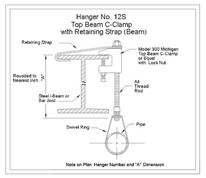
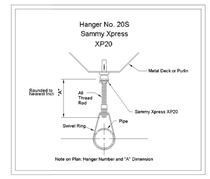
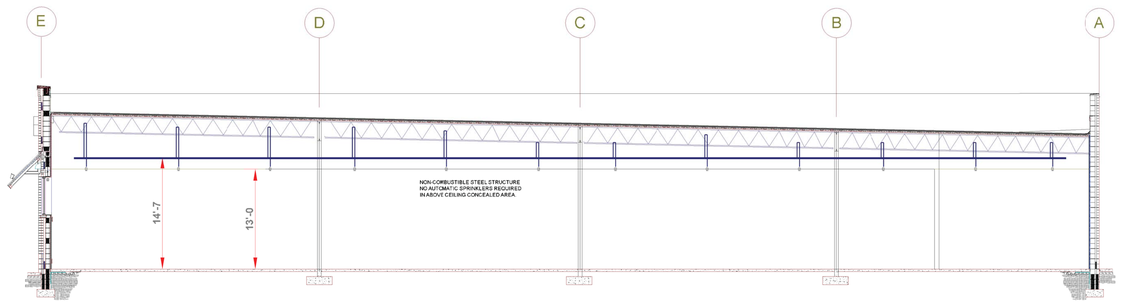
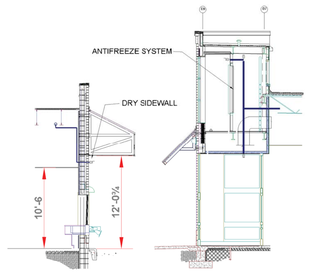




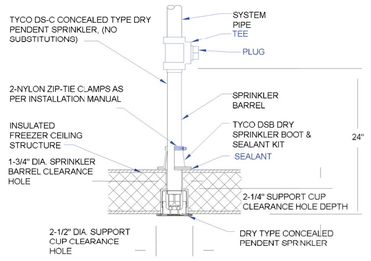


TYPICAL BUILDING SECTION VIEW at AA

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



COOLER/FREEZER DRY PENDENT SPRINKLER



ARCHITECTS GENERAL NOTES

1.THIS DRAWING DEFINES WALGREENS REQUIREMENTS FOR THE BUILDING FIRE SUPPRESSION SYSTEM. THIS DRAWING SHALL FORM THE BASIS FOR THE SPRINKLER CONTRACTOR'S SHOP DRAWING AND OTHER DOCUMENTS.

2.REFER TO AND COMPLY WITH SECTIONS 01010 - SUMMARY OF WORK, 02160 - SITE WORK/EXCAVATION, 02600 - SITE MECHANICAL UTILITIES, 15050 - BASIC MECHANICAL MATERIALS AND METHODS AND 15300 - FIRE SUPPRESSION SECTIONS OF THE SPECIFICATIONS.

3.DEVIATIONS FROM WALGREENS FIRE SUPPRESSION CRITERIA REQUIRED TO COMPLY WITH GOVERNING CODES AND/OR REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION, SHALL BE SUBMITTED, IN WRITING, TO THE WALGREENS PROJECT ARCHITECT.

4.CONTACT THE WALGREENS PROJECT ARCHITECT FOR PROJECTS REQUIRING A SPECIAL OR NON-PROTOTYPICAL DESIGN SUCH AS BASEMENT OR MEZZANINE STOCK ROOMS.

5.PROTOTYPE STOCK ROOM SHALL ACCOMMODATE MERCHANDISE STORED TO 15 FEET ABOVE FINISH FLOOR AND SHALL BE PROTECTED AS A HIGH-PILED STORAGE REMOTE AREA.

6.IF HIGH-PILED STORAGE PERMIT OR LICENSE IS REQUIRED BY AUTHORITY HAVING JURISDICTION, A COMPLETED APPLICATION MUST BE INCLUDED IN THE FIRE SUPPRESSION SUBMITTALS TO WALGREENS.

7. REFER TO DRAWING D-1 FOR WALGREEN FIXTURE LAYOUT.

8. COORDINATE DESIGN, CIVIL AND SURVEY DRAWINGS FOR HYDRANT AND WATER TAP LOCATIONS, SERVICE PIPING, AND ITEMS SUCH AS ON-SITE PITS AND VALVES.

