

SUPPLY. REFER TO CIVIL ENGINEERS PLAN FOR CONTINUATION.

3) FIRE PUMP LOW SUCTION CONTROL VALVE

NEW UNDERGROUND SERVICE MAIN LEAD-IN TO PUMP ROOM

ADJUSTABLE PIPE STANDS:

NFPA 13 REQUIRES THAT PIPE STANDS BE "APPROVED". AS SUCH, COMMERCIALLY MANUFACTURED, ADJUSTABLE PIPE STANDS WITH U-BOLTS HAVE BEEN SPECIFIED AND SHOWN HEREIN. UNDER NO

CIRCUMSTANCES SHALL 'HOMEMADE', NON-APPROVED PIPE STANDS BE ACCEPTED OR TOLLERATED. ADDITIONALLY, NFPA REQUIRES THE BUILDING TO SUPPORT THE FIRE PROTECTION SYSTEM(S) AND

IT SHALL NOT BE PERMISSABLE TO ALLOW UNDERGROUND LEAD-IN'S, SUCH AS FOR THE FIRE MAIN

AND FDC LINES, TO BEAR THE LOAD OF THE HORIZONTAL BACKFLOW PREVENTION ASSEMBLY,

FIRE PUMP LEGEND

) DOUBLE DETECTOR CHECK VALVE ASSEMBLY WITH BYPASS METER IN U.S. GALLONS, OS&Y

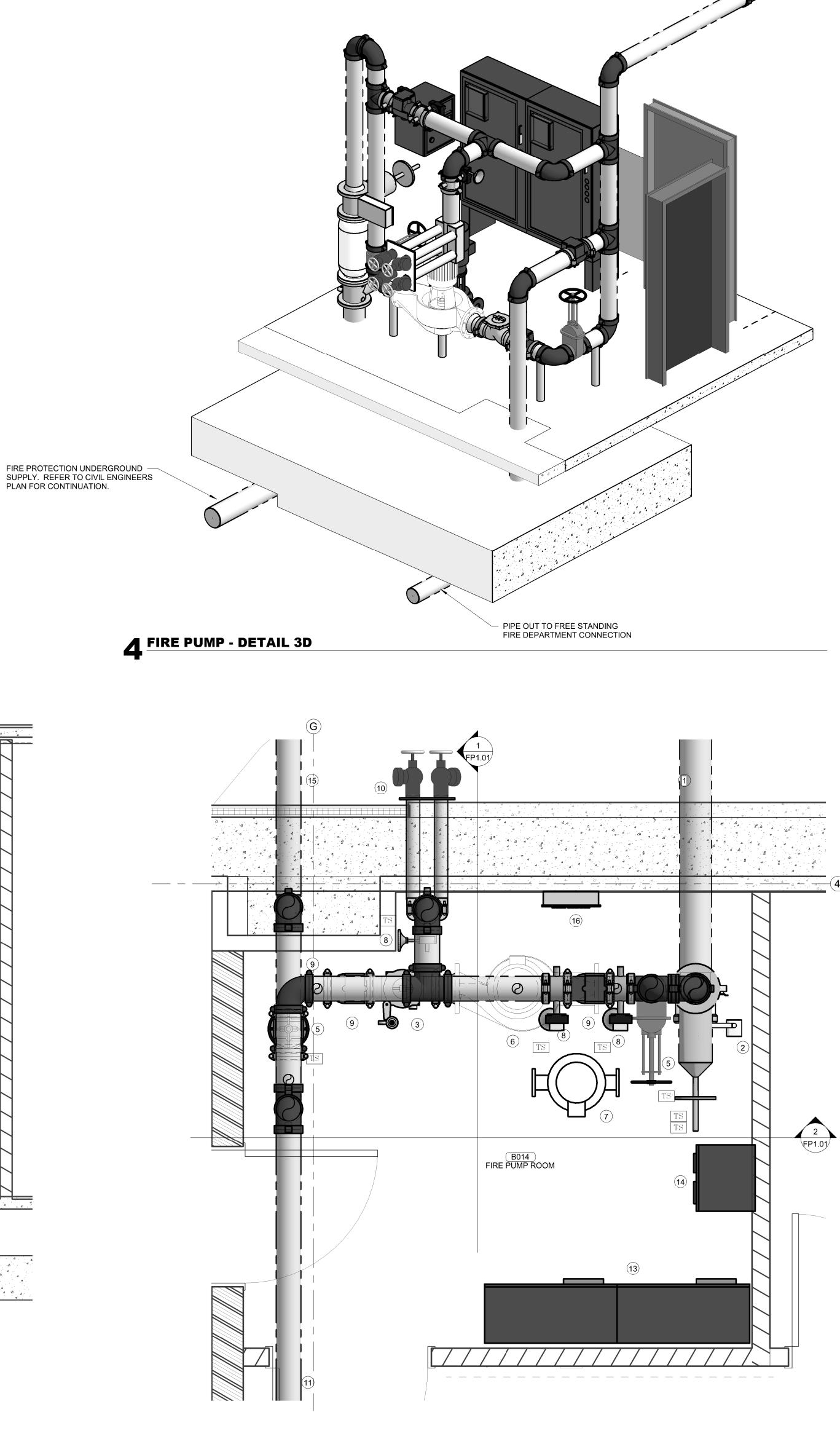
CONTROL VALVES AND SUPERVISORY SWITCHES. ASSEMBLY IS IN VERTICAL POSITION.

MANIFOLD OR RISERS. AS A MINIMUM PROVIDE THE QUANTITY OF PIPE STANDS SHOWN IN THESE

- 4) VERTICAL PIPE DOWN (MINIMUM OF TEN (10) PIPE DIAMETERS = 80" = 6'- 8")
- (5) OS&Y VALVE WITH SUPERVISORY SWITCH

DETAILS.

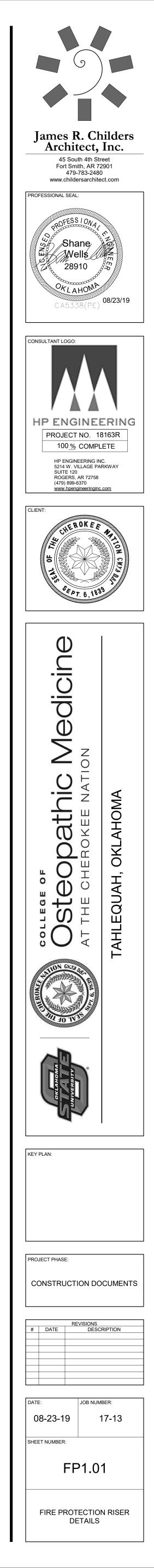
- 6 FIRE PUMP
- 7) JOCKEY PUMP
- 8 GROOVED BUTTERFLY VALVE WITH SUPERVISORY SWITCH
- (9) GROOVED CHECK VALVE
- (10) FIRE PUMP TEST HEADER
- 11) 6" STANDPIPE FEED MAIN
- (12) PIPE STAND
- (13) FIRE PUMP CONTROLLER WITH ATS
- (14) JOCKEY PUMP CONTROLLER
- (15) 6" TO FREE STANDING FIRE DEPARTMENT CONNECTION
- (16) SPARE SPRINKLER HEAD CABINET



