CENTRAL COUNTY FIRE & RESCUE - HOUSE #6

1151 JUNGS STATION RD.
ST. CHARLES, MO 63303

CONSTRUCTION DOCUMENTS

2026/06/08

ARCHITECTURAL

ARCHIMAGES, INC
143 WEST CLINTON PLACE
SAINT LOUIS, MISSOURI 63122
T: 314-965-7445 F: 3114-965-7477
www.archimages-stl.com

MEP/FP

HORNER & SHIFRIN
401 D. 18TH STREET, SUITE 400
ST. LOUIS, MO 63103
T: 314.531.4321

CIVIL ENGINEER

CEDC
10820 SUNSET OFFICE DRIVE, SUITE 200
SUNSET HILLS, MO 63127
T: 314.729.1400 F: 314.729.1404

STRUCTURAL ENGINEER

KPFF
1630 DES PERES ROAD , SUITE 100
ST. LOUIS, MO 63131
T: 314.835.0524 F: 314.835.0749

OWNER

CENTRAL COUNTY
1220 CAVE SPRINGS BLVD.
ST. PETERS, MO 63376
T: 636. 970.9700

PROJECT ADDRESS

CENTRAL COUNTY FIRE
1151 JUNGS STATION RD
ST. CHARLES, MO 63303

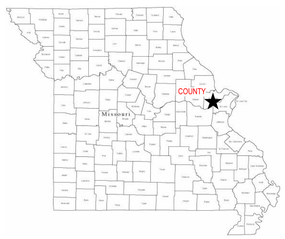
CODE INFORMATION

- 2021 INTERNATIONAL BUILDING CODE
- 2021 INTERNATIONAL FIRE CODE
- 2020 NATIONAL ELECTRICAL CODE (NFPA 70)
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE
- 2021 INTERNATIONAL MECHANICAL CODE
- 2021 INTERNATIONAL FUEL GAS CODE
- 2021 INTERNATIONAL PLUMBING CODE
- 2021 INTERNATIONAL PROPERTY MAINTENANCE CODE
- 2020 ICC 500 (STORM SHELTER CODE)

PROJECT LOCATION

STATE MAP

MO



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Grand total: 114						

Roy A. Managan
MO Architect License No: A-6661
Expires: 12/31/26

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Revision	Date

COVER SHEET

Project No. 24057
Sheet No. G000
Date 2026/06/08

SCALE: 3" = 1'-0" SCALE: 1 1/2" = 1'-0" SCALE: 1" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/16" = 1'-0"

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SITE IMPROVEMENT PLANS

for

CENTRAL COUNTY FIRE & RESCUE HOUSE #6

A TRACT OF LAND BEING PART OF THE NORTHWEST QUARTER OF FRACTIONAL SECTION 15, TOWNSHIP 46 NORTH, RANGE 4 EAST OF THE 5TH P.M.
ST. CHARLES COUNTY, MISSOURI

LEGEND

EXISTING CONTOURS	433
PROPOSED CONTOURS	433
EXISTING STORM SEWER	
PROPOSED STORM SEWER	ST ST
EXISTING SANITARY SEWER	
PROPOSED SANITARY SEWER	SAN SAN
RIGHT-OF-WAY	
EASEMENT	
CENTERLINE	
EXISTING TREE	
EXISTING SPOT ELEVATION	x 433.28
PROPOSED SPOT ELEVATION	433.28
SWALE	
TO BE REMOVED	T.B.R.
TO BE REMOVED & RELOCATED	T.B.R.& R.
TO BE USED IN PLACE	U.I.P.
ADJUST TO GRADE	A.T.G.
BACK OF CURB	B.C.
FACE OF CURB	F.C.
WATER MAIN	W W
GAS MAIN	GAS
UNDERGROUND TELEPHONE	T
OVERHEAD WIRE	OHE
UNDERGROUND ELECTRIC	E E
SILTATION CONTROL	X
FIRE HYDRANT	
POWER POLE	PP
WATER VALVE	WV
LIGHT STANDARD	

ABBREVIATIONS

N	NORTH
S	SOUTH
E	EAST
W	WEST
EX.	EXISTING
PR.	PROPOSED
CONC	CONCRETE
ASPH	ASPHALT
PB	PLAT BOOK
DB	DEED BOOK
PG	PAGE
SF	SQUARE FEET
AC	ACRES
ELEV	ELEVATION
FF	FINISH FLOOR
FL	FLOWLINE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
STM	STORM
SAN	SANITARY
(S)	SAVE
(R)	REMOVE
(T.B.R.)	TO BE REMOVED
(U.I.P.)	USE IN PLACE

SYMBOLS

WATER MANHOLE	WMH
TELEPHONE MANHOLE	TMH
BRUSH & SHRUB LINE	
BOLLARD	
SIGN	
ELECTRIC YARD LIGHT	
BORING LOCATION	
MAIL BOX	MB
ELECTRIC BOX	EB
CLEAN OUT	CO
GAS VALVE	GV
GAS METER	GM
GAS DRIP	GD

LAND DESCRIPTION (TRACK 2)

A TRACT OF LAND BEING PART OF THE NORTHWEST QUARTER OF FRACTIONAL SECTION 15, TOWNSHIP 46 NORTH, RANGE 4 EAST OF THE 5TH P.M. AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT AN OLD STONE MARKING THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID FRACTIONAL SECTION 15; THENCE FROM SAID POINT NORTH 89° 21' EAST 2337.21 FEET TO AN OLD IRON BOLT; THENCE NORTH 14° 42' 40" WEST ALONG THE CENTER LINE OF JUNG'S STATION ROAD (BEING A 40 FOOT WIDE COUNTY ROAD) 366.52 FEET TO A POINT IN THE CENTER LINE OF SAID COUNTY ROAD, MARKING THE BEGINNING POINT OF THE TRACT HEREIN DESCRIBED; THENCE SOUTH 75° 17' 20" WEST 230.00 FEET TO AN IRON PIPE; THENCE NORTH 14° 42' 40" WEST 150.00 FEET TO AN IRON PIPE; THENCE NORTH 75° 17' 20" EAST 230.00 FEET TO A POINT IN THE CENTER LINE OF SAID COUNTY ROAD; THENCE SOUTH 14° 14' 40" EAST 150.00 FEET TO THE PLACE OF BEGINNING, CONTAINING 0.74 ACRES, MORE OR LESS, EXCLUSIVE OF ROAD;

EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE CITY OF ST. PETERS, A MUNICIPAL CORPORATION, BY GENERAL WARRANTY DEED RECORDED FEBRUARY 23, 1994 IN BOOK 1643 PAGE 776, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A TRACT OF LAND BEING PART OF THE NORTHWEST QUARTER OF FRACTIONAL SECTION 15, TOWNSHIP 46 NORTH, RANGE 4 EAST, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT AN OLD STONE MARKING THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID FRACTIONAL SECTION 15; THENCE FROM SAID POINT NORTH 89 DEGREES 21 MINUTES EAST, 2337.21 FEET TO AN OLD IRON BOLT; THENCE NORTH 14 DEGREES 42 MINUTES 40 SECONDS WEST ALONG THE CENTERLINE OF JUNGS STATION ROAD, 366.58 FEET TO A POINT IN THE CENTERLINE OF SAID COUNTY ROAD; THENCE SOUTH 75 DEGREES 17 MINUTES 20 SECONDS WEST, 20 FEET TO AN IRON PIPE MARKING THE BEGINNING POINT; THENCE SOUTH 75 DEGREES 17 MINUTES 20 SECONDS WEST, 20.00 FEET TO A POINT; THENCE NORTH 14 DEGREES 42 MINUTES 40 SECONDS WEST, 150.00 FEET TO A POINT; THENCE NORTH 75 DEGREES 17 MINUTES 20 SECONDS EAST, 20.00 FEET TO A R. R. SPIKE; THENCE SOUTH 14 DEGREES 42 MINUTES 40 SECONDS EAST, 150.00 FEET TO AN IRON PIPE BEING THE PLACE OF BEGINNING AND CONTAINING 0.069 ACRES, MORE OR LESS.

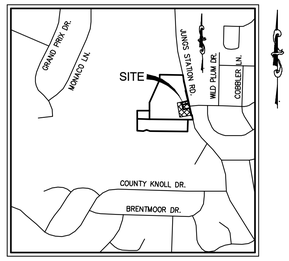
ANNEXATION PARCEL LAND DESCRIPTION

A TRACT OF LAND BEING PART OF AND SITUATED IN THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 15, TOWNSHIP 46 NORTH, RANGE 4 EAST OF THE 5TH PRINCIPAL MERIDIAN AND BEING PART OF A LARGER TRACT OF LAND AS CONVEYED TO THE REORGANIZED SCHOOL DISTRICT NUMBER 3 IN DEED BOOK 376 PAGE 712 OF THE ST. CHARLES COUNTY LAND RECORDS OFFICE IN ST. CHARLES, MISSOURI NO BEING FURTHER DESCRIBED AS FOLLOWS AND BEING FURTHER DESCRIBED AS FOLLOWS;

COMMENCING FROM A FOUND 5/8" IRON ROD WITH CAP MARKING THE 1/4 CORNER OF SECTION 15 AND 16, THENCE WITH THE SECTION LINE THENCE SOUTH 88 DEGREES 19 MINUTES 44 SECONDS EAST A DISTANCE OF 2119.36 FEET TO A THE TRUE POINT OF BEGINNING;

THENCE NORTH 12 DEGREES 23 MINUTES 24 SECONDS WEST A DISTANCE OF 314.41 FEET TO A POINT;
THENCE NORTH 77 DEGREES 36 MINUTES 36 SECONDS EAST A DISTANCE OF 168.29 FEET TO A POINT;
THENCE WITH THE WEST LINE OF JUNGS STATION ROAD, SOUTH 12 DEGREES 23 MINUTES 24 SECONDS EAST A DISTANCE OF 225.00 FEET TO A POINT;
THENCE NORTH 77 DEGREES 36 MINUTES 36 SECONDS EAST A DISTANCE OF 20.00 FEET TO A POINT;
THENCE SOUTH 12 DEGREES 23 MINUTES 24 SECONDS EAST A DISTANCE OF 136.57 FEET TO A POINT ON THE COMMON LINE OF SECTIONS 15 AND 16;
THENCE NORTH 88 DEGREES 19 MINUTES 44 SECONDS WEST A DISTANCE OF 194.11 FEET TO THE POINT OF BEGINNING AND CONTAINING 59,140 SQUARE FEET OF 1.36 ACRES MORE OR LESS.

END OF DESCRIPTION



LOCATION MAP
N.T.S.

PROPERTY DATA

OWNER	= CENTRAL COUNTY FIRE AND RESCUE DIST.
ADDRESS	= 1151 JUNGS STATION RD.
LOCATOR NO.	= 3-0015-5015-00-0003.1200000
ACREAGE	= 0.65± AC.
ZONING	= C-1 (NEIGHBORHOOD COMMERCIAL DISTRICT) (ORDINANCE 8222)
FIRE DISTRICT	= CENTRAL COUNTY FIRE & RESCUE
WATER DISTRICT	= CITY OF ST. PETERS
ELECTRIC COMPANY	= AMEREN UE
GAS COMPANY	= SPIRE
PHONE COMPANY	= AT&T
SEWER COMPANY	= DUCKETT CREEK
ANNEXATION	= ORDINANCE 8221

UTILITIES & AGENCIES

ELECTRIC COMPANY
AMEREN MISSOURI-BOONE TRAILS DISTRICT
2100 BLUESTONE DR.
ST. CHARLES, MO 63303
ATTN: DAN GIESSMANN
PH. (636) 639-8336
(636) 357-2978
DGIESSMANN@AMEREN.COM

PHONE COMPANY
CENTURY TEL
1151 CENTURY TEL DR.
WENTZVILLE, MO. 63385
TIM HOWE
TIM.HOWE@CENTURYLINK.COM
PH: 636-445-7055

GAS COMPANY
SPIRE
700 MARKET STREET
ST. LOUIS, MO 63101
ATTN: MIKE LANGAN
Michael.Langan@spireenergy.com
PH. (314) 575-4831
JOHN KLEIN
John.Klein@spireenergy.com

WATER
CITY OF ST. PETERS WATER
1 ST. PETERS CENTRE BLVD.
ST. PETERS, MO 63376
BILL MALACH
PH. (636) 477-6600

SEWER
DUCKETT CREEK SANITARY DISTRICT
3550 STATE HWY K, O'FALLON, MO 63368
MIKE MERKT
PH. (636) 441-1244

FIRE DISTRICT
CENTRAL COUNTY FIRE AND RESCUE 1
TIMBERBROOK DR.
ST. PETERS, MO 63676
ATTN: FIRE INSPECTOR
PH. (636) 970-9700

SITE BENCHMARK

"U" CUT ON CONCRETE CURB, AS SHOWN ON SURVEY.

ELEVATION = 569.18

ZONING NOTES

ZONED: "C-1" NEIGHBORHOOD COMMERCIAL DISTRICT

EXISTING SITE CONDITIONS MAY FALL WITHIN PERMITTED USES AS LISTED IN THE CITY OF ST. PETERS ZONING REGULATIONS. ZONING REGULATIONS ARE SUBJECT TO CHANGE, INTERPRETATION AND EXCEPTION, FOR FURTHER INFORMATION CONTACT THE CITY OF ST. PETERS PLANNING AND ZONING DEPARTMENT AT 636-477-6600.

ZONING INFORMATION HAS BEEN COLLECTED BY THE LAND SURVEYOR AND CONSIDERED TO BE ACCURATE, HOWEVER THIS SHOULD BE VERIFIED BY THE CLIENT. SEE ITEM 6A UNDER TABLE A.

FLOOD ZONE NOTES

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY DOES NOT LIE WITHIN ANY SPECIAL FLOOD ZONE AREAS ACCORDING TO THE FLOOD INSURANCE RATE MAP PANEL NUMBER 4520 AND COMMUNITY NUMBER 290315 (CITY OF ST. CHARLES) WHICH BEARS AN EFFECTIVE DATE OF JANUARY 20, 2016. AND ACCORDING TO THE FLOOD INSURANCE RATE MAP PANEL NUMBER 456G AND COMMUNITY NUMBER 290319 (CITY OF ST. PETERS) WHICH BEARS AN EFFECTIVE DATE OF JANUARY 20, 2016 THE PROPERTY LIES WITHIN UNSHADED ZONE X (AREAS DETERMINED TO BE OUTSIDE 500 YEAR FLOOD PLAIN).

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L2.01	LANDSCAPE SPECIFICATIONS
L3.01	WATERING DIAGRAM

GENERAL NOTES:

1. CIVIL ENGINEERING DESIGN CONSULTANTS, INC. AND THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR SERVICES PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL APPEARS. THE CONSTRUCTION MEANS, METHODS & MATERIALS ARE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. CIVIL ENGINEERING DESIGN CONSULTANTS, INC. HAS NO RESPONSIBILITY TO VERIFY FINAL IMPROVEMENTS AS SHOWN ON THIS PLAN UNLESS SPECIFICALLY ENGAGED AND AUTHORIZED TO DO SO BY THE OWNER OR CONTRACTOR.

NOTES TO CONTRACTOR:

1. UTILITY NOTE: UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND , THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.
2. CONTRACTOR/SUBCONTRACTOR SHALL INVESTIGATE, ASCERTAIN AND CONFORM TO ANY AND ALL PERMIT REQUIREMENTS OF THE (ANY) VARIOUS AFFECTED UTILITY COMPANIES AND/OR REGULATORY AGENCIES WITH REGARDS TO MAKING CONNECTIONS TO; OR CROSSINGS OF THEIR FACILITIES; REMOVAL OR ABANDONMENT OF FACILITIES; WORKING WITHIN THEIR RIGHT-OF-WAY OR EASEMENTS; INSPECTIONS AND ASSOCIATED MONETARY CHARGES; AND/OR SPECIAL BACKFILL REQUIREMENTS. SUCH INVESTIGATION TO INCLUDE BUT NOT LIMITED TO THE MAKING OF NECESSARY APPLICATIONS AND PAYMENTS OF ALL REQUIRED FEES.
3. THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS OR PROFILES ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR/SUBCONTRACTOR TO VERIFY THE FIELD LOCATIONS, ANTICIPATED CLEARANCES AND THE EXISTENCE OF ANY FACILITIES NOT SHOWN HEREON, AS PART OF THE INVESTIGATIONS IN THE PARAGRAPH ABOVE.
4. THE DISCONNECT AND REMOVAL OF EXISTING OVERHEAD AND UNDERGROUND SERVICE LINES CALLED OUT TO BE REMOVED SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY COMPANIES.
5. THE DEMOLITION PLAN IS FOR ILLUSTRATION OF THE GENERAL DEMOLITION ANTICIPATED FOR THIS PARTICULAR SITE. THE DEMOLITION PLAN DOES NOT REPRESENT ALL CONDITIONS THAT MAY BE ENCOUNTERED DURING DEMOLITION/CONSTRUCTION. THE CONTRACTOR SHALL MAKE HIMSELF THOROUGHLY FAMILIAR WITH THE SITE AND THE DEMOLITION/CONSTRUCTION REQUIREMENTS PRIOR TO BIDDING. THE INTENT OF THE DEMOLITION IS TO PROVIDE A CLEAN STABLE SITE, READY FOR CONSTRUCTION OF THE PROJECT IN CONFORMANCE WITH THE CONSTRUCTION PLANS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CONDITIONS THAT ARE IN KEEPING WITH THIS INTENT.

NOTE:

THE UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SOURCES AND THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE ACTUAL LOCATIONS OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THIS DRAWING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO GRADING OR CONSTRUCTION OF IMPROVEMENTS.

MISSOURI ONE CALL TICKET NUMBER 241941572, 241941573, 242751945 & 242751946

Call BEFORE you DIG
TOLL FREE
1-800-DIG-RITE
MISSOURI ONE-CALL SYSTEM, INC.

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DESIGN CONSULTANTS
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St. Louis, Missouri 63127
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BRANDON A. HARP, P.E.
Professional Engineer No. E-28650
Missouri Certificate of Authority No. 2003004674

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HOUSE #6
1151 Jungs Station Road
St. Peters, Missouri 63303

No.	Revision	Date

TITLE SHEET

Project No.
2589

Sheet No.
C1

Date
2026/06/08

GENERAL NOTES

1. ALL MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT CITY OF ST. PETERS STANDARDS.
2. ALL GRADED AREAS SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES AND/OR SEEDING AND MULCHING AS REQUIRED BY THE CITY OF ST. PETERS, MISSOURI.
3. PRIOR TO BEGINNING ANY WORK ON THE SITE, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING OF WORK.
4. GRADING CONTRACTOR SHALL INSTALL SILTATION CONTROL PRIOR TO STARTING THE GRADING. ADDITIONAL SILTATION CONTROL DEVICES SHALL BE INSTALLED AS DIRECTED BY THE CITY OF ST. PETERS.
5. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.
6. GRADING CONTRACTOR SHALL KEEP EXISTING ROADWAYS CLEAN OF MUD AND DEBRIS AT ALL TIMES.
7. PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED AREAS.
8. GRADING & STORM WATER PER CITY OF ST. PETERS STANDARDS.
9. DRIVE ENTRANCES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ST. PETERS.
10. SEEDING, SODDING, MULCHING AND PLANTINGS FOR ALL DISTURBED AREAS SHALL BE SPECIFIED ON THE LANDSCAPE PLAN.
11. SIDEWALKS ALONG THE ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE EXCEEDING 1"V:20"H. SLOPES GREATER THAN 1"V:20"H MUST BE DESIGNED AS A RAMP.
12. SIDEWALKS, CURB RAMPS, RAMPS AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE. IF ANY CONFLICT OCCURS BETWEEN THE ADAAC GUIDELINES AND THE INFORMATION ON THESE PLANS, THE ADAAC GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER PRIOR TO ANY CONSTRUCTION.
13. ALL NEW AND RELOCATED ON-SITE UTILITIES SHALL BE PLACED UNDERGROUND. INCLUDING ELECTRIC AND TELECOMMUNICATION LINES.
14. BY GRAPHIC PLOTTING ONLY, THIS PROPERTY DOES NOT LIE WITHIN ANY SPECIAL FLOOD ZONE AREAS ACCORDING TO THE FLOOD INSURANCE RATE MAP PANEL NUMBER 29183C0456G AND 29183C0452G AND COMMUNITY NUMBER 290319 (CITY OF ST. PETERS) WHICH BEARS AN EFFECTIVE DATE OF JANUARY 20, 2016. THE PROPERTY LIES WITHIN UNSHADED ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN).
15. NO ON-SITE ILLUMINATION SOURCE SHALL BE SO SITUATED THAT LIGHT IS CAST DIRECTLY ON ADJOINING PROPERTIES OR PUBLIC ROADWAYS ILLUMINATION LEVELS SHALL COMPLY WITH THE PROVISIONS OF THE LIGHTING SECTION, CITY OF ST. PETERS. ALL LIGHTING TO BE DOWNCAST STYLE.
16. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE. SIGN APPROVAL IS A SEPARATE PROCESS.
17. ALL ROOFTOP MECHANICAL EQUIPMENT SHALL BE SCREENED FROM ALL SIDES TO THE HEIGHT OF THE UNIT(S).
18. THE SITE SHALL COMPLY WITH CITY CODE CHAPTER 550 STORMWATER MANAGEMENT.
19. THE SITE SHALL COMPLY WITH CITY CODE CHAPTER 530 GRADING REGULATIONS. SWPPP TO BE DEVELOPED WITH IMPROVEMENT PLANS.
20. THE SITE SHALL COMPLY WITH CHAPTER 535 TREE & LANDSCAPE CODE.
21. BASIC SOIL EROSION CONTROL PLAN TO BE UTILIZED DURING SITE DEVELOPMENT IN COMPLIANCE WITH CITY CODE CHAPTER 530 GRADING REGULATIONS.
22. SITE DENSITY AND PARKING CALCULATIONS:

Greenspace: (Includes parking lot landscape areas)
34,517 s.f. pervious / 83,803 s.f. total site X 100 = 41.2%

Pavement Coverage:
37,349 s.f. / 83,803 s.f. total site X 100 = 44.6%

Building Coverage:
11,937 s.f. / 83,803 s.f. total site X 100 = 14.2%

PARKING CALCULATIONS

REQUIRED:
1 SPACE FOR EVERY VEHICLE CUSTOMARILY USED IN OPERATION OF THE USE OR STORED ON THE PREMISES, PLUS 1 SPACE FOR EVERY EMPLOYEE ON THE MAXIMUM SHIFT

9 EMPLOYEES ON MAX SHIFT = 9 REQUIRED
STORED VEHICLES TO BE IN THE BUILDING

PROVIDED:
22 SPACES (INCLUDES 1 ADA STALL)

GENERAL GRADING NOTES

1. NOTIFY THE CITY OF ST. PETERS 48 HOURS. PRIOR TO THE COMMENCEMENT OF GRADING AND/OR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. ALL GRADING OPERATIONS ARE SUBJECT TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT.
3. ALL FILL OR BACKFILL OPERATIONS SHALL BE EXECUTED UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL DETERMINE THE SUITABILITY AND ASCERTAIN COMPLIANCE WITH SPECIFICATION REQUIREMENTS OF ALL MATERIALS TO BE USED AS FILLS.
4. PARKING ON NON-SURFACED AREAS IS PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVING CONDITIONS. CONTRACTOR SHALL KEEP ROAD CLEAR OF MUD AND DEBRIS.
5. THE STREETS SURROUNDING THIS DEVELOPMENT AND ANY STREET USED FOR CONSTRUCTION ACCESS THERETO SHALL BE CLEANED THROUGHOUT THE DAY.
6. EROSION AND SILTATION CONTROL SHALL BE INSTALLED PRIOR TO ANY GRADING AND BE MAINTAINED THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE OWNER AND/OR CONTROLLING REGULATORY AGENCY AND ADEQUATE VEGETATIVE GROWTH INSURES NO FURTHER EROSION OF THE SOIL.
7. ADDITIONAL SILTATION CONTROL MAY BE REQUIRED AS DEEMED NECESSARY BY THE CITY.
8. TEMPORARY SILTATION CONTROL MEASURES (STRUCTURAL) SHALL BE MAINTAINED UNTIL VEGETATIVE COVER IS ESTABLISHED AT A SUFFICIENT DENSITY TO PROVIDE EROSION CONTROL ON THE SITE.
9. WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE REESTABLISHED IN SUCH A DENSITY AS TO PREVENT EROSION.
10. WHEN CLEARING AND/OR GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 14 DAYS, ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO RETAIN SOIL MATERIALS ON SITE. PROTECTIVE MEASURES MAY BE REQUIRED BY THE DIRECTOR OF PUBLIC WORKS, SUCH AS PERMANENT SEEDING, PERIODIC WETTING, MULCHING, OR OTHER SUITABLE MEANS.
11. IF CUT AND FILL OPERATIONS OCCUR DURING A SEASON NOT FAVORABLE FOR IMMEDIATE ESTABLISHMENT OF PERMANENT GROUND COVER, A FAST GERMINATING ANNUAL SUCH AS RYE GRASSES OR SUDAN GRASSES SHALL BE UTILIZED TO RETARD EROSION, IF ADEQUATE STORMWATER DETENTION AND EROSION CONTROL DEVICES HAVE NOT BEEN ESTABLISHED.
12. ALL FINISHED GRADES (AREAS NOT TO BE DISTURBED BY FUTURE IMPROVEMENT) SHALL BE SEEDED/SODDED.
13. ALL AREAS SHALL BE SEEDED OR SODDED PRIOR TO OCCUPANCY PERMIT AND SHALL BE ISSUED EXCEPT THAT A TEMPORARY OCCUPANCY PERMIT MAY BE ISSUED BY ST. PETERS BUILDING DEPARTMENT IN CASES OF UNDUE HARDSHIP BECAUSE OF UNFAVORABLE GROUND CONDITIONS.
14. SILTATION FENCES SHALL BE INSPECTED PERIODICALLY FOR DAMAGE AND FOR THE AMOUNT OF SEDIMENT WHICH HAS ACCUMULATED. REMOVAL OF SEDIMENT WILL BE REQUIRED WHEN IT REACHES HALF THE HEIGHT OF HE SILTATION FENCE.
15. ALL TRASH AND DEBRIS ON-SITE, EITHER OR FROM CONSTRUCTION, MUST BE REMOVED AND PROPERLY DISPOSED OF OFF-SITE.
16. ANY WELLS, CISTERNS AND/OR SPRINGS, WHICH MAY EXIST ON THIS PROPERTY, SHOULD BE LOCATED AND SEALED IN A MANNER ACCEPTABLE TO ST. CHARLES COUNTY AND THE MISSOURI DEPARTMENT OF NATURAL RESOURCES.
17. ALL EXCAVATIONS, GRADING OR FILLING SHALL HAVE A FINISHED GRADE NOT TO EXCEED A 3:1 SLOPE (33%), UNLESS SPECIFICALLY APPROVED OTHERWISE.
18. STORM WATER PIPES, OUTLETS, AND CHANNELS SHALL BE PROTECTED BY OF WASTE AND SILT AT ALL TIMES PRIOR SILT BARRIERS AND KEPT FREE TO FINAL SURFACE STABILIZATION AND/OR PAVING.
19. NO CONSTRUCTION PARKING SHALL BE PERMITTED ON PUBLIC STREETS.
20. NO EXCAVATION SHALL BE MADE SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PROPERTY OF ANY PUBLIC OR PRIVATE STREET WITHOUT SUPPORTING AND PROTECTING SUCH PUBLIC OR PRIVATE STREET OR PROPERTY FROM SETTLING, CRACKING OR OTHER DAMAGE.
21. THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT SHALL BE CONSIDERED PART OF THESE SPECIFICATIONS. DISCREPANCIES BETWEEN THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND THESE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY, PRIOR TO CONSTRUCTION.

DEMOLITION NOTES

1. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND, THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMO.
2. CONTRACTOR SHALL SCHEDULE A UTILITY MEETING WITH REPRESENTATIVES OF ALL UTILITY COMPANIES PRIOR TO BIDDING AND CONSTRUCTION.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONSTRUCTION PARKING WITH THE CITY AND WITH THE OWNER.
4. CONTRACTOR SHALL VERIFY EXISTING UTILITY SERVICES ARE CAPPED OR REMOVED AND/OR ABANDONED AS REQUIRED PER THE SPECIFICATIONS OF THE APPROPRIATE GOVERNING AGENCY.
5. PROVIDE PROTECTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES INDICATED TO REMAIN IN PLACE.
6. PROTECT IMPROVEMENTS ON ADJOINING PROPERTIES AND ON OWNER'S PROPERTY.
7. RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION AND GRADES, AS ACCEPTABLE TO PROPERTY OWNERS.
8. PROTECT EXISTING TREES AND OTHER VEGETATION AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS AND BRANCHES, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. DO NOT RUN HEAVY EQUIPMENT OVER TREE ROOT SYSTEMS. MAINTAIN MINIMUM TRENCH WIDTHS NEAR ROOT SYSTEMS SO AS TO AVOID UNNECESSARY INJURY. PROTECT TREES AND VEGETATION DESIGNATED TO REMAIN WITH TEMPORARY FENCE ENCLOSURES. PRIOR TO COMMENCEMENT OF SITE CLEARING OPERATIONS, ENCLOSURE SHALL BE A MINIMUM OF 8 FEET IN RADIUS AROUND CENTER OF TREE TRUNKS, WITH LARGE TREES BEING PROTECTED WITH FENCING SET AT EDGE OF DRIP LINES. ENCLOSURE OF VEGETATION SHALL BE AS REQUIRED TO PREVENT DAMAGE FROM CONSTRUCTION ACTIVITIES. MAINTAIN FENCING THROUGHOUT CONSTRUCTION PERIOD, UNLESS OTHERWISE DIRECTED.
9. THE CONTRACTOR SHALL BE REQUIRED TO VERIFY ALL EXISTING CONDITIONS AT THE SITE, PRIOR TO SUBMITTING A BID OR STARTING WORK. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES THAT MAY EXIST BETWEEN THE CONTRACT DOCUMENTS AND REQUEST CLARIFICATION IN WRITING PRIOR TO THE BID.
10. LANDSCAPING IRRIGATION SYSTEM TO BE CAPPED AND REMOVED IN AREAS OF CONSTRUCTION WITH SERVICE LINES AND CAPS FLAGGED OR PROPERLY MARKED FOR FUTURE TIE-INS, IF APPLICABLE.
11. CONTRACTOR SHALL REFER TO THE SITE ELECTRICAL DRAWINGS (BY OTHERS) FOR FINAL DETERMINATION ON THE REMOVAL AND/OR REPLACEMENT OF EXISTING ON-SITE LIGHTING FIXTURES. ALSO, REFER TO THE SITE ELECTRICAL DRAWINGS FOR WHETHER EXISTING FIXTURES WILL BE RE-USED OR REPLACED WITH NEW FIXTURES.
12. CONTRACTOR SHALL BE REQUIRED TO COORDINATE CONSTRUCTION ACTIVITIES WITH PROPERTY OWNER TO MINIMIZE DISRUPTION DURING CONSTRUCTION.
13. TREES, ORGANIC DEBRIS, RUBBLE, FOUNDATIONS AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. LANDFILL TICKETS FOR SUCH DISPOSAL SHALL BE MAINTAINED ON FILE BY THE DEVELOPER. BURNING ON SITE SHALL BE ALLOWED ONLY BY PERMIT FROM THE LOCAL FIRE DISTRICT. IF A BURN PIT IS PROPOSED, THE LOCATION AND MITIGATION SHALL BE SHOWN ON THE GRADING PLAN AND DOCUMENTED BY THE SOILS ENGINEER.
14. THE DEMOLITION PLAN IS FOR ILLUSTRATION OF THE GENERAL DEMOLITION ANTICIPATED FOR THIS PARTICULAR SITE. THE DEMOLITION PLAN DOES NOT REPRESENT ALL CONDITIONS THAT MAY BE ENCOUNTERED DURING DEMOLITION/CONSTRUCTION. THE CONTRACTOR SHALL MAKE HIMSELF THOROUGHLY FAMILIAR WITH THE SITE AND THE DEMOLITION/CONSTRUCTION REQUIREMENTS PRIOR TO BIDDING. THE INTENT OF THE DEMOLITION IS TO PROVIDE A CLEAN STABLE SITE, READY FOR CONSTRUCTION OF THE PROJECT IN CONFORMANCE WITH THE CONSTRUCTION PLANS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CONDITIONS THAT ARE IN KEEPING WITH THIS INTENT.

STORM SEWER NOTES

1.) ALL CONCRETE PIPE SHALL BE REINFORCED, AND CONFORM TO A.S.T.M. DESIGNATION C76-80 CLASS III UNLESS NOTED.

2.) ALL STORM SEWER STRUCTURES WITHIN PROJECT SITE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY'S STANDARDS.

3.) TYPE "C" BEDDING PER CITY STANDARDS IS REQUIRED FOR PIPES IN ROCK.

4.) ALL TRENCHES UNDER AREAS TO BE PAVED AND UNDER EXISTING PAVING SHALL BE GRANULARLY FILLED WITH 3/4" MINUS CRUSHED LIMESTONE ONLY. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH CITY STANDARDS.

5.) ALL TRENCH BACKFILLS UNDER PAVEMENT WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACKFILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF THE EARTH BACKFILL COMPACTED TO 95 PERCENT OF THE STANDARD AASHTO T-99 COMPACTION TEST A.S.T.M. D-698.

6.) JETTING IS NOT AN ACCEPTABLE METHOD OF ACHIEVING BACKFILL COMPACTION. ALL BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED TO AT LEAST 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY.

7.) FOR SEWER PIPE (STORM, SANITARY AND COMBINED) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER, PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS-BUILT PIPE GRADE MEETS THE DESIGN GRADE THROUGH THE SUBMITTAL OF SIGNED CUT SHEETS TO THE CITY INSPECTOR UPON REQUEST.

FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE ANY SEWER REACH HAVING AN AS-BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.1%. SEWERS WITH GRADES GREATER THAN THE DESIGN SLOPE MAY BE LEFT IN PLACE, PROVIDED NO OTHER SEWER GRADE IS REDUCED BY THIS VARIANCE IN THE AS-BUILT GRADE.

CITY ALSO RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE ANY SEWER (AT ANY TIME PRIOR TO CONSTRUCTION APPROVAL) FOR WHICH THE AS-BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH.

THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES.

8.) ADJUSTMENT OF MANHOLE TO GRADE:
IF A MANHOLE IS TO BE RAISED:
MANHOLES MAY BE RAISED USING APPROVED GRADE RING(S), PROVIDED THE TOTAL ADJUSTMENT OF THE MANHOLE DOES NOT EXCEED 12-INCHES (INCLUDING THE EXISTING RINGS). FOR MANHOLES WHICH WILL EXCEED THE MAXIMUM OF 12-INCHES, THE TRANSITION SECTION OF THE STRUCTURE SHALL BE REMOVED AND THE BOTTOM SECTION RAISED USING THE SAME MATERIAL AS THE EXISTING STRUCTURE.

IF A MANHOLE IS TO BE LOWERED:
MANHOLES MAY BE LOWERED BY REMOVING THE TRANSITION SECTION, AND LOWERING THE EXISTING BOTTOM SECTION BY SAWCUTTING THE EXISTING CAST-IN-PLACE CONCRETE, REMOVING THE REQUIRED COURSES OF BRICK, OR REMOVING THE PRECAST RISER SECTION AS APPROPRIATE.

CITY NOTES

1. Construction parking is not allowed on Private Streets.
2. All public roads must be kept clear of mud and debris at all times. Failure to do so will be cause for the City to suspend work.
3. All new signs shall conform to the City's sign Ordinance requirements. Sign location and sizes cannot be approved with the site improvement plan, a separate application must be made to the Department of Planning.
4. The General Contractor shall restore offsite construction areas to an equal or better condition than existed prior to the commencement of work.
5. Safety notice to Contractor: In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours.
6. The contractor shall be responsible for the razing and removal of the existing structures, including foundations, related utilities, paving, underground facilities and any other existing improvements.
7. The contractor will be held solely responsible and shall take all precautions necessary to avoid damage to adjacent properties during all phases of the construction plan.
8. Burning on site will not be allowed.
9. Disposal of material on-site will only be allowed as directed by the owner and geotechnical engineer and approved by the St. Peters Engineering Department.
10. Contractor shall coordinate the disconnection, sealing and/or removal of utilities with the respective utility company.
11. The general contractor shall contact all utility companies for new service.
12. The general contractor shall flag all sanitary and storm sewer structures with a 2 X 4 spike painted orange and marked to read "Storm Sewer Structure or Sanitary Sewer Structure Do Not Buy".
13. All private sewers are under City inspection.
14. All filled places under proposed storm and sanitary sewer lines and/or paved areas shall be compacted to 90% maximum density as determined by the modified AASHTO T-180 compaction test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. A sealed copy of all result reports shall be available for review.
15. All excavations, grading, or filling shall have a finished grade not to exceed a 3:1 slope (33 percent). Steeper grades may be approved by the Designated Official if the excavation is through rock or the excavation or the fill is adequately protected (a designed head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards as identified in the appropriate section(s) of the adopted BOCA Codes and must be approved by the City. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.
16. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established on the site, to be determined by the Designated Official.
17. Where natural vegetation is removed during grading, vegetation shall be reestablished in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. (Refer to Appendix A.)
18. When grading operations are completed or suspended for more than 14 days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the Designated Official's recommendation. (Refer to Appendix A.)
19. All finished grades (areas not to be disturbed by future improvement) in excess of 20 percent slopes (5:1) shall be mulched and tacked at the rate of 100 pounds per 1,000 square feet when seeded.
20. The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequences or erosion. Run-off water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted with the approval of the Designated Official.
21. All lots shall be seeded and mulched at the rates defined in Appendix A or sodded before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Building Department in cases of undue hardship because of unfavorable ground conditions.
22. All filled places in proposed roads and right-of-way shall be compacted from the bottom of the fill up to 90% maximum density as determined by the modified AASHTO T-180 compaction test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. A soil's engineer shall verify all tests concurrent with grading and backfilling operations. A copy of the final compaction results for the earthwork shall be provided to the City.
23. Runoff water from developed areas (parking lots, paved sites, and buildings) above the area to develop shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted with the approval of the designated official.
24. All light standards shall be shaded, shielded or directed to prevent direct light from causing traffic hazards, and casting direct light upon adjacent property causing glare or other objectionable problems to surrounding areas.
25. The contractor shall provide the city with a copy of all compaction test results.

SEQUENCE OF GRADING OPERATIONS

1. On-site grading will utilize standard grading equipment to achieve the proposed grades as shown on this plan.
2. Strip the on-site top soil as encountered and stock pile with a silt fence installed at the stock pile perimeter.
3. On-site equipment will immediately excavate the ditches as shown starting on the downstream end to prevent water ponding.
4. On-site equipment will unload, spread and compact the delivered material in accordance with geotechnical report to the proposed grades shown on this plan.
5. All proposed turf areas, once constructed to final grade shall be seeded/sodded within 7 days after final grading of the site where shown on the plan. Should weather cause delays in earthwork operations, additional ditch checks and/or siltation may be required.
6. All grading operations subject to the conditions and recommendations of the geotechnical report.

Siltation Control Schedule Implementation

1. Installation of perimeter sediment control shall be implemented prior to grubbing the site.
2. Installation of internal silt fences required immediately after the site reaches final grade or as required as intermediate silt. control.
3. Inspection of siltation control devices shall take place once every day and within 1 day of any rain event. Any siltation control in need of repair shall occur immediately.
4. All siltation control devices shall remain in place until upslope areas have been permanently stabilized.

Temporary Access Roads and Parking Areas Specifications
As coordinated and required by the City Inspector

1. Temporary roads shall follow the contour of the natural terrain to the extent possible. Slopes should not exceed 10 percent.
2. Grades should be sufficient to provide drainage, but should not exceed 10 percent.
3. Roadbeds & construction parking shall be as shown on the plan.
4. All cuts and fills shall be 3:1 or flatter to the extent possible.
5. Drainage ditches shall be provided as needed.
6. The roadbed or parking surface shall be cleared of all vegetation, roots and other objectionable material.
7. A 10-inch course of 2" MINUS aggregate shall be applied immediately before grading or after the completion of utility installation within the right-of-way. Filter fabric may be applied to the roadbed for additional stability in accordance with fabric manufacturer's specifications.

Vegetation
All roadside ditches, cuts, fills and disturbed areas adjacent to parking areas and roads shall be stabilized with appropriate temporary or permanent vegetation according to the applicable standards and specifications.

Maintenance
Both temporary and permanent roads and parking areas may require periodic top dressing with new gravel. Seeded areas adjacent to the roads and parking areas should be checked periodically to ensure that a vigorous stand of vegetation is maintained. Roadside ditches and other drainage structures should be checked regularly to ensure that they do not become clogged with silt or other debris.

Silt Fence Specifications

1. Silt Fence to be woven geotextile fabric Mirafi 100X or equal.
2. Fabric shall be entrenched and backfilled. A trench shall be excavated a minimum of 6 inches deep for the length of the fence. The excavated soil shall be backfilled against the fence. See detail this sheet.
3. Fence height shall be a minimum of 2 feet in height above grade, with the fabric installed on the fence on the upstream side.
4. Silt fences shall be used only on sheet flow conditions.

Maintenance

1. Silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
2. Should the silt fence become ineffective prior to the end of the expected usable life, and are still necessary, the barriers shall be replaced promptly.
3. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.
4. Any sediment deposits remaining in place after the silt fence barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

BRANDON ASHER HARP NUMBER E-28650 STATE OF MISSOURI PROFESSIONAL ENGINEER
BRANDON A. HARP P.E.
Professional Engineer No. E-28650
Missouri Certificate of Authority No. 2003004674

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HOUSE #6
1151 Jungs Station Road St. Peters, Missouri 63303

No.	Date	Revision

SPECIFICATION SHEET

Project No. 2589

Sheet No. C2

Date 2026/06/08

N/F
REORGANIZED SCHOOL DIST NO 3
PARCEL
ID:3-0015-S015-00-0003.1000000
BK.870 PG.718
PARENT PARCEL

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

LEGEND FOR REMOVAL
PAVEMENT REMOVAL
BUILDING REMOVAL
TREE REMOVAL
(T.B.R.)

UNINCORPORATED
ST. CHARLES
COUNTY

UNINCORPORATED
ST. CHARLES COUNTY

JUNGS STATION ROAD
(WIDTH VARIES)
SHOWN PER. PARENT DEED
BK.870 PG.718

1 STORY BUILDING
CONCRETE BLOCK & METAL FRAME
#1151 (POSTED)
"CENTRAL COUNTY FIRE AND
RESCUE STATION 6"
(U.I.P.)

25.0 X 25.0'
LEASE AREA
(BK. 2655 PG.
436)
(U.I.P.)

TOWER AREA
(NO ACCESS)
(U.I.P.)

FULL DEPTH SAWCUT
REMOVE CURB & PAVEMENT
ASPHALT CURB
ASPHALT
REMOVE AT NEAREST JOINT
SIGN (T.B.R.)
WATER LINE (U.I.P.)
WATER VALVE (U.I.P.)
WATER VAULT FOR SCHOOL BUILDINGS (U.I.P.)
WATER SERVICE MAINS (CITY OF ST. PETERS)
SANITARY (REC INFO)
SANITARY MH (REC INFO) DEPTH: 4.5'± FL:545.6±
SANITARY M.H. TOP = 569.91 F.L. = 560.90
STORM MANHOLE TOP = 549.51 F.L. = 543.98
STORM MH (R) TOP=568.78 FL:552.1±
GENERATOR (U.I.P.)
CURB CUT PUBLIC ACCESS (U.I.P.)
CURB STOP (TYPICAL) (U.I.P.)
FOUND IRON ROD WITH CAP
FRENCH DRAIN F.L.: 555.16
DONATION BOX
TRUNCATED DOME (TYPICAL)
CONCRETE CURB
CONCRETE
HANDRAIL (TYPICAL)
BLOCK WALL (TYPICAL)
BRICK BUILDING
BRICK WALLS
SIGN
CAMERA
SPEAKER
BENCH
SIAMESE
FDC
EASEMENT BK.2505 PG.911
10' W. EASEMENT
20' WIDE CASEMENT BK. 4665 PG.2044
15' X 1162 SQ.FT. ESMT (BK. 1162 PG. 1439) & (BK. 1193 PG. 1037)
LESS & EXCEPTING (BK. 870 PG. 714)
LESS & EXCEPTING (BK.1369 PG.517) EXHIBIT "A-1"
LESS & EXCEPTING (BK. 1044 PG. 2345)
LESS & EXCEPTING (BK.870 PG.714)
EXHIBIT "A"
EXHIBIT "B"
EXHIBIT "C"
EXHIBIT "D"
EXHIBIT "E"
EXHIBIT "F"
EXHIBIT "G"
EXHIBIT "H"
EXHIBIT "I"
EXHIBIT "J"
EXHIBIT "K"
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EXHIBIT "M"
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EXHIBIT "P"
EXHIBIT "Q"
EXHIBIT "R"
EXHIBIT "S"
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EXHIBIT "U"
EXHIBIT "V"
EXHIBIT "W"
EXHIBIT "X"
EXHIBIT "Y"
EXHIBIT "Z"
EXHIBIT "AA"
EXHIBIT "BB"
EXHIBIT "CC"
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EXHIBIT "OO"
EXHIBIT "PP"
EXHIBIT "QQ"
EXHIBIT "RR"
EXHIBIT "SS"
EXHIBIT "TT"
EXHIBIT "UU"
EXHIBIT "VV"
EXHIBIT "WW"
EXHIBIT "XX"
EXHIBIT "YY"
EXHIBIT "ZZ"
EXHIBIT "AAA"
EXHIBIT "BBB"
EXHIBIT "CCC"
EXHIBIT "DDD"
EXHIBIT "EEE"
EXHIBIT "FFF"
EXHIBIT "GGG"
EXHIBIT "HHH"
EXHIBIT "III"
EXHIBIT "JJJ"
EXHIBIT "KKK"
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EXHIBIT "MMM"
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EXHIBIT "PPP"
EXHIBIT "QQQ"
EXHIBIT "RRR"
EXHIBIT "SSS"
EXHIBIT "TTT"
EXHIBIT "UUU"
EXHIBIT "VVV"
EXHIBIT "WWW"
EXHIBIT "XXX"
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EXHIBIT "AAAA"
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EXHIBIT "TTTTTTTTTTTTTTTTTTTTT"
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EXHIBIT "XXXXXXXXXXXXXXXXXXXXXX"
EXHIBIT "YYYYYYYYYYYYYYYYYYYYYY"
EXHIBIT "ZZZZZZZZZZZZZZZZZZZZZZ"
EXHIBIT "AAAAAAAAAAAAAAAAAAAAAAA"
EXHIBIT "BBBBBBBBBBBBBBBBBBBBBBB"
EXHIBIT "CCCCCCCCCCCCCCCCCCCCCCC"
EXHIBIT "DDDDDDDDDDDDDDDDDDDDDDD"
EXHIBIT "EEEEEEEEEEEEEEEEEEEEEEE"
EXHIBIT "FFFFFFFFFFFFFFFFFFFFFFF"
EXHIBIT "GGGGGGGGGGGGGGGGGGGGGGG"
EXHIBIT "HHHHHHHHHHHHHHHHHHHHHHH"
EXHIBIT "IIIIIIIIIIIIIIIIIIIIIII"
EXHIBIT "JJJJJJJJJJJJJJJJJJJJJJJ"
EXHIBIT "KKKKKKKKKKKKKKKKKKKKKKK"
EXHIBIT "LLLLLLLLLLLLLLLLLLLLLLL"
EXHIBIT "MMMMMMMMMMMMMMMMMMMMMMM"
EXHIBIT "NNNNNNNNNNNNNNNNNNNNNNN"
EXHIBIT "OOOOOOOOOOOOOOOOOOOOOOO"
EXHIBIT "PPPPPPPPPPPPPPPPPPPPPPP"
EXHIBIT "QQQQQQQQQQQQQQQQQQQQQQQ"
EXHIBIT "RRRRRRRRRRRRRRRRRRRRRRR"
EXHIBIT "SSSSSSSSSSSSSSSSSSSSSSS"
EXHIBIT "TTTTTTTTTTTTTTTTTTTTTTT"
EXHIBIT "UUUUUUUUUUUUUUUUUUUUUUU"
EXHIBIT "VVVVVVVVVVVVVVVVVVVVVVV"
EXHIBIT "WWWWWWWWWWWWWWWWWWWWWWW"
EXHIBIT "XXXXXXXXXXXXXXXXXXXXXXX"
EXHIBIT "YYYYYYYYYYYYYYYYYYYYYYY"
EXHIBIT "ZZZZZZZZZZZZZZZZZZZZZZZ"
EXHIBIT "AAAAAAAAAAAAAAAAAAAAAAAA"
EXHIBIT "BBBBBBBBBBBBBBBBBBBBBBBB"
EXHIBIT "CCCCCCCCCCCCCCCCCCCCCCCC"
EXHIBIT "DDDDDDDDDDDDDDDDDDDDDDDD"
EXHIBIT "EEEEEEEEEEEEEEEEEEEEEEEE"
EXHIBIT "FFFFFFFFFFFFFFFFFFFFFFFF"
EXHIBIT "GGGGGGGGGGGGGGGGGGGGGGGG"
EXHIBIT "HHHHHHHHHHHHHHHHHHHHHHHH"
EXHIBIT "IIIIIIIIIIIIIIIIIIIIIIII"
EXHIBIT "JJJJJJJJJJJJJJJJJJJJJJJJ"
EXHIBIT "KKKKKKKKKKKKKKKKKKKKKKKK"
EXHIBIT "LLLLLLLLLLLLLLLLLLLLLLLL"
EXHIBIT "MMMMMMMMMMMMMMMMMMMMMMMM"
EXHIBIT "NNNNNNNNNNNNNNNNNNNNNNNN"
EXHIBIT "OOOOOOOOOOOOOOOOOOOOOOOO"
EXHIBIT "PPPPPPPPPPPPPPPPPPPPPPPP"
EXHIBIT "QQQQQQQQQQQQQQQQQQQQQQQQ"
EXHIBIT "RRRRRRRRRRRRRRRRRRRRRRRR"
EXHIBIT "SSSSSSSSSSSSSSSSSSSSSSSS"
EXHIBIT "TTTTTTTTTTTTTTTTTTTTTTTT"
EXHIBIT "UUUUUUUUUUUUUUUUUUUUUUUU"
EXHIBIT "VVVVVVVVVVVVVVVVVVVVVVVV"
EXHIBIT "WWWWWWWWWWWWWWWWWWWWWWWW"
EXHIBIT "XXXXXXXXXXXXXXXXXXXXXXXX"
EXHIBIT "YYYYYYYYYYYYYYYYYYYYYYYY"
EXHIBIT "ZZZZZZZZZZZZZZZZZZZZZZZZ"
EXHIBIT "AAAAAAAAAAAAAAAAAAAAAAAAA"
EXHIBIT "BBBBBBBBBBBBBBBBBBBBBBBBB"
EXHIBIT "CCCCCCCCCCCCCCCCCCCCCCCCC"
EXHIBIT "DDDDDDDDDDDDDDDDDDDDDDDDD"
EXHIBIT "EEEEEEEEEEEEEEEEEEEEEEEEE"
EXHIBIT "FFFFFFFFFFFFFFFFFFFFFFFFF"
EXHIBIT "GGGGGGGGGGGGGGGGGGGGGGGGG"
EXHIBIT "HHHHHHHHHHHHHHHHHHHHHHHHH"
EXHIBIT "IIIIIIIIIIIIIIIIIIIIIIIII"
EXHIBIT "JJJJJJJJJJJJJJJJJJJJJJJJJ"
EXHIBIT "KKKKKKKKKKKKKKKKKKKKKKKKK"
EXHIBIT "LLLLLLLLLLLLLLLLLLLLLLLLL"
EXHIBIT "MMMMMMMMMMMMMMMMMMMMMMMMM"
EXHIBIT "NNNNNNNNNNNNNNNNNNNNNNNNN"
EXHIBIT "OOOOOOOOOOOOOOOOOOOOOOOOO"
EXHIBIT "PPPPPPPPPPPPPPPPPPPPPPPPP"
EXHIBIT "QQQQQQQQQQQQQQQQQQQQQQQQQ"
EXHIBIT "RRRRRRRRRRRRRRRRRRRRRRRRR"
EXHIBIT "SSSSSSSSSSSSSSSSSSSSSSSSS"
EXHIBIT "TTTTTTTTTTTTTTTTTTTTTTTTT"
EXHIBIT "UUUUUUUUUUUUUU

N/F
REORGANIZED SCHOOL DIST NO 3
PARCEL
ID: 3-0015-S015-00-0003.1000000
BK.870 PG.718
PARENT PARCEL

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

UNINCORPORATED
ST. CHARLES
COUNTY

N 89°19'19" E 2372.71' (S)

S 89°19' 09" E 2374.57' (S)

N 12°23'24" W 314.41'

N 88°19'14" W 194.11'

S 12°23'24" E 136.57'

N 77°36'36" E 20.00'

S 12° 23' 24" E 375.00'

PHASE 1 GRADING

568.25
567.75

568.00

568.75
568.25

JUNGS STATION ROAD
(WIDTH VARIES)
SHOWN PER. PARENT DEED
BK.870 PG.718

25.0 X 25.0'
LEASE AREA
(BK. 2655 PG. 438)

TOWER AREA
(NO ACCESS)

20' WIDE EASEMENT
BK.4665 PG.2434

10' W. EASEMENT

SANITARY (REC INFO)

SANITARY MH
(REC INFO)
DEPTH: 4.5'±
FL: 545.6±

FL: 547.0±

FL: 548.1±

UNINCORPORATED
ST. CHARLES COUNTY

1 STORY BUILDING
CONCRETE BLOCK & METAL FRAME
#1151 (POSTED)
"CENTRAL COUNTY FIRE AND
RESCUE STATION 6"

BUILDING HEIGHT = 583.71

F.F. = 569.03

F.F. = 569.13

F.F. = 569.04

F.F. = 569.07

F.F. = 562.06

EASEMENT
BK.2505
PG.911

LESS & EXCEPTING
BK.870 PG.714

LESS & EXCEPTING
(BK. 870 PG. 714)

LESS & EXCEPTING
(BK.1389 PG.517)
EXHIBIT "A-1"

15' W.B.T. ESMT.
(BK. 1162 PG. 1439) & (BK. 1193 PG. 1837)

FRENCH DRAIN
F.L.: 555.16

WATER LINE

WATER VALVE

WATER VAULT
FOR SCHOOL BUILDINGS

WATER SERVICE MAINS
(CITY OF ST. PETERS)

FOUND IRON ROD
WITH CAP

CURB CUT
PUBLIC ACCESS

CONCRETE CURB

CONCRETE

ASPHALT

ASPHALT CURB

CONCRETE CURB

DONATION
BOX

TRUNCATED
DOME (TYPICAL)

4' CHAIN
LINK FENCE

6' WOOD
FENCE

8" WOOD
FENCE

4' METAL
FENCE

8" PVC

12" RCP

15" RCP

24" RCP

STORM MANHOLE
TOP = 549.51
F.L. = 543.98

GRATE INLET
TOP = 548.77
F.L. = 544.82

GRATE INLET
TOP = 548.82
F.L. = 545.42

AREA INLET
TOP = 554.76
F.L. = 547.76

AREA INLET
TOP = 556.28
DROP = 553.33
F.L. = 551.23

GRATE INLET
TOP = 553.75
F.L. = 549.20

CURB INLET
TOP = 553.73
F.L. = 551.38

CURB INLET
TOP: 558.78
F.L.: 551.38

GRATE INLET
TOP: 558.80
F.L.: 556.50

GRATE INLET
TOP = 558.61
F.L. = 555.21

GRATE INLET
TOP = 555.18
F.L. = 551.48

STORM MH (R)
TOP: 559.25
F.L.: 552.15

CURB INLET
TOP: 569.98
DROP: 564.48
F.L.: 561.58

CURB INLET
TOP = 570.11
F.L. = 565.02

CURB INLET
TOP = 570.27
F.L. = 567.97

CURB INLET
TOP = 577.72
F.L. = 573.46

CURB INLET
TOP: 569.34
DROP: 564.04
F.L.: 562.52

CURB INLET
TOP = 570.60
F.L. = 566.80

CURB INLET
TOP = 570.43
F.L. = 565.73

SANITARY M.H.
TOP = 569.91
F.L. = 560.90

S.S.
F.L. = 560.93

SANI
TOP

OPERATOR

SIGN

BENCH

BRICK
BUILDING

CAMERA

SEWER

UNKNOWN PVC

SUMP PUMP

RETAINING WALLS

BIRD HOUSE

CONCRETE

CONCRETE CURB

ASPHALT

LOT
206

LOT
207

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

STATE OF MISSOURI
BRANDON ASHER HARP
NUMBER E-28650
PROFESSIONAL ENGINEER
BRANDON A. HARP, P.E.
Professional Engineer No. E-28650
Missouri Certificate of Authority No. 2003004674

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HOUSE #6

1151 Jungs Station Road
St. Peters, Missouri 63303

No.	Date	Revision

PHASE 1 - SITE AND GRADING PLAN

Project No.
2589

Sheet No.
C4.0

Date
2026/06/08

N/F
REORGANIZED SCHOOL DIST NO 3
PARCEL
ID: 3-0015-S015-00-0003.1000000
BK.870 PG.718
PARENT PARCEL

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

LEGEND FOR NEW PAVEMENT

- PROPOSED CONCRETE WALK
- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT

17

CONNECT TO EXISTING WATER LINE

6" CONC. VERT. CURB

ASPHALT PAVEMENT

19.00'

9.00'

UNINCORPORATED
ST. CHARLES
COUNTY

N 12°23'24" W 314.41'

R40.00'

TEMPORARY ASPHALT PAVEMENT

N 88°19'44" W 194.11'

64.0'

CONCRETE PAVEMENT

R25.00'

39.00'

WATER SERVICE (PRIVATE)

COMBINED METER

PRIMARY CONDUIT TO TRANSFORMER AS COORD. WITH AMEREN

N 77°36'36" E 20.00'

S 12°23'24" E 136.57'

WET TAP AND VALVES PER CITY SPECS

CURB RAMP (BY CCFPD)

CONCRETE DRIVE ENTRANCE (BY CCFPD)

CURB RAMP (BY CCFPD)

SIDEWALK IMPROVEMENTS BY CITY OF ST. PETERS (FEDERAL PROJECT NO. STP-7305(623))

S 89°19'08" E 2327.71' (M)
S 89°19'08" E 2324.57' (S)

BRICK BUILDING

CAMERA

SPEAKER

BENCH

CONCRETE

BRICK WALLS

STONE WALL

DONATION BOX

CONCRETE CURB

ASPHALT

GENERATOR

20' WIDE EASEMENT
BK.4665 PG.2044

25.0 X 25.0' LEASE AREA (BK. 2655 PG. 438)

TOWER AREA (NO ACCESS)

CURB STOP (TYPICAL)

HANDRAIL (TYPICAL)

BLOCK WALL (TYPICAL)

EASEMENT
BK.2505
PG.911

FRENCH DRAIN
F.L.: 555.16

F.F. = 569.07

LESS & EXCEPTING BK.870 PG.714

1 STORY BUILDING
CONCRETE BLOCK & METAL FRAME
#1151 (POSTED)
"CENTRAL COUNTY FIRE AND RESCUE STATION 6"

F.F. = 569.04

F.F. = 569.13

F.F. = 569.03

BUILDING HEIGHT = 583.71

F.F. = 569.08

EDS

WATER LINE

WATER VALVE

WATER VAULT FOR SCHOOL BUILDINGS

MDSS

FOUND IRON ROD WITH CAP

10' W. EASEMENT

FRENCH DRAINS

WATER SERVICE MAINS (CITY OF ST. PETERS)

LESS & EXCEPTING (BK.1369 PG.517) EXHIBIT "A-1"

LESS & EXCEPTING (BK.1643 PG.710)

LESS & EXCEPTING (BK. 870 PG. 714)

15' X 15' LEASE AREA (BK. 1162 PG. 1439) & (BK. 1193 PG. 157)

CURB CUT PUBLIC ACCESS

SIDEWALK IMPROVEMENTS BY CITY OF ST. PETERS (FEDERAL PROJECT NO. STP-7305(623))

JUNGS STATION ROAD
(WIDTH VARIES)
SHOWN PER. PARENT DEED
BK.870 PG.718

TRUNCATED DOME (TYPICAL)

6' WOOD FENCE

4' METAL FENCE

4' CHAIN LINK FENCE

L O T 206

L O T 207

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

STATE OF MISSOURI
BRANDON ASHER HARP
NUMBER E-28650
PROFESSIONAL ENGINEER

BRANDON A. HARP, P.E.
Professional Engineer No. E-28650
Missouri Certificate of Authority No. 2003004674

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HOUSE #6

1151 Jungs Station Road
St. Peters, Missouri 63303

No.	Date	Revision

PHASE 1 - SITE GEOMETRY AND UTILITY PLAN

Project No.
2589

Sheet No.
C5.0

Date
2026/06/08

N/F
REORGANIZED SCHOOL DIST NO 3
PARCEL
ID:3-0015-S015-00-0003.1000000
BK.870 PG.718
PARENT PARCEL

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

LEGEND FOR REMOVAL
PAVEMENT REMOVAL
BUILDING REMOVAL
TREE REMOVAL
18" (T.B.R.)

UNINCORPORATED
ST. CHARLES
COUNTY

JUNGS STATION ROAD
(WIDTH VARIES)
SHOWN PER. PARENT DEED
BK.870 PG.718

WATER LINE (U.I.P.)
WATER LINE TO BE ABANDONED
REMOVE STRIPING, ARROWS, STOPBAR, AND LINES
FULL DEPTH SAWCUT
ELECTRIC LINE (T.B.R.)
EXISTING CURB (U.I.P.)
WATER LINE (TO BE ABANDONED)
WATER VALVE (T.B.R.)
WATER VAULT FOR SCHOOL BUILDINGS (T.B.R.)
ENTRANCE, SIGN & LIGHTING (T.B.R.)
REMOVE AT NEAREST JOINT
PHASE 1 GRADING
25.0 X 25.0' LEASE AREA (BK. 2655 PG. 436)
TOWER AREA (NO ACCESS)
SANITARY (REC INFO)
SANITARY MH (REC INFO) DEPTH: 4.5'± FL: 545.6±
STORM MANHOLE TOP = 549.51 F.L. = 543.98
GRATE INLET TOP = 548.77 F.L. = 544.82
GRATE INLET TOP = 548.82 F.L. = 545.42
AREA INLET TOP = 554.76 F.L. = 547.76
AREA INLET TOP = 556.28 DROP = 553.33 F.L. = 551.23
GRATE INLET TOP=553.75 F.L.=549.20
CURB INLET TOP = 553.73 F.L. = 551.38
CURB INLET TOP=558.78 F.L.=551.38 (U.I.P.)
GRATE INLET TOP=559.80 F.L.=556.50
GRATE INLET TOP = 558.61 F.L. = 555.21
GRATE INLET TOP = 558.61 F.L. = 555.41
STORM MH (R) TOP=558.61 FL=552.61
CURB INLET TOP=569.98 DROP=563.68 F.L.=561.58
CURB INLET TOP = 570.11 F.L. = 565.01
CURB INLET TOP = 572.27 F.L. = 567.97
CURB INLET TOP = 577.76 F.L. = 573.46
AREA INLET TOP = 568.37 F.L. = 561.27
CURB INLET TOP=569.34 DROP=564.04 F.L.=562.52
CURB INLET TOP = 570.60 F.L. = 566.80
AREA INLET TOP = 570.38 F.L. = 567.20
GRATE INLET TOP = 570.43 F.L. = 565.73
SANITARY M.H. TOP = 569.91 F.L. = 560.90
TRENCH DRAIN F.L.: 555.16
1 STORY BUILDING CONCRETE BLOCK & METAL FRAME #1151 (POSTED) "CENTRAL COUNTY FIRE AND RESCUE STATION 6"
F.F. = 569.03
BUILDING HEIGHT = 583.7±
F.F. = 569.13
F.F. = 569.64
F.F. = 568.07
F.F. = 569.08
F.F. = 569.03
F.F. = 560.93
FL= 547.0±
FL= 548.1±
N 88°19'44" W 194.11'
S 12°23'24" E 136.57'
N 77°36'36" E 200.00'
S 12° 23' 24" E 375.00'
N 12°23'24" W 314.41'
N 89°19'08" E 2327.21' (M)
S 89°19'08" E 2324.57' (S)
L O T 206
L O T 207
BRICK BUILDING
CONCRETE
ASPHALT
CONCRETE CURB
BENCH
CAMERA
SPEAKER
SIGN PANEL
BRICK WALLS
DONATION BOX
TRUNCATED DOME (TYPICAL)
CURB STOP (TYPICAL)
ASPHALT CURB (T.B.R.)
EASEMENT BK.2505 PG.911
LESS & EXCEPTING BK.870 PG.714
LESS & EXCEPTING (BK.1389 PG.517) EXHIBIT "A-1"
15' X 15' S.W.B.T. ESMT. (BK. 1162 PG. 1439) & (BK. 1193 PG. 1137)
CURB CUT PUBLIC ACCESS
10' W. EASEMENT
TRENCH DRAINS
WATER SERVICE MAINS (CITY OF ST. PETERS)
6' WOOD FENCE
4' CHAIN LINK FENCE
4' METAL FENCE
CONCRETE WALL
SANITARY M.H.
8" PVC
15" RCP
12" RCP
24" RCP
36"SW
FULL DEPTH SAWCUT
FOU
FOU
FOU

N/F
REORGANIZED SCHOOL DIST NO 3
PARCEL
ID: 3-0015-S015-00-0003.1000000
BK.870 PG.718
PARENT PARCEL

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

HOUSE #6
F.F.=568.50
11,937 S.F.
22 Parking Spaces

UNINCORPORATED
ST. CHARLES
COUNTY

JUNGS STATION ROAD
(WIDTH VARIES)
SHOWN PER. PARENT DEED
BK.870 PG.718

UNINCORPORATED
ST. CHARLES COUNTY

1 STORY BUILDING
CONCRETE BLOCK & METAL FRAME
#151 (POSTED)
"CENTRAL COUNTY FIRE AND
RESCUE STATION 6"

25.0 X 25.0'
LEASE AREA
(BK. 2655 PG. 438)

N 12°23'24" W 314.41'
S 12° 23' 24" E 375.00'
S 12°23'24" E 136.57'
N 88°19'44" W 194.11'
N 77°36'36" E 200.00'
S 89°19' 08" E 237.21' (S)
N 89°41' E 237.21' (M)

PHASE 1 GRADING
PHASE 2 GRADING
PHASE 2 WALL (SEE C14.0)
TEMPORARY PAVEMENT (REMOVE DURING PHASE 3 AS-COORD. WITH COF&R)
NO STEP @ ENTRY
OIL INTERCEPTOR (SEE P5.___)
10' W. EASEMENT
SIDEWALK IMPROVEMENTS BY CITY OF ST. PETERS (FEDERAL PROJECT No. STP-7305(623))
SIDEWALK IMPROVEMENTS BY CITY OF ST. PETERS (FEDERAL PROJECT NO. STP-7305(623))

SANITARY MH (REC INFO)
DEPTH: 4.5'±
FL: 545.6±
SANITARY (REC INFO)
SAN. MH TOP: 560.50 FL: 547.2±
SAN. MH TOP: 562.00 FL: 555.55 FL: 553.55
SAN. MH TOP: 567.00 FL: 560
STORM MH (R) TOP: 558.__ FL: 552.1±
STORM MH TOP: 568.10 FL: 562.75
STORM C.O. TOP: 567.__ FL: 564.00
STORM C.O. TOP: 568.40 FL: 565.40
STORM MANHOLE TOP = 549.51 F.L. = 543.98
STORM MH TOP: 566.10 FL: 561.36
SAN. C.O. TOP: 568.40 FL: 563.0±
SAN. C.O. TOP: 568.40 FL: 563.0±
SANITARY M.H. TOP = 569.91 F.L. = 560.90

GRATE INLET TOP: 567.00 FL: 562.45
GRATE INLET TOP = 548.77 F.L. = 544.82
GRATE INLET TOP = 548.82 F.L. = 545.42
GRATE INLET TOP: 558.80 F.L.: 556.50
GRATE INLET TOP = 558.61 F.L. = 555.21
GRATE INLET TOP = 559.18 F.L. = 553.48
GRATE INLET TOP = 553.75 F.L. = 549.20
GRATE INLET TOP: 558.78 F.L.: 551.38
CURB INLET TOP = 553.73 F.L. = 551.38
AREA INLET TOP = 554.76 F.L. = 547.76
AREA INLET TOP = 556.28 DROP = 553.33 F.L. = 551.23
AREA INLET TOP = 570.38 F.L. = 567.20
GRATE INLET TOP = 570.43
CURB INLET TOP: 569.98 F.L.: 561.58
CURB INLET TOP = 570.11 F.L. = 565.01
CURB INLET TOP = 570.27 F.L. = 567.97
CURB INLET TOP = 577.7 F.L. = 573.44
CURB INLET TOP = 570.60 F.L. = 566.80
CURB INLET TOP: 569.34 DROP: 564.04 F.L.: 562.52
YARD DRAIN SILL: 567.50 FL: 564.25
YARD DRAIN SILL: 567.50 FL: 563.75
YARD DRAIN SILL: 567.50 FL: 563.25
DRAIN TOP=568.15 FL= 568.20
FRENCH DRAIN F.L.: 555.16
FRENCH DRAINS

12" CMP
12" RCP
15" RCP
24" RCP
6" PVC
8" PVC
6" SAN. PVC
8" SAN. PVC
12" WATER MAIN
6" WATER MAIN

ASPHALT
CONCRETE
CONCRETE CURB
ASPHALT CURB
CURB STOP (TYPICAL)
TRUNCATED DOME (TYPICAL)
CONCRETE WALK
CONCRETE STEPS
BRICK WALKWAY
BRICK BUILDING
CONCRETE WALLS
SUMP PUMP
CAMERA
DONATION BOX
TOWER AREA (NO ACCESS)
WATER SERVICE MAINS (CITY OF ST. PETERS)
CURB CUT PUBLIC ACCESS
6' WOOD FENCE
8' WOOD FENCE
4' CHAIN LINK FENCE
4' METAL FENCE
BENCH
BUILDING HEIGHT = 583.7'
EASEMENT BK.2505 PG.911
LESS & EXCEPTING BK.870 PG.714
LESS & EXCEPTING (BK.1389 PG.517) EXHIBIT "A"
15' W.B.T. EASEMENT (BK. 1182 PG. 1439) & (BK. 1193 PG. 1137)
LOT 206
LOT 207

BRANDON ASHER HARP
NUMBER E-28650
PROFESSIONAL ENGINEER
STATE OF MISSOURI
BRANDON A. HARP, P.E.
Professional Engineer No. E-28650
Missouri Certificate of Authority No. 2003004674

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HOUSE #6
1151 Jungs Station Road
St. Peters, Missouri 63303

No.	Revision	Date

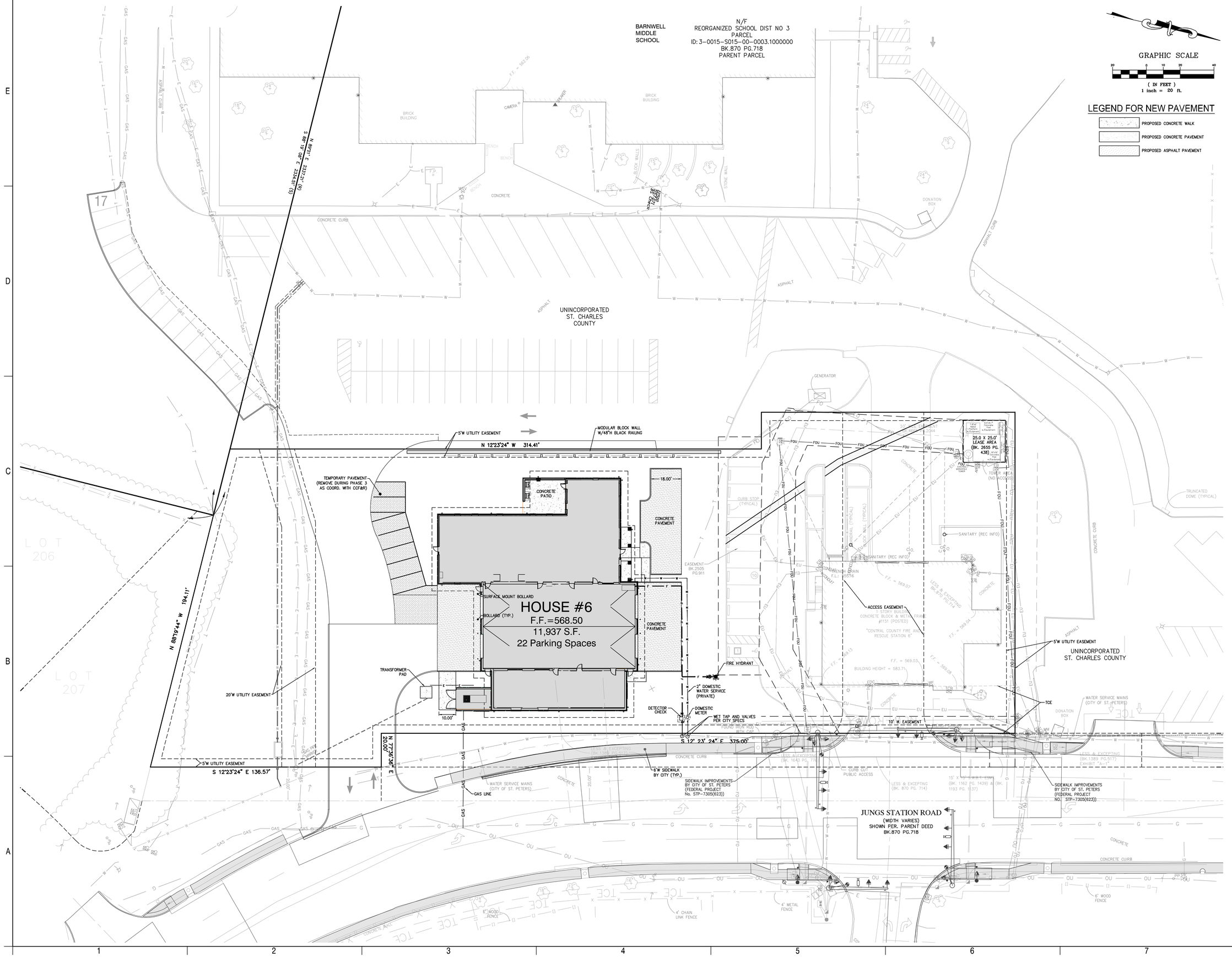
PHASE 2 - SITE AND GRADING PLAN

Project No.
2589

Sheet No.
C7.0

Date
2026/06/08

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"



SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
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SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

STATE OF MISSOURI
BRANDON ASHER HARP
NUMBER E-28650
PROFESSIONAL ENGINEER
BRANDON A. HARP, P.E.
Professional Engineer No. E-28650
Missouri Certificate of Authority No. 2003004674

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HOUSE #6
1151 Jungs Station Road St. Peters, Missouri 63303

No.	Date	Revision

PHASE 2 - SITE GEOMETRY AND UTILITY PLAN

Project No.
2589

Sheet No.
C8.0

Date
2026/06/08

N/F
REORGANIZED SCHOOL DIST NO 3
PARCEL
ID:3-0015-S015-00-0003.1000000
BK.870 PG.718
PARENT PARCEL

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

LEGEND FOR REMOVAL
PAVEMENT REMOVAL
BUILDING REMOVAL
TREE REMOVAL (T.B.R.)

HOUSE #6
F.F.=568.50
11,937 S.F.
22 Parking Spaces

UNINCORPORATED
ST. CHARLES
COUNTY

JUNGS STATION ROAD
(WIDTH VARIES)
SHOWN PER. PARENT DEED
BK.870 PG.718

N 88°19'44" W 194.11'
S 12°23'24" E 136.57'
N 77°36'36" E 200.00'
S 12° 23' 24" E 375.00'
N 12°23'24" W 314.41'
S 89°19'08" E 232.21' (S)

PHASE 2 WALL (SEE C14.0)
PHASE 2 GRADING
CONTRACTOR TO COORDINATE THE REMOVAL OF TEMPORARY PAVEMENT WITH CC4GR AND FRANCIS HOWELL
REMOVE TEMPORARY ASPHALT AFTER NORTH DRIVE IS OPEN (SEE C11.0)
FULL DEPTH SAWCUT
25.0 X 25.0' LEASE AREA (BK. 2655 PG. 438) (U.I.P.)
FENCE, GATE ALL INTERIOR (U.I.P.)
(BUILDING, FOOTINGS, FOUNDATION & UTILITIES (T.B.R.)
LIGHT & FLAG POLE T.B.R. (COORDINATE WITH OWNER)
10' W. EASEMENT
TRENCH DRAINS (T.B.R.)
LESS & EXCEPTING (BK.1389 PG.517) EXHIBIT "A-1"
LESS & EXCEPTING (BK. 870 PG. 714)
15' X 15' S.W.B.T. ESMT. (BK. 1162 PG. 1439) & (BK. 1193 PG. 1137)
CURB CUT PUBLIC ACCESS
EASEMENT BK.2505 PG.911
OIL INTERCEPTOR (SEE PG. 11.0)

BRANDON A. HARP P.E.
Professional Engineer No. E-28650
Missouri Certificate of Authority No. 2003004674

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HOUSE #6
1151 Jungs Station Road
St. Peters, Missouri 63303

No.	Date	Revision

PHASE 3 - EXISTING CONDITIONS & FACILITIES REMOVAL PLAN

Project No.
2589

Sheet No.
C9.0

Date
2026/06/08

N/F
REORGANIZED SCHOOL DIST NO 3
PARCEL
ID: 3-0015-S015-00-0003.1000000
BK.870 PG.718
PARENT PARCEL

UNINCORPORATED
ST. CHARLES
COUNTY

HOUSE #6
F.F.=568.50
11,937 S.F.
22 Parking Spaces

JUNGS STATION ROAD
(WIDTH VARIES)
SHOWN PER PARENT DEED
BK.870 PG.718

N 12°23'24" W 314.41'
S 12°23'24" E 136.57'
N 88°19'44" W 194.11'
S 12° 23' 24" E 375.00'
N 77°36'36" E 20.00'
S 89°19'08" E 237.21' (M)
S 89°19'08" E 234.45' (S)

25.0 X 25.0'
LEASE AREA
(BK. 2655 PG. 438)

10' W. EASEMENT

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
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SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
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STATE OF MISSOURI
BRANDON ASHER HARP
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Proposed:
CENTRAL COUNTY FIRE & RESCUE HOUSE #6
1151 Jungs Station Road St. Peters, Missouri 63303

No.	Date	Revision

PHASE 3 - SITE AND GRADING PLAN

Project No.
2589

Sheet No.
C10.0

Date
2026/06/08

BARNWELL MIDDLE SCHOOL

N/F
REORGANIZED SCHOOL DIST NO 3
PARCEL
ID: 3-0015-S015-00-0003.1000000
BK.870 PG.718
PARENT PARCEL

UNINCORPORATED
ST. CHARLES
COUNTY

HOUSE #6
F.F.=568.50
11,937 S.F.
22 Parking Spaces

JUNGS STATION ROAD
(WIDTH VARIES)
SHOWN PER. PARENT DEED
BK.870 PG.718

N 88°19'44" W 194.11'

S 12°23'24" E 136.57'

N 77°36'36" E 220.00'

S 12°23'24" E 375.00'

N 12°23'24" W 314.61'

S 89°19'08" E 232.57' (M)

25.0 X 25.0'
LEASE AREA
(BK. 2655 PG. 438)

12'W ACCESS ROAD
TO CELL TOWER
(ASPHALT PAVEMENT)

CELL TOWER
(U.I.P.)

6'W CONCRETE WALK

ACCESS EASEMENT

PROPOSED
DRIVE ENTRANCE
(BUILT BY CITY)

5'W UTILITY EASEMENT

ELECTRIC LINE
5'W UTILITY EASEMENT

MODULAR BLOCK WALL
W/48"H BLACK RAILING

20'W UTILITY EASEMENT

ELECTRIC FOR
SCHOOL SIGN

TCE

10'W. EASEMENT

6'W SIDEWALK
BY CITY (TYP.)

GAS LINE

WATER SERVICE MAINS
(CITY OF ST. PETERS)

ASPHALT PAVEMENT

CONCRETE PAVEMENT

CONCRETE PATIO

CONCRETE CURB

ASPHALT CURB

BRICK BUILDING

CONCRETE

BENCH

BRICK WALLS

STONE WALL

DONATION BOX

FLAG POLE

CAMERA

SPEAKER

TRUCATED DOME (TYPICAL)

SURFACE MOUNT BOLLARD

BOLLARD (TYP.)

ADA SIGNS & WHEEL STOPS

CONDUIT TO SIGNAL

SIGNAL BASE

STOP SIGN

FIRE HYDRANT

TRANSFORMER PAD

DETECTOR CHECK

2" DOMESTIC WATER SERVICE (PRIVATE)

DOMESTIC METER

WET TAP AND VALVES PER CITY SPECS

FOUND IRON PIN WITH CAP

6' WOOD FENCE

4' CHAIN LINK FENCE

4' METAL FENCE

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

LEGEND FOR NEW PAVEMENT

- PROPOSED CONCRETE WALK
- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
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SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

STATE OF MISSOURI
BRANDON ASHER HARP
NUMBER E-28650
PROFESSIONAL ENGINEER

BRANDON A. HARP, P.E.
Professional Engineer No. E-28650
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1151 Jungs Station Road St. Peters, Missouri 63303

No.	Date	Revision

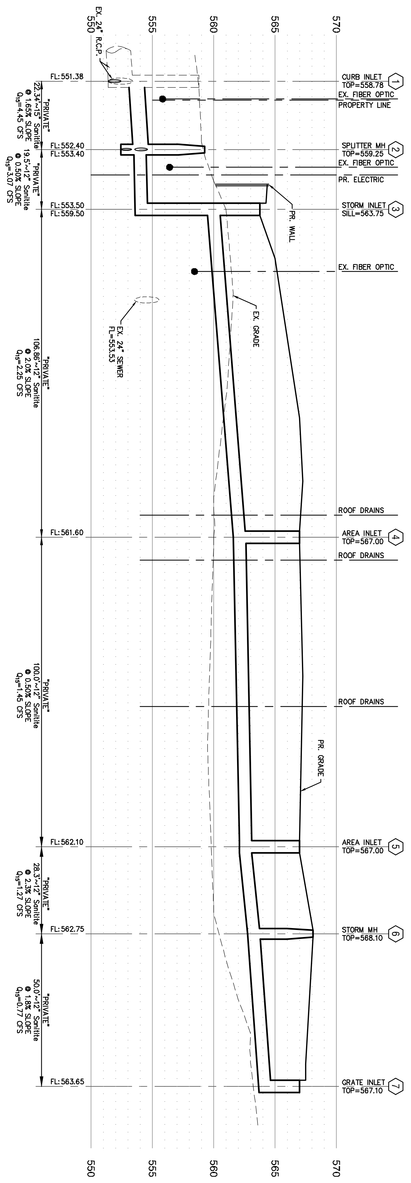
PHASE 3 - SITE GEOMETRY AND UTILITY PLAN

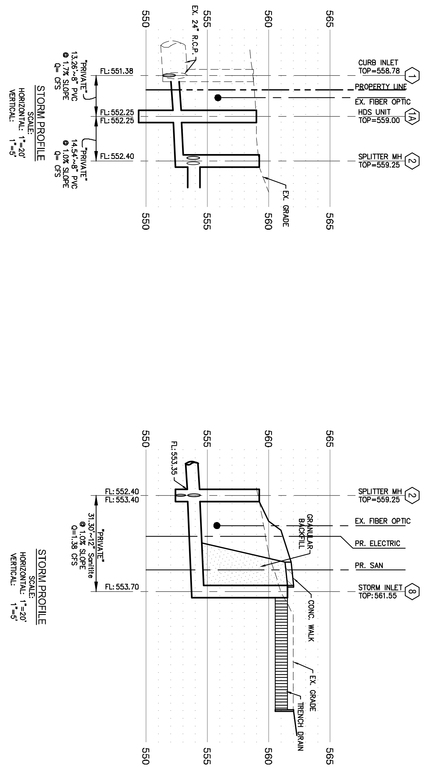
Project No.
2589

Sheet No.
C11.0

Date
2026/06/08

SCALE: 1/16" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 3" = 1'-0"





Sheet No. C12.0

Project No. 2589

Date 2026/06/08

No.	Date	Revision

SEWER PROFILES AND HYDRAULIC CALCULATIONS

Proposed:

CENTRAL COUNTY FIRE & RESCUE HOUSE #6

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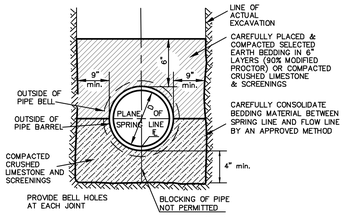
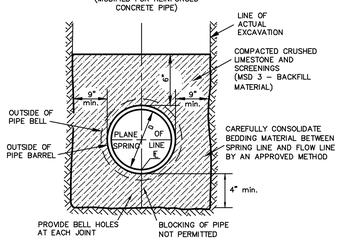
Missouri Certificate of Authority No. 2003008874

BRANDON ASHLEY HARP NUMBER E-29810 STATE OF MISSOURI PROFESSIONAL ENGINEER



PIPE BEDDING CLASS "C"

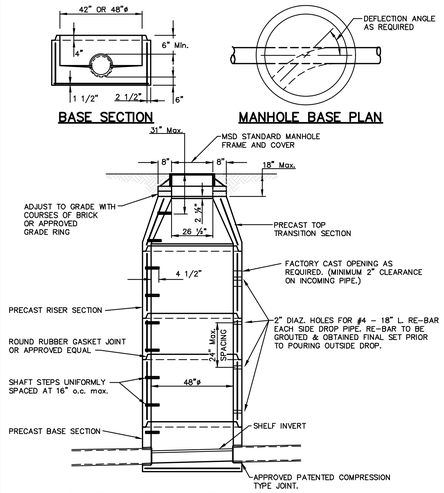
(MODIFIED FOR REINFORCED CONCRETE PIPE)



PIPE BEDDING CLASS "D"

(FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)

PIPE BEDDING DETAILS

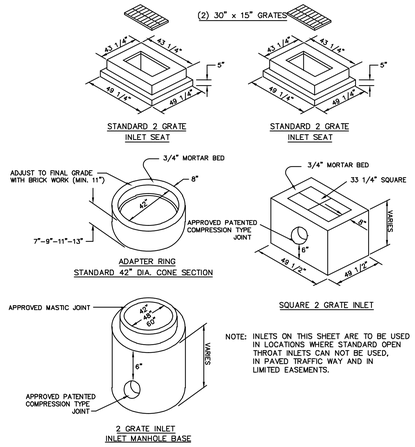


FLOWLINE ELEVATION OF INCOMING PIPES SHALL BE ONE (1) INCH HIGHER THAN THAN THAT OF OUTGOING PIPE.

SEE A.S.T.M. C–478 FOR MIN. STEEL REQUIREMENTS.

SAMPLING/PRECAST MANHOLE

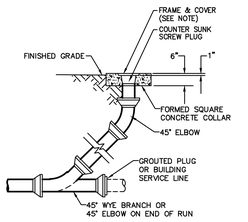
(FOR PRIVATE USE ONLY)



NOTE: INLETS ON THIS SHEET ARE TO BE USED IN LOCATIONS WHERE STANDARD OPEN THROAT INLETS CAN NOT BE USED, IN PAVED TRAFFIC WAY AND IN LIMITED EASEMENTS.

2 GRATE INLET

n.t.s.



DETAIL OF SEWER CLEANOUT

NOTE TO CONTRACTOR: THE TYPE OF LID/COVER FOR THE CLEANOUT IS DEPENDENT ON THEIR LOCATION--CONTRACTOR TO CONTACT ENGINEER WITH ANY QUESTIONS.
ASPHALT OR CONCRETE PAVEMENT: *CAST IRON*
LAWN OR LANDSCAPE AREAS: *PLASTIC*

■ **Note: When specifying/ordering grates, refer to "Choosing the proper inlet grate" on pages 117-118. For a complete listing of FREE OPEN AREAS and WEIR PERIMETERS of all NEENAH grates, refer to pages 306-311.**

R-4990 and R-4999 Series
Heavy Duty Trench

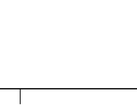
Materials: All frames and grates/lids are furnished standard in Gray Iron, Class 35-B for heavy-duty use. For extra heavy-duty use or superior durability requirements, see our Airport and Port Grating Series on page 198 and our R-4993 & R-4994 Series on page 269.

Neenah recommends project designers avoid the use of light duty trench installations because it is likely that applications will be subjected to heavy delivery vehicle traffic at some time. Furthermore, the use of a site could be changed to heavy duty use patterns at some unanticipated future date.

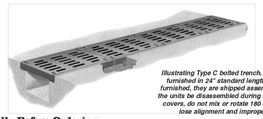
Dimensions in inches

Un-Bolted Catalog No.	Bolted Catalog No.	A	B	C	Type A	Type C	Type D	Type E	Type P	Type Q
R-4990-AX	R-4999-AX	6	1 1/2	6	x	x	x	x	x	
R-4990-BX	R-4999-BX	10	1 1/2	9	x	x	x	x	x	
R-4990-CX	R-4999-CX	12	1 1/2	10	x	x	x	x	x	x
R-4990-DX	R-4999-DX	14	1 1/2	12	x	x	x	x	x	x
R-4990-EX	R-4999-EX	17	1 1/2	15	x	x	x	x	x	
R-4990-FX	R-4999-FX	20	1 1/2	18	x	x	x	x	x	
R-4990-GX	R-4999-GX	23	1 1/2	21	x	x	x			
R-4990-HX	R-4999-HX	26	1 1/2	24	x	x	x	x		x
R-4990-JX	R-4999-JX	30	2	27	x	x	x			
R-4990-KX	R-4999-KX	33	2	30	x	x	x	x		
R-4990-LX	R-4999-LX	36	2	33	x	x	x			
R-4990-MX	R-4999-MX	39	2	36	x	x	x			
R-4990-NX	R-4999-NX	45	2	42	x	x	x			
R-4990-OX	R-4999-OX	51	2	48	x		x			

x = Indicates availability



General schematic shown may not apply to all designs. Bar and rib depths, plate thicknesses, and seating widths vary on different sizes and styles. If your project has design restrictions, contact your sales representative or product engineering.



Illustrating Type C bolted trench. Bolted trench sections are furnished in 24" standard lengths. When bolted trench is furnished, they are shipped assembled - AT NO TIME should the units be disassembled during installation. When removing covers, do not mix or rotate 180 degrees as bolt holes may lose alignment and improper bearing may occur.

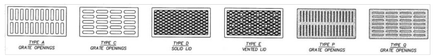
Read Carefully Before Ordering

The various standard trench drains are available with a number of alternatives. It is important to examine all of the variables carefully and specify your requirements fully. Your order will be entered correctly and promptly if it includes the following information:

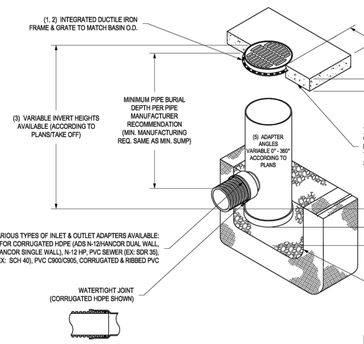
- Complete catalog number
- Frame and pieces, when required
- Type of Lid or Grate: A, C, D, E, P or Q
- Length of trench sections
- Angles and intersections *
- Load requirements

* Trenches with angles, intersections, size changes, or other special requirements require detail drawings prior to ordering. Contact your sales representative or product engineering for assistance.

TRENCH CAPACITIES



NYLOPLAST 24" DRAIN BASIN: 2824AG _ _X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	2480GSP	7001-110-216
STANDARD	MEETS H-20	2496GSS	7001-110-217
SOLID COVER	MEETS H-20	2496GSC	7001-110-218
SLOTTED GRATE	LIGHT DUTY	2496GSG2	7001-110-219
DROP IN GRATE	LIGHT DUTY	2482GS	7001-110-975

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
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.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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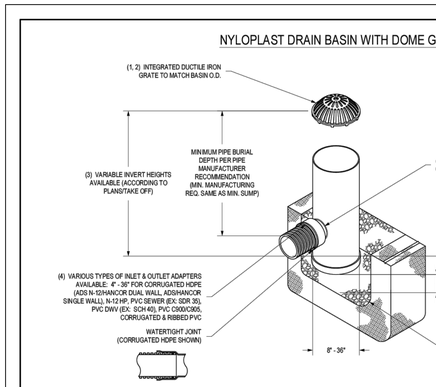
DRAWN BY	EBC	MATERIAL	
DATE	04-03-08		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-14-10		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

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

TITLE: 24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-192 REV E

NYLOPLAST DRAIN BASIN WITH DOME GRATE



1 - 6" - 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. 7001-110-941.
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 (EX: SDR 35).
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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DRAWN BY	ESC	MATERIAL	
DATE	03-25-10		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	06-12-18		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

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

BRANDON ASHER HARP NUMBER E-28650 PROFESSIONAL ENGINEER STATE OF MISSOURI
BRANDON A. HARP P.E.
Professional Engineer No. E-28650
Missouri Certificate of Authority No. 2003004674

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10820 Sunset Office Drive Suite 200 Sunset Hills, Missouri 63127 314.729.1400 Fax: 314.729.1404 www.cedcstl.com

Proposed: CENTRAL COUNTY FIRE & RESCUE HOUSE #6
1151 Jungs Station Road St. Peters, Missouri 63303

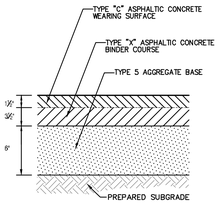
No.	Revision	Date

SEWER DETAILS

Project No. 2589

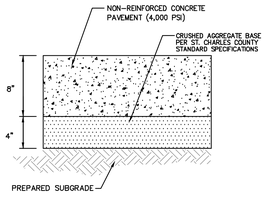
Sheet No. C13.0

Date 2026/06/08



LIGHT DUTY ASPHALT PAVEMENT DETAIL

(N.T.S.)

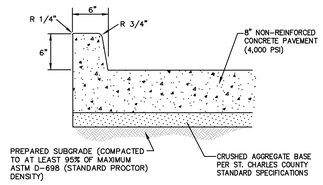


CONCRETE PAVEMENT DETAIL

(FOR USE IN APPROACHES, DUMPSTER PAD AND PRIMARY DRIVE AREAS)

NOTES:

1. REFER TO SITE PLAN FOR AREAS OF PAVEMENT TYPE AND THICKNESS.
2. EXPANSION MATERIAL SHALL BE INSTALLED EVERY 20' IN CURB. EXPANSION MATERIAL SHALL BE OF A TYPE EQUAL TO THE ASPHALT IMPREGNATED FIBERBOARD CONFORMING TO ASTM C 175 FOR EXTERIOR WORK. EXPANSION MATERIAL SHALL EXTEND FULL DEPTH OF CURB AND GUTTER, LESS 1/4" AT TOP OF CONCRETE.
3. CURBS TO BE PROVIDED WITH SAW CUT OR TOOLED JOINT AT 10' INTERVALS.
4. JOINTS AND SAW CUTS TO BE SEALED WITH LIMESTONE COLORED SEALANT.
5. TYPE 5 AGGREGATE REFERS TO ST. CHARLES COUNTY SPECIFICATION



BARRIER CURBING DETAIL

N.T.S.

NOTES:

1. REFER TO SITE PLAN FOR AREAS OF PAVEMENT TYPE AND THICKNESS.
2. EXPANSION MATERIAL SHALL BE INSTALLED EVERY 20' IN CURB. EXPANSION MATERIAL SHALL BE OF A TYPE EQUAL TO THE ASPHALT IMPREGNATED FIBERBOARD CONFORMING TO ASTM C 175 FOR EXTERIOR WORK. EXPANSION MATERIAL SHALL EXTEND FULL DEPTH OF CURB AND GUTTER, LESS 1/4" AT TOP OF CONCRETE.
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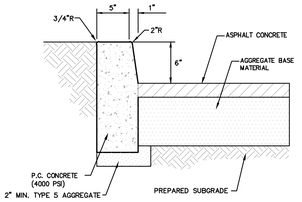
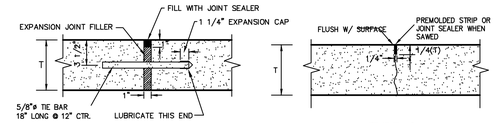


CONCRETE VERTICAL CURB DETAIL

N.T.S.
(NOT FOR USE IN RIGHT-OF-WAY)



TYPE AA

EXPANSION JOINT

(NOT FOR USE IN RIGHT-OF-WAY)

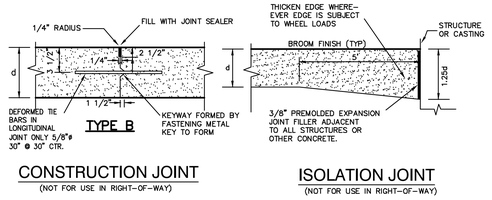
TYPE C

CONTRACTION JOINT

(NOT FOR USE IN RIGHT-OF-WAY)

NOTES:

1. CONSTRUCTION JOINTS ARE REQUIRED BETWEEN ALL POURS SEPARATED BY MORE THAN 30 MINUTES TIME.
2. PLACE LONGITUDINAL CONSTRUCTION JOINT AT CENTERLINE OF ROADWAYS WHEN PAVEMENT IS WIDER THAN 12'.
3. MAXIMUM OF FOURTEEN FOOT (14) SPACING BETWEEN CONTROL JOINTS FOR 7" THICK PAVEMENT.
4. FILL JOINTS TO WITHIN 1/8" OF SURFACE WITH JOINT SEALER.
5. JOINTS TO BE SEALED WITH LIMESTONE COLORED SEALANT.
6. WHEN A JOINT FALLS WITHIN 5' OF A MANHOLE, LIGHT POLE BASE, OR OTHER STRUCTURE, SHORTEN ONE OR MORE PANELS ON EITHER SIDE OF STRUCTURE TO ALLOW CONTROL JOINTS TO FALL AT STRUCTURE.
7. CONTRACTOR MAY SUBMIT ALTERNATE JOINTING PLAN TO ENGINEER FOR REVIEW.



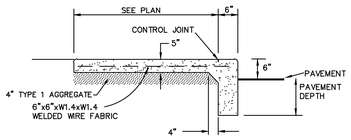
TYPE B

CONSTRUCTION JOINT

(NOT FOR USE IN RIGHT-OF-WAY)

ISOLATION JOINT

(NOT FOR USE IN RIGHT-OF-WAY)



NOTES:

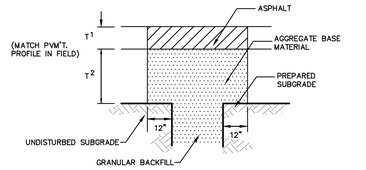
1.) EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN THE WALK FOR ITS FULL WIDTH AND DEPTH AT INTERVALS OF APPROX. 20'.

2.) CONTROL JOINTS SHALL BE INSTALLED AT INTERVALS OF 1.0 TIMES ITS WIDTH.

3.) JOINTS TO BE SEALED WITH LIMESTONE COLORED SEALANT.

MONOLITHIC SIDEWALK/CURB DETAIL

(SIDEWALK AT BUILDING)

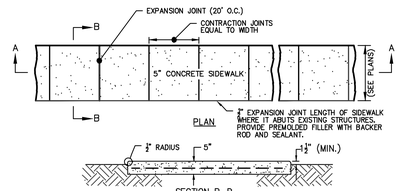


NOTE:
SAW CUT PERIMETER OF PATCH AND EXCAVATE EXISTING PAVEMENT SECTION TO SOUND BASE. EXCAVATE RECTANGULAR OR TRAPEZOIDAL PATCHES, EXTENDING 12 INCHES INTO ADJACENT SOUND PAVEMENT, UNLESS OTHERWISE INDICATED. CUT EXCAVATION FACES VERTICALLY. REMOVE EXCAVATED MATERIAL. RECOMPACT EXISTING UNBOUND AGGREGATE BASE COURSE TO FORM NEW SUBGRADE.

NEW PAVEMENT SHALL MATCH THE EXISTING PAVEMENT TYPE AND THICKNESS

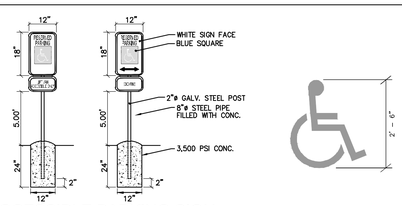
PATCHING ASPHALT TRENCH/PAVEMENT

(N.T.S.)



DETAIL OF CONCRETE SIDEWALK

(NOT FOR USE IN RIGHT-OF-WAY)



ACCESSIBLE PARKING SIGN

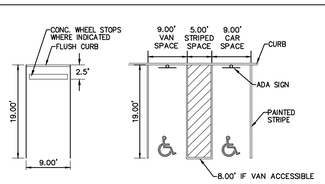
- STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT OR CITY STREET DEPARTMENT CAUSE.
- LETTERS AND BORDERS ARE GREEN
- HANDICAP LOGO SQUARE IS BLUE
- SIGN FACE IS WHITE
- SET BOTTOM OF "FINE" SIGN 60" A.F.G.

IF INSTALLED BEHIND CURB

ADA SIGN

(n.t.s.)

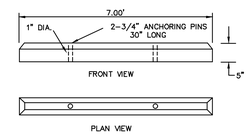
NOTE:
ADA GRAPHIC SHALL BE WHITE OR PER LOCAL CODE



TYPICAL PARKING STALLS

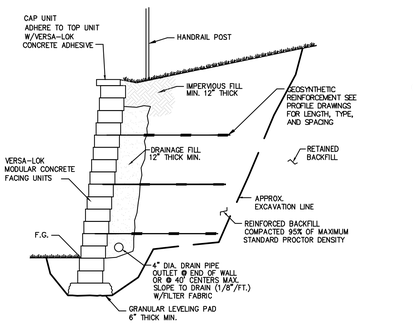
(n.t.s.)

NOTE:
ADA STRIPING & GRAPHIC SHALL BE WHITE OR PER LOCAL CODE



PRE-CAST CURB STOP

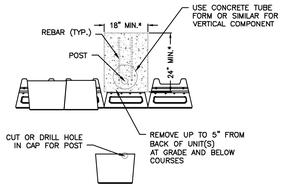
(n.t.s.)



TYPICAL SECTION-REINFORCED RETAINING WALL

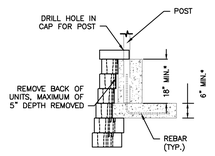
MODULAR CONCRETE UNIT
SCALE: NONE

NOTES:
1.) REFER TO THIS DRAWING FOR WALL PROFILE AND HEIGHT ONLY. DESIGN OF WALL SHALL BE BY OTHERS.
2.) TYPE OF WALL TO BE DETERMINED BY OWNER AND ARCHITECT. FENCE TYPE, COLOR/STYLE/ETC. TO BE COORDINATED WITH ARCHITECT.
3.) STRUCTURAL CALCULATIONS TO BE PROVIDED BY WALL MANUFACTURER OR STRUCTURAL ENGINEER. PERMITS FOR WALL TO BE OBTAINED BY CONTRACTOR.
4.) THE WALL MANUFACTURER SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT IF ONE HAS BEEN PREPARED FOR THIS PROJECT AND COMPLY WITH THE REQUIREMENTS OUTLINED IN REPORT.
5.) HORIZONTAL LOCATION OF BASE OF WALL IS SUBJECT TO FINAL WALL DESIGN AND WALL BATTER.
6.) CONTRACTOR TO ACCOUNT FOR WALL BATTER WHEN STAKING OUT WALL AND BUILDING WALL.



POST DETAIL-PLAN VIEW

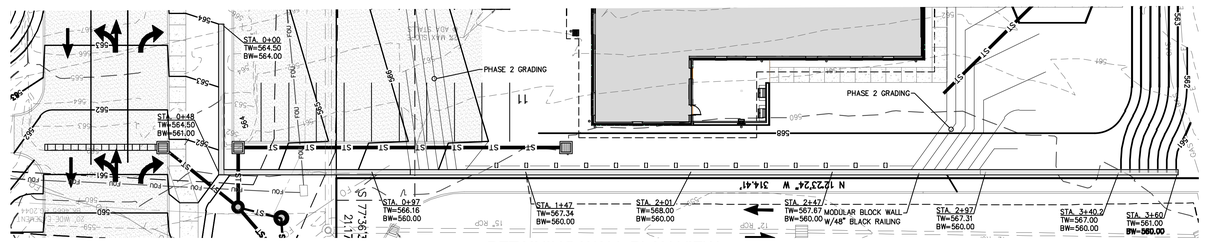
SCALE: NONE



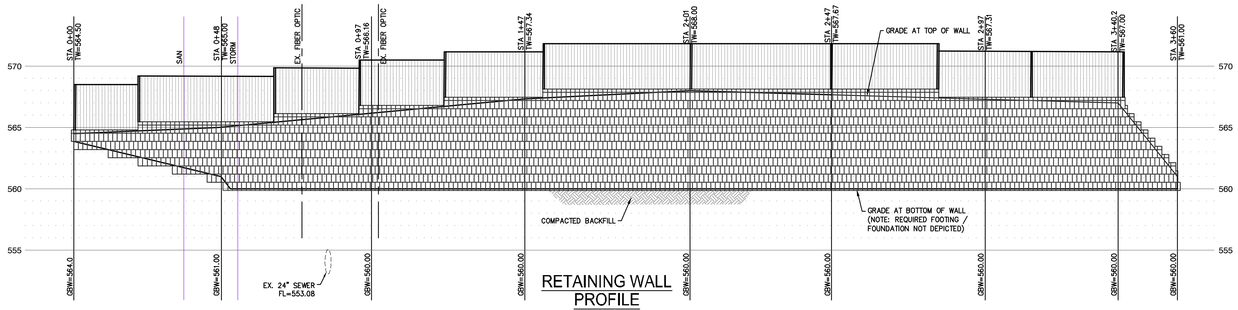
POST DETAIL-SECTION

SCALE: NONE

*NOTE:
ACTUAL DIMENSIONS AND REBAR REQUIREMENTS VARY DEPENDING ON PEDESTRIAN LOADING REQUIREMENTS AND POST SPACING. FINAL DETERMINATION OF SUITABILITY, USE, AND DESIGN SHOULD BE COMPLETED BY A QUALIFIED LICENSED ENGINEER. THIS DETAIL IS NOT SUITABLE FOR FENCE INSTALLATIONS WITH HIGH WIND LOAD REQUIREMENTS.



RETAINING WALL PLAN VIEW



RETAINING WALL PROFILE

SCALE:
HORIZONTAL: 1"=20'
VERTICAL: 1"=5'

BRANDON ASHER HARP NOTARY PUBLIC STATE OF MISSOURI NUMBER 13 E-28650 PROFESSIONAL ENGINEER

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Professional Engineer No. E-28650
Missouri Certificate of Authority No. 2003004674

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Proposed:
CENTRAL COUNTY FIRE & RESCUE HOUSE #6
1151 Jungs Station Road St. Peters, Missouri 63303

No.	Date	Revision

SITE DETAILS

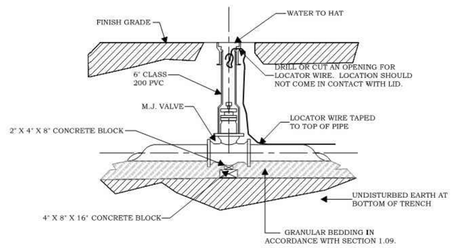
Project No. 2589

Sheet No. C14.0

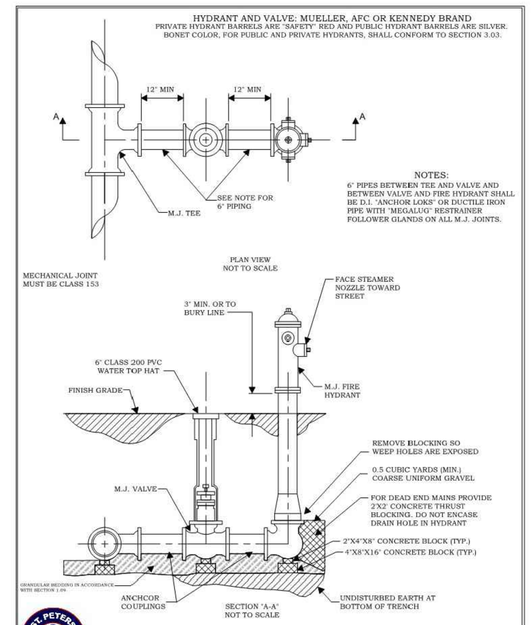
Date 2026/06/08

City of St. Peters Water Notes

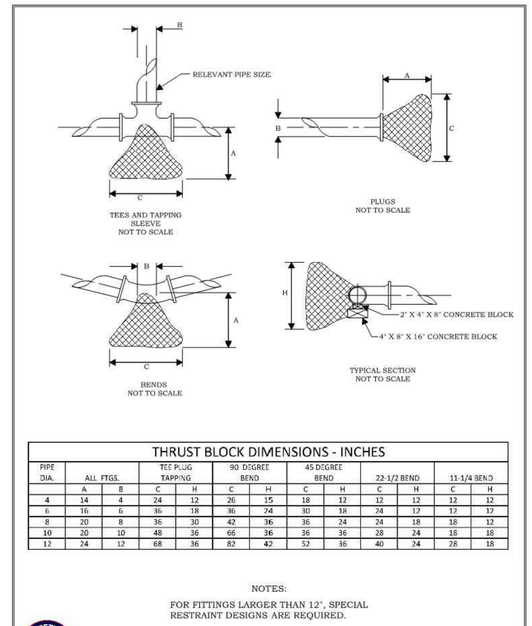
- All water infrastructure will be private except water meters.
- Water meters to be supplied by developer. Water meters shall be Neptune Mach 10 model.
- Irrigation meter shall have inline curb-stop valves upstream and downstream of meter pit.



GATE VALVE DETAIL
NOT TO SCALE
DETAIL "D"



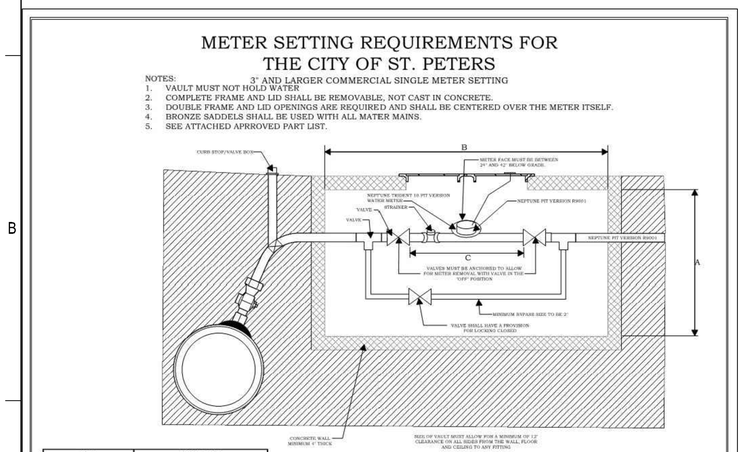
FIRE HYDRANT DETAIL
DETAIL "B"



THRUST BLOCK DIMENSIONS - INCHES												
PIPE DIA.	ALL FTGS.		TEE PLUG TAPPING		90 DEGREE BEND		45 DEGREE BEND		22-1/2 BEND		11-1/4 BEND	
	A	B	C	H	C	H	C	H	C	H	C	H
4	14	4	24	12	26	15	18	12	12	12	12	12
6	16	6	36	18	36	24	30	18	24	12	12	12
8	20	8	36	30	42	36	36	24	24	18	18	12
10	20	10	48	36	66	36	36	36	28	24	18	18
12	24	12	68	36	82	42	52	36	40	24	28	18

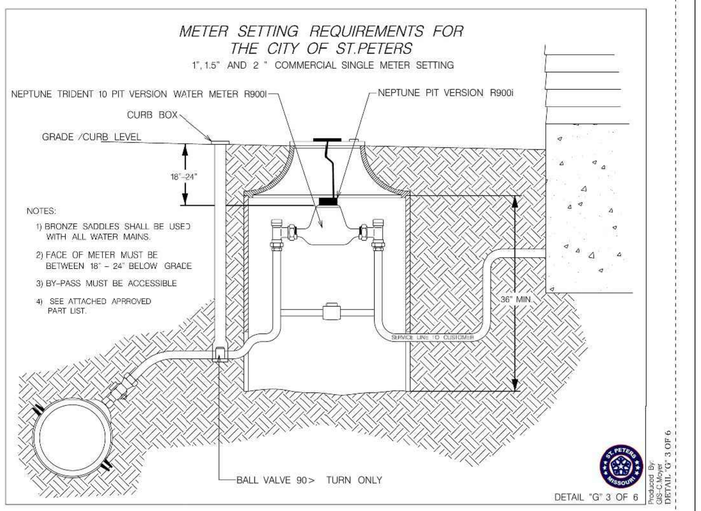
NOTES:
FOR FITTINGS LARGER THAN 12", SPECIAL RESTRAINT DESIGNS ARE REQUIRED.

HORIZONTAL THRUST BLOCKING
DETAIL "C"

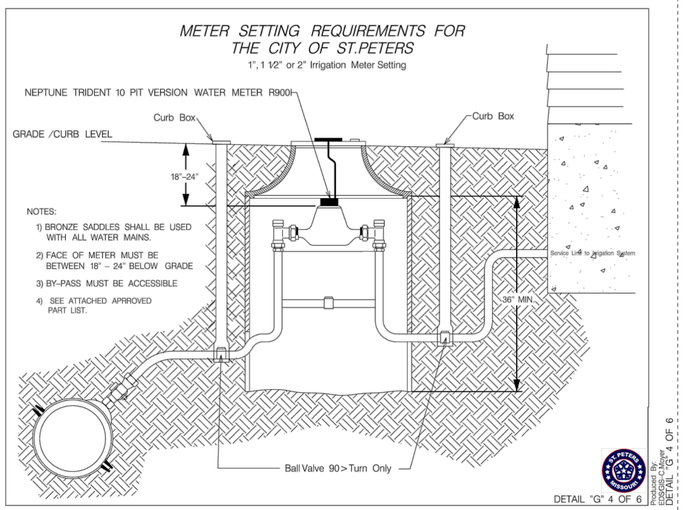


SIZE		MIN. DIM. IN.		
SERVICE IN.	BYPASS MIN-IN	A	B	C
6	6	60	144	60
8	8	60	144	66
3	2	48	102	54
4	2	48	102	54

DETAIL "G" 5 OF 6



DETAIL "G" 3 OF 6



DETAIL "G" 4 OF 6

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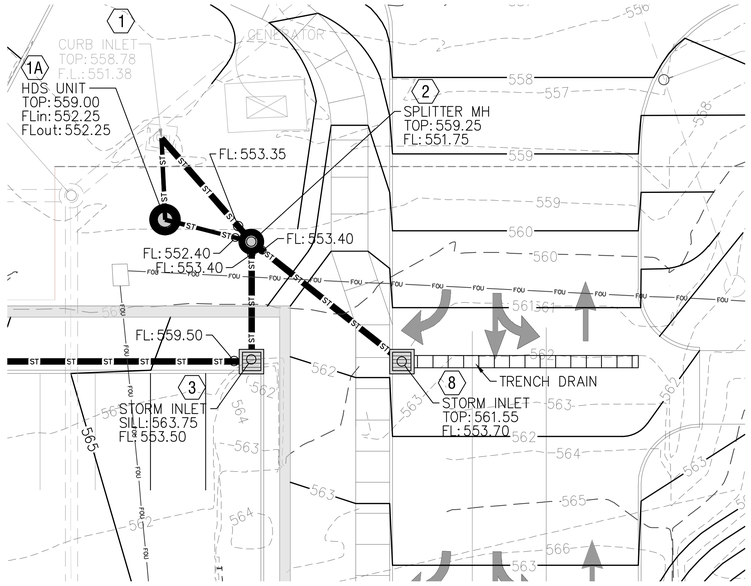


HDS UNIT PLAN

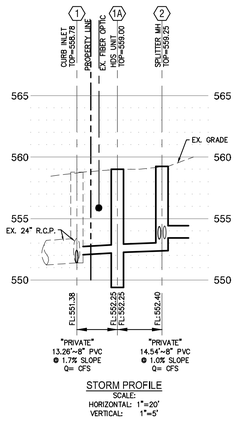
SCALE: 1"= 10'

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)

1 inch = 10 ft.



STORM PROFILE

SCALE:

HORIZONTAL: 1"=20'

VERTICAL: 1"=5'

Arcadia™

The Arcadia is market-changing stormwater quality technology. This high-performance hydrodynamic separator is designed to remove total suspended solids in order to protect the world's most precious resource, water. The Arcadia is also an outstanding value that offers multiple pipe configurations and quick installation.

Features

- *Single manhole design*
- *No elevation loss between the inlet and outlet*
- *Variable inlet/outlet angle configurations (not just 180 degree orientation*
- *Internal bypass for inline installation (where applicable)*
- *Innovative, patent-pending design mitigates turbulence in the sump area to prevent resuspension of captured contaminants*

Benefits

- *The AR3, AR4, AR5, AR6, AR8 and AR10 can be installed in a standard 36" (900 mm), 48" (1200 mm), 60" (1500 mm), 72" (1800 mm), 96" (2400 mm) and 120" (3000 mm) precast manhole, respectively*
- *The AR3, AR4 and AR5 can be provided factory assembled within a 36" (900 mm), 48" (1200 mm) and 60" (1500 mm) ADS HP manhole and delivered to the jobsite*
- *The interlocking internals are designed and manufactured for quick and easy installation*
- *Designed for easy maintenance using a vacuum truck or similar equipment*
- *Inspection and maintenance are performed from the surface with no confined space entry.*

Arcadia Specification

Materials and Design

- Concrete Structures: Designed for H-20 traffic loading and applicable soil loads or as otherwise determined by a licensed Professional Engineer. The materials and structural design of the devices shall be per ASTM C857 and ASTM C858.
- HP Manhole Structures: Made from an impact modified copolymer and polypropylene meeting the material requirements of ASTM F2764. Gaskets shall be made of material meeting the requirements of ASTM F477.
- Separator internals shall be substantially constructed of polypropylene, polyethylene or other thermoplastic material approved by the manufacturer.

Performance

- The stormwater treatment unit shall be an inline unit capable of conveying 100% of the design peak flow. If peak flow rates exceed maximum hydraulic rate, the unit shall be installed offline.
- The Arcadia unit shall be designed to remove at least 80% of the suspended solids on an annual aggregate removal basis. Said removal shall be based on full-scale third party verified testing using OK-110 media gradation or equivalent and 300 mg/L influent concentration. Full scale testing shall have included sediment capture based on actual total mass collected by the stormwater treatment unit.
  - OR -
  The Arcadia unit shall be designed to remove at least 50% of TSS using a media mix with D50=75 micron and 200 mg/L influent concentratoin per current NJDEP/NJCAT HDS protocol.
- The stormwater treatment unit internals shall consist of one (1) separator assembly.

Arcadia Model*		Manhole Diameter in. (mm)	NJDEP (50% removal) cfs (L/s)	OK-110 (80% removal) cfs (L/s)
AR3HP	HP manhole with concrete top slab	36 (900)	0.95 (26.9)	1.55 cfs (43.9)
AR3HPDT	HP manhole with ductile iron flat top			
AR3PC	Concrete manhole			
AR4HP	HP manhole with concrete top slab	48 (1200)	1.68 (47.6)	2.75 (77.9)
AR4HPDT	HP manhole with ductile iron flat top			
AR4PC	Concrete manhole			
AR5HP	HP manhole with concrete top slab	60 (1500)	2.63 (74.5)	4.30 (121.8)
AR5PC	Concrete manhole			
AR6PC	Concrete manhole	72 (1800)	3.78 (107.0)	6.19 (175.3)
AR8PC	Concrete manhole	96 (2400)	6.72 (190.3)	11.00 (311.5)
AR10PC	Concrete manhole	120 (3000)	10.50 (297.3)	17.19 (486.8)

* NOTE: Peak bypass flows are dependent on final design.

Installation

Installation of the stormwater treatment unit(s) shall be performed per manufacturer's installation instructions. Instructions can be obtained by visiting the Arcadia page at adspipe.com.

adspipe.com

800-821-6710

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CENTRAL COUNTY FIRE & RESCUE HOUSE #6
115' Jungs Station Road St. Peters, Missouri 63303

No.	Date	Revision

BEST MANAGEMENT PRACTICES PLAN

Project No.
2589

Sheet No.
C15.0

Date
2026/06/08

BK.870 PG.718
PARENT PARCEL

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

UNINCORPORATED
ST. CHARLES
COUNTY

0.07 ac.
X 1.70 c.f.s./ac.
0.12 c.f.s.

0.02 ac.
X 1.70 c.f.s./ac.
0.03 c.f.s.

0.02 ac.
X 1.70 c.f.s./ac.
0.03 c.f.s.

0.21 ac.
X 3.54 c.f.s./ac.
0.74 c.f.s.

0.03 ac.
X 1.70 c.f.s./ac.
0.05 c.f.s.

0.22 ac.
X 3.54 c.f.s./ac.
0.77 c.f.s.

0.02 ac.
X 1.70 c.f.s./ac.
0.03 c.f.s.

0.26 ac.
X 3.54 c.f.s./ac.
0.92 c.f.s.

0.15 ac.
X 1.70 c.f.s./ac.
0.25 c.f.s.

0.11 ac.
X 1.70 c.f.s./ac.
0.18 c.f.s.

0.01 ac.
X 3.54 c.f.s./ac.
0.03 c.f.s.

0.02 ac.
X 1.70 c.f.s./ac.
0.03 c.f.s.

0.01 ac.
X 1.70 c.f.s./ac.
0.02 c.f.s.

0.06 ac.
X 1.70 c.f.s./ac.
0.10 c.f.s.

25.0 X 25.0'
LEASE AREA
(BK. 2655 PG. 438)

JUNGS STATION ROAD
(WIDTH VARIES)
SHOWN PER. PARENT DEED
BK.870 PG.718

FOR DRAINAGE AREAS ONLY
NOT FOR CONSTRUCTION

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NUMBER E-28650
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STATE OF MISSOURI

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Proposed:
CENTRAL COUNTY FIRE &
RESCUE HOUSE #6
1151 Jungs Station Road
St. Peters, Missouri 63303

No.	Date	Revision

DRAINAGE AREA PLAN

Project No.
2589

Sheet No.
C16.0

Date
2026/06/08

STORM WATER POLLUTION PREVENTION NOTES

1. SITE OWNER: CENTRAL COUNTY FIRE AND RESCUE
   1220 CAVE SPRINGS BLVD.
   ST. PETERS, MO 63376

   EMERGENCY CONTACT TO BE DETERMINED (CONSTRUCTION)

2. SITE ADDRESS: 1151 JUNGS STATION
   ST. PETERS, MO 63376

3. ALL FILL OR BACKFILL OPERATIONS SHALL BE EXECUTED UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL DETERMINE THE SUITABILITY AND ASCERTAIN COMPLIANCE WITH SPECIFICATION REQUIREMENTS OF ALL MATERIALS TO BE USED AS FILLS.

4. TOTAL LAND ESTIMATED TO BE DISTURBED = ___ ac. ±

5. EARTHWORK QUANTITIES
   BULK CUT: _____ ± CUBIC YARD
   BULK FILL: _____ ± CUBIC YARD (INCLUDES 15 PERCENT FOR SHRINKAGE)

   (SEE EARTHWORK NOTES ON SHEET C2.0).

6. A CORPORATE SURETY BOND, CONDITIONED UPON CARRYING OUT EACH AND EVERY PART OF APPROVED PLANS FOR AT LEAST THE SUM ESTIMATED TO BE THE FULL COSTS OF CARRYING OUT SUCH PLANS OR A CASH ESCROW, UPON THE SAME CONDITIONS AND IN THE SAME AMOUNT, SHALL BE FURNISHED THE CITY WHENEVER SUCH COSTS EXCEED FIVE HUNDRED DOLLARS ($500.00). THE BOND OR ESCROW SHALL BE RELEASED UPON PROPER COMPLETION OF ALL OF THE REQUIREMENTS OF SUCH APPROVED PLANS.

7. THE PERMIT HOLDER IS TO ENSURE PROPER INSTALLATION, OPERATION AND MAINTENANCE OF BMP'S AND TO DETERMINE THE OVERALL EFFECTIVENESS OF THE SWPPP AS WELL AS THE NEED FOR ADDITIONAL CONTROL MEASURES TO THE COUNTY. THE PERMIT HOLDER SHALL ALSO BE RESPONSIBLE TO:

   a. NOTIFY THE SITE CONTRACTOR(S) RESPONSIBLE FOR ANY DEFICIENCIES IDENTIFIED SO THAT DEFICIENCIES CAN BE CORRECTED WITHIN SEVEN CALENDAR DAYS OF THE INSPECTION REPORT. SUCH WEEKLY INSPECTION REPORTS SHALL IDENTIFY DEFICIENCIES AS WELL AS PROGRESS IN CORRECTING DEFICIENCIES.
   b. NOTIFY ALL CONTRACTORS AND OTHER ENTITIES (INCLUDING UTILITY CREWS, COUNTY EMPLOYEES, OR THEIR AGENTS) THAT WILL PERFORM WORK AT THE SITE, OF THE EXISTENCE OF THE SWPPP AND WHAT ACTIONS OR PRECAUTIONS SHALL BE TAKEN WHILE ON SITE TO MINIMIZE THE POTENTIAL FOR EROSION AND THE POTENTIAL FOR DAMAGING ANY BMP'S.
   c. DETERMINE THE NEED FOR AND ESTABLISH TRAINING PROGRAMS TO ENSURE THAT ALL SITE WORKERS HAVE BEEN TRAINED, AT A MINIMUM, IN EROSION CONTROL, MATERIAL HANDLING AND STORAGE, AND HOUSEKEEPING.
   d. PROVIDE COPIES OF THE SWPPP TO ALL PARTIES WHO ARE RESPONSIBLE FOR INSTALLATION, OPERATION OR MAINTENANCE OF ANY BMP'S.
   e. MAINTAIN A CURRENT COPY OF THE SWPPP AND PERMIT ON THE SITE AT ALL TIMES AND MADE AVAILABLE UPON REQUEST. IF CONDITIONS ARE NOT FAVORABLE TO MAINTAIN A CURRENT COPY OF THE SWPPP ON SITE, INSTALL A SIGN AT THE ENTRANCE TO THE SITE, PLAINLY VISIBLE TO THE TRAVELING PUBLIC, LISTING INFORMATION PERTINENT TO THE SWPPP'S LOCATION AND THE 24 HOURS A DAY / 7 DAYS PER WEEK PHONE NUMBER OF THE PERSON IN CHARGE OF THE SWPPP.

8. PRIOR TO ANY MAJOR LAND DISTURBANCE ACTIVITY, A LAND DISTURBANCE PERMIT FROM THE STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES WILL BE REQUIRED.

9. CONTRACTOR TO PROVIDE THE CITY OF ST. PETERS WITH A CONSTRUCTION SCHEDULE.

10. **DESCRIPTION OF B.M.P.'s (INTERIM & PERMANENT STABILIZATION PRACTICES/SCHEDULE)**
   a. CONTRACTOR SHALL ESTABLISH PERIMETER SILTATION CONTROL PRIOR TO ANY CONSTRUCTION ACTIVITIES. AREAS REQUIRING MINOR CLEARING &/OR GRADING PRIOR TO INSTALLATION OF SILTATION CONTROL SHALL BE COMPLETED IN A TIMELY MANNER AND SILTATION CONTROL ESTABLISHED IMMEDIATELY FOLLOWING.
   b. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED WHERE THE ACCESS AREAS INTERSECT WITH PUBLIC ACCESS WAYS. DURING MUDDY CONDITIONS, DRIVERS OF VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE ENTERING THE ROADWAY. WHERE SEDIMENT IS TRANSPORTED ONTO PUBLIC ACCESS WAYS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROAD BY SHOVELING OR SWEEPING. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
   c. UPON COMMENCEMENT OF INITIAL CLEARING AND GRUBBING OPERATIONS, AS WELL AS FUTURE GRADING OPERATIONS, TOPSOIL MUST BE STRIPPED FROM GRADED AREAS AND STOCKPILED FOR USE IN FINAL GRADING AND/OR EXCESS REMOVAL. THE STOCKPILES WILL BE KEPT ON SITE BUT MUST STAY CLEAR OF ALL CONSTRUCTION ACTIVITY. THE STOCKPILE WILL BE STABILIZED WITH TEMPORARY VEGETATION TO PREVENT SOIL LOSS AND SEDIMENT TRANSPORT FROM THE STOCKPILE ITSELF UNTIL NEEDED.
   d. TEMPORARY ROADS SHALL FOLLOW THE CONTOUR OF THE NATURAL TERRAIN TO THE EXTENT POSSIBLE. SLOPES SHALL NOT EXCEED 10 PERCENT SLOPE.
   e. CONTRACTOR SHALL CLEAR AND GRUB THOSE AREAS OF THE SITE SCHEDULED FOR CONSTRUCTION. AREAS NOT SCHEDULED FOR IMMEDIATE CONSTRUCTION SHALL NOT BE CLEARED OF ESTABLISHED VEGETATION UNTIL REQUIRED. REMAINDER OF SITE SHALL BE GRADED, AS REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF SILTATION CONTROL THROUGHOUT THE DURATION OF THE PROJECT.
   f. STORM DRAINS SHALL BE INSTALLED AS EARLY AS POSSIBLE, PROVIDED THE INSTALLATION DOES NOT CONFLICT WITH OTHER CONSTRUCTION ACTIVITIES. SILT FENCE SHALL BE STAKED AROUND EACH INLET IMMEDIATELY, UPON COMPLETION OF CONSTRUCTION OF EACH INLET. INLETS MAY BE UTILIZED FOR STORMWATER CONTROL DURING CONSTRUCTION WITH THE SILT FENCE AND EROSION CONTROL MEASURES IN PLACE.
   g. ALL PROPOSED TURF AREAS, ONCE CONSTRUCTED TO FINAL GRADE SHALL BE SEEDED/ SODDED WITHIN 5 DAYS AFTER FINAL GRADING OF THE SITE WHERE SHOWN ON THE PLAN. SHOULD WEATHER CAUSE DELAYS IN EARTHWORK OPERATIONS, ADDITIONAL SILTATION CONTROL MEASURES MAY BE REQUIRED.
   h. ANY DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR 30 DAYS OR MORE SHALL BE STABILIZED WITH SEEDING AND MULCHING PER SPECIFICATIONS WITHIN 5 DAYS. IF SEASONAL CONDITIONS PROHIBIT SEEDING, MULCHING OR MATTING SHALL BE USED.
   i. INSPECTION OF SILTATION CONTROL DEVICES SHALL TAKE PLACE ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF ANY HEAVY RAIN EVENT. ANY SILTATION CONTROL IN NEED OF REPAIR SHALL OCCUR IMMEDIATELY.
   j. ALL GRADING OPERATIONS ARE SUBJECT TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT IF ONE HAS BEEN PREPARED FOR THIS PROJECT.
   k. SEDIMENTATION CONTROLS SHALL ONLY BE REMOVED AFTER THE SITE IS COMPLETELY STABILIZED, VEGETATION IS WELL ESTABLISHED, AND ALL PAVEMENT AREAS ARE INSTALLED.

11. **PLANNED RESPONSE TO LOSS OF CONTAINED SEDIMENT**
   a. B.M.P.'s SHALL BE REPAIRED AND/OR REPLACED IMMEDIATELY, AS REQUIRED, TO STABILIZE SITE AND CONTAIN SEDIMENT LADEN RUNOFF. OFFSITE AREAS SHALL BE REVIEWED FOR EXTENT OF IMPACT FROM B.M.P. FAILURE. PERMIT HOLDER SHALL BE REQUIRED TO PROVIDE DOCUMENTATION OF THE B.M.P. MEASURES INSTALLED AND SCHEDULED MAINTENANCE AND REPAIRS. DOCUMENTATION OF ACTIONS AND MANDATORY REPORTING ARE REQUIRED TO BE PROVIDED TO CITY OF ST. PETERS DEPARTMENT OF PUBLIC WORKS.
   b. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ADDITIONAL B.M.P. MEASURES BEYOND THOSE SHOWN IF CONDITIONS DICTATE OR CURRENT MEASURES ARE INSUFFICIENT.

12. **DESCRIPTION OF PERMANENT B.M.P.'s TO REMAIN AFTER CONSTRUCTION**
   a. STORM DRAINS – THE DEVELOPMENT WILL BE SERVED BY A STORMWATER SYSTEM CONSISTING OF REINFORCED CONCRETE PIPE (RCP) AND GRATED INLETS. THE STORM SYSTEM WILL CONVEY STORMWATER TO A CULVERT SEWER SYSTEM WITHIN DARDENNE CREEK WATERSHED. THE STORM DRAINAGE SYSTEM DESIGNATED AS "PRIVATE" SHALL BE OPERATED AND MAINTAINED BY THE OWNER. THE STORM DRAINAGE SYSTEM DESIGNATED AS "PUBLIC" SHALL BE MAINTAINED BY THE CITY OF ST. PETERS UPON DEDICATION OF THE SEWERS TO THE CITY.
   b. TURF AREAS – TURF AREAS SHALL BE MAINTAINED TO INSURE SITE AREAS REMAIN STABILIZED UPON COMPLETION OF CONSTRUCTION ACTIVITIES.
   c. PAVED AREAS AND WALKWAYS – AREAS SUBJECT TO FOOT AND VEHICLE TRAFFIC SHALL BE PAVED AND KEPT IN GOOD REPAIR FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES. MAINTENANCE SHALL BE THE OWNER'S RESPONSIBILITY.

13. ANY LAND CLEARING, CONSTRUCTION, OR DEVELOPMENT INVOLVING THE MOVEMENT OF EARTH SHALL BE IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN, AND THE PERSON ISSUED A LAND DISTURBANCE PERMIT ASSUMES AND ACKNOWLEDGES RESPONSIBILITY FOR COMPLIANCE WITH THE CITY OF ST. PETERS EROSION AND STORM WATER RUNOFF CONTROL AND THE APPROVED STORM WATER POLLUTION PLAN AT THE SITE OF THE PERMITTED ACTIVITY.

14. **DESCRIPTION OF B.M.P.'S TO PREVENT POTENTIAL POLLUTANTS**
   (CONSTRUCTION WASTES, TOXIC OR HAZARDOUS SUBSTANCES, PETROLEUM PRODUCTS, PESTICIDES, HERBICIDES, SITE LITTER, SANITARY WASTES, ETC.)
   a. SOLID NON–HAZARDOUS CONSTRUCTION WASTE – DISPOSE OF IN TRASH DUMPSTERS OR APPROVED EQUIVALENT IN A LOCATION APPROVED BY THE OWNER. POTENTIALLY SOLUBLE OR LEACHABLE SOLID WASTE SHALL BE STORED OFF THE GROUND AND IN COVERED LEAK–PROOF CONTAINERS. SOLID WASTE SHALL BE PROPERLY DISPOSED OF OFF–SITE ON A REGULAR BASIS.
   b. HAZARDOUS WASTE – HAZARDOUS WASTE SHALL BE SEGREGATED FROM NON–HAZARDOUS CONSTRUCTION SITE DEBRIS. LIQUID OR SEMI–LIQUID HAZARDOUS WASTE SHALL BE STORED IN APPROPRIATE CONTAINERS (CLOSED DRUMS OR SIMILAR) AND SHALL BE KEPT UNDER COVER. GRANULAR, SOLUBLE OR LEACHABLE HAZARDOUS WASTE MATERIALS SHALL BE STORED OFF THE GROUND AND IN COVERED LEAK–PROOF CONTAINERS. THE OWNER SHALL PROPERLY APPROVE ANY HAZARDOUS WASTE STORAGE AREA LOCATIONS.
   c. HAZARDOUS WASTE SHALL BE PROPERLY DISPOSED OF OFF–SITE ON A REGULAR BASIS BY A REPUTABLE, LICENSED HAZARDOUS WASTE HAULER.
   d. IT IS NOT THE INTENT OF THIS SWPPP TO SUPERSEDE OR REPLACE NORMAL SITE ASSESSMENT AND REMEDIATION PROCEDURES CONCERNING HAZARDOUS MATERIALS. SIGNIFICANT SPILLS AND/OR CONTAMINATION WARRANT AN IMMEDIATE RESPONSE BY TRAINED PROFESSIONALS. SUSPECTED JOB SITE CONTAMINATION SHOULD IMMEDIATELY BE REPORTED TO REGULATORY AUTHORITIES AND PROTECTIVE MEASURES TAKEN.
   e. FRESH CONCRETE WASTE AND CONCRETE EQUIPMENT WASHDOWNS SHALL BE CONTAINED AND SHALL BE STORED AWAY FROM DRAINAGE DITCHES, SWALES AND DRAINAGE STRUCTURES. WHERE APPROPRIATE, CONTAINMENT BERMS SHALL BE PLACED AROUND WASTE STORAGE AREAS.
   f. ON–SITE FUELING FACILITIES ARE REQUIRED TO ADHERE TO ALL APPLICABLE FEDERAL AND STATE REGULATIONS CONCERNING STORAGE AND DISPENSERS.
   g. PROVISIONS SHALL BE MADE SO THAT A SUFFICIENT NUMBER OF TEMPORARY TOILET FACILITIES ARE AVAILABLE TO SERVE THE NUMBER OF WORKERS ON–SITE.

15. SEDIMENT SHALL BE WASHED FROM ALL VEHICLES AT WASH DOWN STATION PRIOR TO LEAVING THE SITE. NO TRACKING OF MUD ONTO ROADS SHALL BE ALLOWED.

