"



2 A204 EAST ELEVATION - RENDERING
1/8" = 1'-0"



3 A204 SOUTH ELEVATION - RENDERING
1/8" = 1'-0"



4 A204 WEST ELEVATION - RENDERING
1/8" = 1'-0"

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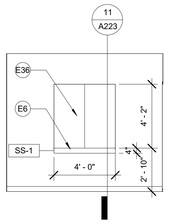
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INTERIOR ELEVATION GENERAL NOTES

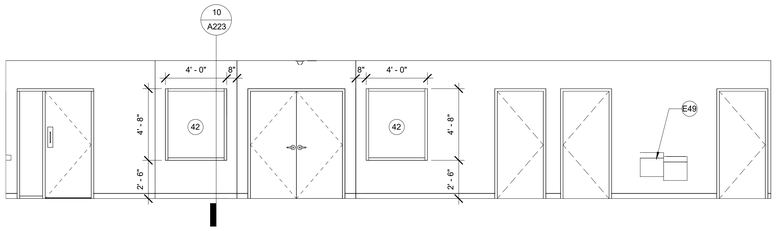
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2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION OF MILLWORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT.
3. ALL MILLWORK TO BE AWI "CUSTOM" GRADE.
4. ALL BASE/WALL CABINETS TO HAVE PLASTIC LAMINATE FINISH UNLESS NOTED OTHERWISE. REFER TO ROOM FINISH SCHEDULE FOR COUNTERTOP FINISH.
5. ALL FILE CABINETS ARE TO ACCOMMODATE FILE SIZE HANGING FILES. HANGING FILE RACK IS TO BE BUILT-IN.
6. ALL OUTSIDE CORNERS OF COUNTERTOPS TO HAVE A 2" RADIUS.
7. ALL BASE CABINETS AND KNEE SPACES TO HAVE VINYL BASE. PROVIDE SOLID BACKING AS REQUIRED.
8. ALL BASE CABINETS TO HAVE ONE ADJUSTABLE SHELF AND ALL WALL CABINETS TO HAVE TWO ADJUSTABLE SHELVES UNLESS NOTED OTHERWISE.
9. ALL CABINETS TO HAVE 4" WIRE PULLS.
10. PROVIDE A 3" DIA. GROMMET WITH PLASTIC INSERT AT EACH WORK SPACE / KNEE SPACE.
11. ALL OWNER PROVIDED ACCESSORIES ARE TO BE INSTALLED BY THE CONTRACTOR.
12. THE CONTRACTOR SHALL PROVIDE FIRE RETARDANT WOOD OR HEAVY GAUGE SHEET METAL BLOCKING FOR THE INSTALLATION OF ALL MILLWORK, TOILET ACCESSORIES, HANDRAILS, ETC. AS REQUIRED.
13. PROVIDE MOLDED VINYL PIPE COVERS ON ALL EXPOSED PLUMBING AT WALL SINKS.
14. ALL COUNTERTOP SUPPORT BRACKETS TO BE PAINTED TO MATCH THE WALL COLOR UNLESS OTHERWISE NOTED.
15. OWNER PROVIDED SOAP DISPENSERS ARE TO BE INSTALLED BY THE CONTRACTOR. PROVIDE A SOAP DISPENSER AND PAPER TOWEL DISPENSER AT ALL SINKS. OTHER OWNER PROVIDED, CONTRACTOR INSTALLED ITEMS INCLUDE SHARPS CONTAINERS, PURELL DISPENSERS AND OTOSCOPES.
16. ALL COUNTERTOPS ARE TO HAVE SELF EDGE WITH COVER BACKSPLASH/ENDSPLASH.
17. REFER TO SHEET A561 FOR CASEWORK DETAILS.

INTERIOR ELEVATION KEYED NOTES

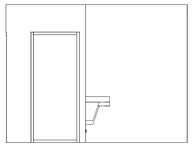
Circle Keynote	Description
E1	PLASTIC LAMINATE WALL CABINETS.
E2	PLASTIC LAMINATE BASE CABINETS.
E3	DISHWASHER. REFER TO EQUIPMENT SCHEDULE.
E4	SOLID SURFACE COUNTERTOP/BACKSPLASH AND SINK. NEW FAUCET/SPRAYER. REFER TO PLUMBING DOCUMENTS.
E5	RANGE. REFER TO EQUIPMENT SCHEDULE.
E6	SOLID SURFACE COUNTERTOP.
E7	FINISHED END.
E8	REFRIGERATOR. REFER TO EQUIPMENT SCHEDULE.
E9	MICROWAVE SHELF
E10	MULTIFUNCTION DEVICE. N.I.C.
E11	INSTALL WALL BLOCKING FOR FUTRE ADA SHOWER HEAD/SLID BAR.
E12	INSTALL WALL BLOCKING FOR FUTURE INSTALLATION OF GRAB BAR. REFER TO ADA TOILET ____ ELELVATIONS FOR ACCESSIBLE GRAB BAR LENGTH/LOCATION.
E13	SHOWER HEAD AND CONTROL. REFER TO PLUMBING DOCUMENTS.
E14	18" DEEP SOLID SURFACE COUNTER.
E15	SINK APRON. REFER TO DETAIL 27/A221.
E16	FILLER PANEL. TYPICAL
E17	18" GRAB BAR. BOBRICK B6806.99 OR EQUAL.
E18	42" GRAB BAR. BOBRICK B6806.99 OR EQUAL.
E19	36" GRAB BAR. BOBRICK B6806.99 OR EQUAL.
E20	ACCESSIBLE WATER CLOSET. REFER TO PLUMBING DOCUMENTS.
E21	TOILET PAPER DISPENSER - BOBRICK B-6867 OR EQUAL.
E22	MIRROR - 24" X 36" BOBRICK B165 OR EQUAL.
E23	SOAP DISPENSER - GLOBAL INDUSTRIAL GOJO FMX-12 (5150-06) OR EQUAL.
E24	SURFACE MOUNTED ACCESSIBLE HEIGHT PAPER TOWEL DISPENSER. BOBRICK B262 OR EQUAL.
E25	SOLID SURFACE COUNTERTOP WITH UNDERMOUNT BOWL AND PLASTIC LAMINATE APRON. REFER TO 4/A222.
E26	30" GRAB BAR. BOBRICK B6806.99 OR EQUAL. CENTER ON SHOWER WALL.
E27	PROVIDE BLOCKING FOR FUTURE ACCESSIBLE SHOWER CONTROLS/HEAD ASSEMBLY. REFER TO PLUMBING DOCUMENTS.
E28	SOLID SURFACE WALL PANELS IN SHOWER (ALL WALLS).
E29	48" GRAB BAR. BOBRICK B6806.99 OR EQUAL. CENTER ON WALL.
E30	ACCESSIBLE WALL HUNG SINK. REFER TO PLUMBING DOCUMENTS.
E31	INSULATING PIPE COVERINGS
E32	STAINLESS STEEL COUNTERTOP.
E33	SOLID SURFACE COUNTERTOP.
E34	TV. PROVIDE BLOCKING FOR MOUNT. VERIFY FINAL LOCATION WITH OWNER.
E35	FINISHED END PANEL.
E36	SLIDING TEMPERED GLASS WINDOWS WITH LOCK.
E38	WASHER. REFER TO EQUIPMENT SCHEDULE.
E39	DRYER. REFER TO EQUIPMENT SCHEDULE.
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E41	PROVIDE BLOCKING FOR ACCESSIBLE SHOWER CONTROLS/HEAD ASSEMBLY. REFER TO PLUMBING DOCUMENTS.
E43	INSTALL WALL BLOCKING FOR FUTURE INSTALLATION OF GRAB BARS.
E47	RAKKS 18"X16" EH COUNTER SUPPORT BRACKETS OR APPROVED EQUAL. (OFF-WHITE)
E48	SOLID SURFACE COUNTERTOP WITH UNDERMOUNT BOWL AND PLASTIC LAMINATE APRON. REFER TO 4/A222. (ROUGH IN TO ACCOMMODATE FUTRE ADA COMPLIANT SINK).
E49	STAINLESS STEEL COUNTERTOP. (ALTERNATE NO. 1).
E50	METAL BASE CABINETS (36" WIDE). GLOBAL INDUSTRIAL WB269873GY OR EQUAL.
E53	24" DEEP LAMINATE CABINET WITH 5 ADJUSTABLE SHELVES,
E54	SOLID SURFACE WINDOW SILL AT ALL WINDOWS. (1 " THICK. EXTEND 1/2" BEYOND WINDOW JAMB.)
E55	CUSTOM BUILT 24" DEEP LAMINATE WARDROBE CABINET WITH SHELF, CLOTHES ROD AND 2 DRAWERS. ALL EXPOSED SURFACES TO BE PLASTIC LAMINATE. INTERIOR TO BE WHITE MELAMINE. REFER TO CASEWORK DETALS AND EQUIPMENT PLAN.
E56	REFRIGERATOR, BY OWNER.
E57	ARCHITECTURAL WOOD BASE AND WALL CABINETS.
E59	PLASTIC LAMINATE COUNTERTOP.
E60	CUSTOM BUILT LAMINATE NIGHT STAND TO MATCH MURPHY BED. REFER TO EQUIPMENT PLAN.
E61	SEMI-RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER.
E62	GEAR LOCKER. REFER TO EQUIPMENT SCHEDULE.
E63	BED. REFER TO EQUIPMENT PLAN.
E64	PLASTIC LAMINATE PANTRY CABINETS. PROOVIDE LOCKS N ALL CABINETS.
E65	MOP SINK.
E66	ROOF ACCESSS LADDER.
E67	PROVIDE END PANEL TO ALLOW FOR REMOVABLE SINK BASE CABINET. EXTEND FLOORING INTO FUTURE KNEE SPACE. FINISH WALLS AND SIDE PANELS IN FUTURE KNOWW SPACE. COUNTERTOP TO BE ADJUSTABLE TO 34" IN THE FUTURE.
E68	PROVIDE END PANEL TO ALLOW FOR REMOVABLE BASE CABINET. EXTEND FLOORING INTO FUTURE KNEE SPACE. FINISH WALLS AND SIDE PANELS IN FUTURE KNOW SPACE. COUNTERTOP TO BE ADJUSTABLE TO 34" IN THE FUTURE.



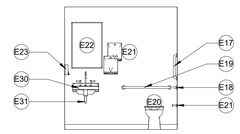
1 A221 LOBBY 101 - NORTH VIEW
1/4" = 1'-0"



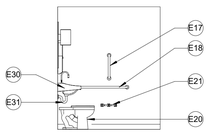
2 A221 LOBBY 101 - EAST VIEW
1/4" = 1'-0"



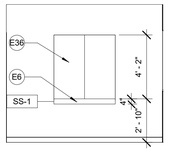
3 A221 LOBBY 101 - VIEW SOUTH
1/4" = 1'-0"



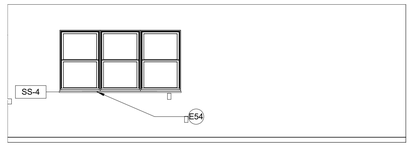
4 A221 TOILET 125 - NORTH VIEW
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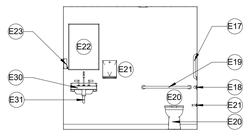
5 A221 TOILET 125 - EAST VIEW
1/4" = 1'-0"



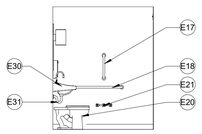
6 A221 KIM OFFICE 102 - SOUTH VIEW
1/4" = 1'-0"



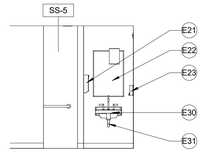
7 A221 KIM OFFICE 102 - WEST VIEW
1/4" = 1'-0"



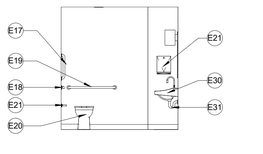
8 A221 TOILET 115 - EAST VIEW
1/4" = 1'-0"



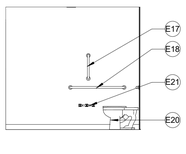
9 A221 TOILET 115 - SOUTH VIEW
1/4" = 1'-0"



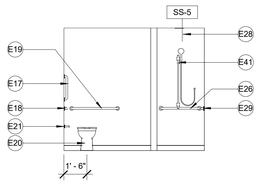
10 A221 TOILET 113 - WEST VIEW
1/4" = 1'-0"



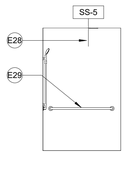
11 A221 TOILET 113 - SOUTH VIEW
1/4" = 1'-0"



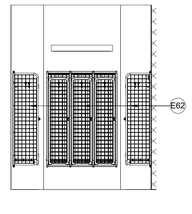
12 A221 TOILET 113 - EAST VIEW
1/4" = 1'-0"



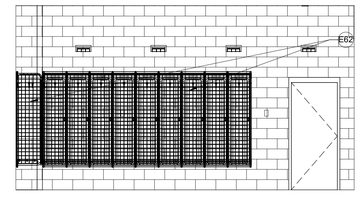
13 A221 TOILET 113 SHOWER - SOUTH VIEW
1/4" = 1'-0"



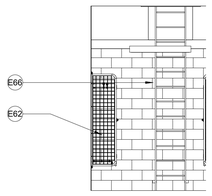
14 A221 TOILET 113 SHOWER - WEST VIEW
1/4" = 1'-0"



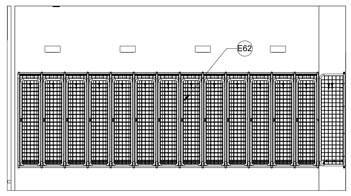
15 A221 GEAR LOCKERS 131 - NORTH VIEW
1/4" = 1'-0"



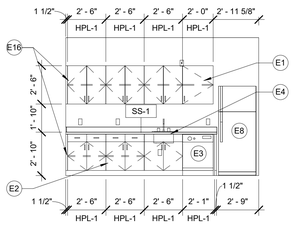
16 A221 GEAR LOCKERS 131 - EAST VIEW
1/4" = 1'-0"



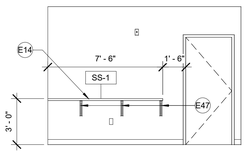
17 A221 GEAR LOCKERS 131 - SOUTH VIEW
1/4" = 1'-0"



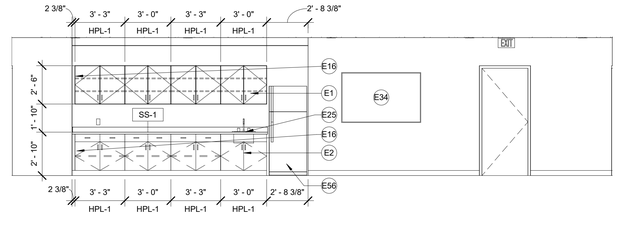
18 A221 GEAR LOCKERS 131- WEST VIEW
1/4" = 1'-0"



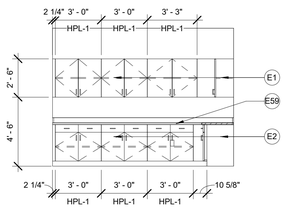
19 A221 BREAK 112 - NORTH VIEW
1/4" = 1'-0"



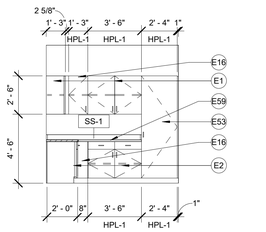
20 A221 BREAK 112 - SOUTH VIEW
1/4" = 1'-0"



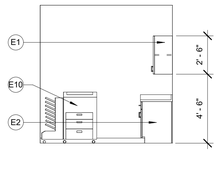
21 A221 MEETING ROOM 123 - NORTH VIEW
1/4" = 1'-0"



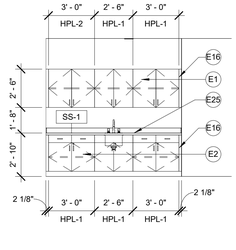
22 A221 COPY 111 - NORTH VIEW
1/4" = 1'-0"



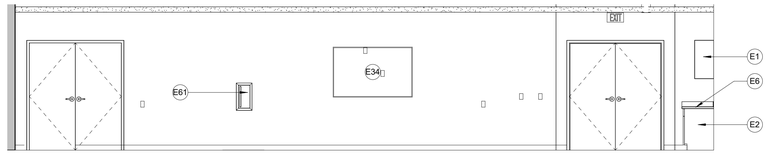
23 A221 COPY 111 - EAST VIEW
1/4" = 1'-0"



24 A221 COPY 111 - WEST VIEW
1/4" = 1'-0"



25 A221 CONFERENCE 116 - SOUTH VIEW
1/4" = 1'-0"



26 A221 MEETING ROOM 123 - WEST VIEW
1/4" = 1'-0"

9/5/2025 4:25:36 PM

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Wright City Fire Protection District
60 Bell Road
Wright City, MO 63390

Revisions:

No:	Date:	Description:

Sheet Info:

INTERIOR ELEVATIONS

Drawn By:	Author
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

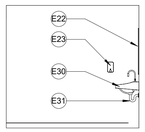
A221

INTERIOR ELEVATION GENERAL NOTES

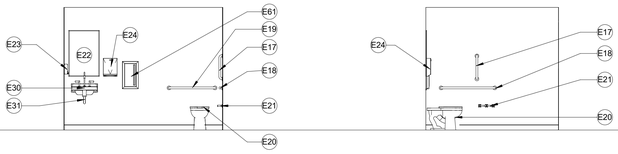
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, LAWS AND REGULATIONS.
2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION OF MILLWORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT.
3. ALL MILLWORK TO BE AWI "CUSTOM" GRADE.
4. ALL BASE/WALL CABINETS TO HAVE PLASTIC LAMINATE FINISH UNLESS NOTED OTHERWISE. REFER TO ROOM FINISH SCHEDULE FOR COUNTERTOP FINISH.
5. ALL FILE CABINETS ARE TO ACCOMMODATE FILE SIZE HANGING FILES. HANGING FILE RACK IS TO BE BUILT-IN.
6. ALL OUTSIDE CORNERS OF COUNTERTOPS TO HAVE A 2" RADIUS.
7. ALL BASE CABINETS AND KNEE SPACES TO HAVE VINYL BASE. PROVIDE SOLID BACKING AS REQUIRED.
8. ALL BASE CABINETS TO HAVE ONE ADJUSTABLE SHELF AND ALL WALL CABINETS TO HAVE TWO ADJUSTABLE SHELVES UNLESS NOTED OTHERWISE.
9. ALL CABINETS TO HAVE 4" WIRE PULLS.
10. PROVIDE A 3" DIA. GROMMET WITH PLASTIC INSERT AT EACH WORK SPACE / KNEE SPACE.
11. ALL OWNER PROVIDED ACCESSORIES ARE TO BE INSTALLED BY THE CONTRACTOR.
12. THE CONTRACTOR SHALL PROVIDE FIRE RETARDANT WOOD OR HEAVY GAUGE SHEET METAL BLOCKING FOR THE INSTALLATION OF ALL MILLWORK, TOILET ACCESSORIES, HANDRAILS, ETC. AS REQUIRED.
13. PROVIDE MOLDED VINYL PIPE COVERS ON ALL EXPOSED PLUMBING AT WALL SINKS.
14. ALL COUNTERTOP SUPPORT BRACKETS TO BE PAINTED TO MATCH THE WALL COLOR UNLESS OTHERWISE NOTED.
15. OWNER PROVIDED SOAP DISPENSERS ARE TO BE INSTALLED BY THE CONTRACTOR. PROVIDE A SOAP DISPENSER AND PAPER TOWEL DISPENSER AT ALL SINKS. OTHER OWNER PROVIDED, CONTRACTOR INSTALLED ITEMS INCLUDE SHARPS CONTAINERS, PURELL DISPENSERS AND OTOSCOPES.
16. ALL COUNTERTOPS ARE TO HAVE SELF EDGE WITH COVER BACKSPLASH/ENDSPLASH.
17. REFER TO SHEET A561 FOR CASEWORK DETAILS.

INTERIOR ELEVATION KEYED NOTES

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E62	GEAR LOCKER. REFER TO EQUIPMENT SCHEDULE.
E63	BED. REFER TO EQUIPMENT PLAN.
E64	PLASTIC LAMINATE PANTRY CABINETS. PROOVIDE LOCKS N ALL CABINETS.
E65	MOP SINK.
E66	ROOF ACCESSS LADDER.
E67	PROVIDE END PANEL TO ALLOW FOR REMOVABLE SINK BASE CABINET. EXTEND FLOORING INTO FUTURE KNEE SPACE. FINISH WALLS AND SIDE PANELS IN FUTURE KNOWV SPACE. COUNTERTOP TO BE ADJUSTABLE TO 34" IN THE FUTURE.
E68	PROVIDE END PANEL TO ALLOW FOR REMOVABLE BASE CABINET. EXTEND FLOORING INTO FUTURE KNEE SPACE. FINISH WALLS AND SIDE PANELS IN FUTURE KNOW SPACE. COUNTERTOP TO BE ADJUSTABLE TO 34" IN THE FUTURE.

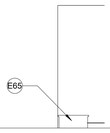


1 A222 STORM SHELTER 157 - SOUTH VIEW
1/4" = 1'-0"

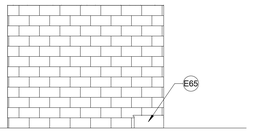


2 A222 STORM SHELTER 157 - WEST VIEW
1/4" = 1'-0"

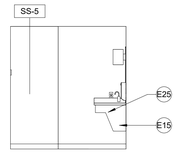
3 A222 STORM SHELTER 158 - NORTH VIEW
1/4" = 1'-0"



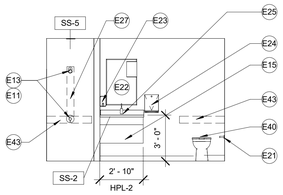
4 A222 JANITOR 140 - WEST WALL
1/4" = 1'-0"



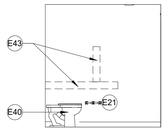
5 A222 JANITOR 140 - SOUTH VIEW
1/4" = 1'-0"



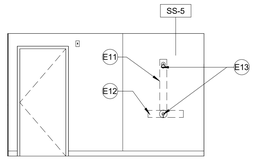
6 A222 ADAPT TOILET 142 - EAST VIEW
1/4" = 1'-0"



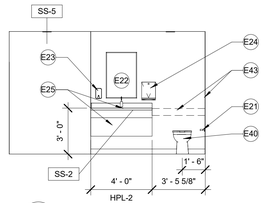
7 A222 ADAPT TOILET 142 - SOUTH VIEW
1/4" = 1'-0"



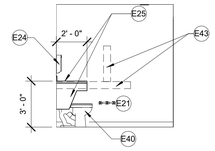
8 A222 ADAPT TOILET 142 - WEST VIEW
1/4" = 1'-0"



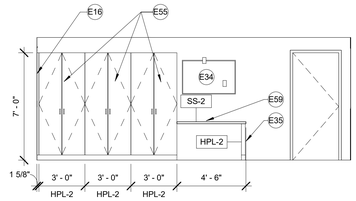
9 A222 TOILET 145 - NORTH VIEW
1/4" = 1'-0"



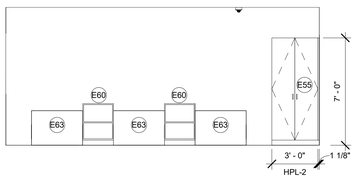
10 A222 TOILET 145 - SOUTH VIEW
1/4" = 1'-0"



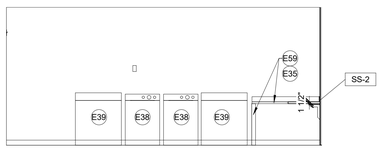
11 A222 TOILET 145 - WEST VIEW
1/4" = 1'-0"



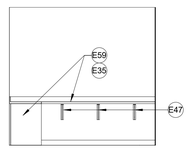
12 A222 BUNK ROOM 146 - SOUTH VIEW
1/4" = 1'-0"



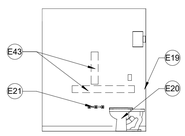
13 A222 BUNK ROOM 146 - NORTH VIEW
1/4" = 1'-0"



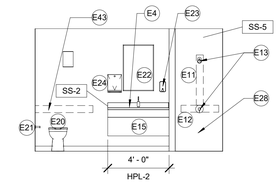
14 A222 LAUNDRY/STORAGE 147 - SOUTH VIEW
1/4" = 1'-0"



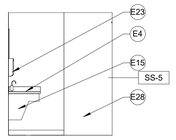
15 A222 LAUNDRY / STORAGE 147 - WEST VIEW
1/4" = 1'-0"



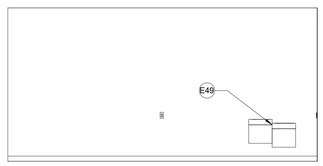
16 A222 TOILET 154 - EAST VIEW
1/4" = 1'-0"



17 A222 TOILET 154 - SOUTH VIEW
1/4" = 1'-0"



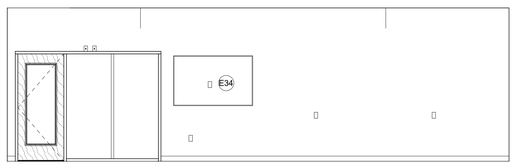
18 A222 TOILET 154 - WEST VIEW
1/4" = 1'-0"



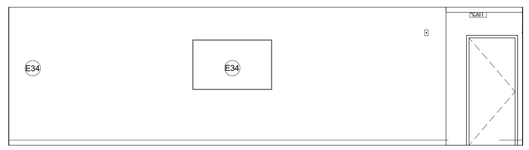
19 A222 WEIGHT ROOM 156 - NORTH VIEW
1/4" = 1'-0"



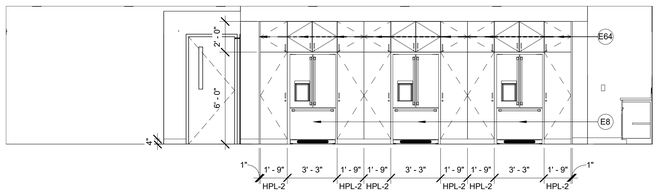
20 A222 WEIGHT ROOM 156 - SOUTH VIEW
1/4" = 1'-0"



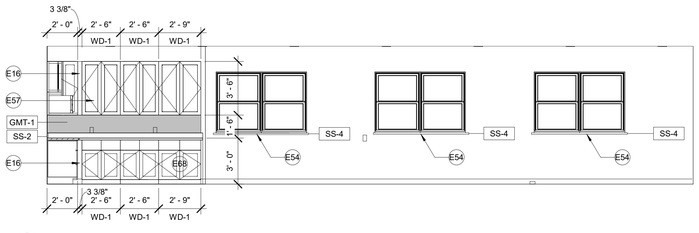
21 A222 WEIGHT ROOM 156 - WEST VIEW
1/4" = 1'-0"



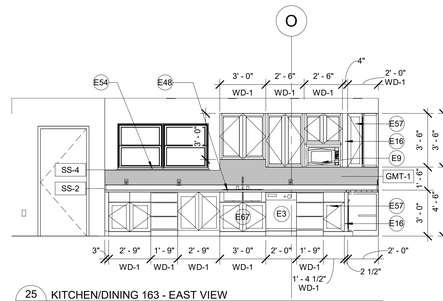
22 A222 DAYROOM 162 - WEST VIEW
1/4" = 1'-0"



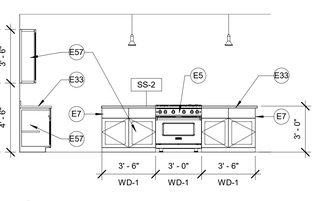
24 A222 KITCHEN/DINING 163 - NORTH VIEW
1/4" = 1'-0"



26 A222 KITCHEN/DINING 163 - SOUTH VIEW
1/4" = 1'-0"



25 A222 KITCHEN/DINING 163 - EAST VIEW
1/4" = 1'-0"



27 A222 KITCHEN/DINING 163 - WEST VIEW
1/4" = 1'-0"

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Wright City Fire Protection District
60 Bell Road
Wright City, MO 63390

Revisions:

No:	Date:	Description:

Sheet Info:

INTERIOR ELEVATIONS

Drawn By:	Author
Checked By:	Checker
Commission:	025-2125
Date:	2025-09-05

A222

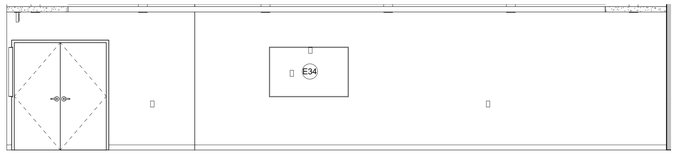
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INTERIOR ELEVATION GENERAL NOTES

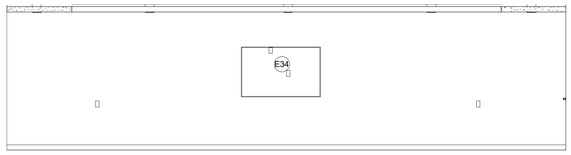
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, LAWS AND REGULATIONS.
2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION OF MILLWORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT.
3. ALL MILLWORK TO BE AWI "CUSTOM" GRADE.
4. ALL BASE/WALL CABINETS TO HAVE PLASTIC LAMINATE FINISH UNLESS NOTED OTHERWISE. REFER TO ROOM FINISH SCHEDULE FOR COUNTERTOP FINISH.
5. ALL FILE CABINETS ARE TO ACCOMMODATE FILE SIZE HANGING FILES. HANGING FILE RACK IS TO BE BUILT-IN.
6. ALL OUTSIDE CORNERS OF COUNTERTOPS TO HAVE A 2" RADIUS.
7. ALL BASE CABINETS AND KNEE SPACES TO HAVE VINYL BASE. PROVIDE SOLID BACKING AS REQUIRED.
8. ALL BASE CABINETS TO HAVE ONE ADJUSTABLE SHELF AND ALL WALL CABINETS TO HAVE TWO ADJUSTABLE SHELVES UNLESS NOTED OTHERWISE.
9. ALL CABINETS TO HAVE 4" WIRE PULLS.
10. PROVIDE A 3" DIA. GROMMET WITH PLASTIC INSERT AT EACH WORK SPACE / KNEE SPACE.
11. ALL OWNER PROVIDED ACCESSORIES ARE TO BE INSTALLED BY THE CONTRACTOR.
12. THE CONTRACTOR SHALL PROVIDE FIRE RETARDANT WOOD OR HEAVY GAUGE SHEET METAL BLOCKING FOR THE INSTALLATION OF ALL MILLWORK, TOILET ACCESSORIES, HANDRAILS, ETC. AS REQUIRED.
13. PROVIDE MOLDED VINYL PIPE COVERS ON ALL EXPOSED PLUMBING AT WALL SINKS.
14. ALL COUNTERTOP SUPPORT BRACKETS TO BE PAINTED TO MATCH THE WALL COLOR UNLESS OTHERWISE NOTED.
15. OWNER PROVIDED SOAP DISPENSERS ARE TO BE INSTALLED BY THE CONTRACTOR. PROVIDE A SOAP DISPENSER AND PAPER TOWEL DISPENSER AT ALL SINKS. OTHER OWNER PROVIDED, CONTRACTOR INSTALLED ITEMS INCLUDE SHARPS CONTAINERS, PURELL DISPENSERS AND OTOSCOPES.
16. ALL COUNTERTOPS ARE TO HAVE SELF EDGE WITH COVER BACKSPLASH/ENDSPLASH.
17. REFER TO SHEET A561 FOR CASEWORK DETAILS.

INTERIOR ELEVATION KEYED NOTES

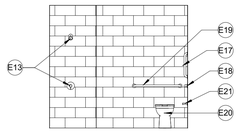
Circle Keynote	Description
E1	PLASTIC LAMINATE WALL CABINETS.
E2	PLASTIC LAMINATE BASE CABINETS.
E3	DISHWASHER. REFER TO EQUIPMENT SCHEDULE.
E4	SOLID SURFACE COUNTERTOP/BACKSPLASH AND SINK. NEW FAUCET/SPRAYER. REFER TO PLUMBING DOCUMENTS.
E5	RANGE. REFER TO EQUIPMENT SCHEDULE.
E6	SOLID SURFACE COUNTERTOP.
E7	FINISHED END.
E8	REFRIGERATOR. REFER TO EQUIPMENT SCHEDULE.
E9	MICROWAVE SHELF
E10	MULTIFUNCTION DEVICE. N.I.C.
E11	INSTALL WALL BLOCKING FOR FUTRE ADA SHOWER HEAD/SLID BAR.
E12	INSTALL WALL BLOCKING FOR FUTURE INSTALLATION OF GRAB BAR. REFER TO ADA TOILET ____ ELELVATIONS FOR ACCESSIBLE GRAB BAR LENGTH/LOCATION.
E13	SHOWER HEAD AND CONTROL. REFER TO PLUMBING DOCUMENTS.
E14	18" DEEP SOLID SURFACE COUNTER.
E15	SINK APRON. REFER TO DETAIL 27/A221.
E16	FILLER PANEL. TYPICAL
E17	18" GRAB BAR. BOBRICK B6806.99 OR EQUAL.
E18	42" GRAB BAR. BOBRICK B6806.99 OR EQUAL.
E19	36" GRAB BAR. BOBRICK B6806.99 OR EQUAL.
E20	ACCESSIBLE WATER CLOSET. REFER TO PLUMBING DOCUMENTS.
E21	TOILET PAPER DISPENSER - BOBRICK B-6867 OR EQUAL.
E22	MIRROR - 24" X 36" BOBRICK B165 OR EQUAL
E23	SOAP DISPENSER - GLOBAL INDUSTRIAL GOJO FMX-12 (5150-06) OR EQUAL.
E24	SURFACE MOUNTED ACCESSIBLE HEIGHT PAPER TOWEL DISPENSER. BOBRICK B262 OR EQUAL.
E25	SOLID SURFACE COUNTERTOP WITH UNDERMOUNT BOWL AND PLASTIC LAMINATE APRON. REFER TO 4/A222.
E26	30" GRAB BAR. BOBRICK B6806.99 OR EQUAL. CENTER ON SHOWER WALL.
E27	PROVIDE BLOCKING FOR FUTURE ACCESSIBLE SHOWER CONTROLS/HEAD ASSEMBLY. REFER TO PLUMBING DOCUMENTS.
E28	SOLID SURFACE WALL PANELS IN SHOWER (ALL WALLS).
E29	48" GRAB BAR. BOBRICK B6806.99 OR EQUAL. CENTER ON WALL.
E30	ACCESSIBLE WALL HUNG SINK. REFER TO PLUMBING DOCUMENTS.
E31	INSULATING PIPE COVERINGS
E32	STAINLESS STEEL COUNTERTOP.
E33	SOLID SURFACE COUNTERTOP.
E34	TV. PROVIDE BLOCKING FOR MOUNT. VERIFY FINAL LOCATION WITH OWNER.
E35	FINISHED END PANEL.
E36	SLIDING TEMPERED GLASS WINDOWS WITH LOCK.
E38	WASHER. REFER TO EQUIPMENT SCHEDULE.
E39	DRYER. REFER TO EQUIPMENT SCHEDULE.
E40	WATER CLOSET. REFER TO PLUMBING DOCUMENTS.
E41	PROVIDE BLOCKING FOR ACCESSIBLE SHOWER CONTROLS/HEAD ASSEMBLY. REFER TO PLUMBING DOCUMENTS.
E43	INSTALL WALL BLOCKING FOR FUTURE INSTALLATION OF GRAB BARS.
E47	RAKKS 18"X16" EH COUNTER SUPPORT BRACKETS OR APPROVED EQUAL. (OFF-WHITE)
E48	SOLID SURFACE COUNTERTOP WITH UNDERMOUNT BOWL AND PLASTIC LAMINATE APRON. REFER TO 4/A222. (ROUGH IN TO ACCOMMODATE FUTRE ADA COMPLIANT SINK).
E49	STAINLESS STEEL COUNTERTOP. (ALTERNATE NO. 1).
E50	METAL BASE CABINETS (36" WIDE). GLOBAL INDUSTRIAL WB269873GY OR EQUAL.
E53	24" DEEP LAMINATE CABINET WITH 5 ADJUSTABLE SHELVES.
E54	SOLID SURFACE WINDOW SILL AT ALL WINDOWS. (1 " THICK. EXTEND 1/2" BEYOND WINDOW JAMB.)
E55	CUSTOM BUILT 24" DEEP LAMINATE WARDROBE CABINET WITH SHELF, CLOTHES ROD AND 2 DRAWERS. ALL EXPOSED SURFACES TO BE PLASTIC LAMINATE. INTERIOR TO BE WHITE MELAMINE. REFER TO CASEWORK DETAILS AND EQUIPMENT PLAN.
E56	REFRIGERATOR, BY OWNER.
E57	ARCHITECTURAL WOOD BASE AND WALL CABINETS.
E59	PLASTIC LAMINATE COUNTERTOP.
E60	CUSTOM BUILT LAMINATE NIGHT STAND TO MATCH MURPHY BED. REFER TO EQUIPMENT PLAN.
E61	SEMI-RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER.
E62	GEAR LOCKER. REFER TO EQUIPMENT SCHEDULE.
E63	BED. REFER TO EQUIPMENT PLAN.
E64	PLASTIC LAMINATE PANTRY CABINETS. PROOVIDE LOCKS N ALL CABINETS.
E65	MOP SINK.
E66	ROOF ACCESSS LADDER.
E67	PROVIDE END PANEL TO ALLOW FOR REMOVABLE SINK BASE CABINET. EXTEND FLOORING INTO FUTURE KNEE SPACE. FINISH WALLS AND SIDE PANELS IN FUTURE KNOWW SPACE. COUNTERTOP TO BE ADJUSTABLE TO 34" IN THE FUTURE.
E68	PROVIDE END PANEL TO ALLOW FOR REMOVABLE BASE CABINET. EXTEND FLOORING INTO FUTURE KNEE SPACE. FINISH WALLS AND SIDE PANELS IN FUTURE KNOW SPACE. COUNTERTOP TO BE ADJUSTABLE TO 34" IN THE FUTURE.



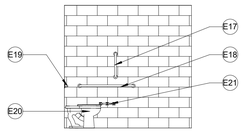
1 A223 MEETING ROOM 123 - EAST VIEW
1/4" = 1'-0"



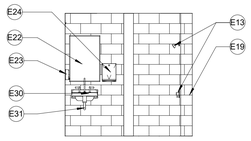
2 A223 MEETING ROOM 123 - SOUTH VIEW
1/4" = 1'-0"



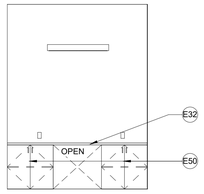
3 A223 TOILET 132A - NORTH VIEW
1/4" = 1'-0"



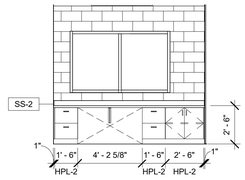
4 A223 TOILET 132A - EAST VIEW
1/4" = 1'-0"



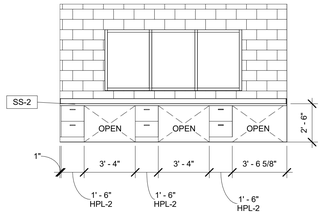
5 A223 TOILET 132A - WEST VIEW
1/4" = 1'-0"



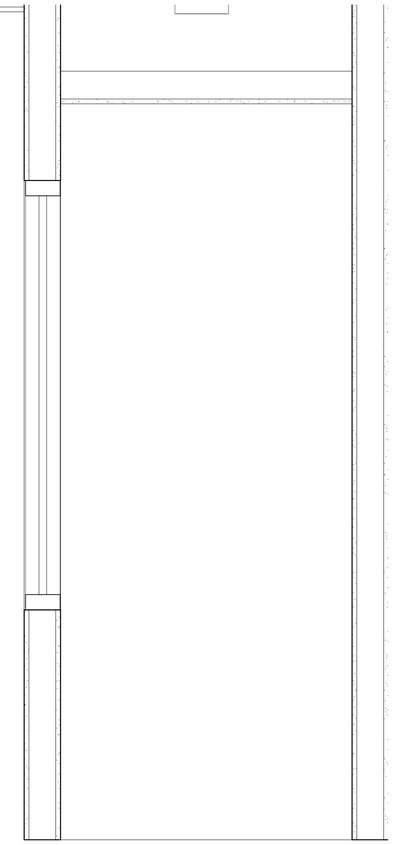
6 A223 TOOL ROOM - NORTH VIEW
1/4" = 1'-0"

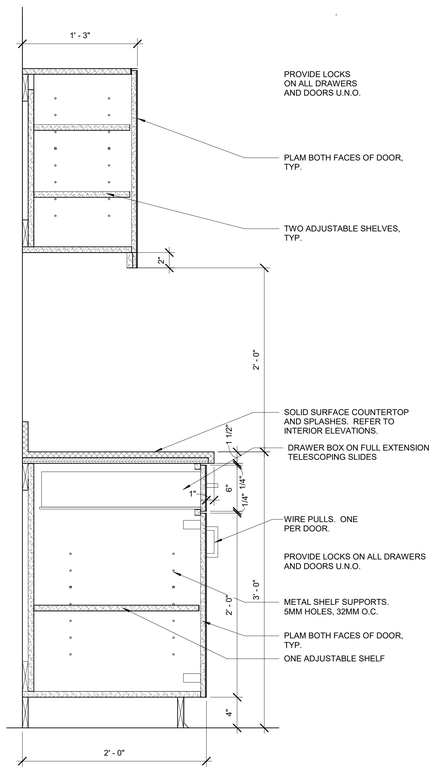


7 A223 CAPTAIN'S OFFICE 159 - WEST VIEW
1/4" = 1'-0"



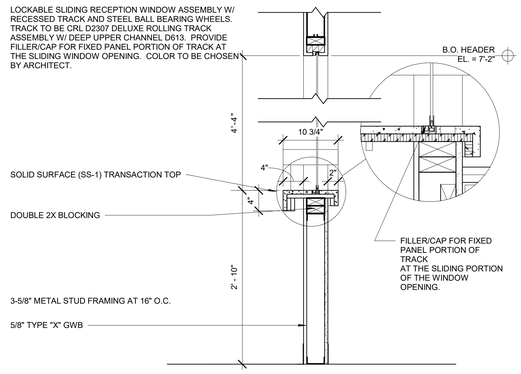
8 A223 WATCH/RADIO ROOM 166 - EAST VIEW
1/4" = 1'-0"



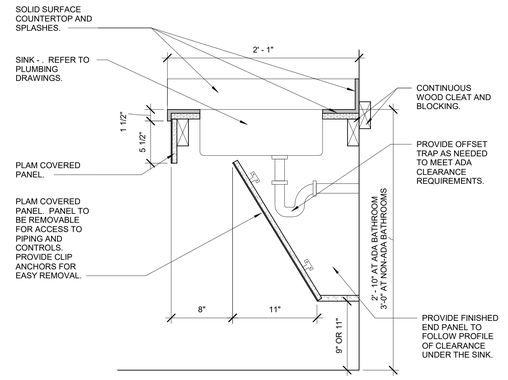


9 A223 TYPICAL CASEWORK
1 1/2" = 1'-0"

10 A223 DISPLAY CABINET DETAIL
1 1/2" = 1'-0"



11 A223 RECEPTION COUNTER DETAIL
1" = 1'-0"



12 A223 SINK APRON CASEWORK SECTION
1 1/2" = 1'-0"

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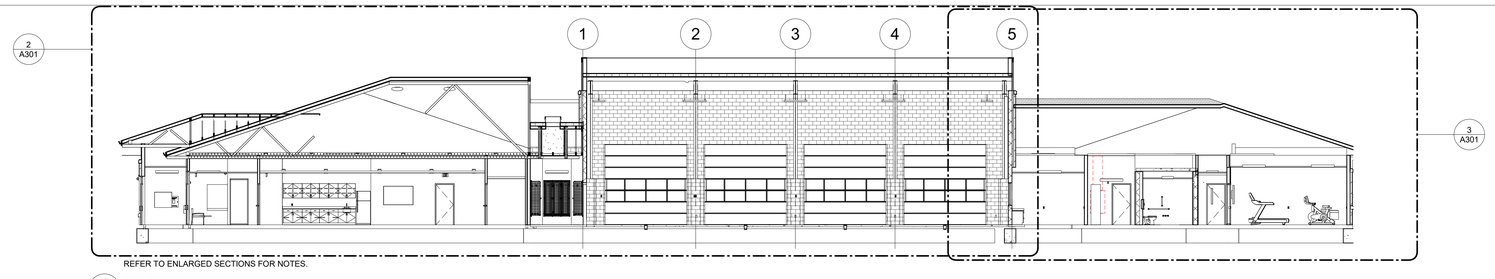
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INTERIOR ELEVATIONS AND DETAILS

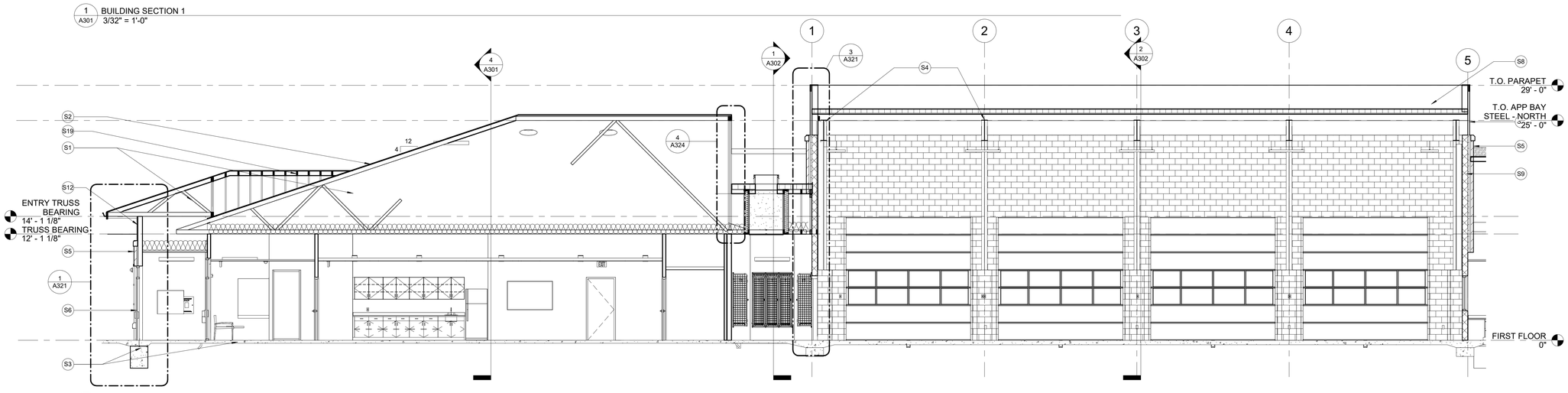
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Checked By:	Checker
Commission:	025-2125
Date:	2025-09-05

A223

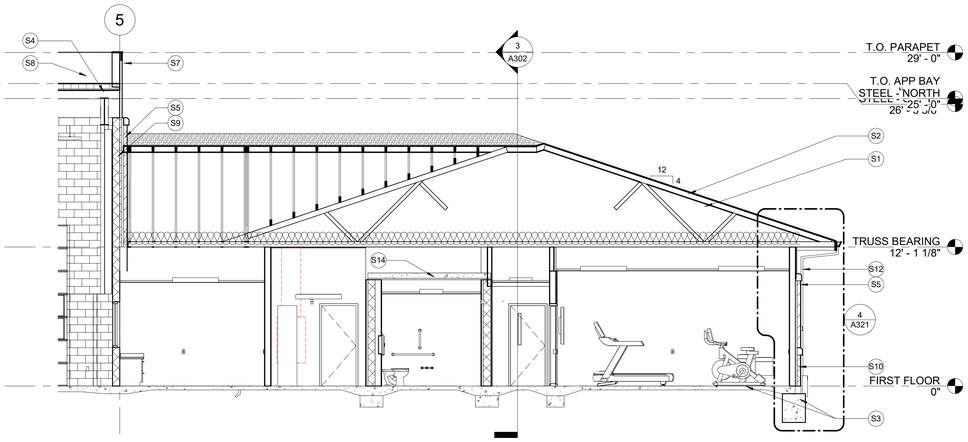


REFER TO ENLARGED SECTIONS FOR NOTES.

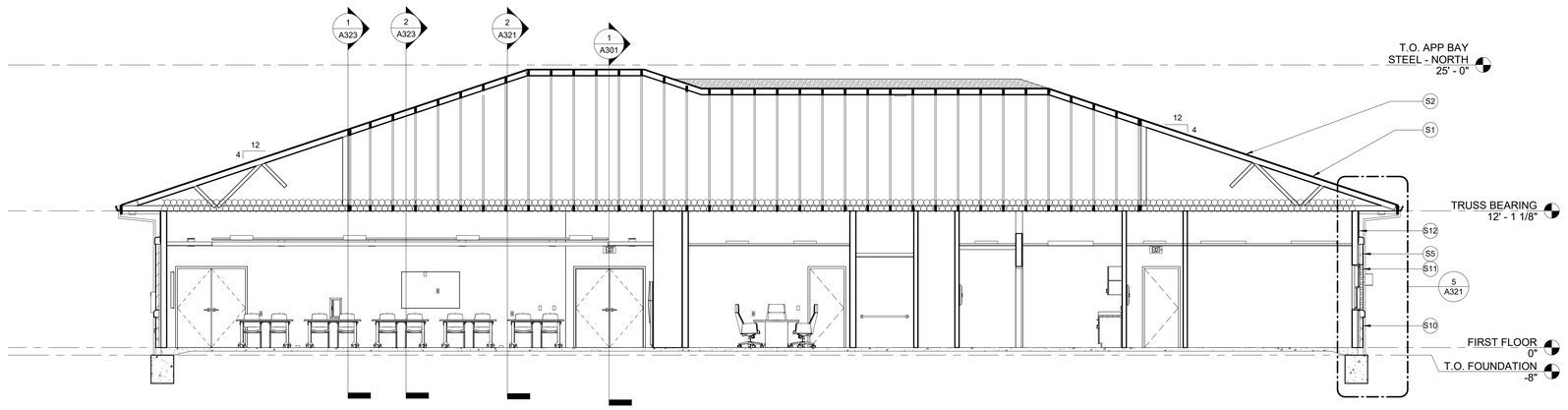
1 A301 BUILDING SECTION 1
3/32" = 1'-0"



2 A301 BUILDING SECTION 1 - WEST
3/16" = 1'-0"



3 A301 BUILDING SECTION 1 - EAST
3/16" = 1'-0"



4 A301 BUILDING SECTION 2
3/16" = 1'-0"

BUILDING SECTION GENERAL NOTES

1.	ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, LAWS, AND REGULATIONS.
2.	REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL DOCUMENTS FOR ADDITIONAL INFORMATION.
3.	EXTERIOR WALL DIMENSIONS ARE FROM FACE OF MASONRY.
4.	THE PAINTING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL PAINT AND TOUCH UP WORK WHICH SHALL BE COMPLETED AFTER THE INSTALLATION OF ALL EQUIPMENT.
5.	EACH CONTRACTOR SHALL FOLLOW THE PROGRESS OF THE WORK TO ASSURE THE ACCESSIBILITY AND SAFETY OF EQUIPMENT AND SYSTEMS AND TO PROVIDE FOR THE TIMELY INSTALLATION OF EQUIPMENT, PIPING, ETC.
6.	CONTRACTOR TO COORDINATE WITH THE OWNER FOR THE INSTALLATION OF EQUIPMENT SUPPLIED UNDER A SEPARATE CONTRACTS.

KEYED NOTES - BUILDING SECTIONS

S1	PRE-ENGINEERED WOOD TRUSSES. REFER TO STRUCTURAL DOCUMENTS.
S2	ASPHALT SHINGLES. REFER TO ROOF PLAN.
S3	CONCRETE FOUNDATION AND FLOOR SLAB. REFER TO STRUCTURAL DOCUMENTS.
S4	PRE-ENGINEERED METAL BUILDING. REFER TO STRUCTURAL DOCUMENTS.
S5	BRICK VENEER. REFER TO ELEVATIONS AND WALL SECTIONS.
S6	ALUMINUM STOREFRONT. REFER TO FLOOR PLAN, ELEVATIONS, AND WINDOW TYPES.
S7	INSULATED METAL WALL PANEL. REFER TO EXTERIOR ELEVATIONS AND WALL SECTIONS.
S8	SINGLE-PLY MEMBRANE ROOFING OVER INSULATION AND SLOPED METAL DECK. REFER TO ROOF PLAN.
S9	REINFORCED CMU BACK-UP. REFER TO STRUCTURAL, FLOOR PLAN AND WALL SECTIONS.
S10	SPLIT FACE CMU. REFER TO FLOOR PLAN AND WALL SECTIONS.
S11	WINDOW. REFER TO FLOOR PLAN, ELEVATIONS AND WINDOW TYPES.
S12	LAP SIDING. REFER TO EXTERIOR ELEVATIONS AND WALL SECTIONS.
S13	DOOR. REFER TO FLOOR PLAN AND DOOR TYPES.
S14	STORM SHELTER STRUCTURAL ROOF. REFER TO STRUCTURAL.
S15	MEZZANINE FRAMING. REFER TO FLOOR PLAN AND STRUCTURAL PLANS.
S16	SHIP LADDER. REFER TO FLOOR PLAN AND SPECIFICATIONS.
S17	MEZZANINE STAIR. REFER TO FLOOR PLAN.
S19	
S20	SINGLE-PLY MEMBRANE ROOFING OVER TAPERED INSULATION. REFER TO ROOF PLAN.
S21	ROOF HATCH. REFER TO ROOF PLAN.

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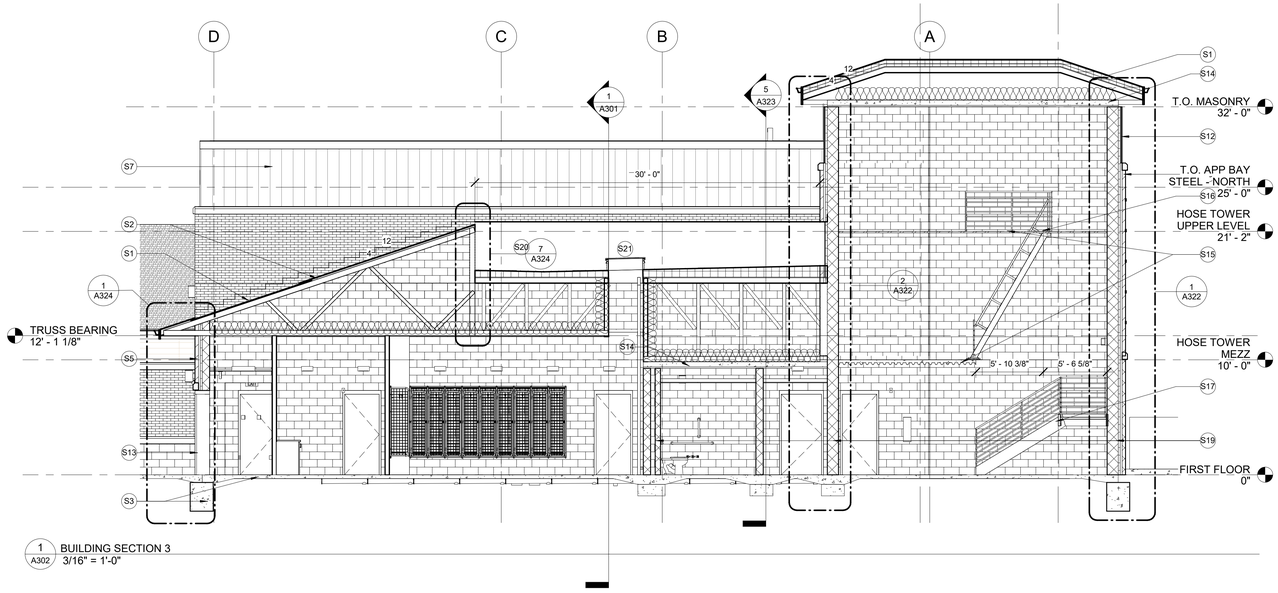
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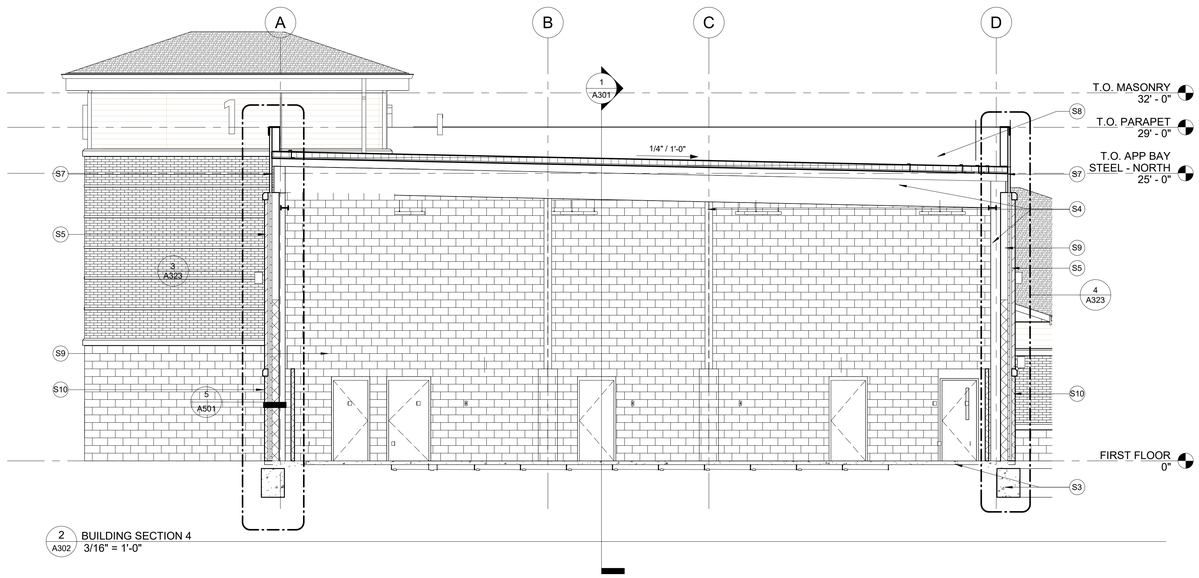
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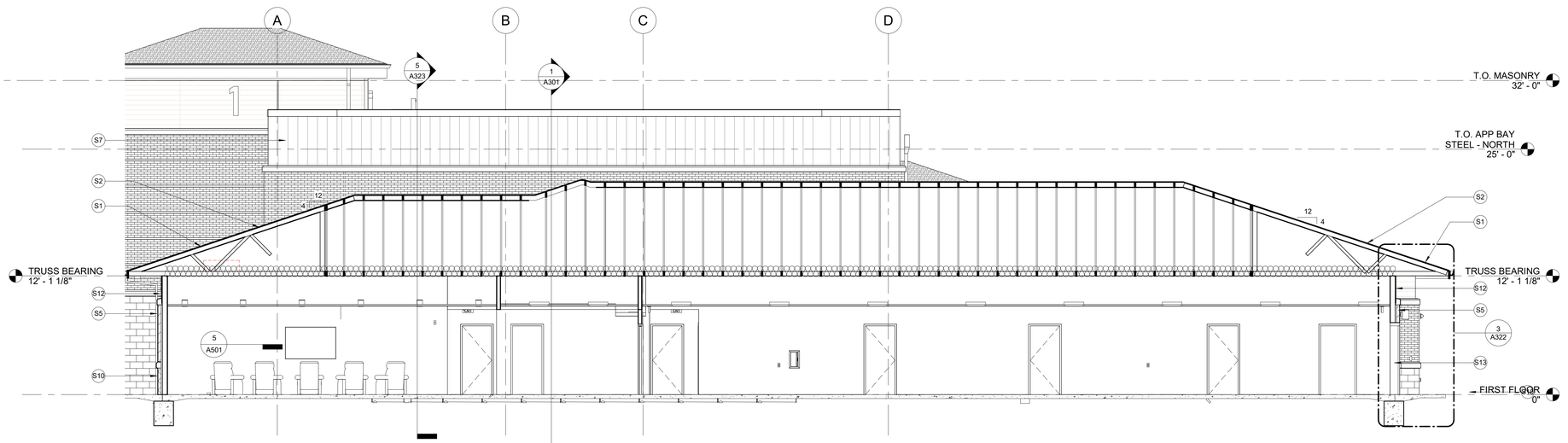
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1 A302 BUILDING SECTION 3
3/16" = 1'-0"



2 A302 BUILDING SECTION 4
3/16" = 1'-0"



3 A302 BUILDING SECTION 5
3/16" = 1'-0"

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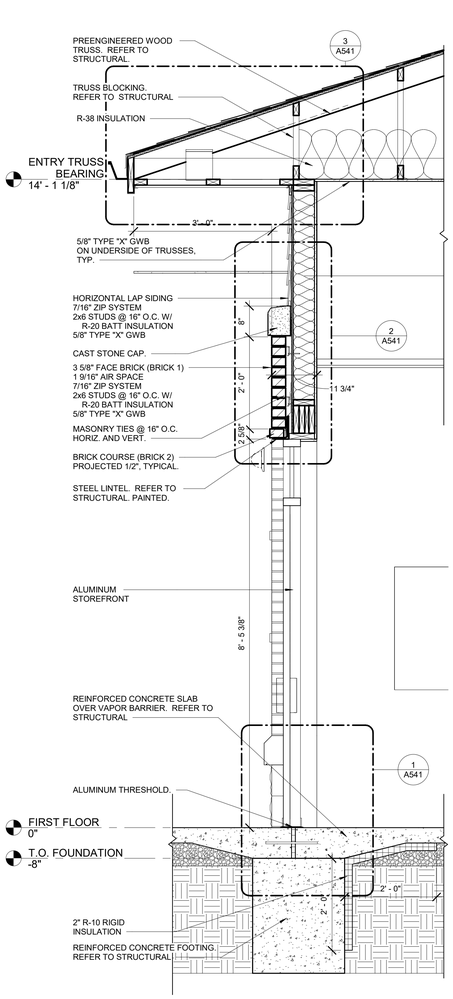
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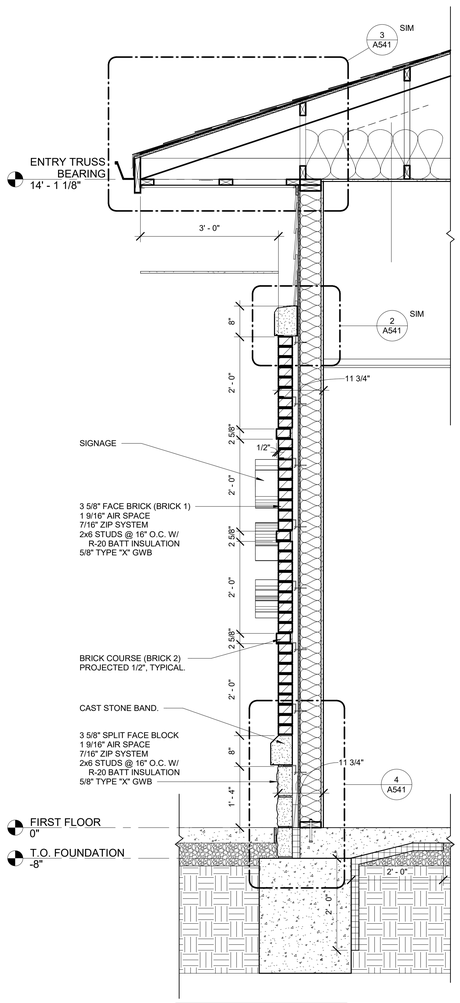
BUILDING SECTIONS

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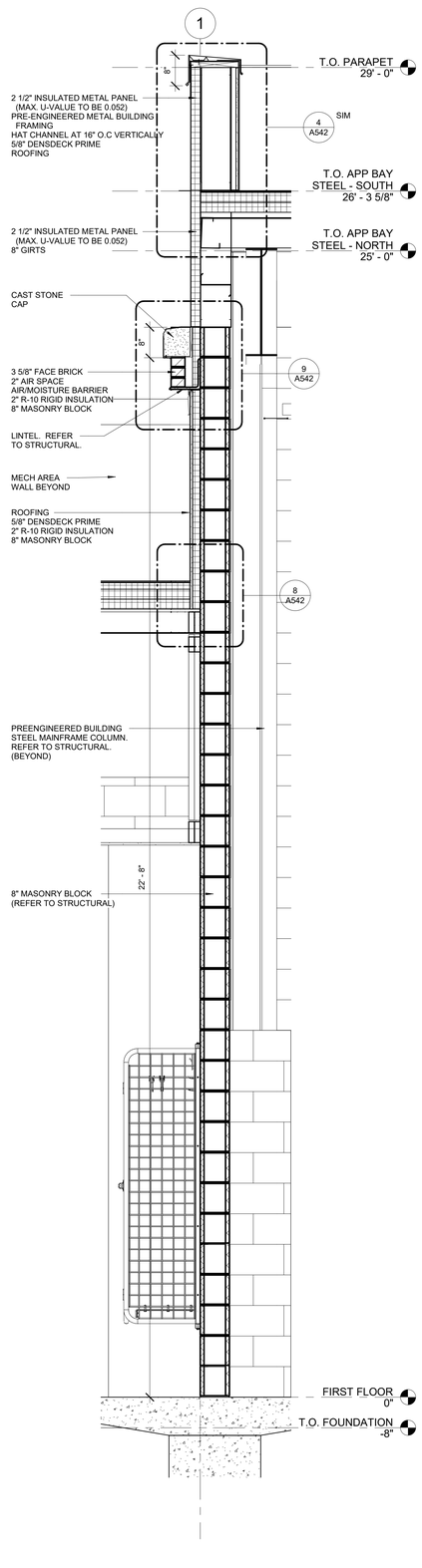


