GENERAL NOTES

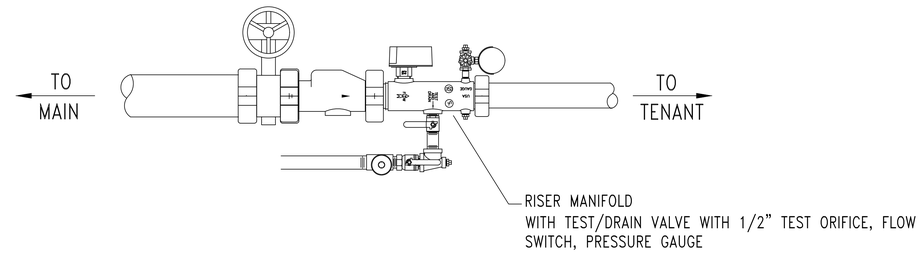
1. THE SCOPE OF WORK INCLUDES THE MODIFICATION OF THE EXISTING WET-PIPE AUTOMATIC SPRINKLER SYSTEM IN THE BASEMENT OF THE BUILDING, AS INDICATED ON THE DRAWINGS AND IN THE TECHNICAL SPECIFICATIONS. THE SCOPE OF WORK ALSO INCLUDES DEMOLITION OF EXISTING SPRINKLERS AND SPRINKLER PIPING WITHIN THE NEW WORK AREA OF THE BASEMENT. THE CONTRACTOR SHALL DISPOSE OF ANY AND ALL REMOVED MATERIALS TO AN APPROVED OFF-SITE LOCATION.
2. THIS DRAWING IS PROVIDED TO DEMONSTRATE THE CONFIGURATION OF MAJOR SYSTEM COMPONENTS INCLUDING SPRINKLER AND PIPING LOCATIONS. THE SPRINKLER CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL SPRINKLERS AND SYSTEM PIPING.
3. REFER TO ATTACHED HYDRAULIC CALCULATIONS FOR DESIGN PIPE SIZES. PIPE SIZES SHALL BE NO SMALLER THAN AS INDICATED BY THE DESIGN HYDRAULIC CALCULATIONS OR DESIGN DRAWINGS UNLESS VERIFIED THROUGH APPROVED CALCULATION SUBMITTAL. THE DESIGN SPECIFICATION AND HYDRAULIC CALCULATIONS ARE PART OF THESE DESIGN DOCUMENTS.
4. ACCURACY OF WALL LOCATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR WITH REGARDS TO PIPE ROUTING AND PROXIMITY TO OBSTRUCTIONS.
5. THE CONTRACTOR SHALL PREPARE AND SUBMIT FOR APPROVAL SHOP DRAWINGS, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MASSACHUSETTS. THE REQUIREMENTS FOR THE SUBMITTAL PACKAGE AND SHOP DRAWINGS ARE PROVIDED IN THE DESIGN SPECIFICATION. CHANGES IN THE LOCATIONS OF SPRINKLERS FROM THOSE SHOWN ON THE APPROVED SHOP DRAWINGS SHALL BE IDENTIFIED IN WRITING TO EFI PRIOR TO INSTALLATION. ALL CHANGES SHALL BE APPROVED IN WRITING PRIOR TO INSTALLATION OR ANY RELOCATIONS OR ADDITIONAL SPRINKLERS REQUIRED FOR COMPLIANCE AS A RESULT OF THE CHANGES SHALL BE FURNISHED AND INSTALLED AT THE EXPENSE OF THE CONTRACTOR.
6. THE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ANY NEW SITE SPECIFIC MODIFICATIONS THAT MAY BE MADE TO THE BUILDING DURING CONSTRUCTION SUCH AS NEW LIGHTS, DROP CEILINGS, ETC.
7. ALL SPRINKLER PIPING SHALL BE SECURED USING U.L. LISTED PIPE HANGERS, ANCHORS AND OTHER APPROVED MEANS TO PROPERLY SECURE THE PIPE.
8. ALL PIPING 1-INCH THROUGH 2-INCH SHALL BE ASTM A53 SCHEDULE 40 WITH THREADED ENDS.
9. ALL PIPING 2½-INCH AND LARGER SHALL BE ASTM A53 SCHEDULE 10 WITH GROOVED ENDS.
10. ALL END SPRINKLERS SHALL BE PROVIDED WITH RESTRAINT AGAINST VERTICAL AND LATERAL MOVEMENT IN ACCORDANCE WITH CHAPTER 9 OF NFPA 13.
11. LATERAL AND LONGITUDINAL SEISMIC SWAY BRACING SHALL BE PROVIDED IN ACCORDANCE WITH CHAPTER 9 OF NFPA 13-2002.
12. ALL SPRINKLERS INSTALLED IN ACT TYPE DROP CEILINGS SHALL BE LOCATED IN CENTER OF CEILING TILE.
13. ALL PENDENT SPRINKLER HEADS SHALL BE LOCATED AS REQUIRED BY NFPA STANDARDS TO ASSURE PROPER CLEARANCES FROM OBSTRUCTIONS.
14. PIPING TO BE SUPPORTED AS REQUIRED BY NFPA 13. HANGERS ARE TO BE FIELD LOCATED TO BEST SUPPORT THE PIPING.
15. ALL STEEL PIPING SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR 2 HOURS.

DESIGN CRITERIA

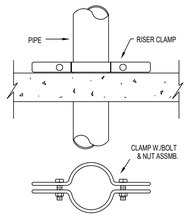
1. DESIGN AND INSTALL THE SPRINKLER SYSTEMS TO MEET THE REQUIREMENTS OF:
   - A. MASSACHUSETTS FIRE SAFETY CODE, WHICH INCLUDES:
   - B. NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
2. REFER TO TECHNICAL SPECIFICATIONS FOR MORE DETAILED INFORMATION AND ADDITIONAL REQUIREMENTS.
3. UNLESS OTHERWISE INDICATED ON THESE DRAWINGS, THE SPRINKLER SYSTEM IN ALL AREAS IN THE BUILDING SHALL BE DESIGNED AS LIGHT HAZARD.
4. THE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY CALCULATED BY THE CONTRACTOR USING THE DENSITY/AREA DESIGN METHOD AS DESCRIBED IN NFPA 13.
5. THE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY CALCULATED AND SIZED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
   - A. ALL LIGHT HAZARD OCCUPANCY AREAS SHALL MEET THE REQUIREMENTS OF NFPA 13 AS FOLLOWS:
     - i. AREA OF DEMAND: 1500 S.F. (AREA REDUCTION FOR Q.R. SPRINKLERS PER NFPA 13, SEC. 11.2.3.2.3.1),
     - ii. DENSITY: 0.10 GPM/S.F.,
     - iii. HOSE STREAM: 500 GPM,
     - iv. SAFETY MARGIN: THE DIFFERENCE BETWEEN THE STATIC AND REQUIRED PRESSURES SHALL BE AT LEAST 10% OF THE STATIC PRESSURE;
   - B. ALL ORDINARY HAZARD GROUP 1 OCCUPANCY AREAS SHALL MEET THE REQUIREMENTS OF NFPA 13-2002 AS FOLLOWS:
     - i. AREA OF DEMAND: 1500 S.F.,
     - ii. DENSITY: 0.15 GPM/S.F.,
     - iii. HOSE STREAM: 500 GPM,
     - iv. SAFETY MARGIN: THE DIFFERENCE BETWEEN THE STATIC AND REQUIRED PRESSURES SHALL BE AT LEAST 10% OF THE STATIC PRESSURE.
   - C. AREA OF OPERATION INCREASES SHALL BE INCLUDED FOR DRY-PIPE SYSTEMS, SLOPE CEILING, ETC.
6. ALL STANDARD SPRAY SPRINKLERS IN LIGHT HAZARD AREAS SHALL HAVE A MAXIMUM COVERAGE AREA OF 225 S.F. SO THAT THEY PROVIDE AT LEAST 0.10 GPM/S.F. OVER THE COVERAGE AREA OF THE SPRINKLER FOR LIGHT HAZARD SPACES.
7. ALL STANDARD SPRAY SPRINKLERS IN ORDINARY HAZARD GROUP 1 AREAS SHALL HAVE A MAXIMUM COVERAGE AREA OF 130 S.F. SO THAT THEY PROVIDE AT LEAST 0.15 GPM/S.F. OVER THE COVERAGE AREA OF THE SPRINKLER FOR ORDINARY HAZARD SPACES.

SCOPE OF WORK

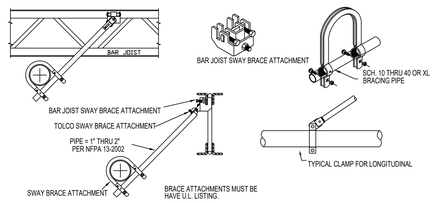
1. THE SCOPE OF WORK INCLUDES THE DESIGN AND INSTALLATION OF NEW WET-PIPE AUTOMATIC SPRINKLER SYSTEM, AS INDICATED ON THE DRAWINGS, HYDRAULIC CALCULATIONS AND IN THE TECHNICAL SPECIFICATIONS.
2. THE SCOPE OF WORK INCLUDES FURNISHING ALL SERVICES, EQUIPMENT, PERMITS, TESTING, ETC. THAT ARE REQUIRED TO INSTALL A COMPLETE AND APPROVED AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS AND AS INDICATED ON THE DRAWINGS, HYDRAULIC CALCULATIONS AND IN THE TECHNICAL SPECIFICATIONS.
3. THE SCOPE OF WORK INCLUDES COORDINATING THE SPRINKLER SYSTEM INSTALLATION WITH THE OWNER, THE GENERAL CONTRACTOR, FIRE ALARM CONTRACTOR, ALL OTHER TRADES AND EFI.



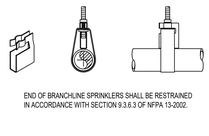
ZONE CONTROL VALVE DETAIL



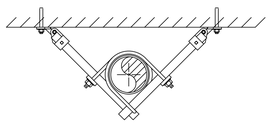
RISER CLAMP



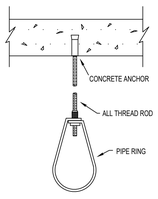
BAR JOIST SWAY BRACE ATTACHMENT DETAILS



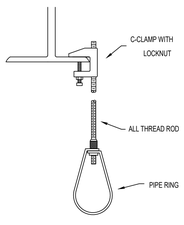
END OF BRANCHLINE SURGE SUPPRESSION



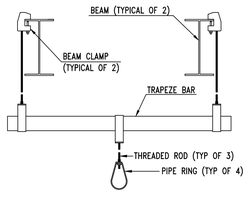
FOUR WAY RISER SWAY BRACE



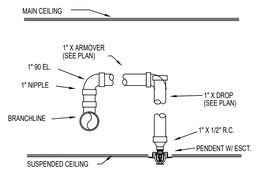
DRILLED CONCRETE ANCHOR HANGER



C-CLAMP HANGER



TRAPEZE HANGER



TYPICAL SPRINKLER RETURN BEND

efi global
21 FATHER DEVALLES BLVD.
FALL RIVER, MA 02723

PROJECT NORTH

LAHEY REHABILITATION UNIT AT SOLOMON MENTAL HEALTH CENTER
Lowell, Massachusetts

REV	DESCRIPTION	DATE
0	ISSUED FOR REVIEW	02/22/19

SEAL:

PROJECT NUMBER: 012.00128

DATE: 02/22/2019

SHEET TITLE AND NUMBER:

SP-0.1

TITLE SHEET, NOTES AND DETAILS