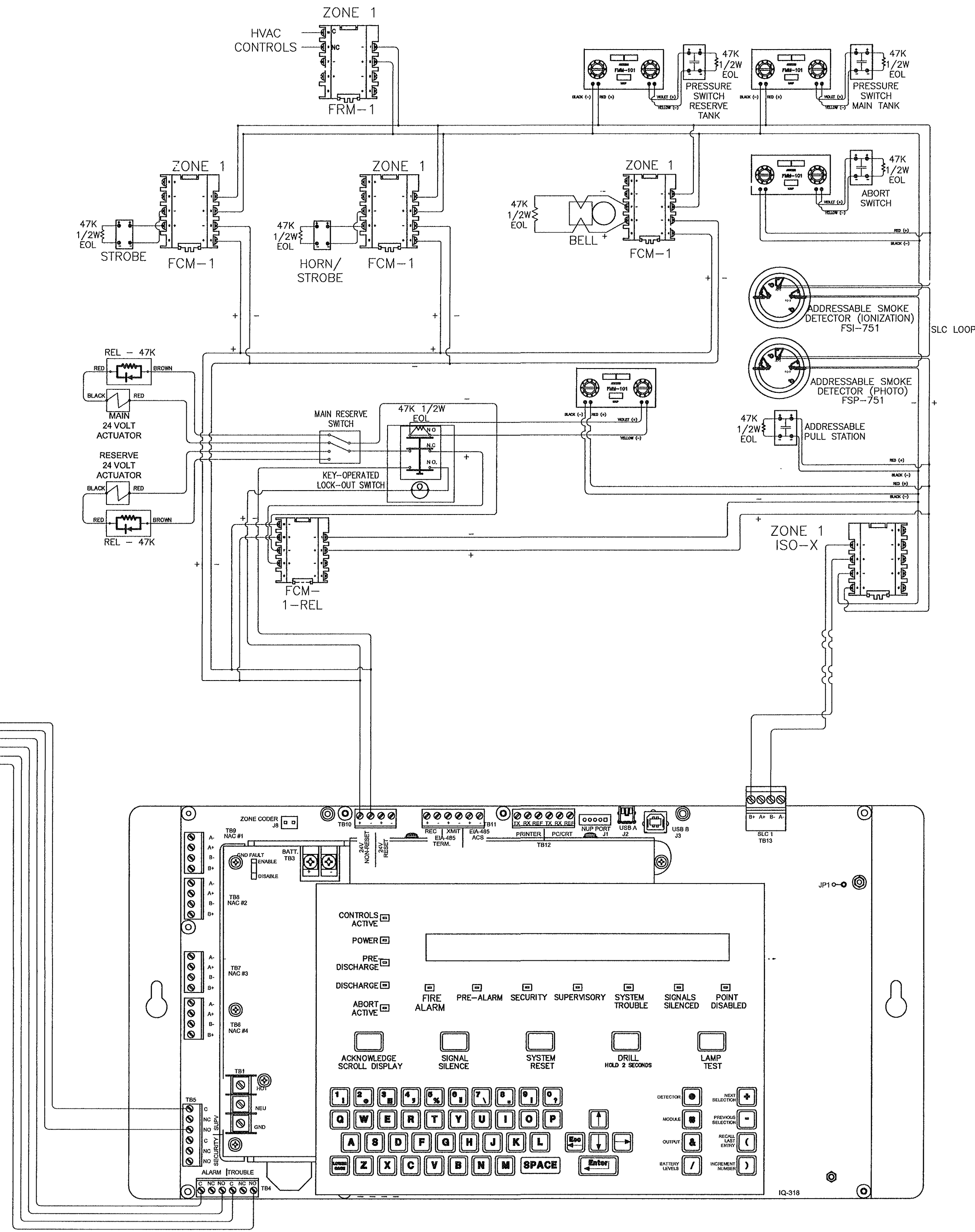


IQ-318 ADDRESSABLE PANEL RISER DIAGRAM

DATA ROOM (Rm. A133)



INSTALLATION NOTES:

THESE SPECIFICATIONS ARE TO APPLY TO ALL INSTALLATIONS OF SAPPHIRE FIRE SUPPRESSION SYSTEMS.

NOTE: PIPE SHALL CONFORM TO ASTM/A106 2001 2-2.

