## SPRINKLER SYSTEM NOTES

- CONTRACTOR SHALL RUN PIPING TO ALL SPRINKLER HEADS, COORDINATE EXACT LOCATION OF PIPING, SIZE ALL PIPING, COORDINATE WITH OTHER TRADES, PRODUCE SHOP DRAWINGS AND HYDRAULIC CALCULATIONS AS LISTED THROUGHOUT.
- THE CONTRACTOR SHALL NOT REVISE OR DEVIATE FROM THE MAIN PIPING LAYOUT. VALVES, EQUIPMENT, ACCESSORIES, DEVICES OR SPRINKLER HEADS SHOWN ON THESE DRAWINGS AND ITEMS LISTED IN THE SPECIFICATIONS.
- THE SPRINKLER HEAD LAYOUT SHOWN MEETS OR EXCEEDS NFPA 13 FOR THE OCCUPANCY SERVED. IN MOST CASES THE HEAD LAYOUT EXCEEDS MINIMUM REQUIREMENTS TO PROVIDE AN AESTHETICALLY ACCEPTABLE PATTERN. THE SPRINKLER CONTRACTOR MUST INCLUDE IN HIS BID, AS A MINIMUM, THE NUMBER OF HEADS SHOWN.
- PROVIDE AND INSTALL WHETHER SHOWN OR NOT, INSIDE THE BUILDING, A 1" INSPECTORS TEST CONNECTION, INCLUDING A 1" SHUTOFF VALVE FOR EACH ZONE WITH SIGHT GLASS.
- FURNISH AND INSTALL THE MAIN RISER, A SPARE HEAD CABINET INCLUDING A WRENCH AND SPRINKLER HEAD SPARES OF ALL TYPES, DEGREE RATING AND ORIFICE SIZES INSTALLED.
- BEFORE ACTUAL INSTALLATION, THE SUBCONTRACTOR SHALL PREPARE AND SUBMIT ACTUAL DETAILED WORKING DRAWINGS TO THE LOCAL FIRE MARSHAL AND INSURANCE UNDERWRITER TO OBTAIN STAMPED FINAL APPROVAL.
- A STANDARD INSTALLATION OF AUTOMATIC SPRINKLERS ARRANGED AS A WET PIPE SYSTEM IS REQUIRED. THE SPRINKLER CONTRACTOR SHALL HYDRAULICALLY DESIGN THE SYSTEM. THE SYSTEM SHALL BE DESIGNED TO PROVIDE DENSITIES AS NOTED OVER THE HYDRAULICALLY MOST REMOTE AREAS. ALLOWANCE FOR INSIDE AND OUTSIDE HOSE TO BE INCLUDED.
- AT EACH SYSTEM RISER ALARM VALVE, SHALL HANG A HYDRAULIC CALCULATION POSTER SIGN EQUAL TO "VIKING" #03573C.
- CAUTION SIGNS SHALL BE ATTACHED TO ALL CONTROLLING SPRINKLER VALVES AS PER NFPA 13. WHERE PIPING IS TO BE RUN THROUGH EXPANSION JOINTS CONTRACTOR SHALL INSTALL EXPANSION LOOPS AT THAT POINT.
- ALL DRY PIPING SHALL BE GALVANIZED STEEL SCHEDULE 40. THIS INCLUDES FIRE DEPARTMENT / SIAMESE CONNECTION PIPING AND DRAIN PIPING.
- PIPE SIZES ARE SHOWN ONLY FOR COORDINATION. ACTUAL SIZES SHALL BE DETERMINED FROM FIRE PROTECTION CONTRACTOR SHOP DRAWINGS AND CALCULATIONS. NO CREDIT/EXTRA WILL BE ALLOWED FOR LARGER OR SMALLER SIZES
- COORDINATE EXACT LOCATION OF THE FIRE PROTECTION SERVICE ENTERING THE BUILDING WITH THE SITE CONTRACTOR AND UTILITY DRAWINGS. COORDINATE FOUNDATION WALL PENETRATION AND INVERT ELEVATIONS WITH THE GENERAL CONTRACTOR AND/OR CONSTRUCTION MANAGER.
- IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW INDIVIDUAL BRANCH PIPING TO EACH SPRINKLER HEAD, ONLY THE MAIN SPRINKLER OR STANDPIPE PIPE ROUTING IS USUALLY INDICATED. THE ENTIRE FIRE SUPPRESSION SYSTEM SHALL BE FULLY OPERATIONAL AND READY FOR BENEFICIAL USE BEFORE THE JOB IS CONSIDERED COMPLETE.
- SUBMITTALS FOR APPROVAL THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR APPROVAL:
- A COMPLETE SET OF DETAILED CONTRACTOR'S INSTALLATION DRAWINGS TO INCLUDE: A FULL HEIGHT CROSS SECTION, LOCATIONS OF ALL WALLS PARTITIONS, LIGHTS, DIFFUSERS, GRIDS, MAJOR EQUIPMENT AND DUCTWORK, SIZE OF SITE WATER MAIN AND PRESSURE, NOMINAL PIPE SIZES, CUTTING LENGTHS AND FINISHED FLOOR TO PIPE ELEVATION LENGTH, LOCATION OF ALL VALVES, MAINS, BRANCH PIPING AND SPRINKLER HEADS HYDRAULIC NAMEPLATE DATA AND ALL PERTINENT INFORMATION. SUBMITTAL INFORMATION OUTLINED IN NFPA 13 SECTION 1-9.
