

Sprinkler Design Data

Project: Lillington FD		System: Wet
Project Street Address: 2873 NC 210 North		Sys. Sq. Ft.: 8,838
Suite:	Floor#:	Ceiling Height: Varies
Designed By: Carolina Fire Protection	Phone: (910)-892-1700	Total Bldg. Hgt.:
Occupancy: Manufacturing	Hazard: Ord. Grp. 2 & Light	

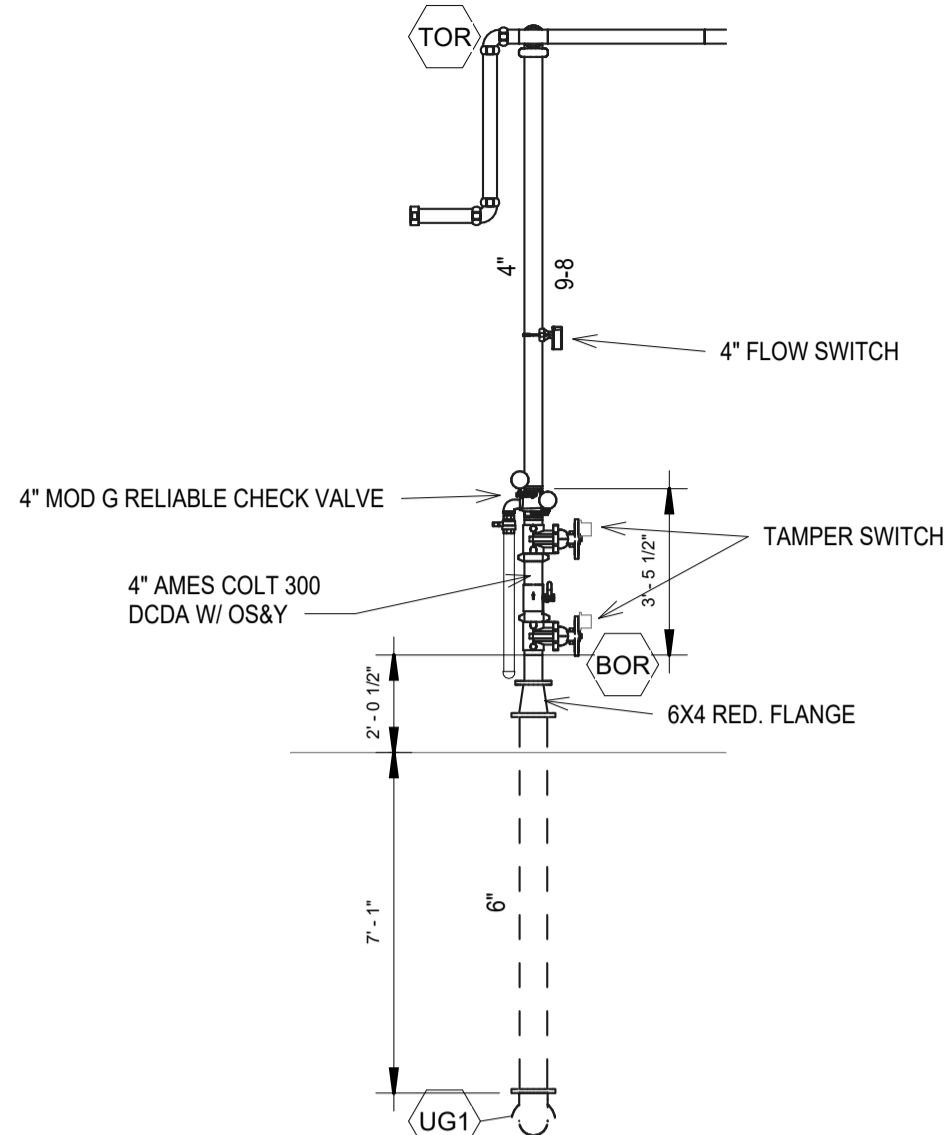
Design Summary

Design Method	Hydraulic Calculation	Hydraulic Calculation		
Design Area #	1	2		
Location	TRUCK BAY	OFFICE		
Type of System	Wet System	Wet System		
Hazard Class	Ord. Grp. 2	LIGHT		
Criteria From	NFPA 13	NFPA 13		
Design Area	1565	1152		