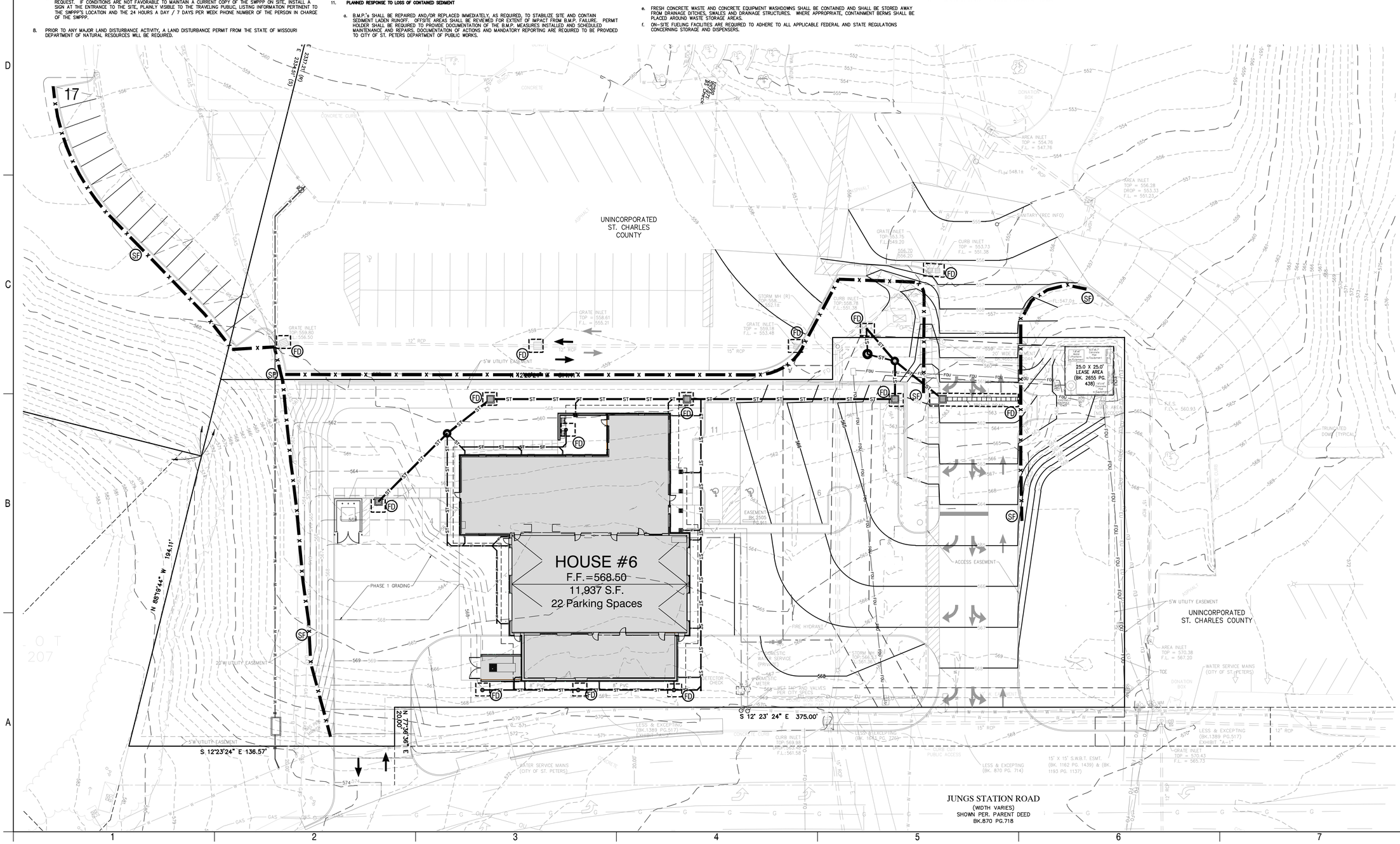
16. LIST OF EPA ALLOWABLE NON–STORM WATER DISCHARGES (JAN. 2011). THE FOLLOWING NON–STORM WATER DISCHARGES ARE AUTHORIZED BY THE EPA PROVIDED IT HAS BEEN DETERMINED BY THE PERMITTEE THAT THEY ARE NOT SIGNIFICANT CONTRIBUTORS OF POLLUTANTS TO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4). IMPLEMENTATION OF POLLUTION PREVENTION MEASURES FOR NON–STORM WATER DISCHARGES IS REQUIRED FOR SIGNIFICANT CONTRIBUTORS.
   a.) WATER LINE FLUSHING
   b.) LANDSCAPE IRRIGATION
   c.) DIVERTED STREAM FLOWS
   d.) RISING GROUND WATERS
   e.) UNCONTAMINATED GROUND WATER INFILTRATION
   f.) UNCONTAMINATED PUMPED GROUND WATER
   g.) DISCHARGE FROM POTABLE WATER SOURCES
   h.) FOUNDATION DRAINS
   i.) AIR CONDITIONING CONDENSATION
   j.) IRRIGATION WATER, SPRINGS
   k.) WATER FROM CRAWL SPACE PUMPS
   l.) FOOTING DRAINS
   m.) LAWN WATERING
   n.) INDIVIDUAL RESIDENT CAR WASHING
   o.) FLOW FROM RIPARIAN HABITATS & WETLANDS (AS DEFINED AT 40 CFR 35.2005(20)
   p.) DECHLORINATED SWIMMING POOL DISCHARGE
   q.) STREET WASH WATER
   r.) RESIDENTIAL BUILDING WASH WATERS (WITHOUT DETERGENTS)

17. ANTICIPATED DEWATERING METHODS (SUBJECT TO CONTRACTOR'S ANTICIPATED MEANS & METHODS)
   a.) CONTRACTOR TO USE CARE WHEN PUMPING WATER FROM CONSTRUCTION EXCAVATIONS AND ATTENTION MUST BE PAID TO THE FINAL DESTINATION OF THIS WATER. SEDIMENT CONTAINED IN THE WATER MUST FIRST BE REMOVED. ONCE IT IS PUMPED OUT OF THE EXCAVATION, THIS WATER MUST THEN BE PREVENTED FROM ERODING SOIL.
   b.) AN OIL/WATER SEPARATOR OR OTHER SUITABLE FILTRATION METHOD WILL BE REQUIRED PRIOR TO DISCHARGE IF THE COLLECTED WATER HAS BEEN CONTAMINATED WITH PETROLEUM PRODUCTS, OIL OR GREASE. A LICENSED TRANSPORTER WILL BE REQUIRED TO BOTH CONTAIN AND TO TRANSPORT THE COLLECTED WATER AWAY FROM THE CONSTRUCTION SITE IF IT HAS BEEN CONTAMINATED BY HAZARDOUS OR TOXIC CHEMICALS. IN THE CASE OF CONTAMINATED WATER BEING TRUCKED FROM THE CONSTRUCTION SITE, THE REQUIREMENTS OF FEDERAL, STATE AND LOCAL AGENCIES MUST BE ADHERED TO.
   c.) THE DEWATERING METHODS OF EXCAVATED AREAS ANTICIPATED TO BE USED TO REMOVE WATER FROM THE CONSTRUCTION SITE ARE THE FOLLOWING:
1. BUCKET CONNECTED TO SPECIFIC PIECES OF CONSTRUCTION EQUIPMENT TO MECHANICALLY SCOOP THE WATER FROM THE EXCAVATIONS
2. PUMPING OR SIPHONING WATER FROM THE COLLECTION SITES
3. THE USE OF A GRAVITY DRAIN THROUGH CHANNELS

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

EROSION CONTROL LEGEND

- (SF) — x — x — **SILT FENCE** (ST. LOUIS CO. STD. DWG. 806–70.00)
- (FD) **FABRIC DROP** (ST. LOUIS CO. STD. DWG. 806–45.12)
- (CE) **CONSTRUCTION PARKING & WASHDOWN AREA** (8" TYPE 5 AGGREGATE ST. LOUIS CO. DETAIL 806–46.00 & 806–46.01)



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1151 Jungs Station Road St. Peters, Missouri 63303

No.	Revision	Date

STORMWATER POLLUTION PREVENTION PLAN

Project No. 2589
Sheet No. C17.0
Date 2026/06/08

WASHDOWN STATION

PHYSICAL DESCRIPTION - An area located at construction entrances designed to wash sediment from the tires and undercarriage of exiting vehicles and prevent sediment from being tracked onto existing roadways.

WHERE BMP IS TO BE INSTALLED - Across or immediately adjacent to exit paths from unpaved construction sites.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Drainage: Downstream BMPs sized to treat dirty runoff from washdown station

WHEN BMP IS TO BE INSTALLED - First order of work, along with construction entrance, prior to vehicles or equipment accessing unpaved areas.

INSTALLATION/CONSTRUCTION PROCEDURES

- ✓ Grade and compact area for drainage under washdown pad.
- ✓ Install steel-ribbed plate on frame or other support to allow a 2" drain space.
- ✓ Grade and vegetate downstream BMPs (V-ditch shown on detail).
- ✓ Install water supply and hose.
- ✓ Post sign in advance of station indicating that all exiting vehicles and equipment must use station prior to exiting site.

O&M PROCEDURES:

- ✓ Remove sediment daily.
- ✓ Repair settled areas.
- ✓ Replace rock if necessary to maintain clean surface.

SITE CONDITIONS FOR REMOVAL - Remove when vehicles and equipment will no longer access unpaved areas.

TYPICAL DETAIL - 806-46.00

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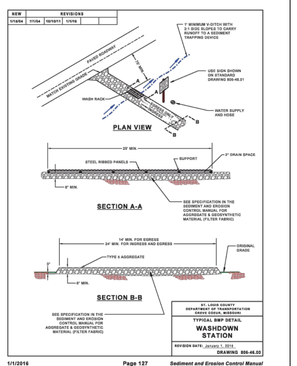

1/1/2016 Page 127 *Sediment and Erosion Control Manual Standard Drawings*

CONSTRUCTION ENTRANCE

PHYSICAL DESCRIPTION - A stabilized entrance to a construction site designed to minimize the amount of sediment tracked from the site on vehicles and equipment. Stabilization generally consists of aggregate over geogrid and geosynthetic material. Mud and sediment fall off of tires as they travel along the stabilized entrance; however, additional measures in the form of a washdown area should also be included on site. The stabilized entrance also distributes the axle load of vehicles over a larger area; thereby mitigating the rutting impact vehicles normally have on unpaved areas. See additional information in the "Construction Site Access Requirements" section of this manual.

WHERE BMP IS TO BE INSTALLED - At locations where it is safe for construction vehicles and equipment to access existing streets – preferably at location of future streets or drives.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Drainage: Ditches or pipes, if needed, sized for 15 year, 20 minute storm; HGL 6" below surface of entrance

WHEN BMP IS TO BE INSTALLED - First order of work, along with washdown area, prior to vehicles or equipment accessing unpaved areas.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Grade and compact area of construction entrance.
- ✓ Install culvert under entrance if needed to maintain positive drainage.
- ✓ Place geosynthetic material next to compacted soil, lay geogrid on top of this, and cover with aggregate, forming diversion across entrance if needed to direct runoff away from roadway.
- ✓ See Washdown Station BMP for additional steps.

O&M PROCEDURES:

- ✓ Immediately remove any mud or debris tracked onto paved surfaces.
- ✓ Remove sediment and clods of dirt from construction entrance continuously.
- ✓ Replace rock if necessary to maintain clean surface.
- ✓ Repair settled areas.

SITE CONDITIONS FOR REMOVAL - Remove when vehicles and equipment will no longer access unpaved areas.

TYPICAL DETAIL - 806-46.01

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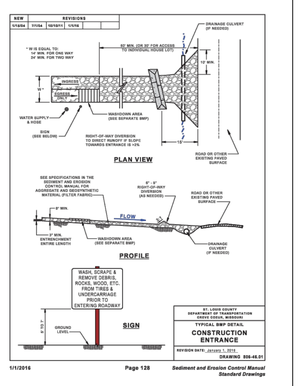


1/1/2016 Page 128 *Sediment and Erosion Control Manual Standard Drawings*

INLET PROTECTION - FABRIC DROP AND DROP IN FILTER

PHYSICAL DESCRIPTION - A woven fabric barrier braced around an area inlet or drop in type filter designed to prevent sediment from entering the storm sewer. Shallow temporary ponding during and after rainfall should be expected. Use an alternate method if flooding of driving lanes, adjacent property, etc. is possible.

WHERE BMP IS TO BE INSTALLED - At inlets designed to drain a small gently sloping area with maximum grade of 5%. Overflow capacity is limited on standard area inlets.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Type of Flow: Shallow sheet flow.
Contributing Area: Maximum of 2 c.f.s flowing to inlet.

WHEN BMP IS TO BE INSTALLED - Immediately after placement of inlet and before construction starts on existing inlets.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Backfill, compact and uniformly grade area around inlet.
- ✓ Construct downstream berm, if required. Rock bags or sand bags may be used to construct berm.
- ✓ Drive posts or wood frame close to inlet sill so overflow will fall directly on the structure and not on unprotected soil.
- ✓ Dig trench around inlet for fabric to be buried.
- ✓ Cut required length of fabric from one roll to eliminate joints. Fasten fabric tightly around posts / frame to enhance stability.
- ✓ Backfill and compact trench.
- ✓ Install drop in type filter per manufacturer specifications.

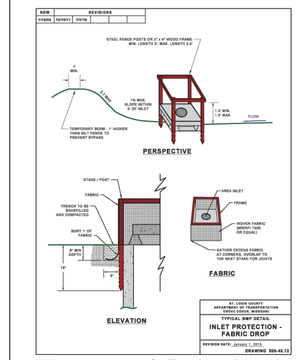
O&M PROCEDURES

- ✓ Inspect every week and after every storm.
- ✓ Remove trash accumulation and sediment once it reaches depth of 6" at inlet.
- ✓ Replace loose, torn or clogged fabric.
- ✓ Repair any erosion or settlement of temporary berm downstream of inlet.
- ✓ Maintain drop in type filter per manufacturer specifications.

SITE CONDITIONS FOR REMOVAL - Remove after contributing drainage areas have been adequately stabilized. Restore area to grade and vegetate.

TYPICAL DETAIL - 806-45.12 (Single Unit)
806-45.13 (Double Unit)

7/1/2018 Page 92 *Sediment and Erosion Control Manual*



1/1/2016 Page 126 *Sediment and Erosion Control Manual Standard Drawings*

SILT FENCE

PHYSICAL DESCRIPTION - Silt fences are used as temporary perimeter controls, appropriate to the BMP, at sites where construction activities will disturb the soil. They can also be used on the interior of the site. A silt fence consists of a length of filter fabric stretched between anchoring posts spaced at regular intervals along the site at low and down slope areas. The filter fabric should be entrenched in the ground. When installed correctly and inspected frequently, silt fence can be an effective barrier to silt leaving the site in storm water runoff.

WHERE BMP IS TO BE INSTALLED - Silt fences apply to construction sites with relatively small drainage areas. They are appropriate in areas where runoff will occur as low-level flow, not exceeding 0.5 c.f.s. The drainage area for silt fences should not exceed 0.25 acre per 100-foot fence length (100 square feet per foot of fence). The slope length above the fence should not exceed 100 feet (NAHB, 1995). The fence should be designed to withstand the runoff from a 10-year peak storm event.

CONDITIONS FOR EFFECTIVE USE OF BMPs - Spacing of parallel lengths of silt fence along slopes is relative to slope steepness as follows:

Type of Flow: Sheet flow only.
Contributing Slope Length: 30-foot maximum for 3:1 slopes.
50 foot maximum for slopes between 3:1 and 10:1.
100 foot maximum for slopes under 10%.

For additional information see Section 806.70 of St. Louis County's Standard Specification for Road and Bridge Construction.

WHEN BMP IS TO BE INSTALLED - Prior to disturbance of natural vegetation and at intervals during construction of fill slopes. Install on the perimeter of the site (where storm water exits the site) prior to disturbance of natural vegetation, around material stockpiles and interior to the site along slopes, at the base of slopes and at intervals during construction of slopes.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Drive post for fence line.
- ✓ Dig trench to required dimensions in front of posts for fabric burial.
- ✓ Attach wire mesh to posts.
- ✓ Attach fabric to posts, allowing required length below ground level to run fabric along bottom of trench.
- ✓ Backfill and compact soil in trench to protect and anchor fabric.

If a standard-strength fabric is used, it can be reinforced with wire mesh behind the filter fabric. This increases the effective life of the fence. The maximum life expectancy for synthetic fabric silt fences is about 6 months, depending on the amount of rainfall and runoff.

The stakes used to anchor the filter fabric should be wood or metal. Wooden stakes should have minimum dimensions of 2 by 2 inches if a hardwood like oak is used. Stakes from soft woods like No. 2 Southern Pine, should have minimum dimensions of 4 by 4 inches. When using steel (standard U, T, L or C shape sections) posts in place of wooden stakes, they should weigh no less than 1.0 lb/linear foot. If metal posts are used, attachment points are needed for fastening the filter fabric with wire ties. Posts should be least 5 feet long and driven or placed at a slight upstream angle into the ground to a

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minimum depth of 18 inches. Depth shall be increased to a minimum of 22 inches if fence is placed on a slope of 3:1 or greater. When the post embedment depth is impossible to obtain, the posts shall be adequately secured to prevent overturning of the fence due to sediment loading.

Erect silt fence in a continuous fashion from a single roll of fabric to eliminate gaps in the fence. If a continuous roll of fabric is not available, overlap the fabric from both directions only at stakes or posts. Overlap at least 6 inches.

The Geosynthetic filter fabric and wire mesh (when applicable) shall be no less than 30 inches above ground and are stapled or wired to the upslope side of the post. Staples should be a 17-gauge wire and ½ inch long. Excavate a trench to bury the bottom of the fabric fence in a "J" configuration at least 6 inches below the ground surface. The trench shall be backfilled with native soil and the soil compacted over the geotextile. This helps to prevent gaps from forming near the ground surface. Gaps would make the fencing useless as a sediment barrier.

The height of the fence posts should be 38 inches (22-inch embedment) to 42 inches (18-inch embedment) above the original ground surface. If standard-strength fabric is used with 14-gauge steel wire with a mesh spacing of 6 inches by 6 inches (or a prefabricated polymeric mesh of equivalent strength), space the posts no more than 4 feet apart. If extra-strength fabric is used without wire mesh reinforcement, space the posts no more than 4 feet apart with woven or 6 feet apart with non-woven geosynthetic.

Alternate Construction: Install fence by slicing it into ground with specialized equipment. Install posts at reduced spacing indicated on detail.

LIMITATIONS - Do not install silt fences along areas where rocks or other hard surfaces will prevent you from uniformly anchoring the fence posts and entrenching the filter fabric. Installing fences in such an area greatly reduces their effectiveness and can create runoff channels leading to offsite. Silt fences are not suitable for areas where large amounts of concentrated runoff are likely. Fence shall not be used when slope is 1:1 or greater and water flow rates exceed 2 cubic feet per minute. Open, windy areas present a maintenance challenge, too, because high winds can make the filter fabric deteriorate faster. Do not install silt fences across streams, ditches, or waterways (Smolen et al., 1988).

When the pores of the fence fabric become clogged with sediment, pools of water are likely to form on the uphill side of the fence. Setting and design of the silt fence should account for this. Take care to avoid unnecessarily diverting stormwater from these pools, causing further erosion damage.

MAINTENANCE CONSIDERATIONS - Inspect silt fences regularly and frequently, as well as after each rainfall event, to make sure that they are intact and that there are no gaps where the fence meets the ground or tears along the length of the fence. If you find gaps or tears, repair or replace the fabric immediately. Remove accumulated sediments from the fence base when the sediment reaches one-third to one-half the fence height. Remove sediment more frequently if accumulated sediment is creating noticeable strain on the fabric and the fence might fall from a sudden storm event. When you remove the silt fence, remove the accumulated sediment; dress the area disturbed to give it a pleasing appearance and vegetate all bare areas as well.

O&M PROCEDURES

- ✓ Inspect every week and after every storm.
- ✓ Remove sediment buildup deeper than ½ the fence height or 12", whichever is less.
- ✓ Replace torn of clogged fabric; repair loose fabric.

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- ✓ Repair unstable or broken posts.
- ✓ Stabilize any areas susceptible to undermining.
- ✓ Extend fence or add additional row(s) of fence if necessary to provide adequate protection.

SILTING AND DESIGN CONSIDERATIONS - The material for silt fences should be a pervious sheet of synthetic fabric such as polypropylene, nylon, and polyester or polyethylene yarn. Choose the material based on the minimum synthetic fabric requirements shown in **Table 1** below.

Table 1- Temporary Silt Fence Property Requirements

Physical Property	Test Method	Units	MARV Geotextile Requirements		
			Unsupported Silt Fence		
			Supported Silt Fence [2]	Woven Elongation ≤ 50% [1]	Non-Woven Elongation ≤ 50% [1]
Post Spacing (Maximum)		feet	4	4	6
Height of Wire / Polymer Fence (Minimum)		inches	30	---	---
Grab Strength (Minimum); Machine Direction Cross Machine Direction	ASTM D 4632	pounds	90 90	125 100	125 100
Permittivity (Minimum)	ASTM D 4491	sec $^{-1}$	0.05	0.05	0.05
Apparent Opening Size (AOS) [3]	ASTM D 4751	Sieve Number	30	30	30
Ultraviolet Stability (Minimum) (retained strength)	ASTM D 4355		70% after 500 h of exposure		

Notes:

MARV Minimum Average Roll Value

[1] Elongation measured in accordance with ASTM D 4632

[2] Silt Fence Support - 14-gauge steel wire with a mesh spacing of 6 inches by 6 inches (or a prefabricated polymeric mesh of equivalent strength)

[3] Maximum Average Roll Value

SITE CONDITIONS FOR REMOVAL - After permanent vegetation of slope is established. Remove fence and post, re-grade trench area and vegetate.

TYPICAL DETAIL - 806-70.0

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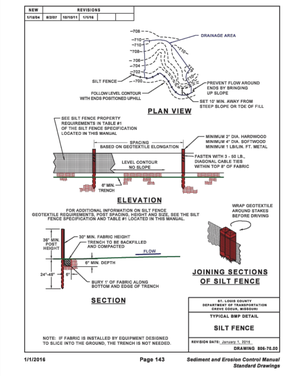

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SODDING

PHYSICAL DESCRIPTION - A ¾ inch to 1-inch thick mat of vigorous turf, free of disease, insects and weeds. Sod prevents raindrops from disrupting the soil structure and causing erosion. Sod slows water runoff and acts as a filter when sediment-laden runoff crosses over the sodded area.

WHERE BMP IS TO BE INSTALLED - Typically installed in areas requiring immediate erosion protection, such as swales or detention ponds and as filter strips, around inlets, and adjacent to curbs. Also installed in areas requiring immediate aesthetic appearance or function such as entrances to new subdivision and off site construction areas.

CONDITIONS FOR EFFECTIVE USE OF BMPs - Type of Flow: Sheet flow and low concentrated flows with velocities less than 5 fps.

WHEN BMP IS TO BE INSTALLED - Immediately after finish grading, installation of area inlets, and installation of underground services and foundations of new homes.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Finish grade area and remove all debris larger than ½ inch in diameter and concentrated areas of smaller debris.
- ✓ Soil preparation of area to be sodded shall be determined by tests to determine lime and fertilizer requirements. Soil amendments shall be mixed into top 3 to 6 inches of soil by disking or other means.
- ✓ Level and roll soil lightly to provide an even grade and firm the surface. Soil should not be excessively wet or dry.
- ✓ Lay first row of sod perpendicular to the slope or direction of flow. Butt subsequent rows tight against previous rows with strips staggered in brick-like pattern. Fill minor gaps with good soil and roll entire surface to ensure contact.
- ✓ Stake, staple and / or net corners and centers of sod strips as required.
- ✓ Water immediately after installation enough to soak 4 inches into soil without causing runoff.
- ✓ For additional information see Section 803 of St. Louis County's Standard Specification for Road and Bridge Construction.
- ✓ Type of sod shall be as specified in the contract or on the approved plans.

O&M PROCEDURES:

- ✓ Water sod daily for 3 weeks - enough to soak 4-inches into soil without causing runoff.
- ✓ Reposition areas of sod that has moved along the slope.
- ✓ Remove sediment accumulations - replace sod if necessary.
- ✓ Repair any eroded areas, replace sod, and stabilize as needed.
- ✓ Do not mow until 3-inches of new growth occur. During the first 4 months, mow no more than ⅓ the grass height.

SITE CONDITIONS FOR REMOVAL - Not applicable.

TYPICAL DETAIL - 803-10.00

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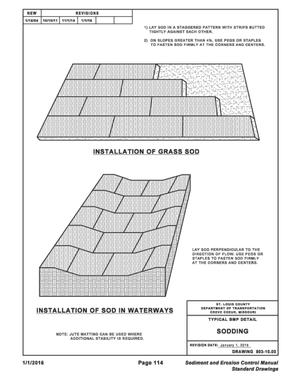

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SEEDING

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

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

CONDITIONS FOR EFFECTIVE USE OF BMPs

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

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

INSTALLATION / CONSTRUCTION PROCEDURES

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

O&M PROCEDURES:

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

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

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SEEDING REQUIREMENTS

Dates for Seeding

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

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

Minimum Fertilizer and Seeding Rates

Permanent Seeding*	Pounds per acre	Pounds Per 1000 sq. ft.
Tall Fescue	200	7.0
Smooth Brome	200	4.6
Mixture # 1	230	5.7
Mixture # 2	210	4.8

Mixture # 1 = Tall Fescue @ 150 pounds per acre and Brome @ 100 pounds per acre.
Mixture # 2 = Tall Fescue @ 100 pounds per acre; Perennial Rye grass @ 100 pounds per acre; and Kentucky Blue grass @ 10 pounds per acre.
*= Seeding rate for slopes in excess of 20% (3:1), shall be 10 pounds per 1000 sq. ft.

Temporary Seeding	Pounds per acre	Pounds Per 1000 sq. ft.
Rye or Sudan	130	3.0
Oats	200	2.5

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

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

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MULCH

PHYSICAL DESCRIPTION - A layer of organic material designed to protect exposed soil or freshly seeded areas from erosion by eliminating direct impact of precipitation and slowing overland flow rates. Mulch materials may include, but are not limited to, such things as grass, hay, straw, wood chips, wood fibers, hydro mulch and shredded bark. Type 1 mulch is prohibited in the flood plain.

- Type I Mulch-Vegetative (includes grass, hay, and straw).
- Type II Mulch-Vegetative with asphalt emulsion (includes grass, hay, and straw).
- Type III Mulch-Vegetative with oversprayr (includes grass, hay, and straw).
- Type V Mulch-Hydro mulch (includes wood fiber, wood cellulose).
- Shredded Hardwood Bark Mulch.
- Wood Chips, (not recycled lumber).

WHERE BMP IS TO BE INSTALLED - Typically installed on seeded areas for temporary use, and in landscaped areas for permanent use.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Type of Flow: Sheet flow only
Slopes: See attached chart for types of mulch acceptable as a function of slope length and steepness
Mulching Rates: See attached table

WHEN BMP IS TO BE INSTALLED - Immediately after grading landscaped areas or seeding other areas.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Install upstream BMPs to protect area to be mulched
- ✓ Rough grade area and remove all debris larger than 1 inch if area is to be vegetated and mowed in the future, larger than 2 inches if area is to be permanently mulched
- ✓ If area is to be seeded, follow requirements of Seeding BMP
- ✓ Spread mulch and anchor by punching it into the ground, using netting, peg and twine, or tacking with liquid binder
- ✓ For additional information see Section 802 of St. Louis County's Standard Specifications for Road and Bridge Construction.

O&M PROCEDURES

- ✓ Inspect every week and after every storm until adequate vegetation is established; annually for permanent mulch.
- ✓ Protect from vehicular and foot traffic.
- ✓ Repair damaged, degraded or eroded areas - reseed as needed and replace mulch.

SITE CONDITIONS FOR REMOVAL - Temporary mulch should be removed when adequate vegetation is established.

TYPICAL DETAILS - Type of mulch required for various slopes and application rates attached.

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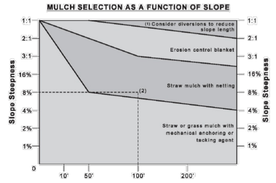
MULCH SELECTION AS A FUNCTION OF SLOPE



(1) For slopes steeper than 1:1, consider building a diversion above slope to divert water.
(2) Example: An 8% slope, 150 feet long, requires straw mulch with netting.

GENERAL MULCH RECOMMENDATIONS TO PROTECT FROM SPLASH AND SHEET FLOW

Material	Rate Per Acre	Requirements	Notes
Straw	2 to 2.5 tons	Dry, unchopped (threshed); avoid weeds.	Spread by hand or machine; must be tacked or tied down
Wood Fiber or Wood Cellulose	0.5 to 1 ton		Use with hydro seeder; hay mulch must be used if wet/ice in fall, dry weather.
Wood Chips	5 to 8 tons	Air dry. Add nitrogen fertilizer at 12 lb per ton	Apply with blower; chip handler; or by hand. Not for thin turf areas.
Bark	35 cu. yds.	Air dry, shredded, or hammermilled, or stringy	Apply with mulch blower; chip handler or by hand. Do not use shredded bark.

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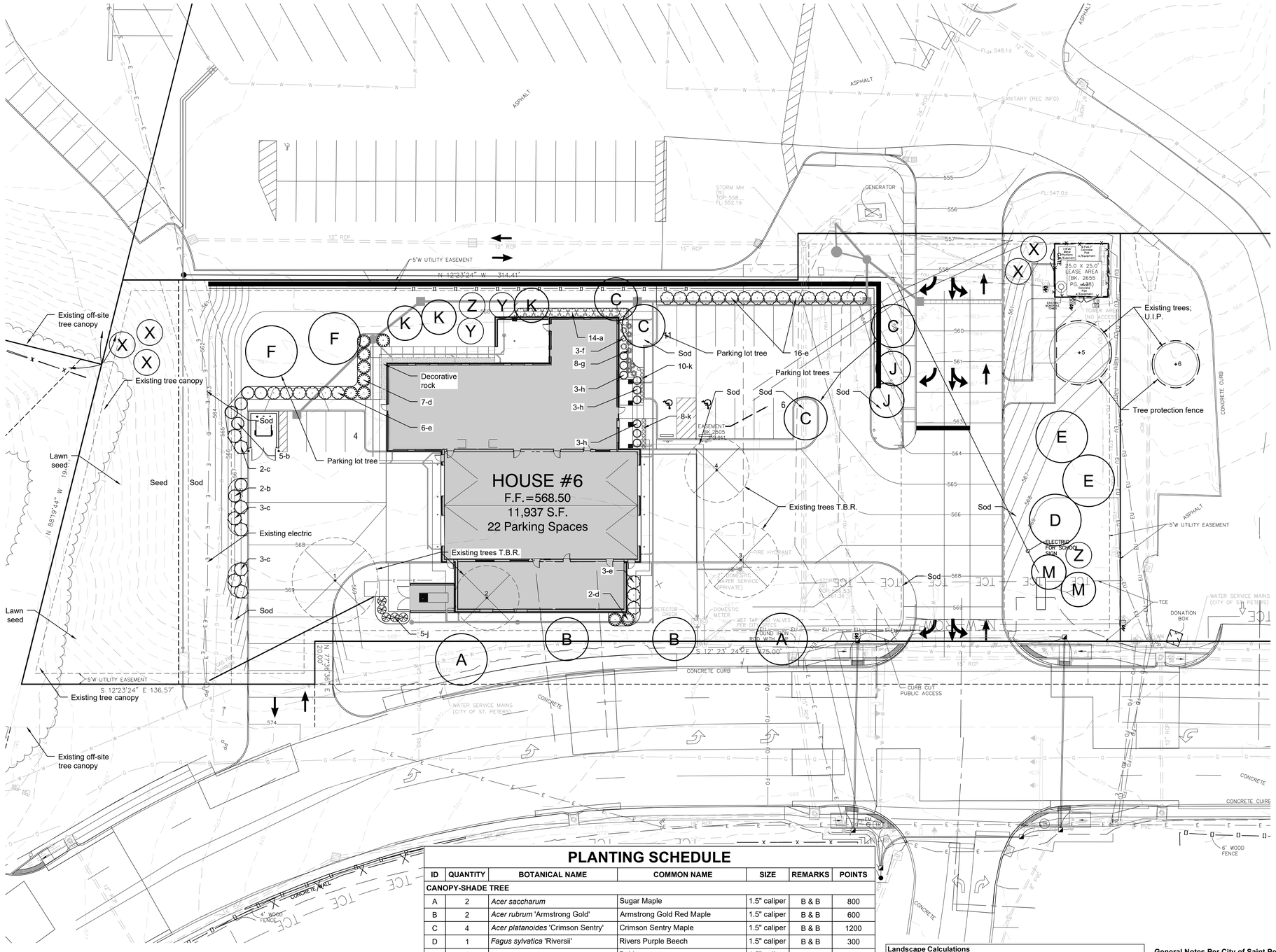
CENTRAL COUNTY FIRE & RESCUE HOUSE #6
1151 Jungs Station Road
St. Peters, Missouri 63303

No.	Revision	Date

STORMWATER POLLUTION PREVENTION PLAN DETAILS

Project No. 2589
Sheet No. C17.1
Date 2026/06/08



EXISTING TREE INVENTORY

ID	TREE SPECIES	DBH	CANOPY DIAMETER	CONDITION RATING	COMMENTS	TO BE PRESERVED	TO BE REMOVED
1	Sugar Maple	22	40	Good			X
2	Sugar Maple	12	30	Fair			X
3	Sugar Maple	22	35	Good			X
4	Sugar Maple	20	30	Fair			X
5	Baldcypress	13	28	Good		X	
6	Baldcypress	11	20	Good		X	

Tree Protection Notes:

1) Pre-construction meeting to be held on-site to include a presentation of tree protection measures to operators, construction supervisors, developer's representative, and city zoning inspector.
2) Clearing Limits to be rough staked in order to facilitate location for installation of protection fencing. No early maintenance schedule is required.
3) No clearing or grading shall begin in areas where the treatment and preservation measures have not been completed, including the installation of tree protection fencing as shown on the plan. Where necessary, Contractor may perform minor tree clearing prior to installing silt fencing and tree protection fencing provided they maintain tree protection area.
4) Tree Protection Fencing shall be 4-foot high temporary plastic construction fence. No equipment traffic/parking, concrete washout, material storage or other such construction activity shall be permitted to penetrate the protection fencing or disrupt the Protected Woodland Area except for the removal of dead or invasive plant material. All ground plane in planting areas shall be mulched with hardwood bark mulch. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the plan.
5) Tree protection measures to be maintained throughout construction.

PLANTING SCHEDULE

ID	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	POINTS
CANOPY-SHADE TREE						
A	2	*Acer saccharum*	Sugar Maple	1.5" caliper	B & B	800
B	2	*Acer rubrum* 'Armstrong Gold'	Armstrong Gold Red Maple	1.5" caliper	B & B	600
C	4	*Acer platanoides* 'Crimson Sentry'	Crimson Sentry Maple	1.5" caliper	B & B	1200
D	1	*Fagus sylvatica* 'Riversii'	Rivers Purple Beech	1.5" caliper	B & B	300
E	2	*Taxodium distichum*	Baldcypress	1.5" caliper	B & B	600
F	2	*Liriodendron tulipifera*	Tulip Tree	1.5" caliper	B & B	800
UNDERSTORY-ORNAMENTAL TREE						
J	2	*Cercis canadensis* 'Forest Pansy'	Forest Pansy Redbud	1.5" caliper	B & B	400
K	3	*Carpinus caroliniana*	American Hornbeam	1.5" caliper	B & B	600
M	2	*Magnolia virginiana* 'Jim Wilson'	Moonglow Magnolia	1.5" caliper	B & B	400
EVERGREEN TREE						
X	5	Thuja 'Green Giant'	Green Giant Arborvitae	5' tall	B & B	1000
Y	2	*Picea glauca* 'Densata'	Black Hills Spruce	5' tall	B & B	600
Z	2	*Picea abies*	Norway Spruce	5' tall	B & B	600
SHRUBS-ORNAMENTAL GRASSES-PERENNIALS-ANNUALS-GROUNDCOVER						
a	14	*Ilex glabra* 'Compacta'	Compact Inkberry	18"	48" o.c.	560
b	7	*Syringa x* 'SMSJBP7'	Bloomerang Dark Purple Lilac	18"	72" o.c.	280
c	8	*Viburnum dentatum* var. *deamii*	Glitters & Glows Arrowwood Viburnum	18"	72" o.c.	320
d	9	*Callicarpa americana*	Beautyberry	18"	48"-72" o.c.	270
e	25	*Juniperus horizontalis* 'Youngstown'	Youngstown Andorra Juniper	18"	72" o.c.	500
f	3	*Weigela florida* 'SMNWFDFPD'	Very Fine Wine Weigela	18"	36" o.c.	90
g	8	*Hypericum kalmianum* 'Deppe'	Sunny Boulevard St. Johnswort	18"	36" o.c.	160
h	9	*Buxus* 'Green Velvet'	Green Velvet Boxwood	18"	54" o.c.	450
j	5	*Miscanthus sinensis* 'Morning Light'	Morning Light Maiden Grass	3 gallon	18"-48 o.c.	50
k	18	*Hosta* 'Halcyon'	Hosta Halcyon	2 quart	21" o.c.	36

Landscape Calculations

Symbol	Species	Size	Area		Quantity	Area	Landscape Credit
	Trees						
A	Sugar Maple Tree	1.5"		ea.	2	400	800
B	Armstrong Gold Red Maple Tree	1.5"		ea.	2	300	600
C	Crimson Sentry Maple Tree	1.5"		ea.	4	300	1200
D	Rivers Purple Beech Tree	1.5"		ea.	1	300	300
E	Baldcypress Tree	1.5"		ea.	2	300	600
F	Tuliptree	1.5"		ea.	2	400	800
J	Forest Pansy Redbud	1.5"		ea.	2	200	400
K	American Hornbeam Tree	1.5"		ea.	3	200	600
M	Moonglow Magnolia Tree	1.5"		ea.	2	200	400
X	Green Giant Arborvtae Tree	5'		ea.	5	200	1000
Y	Black Hills Spruce Tree	5'		ea.	2	300	600
Z	Norway Spruce Tree	5'		ea.	2	300	600
	Shrubs, Perennials, and Groundcover						
a	Inkberry Shrub	18"		ea.	14	40	560
b	Dark Purple Lilac Shrub	18"		ea.	7	40	280
c	Arrowwood Viburnum Shrub	18"		ea.	8	40	320
d	Beautyberry Shrub	18"		ea.	9	30	270
e	Juniper Shrub	18"		ea.	25	20	500
f	Weigela Shrub	18"		ea.	3	30	90
g	Hypericum Shrub	18"		ea.	8	20	160
h	Boxwood	18"		ea.	9	50	450
j	Maiden Grass	3 gal.		ea.	5	10	50
k	Hosta Perennial	2 qt.		ea.	18	2	36
	Total				**135**		**10616**

Landscape Calculations:

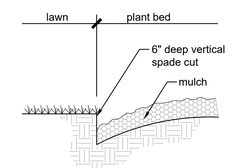
Total Landscape Credits required: 10% of Site Area = 101,890 s.f. x .10 = 10,189

Landscape Notes:

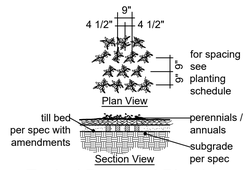
1) Lawn areas shall be turf-type Tall Fescue Grass or approved equivalent.
2) All 3:1 or steeper slopes shall be lawn seed and have erosion control blanket.
3) Topsoil in all disturbed lawn areas at 4" depth.
4) Soil mix in all shrub beds at 4" depth.
5) All mulch to be double ground bark mulch.
6) Bed edges to be spade cut.

General Notes Per City of Saint Peters:

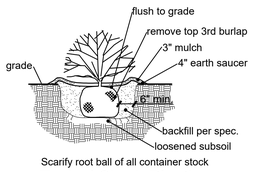
There are some general rules that must be followed when installing approved plant material on City-owned property or public right-of-way. These rules are:
1) Before beginning any digging work, all utility companies, and any such related companies, must be contacted to locate any underground cables, pipes, lines, wires, or other structures. All applicable City, State, and Federal laws regarding excavation must be followed.
2) No trees other than those maturing at less than 30' in height may be planted within 15' of any overhead utility line. This may not always apply to service lines running to a building.
3) When planting street trees in the right-of-way, large-maturing trees should be spaced a minimum of 30' apart, medium-maturing trees should be spaced a minimum of 25' apart, and small-maturing trees should be spaced a minimum of 20' apart. These minimum spacing requirements are for ease of maintenance, optimum growth, and to allow the tree to develop properly. Some exceptions may be necessary.
4) The preferred planting site for a street tree is in the green strip between the sidewalk and the street curb. However, no street tree may be planted in any green space that is less than five (5) feet wide in any direction. If the distance between the curb and detached sidewalk is less than five (5) feet in any direction, street trees should be planted in the right-of-way on the private property side of the sidewalk.
5) When green space limitations require right-of-way plantings to be on the private property side of a sidewalk, care should be taken to place the tree so the entire trunk will remain within City right-of-way as the tree matures. In most situations, this will necessitate centering the tree in the right-of-way between the sidewalk and the property boundary line. Typically, this will place the tree 30" off the sidewalk and 30" off the private property boundary line. There may be exceptions to this guideline.
6) No tree may be planted less than 30'' from a curb or less than 24'' from the edge of a sidewalk.
7) Only trees and shrubs approved by the Agent of the City Administrator may be planted in City right-of-way.
8) All trees and shrubs planted must be specimen-quality plants. They must be free of disease, insects, and any other disfigurements.
9) All trees and shrubs must be planted so the root flare or first main order root is at the same level as the natural surface of the ground. No tree or shrub may be planted too deep. Trees with more than one (1) inch of soil covering the first main order roots will not be accepted by the City of St. Peters. This requirement may necessitate the excavation of excess soil from the top of the rootball during the planting process.
10) Any planting holes that are drilled with an auger must be roughened on the sides and bottom to reduce the effect of glazed walls.
11) When backfilling planting holes, only the soil originally removed from the hole may be used.
12) Any tree with its rootball in a wire basket must have an absolute minimum of the upper 1/2 of the wire basket removed before planting is complete.
13) All trees that have their rootball wrapped in burlap must have the top of the burlap pulled back and removed or buried before planting is complete.
14) All ropes or twine that are encircling the trunk of any tree must be removed.
15) All trees and shrubs must be mulched with approximately 3'' of an appropriate mulching material, such as shredded hardwood bark.
16) Some newly planted trees may need staked to insure they remain upright. Staking may be done by extending wires from three equidistant stakes around the tree, with the wires running through hose loops to prevent them from contacting the tree. The wires should be loose enough to accommodate some slight swaying of the tree. The hose loops must be loose enough to insure girdling cannot occur within two years of normal growth. Staking of trees should only be done when absolutely necessary.
17) With some exceptions, no tree stakes or wires may be removed from a tree sooner than twelve months after planting or later than twenty-four months after planting.
18) All newly planted trees and shrubs must be thoroughly watered at the time of planting. To insure proper watering, the rootball and the surrounding soil should be thoroughly saturated. Under no circumstances may a tree or shrub be planted without being thoroughly watered within 24 hours of planting.



Spade Cut Bed Edge

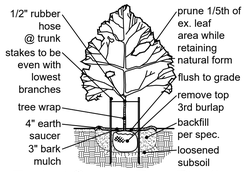


Typical Perennial Planting

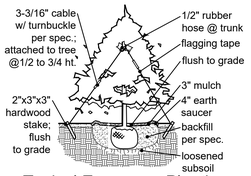


Scarify root ball of all container stock

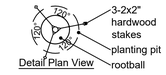
Typical Shrub Planting

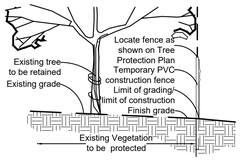


Typical Canopy Tree Planting



Typical Evergreen Planting





Tree Protection Detail

Jerald Saunders - Landscape Architect
MO License # LA-007

Consultants:

Central County Fire & Rescue House # 6

1151 Jungs Station Road
Saint Peters, Missouri 63303

Revisions:

Date	Description	No.
9/25/25	City Comments	1
6/8/26	Construction Docs.	2

Drawn: KP
Checked: RS

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Missouri State Certificate of Authority #: LAC #000019

Sheet Title: Landscape Plan
Sheet No: L1.01
Date: 9/4/25
Job #: 584.084

SECTION 32 93 00 LANDSCAPE WORK

PART 1 - GENERAL

A. RELATED DOCUMENTS

1. Related Sections include the following:
   a. Division 2 Section 31 20 00, "Earthwork" for excavation, filling, and rough grading required to establish elevations shown on drawings.
   b. Section 32 84 00, Design-Build Underground Irrigation

B. SUMMARY

1. Extent of landscape development work is shown on drawings and in schedules. In case of quantity discrepancy between drawings and schedules, the requirements of the plan shall prevail. Landscape work shall include the supplying of all materials and completion of all work items associated with the installation, warranty, and maintenance of all trees, shrubs, groundcover, vines, perennials, annuals and lawns shown on the plans and specified herein. Further landscape work shall include all ancillary materials necessary to complete the work as specified including but not limited to topsoil, mulch, filter fabrics, fertilizers, stakes, guys, etc.
2. Finish Grade Elevations: Owner will provide finish grade elevations to within .01' of specified grade.

C. SUBMITTALS

1. Samples: Representative samples of the following materials shall be provided to the Landscape Architect from the supply source being used:
   a. Plant Material: Samples or photos may be requested in lieu of inspection.
   b. Mulch: 5 lb. sample.
   c. Staking and guying material.
2. Test Reports: Submit to the Landscape Architect 2 copies each of certified test analysis report from a soil testing laboratory. Provide a chemical analysis, including the following:
   a. pH and buffer pH
   b. Percentage of organic content by oven-dried weight
   c. Nutrient levels by parts per million, including phosphorus, potassium, magnesium, manganese, iron, zinc, and calcium. Nutrient test shall include the testing laboratory recommendations for supplemental additions to the soil based on the requirements of horticulture plants.
   d. Soluble salt by electrical conductivity of a 1:2 soil: water, sample measured in milliohmo per cm.
   e. Cation exchange capacity (CEC)
3. Certification:
   a. Phytosanitary Certification: All plant material inspection certificates required by federal, state or other governing authorities will accompany each shipment and be turned over to the Landscape Architect upon delivery.
4. Plant and Material Certifications:
   a. Certificates of inspection as required by governmental authorities.
   b. Manufacturer's or vendor's certified analysis for soil amendments and fertilizer materials.
   c. Label data substantiating that plants, trees, shrubs and planting materials comply with specified requirements.
   d. Seed vendor's certified statement for each grass seed mixture required, stating botanical and common name, percentages by weight, and percentages of purity, germination, and weed seed for each grass seed species.
5. Planting Schedule: Proposed planting schedule, indicating dates for each type of landscape work during normal seasons for such work in area of site. Correlate with specified maintenance periods to provide maintenance from date of substantial completion. Once accepted, revise dates only as approved in writing, after documentation of reasons for delays.
6. Construction Schedule: Upon authorization to proceed with the work, submit 3 copies of Construction Schedule indicating dates for items of work.
7. Maintenance Instructions: Submit 2 copies of typewritten instructions recommending procedures to be established by Owner for maintenance of landscape work for one full year. Submit prior to expiration or required maintenance period.
8. Toxic Chemicals: Submit products, rates of application, and anticipated use of pesticides, herbicides, and fumigants.

D. QUALITY ASSURANCE

1. Subcontract the landscape work to a single firm specializing in landscape work, with a minimum of five years experience.
2. Source Quality Control:
3. General: Ship landscape materials with certificates of inspection as required by governing authorities. Comply with governing regulations applicable to landscape materials.
   a. Do not make substitutions. If specified landscape material is not obtainable, submit proof of non-availability to Architect, together with proposal for use of equivalent material.
4. Analysis and Standards: Package standard products with manufacturer's certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agriculture Chemists, wherever applicable.
5. Trees, Shrubs and Plants: Provide trees, shrubs, and plants of quantity, size, genus, species, and variety shown and scheduled for landscape work and complying with recommendations and requirements of ANSI Z60.1 "American Standard for Nursery Stock". Provide healthy, vigorous stock, grown in recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae, and defects such as knots, sun-scald, injuries, abrasions, or disfigurements. They shall have healthy, well developed root systems.
6. Label each tree and shrub with securely attached waterproof tag bearing legible designation of botanical and common name.
   a. Where formal arrangements or consecutive order of trees or shrubs are shown, select stock for uniform height and spread, and label with number to assure symmetry in planting.
7. Inspection: The Architect may inspect trees and shrubs either at place of growth or at site before planting, for compliance with requirements for genus, species, variety, size, and quality. Owner's representative retains right to further inspect trees and shrubs for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from project site.

E. DELIVERY, STORAGE, AND HANDLING

1. Packaged Materials: Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.
2. Sod: Time delivery so that sod will be placed within 24 hours after stripping. Protect sod against drying and breaking of rolled strips.
3. Trees and Shrubs: Provide freshly dug trees and shrubs. Do not use trees or shrubs which have been in cold storage or heeled-in. Do not prune prior to delivery. Do not bend or bind-tie trees or shrubs in such manner as to damage bark, break branches, or destroy natural shape. Provide protective covering during delivery. Do not drop balled and burlapped stock during delivery.
4. Deliver trees and shrubs after preparations for planting have been completed and plant immediately. If planting is delayed more than 6 hours after delivery, set trees and shrubs in shade, protect from weather and mechanical damage, and keep roots moist by covering with mulch, burlap or other acceptable means of retaining moisture. Do not remove container-grown stock from containers until planting time.

E. JOB CONDITIONS

1. Prior to beginning work, the Contractor shall examine and verify the acceptability of the job site and notify the Landscape Architect of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected or resolved in writing by the Landscape Architect.
2. Where planting occurs in close proximity to other site improvements, adequate protection shall be given to all features prior to commencing work. Any items damaged during planting operations shall be promptly repaired to their original condition at no cost to the Owner.
3. Utilities: Determine location of underground utilities and perform work in a manner which will avoid possible damage. Hand excavate, as required. Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.
4. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Owner's Representative before planting.

G. SEQUENCING AND SCHEDULING:

1. Planting Time: Plant material shall not be installed during months of July and August or during periods when temperatures exceed 95 deg. F, except when approved by Owner's Representative. Correlate planting with specified maintenance periods to provide maintenance from date of substantial completion of landscape work.
2. Coordination with Lawns: Plant trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise acceptable to Owner's Representative. If planting of trees and shrubs occurs after lawn work, protect lawn areas and promptly repair damage to lawns resulting from planting operations.

SECTION 32 93 00 LANDSCAPE WORK

PART 1 - GENERAL (Continued)

H. SPECIAL PROJECT WARRANTY

1. Warranty lawns through specified lawn maintenance period.
2. Warranty trees and shrubs through specified maintenance period.
3. Warrant all plant material to be true to botanical name, specified size.
4. After receiving a Notice of Provisional Acceptance, all plant materials maintained in a vigorous condition and warranted against defects including death, improper maintenance, and unsatisfactory growth for the following time periods:
   a. Guarantee lawns for 90 days
   b. Guarantee trees, shrubs, perennials, and groundcovers for 365 days
5. During the warranty period, replace, at no additional expense to the Owner, plant materials that are dead or that are, in the opinion of the Landscape Architect, in an unhealthy or unsightly condition, or that have lost their natural shape due to dead branches, excessive pruning, or inadequate or improper maintenance. Rejected plant materials shall be removed from the site and legally disposed of at no additional expense to the Owner.
6. Replacement plants and planting operations shall be in accordance with the original specifications. Replacements shall be made as soon as possible but no later than the next succeeding planting season. Fully restore areas damaged by replacement operations to their original and specified condition. Only one replacement (per tree, shrub or plant) will be required at end of warranty period, except for losses or replacements due to failure to comply with specified requirements.
7. Provide all maintenance for guarantee period.

PART 2 - PRODUCTS

A. SOIL MIX

1. Soil mix shall be 'Topsoil Plus' by St Louis Compost (or site amended soil to meet 'Topsoil Plus' soil mix criteria).

B. TOPSOIL

1. ASTM D5268, natural, friable, fertile, fine loamy soil possessing characteristics of representative topsoil in the vicinity that produces heavy growth. Topsoil shall have a pH range of 5.5 to 7.4 percent, free from subsoil, objectionable weeds, litter, sods, stiff clay, stones larger than 1-inch in diameter, stumps, roots, trash, toxic substances, or any other material which may be harmful to the plant growth or hinder planting operations. Topsoil shall contain a minimum of three percent organic material.
2. Imported Topsoil: Supplement salvaged topsoil with imported topsoil from off-site sources when existing quantities are insufficient.
3. Obtain topsoil displaced from naturally well-drained sites where topsoil occurs at least 6 inches deep; do not obtain from agricultural land, bogs, or marshes.
4. Verify borrow and disposal sites are permitted as required by state and local regulations. Obtain written confirmation that permits are current and active.
Obtain permits required by state and local regulations for transporting topsoil. Permits shall be current and active.

C. SOIL AMENDMENTS (in lieu of soil mix)

1. Commercial Fertilizer: Complete fertilizer of neutral character, with some elements derived from organic sources and containing following percentages of available plant nutrients.
   a. For lawns, provide fertilizer with not less than 6 percent phosphoric acid and not less than 4 percent potassium, and the percentage of nitrogen required to provide not less than 1 lb. of actual nitrogen per 1000 sq.ft. of lawn area.
   b. For lawns, provide fertilizer with not less than 6 percent phosphoric acid and not less than 4 percent potassium, and the percentage of nitrogen required to provide not less than 1 lb. of actual nitrogen per 1000 sq. ft. of lawn area.
   c. For ground cover and planting beds, provide 10-10-10 fertilizer applied at 3 lbs. per 100 sq.ft.
   d. For trees and shrubs, "Woodace"/Estach, Inc. Briquettes (14-3-3), Fairview Heights, IL per manufacturer's recommendations for quantity and rate for the size and species, or equal.
2. Peat Moss: Shall be finely shredded, consisting of 90 percent organic moss peat, be brown in color and suitable for horticultural purposes. Shredded particles shall not exceed 1/2-inch in diameter.
3. Organic Matter: Leaf matter and yard waste composted sufficiently to break down all woody fibers, seeds, and leaf structures, and free of toxic and nonorganic matter. Organic matter shall be commercially prepared compost. Submit 0.5kg (1 lb) sample and suppliers literature for approval.
4. Course Sand: Course concrete sand, ASTM C-33 Fine Aggregate, with a Fines Modulus Index of 2.75 or greater.
   a. Sands shall be clean, sharp, natural sands free of limestone, shale and slate particles.
   b. Provide the following particle size distributions:

Sieve	Percentage Passing
3/8 in (9.5mm)	100
No. 4 (4.75mm)	95-100
No. 8 (2.38mm)	80-100
No. 16 (1.18mm)	50-85
No. 30 (0.60mm)	25-60
No. 50 (0.30mm)	10-30
No. 100 (0.15mm)	2-10

1. Lime: shall be ground, palletized, or pulverized lime manufactured to meet agriculture standards and contain a maximum of 60 percent oxide (i.e. calcium oxide plus magnesium oxide). Submit manufacturer literature for approval.
2. Sulfur: shall be flowers of sulfur, pelletized or granular sulfur or iron sulfate. Submit manufacturer literature for approval.

D. PLANT MATERIALS

1. Quality: Provide trees, shrubs, and other plants of size, genus, species, and variety shown and schedule for landscape work complying with the recommendations and requirements of ANSI Z60.1 "Standard for Nursery Stock".
2. Deciduous Trees: Provide trees of height and caliper scheduled or shown with branching configuration recommended by ANSI Z60.1 for type and species required. Provide single stem trees except where special forms are shown or listed.
   a. Provide balled and burlapped (B&B) deciduous trees.
3. Deciduous and Evergreen Shrubs: Provide shrubs of the height shown or listed and with not less than minimum number of canes required by ANSI Z60.1 for type and height of shrub required.
   a. Provide balled and burlapped (B&B) deciduous and evergreen shrubs.
   b. Container grown deciduous shrubs will be acceptable in lieu of balled and burlapped deciduous shrubs subject to specified limitation for container grown stock.
4. Coniferous and Broadleafed Evergreens: Provide evergreens of sizes shown or listed. Dimensions indicate minimum spread for spreading and semi-spreading type evergreens and height for other types, such as globe, dwarf, cone, pyramidal, broad upright, and columnar. Provide normal quality evergreens with well balanced form complying with requirements for other size relationships to the primary dimension shown.
   a. Provide balled and burlapped (B&B) evergreens.

E. GRASS MATERIALS

1. Grass Seed: Provide fresh, clean, new-crop seed complying with the tolerance for purity and germination established by the Official Seed Analysts of North America. Provide seed of the grass species, proportions and minimum percentages of purity, germination, and maximum percentage of weed seed, as follows:
   a. Seed Mix-Application of 4 pounds per 1,000 sq.ft.

PERCENT BY WEIGHT/NAME OF GRASS/ PERCENTPURITY/ PERCENT GERMINATION

10	Advent Perennial Rye	97	85
10	Kentucky Bluegrass	97	85
80	Turf-type Tall Fescue	97	85
100 percent			

2. Sod: Provide machine-cut strongly rooted, certified turfgrass sod, at least 2 years old and free of weeds and undesirable native grasses. Provide sod capable of vigorous growth and development when planted (viable, not dormant) and complying with the following requirements:
   a. Type: Kentucky Bluegrass (Poa pratensis) / Turf Type tall Fescue mix.
   b. Sod Pad Size: Uniform thickness of 5/8-inch, plus or minus 1/4-inch, measured at time of cutting and excluding top growth and thatch. Provide in supplier's standard size of uniform length and width with maximum 5 percent allowable deviation in either length or width. Broken or torn pads or pads with uneven ends are not acceptable.
   c. Sod Strength: Provide sod pads capable of supporting their own weight and retaining size and shape when supplier's standard size pad is suspended vertically from a firm grasp on upper 10 percent of pad.

SECTION 32 93 00 LANDSCAPE WORK

PART 2 - PRODUCTS (Continued)

F. GROUND COVER

1. Provide plants established and well-rooted in removable containers or integral peat pots and with not less than minimum number and length of runners required by ANSI Z60.1 for pot size shown or listed.

G. MISCELLANEOUS LANDSCAPE MATERIALS

1. Anti-Desiccant: Emulsion type, film-forming agent designed to permit transpiration, but retard excessive loss of moisture from plants. Deliver in manufacturer's fully identified containers and mix in accordance with manufacturer's instructions.
2. Filtration/Separation Fabric: Water permeable filtration fabric of fiberglass or polypropylene fabric.
3. Wrapping: Tree-wrap tape not less than 4 inches wide, designed to prevent borer damage and winter freezing.
4. Stakes and Guys: Provide stakes and deadmen of sound new hardwood, treated softwood, or redwood, free of knot holes and other defects. Provide wire ties and guys of 2-strand, twisted, pliable galvanized iron wire, not lighter than 12-gage with zinc-coated turnbuckles. Provide not less than 1/2-inch-diameter rubber or plastic hose, cut to required lengths and of uniform color, material, and size to protect tree trunks from damage by wires.
5. Mulch: Clean double ground hardwood bark mulch. Mulch shall be uniform in size, and free of foreign matter.

PART 3 - EXECUTION

A. PREPARATION - GENERAL

1. Layout individual tree and shrub locations and areas for multiple plantings. Stake locations and outline areas and secure Architect's acceptance before start of planting work. Make minor adjustments as may be requested.
2. If obstructions are encountered that are not indicated, do not proceed with planting operations until alternative plant locations have been selected and approved in writing by the Landscape Architect. Where location or spacing dimensions are not clearly shown, request clarification by the Landscape Architect.

B. PREPARATION FOR PLANTING LAWNS

1. Loosen subgrade of lawn areas to a minimum depth of 4 inches. Remove stones over 1-inch in any dimension. Remove sticks, roots, rubbish, and other extraneous matter. Limit preparation to areas which will be planted in the immediate future.
2. Preparation of Unchanged Grades: Where lawns are to be planted in areas that have not been altered or disturbed by excavating, grading, or stripping operations, prepare soil for lawn planting as follows:
   a. Till to a depth of not less than 4 inches. Apply soil amendments and initial fertilizers as specified. Remove high areas and fill in depressions. Till soil to a homogenous mixture of fine texture, free of lumps, clods, stones, roots and other extraneous matter.
   b. Prior to preparation of unchanged areas, remove existing grass, vegetation and turf. Dispose of such material outside of Owner's property. Do not turn existing vegetation over into soil being prepared for lawns.
   c. Allow for sod thickness in areas to be sodded.
   d. Apply specified commercial fertilizer at rates specified and thoroughly mix into upper 2 inches of topsoil. Delay application of fertilizer if lawn planting will not follow within a few days.
3. Fine grade lawn areas to smooth, even surface with loose, uniformly fine texture. Roll and rake and remove ridges and fill depressions, as required to meet finish grades. Limit fine grading to areas which can be planted within the immediate future.
   a. Provide for positive drainage from all areas towards the existing inlets and drainage structures.
4. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface moisture to dry before planting lawns. Do not create a muddy soil condition.
5. Restore lawn areas to specified condition if eroded or otherwise disturbed after fine grading and prior to planting.

C. PREPARATION OF PLANTING BEDS

1. Loosen subgrade of planting bed areas to a minimum depth of 4 inches using a culti-mulcher or similar equipment. Remove stones measuring over 1-1/2 inches in any dimension. Remove sticks, stones, rubbish, and other extraneous matter.
2. Add peat moss at rate of 3 cubic yards per 1000 s.f.
3. Dig beds not less than 4 inches deep and mix with specified soil amendments and fertilizers.

D. EXCAVATION FOR TREES AND SHRUBS

1. Excavate pits, beds, and trenches with vertical sides and with bottom of excavation slightly raised at center to provide proper drainage. Loosen hard subsoil in bottom of excavation.
   a. For balled and burlapped (B&B trees and shrubs), make excavations at least two times as wide as the ball diameter and allowing for the ball to 3 inches about surrounding grade, plus allowance for setting of ball on a layer of compacted backfill:
   b. For container grown stock, excavate as specified for balled and burlapped stock, adjusted to size of container width and depth.

E. PLANTING TREES AND SHRUBS

1. Set balled and burlapped (B&B) stock on layer of compacted planting soil mixture, plumb and in center of pit or trench with top of ball at same elevation as adjacent finished landscape grades. Remove ropes from around the trunks and top of ball on trees and shrubs. Remove burlap from sides of balls; retain on bottoms. When set, place additional backfill around base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill.
2. Set container grown stock, as specified, for balled burlapped stock, except cut cans on 2 sides with an approved can cutter; remove bottoms of wooden boxes after partial backfilling so as not to damage root balls.
3. Dish top of backfill to allow for mulching
4. Mulch pits, trenches, and planted areas. Provide not less than following thickness of mulch, and work into top of backfill and finish level with adjacent finish grades.
a. Provide 3 inches thickness of mulch.
5. Apply anti-desiccant, using power spray, to provide an adequate film over trunks, branches, stems, twigs and foliage.
   a. If deciduous trees or shrubs are moved when in fulleaf, spray with anti-desiccant at nursery before moving and spray again 2 weeks after planting.
6. Prune, thin out, and shape trees and shrubs in accordance with standard horticultural practice. Prune trees to retain required height and spread. Unless otherwise directed by Architect, do not cut tree leaders, and remove only injured or dead branches from flowering trees, if any. Prune shrubs to retain natural character.
7. Remove and replace excessively pruned or misformed stock resulting from improper pruning.
8. Wrap tree trunks of 2 inches caliper and larger. Start at ground and cover trunk to height of first branches and securely attach. Inspect tree trunks for injury, improper pruning and insect infestation and take corrective measures before wrapping.
9. Guy and stake trees immediately after planting, as indicated.

F. SEEDING NEW LAWNS

1. Sow seed using a Hydroseed machine. Do not seed when wind velocity exceeds 5 mi. per hr. Distribute seed evenly over entire area by sowing equal quantity in 2 directions at right angles to each other.
   a. Do not use wet seed or seed which is moldy or otherwise damaged in transit or storage or, do not plant seed when ground is frozen.
   b. Sow not less than the quantity of seed specified or scheduled.
2. Rake seed lightly into top 1/8-inch of soil, roll lightly, and water with a fine spray.
3. Protect seeded slopes against erosion with erosion netting or other methods acceptable to Architect.
4. Protect seeded areas against erosion by spreading specified lawn mulch after completion of seeding operations. Spread uniformly to form a continuous blanket not less than 1-1/2 inches loose measurement over seeded areas.

G. SODDING NEW LAWNS

1. Lay sod within 24 hours from time of stripping. Do not plant dormant sod or if ground is frozen.
2. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Stagger strips to offset joints in adjacent courses. Work from boards to avoid damage to subgrade or sod. Tamp or roll lightly to ensure contact with subgrade. Work sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent grass.
   a. Anchor sod on slopes with wood pegs to prevent slippage.
3. Water sod thoroughly with a fine spray immediately after planting. During first week, water daily or more frequently as necessary to maintain moist soil to depth of 4 inches.

SECTION 32 93 00 LANDSCAPE WORK

PART 3 - EXECUTION (Continued)

H. PLANTING GROUND COVER

1. Space ground cover plants as indicated or scheduled. Space ground cover plants not more than 24 inches o.c.
2. Dig holes large enough to allow for spreading of roots and backfill with planting soil. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plant to hold water. Water thoroughly after planting, taking care not to cover crowns of plants with wet soils.
3. Mulch areas between ground cover plants; place not less than 2 inches thick.

I. MAINTENANCE

1. Maintain trees, shrubs, and groundcover for a period of 365 calendar days immediately following complete installation. Include watering, weeding, cultivating, restoration of grade, pruning trees and shrubs, protection from insects and diseases, fertilizing and similar operations as needed to ensure normal growth and good health for live plant material.
2. Maintain grass lawns for a period of 90 calendar days immediately following complete installation. Include watering, weeding, mowing and trimming, protection from insects and diseases, fertilizing and similar operations as needed to ensure normal growth and good health for live plant material.
3. Maintenance During Installation: Planting maintenance shall begin immediately after each plant is planted and shall continue as required until final acceptance.
4. Plants shall be inspected at least once per week by the Contractor during the installation period and needed maintenance performed promptly.
5. Subcontractor shall irrigate all plants and lawns on a schedule approved by the Landscape Architect. Schedule shall maintain an adequate supply of moisture within the root zone. If the irrigation system is inoperative, hand watering shall be accomplished from a course approved by the Landscape Architect. Water shall not be applied with a force that will displace mulch or cause soil erosion and shall not be applied so quickly that it cannot be absorbed by the mulch and plants.
6. Plants shall be pruned and mulch replaced as required.
7. Stakes, guys, and eroded plant saucers shall be tightened or replaced as required.
8. In plant beds, grass and weeds shall not be allowed to reach a height of 3 inches before being completely removed, including root growth.
9. Other work such as spraying with approved insecticides and fungicides to control pests shall be done to insure plant survival in a health growing condition.
10. Dead plants shall be removed immediately at the Contractor's expense.

J. CLEANUP AND PROTECTION

1. During landscape work, keep pavements clean and work area in an orderly condition.
2. Protect landscape work and materials from damage due to landscape operations, operations by other contractors and trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair or replace damaged landscape work as directed.

K. INSPECTION AND ACCEPTANCE

1. Inform Architect in writing of date of completion of 90 days maintenance and warranty. Make all replacements and conduct final inspection. Full maintenance to continue until final acceptance by Contractor.
2. Acceptance of plant materials shall be for equal general conformance to specified size, character, and quality and shall not relieve the contractor of responsibility for full conformance to the contract documents, including correct species.
3. Landscape work may be inspected for acceptance in portions as agreeable to Architect, provided each portion of work offered for inspection is complete, including maintenance.
4. When inspected landscape work does not comply with requirements, replace rejected work and continue specified maintenance until reinspected by Architect and found to be acceptable. Remove rejected plants and materials promptly from project site.

END OF SECTION 02900

Jerald Saunders - Landscape Architect
MO License # LA-007

Consultants:

Central County Fire & Rescue House # 6

1151 Jungs Station Road
Saint Peters, Missouri 63303

Revisions:

Date	Description	No.
9/25/25	City Comments	1
6/8/26	Construction Docs.	2

Drawn: KP
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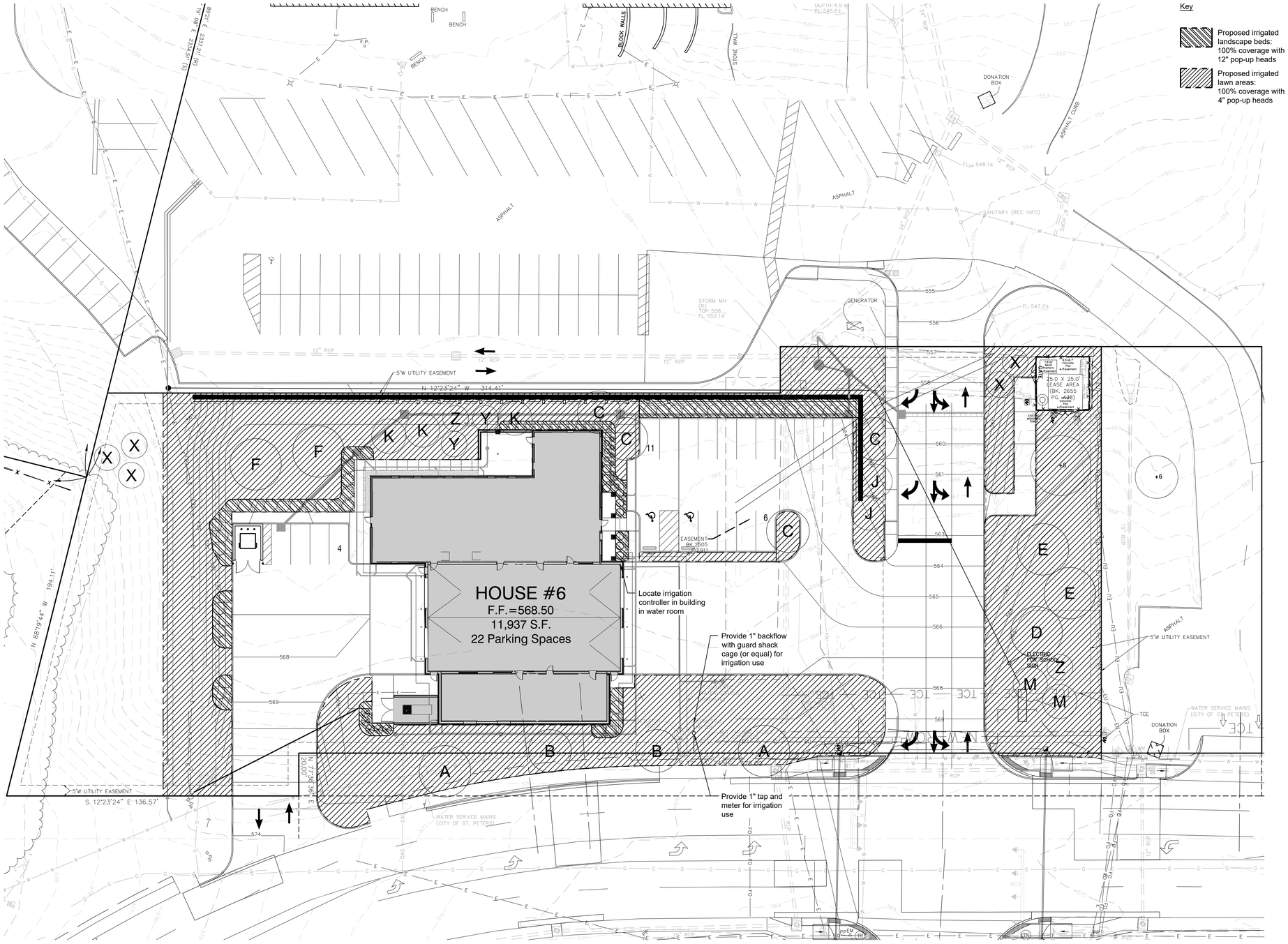
Sheet Title: Landscape Specifications

Sheet No: L2.01

Date: 9/4/25
Job #: 584.084



Watering Diagram

SCALE 1"=20'

0 20 40 80

Irrigation Notes:

1) Contractor to provide a design/build irrigation system. The contractor is responsible for the design and performance of the system, based on this plan. Submit drawings of irrigation system and cut sheets of all irrigation equipment to Landscape Architect for approval prior to start of work.

2) Show all sleeve locations on shop drawing for review by Landscape Architect.

3) Irrigation contractor shall be responsible to obtain all permits required by state, city, and local authorities and conform to all codes regarding irrigation systems.

4) Civil and utility information shown for reference only. See Civil drawings and field locate utilities prior to start of work.

5) Irrigation contractor is responsible for coordination with Plumbing and Electrical Contractors.

6) Irrigation contractor shall coordinate watering requirements with Landscape Contractor to insure proper level of water is provided.

7) No spraying across pavement (Roadways and Sidewalks)

8) Main line and all valves to be located within property.

9) Per City of St. Peters: Provide separate back flow devices for water, irrigation, and fire line.

SECTION 32 84 00 - DESIGN-BUILD UNDERGROUND IRRIGATION SYSTEM

PART 1 - GENERAL

A. RELATED DOCUMENTS

1. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
2. Related Sections include the following:
   a. Section 32 93 00, Landscape Work

B. DESCRIPTION

1. Underground irrigation system shall be “design-build” and fully coordinated with all other trades and work.
2. Utilize 1" copper stub out for irrigation. Refer to plumbing drawings.

C. SUBMITTALS

1. Product Data: Submit manufacturer's technical data and installation instructions for underground irrigation system.
   a. Shop Drawings: Submit shop drawings for underground irrigation system including plan layout and details illustrating location and type of heads, valves, piping circuits, controls, and accessories. Drawings must be approved by Landscape Architect prior to installation.
   b. Material List: Submit 6 copies of complete list of materials proposed to be installed.
   c. Maintenance Data: Submit maintenance data for underground irrigation system, with operating and maintenance instructions, parts listing with sources indicated.

SECTION 32 84 00 - DESIGN-BUILD UNDERGROUND IRRIGATION SYSTEM

D. PROJECT CONDITIONS

1. Existing Utilities: Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations.
2. Protection of Persons and Property: Barricade open excavations occurring as part of this work and post with warning lights.
3. Operate warning lights as recommended by authorities having jurisdiction.

PART 2 - PRODUCTS

A. MANUFACTURERS

1. Manufacturer: Subject to compliance with requirements, provide products of one of the following:
   a. Hunter Industries, Inc.
   b. Rain Bird Sprinkler Mfg. Corp.
   c. The TORO Co., Irrigation Div.

B. MATERIALS

1. Plastic Pipe: Main line 1- to 3-inch pipe shall be Class 160 polyvinyl chloride (PVC) pipe. Pipe smaller than 1-inch shall be class 200 pvc pipe and conform to CS-256-63.
   a. Plastic Fittings: Schedule 40, polyvinyl chloride (PVC) standard weight as manufactured by Sloane, Lasco, or approved equal.

SECTION 32 84 00 - DESIGN-BUILD UNDERGROUND IRRIGATION SYSTEM

B. MATERIALS (continued)

   b. Solvent Cement: Compatible with PVC pipe and of proper consistency. Use low temperature solvent cement when temperatures are below 40 deg F.
   c. Sprinkler Head Risers: Flexible pipe or flexible nipple, or swing pipe.
1. Sprinkler Heads: Manufacturer's standard unit designed to provide uniform coverage over entire area of spray, install per manufacturer's recommendations.
2. Service Saddles: Shall be Smith-Blair double strap, all bronze.
3. Valve Box, Valve Cover and Frame: Precast unit to manufacturer's specifications. Provide Ametek or approved equal.
4. Drainage Backfill: Cleaned gravel or crushed stone, graded from 3-inch maximum to 3/4-inch minimum.
5. Backflow Preventer Enclosure: If backflow device is located outside of building, provide and install lockable theft proof enclosure (GuardShack) or equal.

C. AUTOMATIC CONTROL SYSTEM

1. Provide automatic irrigation controller from one of the following manufacturers:
   a. Hunter Industries, Inc.
   b. Rain Bird Sprinkler Mfg. Corp.
   c. Toro Irrigation Co.
   d. Irritrol Inc.
2. Control Wires: 24 volt solid wire U.L. approved for direct burial in ground. Conform to local codes.
3. System shall be designed and installed as a “two-wire” system.

SECTION 32 84 00 - DESIGN-BUILD UNDERGROUND IRRIGATION SYSTEM

C. AUTOMATIC CONTROL SYSTEM (continued)

4. Sleeves for Control Wires: Under walks and paved areas and where indicated on drawings. PVC 1220_160 psi plastic pipe or galvanized heavy wall steel conduit.
5. Circuit Control: Each circuit variable from 1 to 60 minutes. Include switch for manual or automatic operation of each circuit.

PART 3 - EXECUTION

A. SYSTEM DESIGN

1. Location of Heads: Design location to achieve full and uniformed coverage of all landscape areas.
2. Installer shall be responsible for full and complete coverage of irrigated areas and shall make any necessary minor adjustments at no additional cost to Owner.
3. All irrigation mains and valves shall be located on owner's property. Only zone lines may be located in Right-of-Way.

B. TRENCHING AND BACKFILLING

1. General: Excavate straight and true with bottom uniformly sloped to low points.
2. Protect existing lawns and plantings. Remove and replant as necessary to complete installation. Replace damaged lawn areas and plants with new to match existing.
3. Trench Depth: Excavate trenches to a depth of 3 inches below invert of pipe, unless otherwise indicated.
4. Minimum Cover: Provide the following minimum cover over top of installed piping and accessories:
   a. Main lines, 18 inches.
   b. Control wires from controller to valves, 12 inches.
   c. Lateral lines to heads, 12 inches.
   d. Lateral lines and mains crossing proposed roadways, 24 inches.
5. Backfill: Backfill with clean material from excavation. Remove organic material as well as rocks and debris larger than 1-inch-diameter. Place acceptable backfill material in 6-inch lifts, compacting each lift with water.
6. Existing Lawns: Where trenching is required across existing lawns, uniformly cut strips of sod 6 inches wider than trench. Remove sod in rolls of suitable size for handling and keep moistened until replanted.
7. Backfill trench to within 6 inches of finished grade. Continue fill with acceptable topsoil and compact to bring sod even with existing lawn.
8. Replant sod within 7 days after removal, roll and water generously.
9. Reseed and restore to original condition any sod areas not in healthy condition equal to adjoining lawns 30 days after replanting.
10. Pavements: Bore existing pavements if plan required installation below existing pavements.

C. INSTALLATION

1. General: Unless otherwise indicated, comply with requirements of the Uniform Plumbing Code.
2. Pipe Line Assembly:
   a. Install remote control valves where shown and group together where practical; place no closer than 12 inches to walk edges, building and walls. All valves installed in approved precast valve boxes with cover.
   b. Plastic pipe and fittings shall be solvent welded using solvents and methods as recommended by manufacturer of pipe, except where screwed connections are required.
   c. Pipe and fittings shall be thoroughly cleaned of dirt, dust and moisture before applying solvent with a non-synthetic bristle brush.
   d. Pipe may be assembled and welded on the surface. Snake pipe from side to side of trench bottom to allow for expansion and contraction.
   e. Provide thrust blocks all connections for pipe sizes in excess of 2 inches.
   f. Make all connections between plastic pipe and metal valves or steel pipe with threaded fittings using plastic male adapters.
3. Sprinkler Heads: Flush circuit lines with full head of water and install heads after hydrostatic test is completed.
   a. Use pipe joint compound on galvanized iron fittings.
   b. Install lawn heads at manufacturer's recommended heights.
   c. Install shrubbery heads at heights indicated.
   d. Locate part-circle heads to maintain a minimum distance of 4 inches from walls and 2 inches from other boundaries, unless otherwise indicated.
4. Closing of Pipe and Flushing Lines:
   a. Cap or plug all openings as soon as lines have been installed to prevent the entrance or materials that would obstruct the pipe. Leave in place until removal is necessary for completion of installation.
   b. Thoroughly flush out all water lines before installing heads, valves and other hydrants.
   c. Test in accordance with paragraph on Hydrostatic Tests. Upon completion of the testing, the Contractor shall complete assembly and adjust irrigation heads for proper distribution.
5. Automatic Controllers:
   a. Connect remote control valves to controller in a clockwise sequence to correspond with station setting beginning with Stations 1, 2, 3, etc.
6. Automatic Control Wiring:
   a. Install control wires, irrigation mains and laterals in common trenches wherever possible.
   b. Install control wires at least 18 inches below finish grade and lay to the side and below main line. Provide looped slack at valves and snake wires in trench to allow for contraction of wires. Tie wires in bundles at 10 foot intervals.
   c. Control wire splices will be allowed only on runs of more than 500 feet. All splices conform to local codes. Locate all splices in approved precast valve boxes with cover.
   d. Wire passing under existing or future paving, construction, etc., shall be encased in plastic or galvanized steel conduit extending at least 12 inches beyond edges of paving or construction.

D. TESTING

1. General: Notify Landscape Architect in writing when testing will be conducted. Conduct tests in presence of Landscape Architect.
2. Operational Testing: Perform operational testing after backfill is in place, and irrigation heads adjusted to final position.
3. Demonstrate to Landscape Architect that system meets coverage requirements and that automatic controls function properly.
4. Coverage requirements are based on operation of one circuit at a time.
5. After completion of grading, seeding or sodding, and rolling of grass areas, carefully adjust lawn irrigation heads so they will be flush with or not more than 1/2-inch above finish grade.

E. CLEANUP

1. Remove from site debris resulting from work of this section.

F. "AS-BUILT" IRRIGATION DRAWINGS

1. Prepare an "As-Built" drawing on a blueline print which shall show deviations from the bid documents made during construction affecting the main line pipe, controller locations, remote control valves, quick-coupling valves and all sprinkler heads. The drawings shall also indicate and show approved substitutions of size, material and manufacturer's name and catalog name and catalog number. The drawing shall be delivered to the Owner before final acceptance of Work. Drawings shall identify systems as coordinated on the clock.

END OF SECTION 328400

6/8/26
Jerald Saunders - Landscape Architect
MO License # LA-007

Consultants:

Central County Fire & Rescue House # 6

1151 Jungs Station Road
Saint Peters, Missouri 63303

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Missouri State Certificate of Authority #: LAC #000019

Sheet Title: Watering Diagram
Sheet No: L3.01
Date: 9/4/25
Job #: 584.084

ARCHITECTURAL ABBREVIATIONS

&	AND
<	ANGLE
@	AT
AACP	ACOUSTICAL CEILING PANEL
AB	ANCHOR BOLT
ACCS PL	ACCESS PANEL
ACOUS, ACS	ACOUSTIC(AL)
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN, ADHESIVE
ADDL	ADDITIONAL
ADJ	ADJUSTABLE, ADJACENT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AFS	ABOVE FINISH SLAB
AGGRE	AGGREGATE
ALT	ALTERNATE
ALUM, AL	ALUMINIUM
AND	ANODIZED
APPROX	APPROXIMAGE(LY)
ARCH	ARCHITECT(URAL)
ASPH	ASPHALT
AVG	AVERAGE

BB	BULLETIN BOARD
BD	BOARD
BITUM	BITUMINOUS
BLDG	BUILDING
BLK, BLKG	BLOCK, BLOCKING
BM	BENCHMARK
BMD	BOTTOM OF METAL DECK
BO	BOTTOM OF, BY OTHERS
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT UP ROOFING SYSTEM

C	CHANNEL
CAB	CABINET
CB	CATCH BASIN
CCR	CARD CONTROL READER
CCT	CUBICLE CURTAIN TRACK
CCTV	CLOSED CIRCUIT TELEVISION
CEM	CEMENT, CEMENTITIOUS
CER	CERAMIC
CFCI	CONTRACTOR FURNISHED-CONTRACTOR INSTALLED
CG	CORNER GUARD
CH BD	CHALKBOARD
CI	CAST IRON
CJ	CONTROL JOINT
CL ℄	CENTER LINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
COL	COLUMN
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRUGATED, CORRIDOR
CPT	CARPET
CRSC	COLD ROLLED STEEL CHANNEL
CSK	COUNTERSUNK
CSP	COMBINATION STANDPIPE
CSWK	CASEWORK
CT	CERAMIC TILE
CU	CUBIC
CW	COLD WATER

D	DEPTH
DBL	DOUBLE
DBL ACT	DOUBLE ACTING
DEG	DEGREE
DEMO	DEMOLISH
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIFF	DIFFUSER
DIM	DIMENSION
DIM PT	DIMENTION POINT
DISP	DISPENSER
DIST	DISTANCE
DK	DECK
DN	DOWN
DR	DRAIN, DOOR
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DT	DRAPERY TRACK
DTL	DETAIL
DW	DISHWASHER
DWG, DWGS	DRAWING, DRAWINGS

E	EAST
EA	EACH
EDR	EQUIMPENT DRAWING
EG	EDGE GUARD
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENCL	ENCLOSURE
EMER	EMERGENCY
ENGR	ENGINEER
EOS	EDGE OF SLAB
EP	ELECTRICAL PANEL
EPB	ELECTRICAL PANEL BOARD
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
EQLS P	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ESCAL	ESCALATOR
EST	ESTIMATE(D)
EWC	ELECTRIC WATER COOLER
EXC	EXCAVATED
EXH	EXHAUST
EXIST, (E)	EXISTING
EXP	EXPANSION JOINT
EXT	EXTERIOR
EX-BR	EXISTING BRICK

F	FACE TO FACE
FA	FIRE ALARM
FAS	FIRE ALARM STATION
FB	FLAT BAR
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FEC	FIRE EXTINGUISHER CABINET
FE	FIRE EXTINGUISHER
FF	FINISH FACE
FG	FINISH GRADE
FHC	FIRE HOSE CABINET
FH/FEC	FIRE HOSE / FIRE EXTINGUSHER CABINET
FHMS	FLAT HEAD MACHINE SCREW
FHWS	FLAT HEAD WOOD SCREW
FHY	FIRE HYDRANT
FIN	FINISH, FINISHED
FLAM	FLAMMABLE
FLASH	FLASHING
FLEX	FLEXIBLE
FLR	FLOOR
FLUOR	FLUORESCENT
FO	FACE OF
FRT	FIRE RETARDANT TREATMENT
FRZ	FREEZER
FSB	FOLDING SHOWER BENCH
FSTNR	FASTENER
FT	FOOT, FEET
FTG	FOOTING
FURN	FURNITURE
FXTR	FIXTURE

G	GAS
GA	GAUGE, GAGE
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFRC	GLASS FIBER REINFORCED CONCRETE
GFRG	GLASS FIBER REINFORCED GYPSUM
GL	GLASS
GLU LAM	GLUE LAMINATED
GLZ	GLAZING
GR	GRADE, GRADING
GVL	GRAVEL
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER

H	HIGH
HB	HOSE BIB
HC	HOLLOW CORE
HD	HEAD
HDBD	HARDBOARD
HDW	HARDWARE
HDWD	HARDWOOD
HGT, HT	HEIGHT
HM	HOLLOW METAL
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HPT	HIGH POINT
HR	HOUR
HSKP	HOUSEKEEPING
HVAC	HEATING-VENTILATION-AIR CONDITIONING
HW	HOT WATER

ID	INSIDE DIAMETER
IN	INCH
INCAND	INCANDESCENT
INCL	INCLUDE, INCLUDING
INFO	INFORMATION
INSUL	INSULATION
INTR	INTERIOR
INV	INVERT
IVT	INTRAVENOUS TRACK

JAN	JANITOR
JST	JOIST
JT	JOINT

KG	KILOGRAM
KIT	KITCHEN
KPL	KICK PLATE
KS	KNEE SPACE

L	LENGTH, LONG
LAB	LABORATORY
LAM	LAMINATE, LAMINATION
LAV	LAVATORY
LB	POUND
LED	LIGHT EMITTING DIODE
LF	LINEAR FOOT
LG	LENGTH
LIN	LINEAR
LL	LEAD LINED
LPT	LOW POINT
LT	LIGHT
LT WT	LIGHT WEIGHT
LTG	LIGHTING
LVR	LOUVER

M	METERS
MACH	MACHINE
MATL	MATERIAL
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MEDICINE CABINET
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MED	MEDIUM
MET, MTL	METAL
MEMB	MEMBRANE
MFR, MFGR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLDG	MOLDING
MM	MILLIMETERS
MO	MASONRY OPENING
MOD	MODULE, MODULAR
MTD	MOUNTED
MTG	MOUNTING
MULL	MULLION
MVBL	MOVEABLE
MW	MICROWAVE

(N)	NEW
N	NORTH
NA, N/A	NOT APPLICABLE
NAT	NATURAL
NE	NORTHEAST
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
NW	NORTHWEST

OC	ON CENTER
OA	OVERALL
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISH-CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED-OWNER INSTALLED
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
OVHD	OVERHEAD
OZ	OUNCE

PA	PUBLIC ADDRESS
PART	PARTIAL
PBD	PARTICLEBOARD
PBX	PRIVATE TELEPHONE EXCHANGE
PCF	POUNDS PER CUBIC FOOT
PCI	POUNDS PER CUBIC INCH
PERF	PERFORATED
PERIM	PERIMETER
PERM	PERMANENT
PERP	PERPENDICULAR
PI	POINT OF INTERSECTION
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER, PLASTIC
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PLYWD	PLYWOOD
PNEU	PNEUMATIC
PNL	PANEL
PNL BD	PANEL BOARD
PNT, P	PAINT
PORT	PORTABLE
PP	PUSH PLATE
PPM	PARTS PER MILLION
PR	PAIR
PRCST	PRECAST
PREP	PREPARATION
PREFAB	PREFABRICATION
PRKG	PARKING
PROJ	PROJECT
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PT, PTD	PAINT, PAINTED
PTN	PARTITION
PTS	PNEUMATIC TUBE STATION
PVC	POLYVINYL CHLORIDE
PVG	PAVING
PVMT	PAVEMENT
PWR	POWER

QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY

R	RISER
RA	RETURN AIR
RAD	RADIUS
RB	RESILIENT BASE
RCP	REFLECTED CEILING PLAN
RCPT	RECEPTACLE
RD	ROOF DRAIN
RECT	RECTANGULAR
REF	REFERENCE
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCE(D)(ING)(MENT)
REQD	REQUIRED
REQT	REQUIREMENT
RESIL	RESILIENT
RET	RETURN
REV	REVISION
RF	RESILIENT FLOORING
RH	RIGHT HAND
RHMS	ROUND HEAD MACHINE SCREW
RHWS	ROUND HEAD WOOD SCREW
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RWL	RAIN WATER LEADER

S	SOUTH
SA	SUPPLY AIR
SB	SPLASHBLOCK
SC	SOLID CORE
SCHED	SCHEDULE
SCRN	SCREEN
SD	STORM DRAIN
SECT	SECTION
SEG	SEGMENT
SEP	SEPARATION, SEPARATE
SEP JT	SEPARATION JOINT
SHT	SHEET, SHEETING
SHWR	SHOWER
SHV	SHELVES, SHELVING
SIM	SIMILAR
SK	SINK
SMS	SHEET METAL SCREW
SP	SPACE, SPACED, SPACING
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SQ	SQUARE
SS	SANITARY SEWER
SSK	SERVICE SINK
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STAG	STAGGERED
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
STS	SELF-TAPPING STEEL
SUSP	SUSPENDED
SUSP CLG	SUSPENDED CEILING
SVCE	SERVICE
SYMM	SYMMETRICAL
SYST	SYSTEM

T	TREAD
T&B	TOP AND BOTTOM
T&G	TOUNGE AND GROOVE
TC	TOP OF CONCRETE, TOP OF CURB
TD	TRENCH DRAIN
TEL	TELEPHONE
TEMP	TEMPORARY
THERM	THERMAL
THK	THICK, THICKNESS
THRES	THRESHOLD
THRU	THROUGH
TMPD GL	TEMPERED GLASS
TO	TOP OF
TOR	TOP OF RAILING
TOS	TOP OF STEEL
TOT	TOTAL
TOW	TOP OF WALL
TP	TOP OF PAVEMENT
TPH	TOILET PAPER HOLDER
TRANS	TRANSPARENT
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
TW	TOP OF WALL

UC	UNDER COUNTER
UL	UNDERWRITERS LABORATORY
UNF	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTABLE POWER SUPPLY
UR	URINAL
UTIL	UTILITY

VAC	VACUUM
VB	VALVE BOX
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIT	VITREOUS
VP	VENT PIPE
VOL	VOLUME
VWC	VINYL WALL COVERING

W	WEST
WI	WITH
W/W	WALL TO WALL
WAINS	WAINSCOT
WC	WATER CLOSET, WALL COVERING
WD	WOOD
WDW	WINDOW
WGL	WIRE GLASS
WCHR	WHEELCHAIR
WM	WIRE MESH
WO	WHERE OCCURS
W/O	WITHOUT
WP	WATERPROOF
WPT	WORKING POINT
WR	WATER RESISTANT
WSCT	WAINSCOT
WSP	WET STANDPIPE
WT	WEIGHT
WTHPRF	WEATHERPROOF
WTRPRF	WATERPROOF
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

XFMR	TRANSFORMER

YD	YARD
YR	YEAR

ARCHITECTURAL DIMENSIONING CONVENTIONS

1. EXCEPT WHERE DIRECTED TO PLACE ITEMS OF THE WORK AT THE "APPROXIMATE LOCATION SHOWN," DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION.

2. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN (OR MAY BE DERIVED FROM THOSE SHOWN OR NOTED) ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, SCHEDULES, CONFIGURATION DETAILS, AND SPECIFICATIONS. SEE THE NOTES BELOW FOR DIMENSIONING CONVENTIONS USED ON THIS PROJECT.

3. EXCEPT WHERE SPECIFICALLY NOTED TO THE CONTRARY, ALL DIMENSIONS SHOWN ON THE ARCHITECTURAL DRAWINGS CONFORM TO THE FOLLOWING CONVENTIONS:

   A. DIMENSIONS UTILIZING THE "CENTERLINE" SYMBOL ARE MEASURED TO:
      - STRUCTURAL OR DIMENSIONAL GRID LINES
      - CENTERLINE OF CONCRETE OR CONC MASONRY UNIT WALLS (EXCLUSIVE OF FURRING OR APPLIED FINISHES HAVING THICKNESS). REFER TO THE ARCH PLANS AND SECTIONS, THE STRUCT DRAWINGS, OR PARTITION SCHEDULE TO DETERMINE THE THICKNESS OF CONCRETE OR CONC MASONRY UNIT WALLS.
      - CENTERLINE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALLS) AT PARTITIONS FRAMED WITH METAL STUDS. REFER TO "PARTITION SCHEDULE" TO DETERMINE THICKNESS OF EACH PARTITION TYPE.
      - CENTERLINE OF DOOR, WINDOW, OR LOUVER OPENING.
      - CENTERLINE OF EQUIPMENT OR FURNISHING.
      - CENTERLINE OF OTHER FEATURES AS INDICATED.

   B. REFER TO ABBREVIATIONS LEGEND FOR SYMBOL USED TO INDICATE CENTERLINE DIMENSION.

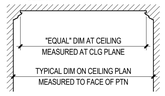
   C. DIMENSIONS UTILIZING THE "FACE OF" SYMBOL ARE MEASURED TO:
      - FACE OF CONCRETE OR CONC MASONRY UNIT WALL (EXCLUSIVE OF APPLIED FINISHES HAVING THICKNESS OR FURRING WHICH MAY BE ADDED TO THE FACE OF SUCH WALLS).
      - FACE OF PARTITION ASSEMBLY (EXCLUSIVE OF ANY APPLIED FINISHES HAVING THICKNESS WHICH MAY BE ADDED TO SUCH WALL) AS DEFINED BY THE PARTITION SCHEDULE. UNLESS NOTED AS A "FACE OF FINISH" OR "CLEAR" DIMENSION (SEE NOTE 'E' BELOW), DIMENSIONS ARE NOT MEASURED TO THE FACE OF APPLIED FINISH. REFER TO THE "PARTITION SCHEDULE" TO DETERMINE THE THICKNESS OF EACH PARTITION TYPE.
      - INSIDE EDGE OF FINISHED DOOR OPENING. REFER TO THE DOOR SCHEDULE FOR ADDITIONAL DIMENSIONAL INFORMATION.

   D. REFER TO ABBREVIATIONS LEGEND FOR SYMBOL USED TO INDICATE "FACE OF" DIMENSION.

   E. WHERE "FACE OF FINISH" OR "CLEAR" DIMENSIONS ARE SPECIFICALLY NOTED, THE DIM IS MEASURED TO:
      - FINISH FACES AT THE MOST NARROW OR CONSTRICTED POINTS OF SECTION WHERE DIMENSION IS SHOWN, WHEN THE DIMENSION OCCURS ACROSS AN OPEN SPACE. THIS CASE, A "FACE OF FINISH" DIMENSION IS EQUIVALENT TO A "CLEAR" DIMENSION.
      - FINISH FACES AT THE WIDEST OR MOST EXPANSIVE POINTS OF THE SECTION THE DIMENSION IS SHOWN WHEN THE DIMENSION OCCURS ACROSS AN OBJECT OR GROUP OF OBJECTS.

   F. WHERE "EQUAL" DIMENSIONS ARE USED ON REFLECTED CEILING PLANS TO LOCATE CEILING GRID WORK POINTS, MEASURE DIMENSIONS TO:
      - EDGE OF THE INDICATED CEILING AT THE FACE OF THE ADJACENT APPLIED FINISH MEASURED AT THE PLANE OF THE CEILING.

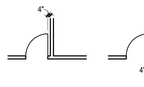
NOTE NO 3 CONTINUED:
- CAUTION: DUE TO THE POSSIBLE APPLICATION OF APPLIED FINISHES - THICKNESS OF WHICH MAY VARY BETWEEN FLOOR AND CEILING AND IS NOT ACCOUNTED FOR (EXCEPT AS INDICATED BY "FOF" OR "CLEAR") BY THE DIMENSION SHOWN ON THE FLOOR PLANS - THE CONTRACTOR MUST ADJUST, AS NECESSARY, THE FLOOR PLAN DIMENSIONS TO REFLECT THE ACTUAL DIMENSIONS FOUND AT PLANE OF THE CEILING.



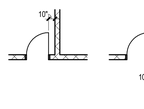
4. WHERE DIMENSIONS ARE NOT PROVIDED ON FLOOR PLANS TO LOCATE DOOR OPENINGS, APPLY THE FOLLOWING RULES. **IN ORDER**, TO DETERMINE THE LOCATION OF DOOR OPENINGS:

   A. DOOR OPENINGS MAY BE DIMENSIONED ON DRAWINGS OTHER THAN THE FLOOR PLANS. REFER TO THE SECTIONS, ELEVATIONS, DETAILS, AND DOOR SCHEDULE NOTES FOR ADDITIONAL DIMENSIONAL INFORMATION.

   B. WHERE THE HINGE-SIDE OF A DOOR IS SHOWN ADJACENT TO A WALL - OR WALLS - PERPENDICULAR TO THE WALL IN WHICH THE DOOR OPENING OCCURS:
      - AT DOORS OCCURRING IN METAL FRAMED GYPSUM BOARD PARTITIONS, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 4 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.

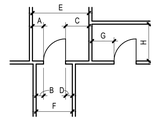


      - AT DOORS OCCURRING IN WALLS OF CONC MASONRY UNIT CONSTRUCTION, LOCATE THE HINGE-SIDE OF THE DOOR FINISHED OPENING 10 INCHES FROM THE FACE (EXCLUSIVE OF APPLIED FINISHES) OF THE THE CLOSEST PERPENDICULAR WALL OR PARTITION ASSEMBLY.



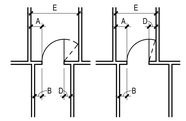
NOTE NO 4 CONTINUED:

   C. WHERE DOOR OCCURS NOT ADJACENT TO A PERPENDICULAR WALL AND EITHER "DIM E" OR "DIM F" IN DIAGRAM BELOW IS *16'-0"* OR LESS, LOCATE DOOR UTILIZING THE FOLLOWING MINIMUM DIMENSIONS:
      - DIMENSION A = 18 INCHES MIN
      - DIMENSION B = 12 INCHES MIN
      - DIMENSION C = DOOR WIDTH + 2 INCHES MINIMUM
      - DIMENSION D = 4 INCHES MIN AT METAL FRAMED GYP BD PARTITIONS OR - EVEN MULTIPLE OF 1/2 CMU MODULE PLUS 2 INCHES AT CONC MASONRY UNIT WALLS
      - DIMENSIONS E AND F = AS SHOWN ON PLANS
      - DIMENSION G = 36 INCHES MIN
      - DIMENSION H = 60 INCHES MIN

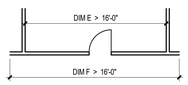


   - IF SPACE ALLOWS, CENTER DOOR IN WALL SHOWN ON THE DRAWINGS SO THAT EITHER "DIM A" EQUALS "DIM C" OR "DIM B" EQUALS "DIM D".

   D. IF "DIM E" IN DIAGRAMS BELOW IS LESS THAN THE SUM OF 2 TIMES THE DOOR WIDTH PLUS 20 INCHES, LOCATE DOOR SO THAT MINIMUMS STATED IN NOTE NO 4C ABOVE FOR "DIM A", "DIM B," AND "DIM D" ARE MET - MAXIMIZING "DIM A" AND MINIMIZING "DIM D" TO THE EXTENT POSSIBLE



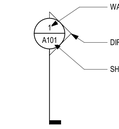
   E. WHERE DOOR IS SHOWN LOCATED IN A LARGE EXPANSE OF OPEN WALL ("DIM E" AND "DIM F" IN DIAGRAM BELOW BOTH EXCEED *16'-0"*), PLACE DOOR AT APPROXIMATE LOCATION SHOWN ON THE PLANS. WHERE DOOR OCCURS IN CMU WALL, PLACE DOOR AT APPROXIMATE LOCATION SHOWN WHILE MINIMIZING "CUT" OR PARTIAL CMU MODULES ADJACENT TO THE JAMBS.



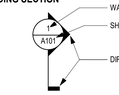
5. WHERE WALLS AND/OR PARTITIONS OF UNEQUAL THICKNESS ABUT, ALIGN EXPOSED FACES, UNLESS OTHERWISE NOTED.

TYPICAL ARCHITECTURAL REFERENCE SYMBOLS

WALL SECTION

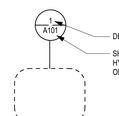


BUILDING SECTION

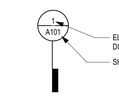


EXTERIOR ELEVATION

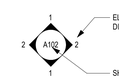
DETAIL REFERENCE



SECTION DETAIL REFERENCE



INTERIOR ELEVATION REFERENCE

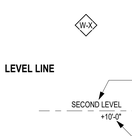


PARTITION TYPE IDENTIFICATION MARK

EQUIPMENT/ACCESSORY IDENTIFICATION MARK

DOOR IDENTIFICATION MARK

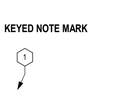
WINDOW AND LOUVER TYPE MARK



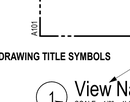
LEVEL LINE

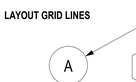
ROOM NAME AND NUMBER

REVISION EXTENT



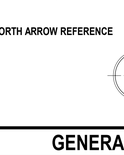
KEYED NOTE MARK





DRAWING TITLE SYMBOLS

LAYOUT GRID LINES



NORTH ARROW REFERENCE

TYPICAL RULES FOR DETERMINING REFLECTED CEILING PLAN LOCATIONS, DIMENSIONS, AND CONFIGURATIONS

GENERAL NOTES

A. THE A-SERIES DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND LOCATION OF ALL EXPOSED ELEMENTS. THE A-SERIES DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND LOCATION OF ALL PARTS OF THE **EXCEPTION:** DIMENSIONED LOCATIONS SHOWN ON ON DRAWINGS OF OTHER DISCIPLINES SHALL GOVERN ONLY WHERE:
   1. SPECIFICALLY AND INDIVIDUALLY INDICATED BY SYMBOL, KEYED NOTE, OR NOTATION ON THE ARCHITECTURAL DRAWINGS.
   2. OCCURRING WITHIN A ROOM OR OTHER IDENTIFIABLE SPACE FOR WHICH ARCH SHEET OR SCHEDULE NOTES INDICATE THAT DIMENSIONS PROVIDED ELSEWHERE SHALL GOVERN.

B. THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE THE TYPICAL RULES WHICH GOVERN THE LOCATION, CONFIGURATION IN RELATIONSHIP TO OTHER ELEMENTS OF THE WORK, AND FINISHED ALIGNMENT OF ALL ITEMS OCCURRING ON REFLECTED CEILING PLANS OF THE PROJECT.

C. THE A-SERIES FLOOR PLANS, REFLECTED CEILING PLANS, SECTIONS, ELEVATIONS, AND DETAILS ILLUSTRATE THE DIMENSIONED LOCATION OF MANY - BUT NOT ALL - EXPOSED PARTS OF THE WORK. APPLY THE RULES ON THIS SHEET - **IN ORDER** - TO DETERMINE THE LOCATION OF EXPOSED PART OF THE WORK.
   1. WHEN UNIQUELY AND SPECIFICALLY DIMENSIONED ON THE A-SERIES PLANS, SECTIONS, OR ELEVATIONS (OR COMBINATION THEREOF), LOCATE AS DIMENSIONED.
   2. IF NOT SHOWN, OR IF SHOWN BUT NOT DIMENSIONED, BY THE A-SERIES PLANS OR ELEVATIONS, LOCATE AS INDICATED BY THE APPLICABLE RULE.

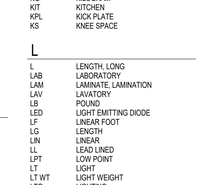
D. REFER TO THE "ARCHITECTURAL GENERAL NOTES" FOR ADDITIONAL NOTES WHICH MAY BE APPLICABLE TO THE WORK SHOWN ON THIS SHEET.

E. FOR MANY SPACES, THE ARCHITECTURAL REFLECTED CEILING PLANS ESTABLISH AN IDEAL PATTERN FOR LOCATING SPRINKLER HEADS. IN SPACES WHERE HEADS ARE SHOWN, FOLLOW PATTERN ESTABLISHED BY THE DRAWINGS. WHERE ADDL HEADS ARE REQUIRED TO CONFORM WITH CODE, PROVIDE HEADS IN GENERAL CONFORMITY WITH PATTERN ESTABLISHED BY THE DRAWINGS.

F. IN SPACES WHERE SPRINKLER HEADS ARE NOT SHOWN BY THE ARCHITECTURAL REFLECTED CEILING PLANS, PROVIDE HEADS AS REQUIRED BY CODE.

RULE 1

WHEN COMPLETELY DIMENSIONED ON REFLECTED CEILING PLAN

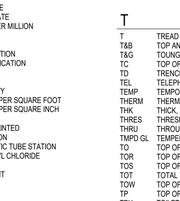


LOCATE ITEMS AS INDICATED WHEN SHOWN DIMENSIONED BY A REFLECTED CEILING PLAN, ENLARGED REFLECTED CEILING PLAN, OR DETAIL.

SPECIFIC DIMENSIONS SHOWN BY REFLECTED CEILING PLANS, ELEVATIONS, OR DETAILS TAKE PRECEDENCE OVER TYPICAL LOCATION RULES.

RULE 2

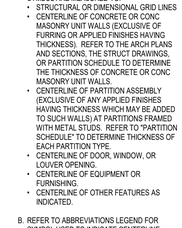
WHEN NOT DIMENSIONED BUT SHOWN CENTERED



LOCATE ITEMS CENTERED IN SPACE (OR CEILING PLANE) WHEN SHOWN (BUT NOT DIMENSIONED) VISUALLY AT APPROXIMATE CENTER OF SPACE.

RULE 3

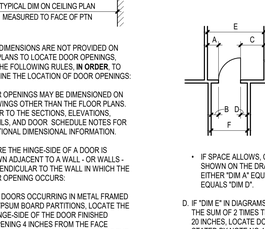
WHEN OFF-CENTER IN SPACE BUT CENTERED ON ADJACENT FEATURE



LOCATE ITEMS CENTERED ON ADJACENT OPENING OR FEATURE WHEN SHOWN (BUT NOT DIMENSIONED) OFF-CENTER IN OVERALL SPACE BUT CENTERED AGAINST ADJACENT FEATURE.

RULE 4

WHEN ALIGNED WITH OTHER FEATURES



LOCATE ITEMS (LIGHT FIXTURES, SPRINKLER HEADS, DEVICES,

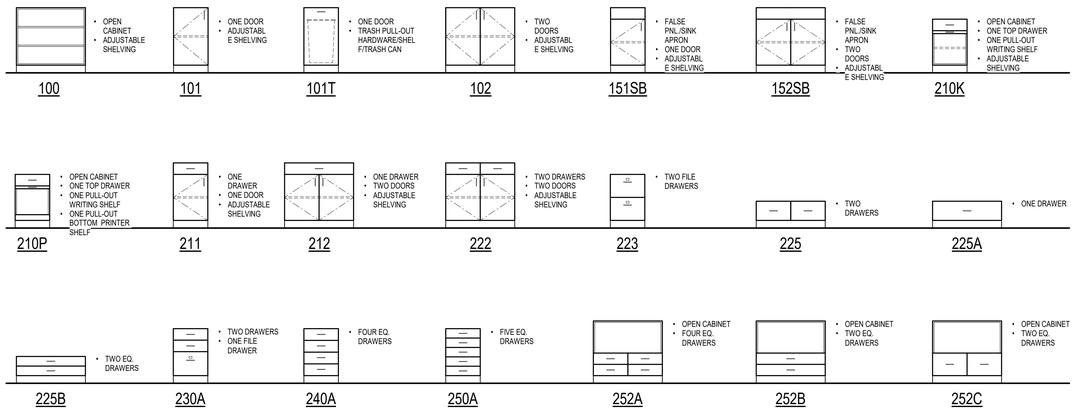
TYPICAL CABINETRY TYPES ELEVATIONS

CABINETRY TYPES ELEVATIONS_30X42_BW.DWG

BASE CABINETS

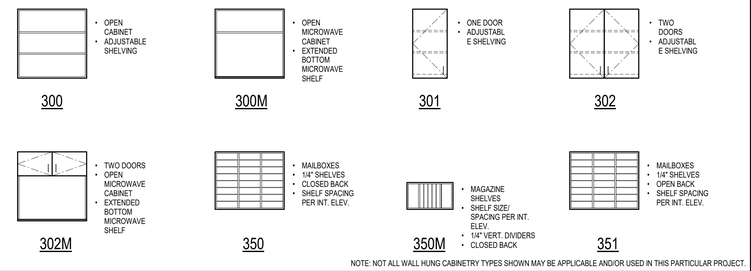
CABINETRY REFERENCE

NOTE: NOT ALL BASE CABINETRY TYPES SHOWN MAY BE APPLICABLE AND/OR USED IN THIS PARTICULAR PROJECT.



WALL HUNG CABINETS

CABINETRY REFERENCE

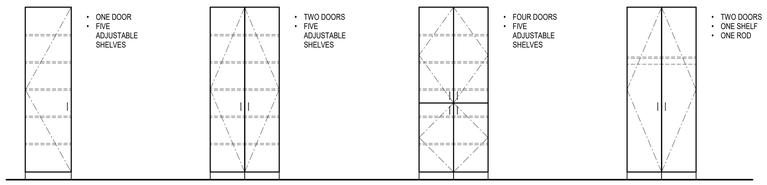


NOTE: NOT ALL WALL HUNG CABINETRY TYPES SHOWN MAY BE APPLICABLE AND/OR USED IN THIS PARTICULAR PROJECT.

TALL CABINETS

CABINETRY REFERENCE

NOTE: NOT ALL TALL CABINETRY TYPES SHOWN MAY BE APPLICABLE AND/OR USED IN THIS PARTICULAR PROJECT.

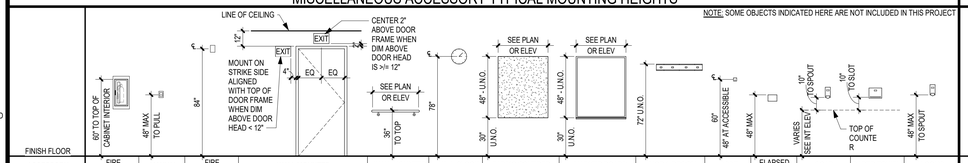


CASEWORK GENERAL NOTES

1. CONTRACTOR TO SUBMIT CASEWORK SHOP DRAWINGS TO DESIGNER FOR APPROVAL PRIOR TO FABRICATION AND ORDERING OF MATERIALS.
2. ALL CASEWORK TO BE CONSTRUCTED PER MOST CURRENT EDITION OF THE NORTH AMERICAN ARCHITECTURAL WOODWORK STANDARDS PREMIUM GRADE, UNLESS NOTED OTHERWISE.
3. ALL COUNTERTOPS TO HAVE A 4" H. BACKSPLASH AND ENDSPLASHES UNLESS INDICATED OTHERWISE (REFERENCE INTERIOR ELEVATIONS). BACK AND ENDSPLASHES TO BE FULLY BEDDED IN (NON-YELLOWING) CLEAR SILICONE SEALANT TO FULLY SEAL ALL PERIMETER JOINTS. CAULK THE BACK AND ENDSPLASHES WITH CLEAR SEALANT ALONG THE ENTIRE TOP EDGE WHERE SPLASHED ADJOIN WALLS.
4. ALL LAMINATE AND VENEER SHALL BE APPLIED TO SUBSTRATE OF NOT LESS THAN 3/4" THICKNESS.
5. ALL EXPOSED EXTERIOR SURFACES OF CASEWORK TO BE PLASTIC LAMINATE UNLESS NOTED OTHERWISE.
6. AT ALL WET LOCATIONS, WHERE PLASTIC LAMINATE IS SPECIFIED, BOTH COUNTERTOP AND BACKSPLASH ARE TO BE MADE OF MOISTURE RESISTANT PARTICLE BOARD.
7. INTERIOR OF ALL CASEWORK TO BE WHITE MELAMINE UNLESS NOTED OTHERWISE. EXCEPTION: CASEWORK WITH OPEN FRONTS OR GLASS DOORS TO HAVE PLASTIC LAMINATE INTERIOR.
8. CONTRACTOR TO PROVIDE, COORDINATE AND INSTALL ALL REQUIRED BLOCKING FOR CASEWORK.
9. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR CASEWORK PRIOR TO FABRICATION.
10. CONTRACTOR TO VERIFY ALL SEALANT COLORS WITH ARCHITECT PRIOR TO ORDERING AND INSTALLATION.
11. CONTRACTOR SHALL DRILL 2 3/8" DIA. HOLES FOR HAFELE 429.93.XXX GROMMETS THRU COUNTERTOPS AT LOCATIONS AS DIRECTED BY THE OWNER/TENANT. PROVIDE GROMMET COVERS TO MATCH COUNTERTOP COLOR. PROVIDE COLOR SAMPLES OF COUNTERTOP FINISH AND COLORED GROMMET TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO ORDERING.
12. CABINET DOOR PULLS TO BE 4" HIGH WIRE PULLS, FINISH TO BE BRUSHED CHROME OR APPROVED EQUAL, UNLESS NOTED OTHERWISE.
13. ALL OUTSIDE CORNERS OF COUNTERTOPS ON PLANS NOT AGAINST AN ADJACENT WALL SHALL HAVE 1-1/2" RADIUS, UNLESS NOTED OTHERWISE.
14. ALL LAMINATE DOORS TO BE FINISHED ON ALL SIDES.
15. ALL COUNTERTOP METAL ANGLE SUPPORT BRACKETS TO BE A&M HARDWARE 18"X24" W/ BLACK POWDER COATED FINISH (OR APPROVED EQUAL) UNLESS NOTED OTHERWISE.
16. ALL UNDER CABINET LIGHTING SHALL BE CONCEALED FROM FRONT AND FINISHED ENDS. FACE OF FRONT LIGHTRAIL SHALL ALIGN FLUSH WITH FRONT FACE OF CABINET BODY. BOTTOM EDGE OF CABINET FINISHED END PANELS SHALL ALIGN WITH BOTTOM EDGE OF LIGHT RAIL. SEE TYPICAL WALL CABINET DETAIL AS NOTED. NO OFFSET LIGHTRAILS ON FRONT OR ENDS OF CABINETS SHALL BE PERMITTED.
17. ALL OUTSIDE CORNERS OF CABINETS, APRONS, LIGHT RAILS, SINK ENCLOSURE PANELS, ETC. SHALL BE ALIGNED TO FORM A 90 DEGREE ANGLE UNLESS NOTED OTHERWISE. NO OFFSET OR STAGGERED CORNERS SHALL BE PERMITTED.
18. THE MAXIMUM PERMITTED GAP BETWEEN ADJACENT DOOR & DRAWER FRONTS FOR FLUSH OVERLAY CABINETS SHALL NOT EXCEED 1/8".ALL FILE DRAWERS SHALL BE SUPPLIED WITH BUILT-IN ADJUSTABLE HANGING FILE FRAME SYSTEM. INCLUDE (1) REMOVABLE INTERMEDIATE RAIL PER DRAWER FOR CONVERTING FROM LETTER TO LATERAL FILES.
19. ALL FINISHED SIDES OF BASE CABINETS SHALL HAVE VINYL BASE APPLIED TO THEM UNLESS NOTED OTHERWISE.
20. FRONT FACE OF ALL PLASTIC LAMINATE PENCIL DRAWER FRONTS SHALL ALIGN WITH FRONT FACE OF ANY ADJACENT PLASTIC LAMINATE APRON.
21. ALL PLASTIC LAMINATE DOOR AND DRAWERS TO RECEIVE 1MM PVC EDGEBAND AND ALL COUNTERTOPS TO RECEIVE T-MOLD EDGEBAND OR 3MM PC EDGEBANDING. REFER TO FINISH SCHEDULE FOR EDGEBAND COLORS.
22. PAINT ALL EXPOSED CLEATS BELOW COUNTERS TO MATCH WALL.
23. WHERE CABINET DOORS SWING AGAINST WALLS, PROVIDE AND INSTALL HINGE RESTRICTOR CLIPS TO PREVENT CABINET DOOR HANDLE FROM HITTING WALL WHEN DOOR IS OPENED.

MISCELLANEOUS ACCESSORY TYPICAL MOUNTING HEIGHTS

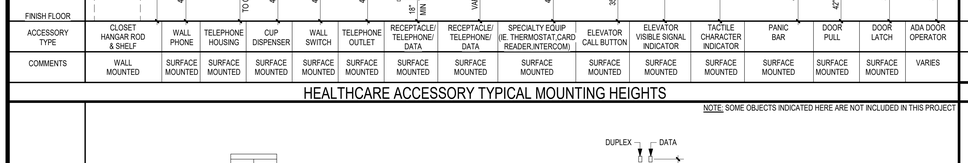
NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



ACCESSORY TYPE	FIRE EXTINGUISHER CABINET	MANUAL FIRE PULL	FIRE STROBE/LIGHT/ AUDIBLE ALARM	WALL MOUNTED EXIT SIGN	WALL MOUNTED HANDRAIL	WALL CLOCK	FABRIC COVERED TACK BOARD	MARKER BOARD	MOP & BROOM HOLDER	ROBE HOOK	ELAPSED TIME CLOCK	SOAP DISPENSER	PAPER TOWEL DISPENSER	ALCOHOL DISPENSER
COMMENTS	SEMI RECESSED	SURFACE MOUNTED	SURFACE MOUNTED	WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED

MISCELLANEOUS ACCESSORY TYPICAL MOUNTING HEIGHTS

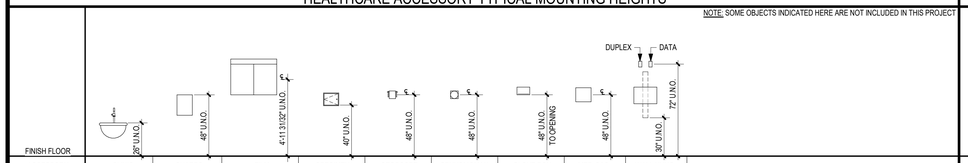
NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



ACCESSORY TYPE	CLOSET HANGAR ROD & SHELF	WALL PHONE	TELEPHONE HOUSING	CUP DISPENSER	WALL SWITCH	TELEPHONE OUTLET	RECEPTACLE/ TELEPHONE/ DATA	RECEPTACLE/ TELEPHONE/ DATA	SPECIALTY EQUIP (IE. THERMOSTAT,CARD READER,INTERCOM)	ELEVATOR CALL BUTTON	ELEVATOR VISIBLE SIGNAL INDICATOR	TACTILE CHARACTER INDICATOR	PANIC BAR	DOOR PULL	DOOR LATCH	ADA DOOR OPERATOR
COMMENTS	WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	VARIES

HEALTHCARE ACCESSORY TYPICAL MOUNTING HEIGHTS

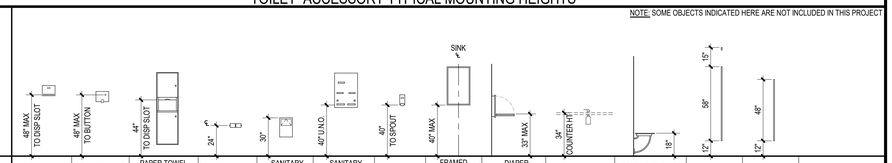
NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



ACCESSORY TYPE	CLINIC SINK	SHARPS CONTAINER	FILM ILLUMINATOR	SPECIMEN PASS-THRU	OTOSCOPE	SPHYGMOMAN-OMETER	GLOVE BOX	MED-GAS SHUT OFF	WALL HUNG COMPUTER
COMMENTS	WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	THRU-WALL MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED

TOILET ACCESSORY TYPICAL MOUNTING HEIGHTS

NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT



ACCESSORY TYPE	PAPER TOWEL DISPENSER	HAND DRYER	PAPER TOWEL DISPENSER & TRASH	TOILET TISSUE DISPENSER	SANITARY NAPKIN DISPOSAL	SANITARY NAPKIN DISPENSER	VANITY SOAP DISPENSER	FRAMED VANITY MIRROR	DIAPER CHANGING STATION	SOAP DISPENSER	FOLDING SHOWER SEAT	TOILET PARTITION	URINAL SCREEN
COMMENTS	SURFACE MOUNTED	SURFACE MOUNTED	RECEPTACLE: SEMI RECESSED	SURFACE MOUNTED	SURFACE MOUNTED	RECESSED & SURFACE	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	COUNTERTOP MOUNTED	SURFACE MOUNTED	WALL MOUNTED	WALL MOUNTED

PLUMBING FIXTURE TYPICAL MOUNTING HEIGHTS

NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT

ACCESSORY TYPE	SHOWER MIXING VALVE	SHOWER HEAD	HAND HELD SHOWER	LAVATORY	LAVATORY	CHILDREN'S DRINKING FOUNTAIN	SINGLE DRINKING FOUNTAIN	DOUBLE DRINKING FOUNTAIN	TOILET	URINAL
COMMENTS	WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	COUNTER MOUNTED	WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	WALL/FLOOR MOUNTED	WALL MOUNTED

GRAB BAR TYPICAL MOUNTING HEIGHTS & TOILET ACCESSORY PLANS

NOTE: SOME OBJECTS INDICATED HERE ARE NOT INCLUDED IN THIS PROJECT

ACCESSORY TYPE	ADA TOILET GRAB BAR	SHOWER STALL GRAB BAR	ROLL-IN SHOWER STALL GRAB BAR	TYPICAL ACCESSORIES AT ACCESSIBLE TOILET	REQUIRED FRONT APPROACH KNEE CLEARANCE	OBSTRUCTED FORWARD REACH	UNOBSTRUCTED FORWARD/SIDE REACH
COMMENTS	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	NOTE: SANITARY NAPKIN DISPOSAL AT WOMEN'S & UNISEX ONLY	TYPICAL AT ALL VANITIES, DRINKING FOUNTAINS, ETC.	ADA REACH RANGES	

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Proposed:

CENTRAL COUNTY FIRE & RESCUE - HOUSE #6

1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

TYPICAL MOUNTING HEIGHTS

Project No. 24057

Sheet No. A002

Date 2026/06/08

SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1" = 1'-0" 2" 1" 6" 3" 0
SCALE: 3/4" = 1'-0" 3" 2" 1" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 0
SCALE: 3/8" = 1'-0" 4" 2" 0
SCALE: 1/4" = 1'-0" 8" 4" 2" 0
SCALE: 1/8" = 1'-0" 16" 8" 4" 0
SCALE: 3/32" = 1'-0" 16" 8" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 0

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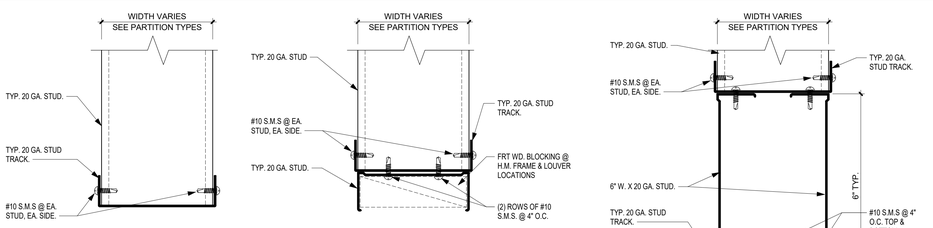


1 SINGLE HEADER

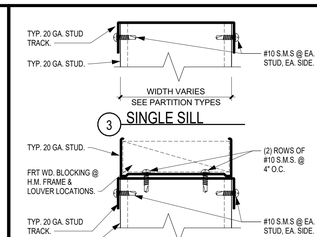
2A DOUBLE HEADER

2B BOX HEADER

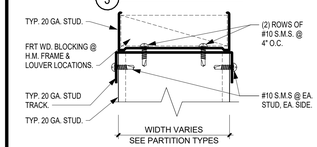
OPENING WIDTH	HEAD DETAIL
> 4'-0" TO ≤ 6'-0"	2A
> 6'-0" TO ≤ 10'-0"	2B

D1 TYPICAL FRAMING HEAD DETAILS
6" = 1'-0"

09.22.16 TYP. HEAD DETAILS



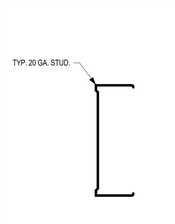
3 SINGLE SILL



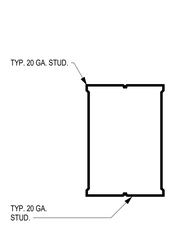
4 DOUBLE SILL

D4 TYPICAL FRAMING SILL DTL
6" = 1'-0"

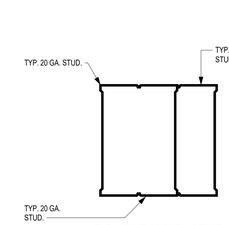
09.22.16 TYP. SILL DETAILS



5 SINGLE STUD JAMB



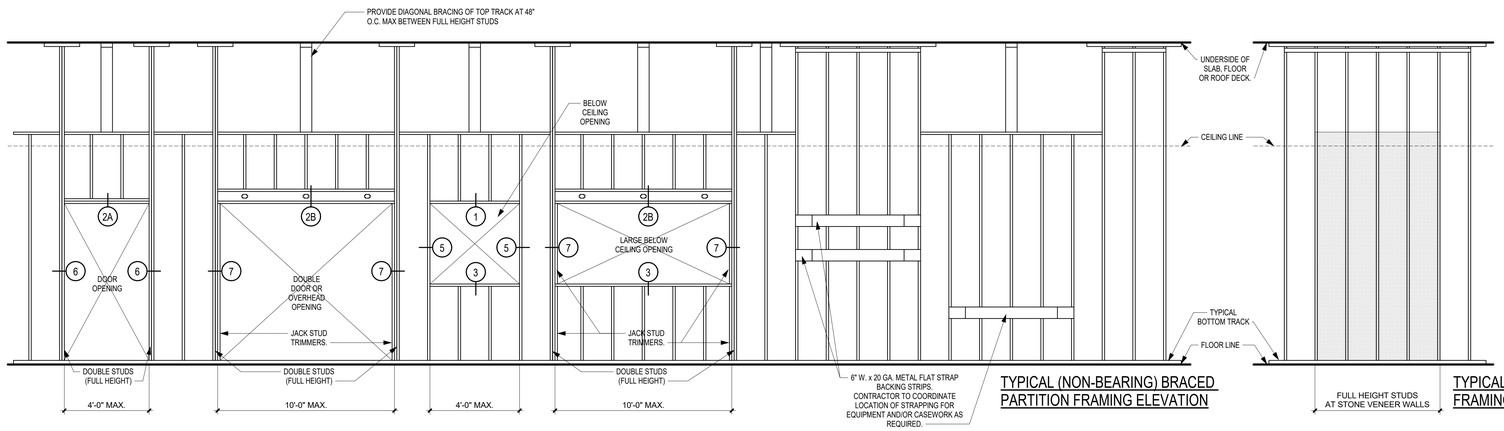
6 DOUBLE KING STUD JAMB



7 DOUBLE KING STUD W/ JACK STUD JAMB

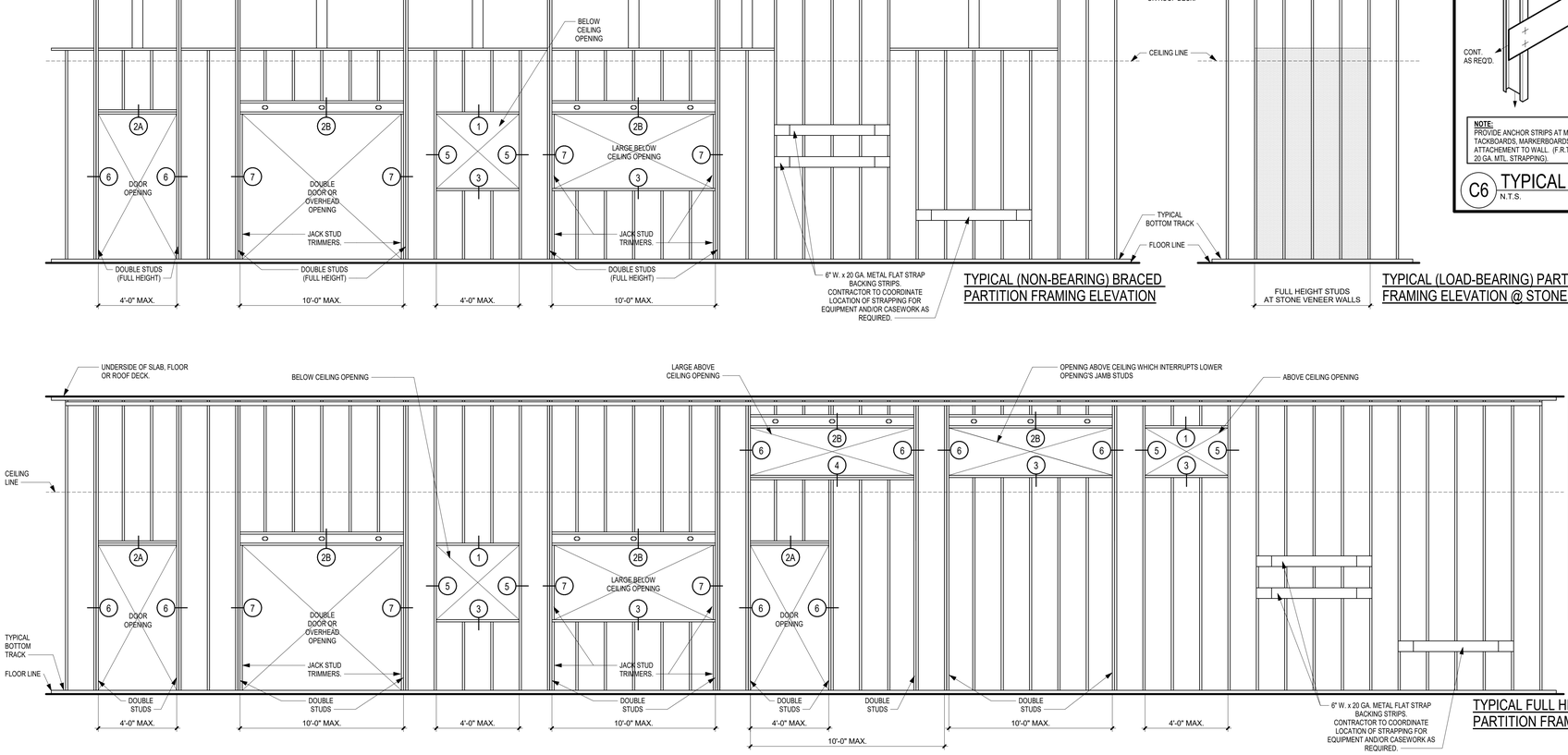
D5 TYPICAL FRAMING JAMB DETAILS
6" = 1'-0"

09.22.16 TYP. JAMB DETAILS



TYPICAL (NON-BEARING) BRACED PARTITION FRAMING ELEVATION

TYPICAL (LOAD-BEARING) PARTITION FRAMING ELEVATION @ STONE VENEER



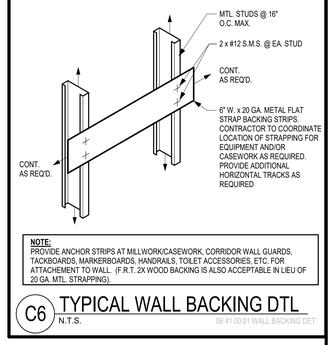
GENERAL NOTES:

1. ALL STUDS ARE SPACED 16" O.C. MAX.
2. ALL STUDS SHOULD BE "C" STUDS WITH 1/4" FLANGE MINIMUM.
3. METAL STUD MANUFACTURER TO PROVIDE BRIDGING AS REQUIRED AT ALL INTERIOR PARTITIONS.
4. DOTTED HATCHING DENOTES STONE VENEER.
5. IN NO INSTANCE SHALL DOUBLE STUDS BE CUT FOR DUCTWORK OR OTHER MECHANICAL SYSTEMS.
6. IN PROJECTS WITHIN SEISMIC ZONES, MINIMUM STUD GAUGE IS 20 GA. -DETAILS TO BE MODIFIED ACCORDINGLY.
7. STONE VENEER SHALL NOT BE ATTACHED DIRECTLY TO SHAFT WALLS. PROVIDE ADDITIONAL FURRING FOR STONE BACK-UP.
8. AT STONE WALLS, WHERE STONE EXCEEDS 10'-0" IN HEIGHT, OR IF THE SELECTED STONE IS GRAVITY SUPPORTED BY THE STUDS, THEY SHOULD BE ENGINEERED.

TYPICAL FULL HEIGHT (NON-BEARING) PARTITION FRAMING ELEVATION

A1 TYPICAL INTERIOR PARTITION FRAMING ELEVATIONS
3/8" = 1'-0"

09.22.16 TYP INT PARTITION FRAMING ELEV



NOTE:
PROVIDE ANCHOR STRIPS AT MILLWORK/CASEWORK, CORRIDOR WALL GUARDS, TACKBOARDS, MARKERBOARDS, HANDRAILS, TOILET ACCESSORIES, ETC. FOR ATTACHEMENT TO WALL. (F.R.T. 2X WOOD BACKING IS ALSO ACCEPTABLE IN LIEU OF 20 GA. MTL. STRAPPING).

C6 TYPICAL WALL BACKING DTL
N.T.S.

06 41 00.01 WALL BACKING DET

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD

No.	Date	Revision

FRAMING DETAILS

Project No.
24057

Sheet No.
A003

Date
2026/06/08

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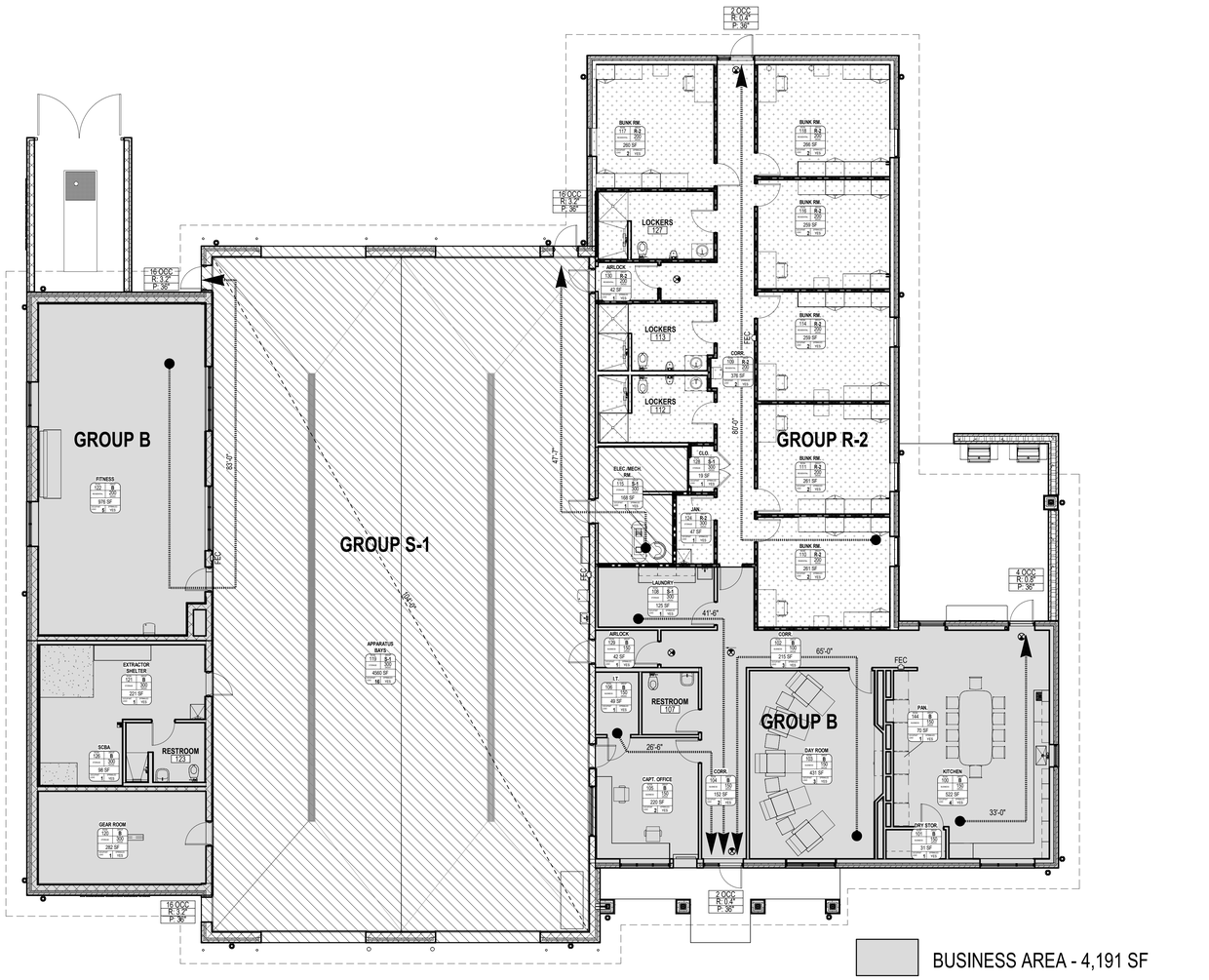

BUSINESS AREA - 4,191 SF

RESIDENTIAL AREA - 2,784 SF

STORAGE AREA - 4,965 SF

A1 LIFE SAFETY PLAN
1/8" = 1'-0"

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TYP DOOR LEGEND

NEW CONSTRUCTION | EXISTING | DEMOLITION

WALL TYPE LEGEND

- NEW UNRATED PARTITION
- DEMOLISHED PARTITION
- CMU PARTITION
- EXISTING UNRATED PARTITION
- SMOKE RESISTANT PARTITION
- SMOKE BARRIER PARTITION
- 1 HOUR FIRE PARTITION
- 1 HOUR FIRE & SOUND CONTROL
- 1 HOUR FIRE & SMOKE PARTITION
- 2 HOUR FIRE PARTITION
- 2 HOUR FIRE & SMOKE PARTITION

LIFE SAFETY PLAN LEGEND

SYMBOL	DESCRIPTION
XXXX xx OCC R: XX" P: XX"	**DOOR EGRESS TAG** # OF OCCUPANTS ALLOWED TO EGRESS THRU OPENING PER CODE WIDTH REQUIRED WIDTH PROVIDED
F.E.	FIRE EXTINGUISHER ON WALL MOUNTED BRACKET.
F.E.C.	FIRE EXTINGUISHER IN CABINET.
	EXIT SIGN - SEE ELECTRICAL DRAWINGS.
	EXIT SIGN WITH EMERGENCY LIGHTS - SEE ELECTRICAL DRAWINGS.
	EMERGENCY LIGHT - SEE ELECTRICAL DRAWINGS.
8'-8"	**EGRESS PATH** DISTANCE OF PATH

EMERGENCY LIGHTS ARE LOCATED OVER ALL EXTERIOR EXIT DOORS - SEE ELEC. DRAWINGS.

