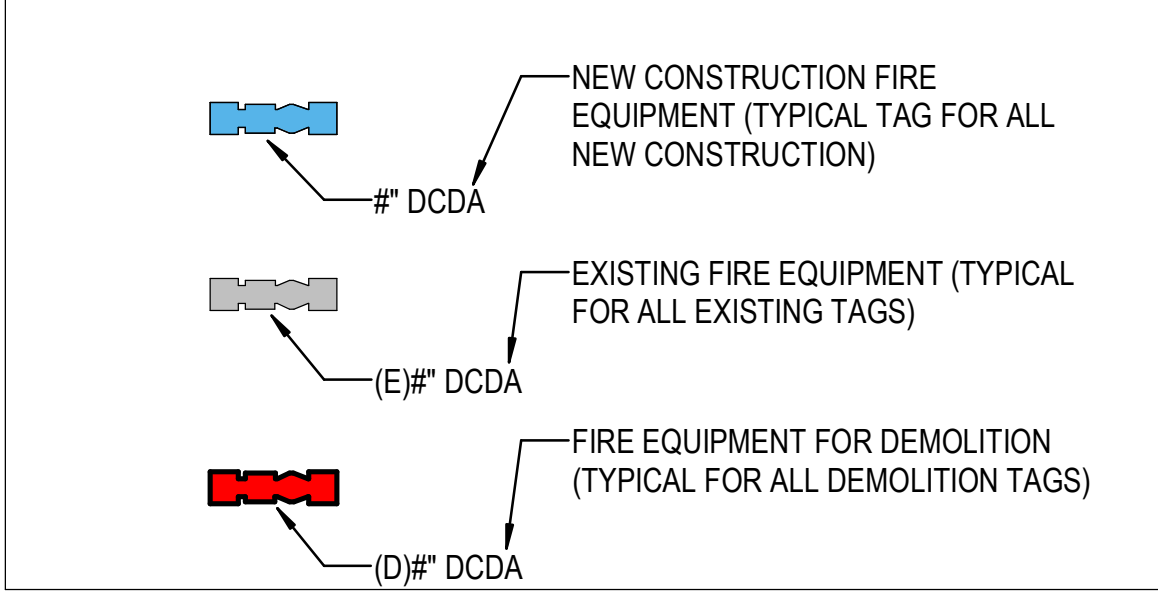


ABBREVIATIONS			
&	AND	GPM	GALLONS PER MINUTE
Ø	ROUND	HD	HEAD
/R	ON ROOF	H.P.	HIGH PRESSURE
A	AIR	HTG	HEATING
AB	ABOVE BASE	IN	INCH
ABV	ABOVE	INL	INLET
ACOUS	ACOUSTICAL	INSUL	INSULATION
ADD	ADDENDUM	INWG	INCHES WATER GAUGE
ADDL	ADDITIONAL	ITC	INSPECTOR TEST CONNECT
AFF	ABOVE FINISHED FLOOR	JT	JOINT
AG	ABOVE GROUND	LAB	LABORATORY
AHJ	AUTHORITY HAVING JURISDICTION		
ALT	ALTERNATE	LB	POUND
ALV	ALARM VALVE	LB/HR	POUNDS PER HOUR
ALUM	ALUMINUM	LF	LINEAL FOOT
AP	ACCESS PANEL	LOC	LOCATION
ARCH	ARCHITECT/ARCHITECTURAL	LP	LOW PRESSURE
AUTO	AUTOMATIC	MA	MIXED AIR
AUX	AUXILIARY DRAIN	MAN	MANUAL
BFF	BELOW FINISHED FLOOR		
BFV	BUTTERFLY VALVE	MAX	MAXIMUM
BSMT	BASEMENT	MCW	MAKE-UP COLD WATER
BTWN	BETWEEN	MD	MOTORIZED DAMPER
CAP	CAPACITY	MFR	MANUFACTURER
CFCV	CONSTANT FLOW CNTRL. VL.	MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	MISC	MISCELLANEOUS
CI	CAST IRON	MRA	MOST HYDRAULICALLY DEMANDING AREA
CIS	COMMON INTELLIGEBELITY SYS.		
CEG	CEILING	NFPA	NOT IN CONTRACT
COL	COLUMN		NATIONAL FIRE PROTECTION ASSOCIATION
COMB	COMBINATION		
CONC	CONCRETE	NP	NOT POTABLE
CONT	CONTINUE/CONTINUATION	NTS	NOT TO SCALE
COORD	COORDINATE	O	OXYGEN
COR	CONTRACTOR OFFICES REP.	OPNG	OPENING
CTR	CENTER	PD	PRESSURE DROP
CUFT	CUBIC FEET	PIV	POST INDICATOR VALVE
D/°	DEGREE	PR	PAIR
DCA	DETECTOR CHECK ASSY.	PREL	PRELIMINARY
DCDA	DOUBLE DETECTOR CK. ASSY.	PS	PRESSURE
DIA	DIAMETER	PRIM	PRIMARY
DI	DUCTILE IRON	PRV	PRESS. REDUCING VALVE
DISCH	DISCHARGE	PSI	LBS. PER SQ. IN.
DMPR	DAMPER	PSIG	LBS. PER SQ. IN. GAUGE
DN	DOWN	PW	POTABLE WATER
DWG	DRAWING	REC	RECESSED
EA	EACH	RED	REDUCER
ECS	EMERGENCY COMM. SYSTEM	REQD	REQUIRED
EAH	EXHAUST HOOD	SF	SQUARE FOOT
EX	EXISTING	SD	SMOKE DAMPER
EXP	EXPANSION	SIM	SIMILAR
EXPJT	EXPANSION JOINT	SLV	SLEEVE
ESP	EXTERNAL STATIC PRESSURE	SP	STATIC PRESSURE
F°	DEGREES FAHRENHEIT	SPS	STATIC PRESSURE STATION
FD	FIRE DAMPER	SQ	SQUARE
FDV	FIRE DEPARTMENT VALVE	SS	STAINLESS STEEL
FHR	FIRE HOSE STATION	STD	STANDARD
FHV	FIRE HOSE VALVE	T	THERMOSTAT
FPI	FINS PER INCH	SYS	SYSTEM
FLEX	FLEXIBLE	TCP	TEMP. CONTROL PANEL
FLG	FLANGE	TD	TEMPERATURE DROP
FT	FOOT/FEET	TEMP	TEMPERATURE
FTG	FOOTING	TSP	TOTAL STATIC PRESSURE
FUT	FUTURE	TYP	TYPICAL
GAL	GALLON	U/G	UNDER GROUND
GALV	GALVANIZED	U/S	UNDER SLAB
GEN	GENERATOR	UNO	UNLESS NOTED OTHERWISE
GENL	GENERAL	VL	VALVE
		VOL	VOLUME