1 A321 WALL SECTION 3/4" = 1'-0"

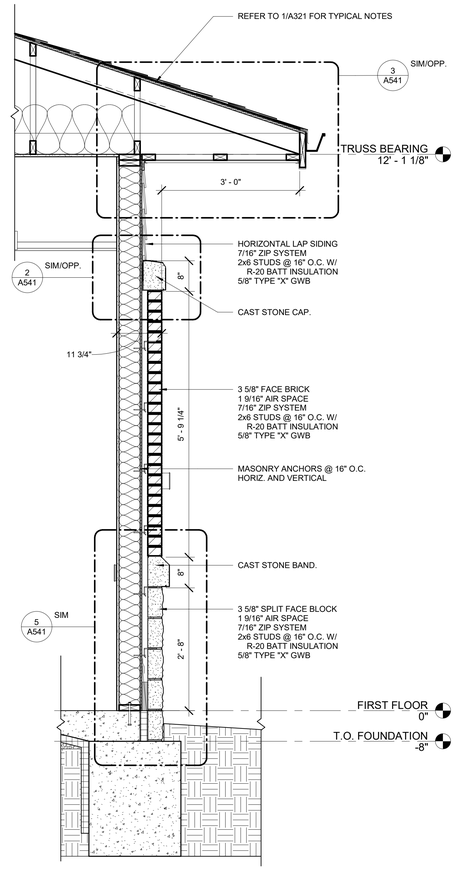


REFER TO 1/A321 FOR TYPICAL NOTES

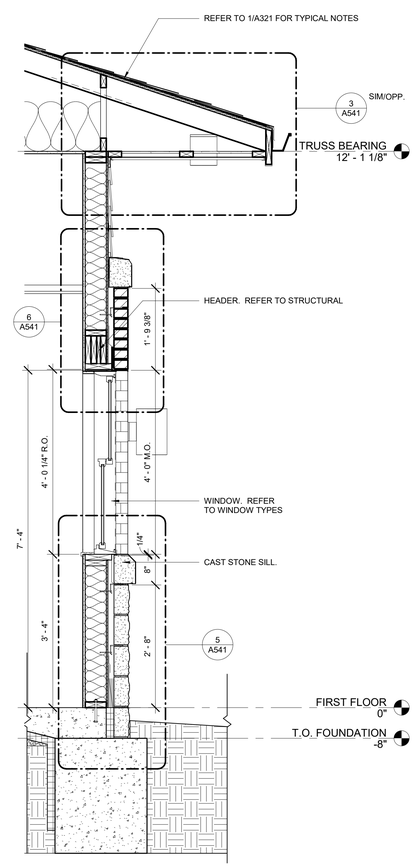
2 A321 WALL SECTION 3/4" = 1'-0"



3 A321 WALL SECTION 3/4" = 1'-0"



4 A321 WALL SECTION 3/4" = 1'-0"



REFER TO 4/A321 FOR TYPICAL NOTES

5 A321 WALL SECTION 3/4" = 1'-0"

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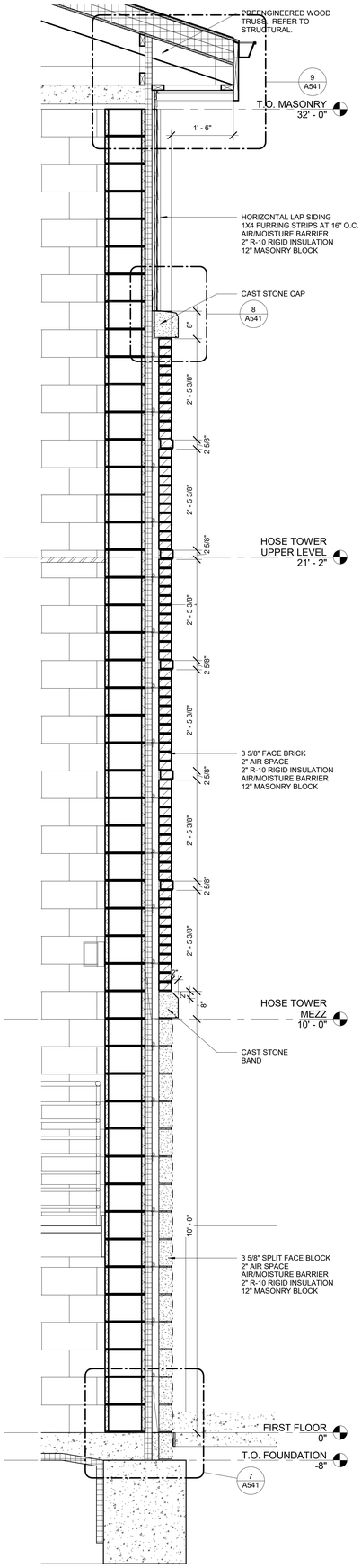
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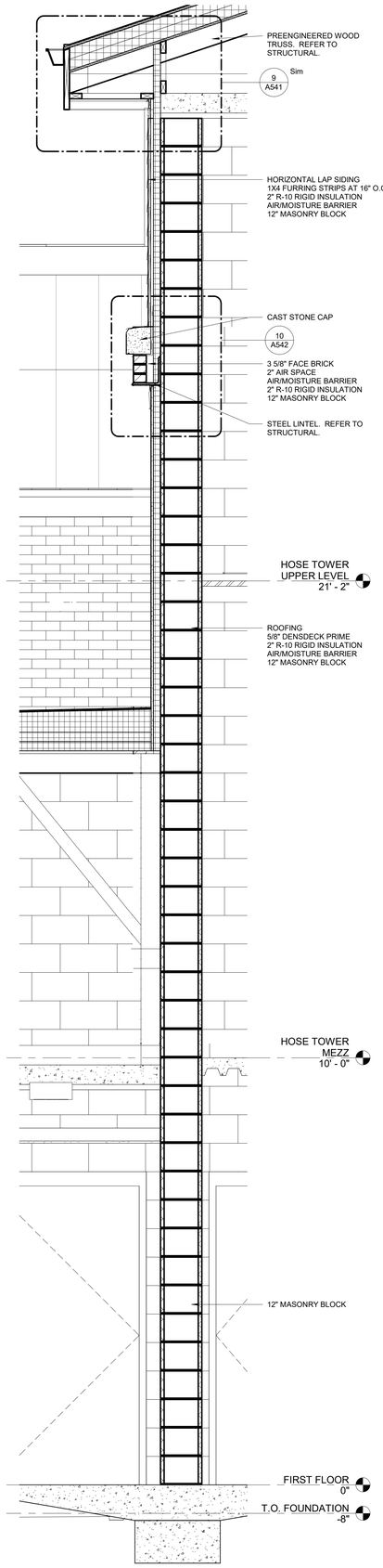
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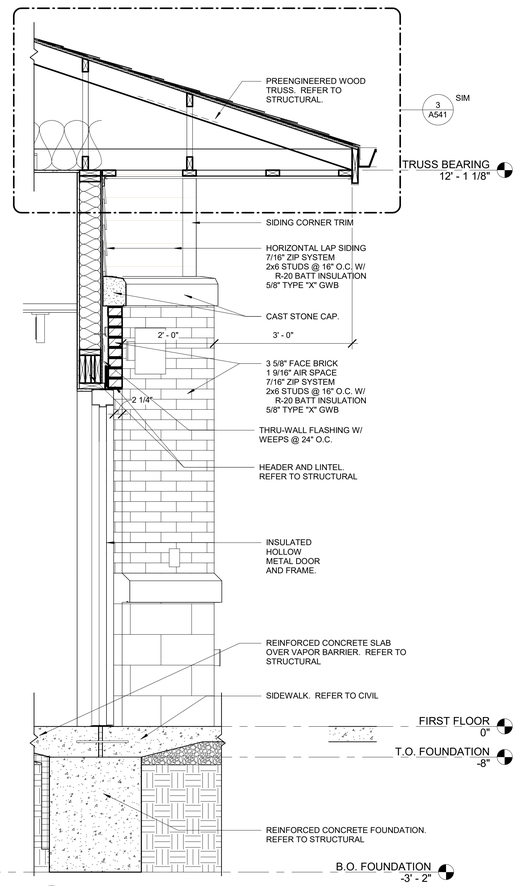
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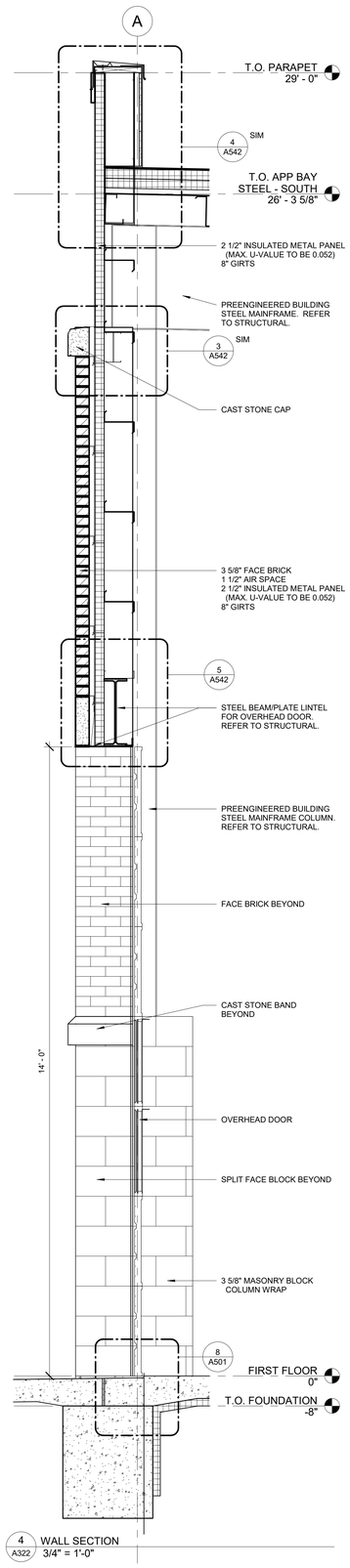
1 A322 WALL SECTION
3/4" = 1'-0"



2 A322 WALL SECTION
3/4" = 1'-0"



3 A322 WALL SECTION
3/4" = 1'-0"



4 A322 WALL SECTION
3/4" = 1'-0"

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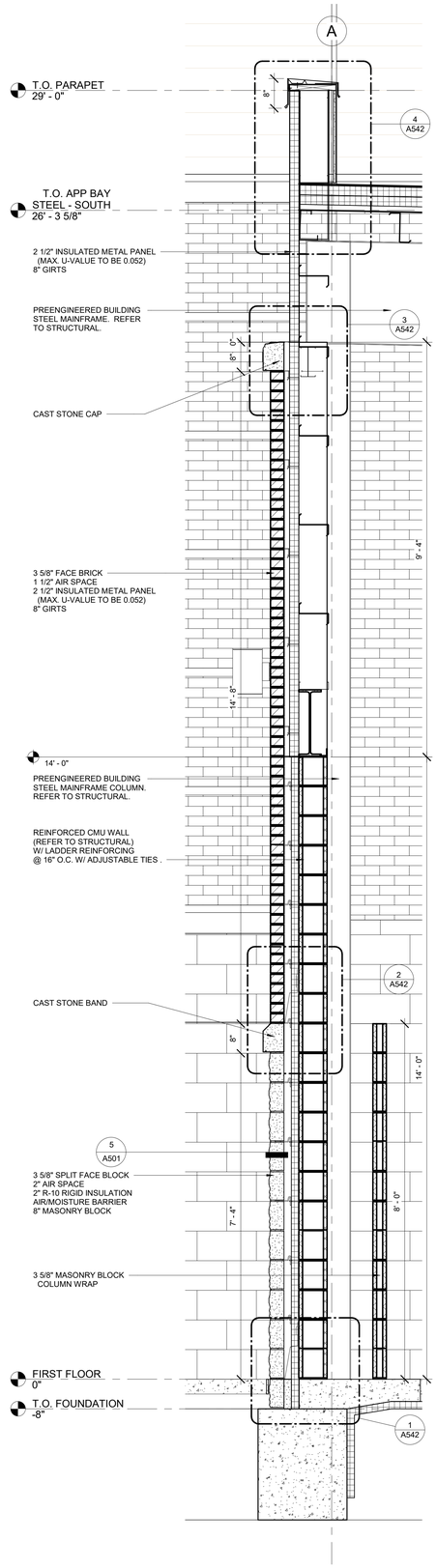
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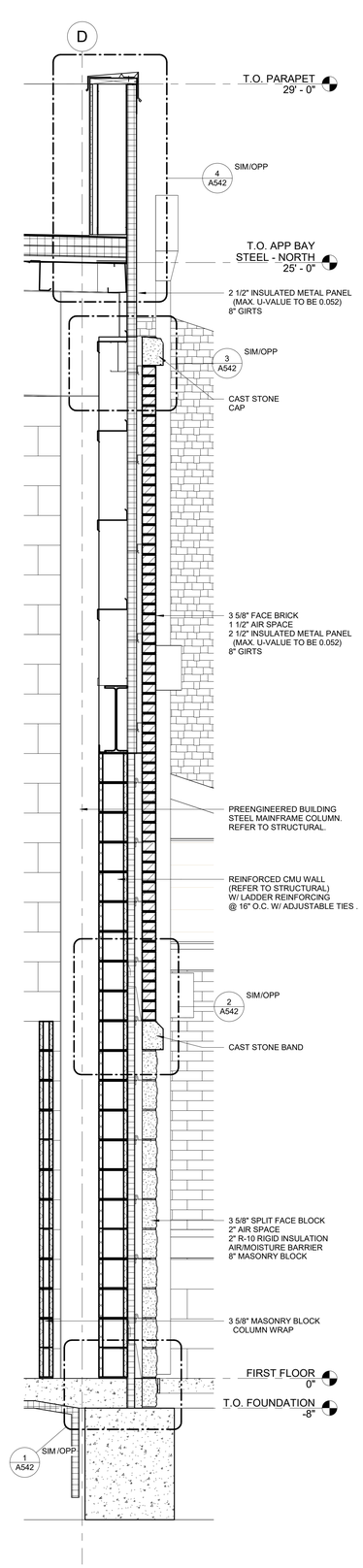
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1 A323 WALL SECTION 3/4" = 1'-0"

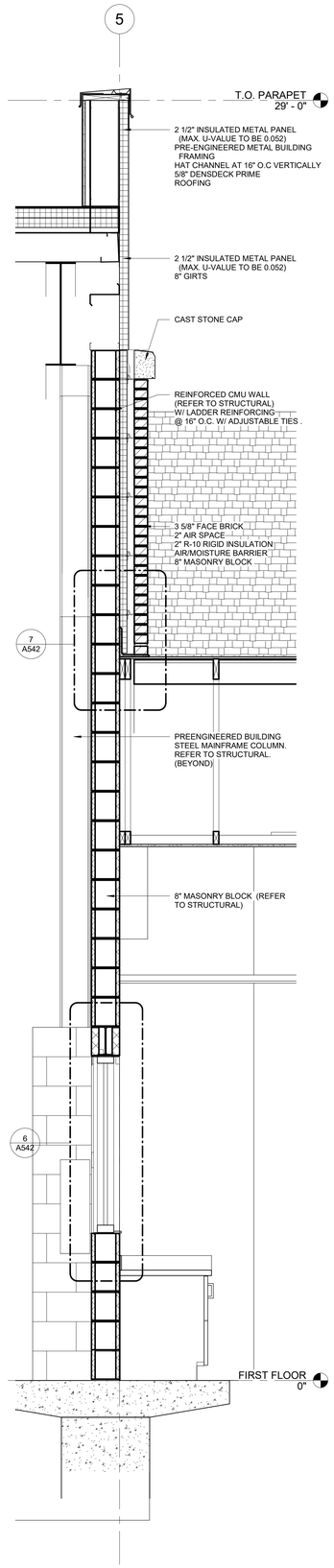
2 A323 WALL SECTION 3/4" = 1'-0"



3 A323 WALL SECTION 3/4" = 1'-0"



4 A323 WALL SECTION 3/4" = 1'-0"



5 A323 WALL SECTION 3/4" = 1'-0"

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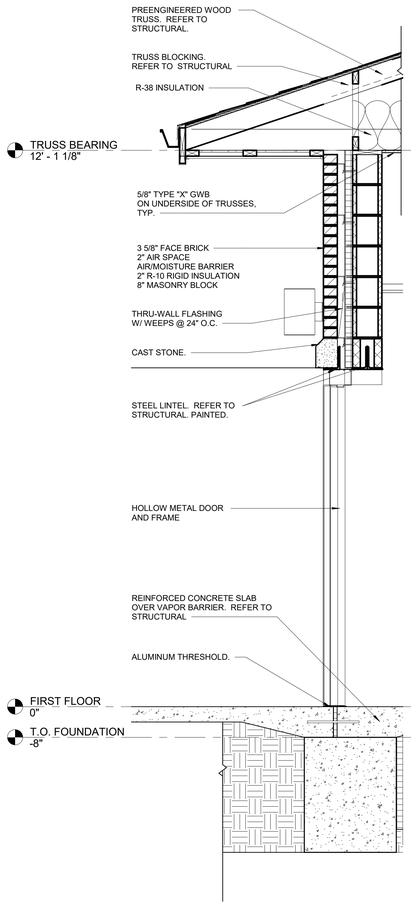
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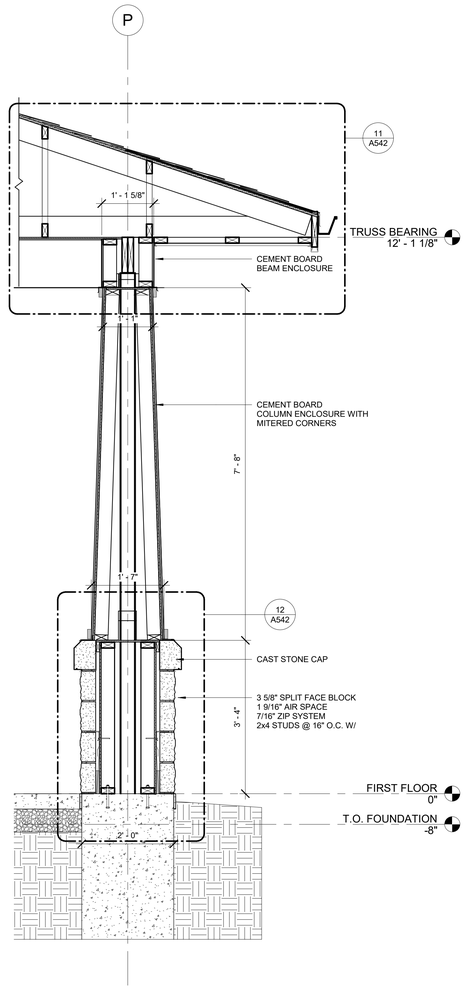
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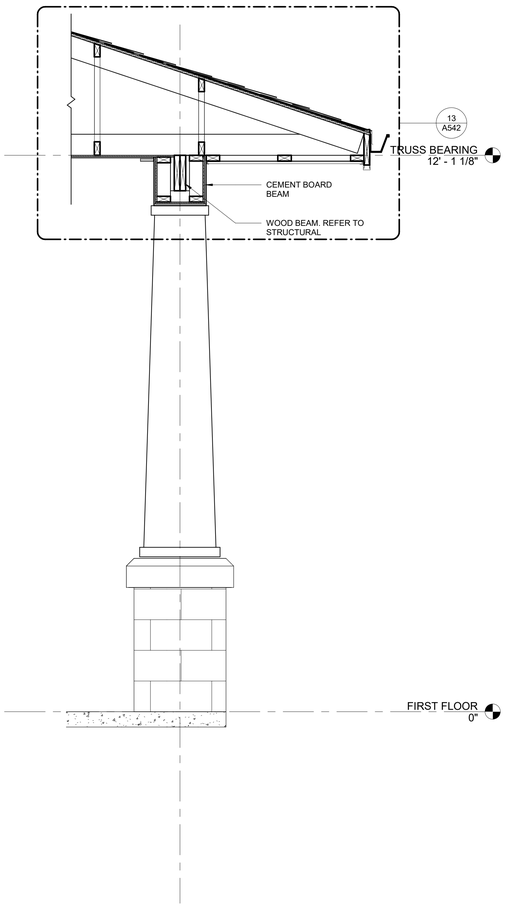
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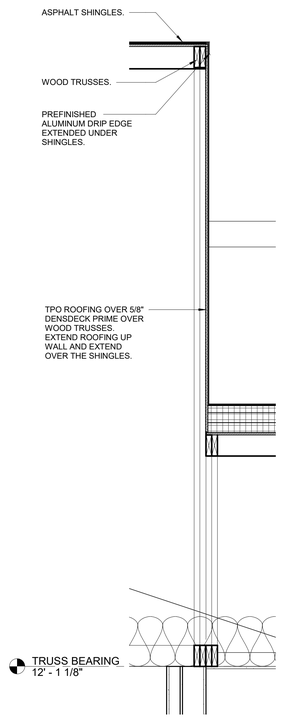
1 A324 WALL SECTION
3/4" = 1'-0"



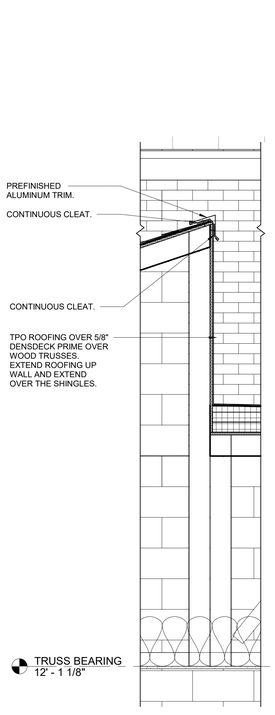
2 A324 WALL SECTION
3/4" = 1'-0"



3 A324 WALL SECTION
3/4" = 1'-0"



4 A324 WALL SECTION AT MECH ROOF
3/4" = 1'-0"



7 A324 WALL SECTION AT MECH ROOF
3/4" = 1'-0"

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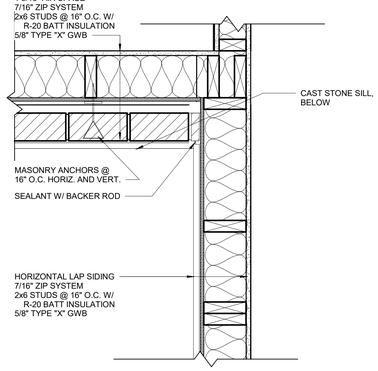
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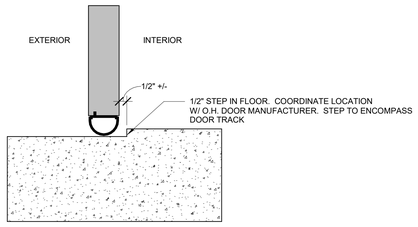
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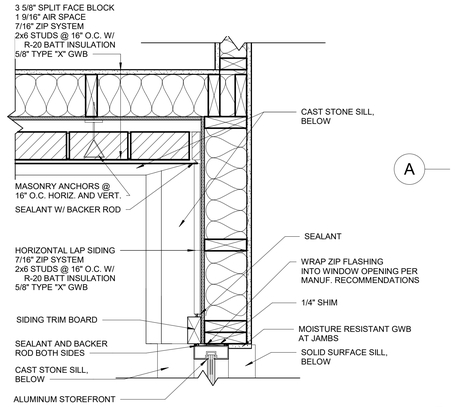
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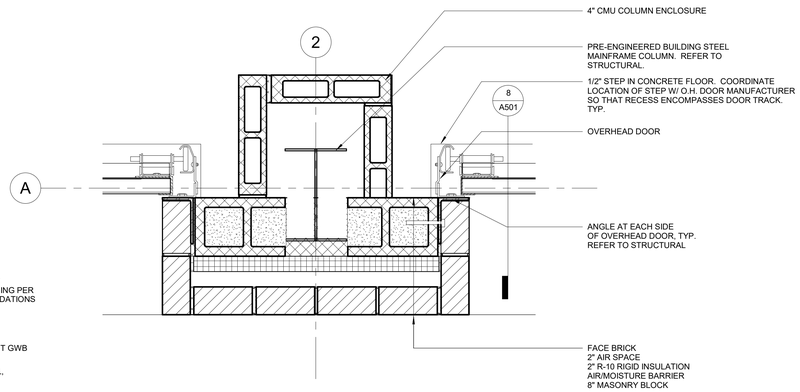
4 A501 PLAN DETAIL
1 1/2" = 1'-0"



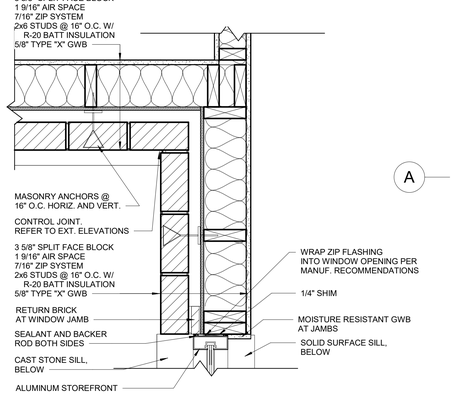
8 A501 OVERHEAD DOOR SILL DETAIL
3" = 1'-0"



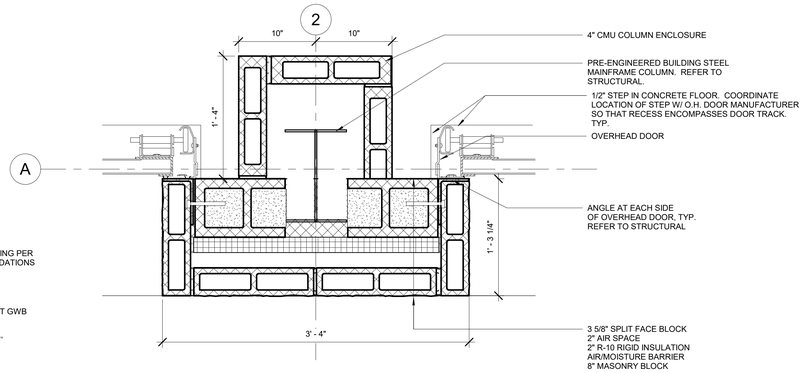
3 A501 PLAN DETAIL
1 1/2" = 1'-0"



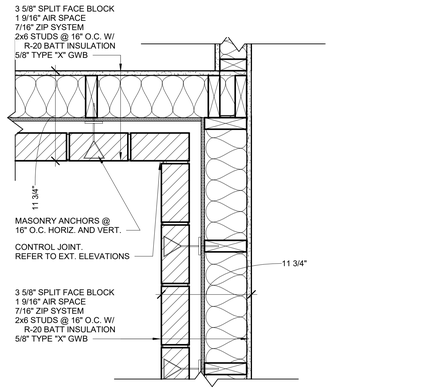
7 A501 OVERHEAD DOOR UPPER PIER DETAIL
1 1/2" = 1'-0"



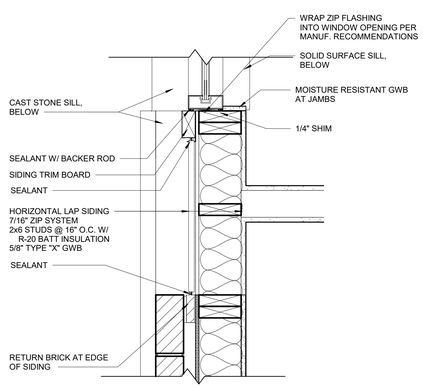
2 A501 PLAN DETAIL
1 1/2" = 1'-0"



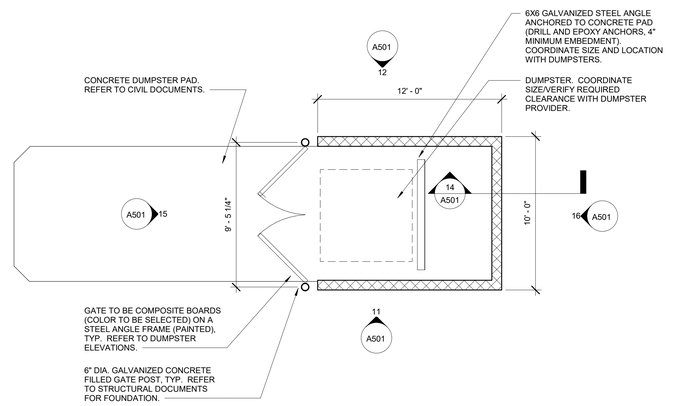
6 A501 OVERHEAD DOOR LOWER PIER DETAIL
1 1/2" = 1'-0"



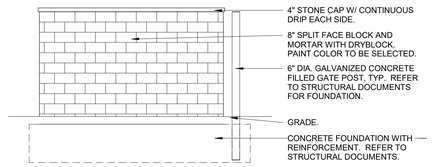
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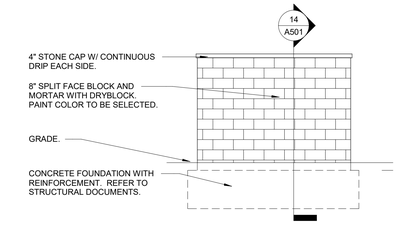
5 A501 PLAN DETAIL 5 - 5/A501
1 1/2" = 1'-0"



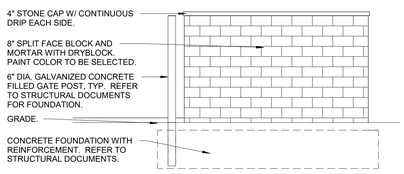
13 A501 DUMPSTER PLAN
1/4" = 1'-0"



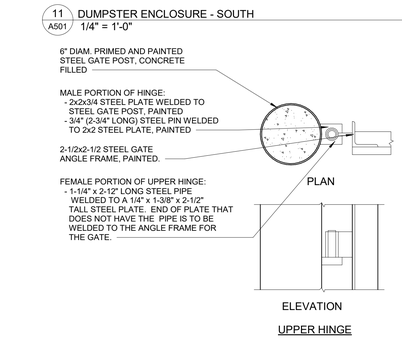
12 A501 DUMPSTER ENCLOSURE ELEVATION - NORTH
1/4" = 1'-0"



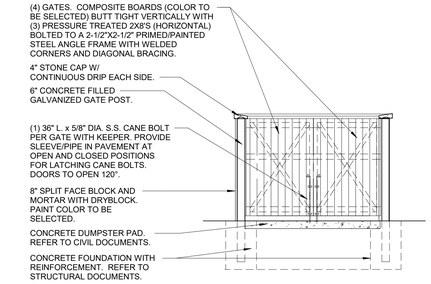
16 A501 DUMPSTER ENCLOSURE - EAST
1/4" = 1'-0"



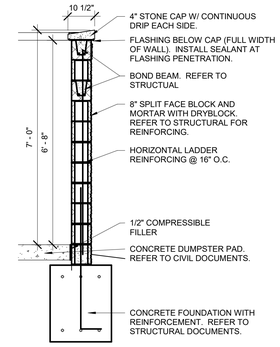
11 A501 DUMPSTER ENCLOSURE - SOUTH
1/4" = 1'-0"



10 A501 GATE DETAILS
NOT TO SCALE



15 A501 DUMPSTER ENCLOSURE - WEST
1/4" = 1'-0"



14 A501 DUMPSTER ENCLOSURE WALL SECTION
1/2" = 1'-0"

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Revisions:

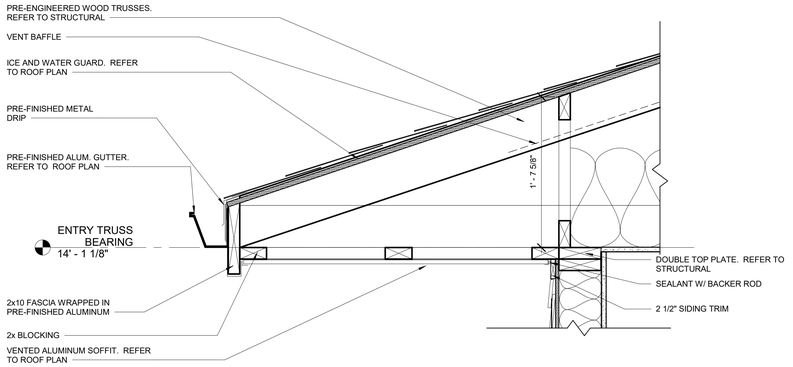
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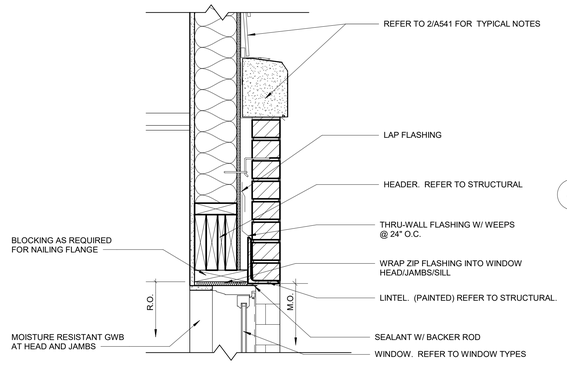
PLAN DETAILS

Drawn By:	Author
Checked By:	Checker
Commission:	025-2125
Date:	2025-09-05

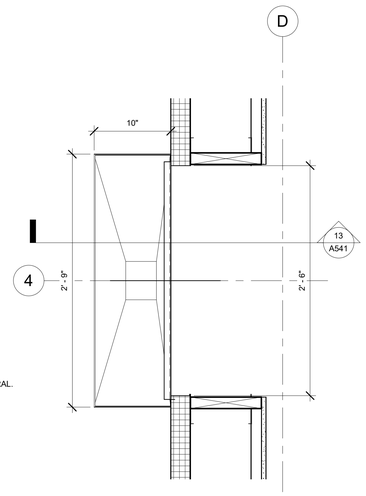
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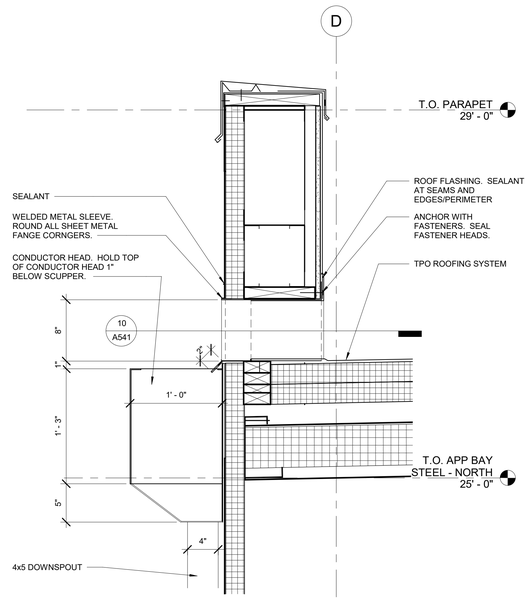
3 A541 SECTION DETAIL
1 1/2" = 1'-0"



6 A541 SECTION DETAIL
1 1/2" = 1'-0"



10 A541 SCUPPER PLAN DETAIL
1 1/2" = 1'-0"



13 A541 SCUPPER SECTION
1 1/2" = 1'-0"

2 A541 SECTION DETAIL
1 1/2" = 1'-0"

5 A541 SECTION DETAIL
1 1/2" = 1'-0"

9 A541 SECTION DETAIL
1 1/2" = 1'-0"

8 A541 SECTION DETAIL
1 1/2" = 1'-0"

12 A541 SECTION DETAIL
1 1/2" = 1'-0"

1 A541 SECTION DETAIL
1 1/2" = 1'-0"

4 A541 SECTION DETAIL
1 1/2" = 1'-0"

7 A541 SECTION DETAIL
1 1/2" = 1'-0"

11 A541 SECTION DETAIL
1 1/2" = 1'-0"

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No:	Date:	Description:

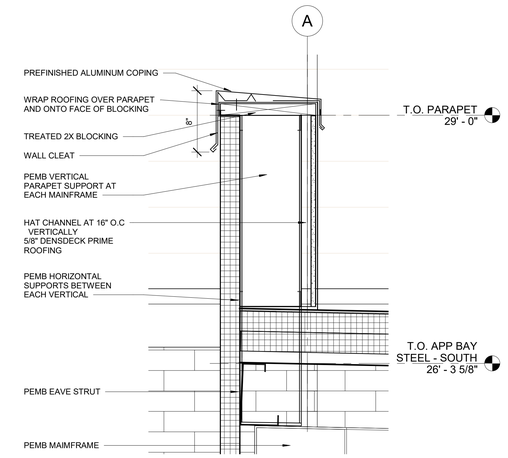
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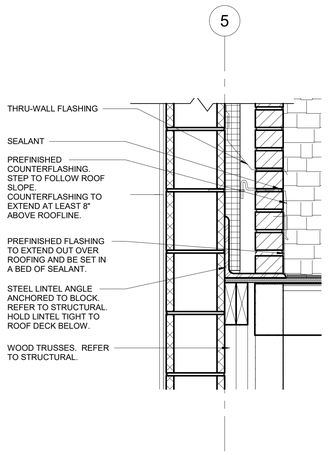
Drawn By:	Author
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

A541

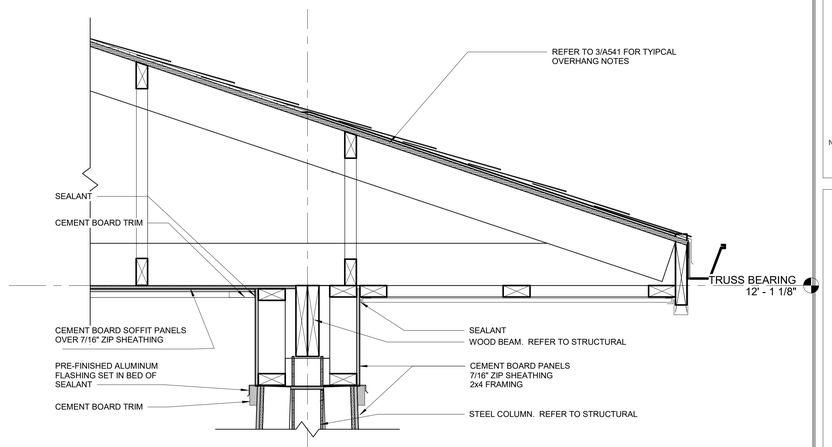
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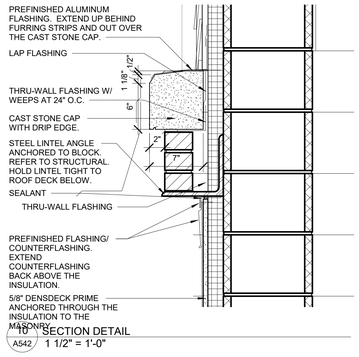
4 A542 SECTION DETAIL
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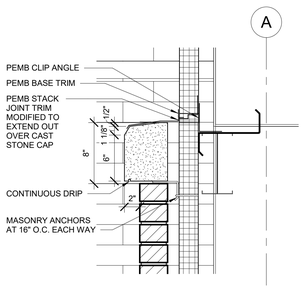
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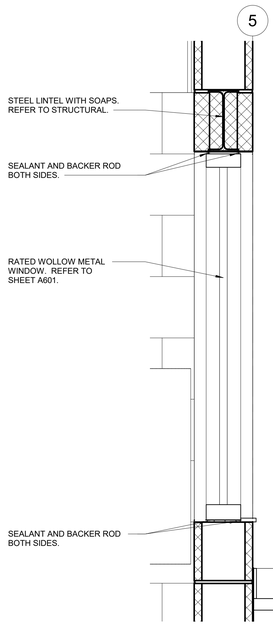
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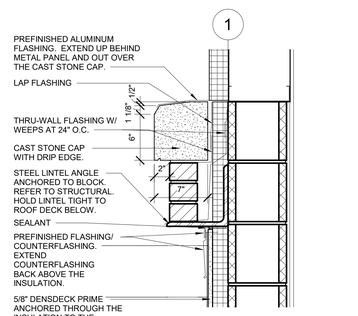
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1 1/2" = 1'-0"



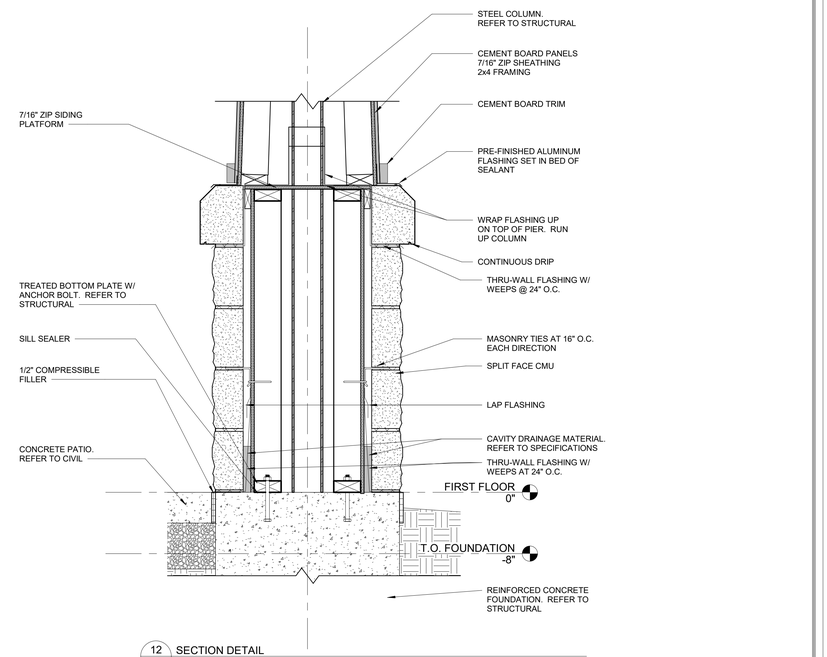
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1 1/2" = 1'-0"



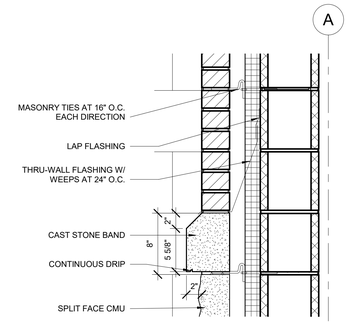
6 A542 SECTION DETAIL
1 1/2" = 1'-0"



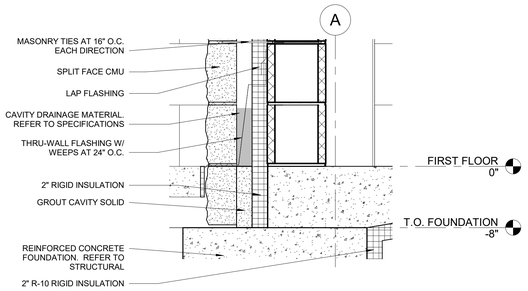
9 A542 SECTION DETAIL
1 1/2" = 1'-0"



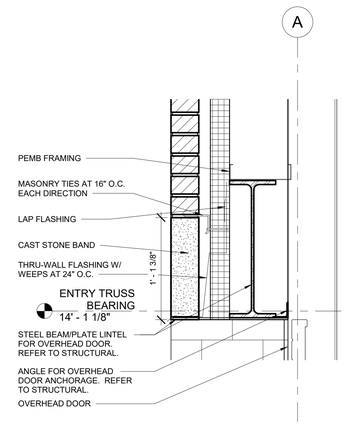
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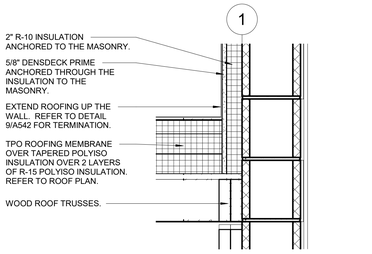
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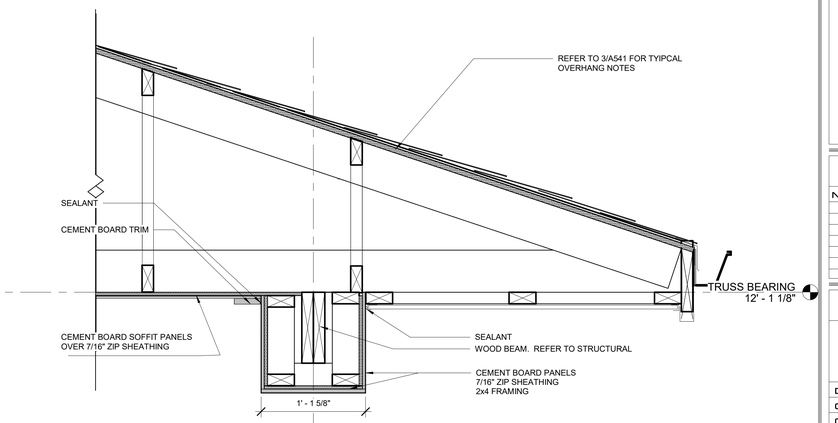
1 A542 SECTION DETAIL
1 1/2" = 1'-0"



5 A542 SECTION DETAIL
1 1/2" = 1'-0"



8 A542 SECTION DETAIL
1 1/2" = 1'-0"



13 A542 SECTION DETAIL
1 1/2" = 1'-0"

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Revisions:

No:	Date:	Description:

Sheet Info:

SECTION DETAILS

Drawn By:	Author
Checked By:	Checker
Commission:	025-2125
Date:	2025-09-05

A542

DOOR SCHEDULE

DOOR NUMBER	DOOR TYPE	DOOR MATERIAL	DOOR WIDTH	DOOR QUANTITY	DOOR HEIGHT	DOOR THICKNESS	GLASS TYPE	FRAME TYPE	FRAME MATERIAL	FRAME HEAD	FRAME JAMB	FIRE RATING	DOOR HARDWARE	REMARKS
100A	D7	ALUM	6' - 0"	2 - 3' -0"	7' - 0"	1 3/4"	FG	F5	ALUM	---	---	--	14	
100B	D7	ALUM	6' - 0"	2 - 3' -0"	6' - 10"	1 3/4"	FG	F5	ALUM	---	---	--	13	
101	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F2	HM	---	---	--	12	
102	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	03	
105	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	05	
107	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	03	
108	D1	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	09	
109	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	03	
110	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	03	
112	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	04	
113	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
114	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	05	
115	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
116-1	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	05	
116-2	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	05	
116A	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	04	01
118	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	03	
119	D2	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	VG	F1	HM	---	---	45 MIN	08	
120	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	03	
121	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	03	
122	D4	WD	6' - 0"	2 - 3' - 0"	7' - 0"	1 3/4"	---	F3	HM	---	---	---	07	
123A	D6	WD	6' - 0"	2 - 3' - 0"	7' - 0"	1 3/4"	VG	F3	HM	---	---	---	11	
123B	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	10	
124	D4	WD	6' - 0"	2 - 3' - 0"	7' - 0"	1 3/4"	---	F3	HM	---	---	---	07	
125	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
126	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
127	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	05	
129	D5	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	VG	F6	HM	---	---	--	09	
130	D1	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F6	HM	---	---	45 MIN	04	
131	D1	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F6	HM	---	---	45 MIN	04	
132	D1	HM	3' - 6"	SINGLE	7' - 0"	1 3/4"	---	F6	HM	---	---	90 MIN	06	
132A	D1	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F6	HM	---	---	--	02	
133A	D1	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F6	HM	---	---	90 MIN	06	
133B	D1	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F6	HM	---	---	--	04	
134A	D8	METAL	14' - 0"	SINGLE	14' - 0"	2"	PARTIAL							02
134B	D8	METAL	14' - 0"	SINGLE	14' - 0"	2"	PARTIAL							02
134C	D8	METAL	14' - 0"	SINGLE	14' - 0"	2"	PARTIAL							02
134D	D8	METAL	14' - 0"	SINGLE	14' - 0"	2"	PARTIAL							02
134E	D5	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	VG	F6	HM	---	---	--	09	
134F	D5	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	VG	F6	HM	---	---	--	09	
134G	D8	METAL	14' - 0"	SINGLE	14' - 0"	2"	PARTIAL							02
134H	D8	METAL	14' - 0"	SINGLE	14' - 0"	2"	PARTIAL							02
134J	D8	METAL	14' - 0"	SINGLE	14' - 0"	2"	PARTIAL							02
134K	D8	METAL	14' - 0"	SINGLE	14' - 0"	2"	PARTIAL							02
135	D1	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F6	HM	---	---	45 MIN	04	
136	D2	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	VG	F1	HM	---	---	45 MIN	08	
137	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	05	
138	D10	WD	5' - 0"	2 - 2' - 6"	7' - 0"	1 3/4"	---	F8	HM	---	---	---	01	
139	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	05	
140	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	04	
141	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	20 MIN	02	
142	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
143	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	20 MIN	02	
144	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
145	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
146	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	20 MIN	02	
147	D1	WD	3' - 6"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	
148	D1	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F6	HM	---	---	--	09	
149	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	20 MIN	02	
150	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
151	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
152	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	20 MIN	02	
153	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	20 MIN	02	
154	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	02	01
155	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	05	
156	D3	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	FG	F4	HM	---	---	--	04	
157	D1	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	90 MIN	06	
158	D2	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	VG	F1	HM	---	---	45 MIN	08	
159	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	03	
160	D5	HM	3' - 0"	SINGLE	7' - 0"	1 3/4"	VG	F6	HM	---	---	--	09	
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164	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	05	
165	D2	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	VG	F1	HM	---	---	--	04	
166	D1	WD	3' - 0"	SINGLE	7' - 0"	1 3/4"	---	F1	HM	---	---	--	03	
167	D9	HM	3' - 0"	SINGLE	3' - 0"	1 3/4"	---	F7	HM	---	---	--	--	03

DOOR SCHEDULE REMARKS

01	PROVIDE 3/4" DOOR UNDERCUT.
02	OVERHEAD DOOR. CLOPAY. MODEL 3722, COLOR BLAST FOR RED DOORS, FULL VIEW VISION LITES PER ELEVATIONS, 100K CYCLE SPRINGS, 3" TRACK, TINTED INSLUATED GLASS – GRAY OR BRONZE TBD.
03	EMERGENCY ESCAPE HATCH TO MEET ALL ICC 500 REQUIREMENTS. VAULTPRO EXECUTIVE PRO WALL HATCH OR APPROVED EQUAL. FRAME TO HAVE TRIM FLANGES ON BOTH SIDES OF THE WALL. FRAME TO BE EXTENDED TO FIT DEPTH OF EXTERIOR WALL.DOOR TO HAVE WEATHER GASKETING DUE TO EXTERIOR EXPOSURE.

DOOR SCHEDULE ABBREVIATIONS

ALUM	ALUMINUM	HM	HOLLOW METAL	VG	VISION GLASS
EX	EXISTING	PLAM	PLASTIC LAMINATE	WOOD	WOOD

DOOR SCHEDULE NOTES

1. REFER TO FLOOR PLAN FOR DOOR SWING DIRECTIONS.
2. EXIT DOORS: DURING BUSINESS HOURS EXIT DOORS SHALL BE OPERABLE FROM INSIDE WITHOUT USE OF A KEY. HARDWARE FOR HANDICAPPED SHALL CONFORM TO LOCAL BUILDING CODES AND ANSI 4.13.10 AS RULES APPLY.
3. DOOR SIGNAGE (ALL INTERIOR DOORS) SHALL BE "ASI TACTILE PLAQUE SIGNS" OR EQUIVALENT. SIGNAGE SHALL BE 8"x8" WITH THE ROOM NAME AND NUMBER SHOWN. REFER TO THE ROOM FINISH SCHEDULE FOR ROOM NAMES AND NUMBERS. ROOM NUMBERS ARE TO BE COORDINATED WITH THE OWNER. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. MOUNTING HEIGHT SHALL BE 60" AFF TO THE CENTERLINE OF THE SIGN.
4. ALL LOCKS ARE TO BE KEYED TO THE OWNER'S REQUIREMENTS.
5. KICK PLATES SHALL BE STAINLESS STEEL 16 GAUGE WITH US26D FINISH. 10" HIGH AND 2" LESS THAN THE DOOR WIDTH.
6. ALL HOLLOW METAL DOORS AND FRAMES TO BE PRIMED AND PAINTED.
7. HOLLOW METAL DOOR FRAMES TO BE 16 GA. MINIMUM THICKNESS, FULL PROFILE WELDED, PRIMED FOR PAINTING.

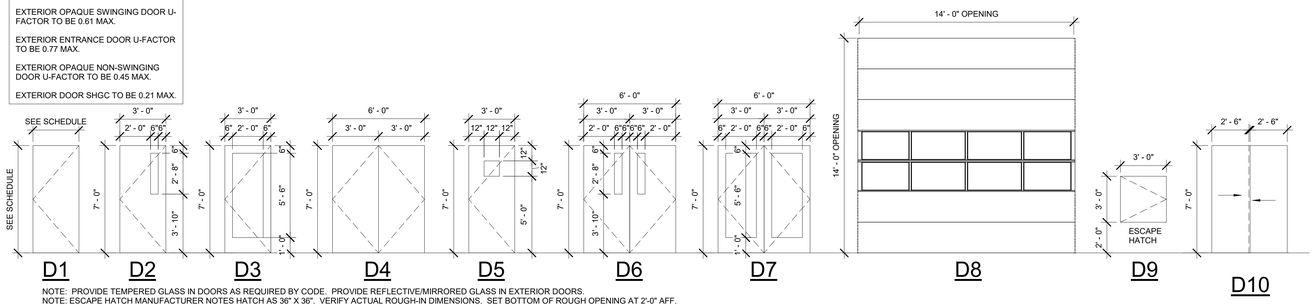
NOTE: TEMPERED GLASS AS REQUIRED BY CODE.

EXTERIOR OPAQUE SWINGING DOOR U-FACTOR TO BE 0.61 MAX.

EXTERIOR ENTRANCE DOOR U-FACTOR TO BE 0.77 MAX.

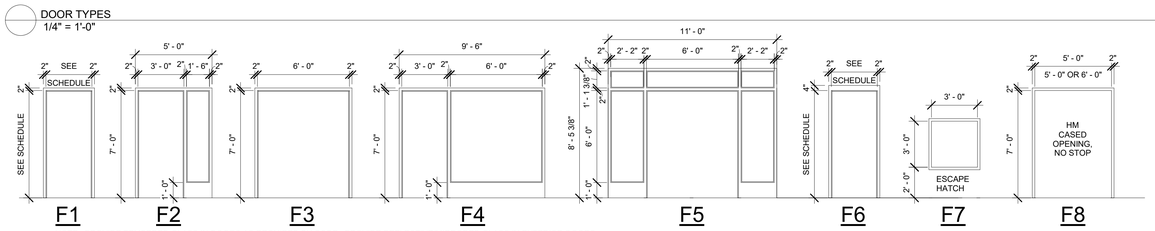
EXTERIOR OPAQUE NON-SWINGING DOOR U-FACTOR TO BE 0.45 MAX.

EXTERIOR DOOR SHGC TO BE 0.21 MAX.



NOTE: PROVIDE TEMPERED GLASS IN DOORS AS REQUIRED BY CODE. PROVIDE REFLECTIVE/MIRRORED GLASS IN EXTERIOR DOORS.
NOTE: ESCAPE HATCH MANUFACTURER NOTES HATCH AS 36" X 36". VERIFY ACTUAL ROUGH-IN DIMENSIONS. SET BOTTOM OF ROUGH OPENING AT 2'-0" AFF.

DOOR TYPES
1/4" = 1'-0"



NOTE: PROVIDE TEMPERED GLASS IN DOORS AS REQUIRED BY CODE. PROVIDE REFLECTIVE/MIRRORED GLASS IN EXTERIOR DOORS.
NOTE: ESCAPE HATCH MANUFACTURER NOTES HATCH AS 36" X 36". VERIFY ACTUAL ROUGH-IN DIMENSIONS. SET BOTTOM OF ROUGH OPENING AT 2'-0" AFF.

DOOR FRAME TYPES
1/4" = 1'-0"

HARDWARE GROUP NO. 01

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
1 EA.	BYPASS SLIDING DOOR HDWR	9611CS 60"	ALUM	HAGER
2 EA.	ADA DOOR PULL	27N	US32D	HAGER

HARDWARE GROUP NO. 02

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
3 EA.	HINGE	BB1279 4-1/2X4-1/2	US26D	HAGER
3 EA.	HEAVY WEIGHT HINGE (147 ONLY)	BB1199 4-1/2X4-1/2	US26D	HAGER
1 EA.	PRIVACY LOCK (ADA LEVER)	3540 WTN	US26D	HAGER
1 EA.	CLOSER (DOORS 113, 115, 125, 126, 132A, AND 147 ONLY)	5200 MLT FC (MOUNT ON PULL SIDE)	ALUM	HAGER
1 EA.	CLOSER W/ STOP ARM (DOORS 141, 143, 146, 149, 152 AND 153 ONLY)	5200 HDS MLT FC (MOUNT ON PULL SIDE)	ALUM	HAGER
1 EA.	CONCAVE WALL STOP (DOORS 113, 1115, 125, 126, 132A, 144, 145, 147, 150, 151 AND 154 ONLY)	236W	US32D	HAGER
1 EA.	OVERHEAD STOP	6016S SZ2	US32D	HAGER
3 EA.	SILENCERS	307D	GREY	HAGER
	GASKETING (DOORS 141, 143, 146, 149, 152 AND 153 ONLY)	722	CHAR	HAGER
DOORS 141, 143, 146, 149, 152 AND 153 ARE 20 MIN. RATED DOORS				

HARDWARE GROUP NO. 03

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
3 EA.	HINGE	BB1279 4-1/2X4-1/2	US26D	HAGER
1 EA.	OFFICE LOCK (ADA LEVER)	3550 WTN	US26D	HAGER
1 EA.	CLOSER W/ HOLD OPEN ARM	5200 MLT HO FC (MOUNT ON PULL SIDE)	US32D	HAGER
1 EA.	CLOSER W/ HOLD OPEN STOP ARM	5200 MLT HDHOS FC (MOUNT ON PULL SIDE)	US32D	HAGER
1 EA.	CONCAVE WALL STOP	236W	US32D	HAGER
3 EA.	SILENCERS	307D	GREY	HAGER

HARDWARE GROUP NO. 04

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
3 EA.	HINGE	BB1279 4-1/2X4-1/2	US26D	HAGER
1 EA.	PASSAGE LOCK (ADA LEVER)	3510 WTN	US26D	HAGER
1 EA.	CLOSER (112, 116A, 130, 131, 133B & 156 ONLY)	5200 MLT FC (MOUNT ON PULL SIDE)	ALUM	HAGER
1 EA.	CLOSER (165 ONLY)	5200 MLT FC (MOUNT ON PUSH SIDE)	ALUM	HAGER
1 EA.	CLOSER (135 & 140 ONLY)	5200 MLT HDHOS FC (MOUNT ON PUSH SIDE)	ALUM	HAGER
	GASKETING (130, 131 & 135 ONLY)	722	CHAR	HAGER
1 EA.	KICKPLATE (116A ONLY)	190S 10"X34"	US32D	HAGER
1 EA.	CONCAVE WALL STOP	236W	US32D	HAGER
3 EA.	SILENCERS	307D	GREY	HAGER

HARDWARE GROUP NO. 05

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
3 EA.	HINGE	BB1279 4-1/2X4-1/2	US26D	HAGER
1 EA.	CLASSROOM LOCK (ADA LEVER)	3570 WTN	US26D	HAGER
1 EA.	CLOSER	5200 MLT FC (MOUNT ON PULL SIDE)	ALUM	HAGER
1 EA.	CLOSER W/ STOP ARM (164 ONLY)	5200 MLT FC (MOUNT ON PUSH SIDE)	ALUM	HAGER
1 EA.	CONCAVE WALL STOP (ALL EXCEPT 164)	236W	US32D	HAGER
3 EA.	SILENCERS	307D	GREY	HAGER

HARDWARE GROUP NO. 06

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
4 EA.	TORNADO RESISTANT HINGE	SP3386 4-1/2X4-1/2	US32D	MCK
1 EA.	THREE POINT PRIVACY LOCK (ADA LEVER)	FM7366 LNL (90 MIN. RATING) (PRIVACY FUNCTION - DOOR 157) FM7314 LNL (90 MIN. RATING) (PASSAGE FUNCTION - DOORS 132 AND 133A)	US32D	SAR
1 EA.	CLOSER	281 O TB (PULL SIDE MOUNT)	EN	SAR
1 EA.	CONCAVE WALL STOP	236W	US32D	HAGER
	SMOKE SEAL	S773	BLACK	PEMKO
	WEATHERSTRIPPING	305 BS	BLACK	PEMKO
SHELTER DOOR/FRAME/HARDWARE ASSEMBLY TO BE ICC 500 COMPLIANT. PROVIDE DOOR AND FRAME PER THE HARDWARE MANUFACTURER'S REQUIREMENTS.				

HARDWARE GROUP NO. 07

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
6 EA.	HINGE	BB1279 4-1/2X4-1/2	US26D	HAGER
1 EA.	STOREROOM LOCK (ADA LEVER)	3580 WTN	US26D	HAGER
1 EA.	MANUAL FLUSH BOLT	283D	US26D	HAGER
4 EA.	SILENCERS	307D	GREY	HAGER

HARDWARE GROUP NO. 08

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
3 EA.	HINGE	BB1279 4-1/2X4-1/2	US26D	HAGER
1 EA.	KEYPAD EXIT DEVICE	12 43 DG160 KP 8877 F ETL	US32D	SAR
1 EA.	CYLINDER	DG1 6300 DO NOT DUPLICATE MK VK KEYS	15	SAR
1 EA.	CLOSER	5200 MLT FC (MOUNT ON PUSH SIDE)	ALUM	HAGER
	GASKETING	722	CHAR	HAGER
1 EA.	CONCAVE WALL STOP	236W	US32D	HAGER

HARDWARE GROUP NO. 09

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
3 EA.	HINGE	BB1279 4-1/2X4-1/2 NRP	US26D	HAGER
1 EA.	KEYPAD EXIT DEVICE	16 43 DG160 KP 8877 F ETL	US32D	SAR
1 EA.	CYLINDER	DG1 6300 DO NOT DUPLICATE MK VK KEYS	15	SAR
1 EA.	CLOSER	5200 MLT HD FC (MOUNT ON PUSH SIDE)	ALUM	HAGER
	WEATHERSTRIPPING	721	CHAR	HAGER
1 EA.	DOOR SWEEP	750S	ALUM	HAGER
1 EA.	THRESHOLD	412S	ALUM	HAGER

HARDWARE GROUP NO. 10

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
2 EA.	HINGE	BB1279 4-1/2X4-1/2	US26D	HAGER
1 EA.	ELECTRIC HINGE OR ELECTRONIC POWER TRANSFER			
1 EA.	ELECTRIC PANIC DEVICE W/ ADA LEVER(FAIL SAFE AND TIED INTO THE FIRE ALARM SYSTEM)			
1 EA.	CARD READER (NORTH SIDE OF THE DOOR)			
1 EA.	CLOSER	5200 MLT FC (MOUNT ON PULL SIDE)	ALUM	HAGER
1 EA.	KICK PLATE	190S 10"X34"	US32D	HAGER
1 EA.	CONCAVE WALL STOP	236W	US32D	HAGER
3 EA.	SILENCERS	307D	GREY	HAGER

HARDWARE GROUP NO. 11

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
6 EA.	HINGE	BB1279 4-1/2X4-1/2	US26D	HAGER
2 EA.	PANIC DEVICE WITH CONCEALED VERTICAL ROD (WITH ADA LEVER)			
2 EA.	CLOSER W/ HOLD OPEN STOP ARM	5200 MLT HDHOS FC (MOUNT ON PUSH SIDE)	ALUM	HAGER
2 EA.	KICK PLATE	190S 10"X34"	US32D	HAGER
4 EA.	SILENCERS	307D	GREY	HAGER
2 EA.	DUSTPROOF STRIKE	280X	US26D	HAGER

HARDWARE GROUP NO. 12

QTY	DESCRIPTION	MODEL	FINISH	MANUF.
3 EA.	HINGE	BB1279 4-1/2X4-1/2	US26D	HAGER
1 EA.	ELECTRIC PANIC DEVICE W/ ADA LEVER(FAIL SAFE AND TIED INTO THE FIRE ALARM SYSTEM)			
1 EA.	CLOSER	5200 MLT FC (MOUNT ON PUSH SIDE)	ALUM	HAGER
1 EA.	KICK PLATE	190S 10"X34"	US32D	HAGER
1 EA.	OVERHEAD STOP	6016S SZ2	US32D	HAGER
3 EA.	SILENCERS	307D	GREY	HAGER

HARDWARE GROUP NO. 13

QTY	DESCRIPTION
2 SETS	OFFSET PIVOTS WITH INTERMEDIATE OFFSET PIVOT (ALUM. MANUFACTURER'S STANDARD)
2 EA.	PUSH / PULLS (ALUM. MANUFACTURER'S STANDARD)
2 EA.	HEAVY DUTY CLOSERS WITH STOP ARM (ALUM. MANUFACTURER'S STANDARD)

HARDWARE GROUP NO. 14

QTY	DESCRIPTION
2 SETS	OFFSET PIVOTS WITH INTERMEDIATE OFFSET PIVOT (ALUM. MANUFACTURER'S STANDARD)
1 EA.	CONCEALED VERTICAL ROD PANIC DEVICE-PULL ONLY EXT TRIM (INACTIVE DOOR)
1 EA.	CONCEALED VERTICAL ROD PANIC DEVICE-PULL WITH NIGHT LATCH CYLINDER EXT TRIM (ACTIVE DOOR)
2 EA.	HEAVY DUTY CLOSERS WITH STOP ARM (ALUM. MANUFACTURER'S STANDARD)
1 EA.	THRESHOLD (ADA COMPLIANT)
2 EA.	SWEEP (ALUM. MANUFACTURER'S STANDARD)
	WEATHERSTRIPPING (ALUM. MANUFACTURER'S STANDARD)
1 EA.	LOCK CYLINDER (KEYED TO OWNER'S REQUIREMENTS)
2 EA.	DUST PROOF STRIKE

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Revisions:

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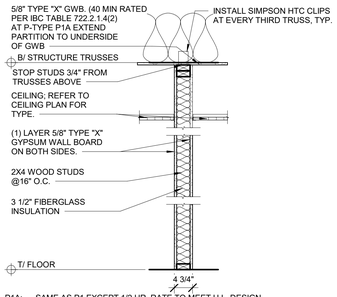
Sheet Info:

DOOR SCHEDULE

Drawn By:	SGW
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

A601

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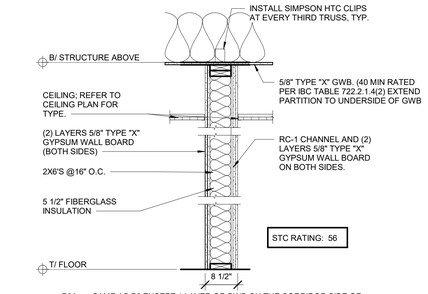
P1A: SAME AS P1 EXCEPT 1/2 HR. RATE TO MEET U.L. DESIGN U407
STC RATING = 33

P1B: SAME AS P1A EXCEPT 2X6 STUDS, 1/2 HR. RATE TO MEET U.L. DESIGN U407

P1C: SAME AS P1B EXCEPT A LOAD-BEARING WALL. REFER TO STRUCTURAL. LOAD-BEARING WALLS EXTEND TO THE BOTTOM OF THE TRUSSES. STOP GWB CEILINGS SHORT OF THE STUDS.