NOTE: 3D VIEWS ARE NOT TO SCALE. 3D VIEWS ARE TO SHOW INTENT AND TO PROVIDE CLARITY ONLY. SOME EQUIPMENT HAS BEEN

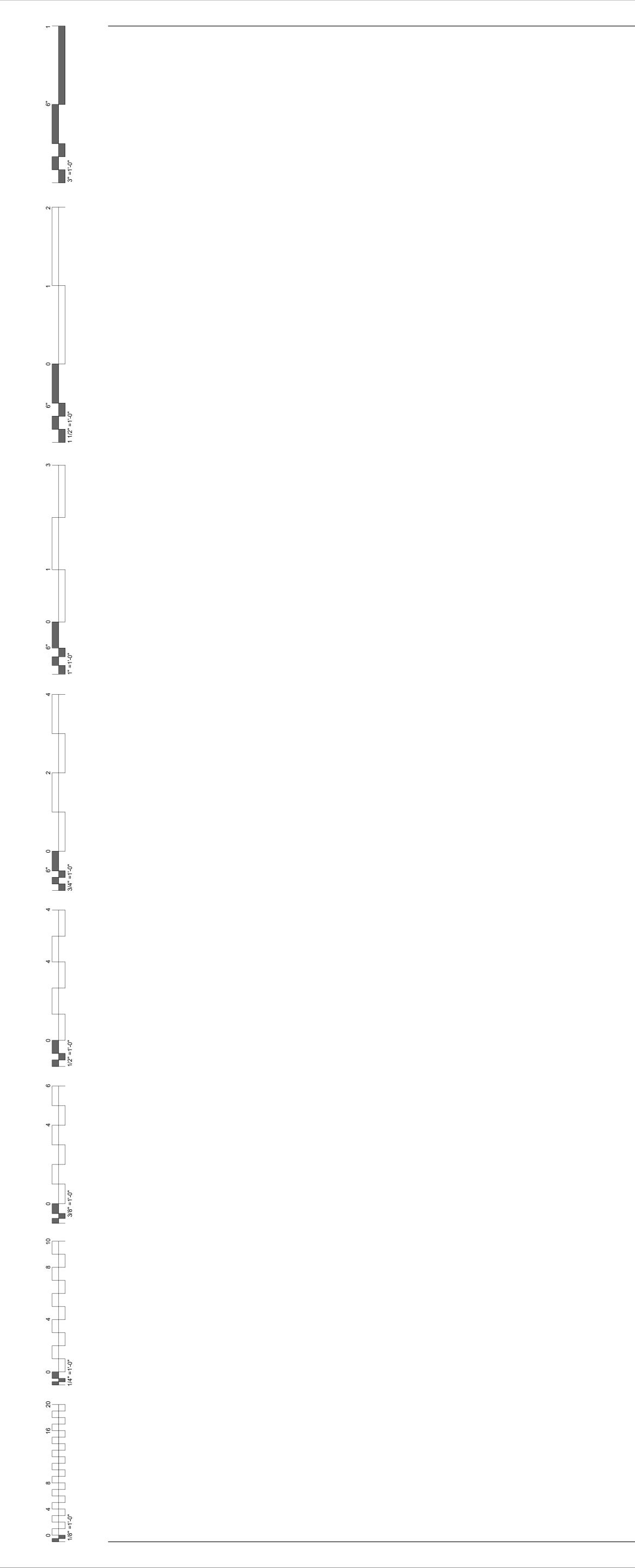
FIRE SPRINKLER SYSTEM / SUPPLY TO STAIRWELL

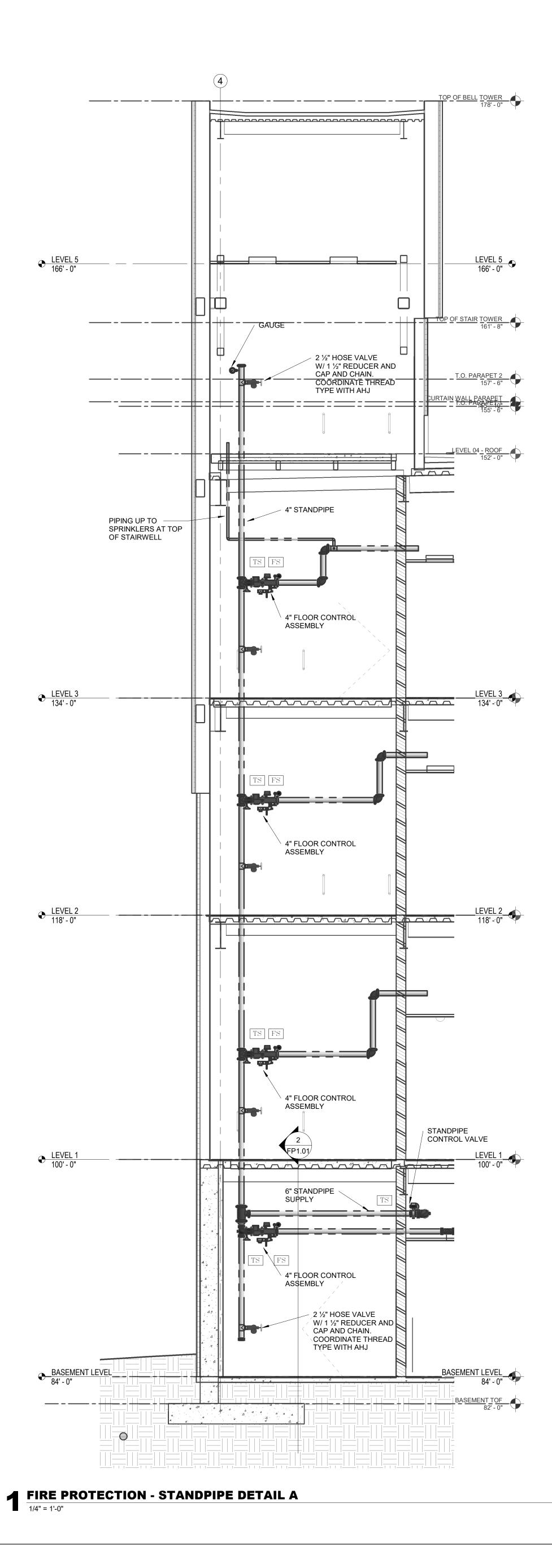
REMOVED FROM THESE VIEWS.