1. ALL THREADED PIPE TO BE BLACK STEEL OF THE FOLLOWING PIPE SIZE AND GRADE COMBINATIONS.

PIPE REFERENCE	PIPE TYPE & NOMINAL SIZE	CONNECTION
ASTM A-106 SEAMLESS, GRADE C	SCH. 80 1/8"-8" NPS	THREADED
ASTM A-106/A-53 SEAMLESS, GRADE B	SCH. 80 1/8"-8" NPS	THREADED
ASTM A-106/A-53 SEAMLESS, GRADE A	SCH. 80 1/8"-8" NPS	THREADED
ASTM A-53 ERW, GRADE B	SCH. 80 1/8"-8" NPS	THREADED
ASTM A-53 ERW, GRADE A	SCH. 80 1/8"-8" NPS	THREADED
ASTM A-53 FURNACE WELD CLASS F	SCH. 80 1/8"-1 1/2" NPS	THREADED
ASTM A-53 FURNACE WELD CLASS F	SCH. 80 2" - 8" NPS	THREADED
ASTM A-106 SEAMLESS, GRADE C	SCH. 80 1/8"-8" NPS	WELDED
ASTM A-106/A-53 SEAMLESS, GRADE B	SCH. 80 1/8"-8" NPS	WELDED
ASTM A-106/A-53 SEAMLESS, GRADE A	SCH. 80 1/8"-8" NPS	WELDED
ASTM A-53 ERW, GRADE B	SCH. 80 1/8"-8" NPS	WELDED
ASTM A-53 ERW, GRADE A	SCH. 80 1/8"-8" NPS	WELDED
ASTM A-53 FURNACE WELD CLASS F	SCH. 80 1/8"-6" NPS	WELDED

2. PIPE GRADES MUST BE SUITABLE FOR THE PRESSURES CALCULATED BY ANSUL'S FLOW CALCULATION PROGRAM. CONSULT THE CHART IN THE SAPPHIRE DESIGN MANUAL OR NFPA 2001 FOR MAXIMUM PIPE PRESSURES FOR THE DIFFERENT PIPE GRADES.

3. ALL FITTINGS TO BE 300 LB. ANSI B-16.3 BLACK MALLEABLE IRON THREADED FITTINGS THROUGH 3" SIZE. FORGED STEEL FITTINGS TO BE USED FOR LARGER SIZES. FLANGED JOINTS TO BE CLASS-600 LB. (CLASS 300 MALLEABLE IRON UNIONS OR STREET ELBOWS SHALL NOT BE USED.)

FITTING DESCRIPTION	PIPE SIZE
CLASS 300 MALLEABLE OR DUCTILE IRON	UP TO OR < 3 in. NPS
1000-LB. RATED DUCTILE IRON OR FORGED STEEL	> 3 in. NPS
CLASS 300 FLANGED JOINTS	ALL

4. ALL FITTINGS USED TO CONSTRUCT THE MANIFOLD, INCLUDING FITTINGS BEFORE THE ORIFICE UNION TO BE BLACK FORGED STEEL 2000 LB. OR 3000 LB. ANSI B-16.11.

5. ALL PIPE, FITTINGS AND MANIFOLDS TO BE SUPPLIED BY OTHERS.

6. PIPE LENGTHS GIVEN ARE FROM CENTER-TO-CENTER OF FITTINGS.

7. ALL DIMENSIONS ARE TO FIELD CHECKED, ANY DEVIATIONS FROM THE ARRANGEMENT SHOWN WILL REQUIRE COMPLETE REVIEW OF THE FLOW CALCULATIONS BY THE DESIGNER.

8. REAM AND CLEAN EACH PIPE SECTION INTERNALLY AFTER PREPARATION AND BEFORE ASSEMBLY BY MEANS OF SWABBING, UTILIZING A SUITABLE NON-FLAMMABLE CLEANER. THE PIPING NETWORK SHALL BE FREE OF PARTICULATE MATTER AND OIL RESIDUE BEFORE INSTALLATION OF NOZZLES OR DISCHARGE DEVICES.

9. ALL DISTRIBUTION PIPE AND FITTINGS MUST BE ASSEMBLED USING PIPE TAPE. DO NOT ADD TO THE FIRST TWO THREADS NEAREST THE END OF THE PIPE.