*PROVIDE ACOUSTIC SEALANT AT PERIMETER AND AT PENETRATIONS.

1 A602 PARTITION TYPE "P1"
3/4" = 1'-0"

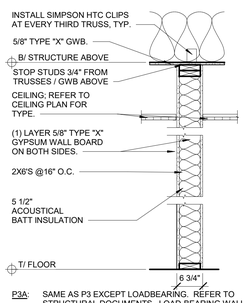


P2A: SAME AS P2 EXCEPT 1 LAYER OF GWB ON THE CORRIDOR SIDE OF THE WALL SO THE STUDS ALIGN WITH THE REST OF THE WALL TO THE NORTH. LOAD-BEARING WALL. REFER TO STRUCTURAL. LOAD-BEARING WALLS EXTEND TO THE BOTTOM OF THE TRUSSES. STOP GWB CEILINGS SHORT OF THE STUDS.

*PROVIDE ACOUSTIC SEALANT AT PERIMTER AND AT PENETRATIONS.

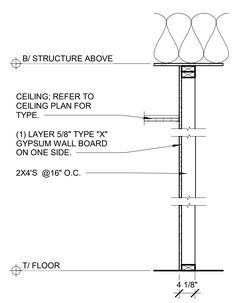
WALL TO MEET UL DESIGN NO. U301 - 2 HR RATED
(REQUIRED WALL RATING IS 1/2 HOUR)

2 A602 PARTITION TYPE "P2"
3/4" = 1'-0"

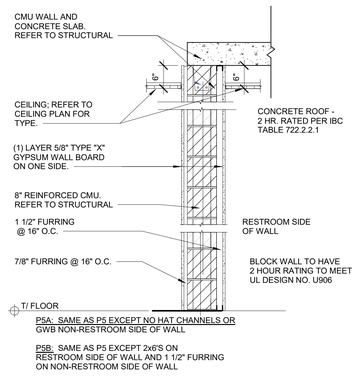


P3A: SAME AS P3 EXCEPT LOADBEARING. REFER TO STRUCTURAL DOCUMENTS. LOAD-BEARING WALLS EXTEND TO THE BOTTOM OF THE TRUSSES. STOP GWB CEILINGS SHORT OF THE STUDS.

3 A602 PARTITION TYPE "P3"
3/4" = 1'-0"



4 A602 PARTITION TYPE "P4"
3/4" = 1'-0"



P5A: SAME AS P5 EXCEPT NO HAT CHANNELS OR GWB NON-RESTROOM SIDE OF WALL

P5B: SAME AS P5 EXCEPT 2x6'S ON RESTROOM SIDE OF WALL AND 1 1/2" FURRING ON NON-RESTROOM SIDE OF WALL

5 A602 PARTITION TYPE "P5"
3/4" = 1'-0"

6 A602 PARTITION TYPE "P6"
3/4" = 1'-0"

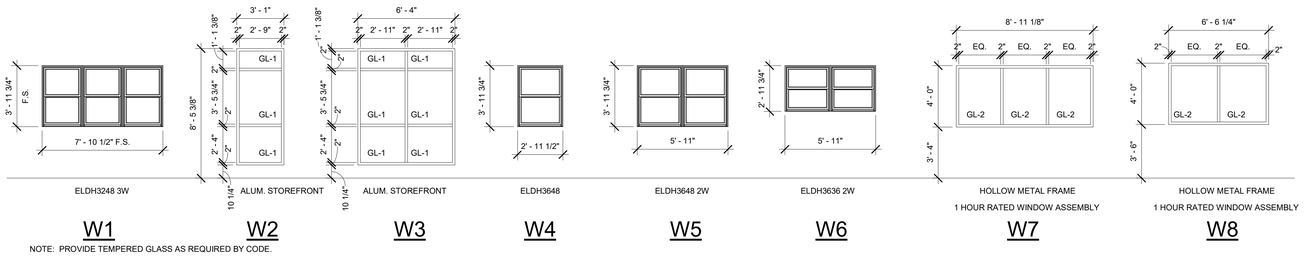
1 HOUR FIRE RATED PARTITION
UL DESIGN NO. U305

7 A602 PARTITION TYPE "P7"
3/4" = 1'-0"

*PROVIDE ACOUSTIC SEALANT AT PERIMTER AND AT PENETRATIONS.

WALL TO MEET UL DESIGN NO. U301 - 2 HR RATED
(REQUIRED WALL RATING IS 1/2 HOUR)

8 A602 PARTITION TYPE "P8"
3/4" = 1'-0"



NOTE: PROVIDE TEMPERED GLASS AS REQUIRED BY CODE.

WINDOW TYPES
1/4" = 1'-0"

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Revisions:

No:	Date:	Description:

Sheet Info:

PARTITION TYPES AND WINDOW TYPES

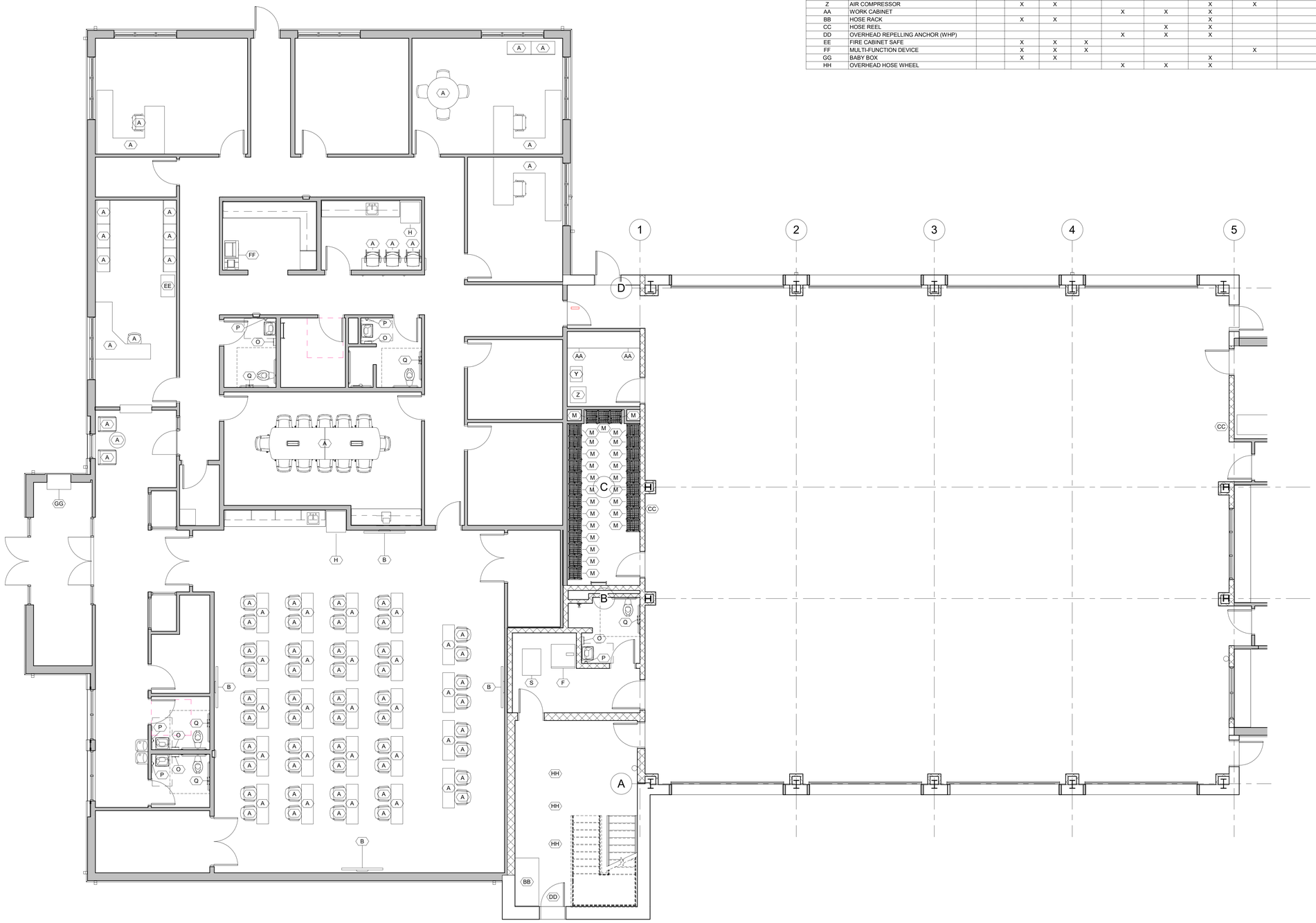
Drawn By:	CEC
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

A602

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EQUIPMENT/FURNITURE SCHEDULE

ITEM	ITEM DESCRIPTION	EXISTING	OWNER			ARCH/MEP	CONTRACTOR		UTILITIES					COMMENTS
			SPEC	FURNISH	INSTALL	SPEC	FURNISH	INSTALL	ELECTRIC	DATA	WATER/DRAIN	VENT	GAS	
A	FURNITURE		X	X	X									
B	TV		X	X				X	X	X				CONTRACTOR TO PROVIDE BLOCKING.
C	BED		X	X	X									
D	KITCHEN SHELVING					X	X	X						CONTRACTOR TO PROVIDE BLOCKING.
E	WASHER - RESIDENTIAL		X	X				X	X		X			
F	DRYER - RESIDENTIAL		X	X				X	X			X	X	
G	ICE MACHINE - RESIDENTIAL													
H	REFRIGERATOR - RESIDENTIAL		X	X				X	X		X			
I	DINING TABLE / CHAIRS		X	X	X									
J	RECLINER		X	X	X									
K	RANGE - COMMERCIAL		X	X				X	X				X	
L	MICROWAVE		X	X				X	X					
M	GEAR LOCKERS					X	X	X						CONTRACTOR TO PROVIDE BLOCKING.
N	TALL WARDROBE					X	X	X						CONTRACTOR TO PROVIDE BLOCKING.
O	PAPER TOWEL DISPENSER					X	X	X						
P	SOAP DISPENSER					X	X	X						
Q	TOILET PAPER DISPENSER					X	X	X						
R	HOOD					X	X	X	X			X		
S	GEAR EXTRACTOR		X	X				X	X		X			
T	DISHWASHER		X	X				X	X		X			
U	WORKOUT EQUIPMENT		X	X	X				X					
V	SCBA COMPRESSOR		X	X	X				X					
W	SCBA CASCADE		X	X	X				X					
X	SCBA TANK RACK		X	X	X									
Y	FLAMMABLE CABINET - GLOBAL INDUSTRIAL WB237607					X	X	X						
Z	AIR COMPRESSOR		X	X				X	X					
AA	WORK CABINET					X	X	X						
BB	HOSE RACK		X	X				X						
CC	HOSE REEL						X	X						
DD	OVERHEAD REPELLING ANCHOR (WHP)					X	X	X						
EE	FIRE CABINET SAFE		X	X	X									
FF	MULTI-FUNCTION DEVICE		X	X	X				X					
GG	BABY BOX		X	X				X						
HH	OVERHEAD HOSE WHEEL					X	X	X						



1 / A603 PARTIAL EQUIPMENT PLAN - WEST
3/16" = 1'-0"

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Revisions:

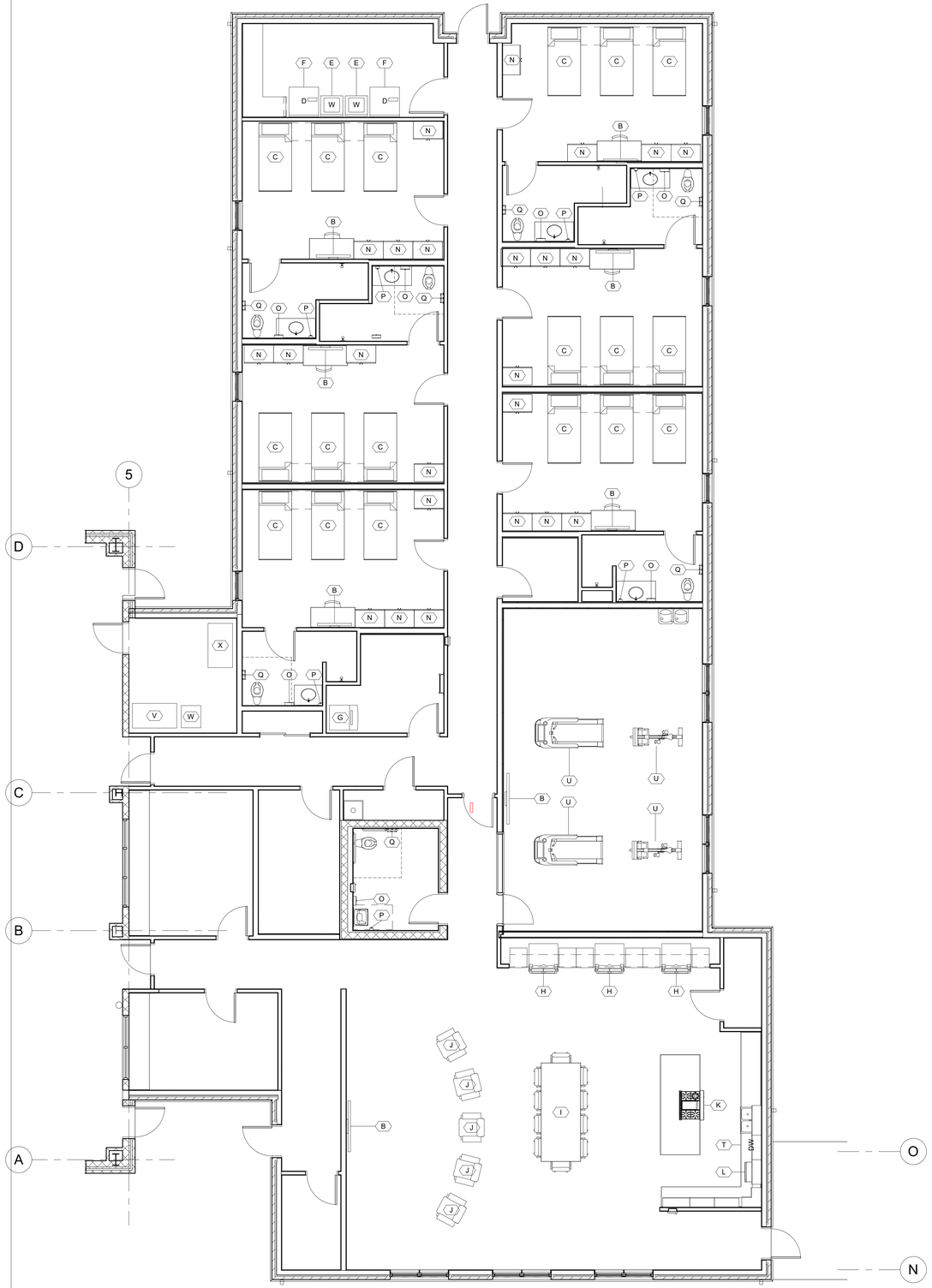
No:	Date:	Description:

Sheet Info:

PARTIAL EQUIPMENT PLAN (WEST) AND SCHEDULE

Drawn By:	CEC
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

A603



1 A604 PARTIAL EQUIPMENT PLAN - EAST
3/16" = 1'-0"

EQUIPMENT/FURNITURE SCHEDULE

ITEM	ITEM DESCRIPTION	EXISTING	OWNER			ARCH/MEP	CONTRACTOR		UTILITIES					COMMENTS
			SPEC	FURNISH	INSTALL	SPEC	FURNISH	INSTALL	ELECTRIC	DATA	WATER/DRAIN	VENT	GAS	
A	FURNITURE		X	X	X									
B	TV		X	X				X	X	X				CONTRACTOR TO PROVIDE BLOCKING.
C	BED		X	X	X									
D	KITCHEN SHELVING					X	X	X						CONTRACTOR TO PROVIDE BLOCKING.
E	WASHER - RESIDENTIAL		X	X				X	X		X			
F	DRYER - RESIDENTIAL		X	X				X	X			X	X	
G	ICE MACHINE - RESIDENTIAL													
H	REFRIGERATOR - RESIDENTIAL		X	X				X	X		X			
I	DINING TABLE / CHAIRS		X	X	X									
J	RECLINER		X	X	X									
K	RANGE - COMMERCIAL		X	X				X	X				X	
L	MICROWAVE		X	X				X	X					
M	GEAR LOCKERS					X	X	X						CONTRACTOR TO PROVIDE BLOCKING.
N	TALL WARDROBE					X	X	X						CONTRACTOR TO PROVIDE BLOCKING.
O	PAPER TOWEL DISPENSER					X	X	X						
P	SOAP DISPENSER					X	X	X						
Q	TOILET PAPER DISPENSER					X	X	X						
R	HOOD					X	X	X	X			X		
S	GEAR EXTRACTOR		X	X				X	X		X			
T	DISHWASHER		X	X				X	X		X			
U	WORKOUT EQUIPMENT		X	X	X				X					
V	SCBA COMPRESSOR		X	X	X				X					
W	SCBA CASCADE		X	X	X				X					
X	SCBA TANK RACK		X	X	X									
Y	FLAMMABLE CABINET - GLOBAL INDUSTRIAL WB237607					X	X	X						
Z	AIR COMPRESSOR		X	X				X	X					
AA	WORK CABINET					X	X	X						
BB	HOSE RACK		X	X				X						
CC	HOSE REEL						X	X						
DD	OVERHEAD REPELLING ANCHOR (WHP)					X	X	X						
EE	FIRE CABINET SAFE		X	X	X									
FF	MULTI-FUNCTION DEVICE		X	X	X				X					
GG	BABY BOX		X	X				X						
HH	OVERHEAD HOSE WHEEL					X	X	X						

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WCFPD Station 1
Wright City Fire Protection District
60 Bell Road
Wright City, MO 63390

Revisions:

No:	Date:	Description:

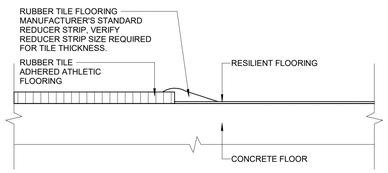
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PARTIAL EQUIPMENT PLAN (EAST) AND SCHEDULE

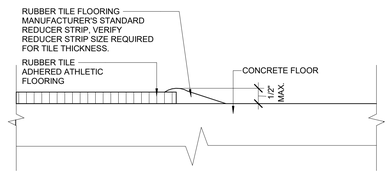
Drawn By:	CEC
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

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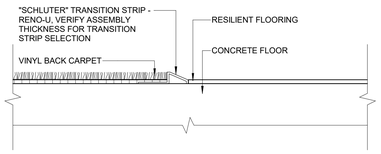
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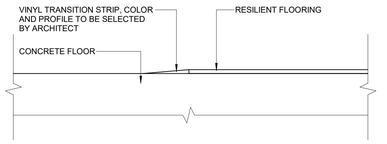
1 A801 TRANSITION - RUBBER TILE/RESILIENT
6" = 1'-0"



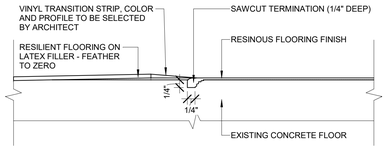
2 A801 TRANSITION - RUBBER TILE/CONCRETE
6" = 1'-0"



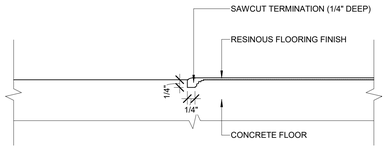
3 A801 TRANSITION - CARPET/RESILIENT
6" = 1'-0"



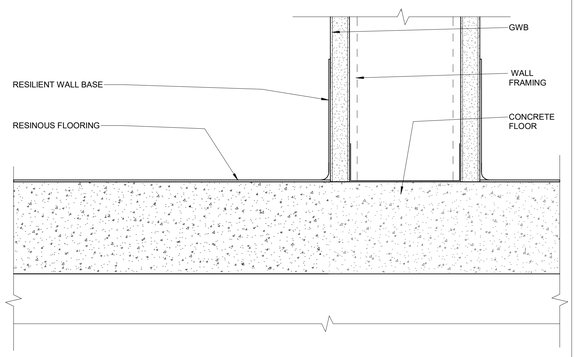
4 A801 TRANSITION - RESILIENT/CONCRETE
6" = 1'-0"



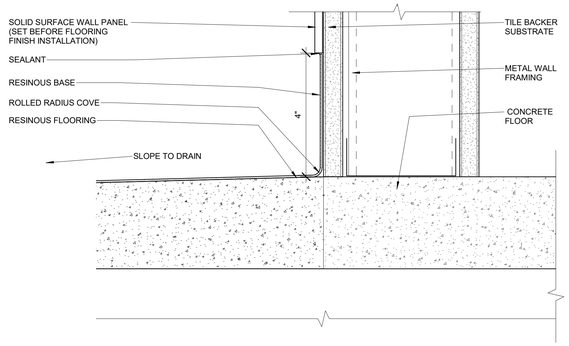
5 A801 TRANSITION - RESILIENT/RESINOUS
6" = 1'-0"



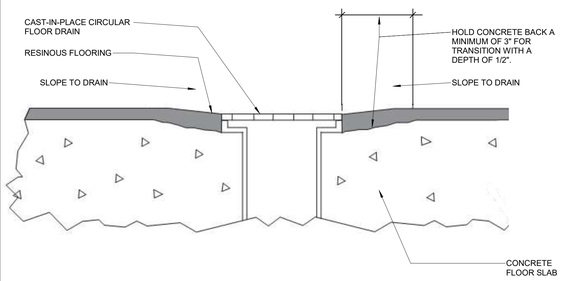
6 A801 TRANSITION - CONCRETE/RESINOUS
6" = 1'-0"



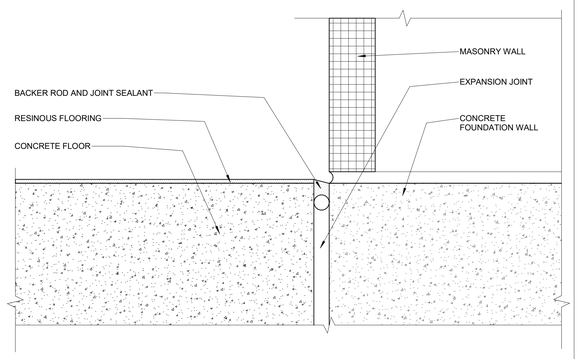
7 A801 TRANSITION - RESINOUS/RESILIENT BASE
6" = 1'-0"



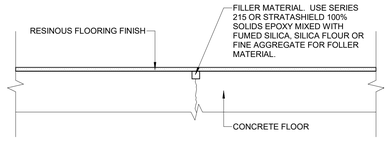
8 A801 TRANSITION (SHOWER) - RESINOUS/RESINOUS BASE
6" = 1'-0"



9 A801 TRANSITION (SHOWER) - RESINOUS/FLOOR DRAIN
6" = 1'-0"



10 A801 TRANSITION - FLOOR/WALL EXPANSION JOINT
6" = 1'-0"



11 A801 CONTROL JOINT - RESINOUS FLOOR
6" = 1'-0"

NOTE: RESINOUS EPOXY FLOORING DETAILS ARE BASED ON TNEMEC STRATASHIELD STANDARD FLOORING DETAILS GUIDE. ALL DETAILING SHOULD BE CONFIRMED WITH THE FLOORING MANUFACTURER PRIOR TO INSTALLATION.

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FLOORING TRANSITION DETAILS

Drawn By:	SGW
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

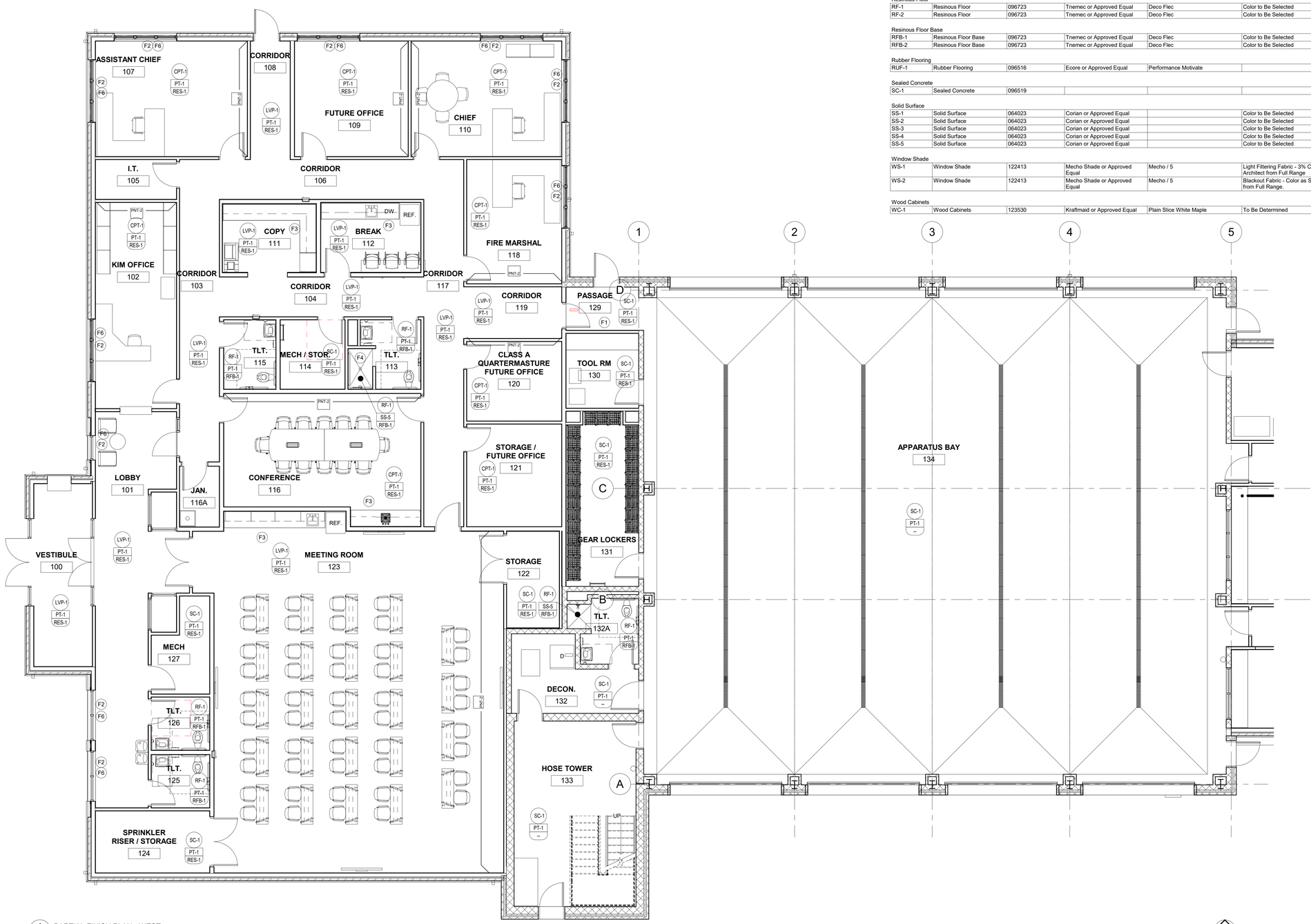
A801

FINISH PLAN GENERAL NOTES

1	REFER TO FINISH PLANS FOR EXTENT AND TYPE OF FLOOR AND WALL FINISHES.
2	REFER TO REFLECTED CEILING PLANS FOR EXTENT OF CEILING TYPES.
3	REFER TO INTERIOR ELEVATIONS FOR EXTENT AND TYPE OF MILLWORK FINISHES.
4	WHERE FLOOR FINISHES CHANGE AT CASED OPENINGS, THE FINISH CHANGE SHALL OCCUR AT THE CENTERLINE OF THE CASED OPENING. WHERE FLOOR FINISHES CHANGE AT DOORWAYS, THE FINISH CHANGE SHALL OCCUR AT THE CENTERLINE OF THE DOOR IN THE CLOSED POSITION.
5	FLOOR TRANSITIONS BETWEEN MATERIALS SHOULD BE FLUSH. FEATHER SUBFLOOR TO MAKE FLUSH TRANSITION AS REQUIRED..
6	ALL HOLLOW METAL FRAMES TO BE PAINTED. COLOR TO MATCH ADJACENT WALL PAINT.
7	PROVIDE MOISTURE MITIGATION IN BASE COST OF RESINOUS FLOORING.
8	ALL PLUMBING WALLS AND ALL WALLS/PARTITIONS WITHIN 2 FEET OF SERVICE SINKS, URINALS AND WATER CLOSETS TO HAVE MOISTURE RESISTANT GWB. EXTERIOR WINDOW HEADS/JAMBS THAT ARE TO HAVE GWB ARE TO HAVE MOISTURE RESISTANT GWB.

KEYED NOTES - FINISH PLAN

F1	NO RESILIENT BASE REQUIRED AT CMU WALLS.
F2	1/2" SOLID SURFACE WINDOW SILL. (SS-4) NOTE THAT SILL TO RETURN DOWN 1" AND TO EXTEND BEYOND WINDOW JAMBS BY 1/2".
F3	INSTALL PROFILE RESILIENT BASE (RES-2) AT ALL CABINETS.
F4	SEAL ALL PERIMETER EDGES OF SS WALL PANELS WITH CLEAR SEALANT. FLOOR TO SLOPE TO DRAIN. RESINOUS FLOOR TO HAVE ADDED NO SLIP TEXTURE IN SHOWER AREA.
F5	WINDOW SHADE WS-2.
F6	WINDOW SHADE WS-1.



1 / A961 PARTIAL FINISH PLAN - WEST
3/16" = 1'-0"

FINISH LEGEND

Symbol		Specification Section	Manufacturer	Series/Pattern	Color	Remarks
Acoustical Panel Ceiling						
APC-1	Acoustical Panel Ceiling	095113	USG	Frost - 440	White	24"x24"x3/4" SLB, 15/16" USG DX Grid or Approved Equal
APC-2	Acoustical Panel Ceiling	095113	Armstrong	Ultima High NRC - 2081		24X24X1 Beveled Tegular 15/16" Grid or Approved Equal
Carpet Tile						
CPT-1	Carpet Tile	096813	To be Determined		Color to Be Selected	Admin. Flooring
CPT-2	Carpet Tile	096813	To be Determined		Color to Be Selected	Living Quarters Flooring
Glass mosaic Tile						
GMT-1	Glass mosaic Tile	093000	To be Determined			Kitchen Backsplash
High Pressure Laminate						
HPL-1	High Pressure Laminate	064023	Wilsonart or Approved Equal		Color to Be Selected	Admin. Casework
HPL-2	High Pressure Laminate	064023	Wilsonart or Approved Equal		Color to Be Selected	Living Quarters Casework
HPL-3	High Pressure Laminate	064023	Wilsonart or Approved Equal		Color to Be Selected	
Luxury Vinyl Plank						
LVP-1	Luxury Vinyl Plank	096519	To be Determined		Color to Be Selected	Admin. Flooring
LVP-2	Luxury Vinyl Plank	096519	To be Determined		Color to Be Selected	Living Quarters Flooring
Paint						
PT-1	Paint	099123	Sherwin Williams or Approved Equal			Field Paint
PT-2	Paint	099123	Sherwin Williams or Approved Equal			Admin. Accent Paint
PT-3	Paint	099123	Sherwin Williams or Approved Equal			Living Quarters Accent Paint
PT-4	Paint	099123	Sherwin Williams or Approved Equal			Soffit Paint
Resilient Base						
RES-1	Resilient Base	096513	Tarkett or Approved Equal	4" Vinyl Coved Base		Typical Base
RES-2	Resilient Base	096513	Tarkett or Approved Equal.	Profile Base - Monument MW-XX-S4		Base at Kitchen Casework
Resinous Floor						
RF-1	Resinous Floor	096723	Tnemec or Approved Equal	Deco Flec	Color to Be Selected	Admin. Toilet Rooms
RF-2	Resinous Floor	096723	Tnemec or Approved Equal	Deco Flec	Color to Be Selected	Living Quarters Toilet Rooms
Resinous Floor Base						
RFB-1	Resinous Floor Base	096723	Tnemec or Approved Equal	Deco Flec	Color to Be Selected	Admin. Toilet Rooms
RFB-2	Resinous Floor Base	096723	Tnemec or Approved Equal	Deco Flec	Color to Be Selected	Living Quarters Toilet Rooms
Rubber Flooring						
RUF-1	Rubber Flooring	096516	Ecore or Approved Equal	Performance Motivate		Weight Room
Sealed Concrete						
SC-1	Sealed Concrete	096519				
Solid Surface						
SS-1	Solid Surface	064023	Corian or Approved Equal		Color to Be Selected	Admin. Countertops
SS-2	Solid Surface	064023	Corian or Approved Equal		Color to Be Selected	Living Quarters Countertops
SS-3	Solid Surface	064023	Corian or Approved Equal		Color to Be Selected	Living Quarters Kitchen Countertops
SS-4	Solid Surface	064023	Corian or Approved Equal		Color to Be Selected	Window Sills
SS-5	Solid Surface	064023	Corian or Approved Equal		Color to Be Selected	Shower Walls
Window Shade						
WS-1	Window Shade	122413	Mecho Shade or Approved Equal	Mecho / 5	Light Filtering Fabric - 3% Color as selected by Architect from Full Range	Non-Bunk Room Windows
WS-2	Window Shade	122413	Mecho Shade or Approved Equal	Mecho / 5	Blackout Fabric - Color as Selected by Architect from Full Range.	Bunk Rooms
Wood Cabinets						
WC-1	Wood Cabinets	123530	Kraftmaid or Approved Equal	Plain Slice White Maple	To Be Determined	Living Quarters Kitchen Cabinets

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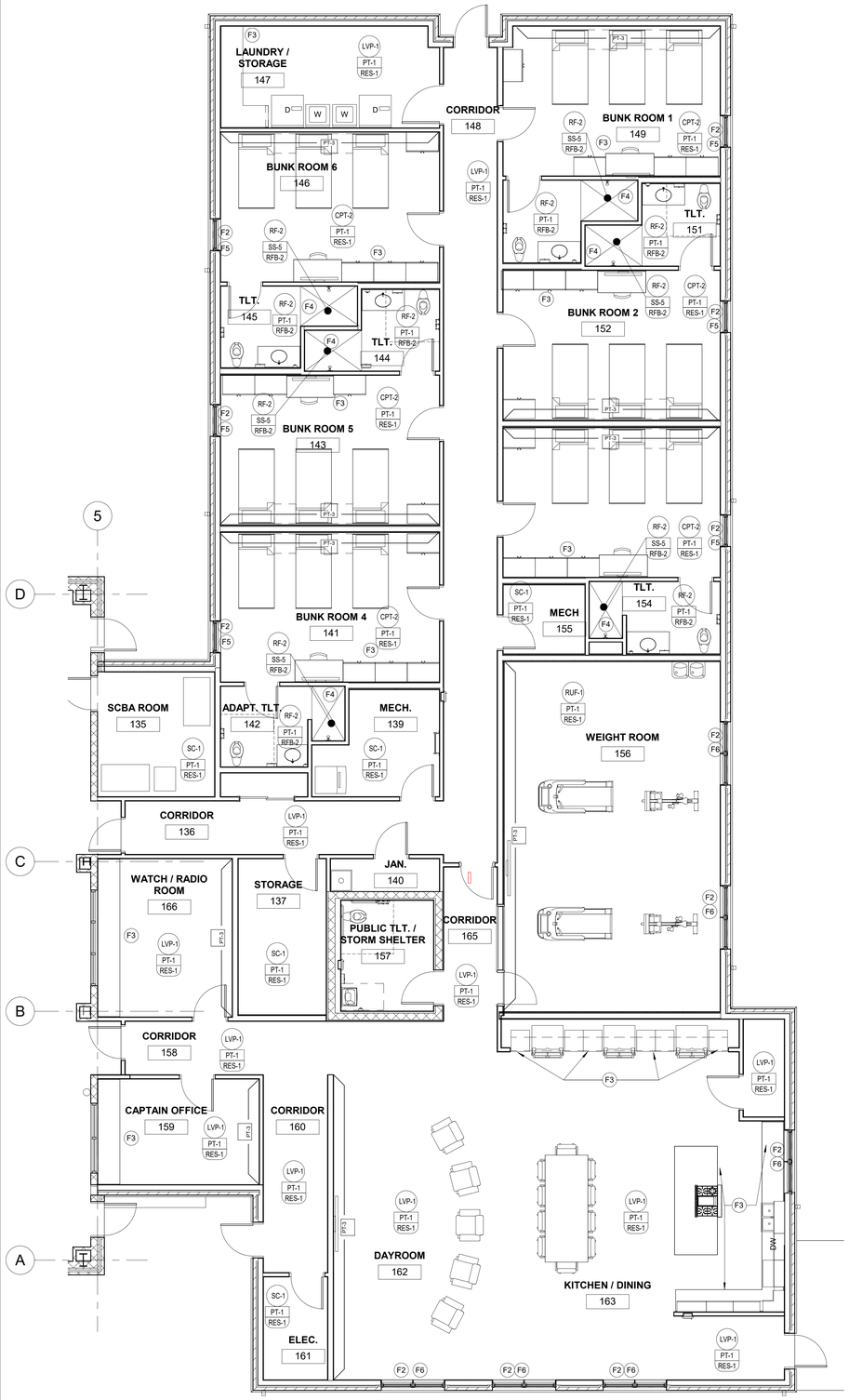
Sheet Info:

PARTIAL ROOM FINISH PLAN (WEST) AND LEGEND

Drawn By:	CEC
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

A961

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1 A962 PARTIAL FINISH PLAN - EAST
3/16" = 1'-0"

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FINISH LEGEND

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PARTIAL ROOM FINISH PLAN (EAST) AND LEGEND

Drawn By:	CEC
Checked By:	DGC
Commission:	025-2125
Date:	2025-09-05

A962

Wright City Fire Department - House #1

Wright City, Warren County, Missouri

GENERAL NOTES

ELEVATION DATUM
SEE ARCHITECTURAL DRAWINGS OR SITE PLAN FOR FINISH FLOOR ELEVATIONS

DESIGN SPECIFICATIONS
2015 INTERNATIONAL BUILDING CODE

EARTHWORK
EARTHWORK OPERATIONS SHALL BE PERFORMED UNDER THE DIRECTION OF A PROFESSIONAL TESTING AGENCY TO ASSURE COMPLIANCE WITH THE RECOMMENDATIONS OF THE SOILS REPORT.

CONCRETE

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 305 SPECIFICATIONS FOR HOT WATER CONCRETE, AND ACI 306 SPECIFICATIONS FOR COLD WEATHER CONCRETE, WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:

1. CONCRETE SHALL DEVELOP THE FOLLOWING 28-DAY MINIMUM COMPRESSIVE STRENGTH:
   - FOUNDATIONS – 3,000 PSI, 500# MIN. CEMENT/FLY ASH, 0.45 W/C RATIO
   - CAST-IN-PLACE WALLS – 3,500 PSI, 540# MIN. CEMENT/FLY ASH, 0.45 W/C RATIO
   - FLOOR SLAB – 4,000 PSI, 565# MIN. CEMENT ONLY, 0.45 W/C RATIO
   - EXTERIOR SLABS, WALLS AND CURBS – 4,000 PSI, 580# MIN. CEMENT/FLY ASH, 0.42 W/C RATIO
2. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED FILL.
3. CHLORIDE– BASED ADMIXTURES ARE PROHIBITED IN ALL REINFORCED CONCRETE.
4. REINFORCING STEEL SHALL CONFORM TO ASTM A615, A616, OR A617, GRADE 60.
5. ALL CONTINUOUS REINFORCING STEEL THAT MEETS AT A CORNER SHALL BE TIED TOGETHER WITH A CORNER BAR THAT HAS SUFFICIENT LAP DISTANCE IN EACH DIRECTION
6. CONTINUOUS REINFORCING BARS LAP LENGTH SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE
7. CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/– 1" (ASTM C– 143) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY. NO WATER MAY BE ADDED TO THE CONCRETE MIX ON SITE UNLESS WATER IS WITHHELD AT THE BATCHING FACILITY. IF WATER IS WITHHELD AT THE BATCHING FACILITY IT SHOULD BE REFLECTED ON THE LOAD TICKET. THE TOTAL AMOUNT OF WATER IN THE MIX SHALL NOT EXCEED WHAT IS NOTED ON THE APPROVED MIXED. THIS SHALL BE NOTED IN THE SPECIAL INSPECTOR'S RECORDS.
8. CONCRETE EXPOSED TO WEATHER, VEHICLES, AND/OR DEICING CHEMICALS SHALL BE AIR–ENTRAINED WITH 6% (+/–) 1.5% ENTRAINED AIR BY VOLUME AT POINT OF DISCHARGE. DO NOT ALLOW AIR CONTENT OF TROWELED FINISHED FLOORS TO EXCEED 3%.
9. SUBMIT CONCRETE MIX PROPORTIONS PRIOR TO START OF WORK. DO NOT BEGIN CONCRETE PRODUCTION UNTIL MIXES HAVE BEEN REVIEWED AND ARE ACCEPTABLE TO THE ENGINEER.
10. READY MIX CONCRETE SHALL COMPLY WITH REQUIREMENTS OF ASTM C94.
11. CONCRETE WORK EXECUTION
    - A. CONSTRUCT FORMS TO CORRECT SIZE, SHAPE, ALIGNMENT, ELEVATION AND POSITION; AND TO SUPPORT VERTICAL AND LATERAL LOADS.
    - B. POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE, UNLESS NOTED OTHERWISE ON THE DRAWINGS:
      - CAST AGAINST AND EXPOSED TO EARTH.....3 INCHES
      - EXPOSED TO EARTH OR WEATHER.....2 INCHES
      - NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH.....1 ½ INCHES
    - C. PROVIDE CONTROL JOINTS IN SLABS–ON–GRADE AT NOT GREATER THAN 15 FEET ON CENTER IN EACH DIRECTION. SAW CUT CONTROL JOINTS MINIMUM ¼ OF SLAB DEPTH, AS SOON AFTER SLAB FINISHING WITHOUT DISLODGING AGGREGATE.
    - D. STEEL TROWEL FINISH ALL INTERIOR CONCRETE SLABS, BROOM FINISH ALL EXTERIOR CONCRETE SLABS.
    - E. CURE ALL CONCRETE IN COMPLIANCE WITH ACI 301, USING A LIQUID TYPE MEMBRANE, NON–RESIDUAL, CURING COMPOUND COMPLYING WITH ASTM C309. ASSURE COMPATIBILITY WITH FINISH FLOOR COVERING.
    - F. ALL FLOOR SLABS ON GRADE/ELEVATED SLABS SHALL HAVE CONCRETE MOISTURE VAPOR REDUCING ADMIXTURE IN CONCRETE @ THE SUPPLIERS RECOMMENDED DOSAGE.

STRUCTURAL STEEL

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AND CURRENT OSHA STANDARDS.
2. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. STRUCTURAL TUBES SHALL CONFORM TO ASTM A500 GRADE B. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36.
3. BOLTS, UNLESS OTHERWISE SHOWN, SHALL CONFORM TO ASTM A325–N, SIZE AS PER PLAN.
4. ANCHOR BOLTS, UNLESS OTHERWISE SHOWN, SHALL CONFORM TO ASTM F1554 GRADE 36.
5. SPLICING OF STRUCTURAL STEEL IS PROHIBITED EXCEPT AS DETAILED.
6. ALL STRUCTURAL AND MISCELLANEOUS STEEL ITEMS SHALL RECEIVE ONE COAT OF "IRONCLAD RETARDO RUST INHIBITIVE PAINT 163" (BENJAMIN MOORE) OR APPROVED EQUAL UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS. ALL STEEL SURFACES EMBEDDED IN CONCRETE SHALL NOT BE PAINTED. PREPARATION OF STEEL SURFACES SHALL MEET THE REQUIREMENTS OF THE STEEL STRUCTURES PAINTING COUNCIL (SSPC–SP1) AND THE REMOVAL OF GREASE AND OIL BY SOLVENT CLEANING (SSPC–SP1) AND THE REMOVAL OF MILL SCALE, RUST, WELD FLUX AND SLAG BY HAND TOOL CLEANING (SSPC–SP2). PRIMER SHALL BE APPLIED AT THE MANUFACTURER'S RECOMMENDED RATE BUT NOT LESS THAN ONE GALLON PER 400 SQ.FT. THEREBY DEPOSITING A DRY FILM THICKNESS OF NOT LESS THAN 1.5 MILS. ANY SCARRED AREAS SHALL BE TOUCHED UP WITH THE SAME PAINT AFTER ERECTION.
7. ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS IN ACCORDANCE WITH THE CURRENT EDITION OF THE AWS STRUCTURAL WELDING CODE. WELDING ELECTRODES SHALL BE E70XX.

BRICK LINTEL

1. ALL STEEL LINTELS TO BE A36 STEEL, A992 GRADE 50, OR A500 GRADE B. ALL LINTELS TO BE HOT DIPPED GALVANIZED.

POST-INSTALLED ANCHORS

1. ALL POST–INSTALLED ANCHORS SHALL MEET THE REQUIREMENTS OF THE CODE–CITED EDITION OF ACI 318, APPENDIX "D", AND SHALL BE ACCEPTABLE FOR BOTH CRACKED AND UNCRACKED CONCRETE.
2. EXPANSION ANCHORS HAVE BEEN DESIGNED AS HILTI KWIK BOLT TZ ANCHORS, UNLESS NOTED OTHERWISE.
3. ADHESIVE ANCHORS HAVE BEEN DESIGNED TO USE HILTI HIT HY 200 ADHESIVE IN CONCRETE OR SOLID MASONRY, UNLESS NOTED OTHERWISE.
4. EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL. SUBMITTALS ARE THE CONTRACTOR'S RESPONSIBILITY AND MUST INCLUDE EVALUATION REPORTS FROM THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO).
5. EMBEDMENT DEPTH IS DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD–BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN DRIVEN INTO THE HOLE BUT NOT YET EXPANDED.
6. ADHESIVE ANCHORS SHALL BE ACCEPTABLE FOR LONG–TERM LOADING. WHEN BASE MATERIAL TEMPERATURES ARE BELOW 40 DEG F, ONLY NON–EPOXY–BASED ADHESIVES SHALL BE USED.
7. POST–INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO USING POST–INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST–IN–PLANE ANCHORS. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING BARS. HOLES SHALL BE DRILLED AND CLEANED PER ANCHOR MANUFACTURER'S SPECIFICATIONS.
8. STAINLESS STEEL ANCHORS ARE REQUIRED AT ALL PERMANENTLY EXPOSED WEATHER CONDITIONS.

MASONRY

MASONRY WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACI 530.1 SPECIFICATIONS FOR MASONRY STRUCTURES WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:

1. HOLLOW MASONRY BLOCK SHALL CONFORM TO ASTM C90 REGULAR WEIGHT GRADE N1.
2. COURSE GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI.
3. MORTAR SHALL BE TYPE S CONFORMING TO ASTM C270. AVERAGE COMPRESSIVE STRENGTH IS 2,000 PSI.
4. MINIMUM 28–DAY COMPRESSIVE STRENGTH OF MASONRY; $f'm$ = 2,000 PSI.
5. WIRE REINFORCING SHALL CONFORM TO ASTM A82, STANDARD TRUSS–TYPE DUR–O–WAL REINFORCING (OR APPROVED EQUAL) AND SHALL BE PLACED CONTINUOUSLY IN ALTERNATE HORIZONTAL MORTAR JOINTS.
6. REINFORCING STEEL SHALL CONFORM TO ASTM A615, A616, OR A617, GRADE 60. THE MINIMUM LAP FOR SPLICES SHALL BE 48 BAR DIAMETERS. PROVIDE DUR–O–WAL REBAR POSITIONERS.
7. ALL STEEL LINTELS TO BE A36 STEEL OR A992 GRADE 50. ALL LINTELS TO BE HOT DIPPED GALVANIZED.
8. INTERSECTING STRUCTURAL WALLS SHALL BE ANCHORED BY STEEL CONNECTORS SPACED VERTICALLY AT 48" O.C. MAXIMUM. THE CONNECTORS SHALL CONFORM TO ASTM A36 AND SHALL HAVE A MINIMUM SECTION OF ¾" x 1½". THEY SHALL BE 28" LONG WITH 2" AT EACH END BENT AT 90 DEGREES TO FORM A "U" OR "Z" SHAPE. ALL CELLS ABOVE AND BELOW THE ANCHOR SHALL BE GROUTED, AND THE BENT ENDS OF THE CONNECTORS SHALL BE EMBEDDED IN THE GROUT, 2" MIN.
9. EXPANSION JOINTS SHALL BE PROVIDED IN CMU BLOCK WALLS FULL HEIGHT OF WALL AT INTERVALS NOT EXCEEDING 24'–0". NOT CLOSER THAN 2'–8" FROM OPENINGS. JOINT REINFORCING SHALL BE SEVERED AT EXPANSION JOINT LOCATIONS, HOWEVER BOND BEAM REINFORCING SHALL BE CONTINUOUS THROUGH THE JOINT.
10. BOND BEAMS OR GROUTED CELLS ARE REQUIRED AT ALL CONNECTIONS TO CMU.

HEADED MASONRY ANCHORS

1. ALL HEADED CONCRETE ANCHORS SHALL MEET THE REQUIREMENTS OF THE CODE–CITED EDITION OF ACI 318 APPENDIX "D" AND AWS D1.1.
2. HEADED STUDS HAVE BEEN DESIGNED AS TYPE "B" ANCHORS (f_u= 65,000 psi, f_y= 51,000 psi).
3. EMBEDMENT DEPTH IS DEFINED AS THE DISTANCE FROM THE OUTSIDE FACE OF THE EMBEDMENT PLATE TO THE INSIDE FACE OF THE STUD HEAD.
4. EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL.

DEFORMED BAR ANCHORS

1. ALL DEFORMED BAR ANCHORS SHALL MEET THE REQUIREMENTS OF THE CODE–CITED EDITION OF ACI 318 APPENDIX "D" AND AWS D1.1.
2. DEFORMED BAR ANCHORS HAVE BEEN DESIGNED AS TYPE "C" ANCHORS (f_u= 80,000 psi, f_y= 70,000 psi, & MANUFACTURED IN CONFORMANCE WITH ASTM A496).
3. EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL.

TIMBER

TIMBER WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ANSI/AWC NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION WITH 2018 NDS SUPPLEMENT FOR WOOD CONSTRUCTION, WITH THE FOLLOWING SUPPLEMENTAL REQUIREMENTS:

1. FOR COMMON MEMBER SIZES, THE SPECIES AND GRADES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:
   - A. 2X4 SPF No.1/No.2
   - B. 2X6 SPF No.1/No.2
   - C. 2X8 DF–L No.2
   - D. 2X10 DF–L S.S.
   - E. 2X12 DF–L S.S.

   EQUIVALENT (OR BETTER) GRADES & SPECIES MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL.
2. SIZES SHOWN FOR LUMBER ARE NOMINAL SIZES.
3. TIMBER EXPOSED TO WEATHER OR GROUND, OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE–IMPREGNATED BY AN APPROVED PROCESS AND PRESERVATIVE.
4. SPLICING OF JOISTS, STUDS, OR HEADERS IS PROHIBITED EXCEPT AS SHOWN.
5. BOLTS SHALL CONFORM TO ASTM A307. HOLES SHALL BE DRILLED PER SECTION 12.1.3 OF THE 2018 ANSI/AWC NDS FOR WOOD CONSTRUCTION NDS SUPPLEMENT.
6. LAG SCREWS AND WOOD SCREWS SHALL BE INSTALLED PER SECTIONS 12.1.4 & 12.1.5 RESPECTIVELY, OF THE 2018 ANSI/AWC NDS FOR WOOD CONSTRUCTION WITH 2018 NDS SUPPLEMENT.
7. COMMON NAILS SHALL BE USED, UNLESS NOTED OTHERWISE. IN ADDITION, NAILS SHALL BE GALVANIZED, IF EXPOSED TO WEATHER OR MOISTURE. TOE–NAILS SHALL BE DRIVEN PER SECTION 12.1.6.3 OF THE 2018 ANSI/AWC NDS FOR WOOD CONSTRUCTION WITH 2018 NDS SUPPLEMENT.
8. FASTENING SHALL BE PER THE IBC MINIMUM FASTENING SCHEDULE, TABLE 2304.10.1, UNLESS NOTED OTHERWISE.
9. CONNECTIONS/CONNECTORS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

PREFABRICATED WOOD TRUSSES

1. FLOOR & ROOF TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE (TPI) DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES, AND THE ANSI/NF&PA NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION.
2. PROVIDE TEMPORARY AND PERMANENT BRACING ON ALL TRUSSES, AS REQUIRED TO PROVIDE MEMBER AND TRUSS STABILITY.
3. FLOOR & ROOF TRUSSES SHALL BE DESIGNED AND CONSTRUCTED FOR A MAXIMUM TOTAL LOAD DEFLECTION OF L/360 AND TO SAFELY SUPPORT THE FOLLOWING LOADS:
   - A. DEAD, LIVE, SNOW, WIND, EARTHQUAKE: SEE PROJECT DESIGN DATA ON COVER SHEET.
   - B. MECHANICAL PIPE LOAD: TRUSSES SHALL BE DESIGNED FOR A CONCENTRATED LOAD OF 250 LBS HUNG ANYWHERE ALONG THE BOTTOM CHORD.
   - C. OVER–FRAMING LOAD: TRUSSES SHALL ALSO BE DESIGNED TO SUPPORT ADDITIONAL OVERBUILD FRAMING, SUCH AS THAT WHICH FORMS VALLEYS AND HIPS ON ROOFS.
   - D. DRIFTED SNOW LOAD: TRUSSES SHALL BE DESIGNED TO SUPPORT DRIFTED SNOW LOADS IN ACCORDANCE WITH THE APPROPRIATE BUILDING CODE.
   - E. IN–PLANE LATERAL LOADS: TRUSSES SHALL BE DESIGNED TO SUPPORT ANY LATERAL LOADS CARRIED AXIALLY IN THE PLANE OF THE TRUSS, AS SHOWN ON THE PLANS.
4. GABLED END TRUSSES SHALL HAVE VERTICAL MEMBERS SPACED AT 16" O.C. MAXIMUM.
5. SUBMITTALS SHALL INCLUDE THE FOLLOWING:
   - A. SHOP DRAWINGS PREPARED UNDER THE SUPERVISION OF, AND SIGNED AND SEALED BY, A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS BUILT. THESE DRAWINGS SHALL INDICATE SPECIES, GRADE, AND SIZES OF LUMBER TO BE USED; PITCH, SPAN, CAMBER, CONFIGURATION, AND SPACING FOR EACH TYPE OF TRUSS REQUIRED; TYPE, SIZE, MATERIAL, FINISH, AND LOCATION OF METAL CONNECTOR PLATES; AND BEARING DETAILS. SHOW TRUSS LAYOUT AND ALL REQUIRED TEMPORARY AND PERMANENT BRACING AFFECTING THE STRUCTURAL CAPACITY OF THE TRUSSES.

PROVIDE COMPLETE ENGINEERING DESIGN CALCULATIONS THAT INCLUDE DESIGN VALUES, DESIGN ANALYSIS INDICATING LOADING, ASSUMED ALLOWABLE STRESSES, STRESS DIAGRAMS, AND CALCULATIONS, AND ANY OTHER INFORMATION NEEDED FOR REVIEW. THE CALCULATIONS SHALL HAVE BEEN SIGNED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER WHO IS REGISTERED IN THE STATE WHERE THE PROJECT IS BUILT AND WHO IS RESPONSIBLE FOR PREPARATION OF THE CALCULATIONS.

SPECIAL INSPECTIONS

THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.

- a. CONCRETE GROUT DESIGN MIX (PERIODIC)
- b. PLACING OF CONCRETE AND REINFORCING STEEL (CONTINUOUS OF CONCRETE SAMPLING / PERIODIC OF REINFORCING)
- c. BOLTS & ANCHORS EMBEDDED IN CONCRETE (PERIODIC)
- d. STRUCTURAL STEEL FABRICATIONS (UNLESS AISC APPROVED) (PERIODIC)
- e. STRUCTURAL STEEL BOLTING & WELDING (PERIODIC)
- f. POST INSTALLED ANCHORS IN CONCRETE (CONTINUOUS)
- g. IN–SITU SOILS, EXCAVATIONS, FILLING & COMPACTION (PERIODIC)
- h. MASONRY AND REINFORCING STEEL (CONTINUOUS ON CELL GROUTING / PERIODIC ON REINFORCING)
- i. WOOD FRAMING:
  - i.a. SHEAR WALLS; WALL SIZE, CONFIGURATION, BLOCKING, PANEL GRADE, PANEL THICKNESS, AND FASTENING. (PERIODIC)
  - i.b. DIAPHRAGMS (FLOOR AND ROOF SHEATHING); SIZE, CONFIGURATION, BLOCKING, PANEL GRADE, PANEL THICKNESS, AND FASTENING. (PERIODIC)
  - i.c. FRAMING MEMBERS AND DETAILS (PERIODIC)
  - i.d. MATERIAL GRADE (PERIODIC)
  - i.e. CONNECTIONS; HANGERS, HOLD DOWNS, BUILT–UP COLUMNS, BUILT–UP BEAMS (PERIODIC)
  - i.f. PRE–ENGINEERED TRUSSES; FRAMING, CONNECTIONS, BRIDGING (PERIODIC)

THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE ITEMS LISTED ABOVE PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF THE WORK.

PRE-ENGINEERED STEEL BUILDING STRUCTURE

1. DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, THE AISC SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, AND CURRENT OSHA STANDARDS.
2. ALL STRUCTURAL AND MISCELLANEOUS STEEL ITEMS SHALL RECEIVE ONE COAT OF RUST INHIBITIVE PRIMER/PAINT.
3. ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS IN ACCORDANCE WITH THE CURRENT EDITION OF THE AWS STRUCTURAL WELDING CODE.
4. THIS STEEL STRUCTURE SHALL BE DESIGNED IN ACCORDANCE WITH THE SPECIFIED CODE.
5. PER IBC TABLE 1604.3 ROOF MEMBERS SHALL BE DESIGNED AND CONSTRUCTED FOR A MAXIMUM TOTAL LOAD DEFLECTION OF L/180 AND L/240 LIVE LOAD, WALL GIRTS SHALL BE DESIGNED FOR A MAXIMUM TOTAL LOAD DEFLECTION OF L/240 WITHOUT BRICK & L360 w/ BRICK AND TOTAL FRAME DEFLECTION SHALL BE LIMITED TO H/200. (ALL DEFLECTIONS BASED ON SERVICE WIND LOAD)
6. LOADING DESIGN DATA SHALL BE AS FOLLOWS:

6.1. ROOF LOADINGS:

6.1.1.	LIVE LOAD	20 PSF
6.1.2.	COLLATERAL LOAD	7 PSF
6.1.3.	DEAD LOAD	STRUCTURE WEIGHT

6.2. SNOW LOAD (DRIFTING AND SLIDING SNOW IN ADDITION TO UNIFORM LOAD):

6.2.1.	Pg=	20 PSF
6.2.2.	Is=	1.0

6.3. SEISMIC DESIGN DATA:

6.3.1.	OCCUPANCY CATEGORY	IV (FIRE STATION)
6.3.2.	SITE CLASSIFICATION	D (ASSUMED)
6.3.3.	Ie =	1.0
6.3.4.	Ss =	0.270
6.3.5.	S1 =	0.126

6.4. WIND LOADINGS:

6.4.1.	V =	120 MPH (3–SECOND GUST)
6.4.2.	Iw =	1.0
6.4.3.	EXPOSURE =	C

7. SUBMITTALS SHALL INCLUDE THE FOLLOWING:
   - a. SHOP DRAWINGS PREPARED UNDER THE SUPERVISION OF, AND SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MISSOURI INCLUDING ANCHOR PLAN AND DETAILS.
   - b. DESIGN LOADS FOR FOUNDATION AND ANCHOR DESIGN INCLUDING VERTICAL, HORIZONTAL, AND LATERAL LOADS AT EACH COLUMN BASE.

DESIGN DATA

2015 INTERNATIONAL BUILDING CODE / ASCE 7–10

BUILDING OCCUPANCY CATEGORY	IV
ROOF LOAD DATA	
LIVE LOAD	20
ASPHALT SHINGLES + FELT	3.0
5/8" OSB ROOF SHEATHING	2.5
PRE–ENGINEERED WOOD TRUSSES @ 2'–0" O.C.	3.0
INSULATION (BLOWN)	1.0
MECHANICAL ALLOWANCE	4.0
5/8" GYP. CEILING	1.5
SOLAR	5.0
TOTAL TO TRUSSES	40 lbs/sq.ft
RAIN LOADING	
15 MINUTE RAIN INTENSITY	9.22 in/hr
60 MINUTE RAIN INTENSITY	4.34 in/hr
ROOF SNOW LOAD DATA* (*UNBALANCED & DRIFTING SNOW TO BE DETERMINED IN ADDITION TO UNIFORM LOAD, WHERE APPLICABLE)	
p_g =	20 lbs/sq.ft
C_e =	1.0
I_s =	1.2
C_t =	1.0
p_f =	16.80 lbs/sq.ft
WIND DESIGN DATA	
V_{ult} =	120 M.P.H. (3–SECOND GUST)
RISK CATEGORY	IV
EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT =	± 0.18
DIRECTIONAL PROCEDURE (MWFRS – ASCE 7, CH 27; C&C – ASCE 7, CH 30, PART 4)	
MAXIMUM COMPONENTS & CLADDING WIND	+/–43 lbs/sq.ft
EARTHQUAKE DESIGN DATA	
RISK CATEGORY	IV
I_E =	1.5
S_{DS} =	0.27
S_{D1} =	0.126
SITE CLASS	D (ASSUMED)
S_{DS} =	0.285
S_{D1} =	0.193
SEISMIC DESIGN CATEGORY	D
BASIC SEISMIC–FORCE–RESISTING SYSTEM = LIGHT–FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE	
R =	6.5
Ω_o =	3.0
C_d =	4.0
DESIGN BASE SHEAR	$V = 0.066W$
EQUIVALENT LATERAL FORCE PROCEDURE	
NET ALLOWABLE SOIL BEARING	1500 lbs/sq.ft**

(**ASSUMED PER IBC TABLE 1806.2; PRESUMPTIVE LOAD–BEARING VALUES)

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REVISIONS:

No.	Date
PERMIT SET	09/04/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI – GREGORY L. LINNEMAN – NUMBER PE-2005001013 – 9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
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Columbia, Missouri 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
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#2006013501

CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O'FALLON, MO

Wright City Fire Department - House #1
60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

DRAWING INCLUDES:
GENERAL STRUCTURAL DATA

DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264

SHEET:
S100

THIS STRUCTURAL QUALITY ASSURANCE PLAN IDENTIFIES THE RESPONSIBILITIES OF THE CONTRACTOR AND THE SPECIAL INSPECTOR IN PERFORMING THE TESTING AND INSPECTION OF THE WORK THAT IS (1) REQUIRED BY CHAPTER 107.3 OF ICC-500 AND CHAPTER 17 OF THE BUILDING CODE, AND (2) WITHIN THE SCOPE OF THE STRUCTURAL ENGINEERING SERVICES FOR THIS PROJECT. REFER TO OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS FOR TESTING AND INSPECTIONS REQUIRED OF ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR OTHER BUILDING COMPONENTS.

CONTRACTOR RESPONSIBILITIES

EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE MAIN WIND-FORCE-RESISTING SYSTEM SHALL SUBMIT TO THE BUILDING OFFICIAL AND THE ARCHITECT, PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM, A WRITTEN STATEMENT OF RESPONSIBILITY THAT CONTAINS THE FOLLOWING:

1. ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED WITHIN THIS STRUCTURAL QUALITY ASSURANCE PLAN.
2. ACKNOWLEDGEMENT THAT CONTROL SHALL BE EXERCISED TO OBTAIN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.
3. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF REPORTS.
4. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

THE STRUCTURAL TESTING/INSPECTION AGENCY THAT IS TO ACT AS THE SPECIAL INSPECTOR WILL BE HIRED BY THE OWNER.
CONTRACTOR SHALL PAY FOR ANY ADDITIONAL STRUCTURAL TESTING/INSPECTION REQUIRED FOR WORK OR MATERIALS NOT COMPLYING WITH THE CONSTRUCTION DOCUMENTS DUE TO NEGLIGENCE OR NONCONFORMANCE AND SHALL PAY FOR ANY ADDITIONAL STRUCTURAL TESTING/INSPECTION REQUIRED FOR HIS CONVENIENCE.
CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SPECIAL INSPECTOR IS PRESENT FOR ALL WORK REQUIRING SPECIAL INSPECTION. ANY WORK THAT REQUIRES SPECIAL INSPECTION AND IS PERFORMED WITHOUT THE SPECIAL INSPECTOR BEING PRESENT IS SUBJECT TO BEING DEMOLISHED AND RECONSTRUCTED.

