# INTERIOR & EXTERIOR RENOVATIONS
# MISSOURI 4H BUILDING
# MISSOURI STATE FAIRGROUNDS
# SEDALIA, MO

Robert Rollings Architects LLC

OWNER: STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

MISSOURI DEPARTMENT OF
AGRICULTURE
MISSOURI STATE FAIRGROUNDS

PROJECT MANAGEMENT: OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DESIGNER: ROBERT ROLLINGS
ARCHITECTS, LLC

PROJECT NUMBER: F2407-01 BID DOCUMENTS

SITE NUMBER: 1501
ASSET NUMBER: 3511501028

SHEET NUMBER:
G-001
1 OF 49 SHEETS
JUNE 27, 2025

NOTE:

THESE DRAWINGS, ALONG WITH THE PROJECT SPECIFICATIONS, REPRESENT A UNIFIED SET OF CONSTRUCTION DOCUMENTS. ALL BIDDERS SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL DRAWINGS IN THIS SET, REGARDLESS OF SHEET NUMBER AND DISCIPLINE, AND SHALL BE RESPONSIBLE FOR COORDINATING THEIR WORK WITH THE WORK OF OTHER TRADES. ANY APPARENT DISCREPANCIES BETWEEN DRAWINGS OR BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.

DO NOT BID FROM PARTIAL SETS OF BID DOCUMENTS.

BY SUBMITTING A BID, BIDDERS REPRESENT THAT THEY HAVE VISITED THE SITE, BECOME FAMILIAR WITH THE BID DOCUMENTS IN THEIR ENTIRETY AND WITH LOCAL CONDITIONS UNDER WHICH THE WORKS IS TO BE PERFORMED AND HAVE CORRELATED THE BIDDER'S PERSONAL OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.




2 / G-002 — SITE MAP, SEDALIA MO — 12" = 1'-0"




3 / G-002 — PROJECT LOCATION — 12" = 1'-0"

# A-101

SHEET IN SERIES

DISCIPLINE — SERIES

| | | | |
|---|---|---|---|
| G | GENERAL | 0 | GENERAL INFORMATION |
| C | CIVIL | 1 | PLANS |
| D | DEMOLITION | 2 | EXTERIOR ELEVATIONS |
| S | STRUCTURAL | 3 | BUILDING SECTIONS |
| A | ARCHITECTURAL | 4 | LARGE SCALE VIEWS |
| Q | EQUIPMENT | 5 | DETAILS |
| M | MECHANICAL | 6 | SCHEDULES & DIAGRAMS |
| FG | FUEL GAS | 7 | REFLECTED CEILING PLANS |
| P | PLUMBING | 8 | STAIRS AND ELEVATORS |
| E | ELECTRICAL | 9 | 3D REPRESENTATIONS |

| | |
|---|---|
| 4 | SHEET NAMING CONVENTION |
| A1.01 | SHEET NAMES DO NOT DEFINE LIMITS OF WORK |

DRAWING NUMBER — 4 / A1.01 — SHEET NAME WHERE DRAWING IS FOUND

EXTERIOR ELEVATION — 1 / A2.01

INTERIOR ELEVATION — 1 / A3.01

BUILDING SECTION OR DETAIL SECTION — 1 / A3.01

DETAILED SECTION OR PLAN CALL-OUT — 1 / A4.01

OFFICE 101 — ROOM/SPACE NAME AND REF. NUMBER

101 — DOOR NUMBER

B — WINDOW TYPE

G — KEYED NOTE

6 — EQUIPMENT NUMBER

SPOT ELEVATION OR FLOOR ELEVATION

PLAN NORTH

FIRE EXTINGUISHER CABINET — F.E.C.

C.J. — CONTROL JOINT

| SHEET ORDER | SHEET NUMBER | SHEET NAME |
|---|---|---|
| 1 | G-001 | COVER |
| 2 | G-002 | GENERAL INFORMATION |
| 3 | C- 001 | CIVIL COVER SHEET |
| 4 | C- 100 | EXISTING CONDITIONS & DEMOLITION PLAN |
| 5 | C- 101 | SITE LAYOUT & UTILITY PLAN |
| 6 | C- 102 | GRADING & DRAINAGE PLAN |
| 7 | C- 501 | DETAILS |
| 8 | C- 502 | DETAILS |
| 9 | C- 503 | DETAILS |
| 10 | S-001 | GENERAL STRUCTURAL DATA |
| 11 | S-101 | FOUNDATION PLAN & DETAILS |
| 12 | S-102 | MEZZANINE & CEILING FRAMING PLAN |
| 13 | S-501 | MEZZANINE & CEILING FRAMING DETAILS |
| 14 | D-101 | DEMOLITION PLAN |
| 15 | D-201 | DEMOLITION ELEVATIONS |
| 16 | A-101 | FLOOR PLANS |
| 17 | A-102 | DIMENSION PLANS |
| 18 | A-103 | REFERENCE PLANS |
| 19 | A-104 | ROOF PLAN |
| 20 | A-201 | EXTERIOR ELEVATIONS |
| 21 | A-301 | BUILDING SECTIONS |
| 22 | A-401 | ENLARGED PLANS |
| 23 | A-402 | INTERIOR ELEVATIONS |
| 24 | A-403 | WALL SECTION |
| 25 | A-501 | TYPICAL DETAILS |
| 26 | A-502 | DETAILS |
| 27 | A-503 | STAIR DETAILS |
| 28 | A-601 | DOOR - WINDOW - & FINISH SCHEDULE |
| 29 | A-701 | REFLECTED CEILING PLANS |
| 30 | MEP-1 | MECHANICAL ELECTRICAL PLUMBING COVER SHEET |
| 31 | MEP-2 | SITE UTILITY PLAN |
| 32 | MEP-3 | ROOF PLAN |
| 33 | M-101 | OVERALL HVAC PLAN |
| 34 | M-102 | ENLARGED HVAC PLAN |
| 35 | M-501 | HVAC DETAILS & SCHEDULES |
| 36 | E-101 | OVERALL POWER PLAN |
| 37 | E-102 | ENLARGED POWER PLAN |
| 38 | E-103 | OVERALL LIGHTING PLAN |
| 39 | E-104 | ENLARGED LIGHTING PLAN |
| 40 | E-501 | ELECTRICAL DETAILS |
| 41 | E-601 | ELECTRICAL SCHEDULES |
| 42 | F-101 | OVERALL FIRE PROTECTION PLAN |
| 43 | F-102 | ENLARGED FIRE PROTECTION PLAN |
| 44 | P-101 | OVERALL SANITARY SEWER PLAN |
| 45 | P-102 | ENLARGED SANITARY SEWER PLAN |
| 46 | P-103 | OVERALL WATER PLAN |
| 47 | P-104 | ENLARGED WATER PLAN |
| 48 | P-501 | PLUMBING DETAILS & SCHEDULES |

DESIGN TEAM:

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STRUCTURAL ENGINEER:
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CIVIL ENGINEER:
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CODE INFORMATION 2021 INTERNATIONAL BUILDING CODE (IBC)

ESTIMATED OCCUPANCY LOAD: 352 OCCUPANTS TOTAL
TABLE 1004.1.2
ASSEMBLY, EXHIBIT GALLERY = 30 NET.
9,930 SQ. FT. / 30 = 331 OCCUPANTS
RESIDENTIAL = 200 GROSS
4,226 SQ. FT. / 200 = 21 OCCUPANTS

**CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION**
ASSEMBLY GROUP A-3 (EXHIBITION HALL)
RESIDENTIAL GROUP R-3 (TRANSIENT 10 OR FEWER OCCUPANTS)

**CHAPTER 4 SPECIAL DETAILED REQUIREMENTS**
420.2 SEPARATION WALLS
WALLS SEPARATING SLEEPING UNITS IN THE SAME BUILDING OR SLEEPING UNITS FROM OTHER OCCUPANCIES SHALL BE CONSTRUCTED AS FIRE PARTITIONS IN ACCORDANCE WITH 708
420.3 HORIZONTAL SEPARATION
FLOOR ASSEMBLIES SHALL BE CONSTRUCTED AS HORIZONTAL ASSEMBLIES IN ACCORDANCE WITH 711
420.4 AUTOMATIC SPRINKLER SYSTEM
GROUP R OCCUPANCIES SHALL BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.2.8
420.5FIRE ALARM SYSTEMS AND SMOKE ALARMS
SINGLE OR MULTIPLE STATIONS SMOKE ALARMS SHALL BE PROVIDED IN GROUPS ...R-3... IN ACCORDANCE WITH SECTION 907.2.11
420.10 GROUP R COOKING FACILITIES
IN GROUP R OCCUPANCIES, COOKING APPLIANCES USED FOR DOMESTIC COOKING OPERATIONS SHALL BE IN ACCORDANCE WITH SECTION 917.2 OF THE INTERNATIONAL MECHANICAL CODE.

**CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS**
TABLE 504.4 ALLOWABLE HEIGHT, TABLE 506.2 BUILDING AREAS
ALLOWABLE HEIGHT, A-3 NON SPRINKLED, 1 STORY
R3, SPRINKLED, 5 STORIES
ALLOWABLE AREA, A-3 NON SPRINKLED, 9,500 SQ. FT. PER STORY
R3, SPRINKLED, UL
ACTUAL HEIGHT, A-3 NON SPRINKLED, 1 STORY
R3, SPRINKLED, 2 STORIES
ACTUAL AREA, A-3 NON SPRINKLED, 9,930 SQ. FT.
R3, SPRINKLED, 2,113 SW. FT.
TABLE 508.4 REQUIRED SEPARATION OF OCCUPANCIES (HOURS)
2 HOURS REQUIRED BETWEEN A & R

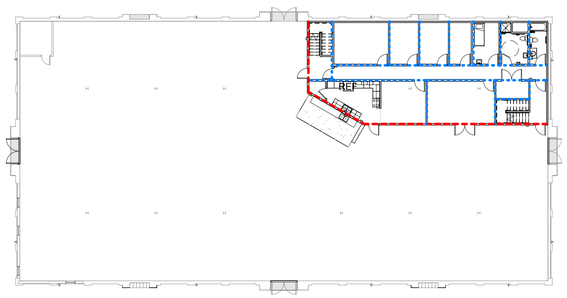
**CHAPTER 6 TYPES OF CONSTRUCTION**
TABLE 601 FIRE RESISTANCE RATING REQUIREMENTS
TYPE III-B 2 HOUR EXTERIOR WALLS

**CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES**
708 FIRE PARTITIONS
708.3 FIRE RESISTANCE RATING
FIRE PARTITIONS SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 1 HOUR
711 FLOOR AND ROOF ASSEMBLIES
700.2.4.3 DWELLING UNITS AND SLEEPING UNITS
HORIZONTAL ASSEMBLIES SERVING AS SLEEPING UNIT SEPARATIONS IN ACCORDANCE W/ 420.3 SHALL BE NOT LESS THAN 1-HOUR FIRE-RESISTANCE-RATED CONSTRUCTION

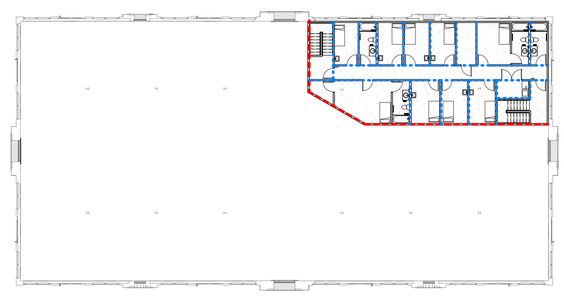
**CHAPTER 9 FIRE PROTECTION SYSTEMS**
903.2.8 GROUP R
AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3 SHALL BE PROVIDED THROUGHOUT ALL BUILDINGS WITH A GROUP R FIRE AREA.
903.2.8.1 GROUP R-3
AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.3 SHALL BE PERMITTED IN GROUP R-3 OCCUPANCIES
903.3.1.1 NFPA13 SPRINKLER SYSTEMS
WHERE REQUIRED, BUILDING OR PORTION THEREOF SHALL BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13

**CHAPTER 10 MEANS OF EGRESS**
1005 MEANS OF EGRESS SIZING
CAPACITY, IN INCHES, OF MEANS OF EGRESS COMPONENTS OTHER THAN STAIRWAYS SHALL BE CALCULATED BY MULTIPLYING THE OCCUPANT LOAD SERVED BY A MEANS OF EGRESS CAPACITY FACTOR OF 0.2" PER OCCUPANT
352 OCCUPANTS X 0.2" = 70.2" OF EGRESS WIDTH REQUIRED.
288" EGRESS WIDTH PROVIDED
1006 NUMBER OF EXITS AND EXIT ACCESS DOORWAYS.
TWO EXITS OR EXIT ACCESS DOORWAYS SHALL BE PROVIDED WHERE THE OCCUPANT LOAD EXCEEDS THE VALUES LISTED IN TABLE 1006.2.1
ASSEMBLY REQUIREMENTS NOT MET, 2 EXITS REQUIRED, 4 PROVIDED
RESIDENTIAL REQUIREMENTS NOT MET, 2 EXITS REQUIRED, 2 EXITS PROVIDED
1031 EMERGENCY ESCAPE & RESCUE
1031.2 WHERE REQUIRED
GROUPS R-3 OCCUPANCIES, SLEEPING ROOMS BELOW THE 4TH STORY ABOVE GRADE PLANE.

**NOTE:**
INTENT IS TO TREAT THE SLEEPING ROOMS AS ROOMS ABOVE THE 4TH STORY. THIS WILL ELIMINATE THE REQUIREMENT FOR EGRESS WINDOWS FROM THE SLEEPING ROOMS AND ELEVATE THE AUTOMATIC SPRINKLER REQUIREMENT FROM AN NFPA 13D SYSTEM TO AN NFPA 13 SYSTEM
ALL WALLS AND FLOORS IN THE R-3 PORTION OF THE BUILDING WILL BE RATED AT 1 HOUR WITH APPROPRIATELY RATED DOORS.
ALL WALLS AND CEILING SEPARATING THE R-3 PORTION OF THE BUILDING FROM THE A-3 PORTION WILL BE RATED AT 2 HOURS.




4 / G-002 — FIRST FLOOR CODE PLAN — 3/64" = 1'-0"



5 / G-002 — SECOND FLOOR CODE PLAN — 3/64" = 1'-0"

CODE PLAN KEY
= 2 HOUR RATED WALL & PENETRATIONS
= 1 HOUR RATED WALL & PENETRATIONS

STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

STATE OF MISSOURI — ROBERT D. ROLLINGS — A-2006003870 — ARCHITECT

6.27.25

Robert D. Rollings 2005001208, Certificate of Authority # A-2006003870


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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE: G-002
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

SHEET TITLE:

GENERAL INFORMATION

SHEET NUMBER:

# G-002

# MISSOURI STATE FAIRGROUNDS
# INTERIOR & EXTERIOR RENOVATIONS - MISSOURI (4H) BUILDING

## SEDALIA, PETTIS COUNTY, MISSOURI




SITE LOCATION MAP

NOT TO SCALE

N

### PROPERTY OWNER

STATE OF MISSOURI
S LIMIT
SEDALIA, MO 65301

### FLOODPLAIN NOTE

THIS PROPERTY IS LOCATED IN ZONE "X" AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN BY FLOOD INSURANCE RATE MAP NUMBER 29159C0284D, DATED NOVEMBER 30, 2023.

### BENCH MARK

TBM 1 – SANITARY SEWER MANHOLE #423 LID LOCATED 11.6 FEET WEST OF THE WEST EDGE OF EXISTING RAMP BOX CULVERT. TOP CENTER OF LID ELEVATION=876.00

### SURVEY CONTROL POINTS

| POINT # | NORTH | EAST | ELEVATION | DESCRIPTION |
|---|---|---|---|---|
| CP1 | 1041597.03 | 1423828.63 | 877.38 | MAG IN NORTH GRVL LOCATED 54.9 FEET NORTH OF THE NE 4-H BLDG CORNER |
| CP2 | 1041331.20 | 1423695.83 | 879.79 | HALF-CAP SW LOCATED 36.7 FEET WEST OF THE EXISTING FIRE HYDRANT |

### LEGEND

- 100 — EXISTING SURFACE CONTOUR
- FENCE LINE
- SS — STORM SEWER LINE
- SAN — SANITARY SEWER LINE
- G — GAS LINE
- UT — UNDERGROUND TELEPHONE LINE
- UE — UNDERGROUND ELECTRIC LINE
- W — WATER LINE
- LS — LIGHT STANDARD
- TP — TELEPHONE PEDESTAL
- STORM SEWER MANHOLE
- CP — CONTROL POINT
- CMP — CORRUGATED METAL PIPE
- PVC — POLYVINYL CHLORIDE
- HDPE — HIGH DENSITY POLYETHYLENE
- RCP — REINFORCED CONCRETE PIPE
- PB — PULL BOX
- FOUND APPARENT MONUMENT
- 100 — PROPOSED SURFACE CONTOUR
- SS — PROPOSED STORM SEWER LINE
- SAN — PROPOSED SANITARY SEWER LINE
- G — PROPOSED GAS LINE
- W — PROPOSED WATER LINE
- UE — PROPOSED UNDERGROUND ELECTRIC LINE
- SILT FENCE
- 850.0 / 849.5 — TOP OF CURB ELEVATION / TOP OF PAVEMENT ELEVATION
- 49.5 — FINISH GRADE ELEVATION (ADD 800 – SHORTENED DIGIT DISPLAY)
- PROPOSED CONCRETE PAVEMENT
- PROPOSED STANDARD DUTY CONCRETE PAVEMENT

### CONSTRUCTION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL REPAIR ALL UTILITIES DAMAGED BY CONTRACTOR'S ACTIVITIES AT NO EXPENSE TO THE OWNER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF EXISTING UTILITIES, AND FIELD VERIFY EXISTING FACILITY ALIGNMENTS, DEPTHS, AND ANGLES BEFORE BEGINNING WORK.
3. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY.
4. CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING BEST MANAGEMENT PRACTICE (BMP'S) AS SHOWN ON THE PLANS. BMP'S SHALL BE MAINTAINED AT ALL TIMES.
5. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES. REFER TO GRADING BID SET FOR DETAILS.
6. ALL PUBLIC ROADS MUST BE KEPT CLEAN AT ALL TIMES.
7. CONTRACTOR IS RESPONSIBLE FOR PATCHING ALL STREETS DAMAGED BY CONSTRUCTION ACTIVITIES OR EQUIPMENT.
8. CUTTING AND REPAIRING/REPLACING STREET IS THE RESPONSIBILITY OF THE CONTRACTOR.
9. THE OWNER WILL PROVIDE A PLANNED EVENT SCHEDULE TO THE CONTRACTOR AND THE CONTRACTOR SHALL NOT INTERRUPT THE OWNER'S EVENTS, ACTIVITIES, OR OPERATIONS.
10. CONTRACTOR SHALL BE RESPONSIBLE CONTROLLING DUST FROM JOBSITE ACTIVITIES.
11. ADJUST VALVE COVERS & UTILITY BOXES AS NECESSARY TO PROVIDE SMOOTH SURFACE.
12. ALL STORM PIPE OUTLETS TO HAVE RODENT SCREENS/ANIMAL BARRIERS.
13. ALL PIPE LENGTHS AND FLOW LINES TO CENTER OF STRUCTURE.

### CONSTRUCTION QUALITY ASSURANCE REQUIREMENTS:

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING QUALITY ASSURANCE COMPACTION TESTING OF SUBGRADES AND CONTROLLED FILL MATERIALS AND FIELD SAMPLING AND TESTING.
2. STRIP A MINIMUM OF 12 INCHES OF TOPSOIL AND ROOT ZONES FROM ALL AREAS TO RECEIVE FILL.
3. ALL SITE FILL SHALL BE CONSTRUCTED IN UNIFORM HORIZONTAL LIFTS WITH A MAXIMUM LOOSE THICKNESS OF 8 INCHES.
4. ALL SUBGRADE SURFACES AND CONTROLLED FILL ARE TO BE COMPACTED TO A MINIMUM OF 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D 689 "STANDARD" PROCTOR, AT A MOISTURE CONTENT BETWEEN 1 PERCENTAGE POINTS BELOW AND 5 PERCENTAGE POINTS ABOVE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM D 698.
5. COMPACTION TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE METHODS OF ASTM D 6938 OR D7698.
6. COMPACTION TESTS SHALL BE CONDUCTED AT THE RATE OF ONE TEST PER 10,000 SQUARE FEET OF SUBGRADE SURFACE AREA OR CONTROLLED FILL SURFACE AREA, WITH NO LESS THAN 2 TESTS PER EACH DAY'S SUBGRADE SURFACE AREA AND NOT LESS THAN 2 TESTS PER LIFT OF CONTROLLED FILL.

### DEMOLITION NOTES:

1. CONTRACTOR SHALL COORDINATE ALL DEMOLITION WITH OWNER AND UTILITIES.
2. ALL OTHER ITEMS SHALL BE PROTECTED.
3. CONTRACTOR SHALL HAUL DISPOSAL ITEMS TO AN APPROVED LOCATION.

### GENERAL UTILITY NOTES:

1. CONTRACTOR SHALL REFERENCE MEP PLANS FOR ADDITIONAL SITE UTILITY INFORMATION, INCLUDING UTILITY SERVICE CONNECTIONS TO BUILDINGS.
2. ALL CONSTRUCTION SHALL MEET APPLICABLE FEDERAL, STATE, AND LOCAL UTILITY REGULATIONS AND SPECIFICATIONS, MORE SPECIFICALLY CITY OF SEDALIA AND MISSOURI STATE REQUIREMENTS.
3. INSTALL CLEANOUTS AT ALL CHANGES IN ALIGNMENT AND AT A MAXIMUM SPACING OF 100 FEET.
4. CONTRACTOR IS RESPONSIBLE FOR ALL APPLICABLE FEES INCLUDING FOR BRINGING WATER TO SITE, TAPPING,INSTALLATION OF SERVICE LINE, PITS, BACKFLOW PREVENTER AND OTHER APPLICABLE REQUIREMENTS.
5. CUTTING AND REPAIRING/REPLACING STREET IS THE RESPONSIBILITY OF THE CONTRACTOR.
6. PIPE MATERIAL SHALL BE PVC, HDPE, OR POLY OR OTHER MATERIAL APPROVED BY THE LOCAL WATER DEPARTMENT.
7. ELECTRIC CONDUIT BY CONTRACTOR.
8. PROVIDE 18 INCH MINIMUM VERTICAL SEPARATION BETWEEN WATER MAIN AND ANY SEWER CROSSINGS.

### TEMPORARY TRAFFIC CONTROL NOTES:

1. ALL TRAFFIC CONTROL SHALL BE PER CURRENT MUTCD REQUIREMENTS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. A TRAFFIC CONTROL PLAN WILL BE REQUIRED FOR ANY WORK WITHIN THE RIGHT-OF-WAY.
2. ALL TRAFFIC CONTROL DEVICES AND TEMPORARY TRAFFIC CONTROL PLANS SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE, WORKER, AND TRAFFIC SAFETY.

UTILITY DISCLAIMER:
ALL UTILITIES SHOWN ARE BASED ON MARKINGS BY THE RESPECTIVE UTILITY COMPANIES, THE OWNERS, AND BY OBSERVABLE SURFACE STRUCTURES, AS FOUND IN THE FIELD.

PRIVATE WATER LINES WERE NOT MARKED BEYOND THE WATER METERS, AND IN SOME CASES, THE WATER COMPANY DID NOT MARK WATER MAINS, WHERE STRUCTURES WOULD INDICATE ONE EXISTED (i.e. FIRE HYDRANT OR WATER VALVE).

PRIVATE SANITARY SEWER LINES WERE NOT MARKED, BUT OBSERVABLE CLEAN-OUTS WERE LOCATED IN THE FIELD, AND ARE SHOWN. NO PUBLIC SEWER WAS MARKED WITHIN THE PROJECT LIMITS.

PRIVATE ELECTRIC, TELEPHONE, AND CATV LINES WERE NOT MARKED; BUT OBSERVABLE PRIVATE UTILITIES WERE LOCATED IN THE FIELD, AND ARE SHOWN.

ALL UTILITIES SHOULD BE LOCATED AND VERIFIED BEFORE ANY CONSTRUCTION SHOULD COMMENCE.

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI THERON J. BROADFOOT NUMBER PE-2009015435 NATIONAL ENGINEER 6-27-25

Theron J. Broadfoot, PE-2009015435 JUNE 27, 2025
MO CERTIFICATE OF AUTHORITY # 2018030429


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OFFICE OF ADMINISTRATION
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INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
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PROJECT # F2407-01

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REVISION:
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**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: TJB
CHECKED BY: TJB
DESIGNED BY: TJB

SHEET TITLE:

CIVIL COVER SHEET

SHEET NUMBER:

C-001

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ALL UTILITIES SHOULD BE LOCATED AND VERIFIED BEFORE ANY CONSTRUCTION SHOULD COMMENCE.

## DEMOLITION NOTES

1. CONTRACTOR SHALL DEMOLITION PER PLANS AND IN COORDINATION WITH OWNER AND UTILITIES.
2. ALL OTHER ITEMS SHALL BE PROTECTED.
3. CONTRACTOR SHALL HAUL DISPOSAL ITEMS TO AN APPROVED LOCATION, OFF-SITE IF REQUIRED, COORDINATE WITH OWNER.

## LEGEND

100 — EXISTING SURFACE CONTOUR
SS — STORM SEWER LINE
SAN — SANITARY SEWER LINE
G — GAS LINE
UT — UNDERGROUND TELEPHONE LINE
UE — UNDERGROUND ELECTRIC LINE
W — WATER LINE

SILT FENCE

REMOVE (DEMO) CONCRETE PAVEMENT

N
0 10 20
SCALE 1" = 10'

GUY ANCHOR
40" MAPLE PROTECT
CONCRETE SIDEWALK
CONCRETE CURB
ASPHALT PROTECT
WV W/METER LID
WATER SPIGOT
22" ASH REMOVE
14" MAPLE REMOVE
30" ASH REMOVE
22" ASH REMOVE
WATER SPIGOT
CONCRETE CURB
CONCRETE SIDEWALK REMOVE
RAMP 880
FFE=880.55 PROTECT
CONCRETE SIDEWALK REMOVE
CONCRETE SIDEWALK REMOVE
PROTECT EXISTING EXTERIOR TERRACOTTA TILES
CP 1
GRAVEL
GRASS
CONCRETE SIDEWALK REMOVE
STAIRS REMOVE
PROTECT FFE=880.61
4-H BUILDING
CARPORT CANOPY PROTECT
PROTECT LANDSCAPING
PROTECT MH #90 TOP=876.72 FL (N)(S)=872.15 FL (W)(SE)=872.5
CONCRETE SIDEWALK REMOVE
CONCRETE SIDEWALK REMOVE
PROTECT FFE=880.62
PROTECT EXISTING EXTERIOR TERRACOTTA TILES
PROTECT FFE=880.49
CONCRETE SIDEWALK REMOVE
37.5'
PROTECT MH #423 TOP=876.00 FL OUT (N)=871.95
STREET SIGN
PROTECT
TBM 1
EDGE OF ASPHALT
EDGE OF GRAVEL
8.0' SAWCUT
MAIN STREET
GRAVEL REMOVE
7.5'
CONCRETE SIDEWALK
BENCH
TELE PED
FIRE HYDRANT
EDGE OF GRAVEL
EDGE OF ASPHALT
CONCRETE PROTECT
38" TULIP POPLAR REMOVE
REMOVE
42" OAK REMOVE
33.6'
CONCRETE SIDEWALK
PROTECT 14" ASH
PROTECT 18" MAPLE
PROTECT 60" CATALPA
PROTECT 30" OAK
PROTECT 42" BALD CYPRUS
MH #510 TOP=879.38 FL OUT (E)=876.2
6" PVC SAN
OHP
UP
FO
GAS
SAN
W
FIELD VERIFTY ALL EXISTING UTILITIES (LOCATIONS SHOWN ARE APPROXIMATE)
CP 2

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

THERON J. BROADFOOT — NUMBER PE-2009015435 — STATE OF MISSOURI — PROFESSIONAL ENGINEER
6-27-25


Theron J. Broadfoot, PE-2009015435 JUNE 27, 2025
MO CERTIFICATE OF AUTHORITY # 2018030429

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Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

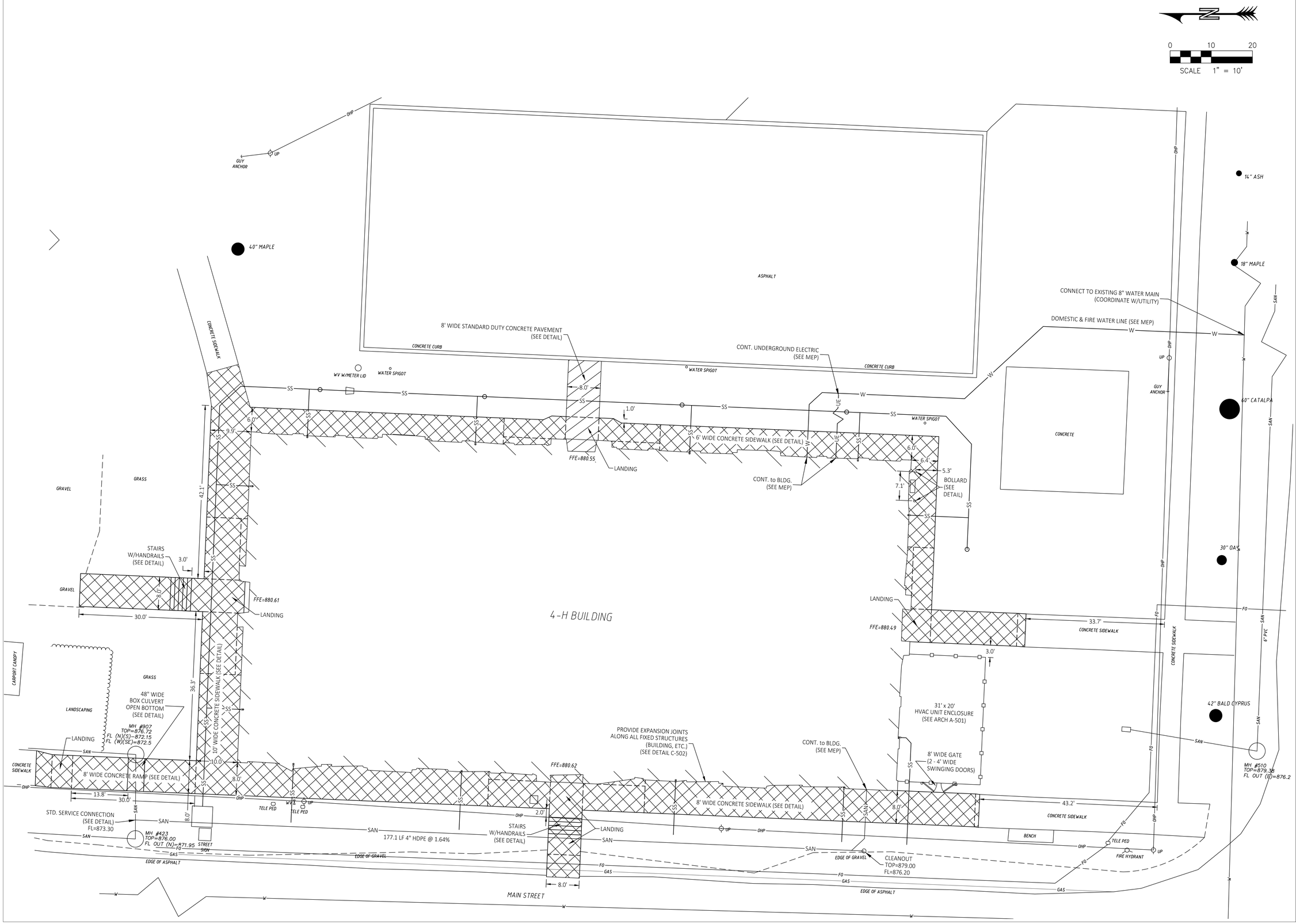
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CHECKED BY: TJB
DESIGNED BY: TJB

SHEET TITLE:

# EXISTING CONDITIONS & DEMOLITION PLAN

SHEET NUMBER:

# C-100




**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

THERON J BROADFOOT NUMBER E-27735 STATE OF MISSOURI PROFESSIONAL ENGINEER
6-27-25

Theron J. Broadfoot, PE-2009015435 JUNE 27, 2025
MO CERTIFICATE OF AUTHORITY # 2018030429


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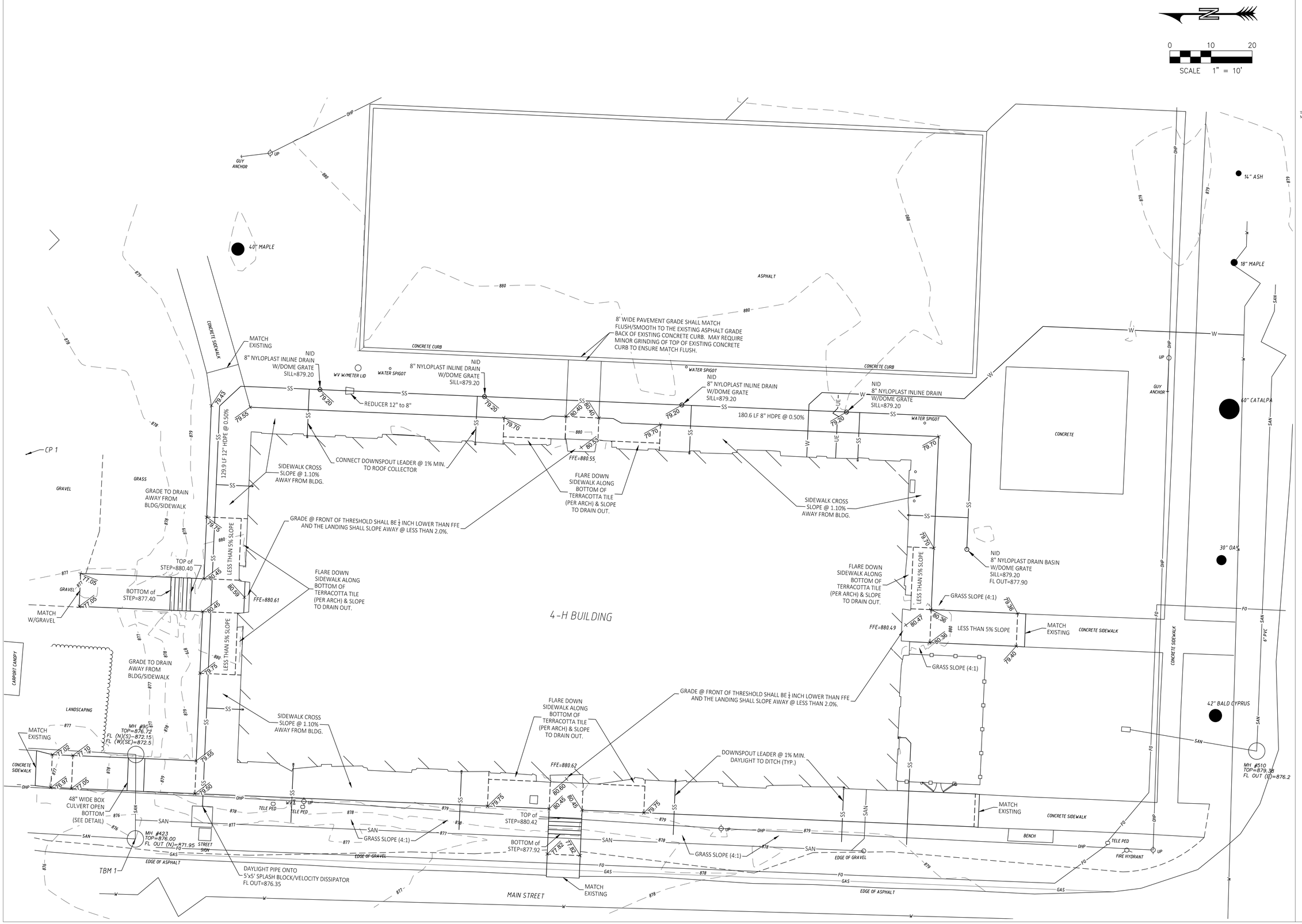
SHEET TITLE:

# SITE LAYOUT & UTILITY PLAN

SHEET NUMBER:

# C-101

SHEET 5 OF 48 6/27/25




**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI THERON J. BROADFOOT NUMBER PE-2009015435 IN MISSOURI 6-27-25 PROFESSIONAL ENGINEER

Theron J. Broadfoot, PE-2009015435 JUNE 27, 2025
MO CERTIFICATE OF AUTHORITY # 2018030429


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MISSOURI STATE FAIRGROUNDS
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PROJECT # F2407-01

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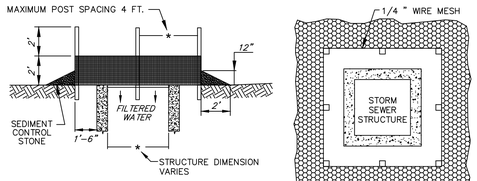
SHEET TITLE:

# GRADING & DRAINAGE & EROSION CONTROL PLAN

SHEET NUMBER:

# C-102

SHEET 6 OF 48 6/27/25




SECTION
MULTI-DIRECTIONAL FLOW

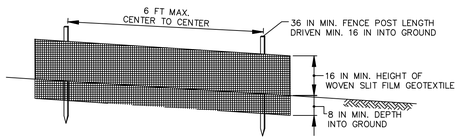
PLAN
MULTI-DIRECTIONAL FLOW

NOTES:
1. SEDIMENT CONTROL STONE SHALL BE 3/4" WASHED STONE.
2. WIRE MESH SHALL BE HARDWARE CLOTH 23 GAUGE MIN. AND SHALL HAVE 1/4 INCH MESH OPENINGS.
3. TOP OF WIRE MESH SHALL BE A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.
4. STEEL POST SHALL BE 5 FT. IN HEIGHT, BE INSTALLED 1.5 FT. DEEP MINIMUM, AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
5. WOOD POST SHALL BE 6 FT. IN HEIGHT, BE INSTALLED TO 1.5 FT. DEEP MINIMUM, AND BE 3 INCHES IN DIAMETER.
6. POST SPACING SHALL BE A MAXIMUM OF 4 FT.

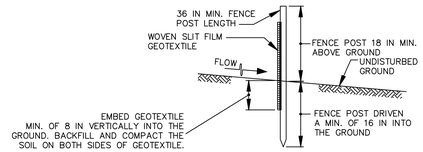
INLET PROTECTION
NOT TO SCALE

SILT FENCE SPECIFICATIONS

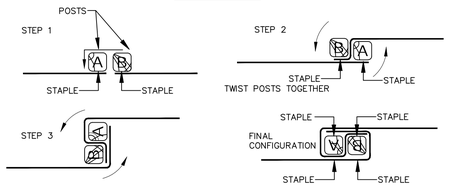
1. USE WOOD POSTS 1½ X 1½ ± 1/16 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.




ELEVATION

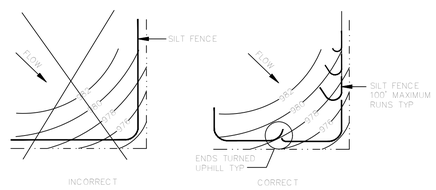



CROSS SECTION

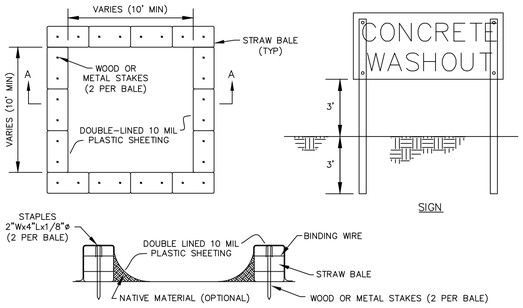



JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW)

SILT FENCE DETAIL
NOT TO SCALE



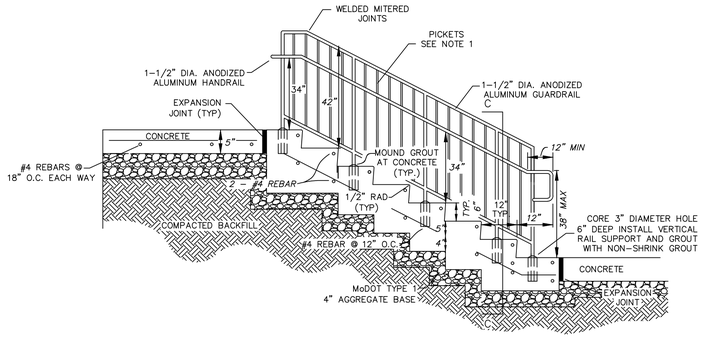

SILT FENCE LAYOUT
NOT TO SCALE




SECTION A-A

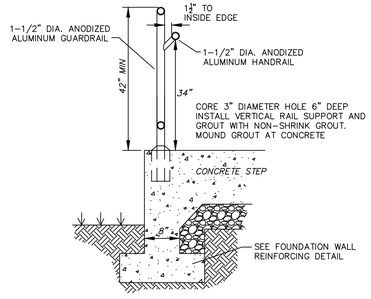
NOTES:
1. ALL CONCRETE WASTE MATERIAL, INCLUDING WASHOUT WATER, SHALL BE TOTALLY CONTAINED.
2. SEE SWPPP FOR MORE DETAILS.
3. UPON PROJECT COMPLETION CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL CONCRETE WASTE FROM THE OWNER'S PROPERTY PER ALL APPLICABLE SOLID WASTE REGULATIONS.
4. CONSTRUCT SIGN OF WEATHER PROOF MATERIALS OF A SIZE EASILY READABLE BY CONCRETE TRUCK DRIVERS. PLACE SIGN WITHIN 10' OF WASHOUT.
5. CONTRACTOR SHALL CONTAIN WASHOUT WATERS AT ALL TIMES.

CONCRETE WASHOUT AREA
NOT TO SCALE

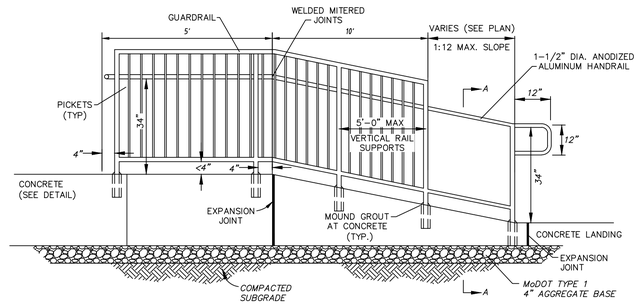



NOTES:
1. PICKETS AND INTERMEDIATE RAILINGS SHALL BE PROVIDED SUCH THAT A 4-INCH DIAMETER SPHERE CANNOT PASS THROUGH ANY OPENING UP TO A HEIGHT OF 34 INCHES. FROM A HEIGHT OF 34 INCHES TO 42 INCHES ABOVE THE ADJACENT WALKING SURFACE, A SPHERE 8 INCHES IN DIAMETER SHALL NOT PASS. THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL AT THE OPEN SIDE OF A STAIRWAY SHALL BE OF A SIZE SUCH THAT A SPHERE OF 6 INCHES IN DIAMETER CANNOT PASS THROUGH THE OPENING.
2. RAILING SHALL BE COMMERCIAL GRADE ANODIZED ALUMINUM WITH 0.125 INCH WALL THICKNESS, OR COMMERCIAL GRADE GALVANIZED STEEL POWDER COATED.

STAIR & GUARDRAIL DETAIL
NOT TO SCALE

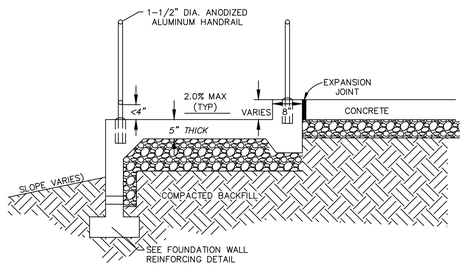



SECTION C - C
NOT TO SCALE




NOTES:
1. PICKETS AND INTERMEDIATE RAILINGS SHALL BE PROVIDED SUCH THAT A 4-INCH DIAMETER SPHERE CANNOT PASS THROUGH ANY OPENING UP TO A HEIGHT OF 34 INCHES. FROM A HEIGHT OF 34 INCHES TO 42 INCHES ABOVE THE ADJACENT WALKING SURFACE, A SPHERE 8 INCHES IN DIAMETER SHALL NOT PASS. THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL AT THE OPEN SIDE OF A STAIRWAY SHALL BE OF A SIZE SUCH THAT A SPHERE OF 6 INCHES IN DIAMETER CANNOT PASS THROUGH THE OPENING.
2. RAILING SHALL BE COMMERCIAL GRADE ANODIZED ALUMINUM WITH 0.125 INCH WALL THICKNESS, OR COMMERCIAL GRADE GALVANIZED STEEL POWDER COATED.

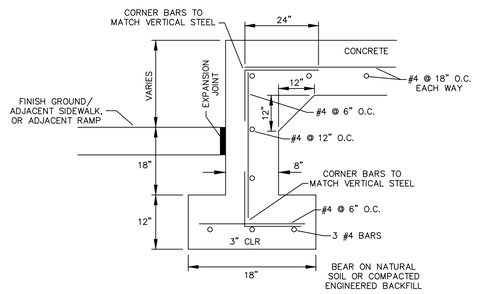
RAMP HANDRAIL & GUARDRAIL DETAIL
NOT TO SCALE




RAMP SECTION A - A
NOT TO SCALE

RAMP OVER 48" WIDE BOX CULVERT W/OPEN BOTTOM REINFORCEMENT NOTE:

IN REFERENCE TO THE BELOW FOUNDATION DETAIL, CONSTRUCT THE 5" THICK CONCRETE RAMP SLAB OVER THE 48" WIDE BOX CULVERT W/#5 @ 12" O.C. EACH WAY, EXTENDING 12" BEYOND EACH EDGE FOR A TOTAL LENGTH OF 6', THEN CONTINUE REINFORCEMENT FOR THE REMAINING STRUCTURE PER THE BELOW.




