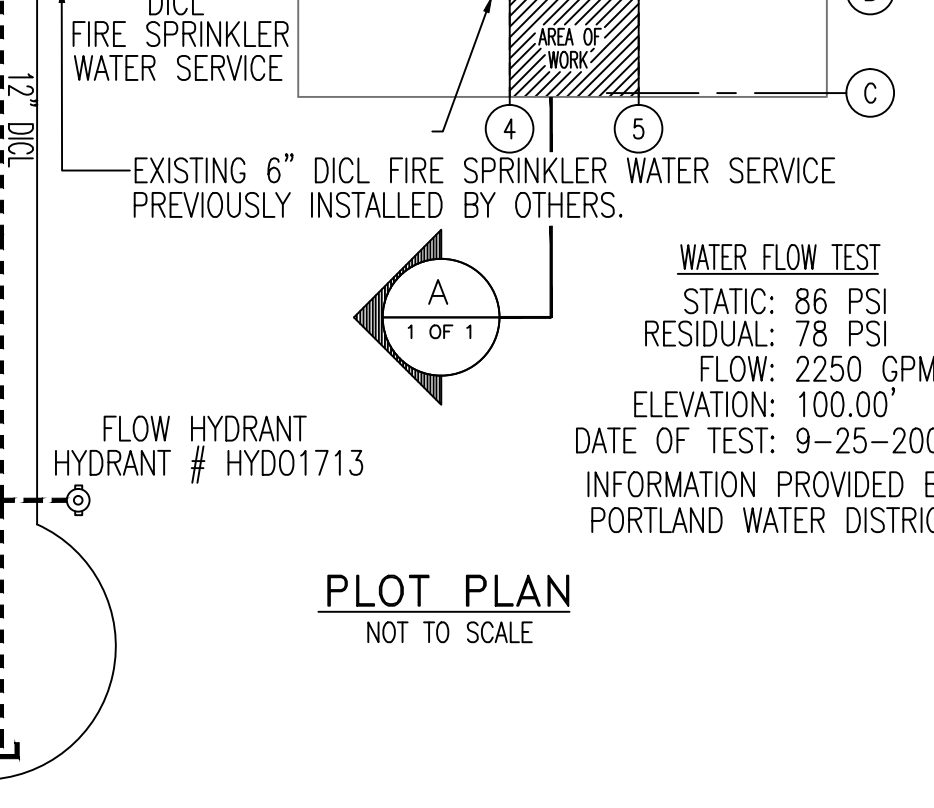
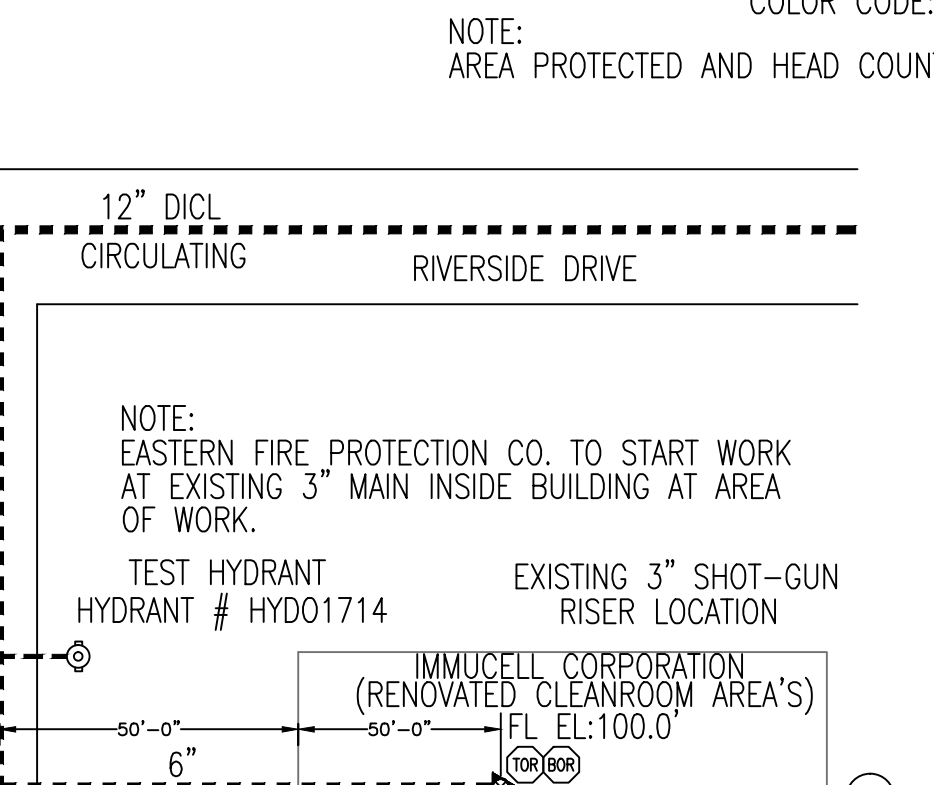
