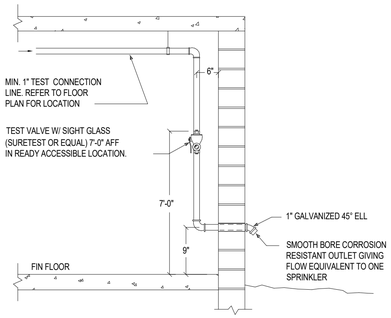
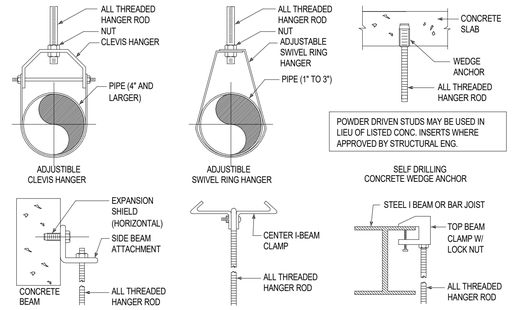


SYSTEM TEST CONNECTION DETAIL

SCALE: N.T.S.



HANGER SPACING

- 1" & 1-1/4" DIA. STEEL PIPE: MAXIMUM 12 FT. SPACING.
- 1-1/2" AND LARGER DIA. STEEL PIPE: MAXIMUM 15 FT. SPACING.
- 1" THRU 3" DIA. THREADED LIGHTWALL PIPE: MAX. 12 FT. SPACING
- ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH NFPA 13. EACH SECTION OF PIPE SHALL HAVE NO LESS THAN ONE HANGER. ARMOVERS EXCEEDING 1 FT. SHALL HAVE A HANGER.
- PROVIDE SUPPLEMENTAL TRAPEZE STEEL SUPPORTS BETWEEN BAR JOISTS AS REQUIRED TO SUPPORT PIPE HANGERS SIZED PER NFPA-13.

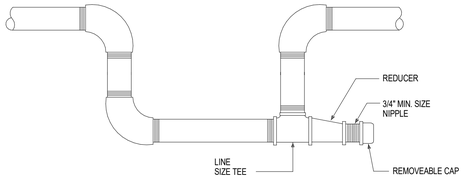
HANGER ROD SIZES

PIPE SIZE	DIAMETER OF ROD IN.	DIAMETER OF ROD MM
UP TO 4"	3/8	9.5
5", 6" & 8"	1/2	12.7
10" & 12"	5/8	15.9

PIPE HANGER DETAIL

SCALE: N.T.S.

AUXILIARY DRAINS SHALL BE PROVIDED WHERE A CHANGE IN PIPING DIRECTION PREVENTS DRAINAGE OF SYSTEM PIPING THROUGH THE MAIN DRAIN VALVE.



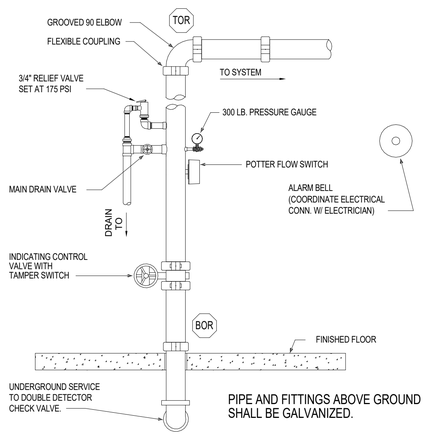
NOTE:

TRAPPED WATER VOLUME >5 GAL. < 50 GAL.: 3/4" MIN DRAIN VALVE REQ'D.

TRAPPED WATER VOLUME >50 GAL.: 1" MIN. DRAIN VALVE PIPED TO AN ACCESSIBLE LOCATION REQ'D.

AUXILIARY DRAIN DETAIL

SCALE: N.T.S.



FIRE RISER DETAIL

SCALE: N.T.S.

FIRE SPRINKLER HEAD SCHEDULE

SYM.	TYPE	ORIFICE SIZE	TEMP RATING	K FACTOR	COVERAGE AREA (WxL)	MANUFACTURER AND MODEL
●	PENDENT CONCEALED	1/2"	155° F	5.6	STANDARD	TYCO SERIES RFII, QUICK RESPONSE W/ GLASS BULB. (TY3531)
○	UPRIGHT	1/2"	155° F	5.6	STANDARD	TYCO SERIES TY-FRB, QUICK RESPONSE W/ GLASS BULB. (TY3131) CHROME FINISH.