9.REFER TO ELECTRICAL DRAWINGS FOR FIRE ALARM SYSTEM INFORMATION AND OTHER PROJECT SITE COMPONENTS OF THE FIRE SUPPRESSION SYSTEM.

10.THE FIRE SUPPRESSION SYSTEM SHALL PROVIDE THE SPECIFIED WATER FLOW DENSITIES FOR THE HAZARDS DEFINED USING THE AVAILABLE WATER SUPPLY.

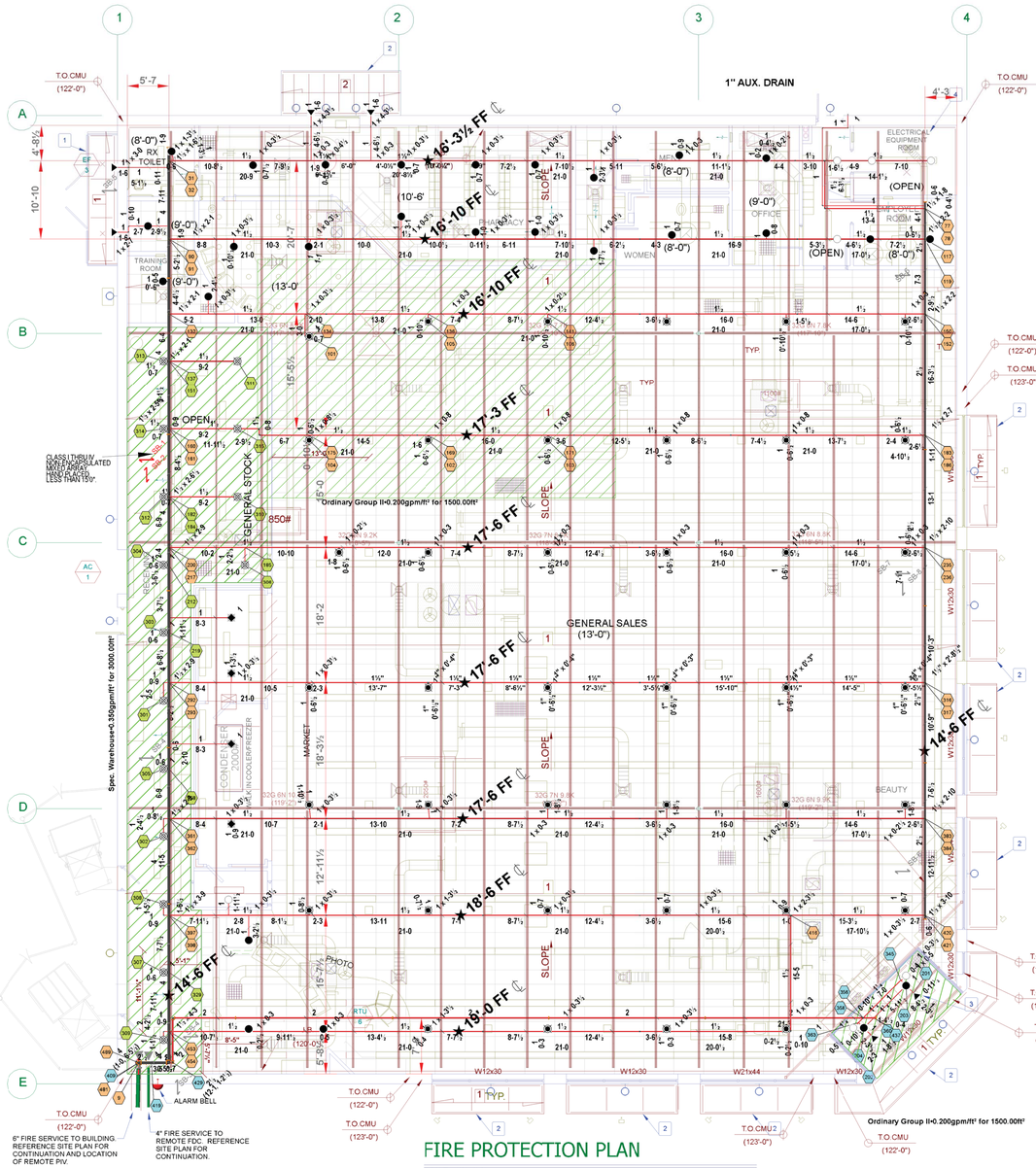
11.PROVIDE AN APPROVED FIRE PUMP. A SMALL PRESSURE MAINTENANCE PUMP, CONTROLLER, WATER STORAGE AND OTHER SIMILAR COMPONENTS AS NECESSARY WHEN THE WATER PRESSURE, FLOW AND/OR DURATION ARE NOT ADEQUATE. TYPICALLY THIS IS NECESSARY WHEN THERE IS LESS THAN 30 PSIG RESIDUAL AT 1000 GPM FLOW.

12.HYDRAULIC CALCULATIONS FOR THE VARIOUS SPRINKLER SYSTEMS SHALL INCLUDE A 250 GPM OR GREATER ALLOWANCE FOR HOSE DEMANDS, AS REQUIRED BY NFPA, CODES, ORDINANCES AND/OR THE AHJ. FOR STORAGE ABOVE 12 FEET, INCLUDE A 500 GPM MINIMUM ALLOWANCE FOR HOSE DEMANDS.

13.SPRINKLERS FOR BUILDING ELEMENTS SUBJECT TO FREEZING SHALL BE SERVED BY A DRY SYSTEM OR THE SPECIFIED ANTI-FREEZE SYSTEM.

14.ANTI-FREEZE SYSTEMS IN WALGREENS FACILITIES SHALL USE 40% USP FOOD GRADE GLYCERINE. THE SYSTEM INSTALLATION SHALL INCLUDE A BACKFLOW DEVICE AND AN EXPANSION CHAMBER LOCATED AT THE SPRINKLER RISER. THE ANTI-FREEZE SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13.

15.THE FIRE SUPPRESSION DESIGN DRAWING(S), THE PIPING SHOP DRAWING(S) AND THE HYDRAULIC CALCULATIONS, SPECIFIC TO THE PROJECT, MUST BE REVIEWED AND RELEASED BY THE WALGREENS FACILITIES DEPARTMENT PRIOR TO SUBMITTING A FIRE PROTECTION PERMIT APPLICATION TO THE AUTHORITY HAVING JURISDICTION. (AHJ).



FIRE PROTECTION PLAN

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

AUTHORITY HAVING JURISDICTION (AHJ)

NAME: EMMETT FIRE DEPARTMENT

TELEPHONE: (208) 941-7367

CONTACT PERSON: SHANNON CRAYS (FIRE CHIEF)

SYSTEM DESIGNED PER: NFPA #13 (2007 ED.)

OCCUPANCY CLASSIFICATION	Ordinary Group II
DENSITY	0.200gpm/ft² for 1500.00ft² (Actual 1536.00ft²)
TOTAL HOSE STREAMS	250.00
DRY CAPACITY	0.18gal
TOTAL HEADS FLOWING	6
K-FACTOR	14
TOTAL WATER REQUIRED	563.79
TOTAL PRESSURE REQUIRED	51.327
BASE of RISER - GPM	563.79
BASE of RISER - PSI	51.327
SAFETY MARGIN - PSI	+2.923 (5.4%)

OCCUPANCY CLASSIFICATION	Spec. Warehouse
DENSITY	0.350gpm/ft² for 3000.00ft² (Actual 1237.21ft²)
TOTAL HOSE STREAMS	500.00
DRY CAPACITY	0.18gal
TOTAL HEADS FLOWING	15
K-FACTOR	11.2
TOTAL WATER REQUIRED	1026.14
TOTAL PRESSURE REQUIRED	36.320
BASE of RISER - GPM	1026.14
BASE of RISER - PSI	36.320
SAFETY MARGIN - PSI	+16.408 (31.1%)

OCCUPANCY CLASSIFICATION	Ordinary Group II
DENSITY	0.200gpm/ft² for 1500.00ft² (Actual 136.00ft²)
TOTAL HOSE STREAMS	250.00
DRY CAPACITY	0.18gal
TOTAL HEADS FLOWING	4
K-FACTOR	5.43
TOTAL WATER REQUIRED	315.86
TOTAL PRESSURE REQUIRED	41.615
BASE of RISER - GPM	315.86
BASE of RISER - PSI	41.615
SAFETY MARGIN - PSI	+13.213 (24.1%)

KEYED NOTES

1.THE INSTALLATION OF THE SPRINKLER PIPING ABOVE THE CEILING SHALL NOT RESTRICT THE INSTALLING OR REMOVAL OF LIGHT FIXTURES, SPEAKERS, AND SIMILAR ITEMS.

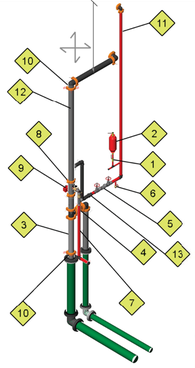
2.WALGREENS DOES NOT REQUIRE SPRINKLERS TO BE LOCATED IN THE EXACT CENTER OF ACOUSTIC TILES OR AT THE QUARTER POINTS AS SHOWN. p=0.1563.0.1563.

3.SPRINKLERS INSTALLED LESS THAN 7 FEET ABOVE FINISHED FLOOR SHALL BE PROTECTED BY GUARDS.

4.WALGREENS SHALL LOCATE THE FIELD-DRILLED HOLES FOR DRY PENDENT SPRINKLERS WITHIN COOLER/FREEZER ROOF PANELS. PROVIDE SWING JOINTS AT DROPS ABOVE COOLER CONSTRUCTION TO ALLOW ALIGNMENT WITH DRY PENDENT SPRINKLER LOCATIONS.

5.SPRINKLERS SHALL BE INSTALLED WITH MANUFACTURER'S WRENCH AND/OR THE MANUFACTURER REQUIRED METHOD DESIGNATED FOR THAT PARTICULAR SPRINKLER. ANY SPRINKLER DAMAGED DURING INSTALLATION DUE TO THE USE OF NON-APPROVED METHODS AND TOOLS SHALL BE REPLACED AT NO COST TO WALGREENS.

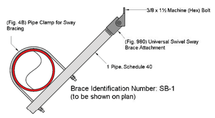
1. PROVIDE SPRINKLER PROTECTION FOR THE TOTE STORAGE.
2. NO SPRINKLER PROTECTION AT NON-COMBUSTIBLE CANOPY UNLESS REQUIRED BY THE AHJ.
3. PROVIDE CONCEALED PENDENT SPRINKLER PROTECTION IN THE ENTRY VESTIBULE. PROVIDE UPRIGHT SPRINKLER PROTECTION OF ACCESSIBLE SIGN TOWER SPACE ABOVE IF REQUIRE BY THE AHJ.
4. FIRE SPRINKLER CONTRACTOR TO KEEP FIRE LINES FROM PASSING THROUGH ELECTRICAL EQUIPMENT ROOM.



Part Number	Tag	Size	Element Type	Description
1		1	Valve	Valve, T-T Ball
2		1	Component	Expansion Chamber 2.7 Gal.
3		4	Valve	Ames Colt BackFlow w/Tamper
4		4	Valve	Valve, G-G Check (FDC)
5		2	Valve	Ames 4000B RP Backflow
6		1	Valve	AF System Drain
7		2	Valve	Wet System Drain
8		2	Riser	Commercial Riser
9		4 x 2	Flow Device	Waterflow Detector
10		4	Coupling	Flexible Coupling
11		2	Riser	AF System Riser - 28.08 Gal.
12		4	Riser	Wet System Riser
13		2-1/2	Riser	AF Feed

RISER DETAIL

SCALE: 1/4"=1'-0"



Sway Brace Tag			
Brace Type	Brace Pipe Size	Fastener Type	Fastener Orientation
Lateral	1"	Machine (Hex) Bolt	NFPA Type "F"
Brace Angle	Attached To	Fastener Size	Maximum Fastener Load
60	Steel	3/8 x 1½	1550lb 0oz
Code: NFPA #13 - 2007	Table: 9.3.5.9.1	Plan ID: SB-2	Manufacturer: Tolco Inc

Sway Brace Zone Legend					
Diameter	Description	Unit Quantity	Quantity	Unit Weight	Wp	Weight
4	Pipe, Schedule 10	(2)21-0	42-0	11lb 12½oz	0.5	247lb 6oz
1½	Pipe, Schedule 40	(9)21-0+1-11½+2-1+2-4½+2-5+2-7½+(3)0-6½+(2)9-1+11-11½+0-8	232-10½	3lb 9¼oz	0.5	420lb 7½oz
1	Pipe, Schedule 40	(9)0-2½+0-4½+0-5+2-10+(8)0-6½+(4)0-7½+(3)0-10½+2-10½+(4)3-11½+(8)3-3½	62-1½	2lb 0¼oz	0.5	63lb 8½oz
					Total Weight (x Wp)	731lb 6½oz
					Total Load (Fp x 1.15)	841lb 1½oz

FIRE HAZARD CLASSIFICATION INFORMATION

1.THE STOCK ROOM IS SEPARATED FROM OTHER AREAS OF THE BUILDING BY A FULL HEIGHT PARTITION.

2.THE BULK OF MERCHANDISE IS RECEIVED DETRASHED IN PLASTIC TOTES WITH THE EXCEPTION OF BULK ITEMS SUCH AS PAPER GOODS, WHICH ARE RECEIVED IN THEIR ORIGINAL CORRUGATED CARDBOARD BOXES. BULK ITEMS COMPRISE NOT GREATER THAN 10% BY WEIGHT OF THE DELIVERY.

3.ITEMS RECEIVED IN TOTES ARE IMMEDIATELY PLACED ON SALES FLOOR WITH EXCESS PRODUCT STORED IN THE STOCK ROOM. PLASTIC TOTES ARE EMPTIED, STACKED (LAS A GENERAL RULE. PLACED IN AN EXTERIOR CORRAL FOR RETURN TO THE DISTRIBUTION CENTER ON THE NEXT STORE DELIVERY DAY. BULK ITEMS THAT CAN NOT BE IMMEDIATELY PLACED ON THE SALES FLOOR ARE ALSO STORED IN THE STOCK ROOM.

4.PRODUCTS STORED ARE CLASS III WITH MINIMAL EXCEPTIONS OF CLASS IV, SUCH AS LEVEL 2 AEROSOLS AND PRODUCTS CONTAINING GROUP A AND GROUP B PLASTICS.

5.THE BULK OF GROUP A PLASTIC STORED IS PACKAGING MATERIALS AND LIMITED PLASTIC PARTS. THE PERCENTAGE BY WEIGHT OF UNEXPANDED PLASTIC IS LESS THAN 15% WITH NO APPRECIABLE VOLUME OF EXPANDED PLASTICS. IN ACCORDANCE WITH IFC SECTION 2303.7.4 AND FIGURE 2303.7.4, THE PRODUCTS STORED MEET A CLASS IV COMMODITY CLASSIFICATION.

6.COMMODITIES STORED IN HIGH-PILED REMOTE AREAS ARE CLASS I THROUGH IV, NON-ENCAPSULATED. SPRINKLER DESIGN IS BASED ON CLASS IV; WORST CASE AS ALL CLASS IV AS DEFINED IN IFC 2303.2 THROUGH 2303.6 IN A MIXED ARRAY.

7.STORAGE CONFIGURATION IS FLOOR SUPPORTED, METAL, SINGLE-ROW OR WALL RACKS WITH METAL SHELVING WITH LARGER THAN 50% OPENINGS ALIGNED WITH AISLES AS DEFINED ON THE WALGREEN FIXTURE PLAN.

8.NO FORKLIFTS ARE UTILIZED. ALL STOCK IS HAND PLACED. THE STOCK ROOM IS SECURED AT ALL TIMES AND IS ACCESSIBLE ONLY TO STAFF AND STAFF SUPERVISED VISITORS.

WATER DENSITIES AND SPRINKLER SPECIFICATIONS

GENERAL SALES:
SPRINKLERS SHALL PROVIDE A DENSITY OF 0.20 GPM PER SF CALCULATED OVER THE MOST HYDRAULICALLY DEMANDING 1,500 SF (OR 5 SPRINKLERS MINIMUM) PER NFPA 13, 2002 EDITION, ORDINARY HAZARD GROUP II (FIGURE 11.2.3.1.5 & SECTION 11.2.3.2.2.4). SPRINKLERS SHALL BE SERIES EC-11 OR EC-14, 155 F/68C EXTENDED COVERAGE ORDINARY HAZARD RECESSED PENDENT, STYLE 40, IN WHITE POLYESTER FINISH PER TYCO FIRE & BUILDING PRODUCTS DATA SHEET TFP 223. DESIRED SPRINKLER SPACING IS 16 FEET ON CENTER, NOT TO EXCEED A MAXIMUM OF 20 FEET. COORDINATE LAYOUT ON THE ARCHITECTURAL REFLECTED CEILING PLAN. A1.2.

PHARMACY & PATIENT SEATING:
SPRINKLERS SHALL PROVIDE A DENSITY OF 0.20 GPM PER SF PER NFPA 13, 2002 EDITION, ORDINARY HAZARD GROUP II (FIGURE 11.2.3.1.5). SPRINKLERS SHALL BE SERIES RFII, CONCEALED, STANDARD COVERAGE (130 SF MAXIMUM SPACING), QUICK RESPONSE, 155F/68C SPRINKLER WITH 135F/57C COVER PLATE. COVER PLATE SHALL BE WHITE FINISH, PER TYCO FIRE & BUILDING PRODUCTS DATA SHEET TFP 181.

SERVICE AREAS & PHOTO:
SPRINKLERS SHALL PROVIDE A MINIMUM DENSITY OF 0.10 GPM PER SF PER NFPA 13, 2002 EDITION, LIGHT HAZARD (FIGURE 11.2.3.1.5). SPRINKLERS SHALL BE SERIES RFI, CONCEALED, STANDARD COVERAGE (225 SF MAXIMUM SPACING), QUICK RESPONSE, 155F/68C SPRINKLER WITH 135F/57C COVER PLATE. COVER PLATE SHALL BE WHITE FINISH, PER TYCO FIRE & BUILDING PRODUCTS DATA SHEET TFP 181.

GENERAL STOCK AREAS:
GENERALLY SPRINKLERS SHALL BE UPRIGHT SERIES ELO-231B, STANDARD RESPONSE, 286F/141C BRASS FINISH SPRINKLER PER TYCO FIRE & BUILDING PRODUCTS DATA SHEET TFP 342. CEILING SPRINKLER DEFLECTORS SHALL BE LOCATED 1" TO 12" BELOW BOTTOM OF ROOF DECK PER NFPA 13(8.6.4.1.1.1). PROVIDE MINIMUM CLEARANCE OF 18" FROM DEFLECTOR TO TOP OF STORAGE PILE PER NFPA 13(8.6.6.1.). LOCATE SPRINKLERS OVER AISLES.

1.GENERAL STOCK AREAS WITH STORAGE UP TO 15 FEET ABOVE FLOOR (PROTO TYPICAL DESIGN): PROVIDE SPRINKLER PROTECTION WITH A WATER FLOW DENSITY OF 0.35 GPM PER SF CALCULATED OVER THE ENTIRE STOCK AREA, NOT TO EXCEED 2000SF. THIS DENSITY IS BASED ON NFPA 13, 2002 EDITION, FIGURE 12.3.2.1.2 AND FIGURE 12.3.2.1.2(d) CURVE "Q" (0.58 GPM/SF OVER 2,000 SF. DENSITY IS REDUCED PER NFPA 13 FIGURE 12.3.2.1.5.1 TO 0.58 GPM/SF x 60% = 0.348 GPM/SF, ROUNDED UP TO 0.35 GPM/SF.). IN-RACK SPRINKLERS ARE NOT USED IN THIS DESIGN.

2. GENERAL STOCK AREAS WITH STORAGE 12 FEET OR LESS ABOVE FLOOR (WALGREENS APPROVAL REQUIRED): PROVICE SPRINKLER PROTECTION WITH A WATER FLOW DENSITY OF 0.20 GPM PER SF CALCULATED OVER THE ENTIRE STOCK AREA, NOT TO EXCEED 2000 SF.

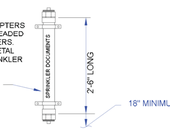
3. GENERAL STOCK AREAS WITH STORAGE POSSIBLE GREATER THAN 15 FEET ABOVE FLOOR : CONTACT THE WALGREENS PROJECT ARCHITECT FOR DIRECTION ON THE SPECIFIC PROJECT.

TOWER ELEMENT OVER MAIN ENTRANCE:
PROVIDE AUTOMATIC SPRINKLER PROTECTION IF REQUIRED BY THE AHJ. THE DESIGN SHALL PREVENT SPRINKLER WATER FROM FREEZING. PROVIDE HEAT, A DRY-PIPE SYSTEM OR THE ANTI-FREEZE SYSTEM, AS SPECIFIED.

DRIVE-THRU PHARMACY CANOPY SOFFIT:
WALGREENS DOES NOT REQUIRE SPRINKLER PROTECTION WHERE THE CANOPY OR ROOF IS OF NON-COMBUSTIBLE CONSTRUCTION OR LIMITED COMBUSTIBLE CONSTRUCTION.
PROVIDE AUTOMATIC SPRINKLER PROTECTION IF REQUIRED BY NFPA (8.14.7.2). CODES, ORDINANCES AND/OR THE AHJ. SIDEWALL SPRINKLERS, IF INSTALLED, SHALL HAVE COVERAGE RATED FOR FULL WIDTH OF CANOPY.

OTHER EXTERIOR BUILDING ELEMENTS:
COMBUSTIBLE CONSTRUCTION SHALL BE SPRINKLED.

3" PVC PIPE W/2 FEMALE ADAPTERS GLUED TO EACH END & THREADED PLUGS TURNED INTO ADAPTERS. SECURE PIPE TO WALL W/ METAL STRAPS. LABEL TUBE; "SPRINKLER DOCUMENTS"



INSTALLATION NOTES

DOCUMENT HOLDER DETAIL

NORTH

Graphic Scale 1/8"=1'-0"

Standard Symbols

- P.I.V. - Post Indicator Valve
- N.R.S. - Key Operated Valve
- H/D - Public Hydrant
- FDC - Fire Dept. Connection
- O.S.&Y. Gate Valve
- Check Valve
- New Underground
- Existing Undergrounc

Standard Symbols

- Alarm Check Valve
- Thrust Block
- Backflow Preventer

Standard Sprinkler Symbols

- Upright on ½" Outlet
- Pendent on ½" Outlet
- Upright on 1" Sprig
- Pendent below ceiling on 1" Drop
- Upright above Pendent on 1" Drop
- Sidewall on ½" Outlet
- Sidewall on 1" Sprig

GENERAL SYSTEM NOTES

PIPE SCH. FOR MAINS: SCH 10 FOR/DOMESTIC GRVD WITH POL'S

PIPE SCH. FOR LINES: 2" AND SMALLER SCH 40 FOR/DOMESTIC THREAD

TYPE OF FITTINGS: GRVD AND SCREWED FOR/DOMESTIC

TOTAL DRY SYSTEM CAPACITY: N/A

TOTAL ANTIFREEZE SYSTEM CAPACITY: na

TOTAL GALLONS OF GLYCOL @ 50/50 MIX: na

Sprinkler Legend

Symbol	Manufacturer	SIN/Model	Quantity	K-Factor	Type	Orifice	Finish	Temperature	Note
	Generic	TY3535	4	5.6	Pendent	½"	White	155°F	TYCO DRY QR SSP CONC
	Generic	TY3131	7	5.6	Upright	½"	Brass	155°F	TYCO TY-FRB
	Generic	TY5151	15	11.2	Upright	17/32"	Brass	286°F	ELO-231B
	Generic	TY3531	27	5.6	Pendent	½"	White	155°F	TYCO RFII CONCEALER
	Generic	TY5522	40	14.0	Pendent	17/32"	White	155°F	EC-14
	Generic	TY3331	2	5.6	Sidewall	½"	White	155°F	TYCO QR HSW 155
	Generic	TY5339	4	5.6	Sidewall	½"	White	200°F	TYCO DRY EC HSW DS-3 200
			Total = 99						

NOTICE

IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE HEAT ADEQUATE TO PREVENT FREEZING THROUGHOUT WET PIPE SPRINKLER SYSTEM AREAS, AND ALSO IN ENCLOSURES FOR DRY PIPE, DELUGE AND OTHER TYPES OF VALVED CONTROLLING WATER SUPPLIES TO SPRINKLER SYSTEMS.

Revisions	Date

NICET Technicians on Staff

AHJ STAMP

WALGREENS - EMMETT

WASHINGTON ST. & HWY 16
EMMETT, ID. 83713