10. CYLINDERS AND PIPE TO BE SECURELY BRACKETED-ESPECIALLY AT FITTINGS AND NOZZLES.

11. ALL DEAD END PIPE LINES TO BE PROVIDED WITH A DIRT TRAP.

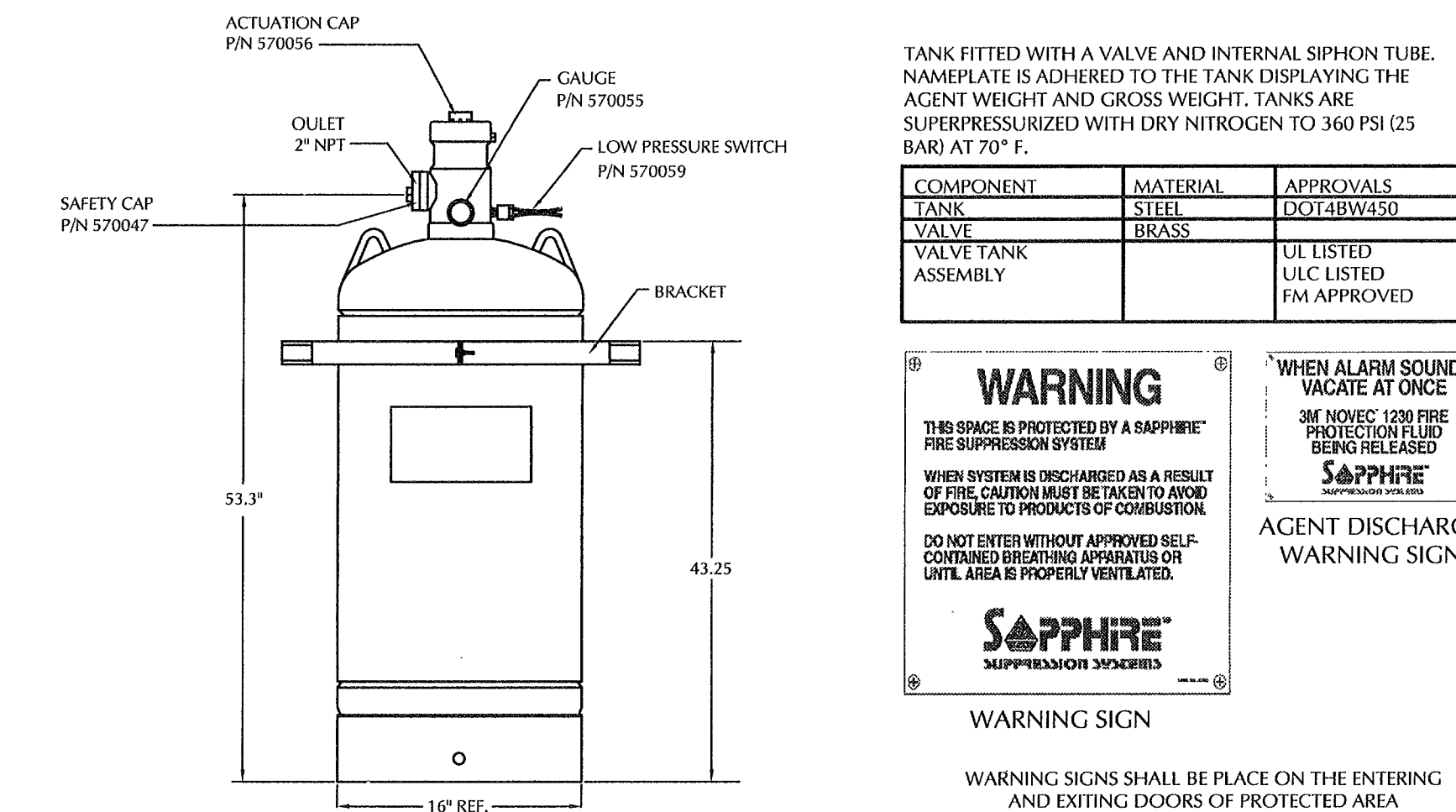
12. SIZE REDUCTION CAN BE ACCOMPLISHED WITH THE USE OF REDUCING BUSHINGS, REDUCING COUPLINGS, REDUCING TEES, OR REDUCING ELBOWS.

LEGEND

SYMB	QNTY	MODEL #	DESCRIPTION	CSFM #
FCACP	1	434957	AUTOPULSE IQ 318 RELEASING PANEL	7165-0595-0117
MR	2	076496	MAIN/RESERVE SWITCH	
AS	2	076494	ABORT SWITCH, SURFACE MOUNT	
PS	2	432280	FSP-851 PHOTO SMOKE SENSOR ON B710LP BASE	7272-0028-0206
SS	2	432287	FSP-851 ION SMOKE SENSOR ON B710LP BASE	7271-0028-0201
MS	2	428658	MANUAL PULL STATION, SPST WITH FMM-101	7150-1408-0107
HS	2	433357	PRE-DISCHARGE HORN WITH STROBE (75 CD)	7125-0785-0155

SYMB	QNTY	MODEL #	DESCRIPTION	CSFM #
SC	2	570640	SAPPHIRE CYLINDER W/ 225 LBS OF AGENT	
EA	4	570537	ELECTRIC ACTUATOR	
PS	4	570585	CYLINDER LOW PRESSURE SWITCH	
K	2	076498	KEYED MAINTENANCE SWITCH, SURFACE MOUNT	
B	2	417805	6" 24 VDC PRE-ALARM BELL	7135-0595-0110
ST	2	433352	DISCHARGE STROBE (15 CD)	7125-0785-0141

SYMB	QNTY	MODEL #	DESCRIPTION	CSFM #
CR	2	436861	RELEASE MODULE	7300-0028-0249
C	6	428110	CONTROL MODULE	7300-0028-0219
M	10	428098	MONITOR MODULE	7300-0028-0219
R	2	428102	RELAY MODULE	7300-0028-0219
I	2	417480	ISOLATOR MODULE	7300-0028-0261
N	2		DISCHARGE NOZZLE	



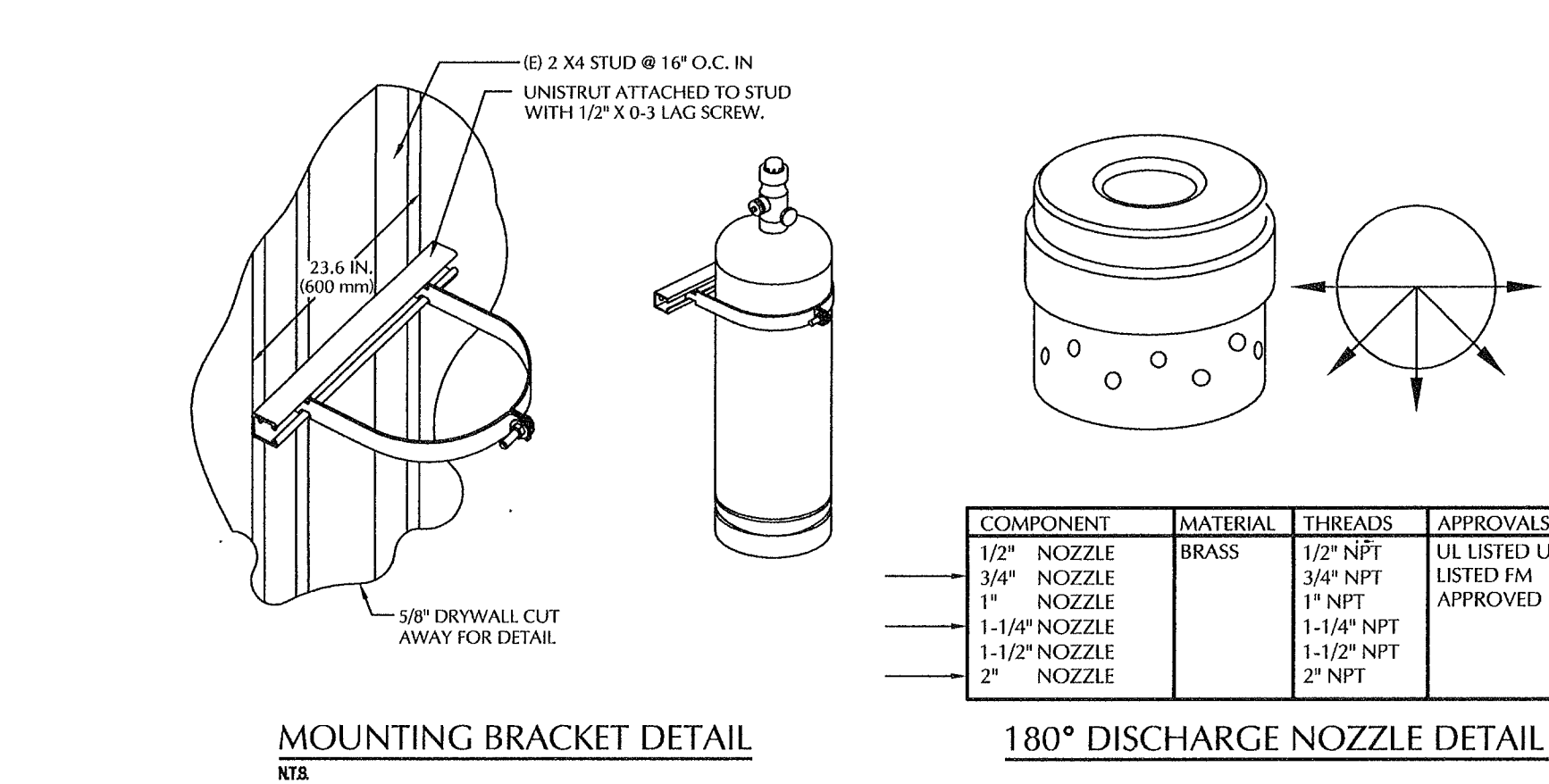
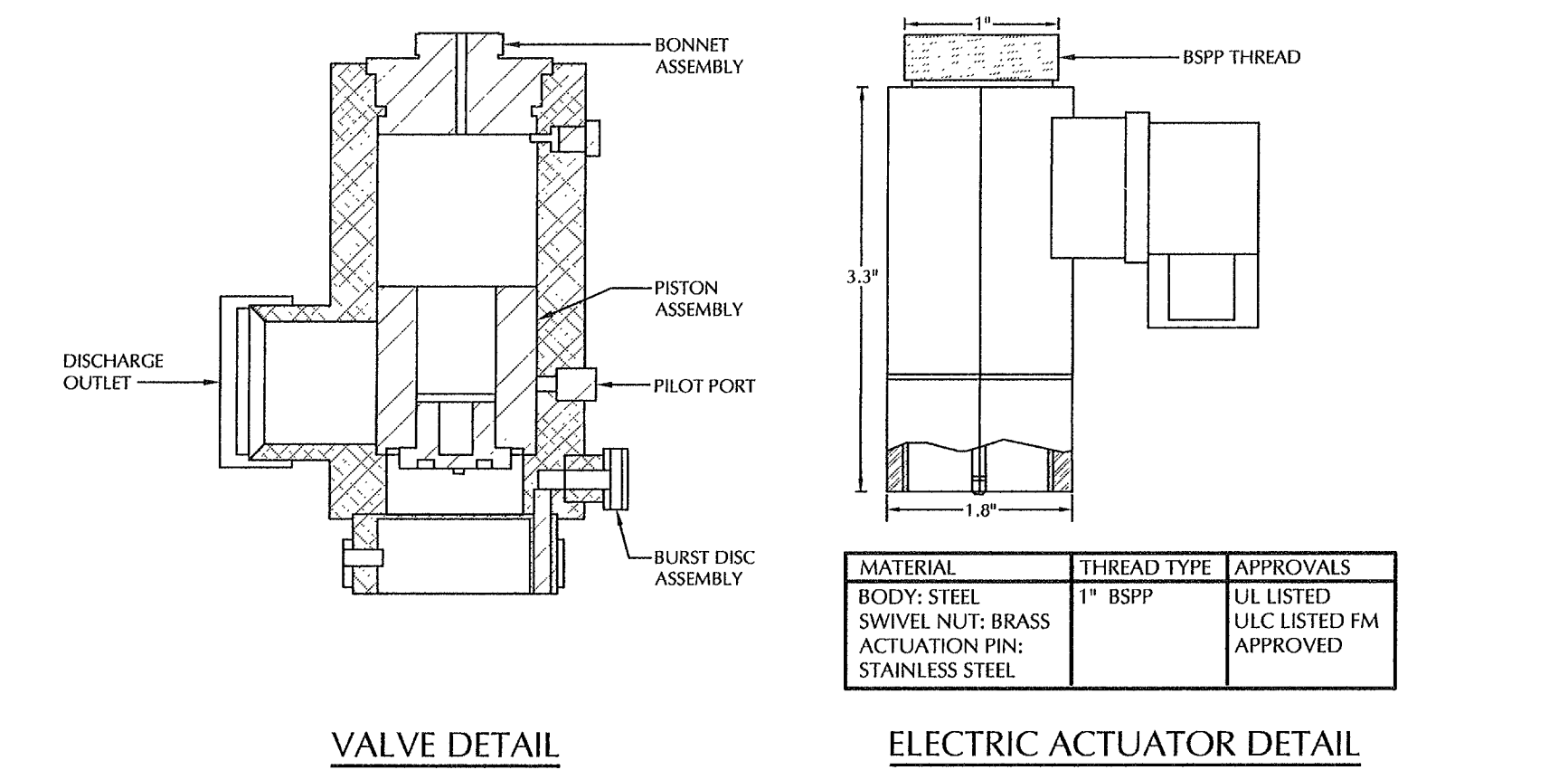
COMPONENT	MATERIAL	APPROVALS
TANK	STEEL	UL LISTED DCT-48V550
VALVE	BRASS	UL LISTED FM APPROVED
VALVE TANK ASSEMBLY		UL LISTED FM APPROVED

WARNING
THIS SYSTEM IS DISCHARGED AS A RESULT OF FIRE. CAUTION MUST BE TAKEN TO AVOID EXPOSURE TO PRODUCTS OF COMBUSTION. DO NOT ENTER WITHOUT APPROVED SELF-CONTAINED BREATHING APPARATUS OR UNTIL AREA IS PROPERLY VENTILATED.

WHEN ALARM SOUNDS VACATE AT ONCE
IF YOU HEAR THE SIREN, STOP WORK IMMEDIATELY AND LEAVE THE AREA IMMEDIATELY.

SAPPHIRE
FIRE SUPPRESSION SYSTEMS

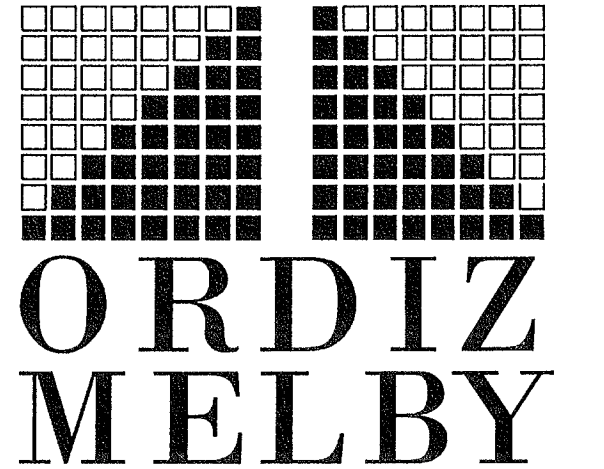
AGENT DISCHARGE WARNING SIGN



TANK DETAILS



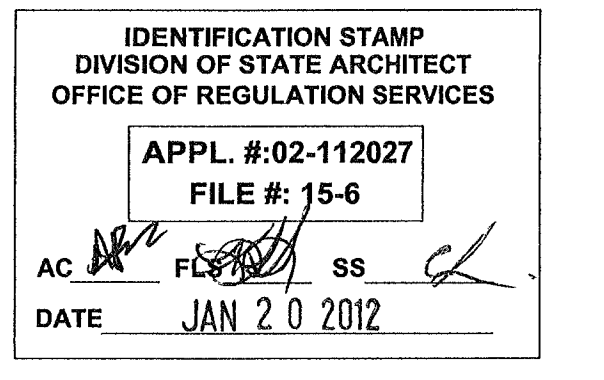
MECHANICAL PIPING DIAGRAM - FIRE SUPPRESSION SYSTEM



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ARCHITECT C-16,836



NEW ELEMENTARY SCHOOL
9801 HIGHLAND KNOLLS DR
BAKERSFIELD CALIFORNIA 93306

NEW MIDDLE SCHOOL
4115 VINELAND ROAD
BAKERSFIELD CALIFORNIA 93306

FOR:
BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER STREET
BAKERSFIELD CALIFORNIA 93305

MARK	DATE	DESCRIPTION
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20010244
CAD DRAWING FILE

DRAWN BY: KW
CHECKED BY: MB

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK.
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MECHANICAL FIRE SUPPRESSION SYSTEM - ROOM A133

SHEET IDENTIFICATION NUMBER

M-512

