

- ### GENERAL NOTES
- THESE DRAWINGS DEPICT GENERAL LOCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. EXACT ROUTING OF CONDUITS TO BE DETERMINED IN THE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDITIONS.
 - ALL FIRE ALARM SYSTEM WIRING SHALL BE CLEAR FROM SHORTS, OPENS AND GROUNDS.
 - SHOULD ANY CONDITIONS EXIST THAT DIFFER FROM WHAT IS INDICATED ON THESE DRAWINGS WHICH CAUSE MAJOR DEVIATIONS IN THE WORK SHOWN, THE CONTRACTOR SHALL CONTACT THE DESIGNER IN A TIMELY MANNER SO AS NOT TO IMPAIR THE CONSTRUCTION SCHEDULE.
 - CONTRACTOR IS RESPONSIBLE FOR MAKING AND OBTAINING APPROVAL FOR ALL NECESSARY ADJUSTMENTS IN CIRCUITING AS REQUIRED TO ACCOMMODATE THE RELOCATION OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY AUTHORIZED CHANGE.
 - THE POWER CIRCUIT TO THE FACP AND TO THE FIRE ALARM POWER SUPPLIES SHALL BE ON A DEDICATED 120V, 20A BRANCH CIRCUIT BREAKER, AND SHALL HAVE A RED MARKING LOCK ON PROVISION AND SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL." THE LOCATION OF THE CIRCUIT DISCONNECT MEANS (CIRCUIT BREAKER) SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
 - ANY SMOKE DETECTOR HEAD INSTALLED BEFORE THE BUILDING IS CLEANED AND ACCEPTED SHALL BE COVERED TO PROTECT FROM DUST.
 - INSTALLATION OF DEVICES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. POWER LIMITED AND NON-POWER LIMITED FIELD WIRING MUST BE INSTALLED WITHIN THE FACP ENCLOSURE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - ALL WIRING SHALL BE INSTALLED ACCORDING TO NFPA 70 (NEC).
 - FIRE ALARM CIRCUITS EXTENDING BEYOND ONE BUILDING AND RUN OUTDOORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70 ARTICLES 760, 770, 725 AND 800 WHERE APPLICABLE.
 - ALL WIRING, INCLUDING SHIELDS MUST BE DRY AND FREE OF SHORTS AND GROUNDS.
 - ALL SHIELDED WIRE MUST HAVE SHIELD CONTINUITY AT FULL LENGTH OF THE WIRE.
 - ONLY FIRE ALARM SYSTEM WIRING CAN BE RUN IN THE SAME CONDUIT.
 - MAINTAIN 40 PERCENT MAXIMUM CONDUIT FILL RATIO AS PER NEC REQUIREMENTS.
 - EXISTING CONDUITS MAY BE USED BY THE INSTALLATION CONTRACTOR AS DEEMED NECESSARY, HOWEVER, ANY EXISTING CONDUIT WILL BE USED ONLY IF CONDUITS MEET CURRENT STANDARDS AND CODES.
 - THE FIRE ALARM SYSTEM SHALL BE MONITORED BY A CENTRAL, UL LISTED MONITORING STATION. THE MEANS OF MONITORING SHALL BE VIA TWO COPPER ANALOG PHONE LINES, AND THE FIRE ALARM PANEL WILL SEIZE THE LINES FOR FIRE USE.
 - ALL CEILINGS ARE ASSUMED TO BE 10' A.F.F., SMOOTH CONSTRUCTION UNLESS NOTED OTHERWISE.

SHEET INDEX

SHEET #	SHEET DESCRIPTION
FA-00	COVER SHEET
FA-01	DESIGN PLAN - BASEMENT
FA-02	WIRING DIAGRAMS

- ### SCOPE OF WORK
- INSTALLATION OF NEW FIRE ALARM DEVICES AS SHOWN ON PLANS.
 - DEDICATED PREACTION RELEASING PANEL THAT WILL BE TIED TO THE BUILDING FIRE ALARM SYSTEM ON THE FIRST FLOOR.
 - THE FIRE ALARM SYSTEM SHALL BE COMPLIANT TO CURRENT CODES.