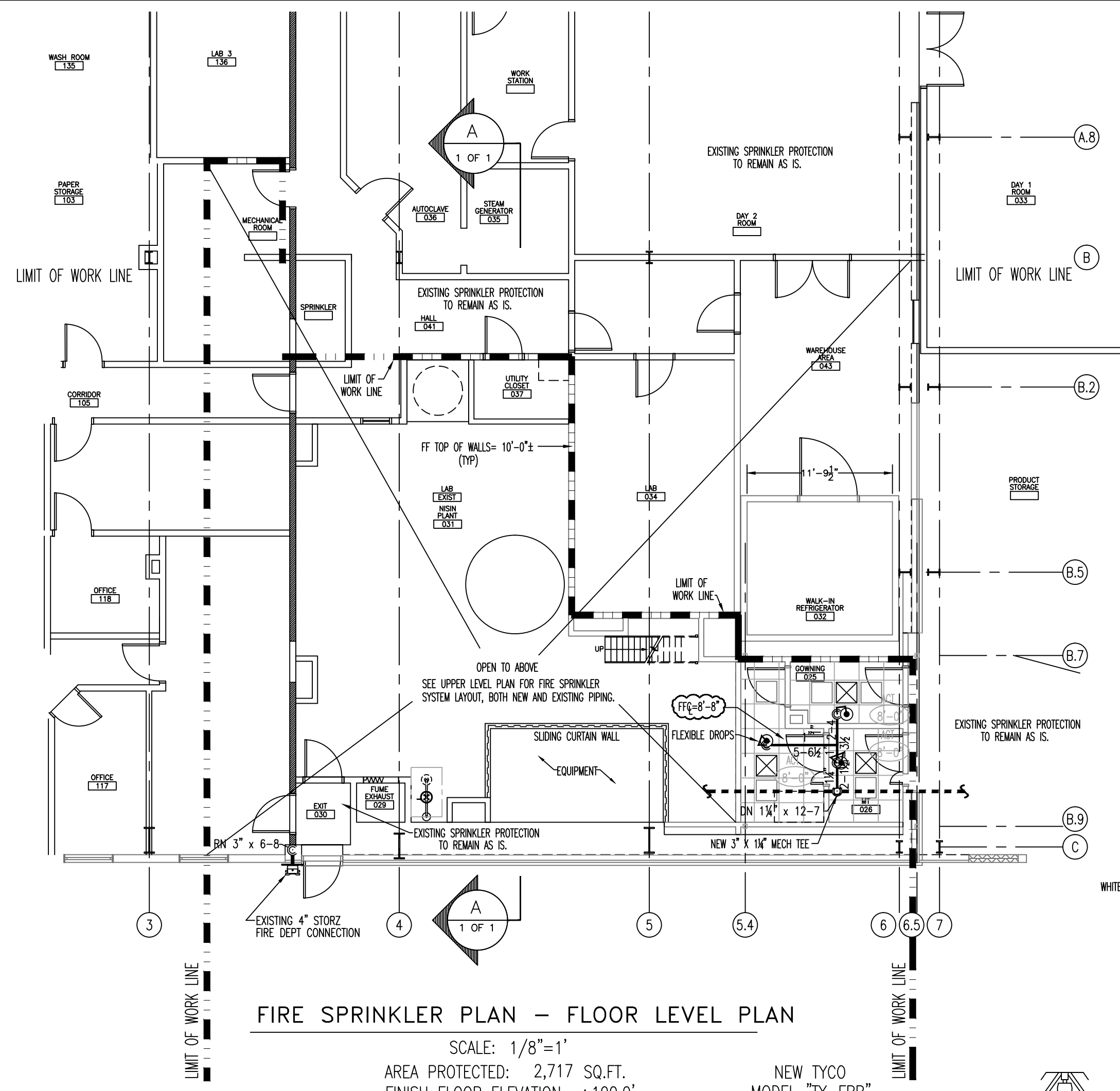
