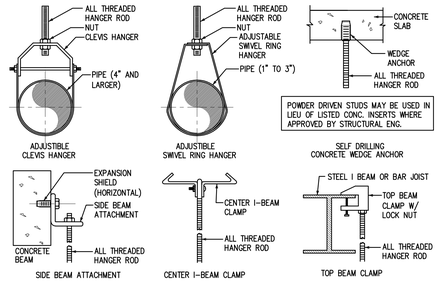


SYSTEM TEST CONNECTION DETAIL
SCALE: N.T.S.



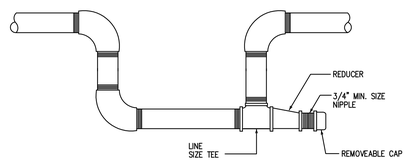
PIPE HANGER DETAIL
SCALE: N.T.S.

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.	MM
UP TO 4"	3/8	9.5
5", 6" & 8"	1/2	12.7
10" & 12"	5/8	15.9

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

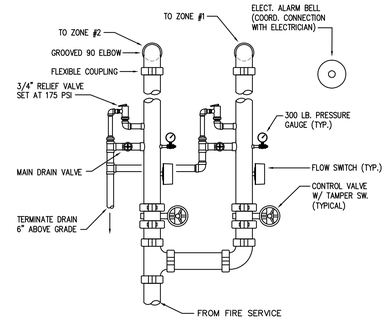


NOTE:

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 (W x L)	MANUFACTURER AND MODEL
●	PENDENT CONCEALED	1/2"	155° F	5.6	STANDARD	TYCO SERIES RFII, QUICK RESPONSE W/ GLASS BULB. (TY3531) WHITE COVER
◌	UPRIGHT	1/2"	155° F	5.6	STANDARD	TYCO SERIES TY-FRB, QUICK RESPONSE W/ GLASS BULB. (TY313) CHROME FINISH.
◀	HORIZONTAL SIDEWALL	1/2"	155° F	5.6	STANDARD	TYCO SERIE TY-FRB, QUICK RESPONSE W/ GLASS BULB. (TY3331) 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. PIPING AND FITTINGS INSTALLED EXPOSED OR OUTSIDE SHALL BE BLACK STEEL PIPE PAINTED RED WITH 2 COATS OF ANTI-CORROSIVE PAINT.
   - SCH. 40 FOR 1" THRU 1-1/2" WITH SCREWED ENDS
   - SCH. 10 FOR 2" AND LARGER W/ GROOVED ENDS

   FITTINGS:
   - 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" 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 OR 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 SIGNED AND SEALED 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 BE IN COMPLIANCE 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

SHELL RETAIL BUILDING:
- OCCUPANCY CLASSIFICATION:
  LIGHT HAZARD: BATHROOMS, CORRIDORS, OFFICES, ENTRANCE, GYM,
  ORDINARY HAZARD 1: PACKAGES, ELECTRICAL ROOM, FIRE RISER ROOM, JANITOR'S CLOSET, MAIL,
  ORDINARY HAZARD 2: RETAIL AREAS
- DENSITY: LH – 0.10 GPM/SF; OH1 – 0.15 GPM/SF; OH2 – 0.20 GPM/SF.
- AREA OF APPLICATION: 1,500 SF (MOST REMOTE AREA)
- SPRINKLER COVERAGE: LH – 225 SF; OH1 & OH2 – 130 SF.
- TOTAL COMBINED HOSE STREAM DEMAND: LH – 100 GPM; OH1 & OH2 – 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.

FIRE PROTECTION INDEX

1	FP001	FIRE PROTECTION INDEX, SYMBOL LEGEND AND NOTES.
2	FP101	LEVEL 1 – AREA A – FIRE PROTECTION PLAN
3	FP102	LEVEL 1 – AREA B – FIRE PROTECTION PLAN
4	FP103	LEVEL 1 – AREA C – FIRE PROTECTION PLAN
5	FP121	LEVEL 2 – AREA A – FIRE PROTECTION PLAN
6	FP122	LEVEL 2 – AREA B – FIRE PROTECTION PLAN
7	FP123	LEVEL 2 – AREA C – FIRE PROTECTION PLAN
8	--	--
9	--	--
10	--	--