BUILDING DATA

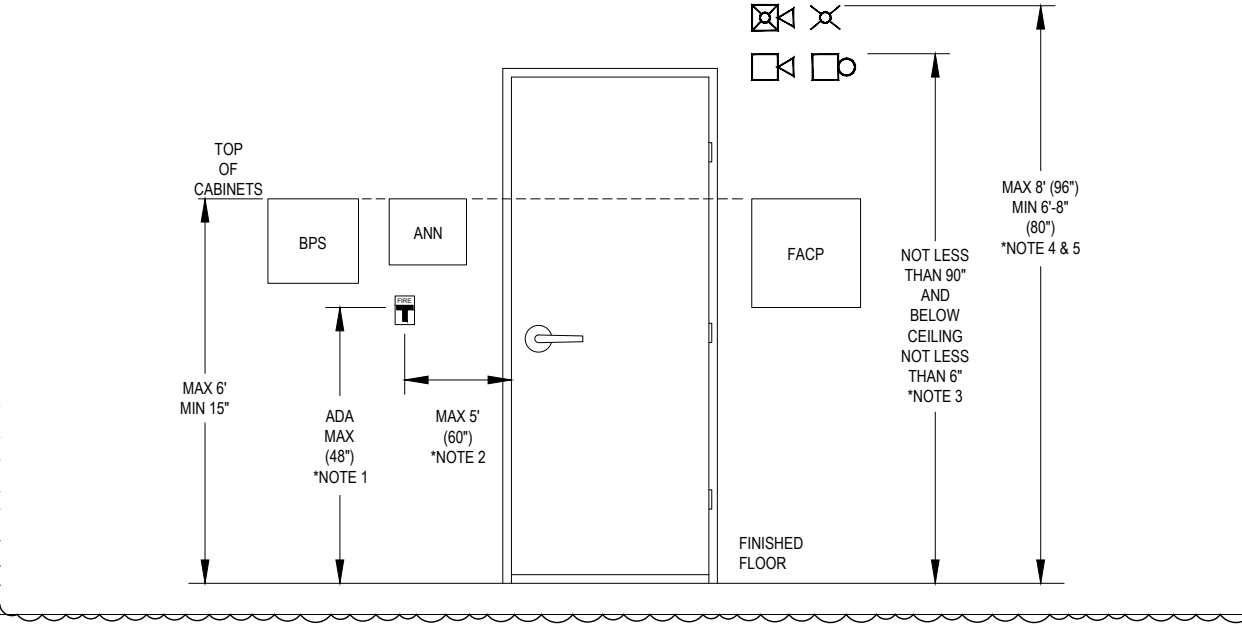
CONSTRUCTION TYPE:	VB	FIRE PROTECTION:	FULLY SPRINKLERED
OCCUPANCY GROUP:	A-2, B, S-1	NUMBER OF STORES:	BASEMENT + 2
OCCUPANT LOAD:	475	WORK AREA:	8,312 (BASEMENT)

- ### APPLICABLE CODES
- INTERNATIONAL BUILDING CODE - 2018 ED.
 - INTERNATIONAL MECHANICAL CODE - 2018 ED.
 - UNIFORM PLUMBING CODE - 2018 ED.
 - INTERNATIONAL FUEL GAS CODE - 2018 ED.
 - INTERNATIONAL ENERGY CONSERVATION CODE - 2018 ED.
 - NATIONAL ELECTRICAL CODE - 2017 ED.
 - INTERNATIONAL FIRE CODE - 2018 ED.
 - ADA STANDARDS FOR ACCESSIBLE DESIGN - 2010 ED.
 - NFPA 72 2019 EDITION

CONTRACTOR INFO

PROJECT NO: _____
 SHEET NO: _____
 DATE: _____

- ### TYPICAL MOUNTING HEIGHTS
- NFPA 72 2019 17.15.6 THE OPERABLE PART OF EACH MANUAL FIRE ALARM BOX SHALL BE NOT LESS THAN 42in AND NOT MORE THAN 48in FROM THE FINISHED FLOOR.
 - NFPA 72 2019 17.15.9.4 MANUAL FIRE ALARM BOXES SHALL BE LOCATED WITHIN 5ft OF EACH EXIT DOORWAY ON EACH FLOOR.
 - NFPA 72 2019 18.4.9.1 IF CEILING HEIGHTS ALLOW, AND UNLESS OTHERWISE PERMITTED BY 18.4.9.2 THROUGH 18.4.9.5, WALL-MOUNTED APPLIANCES SHALL HAVE THEIR TOPS ABOVE THE FINISHED FLOORS AT HEIGHTS OF NOT LESS THAN 50in AND BELOW THE FINISHED CEILINGS AT DISTANCES OF NOT LESS THAN 6in.
 - NFPA 72 2019 18.4.9.3 IF COMBINATION AUDIBLE/VISIBLE APPLIANCES ARE INSTALLED, THE LOCATION OF THE INSTALLED APPLIANCE SHALL BE DETERMINED BY THE REQUIREMENTS OF 18.5.9. (SEE NOTE 5).
 - NFPA 72 2019 18.5.5.1 WALL-MOUNTED APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80in, AND NOT GREATER THAN 96in ABOVE THE FINISHED FLOOR OR AT THE MOUNTING HEIGHT SPECIFIED USING THE PERFORMANCE BASED ALTERNATIVE OF 18.5.5.7.



EQUIPMENT LIST

SYMBOL	QTY	MANUFACTURER	PART NO	DESCRIPTION
[FRS]	1	FIRELITE	MRP-2001	AGENT RELEASE PANEL
[S]	31	SYSTEM SENSOR	ZW-B	2-WIRE CONVENTIONAL SMOKE DETECTOR
[PS]	1	GENERIC	-	AIR PRESSURE SWITCH (BY OTHERS)
[RS]	1	GENERIC	-	RELEASE SWITCH (BY OTHERS)
[VS]	1	GENERIC	-	SHUT OFF VALVE SWITCH (BY OTHERS)
[WF]	1	GENERIC	-	WATERFLOW SWITCH (BY OTHERS)

CABLE AND WIRE LEGEND

LABEL	PART NO	AWG	RESISTANCE (OHM/FT)	DESCRIPTION	TOTAL LENGTH
Z	18/2 FPLP (DC)	18	7.77	IDC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED	515'

PANEL FACP (MRP-2001) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

CIRCUIT	SYMBOL	QTY	PART NO	DESCRIPTION	STANDBY CURRENT (AMPS)		SECONDARY ALARM CURRENT (AMPS)		TOTAL
					CURRENT DRAW (A)	TOTAL (A)	CURRENT DRAW (A)	TOTAL (A)	
FACP-Z1	[S]	31	MRP-2001 Main Board	Agent Release Panel Card	0.005	0.095	0.221	0.221	0.221
FACP-Z2	[PS]	1	2W-B	2-wire Standard I3 Detector	0.0001	0.0031	0.13	0.13	4.03
	[PS]	1	-	AIR PRESSURE SWITCH	0	0	0	0	0
	[RS]	1	-	RELEASE SWITCH	0	0	0	0	0
	[VS]	1	-	VALVE TAMPER SUPERVISORY SWITCH	0	0	0	0	0
	[WF]	1	-	WATERFLOW SWITCH	0	0	0	0	0
TOTAL STANDBY (A)					0.0051	0.1081	0.351	0.351	4.251
SECONDARY STANDBY LOAD (A)					0.0081	0.14	0.08333	0.08333	2.3544
SECONDARY ALARM LOAD (A)					4.251	0.08333	2.70865	0.35425	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)							2.70865	1.2	
DERATING FACTOR							1.2		
SECONDARY LOAD REQUIREMENTS (AMP HOURS)							3.25038		

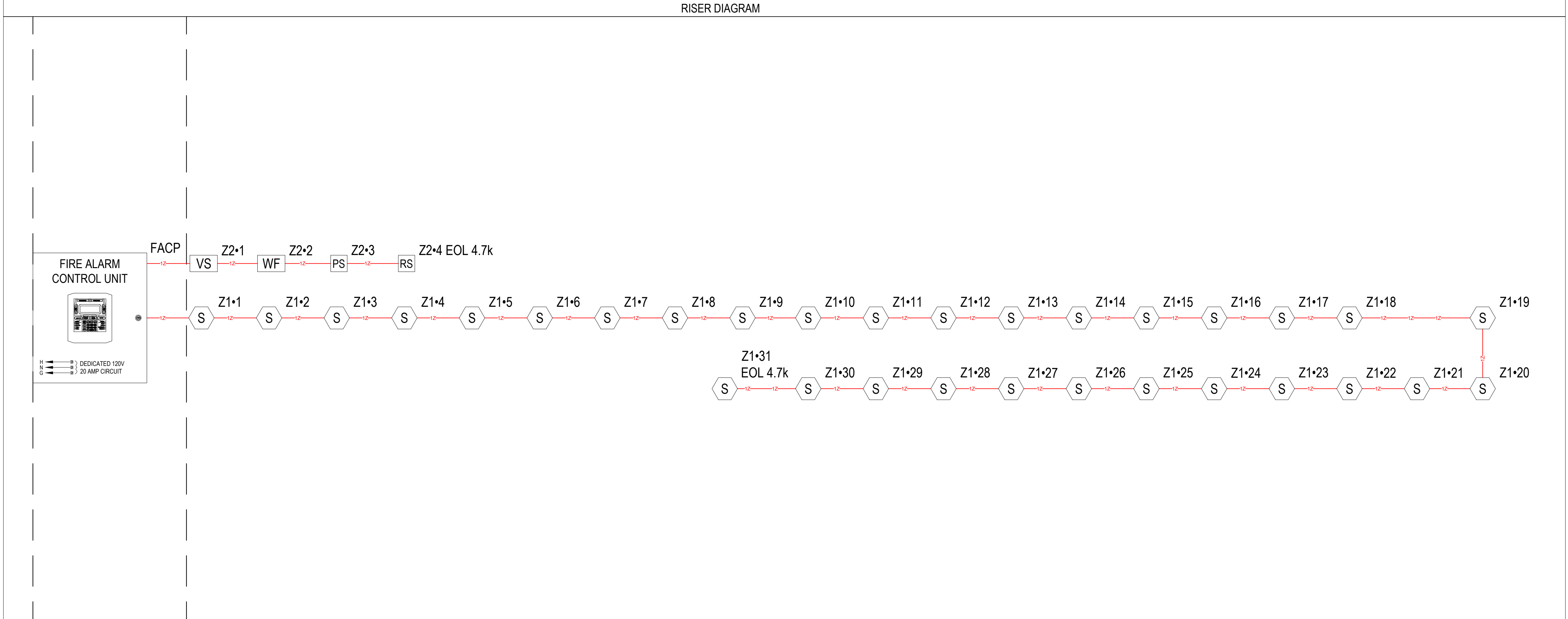
PROVIDE (2) 12V 7AH BATTERIES

EVENT

EVENT	AGENT RELEASE PANEL	2-WIRE CONVENTIONAL SMOKE DETECTOR	AIR PRESSURE SWITCH (BY OTHERS)	RELEASE SWITCH (BY OTHERS)	SHUT OFF VALVE SWITCH (BY OTHERS)	WATERFLOW SWITCH (BY OTHERS)
SMOKE DETECTOR		●	●	●	●	●
PREACTION SHUT OFF VALVE		●	●	●	●	●
SPRINKLER WATERFLOW ALARM		●	●	●	●	●
24V RELEASE ON/OFF SWITCH		●	●	●	●	●
PREACTION LOW AIR		●	●	●	●	●
FACP AC POWER FAILURE	●					
SYSTEM LOW BATTERY	●					

NOTE: ALL SIGNALS WILL BE SENT TO A CENTRAL STATION

ACTION
 TROUBLE SIGNAL @ FIRE ALARM CONTROL PANEL
 SUPERVISORY SIGNAL @ FIRE ALARM CONTROL PANEL
 ALARM SIGNAL @ FIRE ALARM CONTROL PANEL
 RELEASE PREACTION SOLENOID
 SEND SIGNAL TO MAIN FIRE ALARM PANEL



DEVICE LEGEND	
SYMBOL	DESCRIPTION
[FACU]	AGENT RELEASE PANEL
(S)	2-WIRE CONVENTIONAL SMOKE DETECTOR
[PS]	AIR PRESSURE SWITCH (BY OTHERS)
[RS]	RELEASE SWITCH (BY OTHERS)
[VS]	SHUT OFF VALVE SWITCH (BY OTHERS)
[WF]	WATERFLOW SWITCH (BY OTHERS)

CABLE AND WIRE LEGEND		
LABEL	AWG	DESCRIPTION
Z	18	IDC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED