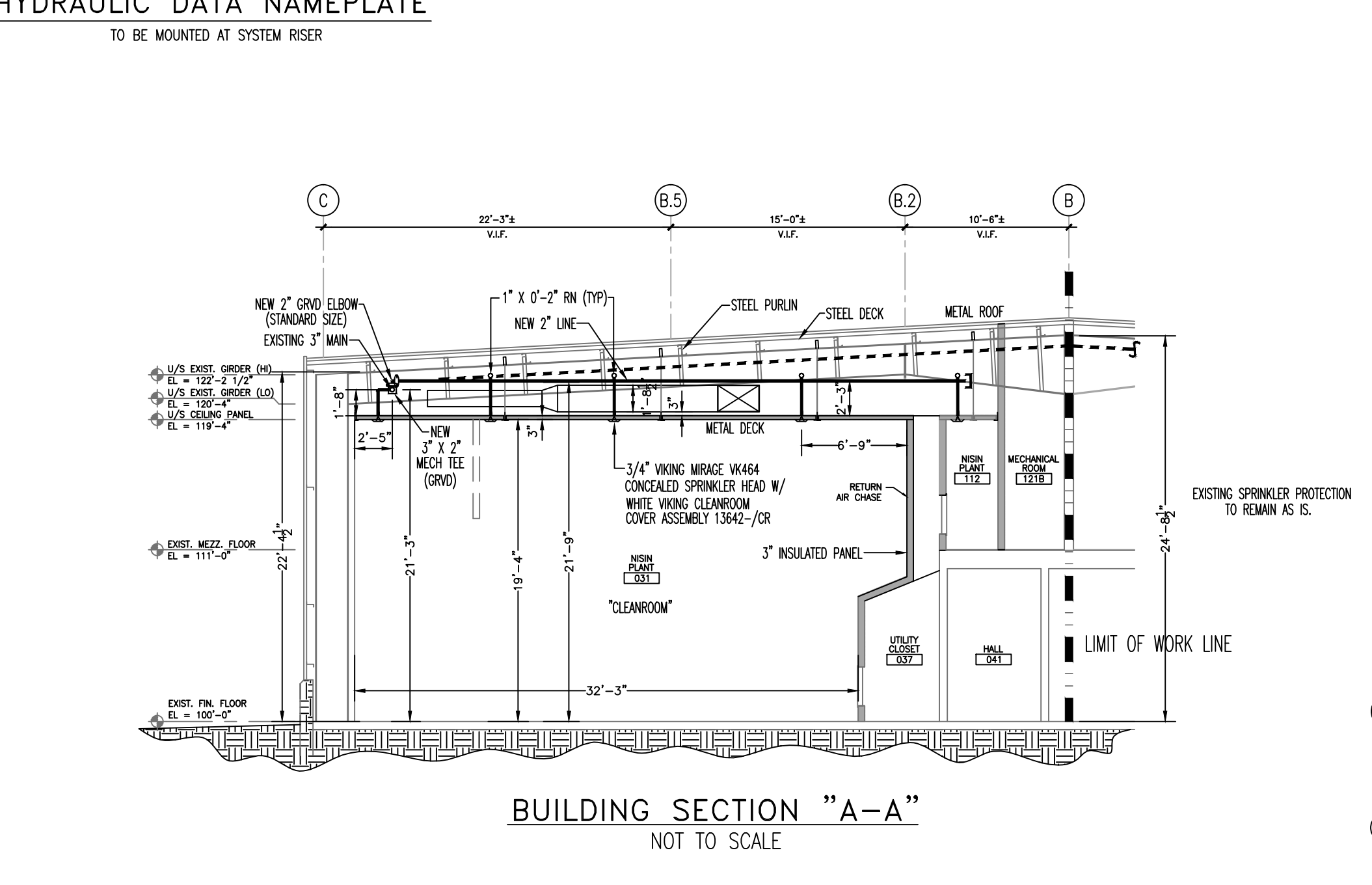
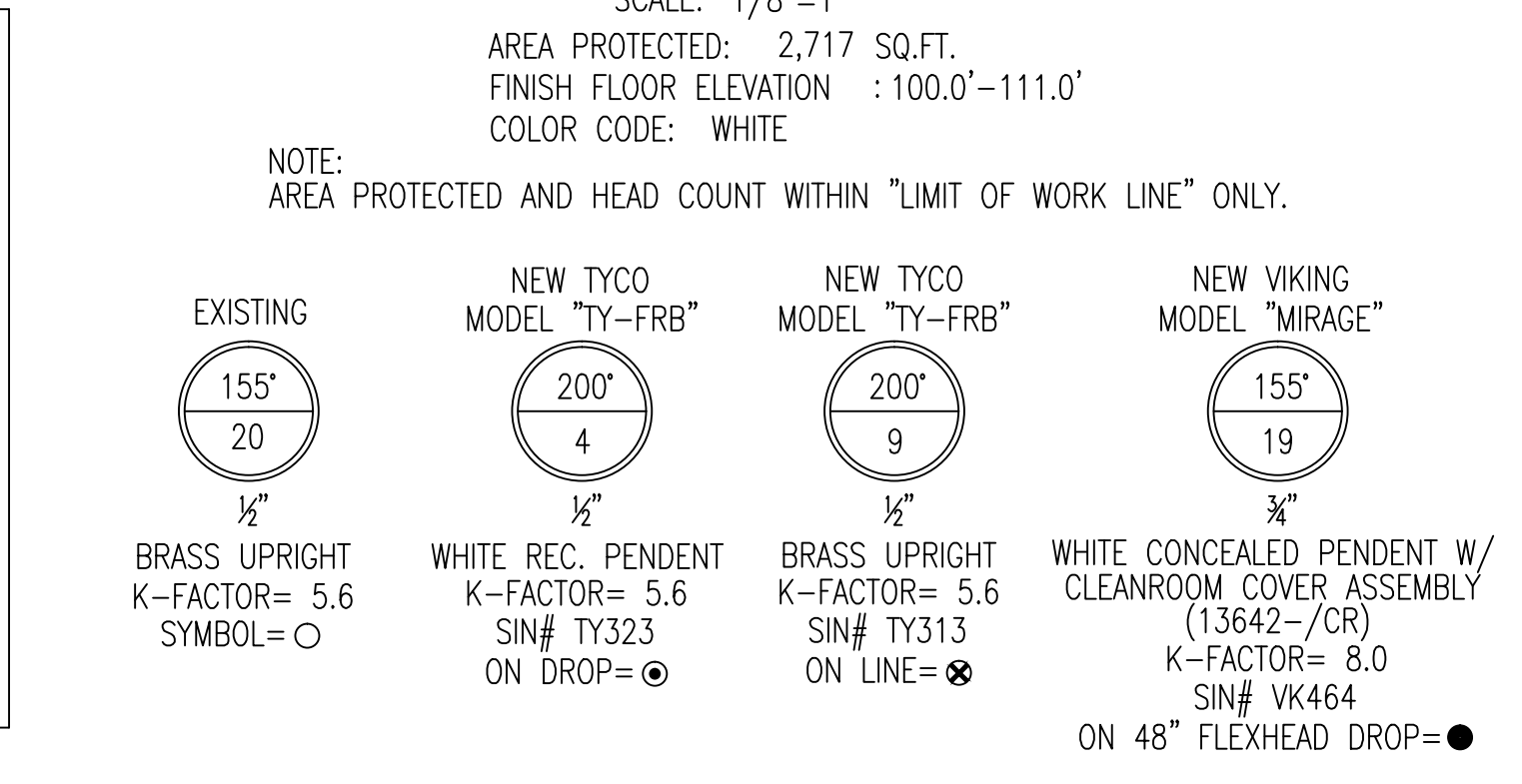