Sprinkler Spacing	130 sqft	225 sqft		
Density	.20	.10		
K-factor	5.6	5.6		
Hose Allowance	250	100		
# Design Sprinklers	15	11		
Special App. Spk.	0	0		
Requirement @	BOR	BOR		
G.P.M. Req'd	643.476	354.074		
P.S.I. Req'd	60.364	54.385		
Safety Factor @	TEST	TEST		
Safety Factor (psi)	41.134	48.118		
System Sq Ft	8,838	8,838		
Dry Sys. Vol. (gal)	n/a	n/a		

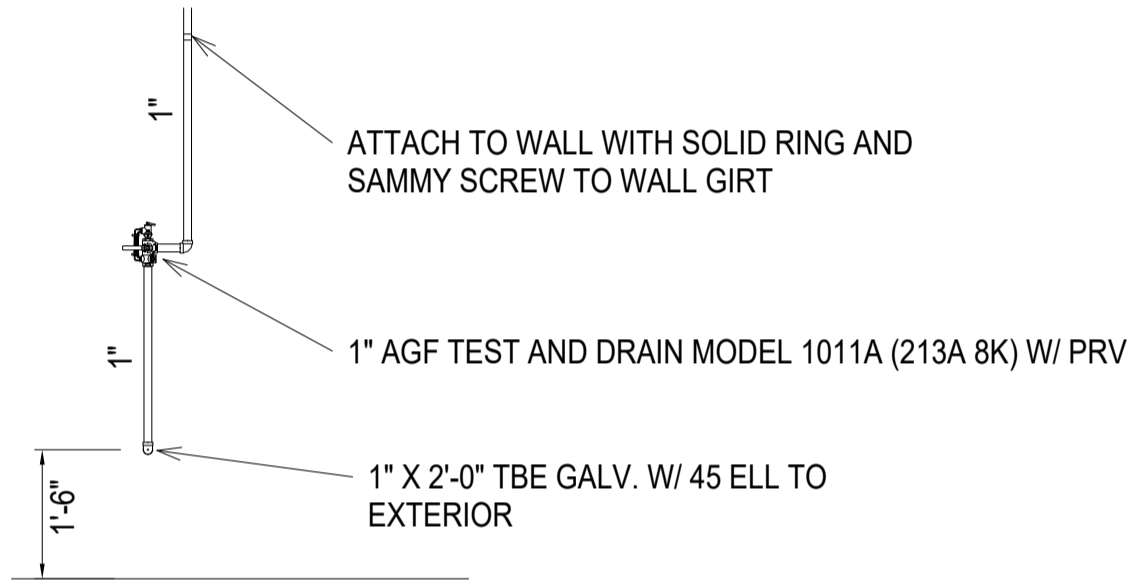
Water Supply Information

Tested by	CFP & HARNETT COUNTY	Date/Time	02/25/25 11AM	Pressure Hydrant	
Hydrant Elevation		Flow Hydrant # 1		Flow Hydrant #2	
Static (PSI)	103	Residual (PSI)	94	Flow (gpm)	1694 GPM