MISSILE COMPLIANCE:

THESE STRUCTURES HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS OF ICC500. THE ROOF AND WALL ASSEMBLIES ARE APPROVED PER SECTION A OF TEXAS TECH'S APPROVED ASSEMBLIES UTILIZING A 15 LBF 2X4 BOARD MISSILE.

CONTRACTOR HAS THE FOLLOWING RESPONSIBILITIES TO THE SPECIAL INSPECTOR:

1. PROVIDE COPY OF CONSTRUCTION DOCUMENTS TO THE SPECIAL INSPECTOR.
2. NOTIFY THE SPECIAL INSPECTOR SUFFICIENTLY IN ADVANCE OF OPERATIONS TO ALLOW ASSIGNMENT OF PERSONNEL AND SCHEDULING OF TESTS.
3. COOPERATE WITH SPECIAL INSPECTOR AND PROVIDE ACCESS TO WORK.
4. PROVIDE SAMPLES OF MATERIALS TO BE TESTED IN REQUIRED QUANTITIES.
5. PROVIDE STORAGE SPACE FOR THE SPECIAL INSPECTOR'S EXCLUSIVE USE, SUCH AS FOR STORING AND CURING CONCRETE TESTING SAMPLES.

PROVIDE LABOR TO ASSIST THE SPECIAL INSPECTOR IN PERFORMING TESTS/INSPECTIONS.

SPECIAL INSPECTOR RESPONSIBILITIES

SPECIAL INSPECTOR SHALL MAINTAIN RECORDS OF INSPECTIONS IN ACCORDANCE WITH CHAPTER 106.2 OF ICC-500 AND CHAPTER 17 OF THE BUILDING CODE AND SHALL DISTRIBUTE THESE RECORDS TO THE BUILDING OFFICIAL, ARCHITECT, AND STRUCTURAL ENGINEER ON A WEEKLY BASIS. AT THE CONCLUSION OF THE PROJECT, THE SPECIAL INSPECTOR SHALL SUBMIT A WRITTEN STATEMENT THAT THE SPECIAL INSPECTIONS DURING CONSTRUCTION HAVE COMPLIED WITH THIS STRUCTURAL QUALITY ASSURANCE PLAN AND THAT ANY DISCREPANCIES NOTED DURING CONSTRUCTION HAVE BEEN CORRECTED.

SOILS (QUALITY ASSURANCE)

SITE CONTRACTOR SHALL VERIFY THE FOLLOWING INSPECTIONS WERE PREFORMED:

1. VERIFY STRUCTURAL FILL COMPLIES WITH THE PROJECT SPECIFICATIONS AND THE GEOTECHNICAL REPORT.
2. OBSERVE PROOF-ROLLING AND UNDERCUTTING WHERE REQUIRED.
3. OBSERVE AND VERIFY THAT PLACEMENT OF STRUCTURAL FILL COMPLIES WITH THE PROJECT SPECIFICATIONS AND THE GEOTECHNICAL REPORT.
4. PERFORM FIELD DENSITY TESTS TO VERIFY COMPACTION OF STRUCTURAL FILL AS A MINIMUM, PERFORM ONE TEST PER LIFT FOR EVERY 2,500 SQUARE FEET OF FILL PLACED.
5. VERIFY FOUNDATION BEARING CAPACITY MEETS THE REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.

POST INSTALLED ADHESIVE ANCHORS (QUALITY ASSURANCE)

SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

1. HOLE DEPTH (PERIODICALLY DURING TASK)
2. HOLE DIAMETER (PERIODICALLY DURING TASK)
3. HOLE CLEANLINESS (PERIODICALLY DURING TASK)
4. EPOXY IS THE SPECIFIED PRODUCT OR AN APPROVED EQUAL (PERIODICALLY DURING TASK)
5. EXPIRATION DATE OF THE EPOXY (PERIODICALLY DURING TASK)
6. TEMPERATURE DURING THE INSTALLATION MEETS THE REQUIREMENT OF THE EPOXY (PERIODICALLY DURING TASK)
7. INSTALLATION OF ANCHOR INTO EPOXY (CONTINUOUSLY DURING TASK)

MASONRY (QUALITY ASSURANCE)

FROM THE BEGINNING OF MASONRY CONSTRUCTION, THE SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

1. VERIFY PROPORTIONS OF SITE-PREPARED MORTAR AND GROUT. (PERIODICALLY DURING TASK.)
2. VERIFY PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS. (PERIODICALLY DURING TASK.)
3. VERIFY PLACEMENT OF REINFORCEMENT, CONNECTORS, AND ANCHORAGES. (CONTINUOUSLY DURING TASK.)
4. VERIFY GROUT SPACING PRIOR TO GROUTING. (CONTINUOUSLY DURING TASK.)
5. VERIFY PLACEMENT OF GROUT. (CONTINUOUSLY DURING TASK.)
6. TEST GROUT STRENGTH, EACH TIME GROUT IS PLACED.
7. VERIFY SIZE AND LOCATION OF STRUCTURAL ELEMENTS. (CONTINUOUSLY DURING TASK.)
8. VERIFY TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION. (CONTINUOUSLY DURING TASK.)
9. VERIFY SPECIFIED SIZE, GRADE, AND TYPE OF REINFORCEMENT. (CONTINUOUSLY DURING TASK.)
10. OBSERVE AND VERIFY THE WELDING OF REINFORCING BARS. (CONTINUOUSLY DURING TASK.)
11. VERIFY PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F). (CONTINUOUSLY DURING TASK.)
12. OBSERVE PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS. (CONTINUOUSLY DURING TASK.)

STEEL DECK (QUALITY ASSURANCE)

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. SUBMIT MILL CERTIFICATION THAT THE SUPPLIES STEEL COMPLIES WITH THE SPECIFICATIONS.

SPECIAL INSPECTOR SHALL PERFORM PERIODIC INSPECTIONS OF THE FOLLOWING:

1. VERIFY GENERAL ALIGNMENT AND DECK LAP.
2. VERIFY WELDS FOR SIZE AND PATTERN.
3. VERIFY SPACING AND TYPE OF SIDELAP ATTACHMENTS.
4. VERIFY INSTALLATION DECK CLOSURES.

STRUCTURAL STEEL (QUALITY ASSURANCE)

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. SUBMIT CERTIFICATION THAT THE FABRICATOR IS REGISTERED AND APPROVED BY THE BUILDING OFFICIAL TO PERFORM REQUIRED WORK WITHOUT SPECIAL INSPECTIONS.
2. IF FABRICATOR IS NOT REGISTERED AND APPROVED, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED. SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATIONS AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTIONS CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.
3. SUBMIT CERTIFIED MILL TEST REPORTS FOR STRUCTURAL STEEL.
4. SUBMIT MANUFACTURER'S CERTIFICATE OF COMPLIANCE FOR HIGH-STRENGTH BOLTING AND WELD FILLER MATERIALS.

SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

1. INSPECTION OF THE STEEL FRAME TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS INCLUDING MEMBER LOCATIONS, BRACING, CONNECTION DETAILS, ETC.
2. PROVIDE CONTINUOUS INSPECTION TO VERIFY COMPLIANCE OF THE FOLLOWING:
   a. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS. ULTRASONICALLY INSPECT 100% OF THE COMPLETE PENETRATION WELDS.
   b. MULTI-PASS FILLET WELDS AND SINGLE-PASS FILLET WELDS GREATER THAN 5/16".
3. PROVIDE PERIODIC INSPECTION TO VERIFY COMPLIANCE OF THE FOLLOWING:
   a. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLT, NUTS, AND WASHERS.
   b. MATERIAL VERIFICATION OF WELD FILLER MATERIAL.
   c. VERIFICATION OF ANCHOR ROD SIZE, CONFIGURATION, AND EMBEDMENT PRIOR TO PLACEMENT OF CONCRETE.
   d. VISUALLY INSPECT ALL BOLTED CONNECTIONS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. PRIOR TO VISUAL AND PHYSICAL TESTING, TENSION TESTING USING A CALIBRATION DEVICE (SKIDMORE-WILHELM) MUST INDICATE TENSIONS AT LEAST 5% IN EXCESS OF THE AISC MINIMUM. STRUCTURAL STEEL REECTOR SHALL SUPPLY THE TENSION CALIBRATION DEVICE. TEST A MINIMUM OF 10% OF THE BOLTED CONNECTIONS.
   e. VISUALLY INSPECT ALL FIELD-WELDED CONNECTIONS. VISUAL INSPECTION OF WELDED JOINTS INCLUDES PERIODIC EXAMINATION OF FITUP.
   f. VERIFY STUD SHEAR CONNECTOR SPACING AND LOCATIONS. VISUALLY INSPECT WELDING OF STUD SHEAR CONNECTORS.
   g. VERIFY SPACING AND LOCATIONS OF CONCRETE & MASONRY EMBEDDED ITEMS, TEST 100% OF STUDS BY SOUND TESTING & BEND 10% TO 30 DEGREES.
4. WELD INSPECTIONS TO INCLUDE THE FOLLOWING:
   a. WELD INSPECTIONS SHALL BE IN ACCORDANCE WITH AWS D1.1.
   b. REVIEW AND VERIFY COMPLIANCE OF WRITTEN WELDING PROCEDURES WITH AWS REQUIREMENTS.
   c. VERIFY THAT WELDING PROCEDURES ARE BEING ADHERED TO DURING FILED WELDING.
   d. VERIFY WELDER QUALIFICATIONS.
   e. USE ALL MEANS NECESSARY TO DETERMINE THE QUALITY OF WELDS. THE INSPECTOR MAY USE GAMMA RAY, MAGNAFLUX, TREPANNING, SONICS OR ANY OTHER AID TO VISUAL INSPECTION THAT THE SPECIAL INSPECTOR MAY DEEM NECESSARY TO BE ASSURED OF THE ADEQUACY OF THE WELDING.
   f. KEEP A SYSTEMATIC RECORD OF ALL WELDS THAT INCLUDES, IN ADDITION TO OTHER REQUIRED RECORDS, THE IDENTIFICATION MARKS OF WELDERS, A LIST OF DEFECTIVE WELDS, AND THE MANNER OF CORRECTING DEFECTS.
5. THE SPECIAL INSPECTOR SHALL FURNISH THE ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR, AND THE LOCAL BUILDING AUTHORITY WITH A REPORT THAT ALL WELDING IS IN CONFORMANCE WITH THE APPROVED STRUCTURAL DOCUMENTS AND HAS BEEN DONE IN ACCORDANCE WITH AWS D1.1, STRUCTURAL WELDING CODES.

CAST-IN-PLACE CONCRETE (QUALITY ASSURANCE)

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. SUBMIT MILL TEST REPORTS.
2. SUBMIT MANUFACTURER'S DATA FOR TENSILE AND COMPRESSIVE SPLICERS.
3. ESTABLISH CONCRETE MIX DESIGN PROPORTIONS PER ACI 318, CHAPTER 5. SUBMIT THREE COPIES OF THE CONCRETE MIX DESIGNS. INCLUDE THE FOLLOWING:
   a. TYPE AND QUANTITIES OF MATERIALS
   b. SLUMP
   c. AIR CONTENT
   d. FRESH UNIT WEIGHT
   e. AGGREGATES SIEVE ANALYSIS
   f. DESIGN COMPRESSIVE STRENGTH
   g. LOCATION OF PLACEMENT IN STRUCTURE
   h. METHOD OF PLACEMENT
   i. METHOD OF CURING
   j. 7-DAY AND 28-DAY COMPRESSIVE STRENGTHS
4. SUBMIT A CERTIFICATION FROM EACH MANUFACTURER OR SUPPLIER STATING THAT MATERIALS MEET THE REQUIREMENTS OF THE SPECIFIED ASTM AND ACI STANDARDS.
5. SUBMIT CERTIFICATION THAT THE READY-MIXED CONCRETE PLAN COMPLIES WITH THE REQUIREMENTS OF THE NATIONAL READY MIX CONCRETE ASSOCIATION.

SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

1. VERIFY GRADE, QUANTITY, LOCATION, AND PLACEMENT OF REINFORCING STEEL PRIOR TO CONCRETE PLACEMENT.
2. EXAMINE CONCRETE IN TRUCK TO VERIFY THAT CONCRETE APPEARS PROPERLY MIXED.
3. PERFORM A SLUMP TEST AS DEEMED NECESSARY FOR EACH CONCRETE LOAD. RECORD IF WATER OR ADMIXTURES ARE ADDED TO THE CONCRETE AT THE JOB SITE. PERFORM ADDITIONAL SLUMP TESTS AFTER JOB SITE ADJUSTMENTS.
4. MOLD FOUR SPECIMENS PER SET FOR COMPRESSIVE STRENGTH TESTING. ONE SET FOR THE FIRST 25 CUBIC YARDS, AND ONE SET FOR EACH ADDITIONAL 50 CUBIC YARDS. FOR EACH SET MOLDED, RECORD:
   a. SLUMP
   b. AIR CONTENT
   c. UNIT WEIGHT
   d. TEMPERATURE, AMBIENT AND CONCRETE
   e. LOCATION OF PLACEMENT
   f. ANY PERTINENT INFORMATION, SUCH AS ADDITION OF WATER, ADDITION OF ADMIXTURES, ETC. PERFORM ONE 7-DAY AND TWO 28-DAY COMPRESSIVE STRENGTH TESTS. USE ONE AS A SPARE TO BE BROKEN AS DIRECTED BY THE STRUCTURAL ENGINEER IF COMPRESSIVE STRENGTHS DO NOT APPEAR ADEQUATE.
5. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AGENCY, CONCRETE DESIGN COMPRESSIVE STRENGTH, LOCATION OF CONCRETE PLACEMENT IN STRUCTURE, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH AND TYPE OF BREAK.
6. VERIFY THE DRY WEIGHT OF THE LIGHTWEIGHT AGGREGATES AND THE FIVE-DAY SATURATED WEIGHT OF THE AGGREGATE, AND VERIFY THAT AGGREGATES ARE BEING PROPERLY PRESOAKED PRIOR TO BATCHING CONCRETE.

CONCRETE

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 305 SPECIFICATIONS FOR HOT WATER CONCRETE, AND ACI 306 SPECIFICATIONS FOR COLD WEATHER CONCRETE, WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:

1. CONCRETE SHALL DEVELOP THE FOLLOWING 28-DAY MINIMUM COMPRESSIVE STRENGTH:
   FOUNDATIONS – 3,000 PSI, 500# MIN. CEMENT/FLY ASH, 0.45 W/C RATIO
   CAST-IN-PLACE WALLS – 4,000 PSI, 565# MIN. CEMENT ONLY, 0.45 W/C RATIO
   ELEVATED FLOOR SLAB – 4,000 PSI w/ MAX. AGGREGATE SIZE OF ⅜" 565# MIN. CEMENT ONLY, 0.45 W/C RATIO
2. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED FILL.
3. CHLORIDE- BASED ADMIXTURES ARE PROHIBITED IN ALL REINFORCED CONCRETE.
4. REINFORCING STEEL SHALL CONFORM TO ASTM A615, A616, OR A617, GRADE 60.
5. ALL CONTINUOUS REINFORCING STEEL THAT MEETS AT A CORNER SHALL BE TIED TOGETHER WITH A CORNER BAR THAT HAS SUFFICIENT LAP DISTANCE IN EACH DIRECTION
6. CONTINUOUS REINFORCING BARS LAP LENGTH SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE
7. CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C- 143) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY. NO WATER MAY BE ADDED TO THE CONCRETE MIX ON SITE UNLESS WATER IS WITHHELD AT THE BATCHING FACILITY. IF WATER IS WITHHELD AT THE BATCHING FACILITY IT SHOULD BE REFLECTED ON THE LOAD TICKET. THE TOTAL AMOUNT OF WATER IN THE MIX SHALL NOT EXCEED WHAT IS NOTED ON THE APPROVED MIXED. THIS SHALL BE NOTED IN THE SPECIAL INSPECTOR'S RECORDS.
8. CONCRETE EXPOSED TO WEATHER, VEHICLES, AND/OR DEICING CHEMICALS SHALL BE AIR-ENTRAINED WITH 6% (+/-) 1.5% ENTRAINED AIR BY VOLUME AT POINT OF DISCHARGE. DO NOT ALLOW AIR CONTENT OF TROWELED FINISHED FLOORS TO EXCEED 3%.
9. SUBMIT CONCRETE MIX PROPORTIONS PRIOR TO START OF WORK. DO NOT BEGIN CONCRETE PRODUCTION UNTIL MIXES HAVE BEEN REVIEWED AND ARE ACCEPTABLE TO THE ENGINEER.
10. READY MIX CONCRETE SHALL COMPLY WITH REQUIREMENTS OF ASTM C94.
11. CONCRETE WORK EXECUTION
   A. CONSTRUCT FORMS TO CORRECT SIZE, SHAPE, ALIGNMENT, ELEVATION AND POSITION; AND TO SUPPORT VERTICAL AND LATERAL LOADS.
   B. POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE, UNLESS NOTED OTHERWISE ON THE DRAWINGS:
      CAST AGAINST AND EXPOSED TO EARTH.....3 INCHES
      EXPOSED TO EARTH OR WEATHER.....2 INCHES
      NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH.....1 ½ INCHES
   C. PROVIDE CONTROL JOINTS IN SLABS-ON-GRADE AT NOT GREATER THAN 15 FEET ON CENTER IN EACH DIRECTION. SAW CUT CONTROL JOINTS MINIMUM ¼ OF SLAB DEPTH, AS SOON AFTER SLAB FINISHING WITHOUT DISLODGING AGGREGATE.
   D. STEEL TROWEL FINISH ALL INTERIOR CONCRETE SLABS, BROOM FINISH ALL EXTERIOR CONCRETE SLABS.
   E. CURE ALL CONCRETE IN COMPLIANCE WITH ACI 301, USING A LIQUID TYPE MEMBRANE, NON-RESIDUAL, CURING COMPOUND COMPLYING WITH ASTM C309. ASSURE COMPATIBILITY WITH FINISH FLOOR COVERING.
   F. ALL FLOOR SLABS ON GRADE/ELEVATED SLABS SHALL HAVE CONCRETE MOISTURE VAPOR REDUCING ADMIXTURE IN CONCRETE @ THE SUPPLIERS RECOMMENDED DOSAGE.

STRUCTURAL STEEL

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AND CURRENT OSHA STANDARDS.
2. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. STRUCTURAL TUBES SHALL CONFORM TO ASTM A500 GRADE B. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36.
3. BOLTS, UNLESS OTHERWISE SHOWN, SHALL CONFORM TO ASTM A325-N, SIZE AS PER PLAN.
4. ANCHOR BOLTS, UNLESS OTHERWISE SHOWN, SHALL CONFORM TO ASTM F1554 GRADE 36.
5. SPLICING OF STRUCTURAL STEEL IS PROHIBITED EXCEPT AS DETAILED.
6. ALL STRUCTURAL AND MISCELLANEOUS STEEL ITEMS SHALL RECEIVE ONE COAT OF "IRONCLAD RETARDO RUST INHIBITIVE PAINT 163" (BENJAMIN MOORE) OR APPROVED EQUAL UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS. ALL STEEL SURFACES EMBEDDED IN CONCRETE SHALL NOT BE PAINTED. PREPARATION OF STEEL SURFACES SHALL MEET THE REQUIREMENTS OF THE STEEL STRUCTURES PAINTING COUNCIL (SSPC-SP1) AND THE REMOVAL OF GREASE AND OIL BY SOLVENT CLEANING (SSPC-SP1) AND THE REMOVAL OF MILL SCALE, RUST, WELD FLUX AND SLAG BY HAND TOOL CLEANING (SSPC-SP2). PRIMER SHALL BE APPLIED AT THE MANUFACTURER'S RECOMMENDED RATE BUT NOT LESS THAN ONE GALLON PER 400 SQ.FT. THEREBY DEPOSITING A DRY FILM THICKNESS OF NOT LESS THAN 1.5 MILS. ANY SCARRED AREAS SHALL BE TOUCHED UP WITH THE SAME PAINT AFTER ERECTION.
7. ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS IN ACCORDANCE WITH THE CURRENT EDITION OF THE AWS STRUCTURAL WELDING CODE. WELDING ELECTRODES SHALL BE E70XX.

POST-INSTALLED ANCHORS

1. ALL POST-INSTALLED ANCHORS SHALL MEET THE REQUIREMENTS OF THE CODE-CITED EDITION OF ACI 318 AND SHALL BE ACCEPTABLE FOR BOTH CRACKED AND UNCRACKED CONCRETE.
2. EXPANSION ANCHORS HAVE BEEN DESIGNED AS HILTI KWIK BOLT TZ ANCHORS, UNLESS NOTED OTHERWISE.
3. ADHESIVE ANCHORS HAVE BEEN DESIGNED TO USE HILTI HIT HY 200-A ADHESIVE IN CONCRETE OR SOLID MASONRY, UNLESS NOTED OTHERWISE.
4. EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL. SUBMITTALS ARE THE CONTRACTOR'S RESPONSIBILITY AND MUST INCLUDE EVALUATION REPORTS FROM THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO).
5. EMBEDMENT DEPTH IS DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD-BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN DRIVEN INTO THE HOLE BUT NOT YET EXPANDED.
6. ADHESIVE ANCHORS SHALL BE ACCEPTABLE FOR LONG-TERM LOADING. WHEN BASE MATERIAL TEMPERATURES ARE BELOW 40 DEG F, ONLY NON-EPOXY-BASED ADHESIVES SHALL BE USED.
7. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLANE ANCHORS. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING BARS. HOLES SHALL BE DRILLED AND CLEANED PER ANCHOR MANUFACTURER'S SPECIFICATIONS.
8. STAINLESS STEEL ANCHORS ARE REQUIRED AT ALL PERMANENTLY EXPOSED WEATHER CONDITIONS.

MASONRY

MASONRY WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACI 530.1 SPECIFICATIONS FOR MASONRY STRUCTURES WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:

1. HOLLOW MASONRY BLOCK SHALL CONFORM TO ASTM C90 REGULAR WEIGHT GRADE N1.
2. COURSE GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI
3. MORTAR SHALL BE TYPE S CONFORMING TO ASTM C270.
4. MINIMUM 28-DAY COMPRESSIVE STRENGTH OF MASONRY; f'm = 3,000 PSI.
5. WIRE REINFORCING SHALL CONFORM TO ASTM A82, STANDARD TRUSS-TYPE DUR-O-WALL REINFORCING (OR APPROVED EQUAL) AND SHALL BE PLACED CONTINUOUSLY IN ALTERNATE HORIZONTAL MORTAR JOINTS.
6. REINFORCING STEEL SHALL CONFORM TO ASTM A615, A616, OR A617, GRADE 60. PROVIDE DUR-O-WAL REBAR POSITIONERS. BAR MINIMUM LAP SPLICE LENGTH AS NOTED:
   #5 BARS = 3'-0"
   #6 BARS = 4'-6"
   #7 BARS = 4'-9"
7. ALL STEEL LINTELS TO BE A36 STEEL OR A992 GRADE 50. ALL LINTELS TO BE HOT DIPPED GALVANIZED.
8. INTERSECTING STRUCTURAL WALLS SHALL BE ANCHORED BY STEEL CONNECTORS SPACED VERTICALLY AT 48" O.C. MAXIMUM (U.N.O.). THE CONNECTORS SHALL CONFORM TO ASTM A36 AND SHALL HAVE A MINIMUM SECTION OF ¼" x 1½", THEY SHALL BE 28" LONG WITH 2" AT EACH END BENT AT 90 DEGREES TO FORM A "U" OR "Z" SHAPE. ALL CELLS ABOVE AND BELOW THE ANCHOR SHALL BE GROUTED, AND THE BENT ENDS OF THE CONNECTORS SHALL BE EMBEDDED IN THE GROUT, 2" MIN.
9. EXPANSION JOINTS SHALL BE PROVIDED IN CMU BLOCK WALLS AT INTERVALS NOT EXCEEDING 24'-0". JOINT REINFORCING SHALL BE SEVERED AT EXPANSION JOINT LOCATIONS, HOWEVER BOND BEAM REINFORCING SHALL BE CONTINUOUS THROUGH THE JOINT.
10. BOND BEAMS OR GROUTED CELLS ARE REQUIRED AT ALL CONNECTIONS TO CMU.

HEADED MASONRY ANCHORS

1. ALL HEADED CONCRETE ANCHORS SHALL MEET THE REQUIREMENTS OF THE CODE-CITED EDITION OF ACI 318 AND AWS D1.1.
2. HEADED STUDS HAVE BEEN DESIGNED AS TYPE "B" ANCHORS (f_u= 65,000 psi, f_y= 51,000 psi).
3. EMBEDMENT DEPTH IS DEFINED AS THE DISTANCE FROM THE OUTSIDE FACE OF THE EMBEDMENT PLATE TO THE INSIDE FACE OF THE STUD HEAD.
4. EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL.

DEFORMED BAR ANCHORS

1. ALL DEFORMED BAR ANCHORS SHALL MEET THE REQUIREMENTS OF THE CODE-CITED EDITION OF ACI 318 AND AWS D1.1.
2. DEFORMED BAR ANCHORS HAVE BEEN DESIGNED AS TYPE "C" ANCHORS (f_u= 80,000 psi, f_y= 70,000 psi, & MANUFACTURED IN CONFORMANCE WITH ASTM A496).
3. EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL.

NON-COMPOSITE DECK / SUSPENDED SLABS

1. FABRICATE RIBBED-STEEL-SHEET NONCOMPOSITE FORM-DECK PANELS TO COMPLY WITH "SDI SPECIFICATIONS AND COMMENTARY FOR NONCOMPOSITE STEEL FORM DECK," IN SDI PUBLICATION NO. 31.
2. GALVANIZED-STEEL SHEETS SHALL BE CONSTRUCTED TO MEET ASTM A 653, STRUCTURAL STEEL (SS), GRADE 33, G30 ZINC COATING.
3. DECK BUNDLES SHALL BE PLACED ON JOISTS WITH EXTREME CAUTION, FOLLOWING THE JOIST MANUFACTURER'S RECOMMENDATIONS FOR PROPER PLACEMENT. DECKING OR DECK ACCESSORY BUNDLES SHALL NOT EXCEED 4000 LBS.
4. DECK SHALL BE CONTINUOUS OVER A MINIMUM OF THREE SPANS.
5. ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS, IN ACCORDANCE WITH THE CURRENT EDITION OF THE AWS D1.3 – STRUCTURAL WELDING CODE – SHEET STEEL (AND COMMENTARY). WELDING ELECTRODES SHALL BE E6022.
6. SHORING OF STRUCTURAL STEEL OR DECK MEMBERS PRIOR TO CASTING CONCRETE IS NOT REQUIRED.
7. DEPTH OF CONCRETE SLAB SHALL BE BY GAGE/MEASUREMENT METHOD, NOT BY TRANSIT OR SITE LEVEL METHOD PER ACI 117-90 FOR SUSPENDED SLABS. FLOOR FLATNESS (FF) TO EXCEED 35 FOR ALL SUSPENDED SLABS NOT INTENDED FOR ROOFS.
8. NON-COMPOSITE SLABS SHALL NOT BE SAW CUT.
9. ELEVATED SLAB TO HAVE A MAX AGGREGATE SIZE OF ¾".

STORM SHELTER DESIGN DATA

2015 INTERNATIONAL BUILDING CODE / ASCE 7-10

BUILDING OCCUPANCY CATEGORY	IV
ROOF LOAD DATA	
LIVE LOAD	250
6" CONCRETE TOPPING SLAB	75.0
CEILINGS/FLOORING	5.0
STEEL BEAM	10.0
MECHANICAL ALLOWANCE	5.0
TOTAL TO STRUCTURE	345 lbs/sq.ft
WIND DESIGN DATA	
V_{ult} =	250 M.P.H. (3-SECOND GUST)
I_w =	1.0
EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT =	± 0.55
K_d =	1.0
K_{zt} =	1.0
EARTHQUAKE DESIGN DATA	
RISK CATEGORY	IV
I_E =	1.5
S_{DS} =	0.27
S_1 =	0.126
SITE CLASS	D (ASSUMED)
S_{DS} =	0.285
S_{D1} =	0.193
SEISMIC DESIGN CATEGORY	D
BASIC SEISMIC-FORCE-RESISTING SYSTEM = SPECIAL REINFORCED MASONRY SHEAR WALLS	
R =	5
Ω_0 =	2.5
C_d =	3.50
DESIGN BASE SHEAR	$V = 0.086W$
EQUIVALENT LATERAL FORCE PROCEDURE	
NET ALLOWABLE SOIL BEARING	1,500 lbs/sq.ft**

(**ASSUMED PER IBC TABLE 1806.2, PRESUMPTIVE LOAD-BEARING VALUES)

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI – NOTARY PUBLIC – GREGORY L. LINNEMAN – NOTARY NUMBER 12566001013

9/5/25

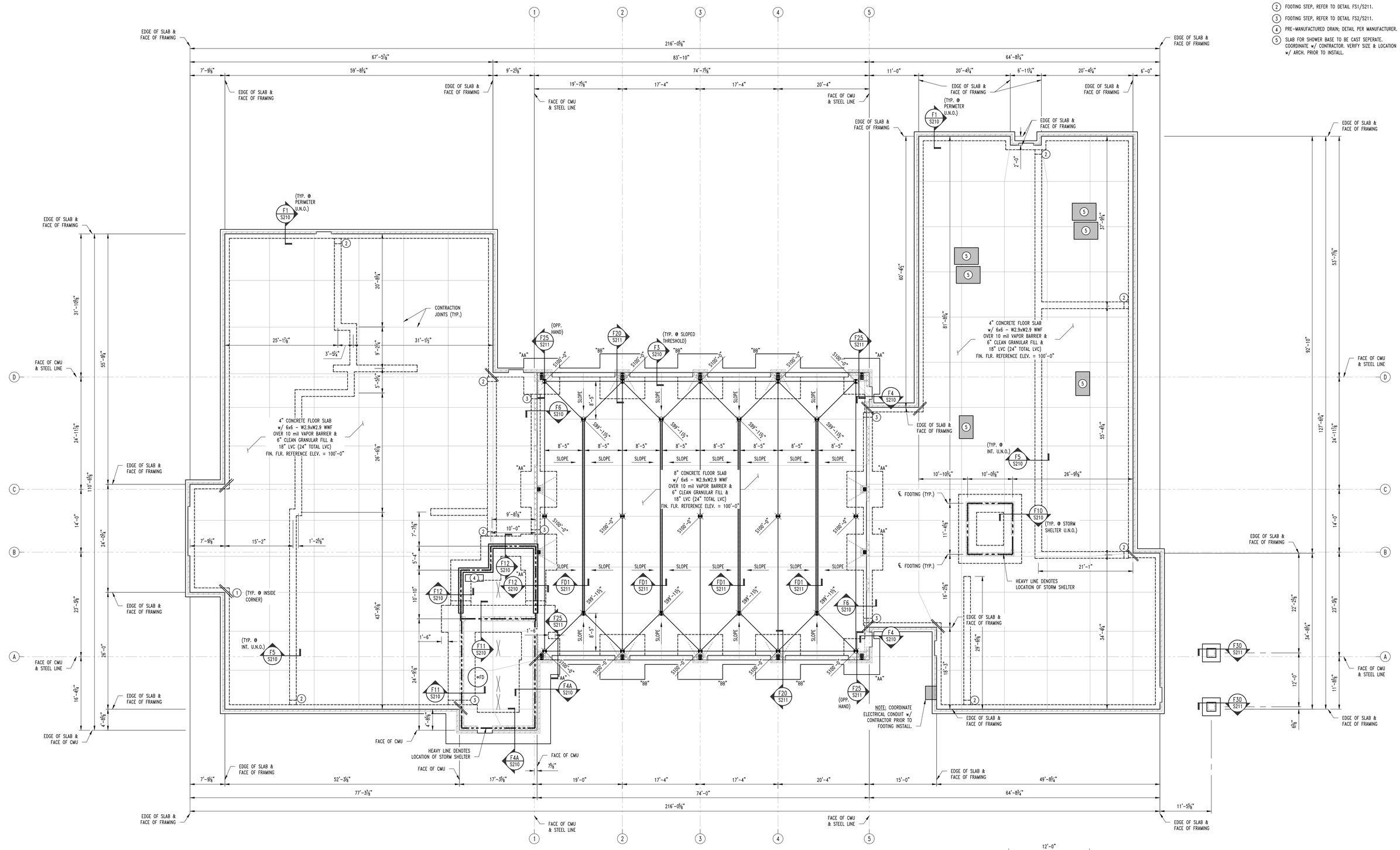
GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Wilkey Blvd., Bldg 1

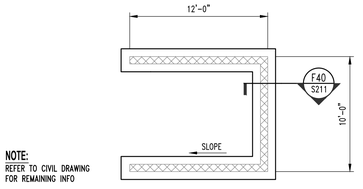
NOTE:
ALL DIMENSIONS ARE FROM FACE OF FOUNDATION WALL OR FRAMING;
EDGE OF SLAB OR TRUSS/RAFTER; OR CENTERLINE
OF COLUMN, BEAM, OR JOIST UNLESS NOTED OTHERWISE.

FOUNDATION NOTES

1. REENTRANT CORNER BARS, REFER TO TYPICAL CRACK CONTROL REINFORCING DETAIL ON SHEET S210.
2. FOOTING STEP, REFER TO DETAIL FS1/S211.
3. FOOTING STEP, REFER TO DETAIL FS2/S211.
4. PRE-MANUFACTURED DRAIN; DETAIL PER MANUFACTURER.
5. SLAB FOR SHOWER BASE TO BE CAST SEPERATE. COORDINATE w/ CONTRACTOR. VERIFY SIZE & LOCATION w/ ARCH. PRIOR TO INSTALL.



1 S200 **FOUNDATION PLAN**
SCALE: ⅜" = 1'-0"



NOTE:
REFER TO CIVIL DRAWING FOR REMAINING INFO

2 S200 **DUMPSTER ENCLOSURE FOUNDATION PLAN**
SCALE: 3/16" = 1'-0"

FOOTING SCHEDULE

MARK	WIDTH (W)	LENGTH (L)	DEPTH (D)	REINFORCING
"AA"	8'-0" SQ.	---	3'-0"	9 - #5 x 7'-6" EACH WAY, TOP & BOTTOM
"BB"	10'-0" SQ.	---	3'-0"	11 - #5 x 9'-6" EACH WAY, TOP & BOTTOM

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY
STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2005001013
9/5/25
GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Nifong Blvd. Bldg 1
Columbia, Missouri 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#2000131501

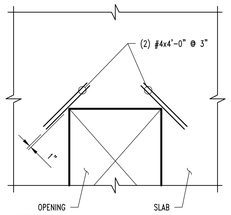
CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O FALLON, MO

Wright City Fire Department - House #1

60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

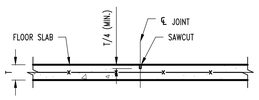
DRAWING INCLUDES:
FOUNDATION PLAN

DESIGNED: GLL
DRAWN: JWV
PROJECT NO.: 250264
SHEET: S200

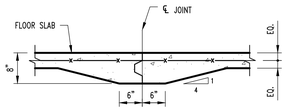


NOTE:
TYPICAL AT ALL REENTRANT CORNERS FOR SLAB-ON-GRADE & STRUCTURAL SLAB. REINFORCING TO BE CENTERED IN SLAB THICKNESS.

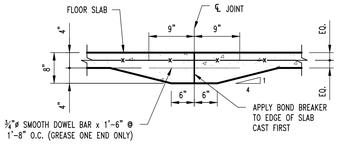
CRACK CONTROL REINFORCING



CONTRACTION JOINT

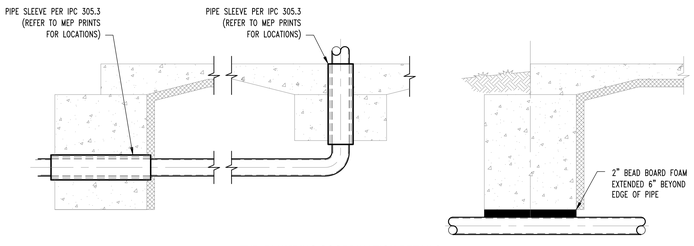


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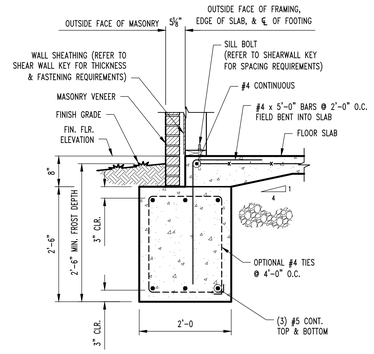


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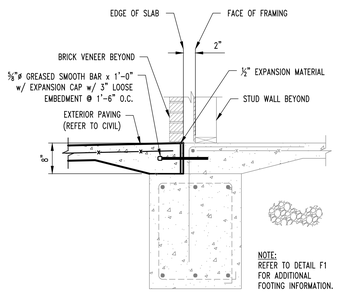
TYP. ELECTRICAL GROUNDING DETAIL @ FOOTING



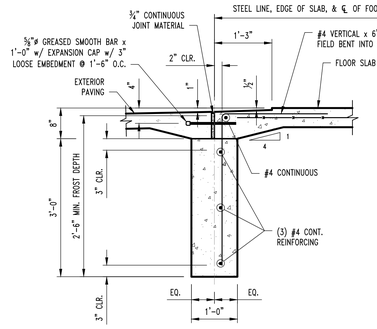
TYP. PLUMBING COORDINATION DETAILS



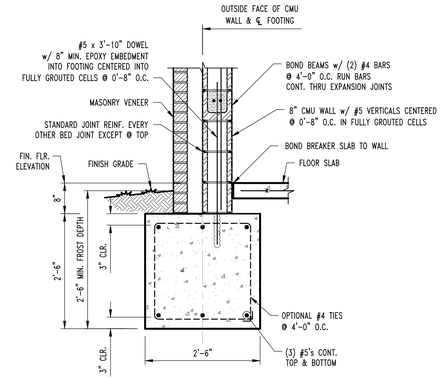
F1 / S200 **CONT. FOOTING SECTION**
SCALE: ¾" = 1'-0"



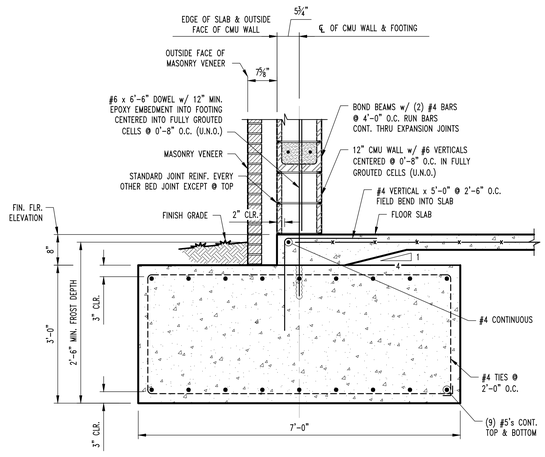
F2 / S200 **CONT. FOOTING SECTION @ WALK DOORS**
SCALE: ¾" = 1'-0"



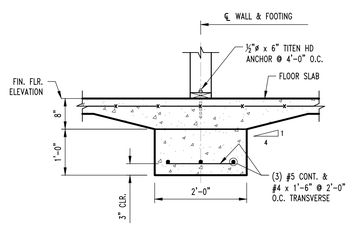
F3 / S200 **SLOPED THRESHOLD SECTION @ OVHD DOOR**
SCALE: ¾" = 1'-0"



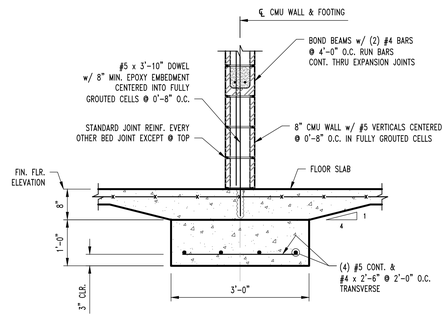
F4 / S200,S210 **CONT. FOOTING SECTION**
SCALE: ¾" = 1'-0"



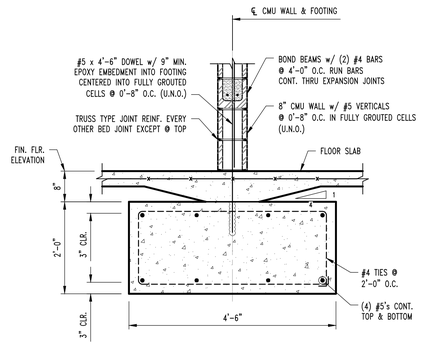
F4A / S200 **CONT. FOOTING SECTION**
SCALE: ¾" = 1'-0"



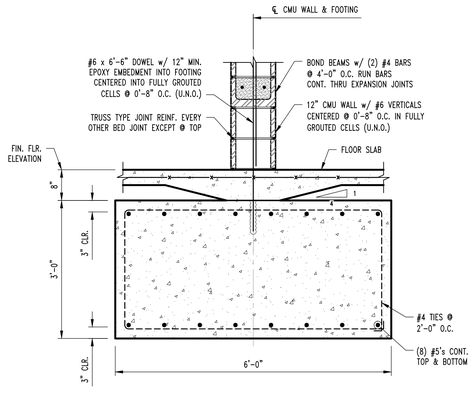
F5 / S200 **CONT. INTERIOR FOOTING SECTION**
SCALE: ¾" = 1'-0"



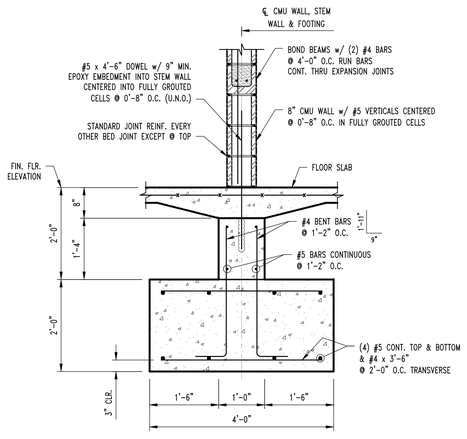
F6 / S200 **CONT. FOOTING SECTION**
SCALE: ¾" = 1'-0"



F10 / S200 **CONT. INTERIOR FOOTING SECTION @ STORM SHELTER**
SCALE: ¾" = 1'-0"



F11 / S200 **CONT. INTERIOR FOOTING SECTION @ STORM SHELTER**
SCALE: ¾" = 1'-0"



F12 / S200 **CONT. INTERIOR FOUNDATION SECTION @ STORM SHELTER**
SCALE: ¾" = 1'-0"

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2009001013
9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2009001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Nifong Blvd., Bldg. 1
Columbia, Missouri 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority #2006013501

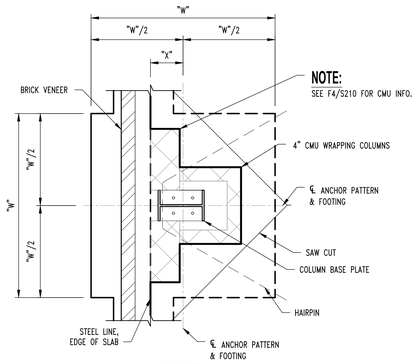
CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O'FALLON, MO

Wright City Fire Department - House #1

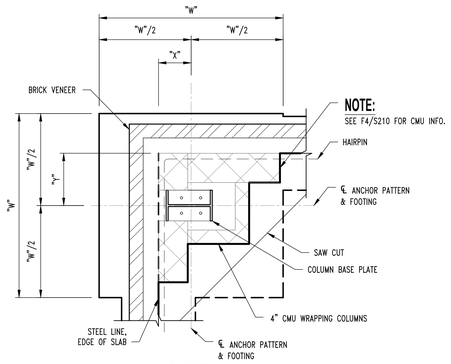
60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

DRAWING INCLUDES:
FOUNDATION DETAILS

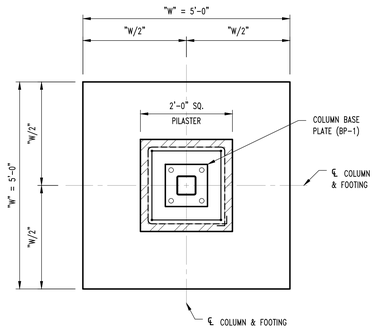
DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264
SHEET:	S210



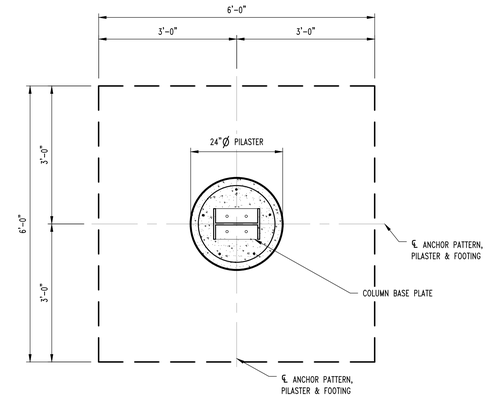
PLAN VIEW



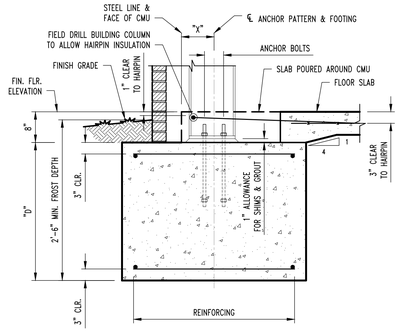
PLAN VIEW



PLAN VIEW



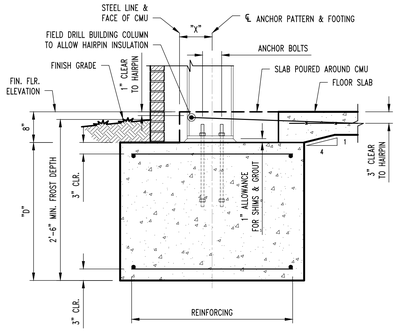
PLAN VIEW



F20 S200 **COLUMN FOOTING SECTION**

SCALE: ¾" = 1'-0"

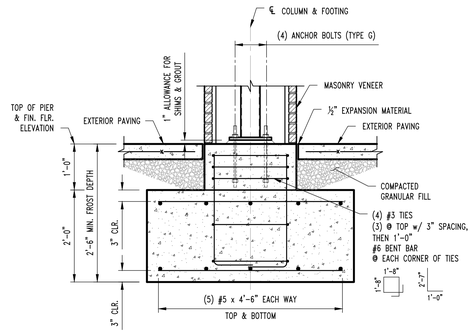
NOTE:
DIMENSIONS & ANCHOR INFO
PENDING FINAL PEMB REACTIONS



F25 S200 **COLUMN FOOTING SECTION**

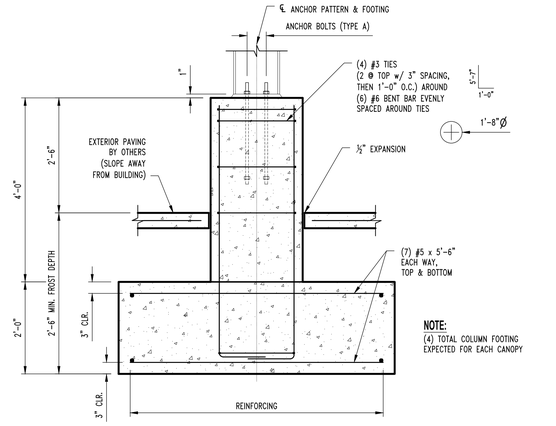
SCALE: ¾" = 1'-0"

NOTE:
DIMENSIONS & ANCHOR INFO
PENDING FINAL PEMB REACTIONS



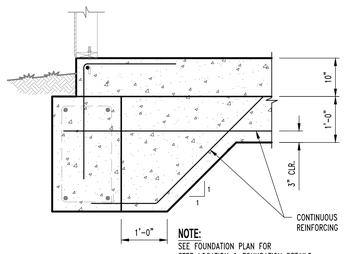
F30 S200 **EXTERIOR COLUMN SECTION @ CANOPY**

SCALE: ¾" = 1'-0"



F35 S200 **TYPICAL PARKING CANOPY FOOTING SECTION**

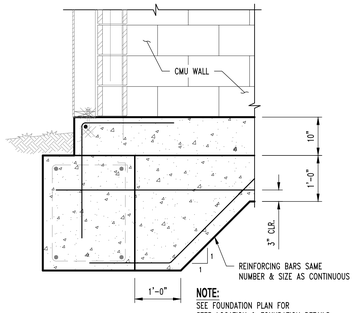
SCALE: ¾" = 1'-0"



NOTE:
SEE FOUNDATION PLAN FOR
STEP LOCATION & FOUNDATION DETAILS
FOR REINFORCING SIZE & ADDITIONAL INFO.

FS1 S200 **FOOTING STEP DETAIL**

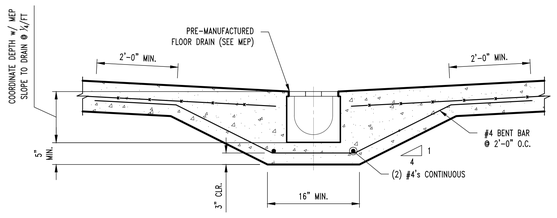
SCALE: ¾" = 1'-0"



NOTE:
SEE FOUNDATION PLAN FOR
STEP LOCATION & FOUNDATION DETAILS
FOR REINFORCING SIZE & ADDITIONAL INFO.

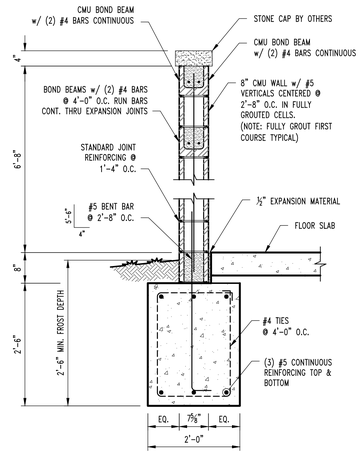
FS2 S200 **FOOTING STEP DETAIL**

SCALE: ¾" = 1'-0"



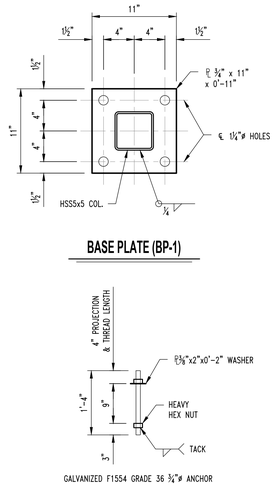
FD1 S200 **CONT. TRENCH DRAIN SECTION**

SCALE: ¾" = 1'-0"



F40 S200 **DUMPSTER WALL SECTION**

SCALE: ¾" = 1'-0"



BASE PLATE (BP-1)

GALVANIZED F1554 GRADE 36 ¾"ø ANCHOR

GALVANIZED ANCHOR BOLT DETAIL (TYPE G)

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

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STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2005001013
9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Nifong Blvd., Bldg. 1
Columbia, Missouri 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority #2006013301

CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O FALLON, MO

Wright City Fire Department - House #1

60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

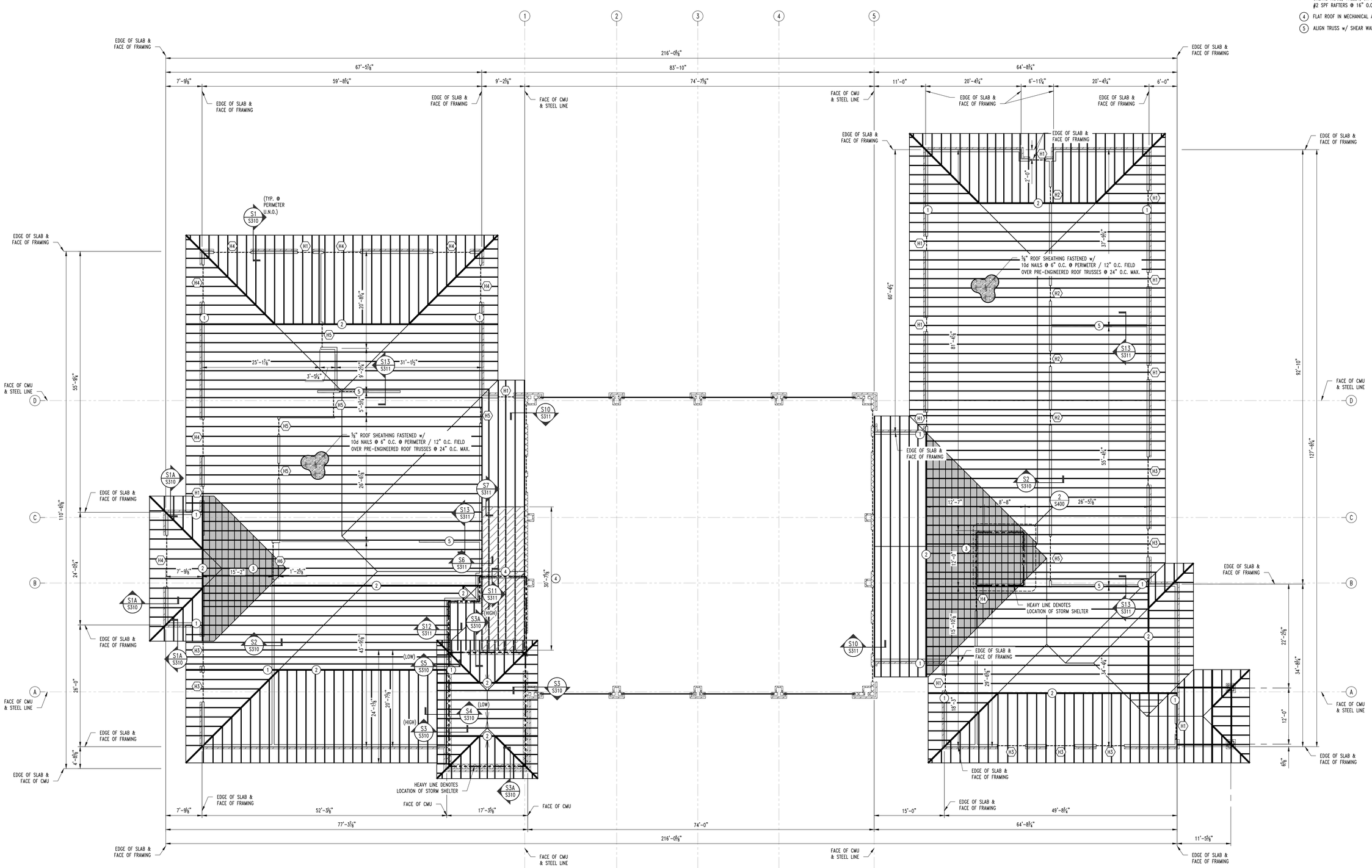
DRAWING INCLUDES:
FOUNDATION DETAILS

DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264
SHEET:	S211

NOTE:
ALL DIMENSIONS ARE FROM FACE OF FOUNDATION WALL OR FRAMING;
EDGE OF SLAB OR TRUSS/RAFTER; OR CENTERLINE
OF COLUMN, BEAM, OR JOIST UNLESS NOTED OTHERWISE.

ROOF FRAMING NOTES

1. 3-PLY BUILT-UP POST BENEATH GIRDER TRUSS FASTENED w/ SIMPSON LGT3 @ TOP & SIMPSON LTTP2 @ BOTTOM
2. GIRDER TRUSS
3. FRAME ROOF OVER PRE-ENGINEERED TRUSSES TO CREATE RIDGE, VALLEY, OR HIP AS SHOWN w/ 2x #2 SPF RAFTERS @ 16" O.C. MAX.
4. FLAT ROOF IN MECHANICAL AREA. (CROSS HATCHED AREA)
5. ALIGN TRUSS w/ SHEAR WALL. SEE SECTION S13/S311.



ROOF FRAMING PLAN

1 / S300 — SCALE: ⅜" = 1'-0"

PLAN NORTH

LINTEL SCHEDULE

LENGTH OF SPAN	MEMBER SIZE (GALVANIZED)
4'-0" & LESS	L4x4x1/4 WITH 6" BEARING EACH END
6'-6" & LESS	L6x4x3/8 (LLV) WITH 6" BEARING EACH END
8'-0" & LESS	L6x4x3/8 (LLV) WITH 6" BEARING EACH END
12'-0" & LESS	L8x4x1/2 (LLV) WITH 12" BEARING EACH END*

* REQUIRES LINTEL TO BE FASTENED BACK TO LIGHT GAGE JAMB W/ GALVANIZED 1/2" A325 BOLT AT EACH END

HEADER SCHEDULE

LABEL	HEADER	CRIPPLE/JACK	JAMB/KING
"H1"	2 Ply 2x6 SPF #2	Single Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H2"	2 Ply 2x8 Doug Fir #2	2 Ply 2x4 SPF #2	Single Ply 2x6 SPF #2
"H3"	2 Ply 2x8 Doug Fir #2	2 Ply 2x6 SPF #2	4 Ply 2x6 SPF #2
"H4"	2 Ply 2x10 Doug Fir Sel. Struct.	2 Ply 2x6 SPF #2	4 Ply 1.75x5.5 MicroLam 2.0E
"H5"	2 Ply 2x10 Doug Fir Sel. Struct.	3 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2
"H6"	2 Ply 1.75x11.25 Microlam 2.0E	3 Ply 2x6 SPF #2	2 Ply 2x6 SPF #2

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

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STATE OF MISSOURI — GREGORY L. LINNEMAN — NUMBER PE-2005001013 — 9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Nifong Blvd. Bldg 1
Columbia, MO 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#2006013100

CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O FALLON, MO

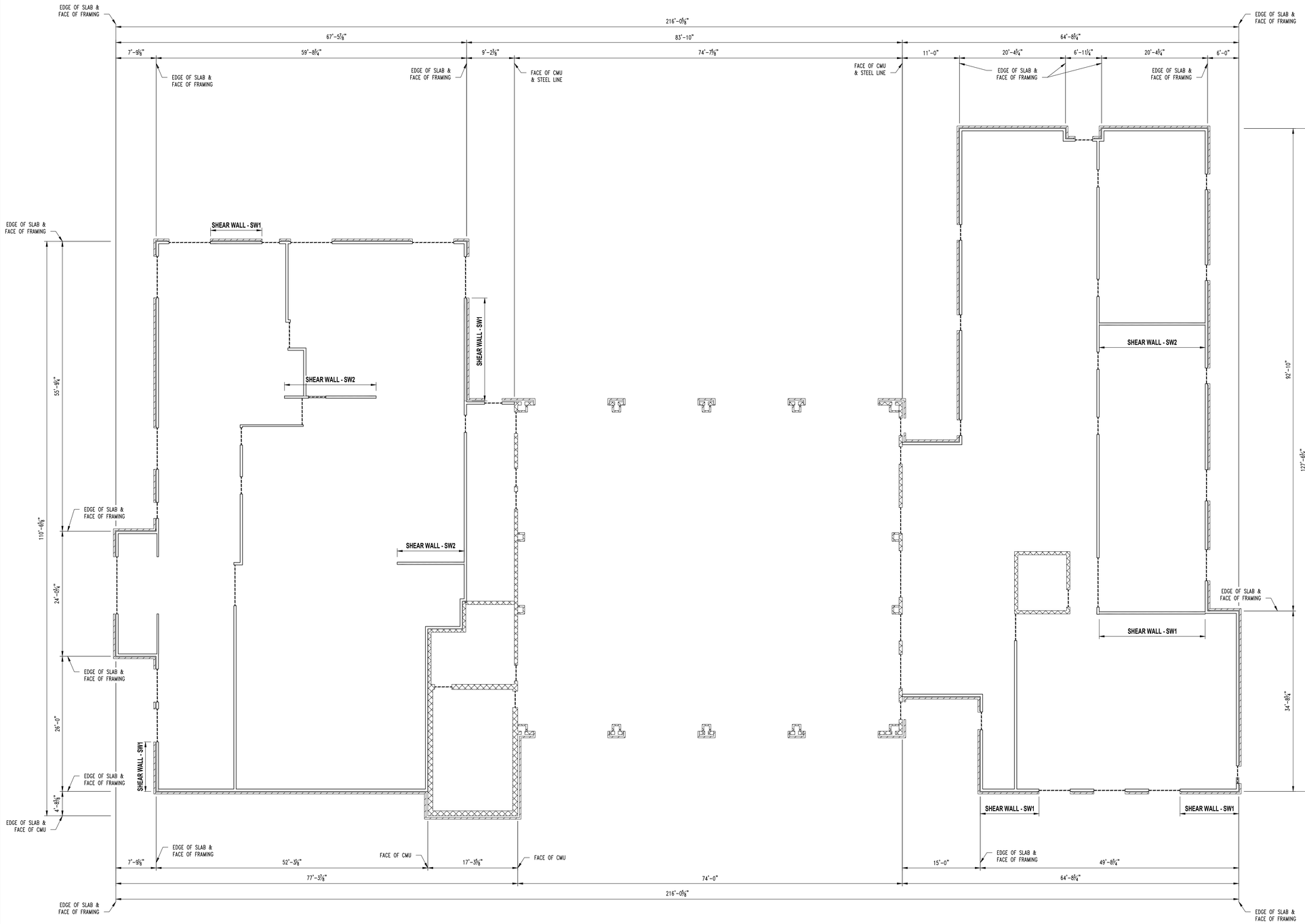
Wright City Fire Department - House #1

60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

DRAWING INCLUDES:
ROOF FRAMING PLAN

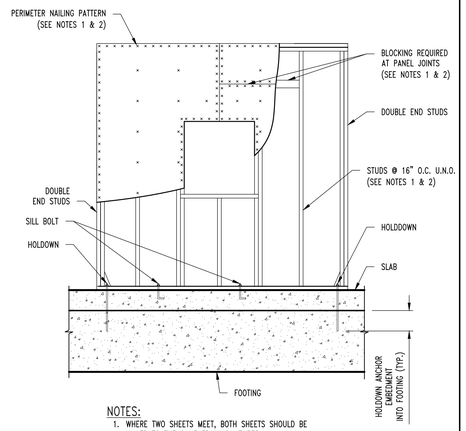
DESIGNED: GLL
DRAWN: JWV
PROJECT NO.: 250264
SHEET: S300

NOTE:
ALL DIMENSIONS ARE FROM FACE OF FOUNDATION WALL OR FRAMING;
EDGE OF SLAB OR TRUSS/RAFTER; OR CENTERLINE
OF COLUMN, BEAM, OR JOIST UNLESS NOTED OTHERWISE.



1 S300A **SHEAR WALL PLAN**
SCALE: ⅛" = 1'-0"

PLAN NORTH



NOTES:
1. WHERE TWO SHEETS MEET, BOTH SHEETS SHOULD BE NAILED TO THE SAME FRAMING MEMBER.
2. WHEN SHEATHING NAILS ARE SPACED AT 2" O.C. FOR 8d NAILS OR 3" O.C. FOR 10d NAILS, 3x OR DOUBLE 2x FRAMING MEMBERS ARE REQUIRED WHERE SHEETS MEET. FACE NAIL DOUBLE 2x MEMBERS TOGETHER w/ 16d NAILS @ 2½" O.C. STAGGERED EACH FACE OF STUD.
3. SEE WALL SECTIONS FOR ADDITIONAL INFORMATION.

TYP. SHEAR WALL DETAIL

SHEAR WALL KEY

SW1 SHEAR WALL
- 7/16" ZIP SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD
- 1/2" DIAMETER F1554 GRADE 36 STANDARD "J" BOLTS W/ 7" EMBEDMENT @ 3'-0" O.C.
- REQUIRES SIMPSON LTTP2 HOLDOWN FASTENED TO 2-PLY STUDS W/ (12) 0.148" X 2½" NAILS & W/ 5/8" DIAMETER A307 THREADED ROD W/ 16" TOTAL (8" INTO FOOTING) SIMPSON "AT-XP" EPOXY EMBEDMENT AT EACH END OF THE SHEAR WALL

SW2 SHEAR WALL
- 7/16" ZIP SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD
- 1/2" DIAMETER F1554 GRADE 36 STANDARD "J" BOLTS W/ 7" EMBEDMENT @ 1'-6" O.C.
- REQUIRES SIMPSON HDU8-SDS2.5 HOLDOWN FASTENED TO 3-PLY STUDS W/ (20) ¼" X 2½" SDS SCREWS & W/ 5/8" DIAMETER A307 THREADED ROD W/ 16" TOTAL (8" INTO FOOTING) SIMPSON "AT-XP" EPOXY EMBEDMENT AT EACH END OF THE SHEAR WALL

TYPICAL WALL UNLESS NOTED
- 7/16" ZIP SHEATHING FASTENED WITH 8D NAILS @ 4" O.C. @ PERIMETER / 12" O.C. FIELD
- 1/2" DIAMETER F1554 GRADE 36 STANDARD "J" BOLTS W/ 7" EMBEDMENT @ 3'-0" O.C.
- NO HOLDDOWNS REQUIRED

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

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STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2005001013
9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

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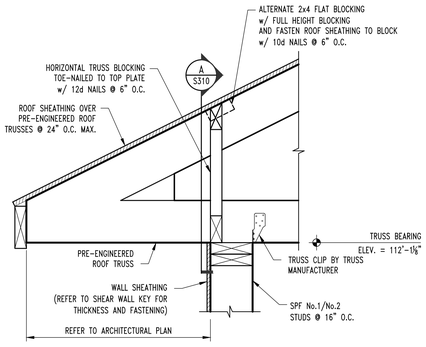
CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O'FALLON, MO

Wright City Fire Department - House #1

60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

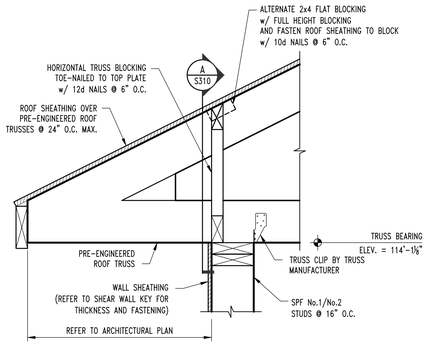
DRAWING INCLUDES:
SHEAR WALL PLAN

DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264
SHEET:	S300A



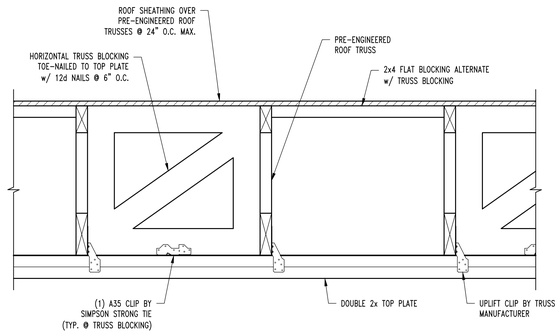
S1 S300 **TYP. ROOF FRAMING SECTION**

SCALE: 1½" = 1'-0"



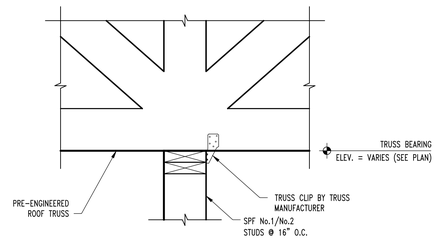
S1A S300 **TYP. ROOF FRAMING SECTION**

SCALE: 1½" = 1'-0"



A S310 **TYP. TRUSS BLOCKING SECTION**

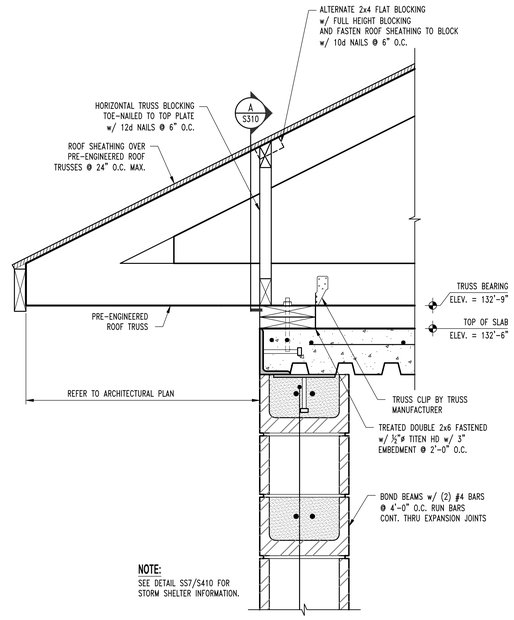
SCALE: 1½" = 1'-0"



S2 S300 **ROOF FRAMING SECTION**

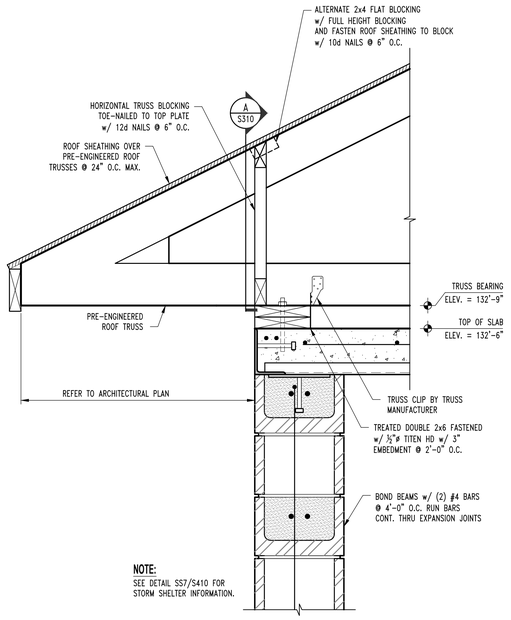
SCALE: 1½" = 1'-0"

NOTE:
STABILITY BRIDGING BY
TRUSS MANUFACTURER



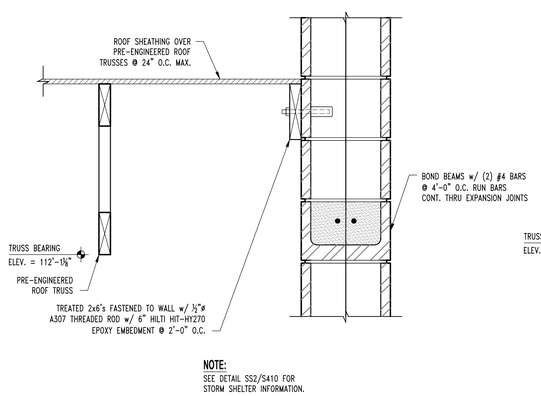
S3 S300 **ROOF FRAMING SECTION**

SCALE: 1½" = 1'-0"



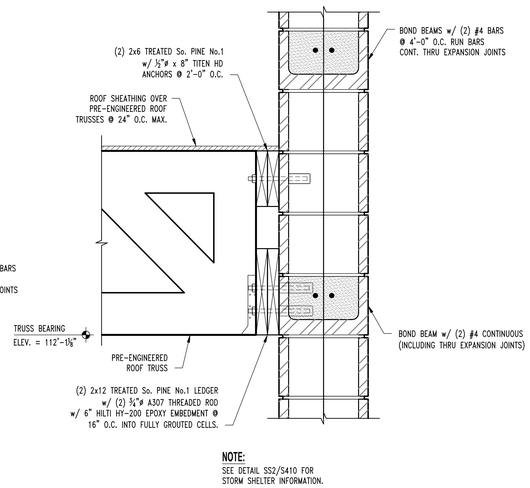
S3A S300 **ROOF FRAMING SECTION**

SCALE: 1½" = 1'-0"



S4 S300 **ROOF FRAMING SECTION**

SCALE: 1½" = 1'-0"



S5 S300 **ROOF FRAMING SECTION**

SCALE: 1½" = 1'-0"

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2005001013
9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Nifong Blvd. Bldg 1
Columbia, Missouri 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#2006013301

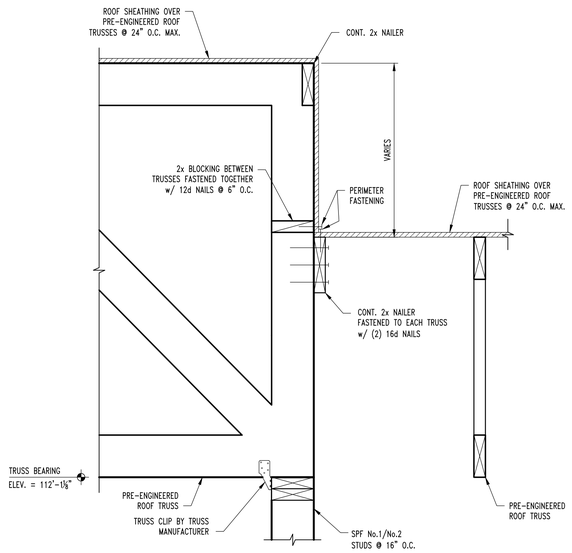
CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O FALLON, MO

Wright City Fire Department - House #1

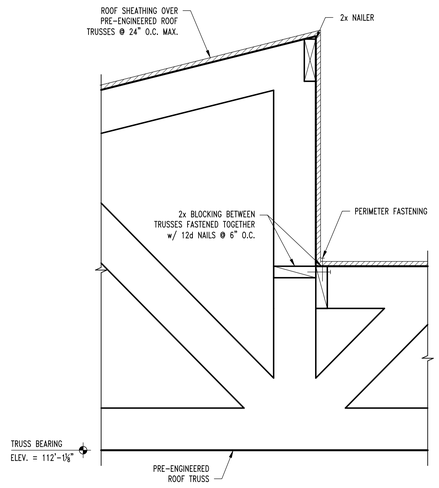
60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

DRAWING INCLUDES:
ROOF FRAMING DETAILS

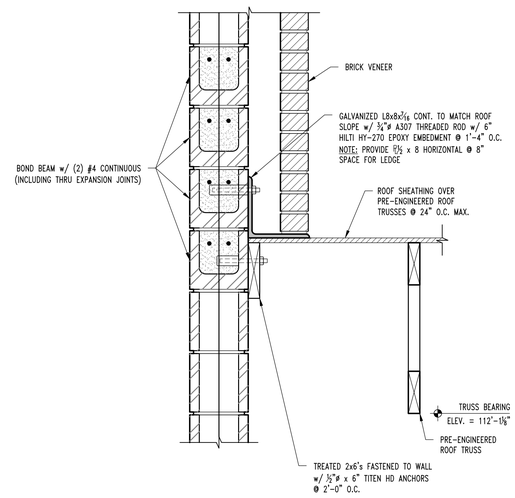
DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264
SHEET:	S310



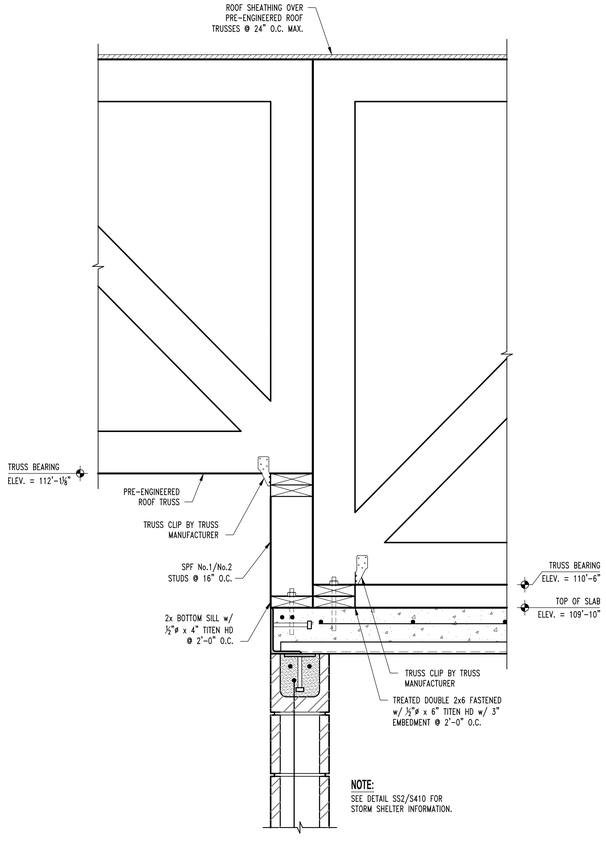
S6 / S300 **ROOF FRAMING SECTION**
SCALE: 1½" = 1'-0"



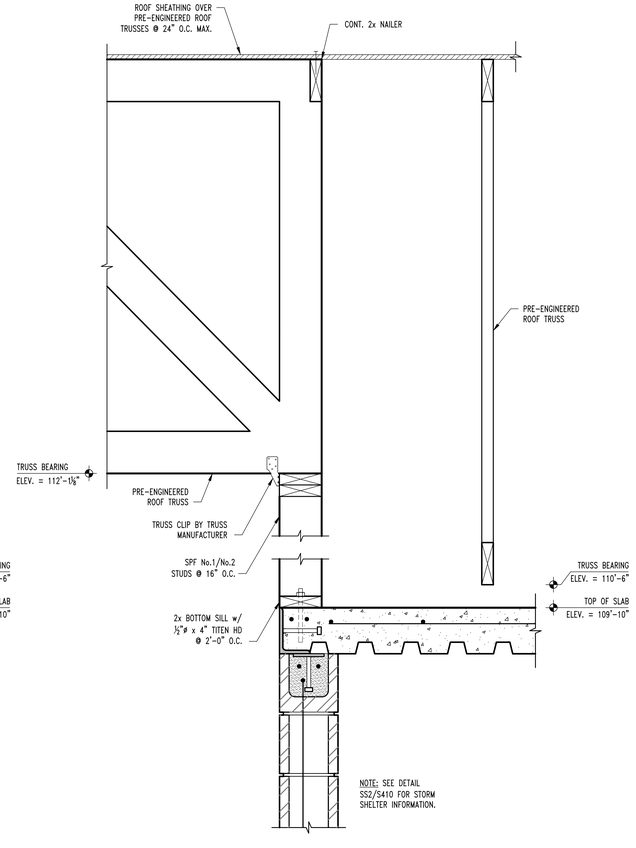
S7 / S300 **ROOF FRAMING SECTION**
SCALE: 1½" = 1'-0"



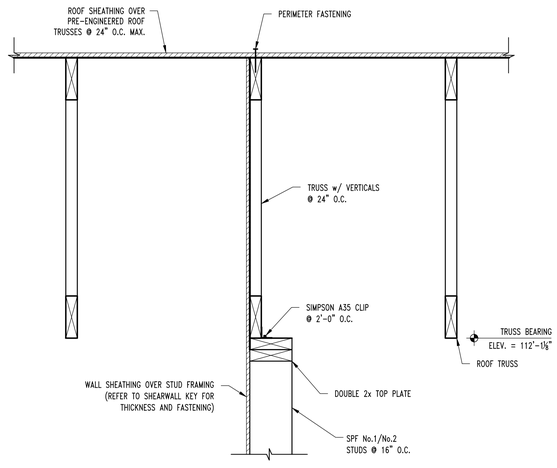
S10 / S300 **ROOF FRAMING SECTION**
SCALE: 1½" = 1'-0"



S11 / S300 **ROOF FRAMING SECTION**
SCALE: 1½" = 1'-0"



S12 / S300 **ROOF FRAMING SECTION**
SCALE: 1½" = 1'-0"



S13 / S300 **SHEAR WALL SECTION**
SCALE: 1½" = 1'-0"

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

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STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2005001013
9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Nifong Blvd. Bldg 1
Columbia, Missouri 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
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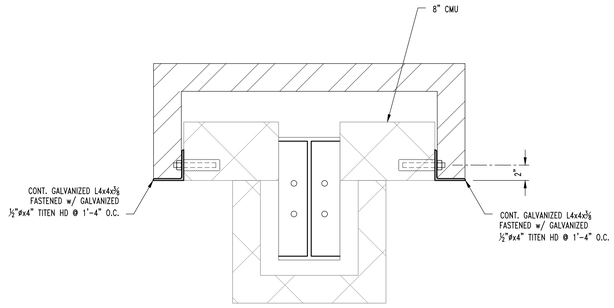
CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O FALLON, MO

Wright City Fire Department - House #1

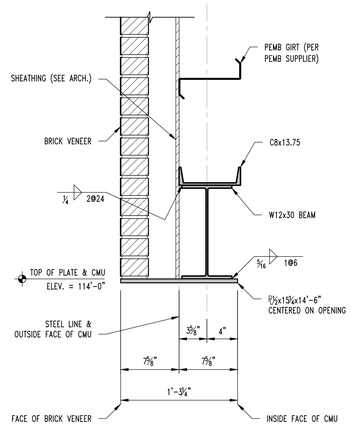
60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

DRAWING INCLUDES:
ROOF FRAMING DETAILS

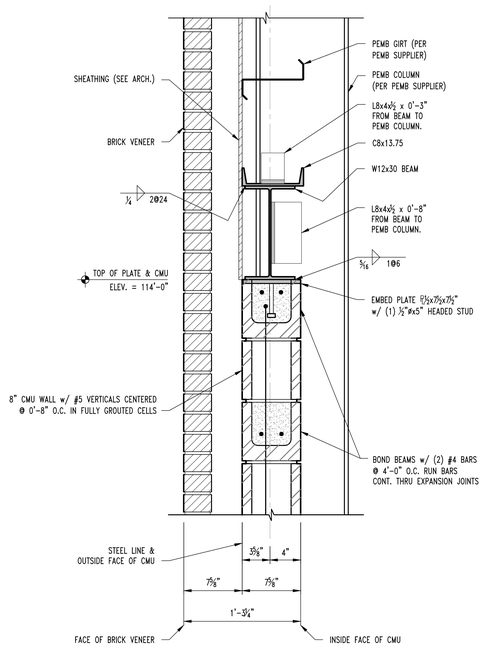
DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264
SHEET:	S311



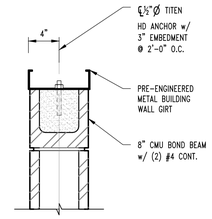
TYP. JAM @ OVERHEAD DOOR



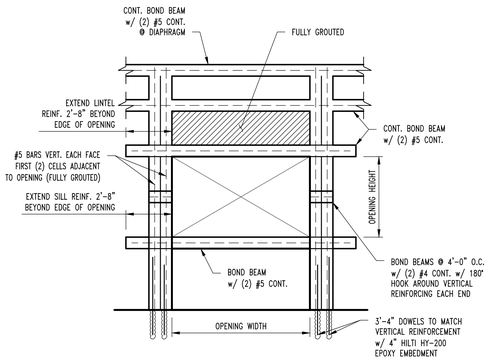
TYP. LINTEL @ OVHD DOORS



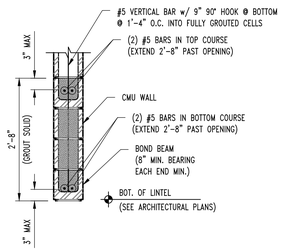
TYP. OVHD HEADER



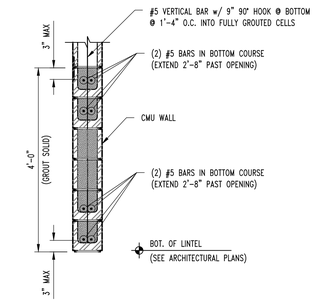
TYPICAL CMU TO GIRT CONNECTION



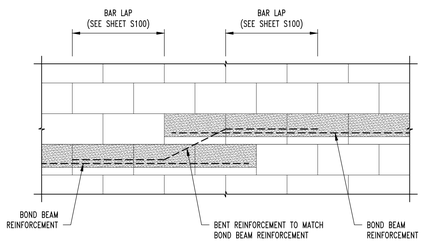
TYPICAL MASONRY OPENING REINFORCEMENT



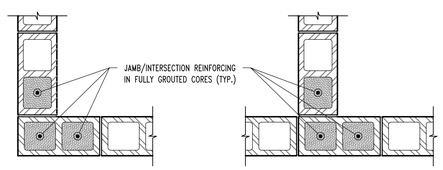
TYPICAL CMU LINTEL DETAIL UNDER 6'-0" WIDE



TYPICAL CMU LINTEL DETAIL OVER 6'-0" WIDE



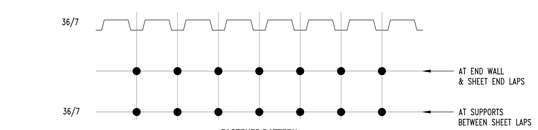
TYP. STEP IN BOND BEAM



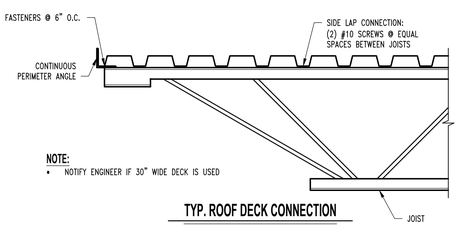
BRG. WALL CORNER

BRG. WALL INTERSECTION

TYPICAL CMU WALL VERT REINFORCING



FASTENER PATTERN



NOTE:
- NOTIFY ENGINEER IF 30" WIDE DECK IS USED

TYP. ROOF DECK CONNECTION

(HILTI X-HSN24 FASTENER CONFIRMED BY HILTI)

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2005001013
9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Nifong Blvd., Bldg. 1
Columbia, Missouri 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#2006013501

CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR.
O'FALLON, MO

Wright City Fire Department - House #1

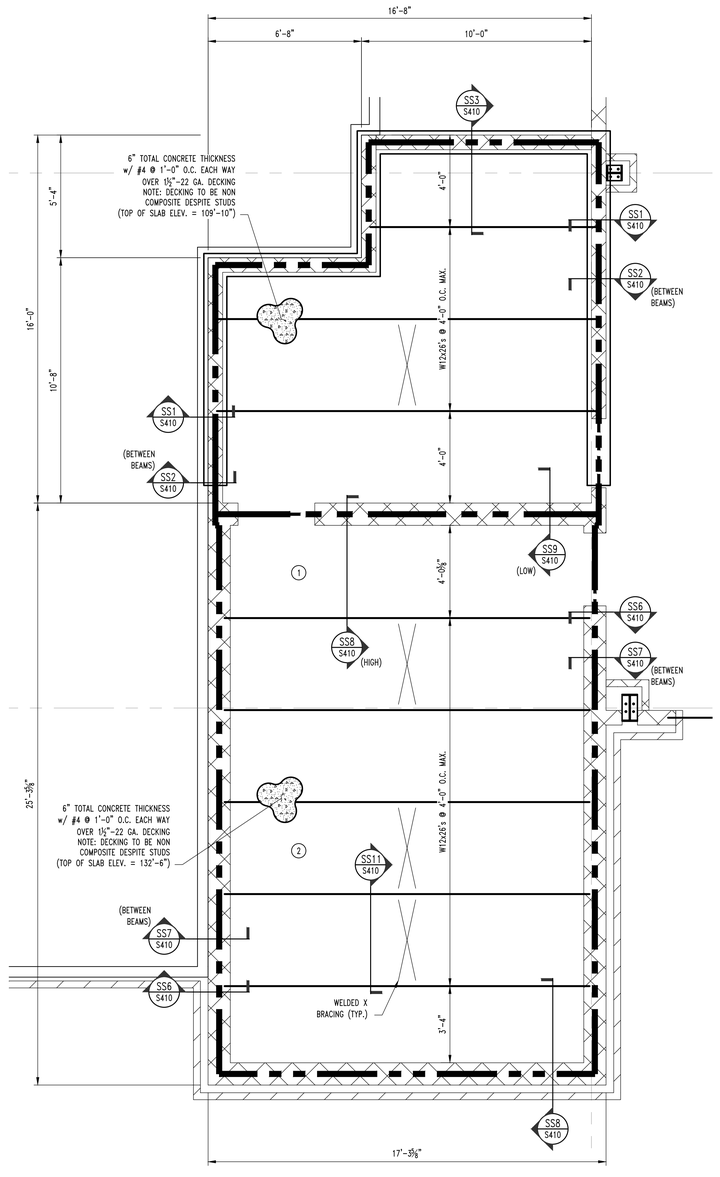
60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

DRAWING INCLUDES:
FRAMING &
STANDARD
CMU DETAILS

DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264
SHEET:	S312

ROOF FRAMING NOTES

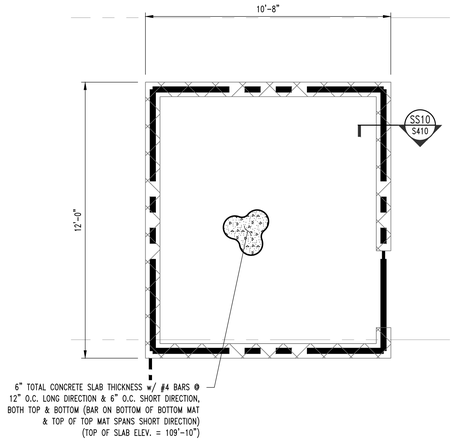
1. PROVIDE RAPPELLING SYSTEM & STEEL SUPPORT AS INDICATED BY ARCHITECT/OWNER.
2. HOSE WHEELS TO BE SUSPENDED FROM BEAM. PROVIDE DOUBLE L4x4x¼ @ LOCATIONS INDICATED BY ARCHITECT/OWNER.



1 S400 **STORM SHELTER FRAMINING PLAN**

SCALE: ⅜" = 1'-0"

PLAN NORTH



2 S400 **STORM SHELTER FRAMINING PLAN**

SCALE: ⅜" = 1'-0"

PLAN NORTH

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

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STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2009001013
9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2009001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Nifong Blvd. Bldg 1
Columbia, Missouri 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#2009013101

CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR.
O'FALLON, MO

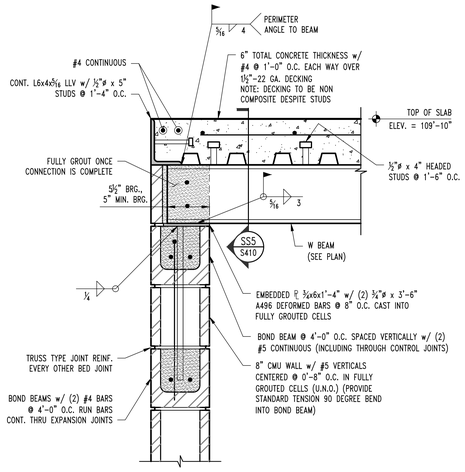
Wright City Fire Department - House #1

60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

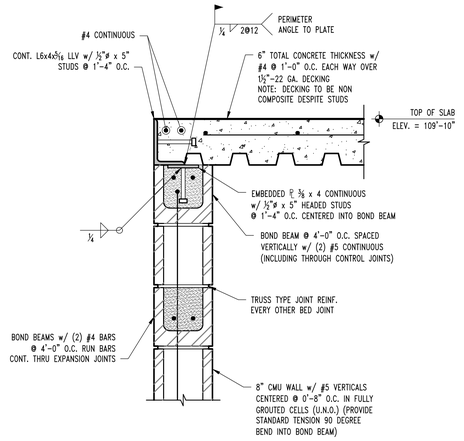
DRAWING INCLUDES:
STORM SHELTER FRAMING PLANS

DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264

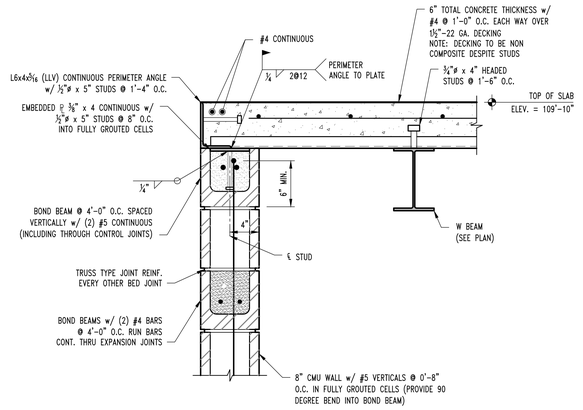
SHEET:
S400



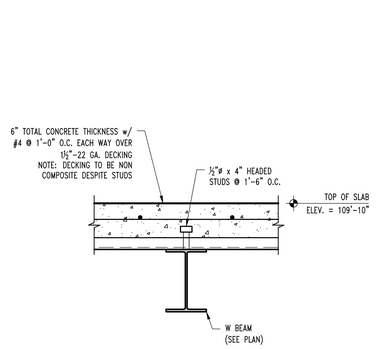
SS1 S400 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"



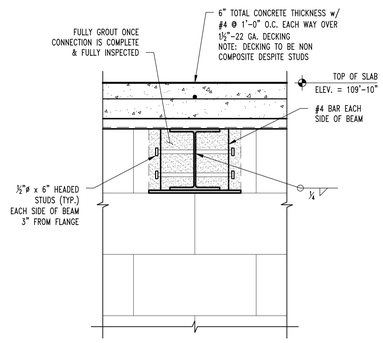
SS2 S400 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"



SS3 S400 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"



SS4 S400 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"



SS5 S410 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"

SS6 S400 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"

SS7 S400 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"

SS8 S400 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"

SS9 S400 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"

SS10 S400 **STORM SHELTER SECTION**
SCALE: 1½" = 1'-0"

SS11 S400 **STORM SHELTER BEAM WELDED CROSS BRIDGING**
SCALE: 1½" = 1'-0"

NOTE: REFER TO TYPICAL STORM SHELTER MASONRY OPENING DETAIL ON SHEET S410 FOR ADDITIONAL REQUIREMENTS

NOTE: NO EXPANSION JOIST MAY OCCUR WITHIN HEADER REINFORCING

SS12 S410 **TYPICAL STORM SHELTER CMU LINTEL DETAIL**

NOTE: REFER TO TYPICAL STORM SHELTER MASONRY OPENING DETAIL ON SHEET S410 FOR ADDITIONAL REQUIREMENTS

NOTE: NO EXPANSION JOIST MAY OCCUR WITHIN HEADER REINFORCING

SS13 S410 **TYPICAL STORM SHELTER CMU LINTEL DETAIL**

NOTE: NO EXPANSION JOIST MAY OCCUR WITHIN HEADER REINFORCING

TYPICAL HARDENED SPACE MASONRY OPENING REINFORCEMENT w/ NO STEEL HEADER

BRG. WALL CORNER BRG. WALL INTERSECTION

TYPICAL CMU WALL VERT REINFORCING

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

GREGORY L. LINNEMAN NOTARY PUBLIC NUMBER 15-20600013 9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1000 W. Nifong Blvd., Bldg. 1
Columbia, MO 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority #2006013501

CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O FALLON, MO

Wright City Fire Department - House #1

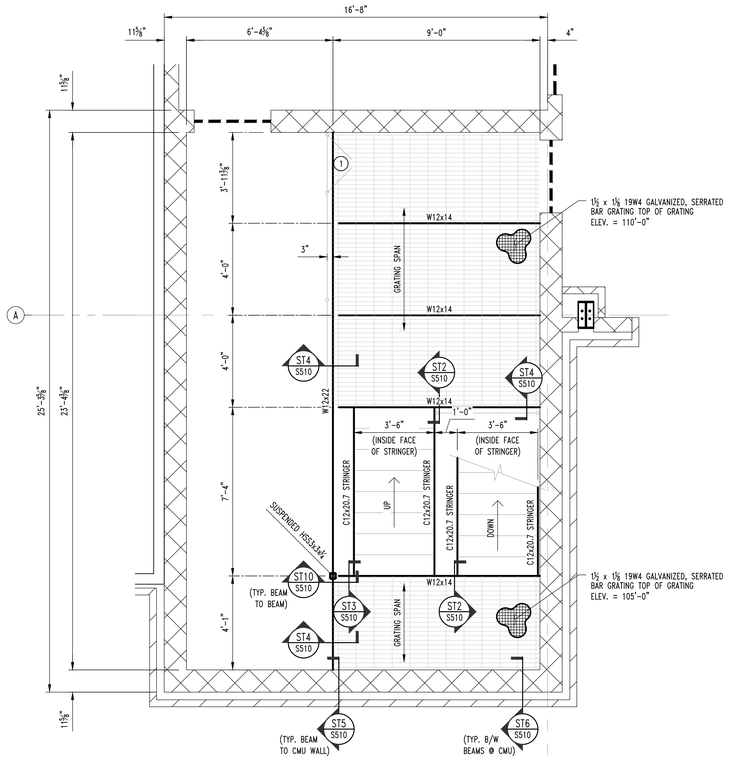
60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

DRAWING INCLUDES:
STORM SHELTER FRAMING DETAILS

DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264
SHEET:	S410

ROOF FRAMING NOTES

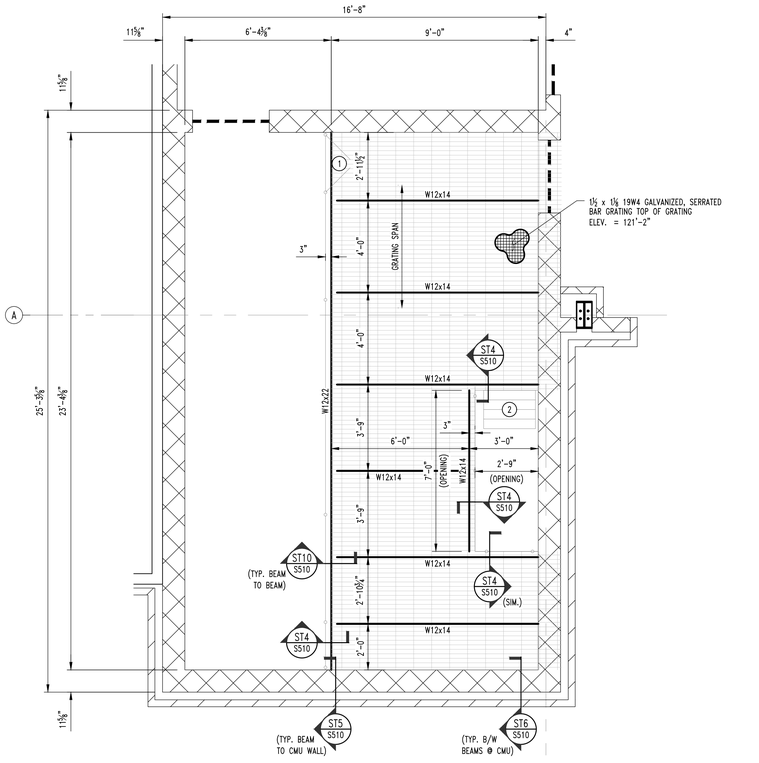
1. 36" OSHA SAFETY GATE
2. PRE-MANUFACTURED GALVANIZED STEEL SHIPS STAIR @ 60°, 27" WIDE w/ RAILING THAT EXTENDS 36" ABOVE PLATFORM BY FS INDUSTRIES OR APPROVED EQUAL



1 S500 **STAIR FRAMINING PLAN**

SCALE: ⅜" = 1'-0"

PLAN NORTH



2 S500 **MEZZANINE FRAMINING PLAN**

SCALE: ⅜" = 1'-0"

PLAN NORTH

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

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STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2009001013
9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2009001013

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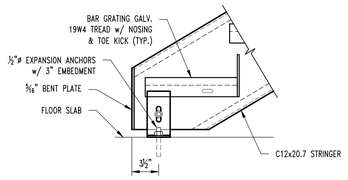
CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR.
O'FALLON, MO

Wright City Fire Department - House #1

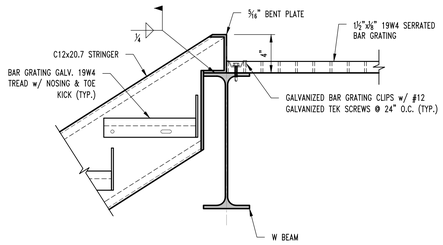
60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

DRAWING INCLUDES:
HOSE TOWER STAIR / MEZZANINE FRAMING PLAN

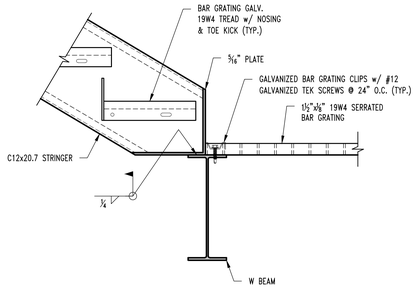
DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264
SHEET:	S500



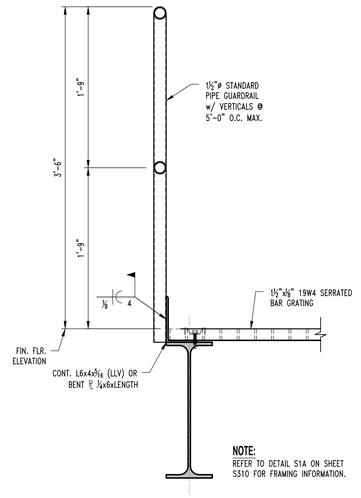
ST1 / S500 **TYP. STAIR FRAMING SECTION**
SCALE: 1½" = 1'-0"



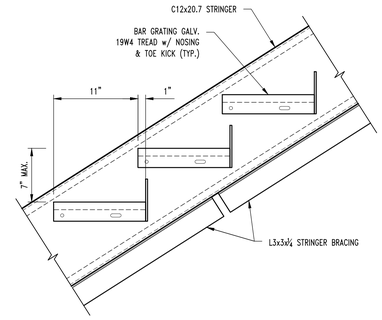
ST2 / S500 **STAIR FRAMING SECTION**
SCALE: 1½" = 1'-0"



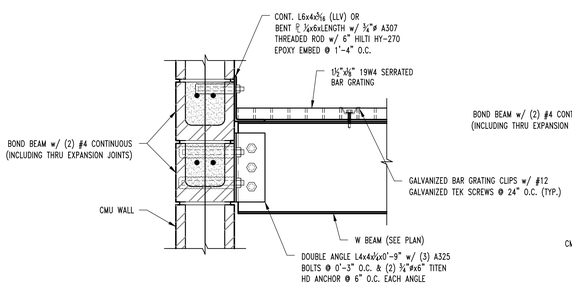
ST3 / S500 **STAIR FRAMING SECTION**
SCALE: 1½" = 1'-0"



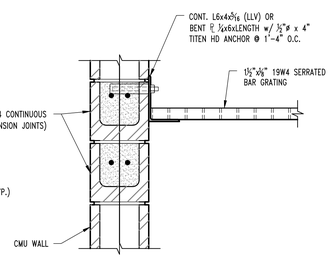
ST4 / S500 **STAIR FRAMING SECTION**
SCALE: 1½" = 1'-0"



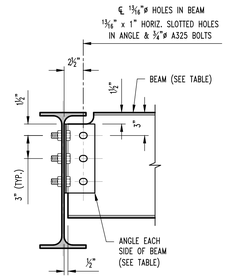
TYPICAL TREAD CONNECTION DETAIL



ST5 / S500 **STAIR FRAMING SECTION**
SCALE: 1½" = 1'-0"



ST6 / S500 **STAIR FRAMING SECTION**
SCALE: 1½" = 1'-0"



BEAM SIZE	No. OF BOLTS "N"	ANGLE SIZE
W12	3	L4x4x5/16x0'-9"

ST10 / S300 **TYP. BEAM TO BEAM CONNECTION SECTION**
SCALE: 1½" = 1'-0"

REVISIONS:

No.	Date
PERMIT SET	09/04/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

STATE OF MISSOURI
GREGORY L. LINNEMAN
NUMBER PE-2009001013
9/5/25

GREGORY L. LINNEMAN - PE
MO LICENSE - 2009001013

STRUCTURAL ENGINEER:
CROCKETT ENGINEERING CONSULTANTS
1900 W. Wilkes Blvd., Bldg. 1
Columbia, Missouri 65203
(573) 447-0292
www.crockettengineering.com
Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#2009013001

CLIENT:
LCS LLC
1027 COOL SPRINGS INDUSTRIAL DR
O FALLON, MO

Wright City Fire Department - House #1

60 BELL ROAD
WRIGHT CITY, WARREN COUNTY, MISSOURI

DRAWING INCLUDES:
HOSE TOWER
STAIR / MEZZANINE
FRAMING DETAILS

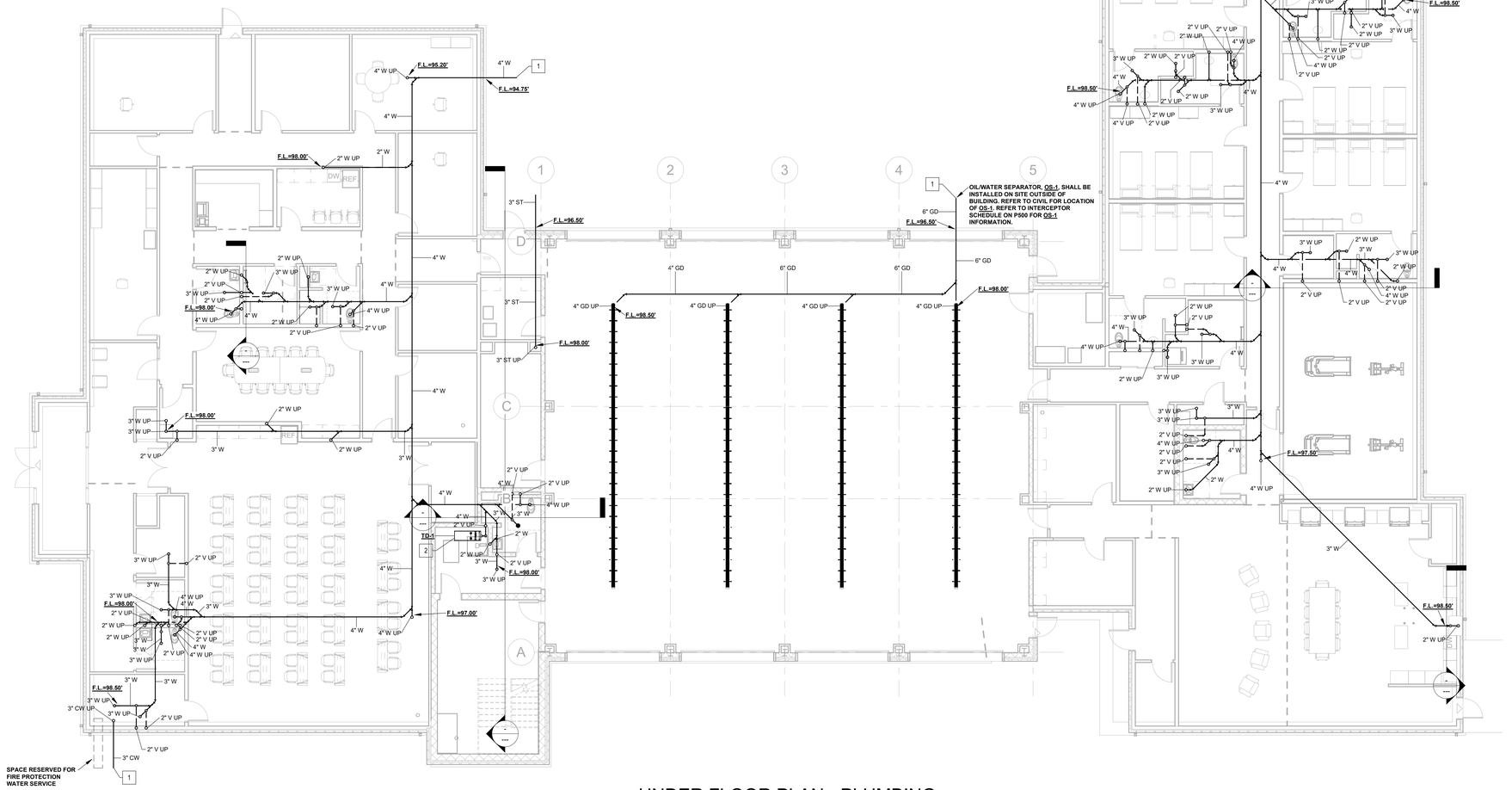
DESIGNED:	GLL
DRAWN:	JWV
PROJECT NO.:	250264
SHEET:	S510

PLUMBING GENERAL NOTES

1. FINISHED FLOOR ELEVATION = 100.00' (ARCH), 763.00' (USGS).

PLUMBING KEYNOTES

1 REFER TO CIVIL FOR CONTINUATION.
2 NEW LAUNDRY TROUGH DRAIN WITH INTERNAL LINT TRAP. REFER TO FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.



1 P100 UNDER FLOOR PLAN - PLUMBING
1/8" = 1'-0"

Revisions			
Number	Description	Date	
	ISSUED FOR PERMIT	09/05/2025	

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STATE OF MISSOURI
STEPHEN LOREN KEMME
NUMBER
PE-2009019577
PROFESSIONAL ENGINEER
9/5/25

WCFPD Station 1

60 Bell Road
Wright City, MO 63390

UNDER FLOOR PLAN - PLUMBING

Drawn By: Author
Proj. Engr.: SLK
Proj. Mgr.: SLK
Scale: As indicated

JARRELL MECHANICAL CONTRACTORS
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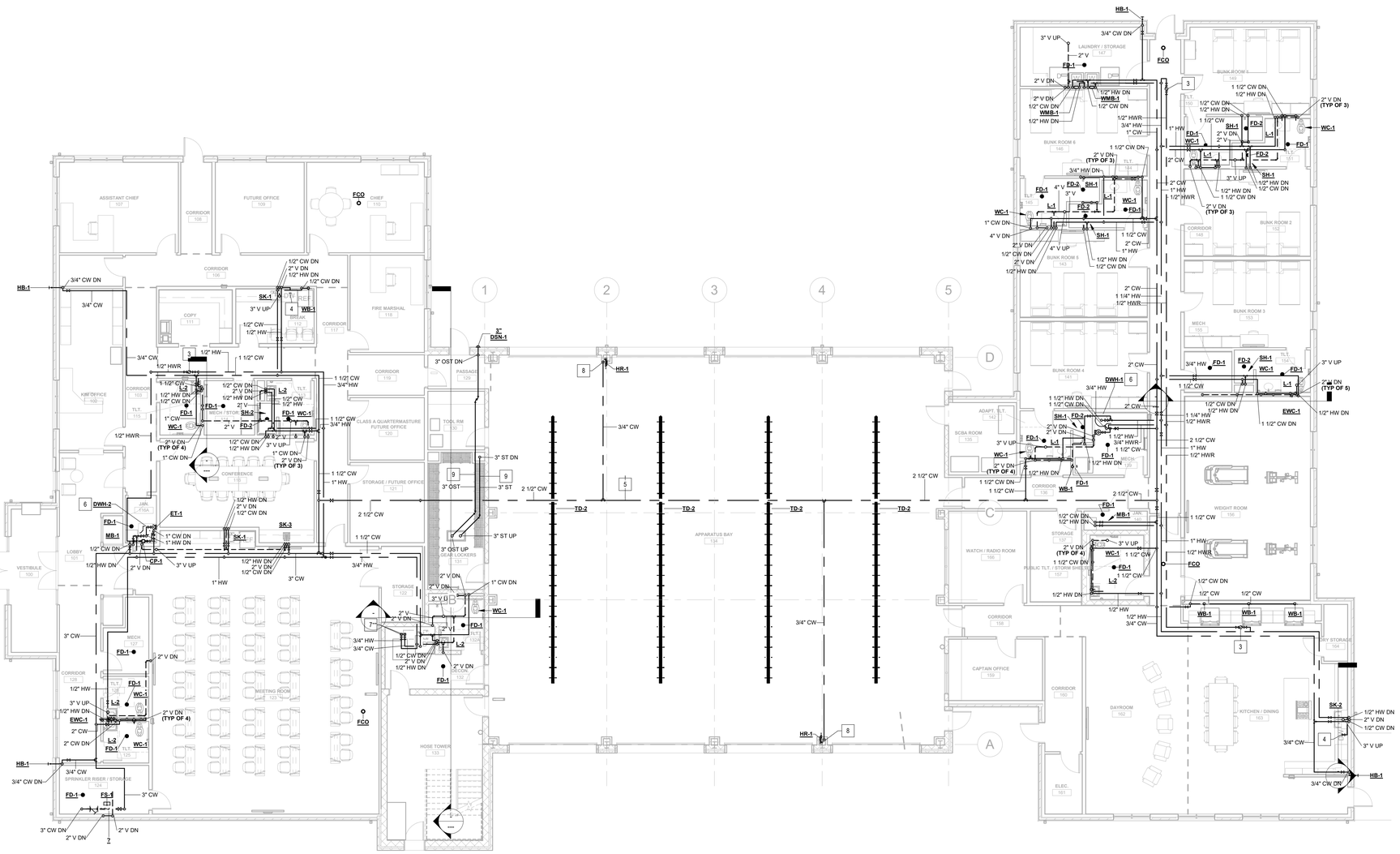
Date: 09/05/2025
Job No.: -
Sheet: P100

PLUMBING GENERAL NOTES

1. FINISHED FLOOR ELEVATION = 100.00' (ARCH), 763.00' (USGS).

PLUMBING KEYNOTES

3	BALANCING VALVE.
4	VALVE AND CAP 1/2" HOT WATER STUB OUT FOR DISHWASHER. FINAL CONNECTION BY OTHERS.
5	ROUTE COLD WATER PIPING OVERHEAD AS HIGH AS POSSIBLE TO AVOID STRUCTURE AND EXISTING OR NEW BUILDING COMPONANTS.
6	DOMESTIC TANK TYPE WATER HEATER. REFER TO TYPICAL DETAIL FOR ADDITIONAL COMPONENTS AND INFORMATION.
7	3/4" VALVED HOT WATER AND 3/4" VALVED COLD WATER SUPPLIES ON WALL FOR GEAR EXTRACTOR. FINAL CONNECTION BY OTHERS.
8	3/4" COLD WATER DOWN TO HOSE REEL (HR-1), MOUNT SHUT OFF VALVE AT 7'-0" A.F.F.
9	STORM AND STORM OVERFLOW PIPING SHALL BE SLOPED AT 1/8"/FT MINIMUM.



2 FIRST FLOOR PLAN - PLUMBING
P200 1/8" = 1'-0"

0' 4'-0" 8'-0" 16'-0"
1/8" =1'-0"

Revisions			
Number	Description	Date	
	ISSUED FOR PERMIT	09/05/2025	

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STATE OF MISSOURI
STEPHEN LOREN KEMME
NUMBER PE-2009019577
PROFESSIONAL ENGINEER
9/5/25

WCFPD Station 1

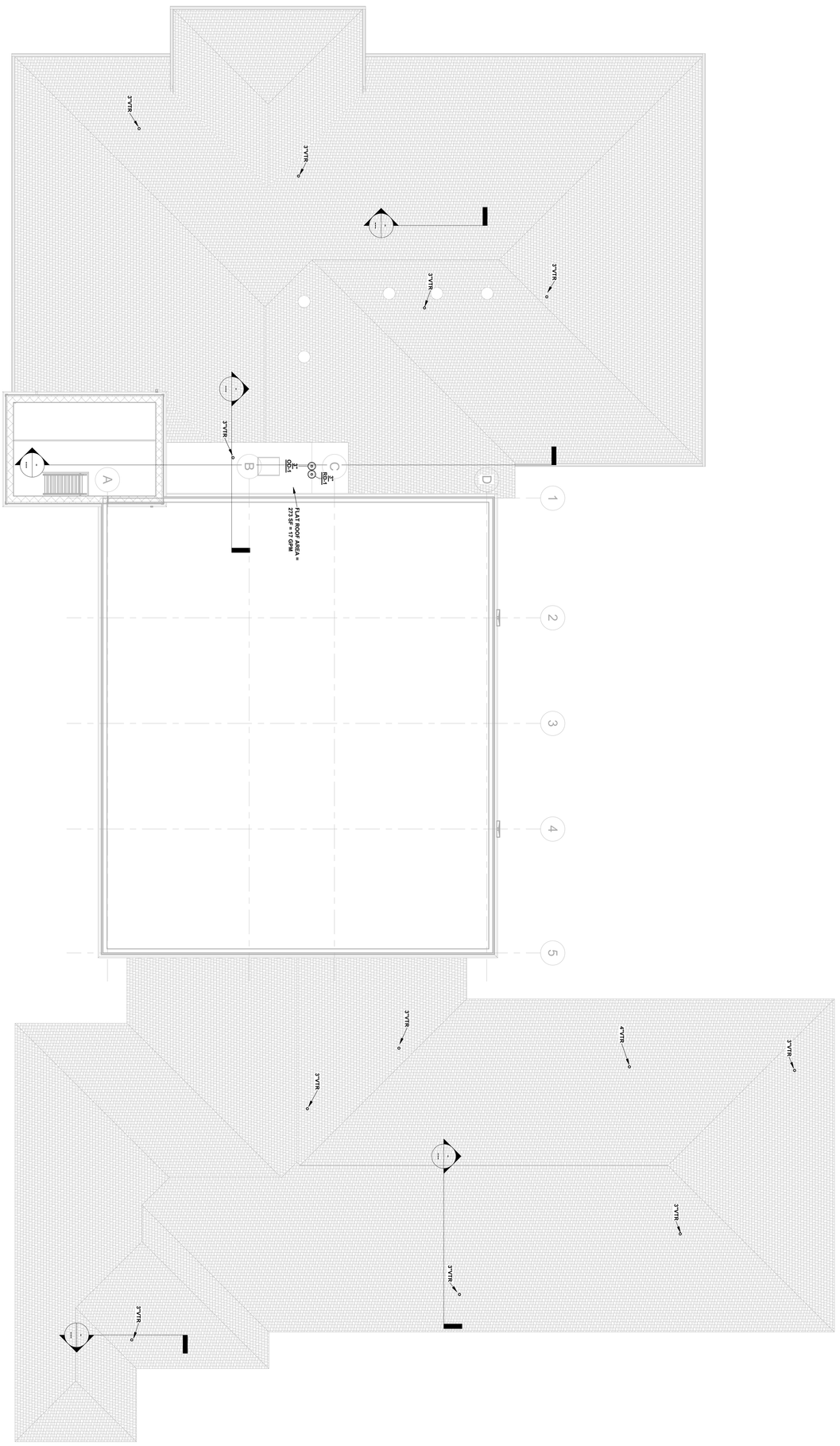
60 Bell Road
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FIRST FLOOR PLAN - PLUMBING

Drawn By	SLK
Proj. Engr.	SLK
Proj. Mgr.	
Scale	As indicated

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Date	09/05/2025
Job No.	-
Sheet	P200



1 P201 1/8" = 1'-0"

ROOF PLAN - PLUMBING

1/8" = 1'-0"

Date	09/05/2025	Drawn By	Author
Job No.	-	Proj. Engr.	SLK
		Proj. Mgr.	SLK
Sheet	P201	Scale	1/8" = 1'-0"

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WCFPD Station 1

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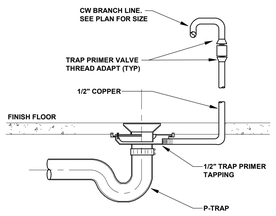
ROOF PLAN - PLUMBING

STATE OF MISSOURI
SCOTT L. KUEHNER
NUMBER 2012025525
REGISTERED PROFESSIONAL ENGINEER
2012025525

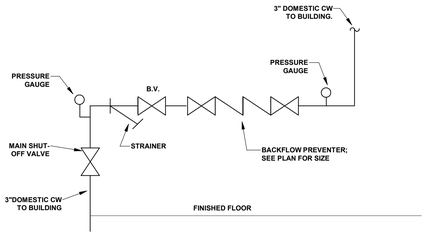
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Revisions

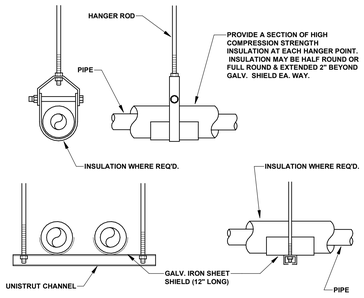
Number	Description	Date
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1 P400 FLOOR DRAIN DETAIL
12" = 1'-0"

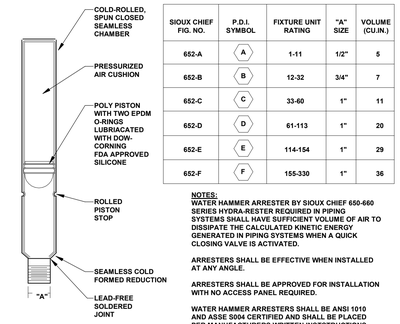


2 P400 WATER SERVICE ENTRANCE DETAIL
12" = 1'-0"



NOTES:
1. ATTACH SUPPORTS FOR ALL PIPING SUSPENDED FROM THE STEEL STRUCTURE TO THE TOP CORD OF JOISTS OR BEAMS.
2. PROVIDE COPPER OR PLASTIC COATED HANGERS FOR NON-INSULATED COPPER PIPE.

3 P400 PIPE HANGER DETAILS
12" = 1'-0"



SIOUX CHIEF FIG. NO.	P.D.I. SYMBOL	FIXTURE UNIT RATING	"A" SIZE	VOLUME (CU.IN.)
652-A	A	1-11	1/2"	5
652-B	B	12-32	3/4"	7
652-C	C	33-60	1"	11
652-D	D	61-113	1"	20
652-E	E	114-154	1"	29
652-F	F	155-330	1"	36

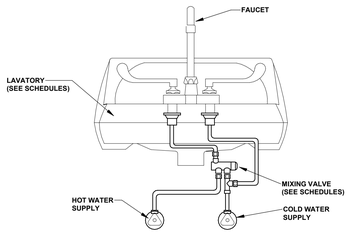
NOTES:
WATER HAMMER ARRESTER BY SIOUX CHIEF 650-660 SERIES HYDRA-RESTER REQUIRED IN PIPING SYSTEMS SHALL HAVE SUFFICIENT VOLUME OF AIR TO DISSIPATE THE CALCULATED KINETIC ENERGY GENERATED IN PIPING SYSTEMS WHEN A QUICK CLOSING VALVE IS ACTIVATED.

ARRESTERS SHALL BE EFFECTIVE WHEN INSTALLED AT ANY ANGLE.

ARRESTERS SHALL BE APPROVED FOR INSTALLATION WITH NO ACCESS PANEL REQUIRED.

WATER HAMMER ARRESTERS SHALL BE ANSI 1010 AND ASSE 5004 CERTIFIED AND SHALL BE PLACED PER MANUFACTURERS WRITTEN INSTSTRUCTIONS.

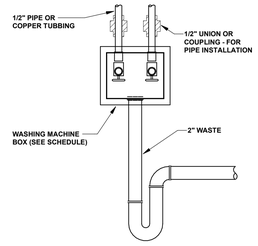
4 P400 WATER HAMMER ARRESTER DETAIL
12" = 1'-0"



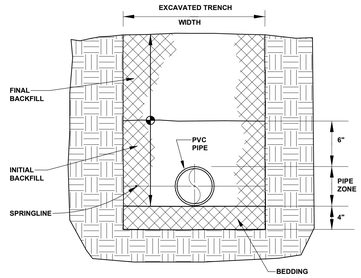
ALL LAVATORY MIXING VALVES SHALL BE PROVIDED WITH EXTERNAL BRONZE BODY AND TRIM CHECK VALVES ON THE HOT AND COLD WATER WATER SUPPLIES, REGARDLESS IF MIXING VALVE HAS AN INTERNAL CHECK VALVE.

INSULATE P-TRAP AND WATER SUPPLY PIPING WITH LAV-GUARD WRAP ON ADA RATED LAVATORIES.

5 P400 MIXING VALVE DETAIL
12" = 1'-0"

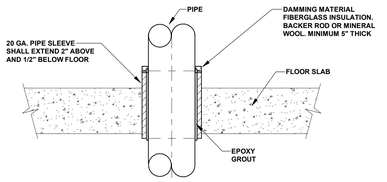


6 P400 WASHING MACHINE BOX SUPLY AND DRAIN DETAIL
12" = 1'-0"

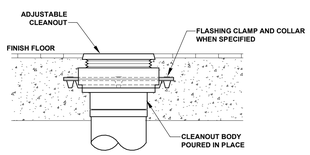


NOTE:
PIPING SHALL BE INSTALLED PER ASTM D-2321 STANDARDS.

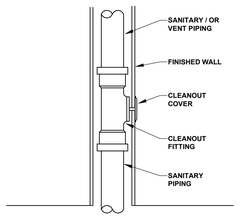
7 P400 INSTALLATION OF PVC PIPE BELOW GRADE DETAIL
12" = 1'-0"



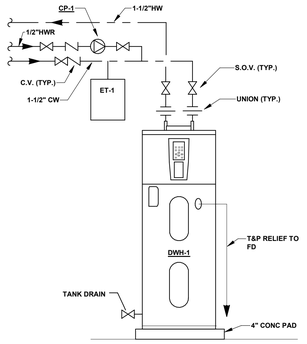
8 P400 PIPE SLEEVE THROUGH FLOOR DETAIL
12" = 1'-0"



9 P400 INTERIOR CLEANOUT DETAIL
NO SCALE

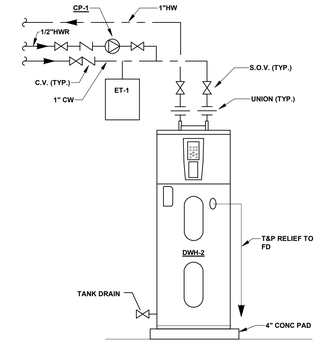


10 P400 WALL CLEANOUT DETAIL
12" = 1'-0"



* WATER HEATERS SHALL BE SEISMICALLY STRAPPED TO THE WALL UTILIZING HOLDRITE QS-120 QUICK STRAP
* CONNECTIONS AT (DWH-3 AND DWH-4) ARE SIMILAR.
*PIPE WATER HEATERS PER MANUFACTURERS WRITTEN INSTRUCTIONS.

11 P400 PIPING CONNECTIONS AT WATER HEATER DWH-1
12" = 1'-0"



* WATER HEATERS SHALL BE SEISMICALLY STRAPPED TO THE WALL UTILIZING HOLDRITE QS-120 QUICK STRAP
* CONNECTIONS AT (DWH-3 AND DWH-4) ARE SIMILAR.
*PIPE WATER HEATERS PER MANUFACTURERS WRITTEN INSTRUCTIONS.

12 P400 PIPING CONNECTIONS AT WATER HEATER DWH-2
12" = 1'-0"

Revisions			
Number	Description	Date	
	ISSUED FOR PERMIT	09/05/2025	

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STATE OF MISSOURI
STEPHEN LOREN KEMME
NUMBER
PE-2009019577
PROFESSIONAL ENGINEER
9/5/25

WCFPD Station 1
60 Bell Road
Wright City, MO 63390
DETAILS

Drawn By	Proj. Engr.	Proj. Mgr.	Scale
Author	SLK	SLK	12" = 1'-0"

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Date	Job No.	Sheet
09/05/2025	-	P400

PLUMBING ABBREVIATIONS	
AFF	ABOVER FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
CO	CLEANOUT
(E)	EXISTING
CW	COLD WATER
ESE	EMERGENCY EYEWASH / SHOWER
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
DWH	DOMESTIC WATER HEATER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
F.L.	FLOW LINE ELEVATION
FS	FLOOR SINK
GD	GARAGE DRAIN
GPM	GALLONS PER MINUTE
HB	HOSE BIBB (EXTERIOR)
HW	HOT WATER
HWR	HOT WATER RETURN
ISO	ISOMETRIC
IW	INDUSTRIAL WASTE
LAV	LAVATORY
MB	MOP BASIN
PD	PUMP DISCHARGE
OI	OIL WATER SEPARATOR
HCP	RE-CIRCULATING PUMP
RH	ROOF HYDRANT
S	SANITARY SEWER
SK	SINK
US	UTILITY SINK
UR	URINAL
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT (INTERIOR)

DRAIN SCHEDULE

DESIGNATION	TYPE	OUTLET SIZE	BODY MATERIAL / STRAINER FINISH	TRAP	MANUFACTURER / OR APPROVED EQUAL	MODEL	REMARKS
FD-1	FLOOR DRAIN	3"	CAST IRON BODY WITH ROUND NICKEL BRONZE TOP	YES	SIOUX CHIEF	832-35P-NR	INSTALL IN RESTROOMS AND IN JANITOR CLOSETS.
FD-2	SHOWER DRAIN	2"	CAST IRON BODY WITH ROUND NICKEL BRONZE TOP	YES	SIOUX CHIEF	832-35P-NR	INSTALL IN SHOWER.
FS-1	FLOOR SINK	4"	12" x 12" x 8" DEEP DUCTILE IRON BODY WITH HALF GRATE & SEDIMENT BUCKET	YES	SIOUX CHIEF	861-24-I2	INSTALL BELOW DOMESTIC WATER BACKFLOW PREVENTER.
TD-1	GEAR EXTRACTOR DRAIN TROUGH	4"	12" WIDE X 18" DEEP X 4 FT LONG. POLYPROPYLENE LAUNDRY TROUGH WITH INTERNAL AND REMOVABLE FILTER SCREEN AND FILTER BASKET AND 4" END OUTLET.	YES	STRIEM	TT-4	INSTALL IN FLOOR IN GEAR EXTRACTOR ROOM.
TD-2	TRENCH DRAIN - APP BAY	4"	1-METER LONG POLYPROPYLENE 5-1/4" WIDE INTERLOCKING BODY CHANNEL SECTIONS WITH SLOPED AND RADIUSED BOTTOM, 4" NO-HUB BOTTOM OUTLET, AND SECURED HEAY DUTY DUCTILE IRON SLOTTED GRATE	NO	JR SMITH	9930 SERIES 9870-462-DGC GRATE	-
RD-1	ROOF DRAIN	3"	CAST IRON BODY WITH FLASHING CLAMP, POLYPROPYLENE DOME STRAINER	NO	JR SMITH	1010Y	-
OD-1	OVERFLOW ROOF DRAIN	3"	CAST IRON BODY WITH FLASHING CLAMP, CAST IRON WATER DAM, POLYPROPYLENE DOME STRAINER	NO	JR SMITH	1080Y	-
DSN-1	DOWNSPOUT NOZZLE	3"	ROUND STAINLESS STEEL FRAME WITH SECURED STAINLESS STEEL HINGED COVER	NO	JR SMITH	1775	-
TP-1	TRAP PRIMER	-	-	-	SIOUX CHIEF	695 SERIES	-
F.Co.	FLOOR CLEANOUT	SEE PLAN	DUCTILE IRON BODY WITH ROUND BRONZE COVER	NO	SIOUX CHIEF	834-4D-NR	INSTALL ON SANITARY LINE FROM RESTROOMS AND GENERAL PURPOSE FIXTURES
W.Co.	WALL CLEANOUT	SEE PLAN	PVC CLEANOUT PLUG WITH STAINLESS COVER	NO	-	-	THREADED PLUG STAINLESS STEEL WITH COVER

NOTES:
1) ON FLOOR DRAINS (FD-1) AND (FD-2) INSTALL AN INTERNAL TRAP SEAL DEVICE. ASSE 1072 CERTIFIED. UNIT SHALL BE A SIOUX CHIEF 835 TRAPSHIELD.

BACKFLOW PREVENTER SCHEDULE

DESIGNATION	SIZE	LOCATION	MANUFACTURER / OR APPROVED EQUAL	MODEL	GPM	PRESSURE DROP	REMARKS
BFP-1	3"	FIRE CORP. STORAGE 124	WATTS	957-QT (WITH GATE VALVES)	101	10 PSI	3" REDUCED PRESSURE ASSEMBLY.

NOTES:
1. ALL DEVICES AND ASSEMBLIES FOR THE PREVENTION OF BACKFLOW SHALL BE TESTED AND APPROVED BY A CROSS-CONNECTION CONTROL DEVICE INSPECTOR BEFORE INITIAL OPERATION AND THE DEVICES MUST BE TESTED ANNUALLY THEREAFTER.

INTERCEPTOR SCHEDULE

DESIGNATION	MANUFACTURER	MODEL NO.	FLOW RATE	HOLDING CAPACITY			MATERIALS	REMARKS
				LIQUID (GAL)	OIL (GAL)	SOLIDS (GAL)		
OS-1	STRIEM	OS-500	100 GPM	500	125	195	POLYETHYLENE	SEE NOTES

NOTES:
1) UNIT SHALL HAVE A 6" INLET AND OUTLET, H20 COVER AND 24"-30" RISERS.

PLUMBING MATERIALS SPECIFICATION

TYPE OF PIPING MATERIAL	TYPE OF SERVICE: ABOVE GRADE SANITARY AND VENT (EXCEPT IN PLENUMS).	SANITARY AND VENT IN CEILING PLENUM SPACES.	BURIED DOMESTIC WATER TO BUILDING.	DOMESTIC COLD, HOT AND HOT WATER RETURN PIPING.
SCHEDULE 40 PVC W/ SOLVENT CEMENTED DRAINAGE PATTERN FITTINGS ASTM D-2665, SOLID CORE (CHARLOTTE) *ALL SIZES*	x			
SERVICE WEIGHT NO-HUB CAST IRON PIPE AND FITTINGS (ASTM B88) -MANUFACTURED BY CHAROLETTE, TYLER OR AB&I) *ALL SIZES*		x		
COPPER PIPE - SOFT DRAWN TYPE "K" ASTM B-88			x	
TYPE "L" COPPER WITH WROUGHT COPPER JOINTS - PRO-PRESS FITTINGS				x

INSULATION MATERIALS SPECIFICATION

TYPE OF MATERIAL	TYPE OF SERVICE: DOMESTIC COLD WATER PIPING	DOMESTIC HOT WATER PIPING (UP TO 1-1/4")	DOMESTIC HOT WATER PIPING LARGER THAN 1-1/2"	SANITARY PIPING IN PLENUM SPACES
1" FIBERGLASS WITH ALL-SERVICE JACKET (SHALL MEET OR EXCEED ASTM - e84 FOR FLAME / SMOKE RATING)	x	x		x
1-1/2" FIBERGLASS WITH ALL-SERVICE JACKET (SHALL MEET OR EXCEED ASTM - e84 FOR FLAME / SMOKE RATING)			x	

PLUMBING FIXTURE SCHEDULE

(REFER TO ARCHITECTURAL DOCUMENTS FOR FIXTURE MOUNTING HEIGHTS)

FIXTURE DESIGNATION	TYPE	WASTE PIPING	VENT PIPING	WATER		SPECIFICATIONS	MANUFACTURER	MODEL	MODEL NUMBER
				COLD	HOT				
WC-1	WATER CLOSET	4"	2"	1"	-	FLOOR MOUNTED WATER CLOSET, ELONGATED BOWL, TOP SPUD FLUSHOMETER TYPE, ADA . MANUAL FLUSHOMETER, SLOAN ROYAL, 1.28 GPF. SEAT - HEAVY DUTY OPEN FRONT WITH COVER ELONGATED TOILET SEAT.	KOHLER	HIGHCLIFFE	K-96057
							SLOAN		111-1.28
							BEMIS		1955CT
L-1	LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"	UNDERMOUNT OVAL SINGLE BOWL, WHITE VITREOUS CHINA LAVATORY 19-1/4". FAUCET - DECK MOUNTED LAVATORY FAUCET, MANUALLY OPERATED, CHROME PLATED 0.5 GPM PRESSURE COMPENSATING, LAMINAR FLOW OUTLET. PROVIDE PERFORATED GRID STRAINER. WITH BELOW DECK LEAD-FREE MIXING VALVE AND P-TRAP ADA COVERING	KOHLER	CAXTON	K-2210-N
							KOHLER		K-97282-4
							WATTS		LFUSG-B
							TRUEBRO		LAV GUARD 2 E-Z SERIES
L-2	LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"	WALL MOUNTED SINGLE BOWL, WHITE VITREOUS CHINA LAVATORY 21-1/4" X 18-1/8". SINGLE HOLE CENTER FAUCET WITH 4" COVER PLATE, CONCEALED ARM SUPPORT. FAUCET - DECK MOUNTED LAVATORY FAUCET, SENSOR OPERATED, BATTERY POWERED, CHROME PLATED 0.5 GPM PRESSURE COMPENSATING, LAMINAR FLOW 0.5 GPM OUTLET. PROVIDE PERFORATED GRID STRAINER. WITH BELOW DECK LEAD-FREE MIXING VALVE AND P-TRAP ADA COVERING	KOHLER	KINGSTON	K-2005
							KOHLER		K-97282-4
							WATTS		LFUSG-B
							TRUEBRO		LAV GUARD 2 E-Z SERIES
							ZURN		CONCEALED ARM CARRIER
HR-1	HOSE REEL	-	-	3/4"	-	3/4" X 100 FT AC MOTOR DRIVEN HOSE REEL.	REELCRAFT	-	EA33112 L10A
SH-1		2"	2"	1/2"	1/2"	SHOWER FLOOR SHALL RECEIVE A FLOOR DRAIN (FD-2). FLOOR TO BE EPOXY COATED AND SLOPPED TO DRAIN. SHOWER VALVE SHALL BE RITE TEMP PRESSURE BALANCING DESIGN, SINGLE LEVER, ONE-PIECE CARTRIDGE WITH ADJUSTABLE SCREW STOP TO LIMIT HANDLE TURN. VALVE TRIM SHALL INCLUDE FACE PLATE WITH HANDLE, CHROME FINISH. FAUCET SHALL BE MULTIFUNCTION SHOWERHEAD AND HANDSHOWER, 2.5 GPM MAX FLOWRATE, WITH MULTIFUNTION SPRAY	KOHLER	RITE-TEMP	K-8304-KS
							KOHLER	DEVONSHIRE	K-TLS396-4-CP
							KOHLER	AWAKEN	K-76471-Y-CP
SH-2	SHOWER (ADA)	2"	2"	1/2"	1/2"	SHOWER FLOOR SHALL RECEIVE A FLOOR DRAIN (FD-2). FLOOR TO BE EPOXY COATED AND SLOPPED TO DRAIN. SHOWER FITTING - SYMMONS TEMPTROL SHOWER UNIT, INCLUDING PRESSURE-BALANCING MIXING VALVE WITH SERVICE STOPS, 1.5 GPM FLOW, HAND HELD SHOWER WITH CHROME PLATED SUPPLY ELBOW, VACUUM BREAKER, 60 INCH FLEXIBLE HOSE, 36 INCH LONG ADJUSTABLE SLIDE BAR WITH SWIVEL CONNECTOR AND MOUNTING ACCESSORIES.	SYMMONS		S-9603-PLR-1.5-X
SK-1	SINK	1-1/2"	1-1/2"	1/2"	1/2"	304 STAINLESS STEEL RECTANGULAR DROP IN SINGLE BOWL SINK, 19-1/2" X 19" X 10-1/8" DEEP. DECK MOUNTED HIGH ARCH SPOUT, MANUAL 3-FUNCTION SINGLE LEVER KITCHEN FAUCET, 1.5 GPM OUTLET. INCLUDE STAINLESS STEEL BASKET STRAINER AND NEOPRENE COVER.	ELKAY	LUSTERTONE	DLR191910PD
							KOHLER		K-22972
SK-2	SINK	1-1/2"	1-1/2"	1/2"	1/2"	18 GAUGE UNDERMOUNT DOUBLE BOWL STAINLESS STEEL SINK 30-3/4" X 18-1/2" x 10" DEEP. FAUCET - DECK MOUNTED MANUAL SINK FAUCET WITH WRIST BLADE HANDLES SWING GOOSENECK SPOUT AND 1.5 GPM AERATOR OUTLET. INCLUDE 1/2 HP GARBAGE DISPOSAL, STAINLESS STEEL BASKET STRAINER AND TAILPIECE.	ELKAY	LUSTERTONE	ELUH311810L
							CHICAGO		201-AGN2AE35-317AB
							INSINKERATOR		BADGER 5
SK-3	SINK	1-1/2"	1-1/2"	1/2"	1/2"	16 GAGE STAINLESS STEEL UNDERMOUNT SINGLE BOWL BAR SINK, 15" X 15" X 9" DEEP. DECK MOUNTED HIGH ARCH SPOUT, MANUAL 3-FUNCTION SINGLE LEVER KITCHEN FAUCET, 1.5 GPM OUTLET. INCLUDE STAINLESS STEEL BASKET STRAINER AND NEOPRENE COVER.	KOHLER	STRIVE	K-5287
							KOHLER	CRUE	K-22972-CP
MB-1	MOP SINK	3"	2"	3/4"	3/4"	FLOOR MOUNTED MOLDED-STONE MOP SERVICE BASIN. 24 INCH X 24 INCH X 12 INCHES DEEP WITH STAINLESS STEEL CAPS ON CURBS, HOSE HOOK AND BRACKET. FAUCET - WALL MOUNTED, MANUALLY OPERATED SINK FAUCET, CHROME PLATED WITH INTEGRAL HOT AND COLD WATER SUPPLY STOPS, WRIST BLADE HANDLES, WITH HOSE AND HOSE HOOK.	FIAT		MSB2424
							CHICAGO		897-RCF
EWC-1	WATER COOLER	1 1/2"	1 1/2"	1/2"	-	WALL MOUNTED BI-LEVEL ADA ELECTRIC WATER COOLER WITH BOTTLE FILLING STATION. FILTERED, CHILLING CAPACITY OF 8 GALLONS PER HOUR OF 50 DEGREE DRINKING WATER. PUSH BUTTON ACTIVATION WATER COOLER AND HANDS-FREE ELECTRONIC SENDOR BOTTLE FILLER	ELKAY		LZSTL8WSLK
HB-1	HOSE BIBB	-	-	3/4"	-	FREEZLESS WALL HYDRANT WITH HIGH FLOW DOUBLE CHECK BACKFLOW PREVENTER, CHROME BOX AND DOOR	WOODFORD		B67
WB-1	ICE MAKER BOX	-	-	1/2"	-	WHITE PLASTIC WATER SUPPLY BOX WITH SHUT-OFF VALVE	SIOUX CHIEF		696 SERIES
WMB-1	WASHER BOX	1 1/2"	-	1/2"	1/2"	WHITE PLASTIC WASHING MACHINE OUTLET BOX WITH SURGE SUPRESSORS AND SHUT-OFF VALVE	SIOUX CHIEF		696 SERIES

NOTES:
1.) ALL STOPS SHALL BE BRASSCRAFT 1/4 TURN ANGLE BALL STOPS; KTCR09 / KTCR19 / KTCR39 AND ESCUTHEONS OR EQUAL
2.) P-TRAPS ON SINKS AND LAVATORIES SHALL BE 1-1/2",PVC P-TRAP WITH CLEANOUT PLUG AND ESCUTHEONS

DOMESTIC WATER HEATER SCHEDULE

DESIGNATION	LOCATION	TYPE	# ELEMENTS / BTU'S	WATTS / ELEMENT	1ST HOUR RATING IN GALS	STORAGE CAPACITY	TEMPERATURE SETTING (DEG F)	ELECTRICAL REQUIREMENT	MANUFACTURER'S DESCRIPTION:	NOTES
DWH-1	MECH 139	ELECTRIC	1	15,000	80	80	120	240/60/3	A.O. SMITH DSE-80A-15.0 (OR EQUAL) COMMERCIAL ELECTRIC TANK TYPE WATER HEATER, GLASS LINED TANK, SURFACE MOUNTED THERMOSTATS AND FACTORY INSTALLED T&P REFLIEF AND VACUUM RELIEF VALVE.	INSTALL WITH ARMTROL ST-12 OR EQUAL EXPANSION TANK (ET-1)
DWH-2	JAN 116A	ELECTRIC	1	9,000	40	40	120	240/60/3	A.O. SMITH DSE-40A-9.0 (OR EQUAL) COMMERCIAL ELECTRIC TANK TYPE WATER HEATER, GLASS LINED TANK, SURFACE MOUNTED THERMOSTATS AND FACTORY INSTALLED T&P REFLIEF AND VACUUM RELIEF VALVE.	INSTALL WITH ARMTROL ST-12 OR EQUAL EXPANSION TANK (ET-1)

NOTES:
1. ALL WATER HEATERS SHALL BE PIPED PER THE INTERNATIONAL PLUMBING CODE. INSTALL SHUT-OFF VALVES AND UNIONS ON THE WATER SUPPLY LINES. PIPE T&P RELIEF TO ADJACENT FLOOR DRAINS.

HOT WATER RECIRCUATION PUMP SCHEDULE

DESIGNATION	NAME	MANUFACTURER / OR APPROVED EQUAL	MODEL NUMBER	GPM	HEAD (FT.)	CONN. SIZE	HP	VOLT / PH	REMARKS
CP-1	HOT WATER RETURN CIRCULATING PUMP	GRUNDFOS	ALPHA 26-99	0-21	0-41	1-1/4"	1/6	120 / 1	DOMESTIC HOT WATER RE-CIRCULATING PUMP. INSTALL AT DWH-1 AND AT DWH-2.

NOTES:
1) INSTALL PUMPS WITH THE PROPER VALVE ASSEMBLY, INCLUDING CHECK VALVES.

SEISMIC CODE BLOCK

IMPORTANCE FACTOR (I) SEISMIC DESIGN CATEGORY (D)

LISTING OF EQUIPMENT & SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOFS, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY SEALED ANCHORAGE AND SWAY BRACING DETAILS			COMMENTS
					ON CONST. DOCUMENTS	SUBSEQUENT SUBMITTAL		
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	PLAN SPECS PAGE(S)	SHOP DRAWINGS	SEPARATE PERMIT & PLANS	
OTHER GENERAL EQUIPMENT & SYSTEM COMPONENTS								
DWV PIPING	X		X					EXEMPT PER TABLE 500, NOTE 1A, SCHEDULE 40 PVC 6" OR LESS AND CAST IRON 2" OR LESS.
DOMESTIC WATER PIPING UP TO (2-1/2" AND SMALLER	X		X					EXEMPT PER TABLE 500, NOTE 1C, SCHEDULE 80 CPVC 3" OR LESS.
DOMESTIC WATER HEATERS		X		X	X			USE SEISMIC RESTRAINT STRAPS TO SECURE TO WALL

Revisions		
Number	Description	Date
	ISSUED FOR PERMIT	09/05/2025

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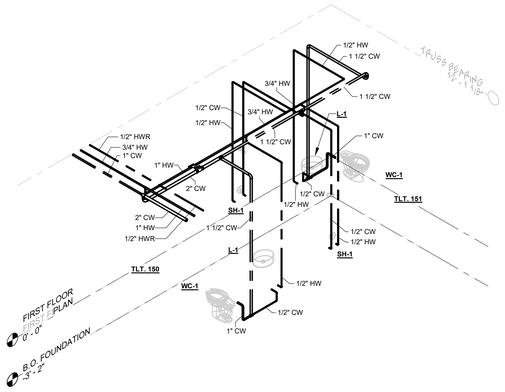
STATE OF MISSOURI
STEPHEN LOREN LEMME
NUMBER PE-2009019577
PROFESSIONAL ENGINEER
9/5/25

WCFPD Station 1
60 Bell Road
Wright City, MO 63390
SCHEDULES

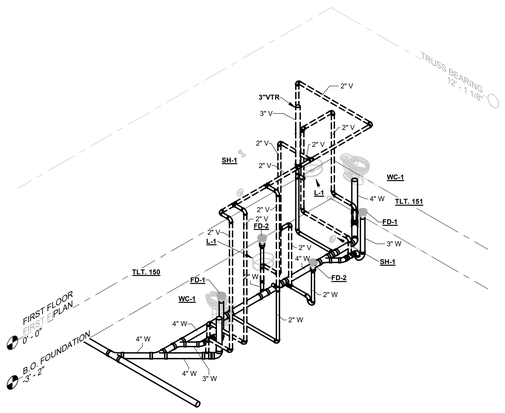
Drawn By	Proj. Engr.	Proj. Mgr.	Scale
Author	SLK	SLK	12" = 1'-0"

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EARTH CITY, MISSOURI 63045
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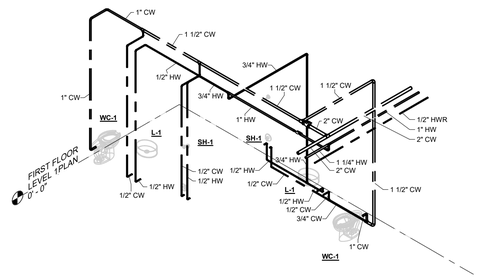
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09/05/2025	-	P500



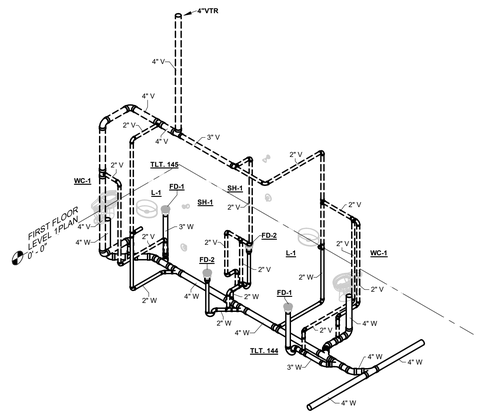
1 P600 ISO WATER TOILET 150 & 151



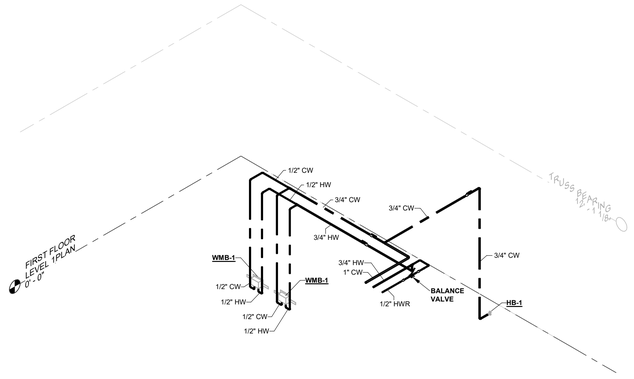
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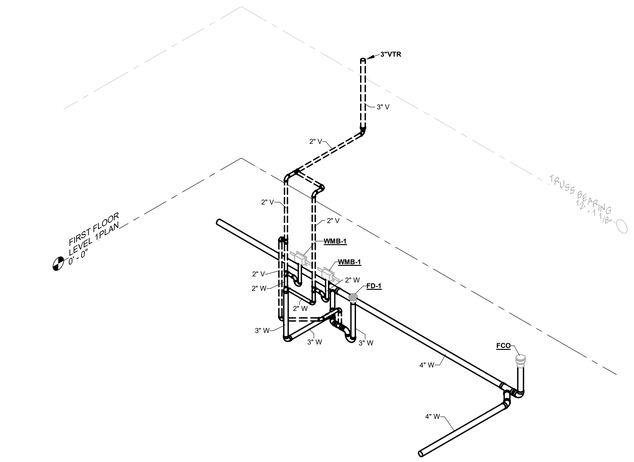
3 P600 ISO WATER TOILET 144 & 145



4 P600 ISO DWV TOILET 144 & 145



5 P600 ISO WATER LAUNDRY/STORAGE 147



6 P600 ISO DWV LAUNDRY/STORAGE 147

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STEPHEN LOREN LEMME
NUMBER PE-2009015077
PROFESSIONAL ENGINEER
9/5/25

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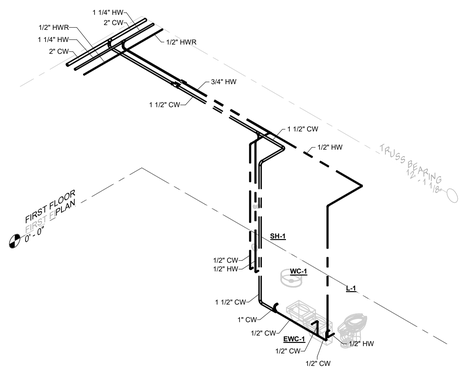
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ISOMETRIC DIAGRAMS - LIVING QUARTERS

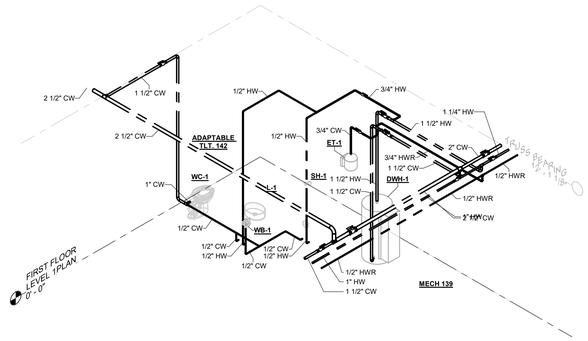
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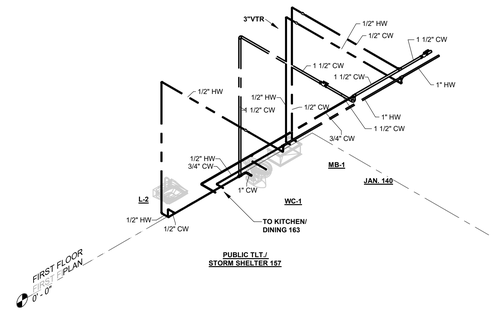
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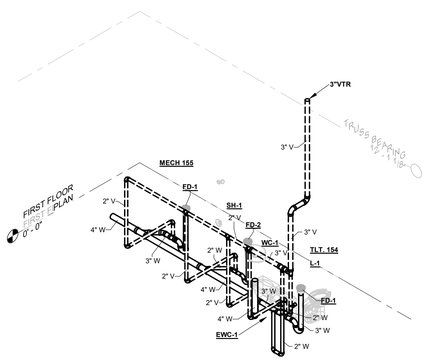
1 P601 ISO WATER TLT 154 & MECH 155



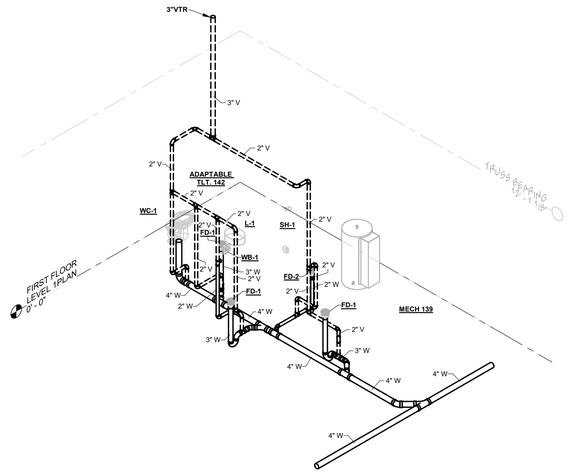
3 P601 ISO WATER 139 & ADAPTABLE TLT. 142



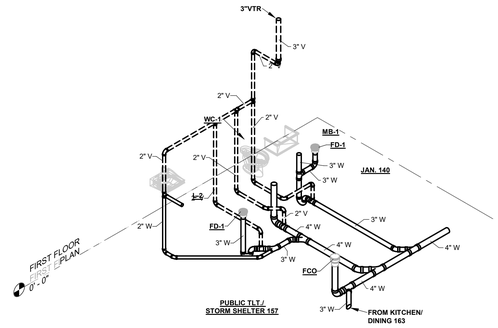
5 P601 ISO WATER JAN140 STORM SHELTER 157



2 P601 ISO DWV TLT 154 & MECH 155



4 P601 ISO MECH 139 & ADAPTABLE TLT. 142



6 P601 ISO DWV JAN140 STORM SHELTER 157

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PROFESSIONAL ENGINEER
9/5/25

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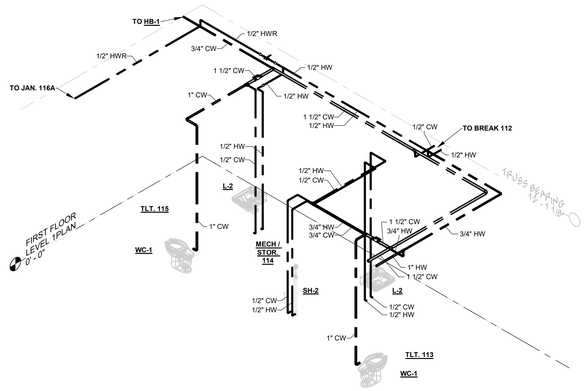
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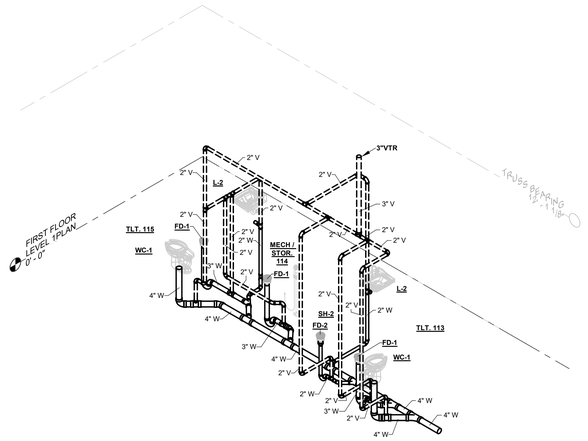
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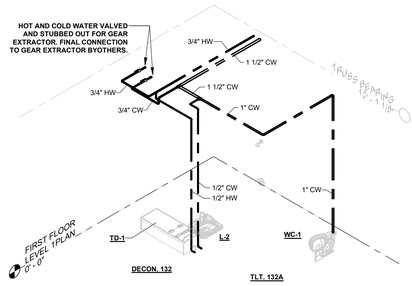
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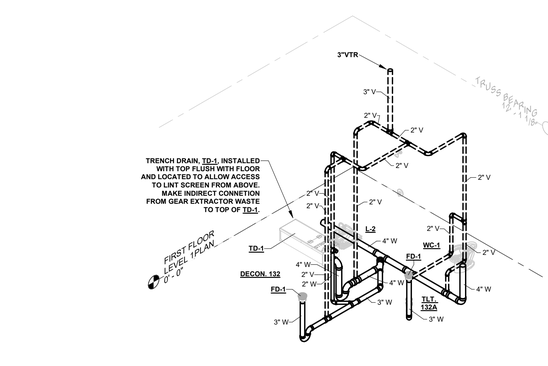
1 P602 ISO WATER TLT. 113, MECH STOR. 114 & TLT. 15



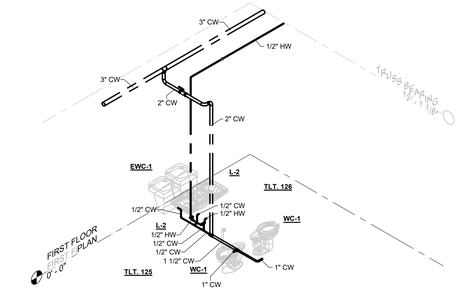
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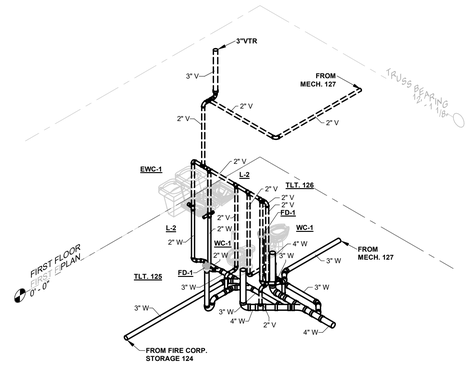
3 P602 ISO WATER DECON. 132 & TLT. 132A



4 P602 ISO DWV DECON. 132 & TLT. 132A



5 P602 ISO WATER TLT. 125 & TLT. 126



6 P602 ISO DWV TLT. 125 & TLT. 126

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NUMBER PE-2009019577
PROFESSIONAL ENGINEER
9/5/25

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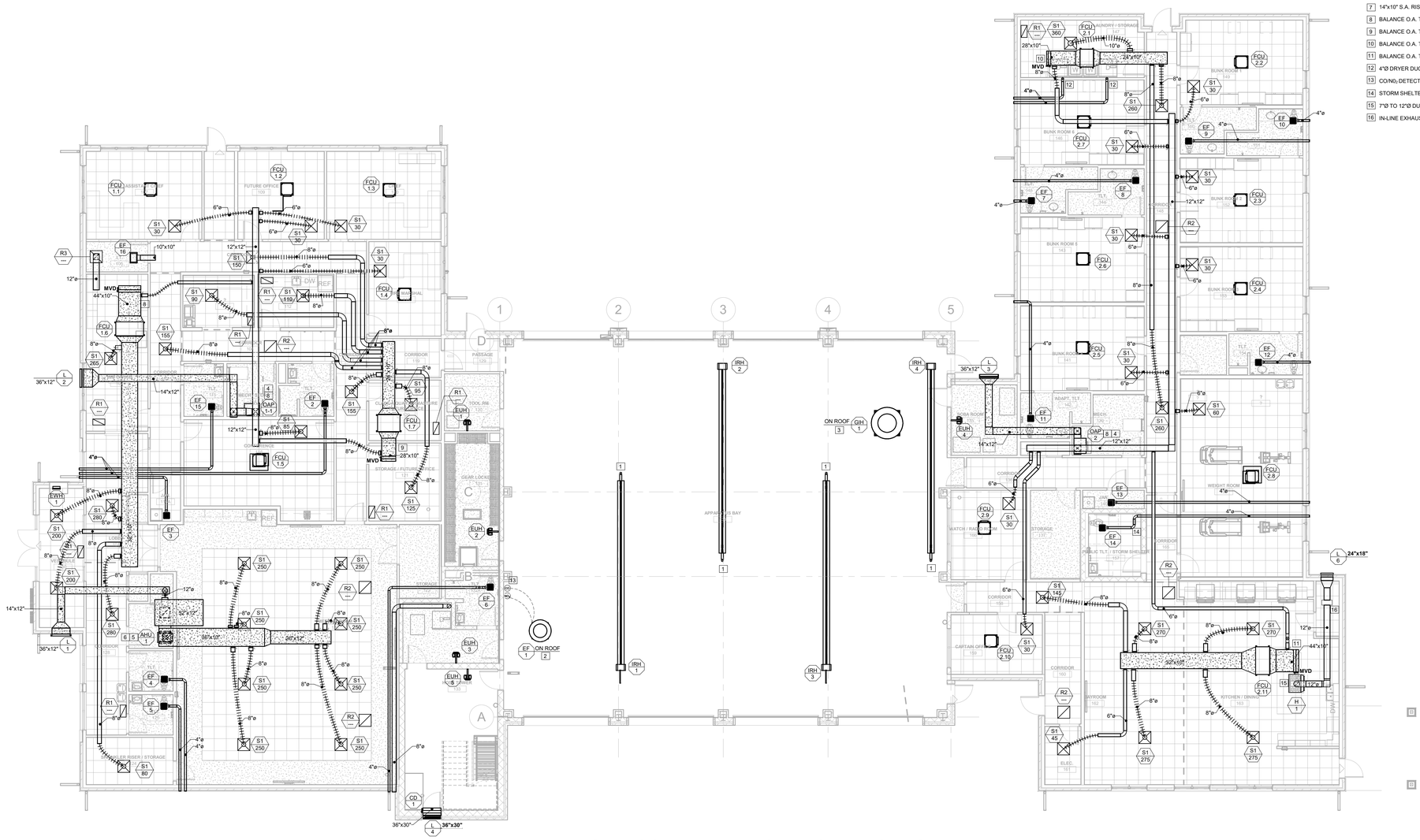
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ISOMETRIC DIAGRAMS - ADMINISTRATION

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Scale	

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09/05/2025	-	P602



2 FIRST FLOOR PLAN - MECHANICAL DUCTWORK
M200 1/8" = 1'-0"

KEYED NOTES

1. 4"Ø FLUE UP THROUGH ROOF WITH FLUE CAP.
2. 21"x21" OPENING IN ROOF.
3. 39"x39" OPENING IN ROOF.
4. 20"x14" O.A. DUCT DOWN TO OAP. SEE DETAIL X/M-X.
5. 20"x20" R.A. DUCT DOWN TO AHU-1. SEE DETAIL X/M-X.
6. 24"x20" S.A. RISER OFF OF AHU-1.
7. 14"x10" S.A. RISER OFF OF OAP.
8. BALANCE O.A. TO FCU-1.6 TO 130 CFM.
9. BALANCE O.A. TO FCU-1.7 135 CFM.
10. BALANCE O.A. TO FCU-2.1 90 CFM.
11. BALANCE O.A. TO FCU-2.11 TO 200 CFM.
12. 4"Ø DRYER DUCT DOWN TO DRYER WALL BOX (DRYERBOX DB-350).
13. CO/NO$_2$ DETECTION SYSTEM. INTERLOCK WITH EF-1.
14. STORM SHELTER PENETRATION PROTECTION PROVIDED BY G.C.
15. 7"Ø TO 12"Ø DUCT TRANSITION AT HOOD CONECTION.
16. IN-LINE EXHAUST FAN FURNISHED WITH HOOD H-1.

0' 4'-0" 8'-0" 16'-0"
1/8" =1'-0"

Revisions			
Number	Description	Date	
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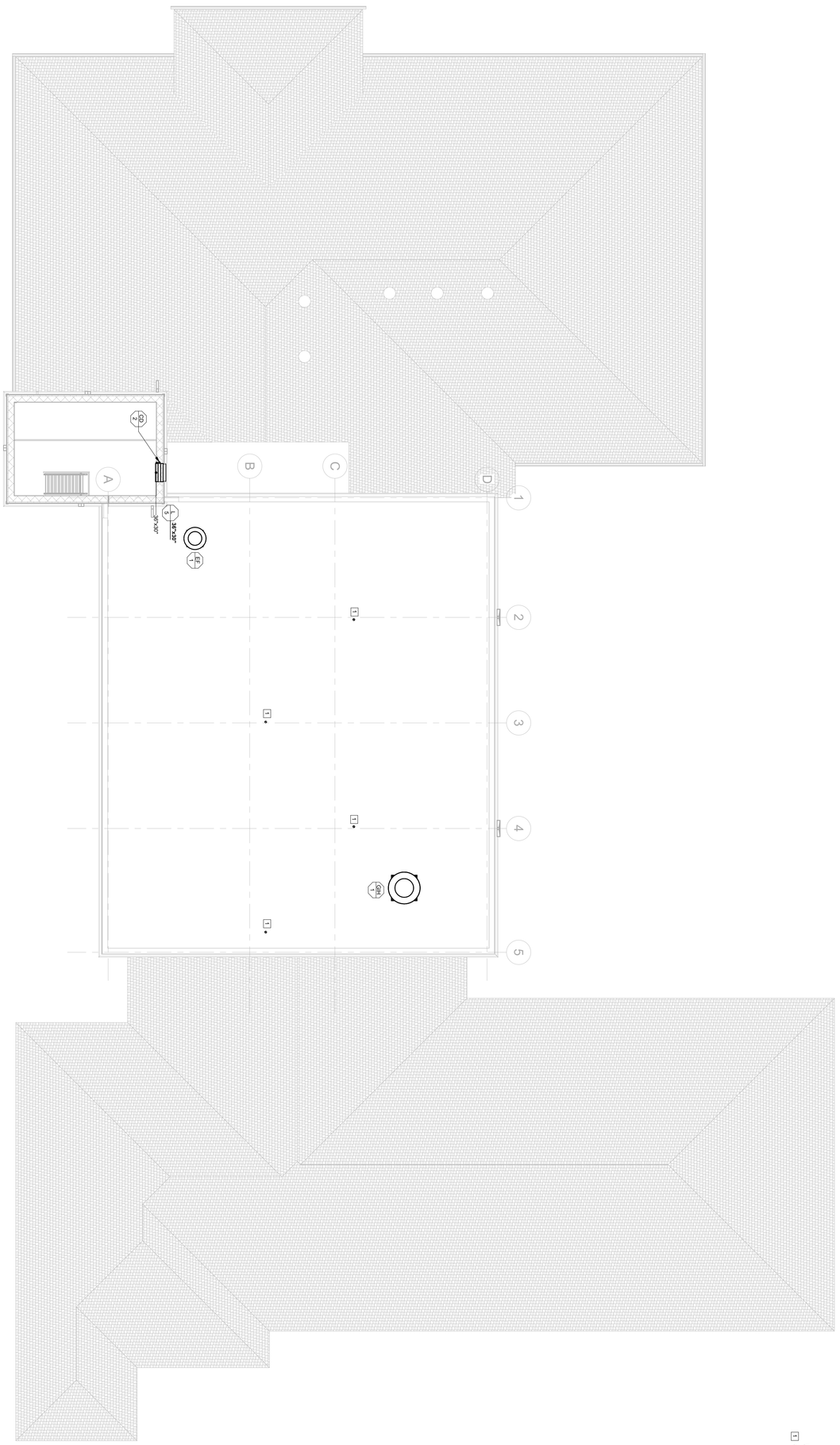
STATE OF MISSOURI
DEWAYNE J. JEFFERSON
NUMBER A-7622
REGISTERED PROFESSIONAL ARCHITECT
9-5-25

WCFPD Station 1
60 Bell Road
Wright City, MO 63390
FIRST FLOOR PLAN - MECHANICAL

Drawn By	CGS		
Proj. Engr.	MDJ		
Proj. Mgr.	TH		
Scale	1/8" = 1'-0"		

JARRELL MECHANICAL CONTRACTORS
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(314)291-5100
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Date	09/05/25
Job No.	25-XXXX
Sheet	M200



1 ROOF PLAN - MECHANICAL
M201 1/8" = 1'-0"

KEYNOTES
1 4"Ø FLUE UP THROUGH ROOF WITH FLUE CAP

0' 4'-0" 8'-0" 16'-0"
1/8"=1'-0"

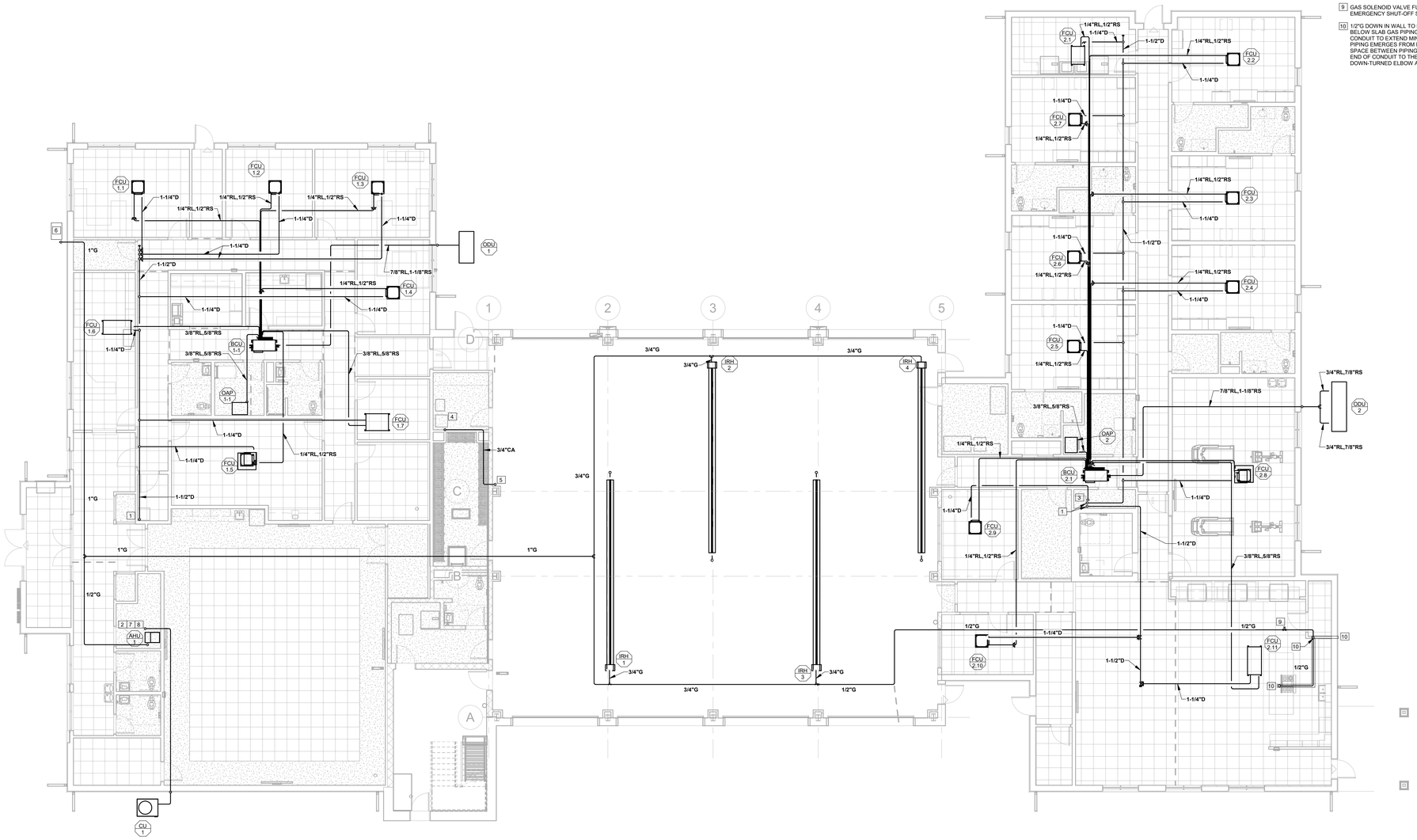
Date 09/05/25	JARRELL MECHANICAL CONTRACTORS 4208 RIDER TRAIL NORTH EARTH CITY, MISSOURI 63045 (314)291-0100 FAX (314)291-2803	Drawn By CGS	WCFPD Station 1 60 Bell Road Wright City, MO 63390 ROOF PLAN - MECHANICAL
Job No. 25-XXXX		Proj. Engr. MDJ	
Sheet M201		Proj. Mgr. TH	
		Scale 1/8" = 1'-0"	

STATE OF MISSOURI
MICHAEL D. JARRELL
NUMBER PE-2009026242
REGISTERED PROFESSIONAL ENGINEER
9-5-25

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Revisions

Number	Description	Date
	ISSUED FOR PERMIT	09.05.2025



3 M300 FIRST FLOOR PLAN - MECHANICAL PIPING
1/8" = 1'-0"

Revisions		
Number	Description	Date
	ISSUED FOR PERMIT	09.05.2025

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STATE OF MISSOURI
DEWAYNE J. JEFFERSON
NUMBER PE-2022021
LICENSED PROFESSIONAL ENGINEER
9-5-25

WCFPD Station 1

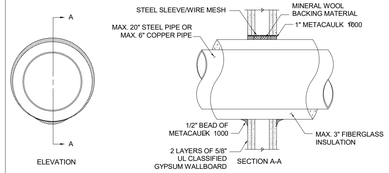
60 Bell Road
Wright City, MO 63390

FIRST FLOOR PLAN - MECHANICAL PIPING

Drawn By	CGS
Proj. Engr.	MDJ
Proj. Mgr.	TH
Scale	1/8" = 1'-0"

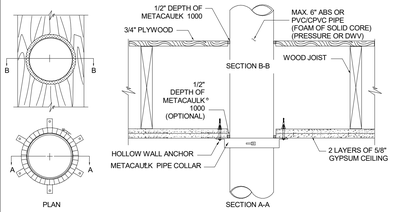
JARRELL MECHANICAL CONTRACTORS
4208 RIDER TRAIL NORTH
EARTH CITY, MISSOURI 63045
(314)291-2100
FAX (314)291-2800

Date	09/05/25
Job No.	25-XXXX
Sheet	M300



21 M400 **FIRESTOPPING** NO SCALE

STEEL OR COPPER PIPE WITH INSULATION THRU GYP BOARD WALL

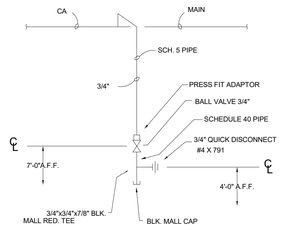


22 M400 **FIRESTOPPING** NO SCALE

MAX. 6" PLASTIC PIPE THRU WOOD FLOOR

VRF DUCTED FAN COIL UNIT DETAIL

10 M400 NO SCALE



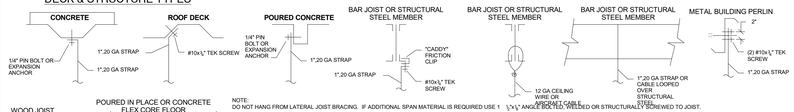
TYP. COMPRESSED AIR DROP

15 M400 NO SCALE

EQUIPMENT AND DUCT HANGING DETAILS

16 M400 NO SCALE

DECK & STRUCTURE TYPES



NOTE:
DO NOT HANG FROM LATERAL JOIST BRACING. IF ADDITIONAL SPAN MATERIAL IS REQUIRED USE 1 ½"x½" ANGLE BOLTED, WELDED OR STRUCTURALLY SCREWED TO JOIST.

APPROVED HANGING MATERIALS LIST

1", 20 GA METAL STRAP HANGER

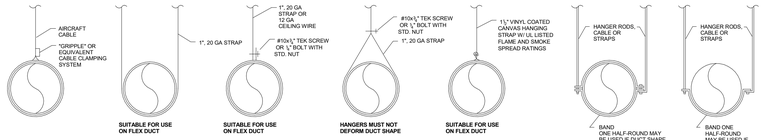
12 GA CEILING WIRE

1½" VINYL COATED CANVAS HANGING STRAP W/ UL LISTED FLAME AND SMOKE SPREAD RATINGS

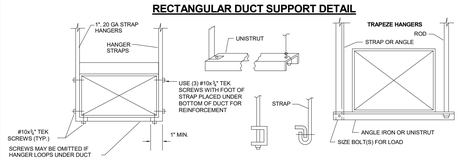
THREADED ROD
¼"-200# MAX WEIGHT/HANGER
⅜"-350# MAX WEIGHT/HANGER
½"-500# MAX WEIGHT/HANGER
⅝"-1000# MAX WEIGHT/HANGER

STEEL AIRCRAFT CABLE W/ MECHANICAL CLAMPS IN ACCORDANCE WITH MFG. INSTALLATION INSTRUCTIONS
¼"-200# MAX WEIGHT/HANGER
⅜"-500# MAX WEIGHT/HANGER
½"-1000# MAX WEIGHT/HANGER

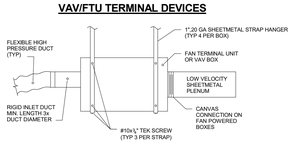
RIGID ROUND AND FLAT OVAL DUCT SUPPORT DETAILS



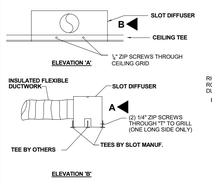
RECTANGULAR DUCT SUPPORT DETAIL



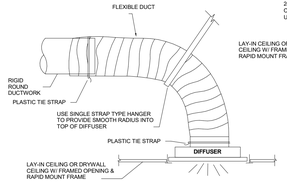
VAV/FTU TERMINAL DEVICES



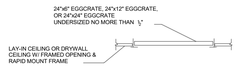
TYP. SLOT DIFFUSER INSTLLTN.



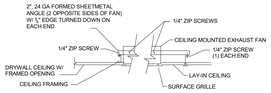
TYP. LAY-IN DIFFUSER CONNECTION



TYP. RETURN GRILLE

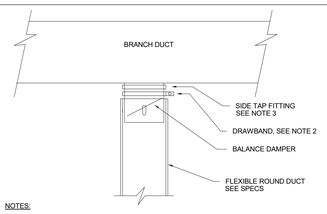


TYP. EXHAUST FAN CONNECTION



FLEXIBLE DUCT CONNECTION TO BRANCH

19 M400 NO SCALE

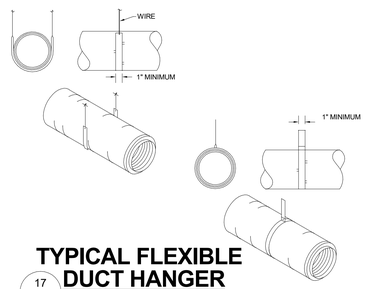


NOTES:

1. THIS DETAIL IS APPLICABLE FOR FLEXIBLE ROUND DUCT TAKE-OFFS FROM BRANCH DUCTS TO DIFFUSERS.
2. FLEXIBLE DUCT INSULATION SHALL TERMINATE AT SIDE OF BRANCH DUCT SO NO UNINSULATED METAL PARTS ARE EXPOSED.
3. SIDE TAP FITTING SHALL BE GENERAL ENVIRONMENTAL CORP., OR APPROVED EQUAL, NUMBER SM-1DS OR SM-2DE FOR SHEET METAL DUCTS.

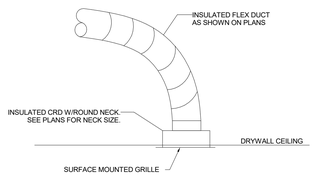
TYPICAL FLEXIBLE DUCT HANGER

17 M400 NO SCALE



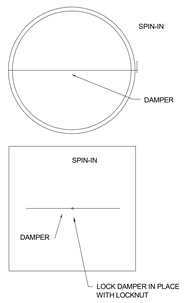
SURFACE MOUNTED GRILLE INSTALLATION DETAIL

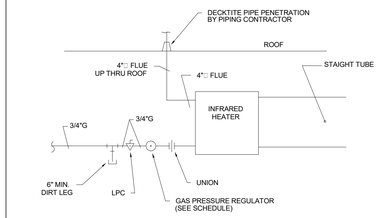
20 M400 NO SCALE



SPIN IN W/ DAMPER

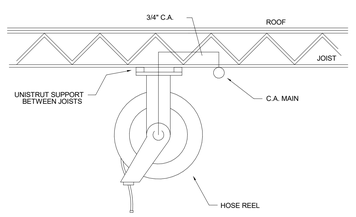
18 M400 NO SCALE





FINAL CONNECTION INFRARED HEATER

11 M400 NO SCALE

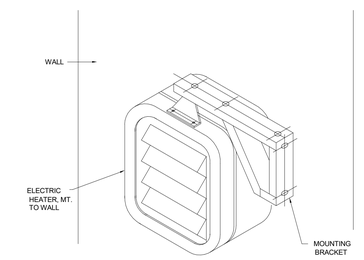


HOSE REEL DETAIL

12 M400 NO SCALE

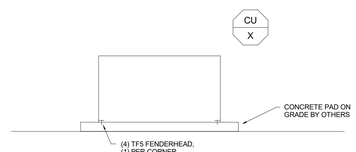
PIPING DETAIL

14 M400 NO SCALE



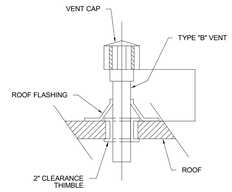
ELECTRIC UNIT HEATER

4 M400 NO SCALE



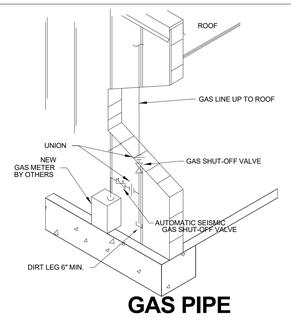
CONDENSING UNIT BRACING DETAIL

6 M400 NO SCALE



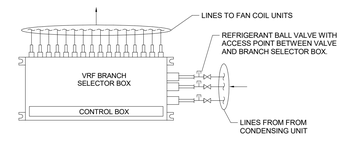
VENTING DETAIL

3 M400 NO SCALE



GAS PIPE CONNECTION AT METER

8 M400 NO SCALE



VRF BRANCH SELECTOR BOX DETAIL

9 M400 NO SCALE

Revisions		
Number	Description	Date
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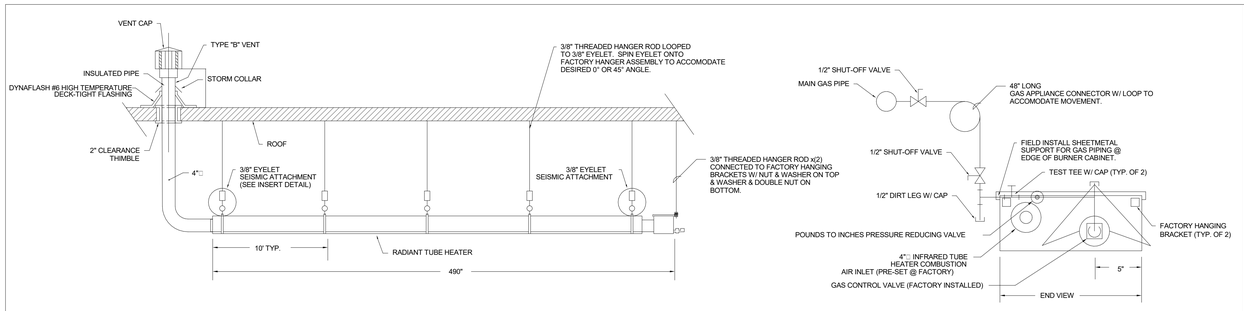
STATE OF MISSOURI
DEWAYNE J. JEFFERSON
NUMBER PE-2012022
PROFESSIONAL ENGINEER

WCFPD Station 1
60 Bell Road
Wright City, MO 63390
DETAILS

Drawn By CGS
Proj. Engr. MDJ
Proj. Mgr. TH
Scale 3/64" = 1'-0"

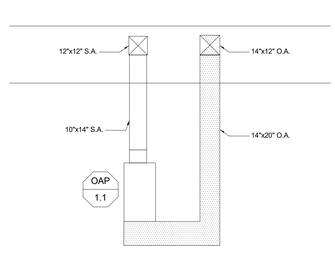
JARRELL MECHANICAL CONTRACTORS
(314)351-5100
FAX (314)351-3809
4259 RIDER TRAIL NORTH
EARTH CITY, MISSOURI 63045

Date 09/05/25
Job No. 25-XXXX
Sheet M400



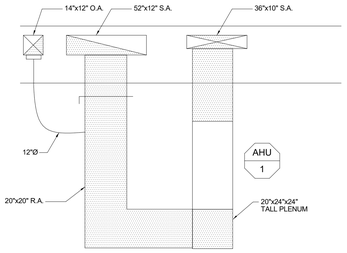
6 M401 INFRARED TUBE HEATER SEISMIC HANGING & SWAY BRACING DETAIL

NO SCALE



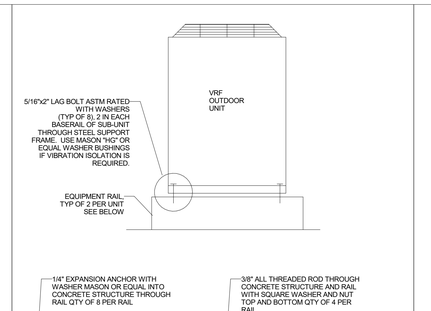
9 M401 OAP DETAIL

NO SCALE



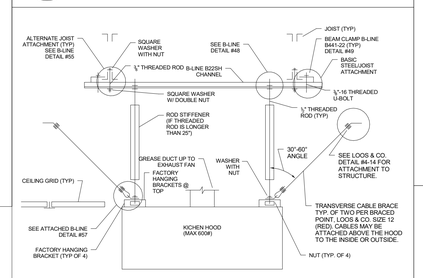
1 M401 AHU DETAIL

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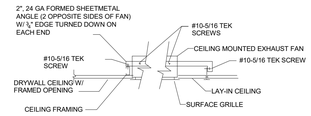
5 M401 VRF CONDENSING UNIT SEISMIC BRACING DETAIL

NO SCALE



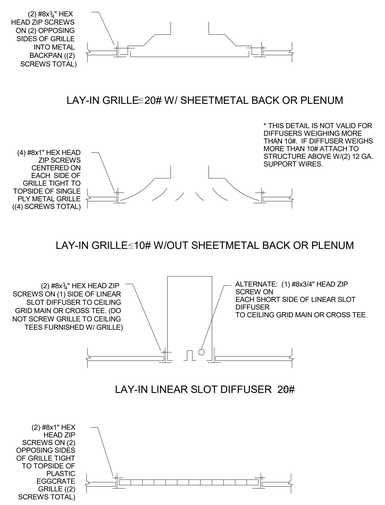
7 M401 KITCHEN HOOD RIGID SEISMIC SWAY BRACING DETAIL

NO SCALE



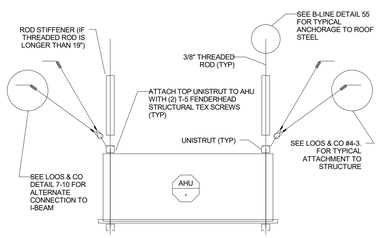
8 M401 CEILING MOUNTED EXHAUST FAN SEISMIC ANCHORAGE DETAIL

NO SCALE



2 M401 TYPICAL LAY-IN AIR DEVICE INSTALLATION DETAIL

NO SCALE



3 M401 HORIZONTAL AHU HANGING AND SEISMIC SWAY BRACING DETAIL

NO SCALE

Revisions		
Number	Description	Date
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STATE OF MISSOURI
DEWAYNE J. JEFFERSON
NUMBER PE-2622
PROFESSIONAL ENGINEER
8-5-25

WCFPD Station 1

60 Bell Road
Wright City, MO 63390

DETAILS

Drawn By	Proj. Engr.	Proj. Mgr.	Scale
CGS	MDJ	TH	3/64" = 1'-0"

JARRELL MECHANICAL CONTRACTORS
4208 RIDER TRAIL NORTH
EARTH CITY, MISSOURI 63045
(314)291-2100
FAX (314)291-2800

Date	Job No.	Sheet
09/02/25	25-XXXX	M401

PIPING SPECIFICATION

Condensate Drain Piping

Condensate drain piping shall be SCHEDULE 40 PVC. Fittings shall be SCHEDULE 40 PVC. Joints shall be cleaned and glued together. Condensate drain piping in air plenums shall be TYPE "M" copper pipe with wrought copper fittings and joints made with a good grade of 50/50 solder and flux. Provide drain trap with minimum 2" air gap on all draw-through equipment. Add 4" tall vent after trap.

Gas Piping

Gas piping pipe size 2" and down to be Schedule 40 Black "A-53B" T&C pipe. Gas piping and fittings below grade shall be Schedule 40 "A-53B" X-Trucoat. Fittings and joints below grade shall be wrapped with polyken tape and primer with a 50% overlap. Plastic pipe below grade may be used for pipe sizes up to and including 2" pipe size. Repair damage to wrapping of the piping system during and after installation before backfill operation.

As an option, gas piping size through 4" may be joined with mechanical pressfit fittings. Cold press mechanical joint fittings shall conform to ASTM A420 or ASME B16.3. Sealing elements for press fittings shall be HBNR. Sealing elements shall be factory installed or as an alternative supplied by the fitting manufacturer. Fittings shall be approved for use with natural gas and comply with ASTM F3226.

An electrically continuous corrosion resistant tracer wire (min. AWG 18) or other approved conductor shall be buried with the underground plastic gas pipe to facilitate locating. The tracer wire shall terminate above ground at each end of the nonmetallic gas pipe in accordance with Section 404.17.3 of the 2018 International Fuel Gas Code.

Fittings for pipe sizes 2" and down shall be standard 150# black malleable iron threaded fittings.

Gas line shall come above grade before entering building.

Unions shall be installed at all gas equipment connections. Unions shall be all iron class 150.

Dirt legs shall be installed at all gas equipment connections. Dirt legs shall be a minimum of six inches.

A lubricated gas cock shall be installed at all gas equipment connections up stream of gas regulator in the two pound gas line.

A gas regulator shall be installed at all gas equipment connections. Gas regulator shall be either an "ITRON" or "MAXITROL" non-venting regulator or approved equal.

All gas piping exposed to the weather shall be painted with "Rustoleum" paint by the general contractor per Section 2.6.6 of the 1996 Edition of N.F.P.A. 54.

All gas piping to be installed in accordance with N.F.P.A. 54 latest edition.

Refrigerant Piping - Split Systems

Refrigerant suction and liquid piping (RS, RL) shall be ASTM B88, Type "L" ACR hard drawn seamless copper (dehydrated-nitrogen) pipe with wrought copper fittings. Joints shall be made with a good grade of 6% sil-fos brazing alloy.

All refrigerant piping shall be installed in accordance with good installation procedures; i.e. (dry-nitrogen shall be introduced into piping as the brazing process is being done).

Pitch refrigerant piping in direction of refrigerant flow. A minimum of pitch in the horizontal to be 1" (inch) every 20' (feet).

Utilize long radius wrought copper fittings and wrought copper fittings to match building conditions to minimize refrigeration piping pressure losses.

After installation of the refrigerant piping the mechanical contractor shall pressurize the system to 250 pounds with dry-nitrogen and check for leaks then fix and repair as necessary.

The mechanical contractor will then evacuate system to a minimum of 500 microns and hold fora minimum of 8 hours. Then charge system with refrigerant as specified by the unit manufacturer.

The mechanical contractor is then to start-up equipment and provide a one year labor and material warranty on the equipment and piping system.

Preinsulated linesets may be used at the contractor's option.

Refrigerant Piping - Variable Refrigerant Piping Systems

ASTM B88, Type "L", hard drawn copper tube, cleaned and capped in accordance with ASTM B280, and marked "ACR". with ANSI B16.22 wrought coppper or forged brass solder-type fittings.

Brazed joints shall be constructed in accordance with ANSI/AWS C3.4 and are to have a melting point greater than 1,125 degrees F. Filler impurities shall not exeed 0.15%. Purge all lines with nitrogen during brazing. Use 15% Silfos or equal.

Install piping free of sages, traps or kinks. Install piping at a minimum slope of 1" in 100' pitched toward the indoor unit. Install fittings for changes in direction and branch connections in hard drawn copper tube. Where approved, changes in direction may also be made by bending of Types "K" and "L" tube.

After installation of the refrigerant piping, the mechanical contractor shall pressurize to manufacturer pressure rating with dry nitrogen, check for leaks, and fix or repair as necessary.

The mechanical contractor will then evacuate the system to a minimum of 500 microns and hold for a minimum of 1 hour. The system will then be charged with refrigerant as specified by the unit manufacturer.

Hanger and Supports

a. Pipe shall be supported by split ring adjustable type or other approved hangers, or roof supports.
b. Brackets or clamps may be used where pipe runs along walls, columns or ceilings, but must allow for expansion and contraction.
c. Radial supports shall be rigid type. If wall brackets or longitudinal supports are used on straight lengths over 20 feet long, they shall be of the flexible type to provide for thermal expansion and contraction.
d. Hangers shall be properly isolated to prevent noise transmission (with a then layer of resilient material between the pipe and support).
e. Hangers and supports shall be placed within 2 feet from each change in direction.
f. Maximum hanger spacing and minimum hanger rod sizes.

Nom. Pipe Size (Inch)	Max Span (Feet)	Min. Rod Diam. (Inch)
Up to 1"	7'	3/8"
1 1/4" & 1 1/2"	9'	3/8"
2"	10'	3/8"
2 1/2"	10'	1/2"
3"	12'	1/2"
4"	14'	5/8"
5"	16'	5/8"
6"	17'	3/4"
8" through 12"	19'	7/8"

g. When pipes are to be insulated, the size and position of hanger shall bear on the outside of the insulation.
h. All hangers supporting copper pipe shall be copper plated.

Roof, Floor, and Wall Penetrations

The contractor shall be responsible for the sealing of all roof, wall and floor penetrations required by the contractor in the performance of this work. This shall include all insulated and uninsulated piping installed by the contractor. For the uninsulated piping the contractor shall apply a minimum of three linear feet of 2" thick piping covering to the piping on each side of a wall, roof or floor.

Connection of Dissimilar Metals

Provide dielectric unions or Mahoney kits at the connection of dissimilar metals.

SHEETMETAL SPECIFICATION

1. All sheetmetal ductwork shall be furnished and installed in accordance with the latest edition of SMACNA, ASHRAE and the International Mechanical Code.

1A. Duct Static Pressure Classification: Except where otherwise indicated, construct duct systems to the following pressure classifications:

System	S.A. Ductwork Downstream of Unit	S.A. Ductwork Downstream of FTU's/VAV Boxes	R.A. Ductwork	E.A. Ductwork
FCUs,DAPs & AHU	1" W.C.	--	1" W.C.	
EXHAUST FANS	--	--	--	1" W.C.

1B. Rectangular Duct Construction Requirements:

a. 1" W.C. Static Pressure:

Duct Dimension	Gage	Spacing (feet)	Transverse Connector Width Type	Width Reinf.	Tie Rods	Depth Type	Depth Reinf.	Intermediate Duct Reinforcement Spacing (feet)	Width Type	Tie Rods	Depth Type
0"-20"	26	5'-0"	SS	--	--	D	--	5'-0"	--	--	--
21"-28"	26	5'-0"	STS c	--	--	SDS c	--	5'-0"	--	--	--
29"-30"	26	5'-0"	STS d	--	--	SDS d	--	5'-0"	--	--	--
31"-42"	24	5'-0"	TDF	--	--	TDF	--	5'-0"	--	--	--
43"-54"	22	5'-0"	TDF	--	--	TDF	--	5'-0"	--	--	--
55"-60"	22	5'-0"	TDF	--	M	TDF	--	5'-0"	--	--	--
61"-72"	22	5'-0"	TDF	--	M	TDF	--	2'-6"	--	M	--
73"-84"	22	5'-0"	TDF	--	M	TDF	--	2'-6"	--	(2) M	--
85"-96"	22	5'-0"	TDF	--	M	TDF	--	2'-6"	--	(2) M	--
97"-120"	18	5'-0"	TDF	--	(2) M	TDF	--	2'-6"	I	--	I

b. Legend:

Transverse Connector			H+T	Intermediate Duct Reinforcement	
T-1	D	Drive Slip	Minimum 24 ga	A	1/8" Bar
T-2 b	SDS b	Standing Drive	1-1/8"X26 ga	B	3/16" Bar
T-2 c	SDS c	Standing Drive	1-1/8"X22 ga	C	C-1"X16 ga or C-3/4"X1/8" 'L'
T-2 d	SDS d	Standing Drive	1-1/8"X18 ga	D	C-1"x1/8" or H-3/4"x1/8" 'L'
T-5	SS	"S" Slip	Minimum 24 ga	E	C-1/4"x1/2 ga or C-1"x1/8" 'L'
T-10 b	STS b	Standing "S" Slip	1"x26 ga	F	H-1-1/4"x1/8" 'L'
T-10 c	STS c	Standing "S" Slip	1"x22 ga	G	1-1/2"x1/8" 'L'
T-10 d	STS d	Standing "S" Slip	1-1/8"x22 ga	H	1-1/2"X3/16" or 2"x1/8" 'L'
T-10 e	STS e	Standing "S" Slip	1-1/8"x18 ga	I	C-2"x3/16" or 2-1/2"x1/8" 'L'
T-10 f	STS f	Standing "S" Slip	1-5/8"x22 ga x (A)1/8" Bar	J	C-2"x1/4" or 2-1/2"x1/8" 'L'
T-10 g	STS g	Standing "S" Slip	1-5/8"x20 ga x (A)1/8" Bar	K	2-1/2"x3/16" 'L'
T-10 h	STS h	Standing "S" Slip	1-5/8"x18 ga x (A)1/8" Bar	L	2-1/2"x1/4" 'L'
T-10 i	STS I	Standing "S" Slip	2-1/8"x20 ga x (A)1/8" Bar	M	1/2" RC Conduit (600#)
T-10 j	STS j	Standing "S" Slip	2-1/8"x20 ga x (A)1/8" Bar	N	3/4" RC Conduit (1340#)
T-24	TDF	Transverse Duct Former (Gasket w/6" Clips on 15" Centers)	--	O	1" RC Conduit (1980#)
T-24	MITD	Manufactured (Ductmate or Ward Connections)	--	--	No Reinforcement C = Cold Formed H = Hot Rolled

1C. Round Spiral Seam Duct Construction Requirements:

a. All Pressure Classes:

Duct Diameter	Gage
0"-14"	26
15"-26"	24
27"-36"	22
37"-50"	20
51"-84"	18

b. All fittings to be double-lipped u-shaped gasket fittings.

1D. Seam and Joint Sealing - Seal duct seams and joints as follows:

a. Pressure Classification 4" W.G. and greater: All transverse joints, longitudinal seams, and duct wall penetrations: Seal Class A.

b. Pressure Classification 3" W.G.: All transverse joints and longitudinal seams: Seal Class B.

c. Pressure Classification less than 2" W.G.: Transverse joints only: Seal Class C.

d. Seal externally insulated ducts prior to insulation installation.

2. Sheetmetal ductwork dimensions are outside diameter.

3. Indicates 1 1/2" thick 1# density duct wrap insulation with vapor barrier.

4. Indicates 1" thick rotary duct lining insulation.

5. Upon fabrication, all ductwork openings shall be covered with plastic.

6. All low pressure supply air flexible duct shall be THERMAFLEX "KP" low pressure insulated flexible ductwork with fiberglass insulation and vapor barrier or equal. Ductwork covering shall conform to the requirements of 2018 International Mechanical Code Section 604.

7. Exhaust air flexible ductwork shall be THERMAFLEX "S-LD" non-insulated flexible ductwork or equal.

8. Maximum length of flexible ductwork shall not exceed Code allowance.

9. All hard round low velocity supply air ductwork to diffusers to be rigid round galvanized ductwork minimum 26 gauge.

10. All round joints shall be pan-duct strapped and duct-taped together with fire rated duct tape.

11. All medium velocity medium pressure supply air ductwork and all exhaust air ductwork joints and longitudinal seams shall be sealed air tight with ARISEAL 22 water based duct sealant, or equal.

12. Fire dampers shall be installed per "SMACNA" 154 fire damper guide or approved "U.L." installation instructions and the 2018 International Mechanical Code Section 607. Fire dampers shall comply with the requirements UL555 and shall be labeled for installation in dynamic systems as required in accordance with UL555.

13. All manual volume dampers shall be equal to RUSKIN "MD35" with locking quadrants.

14. After installation of pipe or duct through floors and fire rated walls, fill space around pipes or duct with chase foam sealant as manufactured by Chase Foam Technology Corporation or equal. Assembly shall be installed in accordance with manufacturers written instructions and in accordance with U.L. Listing. Rating of fire stopping shall meet or exceed the rating of the floors and fire walls in which it is used.

15. All ductwork shall be supported from bottom chord of structural steel and/or sides of pan deck flutes per detail. No hanging will be allowed from bottom of deck.

16. Provide flexible canvas connections at all supply air, return air, fresh air and exhaust air duct connections at all vibrating equipment i.e. RTU, EF, TEF, VF, and FTU etc.

SEISMIC CODE BLOCK

OCCUPANCY CATEGORY (II)

SEISMIC DESIGN CATEGORY (D)

LISTING OF EQUIPMENT & SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOFS, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY SEALED ANCHORAGE AND SWAY BRACING DETAILS			COMMENTS
					ON CONST. DOCUMENTS	SUBSEQUENT SUBMITTAL		
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	PLAN SPECS PAGE(S)	SHOP DRAWINGS	SEPARATE PERMIT & PLANS	
OTHER GENERAL EQUIPMENT & SYSTEM COMPONENTS								
CONDENSING UNIT < 400#								EXEMPT PER ASCE 7-10, SECTION 13.1.4, < 400#
CONDENSING UNIT > 400#								SEE DETAIL SHA01
INLINE COMPONENTS < 75# (FC/LEF,ETC)								EXEMPT PER ASCE 7-10, SECTION13.6.7
INLINE COMPONENTS > 75# (FC/LEF,ETC)								SEE DETAIL SHA01
KITCHEN HOOD								SEE DETAIL TRA01
LAY-IN AIR DEVICES								SEE DETAIL SHA01
ROOF MOUNTED EXHAUST FAN/INTAKE HOOD								EXEMPT PER ASCE 7-10, SECTION13.1.4, < 400#
CEILING MOUNTED EXHAUST FAN								SEE DETAIL SHA01
INFRARD HEATER								SEE DETAIL SHA01
DUCTWORK < 6 SF								EXEMPT PER ASCE 7-10, SECTION 13.6.7.2 DUCT < 6 SF
NATURAL GAS PIPING								SEISMIC GAS VALVE PROVIDED. SEE DETAIL B400

ABBREVIATION LEGEND

A.F.F.	ABOVE FINISHED FLOOR	M.C.	MECHANICAL CONTRACTOR
B.O.E.	BOTTOM OF EQUIPMENT	CWS	CHILLED WATER SUPPLY
B.O.D.	BOTTOM OF DUCT	CWR	CHILLED WATER RETURN
C.O.P.	CENTER OF PIPE	CHWS	CHILLED HOT WATER RETURN
C.D.	CONTROL DAMPER	M.C.A.	MINIMUM CIRCUIT AMP
CO	CARBON MONOXIDE SENSOR	M.U.A.	MAKE-UP AIR
CO2	CARBON DICHOIDE SENSOR	M.V.D.	MANUAL VOLUME DAMPER
CA	COMPRESSED AIR	MAX	MAXIMUM
CAP	CAPACITY	MECH	MECHANICAL
CFH	CUBIC FOOT PER HOUR	MFG	MANUFACTURER
CFM	CUBIC FOOT PER MINUTE	MIN.	MINIMUM
COMP.	COMPRESSOR	MOCP	MAX. OVER CURRENT PTOTATION
CW	COLD WATER	OA	OUTSIDE AIR
D	DRAIN	OPNG.	OPENING
DB	DRY BULB	P.C.	PLUMBING CONTRACTOR
DET.	DETAIL	PSI	POUNDS PER SQUARE INCH
DWG	DRAWING	R.A.	RETURN AIR
E.A.	EXHAUST AIR	RM	ROOM
E.A.T.	ENTERING AIR TEMPERATURE	S	SENSOR (TEMPERATURE, DDC)
E.C.	ELECTRICAL CONTRACTOR	S.A.	SUPPLY AIR
E.S.P.	EXTERNAL STATIC PRESSURE	SD	EMERGENCY SHUT-DOWN SWITCH
ELEC	ELECTRC	SENS	SENSIBLE
EXT.	EXTERIOR	SF	SQUARE FOOT
F	FAHRENHEIT	SP	STATIC PRESSURE CONTROLLER
F.L.A.	FULL LOAD AMP	SQ	SQUARE
FT	FOOT	T	TEMPERATURE SENSOR, NON-DDC
G	GAS	T.A.	TRANSFER AIR
G.A.	GAUGE	T.S.P.	TOTAL STATIC PRESSURE
G.C.	GENERAL CONTRACTOR	T-STAT	THERMOSTAT
H	HUMIDITY SENSOR	TYP.	TYPICAL
HTG	HEATING	U.T.R.	UP THROUGH ROOF
L.A.T.	LEAVING AIR TEMERATURE	W/	WITH
LB	POUND	W.M.S.	WIRE MESH SPREEN
L.O.	LOUVERED DOOR	WB	WET BULB
LUB.	LUBRICATED	WSA	WIRE SIZING AMPS
M	MOTORIZED DAMPER		

GENERAL MECHANICAL NOTES

1 .- * - INDICATES UNDERCUT DOORS BY THE GENERAL CONTRACTOR. (MIN. 1")

2 .- ALL LINTELS, FRAMING, FURRING, PATCHING & PAINTING REQUIRED SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.

3 .- THE GENERAL CONTRACTOR SHALL PROVIDE A UNIFORM LEVEL SUPPORT INCLUDING FRAMING FOR ALL ROOF MOUNTED EQUIPMENT.

4 .- ALL POWER, INTERLOCK WIRING, DISCONNECT SWITCHES, CONVENIENCE OUTLETS, FUSES AND MOTOR STARTERS SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR ALL AUXILIARY ELECTRIC HEATING EQUIPMENT I.E. (ELEC. WALL HEATERS, ELEC. BASEBOARD ETC.) SHALL BE FURNISHED BY THE MECHANICAL HVAC CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL EQUIPMENT IS TO HAVE SINGLE POINT POWER WIRING CONNECTIONS UNLESS NOTED OTHERWISE.

5 .- ALL AIR DISTRIBUTION SYSTEMS AND EQUIPMENT UTILIZING RETURN AIR AND HANDLING A DESIGN CAPACITY GREATER THAN 2000 CUBIC FEET PER MINUTE OF AIR AND ALL MULTIPLE AIR-HANDLING SYSTEMS WHICH SHARE COMMON SUPPLY OR RETURN AIR DUCTS OR PLENUMS HAVING A COMBINED DESIGN CAPACITY GREATER THAN 2,000 CUBIC FEET PER MINUTE, WILL HAVE A SMOKE DETECTOR WIRED TO SHUT-DOWN THAT PIECE OF EQUIPMENT IN CASE OF FIRE. THE SMOKE DETECTOR WILL BE LOCATED IN THE RETURN AIR DUCTWORK OR PLENUM UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS, OUTDOOR AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT IN ACCORDANCE WITH SECTION 606 OF THE 2021 INTERNATIONAL MECHANICAL CODE.

6 .- THE ACTUATION OF A SMOKE DETECTOR SHALL ACTIVATE A VISIBLE AND AUDIBLE SUPERVISORY SIGNAL AT A CONSTANTLY ATTENDED LOCATION IN ACCORDANCE WITH THE 2021 INTERNATIONAL MECHANICAL CODE, SECTION 606.4. ALARMS, SIGNALING AND WIRING TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

7 .- ALL PIPING, DUCTWORK AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE SECTION 1613 WITH REGARDS TO SEISMIC RESTRAINTS.

8 .- ALL THERMOSTAT LOCATIONS TO BE 4'-0" TO CENTER A.F.F.

9 .- ALL AIR ACCESSORIES MUST BE MADE IN THE UNITED STATES. YELLOW LABEL IS ACCEPTABLE FOR COMMERCIAL BUILDINGS AND BLUE LABEL FOR RESIDENTIAL BUILDINGS

INSULATION SPECIFICATION

Insulation Specification

All insulation shall have a maximum flame spread of 25 and smoke rating of 50 or less in accordance with ASTM E-84. All insulation shall conform to the requirements of ASHRAE standard 90.1-2016.

All fiberglass insulation exposed to outside weather conditions shall have a "UV/R" PVC jacket, 0.20 mil thickness or aluminum jacket covering.

Insulation pipe shields to be provided by the insulation contractor. Insulation saddles to be provided by the piping contractor.

Refer to sheetmetal specification for additional duct insulation requirements.

All Horizontal Condensate Drain Piping, All Refrigerant Liquid (RL), Refrigerant Suction (RS) and Hot Gas Piping

All refrigerant piping installed outside and all refrigerant piping installed below grade shall be insulated with 1" thick closed cell foam plastic insulation with #520 adhesive. Insulation located outside shall be coated/painted for weatherproof installation.

All refrigerant piping located indoors, cold water make-up and horizontal condensate drain piping shall be insulated with 1/2" thick closed cell foam plastic insulation with #520 adhesive. VRF indoor piping shall be 3/4" thick minimum. Please refer to equipment manufacturer recommendations.

Revisions		
Number	Description	Date
	ISSUED FOR PERMIT	09.05.2025

THE SEAL AND SIGNATURE APPEARING ON THIS DOCUMENT AT THE TIME OF SEALING AND EXPIRES ON 12/31/26 AND REFERENCES ONLY THE DOCUMENT IDENTIFIED BELOW AND DOES NOT EXTEND TO ANY OTHER DOCUMENTS OR PARTS THEREOF NOT SPECIFICALLY INTENDED TO BE SEALED BY THE ARCHITECT/ENGINEER NAMED HEREIN.

STATE OF MISSOURI
DEWAYNE J. JEFFERSON
NUMBER A-12622
PROFESSIONAL ENGINEER

WCFPD Station 1

60 Bell Road
Wright City, MO 63390

SPECIFICATIONS

Drawn By	Proj. Engr.	Proj. Mgr.	Scale
CGS	MDJ	TH	1/8" = 1'-0"

JARRELL MECHANICAL CONTRACTORS
4208 RIVER TRAIL NORTH
EARTH CITY, MISSOURI 63045
(314)291-5100
FAX (314)291-0809

Date	Job No.	Sheet
09/02/25	25-XXXX	M402

VRF CONDENSING UNITS

TYPE OF EQUIPMENT	CONDENSING UNIT	CONDENSING UNIT
PLAN REFERENCE	ODU-1	ODU-2
QUANTITY	1	1
LOCATION	GRADE - WEST SIDE	GRADE - EAST SIDE
NOMINAL CAPACITY (TONS)	14	16
REF TYPE	410a	410a
OUTDOOR AMBIENT	95	95
COOLING CAPACITY (MBH)	156.4	180.0
HEATING CAPACITY (MBH)	112.8	125.6
M.C.A.	70	44/40
MOCP	110	70/70
VOLTAGE	208/3/60	208/3/60
WEIGHT	777#	1226#
EQUAL TO MAKE	MITSUBISHI	MITSUBISHI
MODEL	TURYE160SAN1AN	TURYE192SBN1AN
ACCESSORIES:	1-3	1-4

ACCESSORIES:

1 - SIMULTANEOUS HEATING AND COOLING CAPACITY
2 - VFD CONTROLLED CONDENSING FANS
3 - UNIT MOUNTED STARTER
4 - 2 POWER CONNECTIONS

EXHAUST FANS

TYPE OF EQUIPMENT	EXHAUST FAN	EXHAUST FAN	EXHAUST FAN
PLAN REFERENCE	EF-1	EF-2 THRU 15	EF-16
QUANTITY	1	13	1
SERVES	APP BAY	TOILETS	IT CLOSET
CFM	4100	80	500
SP	0.25"	0.25"	0.5"
BHP/RPM	0.64/1725	-	-
FAN RPM	786	-	-
HP	0.75	11.8 WATTS	188 WATTS
VOLTAGE	208/1/60	120/1/60	120/1/60
OPERATING WEIGHT LBS.	165#	10#	35#
EQUAL TO MAKE	COOK	DELTA BREEZ	COOK
MODEL	210ACEB	BGSG-110	GC-720
ACCESSORIES	1-5	2,6,7	1,2,8,9

ACCESSORIES:

1 - NEMA 1 DISCONNECT
2 - GRAVITY BACKDRAFT DAMPER
3 - 13.5" TALL ROOF CURB
4 - ALUMINUM BIRD SCREEN
5 - ROTARY BELT TENSIONER
6 - 6" TO 4" REDUCER
7 - 4"Ø WALL CAP
8 - FAN SPEED CONTROLLER
9 - WHITE ALUMINUM GRILLE

AIR DEVICE SCHEDULE

PLAN MARK	MAKE/MODEL	ACCES.	MATL	FINISH	NOTES
S1	TITUS/FTMS	-	ST	BWE	24"x24" LAY-IN, SIZE ON DWG
R1	TITUS/MPAR	-	ST	BWE	24"x12" LAY-IN, 22"x10" NECK
R2	TITUS/MPAR	-	ST	BWE	24"x24" LAY-IN, 22"x22" NECK
R3	TITUS/MPAR	RMF	ST	BWE	24"x24" LAY-IN, SIZE ON DWG

MATERIAL:
ST -STEEL
AL -ALUMINUM
PL -PLASTIC
STD-STANDARD

ACCESSORIES:
VD -VOLUME DAMPER
APC-AIR PATTERN CONTROLLER
I - INSULATED PLENUM
SB - SECTORIZING BAFFLE
RMF - RAPID MOUNT DRYWALL FRAME
TB - INLET SIDE T-BAR
IB - INSULATED BLANKET

FINISH:
BWE-BAKED WHITE ENAMEL
CA -CLEAR ANODIZED
PC -PRIME COAT FOR FIELD PAINTING BY THE GENERAL CONTRACTOR
BLK - BLACK
GALV - GALVANIZED

INFRA-RED HEATER

TYPE OF EQUIPMENT	INFRA-RED HEATER	INFRA-RED HEATER
PLAN REFERENCE	IRH-1 THRU 4	
QUANTITY	4	
HTG. CAP. MBH (INOUT)	100	
VOLTAGE	120/1/60	
WEIGHT	160#	
EQUAL TO MAKE	DETROIT RADIANT	
MODEL	HLS-30-100	
ACCESSORIES	1 - 6	

ACCESSORIES:

1 - FOR USE WITH NATURAL GAS
2 - 2-STAGE HEATING
3 - GRIPPLE TUBE HEATER HANGING CABLES
4 - REFLECTOR MOUNTING BRACKET
5 - 4" ROOFTOP VENT PACKAGE
6 - MAXITROL HIGH PRESSURE REGULATOR
7 - BRAEBURN TWO-STAGE OR SINGLE STAGE CONTROL

ELECTRIC UNIT HEATER

TYPE OF EQUIPMENT	ELECTRIC UNIT HEATER	ELECTRIC UNIT HEATER
PLAN REFERENCE	EUH-1 THRU 4	EUH-5
QUANTITY	4	1
WATTAGE	3,000	5,000
F.L.A.	14.5	24.0
VOLTAGE	208/1/60	208/1/60
EQUAL TO MAKE	QMARK	QMARK
MODEL	MUH0381-PRO	MUH0581-PRO
ACCESSORIES	1 - 4	1 - 4

ACCESSORIES:

1 - DISCONNECT SWITCH
2 - BUILT-IN THERMOSTAT
3 - CEILING MOUNTING BRACKET
4 - 24VAC TRANSFORMER

GAS SPLIT SYSTEMS

TYPE OF EQUIPMENT	SPLIT SYSTEM
PLAN REFERENCE	AHU/CU-1
QUANTITY	1
ROOM DESIGN	75
OUTDOOR AMBIENT DESIGN	95
TOTAL COOLING CAP. (MBH)	56.7
SENS. COOLING CAP. (MBH)	42.8
HTG. CAP. MBH INOUT	100/97
E.A.T. DB/WB	80/67
CFM/E.S.P.	2000/0.5"
FAN HP/SPEED	-
AMPS/MOCP	13.9/15
VOLTAGE	120/1/60
OPERATING WEIGHT LBS.	145#
EQUAL TO MAKE	TRANE
MODEL	5WV0C100
CONDENSER DATA:	
M.C.A./MOCP	28.0/30
VOLTAGE	208/1/60
OPERATING WT. LBS.	255#
EQUAL TO MAKE	TRANE
MODEL	5TTR4060A1000
ACCESSORIES	1-4

ACCESSORIES:

1 - CRANKCASE HEATER
2 - FILTERS
3 - 10 YEAR (PARTS ONLY) COMPRESSOR WARRANTY
4 - PROGRAMMABLE THERMOSTAT
5 - STAC DX COIL

GAS PRESSURE REGULATORS

EQUIPMENT SERVING	CAPACITY (CFH)	INLET PRESSURE		OUTLET PRESSURE		SIZE FINISH	EQUAL TO MAKE/MODEL
		MIN	MAX	MIN	MAX		
AHU-1	100	1#	2#	6" WC	9" WC	1/2"	MAXITROL 325-3
IRH-1,2,3,4	100	1#	2#	6" WC	14" WC	3/4"	SUPPLIED WITH HEATER
KITCHEN RANGE	115	1#	2#	6" WC	14" WC	1/2"	MAXITROL 325-3

GRAVITY INTAKE HOOD

TYPE OF EQUIPMENT	EXHAUST FAN
PLAN REFERENCE	GIH-1
QUANTITY	1
SERVES	APP BAY
CFM	4100
PRESSURE DROP (IN W.G.)	0.045"
OPERATING WEIGHT LBS.	215#
EQUAL TO MAKE	COOK
MODEL	36 TR
ACCESSORIES	1 -3

ACCESSORIES:

1 - BD-42 DAMPER
2 - 13.5" TALL ROOF CURB
3 - ALUMINUM BIRDSCREEN

RANGE HOOD

TYPE OF EQUIPMENT	RANGE HOOD
PLAN REFERENCE	H-1
QUANTITY	1
SERVES	RANGE
CFM	297 - 546
SP	0.25" - 1.35"
AMPS	3.7
VOLTAGE	120/1/60
OPERATING WEIGHT LBS.	80#
EQUAL TO MAKE	DENLAR
MODEL	D1536-DI-F-NFPA101
ACCESSORIES	1 - 6

ACCESSORIES:

1 - WALL MOUNTED
2 - EXHAUST FAN INTEGRAL TO HOOD
3 - REAR DISCHARGE EXHUST
4 - VARIABLE SPEED IN -LINE EXHUST FAN
5 - MANUAL PULL STATION
6 - CLOCKBOX PRO

BRANCH CONTROLLER SCHEDULE

TYPE OF EQUIPMENT	BRANCH CONTROLLER	BRANCH CONTROLLER	
PLAN REFERENCE	BCU-1.1	BCU-2.1	
QUANTITY	1	1	
NO. OF PORTS	12	16	
M.C.A.	1.19	1.67	
VOLTAGE	208/1/60	208/1/60	
WEIGHT	133#	160#	
EQUAL TO MAKE	MITSUBISHI	MITSUBISHI	
MODEL	TCMBM1012JA21N4	TCMBM1016JA21N4	
ACCESSORIES:	1,2,3	1,2,3	

ACCESSORIES:

1 - R-410A
2 - DIAMOND BACK BALL VALVES BY-WERKS, 700 PSIG WORKING PRESSURE, FULL PORT
3 - ALLOWS SIMULTANEOUSE HEATING AND COOLING

ELECTRIC WALL HEATER

TYPE OF EQUIPMENT	ELECTRIC WALL HEATER
PLAN REFERENCE	EWH-1
QUANTITY	1
WATTAGE	4,000
F.L.A.	19.2
VOLTAGE	208/1/60
EQUAL TO MAKE	QMARK
MODEL	AWH4408F
ACCESSORIES	1,2,3

ACCESSORIES:

1 - BUILT-IN DISCONNECT SWITCH
2 - BUILT-IN THERMOSTAT
3 - SEMI-RECESSED MOUNTING

LOUVERS

TYPE OF EQUIPMENT	LOUVER	LOUVER	LOUVER
PLAN REFERENCE	L-1	L-2	L-3
QUANTITY	1	1	1
SERVES	AHU-1	OAP-1.1	OAP-2.1
CFM	435	500	570
PD W.G.	0.03"	0.04"	0.05"
FPM INTAKE	380	436	498
INTAKE AREA SF	1.15	1.15	1.15
WIDTH	36"	36"	36"
HEIGHT	12"	12"	12"
EQUAL TO MAKE	RUSKIN	RUSKIN	RUSKIN
MODEL	ELF375DX	ELF375DX	ELF375DX
ACCESSORIES	1 - 3	1 - 3	1 - 3

TYPE OF EQUIPMENT	LOUVER	LOUVER
PLAN REFERENCE	L-4.5	L-6
QUANTITY	1	1
SERVES	HOSE TOWER	RANGE HOOD
CFM	1000	575
PD W.G.	0.03"	0.03"
FPM INTAKE	563	429
INTAKE AREA SF	1.77	1.36
WIDTH	36"	24"
HEIGHT	20	16"
EQUAL TO MAKE	RUSKIN	RUSKIN
MODEL	XF555WD	ELF375DX
ACCESSORIES	1 - 5	1 - 3

ACCESSORIES:

1 - BIRD SCREEN
2 - MILL FINISH
3 - AMCA CERTIFIED RATINGS
4 - ICC ES® RATED
5 - 36"x36" CONTROL DAMPER

VRV FAN COIL SCHEDULE

TYPE OF EQUIPMENT	VARIABLE REFRIGERANT FLOW CEILING CASSETTE	VARIABLE REFRIGERANT FLOW CEILING CASSETTE	VARIABLE REFRIGERANT FLOW CEILING CASSETTE	VARIABLE REFRIGERANT FLOW CEILING CASSETTE
PLAN REFERENCE	FCU-1.1	FCU-1.2	FCU-1.3	FCU-1.4
QUANTITY	1	1	1	1
ROOM DESIGN	75	75	75	75
OUTDOOR AMBIENT DESIGN	95	95	95	95
TOTAL COOLING CAP. (MBH)	11.3	4.7	11.3	4.7
SENS. COOLING CAP. (MBH)	7.8	4.3	7.8	4.3
HTG. CAP. (MBH)	8.2	3.4	8.2	3.4
ELEC. REHEAT CAP. (KW)	-	-	-	-
E.A.T. DB/WB	80/67	80/67	80/67	80/67
CFM/E.S.P.	335	280	335	280
M.C.A./MOCP	0.27/15	0.24/15	0.27/15	0.24/15
VOLTAGE	208/1/60	208/1/60	208/1/60	208/1/60
OPERATING WEIGHT LBS.	32#	29#	32#	29#
EQUAL TO MAKE	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
MODEL	TPLFY9012SFM1AB	TPLFY9008FM1AB	TPLFY9012SFM1AB	TPLFY9008FM1AB
ACCESSORIES	1,2	1,2	1,2	1,2

TYPE OF EQUIPMENT	VARIABLE REFRIGERANT FLOW CEILING CASSETTE	VARIABLE REFRIGERANT FLOW DUCTED FAN COIL	VARIABLE REFRIGERANT FLOW DUCTED FAN COIL	OUTSIDE AIR PROCESSING UNIT
PLAN REFERENCE	FCU-1.5	FCU-1.6	FCU-1.7	OAP-1.1
QUANTITY	1	1	1	1
ROOM DESIGN	75	75	75	-
OUTDOOR AMBIENT DESIGN	95	95	95	0/95
TOTAL COOLING CAP. (MBH)	11.3	45.2	22.6	41.5
SENS. COOLING CAP. (MBH)	7.8	32.4	16.7	23.9
HTG. CAP. (MBH)	8.2	32.6	16.3	31.29
ELEC. REHEAT CAP. (KW)	-	-	-	5.0
E.A.T. DB/WB	80/67	80/67	80/67	95/76 - 0
CFM/E.S.P.	335	1306	883	550/1.0"
M.C.A./MOCP	0.27/15	4.38/15	2.88/15	35.8/40
VOLTAGE	208/1/60	208/1/60	208/1/60	208/1/60
OPERATING WEIGHT LBS.	32#	86#	67#	225#
EQUAL TO MAKE	MITSUBISHI	MITSUBISHI	MITSUBISHI	TRANE
MODEL	TPLFY9012SFM1AB	TPEFYP048BA14AA	TPEFYP024AA114A	BCVE024
ACCESSORIES	1,2	1,2	1,2	3

TYPE OF EQUIPMENT	VARIABLE REFRIGERANT FLOW DUCTED FAN COIL	VARIABLE REFRIGERANT FLOW CEILING CASSETTE	VARIABLE REFRIGERANT FLOW CEILING CASSETTE	VARIABLE REFRIGERANT FLOW CEILING CASSETTE
PLAN REFERENCE	FCU-2.1	FCU-2.2 THRU 2.7	FCU-2.8	FCU-2.9
QUANTITY	1	6	1	1
ROOM DESIGN	75	75	75	75
OUTDOOR AMBIENT DESIGN	95	95	95	95
TOTAL COOLING CAP. (MBH)	17.0	7.6	17.0	4.7
SENS. COOLING CAP. (MBH)	16.6	6.1	14.1	4.3
HTG. CAP. (MBH)	11.8	5.3	11.8	3.3
ELEC. REHEAT CAP. (KW)	-	-	-	-
E.A.T. DB/WB	80/67	80/67	80/67	80/67
CFM/E.S.P.	883	315	812	280
M.C.A./MOCP	2.88/15	0.28/15	0.54/15	0.24/15
VOLTAGE	208/1/60	208/1/60	208/1/60	208/1/60
OPERATING WEIGHT LBS.	55#	29#	55#	29#
EQUAL TO MAKE	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
MODEL	TPLFY9015FM1AB	TPLFY9008FM1AB	TPLFY9015EM1DA	TPLFY9008FM1AB
ACCESSORIES	1,2	1,2	1,2	1,2

TYPE OF EQUIPMENT	VARIABLE REFRIGERANT FLOW CEILING CASSETTE	VARIABLE REFRIGERANT FLOW DUCTED FAN COIL	OUTSIDE AIR PROCESSING UNIT
PLAN REFERENCE	FCU-2.10	FCU-2.11	OAP-2.1
QUANTITY	1	1	1
ROOM DESIGN	75	75	-
OUTDOOR AMBIENT DESIGN	95	95	0/95
TOTAL COOLING CAP. (MBH)	4.7	45.5	46.2
SENS. COOLING CAP. (MBH)	4.3	32.5	26.6
HTG. CAP. (MBH)	3.3	31.8	31.29
ELEC. REHEAT CAP. (KW)	-	-	5.0
E.A.T. DB/WB	80/67	80/67	95/76 - 0
CFM/E.S.P.	280	1306	575/1.0"
M.C.A./MOCP	0.24/15	4.38/15	35.8
VOLTAGE	208/1/60	208/1/60	208/1/60
OPERATING WEIGHT LBS.	29#	86#	225#
EQUAL TO MAKE	MITSUBISHI	MITSUBISHI	TRANE
MODEL	TPLFY9005FM1AB	TPEFYP048BA114A	BCVE024
ACCESSORIES	1,2	1,2	3

ACCESSORIES:

1 - BUILT-IN CONDENSATE PUMP
2 - WIRED CONTROLLER
3 - LEV KIT AND AHU CONTROLLER - CONTROLLER REQUIRES SEPARATE POWER CONNECTION (0.005 AMPS @ 208/1/60)

Revisions		
Number	Description	Date
	ISSUED FOR PERMIT	09.05.2025

THE SEAL AND SIGNA-TURE APPEARING ON THIS DOCUMENT IS AUTHENTICATED AND EXPIRES 06/30/26 UNLESS OTHERWISE DISCLAIMED OR RETIRED. SHEETS NOT BEARING AN ORIGINAL SEAL AND SIGNATURE ARE NOT INTENDED TO BE USED FOR CONSTRUCTION PURPOSES OR THE ARCHITECTURAL OR ENGINEERING PRODUCT.

STATE OF MISSOURI
DEWAYNE J. JEFFERSON
NUMBER A-2022036
REGISTERED ARCHITECT
6-7-25

WCFPD Station 1
60 Bell Road
Wright City, MO 63390
SCHEDULES

Drawn By: CGS
Proj. Engr.: MDJ
Proj. Mgr.: TH
Scale: 1/8" = 1'-0"

JARRELL MECHANICAL CONTRACTORS
4226 RIVER TRAIL NORTH
EARTH CITY, MISSOURI 63045
(314)291-0100
FAX (314)291-2935

Date: 09/05/25
Job No.: 25-XXXX
Sheet: M500

ELECTRICAL SPECIFICATIONS

PART 1 - GENERAL

SCOPE OF WORK
APPLICABLE REQUIREMENTS OF BIDDING INSTRUCTIONS AND INFORMATION AND OTHER PROVISIONS OF THE GENERAL CONTRACT WORK SPECIFICATIONS SHALL APPLY TO THIS DIVISION OF THE WORK.

GENERALLY, WORK SHALL CONSIST OF NEW CONSTRUCTION. ELECTRICAL CONTRACTOR SHALL MAKE A DETAILED SITE INSPECTION TO ACQUAINT THEMSELF WITH PRESENT CONDITIONS, INCLUDING THE STRUCTURE AND ANY OBSTACLES WHICH MAY BE ENCOUNTERED IN THE EXECUTION OF THE WORK.

IT IS THE SPECIFIC INTENT OF THESE SPECIFICATIONS TO INCLUDE ALL ELECTRICAL WORK ITEMS OF ANY NATURE WHICH ARE NECESSARY AND ARE REQUIRED TO MAKE THE SYSTEMS OPERATE IN A SATISFACTORY AND COMPLETE CONDITION. THE ELECTRICAL CONTRACTOR, THEREFORE, MUST REVIEW THESE SPECIFICATIONS AND FAMILIARIZE THEMSELF FULLY AS TO CONDITIONS SURROUNDING OR EFFECTING THIS WORK.

THE WORK TO BE DONE IN ACCORDANCE WITH THESE SPECIFICATIONS SHALL BE DONE TO COMPLY WITH NFPA 70, THE 2014 NATIONAL ELECTRICAL CODE (NEC) AS WELL AS ALL APPLICABLE LOCALLY-ENFORCED CODES, ORDINANCES, AMENDMENTS, STATE LAWS AND FEDERAL LAWS.

FURNISH ALL LABOR, MATERIALS, HARDWARE AND EQUIPMENT TO PROVIDE COMPLETE SYSTEMS FOR NEW EQUIPMENT, CONDUIT, OUTLETS, JUNCTION BOXES AND ALL WIRING SYSTEMS AS SHOWN ON CONTRACT DOCUMENTS.

PROVIDE COORDINATION OF AUXILIARY SYSTEMS WIRING AND EQUIPMENT (ROUGH-IN ONLY) AS INDICATED ON THE CONTRACT DOCUMENTS.

GUARANTEE
ELECTRICAL CONTRACTOR SHALL GUARANTEE EACH UNIT AND ALL ACCESSORIES FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AGAINST FAULT MATERIALS AND WORKMANSHIP AND FOR CONFORMING TO SPECIFICATIONS.

IF ANY UNIT DOES NOT OPERATE SATISFACTORILY, OR IF ANY PARTS SHOULD SHOW UNDUE WEAR DURING THE ONE YEAR PERIOD, THE ELECTRICAL CONTRACTOR WILL BE NOTIFIED AND WILL BE REQUIRED TO REMEDY THE DEFECTS PROMPTLY AND PUT THE UNIT OPERATE IN A MANNER SATISFACTORY TO THE ARCHITECT/ENGINEER. DEFECTIVE PARTS WILL BE RETURNED TO THE CONTRACTOR ONLY AT HIS OWN REQUEST AND EXPENSE.

UNDERWRITER'S LABORATORIES APPROVAL
ELECTRICAL CONTRACTOR SHALL UNDERSTAND THE PRODUCT, MEANS AND METHODS OF INSTALLATION. ALL CONDUCTORS AND EQUIPMENT SHALL BE APPROVED AND LISTED BY A NRTL (NATIONALLY RECOGNIZED TESTING LABORATORY). LISTED AND LABELED EQUIPMENT SHALL BE INSTALLED AND USED IN ACCORDANCE WITH ANY INSTRUCTIONS INCLUDED IN THE LISTING AND LABELING IN ADDITION TO THE WRITTEN INSTALLATION INSTRUCTIONS AND METHODS OF INSTALLATION AS PUBLISHED BY THE MANUFACTURER OF THE EQUIPMENT OR MATERIAL PROVIDER. THE ELECTRICAL CONTRACTOR SHALL OBTAIN THE INSTALLATION INSTRUCTIONS AND REQUIREMENTS PRIOR TO BID. ALL RFI AND CLARIFICATIONS OF SCOPE PRESENTED DURING CONSTRUCTION WHERE THE CONTRACTOR HAS NOT PREVIOUSLY OBTAINED THIS INFORMATION FOR BIDDING PURPOSES WILL NOT BE CAUSE FOR ADDITIONAL COSTS OR PROJECT DELAY.

ALL EQUIPMENT SHALL BE UNDERWRITER'S LABORATORIES LISTED AND SHALL BEAR THE U/L LABEL.

PERMITS, FEES AND CERTIFICATES
ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND LICENSES REQUIRED BY CITY ORDINANCES AND AFTER COMPLETION OF THE WORK SHALL FURNISH TO THE OWNER A CERTIFICATE OF FINAL INSPECTION AND APPROVAL, ALL FEES IN CONNECTION WITH INSPECTIONS, PERMITS, LICENSES AND APPROVAL SHALL BE PAID BY THE ELECTRICAL CONTRACTOR.

SHOP DRAWINGS
SHOP DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY AS PDF FILES. SHOP DRAWINGS SHALL INCLUDE TRANSMITTAL PAGE(S) INDICATING THE NAME OF THE PROJECT, AND THE NAME, ADDRESS, AND PHONE NUMBER OF THE GENERAL AND ELECTRICAL CONTRACTORS. GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR SHALL REVIEW SHOP DRAWING SUBMITTALS FOR COMPLIANCE, CONTENT AND COMPLETENESS AND PROVIDE A STAMP WITH THE DATE OF REVIEW AND SIGNATURE OF THE REVIEWER. TRANSMITTAL PAGE SHALL HAVE INDEX WITH SPECIFICATION SECTION AND DESCRIPTION OF SUBMITTED ITEMS. NO EXCEPTIONS WILL BE TAKEN. EQUIPMENT SHALL NOT BE ORDERED UNTIL ENGINEER OF RECORD HAS PROCESSED APPLICABLE SHOP DRAWINGS. A PERIOD OF TEN BUSINESS DAYS WILL BE ALLOWED FOR SUBMITTAL PROCESSING BY THE ENGINEER. ELECTRICAL SUBMITTALS REQUIRED SHALL MINIMALLY INCLUDE THE FOLLOWING:

1. SWITCHBOARDS, DISTRIBUTION PANELBOARDS, AND BRANCH PANELBOARDS.
2. SPECIFICATION GRADE DEVICES AND COVER PLATES.
3. ENCLOSED CIRCUIT BREAKERS, FUSES, DISCONNECT SWITCHES AND MOTOR CONTROLLERS.
4. LIGHTING FIXTURES.
5. LIGHTING CONTROL DEVICES/RELAYS/CONTACTORS/DIMMING PANELS, ETC. (INCLUDE FLOOR PLANS SHOWING EQUIPMENT/DEVICES/WIRING AND DETAILS OF EQUIPMENT AND DEVICES).
6. EMERGENCY/STANDBY GENERATOR.
7. FIRE ALARM SYSTEM (INCLUDE FLOOR PLANS SHOWING EQUIPMENT/DEVICES/WIRING, DETAILS OF DEVICES AND EQUIPMENT ASSEMBLIES, WIRING DIAGRAMS OF DEVICES, VOLTAGE DROP CALCULATIONS FOR NACS, AMPLIFIER POWER CALCULATIONS, BATTERY-SIZE CALCULATIONS WITH 20% SPARE CAPACITY FOR FUTURE DEVICES, FINAL INPUT/OUTPUT MATRIX).
8. DESIGN BUILD SCOPES WILL BE REQUIRED TO SUBMIT RESPECTIVE PRODUCT DATA.

COORDINATION
ELECTRICAL CONTRACTOR SHALL PROVIDE FIELD COORDINATION WITH OTHER TRADES; SYSTEMS ARE SHOWN AS DIAGRAMMATIC AND GIVE THE GENERAL ARRANGEMENT AND LOCATIONS ONLY. ELECTRICAL CONTRACTOR SHALL COMPLETELY REVIEW THE ENTIRE SET OF CONSTRUCTION DRAWINGS FOR DETAILS OF CONSTRUCTION PRIOR TO STARTING WORK. ROUGH-IN OF ELECTRICAL FIXTURES, EQUIPMENT, CONDUIT, CABLES, ATTACHMENTS, AND HANGERS SHALL BE BASED ON THIS REVIEW. EXACT LOCATIONS AND FINAL LAYOUT SHALL BE DETERMINED IN THE FIELD. PROVIDE ALL NECESSARY EQUIPMENT, FITTINGS, HANGERS, BOXES, SUPPORTS, OFFSETS AND ACCESS PANELS REQUIRED FOR A COMPLETE INSTALLATION IN ALL RESPECTS. THE ELECTRICAL CONTRACTOR'S MEANS AND METHODS OF INSTALLATION SHALL PROVIDE FOR OPERATING EFFICIENCY, NEATNESS OF APPEARANCE, EASE OF MAINTENANCE, AND NEC COMPLIANCE. THE ELECTRICAL CONTRACTOR SHALL PREPARE DIMENSIONED FIELD ERECTION DRAWINGS FOR USE BY THE INSTALLERS TO ENSURE PROPER INSTALLATION, CLEARANCES, AND COORDINATION WITH STRUCTURAL MEMBERS, ARCHITECTURAL WORK, AND ALL OTHER ITEMS BEING INSTALLED BY OTHER TRADE CONTRACTORS. THE ELECTRICAL CONTRACTOR SHALL TAKE THEIR OWN MEASUREMENTS AT THE SITE AND BUILDING, AND BE RESPONSIBLE FOR THE CORRECT LAYOUT, INTERPRETATION, AND USE OF ALL SIZES AND DIMENSIONS. THE CONTRACTOR SHALL KEEP "AS-BUILT" INFORMATION DURING CONSTRUCTION AND FURNISH TO THE OWNER OR TENANT A RECORD SET OF LEGIBLE BLACK LINE PRINTS AND AN ELECTRONIC COPY OF THESE DOCUMENTS AT PROJECT COMPLETION.

REVIEW ARCHITECTURAL DRAWINGS FOR ALL FIRE RATINGS AND FIRE RATED ASSEMBLIES PRIOR TO BIDDING THE PROJECT. PROVIDE FIRE STOP AT EACH RATED WALL, FLOOR, AND CEILING-ROOF ASSEMBLY PENETRATION. FIRE STOP SYSTEMS SHALL BE MANUFACTURED BY "3M". PROVIDE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S APPLICATION DETAILS AND INSTRUCTIONS. PROVIDE TAGGED CERTIFICATIONS AT EACH PENETRATION. PROVIDE SHOP DRAWINGS FOR REVIEW WITH THE U.L. LISTING AND TEST CRITERIA. PROVIDE FIRE STOPPING WHERE REQUIRED BY THE AHJ. EQUAL SYSTEMS AS MANUFACTURED BY "SPEC SEAL" OR "HILTI" WILL BE ACCEPTABLE.

PART 2 – PRODUCTS

26 0519 LOW VOLTAGE ELECTRICAL POWER CABLES
A. WIRE, CABLES AND CONNECTORS FOR POWER. LIGHTING, SIGNAL, CONTROL AND RELATED SYSTEMS RATED 600 VOLTS OR LESS.
B. STRANDED CONDUCTORS ARE ACCEPTABLE FOR ALL WIRE SIZES. THHN, THWN.
C. CONDUCTOR MATERIALS: COPPER.
   a. EXCEPTION: ALUMINUM MAY BE USED FOR CONDUCTORS #1 AWG AND LARGER. PROVIDE INCREASED WIRE SIZES PER NEC.
D. TYPE 'MC' CABLE MAY ONLY BE USED FOR BRANCH CIRCUITS WHERE APPROVED BY THE NEC AND ACCEPTABLE TO THE AHJ, BUT SHALL NOT BE USED FOR FEEDERS TO PANELS OR TRANSFORMERS, FOR ANY HOME-RUNS OR AT ANY THROUGH-WALL PENETRATIONS.
E. TYPE "NM" CABLE MAY BE USED IN WOOD STRUCTURE BUILDINGS AND WHERE APPROVED BY THE NEC AND ACCEPTABLE TO THE AHJ.
F. COLOR CODING:
   a. POWER 208/120, 3PH, 4W:
      PHASE A = BLACK
      PHASE B = RED
      PHASE C = PURPLE
      NEUTRAL = WHITE
   b. GROUND CONDUCTORS: GREEN

26 0526 GROUNDING AND BONDING
A. PROVIDE SERVICE AND EQUIPMENT GROUNDING SYSTEMS IN ACCORDANCE WITH THE NEC. THE CONDUIT SYSTEM SHALL FORM A CONTINUOUS PATH FOR GROUND AND SHALL BE SAFELY GROUNDED AT THE DISTRIBUTION AND BRANCH CIRCUIT PANELS. PROVIDE GROUNDING CONDUCTORS WHERE INDICATED. PROVIDE A NEUTRAL AND GROUND WIRE AT EACH TOGGLE SWITCH ROUGH-IN. PROVIDE GROUNDING CONDUCTORS FOR PHONE UTILITY DEMARCATION AND UTILITY METERING EQUIPMENT. COORDINATE WITH UTILITY COMPANIES PRIOR TO STARTING WORK.

26 0533 RACEWAYS AND BOXES
A. ELECTRICAL CONDUIT, TUBING, SURFACE RACEWAYS, WIREWAYS, BOXES AND CABINETS FOR ELECTRICAL POWER DISTRIBUTION.
B. WIRING METHODS – OUTDOORS:
   a. EXPOSED CONDUIT: GRC OR IMC
   b. CONCEALED CONDUIT, ABOVEGROUND: GRC, IMC OR EMT.
   c. UNDERGROUND CONDUIT: SCH 40 PVC, SCH 80 PVC
   d. CONNECTION TO VIBRATING EQUIPMENT: LFMC
   e. BOXES AND ENCLOSURES, ABOVEGROUND: NEMA 3R
C. WIRING METHODS – INDOORS:
   a. EXPOSED, NOT SUBJECT TO PHYSICAL DAMAGE: EMT
   b. CONCEALED IN CEILINGS, WALLS AND PARTITIONS: EMT, MC
   c. CONNECTION TO VIBRATING EQUIPMENT; FMC, EXCEPT USE LFMC IN DAMP OR WET LOCATIONS.
   d. DAMP OR WET LOCATIONS: GRC, IMC.
   e. BOXES AND ENCLOSURES: NEMA 1, EXCEPT NEMA 3R IN DAMP OR WET LOCATIONS.
A. MINIMUM RACEWAY SIZE – INDOOR: 3/4" FOR ALL HOMERUNS.
B. MINIMUM RACEWAY SIZE – OUTDOOR: 1" C FOR ALL HOMERUNS.
C. INSTALL EXPOSED RACEWAYS PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.

26 0553 IDENTIFICATION
A. ALL PULL BOXES, JUNCTION BOXES, ETC., SHALL BE PROVIDED WITH CLEAR CONCISE PERMANENT IDENTIFICATION OF THE RELATED SYSTEM OR WIRING. FLUSH BOXES IN FINISHED AREA SHALL HAVE SUCH IDENTIFICATION ON BACK SIDE OF PLATE.
B. ALL MAJOR ELECTRICAL EQUIPMENT, DISCONNECTS, LIGHTING CONTACTOR, ETC., SHALL BEAR A PERMANENT PLACARD WITH NAME, VOLTAGE, PHASE AND "FED FROM" LABEL AFFIXED TO FRONT OF EQUIPMENT.

26 0923 LIGHTING CONTROL DEVICES
A. LIGHTING CONTACTORS – ELECTRICALLY OPERATED AND MECHANICALLY HELD, COMBINATION TYPE LIGHTING CONTACTORS WITH NON-FUSED DISCONNECT. LISTED OR RATED FOR TYPE OF LOAD SERVED.

26 2416 PANELBOARDS
A. PANELBOARDS SHALL BE FLUSH OR SURFACE MOUNTED CABINETS.
B. ENCLOSURE:
   a. INDOOR: NEMA 1
   b. OUTDOOR: NEMA 3R
C. PHASE, NEUTRAL AND GROUND BUSES SHALL BE TIN PLATED ALUMINUM.
D. MAINS, NEUTRAL, GROUND LUGS AND FEED-THROUGH LUGS SHALL BE MECHANICAL TYPE.
E. PANELS SHALL BE FULLY RATED TO INTERRUPT SYMMETRICAL SHORT-CIRCUIT CURRNET AVAILABLE AT TERMINALS.
F. DISTRIBUTION PANELBOARDS SHALL BE NEMA PB1, POWER AND FEEDER DISTRIBUTION TYPE WITH SECURED DOORS WITH VAULT-TYPE LATCH AND TUMBLER LOCK, KEYED ALIKE.
G. BRANCH PANELBOARDS SHALL BE NEMA PB1, LIGHTING AND APPLIANCE BRANCH CIRCUIT TYPE WITH CONCEALED HINGE DOORS, ECURED WITH FLUSH LATCH AND TUMBLER LOCK, KEYED ALIKE.
H. BRANCH BREAKERS SHALL BE BOLT-ON TYPE.
I. PROVIDE AS MANUFACTURED BY SQUARE D, SIEMENS, GE/ABB OR CUTLER HAMMER.
J. ALL DIRECTORIES SHALL BE TYPED AT COMPLETION OF PROJECT AND REPRESENT ALL AS-BUILT CONDITIONS.

26 2726 WIRING DEVICES
A. RECEPTACLES, SWITCHES, WALL PLATES AND FLOOR SERVICE BOXES.
B. TOGGLE SWITCHES SHALL BE 20A, 120V, SPECIFICATION GRADE
C. RECEPTACLES SHALL BE 20A, 125V, GROUNDING TYPE, SPECIFICATION GRADE.
D. GROUND FAULT INTERRUPTING RECEPTACLES SHALL BE 20A, 125V, SPECIFICATIONS GRADE WITH 5MA TRIP RESET AND TEST SWITCH IN FACE
E. WEATHERPROOF GFCI RECEPTACLES SHALL BE PROVIDED WITH "IN USE" COVER.
F. COORDINATE FINISH WITH ARCHITECT PRIOR TO ORDERING.
G. DEVICE COVER PLATES SHALL BE PHENOLIC SMOOTH PLASTIC, OR COLOR MATCHING DEVICE.
H. DEVICE COVER PLATES IN UNFINISHED AREAS SHALL BE ANODIZED ALUMINUM OR STEEL.

26 3213 ENGINE GENERATORS
A. DIESEL FUEL SOURCE
B. WEATHERPROOF ENCLOSURE
C. UL 1008, NFPA 110 COMPLIANT TRANSFER SWITCHES SHALL BE EQUAL TO ASCO SERIES, OPEN TRANSITION, 3-POLE WITH SOLID NEUTRAL, INTEGRAL DUTY LIGHTS AND AUTOMATIC TEST/TRANSFER SWITCHES.
D. COORDINATE WCCR (WITHSTAND RATING) OF ATS WITH FINAL POWER SYSTEMS STUDY.
E. REMOTE ANNUNCIATOR AS SHOWN ON PLANS.
F. PROVIDE EMERGENCY POWER-OFF STATION MOUNTED NEAR GENSET OR EXTERIOR OF BUILDING.
G. PROVIDE WEATHERPROOF, GFCI RECEPTACLE AT GENERATOR LOCATION.
H. INCLUDE BATTERY CHARGER AND BLOCK HEATER.
I. PROVIDE FACTORY AUTHORIZED START-UP WHICH INCLUDES A FULLY FUNCTIONAL TEST IN THE PRESENCE OF THE OWNER REPRESENTATIVE.
J. PROVIDE FUNCTIONAL TEST(S) FOR THE FIRE INSPECTION AUTHORITY.
K. AS MANUFACTURED BY BLUE STAR, KOHLER, ONAN-CUMMINS, CATERPILLAR, GENERAC OR EQUAL.

26 5100 LIGHTING
A. INTERIOR AND EXTERIOR LIGHTING FIXTURES, LAMPS, EMERGENCY LIGHTING UNITS, POLES AND ACCESSORIES.
B. FURNISH AND INSTALL LIGHTING FIXTURES AS INDICATED ON DRAWINGS.
C. PROVIDE ALL NECESSARY MOUNTING HARDWARE FOR A COMPLETE INSTALLATION.
D. ASSEMBLE ALL LIGHT FIXTURES SHIPPED TO THE PROJECT SITE.
E. ALL LIGHTING FIXTURES SHALL BE PROVIDED WITH CODE APPROVED MEANS OF SUPPORT, EARTHQUAKE CLIPS AND/OR INSTALLED IN ACCORDANCE WITH THE BUILDING CODE TO MEET SEISMIC RESTRAINT REQUIREMENTS.
F. INSTALL LIGHT FIXTURES LEVEL, PLUMB AND SQUARE WITH CEILINGS AND WALLS.
G. CONFIRM MOUNTING HEIGHTS OF ALL FIXTURES PRIOR TO ROUGH-IN.

28 3100 FIRE ALARM
A. PROVIDE NEW FACP, ANNUNCIATOR PANEL, DIGITAL COMMUNICATOR, REMOTE POWER SUPPLIES, CELLULAR DIALER, CONTROL RELAYS, NOTIFICATION DEVICES FOR A COMPLETE AND FUNCTIONAL SYSTEM.
B. NON-CODED, ADDRESSABLE SYSTEM.
C. DEVICES SHOWN ON PLANS ARE DIAGRAMMATIC TO PORTRAY INTENT. CONTRACTOR TO PROVIDE ADDITIONAL DEVICES AS REQUIRED FOR COVERAGE TO PROVIDE A COMPLETE SYSTEM.
D. MANUFACTURERS:
   a. NOTIFIER
   b. GAMEWELL – FCI
   c. SILENT KNIGHT
   d. JOHNSON CONTROLS
   e. SIEMENS
   f. EDWARDS SYSTEM TECHNOLOGY
E. COMPLY WITH NFPA 72.
F. PROGRAM AND TEST THE SYSTEM FOR CORRECT OPERATION FOR THE AHJ AT PROJECT COMPLETION.
G. WIRING SHALL BE RAN OPEN ABOVE ACCESSIBLE CEILINGS IN AN APPROVED SUPPORT SYSTEM (J-HOOKS) WITH PLENUM RATED CABLES.
   a. IF CEILINGS ARE IN-ACCESSIBLE, WIRING SHALL BE PROVIDED IN CONDUIT.

PART 3 – EXECUTION

A. UPON SUBSTANTIAL COMPLETION OF THE PROJECT AND PRIOR TO ELECTRICAL CONTRACTOR'S REQUEST FOR FINAL INSPECTION, THE CONTRACTOR SHALL FURNISH TO THE GENERAL CONTRACTOR FOR REVIEW, ONE (1) SET OF OPERATION AND MAINTENANCE MANUALS ON ONE (1) THUMB DRIVE MEMORY USB STICK. O&M MANUALS SHALL MINIMALLY INCLUDE THE FOLLOWING:

   a. STARTUP AND SHUTDOWN PROCEDURES FOR EACH MAJOR PIECE OF EQUIPMENT.
   b. OPERATING INSTRUCTIONS OUTLINING THE SAFE AND EFFICIENT OPERATION OF EACH MAJOR PIECE OF EQUIPMENT.
   c. EQUIPMENT LIST OF EACH MAJOR PIECE OF EQUIPMENT INCLUDING THE MAKE, MODEL, SERIAL NUMBER (IF APPLICABLE), VOLTAGE, PHASE, # WIRES, AMPACITY AND ALL OTHER INDUSTRY STANDARD NAMEPLATE DATA.
   d. SERVICE INSTRUCTIONS OUTLINING THE RECOMMENDED SPARE PARTS, ALONG WITH THE CONTACT INFORMATION FOR THE LOCAL SUPPLIER AND/OR FACTORY REPRESENTATIVE(S), AND THE RECOMMENDED FREQUENCY OF SERVICE OF EACH MAJOR PIECE OF EQUIPMENT.
   e. COPIES OF REVIEWED/APPROVED SHOP DRAWINGS/SUBMITTALS.
   f. AS-BUILT/RECORD DRAWINGS AND DOCUMENTATION.
   g. GUARANTEES/WARRANTIES.
   h. INSPECTION CARDS AND APPROVALS.
   i. NAME OF OWNER, ARCHITECT, ENGINEER OF RECORD, CONTRACTOR AND ALL SUB-CONTRACTORS.

ELECTRICAL ABBREVIATIONS

1PH	SINGLE PHASE (LINE-LINE)	JB	JUNCTION BOX
3PH	3 PHASE (L1-L2-L3)	kVA	KILOVOLT AMPERE(S)
3R	NEMA 3R	KW	KILOWATT(S)
A	AMPERE(S)	MC	MECHANICAL WORK CONTRACTOR
AIC	AMPERES INTERRUPTING CAPACITY	MIN	MINIMUM
AFCI	ARC FLASH CIRCUIT INTERRUPTER	MCA	MINIMUM CIRCUIT AMPERES
AFF	ABOVE FINISHED FLOOR	MCB	MAIN CIRCUIT BREAKER
AHJ	AUTHORITY HAVING JURISDICTION	MLO	MAIN LUGS ONLY
AL	ALUMINUM	MOCP	MAXIMUM OVERCURRENT PROTECTION
ALT	ALTERNATE	NC	NORMALLY CLOSED
AWG	AMERICAN WIRE GAUGE	NF	NON FUSED
CKT	CIRCUIT	NIC	NOT IN CONTRACT
CLG	CEILING	PC	PLUMBING WORK CONTRACTOR
COND	CONDUCTOR	PH	PHASE
C	CONDUIT	PVC	POLYVINYL CHLORIDE
CU	COPPER	T	TELEPHONE
CT	CURRENT TRANSFORMER	TC	TIMECLOCK
(E)	EXISTING	TEB	TELEPHONE EQUIPMENT BOARD
EC	ELECTRICAL WORK CONTRACTOR	TYP	TYPICAL
EMT	ELECTRICAL METALLIC TUBING	UNV	UNIVERSAL
FV	FIELD VERIFY	UON	UNLESS OTHERWISE NOTED
GC	GENERAL CONTRACTOR	V	VOLT(S)
GFI	GROUND FAULT INTERRUPTER	VA	VOLTAMP(S)
GND	GROUND	W	WATT(S)
GRS	GALVANIZED RIGID STEEL CONDUIT	WP	WEATHERPROOF
IG	ISOLATED GROUND	XFMR	TRANSFORMER
IMC	INTERMEDIATE METALLIC CONDUIT		

ELECTRICAL SYMBOLS

- NEMA 5-20R SINGLE RECEPTACLE (+18")
- NEMA 5-20R DUPLEX RECEPTACLE (+18")
- NEMA 5-20R QUADPLEX RECEPTACLE (+18")
- WP — NEMA 5-20R WEATHERPROOF, GFI TYPE RECEPTACLE
- NEMA 5-20R DUPLEX GFI TYPE RECEPTACLE
- USB — USB CHARGER RECEPTACLE DUPLEX WITH (2) TYPE A USB PORTS
- NEMA 5-20R SWITCHED RECEPTACLE
- FB — FLOOR BOX
- SPECIAL PURPOSE OUTLET.
- TELECOM OUTLET BOX (SINGLE GANG) # = QUANTITY OF CABLES
- CATV OUTLET BOX
- JUNCTION BOX
- SPEAKER
- $ — SINGLE POLE SWITCH (+46")
- $3 — 3-WAY SWITCH (+46")
- OS — WALL SWITCH OCCUPANCY SENSOR (+46")
- D — DIMMER SWITCH (+46")
- DDS — DIMMER SWITCH W/INTEGRAL OCCUPANCY SENSOR (+46")
- OS — CEILING MOUNTED OCCUPANCY SENSOR
- RECESSED DOWN LIGHT
- WALL MOUNTED LIGHT FIXTURE
- PENDANT LIGHT FIXTURE
- 1X4 / 2x2 / 2x4 LIGHT FIXTURE
- LIGHT FIXTURE WITH EMERGENCY DRIVER
- EXIT SIGN
- EMERGENCY EGRESS LIGHT W/ BATTERY
- SITE LIGHTING FIXTURE
- DISCONNECT SWITCH
- PUSHBUTTON
- BRANCH CIRCUIT PANELBOARD
- XX / XX — EQUIPMENT CALLOUT
- # — KEYED NOTE SYMBOL
- # — REVISION SYMBOL
- CONCEALED CONDUIT
- CONDUIT BELOW FLOOR OR GRADE
- CONDUIT EXPOSED
- GROUND WIRE
- P1-2,4,6 — HOMERUN. PHASE WIRE SHOWN AS SHORT LINE, NEUTRAL WIRE SHOWN AS LONG LINE, GROUND WIRE SHOWN WITH DOT.

NUMBERS INDICATE SOURCE PANELBOARD AND CIRCUIT.

(+XX") MOUNTING HEIGHT TO CENTERLINE OF SWITCH OR DEVICE

FIRE ALARM SYMBOLS

- F — MANUAL PULL STATION
- F — AUDIO/VISUAL NOTIFICATION DEVICE (+80-96")
- F — STROBE LIGHT ONLY (+80-96")
- F_S — SMOKE DETECTOR (CEILING MTD.)
- F_T — THERMAL DETECTOR (CEILING MTD.)
- F_{CO} — CARBON MONOXIDE DETECTOR
- F_{SS} — SMOKE DETECTOR WITH SOUNDER BASE
- F_{SA} — SUPPLY AIR SMOKE DETECTOR
- F_{RA} — RETURN AIR SMOKE DETECTOR w/ SAMPLING TUBE
- F_{SR} — R.T.U./A.H.U. SHUTDOWN RELAY
- F_{RTS} — R.A. DUCT MTD. SMOKE DETECTOR REMOTE TEST STATION WITH KEY LOCK
- F_{DH} — DOOR HOLDER
- F_{CM} — CONTROL MODULE
- F_{MM} — MONITOR MODULE
- F_{FS} — FLOW SWITCH
- F_{TS} — TAMPER SWITCH
- c — C SUBSCRIPT - DENOTES CEILING MOUNTED
- F.A.P. — FIRE ALARM ANNUNCIATOR PANEL
- F.A.C.P. — FIRE ALARM CONTROL PANEL

SECURITY SYMBOLS

- CR — CARD SWIPE ENTRY
- CCTV CAMERA

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ELECTRICAL SYMBOLS AND ABBREVIATIONS

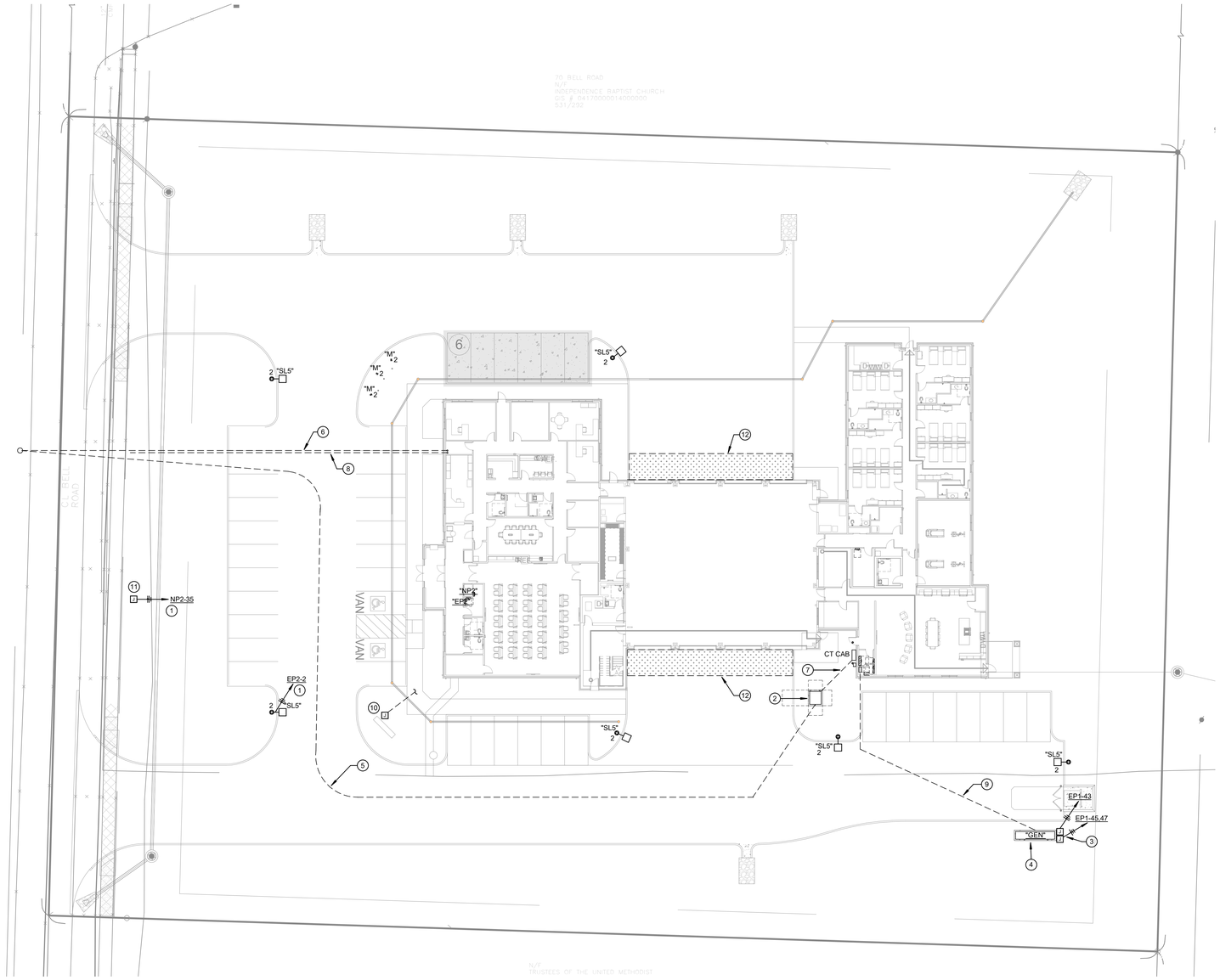
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KEYED NOTES

1. ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR/TIMECLOCK.
2. PROVIDE AND INSTALL PAD PER UTILITY COMPANY STANDARDS.
3. PROVIDE POWER TO GENERATOR BATTERY CHARGER AND BLOCK HEATER PER MANUFACTURERS REQUIREMENTS. IN ADDITION, PROVIDE (2) 1"C FOR CONTROLS.
4. PROVIDE HOUSEKEEPING PAD FOR GENERATOR. 4" DEEP, 6" AROUND.
5. PROVIDE (1) 4"C FOR PRIMARY CONDUIT FROM PROPERTY LINE TO TRANSFORMER. INSTALL 36" BELOW GRADE. BORE BENEATH BELL ROAD TO UTILITY POLE.
6. PROVIDE (1) 4"C FOR TELECOM CONDUIT FROM AMEREN POLE TO BUILDING IT ROOM. BORE BENEATH BELL ROAD TO UTILITY POLE.
7. SECONDARY CONDUIT. REFER TO ONELINE DIAGRAM.
8. PROVIDE 4" CONDUIT OUT TO GRASSY AREA NEAR ROAD, TERMINATED IN A 12"X12" HANDHOLE FOR FUTURE SIGNAL.
9. CONDUIT FOR FEEDERS TO GENERATOR.
10. PROVIDE 1" CONDUIT FROM PANEL NP2 TO 12"X12" JUNCTION BOX ON SITE. JUNCTION BOX INTENDED FOR FUTURE CIRCUITRY. COORDINATE FINAL LOCATION WITHIN AREA.
11. PROVIDE POWER TO MONUMENT SIGN. PROVIDE LOCKABLE BREAKER IN PANEL INDICATED.
12. ALTERNATE: PROVIDE 10'-0" WIDE SECTION WITH SNOWMELT. PROVIDE RAYCHEM (NVENT), ELECTRO MELT SELF REGULATING HEATING CABLE. PROVIDE CONTROLLER INSIDE APP BAY. COORDINATE AND PROVIDE ALL ELECTRICAL CONNECTIONS REQUIRED TO PANEL "NP".