CODE INFORMATION

APPLICABLE CODES

- 2021 INTERNATIONAL BUILDING CODE
- 2021 INTERNATIONAL FIRE CODE
- 2020 NATIONAL ELECTRICAL CODE (NFPA 70)
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE
- 2021 INTERNATIONAL MECHANICAL CODE
- 2021 INTERNATIONAL FUEL GAS CODE
- 2021 INTERNATIONAL PLUMBING CODE
- 2021 INTERNATIONAL PROPERTY MAINTENANCE CODE
- 2020 ICC 500 (STORM SHELTER CODE)

ALLOWABLE BUILDING HEIGHTS & AREAS

- USE GROUP: B (PER IBC SECTION 304.1); R-2 (PER IBC SECTION 310.3); S-1 (PER IBC SECTION 311.3)
- CONSTRUCTION TYPE: V (PER IBC SECTION 602.5)

FIRE STATION BUILDING:

ALLOWABLE AREAS - PER IBC TABLE 506.2:		ACTUAL AREA
OCCUPANCIES:	B - 36,000 SF	2,181 SF
	R-2 - 28,000 SF	3,945 SF
	S-1 - 36,000 SF	5,813 SF
TOTAL:		11,939 SF

ALLOWABLE STORIES - PER IBC TABLE 504.4:		ACTUAL STORIES
OCCUPANCIES:	B - 3	1
	R-2 - 3	1
	S-1 - 2	1

ALLOWABLE HEIGHT - PER IBC TABLE 504.3:		ACTUAL HEIGHT
OCCUPANCIES:	B, R-2, S-1 = 75' - 0"	24' - 0"

FIRE RESISTANCE RATING REQUIREMENTS

TYPE V-B CONSTRUCTION

STRUCTURAL FRAME:	0 HR
BEARING WALLS	
EXTERIOR:	0 HR
INTERIOR:	0 HR
NON-BEARING WALL & PARTITION	
INTERIOR:	0 HR
FLOOR CONSTRUCTION	
INCLUDING SUPPORTING BEAMS & JOISTS:	0 HR
ROOF CONSTRUCTION	
INCLUDING SUPPORTING BEAMS & JOISTS:	0 HR

THE BUILDING FULLY IS SPRINKLED THROUGHOUT IN ACCORDANCE WITH SECTION 903.3.1.1 (NFPA 13 SPRINKLER SYSTEM) AND 903.2.10.1

REQUIRED SEPARATION OF OCCUPANCIES (PER IBC 2021 TABLE 508.4)
1 HR SEPARATION BETWEEN B AND R-2 OCCUPANCY
1 HR SEPARATION BETWEEN R-2 AND S-1 OCCUPANCY

MEANS OF EGRESS

OCCUPANT LOADS: (IBC 2021TABLE 1004.5)
FIRE STATION BUILDING
150 SF PER OCCUPANT (B)
200 SF PER OCCUPANT (R-2)
300 SF PER OCCUPANT (S-1)
4,191 / 150 = 28 'B' OCCUPANTS
2,784 / 200 = 14 'R-2' OCCUPANTS
4,965 / 300 = 17 'S-1' OCCUPANTS
TOTAL: 59 OCCUPANTS

EXIT TRAVEL DISTANCE: (IBC 2021 TABLE 1017.2)
(B) 300 FT MAX. (WITH SPRINKLER SYSTEM)
(R-2) 250 FT MAX. (WITH SPRINKLER SYSTEM)
(S-1) 250 FT MAX.(WITH SPRINKLER SYSTEM)

CORRIDOR RATING: (IBC 2021 TABLE 1020.2)
NOT REQUIRED WITH A (NFPA 13) SPRINKLER SYSTEM

DEAD END CORRIDOR: (IBC 2021 SECTION 1020.4)
50 FT MAX ALLOWED WITH BUSINESS (B), RESIDENTIAL (R-2), AND STORAGE (S-1) OCCUPANCY AND A (NFPA 13) SPRINKLER SYSTEM.

EXIT REQUIREMENTS: (IBC 2021 TABLE 1006.3.3)
2 REQUIRED
BUILDING: 6 PROVIDED

2021 IECC TABLE

OPAQUE ASSEMBLIES - ZONE 4	REQUIRED	PROVIDED
ROOF - INSULATION ENTIRELY ABOVE DECK	R30 CI	
WALLS - METAL FRAMED	R13 + R7.5 CI	
METAL BUILDING	R19 + R13 CI	
BELOW GRADE WALLS	R 7.5 CI	
MASS WALLS	R 9.5 CI	
UNHEATED SLABS	R10 FOR 24" BELOW	
OPAQUE DOORS	U-0.61 MAX	
NON-SWINGING DOORS	R4.75	
FENESTRATION ASSEMBLIES - ZONE 4	**REQUIRED**	**PROVIDED**
CURTAIN WALL / STOREFRONT	U-0.38 MAX	
ENTRANCE DOOR	U-0.77 MAX	
SHGC	0.40 MAX	

MINIMUM PLUMBING FIXTURE COUNT (IPC 2021 - TABLE 403.1)

CLASSIFICATION	WATER CLOSETS	LAVATORIES	DRINKING FOUNTAIN	SERVICE SINK
GROUP B	1 PER 25 FOR FIRST 50, 1 PER 50 FOR REMAINDER	1 PER 40 FOR FIRST 80, 1 PER 80 FOR REMAINDER	1 PER 100	1 SERVICE SINK REQ'D.
MALE:	28/25 = 2 W.C.	28/40= 1 LAV.	28/100= 1 D.F	
FEMALE:	28/25 = 2 W.C.	28/40 = 1 LAV.		
GROUP R-2	MALE: 1 PER 10 FEMALE: 1 PER 10	1 PER 10	1 PER 100	1 SERVICE SINK REQ'D.
MALE:	14/100 = 1 W.C.	117/200= 1 LAV.	234/500= 1 D.F	
FEMALE:	117/65 = 2 W.C.	117/200 = 1 LAV.		
GROUP S-1	1 PER 100	1 PER 100	1 PER 1000	1 SERVICE SINK REQ'D.
MALE:	4/100 = 1 W.C.	4/100= 1 LAV.	7/1000= 1 D.F	
FEMALE:	4/100 = 1 W.C.	4/100 = 1 LAV.		

PER IPC 2021 (SECTION 242.2), UP TO REQUIRED MALE WCS MAY BE SUBSTITUTED WITH 67% URINALS IN ASSEMBLY OCCUPANCY AND 50% IN ALL OTHER OCCUPANCIES.

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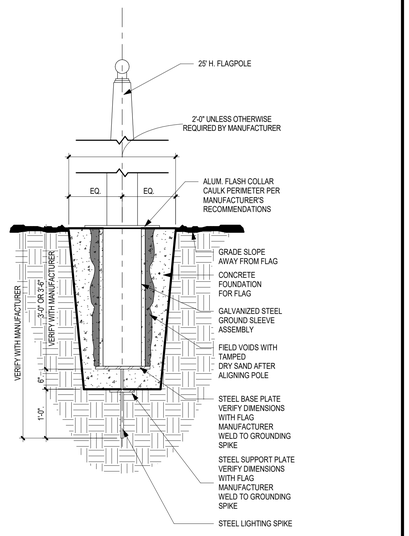
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

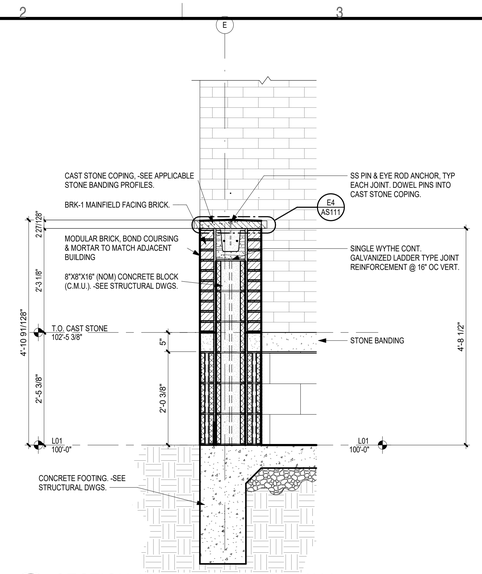
No.	Date	Revision

LIFE SAFETY PLAN

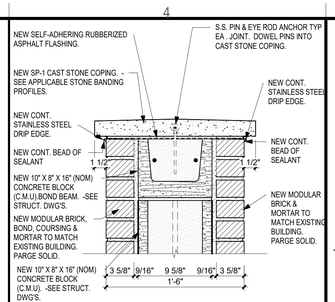
Project No. 24057
Sheet No. A004
Date 2026/06/08



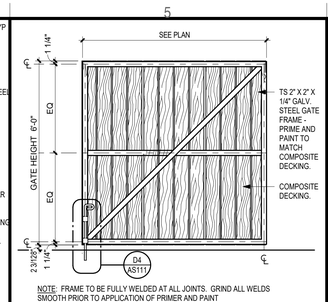
D1 FLAGPOLE BASE DETAIL
3/4" = 1'-0"



D2 SECTION AT PATIO SCREEN WALL
3/4" = 1'-0"

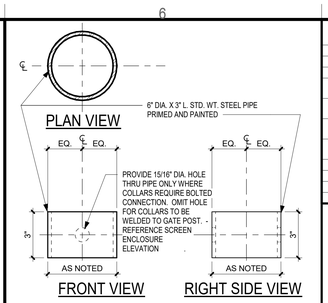


E4 SCREEN-WALL COPING DETAIL
1 1/2" = 1'-0"



NOTE: FRAME TO BE FULLY WELDED AT ALL JOINTS. GRIND ALL WELDS SMOOTH PRIOR TO APPLICATION OF PRIMER AND PAINT

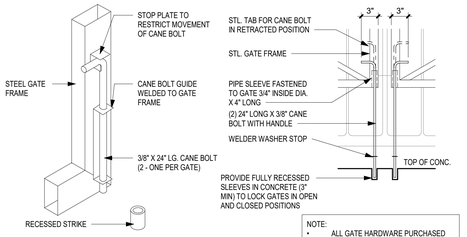
E5 DETAIL - GATE ELEVATION
1/2" = 1'-0"



E6 GATE COLLAR DETAIL
3" = 1'-0"

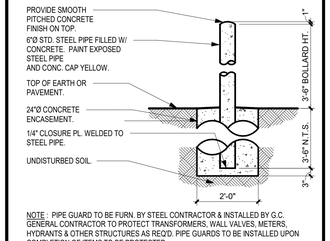
KEYED NOTES ARCH. SITE PLAN

MARK	DESCRIPTION
1	PAD MOUNTED ELECTRICAL TRANSFORMER - SEE ELEC. & CIVIL DWGS.
2	CONCRETE CURB. TYPICAL - SEE CIVIL DWGS
3	5' WIDE (MIN.) CONCRETE SIDEWALK & ACCESSIBLE RAMPS @ DRIVES - TYP., SEE CIVIL DWGS
4	CONCRETE PAD FOR BACKUP GENERATOR - SEE ELEC. DWGS - VERIFY ACTUAL PAD SIZE & REQUIREMENTS W/ GENERATOR MANFR PRIOR TO INSTALLATION
5	CONCRETE PAD W/ DRAINS FOR MECH. EQUIPT - SEE MECH. DWGS. FOR LAYOUT & MANUFACTURERS' REQUIREMENTS FOR CONCRETE PAD SIZING
6	FLAG POLE - SEE CIVIL & ELEC. DWGS. COORDINATE LOCATION W/ NEW & EXSTG. UTILITIES
7	SITE BOLLARD (DETL ##)
8	PARKING STRIPING - SEE CIVIL DWGS.
9	TRASH ENCLOSURE - SEE DWGS., THIS SHEET
10	ADA PARKING STALL SIGN - SEE CIVIL DWGS.



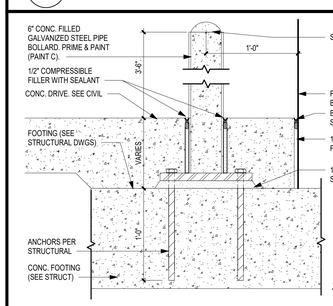
NOTE:
- ALL GATE HARDWARE PURCHASED THRU APPROVED SUPPLIER.
- ALL STEEL ITEMS TO BE GALV. STEEL

D4 CANE BOLT DETAIL
1/2" = 1'-0"

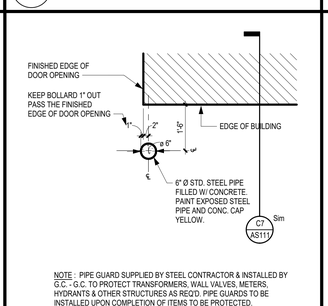


NOTE : PIPE GUARD TO BE FURN. BY STEEL CONTRACTOR & INSTALLED BY G.C. GENERAL CONTRACTOR TO PROTECT TRANSFORMERS, WALL VALVES, METERS, HYDRANTS & OTHER STRUCTURES AS REQ'D. PIPE GUARDS TO BE INSTALLED UPON COMPLETION OF ITEMS TO BE PROTECTED.

D6 TYPICAL BOLLARD DETAIL
1/2"=1'-0"
32 30 00. 04 TYP. BOLLARD DET.

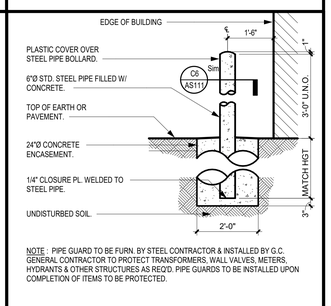


C4 TYP. INT. BOLLARD @ APARATUS BAY
1 1/2" = 1'-0"



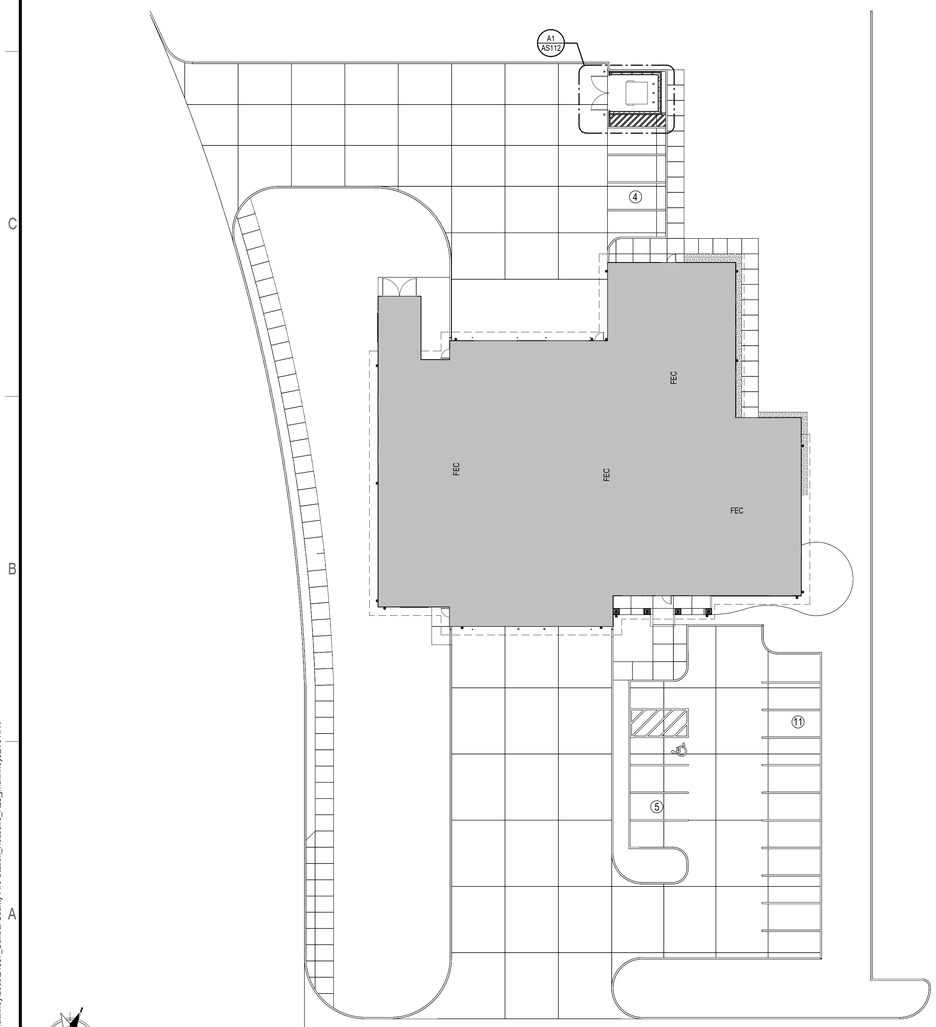
NOTE : PIPE GUARD SUPPLIED BY STEEL CONTRACTOR & INSTALLED BY G.C. - G.C. TO PROTECT TRANSFORMERS, WALL VALVES, METERS, HYDRANTS & OTHER STRUCTURES AS REQ'D. PIPE GUARDS TO BE INSTALLED UPON COMPLETION OF ITEMS TO BE PROTECTED.

C6 TYP. BOLLARD DETAIL PLAN
1/2" = 1'-0"

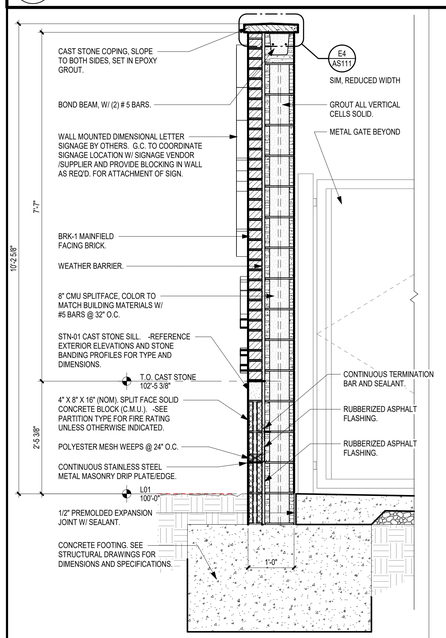


NOTE : PIPE GUARD TO BE FURN. BY STEEL CONTRACTOR & INSTALLED BY G.C. GENERAL CONTRACTOR TO PROTECT TRANSFORMERS, WALL VALVES, METERS, HYDRANTS & OTHER STRUCTURES AS REQ'D. PIPE GUARDS TO BE INSTALLED UPON COMPLETION OF ITEMS TO BE PROTECTED.

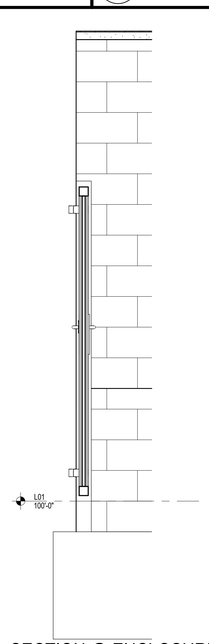
C7 TYPICAL BOLLARD DETAIL
1/2"=1'-0"
32 30 00. 04 TYP. BOLLARD DET.



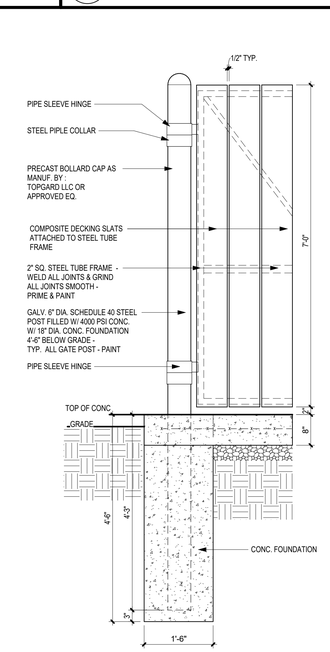
A1 ENLARGED SITE PLAN
1" = 20'-0"



A4 WALL SECTION @ ENCLOSURE
3/4" = 1'-0"



A5 WALL SECTION @ ENCLOSURE DOOR
3/4" = 1'-0"



A6 GATE POST
3/4" = 1'-0"

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STATE OF MISSOURI
ROY A. MANGAN
NUMBER A-6661
ARCHITECT
Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/26

Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD
ST. CHARLES, MO 63303

No.	Date	Revision

ARCHITECTURAL SITE PLAN

Project No.
24057
Sheet No.
AS111
Date
2026/06/08

6/16/2026 3:09:11 PM
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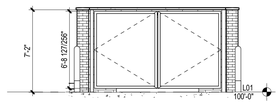
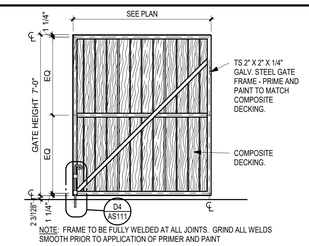
KEYED NOTES ARCH. SITE PLAN

MARK	DESCRIPTION
1	PAD MOUNTED ELECTRICAL TRANSFORMER - SEE ELEC. & CIVIL DWGS.
2	CONCRETE CURB, TYPICAL - SEE CIVIL DWGS
3	5' WIDE (MIN.) CONCRETE SIDEWALK & ACCESSIBLE RAMPS @ DRIVES - TYP., SEE CIVIL DWGS
4	CONCRETE PAD FOR BACKUP GENERATOR - SEE ELEC. DWGS - VERIFY ACTUAL PAD SIZE & REQUIREMENTS W/ GENERATOR MANFR PRIOR TO INSTALLATION
5	CONCRETE PAD W/ DRAINS FOR MECH. EQUIPT - SEE MECH. DWGS. FOR LAYOUT & MANUFACTURERS' REQUIREMENTS FOR CONCRETE PAD SIZING
6	FLAG POLE - SEE CIVIL & ELEC. DWGS. COORDINATE LOCATION W/ NEW & EXSTG. UTILITIES
7	SITE BOLLARD (DETL ##)
8	PARKING STRIPING - SEE CIVIL DWGS.
9	TRASH ENCLOSURE - SEE DWGS., THIS SHEET
10	ADA PARKING STALL SIGN - SEE CIVIL DWGS.

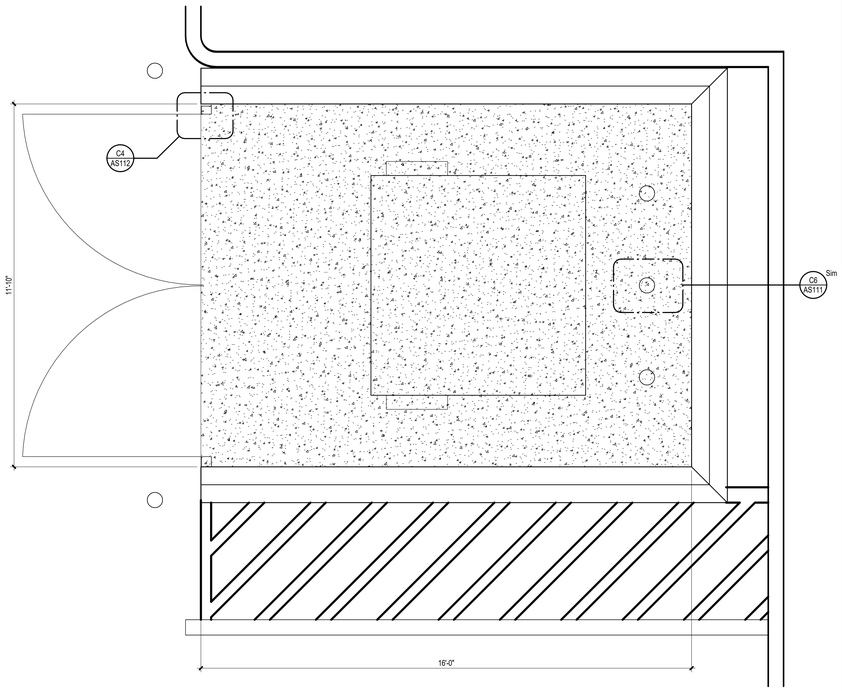


D1 DUMPSTER ENCLOURE FRONT
3/16" = 1'-0"



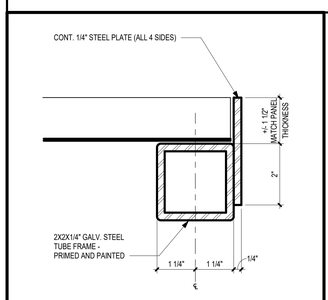
NOTE: FRAME TO BE FULLY WELDED AT ALL JOINTS. GRIND ALL WELDS SMOOTH PRIOR TO APPLICATION OF PRIMER AND PAINT

D2 DETAIL - GATE ELEVATION DUMPSTER ENCLOURE
3/8" = 1'-0"

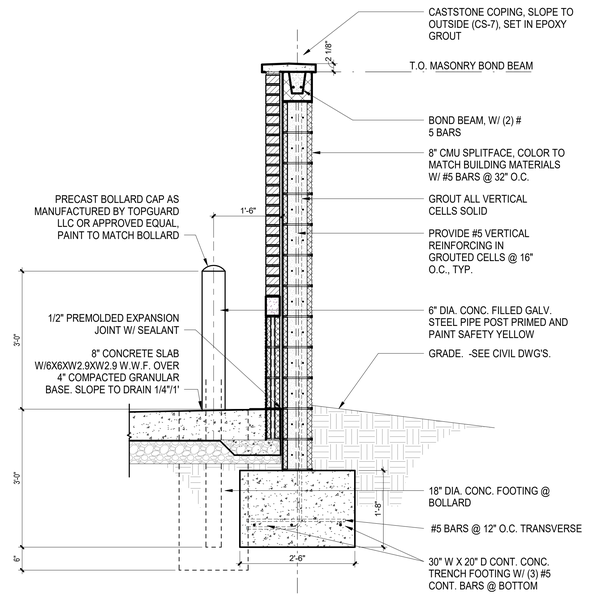


D1 / AS112

A1 DUMPSTER ENCLOSURE PLAN
1/2" = 1'-0"



C4 GATE DETAIL
6" = 1'-0"



A4 TRASH ENCLOSURE SECTION
3/4" = 1'-0"

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

ARCHITECTURAL SITE PLAN

Project No. 24057
Sheet No. AS112
Date 2026/06/08

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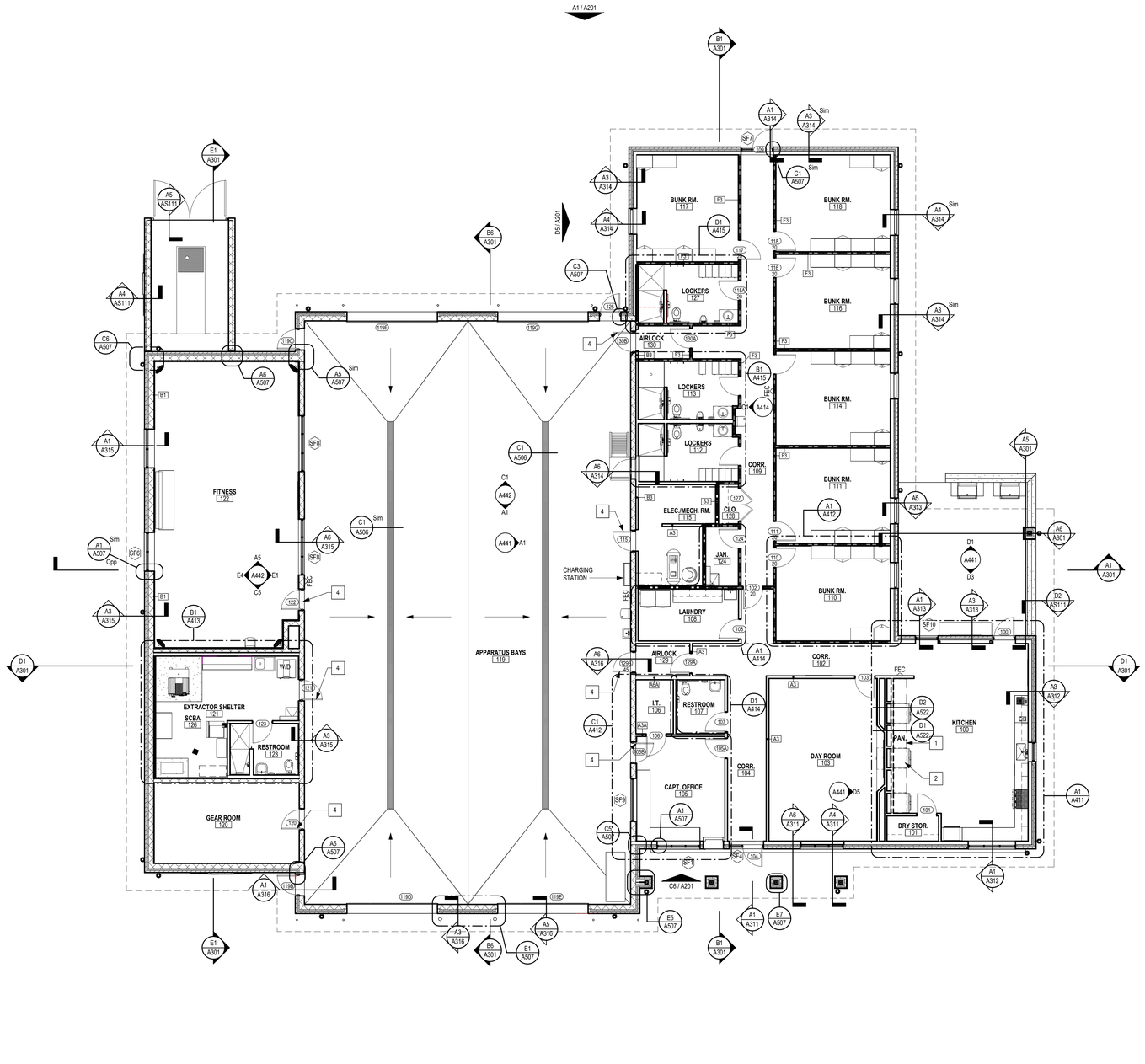
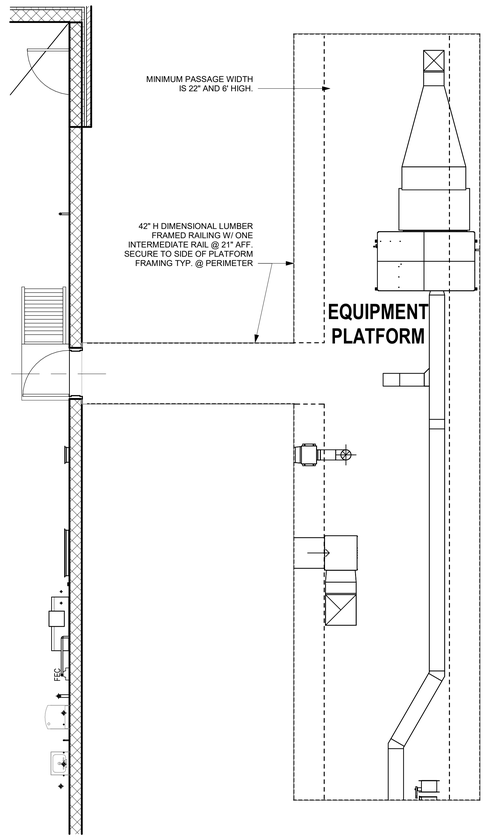
KEYED NOTES FLOOR PLAN

MARK	DESCRIPTION
1	BUILT-IN PANTRY W/ LOCK, TYP. SEE INTERIOR ELEVATIONS.
2	BUILT-IN OVERHEAD CABINET ABOVE REFRIGERATOR, TYP. SEE INTERIOR ELEVATIONS.
3	PROVIDE & INSTALL STEEL POWDERCOATED LOCKERS, FRONT VENTED ATHLETIC LOCKERS, HASP FOR OWNERS PADLOCK, SINGLE TIER 12"W X 24"D,X 72"H, HADRIAN GLADIATOR OR APPROVED EQUAL
4	CONTRACTOR TO PROVIDE RECESSED SLAB AT DOOR OPENING TO ACCOMMODATE DROP SILL AND TO ALLOW FOR DOOR THRESHOLD. INSTALL PER MANUFACTURER SPECIFICATIONS.

FLOOR PLAN GENERAL NOTES

1. REFERENCE GENERAL NOTES FOR ADDITIONAL APPLICABLE INFORMATION.
2. THE GENERAL CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT MAY AFFECT THE WORK PRIOR TO COMMENCING CONSTRUCTION.
3. ALL DIMENSIONS ARE TO THE FINISH FACE OF NEW PARTITIONS AND TO FINISH FACE OF EXISTING INTERIOR PARTITIONS AND PERIMETER WALLS TO REMAIN UNLESS NOTED OTHERWISE.
4. INSTALL REDUCER STRIPS BETWEEN DIFFERENT FLOOR FINISH LEVELS AND FINISHES AS REQUIRED.
5. PATCH ALL PARTITIONS AFFECTED BY THE DEMOLITION OF INTERSECTING PARTITIONS.
6. THE GENERAL CONTRACTOR SHALL INSTALL REQUIRED WALL BLOCKING FOR ALL CASEWORK, SHELVING, AND EQUIPMENT. SEE DRAWINGS FOR EXACT LOCATIONS.
7. UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT SHOWN ON THE DRAWINGS IS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
8. ALL INTERIOR DIMENSIONS ARE TO FINISHED FACE OF GYP. BD. UNLESS NOTED OTHERWISE.
9. PROVIDE PLASTIC DUST COVER TO PROTECT EQUIPMENT, FILES, ETC. WHERE REQUIRED.
10. MAINTAIN ALL NECESSARY COMMUNICATIONS AND FIRE PROTECTION SYSTEMS, EXIT CORRIDORS, AND ITEMS AFFECTING THE HEALTH AND SAFETY OF ALL OCCUPANTS AT ALL TIMES THROUGHOUT CONSTRUCTION.
11. MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK TO BE DESIGN-BUILD. INTENT OF THIS WORK IS REFLECTED ON THE DRAWINGS. IF SUCH WORK IS OUTSIDE OF THE PROJECT AREA, CONTACT THE OWNER FOR RESTRICTIONS THAT MAY APPLY TO THOSE AREAS AND COORDINATE AND SCHEDULE ALL WORK. PROTECT ADJACENT AREAS, EQUIPMENT, ETC.
12. ALL BLOCKING SHALL BE FIRE TREATED.





A1 FLOOR PLAN
1/8" = 1'-0"

A6 MEZZANINE
1/4" = 1'-0"

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No.	Date	Revision

FLOOR PLAN

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Date 2026/06/08

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FLOOR PLAN GENERAL NOTES

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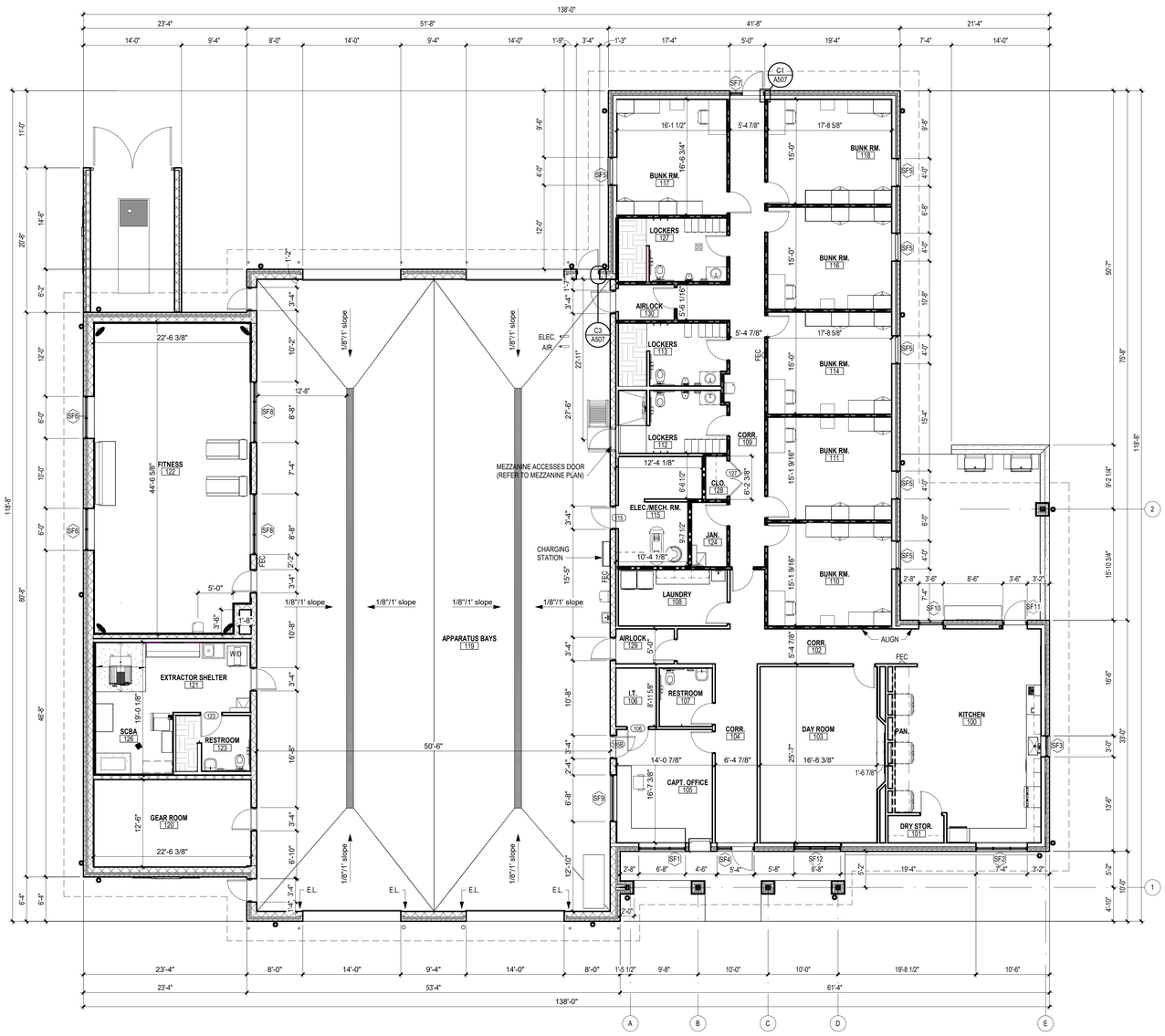
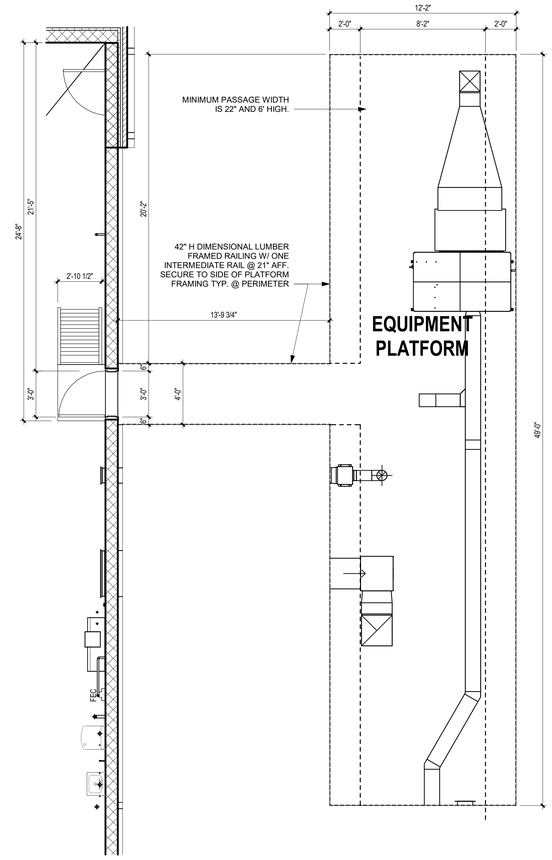
12. ALL BLOCKING SHALL BE FIRE TREATED.



A1 DIMENSION FLOOR PLAN
1/8" = 1'-0"



A6 MEZZANINE DIMENSION PLAN
1/4" = 1'-0"

ROY A. MANGAN
NUMBER A-6661
6/8/2026
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STATE OF MISSOURI
Roy A. Mangan
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DIMENSION FLOOR PLAN

Project No. 24057
Sheet No. A112
Date 2026/06/08

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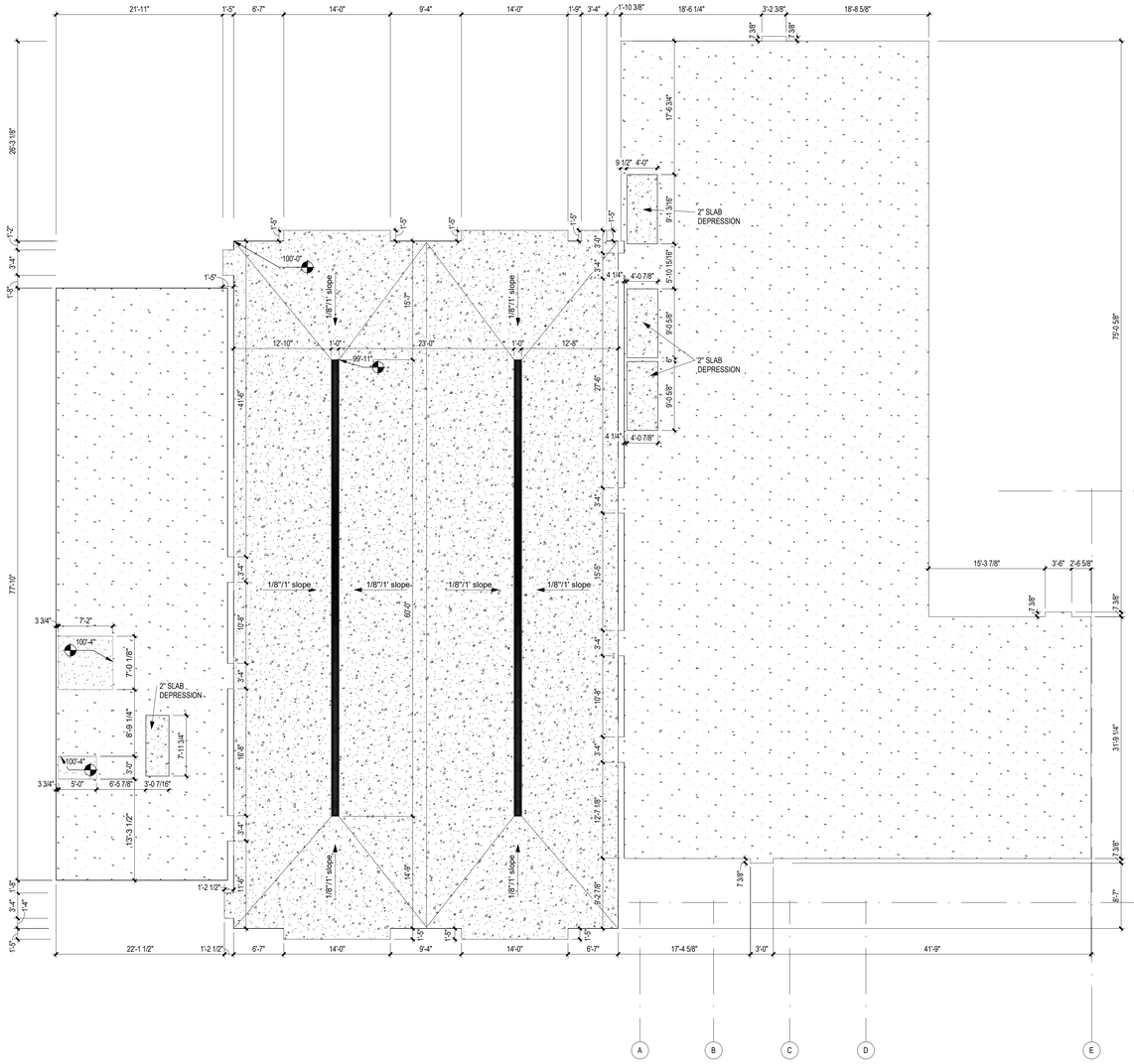
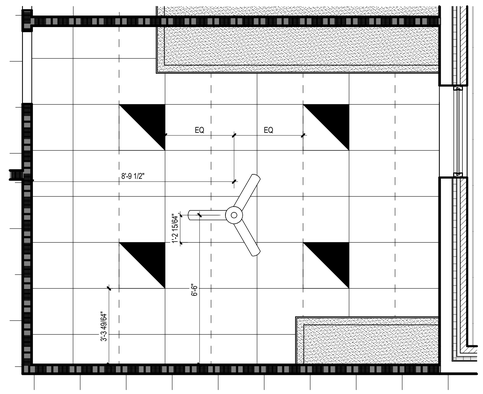
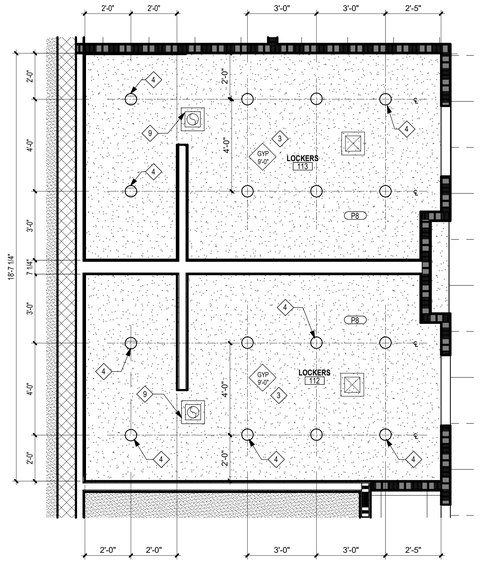
CONCRETE SLAB LEGEND

- 7" SLAB ON GRADE
- 4" SLAB ON GRADE

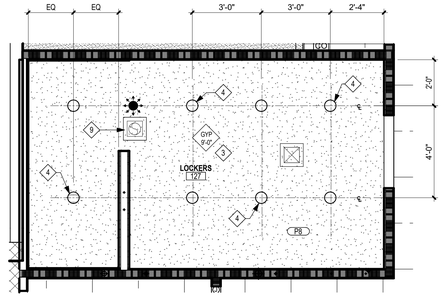

21'-11"
1'-5"
6'-7"
14'-0"
9'-4"
14'-0"
1'-9"
3'-4"
1'-10 3/8"
18'-6 1/4"
3'-2 3/8"
18'-8 5/8"
7.38"
7.38"
17'-6 3/4"
26'-3 1/8"
9 1/2"
4'-0"
6'-1 3/16"
2" SLAB DEPRESSION
1'-2"
3'-4"
1'-5"
100'-0"
1'-5"
3'-4"
4 1/4"
4'-0 7/8"
5'-10 15/16"
1'-5"
1'-5"
1'-5



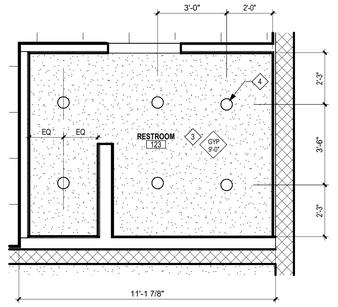
E4 ENLG. REFLECTED CEILING PLAN AT BUNK ROOM - TYP.
3/8" = 1'-0"



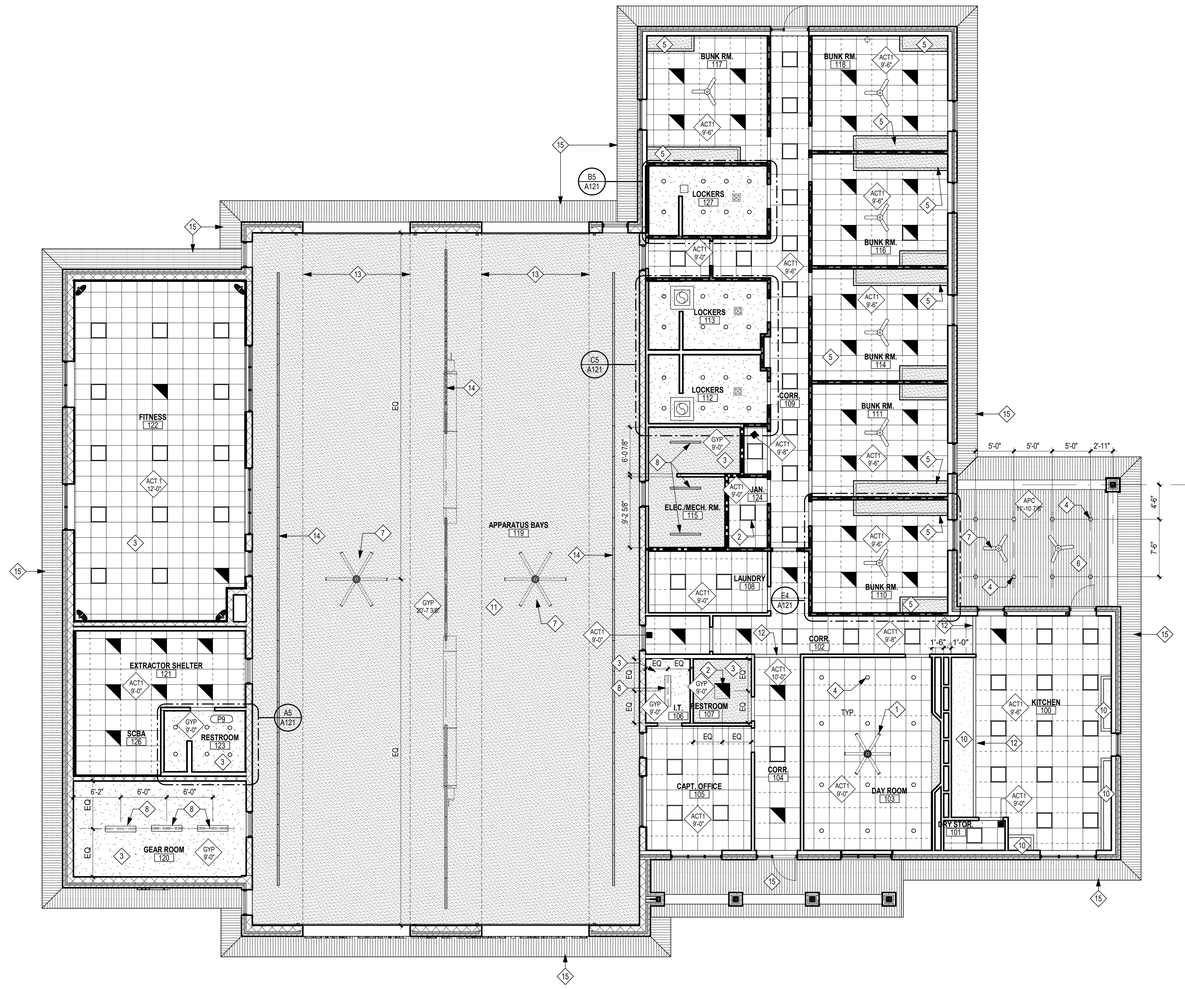
C5 ENLG. REFLECTED CEILING PLAN AT LOCKERS 112 & 113
3/8" = 1'-0"



B5 ENLG. REFLECTEED CEILING PLAN AT LOCKER 127
3/8" = 1'-0"



A5 ENLG. RESTROOM 123
3/8" = 1'-0"



A1 REFLECTED CEILING PLAN
1/8" = 1'-0"

KEYED NOTES RCP

MARK	DESCRIPTION
1	CENTER CEILING FAN IN ROOM.
2	CENTER LIGHT IN ROOM.
3	TLT. ROOM GYP. BOARD CEILING, PAINT P9
4	RECESSED CAN LIGHT, TYP. SEE ELECTRICAL FOR SIZE AND POWER REQUIREMENTS.
5	GYP. BOARD FURR-DOWN PAINT TO MATCH WALL COLOR
6	12" FLUSH ALUMINUM PANEL SOFFIT W/ VENTING.
7	8' CEILING FAN CENTERED. SEE ELECTRICAL PLAN FOR POWER REQUIREMENTS.
8	LINEAR STRIP LIGHT FIXTURE.
9	EXHAUST FAN. REFER TO ELECTRICAL PLANS FOR INSTALLATION AND LOCATION INFORMATION
10	KITCHEN GYP. BOARD SOFFITS PAINT TO MATCH WALL COLOR
11	APPARATUS BAY GYP. BOARD CEILING, PAINT P8
12	RECESSED CAN LIGHT, TYP. SEE ELECTRICAL FOR SIZE AND POWER REQUIREMENTS.
13	PROVIDE MIN. 18'-6" CLEARANCE A.F.F. ABOVE O.H. DOOR FOR WIDTH OF DOOR X LENGTH OF BAY INCLUDING ALL MECH. / PLUMB. / ELEC. / FIRE PROTECTION EQUIPMENT. HOLD TIGHT AS PRACTICAL TO CEILING ANY EQUIPMENT IN THIS AREA ABOVE 18'-6". NOTIFY ARCHITECT OF ANY CONFLICTS.
14	LINEAR LIGHT FIXTURE LENGTH OF APPARATUS BAY. SEE ELECTRICAL PLANS FOR MORE INFORMATION.
15	FLUSH/REVEAL ALUMINUM PANEL SOFFIT W/ NARROW VENTING, TYP.

REF. CLG. PLAN GENERAL NOTES

1. INSTALL ACOUSTIC SOUND BATT INSULATION OVER ALL PARTITIONS ABOVE CEILING TO 24" EA. SIDE OF PARTITION, TYP.
2. SEE INTERIOR ELEVATIONS FOR LOCATIONS OF UNDER CABINET LIGHT FIXTURES.
3. LIGHT FIXTURES, EXIT SIGNS, FIRE STROBES/CHIMES, ETC. TO MATCH BUILDING STANDARD UNLESS NOTED OTHERWISE.
4. NO COMBUSTIBLE MATERIAL SHALL BE INSTALLED IN A RETURN AIR PLENUM.
5. ALL CEILING, BULKHEAD, AND SOFFIT HEIGHTS ARE TAKEN FROM REFERENCED FINISH FLOOR.
6. PAINT ALL GYPSUM BOARD SOFFITS AND CEILINGS. REFERENCE REFLECTED CEILING PLAN.
7. ALL FLOATING "CLOUD" CEILINGS ARE TO BE HUNG WITH AIRCRAFT CABLE (NO EXCEPTIONS) IF APPLICABLE TO THIS PROJECT.
8. SUPPLY AND INSTALL SOUND BOOTS ON ALL DIFFUSERS OPEN TO THE CEILING PLENUM, TYP.
9. SHOULD ANY CONFLICT ARISE BETWEEN MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION SYSTEMS, REQUEST CLARIFICATION FROM ARCHITECT PRIOR TO INSTALLATION.
10. MECHANICAL DESIGN-BUILD CONTRACTOR TO INSTALL NEW SYSTEM AND DIFFUSERS AS REQUIRED TO PROVIDE PROPER CONDITIONING OF THE NEW PLAN. INSTALL DAMPERS AT ANY FIRE RATED ASSEMBLIES.
11. REFERENCE MECHANICAL DRAWINGS FOR BALANCE OF MECHANICAL INFORMATION (i.e. SUPPLY DIFFUSERS, RETURN AIR GRILLES, ETC.).
12. ELECTRICAL DESIGN-BUILD CONTRACTOR TO PROVIDE AND INSTALL EMERGENCY LIGHTS OR WIRE CEILING LIGHT FIXTURES FOR EMERGENCY TO PROVIDE THE REQUIRED LIGHT LEVELS PER GOVERNING CODES.
13. ELECTRICAL DESIGN-BUILD CONTRACTOR RESPONSIBLE FOR DEVELOPING LIGHT LEVEL CALCULATIONS AND PROVIDE TO LOCAL OFFICIALS IF REQUIRED.
14. ELECTRICAL DESIGN-BUILD CONTRACTOR TO PROVIDE AND INSTALL SMOKE DETECTORS AS REQUIRED BY GOVERNING CODES AND A.H.J. SMOKE DETECTORS SHALL BE TIED TO BUILDING ALARM SYSTEM IF ALARM SYSTEM PRESENT. VERIFY WORK REQUIRED.
15. ELECTRICAL DESIGN-BUILD CONTRACTOR TO PROVIDE AND INSTALL FIRE STROBES THROUGHOUT AREA OF WORK AND TIED INTO BUILDING ALARM SYSTEM WHERE REQUIRED BY GOVERNING CODES AND A.H.J. INSTALL CHIMES AT LOCATIONS IN CORRIDORS, ETC. TO PROVIDE REQUIRED DECIBEL LEVEL PER GOVERNING CODES. VERIFY WORK REQUIRED.
16. REFERENCE ELECTRICAL DRAWINGS FOR BALANCE OF LIGHTING INFORMATION. NOTE: ALL FIXTURES LOCATED IN LAY-IN ACOUSTICAL PANELS SHALL BE CENTERED IN CEILING PANELS UNLESS NOTED OTHERWISE.
17. FIRE PROTECTION DESIGN-BUILD CONTRACTOR TO INSTALL NEW SPRINKLER LINES AND DEVICES IN THE AREA OF WORK TO PROVIDE PROPER COVERAGE PER GOVERNING CODES. SPRINKLER HEADS TO MATCH BUILDING STANDARD. VERIFY WORK REQUIRED.
18. WHERE SPRINKLER SYSTEMS ARE USED PROVIDE CONCEALED WHITE SPRINKLERS AT ALL GYPSUM BOARD CEILINGS AND SOFFITS UNLESS NOTED OTHERWISE
19. WHERE SPRINKLERS ARE USED, REFERENCE FIRE PROTECTION DRAWINGS FOR LOCATION OF SPRINKLER HEADS. THIS DRAWING IS FOR COORDINATION CONCEPTS ONLY. **NOTE**: ALL SPRINKLER HEADS LOCATED IN LAY-IN ACOUSTICAL PANELS SHALL BE CENTERED IN CEILING PANELS UNLESS NOTED OTHERWISE.

LIGHT FIXTURE GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE, CLIPS, ANGLES, FRAMES, ETC. AS REQUIRED TO MOUNT THE FIXTURES IN OR ON THE SURFACES THEY ARE TO BE INSTALLED.
2. REFER TO ARCHITECTURAL DOCUMENTS FOR EXACT MOUNTING LOCATIONS OF LIGHT FIXTURES.
3. WHEN INSTALLING LIGHT FIXTURES THE CONTRACTOR SHALL USE THE LIGHT FIXTURE MANUFACTURER'S MOUNTING HARDWARE AND FOLLOW ALL MANUFACTURER INSTALLATION DIRECTIONS.
4. ALL RECESSED DOWN LIGHTING MUST BE INSTALLED SO THAT THE BOTTOM OF THE THROAT IS EVEN WITH THE FINISHED CEILING PLANE UNLESS NOTED OTHERWISE. THE OVERLAPPING FLANGE MUST FIT FLUSH TO THE CEILING PLANE/THROAT. NO LIGHT LEAK MAY BE VISIBLE. ALL MISCELLANEOUS HARDWARE ABOVE THE CEILING PLANE TO ACCOMPLISH THE ABOVE SHALL BE INCLUDED IN THE BASE BID.
5. ALL RECESSED DOWNLIGHTS SHALL HAVE SELF-FLANGED REFLECTORS UNLESS NOTED OTHERWISE.
6. ALL LIGHT FIXTURES SHALL HAVE A U.L. LABEL.
7. WHEN INSTALLING COMPACT FLUORESCENT LAMP LUMINARIES, CONSISTENT LAMP ORIENTATION SHALL BE MAINTAINED IN A CONTIGUOUS AREA.
8. CONTRACTOR TO RELAMP ALL EXISTING AND RELOCATED FIXTURES IN AREA OF WORK UNLESS NOTED OTHERWISE.

REF. CEILING PLAN LEGEND

NOTES:
- SEE INTERIOR ELEVATIONS FOR LOCATIONS OF UNDER CABINET LIGHT FIXTURES.

	SUSPENDED ACOUSTICAL LAY-IN CEILING, 2' x 2' OR 2' x 4' AS SHOWN
	SUSPENDED GYPSUM BOARD CEILING OR SOFFIT
	RECESSED LAY-IN LIGHT FIXTURE 2' x 2' OR 2' x 4' AS SHOWN
	RECESSED LINEAR LIGHT FIXTURE
	RECESSED DOWNLIGHT FIXTURE
	CEILING MOUNTED EXIT SIGN SHADED AREAS INDICATE FACES ARROWS INDICATE DIRECTION OF EGRESS
	CEILING MOUNTED EXIT SIGN / EMERGENCY LIGHT SHADED AREAS INDICATE FACES ARROWS INDICATE DIRECTION OF EGRESS
	WIRELESS ACCESS POINT - CEILING MOUNTED
$ +X"	SWITCH HEIGHT AS NOTED
$3 +X"	3-WAY SWITCH HEIGHT AS NOTED
$4 +X"	4-WAY SWITCH HEIGHT AS NOTED
$D +X"	DIMMER SWITCH HEIGHT AS NOTED
T +X"	THERMOSTAT HEIGHT AS NOTED
	EXHAUST FAN
	WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
	SPRINKLER HEAD
S	CEILING SPEAKER

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

REFLECTED CEILING PLAN

Project No. 24057

Sheet No. A121

Date 2026/06/08

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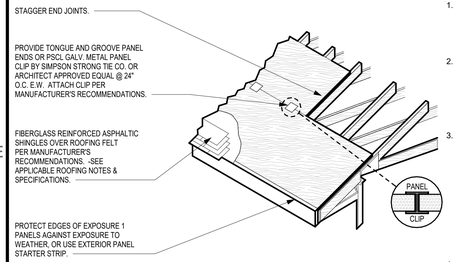
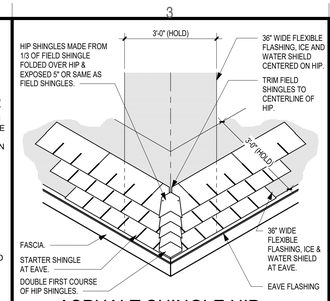


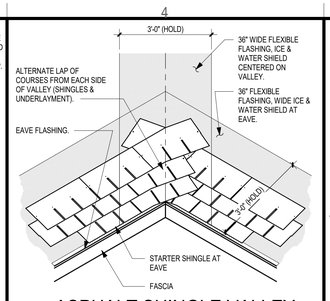
E1 SCHEMATIC ROOFING DETAIL
N.T.S

NOTES:

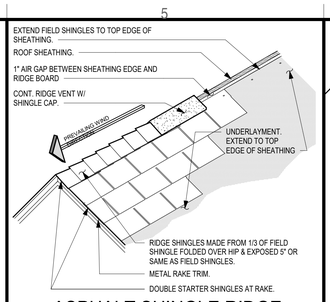
1. COVER SHEATHING AS SOON AS POSSIBLE WITH ROOFING MEMBRANE FOR EXTRA PROTECTION AGAINST EXCESSIVE MOISTURE PRIOR TO ROOFING APPLICATION.
2. FOR PITCHED ROOFS, PLACE SCREENED SURFACE OR SIDE WITH SKID-RESISTANT COATING UP IF OSB PANELS ARE USED IN LIEU OF PLYWOOD. KEEP ROOF SURFACE FREE OF DIRT, SAWDUST AND DEBRIS, AND WEAR SKID-RESISTANT SHOES WHEN INSTALLING ROOF SHEATHING.
3. FOR BUILDINGS WITH CONVENTIONALLY FRAMED ROOFS (TRUSSES OR RAFTERS), LIMIT THE LENGTH OF CONTINUOUS SECTIONS OF ROOF AREA TO 80 FEET MAXIMUM DURING CONSTRUCTION, TO ALLOW FOR ACCUMULATED EXPANSION IN WET WEATHER CONDITIONS. OMIT ROOF SHEATHING PANELS IN EACH COURSE OF SHEATHING BETWEEN SECTIONS, AND INSTALL "FILL-IN" PANELS LATER TO COMPLETE ROOF DECK INSTALLATION PRIOR TO APPLYING ROOFING.
4. WHEN USING ROOF CLIPS ALLOW AN 1/8" GAP BETWEEN CAP AT ALL EDGE AND END JOINTS UNLESS OTHERWISE INDICATED BY PANEL MANUFACTURER



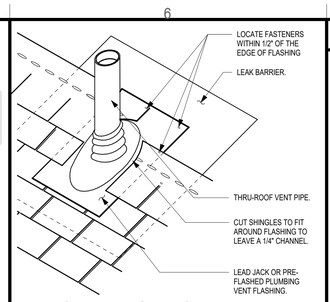
E3 ASPHALT SHINGLE HIP FLASHING DETAIL
N.T.S. 07.31.13.04 ASPHALT SHINGLE HIP FL DET 1W X 1H



E4 ASPHALT SHINGLE VALLEY FLASHING DETAIL
N.T.S. 07.31.13.02 ASPHALT SHINGLE RIDGE DET 1W X 1H



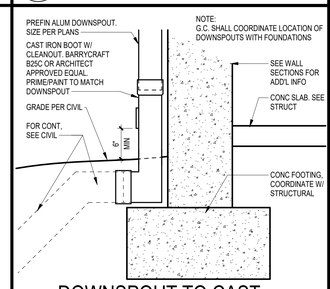
E5 ASPHALT SHINGLE RIDGE FLASHING DETAIL
N.T.S. 07.31.13.02 ASPHALT SHINGLE RIDGE DET 1W X 1H



ASPHALT SHINGLE VENT PENETRATION FLASHING DET.
N.T.S. 07.31.13.06 ASPHALT SHINGLE VENT PEN DET 1W X 1H

ROOF PLAN GENERAL NOTES

1. CONTRACTORS SHALL BE RESPONSIBLE TO COORDINATE ALL PENETRATIONS WITH ALL MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT AND TRADES.
2. CONTRACTOR SHALL COORDINATE LOCATION OF DOWNSPOUTS WITH CIVIL PLANS.
3. IN THE EVENT OF CONFLICT ARCHITECTURAL DWGS SHALL TAKE PRECEDENCE OVER CIVIL DWGS FOR LOCATION AND NUMBER OF DOWNSPOUTS.
4. REF. STRUCTURAL DWGS FOR MINIMUM ROOF SHEATHING REQUIREMENTS.
5. SEE ALL APPLICABLE UL ASSEMBLIES AS DESCRIBED ELSEWHERE IN THESE DRAWINGS, FOR REQUIREMENTS DESCRIBED THEREIN. UL REQUIREMENTS OR DETAILING SHALL TAKE PRECEDENCE SHALL ANY DISCREPANCIES ARISE.
6. GENERAL CONTRACTOR SHALL ENSURE DESIGN VENTILATION REQUIREMENTS, DESCRIBED HEREIN, TO BE MET IF SUBSTITUTIONS OF MATERIAL TYPES AND QUANTITIES ARE SUBMITTED AND APPROVED BY THE ARCHITECT. GC ASSUMES RESPONSIBILITY FOR TYPE, LOCATION, ARRANGEMENT AND QUANTITIES FOR MEETING THESE REQUIREMENTS.
7. SEE REFLECTED CEILING PLAN FOR EXTENT OF SOFFIT AREAS. GC TO PROVIDE LAYOUT OF SOFFIT AREA FOR INTAKE AIR, SIZED AND EQUALLY DISTRIBUTED PER CALCULATIONS DESCRIBED ELSEWHERE IN THESE DOCUMENTS.



DOWNSPOUT TO CAST IRON BOOT DET.
N.T.S.

ROOF DRAINAGE CALCULATIONS:

SQUARE FOOTAGE OF TOTAL ROOF = 15,230 SQ.FT.

R = RAINFALL INTENSITY = 4.0" PER HOUR
A = ROOF AREA = 15,230 SF
GPM = R x A x 0.0104
4.0 x 15,230 x 0.0104 = 634 GPM

D = DOWNSPOUT = 17
GPM/D = GPM PER DOWNSPOUT
634/17 = 38 GPM

DOWNSPOUT SIZE = 4" x 3"

ATTIC VENTILATION CALCULATIONS:

ATTIC & ROOF VENT CALCS (IBC SECTION 1203.2 - 1/150 FACTOR)
AREA - XX,XXX SQ.FT.

VENTILATION FACTOR - 1 SQ.FT. /150 SQ.FT. - XX,XXX/150 = XX.XX SQ. FT. OR XX,XXX SQ.IN. OF FREE AREA - 60/40 SPLIT - INTAKE/EXHAUST

60% AREA AT EAVES - REQUIRED AREA - XX.XX SQ.FT. (X,XXX SQ.IN.)
40% AREA AT RIDGE - REQUIRED AREA - XX.XX SQ.FT. (X,XXX SQ.IN.)

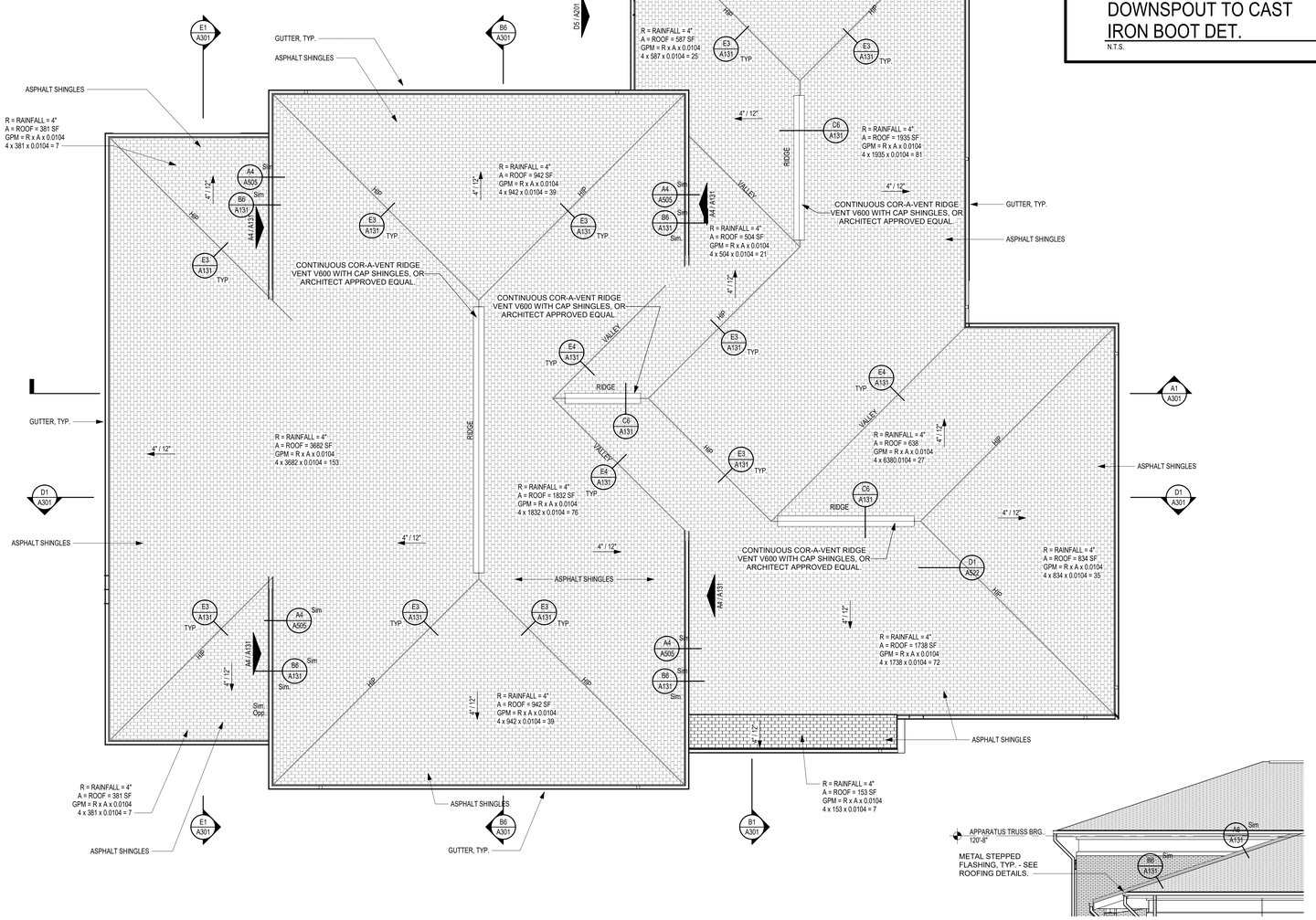
FREE AREA @ RIDGE (EXHAUST)

RIDGE VENTS - XXX' @ 18.3 SQ.IN./LINEAR FOOT = X,XXX SQ.IN.
BOX VENTS - -(X) @ 130 SQ.IN. PER UNIT = XXX SQ.IN.
TOTAL @ RIDGE = X,XXX SQ.IN.

FREE AREA @ SOFFIT (INTAKE)
BUILDING PERIMETER - APPROX. XXX' - NOTE: CONTRACTOR TO PROVIDE/INSTALL APPROXIMATELY XXX LINEAL FEET OF VENTED SOFFIT PANEL AT EAVES, DISTRIBUTED ALONG ENTIRE PERIMETER OF BUILDING. [LP SMARTSIDE SOFFIT (OR EQUAL) = 10 SQ.IN./ LINEAL FT.] PROVIDE BUG SCREEN ON INNER SURFACE.

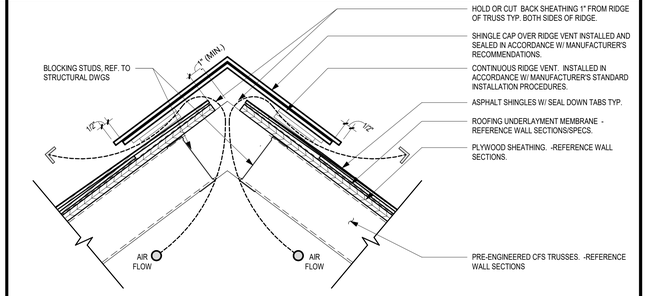
ZZZ' X 10 SQ.IN./FOOT - EAVES = X,XXX SQ.IN.

TOTALS
RIDGE - X,XXX / XX,000 =--- = % (RIDGE)
EAVE - X,XXX / XX,000 =--- = % (EAVE)

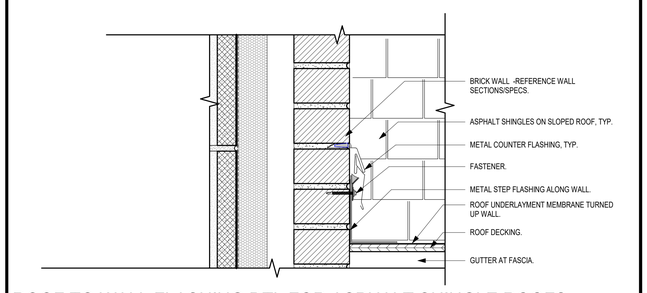


A1 ROOF PLAN
1/8" = 1'-0"

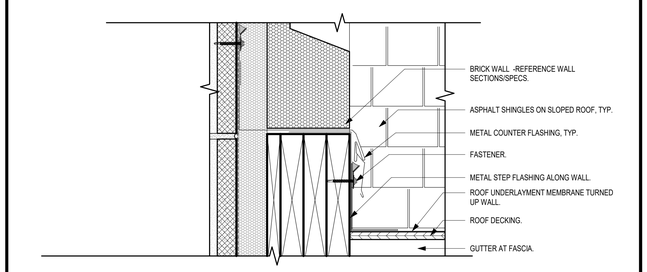
A4 ROOF TO WALL FLASHING
1/8" = 1'-0"



C6 RIDGE VENT DETAIL FOR ASPHALT SHINGLE ROOFS
3" = 1'-0"
07.31.13.03 ASPHALT SHINGLE RIDGE VENT DET 2W X 1H



B6 ROOF TO WALL FLASHING DTL FOR ASPHALT SHINGLE ROOFS
3" = 1'-0"
07.31 ASPHALT SHINGLE ROOF FLASHING DET 2W X 1H



A6 ROOF TO EIFS WALL FLASHING DTL FOR ASPHALT SHINGLE ROOFS
3" = 1'-0"
07.31 ASPHALT SHINGLE ROOF FLASHING DET 2W X 1H

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD
ST. CHARLES, MO 63303

No.	Revision	Date

ROOF PLAN

Project No. 24057
Sheet No. A131
Date 2026/06/08

SCALE: 3" = 1'-0" / SCALE: 1 1/2" = 1'-0" / SCALE: 1" = 1'-0" / SCALE: 3/4" = 1'-0" / SCALE: 1/2" = 1'-0" / SCALE: 3/8" = 1'-0" / SCALE: 1/4" = 1'-0" / SCALE: 1/8" = 1'-0" / SCALE: 3/32" = 1'-0" / SCALE: 1/16" = 1'-0"

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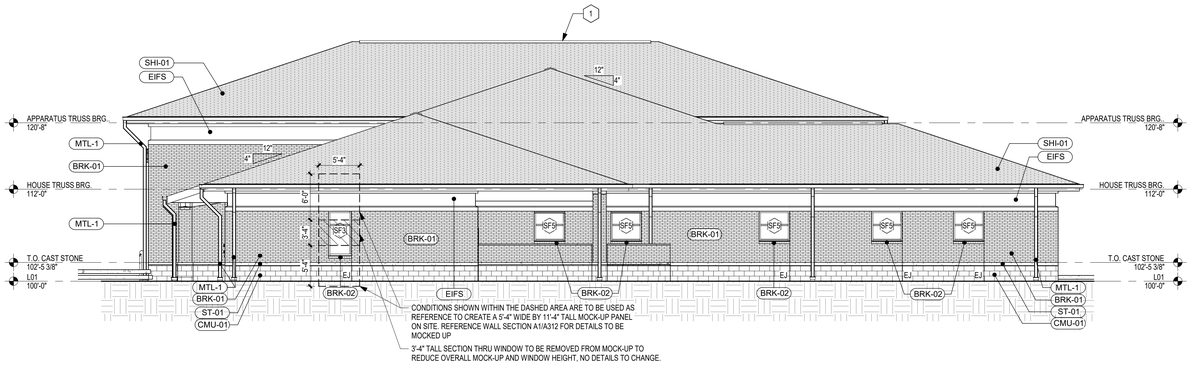
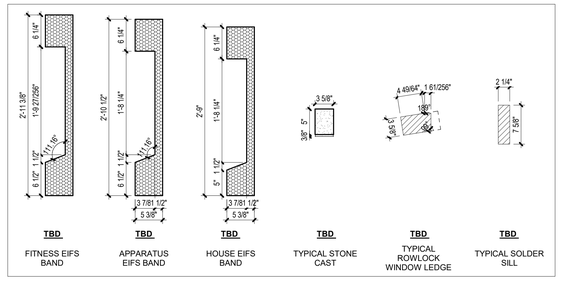


B1 EAST EXTERIOR BUILDING ELEVATION
1/8" = 1'-0"



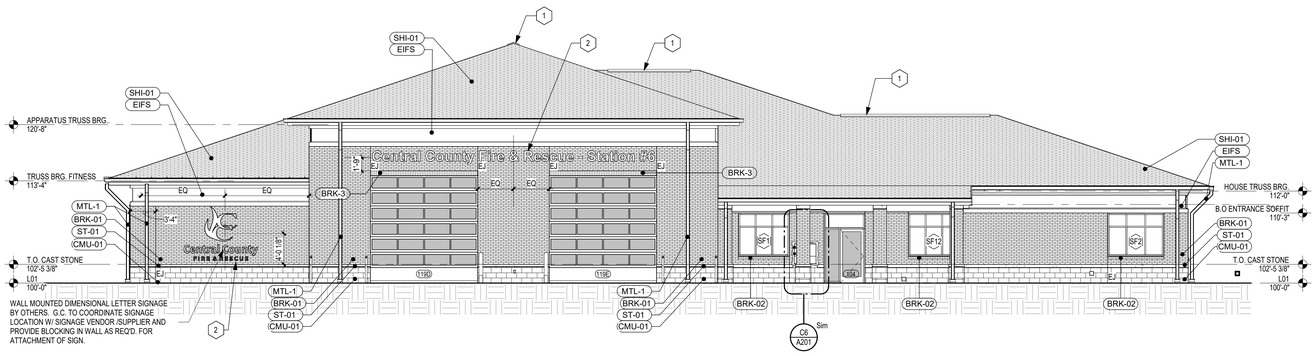
E5 TYPICAL SWEEP PROFILES
1" = 1'-0"

EXT. ELEVATION GEN. NOTES

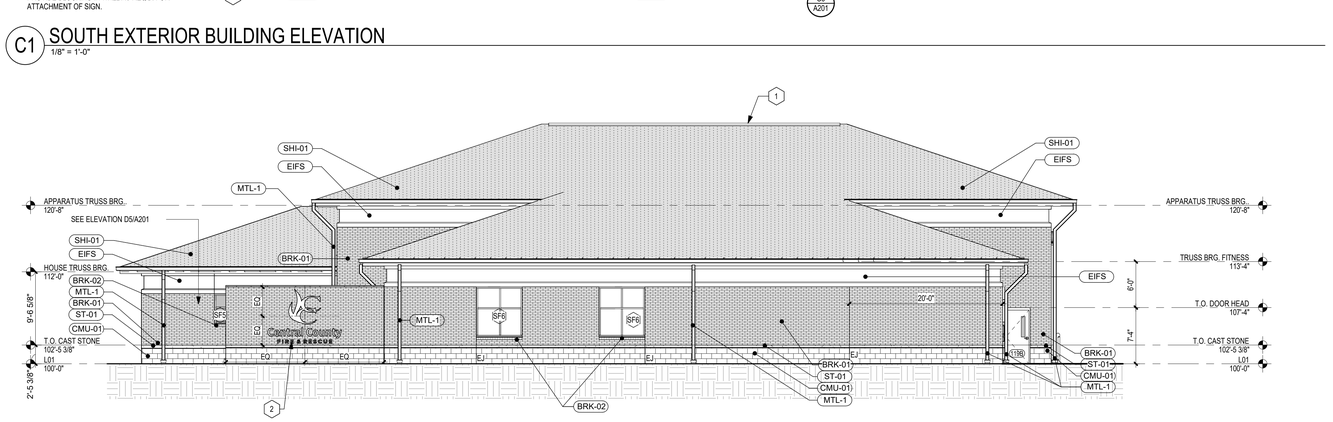
1. PROJECT NOTES ON SHEET A001 APPLY TO ALL SHEETS.
2. HEIGHTS OF WALLS REFERENCED ARE FROM FINISH FLOOR 100'-0".
3. SEE ROOF PLAN FOR ITEMS LOCATED ON THE ROOF - NOT SHOWN IN ELEVATIONS.
4. SEE MEPFP DRAWINGS FOR ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION ITEMS.
5. WHERE GUTTERS ARE INDICATED, GUTTERS SHALL BE PRE-FINISHED METAL. PLUMBING CONTRACTOR TO VERIFY IF SIZE IS ADEQUATE.
6. WHERE DOWNSPOUTS INDICATED, GUTTERS SHALL BE PRE-FINISHED METAL WITH BRACKETS TOP AND BOTTOM OR 8'-0" O.C. MAX. PLUMBING CONTRACTOR TO VERIFY IF SIZE IS ADEQUATE. SEE EXTERIOR ELEVATIONS FOR LOCATIONS.
7. METAL COPING / FASCIAS SHALL BE PRE-FINISHED METAL. INTERSECTION SHAPES SHALL BE MITERED, WELDED AND FINISHED TO HAVE A MONOLITHIC APPEARANCE UNLESS OTHERWISE INDICATED.
8. PROVIDE SEALANT BETWEEN ALL DISSIMILAR MATERIALS, e.g. BRICK TO FLASHING, CMU TO FLASHING, WINDOWS / DOORS TO BRICK / CMU .

KEYED NOTES EXTERIOR ELEV.

Key Value	Keynote Text

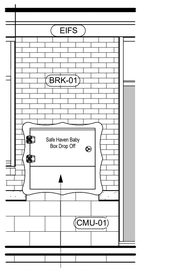


C1 SOUTH EXTERIOR BUILDING ELEVATION
1/8" = 1'-0"



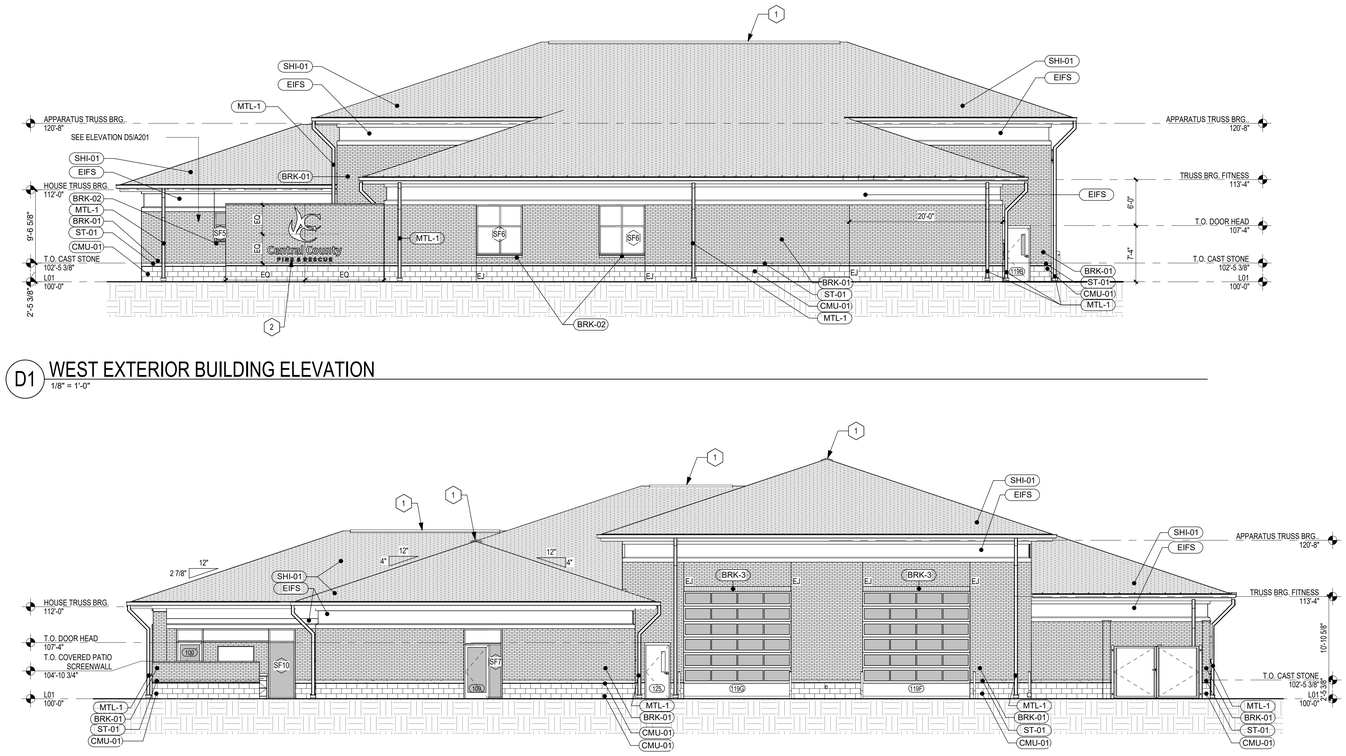
D1 WEST EXTERIOR BUILDING ELEVATION
1/8" = 1'-0"

D5 WEST EXTERIOR BUILDING ELEVATION 2
1/8" = 1'-0"



SAFE HAVEN BABY BOX. REFER TO DETAILS AND STRUCTURAL FOR MORE INFORMATION.

C6 BABY BOX SAFE HAVEN
3/8" = 1'-0"



A1 NORTH EXTERIOR BUILDING ELEVATION
1/8" = 1'-0"

EXT. BLDG. MTLS. LEGEND

MARK	DESCRIPTION
BRK-1	CLAY FACE BRICK VENEER BASIS OF DESIGN: HEBRON BRICK CO. COLOR: BLEND OF BOWERSTON HARVEST BLEND 90% & CORDOVAN SANDED 10% SIZE: MODULAR (3 5/8" X 2 1/4" X 7 5/8") BOND: RUNNING BOND MORTAR: SGS 60H WHITE DISTRIBUTED BY: MIDWEST BLOCK AND BRICK CONTACT: CHUCK DAVIS 314.291.3200 CONTRACTOR TO PROVIDE MOCK-UP FOR ARCHITECT APPROVAL
BRK-2	CLAY FACE BRICK VENEER BASIS OF DESIGN: HEBRON BRICK CO. COLOR: BLEND OF BOWERSTON HARVEST BLEND 90% & CORDOVAN SANDED 10% SIZE: MODULAR (3 5/8" X 2 1/4" X 7 5/8") BOND: ROWLOCK SILL MORTAR: SGS 60H WHITE DISTRIBUTED BY: MIDWEST BLOCK AND BRICK CONTACT: CHUCK DAVIS 314.291.3200 CONTRACTOR TO PROVIDE MOCK-UP FOR ARCHITECT APPROVAL
BRK-3	CLAY FACE BRICK VENEER BASIS OF DESIGN: HEBRON BRICK CO. COLOR: BLEND OF BOWERSTON HARVEST BLEND 90% & CORDOVAN SANDED 10% SIZE: MODULAR (3 5/8" X 2 1/4" X 7 5/8") BOND: SOLDIER COURSE LINTEL MORTAR: SGS 60H WHITE DISTRIBUTED BY: MIDWEST BLOCK AND BRICK CONTACT: CHUCK DAVIS 314.291.3200 CONTRACTOR TO PROVIDE MOCK-UP FOR ARCHITECT APPROVAL
CMU-01	SPLIT FACE CMU BLOCK BASIS OF DESIGN: MATCH CENTRAL COUNTY FIRE STATION 5 PROTOTYPE COLOR: SOFT GOLD DISTRIBUTED BY: MIDWEST BLOCK AND BRICK CONTACT: CHUCK DAVIS 314.291.3200 CONTRACTOR TO PROVIDE MOCK-UP FOR ARCHITECT APPROVAL
MTL-1	GUTTERS & DOWNSPOUTS BASIS OF DESIGN: McELROY COLOR: REGAL WHITE TEXTURE: PREFINISHED PROFILE: OGEE MORTAR: SGS 60H WHITE SIZE: 6" W x 5" H
SHI-1	ASPHALT SHINGLES BASIS OF DESIGN: OWENS CORNING SERIES: DURATION COLOR: SIERRA GRAY
SOF-1	EXTERIOR VENTED SOFFIT BASIS OF DESIGN: LP SOLUTIONS, LP SMARTSIDE SOFFIT COLOR: SNOWSCAPE WHITE TEXTURE: BRUSHED SMOOTH SIZE: 2'-0" TYP. U.N.O.
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM BASIS OF DESIGN: MATCH CENTRAL COUNTY FIRE STATION 5 PROTOTYPE COLOR: FINAL SELECTION T.B.D. BY ARCHITECT SEE DRAWINGS FOR PROFILE DESIGN. CONTRACTOR TO PROVIDE MOCK-UP FOR ARCHITECT APPROVAL
STN-1	CAST STONE BANDING BASIS OF DESIGN: MATCH CENTRAL COUNTY FIRE STATION 5 PROTOTYPE STYLE: QUARRY SELECT COLOR: FINAL SELECTION T.B.D. BY ARCHITECT MORTAR: FINAL SELECTION T.B.D. BY ARCHITECT SIZE/ PATTERN: REFER TO CAST STONE PROFILES ON DRAWINGS.
STF-1	STOREFRONT & GLAZING BASIS OF DESIGN: MATCH CENTRAL COUNTY FIRE STATION 5 PROTOTYPE PRODUCT: YES 45 TU, 2" X 4 1/2" THERMALLY BROKEN ALUMINUM STOREFRONT SYSTEM FINISH: ANOD. BRUSHED ALUMINUM GLAZING: 1" INSULATED GLASS VITRO SOLARBAN 60 (2) + CLEAR REFERENCE GLAZING SCHEDULE AND ARCHITECTURAL SPECS.

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No.	Date	Revision

EXTERIOR ELEVATIONS

Project No. 24057
Sheet No. A201
Date 2026/06/08

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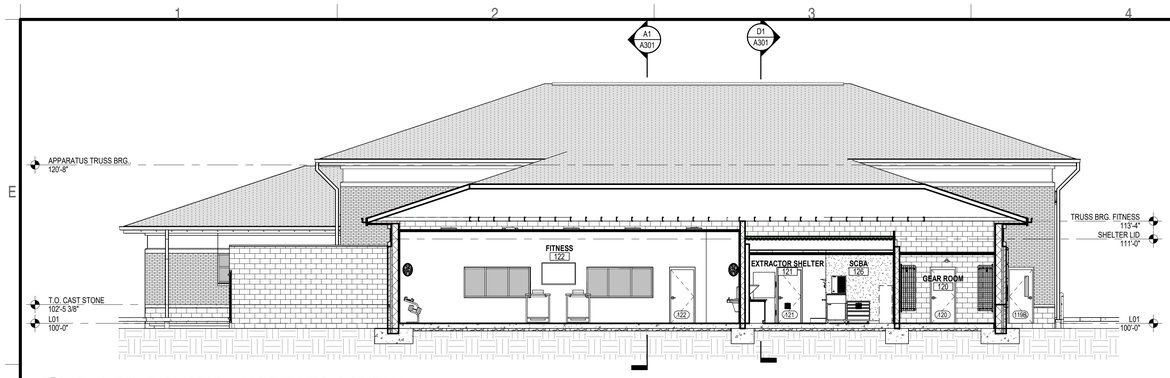
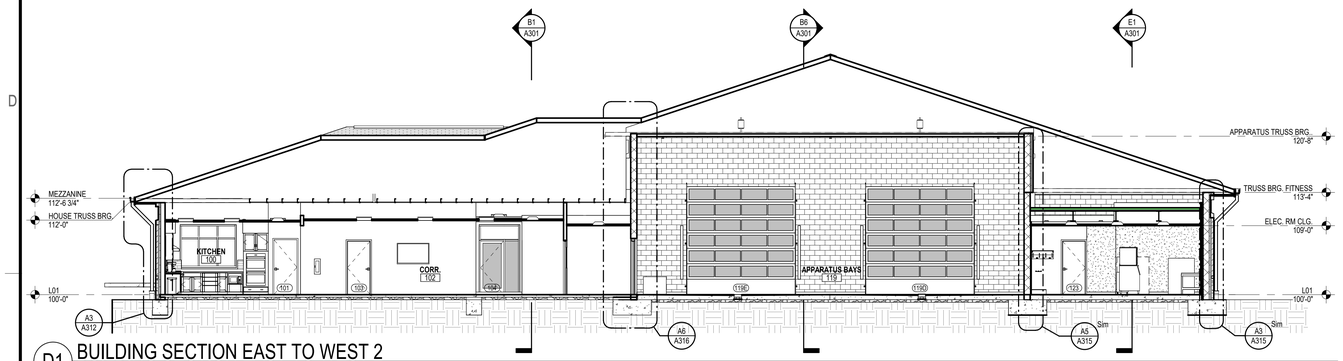
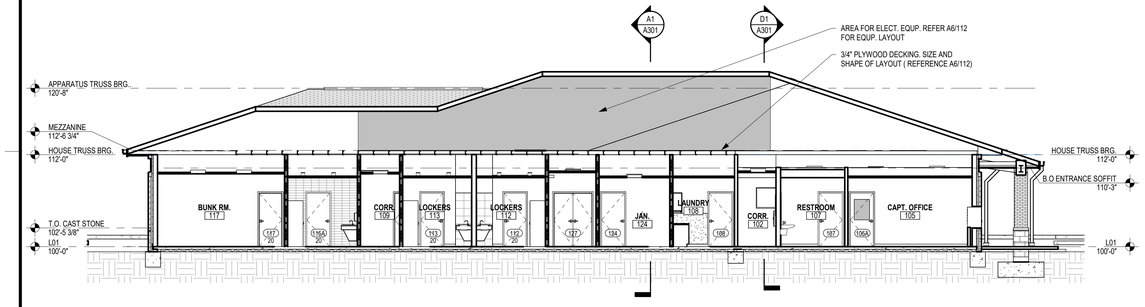


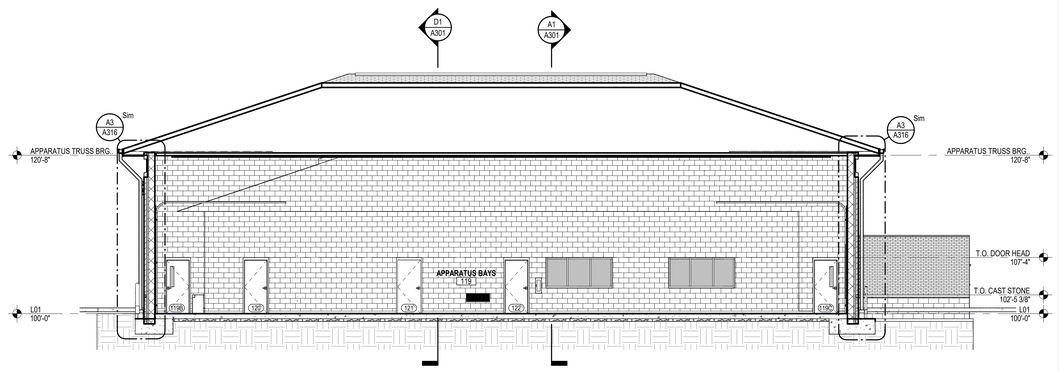
E1 BUILDING SECTION NORTH TO SOUTH1
1/8" = 1'-0"



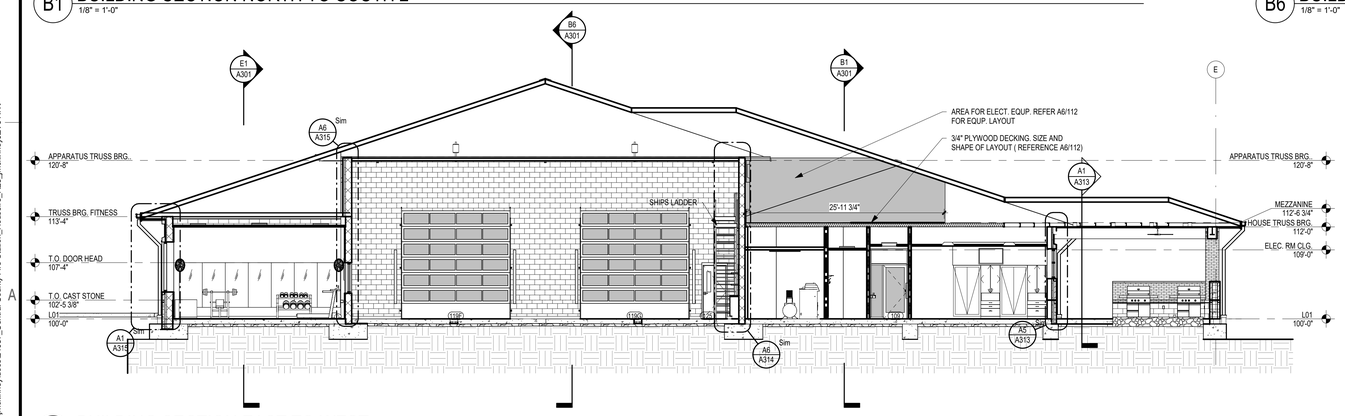
D1 BUILDING SECTION EAST TO WEST 2
1/8" = 1'-0"



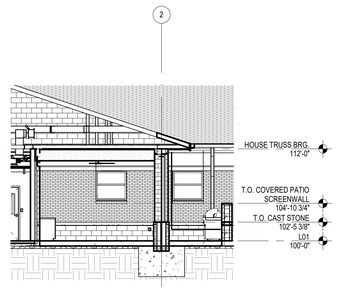
B1 BUILDING SECTION NORTH TO SOUTH 2
1/8" = 1'-0"



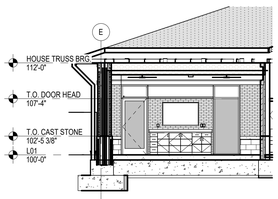
B6 BUILDING SECTION NORTH TO SOUTH
1/8" = 1'-0"



A1 BUILDING SECTION EAST TO WEST
1/8" = 1'-0"



A5 PATIO ELAVTION WEST
1/8" = 1'-0"



A6 PATIO ELEVATION NORTH
1/8" = 1'-0"

SCALE: 3" = 1'-0" 0 3" 6" 1'
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2'
SCALE: 1" = 1'-0" 0 6" 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 2'
SCALE: 1/2" = 1'-0" 0 1' 2'
SCALE: 3/8" = 1'-0" 0 2' 4'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 3/32" = 1'-0" 0 8' 16' 24'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

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STATE OF MISSOURI
ROY A. MANGAN
NUMBER A-6661
6/30/2026
ARCHITECT
Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/26

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

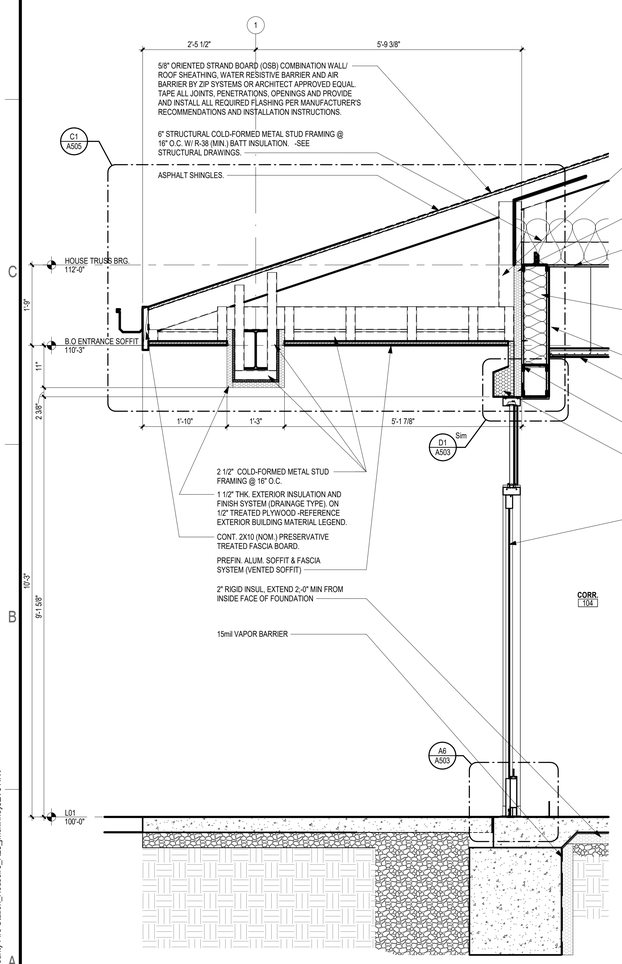
No.	Date	Revision

BUILDING SECTIONS

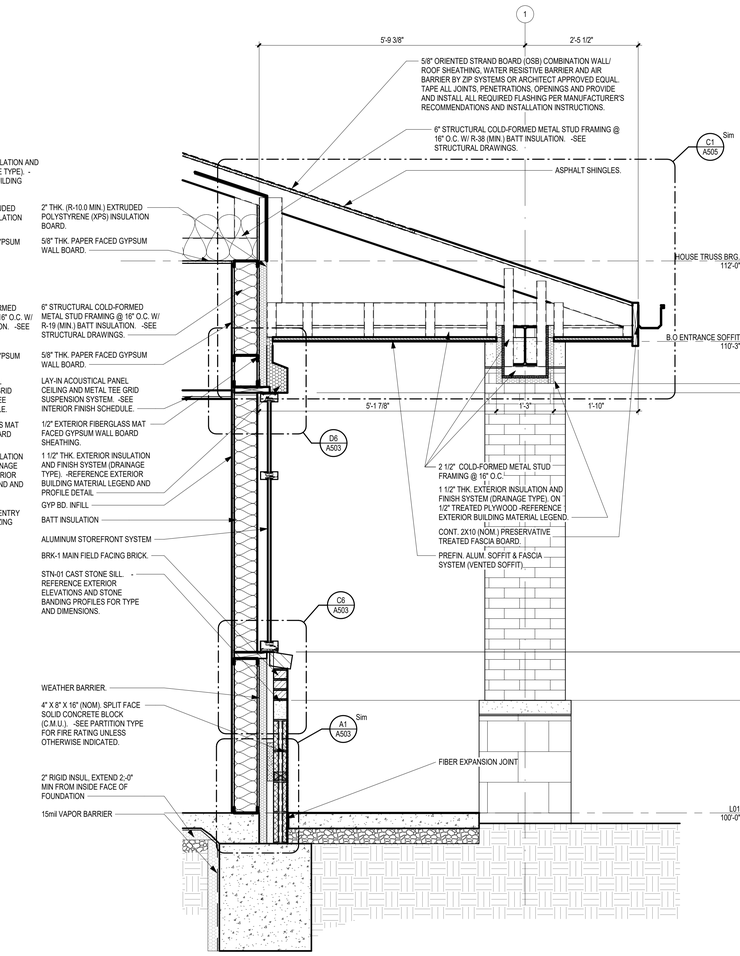
Project No. 24057
Sheet No. A301
Date 2026/06/08

WALL SECTION KEYED NOTES

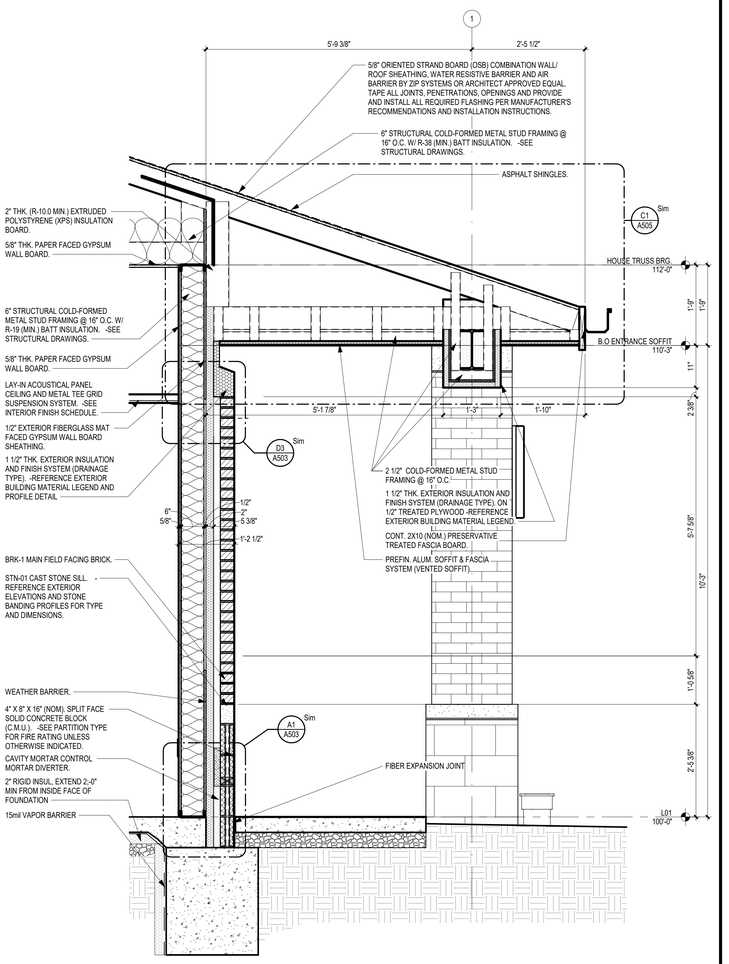
Key Value	Keynote Text



A1 WALL SECTION @ DOOR 104
3/4" = 1'-0"



A4 WALL SECTION @ FALSE WINDOW
3/4" = 1'-0"



A6 WALL SECTION @ ENTRANCE PATIO
3/4" = 1'-0"

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1151 JUNGS STATION RD ST.CHARLES, MO 63303

No.	Date	Revision

WALL SECTIONS

Project No. 24057
Sheet No. A311
Date 2026/06/08

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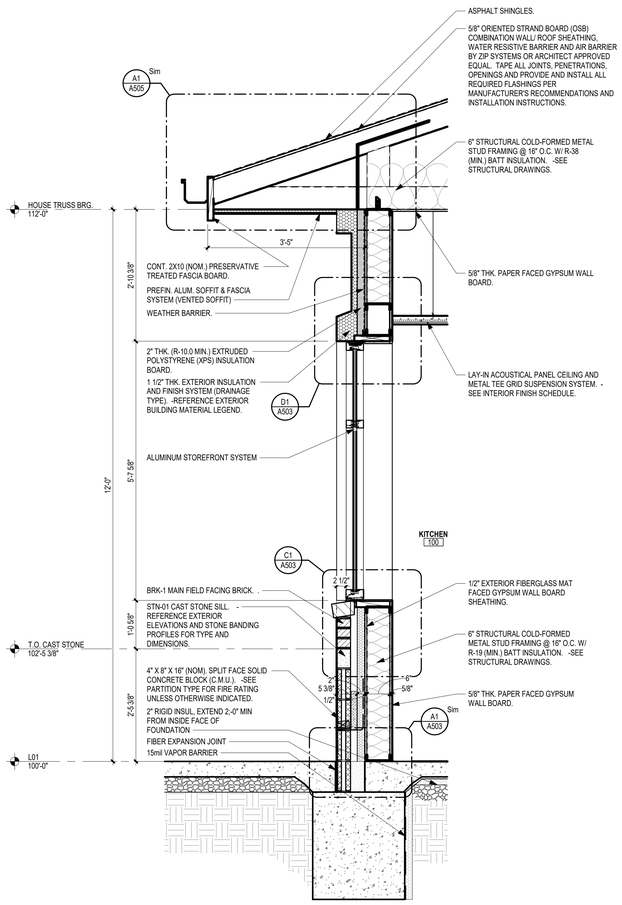
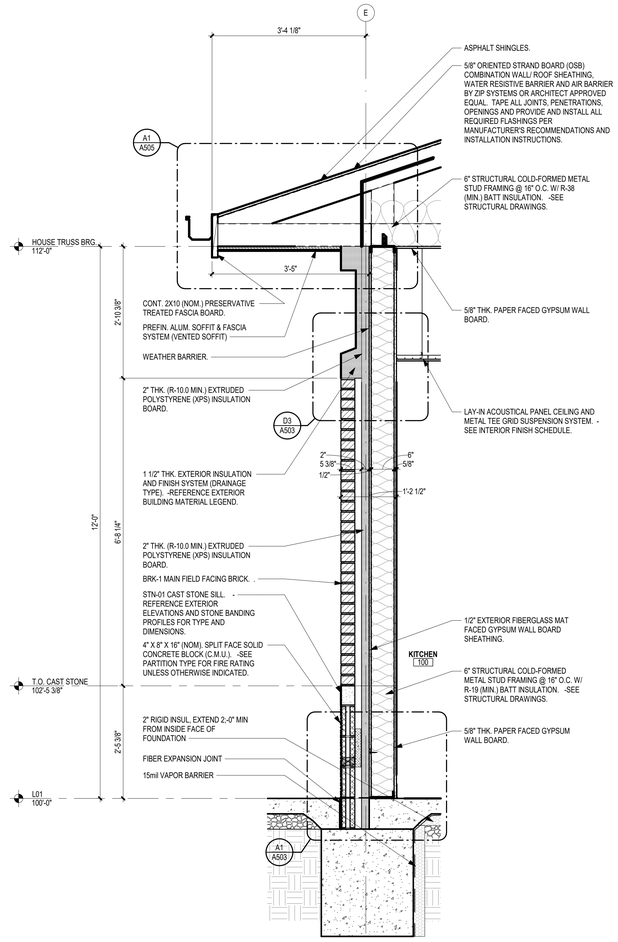
WALL SECTION KEYED NOTES

Key Value	Keynote Text



A1 WALL SECTION @ KITCHEN WINDOW
3/4" = 1'-0"



A3 WALL SECTION @ KITCHEN
3/4" = 1'-0"

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No.	Date	Revision

WALL SECTIONS

Project No. 24057
Sheet No. A312
Date 2026/06/08

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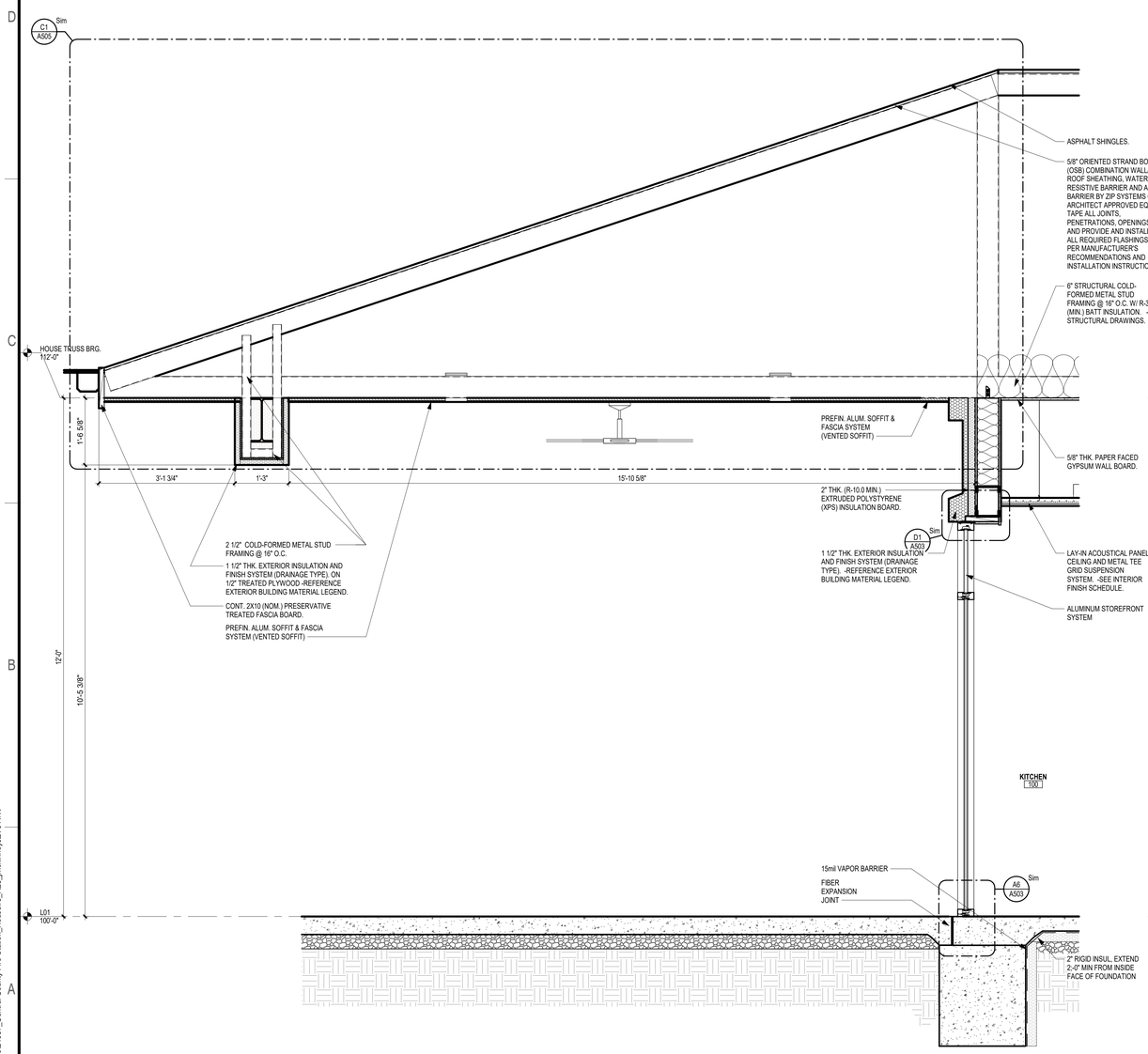
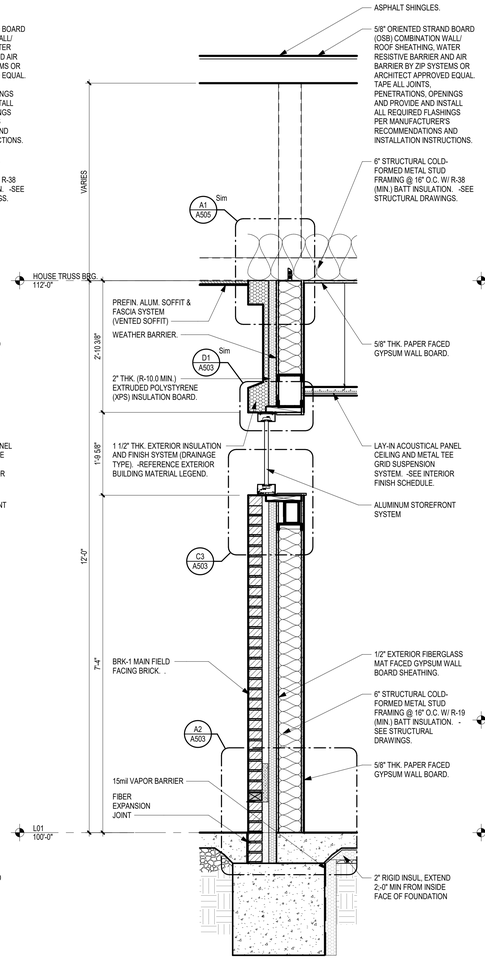
WALL SECTION KEYED NOTES

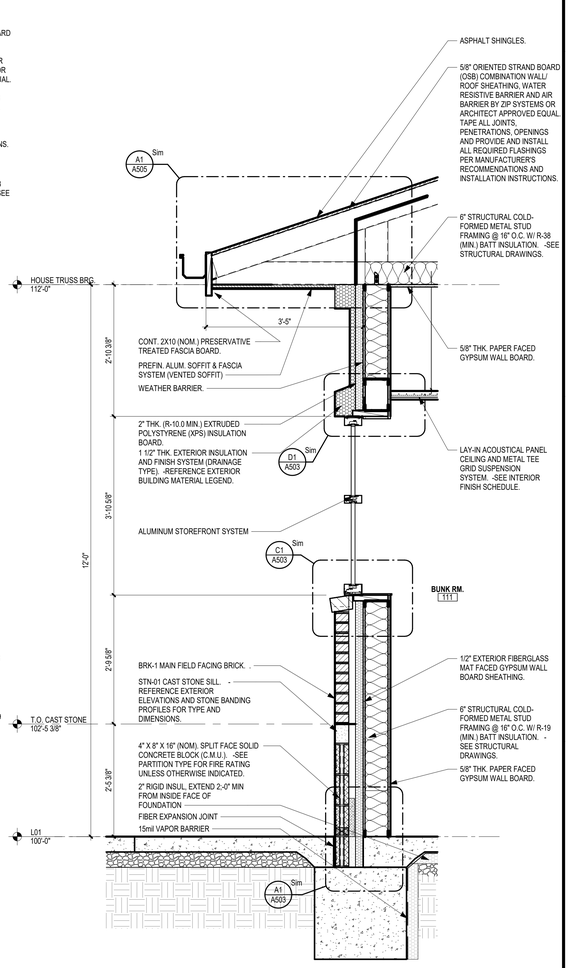
Key Value	Keynote Text



A1 WALL SECTION @ DOOR 100
3/4" = 1'-0"



A3 WALL SECTION @ COVERED PATIO STOREFRONT
3/4" = 1'-0"



A5 WALL SECTION @ COVERED PATIO
3/4" = 1'-0"

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

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ROY A. MANGAN
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1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

WALL SECTIONS

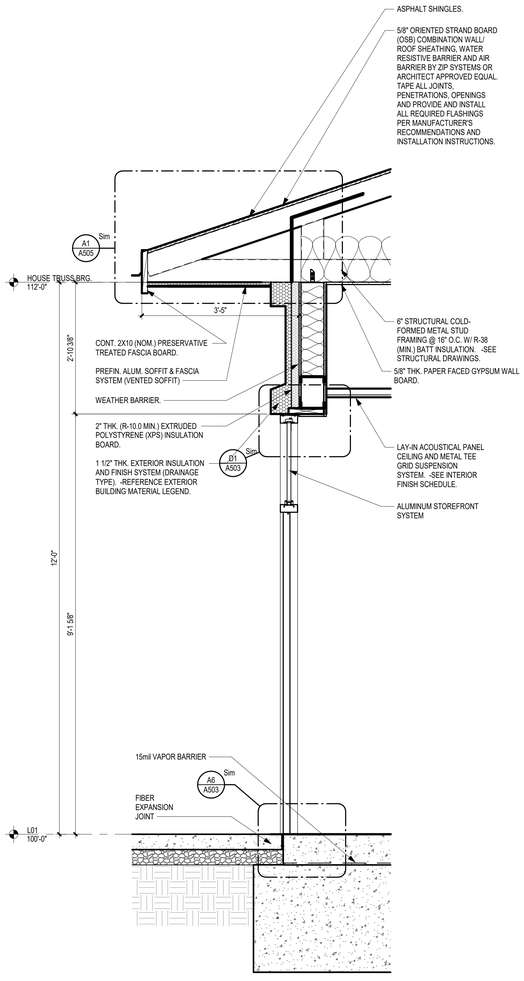
Project No.
24057

Sheet No.
A313

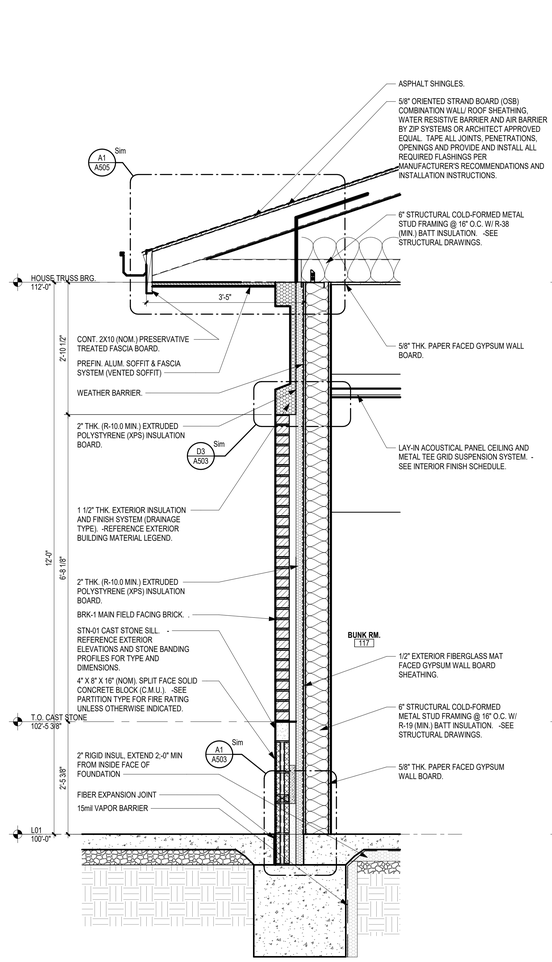
Date
2026/06/08

WALL SECTION KEYED NOTES

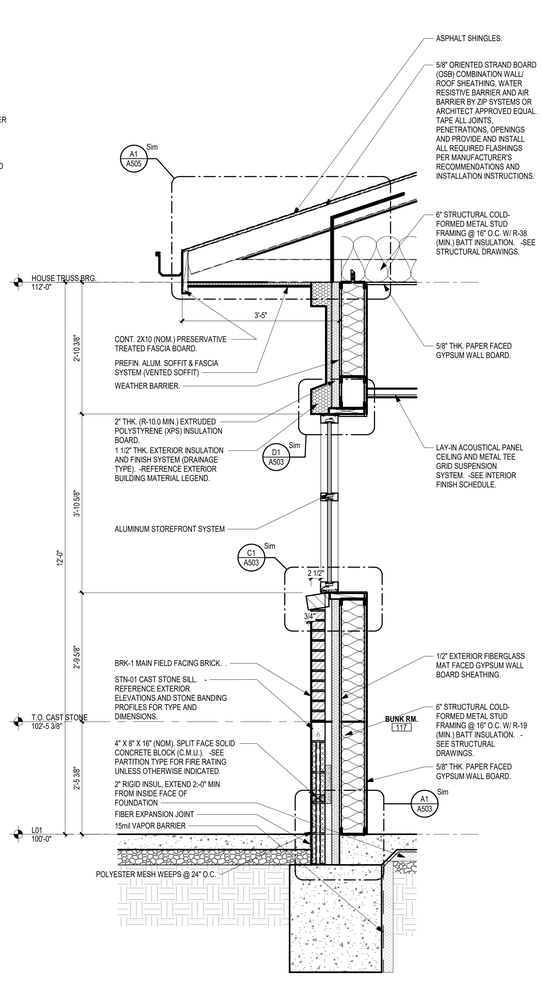
Key Value	Keynote Text



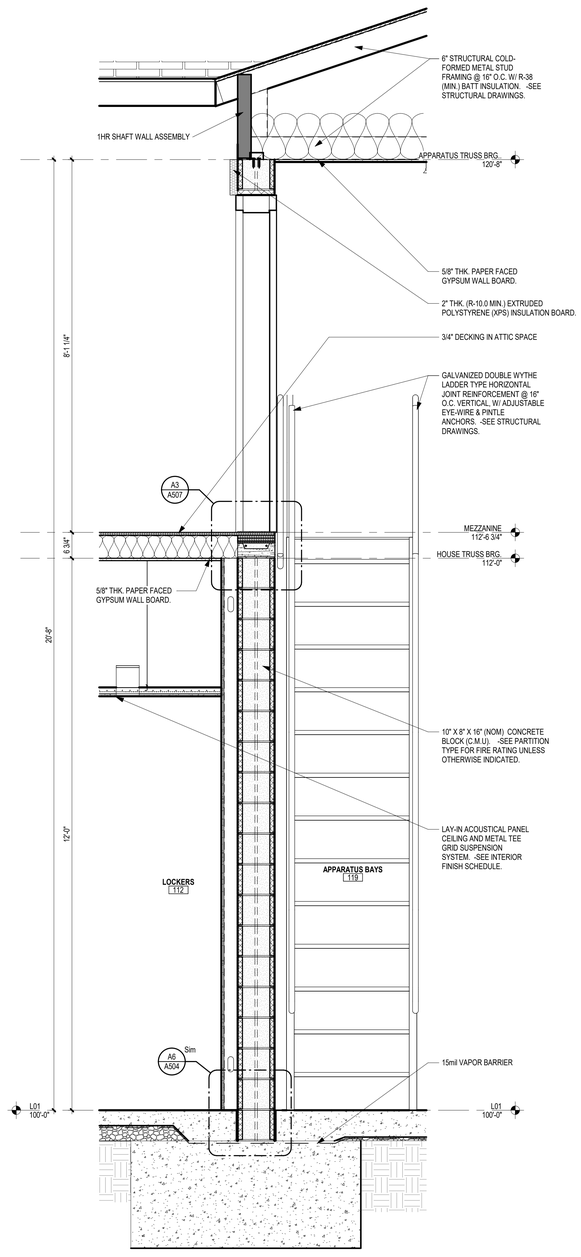
A1 WALL SECTION @ DOOR 109
3/4" = 1'-0"



A3 WALL SECTION @ BUNK RM.
3/4" = 1'-0"



A4 WALL SECTION @ BUNK RM. WINDOW
3/4" = 1'-0"



A6 WALL SECTION @ LOCKERS
3/4" = 1'-0"

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No.	Revision	Date

WALL SECTIONS

Project No. 24057
Sheet No. A314
Date 2026/06/08

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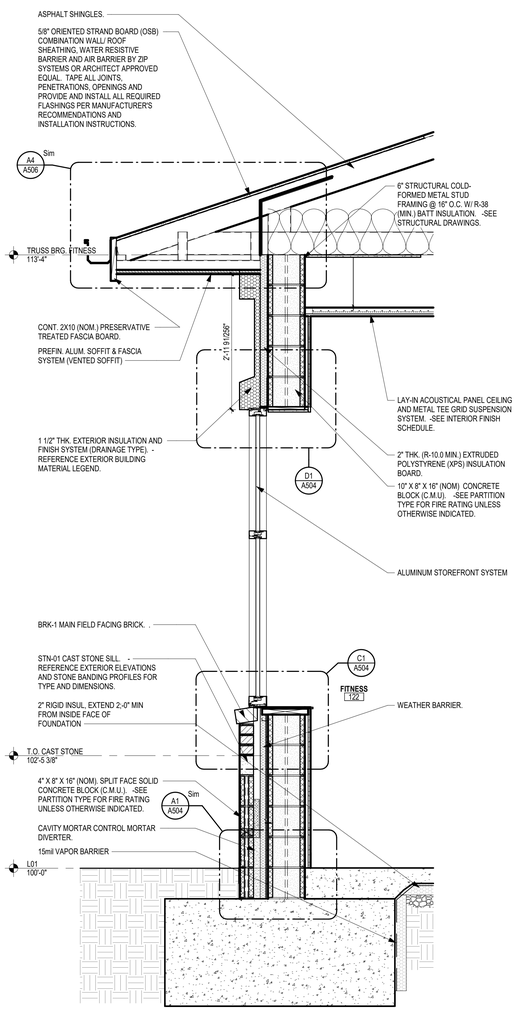
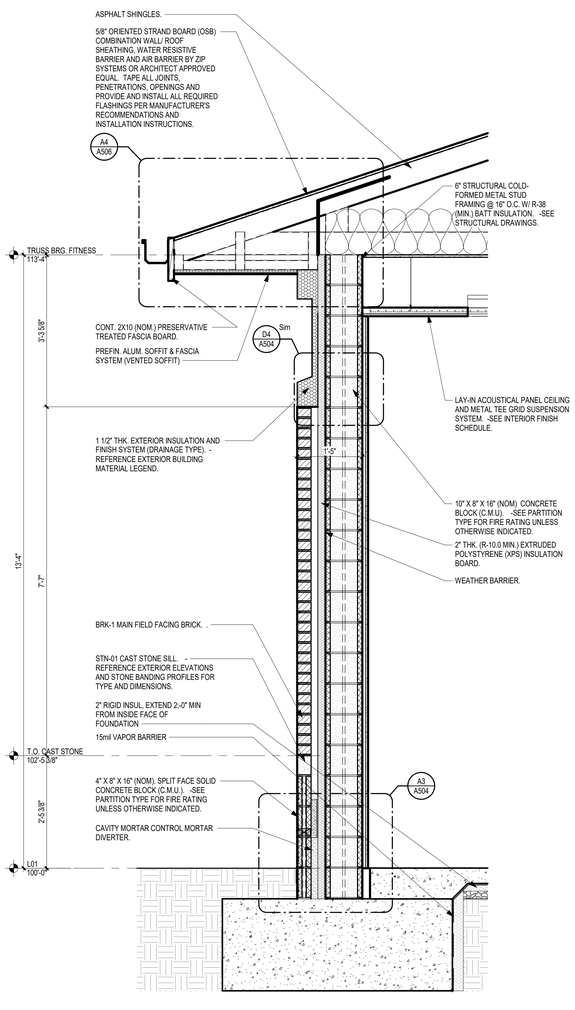
WALL SECTION KEYED NOTES

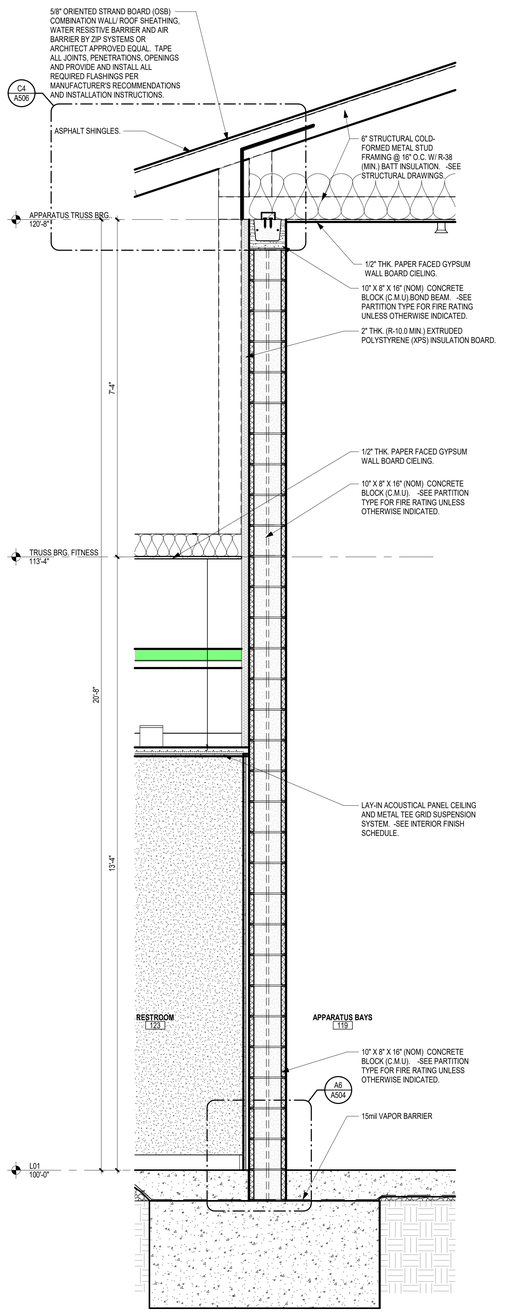
Key Value	Keynote Text



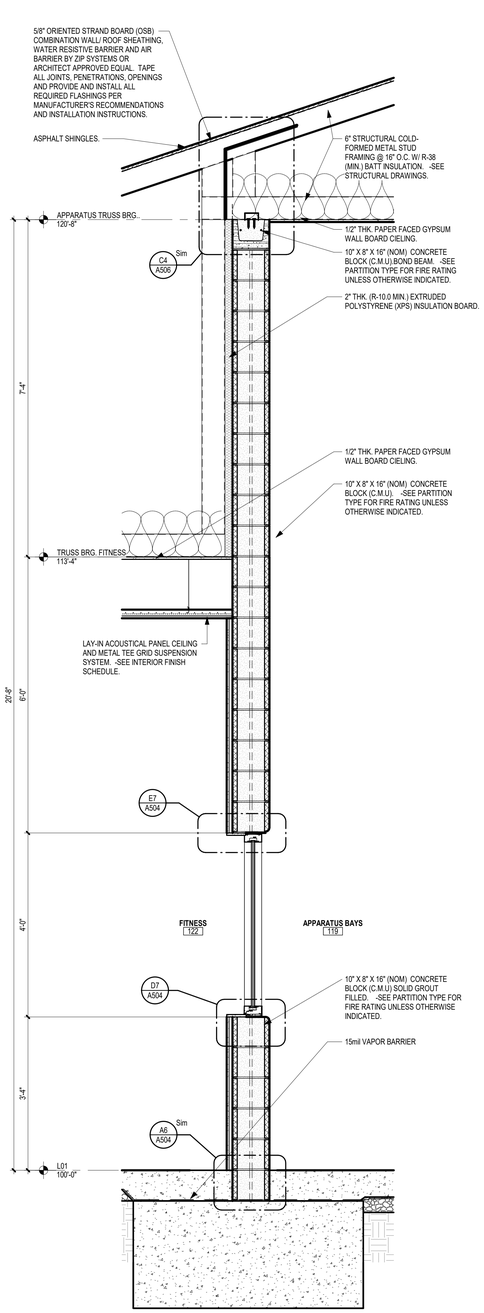
A1 WALL SECTION @ FITNESS
3/4" = 1'-0"



A3 WALL SECTION @ RESTROOM 123
3/4" = 1'-0"



A5 WALL SECTION @ WORK ROOM OPENING
3/4" = 1'-0"



A6 WALL SECTION @ FITNESS STOREFRONT
3/4" = 1'-0"

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1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

WALL SECTIONS

Project No. 24057
Sheet No. A315
Date 2026/06/08

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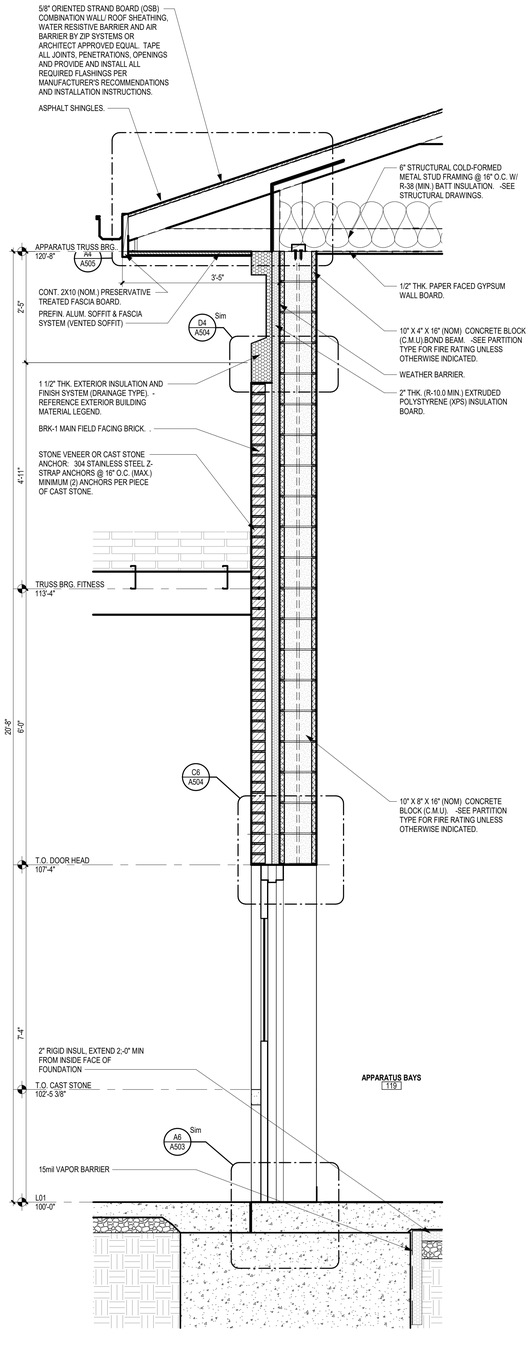
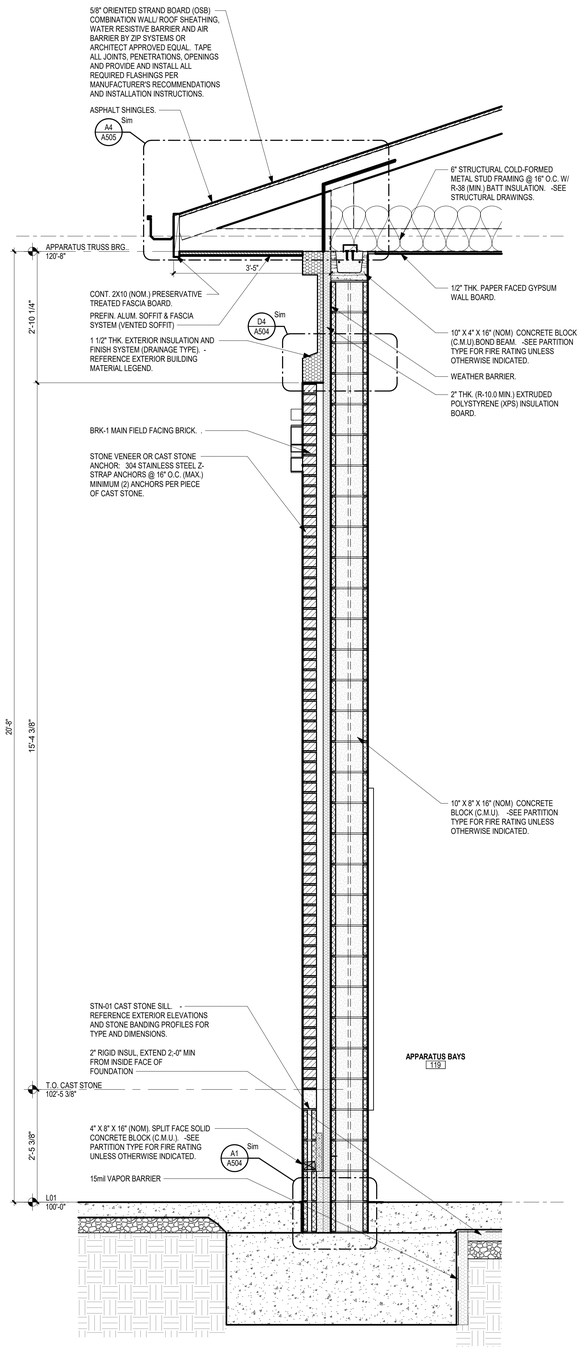
WALL SECTION KEYED NOTES

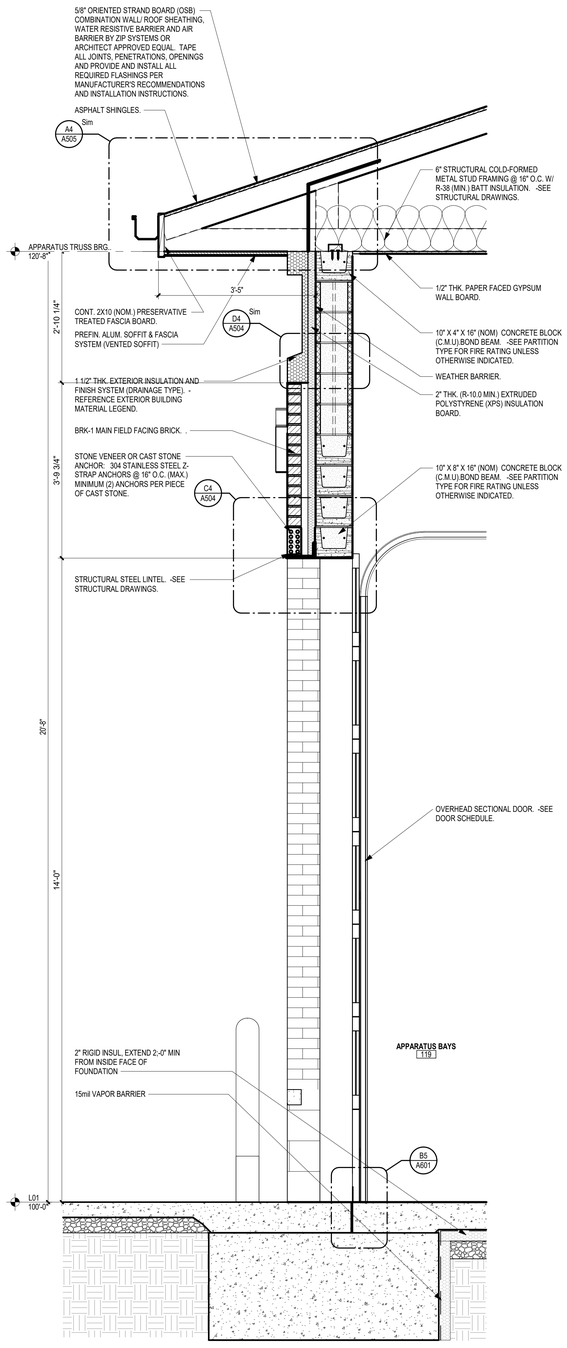
Key Value	Keynote Text



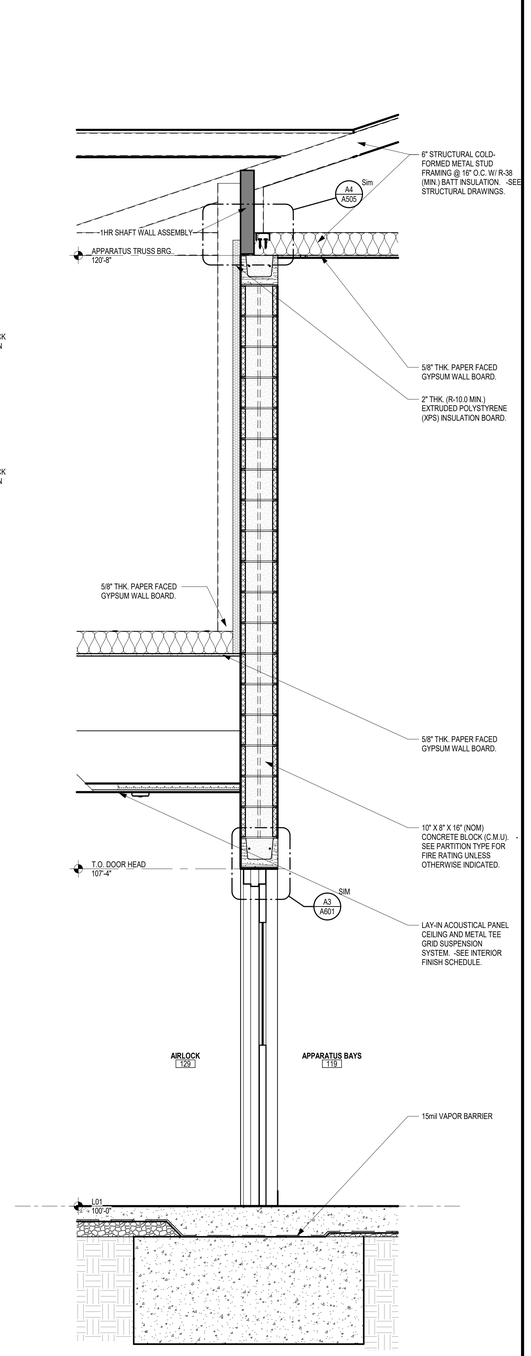
A1 WALL SECTION @ DOOR 119B
3/4" = 1'-0"



A3 WALL SECTION @ APPARATUS BAYS SOUTH
3/4" = 1'-0"



A5 WALL SECTION @ O.H. DOOR SOUTH
3/4" = 1'-0"



A6 WALL SECTION @ DOOR 119
3/4" = 1'-0"

SCALE: 3" = 1'-0" 1" 0 3" 6"
SCALE: 1 1/2" = 1'-0" 2" 0 3" 6"
SCALE: 1" = 1'-0" 2" 0 6" 1'
SCALE: 3/4" = 1'-0" 3" 0 1' 2"
SCALE: 1/2" = 1'-0" 4" 0 2" 4"
SCALE: 3/8" = 1'-0" 8" 0 4" 8"
SCALE: 1/4" = 1'-0" 16" 0 8" 16"
SCALE: 1/8" = 1'-0" 24" 0 16" 32"
SCALE: 3/32" = 1'-0" 32" 0 16" 32"
SCALE: 1/16" = 1'-0" 32" 0 16" 32"

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No.	Date	Revision

WALL SECTIONS

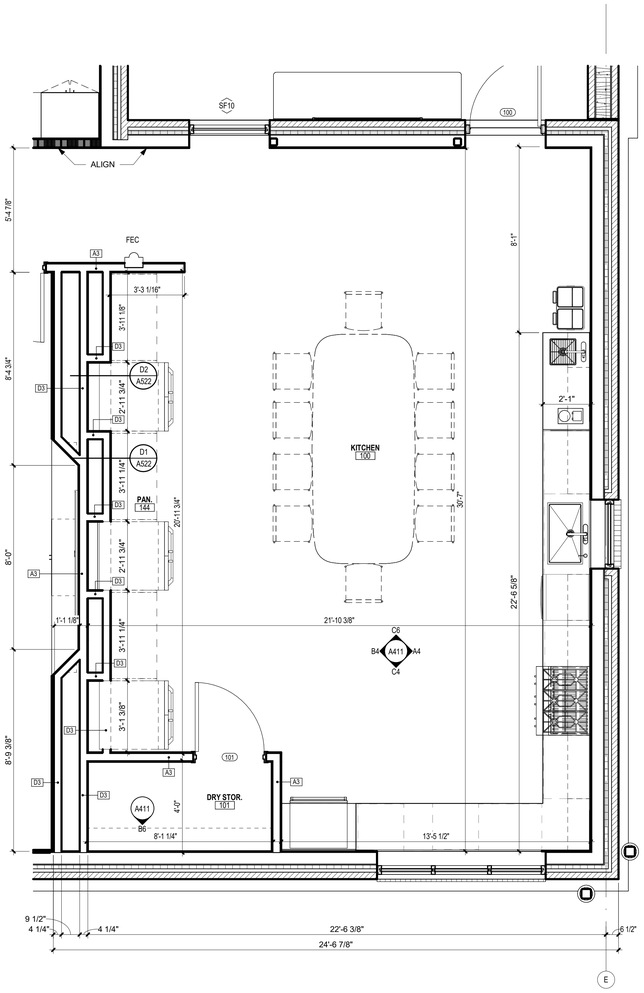
Project No. 24057
Sheet No. A316
Date 2026/06/08

KEYED NOTES INT. ELEV.

