# CAMP AVERY - REPLACE FIRE SPRINKLER SYSTEM, MULTIPLE ASSETS TROY, MO

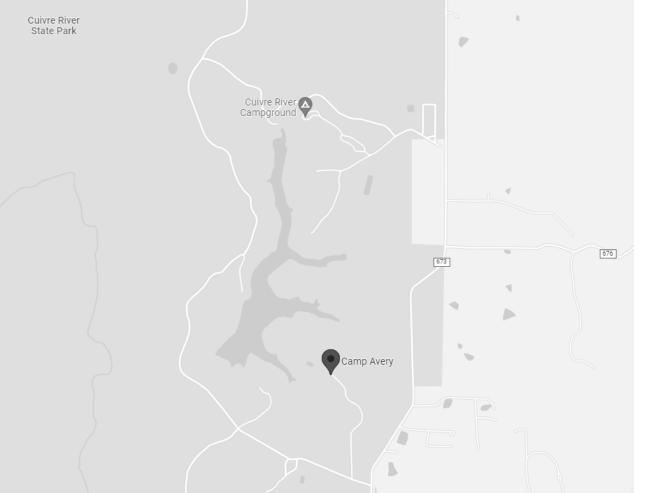


OWNER:

STATE OF MISSOURI MICHAEL L. PARSON, GOVERNOR DIVISION OF YOUTH SERVICES

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

Cuivre River State Park



**DESIGNER:** 

**PROJECT NUMBER:** 

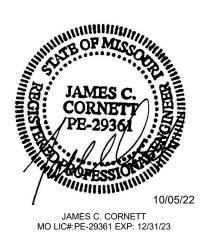
SITE NUMBER: FACILITY NUMBER:



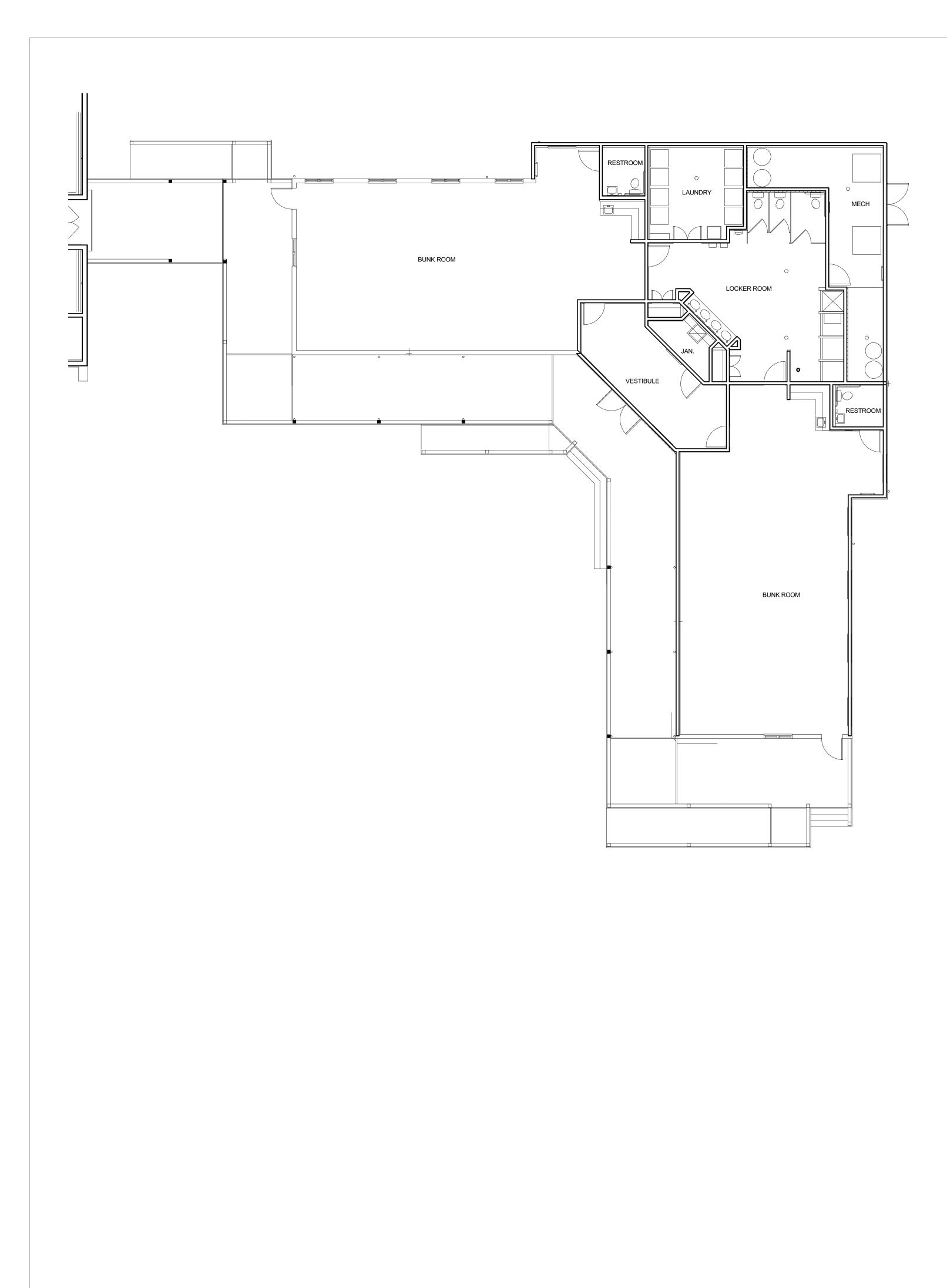
SSC ENGINEERING S.J. HOLLANDER ARCHITECT

H2001-01

7719 8877719001 - MULTI-PURPOSE BUILDING; 8877719002 - H-BUILDING; 8877719004 - DORMITORY



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A4.0	FIRE SPRINKLER PUMP HOUSE FLOOR PLANS & EXTERIOR ELEVATIONS						
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FP0.1	FIRE PROTECTION SYMBOLS, NOTES, LEGENDS AND SCHEDULES						
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E0.2	ELECTRICAL ONE LINE DIAGRAM AND LIGHTING FIXTURE SCHEDULE						
E1.0	ELECTRICAL SITE PLAN						



# DORMITORY BUILDING CODE BLOCK

"V-B" CONSTRUCTION TYPE: USE GROUP:

EXISTING BUILDING AREA:

ALLOWABLE BUILDING AREA PER EXISTING BUILDING STORY AND H ALLOWABLE BUILDING STORY AND OCCUPANT LOAD PER TABLE 1004

# EXISTING FIRE RESISTANCE RATINGS:

EXTERIOR WALLS

LOADBEARING NONLOADBEARING

FIRE WALLS

FIRE BARRIER ASSEMBLIES

FIRE ENCLOSURES OF EXITS SHAFT AND ELEVATOR HOIS MIXED USE AREA SEPARATIONS

FIRE PARTITIONS

EXIT ACCESS CORRIDORS TENANT SPACE SEPARATIO

DWELLING UNIT SEPARATIONS

SMOKE BARRIERS

NONLOADBEARING PARTITIONS

INTERIOR LOADBEARING CONDITI

STRUCTURAL MEMBERS SUPPOR

FLOOR CONSTRUCTION

ROOF CONSTRUCTION

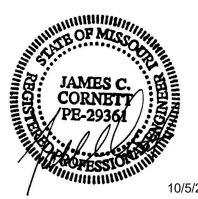
BUILDING CODES IN USE: INTERNATIONAL BUILDING CODE - 2018 INTERNATIONAL MECHANICAL CODE - 2018 INTERNATIONAL PLUMBING CODE - 2018 NATIONAL ELECTRICAL CODE - 2017 INTERNATIONAL FIRE CODE - 2018 INTERNATIONAL EXISTING BUILDING CODE - 2018

BUILDING WILL BE EQUIPPED THROUGH OUT WITH AN NFPA 13R AUTOMATIC FIRE SPRINKLER SYSTEM "R-2" RESIDENTIAL DORMITORY

	3,920. SQ.FT.
FLOOR (TABLE 506.2):	7,000. SQ.FT
HEIGHT:	1 STORY & 20 FEET
D HEIGHT (TABLES 504.3 & 504.4):	3 STORY & 60 FEET
4.12 (3,920 SQ.FT. / 50):	79 OCCUPANTS

	0 HR 0 HR
	N/A
S STWAYS	N/A N/A N/A N/A
NS	N/A N/A
	N/A
	N/A
	0 HR
IONS	0 HR
TING WALLS	0 HR
	N/A
	0 HR

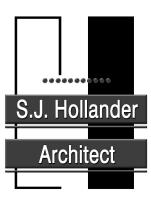
**STATE OF MISSOURI** MICHAEL L. PARSON GOVERNOR



JAMES C. CORNETT MO LIC#:PE-29361 EXP: 12/31/23



Engineering, Inc. 18207 Edison Avenue Chesterfield, Missouri 63005 Phone: 636.530.7770 Fax: 636.530.7877 Missouri Certificate of Authority #NC 001244



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**OFFICE OF** ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, **DESIGN AND** CONSTRUCTION **DIVISION OF YOUTH** SERVICES

CAMP AVERY - FIRE SPRINKLER SYSTEM

198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 SITE # 7719 FACILITY # 8877719004

<b>REVISION:</b>
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/5/22

CAD DWG FILE: -

DRAWN BY: LMM CHECKED BY: JCC DESIGNED BY: LMM

SHEET TITLE:

DOCUMENTS

BID

2021284

JOB#

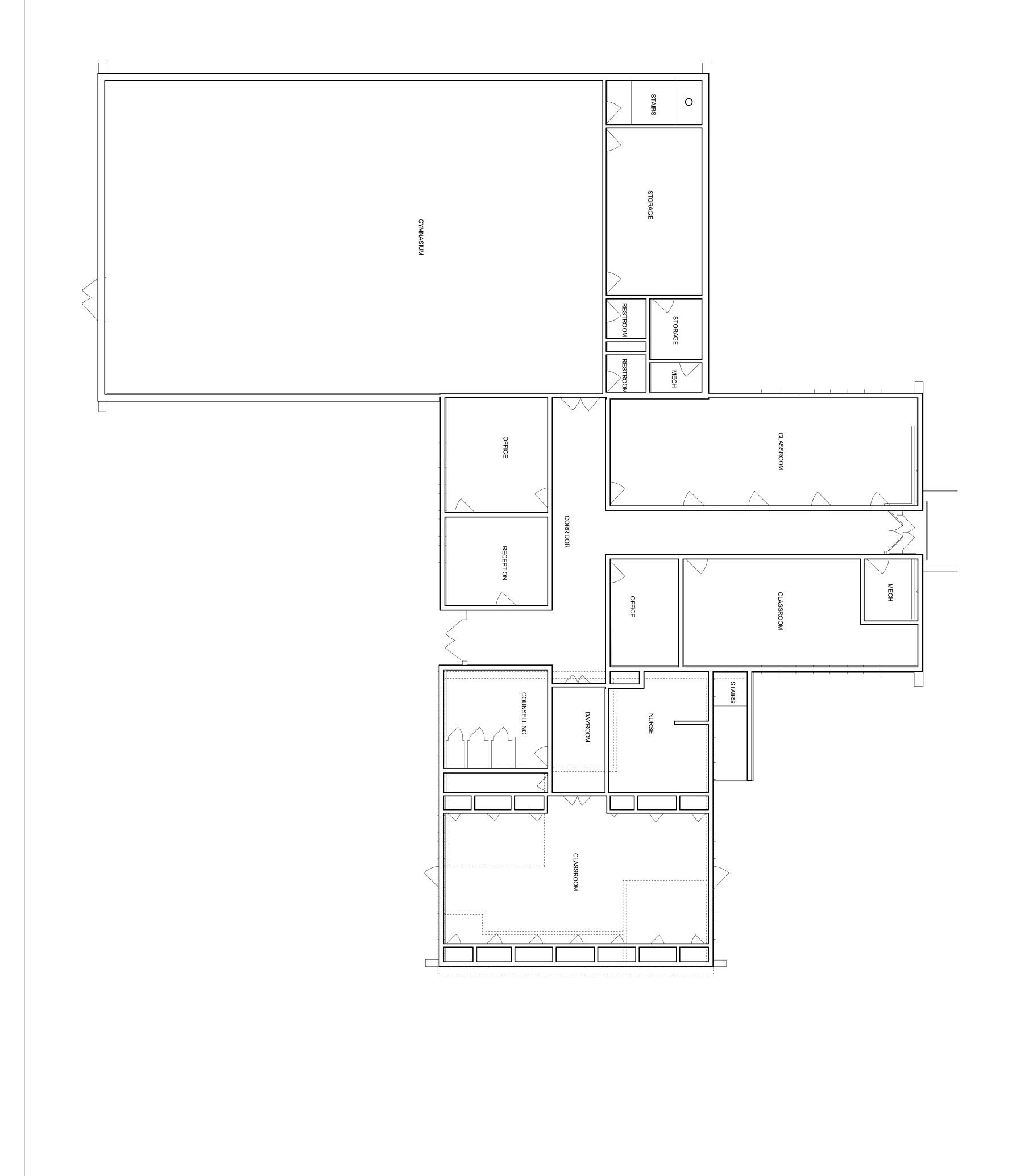
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DORMITORY BUILDING CODE BLOCK

SHEET NUMBER:

A1.0

SHEET 2 OUT OF 17 10/5/22



# MULTIPURPOSE BUILDING CODE BLOCK



CONSTRUCTION TYPE: "V-B"

**"A-3" RECREATION** "B" BUSINESS OFFICE AREAS "S-1" STORAGE

EXISTING BUILDING AREA:

USE GROUP:

ALLOWABLE BUILDING AREA PER FLOOR

**EXISTING BUILDING STORY AND HEIGHT:** 

ALLOWABLE BUILDING STORY AND HEIGH

OCCUPANT LOAD PER TABLE 1004.12: ASSEMBLY RECREATION / EXE BUSINESS (4,931 SQ.FT / 100) STORAGE (1,792 SQ.FT. / 300) TOTAL OCCUPANTS:

## EXISTING FIRE RESISTANCE RATINGS:

EXTERIOR WALLS

LOADBEARING NONLOADBEARING

FIRE WALLS

FIRE BARRIER ASSEMBLIES

FIRE ENCLOSURES OF EXITS SHAFT AND ELEVATOR HOISTWAY MIXED USE AREA SEPARATIONS

FIRE PARTITIONS

EXIT ACCESS CORRIDORS TENANT SPACE SEPARATIONS

DWELLING UNIT SEPARATIONS

SMOKE BARRIERS

NONLOADBEARING PARTITIONS

INTERIOR LOADBEARING CONDITIONS

STRUCTURAL MEMBERS SUPPORTING V

FLOOR CONSTRUCTION

ROOF CONSTRUCTION

BUILDING CODES IN USE: INTERNATIONAL BUILDING CODE - 2018 INTERNATIONAL MECHANICAL CODE - 2018 INTERNATIONAL PLUMBING CODE - 2018 NATIONAL ELECTRICAL CODE - 2017 **INTERNATIONAL FIRE CODE - 2018 INTERNATIONAL EXISTING BUILDING CODE - 2018** 

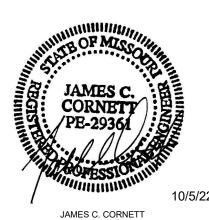
BUILDING WILL BE EQUIPPED THROUGH OUT WITH AN NFPA 13R AUTOMATIC FIRE SPRINKLER SYSTEM

	BASEMENT FIRST FLOOR MEZZANINE	1,792. SQ.FT. 8,952. SQ.FT. 750. SQ.FT.
R (TABLE 506.2):		24,000. SQ.FT
:		1 STORY & 30 FEET
HT (TABLES 504	4.3 & 504.4):	2 STORY & 60 FEET
ERCISE (4,771 \$	SQ.FT. / 50)	96 OCCUPANTS 50 OCCUPANTS 6 OCCUPANTS 152 OCCUPANTS

	0 HR 0 HR
	N/A
/S	N/A N/A 0 HR N/A
	N/A N/A
	N/A
	N/A
	0 HR
	0 HR
WALLS	0 HR
	0 HR
	0 HR

DOCUMENTS BID 2021284 JOB# SSC

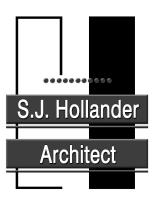
#### **STATE OF MISSOURI** MICHAEL L. PARSON GOVERNOR





MO LIC#:PE-29361 EXP: 12/31/23

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**OFFICE OF** ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, **DESIGN AND** CONSTRUCTION **DIVISION OF YOUTH** SERVICES

CAMP AVERY - FIRE SPRINKLER SYSTEM

198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 7719 SITE # FACILITY # 8877719001

**REVISION:** DATE: REVISION: DATE: **REVISION**: DATE:

ISSUE DATE: 10/5/22

CAD DWG FILE: -DRAWN BY: LMM CHECKED BY: JCC DESIGNED BY: LMM

SHEET TITLE:

MULTIPURPOSE BUILDING CODE BLOCK

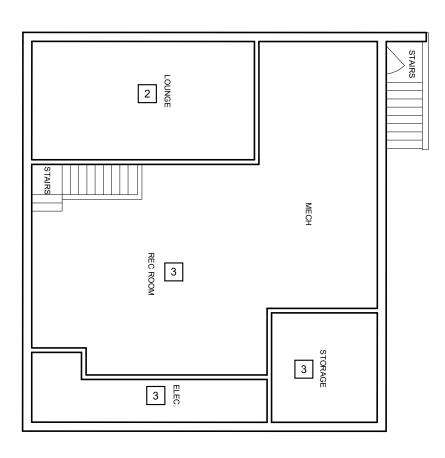
SHEET NUMBER:

A2.0 SHEET 3 OUT OF 17 10/5/22



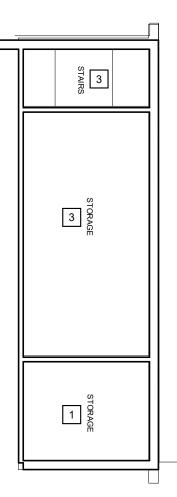


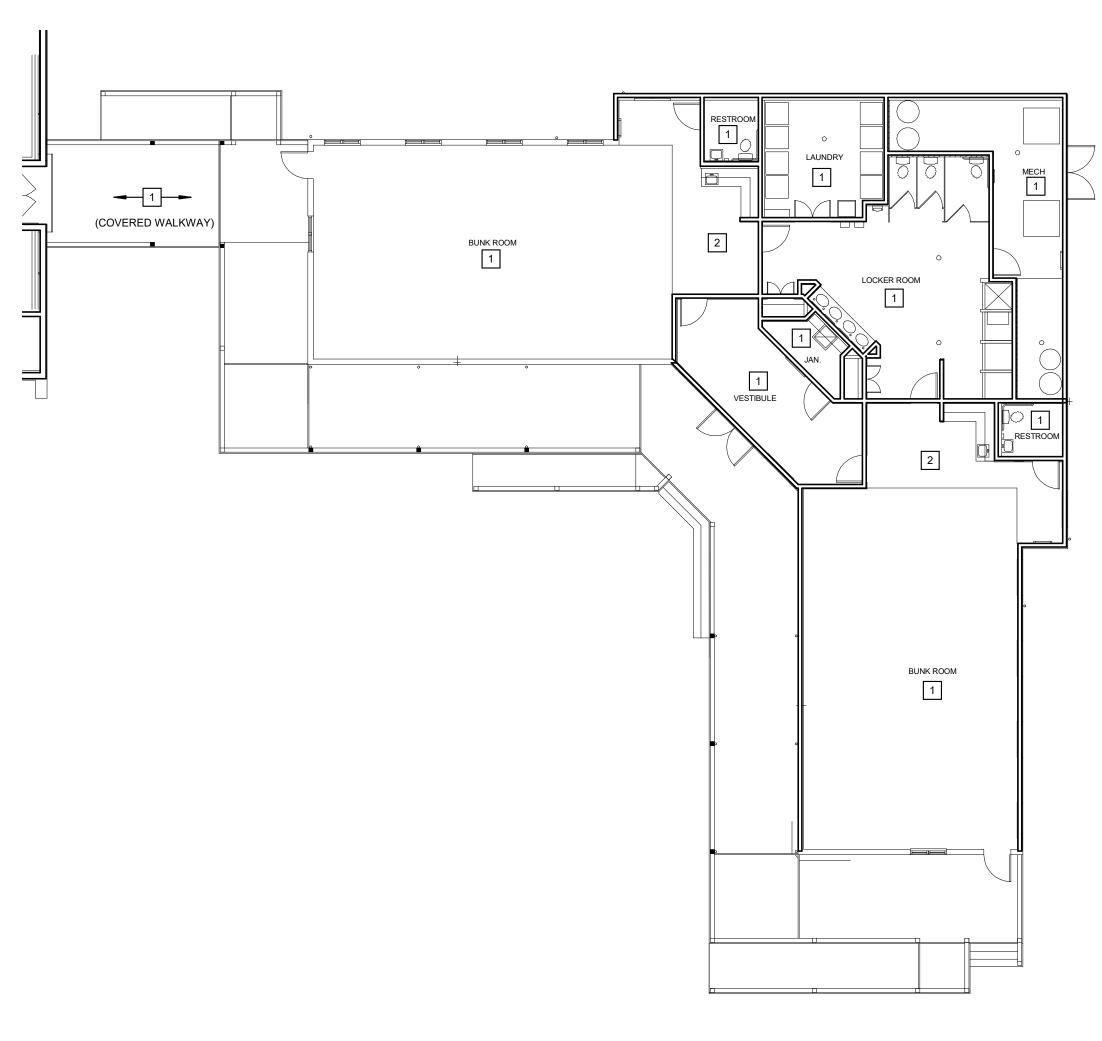
MULTIPURPOSE BUILDING CEILING KEY PLAN SCALE: 3/32" = 1'-0"

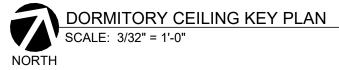




MULTIPURPOSE BASEMENT CEILING KEY PLAN SCALE: 3/32" = 1'-0"







#### **GENERAL NOTES:**

- 2. CEILING KEY PLANS ARE FOR INTENDED FOR COORDINATION WITH SPRINKLER LAYOUT AND DESIGN. ALL PIPING SHALL BE INSTALLED
- BE FROM CORNER TO CORNER, ETC.

#### **KEYED NOTES:**

- 1 GYPSUM CEILING.
- 2 DROP CEILING
- 3 NO CEILING

MULTIPURPOSE PLATFORM CEILING KEY PLAN SCALE: 3/32" = 1'-0"

NORTH

1. CEILING KEY PLANS ARE INTENDED AS REFERENCE ONLY TO ASSIST IN BIDDING. CEILING TYPES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO START OF WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IMMEDIATELY.

EITHER ABOVE CEILINGS OR WITHIN COLD ATTIC AREAS. NO PIPING SHALL BE INSTALLED EXPOSED EXCEPT FOR IN EQUIPMENT ROOMS OR AREAS WITHOUT CEILINGS.