FIRE PROTECTION GENERAL NOTES

1. THE FIRE PROTECTION SYSTEM INSTALLATION AND MATERIALS SHALL BE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE, NFPA 13, 25, 101 AND ALL LOCAL FIRE CODES AND ORDINANCES.
2. SPRINKLER SYSTEM TO BE INSTALLED BY A STATE CERTIFIED FIRE PROTECTION CONTRACTOR.
3. THE WORK THAT IS TO BE DONE UNDER THIS CONTRACT INCLUDES THE FURNISHING OF ALL LABOR, MATERIALS AND EQUIPMENT, PERMITS, FEES, INSPECTIONS, TESTS, INSURANCE, ETC. REQUIRED FOR THE COMPLETION OF THE FIRE PROTECTION SYSTEM SHOWN ON THE DRAWINGS AND LISTED HEREIN.
4. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY BEND, OFFSET OR OTHER FITTINGS WHICH MAY BE REQUIRED FOR THE INSTALLATION IN THE SPACE ALLOCATED, OR FOR COORDINATION WITH OTHER TRADES. CONTRACTOR SHALL COORDINATE WITH STRUCTURE, CEILING GRID AND ELEVATION, AND OTHER MECHANICAL, ELECTRICAL AND PLUMBING SERVICES BEFORE FABRICATING AND INSTALLING SPRINKLER PIPING. MAKE OFFSETS IN PIPING AS REQUIRED PER FIELD CONDITIONS. MAINTAIN 6" CLEARANCE BETWEEN PIPING AND 1 AND 2 HOUR RATED WALLS INCLUDING CORRIDOR WALLS.
5. ALL FIRE PROTECTION EQUIPMENT AND DEVICES SHALL BE U.L. LISTED AND/OR FM APPROVED.
   ALL PIPING, HANGERS, SUPPORT METHOD AND SPRINKLER HEADS TO BE INSTALLED IN STRICT ACCORDANCE WITH NFPA 13 AND ALL LOCAL CODES AND ORDINANCES.
6. SPRINKLER HEADS SHALL BE U.L. LISTED AND FM APPROVED AS INDICATED IN SCHEDULE RATED FOR 175 PSI WORKING PRESSURE, AND PROVIDED IN ACCORDANCE WITH SCHEDULE SHOWN ON THIS SHEET. PROVIDE HEAD GUARDS ON SPRINKLERS LOCATED IN MECHANICAL AND ELECTRICAL ROOMS. CONTRACTOR SHALL PROVIDE A WALL-MOUNTED SPRINKLER HEAD CABINET CONTAINING SPARE SPRINKLER HEADS AND WRENCHES FOR REPLACING THE HEADS IN ACCORDANCE WITH NFPA 13 (MINIMUM 2 SPRINKLER OF EACH TYPE AND TEMPERATURE RATING).
7. PROVIDE AUXILIARY DRAIN CONNECTION FOR ALL TRAPPED SECTION OF PIPING. PROVIDE CONCRETE SPLASHBLOCKS AT TEST/DRAINS EXTERIOR DISCHARGES AS REQUIRED. CONTRACTOR SHALL PROVIDE FLUSHING CONNECTIONS AS REQUIRED. READILY REMOVABLE FITTINGS SHALL BE PROVIDED AT THE END OF ALL CROSSMAINS. ALL CROSSMAINS SHALL TERMINATE IN 1-1/4" OR LARGER PIPE. ALL BRANCH LINES ON GRIDDED SYSTEMS SHALL BE ARRANGED TO FACILITATE FLUSHING.
8. FIRE PROTECTION PIPING:
   STEEL PIPE (ABOVE GRADE): ASTM A53, ASTM A135 OR ASTM A795, UL LISTED, 300 PSIG WP, FM APPROVED FOR FIRE PROTECTION BLACK STEEL PIPE. EXTERIOR INSTALLED PIPING EXPOSED TO WEATHER SHALL BE SCH 40 BLACK STEEL PIPE PAINTED RED WITH MIN. 2 COATS OF ANTICORROSIVE PAINT.
   - SCH. 40 FOR 1" THRU 1-1/2" WITH SCREWED ENDS
   - SCH. 10 FOR 2" AND LARGER WITH GROOVED ENDS

   FITTING:
   - THREADED: ANSI/ASME B16.3, CLASS 150 MALLEABLE IRON.
   - GROOVED: ASTM A536, DUCTILE IRON OR ASTM A47, MALLEABLE IRON APPROVED FOR USE BY THE COUPLING MANUFACTURER WITH LOW FLOW CHARACTERISTICS EQUAL TO OR BETTER THAN STANDARD FITTINGS, MIN. 300 PSIG WP. GROOVED FITTINGS TO BE VICTAULIC TYPE OR APPROVED EQUAL
   - MECHANICAL GROOVED COUPLING: UL LISTED, FM APPROVED FOR FIRE PROTECTION SERVICE, MIN. 300 PSIG WP, DUCTILE OR MALLEABLE IRON HOUSING, RUST INHIBITED NO-LEAD COATING, ZINC ELECTROPLATED HEAT TREATED BOLTS AND HEAVY HEX CARBON STEEL NUTS MEETING ASTM A183 STANDARDS.

   JOINTS: SCREWED, ROLL GROOVED.
   - THREADED: ANSI/ASME B1.20.1 FOR 2-1/2" AND SMALLER.
   - GROOVED: FOR 2-1/2" AND LARGER. GROOVE DIMENSIONS TO BE COMPATIBLE WITH LISTING OF COUPLING/FITTINGS USED AND OF THE SAME MANUFACTURER.
9. SPRINKLER HEADS SHALL BE A MINIMUM OF 18" ABOVE ANY FLOOR OBSTRUCTION, SHELVES OR CABINETS.
10. CONTRACTOR SHALL INSTALL SPRINKLERS UNDER DUCTS & OTHER OBSTRUCTIONS OVER 4 FEET IN WIDTH.
11. ALL FIRE RATED FLOOR AND WALL PENETRATIONS SHALL BE PROPERLY PROTECTED FROM FIRE, SMOKE AND WATER PENETRATION BY FILLING VOIDS BETWEEN PIPE AND WALL/FLOOR SLEEVES WITH FIRE RATED FOAM, CHASE TECHNOLOGY CORP.- CTC PR-855 0R 3M, CP-25 CAULKING OR 303 PUTTY, TO ACHIEVE SAME RATING AS WALLS OR FLOORS.
12. PRESSURE TEST ABOVE GROUND AND UNDERGROUND PIPING HYDROSTATIC ALLY AT 200 PSIG FOR 2 HOURS IN ACCORDANCE WITH NFPA-13. FLUSH OUT ALL PIPING IN ACCORDANCE WITH NFPA-13. PROVIDE TYPED AND COMPLETED NFPA-13 TEST CERTIFICATE FOR ABOVEGROUND PIPING. ALL WATERFLOW AND SUPERVISORY SWITCHES SHALL BE TESTED FOR PROPER OPERATION AND ANNUNCIATION. FURNISH TO OWNER'S REPRESENTATIVE ALL LITERATURE AND INSTRUCTIONS FOR THE PROPER OPERATION AND MAINTENANCE OF ANY EQUIPMENT AND DEVICES INSTALLED.
13. CONTRACTOR SHALL PROVIDE FIRE SPRINKLER SHOP DRAWINGS, CUT SHEETS FOR ALL COMPONENTS AND HYDRAULIC CALCULATIONS TO BUILDING DEPARTMENT FOR APPROVAL PRIOR INSTALLATION.
14. ALL VALVES CONTROLLING WATER SUPPLY SHALL BE PROVIDED WITH A SUPERVISORY (TAMPER) SWITCH. SUPERVISORY SWITCH SHALL BE 120 VOLT CLOSED CIRCUIT TAMPER SWITCH, U.L. LISTED AND FM APPROVED. FLOW SWITCHES SHALL BE PADDLE TYPE, SINGLE POLE, DOUBLE THROW WITH ADJUSTMENT FOR SENSITIVITY TO FLOW WITH TIME DELAY, U.L. LISTED AND FM APPROVED. COORDINATE LOCATION OF ALL FLOW AND TAMPER SWITCHES WITH ELECTRICAL CONTRACTOR.
15. GATE VALVES 2" AND SMALLER SHALL BE O.S.&Y. THREADED BRONZE, RISING STEM, WEDGE DISC, 175 WWP. GATE VALVES 2-1/2" AND LARGER SHALL BE O.S.&Y. FLANGED IBBM RISING STEM, SOLID WEDGE DISC, 175 WWP. ALL GATE VALVES SHALL BE UL LISTED AND FM APPROVED. BUTTERFLY VALVES WITH INTEGRAL SUPERVISORY SWITCH MAY BE USED WHERE PERMITTED BY NFPA 13.
16. ALL CONTROL, DRAIN, AND TEST CONNECTION VALVES SHALL BE PROVIDED WITH PERMANENTLY MARKED WEATHERPROOF METAL OR RIGID PLASTIC IDENTIFICATION SIGN IN ACCORDANCE WITH NFPA 13 AND NFPA 14. IDENTIFY THE HYDRAULICALLY DESIGNED SPRINKLER SYSTEM AND STANDPIPE WITH A PERMANENTLY MARKED WEATHERPROOF METAL OR RIGID PLASTIC IDENTIFICATION SIGN IN ACCORDANCE WITH NFPA 13 AND NFPA 14.
17. FIRE SPRINKLER SYSTEM SHOP DRAWINGS SHALL COMPLY WITH THE FLORIDA ADMINISTRATIVE CODE SECTION 61G15-32.003 AND 61G15-32.004.
18. FIRE SPRINKLER SYSTEM SHALL BE DESIGNED AT A POINT NOT GREATER THAN NINETY (90%) PERCENT OF THE TESTED WATER SUPPLY CURVE TO ALLOW FOR DROUGHT CONDITIONS.

