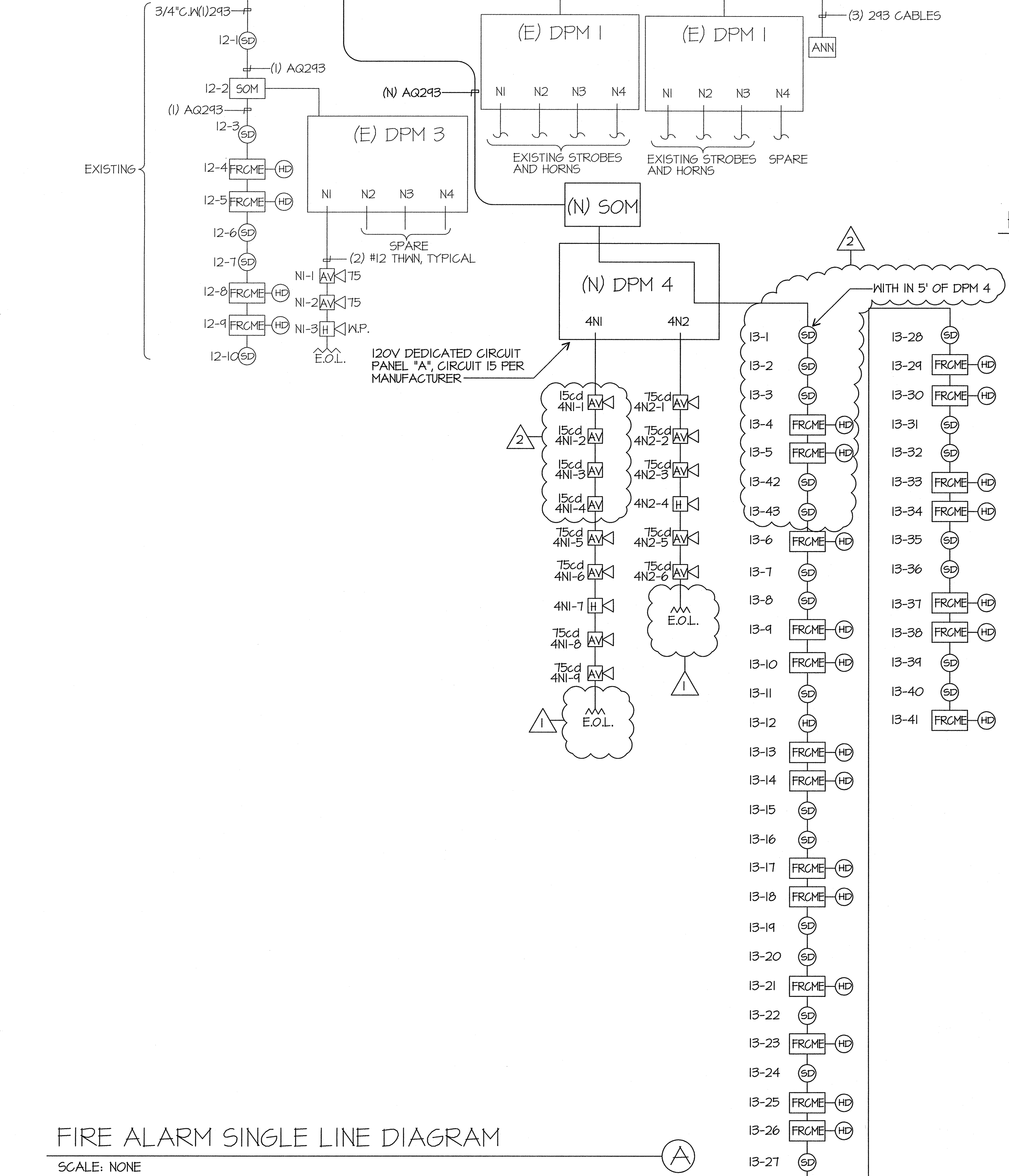


HORN/STROBE MOUNTING DETAIL
SCALE: NONE

CONTRACTOR SHALL DISCONNECT AND RECONNECT ALL ZONES ASSOCIATED WITH EXISTING BUILDINGS ON CAMPUS AND PROVIDE TESTING FOR POSITIVE REPORTING. PROVIDE FIRE WATCH DURING IMPAIRMENT OF SYSTEM, PER NFPA & CFC (CHAPTER 14 + 9)