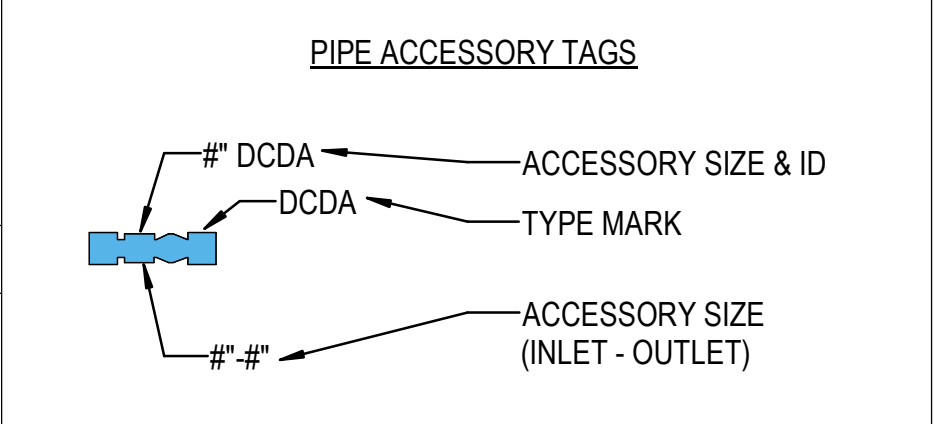
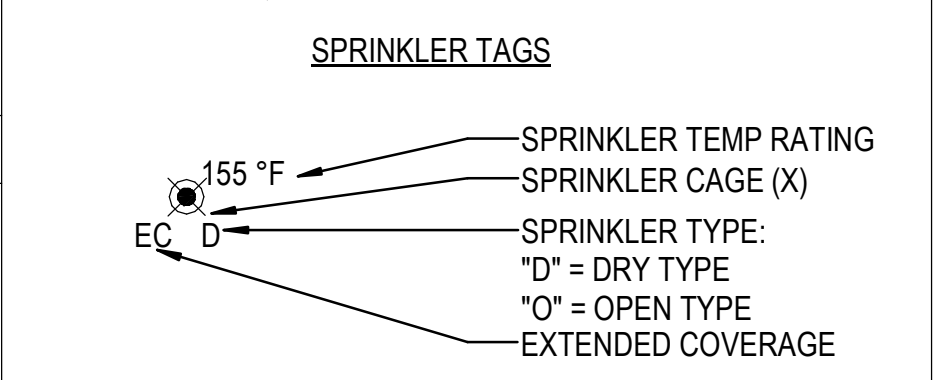
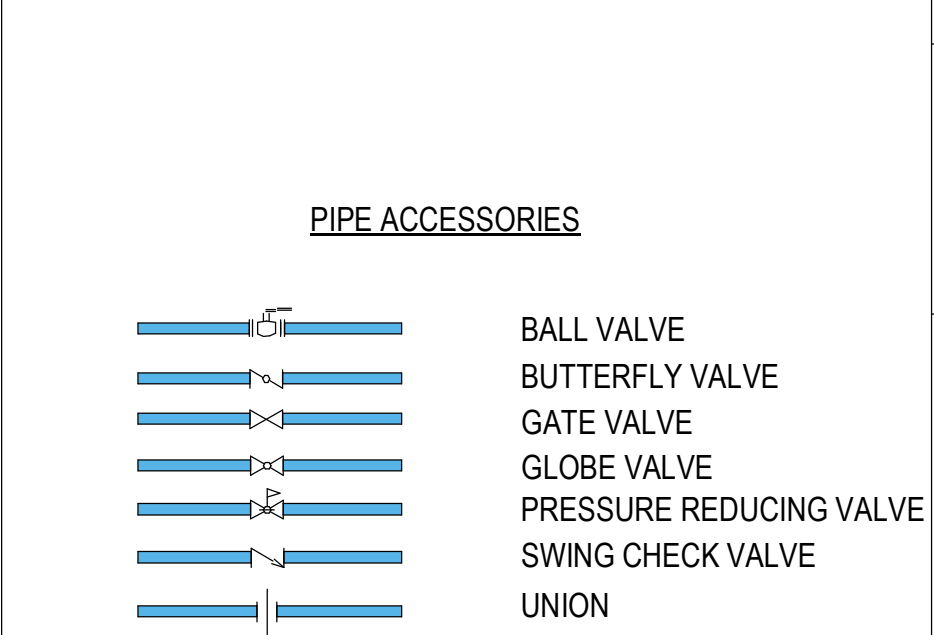
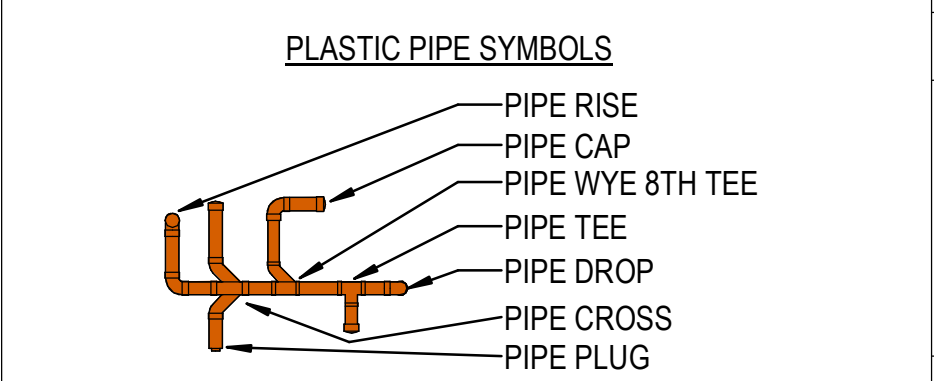
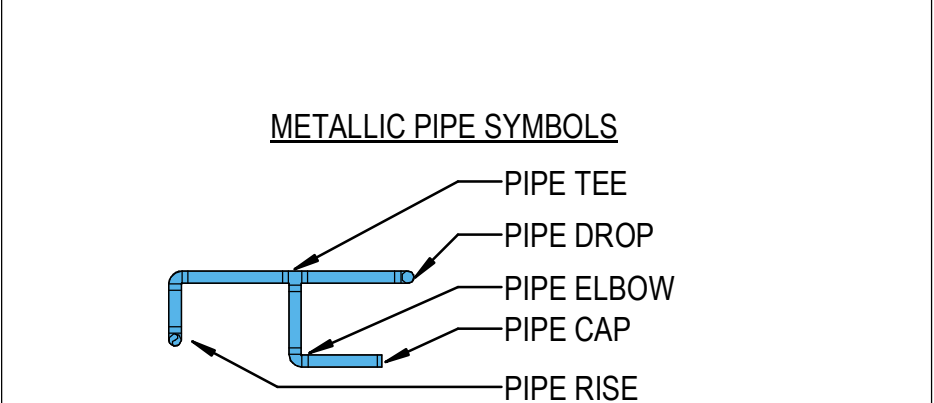
EQUIPMENT ABBREVIATIONS			
AFMS	AIR FLOW MEASURING STATION	FDC	FIRE DEPARTMENT CONTROL
CF	CABINET FAN	FDCP	F.A. ACCESS PANEL
CF	CHEMICAL FEEDER	FMCP	F.A. MASS NOTIFICATION PNL.
DBP	DOMESTIC WATER BOOST PUMP	FAA	F.A. ANNUNCIATOR PNL.
DCA	DETECTOR CHECK ASSY.	LOC	LOCAL OPERATOR CONSOLE
DCDA	DOUBLE DETECTOR CHECK ASSY.	NRSV	NON-RISING STEM VALVE
FHR	FIRE HOSE STATION	ITC	INSPECTOR'S TEST
F.A.	FIRE ALARM	PNL	PANEL
FPU	FIRE PUMP		

