SYSTEM EQUIPMENT LAYOUT - PLAN VIEW

SCALE: 1/4 INCH = 1 FOOT

PYRO-CHEM LEGEND - BILL OF MATERIALS			
ITEM	QTY	PART NO.	DESCRIPTION
1	6	551143	80 Lb. BC. Cyl. (ADT-80-SBC)
2	12	550061	T-3W Three-Way Tee
3	6	551146	Cyl. Bracket - MB ATD-S
4	1	551166	RPS-E2 Remote Pull Station, Electrical
5	36	551509	ADT II Nozzle w\Cap
6	2	13976	Elec. Heat Detector - 225º
7	1	551206	NECH-24 24 VDC Electrical Control Head
8	1	550690	PAC-200 Pneumatic Actuation Cyl.
9	6	550829	Pneumatic Discharge Adaptor PDA-D2
10	1	430525	AUTOPULSE Z-10 Control System, Red, 120/240 VAC
11	1	430687	Coil Supervision Module (Release Circuit)
12	1	417692	Battery Pack, 7 AH, 24 VDC (2-12 VDC Batteries)
13	1	430529	4-PT Auxiliary Relay Module

GENERAL INSTALLATION NOTES

1. THERMAL DETECTOR SHALL BE MOUNTED ON THE UNDERSIDE OF THE CANOPY. ALL ELECTRICAL CONNECTIONS TO BE MADE IN APPROVED WEATHER TIGHT JUNCTION BOXES. ALL CANOPY PENETRATIONS TO BE SEALED WITH UL LISTED LIQUID TIGHT ADAPTERS.
2. THE THERMAL DETECTORS SHALL BE INSTALLED ON (15) FOOT CENTERS ALONG A SINGLE LINE SYMMETRICALLY OVER THE CENTER OF THE PUMP ISLAND THAT IS BEING PROTECTED.
3. THE ATD 80-2 MUST ALWAYS USE TWO (2) NOZZLE CLUSTERS (6 NOZZLES).
4. MAXIMUM VERTICAL RISE OF SYSTEM PIPING ABOVE CYLINDER VALVE OUTLET IS 7'.
5. NUMBER OF ELBOWS MUST BE EQUAL ON BOTH DISCHARGE LINES.
6. THE LENGTH OF THE SHORTEST SIDE OF THE PIPING CANNOT BE LESS THAN 2/3 THE LENGTH OF THE LONGEST SIDE. LONGEST SIDE CANNOT EXCEED 18'.
7. THE PAC 200 PNEUMATIC ACTUATING CYLINDER SHALL BE LOCATED ON TOP OF THE CANOPY DECKING AND CONNECTED TO PDA-D2 PNEUMATIC ACTUATORS INSTALLED ON EACH ADT-80BC CYLINDER WITH 1/4" COPPER TUBING & FLARE FITTINGS.

ACTUATION LINE NOTES

1. PNEUMATIC TUBING USED FOR REMOTE CYLINDER ACTUATION SHALL HAVE AN OUTSIDE DIAMETER OF 1/4 INCH WITH A MINIMUM WALL THICKNESS OF 1/32". THIS IS COMMONLY KNOWN AS REFRIDGERATION-TYPE COPPER TUBING.
2. ALL TUBING FITTINGS SHALL BE OF THE 1/4 INCH, 45 DEGREE FLARE-TYPE CONFORMING TO SAE J513C.
3. COMPRESSION TYPE FITTINGS ARE UNACCEPTABLE.

SYSTEM PIPING NOTES

1. THE ADT-80BC MUST ALWAYS USE TWO (2) NOZZLE CLUSTERS (6 NOZZLES).
2. THE MAXIMUM VERTICAL RISE OF SYSTEM PIPING ABOVE THE OUTLET CYLINDER IS 7 FEET.
3. THE NUMBER OF ELBOWS MUST BE EQUAL ON BOTH DISCHARGE LINES.
4. THE LENGTH OF THE SHORTEST SIDE OF THE PIPING CANNOT EXCEED 2/3 THE LENGTH OF THE LONGEST SIDE. THE LONGEST SIDE OF PIPE CANNOT EXCEED 18 FEET.

ATD-80BC PIPE LIMITATIONS

SECTION	MAXIMUM LENGTH	MAXIMUM ELBOWS	TEES ALLOWED	PIPE DIAMETER
CYLINDER TO NOZZLE CLUSTER (EACH SIDE)	18'	5	0	1"

SITE SPECIFIC SYSTEM COMPONENT TABLE

NUMBER OF SYSTEMS REQ'D	NUMBER OF NOZZLES REQ'D	NUMBER OF CYLS. REQ'D	CYLINDER SIZE & QTY.
1) ATD 80 SYSTEM	36 PER SYSTEM TOTAL: 36	6 PER SYSTEM TOTAL: 6	ATD-35BC= 00 ATD-80BC= 6 TOTAL: 6 ATD-80BC
NUMBER OF HEAT DETECTORS REQ'D	1 @ 225° PER 1 ISLAND	TOTAL HEAT DETECTORS REQ'D	2 @ 225°
INCLUDES MAIN AND END OF ISLAND PROTECTION			

END VIEW - MAIN & END-OF-ISLAND PROTECTION

SCALE: NOT TO SCALE

ADT-80s BC CYLINDER AND BRACKET DETAIL

SCALE: NOT TO SCALE

NOZZLE INSTALLATION DETAIL

SCALE: NOT TO SCALE

PNEUMATIC TUBING DETAIL

SCALE: NOT TO SCALE

PAC 200 CYLINDER DETAIL

SCALE: NOT TO SCALE

END-OF-ISLAND NOZZLE AIM POINTS

SCALE: NOT TO SCALE

MAIN ISLAND NOZZLE AIM POINTS

SCALE: NOT TO SCALE

MAXIMUM NOZZLE HEIGHT:
MAIN ISLAND NOZZLES: 15'-7" FROM CONCRETE PAD TO TIP OF NOZZLE
END OF ISLAND NOZZLES: 15' FROM CONCRETE PAD TO TIP OF NOZZLE
○ = RELATIVE NOZZLE LOCATION
+ = NOZZLE AIM POINT
DRY CHEMICAL CYLINDERS TO BE MOUNTED ON TOP OF CANOPY DECK TO STRUCTURAL MEMBERS (CYLINDERS ARE NOT TO BE SUPPORTED BY CANOPY DECKING).

NOTES:
1. THIS INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS. ALL EQUIPMENT AND DEVICES USED SHALL BE LISTED IN THE UL FIRE EQUIPMENT DIRECTORY.
2. DESIGN AND INSTALLATION OF THE DRY CHEMICAL GAS ISLAND FIRE SUPPRESSION SYSTEM WILL BE IN STRICT ACCORDANCE WITH THE FOLLOWING GUIDELINES AND REGULATORY AGENCIES:
   2.1. NFPA 17 STANDARD FOR DRY CHEMICAL FIRE EXTINGUISHING SYSTEMS, 2013 EDITION
   2.2. NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE, 2013 EDITION
   2.3. NFPA 70 NATIONAL ELECTRIC CODES, 2011 EDITION
   2.4. AMERICANS WITH DISABILITIES ACT, TITLE 24, LATEST EDITION
   2.5. THE LOCAL AUTHORITY HAVING JURISDICTION

System Information:
PYRO-CHEM ATTENDANT II UL 1254
DRY CHEMICAL FIRE SUPPRESSION
SYSTEM PROTECTING A SELF-SERVICE
GASOLINE FUELING FACILITY

Owner/Site:
7-ELEVEN INC.
7-ELEVEN #32541
1917 FOREST AVENUE
PORTLAND, ME 04101

Interstate FIRE PROTECTION
P.O. BOX 1005
NORTH CONWAY, NH 03860
P.O. BOX 187
GARDINER, ME 04345

PYRO-CHEM GAS ISLAND FIRE SUPPRESSION SYSTEM MECHANICAL DETAIL

Proj. no.:	
CAD File:	7-11ForestAvePortME.dwg
Drawn By:	M. STEWARD
Created on:	02/16/2016
Designed by:	M. STEWARD
Checked by:	B. TWOMBLY
Approved by:	B. TWOMBLY
Project Lead:	J. MOONEY
Scale:	AS NOTED

Revisions: II Date: 02/16/2016

SHEET : 02

CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 03/29/16