E.S Boulos Company

Integrated Power and Building Technologies

Corporate Office
45 Bradley Drive
Westbrook, ME 04092
Tele: (207)464-3706
Fax: (207)464-1833

Utility/Industrial Office
127 First Flight Drive
Auburn, ME 04210
Tele: (207)784-0906
Fax: (207)784-9426

Letter of Transmittal

To: Patrick Ryan
Suffolk Construction
65 Allerton Street
Boston, MA 02119

Transmittal #: 78
Date: 1/23/2015
Job: MMBA14-101 MMCH- Bean 2 expansion

Subject: Submittal 28_31_11-2/3 Rev. 1

WE ARE SENDING YOU ☐ Attached ☐ Under separate cover via None the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples
☐ Copy of letter ☐ Change order ☐ Specifications ☑ Submittal

Document Type	Copies	Date	No.	Description
Submittal	1		28_31_11-2 Rev 1	Fire Alarm: Shop Drawings
Submittal	1		28_31_11-3 Rev 1	Fire Alarm: Calculations

THESE ARE TRANSMITTED as checked below:

☑ For approval ☐ Approved as submitted ☐ Resubmit ___ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit ___ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return ___ corrected prints
☑ For review and comment ☑ RETURN DUE DATE = 2/13/15
☐ FOR BIDS DUE ☐ PRINTS RETURNED AFTER LOAN TO US

Remarks: Patrick, please see responses below to Review Comments from original submittal.
1. Confirmed.
2. Confirmed.
3. We have not been provided with updated background. These will be incorporated upon receipt.
4. Relocated as requested.
5. Confirmed. All wiring data sheets to be submitted under separate cover.
6. Please confirm that the drop of 2.5 is for VDC and not %. With a max 2.5% drop the required amount of boosters will nearly triple for the amount of circuits that will be required for the existing design layout. Please ask engineer to revisit the specs, 2.5% drop will happen within no time, like you added 2-3 strobes on notification circuit & that's it! In US 10% voltage drop (2.4VDC) is allowed with source voltage 24 VDC (20.4 VDC considering worst condition of secondary power will degrade over the period of time per NFPA 72) We are well within the limits of operating voltage of notification devices.
7. See attached Sheet 4 & 16.
8. See attached Sheet 4 & 16.

Copy To: File

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Letter of Transmittal

To: Patrick Ryan
Suffolk Construction
65 Allerton Street
Boston, MA 02119

Subject: Submittal 28_31_11-2/3 Rev. 1

From: Jesse Klimaytis (E. S. Boulos Company)

Transmittal #: 78

Date: 1/23/2015

Job: MMBA14-101 MMCH- Bean 2 expansion

Signature: Jesse Klimaytis

Digitally signed by Jesse Klimaytis
DN: cn=Jesse Klimaytis, o=E.S.Boulos Company, ou=Project Manager, email=jklimaytis@esboulos.com, c=US
Date: 2015.01.23 13:17:19 -05'00'

If enclosures are not as noted, kindly notify us at once.

Transmittal Sheet

E.S. Boulos Company	**Date**: 01/09/2015
45 Bradley Drive	MMC Bean 2 Fire Alarm
Westbrook, ME 04092	E.S. Boulos Project No.: **–MMBA14-101**
Attention: **Jesse Klimaytis**	Honeywell Project No.: USB-006476

We are forwarding ☑ Enclosed herewith ❑ Under separate cover

The Following: RE-SUBMITTAL

☒ For Approval; Return One Copy
❑ For Reference and Distribution
❑ Requested
❑ Other

Remarks:

copy: file

Honeywell

By: ***Liana Pinard***
Automation & Control Solutions
Project Manager
liana.pinard@honeywell.com
501 County Road
Westbrook, ME 04092
207-879-2023 Office
207-615-9581 Cellular

E.S.Boulos Company Date

MMC BEAN 2 ROOF FIRE

Portland, ME

Fire Alarm System Submittal

Shop Drawings

Date: 01/09/2015

Maine Medical Center
Bean 2 Roof Addition
XLS3000 Fire Alarm System

22 Bramhall St.
Portland, ME 04102
Job No. USB-006476

SHEET	DESCRIPTION	REVISION	DATE
FA0.1	TITLE PAGE & INDEX	D	Jan 9, 15
FA0.2	GENERAL NOTES	A	Aug 27, 14
FA0.3	DEVICE LEGEND & CABLE GUIDE	A	Aug 27, 14
FA0.4	BILL OF MATERIAL	C	Jan 9, 15
FA1.1	TYPICAL FIELD DEVICE INSTALLATION GUIDE	A	Aug 27, 14
FA2.1	TYPICAL FIELD DEVICE WIRING DETAILS (1 OF 2)	A	Aug 27, 14
FA2.2	TYPICAL FIELD DEVICE WIRING DETAILS (2 OF 2)	A	Aug 27, 14
FA3.1	FIRE ALARM SYSTEM ARCHITECTURTE	A	Aug 27, 14
FA4.1	SLC FIRE ALARM RISER DIAGRAM	B	Jan 9, 15
FA4.2	FIRE ALARM NAC RISER DIAGRAM (1 OF 2)	C	Jan 9, 15
FA4.3	FIRE ALARM NAC RISER DIAGRAM (2 OF 2)	C	Jan 9, 15
FA4.4	FIRE ALARM SPEAKER RISER DIAGRAM (1 OF 2)	A	Aug 27, 14
FA4.5	FIRE ALARM SPAEKER RISER DIAGRAM (2 OF 2)	B	Jan 9, 15
FA5.1	AMPLIFIER, BPS & ANNUNCIATOR PANEL ELEVATION DETAILS	A	Aug 27, 14
FA5.2	AMPLIFIER & ANNUNCIATOR PANEL ASSEMBLY DETAILS	A	Aug 27, 14
FA5.3	BATTERY CALCULATIONS & BPS VOLTAGE DROP CALCULATION	D	Jan 9, 15
FA5.4	BPS VOLTAGE DROP CALCULATION	C	Jan 9, 15
FA6.1	AMPLIFIER & ANNUNCIATOR WIRING DETAILS	A	Aug 27, 14
FA6.2	BPS INTERNAL WIRING DETAILS	A	Aug 27, 14
FA7.1	VISITORS CTR/SCALE HOUSE SLC LAYOUT	A	Aug 27, 14
FA7.2	LEVEL 02 SECTOR A SLC LAYOUT	B	Jan 9, 15
FA7.3	LEVEL 02 SECTOR B SLC LAYOUT	A	Aug 27, 14
FA7.4	LEVEL 02 SECTOR C SLC LAYOUT	A	Aug 27, 14
FA7.5	LEVEL 02 SECTOR D SLC LAYOUT	A	Aug 27, 14
FA7.6	LEVEL 02 SECTOR A NAC LAYOUT	C	Jan 9, 15
FA7.7	LEVEL 02 SECTOR B NAC LAYOUT	B	Oct 9, 14
FA7.8	LEVEL 02 SECTOR C NAC LAYOUT	B	Oct 9, 14
FA7.9	LEVEL 02 SECTOR D NAC LAYOUT	A	Aug 27, 14
FA7.10	PENTHOUSE SECTOR B SLC LAYOUT	A	Aug 27, 14
FA7.11	PENTHOUSE SECTOR C SLC LAYOUT	B	Dec 9, 14
FA7.12	PENTHOUSE SECTOR B NAC LAYOUT	B	Oct 9, 14
FA7.13	PENTHOUSE SECTOR C NAC LAYOUT	B	Oct 9, 14
FA7.14	MEZZ SECTOR B SLC LAYOUT	A	Aug 27, 14
FA7.15	MEZZ SECTOR C SLC LAYOUT	A	Aug 27, 14
FA7.16	MEZZ SECTOR B NAC LAYOUT	B	Jan 9, 15
FA7.17	MEZZ SECTOR C NAC LAYOUT	B	Dec 9, 14
FA8.1	I/O MATRIX	A	Aug 27, 14

Honeywell
BUILDING SOLUTIONS

HONEYWELL OFFICE
Honeywell Building Solutions
501 County Rd.
Westbrook, ME, 04092
TEL: (207)-615-9581 FAX: (207)-879-2078

CONTRACT NUMBER: USB-006476
SALES: Robert Pennabere
PROJECT MANAGEMENT: Liana Pinard

DESIGN: Abhishek Kumar
DRAFTING: Abhishek Kumar

SYSTEMS PROVIDED
XLS3000 Fire Alarm System

ARCHITECT
Perkins + Will
225 Franklin St., Suite 1100
Boston, MA 02110
TEL: (617)-478-0300 FAX: (617)-478-0321

DESIGN CONSULTANT
AKF Engineers
41 Farnsworth Street, #rd Floor
Boston, MA 02210
TEL: (617)-737-1111 TEL: (617)-737-4311

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REV F		BY	TITLE PAGE & INDEX
REV E		BY	
REV D Jan 9, 15	ASI #7 & ASI #26	BY AK	Honeywell ExpertISE ©
REV C Dec 9, 14	Re-Submit As per comment by Suffolk	BY AK	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9, 14	Re-Submit as per RFI Response	BY SM	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	

APPROVED BY: Sarang Bhosale

DRAWING NUMBER USB-006476-FA0.1 REV D

GENERAL NOTES

1. ALL WIRING AND INSTALLATION MUST CONFORM WITH PROJECT SPECIFICATIONS, APPLICABLE CODE SUMMARIES AND REQUIREMENTS ADOPTED BY THE CITY.
2. SMOKE DETECTORS SHOULD NOT BE LOCATED IN DIRECT AIRFLOW, NOR CLOSER THAN 3 FEET (1 m) FROM AN AIR SUPPLY DIFFUSER OR RETURN AIR OPENING PER NFPA 72 (CHAPTER A.17.7.4.1) 2013 EDITION.
3. ALL SMOKE DETECTORS AND INITIATING DEVICES SHALL BE INSTALLED MINIMUM 3 FEET AWAY FROM ELECTRONIC BALLASTS (LIGHTING FIXTURES).
4. WHEN INSTALLING FIRE ALARM DEVICES, TERMINAL POLARITY MUST BE OBSERVED.
5. ALL NOTIFICATION CIRCUIT WIRES MUST BE SUPERVISED. HENCE, NO PARALLEL BRANCHING OF WIRES IS PERMISSIBLE (T–TAPPING). ALL AUDIBLE SIGNALING DEVICES SHALL PRODUCE A DISTINCTIVE THREE–PULSE TEMPORAL PATTERN.
6. DO NOT INSTALL ADDRESSABLE DEVICES PRIOR TO COORDINATION WITH A HONEYWELL INSTALLATION REPRESENTATIVE.
7. ALL 24 VDC WIRE TO BE INSTALLED IN DEDICATED WIRE RUNS SEPARATE FROM 120 VAC WIRING, IN ACCORDANCE WITH THE CURRENT NATIONAL AND STATE ELECTRICAL CODES.
8. CONDUIT (WHERE REQUIRED) SIZING TO BE DETERMINED BY THE ELECTRICAL CONTRACTOR AND SHALL CONFORM TO CONDUIT FILL CAPACITIES AS PER REQUIREMENTS OF CURRENT EDITIONS OF NATIONAL ELECTRICAL CODES.
9. DO NOT APPLY 120 VAC POWER TO CONTROL PANEL UNTIL A HONEYWELL SERVICE TECHNICIAN HAS INSPECTED ALL SYSTEM WIRING CONNECTIONS AND HAS APPROVED THE SYSTEM TO BE TURNED ON.
10. 120 VAC INPUT CONNECTIONS TO THE FIRE ALARM CONTROL PANEL SHALL BE ON DEDICATED BRANCH CIRCUIT(S). THE CIRCUIT(S) AND CONNECTIONS SHALL BE MECHANICALLY PROTECTED. CIRCUIT DISCONNECTION SHALL HAVE A RED MARKING & SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. LOCATION OF THE CIRCUIT DISCONNECTION BREAKER SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
11. INSTALLATION MATERIALS SUCH AS CONDUIT, FITTINGS, JUNCTION BOXES, TERMINAL CABINETS, PULL BOXES, HANGERS, ETC. TO BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL WIRING IS TO BE FROM DEVICE TERMINAL TO DEVICE TERMINAL. SPLICES AND WIRE NUTS ARE NOT ACCEPTABLE.
12. ANY DEVIATION FROM THE DESIGN AND LOCATION OF EQUIPMENT SHOWN MUST FIRST HAVE A WRITTEN APPROVAL FROM HONEYWELL.
    ANY DEVIATION FROM DESIGN MUST ALSO BE INDICATED ON THE HONEYWELL SHOP DRAWINGS AND RETURNED TO HONEYWELL AT TIME OF JOB COMPLETION.
13. ALL SMOKE DETECTORS SHALL BE PROTECTED FROM DUST AND DEBRIS DURING CONSTRUCTION. SMOKE SENSING DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER THE CONSTRUCTION CLEANUP OF ALL TRADES IS COMPLETE PER NFPA 72 (CHAPTER 5.7.1.11) 2007 EDITION.
    EXCEPTION: WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION FOR PROTECTION DURING CONSTRUCTION. DETECTORS THAT HAVE BEEN INSTALLED DURING CONSTRUCTION AND FOUND TO HAVE A SENSITIVITY OUTSIDE THE LISTED AND MARKED SENSITIVITY RANGE SHALL BE CLEANED OR REPLACED AT AN ADDITIONAL COST TO THE CONTRACTOR.
14. ALL FIRE ALARM WIRING SHOULD BE RUN IN CONDUIT.

XLS - F.A. SYSTEM WIRING GUIDELINES

1. ALL WIRING MUST COMPLY WITH LOCAL AND CURRENT EDITION OF THE ELECTRICAL CODE. ALL WIRING MUST BE DONE AS DESCRIBED NOTES 2 & 6 BELOW, TO OBTAIN SAFE AND PROPER SYSTEM OPERATION.
2. CONNECT EARTH GROUND TO THE ENCLOSURES PROPERLY; SEE LATEST EDITION OF NATIONAL ELECTRICAL CODES FOR APPROVED METHODS. CONDUIT GROUND IS NOT ADEQUATE.
3. SEPARATE ALL WIRING FOR INITIATING AND INDICATING DEVICES (SLC & NAC CIRCUITS) FROM ALL OTHER WIRING IN THE ENCLOSURES.
4. WHERE USED, INSULATE ALL CABLE DRAIN WIRES FROM ANY CONDUIT OR OTHER EARTH GROUNDED ELECTRICAL BOX.
5. (WHERE USED) CONNECT SHIELD CABLE WIRE ONLY AT SPECIFIED LOCATION INSIDE OF ENCLOSURE (IF APPLICABLE).
6. EARTH GROUND ALL CONDUIT RUNS THROUGHOUT THE INSTALLATION.
7. ALL 110/120 VAC CIRCUITS TO BE INSTALLED IN DEDICATED CONDUIT.
8. ALL INITIATING CIRCUITS ARE RATED POWER LIMITED AND SHOULD BE WIRED IN ACCORDANCE WITH APPLICABLE CODES.
9. UNDERGROUND WIRING IS PERMISSIBLE ONLY IF ALL NEC WIRING REQUIREMENTS ARE MET.
10. OVERHEAD OR EXTERIOR WIRING IS NOT RECOMMENDED.

REV F		BY	GENERAL NOTES
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

DRAWING NUMBER USB–006476–FA0.2 REV A

mosu

FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
$?_P$	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$?_P$	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$\uparrow_R$	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE : ----------

SPK CABLE : —·—·—·—·—·—·—·—·—·—·—·—·—·—

SLC CABLE : —··—··—··—··—··—··—··—··—··—

XLS SYSTEM WIRING SCHEDULE

CABLE DESIGNATION	RECOMMENDED WIRE TYPE	TYPICAL CABLE USAGE
A	2-CONDUCTOR, #14 AWG SOLID TWISTED CABLE	FIRE ALARM ADDRESSABLE INITIATING DEVICE CIRCUITS (SLC)
B	2-CONDUCTOR, #12 AWG SOLID	FIRE ALARM NOTIFICATION APPLIANCE CIRCUITS (NAC): – STROBES – HORN ONLY – HORN/STROBES
D	2-CONDUCTOR, #12 AWG SOLID	24 VDC POWER – FSD CONTROL RELAYS – SOUNDER BASE POWER – FIRE ALARM ANNUNCIATOR – DOOR HOLDERS (BY OTHERS)
E	2-CONDUCTOR, #14 AWG SOLID	MISCELLANEOUS PANEL WIRING
F	62.5u/125u MM FIBER	XLS-NET NETWORK COMMUNICATIONS (FIBER OPTIC)
G	2-CONDUCTOR, #14 AWG SOLID	CONVENTIONAL INITIATING DEVICES – PREACTION SYSTEM – WATERFLOW SWITCH – TAMPER SWITCH
H	2-CONDUCTOR, #14 AWG SOLID TWISTED SHIELDED	70 VAC AUDIO SPEAKER CIRCUITS

WIRING REQUIREMENTS

WIRING IS TO BE INSTALLED POINT-TO-POINT WITH NO SPLICING.

PLENUM CABLE VS. NON-PLENUM

THE CEC RECOGNIZES 3 TYPES OF POWER LIMITED FIRE ALARM CABLING:

FPL – THIS IS A GENERAL USE POWER LIMITED FIRE ALARM CABLE. IT CANNOT BE USED IN A PLENUM SPACE OR FOR RISERS (CABLING BETWEEN FLOORS). CABLE MUST BE IN CONDUIT.

FPLR – THIS IS A POWER LIMITED RISER RATED CABLE THAT CAN BE USED FOR GENERAL PURPOSES OR BETWEEN FLOORS. IT CANNOT BE USED IN A PLENUM SPACE, CABLE MUST BE IN CONDUIT.

FPLP – THIS IS A POWER LIMITED CABLE THAT CAN BE USED IN A PLENUM, RISER OR FOR GENERAL PURPOSE.

A PLENUM IS ANY AREA USED TO CONDUCT ENVIRONMENTAL AIR. PLENUM SPACES CAN BE DUCTWORK, THE SPACE ABOVE A DROP CEILING OR BELOW A RAISED FLOOR. BECAUSE THESE SPACES ARE BEING USED FOR THE AIR HANDLING SYSTEM, THERE ARE STRICT RULES THAT MUST BE FOLLOWED TO REDUCE THE RISK OF INTRODUCING TOXIC FUMES IN THE EVENT OF A FIRE. SINCE FIRE ALARM CABLING IS OFTEN INSTALLED EXPOSED, WITHOUT CONDUIT, ABOVE DROP CEILINGS, THE CABLING MUST BE RATED FOR USE IN A PLENUM SPACE.

XLS SYSTEM WIRING SCHEDULE

CABLE DESIGNATION	RECOMMENDED WIRE TYPE	TYPICAL CABLE USAGE
J	3-CONDUCTOR, #12 AWG SOLID	120 VAC POWER CIRCUIT
L	2-CONDUCTOR, #16 AWG SOLID TWISTED SHIELDED	LOW LEVEL AUDIO – REMOTE MICROPHONE – PRE-AMPLIFIER SIGNAL – FIRE PHONE RISER/CIRCUIT
M	2-CONDUCTOR, #14 AWG SOLID TWISTED CABLE	XLS-NET NETWORK COMMUNICATIONS (COPPER) – NETWORK DATA RISER – NETWORK AUDIO RISER
R	2-CONDUCTOR, #18 AWG SOLID TWISTED CABLE	RS-485 DATA COMMUNICATIONS – FIRE ALARM ANNUNCIATOR
U	2-CONDUCTOR, #12 AWG SOLID	MECHANICAL EQUIPMENT INTERFACE – AHU FAN SHUT DOWN – ELEVATOR SHUNT TRIP – FIRE/SMOKE DAMPERS
X	2-CONDUCTOR, #18 AWG SOLID TWISTED CABLE	"NUP" NETWORK COMMUNICATIONS INTERFACE WIRING: – FIRE NETWORK ADAPTER.

FIELD DEVICE ADDRESS LEGEND

ADDRESSABLE DEVICES

N#L#._###

- ADDRESS SENSORS:1-159 MODULES:1-159
- TYPE: D=SENSOR DEVICE M=MODULE
- LOOP NUMBER: L1-L10
- NODE NUMBER: 1-255 (103 NODES MAX)

EXAMPLE

N1L5.D105 = NODE 1, LOOP 5, SENSOR 105
N1L5.M105 = NODE 1, LOOP 5, MODULE 105

NOTIFICATION APPLIANCES

_N#.###

- SEQUENCE NUMBER (SEQUENTIAL BY CIRCUIT)
- CIRCUIT NUMBER (SEQUENTIAL BY FLOOR)
- TYPE: VN=VISUAL AN=AUDIBLE NOTIFICATION

EXAMPLE

AN2.004 = AUDIBLE CCT 2, 4TH DEVICE
VN2.004 = VISUAL CCT 2, 4TH DEVICE

NOTES

1. NOT ALL SYMBOL LEGENDS MAY APPLY TO THIS PROJECT.
2. NOT ALL CABLE TYPES MAY APPLY TO THIS PROJECT.

REV F		BY	DEVICE LEGEND & CABLE GUIDE
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:

DRAWING NUMBER USB-006476-FA0.3 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install

BILL OF MATERIAL

Part Number	Description	Quantity	
TC806B1076	PHOTOELECTRIC SMOKE DETECTOR	67	C
TC808B1058	RATE OF RISE HEAT DETECTOR	28	C
B210LP	FLANGED DETECTOR BASE	95	
S464G1007	INTELLIGENT PULL STATION	14	
DNR	DETECTOR HOUSING	19	
DST*	SAMPLING TUBE *	19	
TC806DNR	INTELLIGENT PHOTOELECTRIC DUCT SMOKE DETECTOR	19	
RTS151KEY	REMOTE TEST STATION	19	
R1BU1C	SPDT MULTI VOLTAGE RELAY	10	
TC809A1059	INTELLIGENT MONITOR MODULE	9	
TC810R1024	RELAY MODULE	18	
1509-AQN5	DOOR HOLDER FLUSH WALL MOUNT (EDWARDS SIGNALING)	12	
TC810N1013	SUPERVISED CONTROL MODULE	1	
TC811A1006	ISOLATOR MODULE	13	C
SR	STROBE, RED, WALL MOUNT	33	
SPSR	SPEAKER/STROBE, RED, WALL MOUNT	75	C
SPSRK	SPEAKER/STROBE, RED, WALL MOUNT, OUTDOOR	3	
HPF24S8	8A BOOSTER POWER SUPPLY	3	
PS-1270	12V 7AMP BATTERY	4	
EQBB-C4	BACKBOX ASSEMBLY, THREE TIERS, BLACK	1	
EQDR-C4	DOOR ASSEMBLY, VENTED DOOR, THREE TIERS, BLACK	1	
CHS-BH1	AMPLIFIER BATTERY CHASSIS	3	
DAA2-5070	DIGITAL AUDIO AMPLIFIER	3	
PS-12120	12V 12AMP BATTERY	8	
SMB500	SURFACE MOUNT BOX FOR MODULES	41	
LCM-320	LOOP CONTROL MODULE	1	
XLS-ABF-2B	ANNUNCIATOR FLUSH BOX.	1	
LCD-160	REMOTE ANNUNCIATOR FOR XLS3000, 160 CHARACTERS	1	
BB-17F	BATTERY BOX (HOUSES UP TO TWO 17AH BATTERIES)	1	

Point No 7 & 8
Covered here

* FIELD TO VERIFY SAMPLING TUBE LENGTH BEFORE ORDERING

REV F		BY	BILL OF MATERIAL
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C Jan 9, 15	ASI #7 & ASI #26	BY AK	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Dec 9, 14	Re-Submit As per comment by Suffolk	BY AK	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
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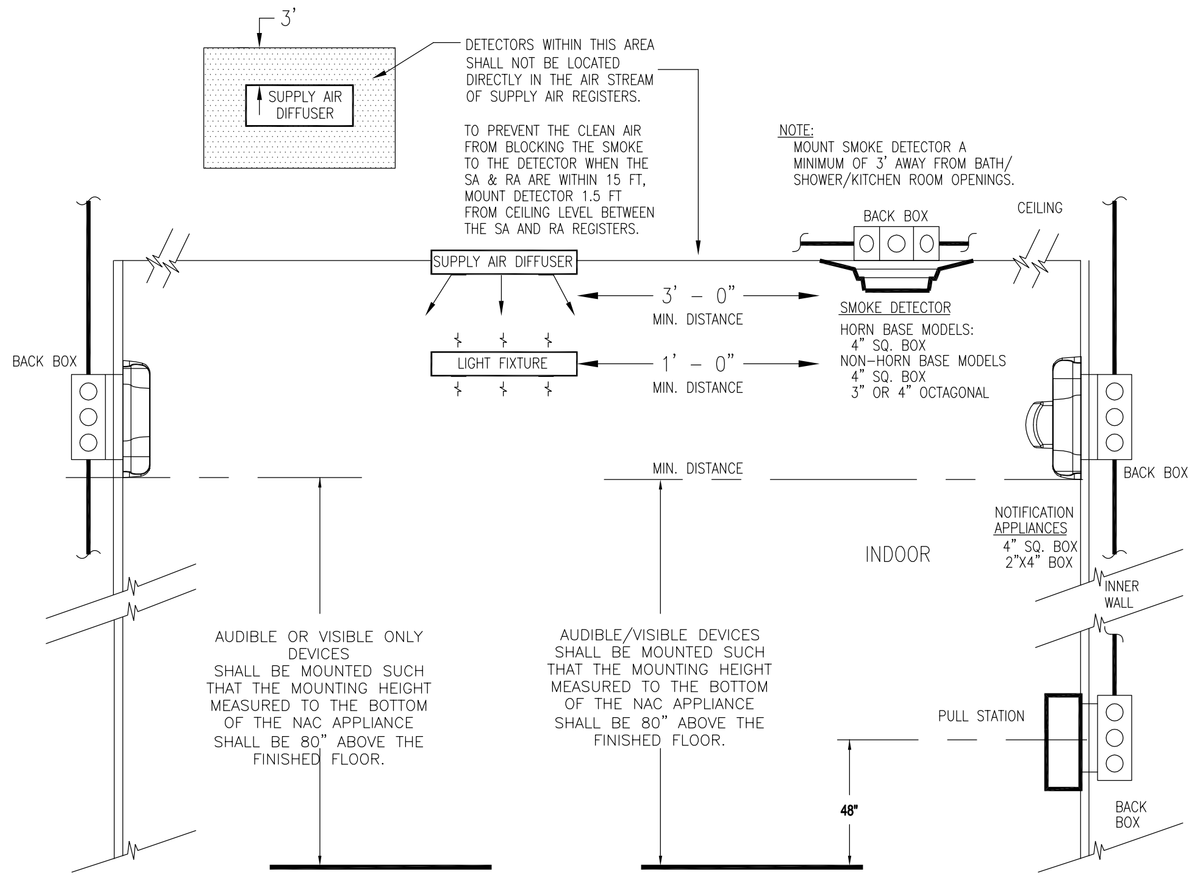
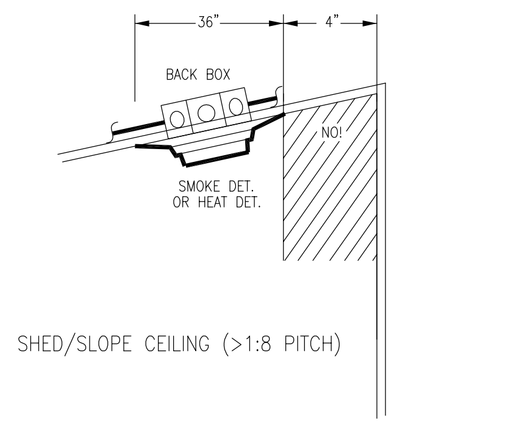
PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