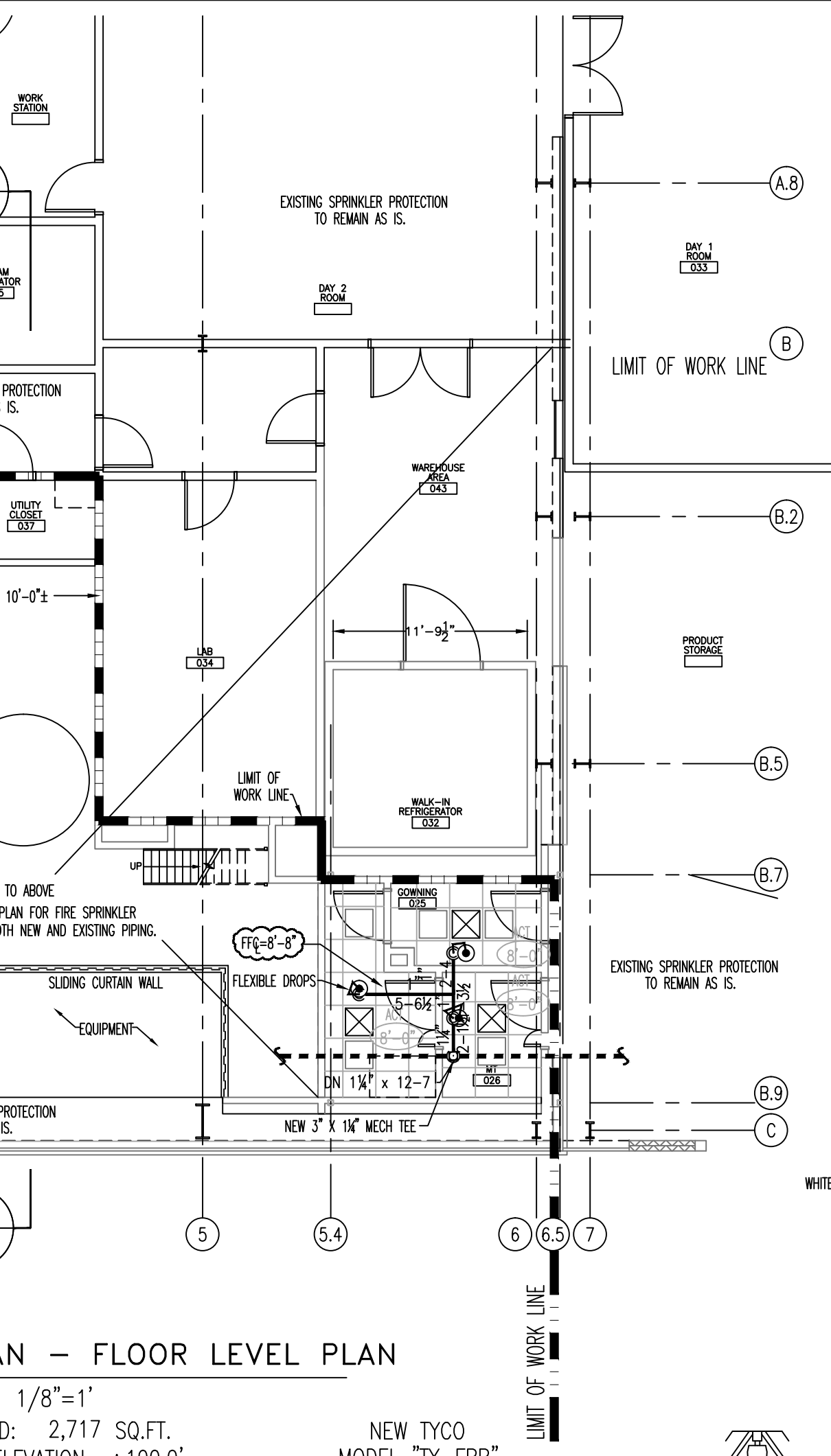