FIRE PROTECTION PHASING

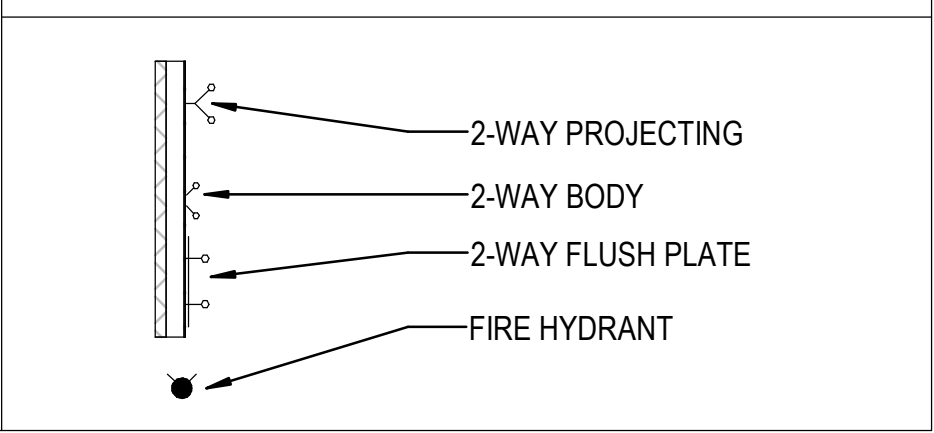


FIRE PROTECTION PIPING LEGEND	
	6" PIPE SIZE TAG (DIAMETER Ø")
	EXISTING TO REMAIN PIPE
	DEMOLISHED PIPE
	PIPE SIZE AND SYSTEM TAG
	FIRE PROTECTION DRY
	FIRE PROTECTION PRE-ACTION
	FIRE PROTECTION WET
	FIRE PROTECTION OTHER
	FIRE PROTECTION CLEAN AGENT