FOUNDATION WALL REINFORCING
NOT TO SCALE

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

THERON J. BROADFOOT NUMBER PE-2009015435 STATE OF MISSOURI
6-27-25
NATIONAL ENGINEERING

Theron J. Broadfoot, PE-2009015435 JUNE 27, 2025
MO CERTIFICATE OF AUTHORITY # 2018030429


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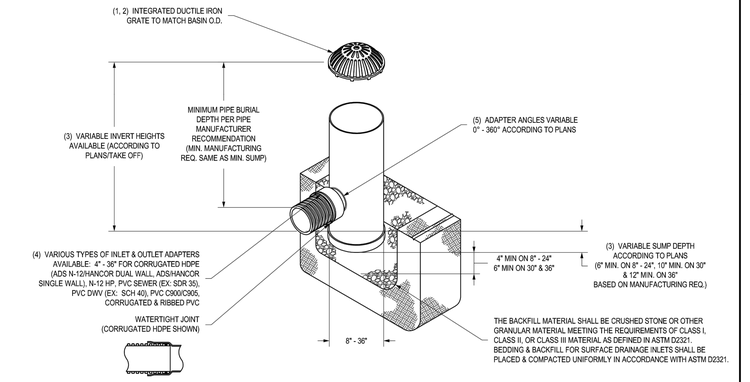
DETAILS

SHEET NUMBER:

C-501

SHEET 7 OF 48 6/27/25

## 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. 7001-110-040.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 8" - 30" DOME GRATES HAVE NO LOAD RATING.

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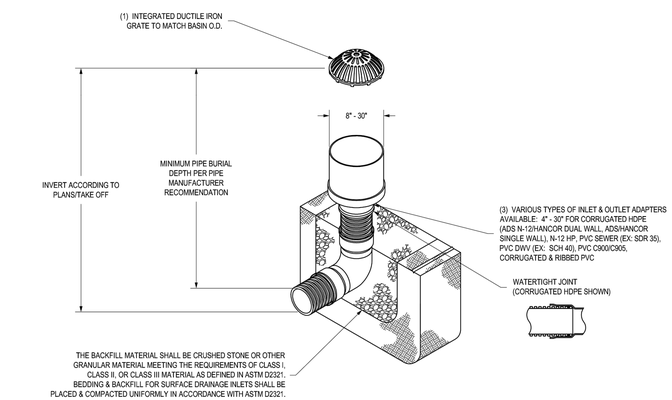
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| DATE | 03-25-10 | | |
| REVISED BY | NMH | PROJECT NO./NAME | |
| DATE | 06-12-18 | | |
| DWG SIZE | A | SCALE 1:40 | SHEET 1 OF 1 |

ADS Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE: DRAIN BASIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-397 REV E

## NYLOPLAST INLINE DRAIN WITH DOME GRATE




1 - 8" - 30" DOME GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
3 - 8" - 30" DOME GRATES HAVE NO LOAD RATING

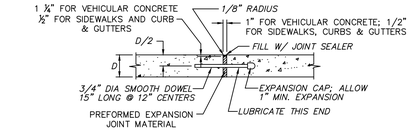
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| | | | |
|---|---|---|---|
| DRAWN BY | EBC | MATERIAL | |
| DATE | 03-25-10 | | |
| REVISED BY | NMH | PROJECT NO./NAME | |
| DATE | 03-15-16 | | |
| DWG SIZE | A | SCALE 1:40 | SHEET 1 OF 1 |

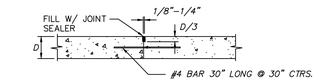
ADS Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE: INLINE DRAIN WITH DOME GRATE QUICK SPEC INSTALLATION DETAIL

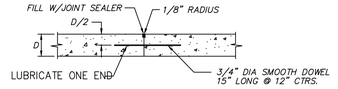
DWG NO. 7003-110-657 REV D




EXPANSION JOINT



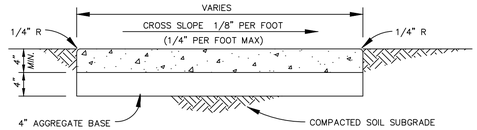

SAW-CUT JOINT




CONSTRUCTION JOINT

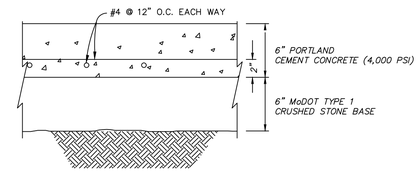
NOTES:
1. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT A PAVEMENT JOINT PLAN OF ALL CONCRETE PAVEMENT FOR APPROVAL.
2. CONCRETE PAVEMENT SHALL HAVE SAW-CUT OR CONSTRUCTION JOINTS EVERY 10 FEET FOR 4 INCH THICK PAVEMENT, 12 FEET FOR 5 INCH THICK PAVEMENT, AND 15 FEET FOR 6 INCH THICK PAVEMENT OR GREATER. PANELS SHALL BE CUT SUCH THAT PANELS ARE NEARLY SQUARE AND DO NOT EXCEED 1.4 LENGTH TO WIDTH RATIO. EXPANSION JOINTS SHALL BE PROVIDED AT ALL FIXED STRUCTURES, SUCH AS: LIGHT STANDARD FOUNDATIONS, SEWER STRUCTURES, BUILDINGS, WALLS, BOTTOM OF STAIRS, ROOF DRAINS, ETC., AND EVERY 150 FEET MAXIMUM. DOWEL BARS SHALL BE PROVIDED AT TRANSVERSE JOINTS IN ALL HEAVY DUTY PAVEMENT.
3. THIS DETAIL APPLIES TO ALL CONCRETE PAVEMENT FOR PARKING LOTS, DRIVE/ACCESS AISLES, CURBS & GUTTERS, AND SIDEWALKS.
4. ALL 9 INCH THINK HEAVY DUTY CONCRETE PAVEMENT SHALL HAVE JOINTS PER MODOT DETAILS, INCLUDING 1.25 INCH SMOOTH DOWELS WITH DOWEL SUPPORT BASKETS PER MODOT DETAIL AND LONGITUDINAL JOINTS WITH #5 X 30" TIE BARS.
5. INCLUDE BAR WITH TRANSVERSE SAW-CUT JOINTS FOR HEAVY DUTY PAVEMENT. OMIT BAR WITH SAW-CUT JOINTS FOR STANDARD DUTY PAVEMENT AND SIDEWALKS.
6. PROVIDE CONSTRUCTION JOINT AT END OF DAYS WORK OR IF CONCRETE PLACEMENT IS SUSPENDED FOR MORE THAN 30 MINUTES.
7. SAW-CUT JOINTS SHALL BE CUT WITHIN 12 HOURS OF INITIAL SET OF CONCRETE. RAVELED JOINTS WILL NOT BE ACCEPTED.
8. ELASTOMERIC POLYURETHANE JOINT SEALANT IS REQUIRED FOR ALL JOINTS AND SHALL BE LIGHT GRAY IN COLOR.
9. OMIT DOWEL BARS FOR EXPANSION JOINTS AT BUILDINGS, LIGHT STANDARDS, AND ROOF DRAINS.

CONCRETE PAVEMENT JOINTS
NOT TO SCALE




NOTES:
1. SIDEWALK SHALL BE 5-8% AIR-ENTRAINED, 6 BAG MIX, 4,000 PSI PORTLAND CEMENT CONCRETE.
2. INSTALL TRANSVERSE EXPANSION JOINTS TO MATCH STREET OR CURB AND GUTTER EXPANSION JOINTS AND AT ALL DRIVEWAY APPROACHES, FIXED STRUCTURES, BUILDINGS, AND SIDEWALK RAMPS. SPACING SHALL NOT EXCEED 100'.
3. FOR SIDEWALKS UP TO 6 FT. WIDE, INSTALL TRANSVERSE SAW-CUT JOINTS AT SPACING EQUAL TO SIDEWALK WIDTH.
4. FOR SIDEWALKS WIDER THAN 6 FT., INSTALL LONGITUDINAL SAW JOINT AT CENTERLINE OR AT A SPACING NOT TO EXCEED 5 FT. TRANSVERSE SAW-CUT JOINT SPACING EQUAL TO HALF SIDEWALK WIDTH.
5. IF SIDEWALK IS REINFORCED, NO STEEL SHALL BE PLACED THROUGH AN EXPANSION JOINT.
6. SEE SEPARATE DETAIL FOR ADDITIONAL CONCRETE JOINT REQUIREMENTS.

CONCRETE SIDEWALK
NOT TO SCALE




STANDARD DUTY CONCRETE PAVEMENT
NOT TO SCALE

STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

THERON J. BROADFOOT
NUMBER PE-2009015435
6-27-25
NATIONAL ENGINEERING

Theron J. Broadfoot, PE-2009015435 JUNE 27, 2025
MO CERTIFICATE OF AUTHORITY # 2018030429

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#2000151304

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

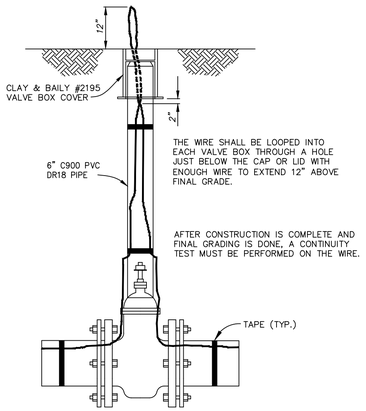
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CHECKED BY: TJB
DESIGNED BY: TJB

SHEET TITLE:

DETAILS

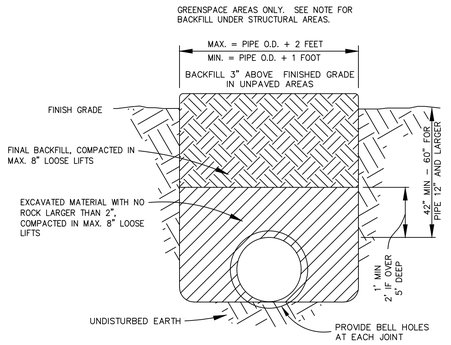
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C-502




TYPICAL VALVE INSTALLATION

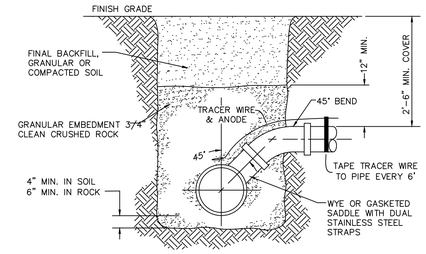
NOT TO SCALE




NOTE:
ALL TRENCHES UNDER PAVEMENT, BUILDINGS, RETAINING WALLS, OR OTHER STRUCTURAL AREAS SHALL BE BACKFILLED AND COMPACTED WITH CONTROLLED ENGINEERED FILL PER THE PROJECT SPECIFICATIONS.

PVC WATER PIPE EMBEDMENT DETAIL

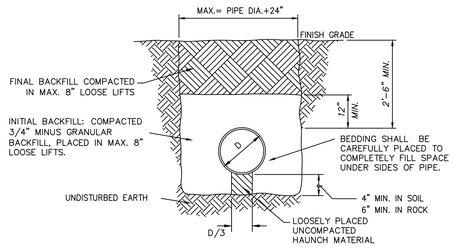
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STANDARD SERVICE CONNECTION

NOT TO SCALE

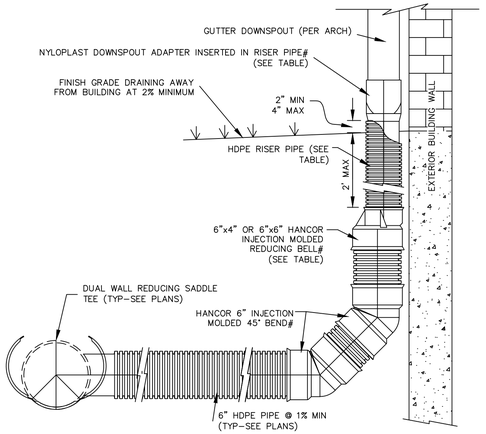
| PIPE DIA. | MIN. TRENCH WIDTH |
|---|---|
| ≤ 6" | PIPE DIA. + 18" |
| 8"–10" | PIPE DIA. + 10" |
| 12"–36" | PIPE DIA. + 12" |




NOTES:
1. LOCATOR WIRE MUST BE UTILIZED FOR ALL SEWER LINES.

EMBEDMENT OF PVC SANITARY SEWER PIPE

NOT TO SCALE



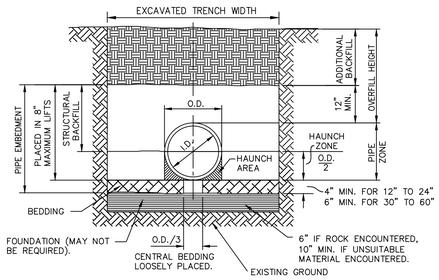

| GUTTER DOWNSPOUT (INCHES) | DOWNSPOUT ADAPTER (INCHES) | NYLOPLAST DOWNSPOUT ADAPTER ID | RISER PIPE ø (INCHES) |
|---|---|---|---|
| 4 X 4 | 4 X 4 X 4 | TECHNICAL DWG NO. 0444FH | 4 |
| 4 X 6 | 4 X 6 X 6 | TECHNICAL DWG NO. 0466FH | 6 |
| 6 X 6 | 6 X 6 X 6 | TECHNICAL DWG NO. 0666FH | 6 |
| 6 X 8 | 6 X 6 X 8 | TECHNICAL DWG NO. 0668FH | 8* |
| 8 X 8 | 8 X 8 X 8 | TECHNICAL DWG NO. 0888FH | 8* |

* INJECTION MOLDED REDUCING BELL NOT NECESSARY
# OR APPROVED EQUAL

NOTES:
1. SEE PLANS TO DETERMINE IF FITTINGS AND JOINTS ARE SOIL TIGHT (ST) OR WATER TIGHT (WT).
2. INSTALL ALL PIPING PER SEPARATE DETAIL OR MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. THIS DETAIL IS FOR GENERAL LAYOUT PURPOSES ONLY. ADDITIONAL COUPLERS, GASKETS, FITTINGS, ETC. MAY BE NECESSARY PER MANUFACTURER'S REQUIREMENTS.
4. IF GUTTER DOWNSPOUT SIZE EXCEEDS THE LARGEST AVAILABLE HANCOR DOWNSPOUT ADAPTER, THE HDPE PIPE SIZE SHALL BE INCREASED TO ACCOMMODATE THE DOWNSPOUT AND THE DOWNSPOUT ADAPTER SHALL BE REPLACED WITH AN HDPE END CAP PREFABRICATED OR CUT TO FIT THE DOWNSPOUT GUTTER AND UPSIZED HDPE PIPE. CAP/PIPE SHALL BE INSTALLED SO CAP IS 2" ABOVE FINISHED GRADE, MINIMUM.
5. SDR35 PVC PIPE MAY BE SUBSTITUTED FOR ANY HDPE PIPE UP TO 15" IN DIAMETER

GUTTER DOWNSPOUT CONNECTION

NOT TO SCALE




TYPICAL TRENCH DETAIL

BACKFILL NOTES:
1. BEDDING, HAUNCH, AND STRUCTURAL BACKFILL SHALL BE IN CONFORMANCE WITH AASHTO M145 A1 OR A–3 COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DEFINED BY ASTM D698.
2. ALL PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ASTM D2321 LATEST ADDITION.
3. HAUNCH, STRUCTURAL, AND ADDITIONAL BACKFILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DEFINED BY ASTM D698.

TABLE II
MINIMUM COVER FOR CONSTRUCTION LOADS

| PIPE DIA. (IN.) | MINIMUM COVER (FT) FOR INDICATED AXLE LOADS (THOUSANDS OF POUNDS) | | | |
|---|---|---|---|---|
| | 18–50 | 50–75 | 75–110 | 110–150 |
| 12–36 | 2.0 | 2.5 | 3.0 | 3.0 |
| 42–48 | 3.0 | 3.0 | 3.5 | 4.0 |

THE CONTRACTOR SHALL PROVIDE MINIMUM COVER PLUS ANY ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. IN UNPAVED SITUATIONS, THE SURFACE MUST BE MAINTAINED TO A LEVEL AND NON–RUTTED CONDITION.

LEGEND

I.D. = NORMAL INSIDE DIAMETER OF PIPE.
O.D. = OUTSIDE DIAMETER OF PIPE.
H = FILL COVER HEIGHT OVER PIPE (FEET).
MIN. = MINIMUM
MAX = MAXIMUM
= UNDISTURBED SOIL

CONSTRUCTION SEQUENCE:
1. PLACE BEDDING MATERIAL TO GRADE.
2. COMPACT BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
3. INSTALL PIPE TO GRADE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE SPRINGLINE.
5. COMPLETE BACKFILL ACCORDING TO SPECIFICATIONS.

TABLE I
CORRUGATED HDPE AND POLYVINYL CHLORIDE CIRCULAR PIPE

| SPECIFIED DIA OF PIPE (IN.) | MIN OVERFILL HEIGHT (FT) | HDPE MAX OVERFILL HEIGHT* (FT) | POLYVINYL CHLORIDE MAX OVERFILL HEIGHT* (FT) | | ADS N–12, N–12 ST, AND N–12 WT PIPE | | | | | | TRENCH WIDTH (IN.) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | VIRGIN RESIN (AASHTO M294) OVERFILL HEIGHT* (FT) | | | ENGINEERED COMPOUND (RECYCLED, ASTM F2648) OVERFILL HEIGHT* (FT) | | | |
| | | | SDR 35# | SDR 26# | CLASS 1** | CLASS 2** | CLASS 3** | CLASS 1** | CLASS 2** | CLASS 3** | |
| 12 | 2 | 26 | 15 | 30 | 43 | 29 | 21 | 27 | 19 | 12 | 34 |
| 15 | 2 | 28 | 15 | 30 | 45 | 30 | 22 | 27 | 20 | 13 | 39 |
| 18 | 2 | 24 | 15 | 30 | 40 | 27 | 19 | 25 | 18 | 11 | 44 |
| 24 | 2 | 20 | 15 | 30 | 36 | 25 | 17 | 22 | 16 | 12 | 55 |
| 30 | 2.5 | 17 | N/A | N/A | 29 | 21 | 15 | 16 | 12 | 6 | 67 |
| 36 | 2.5 | 19 | N/A | N/A | 34 | 23 | 16 | 21 | 15 | 10 | 76 |
| 42 | 2.5 | 19 | N/A | N/A | 31 | 23 | 16 | 17 | 13 | 7 | 84 |
| 48 | 2.5 | 17 | N/A | N/A | 30 | 20 | 14 | 18 | 13 | 10 | 95 |
| 54 | 2.5 | 9 | N/A | N/A | 33 | 22 | 15 | N/A | N/A | N/A | 104 |
| 60 | 2.5 | 9 | N/A | N/A | 33 | 22 | 15 | 20 | 15 | 10 | 113 |

TABLE ASSUMES STANDARD PROCTOR DENSITY OF 95%
* MAXIMUM OVERFILL MEASURED FROM THE TOP OF PIPE TO SURFACE.
** CLASS 1 – CRUSHED ROCK, ANGULAR; AASHTO M43 – 5, 6, 56, 57, 67
** CLASS 2 – CLEAN, COURSE GRAINED SOILS TO BORDERLINE CLEAN FINES; AASHTO M43 – 5, 6, 56, 57, 67; AASHTO M145 – A1, A3
** CLASS 3 – COURSE GRAINED SOILS WITH FINES AND INORGANIC FINE–GRAINED SOILS; AASHTO M43 – GRAVEL AND SAND WITH <10% FINES; AASHTO M145 – A–2–4, A–2–5, A–2–6, A–4, OR A–6 WITH >30% RETAINED ON #200 SIEVE
** REFER TO CURRENT ADS INC. DRAINAGE HANDBOOK FOR A COMPLETE LISTING OF SUITABLE MATERIALS
# PER ASTM D–3034 FOR PIPE UP TO 15" AND ASTM F679 OVER 15"

TABLE III
PARALLEL PIPE INSTALLATION

| PIPE SIZE | S (IN.) | X (IN.) |
|---|---|---|
| 12 | 12 | 9 |
| 15 | 12 | 9 |
| 18 | 12 | 9 |
| 24 | 12 | 10 |
| 30 | 15 | 16 |
| 36 | 18 | 18 |
| 42 | 21 | 18 |
| 48 | 24 | 18 |

S = MINIMUM PIPE SEPARATION (IN) BETWEEN OUTSIDE WALLS OF PIPES.
X = MINIMUM SEPARATION BETWEEN TRENCH WALL AND OUTSIDE WALL OF PIPE.

EMBEDMENT OF PLASTIC STORM SEWER PIPE

NOT TO SCALE

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

THERON J. BROADFOOT — NUMBER PE-2009015435 — STATE OF MISSOURI — 6-27-25 — NOT FOR CONSTRUCTION UNLESS SEALED

Theron J. Broadfoot, PE-2009015435 JUNE 27, 2025
MO CERTIFICATE OF AUTHORITY # 2018030429

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
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ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: TJB
CHECKED BY: TJB
DESIGNED BY: TJB

SHEET TITLE:

DETAILS

SHEET NUMBER:

C-503

# Missouri State Fair - 4-H Building

## Sedalia, Pettis County, Missouri

### GENERAL NOTES

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

DESIGN SPECIFICATIONS
2021 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
   - CAST-IN-PLACE WALLS – 3,500 PSI
   - FLOOR SLAB – 4,000 PSI
   - EXTERIOR SLABS, WALLS AND CURBS – 4,000 PSI
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.

### 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.

### STEEL HELICAL PIERS

1. DESCRIPTION
   - a. THIS WORK PERTAINS TO DESIGNING, FURNISHING, INSTALLING, LOADING AND TESTING HELICAL ANCHORS AND HELICAL PILES IN ACCORDANCE WITH THE DRAWINGS AND THESE SPECIFICATIONS TO SUPPORT COMPRESSIVE LOADS SHOWN ON THE PLANS.
2. MATERIALS
   - a. GUARANTEES AND INSURANCE
     - i. HELICAL PIER AND BRACKET MANUFACTURER SHALL FURNISH A GUARANTEE FOR A PERIOD OF TEN (10) YEARS FROM DATE OF DELIVERY AGAINST DEFECTS DUE TO MANUFACTURING OF STEEL PUSH PIER AND BRACKET. STEEL PUSH PIER AND BRACKET MANUFACTURER MUST CARRY PRODUCT LIABILITY INSURANCE. REFER TO GENERAL CONDITIONS FOR ADDITIONAL INSURANCE REQUIREMENTS.
3. PREQUALIFICATION REQUIREMENTS
   - a. DUE TO THE SPECIAL REQUIREMENTS FOR DESIGN AND MANUFACTURE OF HELICAL ANCHORS AND HELICAL PILES, AND THE REQUIREMENTS FOR PROPER PERFORMANCE OF THE STRUCTURAL SYSTEM, AS A WHOLE, HELICAL ANCHORS AND HELICAL PILES SHALL BE OBTAINED FROM AN ORGANIZATION SPECIALIZING IN THE DESIGN AND MANUFACTURE OF HELICAL ANCHORS AND HELICAL PILES. EVIDENCE OF COMPETENCE IN THE MANUFACTURE OF HELICAL PILES SHALL BE PROVIDED AND SHALL INCLUDE THE FOLLOWING:
     - i. A CATALOG OR RECENT BROCHURE DESCRIBING THE MANUFACTURER.
     - ii. EVIDENCE SHOWING MANUFACTURER HAS AT LEAST THREE (5) YEARS' EXPERIENCE IN THIS AREA OF WORK.
     - iii. DETAILED DESCRIPTIONS, SCHEMATIC DETAILS, AND MATERIAL PROPERTIES FOR ALL PRODUCTS TO BE USED ON THIS PROJECT.
     - iv. CURRENT ICCES/BOCA/ICBO PRODUCT ACCEPTANCE REPORT OR COMPLETE DESCRIPTION OF PRODUCT TESTING AND MANUFACTURING QUALITY ASSURANCE PROGRAMS USED TO ASSESS AND MAINTAIN PRODUCT QUALITY.
4. MINIMUM MATERIAL REQUIREMENTS
   - a. HELICAL ANCHOR AND HELICAL PILES SHALL HAVE A TUBULAR ROUND SHAFT AND SHALL HAVE THE REQUIRED NUMBER OF HELICAL BLADES SO AS TO PROVIDE FOR ADEQUATE LOAD CARRYING CAPACITY. THE STRENGTH OF THE HELICAL BLADES, SHAFT CONNECTIONS, BRACKET ASSEMBLY, AND THE SHAFT ITSELF SHALL BE SUFFICIENT TO SUPPORT THE DESIGN LOADS SPECIFIED ON THE PLANS. HELICAL ANCHORS, HELICAL PILES, AND BRACKET ASSEMBLIES SHALL BE DESIGNED IN ACCORDANCE WITH MODERN STANDARDS FOR STEEL CONSTRUCTION. DESIGN CAPACITY SHALL TAKE INTO ACCOUNT CORROSION OVER A 50 YEAR DESIGN LIFESPAN. HELICAL PILES AND HELICAL ANCHORS SHALL BE PROTECTED FROM CORROSION BY HOT–DIP GALVANIZING PER ASTM A123 OR A153, AS APPLICABLE.
   - b. THE HELICAL ANCHOR AND HELICAL PILE SHAFT CONNECTIONS SHALL BE IN–LINE, STRAIGHT AND RIGID AND SHALL HAVE A MAXIMUM TOLERABLE SLACK OF 1/16–INCH. BOLTS USED TO JOIN HELICAL ANCHOR AND HELICAL PILE SECTIONS AT THE SHAFT CONNECTIONS SHALL BE GALVANIZED AND SHALL BE THE GRADE AND SIZE SPECIFIED BY THE HELICAL ANCHOR AND HELICAL PILE MANUFACTURER. ALL HELICAL ANCHOR AND HELICAL PILE BOLTS SHALL BE SECURELY SNUG TIGHTENED.
   - c. HELICAL ANCHORS SHALL BE FITTED WITH AN ADJUSTABLE BRACKET ASSEMBLY THAT FACILITATES BOTH POST–TENSIONING AND PROOF LOAD TESTING. HELICAL PILES SHALL BE FITTED WITH A MANUFACTURED BRACKET ASSEMBLY RATED FOR THE DESIGN LOADS SHOWN ON THE PLANS AND THE STRENGTH OF THE CONCRETE OR OTHER STRUCTURE THEY SUPPORT.
5. DESIGN AND PERFORMANCE REQUIREMENTS
   - a. DESIGN AND APPLICATION
     - i. A LIST OF ALL HELICAL ANCHOR, HELICAL PILE, AND BRACKET MATERIALS TO BE USED ON THIS PROJECT SHALL BE SUBMITTED WITH THE BID PACKAGE. THE LIST SHALL CLEARLY STATE THE ALLOWABLE MECHANICAL CAPACITY OF ALL MATERIALS. THE LIST SHALL BE CERTIFIED BY THE MANUFACTURER'S ENGINEER. IT IS THE HELICAL ANCHOR AND HELICAL PILE INSTALLATION CONTRACTOR'S RESPONSIBILITY TO SELECT THE APPROPRIATE SIZE AND TYPE OF HELICAL ANCHORS, HELICAL PILES, AND BRACKET ASSEMBLIES. THESE SPECIFICATIONS AND THE PLANS PROVIDE MINIMUM REQUIREMENTS TO AID THE CONTRACTOR IN MAKING APPROPRIATE MATERIALS SELECTIONS. THE SIZE AND NUMBER OF HELICAL BLADES MUST BE SUCH THAT THE HELICAL ANCHORS AND HELICAL PILES ACHIEVE THE APPROPRIATE TORQUE AND CAPACITY IN THE SOILS AT THIS SITE WITHIN THE MINIMUM AND MAXIMUM LENGTH REQUIREMENTS. FAILURE TO ACHIEVE PROPER TORQUE AND CAPACITY SHALL RESULT IN CONTRACTOR REPLACING HELICAL ANCHORS AND HELICAL PILES AS APPROPRIATE TO SUPPORT THE REQUIRED LOADS.
     - ii. AFTER AWARD OF THIS PROJECT, WITHIN TWO WEEKS, THE CONTRACTOR SHALL SUPPLY A PLAN AND SECTION WITH THE FINAL DESIGN OF THIS PROJECT SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. THE FINAL DESIGN SHOULD INCLUDE A PLAN WITH ANCHOR LOCATION, THE ANCHOR PROFILE, THE HELICAL ANCHOR CAPACITIES AND THE SAFETY FACTOR, AND CONNECTION TO THE EXISTING STRUCTURE/FOUNDATION.

### STEEL HELICAL PIERS (CONT.)

6. CONSTRUCTION REQUIREMENTS
   - a. WARRANTY AND INSURANCE
     - i. HELICAL ANCHOR AND HELICAL PILE INSTALLATION CONTRACTOR SHALL FURNISH A WARRANTY FOR A PERIOD OF TEN (10) YEARS FROM DATE OF INSTALLATION AGAINST DEFECTS DUE TO WORKMANSHIP ON INSTALLATION OF HELICAL ANCHOR, HELICAL PILE, AND BRACKET ASSEMBLIES. HELICAL ANCHOR AND HELICAL PILE INSTALLER MUST CARRY GENERAL LIABILITY INSURANCE. REFER TO GENERAL CONDITIONS FOR ADDITIONAL INSURANCE REQUIREMENTS.
   - b. PREQUALIFICATION REQUIREMENTS
     - i. DUE TO THE SPECIAL REQUIREMENTS FOR INSTALLATION OF HELICAL ANCHORS AND HELICAL PILES, AND THE REQUIREMENTS FOR PROPER PERFORMANCE OF THE STRUCTURAL SYSTEM, AS WHOLE, HELICAL ANCHORS, HELICAL PILES, AND BRACKET ASSEMBLIES SHALL BE INSTALLED BY AN ORGANIZATION SPECIALIZING IN THE INSTALLATION OF HELICAL ANCHORS AND HELICAL PILES. ANY CONTRACTOR BIDDING THIS PROJECT AS THE HELICAL ANCHOR AND HELICAL PILE INSTALLER SHALL PROVIDE THE FOLLOWING:
1. A RECENT COMPANY BROCHURE INDICATING EXPERIENCE IN THIS TYPE OF WORK.
2. EVIDENCE OF HAVING INSTALLED HELICAL ANCHORS AND HELICAL PILES ON AT LEAST THREE (3) NON–RESIDENTIAL/COMMERCIAL PROJECTS, INCLUDING PROJECT NAME, LOCATION, AND CLIENT CONTACT INFORMATION.
3. DETAILED DESCRIPTION OF HELICAL ANCHORS AND HELICAL PILES, BRACKETS, AND CONNECTIONS OF BRACKET TO STRUCTURE PROPOSED FOR USE ON THIS PROJECT.
4. PROPOSED METHOD OF INSTALLATION/ LOAD TESTING PILE AND BRACKET.
   - c. INSTALLATION EQUIPMENT
1. EACH HELICAL ANCHOR AND HELICAL PILE SHALL BE ADVANCED INTO THE GROUND BY APPLICATION OF ROTATIONAL FORCE USING A HYDRAULIC TORQUE CONVERTER. INSTALLATION EQUIPMENT SHALL INCLUDE A DIRECT MEANS OF DETERMINING THE INSTALLATION TORQUE BEING APPLIED TO THE HELICAL ANCHOR AND HELICAL PILE. INSTALLATION EQUIPMENT ALSO SHALL INCLUDE A MEANS FOR APPLYING AND MEASURING LOADS AND DEFLECTIONS OF HELICAL PILES AND HELICAL ANCHORS FOR CAPACITY TESTING.
7. GENERAL CONDITIONS
   - a. THE INSTALLING CONTRACTOR SHALL REQUEST MARKING OF UNDERGROUND UTILITIES BY AND UNDERGROUND UTILITY LOCATION SERVICE AS REQUIRED BY LAW, AND SHALL AVOID CONTRACT WITH ALL MARKED UNDERGROUND FACILITIES. THE CONTRACTOR SHALL KEEP THEIR PORTION OF THE PROJECT REASONABLY CLEAN AND ORDERLY.
   - b. INSTALLING HELICAL ANCHORS AND HELICAL PILES
     - i. LOADS SHOWN ON THE PLANS ARE UNFACTORED DESIGN LOADS. A MINIMUM FACTOR OF SAFETY OF 2.0 SHALL BE USED TO DETERMINE THE REQUIRED ULTIMATE TENSILE CAPACITY OF THE HELICAL ANCHORS AND COMPRESSIVE CAPACITY OF HELICAL PILES WITH REGARD TO THEIR INTERACTION WITH SOIL AND BEDROCK. HELICAL ANCHOR AND HELICAL PILE CAPACITY IN SOIL AND ON BEDROCK DEPENDS ON THE GEOMETRIC CONFIGURATION OF THE HELICAL BLADES ABOUT THE LEAD SECTION AND THE SUBSURFACE CONDITIONS. THE TORQUE APPLIED DURING INSTALLATION PROVIDES AN INDIRECT VERIFICATION OF AXIAL CAPACITY. MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED REGARDING THE TORQUE AND THE TENSILE/BEARING CAPACITY RELATIONSHIP FOR THE PARTICULAR HELICAL ANCHOR AND HELICAL PILES SELECTED. THE NUMBER AND SIZE OF BLADES SHALL BE DETERMINED BY THE CONTRACTOR SO AS TO ACHIEVE THE REQUIRED TORQUE AND TENSILE/BEARING CAPACITY FOR THE SOIL CONDITIONS AT THE SITE. HOWEVER, THE RATIO OF DESIGN ALLOWABLE CAPACITY TO THE TOTAL AREA OF THE HELICAL BLADES SHALL NOT EXCEED THE ALLOWABLE SUBSURFACE MATERIAL BEARING CAPACITY.
     - ii. HELICAL ANCHORS AND HELICAL PILES SHALL BE ADVANCED INTO THE GROUND UNTIL THE REQUIRED TORQUE IS ACHIEVED TO ACCOMMODATE THE ULTIMATE TENSILE AND BEARING CAPACITY PLUS AN ADDITIONAL DISTANCE TO ENSURE PROPER EMBEDMENT. FOR THE HELICAL ANCHORS, THE EMBEDMENT LENGTH SHALL BE ACHIEVED BY CONTINUING ADVANCEMENT WHILE MAINTAINING OR EXCEEDING THE REQUIRED TORQUE FOR A DISTANCE OF AT LEAST THREE (3) FEET. FOR THE HELICAL PILES ON BEDROCK, THE EMBEDMENT LENGTH SHALL BE THAT REQUIRED TO ACHIEVE PRACTICAL REFUSAL.
   - c. STATIC LOAD CAPACITY TESTING
     - i. A STATIC LOAD CAPACITY TEST SHALL BE PERFORMED ON THE HELICAL ANCHORS AND HELICAL PILES AFTER INSTALLATION. THE STATIC LOAD CAPACITY TEST SHALL BE CONDUCTED ONE AT A TIME AND SHALL CONSIST OF THE FOLLOWING. AN INITIAL AXIAL SETTING FORCE OF 5,000 LBS SHALL BE APPLIED TO THE HELICAL ANCHOR OR HELICAL PILE. LOAD INCREMENTS OF 10 TO 15% OF THE DESIGN ALLOWABLE LOAD SHALL BE SUBSEQUENTLY APPLIED WITH A CONSTANT TIME INTERVAL BETWEEN EACH INCREMENT, IN ACCORDANCE WITH ASTM D 1143 QUICK LOAD TEST METHOD FOR INDIVIDUAL PILES, UNTIL THE PROOF LOAD SPECIFIED ON THE PLANS IS REACHED. AFTER THE FINAL HOLD PERIOD, THE MAXIMUM PILE HEAD DISPLACEMENT SHALL BE RECORDED. THE TEST SHALL BE DEEMED SUCCESSFUL PROVIDED HELICAL ANCHOR AND HELICAL PILE MAXIMUM PILE HEAD DISPLACEMENT IS LESS THAN THREE QUARTER (3/4) INCH AT THE DESIGN LOAD. IN THE EVENT OF AN UNSATISFACTORY TEST, THE HELICAL ANCHOR OR HELICAL PILE SHALL BE INSTALLED TO ADDITIONAL LENGTH AND TORQUE UNTIL A SUCCESSFUL PROOF LOAD CAPACITY TEST HAS BEEN COMPLETED. AXIAL LOAD SHALL BE APPLIED TO THE HELICAL ANCHOR AND HELICAL PILE DURING THE PROOF LOAD CAPACITY TEST UTILIZING THE FINAL BRACKET ASSEMBLY CONFIGURATION.
   - d. FIELD MODIFICATIONS
     - i. FIELD WELDING, IF REQUIRED, SHALL BE IN ACCORDANCE WITH THE "CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY. WELDING OF GALVANIZED STEEL CAN PRODUCE TOXIC GASES AND SHOULD BE DONE IN ADEQUATE VENTILATION AND WITH APPROPRIATE GAS DETECTION, BREATHING GEAR, AND OTHER SAFETY EQUIPMENT PER OSHA REGULATIONS. MODIFICATION OF MANUFACTURED HELICAL ANCHOR AND HELICAL PILE SHAFT, HELICAL BLADES, BRACKET ASSEMBLIES, AND SHAFT CONNECTIONS IS PROHIBITED AND SHALL NOT BE PERFORMED WITHOUT APPROVAL OF PRODUCT MANUFACTURING COMPANY.
   - e. SUBMITTALS
     - i. THE INSTALLING CONTRACTOR SHALL SUPPLY THE FOLLOWING INFORMATION FOLLOWING INSTALLATION WITHIN 3 DAYS OF INSTALLATION:
1. DATE AND TIME OF INSTALLATION
2. TOTAL LENGTH OF PILE INSTALLED
3. INSTALLATION TORQUE LOG TAKEN IN ONE–FOOT INCREMENTS
4. CALCULATED GEOTECHNICAL CAPACITY BASED ON ACTUAL TORSIONAL RESISTANCE.
5. TEST DATA FOR CAPACITY TESTING INCLUDING THE FOLLOWING:
   - a. DATE, TIME, AND DURATION OF TEST
   - b. LOCATION OF PILE TESTED
   - c. STEPS AND DURATIONS OF EACH LOAD INCREMENT
   - d. CUMULATIVE PILE MOVEMENT AT EACH LOAD STEP
8. METHOD OF MEASUREMENT
   - a. HELICAL ANCHORS AND HELICAL PILES WILL BE MEASURED ON A PER UNIT LENGTH BASIS WITH ONE UNIT EQUAL TO THE EQUIPMENT, MATERIALS, INCLUDING BRACKET ASSEMBLY, AND LABOR REQUIRED FOR PROPER INSTALLATION OF ONE LINEAL FOOT OF HELICAL ANCHOR OR HELICAL PILE AT THE REQUIRED FINAL INSTALLATION TORQUE, CAPACITY, LOCATION, ELEVATION, AND MINIMUM LENGTH SPECIFIED. STATIC LOAD CAPACITY TESTING WILL BE MEASURED ON A PER UNIT BASIS WITH ONE UNIT EQUAL TO THE EQUIPMENT, MATERIALS, INCLUDING REACTION PILES AND LOAD FRAME, AND LABOR REQUIRED FOR OBTAINING A SUCCESSFUL STATIC LOAD TEST.

### TIMBER

TIMBER WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ANSI/AWC NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION WITH 2015 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 2015 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 2015 ANSI/AWC NDS FOR WOOD CONSTRUCTION WITH 2015 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 2015 ANSI/AWC NDS FOR WOOD CONSTRUCTION WITH 2015 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.

### 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. POST INSTALLED ANCHORS IN CONCRETE (CONTINUOUS)
- e. IN–SITU SOILS, EXCAVATIONS, FILLING & COMPACTION (PERIODIC)
- f. WOOD FRAMING:
  - f.a. SHEAR WALLS; WALL SIZE, CONFIGURATION, BLOCKING, PANEL GRADE, PANEL THICKNESS, AND FASTENING. (PERIODIC)
  - f.b. DIAPHRAGMS (FLOOR AND ROOF SHEATHING); SIZE, CONFIGURATION, BLOCKING, PANEL GRADE, PANEL THICKNESS, AND FASTENING. (PERIODIC)
  - f.c. FRAMING MEMBERS AND DETAILS (PERIODIC)
  - f.d. MATERIAL GRADE (PERIODIC)
  - f.e. CONNECTIONS; HANGERS, HOLD DOWNS, BUILT–UP COLUMNS, BUILT–UP BEAMS (PERIODIC)
  - f.f. PRE–ENGINEERED TRUSSES; FRAMING, CONNECTIONS, BRIDGING (PERIODIC)

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

**MEZZANINE DESIGN DATA**

2021 INTERNATIONAL BUILDING CODE / ASCE 7–16

| | |
|---|---|
| BUILDING OCCUPANCY CATEGORY | II |
| **FLOOR LOAD DATA** | |
| LIVE LOAD (CORRIDOR) | 40.0 (80.0) |
| 3/4"SHEATHING | 3.0 |
| MECHANICAL ALLOWANCE | 15.0 |
| 5/8" GYP. CEILING | 3.0 |
| FLOOR STRUCTURE | 4.0 |
| TOTAL TO FLOOR TRUSSES | 65.0 (105.0) lbs/sq.ft |
| **EARTHQUAKE DESIGN DATA** | |
| RISK CATEGORY | II |
| $I_E$ = | 1.0 |
| $S_S$ = | 0.137 |
| $S_1$ = | 0.084 |
| SITE CLASS | D (ASSUMED) |
| $S_{DS}$ = | 0.146 |
| $S_{D1}$ = | 0.134 |
| SEISMIC DESIGN CATEGORY | C |
| BASIC SEISMIC–FORCE–RESISTING SYSTEM = | LIGHT–FRAME (WOOD) WALLS SHEATHED WITH GYPSUM SHEAR PANELS |
| $R$ = | 2.0 |
| $\Omega_0$ = | 2.5 |
| $C_d$ = | 2.0 |
| DESIGN BASE SHEAR | $V = 0.073W$ |
| EQUIVALENT LATERAL FORCE PROCEDURE | |
| NET ALLOWABLE SOIL BEARING | 1,500 lbs/sq.ft** |

(**ASSUMED PER TABLE 1806.2 OF THE 2021 INTERNATIONAL BUILDING CODE)

**INDEX OF SHEETS**


| | |
|---|---|
| COVER / GENERAL STRUCTURAL DATA | S-001 |
| FOUNDATION PLAN & DETAILS | S-101 |
| MEZZANINE & CEILING FRAMING PLAN | S-102 |
| MEZZANINE & CEILING FRAMING DETAILS | S-103 |


STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

JARED W. VERSLUES
NUMBER PE-2017000387
PROFESSIONAL ENGINEER
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MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01
SITE # 1501
ASSET # 3511501028

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DATE:

ISSUE DATE: 06/27/2025

**BID DOCUMENTS**

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DRAWN BY: SDH
CHECKED BY: JWV
DESIGNED BY: JWV

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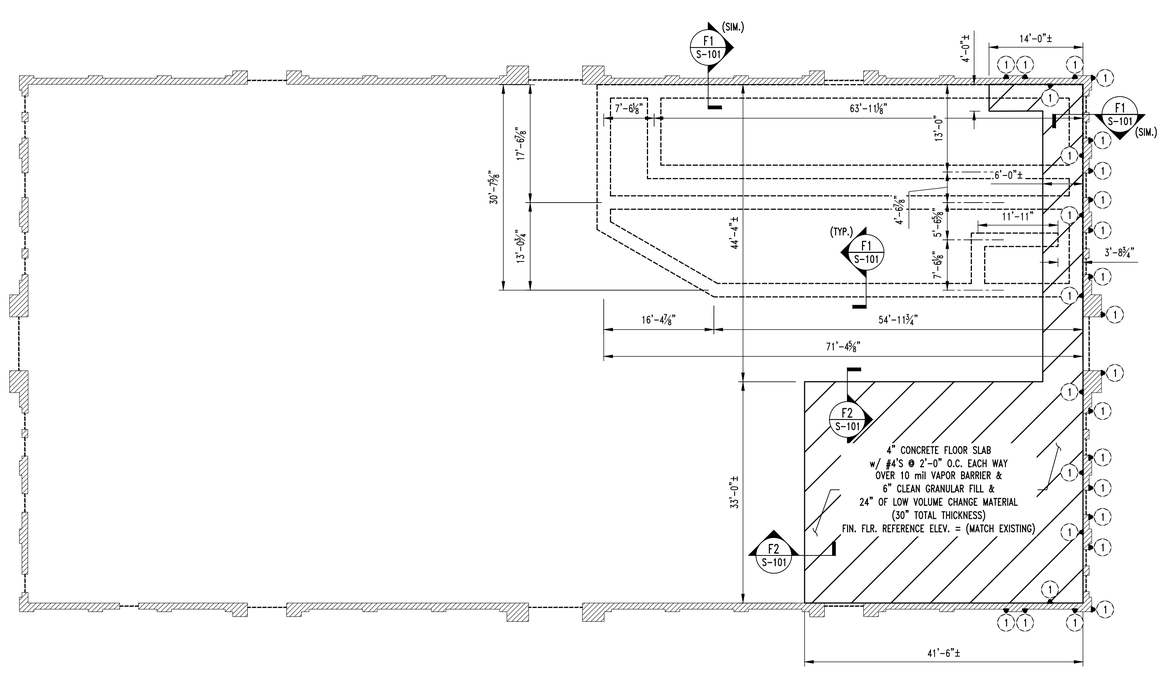
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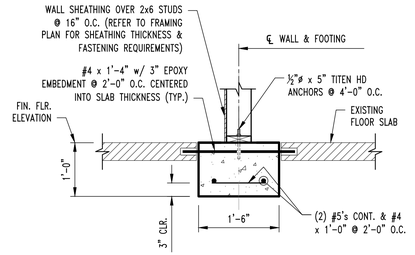
S-001

## FOUNDATION NOTES

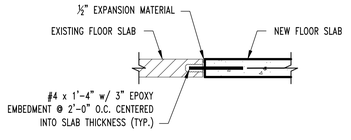
(1) HELICAL PIER; SEE F3/S-101 FOR ADDITIONAL INFORMATION.



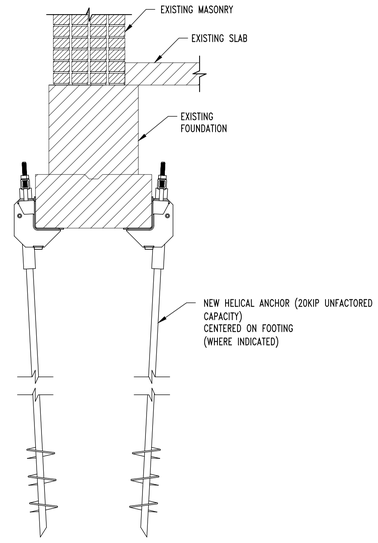

1 S-101 **FOUNDATION PLAN**
SCALE: 3/32" = 1'-0"




F1 S-101 **CONTINUOUS FOOTING SECTION**
SCALE: ¾" = 1'-0"




F2 S-101 **NEW SLAB TO EXISTING SLAB SECTION**
SCALE: ¾" = 1'-0"




F3 S-101 **EXISTING FOOTING SECTION**
SCALE: ¾" = 1'-0"

**NOTE:**
INTENTION IS TO ONLY SUPPORT THIS FOOTING IN ITS EXISTING LOCATION, NOT TO RAISE THE FOOTING.

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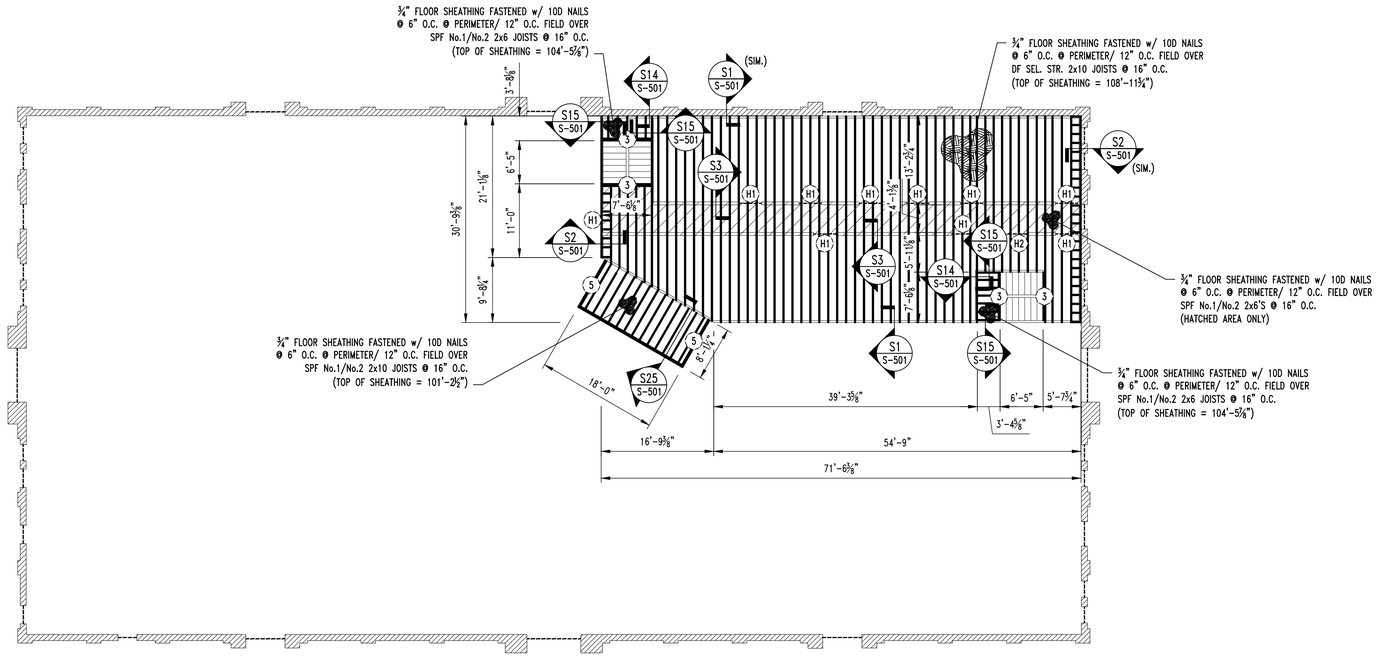
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CHECKED BY: JWV
DESIGNED BY: JWV

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FOUNDATION PLAN & DETAILS

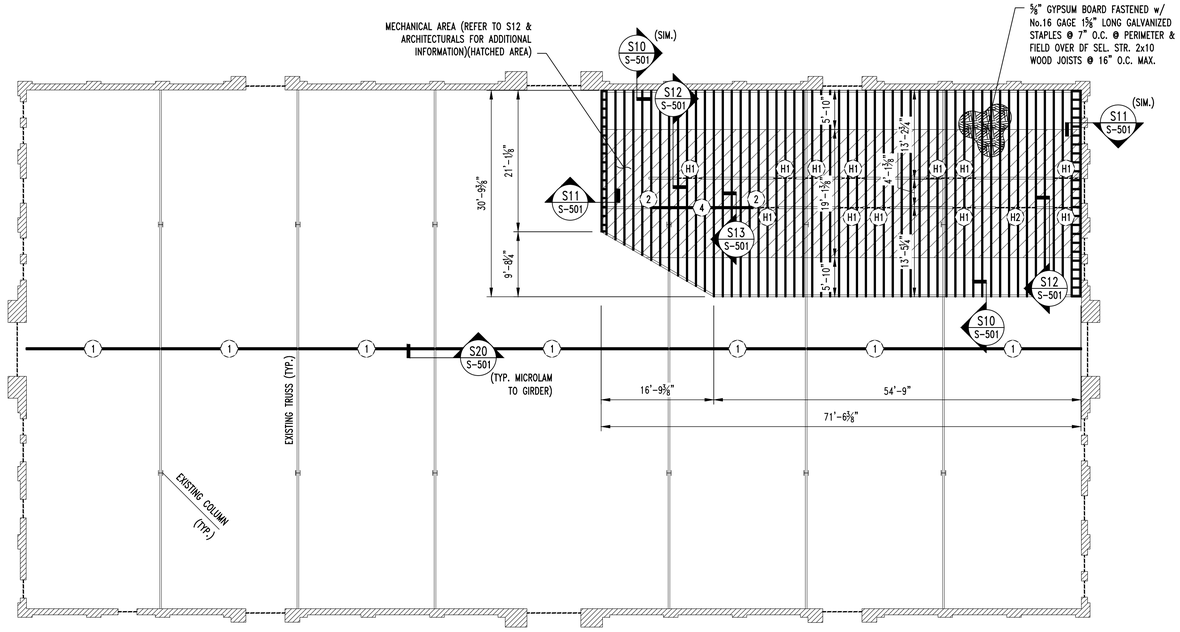
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S-101




1 S-102 **2ND FLOOR FRAMING PLAN**

SCALE: 3/32" = 1'-0"




2 S-102 **CEILING FRAMING PLAN**

SCALE: 3/32" = 1'-0"

NOTE: CEILING IS NOT DESIGNED TO TO BE UTILIZED FOR ANY STORAGE ON TOP OF JOISTS.

## FRAMING NOTES

1. 2-PLY MICROLAM 2.0E 1.75x14 TO SUPPORT DUCT RUNNING FULL LENGTH OF BUILDING. REFER TO MEP FOR ADDITIONAL INFORMATION.
2. 2-PLY STUD PACK BENEATH END OF MICROLAM.
3. 2-PLY DF SEL. STR. 2x10 w/ SIMPSON HUC210-2 @ EACH END.
4. 2-PLY MICROLAM 2.0E 1.75x14
5. INSTALL SLEEPERS @ FLOOR ON ALL 3 SIDES OF STAGE

## HEADER SCHEDULE

| LABEL | HEADER | CRIPPLE/JACK | JAMB/KING |
|---|---|---|---|
| "H1" | 2 Ply 2x6 SPF No.1/No.2 | Single Ply 2x6 SPF No.1/No.2 | Single Ply 2x6 SPF No.1/No.2 |
| "H2" | 2 Ply 2x10 Doug. Fir Sel. Struct. | 2 Ply 2x6 SPF No.1/No.2 | Single Ply 2x6 SPF No.1/No.2 |

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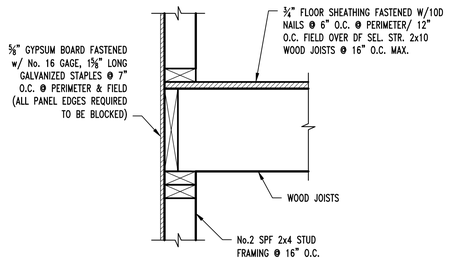
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DRAWN BY: SEH
CHECKED BY: JWV
DESIGNED BY: JWV

SHEET TITLE:

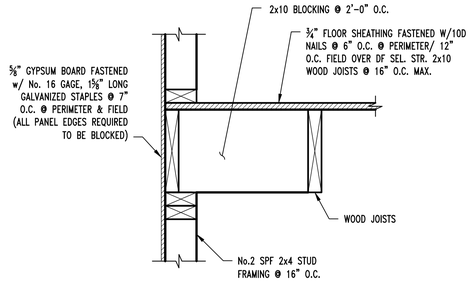
MEZZANINE & CEILING FRAMING PLAN

SHEET NUMBER:

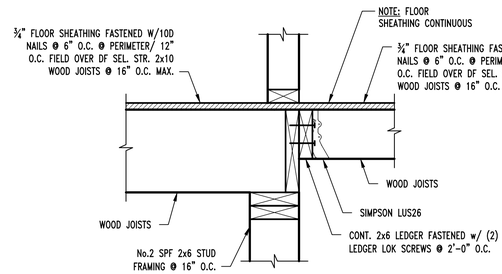
S-102



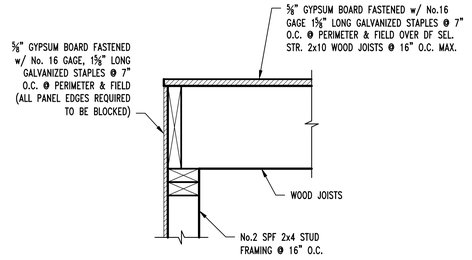

S1 / S-102 **TYP. FLOOR FRAMING DETAIL**
SCALE: 1½" = 1'-0"



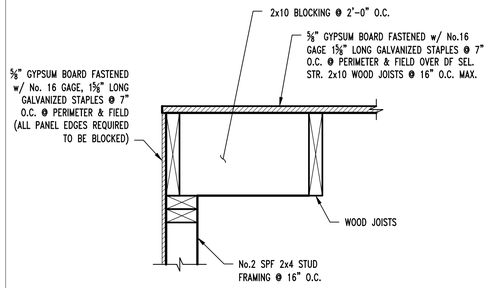

S2 / S-102 **TYP. FLOOR FRAMING DETAIL**
SCALE: 1½" = 1'-0"



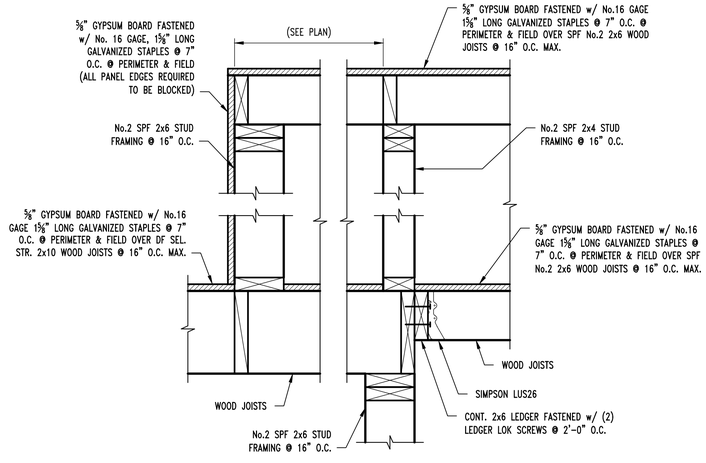

S3 / S-102 **TYP. FLOOR FRAMING DETAIL**
SCALE: 1½" = 1'-0"



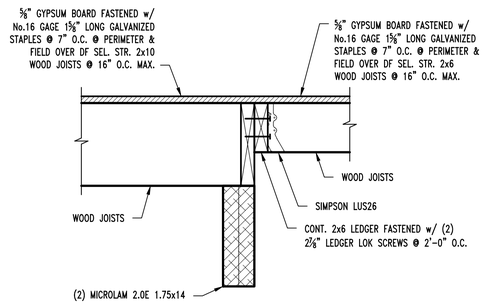

S10 / S-102 **TYP. FLOOR FRAMING DETAIL**
SCALE: 1½" = 1'-0"



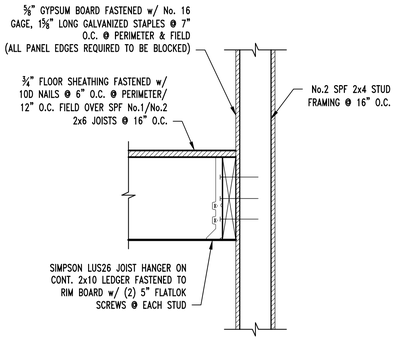

S11 / S-102 **TYP. FLOOR FRAMING DETAIL**
SCALE: 1½" = 1'-0"



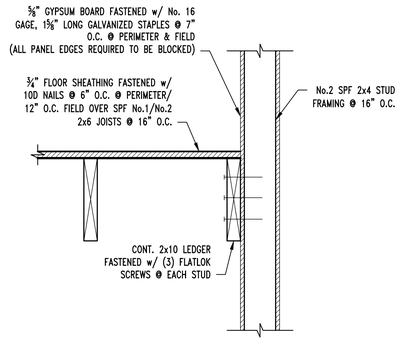

S12 / S-102 **TYP. FLOOR FRAMING DETAIL**
SCALE: 1½" = 1'-0"



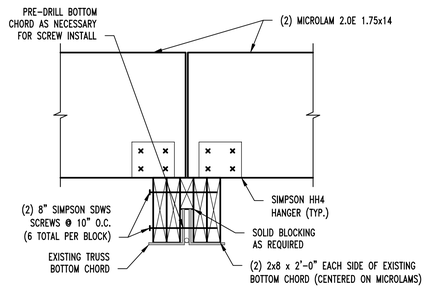

S13 / S-102 **TYP. FLOOR FRAMING DETAIL**
SCALE: 1½" = 1'-0"



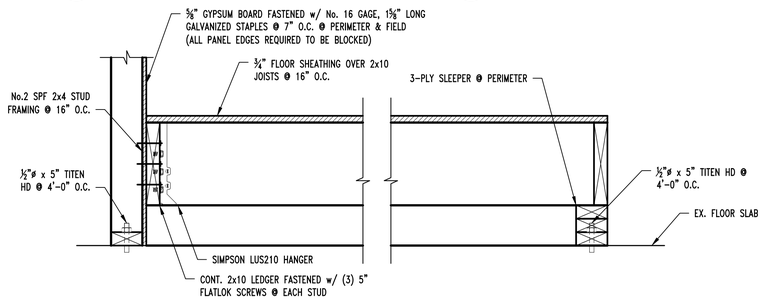

S14 / S-102 **FRAMING SECTION**
SCALE: 1½" = 1'-0"



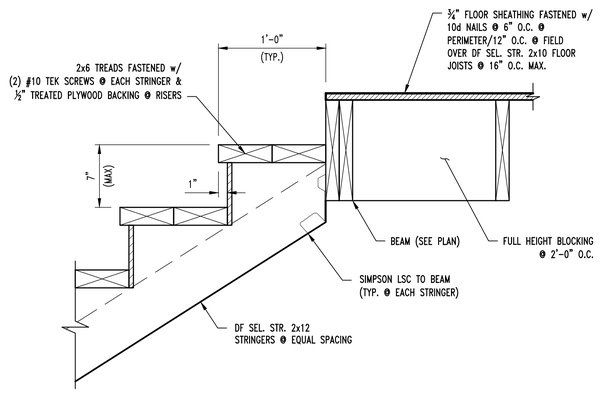

S15 / S-102 **FRAMING SECTION**
SCALE: 1½" = 1'-0"



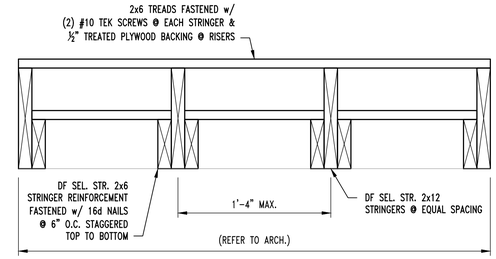

S20 / S-102 **BEAM CONNECTION DETAIL**
SCALE: 1½" = 1'-0"




S25 / S-102 **PLATFORM FRAMING SECTION**
SCALE: 1½" = 1'-0"

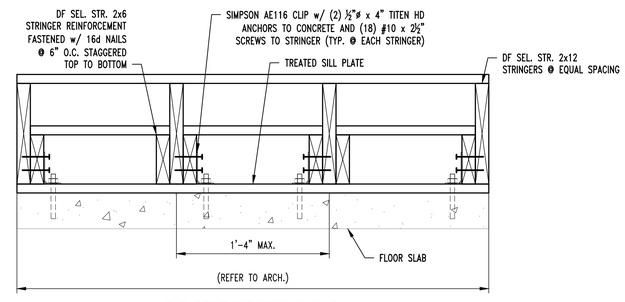



**TYP. STAIR STRINGER ATTACHMENT**




**NOTE:**
STRINGER SPAN TO BE NO MORE THAN 10'-0"

**TYP. STAIR STRINGER SECTION**




**TYP. STAIR STRINGER @ SLAB**

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI JARED W. VESSLUES NUMBER PE-2017000387 PROFESSIONAL ENGINEER
06/27/2025

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS - MISSOURI (4H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01
SITE # 1501
ASSET # 3511501028

REVISION:
DATE:

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ISSUE DATE: 06/27/2025

**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: SDP
CHECKED BY: JWV
DESIGNED BY: JWV

SHEET TITLE:

MEZZANINE & CEILING FRAMING DETAILS

SHEET NUMBER:

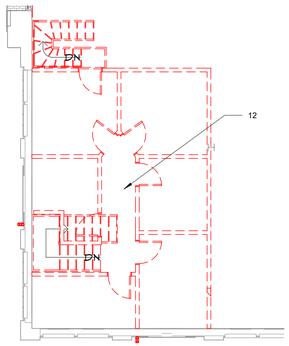
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SHEET 13 OF 48 6/27/25

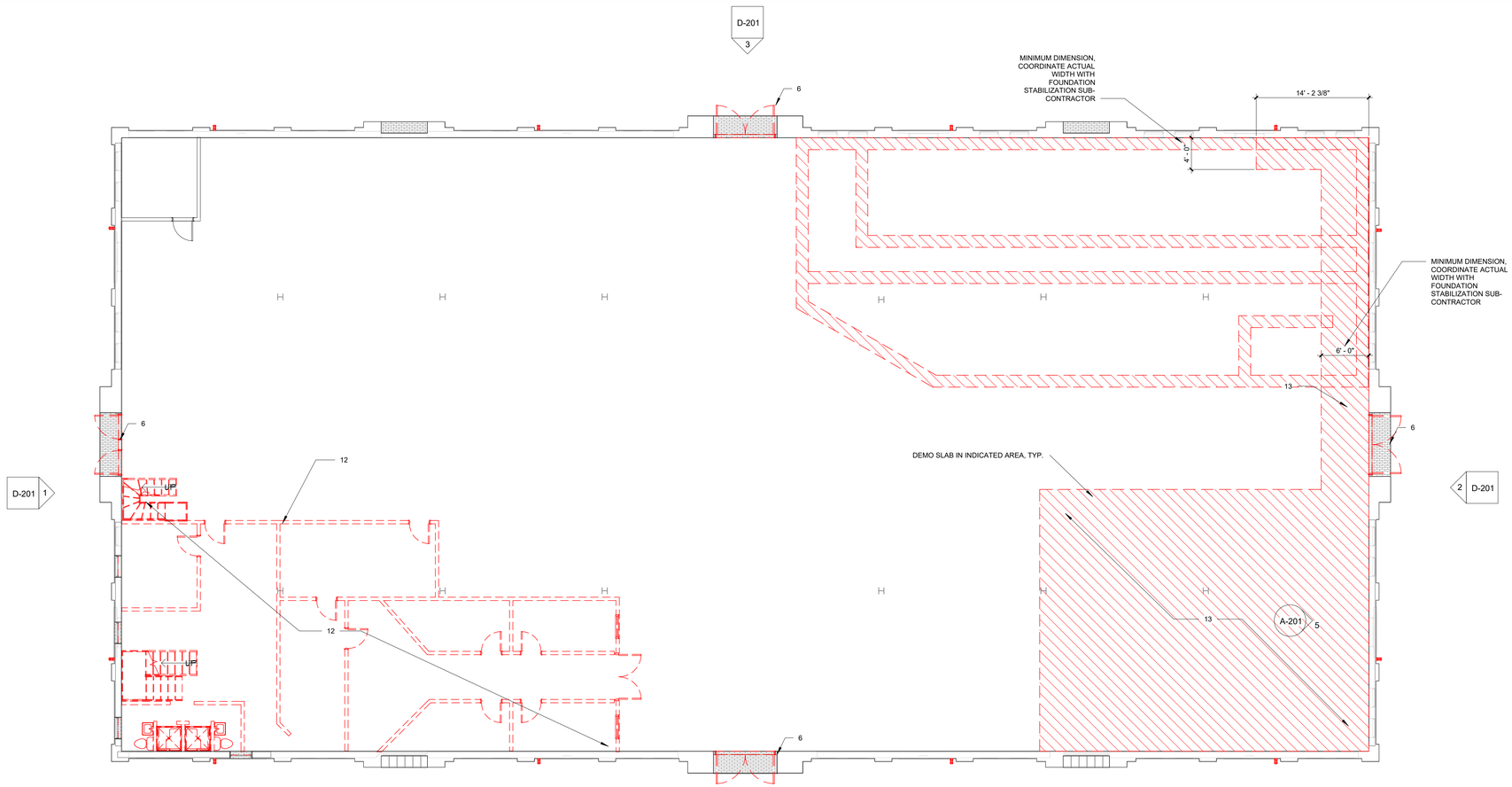
DEMOLITION NOTES:
NOTE NOT ALL ITEMS ARE INDICATED ON THE DRAWINGS.

1. DEMO ALL EXISTING ASPHALT SHINGLES, ROOF FLASHING AND MEMBRANE TO DECK, TYP.
2. DEMO ALL EXISTING CORNICE, SOFFIT, FASCIA, GUTTERS, AND DOWNSPOUTS, TYPICAL AT ALL DORMERS, GABLE ENDS, EAVES, ETC., TYP.
3. DEMO ALL COPING, TYP.
4. DEMO ALL SIDING AT DORMERS AND GABLE ENDS, TYP.
5. DEMO ALL EXISTING WINDOWS, DORMER FANS, LOUVERS, ANY OTHER EXISTING WINDOW ACCESSORIES. EXISTING WOOD HEADERS, JAMBS, AND SILL TO REMAIN, PREP HEADERS, JAMBS, AND SILLS FOR NEW PAINT & WINDOWS, TYP.
   A. DEMO EXISTING LOUVERS AND VENT FANS, EXPAND OPENING TO ORIGINAL DIMENSIONS, PREP FOR NEW LOUVERS AS BASE BID OR WINDOW INSTALLATION FOR ALTERNATE 1, TYP.
6. DEMO ALL EXTERIOR DOORS, PREP FOR INSTALLATION OF NEW, TYP.
7. SALVAGE EXISTING ROOF TOP VENTS FOR REINSTALLATION, CLEAN, PAINT, REINSTALL, COORDINATE PAINT W/ OWNER, TYP.
8. TUCKPOINT EXTERIOR & INFILL CRACKS AS INDICATED, TYP.
9. TUCKPOINT JOINTS AND AT ALL TERRA COTTA LOCATIONS , TYP.
10. DEMO ALL SIDEWALKS AS INDICATED ON THE CIVIL PLAN SHEETS.
11. PREP SOUTH PERIMETER FOR FOUNDATION STABILIZATION.
12. DEMO EXISTING FRAMED STRUCTURE IN NORTHWEST CORNER, DEMO ALL FINISHES DOWN TO BRICK & SLAB, PATCH SLAB TO PROVIDE FLUSH FLOOR SURFACE, TYP.
13. DEMO INTERIOR SLAB AS INDICATED FOR FOUNDATIONS, REPLACEMENT, AND FOUNDATION STABILIZATION.
14. DEMO EXISTING ELECTRICAL SYSTEMS AS INDICATED ON ELECTRICAL DRAWINGS, TYP. SEE ELECTRICAL DRAWINGS FOR EXTENT OF ELECTRICAL DEMOLITION, TYP.
15. DEMO EXISTING PLUMBING SYSTEMS, PREP FOR INSTALLATION OF NEW, TYP. SEE PLUMBING DRAWINGS.
16. PREP INTERIOR STEEL STRUCTURE FOR FOR PAINTING, INTENT IS TO PAINT OVER EXISTING PAINT, SEE BUILDING SECTIONS FOR PAINTING EXTENTS, TYP.

DEMOLITION NOTES
1/8" = 1'-0"




2 D-101 DEMOLITION PLAN, 2ND FLR.
1/8" = 1'-0"

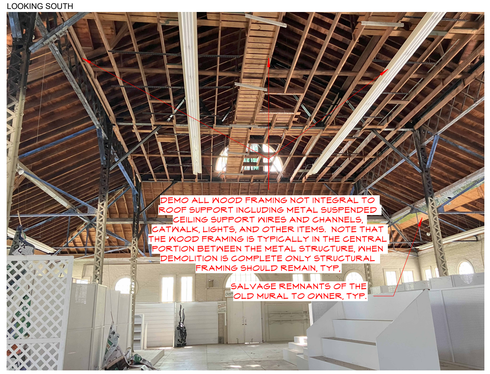



1 D-101 DEMOLITION PLAN
1/8" = 1'-0"

LOOKING NORTH




LOOKING SOUTH




EAST AND WEST SIDES ARE SIMILAR




3 D-101 CEILING DEMO IMAGES
NO SCALE

NOTE: A SUSPENDED METAL CEILING WAS REMOVED PRIOR TO CONSTRUCTION STARTING. GC SHALL BE RESPONSIBLE FOR REMOVING THE REMAINING UNISTRUT, SUSPENSION WIRES, AND ANY OTHER REMNANTS OF THE CEILING.

DORMER DETAIL




**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI
ROBERT D. ROLLINGS
A-2006003870
ARCHITECT

6.27.25

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CAD DWG FILE: D-101
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

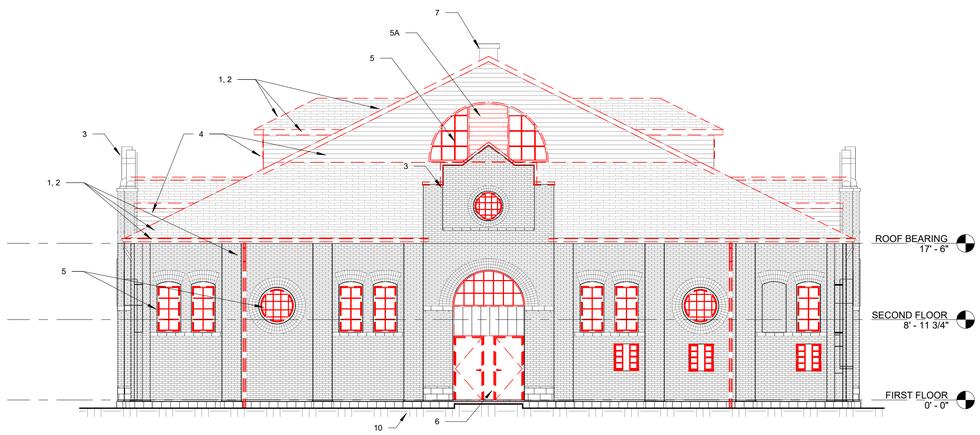
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# DEMOLITION PLAN

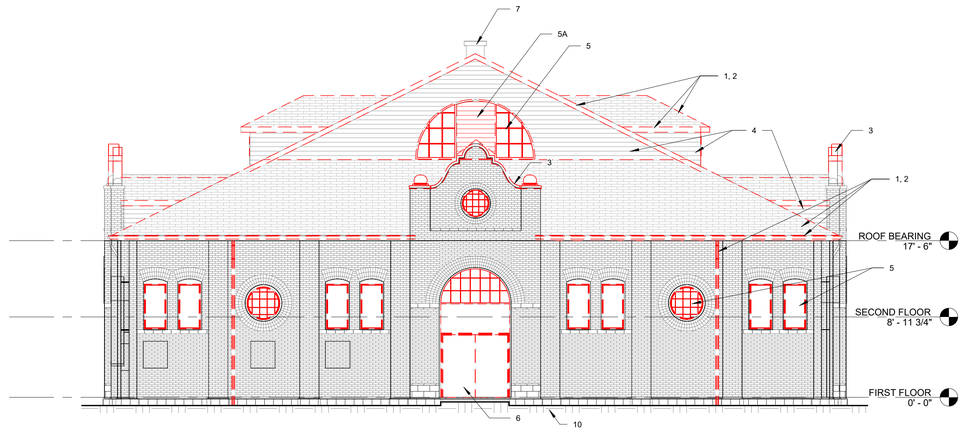
SHEET NUMBER:

# D-101

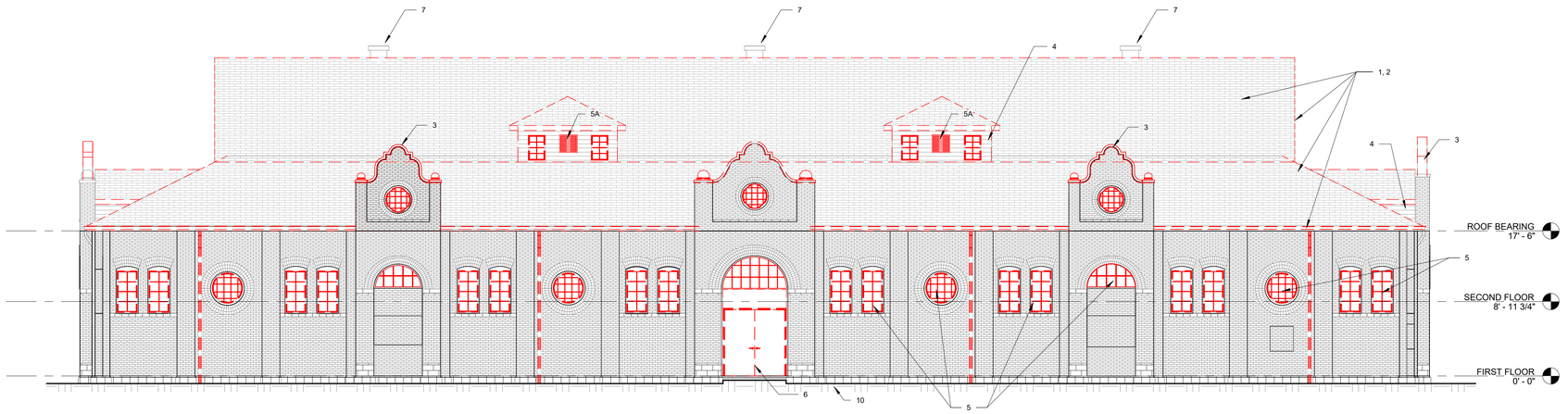
SHEET 14 OF 48 6/27/25



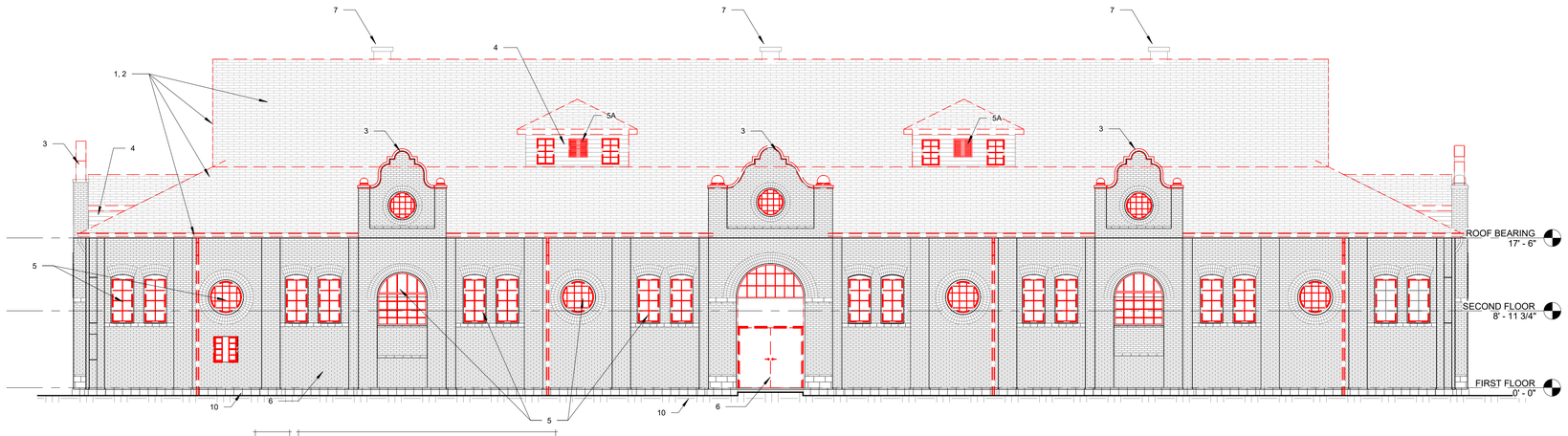

| 1 | DEMOLITION NORTH ELEVATION |
|---|---|
| D-201 | 1/8" = 1'-0" |




| 2 | DEMOLITION SOUTH ELEVATION |
|---|---|
| D-201 | 1/8" = 1'-0" |




| 3 | DEMOLITION EAST ELEVATION |
|---|---|
| D-201 | 1/8" = 1'-0" |




| 4 | DEMOLITION WEST ELEVATION |
|---|---|
| D-201 | 1/8" = 1'-0" |

DEMOLITION NOTES:
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1. DEMO ALL EXISTING ASPHALT SHINGLES, ROOF FLASHING AND MEMBRANE TO DECK, TYP.
2. DEMO ALL EXISTING CORNICE, SOFFIT, FASCIA, GUTTERS, AND DOWNSPOUTS, TYPICAL AT ALL DORMERS, GABLE ENDS, EAVES, ETC., TYP.
3. DEMO ALL COPING, TYP.
4. DEMO ALL SIDING AT DORMERS AND GABLE ENDS, TYP.
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   A. DEMO EXISTING LOUVERS AND VENT FANS, EXPAND OPENING TO ORIGINAL DIMENSIONS, PREP FOR NEW LOUVERS AS BASE BID OR WINDOW INSTALLATION FOR ALTERNATE 1, TYP.
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11. PREP SOUTH PERIMETER FOR FOUNDATION STABILIZATION.
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14. DEMO EXISTING ELECTRICAL SYSTEMS AS INDICATED ON ELECTRICAL DRAWINGS, TYP. SEE ELECTRICAL DRAWINGS FOR EXTENT OF ELECTRICAL DEMOLITION, TYP.
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16. PREP INTERIOR STEEL STRUCTURE FOR FOR PAINTING, INTENT IS TO PAINT OVER EXISTING PAINT, SEE BUILDING SECTIONS FOR PAINTING EXTENTS, TYP.

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI
ROBERT D. ROLLINGS
A-2006003870
ARCHITECT

6.27.25

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INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
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PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

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CAD DWG FILE: D-102
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

SHEET TITLE:

DEMOLITION ELEVATIONS

SHEET NUMBER:

D-201

## GENERAL NOTES

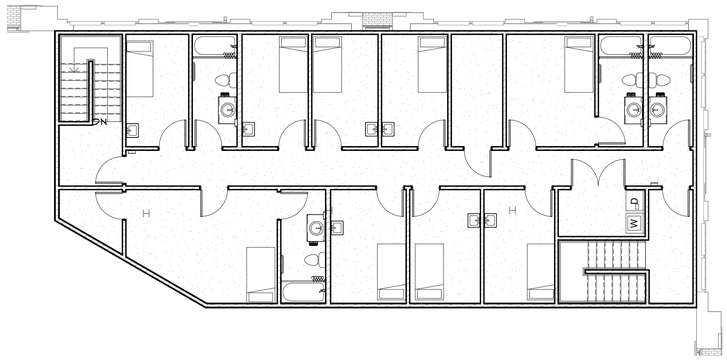
A. DO NOT SCALE DRAWINGS.
B. NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN PROJECT DOCUMENTS AND EXISTING CONDITIONS. ANY MODIFICATIONS DUE TO DIMENSIONAL CHANGES SHOULD BE PART OF THE PROJECT COST.
C. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL THOROUGHLY FAMILIARIZE THEMSELVES TO ALL SITE SPECIFIC REQUIREMENTS AND EXTENTS OF WORK PRIOR TO BIDDING. NO CHANGES IN THE CONTRACT WILL BE CONSIDERED FOR INFORMATION DISCERNIBLE FROM THE PROJECT DOCUMENTS.
D. GENERAL CONTRACTOR MAY HAVE TO COORDINATE WITH OWNER'S CONTRACTORS OUTSIDE OF CONTRACT.
E. TYPICAL GROUND FLOOR FINISH FLOOR ELEVATION IS REFERENCED AS 0'-0." CONTRACTOR SHALL VERIFY BUILDING FINISH FLOOR ELEVATION W/ ACTUAL CONDITIONS.
F. CAULK ALL JOINTS BETWEEN DISSIMILAR MATERIALS FOR WEATHER TIGHT, WATER TIGHT, AIR TIGHT ETC. PERFORMANCE.
G. AT RECESSED FIRE EXTINGUISHER CABINETS, PROVIDE REQUIRED LAYERS OF GYP. BD. TO MAINTAIN FIRE RATING OF WALL PER PARTITION SCHEDULE.
H. MOISTURE RESISTANT GYPSUM BOARD IS TO BE INSTALLED AT ALL WALLS IN BATHROOMS & ALL WET WALLS.
I. GYP. BD. TO BE HELD 1" A.F.F. IN ALL WET AREAS.
J. PROVIDE DOUBLE JAMB (2-20 GA. STUDS MIN. AT METAL) (2-FULL + 1 CRIPPLE AT WOOD) AT ALL DOOR JAMBS, TYP.

## PLAN NOTES

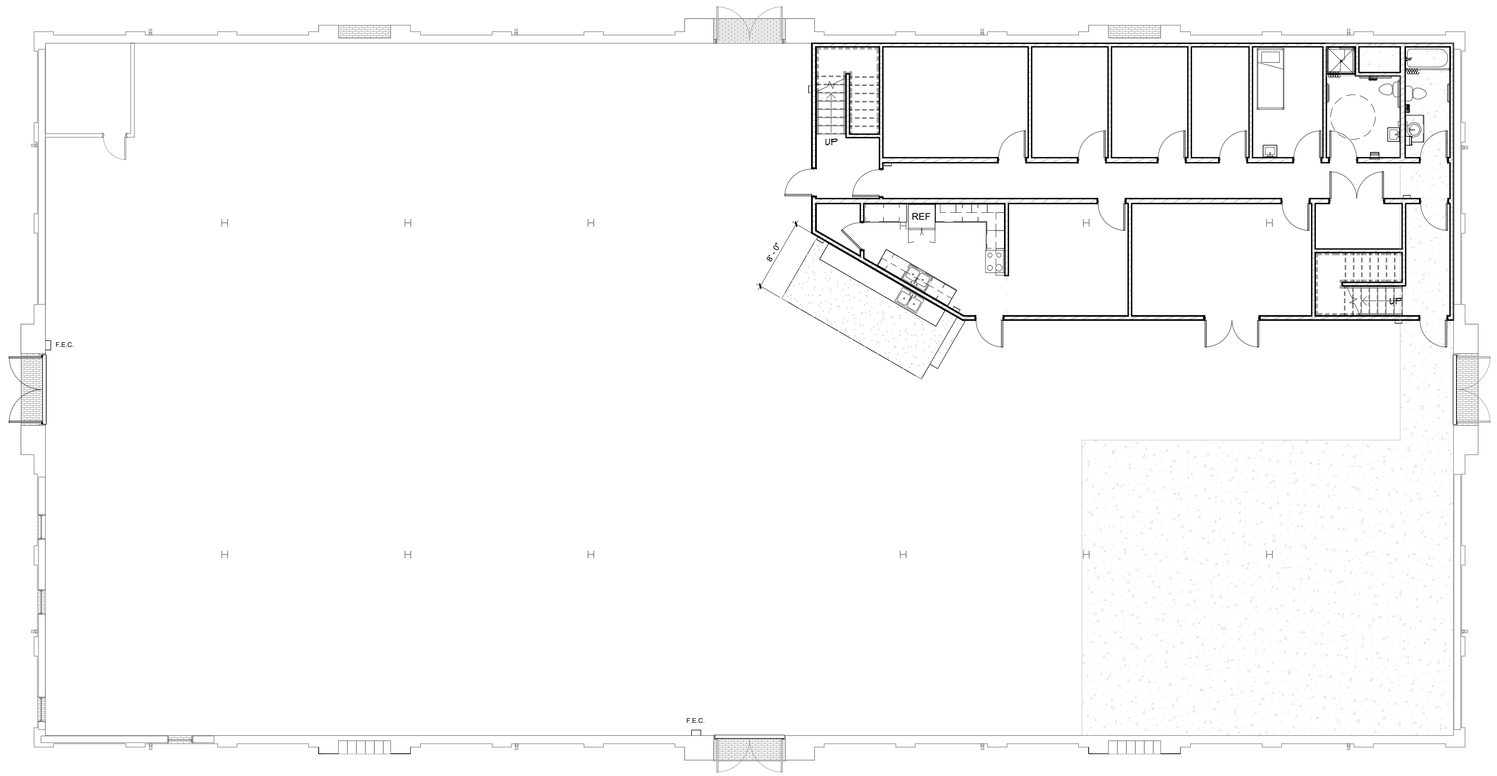
A. REFER TO DIMENSION PLANS FOR DIMENSION NOTES.
B. REFER TO STRUCTURAL DRAWINGS FOR STRUCTURAL DETAILS.
C. PROVIDE SOUND BATT INSULATION FULL HEIGHT TO MATCH FRAMING THICKNESS. ALL INTERIOR WALLS.
D. PROVIDE PLYWOOD BACKING FOR ALL WALLS WITH WALL MOUNTED ELECTRICAL EQUIPMENT, CASEWORK, BATHROOM ACCESSORIES, ALL WALLS IN KITCHEN AND OPEN SHELVES SPECIFIED AS REQUIRED. REFER TO ELECTRICAL PLANS AND INTERIOR ELEVATIONS FOR LOCATIONS.
E. LOCATE ALL PLUMBING FIXTURES AS PER INTERIOR ELEVATION DIMENSIONS AS NOTED FROM CENTERLINE OF FIXTURE TO WALL FINISH. REFER TO INTERIOR ELEVATIONS.
F. CONTROL JOINTS TO BE LOCATED ON GYP. BD. WALL AND CEILING SPANS OVER 22' IN LENGTH WITHOUT A BREAK IN WALL RUN. REFER TO REFERENCE PLAN FOR LOCATIONS.
G. SEE REFLECTED CEILING PLAN FOR WALL HEIGHTS.
H. FLOOR FINISH CHANGES ARE TYPICALLY AT DOORWAYS UNLESS NOTED OTHERWISE. REFER TO FINISH SCHEDULE AND REFERENCE PLAN.
I. REFER TO TYPICAL DETAIL SHEET FOR TYPICAL MOUNTING HEIGHTS, ADA DOOR CLEARANCES AND VARIOUS DETAILS.



3 / A-101 — GENERAL NOTES — 12" = 1'-0"




2 / A-101 — SECOND FLOOR PLAN — 1/8" = 1'-0"




1 / A-101 — FIRST FLOOR PLAN — 1/8" = 1'-0"


**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI ROBERT D. ROLLINGS A-2006003870 ARCHITECT

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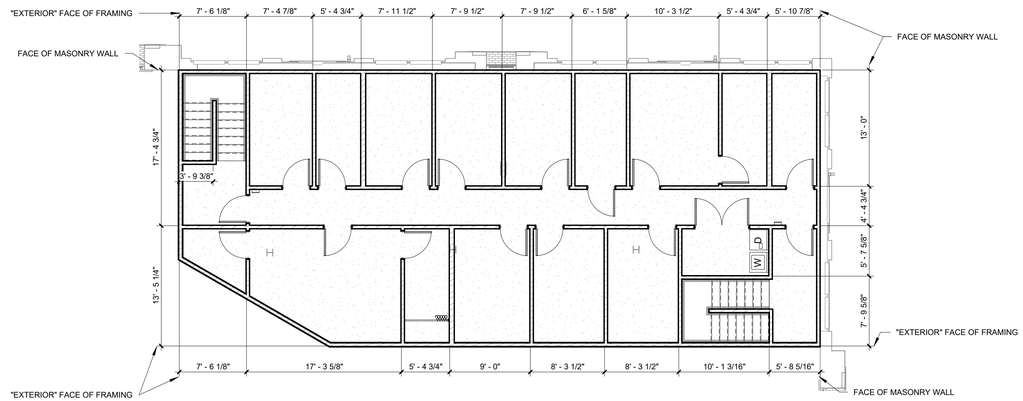
CAD DWG FILE: A-101
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

SHEET TITLE:

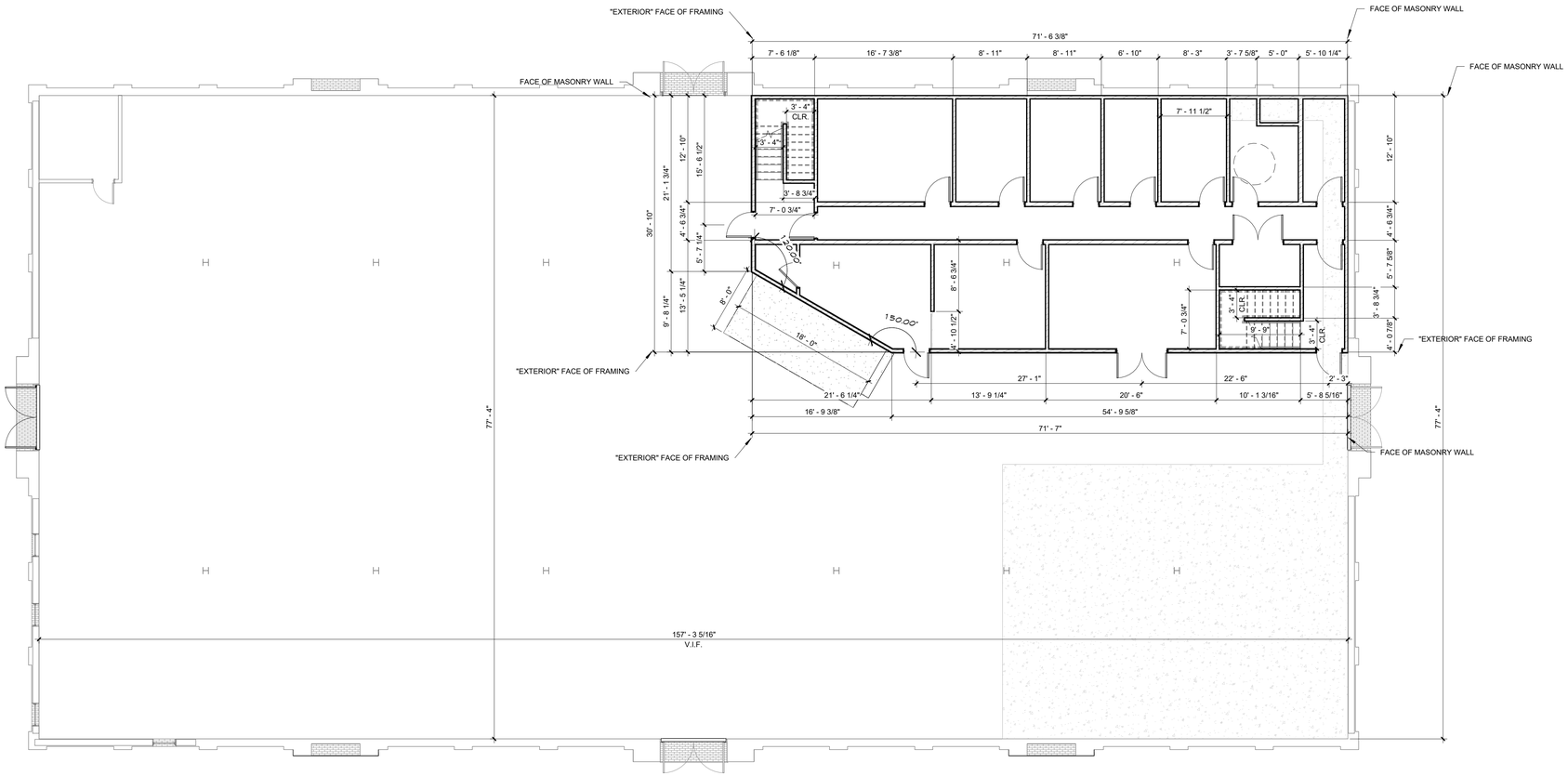
FLOOR PLANS

SHEET NUMBER:

# A-101




2 / A-102 SECOND FLOOR DIMENSION PLAN
1/8" = 1'-0"




1 / A-102 FIRST FLOOR DIMENSION PLAN
1/8" = 1'-0"

NOTE:

- EXTERIOR DIMENSIONS ARE FROM EXTERIOR OF MASONRY & CONCRETE.

- INTERIOR DIMENSIONS ARE FROM INTERIOR FACE OF MASONRY & CONCRETE. "EXTERIOR" FACE OF "EXTERIOR" STUDS AND EAST & NORTH FACES OF INTERIOR STUDS.

-OPENINGS ARE TO CENTERLINE.

-DOORS ARE TO CENTER OF OPENINGS

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI
ROBERT D. ROLLINGS
A-2006003870
ARCHITECT

6.27.25

Robert D. Rollings 2005001208, Certificate of Authority # A-2006003870


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INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

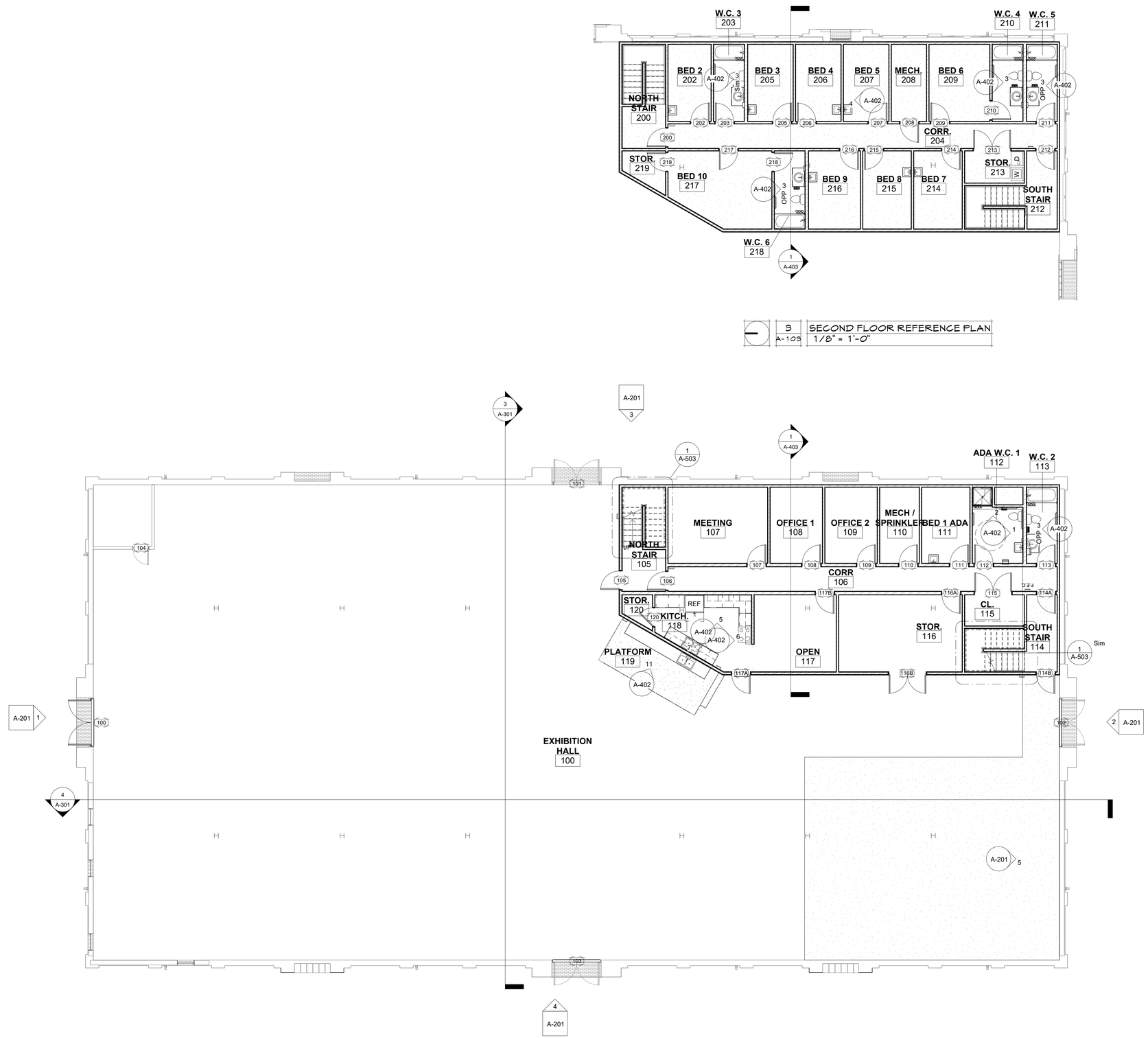
CAD DWG FILE: A-102
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

SHEET TITLE:

DIMENSION PLANS

SHEET NUMBER:

A-102




**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

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ROBERT D. ROLLINGS
A-2006003870
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6.27.25

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PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

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ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE: A-103
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

SHEET TITLE:

REFERENCE PLANS

SHEET NUMBER:

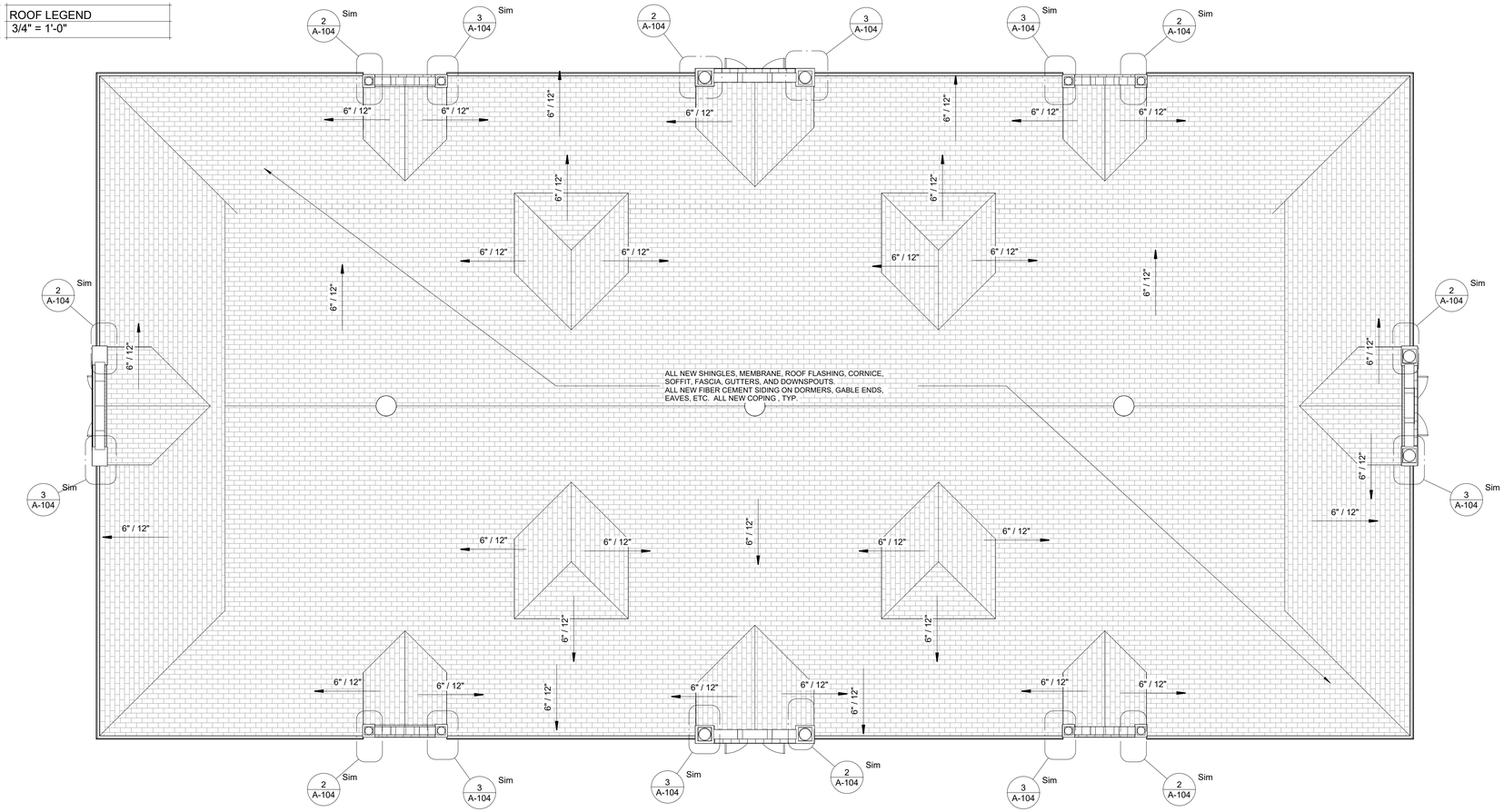
# A-103

SHEET 18 OF 48 6/27/25

ATTENTION (OR REPAIR) REQUIRED
ANTENNA, MAY VARY
DS DOWNSPOUT
P3 APPROX. PHOTO LOCATION & DIRECTION
FLUE CHIMNEY
ROOF CORE
E EXPANSION JOINT
AD AREA DIVIDER
G GAS LINE
.25:12 EXAMPLE ROOF SLOPE
SLOPE DIRECTION
H HOT VENT
PONDED WATER
E CURB MOUNTED EQUIPMENT (FANS & VENTS)
E ELECTRICAL CONDUIT
THROUGH WALL SCUPPER
ROOF DRAIN
V VENT THROUGH ROOF
T TURBINE
HATCH
P EXISTING ROOF PATCH
OS OVERFLOW SCUPPER
OD OVERFLOW DRAIN
FA FAN
SOIL STACK
RUT ROOF TOP UNIT, HVAC
WALKWAY PADS
LADDER
PITCH POCKET

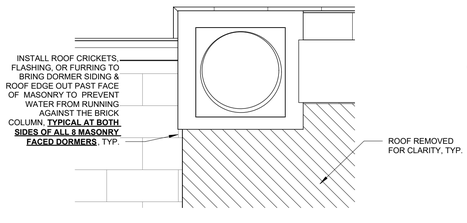
ROOF LEGEND: ALL SIZES SHALL BE NOTED, EXCEPT WHEN NOT APPLICABLE. DESCRIPTION MAY BE REQUIRED.

ROOF LEGEND
3/4" = 1'-0"



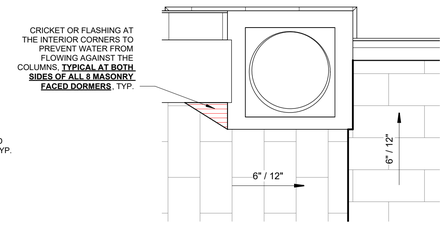

1 A-104 ROOF PLAN
1/8" = 1'-0"

THIS VIEW SHOWS THE CONDITION AT THE MAIN ROOF WHERE IT ABUTS THE DORMERS

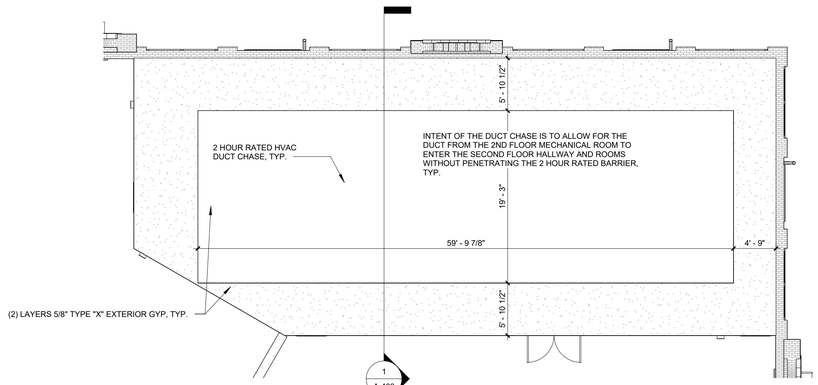



2 A-104 ROOF DETAIL 1
3/4" = 1'-0"

THIS VIEW SHOWS THE DORMER ROOF WHERE IT ABUTS THE DORMER FACE




3 A-104 ROOF DETAIL 2
3/4" = 1'-0"




4 A-104 2ND FLOOR ROOF
1/8" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI ROBERT D. ROLLINGS A-2006003870 ARCHITECT
6.27.25

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PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
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ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE: A-104
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

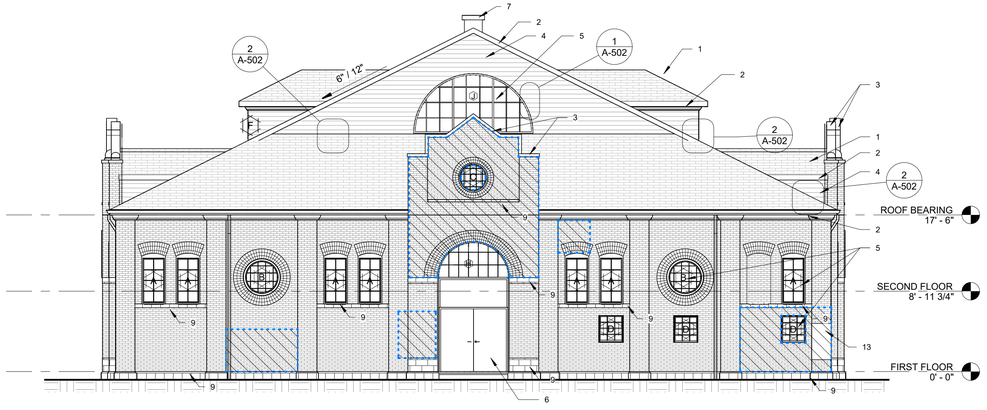
SHEET TITLE:

ROOF PLAN

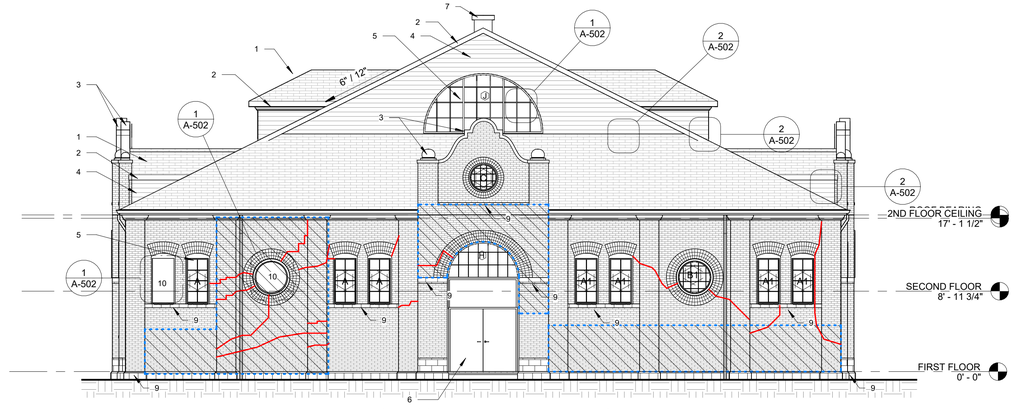
SHEET NUMBER:

A-104

SHEET 19OF 48 6/27/25




| 1 | NORTH ELEVATION |
|---|---|
| A-201 | 1/8" = 1'-0" |




| 2 | SOUTH ELEVATION |
|---|---|
| A-201 | 1/8" = 1'-0" |

ELEVATION TAG KEY:
NOTE NOT ALL ITEMS ARE INDICATED ON THE DRAWINGS. NOT ALL LOCATIONS ARE SHOWN. GC SHOULD FAMILIARIZE THEMSELVES WITH THE BUILDING PRIOR TO CONSTRUCTION

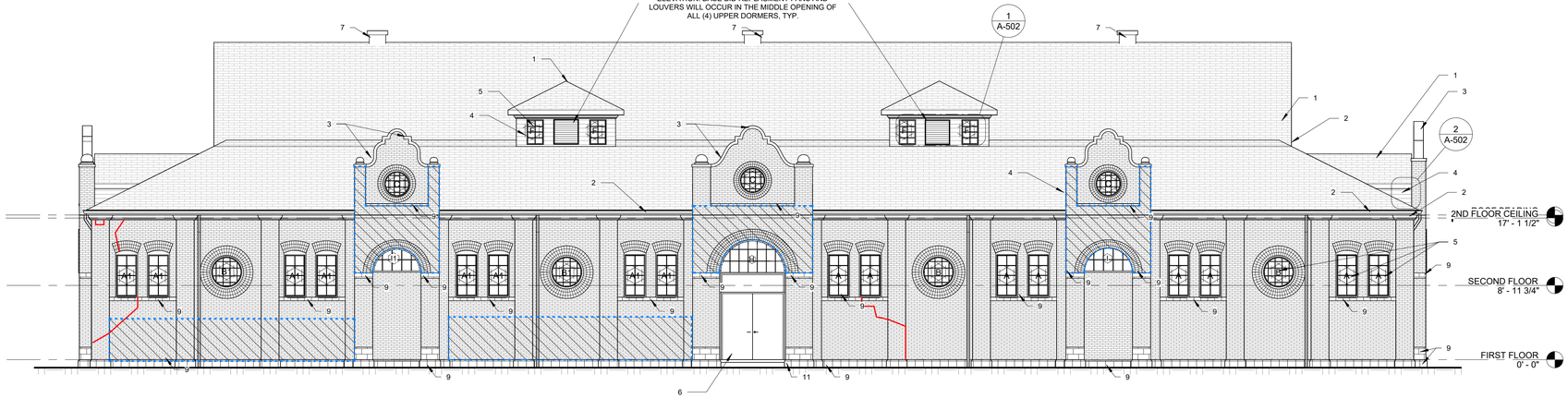
1. NEW ASPHALT SHINGLES, ROOF FLASHING AND MEMBRANE, TYP.
2. NEW CORNICE, SOFFIT, FASCIA, GUTTERS, AND DOWNSPOUTS, TYPICAL AT ALL DORMERS, GABLE ENDS, EAVES, ETC., TYP.
3. NEW COPING, TYP.
4. NEW FIBER CEMENT SIDING AND TRIM AT DORMERS AND GABLE ENDS, TYP.
5. NEW WINDOWS, PAINT WOOD HEADERS, JAMBS, AND SILLS, TYP
6. NEW EXTERIOR DOORS, TYP.
7. PAINTED AND REINSTALLED ROOF TOP VENTS, COORDINATE PAINT W/ OWNER, TYP.
8. TUCKPOINT EXTERIOR & INFILL CRACKS AS INDICATED, TYP.
9. TUCKPOINT ALL TERRA COTTA / GLAZED FACE BLOCK JOINTS, INCLUDING BUT NOT LIMITED TO, ALL WINDOW SILLS, BASE TRIM, AND ACCENT TRIMS, TYP.
10. WINDOW OPENING TO BE FILLED W/ HVAC DUCT, TRIM W/ CONCRETE BOARD SIDING, OR METAL TRIM, TYP.
11. REPLACE DAMAGED TERRA COTTA
12. CLEAN ALL EXTERIOR MASONRY WALLS
13. RE-MOUNT / REGROUT / TUCKPOINT DEDICATION / CORNER STONE

KEY

INDICATES AREAS TO BE TUCKPOINTED
APPROX: 2,800 SQ. FT. OF TUCKPOINTING BRICK

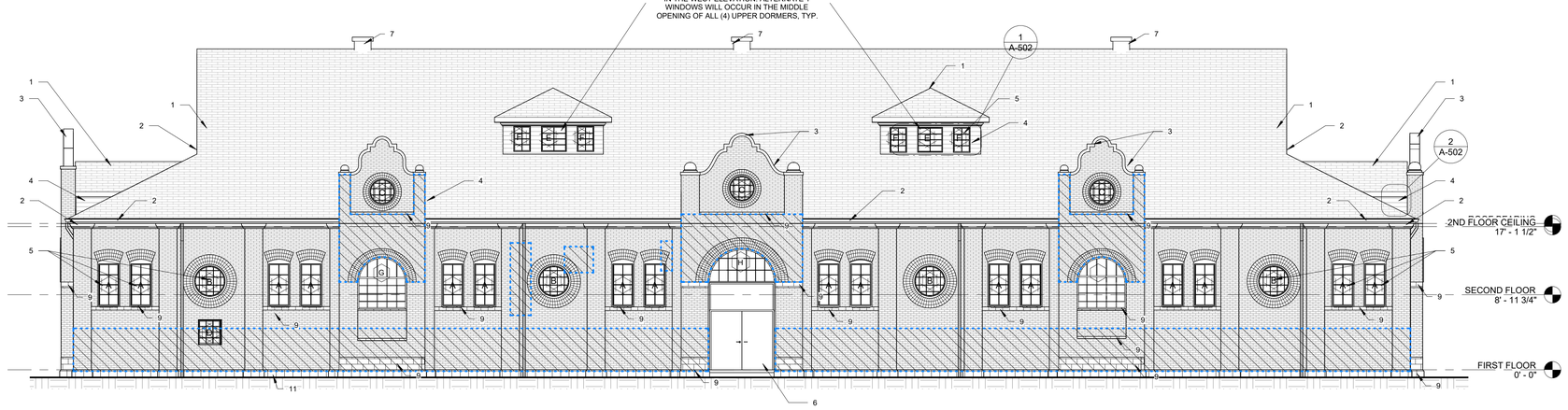
INDICATES CRACKS IN WALL TO BE FILLED

NOTE: BASE BID W/ LOUVERS SHOWN IN EAST ELEVATION. BASE BID REPLACMENT FANS AND LOUVERS WILL OCCUR IN THE MIDDLE OPENING OF ALL (4) UPPER DORMERS, TYP.

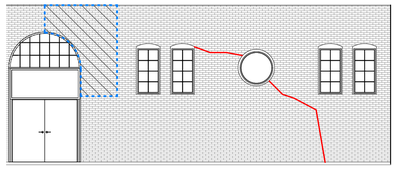



| 3 | EAST ELEVATION |
|---|---|
| A-201 | 1/8" = 1'-0" |

NOTE, ALTERNATE 1 WINDOWS ARE SHOWN IN THE WEST ELEVATION. ALTERNATE 1 WINDOWS WILL OCCUR IN THE MIDDLE OPENING OF ALL (4) UPPER DORMERS, TYP.




| 4 | WEST ELEVATION |
|---|---|
| A-201 | 1/8" = 1'-0" |



| 5 | SOUTH END WEST SIDE, INTERIOR |
|---|---|
| A-201 | 1/8" = 1'-0" |

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI ROBERT DARRELL ROLLINGS A-2006003870 ARCHITECT

6.27.25

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MISSOURI STATE FAIRGROUNDS
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SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
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ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE: A-201
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

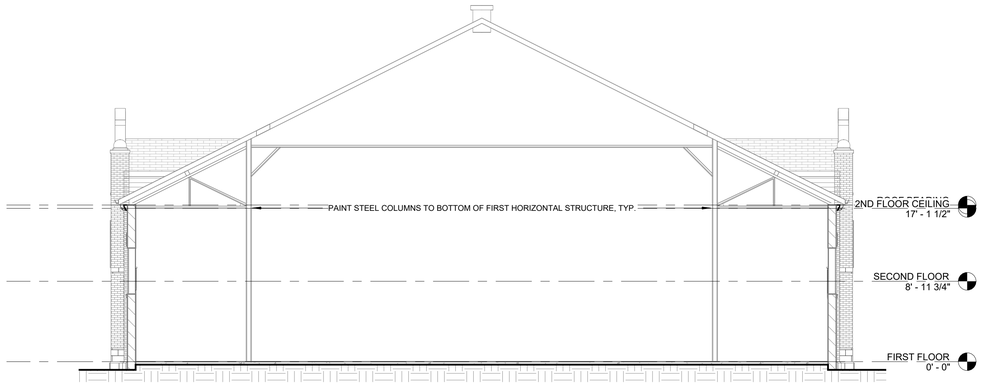
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EXTERIOR ELEVATIONS

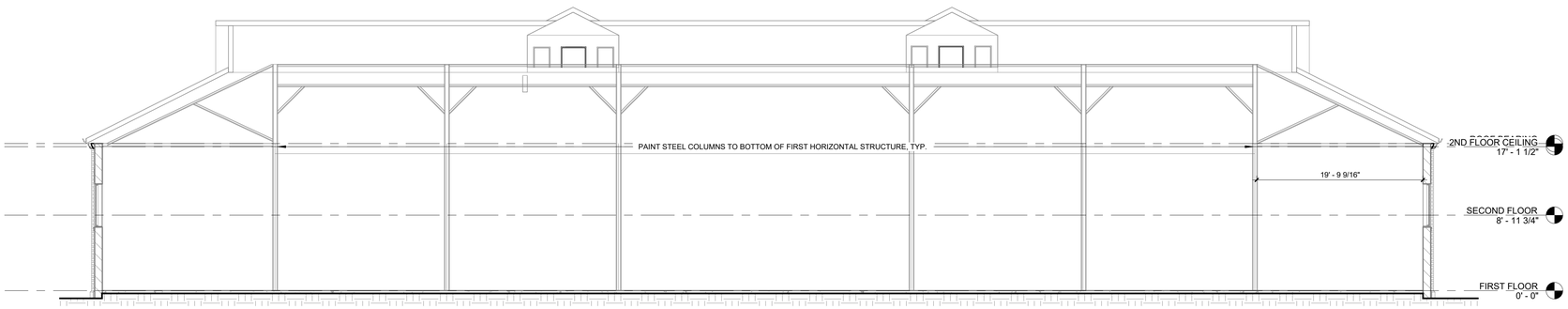
SHEET NUMBER:

A-201

SHEET 20 OF 48 6/27/25




3 A-301 SECTION 2 1/8" = 1'-0"




4 A-301 SECTION 3 1/8" = 1'-0"


**STATE OF MISSOURI**
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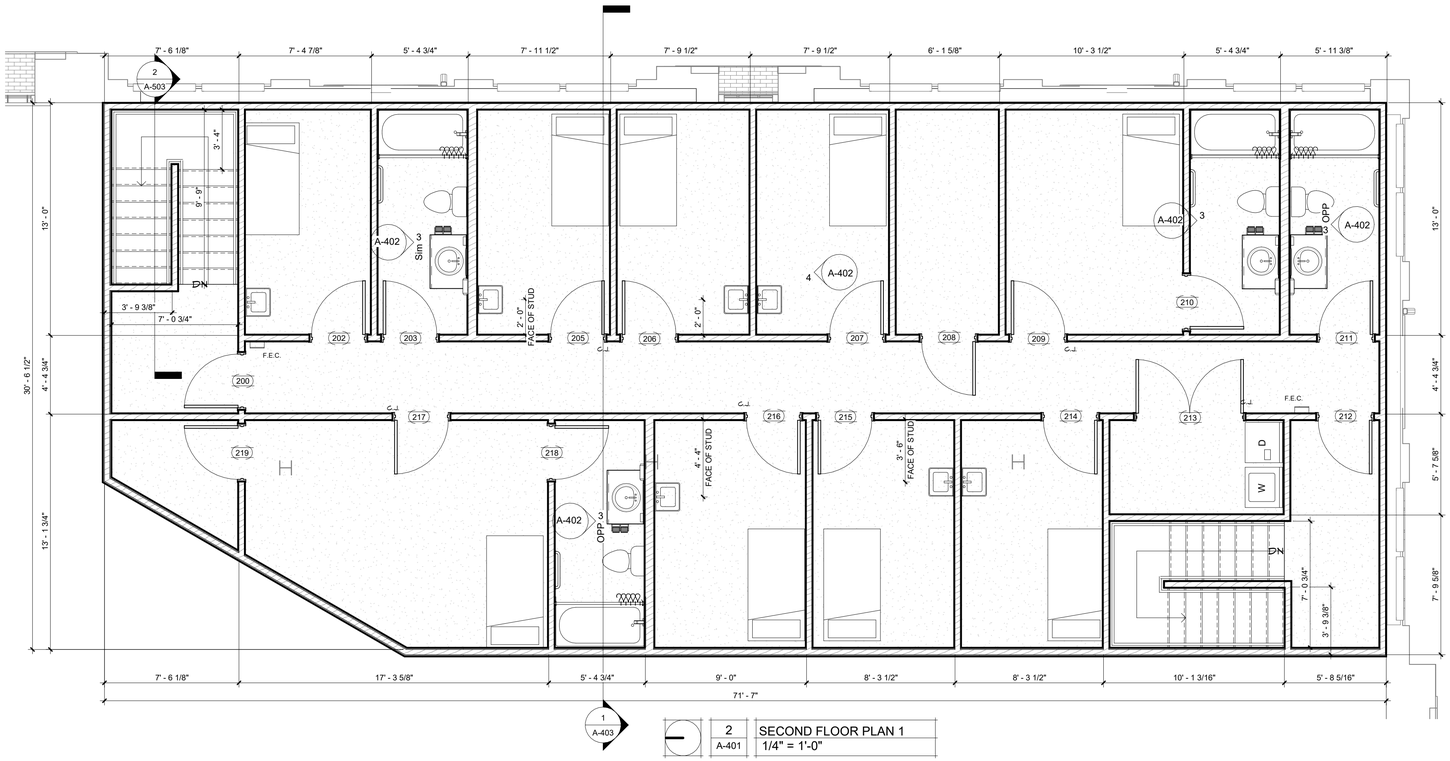
CAD DWG FILE: A-301
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

SHEET TITLE:

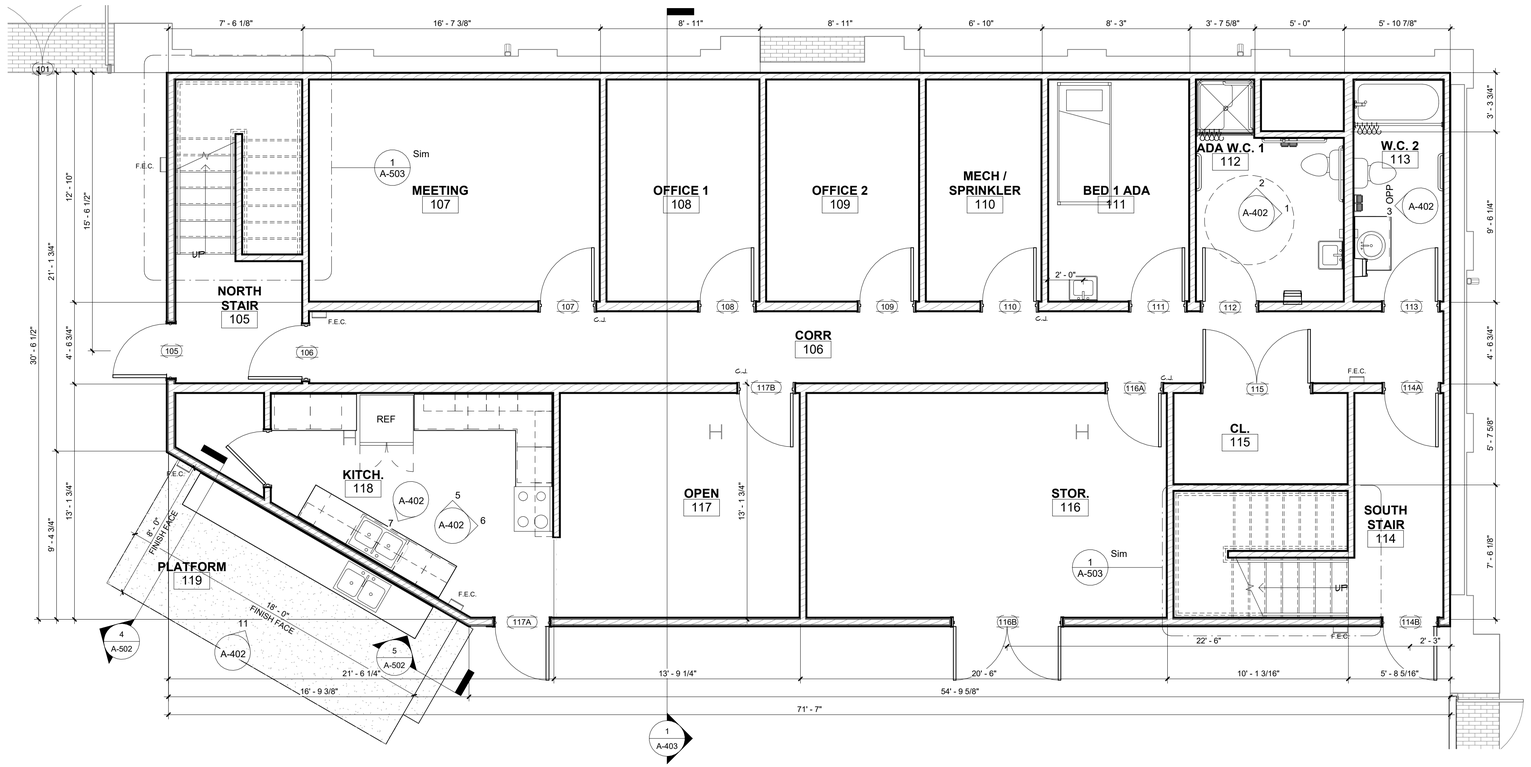
# BUILDING SECTIONS

SHEET NUMBER:

# A-301




2 A-401 SECOND FLOOR PLAN 1
1/4" = 1'-0"




1 A-401 FIRST FLOOR PLAN 1
1/4" = 1'-0"


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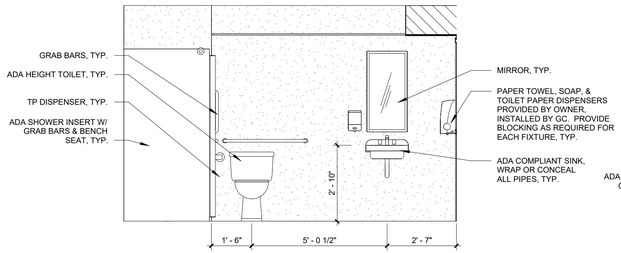
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DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

SHEET TITLE:

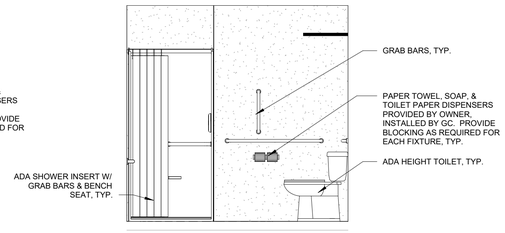
ENLARGED PLANS

SHEET NUMBER:

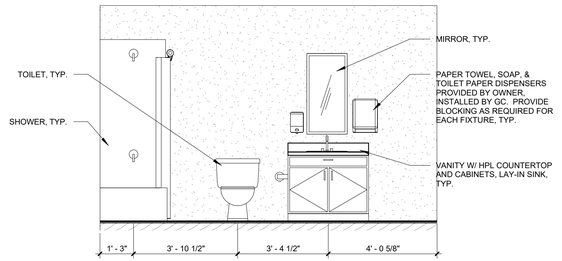
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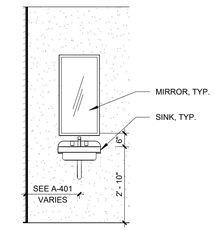

| 1 | ADA BATHROOM ELEVATION 1 |
|---|---|
| A-402 | 3/8" = 1'-0" |



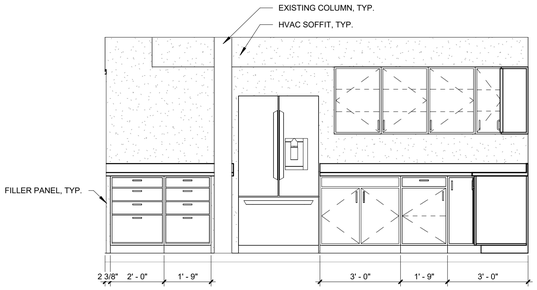

| 2 | ADA BATHROOM ELEVATION 2 |
|---|---|
| A-402 | 3/8" = 1'-0" |



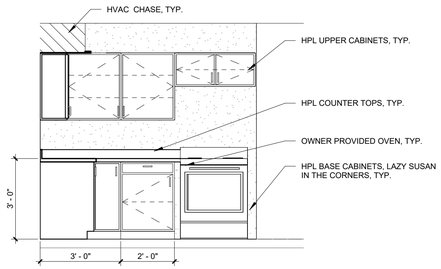

| 3 | TYP. BATHROOM ELEVATION |
|---|---|
| A-402 | 3/8" = 1'-0" |



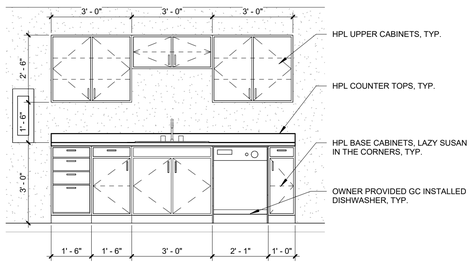

| 4 | SLEEPING ROOM ELEVATION |
|---|---|
| A-402 | 3/8" = 1'-0" |



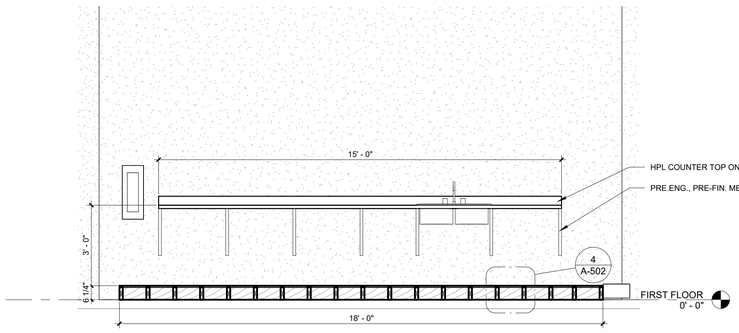

| 5 | KITCHEN ELEVATION 1 |
|---|---|
| A-402 | 3/8" = 1'-0" |




| 6 | KITCHEN ELEVATION 2 |
|---|---|
| A-402 | 3/8" = 1'-0" |




| 7 | KITCHEN ELEVATION 3 |
|---|---|
| A-402 | 3/8" = 1'-0" |




| 11 | PLATFORM ELEVATION |
|---|---|
| A-402 | 3/8" = 1'-0" |


STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

STATE OF MISSOURI ROBERT D. ROLLINGS A-2006003870 ARCHITECT

6.27.25

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INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE: A-402
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

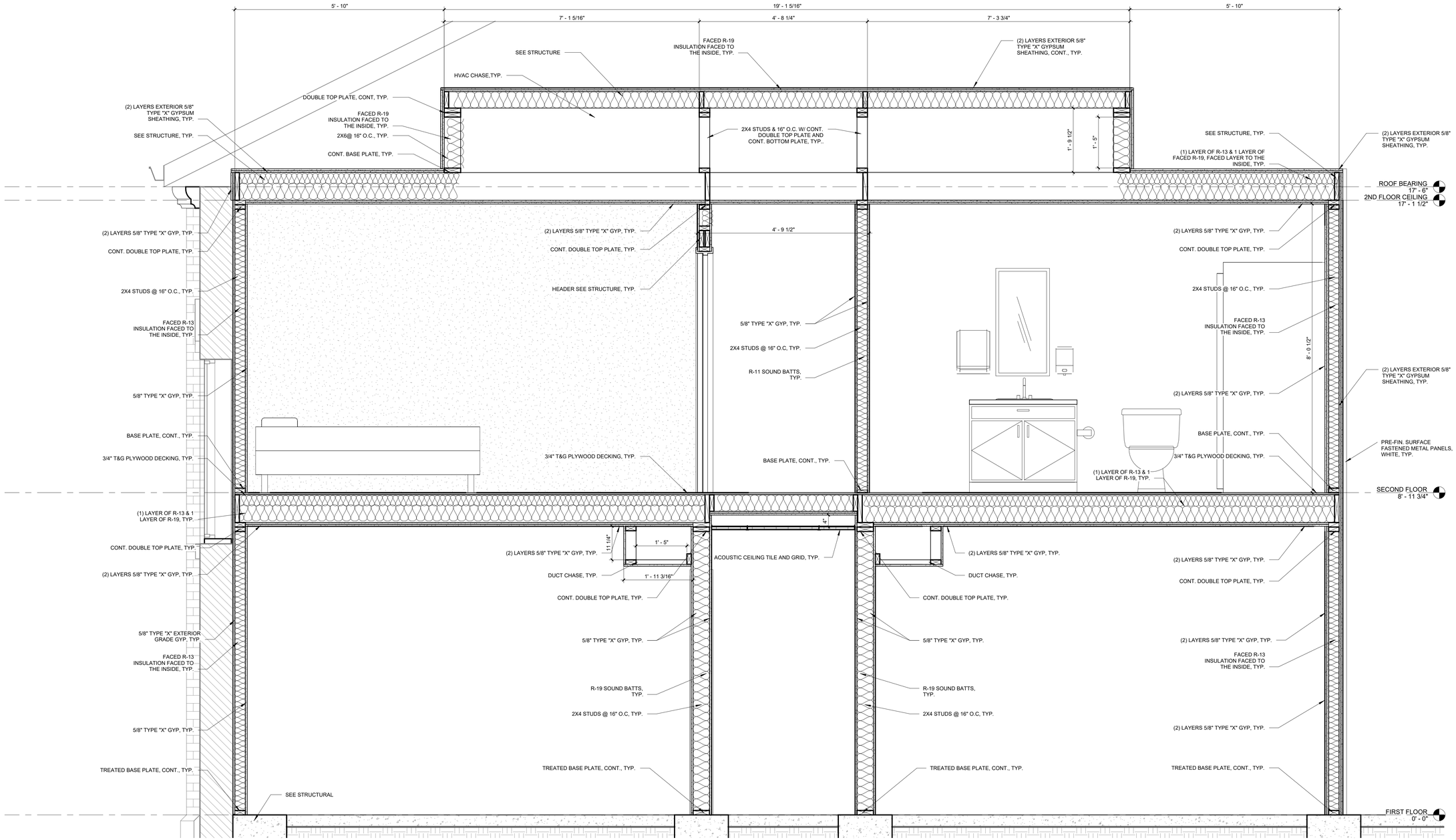
SHEET TITLE:

# INTERIOR ELEVATIONS

SHEET NUMBER:

# A-402

SHEET 23 OF 48 6/27/25




| 1 | DETAIL SECTION |
|---|---|
| A-403 | 3/4" = 1'-0" |

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI
ROBERT D. ROLLINGS
A-2006603870
ARCHITECT

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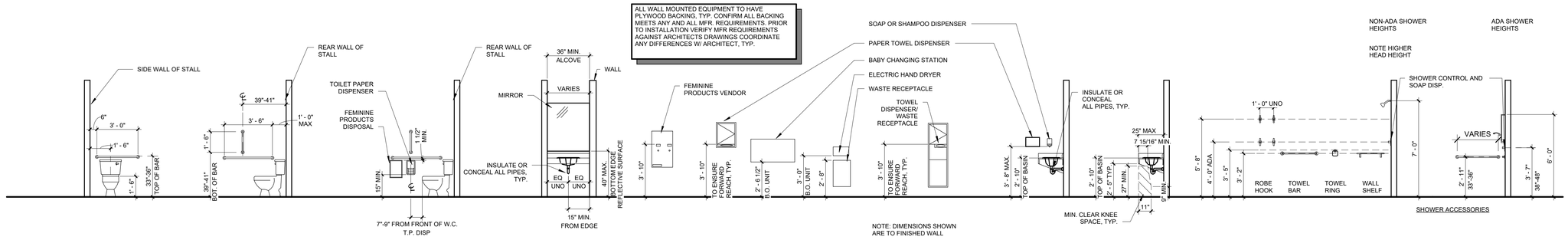
CAD DWG FILE: A-403
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

SHEET TITLE:

# WALL SECTION

SHEET NUMBER:

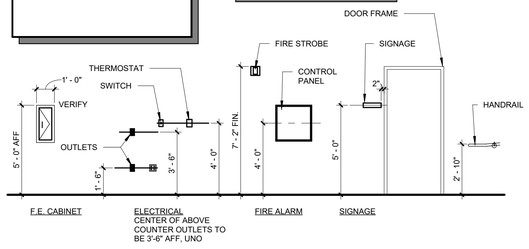
# A-403




| 2 | TYP. BATHROOM MOUNTING HEIGHTS |
|---|---|
| A-501 | 1/4" = 1'-0" |

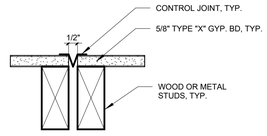
ALL WALL MOUNTED EQUIPMENT TO HAVE PLYWOOD BACKING, TYP. CONFIRM ALL BACKING MEETS ANY AND ALL MANUFACTURER REQUIREMENTS, TYP.

NOTE: THERMOSTAT AND LIGHT SWITCH ARE TO ALIGN IN HEIGHT

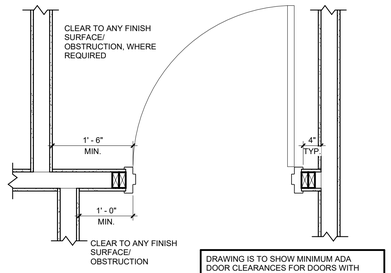



| 1 | TYPICAL MOUNTING HEIGHTS |
|---|---|
| A-501 | 1/4" = 1'-0" |

NOTE: INSTALL CONTROL JOINTS AT WALL AND CEILING SPANS GREATER THAN 20'-0". IF NOT SHOWN ON PLAN SHEETS, CONTROL JOINTS SHALL OCCUR APPROXIMATELY 20'-0" O.C., COORDINATE LOCATIONS WITH ARCHITECT, TYP.



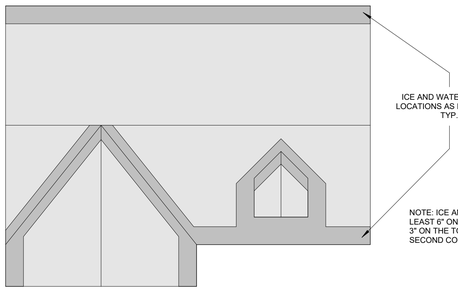

| 3 | CONTROL JOINT DETAIL |
|---|---|
| A-501 | 3" = 1'-0" |




DRAWING IS TO SHOW MINIMUM ADA DOOR CLEARANCES FOR DOORS WITH CLOSURES ONLY. EXACT CONDITIONS MAY NOT EXIST IN THE PROJECT.

| 4 | ADA DOOR CLEARANCES |
|---|---|
| A-501 | 3/4" = 1'-0" |

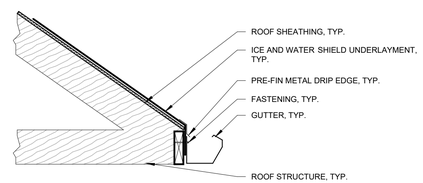
NOTE: INSTALL PER MANUFACTURER RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.




| 5 | TYPICAL ICE AND WATER SHIELD |
|---|---|
| A-501 | 1" = 1'-0" |

NOTE: ICE AND WATER SHIELD UNDERLAYMENT SHOULD EXTEND FROM THE EAVES TO A POINT 24" INSIDE THE EXTERIOR WALL.

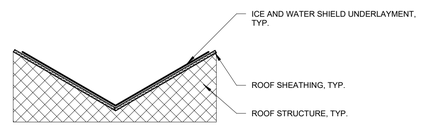
NOTE: INSTALL PER MANUFACTURER RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.




| 6 | TYPICAL ICE AND WATER SHIELD EAVE |
|---|---|
| A-501 | 1" = 1'-0" |

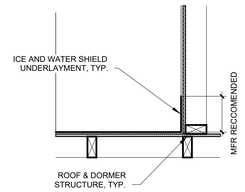
NOTE: IN VALLEYS ICE AND WATER SHIELD UNDERLAYMENT TO REMAIN INTACT AND EXTEND 18" EITHER SIDE.

NOTE: INSTALL PER MANUFACTURER RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.

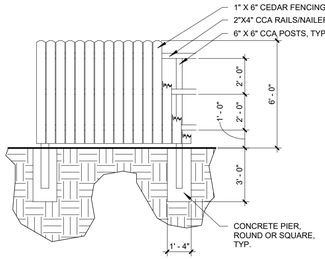



| 7 | TYPICAL ICE AND WATER SHIELD VALLEY |
|---|---|
| A-501 | 1" = 1'-0" |

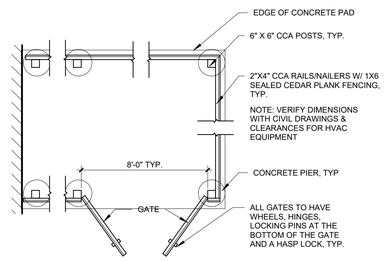
NOTE: INSTALL PER MANUFACTURER RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.




| 8 | TYPICAL ICE AND WATER SHIELD DORMER |
|---|---|
| A-501 | 1" = 1'-0" |




| 9 | HVAC ENCLOSURE ELEVATION |
|---|---|
| A-501 | 1/4" = 1'-0" |




| 10 | HVAC ENCLOSURE SCHEM. PLAN |
|---|---|
| A-501 | 1/4" = 1'-0" |

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI ROBERT DARRELL ROLLINGS A-2006003870 ARCHITECT

6.27.25

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SITE # 1501

ASSET # 3511501028

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CAD DWG FILE: A-501
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

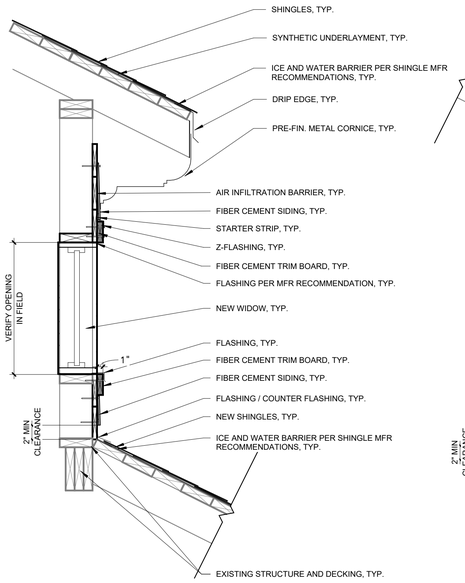
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TYPICAL DETAILS

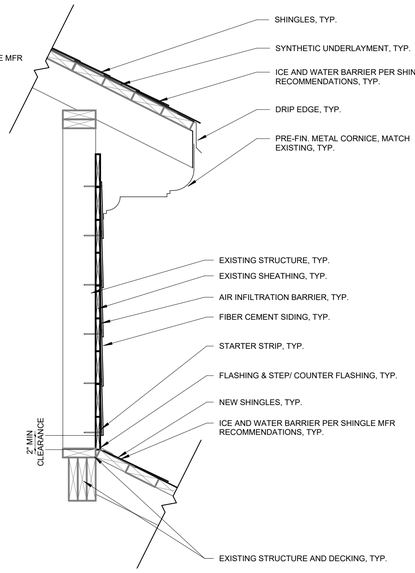
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A-501

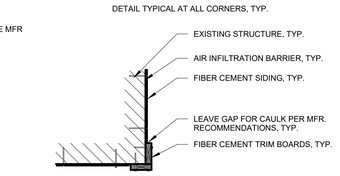
SHEET 25 OF 48 6/27/25



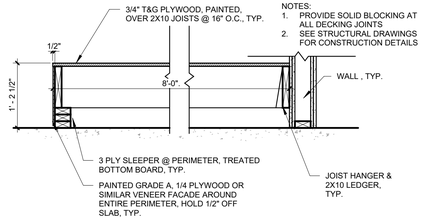

| 1 | FIBER CEMENT WALL DETAIL 1 |
|---|---|
| A-502 | 1" = 1'-0" |



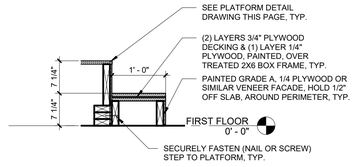

| 2 | FIBER CEMENT WALL DETAIL 2 |
|---|---|
| A-502 | 1" = 1'-0" |




| 3 | FIBER CEMENT WALL DETAIL 3 |
|---|---|
| A-502 | 1" = 1'-0" |




| 4 | PLATFORM DETAIL |
|---|---|
| A-502 | 3/4" = 1'-0" |




| 5 | PLATFORM STEP DETAIL |
|---|---|
| A-502 | 3/4" = 1'-0" |

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI ROBERT DARREL ROLLINGS A-2006003870 ARCHITECT
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DRAWN BY: AMK
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DESIGNED BY: AMK

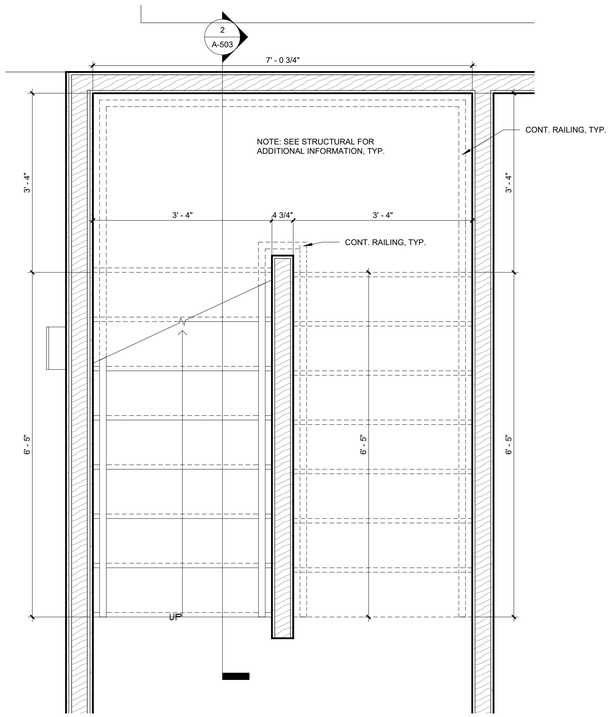
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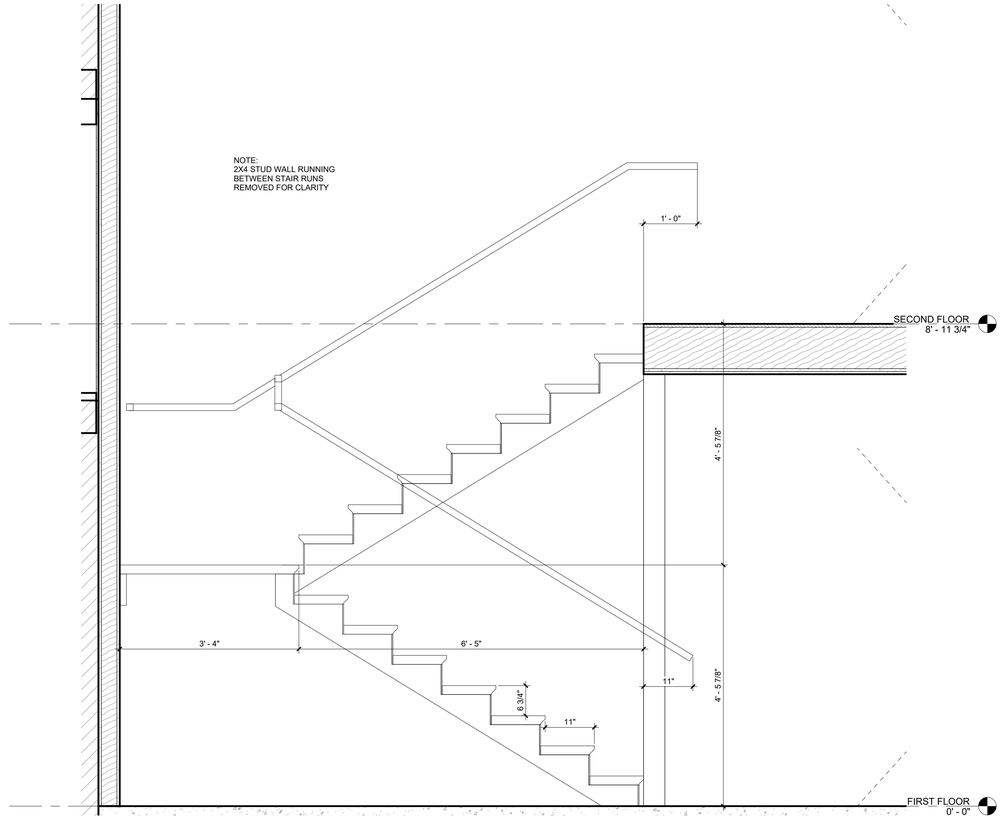
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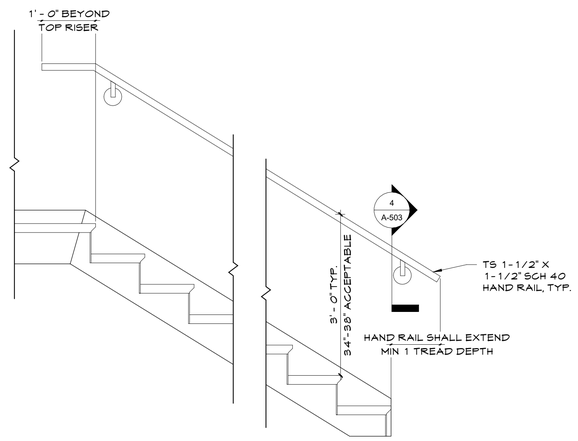
SHEET 26 OF 48 6/27/25



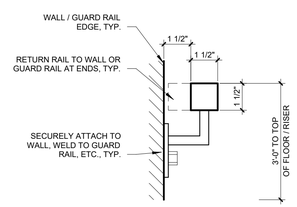

| 1 | STAIR PLAN |
|---|---|
| A-503 | 3/4" = 1'-0" |




| 2 | STAIR SECTION |
|---|---|
| A-503 | 3/4" = 1'-0" |




| 3 | WALL RAILING VIEW |
|---|---|
| A-503 | 3/4" = 1'-0" |




| 4 | HAND RAIL DETAIL |
|---|---|
| A-503 | 3" = 1'-0" |

**STATE OF MISSOURI**
**MIKE KEHOE**
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DESIGNED BY: AMK

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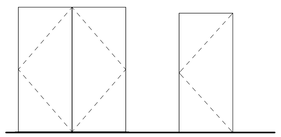
# STAIR DETAILS

SHEET NUMBER:

# A-503

## DOOR SCHEDULE

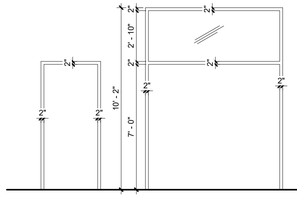
| MARK | WIDTH | HEIGHT | DOOR MATERIAL | DOOR TYPE | DOOR FINISH | FRAME MATERIAL | FRAME TYPE | FRAME FINISH | FIRE RATING | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 7' - 4" | 7' - 0" | HM | A | PAINT | HM | BB | PAINT | | |
| 101 | 7' - 4" | 8' - 0" | HM | A | PAINT | HM | CC | PAINT | | |
| 102 | 7' - 4" | 7' - 0" | HM | A | PAINT | HM | BB | PAINT | | |
| 103 | 7' - 4" | 7' - 0" | HM | A | PAINT | HM | BB | PAINT | | |
| 104 | 2' - 6" | 6' - 8" | ETR | ETR | PAINT | ETR | ETR | PAINT | NA | |
| 105 | 3' - 0" | 7' - 0" | HMI | B | PAINT | HMI | AA | PAINT | 90 MIN | |
| 106 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 45 | |
| 107 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |
| 108 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |
| 109 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |
| 110 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 60 | |
| 111 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 112 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |
| 113 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |
| 114A | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 45 | |
| 114B | 3' - 0" | 7' - 0" | HMI | B | PAINT | HMI | AA | PAINT | 90 MIN | |
| 115 | 6' - 0" | 6' - 8" | SCW | A | PAINT | HM | AA | PAINT | 60 | |
| 116A | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 60 | |
| 116B | 6' - 0" | 7' - 0" | HMI | A | PAINT | HMI | AA | PAINT | 90 | |
| 117A | 3' - 0" | 7' - 0" | HMI | B | PAINT | HMI | AA | PAINT | 90 MIN | |
| 117B | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 45 | |
| 120 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 45 | |
| 200 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 45 | |
| 202 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 203 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |
| 205 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 206 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 207 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 208 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 60 | |
| 209 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 210 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |
| 211 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |
| 212 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 45 | |
| 213 | 6' - 0" | 6' - 8" | SCW | A | PAINT | HM | AA | PAINT | 60 | |
| 214 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 215 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 216 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 217 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | 20 | |
| 218 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |
| 219 | 3' - 0" | 6' - 8" | SCW | B | STAIN | HM | AA | PAINT | | |



A



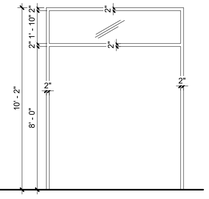
B



AA



BB



CC

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

| | |
|---|---|
| 2 | DOOR FRAME TYPES |
| A-601 | 1/4" = 1'-0" |

## FINISH SCHEDULE

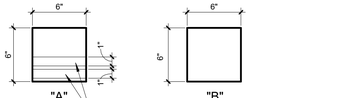
| ROOM | ROOM NAME | FLOOR FINISH: SEALED CONCRETE | FLOOR FINISH: CARPET TILE | FLOOR FINISH: LVT | FLOOR FINISH: MOSAIC TILE | WALL FINISH: GYPSUM BOARD PAINTED | WALL FINISH: FRP PANEL | WALL FINISH: PAINTED MASONRY | CEILING FINISH: ACOUSTIC CEILING TILE | CEILING FINISH: GYPSUM BOARD PAINTED | CEILING FINISH: OPEN TO STRUCTURE | RUBBER BASE | ROOM SIGNAGE | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | EXHIBITION HALL | X | | | | | | X | | | X | NA | | |
| 105 | NORTH STAIR | | | X | | X | | | | X | | X | B,B | |
| 106 | CORR | | | X | | X | | | X | X | | X | | |
| 107 | MEETING | | X | | | X | | | | X | | X | B | |
| 108 | OFFICE 1 | | X | | | X | | | | X | | X | B | |
| 109 | OFFICE 2 | | X | | | X | | | | X | | X | B | |
| 110 | MECH / SPRINKLER | X | | | | X | X | | | X | | X | B | |
| 111 | BED 1 ADA | | | X | | X | | | | X | | X | A | |
| 112 | ADA W.C. 1 | | | | X | X | | | | X | | X | B | |
| 113 | W.C. 2 | | | | X | X | | | | X | | X | B | |
| 114 | SOUTH STAIR | | | X | | X | | | | X | | X | B,B | |
| 115 | CL. | X | | | | X | X | | | X | | X | B | |
| 116 | STOR. | X | | | | X | | | | X | | X | B,B | |
| 117 | OPEN | X | | | | X | | | | X | | X | B,B | |
| 118 | KITCH. | X | | | | X | X | | | X | | X | B | |
| 119 | PLATFORM | | | X | | NA | | | | NA | | NA | | |
| 120 | STOR. | | | X | | X | X | | | X | | X | B | |
| 200 | NORTH STAIR | | | X | | X | | | | X | | X | B | |
| 202 | BED 2 | | X | | | X | | | | X | | X | A | |
| 203 | W.C. 3 | | | | X | X | | | | X | | X | | |
| 204 | CORR. | | X | | | X | | | | X | | X | | |
| 205 | BED 3 | | X | | | X | | | | X | | X | A | |
| 206 | BED 4 | | X | | | X | | | | X | | X | A | |
| 207 | BED 5 | | X | | | X | | | | X | | X | A | |
| 208 | MECH. | | | X | | X | X | | | X | | X | B | |
| 209 | BED 6 | | X | | | X | | | | X | | X | A | |
| 210 | W.C. 4 | | | | X | X | | | | X | | X | | |
| 211 | W.C. 5 | | | | X | X | | | | X | | X | B | |
| 212 | SOUTH STAIR | | | X | | X | | | | X | | X | B | |
| 213 | STOR. | | | X | | X | X | | | X | | X | B | |
| 214 | BED 7 | | X | | | X | | | | X | | X | A | |
| 215 | BED 8 | | X | | | X | | | | X | | X | A | |
| 216 | BED 9 | | X | | | X | | | | X | | X | A | |
| 217 | BED 10 | | X | | | X | | | | X | | X | A | |
| 218 | W.C. 6 | | | | X | X | | | | X | | X | B | |
| 219 | STOR. | | | X | | X | | | | X | | X | B | |

NOTE:

CARPET TILE TO BE A MIX OF COLORS SELECTED FROM MANUFACTURERS FULL RANGE.

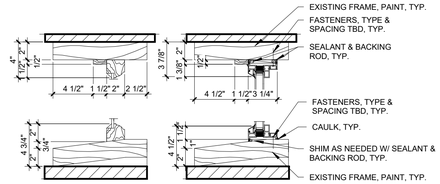
CERAMIC TILE TO BE A MIX OF COLORS SELECTED FROM MANUFACTURERS FULL RANGE.

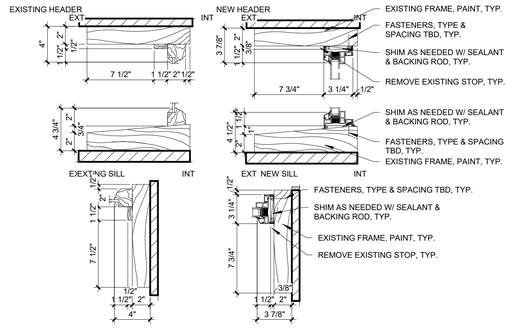
ARCHITECT RESERVES THE RIGHT TO CHOOSE MULTIPLE PAINT COLORS FOR EACH ROOM. IT IS NOT ANTICIPATED TO USE MORE THAN TWO PAINT COLORS PER SPACE.




NOTE: TEXT, NUMBERS, TYPEFACES, COLORS TBD BY ARCHITECT

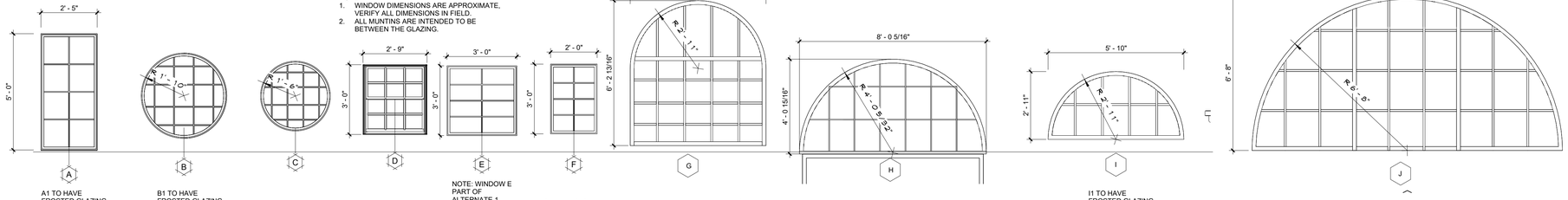
| | |
|---|---|
| 1 | ROOM SIGNAGE DETAIL |
| A-601 | 1 1/2" = 1'-0" |



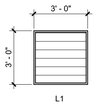




NOTE: THESE DETAILS ARE BASED ON THE BASIS OF DESIGN PRODUCT AND VISUAL OBSERVATION OF THE EXISTING WINDOWS. GC SHALL VERIFY EXISTING INSTALLATION AT EACH WINDOW AND ADJUST INSTALLATION TO THE METHOD INDICATED ABOVE.

| | |
|---|---|
| 12 | WINDOW FRAME DTLS. |
| A-601 | 1 1/2" = 1'-0" |




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




NOTE:
1. LOUVER DIMENSIONS ARE APPROXIMATE, VERIFY ALL DIMENSIONS IN FIELD.
2. SEE MEP FOR LOUVER SPECIFICATION

| | |
|---|---|
| 13 | LOUVER TYPES |
| A-601 | 1/4" = 1'-0" |


STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

STATE OF MISSOURI ROBERT D. ROLLINGS A-2006003870 ARCHITECT

6.27.25

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025

**BID DOCUMENTS**

CAD DWG FILE: A-601
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

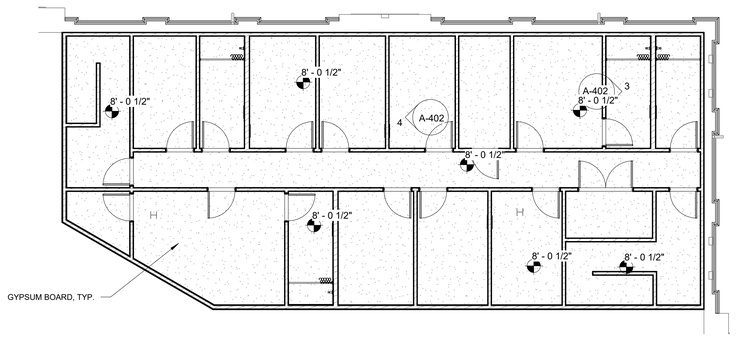
SHEET TITLE:

# DOOR - WINDOW - & FINISH SCHEDULE

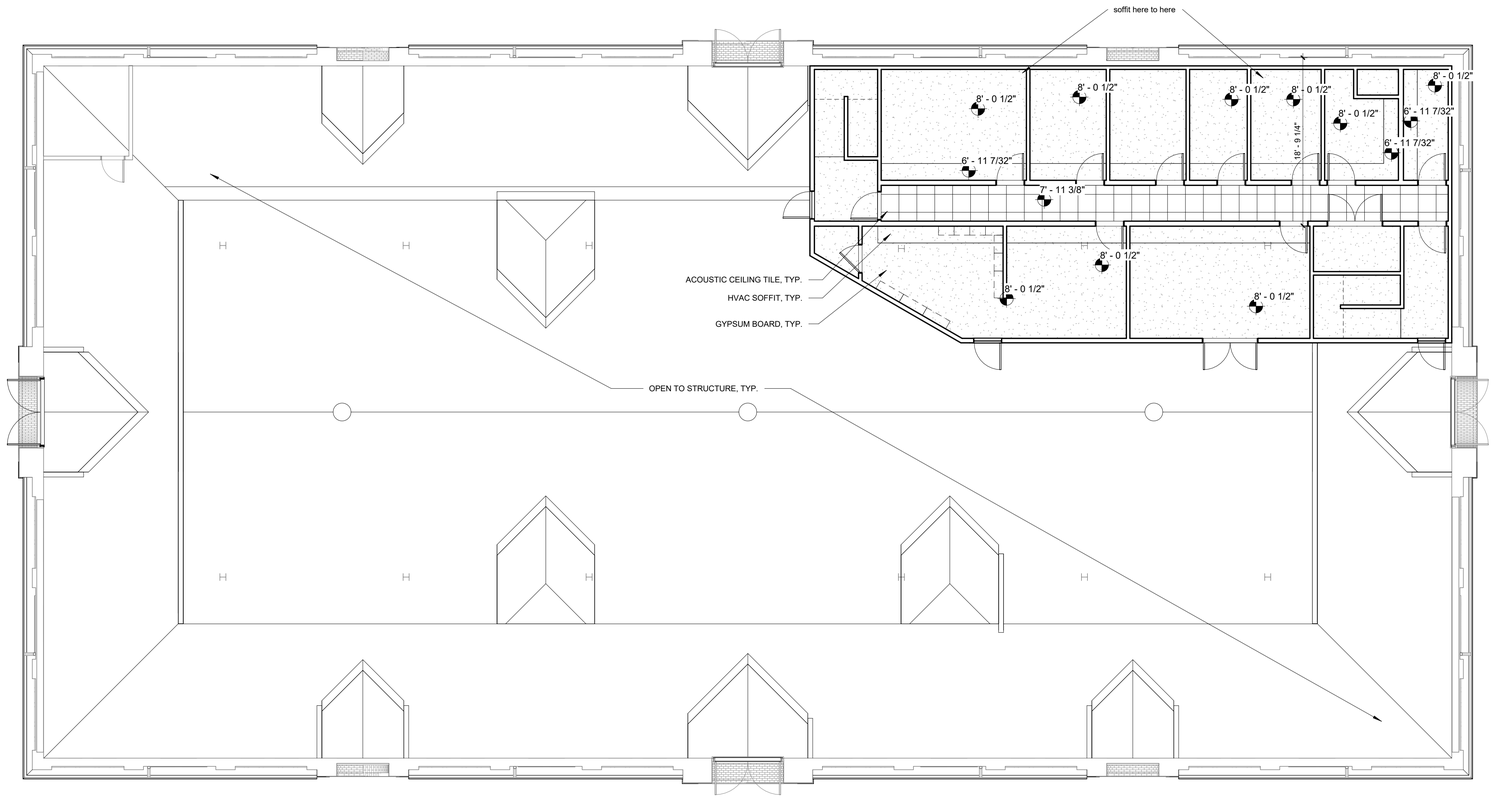
SHEET NUMBER:

# A-601

 6/27/25




3 A-701 SECOND FLOOR REFLECTED CEILING PLAN 1/8" = 1'-0"




2 A-701 1ST FLR. & MAIN AREA RCP. 1/8" = 1'-0"


**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI ROBERT D. ROLLINGS A-2006003870 ARCHITECT

6.27.25

Robert D. Rollings 2005001208, Certificate of Authority # A-2006003870

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CAD DWG FILE: A-701
DRAWN BY: AMK
CHECKED BY: RDR
DESIGNED BY: AMK

SHEET TITLE:

# REFLECTED CEILING PLANS

SHEET NUMBER:

# A-701

J-SQUARED ENGINEERING

MECHANICAL - ELECTRICAL - PLUMBING DESIGN DRAWINGS FOR:

# MSF 4H Building Remodel

32nd St.
Sedalia, MO 65301

## GENERAL MEP SPECIFICATIONS

**1. GENERAL**

1.1. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH LOCALLY ADOPTED CODES AND ORDINANCES.

1.2. IT IS THE RESPONSIBILITY OF CONTRACTOR TO REVIEW AND UNDERSTAND ALL DRAWINGS AND SPECIFICATIONS IN CONTRACT DOCUMENTS. EACH CONTRACTOR IS RESPONSIBLE FOR ALL WORK ASSOCIATED WITH THEIR TRADE, REGARDLESS OF WHERE WORK IS DEPICTED IN PROJECT DRAWINGS OR SPECIFICATIONS.

1.3. LAYOUT OF SYSTEMS SHOWN ON PLANS ARE APPROXIMATE AND SCHEMATIC IN NATURE. ALL SYSTEMS WILL NEED TO BE FIELD-COORDINATED. CONTRACTOR SHALL INCLUDE THIS COORDINATION IN THEIR SCOPE AND INCLUDE ALL COSTS OF MODIFYING LAYOUT AS REQUIRED IN THEIR BID. PLANS ARE NOT INTENDED TO BE SHOP DRAWINGS FROM WHICH MATERIALS CAN BE ORDERED, FABRICATED, OR INSTALLED WITHOUT ADDITIONAL FIELD MEASUREMENTS AND COORDINATION.

1.4. NOT ALL SPECIFIC PIECES AND COMPONENTS OF EACH SYSTEM ARE DETAILED OR OUTLINED ON PLANS. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY PARTS AND LABOR TO PRODUCE A COMPLETE AND FULLY OPERATIONAL SYSTEM UNLESS STATED OTHERWISE ON PLANS. CONTRACTOR IS TO PROVIDE AND INCLUDE ALL EQUIPMENT AND MATERIAL NEEDED TO COMPLETE WORK ASSOCIATED WITH THEIR BID UNLESS ANY ITEMS ARE SPECIFICALLY NOTED ON PLANS AS PROVIDED BY OTHERS. ALL MATERIALS TO BE NEW, FIRST CLASS, AND INSTALLED PER MANUFACTURER'S PUBLISHED INSTRUCTIONS.

1.5. WHERE CONFLICTS EXIST BETWEEN MEP PLANS AND CIVIL, ARCHITECTURAL, OR STRUCTURAL PLANS, NOTIFY MEP ENGINEER OF DISCREPANCIES FOR CLARIFICATION PRIOR TO PERFORMING ANY WORK THAT MAY CONTRADICT INFORMATION ELSEWHERE IN THE PROJECT PLANS.

1.6. THESE PLANS ARE NOT TO BE SCALED. SEE ARCHITECTURAL PLANS FOR DIMENSIONS. WHERE THERE IS A CONFLICT BETWEEN ARCHITECTURAL DIMENSIONS AND MEP DIMENSIONS, ARCHITECTURAL SHALL GOVERN.

1.7. CONTRACTOR IS TO INCLUDE IN THEIR SCOPE THE COST OF ALL PERMITS, INSPECTIONS, METERING, TAPS, ETC. ASSOCIATED WITH THEIR WORK.

1.8. CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, CUTTING, CORING, PATCHING, AND BACKFILL REQUIRED TO COMPLETE THEIR WORK, UNLESS NOTED OTHERWISE ON PLANS.

1.9. SPECIFIC EQUIPMENT MANUFACTURERS AND/OR MODEL NUMBERS LISTED ON PLANS ARE TO ESTABLISH A BASIS-OF-DESIGN FOR QUALITY AND PERFORMANCE, VERIFY THAT SUBSTITUTIONS WILL BE ACCEPTABLE PRIOR TO PURCHASE & INSTALLATION.

1.10. NOTIFY ENGINEER OF ANY MAJOR PLAN DISCREPANCIES OR CONFLICTS PRIOR TO PROVIDING BIDS OR COMPLETING ANY WORK.

1.11. SEE DISCIPLINE SHEETS FOR ADDITIONAL TRADE SPECIFIC SPECIFICATIONS.

1.12. WHERE SHUTDOWN OF ANY EXISTING UTILITY OR SERVICE TO BUILDING IS REQUIRED FOR COMPLETION OF WORK, COORDINATE OUTAGE WITH OWNER AS TO NOT DISRUPT TYPICAL OPERATIONS.

**2. WORKMANSHIP**

2.1. SYSTEMS SHALL BE INSTALLED IN A FIRST-CLASS MANNER USING BEST ACCEPTABLE METHODS AND PRACTICES.

2.2. ALL SYSTEMS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO BUILDING ORIENTATION. COMPONENTS SHALL BE INSTALLED LEVEL AND PLUMB WITH ATTENTION GIVEN TO OVERALL AESTHETICS.

2.3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING EQUIPMENT LOCATIONS AND SYSTEM ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION.

2.4. CONTRACTOR TO GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE THE COMPLETED PROJECT IS RELEASED TO THE OWNER, UNLESS NOTED OTHERWISE ON PLANS.

2.5. DURING INSTALLATION OF MATERIALS OR ACTIVITIES IN NEW WORK SCOPE, AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN. ANY DAMAGE TO EXISTING SURFACES OR EQUIPMENT SHALL BE CORRECTED AT NO COST TO OWNER.

## DELEGATED DESIGN AND DEFERRED SUBMITTAL NOTES

**1. FIRE ALARM SYSTEM**

1.1. FIRE ALARM SYSTEM COMPONENTS SHOWN (IF APPLICABLE) ARE GENERAL AND SCHEMATIC IN NATURE, SHOWN FOR APPROXIMATE ROUGH-IN LOCATIONS AND QUANTITIES ONLY. CONTRACTOR TO VERIFY EXACT DEVICE LOCATIONS AND REQUIREMENTS WITH FIRE ALARM SYSTEM DESIGNER OF RECORD PRIOR TO ROUGH-IN.

1.2. FIRE ALARM CONTRACTOR SHALL PROVIDE DELEGATED DESIGN AND DEFERRED SUBMITTAL PACKAGE FOR FIRE ALARM SYSTEM. SUBMITTAL SHALL INCLUDE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, EQUIPMENT SPECIFICATIONS FOR DEVICES AND PANELS, ETC. DESIGN SHALL BE SEALED BY A QUALIFIED DESIGN PROFESSIONAL LICENSED BY THE STATE.

**2. FIRE SPRINKLER SYSTEM**

2.1. WHERE COMBINED FIRE & DOMESTIC WATER SUPPLY LINES ARE SHOWN ON PLANS, INSTALLING CONTRACTOR SHALL VERIFY WITH FIRE SPRINKLER CONTRACTOR THAT INCOMING LINE SIZE IS ADEQUATE FOR FIRE SUPPRESSION SYSTEM.

2.2. FIRE SPRINKLER CONTRACTOR TO PROVIDE DELEGATED DESIGN AND DEFERRED SUBMITTAL PACKAGE FOR FIRE SPRINKLER SYSTEM. SUBMITTAL SHALL INCLUDE HYDRAULIC CALCULATIONS AND SPRINKLER SYSTEM DRAWINGS SEALED BY A QUALIFIED DESIGN PROFESSIONAL LICENSED BY THE STATE.

2.3. ALL SPRINKLER PIPES SHALL BE CONCEALED IN THE CEILING AND WALL.

## REFERENCED CODES IN EFFECT

PROJECT HAS BEEN DESIGNED IN COMPLIANCE WITH THE FOLLOWING CODES LISTED BELOW, BUT THIS IS NOT AN EXHAUSTIVE LIST. PROJECT SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND LOCAL REQUIREMENTS.

- 2021 INTERNATIONAL MECHANICAL CODE
- 2021 INTERNATIONAL PLUMBING CODE
- 2021 INTERNATIONAL FUEL GAS CODE
- 2021 INTERNATIONAL FIRE CODE
- 2020 NATIONAL ELECTRIC CODE

## SHEET INDEX


| SHEET NUMBER | SHEET TITLE |
|---|---|
| MEP-1 | MECHANICAL ELECTRICAL PLUMBING COVER SHEET |
| MEP-2 | SITE UTILITY PLAN |
| MEP-3 | ROOF PLAN |
| M-101 | OVERALL HVAC PLAN |
| M-102 | ENLARGED HVAC PLAN |
| M-501 | HVAC DETAILS & SCHEDULES |
| E-101 | OVERALL POWER PLAN |
| E-102 | ENLARGED POWER PLAN |
| E-103 | OVERALL LIGHTING PLAN |
| E-104 | ENLARGED LIGHTING PLAN |
| E-501 | ELECTRICAL DETAILS |
| E-601 | ELECTRICAL SCHEDULES |
| F-101 | OVERALL FIRE PROTECTION PLAN |
| F-102 | ENLARGED FIRE PROTECTION PLAN |
| P-101 | OVERALL SANITARY SEWER PLAN |
| P-102 | ENLARGED SANITARY SEWER PLAN |
| P-103 | OVERALL WATER PLAN |
| P-104 | ENLARGED WATER PLAN |
| P-501 | PLUMBING DETAILS & SCHEDULES |


STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

STATE OF MISSOURI
KEATON E. LEISINGER
NUMBER PE-2021035875
PROFESSIONAL ENGINEER
06-27-2025


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PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025

**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**MECHANICAL ELECTRICAL PLUMBING COVER SHEET**

SHEET NUMBER:

# MEP-1



6/27/25

## SITE PLAN SYMBOL LEGEND

- SANITARY SEWER PIPING
- COLD WATER LINE
- ELECTRIC
- TIE INTO EXISTING

## SITE UTILITIES PLAN GENERAL NOTES:

1. REFER TO CIVIL PLANS FOR EXACT UTILITY LOCATIONS, CONNECTIONS, DETAILS, ETC.

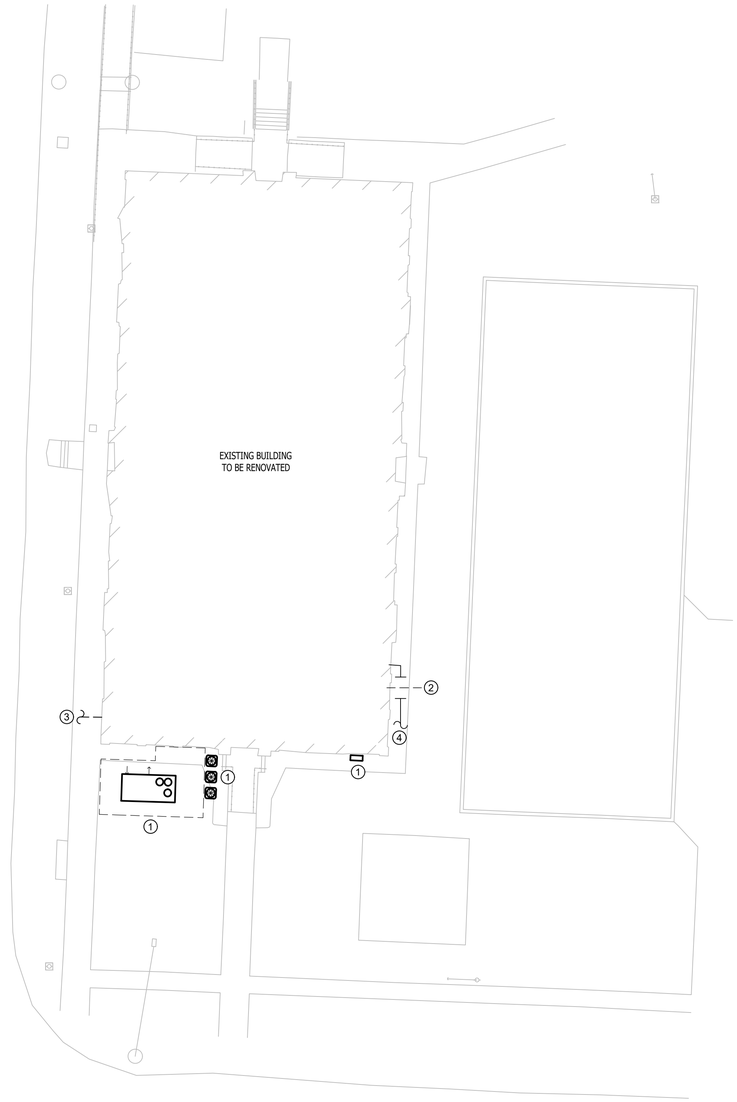
## SITE UTILITIES PLAN KEY NOTES:

(1) SEE HVAC PLANS FOR EQUIPMENT INFORMATION.

(2) UNDERGROUND CONDUIT AND CONDUCTORS FROM PAD MOUNT TRANSFORMER. SEE POWER RISER FOR FURTHER INFORMATION.

(3) NEW SANITARY PIPE. SEE CIVIL PLAN FOR CONTINUATION. SEE SHEET P-101 FOR FURTHER DETAILS.

(4) NEW COMBINED DOMESTIC WATER AND FIRE SPRINKLER LINE CONNECTION. SEE CIVIL PLAN FOR CONTINUATION. SEE PW-102 FOR FURTHER INFORMATION.




SITE UTILITY PLAN

SCALE: 1" = 20 ft

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI
KEATON E LEISINGER
NUMBER PE-2021035875
PROFESSIONAL ENGINEER
06-27-2025


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REVISION:
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**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**SITE UTILITY PLAN**

SHEET NUMBER:

# MEP-2

## ROOF PLAN SYMBOL LEGEND

LOUVER & FAN

VENT THROUGH ROOF

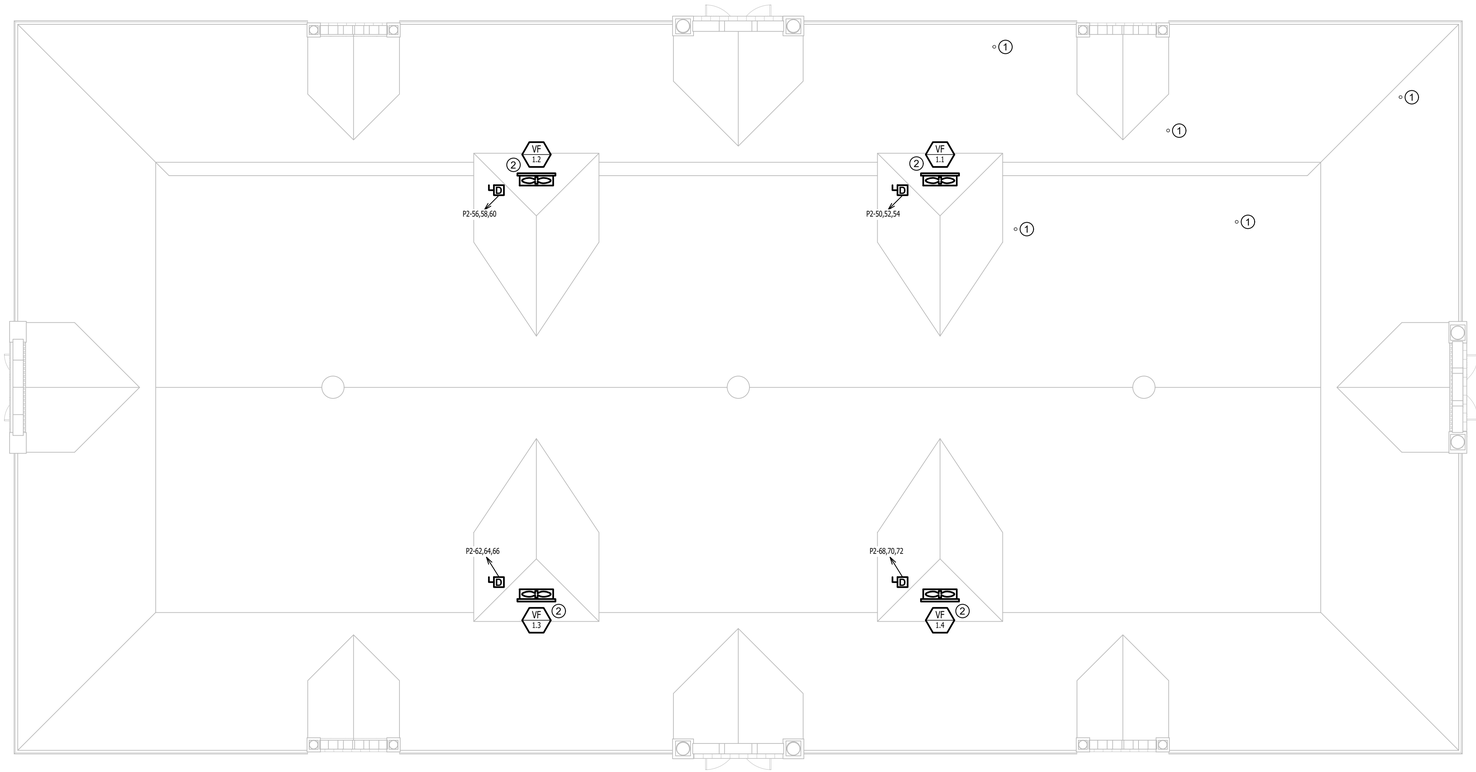
## ROOF PLAN GENERAL NOTES:

1. REFER TO M500 AND/OR M600 SERIES SHEETS FOR ADDITIONAL HVAC NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
2. HVAC CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, DUCTWORK, REFRIGERANT PIPING, CONDENSATE PIPING, HANGERS / SUPPORTS, ETC. WITH PLUMBING AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.

## ROOF PLAN KEY NOTES:

(1) VTR LOCATION. SEE PLUMBING PLANS FOR DETAILS.

(2) BASE BID: PROVIDE AND INSTALL LOUVER AND FAN ASSEMBLY IN EXISTING OPENING AS SHOWN. ELECTRICAL DISCONNECT SHALL BE MOUNTED INSIDE BUILDING ENVELOPE ADJACENT TO FAN ASSEMBLY.
ALTERNATE #1: CONTRACTOR SHALL NOT PROVIDE AND INSTALL LOUVER AND FAN ASSEMBLY. SEE ARCHITECTURAL PLANS FOR SEALING OPENING.




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

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

STATE OF MISSOURI
KEATON E. LEISINGER
NUMBER PE-2021035875
PROFESSIONAL ENGINEER
06-27-2025


Keaton E. Leisinger, P.E.
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Crockett Engineering Consultants, LLC
Missouri Certificate of Authority
#2000151304


OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**ROOF PLAN**

SHEET NUMBER:

# MEP-3

SHEET 32 OF 48 6/27/25

## HVAC PLAN SYMBOL LEGEND

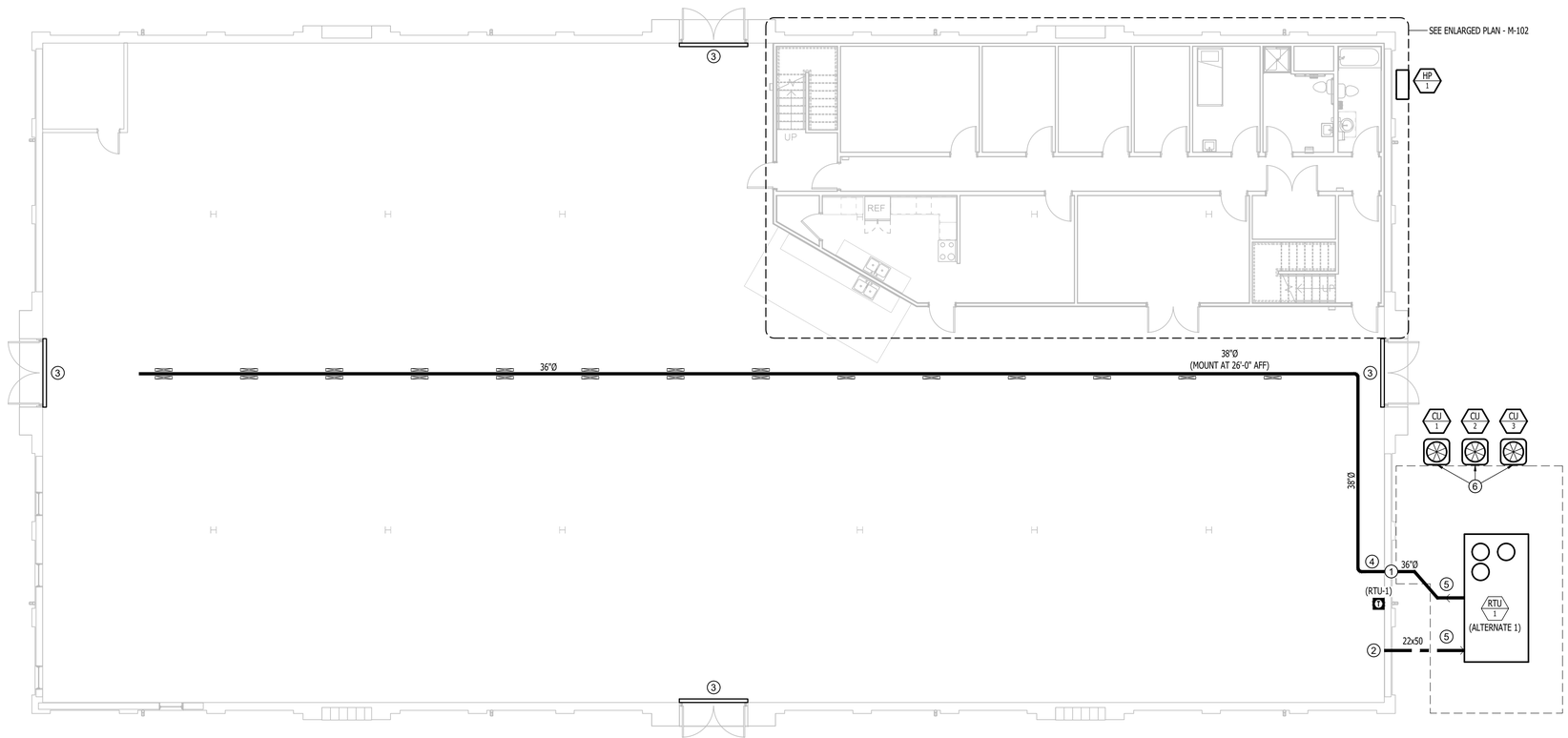
- X / # — EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE) / EQUIPMENT REFERENCE NUMBER
- X / # — DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE) / CUBIC FEET PER MINUTE (CFM) / FACE SIZE
- SUPPLY DUCTWORK
- RETURN DUCTWORK
- EXHAUST DUCTWORK
- OUTSIDE AIR DUCTWORK
- FLEX DUCT
- VENT / COMBUSTION AIR
- TIE INTO EXISTING
- SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")
- RETURN DIFFUSER
- BALANCE DAMPER
- THERMOSTAT

## HVAC PLAN GENERAL NOTES:

1. REFER TO M-501 SHEET FOR ADDITIONAL HVAC NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
2. HVAC CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, DUCTWORK, REFRIGERANT PIPING, CONDENSATE PIPING, HANGERS / SUPPORTS, ETC. WITH PLUMBING AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.
3. CONTRACTOR SHALL PROVIDE ALTERNATE #1 PRICE FOR PURCHASE AND INSTALLATION OF RTU-1 AND ANY ADDITIONAL MATERIALS AND LABOR ASSOCIATED WITH RTU-1 DETAILED ON THE PLANS.

## HVAC PLAN KEY NOTES:

1. ALTERNATE #1: REMOVE WINDOW AND INSTALL DUCT THROUGH BUILDING OPENING AT THIS LOCATION. FIELD VERIFY DUCT SIZE THROUGH OPENING. FILL REMAINDER OF WINDOW OPENING PER ARCHITECTURAL DETAIL.
2. ALTERNATE #1: RETURN DUCT SHALL FILL THE EXISTING WINDOW OPENING. COVER EXISTING WINDOW OPENING WITH 1"X1" WIRE MESH.
3. PROVIDE AND INSTALL AIR CURTAIN AND CONTROLLER WITH REMOTE DISPLAY EQUAL TO BERNER #IDC12-2096A.
4. ALTERNATE #1: PROVIDE AND INSTALL FABRIC DUCT SYSTEM EQUAL TO DUSTSOX VERONA WITH SKELECORE FTS SUSPENSION SYSTEM FROM THIS POINT ON. MOUNT DUCT TIGHT TO STRUCTURE (APPROX. 26'-0" AFF) PER MANUFACTURERS REQUIREMENTS.
5. ALTERNATE #1: PROVIDE WEATHER PROOFING ON DUCTWORK. SEE BUILDING EXTERIOR DUCTWORK SECTION DETAIL.
6. CONDENSING UNITS SHALL BE LOCATED INSIDE OF FENCING IN THIS AREA.




OVERALL HVAC PLAN

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

STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

STATE OF MISSOURI
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CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**OVERALL HVAC PLAN**

SHEET NUMBER:

# M-101



6/27/25

## HVAC PLAN SYMBOL LEGEND

- X / # — EQUIPMENT TYPE (REFER TO EQUIPMENT SCHEDULE)
- EQUIPMENT REFERENCE NUMBER
- X / # — DIFFUSER/GRILLE TYPE (REFER TO SCHEDULE)
- CUBIC FEET PER MINUTE (CFM) / FACE SIZE
- SUPPLY DUCTWORK
- RETURN DUCTWORK
- EXHAUST DUCTWORK
- OUTSIDE AIR DUCTWORK
- FLEX DUCT
- VENT / COMBUSTION AIR
- TIE INTO EXISTING
- SUPPLY DIFFUSER (HATCH INDICATES "NO FLOW ZONE")
- RETURN DIFFUSER
- BALANCE DAMPER
- FIRE DAMPER
- FIRE/SMOKE DAMPER
- THERMOSTAT

## HVAC PLAN GENERAL NOTES:

1. REFER TO M-501 SHEET FOR ADDITIONAL HVAC NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
2. HVAC CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, DUCTWORK, REFRIGERANT PIPING, CONDENSATE PIPING, HANGERS / SUPPORTS, ETC. WITH PLUMBING AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.

## HVAC PLAN KEY NOTES:

(1) MOTORIZED AND BALANCE DAMPERS FOR OUTSIDE AIR DUCT. SEE HVAC SCHEDULES FOR MOTORIZED DAMPER CONTROLS.

(2) ELECTRIC WALL HEATER. COORDINATE WITH ELECTRICAL CONTRACTOR.

(3) DRYER CONNECTION THROUGH CEILING IN THIS AREA.

(4) EQUAL TO DRYERWALLVENT #DWV4B.

(5) AIR HANDLER MOUNTED ON STAND TO ALLOW RETURN DUCT UNDER AIR HANDLER TO COMMUNICATE WITH HALLWAY AS SHOWN.

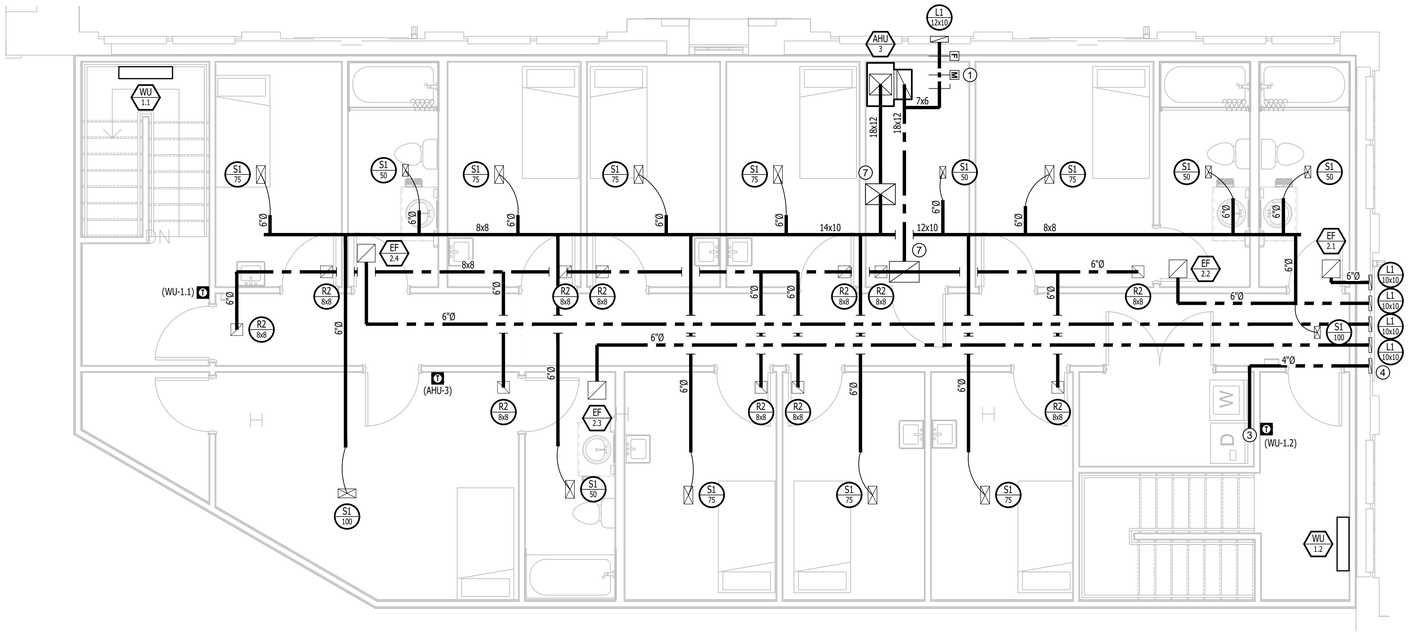
(6) RETICULATING RANGE HOOD PROVIDED AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL COORDINATE RANGE HOOD SELECTION WITH OWNER PRIOR TO PURCHASE.

(7) DUCTWORK UP INTO CEILING CAVITY. SEE ARCHITECTURAL PLANS FOR FURTHER INFORMATION.

(8) MOTORIZED AND BALANCE DAMPERS FOR OUTSIDE AIR DUCT. SEE HVAC SCHEDULES FOR MOTORIZED DAMPER CONTROLS. PROVIDE ACCESS PANEL IN SOFFIT FOR DAMPER MAINTENANCE.

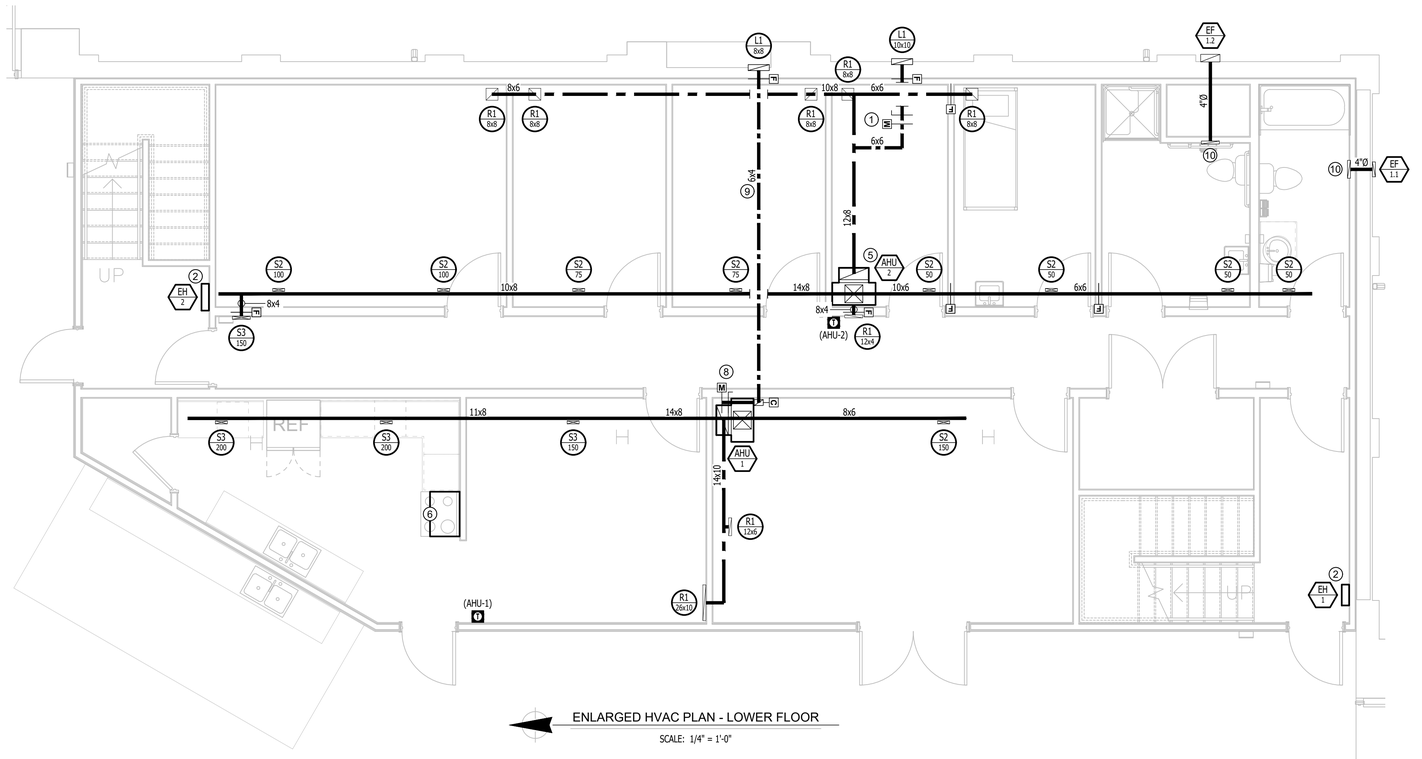
(9) FRESH AIR DUCT SHALL BE RAN IN FLOOR JOIST SPACE ABOVE CEILING.

(10) MANUFACTURER PROVIDED AIR DEVICE. SEE EXHAUST FAN SCHEDULE.




ENLARGED HVAC PLAN - UPPER FLOOR

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




ENLARGED HVAC PLAN - LOWER FLOOR

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

**STATE OF MISSOURI**
**MIKE KEHOE**
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CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**ENLARGED HVAC PLAN**

SHEET NUMBER:

# M-102

## AIR DEVICE SCHEDULE

| TAG | SERVICE | MANUFACTURER (OR EQUAL) | MODEL (OR EQUAL) | SIZE | COLOR / FINISH | NOTES |
|---|---|---|---|---|---|---|
| L1 | OA/EX | POTTORFF | EFD-445 | AS INDICATED | PRIMED | 1,4 |
| R1 | RETURN | PRICE | 530 | AS INDICATED | WHITE | 1 |
| R2 | RETURN | PRICE | 530 | AS INDICATED | WHITE | 1,3 |
| S1 | SUPPLY | PRICE | 520 | 8x4 | WHITE | 1,2,3 |
| S2 | SUPPLY | PRICE | 520 | 8x4 | WHITE | 1,2,5 |
| S3 | SUPPLY | PRICE | 520 | 12x4 | WHITE | 1,2,5 |

**NOTES:**
1. VERIFY AIR DEVICE FINISHES WITH OWNER/ARCHITECT PRIOR TO INSTALLATION.
2. SEE PLANS FOR AIRFLOW.
3. WITH CEILING RADIATION DAMPER
4. PAINT TO MATCH EXTERIOR.
5. WITH OPPOSABLE BLADE DAMPER

## RTU SCHEDULE (ALTERNATE #1)

| TAG | EQUIPMENT DESCRIPTION | SIZE (TONS) | ORIENTATION | TOTAL AIRFLOW (CFM) | E.S.P. (in. H20) | OA AIRFLOW MAX/MIN (CFM) | GAS HEATING | | COOLING (IA: 80 DB/67 WB, OA: 95 DB) | | | ELECTRICAL | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | INPUT (kBTU) | OUTPUT (kBTU) | SENSIBLE (KBTU) | TOTAL (KBTU) | MIN. EFFICIENCY | VOLTS / PHASE | MCA | OCP | |
| RTU-1 | ROOF TOP UNIT | 30 | SIDE DISCHARGE | 11000 | 2.8 | 600 | 350 | 284 | 280.7 | 374.9 | 10.6 EER / 15.4 IEER | 460 / 3 | 85 | 100 | 1-4 |

**NOTES:**
1. PROVIDE AND INSTALL 7 DAY PROGRAMABLE HONEYWELL THERMOSTAT. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.
2. WITH FACTORY HAIL GUARD.
3. WITH FACTORY INSTALLED DISCONNECT.
4. WITH SMOKE DETECTOR IN RETURN AIR DUCT TO SHUT DOWN UNIT AND SEND SIGNAL TO BUILDING FIRE ALARM SYSTEM UPON DETECTION OF SMOKE. IF NO BUILDING FIRE ALARM SYSTEM IS PRESENT, PROVIDE ALARM DEVICE IN OCCUPIED AREA.

## AIR HANDLING UNIT & AC SCHEDULE

| TAG | EQUIPMENT DESCRIPTION | SIZE (TONS) | ORIENTATION | TOTAL AIRFLOW (CFM) | E.S.P. (in. H20) | OA AIRFLOW MAX/MIN (CFM) | HEATING | COOLING (IA: 80 DB/67 WB, OA: 95 DB) | | | ELECTRICAL | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | ELECTRIC (KW) | SENSIBLE (KBTU) | TOTAL (KBTU) | MIN EFF. (SEER2) | VOLTS/PH | MCA | OCP | |
| AHU-1 | AIR HANDLING UNIT | 2 | VERTICAL | 700 | 0.5 | 55 | 8 | - | - | - | 208/1 | 36 | 45 | 1,2 |
| CU-1 | CONDENSING UNIT | 2 | - | - | - | - | - | 18.2 | 24.5 | 13.4 | 208/1 | 14 | 25 | 3 |
| AHU-2 | AIR HANDLING UNIT | 2 | VERTICAL | 700 | 0.5 | 95 | 8 | - | - | - | 208/1 | 36 | 45 | 1,2 |
| CU-2 | CONDENSING UNIT | 2 | - | - | - | - | - | 18.2 | 24.5 | 13.4 | 208/1 | 14 | 25 | 3 |
| AHU-3 | AIR HANDLING UNIT | 3 | VERTICAL | 1050 | 0.5 | 150 | 15 | - | - | - | 208/1 | 41,18 | 60, 25 | 1,2 |
| CU-3 | CONDENSING UNIT | 3 | - | - | - | - | - | 26.8 | 34.6 | 13.4 | 208/1 | 18 | 30 | 3 |

**NOTES:**
1. PROVIDE AND INSTALL 7 DAY PROGRAMABLE HONEYWELL THERMOSTAT. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.
2. WITH LOW LEAKAGE MOTORIZED OUTSIDE AIR DAMPER, DAMPER TO OPEN DURING OCCUPIED HOURS AND CLOSE DURING UNOCCUPIED HOURS THRU THERMOSTAT SCHEDULE.
3. WITH FACTORY HAIL GUARD.

## DIFFUSER NECK SIZING SCHEDULE

| AIRFLOW (CFM) | NECK SIZE (in) |
|---|---|
| 0 - 120 | 6" |
| 120 - 210 | 8" |
| 210 - 325 | 10" |
| 325 - 470 | 12" |
| 470 - 640 | 14" |

## MINI-SPLIT SYSTEM SCHEDULE

| TAG | EQUIPMENT DESCRIPTION | MANUFACTURER (OR EQUAL) | MODEL NUMBER (OR EQUAL) | SIZE (TONS) | ORIENTATION | TOTAL AIRFLOW (CFM) | HEATING (IA:70 DB, OA:0 DB) | COOLING (IA: 80 DB/67 WB, OA: 95 DB) | | | ELECTRICAL | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | TOTAL (KBTU) | SENSIBLE (KBTU) | TOTAL (KBTU) | MIN EFF. (SEER) | VOLTS/PH | MCA | OCP | |
| WU-1.1 | FAN COIL UNIT | MITSUBISHI | NTXWST06B112AA | 0.5 | WALL MOUNT | 350 | 6 | 4 | 6 | 16 | WIRE THRU HP-1 | | | 1 |
| WU-1.2 | FAN COIL UNIT | MITSUBISHI | NTXWST06B112AA | 0.5 | WALL MOUNT | 350 | 6 | 4 | 6 | 16 | WIRE THRU HP-1 | | | 1 |
| HP-1 | HEAT PUMP | MITSUBISHI | NTXMPH20A122CA | 1.5 | - | - | 13.4 | 12 | 18 | 16 | 208/1 | 27 | 40 | 2 |

**NOTES:**
1. PROVIDE AND INSTALL 7 DAY PROGRAMABLE WIRED REMOTE CONTROLLER. COORDINATE EXACT MOUNTING LOCATION WITH OWNER.
2. WITH WIND BAFFLE.

## EXHAUST FAN SCHEDULE

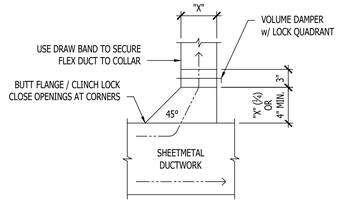
| TAG | EQUIPMENT TYPE | MANUFACTURER (OR EQUAL) | MODEL (OR EQUAL) | FLOW | | ELECTRICAL | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|
| | | | | CFM | S.P. | VOLT/PH | MCA | OCP | |
| EF-1.1 | SIDEWALL CENTRIFUGAL FAN | SOLER & PALAU | SWF-100X | 120 | 0.25 | 120 | 0.8 | 15 | 1,3 |
| EF-1.2 | SIDEWALL CENTRIFUGAL FAN | SOLER & PALAU | SWF-100X | 120 | 0.25 | 120 | 0.8 | 15 | 1,3 |
| EF-2.1 | IN-CEILING EXHAUST FAN | BROAN | QTXE110150DC | 120 | 0.3 | 120 | 0.5 | 15 | 1,2 |
| EF-2.2 | IN-CEILING EXHAUST FAN | BROAN | QTXE110150DC | 120 | 0.3 | 120 | 0.5 | 15 | 1,2 |
| EF-2.3 | IN-CEILING EXHAUST FAN | BROAN | QTXE110150DC | 120 | 0.3 | 120 | 0.5 | 15 | 1,2 |
| EF-2.4 | IN-CEILING EXHAUST FAN | BROAN | QTXE110150DC | 120 | 0.3 | 120 | 0.5 | 15 | 1,2 |
| VF-1.1 | WALL FAN | SOLER & PALAU | DDE-30 | 10000 | 0.38 | 208 / 3 | 7.8 | 15 | 3 |
| VF-1.2 | WALL FAN | SOLER & PALAU | DDE-30 | 10000 | 0.38 | 208 / 3 | 7.8 | 15 | 3 |
| VF-1.3 | WALL FAN | SOLER & PALAU | DDE-30 | 10000 | 0.38 | 208 / 3 | 7.8 | 15 | 3 |
| VF-1.4 | WALL FAN | SOLER & PALAU | DDE-30 | 10000 | 0.38 | 208 / 3 | 7.8 | 15 | 3 |

**NOTES:**
1. WITH BACKDRAFT DAMPER
2. WITH CEILING RADIATION DAMPER
3. WITH WALL COLLAR AND BACKDRAFT DAMPER WITH MOUNTING ANGLES.

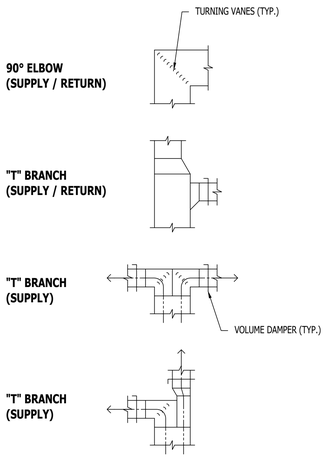
## HEATER SCHEDULE

| TAG | EQUIPMENT STYLE | | MANUFACTURER (OR EQUAL) | MODEL (OR EQUAL) | FLOW (CFM) | HEATING | ELECTRICAL | | | PHYSICAL | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE | SOURCE | | | | ELECTRIC (kW) | VOLT/PH | MCA | OCP | DIM. | WEIGHT | |
| EH-1 | WALL HEATER | ELECTRIC | BERKO | LFK151F | 100 | 1.5 | 120 | 12.5 | 20 | 16x19.5x4 | 22 | 1,2 |
| EH-2 | WALL HEATER | ELECTRIC | BERKO | LFK151F | 100 | 1.5 | 120 | 12.5 | 20 | 16x19.5x4 | 22 | 1,2 |

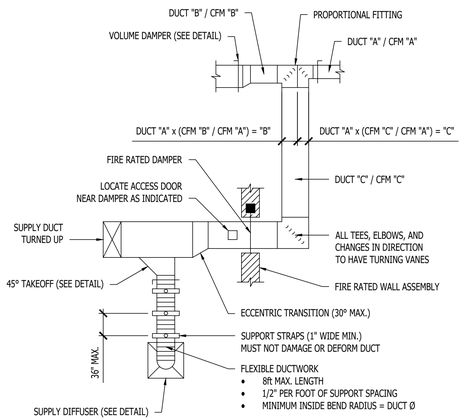
**NOTES:**
1. WITH INTEGRAL THERMOSTAT
2. WITH SURFACE MOUNT KIT



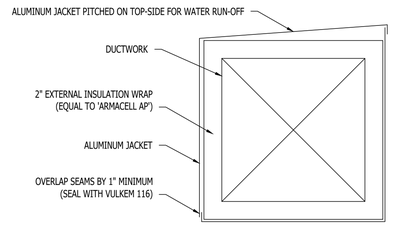

**TYPICAL 45° TAKEOFF DETAIL**



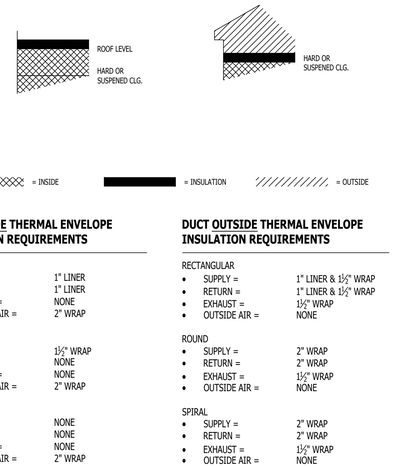

**TYPICAL DUCTWORK FITTINGS DETAIL**




**TYPICAL DUCTWORK DETAIL**




**BUILDING EXTERIOR DUCT SECTION DETAIL**




**DUCT INSIDE THERMAL ENVELOPE INSULATION REQUIREMENTS**

RECTANGULAR
- SUPPLY = 1" LINER
- RETURN = 1" LINER
- EXHAUST = NONE
- OUTSIDE AIR = 2" WRAP

ROUND
- SUPPLY = 1½" WRAP
- RETURN = NONE
- EXHAUST = NONE
- OUTSIDE AIR = 2" WRAP

SPIRAL
- SUPPLY = NONE
- RETURN = NONE
- EXHAUST = NONE
- OUTSIDE AIR = 2" WRAP

**DUCT OUTSIDE THERMAL ENVELOPE INSULATION REQUIREMENTS**

RECTANGULAR
- SUPPLY = 1" LINER & 1½" WRAP
- RETURN = 1" LINER & 1½" WRAP
- EXHAUST = 1½" WRAP
- OUTSIDE AIR = NONE

ROUND
- SUPPLY = 2" WRAP
- RETURN = 2" WRAP
- EXHAUST = 1½" WRAP
- OUTSIDE AIR = NONE

SPIRAL
- SUPPLY = 2" WRAP
- RETURN = 2" WRAP
- EXHAUST = 1½" WRAP
- OUTSIDE AIR = NONE

**TYPICAL BUILDING INTERIOR DUCT INSULATION DIAGRAM**

STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

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DESIGNED BY: KEL

SHEET TITLE:

**HVAC DETAILS & SCHEDULES**

SHEET NUMBER:

# M-501

## POWER PLAN SYMBOL LEGEND

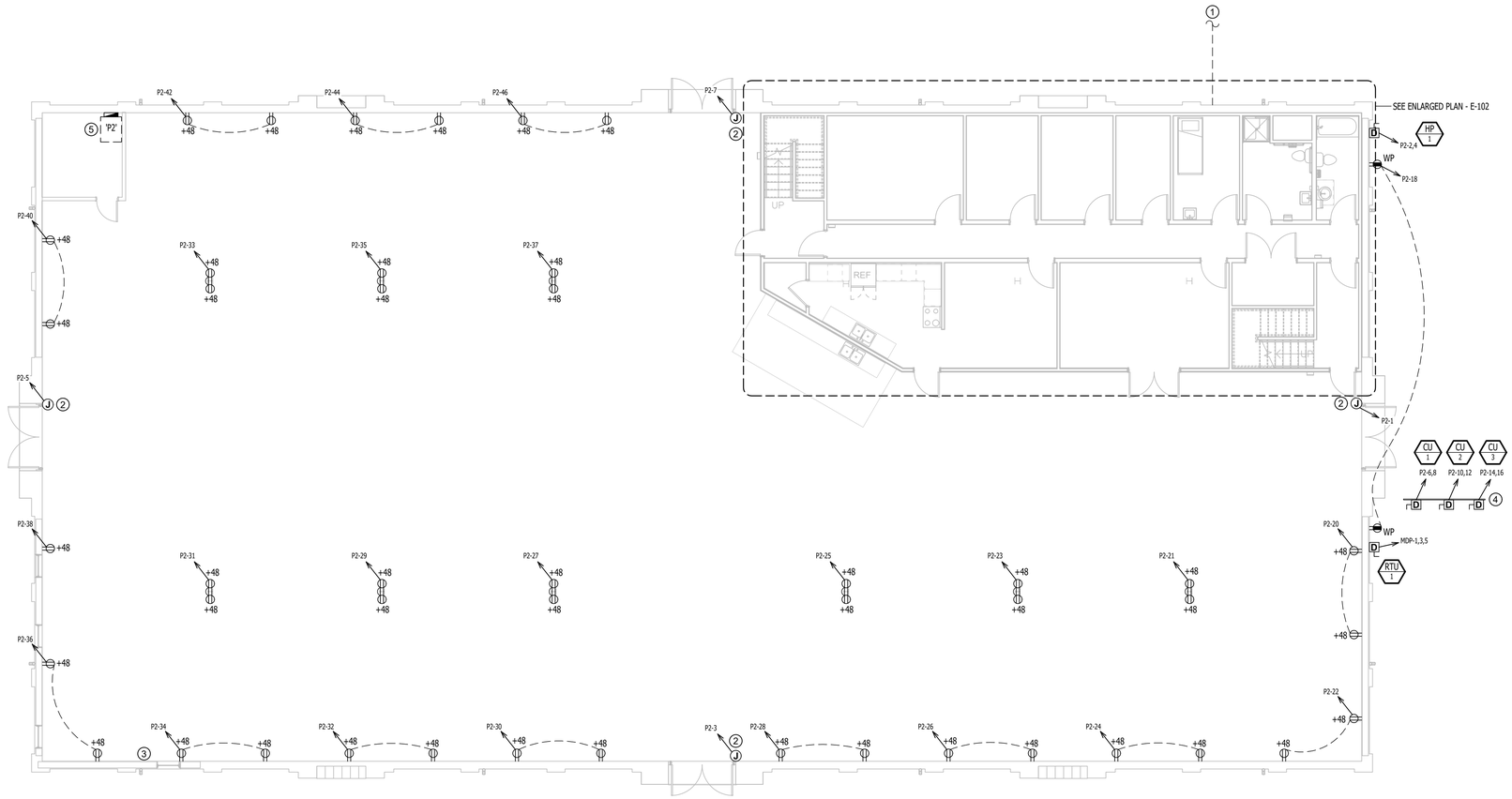
- CIRCUIT WIRING
- PX-XX — CIRCUIT TAG
- (J) — JUNCTION BOX
- XX (D) +42 — RECEPTACLE
  INDICATES MOUNTING HEIGHT TO BOTTOM OF BOX
  (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE)
  "WP" = WEATHERPROOF OUTDOOR RECEPTACLE
  "AW" = ABOVE WINDOW RECEPTACLE
  "AC" = ABOVE CEILING RECEPTACLE
  "EX" = EXISTING RECEPTACLE TO REMAIN
- GFCI DUPLEX CONVENIENCE RECEPTACLE
- 208V RECEPTACLE
- QUADPLEX CONVENIENCE RECEPTACLE
- USB OUTLET
  WITH USB-A & USB-C CHARGING PORT
- DATA / PHONE JACK
  BOX WITH 1" CONDUIT & PULL STRING) UP TO CEILING SPACE
  (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE)
- AP — WIRELESS ACCESS POINT, CEILING MOUNTED
- FLOOR RECEPTACLE
- FLOOR DATA
- DISCONNECT
- FUSED DISCONNECT
- FUSED SWITCH
- STARTER / DISCONNECT
- TIE INTO EXISTING

## POWER PLAN GENERAL NOTES:

1. REFER TO E-500 AND/OR E-600 SERIES SHEETS FOR ADDITIONAL ELECTRICAL NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
2. ELECTRICAL CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL ELECTRICAL EQUIPMENT, WIRING, HANGERS / SUPPORTS, ETC. WITH HVAC AND PLUMBING TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.
3. CONTRACTOR SHALL PROVIDE ALTERNATE #1 PRICE FOR ANY ELECTRICAL MATERIALS AND LABOR ASSOCIATED WITH RTU-1 DETAILED ON THE PLANS.

## POWER PLAN KEY NOTES:

1. UNDERGROUND CONDUIT AND CONDUCTORS FROM EXISTING PAD MOUNT TRANSFORMER LOCATED APPROXIMATELY 380FT AWAY. PLEASE SEE THE POWER RISER FOR FURTHER DETAILS.
2. POWER FOR AIR CURTAIN. COORDINATE WITH HVAC CONTRACTOR FOR FURTHER INFORMATION.
3. DEMOLISH EXISTING ELECTRICAL SERVICE. NEW ELECTRICAL SERVICE SHALL BE PROVIDED FROM THE WEST SIDE OF THE BUILDING. SEE OVERALL ELECTRICAL PLANS FOR MORE INFORMATION.
4. CONTRACTOR SHALL MOUNT UNITSTRUT RACK TO THE INSIDE OF THE ENCLOSURE AND MOUNT CONDENSING UNIT DISCONNECTS TO UNISTRUT RACK.
5. CONTRACTOR SHALL MOUNT ROUTE CONDUIT TIGHT TO TOP OF BRICK WALL FROM THIS PANEL TO ELECTRICAL DEVICES.




**OVERALL POWER PLAN**

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


**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

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06-27-2025

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025

**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**OVERALL POWER PLAN**

SHEET NUMBER:

# E-101

## POWER PLAN SYMBOL LEGEND

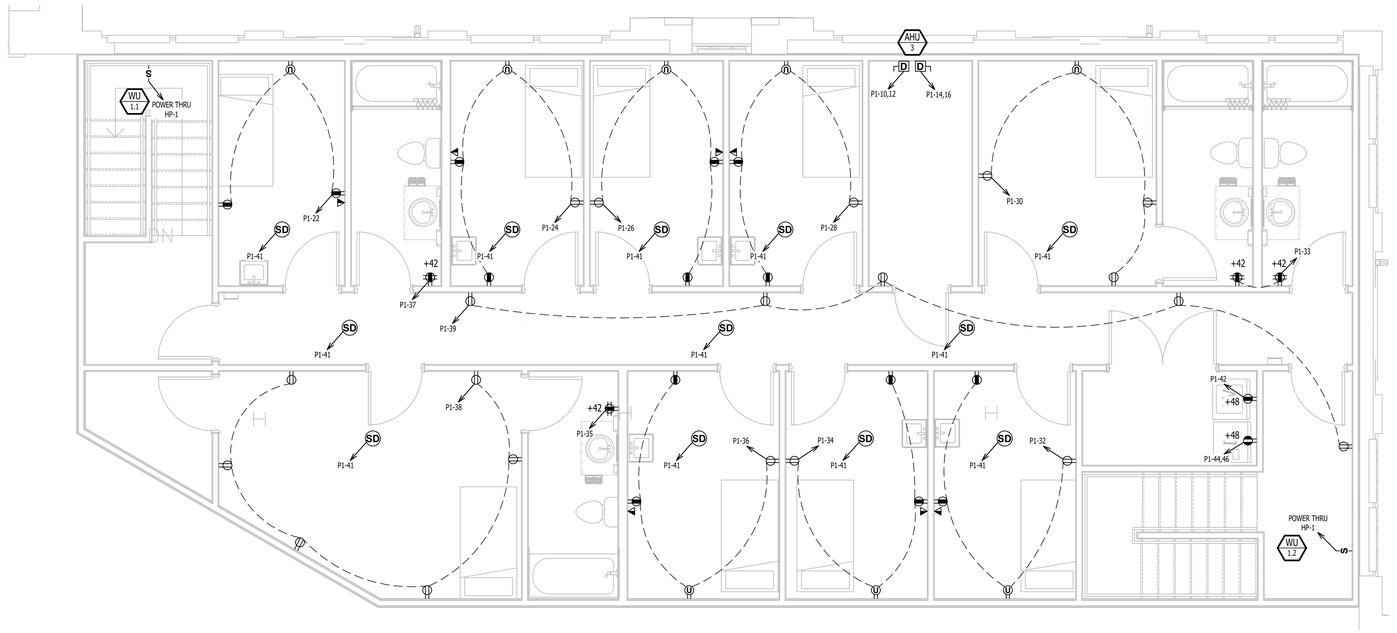
- CIRCUIT WIRING
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- USB OUTLET WITH USB-A & USB-C CHARGING PORT
- DATA / PHONE JACK BOX WITH 1" CONDUIT & PULL STRING) UP TO CEILING SPACE (STANDARD @ 18" AFF UNLESS NOTED OTHERWISE)
- AP — WIRELESS ACCESS POINT, CEILING MOUNTED
- FLOOR RECEPTACLE
- FLOOR DATA
- D — DISCONNECT
- SD — 120V SMOKE DETECTOR
- TIE INTO EXISTING

## POWER PLAN GENERAL NOTES:

1. REFER TO E-500 AND/OR E-600 SERIES SHEETS FOR ADDITIONAL ELECTRICAL NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
2. ELECTRICAL CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL ELECTRICAL EQUIPMENT, WIRING, HANGERS / SUPPORTS, ETC. WITH HVAC AND PLUMBING TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.
3. ANY EXISTING ELECTRICAL EQUIPMENT, CIRCUITS, ETC. SHOWN IS FOR REFERENCE ONLY. ELECTRICAL CONTRACTOR TO FIELD VERIFY EXACT EQUIPMENT LOCATIONS, CONDITIONS, ETC. PRIOR TO BEGINNING WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

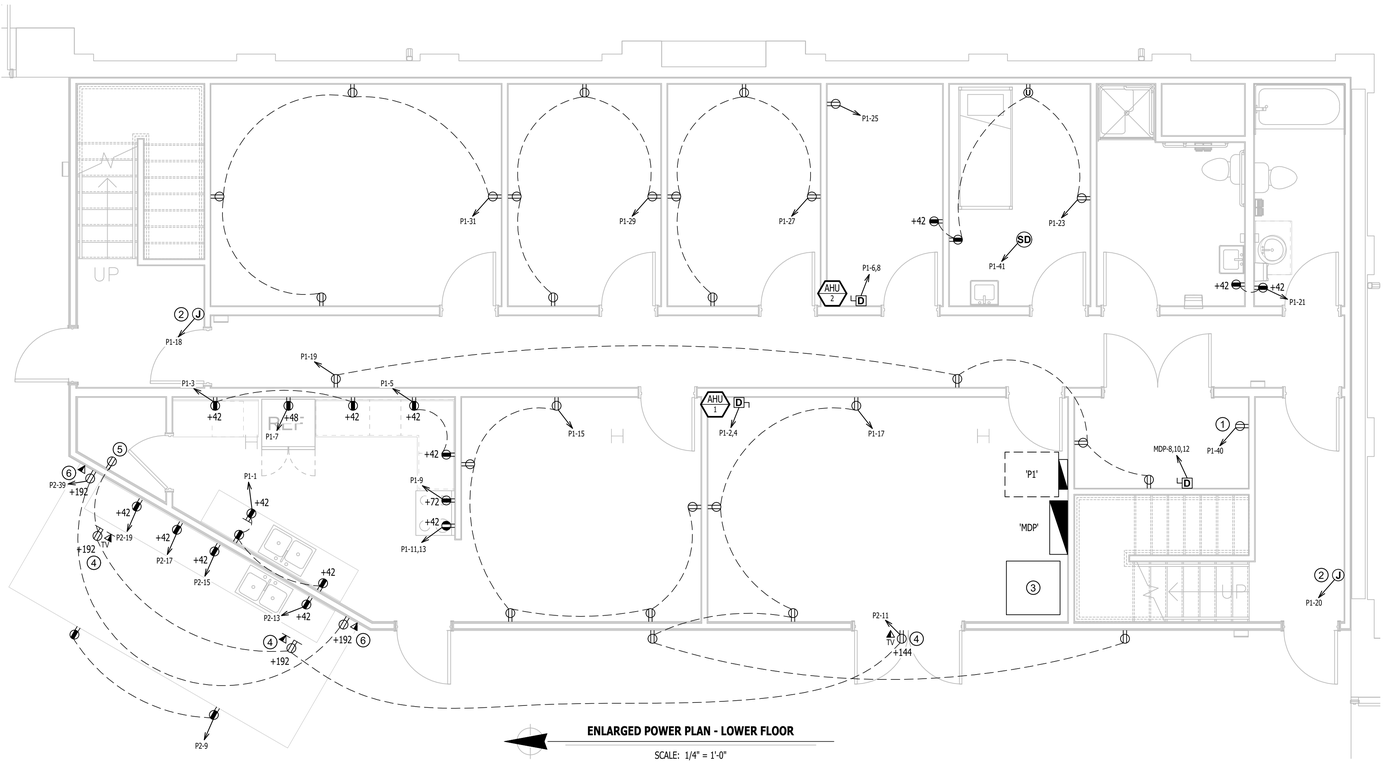
## POWER PLAN KEY NOTES:

1. COORDINATE RECEPTACLE LOCATION WITH RETICULATION PUMP LOCATION. COORDINATE WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
2. COORDINATE ELECTRIC HEATER POWER REQUIREMENTS WITH HVAC CONTRACTOR PRIOR TO ROUGH-IN.
3. NEW STEPDOWN TRANSFORMER WITH EQUIPMENT PAD. SEE POWER RISER FOR FURTHER DETAILS.
4. CONTRACTOR TO PROVIDE 2" CONDUIT CONNECTED TO TV JACK AND ROUTE TO KITCHEN CLOSET WITH PULL STRING. SEE KEY NOTE #5 FOR LOCATION.
5. KITCHEN CLOSET LOCATION. OWNER TO PROVIDE TV INTEGRATION SYSTEM.
6. CONTRACTOR TO PROVIDE 2" CONDUIT CONNECTED TO DATA JACK FOR OWNER PROVIDED SOUND SYSTEM CONNECTION AND ROUTE TO KITCHEN CLOSET WITH PULL STRING. SEE KEY NOT #5 FOR LOCATION.




**ENLARGED POWER PLAN - UPPER FLOOR**

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




**ENLARGED POWER PLAN - LOWER FLOOR**

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

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CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**ENLARGED POWER PLAN**

SHEET NUMBER:

# E-102



6/27/25

## LIGHTING PLAN SYMBOL LEGEND

X1 ○ EM NL
- "X1" INDICATES FIXTURE TYPE (REFER TO SCHEDULE)
- LIGHTING FIXTURE
- "EM" INDICATES EMERGENCY BATTERY BACKUP
- "NL" INDICATES UN-SWITCHED NIGHT LIGHT

EXIT LIGHT
- INDICATES REQUIRED REMOTE HEAD

EMERGENCY EGRESS LIGHT

$X
- SWITCH (WALL MOUNTED)
- SWITCH TYPE:
  - 3 = 3-WAY
  - 4 = 4-WAY
  - OP = PASSIVE INFRARED OCCUPANCY SENSOR
  - OU = ULTRASONIC OCCUPANCY SENSOR
  - OT = DUAL-TECHNOLOGY OCCUPANCY SENSOR
  - VP = PASSIVE INFRARED VACANCY SENSOR
  - VU = ULTRASONIC VACANCY SENSOR
  - VT = DUAL-TECHNOLOGY VACANCY SENSOR
  - M = MOMENTARY SWITCH
  - SS = SCENE SWITCH

DX
- DIMMER SWITCH (WALL MOUNTED)
- SWITCH TYPE:
  - SEE "SWITCH (WALL MOUNTED)" FOR TYPE DESIGNATIONS

SX
- SWITCH (CEILING MOUNTED)
- SWITCH TYPE:
  - SEE "SWITCH (WALL MOUNTED)" FOR TYPE DESIGNATIONS

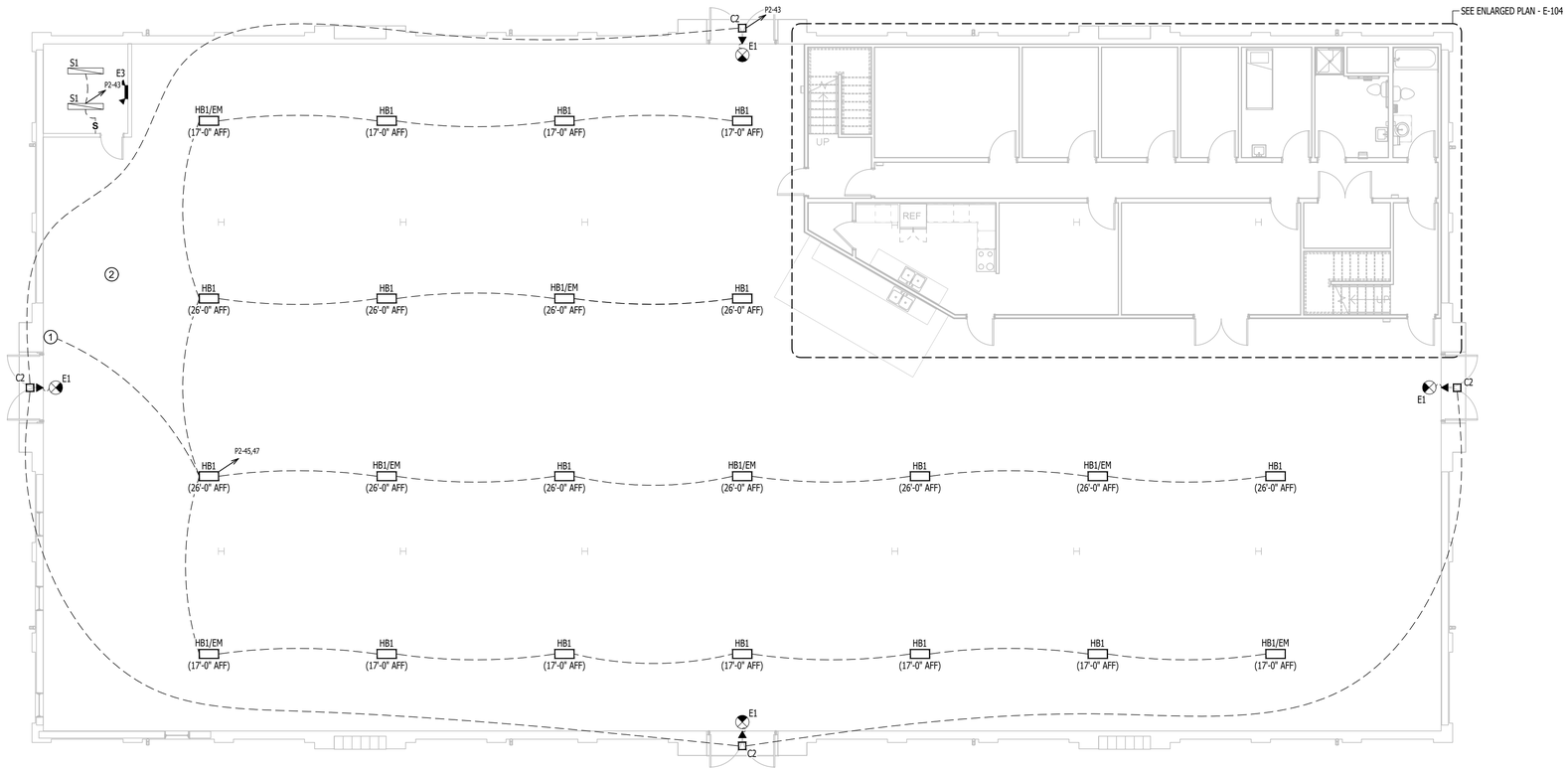
## LIGHTING PLAN GENERAL NOTES:

1. REFER TO E-500 AND/OR E-600 SERIES SHEETS FOR ADDITIONAL LIGHTING NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
2. OCCUPANCY/VACANCY SENSOR QUANTITIES AND GENERAL LOCATIONS SHOWN FOR REFERENCE ONLY. CONTRACTOR TO PROVIDE & INSTALL SENSOR WITH SPACING PER MANUFACTURER'S SPECIFICATIONS AND INCLUDE ADDITIONAL SENSORS IF NECESSARY. CEILING-MOUNTED SENSORS SHALL BE INSTALLED WITHIN MANUFACTURER'S ACCEPTABLE MOUNTING HEIGHT RANGE.
3. ELECTRICAL CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL FIXTURES, WIRING, HANGERS / SUPPORTS, ETC. WITH HVAC AND PLUMBING TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.
4. ANY EXISTING LIGHT FIXTURES, CIRCUITS, OR CONTROLS SHOWN ARE FOR REFERENCE ONLY. ELECTRICAL CONTRACTOR TO FIELD VERIFY EXACT LIGHT FIXTURE AND CIRCUIT/CONTROL LOCATIONS, CONDITIONS, ETC. PRIOR TO BEGINNING WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

## LIGHTING PLAN KEY NOTES:

(1) PROVIDE AND INSTALL LIGHTING CONTACTOR TO CONTROL ALL EXHIBIT LIGHTS. 40A, 208V WITH NEMA 3R COVER.

(2) CONNECT EXISTING LIGHT FIXTURE MOUNTED ON ROOF AT THIS LOCATION TO CIRCUIT P2-43. PROVIDE AND INSTALL PHOTO SENSOR FOR EXISTING LIGHT CONTROL.




**OVERALL LIGHTING PLAN**

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

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**MIKE KEHOE**
**GOVERNOR**

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PROFESSIONAL ENGINEER
06-27-2025


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CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**OVERALL LIGHTING PLAN**

SHEET NUMBER:

# E-103

## LIGHTING PLAN SYMBOL LEGEND

X1 / EM / NL — "X1" INDICATES FIXTURE TYPE (REFER TO SCHEDULE)
LIGHTING FIXTURE
"EM" INDICATES EMERGENCY BATTERY BACKUP
"NL" INDICATES UN-SWITCHED NIGHT LIGHT

EXIT LIGHT
INDICATES REQUIRED REMOTE HEAD

EMERGENCY EGRESS LIGHT

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- M = MOMENTARY SWITCH
- SS = SCENE SWITCH

$D_X$ — DIMMER SWITCH (WALL MOUNTED)
SWITCH TYPE:
- SEE "SWITCH (WALL MOUNTED)" FOR TYPE DESIGNATIONS

$(S)_X$ — SWITCH (CEILING MOUNTED)
SWITCH TYPE:
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## LIGHTING PLAN GENERAL NOTES:

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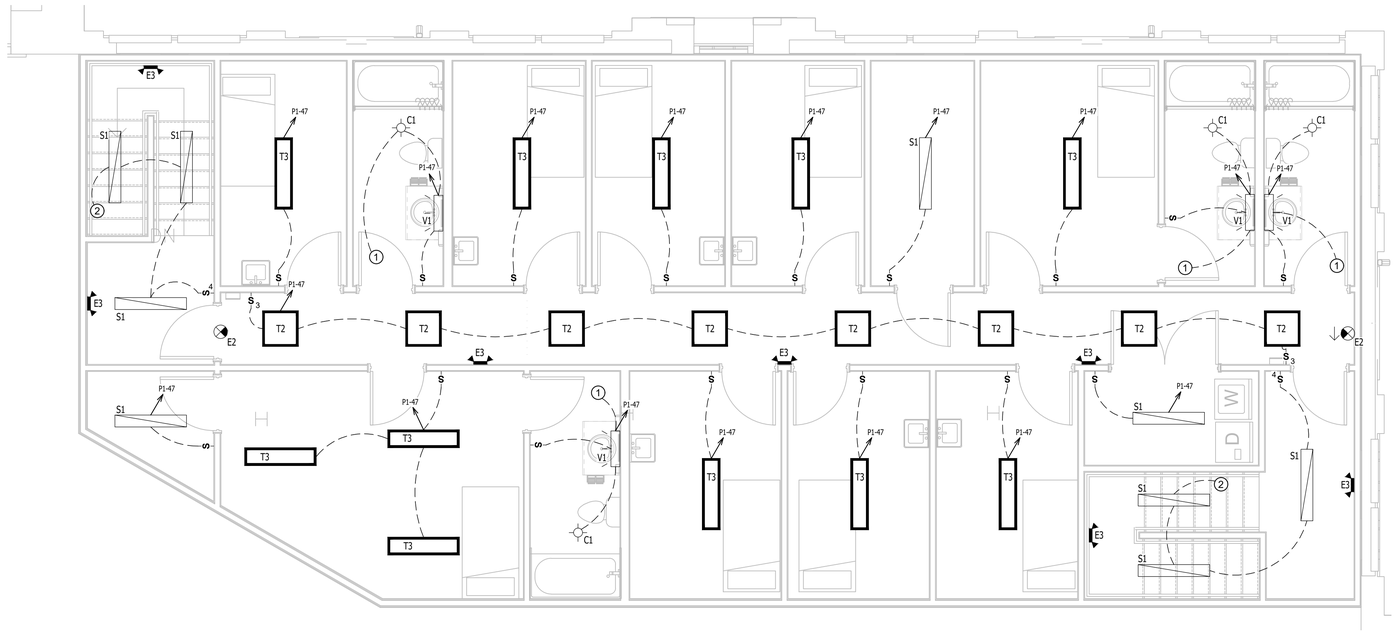
## LIGHTING PLAN KEY NOTES:

(1) EXHAUST FAN SHALL BE CONTROLLED BY LIGHT SWITCH.

(2) CONNECT TO LIGHT FIXTURE BELOW IN STAIRWELL.

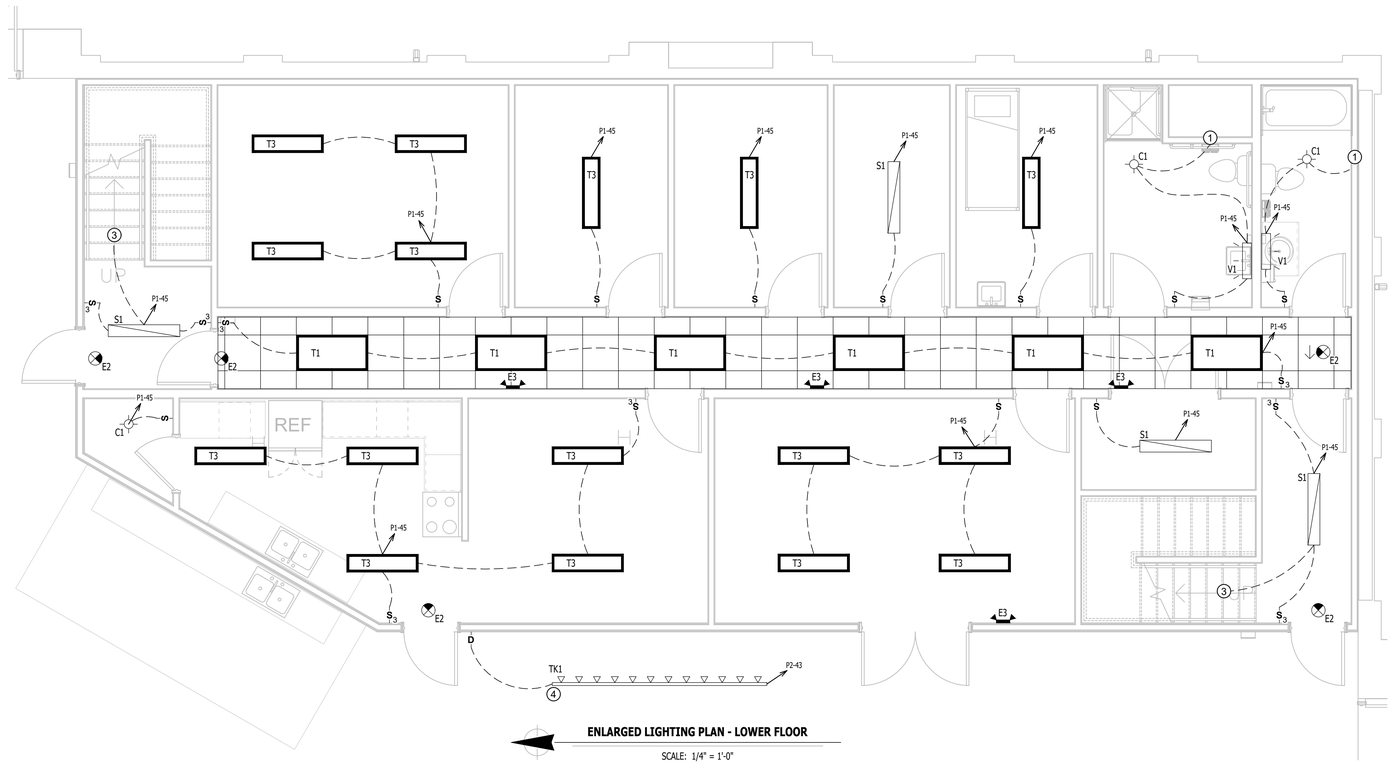
(3) CONNECT TO LIGHT FIXTURES ABOVE IN STAIRWELL.

(4) PROVIDE AND INSTALL TRACK LIGHT WALL MOUNT. SEE LIGHT FIXTURES SCHEDULE FOR DETAILS.




**ENLARGED LIGHTING PLAN - UPPER FLOOR**

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




**ENLARGED LIGHTING PLAN - LOWER FLOOR**

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


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**ENLARGED LIGHTING PLAN**

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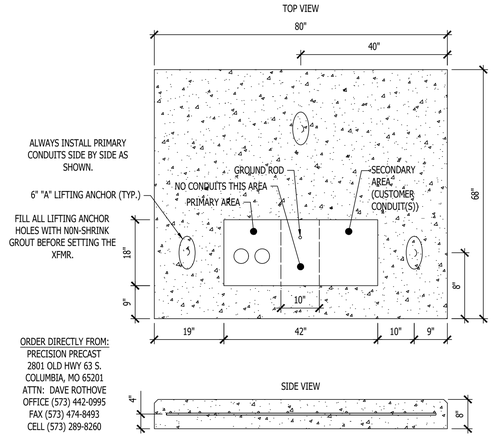
# E-104



6/27/25

PAD MUST BE BUILT TO THE V-10 SPECIFICATION AND SUPPLIED BY THE VENDOR SHOWN BELOW. ALL PRIMARY AND SECONDARY CABLES MUST BE IN CONDUIT AND ENTER THE TRANSFORMER THROUGH DUCT AREA. ANY EXCAVATION UNDER THE PAD MUST BE BACKFILLED AND COMPACTED WITH REMOVABLE MATERIAL SUCH AS 1" CLEAN GRAVEL. NO CONDUITS ARE ALLOWED IN THE MIDDLE 10' OF DUCT AREA. CONDUITS MAY GO IN ANY DIRECTION FROM PAD. SIDE "A" MUST FACE AWAY FROM BUILDING OF OTHER OBSTRUCTIONS. OTHER SIDES MUST BE A MINIMUM OF 3' AWAY FROM ANY OBSTRUCTIONS. CENTERLINE OF TRANSFORMER MUST BE WITHIN 10' OF TRUCK ACCESSIBLE PAVEMENT. INSTALL ⅝" X 8' GROUND ROD AS SHOWN. BACKFILL MATERIAL AND PRIMARY CONDUITS MUST BE INSPECTED BY WATER & LIGHT DEPARTMENT BEFORE PAD IS SET IN PLACE. LIFTING ANCHOR HOLES MUST BE FILLED WITH NON-SHRINK GROUT BEFORE TRANSFORMER WILL BE SET.

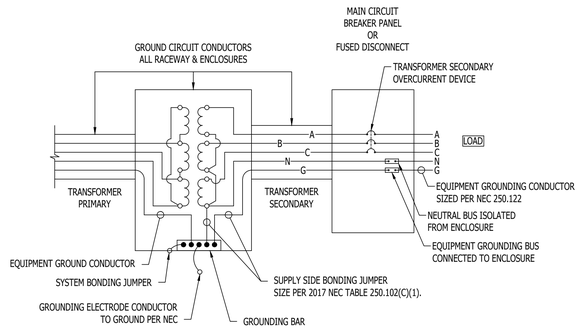
PLEASE CALL (573) 874-6200
ANY EXCEPTIONS TO THE ABOVE REQUIREMENTS MUST BE APPROVED IN WRITING BY WATER AND LIGHT ENGINEERING DEPARTMENT BEFORE CONSTRUCTION.



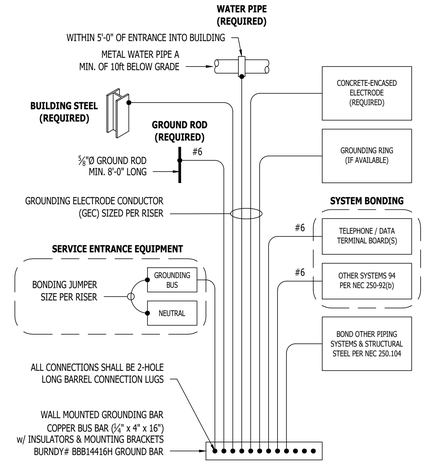

ORDER DIRECTLY FROM:
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2801 OLD HWY 63 S.
COLUMBIA, MO 65201
ATTN: DAVE ROTHOVE
OFFICE (573) 442-0995
FAX (573) 474-8493
CELL (573) 289-8260

**PRE-CAST: V-10 PAD DETAIL**
**FOR 3PH 75-750 KVA TRANSFORMER**

| TABLE 250.102(C)(1) - NEC 2020 | | | |
|---|---|---|---|
| Size of Largest Ungrounded Conductor or Equivalent Area for Parallel Conductors (AWG/kcmil) | | Size of Bonding Jumper (AWG/kcmil) | |
| Copper | Aluminum | Copper | Aluminum |
| 2 or smaller | 1/0 or smaller | 8 | 6 |
| 1 or 1/0 | 2/0 or 3/0 | 6 | 4 |
| 2/0 or 3/0 | 4/0 or 250 | 4 | 2 |
| Over 3/0 through 350 | Over 250 through 500 | 2 | 1/0 |
| Over 350 through 600 | Over 500 through 900 | 1/0 | 3/0 |
| Over 600 through 1100 | Over 900 through 1750 | 2/0 | 4/0 |
| Over 1100 | Over 1750 | See NEC for details | See NEC for details |




**DRY TYPE TRANSFORMER (600V OR LESS)**
**GROUNDING DETAIL**




**TYPICAL GROUNDING & BONDING DETAIL**

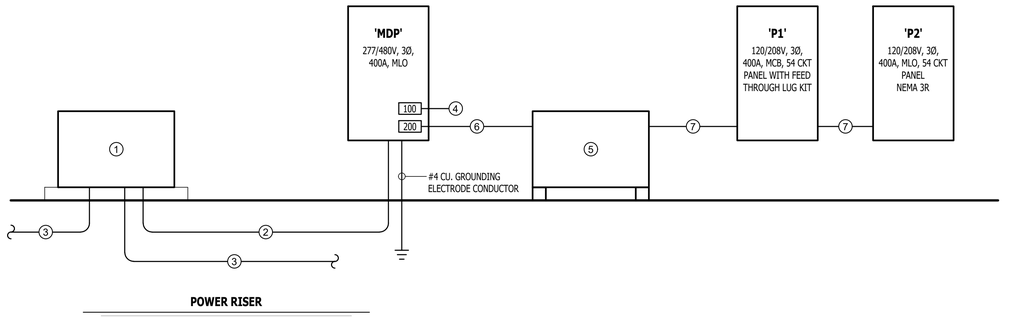



POWER RISER GENERAL NOTES:

1. COORDINATE ALL CHANGES AND NEW SERVICE CONNECTIONS WITH MISSOURI STATE FAIR STAFF FOR STAGING AND OUTAGE TIMES.
2. SEE AERIAL PHOTO MARKUP FOR FURTHER INFORMATION.

POWER RISER KEY NOTES:

1. CONTRACTOR SHALL REMOVE EXISTING TRANSFORMER. DEMOLISH EXISTING TRANSFORMER PAD AND POUR NEW TRANSFORMER PAD PER TRANSFORMER PAD DETAIL AND REINSTALL EXISTING TRANSFORMER WITH NEW CONDUIT STUBBED UP WITHIN TRANSFORMER.
2. 4" PVC CONDUIT WITH (4) #500 CU. APPROXIMATELY 275FT OF CONDUIT AND CONDUCTOR LENGTH.
3. EXISTING CONDUIT AND CONDUCTORS TO REMAIN. RECONNECT TO TRANSFORMER ONCE TRANSFORMER IS REINSTALLED.
4. 1 ½" CONDUIT WITH (4) #3 CU. & (1) #8 EQ GRD. TO RTU-1.
5. 112.5kVA, 480V, 3Ø TO 120/208V, 3Ø, NEMA 1 STEP DOWN TRANSFORMER.
6. 3" CONDUIT WITH (4) #3/0 CU. & (1) #6 EQ GRD.
7. 4" CONDUIT WITH (4) #500 CU. & (1) #3 EQ. GRD.




**POWER RISER**

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PROFESSIONAL ENGINEER
06-27-2025


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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**ELECTRICAL DETAILS**

SHEET NUMBER:

# E-501

 6/27/25

## LIGHT FIXTURE SCHEDULE

| TAG | MANUFACTURER (OR EQUAL) | MODEL NUMBER (OR EQUAL) | DESCRIPTION | MOUNTING | LUMEN OUTPUT | CCT (°K) | CRI | VOLTAGE | WATTS | DIMMING | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C1 | HALO | SLDSL4069S1EMWR | 4" ROUND LED CAN | SURFACE | 635 | 3500 | 80 | UNV | 9 | 0-10V | CONTRACTOR SHALL SELECT OPITONS TO MATCH LIGHTING SCHEDULE VALUES. |
| C2 | LUMARK AP | CLCS15S-PC | LED CANOPY | SURFACE | 3600 | 4000 | 70 | UNV | 24 | 0-10V | CONTRACTOR SHALL SELECT OPITONS TO MATCH LIGHTING SCHEDULE VALUES. |
| E1 | MULE | CWL-1-R-WH WITH R-ASRLED-2-WP | EXTR EXIT LIGHT WITH HEADS WITH EXTR RMT HD | WALL / CEILING | - | - | - | UNV | 5 | - | WITH RED LETTERS & REMOTE HEADS |
| E2 | SURE LITES | APX7RG | INTERIOR EXIT LIGHT | WALL / CEILING | - | - | - | UNV | 1 | - | WITH RED LETTERS |
| E3 | SURE LITES | APEL | EMERGENCY EGRESS LIGHT | WALL | - | - | - | UNV | 1 | - | MOUNT AT 8' A.F.F. |
| HB1 | METALUX | SPHB-2436SE-M-UNV-L84050-CD-SP1-U | LED HIGH BAY | CHAING HANG | 24000 | 4000 | 80 | UNV | 162 | 0-10V | CONTRACTOR SHALL SELECT OPITONS TO MATCH LIGHTING SCHEDULE VALUES. |
| HB1/EM | METALUX | SPHB-2436SE-M-UNV-L84050-CD-SP1-U-EL20WHV | LED HIGH BAY WITH BATTERY PACK | CHAING HANG | 24000 | 4000 | 80 | UNV | 162 | 0-10V | CONTRACTOR SHALL SELECT OPITONS TO MATCH LIGHTING SCHEDULE VALUES. |
| S1 | WILLIAMS | FS-4-LS/8CS-DIM-UNV | 4' LINEAR | WALL BRACKET | 4800 | 3500 | 80 | 120 | 33 | 0-10V | CONTRACTOR SHALL SELECT OPITONS TO MATCH LIGHTING SCHEDULE VALUES. |
| T1 | METALUX | 24FPSL2SCT3 | 2x4 LED FLAT PANEL | ACT GRID | 4550 | 3500 | 80 | 120 | 40 | 0-10V | CONTRACTOR SHALL SELECT OPITONS TO MATCH LIGHTING SCHEDULE VALUES. |
| T2 | METALUX | 22MMS-L3C3-UNV | 2x2 LED FLAT PANEL | SURFACE | 3500 | 3500 | 80 | 120 | 27 | 0-10V | CONTRACTOR SHALL SELECT OPITONS TO MATCH LIGHTING SCHEDULE VALUES. |
| T3 | METALUX | 14MMS-L3C3-UNV | 1x4 LED FLAT PANEL | SURFACE | 4900 | 3500 | 90 | 120 | 40 | 0-10V | CONTRACTOR SHALL SELECT OPITONS TO MATCH LIGHTING SCHEDULE VALUES. |
| TK1 | CONTECH | LT-12-B / (12)CTL9050F3CD-B | LED TRACK LIGHTING SYSTEM | WALL MOUNT | (12) 650 | 3500 | 90 | 120 | 240 | 120VAC | WITH TRACK LIMITER (240W) AND WALL MOUNT KIT #LA3609-B |
| V1 | WILLIAMS | 75R-2-L25/835-DIM-UNV | 2' LINEAR | WALL BRACKET | 2400 | 3500 | 80 | UNV | 19 | 0-10V | MOUNT ABOVE MIRROR |

**NOTES:**
1. VERIFY LIGHT FIXTURE FINISHES WITH OWNER / ARCHITECT PRIOR TO INSTALLATION.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR CEILING TYPES THROUGHOUT. COORDINATE EXACT MOUNTING DETAILS WITH GENERAL CONTRACTOR.

## PANEL 'P2' SCHEDULE

| PANEL SPECIFICATIONS | | | TOTAL CONNECTED LOAD | |
|---|---|---|---|---|
| **VOLTAGE:** 120/208V 3-PH | **NEMA RATING:** 3R | | **PHASE "A" LOAD:** | 146.2 AMPS |
| **AMPACITY:** 400A MLO | **PANEL MOUNTING:** SURFACE | | **PHASE "B" LOAD:** | 161.7 AMPS |
| **AIC-RATING:** 10kA | | | **PHASE "C" LOAD:** | 129.2 AMPS |

| CIRCUIT NUMBER | DESCRIPTION | BREAKER SIZE | AMPS | PHASE | AMPS | BREAKER SIZE | DESCRIPTION | CIRCUIT NUMBER |
|---|---|---|---|---|---|---|---|---|
| 1 | AIR CURTAIN (SOUTH) | 20-1 | 13 | A | 27 | 40-2 | MINI-SPLIT (HP-1, WU-1.1, & WU-1.2) | 2 |
| 3 | AIR CURTAIN (WEST) | 20-1 | 13 | B | 27 | - | - | 4 |
| 5 | AIR CURTAIN (NORTH) | 20-1 | 13 | C | 14 | 25-2 | CONDENSING UNIT (CU-1) | 6 |
| 7 | AIR CURTAIN (EAST) | 20-1 | 13 | A | 14 | - | - | 8 |
| 9 | STAGE / GFCI RECEPT | 20-1 | 3 | B | 14 | 25-2 | CONDENSING UNIT (CU-2) | 10 |
| 11 | STAGE / TV RECEPTS | 20-1 | 6 | C | 14 | | | 12 |
| 13 | STAGE / COUNTER GFCI RECEPT | 20-1 | 1.5 | A | 18 | 30-2 | CONDENSING UNIT (CU-3) | 14 |
| 15 | STAGE / COUNTER GFCI RECEPT | 20-1 | 1.5 | B | 18 | - | - | 16 |
| 17 | STAGE / COUNTER GFCI RECEPT | 20-1 | 1.5 | C | 1.5 | 20-1 | OUTDOOR WP RECEPT | 18 |
| 19 | STAGE / COUNTER GFCI RECEPT | 20-1 | 1.5 | A | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 20 |
| 21 | EXHIBIT / POLE RECEPTS | 20-1 | 3 | B | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 22 |
| 23 | EXHIBIT / POLE RECEPTS | 20-1 | 3 | C | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 24 |
| 25 | EXHIBIT / POLE RECEPTS | 20-1 | 3 | A | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 26 |
| 27 | EXHIBIT / POLE RECEPTS | 20-1 | 3 | B | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 28 |
| 29 | EXHIBIT / POLE RECEPTS | 20-1 | 3 | C | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 30 |
| 31 | EXHIBIT / POLE RECEPTS | 20-1 | 3 | A | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 32 |
| 33 | EXHIBIT / POLE RECEPTS | 20-1 | 3 | B | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 34 |
| 35 | EXHIBIT / POLE RECEPTS | 20-1 | 3 | C | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 36 |
| 37 | EXHIBIT / POLE RECEPTS | 20-1 | 3 | A | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 38 |
| 39 | STAGE / SPEAKER POWER | 20-1 | 3 | B | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 40 |
| 41 | SPARE | 20-1 | | C | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 42 |
| 43 | EXHIBIT STORAGE & DONOR WALL / LIGHTING | 20-1 | 3 | A | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 44 |
| 45 | EXHIBIT / LIGHTING | 40-2 | 27 | B | 3 | 20-1 | EXHIBIT / WALL RECEPTS | 46 |
| 47 | - | - | 27 | C | | 20-1 | SPARE | 48 |
| 49 | SPARE | 20-1 | | A | 7.8 | 15-3 | VENT FAN (VF-1.1) | 50 |
| 51 | SPARE | 20-1 | | B | 7.8 | - | - | 52 |
| 53 | SPARE | 20-1 | | C | 7.8 | - | - | 54 |
| 55 | SPARE | 20-1 | | A | 7.8 | 15-3 | VENT FAN (VF-1.2) | 56 |
| 57 | SPARE | 20-1 | | B | 7.8 | - | - | 58 |
| 59 | SPARE | 20-1 | | C | 7.8 | - | - | 60 |
| 61 | SPARE | 20-1 | | A | 7.8 | 15-3 | VENT FAN (VF-1.3) | 62 |
| 63 | SPARE | 20-1 | | B | 7.8 | - | - | 64 |
| 65 | SPARE | 20-1 | | C | 7.8 | - | - | 66 |
| 67 | SPARE | 20-1 | | A | 7.8 | 15-3 | VENT FAN (VF-1.4) | 68 |
| 69 | SPARE | 20-1 | | B | 7.8 | - | - | 70 |
| 71 | SPARE | 20-1 | | C | 7.8 | - | - | 72 |
| 73 | SPARE | 20-1 | | A | | 20-1 | SPARE | 74 |
| 75 | SPARE | 20-1 | | B | | 20-1 | SPARE | 76 |
| 77 | SPARE | 20-1 | | C | | 20-1 | SPARE | 78 |
| 79 | SPARE | 20-1 | | A | | 20-1 | SPARE | 80 |
| 81 | SPARE | 20-1 | | B | | 20-1 | SPARE | 82 |
| 83 | SPARE | 20-1 | | C | | 20-1 | SPARE | 84 |

**NOTES:**
A: PANEL SHALL BE EQUAL TO SQUARE D MODEL "NQ"
B: ELECTRICIAN SHALL VERIFY EXACT EQUIPMENT OVERCURRENT PROTECTION REQUIREMENTS PRIOR TO PURCHASE & INSTALLATION OF EQUIPMENT.
C: AFTER COMPLETION OF WORK, ELECTRICAN SHALL PROVIDE A TYPE WRITTEN PANEL DIRECTORY IN NEW PANEL.

## MAIN DISTRIBUTION PANEL SCHEDULE

| PANEL SPECIFICATIONS | | | TOTAL CONNECTED LOAD | |
|---|---|---|---|---|
| **VOLTAGE:** 480Y/277V 3-PH | **NEMA RATING:** 1 | | **PHASE "A" LOAD:** | 262.7 AMPS |
| **AMPACITY:** 400A MLO | **PANEL MOUNTING:** SURFACE | | **PHASE "B" LOAD:** | 256.9 AMPS |
| **AIC-RATING:** 14kA | | | **PHASE "C" LOAD:** | 243.6 AMPS |

| CIRCUIT NUMBER | DESCRIPTION | BREAKER SIZE | AMPS | PHASE | AMPS | BREAKER SIZE | DESCRIPTION | CIRCUIT NUMBER |
|---|---|---|---|---|---|---|---|---|
| 1 | RTU-1 | 100-3 | 85 | A | 159.7 | 200-3 | STEPDOWN TRANSFORMER | 2 |
| 3 | - | - | 85 | B | 153.9 | - | - | 4 |
| 5 | - | - | 85 | C | 140.6 | - | - | 6 |
| 7 | SPACE | | | A | 18 | 30-3 | WATER HEATER | 8 |
| 9 | SPACE | | | B | 18 | - | - | 10 |
| 11 | SPACE | | | C | 18 | - | - | 12 |

**NOTES:**
A: PANEL SHALL BE EQUAL TO SQUARE D "NF" SERIES FOR 480V
B: ELECTRICIAN SHALL VERIFY EXACT EQUIPMENT OVERCURRENT PROTECTION REQUIREMENTS PRIOR TO PURCHASE & INSTALLATION OF EQUIPMENT.
C: AFTER COMPLETION OF WORK, ELECTRICAN SHALL PROVIDE A TYPE WRITTEN PANEL DIRECTORY IN NEW PANEL.

## PANEL 'P1' SCHEDULE

| PANEL SPECIFICATIONS | | | TOTAL CONNECTED LOAD | |
|---|---|---|---|---|
| **VOLTAGE:** 120/208V 3-PH | **NEMA RATING:** 1 | | **PHASE "A" LOAD:** | 355.7 AMPS |
| **AMPACITY:** 400A MCB | **PANEL MOUNTING:** SURFACE | | **PHASE "B" LOAD:** | 343.8 AMPS |
| **AIC-RATING:** 10kA | | | **PHASE "C" LOAD:** | 326.6 AMPS |

| CIRCUIT NUMBER | DESCRIPTION | BREAKER SIZE | AMPS | PHASE | AMPS | BREAKER SIZE | DESCRIPTION | CIRCUIT NUMBER |
|---|---|---|---|---|---|---|---|---|
| 1 | KITCHEN / COUNTER GFCI RECEPTS | 20-1 | 4.5 | A | 36 | 45-2 | AIR HANDLING UNIT (AHU-1) | 2 |
| 3 | KITCHEN / COUNTER GFCI RECEPTS | 20-1 | 3 | B | 36 | - | - | 4 |
| 5 | KITCHEN / COUNTER GFCI RECEPTS | 20-1 | 3 | C | 36 | 45-2 | AIR HANDLING UNIT (AHU-2) | 6 |
| 7 | KITCHEN / REF | 20-1 | 5 | A | 36 | - | - | 8 |
| 9 | KITCHEN / RANGE HOOD | 20-1 | 5 | B | 41 | 60-2 | AIR HANDLING UNIT (AHU-3) | 10 |
| 11 | KITCHEN / RANGE ** | 50-2** | 40 | C | 41 | - | - | 12 |
| 13 | - | - | 40 | A | 18 | 25-2 | AIR HANDLING UNIT (AHU-3) | 14 |
| 15 | OPEN / RECEPTS | 20-1 | 7.5 | B | 18 | - | - | 16 |
| 17 | STORAGE / RECEPTS | 20-1 | 7.5 | C | 12.5 | 20-1 | STAIR / WALL HEATER | 18 |
| 19 | CORRIDOR / RECEPTS | 20-1 | 6 | A | 12.5 | 20-1 | STAIR / WALL HEATER | 20 |
| 21 | RESTROOM / GFCI RECEPTS | 20-1 | 3 | B | 4.5 | **20-1** | **BED / RECEPTS** | 22 |
| 23 | **BED 1 / RECEPTS** | **20-1** | 6 | C | 6 | **20-1** | **BED / RECEPTS** | 24 |
| 25 | FACP POWER | 20-1 | 1.5 | A | 6 | **20-1** | **BED / RECEPTS** | 26 |
| 27 | OFFICE 2 / RECEPTS | 20-1 | 6 | B | 6 | **20-1** | **BED / RECEPTS** | 28 |
| 29 | OFFICE 1 / RECEPTS | 20-1 | 6 | C | 6 | **20-1** | **BED / RECEPTS** | 30 |
| 31 | MEETING / RECEPTS | 20-1 | 6 | A | 6 | **20-1** | **BED / RECEPTS** | 32 |
| 33 | RESTROOM / GFCI RECEPTS | 20-1 | 6 | B | 6 | **20-1** | **BED / RECEPTS** | 34 |
| 35 | RESTROOM / GFCI RECEPT | 20-1 | 3 | C | 6 | **20-1** | **BED / RECEPTS** | 36 |
| 37 | RESTROOM / GFCI RECEPT | 20-1 | 3 | A | 9 | **20-1** | **BED / RECEPTS** | 38 |
| 39 | CORRIDOR / RECEPTS | 20-1 | 7.5 | B | 1.5 | 20-1 | RECIRCULATION PUMP | 40 |
| 41 | SMOKE DETECTORS | 20-1 | 3 | C | 8 | **20-1** | **CLOTHES WASHER** | 42 |
| 43 | SPARE | 20-1 | | A | 20 | 30-2** | CLOTHES DRYER ** | 44 |
| 45 | **FIRST FLOOR / LIGHTING** | **20-1** | 11.1 | B | 20 | - | - | 46 |
| 47 | **SECOND FLOOR / LIGHTING** | **20-1** | 13.4 | C | | 20-1 | SPARE | 48 |
| 49 | SPARE | 20-1 | | A | | 20-1 | SPARE | 50 |
| 51 | SPARE | 20-1 | | B | | 20-1 | SPARE | 52 |
| 53 | SPARE | 20-1 | | C | | 20-1 | SPARE | 54 |

**NOTES:**
A: PANEL SHALL BE EQUAL TO SQUARE D MODEL "NQ"
B: ELECTRICIAN SHALL VERIFY EXACT EQUIPMENT OVERCURRENT PROTECTION REQUIREMENTS PRIOR TO PURCHASE & INSTALLATION OF EQUIPMENT.
C: AFTER COMPLETION OF WORK, ELECTRICAN SHALL PROVIDE A TYPE WRITTEN PANEL DIRECTORY IN NEW PANEL.
D: CIRCUIT BREAKERS ABOVE SHOWN IN **BOLD UNDERLINED** TEXT SHALL BE ARC-FAULT CIRCUIT INTERUPTER (AFCI) PER 2020 NEC 210.12
E: CIRCUIT BREAKERS ABOVE SHOWN WITH "**" TEXT SHALL BE GROUND-FAULT CIRCUIT INTERUPTER (GFCI) PER 2020 NEC 210.8
F: PER 2020 NEC SECTIONS 220.44 & 220.60 CALCULATED DEMAND LOAD FOR THIS PANEL IS EQUAL TO PHASE "A" = 302.6 A, PHASE "B" = 290.7 A, & PHASE "C" =277.5 A

STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

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**ELECTRICAL SCHEDULES**

SHEET NUMBER:

# E-601

## FIRE PROTECTION PLAN SYMBOL LEGEND

| | |
|---|---|
| F | MANUAL PULL STATION |
| M | MODULE |
| O | OUTPUT MODULE |
| SD | SMOKE DETECTOR |
| S | STROBE - CEILING MOUNT |
| S | STROBE - WALL MOUNT |
| HS | HORN STROBE - WALL MOUNT |
| HS | HORN STROBE - CEILING MOUNT |
| SS | SPEAKER STROBE - WALL MOUNT |
| SS | SPEAKER STROBE - CEILING MOUNT |
| T | TAMPER SWITCH |
| WF | WATER FLOW SWITCH |
| FACP | FIRE ALARM CONTROL PANEL |
| ANN | FIRE ALARM ANNUNCIATOR |

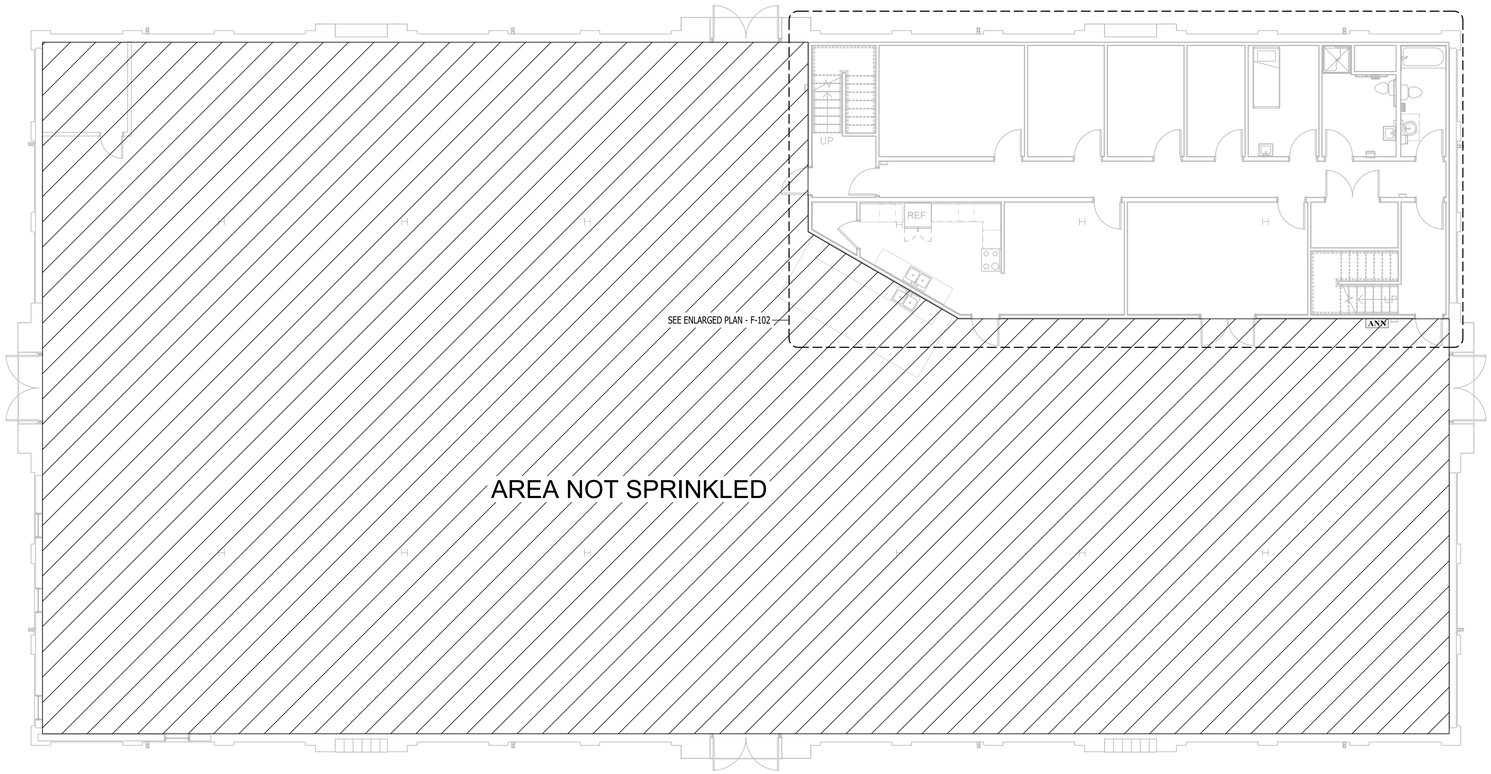
## FIRE ALARM DEVICE TYPICAL LOCATIONS:

1. VERIFY EXACT LOCATIONS WITH LATEST NFPA REQUIREMENTS;
2. CEILING MOUNTED SMOKE / HEAT DETECTORS:
   - 2.1. MUST BE MOUNTED AT LEAST 36" FROM HVAC GRILLES / DIFFUSERS
   - 2.2. MUST BE LOCATED AT LEAST 4" FROM WALL/CEILING INTERSECTIONS (MEASURED FROM EDGE OF DEVICE)
3. WALL MOUNTED SMOKE / HEAT DETECTORS:
   - 3.1. MUST BE LOCATED AT LEAST 4" FROM WALL/CEILING INTERSECTIONS (MEASURED FROM EDGE OF DEVICE)
   - 3.2. MUST BE LOCATED WITHIN AT LEAST 12" FROM WALL/CEILING INTERSECTION (MEASURED FROM EDGE OF DEVICE)
4. MANUAL PULL STATIONS:
   - 4.1. MUST BE LOCATED WITHIN 5' OF EXTERIOR DOORWAY (MEASURED FROM CENTER OF PULL STATION TO NEAREST EDGE OF DOOR)
   - 4.2. MUST BE LOCATED BETWEEN 42" AND 54" A.F.F. (MEASURED FROM FINISH FLOOR TO CENTER OFF PULL STATION)
5. MAGNETIC DOOR HOLDER:
   - 5.1. MUST BE LOCATED 6" BELOW TOP OF DOOR (MEASURED FROM TOP OF DOOR TO TOP OF DOOR HOLDER)
   - 5.2. MUST BE LOCATED DOOR WIDTH MINUS THREE INCHES FROM DOOR (MEASURED FROM NEAREST EDGE OF HOLDER TO NEAREST EDGE OF DOOR).
6. FIRE ALARM CONTROL PANEL:
   - 6.1. MUST BE LOCATED AT MAXIMUM OF 72" A.F.F. (MEASURED FROM FINISH FLOOR TO TOP OF FIRE ALARM CONTROL PANEL)
7. FIRE ALARM ANNUNCIATOR:
   - 7.1. MUST BE LOCATED AT MAXIMUM OF 60" A.F.F. (MEASURED FROM FINISH FLOOR TO TOP OF FIRE ALARM ANNUNCIATOR PANEL)
8. WALL MOUNTED STROBE DEVICES (VISUAL ONLY):
   - 8.1. MUST BE LOCATED AT 84" A.F.F. (MEASURED FROM FINISH FLOOR TO BOTTOM OF BACK BOX)
   - 8.2. MUST BE LOCATED AT MOST 24" FROM WALL/CEILING INTERSECTION WITHIN HANDICAP BEDROOMS (MEASURED FROM WALL/CEILING INTERSECTION TO BOTTOM OF BACK BOX)
9. WALL-MOUNTED HORN / STROBE DEVICES (AUDIBLE & VISUAL):
   - 9.1. MUST BE LOCATED AT 84" A.F.F. (MEASURED FROM FINISH FLOOR TO BOTTOM OF BACK BOX)

## FIRE PROTECTION PLAN GENERAL NOTES:

1. FIRE ALARM SYSTEM COMPONENTS SHOWN (IF APPLICABLE) ARE GENERAL AND SCHEMATIC IN NATURE. CONTRACTOR TO VERIFY EXACT DEVICE LOCATIONS AND REQUIREMENTS WITH FIRE ALARM SYSTEM DESIGNER OF RECORD PRIOR TO ROUGH-IN.
2. FIRE ALARM CONTRACTOR SHALL PROVIDE DELEGATED DESIGN AND DEFERRED SUBMITTAL PACKAGE FOR FIRE ALARM SYSTEM. SUBMITTAL SHALL INCLUDE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, EQUIPMENT SPECIFICATIONS FOR DEVICES AND PANELS, ETC. DESIGN SHALL BE SEALED BY A QUALIFIED DESIGN PROFESSIONAL LICENSED BY THE STATE.
3. WHERE COMBINED FIRE & DOMESTIC WATER SUPPLY LINES ARE SHOWN ON PLANS, INSTALLING CONTRACTOR SHALL VERIFY WITH FIRE SPRINKLER CONTRACTOR THAT INCOMING LINE SIZE IS ADEQUATE FOR FIRE SUPPRESSION SYSTEM.
4. FIRE SPRINKLER CONTRACTOR TO PROVIDE DELEGATED DESIGN AND DEFERRED SUBMITTAL PACKAGE FOR FIRE SPRINKLER SYSTEM. SUBMITTAL SHALL INCLUDE HYDRAULIC CALCULATIONS AND SPRINKLER SYSTEM DRAWINGS SEALED BY A QUALIFIED DESIGN PROFESSIONAL LICENSED BY THE STATE.
5. FIRE WATER FLOW DATA WAS NOT OBTAINED. CONTRACTOR MUST OBTAIN FIRE FLOW INFORMATION 10 DAYS AFTER INTENT TO AWARD IS GIVEN. IF FLOW IS INSUFFICIENT WITHOUT USE OF A FIRE PUMP, CONTRACTOR SHALL NOTIFY ARCHITECT AND ENGINEERING TEAM. IF NO NOTICE IS GIVEN AND A FIRE PUMP IS NEEDED, CONTRACTOR WILL BE RESPONSIBLE FOR ANY COST ASSOCIATED WITH FIRE PUMP.