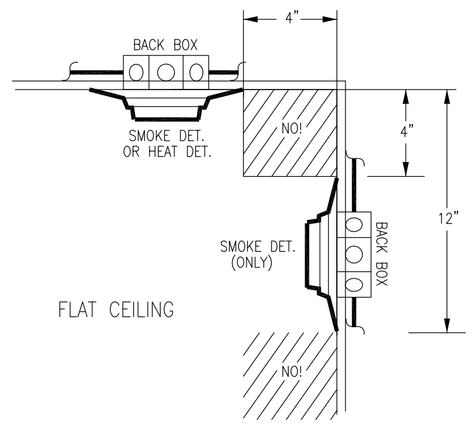
DRAWING NUMBER USB-006476-FA0.4 REV C

INSTALL





SHED/SLOPE CEILING (>1:8 PITCH)



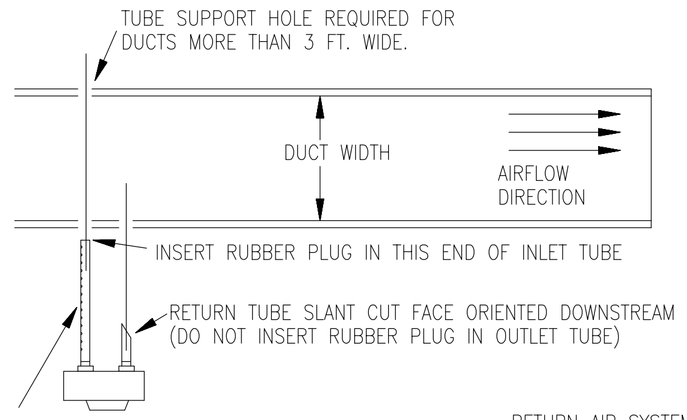
FLAT CEILING

SMOKE & HEAT DETECTOR PLACEMENT

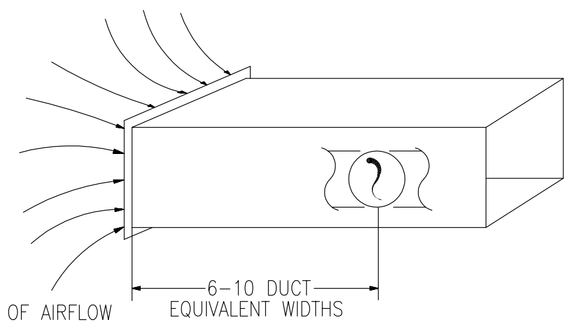
GENERAL NOTES:

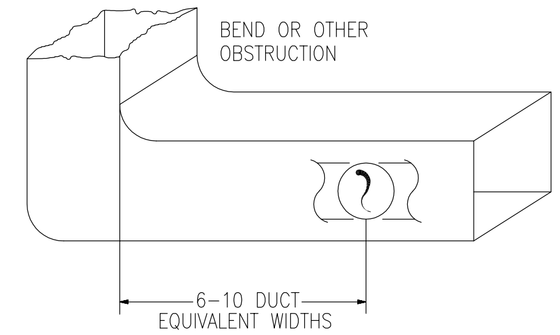
A. DO NOT APPLY POWER TO ANY DEVICE UNTIL AUTHORIZED BY A HONEYWELL REPRESENTATIVE.
B. SEE FLOOR PLANS FOR ALL DEVICE LOCATIONS, DEVICE COUNTS, AND DEVICE ADDRESSES.
C. FOLLOW DEVICE INSTALLATION INSTRUCTIONS INCLUDED WITH DEVICES.
D. DETECTOR GUIDELINES:
   - NO SMOKE DETECTORS ALLOWED IN GARAGES.
   - NO SMOKE DETECTORS ALLOWED IN UNFINISHED ATTICS.
   - NO SMOKE DETECTORS ALLOWED IN AREAS WITH >100°F OR <40°F.
   - ION SMOKE DETECTORS MUST BE > 20' FROM COOKING APPLIANCES. (PHOTO SMOKE DETECTORS ALLOWED <20' FROM COOKING APPLIANCE)
   - NO SMOKE DETECTORS WITHIN 3' FROM DOOR TO KITCHEN OR SHOWER/TUB ROOM
   - NO SMOKE DETECTORS WITHIN 3' HORIZONTAL FROM CEILING FAN BLADE TIP.
   - SMOKE DETECTORS ARE REQUIRED IN BASEMENTS ON CEILING ADJACENT TO STAIRWELLS.

1 / FA1.1 FIELD DEVICE INSTALLATION GUIDELINES



INLET TUBE HOLES FACE UPSTREAM OF AIRFLOW





RETURN AIR SYSTEMS:
SMOKE DETECTORS SHALL BE INSTALLED IN RETURN AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2000 CFM (0.09 m/s) IN THE RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS, OUTDOOR AIR CONNECTIONS OR DECONTAMINATION EQUIPMENT AND APPLIANCES.

COMMON SUPPLY AND RETURN AIR SYSTEMS:
WHERE MULTIPLE AIR HANDLING SYSTEMS SHARE COMMON SUPPLY OR RETURN AIR DUCTS OR PLENUMS WITH A COMBINED DESIGN CAPACITY GREATER THAN 2000 CFM (0.9m3/s), THE RETURN AIR SYSTEM SHALL BE PROVIDED WITH SMOKE DETECTORS.

RETURN AIR RISERS:
WHERE RETURN AIR RISERS SERVE TWO OR MORE STOREYS AND SERVE ANY PORTION OF A RETURN AIR SYSTEM HAVING A DESIGN CAPACITY GREATER THAN 15000 CFM (7.1m3/s), SMOKE DETECTORS SHALL BE INSTALLED AT EACH STOREY. SUCH SMOKE DETECTORS SHALL BE LOCATED UPSTREAM OF THE CONNECTION BETWEEN THE RETURN AIR RISER AND ANY AIR DUCTS QR PLENUMS

SUPPLY AIR SMOKE DETECTORS:
IF INSTALLED, SUPPLY AIR SMOKE DETECTORS SHALL BE MOUNTED IN THE DUCT DOWNSTREAM OF BOTH THE FAN AND THE FILTERS. ADDITIONAL SMOKE DETECTORS IN THE SUPPLY AIR SYSTEM ARE NOT REQUIRED WHERE THE AIR PASSES THROUGH OTHER SMOKE COMPARTMENTS.

SMOKE DAMPERS THAT ARE PART OF A SMOKE BARRIER SHALL BE INSTALLED IN THE PLANE OF THE FIRE PARTITION AND NOT AFTER THE FIRST AIR DUCT INLET OR OUTLET, WHICHEVER IS CLOSER TO THE SMOKE BARRIER. IF THE SMOKE DAMPER IS CONTROLLED BY AIR SYSTEM SMOKE DETECTOR IT SHALL BE LOCATED UPSTREAM OF THE SMOKE DAMPER BUT AFTER ANY INLET OR OUTLET IN THAT DUCT.

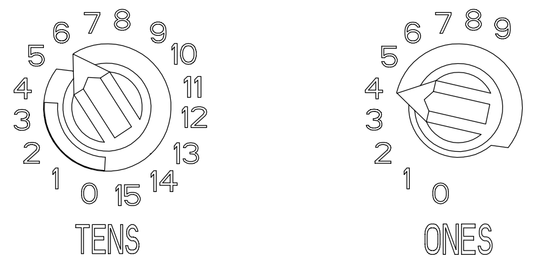
WHERE IN-DUCT SMOKE DETECTORS ARE INSTALLED IN CONCEALED LOCATIONS MORE THAN 10ft ABOVE THE FINISHED FLOOR, OR IN ARRANGEMENTS WHERE THE DETECTOR'S ALARM LIGHT IS NOT READILY VISIBLE TO RESPONDING PERSONNEL, THE DETECTOR SHALL BE PROVIDED WITH REMORE ALARM INDICATORS TO BE INSTALLED IN A READILY ACCESSIBLE LOCATION AND SHALL BE CLEARLY LABELED TO INDICATE BOTH THEIR FUNCTION AND THE AIR HANDLING UNIT(S) ASSOCIATED WITH EACH DETECTOR. (EXCEPTION: WHERE THE SPECIFIC DETECTOR IN ALARM IS INDICATED AT THE CONTROL UNIT)

2 / FA1.1 DUCT SMOKE DETECTOR INSTALLATION GUIDELINES

REV F		BY	TYPICAL FIELD DEVICE INSTALLATION GUIDE
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar / HONEYWELL INSTALLATION: Liana Pinard / DRAFTER: Abhishek Kumar / APPROVED BY: Sarang Bhosale	DRAWING NUMBER USB-006476-FA1.1	REV A

Install

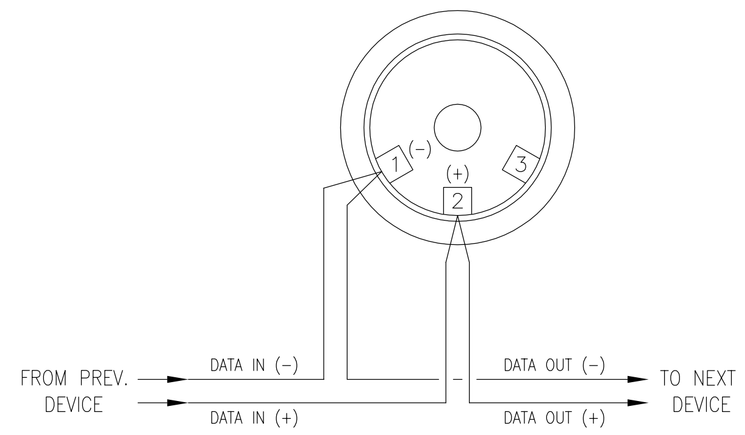
TO SET POINT NUMBER (ADDRESS)



NOTES:

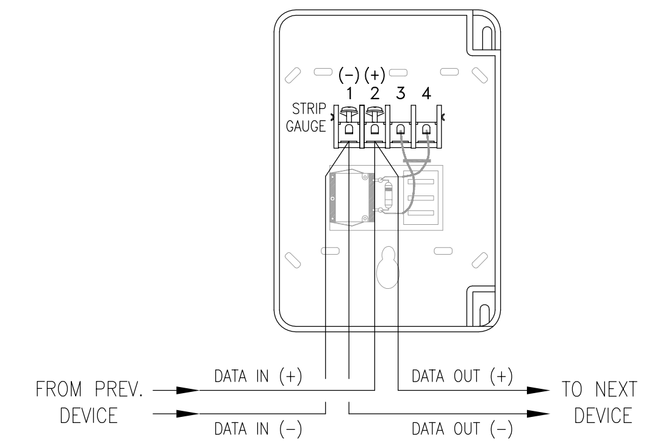
1) DO NOT SET MORE THAN ONE MODULE OR ONE SENSOR WITH THE SAME ADDRESS ON THE SAME SLC CIRCUIT.
2) A SENSOR AND A MODULE CAN HAVE THE SAME ADDRESS ON THE SAME SLC CIRCUIT.
3) THE ABOVE EXAMPLE SHOWS THE DEVICE POINT ADDRESS (MODULE OR DETECTOR) AS 064.
4) MODULE POINT ADDRESSES RANGE FROM 001 THRU 159 (PREFIXED WITH 'M' ON DRAWINGS).
5) SENSOR POINT ADDRESSES RANGE FROM 001 THRU 159 (PREFIXED WITH 'D' ON DRAWINGS).

1 / FA2.1 SENSOR & MODULE ADDRESS DIAL SETTINGS



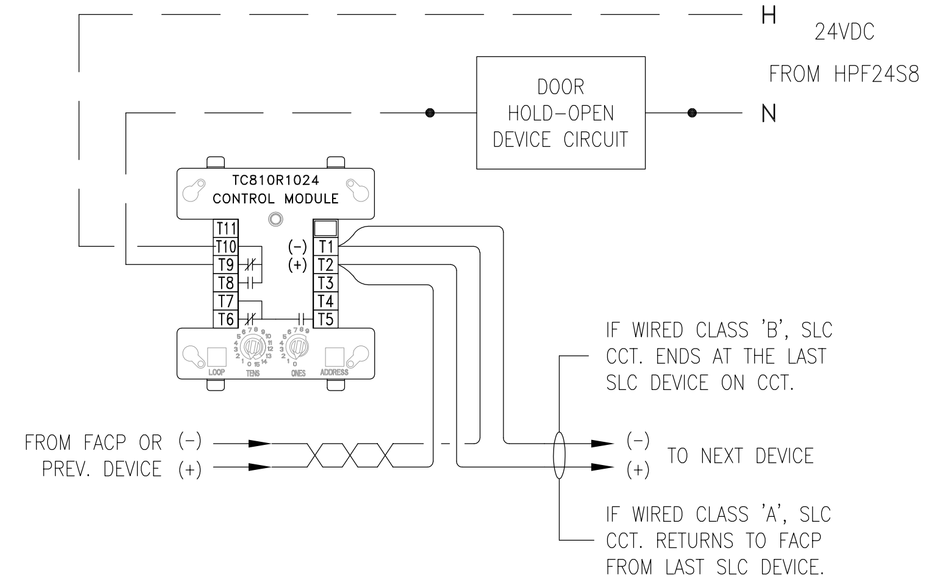
MOUNTING:
3-1/2" OR 4" OCTAGON x 1-1/2" DEEP ELECTRICAL BOX
4" SQUARE x 1-1/2" DEEP ELECTRICAL BOX W/ MUD RING
SINGLE GANG ELECTRICAL BOX WITH 1-1/2" MINIMUM DEPTH

2 / FA2.1 B210LP LOW PROFILE INTELLIGENT BASE
WIRING FOR SMOKE & THERMAL SENSORS

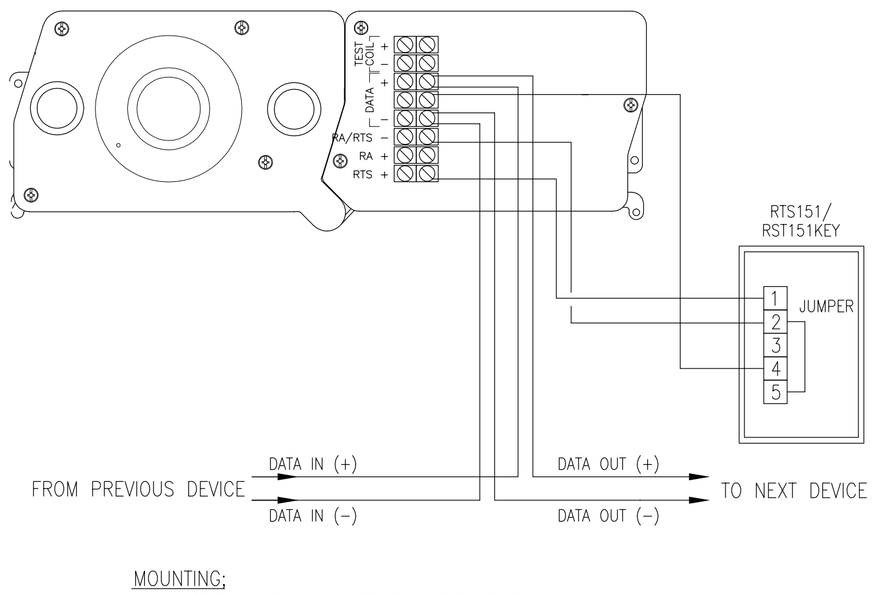


MOUNTING:
SINGLE GANG OR DOUBLE GANG 2-3/4" DEEP ELECTRICAL BOX
4" SQUARE OR 4-11/16" ELECTRICAL BOX WITH PLASTER RING
SB-10 OR SB-I/O ELECTRICAL BOX FOR SURFACE MOUNTING

3 / FA2.1 SG4641007 PULL STATION DATA WIRING

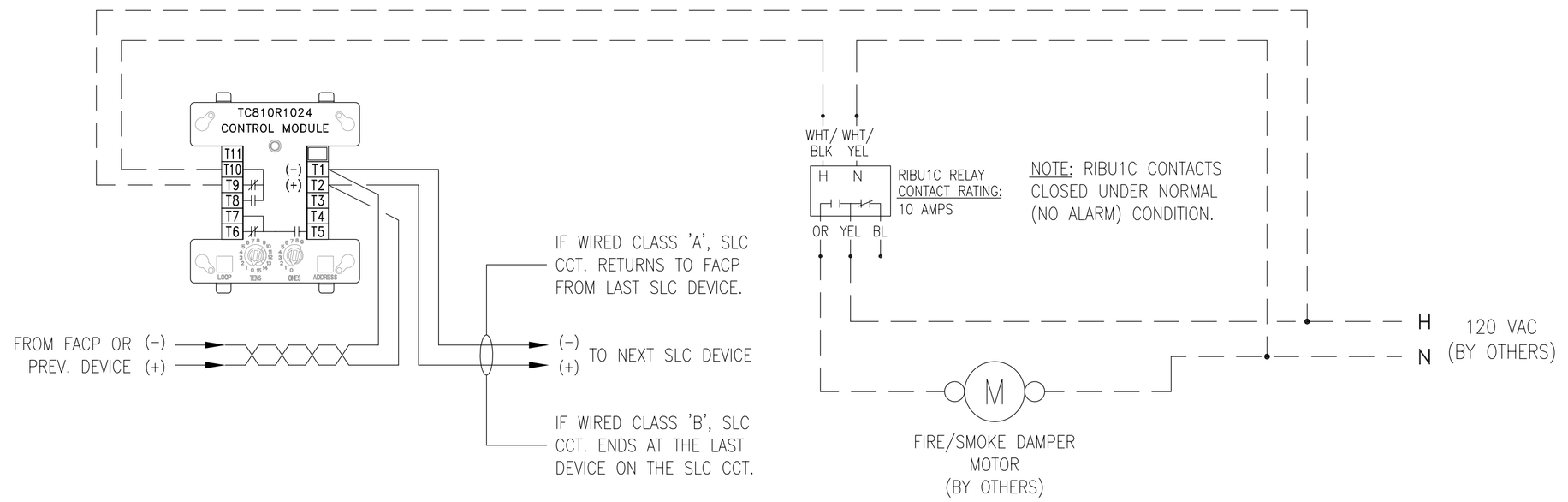


4 / FA2.1 DOOR RELEASING CONTROL WIRING
(FOR DOOR HOLD-OPEN DEVICES)



MOUNTING;
SEE INSTALLATION INSTRUCTIONS INCLUDED WITH DEVICE.

5 / FA2.1 DNR ADDRESSABLE DUCT DETECTOR BASE WIRING WITH REMOTE TEST STATION



6 / FA2.1 FIRE/SMOKE DAMPER CONTROL WIRING

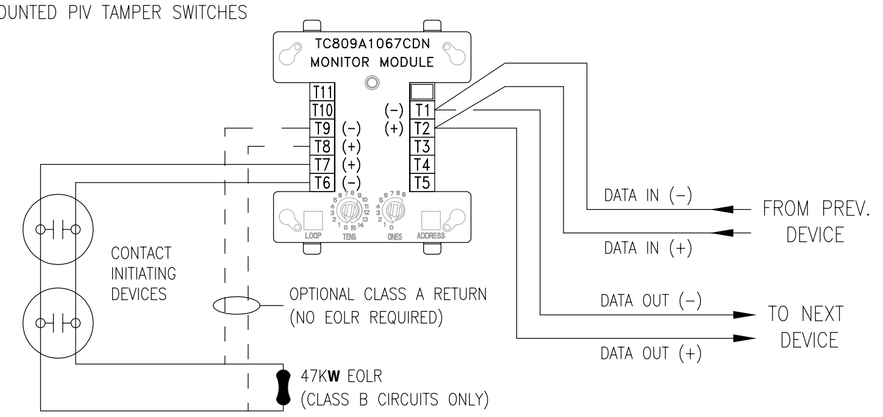
REV F		BY	TYPICAL FIELD DEVICE WIRING DETAILS (1 OF 2)
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

DRAWING NUMBER USB-006476-FA2.1 REV A

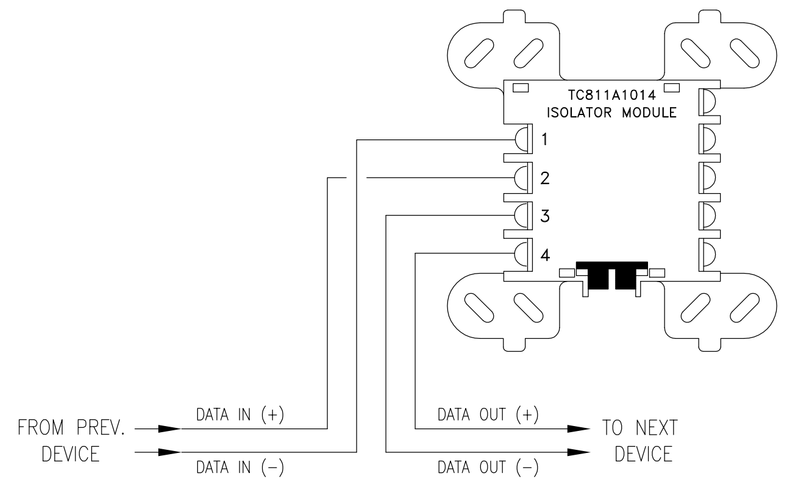
Install

NOTE:
USE THE DITEK DTK-1LVLPLV
SURGE PROTECTOR FOR OUTDOOR
MOUNTED PIV TAMPER SWITCHES



MOUNTING:
4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX

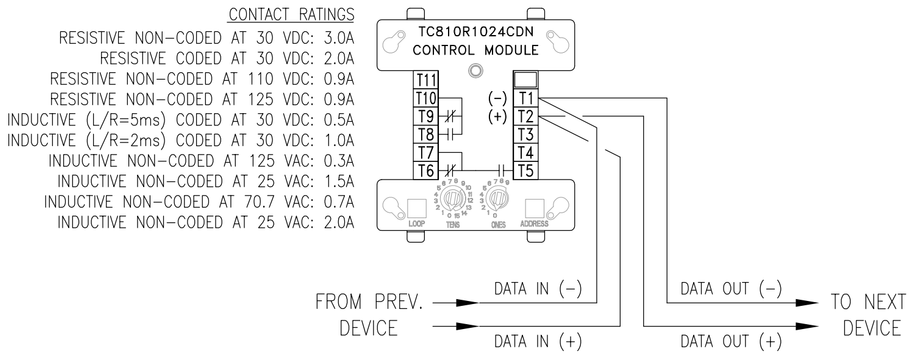
1 FA2.2 TC809A MONITOR MODULE WIRING



MOUNTING:
4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX

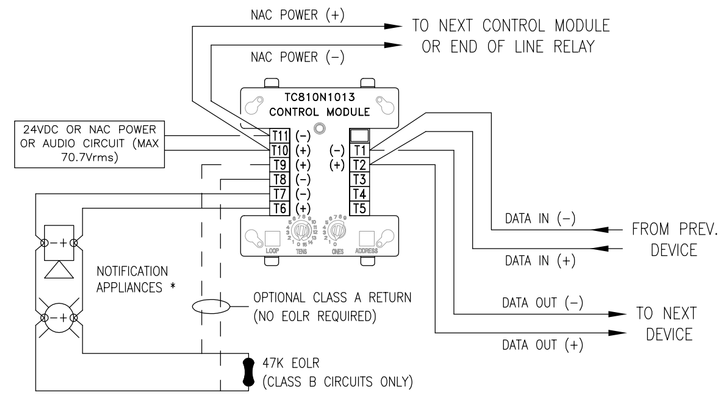
2 FA2.2 TC811A1006 ISOLATOR MODULE WIRING

CONTACT RATINGS
RESISTIVE NON-CODED AT 30 VDC: 3.0A
RESISTIVE CODED AT 30 VDC: 2.0A
RESISTIVE NON-CODED AT 110 VDC: 0.9A
RESISTIVE NON-CODED AT 125 VDC: 0.9A
INDUCTIVE (L/R=5ms) CODED AT 30 VDC: 0.5A
INDUCTIVE (L/R=2ms) CODED AT 30 VDC: 1.0A
INDUCTIVE NON-CODED AT 125 VAC: 0.3A
INDUCTIVE NON-CODED AT 25 VAC: 1.5A
INDUCTIVE NON-CODED AT 70.7 VAC: 0.7A
INDUCTIVE NON-CODED AT 25 VAC: 2.0A



MOUNTING:
4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX

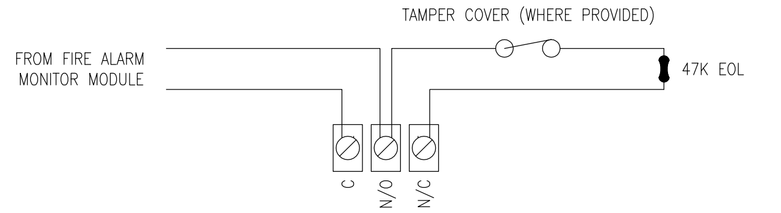
3 FA2.2 TC810R RELAY MODULE WIRING



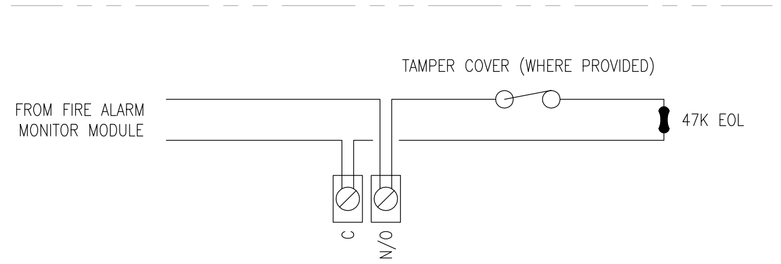
* MODULE POLARITIES SHOWN IN ALARM CONDITION

MOUNTING:
4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX

4 FA2.2 TC810N CONTROL MODULE WIRING

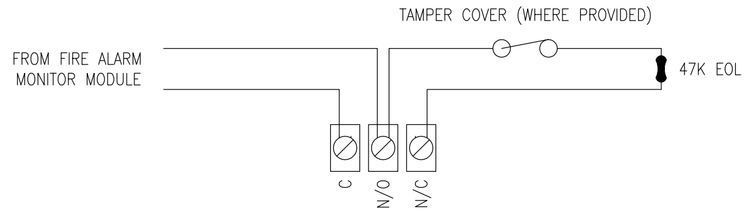


SUPERVISED VALVE WITH FORM C CONTACT

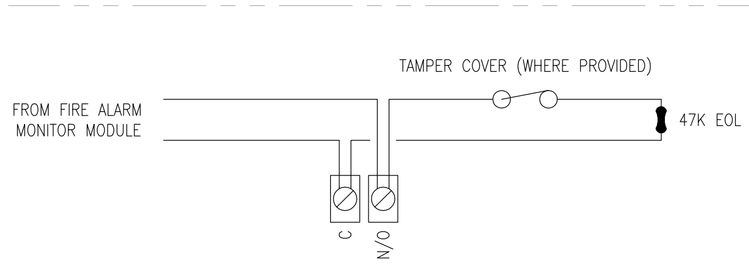


SUPERVISED VALVE WITH N/O CONTACT

5 FA2.2 SPRINKLER SUPERVISED VALVE WIRING



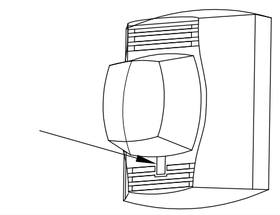
WATERFLOW SWITCH WITH FORM C CONTACT



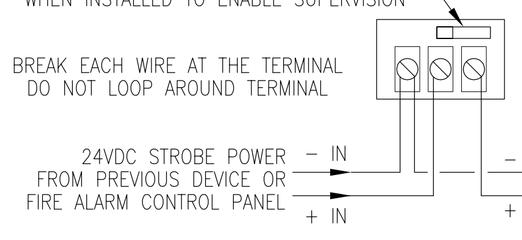
WATERFLOW SWITCH WITH N/O CONTACT

6 FA2.2 SPRINKLER WATERFLOW SWITCH WIRING

STROBE CANDELA SELECTION
SLIDE SWITCH ON REAR OF PRODUCT. SETTING SHOWS ON FRONT OF UNIT



SHORTING SPRING PROVIDED FOR INSTALLATION AND TESTING. SPRING WILL DISENGAGE WHEN INSTALLED TO ENABLE SUPERVISION



BREAK EACH WIRE AT THE TERMINAL DO NOT LOOP AROUND TERMINAL

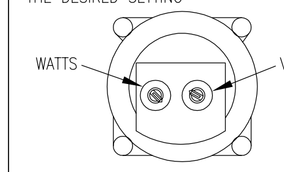
T-TAPPING IS NOT ALLOWED!

24VDC STROBE POWER FROM PREVIOUS DEVICE OR FIRE ALARM CONTROL PANEL
- IN
+ IN
- OUT
+ OUT
24VDC STROBE POWER TO NEXT DEVICE, END OF LINE RESISTOR OR RETURN TO FIRE ALARM CONTROL PANEL

MOUNTING (INDOOR WALL):
SINGLE OR DOUBLE GANG ELECTRICAL BOX WITH MOUNTING PLATE
SEE PRODUCT INSTALLATION SHEET FOR MOUNTING INSTRUCTION

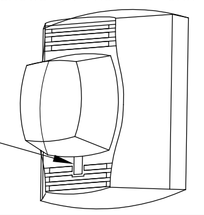
7 FA2.2 SPECTRALERT SR CLEAR STROBES
SELECTABLE OUTPUT STROBES

VOLTAGE AND POWER SELECTION
SET THE POWER AND VOLTAGE DIALS ON THE REAR OF THE DEVICE TO THE DESIRED SETTING

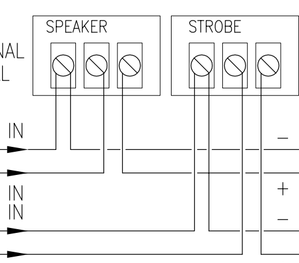


SETTINGS WILL VARY BASED ON PLACEMENT

STROBE CANDELA SELECTION
SLIDE SWITCH ON REAR OF PRODUCT, SETTING SHOWS ON FRONT OF UNIT



BREAK EACH WIRE AT THE TERMINAL DO NOT LOOP AROUND TERMINAL



T-TAPPING IS NOT ALLOWED!

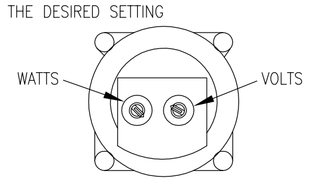
70 VAC AUDIO POWER FROM PREVIOUS DEVICE OR DIGITAL AUDIO AMPLIFIER
- IN
+ IN
- OUT
+ OUT
70 VAC AUDIO POWER TO NEXT DEVICE OR TO DIGITAL AUDIO AMPLIFIER

24 VDC STROBE POWER FROM PREVIOUS DEVICE OR NAC BOOSTER PWR SUPPLY
- IN
+ IN
- OUT
+ OUT
24 VDC STROBE POWER TO NEXT DEVICE OR TO NAC BOOSTER PWR SUPPLY

MOUNTING (INDOOR WALL):
4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX
SEE PRODUCT INSTALLATION SHEET FOR MOUNTING INSTRUCTIONS

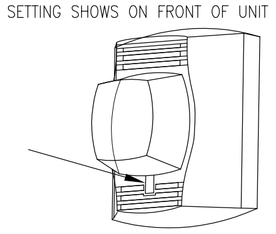
8 FA2.2 SPECTRALERT SPSR SPEAKER-STROBES
DUAL VOLTAGE SPEAKERS/SELECTABLE CD STROBES

VOLTAGE AND POWER SELECTION
SET THE POWER AND VOLTAGE DIALS ON THE REAR OF THE DEVICE TO THE DESIRED SETTING

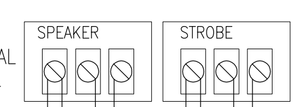


SETTINGS WILL VARY BASED ON PLACEMENT

STROBE CANDELA SELECTION
SLIDE SWITCH ON REAR OF PRODUCT, SETTING SHOWS ON FRONT OF UNIT



BREAK EACH WIRE AT THE TERMINAL DO NOT LOOP AROUND TERMINAL



T-TAPPING IS NOT ALLOWED!

70 VAC AUDIO POWER FROM PREVIOUS DEVICE OR DIGITAL AUDIO AMPLIFIER
- IN
+ IN
- OUT
+ OUT
70 VAC AUDIO POWER TO NEXT DEVICE OR TO DIGITAL AUDIO AMPLIFIER

24 VDC STROBE POWER FROM PREVIOUS DEVICE OR NAC BOOSTER PWR SUPPLY
- IN
+ IN
- OUT
+ OUT
24 VDC STROBE POWER TO NEXT DEVICE OR TO NAC BOOSTER PWR SUPPLY

MOUNTING (INDOOR WALL):
4" SQUARE x 2-1/8" DEEP ELECTRICAL BOX
SEE PRODUCT INSTALLATION SHEET FOR MOUNTING INSTRUCTIONS

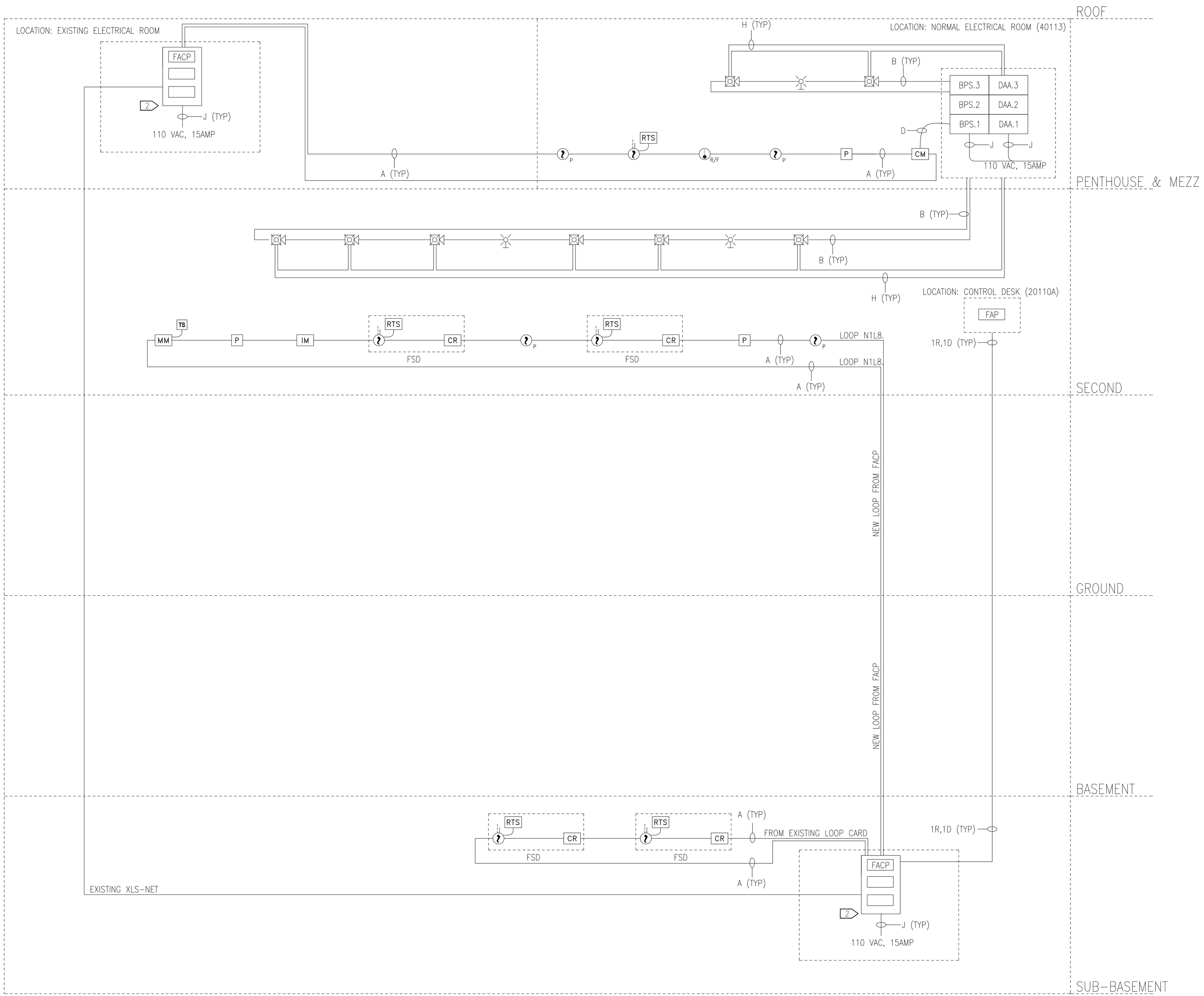
9 FA2.2 SPECTRALERT SPSRK SPEAKER-STROBES
WEATHERPROOF DUAL VOLTAGE SPEAKERS/SELECTABLE CD STROBES

REV F		BY	TYPICAL FIELD DEVICE WIRING DETAILS (2 OF 2)
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA2.2 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

APPROVED BY: Sarang Bhosale

Install



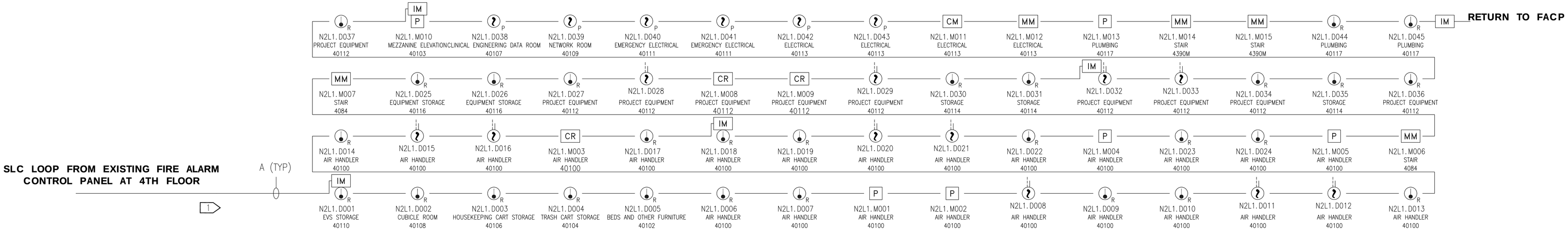
NOTES

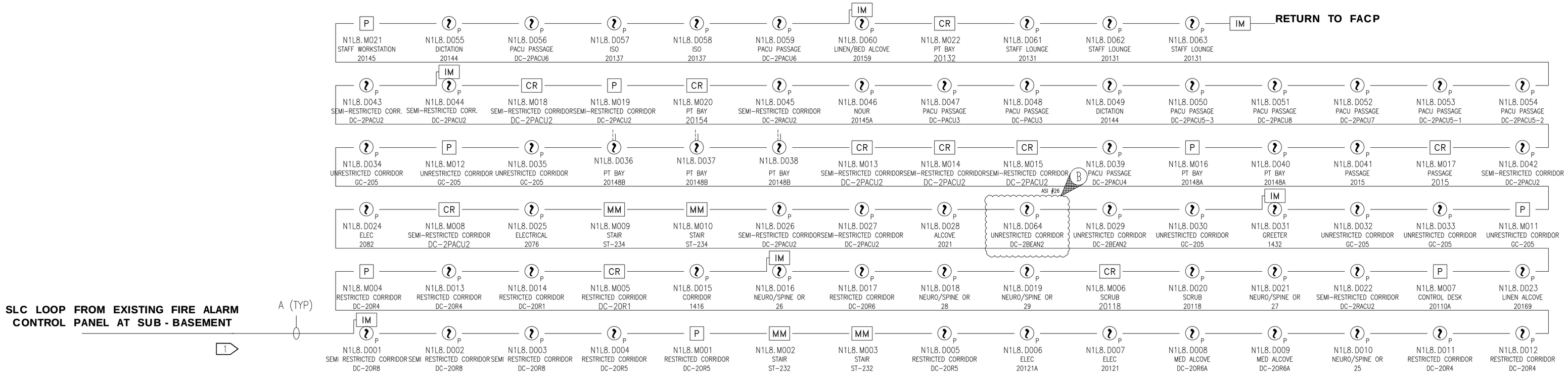
1. SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.
2. EXISTING FIRE ALARM PANEL
3. THE WIRING SHOWN IS FOR SCHEMATIC ILLUSTRATION ONLY. FEED AND RETURN WIRES ARE TO BE SEPARATED TO MAINTAIN CIRCUIT INTEGRITY
4. REFER DRAWING FA0.3 FOR CABLE LEGEND DETAILS.
5. 3. IF RELAY OR SOUNDER BASES ARE NOT USED, A MAXIMUM OF 25 ADDRESSABLE DEVICES CAN BE CONNECTED BETWEEN ISOLATOR MODULES AND/OR BASES. WHEN RELAY OR SOUNDER BASES ARE USED, THE MAXIMUM NUMBER OF ADDRESSABLE DEVICES THAT CAN BE CONNECTED BETWEEN ISOLATORS IS REDUCED TO 7.

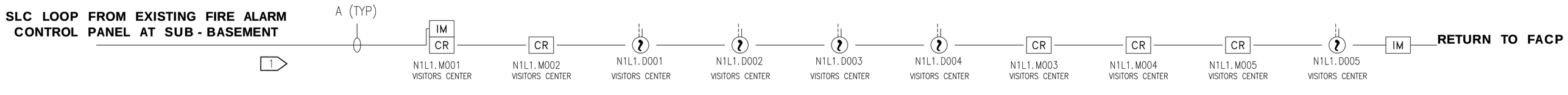
REV F		BY	FIRE ALARM SYSTEM ARCHITECTURTE
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA3.1 REV A

Install

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale







NOTES

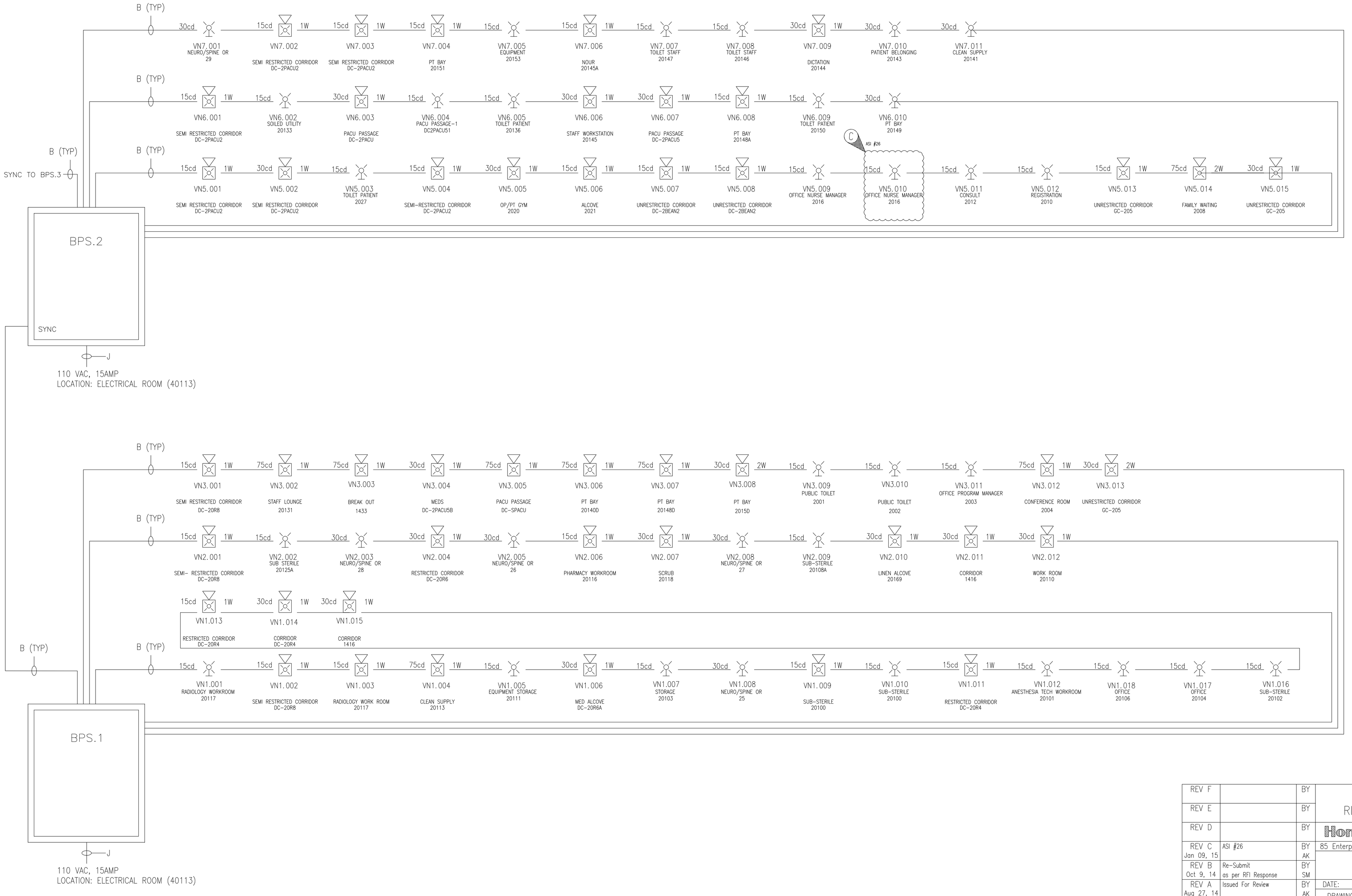
1. SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.

REV F		BY	SLC FIRE ALARM RISER DIAGRAM
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Jan 09, 15	ASI #26	BY AK	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

DRAWING NUMBER USB-006476-FA4.1 REV B

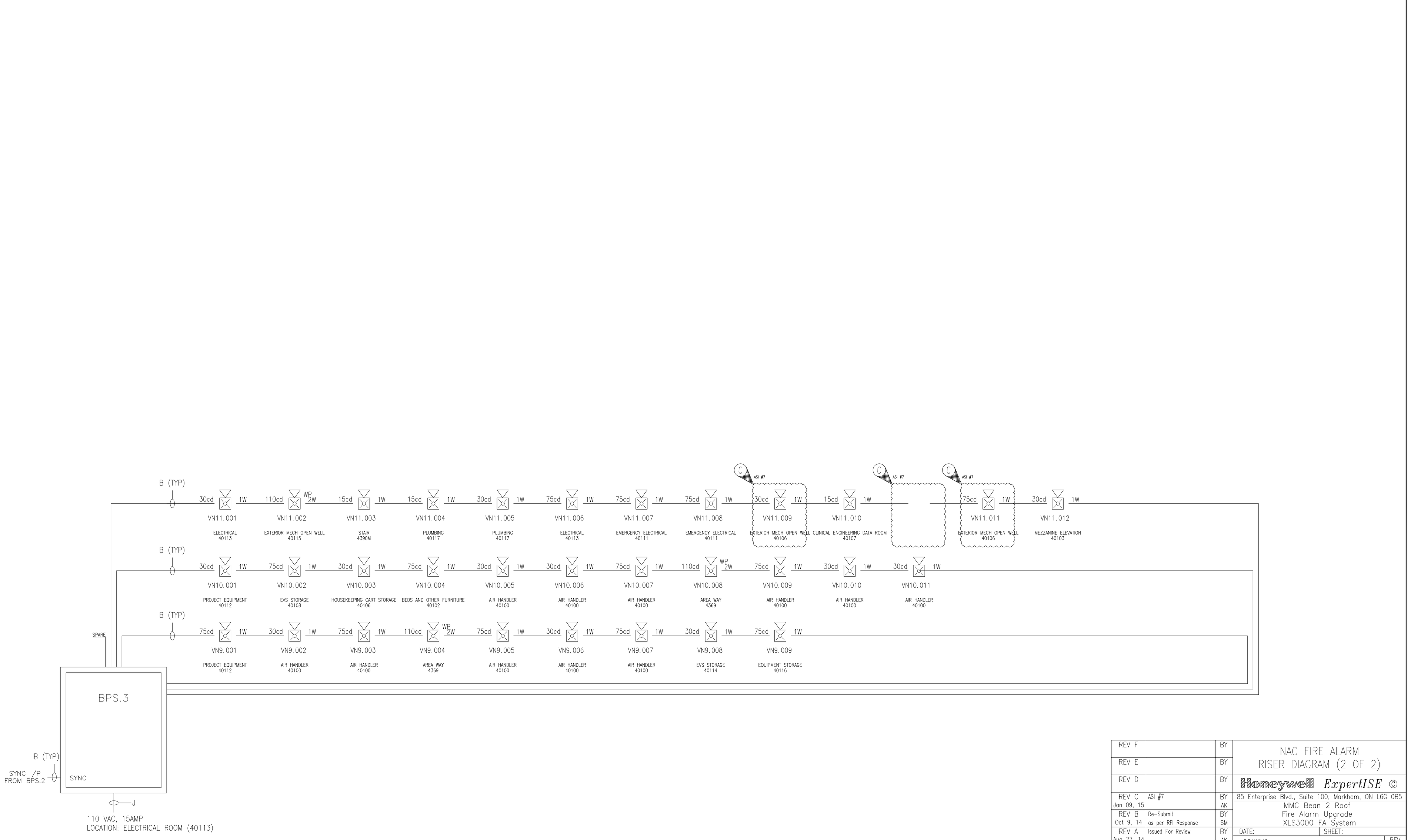
Install



REV F		BY	NAC FIRE ALARM RISER DIAGRAM (1 OF 2)
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C Jan 09, 15	ASI #26	BY AK	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9, 14	Re-Submit as per RFI Response	BY SM	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale	DRAWING NUMBER USB-006476-FA4.2	REV C