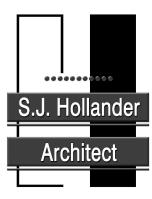
3. ALL CEILINGS SHALL BE REMOVED AND REPLACED TO MATCH EXISTING AS REQUIRED FOR SPRINKLER SYSTEM INSTALLATION. ALL PAINTING TO

**STATE OF MISSOURI** MICHAEL L. PARSON GOVERNOR JAMES C. CORNETY PE-2936

> JAMES C. CORNETT MO LIC#:PE-29361 EXP: 12/31/23



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198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 7719 SITE # FACILITY # 8877719001 8877719004

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<b>ISSUE DATE:</b> 10/5/22

ISSUE DATE:

CAD DWG FILE: -DRAWN BY: LMM CHECKED BY: JCC DESIGNED BY: LMM

SHEET TITLE:

DOCUMENTS

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CEILING KEY PLANS

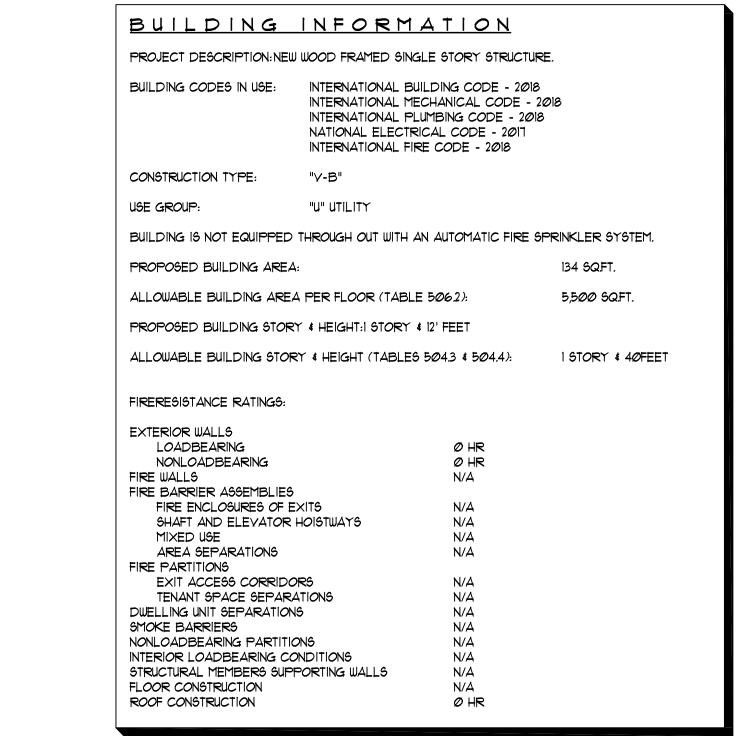
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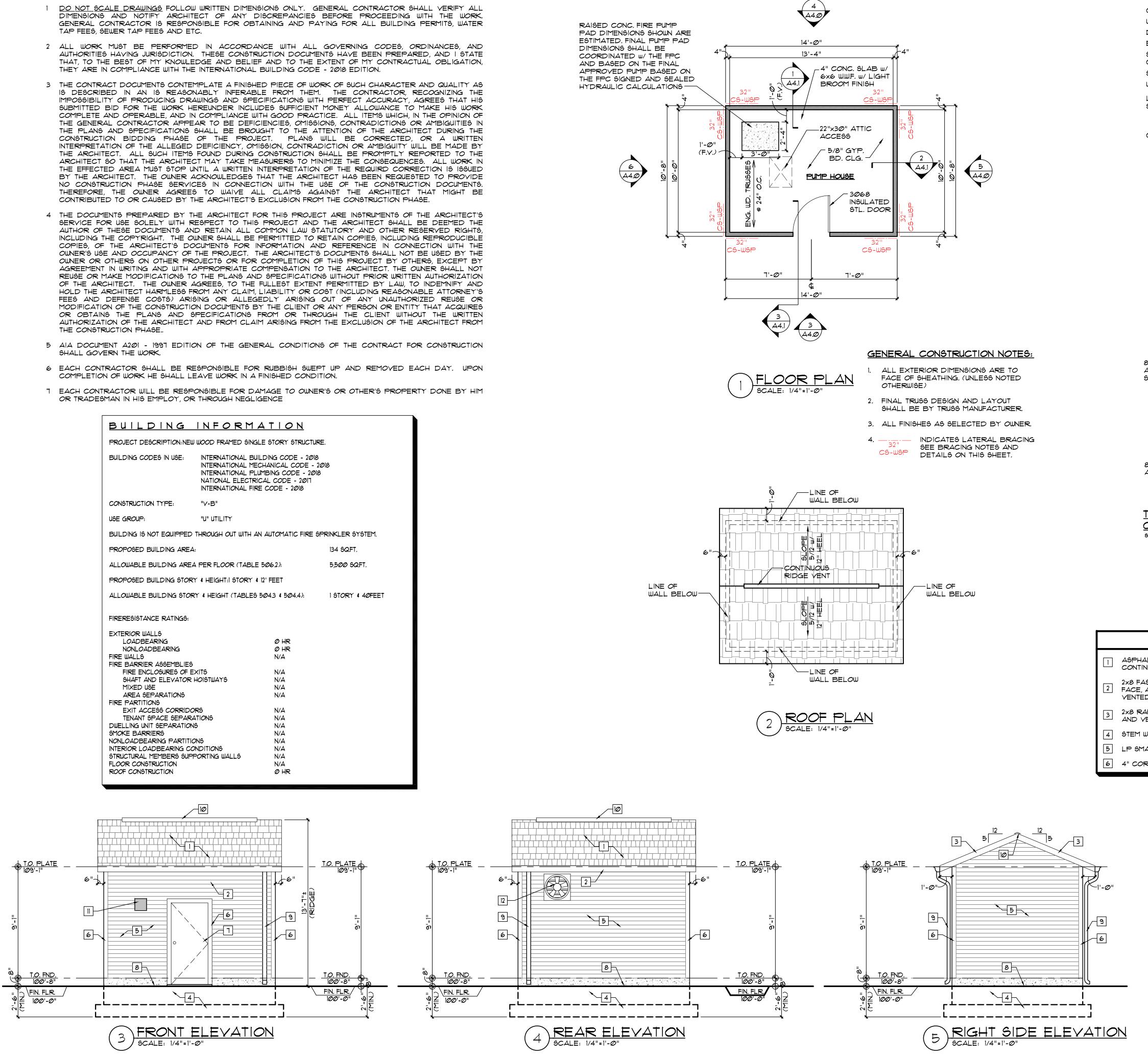
A3.0

SHEET 4 OUT OF 15 10/5/22

<u>GENERAL NOTES:</u>

- DO NOT SCALE DRAWINGS FOLLOW WRITTEN DIMENSIONS ONLY. GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL BUILDING PERMITS, WATER TAP FEES, SEWER TAP FEES AND ETC.
- THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF AND TO THE EXTENT OF MY CONTRACTUAL OBLIGATION, THEY ARE IN COMPLIANCE WITH THE INTERNATIONAL BUILDING CODE - 2018 EDITION.
- IS DESCRIBED IN AN IS REAGONABLY INFERABLE FROM THEM. THE CONTRACTOR, RECOGNIZING THE IMPOSSIBILITY OF PRODUCING DRAWINGS AND SPECIFICATIONS WITH PERFECT ACCURACY, AGREES THAT HIS SUBMITTED BID FOR THE WORK HEREUNDER INCLUDES SUFFICIENT MONEY ALLOWANCE TO MAKE HIS WORK COMPLETE AND OPERABLE, AND IN COMPLIANCE WITH GOOD PRACTICE. ALL ITEMS WHICH, IN THE OPINION OF THE GENERAL CONTRACTOR APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS OR AMBIGUITIES IN THE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING THE CONSTRUCTION BIDDING PHASE OF THE PROJECT. PLANS WILL BE CORRECTED, OR A WRITTEN INTERPRETATION OF THE ALLEGED DEFICIENCY, OMISSION, CONTRADICTION OR AMBIGUITY WILL BE MADE BY THE ARCHITECT. ALL SUCH ITEMS FOUND DURING CONSTRUCTION SHALL BE PROMPTLY REPORTED TO THE ARCHITECT SO THAT THE ARCHITECT MAY TAKE MEASURERS TO MINIMIZE THE CONSEQUENCES. ALL WORK IN THE EFFECTED AREA MUST STOP UNTIL A WRITTEN INTERPRETATION OF THE REQUIRD CORRECTION IS ISSUED BY THE ARCHITECT. THE OWNER ACKNOWLEDGES THAT THE ARCHITECT HAS BEEN REQUESTED TO PROVIDE NO CONSTRUCTION PHASE SERVICES IN CONNECTION WITH THE USE OF THE CONSTRUCTION DOCUMENTS. THEREFORE, THE OWNER AGREES TO WAIVE ALL CLAIMS AGAINST THE ARCHITECT THAT MIGHT BE CONTRIBUTED TO OR CAUSED BY THE ARCHITECT'S EXCLUSION FROM THE CONSTRUCTION PHASE.
- SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT AND THE ARCHITECT SHALL BE DEEMED THE AUTHOR OF THESE DOCUMENTS AND RETAIN ALL COMMON LAW STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT. THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES, OF THE ARCHITECT'S DOCUMENTS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER'S USE AND OCCUPANCY OF THE PROJECT. THE ARCHITECT'S DOCUMENTS SHALL NOT BE USED BY THE OWNER OR OTHERS ON OTHER PROJECTS OR FOR COMPLETION OF THIS PROJECT BY OTHERS, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ARCHITECT. THE OWNER SHALL NOT REUSE OR MAKE MODIFICATIONS TO THE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN AUTHORIZATION OF THE ARCHITECT. THE OWNER AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD THE ARCHITECT HARMLESS FROM ANY CLAIM, LIABILITY OR COST (INCLUDING REASONABLE ATTORNEY'S FEES AND DEFENSE COSTS) ARISING OR ALLEGEDLY ARISING OUT OF ANY UNAUTHORIZED REUSE OR MODIFICATION OF THE CONSTRUCTION DOCUMENTS BY THE CLIENT OR ANY PERSON OR ENTITY THAT ACQUIRES OR OBTAINS THE PLANS AND SPECIFICATIONS FROM OR THROUGH THE CLIENT WITHOUT THE WRITTEN AUTHORIZATION OF THE ARCHITECT AND FROM CLAIM ARISING FROM THE EXCLUSION OF THE ARCHITECT FROM THE CONSTRUCTION PHASE ...
- SHALL GOVERN THE WORK.
- OR TRADESMAN IN HIS EMPLOY, OR THROUGH NEGLIGENCE





#### EXTERIOR WALL BRACING

CODE REQUIREMENT:	2018 IBC
ULTIMATE WIND SPEED:	115 MPH
DESIGN WIND SPEED:	90 MPH
EXPOSURE CATEGORY:	D
SEISMIC DESIGN CATEGORY:	С
STORIES:	1
WALL HEIGHT	9'
LATERAL DESIGN:	

SIMPLIFIED WALL BRACING:

CS-WSP: CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANEL USE 7/16" OSB OR 1/2" CDX SHEATHING ON EXTERIOR. FASTEN w/8d COMMON NAILS (2 1/2" x .113) @ 6" o.c. ALONG PANEL EDGES AND 12" O.C. INTERMEDIATE SUPPORTS. USE 1/2" GYPSUM BOARD ON THE INTERIOR FASTEN #6 x 1 1/4" DRYWALL SCREWS 6" O.C. ALONG PANEL EDGES (INCLUDING TOP AND BOTTOM PLATES) AND 12" O.C. INTERMEDIATE SUPPORTS, . IN THE FIELD ALL HORIZONTAL JOINTS SHALL BE BLOCKED . SEE TABLE 602.3(1) FOR GENERAL NOTES FOR FASTENER SIZE, TYPE AND SPACING

R23Ø8.6

MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS						
HEADER SPAN (FEET)	16" MAXIMUM STUD SPACING FULL HEIGHT					
3' 4'	1 2					
8' 12'	3 5					
16'	6					

80 NAIL @ 12" O.C. ON ALL INTERMEDIATE

VENTE

SUPPORTS -8d NAILS @ 6" o.c. ALL PANEL EDGES

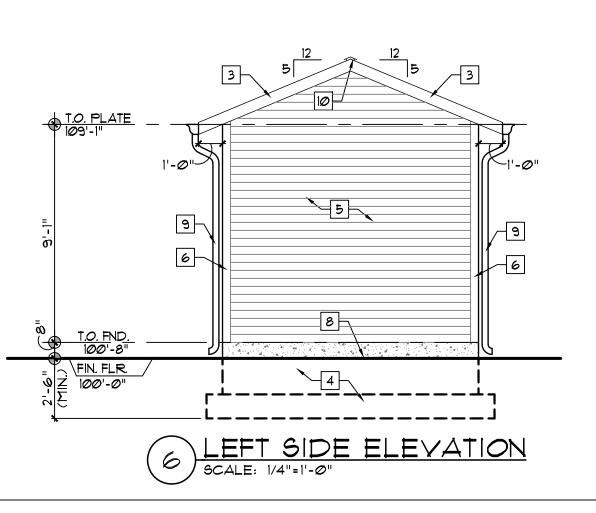
- EXTERIOR SHEATHING TO BE 7/16" OSB OR 1/2" CDX. NAILED w/ 80 NAILS @ 6"

- 160 NAILS @ 12" O.C.

O.C. PANEL EDGES \$ 12" O.C. INTERMEDIATE SUPPORTS

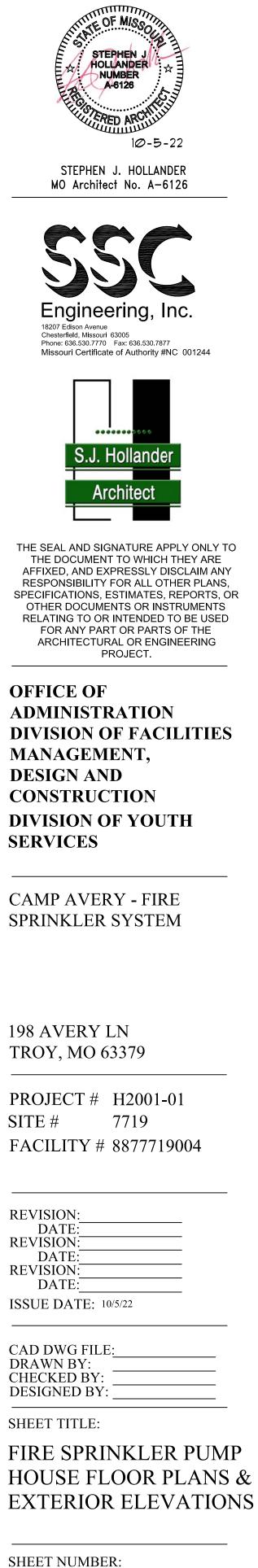
TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING BRACED WALL PANEL SCALE 1" = 1'-Ø"

ELEVATION K	Έì	NOTES
ALT SHINGLES OVER (1) ONE LAYER	٦	3068 INSULATED STL. DOOR.
NUOUS 15* FELT. AGCIA w/ PRE-FINIGHED ALUMINUM ANODIZED ALUMINUM GUTTERS AND ED ALUMINUM SOFFIT.	8	APPROXIMATE FINISHED GRADE, FINAL GRADE SHALL BE DETERMINED BY GENERAL CONTRACTOR AND BE A MINIMUM OF 8" BELOW TOP OF FOUNDATION WALL.
AKE w/ PRE-FINISHED ALUMINUM FACE /ENTED ALUMINUM SOFFIT.	٩	ANODIZED ALUM. DOWNSPOUT.
WALL AND FOOTING.	10	CONTINUOUS RIDGE VENT.
1ARTSIDE AS SELECTED BY OTHERS.	11	LOUVER.
RNER OR DOOR TRIM.	12	EXHAUST FAN.



# **MICHAEL L. PARSON** GOVERNOR

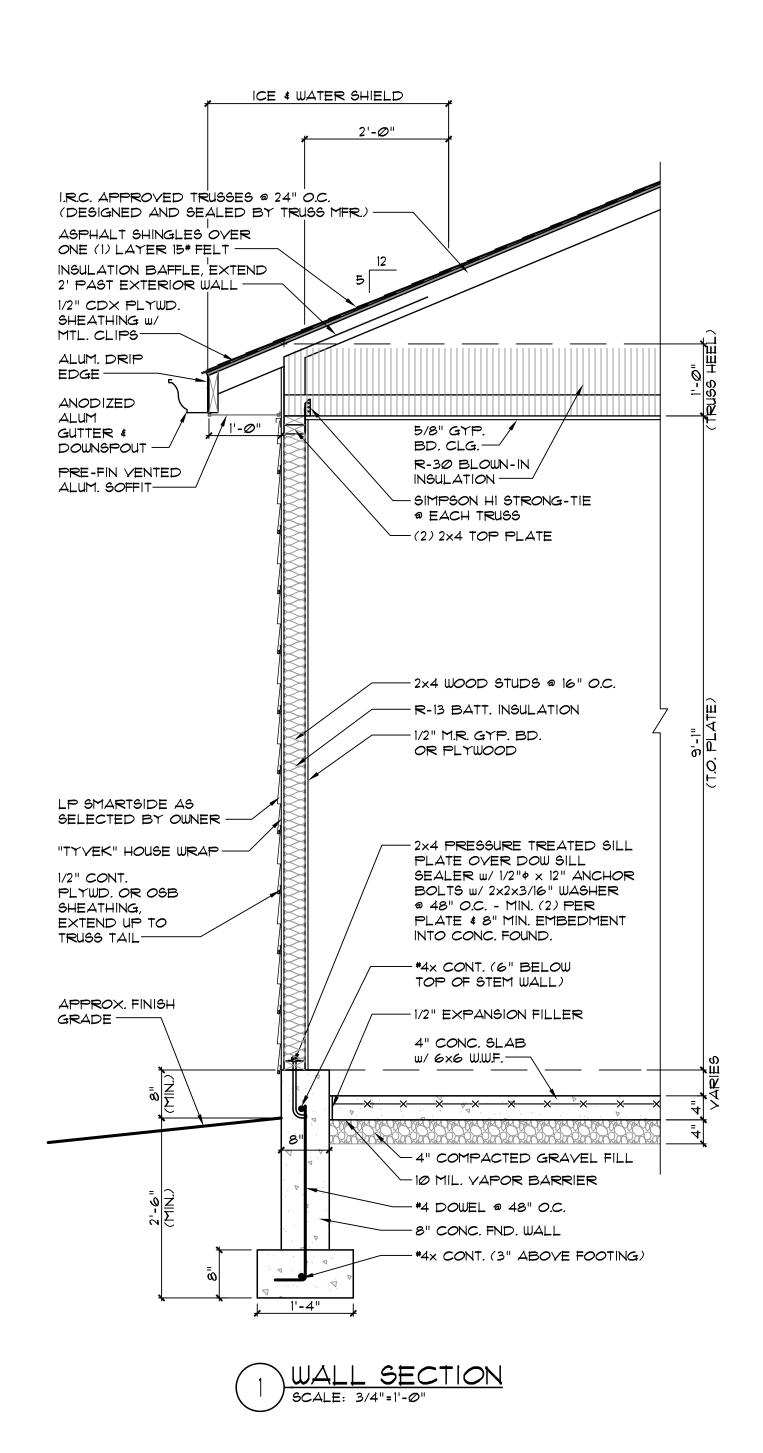
**STATE OF MISSOURI** 

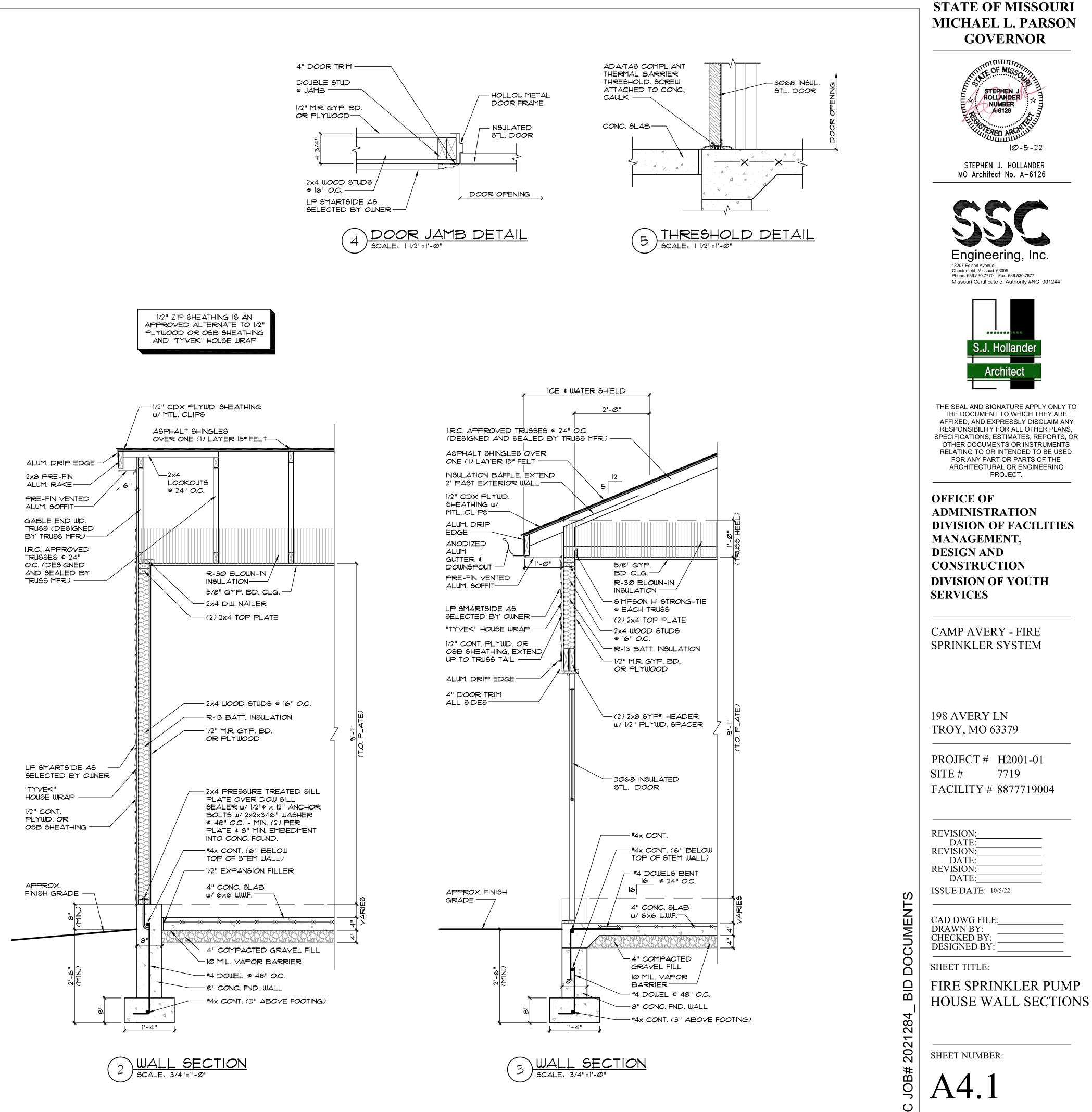


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SHEET 5 OUT OF 17

10/5/22





SHEET 6 OUT OF 17 10/5/22

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#### **FIRE PROTECTION DESIGN CRITERIA (NFPA 13 - 2016 EDITION)** HAZARD AREA **OFFICE AREAS / PUBLIC ARI** LIGHT **RESTROOMS / LOBBY / CON** HAZARD BREAK ROOM / CLASSROOM ORDINARY HAZARD GROUP 1 GYMNASIUM ORDINARY HAZARD MISCELLANEOUS STORAGE GROUP 2 MINIMUM REQUIRED SAFETY FACTOR: 5 PSI NOTES: THE HYDRAULIC AREA OF OPERATION MAY NOT BE REDUCED AS ALLOWED BY NFPA 13 FOR AREAS UTILIZING QUICK RESPONSE SPRINKLERS FOR NEW SYSTEM INSTALLATIONS OR UNFINISHED SHELL SPACES. HYDRAULIC AREA OF OPERATION SHALL BE INCREASED (CUMULATIVELY) WITHOUT REVISING THE DENSITY FOR THE FOLLOWING APPLICATIONS: A. INCREASED BY 30% FOR AREAS WITH SLOPED CEILINGS WITH A PITCH EXCEEDING 1 IN 6 (16.7%) SLOPE IN ACCORDANCE WITH NFPA 13 11.2.3.2.4,

- THE HOSE STREAM ALLOWANCE SHALL BE PROVIDED AT THE BASE OF RISER.

#### **ANCHORAGE & SWAY BRACING - FIRE PROTECTION SYSTEM COMPONENTS**

Occupancy Category (II)								Seismic Design Category ( D )
LISTING OF EQUIPMENT AND	ANCHORA FLOOF ROOFS,	RS,	) SWAY BRACING		LOCATION OF PROFESSIONALLY SEALED ANCHORAGE AND SWAY BRACING DETAILS		COMMENTS	
SYSTEM COMPONENTS	Not Provided	Provided	Not Provided	Provided	Drawing No. or Spec. Section	Shop Drawings	Separate Permit & Plans	
PIPING AND EQUIPMENT	-	x	-	x	-	BY FPC	-	BRACE PIPING AND/OR EQUIPMENT WHERE REQUIRED BY IBC 2018 PER METHODS IN NFPA 13

#### VIBRATION ISOLATION AND SEISMIC RESTRAINT SCHEDULE

				COMPONENT				
EQUIPMENT TAG	ISOLATION SPEC.	SEISMIC RESTRAINT	ISOLATOR DEFLECTION	IMPORTANCE FACTOR	RESPONSE MODIFICATION FACTOR	AMPLIFICATION FACTOR		
SPR-PIPING	SC	YES	-	1.5	2.5	1.0		
SPR-EQUIP	SB	YES	-	1.5	2.5	1.0		

#### FLOW TEST

FLOW TEST:

STATIC: 92 PSI **RESIDUAL: 6 PSI** 

FLOW: 291 GPM DATE: 08/31/2021

PERFORMED BY: SSC ENGINEERING

MODIFIED SINGLE HYDRANT FLOW TEST PERFORMED ON SINGLE FLUSHING HYDRANT ON SITE.