FOR ESTIMATING PURPOSES ONLY. NOT FOR CONSTRUCTION.




**OVERALL FIRE PROTECTION PLAN**

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

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

FOR ESTIMATING PURPOSES ONLY NOT FOR CONSTRUCTION


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DESIGNED BY: KEL

SHEET TITLE:

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SHEET NUMBER:

# F-101



6/27/25

## FIRE PROTECTION PLAN SYMBOL LEGEND

| | |
|---|---|
| F | MANUAL PULL STATION |
| M | MODULE |
| O | OUTPUT MODULE |
| SD | SMOKE DETECTOR |
| S | STROBE - CEILING MOUNT |
| S | STROBE - WALL MOUNT |
| HS | HORN STROBE - WALL MOUNT |
| HS | HORN STROBE - CEILING MOUNT |
| SS | SPEAKER STROBE - WALL MOUNT |
| SS | SPEAKER STROBE - CEILING MOUNT |
| T | TAMPER SWITCH |
| WF | WATER FLOW SWITCH |
| FACP | FIRE ALARM CONTROL PANEL |
| ANN | FIRE ALARM ANNUNCIATOR |

## FIRE PROTECTION PLAN GENERAL NOTES:

1. FIRE ALARM SYSTEM COMPONENTS SHOWN (IF APPLICABLE) ARE GENERAL AND SCHEMATIC IN NATURE. CONTRACTOR TO VERIFY EXACT DEVICE LOCATIONS AND REQUIREMENTS WITH FIRE ALARM SYSTEM DESIGNER OF RECORD PRIOR TO ROUGH-IN.
2. FIRE ALARM CONTRACTOR SHALL PROVIDE DELEGATED DESIGN AND DEFERRED SUBMITTAL PACKAGE FOR FIRE ALARM SYSTEM. SUBMITTAL SHALL INCLUDE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, EQUIPMENT SPECIFICATIONS FOR DEVICES AND PANELS, ETC. DESIGN SHALL BE SEALED BY A QUALIFIED DESIGN PROFESSIONAL LICENSED BY THE STATE.
3. WHERE COMBINED FIRE & DOMESTIC WATER SUPPLY LINES ARE SHOWN ON PLANS, INSTALLING CONTRACTOR SHALL VERIFY WITH FIRE SPRINKLER CONTRACTOR THAT INCOMING LINE SIZE IS ADEQUATE FOR FIRE SUPPRESSION SYSTEM.
4. FIRE SPRINKLER CONTRACTOR TO PROVIDE DELEGATED DESIGN AND DEFERRED SUBMITTAL PACKAGE FOR FIRE SPRINKLER SYSTEM. SUBMITTAL SHALL INCLUDE HYDRAULIC CALCULATIONS AND SPRINKLER SYSTEM DRAWINGS SEALED BY A QUALIFIED DESIGN PROFESSIONAL LICENSED BY THE STATE.

## FIRE ALARM DEVICE TYPICAL LOCATIONS:

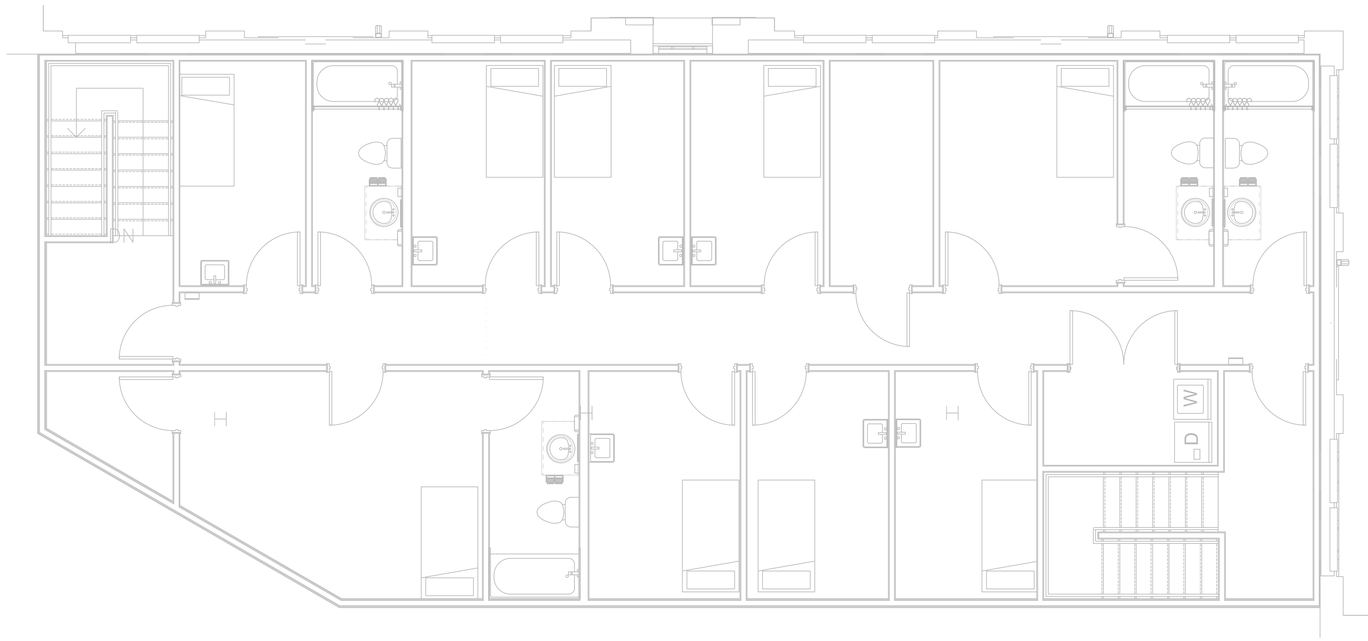
1. VERIFY EXACT LOCATIONS WITH LATEST NFPA REQUIREMENTS;
2. CEILING MOUNTED SMOKE / HEAT DETECTORS:
   - 2.1. MUST BE MOUNTED AT LEAST 36" FROM HVAC GRILLES / DIFFUSERS
   - 2.2. MUST BE LOCATED AT LEAST 4" FROM WALL/CEILING INTERSECTIONS (MEASURED FROM EDGE OF DEVICE)
3. WALL MOUNTED SMOKE / HEAT DETECTORS:
   - 3.1. MUST BE LOCATED AT LEAST 4" FROM WALL/CEILING INTERSECTIONS (MEASURED FROM EDGE OF DEVICE)
   - 3.2. MUST BE LOCATED WITHIN AT LEAST 12" FROM WALL/CEILING INTERSECTION (MEASURED FROM EDGE OF DEVICE)
4. MANUAL PULL STATIONS:
   - 4.1. MUST BE LOCATED WITHIN 5' OF EXTERIOR DOORWAY (MEASURED FROM CENTER OF PULL STATION TO NEAREST EDGE OF DOOR)
   - 4.2. MUST BE LOCATED BETWEEN 42" AND 54" A.F.F. (MEASURED FROM FINISH FLOOR TO CENTER OFF PULL STATION)
5. MAGNETIC DOOR HOLDER:
   - 5.1. MUST BE LOCATED 6" BELOW TOP OF DOOR (MEASURED FROM TOP OF DOOR TO TOP OF DOOR HOLDER)
   - 5.2. MUST BE LOCATED DOOR WIDTH MINUS THREE INCHES FROM DOOR (MEASURED FROM NEAREST EDGE OF HOLDER TO NEAREST EDGE OF DOOR).
6. FIRE ALARM CONTROL PANEL:
   - 6.1. MUST BE LOCATED AT MAXIMUM OF 72" A.F.F. (MEASURED FROM FINISH FLOOR TO TOP OF FIRE ALARM CONTROL PANEL)
7. FIRE ALARM ANNUNCIATOR:
   - 7.1. MUST BE LOCATED AT MAXIMUM OF 60" A.F.F. (MEASURED FROM FINISH FLOOR TO TOP OF FIRE ALARM ANNUNCIATOR PANEL)
8. WALL MOUNTED STROBE DEVICES (VISUAL ONLY):
   - 8.1. MUST BE LOCATED AT 84" A.F.F. (MEASURED FROM FINISH FLOOR TO BOTTOM OF BACK BOX)
   - 8.2. MUST BE LOCATED AT MOST 24" FROM WALL/CEILING INTERSECTION WITHIN HANDICAP BEDROOMS (MEASURED FROM WALL/CEILING INTERSECTION TO BOTTOM OF BACK BOX)
9. WALL-MOUNTED HORN / STROBE DEVICES (AUDIBLE & VISUAL):
   - 9.1. MUST BE LOCATED AT 84" A.F.F. (MEASURED FROM FINISH FLOOR TO BOTTOM OF BACK BOX)

## FIRE PROTECTION PLAN KEY NOTES:

(1) FIRE SPRINKLER RISER AREA.

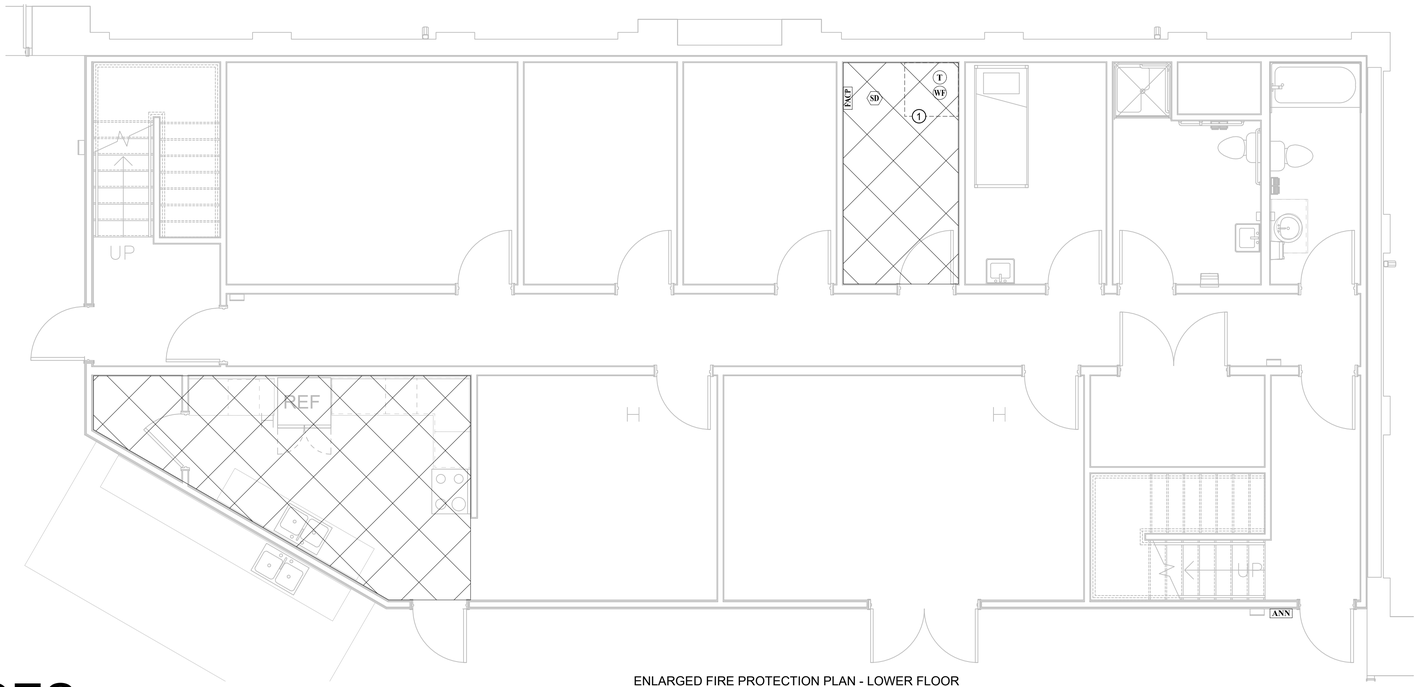
LIGHT HAZARD AREA (NO HATCH)

ORDINARY HAZARD (GROUP 1) AREA




ENLARGED FIRE PROTECTION PLAN - UPPER FLOOR

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




ENLARGED FIRE PROTECTION PLAN - LOWER FLOOR

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

FOR ESTIMATING PURPOSES ONLY. NOT FOR CONSTRUCTION.

**STATE OF MISSOURI**
**MIKE KEHOE**
**GOVERNOR**

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**ENLARGED FIRE PROTECTION PLAN**

SHEET NUMBER:

# F-102

## SANITARY SEWER PLAN SYMBOL LEGEND

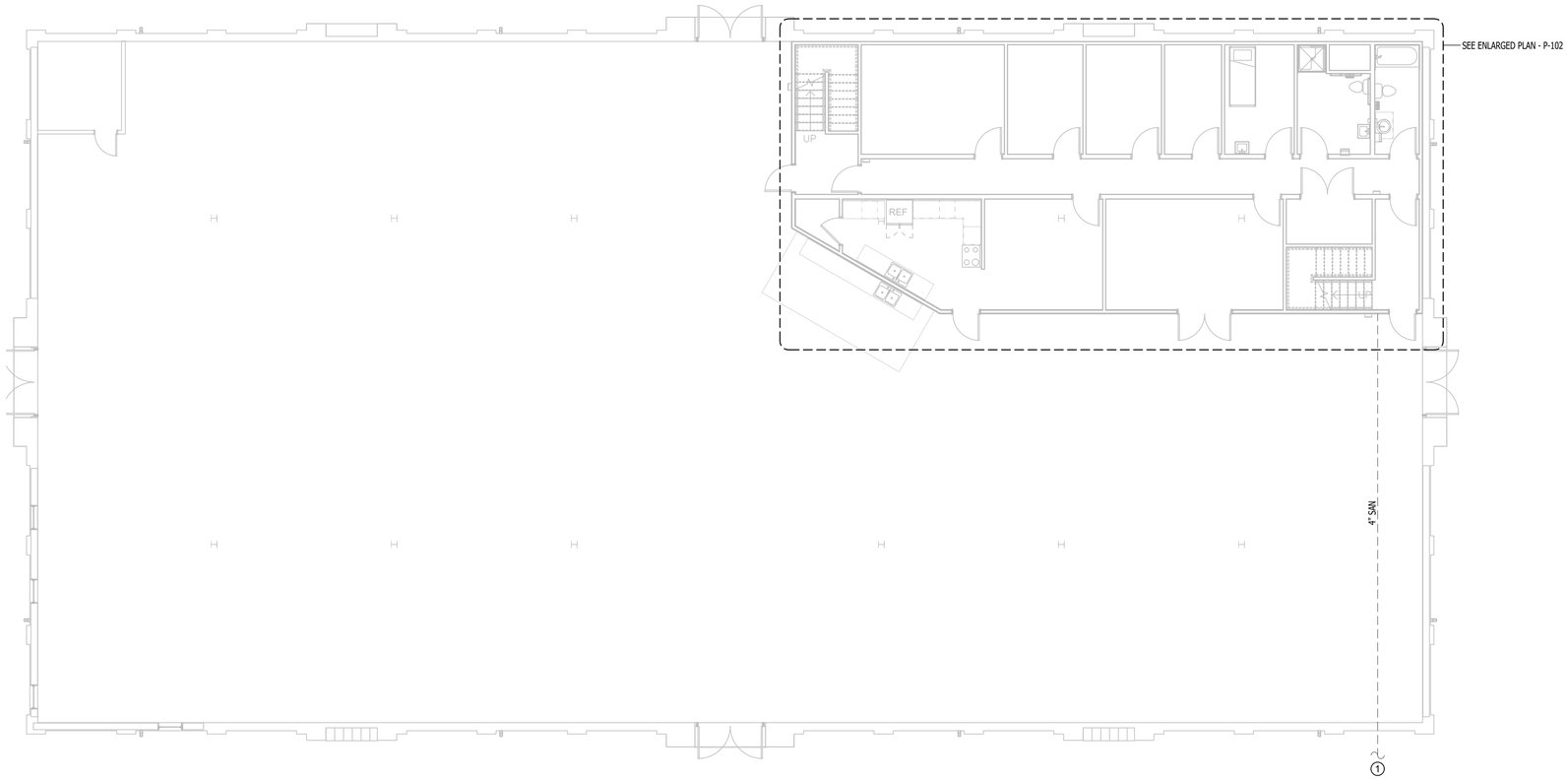
- SANITARY SEWER PIPING
- VENT PIPING
- PIPING TURNED DOWN / TURNED UP
- TIE INTO EXISTING

## SANITARY SEWER PLAN GENERAL NOTES:

1. REFER TO P-500 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
2. PLUMBING CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, PIPING, HANGERS / SUPPORTS, ETC. WITH HVAC AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.
3. ANY EXISTING SANITARY/VENT PIPING SHOWN IS FOR REFERENCE ONLY. PLUMBING CONTRACTOR TO FIELD VERIFY EXACT PIPING SIZE, LOCATIONS, DEPTH, DIRECTION, CONDITION, ETC. PRIOR TO INSTALLATION OF ANY MATERIAL AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

## SANITARY SEWER PLAN KEY NOTES:

(1) SEE SITE UTILITY PLAN FOR CONTINUATION.




**OVERALL SANITARY SEWER PLAN**

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

STATE OF MISSOURI
MIKE KEHOE
GOVERNOR

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06-27-2025


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DATE:

ISSUE DATE: 6/27/2025

**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**OVERALL SANITARY SEWER PLAN**

SHEET NUMBER:

# P-101

SHEET 44 OF 48 6/27/25

## SANITARY SEWER PLAN SYMBOL LEGEND

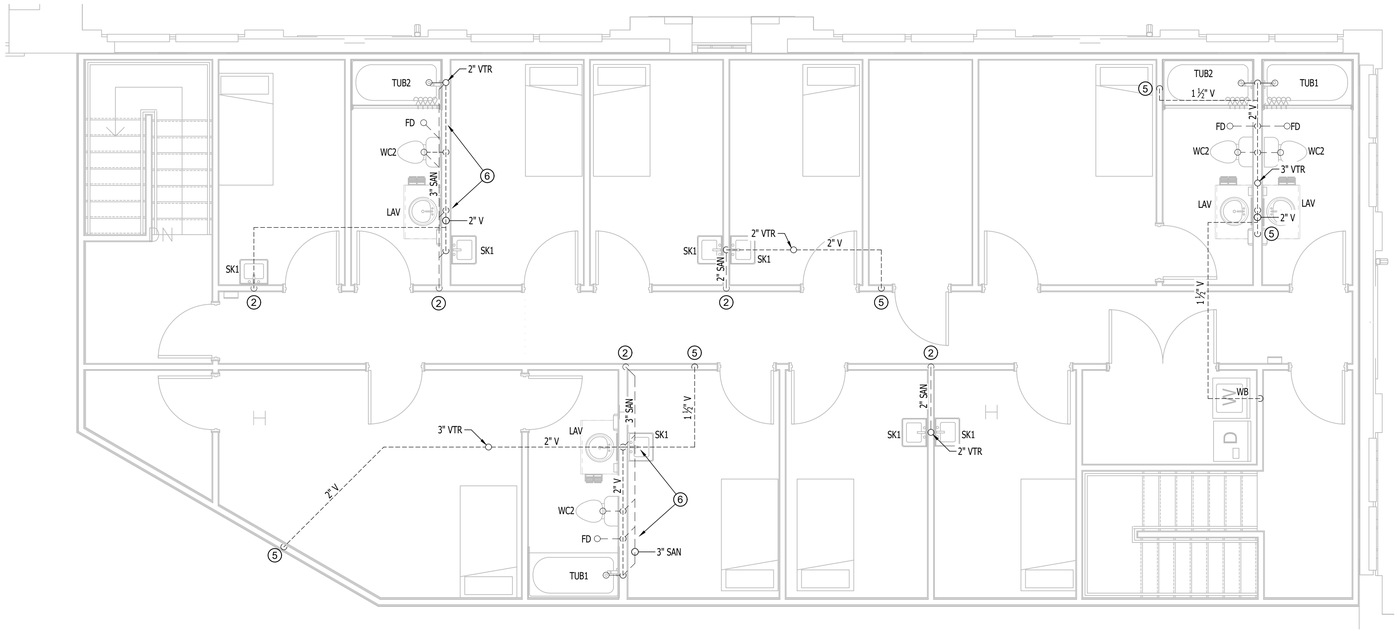
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- VENT PIPING
- PIPING TURNED DOWN / TURNED UP
- TIE INTO EXISTING

## SANITARY SEWER PLAN GENERAL NOTES:

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3. ANY EXISTING SANITARY/VENT PIPING SHOWN IS FOR REFERENCE ONLY. PLUMBING CONTRACTOR TO FIELD VERIFY EXACT PIPING SIZE, LOCATIONS, DEPTH, DIRECTION, CONDITION, ETC. PRIOR TO INSTALLATION OF ANY MATERIAL AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

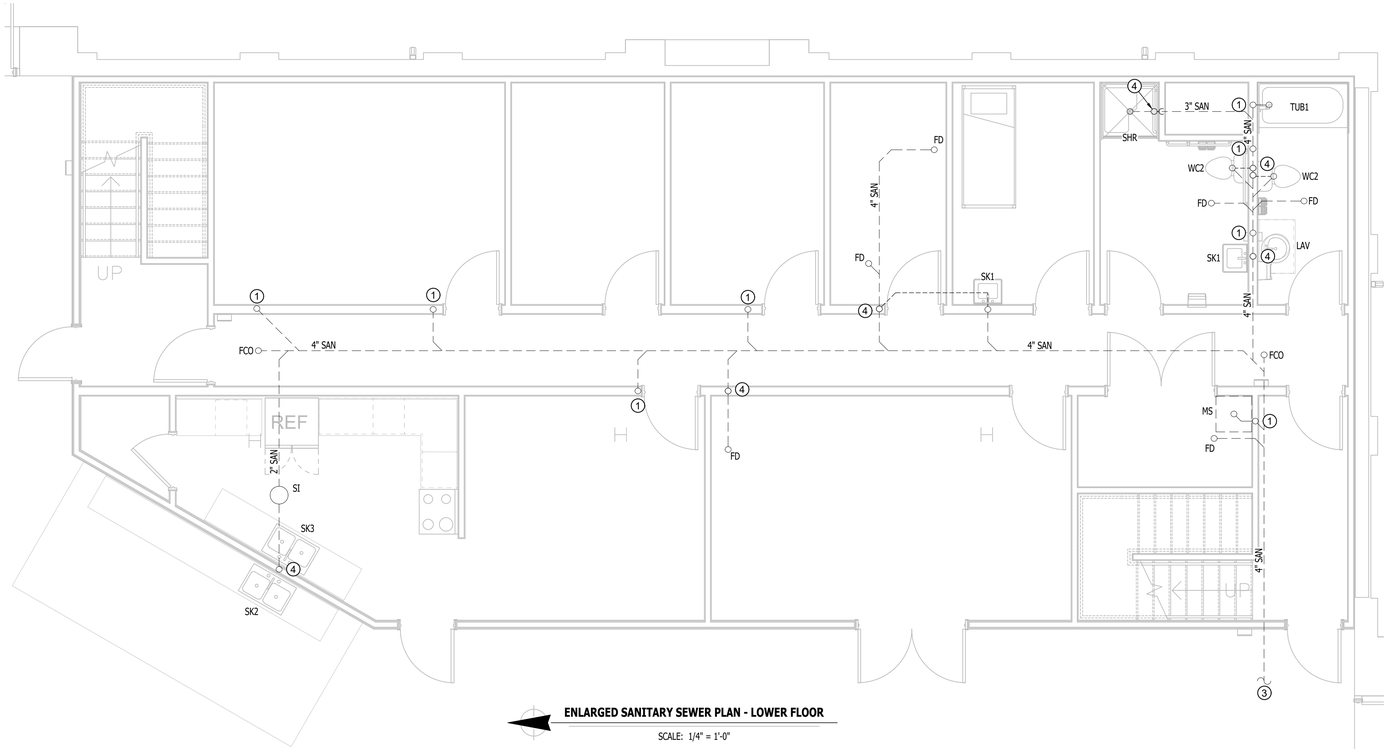
## SANITARY SEWER PLAN KEY NOTES:

1. SANITARY PIPE FROM FLOOR ABOVE.
2. SANITARY PIPE TO FLOOR BELOW.
3. SEE OVERALL PLUMBING PLAN FOR CONTINUATION.
4. VENT PIPE UP TO FLOOR ABOVE.
5. VENT PIPE FROM FLOOR BELOW.
6. PLUMBING CONTRACTOR TO COORDINATE WITH FRAMING CONTRACTOR FOR PIPE INSTALLATION BETWEEN FLOOR JOISTS IN THIS AREA.




**ENLARGED SANITARY SEWER PLAN - UPPER FLOOR**

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




**ENLARGED SANITARY SEWER PLAN - LOWER FLOOR**

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

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**GOVERNOR**

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**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**ENLARGED SANITARY SEWER PLAN**

SHEET NUMBER:

# P-102

## WATER PLAN SYMBOL LEGEND

- COLD WATER LINE
- HOT WATER LINE
- HOT WATER RECIRCULATION LINE
- VALVE
- PUMP
- PIPING TURNED DOWN / TURNED UP
- TIE INTO EXISTING

## WATER PLAN GENERAL NOTES:

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## WATER PLAN KEY NOTES:

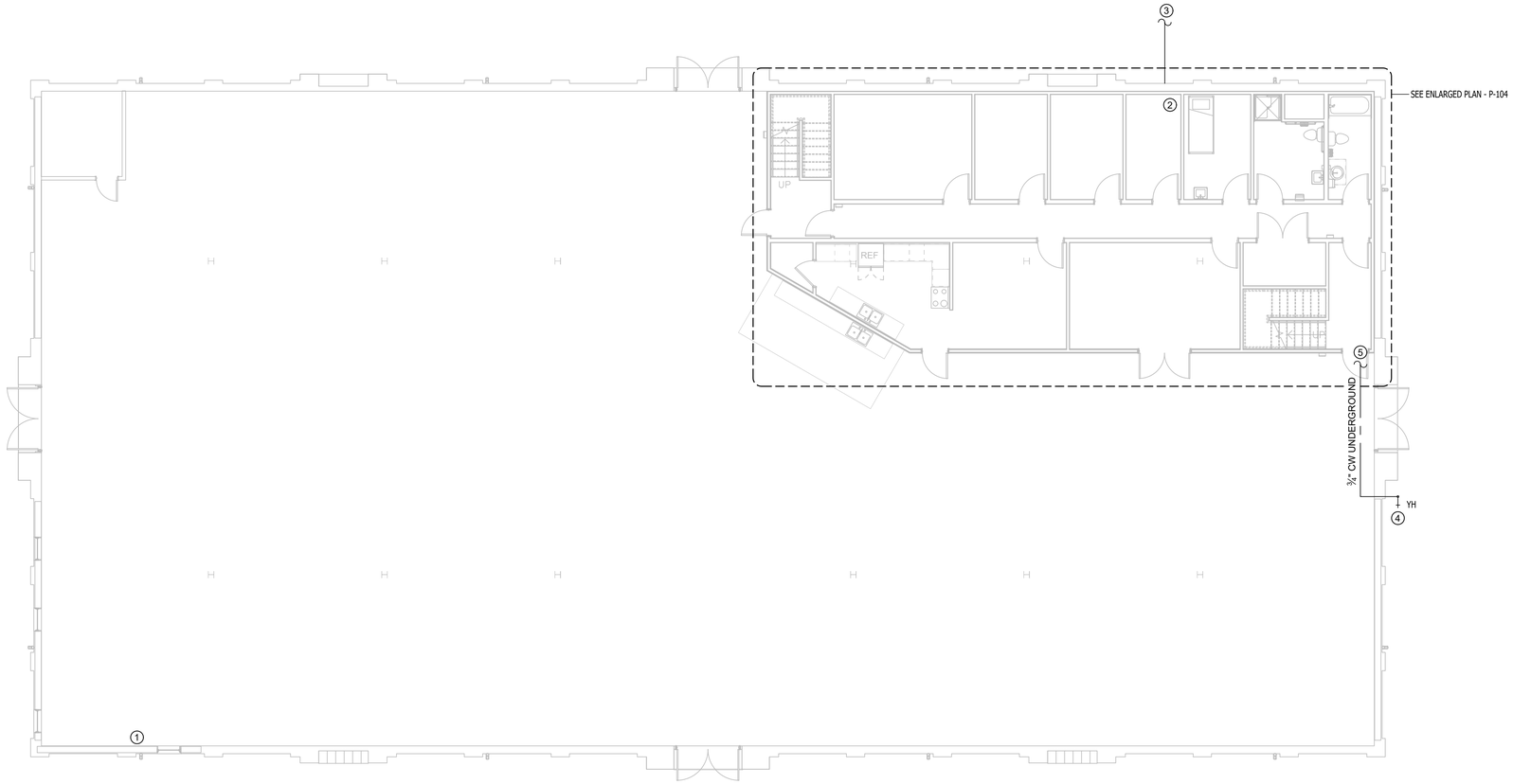
(1) EXISTING WATER SERVICE TO BUILDING SHALL BE DEMOLISHED AND CAPPED AT WATER MAIN.

(2) NEW WATER SERVICE LOCATION. DOMESTIC WATER SERVICE SHALL BE TAPPED FROM FIRE SPRINKLER LINE. SEE PLUMBING SHEETS FOR FURTHER DETAILS.

(3) SEE SITE UTILITY PLAN FOR CONTINUATION.

(4) YARD HYDRANT LOCATION. COORDINATE FINAL LOCATION WITH HVAC CONTRACTOR.

(5) SEE SHEET P-104 FOR CONTINUATION.




**OVERALL WATER PLAN**

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

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CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**OVERALL WATER PLAN**

SHEET NUMBER:

# P-103

## WATER PLAN SYMBOL LEGEND

- COLD WATER LINE
- HOT WATER LINE
- HOT WATER RECIRCULATION LINE
- VALVE
- PUMP
- PIPING TURNED DOWN / TURNED UP
- TIE INTO EXISTING

## WATER PLAN GENERAL NOTES:

1. REFER TO P-500 SERIES SHEETS FOR ADDITIONAL PLUMBING NOTES, DETAILS, REQUIREMENTS, AND SCHEDULES.
2. PLUMBING CONTRACTOR SHALL REVIEW ALL PROJECT DOCUMENTS AND COORDINATE LOCATION OF ALL EQUIPMENT, PIPING, HANGERS / SUPPORTS, ETC. WITH HVAC AND ELECTRICAL TRADES BEFORE INSTALLATION OF ANY MATERIAL. ADDITIONAL COSTS ASSOCIATED WITH LACK OF COORDINATION WILL NOT BE REIMBURSED.
3. ANY EXISTING WATER OR GAS PIPING SHOWN IS FOR REFERENCE ONLY. PLUMBING CONTRACTOR TO FIELD VERIFY EXACT PIPING SIZE, LOCATIONS, DEPTH, CONDITION, ETC. PRIOR TO INSTALLATION OF ANY MATERIAL AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

## WATER PLAN KEY NOTES:

(1) TAP FIRE SPRINKLER LINE FOR BUILDING DOMESTIC WATER SERVICE. PROVIDE AND INSTALL 1" WATER SHUT OFF VALVE & BACKFLOW PREVENTOR.

(2) HOT AND / OR COLD WATER UP TO SECOND FLOOR CONNECTION. SEE SECOND FLOOR PLAN.

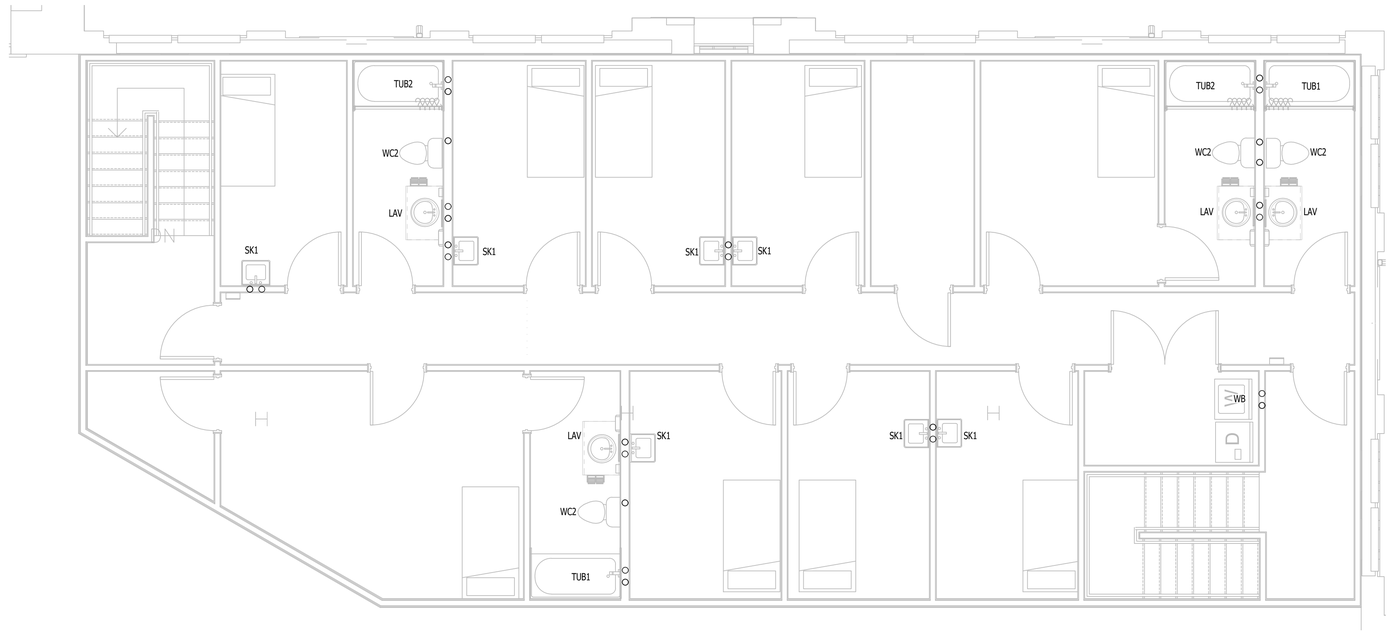
(3) HOT AND / OR COLD WATER UP TO SECOND FLOOR CONNECTION AND CONNECTION TO FIRST FLOOR FIXTURE AS SHOWN. SEE SECOND FLOOR PLAN.

(4) FIRE SPRINKLER RISER AREA.

(5) PROVIDE AND INSTALL ⅜" HOT WATER CONNECTION TO UNDER COUNTER DISHWASHER.

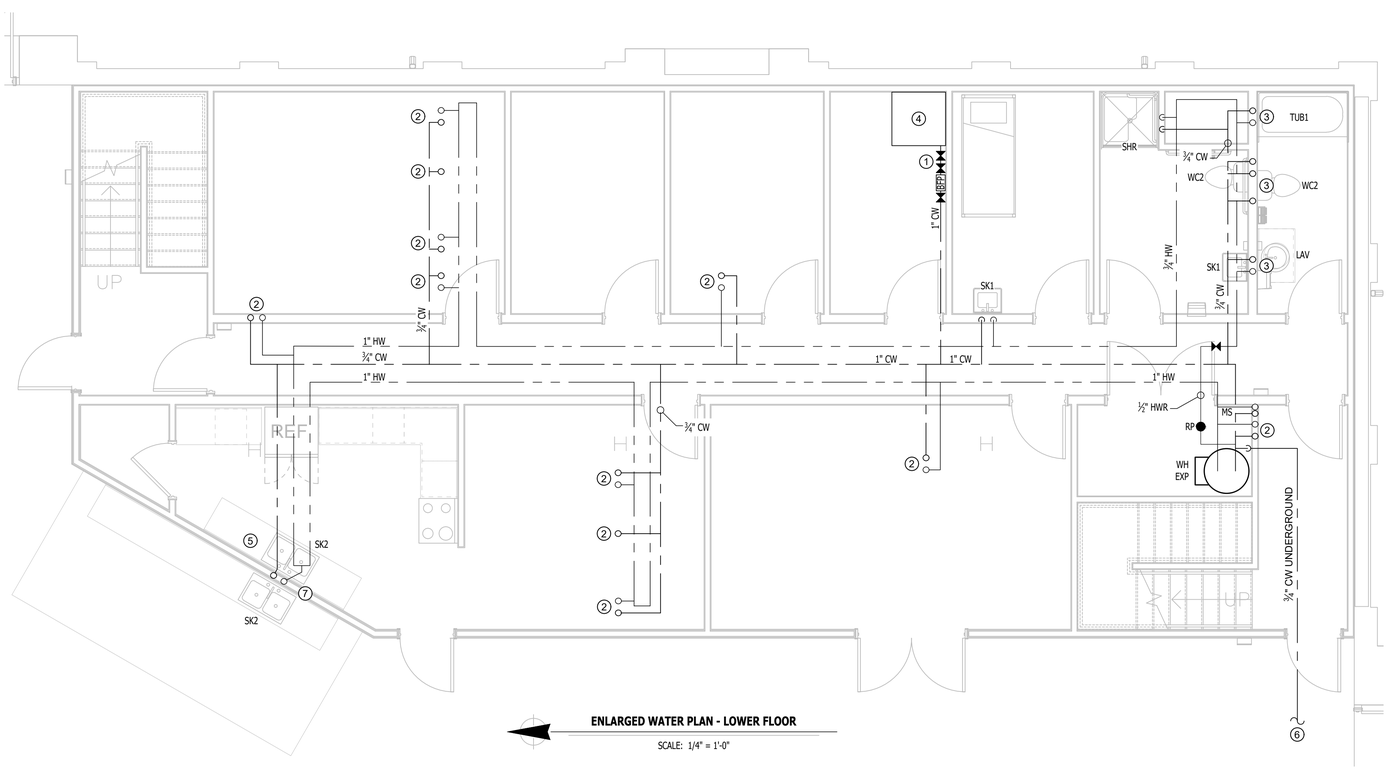
(6) SEE SHEET P-103 FOR CONTINUATION.

(7) PROVIDE SHUTOFF VALVE AND DRAIN DOWN VALVE ON THE CONDITIONED SIDE OF THE WALL TO WINTERIZE WATER CONNECTIONS FOR THE SINK LOCATED IN THE EXHIBIT SPACE.




**ENLARGED WATER PLAN - UPPER FLOOR**

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




**ENLARGED WATER PLAN - LOWER FLOOR**

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

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CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**ENLARGED WATER PLAN**

SHEET NUMBER:

# P-104

## PLUMBING CONNECTION SIZING SCHEDULE

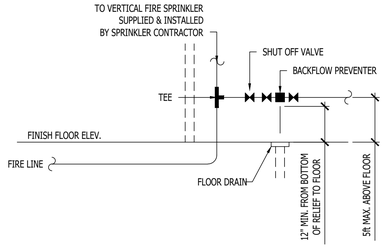
| FIXTURE | | SANITARY PIPING | | SUPPLY PIPING | |
|---|---|---|---|---|---|
| TYPE | TYPICAL ABBREVIATION | WASTE CONNECTION | VENT CONNECTION | COLD WATER CONNECTION | HOT WATER CONNECTION |
| DRINKING FOUNTAIN | DF | 1-1/2" | 1-1/4" | 1/2" | - |
| FLOOR DRAIN | FD | 3" | 2" | - | - |
| HAND / HAIR SINK | HS / SK | 2" | 1-1/4" | 1/2" | 1/2" |
| HOSE BIBB | HB | - | - | 3/4" | - |
| LAVATORY | LAV | 1-1/2" | 1-1/4" | 1/2" | 1/2" |
| MOP SINK | MS | 3" | 1-1/2" | 1/2" | 1/2" |
| ICE MAKER OUTLET BOX | REF | - | - | 1/2" | - |
| SHOWER | SH | 3" | 1-1/2" | 1/2" | 1/2" |
| URINAL | UR | 2" | 1-1/4" | 3/4" | - |
| WATER CLOSET (FLUSH TANK) | WC | 3" | 2" | 1/2" | - |
| WATER CLOSET (FLUSH VALVE) | WC | 3" | 2" | 1" | - |
| | | | | | |

**NOTES:**
1. SIZES SHOWN ABOVE ARE TYPICAL UNLESS NOTED OTHERWISE ON PLANS

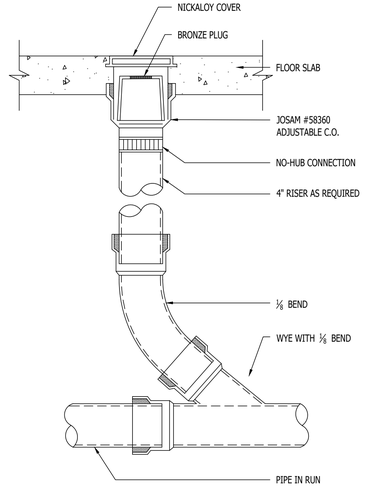
## PLUMBING FIXTURE SCHEDULE

| TAG | DESCRIPTION | MANUFACTURER (OR EQUAL) | MODEL (OR EQUAL) | NOTES |
|---|---|---|---|---|
| EXP | EXPANSION TANK | WATTS | PLT-20 | |
| FCO | FLOOR CLEANOUT | ZURN | 1400 | |
| FD | FLOOR DRAIN | ZURN | Z415-BZ | WITH Z1072 TRAP SEAL |
| LAV | LAVATORY (DROP-IN W/ MANUAL FAUCET) | AMERICAN STANDARD | 0475.028 | WITH ZURN Z81104-XL FAUCET, 1/4 TURN STOPS, BRAIDED STAINLESS STEEL SUPPLIES, AND WATTS #LFUSG THERMOSTATIC MIXING VALVE. |
| RP | RECIRCULATION PUMP | GRUNDFOS | UP10-16 AUTO | |
| SI | SOLIDS INTERCEPTOR | STRIEM | AA-2 | 2 INCH BASKET-STYLE |
| SHR | ADA TRANSFER SHOWER | AQUATIC | 1363BFSD | COMPLETE WITH GRAB BARS & SHOWER HEAD |
| SK1 | SINK (WALL HUNG W/MANUAL FAUCET) | AMERICAN STANDARD | 0355.012 | WITH ZURN Z81104-XL FAUCET, 1/4 TURN STOPS, BRAIDED STAINLESS STEEL SUPPLIES, TRUBRO LAV GUARD 2, AND WATTS #LFUSG THERMOSTATIC MIXING VALVE. |
| SK2 | DOUBLE COMPARTMENT SINK (33x22x7) | ELKAY | CR3322 | WITH TWO HANDLED ZURN Z871C4-XL FAUCET |
| SK3 | DOUBLE COMPARTMENT SINK W/DISPOSAL (33x22x7) | ELKAY | CR3322 | WITH TWO HANDLED ZURN Z871C4-XL FAUCET AND INSINKERATOR BADGER 1 DISPOSAL WITH POWER CORD |
| TUB1 | TUB & SHOWER | AQUATIC | 6032CTTL-WH | |
| TUB2 | TUB & SHOWER | AQUATIC | 6032CTTR-WH | |
| WB | WASHER BOX | OATEY | 38529 | WASHER BOX W/ 1/4 TURN VALVES |
| WC1 | WATER CLOSET - ADA HEIGHT - TANK | AMERICAN STANDARD | 215AA.004 | WITH CHURCH 9500SSCT SELF SUSTAINING SEAT, STAINLESS BRAIDED SUPPLY, AND 1/4 TURN SHUT-OFF. |
| WC2 | WATER CLOSET - STANDARD HEIGHT - TANK | AMERICAN STANDARD | 215CA.004 | WITH CHURCH 9500SSCT SELF SUSTAINING SEAT, STAINLESS BRAIDED SUPPLY, AND 1/4 TURN SHUT-OFF. |
| YH | YARD HYDRANT | WOODFORD | MODEL Y34 | |
| WH | WATER HEATER | A.O. SMITH | DRE-120 | 120 GAL. 480V, 3-PH 15,000W ELECTRIC WATER HEATER |

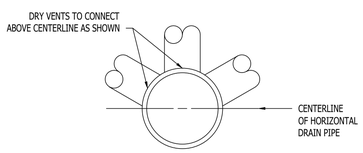
**NOTES:**
1. VERIFY NECESSARY FIXTURES MEET ADA REQUIREMENTS WITH ARCHITECT PRIOR TO INSTALLATION.
2. VERIFY FIXTURE FINISHES WITH OWNER / ARCHITECT.



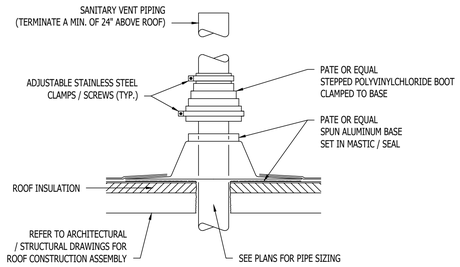

**WATER RISER DETAIL**



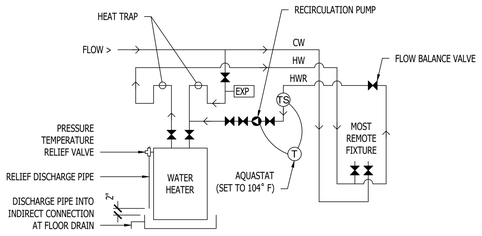

**INTERIOR C.O. DETAIL**




**DRY VENT DETAIL**




**SANITARY VENT THRU ROOF DETAIL**




**HOT WATER RECIRCULATION DETAIL**


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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION

INTERIOR & EXTERIOR RENOVATIONS, MISSOURI (4-H) BUILDING
MISSOURI STATE FAIRGROUNDS
2503 W. 16TH ST
SEDALIA, MO 65301

PROJECT # F2407-01

SITE # 1501

ASSET # 3511501028

REVISION:
DATE:

ISSUE DATE: 6/27/2025
**BID DOCUMENTS**

CAD DWG FILE:
DRAWN BY: RXM
CHECKED BY: JAP
DESIGNED BY: KEL

SHEET TITLE:

**PLUMBING DETAILS & SCHEDULES**

SHEET NUMBER:

# P-501

SHEET 48 OF 48 6/27/25