HYDRAULIC-SYSTEM
 THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.
AREA #1
 LOCATION: CLEANROOM
 No. OF SPRINKLERS: 19 (CALCULATED)
 BASIS OF DESIGN:
 1. DENSITY (GPM/SQ.FT.) : 20
 2. DESIGNED AREA OF DISCHARGE (SQ.FT.) : 1517
 SYSTEM DEMAND:
 1. WATER FLOW RATE : 464.24GPM
 2. RESIDUAL PRESSURE AT THE BASE OF THE RISER : 71.43 PSI
 PRESSURE REMAINING= 12.01 PSI



GENERAL NOTES
 SPRINKLER SYSTEM INSTALLATION TO COMPLY WITH NFPA #13 (2013 EDITION) AND NFPA 318 (2012 EDITION).
 NEW THREADED SPRINKLER PIPING (1" & 1 1/2") TO BE BLACK SCH'D #40 JOINED BY THREADED DUCTILE IRON FITTINGS.
 NEW GROOVED SPRINKLER PIPING (2"-3") TO BE BLACK SCH'D #40 WITH GROOVED ENDS AND WELDED OUTLETS JOINED BY MECHANICAL COUPLINGS.
 OWNER TO PROVIDE SUFFICIENT HEAT THROUGHOUT BUILDING TO PREVENT FREEZING OF WATER FILLED SPRINKLER PIPING AND EQUIPMENT. (MIN 40° F).