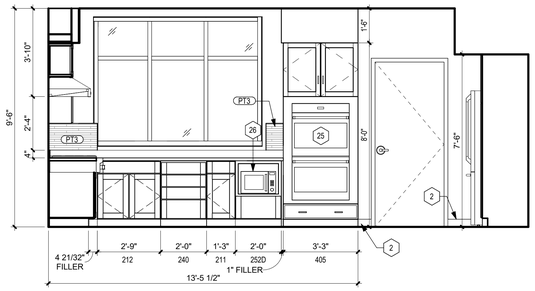
MARK	DESCRIPTION
1	PAINT AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
2	BASE AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
11	65" FLAT PANEL LED TV BY OWNER. PROVIDE BLOCKING ALL MONITOR LOCATIONS, TYP.
25	DOUBLE BUILT-IN OVEN. COORDINATE WITH OWNER FOR MANUFACTURER AND MODEL.
26	MICROWAVE OVEN. PROVIDED BY OWNER.
27	STAINLESS STEEL BACKSPLASH. SEE FINISH SCHEDULE
28	REAR VENTING STAINLESS STEEL HOOD. COORDINATE WITH MECHANICAL ON VENTING THROUGH WALL.
29	STAINLESS STEEL GAS COOKTOP. COORDINATE CONNECTION LOCATION WITH PLUMBING.
30	STAINLESS STEEL DISHWASHER. COORDINATE MANUFACTURER & MODEL WITH OWNER.
31	TRASH CAN BY OWNER.
32	FLAT PANEL MEASSAGE BOARD ALERT SYSTEM. COORDINATE WITH OWNER ON LOCATION AND SIZE OF MONITOR.
37	CUSTOM WOOD CABINETRY TALL PANTRY w/ DIGILOCK. SEE FINISH SCHEDULE FOR MFTR, COLOR, & FINISH.
44	COFFEE MACHINE BY OWNER.
45	REFRIGERATOR PROVIDED BY OWNER, INSTALLED BY GC.
46	INSTALL SPICE RACK KIT INSIDE EACH PANTRY, SEE FINISH SCHEDULE.
58	LAMINATE SHELVING ON ADJUSTABLE STANDARDS. SEE FINISH PLAN/SCHEDULE.

FLOOR PLAN GENERAL NOTES

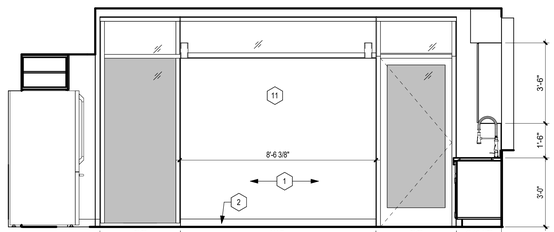
1. REFERENCE GENERAL NOTES FOR ADDITIONAL APPLICABLE INFORMATION.
2. THE GENERAL CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT MAY AFFECT THE WORK PRIOR TO COMMENCING CONSTRUCTION.
3. ALL DIMENSIONS ARE TO THE FINISH FACE OF NEW PARTITIONS AND TO FINISH FACE OF EXISTING INTERIOR PARTITIONS AND PERIMETER WALLS TO REMAIN UNLESS NOTED OTHERWISE.
4. INSTALL REDUCER STRIPS BETWEEN DIFFERENT FLOOR FINISH LEVELS AND FINISHES AS REQUIRED.
5. PATCH ALL PARTITIONS AFFECTED BY THE DEMOLITION OF INTERSECTING PARTITIONS.
6. THE GENERAL CONTRACTOR SHALL INSTALL REQUIRED WALL BLOCKING FOR ALL CASEWORK, SHELVING, AND EQUIPMENT. SEE DRAWINGS FOR EXACT LOCATIONS.
7. UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT SHOWN ON THE DRAWINGS IS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
8. ALL INTERIOR DIMENSIONS ARE TO FINISHED FACE OF GYP. BD. UNLESS NOTED OTHERWISE.
9. PROVIDE PLASTIC DUST COVER TO PROTECT EQUIPMENT, FILES, ETC. WHERE REQUIRED.
10. MAINTAIN ALL NECESSARY COMMUNICATIONS AND FIRE PROTECTION SYSTEMS, EXIT CORRIDORS, AND ITEMS AFFECTING THE HEALTH AND SAFETY OF ALL OCCUPANTS AT ALL TIMES THROUGHOUT CONSTRUCTION.
11. MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK TO BE DESIGN-BUILD. INTENT OF THIS WORK IS REFLECTED ON THE DRAWINGS. IF SUCH WORK IS OUTSIDE OF THE PROJECT AREA, CONTACT THE OWNER FOR RESTRICTIONS THAT MAY APPLY TO THOSE AREAS AND COORDINATE AND SCHEDULE ALL WORK. PROTECT ADJACENT AREAS, EQUIPMENT, ETC.
12. ALL BLOCKING SHALL BE FIRE TREATED.



A1 KITCHEN 100
3/8" = 1'-0"



C4 KITCHEN CASE WORK ELEVATION EAST
3/8" = 1'-0"



C6 KITCHEN CASE WORK ELEVATION WEST
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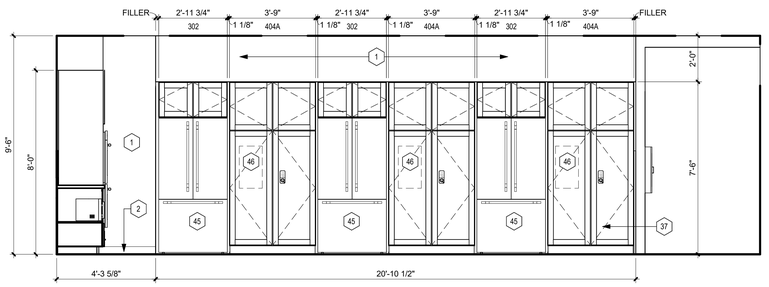

B4 KITCHEN CASE WORK ELEVATION SOUTH
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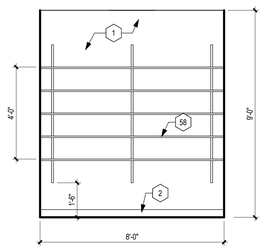
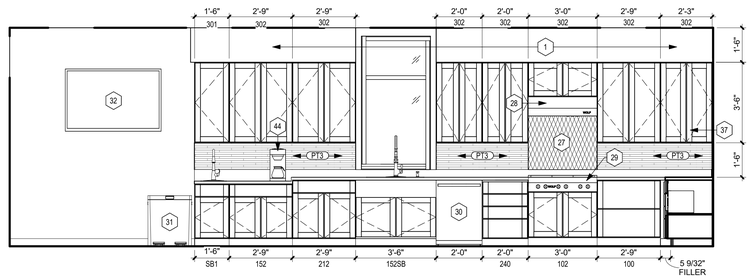


B6 DRY STORAGE
3/8" = 1'-0"



A4 KITCHEN CASE WORK ELEVATION NORTH
3/8" = 1'-0"

ROY A. MANGAN
NUMBER A-6661
6/8/2026
ARCHITECT
STATE OF MISSOURI
Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/26

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

ENLARGED FLOOR PLANS

Project No. 24057
Sheet No. A411
Date 2026/06/08

6/16/2026 3:09:36 PM
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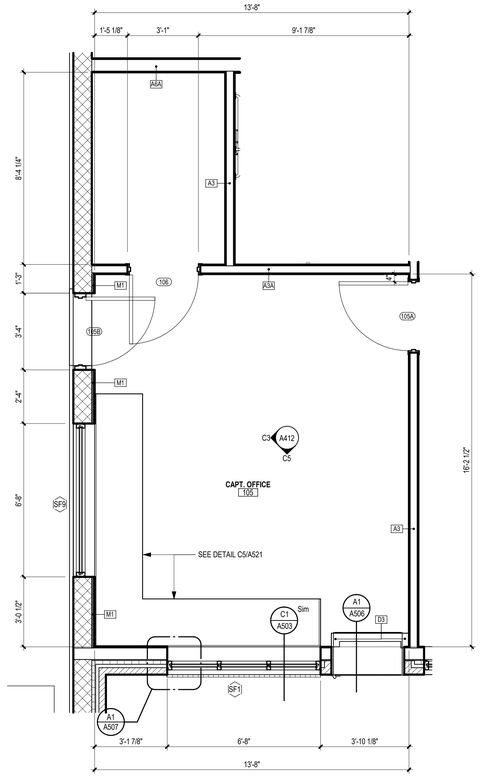
KEYED NOTES INT. ELEV.

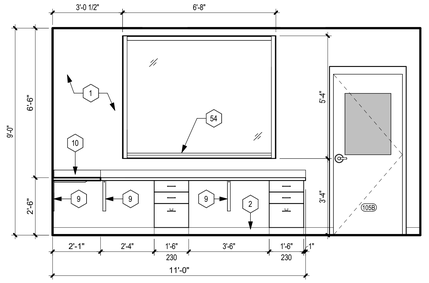
MARK	DESCRIPTION
1	PAINT AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
2	BASE AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
8	BABY BOX SURRENDER DEVICE. SEE MFTR & INSTALLATION INSTRUCTIONS FOR MORE INFORMATION.
9	21" METAL COUNTERTOP SUPPORT BRACKET.
10	25"D PLASTIC LAMINATE COUNTERTOP & 4"H BACKSPLASH. PLASTIC LAMINATE BASE CABINETS AS INDICATED. SEE FINISH SCHEDULE FOR COLOR.
20	42" FLAT PANEL LED TV. COORDINATE WITH OWNER FOR MANUFACTURER AND MODEL. PROVIDE BLOCKING ALL MONITOR LOCATIONS
47	CUSTOM BUILT-IN WARDROBE UNIT BY OWNER. LAMINATE FINISH ON BUNKROOM SIDE, WHITE MELAMINE INTERIOR. SEE DETAILS & FINISH SCHEDULE.
48	CUSTOM MURPHY BED & CABINET BY OWNER. GC TO PROVIDE AND COORDINATE BLOCKING IN WALL AS REQ'D.
49	FURNITURE BY OWNER
54	SOLID SURFACE WINDOW SILLS. SEE FINISH PLAN/SCHEDULE.

FLOOR PLAN GENERAL NOTES

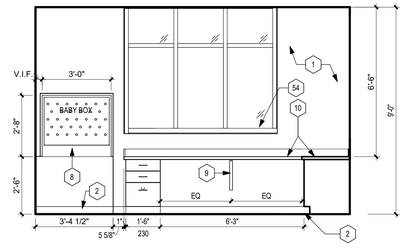
1. REFERENCE GENERAL NOTES FOR ADDITIONAL APPLICABLE INFORMATION.
2. THE GENERAL CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT MAY AFFECT THE WORK PRIOR TO COMMENCING CONSTRUCTION.
3. ALL DIMENSIONS ARE TO THE FINISH FACE OF NEW PARTITIONS AND TO FINISH FACE OF EXISTING INTERIOR PARTITIONS AND PERIMETER WALLS TO REMAIN UNLESS NOTED OTHERWISE.
4. INSTALL REDUCER STRIPS BETWEEN DIFFERENT FLOOR FINISH LEVELS AND FINISHES AS REQUIRED.
5. PATCH ALL PARTITIONS AFFECTED BY THE DEMOLITION OF INTERSECTING PARTITIONS.
6. THE GENERAL CONTRACTOR SHALL INSTALL REQUIRED WALL BLOCKING FOR ALL CASEWORK, SHELVING, AND EQUIPMENT. SEE DRAWINGS FOR EXACT LOCATIONS.
7. UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT SHOWN ON THE DRAWINGS IS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
8. ALL INTERIOR DIMENSIONS ARE TO FINISHED FACE OF GYP. BD. UNLESS NOTED OTHERWISE.
9. PROVIDE PLASTIC DUST COVER TO PROTECT EQUIPMENT, FILES, ETC. WHERE REQUIRED.
10. MAINTAIN ALL NECESSARY COMMUNICATIONS AND FIRE PROTECTION SYSTEMS, EXIT CORRIDORS, AND ITEMS AFFECTING THE HEALTH AND SAFETY OF ALL OCCUPANTS AT ALL TIMES THROUGHOUT CONSTRUCTION.
11. MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK TO BE DESIGN-BUILD. INTENT OF THIS WORK IS REFLECTED ON THE DRAWINGS. IF SUCH WORK IS OUTSIDE OF THE PROJECT AREA, CONTACT THE OWNER FOR RESTRICTIONS THAT MAY APPLY TO THOSE AREAS AND COORDINATE AND SCHEDULE ALL WORK. PROTECT ADJACENT AREAS, EQUIPMENT, ETC.
12. ALL BLOCKING SHALL BE FIRE TREATED.



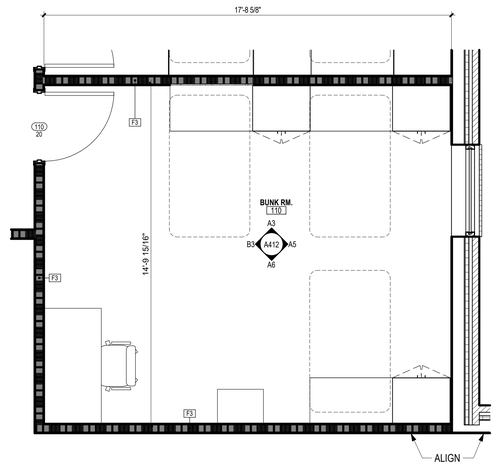
C1 ENLG. CAPT. OFFICE 105
3/8" = 1'-0"



C3 CAPT. OFFICE
3/8" = 1'-0"



C5 CAPT. OFFICE WINDOW SIDE
3/8" = 1'-0"



A1 ENLARGED BUNK ROOMS - TYPICAL
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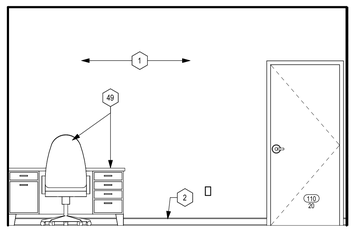

B3 TYPICAL BUNK ROOM CASEWORK
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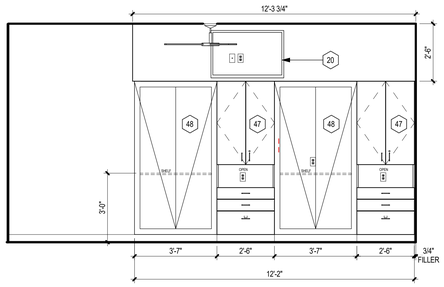

A3 TYPICAL BUNK ROOM CASEWORK
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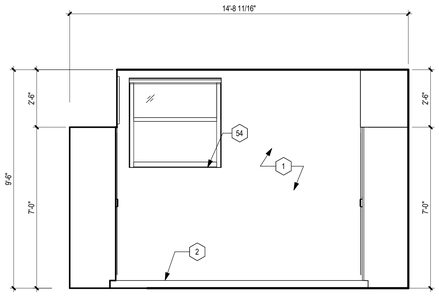
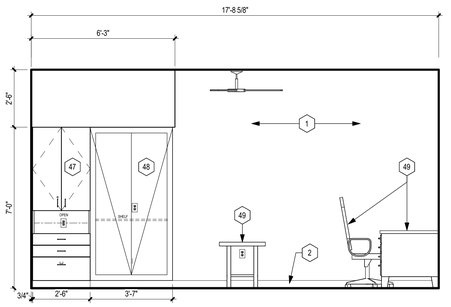


A5 TYPICAL BUNK ROOM CASEWORK
3/8" = 1'-0"



A6 TYPICAL BUNK ROOM CASEWORK
3/8" = 1'-0"

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ENLARGED FLOOR PLAN

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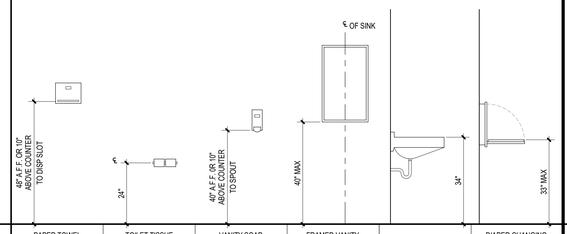
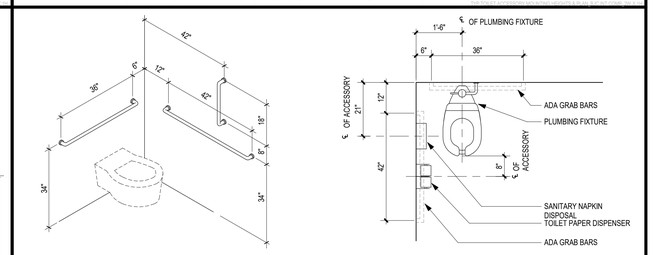
TYPICAL ACCESSORY MOUNTING HEIGHTS



ACCESSORY TYPE	PAPER TOWEL DISPENSER	TOILET TISSUE DISPENSER	VANITY SOAP DISPENSER	FRAMED VANITY MIRROR	LAVATORY	DIAPER CHANGING STATION
COMMENTS	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	WALL MOUNTED	SURFACE MOUNTED

TYPICAL TOILET ACCESSORY MOUNTING HEIGHTS & PLAN



ADA TOILET GRAB BAR	TYPICAL ACCESSORIES AT ACCESSIBLE TOILET
SURFACE MOUNTED	NOTE: SANITARY NAPKIN DISPOSAL AT WOMEN'S & UNISEX ONLY

TOILET ACCESSORIES REMARKS

1. SEE SPECIFICATIONS AND FINISH SCHEDULE FOR TOILET PARTITIONS AND/OR URINAL SCREENS.
2. SEE PLUMBING DRAWINGS FOR PLUMBING FIXTURE SPECIFICATIONS.
3. RODE HOOKS TO BE INSTALLED ON ALL TOILET PARTITION DOORS @+66" A.F. OR ON TOILET DOOR IN SINGLE OCCUPANCY TOILET ROOMS.
4. G.C. TO PROVIDE BLOCKING AT ALL TOILET PARTITIONS, URINAL SCREENS, GRAB BARS AND ACCESSORIES WHICH ARE WALL MOUNTED.

Toilet Accessory Schedule

EQPT TYPE MARK	Description	Manufacturer	Model	MATERIAL	ACCESSORY FINISH	Comments
T1	18" VERTICAL GRAB BAR	BOBRICK	B-5608x18	STAINLESS STEEL	SATIN	
T2	36" HORIZONTAL GRAB BAR	BOBRICK	B-5806X36	STAINLESS STEEL	SATIN	
T3	42" HORIZONTAL GRAB BAR	BOBRICK	B-5806x42	STAINLESS STEEL	SATIN	
T4	DOUBLE ROLL TOILET PAPER DISP.	BOBRICK	B76867	STAINLESS STEEL	BRIGHT POLISHED	
T7	Paper Towel Dispenser	BOBRICK	B-4262	STAINLESS STEEL	SATIN	
T8	<varies>	<varies>	<varies>	<varies>	<varies>	
T11	Robe Hook	Kohler Co.	K-35933-CP	METAL	POLISHED CHROME	
T22	Utility Shelf with Rag Hooks and Broom Holders	BOBRICK	B-239	STAINLESS STEEL	SATIN	

KEYED NOTES INT. ELEV.

MARK	DESCRIPTION
2	BASE AS SCHEDULED, SEE FINISH PLAN/SCHEDULE.
10	25"D PLASTIC LAMINATE COUNTERTOP & 4"H BACKSPLASH. PLASTIC LAMINATE BASE CABINETS AS INDICATED. SEE FINISH SCHEDULE FOR COLOR.
14	STAINLESS STEEL SHELF. SEE EQUIPMENT PLAN FOR SIZE.
15	STAINLESS STEEL SERVICE SINK WITH DRAIN BOARD.
16	EXTRACTOR MACHINE: UNIMAC UW105.
17	STACKED WASHER/ DRYER MACHINE. SEE EQUIPMENT SCHEDULE FOR MANUFACTURER AND MODEL.
18	JANITOR MOP SINK.
19	WORK BENCH BY OTHERS.
21	ICE MAKER WITH 500 LB BIN BY OWNER.
22	SCBA AIR TANK PURIFICATION & REFILL MACHINE BY OTHERS.
23	MOBILE TOOL CHEST BY OWNER.
24	SCBA TANK STORAGE BY OWNER.
39	PLAM CABINETS. SEE FINISH SCHEDULE FOR MORE INFORMATION.
50	25"D SOLID SURFACE COUNTERTOP &SHELVES W/ PLAM BACKSPLASH PANEL. SEE FINISH SCHEDULE FOR COLOR. PLASTIC LAMINATE BASE CABINETRY AS INDICATED
51	FRP WALL PANELS FULL HEIGHT, SEAMS AS INDICATED, SEE FINISH SCHEDULE

FLOOR PLAN GENERAL NOTES

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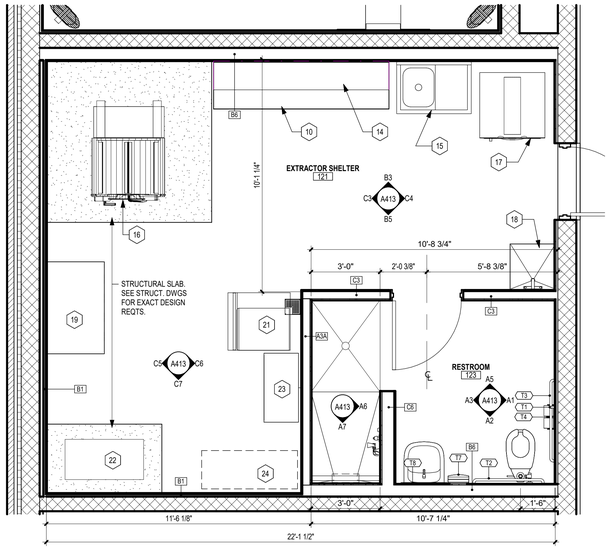
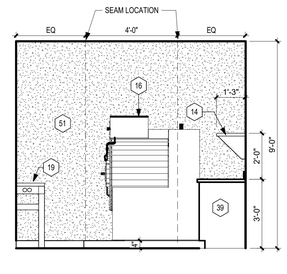
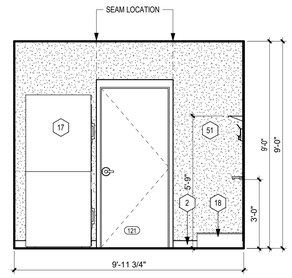


B1 EXTRACTOR/ SHELTER
3/8" = 1'-0"



C3 EXTRACTOR SHELTER
3/8" = 1'-0"



C4 EXTRACTOR SHELTER
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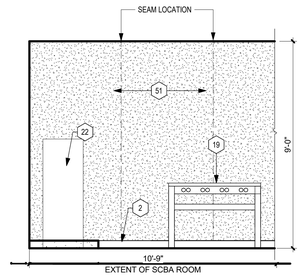
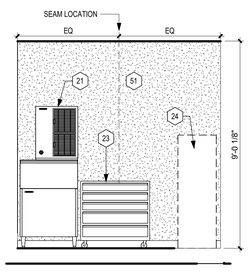
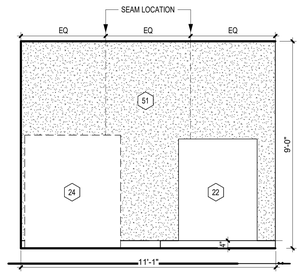


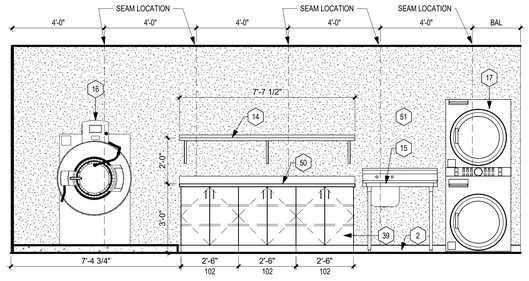
C5 SCBA ROOM 126
3/8" = 1'-0"



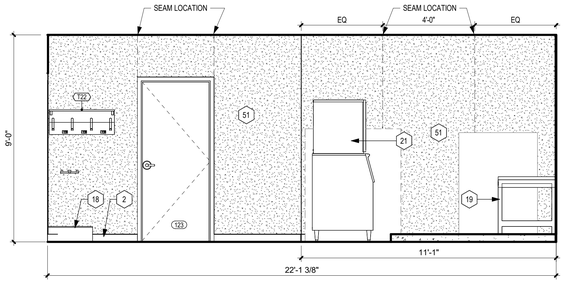
C6 SCBA ROOM 126
3/8" = 1'-0"



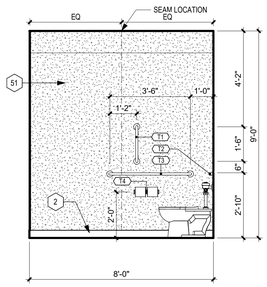
C7 SCBA ROOM 126
3/8" = 1'-0"



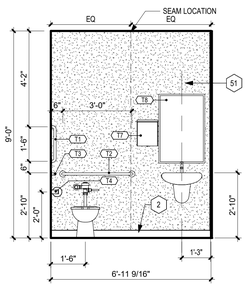
B3 EXTRACTOR SHELTER
3/8" = 1'-0"



B5 EXTRACTOR SHELTER
3/8" = 1'-0"



A1 RESTROOM 123
3/8" = 1'-0"



A2 RESTROOM 123
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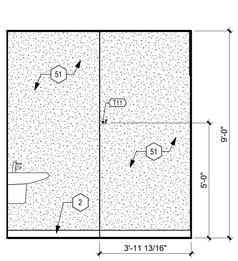

A3 RESTROOM 123
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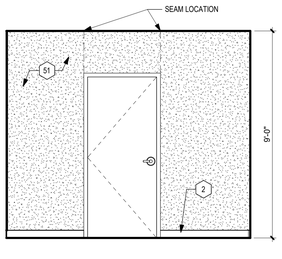

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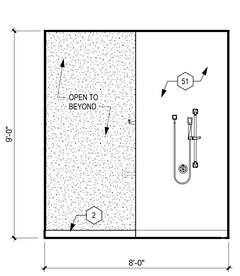

A6 RESTROOM 123
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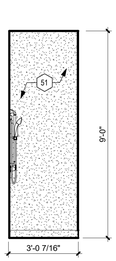

A7 RESTROOM 123
3/8" = 1'-0"

Roy A. Manugian
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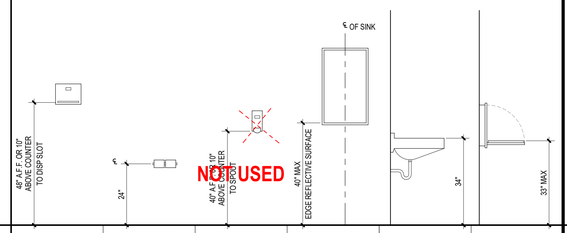
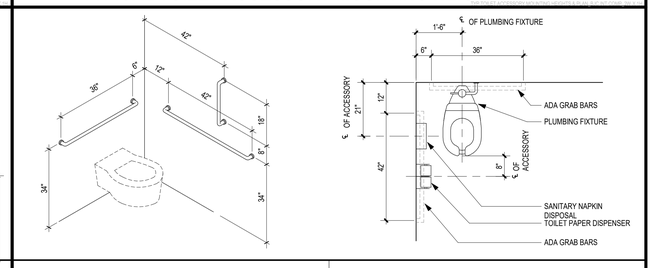
TYPICAL ACCESSORY MOUNTING HEIGHTS



ACCESSORY TYPE	PAPER TOWEL DISPENSER	TOILET TISSUE DISPENSER	VANITY SOAP DISPENSER	FRAMED VANITY MIRROR	LAVATORY	DIAPER CHANGING STATION
COMMENTS	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	WALL MOUNTED	SURFACE MOUNTED

TYPICAL TOILET ACCESSORY MOUNTING HEIGHTS & PLAN



ADA TOILET GRAB BAR	TYPICAL ACCESSORIES AT ACCESSIBLE TOILET
SURFACE MOUNTED	NOTE: SANITARY NAPKIN DISPOSAL AT WOMEN'S & UNISEX ONLY

TOILET ACCESSORIES REMARKS

1. SEE SPECIFICATIONS AND FINISH SCHEDULE FOR TOILET PARTITIONS AND/OR URINAL SCREENS.
2. SEE PLUMBING DRAWINGS FOR PLUMBING FIXTURE SPECIFICATIONS.
3. RODE HOOKS TO BE INSTALLED ON ALL TOILET PARTITION DOORS @+66" A.F. OR ON TOILET DOOR IN SINGLE OCCUPANCY TOILET ROOMS.
4. G.C. TO PROVIDE BLOCKING AT ALL TOILET PARTITIONS, URINAL SCREENS, GRAB BARS AND ACCESSORIES WHICH ARE WALL MOUNTED.

Toilet Accessory Schedule

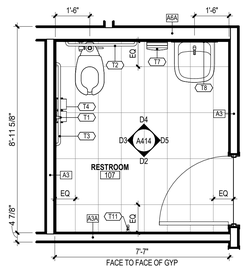
EQPT TYPE MARK	Description	Manufacturer	Model	MATERIAL	ACCESSORY FINISH	Comments
T1	18" VERTICAL GRAB BAR	BOBRICK	B-5608x18	STAINLESS STEEL	SATIN	
T2	36" HORIZONTAL GRAB BAR	BOBRICK	B-5806X36	STAINLESS STEEL	SATIN	
T3	42" HORIZONTAL GRAB BAR	BOBRICK	B-5806x42	STAINLESS STEEL	SATIN	
T4	DOUBLE ROLL TOILET PAPER DISP.	BOBRICK	B78667	STAINLESS STEEL	BRIGHT POLISHED	
T7	Paper Towel Dispenser	BOBRICK	B-4262	STAINLESS STEEL	SATIN	
T8	<varies>	<varies>	<varies>	<varies>	<varies>	
T11	Robe Hook	Kohler Co.	K-35933-CP	METAL	POLISHED CHROME	
T22	Utility Shelf with Rag Hooks and Broom Holders	BOBRICK	B-239	STAINLESS STEEL	SATIN	

FLOOR PLAN GENERAL NOTES

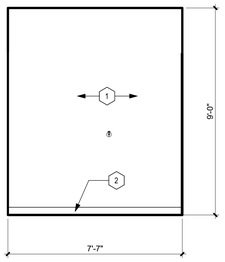
1. REFERENCE GENERAL NOTES FOR ADDITIONAL APPLICABLE INFORMATION.
2. THE GENERAL CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT MAY AFFECT THE WORK PRIOR TO COMMENCING CONSTRUCTION.
3. ALL DIMENSIONS ARE TO THE FINISH FACE OF NEW PARTITIONS AND TO FINISH FACE OF EXISTING INTERIOR PARTITIONS AND PERIMETER WALLS TO REMAIN UNLESS NOTED OTHERWISE.
4. INSTALL REDUCER STRIPS BETWEEN DIFFERENT FLOOR FINISH LEVELS AND FINISHES AS REQUIRED.
5. PATCH ALL PARTITIONS AFFECTED BY THE DEMOLITION OF INTERSECTING PARTITIONS.
6. THE GENERAL CONTRACTOR SHALL INSTALL REQUIRED WALL BLOCKING FOR ALL CASEWORK, SHELVING, AND EQUIPMENT. SEE DRAWINGS FOR EXACT LOCATIONS.
7. UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT SHOWN ON THE DRAWINGS IS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
8. ALL INTERIOR DIMENSIONS ARE TO FINISHED FACE OF GYP. BD. UNLESS NOTED OTHERWISE.
9. PROVIDE PLASTIC DUST COVER TO PROTECT EQUIPMENT, FILES, ETC. WHERE REQUIRED.
10. MAINTAIN ALL NECESSARY COMMUNICATIONS AND FIRE PROTECTION SYSTEMS, EXIT CORRIDORS, AND ITEMS AFFECTING THE HEALTH AND SAFETY OF ALL OCCUPANTS AT ALL TIMES THROUGHOUT CONSTRUCTION.
11. MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK TO BE DESIGN-BUILD. INTENT OF THIS WORK IS REFLECTED ON THE DRAWINGS. IF SUCH WORK IS OUTSIDE OF THE PROJECT AREA, CONTACT THE OWNER FOR RESTRICTIONS THAT MAY APPLY TO THOSE AREAS AND COORDINATE AND SCHEDULE ALL WORK. PROTECT ADJACENT AREAS, EQUIPMENT, ETC.
12. ALL BLOCKING SHALL BE FIRE TREATED.

KEYED NOTES INT. ELEV.

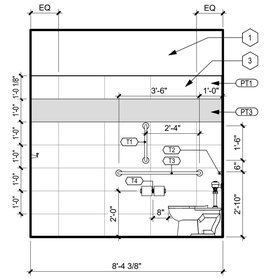
MARK	DESCRIPTION
1	PAINT AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
2	BASE AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
3	TILE WAINSCOT, HEIGHT AS INDICATED. TOPCAP SCHLUTER TR1
10	25"D PLASTIC LAMINATE COUNTERTOP & 4"H BACKSPLASH. PLASTIC LAMINATE BASE CABINETS AS INDICATED. SEE FINISH SCHEDULE FOR COLOR.
18	JANITOR MOP SINK.
33	WASHER/ DRYER. COORDINATE ON MANUFACTURER AND MODEL WITH OWNER.
34	SERVICE SINK.
35	FRP PANELING. SEE FINISH SCHEDULE FOR COLOR AND FINISH.
39	PLAM CABINETS. SEE FINISH SCHEDULE FOR MORE INFORMATION.



D1 ENLG. PLAN RESTROOM 107
3/8" = 1'-0"



D2 RESTROOM 107
3/8" = 1'-0"



D3 RESTROOM 107
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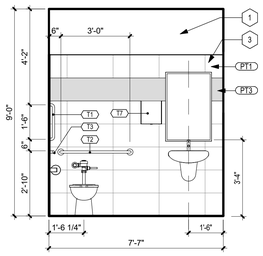

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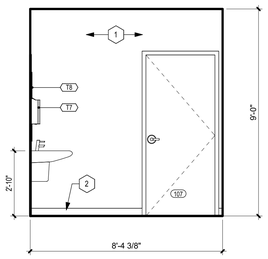
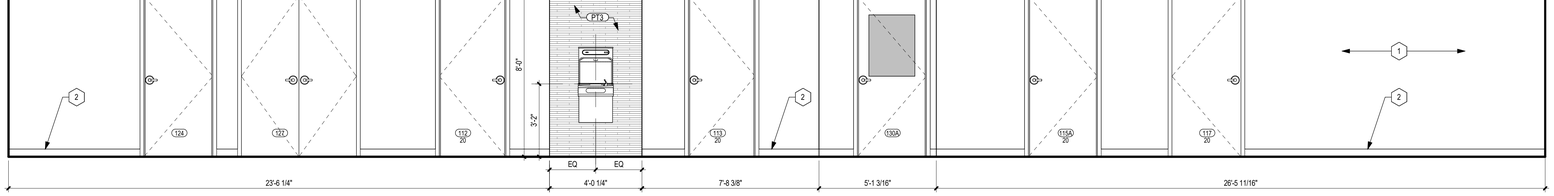
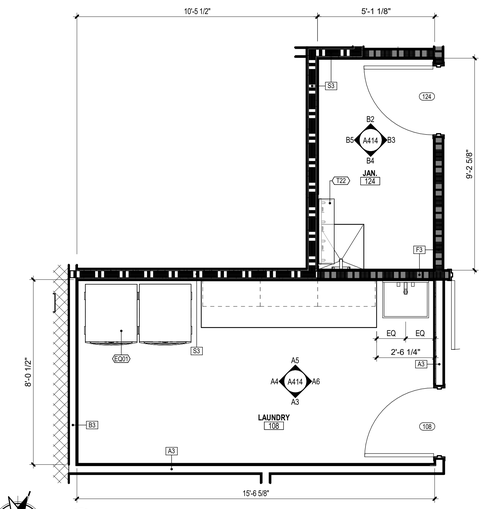


D5 RESTROOM 107
3/8" = 1'-0"



C1 CORRIDOR DRINKING FOUNTAIN
3/8" = 1'-0"



A1 LAUNDRY 108 & JAN 124
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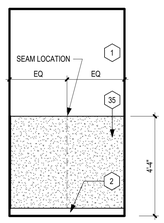
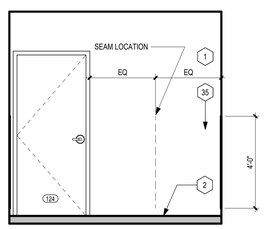


B2 JANITOR 124
3/8" = 1'-0"



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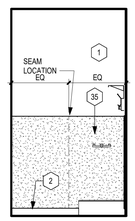
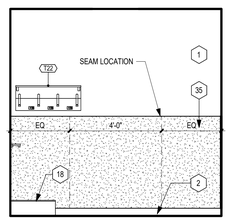


B4 JANITOR 124
3/8" = 1'-0"



B5 JANITOR 124
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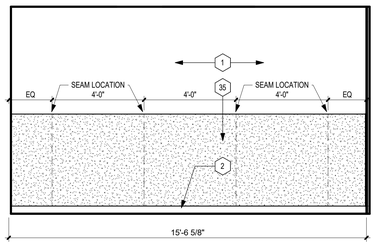

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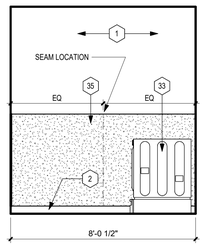
3/8" = 1'-0"



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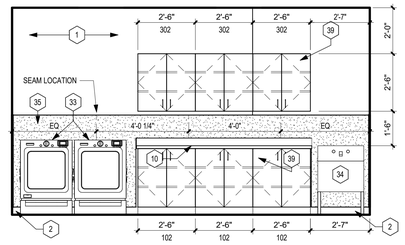
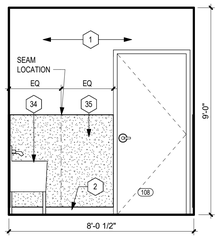
3/8" = 1'-0"



A5 LAUNDRY 108
3/8" = 1'-0"



A6 LAUNDRY 108
3/8" = 1'-0"

ROY A. MANGAN
NUMBER A-0001
6/30/2026
ARCHITECT
STATE OF MISSOURI
Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/26

Archimages architecture | interiors
MO Architectural Corporation Archimages, Inc. # 000550
143 West Clinton Place St. Louis, Missouri 63122
p: [314] 965.7445 f: [314] 965.7477
www.archimages-stl.com

Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

ENLARGED FLOOR PLANS

Project No. 24057
Sheet No. A414
Date 2026/06/08

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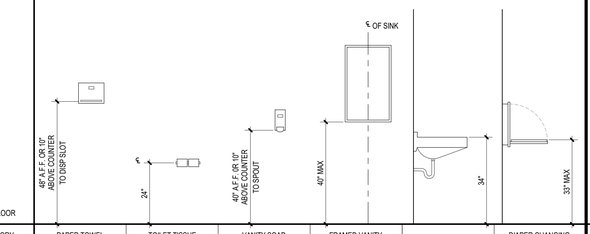
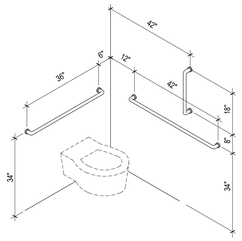
TYPICAL ACCESSORY MOUNTING HEIGHTS

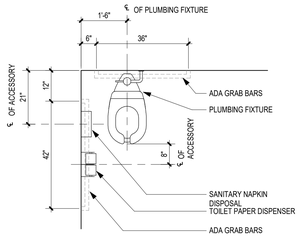


ACCESSORY TYPE	PAPER TOWEL DISPENSER	TOILET TISSUE DISPENSER	VANITY SOAP DISPENSER	FRAMED VANITY MIRROR	LAVATORY	DIAPER CHANGING STATION
COMMENTS	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	SURFACE MOUNTED	WALL MOUNTED	SURFACE MOUNTED

TYPICAL TOILET ACCESSORY MOUNTING HEIGHTS & PLAN



ADA TOILET GRAB BAR



TYPICAL ACCESSORIES AT ACCESSIBLE TOILET

SURFACE MOUNTED

NOTE: SANITARY NAPKIN DISPOSAL AT WOMEN'S & UNISEX ONLY

TOILET ACCESSORIES REMARKS

1. SEE SPECIFICATIONS AND FINISH SCHEDULE FOR TOILET PARTITIONS AND/OR URINAL SCREENS.
2. SEE PLUMBING DRAWINGS FOR PLUMBING FIXTURE SPECIFICATIONS.
3. RODE HOOKS TO BE INSTALLED ON ALL TOILET PARTITION DOORS @+66" A.F. OR ON TOILET DOOR IN SINGLE OCCUPANCY TOILET ROOMS.
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Toilet Accessory Schedule

EQPT TYPE MARK	Description	Manufacturer	Model	MATERIAL	ACCESSORY FINISH	Comments
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KEYED NOTES INT. ELEV.

MARK	DESCRIPTION
1	PAINT AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
2	BASE AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
3	TILE WAINSCOT, HEIGHT AS INDICATED. TOPCAP SCHLUTER TR1
36	SOLID SURFACE PANELING, HEIGHT AS INDICATED. SEE FINISH SCHEDULE FOR MFTR, COLOR, & FINISH.
38	PROVIDE AND INSTALL SINGLE TIER POWEDERCOATED STEEL LOUVERED LOCKERS, SLOPE TOP & Z-BASE. HASP LOCK FOR OWNERS PADLOCKS. HADRAIN BRAND GLADIATOR MODEL ATHLETIC LOCKERS VENTED WITH DOOR OR APPROVED EQUAL BY GC. PROVIDE STANDARD COLOR CHART FOR DESIGNER SELECTION.
40	25"D SOLID SURFACE COUNTERTOP w/UNDERMOUNT PORCELAIN BOWL. SEE FINISH SCHEDULE FOR MORE INFORMATION.
41	PLAM ADA VANITY BASE w/4"H BACKSPLASH. SEE FINISH SCHEDULE FOR MORE INFORMATION.

FLOOR PLAN GENERAL NOTES

1. REFERENCE GENERAL NOTES FOR ADDITIONAL APPLICABLE INFORMATION.
2. THE GENERAL CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT MAY AFFECT THE WORK PRIOR TO COMMENCING CONSTRUCTION.
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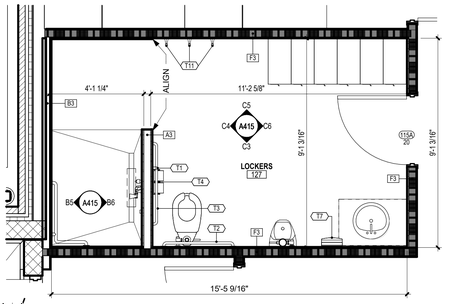
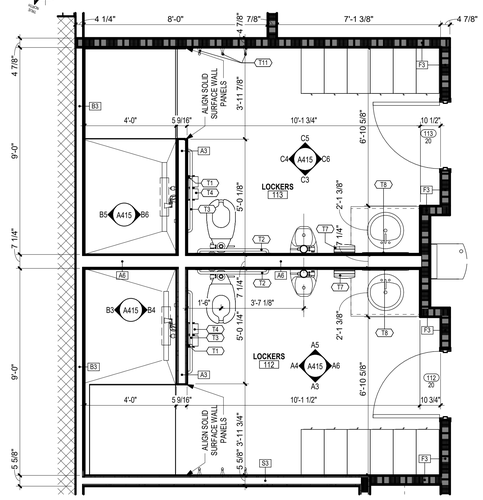
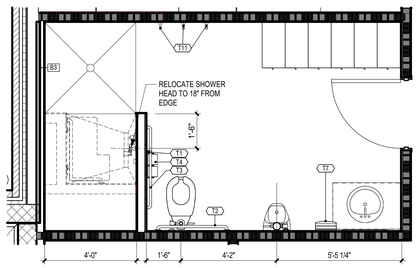


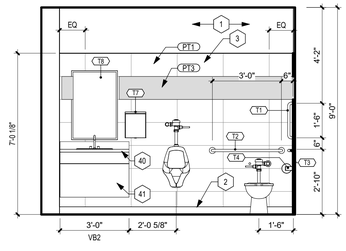
D1 ENLG. LOCKERS 127
3/8" = 1'-0"



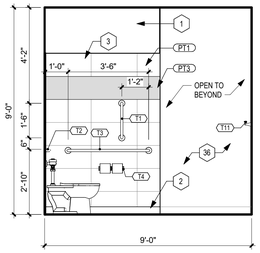
B1 ENLG. PLAN 112 & 113 LOCKERS
3/8" = 1'-0"



A1 FUTURE ADA RESTROOM CONVERSION
3/8" = 1'-0"



C3 LOCKER RM 113 &127 SIMILAR
3/8" = 1'-0"



C4 LOCKER RM 113 & 127 SIM.
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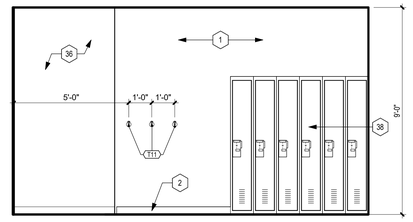

C5 LOCKER RM 113 & 127 SIMILAR
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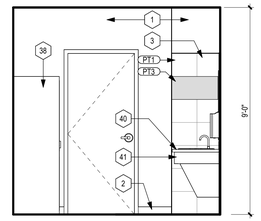
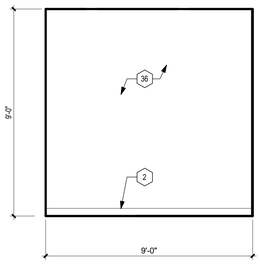


C6 LOCKER RM 113 & 127 SIM.
3/8" = 1'-0"



B3 LOCKER RM 112
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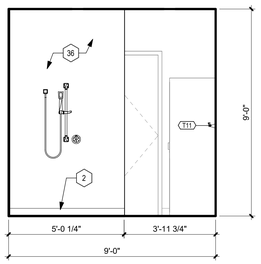

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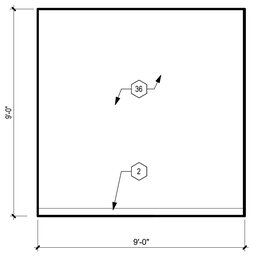

B5 LOCKER RM 113
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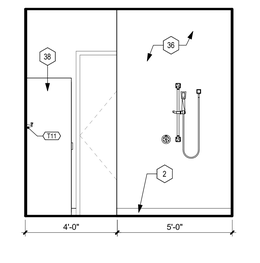
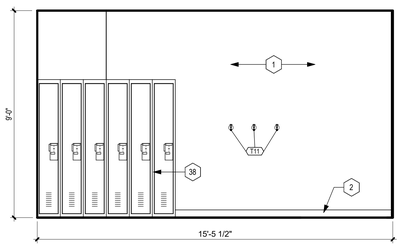
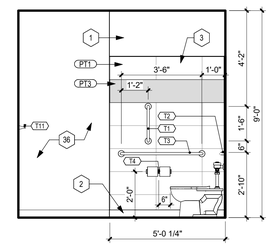


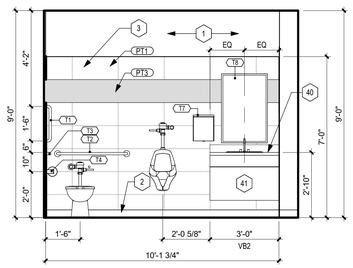
B6 LOCKER RM 113
3/8" = 1'-0"



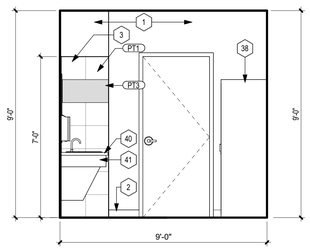
A3 LOCKER RM 112
3/8" = 1'-0"



A4 LOCKER RM 112
3/8" = 1'-0"



A5 LOCKER RM 112
3/8" = 1'-0"



A6 LOCKER RM 112
3/8" = 1'-0"

ROY A. MANGAN
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Proposed:
CENTRAL COUNTY FIRE &
RESCUE - HOUSE #6
1151 JUNGS STATION RD
ST. CHARLES, MO 63303

No.	Date	Revision

ENLARGED FLOOR PLANS

Project No.
24057

Sheet No.
A415

Date
2026/06/08

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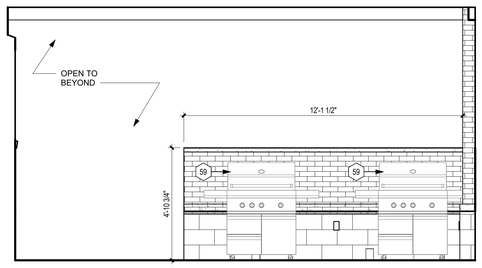
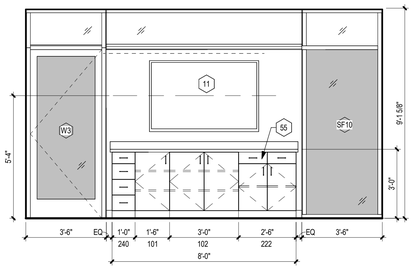
KEYED NOTES INT. ELEV.

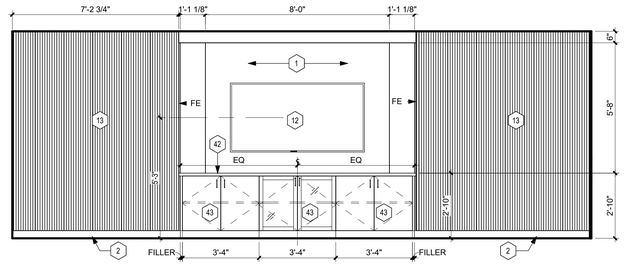
MARK	DESCRIPTION
1	PAINT AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
2	BASE AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
11	65" FLAT PANEL LED TV BY OWNER. PROVIDE BLOCKING ALL MONITOR LOCATIONS. TYP.
12	70" FLAT PANEL LED TV. COORDINATE WITH OWNER ON MANUFACTURER AND MODEL. PROVIDE BLOCKING ALL MONITOR LOCATIONS
13	WOOD SLAT ACOUSTICAL PANELING. SEE FINISH SCHEDULE FOR COLOR, TYPE, AND FINISH. EXPOSED EDGE TO HAVE WOOD FACTORY FINISH EDGE EXPOSED
42	QUARTZ COUNTERTOP. SEE FINISH SCHEDULE FOR MORE INFORMATION.
43	CUSTOM CABINETRY WITH METALLIC FINISH. CENTER CABINET TO HAVE GLASS DOOR INSERTS SEE FINISH SCHEDULE FOR MFTR, COLOR, & FINISH.
52	ALUMINUM SHIP LADDER W/LANDING. COORD. LOCATION & HT. WITH OPENING IN WALL FOR DOAS IN ATTIC.
53	MILLWORK CHARGING STATION. PLAM BASE CABINETS & SHELVES.
55	STAINLESS STEEL BASE CABINETS, EXTERIOR GRADE WITH STAINLESS STEEL COUNTERTOP SEE FINISH SCHEDULE FOR MORE INFORMATION.
59	GRILL BY OWNER. COORDINATE GAS LINE & ELECTRICAL DUPLEX AS REQUIRED. GC TO COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION.



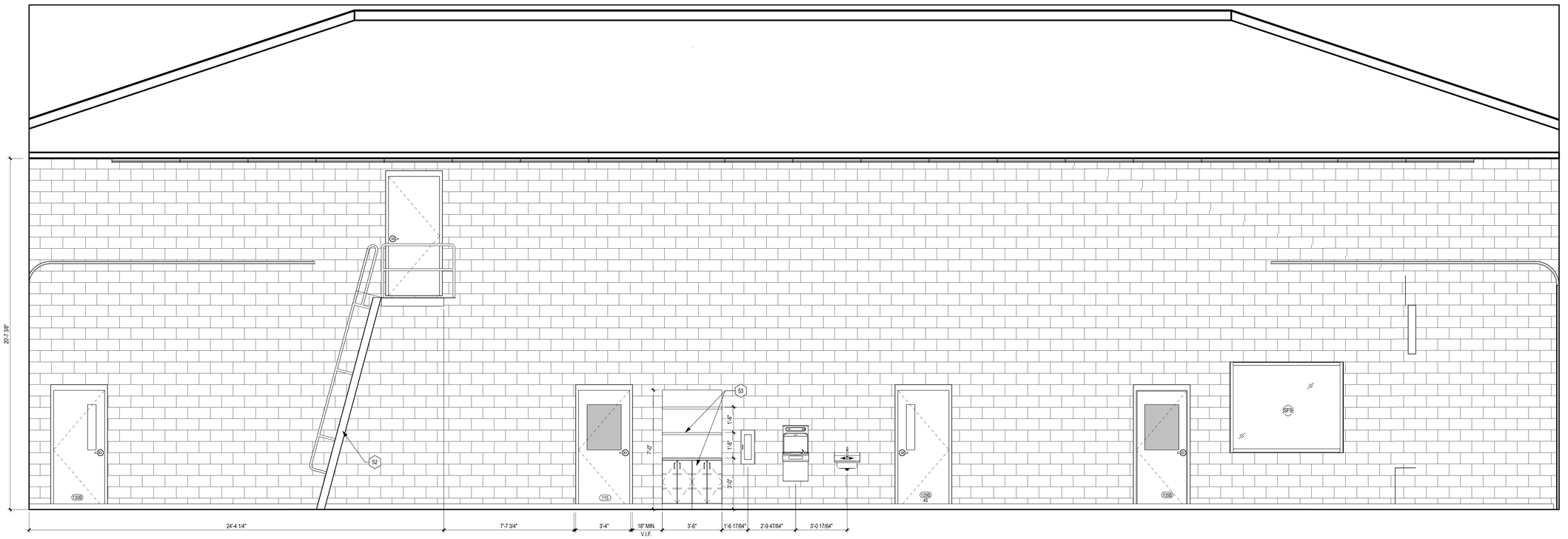
D1 COVERED PATIO
3/8" = 1'-0"



D3 COVERED PATIO
3/8" = 1'-0"



D5 DAY ROOM CASEWORK ELEVATION
3/8" = 1'-0"



A1 APPARATUS BAYS 119 WEST
3/8" = 1'-0"

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

INTERIOR ELEVATIONS

Project No. 24057
Sheet No. A441
Date 2026/06/08

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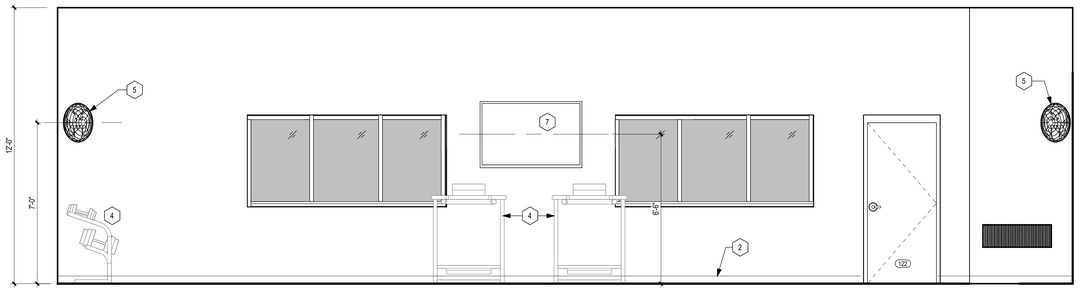
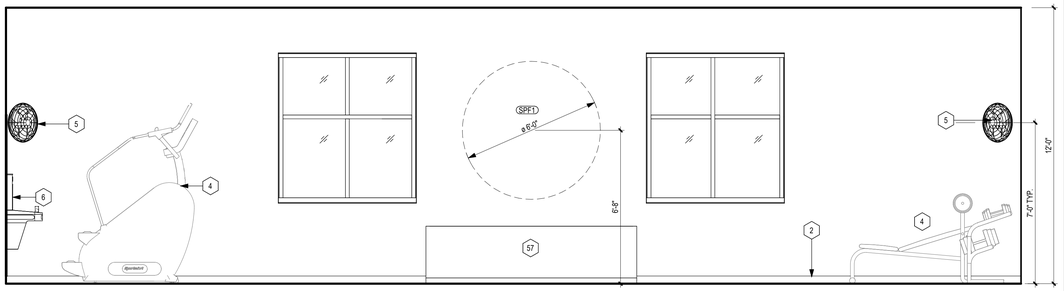
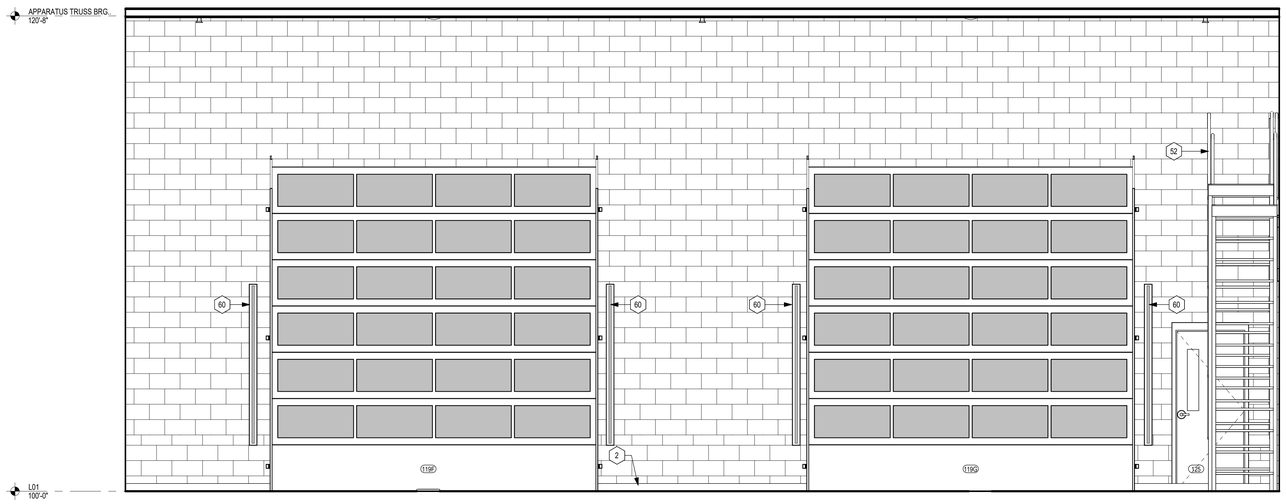


E1 FITNESS WALL INTO APPERATUS BAY
3/8" = 1'-0"

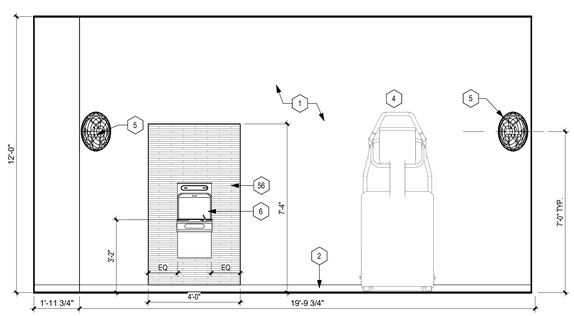


E4 FITNESS EAST
3/8" = 1'-0"

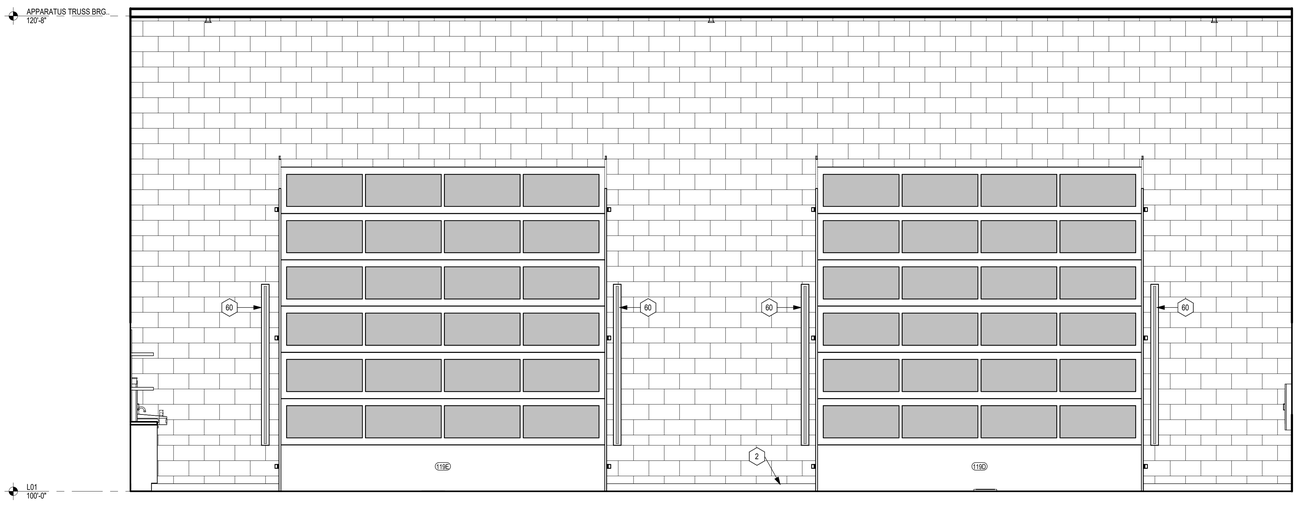
KEYED NOTES INT. ELEV.	
MARK	DESCRIPTION
1	PAINT AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
2	BASE AS SCHEDULED. SEE FINISH PLAN/SCHEDULE.
4	FITNESS EQUIPMENT BY OTHERS.
5	OSCILLATING WALL FAN MOUNTED AT 6 FEET AFF. SEE EQUIPMENT PLAN FOR LOCATION IN FITNESS ROOM. PROVIDE BLOCKING AS REQUIRED.
6	ELECTRIC WATER COOLER WITH BOTTLE FILLER
7	60" FLAT PANEL TV. PROVIDE BLOCKING ALL MONITOR LOCATIONS
52	ALUMINUM SHIP LADDER W/LANDING. COORD. LOCATION & HT. WITH OPENING IN WALL FOR DOAS IN ATTIC.
56	TILE BACKSPLASH. SEE FINISH PLAN/SCHEDULE.
57	SPLIT AIR VENTILATOR. FLOOR MOUNTED AT WALL. SEE MECHANICAL DRAWINGS FOR MMORE INFORMATION.
60	LED EMERGENCY EXIT WARNING LIGHT, TYP. COORD. SIZE AMD TYPE WITH OWNER.



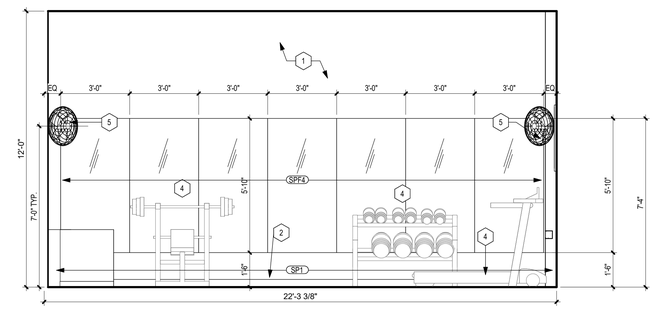
C1 APPARATUS BAYS 119 SOUTH
3/8" = 1'-0"



C5 FITNESS NORTH
3/8" = 1'-0"



A1 APPARATUS BAYS 119 NORTH
3/8" = 1'-0"



A5 FITNESS SOUTH
3/8" = 1'-0"

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD
ST. CHARLES, MO 63303

No.	Date	Revision

INTERIOR ELEVATIONS

Project No. 24057
Sheet No. A442
Date 2026/06/08

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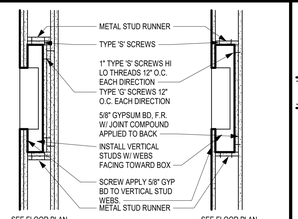
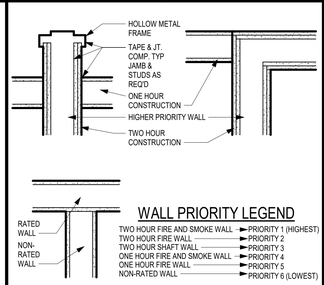


NOTE:
1. TYPICAL FOR FIRE EXTINGUISHER CABINETS, RECESSED TOILET ACCESSORIES & MECH/ ELECTRICAL RECESSED SERVICE BOXES AT RATED WALLS.
2. TYP AT ALL FIXTURES AND BOXES OVER 100 SQUARE INCHES AT RATED WALLS.

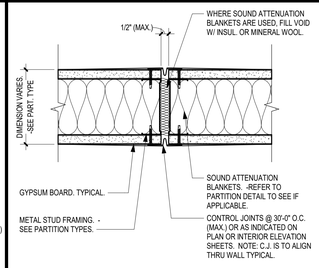
N.T.S. 09.21.16.00B RTD WALL OPNG



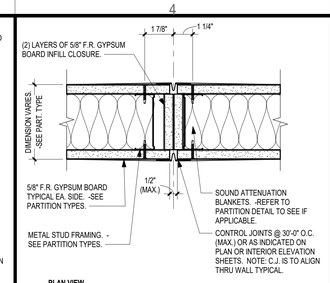
WALL PRIORITY LEGEND

TWO HOUR FIRE AND SMOKE WALL	PRIORITY 1 (HIGHEST)
TWO HOUR FIRE WALL	PRIORITY 2
TWO HOUR SHAFT WALL	PRIORITY 3
ONE HOUR FIRE AND SMOKE WALL	PRIORITY 4
ONE HOUR FIRE WALL	PRIORITY 5
NON-RATED WALL	PRIORITY 6 (LOWEST)

N.T.S. 09.21.05.00A WALL PRIORITIES

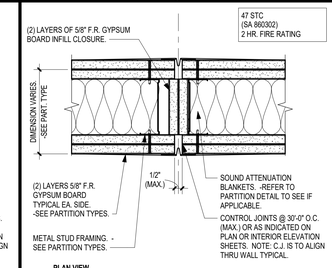


"CJ-01"
09.21.16.00.CJ01



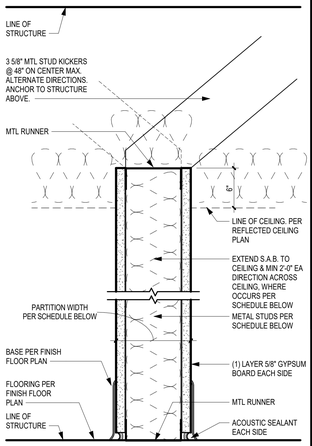
PLAN VIEW

"CJ-02"
09.21.16.00.CJ02



PLAN VIEW

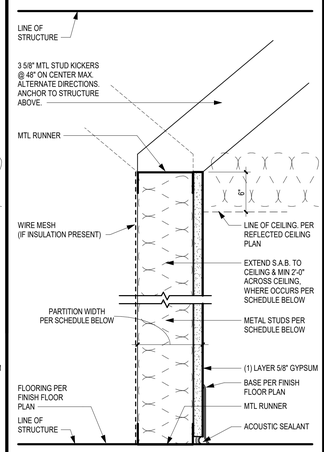
"CJ-03"
09.21.16.00.CJ03



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
A3	3 5/8"	4 7/8"	-	-	A,B
A3A	3 5/8"	4 7/8"	3 1/2"	-	A
A6	6"	7 1/4"	-	-	A,B
A6A	6"	7 1/4"	3 1/2"	-	A

FIRE RATING: N/A
BASIS OF DESIGN: N/A
REMARKS:
A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT

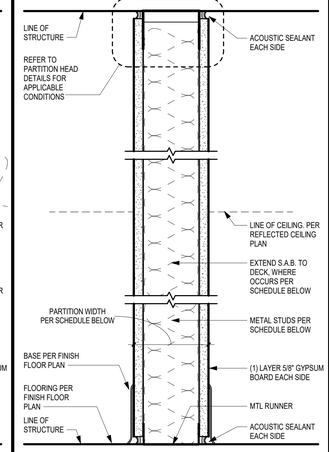
A NON-RATED PARTITION
SCALE: 3" = 1'-0" 09.21.16.01_A NR PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
B1	1 5/8"	2 1/4"	-	-	A,B,C
B3	3 5/8"	4 1/4"	-	-	A,B
B3A	3 5/8"	4 1/4"	3 1/2"	-	A
B6	6"	6 5/8"	-	-	A,B
B6A	6"	6 5/8"	3 1/2"	-	A

FIRE RATING: N/A
BASIS OF DESIGN: N/A
REMARKS:
A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT
C. OMIT KICKERS

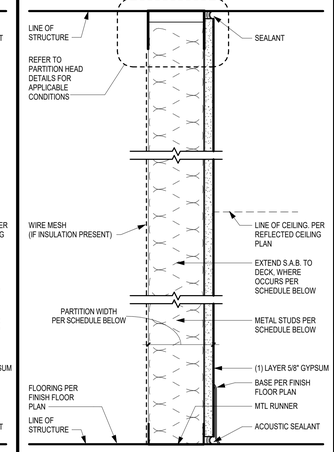
B NON-RATED PARTITION
SCALE: 3" = 1'-0" 09.21.16.01_B NR PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
C3	3 5/8"	4 7/8"	-	-	A,B
C3A	3 5/8"	4 7/8"	3 1/2"	-	A
C6	6"	7 1/4"	-	-	A,B
C6A	6"	7 1/4"	3 1/2"	-	A

FIRE RATING: N/A
BASIS OF DESIGN: N/A
REMARKS:
A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT

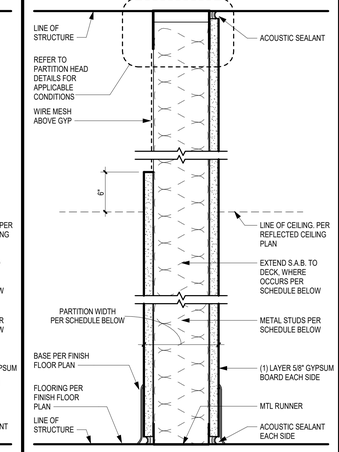
C NON-RATED PARTITION
SCALE: 3" = 1'-0" 09.21.16.01_C NR PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
D1	1 5/8"	2 1/4"	-	-	A,B
D3	3 5/8"	4 1/4"	-	-	A,B
D3A	3 5/8"	4 1/4"	3 1/2"	-	A
D6	6"	6 5/8"	-	-	A,B
D6A	6"	6 5/8"	3 1/2"	-	A

FIRE RATING: N/A
BASIS OF DESIGN: N/A
REMARKS:
A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT

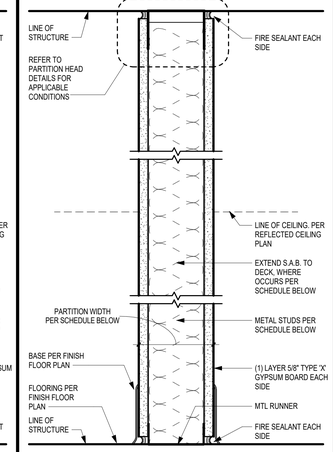
D NON-RATED PARTITION
SCALE: 3" = 1'-0" 09.21.16.01_D NR PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
E3	3 5/8"	4 7/8"	-	-	A,B
E3A	3 5/8"	4 7/8"	3 1/2"	-	A
E6	6"	7 1/4"	-	-	A,B
E6A	6"	7 1/4"	3 1/2"	-	A

FIRE RATING: N/A
BASIS OF DESIGN: N/A
REMARKS:
A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT

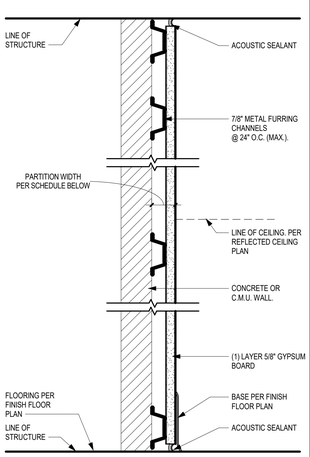
E NON-RATED PARTITION
SCALE: 3" = 1'-0" 09.21.16.01_E NR PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
F3	3 5/8"	4 7/8"	-	-	A
F3A	3 5/8"	4 7/8"	3 1/2"	-	A
F6	6"	7 1/4"	-	-	A
F6A	6"	7 1/4"	3 1/2"	-	A

FIRE RATING: 1 HOUR
BASIS OF DESIGN: UL U419
REMARKS:
A. STUD SPACING 16" O.C. MAX

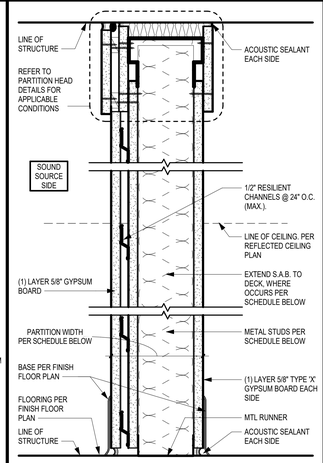
F 1 HR RATED PARTITION
SCALE: 3" = 1'-0" 09.21.16.01_F 1HR PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
M1	7/8"	1 1/2"	-	-	A,B,C
M1A	7/8"	1 1/2"	-	-	A,C

FIRE RATING: N/A
BASIS OF DESIGN: N/A
REMARKS:
A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT
C. EXIST. WALL NOT INCLUDED IN PART THICK.

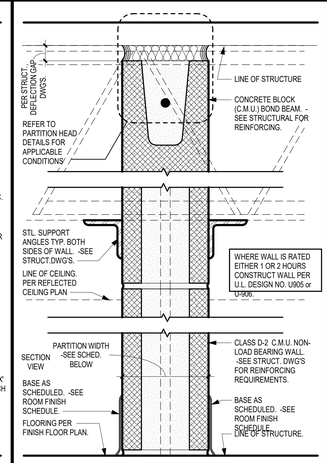
M 1 1/2" FULL HT. FURRED PART.
SCALE: 3" = 1'-0" 09.21.16.01_M FURRED PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
P3	3 5/8"	6"	-	-	A,B
P3A	3 5/8"	6"	3 1/2"	-	A
P6	6"	8 3/8"	-	-	A,B
P6A	6"	8 3/8"	3 1/2"	-	A

FIRE RATING: N/A
BASIS OF DESIGN: N/A
REMARKS:
A. STUD SPACING 16" O.C. MAX
B. OMIT SEALANT

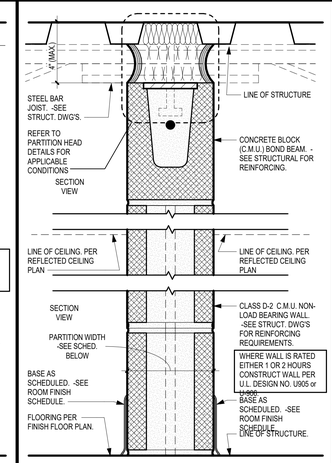
Q 1 HR F.R. ACCOUSTIC PART.
SCALE: 3" = 1'-0" 09.21.16.01_Q 1HR PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
U40	3 5/8"	3 5/8"	-	-	A
U41	3 5/8"	3 5/8"	-	-	B
U60	5 5/8"	5 5/8"	-	-	A
U61	5 5/8"	5 5/8"	-	-	B
U62	5 5/8"	5 5/8"	-	-	C
U80	7 5/8"	7 5/8"	-	-	A
U81	7 5/8"	7 5/8"	-	-	B
U82	7 5/8"	7 5/8"	-	-	C

FIRE RATING: ?
BASIS OF DESIGN: U-XXX
REMARKS:
A. NON RATED ASSEMBLY
B. 1HR RATED
C. 2 HR RATED

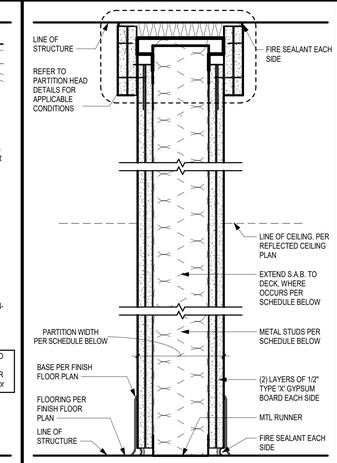
U C.M.U. NON-LOAD BRG. PART.
SCALE: 3" = 1'-0" 09.22.16.01_U CMU PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
V40	3 5/8"	3 5/8"	-	-	A
V41	3 5/8"	3 5/8"	-	-	B
V60	5 5/8"	5 5/8"	-	-	A
V61	5 5/8"	5 5/8"	-	-	B
V62	5 5/8"	5 5/8"	-	-	C
V80	7 5/8"	7 5/8"	-	-	A
V81	7 5/8"	7 5/8"	-	-	B
V82	7 5/8"	7 5/8"	-	-	C

FIRE RATING: ?
BASIS OF DESIGN: ?
REMARKS:
A. NON RATED ASSEMBLY
B. 1HR RATED
C. 2 HR RATED

V INT.MASONRY LOAD BRG. PART.
SCALE: 3" = 1'-0" 09.22.16.01_V LOAD PARTITION



MARK	STRUCT SIZE	PART THICK	S.A.B. SIZE	S.T.C.	REMARKS
S3	3 5/8"	5 5/8"	-	60	A,B,C
S6	6 "	7"	-	60	A,B,C

FIRE RATING: ?
BASIS OF DESIGN: UL U493
REMARKS:
A. STUD SPACING 16" O.C. MAX
B. RESILIENT CHANNEL 24" O.C. (VERTICAL)
C. R-13 BATT INSULATION

S STC 60 RATED PARTITION
SCALE: 3" = 1'-0" STC 60 PARTITION

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STATE OF MISSOURI
ROY A. MANGAN
NUMBER A-6661
ARCHITECT

Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/26

Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Revision	Date

PARTITION DETAILS

Project No. 24057
Sheet No. A501
Date 2026/06/08

SCALE: 1/2" = 1'-0" SCALE: 1 1/2" = 1'-0" SCALE: 1" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 3/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/16" = 1'-0"

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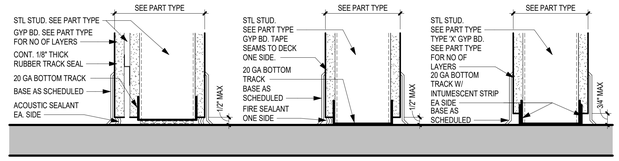
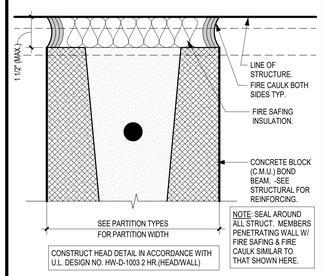


ACOUSTIC RATED BASE OF WALL

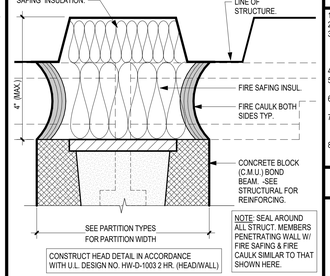
FIRE RATED BASE OF WALL
1 & 2 HR
UL-BW-S-0021

FIRE RATED BASE OF WALL
1 & 2 HR
UL-BW-S-0021

E3 BASE OF WALL DETAILS
3" = 1'-0"



E5
04.22.00.01U HEAD OF WALL DET_1W X 1H

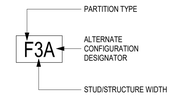


E6
04.22.00.01V HEAD OF WALL DET_1W X 1H

GENERAL PART TYPE NOTES

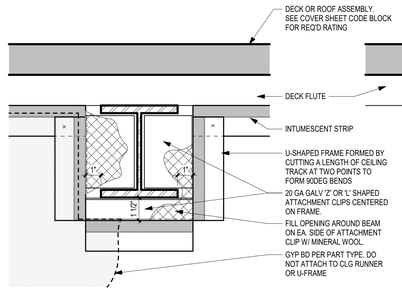
1. INSTALL DEFLECTION TRACK AT TOP OF ALL FULL HEIGHT WALLS.
2. INSTALL MOISTURE RESISTANT GYPSUM BOARD AT ALL WALLS ADJACENT TO WATER.
3. PROVIDE STENCILED OR STICKER RATING IDENTIFICATION OF EACH RATED PARTITION AT 10'-0" ON CENTER (MINIMUM ONCE PER ROOM) ABOVE THE CEILING. LETTERING TO BE MINIMUM 1/2" IN HEIGHT AND STATE "FIRE AND/OR SMOKE BARRIER-PROTECT ALL OPENINGS"
4. SEE DETAILS THIS SHEET FOR RATED WALL INTERSECTION PRIORITY INSTALLATION.
5. SEE DETAILS THIS SHEET FOR DETAILS OF WALL CONSTRUCTION AT BOXES RECESSED IN RATED WALLS.
6. PARTITIONS THAT INCLUDE SOUND INSULATION & SEALANT ARE TO BE CONSIDERED ACOUSTIC PARTITIONS AND USE THE ACOUSTIC TERMINATION DETAILS.
7. RATED DESIGN ASSEMBLIES LISTED ARE BASIS OF DESIGN ONLY. ALTERNATES WILL BE ACCEPTED BASED UPON MATERIALS USED SO LONG THAT THE INDICATED RATING IS MAINTAINED.
8. INSTALL CONTROL JOINTS IN METAL STUD WALLS PER DETAIL

PARTITION KEY LEGEND

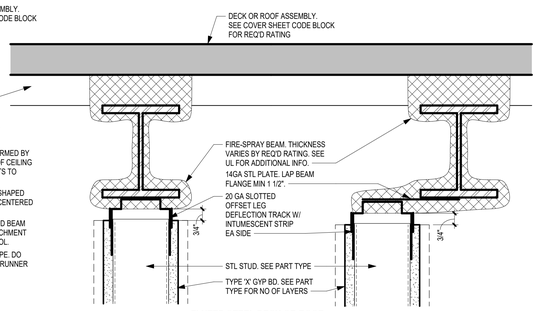


GEN. HEAD OF WALL NOTES

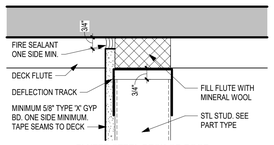
1. PARTITION HEAD DETAILS ARE INTENDED AS GENERAL REFERENCE ONLY.
2. LISTED UL (UNDERWRITERS LABORATORIES) ASSEMBLIES ARE BASIS OF DESIGN ONLY AND NOT ALL REQUIREMENTS ARE SHOWN. REFERENCE UL FOR ADDITIONAL INFORMATION.
3. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND RESEARCH APPLICABLE UL ASSEMBLIES INCLUDING ADDITIONAL ASSEMBLIES THAT MAY BE REQUIRED TO MAINTAIN THE INTEGRITY OF A RATED ASSEMBLY. ADDITIONAL AND ALTERNATE ASSEMBLIES SHOULD BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
4. FASTEN TRACKS TO SUBSTRATE ABOVE AT 24" O.C. (U.N.O.)
5. DO NOT FASTEN GYP BD TO DEFLECTION TRACK. FASTEN TO EACH VERTICAL STUD 2" MAXIMUM BELOW THE BOTTOM LEG OF THE DEFLECTION TRACK. (U.N.O.)



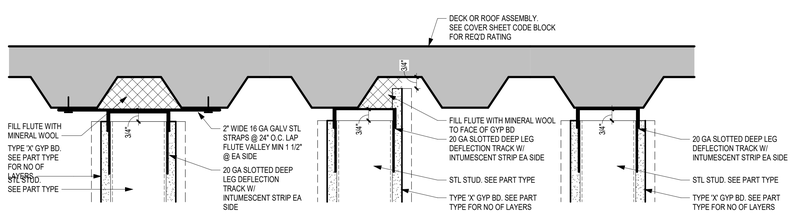
FLUTED STEEL DECK OR ROOF
STEEL BEAM/JOIST PENETRATION
1 & 2 HR
UL-HW-D-0495



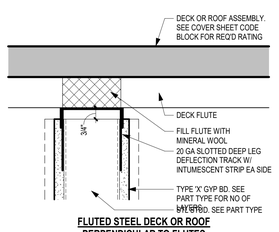
FLUTED STEEL DECK OR ROOF
PARALLEL UNDER STEEL BEAM/JOIST
1 & 2 HR
UL-HW-D-0502



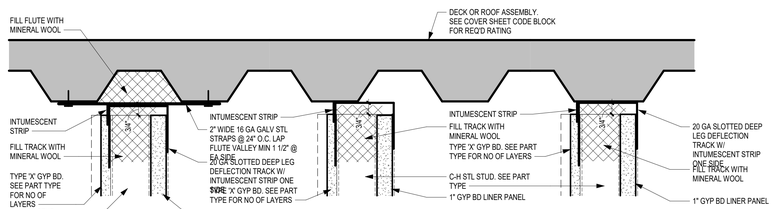
FLUTED STEEL DECK OR ROOF
PERPENDICULAR TO FLUTES
PARALLEL SIMILAR
SMOKE PARTITION



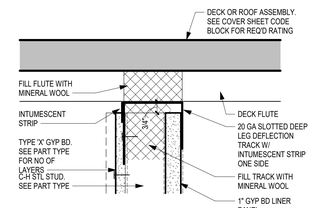
FLUTED STEEL DECK OR ROOF
PARALLEL TO FLUTES
1 & 2 HR
UL-HW-D-0499



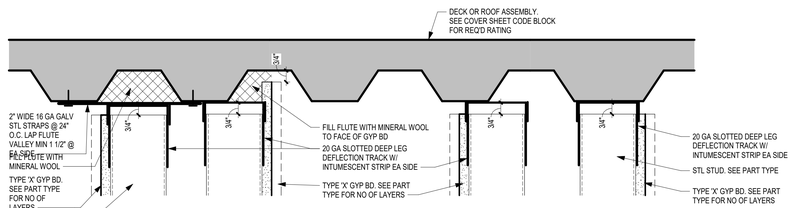
FLUTED STEEL DECK OR ROOF
PERPENDICULAR TO FLUTES
1,2, & 3 HR
UL-HW-D-0513



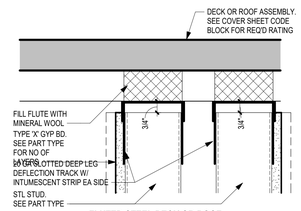
FLUTED STEEL DECK OR ROOF
SHAFT WALL PARALLEL TO FLUTES
1 & 2 HR
UL-HW-D-0496



FLUTED STEEL DECK OR ROOF
SHAFT WALL PERPENDICULAR TO FLUTES
1 & 2 HR
UL-HW-D-0504



FLUTED STEEL DECK OR ROOF
CHASE WALL PARALLEL TO FLUTES
1 & 2 HR
UL-HW-D-0544



FLUTED STEEL DECK OR ROOF
CHASE WALL PERPENDICULAR TO FLUTES
1 & 2 HR
UL-HW-D-0506

A4 HEAD OF WALL DETAILS
3" = 1'-0"

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STATE OF MISSOURI
ROY A. MANGAN
NUMBER A-0001
ARCHITECT
Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/26

Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

PARTITION DETAILS

Project No. 24057
Sheet No. A502
Date 2026/06/08

SCALE: 3" = 1'-0" 1' 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2' 1' 6" 3" 0
SCALE: 1" = 1'-0" 2' 1' 6" 3" 0
SCALE: 3/4" = 1'-0" 4' 2' 1' 0
SCALE: 1/2" = 1'-0" 4' 2' 1' 0
SCALE: 3/8" = 1'-0" 4' 2' 1' 0
SCALE: 1/4" = 1'-0" 8' 4' 2' 0
SCALE: 1/8" = 1'-0" 16' 8' 4' 0
SCALE: 3/32" = 1'-0" 24' 16' 8' 0
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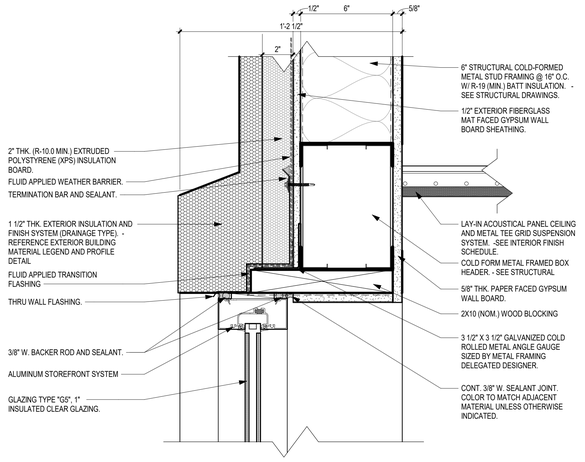
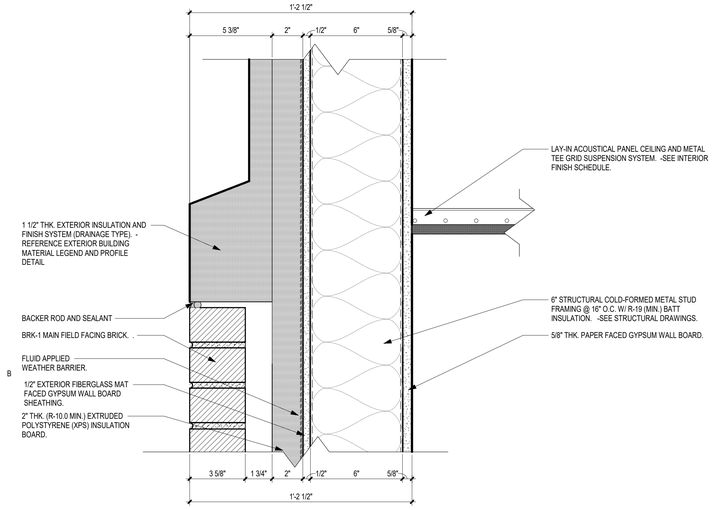


D1 SF HEAD TO EIFS @ STUD WALL
3" = 1'-0"



D3 BRICK TO EIFS @ STUD WALL
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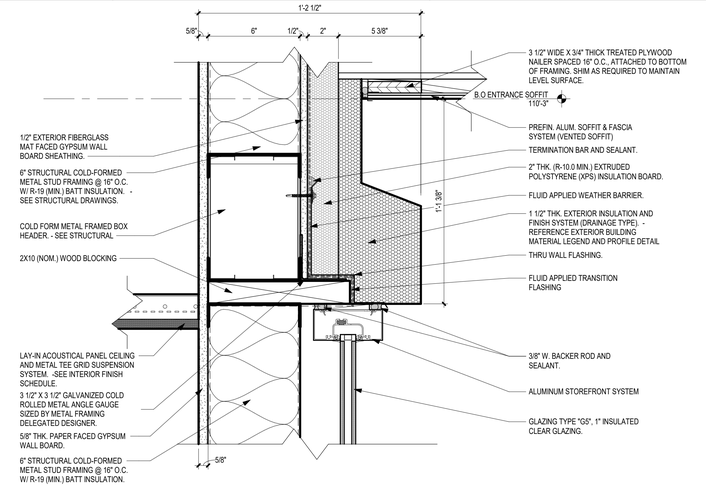
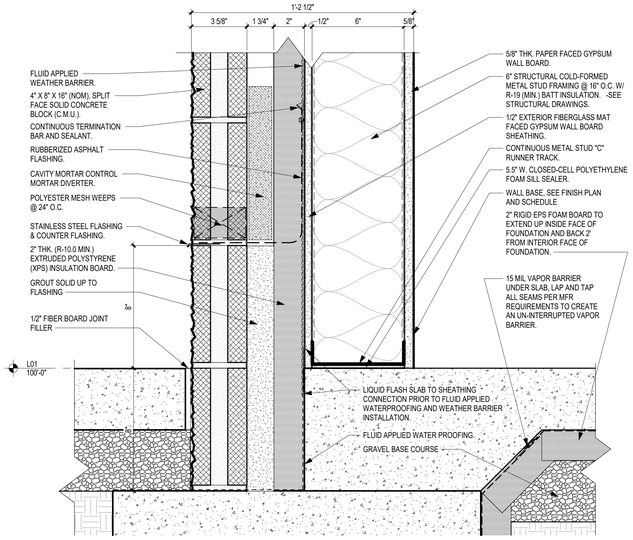


D6 CURTAIN TO EIFS @ DAY ROOM FALSE WINDOW
3" = 1'-0"

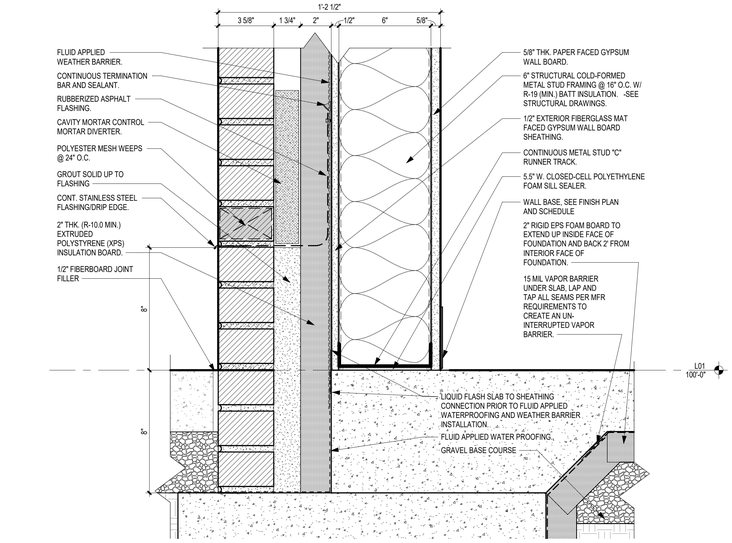
C1 BRICK TO SF WINDOW @SILL
3" = 1'-0"

C3 BRICK TO CUTAIN WALL @ PATIO WALL
3" = 1'-0"

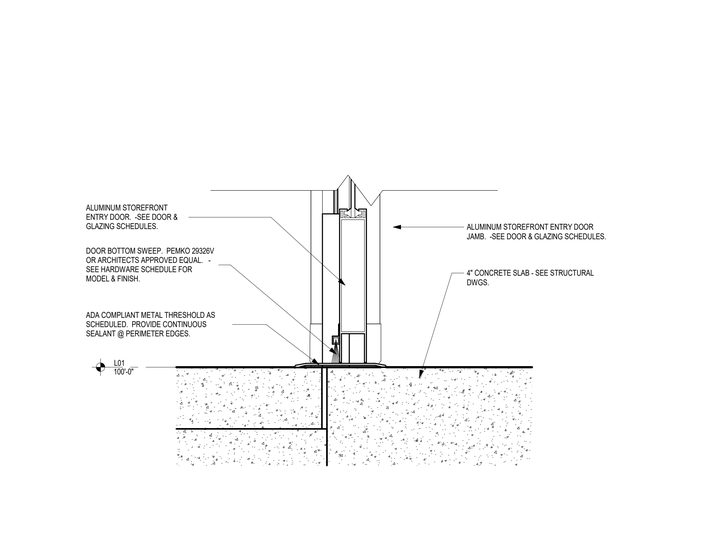
C6 BRICK TO SF WINDOW @ SILL/ FALSE WINDOW
3" = 1'-0"



A1 CMU TO BRICK @ STUD WALL BASE
3" = 1'-0"



A2 BRICK TO STUD WALL @ BASE
3" = 1'-0"



A6 STOREFRONT DOOR @ BASE
3" = 1'-0"

STATE OF MISSOURI
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Proposed:

CENTRAL COUNTY FIRE & RESCUE - HOUSE #6

1151 JUNGS STATION RD
ST. CHARLES, MO 63303

No.	Date	Revision

DETAILS

Project No. 24057

Sheet No. A503

Date 2026/06/08

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
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SCALE: 1/16" = 1'-0"

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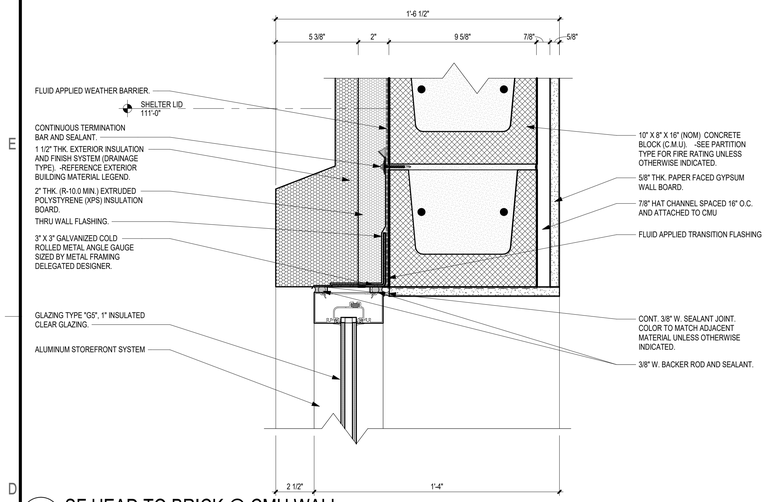
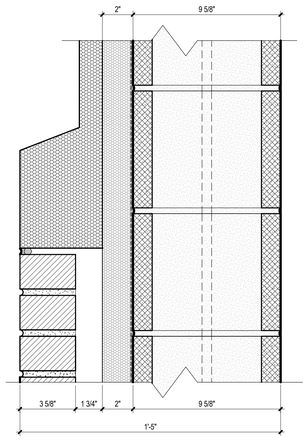


D1 SF HEAD TO BRICK @ CMU WALL
3" = 1'-0"



D4 BRICK TO EIFS @ CMU WALL
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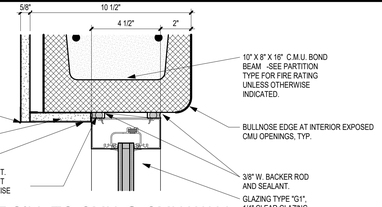
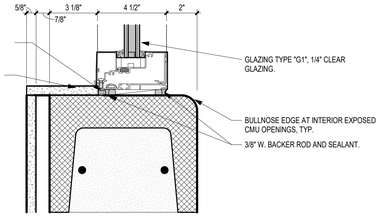


E7 SF SILL TO CMU @ CMU WALL
3" = 1'-0"



D7 CMU TO SF SILL @ CMU WALL
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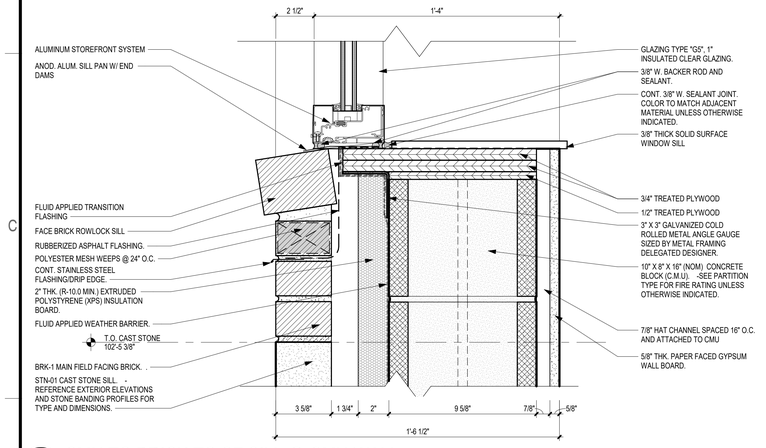
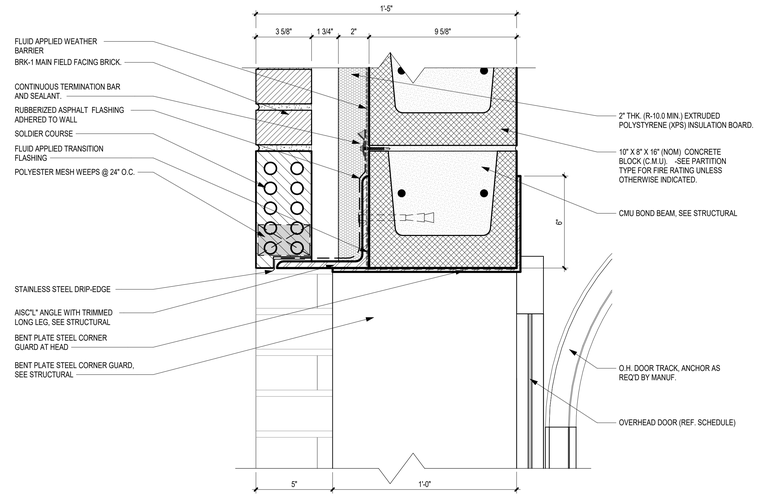
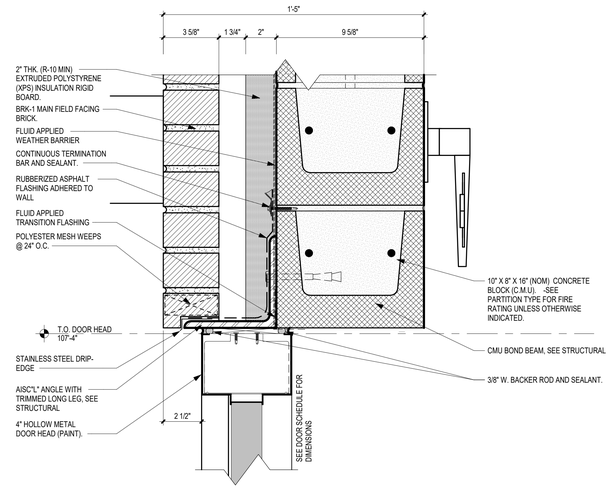


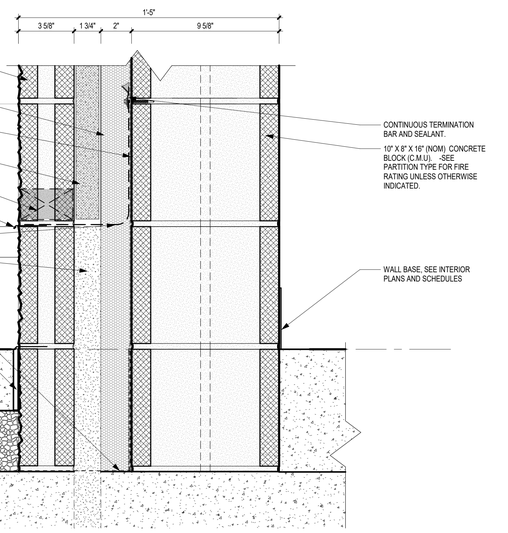
C1 CMU TO BRICK TO SF SILL @ CMU WALL
3" = 1'-0"



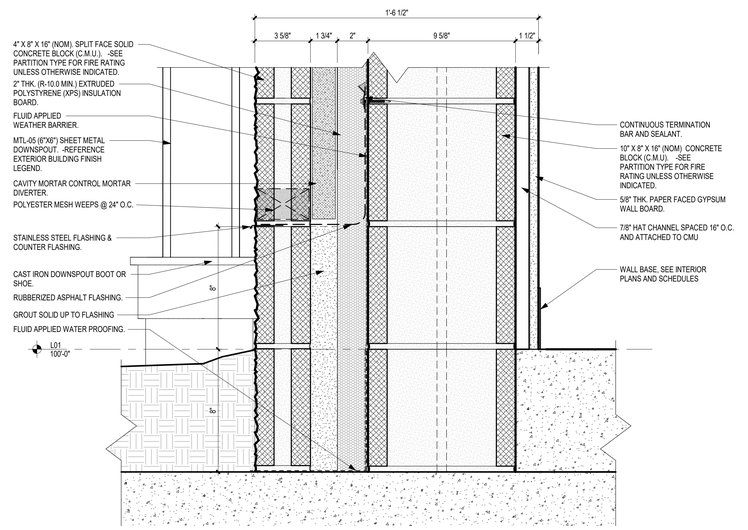
C4 O.H. DOOR HEAD @ CMU WALL
3" = 1'-0"



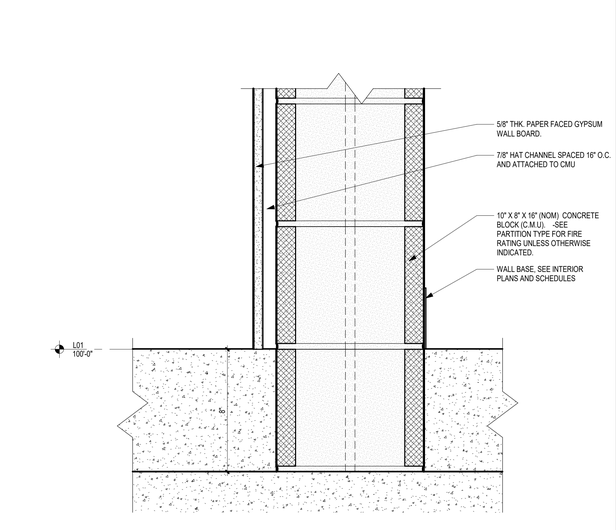
C6 HOLLOW METAL HEAD DETAIL
3" = 1'-0"



A1 CMU TO BRICK @ CMU WALL
3" = 1'-0"



A3 CAST IRON BOOT @ FLOOR
3" = 1'-0"



A6 WALL SECTION APPERATACE BAY @ BASE
3" = 1'-0"

SCALE: 3" = 1'-0" 6 3 0
SCALE: 1 1/2" = 1'-0" 2 1 6 3 0
SCALE: 1" = 1'-0" 2 1 6 0
SCALE: 3/4" = 1'-0" 3 2 1 0
SCALE: 1/2" = 1'-0" 4 2 1 0
SCALE: 3/8" = 1'-0" 4 2 0
SCALE: 1/4" = 1'-0" 8 4 2 0
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SCALE: 3/32" = 1'-0" 24 16 8 0
SCALE: 1/16" = 1'-0" 32 16 8 0

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6/30/2026
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No.	Date	Revision

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Sheet No. A504
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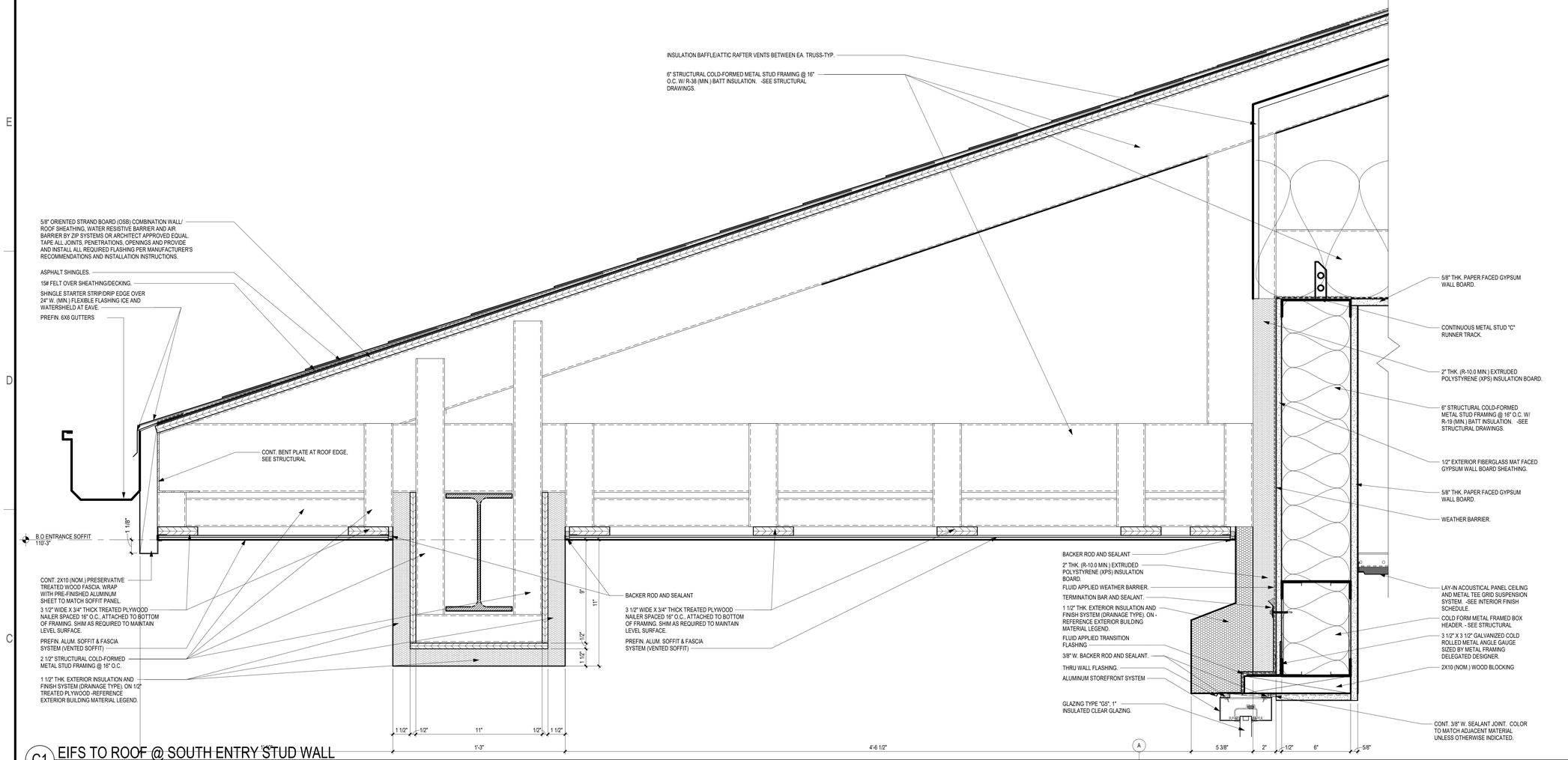
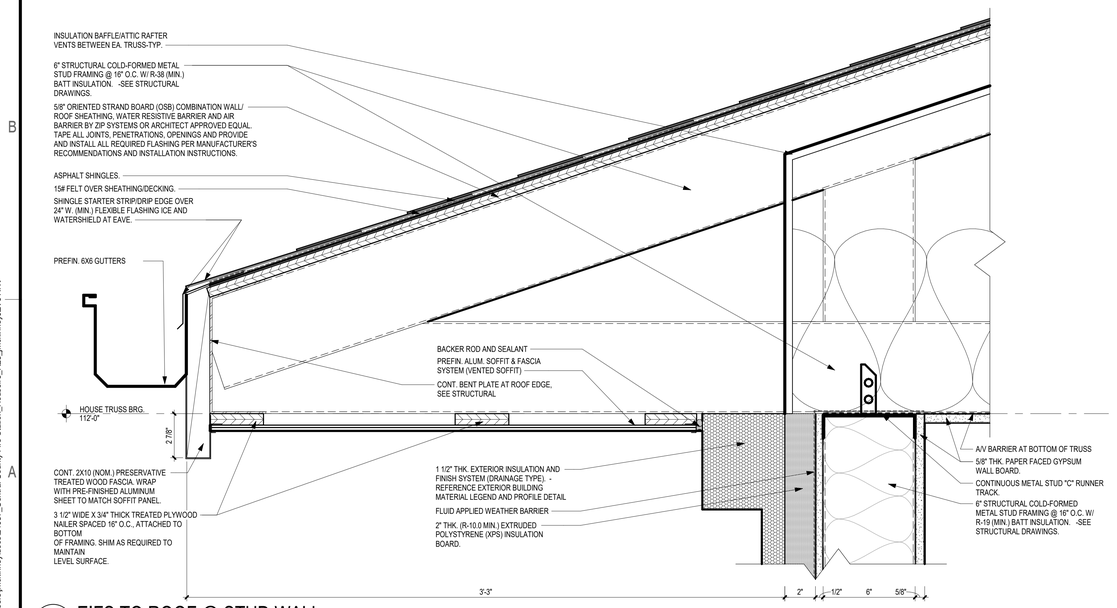
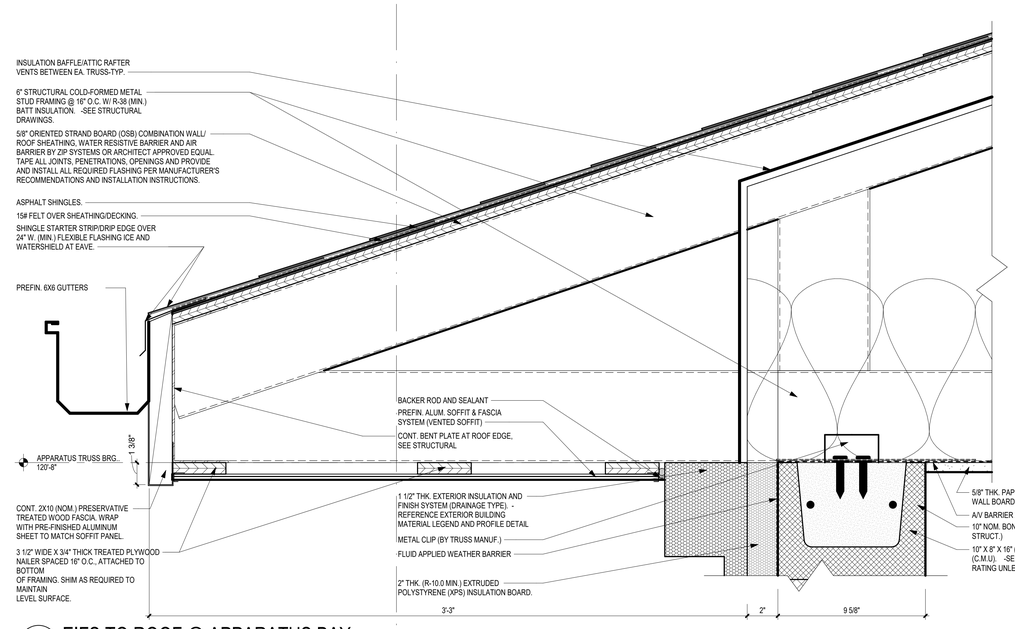


C1 EIFS TO ROOF @ SOUTH ENTRY STUD WALL
3" = 1'-0"



A1 EIFS TO ROOF @ STUD WALL
3" = 1'-0"



A4 EIFS TO ROOF @ APPARATUS BAY
3" = 1'-0"

STATE OF MISSOURI
ROY A. MANGAN
NUMBER A-6661
6/6/2026
ARCHITECT
Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/26

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD
ST. CHARLES, MO 63303

No.	Date	Revision

DETAILS

Project No. 24057
Sheet No. A505
Date 2026/06/08

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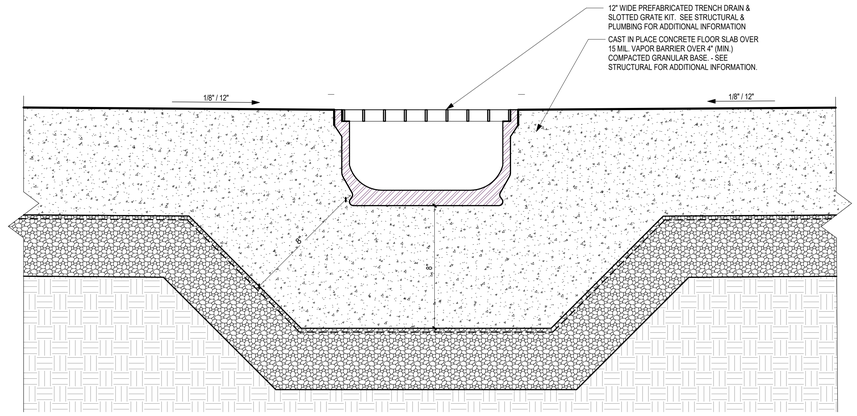
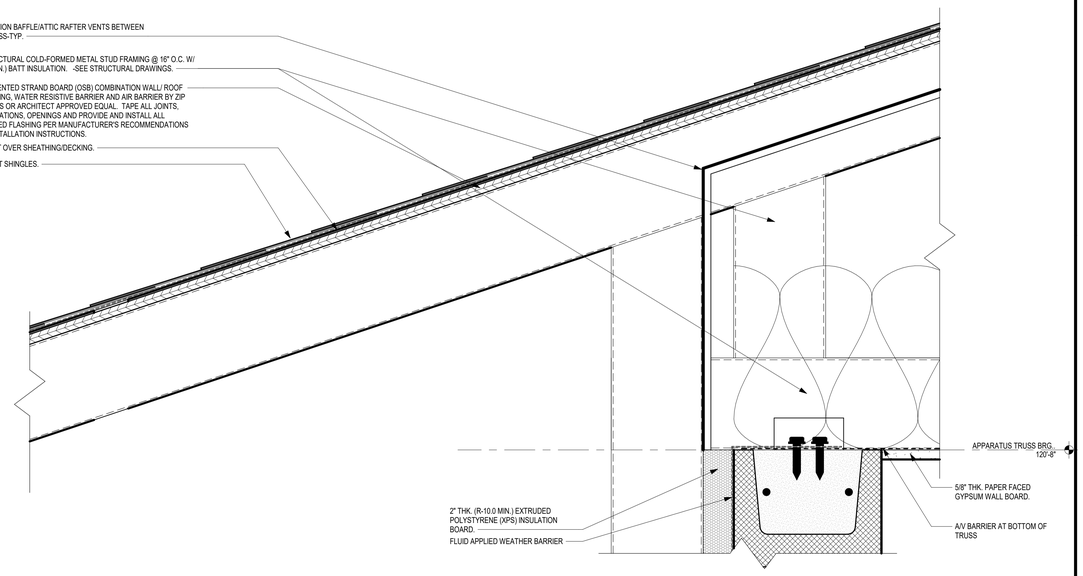
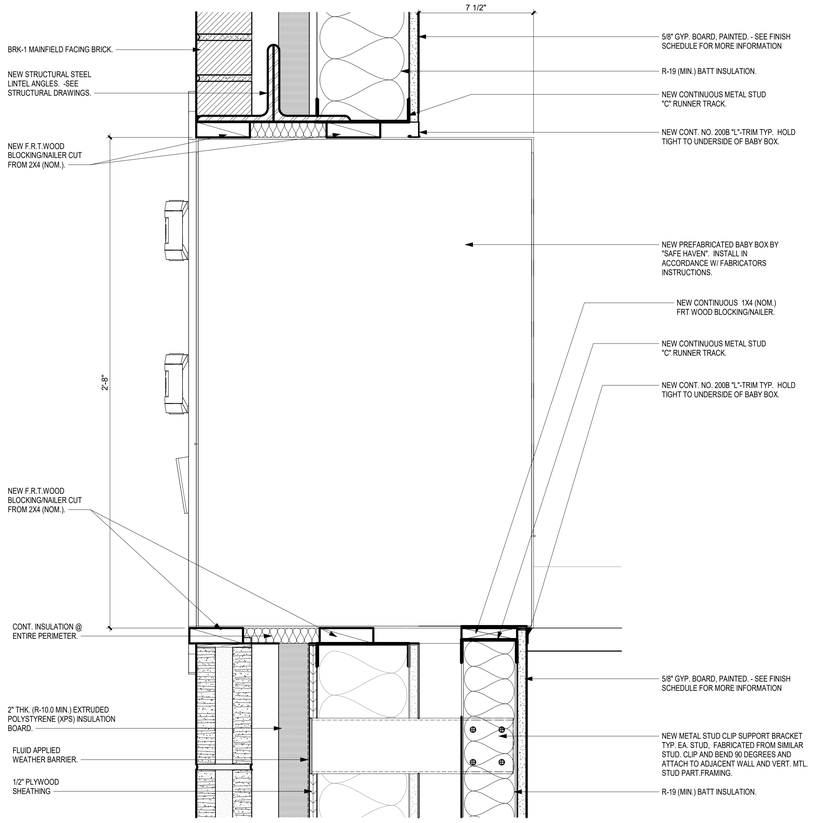


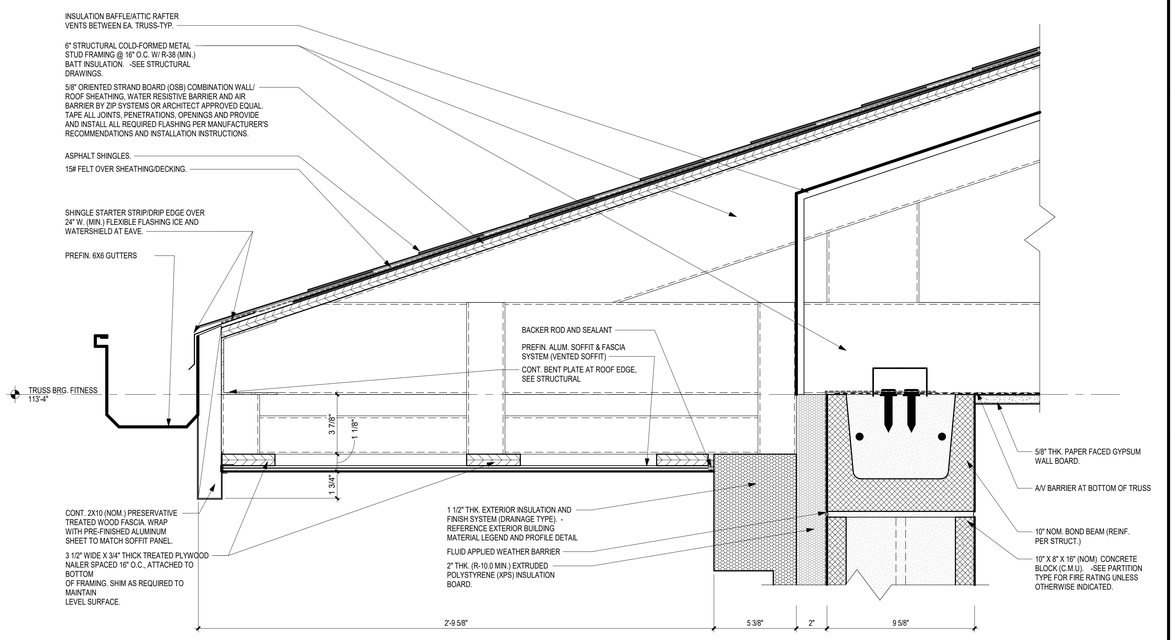
C1 APPARATUS BAY DRAIN DETAIL
3" = 1'-0"



C4 ROOF DETAIL @ CMU APPRTICE BAY WALL
3" = 1'-0"



A1 WALL SECTION @ BABY BOX
3" = 1'-0"



A4 EIFS TO ROOF AT FITNESS WALL
3" = 1'-0"

ROY A. MANGAN
NUMBER A-6661
6/30/2026
Roy A. Mangan
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Expires: 12/31/26

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CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

DETAILS

Project No. 24057
Sheet No. A506
Date 2026/06/08

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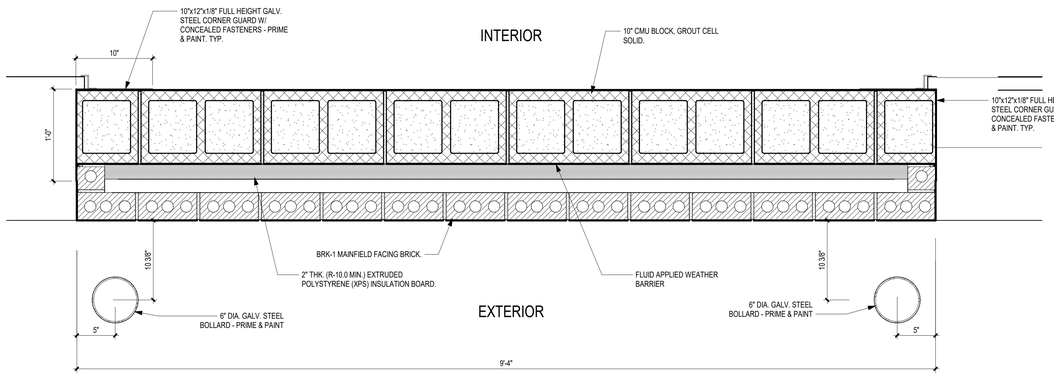
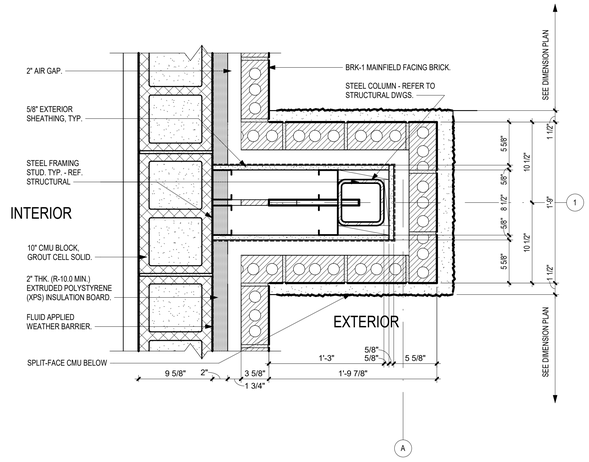
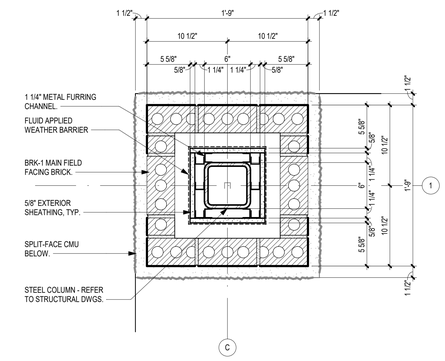


E1 APPARATUS BAY O.H. DOOR JAMB SECTION
1 1/2" = 1'-0"



E5 PLAN DETAIL AT COLUMN
1 1/2" = 1'-0"



E7 PLAN DETAIL AT COLUMN
1 1/2" = 1'-0"

C1 JAMB SECTION AT ALUMINUM DOOR FRAME - BRICK
3" = 1'-0"

C3 JAMB SECTION AT HM DOOR FRAME
3" = 1'-0"

C5 APPARATUS BAY TO HOUSE PLAN SECTION
3" = 1'-0"

C6 PLAN DETAIL AT GENERATOR ENCLOSURE
1 1/2" = 1'-0"

A1 SECTION AT ALUMINUM STOREFRONT JAMB
3" = 1'-0"

A3 ATTIC DOOR THRESHOLD
3" = 1'-0"

A5 JAMB SECTION AT HM DOOR FRAME
3" = 1'-0"

A6 PLAN DETAIL AT GENERATOR ENCLOSURE
1 1/2" = 1'-0"

STATE OF MISSOURI
ROY A. MANGAN
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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

DETAILS

Project No. 24057

Sheet No. A507

Date 2026/06/08

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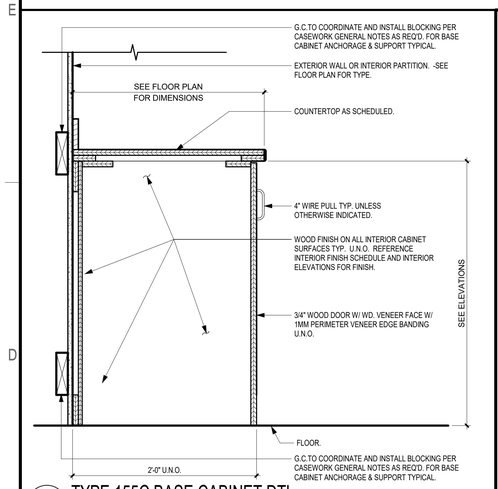
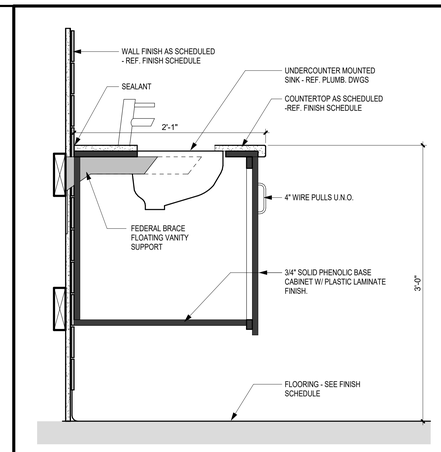
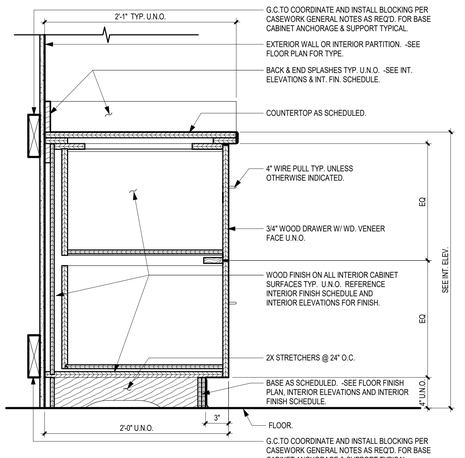


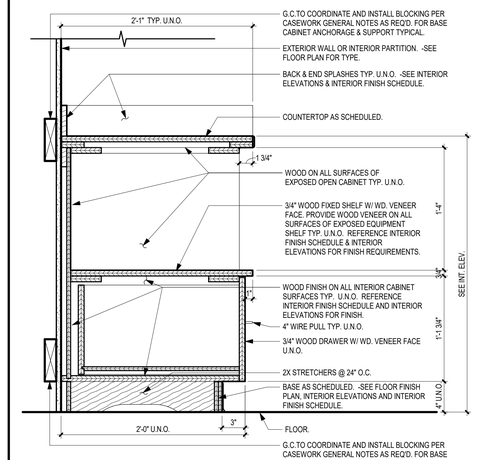
D1 TYPE 155C BASE CABINET DTL
1 1/2" = 1'-0"
CS_155C BASE CABINET DTL



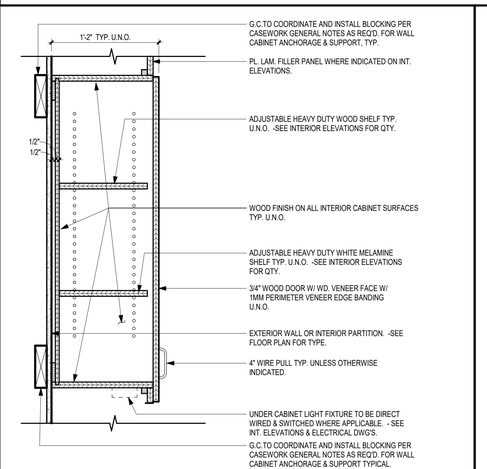
D3 SECTION THRU FLOATING VANITY
1 1/2" = 1'-0"
CS_VB2 FLOATING VANITY DTL



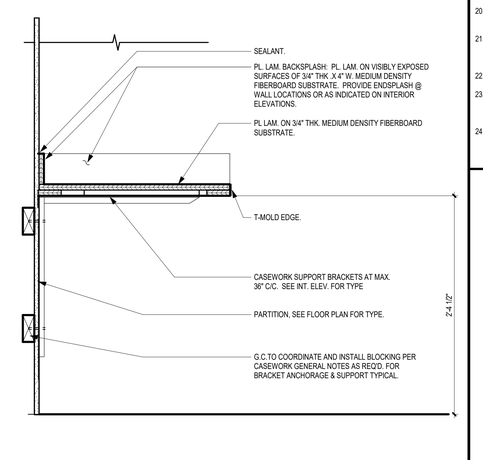
C1 TYPE 220 BASE CABINET DETAIL
1 1/2" = 1'-0"
CS_220 BASE CABINET DTL



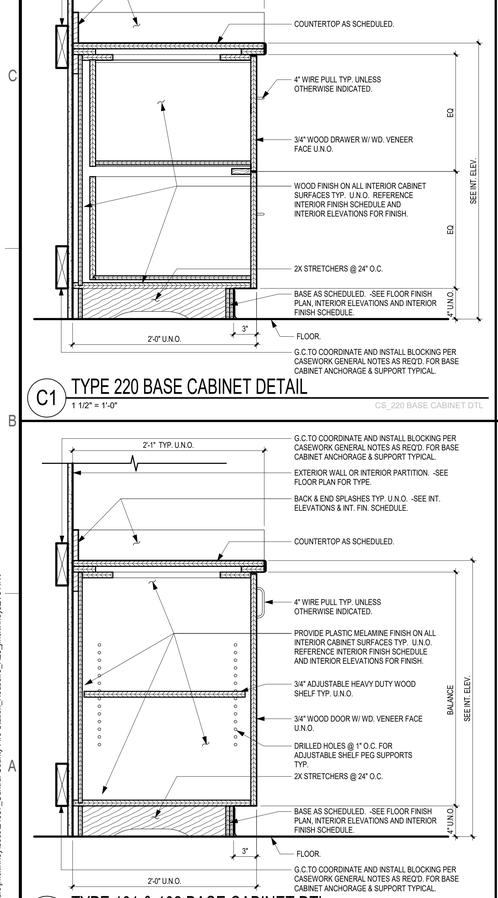
C2 TYPE 252C & 252D BASE CABINET DTL
1 1/2" = 1'-0"
CS_252C 252D BASE CABINET DTL



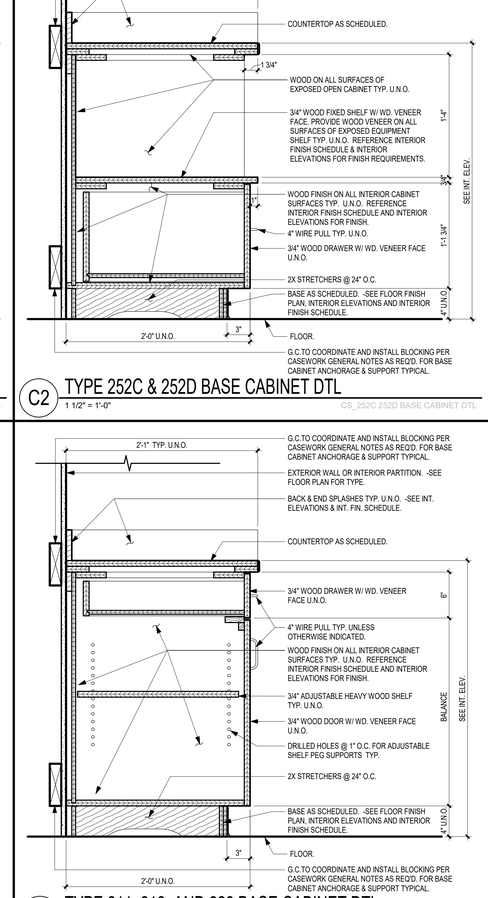
C4 TYPE 301 & 302 WALL CABINET DTL
1 1/2" = 1'-0"
CS_301 302 WALL CABINET DTL



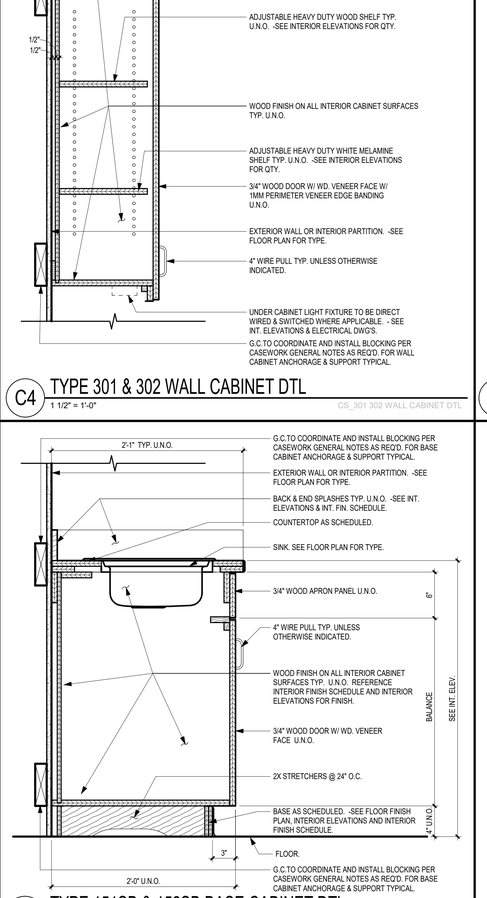
C5 TYP. WALL MOUNTED COUNTERTOP
1 1/2" = 1'-0"
CS_TYP. WALL MTD. COUNTERTOP DTL



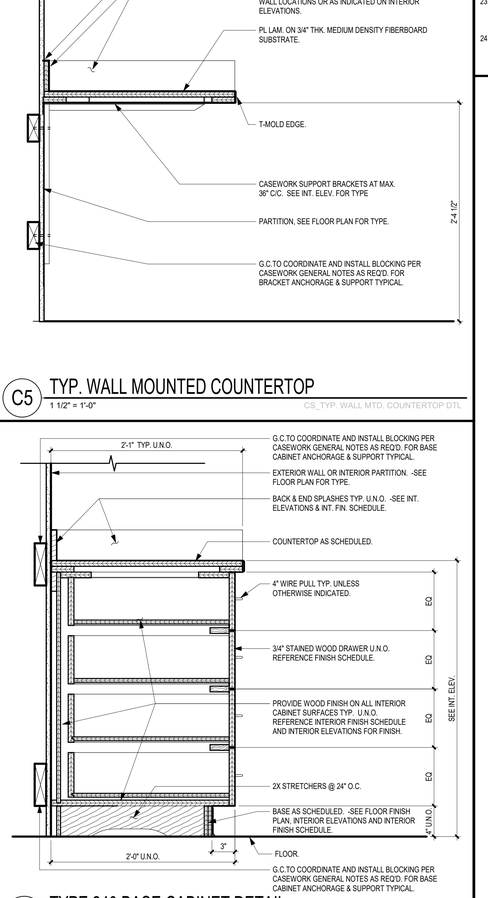
A1 TYPE 101 & 102 BASE CABINET DTL
1 1/2" = 1'-0"
CS_101 102 BASE CABINET DTL



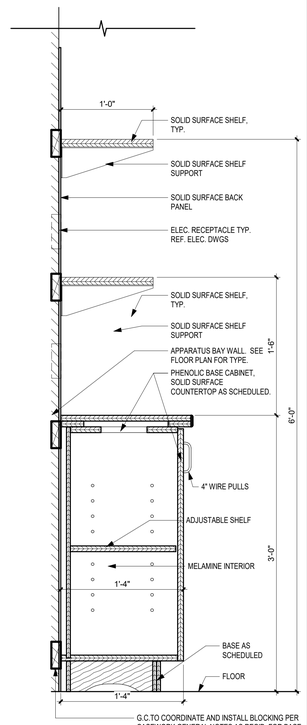
A2 TYPE 211, 212, AND 222 BASE CABINET DTL
1 1/2" = 1'-0"
CS_211 212 222 BASE CABINET DTL



A4 TYPE 151SB & 152SB BASE CABINET DTL
1 1/2" = 1'-0"
CS_151SB 152SB BASE CABINET DTL



A5 TYPE 240 BASE CABINET DETAIL
1 1/2" = 1'-0"
CS_240 BASE CABINET DTL



A7 CHARGING STATION DTL.
1 1/2" = 1'-0"
CS_CHARGING STATION CABINET DTL.

CASEWORK GENERAL NOTES

1. CONTRACTOR TO SUBMIT CASEWORK SHOP DRAWINGS TO DESIGNER FOR APPROVAL PRIOR TO FABRICATION AND ORDERING OF MATERIALS.
2. ALL CASEWORK TO BE CONSTRUCTED PER MOST CURRENT EDITION OF THE NORTH AMERICAN ARCHITECTURAL WOODWORK STANDARDS PREMIUM GRADE, UNLESS NOTED OTHERWISE.
3. ALL COUNTERTOPS TO HAVE A 4" H. BACKSPLASH AND ENDSPLASHES UNLESS INDICATED OTHERWISE (REFERENCE INTERIOR ELEVATIONS). BACK AND ENDSPLASHES TO BE FULLY BEDDED IN (NON-YELLOWING) CLEAR SILICONE SEALANT TO FULLY SEAL ALL PERIMETER JOINTS. CAULK THE BACK AND ENDSPLASHES WITH CLEAR SEALANT ALONG THE ENTIRE TOP EDGE WHERE SPLASHES ADJOIN WALLS.
4. ALL LAMINATE AND VENEER SHALL BE APPLIED TO SUBSTRATE OF NOT LESS THAN 3/4" THICKNESS.
5. ALL EXPOSED EXTERIOR SURFACES OF CASEWORK TO BE PLASTIC LAMINATE UNLESS NOTED OTHERWISE.
6. AT ALL WET LOCATIONS, WHERE PLASTIC LAMINATE IS SPECIFIED, BOTH COUNTERTOP AND BACKSPLASH ARE TO BE MADE OF MOISTURE RESISTANT PARTICLE BOARD.
7. INTERIOR OF ALL CASEWORK TO BE WHITE MELAMINE UNLESS NOTED OTHERWISE. EXCEPTION: CASEWORK WITH OPEN FRONTS OR GLASS DOORS TO HAVE PLASTIC LAMINATE INTERIOR.
8. CONTRACTOR TO PROVIDE, COORDINATE AND INSTALL ALL REQUIRED BLOCKING FOR CASEWORK.
9. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR CASEWORK PRIOR TO FABRICATION.
10. CONTRACTOR TO VERIFY ALL SEALANT COLORS WITH ARCHITECT PRIOR TO ORDERING AND INSTALLATION.
11. CONTRACTOR SHALL DRILL 2 3/8" DIA. HOLES FOR HAFELE 429.93.XXX GROMMETS THRU COUNTERTOPS AT LOCATIONS AS DIRECTED BY THE OWNER/TENANT. PROVIDE GROMMET COVERS TO MATCH COUNTERTOP COLOR. PROVIDE COLOR SAMPLES OF COUNTERTOP FINISH AND COLORED GROMMET TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO ORDERING.
12. CABINET DOOR PULLS TO BE 4" HIGH WIRE PULLS, FINISH TO BE BRUSHED CHROME OR APPROVED EQUAL, UNLESS NOTED OTHERWISE.
13. ALL OUTSIDE CORNERS OF COUNTERTOPS ON PLANS NOT AGAINST AN ADJACENT WALL SHALL HAVE 1-1/2" RADIUS, UNLESS NOTED OTHERWISE.
14. ALL LAMINATE DOORS TO BE FINISHED ON ALL SIDES.
15. ALL COUNTERTOP METAL ANGLE SUPPORT BRACKETS TO BE A&M HARDWARE 21"X21" HYBRID HYB.L.522 W/ BLACK POWDER COATED FINISH (OR APPROVED EQUAL) UNLESS NOTED OTHERWISE.
16. ALL UNDER CABINET LIGHTING SHALL BE CONCEALED FROM FRONT AND FINISHED ENDS. FACE OF FRONT LIGHTRAIL SHALL ALIGN FLUSH WITH FRONT FACE OF CABINET BODY. BOTTOM EDGE OF CABINET FINISHED END PANELS SHALL ALIGN WITH BOTTOM EDGE OF LIGHT RAIL. SEE TYPICAL WALL CABINET DETAIL AS NOTED. NO OFFSET LIGHTRAILS ON FRONT OR ENDS OF CABINETS SHALL BE PERMITTED.
17. ALL OUTSIDE CORNERS OF CABINETS, APRONS, LIGHT RAILS, SINK ENCLOSURE PANELS, ETC. SHALL BE ALIGNED TO FORM A 90 DEGREE ANGLE UNLESS NOTED OTHERWISE. NO OFFSET OR STAGGERED CORNERS SHALL BE PERMITTED.
18. THE MAXIMUM PERMITTED GAP BETWEEN ADJACENT DOOR & DRAWER FRONTS FOR FLUSH OVERLAY CABINETS SHALL NOT EXCEED 1/8" ALL FILE DRAWERS SHALL BE SUPPLIED WITH BUILT-IN ADJUSTABLE HANGING FILE FRAME SYSTEM. INCLUDE (1) REMOVABLE INTERMEDIATE RAIL PER DRAWER FOR CONVERTING FROM LETTER TO LATERAL FILES.
19. ALL FINISHED SIDES OF BASE CABINETS SHALL HAVE VINYL BASE APPLIED TO THEM UNLESS NOTED OTHERWISE.
20. FRONT FACE OF ALL PLASTIC LAMINATE PENCIL DRAWER FRONTS SHALL ALIGN WITH FRONT FACE OF ANY ADJACENT PLASTIC LAMINATE APRON.
21. ALL PLASTIC LAMINATE DOOR AND DRAWERS TO RECEIVE 1MM PVC EDGEBAND AND ALL COUNTERTOPS TO RECEIVE T-MOLD EDGEBAND. REFER TO FINISH SCHEDULE FOR EDGEBAND COLORS.
22. PAINT ALL EXPOSED CLEATS BELOW COUNTERS TO MATCH WALL.
23. WHERE CABINET DOORS SWING AGAINST WALLS, PROVIDE AND INSTALL HINGE RESTRICTOR CLIPS TO PREVENT CABINET HANDLE FROM HITTING WALL WHEN DOOR IS OPENED.
24. WHERE TOP OF WALL CABINETS ARE 18" OR LESS BELOW CEILING, PROVIDE AND INSTALL FILLER PANEL FROM TOP OF CABINETS TO UNDERSIDE OF CEILING. WHERE TOP OF WALL CABINETS ARE GREATER THAN 18" BELOW CEILING, PROVIDE AND INSTALL 30 DEGREE SLOPED PLAM PANEL ON TOP OF WALL CABINETS.

STATE OF MISSOURI
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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

CABINET SECTION DETAILS

Project No. 24057
Sheet No. A521
Date 2026/06/08

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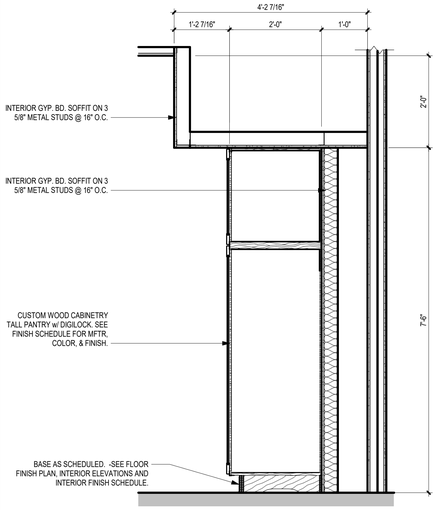
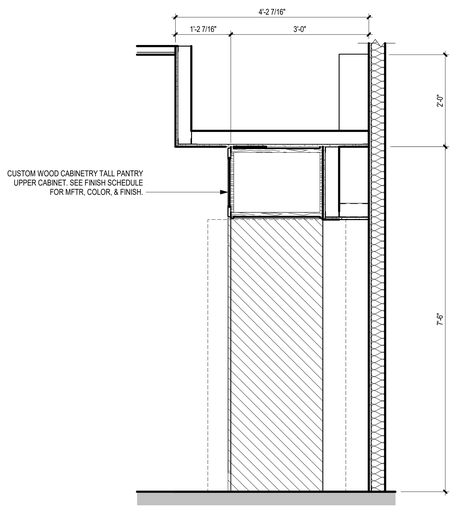
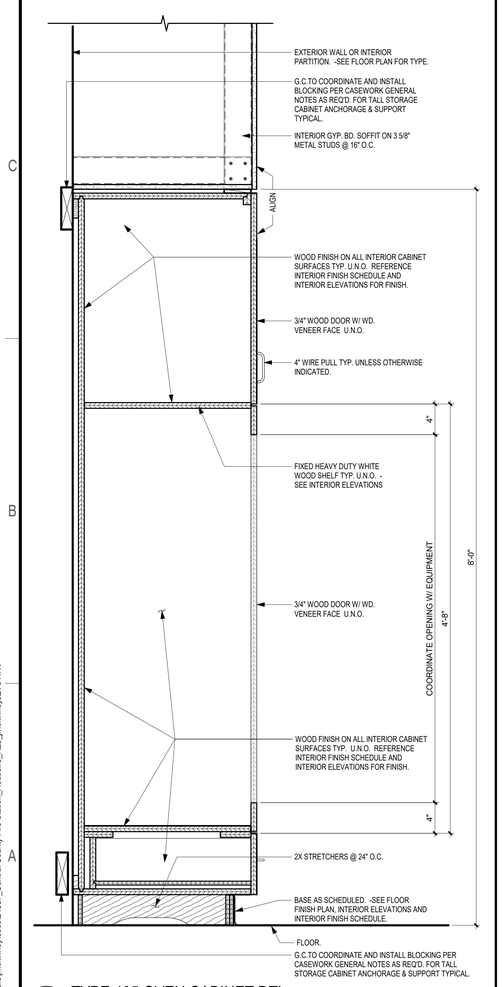


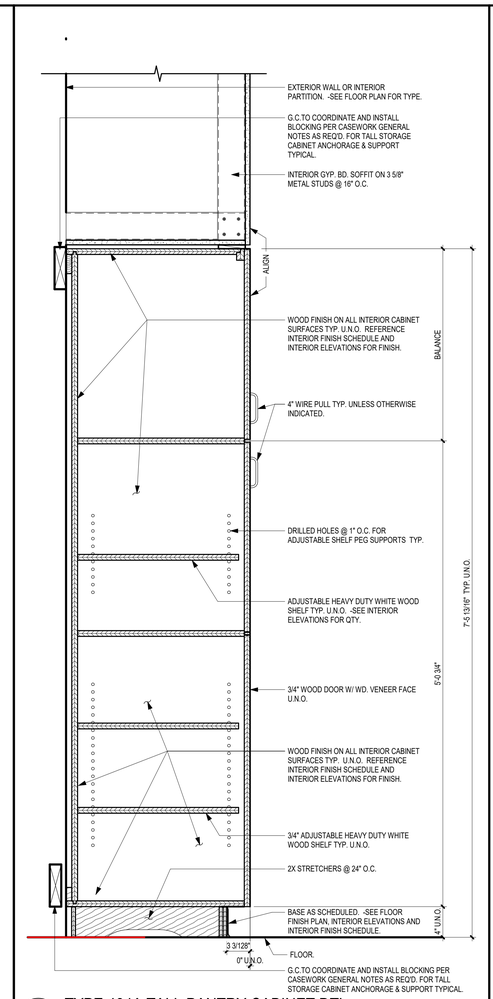
D1 DETAIL AT PANTRY WALL
3/4" = 1'-0"



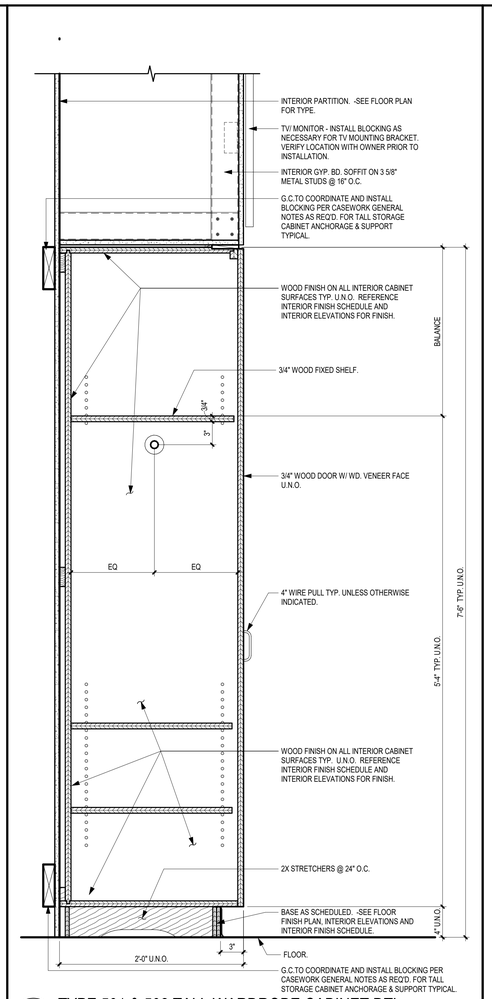
D2 DETAIL AT PANTRY WALL
3/4" = 1'-0"



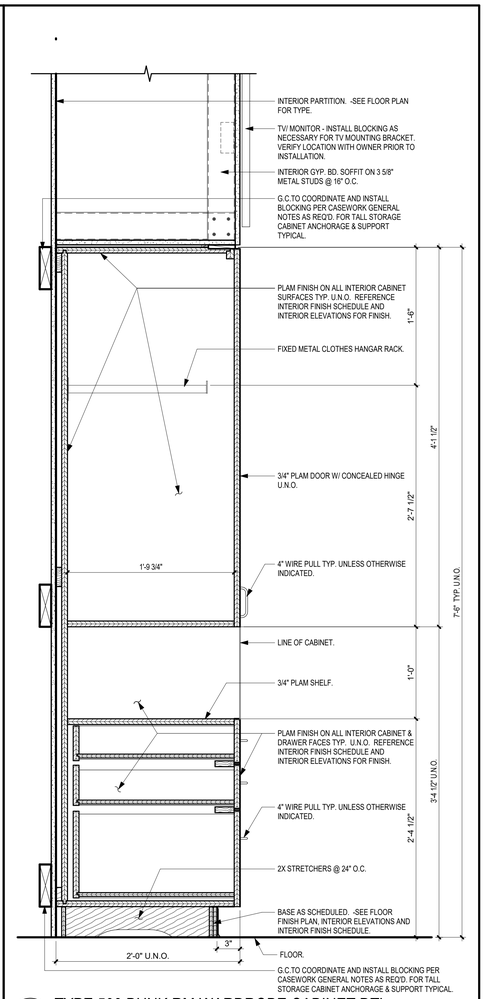
A1 TYPE 405 OVEN CABINET DTL
1 1/2" = 1'-0"
CS_405 OVEN CABINET DTL



A2 TYPE 424A TALL PANTRY CABINET DTL
1 1/2" = 1'-0"
CS_424A TALL CABINET DTL



A4 TYPE 501 & 502 TALL WARDROBE CABINET DTL
1 1/2" = 1'-0"
CS_501 502 TALL WARDROBE CABINET DTL



A5 TYPE 503 BUNK RM WARDROBE CABINET DTL
1 1/2" = 1'-0"
CS_503 TALL BUNK RM WARDROBE CABINET DTL

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

STATE OF MISSOURI
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1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

CABINET SECTION DETAILS

Project No. 24057
Sheet No. A522
Date 2026/06/08

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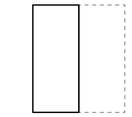

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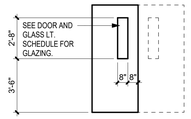
FLUSH S.C. WD. OR H.M. DOOR.
-SEE DOOR SCHEDULE.



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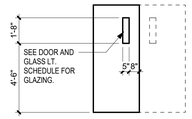
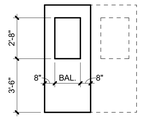
FLUSH S.C. WD. OR H.M. DOOR W/ GL. LT. -
SEE DOOR SCHEDULE.



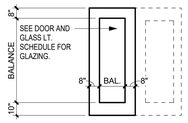
N-2

FLUSH S.C. WD. OR H.M. DOOR W/ GL. LT. -
SEE DOOR SCHEDULE.



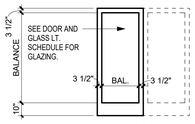
G

FLUSH S.C. WD. OR H.M. DOOR W/ TEMP. GL.
LT. -SEE DOOR SCHEDULE.



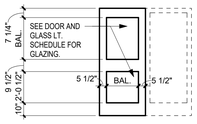
FG1

STILE & RAIL WD. DOOR W/ TEMP. GL.
LT. -SEE DOOR SCHEDULE



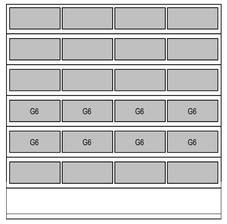
FG3

ALUM. MED. STILE DOOR W/ TEMP. GL.
LT. -SEE DOOR SCHEDULE.



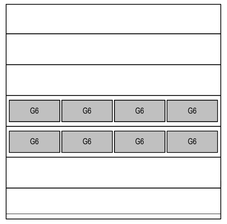
FG4

ALUM. WIDE. STILE DOOR W/ TEMP. GL.
LT. -SEE DOOR SCHEDULE.



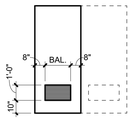
OVERHEAD DOOR A

1/4" = 1'-0"



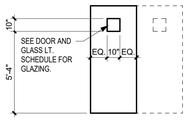
OVERHEAD DOOR B

1/4" = 1'-0"



FL

FLUSH S.C. WD. OR H.M. W/ LOUVER.
-SEE DOOR SCHEDULE.



V

FLUSH S.C. WD. OR H.M. DOOR W/ GL. LT. -
SEE DOOR SCHEDULE.

NOTE:

1. SOME DOOR TYPES MAY NOT BE USED ON THIS PARTICULAR PROJECT.
2. DOORS TO BE 1 3/4" THK. UNLESS OTHERWISE NOTED ON DOOR. SCHEDULE.
3. REFER TO DOOR SCHEDULE FOR GLASS TYPE AND THICKNESS.

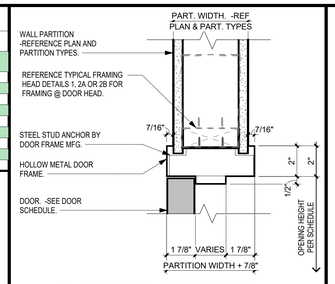
D1 DOOR TYPES ELEVATIONS

1/4" = 1'-0"

08.10.00.01 DOOR TYPES ELEVATION

GLAZING LITE SCHEDULE

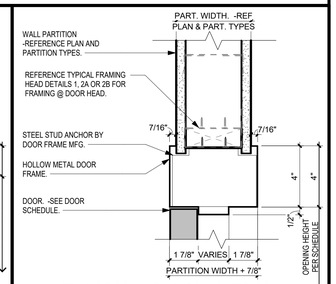
GLAZING TYPE	DESCRIPTION
-NOTE:	NOT ALL GLASS USED IN PROJECT. REFER TO DOOR SCHEDULE & WINDOW FRAME TYPES
G1	1/4" CLEAR GLAZING
G2	1/4" TEMPERED CLEAR GLAZING
G3	1/2" TEMPERED CLEAR GLAZING
G4	3/16" PREMIUM GRADE FIRE RATED GLASS CERAMIC SAFETY GLAZING
G5	1" INSULATED GLAZING
G6	1" TEMPERED INSULATED GLAZING
G7	1" INSULATED SPANDREL GLAZING
G8	1" INSULATED TEMPERED SPANDREL GLAZING
G9	3/4" PREMIUM GRADE 45 MIN. FIRE RATED SAFETY GLAZING



TYICAL HOLLOW METAL FRAME DOOR HEAD DETAIL

C2 3" = 1'-0"

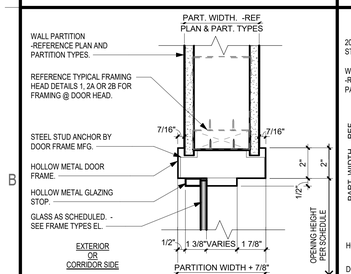
08.11.13.01_LG HM DOOR HEAD DETAIL



TYPICAL HOLLOW METAL FRAME DOOR HEAD DETAIL

C3 3" = 1'-0"

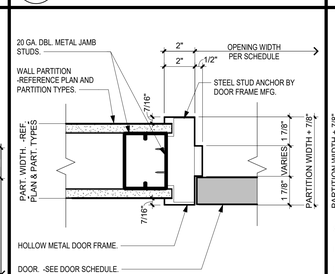
08.11.13.02_LG HM DOOR HEAD DETAIL



TYPICAL HOLLOW METAL FRAME GLAZED HEAD

B1 3" = 1'-0"

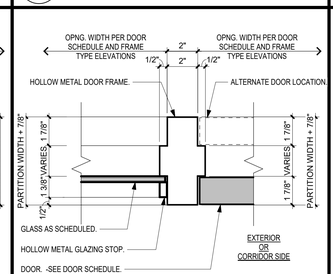
08.11.13.01_LG HM GLAZED HEAD DETAIL



TYPICAL HOLLOW METAL FRAME DOOR JAMB DETAIL

B2 3" = 1'-0"

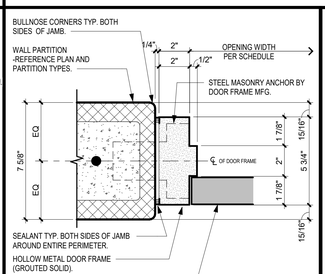
08.11.13.01_LG HM DOOR JAMB DETAIL



TYP. HOLLOW METAL FRAME DOOR JAMB DET. W/ SIDE LT.

B3 3" = 1'-0"

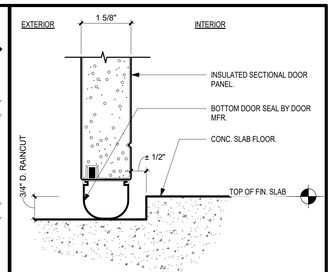
08.11.13.01_LG HM DOOR JAMB DET W SIDELITE



TYPICAL HOLLOW METAL FRAME DOOR JAMB DTL

B4 3" = 1'-0"

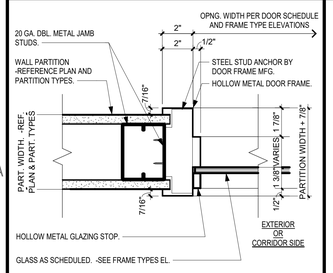
08.11.13.03_LG HM DOOR JAMB DETAIL_CMU



OH DOOR BOTTOM DET.

B5 6" = 1'-0"

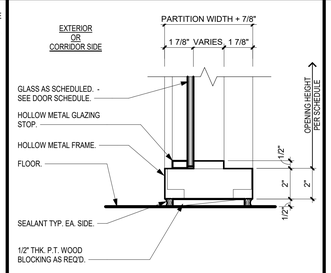
08.36.13..03 OH DOOR BOTTOM DET



TYICAL HOLLOW METAL FRAME GLAZED JAMB DETAIL

A1 3" = 1'-0"

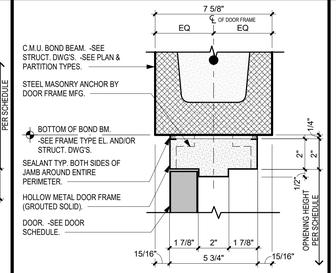
08.11.13.01_LG HM GLAZED JAMB DETAIL



TYPICAL HOLLOW METAL FRAME GLAZED SILL DETAIL

A2 3" = 1'-0"

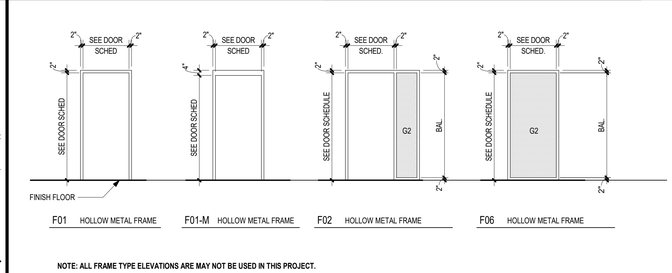
08.11.13.01_LG HM SILL GLAZED DETAIL



TYPICAL HOLLOW METAL FRAME DOOR HEAD DTL

A3 3" = 1'-0"

08.11.13.03_LG HM DOOR HEAD DETAIL_CMU



NOTE: ALL FRAME TYPE ELEVATIONS ARE MAY NOT BE USED IN THIS PROJECT.

HOLLOW METAL FRAME TYPES ELEVATIONS

A4 1/4" = 1'-0"

DOOR SCHEDULE

MARK	PAIR	WIDTH	HEIGHT	THICK	FRAME PROPERTIES						DOOR PROPERTIES				Door:Fire Rating	HARDWARE GROUP	COMMENTS
					FRAME TYPE	FRAME MATERIAL	FRAME FINISH	SIDELIGHT GLAZING	HEAD	JAMB	TYPE	DOOR MATERIAL	DOOR FINISH	DOOR GLAZING			
100		3'-1 1/4"	7'-4"	1 3/4"	Fxx	ALUM	CLR. ANOD.	-	E4/A602	C1/A507	-FG3-	ALUM	CLR. ANOD.	G2			
101		3'-0"	7'-2"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-			
102		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
103		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-			
104		3'-0"	7'-0"	1 3/4"	Fxx	ALUM	CLR. ANOD.	G6	E4/A602	C1/A507	-FG3-	ALUM	CLR. ANOD.	G6			
105A		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-G-	SC WD	Paint	G2			
105B		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	A3/A601	B4/A601	-G-	HM	Paint	G2			
106		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-			
107		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-			
108		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-			
109		3'-0"	7'-0"	1 3/4"	Fxx	ALUM	CLR. ANOD.	G6	E4/A602	C1/A507	-FG3-	ALUM	CLR. ANOD.	G6			
110		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
111		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
112		2'-10 3/4"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
113		2'-10 3/4"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
114		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
115		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	A3/A601	B4/A601	-G-	HM	Paint	G3			
115A		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
116		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
117		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
118		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-	20		
119B		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	C6/A504	A5/A507	-N-1-	HM	Paint	G6			
119C		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	C6/A504	A5/A507	-N-1-	HM	Paint	G2			
119D		14'-0"	14'-0"	1 3/4"	-NONE-	WELDED STEEL	CLR. ANOD.	-	-	-		ALUM	05_METAL+PAINT RED	G6			
119E		14'-0"	14'-0"	1 3/4"	-NONE-	WELDED STEEL	CLR. ANOD.	-	-	-		ALUM	05_METAL+PAINT RED	G6			
119F		14'-0"	14'-0"	1 3/4"	-NONE-	WELDED STEEL	CLR. ANOD.	-	-	-		ALUM	05_METAL+PAINT RED	G6			
119G		14'-0"	14'-0"	1 3/4"	-NONE-	WELDED STEEL	CLR. ANOD.	-	-	-		ALUM	05_METAL+PAINT RED	G6			
120		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	A3/A601	B4/A601	-F-	HM	Paint	-			
121		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	A3/A601	B4/A601	-F-	HM	Paint	-			
122		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	A3/A601	B4/A601	-F-	HM	Paint	-			
123		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-			
124		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-			
125		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	C6/A504	A5/A507	-N-1-	HM	Paint	-			
126																	
127		2'-6"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-F-	SC WD	Paint	-			
129		3'-0"	7'-0"	1 3/4"	F01-M		<By Category>	<By Category>	A3/A601	B4/A601	-F-		<By Category>	<By Category>			
129A		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-G-	SC WD	Paint	G2			
129B		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	A3/A601	B4/A601	-N-1-	HM	Paint	G4	45		
130A		3'-0"	7'-0"	1 3/4"	F01	HM	Paint	-	C2/A601	B2/A601	-G-	SC WD	Paint	G2			
130B		3'-0"	7'-0"	1 3/4"	F01-M	HM	Paint	-	A3/A601	B4/A601	-N-1-	HM	Paint	G4			

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6/30/2026
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Proposed:

CENTRAL COUNTY FIRE & RESCUE - HOUSE #6

1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

DOOR SCHEDULE & DETAILS

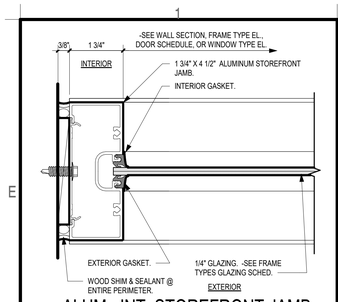
Project No. 24057

Sheet No. A601

Date 2026/06/08

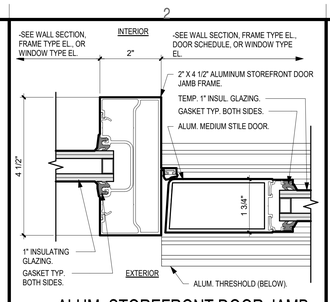
6/16/2026 3:10:03 PM
\\HINGEuser\jmckinney\docs\24057_Central County Fire Station_House#6_R23_jmckinneyJZXGY.rvt

SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"



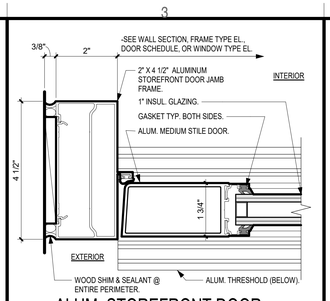
E1 ALUM. INT. STOREFRONT JAMB DET. @ TERMINATING WALL COND

HALF SCALE 08.43.13.08 JAMB TERM



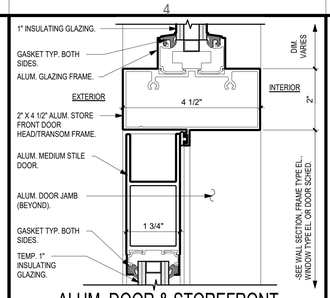
E2 ALUM. STOREFRONT DOOR JAMB DETAIL @ SIDE LITE

HALF SCALE 08.43.13.04A STOREFRONT INSUL DOOR JAMB DET



E3 ALUM. STOREFRONT DOOR JAMB DETAIL @ WALL

08.43.13.05A STOREFRONT TEMP DOOR JAMB DET

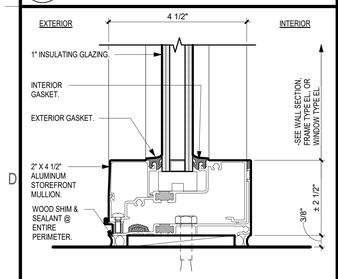


E4 ALUM. DOOR & STOREFRONT TRANSOM DETAIL

HALF SCALE 08.43.13.06A STOREFRONT INSUL DOOR TRANS DET

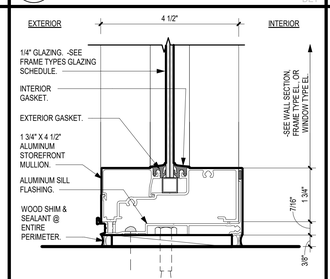
GLAZING LITE SCHEDULE

GLAZING TYPE	DESCRIPTION
-NOTE:	NOT ALL GLASS USED IN PROJECT. REFER TO DOOR SCHEDULE & WINDOW FRAME TYPES
G1	1/4" CLEAR GLAZING
G2	1/4" TEMPERED CLEAR GLAZING
G3	1/2" TEMPERED CLEAR GLAZING
G4	3/16" PREMIUM GRADE FIRE RATED GLASS CERAMIC SAFETY GLAZING
G5	1" INSULATED GLAZING
G6	1" TEMPERED INSULATED GLAZING
G7	1" INSULATED SPANDREL GLAZING
G8	1" INSULATED TEMPERED SPANDREL GLAZING
G9	3/4" PREMIUM GRADE 45 MIN. FIRE RATED SAFETY GLAZING



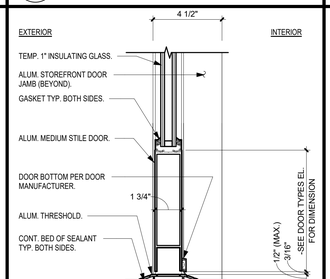
D1 ALUM. STOREFRONT SILL TERMINATION DETAIL

HALF SCALE 08.43.13.10 SILL TERM



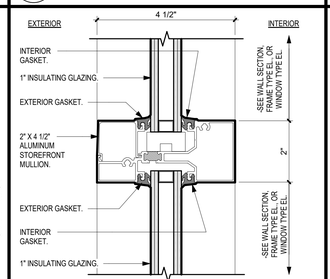
D2 INTERIOR ALUM. STOREFRONT SILL TERMINATION DETAIL

HALF SCALE 08.43.13.10i SILL TERM



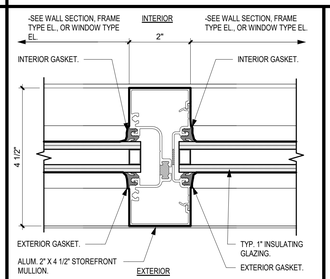
D3 ALUM. STOREFRONT DOOR SILL DETAIL W/ INSULATED GLAZING

3" = 1'-0" 08.43.13.01 DOOR SILL INSULATED GLAZING



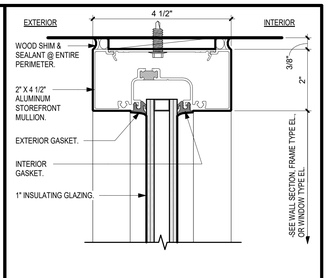
D4 TYP. HORIZONTAL STOREFRONT MULLION DETAIL

HALF SCALE 08.43.13.02 TYP HOR STOREFRONT MULLION



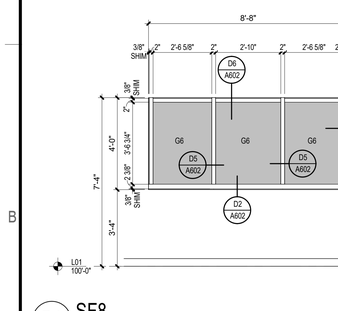
D5 TYP. VERTICAL STOREFRONT MULLION DETAIL

HALF SCALE 08.43.13.03 TYP VERT STOREFRONT MULLION



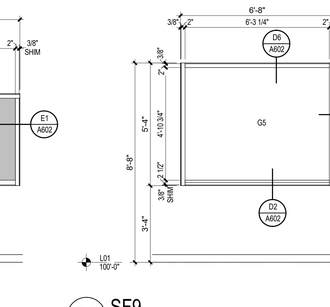
D6 ALUM. STOREFRONT HEAD TERMINATION DETAIL

HALF SCALE 08.43.13.08 HEAD TERM



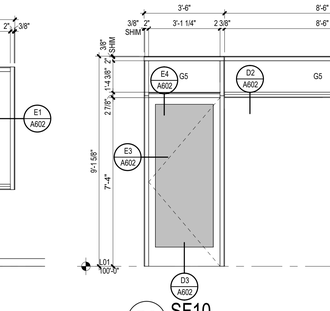
B1 SF8

3/8" = 1'-0"



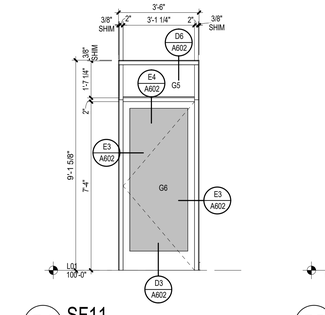
B2 SF9

3/8" = 1'-0"



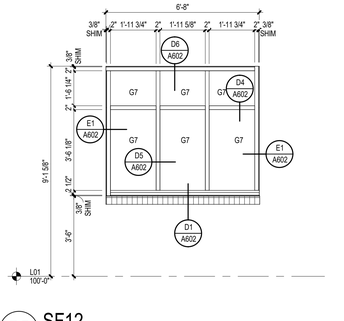
B3 SF10

3/8" = 1'-0"



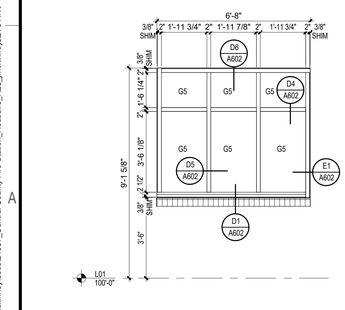
B4 SF11

3/8" = 1'-0"



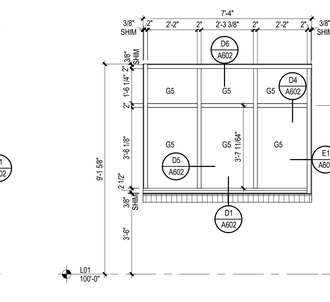
B5 SF12

3/8" = 1'-0"



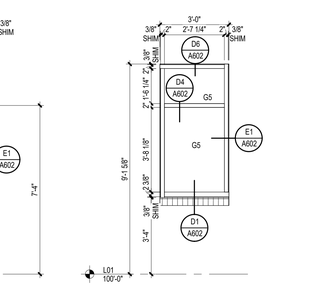
A1 SF1

3/8" = 1'-0"



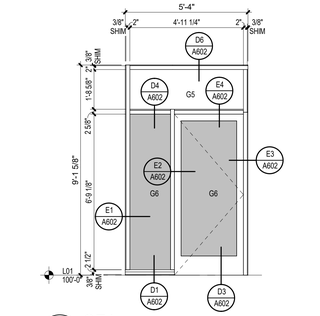
A2 SF2

3/8" = 1'-0"



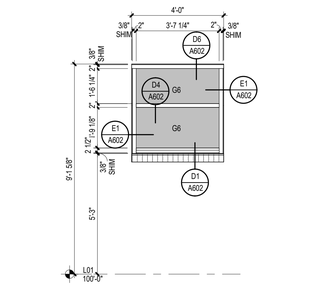
A3 SF3

3/8" = 1'-0"



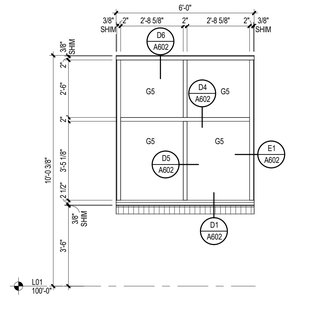
A4 SF4

3/8" = 1'-0"



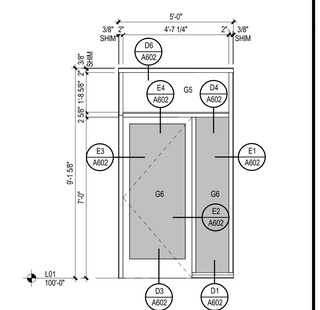
A5 SF5

3/8" = 1'-0"



A6 SF6

3/8" = 1'-0"



A7 SF7

3/8" = 1'-0"

SCALE: 1" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 3/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/16" = 1'-0"

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Proposed:

CENTRAL COUNTY FIRE & RESCUE - HOUSE #6

1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

STOREFRONT ELEVATIONS

Project No. 24057

Sheet No. A602

Date 2026/06/08

FURNITURE SCHEDULE

MARK	DESCRIPTION	SUPPLY/INSTALL BY
F1	BUNK ROOM DESK	O/O
F2	TASK CHAIR	O/O
F3	NIGHT STAND TABLE	O/O
F4	RECLINER CHAIR	O/O
F5	STACKING SIDE CHAIR NO ARMS	O/O
F6	60" RECTANGULAR KITCHEN TABLE	O/O
F7	MURPHY BED	O/O
F8	OFFICE CHAIR	O/O
F9	SIDE TABLE	O/O

EQUIPMENT SCHEDULE

EQPT TYPE MARK	TAG	QTY	EQUIPMENT
EQ01		1	WASHER / DRYER SIDE BY SIDE
EQ02		1	BABY BOX
EQ03		1	DOUBLE OVEN
EQ04		1	GAS COOKTOP RANGE
EQ05		1	RANGE HOOD
EQ06		1	Item # 0221457J000
EQ07		3	REFRIGERATOR
EQ08		1	EXTRACTOR
EQ09		1	STACKABLE WASHER/DRYER
EQ010		1	SCBA BOTTLE FILL COMPRESSOR
EQ011		1	SCBA TANK STORAGE
EQ012		1	ROLLING TOOLBOX
EQ013		1	WORK BENCH
EQ014		1	STAIR STEPPER BY OWNER
EQ015		2	TREADMILL BY OWNER
EQ016		1	WEIGHT BENCH PRESS
EQ017		1	DUMBELL WEIGHT RACK
EQ018		1	ICE BIN (500 LBS)
EQ019		1	ICE MAKER - (556 LBS) CRESCENT CUBER
EQ020		24	FIRE GEAR STORAGE RACK
EQ021		1	MICROWAVE
EQ022		2	55" FLAT PANEL (TV) ALERT
EQ023		1	TRASH CAN BY OWNER
EQ024		1	COFFEE MAKE BY OWNER
EQ025		18	METAL LOCKERS (SINGLE TIER)

A1 EQUIPMENT & FURNITURE PLAN
1/8" = 1'-0"

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ROY A. MANGAN
NUMBER A-6661
6/30/2026
ARCHITECT
STATE OF MISSOURI

Roy A. Mangan
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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST. CHARLES, MO 63303

No.	Date	Revision

EQUIPMENT & FURNITURE PLAN

Project No. 24057
Sheet No. A701
Date 2026/06/08

INTERIOR FINISH SCHEDULE

ACOUSTICAL CEILINGS

ACT1	ACOUSTICAL CEILING TILES - FIELD MFGR: ARMSTRONG PATTERN: DUNE SECOND LOOK II ANGLED TEGULAR MODEL: 2712 SIZE: 2'-0" X 4'-0", 15/16" GRID COLOR: WHITE CONTACT: ELIZABETH MOON 816.216.2890

BASE

B1	VINYL BASE - FIELD MFGR: TARKETT JOHNSONITE STYLE/SIZE: 4" HIGH COVE PROFILE, 1/8" GAUGE, 4'-0" LENGTHS COLOR: 63 BURNT UMBER

CARPET

CP1	CARPET - ENTRY WALK OFF - VESTIBULE MFGR: TARKETT PATTERN: ASSERTIVE STRIA #04839 COLOR: 26202 STEELWORK, SIZE: 24"x24" INSTALL METHOD: VERTICAL ASHLAR CONTACT: AMY ELLIS 314.348.7677
CP2	CARPET - BUNK & DAY ROOM MFGR: MOHAWK PATTERN: CONCRETE BLOOM GT363 COLOR: 868 WILDWOOD DARK, SIZE: 13'x36" INSTALL METHOD: BRICK ASHLAR, BACKING: STANDARD WITH ECOFLEX ONE CONTACT: MEGAN CAMPOS 557.222.8948

EPOXY RESIN FLOORING

ERF	EPOXY RESIN FLOORING & 4" INTEGRAL COVE BASE - LOCKER RMS MFGR: TORGINOL SEAMLESS RESIN-BASED FLOORING SYSTEM POLYMER FLAKE OR APPROVED EQUAL STYLE: HYBRID FLOORING STONE SERIES COLOR #FB-4104-HYB CUSTOM BLEND TURQUOISE WITH REPLACING TURQUOISE CHIPS WITH INDIGO BLACK SW7602. FLAKE SIZES MIX OF 1/8" & 1/16", PROVIDE EXTRA COAT CLEAR SEALER NOTE: SHOWER FLOORS ONLY TO HAVE NON SKID ADDITIVE (FINE) CONTACT: JASON STEPHANI MISSOURI TERRAZZO 314.361.8090 NOTE: PROVIDE MOCKUP PANELS FOR COLOR & TEXTURE & APPROVAL FOR SHOWER FLOORS. CLEAR TOPCOAT.

FIBERGLASS REINFORCED PANELS

FRP	FRP PANELS MFGR: CRANE COMPOSITES STYLE: GLASBORD W/SURFASEAL: PEBBLE EMBOSSED TEXTURE COLOR: 48 PEARL GRAY, SIZE: 4'X10' SHEET, CLASS A, GAUGE: 0.09" INCLUDE ALL TRIM CAPS & CORNER BEADS.

GROUT

GT1	WALL GROUT MFGR: MAPEI STYLE: KERAPOXY CQ COLOR: 5093 WARM GRAY NOTE: KNIFE GROUT JOINT
GT2	FLOOR GROUT MFGR: MAPEI STYLE: KERAPOXY CQ COLOR: 5047 CHARCOAL NOTE: KNIFE GROUT JOINT

PAINT

P1	PAINT – WALLS – FIELD COLOR MFGR: SHERWIN WILLIAMS FINISH: PROMAR ZERO VOC, EGGSHELL COLOR: SW7016 MINDFUL GRAY
P2	PAINT – HM DOORS & DOOR FRAMES INDICATED AS "PAINT" ON DOOR SCHEDULE MFGR: SHERWIN WILLIAMS SERIES: PRECATALYZED WATERBASED EPOXY SINGLE COMPONENT FINISH: SEMI GLOSS COLOR: 7069 IRON ORE
P3	PAINT – GYP. CEILINGS MFGR: SHERWIN WILLIAMS FINISH: PROMAR ZERO VOC, FLAT FINISH COLOR: SW7005 PURE WHITE
P4	PAINT – WALLS – ACCENT COLOR MFGR: SHERWIN WILLIAMS FINISH: PROMAR ZERO VOC, EGGSHELL COLOR: SW7602 INDIGO BATIK
P5	PAINT – WALLS – ACCENT COLOR FITNESS MFGR: SHERWIN WILLIAMS FINISH: PROMAR ZERO VOC, EGGSHELL COLOR: SW6594 POINTSETTIA
P6	PAINT – WALLS – ACCENT COLOR DAY ROOM MFGR: SHERWIN WILLIAMS FINISH: PROMAR ZERO VOC, EGGSHELL COLOR: SW7075 WEB GRAY
P7	PAINT – APP. BAY WALLS MFGR: SHERWIN WILLIAMS SERIES: EPOXY, FINISH: SEMI GLOSS COLOR: SW7016 MINDFUL GRAY NOTE ALL WALLS WITH EXPOSED CMU BLOCK TO HAVE BLOCK FILLER & PRIMED PRIOR TO PAINTING
P8	PAINT – APP. BAY CEILINGS MFGR: SHERWIN WILLIAMS SERIES: DRYFALL, FINISH: EGGSHEL COLOR: SW7005 PURE WHITE
P9	PAINT – GYP BD. CEILINGS TOILET ROOMS MFGR: SHERWIN WILLIAMS FINISH: WATER BASED EPOXY, EGGSHELL COLOR: SW7005 PURE WHITE
P10	PAINT – SAFETY STRIPES & COLUMNS MFGR: SHERWIN WILLIAMS SERIES: GENERAL POLYMERS SERIES:4644 PACECOTE POLYASPARTIC TOPCOAT COLOR: CUSTOM MATCH SW6911 CONFIDENT YELLOW STRIPES LOCATIONS PER OWNER DIRECTION

PLASTIC LAMINATE

PL1	PLASTIC LAMINATE – VERTICAL DOORS & DRAWERS & WARDROBE MFGR: WILSONART TRACELESS STYLE: SMOKY VELVET ELM #15604-31 VERTICAL GRAIN DIRECTION INCLUDE MATCHING 1MM PVC EDGEBANDING NOTE PROVIDE SOFT CLOSER ALL DOORS AND DRAWERS
PL2	PLASTIC LAMINATE – COUNTERTOPS MFGR: FORMICA HPL STYLE: 9527-58 BLACK SHALESTONE MATTE TEXTURE INCLUDE MATCHING 3MM PVC EDGEBANDING
PL3	PLASTIC LAMINATE – DAY ROOM CABINETS MFGR: FORMICA DECOMETAL COLLECTION STYLE: 4254 BRUSHED BLACK ALUMINUM VERTICAL GRAIN DIRECTION NOTE PROVIDE SOFT CLOSER ALL DOORS AND DRAWERS
PL4	PLASTIC LAMINATE – OFFICE DOORS & DRAWERS MFGR: FORMICA STYLE: 9283-NG WALNUT RIFTWOOD, NATURAL GRAIN TEXTURE VERTICAL GRAIN DIRECTION NOTE PROVIDE SOFT CLOSER ALL DOORS AND DRAWERS
PL5	PLASTIC LAMINATE – COUNTERTOPS MFGR: WILSONART HPL STYLE: 4878-38 PEWTER MESH, FINE VELVET FINISH INCLUDE MATCHING 3MM PVC EDGEBANDING
PL6	PLASTIC LAMINATE – FLOATING VANITIES MFGR: FORMICA COMPACT STYLE: 9527-58 BLACK SHALESTONE BLACK CORE PHENOLIC GAUGE: 3/4" NOTE PROVIDE SOFT CLOSER ALL DOORS AND DRAWERS

PORCELAIN TILE

PT1	PORCELAIN TILE - TOILET ROOMS WALLS STYLE: VIRGINIA TILE LANDMARK CERAMICS STYLE: MILESTONE, COLOR: NORTH WHITE SIZE: 12X24". INSTALL HORIZ. STACK BOND W/KNIFE JOINTS. NO CUTTERS LESS THAN 3", INSTALL WITH GROUT GT1 & SCHLUTER TRIM ALL PERIMETER EDGES. CONTACT: JILL PATTERSON 314-208-7962
PT2	PORCELAIN TILE - ADA TOILET RM FLOOR STYLE: VIRGINIA TILE LANDMARK CERAMICS STYLE: MILESTONE, COLOR: WEST BLACK SIZE: 12X24". INSTALL STACK BOND W/KNIFE JOINTS. INCLUDE CRACK ISOLATION MEMBRANE ALL CONTROL JOINTS, NO CUTTERS LESS THAN 3". INSTALL WITH GROUT GT2 & SCHLUTER TRIM ALL PERIMETER EDGES, BASE ON WALLS WITHOUT WAINSCOT: CUT TILE 4"HX24" CAP WITH SCHLUTER TRIM. CONTACT: JILL PATTERSON 314-208-7962
PT3	PORCELAIN TILE - MOSAIC KITCHEN BACKSPLASH, TOILET RM ACCENT STYLE: DAL TILE STYLE: IRONWORKS IC17 COLOR: GREY BLACK BLEND INSTALL HORIZ. WITH GROUT GT1 & SCHLUTER TRIM ALL PERIMETER EDGES. CONTACT: TABETHA CURRY 314.687.3960

SEALED CONCRETE

SC	SEALED CONCRETE FLOOR WITH DENSIFIERS REFER TO ARCHITECTURAL SPECIFICATIONS

SOLID SURFACE

SDS1	SOLID SURFACE - COUNTERTOPS KITCHEN MFGR: CAMBRIA COLOR: DELGATIE, GAUGE:3 CM, EASED EDGES, MITRE CORNERS NOTE: KITCHEN SUBMOUNT STAINLESS SINK, PROVIDE KITCHEN SINK CUTOUTS TO OWNER FOR CUTTING BOARDS-FINISH EDGES SMOOTH. VANITY SUBMOUNT WHITE PORCELIAN SINK. PROVIDE SEAMING DIAGRAM TO DESIGNER FOR APPROVAL. CONTACT: AUSTIN RYAN 314-324-2143
SDS2	SOLID SURFACE - SHOWER WALL SURROUNDS & WINDOW SILLS MFGR: WILSONDART COLOR: WHITE STONE 9208CS, GAUGE:1/2", EASED EDGES NOTE: JOINT ADHESIVE-BUTT-SEAM PANELS, PROVIDE SEAMING DIAGRAM TO DESIGNER FOR APPROVAL. INCLUDE FUTRUS SOLID SURFACE SHOWER ACCESSORY INFINITY CORNER SOAP DISH MODEL# FISOAP, COLOR: CAMEO WHITE. INSTALL HEIGHT: TBD. FOLLOW ALL MANUFAC. GUIDELINES FOR INSTALLING WET LOCATION VERTICAL PANELS.

SPECIALTY FINISH

SPF1	SPECIALTY FINISH - CUSTOM VINYL WALL APPLIQUE FITNESS MFGR: INFINITE OPTIKS QUALITY GLASS STYLE: CUSTOM DIGITALLY PRINTED DESIGN, MULTI COLOR SEE ELEVATIONS; MULTI-COLOR CUSTOM DESIGNS TO BE DETERMINED BY ARCHITECT. WALL TO BE FINISHED TO LEVEL 5 FINISH PRIOR TO INSTALL. CONTACT: KELLY FORD 636.391.3888
SPF2	SPECIALTY FINISH - ACOUSTICAL WALL PANELS DAY ROOM MFGR: AKUPANEL COLOR: SMOKED OAK, VERTICAL SLATS, BLACK PET BACKED FOLLOW ALL MANUFACTURER'S INSTALL INSTRUCTIONS CONTACT: ERIN FERNANDES 314-276-2196
SPF3	SPECIALITY FINISH - CUSTOM VINYL GLASS APPLIQUE - VESTIBULE ADDRESS NUMBERS MFGR: INFINITE OPTIKS QUALITY GLASS STYLE: 8"H WHITE OPAQUE VINYL APPLIQUE, FONT: HELVETTICA BOLD. CONFIRM NUMBERS WITH OWNER. CENTER ON GLASS TRANSOM WINDOW TO BE LEGIBLE FROM THE STREET. PROVIDE MOCKUP FOR APPROVAL. CONTACT: KELLY FORD 314.495.5676
SPF4	SPECIALITY FINISH - TEMPERED MIRROR PANELS FITNESS, OUTSIDE EDGES POLISHED. BUTT SEAM PANELS & SECURELY MOUNT TO WALLS, REFER TO ELEVATIONS
SPF5	SPECIALITY FINISH – BLACKOUT WINDOW FILM - DAY RM COLOR: BLACK. SOLYX SXWR-BLACKOUT, #1204 MFGR: INFINITE OPTIKS QUALITY GLASS CONTACT: KELLY FORD 314.495.5676

SPORTS FLOOR

SP1	SPORTS FLOOR FITNESS ECORE EVERLAST GAUGE: 8MM, ROLL GOODS, 4'-0"W X 50 LINEAR FEET COLOR: RIPPIN' RED/GRAY EL06, 0-15% COLOR

STAINLESS STEEL PANEL

SST	STAINLESS STEEL BACKSPLASH- BEHIND KITCHEN RANGE MFGR: INPRO OR APPROVED EQUAL SIZE: 48"X96" PANEL NOTE: FIELD VERIFY DIMENSION TO MATCH RANGE/HOOD WIDTH, CUT IN FIELD 20 GAUGE, BRUSHED #4 FINISH

TRANSITIONS/FLOORING ACCESSORIES

TR1	TRANSITION PORCELAIN TILE PERIMETER EDGES MFGR: SCHLUTER PATTERN: SCHIENE. NOTE SIZES VARY FOR FLOOR & WALLS COLOR: SATIN ANODIZED ALUMINUM
TR2	TRANSITION - CARPET TO ERF MFGR: JOHNSONITE SLIMLINE PATTERN: SLT-63-J COLOR: BURNT UMBER
TR3	TRANSITION - CARPET TO CONCRETE MFGR: JOHNSONITE PATTERN: CTA-63-J COLOR: BURNT UMBER
TR4	TRANSITION PORCELAIN TILE TO ERF MFGR: SCHLUTER PATTERN: RENO SLOPED COLOR: SATIN ANODIZED ALUMINUM
TR5	TRANSITION - SPORTS FLOOR TO CONCRETE MFGR: JOHNSONITE PATTERN: CTA-63-P COLOR: BURNT UMBER FLOORING CONTRACTOR TO CONFIRM HEIGHTS OF MATERIALS AND APPROPRIATE TRANSITION/REDUCER STRIP MODEL

WALL PROTECTION

WP1	WALL PROTECTION - CORNER GUARDS OUTSIDE CORNERS GYP.BOARD WALLS. MATCH FIELD COLOR P1 MFGR: INPRO STYLE: TAPE ON, 1-1/2"x1-1/2" WING, 4'-0" HEIGHT COLOR: 0380 GALA INCLUDE ADDING SILICONE BEAD FOR ADDED SUPPORT EACH LOCATION. CONTRACTOR TO CONFIRM ALL QUANTITIES.

WINDOW TREATMENTS

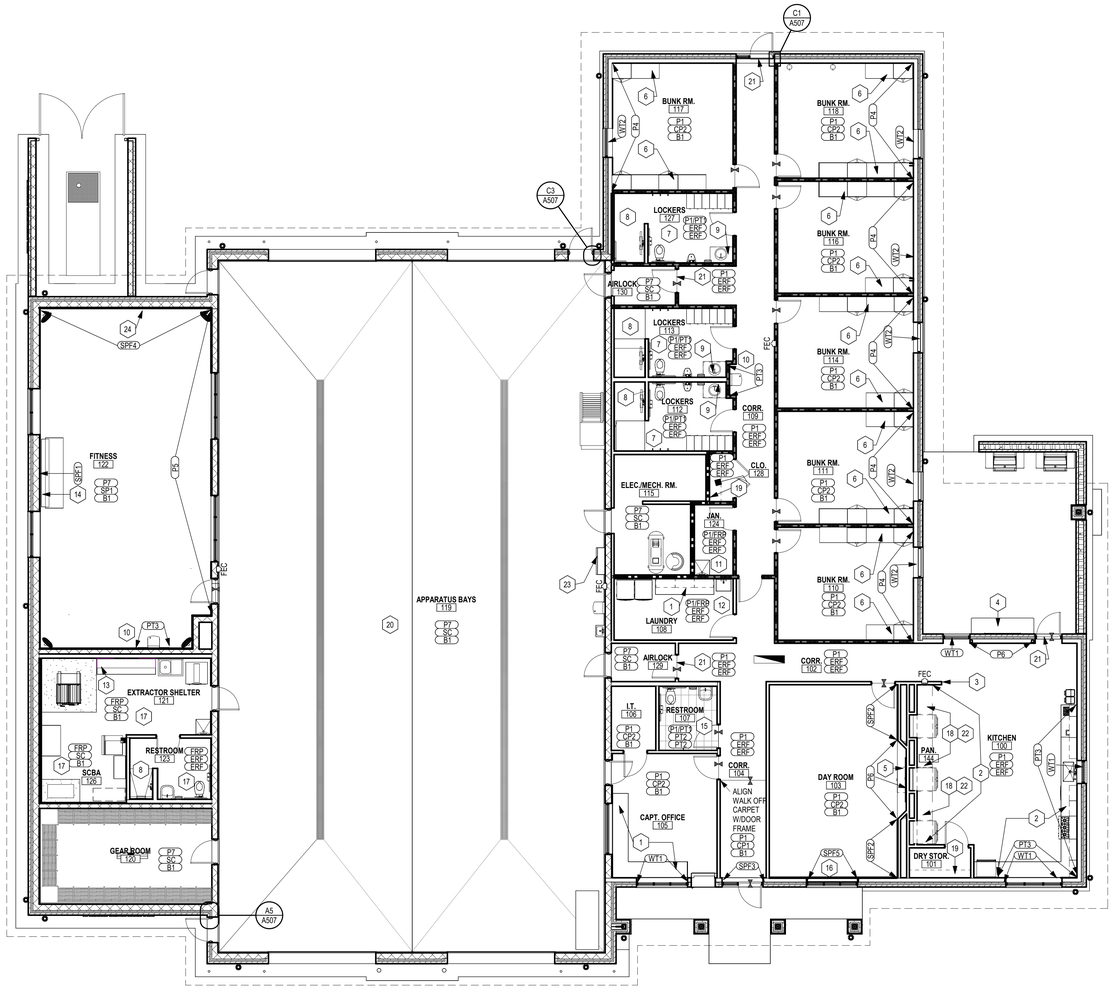
WT1	WINDOW TREATMENTS - ROLLER SHADES - SOLAR SHADES MFGR: SWF WINDOW FASHIONS STYLE: CROSSHATCH S1000, 3% OPENNESS SHADECLOTH COLOR: CROSSHATCH S300 C8208 EBONY, FASCIA: 875 CLEAR ANODIZED, TRUE PERFORMANCE MANUAL SHADES. INSIDE MOUNT, STAINLESS PULL CHAIN. CONTACT: DUSTIN PALMER GOLTERMAN & SABO 314.336.2142 WINDOW SILLS SOLID SURFACE SDS2
WT2	WINDOW TREATMENTS - ROLLER SHADES BLACKOUT - BUNKROOMS MFGR: SWF WINDOW FASHIONS STYLE: ENTERPRISE, 100% BLACKOUT SHADECLOTH COLOR: C1304 LIGHT GREY FASCIA: 875 CLEAR ANODIZED TRUEPERFORMANCE MANUAL SHADES, INSIDE MOUNT, STAINLESS PULL CHAIN WINDOW SILLS SOLID SURFACE SDS2

WOOD

WD1	WOOD DOORS MFGR: MASONITE ASPIRO SERIES SPECIES: WHITE MAPLE PLAIN SLICED COLOR: COCOA BEAN

WOOD CABINETRY

WDC1	WOOD CABINETRY - KITCHEN MFGR: KRAFTMAID OR APPROVED EQUAL SPECIES: MAPLE, PLYWOOD CABINET CONSTRUCTION PANEL STYLE: TRUMBULL FULL OVERLAY DOOR STYLE NOTE PROVIDE SOFT CLOSER ALL DOORS AND DRAWERS PROVIDE & MOUNT SPICE RACK KIT (ONE) INSIDE OF EACH TALL PANTRY DOOR. PROVIDE AND INSTALL DIGI-LOCKS ASPIRE SERIES EACH TALL PANTRY DOOR.



A1 FLOOR FINISH PLAN
1/8" = 1'-0"

INTERIOR FINISH GENERAL NOTES

1. INTERIOR FINISH MATERIALS SHALL COMPLY WITH THE FLAME SPREAD & SMOKE DEVELOPMENT LIMITATION USED IN CHAPTER 8 OF THE INTERNATIONAL BUILDING CODE.
2. ALL INTERIOR WALL COVERINGS MUST COMPLY WITH THE FOLLOWING: CLASS 1, FLAME SPREAD RATING 0-25 ASTM-E-84 PER FINISH SHEET.
3. G.C. TO SUBMIT ALL FINISHES IN MATERIAL SAMPLE FORM TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS - NO INTERNET OR COPY FORM SUBMITTALS WILL BE APPROVED.
4. ALL WALLS TO BE PAINTED P1 AND ALL INTERIOR DOOR FRAMES TO BE PAINTED P2 UNLESS NOTED OTHERWISE. REFER TO FLOOR FINISH PLAN FOR ACCENT PAINT LOCATIONS. ALL PAINTED SURFACES TO RECEIVE (1) PRIME COAT AND A MINIMUM OF (2) FINISH COATS PER PAINT COLOR. DARKER ACCENT COLORS TO RECEIVE (3-4) FINISH COATS FOR OPTIMAL COVERAGE.
5. REFER TO REFLECTED CEILING PLAN FOR CEILING SYSTEM TYPES AND SOFFIT ACCENT PAINT COLOR LOCATIONS. ALL EXPOSED FACES OF SOFFITS TO BE PAINTED INCLUDING UNDERSIDE. ALL GYP. BD. CEILINGS TO BE PAINTED P3 UNLESS NOTED OTHERWISE.
6. REFER TO FLOOR PLAN FOR ADJUSTABLE SHELVING LOCATIONS. ADJUSTABLE SHELVING SHALL BE HEAVY DUTY WHITE MELAMINE SHELVES WITH WHITE PVC EDGES MOUNTED ON WHITE HEAVY DUTY WALL MOUNTED STANDARDS WITH WHITE ADJUSTABLE HEAVY DUTY BRACKETS UNLESS NOTED OTHERWISE.
7. ALL BUILT-IN CASEWORK TO BE VERIFIED AND COORDINATED WITH OWNER. G.C. TO SUBMIT SHOP DRAWINGS TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS.
8. ALL HARDWARE TO BE BRUSHED STAINLESS STEEL FINISH UNLESS NOTED OTHERWISE.
9. ALL FLOORING TO RUN FROM PARTITION TO PARTITION AND CENTER FLOORING IN DOOR OPENINGS AS REQUIRED, TYPICAL THROUGHOUT.
10. PROVIDE APPROPRIATE ADA COMPLIANT TRANSITION/REDUCER STRIPS TO MATCH FLOORING AT ALL FLOORING MATERIAL TRANSITIONS AS NEEDED UNLESS NOTED OTHERWISE.
11. ALL FLOORING PATTERN/GRAIN TO RUN IN THE SAME DIRECTION THROUGHOUT UNLESS NOTED OTHERWISE. SEE FINISH FLOOR PLAN.
12. SEE FINISH FLOOR PLAN FOR WALL PROTECTION LOCATIONS. WAINSCOTS AND CORNER GUARDS WHERE NOTED TO BE INSTALLED SO THAT BOTTOM EDGE ALIGNS WITH TOP EDGE OF SPECIFIED BASE. TYPICAL THROUGHOUT. CHAIR RAIL AND RUB RAIL LOCATIONS AND HEIGHTS TO BE VERIFIED WITH OWNER/TENANT FURNITURE PRIOR TO INSTALLATION.
13. SUBMIT SHOP DRAWINGS FOR ALL WINDOW TREATMENTS TO DESIGNER FOR APPROVAL PRIOR TO ORDER OF MATERIALS.
14. PROVIDE (2) BOXES OF EACH CARPET TILE FOR OWNER'S FUTURE MAINTENANCE.

FINISH PLAN LEGEND

SYMBOL DENOTES:

WALL FINISH → F.X*
FLOOR FINISH → F.X
BASE FINISH → F.X

FLOOR MATERIAL CHANGE

CARPET PATTERN / TILE / LVT DIRECTION

NOTE: * INDICATES THAT FINISH VARIES. REF. ELEVATIONS AND FINISH PLAN FOR ADD'L INFO

EACH ROOM SHALL HAVE A ROOM FINISH TAG. SEE FLOOR FINISH PLAN. REFER TO FINISH PLAN KEYNOTES FOR CASEWORK FINISHES AND REFLECTED CEILING PLAN FOR CEILING FINISHES.

KEYED NOTES FINISH FLOOR PLAN

MARK	DESCRIPTION
1	PLASTIC LAMINATE BASE CABINETS & WALL CABINETS AS INDICATED PL4 , COUNTERTOP & BACKSPLASH PL2, ANGLED METAL SUPPORT BRACKETS AS REQUIRED. SEE ELEVATIONS
2	KITCHEN CUSTOM WOOD BASE & WALL & TALL PANTRY CABINETS AND ISLAND WDC1. COUNTERTOPS BACK & SIDE SPLASHES SOLID SURFACE SDS1. UNDERMOUNT STAINLESS SINK AT COFFEE BAR & KITCHEN SINK. MOSAIC TILE BACKSPLASH, STAINLESS STEEL PANEL BACKSPLASH AT RANGE. SEE ELEVATIONS
3	PROVIDE & INSTALL CORNER GUARDS WP1
4	PROVIDE & INSTALL STAINLESS STEEL BASE CABINETRY AND 25"D STAINLESS COUNTERTOP WITH RADIUS EDGE AND 4"H STAINLESS BACKSPLASH AT OUTDOOR PATIO.
5	DAYROOM BASE CABINETS PL3. COUNTERTOP SDS1.
6	CUSTOM BUILT IN BUNKROOM WARDROBE & MURPHY BED CABINET BY OWNER
7	INDIV. RESTROOM: INSTALL PORCELAIN TILE WAINSCOT PT1 WET WALL & SIDE WALLS AT TOILET, HEIGHT AS INDICATED, TOP CAP & OUTSIDE EDGES TRIM TR1. INCLUDE ACCENT RIBBON OF WALL TILE PT3. PAINT ABOVE TILE ALL WALLS. CONCRETE BACKER BOARD AT TILE AND MOISTURE RESISTANT GYP.BOARD ALL WALLS & CEILING. REFER TO ELEVATIONS FOR ADD'L INFORMATION
8	SHOWERS: FULL HEIGHT VERTICAL WALL PANELS SDS2 ALL WALLS & OUTSIDE FACE OF WING WALLS. SEAL ALL PERIMETER EDGES W/TRANSLUCENT SEALANT. SHOWER FLOORS CONTINUE ERF FLOOR INTO SHOWER AREA
9	VANITIES: SOLID SURFACE TOP 4"H BACK AND SIDE SPLASHES SDS1. UNDERMOUNT WHITE PORCELAIN SINK BOWL AND FLOATING PHENOLIC BASE CABINET PL6
10	DRINKING FOUNTAIN BACKSPLASH PT3 SEE ELEVATIONS
11	JANITOR: FRP WAINSCOT AROUND ROOM ALL WALLS, 52"H, INSTALL 48"W HORIZONTALLY ON TOP OF BASE. INSTALL WITH TRIM & CORNER PIECES. CLEAR BEAD OF SEALANT WHERE FRP MEETS MOP SINK
12	LAUNDRY: FRP WAINSCOT AROUND ROOM ALL WALLS SEE ELEVATIONS
13	PLASTIC LAMINATE BASE CABINETS PL4 , COUNTERTOP & BACKSPLASH SOLID SURFACE SDS2, ANGLED METAL SUPPORT BRACKETS AS REQUIRED. STAINLESS STEEL WALL SHELVES ABOVE. SEE ELEVATIONS
14	PREP WALL TO LEVEL 5 FINISH. PROVIDE & INSTALL CUSTOM WALL GRAPHIC ON WALL AS INDICATED. REFER TO ELEVATIONS SIZES VARY.
15	PUBLIC RESTROOM: INSTALL PORCELAIN TILE WAINSCOT PT1 WET WALL & SIDE WALLS AT TOILET, HEIGHT AS INDICATED, TOP CAP & OUTSIDE EDGES TRIM TR1. INCLUDE ACCENT RIBBON OF WALL TILE PT3. ON WALLS WITHOUT WAINSCOT, CUT FLOOR TILE 4X24" H INSTALL AS BASE & TOPCAP WITH TR1. PAINT ABOVE TILE ALL WALLS. CONCRETE BACKER BOARD AT TILE AND MOISTURE RESISTANT GYP.BOARD ALL WALLS & CEILING. REFER TO ELEVATIONS FOR ADD'L INFORMATION
16	PROVIDE & INSTALL BLACKOUT FILM OVER DAYROOM WINDOW GLASS BEFORE GYP.BOARD COVERING
17	EXTRACTOR: FRP FULL HEIGHT AROUND ROOM ALL WALLS. SEE ELEVATIONS
18	KITCHEN SPICE RACK KIT BY KRAFTMAID, 3-1/4" DEEP WITH THREE FIXED SHELVES. INCLUDES MOUNTING HARDWARE. INSTALL INSIDE LEFT DOOR OF EACH TALL PANTRY CABINET
19	STORAGE/CLOSETS PROVIDE & INSTALL 12"D HEAVY DUTY MELAMINE SHELVING 5 HIGH WALL-TO-WALL ON HEAVY DUTY ADJUSTABLE STANDARDS & BRACKETS
20	APP. BAYS PAINT SAFETY STRIPES ON THE FLOOR & COLUMNS P10 VERIFY LOCATIONS WITH OWNER DIRECTION
21	PROVIDE SAWCUT TERMINATION AT LEADING EDGE OF ERF TO CONCRETE
22	KITCHEN PANTRY CABINETS REFER TO DIGLOCK QUOTE #D2020960 FOR ASPIRE KEYPAD FUNCTIONALITY & ACCESSORIES TO BE INCLUDED. REP:Phillip.Neenan@diglock.com
23	CHARGING STATION: PLASTIC LAMINATE PHENOLIC BASE CABINETS PL6 , COUNTERTOP & FULL HEIGHT BACKSPLASH & SHELVES SURFACE SDS2 SEE ELEVATIONS & SECTION
24	FITNESS: INSTALL THE SPORTS FLOOR UP THE WALL UNDER THE MIRRORS AS INDICATED REFER TO ELEVATIONS .

STATE OF MISSOURI
ROY A. MANGAN
NUMBER A-6661
ARCHITECT
Roy A. Mangan
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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD
ST. CHARLES, MO 63303

No.	Revision	Date

FINISH FLOOR PLAN, FINISH SCHED.

Project No. 24057

Sheet No. I101

Date 2026/06/08

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STRUCTURAL GENERAL NOTES

DIVISION 1 - GENERAL REQUIREMENTS

1.1 CONSTRUCTION MEANS AND METHODS

A. Contractor and Subs shall not scale drawings for purposes of construction. Notify Architect of any dimensional discrepancies found between disciplines.

B. Contractor agrees that Contractor shall assume sole and complete responsibility for job site conditions during the course of the Work, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that Contractor shall defend, indemnify, and hold Owner and Structural Engineer harmless from any and all liability, real or alleged, in connection with the performance of the Work on this Project, excepting for liability arising from the sole negligence of Owner or Structural Engineer.

C. The Contract Documents represent the finished structure. They do not include the method of construction. Contractor shall provide all measures necessary to protect the structure during construction. Such measures shall include, but not be limited to: protection of subgrade from freezing conditions, bracing, shoring for loads due to construction equipment, temporary structures, and partially completed work. Observation visits to the site by Structural Engineer shall not include inspection of the above items.

D. KPFF Consulting Engineers shall not have control over or charge of and shall not be responsible in any way for construction means, methods, techniques, sequences, or procedures, or for safety or safety precautions and programs in connection with any construction activities, since these are solely Contractor's responsibility under the Contract.

E. KPFF Consulting Engineers shall not be responsible for Contractor's schedule or failures to carry out any construction activities in accordance with the Contract Documents. KPFF Consulting Engineers shall not have control over or charge of actions of Contractor, Subcontractor, or any of their Agents, or employees, or any other persons performing portions of any construction activities.

F. The structure is stable only in its completed form. Temporary supports which may be required for stability of the structure during all intermediate stages of construction shall be determined, furnished and installed by the Contractor.

1.2 SUBMITTALS

A. Submittals prepared by Subcontractors shall be reviewed by Contractor prior to submitting to Architect.

B. Reproduction of Structural Drawings shall be in accordance with AISC Code of Standard Practice.

C. CAD files prepared using KPFF standards may be made available to the General Contractor upon receipt of an executed CAD File Transfer Agreement between KPFF and the General Contractor. In the event CAD files are made available, one copy in AutoCAD 2018 format will be provided to the General Contractor for their use specifically for this Project and distribution to its Subcontractors working on the Project.

D. Contractor shall verify the structurally supported equipment weights, opening sizes, and locations indicated on the Structural Drawings with Documents from other disciplines and by Architect of any discrepancies.

E. Contractor shall submit Shop Drawings showing size, method of anchorage, weight, openings, and locations of equipment not indicated on the Structural Drawings prior to ordering for review by Structural Engineer to determine adequacy of the structure.

F. All submittals reviewed by Structural Engineer are reviewed for general conformance with design concept only and does not relieve the fabricator/vendor of responsibility for conformance with design drawings and Specifications, all of which have priority over submittals.

G. Submittals shall be reviewed within 10 working days after being received by Structural Engineer.

1.3 QUALITY REQUIREMENTS

A. Reference to standard specifications or codes of any technical society, organization, or association or to codes of local or state authorities, shall mean the standards in effect as of date of the Contract Documents, unless otherwise noted.

B. Contract Documents shall govern in the event of a conflict with standard specifications or codes of any technical society, organization, or association.

C. No provision of any referenced standard specification or code, whether or not specifically referenced by reference in the Contract Documents, shall be effective to change the duties and responsibilities of Owner, Architect, Structural Engineer, Contractor, or any of their Consultants, Agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to Structural Engineer or any of Structural Engineer's Consultants, Agents, or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibilities contrary to the provisions of the Contract Documents.

D. All omissions and conflicts within the Contract Documents shall be brought to the attention of Architect prior to proceeding with the Work.

E. Contractor shall verify dimensions and conditions at the job site. Any discrepancies between the conditions found and those indicated in the Contract Documents shall be brought to the attention of Architect prior to proceeding with the Work.

F. See Documents by other disciplines for floor, wall, and roof openings, trenches, pits, pipe sleeves, equipment pads, metal pan stairs, miscellaneous iron, etc.

G. No pipes, conduits, sleeves, ducts, chases, etc. shall be placed within structural walls, beams, slabs or columns nor shall any structural members be cut for pipes, ducts, etc., unless specifically noted. Notify Structural Engineer when Documents by other disciplines show openings, pockets, conduits, pipes, sleeves, etc. not indicated in the Structural Drawings, but are located in structural members. Contractor shall obtain prior approval from Structural Engineer for installation of such pipes, ducts, chases, etc.

H. Details labeled "Typical" on the Structural Drawings apply to all situations occurring on Project that are the same or similar to those locations specifically indicated. Where a detail is not indicated, the detail shall be the same as for other similar conditions.

I. The design responsibility of the elements listed below is being delegated to a Specialty Structural Engineer hired by the Contractor. The designated elements shall be designed in accordance with the Building Code and specific requirements in the contract documents by an engineer licensed in the state where the Project is located. Submittals shall be sealed by the responsible licensed Engineer. The following elements and their connections shall be designed by a Specialty Structural Engineer:
   1. Excavation support
   2. Temporary bracing and shoring
   3. Structural steel connections, if altering design shown on the Structural Drawings
   4. Open web steel joists and joist girders
   5. Non-structural cold-formed metal framing
   6. Seismic Anchorage and Sway Bracing of Mechanical, Electrical and Plumbing Systems Components
   7. Stairs or Ladders and their connections to Structure
   8. Pre-engineered floor and roof trusses

1.4 STRUCTURAL SPECIAL INSPECTIONS

A. Special inspections shall be in accordance with the governing Building Code and the Statement of Special Inspections on Sheet S102.

1.5 DESIGN CRITERIA:

A. The structure is designed in accordance with the ICC International Building Code, 2021 Edition.
   1. Building Risk Category IV.

B. No provisions have been made for future horizontal or vertical expansion.

C. Gravity Loads:
   1. Uniform Roof Live Loads:
      a. Live Load: 20 psf
      b. Snow Load:
         1) Ground Snow Load: 20 psf
         2) Flat Roof Snow Load: 16.8 psf
         3) Snow Exposure Factor: 1.0
         4) Snow Importance Factor: 1.2
         5) Snow Thermal Factor: 1.0
   2. Uniform Floor Live Loads:
      Attic Equipment Platform 60 psf
      Stairs 100 psf
   3. Concentrated Floor Live Loads
      a. Loads are distributed over an area of 2-1/2 sq. ft., unless noted otherwise.
      Stairs 300 lb. (over 4 sq. in.)
   4. Concentrated Lateral Live Loads
      a. Handrail assemblies:
         1) Top Rail: 200 lb. or 50 lb/ft applied non-concurrently in any direction.
         2) Intermediate rails, balusters, filler panels, etc.: 50 psf applied non-concurrently with the top rail load.
      b. Vehicle barrier systems: 6,000 lb. applied in any direction at 18 inches to 27 inches above the driving surface.

D. Lateral Loads:
   1. Wind Design Data
      a. Ultimate Wind Speed: 119 MPH
      b. Nominal Wind Speed: 92 MPH
      c. Exposure: B
      d. Enclosure Classification: Enclosed Building
      e. Internal Pressure Coefficient: +/-0.18
      f. Components and Cladding Design Wind Pressure

	10 sf	100 sf	500 sf
1) Zone 1	+19/-32	+16/-26	+16/-26
2) Zone 2e	+19/-43	+16/-31	+16/-28
3) Zone 2r	+19/-56	+16/-37	+16/-32
4) Zone 3	+19/-43	+16/-31	+16/-28
5) Zone 4	+26/-28	+22/-24	+19/-21
6) Zone 5	+26/-34	+22/-27	+19/-21

   2. Earthquake Design Data
      a. Seismic Importance Factor: 1.5
      b. Mapped Spectral Response Accelerations: Ss=0.351, S1=0.141
      c. Site Classification: D (default value per IBC section 1613.2.3)
      d. Spectral Response Coefficients: SdS=0.355, Sd1=0.218
      e. Seismic Design Category: D
      f. Basic Structural System: Bearing Wall System
      g. Basic Seismic Force Resisting System:
         House/Admin - Light-framed walls sheathed with wood structural panels
         Apparatus Bay - Special reinforced masonry shear walls
      h. Design Base Shear :
         House/Admin - V=53k
         App Bay - V=32k
      i. Seismic Response coefficient:
         House/Admin - Cs=0.082 (E-W), 0.1066 (N-S)
         App Bay - Cs=0.1066
      j. Response Modification Factor:
         House/Admin - R=6.5 (E-W), R=5.0 (N-S)
         App Bay - R=5.0
      k. Deflection Amplification Factor:
         House/Admin - Cd=4.0 (E-W), Cd=3.5 (N-S)
         App Bay - Cd=3.5
      l. Overstrength Factor:
         House/Admin - omega=3.0 (E-W), Omega=2.5 (N-S)
         App Bay - omega=2.5
      m. Analysis Procedure: Equivalent Lateral Force
   3. MEP Seismic Anchorage:
      a. Contractor shall design and install MEP supports in accordance with the latest local Mechanical and Building Code.
      b. Power actuated fasteners installed in concrete shall not be used to resist seismic loads.

DIVISION 2 - FOUNDATIONS

2.1 GENERAL

A. Foundation design is based upon recommendations in Chapter 18 of the International Building Code. Presumptive load values will be modified once a Geotech Report is provided.
   April 2024, Structural Engineer is not responsible for subsurface conditions encountered in the field that are different from those assumed in design.
   1a: Prepare building site in accordance with Geotechnical and Civil recommendations and specifications. Site is underlain with highly plastic clays that shall be remediated in accordance with Geotechnical report.

B. Owner's Geotechnical Representative shall certify the bearing medium.

C. Excavations shall be kept free of loose material and standing water.

D. Bottom of exterior foundations shall be a minimum of 30 inches below the lowest finished elevation for frost protection.

2.2 FOOTINGS

A. Individual spread footings and continuous footings shall bear on and be formed by clean, undisturbed, virgin, sub-soil or compacted engineered fill with an allowable bearing pressure of 1500 psf (Per IBC Table 1806.2).
   1. No footing shall bear on rock. Undercut rock a minimum of 2 feet below the bottom of footing and replace with compacted engineered fill.

DIVISION 3 - CONCRETE

3.1 REINFORCING

A. GENERAL
   1. Reinforcing steel shall be ASTM A615, Grade 60, deformed bars, unless noted otherwise. Welding of ASTM A615, Grade 60 reinforcing is not allowed.
   2. Reinforcing steel to be welded shall be ASTM A706, deformed bars.
   3. Welded wire reinforcing shall be ASTM A185, contact lap spliced 12 inches minimum.
   4. All reinforcing bars shall be detailed, fabricated, supported, and placed in accordance with ACI 315-99 "Details and Detailing of Concrete Reinforcement" and CRSI's "Manual of Standard Practice," 2009.
   5. Reinforcing, including dowels, shall be securely tied and cast with the lower member. Placing reinforcing after concrete has been placed is not permitted.
   6. Field bending of reinforcing partially embedded in concrete is not allowed unless specifically noted in the Structural Documents or approved by Structural Engineer.
   7. Provide dowels from foundation the same grade, size, and number as vertical wall or column reinforcing, unless noted otherwise.
   8. Provide corner bars to match horizontal reinforcing at corners and intersections.
   9. Adhesive for reinforcing dowels into existing concrete shall be Hilti HIT HY 200 or approved equal. Minimum embedment length shall be 12 bar diameters, unless noted otherwise.
   10. Mechanical couplers shall be uni-axial type capable of developing 125% of the specified yield strength of the bar in tension. Splices made using mechanical couplers shall be staggered by twice the length of the coupler.
   11. All reinforcing shall be contact lap spliced or doweled as follows:
       #3 bars -- 28" #7 bars -- 81"
       #4 bars -- 37" #8 bars -- 93"
       #5 bars -- 47" #9 bars -- 105"
       #6 bars -- 56" #10 bars -- 118"
       #11 bars -- 131"

B. SLABS
   1. Provide slab bolsters, high chairs, and #5 support bars as necessary to maintain proper placement of reinforcing.
   2. Provide 2-#5 top reinforcing at corners of openings and re-entrant corners, unless noted otherwise.

3.2 CAST-IN-PLACE CONCRETE

A. Reinforced concrete shall be normal weight and have a minimum 28-day compressive strength of 4,000 psi or 4,500 as indicated in specification mixture classes.

B. All concrete to have the following unit weights (+/- 3 pcf):
   1. Normal weight concrete: plastic = 145 pcf

C. All concrete exposed to freezing and thawing and deicer chemicals shall have 6% (+1%/-1.5%) air entrainment. Do not air entrain concrete to be trowel finished.

D. Provide concrete cover for reinforcing as follows:
   1. Concrete cast against and permanently exposed to earth.....3"
   2. Concrete exposed to earth or weather.....2"
   3. Concrete not exposed to weather or in contact with ground:
      a. Slabs and walls.....3/4"
      b. Beams and columns.....1-1/2"

E. For concrete cast on metal deck, concrete thickness indicated is nominal. Contractor shall allow for the deflection of the floor assembly due to the wet weight of the concrete when calculating concrete quantity.

F. Provide construction or control joints in slab-on-grade as indicated in the Structural Drawings. If joint pattern is not indicated, provide joints at 10 feet (+/-) in both directions and located to conform to bay spacing wherever possible (at column centerlines, half bays, third bays, etc.). Increase to 17 feet at 7" slab.

G. Interface of construction joints shall be roughened to a full amplitude of 1/4". Surface of construction joints shall be clean and free of laitance. Immediately before new concrete is placed, construction joints shall be wetted and standing water removed.

H. See Architectural Drawings for waterstops.

I. Provide compressible filler and sealant in slab-on-grade and wall and column interfaces that are not doweled together.

J. All column pockets shall be filled with concrete after column is erected.

K. Non-structural embedments (conduit, pipes, sleeves, etc.)within walls, beams, or slabs shall be submitted to the Structural Engineer and Architect for review and approval prior to construction. All embedments shall be fabricated and installed in accordance with ACI standards, including but not limited to the following:
   1. Aluminum materials shall not be embedded in structural concrete.
   2. Overall outside dimension of embedments shall not exceed 1/3 the concrete member thickness up to 2 inch maximum.
      a. For concrete slabs on metal deck the member thickness shall be the continuous slab thickness above the deck.
   3. Embedments shall be spaced a minimum of 6 inches on center.
   4. Embedments shall not alter or displace reinforcing.
   5. Embedments within columns shall not displace more than 4 percent of the area of the column cross section.

L. Provide 4" high concrete housekeeping pads under equipment. Pads shall extend beyond equipment 6" nominal on all sides. Apply bonding agent to existing concrete slab prior to placing housekeeping pad. See Documents from other disciplines for equipment locations.

M. At floor drains, locally slope floor towards drain. See Documents from other disciplines for drain locations.

N. Unless noted otherwise, structural slabs exposed to weather shall be sloped approximately 1/4 inch per foot away from occupied space toward floor drains, scuppers, gutters, etc. For exterior non-structural flatwork (eg. sidewalks, pavement) reference Civil site plan and specifications.

O. See Architectural Documents for molds, grooves, ornaments, clips, etc. required to be encased in concrete and for location of floor finishes and slab depressions.

DIVISION 4 - CONCRETE MASONRY

4.1 REINFORCING

A. Reinforcing steel shall be ASTM A615, Grade 60, deformed bars, unless noted otherwise. Welding of ASTM A615, Grade 60 reinforcing is not allowed.

B. Reinforcing steel to be welded shall be ASTM A706, deformed bars.

C. Joint reinforcing shall be ladder type conforming to ASTM A951, with prefabricated corner and tee units at corners and intersections.

D. Dowels to supporting structure shall be same grade, size, and number as vertical reinforcing.

E. Provide corner bars to match horizontal reinforcing at corners and intersections.

F. Vertical reinforcing shall be centered in wall, unless noted otherwise.

G. All vertical reinforcing centered in CMU shall be contact lap spliced or doweled as follows:
   #4 bars -- 22"
   #5 bars -- 28"
   #6 bars -- 54"
   #7 bars -- 63"
   #8 bars -- 72"

H. All other reinforcing (bond beams, reinf each face, etc) shall be contact lap spliced or doweled as follows:
   #4 bars -- 22"
   #5 bars -- 28"
   #6 bars -- 54"
   #7 bars -- 63"
   #8 bars -- 72"

I. Joint reinforcing shall be lapped 6".

J. Reinforce concrete masonry vertically as indicated in the Structural Drawings.

K. Space joint reinforcement at 16" o.c. vertically typical and at 8" o.c. vertically at parapets and at cantilevered walls, unless noted otherwise.

L. Reinforce bond beams with 2-#5 rebars continuous, unless noted otherwise.

M. Provide #5 rebar at all sides of openings, to extend a minimum of 30" beyond the opening.

4.2 CONCRETE MASONRY

A. Concrete masonry units shall be ASTM C90, normal weight.

B. Provide concrete unit masonry that develops the following minimum fm at the latest local Progressive and Building Code.

C. Mortar shall be Type M or S.
   Walls below grade: Type M
   Bearing walls: Type M or S

D. Grout shall conform to ASTM C476. Grout shall be proportioned with a slump of 8" to 11" using 3/8" nominal maximum size coarse aggregate.

E. Grout vertical reinforced cells and bond beams solid.

F. Insulation shall not be permitted in reinforced cells.

G. Grout concrete masonry below grade solid. Grout cavities of multi-wythe walls below grade.

H. All vertical cells to be grouted shall have vertical alignment to maintain a continuous unobstructed cell area not less than 2" x 3".

I. Grout solid under beams and lintels for full height of wall.

J. Conduits, pipes, and sleeves shall be no closer than 3 diameters on center.

K. Maximum area of vertical conduits, pipes, or sleeves placed in columns or pilasters shall not exceed 6% of the net area of the net cross section.

DIVISION 5 - METALS

5.1 STRUCTURAL STEEL

A. GENERAL
   1. Structural steel fabrication and erection shall comply with the applicable provisions of the following:
      a. AISC 360-10 Specification for Structural Steel Buildings
      b. AISC 303-10 Code of Standard Practice for Steel Buildings and Bridges
      c. Specification for Structural Joints using ASTM A325 or A490 Bolts
   2. Materials shall conform to the following, unless noted otherwise.

a.	W's and WT's	ASTM A992
b.	Plates & other shapes	ASTM A572, Grade 50
c.	HSS:	ASTM A500, Grade C
d.	Pipe	ASTM A53, Grade B
e.	Bolts	ASTM F3125 Grade A325 Heavy Hex Head, or Grade F1852 Twist-Off, 3/4" Dia (Min.)
f.	Anchor Rods	ASTM F1554, Grade 36 with A36 washers and heavy hex nuts
g.	Threaded Rod	ASTM A36
h.	Headed Studs	AWS D1.1, Type B
i.	Electrodes	Matching strength, 70 ksi min.

   3. General notes for steel connections shall apply to all steel connections unless noted otherwise.
   4. The contractor shall be responsible for the design, detailing, and fabrication of all steel framing connections unless specifically detailed on the Structural Drawings. The contractor shall retain a structural engineer for the design of the connections who is licensed to perform the work in the jurisdiction where the project is located. Submit signed and sealed calculations to the Architect for review and approval prior to starting fabrication.
   5. Steel connection details shown on the Structural Drawings indicate general concept and minimum criteria for design and detailing and are not intended to show complete connection configurations or other specific information that are the responsibility of the connection design engineer. Alternative connection configurations may be submitted to the Architect for review and approval. Connections specifically detailed on the Structural Drawings are to be fabricated as shown.
   6. Connections shall be capable of resisting vertical and horizontal loads listed on the Structural Drawings. Connection design shall provide an adequate load path to transfer these loads from each member, through the connection, into the supporting member, and shall consider the effects of the forces on each member. Members shown on the Structural Drawings have not been sized for local effects at connections.
   7. Loads provided in the Structural Drawings for the design of connections are factored and shall be considered to act simultaneously.
   8. Minimum factored beam shear reaction is 10 kips.
   9. Detail steel beam connections as simple span beams, unless noted otherwise.
   10. Minimum bolt diameter shall be 3/4".
   11. Unless noted otherwise in the drawings, minimum number of bolts required in a beam web connection shall be as follows:

Beam Size	Min. No. of Bolts
W8 | W10 | W12	2
W14 | W16 | W18	3
W21 | W24	4
W27 | W30	5
W33 | W36	6
W40 | W44	7

   12. Minimum thickness of connection angles shall be 5/16". Minimum thickness of connection shear plates shall be 3/8".
   13. Bolted connections designated as fully tensioned shall be installed with direct-tension indicator washers or tension-control bolts.
   14. All steel beams bearing on concrete or masonry shall have 8" minimum bearing, unless noted otherwise.
   15. Where items are to be anchored to concrete or masonry, except at column baseplates, use standard sized holes in steel member, unless noted otherwise.
   16. Use prequalified welded joints in accordance with AISC and AWS D1.1:2000. Non-prequalified joints shall be qualified prior to fabrication.

B. STEEL LINTELS
   1. Loose lintels supporting brick masonry shall be the following UNO, one angle (LLV) per 4" nominal width of masonry:
      L3-1/2x3-1/2x5/16 for spans less than 4'-11
      L5x3-1/2x5/16 for spans between 5'-0" and 7'-11"
      L6x3-1/2x5/16 for spans between 8'-0" and 9'-11"
      L7x4x3/8 for spans between 10'-0" and 12'-11"
   2. Double angle lintels back to back shall be bolted at 32" o.c. maximum spacing, with 5/8" diameter A307 bolts, minimum of two bolts per span.
   3. At beam lintels with continuous plates, the plate width shall be 1" less than the nominal width of the supported wall. Plate thickness shall be 5/16", unless noted otherwise.
   4. Lintels bearing on masonry or concrete shall have 8" minimum bearing, unless noted otherwise.
      a. Each lintel, unless noted otherwise, shall be field welded to an embedded plate with two 3" long x 3/16" fillet welds. Minimum width of embedded steel plate shall be 4" larger than the beam flange width.
      b. Where less than 1'-0" of masonry exists at the end of the beam adjacent to a column, wall, or other vertical member, extend the beam and provide a connection to the column or wall.
   5. Exterior lintels whether loose or attached to the structure shall be galvanized.
   6. Contractor shall coordinate with the Structural Drawings and Documents of other disciplines for openings.

C. POST-INSTALLED ANCHORS TO CONCRETE AND MASONRY
   1. Post installed anchors shall be expansion, adhesive, or screw anchors as indicated in details, unless noted otherwise. Only use expansion anchors where indicated, only use adhesive anchors where indicated and only use screw anchors where indicated.
   2. Expansion anchors (Do not use multiple manufacturers on the project, see notes below for substitutions):
      a. For Concrete: Hilti Kwik Bolt TZ2 (ICC-ES ESR-4266).
      b. For Grout Filled Concrete Masonry: Hilti Kwik Bolt TZ2 (ICC-ES ESR-4961).
   3. Adhesive anchors (Do not use multiple manufacturers on the project, see notes below for substitutions):
      a. For Concrete: Hilti HIT-RE 500 V3 adhesive anchor system (ICC-ES ESR-3814) with HAS-E-55 threaded rods.
      b. Solid Grouted Concrete Masonry: Hilti HIT-HY 270 (ICC-ES ESR-4143) anchor adhesive with HAS-E-55 threaded rods.
      c. Hollow Masonry: Hilti HIT-HY 270 (ICC-ES ESR-4143) anchor adhesive with HAS-E-55 threaded rods with screen tubes when anchoring into hollow masonry.
      d. Multi-wythe Masonry: Hilti HIT-HY 270 (ICC-ES ESR-4144) anchor adhesive with HAS-E-55 threaded rod with screen tubes when anchoring into multi-wythe masonry.
   4. Screw Anchors (Do not use multiple manufacturers on the project, see notes below for substitutions):
      a. For Concrete: Hilti Kwik HUS EZ (ICC-ES ESR-3027)
   5. When installing post installed anchors:
      a. The Manufacturer's Printed Installation Instructions (MPII) shall be followed.
      b. Do not cut existing reinforcing.
      c. When installing in concrete:
         1) The minimum concrete design compressive strength shall match the above noted compressive strengths in the concrete notes section.
         2) For post installed adhesive anchors, the concrete shall have a minimum age of 21 days at the time of installation.
         3) For post installed adhesive anchors, the concrete temperature at the time of installation shall be at least 50-degrees Fahrenheit.
      d. Adhesive used in an adhesive anchor system shall be stored at the service temperature range recommended by the manufacturer.
      e. Anchors to be installed in adhesive shall be clean, oil free and free of rust, paint or other coatings.
      f. Adhesive anchors shall be securely placed to prevent displacement or disturbance while the adhesive cures. If an anchor is displaced or disturbed before a full adhesive cure it shall be considered damaged and replaced at the contractor's expense.
      g. Unless noted otherwise, anchors shall be installed perpendicular to the supporting surface.
      h. Install anchors to accommodate the standard hole size in the supported steel member. The hole diameter through the supported steel member shall be 1/16" larger than the anchor unless noted otherwise. Use plate washers with a standard size hole welded to steel members where oversized holes may be used through the steel member.
      i. Holes shall be drilled and installed per the MPII as outlined in the ESR. Where applicable, installation shall also follow proper cleaning procedure as indicated in the MPII as outlined in the ESR. Holes shall be drilled with a rotary impact hammer drill or core rock drill, DO NOT core drill holes.
   6. All personnel installing anchors shall be trained and certified by the anchoring system manufacturer. Contractor shall submit certifications from the manufacturer on all personnel. Certification by manufacturer is valid for one year. All personnel installing adhesive anchors in a horizontal or overhead condition shall be trained and certified by ACI/CRSI Adhesive Anchor Installer Certification program for such applications. Note some anchors installed in positions other than horizontal or overhead have sustained loads, these anchors will be noted with a (CERT) call out after the anchor note. These anchors shall also be installed by a trained and certified installer. Contractor shall submit certification from ACI/CRSI on all personnel. If failures occur at any time during testing or construction, then personnel shall be retrained and recertified.
   7. Post installed anchors shall only be used where specified on the drawings. Contractor shall obtain approval from engineer prior to using post installed anchors for missing or misplaced cast in place anchors.
   8. Special inspection shall be provided for all post installed anchors as required by the building code and/or ICC-ER report. Written special inspection reports shall be submitted to the registered design professional in responsible charge by the special inspector. The reports shall record and report the following as a minimum:
      a. Prior to and during installation of anchors, inspection and report shall include:
         1) Installer shall have reviewed the MPII and ESR report and have been certified as noted above.
         2) All overhead, horizontal and noted (CERT) adhesive anchors shall be continually inspected during the installation by an inspector specially trained and approved for this purpose.
         3) General concrete or CMU block conditions (i.e. cracked or uncracked, wet or dry, finished state).
         4) Hole condition and preparation prior to installation of anchor. Indicate if manufacture's written procedures for preparation of hole were followed.
         5) Installation of anchor followed manufactures written procedures. Indicate if manufacture's written procedures for anchor installation were followed.
      6) Embedment depth and concrete or block thickness.
      7) Anchor size and type.
      b. After installing anchors, inspection and reports shall include the following. Reports shall be submitted to the licensed design professional to ensure testing is fulfilled.
         1) Perform independent on-site proof load testing as follows:
            a) Note all test locations.
            b) Note anchor size and/or type.
            c) Minimum of one (10) percent of each type and size of anchor system installed shall be direct tension tested (Adhesive and screw anchors shall not be tested using a torque wrench) by an independent testing agency. Tension testing shall be performed in accordance with ASTM E488.
            d) If any anchor fails testing, test all anchors of the same type installed by the same trade and not previously tested until (20) consecutive anchors pass, then resume the initial test frequency. At the contractor's expense, failed anchors shall be removed and the affected area patched and a new anchor shall be installed to replace the failed anchor. New anchor locations shall be submitted to the engineer for review.
            e) Indicate in report, applied load, loading procedure, load increments and rate of loading. Test anchor to twice the allowable tension load as provided in the ESR. Tension test loads need not exceed 80 percent of the nominal yield strength of the anchor element (0.8 x Ase x fya). Loading shall only occur after the minimum cure time specified in the MPII.
            f) Mode of failure if applicable. Anchors shall have no visible indications of displacement or damage during or after the proof load application. Cracking of the supporting material in the vicinity of the anchor after the loading shall be considered a failure.
            g) Photographs or digital photos of test equipment and typical failures.
   9. Substitution requests for products other than those listed above shall be submitted to the engineer with calculations that are prepared and sealed by a registered structural engineer (per the requirements of section 1.3.H) showing that the substituted product will achieve an equivalent capacity using the appropriate design procedure required by the building code. Product ICC-ES code reports shall be included with the submittal package. The proposed substitution(s) shall meet the most recently published ACI 355.2 or ACI 355.4.

5.2 METAL DECK

A. GENERAL
   1. Deck shall be continuous over 3 spans, unless noted otherwise.
   2. At supports parallel to the deck span, raise steel supports or provide shims at fastening points if the deck valley does not engage the support.
   3. Metal deck accessories, including but not limited to: girder fillers, Z-closures, and cover plates; that are integral with the floor diaphragm or roof diaphragm shall be of the same material, finish and minimum thickness as the metal deck. Accessories shall be anchored to supporting members by arc spot welds or self drilling screws at 12 inch maximum spacing.

B. COMPOSITE FLOOR DECK
   1. Composite floor deck shall be designed, fabricated, and installed in accordance with "SDI Specifications and Commentary for Composite Steel Floor Deck" in SDI Publication No. 29, 1995.
   2. Composite floor deck shall be galvanized.
   3. Shore composite floor deck where required by manufacturer.
   4. 2" composite deck with design thickness 0.0358" (20 gauge) shall have the following minimum properties: Ip=0.418 in4/ft, In=0.413 in4/ft, Sp=0.355 in3/ft, Sn=0.360 in3/ft, Fy=50 ksi.
   5. Composite floor deck shall be fastened to supports, both perpendicular and parallel to the deck, with Hilti X-HSN/ENP fasteners and fastened at sidelaps with No. 10 screws as follows:
      a. Typical installation, unless noted otherwise:
         1) Fastener Pattern: 36/4
         2) Sidelap Fasteners: 3/span, maximum 36"

5.3 COLD-FORMED METAL FRAMING

A. GENERAL
   1. Cold-formed metal framing shall be designed, fabricated, and erected in accordance with AISI's "Specification for the Design of Cold-Formed Steel Structural Members," 1996.
   2. Materials shall conform to the following, unless noted otherwise.

a.	Structural Steel Sheet	ASTM A653 SS
	1) 0.0451 inch thick or less	Grade 33
	2) 0.0566 inch thick or greater	Grade 50, Class 1
b.	Self-Drilling Screws	SAE J78
c.	Electrodes	E60XX

B. Complete, uniform, and level bearing support shall be provided for the top and bottom tracks of stud walls, or full size shims shall be installed to provide such bearing.

C. Studs shall be installed with their bearing ends positioned flush against the inside track web.

D. Full-height double studs shall be provided at the ends of partitions, at wall openings, beneath bar joists, beneath trusses, and at other locations indicated in the Structural Drawings.
   1. Weld the flanges of double studs together full height using 2" of weld at 12" o.c. each side.

E. Anchor stud tracks with low-velocity powder actuated fasteners with a minimum shank diameter of 0.157", and a minimum penetration of 1-1/4".
   1. Locate anchors at 3" from the ends of partitions, and at 6" o.c. (maximum), 4" o.c. (minimum) throughout.

F. Provide sheathing attached to both faces of wall studs throughout the length of the studs to provide bridging at 4'-0" o.c.

G. Provide stud wall and joist bridging according to manufacturer's recommendations.

H. Provide stiffeners in webs of joists at bearing points and at locations of concentrated loads.

I. Splices in studs and joists shall not be permitted. Do not cut studs or joists.

J. Wall studs shall have the following minimum effective properties. In the designation below, 362 is the member depth in 1/100 inches, S is the member style, 162 is the flange width in 1/100 inches, and 54 is the material thickness in 1/1000 inches.

Designation	Design Thick.	Effective Properties Ix, in4	Sx, in3	A, in2	Fy, ksi
362S162-54	0.0566	0.873	0.444	0.422	50
600S162-54	0.0566	2.860	0.916	0.566	50
600S162-68	0.0713	3.525	1.164	0.693	50

K. Joists shall have the following minimum effective properties:

Designation	Design Thick.	Effective Properties Ix, in4	Sx, in3	A, in2	Fy, ksi
600S162-54	0.0566	2.860	0.916	0.566	50

L. At locations requiring welding of or to metal studs, minimum stud thickness shall be 54 mil.

M. Provide matching thickness track (54 mil minimum) at top and bottom of stud walls and at headers for stud walls.

5.4 COLD-FORMED STRUCTURAL SHEAR WALLS

A. See Division 6 for sheathing general notes.

B. Studs shall be C-shape members with a minimum thickness of 54-mil, minimum flange width of 1 3/8 inch, minimum web depth as noted in shear wall schedule and minimum edge stiffener of 1/2 inch.

C. Track shall be a minimum 54-mil with a minimum flange width of 1 1/4" inches and matching wall stud depth per shear wall schedule.

D. Framing screws shall be a minimum of No. 10 self-tapping screws with a minimum head diameter of 0.333 inch in accordance with AISI C1513.

E. All sheathing edges shall be attached to framing members or blocking.

5.5 PRE-ENGINEERED COLD-FORMED METAL TRUSSES

A. GENERAL
   1. Pre-engineered cold-formed metal trusses shall be designed, fabricated, and erected in accordance with AISI's "Standard for Cold-Formed Steel Framing - Truss Design," latest edition. Truss design shall conform to all code requirements, stress increases, deflection limitations, and loading criteria, unless more stringent requirements are indicated.
   2. Truss design shall conform to all code requirements, stress increases, deflection limitations, and loading criteria, unless more stringent requirements are indicated.
   3. All temporary and permanent bracing shall be designed, provided, coordinated, and installed by the metal truss supplier.
   4. All connections to the supporting structure shall be designed and provided by the metal truss supplier and shall be indicated on the truss shop drawings.
   5. Trusses shall be galvanized meeting ASTM A653, G60, or equivalent. Touch up all welds with zinc-rich paint.
   6. Truss supplier shall coordinate truss configuration with other disciplines to allow passage of ductwork, etc.
   7. Truss supplier shall coordinate truss design to support mechanical equipment, roof access, and other roof mounted equipment. See drawings of other disciplines for locations.
   8. Ceilings are not rigidly attached to bottom chord of trusses. Provide bottom chord bracing as required.

B. DESIGN CRITERIA
   1. See plans and truss elevations for additional load requirements and design criteria.
   2. Lateral forces indicated result from wind and seismic loading. Lateral forces indicated are at Service Level and shall not be reduced.
   3. Top Chord Roof Live Load: 20 PSF (on horizontal projection)
   4. Top Chord Dead Load (Typ.): 10 PSF (on horizontal projection)
   5. Bottom Chord Live Load (Typ.): 5 PSF
   6. Bottom Chord Dead Load (Typ.): 8 PSF
   7. Truss Spacing: 24" OC Max.
   8. Minimum uniform net uplift: 15 PSF
   9. Connections between trusses and supporting structure shall be designed for Component & Cladding loads when tributary area is less than 700 SF.
   10. L/360 maximum live load deflection
   11. L/240 maximum total load deflection
   12. Top chord shall be 43-mils min. at gravity trusses and 54-mils min. at drag trusses.

C. SUBMITTALS
   1. Shop drawings shall be prepared under the supervision of and signed and sealed by a licensed professional engineer in the state of the project. Indicate span, member sizes, connections, configuration, spacing, temporary and permanent bracing, stiffeners, and any other component affecting the capacity of the system.
   2. Engineering calculations shall be prepared under the supervision of and signed and sealed by a licensed Professional Engineer in the State the project is located. Calculations shall include all loads, design criteria, material properties, and minimum member and connection requirements indicated on the construction documents.

DIVISION 6 - WOOD

6.1 ROUGH CARPENTRY

A. MATERIAL
   1. Plywood
      a. All plywood shall meet the strength requirements in APA "Plywood Design Specification", 1997.
      b. APA Rated Sheathing shall meet the following minimum requirements:
         1) Grade: C-C, plugged
   2. Connectors and Fasteners
      a. Metal connectors and associated fasteners used for the applications indicated shall meet the following minimum standards:
         1) Untreated Lumber
            a) Connectors.....ASTM A653 G90
            b) Bolts and Anchor Rods.....ASTM F1554 Gr36
            c) Nails and Staples.....ASTM F1667
         2) Sodium Borate (SBX) Pressure Treated Lumber
            a) Connectors.....ASTM A653 G90
            b) Bolts.....ASTM 307
            c) Anchor Rods.....ASTM F1554 Gr36
            d) Nails and Staples.....ASTM F1667 with A153 Hot Dipped Galvanized
         3) All Other Pressure Treated Lumber (eg. ACQ-C, ACQ-D, CA-B, CBA-A, AC2A)
            a) Connectors.....ASTM SS Type 304 or 316
            b) Bolts.....AISI A193, Gr87
            c) Anchor Rods.....ASTM A193, Gr87
            d) Nails and Staples.....ASTM F1667 using AISI Type 304 or 316 Stainless Steel
      b. Fasteners utilizing dissimilar materials are prohibited.
      c. Power driven fasteners shall comply with ICC-ES ESR-1539.
      d. Fastener installation whether power driven or otherwise shall be in accordance with the Building Code and the manufacturer's recommendations. In general fastener heads shall be installed nominally flush with the outer ply of the connection.
         1) Sheathing and support framing damaged by overdriven fasteners shall be removed and replaced.
      e. Aluminum fasteners and flashing shall not be in contact with pressure treated lumber.

B. GENERAL
   1. All lumber in direct contact with water, soil, concrete, masonry, or permanently exposed to weather shall be preservative treated lumber.
   2. All wood shall be stored on site

SPECIAL INSPECTION TABLES

STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS

GENERAL
The Owner shall engage and employ a qualified special inspection agency or agencies to conduct special inspections of structural work as required by chapter 17 of the 2021 International Building Code and as delineated below. Agencies that are considered qualified and acceptable to act as special inspectors will be those acceptable to the building official of the jurisdiction that grants the building permit and the owner.

SPECIAL INSPECTION REPORT REQUIREMENTS
Special Inspectors shall keep records of inspections. The special inspector shall furnish inspection reports to the Building Official, Owner, Architect, Structural Engineer, and Contractor. Reports shall indicate that the structural work inspected was done in conformance to approved Contract Documents. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official, Owner, Architect, and Structural Engineer prior to the completion of that phase of work. A final report of inspections documenting required special inspections of structural work and correction of any discrepancies noted in the inspections shall be submitted at a point in time agreed upon by the Owner and the Building Official prior to the start of work.

REQUIRED SPECIAL INSPECTIONS
The following types of structural work require special inspections. Refer to individual Specification Sections for specific testing and inspecting requirements. Continuous inspection is the full-time observation of work by a qualified special inspector who is present in the area where the work is being performed. Periodic special inspection is the part-time or intermittent observation of work by a qualified special inspector who is present in the area where the work has been or is being performed and at the completion of the work.

CONCRETE CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Inspection of steel reinforcement, including size, quantity and placement.		X	
2. Reinforcing bar welding:			
a. Verify weldability of reinforcing bars other than ASTM A706.		X	
b. Inspect single-pass fillet welds, maximum 5/16"; and		X	
c. Inspect all other welds.	X		
3. Inspection of anchor rods, headed bolts, headed studs, shear stud shear reinforcing and other embedded items prior to and during placement of concrete.	X		
4. Inspection of anchors installed in hardened concrete.			See "Post Installed Anchors" table
5. Verification of use of required design mixture.		X	
6. Testing of slump, air content, and temperature of concrete at the time fresh concrete is sampled to fabricate specimens for strength tests.	X		Frequency of test per specifications.
7. Inspection of concrete placement, including conveying and depositing.	X		
8. Inspection of curing procedures and maintenance of curing temperatures.		X	
9. Inspection of prestressed concrete:			
a. Application of prestressing forces.	X		
b. Grouting of bonded prestressing tendons in the seismic force resisting system.	X		
10. Erection of precast concrete members.		X	
11. Verification of concrete strength before removal of shores and forms from beams and slabs.		X	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.		X	
13. Verification that approved shop drawings are being used on site.		X	

SOILS

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		X	
2. Verify excavations are extended to proper depth and have reached proper material.		X	
3. Perform classification and testing of compacted fill materials.		X	
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X		
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.		X	

MASONRY CONSTRUCTION LEVEL B QUALITY ASSURANCE

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.		X	
2. Verification of compressive strength of masonry prior to construction and for every 5,000 square feet during construction.		X	
3. Verification of proportions of materials in premixed or preblended mortar and grout as delivered to the site.		X	
4. As masonry construction begins, verify that the following are in compliance:			
a. Proportions of site-prepared mortar and grout.		X	
b. Placement of masonry units and construction of mortar joints.		X	
c. Location of reinforcement and control joints.		X	
5. Prior to grouting, verify that the following are in compliance:			
a. Grout space.	X		
b. Grade, type and size of reinforcement and anchor bolts.		X	
c. Placement of reinforcement.		X	
d. Proportions of site-prepared grout.		X	
e. Construction of mortar joints.		X	
6. Verify during construction:			
a. Size and location of structural elements.		X	
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.	X		
c. Welding of reinforcement (if permitted).	X		
d. Preparation, construction and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)		X	
e. Placement of grout.	X		
7. Preparation of any required grout specimens and/or prisms shall be observed.	X		

POST INSTALLED ANCHORS TO CONCRETE AND MASONRY

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Use of proper anchor system and manufacturer.		X	
2. Review of installer's qualifications including certification by anchor manufacturer.		X	* See Note 1
3. Anchor installation process as noted in general notes.			* See Note 2
4. Verification of supporting material's condition.		X	
5. Proof testing as outlined in general notes.		X	
6. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X		
7. Mechanical anchors and adhesive anchors not defined in Note 6.		X	

* Remark Notes:
1. Inspector shall be familiar with anchor manufacturer's written installation procedure and ESR report.
2. Refer to manufacturer's ESR for type of inspection periodic vs. continuous.

WELDED STEEL CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection tasks prior to welding:			
a. Welding procedure specifications (WPS) available.	X		
b. Manufacturer certifications for welding consumables available.	X		
c. Material identification (type/grade).		X	
d. Welder identification system.		X	
e. Fit-up of groove welds (including joint geometry): • Joint preparation • Dimensions (alignment, root opening, root face, bevel) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location) • Backing type and fit (if applicable)		X	
f. Configuration and finish of access holes.		X	
g. Fit-up of fillet welds: • Dimensions (alignment, gaps at root) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location)		X	
h. Check welding equipment.		X	
2. Inspection tasks during welding:			
a. Use of qualified welders.		X	
b. Control and handling of welding consumables: • Packaging • Exposure control		X	
c. No welding over cracked tack welds.		X	
d. Environmental conditions: • Wind speed within limits • Precipitation and temperature		X	
e. WPS followed: • Settings on welding equipment • Travel speed • Selected welding materials • Shielding gas type/flow rate • Preheat applied • Interpass temperature maintained (min/max) • Proper position (F, V, H, OH)		X	
f. Welding techniques: • Interpass and final cleaning • Each pass within profile limitations • Each pass meets quality requirements		X	
3. Inspection tasks after welding:			
a. Welds cleaned.		X	
b. Size, length and location of welds.	X		
c. Welds meet visual acceptance criteria: • Crack prohibition • Weld/base-metal fusion • Crater cross section • Weld profiles • Weld size • Undercut • Porosity	X		
d. Arc strikes.	X		
e. Visually inspect the web k-area for cracks within 3" of doubler plates, continuity plates and stiffeners welded in the k-area.	X		
f. Placement of reinforcing or contouring fillet welds (if required).	X		
g. Backing removed and weld tabs removed (if required).	X		
h. Repair activities.	X		
i. Document acceptance or rejection of welded joint or member.	X		

BOLTED STEEL CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection tasks prior to bolting:			
a. Manufacturer's certifications available for fastener material.	X		
b. Fasteners marked in accordance with ASTM requirements.		X	
c. Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane).		X	
d. Proper bolting procedure selected for joint detail.		X	
e. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements.		X	
f. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used.		X	
g. Proper storage provided for bolts, nuts, washers and other fastener components.		X	
2. Inspection tasks during bolting:			
a. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required.		X	
b. Joint brought to the snug-tight condition prior to the pretensioning operation.		X	
c. Fastener component not turned by the wrench prevented from rotating.		X	
d. Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges.		X	
3. Inspection tasks after bolting:			
a. Document acceptance or rejection of bolted connections.	X		

STEEL DECKING CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	PERFORM FOR EACH STEEL ELEMENT	OBSERVE ON A RANDOM BASIS	
1. Inspection or execution tasks prior to deck placement:			
a. Verify compliance of materials (deck and all deck accessories) with construction documents, including profiles, material properties, and base metal thickness.		X	
b. Document acceptance or rejection of deck & deck accessories.		X	
c. Confirm approved shop drawings are being used in field.	X		
2. Inspection or execution tasks after deck placement:			
a. Verify compliance of deck and all deck accessories installation with construction documents.		X	
b. Verify deck materials are represented by the mill certifications that comply with the construction documents.		X	
c. Document acceptance or rejection of installation of deck and deck accessories.		X	
3. Inspection or execution tasks prior to welding:			
a. Welding procedure specifications (WPS) available.		X	
b. Manufacturer certifications for welding consumables available.		X	
c. Material identification (type/grade).		X	
d. Check welding equipment.		X	
4. Inspection or execution tasks during welding:			
a. Use of qualified welders.		X	
b. Control and handling of welding consumables.		X	
c. Environmental conditions (wind speed, moisture, temperature)		X	
d. WPS followed.		X	
5. Inspection or execution tasks after welding:			
a. Verify size and location of welds, including support, sidelap, and perimeter welds.		X	
b. Welds meet visual acceptance criteria.		X	
c. Verify repair activities.		X	
d. Document acceptance or rejection of welds.		X	
6. Inspection or execution tasks prior to mechanical fastening:			
a. Manufacturer installation instructions available for mechanical fasteners.		X	
b. Proper tools available for fastener installation.		X	
c. Proper storage for mechanical fasteners.		X	
7. Inspection or execution tasks during mechanical fastening:			
a. Fasteners are positioned as required.		X	
b. Fasteners are installed in accordance with manufacturer's instructions.		X	
8. Inspection or execution tasks after mechanical fastening:			
a. Check spacing, type, and installation of support fasteners.		X	
b. Check spacing, type, and installation of sidelap fasteners.		X	
c. Check spacing, type, and installation of perimeter fasteners.		X	
d. Verify repair activities.		X	
e. Document acceptance or rejection of mechanical fasteners.		X	

STRUCTURAL LIGHT GAGE STUD CONSTRUCTION

SPECIAL INSPECTION ITEM	TYPE OF INSPECTION		REMARKS
	CONTINUOUS	PERIODIC	
1. Material verification of studs and weld electrodes.		X	
2. Inspection of light gage welds to structure.		X	
3. Inspection of screw attachment, bolting, anchoring and other fastening of components.		X	
4. Inspection of screw attachment, bolting, anchoring and other fastening of components within wind and seismic force resisting systems, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs.		X	
5. Confirm material size and gage.	X		
6. Confirm approved shop drawings are being used in field.	X		

SEE S010 FOR ADDITIONAL SPECIAL INSPECTIONS AT STORM SHELTER

LIST OF ABBREVIATIONS

ABOVE FINISH FLOOR	AFF
ADDITIONAL	ADDNL
ALTERNATE	ALT
ANCHOR, ANCHORAGE	ANCH
ANCHOR ROD	AR
ANTHONY POWER BEAM	APB
APPROXIMATE	APPROX
ARCHITECT	ARCH
ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	AESS
BACK TO BACK	BB
BALANCE	BAL
BASEMENT	BSMT
BEAM	BM
BEARING	BRG
BENT	BT
BETWEEN	BTWN
BLOCKING	BLKG
BOTTOM	BOT
BOTTOM OF	B/
BOTTOM OF CONCRETE	BC
BOTTOM OF METAL DECK	BMD
BOTTOM OF PIER	BP
BOTTOM OF WALL	BW
BRICKLEDGE	BL
BRIDGING	BRDG
BUILDING	BLDG
CAMBER	c OR C
CANTILEVER	CANT
CAST IN PLACE	CIP
CENTER	CTR
CENTER TO CENTER	CC
CENTERLINE	CL
CLEAR	CLR
COLD-FORMED	CF
COLD-FORMED METAL FRAMING	CFMF
COLD-FORMED STEEL	CFS
COLUMN, COLUMNS	COL
COLUMN STRIP	CS
CONCRETE	CONC
CONCRETE MASONRY UNIT	CMU
CONNECT	CONN
CONNECTION	CONX
CONSTRUCTION	CONST
CONSTRUCTION JOINT OR CONTROL JOINT	CJ
CONTINUE, CONTINUOUS	CONT
CONTRACTOR	CONTR
COORDINATE	COORD
CURTAIN WALL	CW
DEAD LOAD	DL
DEGREE	DEG
DETAIL	DTL
DIAGONAL	DIAG
DIAMETER	DIA
DIAMETER OF REBAR	DB
DOWEL	DWL
DOWN	DN
DRAWING	DWG
EACH	EA
EACH END	EE
EACH FACE	EF
EACH SIDE	ES
EACH WAY	EW
ECCENTRICALLY BRACED FRAME	EBF
EDGE NAILING	EN
EDGE OF SLAB	EOS
ELECTRICAL	ELEC
ELEVATION	EL
ELEVATOR	ELEV
EMBEDMENT	EMBED, EMB
ENGINEER	ENG
ENGINEER OF RECORD	EOR
EQUAL	EQ
EXISTING	EXIST OR (E)
EXPANSION	EXP
EXPANSION JOINT	EJ
EXTERIOR	EXT
FABRICATOR	FAB
FACE OF BRICK	FOB
FAR FACE	FF
FAR SIDE	FS
FIELD VERIFY	FV
FINISH, FINISHED	FIN
FINISH FLOOR ELEVATION	FFE
FIRE TREATED	F.T.
FLANGE	FLG
FLOOR	FLR
FLOOR DRAIN	FD
FOOTING	FTG
FOUNDATION	FDN
FUTURE	FUT OR (F)
GALVANIZED	GALV
GAUGE	ga, GA
GENERAL	GEN
GIRDER TRUSS	GT
GLUE-LAMINATED BEAM	GLB
GRADE	GR
GRADE BEAM	GB
HANGER	HGR
HEADED	HD
HEADER	HDR
HEIGHT	HT
HIGH POINT	HP
HOLLOW CLAY TILE	HCT
HOOK	HK
HORIZONTAL	HOR
INFORMATION	INFO
INSIDE DIAMETER	ID
INSIDE FACE	I.F.
INTERIOR	INT
INTERMEDIATE MOMENT FRAME	IMF
JOINT	JT
JOIST	JST
JOIST SUBSTITUTE	JS
KIP, KIPS	k OR K
KNEE BRACE	KB
LAMINATED STRAND LUMBER	LSL
LAMINATED VENEER LUMBER	LVL
LIGHT	LT
LIVE LOAD	LL
LOCATION	LOC
LONG	LG
LONG LEG HORIZONTAL	LLH
LONG LEG OUT	LLO
LONG LEG VERTICAL	LLV
LONG SIDE VERTICAL	LSV
LONG SIDE HORIZONTAL OR LONG SLOTTED HOLE(S)	LSH
LOW POINT	LP
MANUFACTURER	MFR
MASONRY	MAS
MAXIMUM	MAX
MECHANICAL	MECH
MEZZANINE	MEZZ
MIDDLE	MID
MIDDLE STRIP	MS
MINIMUM	MIN
MISCELLANEOUS	MISC
NEAR FACE	NF
NEAR SIDE	NS
NEW	(N)
NOT IN CONTRACT	NIC
NOT TO SCALE	NTS
ON CENTER	oc
OPENING	OPNG
OPEN WEB TRUSS	OWT
OPPOSITE	OPP
OPPOSITE HAND	OPPHD
ORDINARY CONCENTRICALLY BRACED FRAME	OCBF
ORDINARY MOMENT FRAME	OMF
OUT TO OUT	OO
OUT OF PLANE	OOP
OUTSIDE DIAMETER	OD
OUTSIDE FACE	O.F.
OVERSIZED HOLE(S)	OVH
PARALLEL STRANDED LUMBER	PSL
PIER CAP, PILE CAP	PC
PILASTER	PIL
PLACES	PLCS
PLATE	PL
PLUMBING	PLMB
PLYWOOD	PLYWD
POINT	PT
POST-TENSIONED	P-T
POUND PER SQUARE FOOT	PSF
POUND PER SQUARE INCH	PSI
POWDER ACTUATED FASTENER	PAF
PRECAST	P/C
PRE-ENGINEERED METAL BUILDING	PEMB
PRE-ENGINEERED WOOD TRUSS	PWT
PREFABRICATED	PREFAB
PRESSURE TREATED LUMBER	PTL
QUANTITY	QTY
RADIUS	RAD
REFER, REFERENCE	REF
REINFORCING OR REINFORCEMENT	REINF
REQUIRED	REQD
ROOF TOP UNIT	RTU
SCHEDULE	SCHED
SECTION	SECT
SEISMIC LOAD RESISTING SYSTEM	SLRS
SHEAR WALL	SW
SHEATHING	SHTHG
SHEET	SHT
SHEET METAL	SHTMTL
SHORT LEG OUT	SLO
SHORT SIDE HORIZONTAL OR SHORT SLOTTED HOLE(S)	SSH
SIMILAR	SIM
SLAB ON GROUND	SOG
SLIP CRITICAL	SC
SPACE	SPA
SPECIAL	SP
SPECIAL CONCENTRICALLY BRACED FRAME	SCBF
SPECIAL MOMENT FRAME	SMF
SPECIFICATIONS	SPEC
SQUARE	SQ
STAINLESS STEEL	SS
STANDARD	STD
STEEL	STL
STIFFENER	STIFF
STRUCTURAL	STRUC
STRUCTURAL ENGINEER OF RECORD	SEOR
SYMMETRICAL	SYM
THICK, THICKNESS	THK OR T
THREAD, THREADED	THD
TIE BEAM	TB
TO BE REMOVED	TBR
TOP & BOTTOM	T&B
TOP OF	T/
TOP OF CONCRETE	TC
TOP OF FOOTING	TF
TOP OF MASONRY	TM
TOP OF PIER, PILASTER	TP
TOP OF PIER CAP, PILE CAP	TPC
TOP OF STEEL	TS
TOP OF WALL	TW
TREAD	T OR TR
TYPICAL	TYP
UNLESS NOTED OTHERWISE	UNO
VERTICAL BRACE	VB
VERTICAL, VERTICALLY	VT OR VERT
VERIFY IN FIELD	VIF
WELDED WIRE REINFORCING	WWR
WINDOW	WDW
WITH	w/
WOOD	WD
WORKING POINT	WP
WATERSTOP, WATERSEAL	WS
X-BRACING	X-BR

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST CHARLES, MO 63303

No.	Revision	Date

SPECIAL INSPECTIONS

KPFF Project No.
2400253

Sheet No.
S002

Date
2026/06/08

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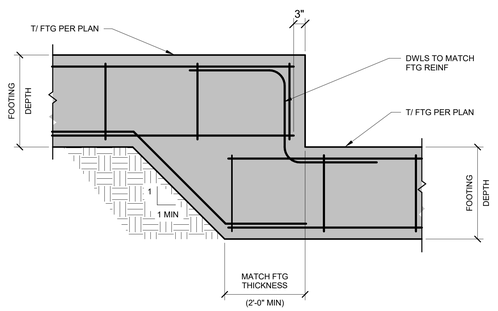
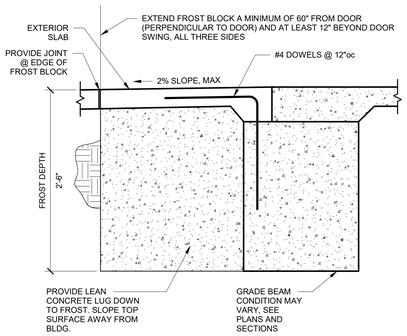
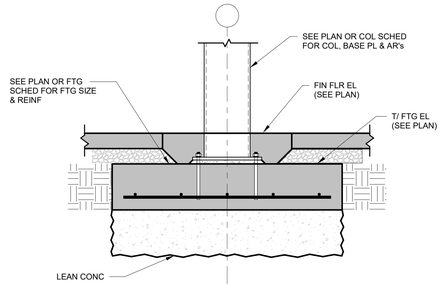


4 S003 TYPICAL TRENCH FOOTING STEP DETAIL
3/4" = 1'-0"

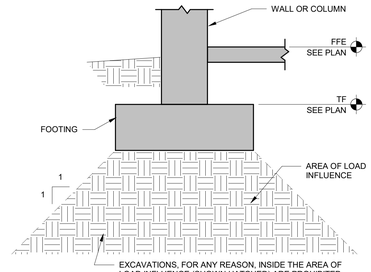


3 S003 TYPICAL FROST BLOCK DETAIL AT EXTERIOR DOOR
NTS

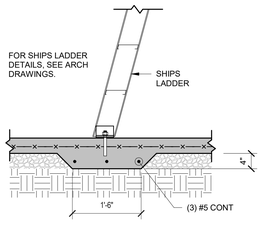


EXCAVATE TO SUITABLE BEARING STRATUM AND PROVIDE LEAN CONCRETE (500 PSI, MIN) OR COMPACTED ENGINEERED FILL IF BOTTOM OF FOOTING EXCAVATION DOES NOT PROVIDE REQUIRED BEARING STRENGTH. CONFIRM SUITABLE BEARING ELEVATION WITH GEOTECHNICAL ENGINEER.

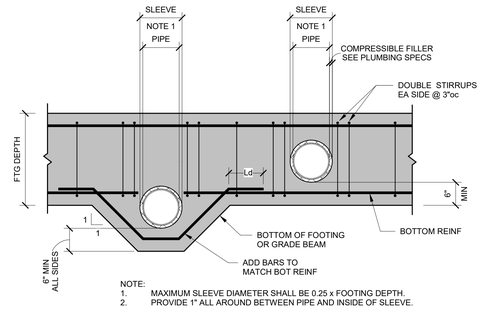
2 S003 TYPICAL FOOTING OVER EXCAVATION DETAIL
N.T.S.



1 S003 TYPICAL PROHIBITED EXCAVATIONS AT FOUNDATION
NTS

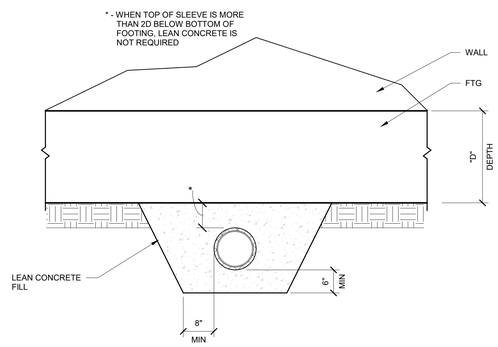


7 S003 TYPICAL SHIPS LADDER AT SLAB ON GRADE DETAIL
NTS

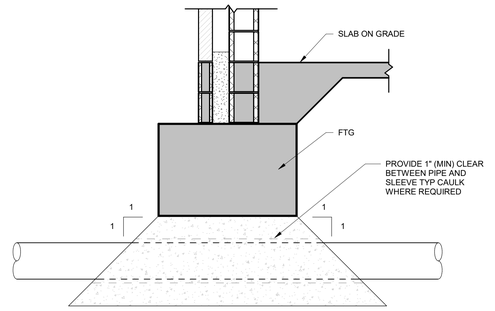


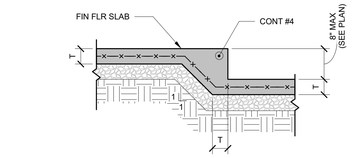
NOTE:
1. MAXIMUM SLEEVE DIAMETER SHALL BE 0.25 x FOOTING DEPTH.
2. PROVIDE 1" ALL AROUND BETWEEN PIPE AND INSIDE OF SLEEVE.

6 S003 TYPICAL PIPE SLEEVE THRU FOUNDATION DETAIL
NTS

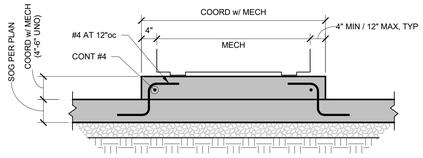


5 S003 TYPICAL FOOTING DETAIL WHERE PLUMBING PASSES BELOW FOOTING
3/4" = 1'-0"

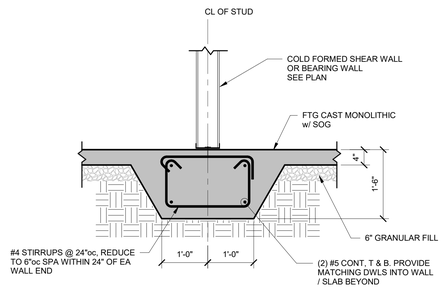




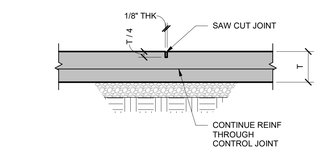
12 S003 TYPICAL DEPRESSION OR STEP IN SLAB ON GROUND DETAIL
NTS



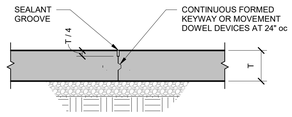
11 S003 TYPICAL HOUSEKEEPING PAD
3/4" = 1'-0"



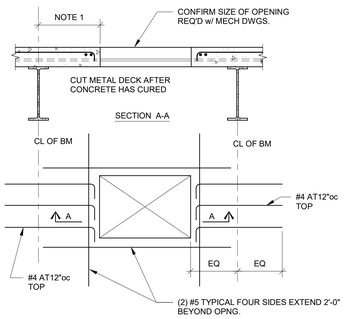
10 S003 TYPICAL THICKENED SLAB AT LIGHT GAUGE LOAD-BEARING INTERIOR PARTITION OR SHEAR WALL
3/4" = 1'-0"



8 S003 TYPICAL SLAB ON GRADE CONTROL JOINT DETAIL
3/4" = 1'-0"

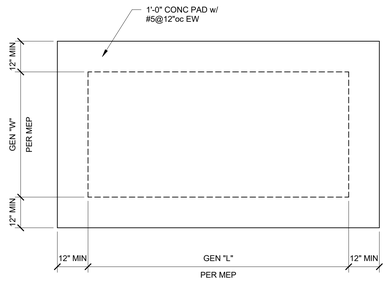


9 S003 TYPICAL SLAB ON GRADE CONSTRUCTION JOINT DETAIL
3/4" = 1'-0"



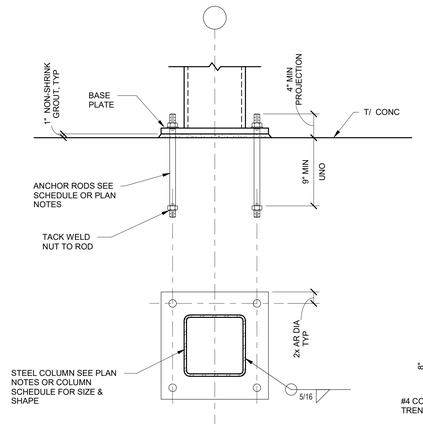
NOTE 1
#4 HOOKED BARS ARE REQUIRED ONLY WHEN THE DISTANCE FROM THE EDGE OF THE OPENING TO THE CENTERLINE OF THE BEAM EXCEEDS 17".

16 S003 TYPICAL OPENING IN COMPOSITE SLAB DETAIL
NTS

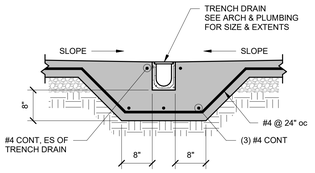


NOTES:
1. LOCATE REINFORCEMENT AT CENTER OF SLAB.

15 S003 GENERATOR FOUNDATION
1/2" = 1'-0"



14 S003 TYPICAL COLUMN BASE PLATE DETAIL
NTS



13 S003 TYPICAL TRENCH DRAIN DETAIL
NTS

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST CHARLES, MO 63303

No.	Revision	Date

TYPICAL DETAILS

KPFF Project No.
2400253

Sheet No.
S003

Date
2026/06/08

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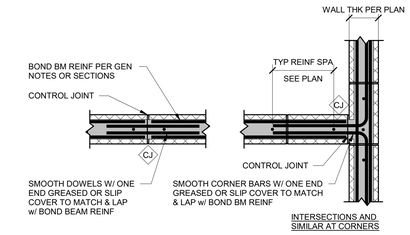
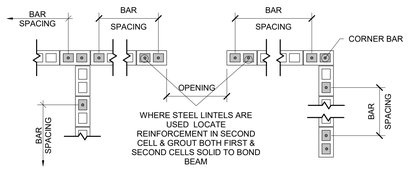


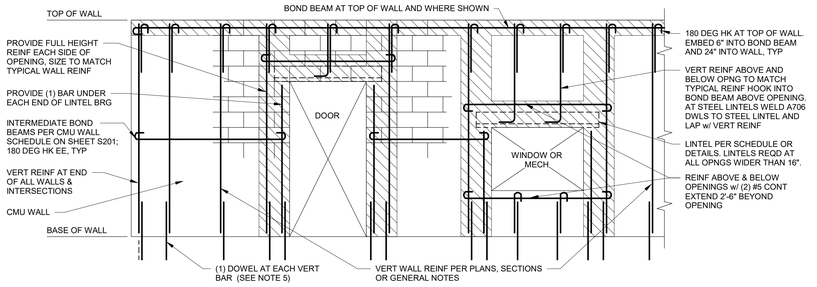
NOTES:
1. CMU WALL CONTROL JOINTS INDICATED ON PLAN AS ⟨CJ⟩
2. CONTROL JOINT AT STORM SHELTER SHALL NOT EXCEED 3/8" IN WIDTH.
3. SEE ARCHITECT FOR CONTROL JOINTS IN MASONRY VENEERS.
4. CONTROL JOINTS IN MASONRY VENEERS DO NOT NEED TO ALIGN WITH CONTROL JOINTS IN LOAD BEARING CMU WALLS.
5. JOINT REINFORCING TO BE DISCONTINUOUS AT CONTROL JOINTS.
6. CONTROL JOINTS SHOWN IN STRUCTURAL DRAWINGS ARE FOR LOAD BEARING WALLS. SEE ARCHITECTURAL DRAWINGS FOR NON-LOAD BEARING WALLS. IF JOINTS ARE NOT SHOWN IN NON-LOAD BEARING WALLS, SPACE JOINTS AT A MAXIMUM OF 20'-0"oc. COORDINATE FINAL JOINT LOCATIONS WITH ARCHITECT.
7. DO NOT INSTALL CONTROL JOINTS THROUGH LINTELS OR LINTEL BEARING POINTS.
8. DO NOT BREAK BOND BEAM REINFORCING AT FLOOR AND ROOF LINES.
9. CONTINUE CONTROL JOINT TO BASE OF CMU WALL.

3 S004 TYPICAL CMU WALL CONTROL JOINT DETAIL
NTS



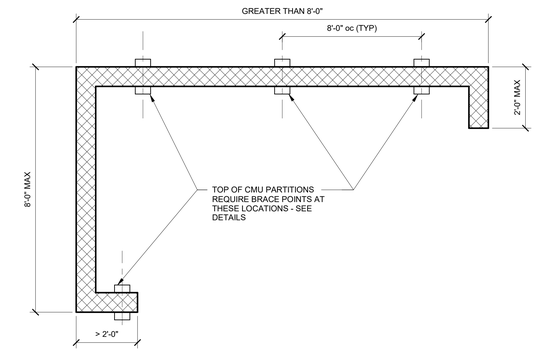
NOTE: SEE PLAN AND DETAILS FOR REINFORCEMENT

2 S004 TYPICAL CMU WALL REINFORCEMENT DETAILS
NTS

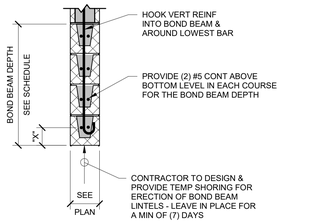


1. LOCATE REINFORCING AS SHOWN ON TYPICAL CMU WALL REINFORCING DETAIL.
2. FOR HORIZONTAL JOINT REINF AND SPLICES FOR VERT REINF, SEE GENERAL NOTES.
3. SEE ARCH DRAWINGS FOR SIZE AND LOCATION OF NON-STRUCTURAL CMU WALLS NOT SHOWN ON STRUCTURAL DRAWINGS.
4. GROUT CELLS SOLID FULL HEIGHT AT ALL VERTICAL REINFORCING AND AS NOTED IN WALL REINFORCING SCHEDULES.
5. HOOK DOWELS INTO FOUNDATION IF AVAILABLE EMBEDMENT LENGTH IS LESS THAN STRAIGHT BAR DEVELOPMENT LENGTH. CONTRACTOR OPTION: EMBED DOWELS IN EPOXY ADHESIVE PER GENERAL NOTES. CAST-IN PLACE DOWELS REQUIRED AT STORM SHELTER.
6. SHADED AREAS INDICATE LOCATIONS WHERE PENETRATIONS OF ANY KIND ARE PROHIBITED WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER.
7. ALL HORIZONTAL REINFORCEMENT TERMINATE IN 180 DEGREE HOOKS.

1 S004 TYPICAL CMU WALL REINFORCING ELEVATION - SPECIAL REINF CMU
NTS



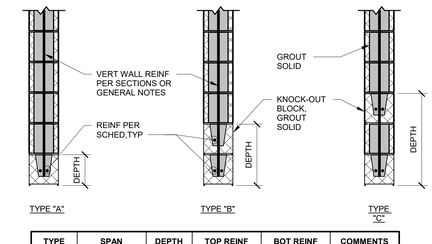
6 S004 TYPICAL DIAGRAMATIC PLAN OF CMU PARTITION TOP BRACING
NTS



MARK	BOND BEAM DEPTH	COVER "X"	BOND BEAM B/REINF	VERTICAL REINF EA END OF LINTEL	COMMENTS
L-1	16"	3"	(2) #5		
L-2	32"	3"	(2) #7		
L-3	8"	3"	(2) #6		

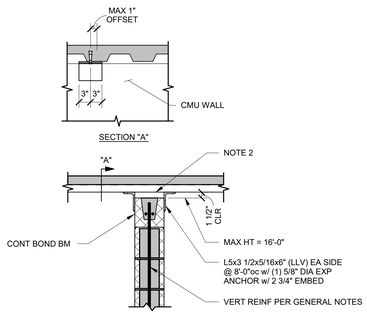
NOTE:
1. EXTEND BOND BEAM REINF 30" PAST OPENING. REINFORCEMENT THAT CANNOT ACHIEVE 30" PAST OPENING SHALL TERMINATE IN 180 DEGREE HOOK AND EXTENED AT LEAST 18" PAST OPENING. NOTIFY ENGINEER IF THIS CAN'T BE ACHIEVED.
2. DO NOT INSTALL CONTROL JOINT IN CMU WITHIN BOND BEAM REINF.

5 S004 TYPICAL LOAD-BEARING CMU LINTEL SCHEDULE
NTS



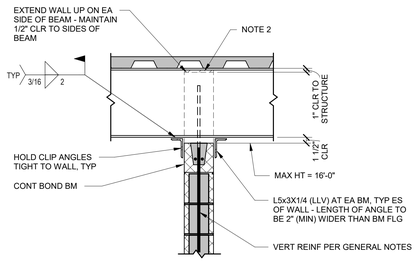
TYPE	SPAN	DEPTH	TOP REINF	BOT REINF	COMMENTS
"A"	1'-4" TO 5'-0"	8"	-	(2) #5	-
"B"	5'-1" TO 10'-1"	16"	-	(2) #5	
"C"	10'-1" TO 15'-0"	24"	-	(2) #5	

4 S004 TYPICAL NON-LOAD BEARING CMU WALL LINTEL SCHEDULE
NTS



NOTES:
1. SEE ARCH DWGS FOR LOCATION OF NON-LOAD BRG CMU PARTITIONS
2. COMPRESSIBLE FILLER AT NON-RATED WALLS. FIRESTOP AT RATED WALLS.

8 S004 TYPICAL NON-BEARING CMU PARTITION BRACE DETAIL PERPENDICULAR TO DECK SPAN
NTS



NOTES:
1. SEE ARCH DWGS FOR LOCATION OF NON-LOAD BRG CMU PARTITIONS.
2. COMPRESSIBLE FILLER AT NON-RATED WALLS. FIRESTOP AT RATED WALLS.

7 S004 TYPICAL NON-BEARING CMU PARTITION BRACE DETAIL PERPENDICULAR TO BEAM AT FLOOR
NTS

SCALE: 3" = 1'-0" / SCALE: 1 1/2" = 1'-0" / SCALE: 1" = 1'-0" / SCALE: 3/4" = 1'-0" / SCALE: 1/2" = 1'-0" / SCALE: 3/8" = 1'-0" / SCALE: 1/4" = 1'-0" / SCALE: 1/8" = 1'-0" / SCALE: 3/32" = 1'-0" / SCALE: 1/16" = 1'-0"

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD
ST CHARLES, MO 63303

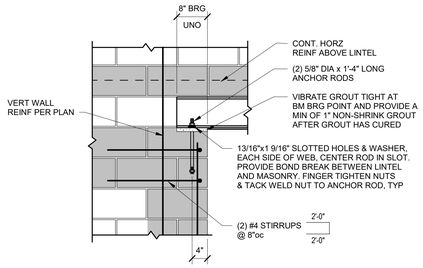
No.	Revision	Date

TYPICAL DETAILS

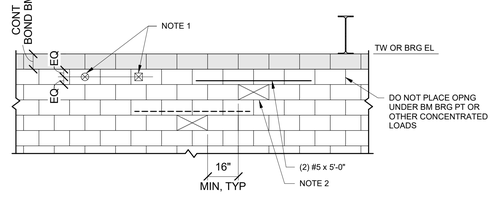
KPFF Project No.
2400253

Sheet No.
S004

Date
2026/06/08

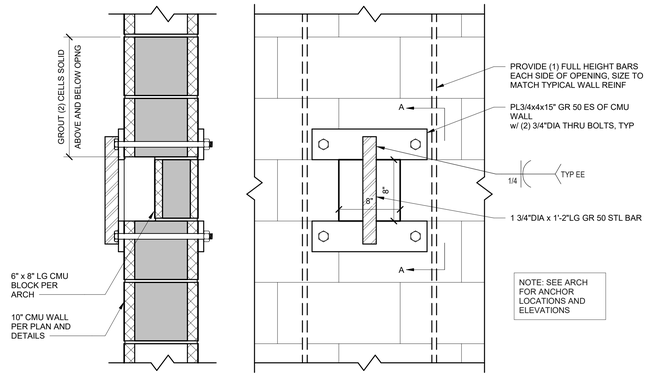


4 S005 TYPICAL STEEL BEAM OR LINTEL BEARING DETAIL PARALLEL TO WALL
NTS

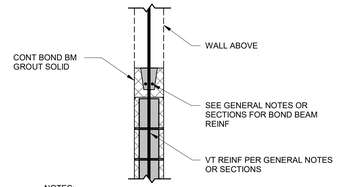


NOTES:
1. ROUND OR SQUARE HOLES NO GREATER THAN 8" MAY BE PLACED ANYWHERE IN UNREINFORCED CELLS AT MID-HEIGHT OF BLOCK. THESE OPENINGS SHALL NOT OCCUR THRU ENDS OF BLOCK AT HEAD JOINT NOR SHALL THEY INTERRUPT ANY VERT OR HORIZ WALL REBAR.
2. ONE FULL BLOCK MAY BE OMITTED FOR AN OPENING IF REINFORCED ABOVE AS SHOWN. ANY VERT OR HORIZ REBAR INTERRUPTED SHALL BE PLACED IN ADJACENT CELLS.
3. REFER TO MEP DWGS FOR SIZE & LOCATION OF ALL MEP WALL PENETRATIONS.
4. THIS DETAIL ONLY APPLIES TO NEW WALL CONSTRUCTION WHERE OPENING IS BUILT w/ WALL.

3 S005 TYPICAL DETAIL AT SMALL MEP PENETRATIONS THROUGH CMU WALL
NTS

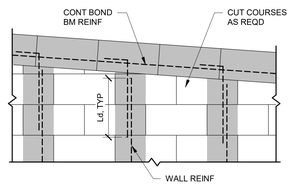


2 S005 TYPICAL WALL RAPPELLING ANCHOR DETAIL
1 1/2" = 1'-0"

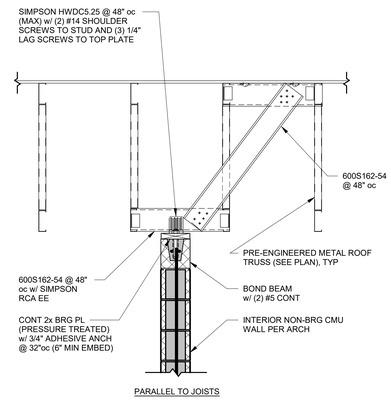


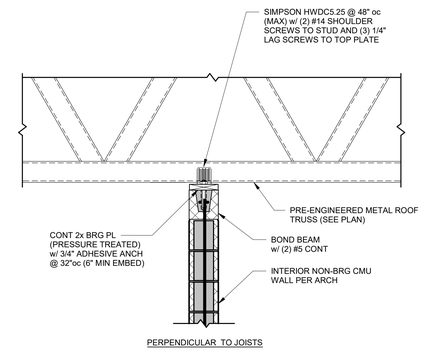
NOTES:
1. BOND BEAMS TO BE LOCATED AT TOPS OF WALLS & LOCATIONS AS INDICATED IN SECTIONS & DETAILS
2. PROVIDE CORNER BARS AT CORNERS AND INTERSECTIONS OF WALLS. CORNER BARS SHALL ACHIEVE LAP SPLICES NOTED IN GENERAL NOTES.
3. EXTEND BOND BEAM AROUND CORNERS WHERE REQUIRED TO ACCOMMODATE CORNER BARS.

1 S005 TYPICAL CMU BOND BEAM DETAIL
NTS



6 S005 TYPICAL SLOPED BOND BEAM DETAIL
NTS





NOTES:
1. SEE ARCH DWGS FOR LOCATION OF NON-LOAD BRG CMU PARTITIONS.

5 S005 TYPICAL NON-BEARING PARTITION ANCHORAGE AT ROOF TRUSSES
NTS

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No.	Date	Revision

TYPICAL DETAILS

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2026/06/08

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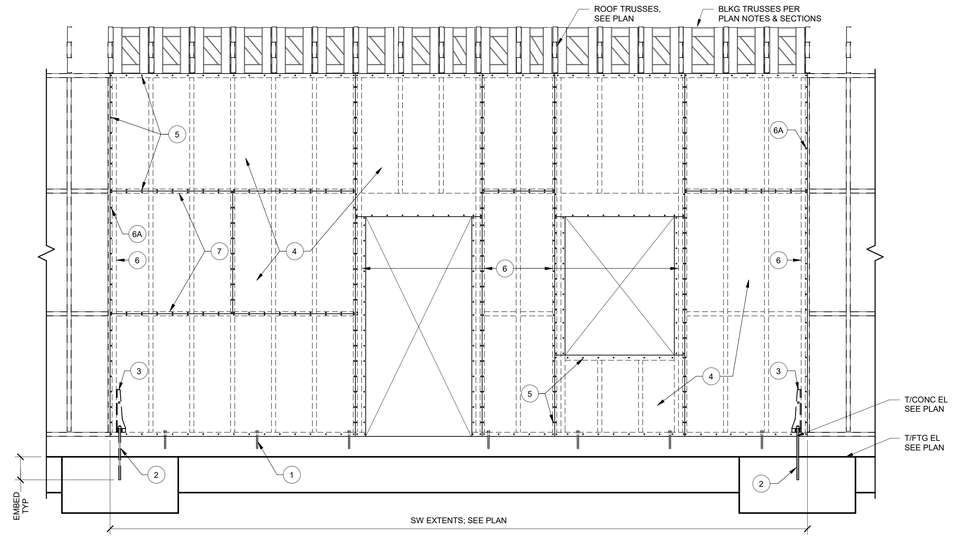
SHEAR WALL FORCES SCHEDULE AT ROOF (SERVICE LOADS)	
SHEAR WALL MARK (SEE PLAN)	SHEAR WALL FORCE (LB/FT)
1	260
2	110
3	350
4	575
APP BAY	400

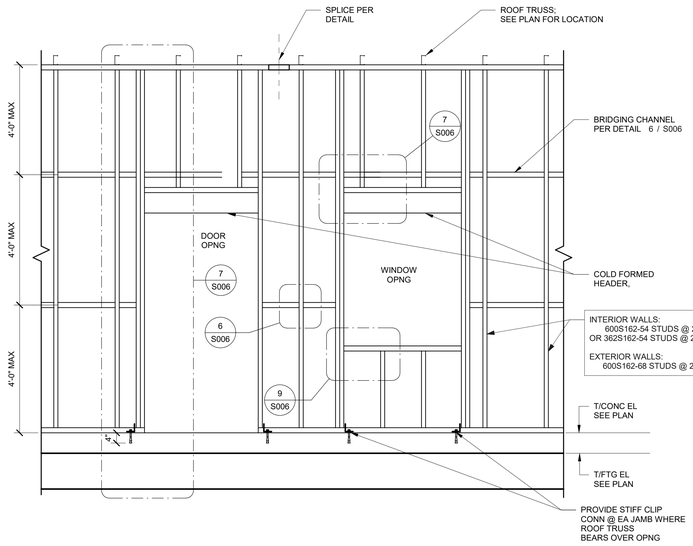
COLD FORMED METAL STUD SHEAR WALL SCHEDULE					
SHEARWALL COMPONENT (SEE DETAIL)	SHEAR WALL MARK SW (SEE PLAN)	1	2	3	4
1	ANCHOR RODS BOTTOM TRACK	5/8" DIA ADHESIVE ANCHORS @ 48"oc w/ 6" EMBED (SEE NOTE 5)	5/8" DIA ADHESIVE ANCHORS @ 48"oc w/ 6" EMBED (SEE NOTE 5)	5/8" DIA ADHESIVE ANCHORS @ 48"oc w/ 6" EMBED (SEE NOTE 5)	5/8" DIA ADHESIVE ANCHORS @ 48"oc w/ 6" EMBED (SEE NOTE 5)
2	HOLD DOWN ANCHOR	1/2" DIA ADHESIVE ANCHOR w/ MIN 9" EMBED SEE DETAIL 2/S106	1/2" DIA ADHESIVE ANCHOR w/ MIN 9" EMBED SEE DETAIL 2/S106	5/8" DIA ADHESIVE ANCHOR w/ MIN 9" EMBED SEE DETAIL 2/S106	7/8" DIA ADHESIVE ANCHOR w/ MIN 12" EMBED SEE DETAIL 2/S106
3	HOLD DOWN	S/DTT2Z	HTT4	HTT4	S/HD8S
4	PLYWOOD SHEATHING	15/32" (OR 1/2") MIN	15/32" (OR 1/2") MIN	15/32" (OR 1/2") MIN	15/32" (OR 1/2") MIN
5	SHEATHING FASTENERS	#10 @ 6"oc	#10 @ 6"oc	#10 @ 6"oc	#10 @ 4"oc
6	END CHORDS	(2) 600S162-68	(2) 362S162-54	(2) 600S162-54	(2) 362S162-54
6A	END CHORDS	#10 @ 6"oc	#10 @ 6"oc	#10 @ 6"oc	#10 @ 4"oc
7	BLOCKING	MATCH WALL STUDS	MATCH WALL STUDS	MATCH WALL STUDS	MATCH WALL STUDS



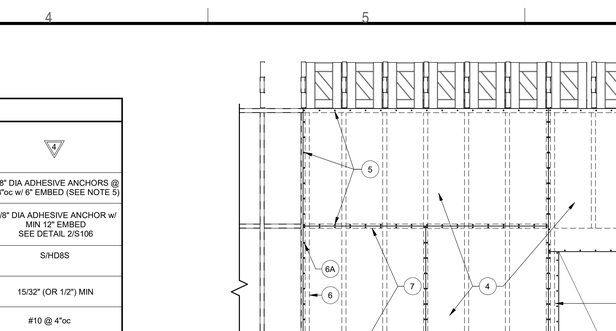
1 / S006 TYPICAL COLD FORMED METAL STUD SHEAR WALL ELEVATION
1/2" = 1'-0"

TYPICAL NOTES:

1. TOP & BOT TRACKS TO BE 54 MIL, MIN 1 1/4" LEG TRACK MATCHING WALL STUDS DEPTH.
2. FASTENING OF CONX HARDWARE TO BE PER MFR RECOMMENDATIONS.
3. REFER TO TYP DETAILS FOR BUILT UP STUD CONSTRUCTION.
4. SEE SECTIONS & TYPICAL DETAILS FOR LOCATION AND LOADING FOR BLOCKING TRUSSES TO TRANSFER SHEAR LOADS TO SHEAR WALL.
5. MIN REQ'D EDGE DISTANCE FOR BOTTOM TRACK ANCHORS IS 3 1/8".

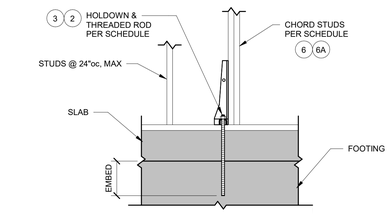


4 / S006 TYPICAL COLD FORMED METAL STUD BEARING WALL DETAIL
1/2" = 1'-0"

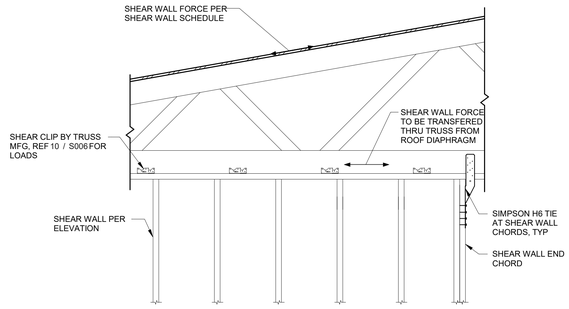


* TRUSS MFR TO DESIGN BLKG TRUSSES FOR LOAD-BEARING WALL LOADS IN ADDITION TO SHEAR WALL FORCE

3 / S006 TYPICAL SHEAR WALL AT ROOF (TRUSSES PERPENDICULAR TO SHEAR WALLS)
3/4" = 1'-0"

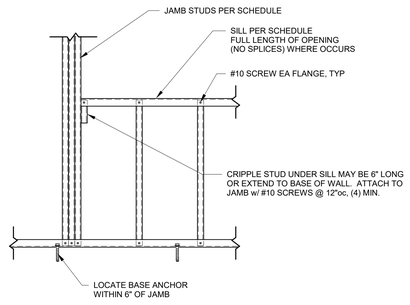


2 / S006 TYPICAL SHEAR WALL HOLD DOWN DETAIL
3/4" = 1'-0"



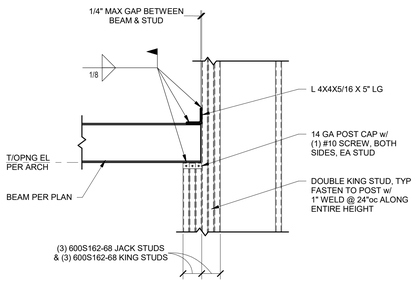
* TRUSS MFR TO DESIGN TRUSS FOR GRAVITY LOADS IN ADDITION TO LATERAL FORCES

5 / S006 TYPICAL SHEAR WALL AT ROOF (TRUSSES PARALLEL TO SHEAR WALLS)
3/4" = 1'-0"

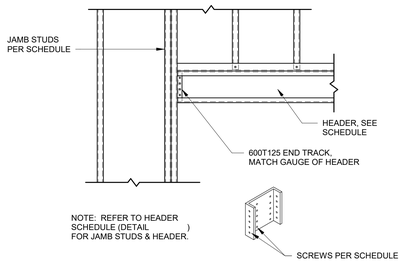


NOTE: REFER TO HEADER SCHEDULE (DETAIL 2 / S007) FOR JAMB STUDS & SILL.

9 / S006 TYPICAL COLD FORMED METAL EXTERIOR WALL SILL ATTACHMENT TO JAMB DETAIL
NTS

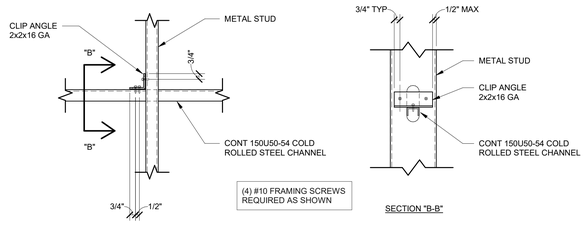


8 / S006 TYPICAL STEEL BEAM BEARING ON LT GA WALL STUD PACK
3/4" = 1'-0"



NOTE: REFER TO HEADER SCHEDULE (DETAIL) FOR JAMB STUDS & HEADER.

7 / S006 TYPICAL COLD FORMED METAL STUD WALL OPENING DETAIL
NTS



NOTES:
1. ALL BRIDGING SHALL BE TERMINATED AT JAMBS OR CORNER STUDS. BRIDGING SHALL NOT HANG LOOSE
2. SPLICE CHANNELS TOGETHER w/ 150U50-54 x 1'-0" LG w/ (6) #10 SCREWS ((3) EA SIDE OF SPLICE).
3. CONTRACTOR'S OPTION TO USE SIMPSON MSUBH3.25 IN LIEU OF CLIP ANGLE.

6 / S006 TYPICAL COLD FORMED METAL STUD WALL BRIDGING CHANNEL DETAILS
NTS

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No.	Date	Revision

SHEARWALL SCHEDULE, ELEV, & DETAILS

KPFF Project No.
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S006

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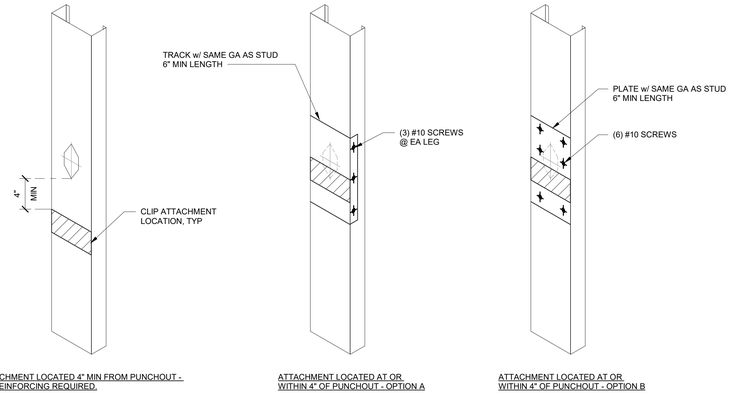
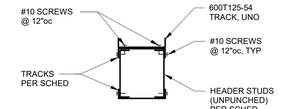


3 / S007 TYPICAL PUNCHOUT REINFORCING
1 1/2" = 1'-0"

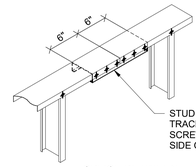
COLD FORMED METAL FRAMING HEADER SCHEDULE					
MARK	HEADER MEMBERS	JAMB MEMBERS	CONNECTION TO END TRACK	CONNECTION OF END TRACK TO JAMB	SILL TRACK (WHERE OCCURS)
H-1	(2) 600S162-54 / (2) 600T125-54*	(2) 600S162-54*	(8) #10 (HALF EA SIDE)	(8) #10	600T125-54*
H-2	(2) 600S162-68 / (2) 600T125-68*	(2) 600S162-68*	(8) #10 (HALF EA SIDE)	(8) #10	600T125-68*
H-3	(2) 1000S162-68 / (2) 600T125-68*	(3) 600S162-68*	(12) #10 (HALF EA SIDE)	(12) #10	600T125-97*

NOTES:

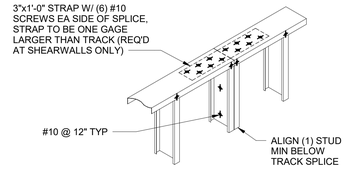
1. HEADER MEMBERS SHALL BE UNPUNCHED.
2. PROVIDE WEB STIFFENERS EACH END OF ALL HEADERS.
3. * AT 3 5/8" WIDE WALLS, SUBSTITUTE 362 TRACKS AND JAMB STUDS OF SAME GAUGE.



2 / S007 TYPICAL COLD FORMED METAL HEADER SCHEDULE
NTS

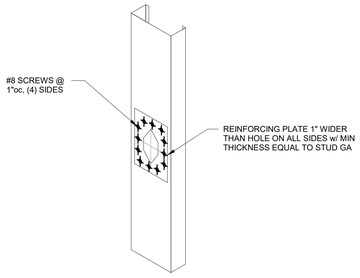


A SPLICE BETWEEN STUDS

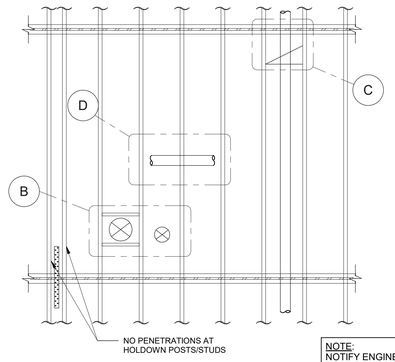


B SPLICE AT STUD OR PANEL JOINT

1 / S007 TYPICAL COLD FORMED METAL TOP TRACK SPLICE DETAIL
1" = 1'-0"

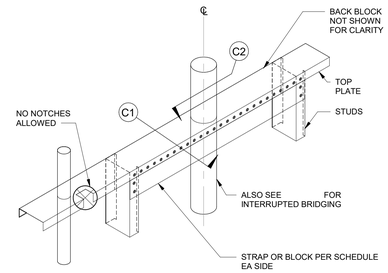


5 / S007 TYPICAL HOLE REINFORCING DETAIL
1 1/2" = 1'-0"



A STUCTURAL WALL ELEVATION

NOTE:
NOTIFY ENGINEER WHERE OPENINGS EXCEED THOSE NOTED IN THIS DETAIL.

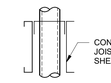


C HOLE IN TOP PLATE AT STRUCTURAL WALL
SCALE: 1" = 1'-0"

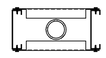
STRAP AND HOLE SIZE SCHEDULE				
MAX HOLE ø (IN)			STRAP	BLOCK
4" TRACK	6" TRACK	8" TRACK		
1"	1 1/2"	2 1/2"	NOT REQUIRED	NOT REQUIRED
1 3/4"	*2 1/2"	*4 1/2"	2"x27"x97-MIL W/ (15) #10 EA SIDE	600S137-43 W/ # 10 @ 3" TO TOP TRACK

* PROVIDE BLOCK EACH SIDE OF PENETRATION, UNLESS RIM JOISTS/TRACKS OCCUR.

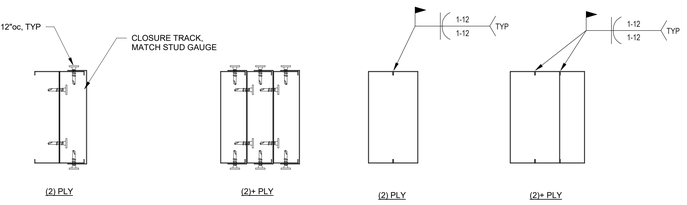
NOTES:
1. HOLES SHALL BE PUNCHED OR DRILLED ROUND AND LOCATED IN THE MIDDLE OF THE TRACK.
2. LARGER HOLES REQUIRE APPROVAL FROM STRUCTURAL ENGINEER.
3. NOTCHES ARE NOT PERMITTED ANYWHERE.



C1 AT RIM TRACKS

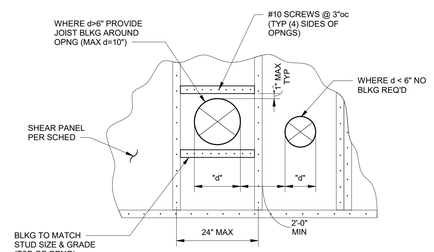


C2 AT BLOCKS

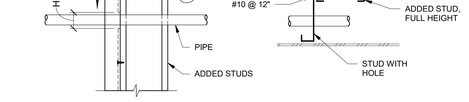


A SCREWED OPTION
B WELDED OPTION

6 / S007 TYPICAL BUILT-UP COLD-FORMED METAL STUDS
NTS



B PENETRATIONS IN SHEAR WALLS

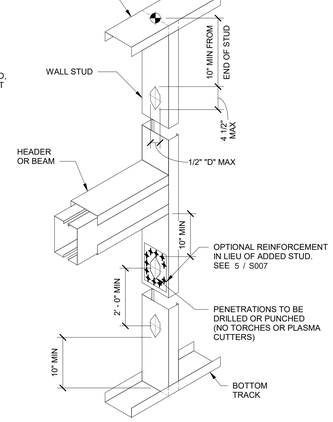


D1 SECTION D2 PLAN

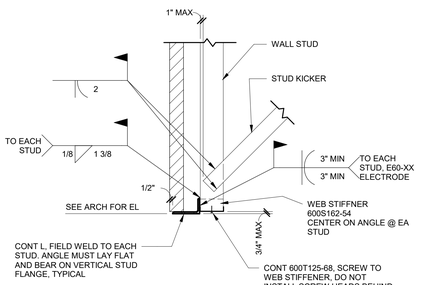
NOMINAL STUD SIZE	HOLE SIZE	REINFORCEMENT	DETAIL
3.5"-4"	<1/2"	-	D1
	<1"	-	D1
	<1 3/4"	ADDED STUD	D1
5.5"-6"	<3/4"	-	D1
	<1 1/2"	-	D1
	<2 3/4"	ADDED STUD	D1

NOTES:
1. HOLES SHALL BE PUNCHED OR DRILLED ROUND AND LOCATED IN THE MIDDLE OF THE STUD.
2. LARGER HOLES REQUIRE APPROVAL FROM STRUCTURAL ENGINEER.
3. NOTCHES ARE NOT PERMITTED ANYWHERE.

D PIPE PENETRATION AT STUDS

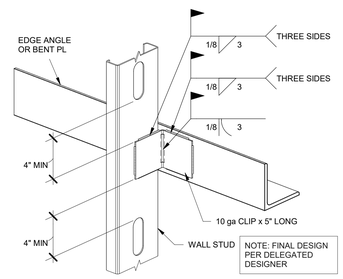


4 / S007 STRUCTURAL WALL PENETRATIONS
1" = 1'-0"



NOTE: ALLOW CLEARANCE FOR WELD BETWEEN ANGLE & VERTICAL STUD OR INSTALL STIFFENER AFTER WELD IS COMPLETE.

8 / S007 TYPICAL SHELF ANGLE AND STUD KICKER ATTACHMENT DETAIL
3/4" = 1'-0"



7 / S007 TYPICAL LIGHT GAUGE STUD CLIP ATTACHMENT DETAIL
1/2" = 1'-0"

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 3/8" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 3/32" = 1'-0"
SCALE: 1/16" = 1'-0"

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TYPICAL DETAILS

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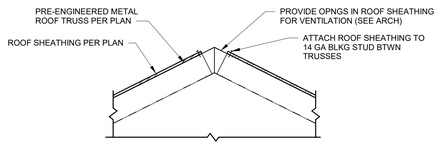
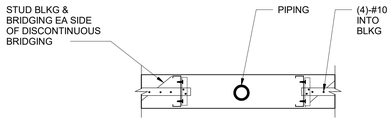
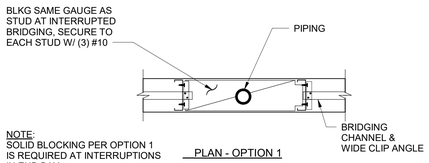


4 S008 TYPICAL RIDGE VENT DETAIL
3/4" = 1'-0"



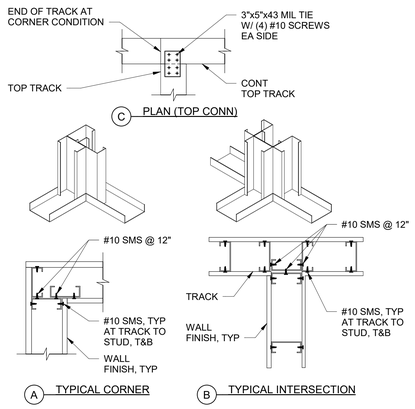
PLAN - OPTION 2



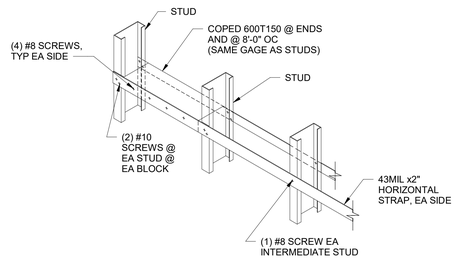
NOTE:
SOLID BLOCKING PER OPTION 1
IS REQUIRED AT INTERRUPTIONS
IN END BAY.

PLAN - OPTION 1

3 S008 TYPICAL INTERRUPTED COLD FORMED METAL WALL BRACING DETAIL
N.T.S.



2 S008 TYPICAL COLD FORMED METAL WALL CORNERS (NON-SHEAR WALLS) DETAIL
N.T.S.



1 S008 TYPICAL COLD FORMED METAL STUD WALL BLOCKING DETAIL
NTS

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TYPICAL DETAILS

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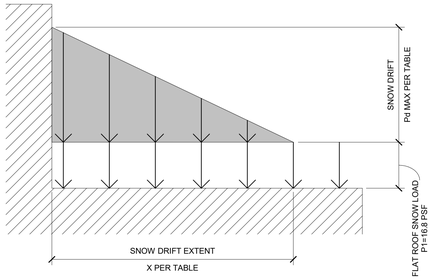
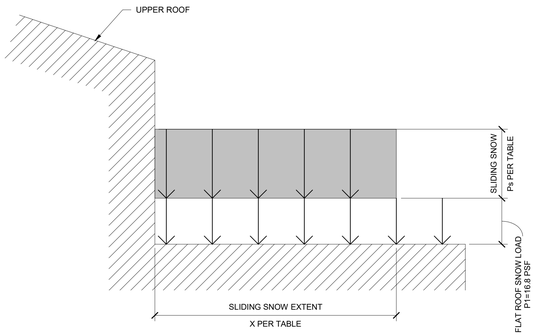


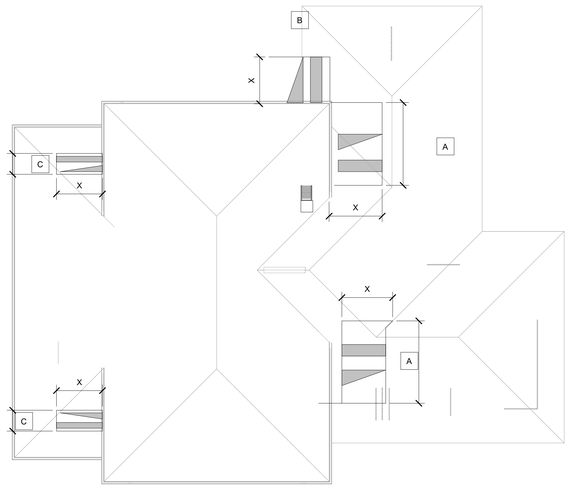
SNOW LOADS				
TYPE	SNOW DRIFT SURCHARGE		SLIDING SNOW SURCHARGE	
	Pd, MAX (PSF)	X(FT)	Ps (PSF)	X(FT)
A	44	16'-8"	17	15'-0"
B	50	12'-0"	17	15'-0"
C	50	12'-0"	17	14'-0"

- DESIGNATES SNOW DRIFT

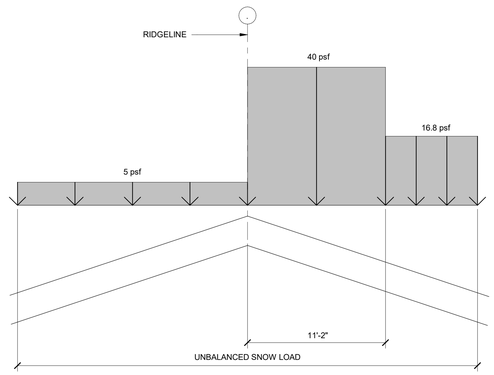
- DESIGNATES SLIDING SNOW



2 S009 SNOW DRIFT LOADING DIAGRAM
3/4" = 1'-0"



1 S009 SNOW LOADING DIAGRAM
1/16" = 1'-0"



3 S009 UNBALANCED SNOW LOAD LEGEND
3/4" = 1'-0"

SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1" = 1'-0" 2" 1" 6" 3" 0
SCALE: 3/4" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 0
SCALE: 3/8" = 1'-0" 6" 4" 2" 0
SCALE: 1/4" = 1'-0" 8" 4" 2" 0
SCALE: 1/8" = 1'-0" 16" 8" 4" 0
SCALE: 3/32" = 1'-0" 24" 16" 8" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 0

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SNOW LOADING DIAGRAM

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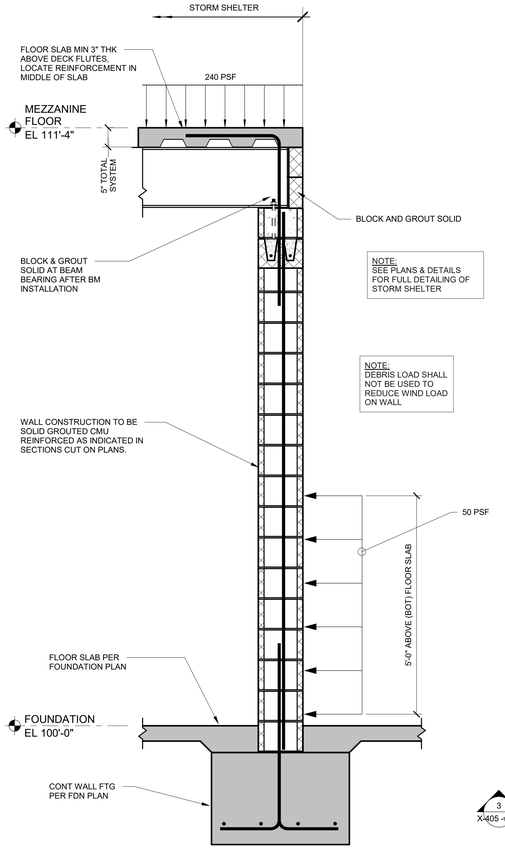
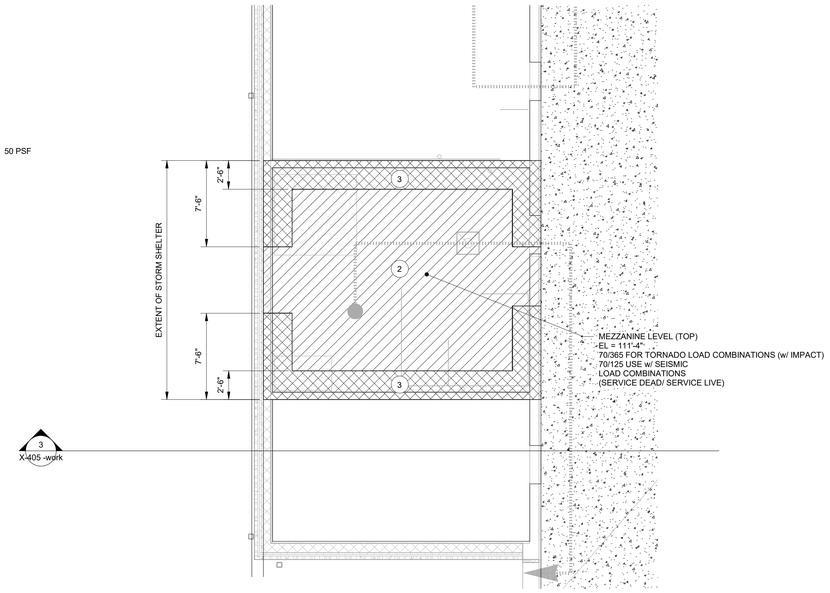


NOTE: FALLING DEBRIS HAZARD AT MEZZANINE FLOOR INCLUDES DEBRIS IMPACT FACTOR OF 2.0.

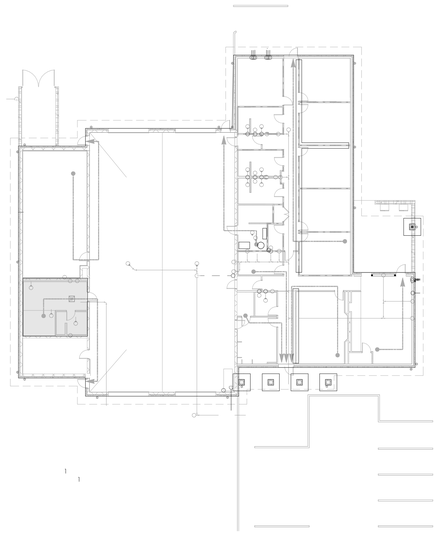
3 / S010 DEBRIS LOAD ON STORM SHELTER MASONRY WALL SECTION
3/4" = 1'-0"

STORM SHELTER WIND LOAD SCHEDULE		
MARK	PRESSURE (PSF)	
1	-306	116
2	-387	116
3	-509	116

NOTES:
1. + INDICATES FORCE ACTING TOWARD STRUCTURE.
2. - INDICATES FORCE ACTING AWAY FROM STRUCTURE.
3. ALL LOADS ARE ULTIMATE LEVEL, COMPONENTS AND CLADDING WIND LOADS BASED ON AN EFFECTIVE TRIBUTARY AREA OF 10 SF.



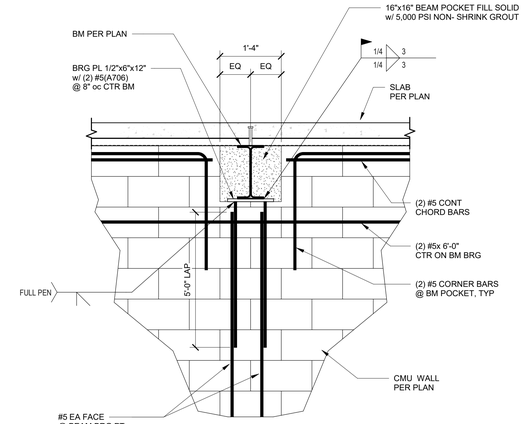
2 / S010 STORM SHELTER GRAVITY AND WIND LOADING PLAN
3/16" = 1'-0"



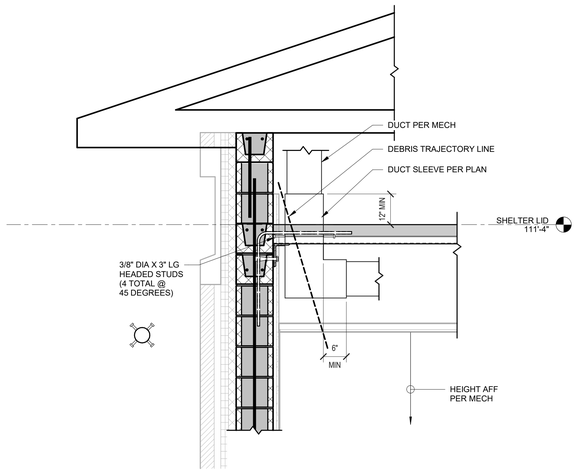
1 / S010 STORM SHELTER PLAN
3/64" = 1'-0"

GENERAL STORM SHELTER NOTES:

1. STORM SHELTER DESIGNED AS A COMMUNITY TORNADO SHELTER.
2. STORM SHELTER DESIGNED TO THE PROVISIONS OF ICC/NSSA STANDARD FOR DESIGN AND CONSTRUCTION OF STORM SHELTERS ICC 500 - 2020.
3. SHELTER DESIGN WIND SPEED..... 250 MPH
4. WIND EXPOSURE CATEGORY..... C
5. INTERNAL PRESSURE COEFFICIENT..... +/- 0.55
6. TOPOGRAPHIC FACTOR..... Kzt = 1.0
7. DIRECTIONAL FACTOR..... Kd = 1.0
8. MAIN WIND FORCE RESISTING SYSTEM:
   a) REINFORCED MASONRY WALLS
9. DEBRIS IMPACT CRITERIA:
   a) MISSILE SIZE..... 15 LB 2x4
   b) HORIZONTAL MISSILE SPEED.... 67 MPH
   c) VERTICAL MISSILE SPEED..... 100 MPH
10. ALL DOOR, WINDOW, AND OTHER HARDWARE CONNECTIONS SHALL BE DESIGNED BY AND PROVIDED BY THE CONTRACTOR TO MEET ICC-500 REQUIREMENTS
11. IN ADDITION TO THOSE ITEMS LISTED ON SHEETS S101 & S102, CONTINUOUS SPECIAL INSPECTIONS SHALL OCCUR AT ALL ELEMENTS OF THE STORM SHELTER, INCLUDING BUT NOT LIMITED TO:
    a) ALL CONNECTIONS OF STRUCTURAL MEMBERS
    b) ALL DOOR, WINDOW, AND OTHER HARDWARE CONNECTIONS
    c) ALL GROUTING
    d) ALL PLACEMENT OF REINFORCING STEEL IN CMU AND CONCRETE.
    e) ALL WELDING
12. SPECIAL INSPECTOR SHALL PROVIDE WRITTEN REPORTS DETAILING PLACEMENT OF EACH ITEM.
13. ENGINEER OF RECORD SHALL PERFORM (2) FIELD OBSERVATION VISITS TO OBSERVE ANCHORAGE FROM FOUNDATIONS TO MASONRY WALLS AND TOP OF WALL CONNECTIONS TO SHELTER LID SLAB. CONTRACTOR TO NOTIFY EOR OF APPROPRIATE TIME OF VISIT SUCH THAT CONNECTIONS ARE VISIBLE.



4 / S010 BEAM BEARING WALL POCKET AT STORM SHELTER
NTS



5 / S010 SECTION
3/4" = 1'-0"

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STORM SHELTER LOADING INFORMATION

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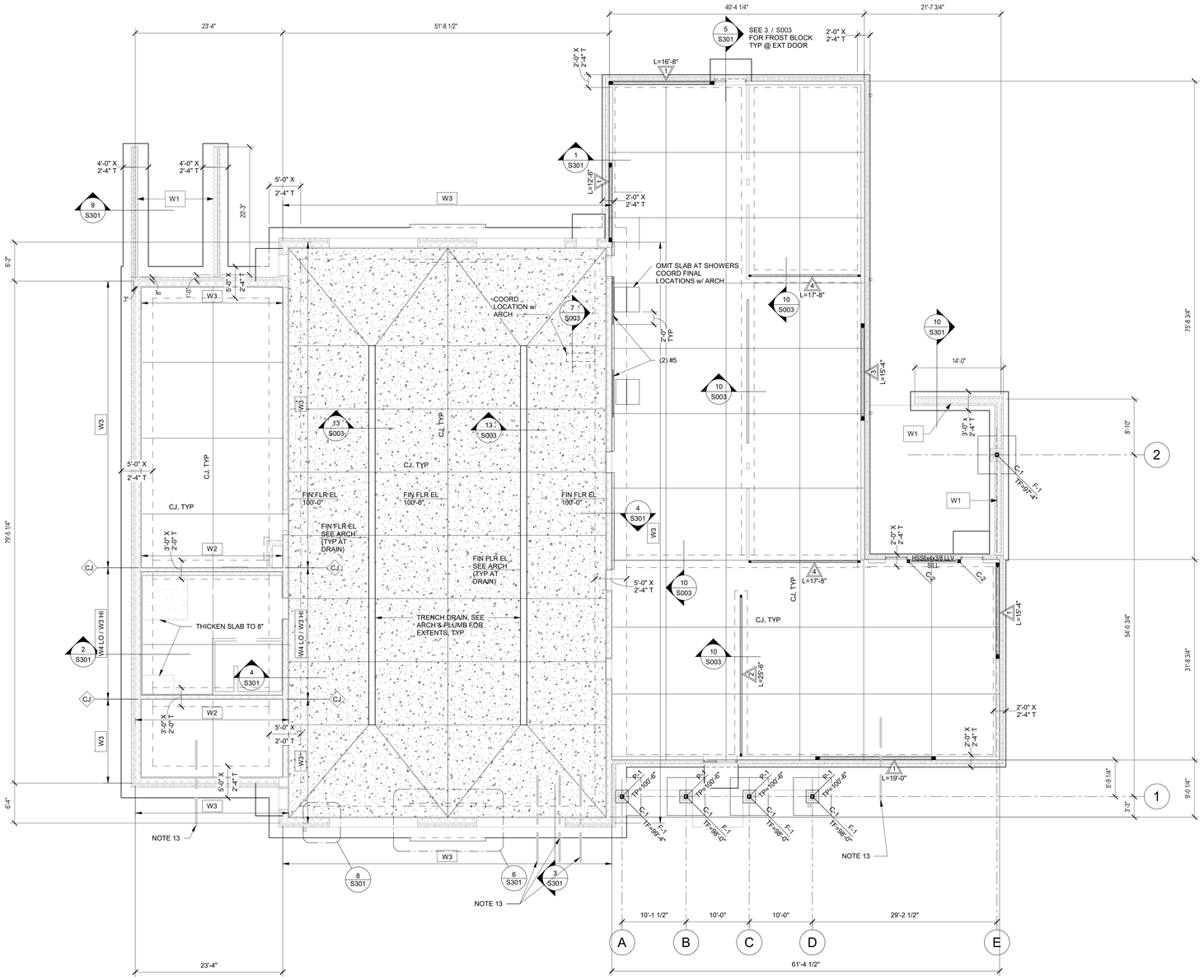
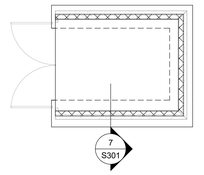


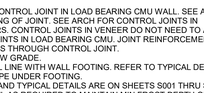
1 S121 FOUNDATION PLAN
1/8" = 1'-0"

NOTES:
1. FINISHED FLOOR ELEVATION = 100'-0". (USGS 568.50') UNO.
2. FLOOR CONSTRUCTION TO BE A 4" CONC SLAB ON GRADE REINFORCED w/ 6x6-W2.1xW2.1 WWR ON 15 MIL VAPOR RETARDER, OVER 4" COMPACTED GRANULAR FILL (UNO). LAP JOINTS 6" MINIMUM.
3. ▭ INDICATES FLOOR CONSTRUCTION TO BE A 7" CONC SLAB ON GRADE REINFORCED w/ 6x6-W2.9xW2.9 WWR ON 15 MIL VAPOR RETARDER, OVER 4" COMPACTED GRANULAR FILL.
4. TOP OF FOOTING EL = 99'-4" (UNO), EXTERIOR,
   TOP OF FOOTING EL = 99'-4" (UNO) INTERIOR.
5. FOOTINGS ARE CENTERED ON COLUMNS/PIERS, UNO.
6. ▶ INDICATES SHEAR WALL END CHORDS PER SCHEDULE & ELEVATION ON SHEET S106.
7. Wx INDICATES CMU WALL TYPE PER SCHEDULE.
8. CJ INDICATES CONTROL JOINT IN LOAD BEARING CMU WALL. SEE ARCH FOR DETAILING OF JOINT. SEE ARCH FOR CONTROL JOINTS IN MASONRY VENEERS. CONTROL JOINTS IN VENEER DO NOT NEED TO ALIGN WITH CONTROL JOINTS IN LOAD BEARING CMU. JOINT REINFORCEMENT TO BE DISCONTINUOUS THROUGH CONTROL JOINT.
9. GROUT VOID BELOW GRADE.
10. COORDINATE CIVIL LINE WITH WALL FOOTING. REFER TO TYPICAL DETAILS PERTAINING TO PIPE UNDER FOOTING.
11. GENERAL NOTES AND TYPICAL DETAILS ARE ON SHEETS S001 THRU S009.
12. STEP FTG PER CIVIL AS REQUIRED TO MAINTAIN MIN FROST DEPTH OF 30" BELOW GRADE.
13. COORDINATE PLUMBING LINE WITH WALL FOOTING. REFER TO TYPICAL DETAILS FOR PIPE CROSSING UNDER OR SLEEVED THROUGH FOOTING.
14. REFER TO ELECTRICAL DRAWINGS FOR GROUNDING REQUIREMENTS.



3 S121 TRASH ENCLOSURE PLAN
1/8" = 1'-0"

SHEAR WALL KEY



CJ INDICATES CONTROL JOINT IN LOAD BEARING CMU WALL. SEE ARCH FOR DETAILING OF JOINT AND CONTROL JOINTS IN MASONRY VENEERS. CONTROL JOINT EXTENDS FULL HEIGHT OF WALL, UNO.

FOOTING SCHEDULE

MARK	SIZE	REINF EW, BOT - UNO	REMARKS
F-1	6'-0" x 6'-0" x 24"	(8) #6, T & B	

STEEL COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	ANCHOR BOLTS	REMARKS
C-1	HSS6X6X1/2	3/4"x12"x12"	(4) 3/4" DIA (GR 55)	
C-2	HSS4X4X3/8	3/4"x10"x10"	(4) 3/4" DIA (GR 55)	

CONCRETE PILASTER SCHEDULE

NOTES:
1. SPACE TOP (3) TIES @ 4"oc, BALANCE PER SCHEDULE.
2. PROVIDE DOWELS INTO FOUNDATION. MATCH VERTICAL REINFORCEMENT.

MARK	SIZE	VERT REINF	TIES - UNO	REMARKS
P-1	24 x 24	(12) #6	#4@8"oc	

CMU WALL SCHEDULE

MARK	SIZE	VERT REINF, UNO	HORZ REINF	COMMENTS
W1	8"	#5 @ 32"oc	(2) #5 CONT @ 48"oc & W1.7 (9 GAGE) LADDER-TYPE JT REINF @ 16"oc	- VERT REBAR CENTERED
W2	8"	#5 @ 8"oc	(2) #5 CONT @ 32"oc & W1.7 (9 GAGE) LADDER-TYPE JT REINF @ 16"oc	- STORM SHELTER PERIM - GROUT WALL SOLID - NO CONTROL JOINTS - VERT REBAR CENTERED
W3	10"	#5 @ 24"oc	(2) #5 CONT @ 40"oc & W1.7 (9 GAGE) LADDER-TYPE JT REINF @ 16"oc	- VERT REBAR CENTERED
W4	10"	#5 @ 8"oc	(2) #5 CONT @ 32"oc & W1.7 (9 GAGE) LADDER-TYPE JT REINF @ 16"oc	- STORM SHELTER PERIM - GROUT WALL SOLID - NO CONTROL JOINTS - VERT REBAR CENTERED

NOTES:
1. SEE DETAIL 1 / S004 FOR TYPICAL CMU WALL REINFORCING ELEVATION.
2. ALL PERIMETER STORM SHELTER WALLS SHALL BE FULLY GROUTED AND REINFORCED (TYPE W2 OR W4 PER PLAN). SEE SHEET S110 FOR EXTENTS.

SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 1" 6" 3" 0
SCALE: 1" = 1'-0" 2" 1" 6" 0
SCALE: 3/4" = 1'-0" 2" 1" 6" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 0
SCALE: 3/8" = 1'-0" 8" 4" 2" 0
SCALE: 1/4" = 1'-0" 16" 8" 4" 0
SCALE: 1/8" = 1'-0" 32" 16" 8" 0
SCALE: 3/32" = 1'-0" 48" 24" 16" 8" 0
SCALE: 1/16" = 1'-0" 96" 48" 32" 16" 0

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST CHARLES, MO 63303

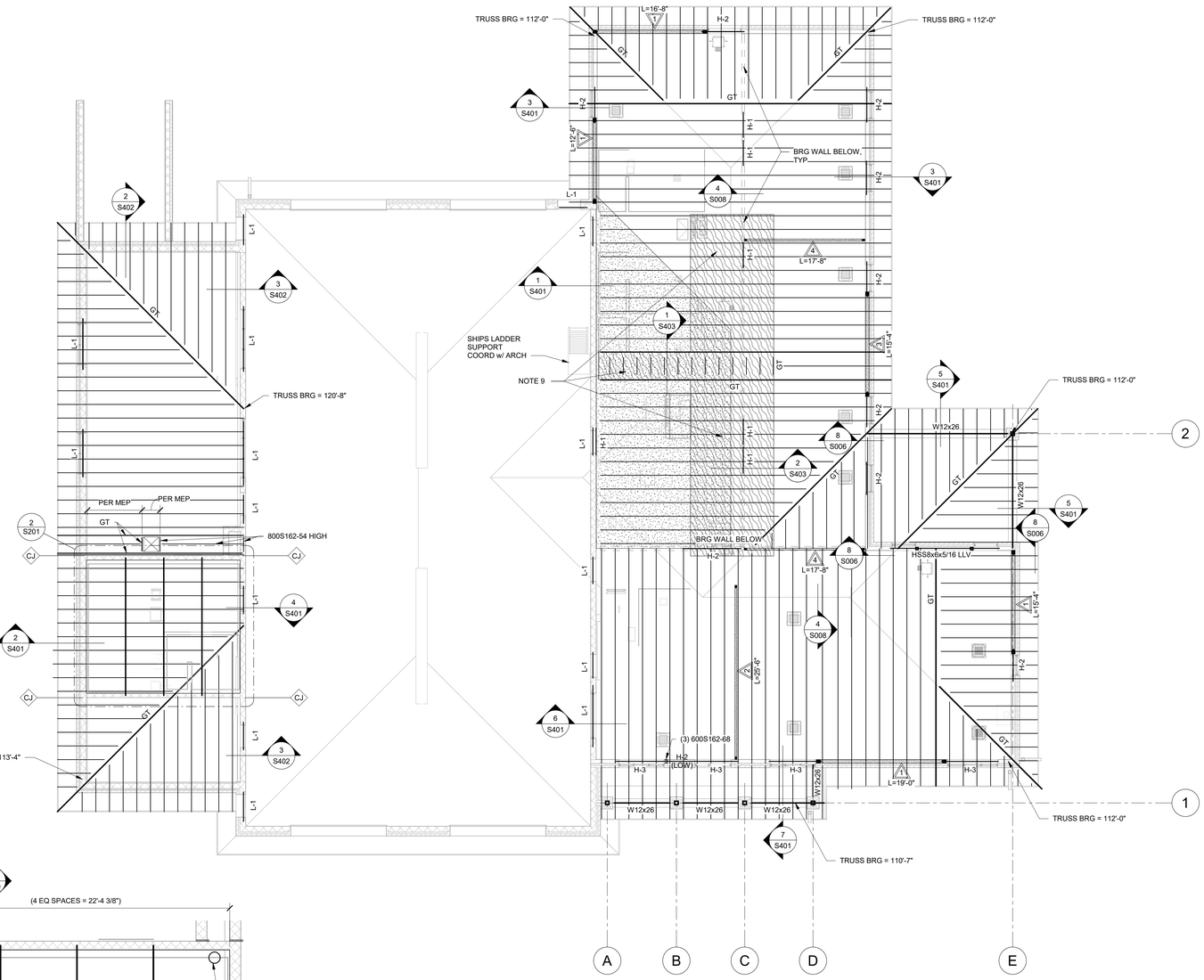
No.	Date	Revision

FOUNDATION PLAN

KPFF Project No.
2400253

Sheet No.
S121

Date
2026/06/08



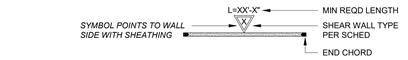
1 S201 LOW ROOF AND ATTIC FRAMING PLAN
1/8" = 1'-0"

NOTES:
1. ROOF TRUSS BEARING ELEVATION VARIES PER PLAN.
2. ROOF CONSTRUCTION TO BE 19/32" (OR 5/8") (MIN) STRUCTURAL 1 PLYWOOD SHEATHING (EXPOSURE 1, EXTERIOR GLUE & 4 PLY) OVER PRE-ENGINEERED LIGHT GAUGE METAL TRUSSES @ 24"oc (MAX), UNO. ROOF TRUSS DESIGN & LOCATION BY TRUSS MFR. SEE GENERAL NOTES FOR ATTACHMENT TO SUPPORTING STRUCTURE.
3. INDICATES 15/32" (OR 1/2") PLYWOOD SHEATHING ON PRE-ENGINEERED LIGHT GAUGE METAL OVERFRAMING TRUSSES @ 24"oc (MAX) BEARING ON ROOF TRUSSES AT 24"oc. ROOF TRUSSES MUST BE SHEATHED WITH PLYWOOD UNDER OVERFRAMING.
4. SW-X INDICATES SHEAR WALL. SEE SHEET S006 FOR SCHEDULE, ELEVATION & DETAILS.
5. COORDINATE w/ ARCH FOR LOCATIONS OF LOAD BRG WALLS.
6. FOR GENERAL NOTES & TYPICAL DETAILS SEE SHEETS S001 THRU S009.
7. TRUSS DESIGNER SHALL DESIGN TRUSES ASSUMING BOTTOM CHORD IS NOT BRACED BY GYPSUM SHEATHING OR CEILING. PROVIDE PERMANENT BOTTOM CHORD BRACING AS REQUIRED FOR A COMPLETE AND STABLE ROOF FRAMING SYSTEM.
8. ROOF TRUSS SUPPLIER TO DESIGN FOR MECHANICAL UNITS. COORDINATE WITH MECHANICAL AND ARCHITECT FOR SIZE(S) AND LOCATION(S). COORDINATE TRUSS WEB LAYOUT WITH MECHANICAL DUCTWORK.
9. WHERE INDICATED ON PLAN, CONTRACTOR TO PROVIDE 23/32" (OR 3/4") STRUCTURAL 1 SHEATHING PLYWOOD ON TOP OF TRUSS BOTTOM CHORDS FOR MECHANICAL ROOM AND CATWALK WITHIN TRUSSES. COORDINATE FINAL LOCATION WITH ARCHITECT AND MECHANICAL PRIOR TO CONSTRUCTION. DESIGN BOTTOM CHORD FOR ADDITIONAL DL = 5psf AND LL = 60psf.
10. PROVIDE (2) 600S162-68 AT EACH END AND INTERIOR BEARING POINT OF ALL GIRDER TRUSSES, UNO.
11. PROVIDE ROOF TRUSS OR BLOCKING TRUSSES ABOVE EVERY SHEAR WALL PARALLEL TO TRUSSES. TRUSS OR BLOCKING TRUSSES TO BE DESIGNED FOR LATERAL LOAD IN COMBINATION WITH GRAVITY LOADS.
12. COORDINATE OPENINGS AND ANCHOR TIE OFF / RAPELLING LOCATIONS WITH ARCH. SEE DETAIL 2 / S005 FOR ANCHORAGE.

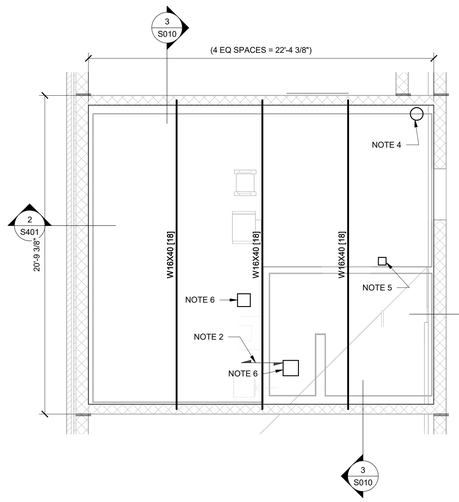
ERECTION OF TRUSSES

1. TEMPORARY AND PERMANENT BRACING OF THE TRUSS MEMBERS IS THE RESPONSIBILITY OF THE ERECTOR.
2. THE GUIDE LINES AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING OF ROOF TRUSSES SHOULD BE FOLLOWED ACCORDING TO THE TRUSS PLATE INSTITUTE (TPI).
3. REFER TO APPROVED TRUSS SHOP DRAWINGS FOR ALL REQUIRED PERMANENT BRACING FOR TRUSS MEMBERS.
4. GIRDER TRUSSES CONSISTING OF MULTIPLE PLIES SHALL BE FASTENED TOGETHER ACCORDING TO THE TRUSS DESIGN DRAWINGS PRIOR TO LIFTING AND ERECTING IN PLACE.
5. DO NOT REMOVE THE TEMPORARY BRACING UNTIL SHEATHING AND PERMANENT BRACING ARE IN PLACE.
6. THE REMOVAL OF THE TEMPORARY BRACING SHALL BE IN A SEQUENCE THAT ENSURES THE GENERAL STABILITY OF THE ROOF SYSTEM.

SHEAR WALL KEY



CJ INDICATES CONTROL JOINT IN LOAD BEARING CMU WALL. SEE ARCH FOR DETAILING OF JOINT AND CONTROL JOINTS IN MASONRY VENEERS. CONTROL JOINT EXTENDS FULL HEIGHT OF WALL, UNO.



2 S201 SHELTER LID ENLARGED PLAN
1/4" = 1'-0"

SHELTER LID PLAN NOTES:
1. FINISHED SLAB ELEVATION = 111'-4"
2. FLOOR CONSTRUCTION TO BE 3" NORMAL WEIGHT CONCRETE SLAB ON 2" x 20 GA COMPOSITE METAL DECK (5" TOTAL THICKNESS) REINFORCED w/ #4@12"oc EACH WAY. LOCATE BARS AT MIDDLE OF SLAB. SEE GENERAL NOTES FOR DECK ATTACHMENT.
3. FOR GENERAL NOTES & TYPICAL DETAILS SEE SHEETS S001 THRU S009.
4. HSS4.5x0.237 SLEEVE FOR DUCT. SEE 5/S010.
5. HSS7x7x1/4 SLEEVE FOR DUCT. SEE 5/S010.
6. HSS12x12x5/16 SLEEVE FOR DUCT. SEE 5/S010.

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Proposed:
CENTRAL COUNTY FIRE &
RESCUE - HOUSE #6
1151 JUNGS STATION RD
ST CHARLES, MO 63303

No.	Date	Revision

LOW ROOF AND ATTIC FRAMING PLAN

KPFF Project No.
2400253

Sheet No.
S201

Date
2026/06/08

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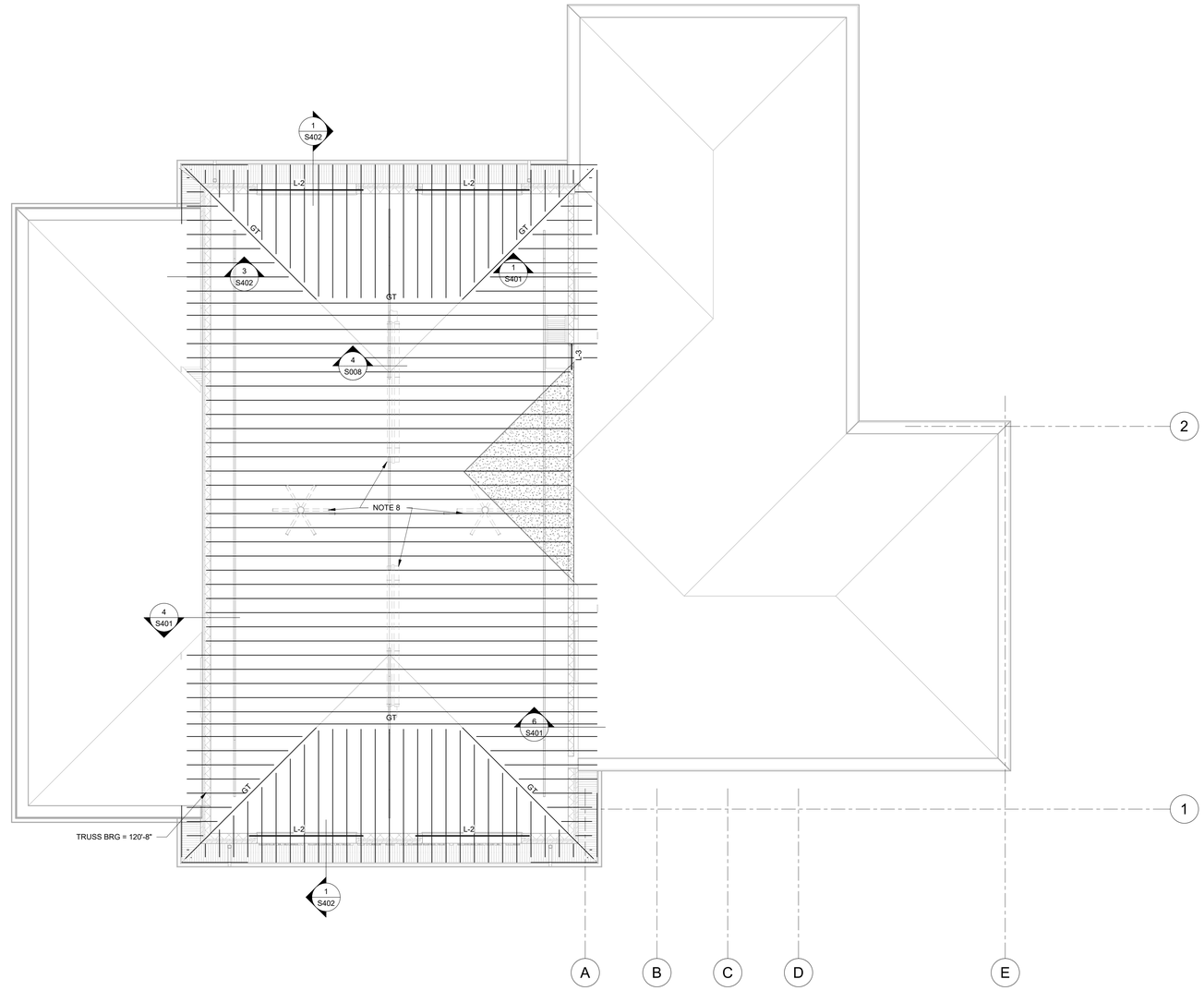

1 S202 HIGH ROOF FRAMING PLAN
1/8" = 1'-0"

NOTES:
1. ROOF TRUSS BEARING ELEVATION = 121'-0" UNO.
2. ROOF CONSTRUCTION TO BE 19/32" (OR 5/8") (MIN) STRUCTURAL 1 PLYWOOD SHEATHING (EXPOSURE 1, EXTERIOR GLUE & 4 PLY) OVER PRE-ENGINEERED LIGHT GAUGE METAL TRUSSES @ 24"oc (MAX), UNO. ROOF TRUSS DESIGN & LOCATION BY TRUSS MFR. SEE GENERAL NOTES FOR ATTACHMENT TO SUPPORTING STRUCTURE.
3. FOR GENERAL NOTES & TYPICAL DETAILS SEE SHEETS S001 THRU S009.
4. STRUCTURAL FRAMING INDICATED APPLIES TO WALLS / OPENINGS BELOW, TYP.
5. TRUSS DESIGNER SHALL DESIGN TRUSSES ASSUMING BOTTOM CHORD IS NOT BRACED BY GYPSUM SHEATHING OR CEILING. PROVIDE PERMANENT BOTTOM CHORD BRACING AS REQUIRED FOR A COMPLETE AND STABLE ROOF FRAMING SYSTEM.
6. ROOF TRUSS SUPPLIER TO DESIGN FOR MECHANICAL UNITS. COORDINATE WITH MECHANICAL AND ARCHITECT FOR SIZE(S) AND LOCATION(S). COORDINATE TRUSS WEB LAYOUT WITH MECHANICAL DUCTWORK.
7. INDICATES 15/32" (OR 1/2") PLYWOOD SHEATHING ON PRE-ENGINEERED LIGHT GAUGE METAL OVERFRAMING TRUSSES @ 24"oc (MAX) BEARING ON ROOF TRUSSES AT 24"oc.
ROOF TRUSSES MUST BE SHEATHED WITH PLYWOOD UNDER OVERFRAMING.
8. FAN OR HEATER HUNG FROM TRUSS BOTTOM CHORDS. VERIFY LOCATION w/ MEP AND DESIGN TRUSSES EACH SIDE FOR ADDITIONAL 200# DEAD LOADS.
9. RADIANT HEATER HUNG FROM TRUSS BOTTOM CHORDS. VERIFY LOCATIONS w/ MEP AND DESIGN TRUSSES FOR ADDITIONAL 180 LBS (EACH UNIT, 4 TOTAL).

ERECTION OF TRUSSES

1. TEMPORARY AND PERMANENT BRACING OF THE TRUSS MEMBERS IS THE RESPONSIBILITY OF THE ERECTOR.
2. THE GUIDE LINES AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING OF ROOF TRUSSES SHOULD BE FOLLOWED ACCORDING TO THE TRUSS PLATE INSTITUTE (TPI).
3. REFER TO APPROVED TRUSS SHOP DRAWINGS FOR ALL REQUIRED PERMANENT BRACING FOR TRUSS MEMBERS.
4. GIRDER TRUSSES CONSISTING OF MULTIPLE PLIES SHALL BE FASTENED TOGETHER ACCORDING TO THE TRUSS DESIGN DRAWINGS PRIOR TO LIFTING AND ERECTING IN PLACE.
5. DO NOT REMOVE THE TEMPORARY BRACING UNTIL SHEATHING AND PERMANENT BRACING ARE IN PLACE.
6. THE REMOVAL OF THE TEMPORARY BRACING SHALL BE IN A SEQUENCE THAT ENSURES THE GENERAL STABILITY OF THE ROOF SYSTEM.

SCALE: 3" = 1'-0" 1' 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2' 1' 6" 3" 0
SCALE: 1" = 1'-0" 2' 1' 6" 0
SCALE: 3/4" = 1'-0" 3' 2' 1' 0
SCALE: 1/2" = 1'-0" 4' 2' 1' 0
SCALE: 3/8" = 1'-0" 4' 2' 0
SCALE: 1/4" = 1'-0" 8' 4' 2' 0
SCALE: 1/8" = 1'-0" 16' 8' 4' 0
SCALE: 3/32" = 1'-0" 24' 16' 8' 0
SCALE: 1/16" = 1'-0" 32' 16' 8' 0

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST CHARLES, MO 63303

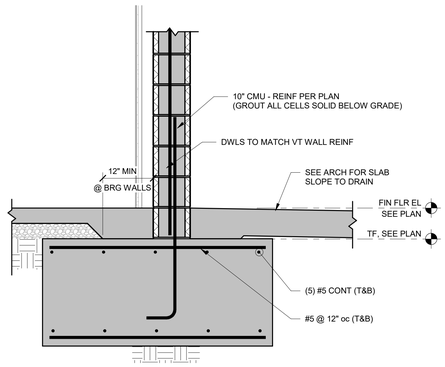
No.	Revision	Date

HIGH ROOF FRAMING PLAN

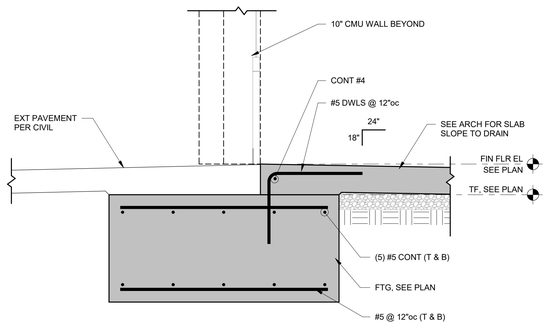
KPFF Project No.
2400253

Sheet No.
S202

Date
2026/06/08



4 S301 SECTION 3/4" = 1'-0"



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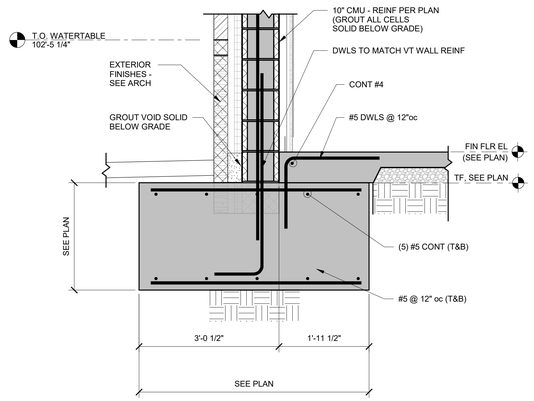

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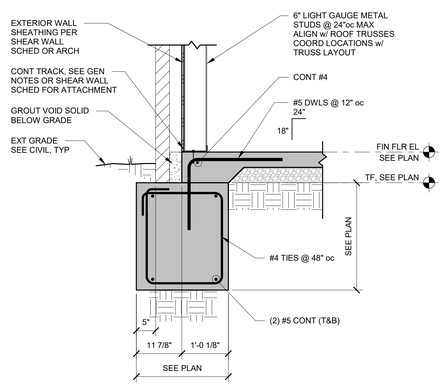

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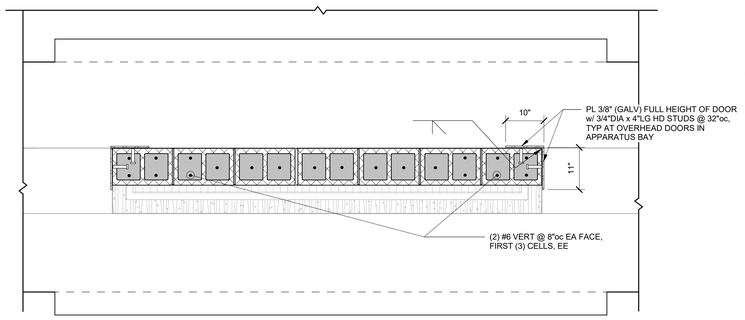
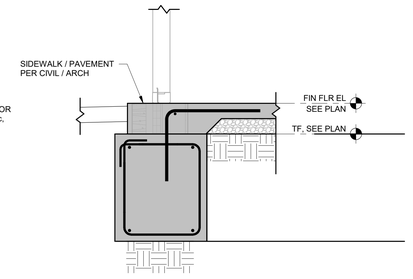


PLAN VIEW

6 S301 DETAIL 3/4" = 1'-0"



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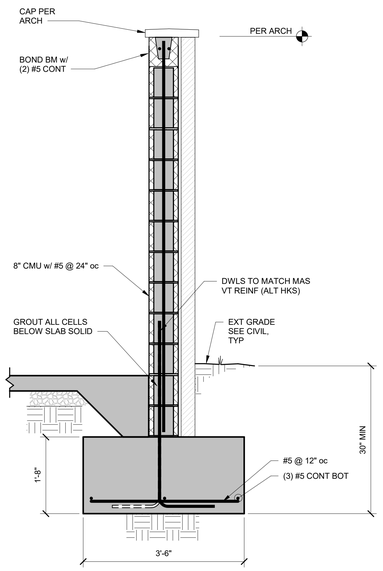

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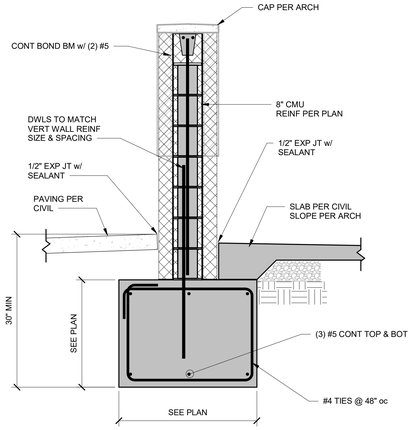

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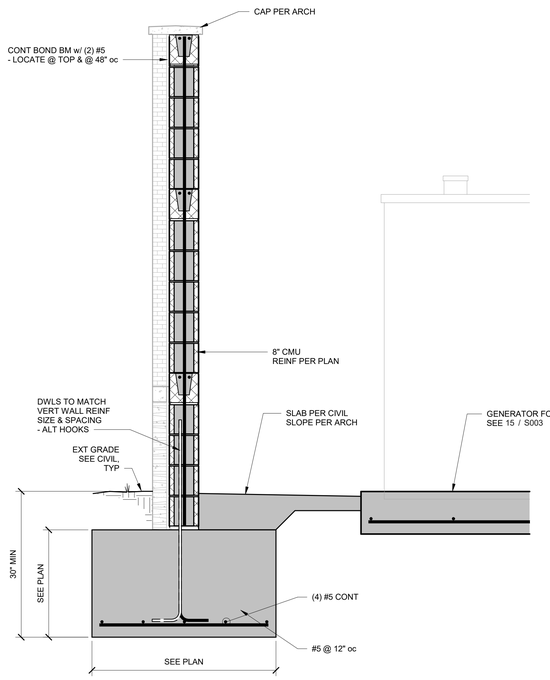

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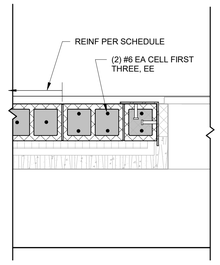

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST CHARLES, MO 63303

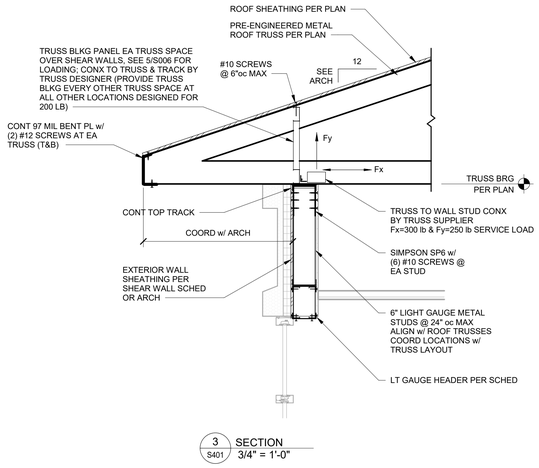
No.	Revision	Date

FOUNDATION SECTIONS AND DETAILS

KPFF Project No.
2400253

Sheet No.
S301

Date
2026/06/08



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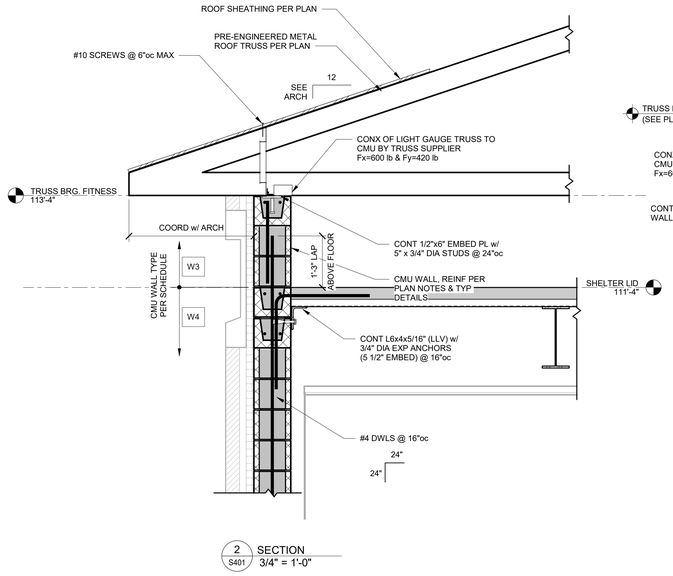

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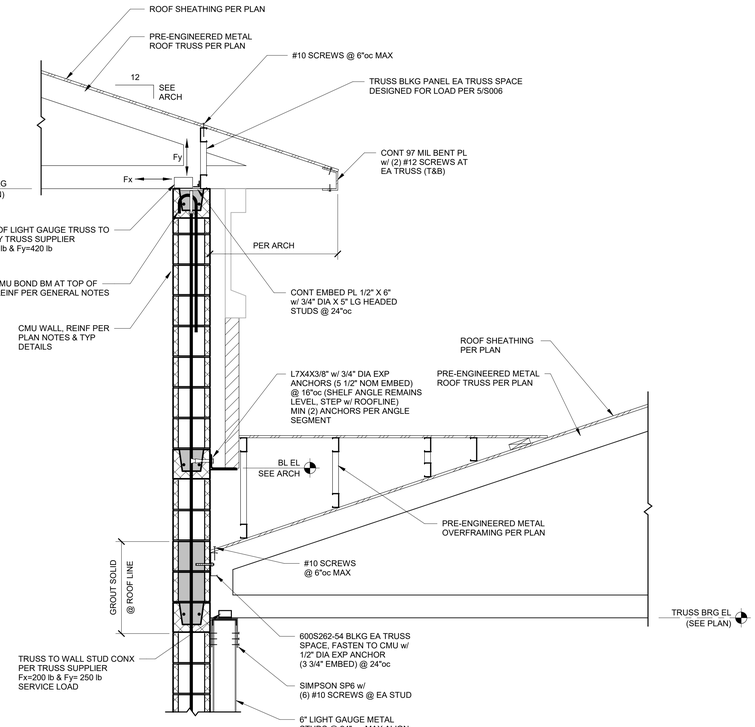

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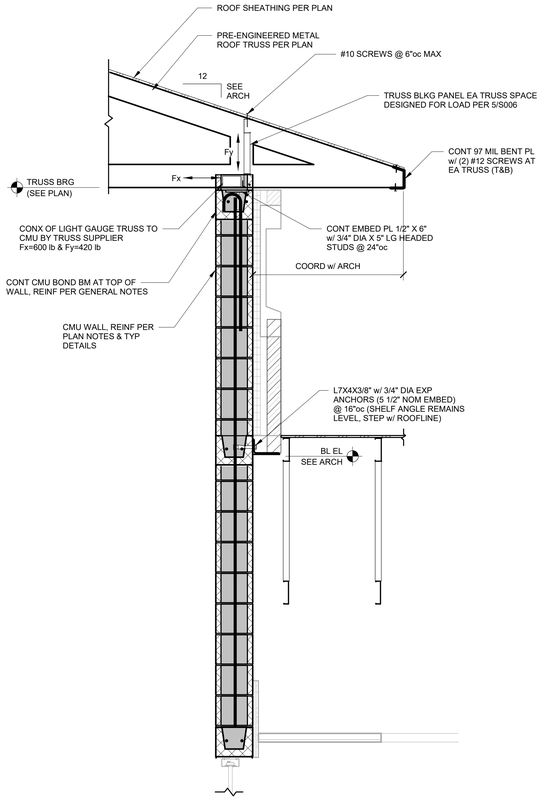

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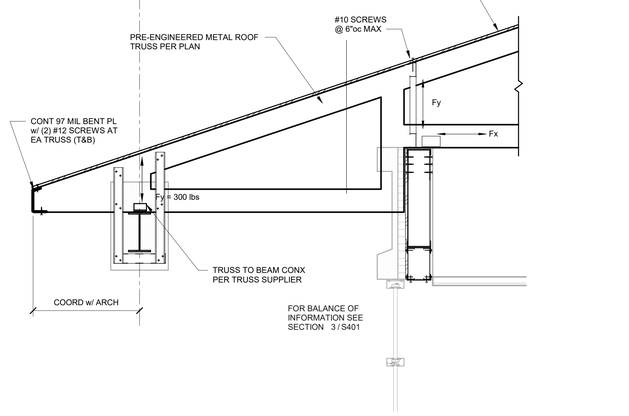

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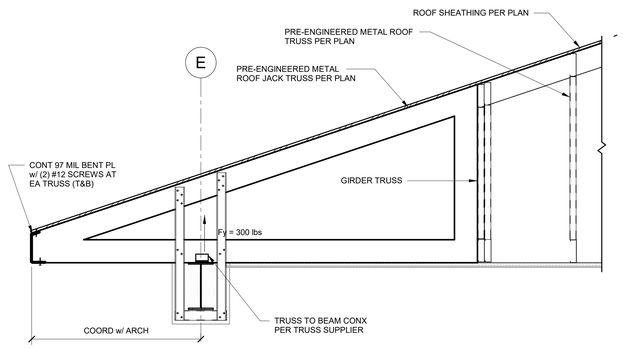
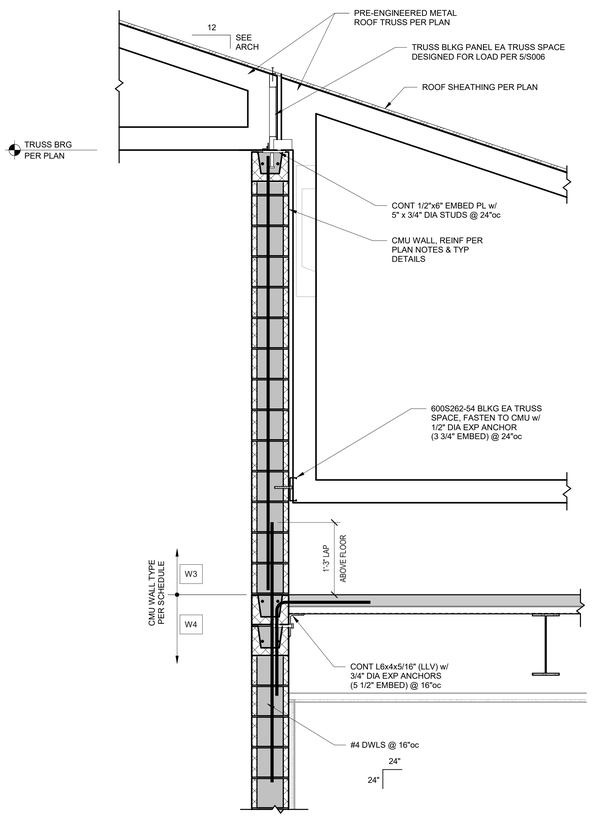


5 S401 SECTION 3/4" = 1'-0"



4 S401 SECTION 3/4" = 1'-0"

SCALE: 3" = 1'-0" 1" 0 6" 3"
SCALE: 1 1/2" = 1'-0" 2" 0 1' 6" 3"
SCALE: 1" = 1'-0" 2" 0 1' 6" 3"
SCALE: 3/4" = 1'-0" 2" 0 1' 4"
SCALE: 1/2" = 1'-0" 2" 0 1' 8"
SCALE: 3/8" = 1'-0" 2" 0 4" 8"
SCALE: 1/4" = 1'-0" 2" 0 4" 8"
SCALE: 1/8" = 1'-0" 2" 0 4" 8" 16"
SCALE: 3/32" = 1'-0" 2" 0 8" 16" 24"
SCALE: 1/16" = 1'-0" 2" 0 8" 16" 32"

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Proposed:
CENTRAL COUNTY FIRE & RESCUE - HOUSE #6
1151 JUNGS STATION RD ST CHARLES, MO 63303

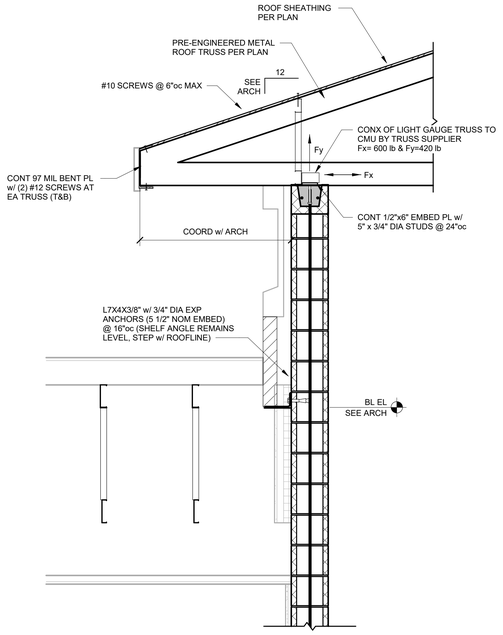
No.	Revision	Date

FRAMING SECTIONS & DETAILS

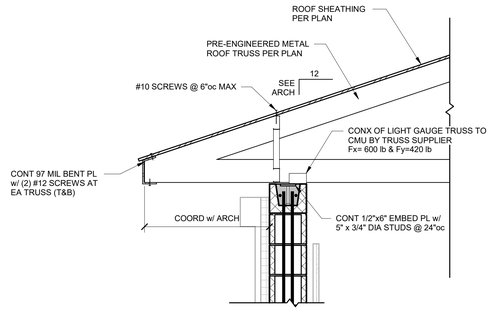
KPFF Project No.
2400253

Sheet No.
S401

Date
2026/06/08

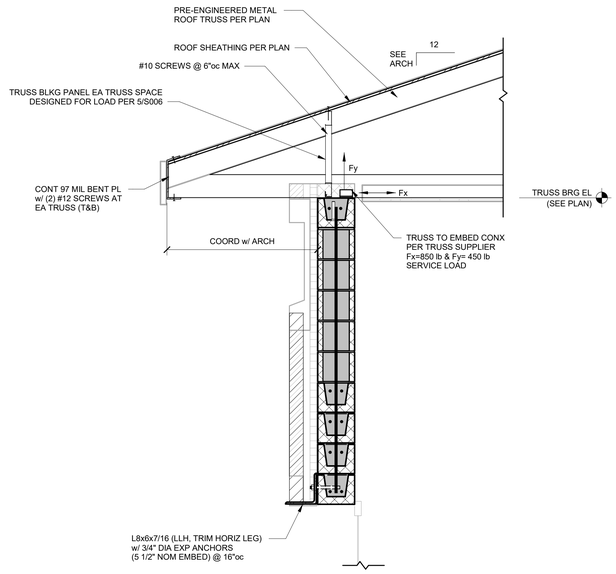


3 S402 SECTION 3/4" = 1'-0"



2 S402 SECTION 3/4" = 1'-0"

FOR BALANCE OF INFORMATION SEE SECTION 2 / S401



1 S402 SECTION 3/4" = 1'-0"

SCALE: 3" = 1'-0" 1" 6" 3" 0
SCALE: 1 1/2" = 1'-0" 2" 1" 6" 3" 0
SCALE: 1" = 1'-0" 2" 1" 6" 3" 0
SCALE: 3/4" = 1'-0" 2" 1" 0
SCALE: 1/2" = 1'-0" 4" 2" 1" 0
SCALE: 1/16" = 1'-0" 32" 16" 8" 0
SCALE: 3/32" = 1'-0" 24" 16" 8" 0
SCALE: 1/8" = 1'-0" 16" 8" 4" 0
SCALE: 1/4" = 1'-0" 8" 4" 2" 0
SCALE: 3/8" = 1'-0" 6" 4" 2" 0

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1151 JUNGS STATION RD ST CHARLES, MO 63303

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S402

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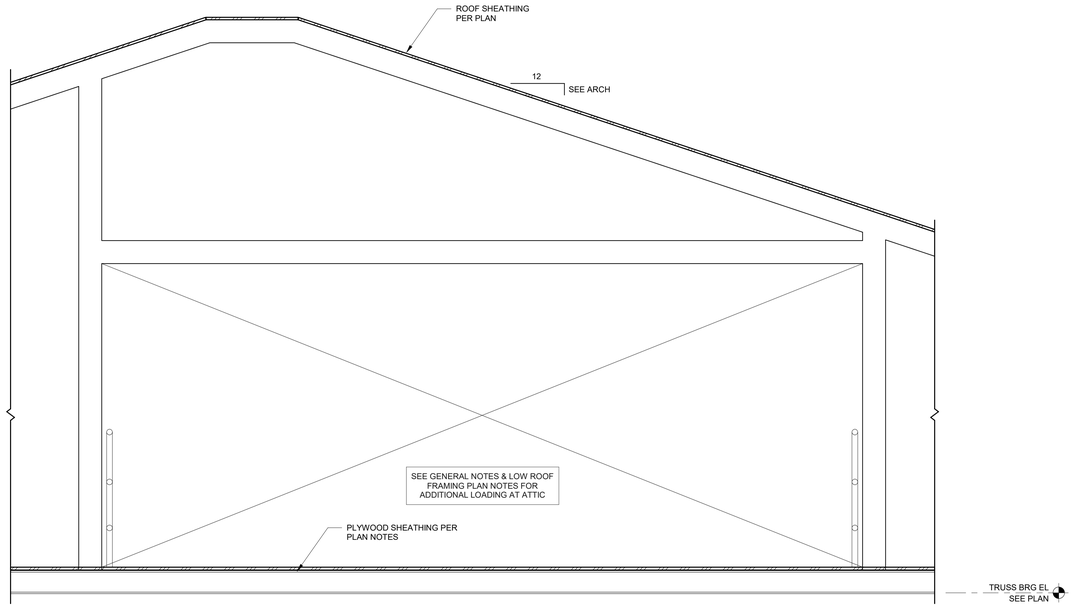
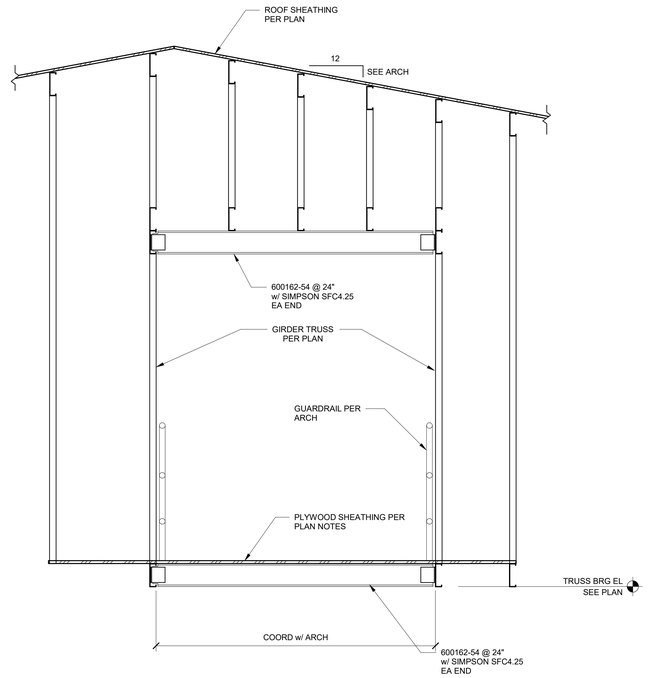
2026/06/08



2 S403 SECTION
3/4" = 1'-0"



1 S403 SECTION
3/4" = 1'-0"

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GENERAL SYMBOLS:

- THERMOSTAT
- CO — CARBON MONOXIDE SENSOR
- CO_2 — CARBON DIOXIDE SENSOR
- S CO/NOX — CARBON MONOXIDE & NITROGEN OXIDE SENSOR
- H — HUMIDISTAT
- S T OR H — SENSOR (T = TEMPERATURE H = HUMIDITY)
- SCHEDULE / DEVICE NO — TYPE OF SERVICE (S = SUPPLY, R = RETURN, E = EXHAUST, T = TRANSFER)
- AIR QUANTITY IN CFM
- 1 OR ◇ — KEYED NOTE (NEW CONSTRUCTION OR DEMOLITION)
- △1 — REVISION
- INTERFACE, EXISTING TO NEW
- X / M-X — SECTION NUMBER / SHEET WHERE LOCATED
- AHU-1 — EQUIPMENT DESIGNATION / UNIT NUMBER

DUCTWORK SYMBOLS:

- # x #
- # x # Ø
- □ AP
- FLEXIBLE DUCT CONNECTION
- R
- TURNING VANES
- LIGHT LINETYPE INDICATES EXISTING ITEMS TO REMAIN
- DASHED LINETYPE INDICATES EXISTING ITEMS TO BE REMOVED
- M
- MOTORIZED DAMPER
- GRAVITY BACK DRAFT
- MANUAL VOLUME DAMPER
- FIRE DAMPER
- SMOKE DAMPER
- FIRE/SMOKE DAMPER
- VENTURI AIR VALVE
- FLEXIBLE DUCT
- SUPPLY AIR SECTION UP
- RETURN AIR SECTION UP
- EXHAUST AIR SECTION UP
- OUTSIDE AIR SECTION UP
- SUPPLY AIR DOWN OR AWAY
- RETURN AIR DOWN OR AWAY
- EXHAUST AIR DOWN OR AWAY
- OUTSIDE AIR DOWN OR AWAY
- SUPPLY AIR FLOW ARROW
- RETURN OR EXHAUST AIR FLOW ARROW
- SUPPLY DIFFUSER, REGISTER OR GRILLE AS SCHEDULED
- RETURN OR EXHAUST GRILLE OR REGISTER AS SCHEDULED
- SLOT DIFFUSER AS SCHEDULED
- SIDEWALL GRILLE OR REGISTER AS SCHEDULED
- ARROWS INDICATE DIRECTION OF AIR DISCHARGE. IF NO ARROWS ARE SHOWN ON PLAN, DEFAULT IS 2-WAY HORIZONTAL FOR SLOT DIFFUSERS, 4-WAY HORIZONTAL FOR SQUARE DIFFUSERS

PIPELINE EQUIPMENT:

- SIGHT GLASS
- ELBOW DOWN
- ELBOW UP
- TEE DOWN
- TEE UP
- EXPANSION JOINT
- PIPE ANCHOR
- PIPE GUIDE
- PITCH DOWN IN DIRECTION OF ARROW
- PRESSURE/TEMPERATURE TEST PORT
- FLOW ARROW

PIPING SYMBOLS:

CA	COMPRESSED AIR
CHR	CHILLED/HOT WATER RETURN
CHS	CHILLED/HOT WATER SUPPLY
CF	CHEMICAL FEED
GLR	GLYCOL RETURN
GLS	GLYCOL SUPPLY
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
CD	CONDENSATE DRAIN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RV	REFRIGERANT VENT
RHG	REFRIGERANT HOT GAS
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HPR	HIGH PRESSURE CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM SUPPLY
LPR	LOW PRESSURE CONDENSATE RETURN
LPS	LOW PRESSURE STEAM SUPPLY
NP	MAKE-UP WATER (NON-POTABLE)
PC	PUMPED CONDENSATE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
G	NATURAL GAS
LP	LIQUEFIED PETROLEUM

PIPELINE EQUIPMENT:

- BALL VALVE
- BLOWDOWN VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- GATE VALVE
- GLOBE VALVE
- PRESSURE REGULATING VALVE
- RELIEF VALVE (TEMP/PRESS)
- STOP CHECK VALVE
- PRESSURE TEST VALVE
- SOLENOID VALVE
- TWO-WAY CONTROL VALVE
- THREE-WAY CONTROL VALVE
- TRIPLE DUTY/MULTIPURPOSE VALVE
- FLOW CONTROL VALVE
- LUBRICATED PLUG COCK
- IN-LINE PUMP
- STRAINER
- STRAINER WITH BLOWDOWN
- UNION
- FLANGE
- ECCENTRIC REDUCER/INCREASER
- CONCENTRIC REDUCER/INCREASER
- AIR VENT (M-MANUAL, A-AUTO)
- THERMOMETER W/THERMAL WELL
- PRESSURE GAUGE W/GAUGE COCK
- CAP
- CALIBRATED PLUG VALVE/CIRCUIT SETTER
- FLEXIBLE PIPE COUPLING
- GAUGE COCK
- THERMOSTATIC EXPANSION VALVE

EQUIPMENT ABBREVIATIONS:

AC	AIR CURTAIN
ACC	AIR COOLED CONDENSER
ACU	AIR CONDITIONING UNIT
AF	AIR FILTER
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
AS	AUTOMATIC SPRINKLER
AV	AUTOMATIC VENT
B	BOILER
BFP	BACKFLOW PREVENTER
BCU	BLOWER COIL UNIT
C	CHILLER
CAV	CONSTANT AIR VOLUME
CC	COOLING COIL
CFP	CHEMICAL FEED PUMP
CO	CLEANOUT
CP	CONDENSER WATER PUMP
CRP	CONDENSATE RETURN PUMP
CRU	COMPUTER ROOM AIR CONDITIONING UNIT
CT	COOLING TOWER
CTF	COOLING TOWER FILTER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CUV	CLASSROOM UNIT VENTILATOR
CWP	CHILLED WATER PUMP
DOAS	DEDICATED OUTSIDE AIR SYSTEM
DC	DUCT COIL
DFH	DEAERATING FEEDWATER HEATER
DG	DOOR GRILLE
DP	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EH	EXHAUST HOOD
EJ	EXPANSION JOINT
ER	EXHAUST REGISTER
ERH	ELECTRIC RADIANT HEATER
ERV	ENERGY RECOVERY VENTILATOR
ET	EXPANSION TANK
EVC	EVAPORATIVE COOLER
FC	FLEXIBLE DUCT CONNECTION
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FLDR	FLOOR DRAIN
FS	FLOW SWITCH
FSD	COMBINATION FIRE/SMOKE DAMPER
FT	FLASH TANK
FTR	FIN-TUBE RADIATION
FTU	FAN TERMINAL UNIT
FVAV	FAN POWERED VARIABLE AIR VOLUME BOX
FVI	FLOOR VACUUM INLET
GP	GLYCOL PUMP
H	HUMIDIFIER
HC	HEATING COIL
HEV	HOSE END VALVE
HPU	HEAT PUMP UNIT
HRP	HEAT RECOVERY LOOP PUMP
HRU	HEAT RECOVERY UNIT
HWP	HEATING WATER PUMP
HX	HEAT EXCHANGER
IH	INTAKE HOOD
IR	INFRARED HEATER
KEH	KITCHEN EXHAUST HOOD
L	LOUVER
LD	LINEAR DIFFUSER
MAU	MAKE-UP AIR UNIT
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MV	MANUAL VENT
OBD	OPPOSED BLADE DAMPER
PA	PIPE ANCHOR
PAC	PACKAGED AIR CONDITIONING UNIT
PBD	PARALLEL BLADE DAMPER
PCWP	PRIMARY CHILLED WATER PUMP
PG	PIPE GUIDE
PHC	PREHEAT COIL
PHWP	PRIMARY HEATING WATER PUMP
PHX	PLATE HEAT EXCHANGER
PI	PRESSURE INDICATOR
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
RF	RETURN FAN
RG	RETURN GRILLE
RR	RETURN REGISTER
RTU	ROOFTOP UNIT
SAC	SURGICAL AIR COMPRESSOR
SCBA	SELF CONTAINED BREATHING APPARATUS
SCD	SMOKE CONTROL DAMPER
SCWP	SECONDARY CHILLED WATER PUMP
SD	SMOKE DAMPER
SF	SUPPLY FAN
SG	SUPPLY GRILLE
SHWP	SECONDARY HEATING WATER PUMP
SMS	SNOW MELTING SYSTEM
SR	SUPPLY REGISTER
ST	STERILIZER
SVV	SAFETY VALVE VENT
TG	TRANSFER GRILLE
TMV	THERMOSTATIC MIXING VALVE
TRC	TERMINAL REHEAT COIL
UH	UNIT HEATER
VAV	VARIABLE AIR VOLUME BOX
VD	MANUAL VOLUME DAMPER
VE	VIBRATION ELIMINATOR

GENERAL ABBREVIATIONS:

A	AIR
ACC	ACCESSORIES
AFF	ABOVE FINISHED FLOOR
AI	ANALOG SIGNAL INPUT
AO	ANALOG SIGNAL OUTPUT
APD	AIR PRESSURE DROP
APLV	APPLICATION PART LOAD VALUE
ARCH	ARCHITECTURE / ARCHITECT
AUX	AUXILIARY
AVG	AVERAGE
BAS	BUILDING AUTOMATION SYSTEM
BDD	BACK DRAFT DAMPER
BFC	BELOW FINISHED CEILING
BHP	BRAKE HORSEPOWER
BI	BINARY SIGNAL INPUT
BM	BEAM
BO	BINARY SIGNAL OUTPUT
BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DUCT
BOF	BOTTOM OF FOOTING
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BS	BEAM SPACE
BTUH	BRITISH THERMAL UNITS PER HOUR
CAP	CAPACITY
CAV	CONSTANT AIR VOLUME
CCD	CONTROLLED CLOSURE DEVICE
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CL	CENTERLINE
CLG	COOLING DUCT (COLD DUCT)
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CORR	CORRIDOR
CV	CONTROL VALVE
CVR	CONSTANT VOLUME REGULATOR
DB	DRY BULB
DBA	A-WEIGHTED DECIBELS
DEFL	DEFLECTION
DEG	DEGREES
DEG F	DEGREES FAHRENHEIT
DIA	DIAMETER
DIM	DIMENSION
DISCH	DISCHARGE
DIV	DIVISION
DN	DOWN
DTL	DETAIL
DWG(S)	DRAWING(S)
EA	EXHAUST AIR OR EACH (PER CONTEXT)
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRIC CONTRACTOR
EER	ENERGY EFFICIENT RATIO
EFF	EFFICIENCY
ELEC	ELECTRIC
ELEV	ELEVATION
EQ	EQUAL
ESP	EXTERNAL STATIC PRESSURE
EWB	ENTERING AIR WET BULB TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXIST, EX	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FIN	FINISHED
FLR	FLOOR
FPC	FIRE PROTECTION CONTRACTOR
FPM	FEET PER MINUTE
FT	FEET
FT-HD	HEAD IN FEET
GA	GAUGE
GAL	GALLONS
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
H	HEIGHT
HS	HEAD
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR
HTG	HEATING DUCT (HOT DECK)
HVAC	HEATING, VENTILATION AND AIR CONDITION
HW	HOT WATER
HZ	HERTZ
IE	INVERT ELEVATION
IN	INCH/INCHES
INDIC	INDICATOR
ISP	INTERNAL STATIC PRESSURE
JS	JOIST SPACE
KEC	KITCHEN EQUIPMENT CONTRACTOR
KW	KILOWATTS
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LB(S)	POUND(S)

GENERAL ABBREVIATIONS:

LF	LINEAR FEET
LS	LIGHT SPACE
LVL	LEVEL
LWT	LEAVING WATER TEMPERATURE
MAN	MANUAL
MAX	MAXIMUM
MBH	THOUSANDS BRITISH THERMAL UNITS PER HOUR
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MTL	METAL
NC	NORMALLY CLOSED OR NOISE CRITERIA (PER CONTEXT)
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN OR NUMBER (PER CONTEXT)
NOM	NOMINAL
NPLV	NON-STANDARD PART LOAD VALUE
NPS	NOMINAL PIPE SIZE
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTISDE DIAMETER
OFCI	OWNER FURNISHED / CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED / OWNER INSTALLED
OT	OIL TRAP
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PENT	PENTHOUSE
PH	PHASE
PNEU	PNEUMATIC
PPH	POUNDS PER HOUR
PRESS	PRESSURE
PRV	PRESSURE REGULATING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	PSI ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
QTY	QUANTITY
RA	RETURN AIR
RAD	RADIATED
RH	RELATIVE HUMIDITY
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SAN	SANITARY
SEC'N	SECTION
SENS	SENSIBLE
SF	SQUARE FOOT
SH	SENSIBLE HEAT
SHT	SHEET
SOL	SOLENOID
SP	STATIC PRESSURE
SPD	STATIC PRESSURE DIFFERENTIAL
SPT	STATIC PRESSURE TRANSMITTER
SQ	SQUARE
SST	STAINLESS STEEL
STL	STEEL
STM	STEAM
SW	SOFTENED WATER
T&P	TEMPERATURE AND PRESSURE
TC	TEMPERATURE CONTROL
TD	THERMODYNAMIC
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOT	TOTAL
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UC	UNDER CUT DOOR
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VAC	VACUUM
VB	VACUUM BREAKER
VD	VOLUME DAMPER (MANUAL)
VE	VIBRATION ELIMINATOR OR ISOLATOR
VEL	VELOCITY
VERT	VERTICAL
VOL	VOLUME
VRF	VARIABLE REFRIGERANT FLOW
VTR	VENT THRU ROOF
W	WATT OR WIDTH (PER CONTEXT)
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
WPD	WATER PRESSURE DIFFERENTIAL
WT	WEIGHT

GENERAL NOTES:

1. THESE PLANS ARE DIAGRAMMATIC IN NATURE. THE EXACT LOCATION OF EXISTING DUCTWORK, PIPING AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS. THE CONTRACTOR SHALL BE PREPARED TO MAKE ALTERATIONS TO NEW SERVICES TO FIT ACTUAL JOB CONDITIONS.
2. ALL ELBOWS, FITTINGS, ETC. IN PIPING AND DUCTWORK ARE NOT NECESSARILY INDICATED TO CLEAR ALL EXISTING AND NEW JOB OBSTRUCTIONS.
3. BECAUSE OF THE LIMITED SPACE AVAILABLE TO INSTALL ALL OF THE MECHANICAL WORK, COORDINATION BETWEEN THE VARIOUS TRADES IS OF THE UTMOST IMPORTANCE.
4. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS, OR IS NOT SURE OF THEIR MEANING, THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S WRITTEN EXPLANATION AND INTERPRETATION, PRIOR TO SUBMITTING THE BID, SINCE THE CONTRACTOR SHALL BE HELD RIGIDLY TO THE INTERPRETATION OF THE ENGINEER.
5. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL CEILING AIR DEVICE LOCATIONS.
6. REFER TO THE ARCHITECTURAL ELEVATION DRAWINGS FOR LOCATION OF WALL MOUNTED MECHANICAL ITEMS.
7. ROUND AND/OR RECTANGULAR DUCT RUN-OUTS TO AIR DEVICES, SHALL BE SIZED PER THE AIR DEVICE SCHEDULE.
8. DUCT SIZES SHOWN ARE FREE AREA. IF DUCT LINER IS USED, INCREASE THE SHEETMETAL SIZE TO MAINTAIN THE SAME FREE AREA SHOWN ON THE PLANS.
9. LOCATE ALL DUCT BALANCING DAMPERS ABOVE ACCESSIBLE CEILINGS, OR PROVIDE ACCESS DOORS. MINIMUM ACCESS DOOR SIZE SHALL BE 18x18 UNLESS OTHERWISE APPROVED BY ENGINEER.
10. PROVIDE VOLUME DAMPERS IN ACCESSIBLE LOCATION IN BRANCH DUCTWORK FOR ALL SUPPLY, RETURN, AND EXHAUST AIR DEVICES WHETHER SHOWN ON THE DRAWINGS OR NOT. REFER TO THE AIR DEVICE SCHEDULE FOR DEVICES WITH BUILT IN DAMPERS.
11. BLANK-OFF AREAS OF LOUVERS NOT USED WITH 20 GAGE SHEET METAL DOUBLE WALL BLANK-OFF PANEL INSULATED WITH 2" RIGID FIBERBOARD, SEAL AIR TIGHT.
12. INSTALL RIGID 1"x1" GALVANIZED STEEL WIRE MESH AT ALL OPEN ENDED DUCTS IN OCCUPIED AREAS OR EXPOSED TO VIEW.
13. COORDINATE INSTALLATION OF NEW DUCTWORK AND PIPING WITH BUILDING STRUCTURE, DUCTWORK, PIPING, ELECTRICAL CONDUIT, LIGHTING, ETC.
14. INSTALL ALL FLOOR MOUNTED HVAC EQUIPMENT, INCLUDING AHUS, CUS, ETC. ON 4" MINIMUM HEIGHT CONCRETE HOUSEKEEPING PAD. EXTEND PAD MINIMUM 4" BEYOND EQUIPMENT AT ALL SIDES. REFER TO STRUCTURAL PLANS FOR LOCATION.
15. PROVIDE POSITIVE DRAINAGE OF ALL PLENUMS CONNECTED TO OUTSIDE LOUVERS. WATERPROOF BOTTOM OF PLENUMS. SLOPE PLENUM BOTTOM TO LOUVER OR PROVIDE DRAIN POINTS WITH DISCHARGE TO DRAIN.
16. REFRIGERANT PIPING TO BE SIZED BY THE EQUIPMENT MANUFACTURER.
17. ROUTE CONDENSATE PIPING FROM ALL EQUIPMENT TO NEAREST FLOOR DRAIN UNLESS NOTED OTHERWISE ON THE FLOOR PLANS. DRAINS SHALL BE DWV COPPER IN ALL RETURN AIR PLENUMS AND WHERE HIDDEN IN INACCESSIBLE WALLS, FLOORS, CEILINGS, ETC. UNLESS SPECIFICALLY NOTED OTHERWISE.
18. DETAILS SHOWN IN THESE DRAWINGS APPLY TO INSTALLATIONS INDICATED REGARDLESS AS TO IF THEY ARE SPECIFICALLY REFERENCED ELSE WHERE IN THE DRAWING SET. ANY QUESTIONS ON THEIR APPLICABILITY SHALL BE SENT TO THE ENGINEER PRIOR TO BIDDING.
19. PROVIDE THERMOSTATS WITH ONLY TEMPERATURE DISPLAY (NO HUMIDITY) IN OCCUPIED SPACES AS INDICATED IN THE DRAWINGS.

MECHANICAL SYSTEM COMPONENTS EARTHQUAKE LOAD RESISTANCE

OCCUPANCY CATEGORY (IV) — **SEISMIC DESIGN CATEGORY (D)**

LISTING OF EQUIPMENT & SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOF, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY-SEALED ANCHORAGE AND SWAY BRACING DETAILS		COMMENTS
					ON CONSTRUCTION DOCUMENTS	SUBSEQUENT SUBMITTAL SEPARATE PERMIT AND PLANS	
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	DRAWING NO. OR SPEC. SECTION		
HAZARDOUS EQUIPMENT AND SYSTEM COMPONENTS Ip=1.5							
OTHER EQUIPMENT & SYSTEM COMPONENTS NEEDED FOR CONTINUED OPERATION OF OCCUPANCY CATEGORY IV FACILITIES OR WHOSE FAILURE COULD IMPAIR THEIR CONTINUED OPERATION Ip=1.5							
FLOOR MOUNTED: DOAS, HRU <= 400 LBS		X	X			X	
SUSPENDED FROM STRUCTURE: EF, FCU, EDH > 20 LBS		X		X		X	
SUSPENDED FROM STRUCTURE: EF, FCU <= 20 LBS	X		X				NOTE 3
WALL MOUNTED: UH, FCU, ETC.		X	X			X	
DUCTWORK	X		X				NOTE 6
PIPING > 1"		X		X		X	
PIPING < 1"	X		X				NOTE 7.4B
DIFFUSER, REGISTERS, & GRILLES	X		X				NOTE 3
FIRE DAMPERS, LOUVERS	X		X				

EXPLANATORY NOTES:
1. PLANS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF THIS PROJECT ALONG WITH A SEPARATE PERMIT APPLICATION NEED TO BE SUBMITTED TO THE AHJ A MINIMUM OF TWO WEEKS PRIOR TO THE PLANNED INSTALLATION TO ALLOW FOR PLAN REVIEW AND DISTRIBUTION TO THE INSPECTOR. ADDITIONAL TIME MAY BE NEEDED IF SUCH SUBMISSIONS ARE DEFICIENT.
2. SWAY BRACING REQUIRED FOR ITEMS SUSPENDED FROM STRUCTURE, UNLESS EXEMPT.
3. ANCHORAGE & BRACING CONTRACTOR SHALL REFER TO SPECIFICATIONS ON SEISMIC ANCHORAGE & SWAY BRACING.
4. ALL SEISMIC SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER OF RECORD PRIOR TO SUBMITTAL TO THE CODE REVIEWER.
5. CONTRACTOR SHALL ADHERE TO REQUIREMENTS FOR EXEMPTION, WHERE NOTED, OR PROVIDE SEISMIC BRACING DESIGNED BY A QUALIFIED ENGINEER LICENSED IN THE PROJECT'S STATE.

EXEMPTION NOTES:
1. SEISMIC DESIGN CATEGORY B - ASCE 7-22 TABLE 13.1-1
2. SEISMIC DESIGN CATEGORY C, THE COMPONENT IMPORTANCE FACTOR IS Ip=1.0, AND THE COMPONENT IS POSITIVELY ATTACHED TO THE STRUCTURE. ASCE 7-22 TABLE 13.1-1.
3. SEISMIC DESIGN CATEGORY C, D, E, OR F AND THE COMPONENT WEIGHS 20 LBS OR LESS. ASCE 7-22 TABLE 13.1-1.
4. SEISMIC DESIGN CATEGORY D, E, OR F, AND THE COMPONENT IMPORTANCE FACTOR Ip=1.0, AND THE CENTER OF MASS IS 4 FT OR LESS ABOVE THE FLOOR, AND THE COMPONENT WEIGHS 400LBS OR LESS, AND FLEXIBLE CONNECTIONS ARE PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. ASCE 7-22 TABLE 13.1-1.
5. SEISMIC DESIGN CATEGORY D, E, OR F, AND THE COMPONENT IMPORTANCE FACTOR Ip=1.0, AND FOR DISTRIBUTION SYSTEMS THE OPERATING WEIGHT OF THE SYSTEM IS 5LB/FT OR LESS. ASCE 7-22 TABLE 13.1-1.
6. DUCTWORK WITH A CROSS-SECTIONAL AREA LESS THAN 6 FT^2 AND WEIGH 20 LB/FT OR LESS WHERE PROVISIONS ARE MADE TO AVOID IMPACT WITH OTHER DUCTS OR MECHANICAL COMPONENTS OR TO PROTECT THE DUCTS IN THE EVENT OF SUCH IMPACT AND THE DISTRIBUTION SYSTEM IS POSITIVELY ATTACHED TO THE STRUCTURE. ASCE 7-22 SECTION 13.6.6 EXCEPTION 2.
7. PIPING SYSTEMS WHERE FLEXIBLE CONNECTIONS, EXPANSION LOOPS, OR OTHER ASSEMBLIES ARE PROVIDED TO ACCOMMODATE THE RELATIVE DISPLACEMENT BETWEEN COMPONENT AND PIPING, WHERE THE PIPING SYSTEM IS POSITIVELY ATTACHED TO THE STRUCTURE, AND WHERE ONE OF THE FOLLOWING APPLY (ASCE 7-22 SECTION 13.6.7.3):
   - 7.1 TRAPEZE ASSEMBLIES ARE SUPPORTED BY 0.375 IN. (10 MM) DIAMETER ROD HANGERS NOT EXCEEDING 12 IN. (305 MM) IN LENGTH FROM THE PIPE SUPPORT POINT TO THE CONNECTION AT THE GREATER SUPPORTING STRUCTURE, DO NOT SUPPORT PIPING WITH Ip GREATER THAN 1.0, NO SINGLE PIPE EXCEEDS THE LIMITS SET FORTH IN ITEMS 7.4A, 7.4B, OR 7.4C BELOW, AND THE TOTAL WEIGHT SUPPORTED BY ANY SINGLE TRAPEZE IS 100 LB (445 N) OR LESS;
   - 7.2 TRAPEZE ASSEMBLIES ARE SUPPORTED BY 0.5 IN. (13 MM) DIAMETER ROD HANGERS NOT EXCEEDING 12 IN. (305 MM) IN LENGTH FROM THE PIPE SUPPORT POINT TO THE CONNECTION AT THE SUPPORTING STRUCTURE, DO NOT SUPPORT PIPING WITH Ip GREATER THAN 1.0, NO SINGLE PIPE EXCEEDS THE DIAMETER LIMITS SET FORTH IN ITEMS 7.4A, 7.4B, OR 7.4C BELOW, AND THE TOTAL WEIGHT SUPPORTED BY ANY SINGLE TRAPEZE IS 200 LB (890 N) OR LESS;
   - 7.3 TRAPEZE ASSEMBLIES ARE SUPPORTED BY 0.5 IN. (13 MM) DIAMETER ROD HANGERS NOT EXCEEDING 24 IN. (610 MM) IN LENGTH FROM THE PIPE SUPPORT POINT TO THE CONNECTION AT THE GREATER SUPPORTING STRUCTURE, DO NOT SUPPORT PIPING WITH Ip GREATER THAN 1.0, NO SINGLE PIPE EXCEEDS THE DIAMETER LIMITS SET FORTH IN ITEMS 7.4A, 7.4B, OR 7.4C BELOW, AND THE TOTAL WEIGHT SUPPORTED BY ANY SINGLE TRAPEZE IS 100 LB (445 N) OR LESS;
   - 7.4 PIPING IS SUPPORTED BY ROD HANGERS AND PROVISIONS ARE MADE TO AVOID IMPACT WITH OTHER STRUCTURAL OR NONSTRUCTURAL COMPONENTS OR TO PROTECT THE PIPING IN THE EVENT OF SUCH IMPACT; OR PIPES ARE SUPPORTED BY INDIVIDUAL ROD HANGERS 0.375 IN. (10 MM) OR 0.5 IN. (13 MM) IN DIAMETER, WHERE EACH HANGER IN THE PIPE RUN IS 12 IN. (305 MM) OR LESS IN LENGTH FROM THE PIPE SUPPORT POINT TO THE CONNECTION AT THE SUPPORTING STRUCTURE, AND THE TOTAL WEIGHT SUPPORTED BY ANY SINGLE HANGER IS 50 LB (220 N) OR LESS. IN ADDITION, THE FOLLOWING LIMITATIONS ON THE SIZE OF PIPING SHALL BE OBSERVED:
     - (A) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C WHERE Ip IS GREATER THAN 1.0, THE NOMINAL PIPE SIZE IS 2 IN. (50 MM) OR LESS.
     - (B) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, OR F WHERE Ip IS GREATER THAN 1.0, THE NOMINAL PIPE SIZE IS 1 IN. (25 MM) OR LESS.
     - (C) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, OR F WHERE Ip 1.0, THE NOMINAL PIPE SIZE IS 3 IN. (80 MM) OR LESS.

MECHANICAL LEGEND

NOT ALL SYMBOLS AND ABBREVIATIONS ARE USED

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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
CCF&R HOUSE 006
1151 JUNGS STATION RD

No.	Revision	Date

MECHANICAL SYMBOLS & ABBR.

Project No.
24057

Sheet No.
M001

Date
2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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SCALE: 3" = 1'-0" / SCALE: 1 1/2" = 1'-0" / SCALE: 1" = 1'-0" / SCALE: 3/4" = 1'-0" / SCALE: 1/2" = 1'-0" / SCALE: 3/8" = 1'-0" / SCALE: 1/4" = 1'-0" / SCALE: 1/8" = 1'-0" / SCALE: 3/32" = 1'-0" / SCALE: 1/16" = 1'-0"

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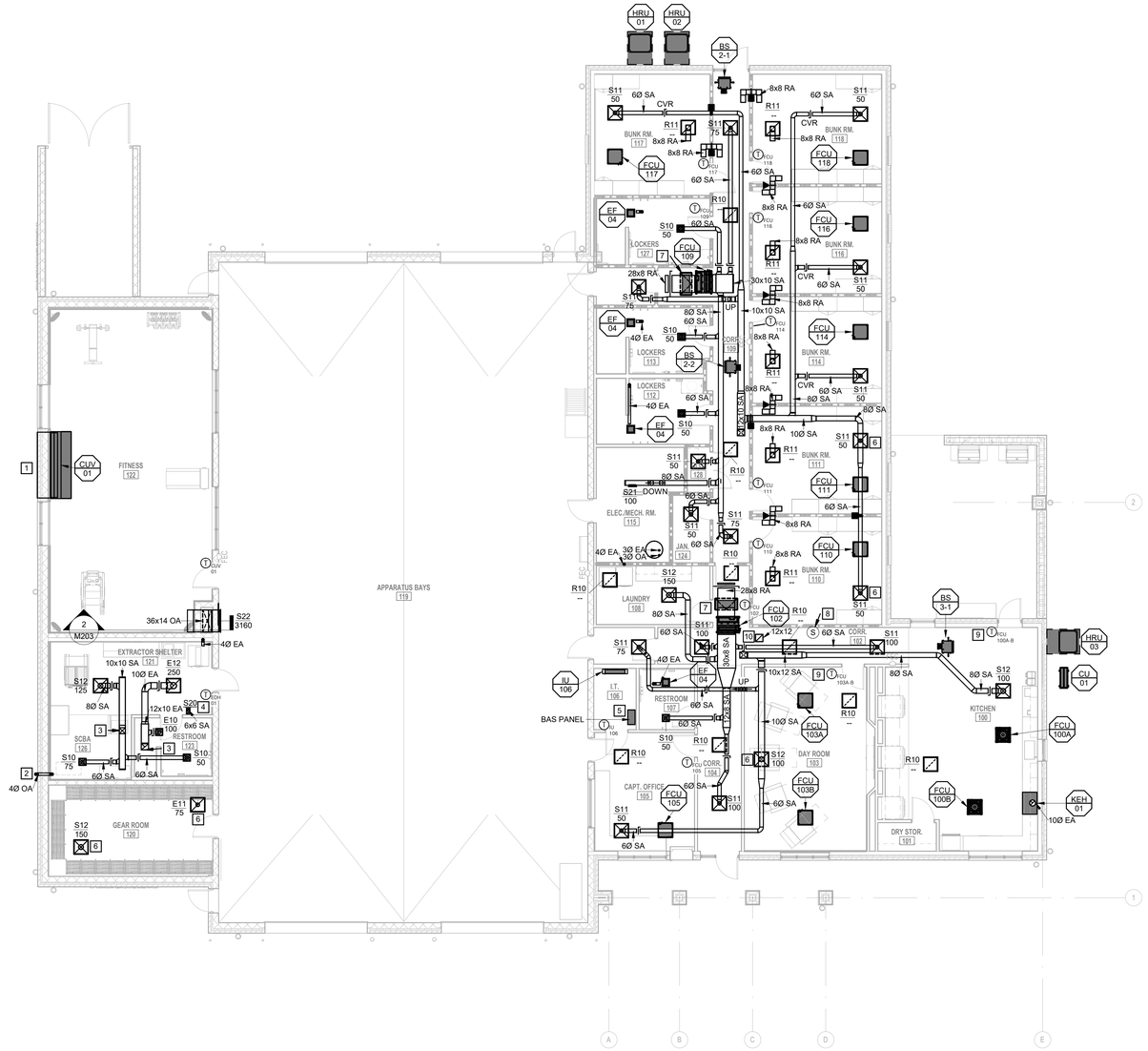
SHEET M201 KEYED NOTES

1. INSTALL MANUFACTURER LOUVER FOR CONDENSER INLET AND DISCHARGE AIR WITH UNIT VENTILATOR WALL SLEEVE. COORDINATE FINISH WITH ARCHITECT. TERMINATE CONDENSATE ON GRADE.
2. PROVIDE 4" DIAMETER PIPE THROUGH WALL AT APPROXIMATELY 7'-0" AFF FOR CONNECTION TO SCBA SYSTEM. REFER TO DETAIL 5/M501 FOR ADDITIONAL REQUIREMENTS.
3. GENERAL CONTRACTOR SHALL PROVIDE STEEL SHROUD FOR DUCTWORK AND 90-DEG ELBOW THAT PENETRATES STORM SHELTER CEILING. REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS.
4. PROVIDE MANUAL DAMPER APPROXIMATELY 3'-0" AFF TO OPEN DUCT IN STORM SHELTER DURING EMERGENCY. DUCT TO BE NORMALLY CLOSED.
5. RESERVE SPACE TO MOUNT 24"X24" BAS CONTROL PANEL AT ACCESSIBLE HEIGHT (4'-0" AFF).
6. PROVIDE VOLUME DAMPER IN VERTICAL DROP.
7. PROVIDE ACCESS PANEL UNDER FILTER BOX FOR DUCTED FAN COIL UNIT.
8. PROVIDE TEMPERATURE AND HUMIDITY SENSORS APPROXIMATELY 60" AFF CONNECT TO BAS TO MAINTAIN DOAS SETPOINTS.
9. PROVIDE TEMPERATURE CONTROL THROUGH SINGLE THERMOSTAT FOR BOTH FAN COIL CASSETTES IN THE ZONE.
10. 12"x12" RELIEF AIR DUCT INTO ATTIC SPACE. TERMINATE 12" BELOW BOTTOM OF JOISTS IN PLENUM SPACE.



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

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Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

MECHANICAL DUCTWORK PLAN

Project No. 24057

Sheet No. M201

Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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GENERAL NOTES:

1 NOT ALL REFRIGERANT PIPING IS SHOWN FOR CLARITY. PROVIDE ALL REQUIRED PIPING FOR A COMPLETE AND OPERATIONAL SYSTEM.

SHEET M202 KEYED NOTES

1 ROUTE ALL REFRIGERANT PIPING FROM OUTDOOR UNIT UP INTO ATTIC SPACE THROUGH ARCHITECTURAL CHASE. PIPING SHALL NOT ROUTE THROUGH ANY OCCUPIED SPACE. PIPING IS SHOWN SCHEMATICALLY. GROUP PIPING TOGETHER TO FIT INTO CHASE. CONNECT TO DOAS IN ATTIC.

2 ROUTE ALL REFRIGERANT PIPING FROM OUTDOOR UNIT UP INTO PLENUM THROUGH ARCHITECTURAL CHASE. GROUP PIPING TOGETHER TO FIT INTO CHASE. CONNECT TO BRANCH SELECTOR BOX.

3 ROUTE ALL REFRIGERANT PIPING FROM OUTDOOR UNIT UP INTO PLENUM THROUGH ARCHITECTURAL CHASE. GROUP PIPING TOGETHER TO FIT INTO CHASE. CONNECT TO INDOOR UNIT IN IT ROOM.

4 ROUTE CONDENSATE FROM FAN COIL UNITS TO 1-1/4" WYE IN SINK TAIL PIECE.

5 ROUTE CONDENSATE FROM FAN COIL UNITS AND DOAS TO SINGLE 1-1/4" VERTICAL DROP TO SINK IN JANITOR'S CLOSET.

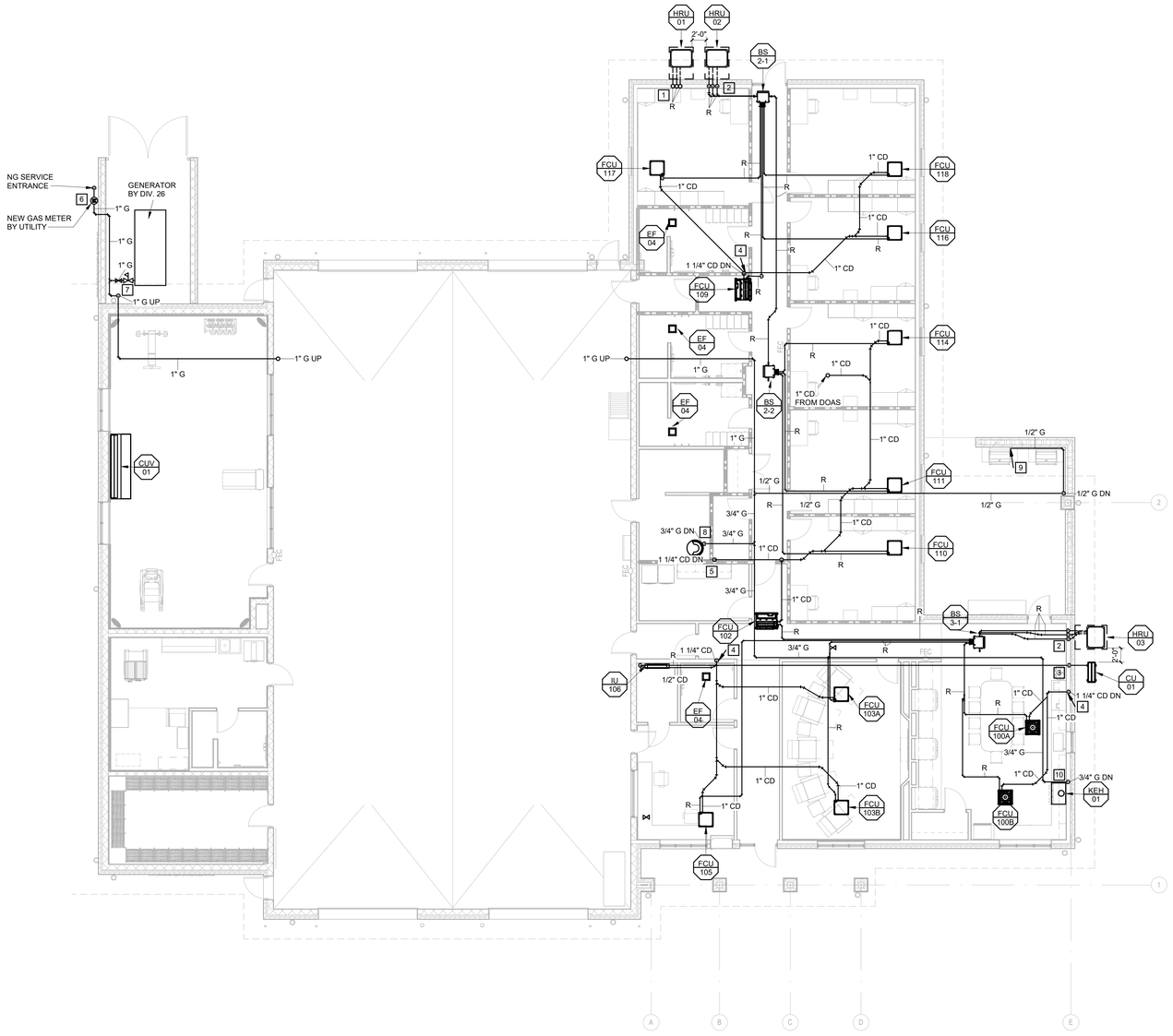
6 REFER TO 8/M502 FOR GAS METER DETAIL.

7 CONNECT TO NATURAL GAS GENERATOR. REFER TO 9/M502 FOR GAS CONNECTION DETAIL. COORDINATE EXACT LOCATION FOR BRANCH ONCE GENERATOR IS PURCHASED.

8 ROUTE 3/4" NATURAL GAS TO WATER HEATER. REFER TO 10/P501 FOR DETAIL.

9 TERMINATE WITH SEDIMENT TRAP AND EQUIPMENT SHUTOFF VALVE WITH 1/2" NPT TAP FOR FUTURE FLEXIBLE GAS HOSE CONNECTION TO EQUIPMENT.

10 REFER TO 7/M502 FOR GAS CONNECTION TO RANGE DETAIL.



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

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No.	Date	Revision

MECHANICAL PIPING PLAN

Project No. 24057

Sheet No. M202

Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
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Expiration Date: 12/31/2026

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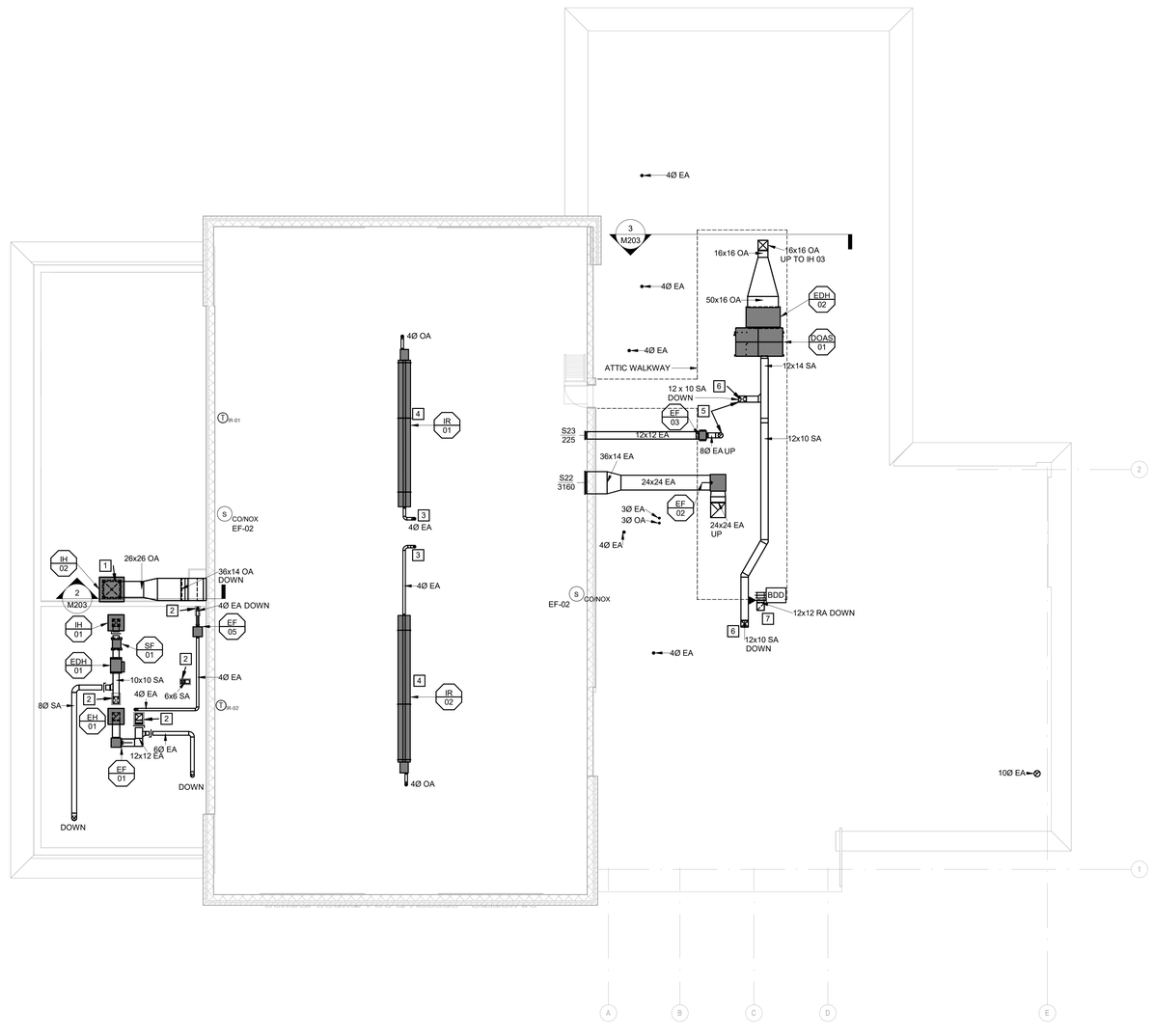
SHEET M203 KEYED NOTES

1. PROVIDE 24V MOTORIZED DAMPER IN VERTICAL RISER TO OUTSIDE AIR INLET HOOD AND CONNECT TO BAS. REFER TO 2/M203.
2. GENERAL CONTRACTOR SHALL PROVIDE STEEL SHROUD FOR DUCTWORK AND 90-DEG ELBOW THAT PENETRATES STORM SHELTER CEILING. REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS.
3. INSULATE FLUE WHERE IT PASSES THROUGH UNINSULATED ATTIC SPACE.
4. MOUNT HEATERS APPROXIMATELY 18" BELOW CEILING. COORDINATE EXACT LOCATION WITH ALL OTHER TRADES. REFER TO 4/M502 FOR ADDITIONAL REQUIREMENTS. PROVIDE SHIELDS NEAR COMPRESSED AIR DROPS, ELECTRICAL OUTLETS AND GARAGE DOOR RAILING IF NECESSARY.
5. COORDINATE EXACT HEIGHTS OF ALL EQUIPMENT AND DUCTWORK TO MAXIMIZE ABILITY TO ACCESS EQUIPMENT FOR MAINTENANCE PURPOSES. MAINTENANCE PERSONNEL SHALL BE ABLE TO ACCESS ALL EQUIPMENT WITHOUT HAVING TO WALK OVER ANY DUCTWORK OR PIPING.
6. ROUTE DUCTWORK DOWN TO 1ST FLOOR PLENUM. PROVIDE FIRE DAMPER (SIMILAR TO RUSKIN DFD) IN VERTICAL DROP BETWEEN ATTIC AND PLENUM SPACE.
7. PROVIDE 12X12 TRANSFER AIR DUCTWORK BETWEEN 1ST FLOOR PLENUM AND ATTIC SPACE. PROVIDE FIRE DAMPER (SIMILAR TO RUSKIN DFD) IN VERTICAL DROP FOLLOWED BY PRESSURE RELIEF BACKDRAFT DAMPER (SIMILAR TO GREENHECK BD-320) CALIBRATED TO OPEN AT 0.05 IN. WG OF PRESSURE.



1 MECHANICAL DUCTWORK ATTIC PLAN
1/8" = 1'-0"
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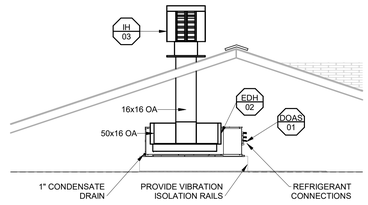
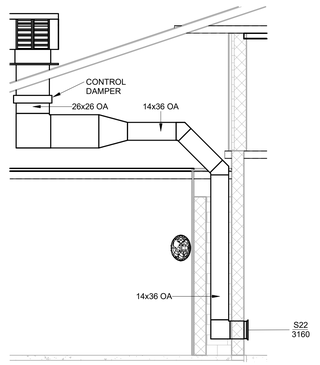
SCALE: 1/8" = 1'-0"



3 DOAS ELEVATION VIEW
1/4" = 1'-0"
0 2'-0" 4'-0" 8'-0"
SCALE: 1/4" = 1'-0"



2 APPARATUS BAY VENTILATION SYSTEM
1/4" = 1'-0"
0 2'-0" 4'-0" 8'-0"
SCALE: 1/4" = 1'-0"

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MECHANICAL DUCTWORK ATTIC PLAN

Project No.
24057

Sheet No.
M203

Date
2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
5/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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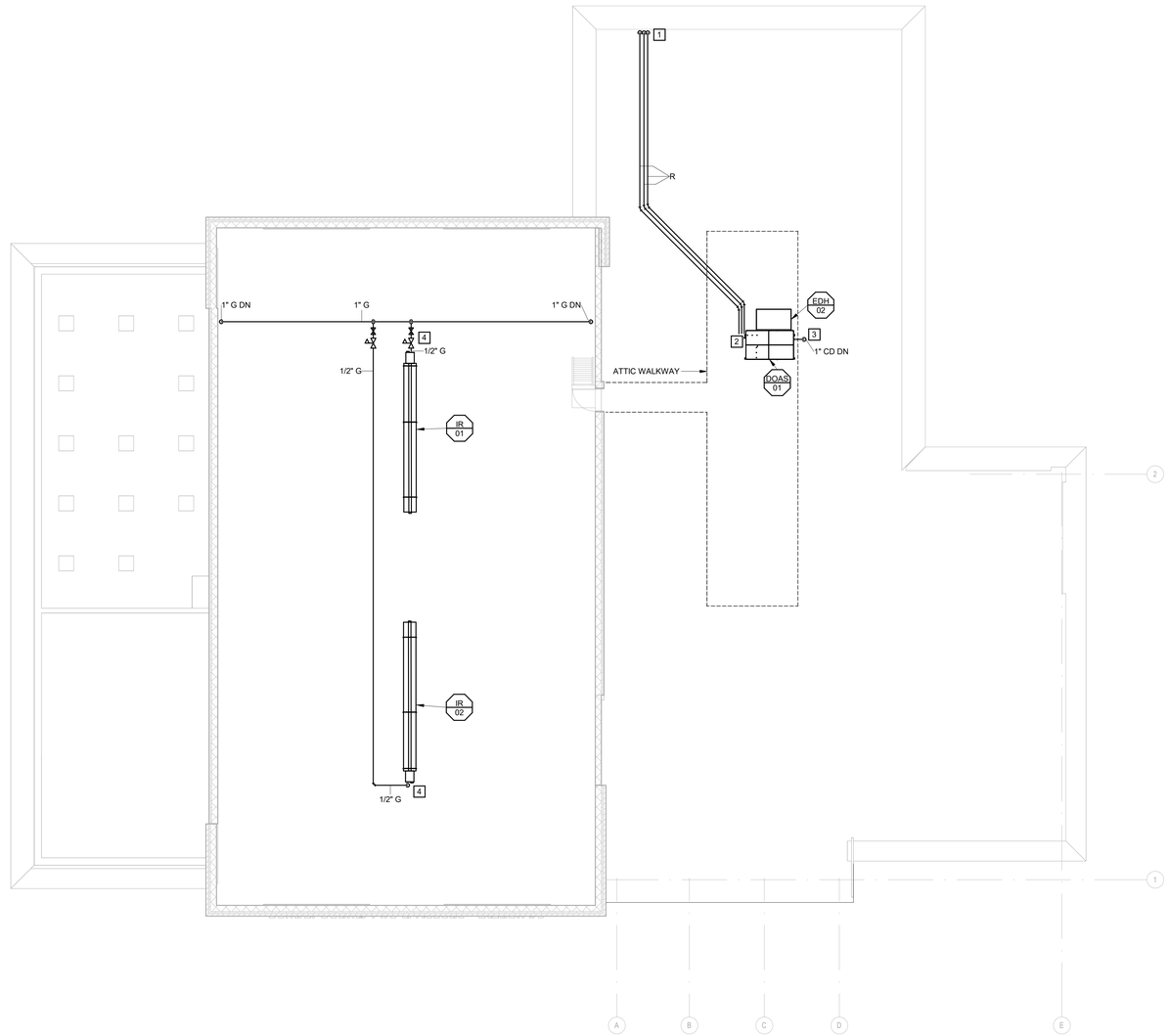
SHEET M204 KEYED NOTES

1. FIELD ROUTE REFRIGERANT PIPING (LIQUID, HIGH PRESSURE VAPOR, LOW PRESSURE VAPOR) TO DOAS-01. PIPING SPACED OUT IN DRAWING FOR CLARITY. CONTRACTOR SHALL DETERMINE MOST EFFICIENT ROUTE. FINAL SIZING SHALL BE BY MANUFACTURER.
2. CONTRACTOR SHALL MAINTAIN SERVICEABLE CLEARANCE TO MECHANICAL EQUIPMENT WHILE ROUTING REFRIGERANT PIPING.
3. ROUTE 1" CONDENSATE TO SINK IN JANITOR'S CLOSET.
4. REFER TO 10/M502 FOR GAS CONNECTION TO INFRARED HEATER DETAIL.



1 MECHANICAL PIPING ATTIC PLAN
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"

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Proposed:
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1151 JUNGS STATION RD

No.	Date	Revision

MECHANICAL PIPING ATTIC PLAN

Project No.
24057

Sheet No.
M204

Date
2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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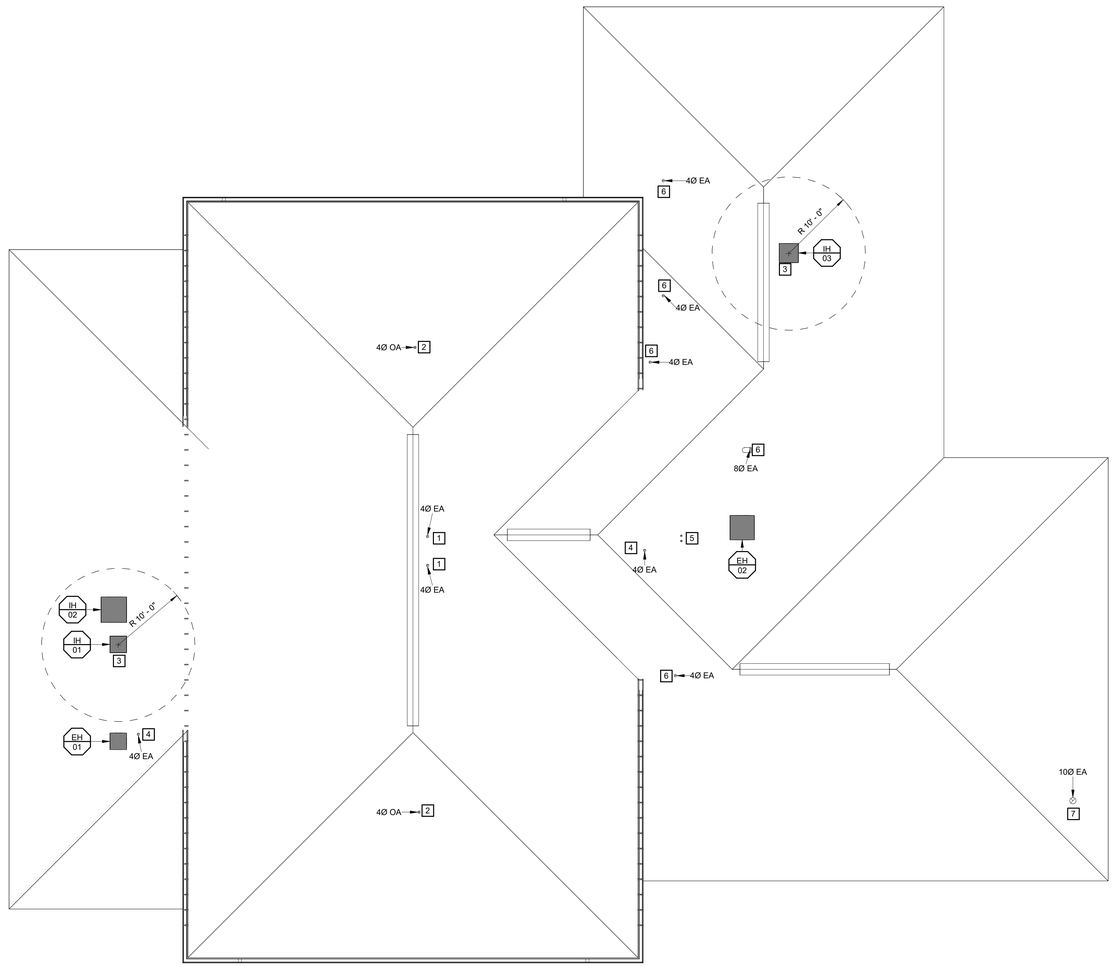
SHEET M205 KEYED NOTES

1 TERMINATE 4" EXHAUST FLUE WITH VENT CAP.
2 TERMINATE 4" COMBUSTION AIR INLET WITH CAP.
3 MAINTAIN MINIMUM 10'-0" RADIUS BETWEEN ALL OUTSIDE AIR INTAKE HOODS AND EXHAUST VENTS.
4 TERMINATE 4" DRYER VENT WITH DRYERJACK MODEL 477 OR EQUIVALANT ROOF VENT.
5 TERMINATE WITH 3" VENT/COMBUSTION CONCENTRIC ADAPTER BOX AS SHOWN ON 3/M502. NOTE: BOTH PIPES ARE SHOWN ON ROOF PLAN FOR CLARITY. CONCENTRIC BOX INSTALLATION SHALL OCCUR UNDER ROOF.
6 TERMINATE EXHAUST DUCT WITH GOOSENECK. REFER TO 6/M501.
7 TERMINATE KITCHEN HOOD EXHAUST DUCT 10" ABOVE FINISHED ROOF WITH CURB-MOUNTED ROOF JACK (SIMILAR TO KEEPA MODEL KV-12-CMF-TP).



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

N

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MO Architect License No: A-6661
Expires: 12/31/2024

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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

MECHANICAL ROOF PLAN

Project No.
24057

Sheet No.
M205

Date
2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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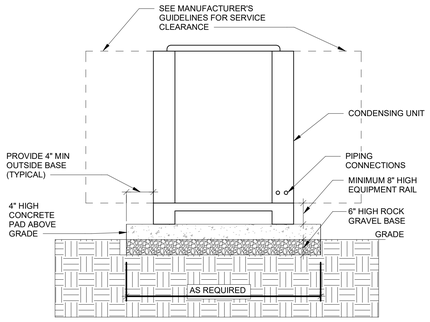
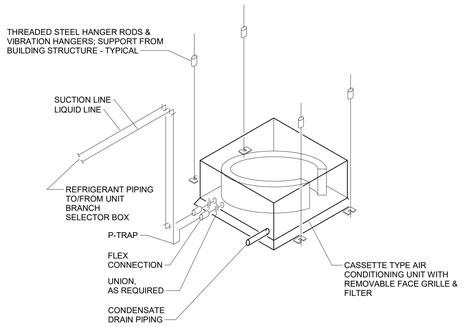


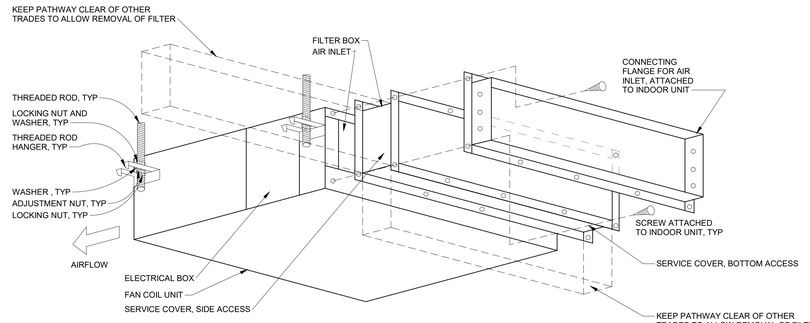
1 CONDENSING UNIT ON GRADE PAD DETAIL
N.T.S.



NOTES:

1. THIS DIAGRAM IS SCHEMATIC ONLY. EXACT ROUTING OF PIPING AND MOUNTING OF UNITS TO BE DETERMINED ON-SITE.
2. REFRIGERANT PIPING & FITTINGS SHALL BE PROCESSED PIPING SUITABLE FOR TIHS APPLICATION; DEOXIDIZED, DEHYDRATED & SEALED, TYPE ACR WITH BRAZED JOINTS. INSULATED SUCTION LINE WITH 25mm THICK ELASTOMER PIPE INSULATION.

2 VRF CEILING CASSETTE TYPE AC UNIT DETAIL
N.T.S.



NOTES:

1. BEFORE MATING THE FILTER BOX TO THE INDOOR UNIT, PLACE A BEAD OF SEALANT ON THE DISCHARGE SIDE OF THE FILTER BOX AROUND THE OUTLET OPENING. KEEP THE BEAD CENTERLINE APPROXIMATELY 1/4" FROM THE OPENING EDGE AT BOTH ENDS AND AT A DISTANCE OF APPROXIMATELY 1/4" TO 1/2" FROM THE EDGE OF THE BOTTOM AND TOP SIDES OF THE OPENING.

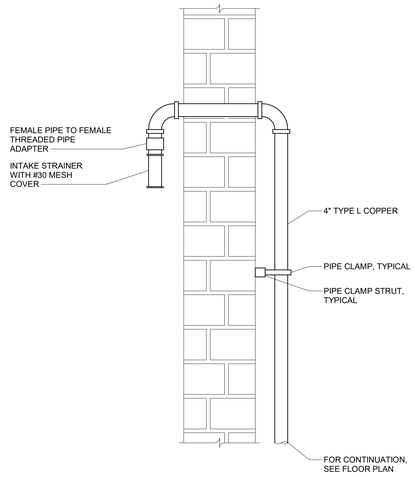
2. FILTERS SHALL BE INSTALLED IN MULTIPLE SECTIONS TO ALLOW FOR REMOVAL THROUGH LAY-IN CEILING SUSPENSION GRID FRAMING.

3 FAN COIL UNIT FILTER BOX INSTALLATION
N.T.S.

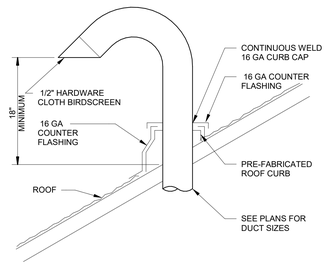
NOTES:

1. THIS DIAGRAM IS SCHEMATIC ONLY. EXACT ROUTING OF PIPING AND MOUNTING OF UNITS TO BE DETERMINED ON-SITE.
2. REFRIGERANT PIPING & FITTINGS SHALL BE PROCESSED PIPING SUITABLE FOR TIHS APPLICATION; DEOXIDIZED, DEHYDRATED & SEALED, TYPE ACR WITH BRAZED JOINTS. INSULATED SUCTION LINE WITH 25mm THICK ELASTOMER PIPE INSULATION.

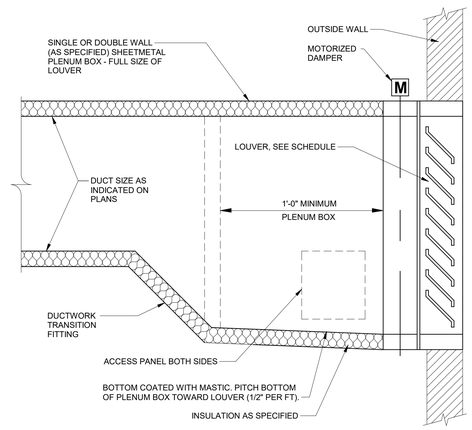
4 VRF DUCTED CONCEALED TYPE AC UNIT DETAIL
N.T.S.



5 INTAKE CONNECTION FOR SCBA EQUIPMENT
N.T.S.



6 GOOSENECK THROUGH ROOF DETAIL
N.T.S.



7 LOUVER DUCTED PLENUM WITH MOTORIZED DAMPER
N.T.S.

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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

MECHANICAL DETAILS

Project No.
24057

Sheet No.
M501

Date
2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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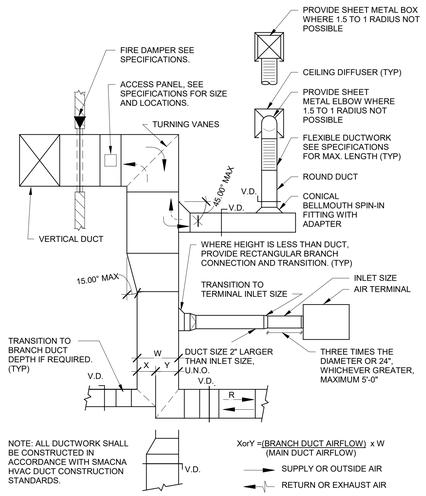
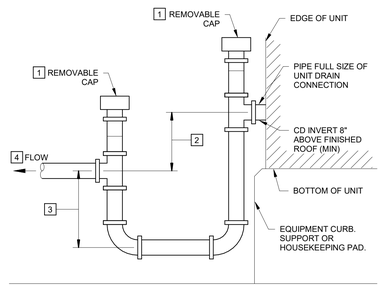
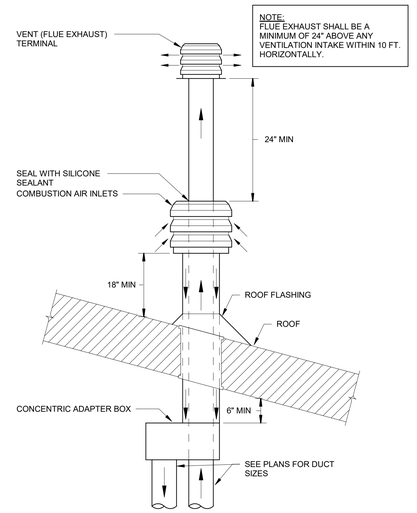


1 TYPICAL DUCTWORK INSTALLATION DETAIL
N.T.S.

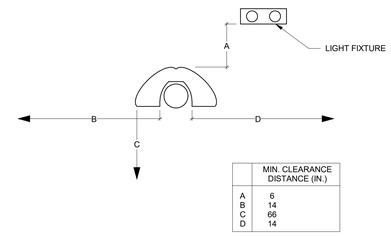


NOTE:
1. LOCATE TRAPS SO AS TO BE ACCESSIBLE FOR CLEANING.
2. DRAW-THRU: SUBTRACT SCHEDULED E.S.P. FROM T.S.P. THEN ADD 1" BLOW-THRU: 1".
3. DRAW-THRU: 1/2 OF NOTE 2 DIMENSION BUT NOT LESS THAN 2" BLOW-THRU: SUBTRACT SCHEDULED E.S.P. FROM T.S.P. THEN ADD 1".
4. ROUTE TO NEAREST ROOF OR FLOOR DRAIN OR TO GRADE.

2 CONDENSATE DRAIN TRAP DETAIL
N.T.S.



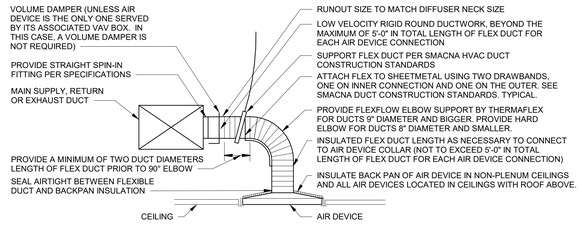
3 VENT/COMBUSTION AIR INTAKE DETAIL
N.T.S.



	MIN. CLEARANCE DISTANCE (IN.)
A	6
B	14
C	66
D	14

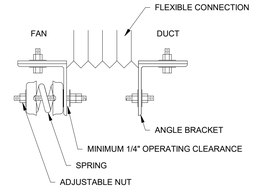
NOTES:
1. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR COMPLETE INSTALLATION DETAILS.
2. COORDINATE CLEARANCES WITH OVERHEAD DOORS, LIGHT FIXTURES AND CORD REELS.

4 INFRARED HEATER INSTALLATION
N.T.S.

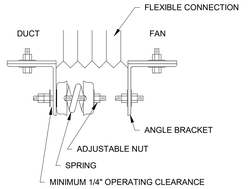


NOTE:
IF CEILING IS GYPSUM BOARD, PROVIDE OPPOSED BLADE DAMPER AT AIR DEVICE.

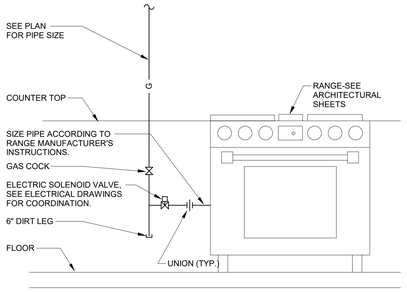
5 BRANCH TAKE-OFF TO AIR DEVICE DETAIL
N.T.S.



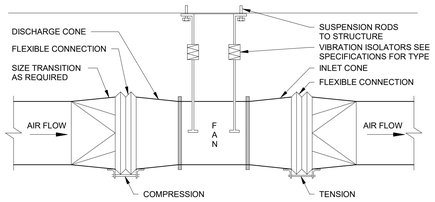
TENSION



COMPRESSION

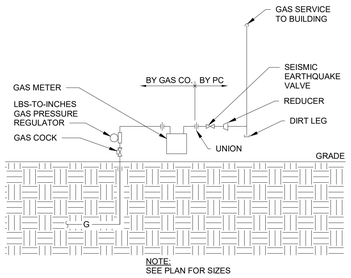


7 RANGE GAS PIPING CONNECTION
N.T.S.

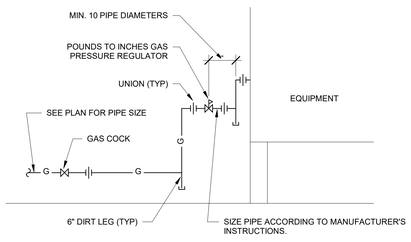


NOTES:
1. INSTALL VIBRATION ISOLATION SYSTEM (HANGERS, FLOOR MOUNTS, OR BASE WITH ISOLATORS) PER MANUFACTURER'S INSTRUCTION OF THRUST RESTRAINTS.
2. INSTALL ONE SET OF THRUST RESTRAINT BRACKETS, SPRINGS AND HARDWARE ON EACH SIDE OF UNIT AT THE DISCHARGE OUTLET (FOR THRUST IN TENSION) OR AT THE INLET (FOR THRUST IN COMPRESSION). NOTE THAT THRUST RESTRAINTS MUST BE LOCATED ALONG CENTERLINE OF DISCHARGE OR INLET. MAINTAIN CORRECT ORIENTATION WITH RESPECT TO DIRECTION OF AIRFLOW.
3. THE BRACKET OPPOSITE THE FAN MUST BE ATTACHED TO A STRUCTURAL COMPONENT THAT WILL WITHSTAND THE FAN THRUST.

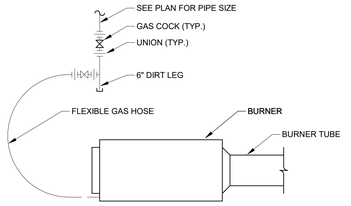
6 INLINE CENTRIFUGAL FAN INSTALLATION
N.T.S.



8 GAS METER DETAIL
N.T.S.



9 EQUIPMENT GAS PIPING CONNECTION
N.T.S.



10 INFRARED HEATER GAS PIPING CONNECTION
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No.	Date	Revision

MECHANICAL DETAILS

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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AIR COOLED CONDENSING UNIT SCHEDULE

UNIT NO.	SERVES	OPERATING RANGE DB (°F)	REFRIGERANT TYPE	NO. OF CIRCUITS	EER @ OPERATING CONDITIONS	CONDENSER FAN	ELECTRICAL			UNIT WEIGHT (LBS)	BASIS OF DESIGN		NOTES
						QTY	MCA	MOP	V/PH/HZ		MANUFACTURER	MODEL	
CU 01	IT ROOM 106	-4 TO 118	R32	1	12.61	1	13.4	15	208/1/60	75	LG	KUSXB091A	1,2,3

NOTES:
1. MOUNT ON 8" RAIL WITH NEOPRENE ISOLATORS.
2. PROVIDE LOW AMBIENT KIT.
3. PROVIDE WITH ALL ACCESSORIES AND CONTROLS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

SPLIT AIR-CONDITIONING UNIT SCHEDULE - INDOOR ONLY

UNIT NO.	BASIS OF DESIGN		AREA SERVED	CONDENSING UNIT	SUPPLY CFM@ HIGH SPEED	MAX COOLING CAPACITY (MBH)	FILTER	ELECTRICAL DATA	NOTES
	MANUFACTURER	MODEL						V/PH/HZ	
IU 106	LG	KNUFB091A	IT ROOM 106	CU 01	353	9.9	WASHABLE	208/1/60	1,2

NOTES:
1. POWER FROM ASSOCIATED CONDENSING UNIT.
2. COOLING CAPACITY BASED UPON 76.3 DEGF DB AND 58.5 DEGF WB INDOOR TEMPERATURE.

RADIANT HEATER SCHEDULE

UNIT NO.	BASIS OF DESIGN		INPUT CAPACITY (MBH)	TUBE LENGTH (FT)	TUBE DIAMETER (IN)	ACCESSORIES	NOTES
	MANUFACTURER	MODEL					
IR 01	ROBERTS GORDON	CTH2V-40	40	20	4	1,2,3	1,2
IR 02	ROBERTS GORDON	CTH2V-40	40	20	4	1,2,3	1,2

NOTES:
1. PROVIDE WITH ROOF INTAKE VENT CAP AND EXHAUST DISCHARGE VENT CAP.
2. REFER TO EQUIPMENT DATA SCHEDULE FOR ELECTRICAL REQUIREMENTS.

ACCESSORIES:
1. ALUMINUM REFLECTORS AND END CAPS.
2. CHAIN HANGERS.
3. INSULATED SUB-BASE FOR WALL MOUNTED TEMPERATURE SENSOR.

ELECTRIC HEATING COIL SCHEDULE

UNIT NO.	BASIS OF DESIGN		AREA SERVED	DUCT SIZE	AIR FLOW (CFM)	ELECTRICAL CHARACTERISTICS			HEATER AMPS	NOTES
	MANUFACTURER	MODEL				KW	STAGES	V/PH/HZ		
EDH 01	RAYWALL	F3G7207-SCR	GEAR RM / DECON	10X10	400	10	SCR	208/3/60	27.4	1
EDH 02	LG	ZWPREHTR01	DOAS-01	50X16	850	10	SCR	208/1/60	47.6	2

NOTES:
1. PROVIDE WITH DISCONNECT SWITCH, AIRFLOW SWITCH, ROOM THERMOSTAT, SCR CONTROLLER.
2. INTEGRATE INTO INLET SIDE OF DOAS.

KITCHEN HOOD SCHEDULE

UNIT NO.	BASIS OF DESIGN		EXHAUST CFM	ELECTRICAL DATA		NOTES
	MANUFACTURER	MODEL		V/PH/HZ	AMPS	
KEH 01	CAPTIVEAIRE	WRH-36	500	120/1/60	15	1,2,3,4,5,6,7

NOTES:
1. PROVIDE WITH INLINE EXHAUST FAN.
2. PROVIDE ROOF JACK WITH 10 INCH DUCT CONNECTION.
3. PROVIDE WITH ELECTRICAL DISCONNECT BOX.
4. PROVIDE WITH INTEGRAL LIGHTS, LIGHT SWITCH AND FAN SWITCH.
5. PROVIDE WITH INTEGRATED FIRE SUPPRESSION SYSTEM.
6. PROVIDE WITH INTEGRATED SYSTEM CONTROLS, GAS SHUTOFF AND MANUAL PULL STATION.
7. REFER TO EQUIPMENT DATA SCHEDULE FOR ADDITIONAL ELECTRICAL REQUIREMENTS.

MECHANICAL EQUIPMENT VIBRATION ISOLATION SCHEDULE

Mark	ISOLATOR TYPE	MINIMUM DEFLECTION (IN)
BS 2-1	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
BS 2-2	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
BS 3-1	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
CU 01	TYPE 1 - ELASTOMERIC PAD	0.25
DOAS 01	TYPE 4 - HOUSED SPRING MOUNT - RESTRAINED	0.75
EDH 02	TYPE 4 - HOUSED SPRING MOUNT - RESTRAINED	0.25
EF 01	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
EF 02	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
EF 03	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 100A	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 100B	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 102	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 103A	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 103B	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 105	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 109	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 110	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 111	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 114	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 116	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 117	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
FCU 118	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75
HRU 01	TYPE 1 - ELASTOMERIC PAD	0.25
HRU 02	TYPE 1 - ELASTOMERIC PAD	0.25
HRU 03	TYPE 1 - ELASTOMERIC PAD	0.25
SF 01	TYPE 3 - SPRING ISOLATOR - VERTICAL STOP	0.75

100% OUTSIDE AIR UNIT SCHEDULE

UNIT NO.	BASIS OF DESIGN		OUTDOOR UNIT NO.	CFM	TSP (IN. WC)	COOLING COIL SECTION				HOT GAS REHEAT CAPACITY KBTU/H	PREHEAT UNIT	AHU ELECTRICAL DATA			REFRIGERANT TYPE	WEIGHT (LBS)	NOTES
	MANUFACTURER	MODEL				EAT (°F) DB/WB	LAT (°F) DB/WB @ COIL	TOTAL CAPACITY KBTU/H	SENSIBLE CAPACITY KBTU/H			V/PH/HZ	MCA	MOP			
DOAS 01	LG	ARND093DCR4	HRU-01	850	1.1	100.0/81.1	49.9/49.5	96.1	47.6	17.7	EDH-02	208/1/60	2.5	15	R410A	342	1,2,3

NOTES:
1. PROVIDE WITH HOT GAS REHEAT.
2. PROVIDE UNITS WITH MINIMUM 8" TALL SEISMIC VIBRATION RAILS.
3. PROVIDE WITH SECONDARY DRAIN PAN WITH WATER SENSOR TO SHUT-DOWN UNIT AND ALARM AT CONTROL PANEL.

UNIT VENTILATOR SCHEDULE

UNIT NO.	BASIS OF DESIGN		SERVES	MAX CFM	OUTSIDE AIR CFM	EER @ DESIGN CONDITIONS	COOLING COIL SECTION				ELECTRIC REHEAT CAPACITY (KW)	# OF HEATING ELEMENTS	TOTAL UNIT ELECTRICAL DATA			REFRIGERANT TYPE	WEIGHT (LBS)	NOTES
	MANUFACTURER	MODEL					EAT (°F) DB/WB	LAT (°F) DB/WB @ COIL	TOTAL CAPACITY (KBTU/H)	SENSIBLE CAPACITY (KBTU/H)			V/PH/HZ	MCA	MOP			
CUV 01	DAIKIN	UAZUK044	FITNESS 122	1500	475	10.1	95/78	59.3/53.0	43.025	25.487	12	3	208/3/60	47.0	50	R32	1075	1,2,3

NOTES:
1. PROVIDE WITH FLOOR MOUNTED ARRANGEMENT WITH BOTTOM FRONT RETURN AIR AND REAR OUTSIDE AIR.
2. PROVIDE INSTALLATION ACCESSORIES FOR FULL WALL SLEEVE RECESS WITH 16-5/8" ROOM PROJECTION.
3. PROVIDE MANUFACTURER LOUVER.

VRF HEAT RECOVERY UNIT SCHEDULE

UNIT NO.	MANUFACTURER	MODEL	TYPE	GROSS COOLING CAPACITY (KBTU/H)	GROSS HEATING CAPACITY (KBTU/H)	ELECTRICAL			REFRIGERANT TYPE	NO. OF BRANCH SELECTOR BOXES	BRANCH MODEL	BRANCH ELEC.	NOTES
						MCA	MOCP	V/PH/HZ					
HRU 01	LG	ARUM072BTE5	HEAT RECOVERY HEAT PUMP	81.9	76.5	22.6	35	208/3/60	R410A	--	--	--	1,2,3
HRU 02	LG	ZRUM072BTE6	HEAT RECOVERY HEAT PUMP	54.8	66.4	31.8	35	208/3/60	R32	2	PRHR044C	208/1/60	1,2,3
HRU 03	LG	ZRUM072BTE6	HEAT RECOVERY HEAT PUMP	54.9	66.4	31.8	35	208/3/60	R32	1	PRHR044C	208/1/60	1,2,3

NOTES:
1. MOUNT ON 12" HIGH ELEVATED RAIL.
2. PROVIDE HAIL GUARDS.
3. UNIT SHALL BE RATED TO CONTINUE TO OPERATE AFTER A SEISMIC EVENT. THIS APPLIES TO THE ENTIRE VRF SYSTEM.

VRF FAN COIL UNIT SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	LOCATION	CONFIGURATION	MAX. AIRFLOW CFM	REQUIRED COOLING CAPACITY		REQUIRED HEATING CAPACITY (MBH)	ELECTRICAL DATA		NOTES
						TOTAL COOLING (KBTU/H)	SENSIBLE CAPACITY (KBTU/H)		MCA (A)	V/PH/HZ	
FCU 100A	LG	ZRNU123TRAA	KITCHEN	4WAY CASSETTE	307	9.3	7.7	14.1	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 100B	LG	ZRNU123TRAA	KITCHEN	4WAY CASSETTE	307	9.3	7.7	14.1	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 102	LG	ZRNU153MAAA	LAUNDRY/ REST / CORR	MID STATIC DUCT	530	11.7	10.4	17.7	2.2	208/1/60	1,2,3,4,5,6,8,9
FCU 103A	LG	ARNU093TRD4	DAY ROOM	4 WAY CASSETTE	283	7.3	6.0	11.2	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 103B	LG	ARNU093TRD4	DAY ROOM	4 WAY CASSETTE	283	7.3	6.0	11.2	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 105	LG	ARNU093TRD4	CAPT. OFFICE	4 WAY CASSETTE	283	7.3	6.0	11.2	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 109	LG	ZRNU153MAAA	JAN / STOR / CORR	MID STATIC DUCT	530	11.7	10.4	17.7	2.2	208/1/60	1,2,3,4,5,6,8,9
FCU 110	LG	ARNU093TRD4	BUNK ROOM 110	4 WAY CASSETTE	283	7.3	6.0	11.2	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 111	LG	ARNU093TRD4	BUNK ROOM 111	4 WAY CASSETTE	283	7.3	6.0	11.2	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 114	LG	ARNU093TRD4	BUNK ROOM 114	4 WAY CASSETTE	283	7.3	6.0	11.2	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 116	LG	ARNU093TRD4	BUNK ROOM 116	4 WAY CASSETTE	283	7.3	6.0	11.2	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 117	LG	ARNU093TRD4	BUNK ROOM 117	4 WAY CASSETTE	283	7.3	6.0	11.2	0.40	208/1/60	1,2,3,4,5,6,7,9
FCU 118	LG	ARNU093TRD4	BUNK ROOM 118	4 WAY CASSETTE	283	7.3	6.0	11.2	0.40	208/1/60	1,2,3,4,5,6,7,9

NOTES:
1. COOLING CAPACITIES ARE BASED ON OUTDOOR AIR CONDITIONS OF 100.0 DEGF DB AND 81.0 DEGF WB.
2. HEATING CAPACITIES ARE BASED ON OUTDOOR OF 0 DEGF DB.
3. INSTALLING CONTRACTOR TO COORDINATE REFRIGERANT PIPE SIZES WITH MANUFACTURER PRIOR TO INSTALLATION. MANUFACTURER OR CERTIFIED REPRESENTATIVE TO MAKE ON-SITE VISITS BEFORE, DURING, AND AFTER TO ENSURE PROPER INSTALLATION.
4. INSTALLING CONTRACTOR TO HAVE COMPLETED VRF MANUFACTURER'S INSTALLATION TRAINING FROM MANUFACTURER OR CERTIFIED REPRESENTATIVE IN THE PAST 5 YEARS.
5. HMAX REF-SODS (OR APPROVED EQUAL) BALL VALVES TO BE INSTALLED ON EACH PORT OF THE HEAT RECOVERY BOXES.
6. PROVIDE THERMOSTAT WITH SPACE TEMPERATURE DISPLAY (NO HUMIDITY). COORDINATE WITH BAS PROVIDER.
7. UNIT'S CHASSIS SHALL FIT IN A STANDARD 2x2 CEILING GRID. THE ACTUAL GRILLE IS 24-13/32" x 24-13/32". GRILLE WILL EXTEND PAST EDGES OF GRID.
8. PROVIDE WITH FILTER BOX ON INLET. REFER TO DETAIL 3/M501. ACCESS PANEL SHALL BE PROVIDED IN CEILING GRID TO FILTER.
9. PROVIDE CONDENSATE PUMP.

FAN SCHEDULE

UNIT NO.	MANUFACTURER	MODEL	LOCATION	TYPE	CFM	ESP (IN. WC)	RPM	DRIVE TYPE	BHP	MOTOR SIZE (HP)	V/PH/HZ	MCA	SONES RAD.	WEIGHT (LBS)	NOTES
EF 01	GREENHECK	SQ-7-M1-B-VG	GEAR RM / DECON	INLINE	425	1.0	2844	DIRECT	0.18	0.5	120/1/60	8.2	8.9	48	1,2,3,4,5,10
EF 02	GREENHECK	SQ-160	APPARATUS BAY	INLINE	3160	1.8	1725	DIRECT	1.91	2.0	208/3/60	9.4	16.1	157	1,2,3,4,5,7
EF 03	GREENHECK	CSP-A390-VG	APPARATUS BAY	INLINE	225	1.0	1722	DIRECT	0.11	0.3	120/1/60	1.9	4.3	24	1,2,3,4,5
EF 04	PANASONIC	FV-1115VK2-4	LOCKER RM	INLINE	110	0.1	616	DIRECT	--	0.1	120/1/60	0.07	0.3	12	8,9
EF 05	TJERNLUND	LB2	GEAR RM / DECON	INLINE	160	1.0	3000	DIRECT	--	0.06	120/1/60	0.5	NL	16	11
SF 01	GREENHECK	CSP-A700-VG	GEAR RM / DECON	INLINE	400	1.0	1541	DIRECT	0.21	0.5	120/1/60	5.1	3.4	39	1,2,3,4,6,10

NOTES:
1. PROVIDE WITH VIBRATION ISOLATION - SEE VIBRATION ISOLATION SCHEDULE FOR ADDITIONAL REQUIREMENTS.
2. PROVIDE WITH SOLID STATE SPEED CONTROL
3. PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH.
4. PROVIDE WITH GRAVITY BACKDRAFT DAMPER.
5. PROVIDE WITH BIRDSCREEN.
6. PROVIDE FILTER SECTION.
7. CONTROL WITH CO/NOX SENSOR.
8. CONTROL WITH OCCUPANCY SENSOR.
9. TERMINATE WITH ROOF VENT CAP.
10. FAN SHALL OPERATE CONTINUOUSLY.
11. TERMINATE WITH ROOF VENT CAP DESIGNED FOR CLOTHES DRYER EXHAUST.

INTAKE HOOD SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	HOOD LENGTH (IN)	HOOD WIDTH (IN)	HEIGHT (IN)	THROAT SIZE (IN)	THROAT VELOCITY (FPM)	THROAT AREA (SF)	DESIGN CFM	MAX PRESSURE DROP (IN WC)	WEIGHT (LBS)	NOTES
IH 01	GREENHECK	ESD-635PD-12x12	26	26	24	12X12	400	1.0	400	0.13	214	1
IH 02	GREENHECK	ESD-635PD-26x26	40	40	28	26x26	720	5.0	3385	0.21	352	1
IH 03	GREENHECK	ESD-635PD-16x16	30	30	28	16X16	620	2.0	850	0.15	259	1

NOTES:
1. PROVIDE WITH SLOPED ROOF CURB AND BIRD SCREEN.

EXHAUST HOOD SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	HOOD LENGTH (IN)	HOOD WIDTH (IN)	HEIGHT (IN)	THROAT SIZE (in)	THROAT VELOCITY (FPM)	THROAT AREA (SF)	MAX CFM	MAX PRESSURE DROP (IN WC)	WEIGHT (LBS)	NOTES
EH 01	GREENHECK	ESD-635PD-12x12	26	26	24	12X12	590	1.0	585	0.10	214	1
EH 02	GREENHECK	ESD-635PD-26x26	38	38	28	26x26	720	5.0	3385	0.21	352	1

NOTES:
1. PROVIDE WITH SLOPED ROOF CURB, BIRD SCREEN, AND GRAVITY BACKDRAFT DAMPER.

AIR DEVICE SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	DESCRIPTION	MAX FLOW CFM	CONNECTION SIZE		MODULE SIZE	MAX NC	MATERIAL	MAX PRESSURE DROP IN-WG	FINISH	NOTES
					WIDTH OR DIAMETER	LENGTH						
E10	TITUS	OMNI	SQUARE PLAQUE	100	6"		12X12	12	STEEL	0.08	BWE	
E11	TITUS	OMNI	SQUARE PLAQUE	125	6"		24X24	13	STEEL	0.08	BWE	
E12	TITUS	OMNI	LOUVERED RETURN	380	10"		24x24	12	STEEL	0.08	BWE	
R10	TITUS	350RL	RETURN GRILLE	1500	22"	22"	24X24	10	STEEL	0.08	BWE	
R11	TITUS	PAR	RETURN DIFFUSER	250	8"	8"	24X24	10	STEEL	0.08	BWE	8X8 BOOT
S10	TITUS	OMNI	SQUARE PLAQUE	100	6"		12X12	12	STEEL	0.08	BWE	
S11	TITUS	OMNI	SQUARE PLAQUE	125	6"		24X24	12	STEEL	0.08	BWE	
S12	TITUS	OMNI	SQUARE PLAQUE	235	8"		24X24	12	STEEL	0.08	BWE	
S20	TITUS	272RS	LOUVERED SUPPLY	155	6"	6"	6x6	20	STEEL	0.08	BWE	
S21	TITUS	272RS	LOUVERED SUPPLY	200	12"	6"	12x6	20	STEEL	0.08	BWE	
S22	TITUS	272RS	LOUVERED SUPPLY	3160	36"	14"	36x14	20	STEEL	0.06	BWE	
S23	TITUS	350RS	LOUVERED EXHAUST	800	12"	12"	12X12	20	STEEL	0.08	BWE	

GENERAL NOTES:
VOLUME CONTROL DAMPER SHALL BE INSTALLED IN BRANCH DUCTWORK UNLESS NOTED OTHERWISE INDICATED ON PLANS. SEE PLANS FOR LOCATION AND ACCESSIBILITY.

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Revision	Date

MECHANICAL SCHEDULES

Project No. 24057
Sheet No. M601
Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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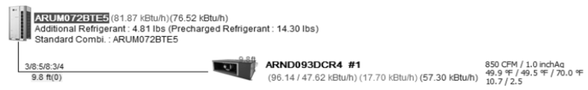
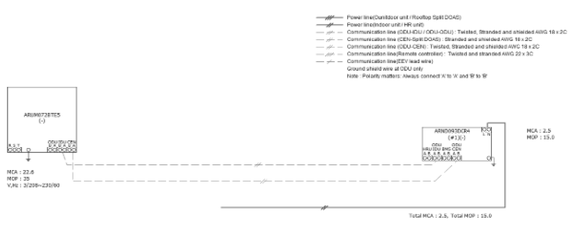
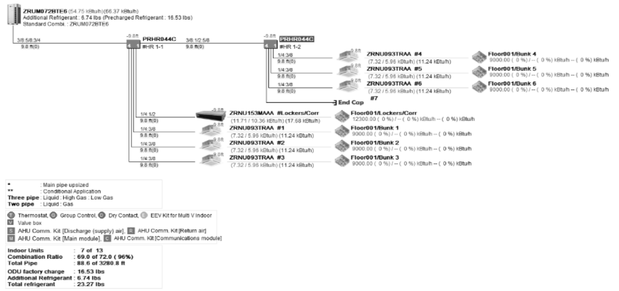


*	: Main pipe upsized
**	: Conditional Application
Three pipe	: Liquid : High Gas : Low Gas
Two pipe	: Liquid : Gas

(T) Thermostat, (G) Group Control, (D) Dry Contact, (E) EEV Kit for Multi V Indoor
(S) AHU Comm. Kit [Discharge (supply) air], (R) AHU Comm. Kit [Return air]
(M) AHU Comm. Kit [Main module], (C) AHU Comm. Kit [Communications module]

Indoor Units	: **1 of 13**
Combination Ratio	: **70.0 of 72.0 (97%)**
Total Pipe	: **9.8 of 3280.8 ft**
ODU factory charge	: **14.30 lbs**
Additional Refrigerant	: **4.81 lbs**
Total refrigerant	: **19.11 lbs**
Minimum room volume	: **735.10 ft³**
(Based on 26.0 lbs / 1000.0 ft³)	

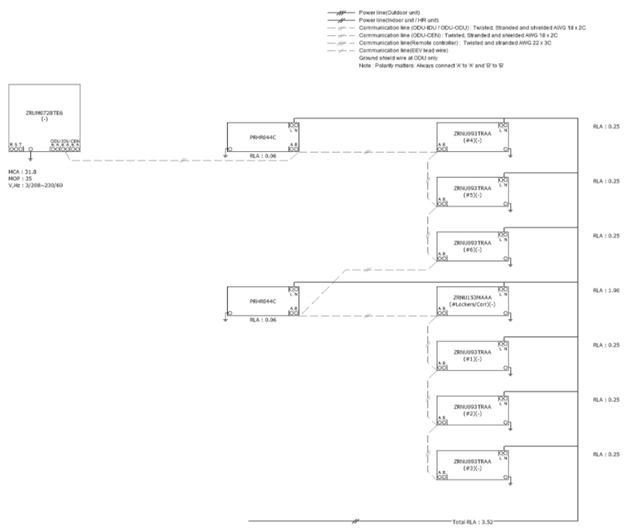


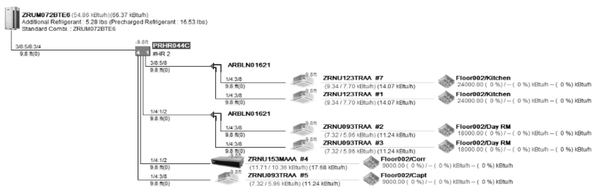


*	: Main pipe upsized
**	: Conditional Application
Three pipe	: Liquid : High Gas : Low Gas
Two pipe	: Liquid : Gas

(T) Thermostat, (G) Group Control, (D) Dry Contact, (E) EEV Kit for Multi V Indoor
(S) AHU Comm. Kit [Discharge (supply) air], (R) AHU Comm. Kit [Return air]
(M) AHU Comm. Kit [Main module], (C) AHU Comm. Kit [Communications module]

Indoor Units	: **7 of 13**
Combination Ratio	: **69.0 of 72.0 (96%)**
Total Pipe	: **88.6 of 3280.8 ft**
ODU factory charge	: **16.53 lbs**
Additional Refrigerant	: **6.74 lbs**
Total refrigerant	: **23.27 lbs**

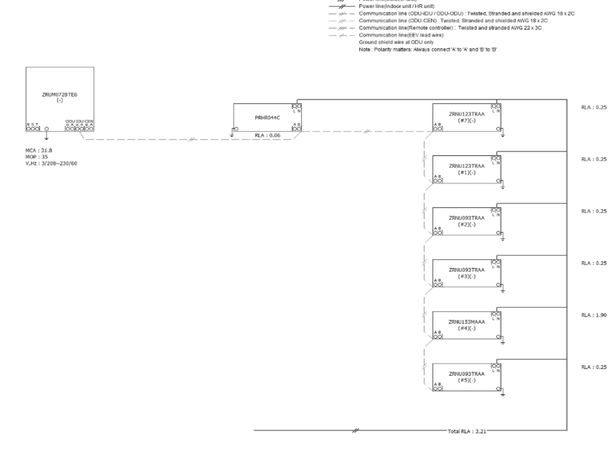




*	: Main pipe upsized
**	: Conditional Application
Three pipe	: Liquid : High Gas : Low Gas
Two pipe	: Liquid : Gas

(T) Thermostat, (G) Group Control, (D) Dry Contact, (E) EEV Kit for Multi V Indoor
(S) AHU Comm. Kit [Discharge (supply) air], (R) AHU Comm. Kit [Return air]
(M) AHU Comm. Kit [Main module], (C) AHU Comm. Kit [Communications module]

Indoor Units	: **6 of 13**
Combination Ratio	: **66.0 of 72.0 (92%)**
Total Pipe	: **88.6 of 3280.8 ft**
ODU factory charge	: **16.53 lbs**
Additional Refrigerant	: **5.28 lbs**
Total refrigerant	: **21.82 lbs**



1 HRU 01 SCHEMATIC DIAGRAM
N.T.S.

NOTE:
DIAGRAM FOR BIDDING PURPOSES ONLY.
CONTRACTOR SHALL COORDINATE WITH EQUIPMENT VENDOR FOR FINAL REQUIREMENTS.

GENERAL NOTES
DOAS 01 WILL ALWAYS REMAIN IN THE OCCUPIED MODE TO VENTILATE AND DEHUMIDIFY OUTSIDE AIR. THIS IS REQUIRED BY VENTILATION CODE AND KEEPS THE LIVING QUARTERS DRY, COMFORTABLE, AND POSITIVELY PRESSURED.

DOAS 01 WILL ALWAYS DELIVER NEUTRAL TEMPERATURE AIR AT A REASONABLE DEWPOINT AND THE VRF SYSTEM WILL HANDLE THE SENSIBLE COOLING AND HEATING PER ZONE DEMAND.

COOLING MODE
WHEN OUTSIDE AIR DEWPOINT IS BELOW 55°F (ADJ) AND OUTSIDE AIR TEMPERATURE IS ABOVE 70°F (ADJ), COOLING MODE WILL ENERGIZE. COMPRESSORS WILL STAGE ON AND MODULATE TO MAINTAIN 70° (ADJ) SUPPLY AIR TEMPERATURE.

COOLING DEHUMIDIFICATION MODE
WHEN THE OUTSIDE AIR DEWPOINT IS ABOVE 55°F (ADJ) AND OUTSIDE AIR TEMPERATURE IS ABOVE 70°F (ADJ), COOLING DEHUMIDIFICATION MODE WILL ENERGIZE. COMPRESSORS WILL STAGE ON AND MODULATE TO MAINTAIN A COIL TEMPERATURE SETPOINT TO 40°F (ADJ) AND THE REHEAT COIL WILL ENERGIZE TO MAINTAIN 70°F (ADJ) SUPPLY AIR TEMPERATURE.

VENTILATION ONLY MODE
WHEN THE OUTSIDE AIR DEWPOINT IS 55°F (ADJ) AND THE OUTSIDE AIR TEMP IS BETWEEN 68°-70°(ADJ), VENT MODE WILL ENERGIZE AND RUN THE SUPPLY FAN WITH NO HEATING OR COOLING.

VENTILATION DEHUMIDIFICATION MODE
WHEN OUTSIDE AIR DEWPOINT IS ABOVE 55°F (ADJ) AND OUTSIDE AIR IS BETWEEN 68°-70°(ADJ), VENT DEHUMIDIFICATION MODE WILL ENERGIZE. SEQUENCE WILL BE THE SAME AS COOLING DEHUMIDIFICATION IN THIS INSTANCE.

HEATING MODE
WHEN THE OUTSIDE AIR DEWPOINT IS BELOW 55° (ADJ) AND THE OUTSIDE AIR TEMPERATURE IS BELOW 68°F (ADJ), HEATING MODE WILL ENERGIZE. FIRST, THE REHEAT COIL WILL ENERGIZE TO MAINTAIN 70°F (ADJ) SUPPLY AIR TEMPERATURE. WHEN THE HEATING LOAD EXCEEDS REHEAT COIL CAPACITY, THE ELECTRIC PREHEATER HEATER WILL ENERGIZE AND WORK WITH THE REHEAT COIL TO MAINTAIN A 70°F (ADJ) SUPPLY AIR TEMPERATURE.

HEATING DEHUMIDIFICATION MODE
WHEN THE OUTSIDE AIR DEWPOINT IS ABOVE 55°(ADJ) AND THE OUTSIDE AIR TEMPERATURE IS BELOW 68°F(ADJ), HEATING DEHUMIDIFICATION MODE WILL ENERGIZE. COMPRESSORS WILL STAGE ON AND MODULATE TO MAINTAIN COIL SETPOINT OF 40°F (ADJ) AND REHEAT WILL ENERGIZE TO MAINTAIN 70°F (ADJ) SUPPLY AIR TEMPERATURE. IF REHEAT COIL CANNOT MAINTAIN SUPPLY AIR TEMPERATURE, THE ELECTRIC PREHEATER WILL TURN ON TO SUPPLEMENT REHEAT TO GET TO SETPOINT.

2 HRU 02 SCHEMATIC DIAGRAM
N.T.S.

NOTE:
DIAGRAM FOR BIDDING PURPOSES ONLY.
CONTRACTOR SHALL COORDINATE WITH EQUIPMENT VENDOR FOR FINAL REQUIREMENTS.

3 HRU 03 SCHEMATIC DIAGRAM
N.T.S.

NOTE:
DIAGRAM FOR BIDDING PURPOSES ONLY.
CONTRACTOR SHALL COORDINATE WITH EQUIPMENT VENDOR FOR FINAL REQUIREMENTS.

4 DOAS SEQUENCE OF OPERATION
N.T.S.

5 HRU SEQUENCE OF OPERATION
N.T.S.

GENERAL NOTES
HRU 01,02,03 WILL ALWAYS REMAIN IN THE OCCUPIED MODE THE PURPOSE OF THESE HEAT RECOVERY SYSTEMS IS TO PROVIDE SENSIBLE COOLING AND/OR HEATING BASED ON INDIVIDUAL ZONE DEMANDS.

COOLING MODE
COMPRESSORS AND VALVES WILL MODULATE TO PROVIDE COOLING TO ZONES THAT HAVE A DEMAND.
HEATING MODE
COMPRESSORS AND VALVES WILL MODULATE TO PROVIDE HEATING TO ZONES THAT HAVE A DEMAND.

SIMULTANEOUS HEAT/COOL MODE
COMPRESSORS AND VALVES WILL MODULATE TO PROVIDE COOLING OR HEATING TO ZONES THAT HAVE A DEMAND.

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

MECHANICAL SCHEMATIC DIAGRAMS

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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Project No.
24057

Sheet No.
M701

Date
2026/06/08

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PLUMBING SYSTEMS:

AV	ACID RESISTANT VENT
AW	ACID RESISTANT WASTE LINE
DIR	DEIONIZED WATER RETURN PIPING
DIS	DEIONIZED WATER SUPPLY PIPING
DCW	DOMESTIC COLD WATER (DCW)
DHW	DOMESTIC HOT WATER (DHW)
DHWR	DOMESTIC HOT WATER RETURN (DHWR)
SCW	DOMESTIC SOFT COLD WATER
GW	GREASE WASTE
D	INDIRECT DRAIN OR CONDENSATE
G	NATURAL GAS
NP	NON POTABLE WATER
OD	OVERFLOW DRAIN
OW	OIL WASTE
LP	PROPANE (PSI)
RO	REVERSE OSMOSIS WATER
SS	SANITARY PIPING
SD	STORM DRAIN
TW	TEMPERED WATER
TWR	TEMPERED WATER RECIRCULATING
V	VENT (V)
	AUTOMATIC AIR VENT
	BACKFLOW PREVENTER
	CHECK VALVE
	BALANCING VALVE (CIRCUIT SETTER)
	FLOW ARROW/DIRECTION
	FLOW CONTROL VALVE
	GLOBE VALVE
	PRESSURE GAUGE AND COCK
	PRESSURE REDUCING VALVE
	PRESSURE REGULATOR
	REDUCER
	SHOCK ABSORBER/WATER HAMMER ARRESTOR
OR	SHUT OFF VALVE
	SOLENOID VALVE
	STRAINER
	TEMP & PRESSURE RELIEF VALVE
	TEST PLUG
	THERMOMETER
	UNION (DIELECTRIC)
	(DASHED) INDICATED PIPING TO BE REMOVED
	CONNECTION TO EXISTING
EQ #	EQUIPMENT NUMBER
P 1	INDICATES PLUMBING RISER
1	KITCHEN EQUIPMENT NUMBER
1	REVISION DELTA
	KEYED NOTE
	KEYED DEMOLITION NOTE
	ELBOW DOWN
	ELBOW UP
	TEE DOWN
	TEE UP
	FLOOR DRAIN

ABBREVIATIONS:

AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT COMPLIANT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
AP	ACCESS PANEL
AV	ACID RESISTANT VENT
AVTR	ACID RESISTANT VENT THRU ROOF
AW	ACID RESISTANT WASTE
BFG	BELOW FINISHED GRADE
BGB	BOTTOM OF GRADE BEAM
BM	BEAM
BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DUCT
BOF	BOTTOM OF FOOTING
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF SLAB
BOW	BOTTOM OF WALL
BOT	BOTTOM
BT	BATHTUB
CL	CENTERLINE
CI	CAST IRON
CO	CLEANOUT
CV	CHECK VALVE
DCW	DOMESTIC COLD WATER
DD	DECK DRAIN
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DI	DUCTILE IRON
DIA	DIAMETER
DIR	DEIONIZED WATER RETURN
DIS	DEIONIZED WATER SUPPLY
DN	DOWN
DR	DRAIN
DS	DOWNSPOUT
DTL	DETAIL
DWG(S)	DRAWING(S)
DWR	DISTILLED WATER RETURN
DWS	DISTILLED WATER SUPPLY
EC	ELECTRICAL CONTRACTOR - DIVISION 26
ELEC	ELECTRIC
ELEV	ELEVATION
EQ	EQUAL
EXIST, EX	EXISTING
FA	FROM ABOVE
FB	FROM BELOW
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDV	FIRE DEPARTMENT VALVE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHV	FIRE HOSE VALVE
FIN	FINISHED
FS	FLOOR / FIRE LINE
FP	FIRE PUMP
FPC	FIRE PROTECTION CONTRACTOR - DIVISION 21
FS	FLOOR SINK
FT	FEET
FT-HD	FEET IN HEAD
FVC	FIRE VALVE CABINET
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GPM	GALLONS PER MINUTE
H	HEIGHT
HB	HOSE BIBB
HD	HUB DRAIN

ABBREVIATIONS:

HE	HOSE END
HORIZ	HORIZONTAL
HP	HORSEPOWER
HT	HOUSE TRAP
HW	HOT WATER
HWR	HOT WATER RETURN
HZ	HERTZ
IN	INCH/INCHES
IE	INVERT ELEVATION
INV	INVERT
JP	JOCKEY PUMP
L	LENGTH
LVL	LEVEL
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR - DIVISION 23
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OAI	OUTSIDE AIR INTAKE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED / CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED / OWNER INSTALLED
PC	PLUMBING CONTRACTOR - DIVISION 22
PH	PHASE
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	PSI ABSOLUTE
PSIA	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE IN GAUGE
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
SA	SHOCK ABSORBER
SAN	SANITARY
SF	SQUARE FOOT
SHT	SHEET
SOL	SOLENOID
SP	STANDPIPE
SQ	SQUARE
STL	STEEL
STR	SOIL STACK THRU ROOF
SW	STREET WASHER
T&P	TEMPERATURE & PRESSURE
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOT	TOTAL
TPC	TOP OF PIER CAP
TW	TEMPERED WATER
TYP	TYPICAL
VL	VALVE
VB	VACUUM BREAKER
V	VENT
VTR	VENT THRU ROOF
VERT	VERTICAL
VCP	VITREOUS CLAY PIPE
VOL	VOLUME
W/O	WALL CLEAN OUT
WH	WALL HYDRANT
WT	WEIGHT
W/O	WITH / WITHOUT
YD	YARD DRAIN

GENERAL NOTES:

1. BECAUSE OF THE LIMITED SPACE AVAILABLE TO INSTALL ALL OF THE PLUMBING WORK, COORDINATION BETWEEN OTHER TRADES IS OF THE UTMOST IMPORTANCE.
2. DRAWINGS INDICATE THE GENERAL LOCATION AND ARRANGEMENT OF FIXTURES, EQUIPMENT AND PIPING SYSTEMS. LOCATION AND ARRANGEMENT OF PIPING LAYOUT TAKES INTO ACCOUNT MANY DESIGN CONSIDERATIONS. SO FAR AS PRACTICAL, INSTALL PIPING AS INDICATED. THE CONTRACTOR SHALL REPORT, IN WRITING, ANY DISCREPANCIES WHICH PREVENT THE INSTALLATION OF WORK AS SHOWN.
3. THE CONTRACTOR SHALL VISIT THE PROJECT SITE, AND VERIFY LOCATIONS, ELEVATIONS AND SIZES OF ALL UTILITIES AT SITE PRIOR TO PROCEEDING WITH WORK.
4. THESE PLANS ARE DIAGRAMMATIC IN NATURE. THE EXACT LOCATION OF PIPING, FIXTURES, AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS, EXTREME ACCURACY IS NOT GUARANTEED. THE CONTRACTOR SHALL BE PREPARED TO MAKE ALTERATIONS TO SERVICES TO FIT JOB CONDITIONS. THE CONTRACTOR SHALL FURNISH A COMPLETE AND CODE COMPLYING SYSTEM.
5. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS OR IS NOT COMPLETELY SURE OF THEIR MEANING, THE CONTRACTOR SHALL OBTAIN THE ENGINEERS WRITTEN EXPLANATION AND/OR INTERPRETATION PRIOR TO SUBMITTING BIDS, SINCE THE CONTRACTOR WILL BE HELD RIGIDLY TO THE INTERPRETATION OF THE ENGINEER.
6. DETAILS SHOWN IN THESE DRAWINGS APPLY TO INSTALLATIONS INDICATED REGARDLESS AS TO IF THEY ARE SPECIFICALLY REFERENCED ELSE WHERE IN THE DRAWING SET. ANY QUESTIONS ON THEIR APPLICABILITY SHOULD BE SENT TO THE ENGINEER PRIOR TO BIDDING.
7. REFER TO ARCHITECTURAL DRAWINGS FOR TYPICAL ELEVATIONS OF EQUIPMENT AND ACCESSORIES.
8. ALL SHUT-OFF VALVES SHALL BE FULLY ACCESSIBLE AND LOCATED ABOVE AN ACCESSIBLE CEILING. IF LOCATED ABOVE A HARD CEILING, AN ACCESS PANEL SHALL BE PROVIDED WITH A MINIMUM SIZE OF 18" X 18".

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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:

CCF&R HOUSE 06

1151 JUNGS STATION RD

No.	Date	Revision

PLUMBING SYMBOLS & ABBREVIATIONS

Project No.
24057

Sheet No.
P001

Date
2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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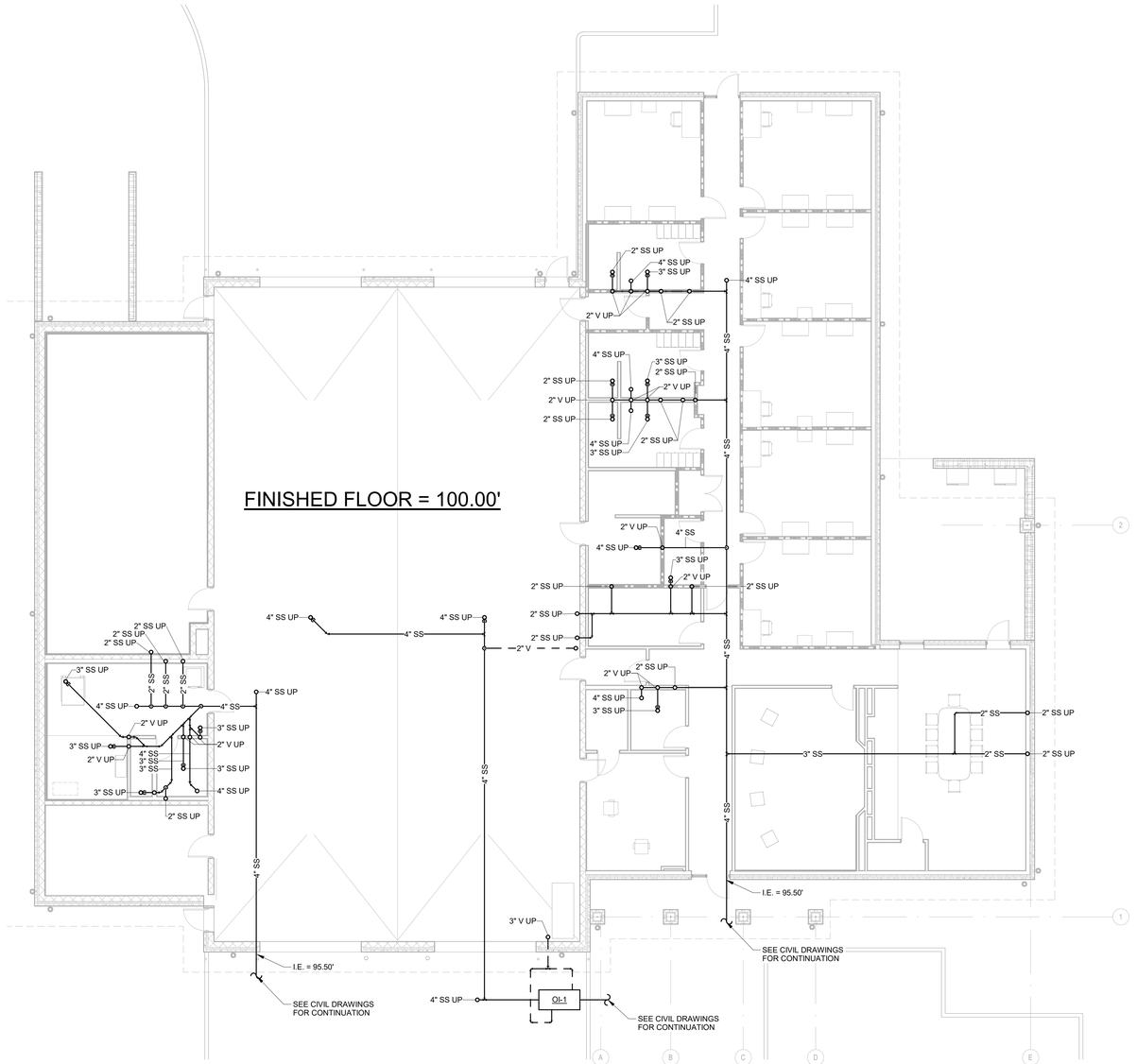

1 UNDERFLOOR PLUMBING PLAN
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"

Roy A. Mangan
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EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

PLUMBING UNDERFLOOR PLAN

Project No. 24057

Sheet No. P200

Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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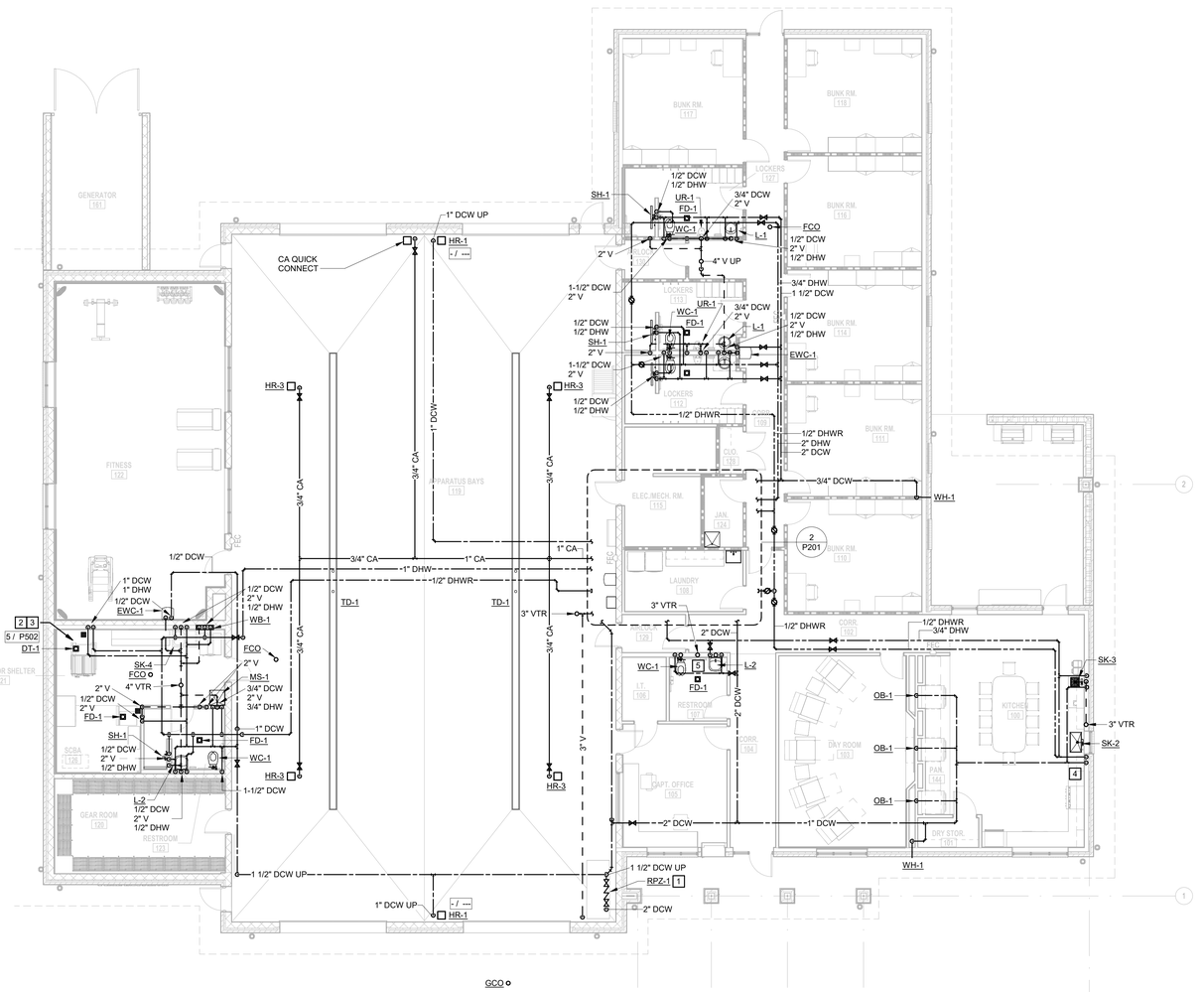
SHEET P201 GENERAL NOTES

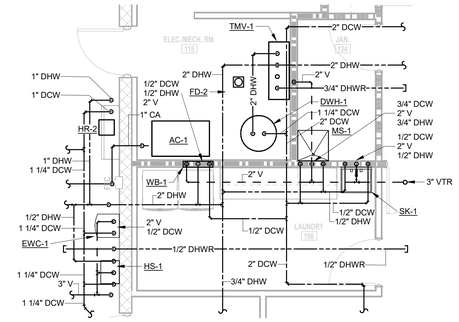
A. MAINTAIN A MINIMUM OF 27" CLEAR OF INFRARED HEATERS.

[#] SHEET P201 KEYED NOTES

1 SEE DETAIL 1 ON SHEET P502 FOR ADDITIONAL INFORMAITON.
2 PROVIDE 1" HOT AND COLD WATER DIRECT CONNECTIONS TO EXTRACTOR.
3 PROVIDE 3" DRAIN FROM EXTRACTOR AND TERMINATE OVER PORTION OF DRAIN WITHOUT GRATE.
4 INSTALL WASTE LINE FROM DISHWASHER BACK TO SINK. CONNECT DISPOSAL PER MANUFACTURER'S RECOMMENDATIONS WITH AIR GAP FITTING THROUGH COUNTERTOP ON WASTE LINE.
5 COMBINE 2" VENT FROM WC-1, 2" VENT FROM FD-1 AND 2" VENT FROM L-1 IN WALL TO SINGLE 3" VTR.



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



2 MECHANICAL/JANITOR ROOM ENLARGED VIEW
1/4" = 1'-0"

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No.	Date	Revision

PLUMBING FLOOR PLAN

Project No. 24057
Sheet No. P201
Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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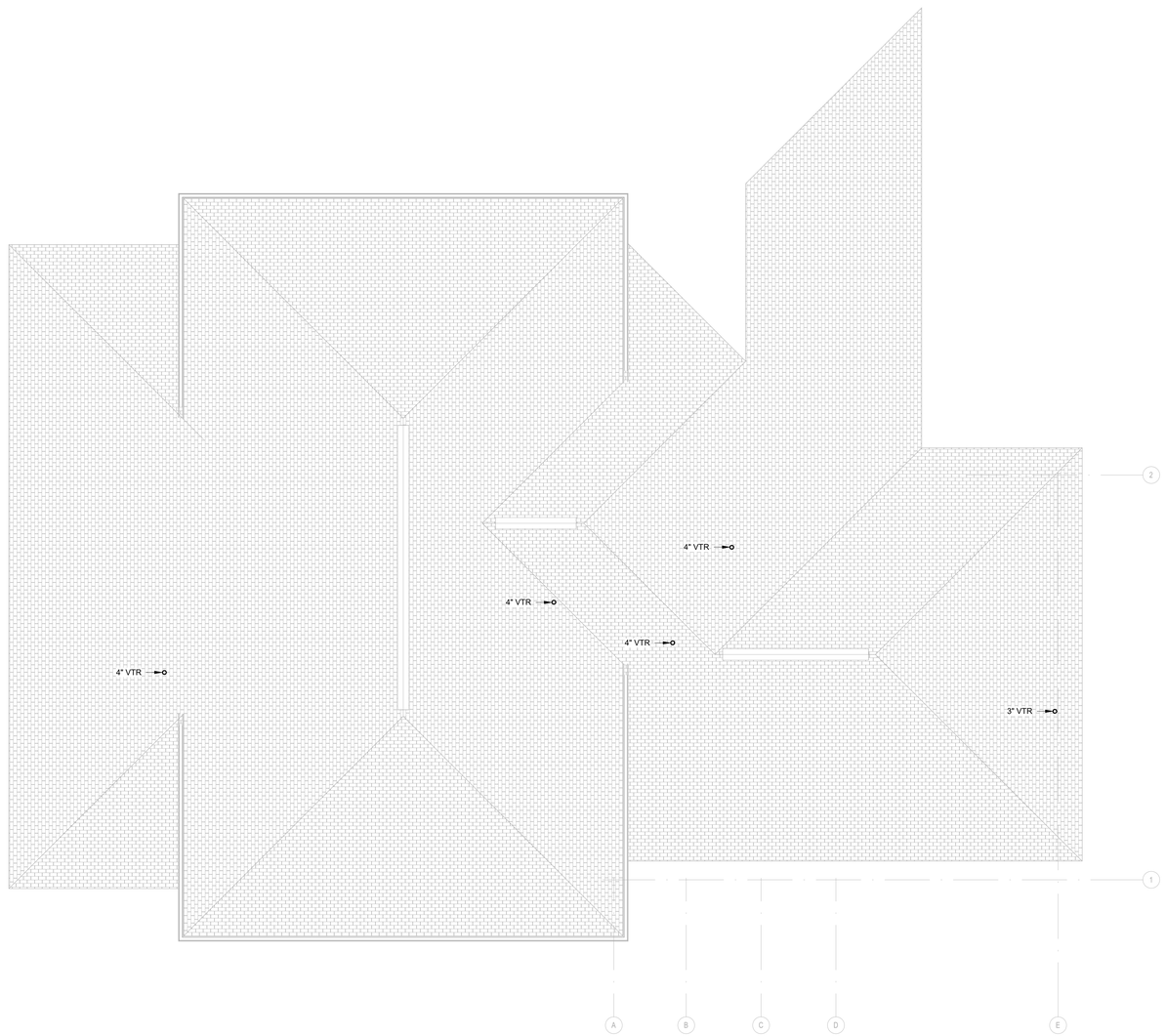

1 PLUMBING ROOF PLAN
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"

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No.	Date	Revision

PLUMBING ROOF PLAN

Project No.
24057

Sheet No.
P202

Date
2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
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PROFESSIONAL ENGINEER
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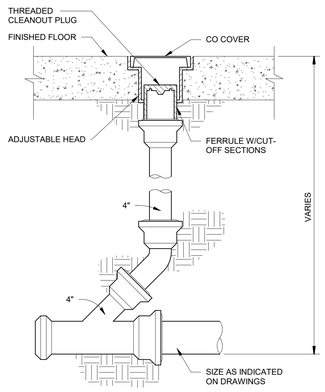
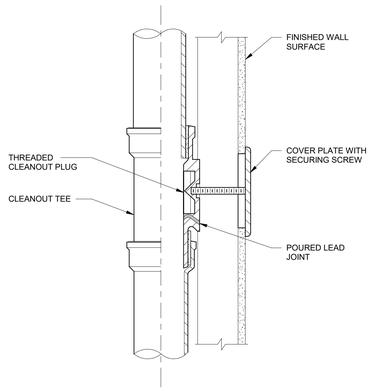
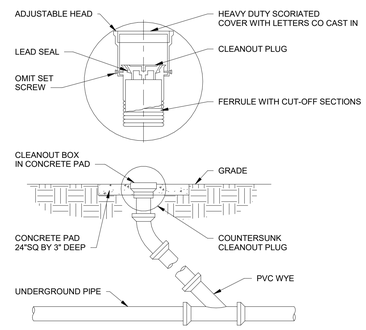


1 FLOOR CLEANOUT DETAIL
N.T.S.



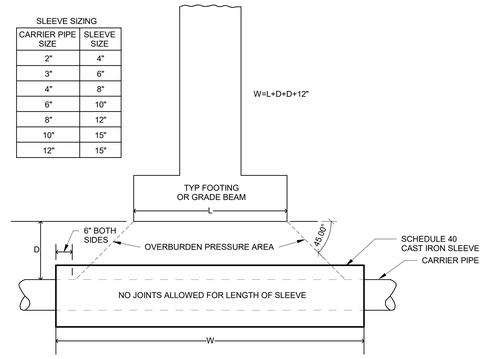
2 WALL CLEANOUT DETAIL
N.T.S.



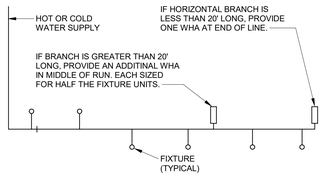
3 CLEANOUT AT GRADE DETAIL
N.T.S.

SLEEVE SIZING

CARRIER PIPE SIZE	SLEEVE SIZE
2"	4"
3"	6"
4"	8"
6"	10"
8"	12"
10"	15"
12"	15"



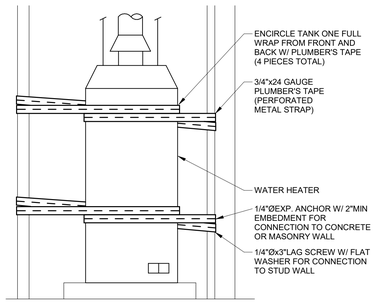
4 SLEEVE UNDER FOOTING DETAIL
N.T.S.



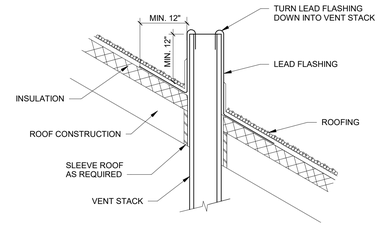
NOTE: INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE A WHA AT ALL QUICK-CLOSING VALVES.

SINGLE/ DOUBLE FIXTURE		
WHA SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	154-330

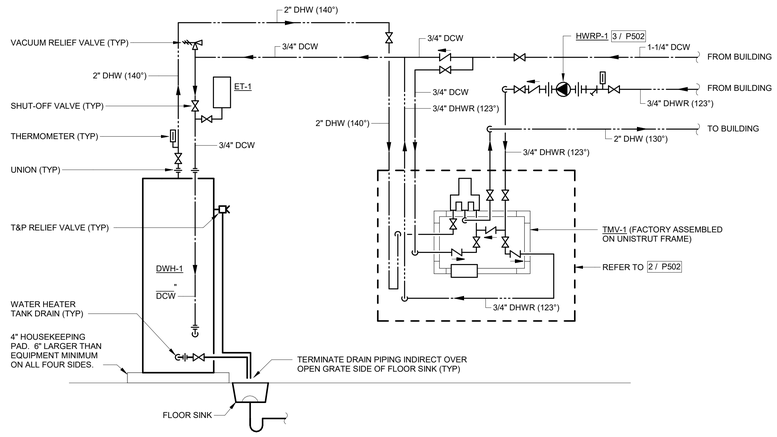
5 WATER HAMMER ARRESTOR DETAIL
N.T.S.



6 WATER HEATER STRAPPING DETAIL
N.T.S.



7 VENT THRU PITCHED ROOF DETAIL
N.T.S.



GENERAL DETAIL NOTES:
1. REFER TO DETAIL *11 / P501* FOR WATER HEATER STRAPPING DETAIL.
2. ALL PIPING SHALL BE ARRANGED TO ALLOW EASY REMOVAL OF WATER HEATERS.
3. PLUMBING CONTRACTOR SHAL PRE-CHARGE THE EXPANSION TANK TO EQUAL LINE PRESSURE BEFORE INSTALLING ONTO SYSTEM.
4. PIPING SHOWN IS DIAGRAMATIC ONLY.
5. ALL PIPING SHALL COMPLY WITH MANUFACTURER'S INSTALLATION GUIDELINES.

9 DOMESTIC WATER HEATER PIPING DETAIL
N.T.S.

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1151 JUNGS STATION RD

No.	Revision	Date

PLUMBING DETAILS

Project No. 24057

Sheet No. **P501**

Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
5/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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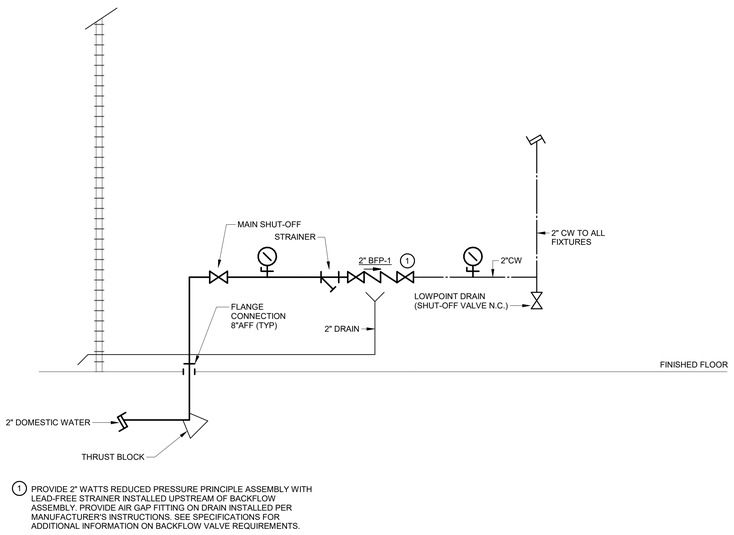
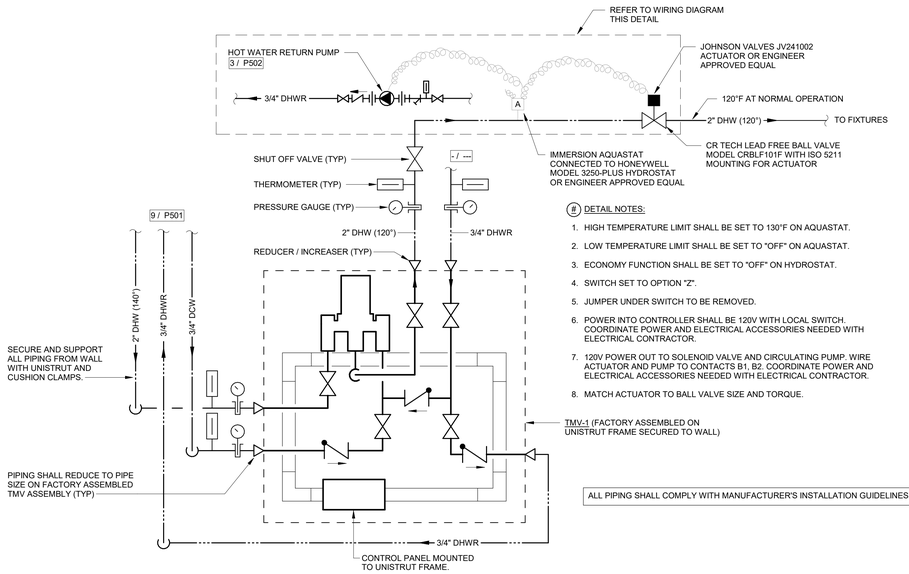


1 PROVIDE 2" WATTS REDUCED PRESSURE PRINCIPLE ASSEMBLY WITH LEAD-FREE STRAINER INSTALLED UPSTREAM OF BACKFLOW ASSEMBLY. PROVIDE AIR GAP FITTING ON DRAIN INSTALLED PER MANUFACTURER'S INSTRUCTIONS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION ON BACKFLOW VALVE REQUIREMENTS.

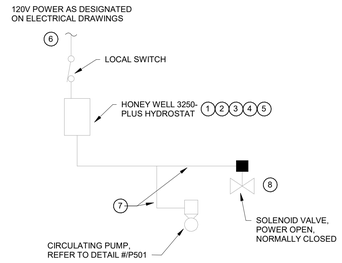
1 WATER SERVICE ENTRANCE DETAIL
N.T.S.



(#) DETAIL NOTES:

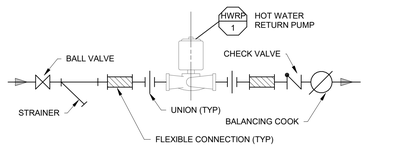
1. HIGH TEMPERATURE LIMIT SHALL BE SET TO 130°F ON AQUASTAT.
2. LOW TEMPERATURE LIMIT SHALL BE SET TO "OFF" ON AQUASTAT.
3. ECONOMY FUNCTION SHALL BE SET TO "OFF" ON HYDROSTAT.
4. SWITCH SET TO OPTION "Z".
5. JUMPER UNDER SWITCH TO BE REMOVED.
6. POWER INTO CONTROLLER SHALL BE 120V WITH LOCAL SWITCH. COORDINATE POWER AND ELECTRICAL ACCESSORIES NEEDED WITH ELECTRICAL CONTRACTOR.
7. 120V POWER OUT TO SOLENOID VALVE AND CIRCULATING PUMP. WIRE ACTUATOR AND PUMP TO CONTACTS B1, B2. COORDINATE POWER AND ELECTRICAL ACCESSORIES NEEDED WITH ELECTRICAL CONTRACTOR.
8. MATCH ACTUATOR TO BALL VALVE SIZE AND TORQUE.

ALL PIPING SHALL COMPLY WITH MANUFACTURER'S INSTALLATION GUIDELINES.

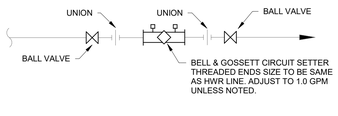


WIRING DIAGRAM

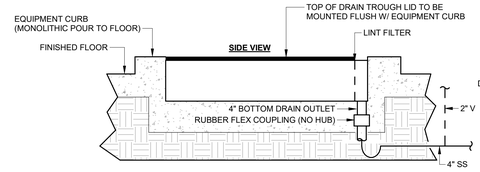
2 MASTER DIGITAL MIXING VALVE PIPING DETAIL
N.T.S.

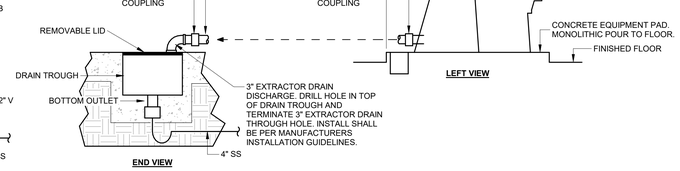


3 HOT WATER RETURN PUMP DETAIL
N.T.S.



4 BALANCING VALVE DETAIL
12" = 1'-0"





5 DRAIN TROUGH AND EXTRACTOR DETAIL
N.T.S.

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EXPIRATION DATE: DECEMBER 31, 2026

Roy A. Mangan
MO Architect License No: A-6661
Expires: 12/31/2024

Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

PLUMBING DETAILS

Project No. 24057

Sheet No. P502

Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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DOMESTIC WATER HEATER SCHEDULE

MARK	MANUFACTURER	MODEL NO.	RECOVERY	DELTA T	FUEL	STORAGE	EXPANSION TANK	NOTES
DWH-1	A.O. SMITH	BTH-199	256 GPH	100°F	GAS	100 GAL	ET-1	1,2,3

NOTES:
1. RECOVERY BASED ON INCOMING WATER TEMPERATURE OF 40 DEGREE F AND AN OUTLET TEMPERATURE OF 140 DEGREE F.
2. PROVIDE T&P RELIEF VALVE ON HEATER.
3. PROVIDE TMV AS SHOWN ON MIXING VALVE SCHEDULE.

EXPANSION TANK
ET-1: THERM-X-TROL ST-12

HOT WATER RETURN PUMP SCHEDULE

MARK	MANUFACTURER	MODEL NO.	CAPACITY	NOMINAL MOTOR HP	DESCRIPTION	NOTES
HWRP-1	BELL & GOSSETT	NBF-45	5 GPM @ 20' HEAD	1/6	HOT WATER CIRC. PUMP	1, 2

NOTES:
1. REFER TO EQUIPMENT DATA SCHEDULE FOR ALL EQUIPMENT MOTOR CHARACTERISTICS.
2. PROVIDE LEAD-FREE BRONZE BODY DESIGNED FOR POTABLE WATER.

DRAIN SCHEDULE

MARK	MANUFACTURER	MODEL	COMMENTS	NOTES
FD-1	J.R. SMITH	2005-A-NB	ADJUSTABLE NICKEL BRASS STRAINER	1,4,5
FD-2	J.R. SMITH	2210-G	MEDIUM CAPACITY, GALVANIZED, WITH SEDIMENT BUCKET	1,4,5
FD-3	J.R. SMITH	9666-316	STAINLESS STEEL SHOWER DRAIN, 36" LENGTH	1,4,5
FS-1	J.R. SMITH	3151C-13	CAST IRON FLANGED RECEPTOR, 8" DEEP, WITH FLASHING CLAMP	1
TD-1	J.R. SMITH	9878 POWERDRAIN	POWERDRAIN, ADA EXTRA HEAVY DUTY, SECTION 1 THROUGH 15	1,2
FCO-1	J.R. SMITH	4024S	ADJUSTABLE TOP, NICKEL BRONZE 5" SECURED TOP	1
GCO-1	J.R. SMITH	4223S	ADJUSTABLE TOP, CAST IRON EXTRA HEAVY DUTY 5" SECURED TOP	1
WCO-1	J.R. SMITH	4710	STAINLESS STEEL WALL CLEANOUT ACCESS COVER	1
DT-1	H&M COMPANY	--	COMMERCIAL RATED WASHER EXTRACTOR DRAIN TROUGH. 18" WIDE X 12" HIGH X 30" LONG POLYPROPYLENE DRAIN TROUGH, REMOVABLE LINT FILTER AND 4" BOTTOM WASTE OUTLET ON END OF TROUGH, REMOVABLE 3/8" THICK POLYPROPYLENE TOP SECURED WITH STAINLESS STEEL SCREWS, BODY MATERIAL IS 1/4" POLYPROPYLENE, 3/8" LINT FILTER HOLES, CHEMICAL RESISTANT, RATE FOR 165 DEGREE F MAXIMUM TEMPERATURE, RECESSED IN FLOOR FOR IN GROUND INSTALLATION, LOCATED BEHIND EXTRACTOR FIELD DRILLED HOLE IN LID FOR EXTRACTOR 3" DRAIN LINE.	--

NOTES:
1. REFER TO PLANS FOR DRAIN OUTLET SIZE.
2. VERIFY EXACT LENGTH AT SITE.
3. INSTALL IN HOUSEKEEPING PAD WITH TOP OF GRATE LEVEL WITH HOUSEKEEPING PAD.
4. PROVIDE DEEP SEAL P-TRAP UNDER EACH DRAIN.
5. PROVIDE TRAP PRIMER FOR EACH DRAIN. SEE SPECIFICATION FOR TYPE.

BACKFLOW PREVENTER SCHEDULE

MARK	MANUFACTURER	MODEL NUMBER	CONNECTION SIZE	SERVICE LOCATION	REMARKS
RPZ-1	WATTS	757-QT	2"	APPARATUS BAY 119	DOMESTIC WATER (1,2,3)

DIGITAL THERMOSTATIC MIXING VALVE SCHEDULE

MARK	MANUFACTURER	MODEL NUMBER	CAPACITY (GAL/MIN)	PRESSURE LOSS (PSI)	INLET (INCHES)	OUTLET (INCHES)	LOCATION	REMARKS
TMV-1	LEONARD	S-PNV-100-LF-R34	25	10	3/4"	1"	MECH ROOM	PROTON DIGITAL PRE-PIPED MIXING VALVE, SELF BALANCE AND CLEANING, BATTERY BACKUP, AUTOMATIC SHUT-OFF UPON COLD OR HOT WATER SUPPLY FAILURE. OUTLET TEMP DISPLAY. MOUNT STANDARD CONTROL BOX ON UNISTRUT NEAR MIXING VALVE. 6' PLUG IN CORD. LEONARD VALVE DIGITAL CONTROL BOX VERSION 1.0. (1, 2, 3)

NOTES:
1. TMV IS A FACTORY ASSEMBLY ON UNISTRUT FRAME.
2. PIPE REDUCERS / INCREASERS SHALL OCCUR AT THE TMV FACTORY ASSEMBLY.
3. PROVIDE TEMPERATURE GAUGE AND PRESSURE GAUGE ON INLET AND OUTLET PIPING SERVING TMV. REFER TO MASTER MIXING VALVE PIPING DETAIL AND DOMESTIC WATER HEATER PIPING DETAIL.

AIR COMPRESSOR SCHEDULE

MARK	MANUFACTURER	MODEL NUMBER	CFM	PRESSURE MAX. (PSI)	HP	FLA	V/PH	REMARKS
AC-1	INGERSOLL RAND	2475	16.8	175	5	32.2	208/1	

PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER & MODEL NUMBER	UTILITIES				REMARKS
		WASTE	VENT	CW	HW	
WC-1	FIXTURE: AMERICAN STANDARD "MADERA" #2855.016	4"	2"	1-1/2"	-	FLOOR OUTLET, EVERCLEAN, 12" ROUGH-IN, 1.6 GPF, 15" RIM HEIGHT
	FLUSH VALVE: AMERICAN STANDARD #6047.161.002					CHROME PLATED, MANUAL, VANDAL RESISTANT CAP, 1.6 GPF
	SEAT: OLSONITE # 95SSCT					"STA-TITE" FASTENING SYSTEM, ELONGATED, OPEN FRONT
L-1	FIXTURE: AMERICAN STANDARD "STUDIO" #0614.300	2"	2"	1/2"	1/2" 110°F	VITREOUS CHINA, UNDER MOUNT, GLAZED UNDERSIDE, ADA COMPLIANT
	FAUCET: AMERICAN STANDARD "BERWICK" #7430.101					SINGLE-LEVER LAVATORY FAUCET, SINGLE-HOLE DRILLING, POP-UP DRAIN
	SUPPLY: CHICAGO 1005					WITH BRAIDED STAINLESS STEEL SUPPLIES TO FIXTURE
	P-TRAP: MCGUIRE 8872					
L-2	FIXTURE: AMERICAN STANDARD "MURRO" #0954.004EC	2"	2"	1/2"	1/2" 105°F	VITREOUS CHINA, WALL HUNG, 34" FLOOR TO RIM MOUNTING HEIGHT
	FAUCET: AMERICAN STANDARD "SELECTRONIC" #6053.104					SENSOR OPERATED LAVATORY FAUCET, ADA COMPLIANT, 10 YEAR BATTERY
	SUPPLY: CHICAGO 1005					WITH BRAIDED STAINLESS STEEL SUPPLIES TO FIXTURE
	P-TRAP: DEARBORN BRASS #510-1					17 GA. CHROME PLATED TUBULAR BRASS P-TRAP WITH THREADED OR SLIP JOINT INLET AND WALL ESCUTCHEON
	INSULATION KIT: AMERICAN STANDARD #0062.000EC					ACRYLIC SHROUD
	MIXING VALVE: AMERICAN STANDARD 605XTMV1070					OPTIONAL MIXING VALVE INCLUDED IN FAUCET KIT
SK-1	FIXTURE: FLORESTONE FM UTILITY SINK	2"	2"	1/2"	1/2" 110°F	FLOOR MOUNT, 14-1/4" DEPTH, WHITE, HEAVY DUTY MOLDED LEGS
	FAUCET: GERBER 49-241 LAUNDRY FAUCET					CHROME, 2.2 GPM, 6" SPOUT HOSE CONNECTION
	STRAINER: (2) ELKAY #LK-35 WITH LK-53 CONTINUOUS WASTE					1-1/2" DIAMETER WASTE AND TAILPIECE WITH STRAINER AND NEOPRENE STOPPER
	SUPPLY: CHICAGO 1006					WITH BRAIDED STAINLESS STEEL SUPPLIES TO FIXTURE
	P-TRAP: DEARBORN BRASS #510-1					17 GA. CHROME PLATED TUBULAR BRASS P-TRAP WITH THREADED OR SLIP JOINT INLET AND WALL ESCUTCHEON
SK-2	FIXTURE: ELKAY "CROSSTOWN" ECTSRS33229TBG	2"	2"	1/2"	1/2" 110°F	18 GA. STAINLESS STEEL, SINGLE HOLE, UNDERMOUNT
	FAUCET: ELKAY "AVADO" #LKAV4032					PULL DOWN KITCHEN FAUCET, WITH 3 FUNCTION SPRAY HEAD
	STRAINER: ELKAY #LK-35					1-1/2" DIAMETER WASTE AND TAILPIECE WITH STRAINER AND NEOPRENE STOPPER
	SUPPLY: CHICAGO 1006					WITH BRAIDED STAINLESS STEEL SUPPLIES TO FIXTURE
	P-TRAP: DEARBORN BRASS #510-1					17 GA. CHROME PLATED TUBULAR BRASS P-TRAP WITH THREADED OR SLIP JOINT INLET AND WALL ESCUTCHEON
	DISPOSER: IN-SINK-ERATOR "EVOLUTION", 3/4 H.P. FOOD WASTE DISPOSER.					WITH STAINLESS STEEL GRIND CHAMBER, GRIND RING AND TURNTABLE, UL LISTED, 6 YEAR WARRANTY. PROVIDE CONNECTION FOR DISHWASHER
SK-3	FIXTURE: ELKAY "CROSSTOWN" ECTRU12179TFCC	2"	2"	1/2"	1/2" 110°F	18 GA. STAINLESS STEEL, SINGLE HOLE, UNDERMOUNT, ADA
	FAUCET: ELKAY "AVADO" #LKAV4032					PULL DOWN KITCHEN FAUCET, WITH 3 FUNCTION SPRAY HEAD, SINGLE HOLE
	STRAINER: ELKAY #LK-35					1-1/2" DIAMETER WASTE AND TAILPIECE WITH STRAINER AND NEOPRENE STOPPER
	SUPPLY: CHICAGO 1006					WITH BRAIDED STAINLESS STEEL SUPPLIES TO FIXTURE
	P-TRAP: DEARBORN BRASS #510-1					17 GA. CHROME PLATED TUBULAR BRASS P-TRAP WITH THREADED OR SLIP JOINT INLET AND WALL ESCUTCHEON
SK-4	FIXTURE: ELKAY "WELDBUILT" #WNSF8136R2	2"	2"	1/2"	1/2" 110°F	SCULLERY SINK WITH DRAIN BOARD ON RIGHT SIDE 61-1/2"x27-1/2"
	FAUCET: CHICAGO #631-GN8AE3ABCP					BACKMOUNT FAUCET WITH GOOSENECK SPOUT
	STRAINER: ELKAY #LK-35					1-1/2" DIAMETER WASTE AND TAILPIECE WITH STRAINER AND NEOPRENE STOPPER
	SUPPLY: CHICAGO 1006					WITH BRAIDED STAINLESS STEEL SUPPLIES TO FIXTURE
	P-TRAP: DEARBORN BRASS #510-1					17 GA. CHROME PLATED TUBULAR BRASS P-TRAP WITH THREADED OR SLIP JOINT INLET AND WALL ESCUTCHEON
HS-1	FIXTURE: ELKAY #CHS1716C	2"	2"	1/2"	1/2" 110°F	20GA. STAINLESS STEEL, CENTER DRAIN, SINGLE BOWL
	FAUCET: ELKAY #LK940GN04L2H					WALL MOUNT, SWING RESTRICTION PIN, CHROME PLATED, GOOSENECK
	STRAINER: ELKAY #LK-8					2" DIAMETER WASTE AND TAILPIECE WITH NEOPRENE STOPPER
	SUPPLY: CHICAGO 1006					WITH BRAIDED STAINLESS STEEL SUPPLIES TO FIXTURE
	P-TRAP: ELKAY #LK500					CHROME PLATED TUBULAR BRASS P-TRAP WITH WALL ESCUTCHEON
HR-1	FIXTURE: CHICAGO FAUCET #998-633RCF	-	-	3/4"	-	INSIDE SILL FITTING, ROUGH CHROME, 3/4" FEMALE THREAD INLET
	REEL: REELCRAFT 30000 SERIES, #CA33112 M					MANUAL CRANK, WALL MOUNT, 100' HOSE LENGTH OF 3/4" SIZED HOSE (BY OWNER)
HR-2	ACORN "8146-SSLF" RECESSED HOT & COLD HOSE BOX	-	-	3/4"	3/4"	LEAD-FREE STAINLESS STEEL HOSE BOX WITH VACUUM BREAKER. LESS DOOR
	REEL: REELCRAFT 30000 SERIES, #CA33112 M					MANUAL CRANK, WALL MOUNT, 100' HOSE LENGTH OF 3/4" SIZED HOSE (BY OWNER)
HR-3	COMPRESSED AIR HOSE REEL	-	-	-	-	
	REELCRAFT HD76100 OLP					100' HOSE LENGTH OF 3/4"
WH-1	FIXTURE: JAY R. SMITH #5619	-	-	3/4"	-	1/4 TURN, INTEGRAL VACUUM BREAKER, AUTO-DRAIN, FREEZEPROOF, FLUSHMOUNT
HB-1	FIXTURE: CHICAGO FAUCET #998-633RCF	-	-	3/4"	-	INSIDE SILL FITTING, ROUGH CHROME, 3/4" FEMALE THREAD INLET
SH-1	ENCLOSURE: ENCLOSURE AND BASE BY GC.	2"	2"	1/2"	1/2" 110°F	PRESSURE BALANCE MIXING VALVE WITH BYULT IN THERMOMETER, FS HAND SPRAY, 5' FLEXIBLE HOSE AND WALL CONNECTION, 30" SLIDE BAR, "4-458VT LEVER DIVERTER, #4-241 SINGLE MODE SHOWER HEAD, MOUNTING ARM AND FLANGE
	SHOWER: SYMMONS #1-1170VT-H401-V "VISU-TEMP					
MS-1	FIXTURE: FIAT #MSB 2424, ONE PIECE MOLDED STONE, 24"x24"x10" HIGH SIDES.	2"	2"	1/2"	1/2" 110°F	FLOOR SET MOP BASIN , WITH STAINLESS STEEL OR CHROME PLATED DRAIN BODY, 3" OUTLET, CHROME PLATED BRASS STRAINER
	FAUCET: FIAT #830-AA					VACUUM BREAKER, WALL BRACE, PAIL HOOK, 3/4" HOSE AND 3/4" MAIL HOSE END OUTLET
	MOP HANGER: FIAT #889-CC MOP HANGER					
	FIAT #832-AA 30" HOSE AND HOSE BRACKET					
	FIAT #E-77-AA VINYL BUMPER GUARD					PROVIDE VINYL BUMPER GUARDS ON ALL EXPOSED SIDES. PROVIDE 20 GA. 316 STAINLESS STEEL SPLASH GUARDS, 12" HIGH ON ADJACENT WALLS.
WB-1	WASHER BOX: IPS CORPORATION "DU-ALL" DUAL DRAIN#W2702	2"	2"	1/2"	1/2"	RECESSED WASHER BOX WITH 1/2" PEX CONNECTIONS FOR HW & CW, (2) DRAIN CONNECTIONS, FOR WASHER WASTE & MECHANICAL CONDENSATE
OB-1	WATER SUPPLY BOX: IPS CORPORATION ANGLE STOP BOX #FR-12	-	-	1/2"	-	FIRE RATED, RECESSED WATER SUPPLY BOX WITH 1/4 TURN CW SHUT OFF
EWC-1	ELKAY "LZSG8WSSK" ELECTRIC WATER COOLER	2"	2"	1/2"	-	SINGLE LEVEL ADA, ON WALL, FILTERED 8GPH, STAINLESS STEEL WATER COOLER, BOTTLE FILLER

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EXPIRATION DATE: DECEMBER 31, 2026

Proposed: CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

PLUMBING SCHEDULES

Project No. 24057

Sheet No. P601

Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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GENERAL NOTES:

1. BECAUSE OF THE LIMITED SPACE AVAILABLE TO INSTALL ALL OF THE FIRE PROTECTION WORK, COORDINATION BETWEEN OTHER TRADES IS OF THE UTMOST IMPORTANCE.
2. DRAWINGS INDICATE THE GENERAL LOCATION AND ARRANGEMENT OF FIXTURES, EQUIPMENT AND PIPING SYSTEMS. LOCATION AND ARRANGEMENT OF PIPING LAYOUT TAKE INTO ACCOUNT MANY DESIGN CONSIDERATIONS. SO FAR AS PRACTICAL, INSTALL PIPING AS INDICATED. THIS CONTRACTOR SHALL REPORT, IN WRITING, ANY DISCREPANCIES WHICH PREVENT THE INSTALLATION OF WORK AS SHOWN.
3. THE CONTRACTOR SHALL VISIT THE PROJECT SITE, AND VERIFY LOCATIONS, ELEVATIONS AND SIZES OF ALL UTILITIES AT SITE PRIOR TO PROCEEDING WITH WORK.
4. THESE PLANS ARE DIAGRAMMATIC IN NATURE. THE EXACT LOCATION OF PIPING, FIXTURES, AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS. EXTREME ACCURACY IS NOT GUARANTEED. THE CONTRACTOR SHALL BE PREPARED TO MAKE ALTERATIONS TO SERVICES TO FIT JOB CONDITIONS. THE CONTRACTOR SHALL FURNISH A COMPLETE AND CODE COMPLYING SYSTEM.
5. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS OR IS NOT COMPLETELY SURE OF THEIR MEANING, THE CONTRACTOR SHALL OBTAIN THE ENGINEERS WRITTEN EXPLANATION AND/OR INTERPRETATION PRIOR TO SUBMITTING BIDS, SINCE THE CONTRACTOR WILL BE HELD RIGIDLY TO THE INTERPRETATION OF THE ENGINEER.
6. CUTTING, REMOVING AND PATCHING OF EXISTING FLOOR(S), WALL(S), ROOF ETC., FOR PLUMBING AND FIRE PROTECTION PIPING INSTALLATION SHALL BE BY THE CONTRACTOR.
7. DETAILS SHOWN IN THESE DRAWINGS APPLY TO INSTALLATIONS INDICATED REGARDLESS AS TO IF THEY ARE SPECIFICALLY REFERENCED ELSE WHERE IN THE DRAWING SET. ANY QUESTIONS ON THEIR APPLICABILITY SHOULD BE SENT TO THE ENGINEER PRIOR TO BIDDING.

HYDRANT FLOW TEST

DATE OF TEST: AUGUST 08, 2025		
FLOW HYDRANT ID: E6-047	ELEVATION: N/A	
GAGE HYDRANT ID: N/A	ELEVATION: N/A	
FLOW: 782 GPM (+/- 100 GPM)		
STATIC PRESSURE: 64 PSIG		
INITIAL RESIDUAL PRESSURE: 60 PSIG	SECOND RESIDUAL PRESSURE: 44 PSIG	
INITIAL PITOT PRESSURE: 25 PSIG	SECOND PITOT PRESSURE: 18 PSIG	

FLOW TEST DATA PROVIDED TO H&S ON 2025/08/08.

FIRE PROTECTION SYMBOLS:

- TS — CONTROL VALVE WITH TAMPER SWITCH
- ELECTRIC MOTOR ALARM GONG
- F — FIRE MAIN
- SPKL — SPRINKLER MAIN - SIZED BASED ON HYDRAULIC CALCULATIONS
- FIRE PUMP TEST HEADER
- FS ■ — FLOW SWITCH
- ROOF HYDRANT OUTLET
- SIAMESE CONNECTION
- SEMI RECESSED
- CONCEALED
- PENDENT/UPRIGHT
- SIDEWALL
- FIRE PROTECTION ZONE
- AUTOMATIC AIR VENT
- BACKFLOW PREVENTER
- CHECK VALVE
- BALANCING VALVE (CIRCUIT SETTER)
- FLOW ARROW/DIRECTION
- FLOW CONTROL VALVE
- GLOBE VALVE
- PRESSURE GAUGE AND COCK
- PRESSURE REDUCING VALVE
- PRESSURE REGULATOR
- REDUCER
- SHOCK ABSORBER/WATER HAMMER ARRESTOR
- OR — SHUT OFF VALVE
- SOLENOID VALVE
- STRAINER
- TEMP & PRESSURE RELIEF VALVE
- TEST PLUG
- THERMOMETER
- UNION (DIELECTRIC)
- (DASHED) INDICATED PIPING TO BE REMOVED
- CONNECTION TO EXISTING
- EQ # — EQUIPMENT NUMBER
- P 1 — INDICATES PLUMBING RISER
- 1 — KITCHEN EQUIPMENT NUMBER
- 1 — REVISION DELTA
- KEYED NOTE
- KEYED DEMOLITION NOTE
- ELBOW DOWN
- ELBOW UP
- TEE DOWN
- TEE UP
- FLOOR DRAIN

ABBREVIATIONS:

AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT COMPLIANT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
AP	ACCESS PANEL
BFG	BELOW FINISHED GRADE
BGB	BOTTOM OF GRADE BEAM
BM	BEAM
BOB	BOTTOM OF BEAM
BOF	BOTTOM OF FOOTING
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF SLAB
BOT	BOTTOM
BT	BATHTUB
BOW	BOTTOM OF WALL
CL	CENTERLINE
CI	CAST IRON
CO	CLEANOUT
CV	CHECK VALVE
DD	DECK DRAIN
DI	DUCTILE IRON
DIA	DIAMETER
DN	DOWN
DR	DRAIN
DS	DOWNSPOUT
DTL	DETAIL
DWG(S)	DRAWING(S)
EC	ELECTRICAL CONTRACTOR - DIVISION 26
ELEC	ELECTRIC
ELEV	ELEVATION
EQ	EQUAL
EXIST, EX	EXISTING
FA	FROM ABOVE
FB	FROM BELOW
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDV	FIRE DEPARTMENT VALVE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHV	FIRE HOSE VALVE
FIN	FINISHED
FL	FLOOR , FIRE LINE
FP	FIRE PUMP
FPC	FIRE PROTECTION CONTRACTOR - DIVISION 21
FS	FLOOR SINK
FT	FEET
FT-HD	FEET IN HEAD
FVC	FIRE VALVE CABINET
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GPM	GALLONS PER MINUTE
H	HEIGHT
HB	HOSE BIBB
HD	HUB DRAIN
HE	HOSE END
HORIZ	HORIZONTAL
HP	HORSEPOWER
HT	HOUSE TRAP
HZ	HERTZ
IE	INVERT ELEVATION
IN	INCH/INCHES
INV	INVERT
JP	JOCKEY PUMP
L	LENGTH
LVL	LEVEL
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR - DIVISION 23
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED / CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED / OWNER INSTALLED
PC	PLUMBING CONTRACTOR - DIVISION 22
PH	PHASE
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	PSI ABSOLUTE
PSIA	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE IN GAUGE
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPIE
RD	ROOF DRAIN
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
SA	SHOCK ABSORBER
SF	SQUARE FOOT
SHT	SHEET
SOL	SOLENOID
SP	STANDPIPE
SQ	SQUARE
STL	STEEL
STR	SOIL STACK THRU ROOF
SW	STREET WASHER
T&P	TEMPERATURE & PRESSURE
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF SLAB
TOT	TOTAL
TPC	TOP OF PIER CAP
TYP	TYPICAL
VB	VACUUM BREAKER
VCP	VITREOUS CLAY PIPE
VERT	VERTICAL
VL	VALVE
VOL	VOLUME
VTR	VENT THRU ROOF
W/O	WITH / WITHOUT
WH	WALL HYDRANT
WT	WEIGHT
YD	YARD DRAIN

STATE OF MISSOURI — RICHARD W. HALTEMAN — NUMBER PE-25112 — PROFESSIONAL ENGINEER — 6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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FIRE PROTECTION SYMBOLS & ABBR.

Project No. 24057

Sheet No. FP001

Date 2026/06/08

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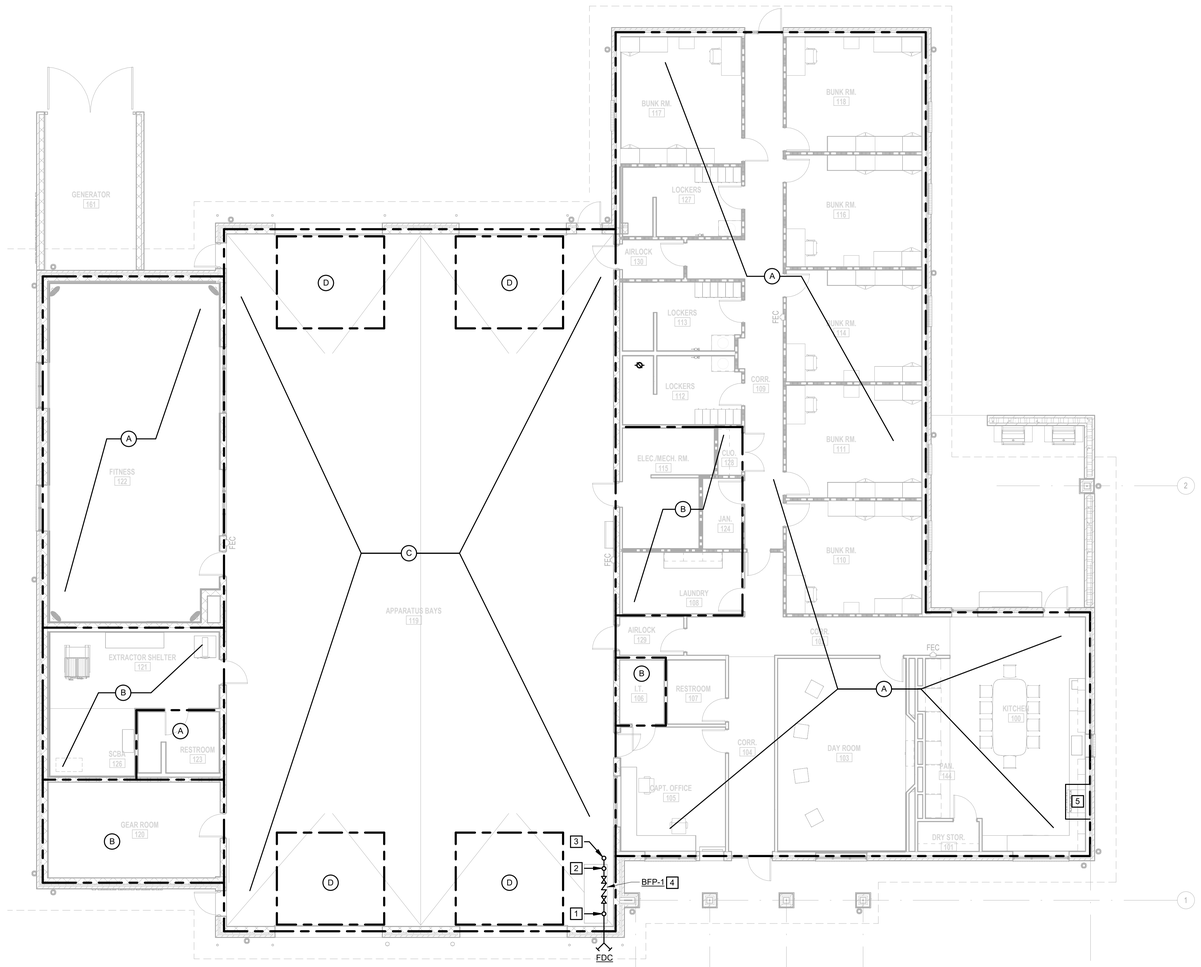
SHEET FP201 KEYED NOTES

1 6" COMBINED FIRE AND DOMESTIC SERVICE.
2 TO BUILDING WET PIPE SPRINKLER SYSTEM.
3 TO BUILDING DRY PIPE SPRINKLER SYSTEM.
4 SEE DETAIL 5 ON SHEET P501 FOR ADDITIONAL INFORMATION.
5 PROVIDE SUPERVISED FIRE SPRINKLER LINE FOR HOOD FIRE SUPPRESSION SYSTEM. COORDINATE FINAL CONNECTION WITH HOOD INSTALLATION CONTRACTOR.

SPRINKLER SCHEDULE

ZONE	SYSTEM TYPE	SPRINKLER TYPE	FINISH	RESPONSE TYPE	SPRINKLER TEMP RATING (DEG F)	OCCUPANCY CLASSIFICATION	DESIGN DENSITY (GPM/SQFT)	DESIGN AREA (SQ FT)	HOSE STREAM ALLOWANCE (GPM)	NOTES
A	WET PIPE	SEMI-RECESSED	WHITE	QUICK	ORDINARY	LIGHT HAZARD	0.10	1500	100	
B	WET PIPE	SEMI-RECESSED	WHITE	QUICK	ORDINARY	ORDINARY HAZARD GROUP 1	0.15	1500	250	
C	WET PIPE	UPRIGHT	BRASS	QUICK	ORDINARY	ORDINARY HAZARD GROUP 1	0.15	1500	250	
D	WET PIPE	SIDEWALL	BRASS	QUICK	ORDINARY	LIGHT HAZARD	0.10	1500	100	TO PROVIDE COVERAGE UNDER GARAGE DOORS WHEN DOORS ARE OPEN.



1 FIRE PROTECTION FLOOR PLAN
1/8" = 1'-0"
0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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FIRE PROTECTION PLAN

Project No. 24057
Sheet No. FP201
Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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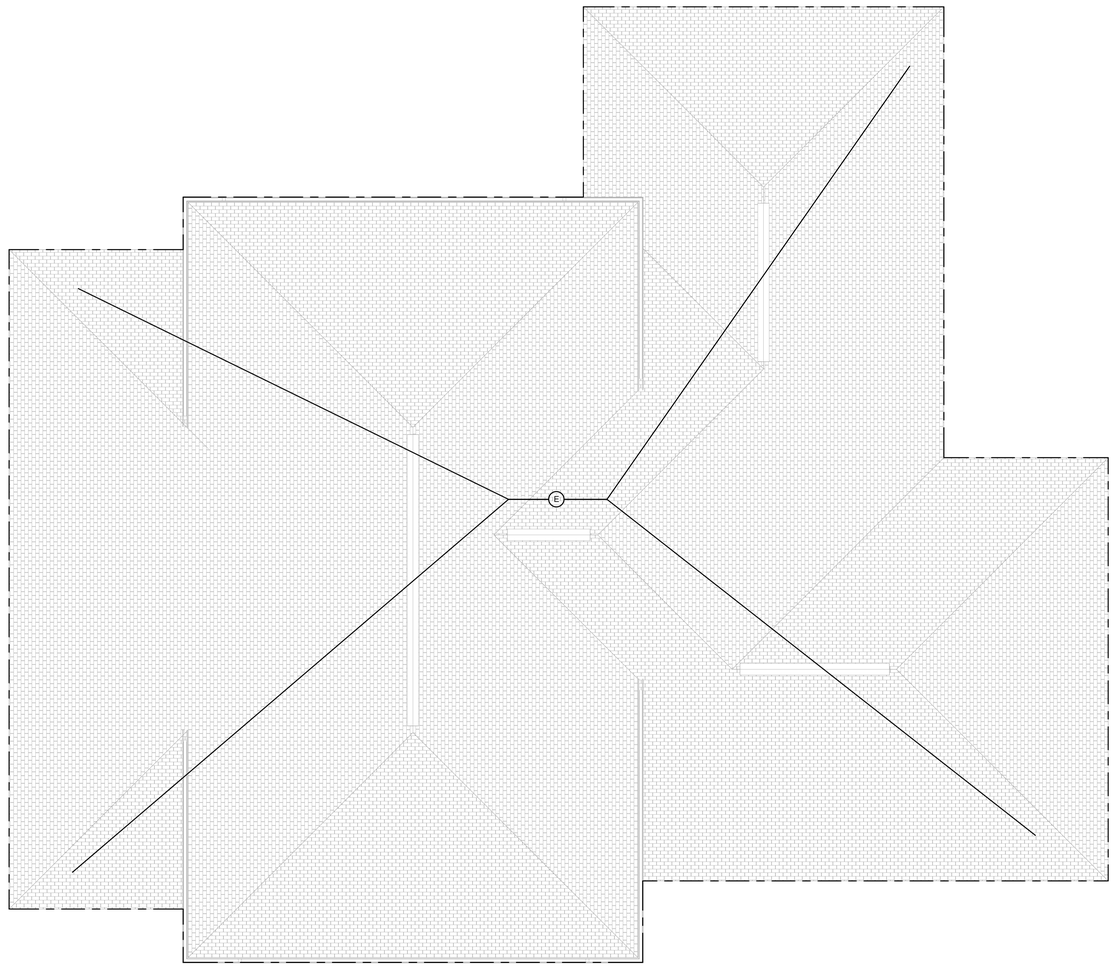
SPRINKLER SCHEDULE										
ZONE	SYSTEM TYPE	SPRINKLER TYPE	FINISH	RESPONSE TYPE	SPRINKLER TEMP RATING (DEG F)	OCCUPANCY CLASSIFICATION	DESIGN DENSITY (GPM/SQFT)	DESIGN AREA (SQ FT)	HOSE STREAM ALLOWANCE (GPM)	NOTES
E	DRY PIPE	ATTIC	BRASS	QUICK	INTERMEDIATE	ORDINARY HAZARD GROUP 1	0.15	1500	250	



1 FIRE PROTECTION ROOF PLAN
1/8" = 1'-0"

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

N

SCALE: 3" = 1'-0" 0 3" 6" 1'
SCALE: 1 1/2" = 1'-0" 0 3" 6" 1' 2'
SCALE: 1" = 1'-0" 0 6" 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 3/8" = 1'-0" 0 2' 4' 6'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 3/32" = 1'-0" 0 8' 16' 24'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

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No.	Date	Revision

FIRE PROTECTION ATTIC PLAN

Project No.
24057

Sheet No.
FP202

Date
2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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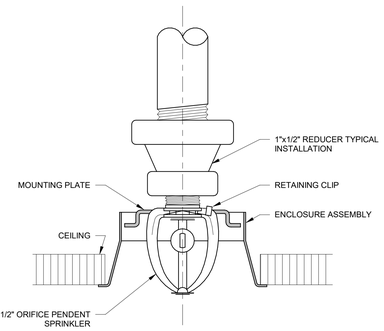
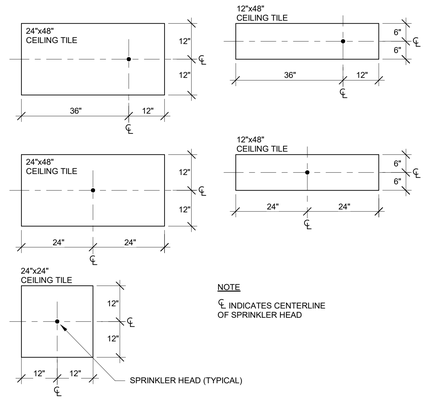
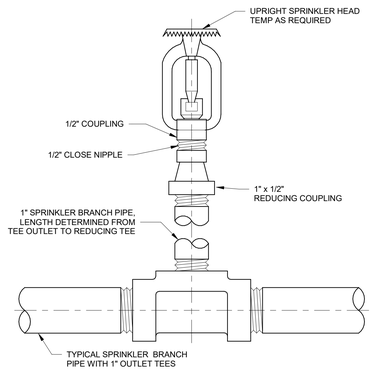


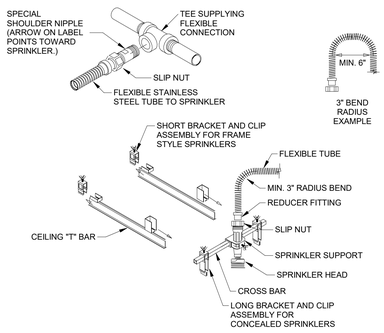
1 SEMI-RECESSED SPRINKLER HEAD INSTALLATION DETAIL
N.T.S.



2 SPRINKLER HEAD LOCATION DETAIL
N.T.S.

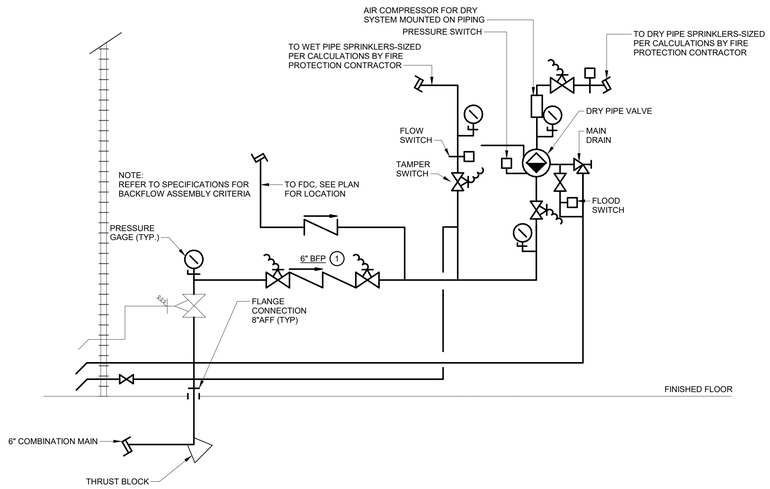


3 UPRIGHT SPRINKLER HEAD DETAIL
N.T.S.



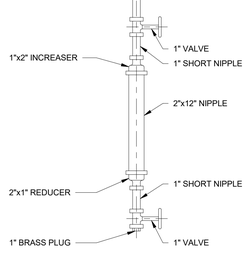
NOTE:
3" MINIMUM IS MEASURED TO THE INSIDE SURFACE OF THE BENT HOSE.

4 FLEXIBLE ARM OVER DETAIL
N.T.S.



1 PROVIDE 6" AMES "COLT" #C200-OSY-TS DOUBLE CHECK VALVE. LEAD-FREE CONSTRUCTION. PROVIDE AIR GAP FITTING ON DRAIN INSTALLED PER MANUFACTURER'S INSTRUCTIONS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION ON BACKFLOW VALVE REQUIREMENTS.

5 FIRE SERVICE ENTRANCE DETAIL
N.T.S.



6 DRY PIPE SYSTEM DRUM DRIP DETAIL
N.T.S.

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FIRE PROTECTION DETAILS

Project No. 24057

Sheet No. FP501

Date 2026/06/08

STATE OF MISSOURI
RICHARD W. HALTEMAN
NUMBER PE-25112
PROFESSIONAL ENGINEER
6/8/26

Name: Richard W. Halteman
Discipline: Professional Engineer
License No: PE-25112
Expiration Date: 12/31/2026

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LIGHT FIXTURES:

- Ab / EL - 1 — LIGHT FIXTURE (A = FIXTURE TYPE, b = SWITCH LEG, EL = PANEL, 1 = CIRCUIT NUMBER)
- 2x4 LIGHT FIXTURE
- 2x4 LIGHT - EMERGENCY
- 2x4 LIGHT - EMERGENCY UNSWITCHED NIGHTLIGHT
- 2x2 LIGHT FIXTURE
- 2x2 LIGHT - EMERGENCY
- 2x2 LIGHT - EMERGENCY UNSWITCHED NIGHTLIGHT
- CIRCLE DOWNLIGHT FIXTURE
- CIRCLE DOWNLIGHT - EMERGENCY
- CIRCLE DOWNLIGHT - EMERGENCY UNSWITCHED NIGHTLIGHT
- CIRCLE DOWNLIGHT - WALL WASH FIXTURE
- SQUARE DOWNLIGHT FIXTURE
- SQUARE DOWNLIGHT - EMERGENCY
- SQUARE DOWNLIGHT - EMERGENCY UNSWITCHED NIGHTLIGHT
- SQUARE DOWNLIGHT - WALL WASH FIXTURE
- INDUSTRIAL STRIP LIGHT FIXTURE
- EXTERIOR FLOOD LIGHT
- POLE LIGHT FIXTURE
- BOLLARD
- BOLLARD - EMERGENCY
- EXIT SIGN - CEILING MOUNTED (WITH DIRECTIONAL ARROW) (SHADE INDICATES # OF FACES)
- EXIT SIGN - WALL MOUNTED (WITH DIRECTIONAL ARROW) (SHADE INDICATES # OF FACES)
- EMERGENCY LIGHT PACK WITH BATTERY (90" A.F.F.)
- SCONCE
- WALL PACK - EXTERIOR
- TRACK LIGHTING
- CEILING FAN

LIGHTING DEVICES:

- V — DAYLIGHT HARVEST SENSOR
- PC — PHOTOCELL
- CEILING OCCUPANCY SENSOR (VS = VACANCY SENSOR, OC = OCCUPANY SENSOR)
- CEILING OCCUPANCY SENSOR MULTI DIRECTION
- $a — TOGGLE SWITCH SINGLE POLE (48" A.F.F.) a = SWITCH LEG (LOWER CASE LETTERS)
- $3 — TOGGLE SWITCH THREE WAY
- $4 — TOGGLE SWITCH FOUR WAY
- $D — DIMMER SWITCH
- $K — KEY OPERATED SWITCH
- $P — SWITCH WITH PILOT LIGHT ON WHEN SWITCH IS ON
- $T — TIMER SWITCH
- $WP — WEATHERPROOF SINGLE POLE SWITCH
- $OC — OCCUPANCY SENSOR WALL MOUNTED WITH OFF-AUTO OVERRIDE SWITCH
- $VS — VACANCY SENSOR WALL MOUNTED
- [$] — DATA LINE SWITCH / LIGHTING CONTROL OVERRIDE SWITCH (48" A.F.F.)

DATA DEVICES:

- DATA OUTLET (18" A.F.F.) c = 6" ABOVE COUNTER BACKSPLASH, 2 = NUMBER EQUALS TOTAL NUMBER OF PORTS
- DATA OUTLET IN FLOOR
- SURFACE RACEWAY DATA OUTLET 3' ON CENTER
- HDMI OUTLET (18" A.F.F.) UNO — c = 6" ABOVE COUNTER BACKSPLASH, 2 = NUMBER EQUALS TOTAL NUMBER OF PORTS, W = MOUNT 48" A.F.F.
- HDMI OUTLET IN FLOOR
- TELEPHONE OUTLET (18" A.F.F.) c = 6" ABOVE COUNTER BACKSPLASH, 2 = NUMBER EQUALS TOTAL NUMBER OF PORTS, W = MOUNT 48" A.F.F.
- TELEPHONE OUTLET IN FLOOR
- TELEPHONE/DATA OUTLET (18" A.F.F.) c = 6" ABOVE COUNTER BACKSPLASH, 2 = NUMBER EQUALS TOTAL NUMBER OF DATA PORTS, 1 = NUMBER EQUALS TOTAL NUMBER OF PHONE PORTS
- TELEPHONE/DATA OUTLET IN FLOOR
- TV — TELEVISION OUTLET (88" A.F.F.)
- WAP — WIRELESS ACCESS POINT

CONDUIT:

- CONDUIT EXPOSED
- CONDUIT CONCEALED IN FLOOR, BELOW SLAB OR BELOW GRADE
- CONDUIT CONCEALED IN WALL OR CEILING
- T — TELEPHONE CONDUIT
- CATV — TELEVISION CONDUIT
- CONDUIT DOWN
- CONDUIT UP
- CONDUIT SLEEVE INSULATED BUSHING EACH END
- WIRE IN CONDUIT LEFT TO RIGHT, 1 GROUND, 1 NEUTRAL, 3 PHASE CONDUCTORS
- A - 1,3 — HOME RUN, A = PANEL A, 1,3 = CIRCUITS 1,3
- CABLE TRAY
- A — FEEDER A
- GROUND JACK
- PB — PULL BOX
- HH — HAND HOLD

ELECTRICAL FIXTURES:

- SIMPLEX RECEPTACLE (18" A.F.F.)
- DUPLEX RECEPTACLE (18" A.F.F.)
- GFI DUPLEX RECEPTACLE (18" A.F.F.)
- QUADRUPLEX RECEPTACLE (18" A.F.F.)
- GFI QUADRUPLEX RECEPTACLE (18" A.F.F.)
- EMERGENCY RECEPTACLE (18" A.F.F.)
- COUNTERTOP RECEPTACLE (6" ABOVE COUNTER)
- TAMPER RESISTANT RECEPTACLE (18" A.F.F.)
- FLOOR RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE (18" A.F.F.)
- SPECIAL PURPOSE FLOOR RECEPTACLE
- JUNCTION BOX
- JUNCTION BOX IN FLOOR
- SURFACE RACEWAY DUPLEX OUTLET 3' ON CENTER
- PP — POWER POLE
- PS — POWER SUPPLY
- P — POWER WHIP

SECURITY DEVICES:

- AC — ACCESS CONTROL HEAD-END
- ARA — AREA OF RESCUE ANNUNCIATOR
- AR — AREA OF RESCUE ASSISTANCE CALL STATION
- C — CAMERA
- CR — CARD READER
- CCTV — CCTV HEAD-END
- MON — CCTV MONITOR
- DC — DOOR CONTACT
- ES — ELECTRIC DOOR STRIKE
- G — GLASS BREAK DETECTOR - WALL MOUNTED
- G — GLASS BREAK DETECTOR - CEILING MOUNTED
- K — KEYPAD
- ML — MAGNETIC LOCK
- M — MOTION DETECTOR - WALL MOUNTED
- M — MOTION DETECTOR - CEILING MOUNTED
- PROX — PROXIMITY READER ACCESS CONTROL
- P — PANIC BUTTON
- RA — REFRIGERATOR ALARMS
- REX — REQUEST TO EXIST MOTION DETECTOR
- EP — ELECTRIC/PNEUMATIC SWITCH
- LS — LIMIT SWITCH
- MGA — MEDICAL GAS ALARM

COMMUNICATION DEVICES:

- ANT — ANTENNA
- B — DOOR BELL
- I M — INTERCOM MASTER
- I S — INTERCOM SLAVE
- M — MICROPHONE OUTLET
- M — MICROPHONE OUTLET IN FLOOR
- PBS — PROGRAM BELL SYSTEM
- PAS — PUBLIC ADDRESS SYSTEM
- PUSH PLATE
- SEC — SOUND EQUIPMENT PANEL
- S — SPEAKER - CEILING MOUNTED
- S — SPEAKER - SURFACE MOUNTED
- S — SPEAKER - WALL MOUNTED
- H — HORN SPEAKER
- V — VOLUME CONTROL (48" A.F.F.)