- A COMPLETE SET OF DETAILED HYDRAULIC CALCULATIONS FOR EACH SYSTEM WITH HYDRAULIC REFERENCE POINTS, AS PER NFPA 13. SUBMITTAL INFORMATION OUTLINED IN NFPA 13 SECTION 7-3.
- ALL PENETRATIONS THROUGH RATED WALLS, FLOORS AND CEILINGS SHALL BE FIRESTOPPED AND SEALED TO MAINTAIN RATING ACCORDING TO ASTM E 814 OR UL 1479. PROVIDE T RATED OR F RATED SYSTEMS IN ACCORDANCE WITH SPECIFICATION SECTION 078413.
- FOR ALL WORK REQUIRING SEISMIC SUPPORTS, SEE NFPA 13.
- ALL PIPING IS TO BE RUN CONCEALED IN CEILING OR WALLS. PIPING IS TO BE EXPOSED ONLY WHERE NOTED ON DRAWINGS. IF CONTRACTOR CANNOT RUN PIPING CONCEALED, NOTIFY ENGINEER IMMEDIATELY TO RESOLVE CONFLICT.
- AT AREAS WHERE PIPING IS TO BE RUN EXPOSED, CONTRACTOR SHALL CAREFULLY INSTALL PIPING TIGHT TO CORNER OF WALLS AND CEILINGS. ESPECIALLY IN CLASSROOMS AND CORRIDORS. CONTRACTOR SHALL NOTE AESTHETICS OF BUILDING AND RUN PIPING AS UNOBTRUSIVE AS POSSIBLE. CONTRACTOR SHALL ALSO RUN PIPING TO AVOID STUDENTS REACHING TO HANG
- IN SMALL ROOMS OR CLOSETS WHERE SURFACE MOUNTED LIGHTS OR OTHER OBSTRUCTIONS EXIST, THE CONTRACTOR SHALL INSTALL UPRIGHT SPRINKLER HEADS BELOW THE LEVEL OF THE OBSTRUCTION OR ADHERE TO SPRINKLER SPACING RULES SET BY NFPA 13. WHERE PENDENT SPRINKLER HEADS ARE REQUIRED, DEEP CHROME ESCUTCHEONS MAY BE USED IF ABSOLUTELY NECESSARY. THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY IF THESE ESCUTCHEONS ARE REQUIRED DUE TO THE CONCERN OF AESTHETICS OF THE SPRINKLER SYSTEM. SEE NFPA 13 FOR OBSTRUCTION AND CLEARANCE RULES.
- PIPING IS SHOWN ONLY TO CLARIFY WHERE THE ENGINEER INTENDS THE PIPING TO BE LOCATED. THE CONTRACTOR SHALL NOT DEVIATE FROM THE LOCATIONS SHOWN UNLESS IT IS PHYSICALLY IMPOSSIBLE TO INSTALL PIPING IN THOSE LOCATIONS. SPRINKLER CONTRACTOR SHALL RUN ALL OTHER PIPING TO SPRINKLER HEADS, HOSE VALVES, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELBOWS, TEES, DROPS, AND MISCELLANEOUS PIPING DUE TO ELEVATION CHANGES, OBSTRUCTIONS, ETC. TO INSTALL A COMPLETE, FUNCTIONING, FIRE PROTECTION/SPRINKLER SYSTEM.
- AT ALL LOCATIONS WHERE PIPING IS ATTACHED TO BEAMS, A GALVANIZED BEAM RESTRAINING STRAP MUST BE USED IN CONJUNCTION WITH GALVANIZED BEAM CLAMP.
- ADDITIONAL SPRINKLERS MAY BE NECESSARY DUE TO OBSTRUCTIONS SUCH AS LIGHTS, DUCTWORK, STEEL BEAMS, ETC. PROVIDE A COMPLETE SPRINKLER SYSTEM PER NFPA 13 AND FOLLOW RULES FOR OBSTRUCTIONS. INCLUDE THESE ITEMS IN THE DETAILED SHOP DRAWING SUBMITTALS.
- NO SPRINKLER PIPING SHALL BE INSTALLED WITHIN STAIRS, STAIR WALLS, ELEVATOR MACHINE ROOMS, TRANSFORMER VAULTS, ELECTRICAL ROOMS OR OVER ELECTRICAL PANELS/EQUIPMENT, WHICH SERVES OTHER AREAS. ONLY DEDICATED SPRINKLER PIPING WILL BE ALLOWED WITHIN EACH OF THE SPACES INDICATED ABOVE. COORDINATE THE LOCATION OF ALL PIPING WITH ELECTRICAL EQUIPMENT AND OTHER TRADES, AND ADJUST AS NECESSARY.
- UNLESS NOTED OTHERWISE ON PLANS AT ALL INTERIOR AREAS VISIBLE TO GUESTS, CEILING SPRINKLER HEADS SHOULD BE FULLY RECESSED, CONCEALED HEADS WITH A WHITE COVER PLATE. NO DIMPLED HEADS ALLOWED IN CEILINGS.
- AT ALL EXTERIOR AREAS VISIBLE TO GUESTS, CEILING SPRINKLER HEADS SHOULD BE FULLY RECESSED, CONCEALED HEADS
- AT ALL INTERIOR AREAS VISIBLE TO GUESTS, WALL MOUNTED SPRINKLER HEADS SHOULD BE RECESSED, DIMPLED HEADS WITH A WHITE COVER PLATE.
- 28. AT ALL INTERIOR AREAS VISIBLE TO GUESTS, WALL MOUNTED SPRINKLER HEADS SHOULD BE RECESSED. 29. ALL SPRINKLER HEAD TYPES SHOULD BE SUBMITTED FOR APPROVAL.