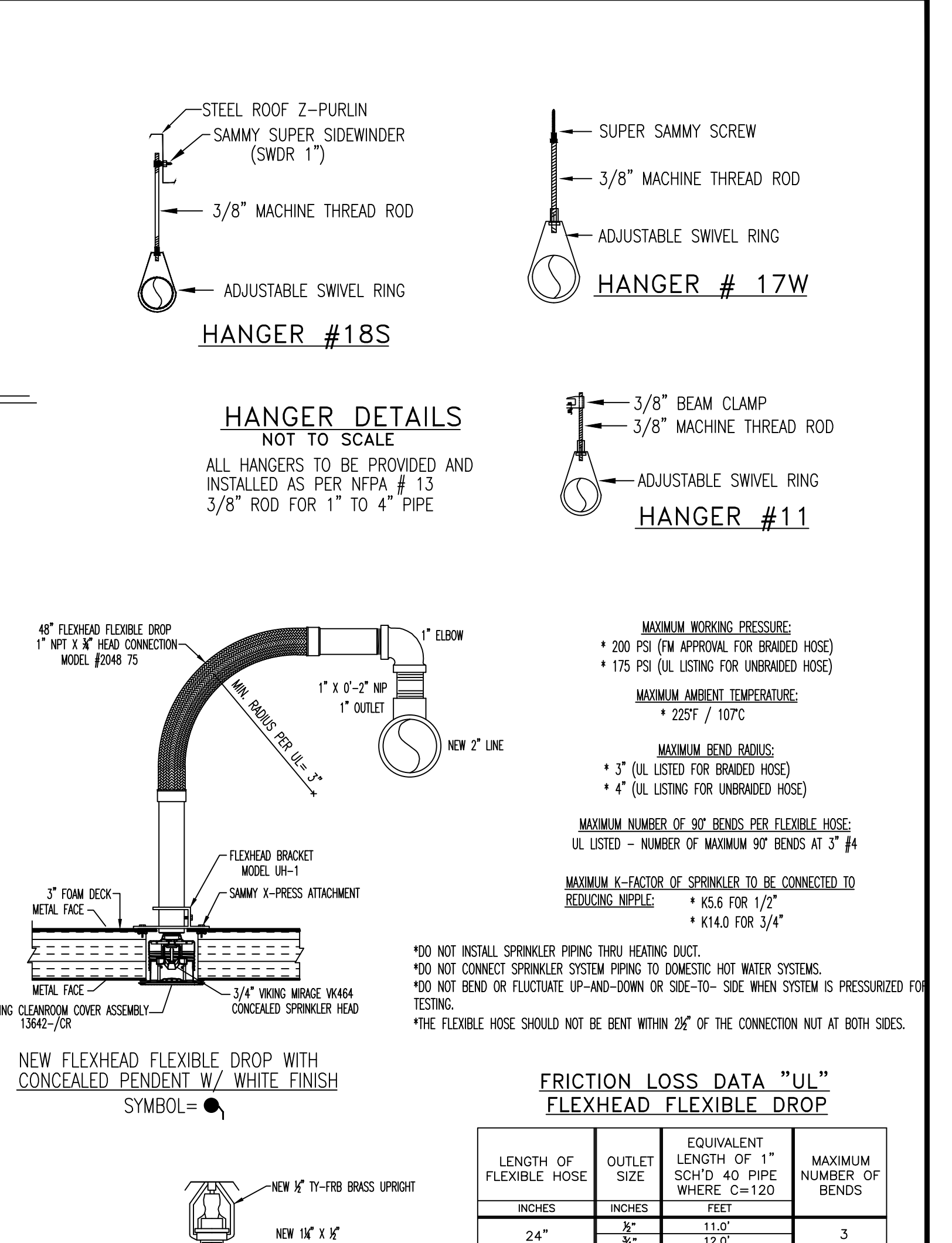


FRICION LOSS DATA "UL" FLEXHEAD FLEXIBLE DROP

LENGTH OF FLEXIBLE HOSE INCHES	OUTLET SIZE INCHES	EQUIVALENT LENGTH OF 1" SCH'D 40 PIPE WHERE C=120 FEET	MAXIMUM NUMBER OF BENDS
24"	1/2"	11.0'	3
	3/4"	12.0'	
	1"	16.0'	
36"	1/2"	18.0'	3
	3/4"	24.0'	
48"	1/2"	28.0'	4
	3/4"	29.0'	
60"	1/2"	35.0'	4
	3/4"	35.0'	
72"	1/2"	32.0'	4
	3/4"	32.0'	

GENERAL NOTES
 ALL DIMENSIONS ARE SHOWN FOR GENERAL LOCATION OF SPRINKLER HEADS, PIPING MAY VARY TO SUIT ACTUAL.
 ACOUSTICAL CEILING TILE (ACT) TO BE LISTED NON-COMBUSTIBLE WITH UL FLAME SPREAD OF LESS THAN 25.
 PENDENT HEADS TO BE CENTERED IN ALL ACT CEILINGS.
 STORAGE OF CLASS I & II MATERIAL SHALL NOT EXCEED 8'-0" IN HEIGHT.

GENERAL NOTES	DATE	REVISIONS	REQUIRED APPROVALS
SPRINKLER SYSTEM INSTALLATION TO COMPLY WITH NFPA #13 (2013 EDITION) AND NFPA 318 (2012 EDITION).			OWNER / ARCHITECT STATE FIRE MARSHAL PORTLAND FIRE DEPARTMENT
NEW THREADED SPRINKLER PIPING (1" & 1 1/2") TO BE BLACK SCH'D #40 JOINED BY THREADED DUCTILE IRON FITTINGS.			DRAWN BY T. PRAY NICET LEVEL III CERT.# 100854
NEW GROOVED SPRINKLER PIPING (2"-3") TO BE BLACK SCH'D #40 WITH GROOVED ENDS AND WELDED OUTLETS JOINED BY MECHANICAL COUPLINGS.			CHECKED BY WAF NICET LEVEL III CERT.# 095574
OWNER TO PROVIDE SUFFICIENT HEAT THROUGHOUT BUILDING TO PREVENT FREEZING OF WATER FILLED SPRINKLER PIPING AND EQUIPMENT. (MIN 40° F).			CONTRACTOR LICENSE # 101 CONTRACTOR RMS # 368



OCCUPANCY DESCRIPTION AND CLASSIFICATION:
 LIGHT HAZARD: CORRIDORS, GOWN AND TRANSFER ROOMS
 ORDINARY HAZARD I: MECHANICAL ROOM
 ORDINARY HAZARD II: CLEANROOM
 .20 GPM PER SQ.FT. / 3000 SQ.FT. / 250 HOSE
 PER NFPA 318 "STANDARD FOR THE PROTECTION OF SEMICONDUCTOR FABRICATION FACILITIES".

SYMBOL LEGEND

□ = MECHANICAL TEE	⌒ = FLEXHEAD FLEXIBLE DROP
OHD = OVER-HEAD DOOR	⊕ = PLUG
LPD = LOW POINT DRAIN	□ = GROOVED COUPLING
(N.C.) = NORMALLY CLOSED	⌒ = GROOVED CAP
(N.O.) = NORMALLY OPEN	△ = VALVE RISER LOCATION
⊙ = HYDRAULIC REFERENCE POINTS.	+ = DRAIN VALVE
DN = INDICATES VERTICAL PIPE DOWN	⊕ = HANGER LOCATION
RN = INDICATES VERTICAL PIPE UP	⊕ = HEAD GUARD
AFF = ABOVE FINISH FLOOR	⊕ = 45° ELLS
BP ⊕ = INDICATES BOTTOM OF ROOF PURLIN DN TO CENTERLINE OF PIPE.	
FF ⊕ = INDICATES FINISH FLOOR UP TO CENTERLINE OF PIPE.	
INDICATES EXISTING FIRE SPRINKLER PIPE= - - - - -	
INDICATES NEW FIRE SPRINKLER PIPE= ————	

IMMUCELL CORPORATION
 (2014 CLEANROOM RENOVATION)
 56 EVERGREEN DRIVE, PORTLAND, ME. 04105

EASTERN FIRE PROTECTION
 AUBURN/LEWISTON INDUSTRIAL AIRPARK, AUBURN, MAINE 04210

CONTRACT WITH: HODESS CONSTRUCTION CORPORATION

DWG. NO. 1 OF 1
 JOB NUMBER AU-5134-14
 SCALE AS NOTED
 DATE 02/19/14