HYDRAULIC SIZING CRITERIA

ASSEMBLY OCCUPANCY:
- OCCUPANCY CLASSIFICATION:
  LIGHT HAZARD (RESTROOMS, OFFICES, CORRIDORS, ENTRANCE, VESTIBULE, SHOWERS, MIKVAH, WARMING KITCHEN, COFFEEE ROOM, BEIS MEDRASH, WOMEN'S ENTRANCE, CHEDER LIMUD)
  ORDINARY HAZARD GROUP 1 (COAT ROOM, JANITOR & STORAGE ROOM, ELECTRICAL ROOM, BOILER ROOM, FIRE RISER ROOM)
- DENSITY: LH - 0.10 GPM/SF; OH1 - 0.15 GPM/SF
- AREA OF APPLICATION: 1,500 SF (MOST REMOTE AREA)
- SPRINKLER COVERAGE: LH - 225 SF; OH1 - 130 SF
- TOTAL COMBINED HOSE STREAM DEMAND: LH - 100 GPM; OH1 - 250 GPM

CODES AND STANDARDS

THE FIRE PROTECTION SYSTEM SHALL BE INSTALLED IN COMPLIANCE WITH THE FOLLOWING APPLICABLE CODES:

- FLORIDA FIRE PREVENTION CODE, 7TH EDITION (2020),
- UNIFORM FIRE CODE, NFPA 1, 2018 EDITION,
- LIFE SAFETY CODE, NFPA 101, 2018 EDITION,
- AUTOMATIC SPRINKLER SYSTEMS, NFPA 13, 2016 EDITION.
- INSPECTION, TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS, NFPA 25, 2017 EDITION,
- NATIONAL FIRE ALARM CODE, NFPA 72, 2016 EDITION,
- FLORIDA BUILDING CODE, 7TH EDITION (2020).
- FLORIDA STATE FIRE MARSHALL'S RULE 69A-3.012 FAC.

