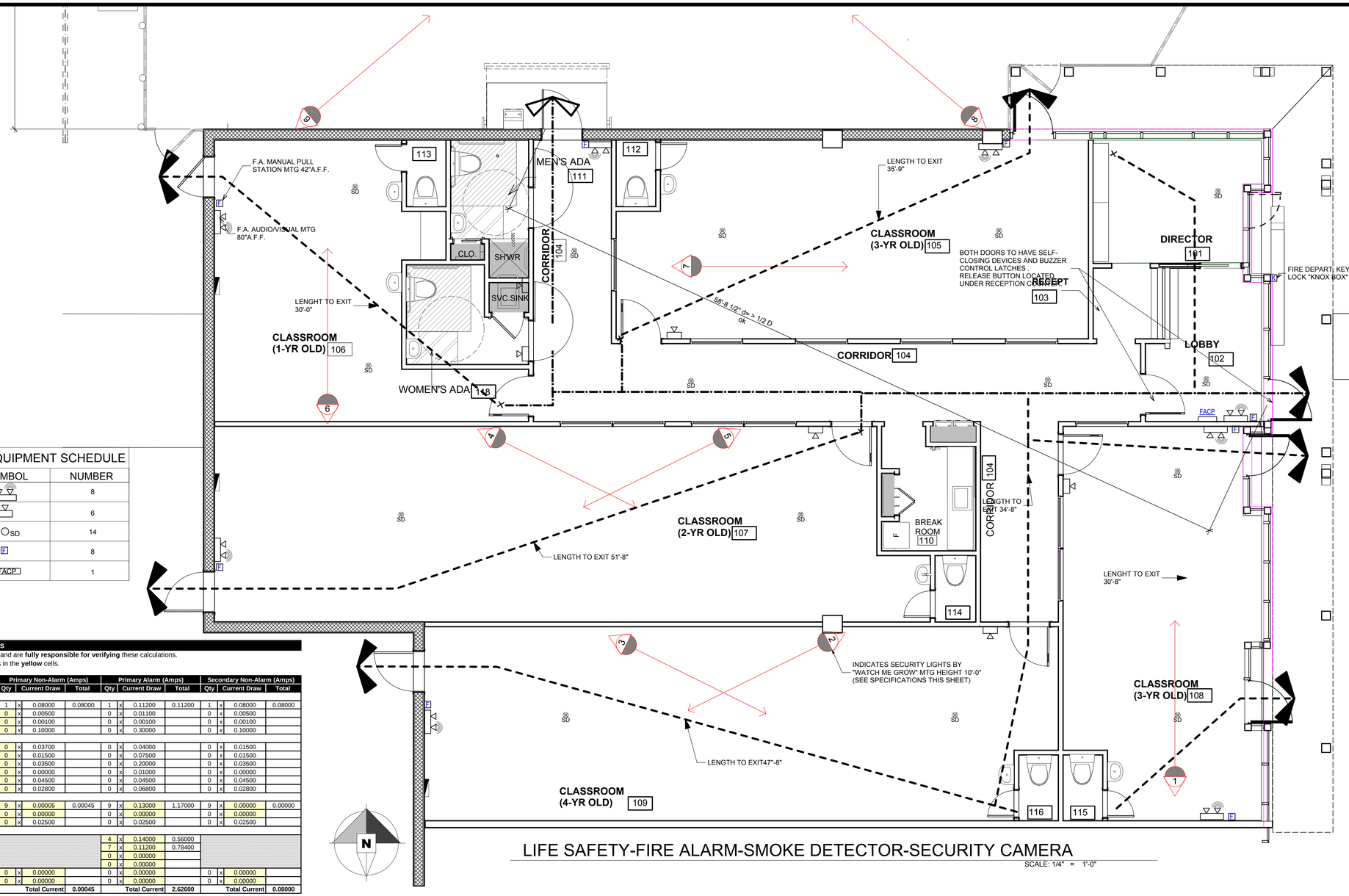

FIRE ALARM EQUIPMENT SCHEDULE

ITEM	SYMBOL	NUMBER
HORN/STROBE		8
STROBE LT		6
SMOKE DETECTOR	SD	14
PULL STATION	F	8
FIRE ALARM CTRL PANEL	FACP	1

FIRE-LITE ALARMS by Honeywell

MS-5UD-3 Battery Calculations

Note 1: You can edit all current draws and are **fully responsible for verifying** these calculations.
Note 2: You only need to make entries in the **yellow** cells.