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## FIRE PROTECTION GENERAL NOTES

- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING A FLOW TEST TO ACQUIRE CURRENT WATER FLOW DATA. COORDINATE WITH THE CARIBOU, ME WATER DEPARTMENT.
- SPRINKLER CRITERIA:
- NFPA 101 LIFE SAFETY CODE 2015
  - INTERNATIONAL BUILDING CODE 2015 REFER TO PERFORMANCE SPECIFICATION SECTION 21
- ALL SPRINKLER PIPE SIZING SHALL BE THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR AND SHALL BE DETERMINED BY HYDRAULIC CALCULATIONS.

SIGNAL PER ZONE, ALARM VALVE FLOW SWITCH SHALL REPORT "SYSTEM ACTIVATION".

- TAMPER SWITCHES ON SHUT-OFF VALVES SHALL REPORT ``TROUBLE"
- SPRINKLER ZONES: (INDICATION REQUIRED) ZONE 1 - BASEMENT ZONE 2 - FIRST FLOOR ZONE 3 - DRY ATTIC
- FURNISH AND INSTALL PROTECTIVE HEAD GUARDS OVER SPRINKLER HEADS IN MECHANICAL ROOMS AND OTHER AREAS SUBJECT TO ABUSE.
- DO NOT ORDER SPRINKLER HEADS UNTIL APPROVAL IS RECEIVED FROM ARCHITECT FOR ALL AREAS AND APPLICATIONS. REFER TO ARCHITECTURAL PLANS, DETAILS AND SPECIFICATIONS FOR COMPLETE BUILDING DEFINITION.
- PROVIDE NEW KNOX BOXES AT FIRST FLOOR ENTRANCE IF REQUESTED BY THE AHJ. 9. ALL SYSTEM COMPONENTS SHALL BE CAPABLE OF WITHSTANDING A WORKING PRESSURE OF 175
- INDEPENDENT OF THE CEILING SHEATHING. DO NOT USE SPRINKLER PIPING OR HANGERS TO

- ALL CROSS AND MAIN FEEDS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELBOWS, TEES, DROPS, AND MISC. PIPING DUE TO
- COMPLETE, FUNCTIONING, SPRINKLER SYSTEM.
- TO FIRE MARSHAL ONE SIGNED COPY OF "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE", WORKING DRAWINGS AND CALCULATIONS.

SUBMIT SHOP DRAWINGS AND CATALOG CUTS STAMPED "APPROVED BY INSURANCE CO." SHOWING

SPRINKLER SYSTEMS, HYDRAULIC CALUCATIONS, AND EQUIPMENT, SUBMIT, FOR ARCHITECTS AND

- OVER 7 FEET ABOVE THE FLOOR. 19. INSTALL SPRINKLERS BENEATH DUCTS AND CEILING MOUNTED EQUIPMENT MORE THAN 4 FEET
- 20. PROVIDE ALL CONTROL, DRAIN AND TEST VALVES WITH INDENTIFICATION SIGNS AND SUPERVISORY
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATING ALL SPRINKLER HEADS,
- 22. CONTRACTOR IS RESPONSIBLE TO PRODUCE FOR REVIEW AND APPROVAL COORDINATION DRAWINGS OF ALL TRADES BEFORE COMMENCEMENT OF INSTALLATION. ANY INSTALLATION WORK COMPLETED BEFORE REVIEW AND APPROVAL OF COORDINATION DRAWINGS IS AT CONTRACTORS OWN RISK AND CHANGE ORDERS SHALL NOT BE ENTERTAINED FOR ANY REQUIRED REWORK.