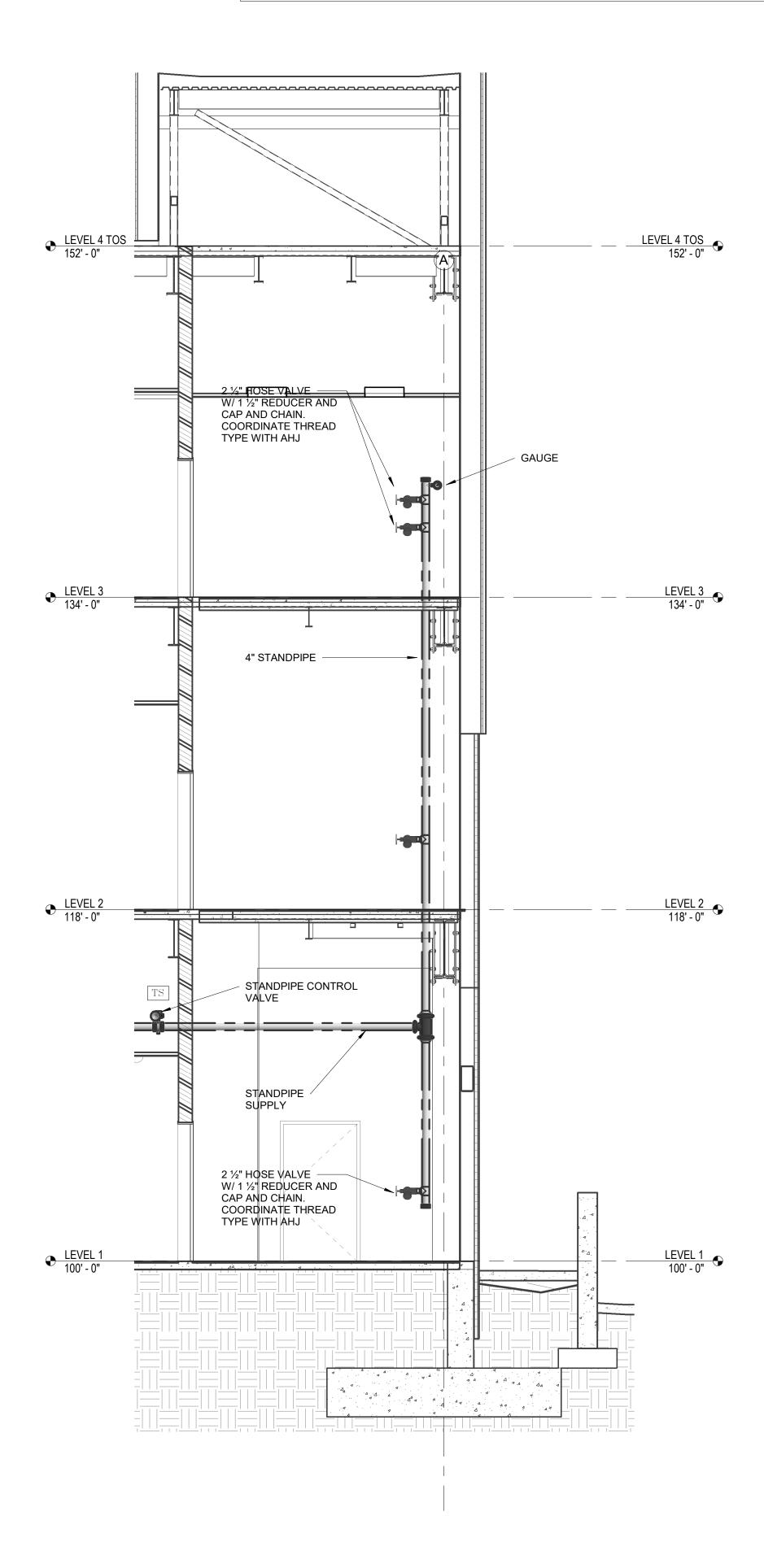




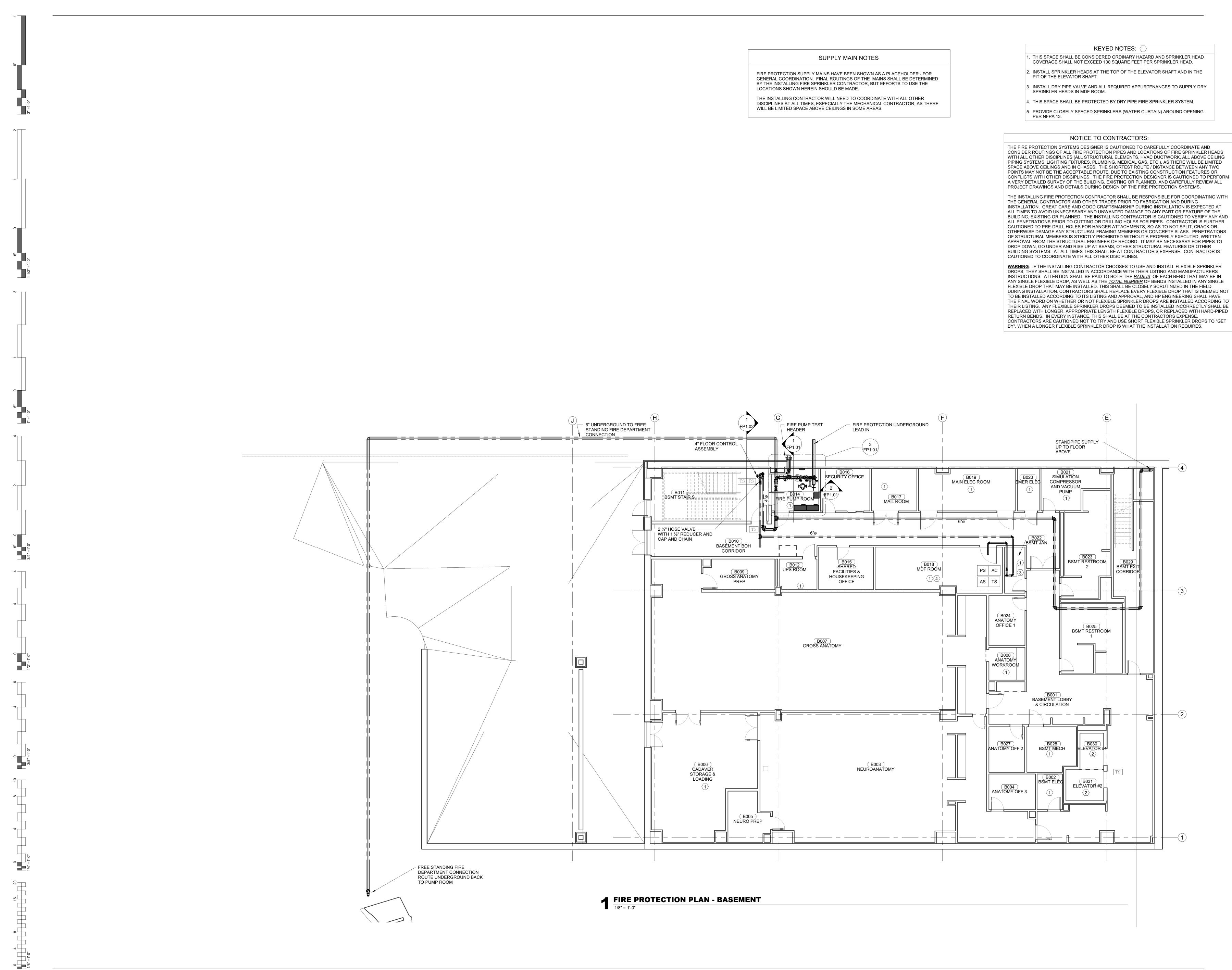




- 1. NFPA 14 REQUIRES THAT STANDPIPES BE EITHER 4" OR 6" AND THAT THEY BE HYDRAULICALLY CALCULATED. HOWEVER, THIS PROJECT SHALL REQUIRE THAT ALL <u>HORIZONTAL</u> STANDPIPES SHALL BE <u>MINIMUM</u> 6" DIAMETER PIPING - NO EXCEPTIONS. THE INTENT OF THIS REQUIREMENT IS TO HAVE AN ADEQUATE INFRASTRUCTURE INSTALLED, SUCH THAT IT CAN BE EXTENDED FOR THE OWNER'S FUTURE PHASES OF WORK (I.E., BUILDING ADDITIONS AND EXPANSIONS, CONNECTION TO ADJACENT BUILDINGS, ETC.), AS WELL AS TO ACCOUNT FOR DETERIORATION OF THE CITY WATER SUPPLY AND / OR LOSS OF FIRE PUMP. THE CONTRACTOR SHALL STILL BE REQUIRED TO PERFORM A STANDPIPE CALCULATION IN ORDER TO DETERMINE WHETHER OR NOT VERTICAL STANDPIPES WILL BE 4" OR 6" PIPING AS REQUIRED BY NFPA 14, AND THE LOCAL AHJ.
- 2. PROVIDE MINIMUM OF TWO (2) 2¹/₂" FIRE DEPARTMENT HOSE VALVE AT TOPS OF ALL REQUIRED STANDPIPES. THIS IS TO FACILITATE THE MINIMUM 500 GPM HYDRAULIC DESIGN DEMAND AS REQUIRED BY NFPA 14.
- 3. PROVIDE <u>MINIMUM</u> 4" DIAMETER SPRINKLER SYSTEM OUTLETS ON COMBINATION STANDPIPES NO EXCEPTIONS. THE INTENT OF THIS REQUIREMENT IS TO FACILITATE BUILDING RENOVATIONS, EXPANSION, CHANGE OF OCCUPANCY, ETC., WHICH WOULD HAVE A HIGHER HYDRAULIC DEMAND. SMALL OUTLETS AND SMALL FLOOR CONTROL ASSEMBLIES HAVE HIGHER PRESSURE LOSSES ASSOCIATED WITH THEM. ONCE STANDPIPES ARE INSTALLED, SAID OUTLETS CANNOT BE EASILY REMOVED OR REPLACED IN THE FIELD.