			F	IRE/JOCKE	Y PUMP SCHE	EDULE		
MARK	MANUFACTURER	MODEL NO.	RPM	GPM	RATED PSI	HP	PH / HZ	REMARKS
FP-1	AURORA	11FGM	1770	500	100	50	3 / 60	1,2,3,4,5,6,7,8
JP-1	AURORA	-	-	5	110	0.5	3 / 60	1,2
2. PACKA 3. VERTIC 4. PROVIE 5. PROVIE 6. PROVIE 7. THE FINA SHALL RE TO THE C 8. THE FIN SHALL CO REQUIRE	L SIZE OF THE FIRE PUMP EVIEW ALL DESIGN REQUIF CONTRACT PRICE WILL BE RE PROTECTION CONTRAC DORDINATE WITH THE ELE	RANSFER SWITCH ( SED TRANSITION ST ONCRETE HOUSEK SCHEDULE IS BASE SHALL BE DETERM REMENTS BASED OI ALLOWED IN THE E CTOR SHALL VERIFY CTRICAL AND GENE CTOR SHALL BE RE	CAPABLE OF A FARTER. SEE CEPING PAD. D ON AN EST INED BY HYDF N OCCUPANC VENT A FIRE I ( THE FIRE PU ERAL CONTRA	SPECIFICATIO MATED SYST RAULIC CALC Y WHEN SELI PUMP OTHER MP AND EME CTORS. IN TH	DNS FOR FIRE P EM DEMAND, AN ULATIONS PERF ECTING A PRICE THAN THE ONE RGENCY GENEF HE EVENT FIRE F	UMP CONTRO ID THE APPRC ORMED BY TH TO BE ALLOC SCHEDULED RATOR SIZE P PROTECTION	LLER REQUIREMENTS. DXIMATE SIZE HAS BEEN HE FIRE PROTECTION C CATED TO THE FIRE PUN IS PROVIDED. RIOR TO BIDDING. THE I CONTRACTOR DETERM	N SCHEDULED AS AN AID TO BIDDERS. ONTRACTOR. BIDDING CONTRACTORS /P. NO CHANGES FIRE PROTECTION CONTRACTOR INES THAT A LARGER FIRE PUMP IS MERGENCY GENERATOR IS INCLUDED IN

CRITERIA	HOSE (GPM)	SPACING (SQFT)	DESIGN BASIS
0.10 / 1500 SQFT	100	225	NFPA 13 SECTIONS 5.2, 11.2.3.2, & TABLE 11.2.3.1.2
0.15 / 1500 SQFT	250	130	NFPA 13 SECTIONS 5.2, 11.2.3.2, & TABLE 11.2.3.1.2
0.20 / 1500 SQFT	250	130	NFPA 13 SECTIONS 5.2, 11.2.3.2, & TABLE 11.2.3.1.2
	SQFT 0.15 / 1500 SQFT 0.20 / 1500	0.10 / 1500 SQFT 100 0.15 / 1500 SQFT 250 0.20 / 1500 250	O.10 / 1500 SQFT     100     225       0.15 / 1500 SQFT     250     130       0.20 / 1500     250     130

B. INCREASED BY 30% FOR DRY-PIPE AND DOUBLE INTERLOCK PRE-ACTION SYSTEMS, IN ACCORDANCE WITH NFPA 13 11.2.3.2.5. INCREASED TO 3,000 SQFT IF THE BUILDING HAS ADJACENT, NON-SPRINKLERED COMBUSTIBLE SPACES. THE ABOVE CRITERIA NOTED DOES NOT PRECLUDE THE USE OF EXTENDED COVERAGE OR LISTED SPECIAL APPLICATION SPRINKLERS THAT ARE DESIGNED AND INSTALLED IN ACCORDANCE WITH THEIR LISTING AND MANUFACTURER REQUIREMENTS.

	DELEGATED-DESIGN NOTE
	THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING AND PROVIDING A COMPLETE, FUNCTIONAL, AND CODE COMPLIANT AUTOMATIC SPRINKLER SYSTEM. REFER TO GENERAL NOTES FOR ADDITIONAL DETAIL CONCERNING DESIGN, FLOW TEST, HYDRAULIC CALCULATIONS, COORDINATION, AND SHOP DRAWING REQUIREMENTS.

#### FIRE PROTECTION SPRINKLER SCHEDULE

SYMBO	L TYPE	RE.	K-F	FINISH	NOTE
NEW					
	DRY CONCEALED PENDENT	QR	5.6	WHITE COVERPLATE	1
0	UPRIGHT	QR	5.6	BRASS	2
<b>_</b>	DRY SIDEWALL	QR	5.6	WHITE	2
	CONCEALED DRY SIDEWALL	QR	5.6	WHITE	-
DEMC	)				
	DEMO PENDENT/UPRIGHT	-	-	-	-
-# <u></u>	DEMO SIDEWALL	-	-	-	-
GENE	RAL NOTES:				

REQUIRED.

SPRINKLER SHALL BE THE APPROPRIATE TEMPERATURE RATING FOR LOCATION AND OCCUPANCY IN ACCORDANCE WITH NFPA 13. SPRINKLER SHALL ALIGN WITH LIGHT FIXTURES AND OTHER CEILING MOUNTED DEVICES. COORDINATE SPRINKLER LOCATIONS WITH EXISTING CONDITIONS AND PROVIDE ADDITIONAL SPRINKLERS WHERE

NOTES:

PROVIDE HIGH TEMPERATURE RATED SPRINKLERS IN VESTIBULES PROVIDE WITH LISTED SPRINKLER GUARD.

#### FIRE PROTECTION SYMBOL LEGEND

$\bullet$	CONNECTION OF NEW TO EXISTING
	SCOPE OF WORK BOUNDARY
SPR	- SPRINKLER PIPING
SS	STANDPIPE PIPING
D	DRAIN PIPING
DRY	DRY SYSTEM SPRINKLER PIPING
FDC	FIRE DEPARTMENT CONNECTION PIPING
	COLD WATER PIPING
<u> </u>	PIPING TO BE REMOVED (DEMOLISHED)
O	ELBOW UP
	ELBOW DOWN
O	- TEE UP
	- TEE DOWN
	PIPE CONTINUATION
]	PIPE CAP
	FIRE SPRINKLER RISER ASSEMBLY
•	PIPING IN SECTIONAL DETAIL
平	SPRINKLER IN SECTIONAL DETAIL
F	AUXILIARY DRAIN BALL VALVE
	CHECK VALVE
	CHECK VALVE WITH BALL DRIP
	BUTTERFLY INDICATING VALVE
$\square$	GATE VALVE
+	OS&Y VALVE
	DOUBLE CHECK BACKFLOW PREVENTER
FS	SUPERVISED WATERFLOW SWITCH
PS	SUPERVISED PRESSURE SWITCH
TS	SUPERVISED TAMPER SWITCH
$\checkmark$	WALL MOUNTED FIRE DEPARTMENT CONNECTION
$\bigcirc$	FREE STANDING FIRE DEPARTMENT CONNECTION
$\bigcirc$	PRESSURE GAUGE
HS	HORN/STROBE ALARM

#### FIRE PROTECTION ABBREVIATION LEGEND

AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
BOP	BOTTOM OF PIPE
BRZ	BRONZE
DN	DOWN
EC	EXTENDED COVERAGE
EX	EXISTING
FHV	FIRE HOSE VALVE
FP	FIRE PROTECTION
FPC	FIRE PROTECTION CONTRACTOR
FT	FEET
GC	GENERAL CONTRACTOR
GRVD	GROOVED
HSW	HORIZONTAL SIDEWALL
IN	INCH
PC	PLUMBING CONTRACTOR
PND	PENDENT
QR	QUICK RESPONSE
SPR	SPRINKLER SYSTEM
SS	STANDPIPE SYSTEM
STND	STANDARD
THR	THREADED
UPR	UPRIGHT

#### **ALTERNATES**

REFER TO SPECIFICATION 012300 - ALTERNATES FOR INFORMATION ON ALTERNATES INCLUDED IN THE SCOPE OF WORK.

#### FIRE PROTECTION GENERAL DEMOLITION NOTES:

- 1. NOTATION: DEMOLISH PIPING AND EQUIPMENT SHOWN CROSS HATCHED.
- EXISTING CONDITIONS: THESE DRAWINGS MAY NOT FULLY DEPICT ALL AS-BUILT CONDITIONS; CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING BID(S). NOTIFY ENGINEER AT ONCE SHOULD A DISCREPANCY OR OMISSION BE FOUND.
- DEMOLITION WORK: VERIFY EXISTING SERVICES TO REMAIN. ALL NECESSARY CARE SHALL BE TAKEN DURING DEMOLITION TO PREVENT DAMAGE TO FIRE PROTECTION, PLUMBING, ELECTRICAL, AND MECHANICAL SYSTEMS TO REMAIN. NOTIFY GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR IF WIRING IS FOUND ATTACHED TO PIPING. FIRE PROTECTION SYSTEMS SERVING OTHER AREAS SHALL PROVIDE FOR UNINTERRUPTED SERVICE TO THOSE AREAS UNLESS PRIOR WRITTEN APPROVAL IS RECEIVED FROM THE OWNER. COORDINATE ALL SUCH WORK WITH THE GENERAL CONTRACTOR AND OWNER'S ON SITE REPRESENTATIVE.
- REMOVAL: WHEREVER EXISTING FIRE PROTECTION EQUIPMENT, PIPING AND EQUIPMENT, ETC., ARE TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, FOUNDATIONS, ETC. ASSOCIATED WITH THE FIRE PROTECTION EQUIPMENT, UNLESS NOTED OTHERWISE. AFTER REMOVAL; FLOORS, WALLS AND CEILINGS SHALL BE PATCHED AND FINISHED TO MATCH ADJOINING SURFACES.
- WHERE ITEMS ARE REMOVED, UTILITIES AND THE AREA FROM WHICH THE ITEMS HAVE BEEN REMOVED SHALL BE LEFT IN SUCH A MANNER THAT IS SAFE FOR BOTH PEOPLE AND PROPERTY ON A DAILY BASIS.

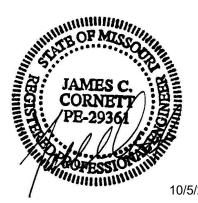
#### FIRE PROTECTION GENERAL NOTES:

- SCOPE: PROVIDE A COMPLETE, FUNCTIONING FIRE SPRINKLER SYSTEM DESIGNED 1. AND INSTALLED IN ACCORDANCE WITH NFPA 13, 2016 EDITION, SYSTEM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE BUILDING CODE, FIRE CODE, AUTHORITY HAVING JURISDICTION, AND INSURANCE CARRIER. VERIFY REQUIREMENTS PRIOR TO BID SUBMITTAL. NO CHANGE TO THE CONTRACT PRICE WILL BE ACCEPTED FOR PROVIDING AND INSTALLING EQUIPMENT REQUIRED BY THE AFOREMENTIONED CODES, STANDARDS, OR THE LOCAL AUTHORITY HAVING JURISDICTION.
- DELEGATED DESIGN: THE LOCATIONS OF SPRINKLERS, MAJOR FIRE PROTECTION EQUIPMENT, AND PIPE ROUTING ARE SHOWN FOR REFERENCE ONLY TO ASSIST IN BIDDING AND SPACE COORDINATION. FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND PROVIDING A COMPLETE, FUNCTIONAL, AND CODE COMPLIANT AUTOMATIC SPRINKLER SYSTEM. FIRE PROTECTION CONTRACTOR SHALL HALL LOCATE AND PROVIDE ALL EQUIPMENT, VALVES, PIPE ARRANGEMENTS AND COORDINATE WITH OTHER TRADES TO MEET THE APPLICABLE CODES AND STANDARDS FOR A COMPLETE AND FUNCTIONAL SYSTEM.
- APPROVAL: PRIOR TO COMMENCING WORK, APPROVAL SHALL BE RECEIVED FROM THE OWNERS INSURANCE COMPANY, ENGINEER, FIRE MARSHAL AND OWNER. WORK COMMENCED PRIOR TO SHOP DRAWING REVIEW SHALL BE AT CONTRACTOR'S RISK.
- PIPING AND COORDINATION:
- A. FIRE PROTECTION CONTRACTOR SHALL COORDINATE WITH OTHER DISCIPLINES FOR THE LOCATION OF ALL PIPING AND EQUIPMENT TO PREVENT INTERFERENCE. PROVIDE ALL NECESSARY OFFSETS IN PIPING TO AVOID CONFLICT. NO CHANGE TO THE CONTRACT PRICE WILL BE ACCEPTED WHERE ALTERNATE PIPING ROUTES ARE REQUIRED.
- B. PIPE SHALL BE INSTALLED AS HIGH AS POSSIBLE IN OPEN STRUCTURE AREAS.
- C. CENTERLINE OF PIPING SHALL BE ROUTED A MINIMUM OF 12" ABOVE CEILING.
- D. RENDER ANY PASSAGE OF PIPING THOUGH OUTSIDE WALLS PERMANENTLY WATERTIGHT.
- E. PROVIDE SEISMIC BRACING AS REQUIRED FOR NEW PIPING. REFER TO BRACING DETAILS.
- F. WHERE PIPING ELEVATION CONFLICTS WITH DUCTWORK, OFFSETS TO FIRE PROTECTION PIPING SHALL BE UP AND OVER DUCTWORK. WHERE CONFLICTS OCCUR, PIPING SHALL NOT BE ROUTED DOWN BELOW DUCTWORK WHERE THIS PIPING WOULD BE WITHIN 12" OF CEILING ELEVATION.
- G. PROVIDE AUXILIARY DRAINS AS REQUIRED FOR DRAINING TRAPPED SECTIONS OF PIPING. FOR TRAPPED SECTIONS OF PIPING EXCEEDING 5 GALLONS IN CAPACITY, PROVIDE A HARD-PIPED DRAIN CONNECTION AND ROUTE BACK TO DRAIN IN SPRINKLER RISER ROOM OR ALTERNATE LOCATION APPROVED BY ENGINEER.
- H. COORDINATE ALL POWER AND FIRE ALARM CONNECTIONS WITH THE ELECTRICAL CONTRACTOR.
- SPRINKLER TYPE AND DESIGN DENSITIES: REFER TO FIRE PROTECTION SPRINKLER SCHEDULE AND PROTECTION CRITERIA.
- SUBMITTAL: FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING THE FOLLOWING DOCUMENTATION SIGNED AND SEALED BY A FIRE PROTECTION ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED:
- A. SHOP DRAWINGS CREATED IN ACCORDANCE WITH NFPA 13 SECTION 23.1.3 (2013 EDITION) AND CONTRACT DOCUMENTS
- B. HYDRAULIC CALCULATIONS
- C. FLOW TEST INFORMATION (REFER TO THIS SHEET FOR DETAIL)
- D. PRODUCT DATA FOR ALL EQUIPMENT AND COMPONENTS USED ON THIS PROJECT
- E. ANY OTHER DOCUMENTATION AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- 7. SCOPE VERIFICATION: GENERAL CONTRACTOR SHALL VERIFY:
- A. ELECTRICAL CONTRACTOR HAS INCLUDED IN HIS CONTRACT ALL POWER AND EMERGENCY POWER REQUIREMENTS REQUIRED FOR FIRE PROTECTION EQUIPMENT, AND ALL SUPERVISORY FIRE ALARM CONNECTIONS.
- 8. FIRE WATCH AND SERVICE:
- A. CONTRACTOR SHALL PROVIDE A FIRE WATCH DURING CONSTRUCTION HOURS. COORDINATE WITH LOCAL FIRE DEPARTMENT FIRE WATCH REQUIREMENTS AND OBTAIN A FIRE WATCH INSPECTION FORM AND LOG INSPECTION TIME WHERE REQUIRED.
- 9. SPECIFICATIONS: REFER TO SPECIFICATIONS FOR FURTHER DETAIL.
- 10. COORDINATE WITH STATE FOR "OCCUPANT" RELOCATION DURING CONSTRUCTION. CONSTRUCTION PHASING SHALL BE COORDINATED WITH THE STATE PRIOR TO THE START OF CONSTRUCTION. TEMPORARY FACILITY USE WILL NEED TO BE COORDINATED AND PHASED TO KEEP SITE OPERATIONAL DURING CONSTRUCTION. OCCUPANTS SHALL NOT BE EXPOSED TO CONSTRUCTION ACTIVITIES.
- 11. COORDINATE WITH STATE FOR VANDALISM PROTECTION FOR ALL CONSTRUCTION STORAGE, EQUIPMENT, CONSTRUCTION LOCATIONS, TRASH DISPOSAL, ETC.

#### FIRE PROTECTION SHEET LIST

Sheet Number	Sheet Name
FP0.1	FIRE PROTECTION SYMBOLS, NOTES, LEGENDS AND SCHEDULES
FP0.2	FIRE PROTECTION DETAILS
FP1.0	FIRE PROTECTION SITE PLAN
FP1.1	FIRE PROTECTION PUMP HOUSE PLAN
FP2.0	FIRE PROTECTION DORMITORY 1ST FLOOR PLAN
FP3.1	FIRE PROTECTION MUTLIPURPOSE BASEMENT FLOOR PLAN
FP3.2	FIRE PROTECTION MULTIPURPOSE 1ST FLOOR PLAN - NORTH
FP3.3	FIRE PROTECTION MULTIPURPOSE 1ST FLOOR PLAN - SOUTH

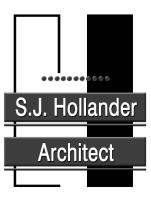
#### **STATE OF MISSOURI** MICHAEL L. PARSON **GOVERNOR**



JAMES C. CORNETT MO LIC#:PE-29361 EXP: 12/31/23



Engineering, 18207 Edison Avenue Chesterfield, Missouri 63005 Phone: 636.530.7770 Fax: 636.530.7877 Missouri Certificate of Authority #NC 001244



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#### **OFFICE OF ADMINISTRATION DIVISION OF FACILITIES** MANAGEMENT, **DESIGN AND** CONSTRUCTION **DIVISION OF YOUTH** SERVICES

CAMP AVERY - FIRE SPRINKLER SYSTEM

198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 7719 SITE # FACILITY # 8877719001; 8877719002;887719004

REVISION:
DATE:
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DATE:

**ISSUE DATE:** 10/5/22

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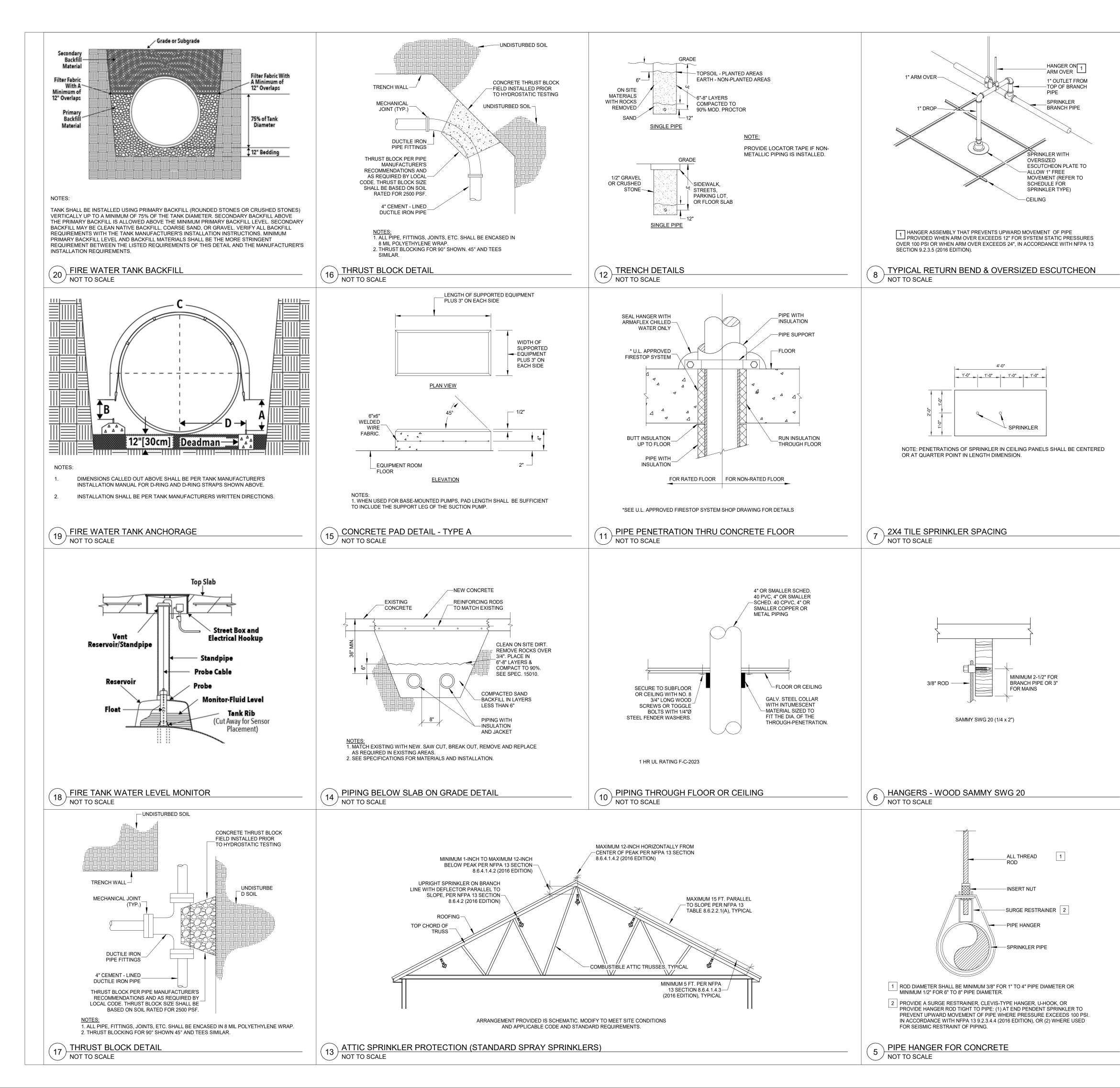
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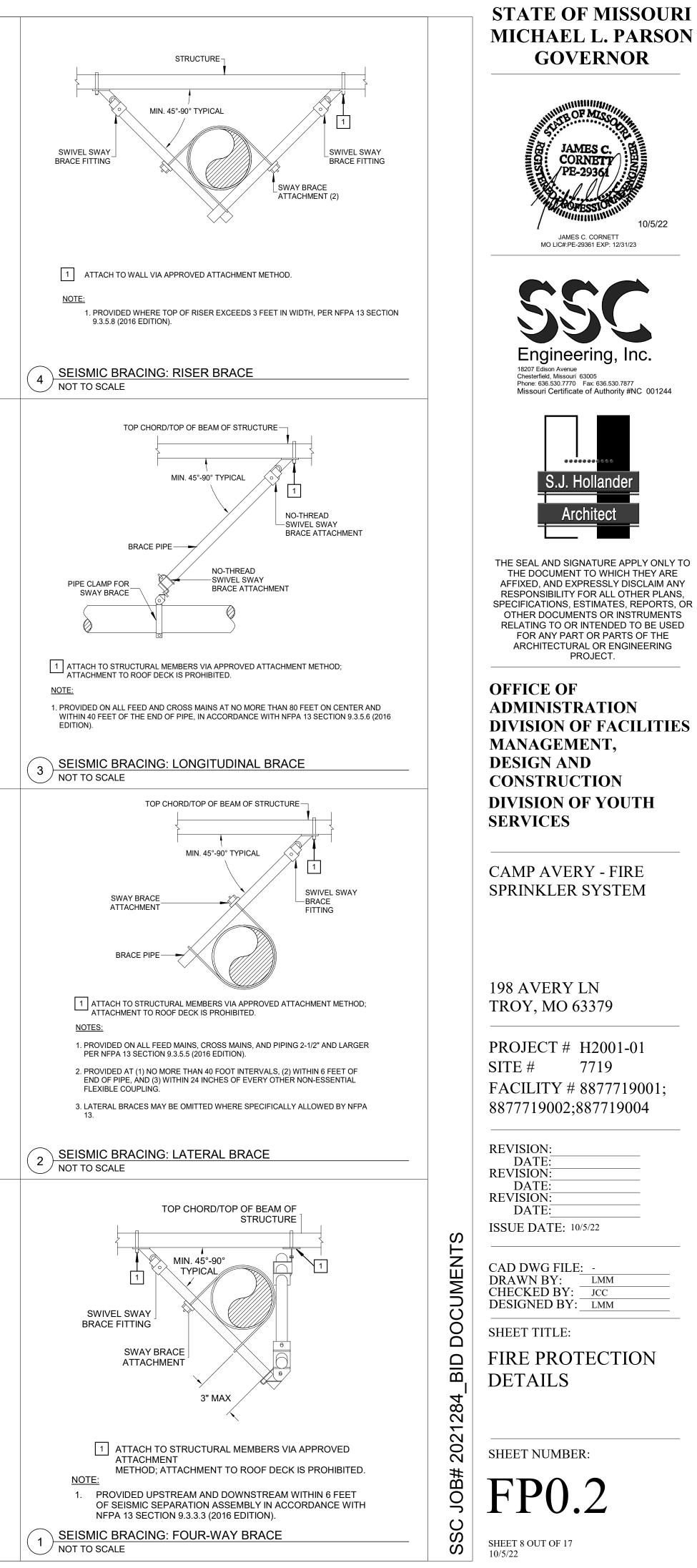
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FIRE PROTECTION SYMBOLS, NOTES, LEGENDS AND **SCHEDULES** 