	Primary Non-Alarm (Amps)				Primary Alarm (Amps)				Secondary Non-Alarm (Amps)			
Device Type	**Qty**		**Current Draw**	**Total**	**Qty**		**Current Draw**	**Total**	**Qty**		**Current Draw**	**Total**
1. System												
Main Circuit Board	1	x	0.08000	0.08000	1	x	0.11200	0.11200	1	x	0.08000	0.08000
4XTMF	0	x	0.00500		0	x	0.01100		0	x	0.00500	
CAC-5X	0	x	0.00100		0	x	0.00100		0	x	0.00100	
IPDACT	0	x	0.10000		0	x	0.30000		0	x	0.10000	
2. Annunciators												
ANN-80	0	x	0.03700		0	x	0.04000		0	x	0.01500	
ANN-RLY	0	x	0.01500		0	x	0.07500		0	x	0.01500	
ANN-I/O	0	x	0.03500		0	x	0.20000		0	x	0.03500	
ANN-I/O LEDs	0	x	0.00000		0	x	0.01000		0	x	0.00000	
ANN-SPG	0	x	0.04500		0	x	0.04500		0	x	0.04500	
ANN-LED	0	x	0.02800		0	x	0.06800		0	x	0.02800	
3. Resettable Power												
2-wire Detector Heads	9	x	0.00005	0.00045	9	x	0.13000	1.17000	9	x	0.00000	0.00000
4-Wire Detector Heads	0	x	0.00000		0	x	0.00000		0	x	0.00000	
Power SuperVision Relays	0	x	0.02500		0	x	0.02500		0	x	0.02500	
4. Notification Appliances												
NAC #1					4	x	0.14000	0.56000				
NAC #2					7	x	0.11200	0.78400				
NAC #3					0	x	0.00000					
NAC #4					0	x	0.00000					
TB9 (Non)Resettable (Term 1+2)	0	x	0.00000		0	x	0.00000		0	x	0.00000	
TB9 Resettable (Term 3+4)	0	x	0.00000		0	x	0.00000		0	x	0.00000	
Sum each column for totals			**Total Current**	**0.00045**			**Total Current**	**2.62600**			**Total Current**	**0.08000**

MS-5UD-3 Secondary Battery Calculations

Note: You can edit all current draws and are **fully responsible for verifying** these calculations. Only enter values in **yellow** cells.

			Required Standby Time		
Secondary Non-Alarm Load (Amps)	**0.080 A**	x	24 Hours	=	**1.92 AH**
			Required Alarm Time		
			5 Minutes		
Secondary Alarm Load (Amps)	**2.626 A**	x	0.084	=	**0.22 AH**
				Standby and Alarm Load Subtotal	**2.14 AH**
				Derating Factor	x 1.2
				Total Ampere Hours Required	**2.57 AH**

Battery Check
The batteries can be housed in the MS-5UD-3 cabinet
An external battery charger is not required for this system

Current Draw Check
NAC#1 current is within the limitations of the circuit.
NAC#2 current is within the limitations of the circuit.
NAC#3 current is within the limitations of the circuit.
NAC#4 current is within the limitations of the circuit.
TB9 (Non)Resettable Power (Terminals 1+2) is within the limitations of the circuit.
TB9 Resettable Power (Terminals 3+4) is within the limitations of the circuit.
The standby current is within the limitations of the panel.
The alarm current is within output limitations of the panel.

LIFE SAFETY-FIRE ALARM-SMOKE DETECTOR-SECURITY CAMERA

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

Project Location:		*Version #: Note – only version labeled "Final" to be used for completing project.*	

Wiring Materials Requirements

Video:
- *75 Ohm RG59/U Coaxial cable*
- 100% copper center conductor core
- At least 95% copper braid
- Belden & Coleman Cable, Inc. recommended
- *DO NOT* use any wiring materials that are not professional grade
- Please confirm Plenum requirements before starting project.

BNC Connectors:
- 75 Ohm BNC 2-piece crimp or compression
- Cambridge Part No. CP-78-2 recommended
- *DO NOT* use "thread-on" BNC or 'F' connectors

Power:
- 18/2 for low voltage applications

All materials must meet these minimum specifications. Inferior quality materials will negatively impact video quality and wiring subcontractor will be responsible for any necessary corrections.

Note: *these instructions are provided for reference only.* ***WatchMeGrow subcontractors can only start project after obtaining work-order from WatchMeGrow***. Please address questions to Craig Loften, Project Manager, at WatchMeGrow at 1-800-583-5597**.**

Project Overview: (*please refer to attached floor plan for camera, monitor and head-end locations/quantity*)
1. Cameras: Install video and power wiring for the camera system. Run (1) coaxial and (1) power wire from camera location to head-end location.
2. Viewing Monitors (if applicable): Install (1) Coax for each monitor as well as (1) Cat from head-end to owner approved monitor locations.

Project Instructions

Part I: Camera Video & Power to Head-End: there will be (1) coax and (1) power wire for EACH camera:
- Leave seven feet (7') of cable slack in ceiling area above each camera location and leave (1') wire protruding from ceiling tile
- Pull video and power wires for each camera to head-end location **AND** label both ends of wires with numbers to correspond with attached camera plan location document ****this is important****
- BNC's Terminations: Crimp BNC terminators on both ends of coaxial video cables and test continuity on all cables. Ensure all wires test properly for continuity. Terminate both ends of all coaxial cables w/ male 75-Ohm crimp-on or compression BNC fittings only. No thread-on BNC connectors or 'F' connectors.
- Dress wiring access holes in Head-end closet professionally.
- Ensure enough slack is left on coaxial cables at Head-end to accommodate set-up of WatchMeGrow hardware. Seven feet (7') should be sufficient in Head-end area.
- At Head-end closet, pull wire down through the wall and out within four feet (4') of 110V power outlet.
- Verify that a minimum of (2) 110 power outlets are available in Head-End closet to power WatchMeGrow system. Please inform General Contractor and WatchMeGrow if there is a shortage of available 110V-power outlets.

Pat II: Head-End to Viewing Monitor Location(s) (if applicable): Pull (1) coaxial wire and (1) Cat-V data wire from head-end location to viewing monitor(s) FOR EACH MONITOR. Monitor location MUST be approved by owner OR GC/PM.
- Dress access holes with appropriate dressing rings. Jagged and/or rough access holes are unacceptable. Hidden wiring is the name of the game, as this is a highly visual area.
- Terminate both ends of all coaxial cable(s).
- Test continuity on each coaxial cable after terminating cables. Please verify the cables are ready for connection to hardware.
- Ensure electrician has installed enough electrical outlets to accommodate switcher(s) and monitor(s).

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STATE OF FLORIDA ROBERT F. SONBERG NO. 6280 REGISTERED ARCHITECT

PROVIDENCE CHILDREN'S ACADEMY

6111 LYONS ROAD
STE.
105, 106 & 107
COCONUT CREEK,
FLORIDA 33073

TOM & DONNA MORGAN

REVISIONS

MARK	DATE	DESCRIPTION
	/ /	

PROJECT NO:	09-303
ISSUED DATE:	10/21/09
DRAWN BY:	RFS
CHK'D BY:	RFS

SHEET TITLE

LIFE SAFETY-FIRE ALARM-SMOKE DETECTOR-SECURITY CAMERA

A-3

SHEET 4 OF 14

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