- 4. INSTALL FLOOR CONTROL ASSEMBLIES AT COMMON ELEVATIONS ABOVE FINISHED FLOORS AND STAIR LANDINGS. INSTALL HIGH ENOUGH TO AVOID TAMPERING FROM BUILDING OCCUPANTS, BUT NOT SO HIGH OR ABOVE CEILINGS THAT THEY CANNOT BE ACCESSED FROM SHORT 4FT / 6FT LADDERS, AND VISUALLY INSPECTED AS PER NFPA 25, 14 & 13. IF FLOOR CONTROL ASSEMBLIES ARE REQUIRED TO BE INSTALLED ABOVE CEILINGS BY AHJ OTHER THAN THE ENGINEER OF RECORD, <u>MINIMUM</u> 24" ACCESS PANELS SHALL BE REQUIRED AND SHALL MATCH THE MINIMUM FIRE RATING OF THE WALL OR CEILING IN WHICH THEY ARE INSTALLED.
- 5. INSTALL ALL HYDRAULIC CALCULATION PLACARDS REQUIRED FOR EACH HYDRAULIC DESIGN AREA PROVEN FOR EACH FLOOR LEVEL. INSTALL ALL PERTINENT SIGNAGE ON ALL VALVES (CONTROL, MAIN DRAIN, AUXILIARY DRAIN, TEST, ETC. THESE REQUIREMENTS ARE AS PER NFPA, LOCAL AHJ AND THESE CONSTRUCTION DOCUMENTS.

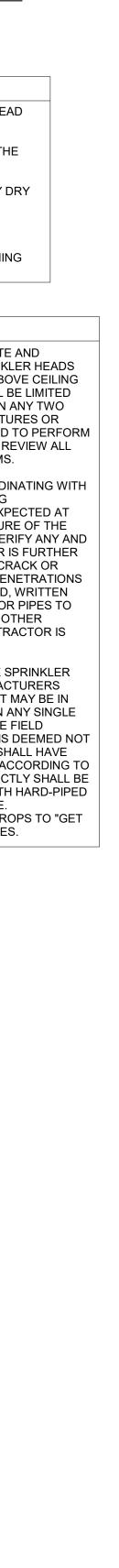




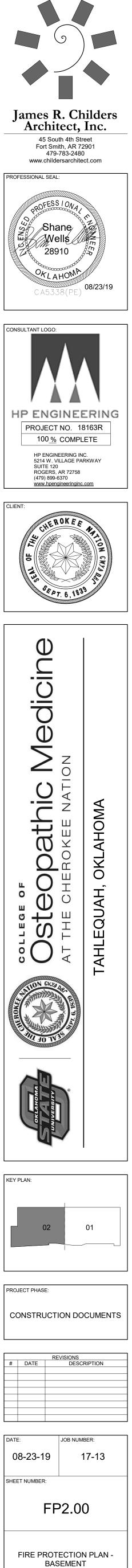


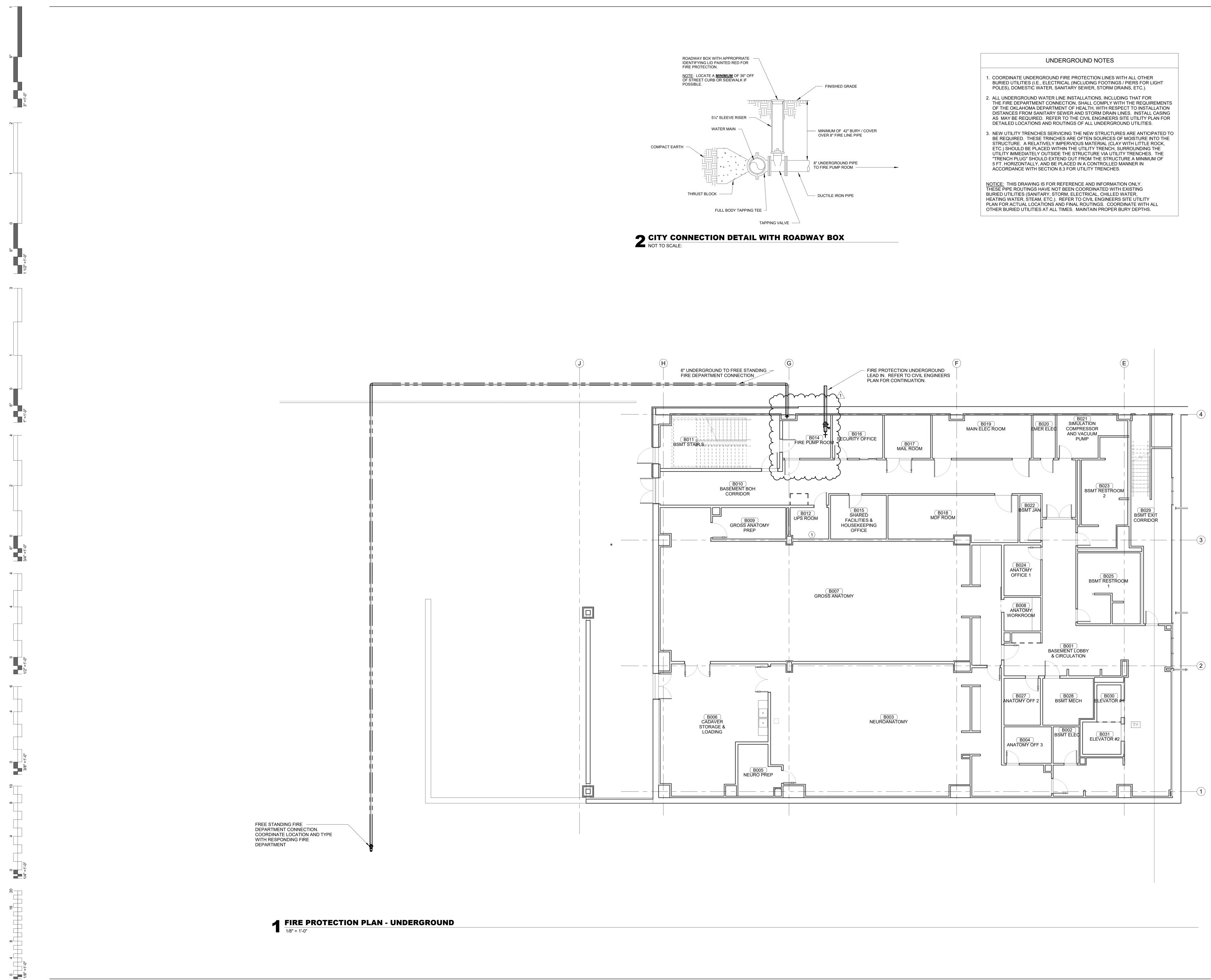
- COVERAGE SHALL NOT EXCEED 130 SQUARE FEET PER SPRINKLER HEAD.
- 2. INSTALL SPRINKLER HEADS AT THE TOP OF THE ELEVATOR SHAFT AND IN THE