SHOP DRAWING REQUIREMENTS

1. CONTRACTOR SHALL SUBMIT DIGITAL SHOP DRAWINGS, TOGETHER AT ONE TIME AND MUST COME THROUGH THE ARCHITECT. ALL SUBMITTALS SHALL BE MADE WITHIN 30 DAYS OF NOTICE TO PROCEED.
2. ALL SUBMITTALS MUST CLEARLY INDICATE EXACTLY WHICH ITEMS ARE BEING PROPOSED FOR USE. IF NOT, THE SUBMITTAL SHALL BE REJECTED.
3. SUBSTITUTIONS SHALL BE LIMITED TO ONE OF THE ALTERNATES LISTED IN THE CONSTRUCTION DOCUMENTS. PRODUCTS CONSIDERED TO BE EQUAL SHALL BE REVIEWED AND ACCEPTED BY THE ENGINEER, ARCHITECT AND OWNER (10) DAYS PRIOR TO BID DATE.
4. THE CONTRACTOR ASSUMES ALL DESIGN RESPONSIBILITY AND ALL FINANCIAL RISKS FOR PROCEEDING PRIOR TO SHOP DRAWINGS PROCESSING, AND ON ANY ITEM OR WORK THAT IS AT VARIANCE TO THE CONSTRUCTION DOCUMENTS.

FIRE PROTECTION LEGEND

SYMBOL	DESCRIPTION
●	CONCEALED PENDENT SPRINKLER HEAD
◉	RECESSED PENDENT SPRINKLER HEAD
◀	SIDEWALL SPRINKLER HEAD
○	UPRIGHT SPRINKLER HEAD
⊗	EXISTING SPRINKLER HEAD TO BE REMOVED
F	FIRE PROTECTION MAIN
	FIRE PROTECTION LINE
	1-1/2" FIRE HOSE LINE
	PIPE DROP
	EXISTING FIRE SPRINKLER LINE
	FIRE SPRINKLER LINE TO BE REMOVED
	GROOVED CONTROL VALVE W/TAMPER SWITCH
	FLANGED CONTROL VALVE W/TAMPER SWITCH
	CHECK VALVE
	FLOW SWITCH
	1-1/2" FIRE HOSE RACK
	HYDRAULIC REFERENCE NODE
EX	DENOTES EXISTING TO REMAIN
N	DENOTES NEW
R	DENOTES RELOCATED

MICROBIOLOGICALLY INFLUENCED CORROSION (MIC) PREVENTION:

THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL A CHEMICAL INJECTION SYSTEM WHICH SHALL BE USED FROM THE FIRST FILL (THIS INCLUDES HYDROSTATIC TESTING AND PRELIMINARY FILLS). THE CHEMICAL INJECTION SYSTEM SHALL BE LOCATED IN THE FIRE RISER ROOM. THE CONTRACTOR SHALL BE RESPONSIBLE TO TEST THE WATER SUPPLY TO EVALUATE THE EXISTENCE OF MICROBES AND CONDITIONS THAT CONTRIBUTE TO MIC, AND NOTIFY OWNER OF THE TEST RESULTS. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE CHEMICAL PRODUCT/CONCENTRATE IN ACCORDANCE WITH MIC TEST RESULTS.
ADDITIONALLY, THE FIRE SPRINKLER SYSTEM SHALL BE PROVIDED WITH UL LISTED, FM APPROVED AIR VENTS LOCATED AT THE HIGHEST POINT OF THE SYSTEM TO LIMIT OXYGEN CORROSION.

FIRE PROTECTION SHEET INDEX

Sheet Number	Sheet Name
FP001	INDEX, NOTES AND SYMBOL LEGEND
FP101	LEVEL 1 - FIRE PROTECTION PLAN

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Project No.: 230515-F

CIVIL CONSULTANT:

REVISIONS

NO.	DATE	DESCRIPTION
2	06/11/24	Response to Comments

CLIENT: JAM EQUITIES

PROJECT NAME / LOCATION:
OKEE - SHUL
PROJECT ADDRESS

DRAWING TITLE:
INDEX, NOTES AND SYMBOL LEGEND

EXAMINER'S SIGNATURE:

PROFESSIONAL SEAL:
George SanJuan
2024.06.13 09:49:26 -04'00'

SCALE:

DATE:

PROJECT NO.: NJ079.4

DRAWING NO.: 2 FP001

BARCODE

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ARCHITECTS. DO NOT SCALE DRAWING. THE DRAWING SHALL NOT BE USED UNTIL SIGNED BY CONSULTANTS.

6/11/2024 10:58:43 AM