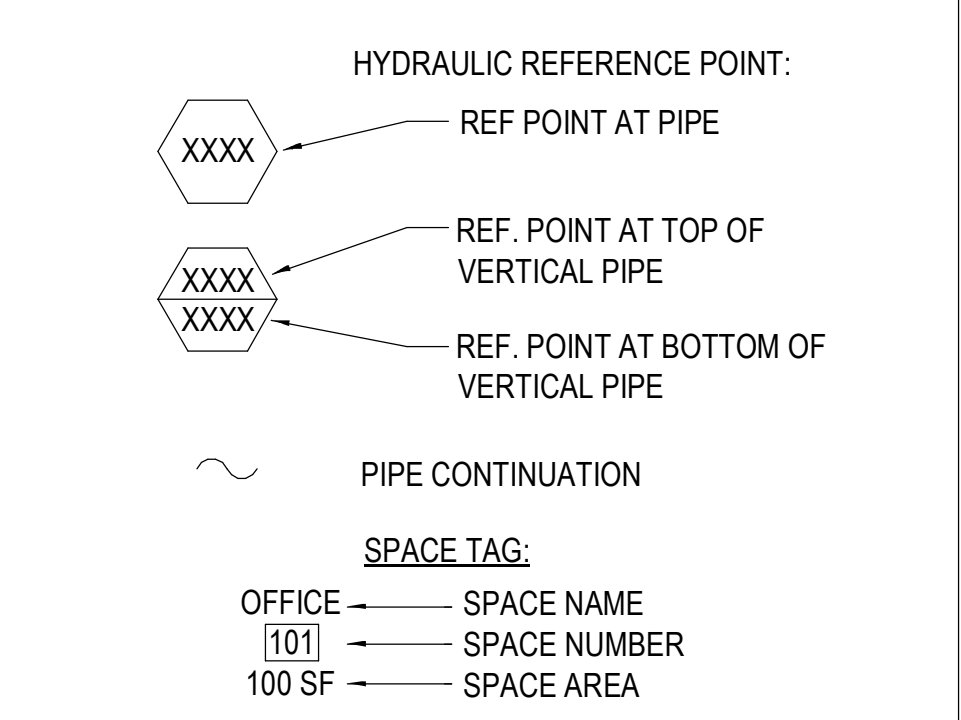
SPRINKLERS	
K-VALUE SYMBOLS:	SPRINKLER ORIENTATION:
	CONCEALED
	UPRIGHT
	PENDENT
	RECESSED
	HORIZONTAL SIDEWALL
	• VERTICAL SIDEWALL - 5.6K
	• VERTICAL SIDEWALL - 8.0K
	• VERTICAL SIDEWALL - 11.2K



FIRE DEPARTMENT CONNECTIONS



GENERAL SYMBOLS	
	REVISION NUMBER SHOWN ON PLANS
	POINT WHERE NEW CONNECTS TO EXISTING
	DEMOLISH TO POINT INDICATED
	NUMBER OF DETAIL ON SHEET NUMBER OF SHEET WHERE DETAIL APPEARS
	KEYNOTE
	NON-RETARDABLE FLOW SWITCH
	TAMPER SWITCH



FIRE PROTECTION HAZARD LEGEND	
	ITEM TO BE DEMOLISHED
	AREA NOT IN CONTRACT

FIRE PROTECTION HAZARD LEGEND	
	LIGHT HAZARD (0.10/1500)
	ORDINARY HAZARD 1 (0.15/1500)
	EXTRA HAZARD 1 (0.30/2500)

FIRE PROTECTION SHEET SET NOTE

\* NOTE \*  
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THE CONTAINED REFERENCE DRAWINGS.

GENERAL NOTES

- THE CONTRACTOR SHALL PROVIDE AND INSTALL AN AUTOMATIC FIRE SPRINKLER SYSTEM TO PROTECT THIS FACILITY AS INDICATED ON DRAWINGS. THE FIRE SPRINKLER SYSTEM SHOWN THESE DRAWINGS IS BASED ON PRESCRIPTIVE DESIGN AND CONCEPTUAL ONLY.
- THE SPRINKLER CONTRACTOR SHALL SUBMIT COMPLETE FIRE SPRINKLER SYSTEM SHOP DRAWINGS BASED ON NFPA 13 AND SPECIFICATION REQUIREMENTS AND SUBMIT FOR APPROVAL PRIOR TO INSTALLATION.
- THE EQUIPMENT SHOWN ARE SUGGESTED LOCATIONS HOWEVER FINAL LAYOUT SHALL BE IN ACCORDANCE WITH APPLICABLE CODES, MANUFACTURER'S RECOMMENDATIONS, AND EQUIPMENT LISTINGS. CONTRACTOR SHALL COORDINATE BRANCH LINE AND SPRINKLER HEAD LOCATIONS WITH CEILING PANELS, LIGHTING FIXTURES, HVAC DUCTS AND AIR DEVICES, PLUMBING AND OTHER TRADES NOT SPECIFICALLY NAMED.
- ALL EQUIPMENT SHALL BE UL LISTED AND FM APPROVED IN ACCORDANCE WITH NFPA 13 AND PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL SUBMIT SETS OF FIRE SUPPRESSION PLANS, DATA CUT-SHEETS, AND HYDRAULIC CALCULATIONS TO A/E AND AHJ FOR REVIEW AND APPROVAL PRIOR TO BEGINNING ANY WORK ON THE FIRE SUPPRESSION SYSTEM.
- THE CONTRACTOR SHALL CONDUCT WATER SUPPLY HYDRANT TEST FOR THIS PROJECT BASED ON NFPA 291 REQUIREMENTS AND UTILIZE THIS DATA TO DESIGN THE SPRINKLER SYSTEM. THE HYDRANT LOCATIONS, FLOW TESTS, AND DATE SHALL BE INDICATED ON THE SHOP DRAWINGS. AUTOMATIC SPRINKLER PROTECTION SYSTEM IS REQUIRED TO PROTECT THIS ENTIRE FACILITY. A MINIMUM 10% SAFETY FACTOR IS REQUIRED BETWEEN THE AVAILABLE WATER SUPPLY AND THE SPRINKLER SYSTEM DEMAND.
- PROVIDE EARTHQUAKE PROTECTION (SWAY BRACING), END OF BRANCH LINE AND SEISMIC BRACING CALCULATION IN ACCORDANCE WITH NFPA 13 REQUIREMENTS . MINIMUM Cp TO BE DETERMINED BASED ON STRUCTURAL DESIGN DOCUMENTS OR USGS DATA FOR SITE SPECIFIC SHORT PERIOD SPECTRAL RESPONSE (Ss).
- FIRE PROTECTION DEVICES AND PIPING ON PLANS ARE NOT FOR CONSTRUCTION, THEY ARE FOR COST ESTIMATING ONLY.
- THE CONTRACTOR SHALL CONFORM TO THE SYMBOLS INDICATED IN NFPA 170 TO DEVELOP THE AS-BUILT DRAWINGS FOR THIS PROJECT.
- ALL AUTOMATIC SPRINKLER DRAIN VALVES FOR FIRE DEPARTMENT CONNECTIONS SHALL BE INSTALLED IN THE HORIZONTAL POSITION.
- FLEXIBLE COUPLINGS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13.
- ALL DRAIN PIPING SHALL BE COORDINATED WITH AND APPROVED BY A/E FOR ARRANGEMENT, LOCATION (DOWNSPOUT, DOCK PARKING LOT, ETC.) AND APPROPRIATENESS OF THE MEANS OF DISCHARGE (STORM SEWER, SANITARY SEWER, BIOSWALE, ETC.) THAT WILL HANDLE THE FULL FLOW OF THE DRAIN WITHOUT SPECIAL TOOLS OR EQUIPMENT AND WITH DAMAGE TO LANDSCAPING OR PAVEMENT.
- INSPECTOR'S TEST CONNECTION SHALL BE NOT LARGER THAN 1/2" ORIFICE AND BE LOCATED ON THE REMOTE BRANCH LINE.

SYSTEM NOTES

- ALL SYSTEM PIPING SHALL BE HYDROSTATICALLY TESTED @ 200 PSI FOR TWO HOURS OR AT 50 PSI ABOVE THE OPERATIONAL STATIC PRESSURE OF THE SYSTEM, WHICHEVER IS GREATER.
- EACH VALVE SHALL HAVE A PERMANENTLY AFFIXED SIGN INDICATING ITS FUNCTION. ALL VALVE HANDLES MUST BE ACCESSIBLE.
- A STOCK OF SPARE SPRINKLERS, NOT LESS THAN 6, CONSISTING OF A REPRESENTATIVE MIX OF EACH STYLE AND TEMPERATURE RATING SHALL BE PROVIDED WITH A WRENCH AND BE LOCATED NEAR THE RISER. SPARE SPRINKLER CABINET WILL BE MOUNTED WHERE THE SPRINKLERS WILL NOT BE SUBJECTED TO TEMPERATURES ABOVE 100 DEG. F.
- SPRINKLERS SHALL BE A MINIMUM OF 1/2" NPT 1/2" ORIFICE K-5.6 QUICK RESPONSE. PENDENT SPRINKLERS SHALL BE INSTALLED IN THE CENTER POINTS OF THE CEILING TILES. CONCEALED SPRINKLERS WITH WHITE COVER PLATES SHALL BE INSTALLED THROUGHOUT FINISHED CEILINGS. OTHER SPRINKLERS SHALL BE GLASS BULB, BRONZE FINISHED WITH AN ORIFICE AND THREAD SIZE APPROPRIATE FOR THE HAZARD AND DENSITY.
- BRANCH LINE CONNECTIONS TO THE MAIN SHALL BE PRE-DRILLED. SHOP WELDED OUTLETS OR OTHER CONNECTIONS AS APPROVED, MECHANICAL TEES SHALL NOT BE USED ON NEW SYSTEMS. MAIN PIPING FOR THE SYSTEMS SHALL BE SCHEDULE 40. BRANCH LINE PIPING FOR THIS PROJECT SHALL BE SCHEDULE 40 PIPE WITH SCREWED AND/OR WELDED FITTINGS. IF A HISTORY OF CORROSION IS KNOWN TO EXIST, SCHEDULE 10 PIPING MAY BE USED.
- THREADABLE THINWALL, ENGINEERED PIPE SIZING, IE DYNATHREAD/DYNAFLOW, AND CPVC MAY NOT BE USED.
- ALL MATERIALS USED IN THE INSTALLATION OF THIS SYSTEM(S) SHALL BE NEW AND OF CURRENT ISSUE. ALL MATERIALS SHALL BE APPROVED BY UL AND BE IN CONFORMANCE WITH SPECIFICATIONS, CURRENT EDITION OF NFPA-13 AS WELL AS THE AUTHORITY HAVING JURISDICTION.
- SYSTEM PIPING WILL BE SUPPORTED AND BRACED WITH HANGERS AND LISTED EARTHQUAKE BRACE ASSEMBLIES IN ACCORDANCE PER NFPA-13.
- PAINTING OF THE SYSTEM PIPING AND COMPONENTS SHALL BE DONE PER A/E SPECIFICATIONS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN THE INTEGRITY OF THE SPRINKLER SYSTEM DURING CONSTRUCTION.
- ELEVATIONS AND DIMENSIONS SHOWN ON THESE DRAWINGS ARE NOMINAL.
- THE VERTICAL DISTANCE BETWEEN THE SPRINKLER DEFLECTOR AND THE CEILINGS AND/OR ROOF DECK SHALL BE A 1" MIN AND 12" MAX PER NFPA 13.
- THE SMALL-ROOM RULE MAY BE USED IN ROOMS UNDER 800 SQUARE FEET. THIS RULE ALLOWS THAT SPRINKLERS TO BE SPACED UP TO 9' FROM ONE WALL, UP TO 225sq ft PER SPRINKLER, PROVIDED THERE IS AN 8" LINTEL AT THE DOORS/OPENINGS.
- WATER VELOCITIES SHALL NOT EXCEED 20-FPS.
- SPRINKLER AREAS WILL BE LIMITED IN ACCORDANCE WITH NFPA 13.
- ALL PIPE UP TO 4" SHALL HAVE AN ANTIBACTERIAL PROTECTIVE COATING EQUIVALENT TO ALLIED TUBE AND CONDUIT M-COTE, AND BE SHOWN TO NOT BE INCOMPATIBLE WITH CPVS. CONTRACTOR TO VERIFY.
- AUTOMATIC SPRINKLER SYSTEMS SHALL BE SUPERVISED AND INTERFACE WITH NEW FIRE ALARM SYSTEM.
- THE CONTRACTOR SHALL PROVIDE THE INSPECTOR WITH COPY OF: THE "CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING" IN ACCORDANCE WITH NFPA 13; AND THE "RECORD OF COMPLETION" FOR FIRE ALARM SYSTEMS IN ACCORDANCE WITH NFPA 72. THESE DOCUMENTS SHALL BE PRESENTED UPON SUCCESSFUL COMPLETION ON THE SYSTEM TEST AND PRIOR TO ACCEPTANCE OF THE SYSTEM.
- ONE SET OF STAMPED, APPROVED DRAWINGS SHALL BE ON SITE AT ALL TIMES AND MADE AVAILABLE TO INSPECTORS ON DEMAND.
- FIRE DEPARTMENT VEHICLE ACCESS ROADWAYS SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION. REQUIRED WATER FLOW SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION AND PRIOR TO ANY COMBUSTIBLES BEING BROUGHT ON SITE.
- FIRE PROTECTION SYSTEMS SHALL BE INSTALLED BY A CONTRACTOR LICENSED TO PERFORM SUCH WORK IN THE PROJECT JURISDICTION.

Project

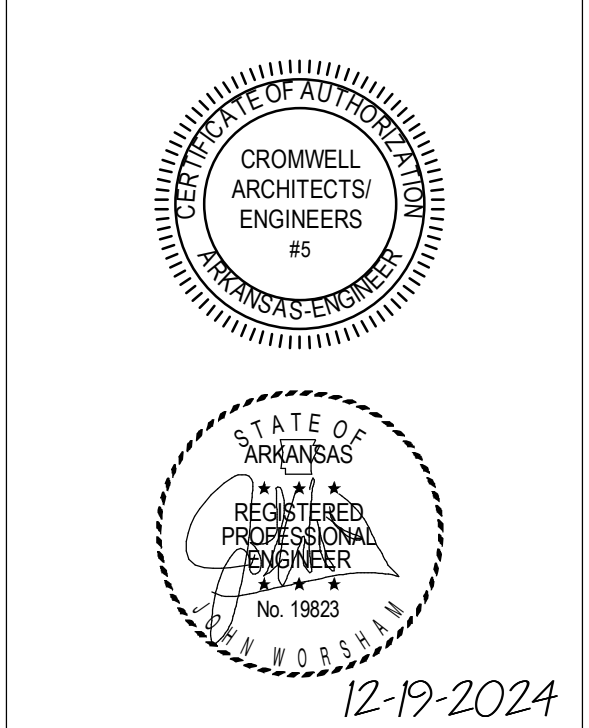
AEROJET BUILDING E33  
OFFICE EXPANSION  
EAST CAMDEN,  
ARKANSAS

Design Phase

CONSTRUCTION DOCUMENTS

Revisions		
No.	Date	Description

Stamp



Notes

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Project Number

Issue Date

Sheet Title

2024-134

12-19-2024

FIRE PROTECTION LEGEND AND NOTES

Sheet Number

FX001