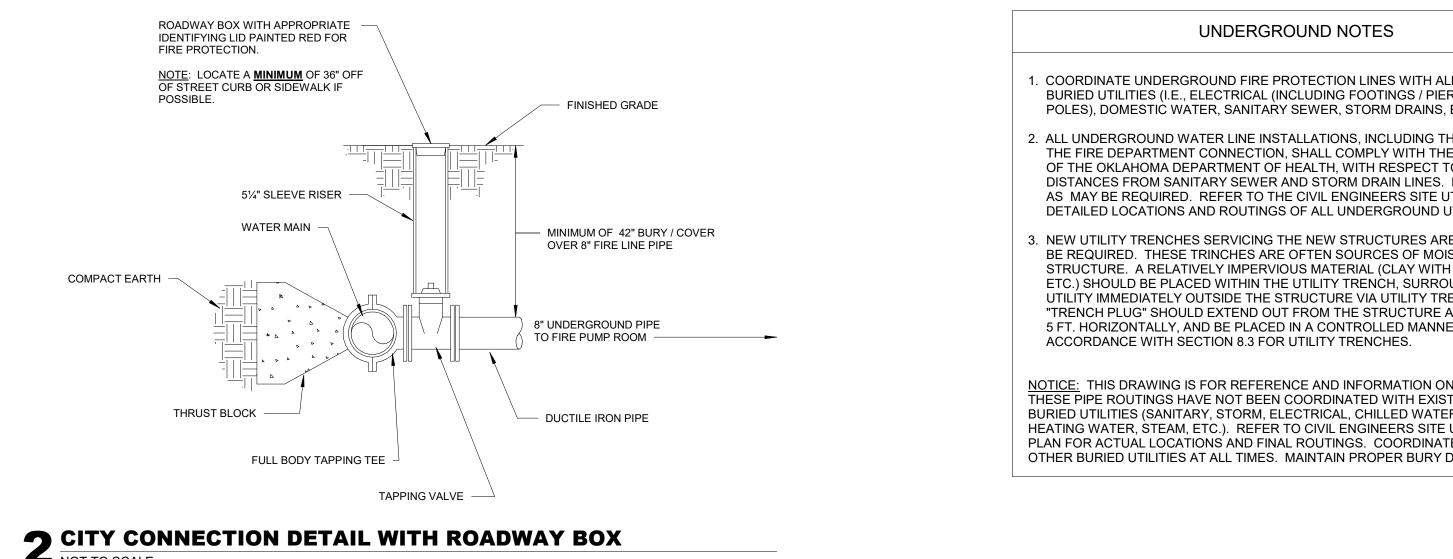
- 5. PROVIDE CLOSELY SPACED SPRINKLERS (WATER CURTAIN) AROUND OPENING

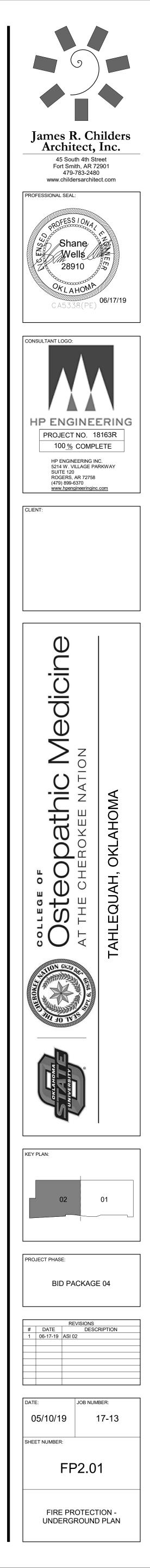


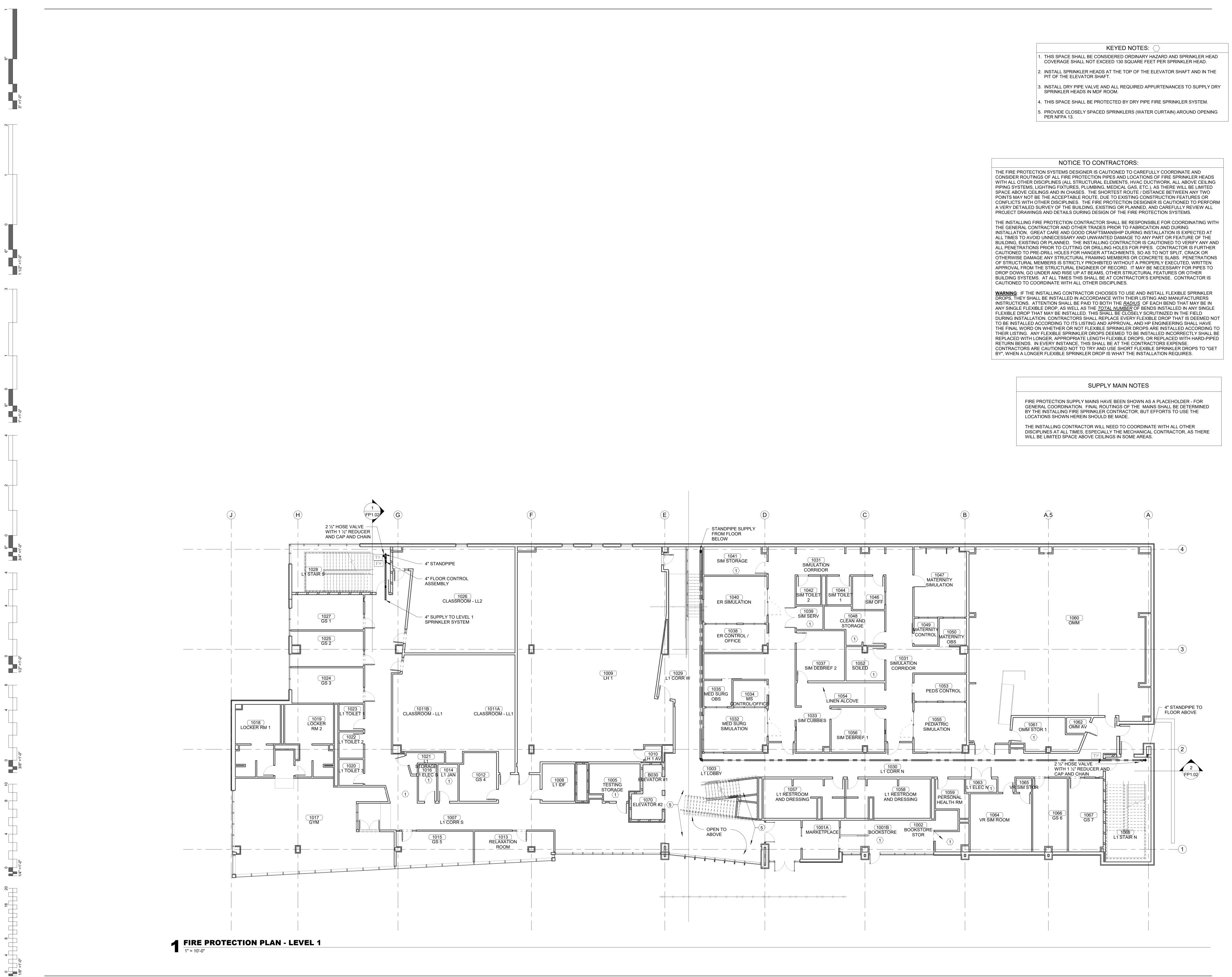


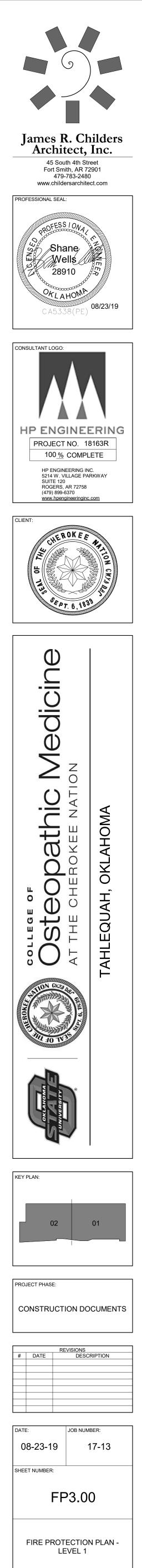


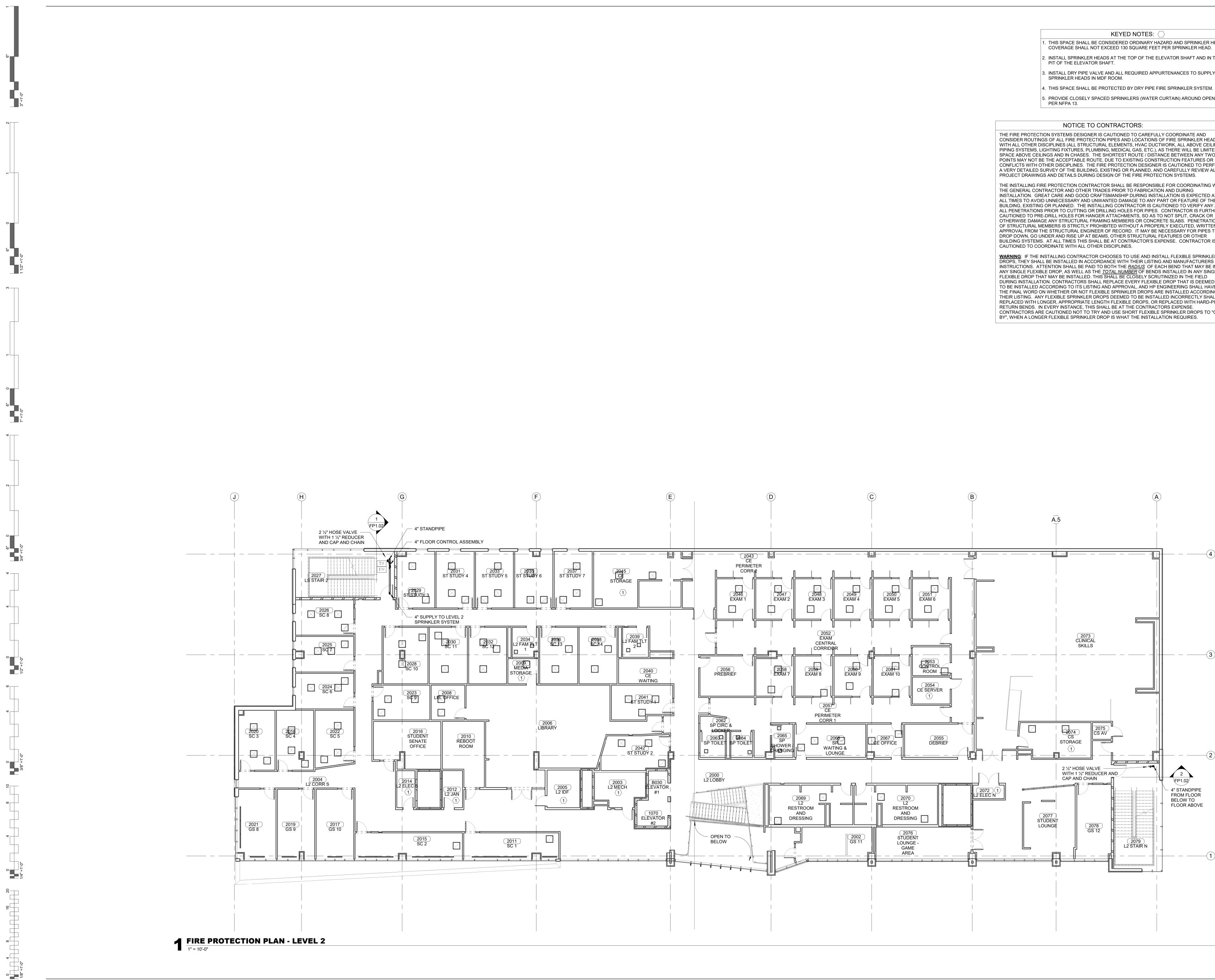