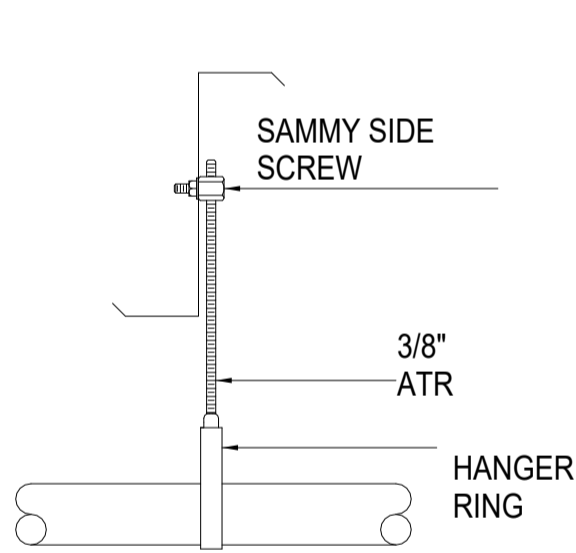
Water test data required



3 Riser Detail  
1/4" = 1'-0"

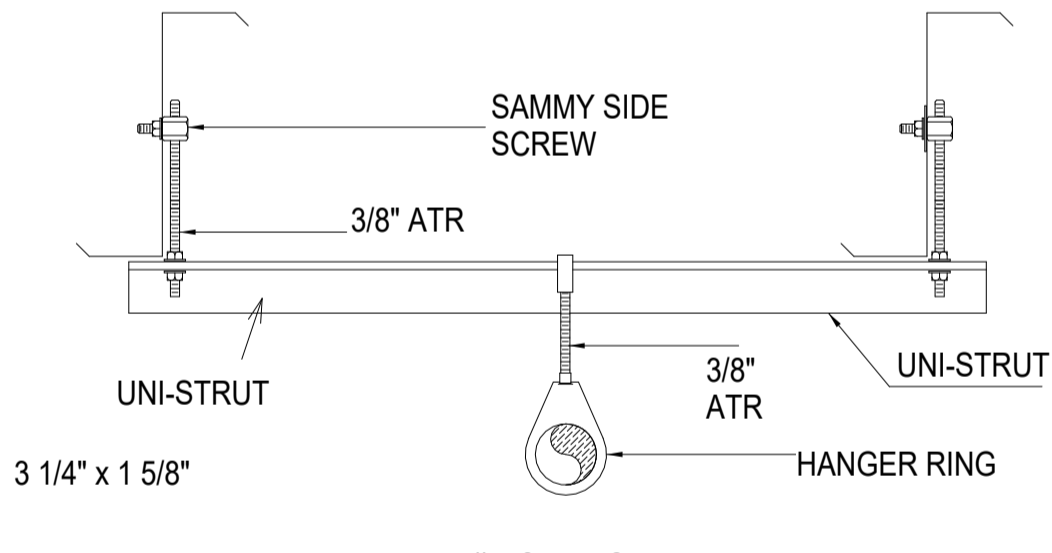


INSPECTOR'S TEST  
NTS



#6 HANGER DETAIL

NTS

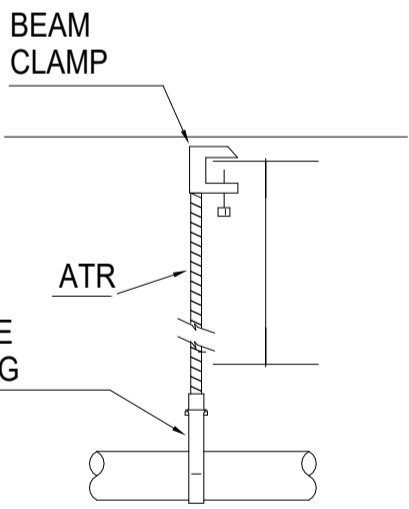
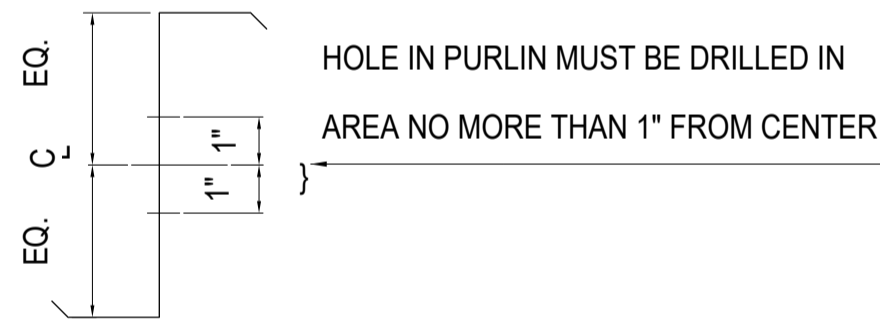