FIRE ALARM SINGLE LINE DIAGRAM
SCALE: NONE

EQUIPMENT DESCRIPTION	SUPERVISORY CURRENT (AMPERES)			ALARM CURRENT (AMPERES)	
	EXISTING	NEW	SUB-TOTAL	EACH	SUB-TOTAL
MASTER PANEL	1		0.1	0.1	0.1
REMOTE ANNUNCIATOR PANEL	1		0.15	0.27	0.27
SUPERVISED OUTPUT MODULE	3	1	0.0003	0.0012	0.0012
FAST RESPONSE CONTACT MODULE	11	20	0.00055	0.01705	0.008
DIGITAL ALARM COMMUNICATOR	1		0.02	0.02	0.02
SMOKE DETECTOR	21	21	0.00039	0.00936	0.00936
HEAT DETECTOR	20	20	0.00035	0.0084	0.0084
SUB TOTAL AMPERES			0.30601	0.6596	0.6596
SUB TOTAL AMPERE-HOURS			7.34424	0.055185	0.055185
TOTAL REQUIRED AMPERE-HOURS FOR DISTRIBUTED POWER MODULE				7.399425	7.399425
BATTERY NON-LINEAR DISCHARGE CHARACTERISTIC FACTOR				x 1.2	x 1.2
TOTAL MINIMUM AMPERE HOURS REQUIRED				8.87931	8.87931
EXISTING BATTERY CAPACITY				24.00	24.00

EQUIPMENT DESCRIPTION	SUPERVISORY CURRENT (AMPERES)			ALARM CURRENT (AMPERES)	
	EXISTING	NEW	SUB-TOTAL	EACH	SUB-TOTAL
DISTRIBUTED POWER MODULE		1	0.075	0.175	0.175
AUDIBLE/VISUALS	75 cd	10	0	0.121	1.21
HORN EXTERIOR		2	0	0.062	0.124
AUDIBLE/VISUALS	15 cd	4	0	0.052	0.208
SUB TOTAL AMPERES			0.075	1.717	1.717
SUB TOTAL AMPERE-HOURS			1.8	0.144228	0.144228
TOTAL REQUIRED AMPERE-HOURS FOR DISTRIBUTED POWER MODULE				1.944228	1.944228
BATTERY NON-LINEAR DISCHARGE CHARACTERISTIC FACTOR				x 1.2	x 1.2
TOTAL MINIMUM AMPERE HOURS REQUIRED				2.333074	2.333074
PROVIDED BATTERY CAPACITY				7.90	7.90

SYMBOL	DEVICE	MFR & CAT#	REMARKS	CSFM LISTING
DPM	NAC POWER EXTENDER	HOCHIKI FN-642-ULADA		7315-0410:166
SD	SMOKE DETECTOR	HOCHIKI ALG-V	WITH HSB-NSA-6 BASE	7272-0410:149
HD	HEAT DETECTOR	HOCHIKI DFE-190	WITH NS6-100 BASE	7270-0410:119
FRCME	FAST RESPONSE CONTACT MODULE	HOCHIKI DCP-FRCME		7300-0410:150
SOM	SUPERVISED OUTPUT MODULE	HOCHIKI SOM		7300-0410:150
AV	HORN STROBE	WHEELLOCK AS24MCW 90dBA		7125-0785:131
H	HORN	WHEELLOCK ASWP 99dBA	EXTERIOR W.P. HORN	7125-0785:131

	INITIATION	AREA SMOKE DETECTOR	AREA THERMAL DETECTOR	AC POWER FAILURE
RESPONSE				
ANNUNCIATE AT FIRE CONTROL ROOM		YES	YES	YES (TROUBLE)
ANNUNCIATE AT 24 HOUR ATTEND LOCATION		YES	YES	YES (TROUBLE)
ALARM		YES	YES	YES
CENTRAL STATION MONITORING		YES	YES	YES

CIRCUIT	2x	LENGTH x	AMPS x	RESISTANCE x	= VOLTS	VOLTAGE DROP
4N1	2	150	0.754	0.00205	0.464	1.93 %
4N2	2	170	0.667	0.00205	0.465	1.94 %

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Rev. Description: ADDENDUM 1
CHANGE ORDER

Sheet Title: FIRE ALARM SINGLE LINE DIAGRAM CALCULATIONS

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Issue Date: 05/02/06
Date: 05/02/06
Designer: DR. DRAFTER
DR. DRAFTER
FC: CJM

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Reliance: CURTIS MCNALLY