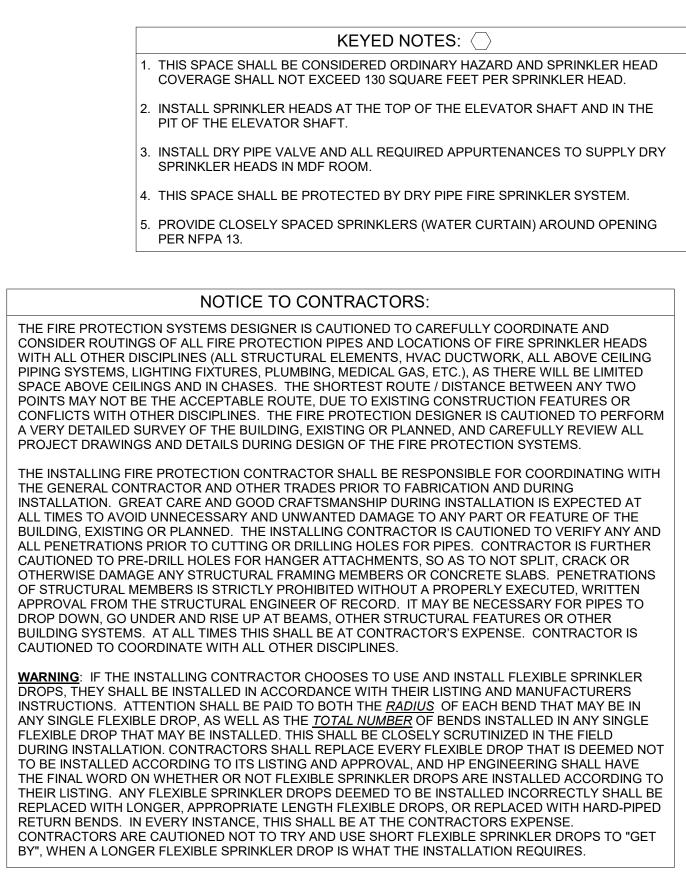








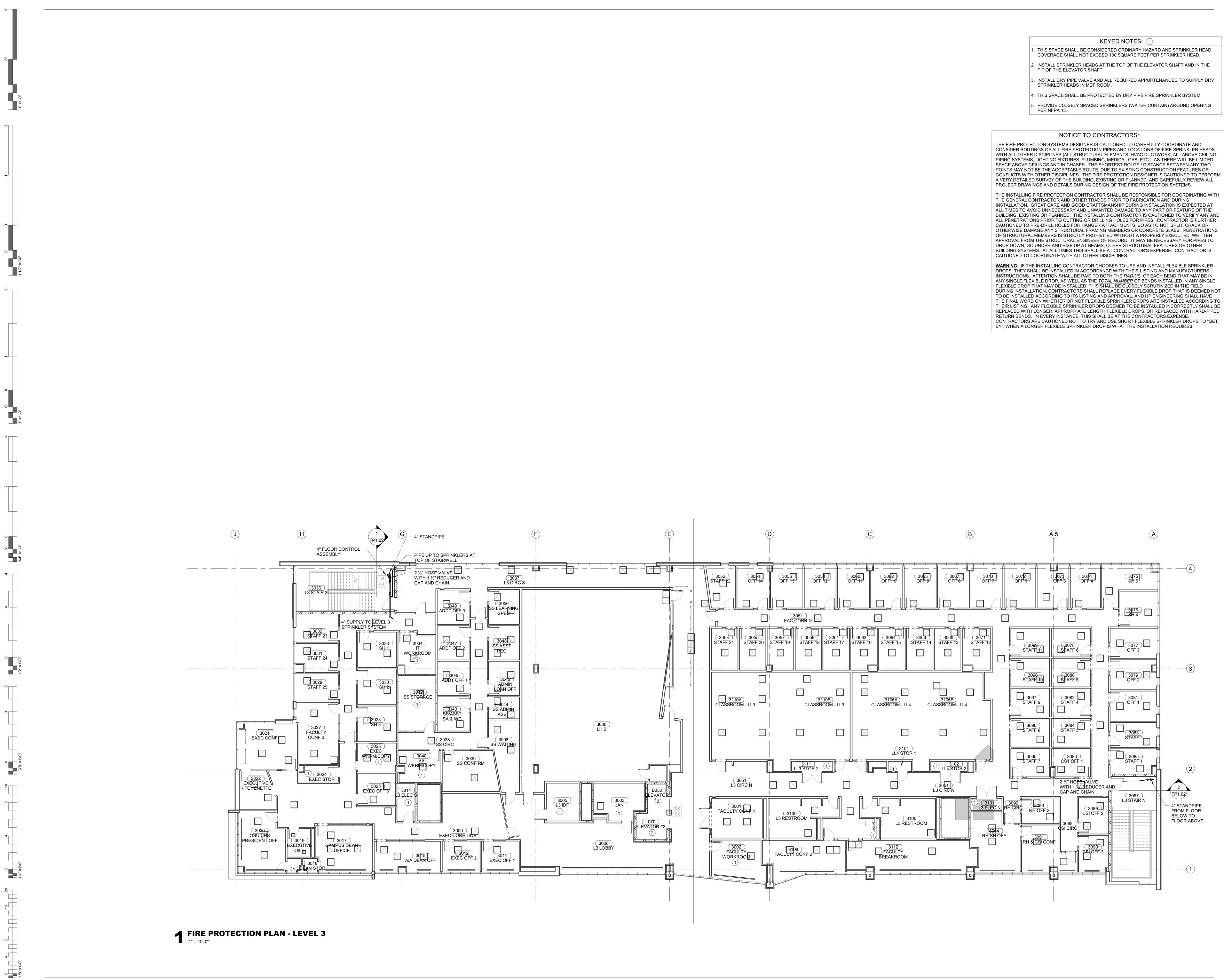




James R. Childers Architect, Inc. 45 South 4th Street Fort Smith, AR 72901 479-783-2480 www.childersarchitect.com PROFESSIONAL SEAL: OFESSIONA Shane/ Wells ິ້ 28910 🍦 64LAHOM 08/23/19 CA5338(PE) CONSULTANT LOGO: HP ENGINEERING PROJECT NO. 18163R 100<u>%</u> COMPLETE HP ENGINEERING INC. 5214 W. VILLAGE PARKWAY SUITE 120 ROGERS, AR 72758 (479) 899-6370 www.hpengineeringinc.com (\mathbb{D}) Osteopathic Medicir At the cherokee Nation AHOMA EQUAH, OKL Ą KEY PLAN: PROJECT PHASE: CONSTRUCTION DOCUMENTS
 REVISIONS