- AREA DRAIN BUII DING BOTTOM OF PIPE CONTINUATION
  - DRAWING EXISTING TO BE REMOVED EXTENDED COVERAGE FLOOR CONTROL VALVE ASSEMBLY
- FIRE PUMP FIRE STAND PIPE GENERAL CONTRACTOR
- SUPPORT SPRINKLER PIPING IN A SUBSTAINTIAL MANNER FROM THE BUILDING STRUCTURE AND
- MAKE REDUCTIONS IN PIPE SIZES WITH ONE-PIECE REDUCING FITTINGS. DO NOT USE BUSHINGS.
- 12. PROVIDE CLEARANCE AROUND ALL PIPING EXTENDING THRU WALLS, FLOORS, PLATFORMS AND
- ARRANGE PIPING TO FACILITATE FLUSHING. PROVIDE READILY REMOVABLE FITTINGS AT ENDS OF
- 14. INSTALL ALL PIPING WITH PROVISIONS FOR COMPLETE DRAINAGE. WET PIPE SPRINKLER SYSTEMS MAY BE INSTALLED LEVEL, AND NOT SLOPED.
- ELEVATION CHANGES, OBSTRUCTIONS, COORDINATION WITH OTHER TRADES, ETC. TO INSTALL A
- OWNERS USE TWO SIGNED COPIES OF "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE". SUBMIT
- PROVIDE SPRINKLER SYSTEM WITH INSPECTORS TEST CONNECTION, TERMINATE OUTSIDE OF BUILDING WITH A 45 DEGREE ELBOW. VALVE SHALL BE READILY ACCESSIBLE AND INSTALLED NOT
- DIFFUSERS, LIGHTS, GRILLES, ETC.

## FIRE PROTECTION ABBREVIATIONS

- AUTOMATIC BALL DRIP ABOVE FINISHED FLOOR AUTOMATIC TRANSFER SWITCH CUBIC FEET PER MINUTE CONSTRUCTION MANAGER
- DIAMETER
- FIRE HOSE CABINET
- EXISTING TO BE REMOVED & RELOCATED FIRE HOSE RACK
- FCVA FIRE HOSE VALVE FIRE HOSE VALVE CABINET FLOOR DRAIN
- GATE VALVE GALLONS PER MINUTE
- HUNG CEILING HEAT DETECTOR HIGH TEMPERATURE INSIDE DIAMETER INTERMEDIATE TEMPERATURE
- JOCKEY PUMP MANUFACTURED NORMALLY CLOSED NOT IN CONTRACT NORMALLY OPEN
- NTS NOT TO SCALE OUTSIDE DIAMETER **OUTSIDE SCREW & YOKE VALVE** PLUMBING CONTRACTOR POUNDS PER SQUARE INCH PRESSURE REDUCING VALVE SMOKE DETECTOR SQUARE FEET

VERIFY IN FIELD WATER FLOW SWITCH

SPRINKLER TOP OF PIPE TAMPER SWITCH UON UNLESS OTHERWISE NOTED

UP (PENETRATES FLOOR SLAB)

- FIRE PROTECTION LEGEND
- FLOW SWITCH TAMPER SWITCH FIRE HOSE VALVE SHUT OFF VALVE
- SHUT OFF VALVE WITH TAMPER SWITCH
- CHECK VALVE PRESSURE GAUGE
- DOUBLE CHECK DETECTOR ASSEMBLY ALARM CHECK VALVE (WET OR DRY)
- ZONE CONTROL VALVE ASSEMBLY FSP - FIRE STANDPIPE RISER SP - SPRINKLER RISER
- FIRE STANDPIPE PIPING
- FDC FIRE DEPARTMENT CONNECTION PIPING DRAIN PIPING
- DRY SPRINKLER PIPING
- DIRECTION OF FLOW PIPE DROP SPRINKLER PIPING ROUTE
  - (SCHEMATIC INTENDED ONLY TO INDICATE LIMITS OF COVERAGE AND PROPOSED WET SYSTEM ZONING. ALL PIPE ROUTES SHALL BE DETERMINED BY THE SPRINKLER CONTRACTOR.)

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Project #530419

SEAL:

**CONSULTANT:** 

PROJECT NUMBER: 21-000

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11.06.24 SHEET REVISION SCHEDULE:

FIRE PROTECTION - LEGENDS, NOTES AND ABBREVIATIONS

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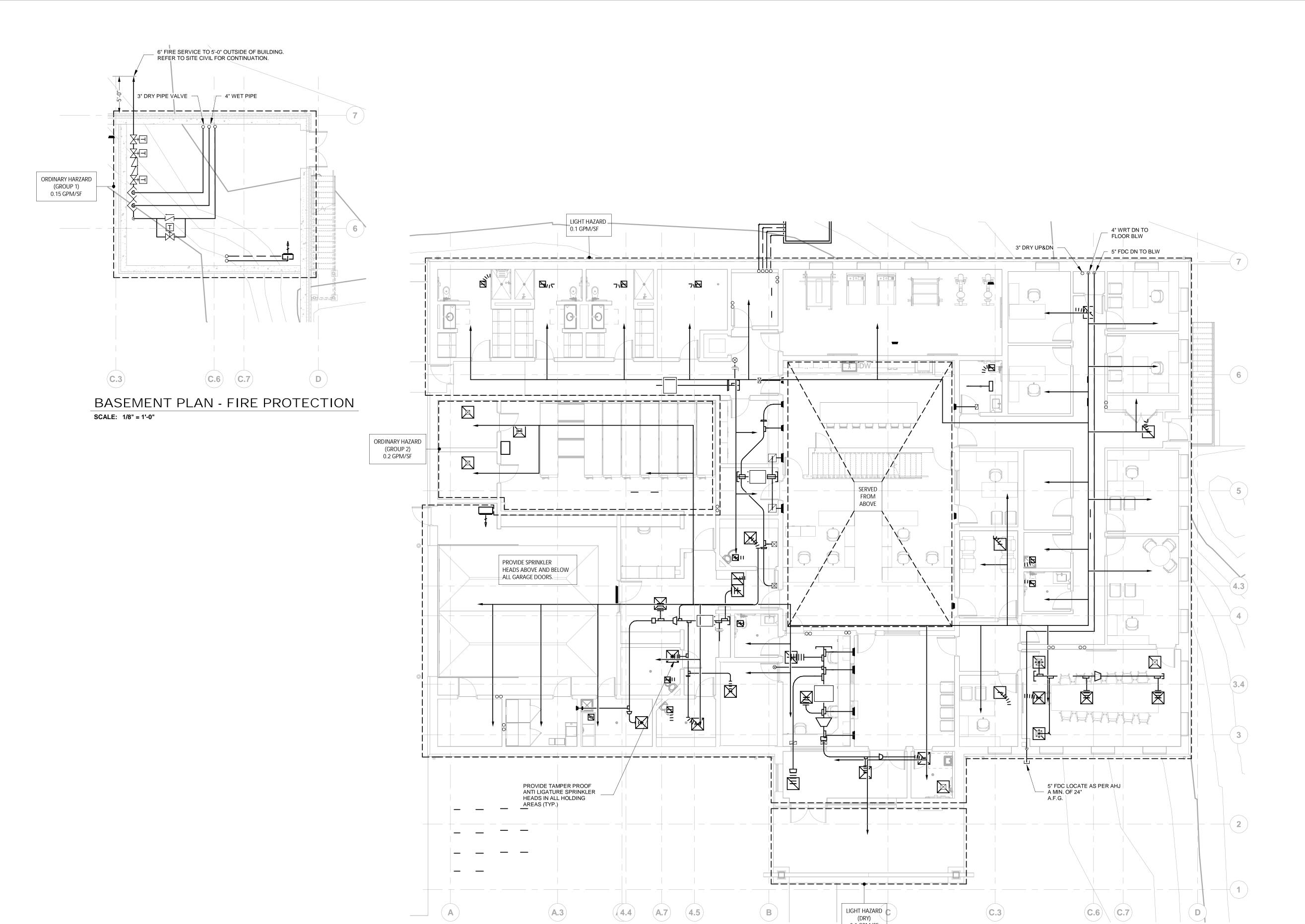
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FIRST FLOOR PLAN - FIRE PROTECTION



FIRST FLOOR PLAN - FIRE PROTECTION

SCALE: 1/8" = 1'-0"

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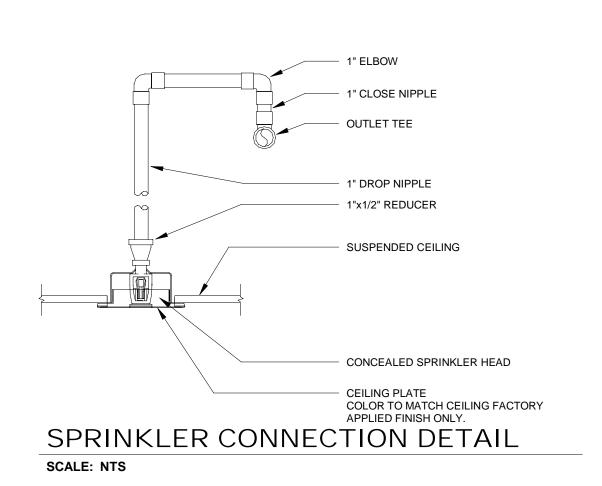
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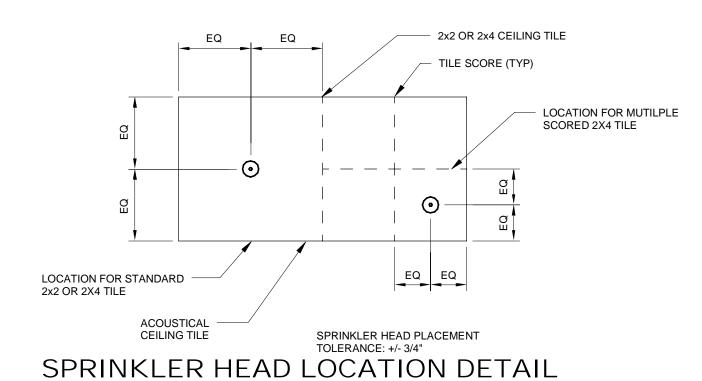
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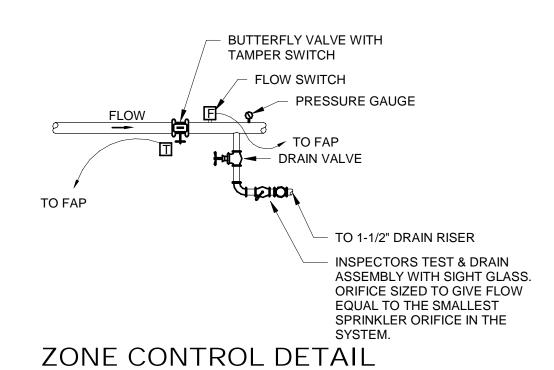
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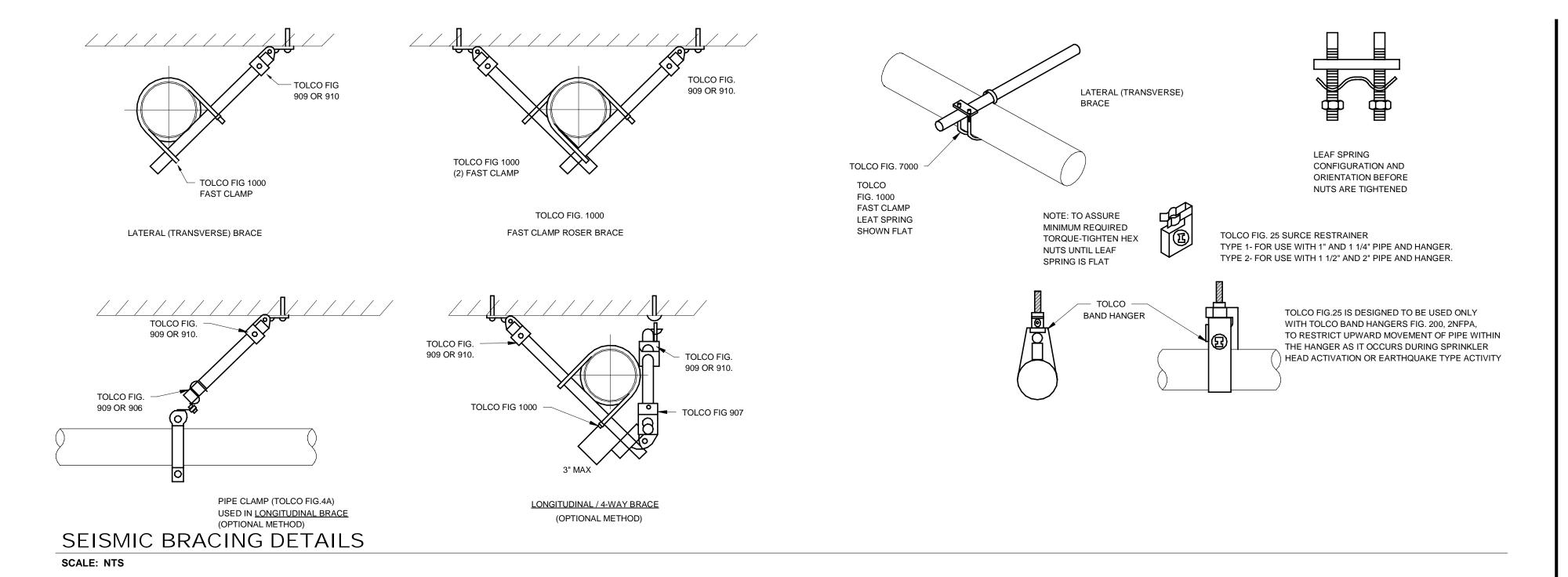


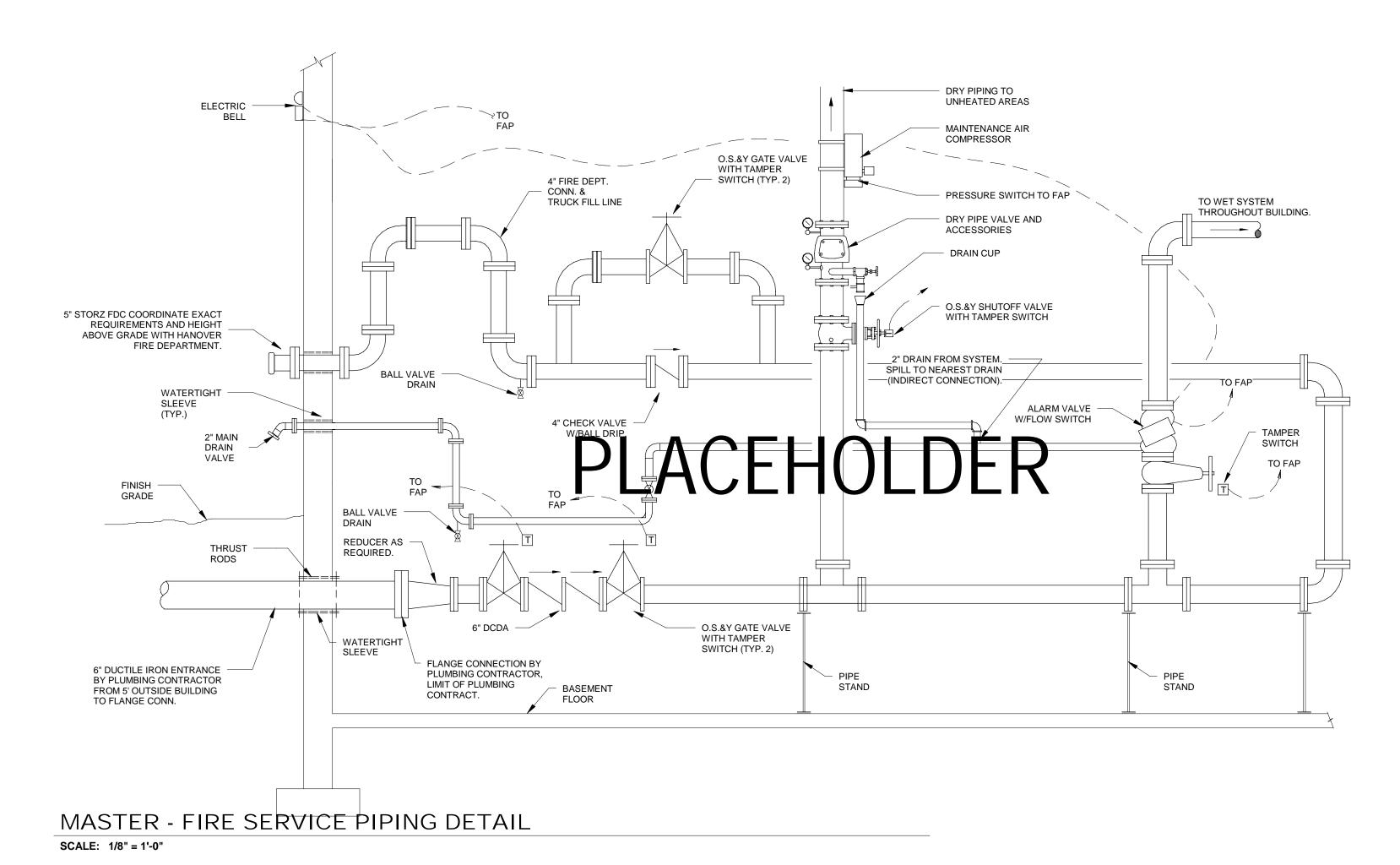


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SCALE: NTS

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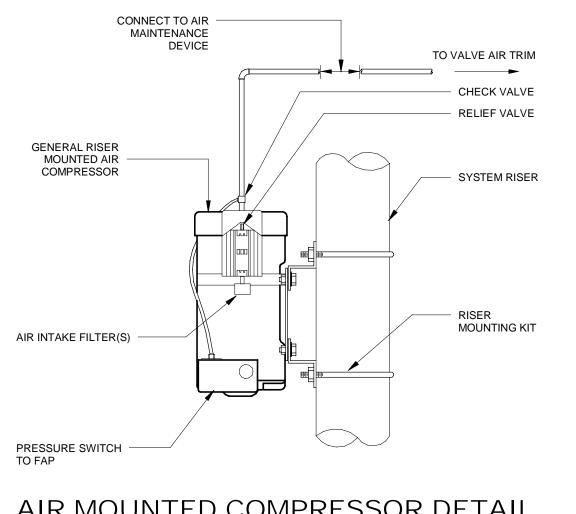
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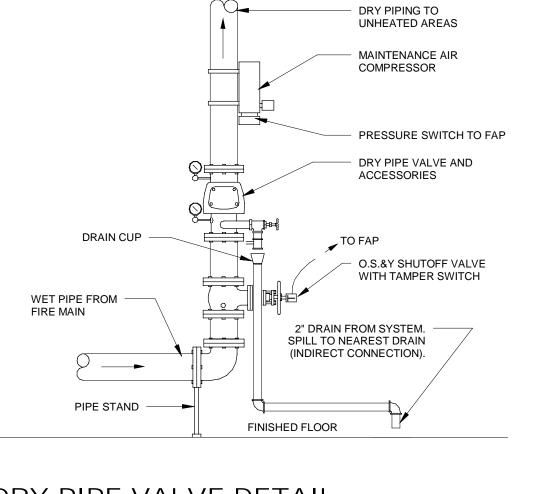
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FIRE PROTECTION DETAILS

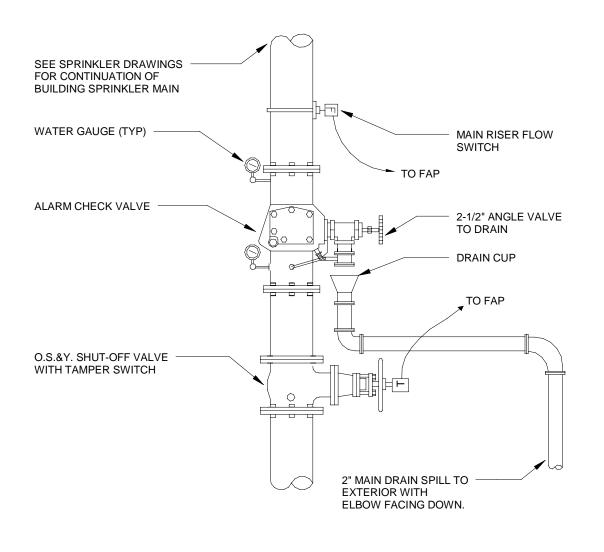


AIR MOUNTED COMPRESSOR DETAIL SCALE: NTS

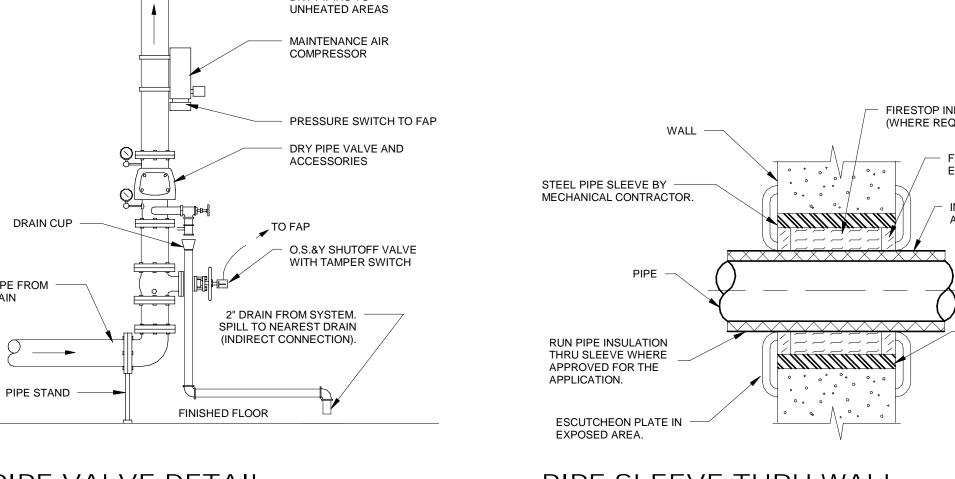
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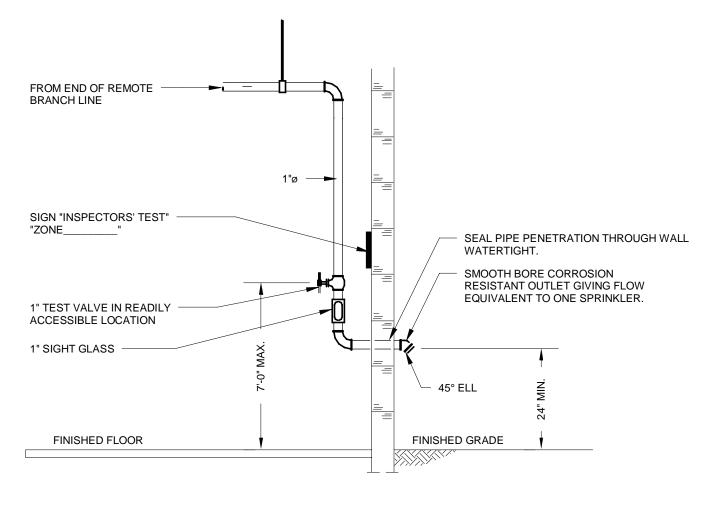
DRY PIPE VALVE DETAIL SCALE: NTS



WET RISER CHECK VALVE ASSEMBLY DETAIL SCALE: NTS



PIPE SLEEVE THRU WALL SCALE: NTS



FIRESTOP INFILL

FIRESTOP SILICONE BASE

INSULATION (WHERE APPLICABLE)

ELASTOMERIC UL SEALANT.

REFER TO SPEC. FOR FIRESTOPPING

PIPE SLEEVES SHALL BE

PIPE SLEEVES SHALL BE
LARGE ENOUGH TO ALLOW
PIPE & INSULATION (OR
FIRESTOP) WHERE PIPES
ARE COVERED. THEY
SHALL ALSO ALLOW FOR

**EXPANSION &** 

CONTRACTION.

REQUIREMENTS.

WET PIPE INSPECTORS TEST CONNECTION DETAIL

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