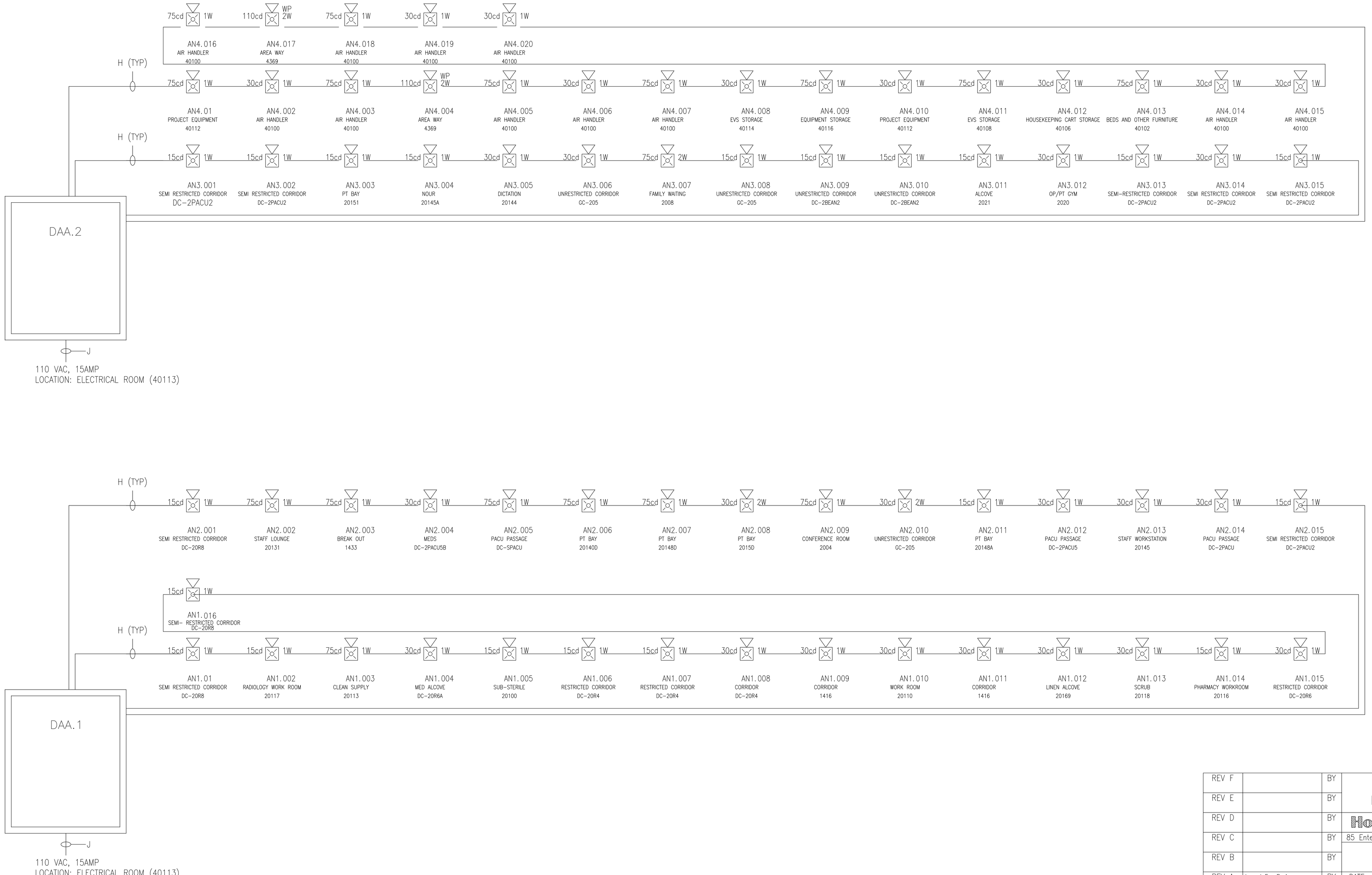
Install



REV F		BY	NAC FIRE ALARM RISER DIAGRAM (2 OF 2)
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C Jan 09, 15	ASI #7	BY AK	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9, 14	Re-Submit as per RFI Response	BY SM	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA4.3 REV C

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install

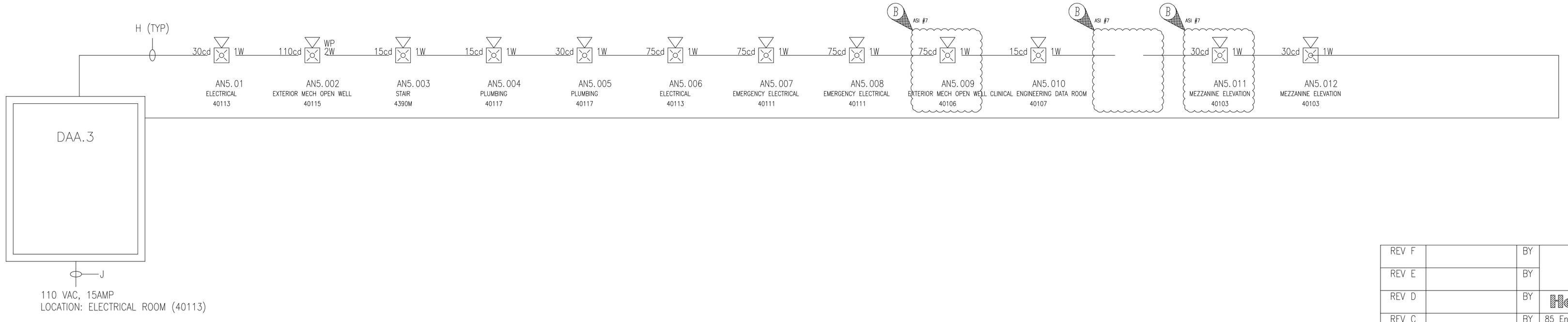


REV F		BY	SPEAKER FIRE ALARM RISER DIAGRAM (1 OF 2)
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA4.4 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

APPROVED BY: Sarang Bhosale

Install

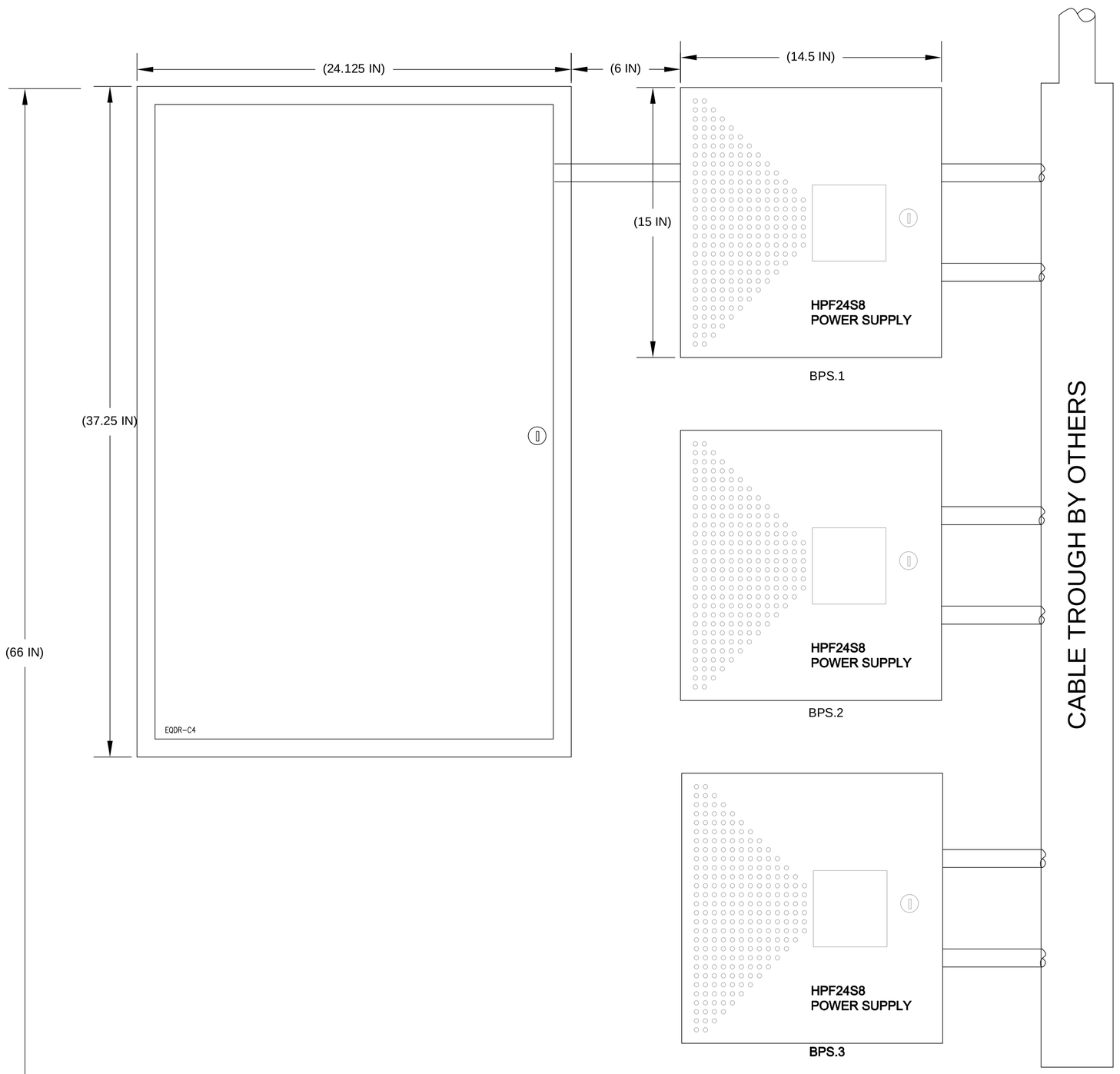


REV F		BY	SPEAKER FIRE ALARM RISER DIAGRAM (2 OF 2)
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Jan 09, 15	ASI #7	BY AK	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA4.5 REV B

Install

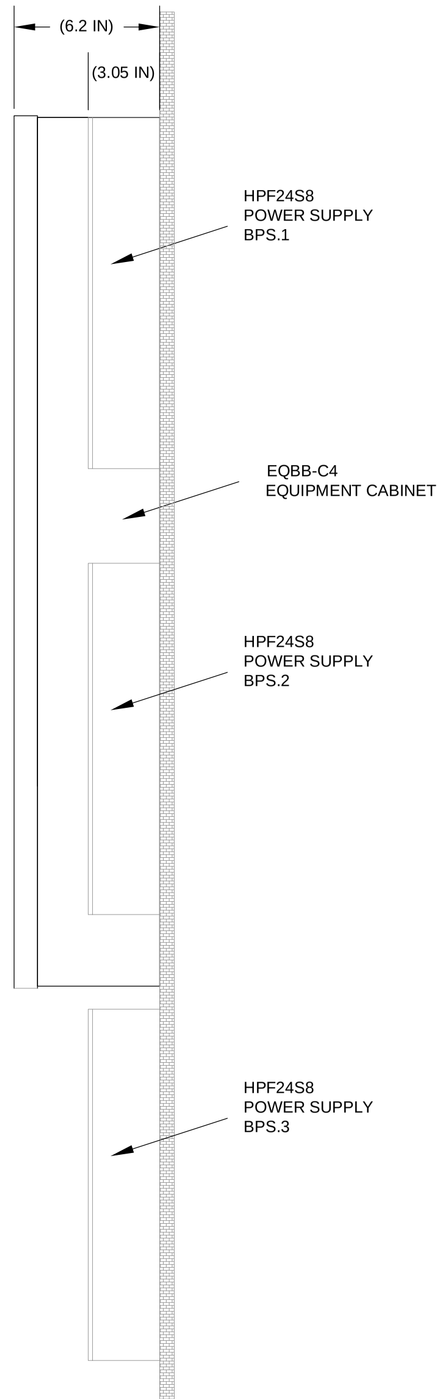
PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

APPROVED BY: Sarang Bhosale

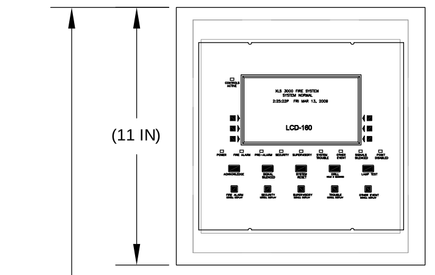


FRONT VIEW

1 / FA5.1 AMPLIFIER PANEL & BPS ELEVATION DETAILS
LOCATION: ELECTRICAL ROOM (40113)



SIDE VIEW



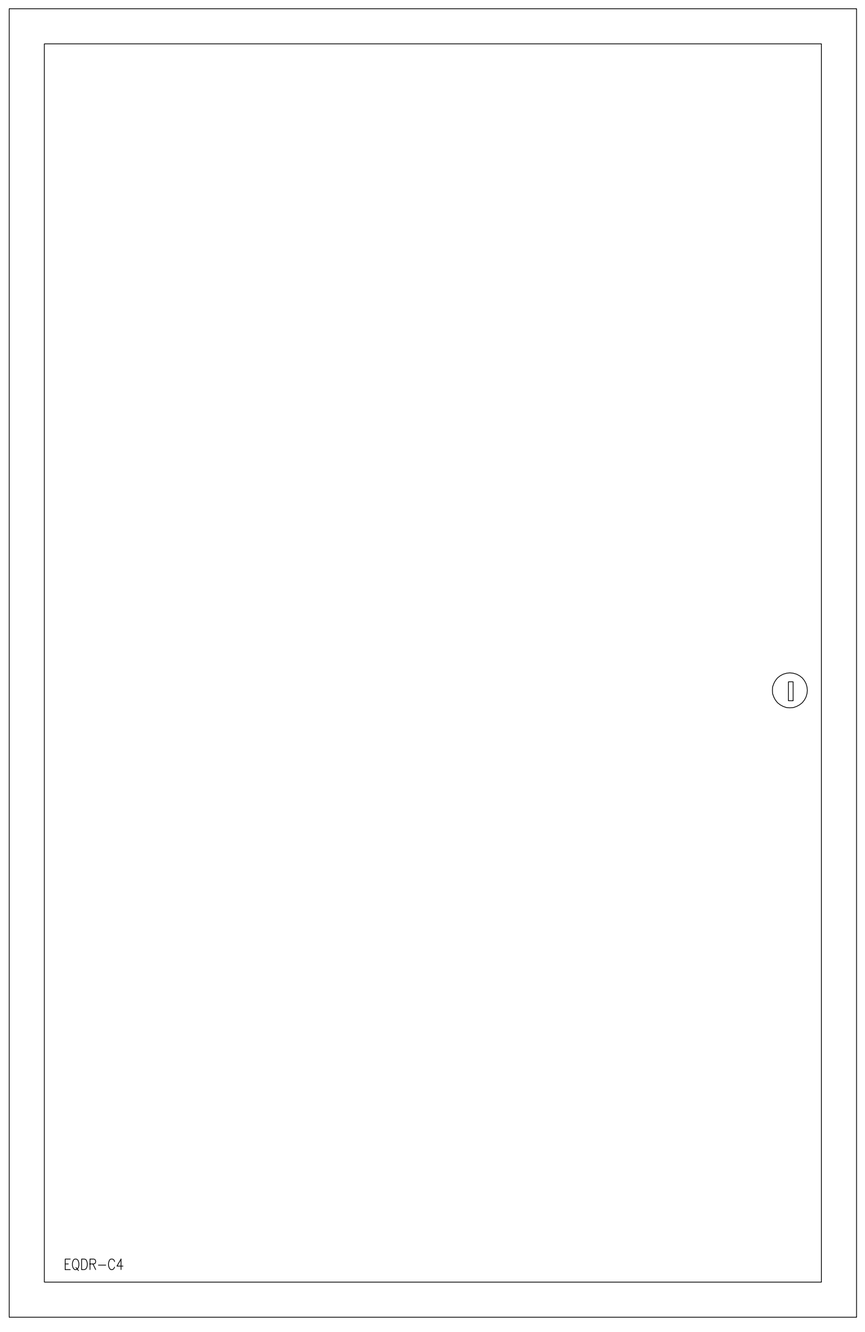
2 / FA5.1 ANNUNCIATOR ELEVATION DETAILS
LOCATION: CONTROL DESK (20110A)

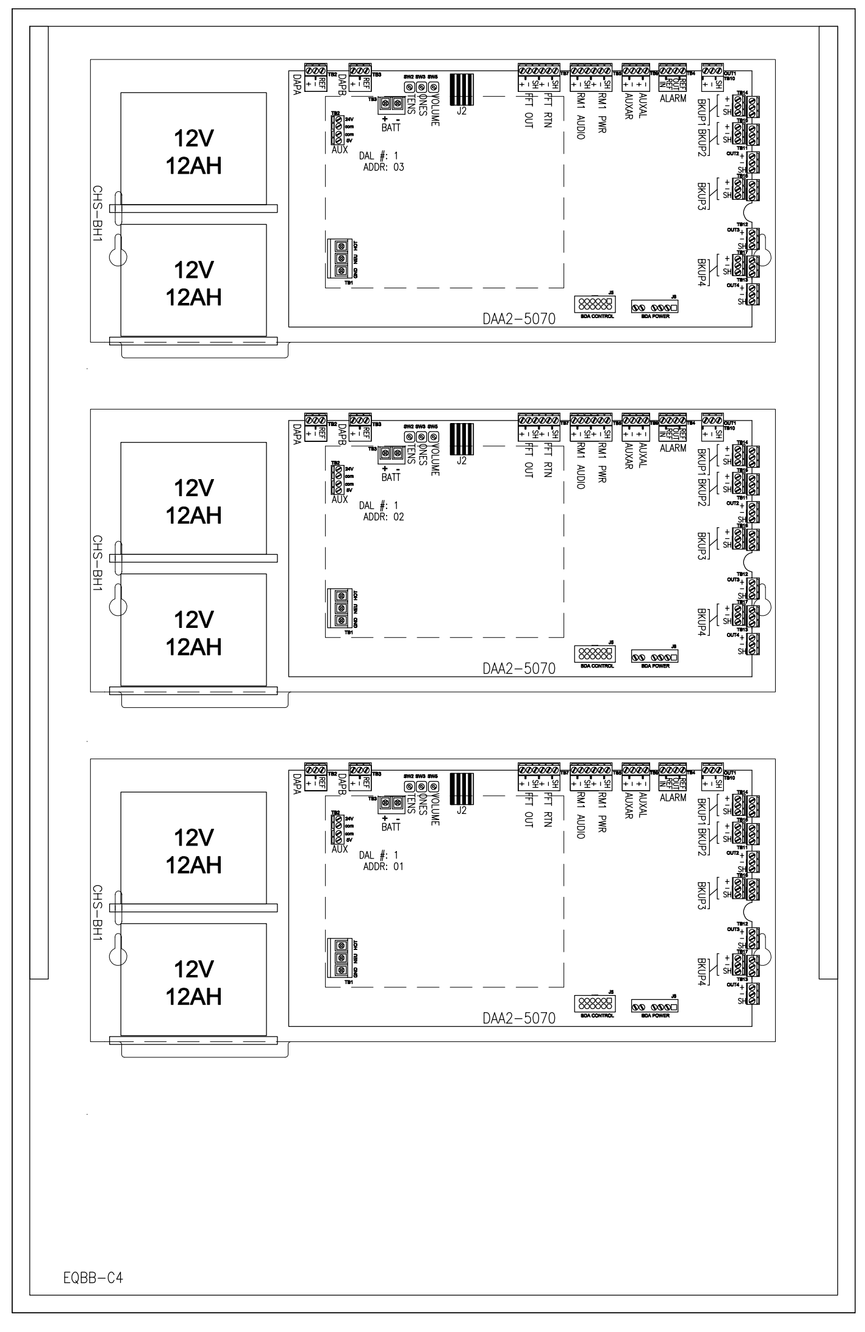
FRONT VIEW

REV F		BY	AMPLIFIER, BPS & ANNUNCIATOR PANEL ELEVATION DETAILS
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA5.1 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install





XLS-ABF-2B
TRIM
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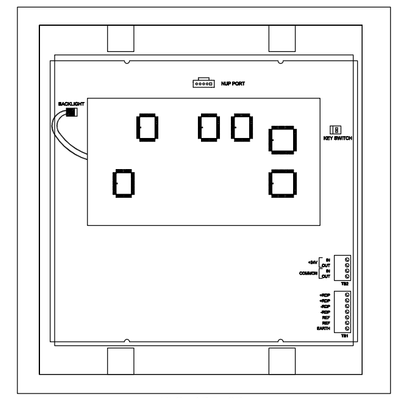
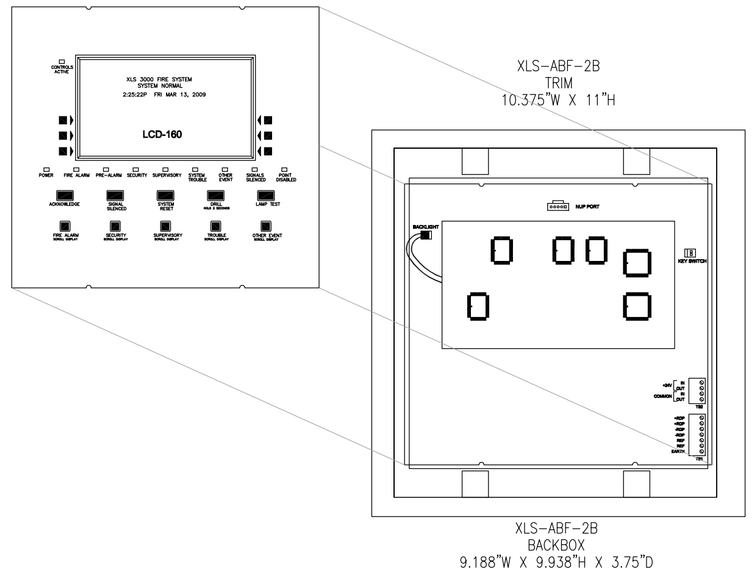


XLS-ABF-2B
BACKBOX
9.188"W X 9.938"H X 3.75"D

PANEL INTERIOR



INNER DEAD FRONT

1 FA5.2 AMPLIFIER PANEL ASSEMBLY DETAILS
LOCATION: ELECTRICAL ROOM (40113)

2 FA5.2 ANNUNCIATOR ASSEMBLY DETAILS
LOCATION: CONTROL DESK (20110A)

REV F		BY	AMPLIFIER & ANNUNCIATOR PANEL ASSEMBLY DETAILS
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA5.2 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.25 (multiplier)

Module Name	Quantity	Supply Current (mA)	Alarm Current (mA)	Suprv Current (mA)	Amp Hours	Battery Required
LCD-160	1	0	325	75	2.352	3 AH
LCM-320	1	0	130	130	3.95	4 AH

1

Battery Calculations for Amplifier

Battery Discharge Calculation Formula:
((tAlarm * iAlm) + (tSupv x iSupv)) x SF

Point No 8

Standby Alarm Time (tAlarm)	15 Minutes
Standby Supervisory Time (tSupv)	24 Hours
Safety Factor (SF)	1.25 (multiplier)

Panel Location	CONTROL DESK (20110A)				
Module Name	Quantity	Supply Current (mA)	Alarm Current (mA)	Suprv Current (mA)	Amp Hours
DAA-5070	1	0	3800	350	11.6875
Totals		0	0	0	
Total AH Required					11.7 AH
Supplied Battery Capacity					12 AH

Battery Calculations for BPS.1

Battery Discharge Calculation Formula:
((tAlarm * iAlm) + (tSupv x iSupv)) x SF

Standby Alarm Time (tAlarm)	15	Minutes
Standby Supervisory Time (tSupv)	24	Hours
Safety Factor (SF)	1.25	(multiplier)

Panel Location	ELECTRICAL ROOM (40113)				
Module Name	Quantity	Supply Current (mA)	Alarm Current (mA)	Suprv Current (mA)	Amp Hours
HPF24S8	1	8000	145	65	1.9953125
SPSR-15CD	9	0	66	0	0.185625
SPSR-30CD	15	0	94	0	0.440625
SPSR-75CD	1	0	158	0	0.049375
SPSR-110CD	1	0	202	0	0.063125
SR-15CD	13	0	66	0	0.268125
SR-30CD	4	0	94	0	0.1175
Totals		8000	3743	65	
Total AH Required					3.1 AH
Supplied Battery Capacity					7 AH

Battery Calculations for BPS.2

Battery Discharge Calculation Formula:
((tAlarm * iAlm) + (tSupv x iSupv)) x SF

Standby Alarm Time (tAlarm)	15	Minutes
Standby Supervisory Time (tSupv)	24	Hours
Safety Factor (SF)	1.25	(multiplier)

Panel Location	ELECTRICAL ROOM (40113)				
Module Name	Quantity	Supply Current (mA)	Alarm Current (mA)	Suprv Current (mA)	Amp Hours
HPF24S8	1	8000	145	65	1.9953125
SPSR-15CD	12	0	66	0	0.2475
SPSR-30CD	8	0	94	0	0.235
SR-15CD	12	0	66	0	0.2475
SR-30CD	4	0	94	0	0.1175
1509-AQN5	12	0	0	15	5.4
Totals		8000	2857	245	
Total AH Required					8.2 AH
Supplied Battery Capacity					12 AH

Battery Calculations for BPS.3

Battery Discharge Calculation Formula:
((tAlarm * iAlm) + (tSupv x iSupv)) x SF

Standby Alarm Time (tAlarm)	15	Minutes
Standby Supervisory Time (tSupv)	24	Hours
Safety Factor (SF)	1.25	(multiplier)

Panel Location	ELECTRICAL ROOM (40113)				
Module Name	Quantity	Supply Current (mA)	Alarm Current (mA)	Suprv Current (mA)	Amp Hours
HPF24S8	1	8000	145	65	1.9953125
SPSR-15CD	3	0	66	0	0.061875
SPSR-30CD	13	0	94	0	0.381875
SPSR-75CD	13	0	158	0	0.641875
SPSRK-110CD	3	0	202	0	0.189375
Totals		8000	4225	65	
Total AH Required					3.3 AH
Supplied Battery Capacity					7 AH

Notification Appliance Voltage Drop Calculations

Circuit Name: VN1.

Source Voltage	20.4 VDC
Wire Gauge	14 AWG
Resistance per 1000 feet	2.58 OHMS
TOTAL CIRCUIT LENGTH	397.68
END OF LINE VOLTAGE	18.80
Percent Drop	7.83

Device ID	Device Type	Setting	Current	Distance From Previous	Current at Device	Voltage At Device
VN1.0		N/A	0	0	1.392	20.400
VN1.001	SR	15cd	0.066	30	1.392	20.188
VN1.002	SPSR	15cd	0.066	26	1.326	20.008
VN1.003	SPSR	15cd	0.066	24	1.260	19.852
VN1.004	SPSR	75cd	0.158	18	1.194	19.739
VN1.005	SR	15cd	0.066	39	1.036	19.533
VN1.006	SPSR	30cd	0.094	16	0.970	19.453
VN1.007	SR	15cd	0.066	22	0.876	19.353
VN1.008	SR	30cd	0.094	23	0.810	19.258
VN1.009	SPSR	15cd	0.066	41	0.716	19.108
VN1.010	SR	15cd	0.066	18	0.650	19.047
VN1.011	SPSR	15cd	0.066	14	0.584	19.004
VN1.012	SR	15cd	0.066	20	0.518	18.949
VN1.013	SPSR	15cd	0.066	11	0.452	18.925
VN1.014	SPSR	30cd	0.094	29	0.386	18.868
VN1.015	SPSR	30cd	0.094	20	0.292	18.838
VN1.016	SR	15cd	0.066	16	0.198	18.822
VN1.017	SR	15cd	0.066	23	0.132	18.806
VN1.018	SR	15cd	0.066	8	0.066	18.804

Total Current on this circuit: 1.392

Notification Appliance Voltage Drop Calculations

Circuit Name: VN2.

Source Voltage	20.4 VDC
Wire Gauge	14 AWG
Resistance per 1000 feet	2.58 OHMS
TOTAL CIRCUIT LENGTH	309.34
END OF LINE VOLTAGE	19.49
Percent Drop	4.45

Device ID	Device Type	Setting	Current	Distance From Previous	Current at Device	Voltage At Device
VN2.0		N/A	0	0	1.016	20.400
VN2.001	SPSR	15cd	0.066	25	1.016	20.267
VN2.002	SR	15cd	0.066	15	0.950	20.194
VN2.003	SR	30cd	0.094	37	0.884	20.024
VN2.004	SPSR	30cd	0.094	29	0.790	19.907
VN2.005	SR	30cd	0.094	27	0.696	19.810
VN2.006	SPSR	15cd	0.066	19	0.602	19.752
VN2.007	SPSR	30cd	0.094	27	0.536	19.678
VN2.008	SR	30cd	0.094	25	0.442	19.622
VN2.009	SR	15cd	0.066	34	0.348	19.560
VN2.010	SPSR	30cd	0.094	25	0.282	19.523
VN2.011	SPSR	30cd	0.094	18	0.188	19.506
VN2.012	SPSR	30cd	0.094	28	0.094	19.493

Total Current on this circuit: 1.016

Point No 7

Notification Appliance Voltage Drop Calculations

Circuit Name: VN3.

Source Voltage	20.4 VDC
Wire Gauge	14 AWG
Resistance per 1000 feet	2.58 OHMS
TOTAL CIRCUIT LENGTH	423.65
END OF LINE VOLTAGE	18.43
Percent Drop	9.65

Device ID	Device Type	Setting	Current	Distance From Previous	Current at Device	Voltage At Device
VN3.0		N/A	0	0	1.494	20.400
VN3.001	SPSR	15cd	0.066	77	1.494	19.807
VN3.002	SPSR	75cd	0.158	13	1.428	19.712
VN3.003	SPSR	75cd	0.158	57	1.270	19.338
VN3.004	SPSR	30cd	0.094	20	1.112	19.224
VN3.005	SPSR	75cd	0.158	39	1.018	19.020
VN3.006	SPSR	75cd	0.158	38	0.860	18.853
VN3.007	SPSR	75cd	0.158	37	0.702	18.719
VN3.008	SPSR	30cd	0.094	56	0.544	18.563
VN3.009	SR	15cd	0.066	21	0.450	18.514
VN3.010	SR	15cd	0.066	19	0.384	18.477
VN3.011	SR	15cd	0.066	10	0.318	18.460
VN3.012	SPSR	75cd	0.158	14	0.252	18.442
VN3.013	SPSR	30cd	0.094	23	0.094	18.431

Total Current on this circuit: 1.494

NOTES

1 ENSURE AVAILABILITY OF ADDITIONAL BATTERY CAPACITY IN EXISTING PANEL.

REV F		BY	BATTERY CALCULATIONS & BPS VOLTAGE DROP CALCULATION
REV E		BY	
REV D Jan 9, 15	ASI #7 & ASI #26	BY AK	Honeywell ExpertISE ©
REV C Dec 9, 14	Re-Submit As per comment by Suffolk	BY AK	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9, 14	Re-Submit as per RFI Response	BY SM	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:

DRAWING NUMBER USB-006476-FA5.3 REV D

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install

Notification Appliance Voltage Drop Calculations

Circuit Name: VN5.

Source Voltage	20.4 VDC
Wire Gauge	14 AWG
Resistance per 1000 feet	2.58 OHMS
TOTAL CIRCUIT LENGTH	519.16
END OF LINE VOLTAGE	18.23
Percent Drop	10.62

Device ID	Device Type	Setting	Current	Distance From Previous	Current at Device	Voltage At Device
VN5.0		N/A	0	0	1.166	20.400
VN5.001	SPSR	15cd	0.066	150	1.166	19.499
VN5.002	SPSR	30cd	0.094	26	1.100	19.353
VN5.003	SR	15cd	0.066	32	1.006	19.189
VN5.004	SPSR	15cd	0.066	52	0.940	18.939
VN5.005	SPSR	30cd	0.094	31	0.874	18.800
VN5.006	SPSR	15cd	0.066	31	0.780	18.674
VN5.007	SPSR	15cd	0.066	31	0.714	18.560
VN5.008	SPSR	15cd	0.066	20	0.648	18.493
VN5.009	SR	15cd	0.066	19	0.582	18.437
VN5.010	SR	15cd	0.066	16	0.516	18.394
VN5.011	SR	15cd	0.066	29	0.450	18.327
VN5.012	SR	15cd	0.066	13	0.384	18.302
VN5.013	SPSR	15cd	0.066	10	0.318	18.286
VN5.014	SPSR	75cd	0.158	27	0.252	18.250
VN5.015	SPSR	30cd	0.094	33	0.094	18.234

Total Current on this circuit: 1.166

Notification Appliance Voltage Drop Calculations

Circuit Name: VN6.

Source Voltage	20.4 VDC
Wire Gauge	14 AWG
Resistance per 1000 feet	2.58 OHMS
TOTAL CIRCUIT LENGTH	340.70
END OF LINE VOLTAGE	19.50
Percent Drop	4.43

Device ID	Device Type	Setting	Current	Distance From Previous	Current at Device	Voltage At Device
VN6.0		N/A	0	0	0.772	20.400
VN6.001	SPSR	15cd	0.066	115	0.772	19.943
VN6.002	SR	15cd	0.066	18	0.706	19.879
VN6.003	SPSR	30cd	0.094	17	0.640	19.824
VN6.004	SR	15cd	0.066	36	0.546	19.723
VN6.005	SR	15cd	0.066	15	0.480	19.685
VN6.006	SPSR	30cd	0.094	27	0.414	19.627
VN6.007	SPSR	30cd	0.094	37	0.320	19.566
VN6.008	SPSR	15cd	0.066	40	0.226	19.519
VN6.009	SR	15cd	0.066	17	0.160	19.505
VN6.010	SR	30cd	0.094	19	0.094	19.496

Total Current on this circuit: 0.772

Notification Appliance Voltage Drop Calculations

Circuit Name: VN7.

Source Voltage	20.4 VDC
Wire Gauge	14 AWG
Resistance per 1000 feet	2.58 OHMS
TOTAL CIRCUIT LENGTH	344.18
END OF LINE VOLTAGE	19.27
Percent Drop	5.53

Device ID	Device Type	Setting	Current	Distance From Previous	Current at Device	Voltage At Device
VN7.0		N/A	0	0	0.838	20.400
VN7.001	SR	30cd	0.094	142	0.838	19.786
VN7.002	SPSR	15cd	0.066	14	0.744	19.731
VN7.003	SPSR	15cd	0.066	42	0.678	19.583
VN7.004	SPSR	15cd	0.066	39	0.612	19.459
VN7.005	SR	15cd	0.066	14	0.546	19.419
VN7.006	SPSR	15cd	0.066	20	0.480	19.370
VN7.007	SR	15cd	0.066	9	0.414	19.350
VN7.008	SR	15cd	0.066	17	0.348	19.320
VN7.009	SPSR	30cd	0.094	20	0.282	19.291
VN7.010	SR	30cd	0.094	15	0.188	19.277
VN7.011	SR	30cd	0.094	11	0.094	19.272

Total Current on this circuit: 0.838

Notification Appliance Voltage Drop Calculations

Circuit Name: VN9.

Source Voltage	20.4 VDC
Wire Gauge	14 AWG
Resistance per 1000 feet	2.58 OHMS
TOTAL CIRCUIT LENGTH	373.04
END OF LINE VOLTAGE	18.91
Percent Drop	7.28

Device ID	Device Type	Setting	Current	Distance From Previous	Current at Device	Voltage At Device
VN9.0		N/A	0	0	1.274	20.400
VN9.001	SPSR	75cd	0.158	42	1.274	20.122
VN9.002	SPSR	30cd	0.094	60	1.116	19.777
VN9.003	SPSR	75cd	0.158	51	1.022	19.511
VN9.004	SPSRK	110	0.202	53	0.864	19.275
VN9.005	SPSR	75cd	0.158	23	0.662	19.197
VN9.006	SPSR	30cd	0.094	53	0.504	19.060
VN9.007	SPSR	75cd	0.158	47	0.410	18.961
VN9.008	SPSR	30cd	0.094	20	0.252	18.934
VN9.009	SPSR	75cd	0.158	24	0.158	18.915

Total Current on this circuit: 1.274

Notification Appliance Voltage Drop Calculations

Circuit Name: VN10.

Source Voltage	20.4 VDC
Wire Gauge	14 AWG
Resistance per 1000 feet	2.58 OHMS
TOTAL CIRCUIT LENGTH	492.16
END OF LINE VOLTAGE	18.49
Percent Drop	9.35

Device ID	Device Type	Setting	Current	Distance From Previous	Current at Device	Voltage At Device
VN10.0		N/A	0	0	1.398	20.400
VN10.001	SPSR	30cd	0.094	62	1.398	19.956
VN10.002	SPSR	75cd	0.158	27	1.304	19.775
VN10.003	SPSR	30cd	0.094	38	1.146	19.550
VN10.004	SPSR	75cd	0.158	36	1.052	19.356
VN10.005	SPSR	30cd	0.094	39	0.894	19.176
VN10.006	SPSR	30cd	0.094	77	0.800	18.859
VN10.007	SPSR	75cd	0.158	42	0.706	18.705
VN10.008	SPSRK	110	0.202	17	0.548	18.656
VN10.009	SPSR	75cd	0.158	41	0.346	18.582
VN10.010	SPSR	30cd	0.094	74	0.188	18.510
VN10.011	SPSR	30cd	0.094	38	0.094	18.492

Total Current on this circuit: 1.398

Notification Appliance Voltage Drop Calculations

Circuit Name: VN11.

Source Voltage	20.4 VDC
Wire Gauge	14 AWG
Resistance per 1000 feet	2.58 OHMS
TOTAL CIRCUIT LENGTH	337.19
END OF LINE VOLTAGE	19.10
Percent Drop	6.39

Device ID	Device Type	Setting	Current	Distance From Previous	Current at Device	Voltage At Device
VN11.0		N/A	0	0	1.472	20.400
VN11.001	SPSR	30cd	0.094	20	1.472	20.245
VN11.002	SPSRK	110cd	0.202	38	1.378	19.975
VN11.003	SPSR	15cd	0.066	25	1.176	19.822
VN11.004	SPSR	15cd	0.066	17	1.110	19.728
VN11.005	SPSR	30cd	0.094	19	1.044	19.624
VN11.006	SPSR	75cd	0.158	28	0.950	19.486
VN11.007	SPSR	75cd	0.158	39	0.792	19.329
VN11.008	SPSR	75cd	0.158	24	0.634	19.252
VN11.009	SPSR	75cd	0.158	25	0.476	19.190
VN11.010	SPSR	15cd	0.066	11	0.318	19.171
VN11.011	SPSR	75cd	0.158	39	0.252	19.121
VN11.012	SPSR	30cd	0.094	52	0.094	19.096

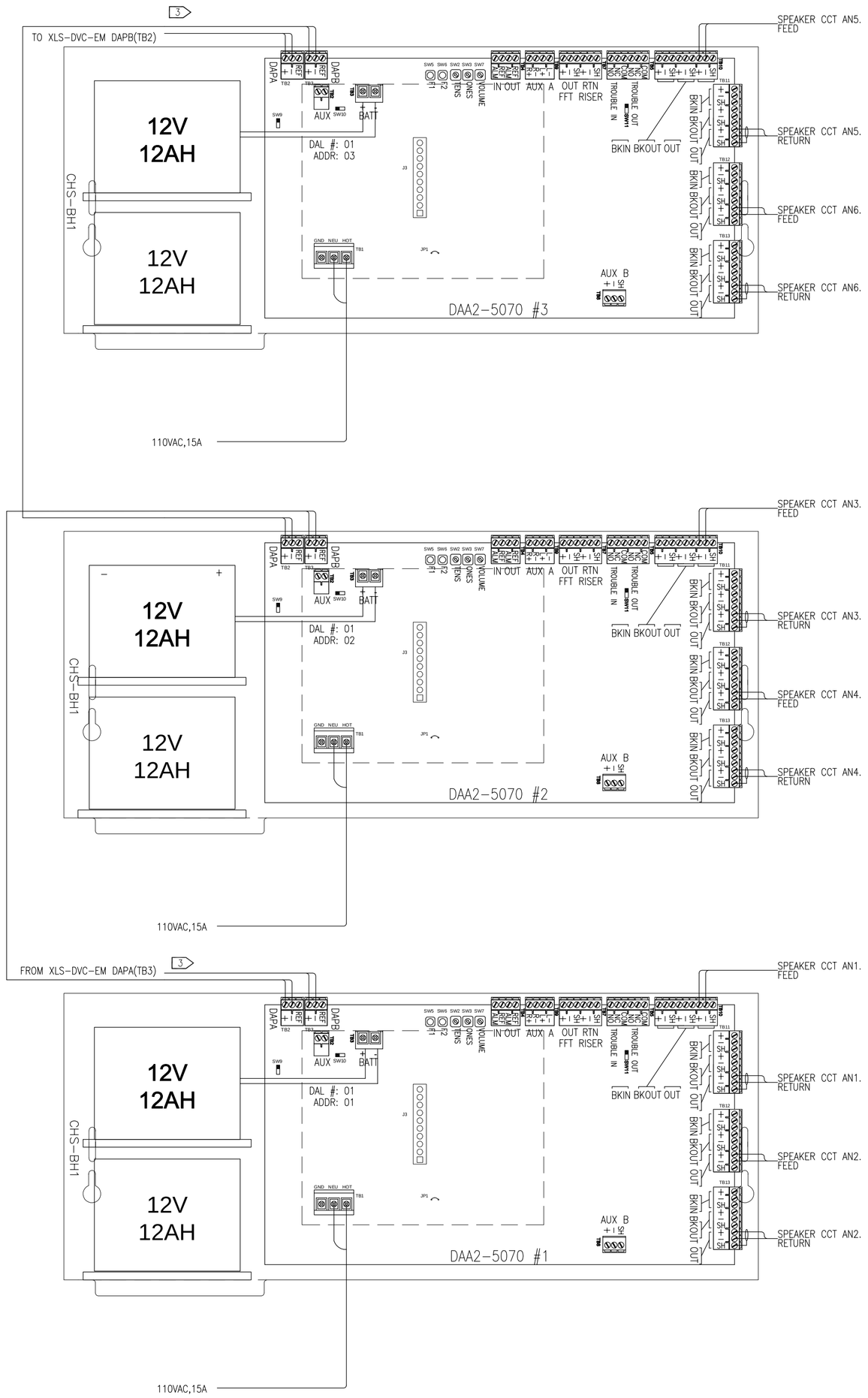
Total Current on this circuit: 1.472

REV F		BY	BPS VOLTAGE DROP CALCULATION
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C Jan 9, 15	ASI #7 & ASI #26	BY AK	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9, 14	Re-Submit as per RFI Response	BY SM	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:

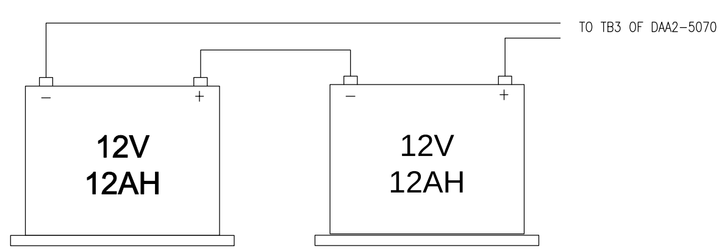
DRAWING NUMBER: USB-006476-FA5.4 REV C

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

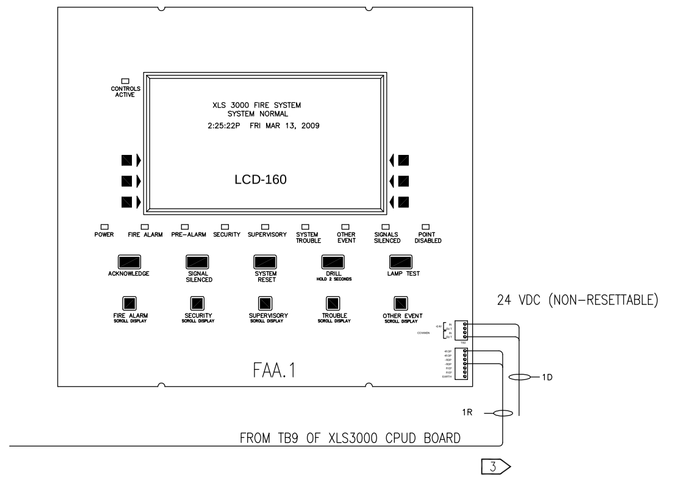
install



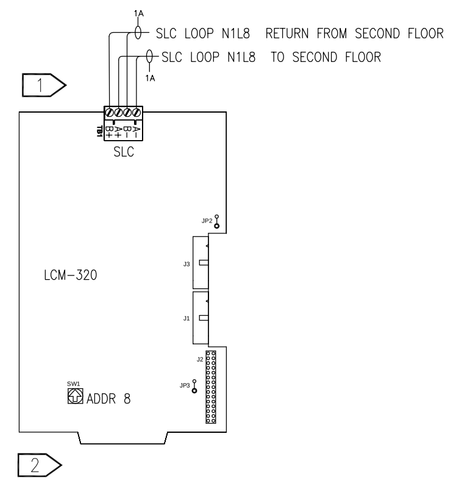
1 FA6.1 AMPLIFIER PANEL WIRING DETAILS
LOCATION: ELECTRICAL ROOM (40113)



TYPICAL BATTERY CONNECTION OF DAA2-5070



2 FA6.1 FIRE ALARM ANNUNCIATOR PANEL WIRING DETAILS
LOCATION: CONTROL DESK (20110A)



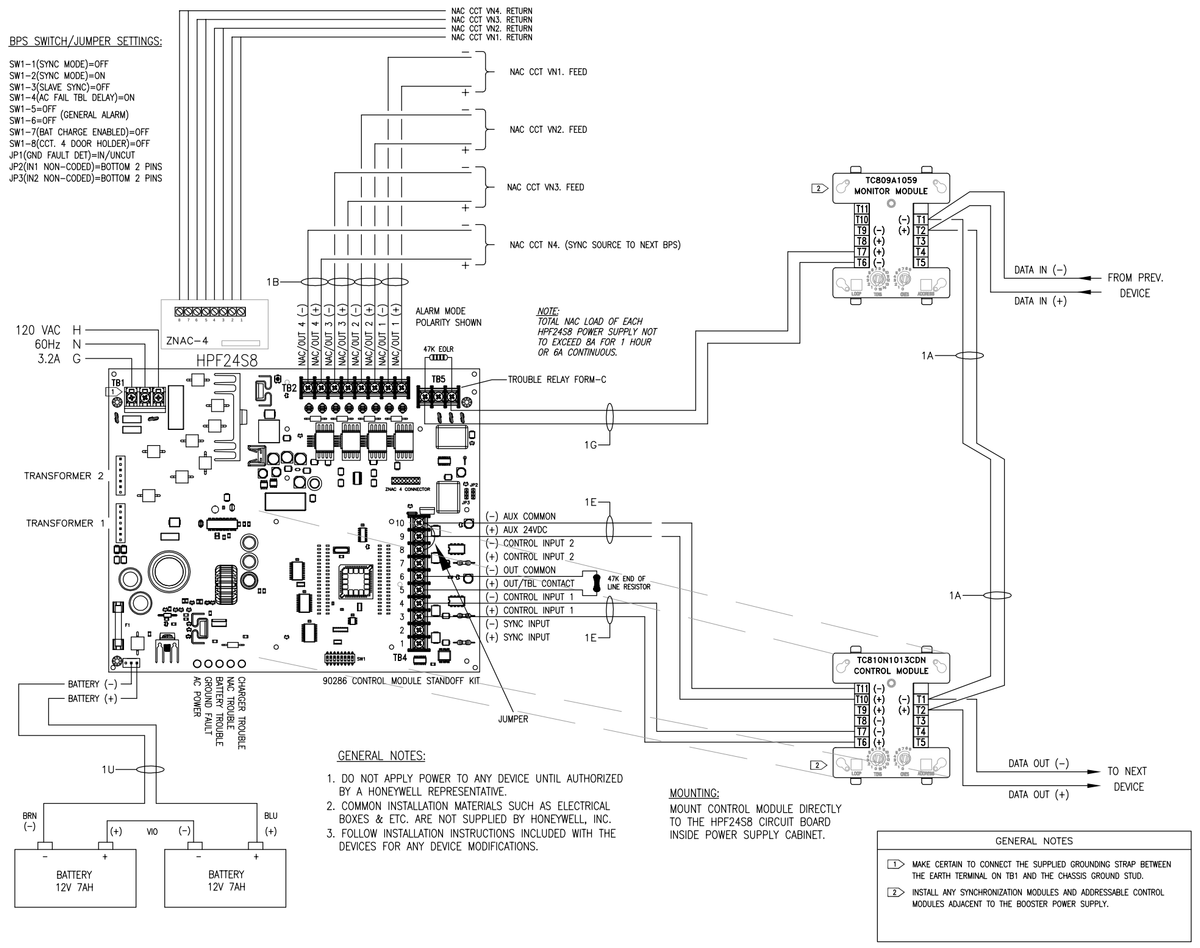
3 FA6.1 LOOP CONTROL MODULE WIRING DETAILS
LOCATION: INSIDE FACP AT SUB-BASEMENT

NOTES
1. SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.
2. LCM-320 TO BE MOUNTED INSIDE FACP AT SUB-BASEMENT.
3. DAL LOOP FROM XLS-DVC

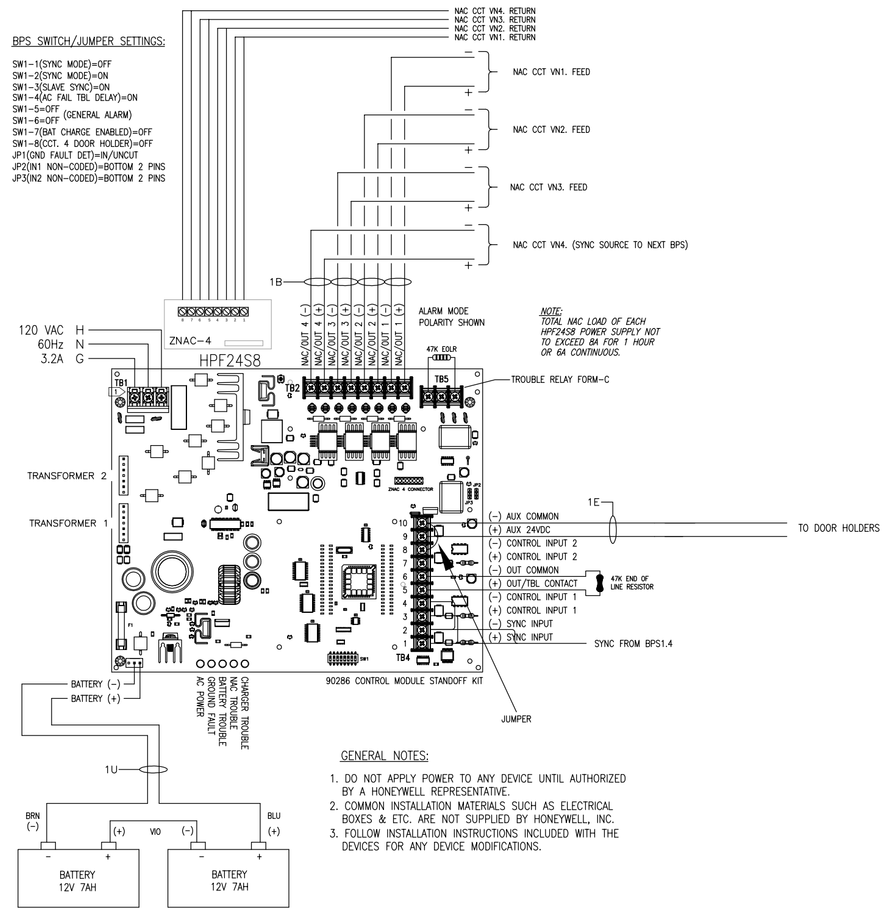
REV F		BY	AMPLIFIER & ANNUNCIATOR WIRING DETAILS
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA6.1 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

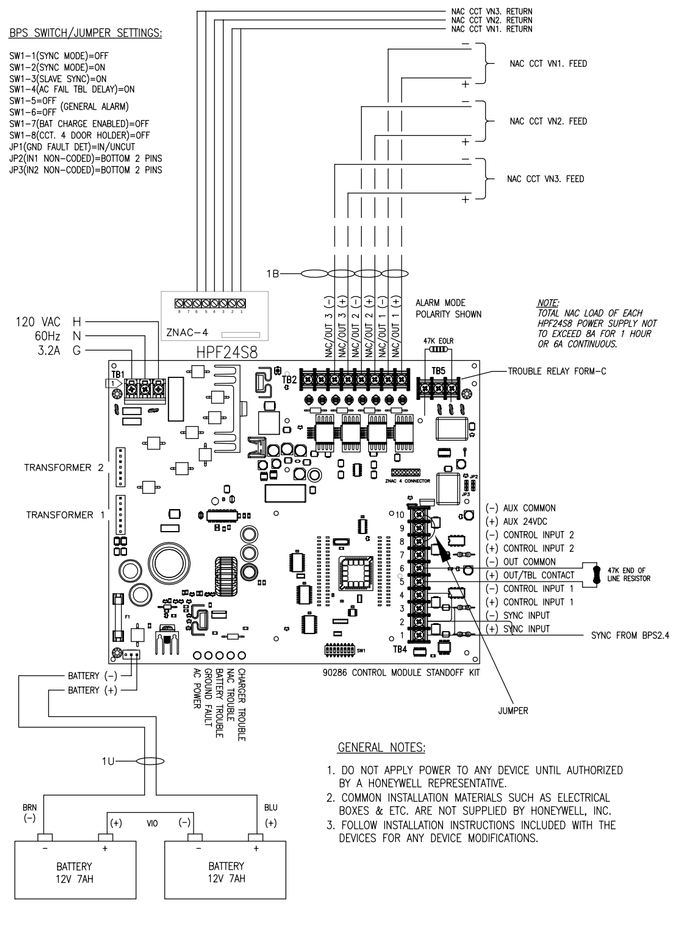
Install



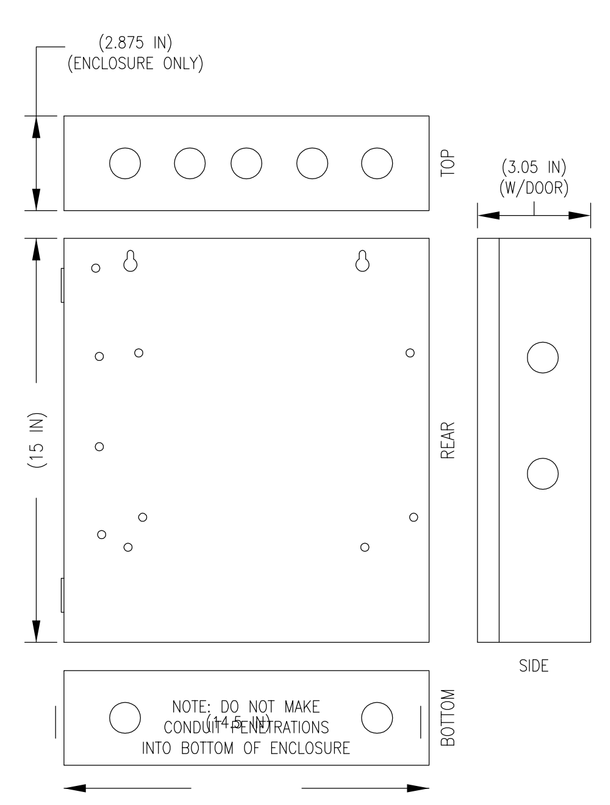
1 FA6.2 BPS.1 HPF24S8 POWER SUPPLY WIRING
LOCATION: ELECTRICAL ROOM (40113)