SHEET NUMBER:

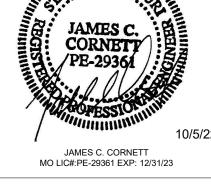
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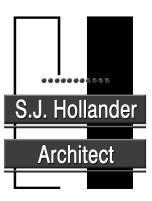
**STATE OF MISSOURI** 

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SHEET TITLE:

FIRE PROTECTION SITE PLAN

SHEET NUMBER:

FP1.0

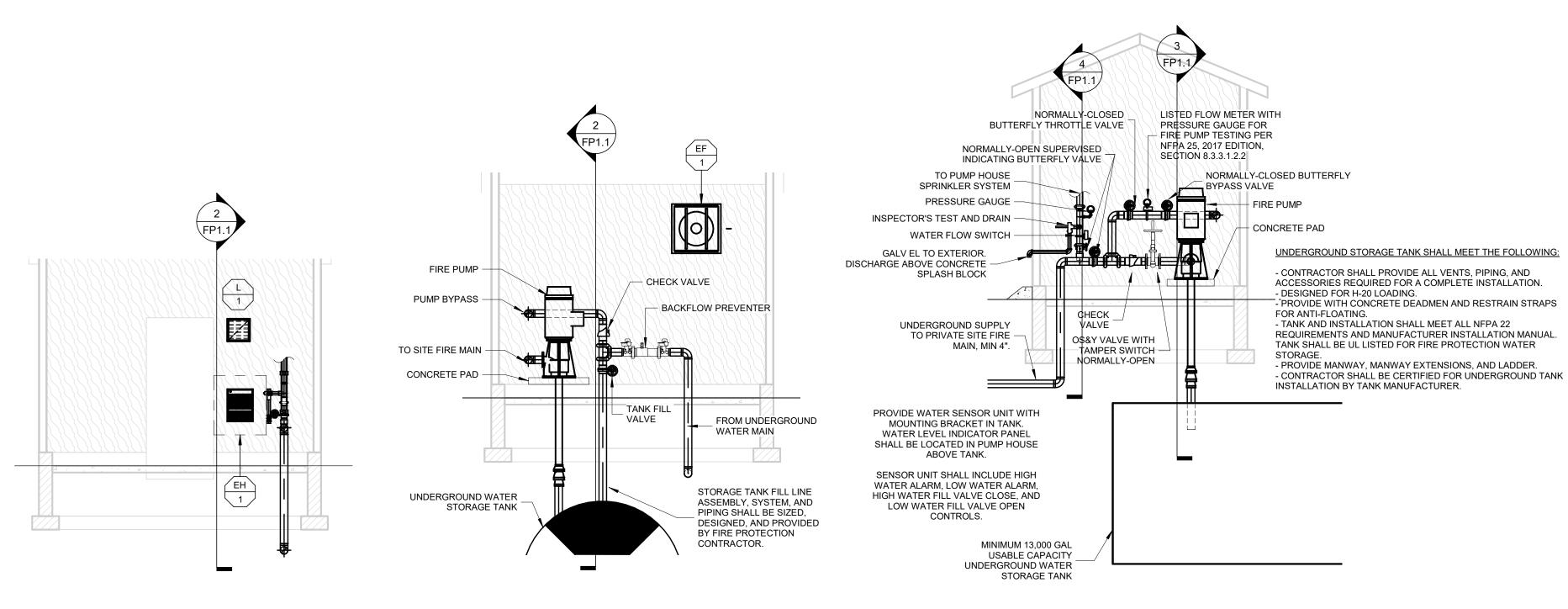
### **FIRE PROTECTION GENERAL NOTES:**

- 1. REFER TO SHEET FP0.1 FOR SYMBOLS, ABBREVIATIONS AND GENERAL CONSTRUCTION NOTES.
- 2. UNDERGROUND PIPING SHALL BE INSTALLED A MINIMUM OF 3'-0" BELOW GRADE. PATCH/REPAIR TRENCH TO MATCH EXISTING.
- 3. PIPING INSTALLED UNDERGROUND SHALL BE INSTALLED WITH LOCATOR TAPE IF INSTALLED PIPING IS NON-METALLIC.

#### FIRE PROTECTION KEYED NOTES:

- 1 UNDERGROUND FIRE PROTECTION ENTRANCE LOCATION IF ALTERNATE #1 IS ACCEPTED AND ALTERNATE #2 IS NOT ACCEPTED.
- <sup>2</sup> FIRE PROTECTION PIPING FROM FIRE PUMP. PIPING SHALL BE ROUTED ALONG BACK OF BUILDINGS AS SHOWN. LOCATE PIPING NEAR TREE LINE AT BACK OF H-BUILDING FOR FUTURE H-BUILDING REPLACEMENT PROJECT. INTENT IS TO PROVIDE ADEQUATE SPACE FOR A NEW BUILDING WITHOUT REQUIRING RELOCATION OF THE UNDERGROUND FIRE PROTECTION PIPING.
- 3 CONNECT TO EXISTING 4" WATER MAIN AT DRIVE. CONNECTION SHALL BE UPSTREAM OF THE EXISTING 2" CLEAN OUT HYDRANT ON SITE.
- 4 FIRE PROTECTION SERVICE ENTRANCE TO BUILDING.
- 5 PROVIDE THRUST BLOCKS AT ALL CHANGES IN DIRECTION, TYP.
- 6 UNDERGROUND FIRE PROTECTION ENTRANCE LOCATION IF ALTERNATE #1 AND ALTERNATE #2 ARE ACCEPTED.
- 7 FIRE DEPARTMENT CONNECTION. SEE SHEET FP1.1.
- 8 FIRE DEPARTMENT CONNECTION. SEE SHEET FP2.3.

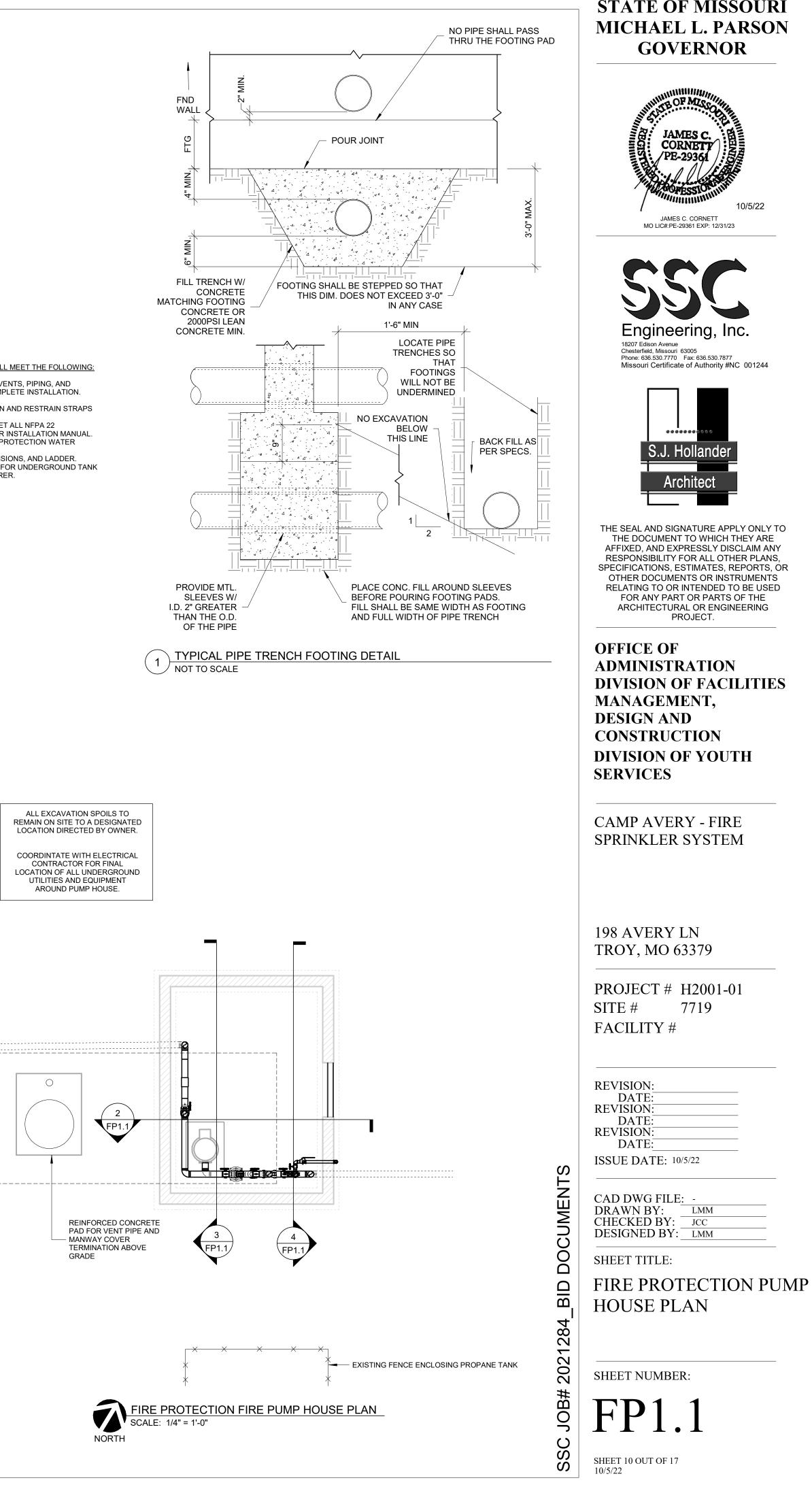
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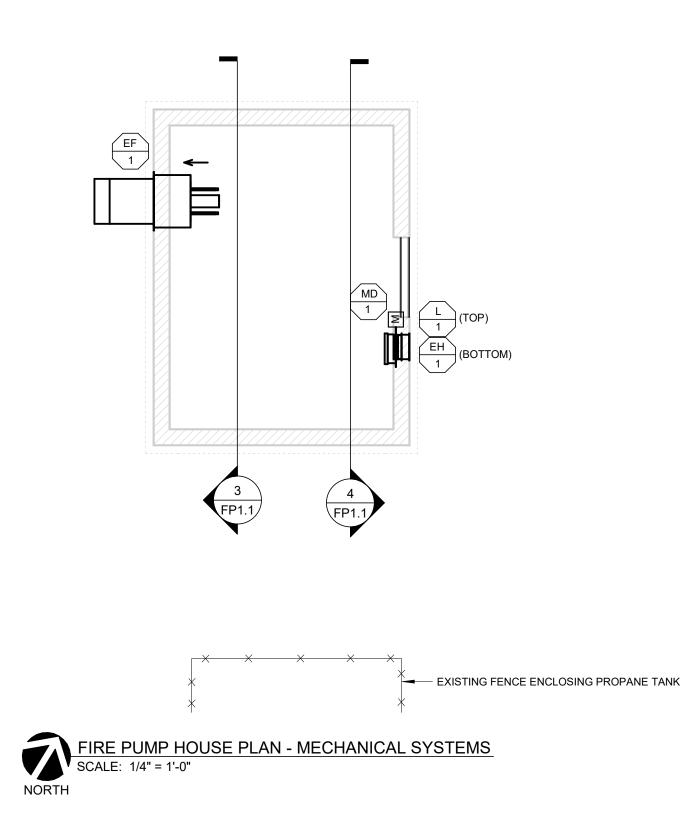


→ FIRE PUMP HOUSE SECTION 2 4 / SCALE: 1/4" = 1'-0"

								_								
TYPE	MARK			MODI				ESP 0.15	V/P		HP	RPM	DRIVE			REMARKS
EF	1	GRI	EENHECK	AER-	20 200		IOUSE	0.15	120	/1	1/4	500	DIRECT	6	0 LBS	ALL
2 WITI 3 WITI 4 INTE 5 WITI	H WALL C H BACKDF ERLOCK F H 45° WEA	OLLAR RAFT DA AN WITH ATHER H	N MOTOR SIE MPER. H MOTORIZEE HOOD. COLOF COATING OF	) dampe r to ma`	TCH EXTERIC			8 9	EXCEE	LUMINU OLLED DS 90°F	IM BL/ WITH	THERMOS	STAT TO TI			-
							LOUV	'ER S	CHEI	DULE						
	ТҮРЕ	MARK	MANUFACT	URER	MODEL	CFM	LISTED (W>		FREE / SQ.F		F	NISH	AIR P.D. IN H2O	VEL	ACE OCITY P.M	REMARKS
	L	1	RUSKI	N	ELF6375DX	200	12"x	x12"	0.3	0	K	YNAR	0.07	6	69	ALL
		ILL EXTI IRDSCR							3 MOU 4 COL				OR OF BUI	LDING.		
					M	OTOF	RIZED	DAM	4 COL	OR TO I	MATC	HEXTERI	-	LDING.		
		IRDSCR		SIZE	M # OF SECTIONS			DAM	4 COL	OR TO I	MATC EDL			CON	ITROL (PE	REMARKS
	2 B	IRDSCR	EEN	SIZE 12"x12'	# OF SECTIONS		VICE		4 COL	OR TO I SCHI # OF	MATC EDL			CON		REMARK
	2 B TYPE MARK MD 1 W	IRDSCR MARK 1	EEN TYPE PARALLEL ) SWITCH.		# OF SECTIONS	SER	VICE	LOCAT FIRE PL HOUS	4 COL	OR TO I	DRS	H EXTERIO JLE FAILURE (NO/NC) NC	VOLTS 120	CON TY ELE(	/PE	REMARKS
	2 B TYPE MARK MD 1 W	MARK 1 ITH END	EEN TYPE PARALLEL ) SWITCH.		# OF SECTIONS	SER OA IN	VICE	LOCAT FIRE PL HOUS	4 COL	SCHI # OF CTUATO 1	DRS	H EXTERIO	VOLTS 120		(PE CTRIC	ALL
	2 B TYPE MARK MD 1 W	MARK 1 ITH END	EEN TYPE PARALLEL ) SWITCH.		# OF SECTIONS	SER OA IN	VICE	LOCAT FIRE PU HOUS	4 COL	OR TO I		H EXTERIO JLE FAILURE (NO/NC) NC	VOLTS 120		(PE CTRIC	

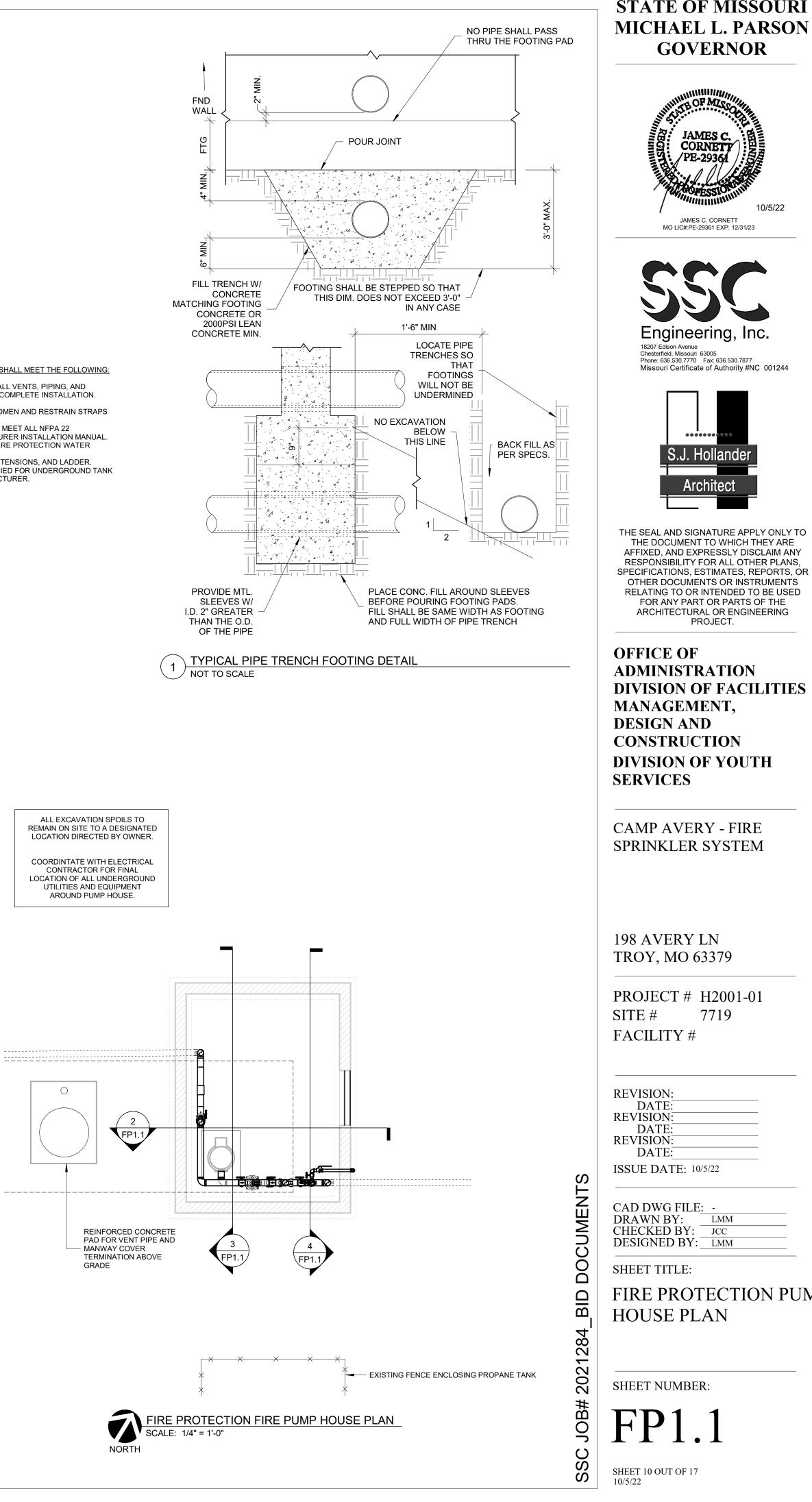
FIRE PUMP HOUSE SECTION 1 <sup>/</sup> SCALE: 1/4" = 1'-0"



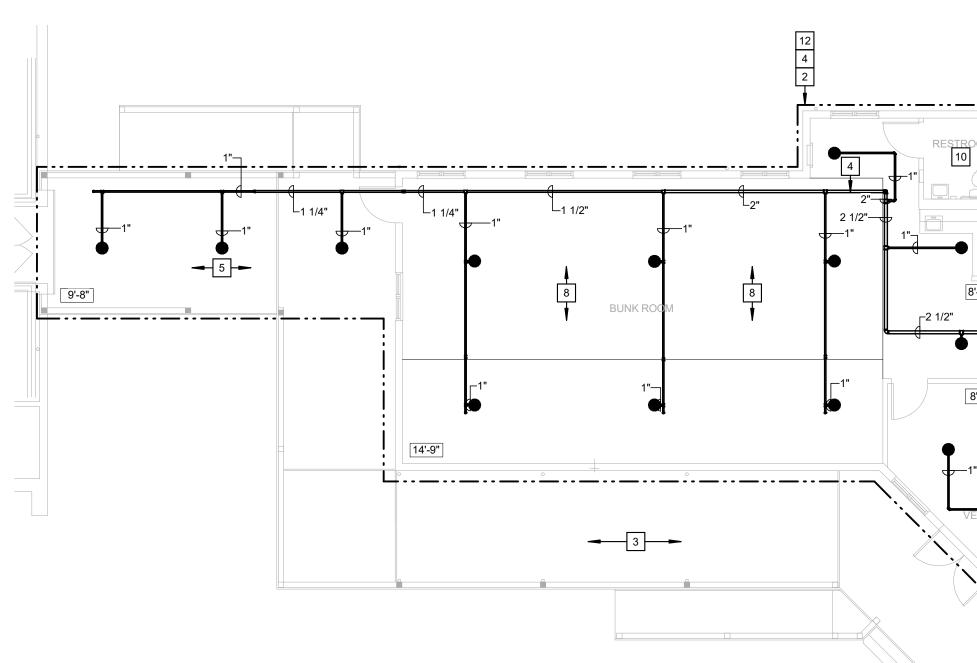


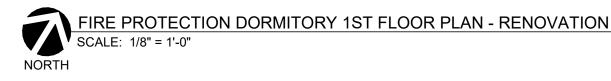
FIRE PROTECTION PUMP HOUSE SECTION

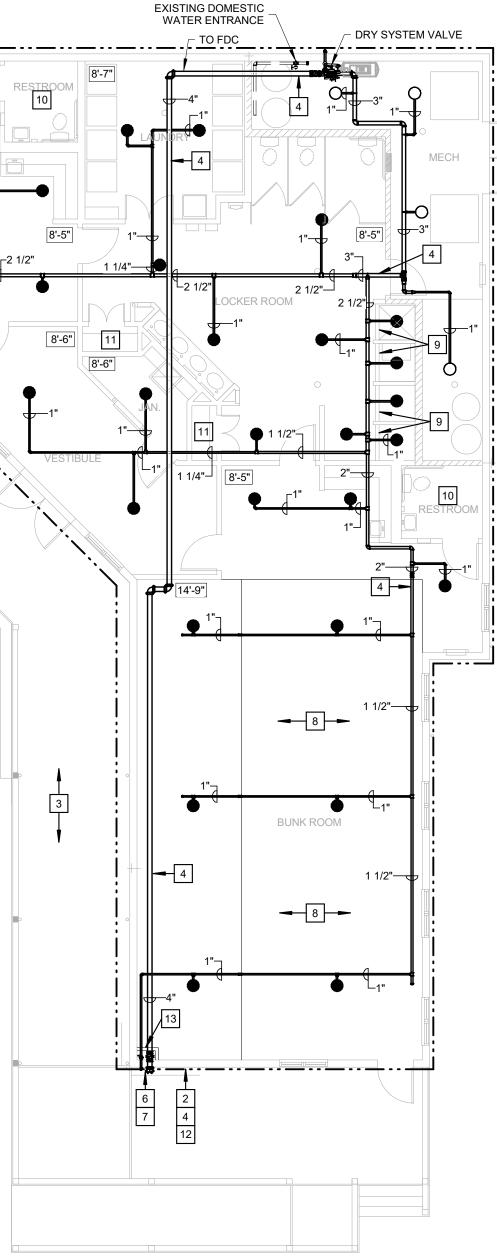
SCALE: 1/4" = 1'-0"

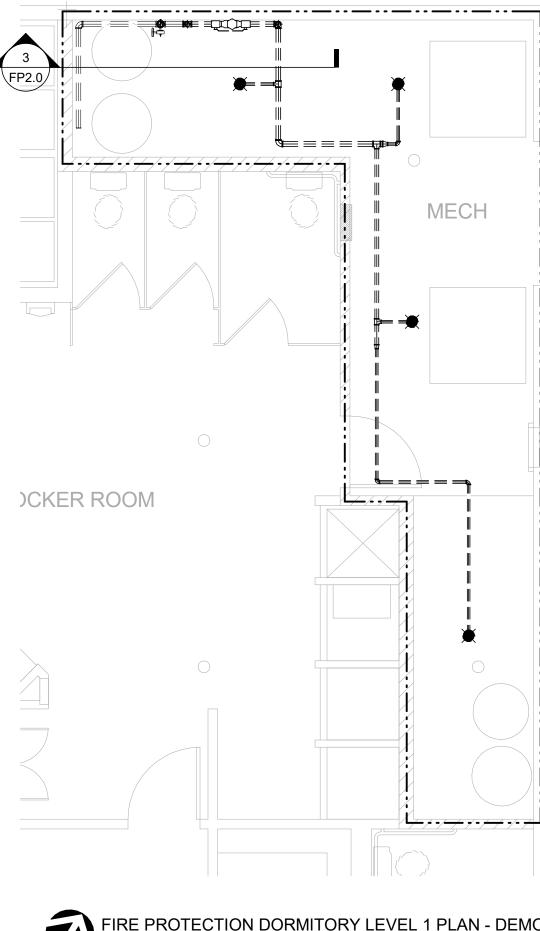


# **STATE OF MISSOURI**



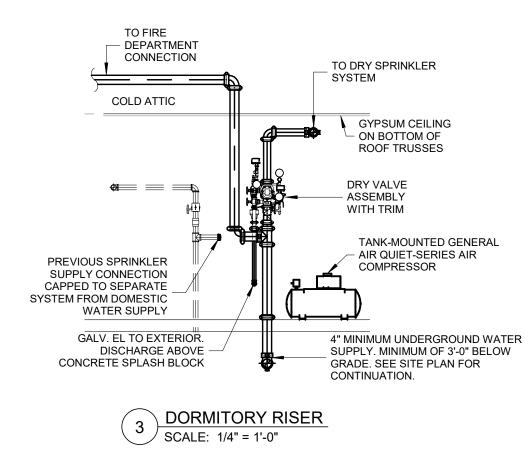








FIRE PROTECTION DORMITORY LEVEL 1 PLAN - DEMOLITION SCALE: 1/4" = 1'-0"



#### **GENERAL NOTES:**

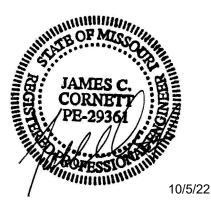
- 1. REFER TO SHEET FP0.1 FOR SYMBOLS, ABBREVIATIONS AND GENERAL CONSTRUCTION NOTES.
- 2. PIPE SIZES SHOWN ON PLANS ARE TO ASSIST IN BIDDING PURPOSES ONLY. PIPE SIZES SHOWN ARE DETERMINED BY PIPE SCHEDULE METHOD AS NOTED IN NFPA 13.