SHOP DRAWING REQUIREMENTS

1. CONTRACTOR SHALL SUBMIT COMPLETE DIGITAL FIRE PROTECTION 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.
5. SHOP DRAWINGS AND SUBMITTALS FOR EACH ITEM SHALL BE REVIEWED NO MORE THAN TWICE. A THIRD SUBMITTAL ON AN ITEM MUST BE ACCOMPANIED BY A PURCHASE ORDER FROM THE CONTRACTOR OR IT SHALL BE REJECTED.
6. CIRCUMSTANCES NECESSITATING A REVISION TO THE PERMITTED DOCUMENTS NOT PROCESSED PRIOR TO INSTALLATION MAY NOT BE ACCEPTED. IF ACCEPTED IT MUST BE LEGIBLE, ACCURATE AND ACCOMPANIED BY A PURCHASE ORDER FROM THE CONTRACTOR. THE REVISION SHALL BE CHARGED TO THE CONTRACTOR AND DELIVERED TO HIM ON A C.O.D. BASIS.
7. SUBSTITUTIONS FROM THE BASE DESIGN OR VARIATIONS TO THE PERMITTED CONTRACT DOCUMENTS, WHETHER RESULTING FROM PROCESSED SHOP DRAWINGS OR NOT, THAT RESULT IN REQUIREMENTS IN LETTERS OF AUTHORIZATION AND/OR PERMIT CONTRACT DOCUMENT CHANGES MANDATED BY THE AUTHORITY HAVING JURISDICTION WILL NOT BE MADE BY THIS OFFICE UNLESS ACCOMPANIED BY A PURCHASE ORDER FROM THE CONTRACTOR, AND RELEASED ON A C.O.D. BASIS.

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
—HOSE—	1-1/2" FIRE HOSE LINE
——o	PIPE DROP
—F— — —F—	EXISTING FIRE SPRINKLER LINE
—F—x—F—	FIRE SPRINKLER LINE TO BE REMOVED
⊗	GROOVED CONTROL VALVE W/TAMPER SWITCH
⊗	FLANGED CONTROL VALVE W/TAMPER SWITCH
Z	CHECK VALVE
◇	FLOW SWITCH
◇HOSE	1-1/2" FIRE HOSE RACK
○	HYDRAULIC REFERENCE NODE
EX	DENOTES EXISTING TO REMAIN
N	DENOTES NEW
R	DENOTES RELOCATED

GROOVED MECHANICAL JOINT SYSTEM

THE BASIS OF DESIGN OF THE FIRE SPRINKLER SYSTEM PIPING IS VICTAULIC GROOVED MECHANICAL JOINT SYSTEMS FOR 2" AND LARGER PIPE DIAMETER. ALL SYSTEM COMPONENTS (INCLUDING COUPLINGS, FITTINGS, VALVES AND ACCESSORIES AND GROOVING TOOLS) TO BE SUPPLIED BY VICTAULIC. ALL PIPING UTILIZED SHALL BE IN CONFORMANCE WITH VICTAULIC SPECIFICATIONS FOR THE SPECIFIC PIPE SIZE AND MATERIAL BEING JOINED AND COUPLING STYLE USED. ALL GASKETS SHALL BE SELECTED BASED ON INTENDED SERVICES. ON ALL INSTALLATIONS, A VICTAULIC REPRESENTATIVE SHALL PERIODICALLY VISIT THE JOBSITE FOR CONTRACTOR TRAINING AND INSTALLATION GUIDANCE. THE VICTAULIC REPRESENTATIVE TO CONTACT IS PEDRO PEREZ AT 786-413-9268 OR EMAIL AT PEDRO.PEREZ@VICTAULIC.COM.

RISE | FL architecture

ARCHITECT:
NYC OFFICE:
241 37TH STREET, SUITE 490
BROOKLYN, NEW YORK, 11232
JEFF@RISEARCHITECTURE.COM
516-749-3746

ALL OFFICE:
36 AIRPORT BUSINESS PARK
LAKEWOOD, NJ 08701
SHIMON GRIENBAUM, RA
SHIMON@RISEARCHITECTURE.COM
908-674-8717

FL OFFICE:
210 N UNIVERSITY DR SUITE 702
CORAL SPRINGS, FL 33071
SHIMON GRIENBAUM, RA
SHIMON@RISEARCHITECTURE.COM
908-674-8717

STRUCTURAL CONSULTANT:

MEP CONSULTANT:
DELTA G CONSULTING ENGINEERS, INC.
1800 Eller Drive, Suite 570
Fort Lauderdale, FL. 33316
(954) 527-1112
CA#0000191
PJT. MGR.: STEPHEN BENDER, P.E.
PROJECT #: 230515-G

CIVIL CONSULTANT:

DESIGNER CONSULTANT:

REVISIONS:

NO.	DATE	DESCRIPTION

CLIENT:
CLIENT NAME

PROJECT NAME / LOCATION:
PROJECT NAME
PROJECT ADDRESS

DRAWING TITLE:

EXAMINER'S SIGNATURE:
INDEX, NOTES AND SYMBOL LEGEND

PROFESSIONAL SEAL:

Digitally signed by George SanJuan
Date: 2023.12.27 11:26:51 -05'00'
GEORGE SANJUAN, P.E.
FLORIDA LICENSE #46100

SCALE: AS SHOWN

DATE:

PROJECT NO.

DRAWING NO.: 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.