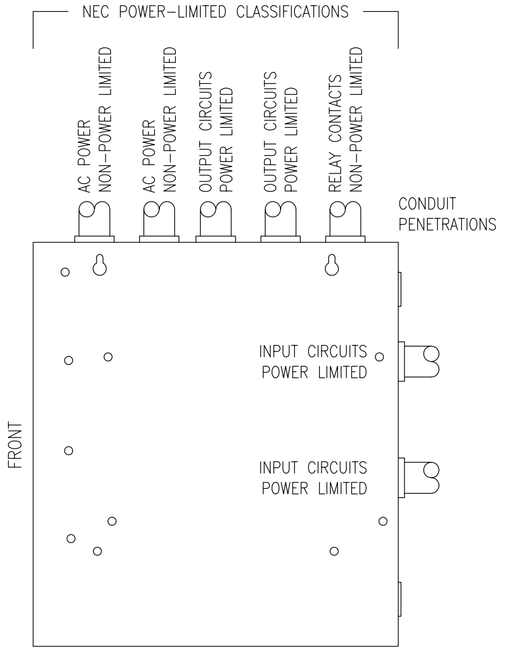
2 FA6.2 BPS.2 HPF24S8 POWER SUPPLY WIRING
LOCATION: ELECTRICAL ROOM (40113)



3 FA6.2 BPS.3 HPF24S8 POWER SUPPLY WIRING
LOCATION: ELECTRICAL ROOM (40113)



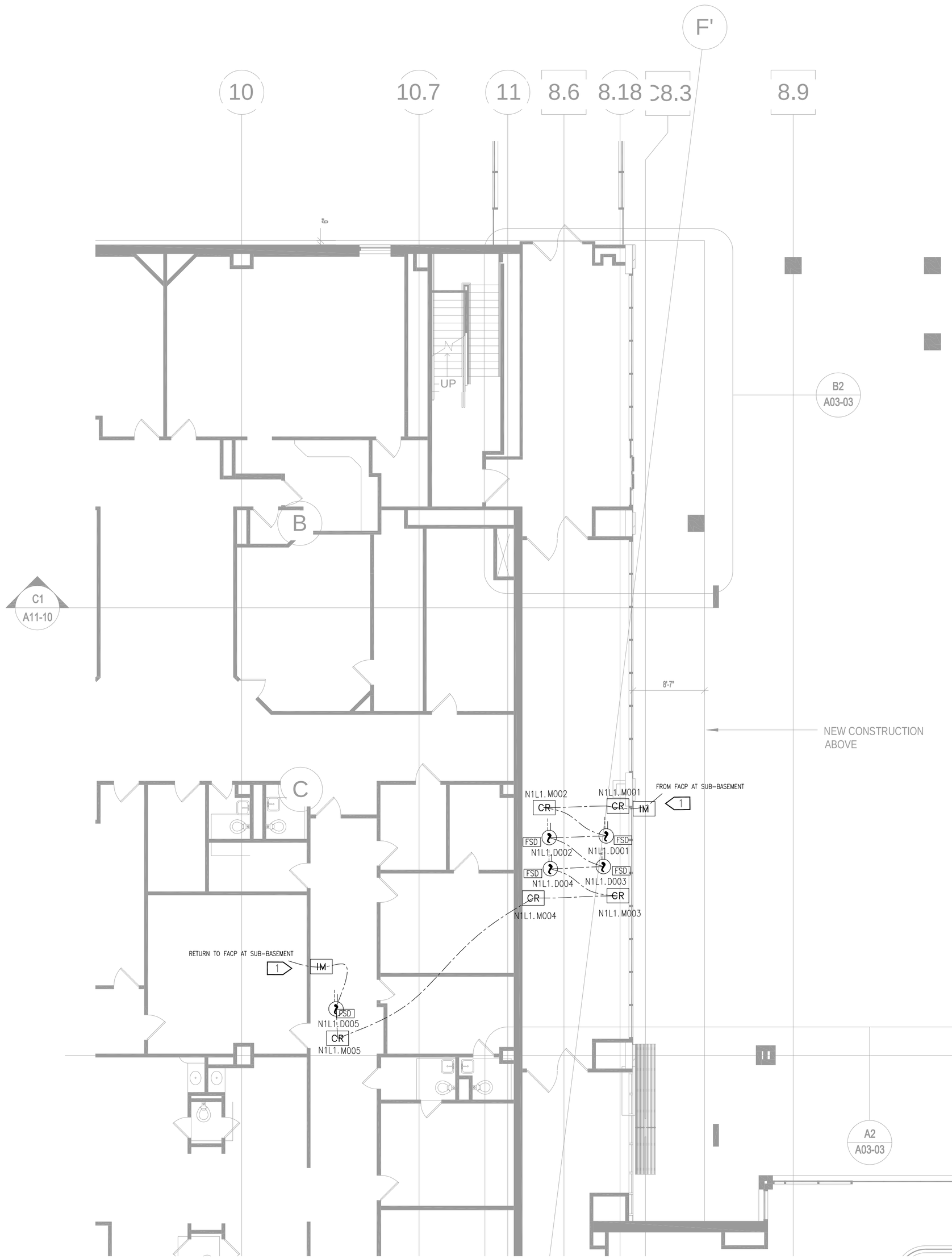
4 FA6.2 HPF24S8 POWER SUPPLY DIMENSIONS



REV F		BY	BPS INTERNAL WIRING DETAILS
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA6.2 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
S_P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
D_P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
H_F	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

NOTES

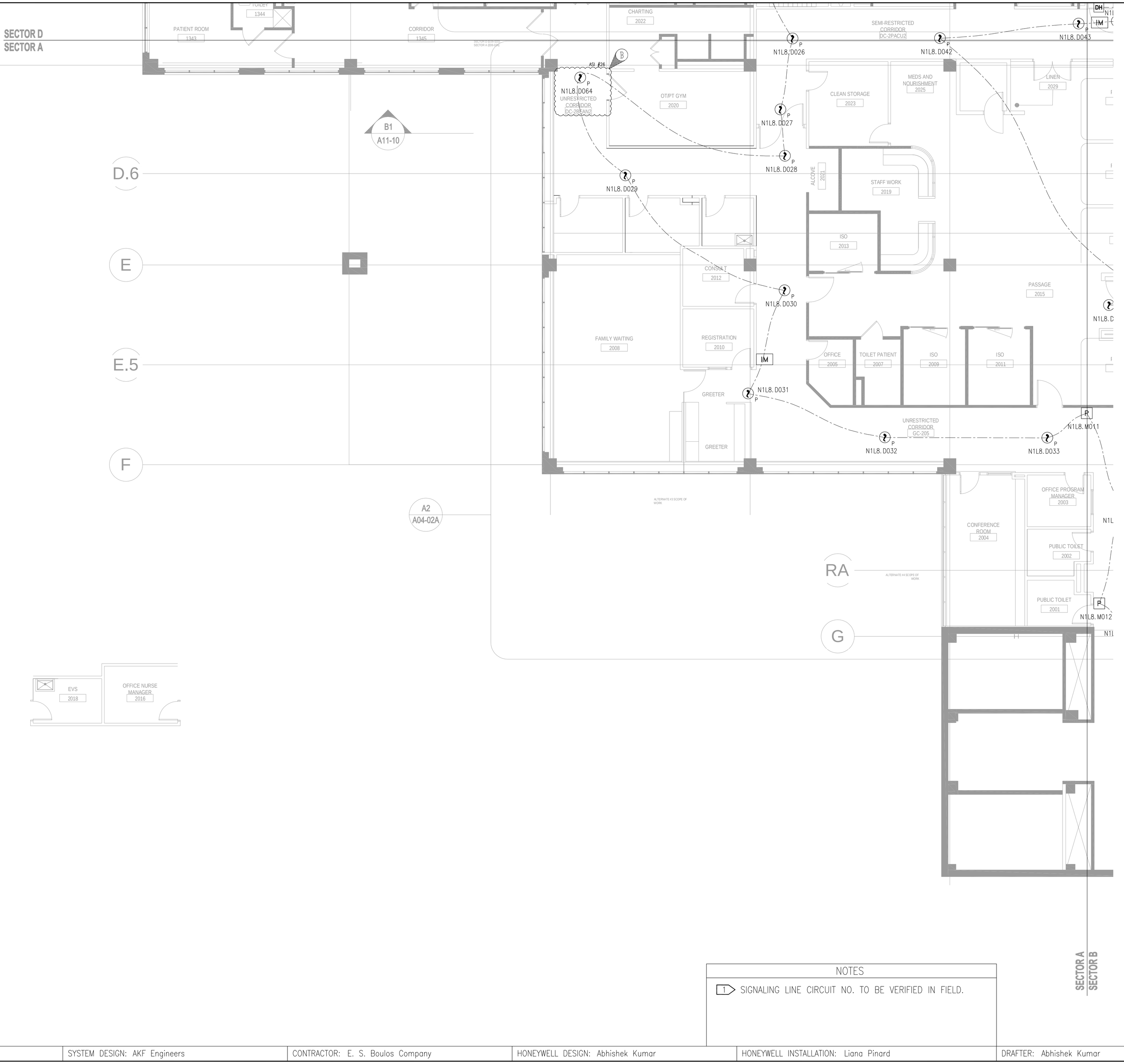
1 SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.

REV F		BY	VISITORS CTR/SCALE HOUSE SLC LAYOUT
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A	Issued For Review	BY	DATE: Aug 27, 14 / SHEET:
		AK	DRAWING NUMBER USB-006476-FA7.1 / REV A

APPROVED BY: Sarang Bhosale

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

Install



NOTES

1. SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.

FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
$(?)_P$	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(?)_P$	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(?)_F$	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE : ----------

SPK CABLE : —·—·—·—·—·—·—·—·—·—·—

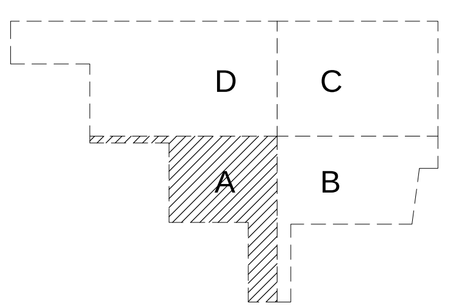
SLC CABLE : — - — - — - — - — - — - — - —

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

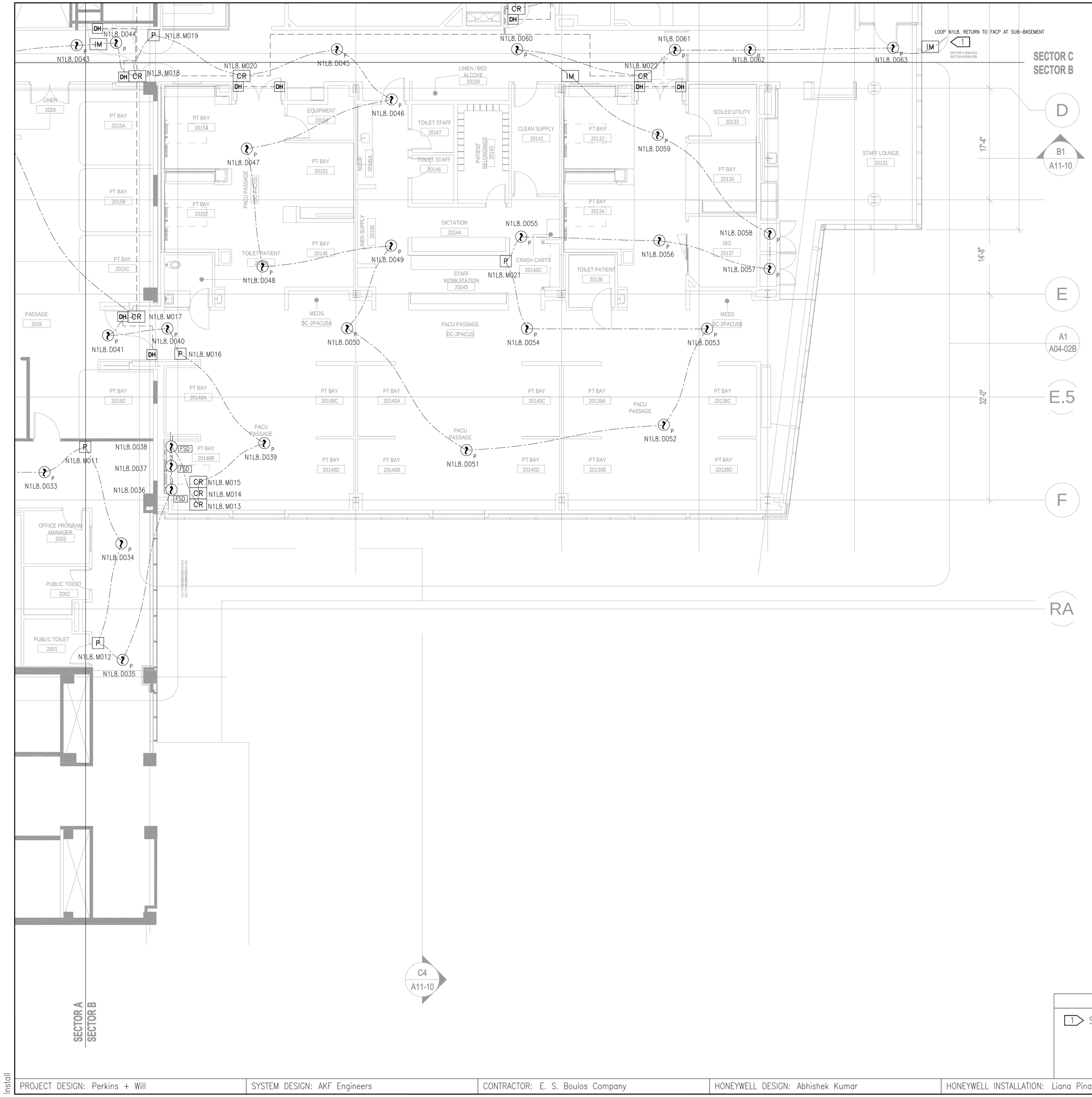
KEY LAYOUT



REV F		BY	LEVEL 02 SECTOR A SLC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Jan 09, 15	ASI #26	BY AK	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.2 REV B

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install



NOTES

1. SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.

FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
S_P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
DS_P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
H_{FT}	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

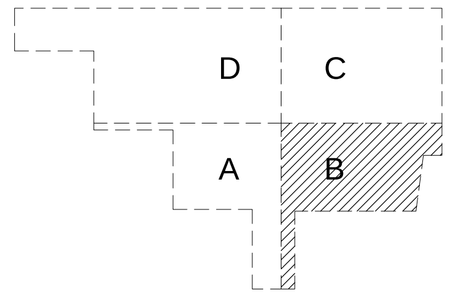
SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT

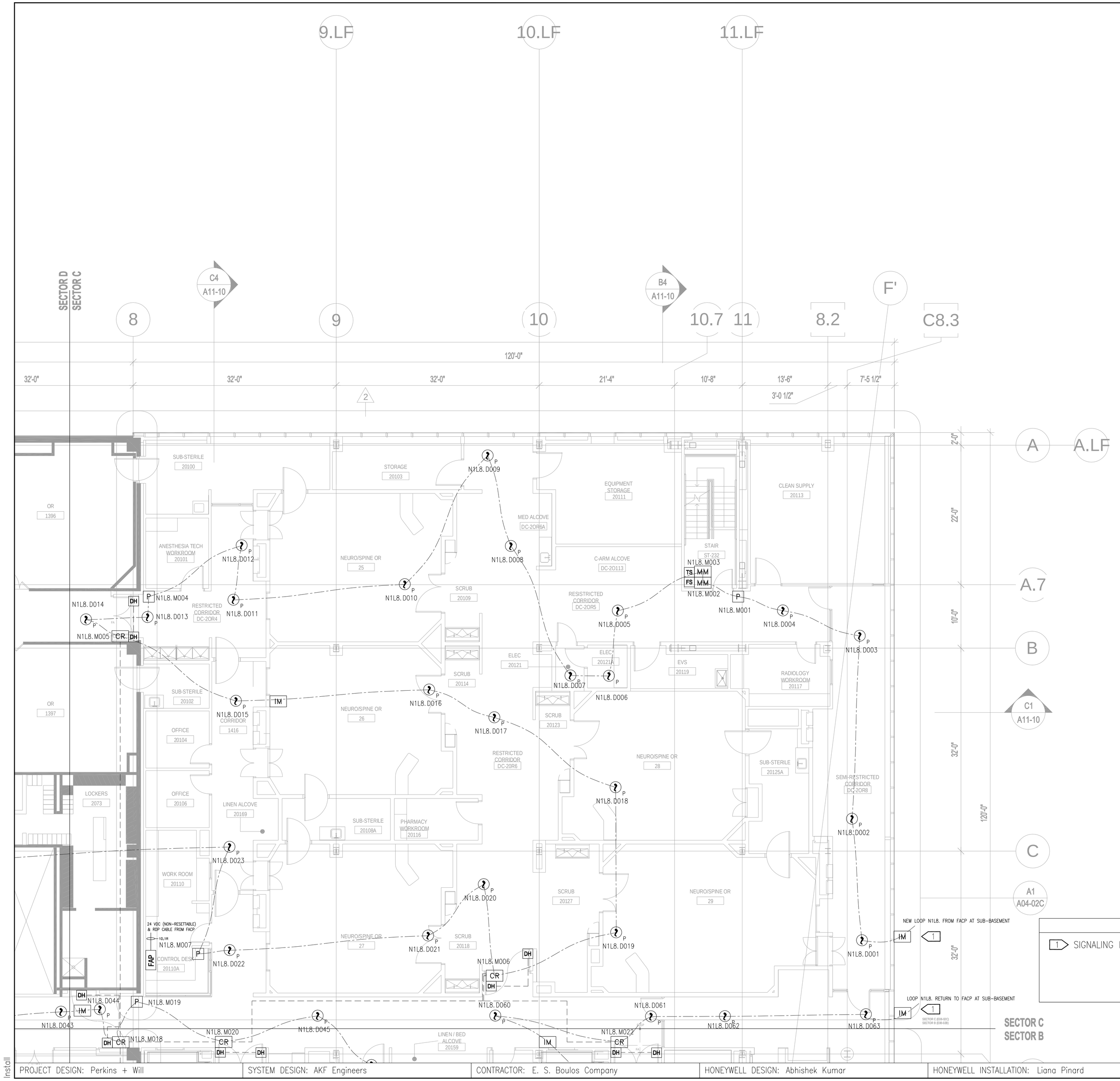


REV F		BY	LEVEL 02 SECTOR B SLC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A	Issued For Review	BY	DATE: Aug 27, 14 / SHEET:
Aug 27, 14		AK	DRAWING NUMBER USB-006476-FA7.3 / REV A

APPROVED BY: Sarang Bhosale

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
$(?)_P$	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(?)_P$	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(?)_F$	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

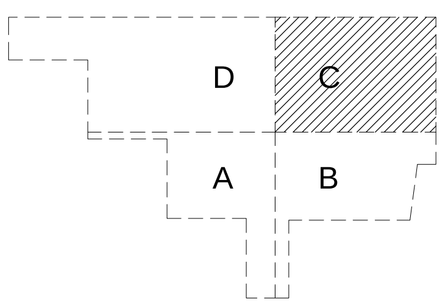
SLC CABLE :

NOTES:

1. SCALE - 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT



NOTES

1 SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.

REV F		BY	LEVEL 02 SECTOR C SLC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.4 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install

NOTES

1. SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.

FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
S_P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
DS_P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
H_F	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

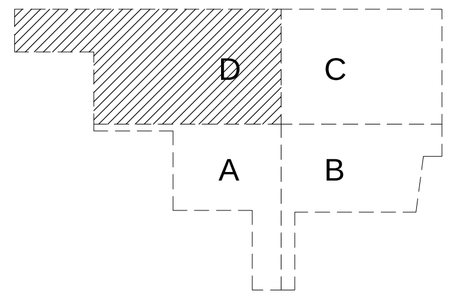
SLC CABLE :

NOTES:

1. SCALE - 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT

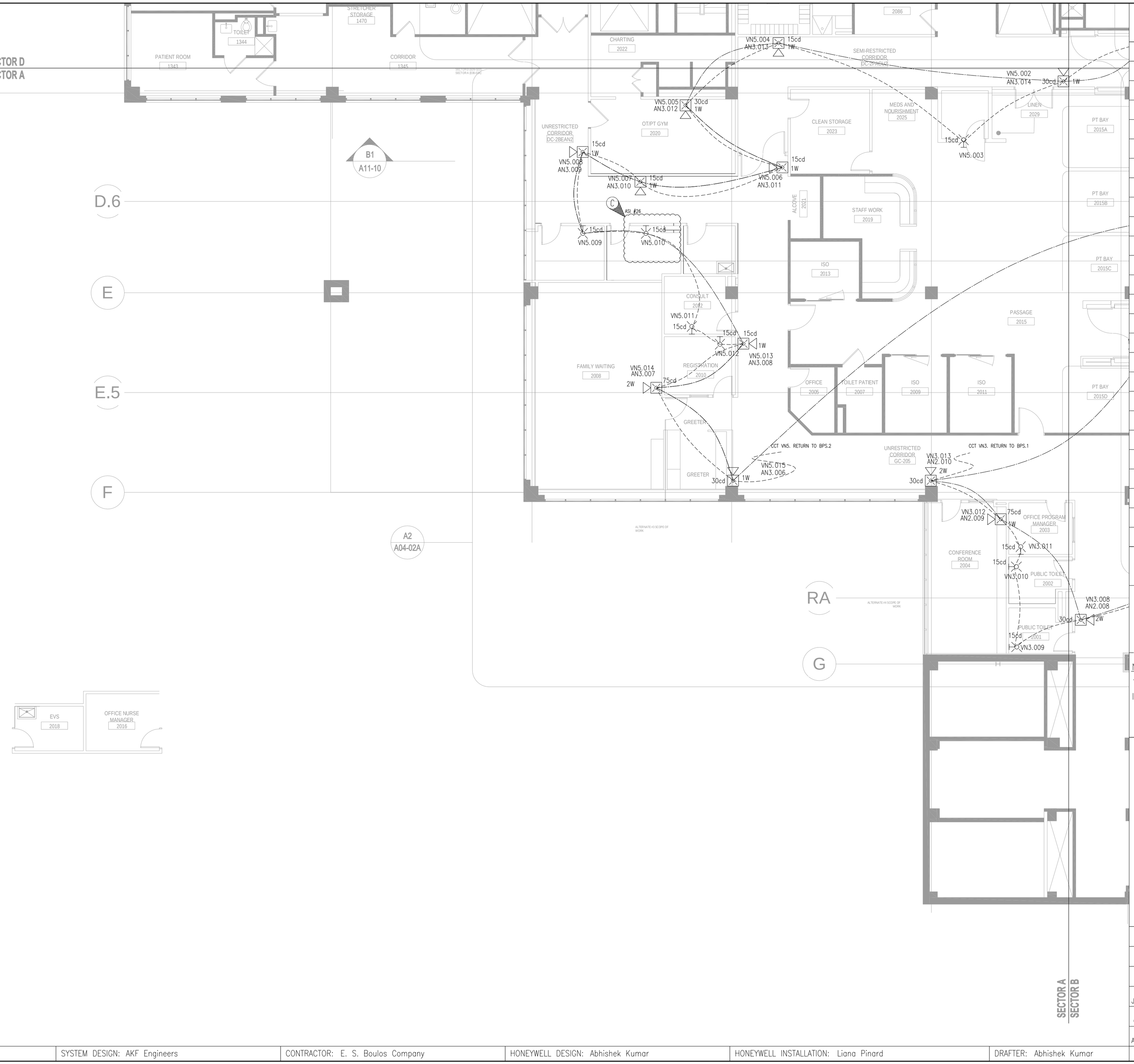


REV F		BY	LEVEL 02 SECTOR D SLC LAYOUT
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.5 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

APPROVED BY: Sarang Bhosale

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
S_P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
D_P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
H_F	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

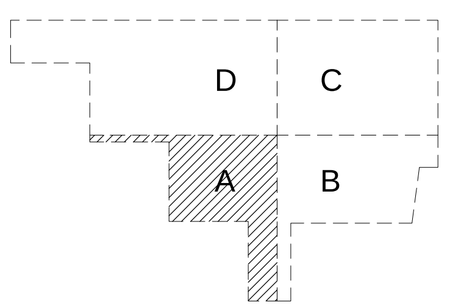
SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