#### **KEYED NOTES:**

- 1 DEMOLISH EXISTING SPRINKLERS AND ASSOCIATED PIPING LOCATED IN THE MECHANICAL ROOM. EXISTING SYSTEM IS CONNECTED TO THE DOMESTIC WATER SYSTEM. DISCONNECT DOMESTIC SYSTEM FROM SPRINKLER PIPING TO BE DEMOLISHED AND CAP.
- 2 PROVIDE THE DESIGN AND INSTALLATION OF A COMPLETE AND FUNCTIONAL AUTOMATIC DRY-PIPE FIRE PROTECTION SYSTEM IN THE AREA INDICATED. FIRE PROTECTION SYSTEM(S) SHALL BE DESIGNER PER NFPA 13R AND IBC REQUIREMENTS FOR A FULLY SPRINKLERED BUILDING. PROVIDE ALL SPRINKLERS, PIPING, HANGERS, ETC. AND COORDINATE LOCATIONS, PIPE ROUTING, SCHEDULING, AND ALL OTHER INSTALLATION REQUIREMENTS WITH OTHER TRADES AND EXISTING CONDITIONS.
- 3 SPRINKLERS ARE NOT REQUIRED BENEATH THE EAVES ABOVE THE PORCH PER NFPA 13R SECTION 6.6.5 2016 EDITION.
- 4 PIPING SHALL BE LOCATED IN THE COLD ATTIC SPACE. NO PIPING SHALL BE INSTALLED BELOW THE ATTIC EXCEPT WHERE CONCEALED BY DROP CEILINGS OR WHERE LOCATED WITHIN THE MECHANICAL ROOM.
- 5 SPRINKLERS REQUIRED IN COVERED WALKWAY BETWEEN BUILDINGS. CONNECTING BUILDING SPRINKLER SYSTEM TO BE DESIGNED PER NFPA 13 AND NOT NFPA 13R.
- 6 PROVIDE A SIAMESE 4"x2-1/2"x2-1/2" FIRE DEPARTMENT CONNECTION. COORDINATE FINAL LOCATION WITH AHJ.
- 7 PROVIDE AN AUDIO/VISUAL HORN AND STROBE ALARM ON EXTERIOR WALL ABOVE FIRE DEPARTMENT CONNECTION.
- 8 SLOPED GYPSUM CEILING. CEILING SLOPES FROM 11'-0" TO 14'-9".
- 9 18-3/4" OBSTRUCTION AT CEILING SEPARATING RESTROOM CEILING FROM SHOWER CEILING. SPRINKLER REQUIRED WITHIN SHOWER, PROVIDE APPROPRIATE TEMPERATURE RATING WITHIN SHOWER STALL.
- 10 SPRINKLERS SHALL NOT BE REQUIRED IN RESTROOMS WHERE THE RESTROOM AREA DOES NOT EXCEED 55 SQFT PER NFPA 13R, 2016 EDITION, SECTION 6.6.2.
- 11 SPRINKLERS ARE NOT REQUIRED IN CLOSETS THAT DO NOT EXCEED 24 SQFT AND HAVE WALLS AND CEILINGS WITH A NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIAL PER NFPA 13R, 2016 EDITION, SECTION 6.6.3.
- 12 SPRINKLERS SHALL NOT BE REQUIRED IN ATTIC SPACES PER NFPA 13R, 2016 EDITION, SECTION 6.6.6.
- 13 REMOTE INSPECTOR'S TEST AND DRAIN SHALL BE INSTALLED WITHIN NEW ENCLOSURE. PROVIDE NEW TAMPER PROOF ACCESS PANEL, APPROXIMATELY 6"x16" FOR ACCESS TO BALL VALVE AND SIGHT GLASS. ACCESS PANEL SHALL HAVE ENGRAVED COVER NOTING LOCATION OF INSPECTOR'S TEST AND DRAIN.

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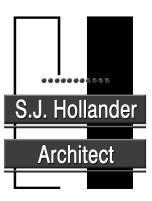
#### **STATE OF MISSOURI** MICHAEL L. PARSON **GOVERNOR**



JAMES C. CORNETT MO LIC#:PE-29361 EXP: 12/31/23



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**OFFICE OF** ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, **DESIGN AND** CONSTRUCTION **DIVISION OF YOUTH** SERVICES

CAMP AVERY - FIRE SPRINKLER SYSTEM

198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 7719 SITE # FACILITY # 8877719004

#### **REVISION:** DATE:

<b>REVISION</b> :	
DATE:	
<b>REVISION</b> :	
DATE:	

ISSUE DATE: 10/5/22

CAD DWG FILE: -DRAWN BY: LMM CHECKED BY: JCC DESIGNED BY: LMM

SHEET TITLE:

DOCUMENTS

BID

2021284

JOB#

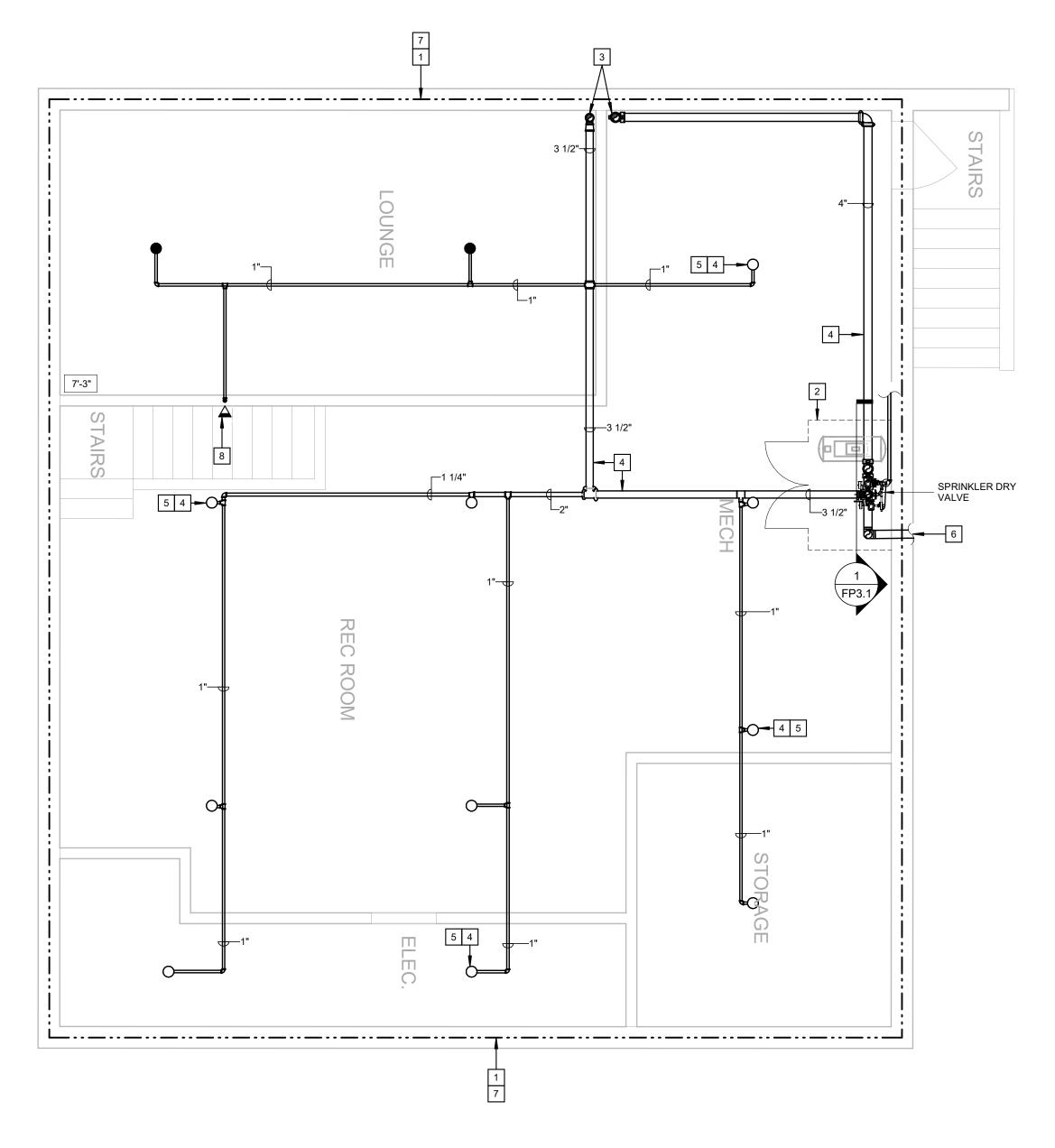
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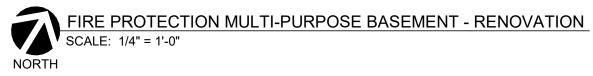
FIRE PROTECTION DORMITORY 1ST FLOOR PLAN

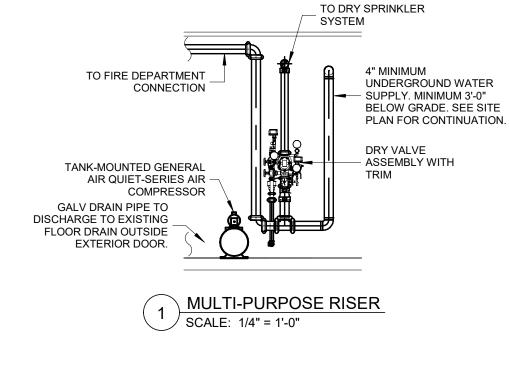
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**FP2.(** 

SHEET 11 OUT OF 17 10/5/22







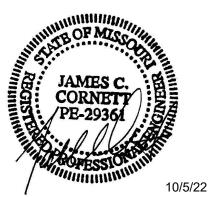
#### **GENERAL NOTES:**

- 1. REFER TO SHEET FP0.1 FOR SYMBOLS, ABBREVIATIONS AND GENERAL CONSTRUCTION NOTES.
- 2. PIPE SIZES SHOWN ON PLANS ARE TO ASSIST IN BIDDING PURPOSES ONLY. PIPE SIZES SHOWN ARE DETERMINED BY PIPE SCHEDULE METHOD AS NOTED IN NFPA 13.

#### **KEYED NOTES:**

- 1 PROVIDE THE DESIGN AND INSTALLATION OF A COMPLETE AND FUNCTIONAL AUTOMATIC DRY FIRE PROTECTION SYSTEM IN THE AREA INDICATED. FIRE PROTECTION SYSTEM(S) SHALL BE DESIGNER PER NFPA 13 AND IBC REQUIREMENTS FOR A FULLY SPRINKLERED BUILDING. PROVIDE ALL SPRINKLERS, PIPING, HANGERS, ETC. AND COORDINATE LOCATIONS, PIPE ROUTING, SCHEDULING, AND ALL OTHER INSTALLATION REQUIREMENTS WITH OTHER TRADES AND EXISTING CONDITIONS.
- 2 PROVIDE A SECURE CHAIN LINK FENCE AROUND SPRINKLER RISER AND EQUIPMENT. PROVIDE (2) SINGLE-SWING 2FT GATES FOR A TOTAL 4'-0" CLEARANCE AREA FOR ÁCCESS AND MAINTENANCE OF EQUIPMENT. GATE SHALL SWING OUT OF ENCLOSURE TO PREVENT DAMAGE TO THE SPRINKLER RISER FROM THE GATE. COORDINATE WITH OWNER FOR LOCK REQUIREMENTS.
- 3 PIPING UP TO FLOOR ABOVE. SEE SHEET FP2.3 FOR CONTINUATION.
- 4 SPRINKLERS AND PIPING SHALL BE INSTALLED AS TIGHT TO STRUCTURE AS POSSIBLE. TYP ALL.
- 5 ALL UPRIGHT SPRINKLERS SHALL BE PROVIDED WITH LISTED SPRINKLER GUARDS.
- 6 LOCATION OF WATER ENTRANCE AND RISER IF ALTERNATE #1 AND ALTERNATE #2 ARE ACCEPTED. SEE SHEET FP2.2 FOR LOCATION IF ONLY ALTERNATE #1 IS ACCEPTED.
- 7 IF ALTERNATE #2 IS NOT ACCEPTED, NO WORK IN THIS AREA.
- 8 CONCEALED DRY SIDEWALL SPRINKLER LOCATED BENEATH STAIRS.

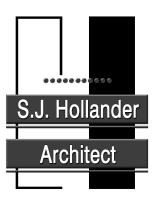
#### **STATE OF MISSOURI** MICHAEL L. PARSON GOVERNOR



JAMES C. CORNETT MO LIC#:PE-29361 EXP: 12/31/23



Engineering, Inc. 18207 Edison Avenue Chesterfield, Missouri 63005 Phone: 636.530.7770 Fax: 636.530.7877 Missouri Certificate of Authority #NC 001244



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**OFFICE OF** ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, **DESIGN AND** CONSTRUCTION **DIVISION OF YOUTH** SERVICES

CAMP AVERY - FIRE SPRINKLER SYSTEM

198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 SITE # 7719 FACILITY # 8877719001

REVISION:	
DATE:	
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DATE:	
REVISION:	
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**ISSUE DATE:** 10/5/22

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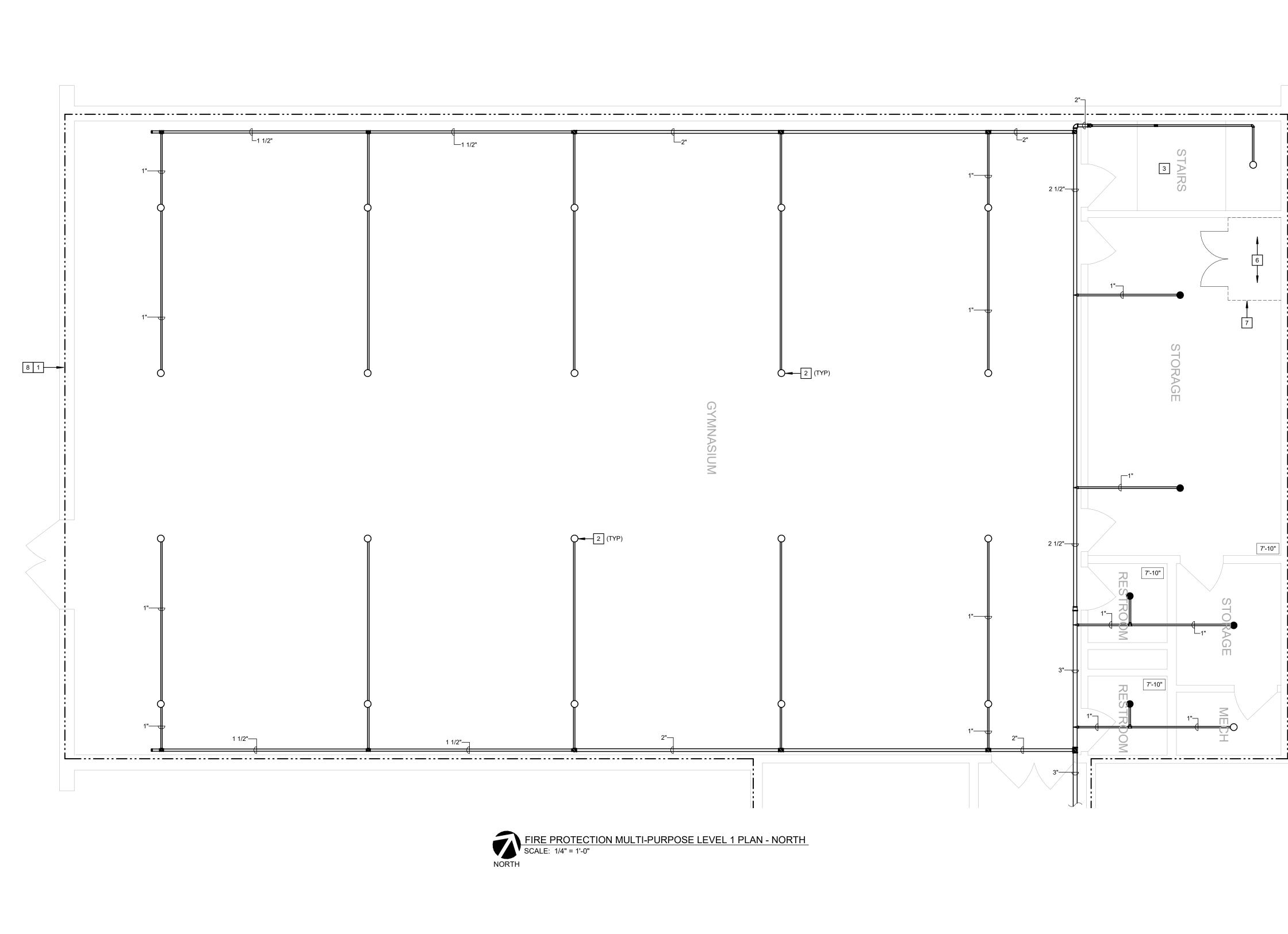
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FIRE PROTECTION MUTLIPURPOSE BASEMENT FLOOR PLAN

SHEET NUMBER:

FP3.

SHEET 12 OUT OF 17 10/5/22

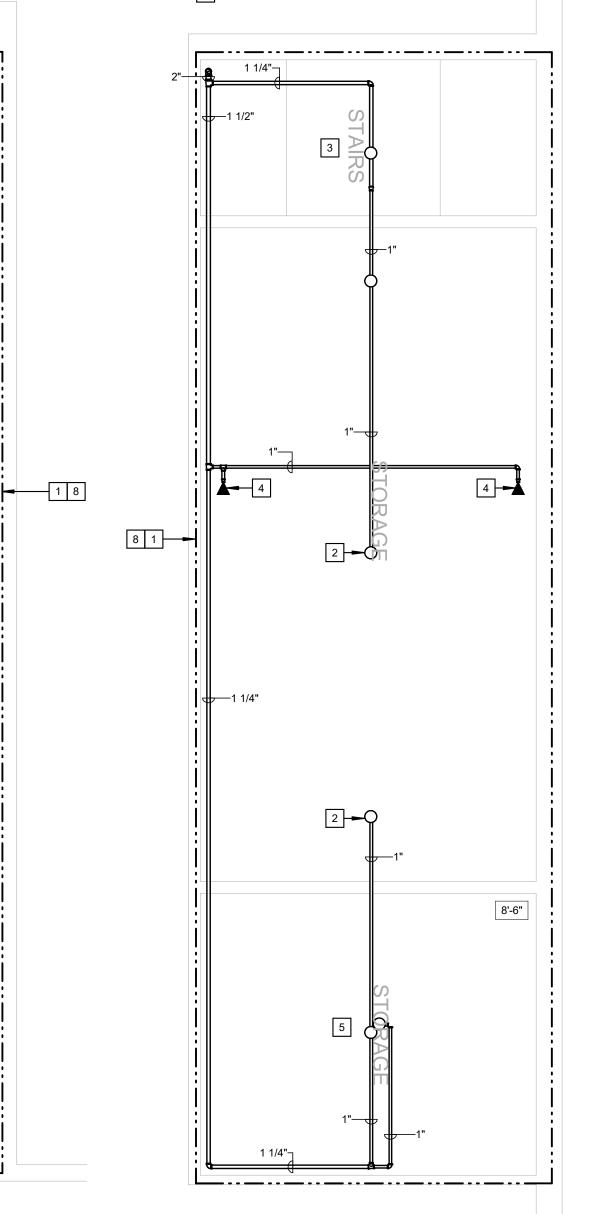


#### **GENERAL NOTES:**

- 1. REFER TO SHEET FP0.1 FOR SYMBOLS, ABBREVIATIONS AND GENERAL CONSTRUCTION NOTES.
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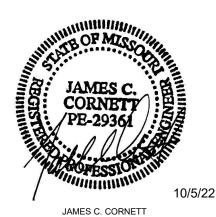
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- 2 UPRIGHT SPRINKLERS SHALL HAVE A LISTED AND APPROVED WIRE GUARD FOR PROTECTION. TYP ALL.
- 3 PROVIDE SPRINKLER PROTECTION AT THE TOP AND BENEATH THE FIRST ACCESSIBLE LANDING PER NFPA 13, SECTION 8.15.3.2.1, 2016 EDITION.
- 4 PROVIDE SPRINKLER PROTECTION BENEATH DUCTWORK EXCEEDING 4FT IN WIDTH PER NFPA 13, 8.6.5.3.3, 2016 EDITION.
- 5 STORAGE ROOM HAS A PLYWOOD LID. NO STORAGE LOCATED ON TOP OF LID. SPRINKLER ABOVE AND BELOW AS SHOWN.
- 6 LOCATION OF WATER ENTRANCE AND RISER IF ONLY ALTERNATE #1 IS ACCEPTED. SEE SHEET FP2.1 FOR LOCATION IF ALTERNATE #1 AND ALTERNATE #2 IS ACCEPTED.
- 7 IF ONLY ALTERNATE #1 IS ACCEPTED: PROVIDE A SECURE CHAIN LINK FENCE AROUND SPRINKLER RISER AND EQUIPMENT. PROVIDE (2) SINGLE-SWING 2FT GATES FOR A TOTAL 4'-0" CLEARANCE AREA FOR ACCESS AND MAINTENANCE OF EQUIPMENT. GATE SHALL SWING OUT OF ENCLOSURE TO PREVENT DAMAGE TO THE SPRINKLER RISER FROM THE GATE. COORDINATE WITH OWNER FOR LOCK REQUIREMENTS.
- 8 IF ALTERNATE #1 IS NOT ACCEPTED, NO WORK IN THIS AREA.



FIRE PROTECTION MULTI-PURPOSE LEVEL PLATFORM PLAN SCALE: 1/4" = 1'-0"

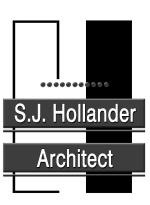
#### **STATE OF MISSOURI** MICHAEL L. PARSON **GOVERNOR**





MO LIC#:PE-29361 EXP: 12/31/23

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**OFFICE OF** ADMINISTRATION **DIVISION OF FACILITIES** MANAGEMENT, **DESIGN AND** CONSTRUCTION **DIVISION OF YOUTH** SERVICES

CAMP AVERY - FIRE SPRINKLER SYSTEM

198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 7719 SITE # FACILITY # 8877719001

<b>REVISION:</b>
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ISSUE DATE: 10/5/22

CAD DWG FILE: -DRAWN BY: LMM CHECKED BY: JCC DESIGNED BY: LMM

SHEET TITLE:

DOCUMENTS

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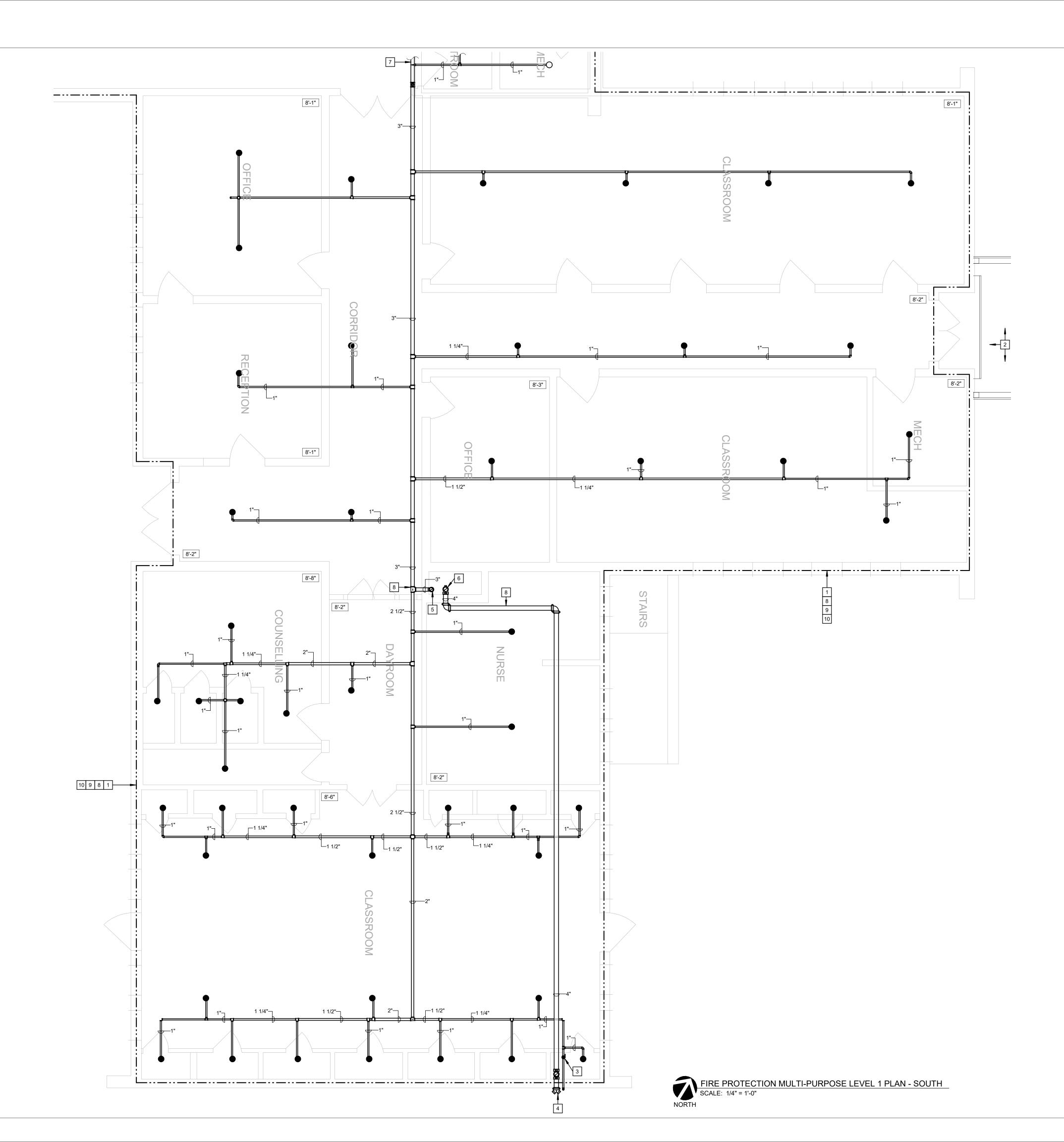
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FIRE PROTECTION MULTIPURPOSE 1ST FLOOR PLAN - NORTH

SHEET NUMBER:



SHEET 13 OUT OF 17 10/5/22



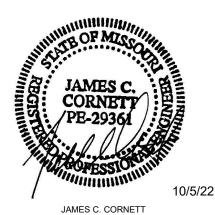
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- 2. PIPE SIZES SHOWN ON PLANS ARE TO ASSIST IN BIDDING PURPOSES ONLY. PIPE SIZES SHOWN ARE DETERMINED BY PIPE SCHEDULE METHOD AS NOTED IN NFPA 13.

#### KEYED NOTES:

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- 2 SEE SHEET FP1.1 FOR DORMITORY SPRINKLER SYSTEM INFORMATION.
- 3 REMOTE INSPECTOR'S TEST AND DRAIN SHALL BE INSTALLED WITHIN EXISTING CLOSET. VALVE SHALL BE LOCKABLE TO PREVENT TAMPERING AND PROVIDE PROTECTIVE CAGE AROUND SITE GLASS.
- 4 PROVIDE A SIAMESE 4"x2-1/2"x2-1/2" FIRE DEPARTMENT CONNECTION. COORDINATE FINAL LOCATION WITH AHJ.
- 5 PIPING MAIN DOWN TO FLOOR BELOW. SEE SHEET FP2.1 FOR CONTINUATION.
- 6 FIRE DEPARTMENT CONNECTION PIPING FROM FLOOR BELOW. SEE SHEET FP2.1 FOR CONTINUATION.
- 7 SEE SHEET FP2.2 FOR CONTINUATION.
- 8 ALL PIPING SHALL BE LOCATED IN THE COLD ATTIC SPACE. NO PIPING SHALL BE INSTALLED BELOW THE ATTIC EXCEPT WHERE CONCEALED BY DROP CEILINGS OR WHERE LOCATED WITHIN A MECHANICAL ROOM.
- 9 SPRINKLERS ARE REQUIRED WITHIN THE COLD ATTIC. EXTEND DRY SYSTEM PIPING WITHIN ATTIC TO PROTECT ATTIC SPACE AS NECESSARY.
- 10 IF ALTERNATE #2 IS NOT ACCEPTED, NO WORK IN THIS AREA.

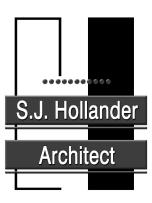
#### STATE OF MISSOURI MICHAEL L. PARSON GOVERNOR





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CAMP AVERY - FIRE SPRINKLER SYSTEM

198 AVERY LN TROY, MO 63379

PROJECT #H2001-01SITE #7719FACILITY #8877719001

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ISSUE DATE: 10/5/22

CAD DWG FILE: -DRAWN BY: LMM CHECKED BY: JCC DESIGNED BY: LMM

SHEET TITLE:

FIRE PROTECTION MULTIPURPOSE 1ST FLOOR PLAN - SOUTH

SHEET NUMBER:



SSC JOB# 2021284\_BID DOCUMENTS

SHEET 14 OUT OF 17 10/5/22

	ELECTRICAL SYMBOLS		עו
	LIGHTING FIXTURES		
AA3	LUMINAIRE - CEILING MOUNTED. ALPHA-NUMERIC DESIGNATION DENOTES TYPE; SEE LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION.	•	PUSHBUTTON - MOUNT 46
BB2	LUMINAIRE - AS ABOVE - WALL MOUNTED 84" AFF (U.N.O).		BELL - MOUNT 84" AFF.
(C1)	LED, FLUORESCENT OR H.I.D. FIXTURE - AS ABOVE - CEILING MOUNTED OR PENDANT MOUNTED TO HEIGHT INDICATED.		VOICE OUTLET - MOUNT 18 DATA OUTLET - MOUNT 18
	WALL MOUNTED FIXTURE - AS ABOVE - MOUNTING HEIGHT AS PER PLANS.	▼ 	DATA OUTLET - 8" ABOVE (
8 8	EXIT LIGHT - CEILING MOUNTED; WALL MOUNT 7'-6" AFF OR ABOVE DOOR SHADED PORTION INDICATES		T.V. OUTLET - MOUNT 18" A
	FACE; WITH DIRECTIONAL ARRÓW(S) AS INDICATED. FIXTURE TYPE "X" (U.N.O.).	GAP	GENERATOR ANNUNCIATO
	COMBINATION EXIT LIGHT WITH EMERGENCY LIGHTING HEADS. FIXTURE TYPE "X1" (U.N.O.).	_	
42	EMERGENCY LIGHT - BATTERY OPERATED - WALL MOUNTED 84" AFF (U.N.O.). FIXTURE TYPE "Y" (U.N.O.).	ulu	TRANSFORMER
	LIGHT POLE WITH SINGLE HEAD LUMINAIRE. LIGHT POLE WITH MULTIPLE HEADS (AS INDICATED).		TRANSFORMER
0 /////	SHADING DENOTES EMERGENCY FIXTURE.		CURRENT TRANSFORMER
			PANEL (1 OR 2 SECTIONS /
1a,b NL	1 - CIRCUIT NUMBER TO WHICH FIXTURE IS CONNECTED a,b - LETTER(S) OF SWITCH(ES) CONTROLLING FIXTURE NL - NIGHT LIGHT (UNSWITCHED CIRCUIT)	/ 30	DISCONNECT SWITCH: 30
NL		(20)	FUSE: (20) = AMPERE RAT
\$ <sup>a</sup>	SINGLE POLE SWITCH - "a" INDICATES SWITCH LEG - MOUNT 46" AFF.		MOLDED CASE CIRCUIT BF
\$- \$ <sup>2</sup>	DOUBLE POLE WALL SWITCH - AS ABOVE.	^	
\$ <sup>3</sup>	THREE-WAY SWITCH - AS ABOVE.	-	CIRCUIT BREAKER, DRAW
\$ <sup>M</sup>	MANUAL MOTOR STARTER WITH OVERLOAD PROTECTION - MOUNT ON SIDE OF UNIT OR AT 46" AFF.		KILOWATT HOUR METER
\$ <sup>OS</sup>	OCCUPANCY SENSOR WALL MOUNTED, MOUNT 46" AFF. "2" INDICATES DUAL RELAY.	ST ST	SHUNT TRIP
\$ <sup>D</sup> TS	DIMMER SWITCH - AS ABOVE, 1000 WATT RATING OR 0-10V AS REQUIRED. MOUNT 46" A.F.F. TIME SWITCH - MOUNT 60" AFF.	GF	GROUND FAULT RELAY
PC	PHOTOCELL MOUNTED IN WP OUTLET BOX LOCATED ON ROOF, FACING NORTH, (U.N.O.).	GFP	GROUND FAULT PROTECT
LC	LIGHTING CONTRACTOR FOR NUMBER OF CIRCUITS AS INDICATED ON PLAN.		AUTOMATIC TRANSFER SV
OS	OCCUPANCY SENSOR, CEILING MOUNTED, "2" INDICATES 2 POLE.		
J	JUNCTION BOX OR POINT OF CONNECTION - MOUNT 18" AFF OR AT HEIGHT REQUIRED BY RESPECTIVE EQUIPMENT ITEM MANUFACTURER.		
$\oplus$	DUPLEX RECEPTACLE - MOUNT 18" AFF.	AC AIC	ABOVE COUNTER
<b></b>	DOUBLE DUPLEX RECEPTACLE - AS ABOVE.	AFC	AVAILABLE FAULT CURREN
$\bigcirc$	SINGLE CONVENIENCE RECEPTACLE - AS ABOVE.	AFF	ABOVE FINISHED FLOOR.
	DUPLEX RECEPTACLE AS ABOVE - SPLIT WIRED, TOP HALF SWITCHED. DUPLEX 8" ABOVE COUNTER OR WALL HUNG LAVATORY.	ATS	AUTOMATIC TRANSFER SV
	DOUBLE DUPLEX RECEPTACLE 8" ABOVE COUNTER	CT EC	CURRENT TRANSFORMER
•	CEILING MOUNTED DUPLEX RECEPTACLE, FLUSH IN CEILING (U.N.O.).	EM	EMERGENCY
$\bigcirc$	SPECIAL PURPOSE OUTLET - MOUNT 18" AFF. TYPE AS REQUIRED BY RESPECTIVE EQUIPMENT MFR.	EX	EXISTING
	MOTORS AND EQUIPMENT	FLA	FULL LOAD AMPS
L	DISCONNECT SWITCH (FUSED OR NON-FUSED AS INDICATED) - MOUNT 60" AFF. 30/20/3 INDICATES	FP	FIRE PROTECTION
30/20/3	SWITCH AMPS/FUSE AMPS/POLES. MOTOR STARTER, NEMA SIZE TO SUIT EQUIPMENT SERVED, WITH HAND-OFF-AUTO SELECTOR SWITCH,	FPC FSS	FIRE PROTECTION CONTR
	(U.N.O.).	- G	GENERATOR
	COMBINATION MOTOR STARTER, AS ABOVE AND DISCONNECT SWITCH.	GC	GENERAL CONTRACTOR
30/2 ECB	ENCLOSED CIRCUIT BREAKER; AMPS/POLES RATING AS INDICATED. CONTROL PANEL FOR EQUIPMENT ITEM INDICATED ON PLAN.	GFI	GROUND FAULT CIRCUIT II
VFD	VARIABLE FREQUENCY DRIVE FOR EQUIPMENT ITEM INDICATED ON PLAN.	- M	METER
•••	MULTIPLE PUSH BUTTONS - MOUNT 46" AFF, AS INDICATED (U.N.O.).	MAX MC	MAXIMUM MECHANICAL CONTRACTO
$\bigcirc$	ELECTRIC MOTOR.	MFR	MANUFACTURER
	NEW BRANCH CIRCUIT PANELBOARD - MOUNT TOP 78" AFF. EXISTING BRANCH CIRCUIT PANELBOARD.	МН	MOUNTING HEIGHT
	SWITCHBOARD, DISTRIBUTION PANEL OR MOTOR CONTROL CENTER.	MIN	MINIMUM
T	DRY-TYPE TRANSFORMER.	NF NTS	NON-FUSED SWITCH
	KILOWATT HOUR METER BASE.	SPD	SURGE PROTECTIVE DEVI
	CIRCUITRY DESIGNATIONS	TP	TAMPER PROOF TYPE DEV
- ↓	BRANCH CIRCUITRY. CONCEALED IN WALLS OR ABOVE CEILINGS. ARROW INDICATES HOME RUN TO PANEL. SHORT SLASH MARKS INDICATE "HOT" WIRES, LONG SLASH MARK INDICATES "NEUTRAL" WIRE, LONG SLASH	тсс	TEMPERATURE CONTROL
	WITH SOLID CIRCLE INDICATES GREEN GROUNDING CONDUCTOR. BRANCH CIRCUITRY AS ABOVE, CONCEALED IN FLOOR SLAB OR UNDERGROUND.	TYP	
	BRANCH CIRCUITRY AS ABOVE, EXPOSED ON WALLS OR STRUCTURE.	U.N.O.	UNLESS NOTED OTHERWI
~ ~	CIRCUITRY UP - CIRCUITRY DOWN.	WP	WEATHERPROOF
	FIRE ALARM SYSTEM		
FACP	FIRE ALARM CONTROL PANEL - MOUNT TOP 72" AFF.	<u> </u>	SENERAL DEMOL
	FIRE ALARM ANNUNCIATOR PANEL - MOUNT TOP 72" AFF.	- 1.	THE OWNER INTENDS TO
	DIGITAL ALARM COMMUNICATOR TRANSMITTER FIRE ALARM POWER SUPPLY - MOUNTED 72" A.F.F.	_	THE OWNER'S APPROVA UTILITY INTERRUPTIONS
FADSI		1	
	MANUAL PULL STATION - MOUNT 46" AFF.	2.	ALL ELECTRICAL EQUIPM
F SD	MANUAL PULL STATION - MOUNT 46" AFF. SMOKE DETECTOR - CEILING MOUNTED.	2.	ARE SHOWN WITH DASH
F	SMOKE DETECTOR - CEILING MOUNTED. SINGLE STATION SMOKE ALARM - CEILING MOUNTED - "CO" INDICATES COMBINATION	2.	ARE SHOWN WITH DASH REMOVED BACK TO THE
F SD SD <sup>SS</sup>	SMOKE DETECTOR - CEILING MOUNTED.	3.	ARE SHOWN WITH DASH REMOVED BACK TO THE REMOVE EQUIPMENT, FIZ OF EXISTING FIELD CONT
F SD SD <sup>SS</sup>	SMOKE DETECTOR - CEILING MOUNTED. SINGLE STATION SMOKE ALARM - CEILING MOUNTED - "CO" INDICATES COMBINATION CARBON MONOXIDE ALARM DUCT MOUNTED SMOKE DETECTOR WITH SAMPLING TUBES. DUCT MOUNTED SMOKE DETECTOR'S REMOTE ANNUNCIATOR LAMP AND TEST SWITCH-MOUNT ON CEILING,	3.	ARE SHOWN WITH DASH REMOVED BACK TO THE REMOVE EQUIPMENT, FI OF EXISTING FIELD CONI WIRING THAT WILL REQU
F (SD)	SMOKE DETECTOR - CEILING MOUNTED. SINGLE STATION SMOKE ALARM - CEILING MOUNTED - "CO" INDICATES COMBINATION CARBON MONOXIDE ALARM DUCT MOUNTED SMOKE DETECTOR WITH SAMPLING TUBES. DUCT MOUNTED SMOKE DETECTOR'S REMOTE ANNUNCIATOR LAMP AND TEST SWITCH-MOUNT ON CEILING, (U.N.O.).	3.	ARE SHOWN WITH DASH REMOVED BACK TO THE REMOVE EQUIPMENT, FIZ OF EXISTING FIELD CONT
F (SD) (SD) SS (D)	SMOKE DETECTOR - CEILING MOUNTED. SINGLE STATION SMOKE ALARM - CEILING MOUNTED - "CO" INDICATES COMBINATION CARBON MONOXIDE ALARM DUCT MOUNTED SMOKE DETECTOR WITH SAMPLING TUBES. DUCT MOUNTED SMOKE DETECTOR'S REMOTE ANNUNCIATOR LAMP AND TEST SWITCH-MOUNT ON CEILING,	3.	ARE SHOWN WITH DASH REMOVED BACK TO THE OF EXISTING FIELD CONI WIRING THAT WILL REQU FOR EXISTING ELECTRIC OR ABOVE CEILING AS R
F SD SD SS F A H	SMOKE DETECTOR - CEILING MOUNTED.         SINGLE STATION SMOKE ALARM - CEILING MOUNTED - "CO" INDICATES COMBINATION         CARBON MONOXIDE ALARM         DUCT MOUNTED SMOKE DETECTOR WITH SAMPLING TUBES.         DUCT MOUNTED SMOKE DETECTOR'S REMOTE ANNUNCIATOR LAMP AND TEST SWITCH-MOUNT ON CEILING, (U.N.O.).         HEAT DETECTOR - CEILING MOUNTED (U.N.O.).	3.	ARE SHOWN WITH DASH REMOVED BACK TO THE OF EXISTING FIELD CONI WIRING THAT WILL REQU FOR EXISTING ELECTRIC OR ABOVE CEILING AS R FOR EXISTING ELECTRIC CONDUCTORS, REMOVE
$F$ $SD$ $SD$ $F^A$ $H$ $CO$ $F^{-15}$	SMOKE DETECTOR - CEILING MOUNTED. SINGLE STATION SMOKE ALARM - CEILING MOUNTED - "CO" INDICATES COMBINATION CARBON MONOXIDE ALARM DUCT MOUNTED SMOKE DETECTOR WITH SAMPLING TUBES. DUCT MOUNTED SMOKE DETECTOR'S REMOTE ANNUNCIATOR LAMP AND TEST SWITCH-MOUNT ON CEILING, (U.N.O.). HEAT DETECTOR - CEILING MOUNTED (U.N.O.). CARBON MONOXIDE DETECTOR - CEILING MOUNTED. VISUAL FLASHER - MOUNT 80" AFF TO BOTTOM OF FLASHER; (NUMERALS INDICATE CANDELA). HORN OR SPEAKER - MOUNT 80" AFF; V DENOTES COMBINATION AUDIBLE/VISUAL APPLIANCE.	3. 4. 5.	ARE SHOWN WITH DASH REMOVED BACK TO THE OF EXISTING FIELD CONE WIRING THAT WILL REQU FOR EXISTING ELECTRIC OR ABOVE CEILING AS R FOR EXISTING ELECTRIC CONDUCTORS, REMOVE FOR NEW WALL FINISH. F
$F$ $SD$ $SD$ $SD$ $F$ $F^{A}$ $H$ $CO$ $F - 15$ $F < 30$	SMOKE DETECTOR - CEILING MOUNTED. SINGLE STATION SMOKE ALARM - CEILING MOUNTED - "CO" INDICATES COMBINATION CARBON MONOXIDE ALARM DUCT MOUNTED SMOKE DETECTOR WITH SAMPLING TUBES. DUCT MOUNTED SMOKE DETECTOR'S REMOTE ANNUNCIATOR LAMP AND TEST SWITCH-MOUNT ON CEILING, (U.N.O.). HEAT DETECTOR - CEILING MOUNTED (U.N.O.). CARBON MONOXIDE DETECTOR - CEILING MOUNTED. VISUAL FLASHER - MOUNT 80" AFF TO BOTTOM OF FLASHER; (NUMERALS INDICATE CANDELA). HORN OR SPEAKER - MOUNT 80" AFF; V DENOTES COMBINATION AUDIBLE/VISUAL APPLIANCE. (NUMERALS INDICATE CANDELA).	3.	ARE SHOWN WITH DASH REMOVED BACK TO THE OF EXISTING FIELD CONI WIRING THAT WILL REQU FOR EXISTING ELECTRIC OR ABOVE CEILING AS R FOR EXISTING ELECTRIC CONDUCTORS, REMOVE FOR NEW WALL FINISH. F
F $SD$ $SD$ $SD$ $F$ $F$ $H$ $CO$ $F$ $F$ $T5$ $F$ $T5$ $F$	SMOKE DETECTOR - CEILING MOUNTED.SINGLE STATION SMOKE ALARM - CEILING MOUNTED - "CO" INDICATES COMBINATION CARBON MONOXIDE ALARMDUCT MOUNTED SMOKE DETECTOR WITH SAMPLING TUBES.DUCT MOUNTED SMOKE DETECTOR'S REMOTE ANNUNCIATOR LAMP AND TEST SWITCH-MOUNT ON CEILING, (U.N.O.).HEAT DETECTOR - CEILING MOUNTED (U.N.O.).CARBON MONOXIDE DETECTOR - CEILING MOUNTED.VISUAL FLASHER - MOUNT 80" AFF TO BOTTOM OF FLASHER; (NUMERALS INDICATE CANDELA).HORN OR SPEAKER - MOUNT 80" AFF; V DENOTES COMBINATION AUDIBLE/VISUAL APPLIANCE. (NUMERALS INDICATE CANDELA).VISUAL FLASHER - CEILING MOUNTED; (NUMERALS INDICATE CANDELA). FINISH TO MATCH CEILING.	3. 4. 5.	ARE SHOWN WITH DASH REMOVED BACK TO THE OF EXISTING FIELD CONI WIRING THAT WILL REQU FOR EXISTING ELECTRIC OR ABOVE CEILING AS R FOR EXISTING ELECTRIC CONDUCTORS, REMOVE FOR NEW WALL FINISH. F EXISTING RECEPTACLES BE EXTENDED TO BE FLU MAINTAIN CIRCUIT CONT
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	G	ENERAL CONSTRUCTION NOTES:	<u>GEI</u>
AUXILIARY SYSTEMS	1.	ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY PERMITS, LICENSES, INSPECTIONS AND FEES FROM THE LOCAL AUTHORITIES. CONTRACTOR SHALL BE LICENSED BY LOCAL	24.
- 46" AFF.		AND/OR STATE AUTHORITIES HAVING JURISDICTION	25.
T 18" AFF; W INDICATES WALL MOUNT 46" AFF,	2.	ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), NATIONAL ELECTRICAL CODE (NEC), INTERNATIONAL BUILDING CODE (IBC) AND OTHER APPLICABLE LOCAL, STATE AND NATIONAL CODES.	26.
/E COUNTER.	3.	ALL ELECTRICAL MATERIAL USED ON THIS PROJECT SHALL BE "UL" LISTED AND LABELED.	07
8" AFF U.N.O.	4.	THE ENTIRE ELECTRICAL SYSTEM AND ALL ELECTRICAL EQUIPMENT SHALL BE GROUNDED IN STRICT	27.
ATOR PANEL.		ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND AS SHOWN ON THE DRAWINGS. PROVIDE A GROUND WIRE IN EACH POWER CONDUIT, SIZED PER THE NEC.	
ONE-LINE DIAGRAMS	5.	CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A COMPLETE SYSTEM PER CONTRACT DRAWINGS AND ENSURING THAT THE SYSTEM IS OPERATIONAL UPON JOB COMPLETION.	28.
IER	6.	CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL OTHER TRADES AND DISCIPLINES TO AVOID CONFLICTS AND TO VERIFY ALL EQUIPMENT CONNECTIONS. COORDINATE ALL WIRING DEVICE LOCATIONS AND ELEVATIONS INDICATED ON THE PLANS WITH THE OWNER, ARCHITECT AND FINAL FURNITURE/EQUIPMENT LAYOUTS.	29.
NS AS INDICATED)	7.	CONTRACTOR SHALL GUARANTEE ALL LABOR AND MATERIAL INSTALLED OR FURNISHED UNDER THIS	
30 = AMPERE RATING RATING		CONTRACT FOR A PERIOD OF NOT LESS THAN ONE YEAR AFTER FINAL ACCEPTANCE OF THE BUILDING.	20
REAKED "AF" INDICATES AMP FRAME		MAINTAIN AND VERIFY ELECTRICAL EQUIPMENT CLEARANCES AND WORKING SPACE PER NEC.	30.
BREAKER "AF" INDICATES AMP FRAME "AT" INDICATES AMP TRIP	9.	PROVIDE ELECTRICAL SYSTEMS IDENTIFICATION AS INDICATED IN THE SPECIFICATIONS AND REQUIRED BY THE NEC OR NFPA 70E.	31.
AWOUT TYPE - AS ABOVE	10.	IF ANYTHING ON THE PLANS IS NOT IN COMPLIANCE WITH NATIONAL, STATE OR LOCAL CODES, THE ENGINEER SHALL BE ADVISED BY THE ELECTRICAL CONTRACTOR DURING THE BIDDING PROCESS.	
R		THERE ARE TO BE NO CHANGES TO THE CONTRACT DOCUMENTS WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.	32.
,	11.	CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS FOR NEW WORK, SAFETY, ETC.,	
ECTION	10	IN ACCORDANCE WITH ALL AUTHORITIES HAVING JURISDICTION. (I.E. OSHA, NEC, ETC.)	22
SWITCH		THE CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR PHASING AND SCHEDULING OF THIS PROJECT. COORDINATE WITH OWNER'S FIELD REPRESENTATIVE.	33.
ABBREVIATIONS	13.	VERIFY ALL INDICATED DIMENSIONS BY FIELD MEASUREMENTS. NOTIFY ENGINEER OF ANY DISCREPANCIES.	
	14.	PROVIDE ACCESS PANELS OR DOORS WHERE EQUIPMENT OR DEVICES REQUIRED TO BE ACCESSIBLE ARE CONCEALED BEHIND INACCESSIBLE SURFACES.	
JRRENT RENT		PRIOR TO TURNOVER, THIS CONTRACTOR SHALL REMOVE ALL RUBBISH, DIRT, DEBRIS AND STAINS ON	
R. R. R SWITCH	15.	THEIR WORK OR CAUSED BY THEIR WORK AND SHALL REMOVE ALL ROBBISH, DIRT, DEBRIS AND STAINS ON THEIR WORK OR CAUSED BY THEIR WORK AND SHALL THOROUGHLY CLEAN ALL EQUIPMENT, FIXTURES, DEVICES, ETC. CONTRACTOR SHALL REPLACE, TOUCH-UP OR REFINISH THE FACTORY FINISH ON EQUIPMENT, FIXTURES, DEVICES, ETC. MARRED DURING SHIPMENT, INSTALLATION OR CONSTRUCTION.	34.
IER TOR	16.	PANELBOARD CIRCUIT BREAKERS SHALL BE EQUIPPED WITH BOLT-ON TYPE BREAKERS, PHENOLIC NAME TAGS AND KEYED LOCK AND LATCH. EACH PANEL SHALL BE PROVIDED WITH TWO KEYS WITH ALL PANELS KEYED ALIKE. ALL CIRCUIT BREAKERS USED TO SWITCH LIGHT FIXTURES SHALL BE TYPE SWD SHALL BE APPROVED FOR THE PURPOSE. ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE HACR TYPE.	35.
	17.	ALL CIRCUITS INDICATED ON THESE DRAWINGS ARE 20A, 1P CIRCUIT BREAKERS IN PANELS UNLESS	36.
ITRACTOR		NOTED OTHERWISE.	37.
СН	10.	LABELING OF ALL CIRCUIT BREAKERS. EACH PANELBOARD SHALL BE EQUIPPED WITH A TYPE WRITTEN CIRCUIT DIRECTORY. ALL EXISTING PANELBOARDS THAT HAVE CIRCUITS ALTERED SHALL HAVE A NEW TYPE WRITTEN CIRCUIT DIRECTORY SHOWING CIRCUIT REVISIONS AND EXISTING CIRCUIT CONDITIONS	38.
R		ON THE NEW DIRECTORY.	39.
IT INTERRUPTER TYPE DEVICE, (U.N.O.)	19.	MINIMUM WIRE SIZE SHALL BE #12 AWG UNLESS OTHERWISE NOTED. MINIMUM CONDUIT SIZE SHALL BE 1/2" UNLESS OTHERWISE NOTED. ALL CONDUIT IN SLABS OR EXTERIOR TO BUILDING SHALL BE MINIMUM 1". PROVIDE A NYLON/POLY PULL CORD IN ALL EMPTY CONDUITS.	
CTOR	20.	ELECTRICAL CONTRACTOR SHALL PROVIDE ALL COPPER CONDUCTORS TYPE THHN OR THWN FOR ALL INTERIOR BUILDING WIRE. FOR EXTERIOR FEEDERS AND BRANCH CIRCUITS PROVIDE ALL COPPER CONDUCTORS TYPE XHHW-2.	40.
	21.	VOLTAGE DROP MINIMUM WIRE SIZING (20A CIRCUIT) USE: 120V CIRCUIT OVER 100' SHALL BE #10 MINIMUM; 120V CIRCUIT OVER 175' SHALL BE #8 MINIMUM; 208V CIRCUIT OVER 200' SHALL BE #10 MINIMUM; 277V CIRCUIT OVER 200' SHALL BE #10 MINIMUM. MINIMUM WIRE SIZE FOR ANY 20A BRANCH CIRCUIT SHALL BE #12. FURTHERMORE, CONSIDER ALL DERATING OF CONDUCTORS AS REQUIRED IN ACCORDANCE WITH THE APPLICABLE NEC.	41.
EVICE	22.	ELECTRICAL CONTRACTOR SHALL HAVE THE OPTION OF GROUPING HOME RUNS IN ONE CONDUIT, PER	
DEVICE OL CONTRACTOR		THE REQUIREMENTS OF SECTION 310 OF THE NATIONAL ELECTRICAL CODE. NO MORE THAN FOUR (4) CIRCUITS SHALL BE ALLOWED TO BE GROUPED AND INSTALLED IN A SINGLE JUNCTION BOX. EC SHALL BE RESPONSIBLE FOR INCREASING CONDUCTOR SIZE AND DERATING. HOME RUNS WITH MORE THAN THREE CIRCUITS SHALL BE #10 AWG. CONDUCTOR MINIMUM. PROVIDE DEDICATED NEUTRALS FOR EACH PHASE CONDUCTOR AND CONSIDER THEM AS A CURRENT CARRYING CONDUCTOR FOR	42.
RWISE		DERATING.	43.
NER SUPPLY	23.	ALL HOME RUNS SHALL BE IN EMT CONDUIT. MC CABLE IS PERMITTED ABOVE CEILINGS FROM HOMERUNS TO FIXTURES AND WIRING DEVICES WITHIN WALLS AND FURRED COLUMNS. REFER TO ELECTRICAL SPECIFICATIONS FOR MORE DETAILED INFORMATION.	43.
DLITION NOTES:			

TO OCCUPY THE BUILDING THROUGHOUT CONSTRUCTION. UTILITIES AND SERVICES SHALL NOT BE INTERRUPTED WITHOUT VAL AS TO THE TIME AND DURATION. THE CONTRACTOR SHALL SO ORGANIZE THEIR WORK AS TO CAUSE A MINIMUM OF NS, WHICH SHALL BE SCHEDULED AT THE CONVENIENCE OF THE OWNER.

PMENT, LIGHTING FIXTURES, SWITCHES, RECEPTACLES, SPECIAL OUTLETS, ETC., WHICH ARE NOTED TO BE DEMOLISHED, OR SHED LINE SYMBOLS ON THE DEMOLITION PLANS, SHALL BE REMOVED. ASSOCIATED WIRING AND CONDUIT SHALL BE HE SOURCE OR EXISTING UPSTREAM DEVICE TO REMAIN AND MADE SAFE.

FIXTURES, DEVICES AND OUTLETS AS SPECIFIED AND SHOWN ON DRAWINGS, AND AS MAY BECOME NECESSARY BECAUSE ONDITIONS. EXAMINE ALL EXISTING WALLS AND CEILING DESIGNATED FOR REMOVAL TO DETERMINE THE CONDUIT AND QUIRE REMOVAL.

RICAL DEVICES IN WALLS TO BE REMOVED, DISCONNECT POWER, REMOVE CONDUCTORS AND CAP CONDUIT BELOW FLOOR REQUIRED. DEVICES ARE TO BE REMOVED ALONG WITH WALL BY GENERAL CONTRACTOR.

RICAL EQUIPMENT, FIXTURES AND DEVICES TO BE REMOVED FROM WALLS WHICH REMAIN, DISCONNECT POWER, REMOVE VE THE ELECTRICAL ITEM, AND PATCH AND FINISH THE SURFACE AS REQUIRED TO MATCH THE EXISTING, OR MAKE READY H. PROVIDE BLANK PLATES WHERE NOTED OR REQUIRED.

ES, DEVICES, ETC. TO REMAIN ARE DENOTED BY THIN SOLID LINE OR MAY NOT BE INDICATED AT ALL. THESE DEVICES SHALL LUSH WITH NEW FINISH ON EXISTING WALL WHERE REQUIRED.

NTINUITY TO ALL EQUIPMENT, FIXTURES, DEVICES, ETC., TO REMAIN IN USE WHETHER NOTED ON THE PLANS OR NOT. FIELD IS TO REMAIN IN USE. WIRING FOR EXISTING CIRCUITS WHICH ARE PARTIALLY ABANDONED SHALL BE RECONNECTED BY THE CTOR TO SERVICE THE REMAINING OUTLETS ON THE CIRCUIT.

RCUIT WHICH IS TO BE REMOVED SHALL BE REMOVED BACK TO THE PANEL WHICH SUPPLIED THE CIRCUIT.

CONDUCTORS MAY BE REUSED WHERE FEASIBLE. ALL UNUSED CONDUIT MADE EMPTY BY THIS DEMOLITION SHALL BE ECTRICAL CONTRACTOR. WHERE CONDUITS EXTENDING OUT OF THE FLOOR ARE TO BE REMOVED, CUT THE CONDUIT OFF 1/2" NE AND PATCH.

IG THAT RUNS THROUGH THIS SPACE, ORIGINATING AND/OR TERMINATING IN OTHER SPACES, SHALL REMAIN IN PLACE. EW CEILING WORK FOR RAISED CEILING WHICH MAY REQUIRE CIRCUITING RELOCATION.

ENT, LIGHTING FIXTURES, WIRING DEVICES, AND MATERIALS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE IALL BE REMOVED FROM THE PREMISES AND PROPERLY DISPOSED OF IN ACCORDANCE WITH AUTHORITIES HAVING S OTHERWISE NOTED. ALL ITEMS NOTED THAT THE OWNER CHOOSES TO KEEP SHALL BE TRANSFERRED TO THEIR STORAGE ICAL CONTRACTOR.

ECTRICAL WIRING DEVICES, TELEPHONE, DATA ETC., CONTRACTOR SHALL REMOVE/REINSTALL COVERPLATES AS REQUIRED FINISHES.

EXISTING CONDITIONS PLANS ARE COMPILED FROM EXISTING DRAWINGS AND CASUAL FIELD OBSERVATIONS AND SHALL BE (IMATE ONLY. VERIFICATION OF ALL EQUIPMENT, WIRING DEVICES AND FIXTURES, EITHER SHOWN OR NOT SHOWN ON THESE RESPONSIBILITY OF THE CONTRACTOR. NOTIFY ENGINEER IMMEDIATELY IF DISCREPANCIES EXIST.

#### **GENERAL CONSTRUCTION NOTES CONTINUED:**

ALL EMERGENCY SERVICE WIRING SHALL BE ENTIRELY INDEPENDENT AND BE IN SEPARATE CONDUIT, PULL BOXES, PANELS, ETC.

ONLY PVC CONDUIT SHALL BE PERMITTED IN CONCRETE SLAB, EXCEPT FOR GRS ELLS.

WHEN SAW CUTTING FLOOR IS REQUIRED, CONTRACTOR SHALL LIMIT DEPTH TO A MINIMUM. ROUTE NEW CONDUITS BELOW OR ABOVE EXISTING CONDUITS, WATER PIPES, ETC. CONDUIT SHALL HAVE A MINIMUM OF 1" OF CONCRETE COVER.

HEATING, VENTILATING, AIR CONDITIONING EQUIPMENT AND PLUMBING EQUIPMENT ALONG WITH ALL OTHER MISCELLANEOUS EQUIPMENT, MOTORS, AND KITCHEN EQUIPMENT SHALL BE POWERED AS CALLED OUT ON EQUIPMENT PROVIDER'S SCHEDULES UNLESS OTHERWISE NOTED. EC SHALL PROVIDE DISCONNECTING MEANS UNLESS SPECIFICALLY NOTED ON EQUIPMENT PROVIDER'S SCHEDULE.

SUPPORT ALL CONDUITS FROM STRUCTURAL WALLS, SLABS, MEMBERS AND ROOF JOISTS. DO NOT SUPPORT CONDUITS FROM CEILING TIE WIRES, DUCTWORK, PIPING, ROOF DECK OR OTHER NON-STRUCTURAL MEMBERS.

<u>SUPPORTING OF ELECTRICAL CONDUITS:</u> THE INDIVIDUAL BRANCH CIRCUIT CONDUIT AND ASSOCIATED 4" X 4" JUNCTION BOXES MAY BE SUPPORTED FROM FLOOR/ROOF JOISTS. ALL LARGER FEEDER CONDUITS AND/OR CLUSTER OR GROUPS OF BRANCH CIRCUIT CONDUITS SHALL BE SUPPORTED ON STEEL TRAPEZE WITH STEEL CHANNEL ATTACHED TO STEEL OR WOOD JOIST/BEAMS WITH PROPER ATTACHMENTS. <u>NO SUPPORT SHALL BE</u> <u>ATTACHED TO THE ROOF DECK (NO EXCEPTIONS)</u>. HANG CONDUIT FROM TOP CHORD OF BAR JOIST WHEN ATTACHING HOME RUNS TO JOIST.

INTERIOR AND EXTERIOR LIGHT FIXTURES SHALL BE FURNISHED AND INSTALLED AS SHOWN ON THE DRAWINGS AND AS CALLED OUT IN THE LIGHTING FIXTURE SCHEDULE.

ALL WIRING DEVICES SHALL BE FLUSH MOUNTED, UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL BE RUN WITHIN WALL CAVITIES, BELOW FLOOR AND ABOVE CEILINGS. SURFACE MOUNTED ELECTRICAL WORK SHALL NOT BE USED UNLESS SPECIFICALLY NOTED ON THE PLANS.

ALL WALL AND CEILING FIXTURES AND DEVICES SHALL BE INDEPENDENTLY AND SECURELY MOUNTED SO THEY ARE NOT DEPENDENT ON CEILING FINISH FOR SUPPORT AND CAN NOT BE ROTATED OR DISPLACED. FIXTURES AND DEVICES MOUNTED IN SUSPENDED ACOUSTICAL CEILING TILE SHALL HAVE CHANNEL SUPPORTS ACROSS THE MAIN GRID RUNNERS OR GRID SUPPORTS SECURELY ANCHORED SO AS NOT TO CAUSE TILE TO SAG OR SO FIXTURE OR DEVICE CAN NOT BE LIFTED, ROTATED OR DISPLACED.

ELECTRICAL LIGHT FIXTURES, MECHANICAL AIR DEVICES, FIRE SPRINKLERS, AND SMOKE DETECTORS IN CEILING: ALL SUBS NEED TO TAKE OTHER DISCIPLINES INTO CONSIDERATION BEFORE STARTING THEIR WORK. ALL ITEMS THAT NEED TO BE MOVED WILL BE MOVED AT THE SUB'S EXPENSE. FIRE SPRINKLERS MUST BE LOCATED A MINIMUM OF 30 INCHES FROM ANY SURFACE MOUNTED LIGHT. SMOKE DETECTORS MUST BE MOUNTED NO CLOSER THAN 3 FEET OF AN AIR DEVICE OR CEILING FAN. FIRE SPRINKLERS, LIGHT FIXTURES, SMOKE DETECTORS, AND AIR DEVICES ALL TO BE CENTERED DOWN THE HALLWAYS. ELECTRICAL, MECHANICAL, FIRE SPRINKLER, AND LOW VOLTAGE SUB CONTRACTOR MUST MEET AND DECIDE BEFORE ANYONE STARTS, WHERE LOCATION OF THESE ITEMS WILL BE LOCATED. IF ITEM NEEDS TO BE MOVED, IT WILL BE AT THE EXPENSE OF THE SUB CONTRACTOR. COORDINATE WITH ARCHITECT'S REFLECTED CEILING PLAN.

ALL OPENINGS IN FIRE AND/OR SMOKE RATED WALLS, FLOORS, AND PARTITIONS FOR CONDUITS SHALL BE SEALED WITH RED FIRE RESISTANT FOAM OR PUTTY TO MAINTAIN THE FIRE AND/OR SMOKE RATING. ALL OPENINGS IN FIRE RATED AND/OR SMOKE WALLS, FLOORS, AND PARTITIONS FOR CABLING SHALL BE SEALED WITH WIREMOLD FLAMESTOPPER, STI EZ-PATH, HILTI SPEED SLEEVE OR EQUIVALENT.

REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF LIGHT FIXTURES, DIMENSIONAL LOCATION OF FIXTURES IN DRYWALL CEILING, ETC. LOCATION OF FLOOR BOXES AND RECEPTACLES, INCLUDING MOUNTING HEIGHTS. ALL RECEPTACLES AND COVER PLATE COLORS SHALL BE APPROVED BY ARCHITECT

OWNER RESERVES THE RIGHT TO RELOCATE ANY LIGHT FIXTURE, RECEPTACLE, ETC., BEFORE BEING INSTALLED 10'-0" FROM LOCATION AS SHOWN ON PLANS AT NO ADDITIONAL EXPENSE TO THE OWNER.

NO CONDUIT OR CABLES SHALL BE INSTALLED EXPOSED IN FINISHED AREA. NON-CEILING AREA CONDUITS SHALL BE INSTALLED EXPOSED IN A NEAT WORKMAN LIKE MANNER AND BE PAINTED TO MATCH ADJACENT FINISHES.

ALL MATERIALS, DEVICES, FIXTURES, ETC., THAT ARE REQUIRED FOR THIS PROJECT ARE TO BE FURNISHED AND INSTALLED BY THE EC, UNLESS SPECIFICALLY INDICATED TO BE FURNISHED AND OR INSTALLED BY OTHERS.

TELEPHONE, IT, AUDIO, VIDEO, SECURITY AND FIRE ALARM CABLE WIRING IN WALLS AND FLOOR SHALL BE ROUTED IN CONDUIT FROM DEVICE/JUNCTION BOX TO ABOVE AN ACCESSIBLE CEILING OR IN ATTIC SPACE; 1" EMT MINIMUM. NO SPLICING OF TELEPHONE OR DATA CABLES SHALL BE PERMITTED. ALL CABLES SHALL BE BUNDLED AND SUPPORTED FROM STRUCTURE ABOVE, NO MORE THAN 60" O.C. DO NOT LAY CABLES ON CEILING SYSTEM. PROVIDE J-HOOKS AND/OR CABLE TRAY SYSTEM. MAINTAIN 12" CLEARANCE ABOVE CEILING. COLOR CODE EACH CABLE BY USAGE.

ALL SIGNAL AND CONTROL CABLES SHALL BE MINIMUM #18 STRANDED COPPER, UNLESS NOTED OTHERWISE. ALL CONNECTIONS AND SPLICES TO BE MADE BY USE OF "STA-KON" CONNECTORS AND TERMINAL STRIPS.

TYPICAL SEISMIC DETAILS ARE PROVIDED ON THE DRAWINGS FOR REFERENCE ONLY. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE OWNER'S ENGINEER FOR REVIEW AND APPROVAL PRIOR TO SUBMITTAL TO THE PLAN REVIEWER. SHOP DRAWINGS SHALL SHOW ALL EQUIPMENT ANCHORAGE TO WALLS/CEILINGS/FLOORS AND SHALL INCLUDE SIZE OF SEISMIC ANCHOR BOLTS USED FOR EACH SYSTEM. CONTRACTOR SHALL PROVIDE CALCULATIONS, DETAILS, ETC. - PREPARED BY, SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER. REFER TO SPECIFICATIONS.

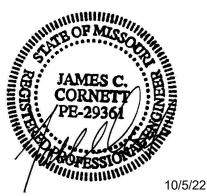
COORDINATE WITH STATE FOR "OCCUPANT" RELOCATION DURING CONSTRUCTION. CONSTRUCTION PHASING SHALL BE COORDINATED WITH THE STATE PRIOR TO THE START OF CONSTRUCTION. TEMPORARY FACILITY USE WILL NEED TO BE COORDINATED AND PHASED TO KEEP SITE OPERATIONAL DURING CONSTRUCTION. OCCUPANTS SHALL NOT BE EXPOSED TO CONSTRUCTION ACTIVITIES.

COORDINATE WITH STATE FOR VANDALISM PROTECTION FOR ALL CONSTRUCTION STORAGE, EQUIPMENT, CONSTRUCTION LOCATIONS, TRASH DISPOSAL, ETC.

#### ELECTRICAL SHEET LIST

Sheet NumberSheet NameE0.1ELECTRICAL SYMBOLS, ABBREVIATIONS & GENERAL NOTESE0.2ELECTRICAL ONE LINE DIAGRAM AND LIGHTING FIXTURE SCHEDULEE1.0ELECTRICAL SITE PLAN

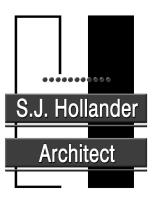
#### STATE OF MISSOURI MICHAEL L. PARSON GOVERNOR



JAMES C. CORNETT MO LIC#:PE-29361 EXP: 12/31/23



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OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION DIVISION OF YOUTH SERVICES

CAMP AVERY - FIRE SPRINKLER SYSTEM

198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 SITE # 7719 FACILITY # 8877719001; 8877719002;887719004

REVISION:
DATE:
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ISSUE DATE: 10/5/22

CAD DWG FILE: -DRAWN BY: SSC CHECKED BY: BDS DESIGNED BY: SSC

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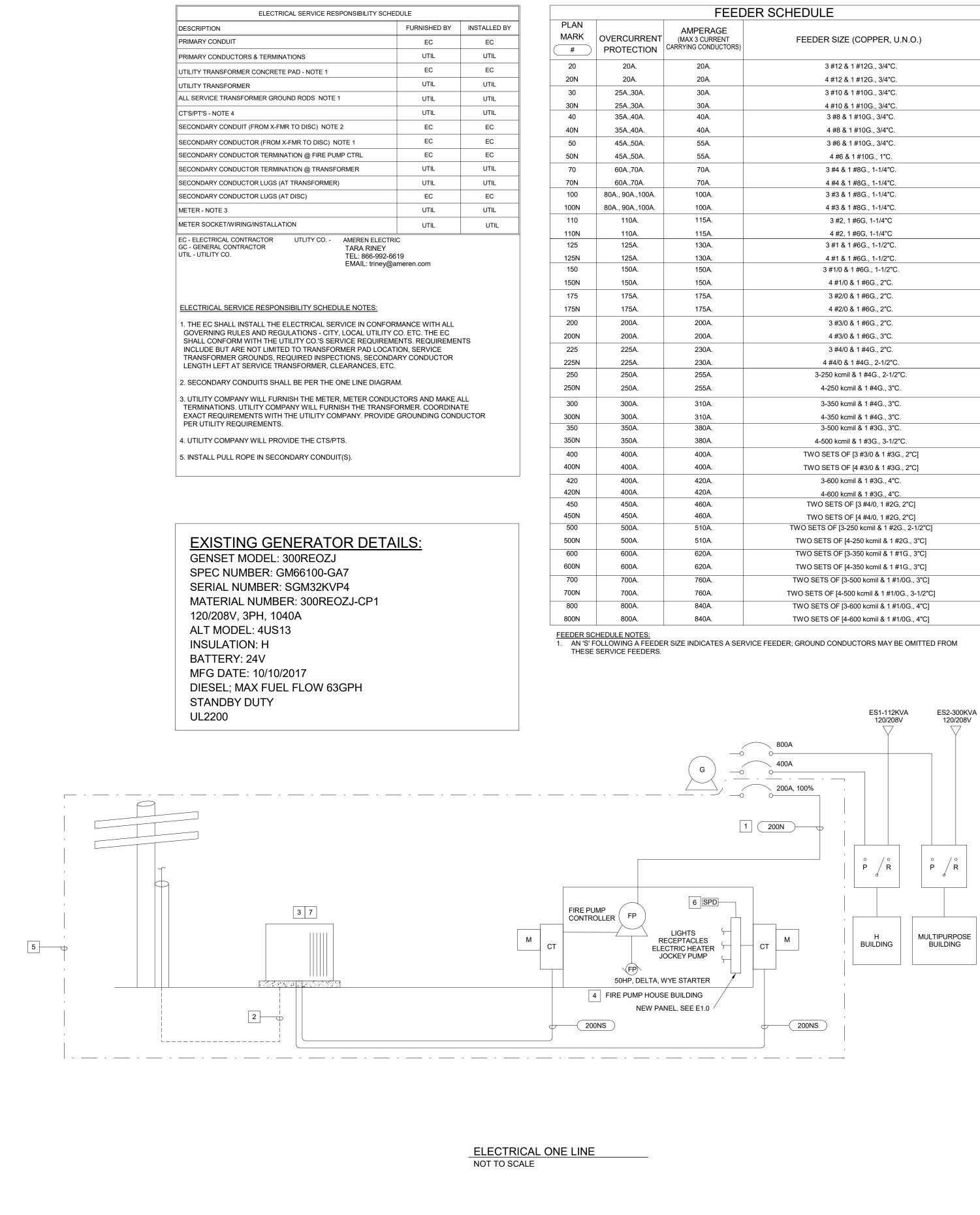
ELECTRICAL SYMBOLS, ABBREVIATIONS & GENERAL NOTES

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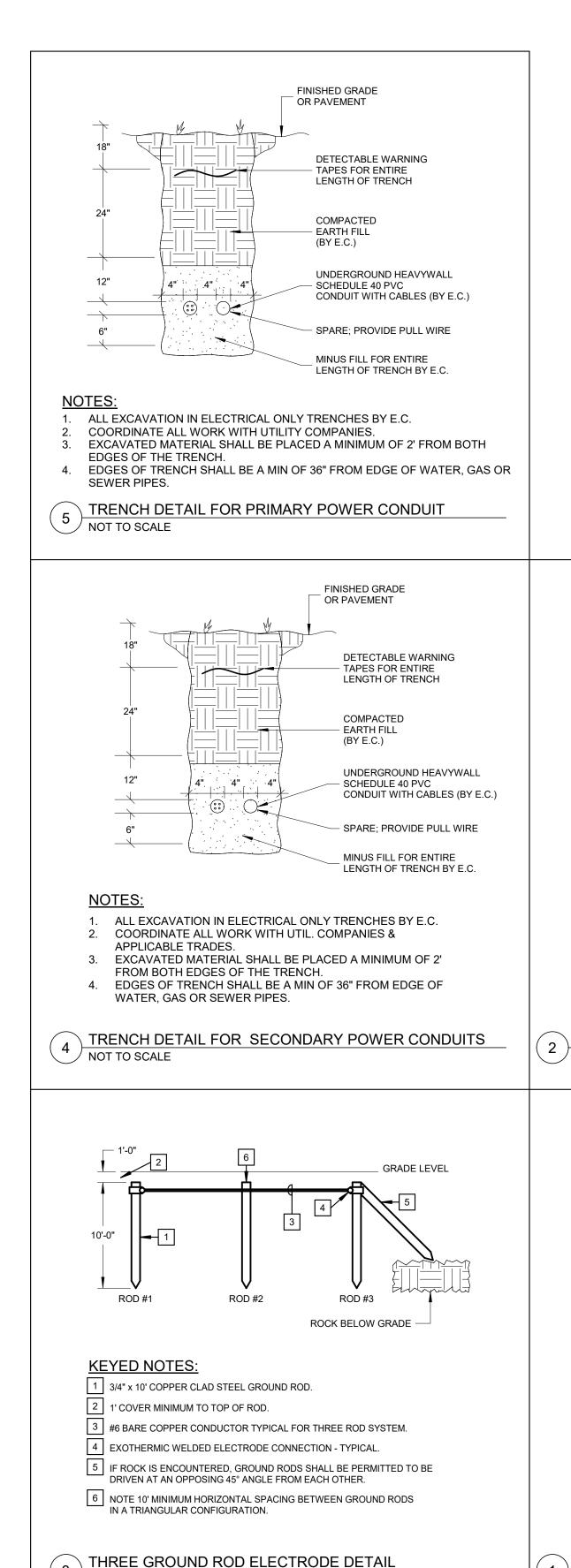
10/5/22

SSC JOB# 2021284\_BID DOCUMENTS



Type Mark Manufacturer Catalog No. Voltage METALUX 4SNLED-LD5-44SL-LW-UNV-L835 120/277 COOPER TRE15-LD4-40W-40-CL-BK-UNV-EDC1-EL12W/CSTG-120/277 WE LITHONIA ELM6L-UVOLT-LPT-SD 120/277

FEED	ER SCHEDULE
AMPERAGE //AX 3 CURRENT YING CONDUCTORS)	FEEDER SIZE (COPPER, U.N.O.)
20A.	3 #12 & 1 #12G., 3/4"C.
20A.	4 #12 & 1 #12G., 3/4"C.
30A.	3 #10 & 1 #10G., 3/4"C.
30A.	4 #10 & 1 #10G., 3/4"C.
40A.	3 #8 & 1 #10G., 3/4"C.
40A.	4 #8 & 1 #10G., 3/4"C.
55A.	3 #6 & 1 #10G., 3/4"C.
55A.	4 #6 & 1 #10G., 1"C.
70A.	3 #4 & 1 #8G., 1-1/4"C.
70A.	4 #4 & 1 #8G., 1-1/4"C.
100A.	3 #3 & 1 #8G., 1-1/4"C.
100A.	4 #3 & 1 #8G., 1-1/4"C.
115A.	3 #2, 1 #6G, 1-1/4"C
115A.	4 #2, 1 #6G, 1-1/4"C
130A.	3 #1 & 1 #6G., 1-1/2"C.
130A.	4 #1 & 1 #6G., 1-1/2"C.
150A.	3 #1/0 & 1 #6G., 1-1/2"C.
150A.	4 #1/0 & 1 #6G., 2"C.
175A.	3 #2/0 & 1 #6G., 2"C.
175A.	4 #2/0 & 1 #6G., 2"C.
200A.	3 #3/0 & 1 #6G., 2"C.
200A.	4 #3/0 & 1 #6G., 3"C.
230A.	3 #4/0 & 1 #4G., 2"C.
230A.	4 #4/0 & 1 #4G., 2-1/2"C.
255A.	3-250 kcmil & 1 #4G., 2-1/2"C.
255A.	4-250 kcmil & 1 #4G., 3"C.
310A.	3-350 kcmil & 1 #4G., 3"C.
310A. 380A.	4-350 kcmil & 1 #4G., 3"C. 3-500 kcmil & 1 #3G., 3"C.
380A.	4-500 kcmil & 1 #3G., 3-1/2"C.
400A.	TWO SETS OF [3 #3/0 & 1 #3G., 2"C]
400A.	TWO SETS OF [4 #3/0 & 1 #3G., 2"C]
420A.	3-600 kcmil & 1 #3G., 4"C.
420A.	
420A. 460A.	4-600 kcmil & 1 #3G., 4"C. TWO SETS OF [3 #4/0, 1 #2G, 2"C]
460A.	TWO SETS OF [4 #4/0, 1 #2G, 2"C]
510A.	TWO SETS OF [3-250 kcmil & 1 #2G., 2-1/2"C]
510A.	TWO SETS OF [4-250 kcmil & 1 #2G., 3"C]
620A.	TWO SETS OF [3-350 kcmil & 1 #1G., 3"C]
620A.	TWO SETS OF [4-350 kcmil & 1 #1G., 3"C]
760A.	TWO SETS OF [3-500 kcmil & 1 #1/0G., 3"C]
760A.	TWO SETS OF [4-500 kcmil & 1 #1/0G., 3-1/2"C]
840A.	TWO SETS OF [4-500 kcmil & 1 #1/0G., 3-1/2 C]
840A.	TWO SETS OF [3-000 kcmil & 1 #1/0G., 4 C]
04071.	TWO SETS OF [4-000 KUIIII & T#1/06., 4 C]



<sup>/</sup> NOT TO SCALE

#### LIGHTING FIXTURE SCHEDULE

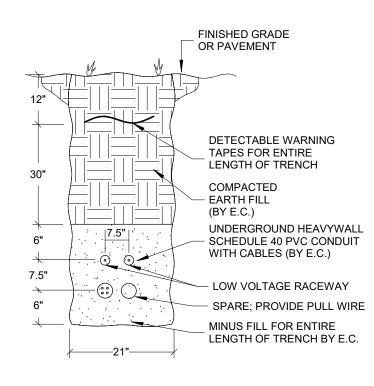
ige	Mounting	Lamp	Fixture Finish	Description
77V	SURF/SUSP	38W, LED, 3500K	WHITE	4' LINEAR SURFACE OR SUSPENDED LENSED LED STRIP FIXTURE; 4500 NOMINAL LUMENS. PROVIDE AIRCRAFT CABLE WHERE SUSPEDED F
77V	WALL	40W, LED, 4000K	BLACK	EXTERIOR WALL MOUNTED FIXTURE WITH POLYCARBONATE EYELID ATTACHED TO LENS WITH TAMPER RESISTANT SCREWS; 2,045 DELIVER
77V	WALL	LED	WHITE	EMERGENCY DOUBLE HEADED LIGHT WITH SELF-DIAGNOSTICS.

#### **ELECTRICAL GENERAL NOTES**

- 1. REFER TO SHEET E0.1 FOR SYMBOLS, ABBREVIATIONS AND GENERAL CONSTRUCTION NOTES.
- 2. PROVIDE EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDERS, SIZED IN ACCORDANCE WITH NEC ARTICLE 250.122, SEE SPECIFICATIONS.
- OVERSIZED FEEDERS HAVE BEEN SIZED TO LIMIT VOLTAGE DROP. PROVIDE PROPER LUGS OR PIGTAIL ADAPTERS. FUSES FOR SPECIFIC MECHANICAL EQUIPMENT HAVE BEEN PROVIDED TO LIMIT AVAILABLE FAULT CURRENT AT THE EQUIPMENT.
- 4. AIC RATINGS INDICATED ARE THE MINIMUM PERMISSIBLE TO MAINTAIN A FULLY RATED SYSTEM.
- 5. INFORMATION ON THIS SHEET IS COMPILED FROM EXISTING DRAWINGS AND CASUAL FIELD OBSERVATIONS AND SHALL BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF ALL EQUIPMENT AND DEVICES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 6. CONTRACTOR SHALL FIELD VERIFY EXISTING EQUIPMENT AND DEVICES PRIOR TO STARTING WORK. NOTIFY ENGINEER IMMEDIATELY IF DISCREPANCIES EXIST.

#### **ELECTRICAL KEYED NOTES**

- 1 PROVIDE A NEW 100% BREAKER IN EXISTING GENERATOR. REFER TO EXISTING GENERATOR DETAILS ON THIS SHEET.
- 2 PROVIDE NEW ELECTRICAL SERVICE DEDICATED TO FIRE PUMP. NO OTHER LOADS ARE INTENDED TO BE ON SERVICE. COORDINATE WITH AMEREN STANDARDS. SEE SITE PLAN FOR MORE INFO.
- 3 PROVIDE PAD FOR UTILITY TRANSFORMER IN ACCORDANCE WITH UTILITY REQUIREMENTS.
- 4 PROVIDE GROUNDING SYSTEM AT NEW PUMP BUILDING. BOND TO GROUNDING SYSTEM AT GENERATOR, MAINTENANCE BUILDING, AND H BUILDING. SEE DETAIL 3 FOR SIZING.
- 5 SHORT CIRCUIT AND SELECTIVE COORDINATION STUDY IS INTENDED TO COVER THIS SELECTION OF EQUIPMENT.
- 6 SURGE PROTECTIVE DEVICE PER SPECIFICATIONS.
- 7 THE DESIGN INTENT IS TO UTILIZE A PAD MOUNTED TRANSFORMER, HOWEVER, IN THE EVENT THE UTILITY PREFERS TO PROVIDE A POLE MOUNTED TRANSFORMER, THE EC SHALL ACCOMMODATE THIS AT NO ADDITIONAL COST AND SHALL EXTEND THE CONDUCTORS ACCORDINGLY.

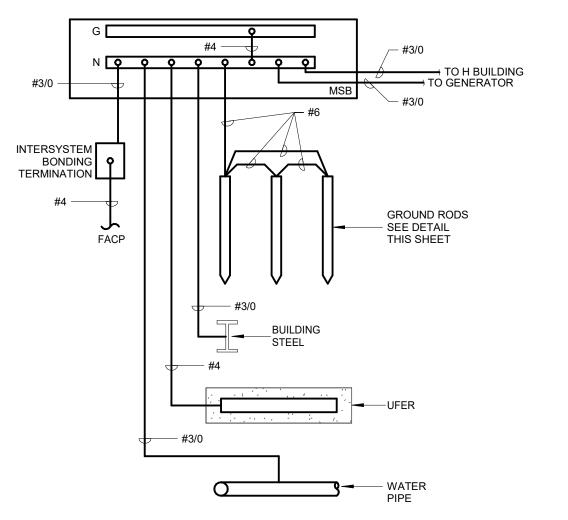


#### NOTES:

ALL EXCAVATION IN ELECTRICAL ONLY TRENCHES BY E.C. COORDINATE ALL WORK WITH UTIL. COMPANIES & APPLICABLE TRADES. EXCAVATED MATERIAL SHALL BE PLACED A MINIMUM OF 2' FROM BOTH EDGES OF THE TRENCH. EDGES OF TRENCH SHALL BE A MIN OF 36" FROM EDGE OF WATER, GAS OR SEWER PIPES.

2 TRENCH DETAIL FOR GENERATOR POWER CABLES NOT TO SCALE

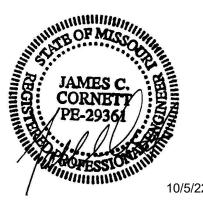




<u>GROUND SYSTEM RISER</u> <sup>/</sup> NOT TO SCALE

FROM STRUCTURE VERED LUMENS.

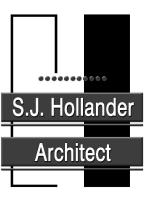
#### **STATE OF MISSOURI** MICHAEL L. PARSON **GOVERNOR**



JAMES C. CORNETT MO LIC#:PE-29361 EXP: 12/31/23



Engineering, Inc. 18207 Edison Avenue Chesterfield, Missouri 63005 Phone: 636.530.7770 Fax: 636.530.7877 Missouri Certificate of Authority #NC 001244



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#### **OFFICE OF ADMINISTRATION DIVISION OF FACILITIES** MANAGEMENT, **DESIGN AND** CONSTRUCTION **DIVISION OF YOUTH** SERVICES

CAMP AVERY - FIRE SPRINKLER SYSTEM

#### 198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 7719 SITE # FACILITY # 8877719001; 8877719002;887719004

REVISION:
DATE:
REVISION:
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REVISION:
DATE:
ISSUE DATE: $10/5/22$

**ISSUE DATE:** 10/5/22

CAD DWG FILE: DRAWN BY: SSC CHECKED BY: BDS DESIGNED BY: ssc

SHEET TITLE:

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2021

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ELECTRICAL ONE LINE DIAGRAM AND LIGHTING FIXTURE SCHEDULE

SHEET NUMBER:

E0.

SHEET 16 OUT OF 17 10/5/22

Branch Panel: FP Location: Supply From: Mounting: Surface Enclosure: Type 1							Volts: Phases: Wires:		Vye			M Mai	I.C. Rating: 65,000 S lains Type: MCB ins Rating: 200 A CB Rating: 200 A	SERIES
KT DTE	скт				A	В	С	A	В	с				
S		Circuit Description GENERAL RECEPTACLES	Trip 20 A	<b>Poles</b> 1	720 VA			276 VA			Poles 3	<b>Trip</b> 15 A	Circuit De	escriptio
		EXTERIOR GFI/WP RECEPTACLE LIGHTING	20 A 20 A	1		180 VA	188 VA		276 VA	276 VA				
	7	ELECTRIC HEATER	20 A	3	1667 VA			0 VA		210 11	1	20 A	SPARE	
-	-					1667 VA	1667 VA		0 VA	0 VA	1	20 A 20 A	SPARE SPARE	
	13 15	EXHAUST FAN	15 A	1	720 VA			0 VA	0 VA		1	20 A 20 A	SPARE SPARE	
	17									0 VA	1	20 A	SPARE	
	19 21							0 VA	0 VA		1	20 A 20 A	SPARE SPARE	
	23 25									0 VA	1	20 A	SPARE	
	27													
	29 31													
	33													
	35 37	SPD	30 A	3	0 VA									
	39					0 VA	0 VA							
	41			al Load:	3383		2123			:3 VA				
d Cl	assif	ication	Tota	I Amps: Conne	28 cted Load		18 emand Fa	BA ctor		8 A ed Demanc	1		Panel <sup>-</sup>	Totals
ting				11	18 VA		100.00%	)	11	8 VA	-			
or NC					29 VA 20 VA		125.00% 100.00%			36 VA 0 VA			Total Conn. Load: Total Est. Demand:	
ctric l epta	Heat cle				00 VA 00 VA		100.00%			00 VA 0 VA			otal Conn. Current: t. Demand Current:	
· ·	- Exte	erior			0 VA		125.00%			3 VA		. Jtar L3		
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					FP - 1 24	5a 5a 5a		WE				7	2 T T IM FIRE PUM HOUSE	P
		27 EF 1			FP - 1 24	5a 5a 5a		WE 5 MD 2				7	2 T T IM FIRE PUM HOUSE	P
		27 EF 1			FP - 1 24	5a 13 FP - 1		WE 5 MD 2				7	2 T T IM FIRE PUM HOUSE	P
					FP - 1 24	FP - 1 = 5a		WE 5 MD 2				7	2 T T FIRE PUM HOUSE	
		27 EF 1			FP - 1 24	FP - 1 = 5a		WE 5 MD 2				7	2 T T FIRE PUM HOUSE	
		27 EF 1			FP - 1 24	FP - 1 = 5a		WE 5 MD 2				7	2 T T IM FIRE PUM HOUSE	
		27 EF 1			FP - 1 24	FP - 1 = 5a		WE 5 MD 2				7	2 T T FIRE PUM HOUSE	
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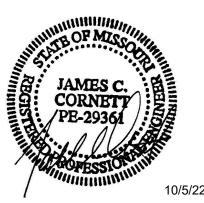
#### ELECTRICAL GENERAL NOTES

- 1. REFER TO SHEET E0.1 FOR SYMBOLS, ABBREVIATIONS AND GENERAL CONSTRUCTION NOTES.
- 2. EC SHALL FIELD VERIFY EXISTING POLES, MANHOLES, SPARE CONDUIT, RIGHTS-OF-WAY, UTILITIES, AND BUILDING LOCATIONS PRIOR TO STARTING WORK. NOTIFY ENGINEER IMMEDIATELY IF DISCREPANCIES EXIST.
- 3. PROVIDE 1800# MULETAPE IN ALL NEW CONDUITS, INTERDUCTS AND IN ALL CONDUITS FOR NEW CABLE RUNS.
- 4. EC SHALL COORDINATE EXACT LOCATIONS, REQUIREMENTS, METERING AND TERMINATIONS WITH UTILITY PROVIDERS PRIOR TO BID.
- 5. COORDINATE ALL UNDERGROUND ELECTRICAL WORK AND UTILITY TIE-INS WITH UTILITY PROVIDERS AND WORK OF OTHER TRADES.
- 6. UNDERGROUND FACILITY STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDED INFORMATION. THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF LOCATION OF ALL UNDERGROUND STRUCTURES AND FACILITIES EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 7. ALL IN-GROUND CONDUITS SHALL BE 1" MINIMUM, SCHEDULE 40 PVC, UNLESS NOTED OTHERWISE.
- 8. ELECTRICAL CONTRACTOR SHALL PROTECT AND EXTEND EXISTING SERVICES TO EXISTING BUILDINGS TO MAINTAIN CONTINUITY OF SERVICE. REROUTE EXISTING SERVICES AS REQUIRED TO AVOID CONSTRUCTION AND WORK OF OTHER TRADES.
- 9. ALL UNDERGROUND AND EXTERIOR CONDUCTORS SHALL BE TYPE "XHHW-2".
- 10. EC AND FPC SHALL COORDINATE THE LOCATIONS OF ALL EQUIPMENT BEFORE INSTALLATION.

#### **ELECTRICAL KEYED NOTES**

- 1 EXISTING GENERATOR; PROVIDE NEW BREAKER PER ONE-LINE DIAGRAM.
- 2 PROVIDE CONCRETE PAD FOR UTILITY TRANSFORMER. COORDINATE WITH AMEREN.
- 3 PROVIDE SECONDARY FEEDER FROM TRANSFORMER TO CT CABINET. REFER TO ONE-LINE DIAGRAM.
- 4 PROVIDE FEEDERS BELOW GRADE FROM EXISTING GENERATOR TO NEW FIRE PUMP HOUSE. PATCH CONCRETE/ASPHALT CUT DURING WORK.
- 5 PROVIDE 4" PRIMARY CONDUIT FROM AMEREN POWER POLE TO PAD MOUNT UTILITY TRANSFORMER.
- 6 COORDINATE EXACT TIE IN LOCATION WITH AMEREN. ENSURE TIE IN LOCATION OF FIRE PUMP SERVICE FEEDER IS UPSTREAM OF ANY UTILIY DISCONNECTS THAT WOULD BE DISCONNECTED DURING A FIRE EVENT. THIS ENSURES THE FIRE PUMP POWER IS NOT DISCONNECTED. REVIEW WITH AMEREN PRIOR TO WORK.
- 7 PROVIDE CT ENCLOSURE AND METER BASE. COORDINATE WITH AMEREN APPROVED EQUIPMENT, REFER TO E0.2 FOR GROUNDING DETAILS.
- 8 EXISTING GENERATOR FEEDERS TO BE PROTECTED AND REMAIN. FIELD LOCATE AND MARK PRIOR TO NEW WORK.
- 9 EXISTING ATS TO BE PROTECTED AND REMAIN.
- PROVIDE 2" BELOW GRADE CONDUIT FROM PANEL FP TO OUTSIDE OF PUMP HOUSE FOR FUTURE CONNECTION TO MAINTENANCE BUILDING.
- 11 EXISTING TO REMAIN PANEL TO BE PROTECTED.
- 12 PROVIDE POWER FROM NEW ELECTRICAL SERVICE TO FIRE PUMP CONTROLLER. REFER TO ONE-LINE DIAGRAM. ADDITIONALLY, TERMINATE GENERATOR FEEDERS AT FIRE PUMP CONTROLLER.
- 13 PROVIDE CONNECTION TO JOCKEY PUMP.
- 14 PROVIDE 120V CIRCUIT TO EXTERIOR FIRE FLOW BELL. COORDINATE WITH FPC.
- PROVIDE PHYSICAL SEPARATION. DO NOT SHARE A TRENCH.
- 16 GROUND RING PER E0.2.
- 17 BOND NEW FIRE PUMP BUILDING GROUNDING SYSTEM WITH EXISTING H BUILDING GROUNDING SYSTEM.
- BOND NEW FIRE PUMP BUILDING GROUNDING SYSTEM WITH EXISTING GENERATOR/MAINTENANCE BUILDING GROUNDING SYSTEM.
- 19 PROVIDE NEW 30-POLE, 120/208V, 3PHASE, 4WIRE, 100A PANELBOARD WITH 60A MCB. PROVIDE FEEDER PER ONE LINE DIAGRAM. LOCATE PANEL IN FIRE PUMP BUILDING. FEED BELOW GRADE TO H BUILDING. POWER FROM NEW TWIN SWITCH.
- 20 PROVIDE FIRE ALARM MONITOR MODULES TO MONITOR FIRE PUMP TROUBLE AND RUN SIGNALS. PROVIDE DEDICATED CONDUIT TO H BUILDING. EXISTING FACP IN H BUILDING IS A SIMPLEX.
- 21 PROVIDE POWER CONNECTION TO AIR COMPRESSOR FOR DRY SYSTEM. SEE SHEET FP1.1 FOR LOCATION. COORDINATE WITH FPC, COMPRESSOR IS ASSUMED TO BE 208V/1-PHASE. PROVIDE A DEDICATED 20A CIRCUIT. PROVIDE NEW 20A, 2-POLE BREAKER IN SPACE 13, 15 OF PANEL D1 LOCATED IN MECHANICAL ROOM AT NORTH CORNER OF BUILDING.
- 22 PROVIDE PRESSURE SWITCH AND TAMPER SWITCH NEAR AIR COMPRESSOR FOR DRY SYSTEM. COORDINATE WITH FPC TO VERIFY EXACT REQUIREMENTS. TIE INTO EXISTING FACP (SIMPLEX 4007ES).
- 23 PROVIDE POWER CONNECTION TO AIR COMPRESSOR FOR DRY SYSTEM. SEE SHEET FP2.1 FOR LOCATION. COORDINATE WITH FPC, COMPRESSOR IS ASSUMED TO BE 208V/1-PHASE. PROVIDE A DEDICATED 20A CIRCUIT. PROVIDE NEW 20A, 2-POLE BREAKER IN SPACE 15, 17 OF PANEL B LOCATED IN BASEMENT ELECTRICAL ROOM INDICATED. MOVE EXISTING BREAKER IN 15 TO 18.
- 24 WATER LEVEL ALARM PANEL. COORDINATE WITH FPC FOR REQUIREMENTS.
- 25 SIMPLEX 4007ES FACP LOCATED IN THIS GENERAL AREA IN THE H BUILDING.
- 26 SIMPLEX 4007ES FACP LOCATED IN THIS GENERAL AREA IN THE MULTIPURPOSE BUILDING. ALSO SERVES THE DORMITORY BUILDING.
- 27 INTERLOCK MOTORIZED DAMPER WITH EXHAUST FAN. PROVIDE 120V POWER IF REQUIRED TO LINE VOLTAGE T-STAT. COORDINATE WITH MC.
- 28 EXISTING TO REMAIN CONDUIT. PROTECT THROUGHOUT RENOVATION.
- 29 EXISTING TO REMAIN GAS LINE. PROTECT THROUGHOUT RENOVATION.

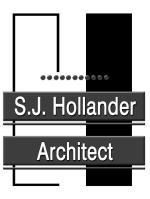
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CAMP AVERY - FIRE SPRINKLER SYSTEM

198 AVERY LN TROY, MO 63379

PROJECT # H2001-01 SITE # 7719 FACILITY # 8877719001; 8877719002;887719004

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REVISION:
DATE:
ISSUE DATE: 10/5/22

CAD DWG FILE: -DRAWN BY: SSC CHECKED BY: BDS DESIGNED BY: SSC

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#### ELECTRICAL SITE PLAN

SHEET NUMBER:

SHEET 17 OUT OF 17

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