SITE PLAN - ELECTRICAL

N

SCALE: 1" = 20'-0"

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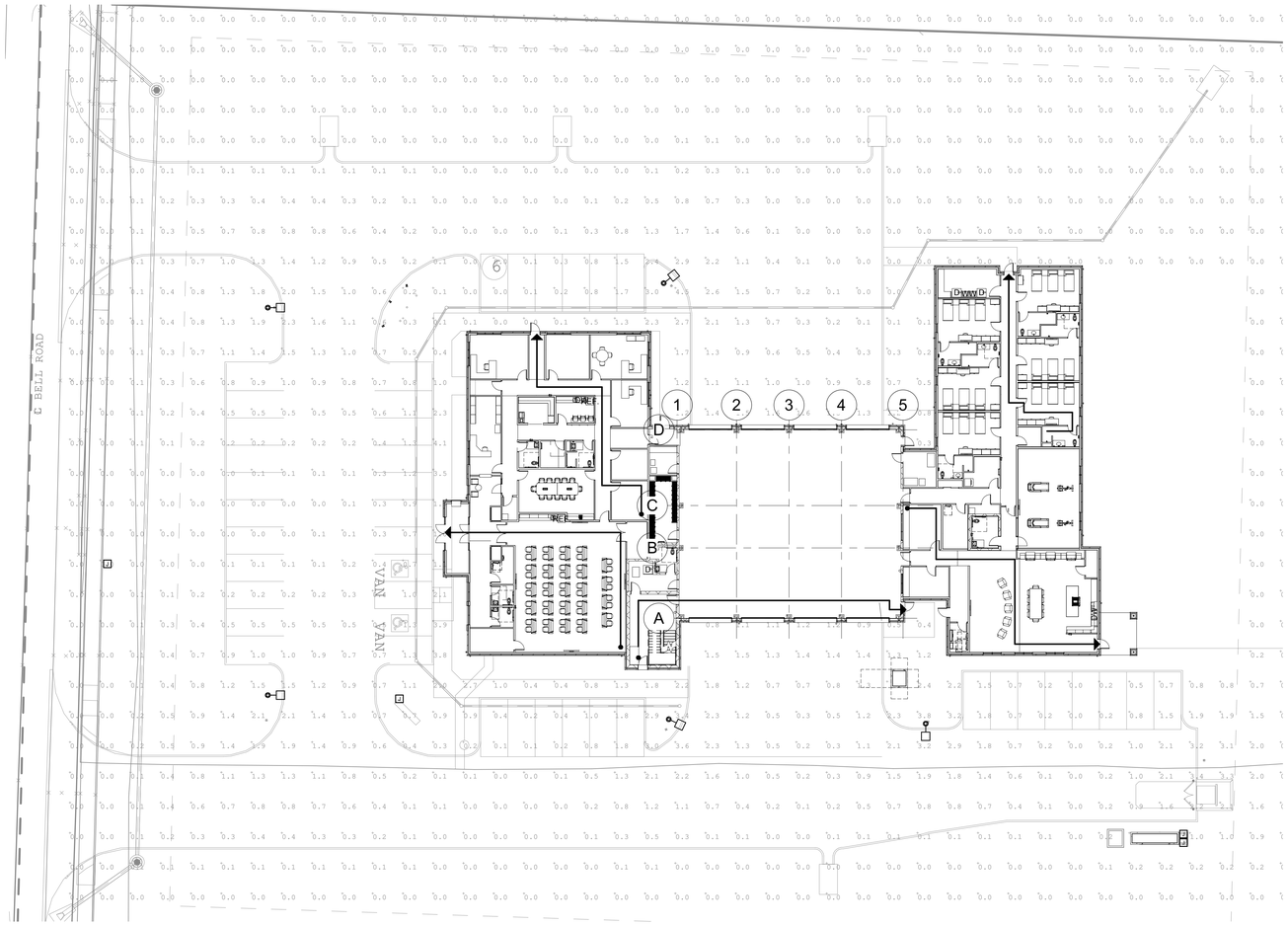
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SITE PHOTOMETRIC

SCALE: 1" = 20'-0"

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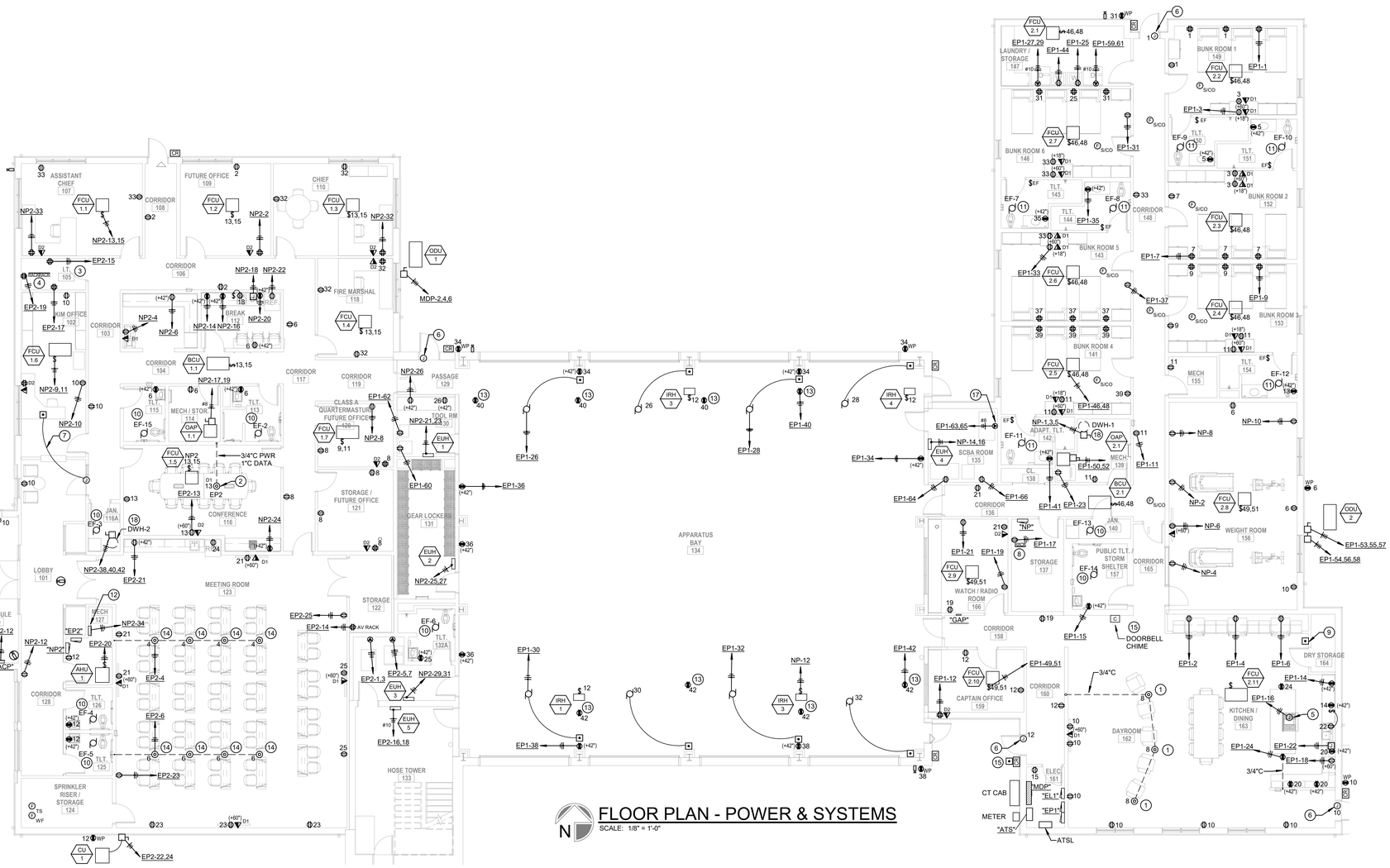
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FLOOR PLAN - POWER & SYSTEMS

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

GENERAL NOTES

A. ALL WALL ROUGH-IN SHALL HAVE A SITE WALK THROUGH AND SIGN OFF FROM OWNER PRIOR TO WIRE PULL AND DRYWALL.

B. ALL CEILING ROUGH-IN WITHIN APP BAY TO HAVE A SITE WALK THROUGH AND SIGN OFF FROM OWNER PRIOR TO WIRE PULL.

C. RECEPTACLES/LIGHTING CONTROLS IN THE APP BAY WILL BE ACCEPTABLE SURFACE MOUNTED (UNLESS IN DRYWALL) ON CMU WALLS.

D. ALL OTHER RECEPTACLES/DEVICES/LTG CONTROLS OCCURRING IN CMU WALLS SHALL BE RECESSED.

(#) KEYED NOTES

1. PROVIDE NON METALLIC IN-SLAB FLOOR BOX WITH TWO DUPLEX RECEPTACLES AND TWO USB-A PORTS.
2. PROVIDE NON METALLIC IN-SLAB FLOOR BOX WITH TWO DUPLEX RECEPTACLES, 1-GANG FOR DATA AND 1-GANG FOR FUTURE AV. EQUAL TO LEGRAND EVOLUTION 4-GANG.
3. PROVIDE 3/4"X4'-0" FIRE RATED PLYWOOD ON ALL WALLS OF IT ROOM.
4. PROVIDE 4-POST DATA RACK. PROVIDE FIBER INTERCONNECTION TO DATA RACK IN LIVING QUARTERS. ALL DATA CABLING ON ADMIN SIDE AND WITHIN THE APP BAY TO HOMERUN TO THIS RACK.
5. PROVIDE CONNECTION TO HOOD AND GAS STOVE IGNITER.
6. PROVIDE POWER TO DOOR ACCESS POWER SUPPLY.
7. PROVIDE DOOR ACCESS CONTROL AT FRONT DESK FOR CONTROL OF CORRIDOR DOOR.
8. PROVIDE 4-POST DATA RACK. ALL DATA CABLING IN THE LIVING QUARTERS TO HOMERUN TO THIS RACK. WALL MOUNTED RACK WILL BE AN ACCEPTABLE ALTERNATE.
9. PROVIDE EMERGENCY POWER OFF TO SHUT OFF GAS STOVE.
10. CONTROL EXHAUST FAN WITH LIGHTING CIRCUIT/SWITCH.
11. CONNECT EXHAUST FAN TO LIGHTING CIRCUIT. PROVIDE SEPARATE SWITCH FOR FAN AS SHOWN.
12. PROVIDE 6-POLE LIGHTING CONTACTOR WITH PHOTOCELL ON ROOF AND TIMELOCK FOR CONTROL OF EXTERIOR SITE LIGHTING POLES, MONUMENT SIGN AND APP BAY EXTERIOR LIGHTING.
13. PROVIDE HEAVY DUTY CORD REEL, KH INDUSTRIES (OR EQUAL) WITH 50'-0" RETRACTABLE CORD AND GFCI RECEPTACLE. COORDINATE EXACT MOUNTING WITH STRUCTURE (PROVIDE UNISTRUT SUPPORT AS NEEDED) TO ENSURE DEVICE IS ON DRIVERS SIDE DOOR.
14. PROVIDE NON METALLIC FLOOR BOX WITH (2) DUPLEX RECEPTACLES AND SPARE GANG FOR FUTURE DATA. PROVIDE 3/4"C FOR POWER AND 1"C TO ACCESSIBLE CEILING. COVER FINISH TO BE BLACK.
15. PROVIDE STANDARD RESIDENTIAL STYLE DOORBELL SYSTEM WITH PUSH BUTTON AND CHIME. SEE SPECIFICATIONS FOR ALTERNATE DOORBELL SYSTEM TO BE PRICED.
16. PROVIDE POWER TO BABY BOX. PROVIDE CONNECTION TO FIRE ALARM SYSTEM TO BE ALERTED WHEN BOX IS OPENED PER MANUFACTURERS INSTRUCTIONS.
17. OUTLET INTENDED FOR COMPRESSOR. VERIFY EXACT ELECTRICAL REQUIREMENTS WITH PURCHASED EQUIPMENT PRIOR TO ROUGH-IN.
18. PROVIDE ADDITIONAL OUTLET AND 120V CONNECTION FROM NEAREST 120V CIRCUIT FOR RECIRC PUMP AT HOT WATER HEATERS.

DESIGN BUILD SCOPE

1. PROVIDE ACCESS CONTROLS SYSTEM WITH CARD READERS, POWER SUPPLIES, HEADEND EQUIPMENT, CABLING, INSTALL AND COMMISSIONING.
2. PROVIDE SECURITY SYSTEM WITH QUANTITY OF CAMERAS SHOWN, HEADEND EQUIPMENT, CABLING, INSTALL AND COMMISSIONING.
3. PROVIDE TONE-ALERT SYSTEM WITH STATION CONTROL UNIT, SPEAKERS, RED LIGHTS IN BUNK ROOMS AND CORRIDORS, MESSAGE BOARDS, CABLING, INSTALL AND COMMISSIONING.
4. AV. PROVIDE AV DESIGN, INSTALL, CABLING AND COMMISSIONING FOR CONFERENCE ROOM AND MAIN MEETING ROOM. MAIN MEETING ROOM NEEDS AV RACK (SHOWN IN STORAGE ROOM) WITH CAPABILITY FOR PRESENTER AND ALL TV'S TO SHOW SAME CONTENT. ABILITY FOR VIDEO CONFERENCING IN BOTH MEETING ROOM AND CONFERENCE ROOM.
5. ALL DESIGN BUILD SCOPES ABOVE SHALL PROVIDE DESIGN DRAWINGS FOR OWNER REVIEW AND APPROVAL AND SIGNED/SEALED DWGS (IF APPLICABLE) FOR PERMITTING.

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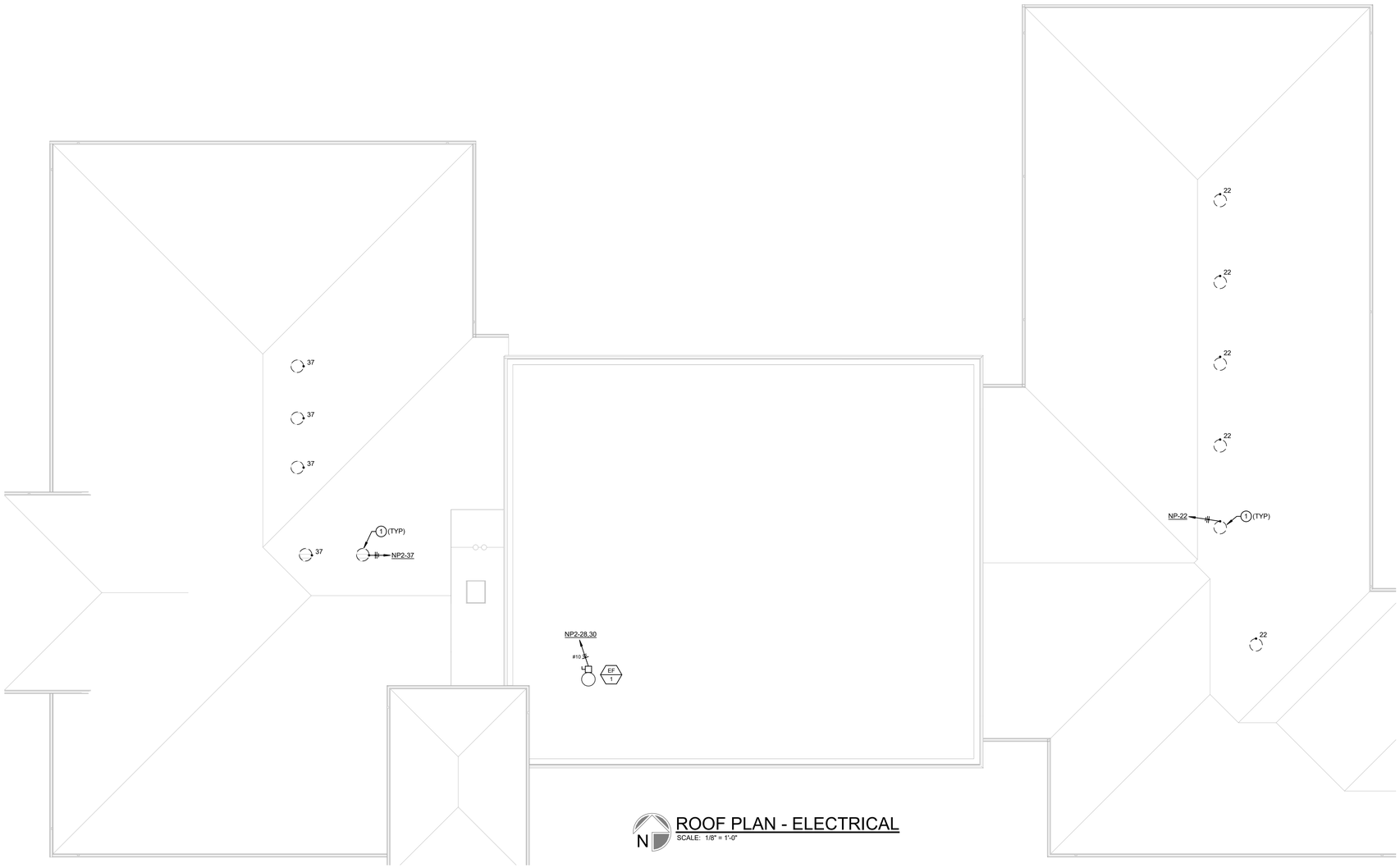
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FLOOR PLAN

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ROOF PLAN - ELECTRICAL
SCALE: 1/8" = 1'-0"

KEYED NOTES

1. PROVIDE POWER TO ATTIC VENTILATOR. PROVIDE LOW VOLTAGE WIRING FROM VENT TO THERMOSTAT. COORDINATE WITH GC/MC.

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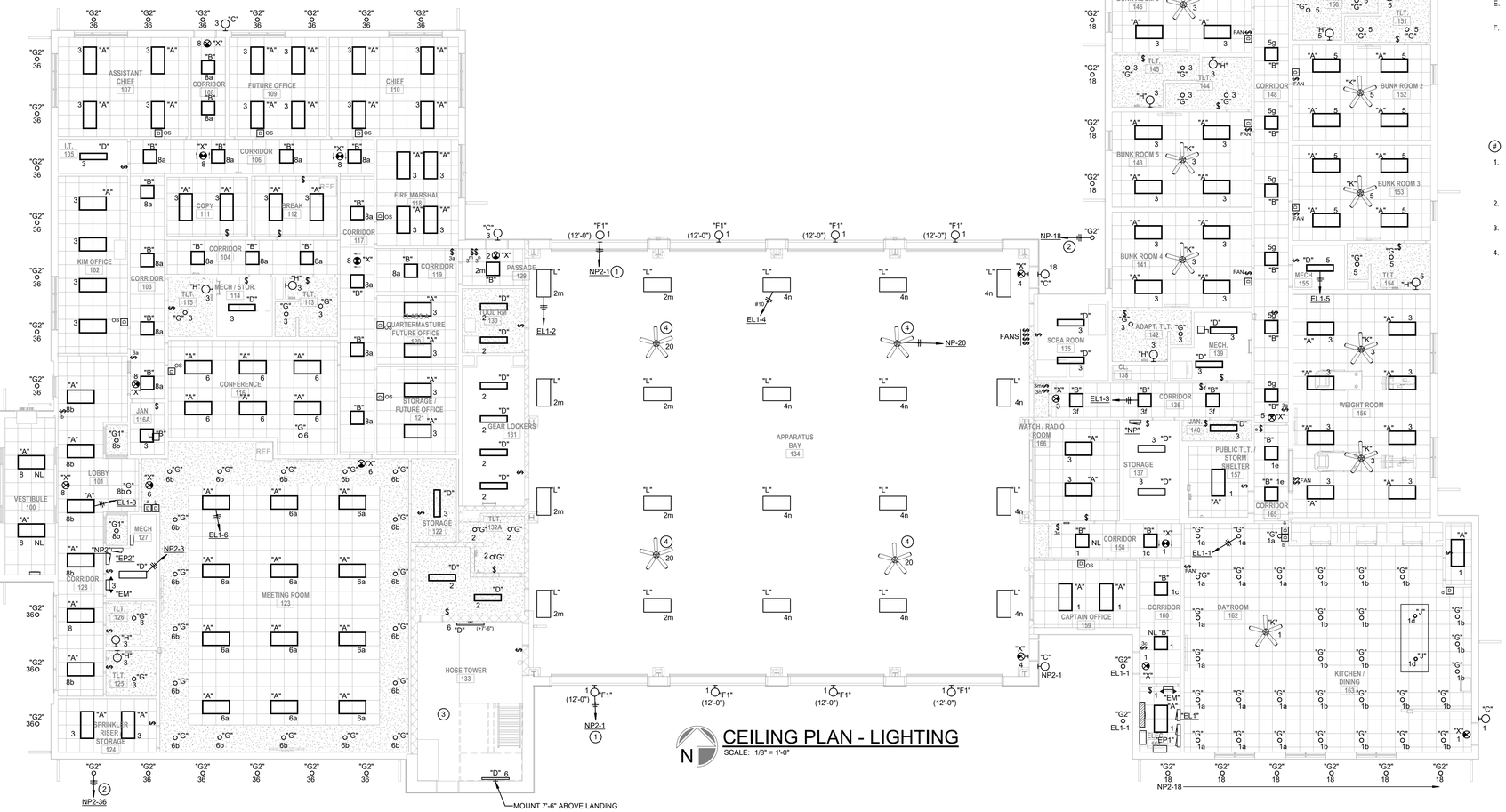
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ROOF PLAN

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CEILING PLAN - LIGHTING

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

GENERAL NOTES

A. ALL WALL ROUGH-IN SHALL HAVE A SITE WALK THROUGH AND SIGN OFF FROM OWNER PRIOR TO WIRE PULL AND DRYWALL.

B. ALL CEILING ROUGH-IN WITHIN APP BAY TO HAVE A SITE WALK THROUGH AND SIGN OFF FROM OWNER PRIOR TO WIRE PULL.

C. PROVIDE GTD SWITCHING DEVICE IN FRONT OF ALL LIGHTING CIRCUITS ON THE GENERATOR TO COMPLY WITH UL924.

D. RECEPTACLES/LTG CONTROLS IN THE APP BAY WILL BE ACCEPTABLE SURFACE MOUNTED (UNLESS IN DRYWALL) ON CMU WALLS.

E. ALL OTHER RECEPTACLES/DEVICES/LTG CONTROLS OCCURRING IN CMU WALLS SHALL BE RECESSED.

F. ELECTRICAL CONTRACTOR TO PROVIDE NECESSARY BLOCKING AT EXTERIOR SOFFITS FOR LIGHTING FIXTURE SUPPORT.

(#) KEYED NOTES

1. BASE BID: ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR.
   A. ALTERNATE: FIXTURE TYPE 'F1' CHANGES TO TYPE 'F1A' TO BE CONTROLLED VIA CASAMBI (APP BASED LIGHTING CONTROLLER).
2. TYPE 'GZ' LIGHTING FIXTURES TO BE CONTROLLED VIA CASAMBI APP.
3. AT HOSE TOWER, PROVIDE POWER TO BACKLIT SIGNAGE (QTY 4) FOR HOUSE NUMBER. CONNECT TO CIRCUIT NP2-1.
4. PROVIDE INDUSTRIAL GRADE CEILING FAN, 60", 120V WITH SPEED CONTROL. MARLEY ENGINEERED PRODUCT OR EQUAL. PROVIDE DOWNROD AS REQUIRED. COORDINATE FINAL LOCATION WITH ALL CEILING MOUNTED EQUIPMENT.

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CEILING PLAN

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EL1

208Y/120V
3-PHASE, 4-WIRE + GROUND

BUS: **100 AMPS**
MAINS: **MLO**

PANEL NAME: **EL1**
FED FROM:
MOUNTING:

OPTIONS:

N	DESCRIPTION	ID	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	OCPD SIZE			OCPD SIZE	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	ID	DESCRIPTION	N
	DINING/KIT/CAPT LTG	L	1,374			20/1	1	2	20/1	1,470			L	APP BAY LIGHTING	
	BUNK RM LIGHTING	L		1,458		20/1	3	4	30/1		1,859		L	APP BAY LIGHTING	
	BUNK RM LIGHTING	L			1,098	20/1	5	6	20/1			1,225	L	CONF/MTG ROOM LIGHTING	
						20/1	7	8	20/1	907			L	OFFICE CORRIDOR/LOBBY LTG	
						20/1	9	10	20/1						
						20/1	11	12	20/1						
						20/1	13	14	20/1						
						20/1	15	16	20/1						
						20/1	17	18	20/1						
						20/1	19	20	20/1						
						20/1	21	22	20/1						
						20/1	23	24	20/1						

CONNECTED LOAD (Downstream Loads Included)

TOTAL PHASE "A" VA	3,751
TOTAL PHASE "B" VA	3,317
TOTAL PHASE "C" VA	2,329
TOTAL CONNECTED VA	9,391
TOTAL CONNECTED AMPS	26

NOTES:

LOAD SUMMARY WITH DOWNSTREAM LOADS INCLUDED

CATEGORY	CONNECTED	DEMAND	DESIGN VA	AMPS @ 208Y/120V
LIGHTING	9391	125%	11739	33
RECEPT	0	100%	0	0
RECEPT	0	50%	0	0
MOTOR	0	100%	0	0
LRGST MTR	0	125%	0	0
MISC/GENERAL	0	100%	0	0
KITCHEN	0		0	0
ELEC HEAT	0	125%	0	0
USER DEFINED	0		0	0
USER DEFINED	0		0	0
USER DEFINED	0		0	0
TOTAL	**9391**		**11739**	**33**

EP1

208Y/120V
3-PHASE, 4-WIRE + GROUND

BUS: **400 AMPS**
MAINS: **MLO**

PANEL NAME: **EP1**
FED FROM:
MOUNTING:

OPTIONS:

N	DESCRIPTION	ID	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	OCPD SIZE			OCPD SIZE	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	ID	DESCRIPTION	N
	REC-BUNK-149	R	1,260			20/1	1	2	20/1	900			R	REC-FRIDGE-167	
	REC-BUNK-149,152	R		720		20/1	3	4	20/1		900		R	REC-FRIDGE-167	
	REC-BATHROOM-150,151	R			360	20/1	5	6	20/1			900	R	REC-FRIDGE-167	
	REC-BUNK-152	R	1,260			20/1	7	8	20/1	540			R	REC- DAYROOM-160	
	REC-BUNK-153	R		1,260		20/1	9	10	20/1		1,260		R	REC-DAYROOM,KITCHEN-160,167	
	REC-BUNK,STORAGE-153,155	R			1,260	20/1	11	12	20/1			900	R	REC-OFFICE-164	
	REC-BATHROOM-154	R	180			20/1	13	14	20/1	360			R	REC-ABOVE CTR-167	
	REC-BATHROOM-161	R		360		20/1	15	16	20/1		300		R	REC-OVEN HOOD-167	
	REC-STORAGE-137	R			1,500	20/1	17	18	20/1			1,500	R	REC-MIC-167	
	REC-WATCH ROOM-163	R	360			20/1	19	20	20/1	540			R	REC-ABOVE CTR-167	
	REC-WATCH ROOM-163	R		540		20/1	21	22	20/1		500		R	REC-DW-167	
	REC-MECH-139	R			180	20/1	23	24	20/1			360	R	REC-KITCHEN ISLAND-167	
	REC-WASHER-147	R	1,500			20/1	25	26	20/1	500			R	GARAGE DOOR - APP BAY	
	REC-DRYER-147	R		2,500		30/2	27	28	20/1		500		R	GARAGE DOOR - APP BAY	
	-	R			2,500	-	29	30	20/1			500	R	GARAGE DOOR - APP BAY	
	REC-BUNK-146	R	1,440			20/1	31	32	20/1	500			R	GARAGE DOOR - APP BAY	
	REC-BUNK-143,146	R		900		20/1	33	34	20/1		1,080		R	REC-BAY,BATHROOM-130,134	
	REC-BATHROOM-144,145	R			360	20/1	35	36	20/1			540	R	REC-BAY-134	
	REC-BUNK-143	R	1,260			20/1	37	38	20/1	540			R	REC-BAY-134	
	REC-BUNK-142	R		1,260		20/1	39	40	20/1		720		R	APP BAY CORD REELS	
	REC-BATHROOM-142	R			180	20/1	41	42	20/1			720	R	APP BAY CORD REELS	
	GENERATOR BATTERY CHARGER	R	1,500			20/1	43	44	20/1	1,500			R	WASHING MACHINE	
	GENERATOR HEATER	R		1,500		20/2	45	46	20/2		600		M	FCU - BUNK ROOMS	
	-	R			1,500	-	47	48	-			600	M	-	
	FCU - LQ COMMON AREAS	M	600			20/2	49	50	50/2	3,640			M	OAP 2.1	
	-	M		600		-	51	52			3,640		M	-	
	ODU-2 CKT 1	M			5,280	70/3	53	54	70/3			5,280	M	OCU 2 CKT 2	
	-	M	5,280			-	55	56	-	5,280			M	-	
	-	M		5,280		-	57	58	-		5,280		M	-	
	DRYER	R			2,000	30/2	59	60	20/1			500	R	TOOL ROOM RECEPT	
	-	R	2,000			-	61	62	20/1	500			R	TOOL ROOM RECEPT	
	SCBA COMPRESSOR	R		3,000		40/2	63	64	20/1		180		R	SCBA MISC POWER	
	-	R			3,000	-	65	66	20/1			180	R	SCBA MISC POWER	
	SPARE					20/1	67	68	20/1					SPARE	
	SPARE					20/1	69	70	20/1					SPARE	
	SPARE					20/1	71	72	20/1					SPARE	
	SPARE					20/1	73	74	20/1					SPARE	
	SPARE					20/1	75	76	20/1					SPARE	
	SPARE					20/1	77	78	20/1					SPARE	
	PANEL EP2	G	11,423			200/3	79	80	20/1					SPARE	
	-	G		11,423		-	81	82	20/1					SPARE	
	-	G			11,423	-	83	84	20/1					SPARE	

CONNECTED LOAD (Downstream Loads Included)

TOTAL PHASE "A" VA	42,863
TOTAL PHASE "B" VA	44,303
TOTAL PHASE "C" VA	41,523
TOTAL CONNECTED VA	128,689
TOTAL CONNECTED AMPS	358

NOTES:

LOAD SUMMARY WITH DOWNSTREAM LOADS INCLUDED

CATEGORY	CONNECTED	DEMAND	DESIGN VA	AMPS @ 208Y/120V
LIGHTING	0	125%	0	0
RECEPT	10,000	100%	10000	28
RECEPT	43060	50%	21530	60
MOTOR	41360	100%	41360	115
LRGST MTR	0	125%	0	0
MISC/GENERAL	34269	100%	34269	95
KITCHEN	0		0	0
ELEC HEAT	0	125%	0	0
USER DEFINED	0		0	0
USER DEFINED	0		0	0
USER DEFINED	0		0	0
TOTAL	**128689**		**107159**	**298**

EP2

208Y/120V
3-PHASE, 4-WIRE + GROUND

BUS: **225 AMPS**
MAINS: **MLO**

PANEL NAME: **EP2**
FED FROM:
MOUNTING:

OPTIONS:

N	DESCRIPTION	ID	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	OCPD SIZE			OCPD SIZE	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	ID	DESCRIPTION	N
	REC-LAUNDRY	R	2,500			30/2	1	2	20/1	1,250			L	SITE LIGHTING	
	-	R		2,500		30/2	3	4	20/1		720		R	MEETING RM FLOOR RECEPTS	
	REC-LAUNDRY	R			2,500	30/2	5	6	20/1			720	R	MEETING RM FLOOR RECEPTS	
	-	R	2,500			30/2	7	8	20/1					SPARE	
	SPARE					20/1	9	10	20/1					SPARE	
	SPARE					20/1	11	12	20/1			200	R	FIRE ALARM CONTROL PANEL	
	REC-CONFERENCE-116,114	R	1,040			20/1	13	14	20/1	360			R	MEETING RM AV RACK	
	REC-I.T.-105	R		360		20/1	15	16	30/2		2,500		E	EUH-5	
	REC-I.T.-105	R			360	20/1	17	18	-			2,500	E	-	
	REC-I.T.-105	R	360			20/1	19	20	20/1	1,200			E	GAS AHU-1	
	REC-MEETING ROOM-123	R		720		20/1	21	22	30/2		2,900		M	CU-1	
	REC-MEETING ROOM-123	R			720	20/1	23	24	-			2,900	M	-	
	REC-MEETING ROOM-123	R	540			20/1	25	26	20/1					SPARE	
	SPARE					20/1	27	28	20/1					SPARE	
	SPARE					20/1	29	30	20/1					SPARE	
	SPARE					20/1	31	32	20/1					SPARE	
	SPARE					20/1	33	34	20/1					SPARE	
	SPARE					20/1	35	36	20/1					SPARE	
	SPARE					20/2	37	38	20/1					SPARE	
	SPARE					20/3	39	40	20/1					SPARE	
	SPARE					20/4	41	42	20/1					SPARE	

CONNECTED LOAD (Downstream Loads Included)

TOTAL PHASE "A" VA	9,750
TOTAL PHASE "B" VA	9,700
TOTAL PHASE "C" VA	9,900
TOTAL CONNECTED VA	29,350
TOTAL CONNECTED AMPS	82

NOTES:

LOAD SUMMARY WITH DOWNSTREAM LOADS INCLUDED

CATEGORY	CONNECTED	DEMAND	DESIGN VA	AMPS @ 208Y/120V
LIGHTING	6711	125%	8389	23
RECEPT	10,000	100%	10000	28
RECEPT	4660	50%	2330	6
MOTOR	5800	100%	5800	16
LRGST MTR	0	125%	0	0
MISC/GENERAL	0	100%	0	0
KITCHEN	0		0	0
ELEC HEAT	6200	125%	7750	22
USER DEFINED	0		0	0
USER DEFINED	0		0	0
USER DEFINED	0		0	0
TOTAL	**33371**		**34269**	**95**

LUMINAIRE SCHEDULE

TAG	MANUFACTURER	DESCRIPTION	INSTALLATION METHOD	LUMENS	VOLTAGE	WATTS	KELVIN	FEATURES/OPTIONS
A	DAYBRITE	2FPZ-42B-835-4-DS-UNV-DIM	C/R	4500	UNV	30	3000	2X4 FLAT PANEL
B	DAYBRITE	2FPZ-38B-835-2-DS-UNV-DIM	C/R	2734	UNV	30	3000	2X2 FLAT PANEL
C	MULE	MERU-LED-BK-IH	W/S	1600	UNV	32	4000	
D	DAYBRITE	FLP-4-40L-HE-835-R-UNV-DIM	C/S	4000	UNV	28	3000	
EM	CHLORIDE	CLU2-N-W	W/S	-	UNV	5	-	
F1	MCGRAW EDISON	GKO-PB1C-740-U-T4W	W/S	2200	UNV		4000	
G	ALPHABET	NU4-RD-SW-20LM-30K-20D-CL-WH-RET-120	C/R	2000	UNV	24	3000	
G1	ALPHABET	NU4-RD-SW-10LM-30K-20D-DL-WH-RET-120	C/R	1000	120	12	3000	
G2	ALPHABET	NU4-RD-RGBW-10LM-43K-90-30-CL-MC-MC-RET-UNV-CAS	C/R	1000	UNV	12	4000	NOTE 1
H	VISUAL COMFORT	700BCSPAN-2S-LED930	W/S	1500	120V	16	3000	
J	BLACKJACK	SP-PBX-FR-10-BW-30K-12W-SP5	C/P	1200	120V	10	3000	
K	GENERATION LTG	3ERAR52BSD	C/P	800	120	9	3000	INSTALL W/ WALL CONTROLLER
L	HEW	GS-4-L240-9-40-MD-DIM-UNV-120	C/P	24000	UNV	169	4000	
M	LUMARK	NFFLD-S-C15-D-UNV-33-XX-BK-7040	GRADE	5700	120	52	4000	
SL4	MCGRAW EDISON	GALN-SA2B-740-U-T4FT	GRADE				4000	
SL5	MCGRAW EDISON	GALN-SA2B-740-U-5MQ	GRADE				4000	
X	CHLORIDE	VERW	UNIV	-	120	-	-	AC ONLY
F1A	CGF DESIGN	RW-LDG-DF-PGC-24-UNV-1D-BK			120	9		NOTE 2

ABBREVIATIONS:

UNV	UNIVERSAL 120-277V
C/P	CEILING PENDANT
C/R	CEILING RECESSED
C/S	CEILING SURFACE
W/S	WALL SURFACE

ORDERING NOTES:

1 PROVIDE WITH CASAMBI CONTROL (APP BASED).
2 PROVIDE ALTERNATE PRICIE FOR LIGHT FIXTURE F1 TO CHANGE TO F1A WITH CASAMBI CONTROL.
3

GENERAL NOTE:

A. MANUFACTURERS LISTED ABOVE ARE THE BASIS OF DESIGN. CONTRACTOR TO REVIEW THOROUGHLY ALL COMPONENTS OF LISTED FIXTURE AND PROVIDE EITHER THE BASIS OF DESIGN OR AN EQUAL MANUFACTURER FOR REVIEW. SUBMITTED EQUAL FIXTURES SHALL OCCUR DURING THE SHOP DRAWING PROCESS AND WILL NOT REQUIRE PRE-APPROVAL. ENGINEER RESERVES FINAL DETERMINATION RIGHTS OF "EQUAL" INTERPRETATION.

NP

208Y/120V
3-PHASE, 4-WIRE + GROUND

BUS: **400 AMPS**
MAINS: **MLO**

PANEL NAME: **NP**
FED FROM:
MOUNTING:

OPTIONS:

N	DESCRIPTION	ID	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	OCPD SIZE			OCPD SIZE	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	ID	DESCRIPTION	N
	DWH-1	G	5,000			100/3	1	2	20/1	1,500			R	REC-WEIGHT ROOM-157	
	-	G		5,000		-	3	4	20/1		1,500		R	REC-WEIGHT ROOM-157	
	-	G			5,000	-	5	6	20/1			720	R	REC-WEIGHT ROOM-157	
	SPARE					20/1	7	8	20/1	360			R	REC-WEIGHT ROOM-157	
	SPARE					20/1	9	10	20/1		360		R	REC-WEIGHT ROOM-157	
	SPARE					20/1	11	12	20/1			400	G	INFRARED HEATERS - APP BAY	
	SPARE					20/1	13	14	20/2	1,500			E	EUH-4	
	SPARE					20/1	15	16	-		1,500		E	-	
	SPARE					20/1	17	18	20/1			200	L	FAÇADE SOFFIT LIGHTING	
	SPARE					20/1	19	20	20/1	600			R	ROOF VENTILATORS	
	SPARE					20/1	21	22	20/1					SPARE	
	SPARE					20/1	23	24	20/1					SPARE	
	SPARE					20/1	25	26	20/1					SPARE	
	SPARE					20/1	27	28	20/1					SPARE	
	SPARE					20/1	29	30	20/1					SPARE	
	SPARE					20/1	31	32	20/1					SPARE	
	SPARE					20/1	33	34	20/1					SPARE	
	SPARE					20/1	35	36	20/1					SPARE	
	PANEL NP2	G	20,359			225/3	37	38	20/1					SPARE	
	-	G		20,359		-	39	40	20/1					SPARE	
	-	G			20,359	-	41	42	20/1					SPARE	

CONNECTED LOAD (Downstream Loads Included)

TOTAL PHASE "A" VA	29,319
TOTAL PHASE "B" VA	28,719
TOTAL PHASE "C" VA	26,679
TOTAL CONNECTED VA	84,717
TOTAL CONNECTED AMPS	235

NOTES:

LOAD SUMMARY WITH DOWNSTREAM LOADS INCLUDED

CATEGORY	CONNECTED	DEMAND	DESIGN VA	AMPS @ 208Y/120V
LIGHTING	200	125%	250	1
RECEPT	5,040	100%	5040	14
RECEPT	0	50%	0	0
MOTOR	0	100%	0	0
LRGST MTR	0	125%	0	0
MISC/GENERAL	76477	100%	76477	213
KITCHEN	0		0	0
ELEC HEAT	3000	125%	3750	10
USER DEFINED	0		0	0
USER DEFINED	0		0	0
USER DEFINED	0		0	0
TOTAL	**84717**		**85517**	**238**

NP2

208Y/120V
3-PHASE, 4-WIRE + GROUND

BUS: **225 AMPS**
MAINS: **MLO**

PANEL NAME: **NP2**
FED FROM:
MOUNTING:

OPTIONS:

N	DESCRIPTION	ID	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	OCPD SIZE			OCPD SIZE	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	ID	DESCRIPTION	N
	BUILDING FAÇADE LTG	L	392			20/1	1	2	20/1	900			R	REC- 109	
	OFFICE LTG	L		1,543		20/1	3	4	20/1		180		R	REC-PRINTER-111	
	EWH-1	E			2,000	30/2	5	6	20/1			900	R	REC-BATHRM,BREAK-111,112,113,115	
	-	E	2,000			-	7	8	20/1	1,620			R	REC-OFFICE-120,121	
	FCU 1.6, 1.7	M		1,248		20/2	9	10	20/1		1,080		R	REC-OFFICE-101,102,103	
	-	M			1,248	-	11	12	20/1			720	R	REC-BATHROOM,LOBBY-125,126,128	
	FCU 1.1 - 1.5	M	832			20/2	13	14	20/1	1,500			R	REC-MIC-112	
	-	M		832		-	15	16	20/1		180		R	REC- ABOVE CTR-112	
	OAP 1.1	M			3,744	40/2	17	18	20/1			500	R	REC-KITCHEN-112	
	-	M	3,744			-	19	20	20/1	180			R	REC-ABOVE CTR-112	
	EUH-1	E		1,500		20/2	21	22	20/1		900		R	REC-FRIDGE-112	
	-	E			1,500	-	23	24	20/1			500	R	UC FRIDGE MEETING ROOMS	
	EUH-2	E	1,500			20/2	25	26	20/1	360			R	TOOL ROOM RECEPTS	
	-	E		1,500		-	27	28	25/2		1,500		M	EF-1 (APP BAY ROOF)	
	EUH-3	E			1,500	20/2	29	30	-			1,500	M	-	
	-	E	1,500			-	31	32	20/1	1,440			R	REC- OFFICE-110,118	
	REC-OFFICE-107	R		720		20/1	33	34	20/1		300		L	LIGHTING CONTROL PANEL	
	MONUMENT SIGN	L			500	20/1	35	36	20/1			536	L	SOFFIT LIGHTING	
	ROOF VENTILATORS	R	500			20/1	37	38	100/3	5,000			G	DWH-2	
	SPARE					20/1	39	40	-		5,000		G	-	
	SPARE					20/1	41	42	-			5,000	G	-	

CONNECTED LOAD (Downstream Loads Included)

TOTAL PHASE "A" VA	21,468
TOTAL PHASE "B" VA	16,483
TOTAL PHASE "C" VA	20,148
TOTAL CONNECTED VA	58,099
TOTAL CONNECTED AMPS	161

NOTES:

LOAD SUMMARY WITH DOWNSTREAM LOADS INCLUDED

CATEGORY	CONNECTED	DEMAND	DESIGN VA	AMPS @ 208Y/120V
LIGHTING	3271	125%	4089	11
RECEPT	10,000	100%	10000	28
RECEPT	2180	50%	1090	3
MOTOR	14648	100%	14648	41
LRGST MTR	0	125%	0	0
MISC/GENERAL	15000	100%	15000	42
KITCHEN	0		0	0
ELEC HEAT	13000	125%	16250	45
USER DEFINED	0		0	0
USER DEFINED	0		0	0
USER DEFINED	0		0	0
TOTAL	**58099**		**61077**	**170**

MDP

208Y/120V
3-PHASE, 4-WIRE + GROUND

BUS: **800 AMPS**
MAINS: **MLO**

PANEL NAME: **MDP**
FED FROM:
MOUNTING:

OPTIONS:

N	DESCRIPTION	ID	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	OCPD SIZE			OCPD SIZE	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	ID	DESCRIPTION	N
	ATS	G	34,974			400/3	1	2	110/3	8,400			M	ODU-1	
	-	G		34,974		-	3	4	-		8,400		M	-	
	-	G			34,974	-	5	6	-			8,400	M	-	
	PANEL NP	G	28,505			400/3	7	8	100/3					SPARE	
	-	G		28,505		-	9	10	-					-	
	-	G			28,505	-	11	12	-					-	
	ATSL	G				100/3	13	14						SPACE	
	-	G				-	15	16						-	
	-	G				-	17	18						-	
							19	20							
							21	22							
							23	24							

CONNECTED LOAD (Downstream Loads Included)

TOTAL PHASE "A" VA	71,879
TOTAL PHASE "B" VA	71,879
TOTAL PHASE "C" VA	71,879
TOTAL CONNECTED VA	215,637
TOTAL CONNECTED AMPS	599

NOTES:

LOAD SUMMARY WITH DOWNSTREAM LOADS INCLUDED

CATEGORY	CONNECTED	DEMAND	CALCULATED VA	AMPS @ 208Y/120V
LIGHTING	0	125%	0	0
RECEPT	0	100%	0	0
RECEPT	0	50%	0	0
MOTOR	25200	100%	25200	70
LRGST MTR	0	125%	0	0
MISC/GENERAL	190437	100%	190437	529
KITCHEN	0		0	0
ELEC HEAT	0	125%	0	0
USER DEFINED	0		0	0
USER DEFINED	0		0	0
USER DEFINED	0		0	0
TOTAL	**215637**		**215637**	**599**

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Revisions:

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Sheet Info:

ELECTRICAL SCHEDULES

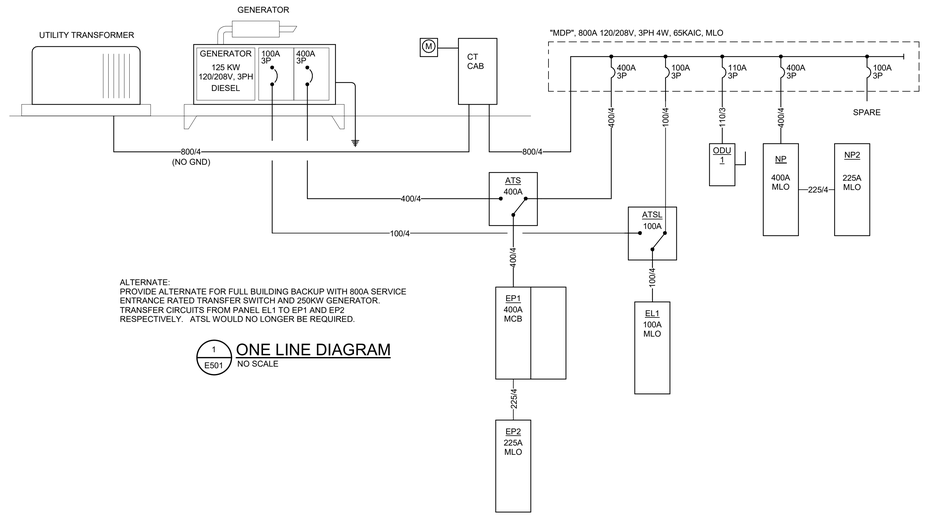
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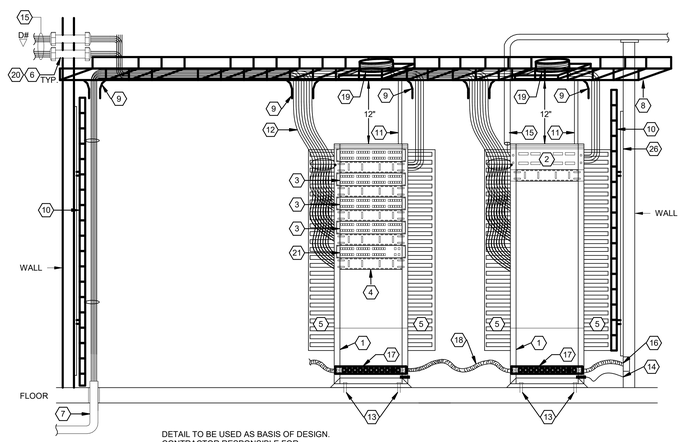
FEEDER SCHEDULE - ALUMINUM CONDUCTORS WITH COPPER GROUND

FEEDER ID	AMPS	PHASE WIRES (AWG)	NEUTRAL WIRES (AWG)	GND (AWG)	MIN. CONDUIT SIZE	FEEDER ID	AMPS	PHASE WIRES (AWG)	NEUTRAL WIRES (AWG)	GND (AWG)	MIN. CONDUIT SIZE
CU-30/3	30	(3) #10		#10	3/4"	400/3	400	(6) 250 KCMIL		(2) #2	(2) 2-1/2"
CU-30/4	30	(3) #10	(1) #10	#10	3/4"	400/4	400	(6) 250 KCMIL	(2) 250 KCMIL	(2) #2	(2) 2-1/2"
CU-40/3	40	(3) #8		#10	3/4"	500/3	500	(6) 350 KCMIL		(2) #2	(2) 2-1/2"
CU-40/4	40	(3) #8	(1) #8	#10	3/4"	500/4	500	(6) 350 KCMIL	(2) 350 KCMIL	(2) #2	(2) 3"
CU-50/3	50	(3) #6		#10	1	600/3	600	(6) 500 KCMIL		(2) #1	(2) 3"
CU-50/4	50	(3) #6	(1) #6	#10	1-1/4"	600/4	600	(6) 500 KCMIL	(2) 500 KCMIL	(2) #1	(2) 3-1/2"
CU-60/3	60	(3) #4		#10	1-1/4"	700/3	700	(9) 350 KCMIL		(2) #1/0	(3) 3-1/2"
CU-60/4	60	(3) #4	(1) #4	#10	1-1/4"	700/4	700	(9) 350 KCMIL	(3) 350 KCMIL	(2) #1/0	(3) 3"
CU-70/3	70	(3) #4		#8	1-1/4"	800/3	800	(9) 400 KCMIL		(3) #1/0	(3) 3"
CU-70/4	70	(3) #4	(1) #4	#8	1-1/4"	800/4	800	(9) 400 KCMIL	(3) 400 KCMIL	(3) #1/0	(3) 3"
CU-90/3	90	(3) #2		#8	1-1/4"	1000/3	1000	(12) 350 KCMIL		(3) #2/0	(4) 3"
CU-90/4	90	(3) #2	(1) #2	#8	1-1/4"	1000/4	1000	(12) 350 KCMIL	(4) 350 KCMIL	(3) #2/0	(4) 3"
100/3	100	(3) #1		6	1-1/4"	1200/3	1200	(12) 500 KCMIL		(4) #3/0	(4) 3"
100/4	100	(3) #1	(1) #1	6	1-1/2"	1200/4	1200	(12) 500 KCMIL	(4) 500 KCMIL	(4) #3/0	(4) 3-1/2"
125/3	125	(3) #2/0		4	2"	1500/3	1500	(15) 500 KCMIL		(4) #4/0	(5) 3"
125/4	125	(3) #2/0	(1) #2/0	4	2"	1500/4	1500	(15) 500 KCMIL	(5) 500 KCMIL	(4) #4/0	(5) 3-1/2"
150/3	150	(3) #3/0		4	2"	1600/3	1600	(18) 400 KCMIL		(5) #4/0	(6) 3"
150/4	150	(3) #3/0	(1) #3/0	4	2"	1600/4	1600	(18) 400 KCMIL	(6) 400 KCMIL	(5) #4/0	(6) 3"
175/3	175	(3) #4/0		4	2"	2000/3	2000	(21) 500 KCMIL		(7) 250 KCMIL	(7) 3"
175/4	175	(3) #4/0	(1) #4/0	4	2-1/2"	2000/4	2000	(21) 500 KCMIL	(7) 500 KCMIL	(7) 250 KCMIL	(7) 3-1/2"
200/3	200	(3) 250 KCMIL		4	2-1/2"	2500/3	2500	(27) 500 KCMIL		(9) 350 KCMIL	(9) 3-1/2"
200/4	200	(3) 250 KCMIL	(1) 250 KCMIL	4	3"	2500/4	2500	(27) 500 KCMIL	(9) 500 KCMIL	(9) 350 KCMIL	(9) 3-1/2"
225/3	225	(3) 300 KCMIL		4	2-1/2"	3000/3	3000	(30) 500 KCMIL		(10) 400 KCMIL	(10) 3-1/2"
225/4	225	(3) 300 KCMIL	(1) 300 KCMIL	4	3"	3000/4	3000	(30) 500 KCMIL	(10) 500 KCMIL	(10) 400 KCMIL	(10) 3-1/2"
250/3	250	(3) 350 KCMIL		4	2-1/2"	3200/3	3200	(33) 500 KCMIL		(11) 500 KCMIL	(11) 3-1/2"
250/4	250	(3) 350 KCMIL	(1) 350 KCMIL	4	3"	3200/4	3200	(33) 500 KCMIL	(11) 500 KCMIL	(11) 500 KCMIL	(11) 4"
300/3	300	(3) 500 KCMIL		4	3"	4000/3	4000	(33) 750 KCMIL		(11) 750 KCMIL	(11) 4"
300/4	300	(3) 500 KCMIL	(1) 500 KCMIL	4	3-1/2"	4000/4	4000	(33) 750 KCMIL	(11) 750 KCMIL	(11) 750 KCMIL	(11) 4"
350/3	350	(6) #4/0		2	(2) 2"						
350/4	350	(6) #4/0	(2) #4/0	2	(2) 2-1/2"						



ALTERNATE:
PROVIDE ALTERNATE FOR FULL BUILDING BACKUP WITH 800A SERVICE ENTRANCE RATED TRANSFER SWITCH AND 250KW GENERATOR. TRANSFER CIRCUITS FROM PANEL EL1 TO EP1 AND EP2 RESPECTIVELY. ATSL WOULD NO LONGER BE REQUIRED.

1 / E501 ONE LINE DIAGRAM
NO SCALE

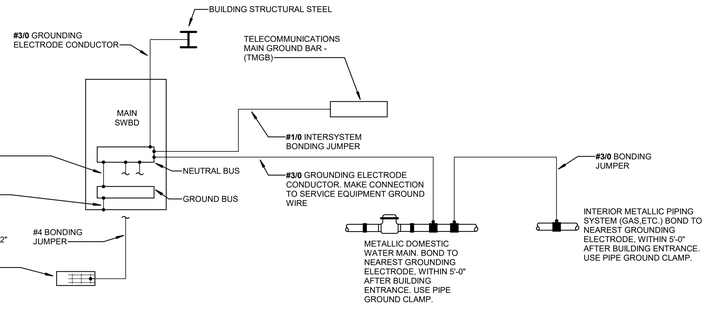


DETAIL TO BE USED AS BASIS OF DESIGN.
CONTRACTOR RESPONSIBLE FOR DESIGN OF SYSTEM, ALL EQUIPMENT, INSTALL, CABLING AND FINAL TESTING.

KEYED NOTES

1. 19" OPEN FRAME DATA RACK.
2. ENCLOSED FIBER OPTIC PATCH PANEL FOR INCOMING SERVICE.
3. 48 PORT PATCH PANEL (QUANTITY AS REQUIRED FOR DATA/TELECOM TERMINATIONS).
4. FRONT AND REAR HORIZONTAL CABLE MANAGEMENT UNIT.
5. VERTICAL CABLE MANAGEMENT SIDE PANELS, WITH BOTH FRONT AND REAR CABLE MANAGEMENT. 2 UNITS PER OPEN FRAME DATA RACK.
6. 4" RGS CONDUIT SLEEVES OR FIRE RATED ASSEMBLIES THROUGH WALL WITH PLASTIC BUSHINGS. SECURE SLEEVE TO BUILDING STRUCTURE.
7. INCOMING TELECOM CONDUIT, 4".
8. CABLE RUNWAY ROUTED ABOVE TELECOM RACKS AND ALONG WALLS OF ROOM AS SHOWN ON DRAWINGS. PROVIDE SUPPORTS FOR WEIGHT OF CABLE PLUS 20% FOR FUTURE EXPANSION AND DROPOUTS AS REQUIRED TO COMPLY WITH MINIMUM BEND RADIUS REQUIREMENT.
9. RADIUS DROPOUT (WATERFALL) DROPOUTS AS REQUIRED TO COMPLY WITH MINIMUM BEND RADIUS REQUIREMENT.
10. WALL MOUNTED CABLE RUNWAY FOR VERTICAL CABLING SUPPORT (IF REQUIRED).
11. UNIVERSAL EARTHQUAKE MOUNTING BRACKET. PROVIDE FOR EACH RACK.
12. HORIZONTAL CABLING TO STATION OUTLETS. QUANTITY AND TYPES AS SHOWN ON DRAWINGS.
13. MOUNT RACK TO FLOOR WITH GRADE 5 HARDWARE.
14. GROUNDING LUG KIT AND BONDING CONDUCTOR ROUTED TO AND TERMINATED ON TELECOMMUNICATIONS GROUNDING BUSBAR (TGB) IN TELECOMMUNICATIONS ROOM. (ONE PER PACK).
15. FIBER TO REMOTE IDF.
16. PROVIDE FLEXIBLE METAL CONDUIT FROM BACK BOX AT ADJACENT WALL TO RACK(S) FOR EQUIPMENT POWER. (TYPICAL)
17. RACK MOUNTED POWER STRIP. MOUNT RECEPTACLES FACING REAR OF DATA RACK.
18. PROVIDE FLEXIBLE METAL CONDUIT FOR BRANCH CIRCUITING TO ADJACENT RACK(S) AS REQUIRED.
19. LADDER MOUNTED CABLE LOOP MANAGER. PROVIDE ONE (1) FOR EACH DATA RACK.
20. LABEL ALL SLEEVES ON EACH SIDE OF THE PENETRATION WITHIN 12" OF FIRE STOPPING MATERIAL WITH FLOOR OF BUILDING, FIRE STOPPING LOCATION IDENTIFIER, HOUR RATING OF THE FIRE STOPPING SYSTEM, AND DATE OF FIRE STOPPING INSTALLATION (IF FIRESTOPPING IS REQURIED).
21. OWNER PROVIDED DATA NETWORK ELECTRONICS.

5 / E501 TYPICAL DATA RACK DETAIL
NO SCALE



GROUNDING AND BONDING NOTES

1. COMPLETE GROUNDING INSTALLATION SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
2. ALL CONDUCTORS ARE BARE STRANDED COPPER, UNLESS NOTED OTHERWISE.
3. ALL UNDERGROUND CONNECTIONS AND CONNECTIONS IN INACCESSIBLE LOCATIONS SHALL BE EXOTHERMIC WELD TYPE. UL LISTED MECHANICAL CONNECTORS CAN BE USED ABOVE GRADE IN ACCESSIBLE LOCATIONS, WHERE ALLOWABLE BY NEC.
4. PROVIDE SUPPLY-SIDE BONDING JUMPERS IN ALL SERVICE EQUIPMENT BETWEEN LINE SIDE CONDUIT GROUNDING BUSHINGS AND NEUTRAL/EQUIPMENT GROUND BUS. WIRE SIZE SHALL BE EQUIVALENT TO THE MAIN BONDING JUMPER AND SERVICE EQUIPMENT GROUND WIRE SIZE AS NOTED ON THE RISER DIAGRAM AND/OR ONE-LINE DIAGRAM.

2 / E501 SERVICE ENTRANCE GROUNDING
NO SCALE

GENERAL NOTES:

TOP OF CONCRETE FOUNDATION SHALL BE TROWELLED SMOOTH AND LEVEL

CONCRETE SHALL BE 3000 P.S.I. @ 28 DAYS. CONCRETE SHALL BE VIBRATED.

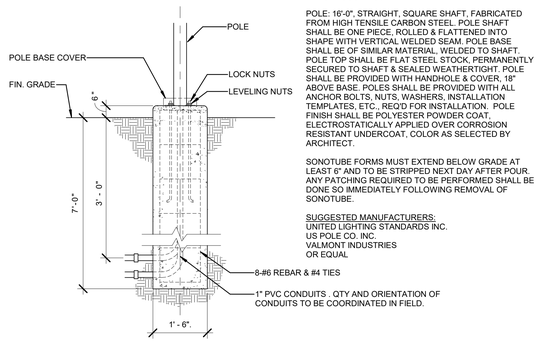
VERIFY OPENING SIZE IN POLE BASE PLATE PRIOR TO SETTING CONDUIT SLEEVES.

EXTEND CONDUITS 12" ABOVE TOP OF FORM. TERMINATE CONDUITS WITH INSULATED THROAT BUSHINGS.

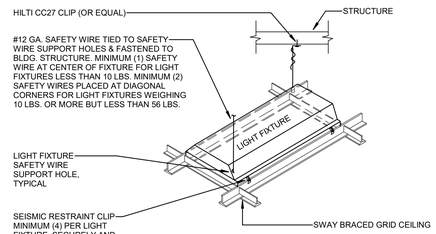
POLE: 16'-0", STRAIGHT, SQUARE SHAFT, FABRICATED FROM HIGH TENSILE CARBON STEEL. POLE SHAFT SHALL BE ONE PIECE, ROLLED & FLATTENED INTO SHAPE WITH VERTICAL WELDED SEAM. POLE BASE SHALL BE OF SIMILAR MATERIAL, WELDED TO SHAFT. POLE TOP SHALL BE FLAT STEEL STOCK, PERMANENTLY SECURED TO SHAFT & SEALED WEATHERTIGHT. POLE SHALL BE PROVIDED WITH HANDHOLE & COVER, 18" ABOVE BASE. POLES SHALL BE PROVIDED WITH ALL ANCHOR BOLTS, NUTS, WASHERS, INSTALLATION TEMPLATES, ETC., REQ'D FOR INSTALLATION. POLE FINISH SHALL BE POLYESTER POWDER COAT, ELECTROSTATICALLY APPLIED OVER CORROSION RESISTANT UNDERCOAT, COLOR AS SELECTED BY ARCHITECT.

SONOTUBE FORMS MUST EXTEND BELOW GRADE AT LEAST 6" AND TO BE STRIPPED NEXT DAY AFTER POUR. ANY PATCHING REQUIRED TO BE PERFORMED SHALL BE DONE SO IMMEDIATELY FOLLOWING REMOVAL OF SONOTUBE.

SUGGESTED MANUFACTURERS:
UNITED LIGHTING STANDARDS INC.
US POLE CO. INC.
VALMONT INDUSTRIES
OR EQUAL



4 / E501 LIGHTING POLE FOUNDATION DETAIL
NO SCALE



NOTES:
1. SUPPORT WIRES FOR FIXTURES WEIGHTING LESS THAN 56 LBS. MAY BE INSTALLED SLACK. ALL OTHER SUPPORT WIRES SHALL BE INSTALLED TAUT WITH A MINIMUM OF 3 TIGHT TURNS AROUND ITSELF.
2. LIGHT FIXTURES WEIGHING 56 LBS OR MORE SHALL BE INDEPENDENTLY SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE, BY APPROVED HANGERS.

EXCEPTION:
LIGHT FIXTURES THAT ARE NOT COMPONENTS OF A STANDBY OR EMERGENCY LIGHTING SYSTEM AND WEIGH LESS THAN 20 POUNDS AND ARE POWERED USING FLEXIBLE CABLE CONNECTIONS NOT LESS THAN 3 FT. LONG CONNECTED TO THE FIXTURES, ARE NOT REQUIRED TO HAVE THE ADDITIONAL SUPPORT WIRE(S) DESCRIBED ABOVE. SUCH FIXTURES ARE REQUIRED TO BE POSITIVELY ATTACHED TO THE CEILING GRID AS DESCRIBED ABOVE.

3 / E501 RECESSED LIGHTING FIXTURE SUPPORT DETAIL
NO SCALE

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NUMBER PE-2019017816
PROFESSIONAL ENGINEER

WCFPD Station 1
Wright City Fire Protection District
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Wright City, MO 63390

Revisions:

No:	Date:	Description:

Sheet Info:

ELECTRICAL RISER DIAGRAM & DETAILS

Drawn By:	ENGENUITY, Inc
Checked By:	MAE
Commission:	025-2125
Date:	08-19-25

E501