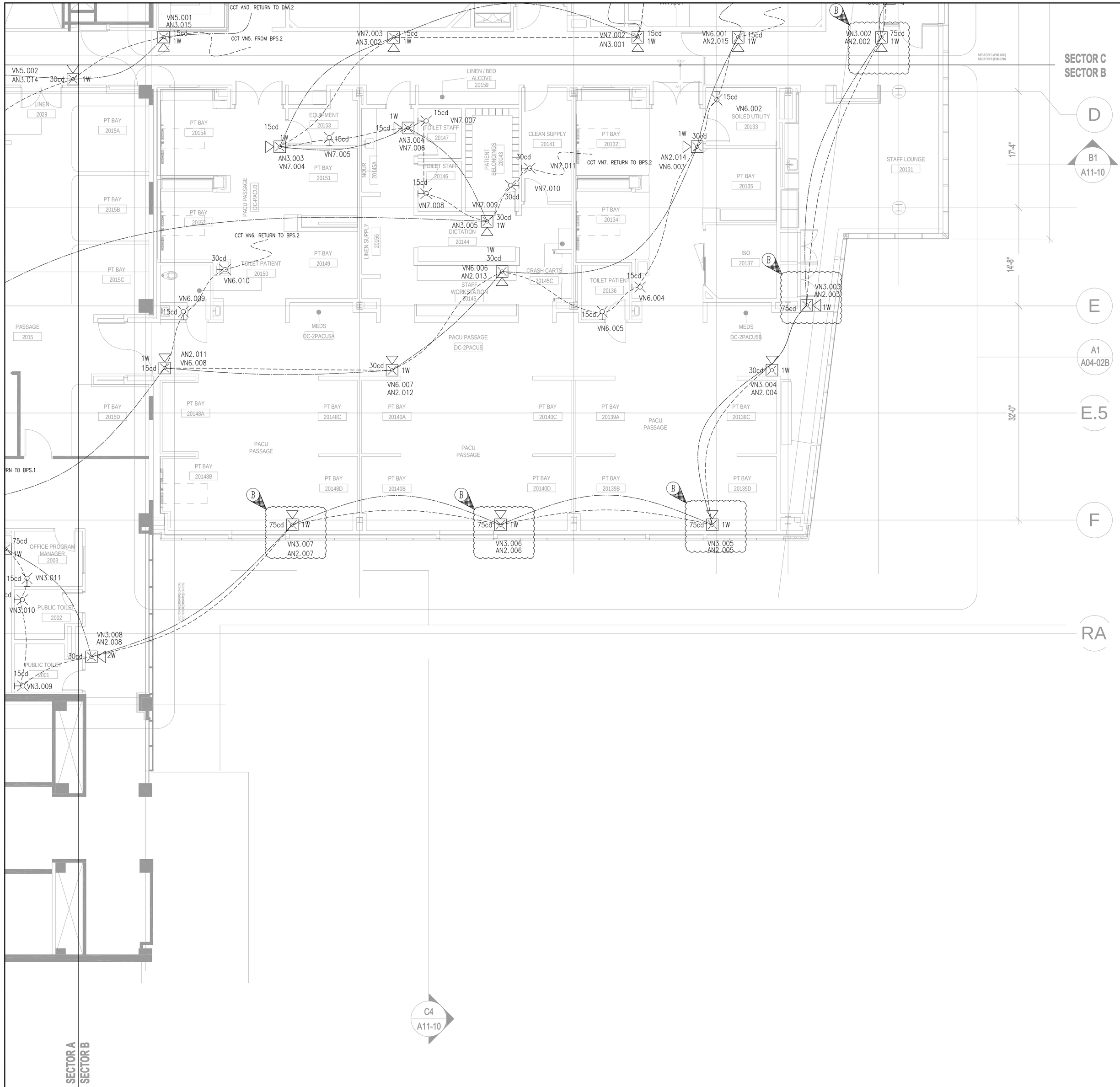
KEY LAYOUT



REV F		BY	LEVEL 02 SECTOR A NAC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C Jan 09, 15	ASI #26	BY AK	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9, 14	Re-Submit as per RFI Response	BY SM	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.6 REV C

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
S_P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
DS_P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
H_F	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

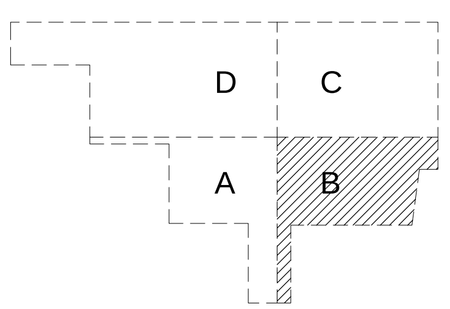
SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

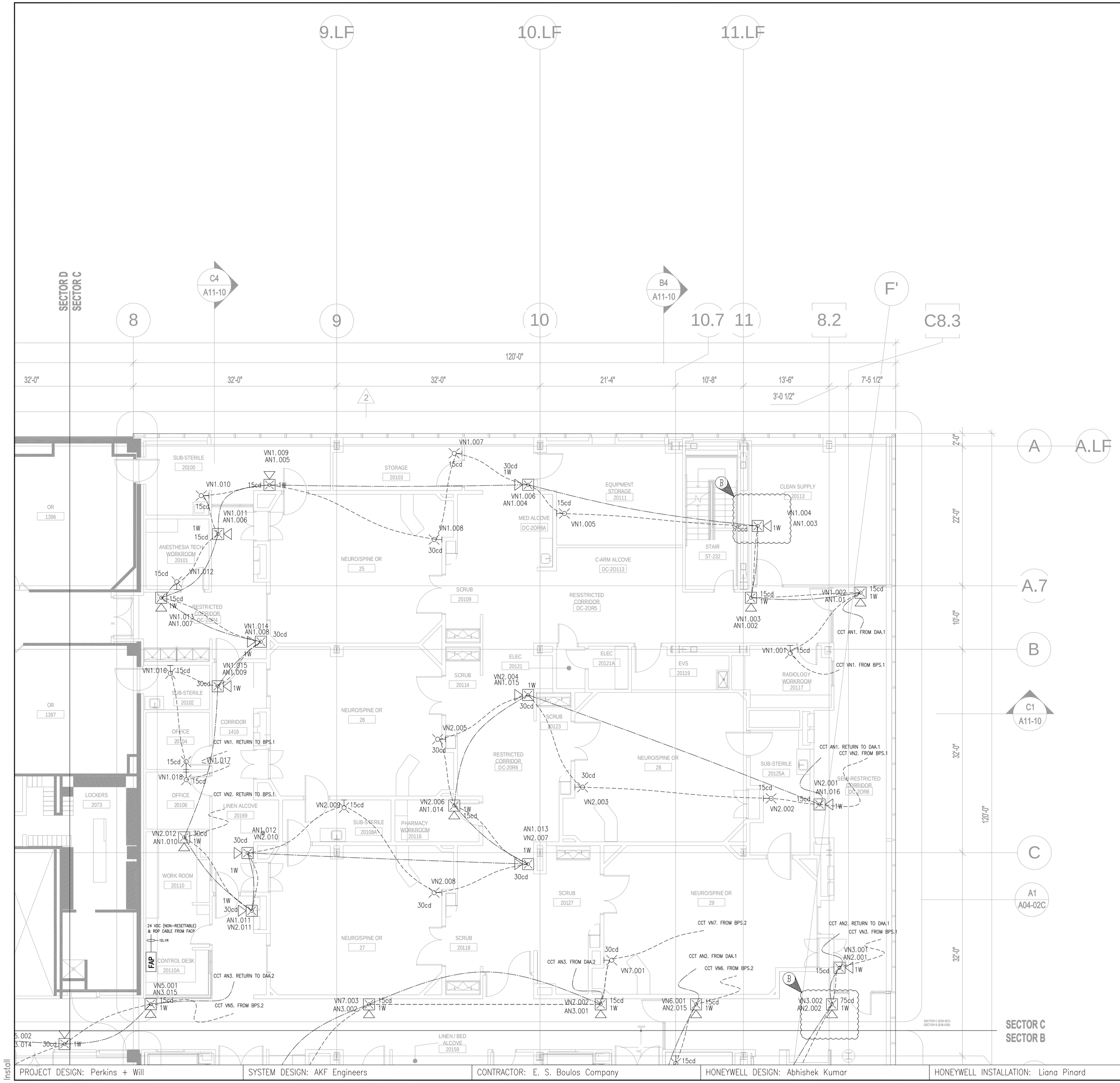
KEY LAYOUT



REV F		BY	LEVEL 02 SECTOR B NAC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9, 14	Re-Submit as per RFI Response	BY SM	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.7 REV B

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
$(?)_P$	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(?)_P$	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(?)_F$	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

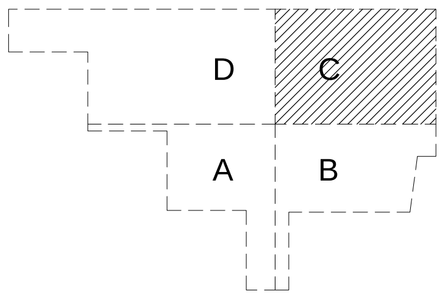
SLC CABLE :

NOTES:

1. SCALE - 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT



REV		BY	
REV F		BY	LEVEL 02 SECTOR C NAC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9, 14	Re-Submit as per RFI Response	BY sm	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.8 REV B

PROJECT DESIGN: Perkins + Will | SYSTEM DESIGN: AKF Engineers | CONTRACTOR: E. S. Boulos Company | HONEYWELL DESIGN: Abhishek Kumar | HONEYWELL INSTALLATION: Liana Pinard | DRAFTER: Abhishek Kumar | APPROVED BY: Sarang Bhosale

Install

FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
S_P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
D_P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
H_F	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

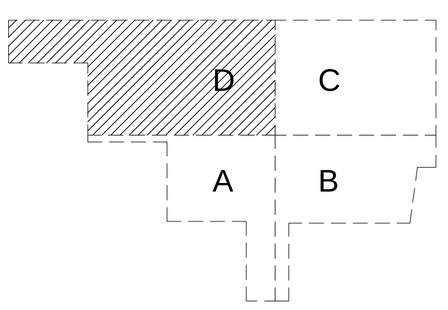
SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT

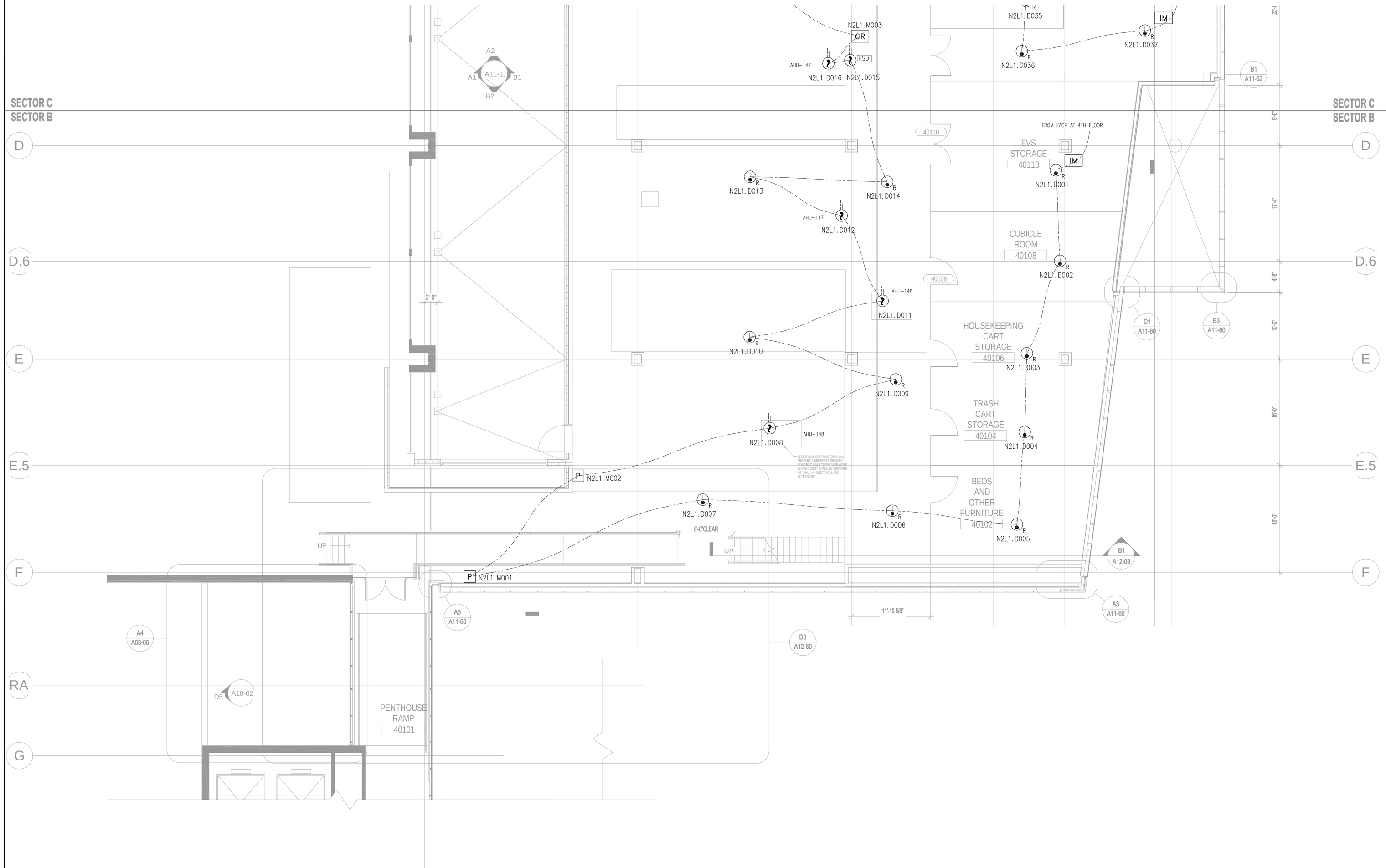


REV F		BY	LEVEL 02 SECTOR D NAC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.9 REV A

APPROVED BY: Sarang Bhosale

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
F	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE : ----------

SPK CABLE : —·—·—·—·—·—·—·—·—·—·—·—

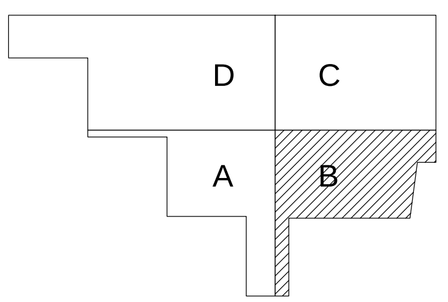
SLC CABLE : — - — - — - — - — - — - — - —

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT



NOTES

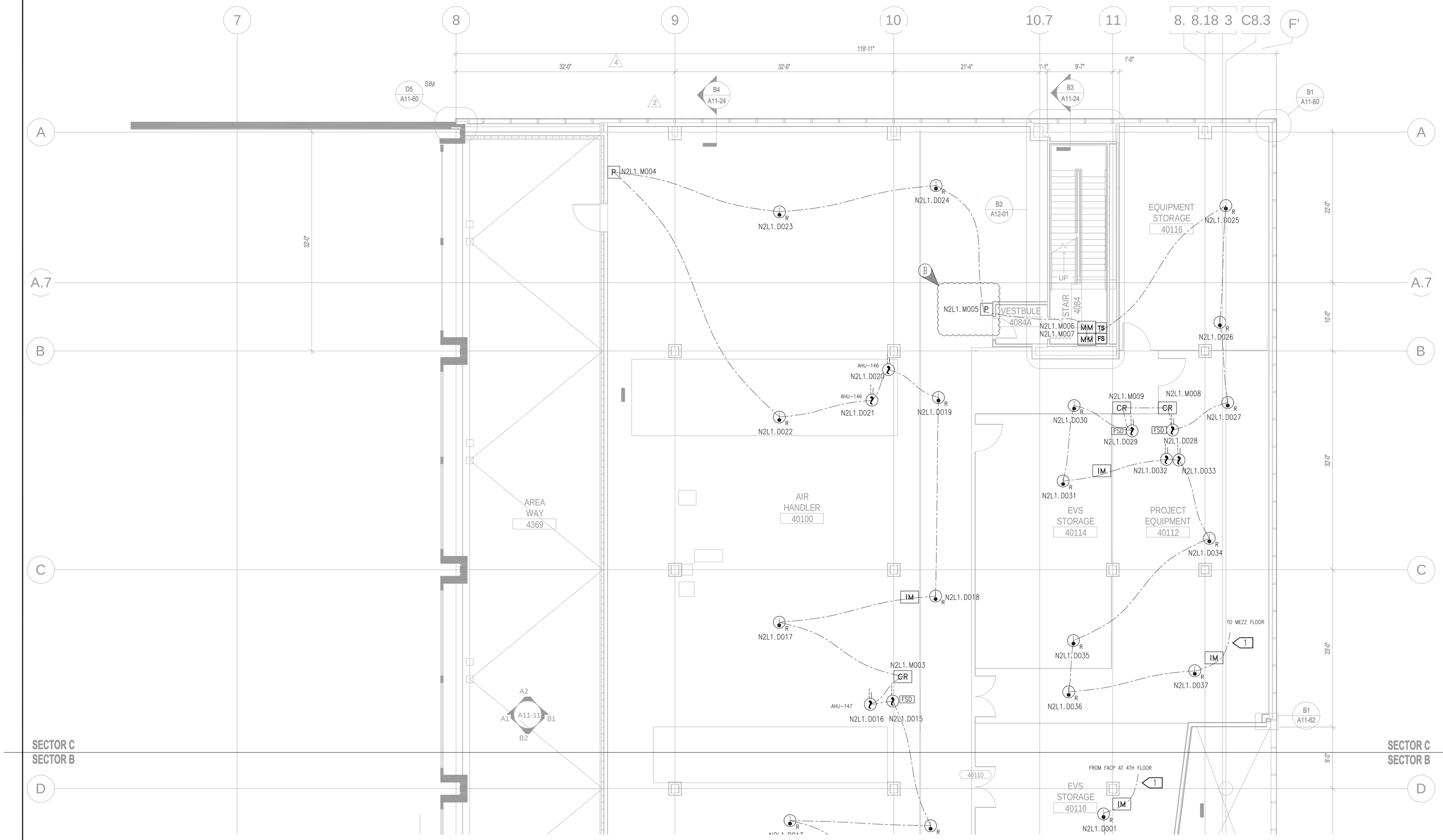
1 SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.

REV F		BY	PENTHOUSE SECTOR B SLC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.10 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

APPROVED BY: Sarang Bhosale

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
$?_P$	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$?_P$	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$?_{FT}$	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

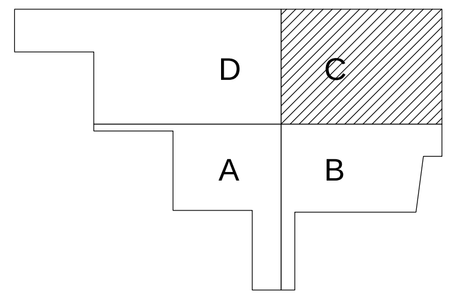
SLC CABLE :

NOTES:

1. SCALE - 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT



NOTES

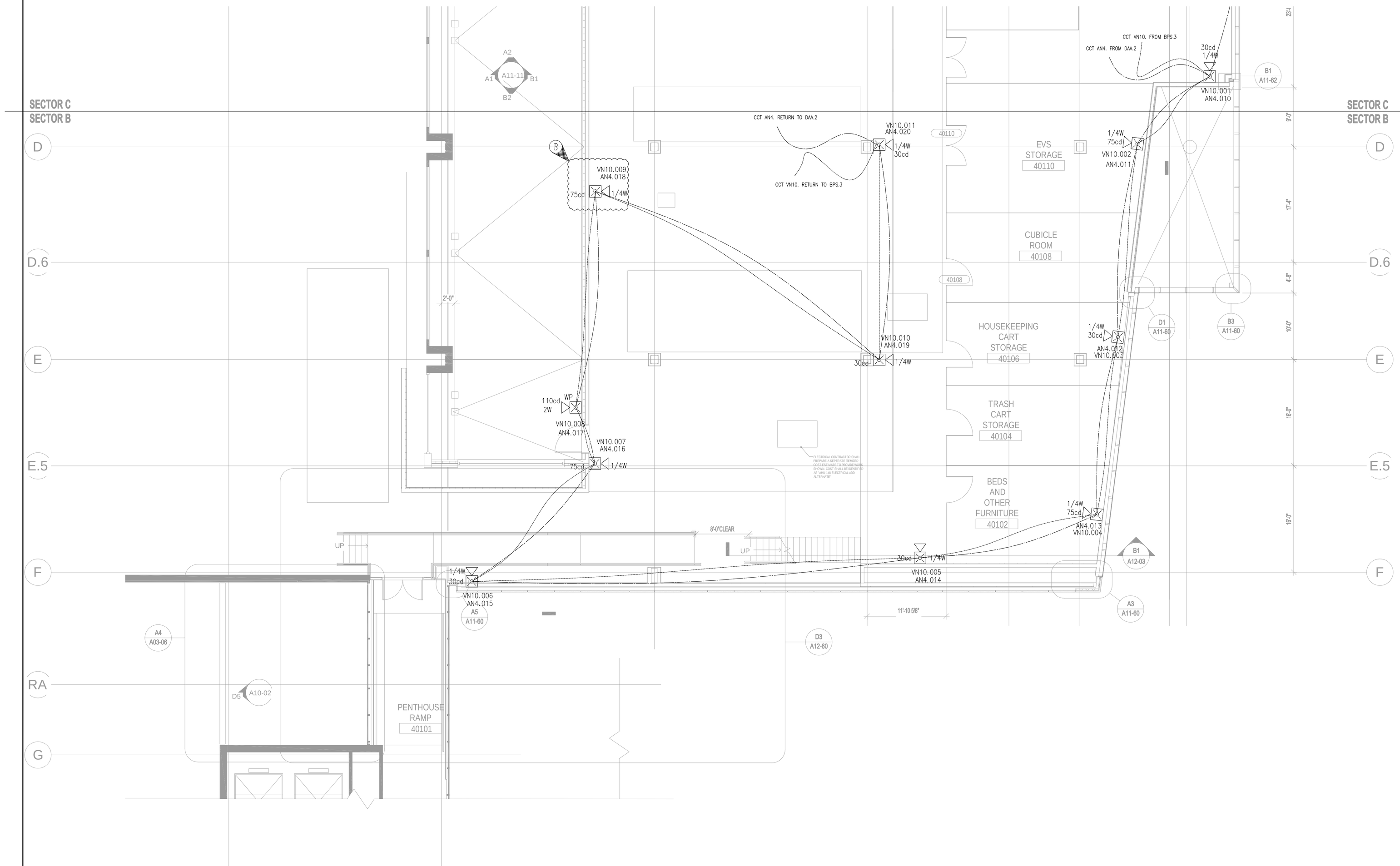
1 SIGNALING LINE CIRCUIT NO. TO BE VERIFIED IN FIELD.

REV F		BY	PENTHOUSE SECTOR C SLC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Dec 9, 14	Re-Submit As per comment by Suffolk	BY AK	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.11 REV B

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

APPROVED BY: Sarang Bhosale

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
S_P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
D_P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
H_F	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE : _

SPK CABLE : —·—·—·—·—·—·—·—·—·—·—·—·—·—·—·—

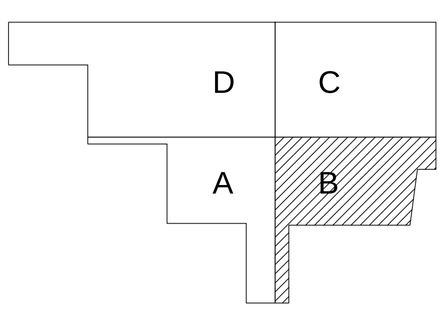
SLC CABLE : —·—·—·—·—·—·—·—·—·—·—·—·—·—·—·—

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

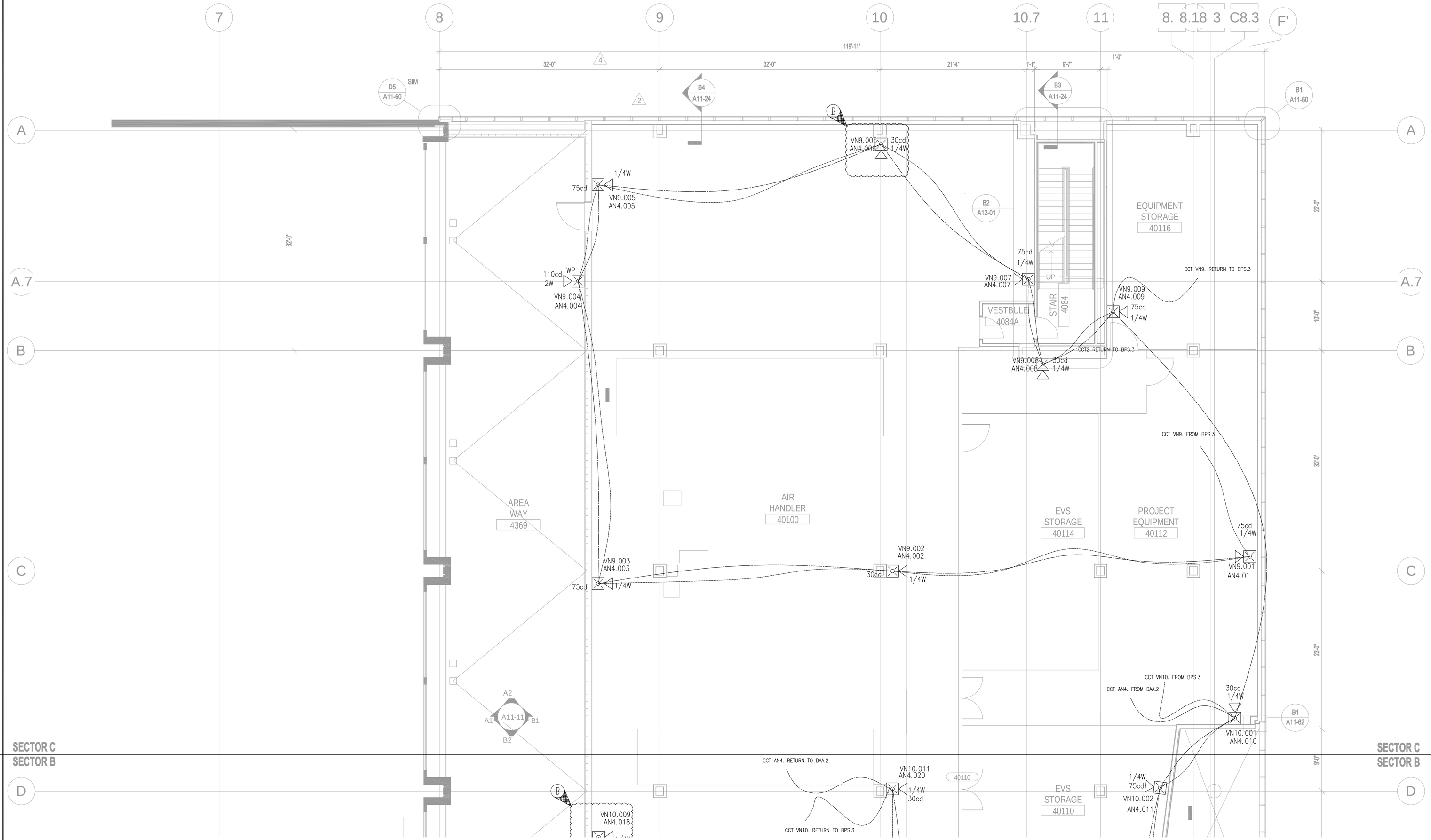
KEY LAYOUT



REV F		BY	PENTHOUSE SECTOR B NAC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9,14	Re-Submit as per RFI Response	BY SM	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.12 REV B

Install

PROJECT DESIGN: Perkins + Will | SYSTEM DESIGN: AKF Engineers | CONTRACTOR: E. S. Boulos Company | HONEYWELL DESIGN: Abhishek Kumar | HONEYWELL INSTALLATION: Liana Pinard | DRAFTER: Abhishek Kumar | APPROVED BY: Sarang Bhosale



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
S_P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
D_P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
H_F	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

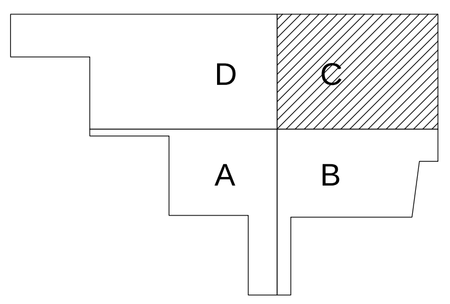
SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT

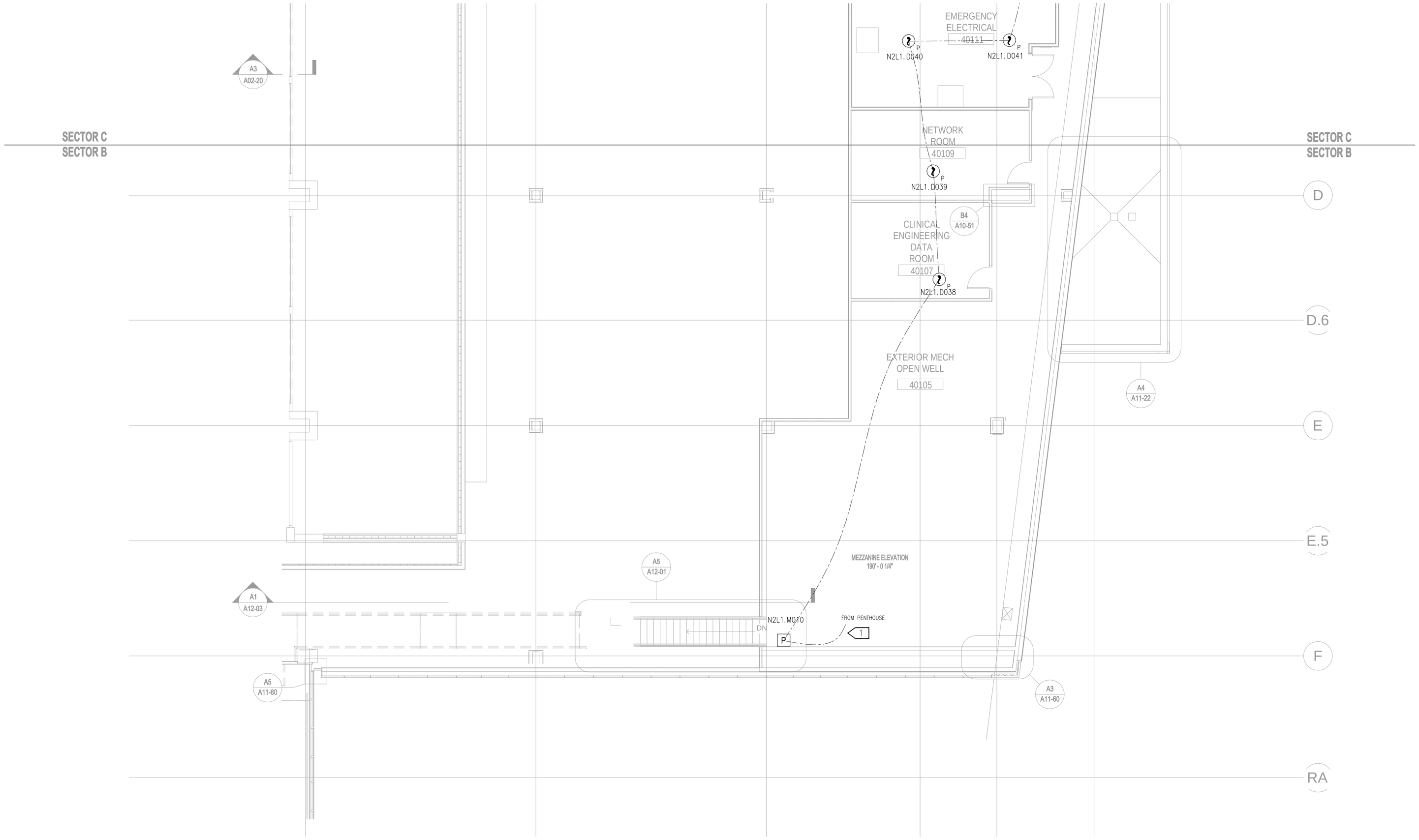


REV F		BY	PENTHOUSE SECTOR C NAC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Oct 9, 14	as per RFI Response	BY Re-Submit	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.13 REV B

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

APPROVED BY: Sarang Bhosale

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
$(?)_P$	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(?)_P$	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(\Delta)_F$	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

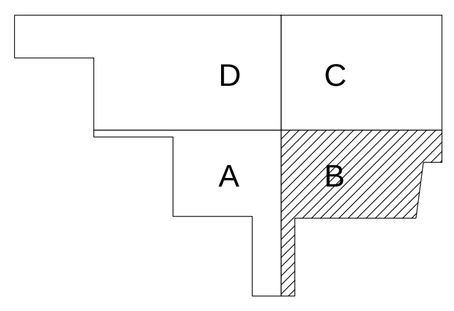
SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT



NOTES

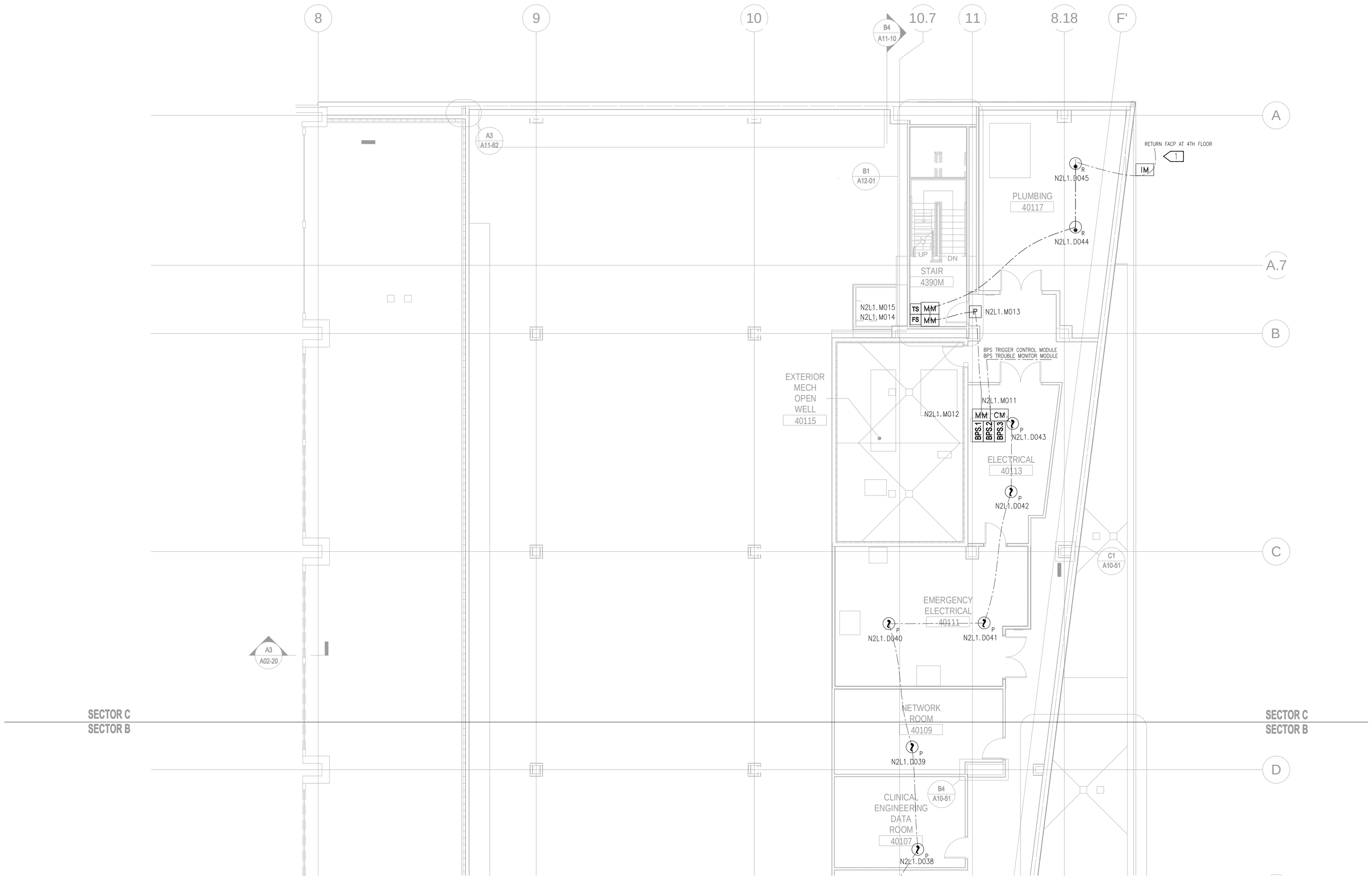
1 ALL SLC LOOP CIRCUIT NO. TO BE VERIFIED AT FIELD

REV F		BY	MEZZ SECTOR B SLC LAYOUT
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.14 REV A

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

APPROVED BY: Sarang Bhosale

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
P	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
P	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
R	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

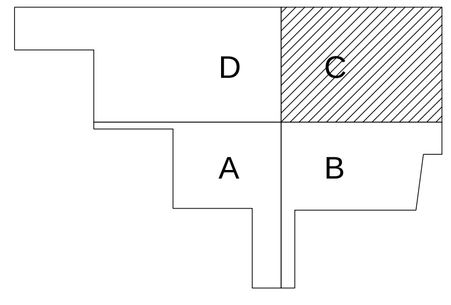
SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT



NOTES

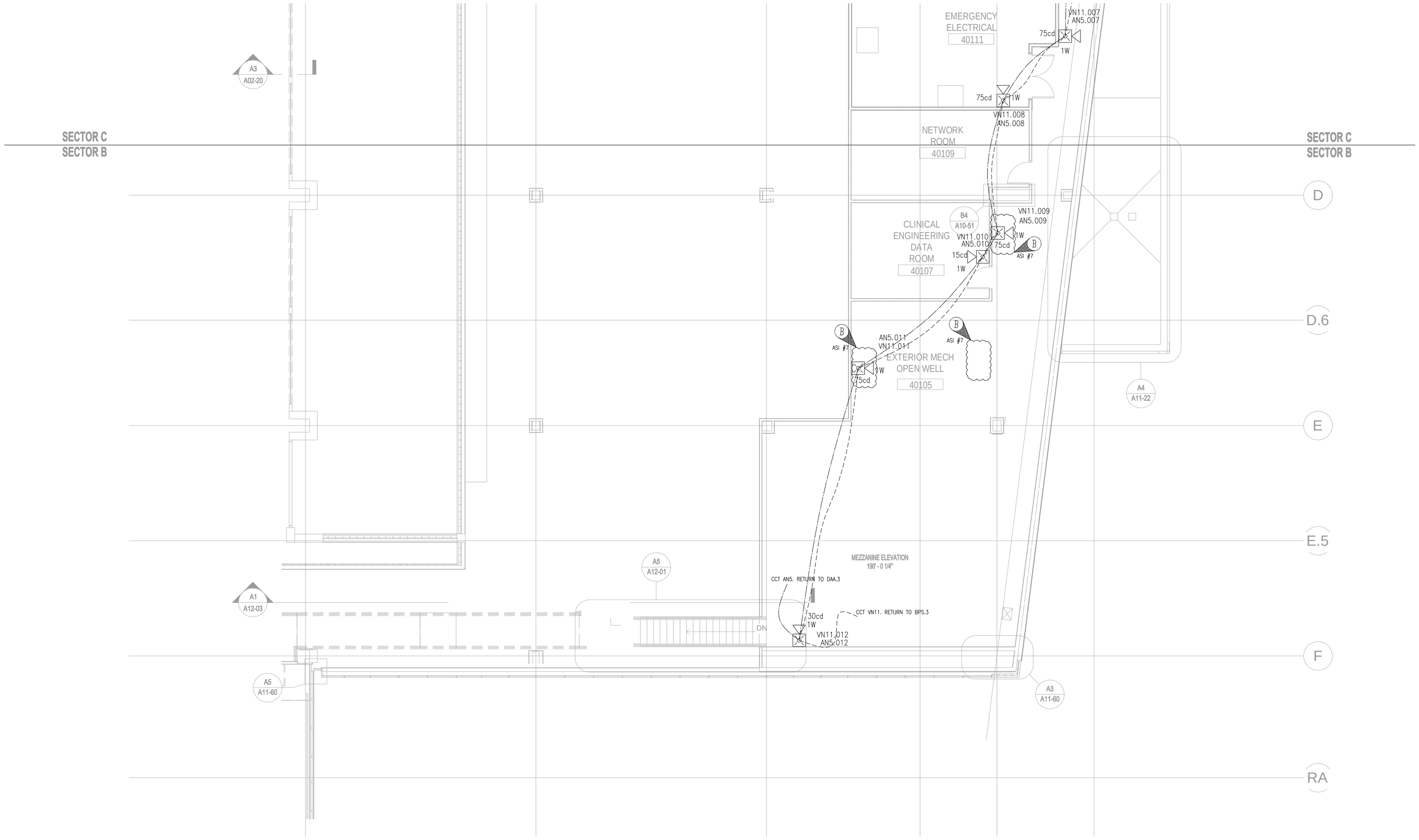
1 ALL SLC LOOP CIRCUIT NO. TO BE VERIFIED AT FIELD

REV F		BY	MEZZ SECTOR C SLC LAYOUT
REV E		BY	
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
			DRAWING NUMBER USB-006476-FA7.15 REV A

APPROVED BY: Sarang Bhosale

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
$?_P$	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$?_P$	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$?_F$	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

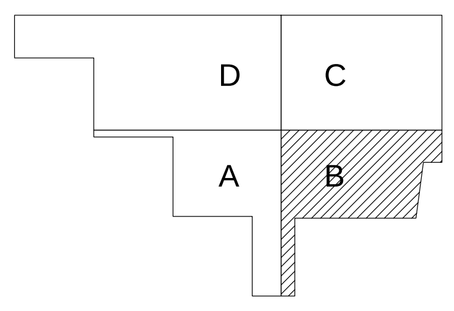
SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT

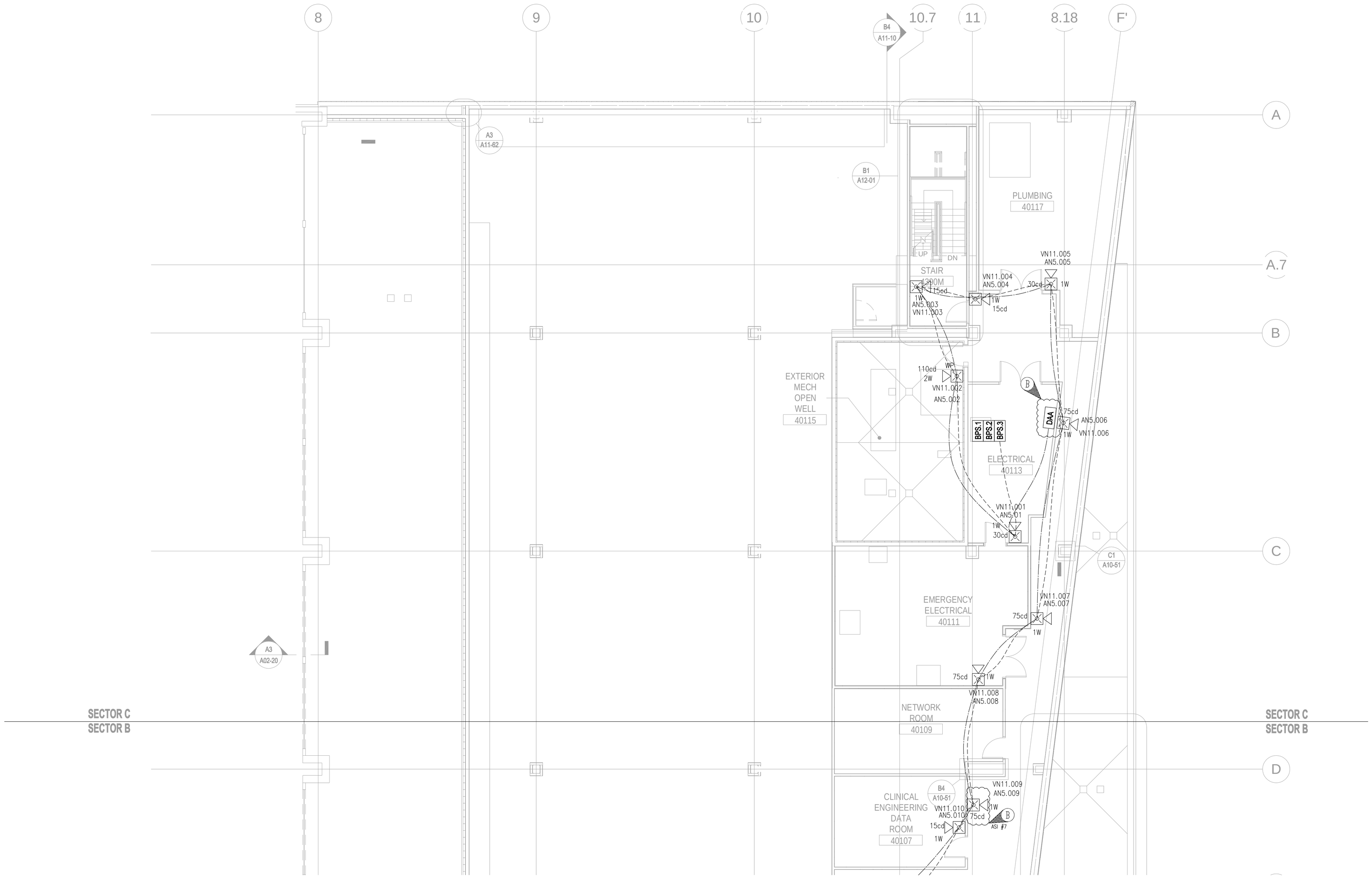


REV F		BY	MEZZ
REV E		BY	SECTOR B NAC LAYOUT
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Jan 09, 15	ASI #7	BY AK	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar	APPROVED BY: Sarang Bhosale

DRAWING NUMBER USB-006476-FA7.16 REV B

Install



FIRE ALARM SYSTEM SYMBOL LEGEND

Symbol	Description
	INITIATING DEVICES
P	ADDRESSABLE MANUAL PULL STATION
$(?)_P$	SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(?)_P$	DUCT SMOKE DETECTOR (SUBSCRIPT P = PHOTOELECTRIC)
$(?)_F$	HEAT DETECTOR (SUBSCRIPT R = RATE-OF-RISE, FT=FIXED TEMP)
MM	MONITOR MODULE
CR	CONTROL RELAY MODULE (ADDRESSABLE)
CM	SUPERVISED CONTROL MODULE (ADDRESSABLE)
IM	ISOLATOR MODULE
	NOTIFICATION DEVICES
	SPEAKER/STROBE, WALL MOUNTED
	STROBE, CEILING MOUNTED
	PANELS
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM ANNUNCIATOR PANEL
BPS	NOTIFICATION APPLIANCE CIRCUIT POWER SUPPLY
DAA	AMPLIFIER PANEL
	ACCESSORY DEVICES
FS	WATERFLOW DEVICE (PROVIDED BY OTHERS)
TS	FIRE SPRINKLER TAMPER/OSY/PIV VALVE SUPERVISORY SWITCH
DH	DOOR HOLDER (BY OTHERS)
RTS	REMOTE TEST STATION/KEY
FSD	FIRE SMOKE DAMPER (BY OTHERS)

CABLE LEGEND

NAC CABLE :

SPK CABLE :

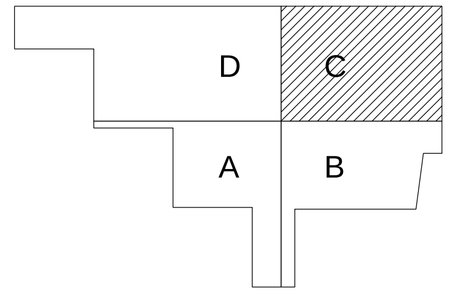
SLC CABLE :

NOTES:

1. SCALE – 1/8" = 1'

IF SHEET IS LESS THEN 22" x 34 ". IT IS A REDUCED PRINT, SCALE ACCORDINGLY.

KEY LAYOUT



REV		BY	
REV F		BY	MEZZ
REV E		BY	SECTOR C NAC LAYOUT
REV D		BY	Honeywell ExpertISE ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B Dec 9, 14	Re-Submit As per comment by Suffolk	BY AK	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:

DRAWING NUMBER USB–006476–FA7.17 REV B

APPROVED BY: Sarang Bhosale

PROJECT DESIGN: Perkins + Will	SYSTEM DESIGN: AKF Engineers	CONTRACTOR: E. S. Boulos Company	HONEYWELL DESIGN: Abhishek Kumar	HONEYWELL INSTALLATION: Liana Pinard	DRAFTER: Abhishek Kumar

Install

SYSTEM OPERATIONAL MATRIX

	ACTIVATION OF AUDIBLE & VISIBLE NOTIFICATION DEVICE THROUGHOUT FACILITY.	ASSOCIATED DOOR RELEASE.	ASSOCIATED FAN UNIT SHUTDOWN.	AUDIBLE & VISIBLE INDICATION OF AN "ALARM VERIFICATION" SIGNAL AT FACP.	RECORDING OF THE EVENT BY THE SYSTEM PRINTER.	ACTIVATION OF LISTED AND APPROVED "ALARM VERIFICATION" SEQUENCE AT FDCP & DETECTOR.	A SUPERVISORY, AUDIBLE & VISIBLE "VALVE-TAMPER" SIGNAL INDICATION AT THE FDCP & ANNUNCIATOR.	"TROUBLE" SIGNAL INDICATION AT FDCP & ANNUNCIATOR FOR THE DEVICE OR ZONE INVOLVED.	TRANSMISSION OF TROUBLE SIGNAL TO REMOTE ALARM RECEIVING STATION.	TRANSMISSION OF SUPERSIORAY SIGNAL TO REMOTE ALARM RECEIVING STATION.	CANCELATION OF FACP INDICATION & SYSTEM RESET.	FLASHING THE DEVICE LOCATION-INDICATING LIGHT FOR THE DEVICE THAT HAS OPERATED.	ACTIVATE THE SYSTEM COMMON TROUBLE LED AND SOUND A LOCAL AUDIBLE SIGNAL AT ALL DISPLAY AND CONTROL CENTRES AND REMOTE ANNUNCIATOR	INDICATE ALL INFORMATION ASSOCIATED WITH THE TROUBLE EVENT AT THE DCC LCD DISPLAY INCLUDING THE TYPE OF INITIATING POINT AND ITS LOCATION WITHIN THE PROTECTED PREMISES, INDICATE DETAILS OF TROUBLE AT ALL OTHER ANNUNCIATION LOCATIONS	INDICATE THE LOCATION OF TROUBLE AT FDCP & ANNUNCIATOR TROUBLE SIGNALS TO SOUND AND ILLUMINATE.
MANUAL PULL STATION	X	X		X	X	X									
SMOKE/HEAT DETECTOR WITH VERIFIED ALARM	X	X		X	X	X									
SMOKE/HEAT DETECTOR WITHOUT VERIFIED ALARM											X				
DUCT SMOKE DETECTOR AT SUPPLY FAN	X	X	X	X	X	X									
WATER FLOW SWITCH	X											X			
VALVE TAMPER SWITCH					X		X			X		X			
DETECTOR SENSITIVITY ADJUSTMENT					X										
REMOVAL OF AN ALARM-INIATIATING OR NOTIFICATION APPLIANCE					X			X	X						
BATTERY FAIL													X	X	X
AC POWER FAULT													X	X	X
GROUND FAULT													X	X	X

REV F		BY	I/O Matrix
REV E		BY	
REV D		BY	Honeywell *ExpertISE* ©
REV C		BY	85 Enterprise Blvd., Suite 100, Markham, ON L6G 0B5
REV B		BY	MMC Bean 2 Roof Fire Alarm Upgrade XLS3000 FA System
REV A Aug 27, 14	Issued For Review	BY AK	DATE: SHEET:
APPROVED BY: Sarang Bhosale			DRAWING NUMBER USB-006476-FA8.1 REV A

PROJECT DESIGN: Perkins + Will | SYSTEM DESIGN: AKF Engineers | CONTRACTOR: E. S. Boulos Company | HONEYWELL DESIGN: Abhishek Kumar | HONEYWELL INSTALLATION: Liana Pinard | DRAFTER: Abhishek Kumar

Install