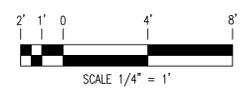
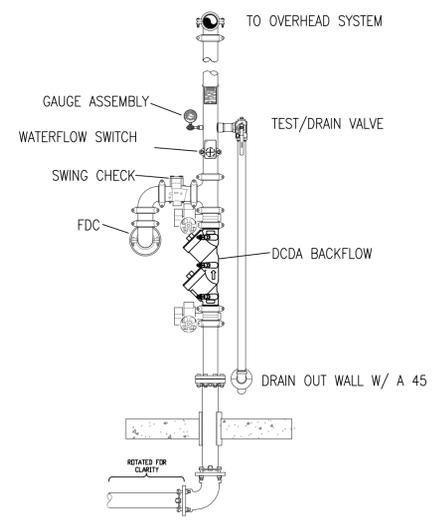


FIRE PROTECTION OVERHEAD PIPING PLAN
SCALE 1/4" = 1'-0"



| FIRE SPRINKLER DETAILS | |
|---|------|
| SCOPE OF WORK DETAILS/NOTES: INSTALL NEW FIRE SPRINKLER SYSTEM IN NEWLY CONSTRUCTED FIRE STATION BUNK HOUSE STARTING AT 1'-0" A.F.F. | |
| LEGEND | |
| LIGHT HAZARD OCCUPANCY | LH |
| ORDINARY GROUP 1 OCCUPANCY | OH-1 |
| FIRE RISER LOCATION | |

NOTE: THE FIRE SPRINKLER SYSTEM IS ELECTRONICALLY MONITORED AND ALL CONTROL VALVES, INCLUDING THE CONTROL VALVES ON THE BACKFLOW PREVENTER, ARE ELECTRONICALLY MONITORED IN ACCORDANCE WITH NFPA 72 VIA A TAMPER SWITCH.



FIRE SPRINKLER RISER DETAIL
SCALE NTS

61G15-32.003

1.) SCOPE OF WORK: PROVIDE NEW FULLY AUTOMATIC FIRE SPRINKLER SYSTEMS IN ACCORDANCE WITH THE 2019 EDITION OF NFPA #13 FOR THE CONSTRUCTION OF A FIRE STATION BUNK HOUSE.

2.) ACCEPTABLE TEST CRITERIA: FIRE SPRINKLER SYSTEM DESIGNED PER THE 2019 EDITION OF NFPA #13 AND SHALL COMPLY WITH THE LOCAL FIRE MARSHALL & ALL AUTHORITIES HAVING JURISDICTION. THE ACCEPTANCE TESTING OF THE FIRE SPRINKLER SYSTEM & COMPONENTS SHALL CONSIST OF ALL APPLICABLE ITEMS SHOWN ON FIGURE 28.1 (CONTRACTOR'S MATERIAL & TEST CERTIFICATION FOR ABOVE GROUND PIPING) IN NFPA #13 - 2019 CHAPTER 28. SEE CHAPTER 28 FOR SYSTEM ACCEPTANCE & CHAPTER 31 FOR SYSTEM INSPECTION, TESTING & MAINTENANCE

61G15-32.004 (2) A-M

A.) POINT OF SERVICE: FIRE SPRINKLER SYSTEM POINT OF SERVICE FOR THE PROJECT, PER F.S. 633.021(17) IS AT THE DISCHARGE SIDE OF THE BACKFLOW PREVENTER

B.) APPLICABLE STANDARDS TO BE APPLIED:

- FLORIDA BUILDING CODE, 2023 8TH EDITION
- FLORIDA FIRE PREVENTION CODE, 2023 8TH EDITION
- NFPA #13, 2019 EDITION, AUTOMATIC SPRINKLER SYSTEMS

C.) TYPICAL OCCUPANCY CLASSIFICATIONS PER NFPA #13:

- ORDINARY GROUP 1 HAZARD - STORAGE MECH ROOMS, DECONTAMINATION
- LIGHT HAZARD- OFFICES, DAY ROOM, HALLWAYS, DORMITORIES, BATHROOMS

D.) DESIGN APPROACH:

- 1.) ORDINARY GROUP 1 HAZARD OCCUPANCIES USING A 0.15 GPM/FT² DENSITY OVER THE MOST REMOTE 1500 FT² w/ MAXIMUM 130 FT² SPACING, 250 GPM HOSE ALLOWANCE
- 2.) LIGHT HAZARD OCCUPANCIES USING A 0.10 GPM/FT² DENSITY OVER THE MOST REMOTE 1500 FT² w/ MAXIMUM 225 FT² SPACING, 100 GPM HOSE ALLOWANCE
- 3.) AREA REDUCTION MAY BE APPLIED WITH THE USE OF QUICK RESPONSE SPRINKLERS IN LIGHT AND ORDINARY HAZARD AREAS PER NFPA #13 SECTION 19.3.2.3.1

E.) CHARACTERISTICS OF WATER SUPPLY: WATER SUPPLY IS FROM A CIRCULATING 6" WATERMAIN ALONG NW LAKE JEFFERY RD.

F.) PUBLIC WATER SUPPLY: WATER FLOW TEST WILL NEED TO BE PERFORMED BY INSTALLING CONTRACTOR TO VERIFY HYDRAULIC CALCULATIONS PRIOR TO BEGINNING WORK.

G.) VALVING & ALARM REQUIREMENTS: RISER FLOW SWITCHES WITH ELECTRIC BELL ON OUTSIDE WALL SHALL BE CONNECTED TO THE FIRE ALARM SYSTEM (ALARM SYSTEM UNDER SEPARATE PERMIT)

H.) MICROBIAL INDUCED CORROSION (MIC): NO DATA HAS BEEN FOUND RELATED TO THE EXISTENCE OF EVIDENCE OF MIC BEING PRESENT IN THE PROVIDED WATER SUPPLY

I.) BACKFLOW PREVENTION AND METERING SPECIFICATIONS: SHALL BE A 4" DCDA BACKFLOW FOUND AT THE RISER WILL BE INCORPORATED INTO HYDRAULIC CALCULATIONS.

J.) QUALITY AND PERFORMANCE SPECIFICATIONS OF ALL YARD AND INTERIOR FIRE PROTECTION COMPONENTS: PRODUCT DATA SHEETS SHALL BE PROVIDED AT TIME OF FIRE SPRINKLER PERMIT SUBMITTAL BY THE FIRE PROTECTION CONTRACTOR. INTERIOR FIRE PROTECTION EQUIPMENT SHALL BE LISTED.

K.) FIRE PUMP IS ADEQUATE, THEREFORE NO PUMP IS REQUIRED FOR THIS PROJECT.

L.) WATER SUPPLY IS ADEQUATE, THEREFORE NO FIRE WATER STORAGE TANK IS NEEDED

M.) NO OWNERS CERTIFICATE NEEDED FOR THIS PROJECT, THERE IS NO HIGH COMMODITY STORAGE.

- DESIGN AND INSTALLATION TO BE IN ACCORDANCE WITH 2019 EDITION OF NFPA 13
- DESIGN AND INSTALLATION TO BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES
- ALL PIPE AND FITTINGS USED ON THIS PROJECT TO BE IN ACCORDANCE WITH APPLICABLE CODES AND EFP STANDARDS. SEE PIPE AND FITTINGS GENERAL NOTES
- ALL HANGERS AND ANY REQUIRED BRACING SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13, MANUFACTURER'S INSTRUCTIONS AND THEIR LISTING
- ALL PENETRATIONS THROUGH RATED BUILDING ASSEMBLIES SHALL BE SEALED WITH FIRE STOPPING SHALL BE INSPECTED AND APPROVED BY PROPER AUTHORITIES PRIOR TO COVERING WITH DRYWALL. COPIES OF SIGNED TEST CERTIFICATES ARE TO BE FORWARDED TO THE PROPER RECEIPTS
- ALL SYSTEMS SHALL BE TESTED FOR 2 HOURS AT 200 PSI OR 50 PSI GREATER THAN MAXIMUM SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER
- ALL INSULATION REQUIRED FOR FREEZE PROTECTION OF SPRINKLER SYSTEM IS BY OTHERS
- ALL SOFFITS REQUIRED TO CONCEAL SPRINKLER PIPING ARE BY OTHERS
- ALL WIRING OF DEVICES (FLOW SWITCHES, TAMPER SWITCHES, COMPRESSORS, ETC) IS BY OTHERS
- CONNECTION OF SPRINKLER DEVICES TO THE BUILDING ALARM OR MONITORING SYSTEM IS BY OTHERS
- ALL PAINTING OF PIPE AS REQUIRED IS BY OTHERS
- ALL INSULATION REQUIRED FOR FREEZE PROTECTION OF SPRINKLER SYSTEM IS BY OTHERS
- HEATING OF ROOMS TO MAINTAIN TEMPERATURES OF 40 DEGREES OR GREATER IS BY OTHERS
- FIRE DEPARTMENT CONNECTIONS SHALL BE LOCATED NOT LESS THAN 18" AND NOT MORE THAN 48" ABOVE THE LEVEL OF THE ADJACENT GRADE
- QUICK RESPONSE SPRINKLERS SHALL BE USED IN ALL LIGHT HAZARD AREAS
- SPARE SPRINKLERS OF EACH TYPE (EXCLUDING DRY) SHALL BE PROVIDED ON THE PREMISES AS FOLLOWS:
 - LESS THAN 300 - 6 SPRINKLERS
 - 300 TO 1000 - 12 SPRINKLERS
 - OVER 1000 - 24 SPRINKLERS
- REFER TO SPACING NOTES ON PLANS FOR MAXIMUM CALCULATED SPACING ALLOWANCES
- SPRINKLERS SHALL BE INSTALLED IN ALL AREAS EXCEPT AS FOLLOWS:
 - ANY PORCHES, BALCONIES OR OVERHANGS THAT ARE NON-COMBUSTIBLE AND ARE NOT USED FOR STORAGE
 - CORRIDORS THAT ARE NON-COMBUSTIBLE IN CONSTRUCTION AND AT LEAST 50% OPEN
- PROVIDE ALL REQUIRED SIGNAGE PER NFPA 13 INCLUDING BUT NOT LIMITED TO: VALVES, HYDRAULIC PLACARDS, AND INSPECTION TAGS AS REQUIRED BY FS 633.

PIPE AND FITTINGS GENERAL NOTES NFPA 13 2019 GENERAL NOTES

ALL MATERIAL APPLICABLE TO THIS PROJECT WILL BE INDICATED WITH

- ALL 1" TO 2" THREADED BLACK STEEL PIPE SHALL BE SCHEDULE 40 UL LISTED/FM APPROVED AND MANUFACTURED IN ACCORDANCE WITH ASTM A-795. ACCEPTABLE PIPE MANUFACTURERS ARE: WHEATLAND, ALLED, BULL MOOSE TUBE AND WELDED TUBE-BERKELEY. ALL PIPE SHALL BE CPVC COMPATIBLE.
- ALL 1 1/2" TO 4" GROOVED BLACK STEEL PIPE SHALL BE UL LISTED/FM APPROVED AND MANUFACTURED IN ACCORDANCE WITH ASTM A795. ACCEPTABLE BRANDS ARE BULL MOOSE, WHEATLAND, WELDED-FLOW, ALLED, DYNAFLOW AND WELDED TUBE-BERKELEY. ALL PIPE SHALL BE CPVC COMPATIBLE.
- ALL GROOVED STEEL PIPE 6" AND LARGER SHALL BE UL LISTED/FM APPROVED SCHEDULE 10 AND MANUFACTURED IN ACCORDANCE WITH ASTM A-133.
- ALL STEEL PIPE SHALL HAVE A CORROSION RESISTANCE RATIO (CRR) OF NOT LESS THAN 1.0
- ALL BLACK THREADED FITTINGS SHALL BE DUCTILE IRON CLASS 150 OR CLASS 300 ANSI; B16.3. CAST IRON CLASS 125 OR CLASS 250 ANSI B16.4 OR MALLEABLE IRON CLASS 150 OR CLASS 300 ANSI B16.3.
- ALL WELDED OUTLETS SHALL BE UL LISTED OR FM APPROVED AND MANUFACTURED IN ACCORDANCE WITH ANSI B16.11.
- GROOVED FITTINGS SHALL BE UL LISTED OR FM APPROVED AND MANUFACTURED IN ACCORDANCE WITH ASTM A-336 FOR DUCTILE IRON OR ASTM A-47 FOR MALLEABLE IRON.
- ALL GROOVED STEEL PIPE SHALL BE ROLL GROOVED PER PIPE MANUFACTURER REQUIREMENTS.

Serenity Fire Safety

111 Lakeside Ave
Umatilla, FL 32784

JJ CONSULTING GROUP, INC.
CA LICENSE #31838
JORGE J. SALGADO, P.E. #53600
1957 SPRING SHOWER CIRCLE
KISSIMMEE, FL 34744

Jorge J Salgado
This item has been digitally signed and sealed by Jorge J. Salgado, P.E. using a Digital Signature. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.
2025.01.17 10:15:23 -0500

| WATER SUPPLY INFORMATION | |
|--------------------------|---|
| STATIC PRESSURE | - |
| RESIDUAL PRESSURE | - |
| FLOW GPM | - |
| DATE OF TEST | - |
| TEST PROVIDED BY | - |

| CALCULATIONS | |
|--------------------------------|---|
| REMOTE AREA # | - |
| # OF SPRINKLERS IN DESIGN AREA | - |
| DENSITY | - |
| DESIGN AREA SQFT | - |
| PSI HEAD @ BSR | - |
| GPM HEAD @ BSR | - |
| HOSE HEAD/OUTSIDE | - |

| SYMB. | 1ST | 2ND | 3RD | 4TH | SIN | SIZE | K | TEMP | MODEL |
|-------|-----|-----|-----|-----|-----|------|---|------|-------|
| - | - | - | - | - | - | - | - | - | - |
| TOTAL | | | | | | | | | - |

| NO. | DATE | REVISIONS | BY |
|-----|----------|-----------|----|
| 1 | xx/xx/xx | - | - |

FIRE STATION
COLUMBIA COUNTY
1579 NW LAKE JEFFERY RD
LAKE CITY, FL 32055

JOB # **25008**

| | |
|--------------------|--------------|
| FP1 | |
| JOB # 25008 | |
| DRAWN BY: | WW |
| SCALE: | 1/4" = 1'-0" |
| TOTAL A/S: | - |
| DATE: | 1/17/25 |