#12S HANGER DETAIL

NTS

Z-PURLIN HANGER DETAILS

NTS

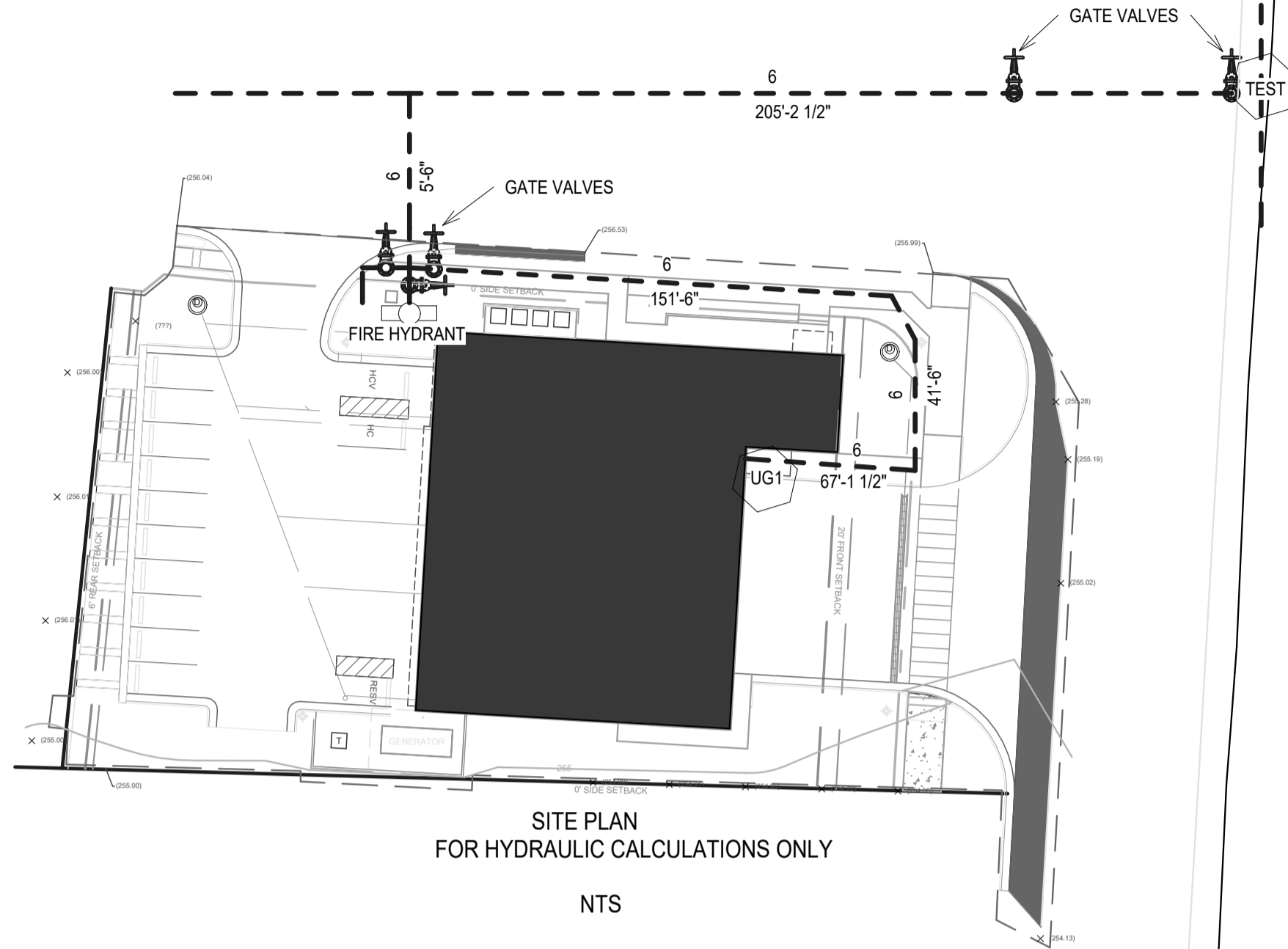


#9 HANGER DETAIL

NTS

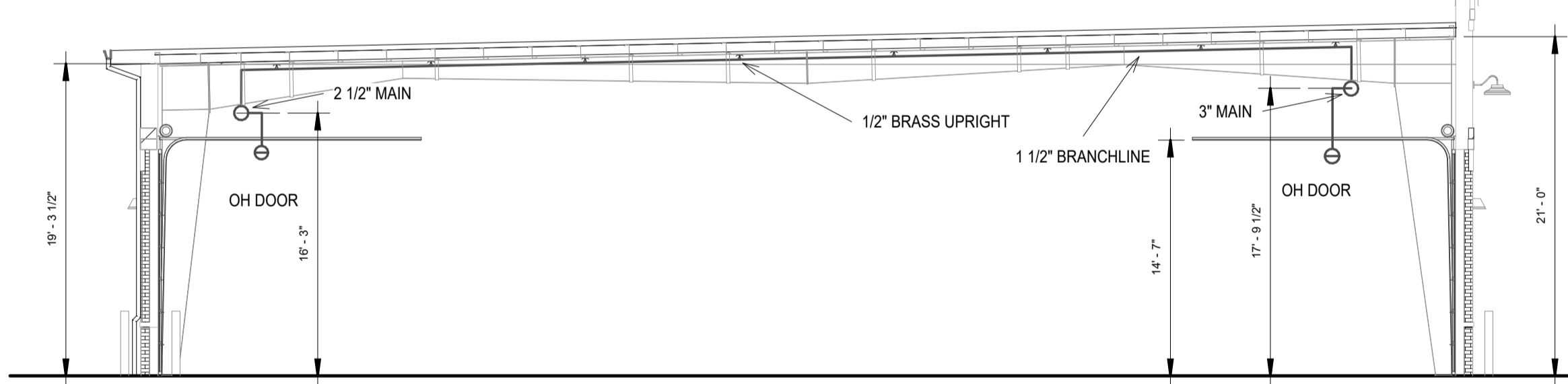
GENERAL NOTES

- PIPE TO BE INSTALLED AND SUPPORTED IN ACCORDANCE WITH NFPA 13
- ALL PIPE 1 1/2" AND LARGER TO BE BLACK SCH. 10 PIPE ROLLED GROOVED WITH GROOVED FITTINGS U.N.O.
- 1" PIPE TO BE BLACK SCH. 40 WITH DUCTILE IRON FITTINGS
- INSTALL (1) NEW WET PIPE TYPE SPRINKLER SYSTEM THROUGHOUT BUILDING
- SYSTEM DESIGNED TO PROVIDE A DENSITY OF .20 GPM PER SQUARE FOOT OVER THE MOST REMOTE 1,565 SQ. FT. AREA +250 GPM FOR HOSE STREAM DEMANDS IN TRUCK APPARATUS BAYS
- SYSTEM DESIGNED TO PROVIDE A DENSITY OF .10 GPM PER SQUARE FOOT OVER THE MOST REMOTE 1,152 SQ. FT. AREA +100 GPM FOR HOSE STREAM DEMANDS IN OFFICE
- BUILDING TO BE HEATED AND MAINTAINED A MINIMUM OF 40 DEGREES FAHRENHEIT BY OWNER
- ALL FIRE PROTECTION PIPING PENETRATIONS THRU RATED WALLS SHALL BE FIRE PROOFED



SITE PLAN  
FOR HYDRAULIC CALCULATIONS ONLY

NTS



2 BUILDING SECTION  
SCALE: 1/8" = 1'-0"

IMPORTANT

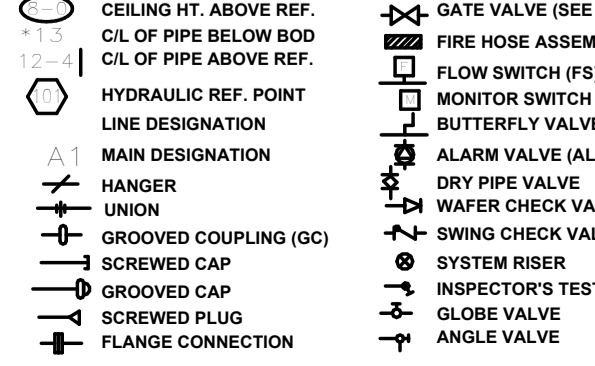
In locations that are subject to freezing conditions, it is the owner's responsibility to provide heat throughout areas protected by wet pipe sprinkler systems and in enclosures for dry pipe, deluge or other types of valves controlling water supplies to sprinkler systems.