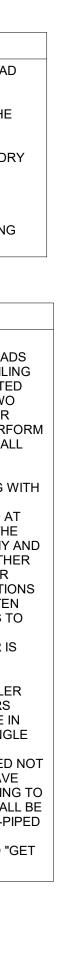
 #
 DATE
 DESCRIPTION

DATE: JOB NUMBER 08-23-19 17-13 SHEET NUMBER: FP4.00 FIRE PROTECTION PLAN -LEVEL 2

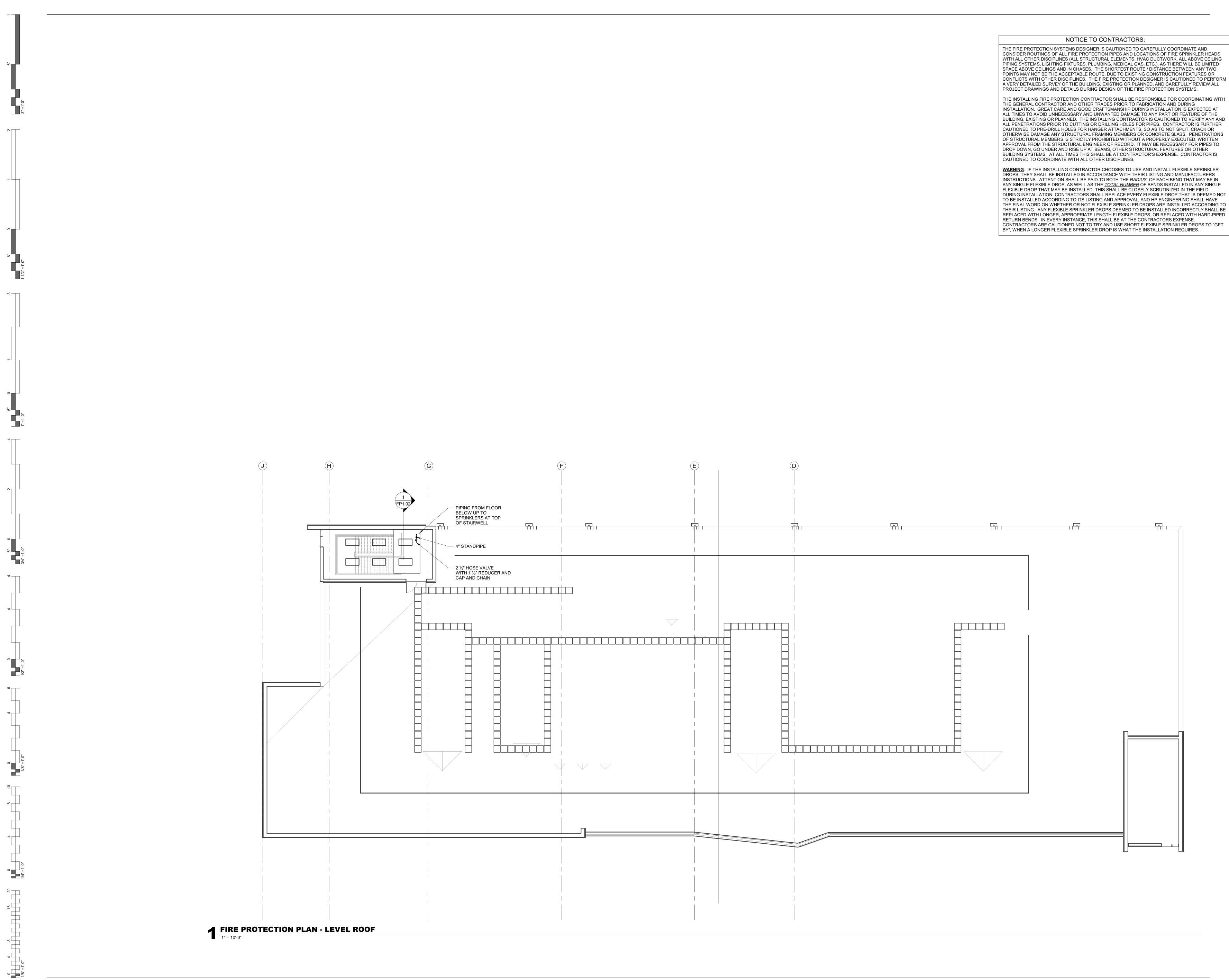


	KEYED NOTES: 🚫
1.	THIS SPACE SHALL BE CONSIDERED ORDINARY HAZARD AND SPRINKLER HEAD COVERAGE SHALL NOT EXCEED 130 SQUARE FEET PER SPRINKLER HEAD.
2.	INSTALL SPRINKLER HEADS AT THE TOP OF THE ELEVATOR SHAFT AND IN THE PIT OF THE ELEVATOR SHAFT.
3.	INSTALL DRY PIPE VALVE AND ALL REQUIRED APPURTENANCES TO SUPPLY DR SPRINKLER HEADS IN MDF ROOM.
4.	THIS SPACE SHALL BE PROTECTED BY DRY PIPE FIRE SPRINKLER SYSTEM.
5.	PROVIDE CLOSELY SPACED SPRINKLERS (WATER CURTAIN) AROUND OPENING PER NFPA 13.

THE FIRE PROTECTION SYSTEMS DESIGNER IS CAUTIONED TO CAREFULLY COORDINATE AND CONSIDER ROUTINGS OF ALL FIRE PROTECTION PIPES AND LOCATIONS OF FIRE SPRINKLER HEADS WITH ALL OTHER DISCIPLINES (ALL STRUCTURAL ELEMENTS, HVAC DUCTWORK, ALL ABOVE CEILING PIPING SYSTEMS, LIGHTING FIXTURES, PLUMBING, MEDICAL GAS, ETC.), AS THERE WILL BE LIMITED SPACE ABOVE CEILINGS AND IN CHASES. THE SHORTEST ROUTE / DISTANCE BETWEEN ANY TWO POINTS MAY NOT BE THE ACCEPTABLE ROUTE, DUE TO EXISTING CONSTRUCTION FEATURES OR CONFLICTS WITH OTHER DISCIPLINES. THE FIRE PROTECTION DESIGNER IS CAUTIONED TO PERFORM A VERY DETAILED SURVEY OF THE BUILDING, EXISTING OR PLANNED, AND CAREFULLY REVIEW ALL PROJECT DRAWINGS AND DETAILS DURING DESIGN OF THE FIRE PROTECTION SYSTEMS.



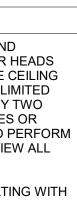




THE INSTALLING FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE GENERAL CONTRACTOR AND OTHER TRADES PRIOR TO FABRICATION AND DURING INSTALLATION. GREAT CARE AND GOOD CRAFTSMANSHIP DURING INSTALLATION IS EXPECTED AT BUILDING, EXISTING OR PLANNED. THE INSTALLING CONTRACTOR IS CAUTIONED TO VERIFY ANY AND ALL PENETRATIONS PRIOR TO CUTTING OR DRILLING HOLES FOR PIPES. CONTRACTOR IS FURTHER CAUTIONED TO PRE-DRILL HOLES FOR HANGER ATTACHMENTS, SO AS TO NOT SPLIT, CRACK OR OTHERWISE DAMAGE ANY STRUCTURAL FRAMING MEMBERS OR CONCRETE SLABS. PENETRATIONS OF STRUCTURAL MEMBERS IS STRICTLY PROHIBITED WITHOUT A PROPERLY EXECUTED, WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD. IT MAY BE NECESSARY FOR PIPES TO DROP DOWN, GO UNDER AND RISE UP AT BEAMS, OTHER STRUCTURAL FEATURES OR OTHER BUILDING SYSTEMS. AT ALL TIMES THIS SHALL BE AT CONTRACTOR'S EXPENSE. CONTRACTOR IS

INSTRUCTIONS. ATTENTION SHALL BE PAID TO BOTH THE <u>RADIUS</u> OF EACH BEND THAT MAY BE IN THEIR LISTING. ANY FLEXIBLE SPRINKLER DROPS DEEMED TO BE INSTALLED INCORRECTLY SHALL BE REPLACED WITH LONGER, APPROPRIATE LENGTH FLEXIBLE DROPS, OR REPLACED WITH HARD-PIPED

BY", WHEN A LONGER FLEXIBLE SPRINKLER DROP IS WHAT THE INSTALLATION REQUIRES.



James R. Childers Architect, Inc. 45 South 4th Street Fort Smith, AR 72901 479-783-2480 www.childersarchitect.com PROFESSIONAL SEAL: ROFESSIONA Shane Shane Wells 28910 28910 🖇 SALAHOMI 08/23/19 CA5338(PE) CONSULTANT LOGO: HP ENGINEERING PROJECT NO. 18163R 100<u>%</u> COMPLETE HP ENGINEERING INC. 5214 W. VILLAGE PARKWAY SUITE 120 ROGERS, AR 72758 (479) 899-6370 www.hpengineeringinc.com Φ edicir $\overline{}$ \leq 0 ораthic AHOMA OKI AH, 0 (1) ()o H ЕQ N E C ^c KEY PLAN: PROJECT PHASE:

CONSTRUCTION DOCUMENTS

REVISIONS DESCRIPTION # DATE DATE JOB NUMBER 17-13 08-23-19 SHEET NUMBER: FP6.00

FIRE PROTECTION PLAN -ROOF LEVEL