FIRE ALARM DEVICES:

- F 110 — COMBINATION HORN STROBE FIRE ALARM - WALL MOUNTED (90" A.F.F. MINIMUM 6" BELOW CEILING) 110 = CANDELA RATING
- F — HORN FIRE ALARM - WALL MOUNTED (90" A.F.F)
- F CH — BELL ALARM - WALL MOUNTED (1" BELOW CEILING) CH = CHIME, G = GONG
- 110 — STROBE FIRE ALARM - WALL MOUNTED (90" A.F.F. MINIMUM 6" BELOW CEILING) 110 = CANDELA RATING
- F 110 — COMBINATION HORN STROBE FIRE ALARM - CEILING MOUNTED 110 = CANDELA RATING
- HORN FIRE ALARM - CEILING MOUNTED
- 95 — STROBE FIRE ALARM - CEILING MOUNTED 95 = CANDELA RATING
- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR PANEL (60" A.F.F.)
- FDC — FIRE ALARM DIGITAL COMMUNICATOR
- DH — DOOR HOLDER
- F — MANUAL PULL STATION (48" A.F.F.)
- FD — DUCT DETECTOR
- FDT — DUCT DETECTOR SWITCH
- FH — HEAT DETECTOR
- FS — SMOKE DETECTOR
- B — FIRE SUPPRESSION ALARM
- F — FIREMANS TELEPHONE OUTLET
- FS — FIRE ALARM FLOW SWITCH
- TS — FIRE ALARM TAMPER SWITCH
- MM — FIRE ALARM MONITOR MODULE
- CM — FIRE ALARM CONTROL MODULE
- PIV — POST INDICATING VALVE
- FPGSM — NETWORK / CELL DIGITAL COMMUNICATOR
- CO — CARBON MONOXIDE DETECTOR
- CO2 — CARBON DIOXIDE DETECTOR
- MGA — GENERATOR ANNUNCIATOR

ELECTRICAL EQUIPMENT:

- ELECTRIC METER
- G — GENERATOR
- PANELBOARD
- DISTRIBUTION PANELBOARD
- T — TRANSFORMER
- ATS — AUTOMATIC TRANSFER SWITCH
- MTS — MANUAL TRANSFER SWITCH
- UPS — UNINTERRUPTIBLE POWER SOURCE
- MM — MULTIMETER
- SPD — SURGE PROTECTOR DEVICE
- UTILITY POLE
- EF 01 — MOTOR WITH DESIGNATION
- $m — MANUAL MOTOR STARTER
- DISCONNECT SWITCH
- COMBINATION STARTER
- MOTOR STARTER
- WEATHER HEAD
- SV — SOLENOID VALVE
- VSD — VARIABLE SPEED DRIVE
- ANTENNA - TELEMETRY

ABBREVIATIONS:

A.F.F.	ABOVE FINISH FLOOR
C	CONDUIT
c	6" ABOVE COUNTER BACKSPLASH
u	USB OUTLET
GFI	GROUND FAULT INTERRUPTER
WP	WEATHERPROOF
GRS	GALVANIZED RIGID STEEL
EMT	ELECTRICAL METAL TUBING
AC	ALTERNATING CURRENT
MC	METAL CLAD CABLE
PVC	POLYVINYL CHLORIDE CONDUIT
IG	ISOLATED GROUND
XFMR	TRANSFORMER

ELECTRICAL SYSTEM COMPONENTS EARTHQUAKE LOAD RESISTANCE

OCCUPANCY CATEGORY (IV) — **SEISMIC DESIGN CATEGORY (D)**

LISTING OF EQUIPMENT & SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOF, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY-SEALED ANCHORAGE AND SWAY BRACING DETAILS		COMMENTS
					ON CONSTRUCTION DOCUMENTS	SUBSEQUENT SUBMITTAL SEPARATE PERMIT AND PLANS	
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	DRAWING NO. OR SPEC. SECTION		
FIRE PROTECTION, DETECTION & ALARM Ip=1.5							
FIRE ALARM PANEL		X	X			X	
FIRE ALARM WIRING		X	X			X	
EMERGENCY OR STANDBY EQUIPMENT AND SYSTEM COMPONENTS Ip=1.5							
EMERGENCY GENERATOR		X	X			X	
AUTOMATIC TRANSFER SWITCH		X	X			X	
CONDUIT AND WIRING		X		X		X	
LIGHTING FIXTURES		X		X		X	
OTHER EQUIPMENT AND SYSTEM COMPONENTS NEEDED FOR CONTINUED OPERATION OF SEISMIC USE GROUP IV FACILITIES, OR WHOSE FAILURE COULD IMPAIR THEIR CONTINUED OPERATION Ip=1.0							
OTHER GENERAL EQUIPMENT & SYSTEM COMPONENTS							
DISTRIBUTION PANELBOARDS		X	X			X	
LIGHTING FIXTURES		X		X		X	
CONDUIT AND WIRING		X		X		X	

EXPLANATORY NOTES:
1. CONTRACTOR SHALL ADHERE TO REQUIREMENTS FOR EXEMPTION, WHERE NOTED, OR PROVIDE SEISMIC BRACING DESIGNED BY A QUALIFIED ENGINEER LICENSED IN THE PROJECT'S STATE.

EXEMPTION NOTES:
1. SEISMIC DESIGN CATEGORY B - ASCE 7-22 TABLE 13.1-1
2. SEISMIC DESIGN CATEGORY C, THE COMPONENT IMPORTANCE FACTOR Ip=1.0, AND THE COMPONENT IS POSITIVELY ATTACHED TO THE STRUCTURE. ASCE 7-22 TABLE 13.1-1.
3. SEISMIC DESIGN CATEGORY C, D, E, OR F AND THE COMPONENT WEIGHS 20 LBS OR LESS. ASCE 7-22 TABLE 13.1-1.
4. SEISMIC DESIGN CATEGORY D, E, OR F, AND THE COMPONENT IMPORTANCE FACTOR Ip=1.0, AND THE CENTER OF MASS IS 4 FT OR LESS ABOVE THE FLOOR, AND THE COMPONENT WEIGHS 400LBS OR LESS, AND FLEXIBLE CONNECTIONS ARE PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. ASCE 7-22 TABLE 13.1-1.
5. SEISMIC DESIGN CATEGORY D, E, OR F, AND THE COMPONENT IMPORTANCE FACTOR Ip=1.0, AND FOR DISTRIBUTION SYSTEMS THE OPERATING WEIGHT OF THE SYSTEM IS 5LB/FT OR LESS. ASCE 7-22 TABLE 13.1-1.
6. LIGHT FIXTURES, SIGN AND CEILING FANS (ASCE 7-22 13.6.1) - NOT CONNECTED TO DUCTS OR PIPING, SUPPORTED BY CHAINS OR OTHERWISE SUSPENDED FROM THE STRUCTURE, PROVIDED ALL OF THE FOLLOWING CRITERIA ARE MET:
   a. THE DESIGN LOAD FOR SUCH ITEMS SHALL BE EQUAL TO 1.4 TIMES THE OPERATING WEIGHT ACTING DOWN WITH A SIMULTANEOUS HORIZONTAL LOAD EQUAL TO 1.4 TIMES THE OPERATING WEIGHT. THE HORIZONTAL LOAD SHALL BE APPLIED IN THE DIRECTION THAT RESULTS IN THE MOST CRITICAL LOADING FOR DESIGN.
   b. SEISMIC INTERACTION EFFECTS SHALL BE CONSIDERED PER SECTION 13.2.4 OF ASCE 7-22
   c. THE CONNECTION TO THE STRUCTURE SHALL ALLOW A 360 DEGREE RANGE OF MOTION IN THE HORIZONTAL PLANE.
7. CONDUIT, CABLE TRAY AND RACEWAYS, Ip=1.0, FLEXIBLE CONNECTIONS PROVIDED BETWEEN CABLE TRAY OR RACEWAY AND ASSOCIATED COMPONENTS WHERE THE CABLE TRAY OR RACEWAY IS POSITIVELY ATTACHED TO THE STRUCTURE, (ASCE 7-22 SECTION 13.6.5 EXCEPTION 1) AND:
   a. TRAPEZE ASSEMBLIES ARE USED WITH 3/8-IN DIAMETER ROD HANGERS NOT EXCEEDING 12 IN. IN LENGTH FROM THE CONDUIT, CABLE TRAY, OR RACEWAY SUPPORT POINT TO THE CONNECTION AT THE SUPPORTING STRUCTURE TO SUPPORT RACEWAYS, AND THE TOTAL WEIGHT SUPPORTED BY ANY SINGLE TRAPEZE IS 100 LB OR LESS, OR
   b. TRAPEZE ASSEMBLIES WITH 1/2-IN DIAMETER ROD HANGERS NOT EXCEEDING 12IN. IN LENGTH FROM THE CONDUIT, CABLE TRAY, OR RACEWAY SUPPORT POINT TO THE CONNECTION AT THE SUPPORTING STRUCTURE ARE USED TO SUPPORT THE CABLE TRAY OR RACEWAY, AND THE TOTAL WEIGHT SUPPORTED BY ANY SINGLE TRAPEZE IS 200LB (890 N) OR LESS, OR
   c. TRAPEZE ASSEMBLIES WITH 1/2-IN DIAMETER ROD HANGERS NOT EXCEEDING 24 IN. IN LENGTH FROM THE CONDUIT, CABLETRAY, OR RACEWAY SUPPORT POINT TO THE CONNECTION AT THE SUPPORTING STRUCTURE ARE USED TO SUPPORT THE CABLE TRAY OR RACEWAY, AND THE TOTAL WEIGHT SUPPORTED BY ANY SINGLE TRAPEZE IS 100 LB (445 N) OR LESS, OR
   d. THE CONDUIT, CABLE TRAY OR RACEWAY IS SUPPORTED BY INDIVIDUAL ROD HANGERS 3/8IN OR 1/2-IN IN DIAMETER, AND EACH HANGER IN THE RACEWAY RUN IS 12 IN. OR LESS IN LENGTH FROM THE CONDUIT, CABLE TRAY, OR RACEWAY SUPPORT POINT CONNECTION TO THE SUPPORTING STRUCTURE, AND THE TOTAL WEIGHT SUPPORTED BY ANY SINGLE ROD IS 50 LB OR LESS.
8. DESIGN FOR THE SEISMIC FORCES AND RELATIVE DISPLACEMENTS OF SECTION 13.3 SHALL NOT BE REQUIRED FOR CONDUIT, REGARDLESS OF THE VALUE OF Ip, WHERE THE CONDUIT IS LESS THAN 2.5 IN (64MM) TRADE SIZE. (ASCE 7-22 SECTION 13.6.5 EXCEPTION 2.)

STATION 6 NETWORK NOTES:

- CAT6 WALL LOCATIONS SHALL BE TERMINATED INTO A STANDARD WALL PLATE AT DESK HEIGHT AND HOME RUN TO THE MAIN IT ROOM (106)
- CAT6 TV LOCATIONS AS INDICATED SHALL HAVE CAT6 DROP TV HEIGHT AND HOME RUN TO THE MAIN IT ROOM (106)
- ACCESS POINTS SHALL BE CEILING MOUNTED WITH CAT6 THAT HOME RUNS TO THE MAIN IT ROOM (106). WITH THE EXCEPTION OF THE APPARATUS BAY, AP BAY SHALL BE WALL MOUNTED AT 12-14 FT HEIGHT (ALLOWS FOR EASIER SERVICEABILITY).
- DRAWING ASSUMES CAT6 CABLING SHALL BE INCLUDED AT PHONE LOCATIONS, BOTH DESK PHONES AND WALL MOUNT PHONES
- ALL CAT6 CABLING SHALL BE HOME RUN TO TERMINATE ON PATCH PANEL

HARDWARE: OWNER VENDOR SUPPLIED, INSTALLED BY THIS SCOPE OF WORK

- NETWORK RACK FOR MAIN IT CLOSET
- WIRELESS ACCESS POINTS

HARDWARE: OWNER VENDOR (FEATHERSHARK) SUPPLIED AND INSTALLED

- NETWORK ROUTER
- NETWORK SWITCHES
- PHONE HARDWARE
- NETWORK UPS

HARDWARE: PROVIDED (FURNISHED AND INSTALLED) BY THIS SCOPE OF WORK

- CABLING, MOUNTS, HOOKS
- 48 PORT CAT 6 PATCH PANEL

STATION 6 DOOR ACCESS NOTES:

- EACH DOOR WITH AN ELECTRONIC LOCK SHALL BE PROVIDED WITH 18/4 CABLE FROM THE STRIKE TO THE IT ROOM (106). CABLE SHALL BE PROVIDED AND TESTED BY THIS CONTRACT.
- EACH CARD READERS SHALL BE CONNECTED WITH A CAT6 CABLE THAT HOME RUNS TO THE MAIN IT ROOM (106)
- INTERCOM VIEWERS SHALL BE WALL MOUNTED IN THE HALLWAY AND CONNECTED WITH CAT6 CABLING THAT HOME RUNS TO THE MAIN IT ROOM (106)
- ALL CAT6 CABLING SHALL HOME RUN AND TERMINATE ON PATCH PANEL.

HARDWARE: OWNER'S VENDOR SUPPLIED, INSTALLED BY THIS SCOPE OF WORK

- DOOR READERS
- DOOR READER JUNCTION/MOUNTING BOXES
- INTERCOM VIEWER

HARDWARE: PROVIDED (FURNISHED AND INSTALLED) BY THIS SCOPE OF WORK:

- CABLING, MOUNTS, HOOKS
- ELECTRONIC DOOR STRIKES (MUST BE 12V1A COMPATIBLE)

STATION 6 TV'S FOR IT USAGE NOTES:

- LOCATIONS MARKED FOR LIVEDASH SHALL BE PROVIDED WITH CAT6 CABLING THAT HOME RUNS TO THE MAIN IT ROOM (106).

HARDWARE: OWNER'S VENDOR SUPPLIED, INSTALLED BY THIS SCOPE OF WORK

- TV'S
- TV MOUNTS

GENERAL NOTES:

1. ELECTRICAL INSTALLATION PER 2020 NATIONAL ELECTRICAL CODE.
2. ALL ELECTRICAL EQUIPMENT SHALL BE UL/NRTL LISTED.
3. DETAILS SHOWN IN THESE DRAWINGS APPLY TO INSTALLATIONS INDICATED REGARDLESS AS TO IF THEY ARE SPECIFICALLY REFERENCED ELSE WHERE IN THE DRAWING SET. ANY QUESTIONS ON THEIR APPLICABILITY SHOULD BE SENT TO THE ENGINEER PRIOR TO BIDDING.
4. MOUNTING HEIGHTS INDICATED WITHIN PLANS AND SCHEDULES ARE DIMENSIONED TO THE CENTER LINE OF THE DEVICE, EQUIPMENT, LUMINAIRE, ETC. UNLESS OTHERWISE NOTED
5. COORDINATE EXACT EQUIPMENT LOCATIONS WITH OTHER TRADES. EQUIPMENT LOCATIONS SHOWN ON ELECTRICAL PLANS ARE DIAGRAMMATICAL ONLY AND MIGHT NOT BE EXACT.
6. COORDINATE ELECTRICAL DEVICE INSTALLATIONS WITH FINAL ARCHITECTURAL PLANS AND ELEVATIONS.
7. ALL RECEPTACLES, SWITCHES AND JUNCTION BOXES SHALL BE LABELED WITH PANELBOARD NAME AND CIRCUIT NUMBER.
8. PROVIDE FIRE STOPPING AT ALL CONDUIT PENETRATIONS AND CONDUIT SLEEVES THROUGH FLOOR SLABS AND FIRE RATED WALLS TO MAINTAIN REQUIRED FIRE RATING. USE UL LISTED METHODS AND MATERIALS.
9. NOT ALL BRANCH CIRCUIT CONDUIT AND WIRE IS SHOWN, ONLY PANELBOARD NAMES AND CIRCUIT NUMBERS ARE SHOWN ADJACENT TO DEVICES. THE REMAINING BRANCH CIRCUIT CONDUIT AND WIRES SHALL BE INSTALLED ACCORDING TO SPECIFICATIONS.
10. ALL RECEPTACLES WITHIN 6 FT OF SINKS SHALL BE GFCI TYPE.
11. INSTALL EMERGENCY AND EXIT LUMINAIRE WIRING IN A SEPARATE RACEWAY FROM THAT OF ANY NORMAL POWER DEVICE.
12. CONCEAL ALL CONDUIT IN WALLS, IN PARTITIONS, AND IN ABOVE CEILINGS, UNLESS OTHERWISE INDICATED ON THE PLANS OR IN THE SPECIFICATIONS. CONDUIT ROUTED IN MECHANICAL ROOMS, ELECTRICAL ROOMS, AND STORAGE ROOMS WITHOUT CEILINGS MAY BE ROUTED EXPOSED.
13. CONCEAL ELECTRICAL CONNECTIONS FOR ELECTRIC WATER COOLERS (EWC) BEHIND WATER COOLER ACCESS PLATE OR DIRECTLY BELOE AND CENTERED ON WALL. CONFIRM CIRCUIT WILL BE PROTECTED BY A READILY ACCESSIBLE GFCI DEVICE IN CIRCUIT BREAKER IN PANELBOARD OR GFCI WHEN MOUNTED BELOW, PRIOR TO INSTALLING CIRCUIT.
14. FIELD COORDINATE ALL ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT MOUNTING LOCATIONS TO AVOID ENCROACHMENT OF OPERATION AND ACCESS TO EQUIPMENT FROM OTHER TRADES. COORDINATE THE APPROPRIATE MOUNTING LOCATION WITH THE AFFECTED DISCIPLINES WHEN EQUIPMENT IS SPECIFIED TO BE MOUNTED ONTO THE SURFACE OF ANOTHER DISCIPLINE'S EQUIPMENT.
15. ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE SUBMITTED FOR APPROVAL PRIOR TO PERFORMING ARC FLASH, SHORT CIRCUIT, AND COORDINATION STUDIES. RESUBMIT ELECTRICAL POWER DISTRIBUTION EQUIPMENT FOR FINAL APPROVAL OF ARC FLASH, SHORT CIRCUIT, AND COORDINATION STUDIES.
16. ALL FACE PLATES IN APPARATUS BAY, GEAR ROOM, EXTRACTOR SHELTER, SCBA AND RESTROOM 123 SHALL BE STAINLESS STEEL
17. DIVISION 26 CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF RECORD DRAWINGS THAT CLEARLY INDICATE ALL REVISIONS TO PANELBOARDS AND BRANCH CIRCUIT NUMBERS TO REFLECT INSTALLED CONDITIONS.

LIGHTING NOTES:

1. SWITCHES IN EACH ROOM SHALL CONTROL LIGHTS IN THAT ROOM ONLY UNLESS OTHERWISE NOTED.
2. ALL FIXTURES WITH EMERGENCY BATTERY BACKUP SHALL BE WIRED FOR SWITCHED OPERATION UNLESS NOTED OTHERWISE.
3. PROVIDE UNSWITCHED PHASE CONDUCTOR TO ALL SWITCHED EMERGENCY BATTERY BACK UP FIXTURES, FOR SWITCHED EMERGENCY FIXTURES WITH INVERTER BACK UP, PROVIDE UL 924 TRANSFER DEVICE. PROVIDE ALL ASSOCIATED WIRING FOR A COMPLETE WORKING SYSTEM.
4. COORDINATE FIXTURE LOCATIONS SUCH THAT FIXTURES RUN PARALLEL TO THE FACE OF THE EQUIPMENT AND OVER AISLES BETWEEN EQUIPMENT IN ALL MECHANICAL AND ELECTRICAL EQUIPMENT AREAS. INSTALL AT LOCATIONS AND HEIGHTS TO PROPERLY ILLUMINATE ALL GAUGES, PANELS, ELECTRICAL EQUIPMENT, CONTROLS, VALVES, ETC. CHAIN HANGING, STEM HANGING, CHANNEL HANGING, ETC ARE ACCEPTABLE METHODS.
5. SEE ARCHITECTURAL DRAWINGS FOR LIGHT FIXTURE LOCATIONS.
6. ALL LIGHTING AND FAN BRANCH CIRCUITING SHALL BE 2 #12, 1 #12 GROUND IN 3/4" CONDUIT UNLESS NOTED OTHERWISE.

LOW VOLTAGE COMMUNIATION SYSTEMS GENERAL NOTES:

1. REFER TO LOW VOLTAGE RESPONSIBILITIES MATRIX ON SHEET E401 FOR DEFINED SCOPE OF WORK.
2. COORDINATE LOW VOLTAGE DEVICE LOCATIONS WITH FINAL ARCHITECTURAL PLANS AND ELEVATIONS.
3. FOR TELECOMMUNICATION (TELEPHONE/DATA/WAP) OUTLETS, DIV 27 SHALL PROVIDE 4 11/16" SQUARE BOX, 2 1/2" DEEP WITH SINGLE GANG PLASTER RING, 1" CONDUIT TO ABOVE ACCESSIBLE CEILING WITH 90 DEGREE SWEEP AND BUSHING STUBBED TO WITHIN 6" OF J-HOOK PATHWAY.
4. PROVIDE NEW FIRE ALARM SYSTEM INCLUDING SEALED DESIGN DOCUMENTS PER SPECIFICATION SECTION 283111. PROVIDE CONTROL MODULES AND RELAY MODULES AS REQUIRED. INSTALLATION SHALL CONFORM TO NFPA 72 GUIDELINES.
5. PROVIDE SYNCHRONIZATION OF ALL FIRE ALARM VISUAL NOTIFICATION APPLIANCE CIRCUITS THROUGHOUT THE SCOPE OF WORK AREA.
6. SMOKE DETECTORS SHALL BE INSTALLED A MINIMUM OF 3'-0" FROM AIR SUPPLY AND RETURNS AS REQUIRED.
7. CCTV CABLING SHALL BE CAT6 IN GREEN JACKET.
8. ALL OUTDOOR & UNDER FLOOR CABLING SHALL BE "OUTDOOR RATED".
9. ALL CABLING SHALL BE PLENUM RATED.

FIRE STATION ALERTING SYSTEM (FSAS) NOTES:

1. OWNER'S VENDOR SHALL PROVIDE TV DASHBOARDS AND ASSOCIATED DISTRIBUTION SYSTEM COMPONENTS THROUGHOUT.
2. OUTDOOR SPEAKERS SHALL HAVE SILENT HOURS.
3. OWNER'S VENDOR FSAS SYSTEM SHALL PROVIDE 120V TRIGGER FOR STREET MOUNTED WARNING LIGHTS. THE 120V CIRCUIT IN CONDUIT SHALL BE BY DIV 26 CONTRACTOR.
4. OWNER'S VENDOR SHALL PROVIDE LOW VOLTAGE WIRING AND DEVICE MOUNTING HARDWARE FOR FSAS.
5. OWNER'S VENDOR SHALL PROVIDE BASE STATION RADIO AUDIO FEED @ 500 OHMS FOR FSAS FROM CAPTAIN OFFICE 105.

ELECTRICAL LEGEND

NOT ALL SYMBOLS AND ABBREVIATIONS ARE USED

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EXPIRATION DATE: DECEMBER 31, 2020

Proposed:
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1151 JUNGS STATION RD

No.	Date	Revision

ELECTRICAL SYMBOLS & ABBREVIATIONS

Project No. 24057

Sheet No. E001

Date 2026/06/08

6/4/2026 9:12:30 AM
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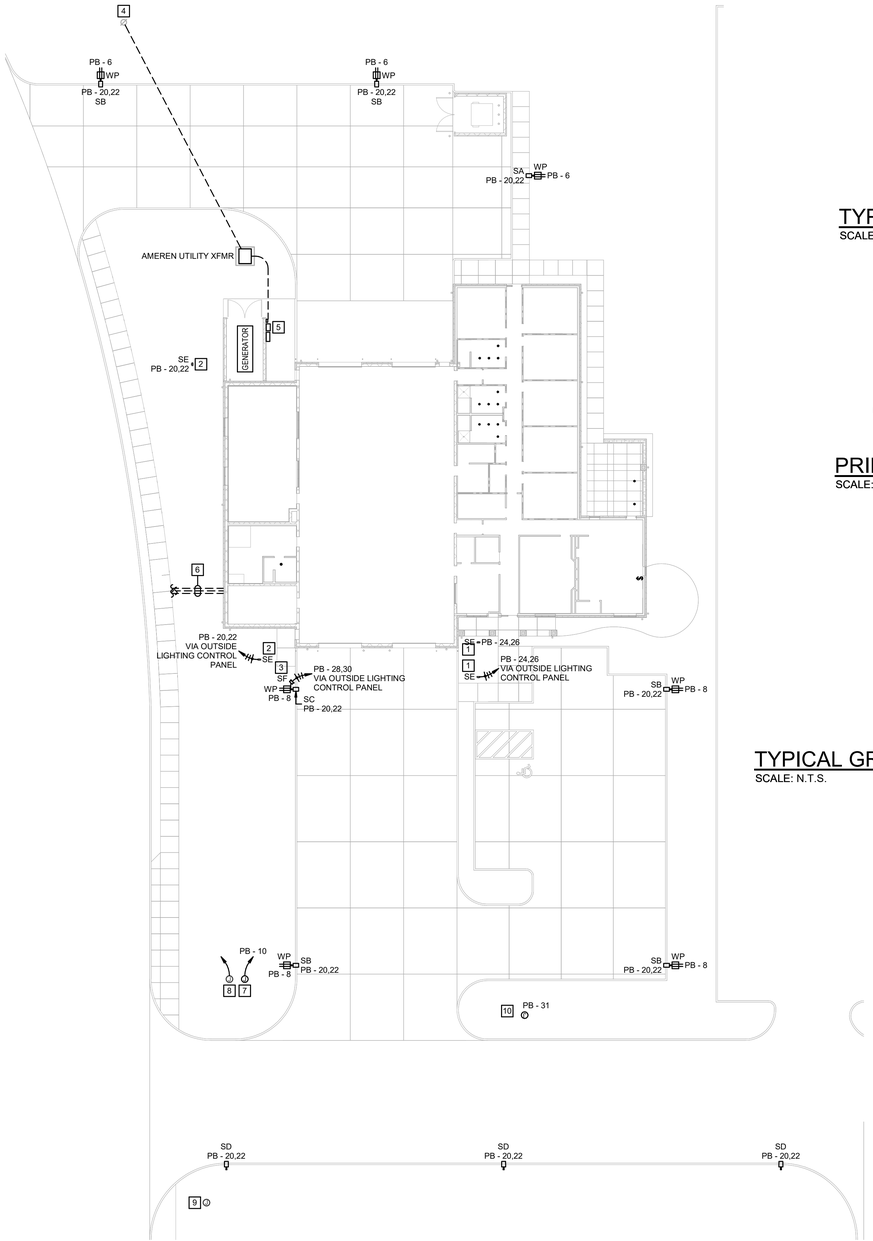
GENERAL NOTES (THIS SHEET ONLY):

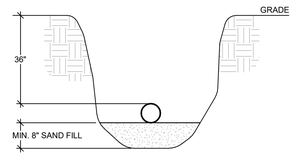
A ALL UNDERGROUND BRANCH CIRCUITS, INCLUDING RECEPTACLES AND LIGHTING, SHALL BE ROUTED IN A MINIMUM OF 1" CONDUIT. MINIMUM EXTERIOR BRANCH RECEPTACLE AND LIGHTING CIRCUITS SHALL BE #10 AWG FOR PHASE, NEUTRAL AND GROUND. BRANCH CIRCUITS WITH CONDUCTOR LENGTHS GREATER THAN 150' SHALL BE #8 AWG.

[#] SHEET E101 KEYED NOTES

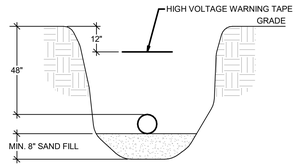
1 MOUNT FIXTURE 5' FROM FLAGPOLE. COORDINATE EXACT LOCATION WITH OWNER.
2 MOUNT FIXTURE 10' FROM BUILDING AND CENTERED ON BUILDING EXTERIOR SIGN.
3 PROVIDE RELAY TO TURN OFF POLE MOUNTED FLOODLIGHT UPON ACTIVATION OF GARAGE DOOR AND TO TURN BACK ON WHEN DOOR IS CLOSED.
4 EXISTING AMEREN UTILITY POLE. COORDINATE WITH AMEREN FOR LOCATION OF CONDUIT STUB UP ON POLE.
5 SEE SHEET E201 FOR CONTINUATION OF ELECTRICAL SERVICE ROUTING.
6 (3) 2" CONDUITS WITH PULL STRING FOR CATV, FIBER AND PHONE TO PROPERTY LINE. SEE SHEET E401 FOR CONTINUATION.
7 PROVIDE 1" CONDUIT WITH 2 #8, 1 #8G FROM PANEL PB TO MONUMENT SIGN FOR POWER. PROVIDE 12"x18" QUAZITE HANDHOLE WITH TEN FEET OF COILED CONDUCTORS AT MONUMENT SIGN LOCATION. BOX COVER SHALL IDENTIFY AS "POWER".
8 PROVIDE 1" CONDUIT WITH TWO OSP CAT6 CABLES FROM IT 106 TO MONUMENT SIGN FOR DATA. PROVIDE 12"x18" QUAZITE HANDHOLE WITH TEN FEET OF COILED CABLE AT MONUMENT SIGN LOCATION. BOX COVER SHALL IDENTIFY AS "COMM".
9 APPROXIMATE LOCATION OF RELOCATED SCHOOL SIGN. COORDINATE DE-ENERGIZATION OF EXISTING CIRCUIT FROM SCHOOL WITH SCHOOL AUTHORITIES. DISCONNECT EXISTING UNDERGROUND CIRCUIT SERVING SCHOOL SIGN. PROVIDE HANDHOLE FOR SPLICING OF EXISTING TO NEW CONDUCTORS. PROVIDE NEW UNDERGROUND CONDUIT ROUTED AROUND NEW FACILITY SITE TO NEW SIGN LOCATION. REFER TO CIVIL DRAWING FOR NEW ROUTE. EXTEND CONDUIT AS NEEDED AND RECIRCUIT TO SAME CIRCUIT AS ORIGINAL LOCATION. SEE CIVIL PLANS FOR DETAILS.
10 TRAFFIC SIGNAL LIGHT - PROVIDE 12"x18" QUAZITE HANDHOLE AT THIS LOCATION WITH 2#10, 1#10G IN 1 INCH CONDUIT ROUTED FROM HANDHOLE TO PANELBOARD IN BUILDING FOR POWER.



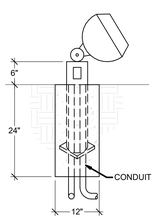
1 ELECTRICAL SITE PLAN
1" = 20'-0"
0 10' 20' 40'
SCALE: 1" = 20'-0"



TYPICAL CONDUIT BURIAL DETAIL
SCALE: N.T.S.



PRIMARY CONDUIT BURIAL DETAIL
SCALE: N.T.S.



TYPICAL GROUND MOUNTED FLOODLIGHT DETAIL
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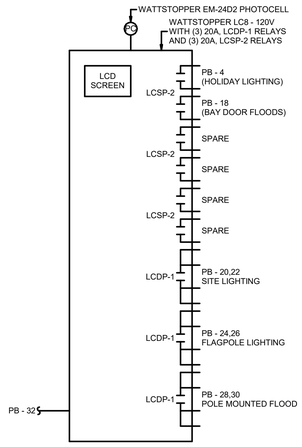
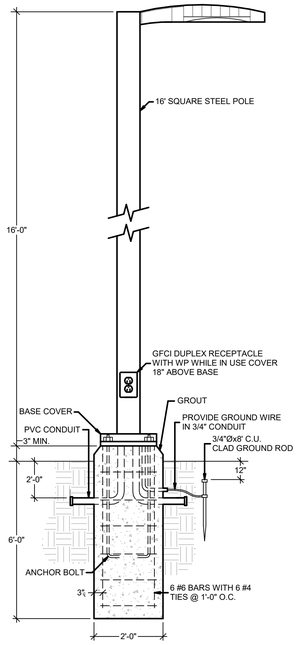


LIGHTING CONTROL PANEL - PB
SCALE: N.T.S.



POLE MOUNTED FIXTURE MOUNTING DETAIL
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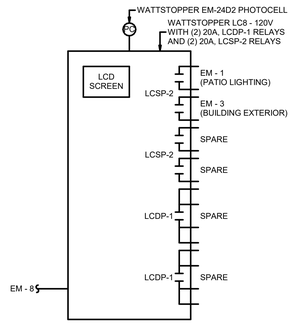

LIGHTING CONTROL PANEL - EM
SCALE: N.T.S.

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NUMBER PE-026961
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EXPIRATION DATE: DECEMBER 31, 2020

Proposed: CCF&R HOUSE 06
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No.	Date	Revision

ELECTRICAL SITE PLAN

Project No. 24057
Sheet No. E101
Date 2026/06/08

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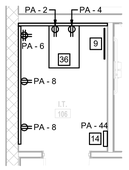
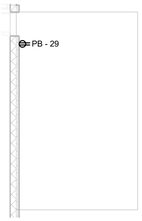


2 LARGE SCALE I.T. 106 POWER PLAN

1/4" = 1'-0"

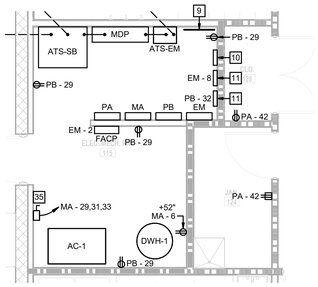
SCALE: 1/4" = 1'-0"



3 ATTIC POWER PLAN

1/8" = 1'-0"

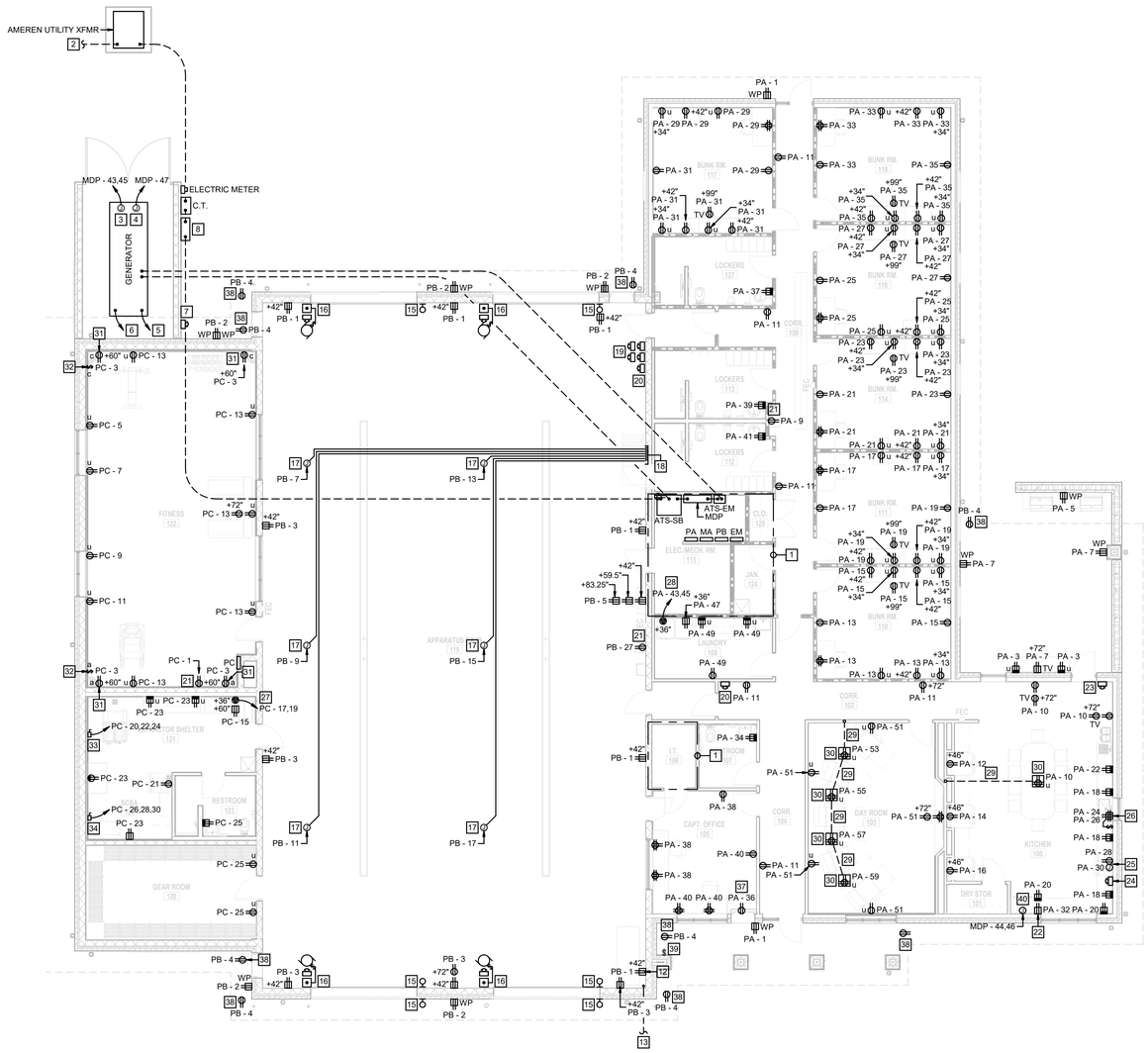
SCALE: 1/4" = 1'-0"



4 LARGE SCALE ELECTRICAL/MECHANICAL 115 POWER PLAN

1/4" = 1'-0"

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



1 POWER PLAN

1/8" = 1'-0"

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

SHEET E201 KEYED NOTES

1. SEE LARGE SCALE PLAN THIS SHEET FOR MORE INFORMATION.
2. SEE ELECTRICAL SITE PLAN SHEET E101 FOR CONTINUATION.
3. CONNECT TO JACKET WATER HEATER.
4. CONNECT TO BATTERY CHARGER.
5. PROVIDE 2" CONDUIT WITH ENGINE GENERATOR START AND COMMUNICATION CABLES FROM ATS TO GENERATOR CONTROL PANEL. COORDINATE CABLE TYPES WITH EQUIPMENT VENDORS.
6. CONNECT TO GENERATOR ANNUNCIATOR.
7. REMOTE GENERATOR EPO IN WEATHERPROOF ENCLOSURE.
8. SERVICE ENTRANCE RATED 800A, 208Y/120V CIRCUIT BREAKER IN NEMA 3R ENCLOSURE
9. 24"x4"x1/2" COPPER GROUND BAR. PROVIDE #3/0 BARE CU CABLE TO SERVICE ENTRANCE GROUND.
10. EF-2 MOTOR CONTROLLER.
11. OUTSIDE LIGHTING CONTROL PANEL. INSTALL PHOTOCELL ON THE ROOF AND ROUTE CONDUCTORS IN 1" CONDUIT.
12. POWER FOR IRRIGATION CONTROLLER.
13. STUB 1-1/2" CONDUIT TO EXTERIOR, BELOW GRADE, FOR IRRIGATION CONTROL WIRE.
14. BUILDING MANAGEMENT SYSTEM CONTROL PANEL. PROVIDE WITH TRIPP LITE SMART1000RM1U 1-HOUR UPS.
15. PORTER INDUSTRIAL SUPPLY MODEL SG20NS SIGNAL LIGHT SUPPLIED BY DOOR MANUFACTURER. CONNECT TO OVERHEAD DOOR OPEN CONTACT. PROVIDE MICROFRAME D6330 COUNTDOWN TIMER. CONNECT TIMER TO PANIC BUTTON CONTACT. MOUNT 6' A.F.F.. PROGRAM TIMER TO COUNT DOWN FROM 120 SECONDS UPON PULSE INPUT. CONNECT TO 110V. SEE SCHEMATIC.
16. OVERHEAD DOOR CONTROLLER SUPPLIED WITH DOOR. INSTALLED BY ELECTRICAL CONTRACTOR +54".
17. PROVIDE REELCRAFT SERIES L 5550 123 3A – 12/3 50' PREMIUM DUTY SINGLE RECEPTACLE POWER CORD REEL. SET OUTLET ON CORD REEL 6' A.F.F.. VERIFY FINAL LOCATION WITH FIRE DEPARTMENT.
18. PROVIDE ARROW HART (OR EQUAL) SGFDA20GY REMOTE GFI WITH AUDIBLE ALARM. GFI SHALL PROTECT CORD REEL. MOUNT DEVICES +54".
19. (6) REMOTE OVERHEAD DOOR OPERATORS TO OPEN/CLOSE DOORS INDIVIDUALLY. SUPPLIED BY GENERAL CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR. LABEL EACH SWITCH.
20. DOUBLE POLE DOUBLE THROW MOMENTARY CONTACT PUSH BUTTON. PROVIDE IDENTIFICATION LABEL "GAS SHUT OFF BBQ/STOVE". SEE SCHEMATIC SHEET E501.
21. ELECTRIC WATER COOLER OUTLET. MOUNT OUTLET TO CONCEAL CORD AND PLUG. FOLLOW MANUFACTURERS REQUIREMENTS OF SPECIFIC MODEL INSTALLED. SEE GENERAL NOTES ON SHEET E001.
22. OUTLET FOR MICROWAVE. SEE ARCHITECTURAL PLANS FOR LOCATION.
23. MOMENTARY CONTACT PUSH BUTTON. PROVIDE IDENTIFICATION LABEL "BBQ GAS RESET". SEE SCHEMATIC SHEET E501.
24. MOMENTARY CONTACT PUSH BUTTON. PROVIDE IDENTIFICATION LABEL "STOVE GAS RESET". SEE SCHEMATIC SHEET E501.
25. 120 VOLT STOVE OUTLET AND GAS SOLENOID. SEE SCHEMATIC.
26. QUAD GFI RECEPTACLE WIRED AS TWO SEPERATE CIRCUITS. ONE SHALL BE A SWITCHED OUTLET FOR GARBAGE DISPOSER ,THE OTHER SHALL BE OUTLET FOR DISHWASHER. PROVIDE CORD AND PLUG ON GARBAGE DISPOSER AND DISHWASHER.
27. DRYER. PROVIDE NEMA 14-30R RECEPTACLE WITH 3 #10, 1 #10G IN 3/4" CONDUIT TO PANEL PC.
28. DRYER. PROVIDE NEMA 14-30R RECEPTACLE WITH 3 #10, 1 #10G IN 3/4" CONDUIT TO PANEL PA.
29. 1" UNDERGROUND CONDUIT TO FLOOR BOX.
30. WIREMOLD RFB44R30OG FPBTCNK WITH (1) DUPLEX OUTLET WITH USB. COORDINATE WITH FURNITURE PLAN.
31. DUPLEX RECEPTACLE AND CAGED WALL FAN. MINKA-AIRE F307-BN.
32. SWITCH FOR CONTROL OF FANS.
33. NEMA 1, 30 AMP FUSIBLE DISCONNECT FOR EXTRACTOR. FUSE AT 20 AMP WITH FRS-R FUSES. PROVIDE 3 #12, 1 #12G IN 1/2" CONDUIT TO PANEL PC.
34. NEMA 1, 60 AMP FUSIBLE DISCONNECT FOR SCBA COMPRESSOR. FUSE AT 60 AMP WITH FRS-R FUSES. PROVIDE 3 #6, 1 #10 IN 3/4" CONDUIT TO PANEL PC.
35. NEMA 1, 60 AMP FUSIBLE DISCONNECT FOR AIR COMPRESSOR. FUSE AT 40 AMP WITH FRS-R FUSES. PROVIDE 3 #8, 1 #10G IN 3/4" CONDUIT TO PANEL MA.
36. SEE AUXILIARY PLANS FOR RACK AND CABINET DESCRIPTION.
37. POWER FOR BABY BOX. COORDINATE LOCATION FOR RECEPTACLE WITH BABY BOX INSTALLER PRIOR TO INSTALLATION.
38. DUPLEX RECEPTACLE MOUNTED IN SOFFIT FOR HOLIDAY LIGHTING. PROVIDE WP WHILE IN USE COVER AND PROVIDE CONNECTION TO GFCI CIRCUIT BREAKER IN PANELBOARD.
39. SWITCH FOR CONTROL OF SOFFIT MOUNTED DUPLEX RECEPTACLES. PROVIDE IDENTIFICATION LABEL ABOVE SWITCH IDENTIFYING THE LOAD CONTROLLED AND THE SOURCE OF POWER.
40. POWER FOR DOUBLE OVEN. SEE MANUFACTURERS DRAWINGS FOR EXACT LOCATION.

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Proposed:

CCF&R HOUSE 06

1151 JUNGS STATION RD

No.	Date	Revision

POWER PLAN

Project No. 24057

Sheet No. E201

Date: 2026/06/08

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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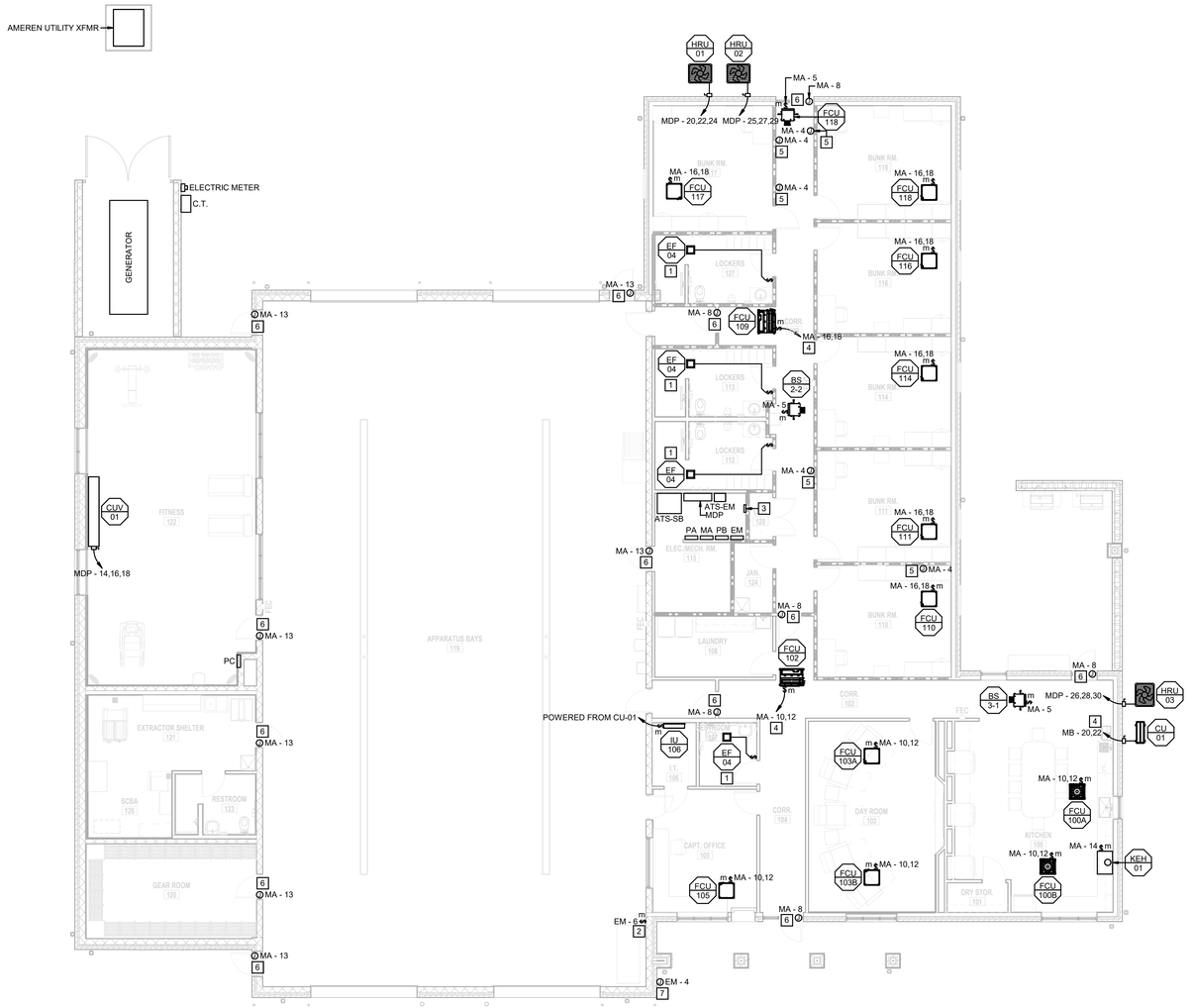
SCALE: 3" = 1'-0" | SCALE: 1 1/2" = 1'-0" | SCALE: 1" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/16" = 1'-0"

SHEET E202 KEYED NOTES

#	
1	CONNECT TO SAME CIRCUIT AS LIGHTING. EXHAUST FAN TO BE CONTROLLED FROM LIGHT FIXTURE VACANCY SENSOR SWITCH.
2	CONNECT TO DRY PIPE SPRINKLER SYSTEM. PROVIDE 2 #12, 1 #12G IN 1/2" CONDUIT TO PANEL EM.
3	EF-2 MOTOR CONTROLLER.
4	PROVIDE 2 #12, 1 #12G IN 1/2" CONDUIT TO PANEL MA.
5	PROVIDE POWER FOR SMOKE DAMPER. CONNECT TO CLOSE UPON FIRE ALARM. PROVIDE 2 #12, 1 #12G IN 1/2" CONDUIT TO PANEL MA.
6	PROVIDE POWER FOR DOOR POWER SUPPLY.
7	PROVIDE POWER FOR WATER GONG.



1 EQUIPMENT POWER PLAN
1/8" = 1'-0"
SCALE: 1/8" = 1'-0"

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1151 JUNGS STATION RD

No.	Date	Revision

EQUIPMENT POWER PLAN

Project No. 24057

Sheet No. E202

Date 2026/06/08

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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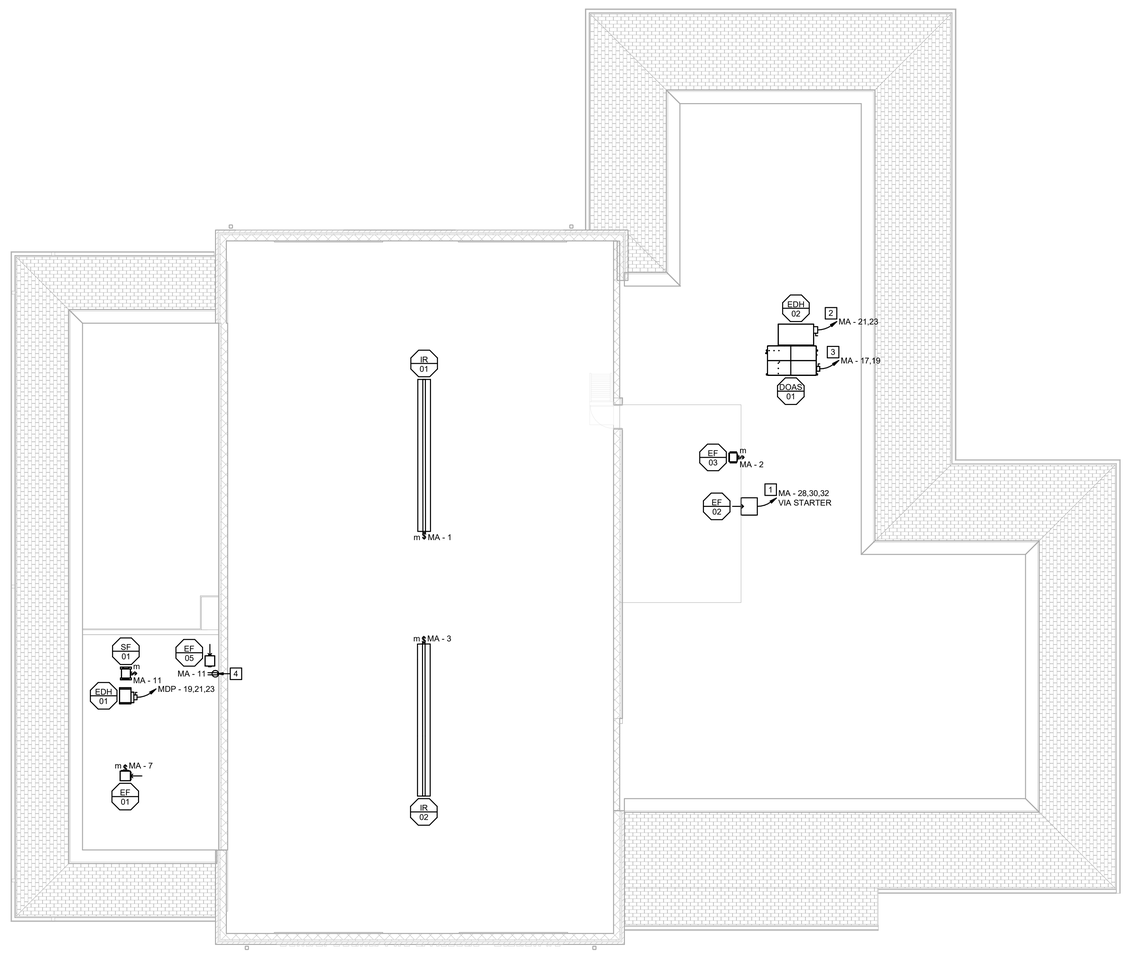
SHEET E203 KEYED NOTES

#	
1	PROVIDE 3 #12, 1 #12G IN 1/2" CONDUIT TO PANEL MA.
2	PROVIDE 2 #4, 1 #8G IN 1" CONDUIT TO PANEL MA.
3	PROVIDE 2 #12, 1 #12G IN 1/2" CONDUIT TO PANEL MA.
4	DUPLEX RECEPTACLE FOR EF-05 POWER.



1 EQUIPMENT POWER ATTIC PLAN
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SCALE: 1/8" = 1'-0"

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Proposed:
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1151 JUNGS STATION RD

No.	Date	Revision

EQUIPMENT POWER ATTIC PLAN

Project No.
24057

Sheet No.
E203

Date
2026/06/08

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
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License No: PE-026961
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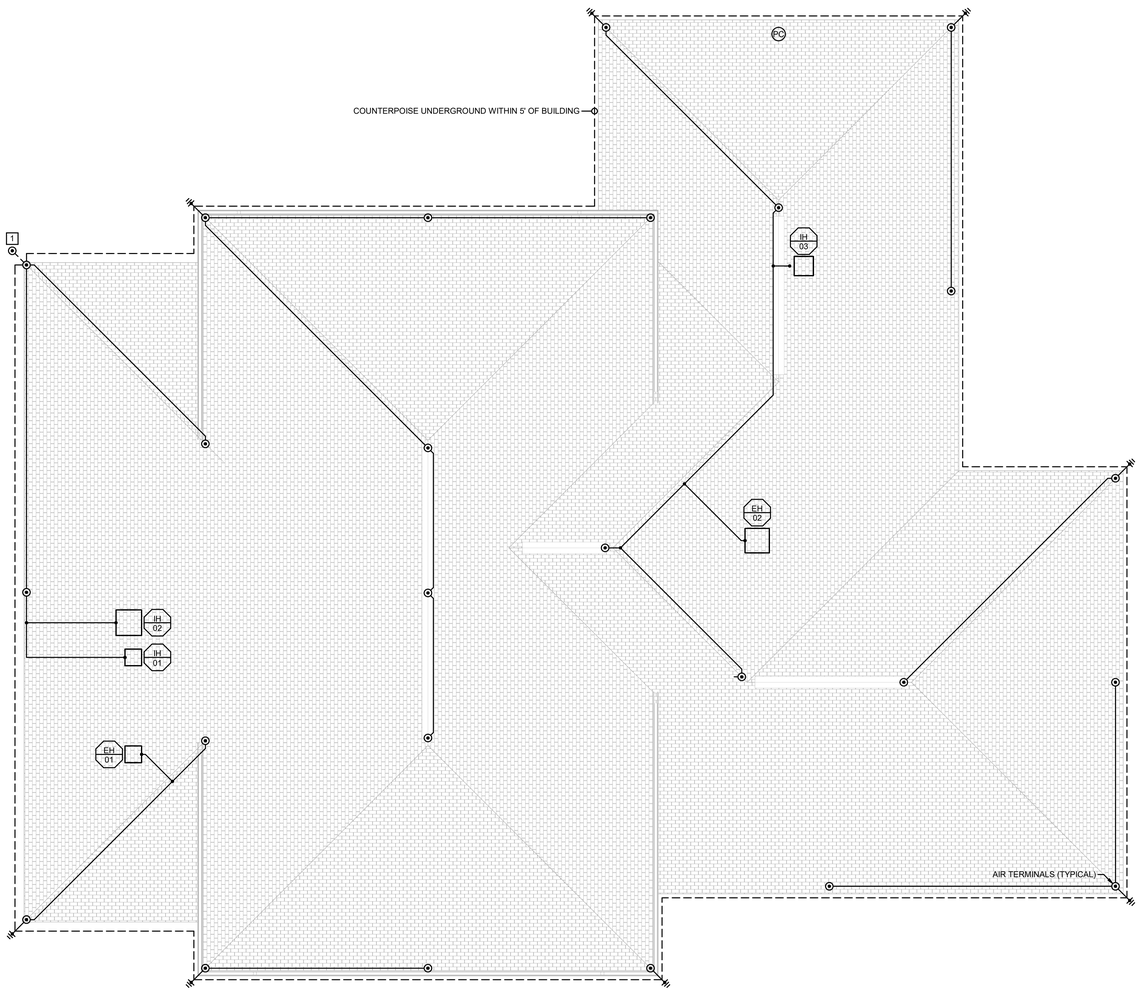

LIGHTNING PROTECTION NOTES:

1. AIR TERMINALS SHALL BE 3/8" x 24" SOLID COPPER.
2. CONDUCTORS SHALL BE MINIMUM #2 AWG STRANDED COPPER AND SHALL INTERCONNECT ALL AIR TERMINALS TO FORM A TWO WAY PATH TO GROUND. MINIMUM CONDUCTOR STRAND SIZE SHALL BE #17 AWG.
3. AIR TERMINALS SHALL BE PLACED ON THE RIDGE AND PERIMETER OF THE ROOFS AT INTERVALS NOT EXCEEDING 25 FEET.
4. AIR TERMINALS SHALL BE PLACED AT OR WITHIN 2 FEET OF THE ENDS OF RIDGES OR EDGES AND CORNERS OF ROOFS.
5. AREAS EXCEEDING 50 FEET IN WIDTH OR SPAN SHALL HAVE ADDITIONAL AIR TERMINALS AT INTERVALS NOT EXCEEDING 50 FEET.
6. CABLE RUNS ACROSS ROOF EXCEEDING 150 FEET SHALL BE CONNECTED TO DOWNLEAD OR PERIMETER CABLE EVERY 150 FEET.
7. AIR TERMINALS SHALL BE PLACED ON ALL CHIMNEYS AND VENTS WITH METAL LESS THAN 3/16" THICK. ALL OTHER VENTS, GUTTERING, DOWNSPOUTS, AND METAL PROTRUSIONS, ONLY BONDING AND GROUNDING ARE REQUIRED.
8. ALL WATER PIPES, TELEPHONE CONDUIT, ELECTRICAL CONDUITS, GAS PIPING, ETC. ENTERING BUILDING SHALL BE BONDED TO THE GROUNDING SYSTEM.
9. AVERAGE DISTANCE BETWEEN DOWN CONDUCTORS SHALL NOT EXCEED 100 FEET.
10. GROUND RODS SHALL BE MINIMUM 1/2" x 8' SOLID COPPER. INSTALL GROUND RODS 2 FEET FROM BUILDING, 10 FEET DEEP.
11. IF RESISTANCE TO GROUND EXCEEDS 10 OHMS, ADDITIONAL GROUND RODS SHALL BE DRIVEN AT NOT LESS THAN 10 FOOT SPACINGS UNTIL THIS VALUE IS REACHED.
12. THIS SYSTEM SHALL COMPLY WITH THE APPROPRIATE PARAGRAPHS OF NFPA 780 AS WELL AS STATE AND LOCAL CODES.
13. PROPOSED SYSTEM POINT TO POINT WIRING DIAGRAMS SHOWING ALL AIR TERMINALS, DOWN CONDUCTORS, WIRE GAUGES AND BONDING POINTS ALONG WITH MATERIAL CATALOG SHEETS SHALL BE SUBMITTED FOR APPROVAL. THIS SUBMITTAL SHALL BE BY AN APPROVED LIGHTNING PROTECTION SYSTEM CONTRACTOR.
14. FINAL SYSTEM SHALL HAVE A MASTER LABEL.
15. ALL DOWN CONDUCTOR CABLES SHALL BE CONCEALED.
16. BOND ALL METAL COMPONENTS INCLUDING PIPES, FANS AND MECHANICAL EQUIPMENT TO THE LIGHTNING PROTECTION SYSTEM. PROVIDE AIR TERMINALS TO PROVIDE PROTECTION FOR ALL EXHAUST FANS AND MECHANICAL EQUIPMENT MOUNTED ON THE ROOFTOP.

SHEET E204 KEYED NOTES

1 LOCATE GROUNDING ACCESS WELL HERE. SEE GROUNDING DETAIL ON SHEET E602.

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

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ROOF EQUIPMENT POWER PLAN

Project No.
24057

Sheet No.
E204

Date
2026/06/08

STATE OF MISSOURI
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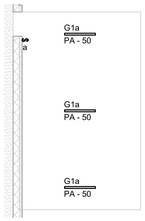
SHEET E301 KEYED NOTES

#	
1	FIXTURE CONTROLLED FROM UL924 RELAY TO SWITCH EMERGENCY LIGHTS WITH NORMAL LIGHTS.
2	PROVIDE VISUAL COMFORT 3MAVSM44RZW MAVERICK SMART 44 MATTE WHITE CEILING FAN.
3	PROVIDE VISUAL COMFORT 3MGMR52RZW MAVERICK COSTAL 52 MATTE WHITE CEILING FAN.
4	PROVIDE VISUAL COMFORT 3MAVR60RZW MAVERICK 60 MATTE WHITE CEILING FAN.
5	SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.
6	SIGNAL LIGHT SUPPLIED BY DOOR MANUFACTURER, CONNECT TO OVERHEAD DOOR OPEN CONTACT. PROVIDE MICROFRAME DI5330 COUNTDOWN TIMER. CONNECT TIMER TO PANIC BUTTON CONTACT. MOUNT 6' A.F.F.. PROGRAM TIMER TO COUNT DOWN FROM 120 SECONDS UPON PULSE INPUT. SEE CLEAR TO EXIT SIGNAL WIRING DIAGRAM ON SHEET E502.
7	RITE HITE REVOLUTION 75 SERIES 8' DIAMETER, 3'-6" DROP HEIGHT, 208 VOLT SINGLE PHASE, CUSTOM FINISH (RAL 3001 SIGNAL RED) WITH FAN COMMANDER 2.0 CONTROLLER. FIRE SIGNAL FROM FIRE ALARM SYSTEM SHALL DE-ENERGIZE THE FAN.
8	RITE HITE FAN COMMANDER 2.0 CONTROLLER FOR APPARATUS BAY FANS. PROGRAM FANS ON SEPARATE ZONES. ONE CONTROLLER FOR 2 FANS.
9	NEMA L6-30R RECEPTACLE FOR FAN POWER. CONNECT FIRE ALARM SIGNAL TO FAN TO TURN OFF DURING AN ALARM. PROVIDE 2 #10. 1 #10G IN 3/4" CONDUIT TO PANEL MA.
10	OUTSIDE LIGHTING CONTROL PANEL. INSTALL PHOTOCELL ON NORTHEAST CORNER OF BUILDING NEAR ROOF.
11	MYERS 1-IE-3-S-R120-BD2004-CSZ-BIP 3kW SHELTER LIGHTING INVERTER.
12	CONNECT ALL LIGHTING IN EXTRACTOR SHELTER 121 AND RESTROOM 123 TO SHELTER LIGHTING INVERTER.
13	PATIO LIGHTING CONTROLLED FROM OUTSIDE LIGHTING CONTROL PANEL AND SWITCH. (FANS ARE NOT CONTROLLED FROM OUTSIDE LIGHTING CONTROL PANEL).
14	SWITCHES FOR CONTROL OF BAY LIGHTING SHOWN ON MEZZANINE LEVEL.
15	SURE-LITES SELW25BK EMERGENCY LIGHT ABOVE GENERATOR CONTROL PANEL. CONNECT TO SAME CIRCUIT AS BATTERY CHARGER.
16	SURE-LITES SELW25BK EMERGENCY LIGHT MOUNTED 8' A.F.F.. CONNECT TO SAME CIRCUIT AS LIGHTS IN ROOM.



2 ATTIC LIGHTING PLAN
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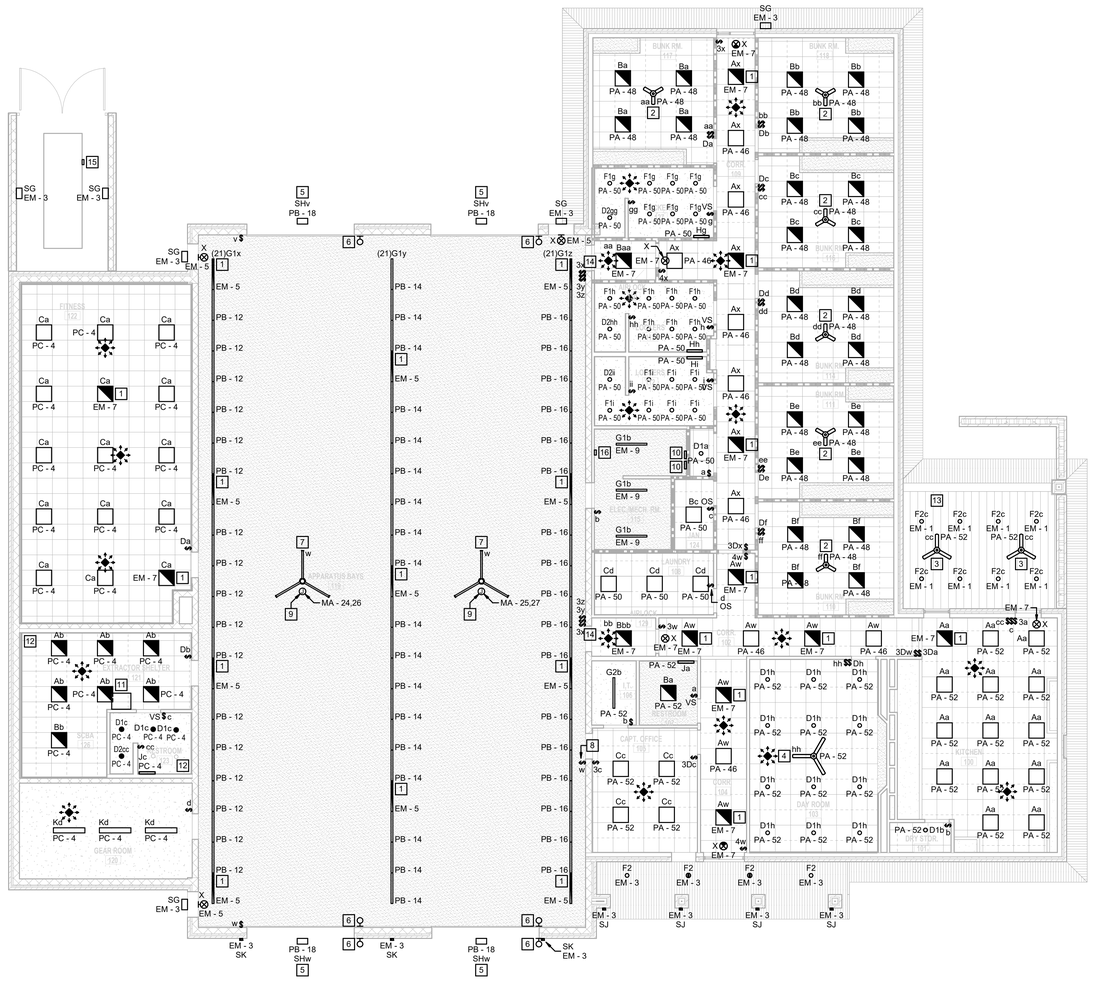
SCALE: 1/4" = 1'-0"



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

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No.	Date	Revision

LIGHTING PLAN

Project No.
24057

Sheet No.
E301

Date
2026/06/08

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
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LOW VOLTAGE SCOPE OF WORK RESPONSIBILITY MATRIX

NETWORK EQUIPMENT AND HARDWARE

HARDWARE	PURPOSE	PROVIDED BY	INSTALLED BY
Network Rack / Cabinet (1)	Mount Network Equipment and Wiring	FeatherShark	Div 27 Contractor
Unifi U7 Pro Access Points (4)	Provide WiFi to Building	FeatherShark	Div 27 Contractor
Unifi U7 Pro Max (2)	Beam to the Maintenance Building	FeatherShark	Div 27 Contractor
Unifi Dream Machine Pro (1)	Runs Internal Network	FeatherShark	FeatherShark
Unifi Pro Switches (2x24)	Runs Internal Network	FeatherShark	FeatherShark
Unifi Patch Cables (1x48)	Uplink Patch Panel Cat6 Ports to each Switch	FeatherShark	FeatherShark
Network UPS / Battery Backup (1)	Power backup for Network Equipment	FeatherShark	FeatherShark
VoIP Phones (TBD)	Telecomm Service for the Building	FeatherShark	FeatherShark
Patch Panel	Consolidate and Organize Network Wiring	Div 26 Contractor	Div 27 Contractor
Wall and Floor Jacks	Terminate Network Wiring	Div 26 Contractor	Div 27 Contractor
Cat6 Cabling	Network Wiring	Div 26 Contractor	Div 27 Contractor

DOOR ACCESS AND GATES

HARDWARE	PURPOSE	PROVIDED BY	INSTALLED BY
Unifi Reader Pro	Keypad Readers for Exterior Doors	FeatherShark	Div 27 Contractor
Unifi Enterprise Access Hub	Manage Door Access and Door Strikes	FeatherShark	Div 27 Contractor
Unifi Reader Pro Junction Box	Mount Exterior Keypad Readers	FeatherShark	Div 27 Contractor
Unifi Intercom Viewer	View and Allow Entry to Visitors	FeatherShark	Div 27 Contractor
Electronic Door Strikes / Contacts	Connect Door Latches to Door Access System	Div 26 Contractor	Div 27 Contractor
18/4 Cabling	Door Strike Wiring	Div 26 Contractor	Div 27 Contractor
Cat6 Cabling	Door Equipment Wiring	Div 26 Contractor	Div 27 Contractor

TV MONITORS

HARDWARE	PURPOSE	PROVIDED BY	INSTALLED BY
Samsung 55" TV	Apparatus Bay - LiveDash	FeatherShark	Div 27 Contractor
Samsung 43" TV	Hallway - LiveDash	FeatherShark	Div 27 Contractor
Full Articulating TV Mount	Mount Multi Purpose TVs to Wall Locations	FeatherShark	Div 27 Contractor

SHEET E401 KEYED NOTES

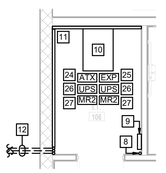
#	
1	SEE LARGE SCALE PLAN THIS SHEET FOR MORE INFORMATION.
2	SMOKE DETECTOR SHALL BE SUPPLIED WITH LOCAL SOUNDER BASE (520 Hz).
3	FLUSH MOUNTED GENERATOR ANNUNCIATOR PANEL.
4	FLUSH MOUNTED FIRE ALARM ANNUNCIATOR PANEL.
5	POST INDICATOR VALVE. SEE CIVIL PLANS FOR EXACT LOCATION.
6	ELECTRONIC WATER GONG PROVIDED BY FIRE PROTECTION CONTRACTOR INSTALLED BY DIVISION 26 CONTRACTOR. REFER TO SHEET E202 FOR POWER CIRCUIT.
7	CONNECT MONITOR MODULE AND SMOKE DETECTION AS REQUIRED TO DRY PIPE SPRINKLER SYSTEM ALARM, SUPERVISORY AND TROUBLE ALARMS. COORDINATE WITH DRY PIPE SPRINKLER VENDOR CONTRACTOR.
8	PROVIDE 1" CONDUIT WITH STARLINK PROPRIETARY POWER AND DATA COMBINED CABLE TO EXTERIOR EVE FOR CONNECTION TO OWNER SUPPLIED AND CONTRACTOR INSTALLED STARLINK ANTENNA.
9	BUILDING MANAGEMENT SYSTEM CONTROL PANEL BY DIVISION 23 CONTRACTOR.
10	RACK AND CABINET FURNISHED BY FEATHERSHARK AND INSTALLED BY DIVISION 27 CONTRACTOR. UPS PROVIDED BY FEATHERSHARK. 48 PORT, CAT6 PATCH PANEL PROVIDED BY DIVISION 27 CONTRACTOR.
11	3/4" FIRE RATED PLYWALL ON WALL. PAINT WHITE EXCEPT FIRE LABEL.
12	(3) 2" CONDUITS WITH PULL STRING FOR CATV, FIBER AND PHONE TO PROPERTY LINE. SEE SHEET E101 FOR CONTINUATION.
13	DATA FOR HVAC CONTROLLER, COORDINATE LOCATION WITH DIVISION 23 CONTRACTOR.
14	PROVIDE FACP CAPABILITY TO COMMUNICATE TO A CENTRAL STATION. NOTE THAT INITIAL SYSTEM OPERATION WILL NOTIFY LOCALLY ONLY AND WILL NOT REPORT TO A CENTRAL STATION.
15	PROVIDE AN 18/4 SHIELDED PLENUM CABLE FROM THE BABY BOX ALARM TO THE IT ROOM FOR MONITORING OF THE BABY BOX.
16	G2 ROOM REMOTE 2. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
17	G2 LED FLUSH MOUNT SPEAKER. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
18	FLUSH MOUNT SPEAKER. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
19	BOGAN WEATHERPROOF SPEAKER. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
20	G2 OMNI ALERT STROBE SPEAKER. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
21	METAL BOX SPEAKER. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
22	G2 STROBE LIGHT. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
23	SPEAKER VOLUME CONTROL. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
24	ATX STATION CONTROLLER. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
25	ATX EXPANSION MODULE. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
26	CYBER POWER UPS BATTERY BACKUP. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.
27	G2 I/O REMOTE. SEE AUXILIARY DETAILS SHEETS E402 AND E403 FOR MORE DETAIL.

FIRE ALARM SYSTEM FUNCTION CHART

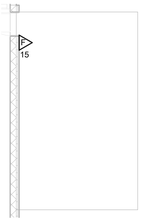
The System will Function as Shown in the Function Chart Below:

FIRE ALARM SYSTEM FUNCTION CHART — OUTPUT \ INPUT	Smoke Detector(s) (General Area)	Duct Detector(s)	Manual Pull Station(s	Waterflow Switch(es)	Tamper Switch(es	Any Trouble on System	PIV	Manual Pull Station(s) (Kitchen Hood)	Smoke Detector Bunk Room	Bunk Rm Carbon Monoxide Detector		
Annunciate Zone/Device on Fire Alarm Control Panel/Annunicators	●	●	●	●	●	●	●	●	●	●		
Activate Digital Communicator Contact for Alarm Condition	●	○	●	●	○	○	○	●	○	●		
Activate Digital Communicator Contact for Trouble Condition	○	○	○	○	○	●	○	○	○	○		
Activate Digital Communicator Contact for Supervisory Condition	○	●	○	○	●	○	●	○	●	○		
Activate Audible/Visual Devices	●	○	●	●	○	○	○	○	○	●		
Shutdown Air Handler Unit(s) (RTU, OA, FCU's)	●	●	●	●	○	○	○	○	○	●		
Activate Smoke Detector Sounder Base	○	○	○	○	○	○	○	○	●	○		
Close Smoke Dampers	●	●	●	●	○	○	○	●	○	○		
Activate Exterior Horne/Strobe	○	○	○	●	○	○	○	○	○	○		
Shutdown Power To Cooking Appliances Under Hood	○	○	○	○	○	○	○	●	○	○		
Shutdown Power To Kitchen Hood Lighting	○	○	○	○	○	○	○	●	○	○		
Shutdown Power To Kitchen Hood Makeup Air Unit	○	○	○	○	○	○	○	●	○	○		
Shutdown Gas to Affected Cooking Lines	○	○	○	○	○	○	○	●	○	○		
Signal Access Control Power Supplies to unlock Path of Egress Doors	●	●	●	●	○	○	○	●	●	○		

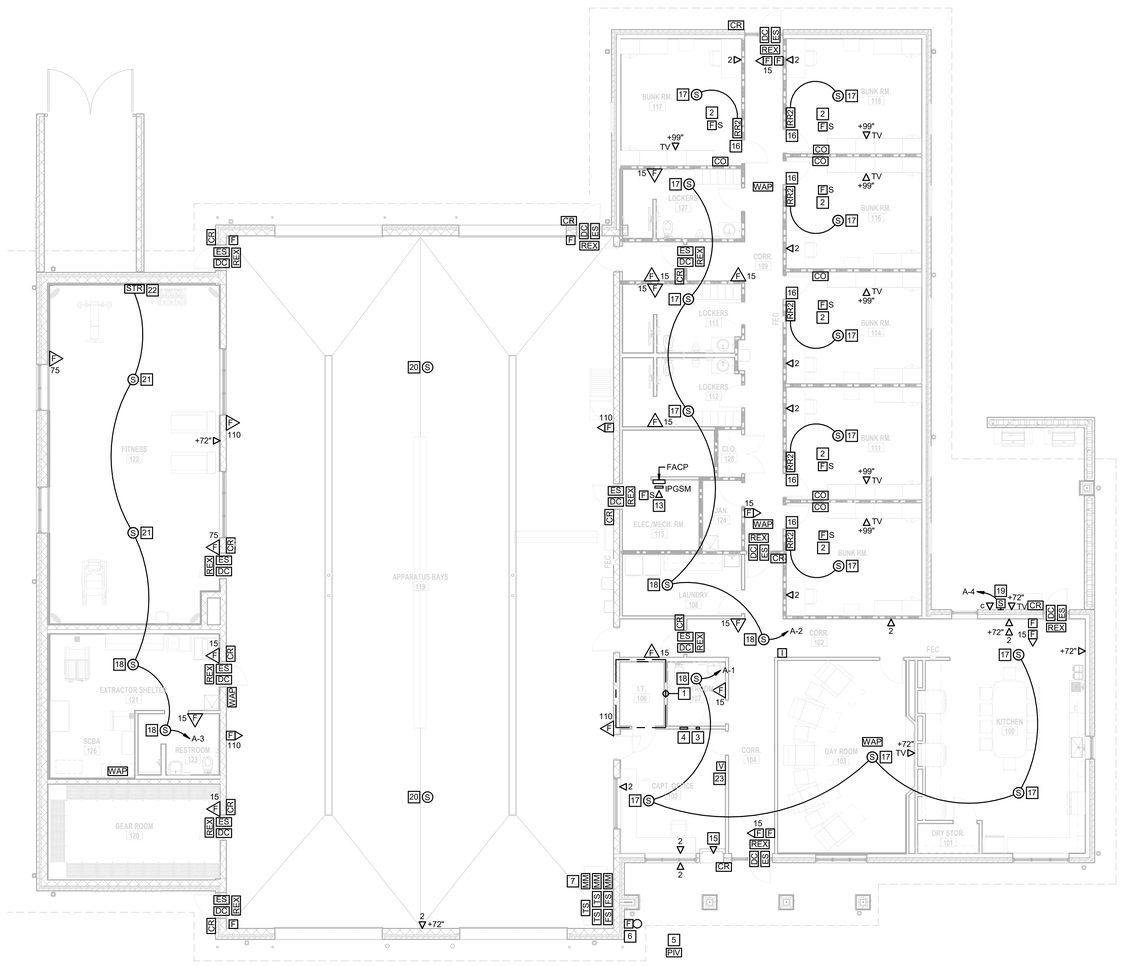
14



2 LARGE SCALE I.T. 106 AUXILIARY PLAN
1/4" = 1'-0" 0 2'-0" 4'-0" 8'-0"
SCALE: 1/4" = 1'-0"



3 ATTIC AUXILIARY PLAN
1/8" = 1'-0" 0 2'-0" 4'-0" 8'-0"
SCALE: 1/4" = 1'-0"



1 AUXILIARY PLAN
1/8" = 1'-0" 0 4'-0" 8'-0" 16'-0"
SCALE: 1/8" = 1'-0"

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Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

AUXILIARY PLAN

Project No.
24057

Sheet No.
E401

Date
2026/06/08

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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Cat6 Wall Jack
Cat6 Wall Dual
Cat6 Wall Quad
Cat6 Floor Dual
Cat6 Floor Quad
Cat6 Wall Dual mounted TV Height
Access Point - Unifi U7
1 U7 Pro Max in the Bay will be wall mounted 12'-14' high for easier servicability.
Main Data Closet - IT 106
Addtl Data Closet
Starlink Antenna
Soffit Mounted - NW Pointing

FeatherShark

Central Couty Fire
New- - Station 6
Version - 01
Network

Station 6 NETWORK NOTES

- Cat6 Wall Locations to be terminated into a standard wall plate at Desk height and home run to the main IT Room (106)
- Cat6 TV locations as indicated to have Cat6 drop TV height and home run to the main IT Room (106)
- Access Points will be ceiling mounted with Cat6 that home runs to the main IT Room (106). With the EXCEPTION of the apparatus bay AP, this on will be wall mounted at 12-14 ft high (allows for easier serviceability).
- Drawing assumes Cat6 cabling is included at all needed Phone locations, both desk phones and wall mount phones where needed
- ALL Cat6 Cabling to home run in Patch Panel

HARDWARE Customer Supplied, Contractor Installed

- Network Rack for Main IT Closet
- Wireless Access Points

HARDWARE Customer Supplied, Customer (FeatherShark) Installed

- Network Router
- Network Switches
- Phone Hardware
- Network UPS

Hardware Contractor Supplied, Contractor Installed

- Cabling, Mounts, Hooks
- Patch Panel for all needed wiring

Station 6 DOOR ACCESS NOTES

- Any door with an electronic lock will need 18/4 cable from the strike to the IT Room (106).
- Readers will need Cat6 Cabling that home runs to the main IT Room (106)
- Intercom Viewers will be wall-mounted in the hallway and need Cat6 cabling that home runs to the main IT Room (106)
- ALL Cat6 Cabling to home run in Patch Panel

HARDWARE Customer Supplied, Contractor Installed

- Door Readers
- Door Reader Junction/Mounting Boxes
- Intercom Viewer

Hardware Contractor Supplied, Contractor Installed

- Cabling, Mounts, Hooks
- Electronic Door Strikes (must be 12V1A compatable)

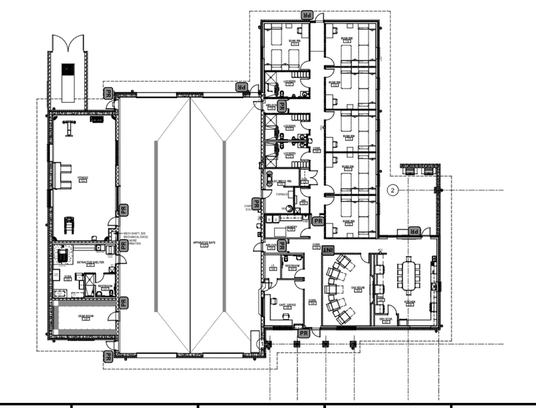
Station 6 TVS FOR IT USAGE NOTES

- Locations marked for LiveDash will need Cat6 cabling that home runs to the Main IT Room (106) as noted in the Network page

HARDWARE Customer Supplied, Contractor Installed

- TVs
- TV Mounts

HQ Building			
Network Equipment and Hardware			
Hardware	**Purpose**	**Provided By**	**Installed By**
Network Rack / Cabinet (1)	Mount Network Equipment and Wiring	FeatherShark	Electrical Contractor
Unifi U7 Pro Access Points (4)	Provide WiFi to Building	FeatherShark	Electrical Contractor
Unifi U7 Pro Max (2)	Beam to the Maintenance Building	FeatherShark	Electrical Contractor
Unifi Dream Machine Pro (1)	Runs Internal Network	FeatherShark	FeatherShark
Unifi Pro Switches (2x24)	Runs Internal Network	FeatherShark	FeatherShark
Unifi Patch Cables (1x48)	Uplink Patch Panel Cat6 Ports to each Switch	FeatherShark	FeatherShark
Network UPS / Battery Backup (1)	Power backup for Network Equipment	FeatherShark	FeatherShark
VoIP Phones (TBD)	Telecomm Service for the Building	FeatherShark	FeatherShark
Patch Panel	Consolidate and Organize Network Wiring	Electrical Contractor	Electrical Contractor
Wall and Floor Jacks	Terminate Network Wiring	Electrical Contractor	Electrical Contractor
Cat6 Cabling	Network Wiring	Electrical Contractor	Electrical Contractor
Door Access and Gates			
Hardware	**Purpose**	**Provided By**	**Installed By**
Unifi Reader Pro	Keypad Readers for Exterior Doors	FeatherShark	Electrical Contractor
Unifi Enterprise Access Hub	Manage Door Access and Door Strikes	FeatherShark	Electrical Contractor
Unifi Reader Pro Junction Box	Mount Exterior Keypad Readers	FeatherShark	Electrical Contractor
Unifi Intercom Viewer	View and Allow Entry to Visitors	FeatherShark	Electrical Contractor
Electronic Door Strikes / Contacts	Connect Door Latches to Door Access System	Electrical Contractor	Electrical Contractor
18/4 Cabling	Door Strike Wiring	Electrical Contractor	Electrical Contractor
Cat6 Cabling	Door Equipment Wiring	Electrical Contractor	Electrical Contractor
TV Monitors			
Hardware	**Purpose**	**Provided By**	**Installed By**
Samsung 55" TV	Apparatus Bay - LiveDash	FeatherShark	Electrical Contractor
Samsung 43" TV	Hallway - LiveDash	FeatherShark	Electrical Contractor
Full Articulating TV Mount	Mount Multi Purpose TVs to Wall Locations	FeatherShark	Electrical Contractor

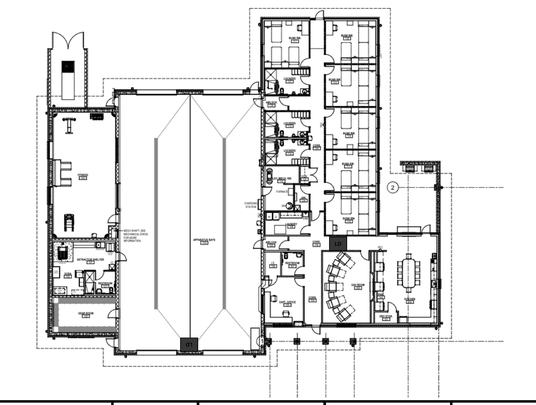


FeatherShark

Central County Fire
New - Station 6
Version - 01
Door Access

All Door Access will be homerun to the IT Room for connection to the Door Contoller.
Door Readers - Cat6
Strike Locks - 18/4

CR Card Reader
KR Keypad Reader
PR Reader Pro
INT Intercom/ Viewer



FeatherShark

Central County Fire
New - Station 6
Version - 01
TVs for IT use

43" Hallway - 120v
Outlet hieght ~72"

55" Bay - 120v Outlet height ~84"

LD LiveDash TV

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Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

FEATHERSHARK DETAILS

Project No.
24057

Sheet No.
E402

Date
2026/06/08

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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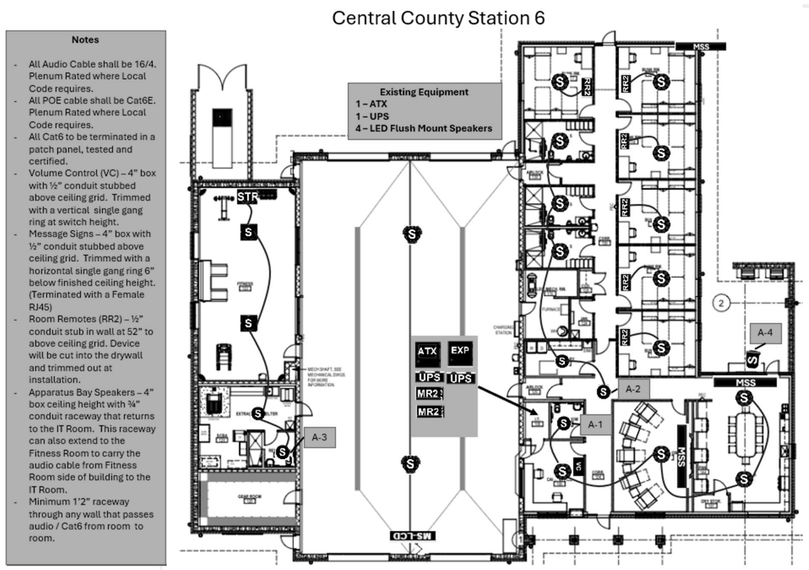
Central County Station 6

Notes

- All Audio Cable shall be 16/4. Plenum Rated where Local Code requires.
- All POE cable shall be Cat6E. Plenum Rated where Local Code requires.
- All Cat6 to be terminated in a patch panel, tested and certified.
- Volume Control (VC) – 4" box with ½" conduit stubbed above ceiling grid. Trimmed with a vertical single gang ring at switch height.
- Message Signs – 4" box with ½" conduit stubbed above ceiling grid. Trimmed with a horizontal single gang ring 6" below finished ceiling height. (Terminated with a Female RJ45)
- Room Remotes (RR2) – ½" conduit stub in wall at 52" to above ceiling grid. Device will be cut into the drywall and trimmed out at installation.
- Apparatus Bay Speakers – 4" box ceiling height with ¾" conduit raceway that returns to the IT Room. This raceway can also extend to the Fitness Room to carry the audio cable from Fitness Room side of building to the IT Room.
- Minimum 1'2" raceway through any wall that passes audio / Cat6 from room to room.



FeatherShark

Client Name
Central County

Project Name
Station 6 Station Alerting

Version / Revision
Version 1
5/26/26

DEVICE NAME	PLAN DESIGNATOR	USGD DESIGN SYMBOL	PICTURE	MOUNTING OPTIONS	PRODUCT DIMENSIONS	MOUNTING HEIGHT	CONDUIT NEEDS	BOX NEEDS
ATX Station Controller	ATX	ATX		Rack-Mounted or Wall Mounted	17.25" x 17.50" x 6.06"	Determined by Installer / Customer	2" Sleeve piped to above mounting location	N/A
ATX Expansion Module	ATX-EXP	EXP		Rack-Mounted or Wall Mounted	17.25" x 17.50" x 6.06"	Determined by Installer / Customer	2" Sleeve piped to above mounting location	N/A
CyberPower UPS Battery Backup	UPS	UPS		Rack-Mounted or Wall Mounted	3.90" x 11.00" x 14.00"	Determined by Installer / Customer	N/A	N/A
Extron Amplifier	AMP	AMP		Rack-Mounted or Wall Mounted	8.70" x 1.70" x 9.50"	Determined by Installer / Customer	**Utilizes 2" ATX sleeve	N/A
G2 I/O Remote	I/0	MR2		Rack-Mounted or Wall Mounted	6.75" x 2.00" x 9.75"	Determined by Installer / Customer	**Utilizes 2" ATX or EXP sleeve	N/A
G2 Message Remote 2	MR2	I/O		Rack-Mounted or Wall Mounted	6.50" x 2.00" x 6.00"	Determined by Installer / Customer	**Utilizes 2" ATX or EXP sleeve	N/A
G2 Message Sign	GSS	GSS		Apparatus Bay	24.80" x 3.70" x 1.60"	9.00' AFF	3/4" EMT	Single gang box, vertical
G2 Message Sign	GSS	GSS		Interior Wall	24.80" x 3.70" x 1.60"	6.00" from top of door frame or 12.00" from finished ceiling when not above door	3/4" EMT stub to accessible ceiling	Single gang box, horizontal
G2 Strobe Light	STR	STR		Interior Wall	8.00" x 6.00" x 2.40"	12.00" from finished ceiling	3/4" EMT stub to accessible ceiling	Single gang box, vertical
Push Button (Red)	PB-R	PB		ANY	Button is mounted direct to a single gang face plate	Switch height	3/4" EMT stub to accessible ceiling	Single gang box, vertical
Push Button (Black)	PB-B	PB	Same as above Only in Red	ANY	Button is mounted direct to a single gang face plate	Switch height	3/4" EMT stub to accessible ceiling	Single gang box, vertical
G2 Room Remote 2	RR2	RR2		ALL	11.20" x 8.20" x 1.90"	52" AFF; Rough-In Box 4-6" away from any light switch	3/4" EMT stub to accessible ceiling	4-Gang Box (RACO #943 - 2.5"D) w/ mud ring
G2 HDTV Remote	TVR	TVR		Wall	3.60" x 1.20" x 2.90"	First Option: Flush to wall behind television Second option: Mount near an existing or new outlet on wall or above ceiling	3/4" EMT stub to accessible ceiling	N/A
G2 Color Indicator Remote	CIR	CIR		Apparatus Bay (wall oft column)	9.50" x 4.75" x 1.10"	16.00' AFF	3/4" EMT	4-Gang Box (RACO #943 - 2.5"D) w/ mud ring
G2 Color Indicator Remote	CIR	CIR		Interior Wall	9.50" x 4.75" x 1.10"	12.00" from finished ceiling	3/4" EMT stub to accessible ceiling	4-Gang Box (RACO #943 - 2.5"D) w/ mud ring
Bogan Weatherproof Speaker	S	S		Apparatus Bay	9.00" x 8.00"	12.00' AFF	3/4" EMT	Single gang box, vertical
G2 LED Flush Mount Speaker	S	S		Drop Ceiling	12 5/8" Diameter	Determined by Installer / Customer	N/A	**For installation in hard ceiling only, requires backbox (Bogen #RE84 & TB8)
Flush Mount Speaker	S	S		Drop Ceiling	12 5/8" Diameter	Determined by Installer / Customer	N/A	**For installation in hard ceiling only, requires backbox (Bogen #RE84 & TB8)
G2 LED Metal Box Speaker	S	S	Same as below with LED ring	Interior Wall or Hard Ceiling	12.00" x 12.00"	Determined by Installer / Customer	3/4" EMT stub to accessible ceiling	N/A
Metal Box Speaker	S	S		Interior Wall or Hard Ceiling	12.00" x 12.00"	Determined by Installer / Customer	3/4" EMT stub to accessible ceiling	N/A
G2 Omni Alert Strobe Speaker	S	S		Apparatus Bay	13-inches high x 15-inches diameter	Determined by Installer / Customer	3/4" EMT	N/A

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1151 JUNGS STATION RD

No.	Date	Revision

FEATHERSHARK DETAILS

Project No.
24057

Sheet No.
E403

Date
2026/06/08

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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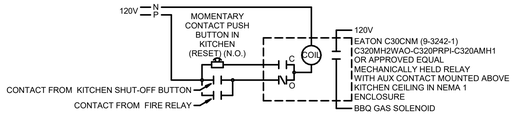

BBQ SHUT-OFF

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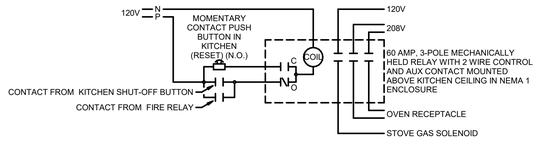
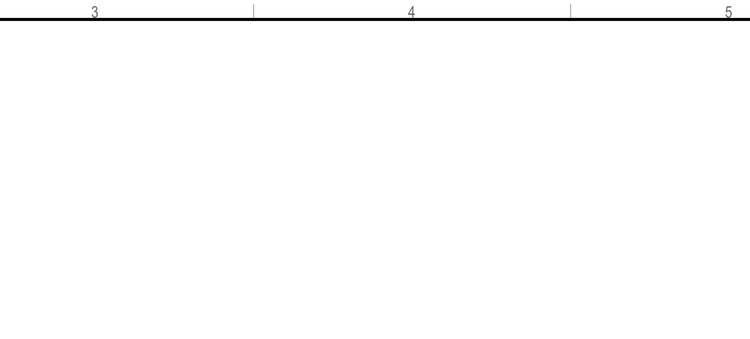


OVEN & STOVE SHUT-OFF

SCALE: N.T.S.

TYPICAL OCCUPANCY SENSOR SCHEMATIC

SCALE: N.T.S.

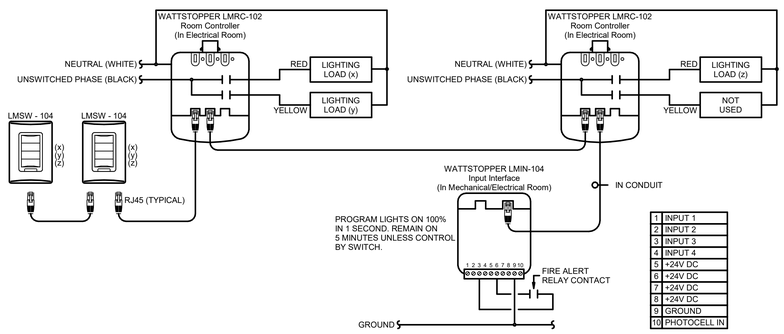


TYPICAL BUNK ROOM LIGHTING CONTROL WIRING DIAGRAM

SCALE: N.T.S.

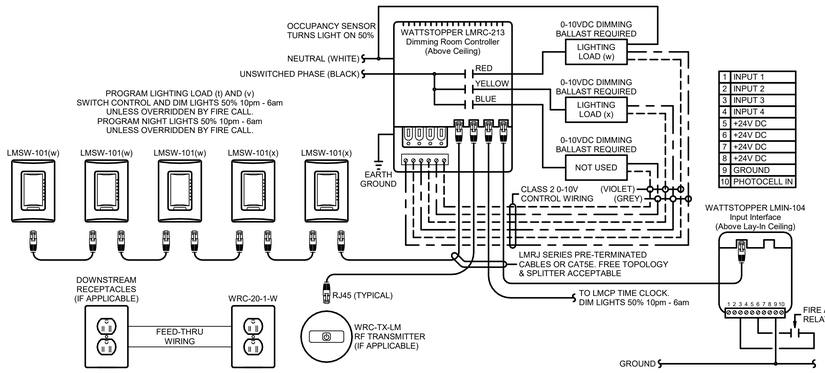
GEAR ROOM LIGHTING CONTROL WIRING SCHEMATIC

SCALE: N.T.S.



APPARATUS BAY LIGHTING CONTROL WIRING SCHEMATIC

SCALE: N.T.S.



TYPICAL CORRIDOR LIGHTING CONTROL WIRING DIAGRAM

SCALE: N.T.S.

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Proposed: CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Revision	Date

ELECTRICAL DETAILS AND SCHEMATICS

Project No. 24057

Sheet No. E501

Date 2026/06/08

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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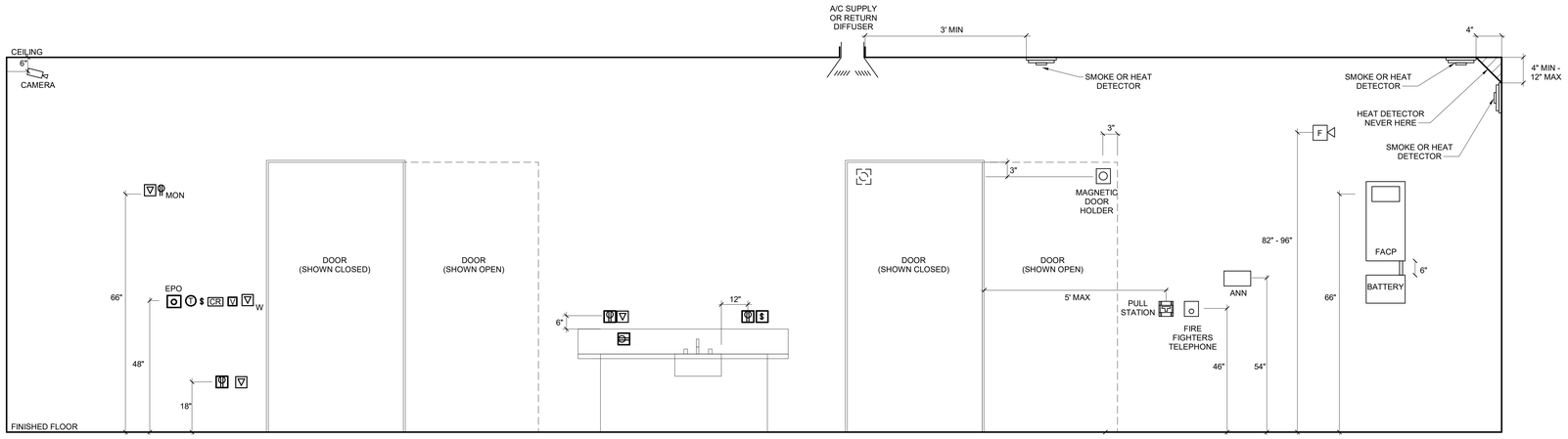
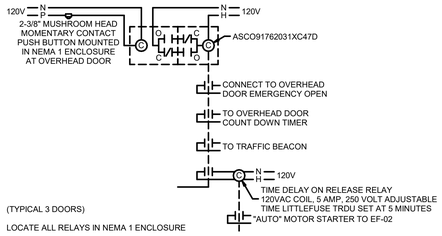


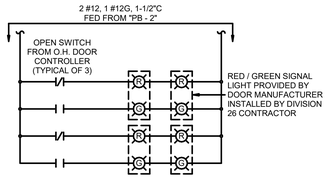
DEVICE MOUNTING NOTES:

1. ALL RECEPTACLES INSTALLED WITHIN 6'-0" OF THE EDGE OF ANY SINK OR BASIN SHALL HAVE GFI PROTECTION. DO NOT INSTALL RECETPACLES WITHIN 12" OF THE EDGE OF A SINK OR BASIN.
2. COORDINATE WITH THE TELECOMMUNCATIONS DRAWINGS TO ENSURE THAT A RECEPTACLE INSTALLED WITHIN 18" HORIZONTAL TO ALL SIGNAL AND DATA DEVICE LOCATIONS.
3. COORDINATE MOUNTING LOCATION WITH OTHER TRADES TO ENSURE A COMMON MOUNTING HEIGHT, UNIFORM SPACING AND AESTHETICALLY PLEASING APPEARANCE.
4. WIRING DEVICES MOUNTING HEIGHT INDICATED IN LEGEND AND ON THE DRAWINGS SHALL BE THE DISTANCE MEASURED FROM THE CENTER OF THE DEVICE TO THE FINISHED FLOOR.
5. COORDINATE ABOVE COUNTER ("AC") WIRING DEVICES WITH CASEWORK, COUNTERS AND BACKSPLASH SUCH THAT THE DEVICES AND RECEPTACLES ARE LOCATED AT +42" AFF OR 6" ABOVE THE COUNTERTOP OR BACKSPLASH, WHICHEVER IS HIGHER. WIRING DEVICES IDENTIFIED AS "HZ" SHALL BE HORIZONTALLY-INSTALLED WITHIN THE BACKSPLASH OR APPLICABLE MOUNTING MEDIUM AND VERTICALLY-CENTERED.
6. SWITCHES AND OTHER FLUSH WALL-MOUNTED DEVICES SHALL BE MOUNTED WITHIN 24" OF DOORFRAME. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR DOORS WITH SIDELITES. WHERE DEVICES ARE TO BE INSTALLED ON A WALL ADJACENT- AND PERPENDICULAR- TO THE DOORFRAME, MOUNT THE DEVICE 12" BEYOND THE DOOR SWING EXTENT. COORDINATE ROUGH-IN LOCATIONS WITH DIV. 27 AND 28 DEVICES.
7. NOTIFICATION DEVICE SHALL BE MOUNTED SO THE ENTIRE LENSE IN BETWEEN 80" AND 96" ABOVE FINISHED FLOOR, IF THE CEILING IS LESS THAN 96" THE DEVICE SHOULD BE MOUNTED 6" BELOW THE CEILING.
8. COORDINATE MOUNTING HEIGHT FOR AV MONITOR WIRING DEVICES WITH MOUNTING BRACKET.

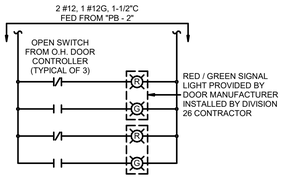
TYPICAL WALL DEVICE MOUNTING DETAIL
SCALE: N.T.S.



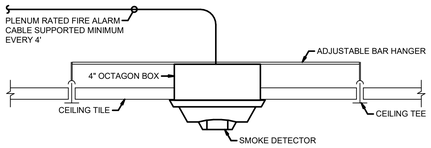
OVERHEAD DOOR PANIC SCHEMATIC
SCALE: N.T.S.



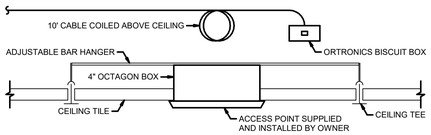
REAR OVERHEAD DOOR CLEAR TO EXIT SIGNAL WIRING DIAGRAM
SCALE: N.T.S.



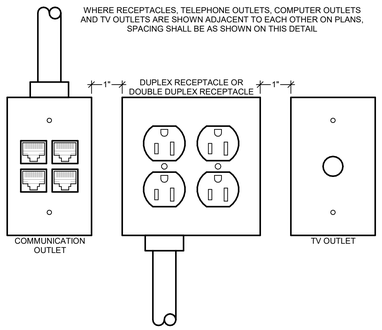
FRONT OVERHEAD DOOR CLEAR TO EXIT SIGNAL WIRING DIAGRAM
SCALE: N.T.S.



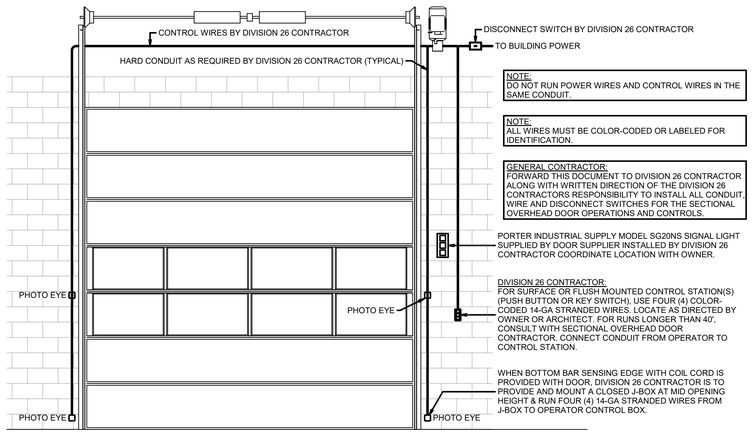
TYPICAL SMOKE DETECTOR INSTALLATION DETAIL
SCALE: N.T.S.



TYPICAL WIRELESS ACCESS POINT (WAP) INSTALLATION DETAIL
SCALE: N.T.S.



MULTIPLE OUTLET INSTALLATION
SCALE: N.T.S.



OVERHEAD DOOR CONNECTION DETAIL
SCALE: N.T.S.

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
CCF&R HOUSE 06
1151 JUNGS STATION RD

No.	Date	Revision

ELECTRICAL DETAILS AND SCHEMATICS

Project No. 24057

Sheet No. E502

Date 2026/06/08

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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6/4/2026 9:12:43 AM
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Panelboard: PA | **Mounting: SURFACE** | **Location: ELEC./MECH. RM. 115** | **AIC Rating: 25,000**
Volts: 208Y/120V | **Phases: 3** | **Amps: 225 A** | **Feed From: MDP**
Wire: 4 | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
Receptacles - Exterior Building	20 A	1	1	360	500					2	1	20 A	Main Rack Receptacles - I.T. Room
Countertop Receptacles - Patio	20 A	1	3			360	500			4	1	20 A	Main Rack Receptacles - I.T. Room
Receptacles - Patio	20 A	1	5					180	360	6	1	20 A	Receptacles - I.T. Room
Receptacles - Patio	20 A	1	7	540	360					8	1	20 A	Receptacles - I.T. Room
EWC Receptacles - Corridor	20 A	1	9			370	1080			10	1	20 A	Receptacles - Kitchen 100 +
Receptacles - Corridors +	20 A	1	11					1080	1000	12	1	20 A	Refrigerator Receptacles - Kitchen *
Receptacles - Bunk Room 110 +	20 A	1	13	1080	1000					14	1	20 A	Refrigerator Receptacles - Kitchen *
Receptacles - Bunk Room 110 +	20 A	1	15			1080	1000			16	1	20 A	Refrigerator Receptacles - Kitchen *
Receptacles - Bunk Room 111 +	20 A	1	17					1080	540	18	1	20 A	Countertop Receptacles - Kitchen +
Receptacles - Bunk Room 111 +	20 A	1	19	1080	360					20	1	20 A	Countertop Receptacles - Kitchen +
Receptacles - Bunk Room 114 +	20 A	1	21			1080	800			22	1	20 A	Coffee Receptacles - Kitchen +
Receptacles - Bunk Room 114 +	20 A	1	23					1080	1200	24	1	20 A	Garbage Disposer Receptacles - Kitchen +
Receptacles - Bunk Room 116 +	20 A	1	25	1080	1200					26	1	20 A	Dishwasher Receptacles - Kitchen +
Receptacles - Bunk Room 116 +	20 A	1	27			1080	500			28	1	20 A	Stove Outlet - Kitchen +
Receptacles - Bunk Room 117 +	20 A	1	29					1080	0	30	1	20 A	Stove Outlet Gas Solenoid - Kitchen +
Receptacles - Bunk Room 117 +	20 A	1	31	1080	1200					32	1	20 A	Microwave Receptacles - Kitchen +
Receptacles - Bunk Room 118 +	20 A	1	33			1080	180			34	1	20 A	Receptacles - Restroom 107
Receptacles - Bunk Room 118 +	20 A	1	35					1080	600	36	1	20 A	Baby Box Receptacles - Capt Office 105
Receptacles - Lockers 127 +	20 A	1	37	180	900					38	1	20 A	Receptacles - Capt Office 105
Receptacles - Lockers 113 +	20 A	1	39			180	900			40	1	20 A	Receptacles - Capt Office 105
Receptacles - Lockers 112 +	20 A	1	41					180	360	42	1	20 A	Receptacles - Janitor 120, Closet 128
Dryer Receptacle - Laundry 108	30 A	2	43	2400	500					44	1	20 A	Building Management System Control Panel
			45			2400	163			46	1	20 A	Lighting - Corridors +
Washer Receptacles - Laundry 108 +	20 A	1	47					1500	680	48	1	20 A	Lighting - Bunk Rooms +
Receptacles - Laundry 108 +	20 A	1	49	540	1046					50	1	20 A	Lighting - Lockers, Janitor, Laundry +
Receptacles - Day Room 103 +	20 A	1	51			1260	758			52	1	20 A	Lighting - Kitchen, Day Room, Capt Office, IT +
Floor Receptacles - Day Room 103 +	20 A	1	53					360	0	54	1	20 A	SPARE
Floor Receptacles - Day Room 103 +	20 A	1	55	360	0					56	1	20 A	SPARE
Floor Receptacles - Day Room 103 +	20 A	1	57			360	0			58	1	20 A	SPARE
Floor Receptacles - Day Room 103 +	20 A	1	59					360	0	60	1	20 A	SPARE
	Phase Load:			**15.76 kVA**		**15.13 kVA**		**12.72 kVA**					
	Phase Amps:			**134.45 A**		**129.19 A**		**106.00 A**					
	Total Load:			**43.61 kVA**									
	Total Amps:			**121.06 A**									

Notes:
+ = PROVIDE ARC FAULT BREAKER
* = PROVIDE GFCI BREAKER

Panelboard: PB | **Mounting: SURFACE** | **Location: ELEC./MECH. RM. 115** | **AIC Rating: 25,000**
Volts: 208Y/120V | **Phases: 3** | **Amps: 100 A** | **Feed From: MDP**
Wire: 4 | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
Receptacles - Apparatus Bay	20 A	1	1	1080	900					2	1	20 A	Receptacles - Exterior Building
Receptacles - Apparatus Bay	20 A	1	3			1080	450			4	1	20 A	Receptacles - Exterior Building Soffit *
Receptacles - Apparatus Bay	20 A	1	5					540	540	6	1	20 A	Receptacles - Exterior Pole
Cord Reel Receptacle - Apparatus Bay	20 A	1	7	1000	720					8	1	20 A	Receptacles - Exterior Pole
Cord Reel Receptacle - Apparatus Bay	20 A	1	9			1000	500			10	1	20 A	Monument Sign
Cord Reel Receptacle - Apparatus Bay	20 A	1	11					1000	675	12	1	20 A	Lighting - Apparatus Bay
Cord Reel Receptacle - Apparatus Bay	20 A	1	13	1000	715					14	1	20 A	Lighting - Apparatus Bay
Cord Reel Receptacle - Apparatus Bay	20 A	1	15			1000	675			16	1	20 A	Lighting - Apparatus Bay
Cord Reel Receptacle - Apparatus Bay	20 A	1	17					1000	233	18	1	20 A	Lighting - Exterior Bay Door Floods
Overhead Door - Apparatus Bay	20 A	1	19	1012	376					20	2	20 A	Lighting - Site
Overhead Door - Apparatus Bay	20 A	1	21			1012	376			22			
Overhead Door - Apparatus Bay	20 A	1	23					1012	66	24	2	20 A	Lighting - Flagpole
Overhead Door - Apparatus Bay	20 A	1	25	1012	66					26			
EWC Receptacles - Apparatus Bay	20 A	1	27			370	84			28	2	20 A	Lighting - Pole Mounted Flood
Receptacles - Electrical/Mechanical Room	20 A	1	29					900	0	30			
Traffic Signal	20 A	1	31	1600	500					32	1	20 A	Lighting Control Panel
SPARE	20 A	1	33			0	0			34	1	20 A	SPARE
SPARE	20 A	1	35					0	0	36	1	20 A	SPARE
SPARE	20 A	1	37	0	0					38	1	20 A	SPARE
SPARE	20 A	1	39			0	0			40	1	20 A	SPARE
SPARE	20 A	1	41					0	0	42	1	20 A	SPARE
	Phase Load:			**9.96 kVA**		**6.51 kVA**		**5.94 kVA**					
	Phase Amps:			**83.69 A**		**55.02 A**		**49.53 A**					
	Total Load:			**22.41 kVA**									
	Total Amps:			**62.21 A**									

Notes:

* = PROVIDE GFCI BREAKER

Panelboard: PC | **Mounting: RECESSED** | **Location: FITNESS 122** | **AIC Rating: 18,000**
Volts: 208Y/120V | **Phases: 3** | **Amps: 225 A** | **Feed From: MDP**
Wire: 4 | **Mains: 225 A MCB**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
EWC Receptacles - Fitness	20 A	1	1	370	500					2	1	20 A	Lighting Inverter for Storm Shelter
Wall Fan Receptacles - Fitness	20 A	1	3			200	795			4	1	20 A	Lighting - Fitness, Extractor Shelter, Gear Room
Equipment Receptacles - Fitness	20 A	1	5					1500	0	6	1	20 A	SPARE
Equipment Receptacles - Fitness	20 A	1	7	1500	0					8	1	20 A	SPARE
Equipment Receptacles - Fitness	20 A	1	9			1500	0			10	1	20 A	SPARE
Equipment Receptacles - Fitness	20 A	1	11					1500	0	12	1	20 A	SPARE
Receptacles - Fitness	20 A	1	13	1720	0					14	1	20 A	SPARE
Washer Receptacles - Extractor Shelter	20 A	1	15			1500	0			16	1	20 A	SPARE
Dryer Receptacle - Extractor Shelter	30 A	2	17					2400	0	18	1	20 A	SPARE
			19	2400	1141					20			
Ice Maker Receptacles - Extractor Shelter	20 A	1	21			1357	1141			22	3	20 A	EXTRACTOR
Receptacles - Extractor Shelter	20 A	1	23					1040	1141	24			
Receptacles - Restroom, Gear Room	20 A	1	25	540	4800					26			
SPARE	20 A	1	27			0	4800			28	3	50 A	SCBA
SPARE	20 A	1	29					0	4800	30			
	Phase Load:			**12.97 kVA**		**11.29 kVA**		**12.38 kVA**					
	Phase Amps:			**109.49 A**		**94.10 A**		**104.57 A**					
	Total Load:			**36.64 kVA**									
	Total Amps:			**101.71 A**									

Panelboard: MA | **Mounting: SURFACE** | **Location: ELEC./MECH. RM. 115** | **AIC Rating: 25,000**
Volts: 208Y/120V | **Phases: 3** | **Amps: 225 A** | **Feed From: MDP**
Wire: 4 | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
IR 01	20 A	1	1	120	180					2	1	15 A	EF-03
IR 02	20 A	1	3			120	250			4	1	20 A	Smoke Dampers
BS 2-1, BS 2-2, BS 3-1	20 A	1	5					150	500	6	1	20 A	Water Heater
EF 01	15 A	1	7	792	900					8	1	20 A	Door Power Supplies (House Side)
SPARE	20 A	1	9			0	435			10	2	20 A	FCU 100A, 100B, 102, 103A, 103B, 105
SF 01 & EF 05	15 A	1	11					852	435	12			
Door Power Supplies (Apparatus Side)	20 A	1	13	1050	1440					14	1	15 A	KEH 01
SPARE	20 A	1	15			0	476			16	2	20 A	FCU 109, 110, 111, 114, 116, 117, 118
DOAS 01	15 A	2	17					260	476	18			
			19	260	1394					20	2	15 A	CU-01
EDH 02	70 A	2	21			5000	1394			22			
			23					5000	1602	24	2	30 A	Ceiling Fan - Apparatus Bay
Ceiling Fan - Apparatus Bay	30 A	2	25	1602	1602					26			
			27			1602	300			28			
AIR COMPRESSOR	40 A	3	29					3667	300	30	3	15 A	EF 02
			31	3667	300					32			
			33			3667	0			34	1	20 A	SPARE
SPARE	20 A	1	35					0	0	36	1	20 A	SPARE
SPARE	20 A	1	37	0	0					38	1	20 A	SPARE
SPARE	20 A	1	39			0	0			40	1	20 A	SPARE
SPARE	20 A	1	41					0	0	42	1	20 A	SPARE
	Phase Load:			**13.31 kVA**		**13.24 kVA**		**13.24 kVA**					
	Phase Amps:			**110.88 A**		**110.35 A**		**110.34 A**					
	Total Load:			**39.79 kVA**									
	Total Amps:			**110.44 A**									

Panelboard: EM | **Mounting: SURFACE** | **Location: ELEC./MECH. RM. 115** | **AIC Rating: 18,000**
Volts: 208Y/120V | **Phases: 3** | **Amps: 100 A** | **Feed From: MDP**
Wire: 4 | **Mains: MLO**

Circuit Description	Amps	Poles	CKT	A		B		C		CKT	Poles	Amps	Circuit Description
Lighting - Patio	20 A	1	1	181	500					2	1	20 A	Fire Alarm Control Panel
Lighting - Building Exterior	20 A	1	3			386	250			4	1	20 A	Fira Alarm Water Gong
Lighting - Apparatus Bay Egress and Exits	20 A	1	5					439	550	6	1	20 A	Dry Pipe Sprinkler System
Lighting - House Side Egress and Exits +	20 A	1	7	281	500					8	1	20 A	Lighting Control Panel
Lighting - Electrical/Mechanical 115 +	20 A	1	9			119	0			10	1	20 A	SPARE
SPARE	20 A	1	11					0	0	12	1	20 A	SPARE
SPARE	20 A	1	13	0	0					14	1	20 A	SPARE
SPARE	20 A	1	15			0	0			16	1	20 A	SPARE
	Phase Load:			**1.46 kVA**		**0.75 kVA**		**0.99 kVA**					
	Phase Amps:			**12.49 A**		**6.25 A**		**8.55 A**					
	Total Load:			**3.20 kVA**									
	Total Amps:			**8.87 A**									

Notes:

+ = PROVIDE ARC FAULT BREAKER

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CERTIFICATE OF AUTHORITY: 000159
EXPIRATION DATE: DECEMBER 31, 2026

Proposed:
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No.	Date	Revision

ELECTRICAL SCHEDULES

Project No.
24057

Sheet No.
E601

Date
2026/06/08

STATE OF MISSOURI
MARY JANE GRIB
NUMBER PE-026961
PROFESSIONAL ENGINEER

Name: Mary J Grib
Discipline: Professional Engineer
License No: PE-026961
Expiration Date: 12/31/2027

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LIGHT FIXTURE SCHEDULE

MARK	MANUFACTURER	APPARENT LOAD	CATALOG	LAMP TYPE	FINISH	MOUNTING	REMARKS
A	Metalux	18 VA	22CZ-LD5-24-UNV-L835-CD1-U-EQCLIP	LED	White	Recessed	2x2 LED Fixture
B	Metalux	24 VA	22CZ-LD5-34-UNV-L835-CD1-U-EQCLIP	LED	White	Recessed	2x2 LED Fixture
C	Metalux	33 VA	22CZ-LD5-44-UNV-L835-CD1-U-EQCLIP	LED	White	Recessed	2x2 LED Fixture
D1	Portfolio	16 VA	LD6C159035D010 EU6C10259035 6LBPS1MW	LED	White	Recessed	6" Recessed LED Downlight
D2	Portfolio	16 VA	LD6C159035D010 EU6C10259035 6LBPS1MW LGSKT6IP66	LED	White	Recessed	6" Recessed LED Downlight
F1	Portfolio	23 VA	LD6C209035D010 EU6C10259035 6LBPS1MW	LED	White	Recessed	6" Recessed LED Downlight
F2	Portfolio	23 VA	LD6C209035D010 EU6C10259035 6LBPS1MW LGSKT6IP66	LED	White	Recessed	6" Recessed LED Downlight
G1	Metalux	40 VA	4SNX-57SL-LW-UNV-L835-CD1-U-AYC-CHAIN/SET-U	LED	White	Hung	4' Commercial LED Striplight
G2	Metalux	40 VA	4SNX-57SL-LW-UNV-L835-CD1-U	LED	White	Surface	4' Commercial LED Striplight
H	Electric Mirror	57 VA	NOV-2436	LED		Wall	LED Lighted Mirror. Mount horizontal above sink.
J	Visual Comfort Co	25 VA	700BCLYNN2SWS-LED930	LED	Satin Nickel	Wall	LED Vanity Light. Mount horizontal above mirrors
K	Kenall	49 VA	MLHA8-48-F-MW-PP-45L35K-DCC-120	LED	White	Surface	8" LED Linear Surface Mount
SA	McGraw Edison	63 VA	GALN-SA2C-740-U-T3-BK-AHD255-MS/DIM-L20-MA1036-BK	LED	Black	Pole	LED Site Pole Light. Provide with 20' square steel pole and receptacle at 18".
SB	McGraw Edison	63 VA	GALN-SA2C-740-U-T4FT-BK-AHD255-MS/DIM-L20-MA1036-BK	LED	Black	Pole	LED Site Pole Light. Provide with 20' square steel pole and receptacle at 18".
SC	McGraw Edison	63 VA	GALN-SA2C-740-U-T4FT-BK-AHD255-MS/DIM-L20-MA1036-BK	LED	Black	Pole	LED Site Pole Light. Provide with 20' square steel pole and receptacle at 18". Flood light to be mounted at 16'-6".
SD	McGraw Edison	63 VA	GALN-SA2C-740-U-T4FT-BK-AHD255-MS/DIM-L20-MA1036-BK	LED	Black	Pole	LED Site Pole Light. Provide with 20' square steel pole.
SE	McGraw Edison	66 VA	GFLD-SA1E-740-U-MR-K-BK-VSR/1/BK	LED	Black	Ground	LED Flood Light
SF	Lumark	84 VA	NFFLD-C25-D-UNV-66-S-BK	LED	Black	Pole	Pole mounted LED Flood Light. Flood light to be mounted at 16'-6". Aim light at building exterior sign above bay doors.
SG	McGraw Edison	34 VA	IST-SA1C-740-U-T4FT-BK-CBP	LED	Black	Wall	Exterior LED Wall Mount Luminaire
SH	McGraw Edison	58 VA	IST-SA1E-740-U-T3-BK	LED	Black	Wall	Exterior LED Wall Mount Luminaire
SJ	Alva Lighting	10 VA	SLIVER-24-BLK-4000	LED	Black	Surface	Exterior LED Sconce. See architect for exact specification and mounting height.
SK	Alva Lighting	20 VA	SLIVER-46-BLK-4000	LED	Black	Surface	Exterior LED Sconce. See architect for exact specification and mounting height.
X	Sure-Lites	1 VA	CX7XR	LED	Aluminum	Varies	LED Exit Sign. Faces as per drawings

EQUIVALENT FIXTURES AS MANUFACTURERD BY LITHONIA, DAYBRITE, HUBBELL & COOPER WILL BE ACCEPTABLE UPON APPROVAL OF SPECIFIC MODEL NUMBERS BY ENGINEER.

EQUIPMENT DATA SCHEDULE

Mark	EQUIPMENT	LOCATION	FURN. BY	MOTOR OR EQUIPMENT DATA			DISCONNECT SWITCH AT EQUIPMENT			STARTER				REMOTE CONTROLS			REMARKS
				HP/kW/MCA	Volts/Phase	INST. BY / CONN. BY	TYPE (2)	FURN. BY	INST. BY / CONN. BY	TYPE (3)	ACCESSORIES (4)	FURN. BY	INST. BY / CONN. BY	TYPE (5)	FURN. BY	INST. BY / CONN. BY	
BS 2-1	BRANCH SELECTOR BOX	ATTIC SPACE	23	0.06 RLA	120/1	23/26	TS	23	23/26	PWCP	-	23	23/23	SS	23	23/23	
BS 2-2	BRANCH SELECTOR BOX	ATTIC SPACE	23	0.06 RLA	120/1	23/26	TS	23	23/26	PWCP	-	23	23/23	SS	23	23/23	
BS 3-1	BRANCH SELECTOR BOX	ATTIC SPACE	23	0.06 RLA	120/1	23/26	TS	23	23/26	PWCP	-	23	23/23	SS	23	23/23	
CU 01	AIR COOLED CONDENSING UNIT	BUILDING EXTERIOR	23	13.4 MCA	208/1	23/26	FS	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 30 AMP FUSIBLE DISCONNECT. FUSE AT 15 AMP WITH FRS-R FUSES.
CUV 01	UNIT VENTILATOR	FITNESS 122	23	47 MCA	208/3	23/26	FS	26	26/26								NEMA 1, 60 AMP FUSIBLE DISCONNECT. FUSE AT 50 AMP WITH FRS-R FUSES.
DOAS 01	OUTSIDE AIR UNIT	ATTIC SPACE	23	2.5 MCA	208/1	23/26	FS	26	26/26								NEMA 1, 30 AMP FUSIBLE DISCONNECT. FUSE AT 15 AMP WITH FRS-R FUSES.
EDH 01	ELECTRIC HEATING COIL	MEZZANINE LEVEL	23	10 kW	208/3	23/26	FS	23	23/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 1, 60 AMP FUSIBLE DISCONNECT. FUSE AT 35 AMP WITH FRS-R FUSES.
EDH 02	ELECTRIC HEATING COIL	ATTIC SPACE	23	10 kW	208/1	23/26	FS	26	26/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 1, 100 AMP FUSIBLE DISCONNECT. FUSE AT 70 AMP WITH FRS-R FUSES.
EF 01	EXHAUST FAN	MEZZANINE LEVEL	23	8.2 MCA	120/1	23/26	M	23	23/26	-	-	-	-	SS	23	23/23	
EF 02	EXHAUST FAN	ATTIC SPACE	23	9.4 MCA	208/3	23/26	NF	23	23/26	COMB	HOA, 2 N.O., 2 N.C.	26	26/26	SS	23	23/23	
EF 03	EXHAUST FAN	APPARATUS BAY	23	1.9 MCA	120/1	23/26	M	23	23/26	-	-	-	-	SS	23	23/23	
EF 04	EXHAUST FAN	LOWER LEVEL	23	0.07 MCA	120/1	23/26	M	26	26/26	-	-	-	-	SS	23	23/23	
EF 04	EXHAUST FAN	LOWER LEVEL	23	0.07 MCA	120/1	23/26	M	26	26/26	-	-	-	-	SS	23	23/23	
EF 04	EXHAUST FAN	LOWER LEVEL	23	0.07 MCA	120/1	23/26	M	26	26/26	-	-	-	-	SS	23	23/23	
EF 04	EXHAUST FAN	LOWER LEVEL	23	0.07 MCA	120/1	23/26	M	26	26/26	-	-	-	-	SS	23	23/23	
EF 05	EXHAUST FAN	MEZZANINE LEVEL	23	50 W	120/1	23/26		26	26/26	-	-	-	-	SS	23	23/23	
FCU 100A	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 100B	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 102	FAN COIL UNIT	LOWER LEVEL	23	2.2 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 103A	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 103B	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 105	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 109	FAN COIL UNIT	LOWER LEVEL	23	2.2 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 110	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 111	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 114	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 116	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 117	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
FCU 118	FAN COIL UNIT	LOWER LEVEL	23	0.40 MCA	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
HRU 01	HEAT RECOVERY UNIT	BUILDING EXTERIOR	23	22.6 MCA	208/3	23/26	FS	26	23/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 35 AMP WITH FRS-R FUSES.
HRU 02	HEAT RECOVERY UNIT	BUILDING EXTERIOR	23	31.8 MCA	208/3	23/26	FS	26	23/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 35 AMP WITH FRS-R FUSES.
HRU 03	HEAT RECOVERY UNIT	BUILDING EXTERIOR	23	31.8 MCA	208/3	23/26	FS	26	23/26	PWCP	-	23	23/23	SS	23	23/23	NEMA 3R, 60 AMP FUSIBLE DISCONNECT. FUSE AT 35 AMP WITH FRS-R FUSES.
IR 01	RADIANT HEATER	APPARATUS BAY	23	1 A	120/1	23/26	TS	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
IR 02	RADIANT HEATER	APPARATUS BAY	23	1 A	120/1	23/26	TS	26	26/26	PWCP	-	23	23/23	SS	23	23/23	
IU 106	SPLIT AIR-CONDITIONING UNIT	LOWER LEVEL	23	1 A	208/1	23/26	M	26	26/26	PWCP	-	23	23/23	SS	23	23/23	POWERED FROM CU-01
SF 01	SUPPLY FAN	MEZZANINE LEVEL	23	5.1 MCA	120/1	23/26	M	23	23/23	-	-	-	-	SS	23	23/23	

GENERAL NOTES:
WHEN ELECTRICALLY DRIVEN EQUIPMENT FURNISHED, MATERIALLY DIFFERS FROM THE CONTEMPLATED DESIGN, THE CONTRACTOR SUPPLYING THE DRIVING EQUIPMENT SHALL PAY FOR AND MAKE NECESSARY ADJUSTMENTS TO THE WIRING, DISCONNECT DEVICES AND BRANCH-CIRCUIT PROTECTION TO ACCOMMODATE THE EQUIPMENT ACTUALLY INSTALLED.
11 = EQUIPMENT CONTRACTOR 22 = PLUMBING CONTRACTOR 23 = HVAC CONTRACTOR 26 = ELECTRICAL CONTRACTOR NF = NON-FUSIBLE SWITCH FS = FUSIBLE SWITCH PWCP = PREWIRED CONTROL PANEL
M. = MANUAL MOTOR STARTER EC = ELECTRICAL CONTRACTOR MCA = MINIMUM CIRCUIT AMPACITY STCB = SHUNT TRIP CIRCUIT BREAKER

1. MOTOR OR EQUIPMENT DATA HP/kW MCA:
HORSEPOWER (HP) IS SHOWN UNLESS AMPS (A), MINIMUM CIRCUIT AMPACITY (MCA) OR KILOWATTS (KW) ARE CALLED OUT.

2. DISCONNECT SWITCH TYPE:
NF = NON FUSIBLE F = FUSIBLE TS = TOGGLE SWITCH M = MANUAL STARTER

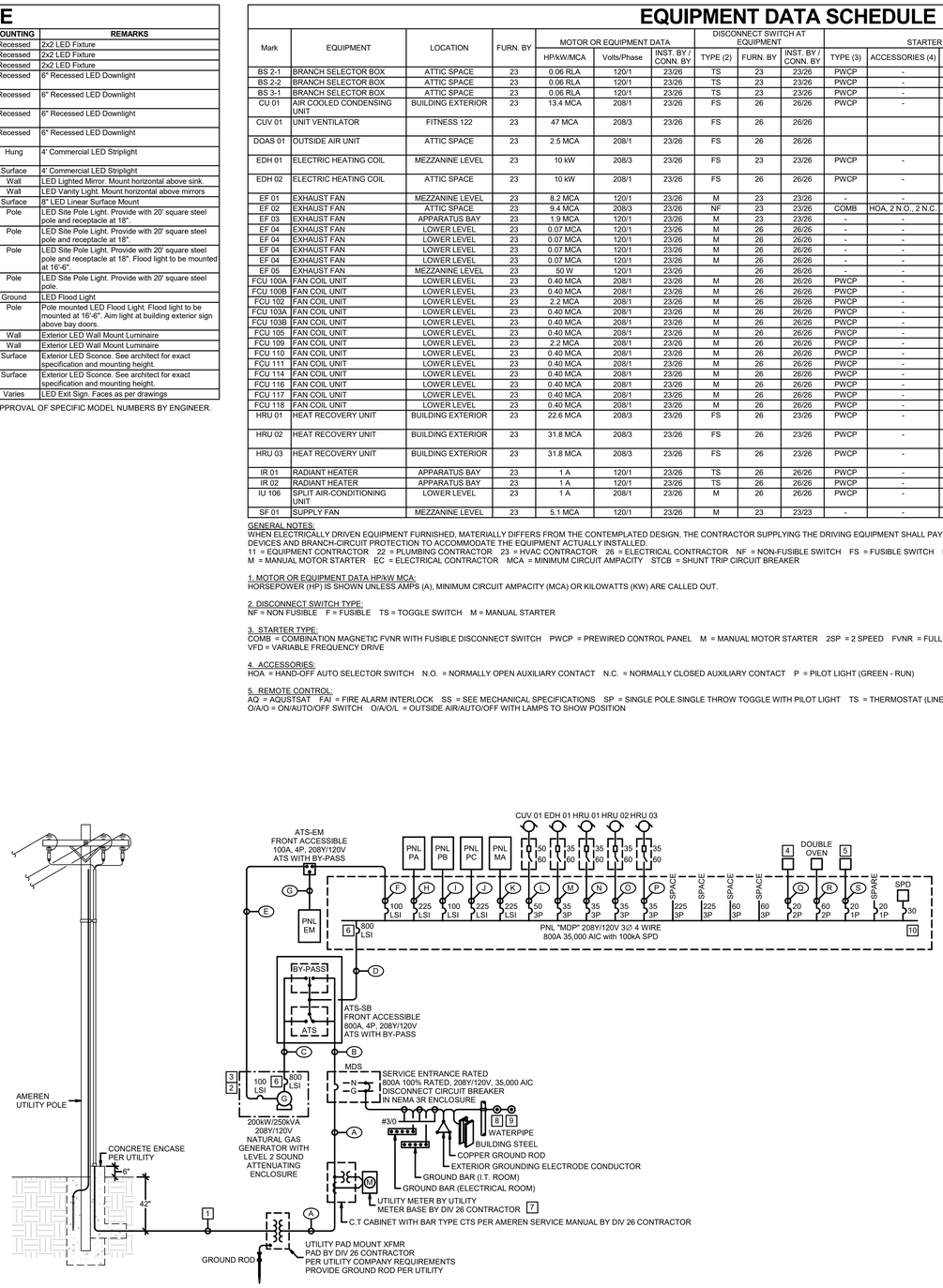
3. STARTER TYPE:
COMB = COMBINATION MAGNETIC FVNR WITH FUSIBLE DISCONNECT SWITCH PWCP = PREWIRED CONTROL PANEL M = MANUAL MOTOR STARTER 2SP = 2 SPEED FVNR = FULL VOLTAGE NON-REVERSIBLE SWITCH
VFD = VARIABLE FREQUENCY DRIVE

4. ACCESSORIES:
HOA = HAND-OFF AUTO SELECTOR SWITCH N.O. = NORMALLY OPEN AUXILIARY CONTACT N.C. = NORMALLY CLOSED AUXILIARY CONTACT P = PILOT LIGHT (GREEN - RUN)

5. REMOTE CONTROL:
AQ = AQUSTSAT FAI = FIRE ALARM INTERLOCK SS = SEE MECHANICAL SPECIFICATIONS SP = SINGLE POLE SINGLE THROW TOGGLE WITH PILOT LIGHT TS = THERMOSTAT (LINE VOLTAGE) TC = TIME CLOCK O/A = ON/AUTO SWITCH
O/A/O = ON/AUTO/OFF SWITCH O/A/O/L = OUTSIDE AIR/AUTO/OFF WITH LAMPS TO SHOW POSITION

FEEDER SCHEDULE

MARK	CONDUCTOR	CONDUIT	FROM	TO
A	2 Sets 4 #600	4" Each Set	Pad Mounted XFMR	SERVICE DISCONNECT
B	2 Sets 4 #600 1 #3 G	4" Each Set	SERVICE DISCONNECT	ATS-SB
C	2 Sets 4 #600 1 #3 G	4" Each Set	GENERATOR	ATS-SB
D	2 Sets 4 #600 1 #3 G	4" Each Set	ATS-SB	MDP
E	4 #3 1 #8 G	1-1/4"	GENERATOR	ATS-EM
F	4 #3 1 #8 G	1-1/4"	MDP	ATS-EM
G	4 #3 1 #8 G	1-1/4"	ATS-EM	Panel EM
H	4 #4/0 1 #4 G	2-1/2"	MDP	Panel PA
I	4 #3 1 #8 G	1-1/4"	MDP	Panel PB
J	4 #4/0 1 #4 G	2-1/2"	MDP	Panel PC
K	4 #4/0 1 #4 G	2-1/2"	MDP	Panel MA
L	3 #6 1 #10 G	3/4"	MDP	CUV 01
M	3 #8 1 #10 G	3/4"	MDP	EDH 01
N	3 #8 1 #10 G	3/4"	MDP	HRU 01
O	3 #8 1 #10 G	3/4"	MDP	HRU 02
P	3 #8 1 #10 G	3/4"	MDP	HRU 03
Q	2 #8 1 #10 G	1"	MDP	GENERATOR JACKET WATER HEATER
R	2 #6 1 #10 G	3/4"	MDP	DOUBLE OVEN
S	2 #10 1 #10 G	1"	MDP	GENERATOR BATTERY CHARGER



ONE-LINE DIAGRAM
SCALE: N.T.S.

ONE-LINE KEYED NOTES

#	
1	PROVIDE 4" PVC CONDUIT WITH PULL CORD FOR PROVISION OF MEDIUM VOLTAGE CONDUCTORS BY UTILITY.
2	GENERATOR OUTPUT CIRCUIT BREAKERS PROVIDED WITH ENGINE-GENERATOR SET.
3	EMERGENCY ENGINE-GENERATOR SET SHALL BE A SEPARATELY DERIVED SYSTEM. PROVIDE TRIPOD GROUND ROD SYSTEM AND GROUNDING ELECTRODE CONDUCTORS AS SHOWN FOR THE SERVICE ENTRANCE CIRCUIT BREAKER.
4	GENERATOR JACKET WATER HEATER. COORDINATE SPECIFIC CONNECTION REQUIREMENTS WITH SELECTED ENGINE-GENERATOR SET.
5	GENERATOR BATTERY CHARGER. COORDINATE SPECIFIC CONNECTION REQUIREMENTS WITH SELECTED ENGINE-GENERATOR SET.
6	100% RATED CIRCUIT BREAKER WITH CUSTOMER POWER METERING.
7	REFER TO AMEREN SERVICE MANUAL FOR ALL REQUIRED SERVICE INSTALLATION REQUIREMENTS INCLUDING METERING AND GROUNDING.
8	PROVIDE GROUNDING ACCESS WELL. ELECTRODE CONDUCTOR CONNECTION AT GROUND ROD SHALL UTILIZE BOLTED CONNECTOR.
9	CADWELL CONNECTIONS TO GROUND ROD. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC CADWELD.
10	PROVIDE BUSSED SPACE FOR THE FUTURE INSTALLATION OF TWO 60A CIRCUIT BREAKERS AND TWO 225A CIRCUIT BREAKERS.

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1151 JUNGS STATION RD

No.	Date	Revision

ELECTRICAL SCHEDULES AND ONE-LINE

Project No.
24057

Sheet No.
E602

Date
2026/06/08

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MARY JANE GRIB
NUMBER PE-026961
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