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CONTRACT RESPONSIBILITIES

ITEM	C.F.P. / OTHERS
STREET WATER CONNECTION	N/A
UNDERGROUND WATER MAINS	N/A
EXCAVATIONS	N/A
BACKFILL	N/A
WIRING	N/A
PAINTING	N/A

SYMBOLS

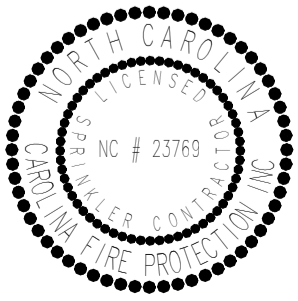


ABBREVIATIONS

BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DECK
BOP	BOTTOM OF PIPE
DO	DITTO
N & C	NIPPLE AND CAP
NIC	NOTE IN CONTRACT
NTS	NOT TO SCALE
OBJ	OPEN BAR JOIST
PRV	PRESSURE RED. VALVE
RM	ROOT MANIFOLD
SP	STANDPIPE
TOP	TOP OF BEAM
TOS	TOP OF PIPE
UND	UNLESS NOTED OTHERWISE

SYSTEM TYPE

WET - <input type="checkbox"/>	DELUGE - <input type="checkbox"/>
DRY - <input type="checkbox"/>	PREACTION - <input type="checkbox"/>
APPROVALS	
<input type="checkbox"/> ISO	OUT IN
<input type="checkbox"/> IRI	OUT IN
<input type="checkbox"/> FM	OUT IN
<input type="checkbox"/> Q	OUT IN



SPRINKLER SYMBOL DESCRIPTION									
SYMBOL	SIZE	MODEL	MAKE	SIN	FINISH	STYLE	TEMP	K-FACTOR	TOTAL
	1/2"	QR	VICTAULIC	V2708	WHITE	RECESSED PENDENT	155°	5.6K	50
	1/2"	QR	VICTAULIC	V2704	BRASS	UPRIGHT	155°	5.6K	63
	1/2"	QR	VICTAULIC	V2710	CHROME	HORIZONTAL SIDEWALL	155°	5.6K	6
TOTAL SPRINKLERS SHOWN ON THIS SHEET									0
TOTAL SPRINKLERS REQUIRED ON THIS CONTRACT									119

**CAROLINA FIRE PROTECTION**

4055 HODGES CHAPEL ROAD  
DUNN, N.C. 28334  
PHONE (910) 892-1700  
FAX (910) 892-7322

CONTRACT NAME: LILLINGTON FIRE DEPT. 2873 NC 210 NORTH LILLINGTON, NC		CHECKED BY: M.FORD
CONTRACT WITH: BOBBITT		DATE: 04/08/2025
DESCRIPTION: INFO		SCALE: AS SHOWN
SYSTEM DESIGN DATA		CONTRACT NO. 25C999
HAZARD CLASSIFICATION	SYSTEM AREA: SQ. FT.	DRAWN BY: A.LEE
HYDRAULIC DESIGN DATA DENSITY: GPM/SQ. FT.	COVERAGE: SQ. FT./HEAD	DRAWING NO.
AREA OF APPLICATION: SQ. FT.	HOSE ALLOWANCES: GPM	FP 1 OF 3
TOTAL SYSTEM REQUIREMENTS: SQ. FT. PSI AT		
WATER SUPPLY STATIC PRESSURE PSI	RESIDUAL PRESSURE PSI W/	GPM FLOWING
TEST TAKEN AT:	BY:	DATE: