

THE SEAL(S) AND SIGNATURE(S) APPLY ONLY TO THE DOCUMENT TO WHICH THEY ARE AFFIXED, AND EXPRESSLY DISCLAIM ANY RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES, REPORTS OR OTHER DOCUMENTS OR INSTRUMENTS RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE ARCHITECTURAL OR ENGINEERING PROJECT.

NOTE:

RELAY MODULES SHALL BE MOUNTED WITHIN THREE FEET OF THE DEVICE BEING CONTROLLED (I.E. AHU, DAMPER, ELEVATOR CAPTURE, ETC.), EXCEPTION: CIRCUITS THAT OPERATE ON LOSS OF POWER SHALL BE CONSIDERED SELF MONITORING FOR INTEGRITY.

ADDRESSABLE DEVICES MUST BE INSTALLED WITHIN THE FOLLOWING ENVIRONMENTAL LIMITS: +32F TO +100F, 0-90% RELATIVE HUMIDITY. ADDRESSABLE DEVICES ARE NOT DESIGNED FOR OUTDOOR USE.

IMPORTANT NOTICE REGARDING FIRE MARSHAL TEST:

THIS JOB IS EQUIPPED WITH A FIRE ALARM DIGITAL COMMUNICATOR, WHICH REQUIRES (2) LOOP START BUSINESS TELEPHONE LINES AND THE OWNER TO OBTAIN A CENTRAL MONITORING CONTRACT FROM A CERTIFIED MONITORING AGENCY. THIS PANEL MUST BE PROGRAMMED AND TESTED PRIOR TO SCHEDULING THE FIRE MARSHAL TEST.

FIRE ALARM SLC LOOP NOTES:

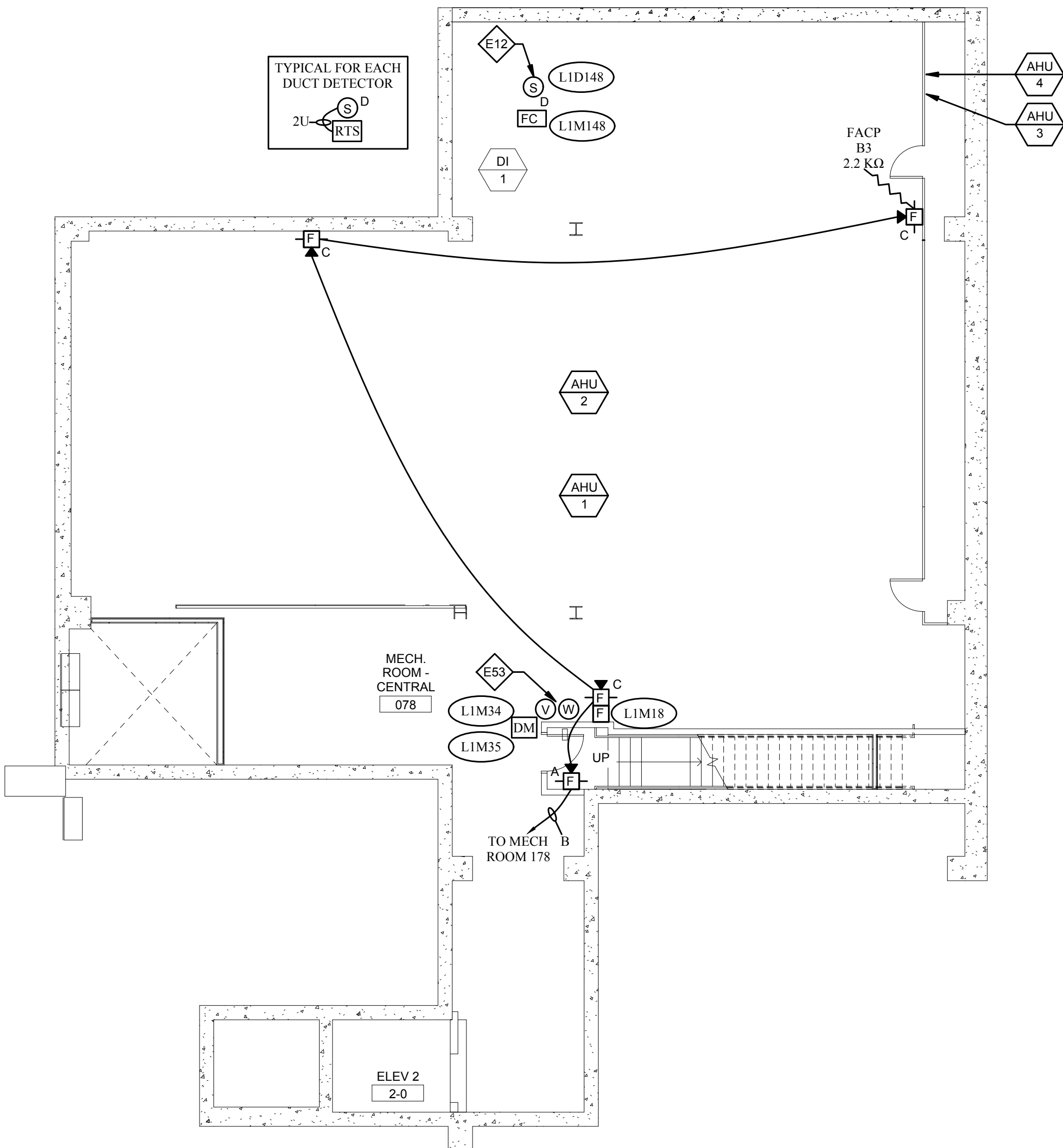
- (1) SLC LOOP WIRING ("A" CABLE) IS NOT TYPICALLY SHOWN ON THE FLOOR PLANS. IF THE SLC LOOP IS SHOWN, ITS FOR REFERENCE ONLY.
- (2) THE INSTALLING CONTRACTOR SHALL PULL AN "A" CABLE FOR EACH SLC LOOP FROM THE FIRE ALARM CONTROL PANEL TO ALL ADDRESSABLE DEVICES ON SAME SLC LOOP.
- (3) "T" TAPPING / BRANCH CIRCUITS ARE ACCEPTABLE FOR SLC LOOPS ONLY.
- (4) THE LOOP NUMBER ON THE DEVICE ADDRESS INDICATES THE SLC LOOP FOR EACH AREA AS SHOWN ON THE PLANS.
- (5) CABLE ROUTING FOR SLC LOOPS IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
- (6) CONTACT TECH ELECTRONICS IF DEVICES CANNOT BE WIRED TO THE SLC LOOPS AS SHOWN.
- (7) INSTALLING CONTRACTOR SHALL INCLUDE "AS INSTALLED" ROUTING FOR ALL SLC CABLES ON AS-BUILT RED LINE DRAWINGS AND PROVIDE A COPY TO TECH ELECTRONICS WHEN THE PROJECT HAS BEEN COMPLETED.

GENERAL NOTES:

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR LOCATION AND ORIENTATION OF DEVICES. WHERE LOCATIONS ARE NOT INDICATED ON ARCHITECTURAL DRAWINGS, COORDINATE LOCATION AND ORIENTATION OF DEVICES IN FIELD WITH ARCHITECT PRIOR TO ROUGH-IN.
- ALL DEVICES SHOWN ARE NEW UNLESS NOTED OTHERWISE.
- ALL DEVICES TO REMAIN ARE INDICATED WITH A THIN SOLID LINE WEIGHT AND SUBSCRIPT "EX".
- CONTRACTOR SHALL VISIT PRIOR TO BID SUBMITTALS TO DETERMINE SITE CONDITIONS EFFECTING THE EXECUTION OF WORK. FAILURE TO BE ACQUAINTED WITH EXISTING CONDITIONS WILL NOT BE JUSTIFICATION FOR ADDITIONAL SERVICES.
- PROVIDE FACE PLATES ON ALL J-BOXES ABANDONED IN FINISHED FLOOR, WALL OR CEILINGS. COORDINATE COLOR AND FINISH WITH ARCHITECT. CONTRACTOR TO VERIFY QUANTITY IN THE FIELD.
- WHERE EXPOSED CONDUIT IS NOTED, CONTRACTOR SHALL IDENTIFY ROUTING IN FIELD AND OBTAIN ARCHITECT'S APPROVAL OF ROUTING PRIOR TO ROUGH-IN. EXPOSED CONDUIT SHALL BE ROUTED TIGHT TO STRUCTURE.
- ALL SINGLE PHASE BRANCH CIRCUITS SHOWN SHALL HAVE DEDICATED NEUTRALS TO MEET NEC SECTION 210.4 MULTI-WIRE BRANCH CIRCUIT REQUIREMENTS.
- REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT ROUGH-IN OF DATA, VOICE AND A/V.
- ALL 120V BRANCH CIRCUITS ON THIS SHEET SHALL BE FED FROM PANEL **BNL1** UNLESS NOTED OTHERWISE.

KEYED NOTES

- E12** PROVIDE A DUCT MOUNTED SMOKE DETECTOR IN THE COMBINED SUPPLY DUCT OF AHU-3 & AHU-4. BOTH AIR HANDLING UNITS SHALL SHUT DOWN UPON ACTIVATION OF THE DUCT MOUNTED SMOKE DETECTOR.
- E53** COORDINATE QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES WITH FIRE PROTECTION CONTRACTOR.



FIRE ALARM SYSTEM FUNCTION CHART																		
The Fire Alarm System is a Product of NOTIFIER. The Fire Alarm Control Panel is a NOTIFIER Model NFS-320. The System will Function as Shown in the Function Chart Below:																		
FIRE ALARM SYSTEM FUNCTION CHART		INPUT DEVICE	SMOKE DETECTORS - GENERAL AREA	HEAT DETECTOR - KITCHEN	ELEVATOR SMOKE DETECTORS LOBBY (PRIMARY LEVEL)	ELEVATOR SMOKE DETECTORS LOBBY (ALTERNATE LEVEL)	ELEVATOR SMOKE DETECTORS SHUNT	ELEVATOR SMOKE DETECTORS SHUNT	ELEVATOR SMOKE DETECTORS MACHINE ROOM	ELEVATOR SMOKE DETECTORS MACHINE ROOM	DUCT DETECTORS	MANUAL STATIONS	KITCHEN HOOD	WATERFLOW SWITCH	TAMPER SWITCH	FIRE PUMP, PUMP RUNNING, PHASE REVERSAL, PUMP POWER FAILURE, ALT. POWER SOURCE	CO DETECTORS	TROUBLE CONDITION
OUTPUT FUNCTION																		
ANNUNCIATE DEVICE ON FIRE ALARM COMMAND CENTER			●	●		●	●	●	●	●	●	●	●	●	●	●	●	●
TRANSMIT FIRE ALARM SIGNAL TO REMOTE SUPERVISING STATION			●	●		●	●	●	●	●	●	●	●	●	●	●	●	●
TRANSMIT TROUBLE SIGNAL TO REMOTE SUPERVISING STATION																		●
TRANSMIT SUPERVISORY SIGNAL TO REMOTE SUPERVISING STATION															●	●	●	
ACTIVATE AUDIBLE/VISUAL DEVICES (NEW AND EXISTING BUILDING)			●	●		●	●	●	●	●	●	●	●	●	●	●	●	
CLOSE DOOR HOLDER DEVICES			●	●		●	●	●	●	●	●	●	●	●	●	●	●	
RELEASE SECURITY DOORS			●	●		●	●	●	●	●	●	●	●	●	●	●	●	
SHUTDOWN KITCHEN MAKE UP AIR FAN & HOOD EXHAUST FAN				●														
SHUTDOWN ASSOCIATED AIR HANDLER UNIT											●							
GENERAL SHUTDOWN SMOKE DAMPERS			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
RECALL ELEVATOR TO PRIMARY LEVEL						●	●		●									
RECALL ELEVATOR TO ALTERNATE LEVEL					●													
ELEVATOR CAB WARNING							●		●									
ACTIVATE ELEVATOR SHUNT TRIP							●		●									

1 LEVEL 00 - AREA A - ELECTRICAL POWER PLAN

1/8" = 1'-0"

CABLE LEGEND FOR NOTIFIER NFS-320, NFS2-640 & NFS2-3030					
LEGEND	USAGE	TECH#	NOM. O.D.	SQ. IN.	DESCRIPTION
A	SLC - INITIATION	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
B	NAC-SIGNAL, STROBE	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
D	DOOR HOLDER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
I	DIGITAL COMMUNICATOR	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
J	DATA (ANNUNCIATOR OTHER THAN SLC)	TP272	0.170	0.0227	1 Pair, 18 AWG, Solid, Twisted, Shielded
L	ANNUNCIATOR POWER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
M	NAC SYNCHRONIZATION	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
R	DIGITAL COMMUNICATOR TO TELEPHONE	TP424-SE-155	0.220	0.038	4 Pair, 24 AWG, Solid, Category SE, 155 Mhz
U	CONVENTIONAL INITIATING DEVICE	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
Installation Notes 1) Tech Electronics recommends that the installing contractor use the cable listed above. Use of other cable does not guarantee specified system performance. 2) When purchasing cable from Tech Electronics, please specify the TECH # (e.g. TP272). 3) Outdoor cable may be required and not listed above. Unless otherwise specified all cable listed above is for indoor use only. Please contact Tech Electronics for help with your outdoor cable requirements. 4) It is NOT acceptable to use THHN wire on Fire Alarm system circuits such as SLC Loops, Audible/Visual circuits or Conventional zones. It is acceptable to use THHN wire for 120VAC, grounding and Class I circuits. Refer to NEC for more information.					

FIRE ALARM DEVICE LEGEND					
SYMBOL	DESCRIPTION	PART NO.	SYMBOL	DESCRIPTION	PART NO.
	SMOKE DETECTOR	FSP-851/B210LP		CEILING HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	PC2R
	HEAT DETECTOR	FST-851/B210LP		WALL MOUNT HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	P2R
	DUCT DETECTOR	DNM/DSTXXX/FSP-851R		WALL MOUNT STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	SR
	MANUAL PULL STATION	NBG-12LX		FIRE ALARM CONTROL PANEL	NFS-320/PS-12260F2
	TAMPER SWITCH	F.B.O.		FIRE ALARM ANNUNCIATION	FDU-80
	FLOW SWITCH	F.B.O.		REMOTE POWER SUPPLY WITH CONTROL MODULE	PSN-106B/PS-1270/FCM-1
	RELAY MODULE	FRM-1		DIGITAL COMMUNICATOR WITH MINI MONITOR MODULE	411UDAC/PS-1270/B280/B215/FMM-101
	MONITOR MODULE	FMM-1		CARBON MONOXIDE	CO1224T
	DUAL MONITOR MODULE	FDM-1		TRANSFORMER	599
	DOOR HOLDER	DHF-24120C			
NOTE 1: SET SYSTEM SENSOR HORN/STROBES AUDIO SELECT SETTING TO 3 (LOW TEMPORAL HORN), UNLESS OTHERWISE NOTED NOTE 2: CANDELA SETTING: A = 15cd, B = 30cd, C = 75cd					

CODE BLOCK					
MUNICIPALITY: WEBSTER GROVES					
FIRE DISTRICT: Webster Groves					
BUILDING CODE : 2009		FIRE ALARM CODE: 2007			
BUILDING USE GROUP:		FIRE SUPPRESSION: SPRINKLED			
NOTE: USE THIS SHEET FOR INSTALLATION OF THE FOLLOWING SYSTEM(S) ONLY: FIRE ALARM SYSTEM					
NO.	DATE	REVISION DESCRIPTION			
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
TECH ELECTRONICS The Power of Connection and Protection® St. Louis, Missouri Chicago, Illinois Columbia, Missouri Bloomington, Illinois Springfield, Missouri Indianapolis, Indiana www.tech-electronics.com 1.800.TECH.789					
PROJECT NAME: CUSTOMER LOCATION WEBSTER UNIVERSITY INTERDISCIPLINARY SCIENCE BLDG. WEBSTER GROVES, MO 63119					
SYSTEM DESCRIPTION FIRE ALARM SYSTEM					
P.L.	ENG.	C.D.	PROJECT JOB #		
KH	VR	VR	PJ1608310005		
DESIGNED FOR:	DATE:	DRAWN BY:	DATE:		
	11/11/16		11/11/16		
INSTALLATION					
FA-E0100					

Webster University
Interdisciplinary Science
Building

CANNONDESIGN

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F: 314.241.2570

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Kuhlmann Leavitt, Inc.
Environmental Graphics & Signage
7400 Pershing Ave.
St. Louis, MO 63130
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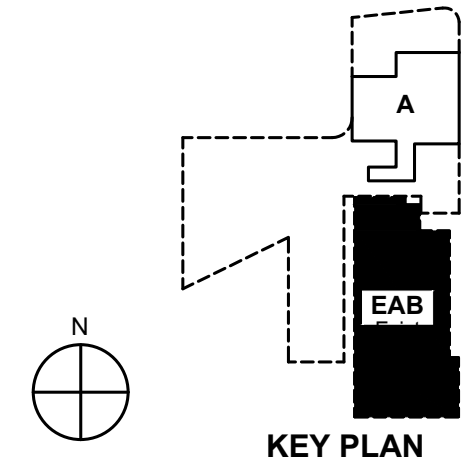
KWA Architects
Architecture
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St. Louis, MO 63124
314.962.2560

Spellman Brady & Company
Interior Designer
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St. Louis, MO 63105
314.862.0070

SWT Design
Landscape Architect
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St. Louis, MO 63119
314.644.5700

Webb Engineering Services, Inc.
Planning & Fire Protection
1400 S. 3rd Street, Suite 201
St. Louis, MO 63104
314.588.0600

2 ASI-010 21 JULY 2016
1 ADDENDUM 2-4 24 MAY 2016
ISSUED FOR CONSTRUCTION (BP2) 01 MAR 2016
No. Description Date



LEVEL 0 FLOOR PLAN -
ELECTRICAL

Project No.: 04561.01 Checked by:

E0100

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NOTE:

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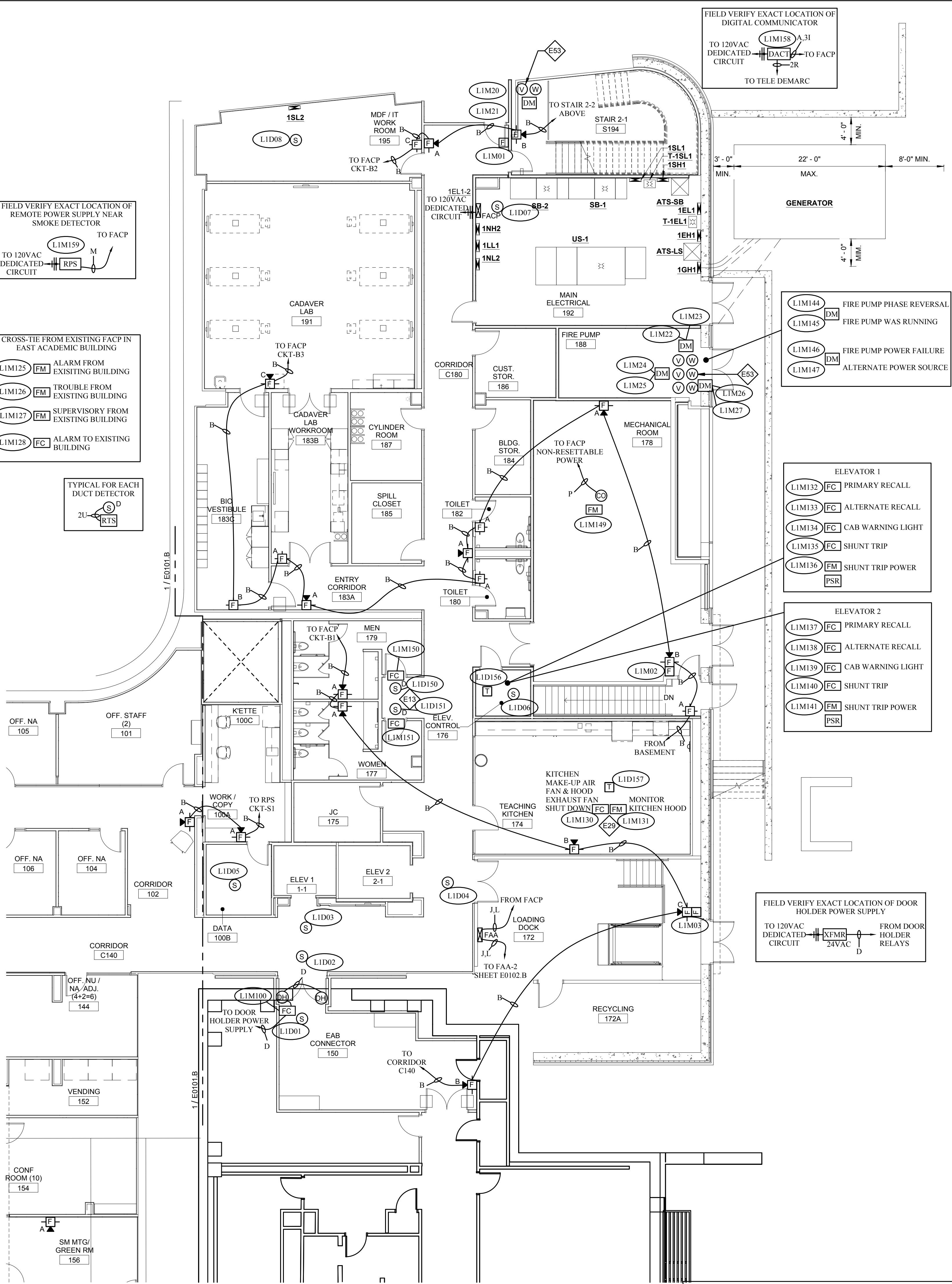
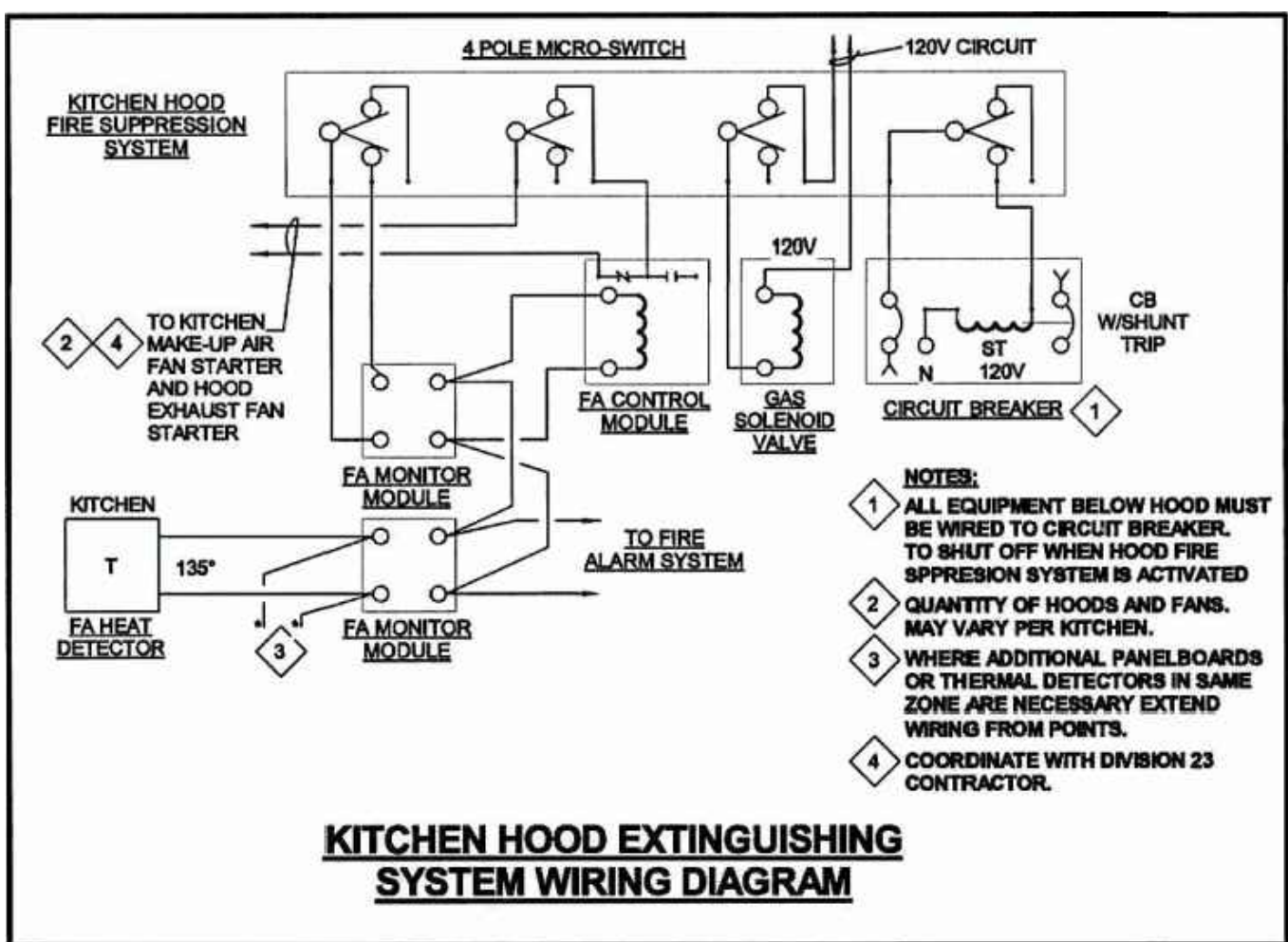
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FIRE ALARM SLC LOOP NOTES:

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- CABLE ROUTING FOR SLC LOOPS IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
- CONTACT TECH ELECTRONICS IF DEVICES CANNOT BE WIRED TO THE SLC LOOPS AS SHOWN.
- INSTALLING CONTRACTOR SHALL INCLUDE "AS INSTALLED" ROUTING FOR ALL SLC CABLES ON AS-BUILT RED LINE DRAWINGS AND PROVIDE A COPY TO TECH ELECTRONICS WHEN THE PROJECT HAS BEEN COMPLETED.

KEYED NOTES

- E13** PROVIDE A DUCT MOUNTED SMOKE DETECTOR(S) AT RETURN AIR GRILLE OF AHU-1 & AHU-2. BOTH AIR HANDLING UNITS SHALL SHUT DOWN UPON ACTIVATION OF THE DUCT MOUNTED SMOKE DETECTOR(S). PROVIDE REMOTE INDICATOR LIGHT(S) IN CEILING BELOW.
- E29** PROVIDE FIRE ALARM MONITOR MODULE AND CONTROL MODULE CONNECTED TO FIRE ALARM SYSTEM AT HOOD. PROVIDE WIRING BETWEEN HOOD AND FIRE SUPPRESSION SYSTEM. REFER TO KITCHEN HOOD EXTINGUISHING SYSTEM WIRING DIAGRAM, ON SHEET E0402 AND THIS PAGE.
- E53** COORDINATE QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES WITH FIRE PROTECTION CONTRACTOR.



1 LEVEL 01 - AREA A - FLOOR PLAN - POWER AND AUXILIARY

1/8" = 1'-0"

LEGEND	USAGE	TECH#	NOM. O.D.	SQ. IN.	DESCRIPTION
A	SLC - INITIATION	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
B	NAC-SIGNAL, STROBE	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
D	DOOR HOLDER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
I	DIGITAL COMMUNICATOR	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
J	DATA (ANNUNCIATOR OTHER THAN SLC)	TP272	0.170	0.0227	1 Pair, 18 AWG, Solid, Twisted, Shielded
L	ANNUNCIATOR POWER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
M	NAC SYNCHRONIZATION	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
R	DIGITAL COMMUNICATOR TO TELE DEMARC	TP424-SE-155	0.220	0.038	4 Pair, 24 AWG, Solid, Category SE, 155 Mhz
U	CONVENTIONAL INITIATING DEVICE	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket

- Installation Notes**
- Tech Electronics recommends that the installing contractor use the cable listed above.
 - Use of other cable does not guarantee specified system performance.
 - When purchasing cable from Tech Electronics, please specify the TECH # (e.g. TP272).
 - Outdoor cable may be required and not listed above. Unless otherwise specified all cable listed above is for indoor use only.
 - Please contact Tech Electronics for help with your outdoor cable requirements.
 - It is NOT acceptable to use THHN wire on Fire Alarm system circuits such as SLC Loops, Audible/Visual circuits or Conventional zones. It is acceptable to use THHN wire for 120VAC, grounding and Class 1 circuits. Refer to NEC for more information.

FIRE ALARM DEVICE LEGEND					
SYMBOL	DESCRIPTION	PART NO.	SYMBOL	DESCRIPTION	PART NO.
	SMOKE DETECTOR	FSP-851/B210LP		CEILING HORN-STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	PC2R
	HEAT DETECTOR	FST-851/B210LP		WALL MOUNT HORN-STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	P2R
	DUCT DETECTOR	DNR/DSTXXX/FSP-851R		FIRE ALARM CONTROL PANEL	NFS-320/PS-12260F2
	MANUAL PULL STATION	NBG-12LX		FIRE ALARM ANNUNCIATION	FDU-80
	TAMPER SWITCH	F.B.O.		REMOTE POWER SUPPLY WITH CONTROL MODULE	PSN-106B/PS-1270/FCM-1
	FLOW SWITCH	F.B.O.		DIGITAL COMMUNICATOR WITH MINI MONITOR MODULE	411UDAC/PS-1270/B280/B215/FMM-101
	RELAY MODULE	FRM-1		CARBON MONOXIDE	CO1224T
	MONITOR MODULE	FMM-1		TRANSFORMER	599
	DOOR HOLDER	DHF-24120C			

NOTE 1: SET SYSTEM SENSOR HORN-STROBES AUDIO SELECT SETTING TO 3 (LOW TEMPORAL HORN).

NOTE 2: CANDELA SETTING: A = 15cd, B = 30cd, C = 75cd

CODE BLOCK	
MUNICIPALITY: WEBSTER GROVES	
FIRE DISTRICT: Webster Groves	
BUILDING CODE: 2009	FIRE ALARM CODE: 2007
BUILDING USE GROUP:	FIRE SUPPRESSION: SPRINKLED

NOTE: USE THIS SHEET FOR INSTALLATION OF THE FOLLOWING SYSTEM(S) ONLY:
FIRE ALARM SYSTEM

NO.	DATE	REVISION DESCRIPTION
1		
2		
3		
4		
5		

TECH ELECTRONICS The Power of Connection and Protection® St. Louis, Missouri Chicago, Illinois Columbia, Missouri Indianapolis, Indiana Springfield, Missouri www.techelectronics.com 1.800.831.789	
PROJECT NAME / CUSTOMER / LOCATION: WEBSTER UNIVERSITY INTERDISCIPLINARY SCIENCE BLDG. WEBSTER GROVES, MO 63119	
SYSTEM DESCRIPTION: FIRE ALARM SYSTEM	
DESIGNED BY: KH	DATE: 11/11/16
CHECKED BY: VK	PROJECT XREF: P11608310005
INSTALLED BY: VK	DATE: 11/11/16
	PROJECTED BY: FA-E0101-A

Webster University

Interdisciplinary Science Building

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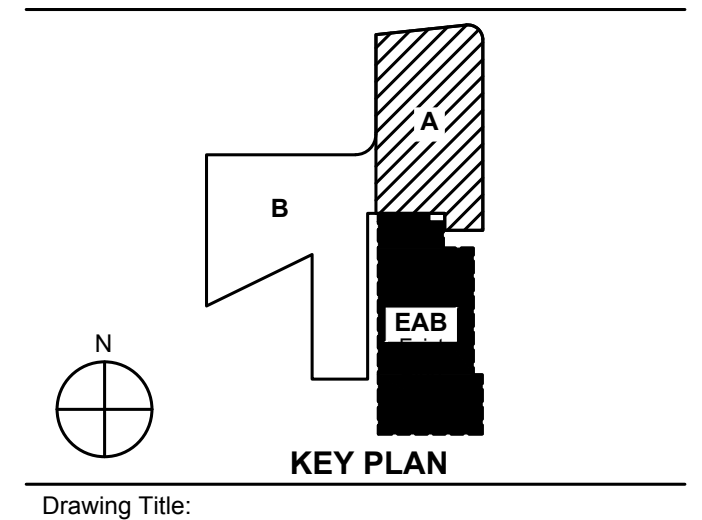
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314.962.2560

Spellman Brady & Company
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St. Louis, MO 63105
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Webb Engineering Services, Inc.
Planning & Fire Protection
1400 S. 3rd Street, Suite 201
St. Louis, MO 63104
314.588.0600

3	ASI-010	21 JULY 2016
2	ADDENDUM 2-2	19 APRIL 2016
1	ADDENDUM 2-1	17 MAR 2016
	ISSUED FOR CONSTRUCTION (BP2)	01 MAR 2016



LEVEL 01 AREA A FLOOR PLAN - ELECTRICAL & AUXILIARY

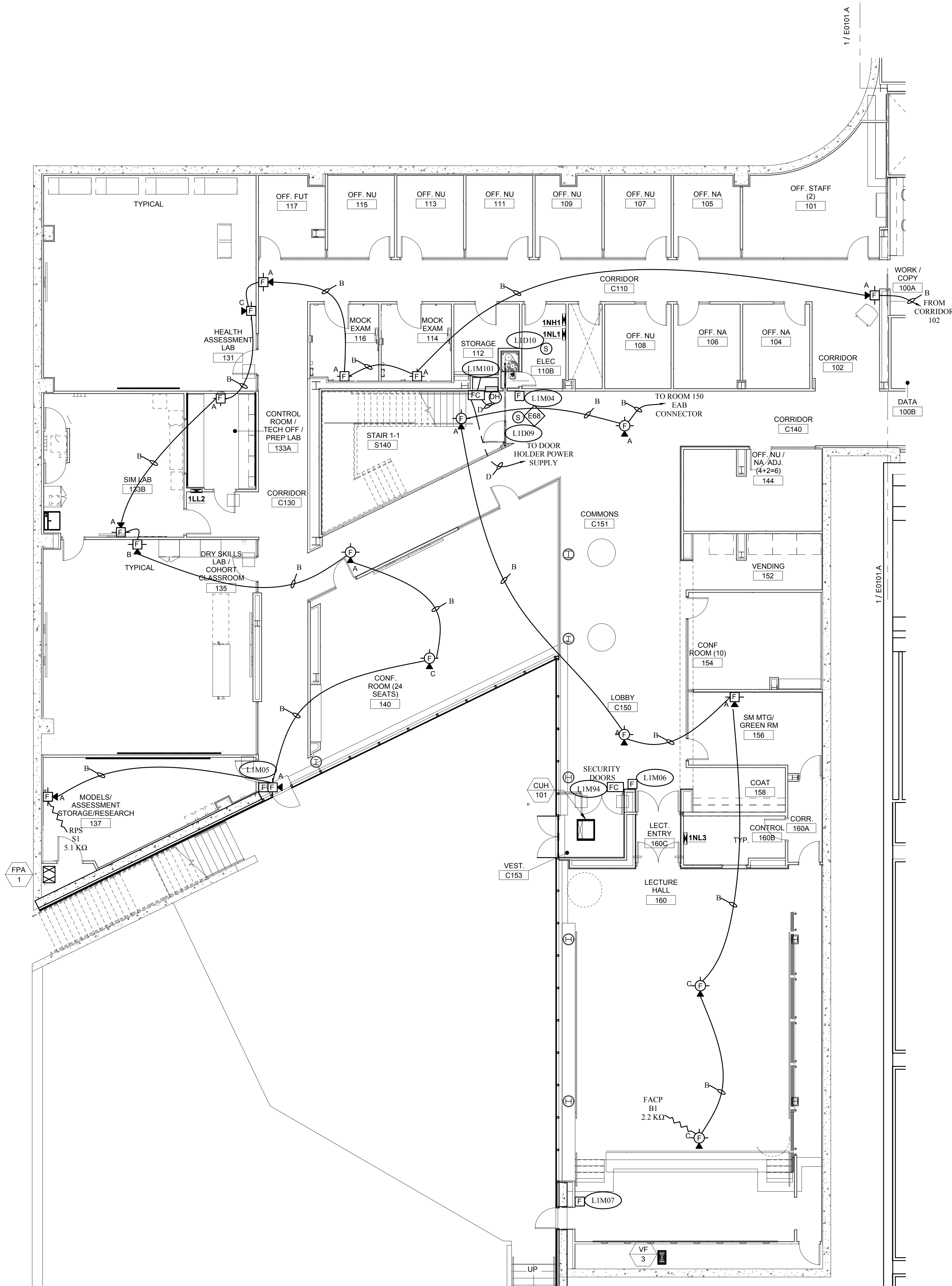
Project No.: 04561.01

Checked by:

E0101.A

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(7) INSTALLING CONTRACTOR SHALL INCLUDE "AS INSTALLED" ROUTING FOR ALL SLC CABLES ON AS-BUILT RED LINE DRAWINGS AND PROVIDE A COPY TO TECH ELECTRONICS WHEN THE PROJECT HAS BEEN COMPLETED.

GENERAL NOTES:

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR LOCATION AND ORIENTATION OF DEVICES. WHERE LOCATIONS ARE NOT INDICATED ON ARCHITECTURAL DRAWINGS, COORDINATE LOCATION AND ORIENTATION OF DEVICES IN FIELD WITH ARCHITECT PRIOR TO ROUGH-IN.
- ALL DEVICES SHOWN ARE NEW UNLESS NOTED OTHERWISE.
- ALL DEVICES TO REMAIN ARE INDICATED WITH A THIN SOLID LINE WEIGHT AND SUBSCRIPT "EX".
- CONTRACTOR SHALL VISIT PRIOR TO BID SUBMITTALS TO DETERMINE SITE CONDITIONS EFFECTING THE EXECUTION OF WORK. FAILURE TO BE ACQUAINTED WITH EXISTING CONDITIONS WILL NOT BE JUSTIFICATION FOR ADDITIONAL SERVICES.
- PROVIDE FACE PLATES ON ALL J-BOXES ABANDONED IN FINISHED FLOOR, WALL OR CEILINGS. COORDINATE COLOR AND FINISH WITH ARCHITECT. CONTRACTOR TO VERIFY QUANTITY IN THE FIELD.
- WHERE EXPOSED CONDUIT IS NOTED, CONTRACTOR SHALL IDENTIFY ROUTING IN FIELD AND OBTAIN ARCHITECT'S APPROVAL OF ROUTING PRIOR TO ROUGH-IN. EXPOSED CONDUIT SHALL BE ROUTED TIGHT TO STRUCTURE.
- ALL SINGLE PHASE BRANCH CIRCUITS SHOWN SHALL HAVE DEDICATED NEUTRALS TO MEET NEC SECTION 210.4 MULTI-WIRE BRANCH CIRCUIT REQUIREMENTS.
- REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT ROUGH-IN CDATA, VOICE AND A/V.
- ALL 120V BRANCH CIRCUITS ON THIS SHEET SHALL BE FED FROM PANEL 1N11 UNLESS NOTED OTHERWISE.

KEYED NOTES

- E68** PROVIDE FIRE ALARM CONTROL MODULE TO RELEASE POWER TO ELECTRICALLY HELD OPEN FIRE DOOR UPON ACTIVATION OF ASSOCIATED SMOKE DETECTOR.

CABLE LEGEND FOR NOTIFIER NFS-320, NFS2-440 & NFS2-3030					
LEGEND	USAGE	TECH#	NOM O.D.	SQ. IN.	DESCRIPTION
A	SLC - INITIATION	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
B	NAC-SIGNAL STROBE	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
D	DOOR HOLDER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
I	DIGITAL COMMUNICATOR	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
J	DATA (ANNUNCIATOR OTHER THAN SLC)	TP272	0.170	0.0227	1 Pair, 18 AWG, Solid, Twisted, Shielded
L	ANNUNCIATOR POWER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
M	NAC SYNCHRONIZATION	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
R	DIGITAL COMMUNICATOR TO TELL DIMARK	TP24-SE-155	0.220	0.038	4 Pair, 24 AWG, Solid, Category 5E, 155 Mhz
U	CONVENTIONAL INITIATING DEVICE	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket

Installation Notes
1) Tech Electronics recommends that the installing contractor use the cable listed above. Use of other cable does not guarantee specified system performance.
2) When purchasing cable from Tech Electronics, please specify the TECH # (e.g. TP272).
3) Outdoor cable may be required and not listed above. Unless otherwise specified all cable listed above is for indoor use only. Please contact Tech Electronics for help with your outdoor cable requirements.
4) It is NOT acceptable to use THHN wire on Fire Alarm system circuits such as SLC Loops, Audible/Visual circuits or Conventional zones. It is acceptable to use THHN wire for 120VAC, grounding and Class 1 circuits. Refer to NEC for more information.

FIRE ALARM DEVICE LEGEND					
SYMBOL	DESCRIPTION	PART NO.	SYMBOL	DESCRIPTION	PART NO.
	SMOKE DETECTOR	FSP-851/ B210LP		CEILING HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	PC2R
	HEAT DETECTOR	FST-851/ B210LP		WALL MOUNT HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	P2R
	DUCT DETECTOR	DNR/ DSTXXX/ FSP-851R		WALL MOUNT STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	SR
	MANUAL PULL STATION	NBG-12LX		FIRE ALARM CONTROL PANEL	NFS-320/ PS-12260F2
	TAMPER SWITCH	F.B.O.		FIRE ALARM ANNUNCIATION	FDU-80
	FLOW SWITCH	F.B.O.		REMOTE POWER SUPPLY WITH CONTROL MODULE	PSN-106B/ PS-1270FCM-1
	RELAY MODULE	FRM-1		DIGITAL COMMUNICATOR WITH MINI MONITOR MODULE	411UDC2/ PS-1270/ B280 B215/ FMM-101
	MONITOR MODULE	FMM-1		CARBON MONOXIDE	CO1224T
	DUAL MONITOR MODULE	FDM-1		TRANSFORMER	599
	DOOR HOLDER	DHF-24120C			

NOTE 1: SET SYSTEM SENSOR HORNS/TROBES AUDIO SELECT SETTING TO 3 (LOW TEMPORAL HORN), UNLESS OTHERWISE NOTED
NOTE 2: CANDELA SETTING: A = 15cd, B = 30cd, C = 75cd

NOTE: USE THIS SHEET FOR INSTALLATION OF THE FOLLOWING SYSTEM(S) ONLY:
FIRE ALARM SYSTEM

NO.	DATE	REVISION DESCRIPTION
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5		

	PROJECT NAME / CUSTOMER / LOCATION WEBSTER UNIVERSITY INTERDISCIPLINARY SCIENCE BLDG. WEBSTER GROVES, MO 63119
SYSTEM DESCRIPTION FIRE ALARM SYSTEM	DATE 11/11/16
DESIGNED FOR INSTALLATION	PROJECT NO. PJ1608310005
DATE 11/11/16	PROJECT NO. PJ1608310005

Webster University
Interdisciplinary Science Building

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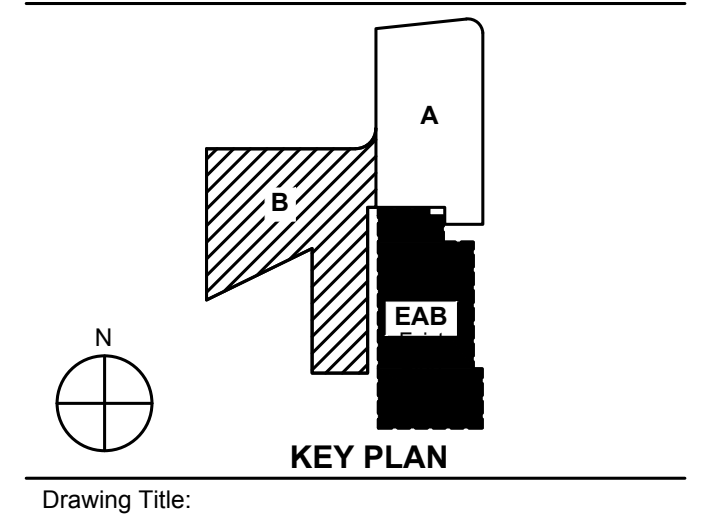
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2 ADDENDUM 2-2 19 APRIL 2016
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LEVEL 01 AREA B FLOOR PLAN - ELECTRICAL & AUXILIARY

Project No.: 04561.01 Checked by:

E0101.B

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LEVEL 01 - AREA B - FLOOR PLAN - POWER AND AUXILIARY
1/8" = 1'-0"

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GENERAL NOTES:

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- ALL DEVICES SHOWN ARE NEW UNLESS NOTED OTHERWISE.
- ALL DEVICES TO REMAIN ARE INDICATED WITH A THIN SOLID LINE WEIGHT AND SUBSCRIPT "EX".
- CONTRACTOR SHALL VISIT PRIOR TO BID SUBMITTALS TO DETERMINE SITE CONDITIONS EFFECTING THE EXECUTION OF WORK. FAILURE TO BE ACQUAINTED WITH EXISTING CONDITIONS WILL NOT BE JUSTIFICATION FOR ADDITIONAL SERVICES.
- PROVIDE FACE PLATES ON ALL J-BOXES ABANDONED IN FINISHED FLOOR, WALL OR CEILINGS. COORDINATE COLOR AND FINISH WITH ARCHITECT. CONTRACTOR TO VERIFY QUANTITY IN THE FIELD.
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- ALL SINGLE PHASE BRANCH CIRCUITS SHOWN SHALL HAVE DEDICATED NEUTRALS TO MEET NEC SECTION 210.4 MULTI-WIRE BRANCH CIRCUIT REQUIREMENTS.
- REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT ROUGH-IN CDATA, VOICE AND AV.

KEYED NOTES

- E13** PROVIDE A DUCT MOUNTED SMOKE DETECTOR(S) AT RETURN AIR GRILLE OF AHU-1 & AHU-2. BOTH AIR HANDLING UNITS SHALL SHUT DOWN UPON ACTIVATION OF THE DUCT MOUNTED SMOKE DETECTOR(S). PROVIDE REMOTE INDICATOR LIGHT(S) IN CEILING BELOW.
- E53** COORDINATE QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES WITH FIRE PROTECTION CONTRACTOR.

CABLE LEGEND FOR NOTIFIER NFS-320, NFS2-640 & NFS2-3030					
LEGEND	USAGE	TECH#	NOM. O.D.	SQ. IN.	DESCRIPTION
A	SLC - INITIATION	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
B	NAC-SIGNAL, STROBE	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
D	DOOR HOLDER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
I	DIGITAL COMMUNICATOR	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
J	DATA (ANNUNCIATOR OTHER THAN SLC)	TP272	0.170	0.0227	1 Pair, 18 AWG, Solid, Twisted, Shielded
L	ANNUNCIATOR POWER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
M	NAC SYNCHRONIZATION	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
R	DIGITAL COMMUNICATOR TO TELE DEMARC	TP424-SE-155	0.220	0.038	4 Pair, 24 AWG, Solid, Category 5E, 155 Mhz
U	CONVENTIONAL INITIATING DEVICE	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket

Installation Notes:
1) Tech Electronics recommends that the installing contractor use the cable listed above.
Use of other cable does not guarantee specified system performance.
2) When purchasing cable from Tech Electronics, please specify the TECH # (e.g. TP272).
3) Outdoor cable may be required and not listed above. Unless otherwise specified all cable listed above is for indoor use only.
Please contact Tech Electronics for help with your outdoor cable requirements.
4) It is NOT acceptable to use THHN wire on Fire Alarm system circuits such as SLC Loops. Audible/Visual circuits or Conventional zones. It is acceptable to use THHN wire for 120V AC, grounding and Class 1 circuits. Refer to NEC for more information.

FIRE ALARM DEVICE LEGEND					
SYMBOL	DESCRIPTION	PART NO.	SYMBOL	DESCRIPTION	PART NO.
	SMOKE DETECTOR	FSP-851/B210LP		CEILING HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	PC2R
	HEAT DETECTOR	FST-851/B210LP		WALL MOUNT HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	P2R
	DUCT DETECTOR	DNR/DSTXXX/FSP-851R		WALL MOUNT STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	SR
	MANUAL PULL STATION	NBG-12LX		FIRE ALARM CONTROL PANEL	NFS-320/PS-12260F2
	TAMPER SWITCH	F.B.O.		FIRE ALARM ANNUNCIATION	FDU-80
	FLOW SWITCH	F.B.O.		REMOTE POWER SUPPLY WITH CONTROL MODULE	PSN-106B/PS-1270(CM-1)
	RELAY MODULE	FRM-1		DIGITAL COMMUNICATOR WITH MINI MONITOR MODULE	411UDAC/PS-1270/B280/B215/FMM-101
	MONITOR MODULE	FMM-1		CARBON MONOXIDE	CO1224T
	DUAL MONITOR MODULE	FDM-1		TRANSFORMER	599
	DOOR HOLDER	DHF-24120C			

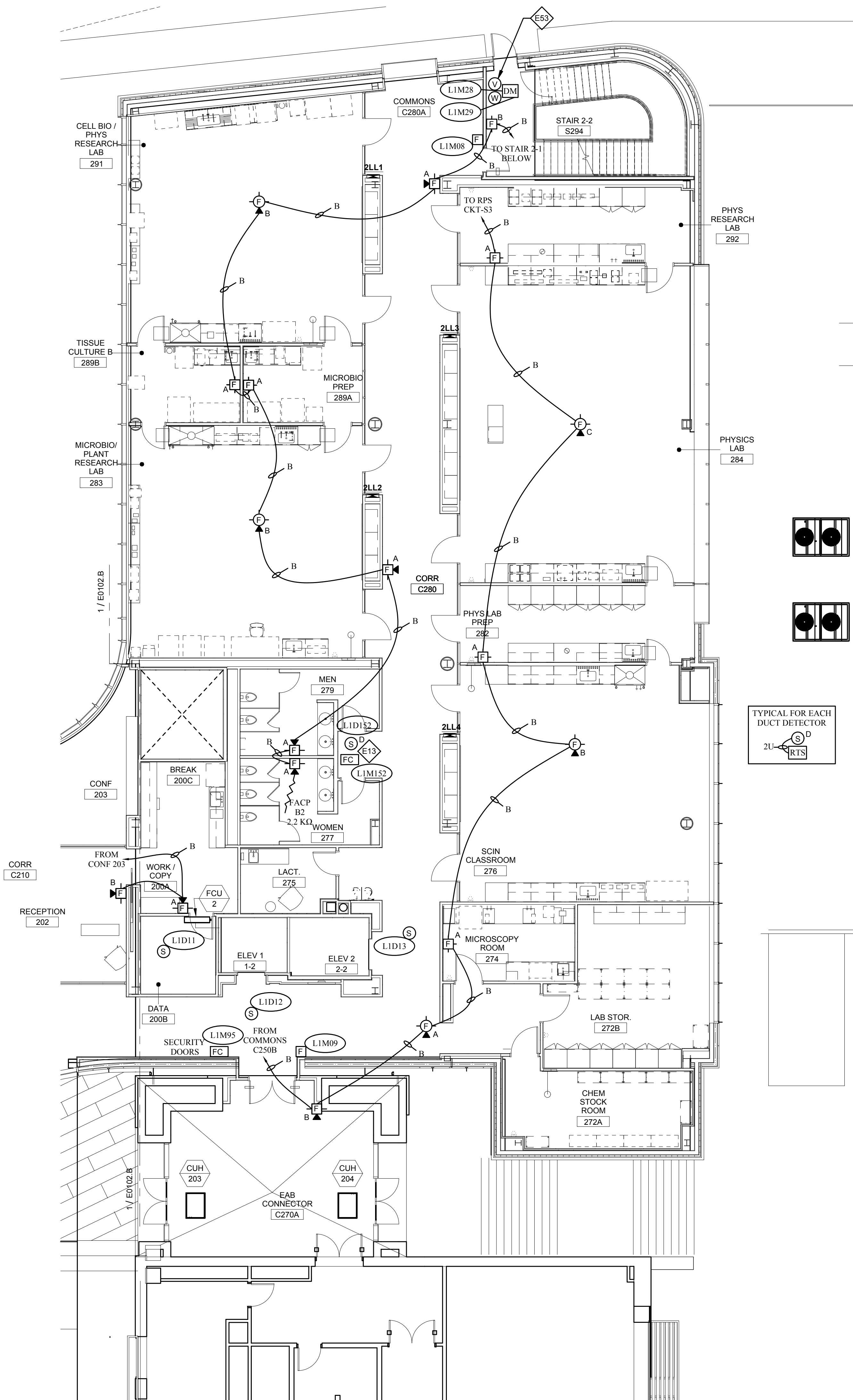
NOTE 1: SET SYSTEM SENSOR HORN/STROBES AUDIO SELECT SETTING TO 3 (LOW TEMPORAL HORN), UNLESS OTHERWISE NOTED

NOTE 2: CANDELA SETTING: A = 15cd, B = 30cd, C = 75cd

NOTE: USE THIS SHEET FOR INSTALLATION OF THE FOLLOWING SYSTEM(S) ONLY:
FIRE ALARM SYSTEM

NO.	DATE	REVISION DESCRIPTION

		PROJECT NAME: CUSTOMER/LOCATION WEBSTER UNIVERSITY INTERDISCIPLINARY SCIENCE BLDG. WEBSTER GROVES, MO 63119	
SYSTEM DESCRIPTION: FIRE ALARM SYSTEM		DATE: 11/11/16	
PRI. KH	ENGR. VK	PROD. JOB# PI1608310005	DATE: 11/11/16
DESIGNED BY			
INSTALLATION			



1

LEVEL 02 - AREA A - FLOOR PLAN - POWER AND AUXILLARY

1/8" = 1'-0"

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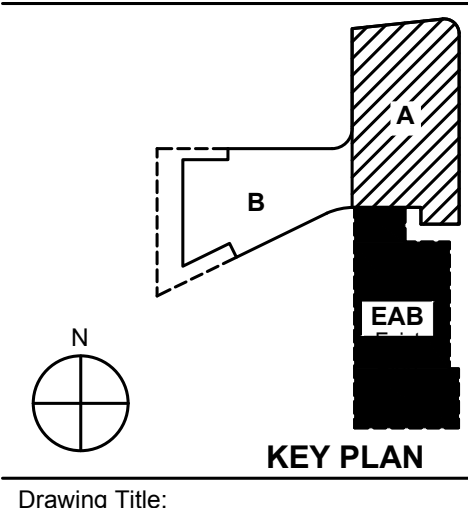
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2 ADDENDUM 2-2 19 APRIL 2016
1 ADDENDUM 2-1 17 MAR 2016
ISSUED FOR CONSTRUCTION (BP2) 01 MAR 2016



**LEVEL 02 AREA A FLOOR
PLAN - ELECTRICAL &
AUXILIARY**

Project No.: 04561.01

Checked by:

E0102.A

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GENERAL NOTES:

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- ALL DEVICES SHOWN ARE NEW UNLESS NOTED OTHERWISE.
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- ALL SINGLE PHASE BRANCH CIRCUITS SHOWN SHALL HAVE DEDICATED NEUTRALS. TO MEET NEC SECTION 210.4 MULTI-WIRE BRANCH CIRCUIT REQUIREMENTS.
- REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT ROUGH-IN CDATA, VOICE AND A/V.
- ALL 120V BRANCH CIRCUITS ON THIS SHEET SHALL BE FED FROM PANEL **2NL**, UNLESS NOTED OTHERWISE.

KEYED NOTES

- E68** PROVIDE FIRE ALARM CONTROL MODULE TO RELEASE POWER TO ELECTRICALLY HELD OPEN FIRE DOOR UPON ACTIVATION OF ASSOCIATED SMOKE DETECTOR.

CABLE LEGEND FOR NOTIFIER NFS-320, NFS-640 & NFS-32030					
LEGEND	USAGE	TECH#	NOM. O.D.	SQ. IN.	DESCRIPTION
A	SLC - INITIATION	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
B	NAC-SIGNAL, STROBE	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
D	DOOR HOLDER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
I	DIGITAL COMMUNICATOR	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
J	DATA (ANNUNCIATOR OTHER THAN SLC)	TP272	0.170	0.0227	1 Pair, 18 AWG, Solid, Twisted, Shielded
L	ANNUNCIATOR POWER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
M	NAC SYNCHRONIZATION	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
R	DIGITAL COMMUNICATOR TO TELE DEMARK	TP424-SE-JS	0.220	0.038	4 Pair, 24 AWG, Solid, Category SE, 155 Mhz
U	CONVENTIONAL INITIATING DEVICE	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket

Installation Notes

- Tech Electronics recommends that the installing contractor use the cable listed above. Use of other cable does not guarantee specified system performance.
- When purchasing cable from Tech Electronics, please specify the TECH # (e.g. TP272).
- Outdoor cable may be required and not listed above. Unless otherwise specified all cable listed above is for indoor use only. Please contact Tech Electronics for help with your outdoor cable requirements.
- It is NOT acceptable to use THHN wire on Fire Alarm system circuits such as SLC Loops, Audible/Visual circuits or Conventional zones. It is acceptable to use THHN wire for 120VAC, grounding and Class 1 circuits. Refer to NEC for more information.

FIRE ALARM DEVICE LEGEND					
SYMBOL	DESCRIPTION	PART NO.	SYMBOL	DESCRIPTION	PART NO.
	SMOKE DETECTOR	FSP-851/B210LP		CEILING HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	PC2R
	HEAT DETECTOR	FST-851/B210LP		WALL MOUNT HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	P2R
	DUCT DETECTOR	DNR/DSTXXX/FSP-851R		WALL MOUNT STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	SR
	MANUAL PULL STATION	NBG-12LX		FIRE ALARM CONTROL PANEL	NFS-320/PS-12200F2
	TAMPER SWITCH	F.B.O.		FIRE ALARM ANNUNCIATION	FDU-80
	FLOW SWITCH	F.B.O.		REMOTE POWER SUPPLY WITH CONTROL MODULE	PSN-106B/PS-1270/FCM-1
	RELAY MODULE	FRM-1		DIGITAL COMMUNICATOR WITH MINI MONITOR MODULE	411UDAC/PS-1270/B280/B215/FMM-101
	MONITOR MODULE	FMM-1		CARBON MONOXIDE	CO1224T
	DUAL MONITOR MODULE	FDM-1		TRANSFORMER	599
	DOOR HOLDER	DHF-24120C			

NOTE 1: SET SYSTEM SENSOR HORN/STROBES ALDIO SELECT SETTING TO 3 (LOW TEMPORAL HORN), UNLESS OTHERWISE NOTED

NOTE 2: CANDELA SETTING: A = 15cd, B = 30cd, C = 75cd

NOTE: USE THIS SHEET FOR INSTALLATION OF THE FOLLOWING SYSTEM(S) ONLY:
FIRE ALARM SYSTEM

NO.	DATE	REVISION DESCRIPTION
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PROJECT NAME / CUSTOMER / LOCATION:
WEBSTER UNIVERSITY
INTERDISCIPLINARY SCIENCE BLDG.
WEBSTER GROVES, MO 63119

SYSTEM DESCRIPTION:
FIRE ALARM SYSTEM

DATE: 11/11/16
ISSUED FOR: INSTALLATION

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Interdisciplinary Science
Building

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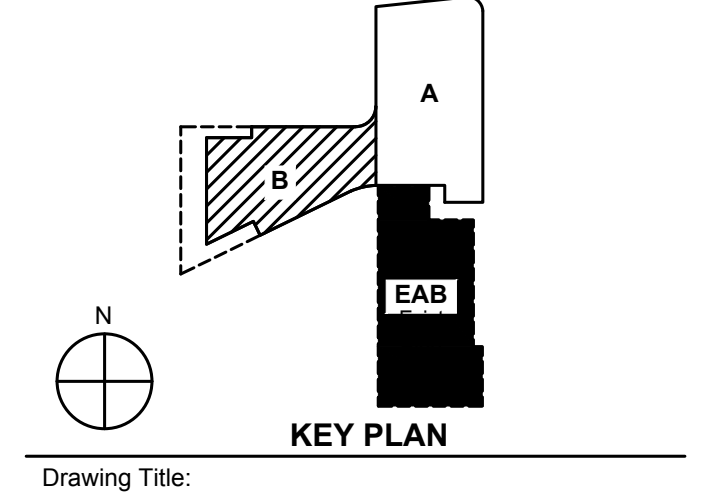
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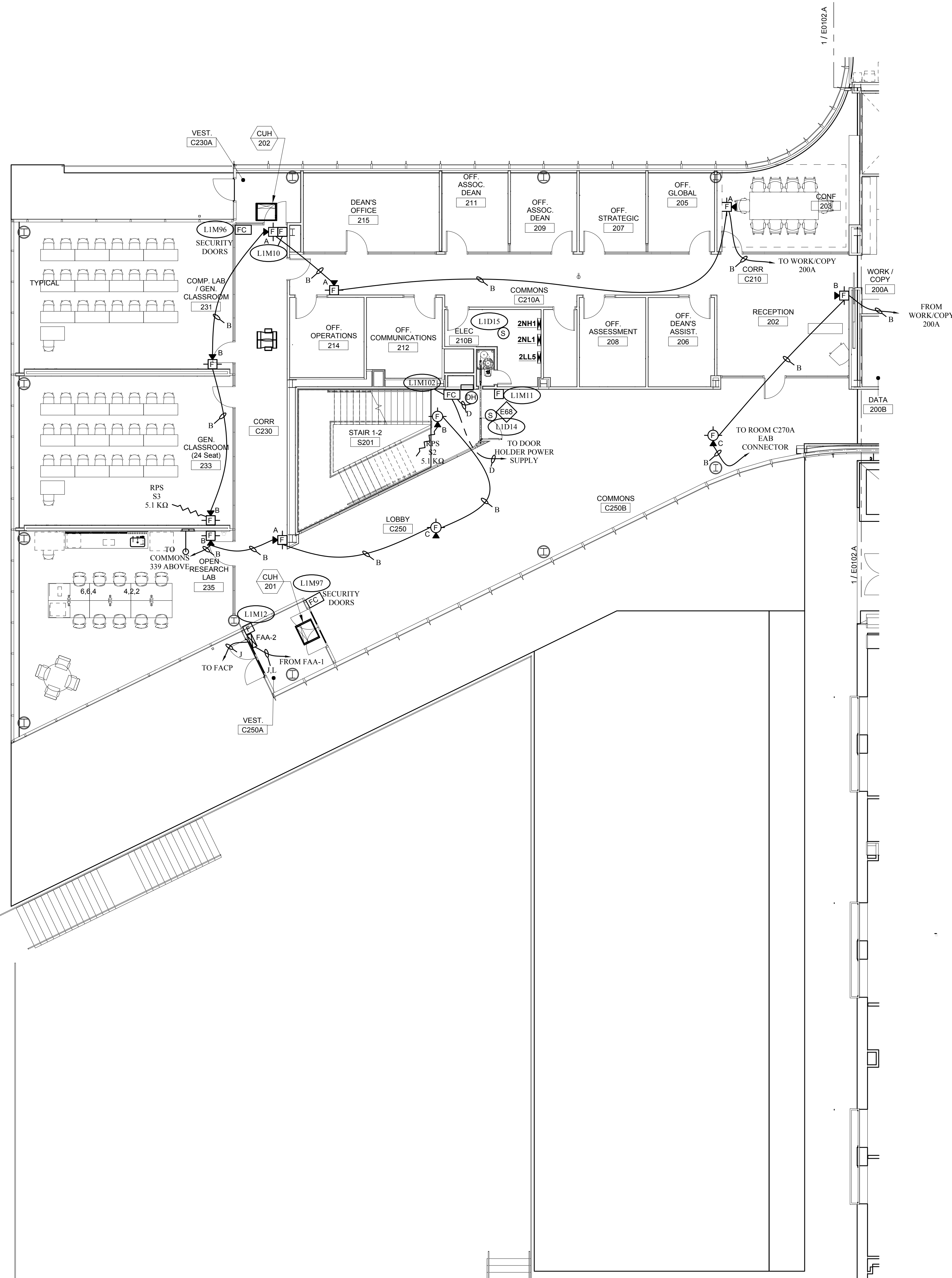
**LEVEL 02 AREA B FLOOR
PLAN - ELECTRICAL &
AUXILIARY**

Project No.: 04561.01

Checked by:

E0102.B

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NOTE:
RELAY MODULES SHALL BE MOUNTED WITHIN THREE FEET OF THE DEVICE BEING CONTROLLED (I.E. AHU, DAMPER, ELEVATOR CAPTURE, ETC.). EXCEPTION: CIRCUITS THAT OPERATE ON LOSS OF POWER SHALL BE CONSIDERED SELF-MONITORING FOR INTEGRITY.
ADDRESSABLE DEVICES MUST BE INSTALLED WITHIN THE FOLLOWING ENVIRONMENTAL LIMITS: +32F TO +100F, 0-90% RELATIVE HUMIDITY. ADDRESSABLE DEVICES ARE NOT DESIGNED FOR OUTDOOR USE.

IMPORTANT NOTICE REGARDING FIRE MARSHAL TEST:
THIS JOB IS EQUIPPED WITH A **FIRE ALARM DIGITAL COMMUNICATOR**, WHICH REQUIRES (2) LOOP START BUSINESS TELEPHONE LINES AND THE OWNER TO OBTAIN A CENTRAL MONITORING CONTRACT FROM A CERTIFIED MONITORING AGENCY. THIS PANEL MUST BE PROGRAMMED AND TESTED PRIOR TO SCHEDULING THE FIRE MARSHAL TEST.

FIRE ALARM SLC LOOP NOTES:
(1) SLC LOOP WIRING ("A" CABLE) IS **NOT** TYPICALLY SHOWN ON THE FLOOR PLANS. IF THE SLC LOOP IS SHOWN, ITS FOR REFERENCE ONLY.
(2) THE INSTALLING CONTRACTOR SHALL PULL AN "A" CABLE FOR EACH SLC LOOP FROM THE FIRE ALARM CONTROL PANEL TO ALL ADDRESSABLE DEVICES ON SAME SLC LOOP.
(3) "T" TAPPING / BRANCH CIRCUITS ARE ACCEPTABLE FOR SLC LOOPS ONLY.
(4) THE LOOP NUMBER ON THE DEVICE ADDRESS INDICATES THE SLC LOOP FOR EACH AREA AS SHOWN ON THE PLANS.
(5) CABLE ROUTING FOR SLC LOOPS IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
(6) CONTACT TECH ELECTRONICS IF DEVICES CANNOT BE WIRED TO THE SLC LOOPS AS SHOWN.
(7) INSTALLING CONTRACTOR SHALL INCLUDE "AS INSTALLED" ROUTING FOR ALL SLC CABLES ON AS-BUILT RED LINE DRAWINGS AND PROVIDE A COPY TO TECH ELECTRONICS WHEN THE PROJECT HAS BEEN COMPLETED.

1 LEVEL 02 - AREA B - FLOOR PLAN - POWER AND AUXILIARY

1/8" = 1'-0"

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GENERAL NOTES:

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR LOCATION AND ORIENTATION OF DEVICES. WHERE LOCATIONS ARE NOT INDICATED ON ARCHITECTURAL DRAWINGS, COORDINATE LOCATION AND ORIENTATION OF DEVICES IN FIELD WITH ARCHITECT PRIOR TO ROUGH-IN.
- ALL DEVICES SHOWN ARE NEW UNLESS NOTED OTHERWISE.
- ALL DEVICES TO REMAIN ARE INDICATED WITH A THIN SOLID LINE WEIGHT AND SUBSCRIPT "EX".
- CONTRACTOR SHALL VISIT PRIOR TO BID SUBMITTALS TO DETERMINE SITE CONDITIONS EFFECTING THE EXECUTION OF WORK. FAILURE TO BE ACQUAINTED WITH EXISTING CONDITIONS WILL NOT BE JUSTIFICATION FOR ADDITIONAL SERVICES.
- PROVIDE FACE PLATES ON ALL J-BOXES ABANDONED IN FINISHED FLOOR, WALL OR CEILINGS. COORDINATE COLOR AND FINISH WITH ARCHITECT. CONTRACTOR TO VERIFY QUANTITY IN THE FIELD.
- WHERE EXPOSED CONDUIT IS NOTED, CONTRACTOR SHALL IDENTIFY ROUTING IN FIELD AND OBTAIN ARCHITECT'S APPROVAL OF ROUTING PRIOR TO ROUGH-IN. EXPOSED CONDUIT SHALL BE ROUTED TIGHT TO STRUCTURE.
- ALL SINGLE PHASE BRANCH CIRCUITS SHOWN SHALL HAVE DEDICATED NEUTRALS TO MEET NEC SECTION 210.4 MULTI-WIRE BRANCH CIRCUIT REQUIREMENTS.
- REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT ROUGH-IN CDATA, VOICE AND AV.

KEYED NOTES

- E13** PROVIDE A DUCT MOUNTED SMOKE DETECTOR(S) AT RETURN AIR GRILLE OF AHU-1 & AHU-2. BOTH AIR HANDLING UNITS SHALL SHUT DOWN UPON ACTIVATION OF THE DUCT MOUNTED SMOKE DETECTOR(S). PROVIDE REMOTE INDICATOR LIGHT(S) IN CEILING BELOW.
- E53** COORDINATE QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES WITH FIRE PROTECTION CONTRACTOR.

CABLE LEGEND FOR NOTIFIER NFS-320, NFS2-640 & NFS2-3030					
LEGEND	USAGE	TECH#	NOM. O.D.	SQ. IN.	DESCRIPTION
A	SLC - INITIATION	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
B	NAC-SIGNAL, STROBE	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
D	DOOR HOLDER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
I	DIGITAL COMMUNICATOR	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
J	DATA (ANNUNCIATOR OTHER THAN SLC)	TP272	0.170	0.0227	1 Pair, 18 AWG, Solid, Twisted, Shielded
L	ANNUNCIATOR POWER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
M	NAC SYNCHRONIZATION	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
R	DIGITAL COMMUNICATOR TO TELE DEMARC	TP424-SE-155	0.220	0.038	4 Pair, 24 AWG, Solid, Category 5E, 155 Mhz
U	CONVENTIONAL INITIATING DEVICE	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket

Installation Notes

- Tech Electronics recommends that the installing contractor use the cable listed above. Use of other cable does not guarantee specified system performance.
- When purchasing cable from Tech Electronics, please specify the TECH # (e.g. TP272).
- Outdoor cable may be required and not listed above. Unless otherwise specified all cable listed above is for indoor use only. Please contact Tech Electronics for help with your outdoor cable requirements.
- It is NOT acceptable to use THIN wire on Fire Alarm system circuits such as SLC Loops, Audible/Visual circuits or Conventional zones. It is acceptable to use THIN wire for 120VAC, grounding and Class 1 circuits. Refer to NEC for more information.

FIRE ALARM DEVICE LEGEND					
SYMBOL	DESCRIPTION	PART NO.	SYMBOL	DESCRIPTION	PART NO.
	SMOKE DETECTOR	FSP-851/B210LP		CEILING HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	PC2R
	HEAT DETECTOR	FST-851/B210LP		WALL MOUNT HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	P2R
	DUCT DETECTOR	DMR/DSTXXX/FSP-851R		WALL MOUNT STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	SR
	MANUAL PULL STATION	NBG-121.X		FIRE ALARM CONTROL PANEL	NFS-320/PS-12260F2
	TAMPER SWITCH	F.B.O.		FIRE ALARM ANNUNCIATION	FDU-80
	FLOW SWITCH	F.B.O.		REMOTE POWER SUPPLY WITH CONTROL MODULE	PSN-106B/PS-1270FCM-1
	RELAY MODULE	FRM-1		DIGITAL COMMUNICATOR WITH MINI MONITOR MODULE	411UDAC/PS-1270 B2B/B215/FMM-101
	MONITOR MODULE	FMM-1		CARBON MONOXIDE	CO1224T
	DUAL MONITOR MODULE	FDM-1		TRANSFORMER	599
	DOOR HOLDER	DHF-24120C			

NOTE 1: SET SYSTEM SENSOR HORN/STROBES AUDIO SELECT SETTING TO 3 (LOW TEMPORAL HORN), UNLESS OTHERWISE NOTED

NOTE 2: CANDELA SETTING: A = 15cd, B = 30cd, C = 75cd

NOTE: USE THIS SHEET FOR INSTALLATION OF THE FOLLOWING SYSTEM(S) ONLY:
FIRE ALARM SYSTEM

NO.	DATE	REVISION DESCRIPTION

TECH
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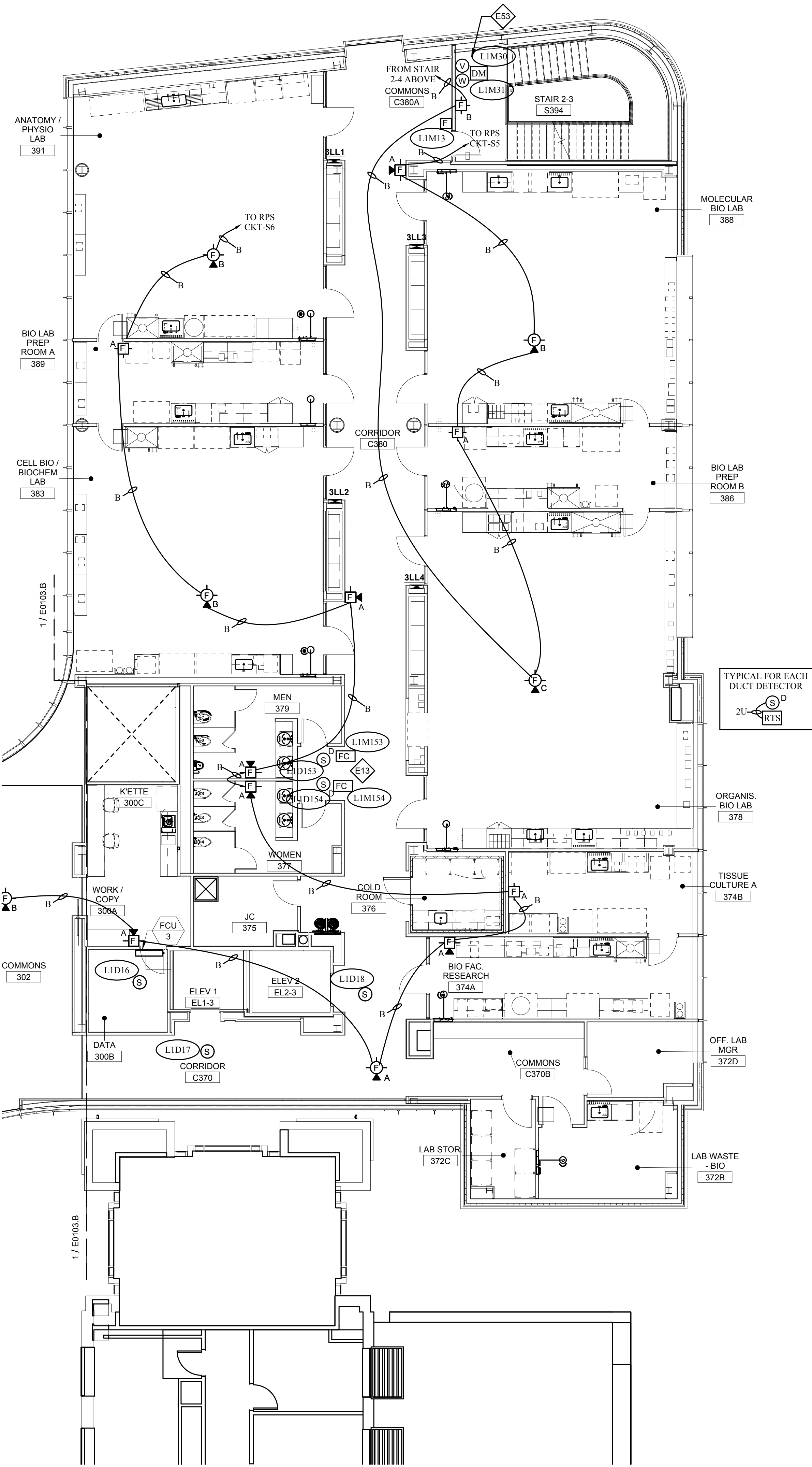
PROJECT NAME: CUSTOMER / LOCATION
WEBSTER UNIVERSITY
INTERDISCIPLINARY SCIENCE BLDG.
WEBSTER GROVES, MO 63119

SYSTEM DESCRIPTION
FIRE ALARM SYSTEM

PREPARED BY	CHKD BY	DATE

ISSUED FOR: INSTALLATION

PROJECT FA-E0103.A



NOTE:
RELAY MODULES SHALL BE MOUNTED WITHIN THREE FEET OF THE DEVICE BEING CONTROLLED (I.E. AHU, DAMPER, ELEVATOR CAPTURE, ETC.). EXCEPTION: CIRCUITS THAT OPERATE ON LOSS OF POWER SHALL BE CONSIDERED SELF-MONITORING FOR INTEGRITY.

ADDRESSABLE DEVICES MUST BE INSTALLED WITHIN THE FOLLOWING ENVIRONMENTAL LIMITS: +32°F TO +100°F, 0-90% RELATIVE HUMIDITY. ADDRESSABLE DEVICES ARE NOT DESIGNED FOR OUTDOOR USE.

IMPORTANT NOTICE REGARDING FIRE MARSHAL TEST:

THIS JOB IS EQUIPPED WITH A FIRE ALARM DIGITAL COMMUNICATOR, WHICH REQUIRES (2) LOOP START BUSINESS TELEPHONE LINES AND THE OWNER TO OBTAIN A CENTRAL MONITORING CONTRACT FROM A CERTIFIED MONITORING AGENCY. THIS PANEL MUST BE PROGRAMMED AND TESTED PRIOR TO SCHEDULING THE FIRE MARSHAL TEST.

- FIRE ALARM SLC LOOP NOTES:**
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1 LEVEL 03 - AREA A - FLOOR PLAN - POWER AND AUXILLARY

1/8" = 1'-0"

Webster University
Interdisciplinary Science
Building

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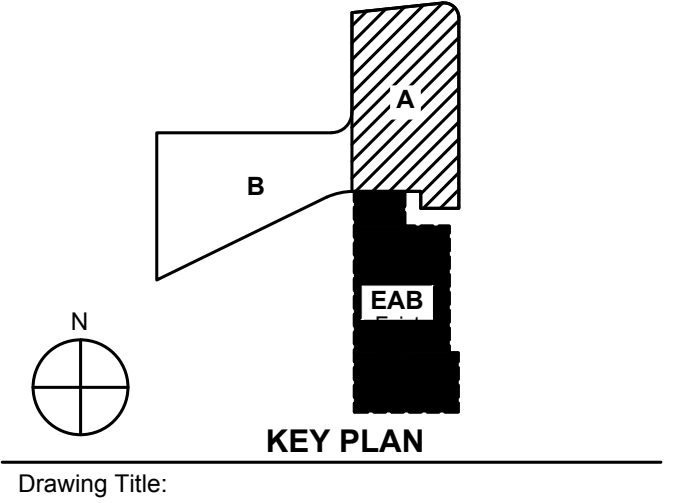
KWA Architects
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9721 Litzinger Road
St. Louis, MO 63124
314.962.2560

Spellman Brady & Company
Interior Designer
8251 Maryland Avenue, Suite 300
St. Louis, MO 63105
314.862.0070

SWT Design
Landscape Architect
7722 Big Bend Blvd.
St. Louis, MO 63119
314.644.5700

Webb Engineering Services, Inc.
Plumbing & Fire Protection
1400 S. 3rd Street, Suite 201
St. Louis, MO 63104
314.588.0600

3 ASI-017 TBD
2 ADDENDUM 2-2 19 APRIL 2016
1 ADDENDUM 2-1 17 MAR 2016
ISSUED FOR CONSTRUCTION (BP2) 01 MAR 2016



**LEVEL 03 AREA A FLOOR
PLAN - ELECTRICAL &
AUXILIARY**

Project No.: 04561.01 Checked by:

E0103.A

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Webster University Interdisciplinary Science Building

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- ALL SINGLE PHASE BRANCH CIRCUITS SHOWN SHALL HAVE DEDICATED NEUTRALS TO MEET NEC SECTION 210.4 MULTI-WIRE BRANCH CIRCUIT REQUIREMENTS.
- REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT ROUGH-IN CDATA, VOICE AND AV.
- ALL 120V BRANCH CIRCUITS ON THIS SHEET SHALL BE FED FROM PANEL 3NL1 UNLESS NOTED OTHERWISE.

KEYED NOTES

- E68 PROVIDE FIRE ALARM CONTROL MODULE TO RELEASE POWER TO ELECTRICALLY HELD OPEN FIRE DOOR UPON ACTIVATION OF ASSOCIATED SMOKE DETECTOR.

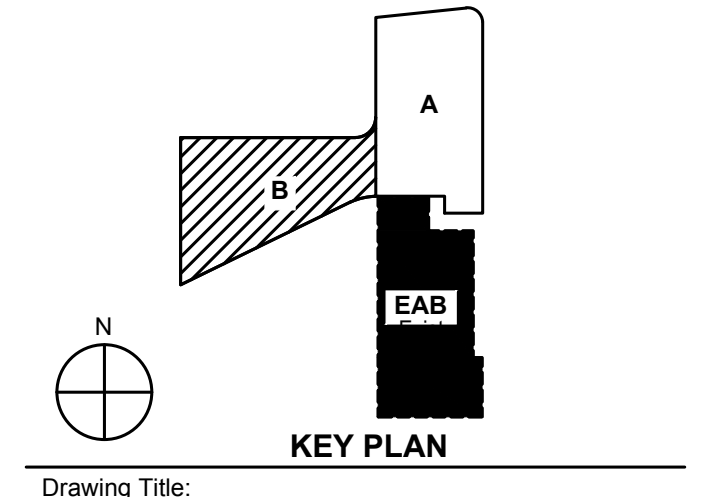
CABLE LEGEND FOR NOTIFIER NFS-320, NFS2-640 & NFS2-3030					
LEGEND	USAGE	TECH#	NOM. O.D.	SQ. IN.	DESCRIPTION
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B	NAC-SIGNAL STROBE	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
D	DOOR HOLDER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
I	DIGITAL COMMUNICATOR	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
J	DATA (ANNUNCIATOR OTHER THAN SLC)	TP272	0.170	0.0227	1 Pair, 18 AWG, Solid, Twisted, Shielded
L	ANNUNCIATOR POWER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
M	NAC SYNCHRONIZATION	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
R	DIGITAL COMMUNICATOR TO TELL DEMARC	TP424-SE-155	0.220	0.038	4 Pair, 24 AWG, Solid, Category 5E, 155 Mhz
U	CONVENTIONAL INITIATING DEVICE	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
Installation Notes					
1) Tech Electronics recommends that the installing contractor use the cable listed above.					
2) Use of other cable does not guarantee specified system performance.					
3) When purchasing cable from Tech Electronics, please specify the TECH # (e.g. TP272).					
4) Outdoor cable may be required and not listed above. Unless otherwise specified all cable listed above is for indoor use only.					
5) Please contact Tech Electronics for help with your outdoor cable requirements.					
6) It is NOT acceptable to use THHN wire on Fire Alarm system circuits such as SLC Loops, Audible/Visual circuits or Conventional zones. It is acceptable to use THHN wire for 120VAC, grounding and Class 1 circuits. Refer to NEC for more information.					

FIRE ALARM DEVICE LEGEND					
SYMBOL	DESCRIPTION	PART NO.	SYMBOL	DESCRIPTION	PART NO.
Ⓢ	SMOKE DETECTOR	FSP-851/ B210L.P	Ⓢ ₁	CEILING HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	PC2R
Ⓢ ₂	HEAT DETECTOR	FST-851/ B210L.P	Ⓢ ₂	WALL MOUNT HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	P2R
Ⓢ ₃	DUCT DETECTOR	DNR/ DSTXXX/ FSP-851R	Ⓢ ₃	WALL MOUNT STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	SR
Ⓢ ₄	MANUAL PULL STATION	NBG-12LX	Ⓢ ₄	FIRE ALARM CONTROL PANEL	NFS-320/ PS-12260F2
Ⓢ ₅	TAMPER SWITCH	F.B.O.	Ⓢ ₅	FIRE ALARM ANNUNCIATION	FDU-80
Ⓢ ₆	FLOW SWITCH	F.B.O.	Ⓢ ₆	REMOTE POWER SUPPLY WITH CONTROL MODULE	PSN-106B/ PS-1270/FCM-1
Ⓢ ₇	RELAY MODULE	FRM-1	Ⓢ ₇	DIGITAL COMMUNICATOR WITH MINI MONITOR MODULE	411UDAC/ PS-1270/ B280/ B21S/ FMM-101
Ⓢ ₈	MONITOR MODULE	FMM-1	Ⓢ ₈	CARBON MONOXIDE	CO1224T
Ⓢ ₉	DUAL MONITOR MODULE	FDM-1	Ⓢ ₉	TRANSFORMER	599
Ⓢ ₁₀	DOOR HOLDER	DHF-24120C			
NOTE 1: SET SYSTEM SENSOR HORN/STROBES AUDIO SELECT SETTING TO 3 (LOW TEMPORAL HORN).					
NOTE 2: CANDELA SETTING: A = 15cd, B = 30cd, C = 75cd					

NOTE: USE THIS SHEET FOR INSTALLATION OF THE FOLLOWING SYSTEM(S) ONLY:
FIRE ALARM SYSTEM

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2 ADDENDUM 2-2 19 APRIL 2016
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ISSUED FOR CONSTRUCTION (BP2) 01 MAR 2016

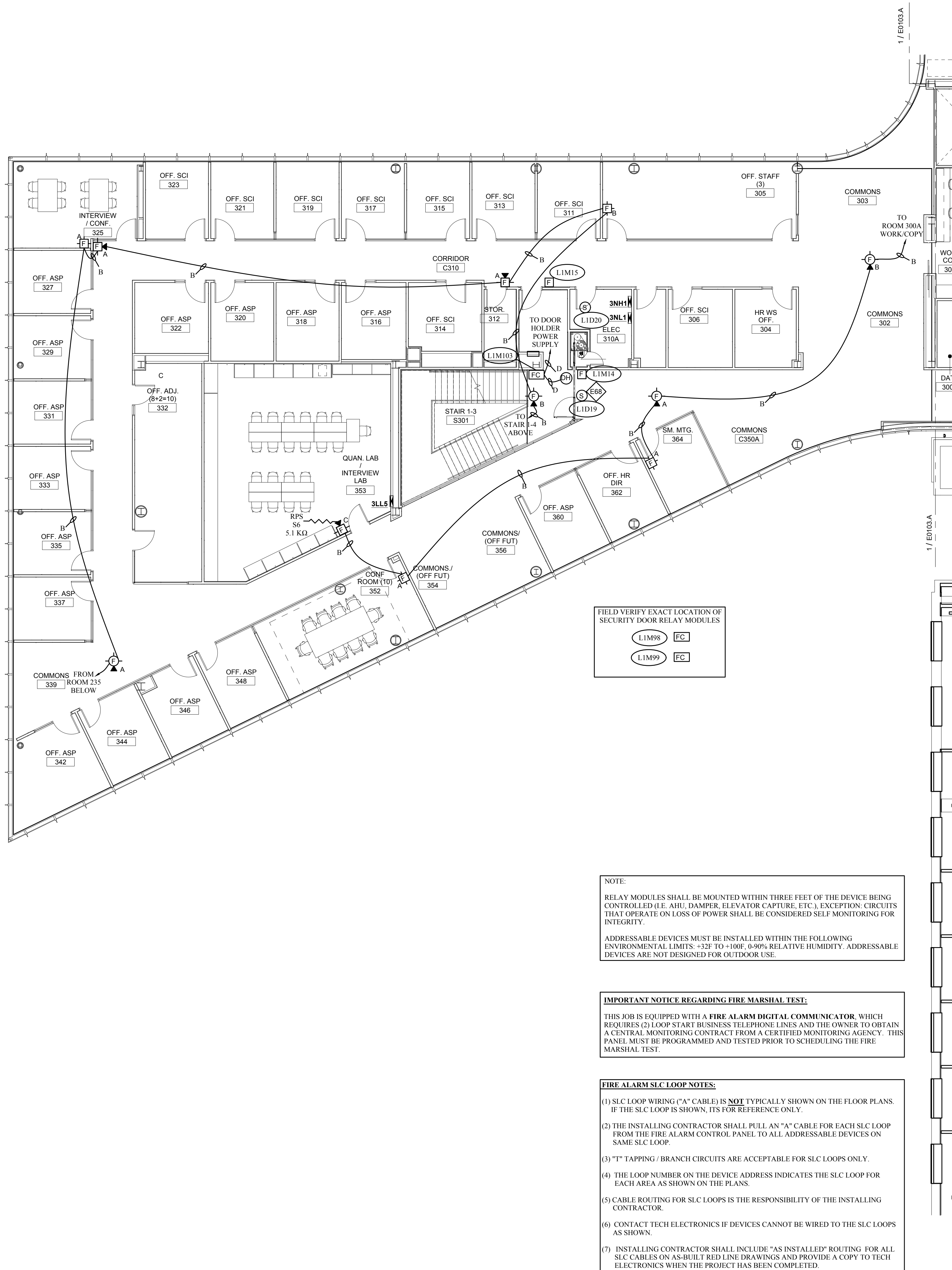


LEVEL 03 AREA B FLOOR PLAN - ELECTRICAL & AUXILIARY

Project No.: 04561.01 Checked by:

E0103.B

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(T)	HEAT DETECTOR	FST-851/B210LP	(X)	WALL MOUNT HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	P2R
(S) _D	DUCT DETECTOR	DNR/DSTXXX/FSP-851R	(X)	WALL MOUNT STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	SR
(F)	MANUAL PULL STATION	NBG-12LX	(FACP)	FIRE ALARM CONTROL PANEL	NFS-320/PS-12260F2
(V)	TAMPER SWITCH	F.B.O.	(FAA)	FIRE ALARM ANNUNCIATION	FDU-80
(W)	FLOW SWITCH	F.B.O.	(RPS)	REMOTE POWER SUPPLY WITH CONTROL MODULE	PSN-106B/PS-1270/FCM-1
(FC)	RELAY MODULE	FRM-1	(DAC)	DIGITAL COMMUNICATOR WITH MINI MONITOR MODULE	411UDAC/PS-1270/B2B0/B215/FMM-101
(FM)	MONITOR MODULE	FMM-1	(C)	CARBON MONOXIDE	CO1224T
(DM)	DUAL MONITOR MODULE	FDM-1	(FMR)	TRANSFORMER	599
(DH)	DOOR HOLDER	DHF-24120C			

NOTE 1: SET SYSTEM SENSOR HORN/STROBES AUDIO SELECT SETTING TO 3 (LOW TEMPORAL HORN), UNLESS OTHERWISE NOTED
NOTE 2: CANDELA SETTING: A = 15cd, B = 30cd, C = 75cd

NOTE: USE THIS SHEET FOR INSTALLATION OF THE FOLLOWING SYSTEM(S) ONLY:
FIRE ALARM SYSTEM

NO.	DATE	REVISION DESCRIPTION
1		
2		
3		
4		
5		

TECH ELECTRONICS The Power of Connection and Protection®		PROJECT NAME / CUSTOMER LOCATION WEBSTER UNIVERSITY INTERDISCIPLINARY SCIENCE BLDG. WEBSTER GROVES, MO 63119	
ST. LOUIS, MISSOURI CHICAGO, ILLINOIS COLUMBIA, MISSOURI SPRINGFIELD, MISSOURI www.tech-electronics.com 1.800.TECH.789		FIRE ALARM SYSTEM SYSTEM DESCRIPTION: FIRE ALARM SYSTEM	
PREP. KH	ENG. VK	CADD. VK	PROJECT JOB# P1608310005
DATE: 11/11/16	DATE: 11/11/16	DATE: 11/11/16	DATE: 11/11/16
ISSUED FOR CONSTRUCTION (BP2)		FA-E0104.A	

Webster University
Interdisciplinary Science Building

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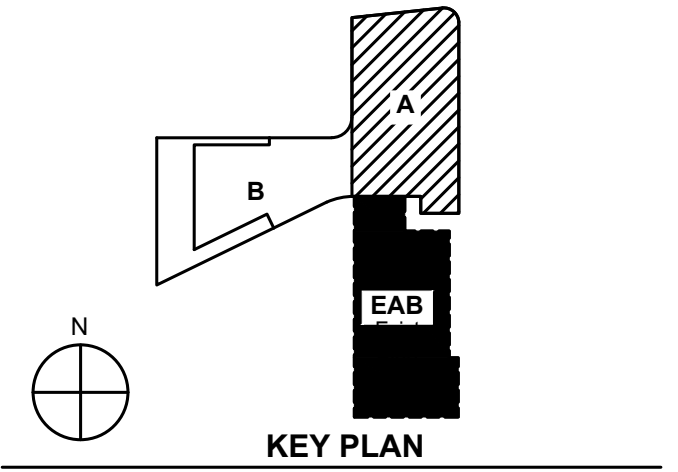
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Architecture
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Spellman Brady & Company
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3 ASI-017 TBD
2 ADDENDUM 2-2 19 APRIL 2016
1 ADDENDUM 2-1 17 MAR 2016
ISSUED FOR CONSTRUCTION (BP2) 01 MAR 2016

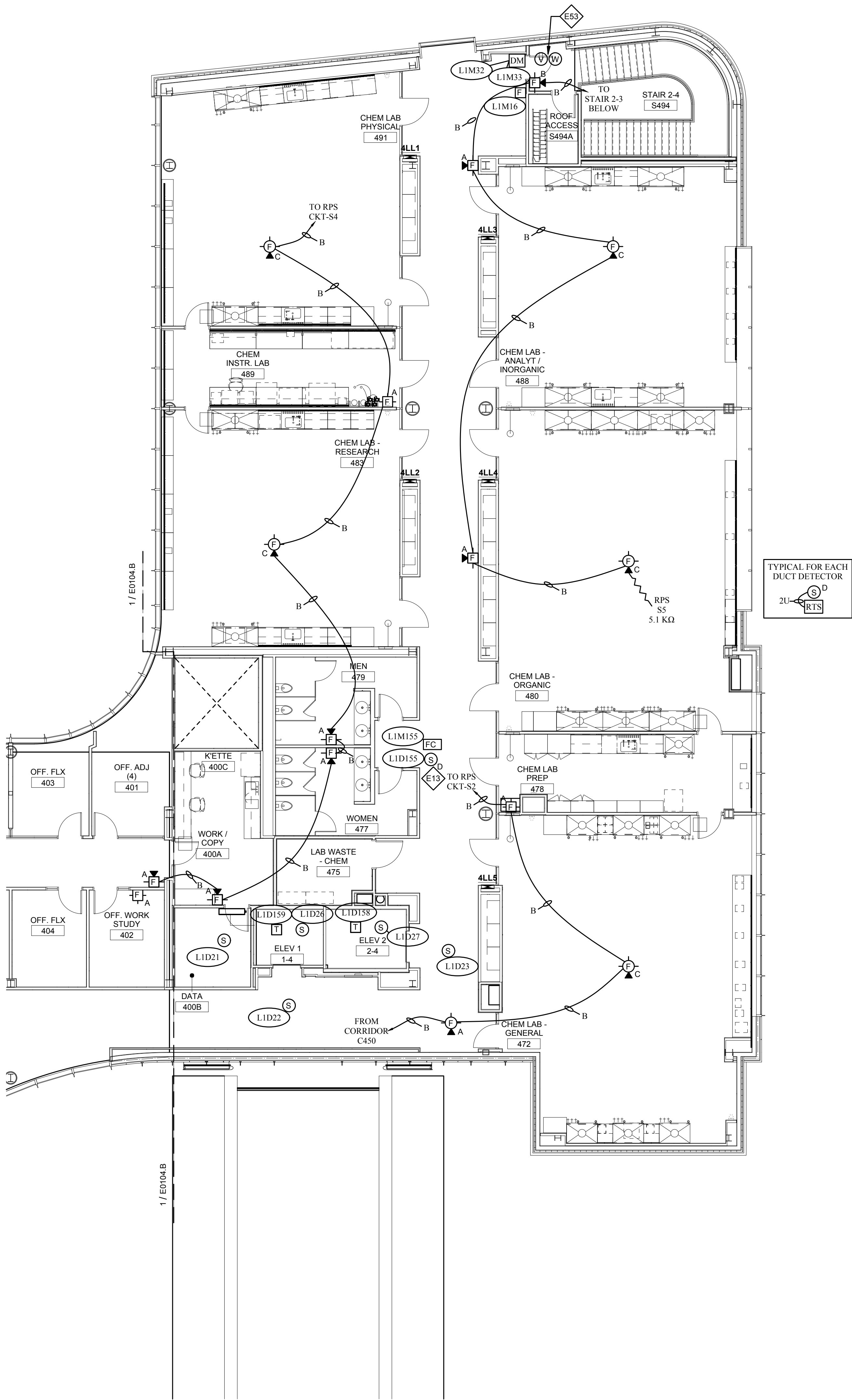


LEVEL 04 AREA A FLOOR PLAN - ELECTRICAL & AUXILIARY

Project No.: 04561.01 Checked by:

E0104.A

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NOTE:
RELAY MODULES SHALL BE MOUNTED WITHIN THREE FEET OF THE DEVICE BEING CONTROLLED (I.E. AHU, DAMPER, ELEVATOR CAPTURE, ETC.), EXCEPTION: CIRCUITS THAT OPERATE ON LOSS OF POWER SHALL BE CONSIDERED SELF MONITORING FOR INTEGRITY.

ADDRESSABLE DEVICES MUST BE INSTALLED WITHIN THE FOLLOWING ENVIRONMENTAL LIMITS: +32° TO +100° 0-90% RELATIVE HUMIDITY. ADDRESSABLE DEVICES ARE NOT DESIGNED FOR OUTDOOR USE.

IMPORTANT NOTICE REGARDING FIRE MARSHAL TEST:

THIS JOB IS EQUIPPED WITH A **FIRE ALARM DIGITAL COMMUNICATOR**, WHICH REQUIRES (2) LOOP START BUSINESS TELEPHONE LINES AND THE OWNER TO OBTAIN A CENTRAL MONITORING CONTRACT FROM A CERTIFIED MONITORING AGENCY. THIS PANEL MUST BE PROGRAMMED AND TESTED PRIOR TO SCHEDULING THE FIRE MARSHAL TEST.

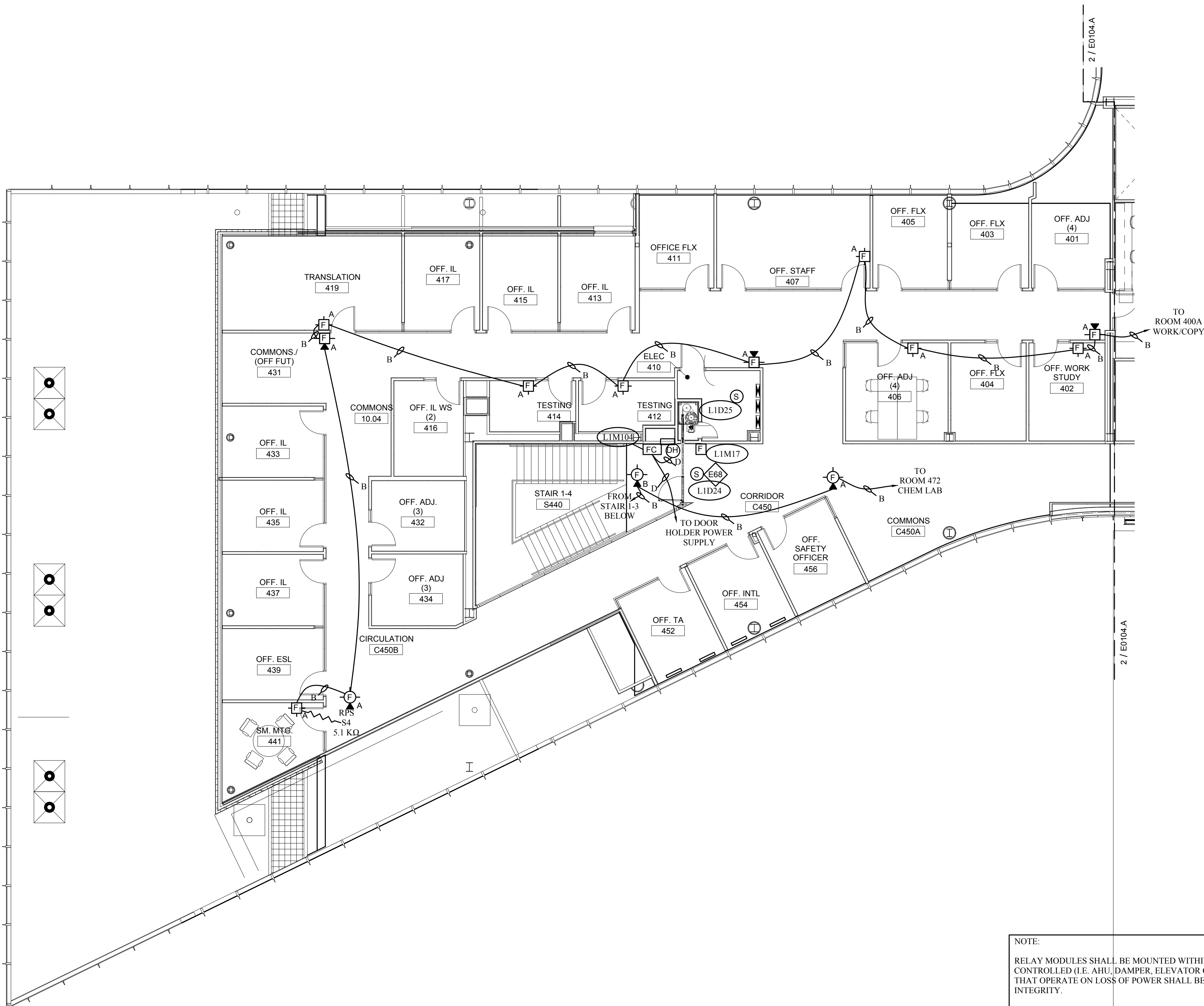
FIRE ALARM SLC LOOP NOTES:

- (1) SLC LOOP WIRING ("A" CABLE) IS **NOT** TYPICALLY SHOWN ON THE FLOOR PLANS. IF THE SLC LOOP IS SHOWN, ITS FOR REFERENCE ONLY.
- (2) THE INSTALLING CONTRACTOR SHALL PULL AN "A" CABLE FOR EACH SLC LOOP FROM THE FIRE ALARM CONTROL PANEL TO ALL ADDRESSABLE DEVICES ON SAME SLC LOOP.
- (3) "T" TAPPING / BRANCH CIRCUITS ARE ACCEPTABLE FOR SLC LOOPS ONLY.
- (4) THE LOOP NUMBER ON THE DEVICE ADDRESS INDICATES THE SLC LOOP FOR EACH AREA AS SHOWN ON THE PLANS.
- (5) CABLE ROUTING FOR SLC LOOPS IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
- (6) CONTACT TECH ELECTRONICS IF DEVICES CANNOT BE WIRED TO THE SLC LOOPS AS SHOWN.
- (7) INSTALLING CONTRACTOR SHALL INCLUDE "AS INSTALLED" ROUTING FOR ALL SLC CABLES ON AS-BUILT RED LINE DRAWINGS AND PROVIDE A COPY TO TECH ELECTRONICS WHEN THE PROJECT HAS BEEN COMPLETED.

LEVEL 04 - AREA A - FLOOR PLAN - POWER AND AUXILIARY
1/8" = 1'-0"

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THE SEAL(S) AND SIGNATURE(S) APPLY ONLY TO THE DOCUMENT TO WHICH THEY ARE AFFIXED, AND EXPRESSLY DISCLAIM ANY RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES, REPORTS OR OTHER DOCUMENTS OR INSTRUMENTS RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE ARCHITECTURAL OR ENGINEERING PROJECT.



GENERAL NOTES:

- DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR LOCATION AND ORIENTATION OF DEVICES. WHERE LOCATIONS ARE NOT INDICATED ON ARCHITECTURAL DRAWINGS, COORDINATE LOCATION AND ORIENTATION OF DEVICES IN FIELD WITH ARCHITECT PRIOR TO ROUGH-IN.
- ALL DEVICES SHOWN ARE NEW UNLESS NOTED OTHERWISE.
- ALL DEVICES TO REMAIN ARE INDICATED WITH A THIN SOLID LINE WEIGHT AND SUBSCRIPT "EX".
- CONTRACTOR SHALL VISIT PRIOR TO BID SUBMITTALS TO DETERMINE SITE CONDITIONS EFFECTING THE EXECUTION OF WORK. FAILURE TO BE ACQUAINTED WITH EXISTING CONDITIONS WILL NOT BE JUSTIFICATION FOR ADDITIONAL SERVICES.
- PROVIDE FACE PLATES ON ALL J-BOXES ABANDONED IN FINISHED FLOOR, WALL OR CEILINGS. COORDINATE COLOR AND FINISH WITH ARCHITECT. CONTRACTOR TO VERIFY QUANTITY IN THE FIELD.
- WHERE EXPOSED CONDUIT IS NOTED, CONTRACTOR SHALL IDENTIFY ROUTING IN FIELD AND OBTAIN ARCHITECT'S APPROVAL OF ROUTING PRIOR TO ROUGH-IN. EXPOSED CONDUIT SHALL BE ROUTED TIGHT TO STRUCTURE.
- ALL SINGLE PHASE BRANCH CIRCUITS SHOWN SHALL HAVE DEDICATED NEUTRALS TO MEET NEC SECTION 210.4 MULTI-WIRE BRANCH CIRCUIT REQUIREMENTS.
- REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT ROUGH-IN CDATA, VOICE AND AV.
- ALL 120V BRANCH CIRCUITS ON THIS SHEET SHALL BE FED FROM PANEL 4NLL UNLESS NOTED OTHERWISE.

KEYED NOTES

- E68** PROVIDE FIRE ALARM CONTROL MODULE TO RELEASE POWER TO ELECTRICALLY HELD OPEN FIRE DOOR UPON ACTIVATION OF ASSOCIATED SMOKE DETECTOR.

CABLE LEGEND FOR NOTIFIER NFS-320, NFS2-640 & NFS2-3030					
LEGEND	USAGE	TECH#	NOM. O.D.	SQ. IN.	DESCRIPTION
A	SLC - INITIATION	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
B	NAC-SIGNAL, STROBE	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
D	DOOR HOLDER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
I	DIGITAL COMMUNICATOR	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket
J	DATA (ANNUNCIATOR OTHER THAN SLC)	TP272	0.170	0.0227	1 Pair, 18 AWG, Solid, Twisted, Shielded
L	ANNUNCIATOR POWER	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
M	NAC SYNCHRONIZATION	TP1690	0.215	0.0363	1 Pair, 14 AWG, Solid, Overall Jacket
R	DIGITAL COMMUNICATOR TO TELE DEMARC	TP424-SE-155	0.220	0.038	4 Pair, 24 AWG, Solid, Category 5E, 155 Mhz
U	CONVENTIONAL INITIATING DEVICE	TP1682	0.161	0.0189	1 Pair, 18 AWG, Solid, Twisted, Overall Jacket

Installation Notes

- Tech Electronics recommends that the installing contractor use the cable listed above. Use of other cable does not guarantee specified system performance.
- When purchasing cable from Tech Electronics, please specify the TECH # (e.g. TP272).
- Outdoor cable may be required and not listed above. Unless otherwise specified all cable listed above is for indoor use only. Please contact Tech Electronics for help with your outdoor cable requirements.
- It is NOT acceptable to use THHN wire on Fire Alarm system circuits such as SLC Loops, Audible/Visual circuits or Conventional zones. It is acceptable to use THHN wire for 120VAC, grounding and Class 1 circuits. Refer to NEC for more information.

FIRE ALARM DEVICE LEGEND					
SYMBOL	DESCRIPTION	PART NO.	SYMBOL	DESCRIPTION	PART NO.
	SMOKE DETECTOR	FSP-851/B210LP		CEILING HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	PC2R
	HEAT DETECTOR	FST-851/B210LP		WALL MOUNT HORN/STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	P2R
	DUCT DETECTOR	DNR/DSTXXX/FSP-851R		WALL MOUNT STROBE (X = CANDELA SETTING) (SEE NOTE 1 & 2 BELOW)	SR
	MANUAL PULL STATION	NBG-12LX		FIRE ALARM CONTROL PANEL	NFS-320/PS-12260F2
	TAMPER SWITCH	F.B.O.		FIRE ALARM ANNUNCIATION	FDU-80
	FLOW SWITCH	F.B.O.		REMOTE POWER SUPPLY WITH CONTROL MODULE	PSN-106B/PS-1270/FCM-1
	RELAY MODULE	FRM-1		DIGITAL COMMUNICATOR WITH MINI MONITOR MODULE	411UDAC/PS-1270/B280/B215/FMM-101
	MONITOR MODULE	FMM-1		CARBON MONOXIDE	CO1224T
	DUAL MONITOR MODULE	FDM-1		TRANSFORMER	599
	DOOR HOLDER	DHF-24120C			

NOTE 1: SET SYSTEM SENSOR HORN/STROBES AUDIO SELECT SETTING TO 3 (LOW TEMPORAL HORN), UNLESS OTHERWISE NOTED

NOTE 2: CANDELA SETTING: A = 15cd, B = 30cd, C = 75cd

NOTE:
RELAY MODULES SHALL BE MOUNTED WITHIN THREE FEET OF THE DEVICE BEING CONTROLLED (I.E. AHU, DAMPER, ELEVATOR CAPTURE, ETC.). EXCEPTION: CIRCUITS THAT OPERATE ON LOSS OF POWER SHALL BE CONSIDERED SELF-MONITORING FOR INTEGRITY.

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THIS JOB IS EQUIPPED WITH A FIRE ALARM DIGITAL COMMUNICATOR, WHICH REQUIRES (2) LOOP START BUSINESS TELEPHONE LINES AND THE OWNER TO OBTAIN A CENTRAL MONITORING CONTRACT FROM A CERTIFIED MONITORING AGENCY. THIS PANEL MUST BE PROGRAMMED AND TESTED PRIOR TO SCHEDULING THE FIRE MARSHAL TEST.

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NOTE: USE THIS SHEET FOR INSTALLATION OF THE FOLLOWING SYSTEM(S) ONLY:
FIRE ALARM SYSTEM

NO.	DATE	REVISION DESCRIPTION
1		
2		
3		
4		
5		

		PROJECT NAME / CUSTOMER / LOCATION WEBSTER UNIVERSITY INTERDISCIPLINARY SCIENCE BLDG. WEBSTER GROVES, MO 63119	
SYSTEM DESCRIPTION: FIRE ALARM SYSTEM		DATE: 11/17/16	
DESIGNED BY: KH	ENGR. BY: VK	PROJECT JOB #: PJ1608310005	DATE: 11/17/16
CHECKED BY: VK		ISSUED BY: FA-E0104.B	

Webster University
Interdisciplinary Science
Building

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St. Louis, MO 63130
314.725.8616

KWA Architects
Architecture
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314.962.2560

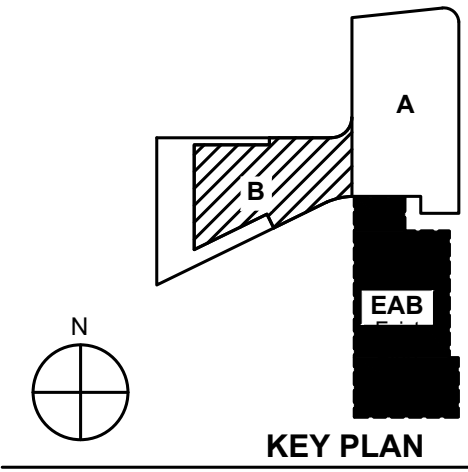
Spellman Brady & Company
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St. Louis, MO 63105
314.862.0070

SWT Design
Landscape Architect
7722 Big Bend Blvd
St. Louis, MO 63119
314.644.5700

Webb Engineering Services, Inc.
Plumbing & Fire Protection
1400 S. 3rd Street, Suite 201
St. Louis, MO 63104
314.588.0600

2 ADDENDUM 2-2 19 APRIL 2016
1 ADDENDUM 2-1 17 MAR 2016
ISSUED FOR CONSTRUCTION (BP2) 01 MAR 2016

No.	Description	Date



Drawing Title:

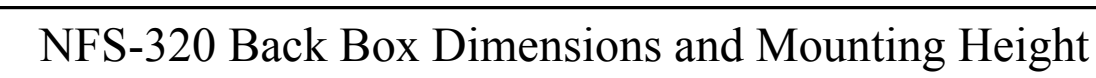
**LEVEL 04 AREA B FLOOR
PLAN - ELECTRICAL &
AUXILIARY**

Project No.: 04561.01 Checked by:

E0104.B

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NOTE: In order to meet UL wiring requirements, please install grounding straps as shown below.



K:\STUDIA\AI\Projects\WWebster_University\Interdisciplinary_Science_Bldg\New_Fire_Alarm_PJ1608310005\Ops_Eng\Engineering_Design\ITE_FA-DC-RCK.dwg, DC1, 11/11/2016 10:43:57 AM, DWG TO PDF.pc3, ARCH (ul lined) E1 (30.00 x 42.00 inches), 1:0.965997, Tech Electronics

INSTALLATION REQUIREMENTS

Adherence to the following will aid in a problem-free installation with long-term reliability:

- Locate the Central Processor - Control Panel in an area where the temperature is within 60 - 90 degrees Fahrenheit and free of condensation, moisture, dust, etc. Keep out of close proximity of large motors and transformers.
- Consult with Tech Electronics before purchasing any cable for this system.
- This system, like all solid state electronic devices, may operate erratically or can be damaged when subjected to lightning induced transients. Although no system is completely immune from lightning transients and interferences, proper grounding will reduce susceptibility. Consult with Tech Electronics Engineering Department if any problems are anticipated or encountered.
- Micro-Processor systems contain static-sensitive components. Always ground yourself before handling any circuits so that static charges are removed from the body. Use static suppressive packaging to protect electronic assemblies removed from the unit.
- Remove all electronic assemblies prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries as indicated on shop drawings. Before making modifications, verify that they will not interfere with the battery, transformer, or printed circuits board location.
- Required Test Equipment for this system is a Volt-Ohm Meter rated at or higher than 20,000 ohms per volt. With the VOM meter set on the highest ohm scale, the cable test should consist of testing between each cable and ground, shield and ground and between each cable. The ohm readings should be higher than (1) mega ohms. This test is to be conducted before the operational check of the system.
- Disconnect AC power and batteries prior to removing or inserting circuit boards. Failure to do so can damage circuits. When applying power to the control panel, always connect AC power first, followed by secondary (battery) power. When removing power, always disconnect the batteries first, followed by AC power.
- Splice shield / drain wires through at each device and or junction box. Apply tape to avoid any contact with ground. At last device on cable run, cut shield / drain wire and apply tape. Shield / drain wire is to be grounded at control panel only!! Follow the NEC when running cables.
- AC power for this system should be a dedicated 20 ampere circuit. A separate ground cable should be run and connected to service entrance ground according to the NEC.
- Cable running from building to building: All outside cabling must include lightning protection. All cabling installed under ground, even when in conduit, MUST be rated for underground usage.

TECH ELECTRONICS
Installation_Requirements.dwg:A
05/08/09

FIRE ALARM SYSTEM CHECKLIST FOR ELECTRICAL CONTRACTOR

The following items are the responsibility of the Electrical Contractor and must be completed prior to requesting final connection of the fire alarm panel:

1.

All initiating circuits are free of:

a

b

2.

All signal circuits are free of:

a

b

3.

All control circuits are free of:

a

b

4.

End-of-line resistor is the proper size and can be measured on all circuits.

5.

All tamper and waterflow switches have been connected and tested for activation.

6.

All duct detectors provided by others have been installed and connected.

7.

All door holders have been connected.

8.

All dampers and air handling equipment has been connected.

9.

All energy management interfaces have been connected.

10.

All elevator control functions have been connected.

Notify Tech Electronics if Tech Electronics is to perform head-end connections at the panel.

If Tech Electronics is not contracted to perform head-end connections at the panel; notify Tech Electronics when all conductors have been terminated prior to applying power to the main panel. Tech Electronics will visit site or advise to apply power once panel termination's are completed.

The following items are the responsibility of the Electrical Contractor:

1.

Test each initiating device on the system:

a

b

c

d

2.

Check the operation of all signal devices:

a

b

c

d

3.

Check the operation of all control devices:

a

b

c

d

e

f

g

4.

Labels all zones and circuits. (This is performed by Tech Electronics if final connections were part of Tech Electronics contract).

Notify Tech Electronics when the system is ready for checkout:

1.

Tech Electronics will:

b

c

d

e

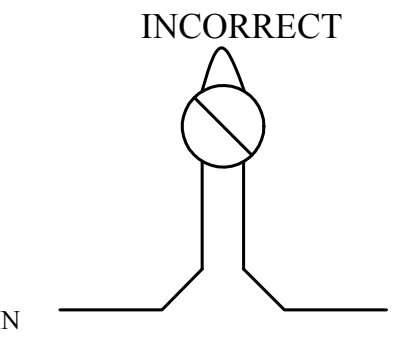
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Installation_Requirements.dwg:A
05/08/09

Wiring Connection for Correct Device Connection

IN ORDER TO MAINTAIN PROPER SUPERVISION, CUT WIRES BEFORE TERMINATING AT EACH DEVICE.

DO NOT WRAP INCOMING AND OUTGOING WIRES AROUND TERMINAL SCREWS.

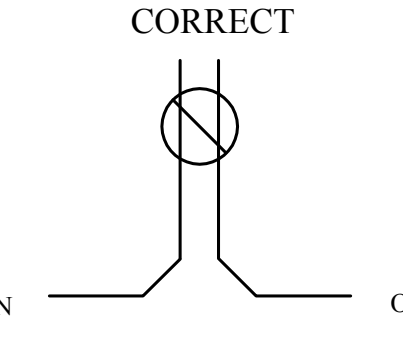
INCORRECT



IN

OUT

CORRECT



IN

OUT

TECH ELECTRONICS
Correct_Wiring.dwg:A
05/08/09

RECOMMENDED MOUNTING HEIGHTS AND LIMITATIONS

Ceiling

6" Min

Top of Strobe Lens

Visual Only Or Audible/Visual Signaling Device

Bottom of Strobe Lens

ANNUNCIATOR

66" AFF

96" Max AFF

80" Min AFF

Finished Floor

Top of Strobe Lens

Bottom of Strobe Lens

96" Max AFF

80" Min AFF

Finished Floor

Important Notice:

For Plans and Specs projects, if specified mounting heights are provided they should be used in place of mounting heights shown on this document. Please contact Tech Electronics, if you encounter a project where specified mounting heights are in conflict with the codes and standards referenced on this document.

NFPA 72 1999 Edition (4-4.4)

NFPA 72 2002 Edition (7.5.4)

NFPA 72 2010 Edition (18.5.4.1)

NFPA 72 2013 Edition (18.5.5.1)

All strobes in a field of view shall be synchronized

NFPA 72 1999 Edition (A-4.4.4.1.1.(1))

NFPA 72 2002 Edition (A7.5.4.3)

NFPA 72 2007 Edition (A7.5.4.5)

NFPA 72 2010 Edition (A18.5.4.1)

NFPA 72 2013 Edition (A18.5.5.1)

Note:

1. Contact Tech Electronics if you have questions concerning these instructions or if your specific conditions require a solution not addressed by this document.

2. Refer to the proper device installation instructions for backbox mounting height

TECH ELECTRONICS
Heights_and_Mounting.dwg:A
05/16/14

RECOMMENDED MOUNTING HEIGHTS AND LIMITATIONS

Ceiling

4" Min

Smoke or Heat Detector

3' Min

A/C Supply or Return Diffuser

4" Max

12" Max

Do Not Place Here

Smoke or Heat Detector

5' Max

IBC 2003/2006 Edition (907.3.1)

IBC 2009 Edition (907.4.2.1)

NFPA 1999 Edition (2-8.2.2)

NFPA 2002 Edition (5.12.6)

NFPA 2007 Edition (5.13.6)

Height of Activating Handle

46" AFF

Pull Station

Fire Fighters Telephone

46" AFF

Finished Floor

3"

3"

Magnetic Door Holder

Door (Shown Open)

Door (Shown Closed)

Finished Floor

The Code States 48" AFF Maximum and 42" AFF Minimum we recommend 46" AFF if this is not feasible stay with in code guidelines

NFPA 72 1999 Edition (2-8.1)

NFPA 72 2002/2007 Edition (5.6.3.1 Heat)

(5.7.3.2.1 Smoke)

NFPA 72 1999 Edition (2-8.1)

NFPA 72 2002 Edition (5.12.4)

NFPA 72 2007 Edition (5.13.4)

IBC 2003/2006 Edition (907.3.2)

IBC 2009 Edition (907.4.2.2)

Note:

1. Contact Tech Electronics if you have questions concerning these instructions or if your specific conditions require a solution not addressed by this document.

2. Refer to the proper device installation instructions for backbox mounting height

TECH ELECTRONICS
Heights_and_Mounting.dwg:B
02/05/10

COMMUNICATION SYSTEMS GROUNDING TYPICAL DRAWING

EQUIPMENT GROUNDING ACCOMPLISHED BY MOUNTING SCREWS IN CIRCUIT BOARD CONNECTING THE TERMINAL BLOCK TERMINATION AND ENCLOSURE

#12AWG OR #14AWG THHN

120VAC

GRN

WHI

BLK

IF EQUIPMENT IS PROVIDED WITH AN INTEGRAL EQUIPMENT GROUNDING CONNECTION, CONNECT EQUIPMENT AS SHOWN IN INSTALLATION MANUAL.

APPROVED GROUND LUG INSTALLED CORRECTLY PER NEC ARTICLE 250

ALTERNATE

#12AWG OR #14AWG THHN

120VAC

GRN

WHI

BLK

REMOTE EQUIPMENT

SIZE CABLE PER MANUFACTURER REQUIREMENTS

12VAC/ 12VDC/ 24VAC/ 24VDC

GRN

WHI

BLK

MANUFACTURER PROVIDED EQUIPMENT GROUNDING CONNECTION

CLASS II WIRING NEC PROHIBITS RUNNING CLASS II WIRES ALONG WITH CLASS I WIRES. A SEPARATE #14 OR #12 THHN CAN NOT BE RAN ALONG WITH THE CLASS II WIRING PER NEC

TO SUITABLE EQUIPMENT GROUNDING CONNECTION AS DESCRIBED IN ARTICLE 250 OF THE NEC. REFER TO WIRE GAUGE INSTALLATION REQUIREMENTS IN NEC ARTICLE 250.

TECH ELECTRONICS
TE_Grounding.dwg:A
05/08/09

NOTIFIER ADDRESSABLE FIRE ALARM SYSTEM PROGRAMMING

EACH INTELLIGENT DEVICE IS UNIQUELY IDENTIFIED BY THE FIRE ALARM CONTROL PANEL AND MUST BE PROGRAMMED AT TIME OF INSTALLATION. REFER TO THE DRAWINGS PROVIDED WITH THE PROJECT FOR THE UNIQUE ADDRESS OF EACH DEVICE.

HUNDREDS/ TENS DIGIT

ONES DIGIT

ROTARY SWITCHES ON FRONT OR BACK OF DEVICE

REMOVE TAB WHEN ADDRESS IS GREATER THAN 99

DEVICE ADDRESS NUMBER AS SHOWN ON PLANS

LOOP NUMBER ——— **L01M01** ——— MODULE ADDRESS NUMBER

LOOP NUMBER ——— **L01D01** ——— DEVICE ADDRESS NUMBER

TWO DIGIT NUMBER SET ON DEVICE

AFP-200 1 SLC LOOP (DEVICE AND MODULE ADDRESS 1 TO 99)

AFP-300 1 SLC LOOP (DEVICE AND MODULE ADDRESS 1 TO 99)

AFP-400 1-2 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 99 PER LOOP)

AFP-1010 1-4 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 99 PER LOOP)

AM-2020 1-10 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 99 PER LOOP)

NFW-50 1 SLC LOOP (DEVICE AND MODULE MAXIMUM OF 50 ADDRESSES)

NFW-100 1 SLC LOOP (DEVICE AND MODULE ADDRESS 1 TO 99)

NFS-320 1 SLC LOOP (DEVICE AND MODULE ADDRESS 1 TO 159)

NFS2-640 1-2 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 159 PER LOOP)

NFS2-3030 1-10 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 159 PER LOOP)

TECH ELECTRONICS
Device_Address_Notes.dwg:A
05/24/11

NOTIFIER GENERAL NOTES AND LEGENDS

FIRE ALARM SYSTEM-GENERAL NOTES

1. NO 120VAC WIRING OR WIRING FOR ANY OTHER SYSTEM IS ALLOWED TO BE PULLED IN SAME CONDUIT WITH FIRE ALARM SYSTEM.

2. THE RELAY MODULES WHICH ARE USED FOR AHU, ELEVATOR CONTROL, PROVIDES TWO (2) SETS OF SPDT (FORM C) CONTACTS RATED AT:
RESISTIVE: 2 AMPS MAXIMUM @ 30VDC.
INDUCTIVE: 1 AMP MAXIMUM @ 30VDC, OR 0.5 AMP @ 120VAC.
IF A CONTROL FUNCTION REQUIRES ADDITIONAL CONTACTS OR EXCEEDS THIS CURRENT RATING FOR ANY REASON, ELECTRICAL CONTRACTOR IS TO FURNISH AND INSTALL REMOTE RELAYS AND POWER SOURCE RATED AS REQUIRED, TO PERFORM THE SPECIFIC CONTROL FUNCTION.

3. EACH FIRE ALARM DEVICE HAS A UNIQUE ADDRESS THAT MUST BE SET AT THE TIME OF INSTALLATION. REFER TO THE DEVICE LABEL LEGEND ON THIS DRAWING TO LEARN HOW TO READ THE ADDRESS NUMBER.

4. ADDRESSABLE DEVICES MUST BE INSTALLED WITHIN THE FOLLOWING ENVIRONMENTAL LIMITS: +32 TO +100 EGREES F, 0-90% RELATIVE HUMIDITY. ADDRESSABLE DEVICES ARE NOT DESIGNED FOR OUTDOOR USE.

FIRE ALARM DEVICE-LABEL LEGEND

ALARM INITIATING "LOOP" CIRCUIT
THE FIRST CHARACTER WILL ALWAYS BE "L" FOR LOOP, FOLLOWED BY A ONE DIGIT NUMBER WHICH DENOTES THE LOOP NUMBER IN THE FAC, THAT CIRCUIT IS CONNECTED TO.

LXDXXX

DEVICE "ADDRESS" NUMBER
THE NEXT CHARACTER WILL EITHER BE A "D" FOR DETECTOR, OR "M" FOR MODULE, FOLLOWED BY A ONE OR TWO DIGIT NUMBER WHICH DENOTES THE NUMBER (ADDRESS) WHICH EACH DEVICE MUST BE PROGRAMMED TO, AT TIME OF INSTALLATION.

AFP-200 1 SLC LOOP (DEVICE AND MODULE ADDRESS 1 TO 99)

AFP-300 1 SLC LOOP (DEVICE AND MODULE ADDRESS 1 TO 99)

AFP-400 1-2 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 99 PER LOOP)

AFP-1010 1-4 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 99 PER LOOP)

AM-2020 1-10 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 99 PER LOOP)

NFW-50 1 SLC LOOP (DEVICE AND MODULE MAXIMUM OF 50 ADDRESSES)

NFW-100 1 SLC LOOP (DEVICE AND MODULE ADDRESS 1 TO 99)

NFS-320 1 SLC LOOP (DEVICE AND MODULE ADDRESS 1 TO 159)

NFS2-640 1-2 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 159 PER LOOP)

NFS2-3030 1-10 SLC LOOPS (DEVICE AND MODULE ADDRESS 1 TO 159 PER LOOP)

TECH ELECTRONICS
General_Notes.dwg:A
05/24/11

PROJECT NAME / CUSTOMER LOCATION:
WEBSTER UNIVERSITY
INTERDISCIPLINARY SCIENCE BLDG.
GARDEN AVE.
WEBSTER GROVES, MO 63119

SYSTEM DESCRIPTION			
FIRE ALARM SYSTEM			
P.L:	ENG:	CAD:	VK
KH	VK		
DRAWING #:			
FA-DC1			
PROJECT JOB#:			
PJ14608310005			
DATE:			
11/11/16			
ISSUED FOR:			
INSTALLATION			

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ELECTRONICS

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Chicago, Illinois

Bloomington, Illinois

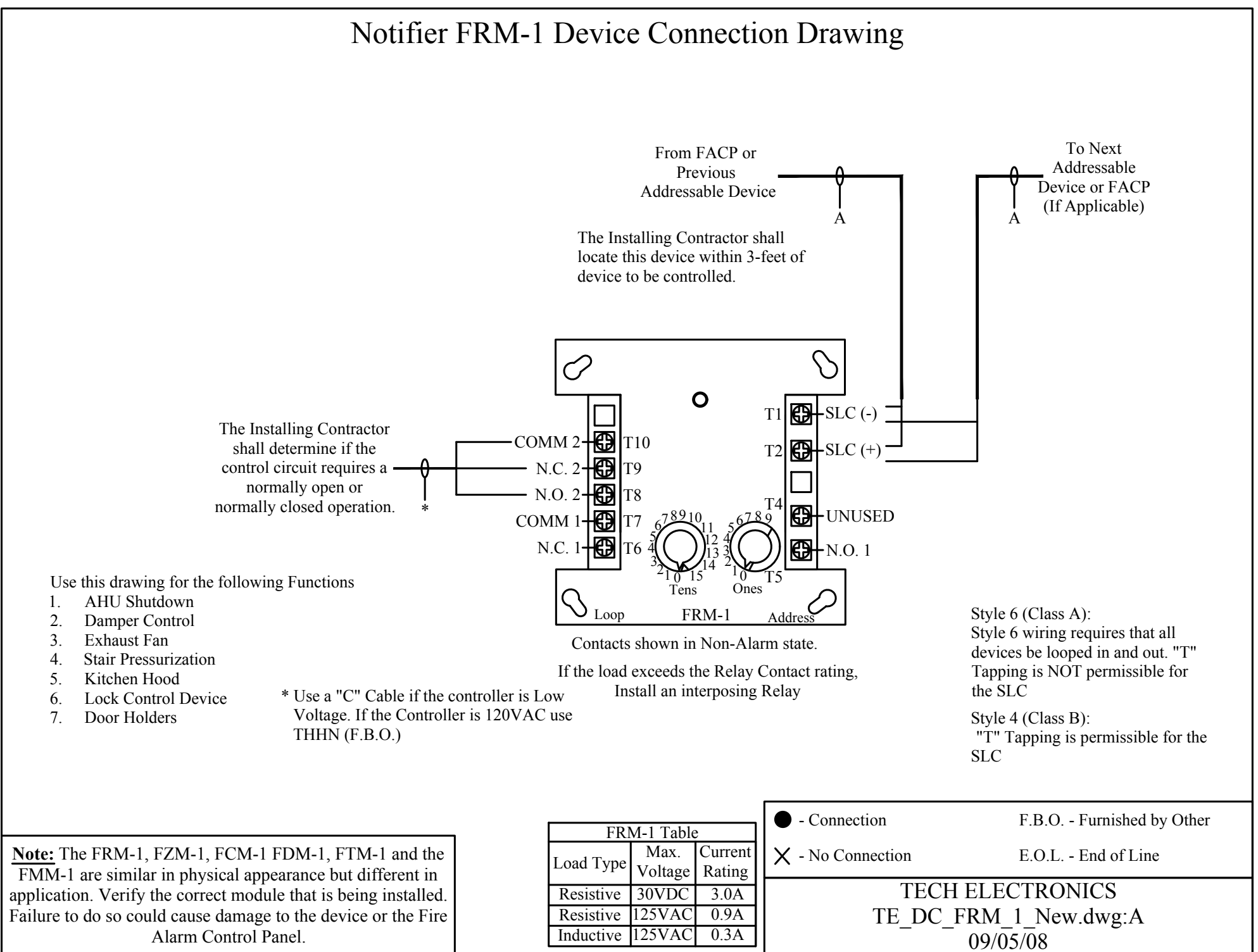
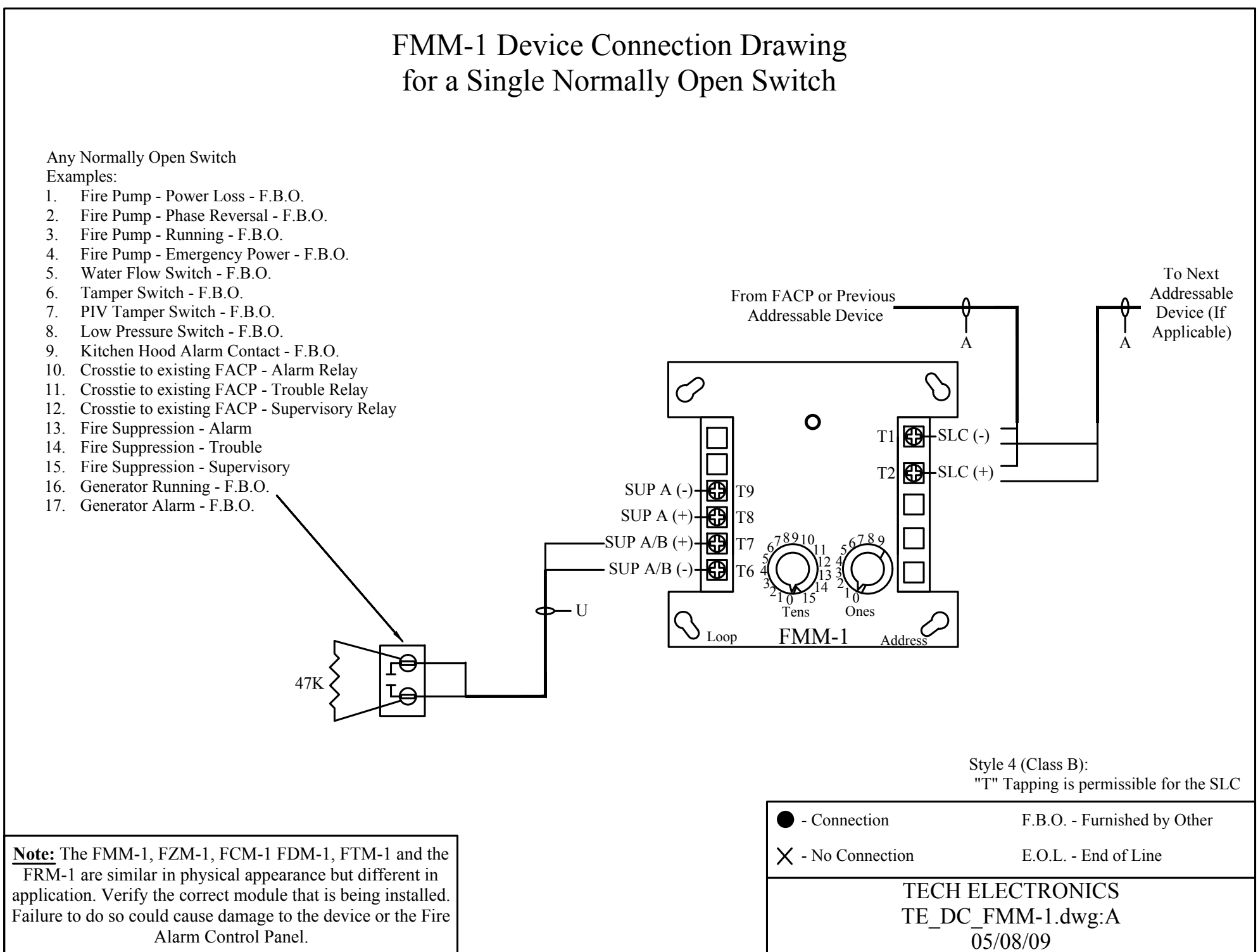
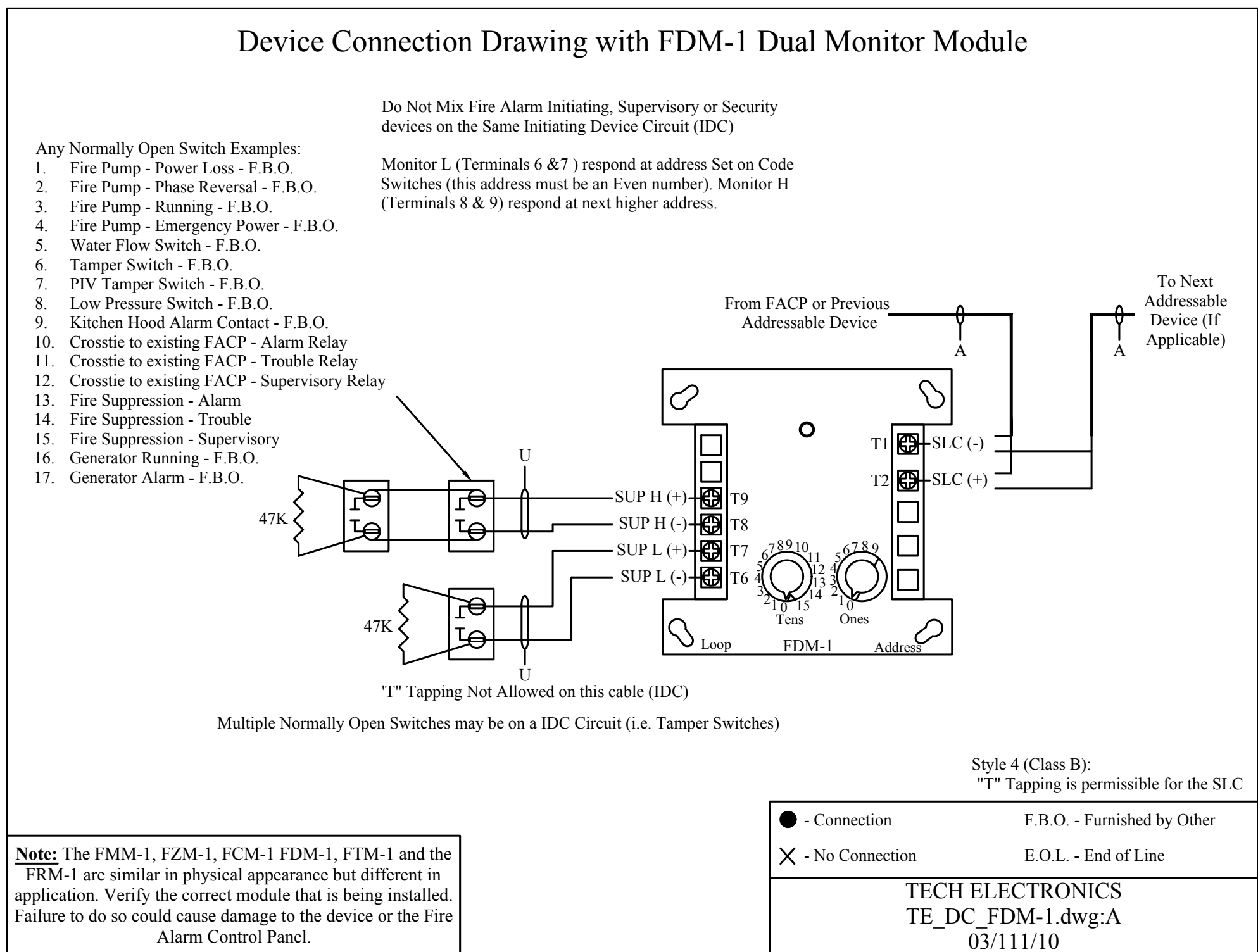
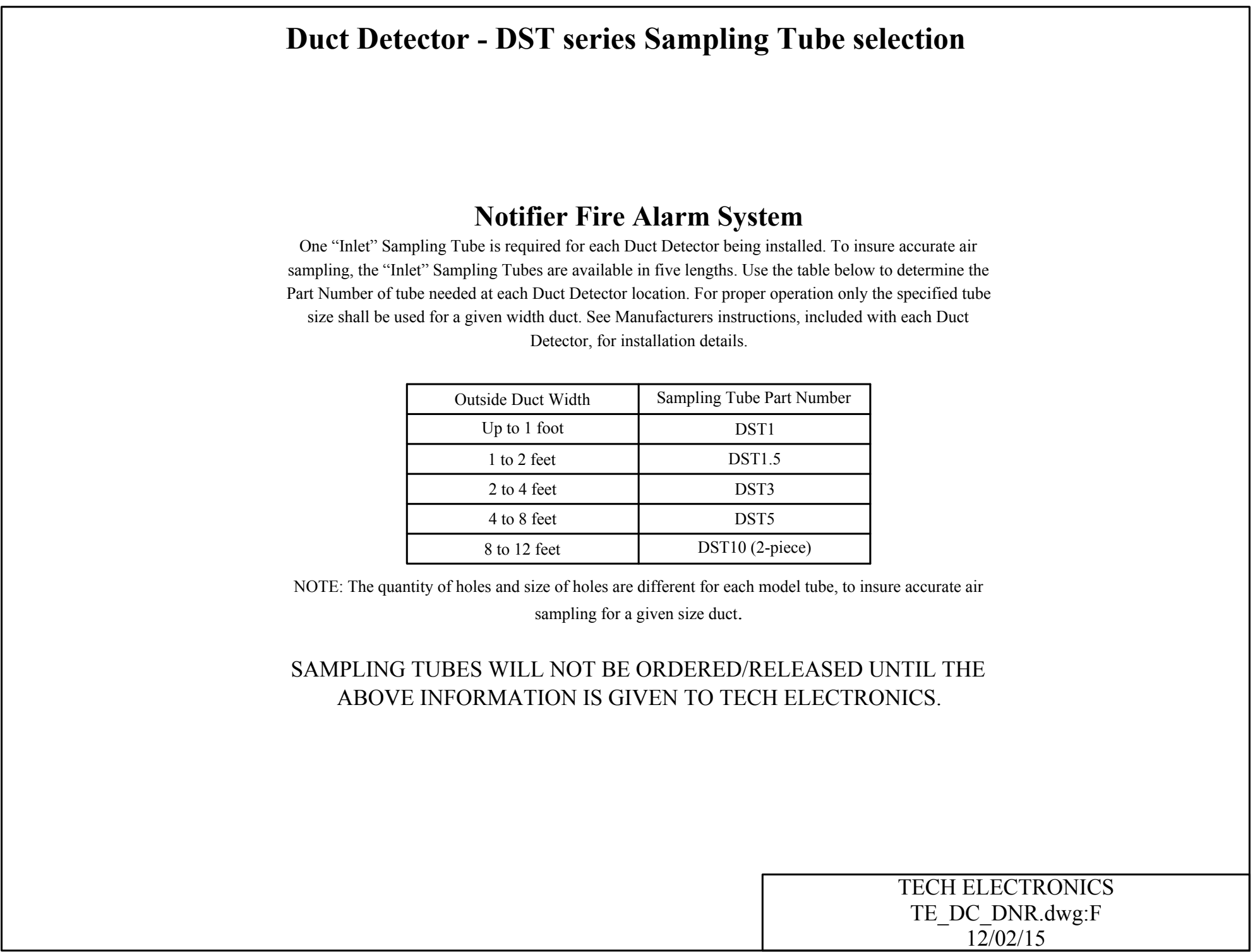
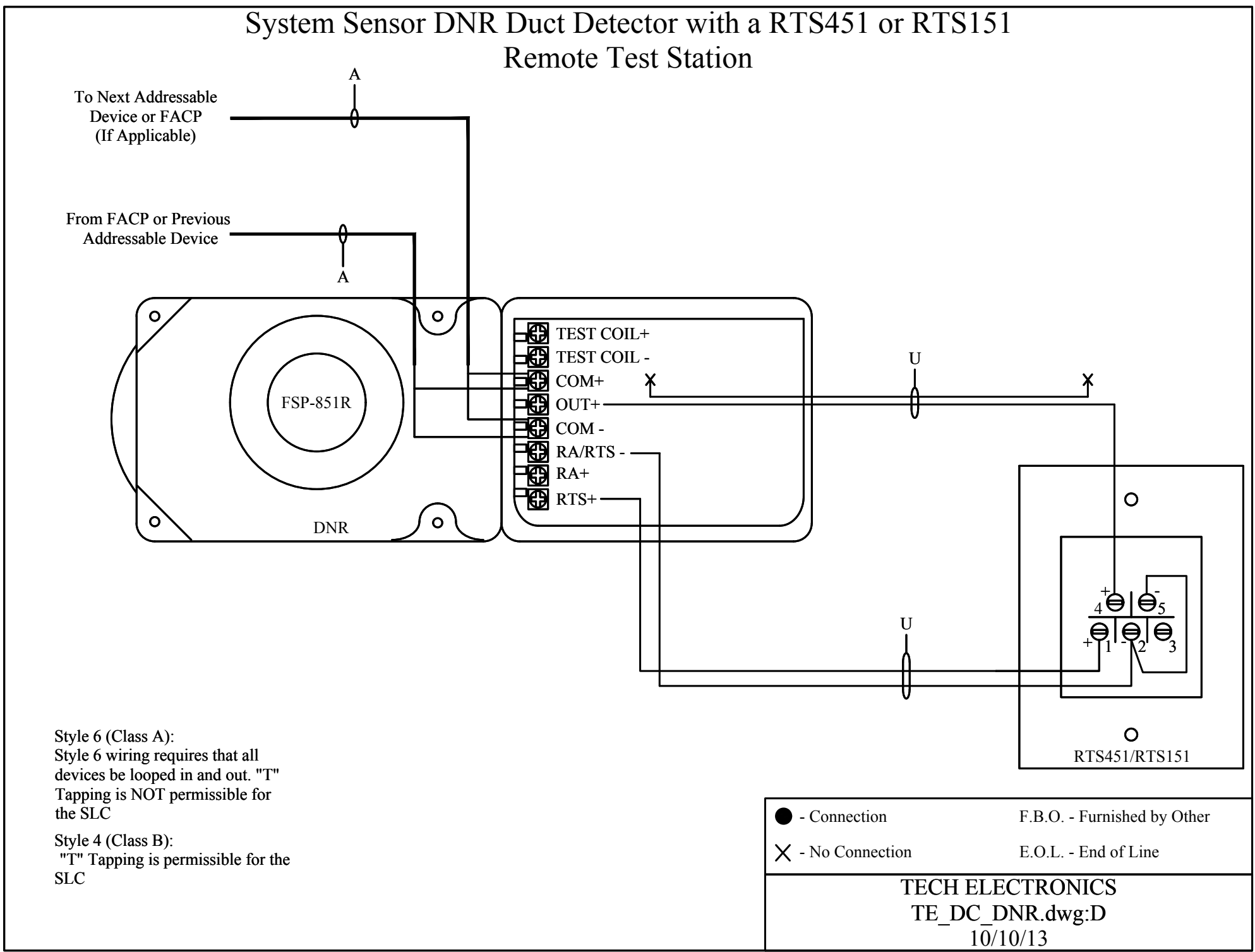
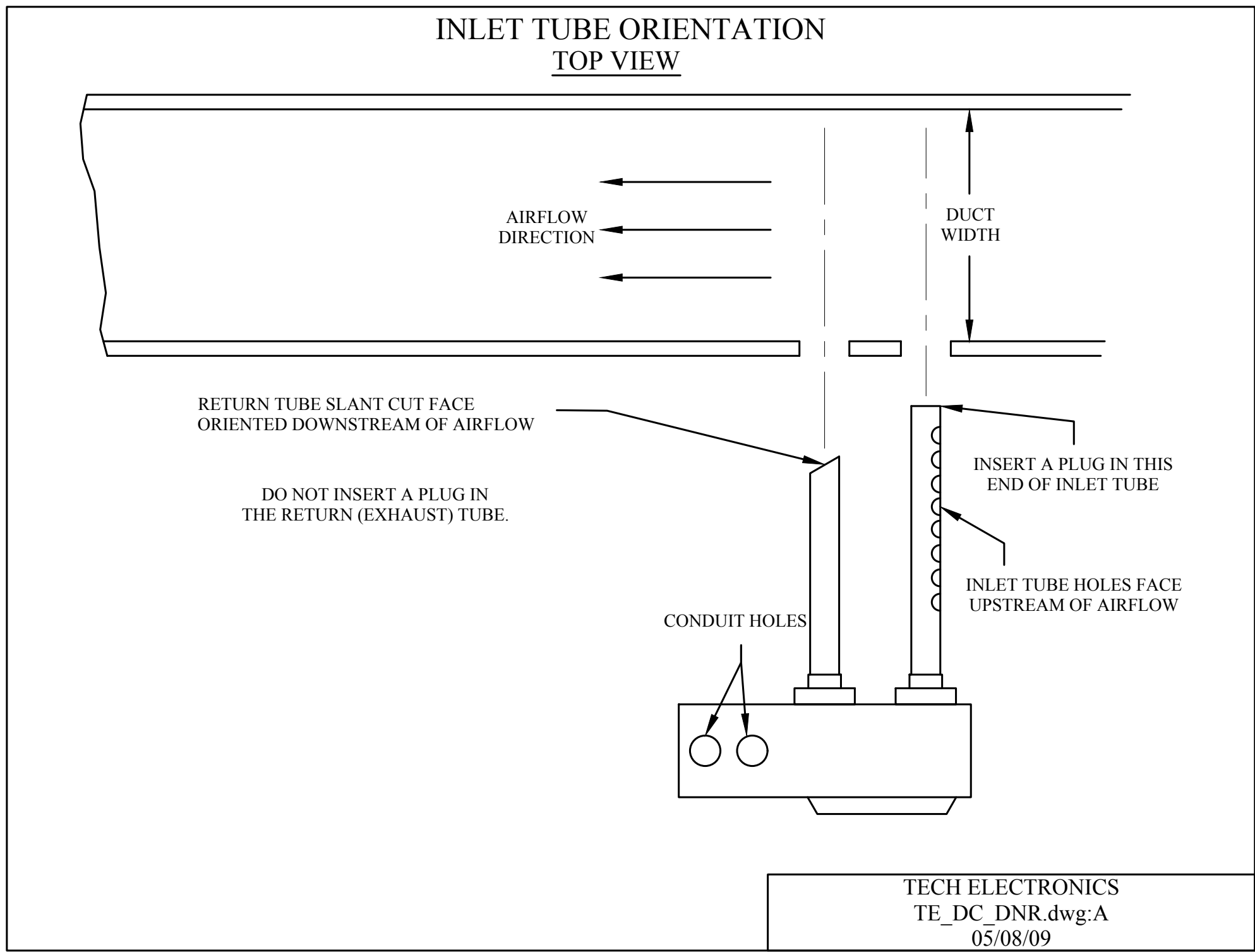
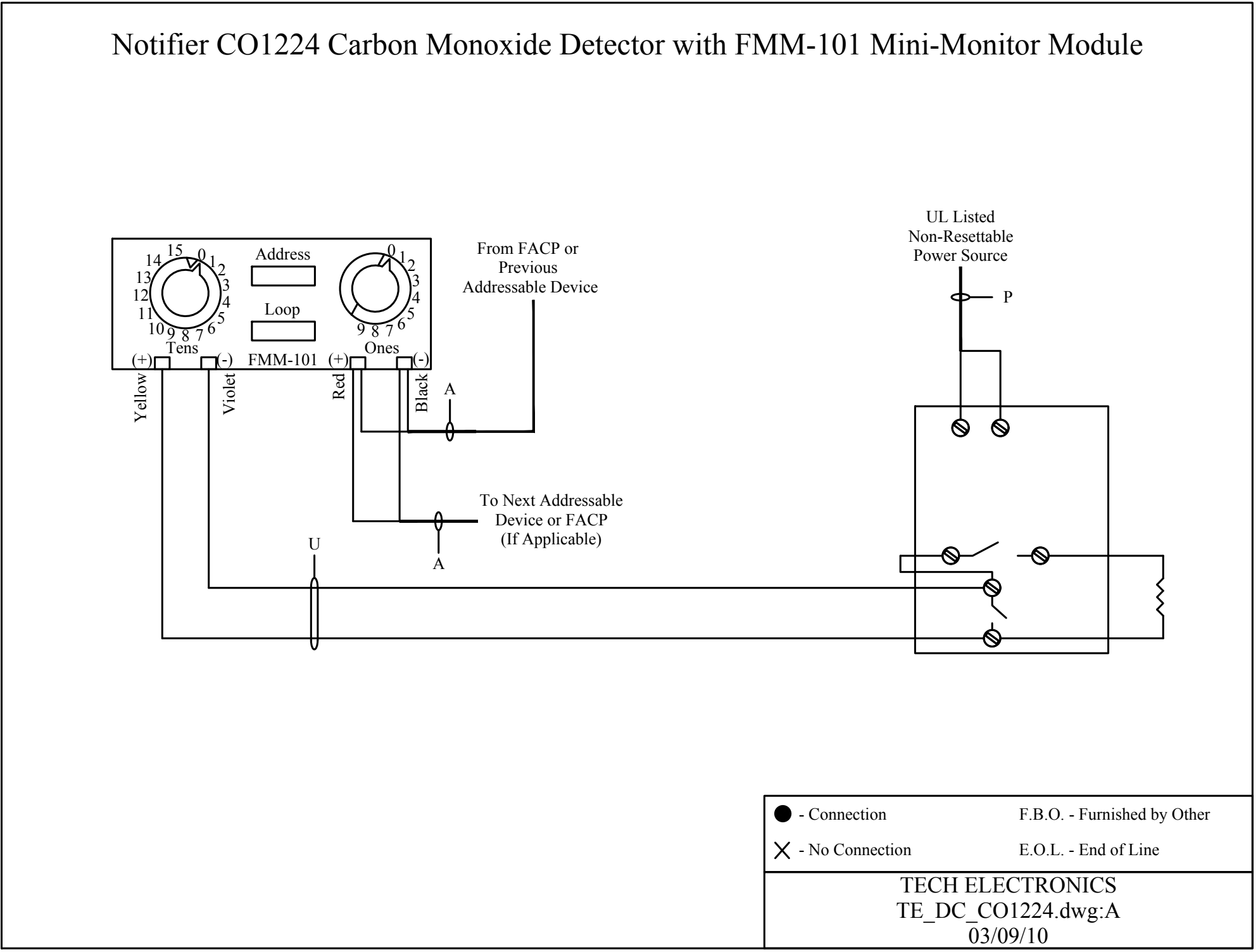
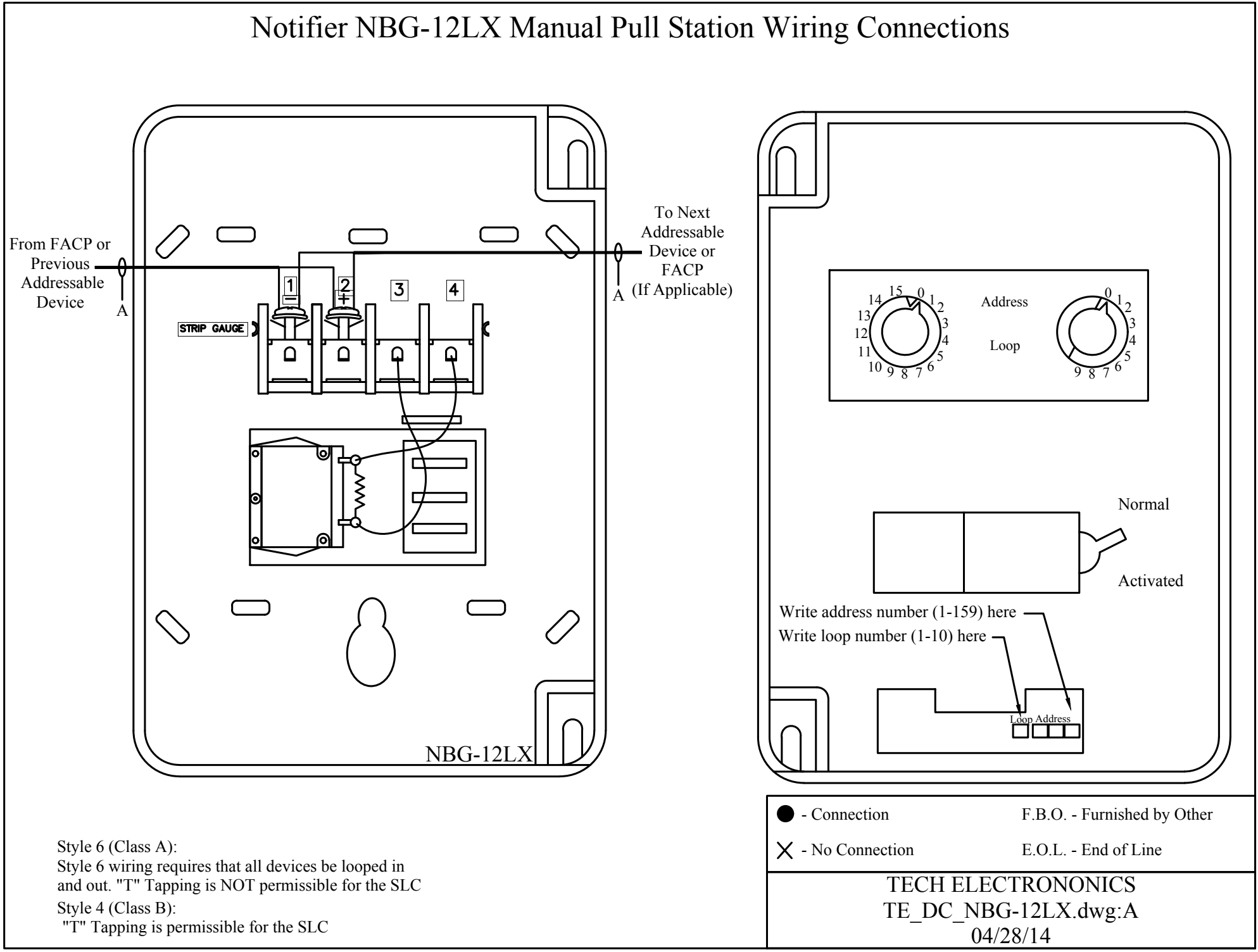
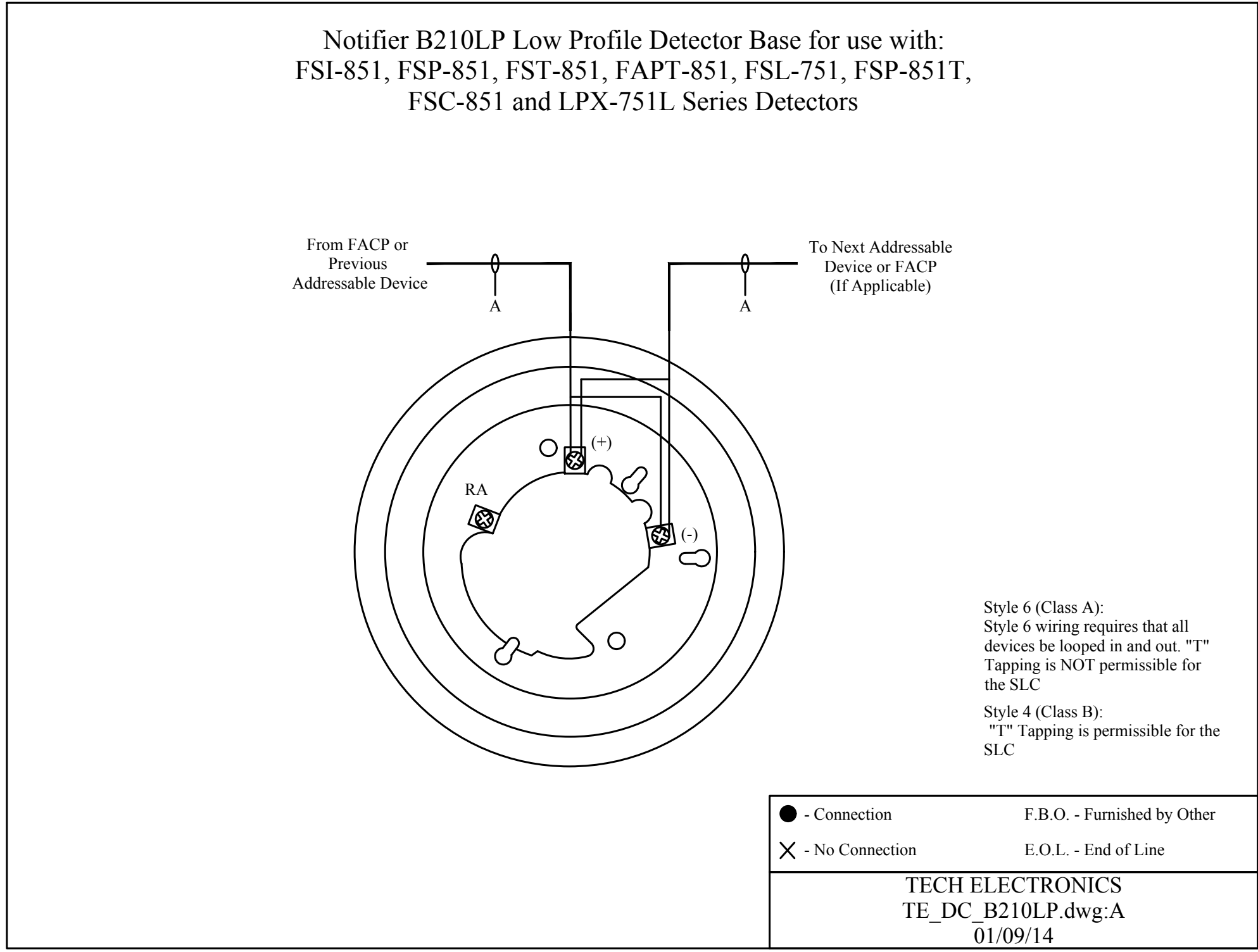
Columbia, Missouri

Indianapolis, Indiana

Springfield, Missouri

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1.800.TECH.789



PROJECT NAME/CUSTOMER LOCATION:

WEBSTER UNIVERSITY
INTERDISCIPLINARY SCIENCE BLDG.
GARDEN AVE.
WEBSTER GROVES, MO 63119

SYSTEM DESCRIPTION

FIRE ALARM SYSTEM

P.M.: KH ENG: VK CAD: VK

DRAWING #:

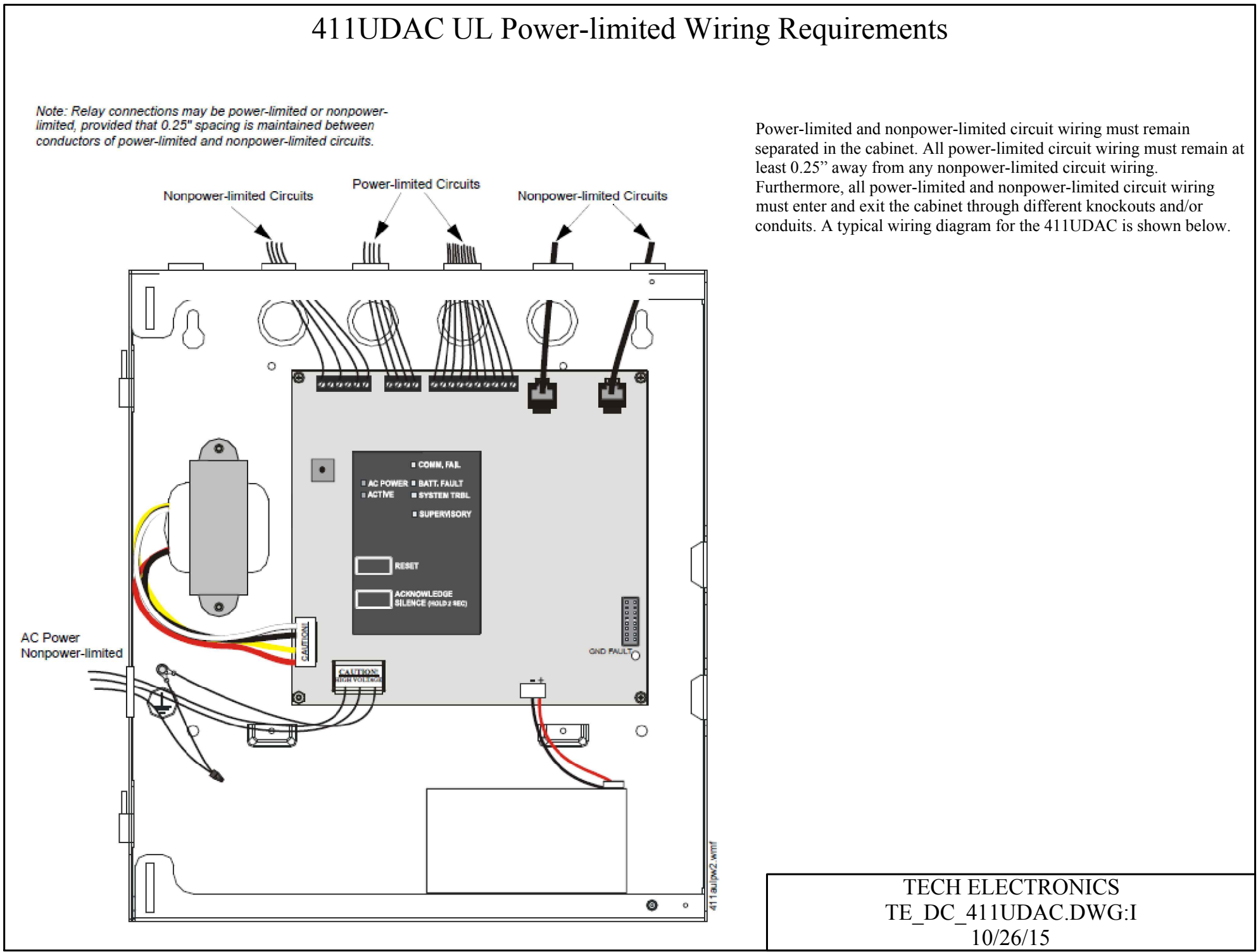
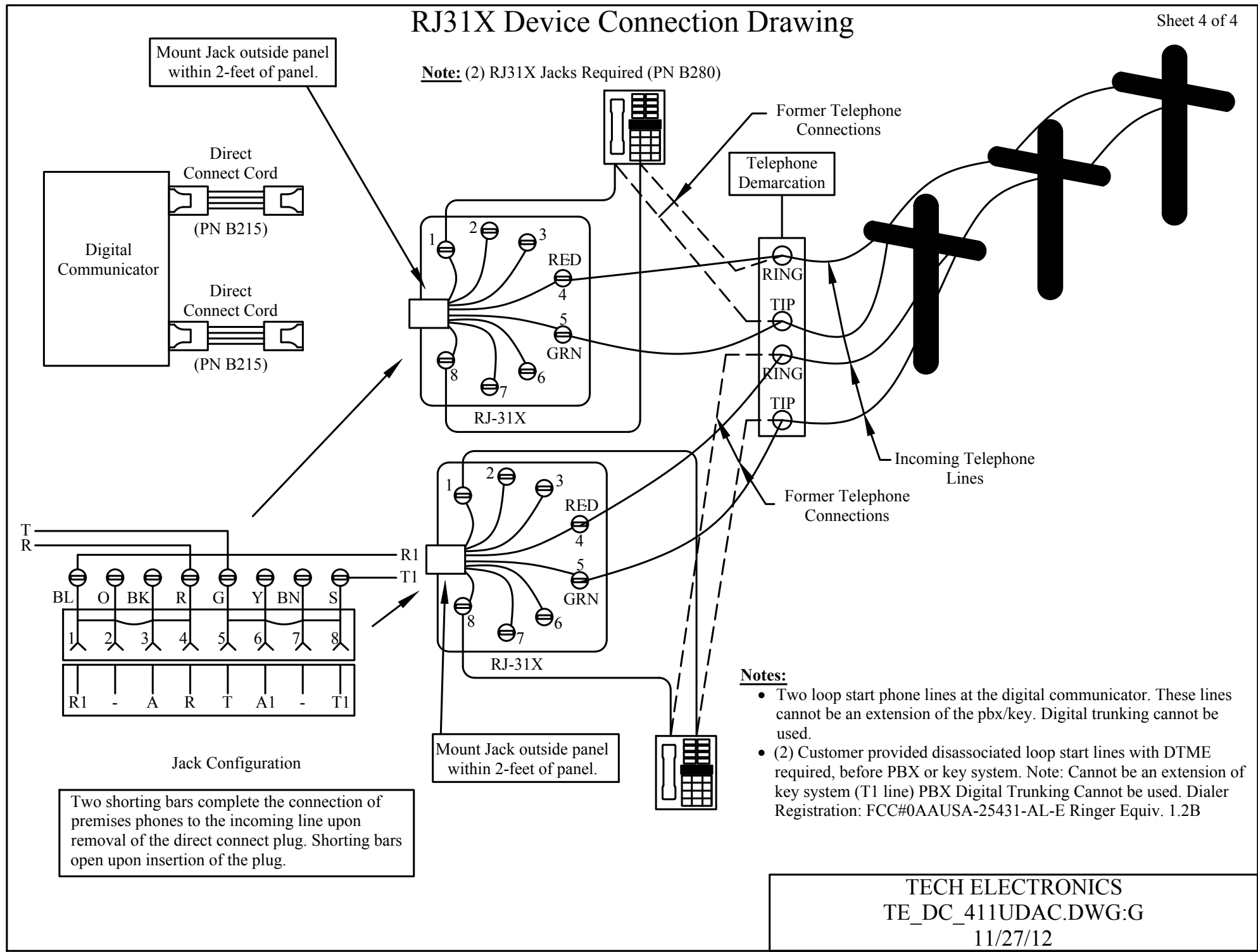
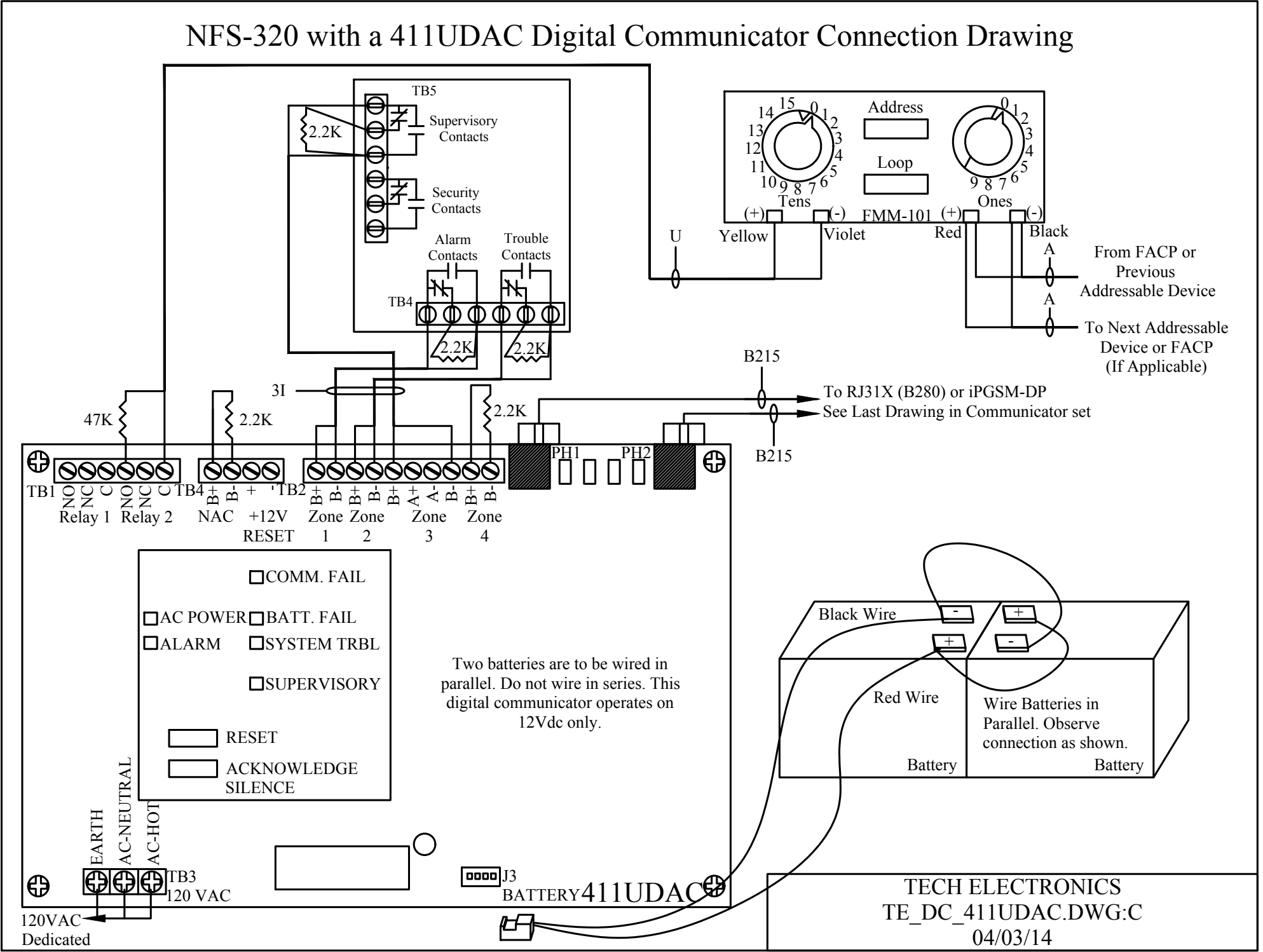
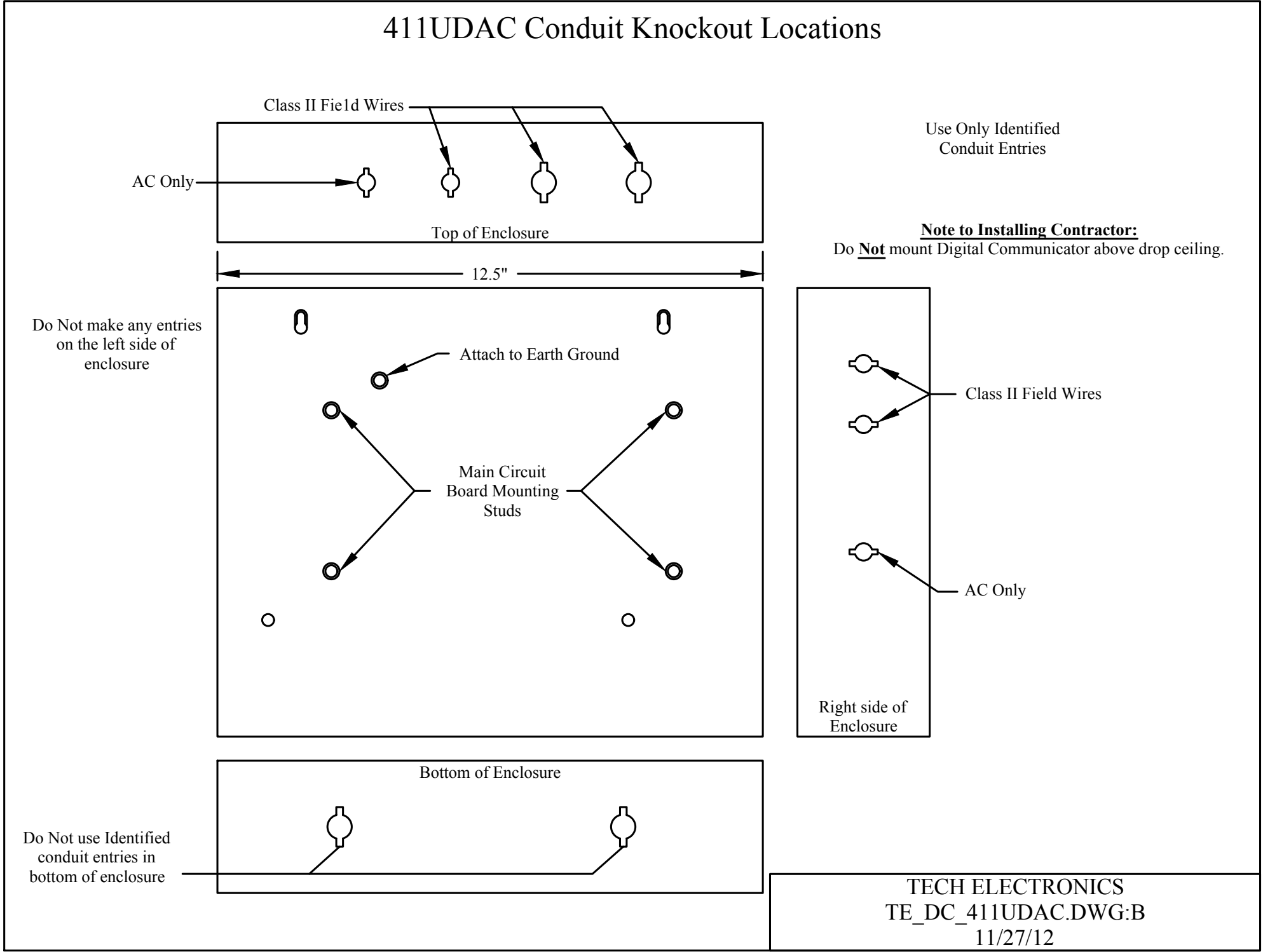
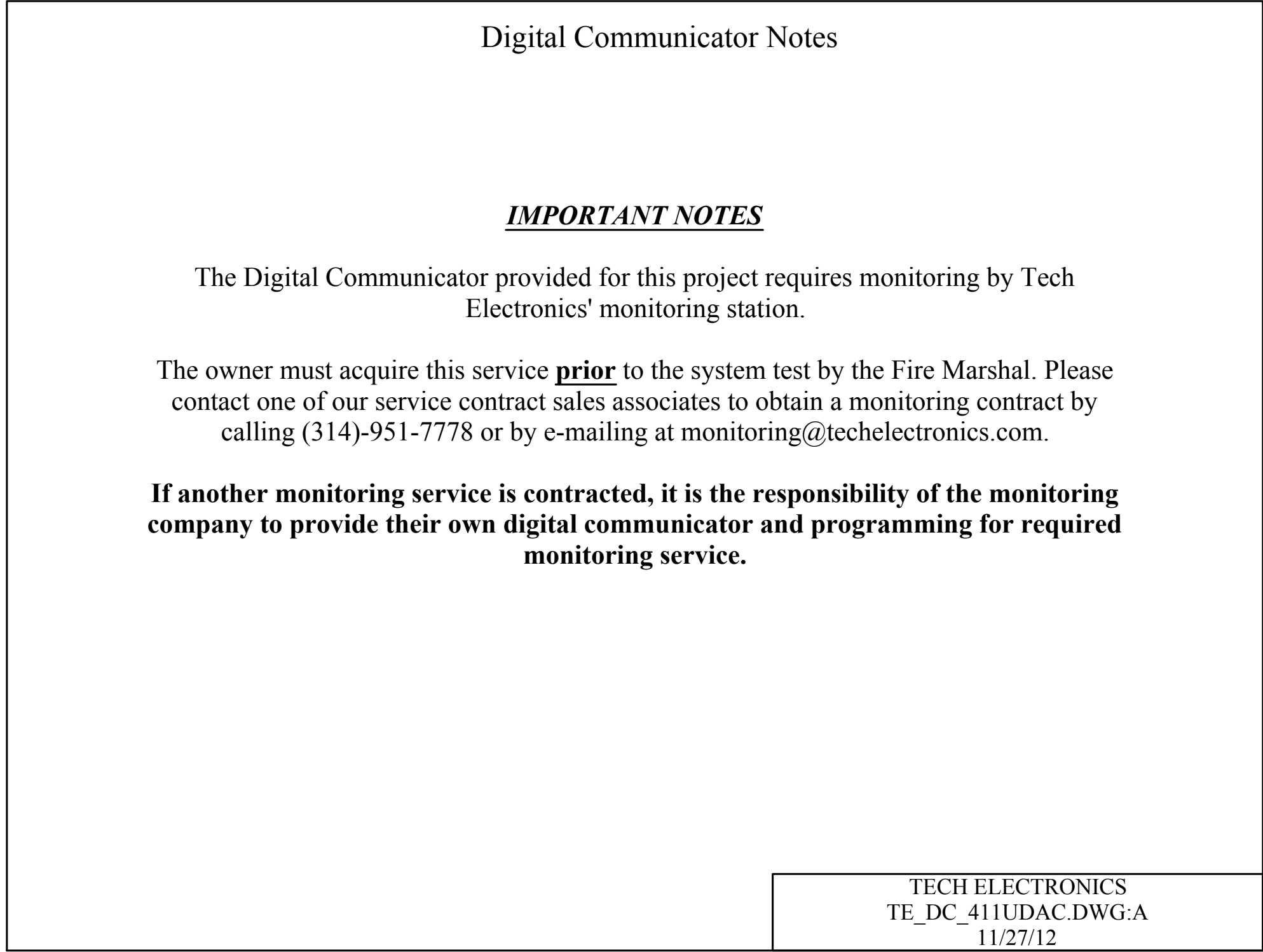
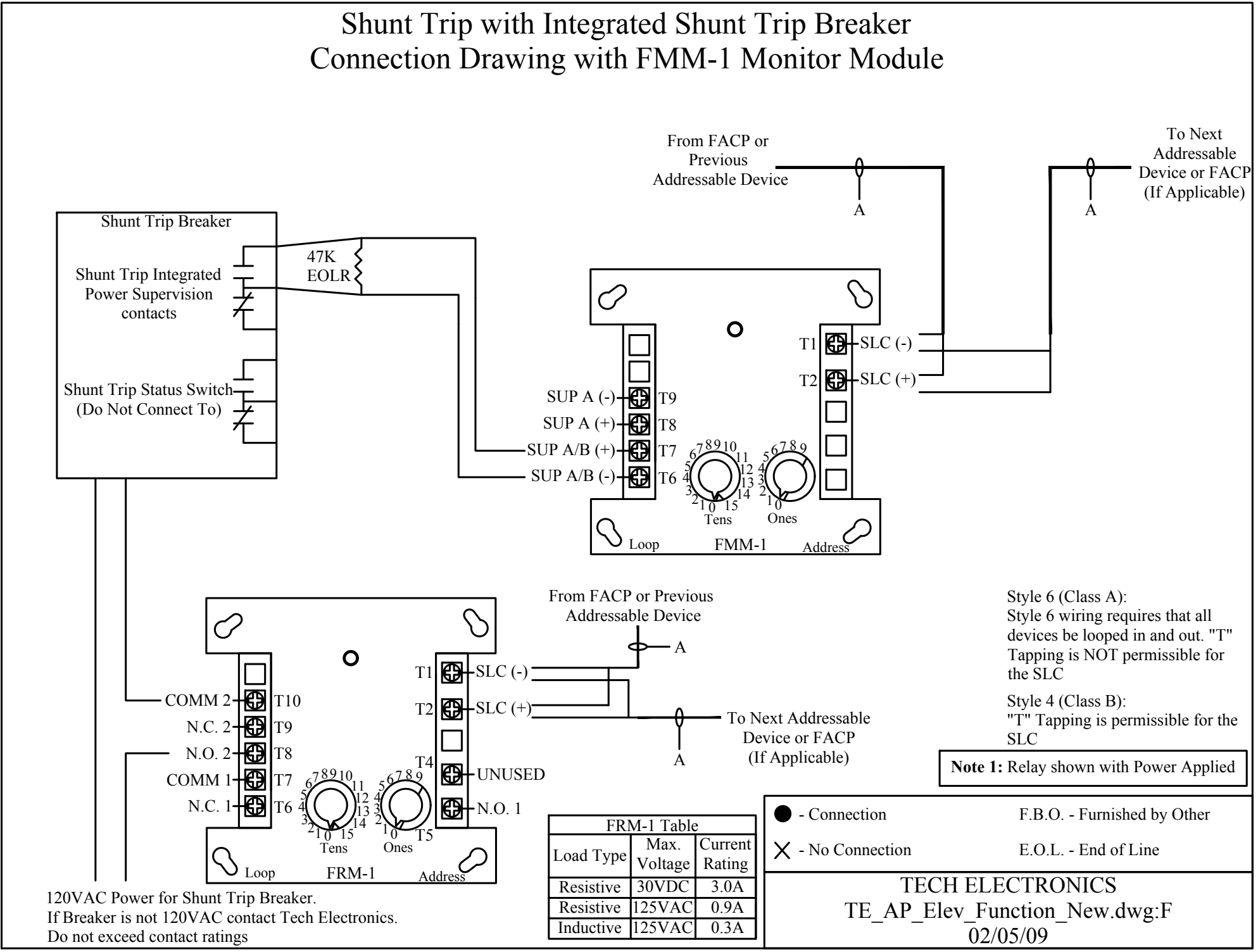
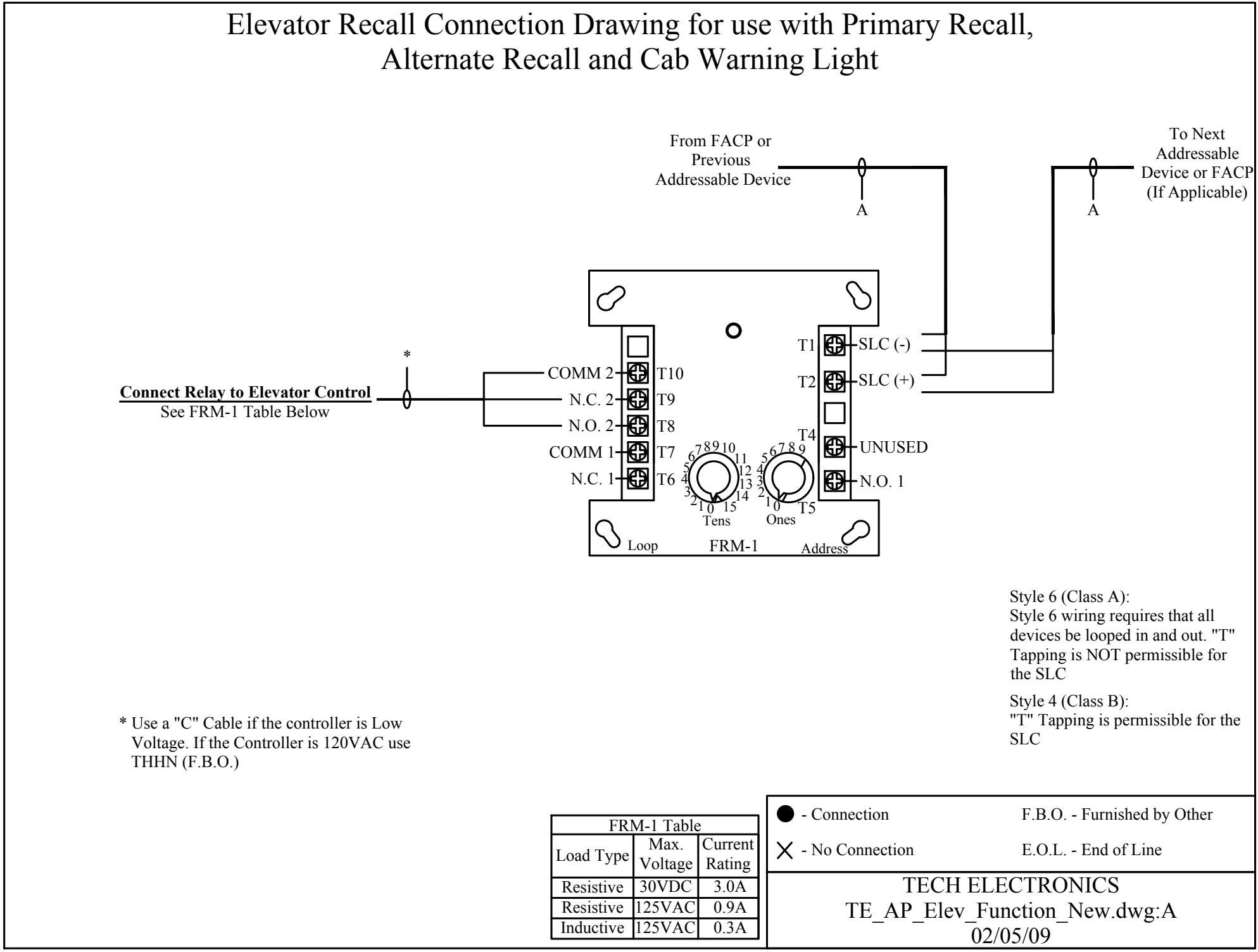
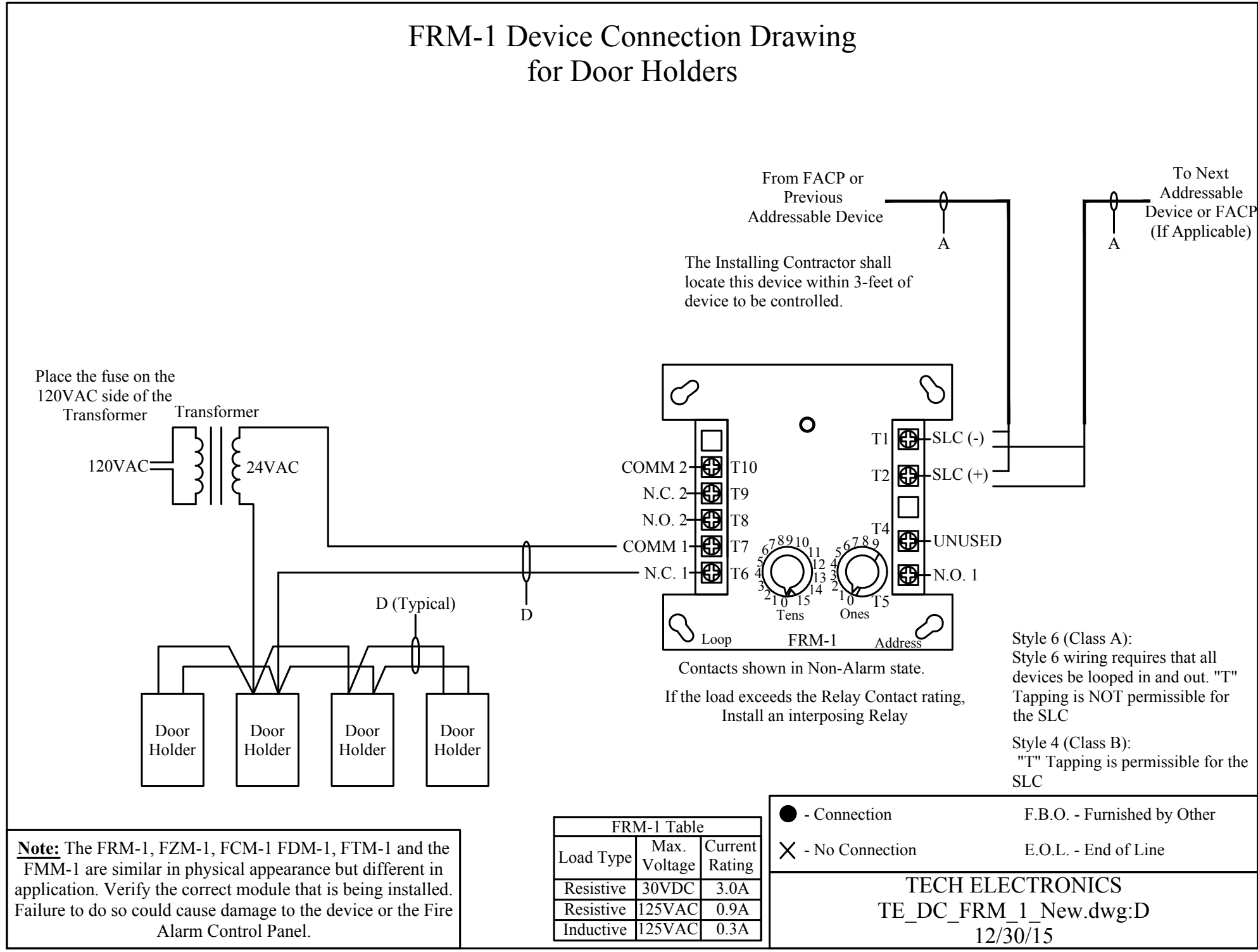
FA-DC2

PROJECT JOB#: PJ14608310005

DATE: 11/11/16

ISSUED FOR: INSTALLATION

1.0.969997, Tech Electronics



PROJECT NAME/CUSTOMER LOCATION:

WEBSTER UNIVERSITY
INTERDISCIPLINARY SCIENCE BLDG.

GARDEN AVE.
WEBSTER GROVES, MO 63119

SYSTEM DESCRIPTION

FIRE ALARM SYSTEM

P.M.: KH ENG: VK CAD: VK

DRAWING #: FA-DC3

PROJECT JOB#: PJ14608310005

DATE: 11/11/16

ISSUED FOR: INSTALLATION

1.000 TECH 789

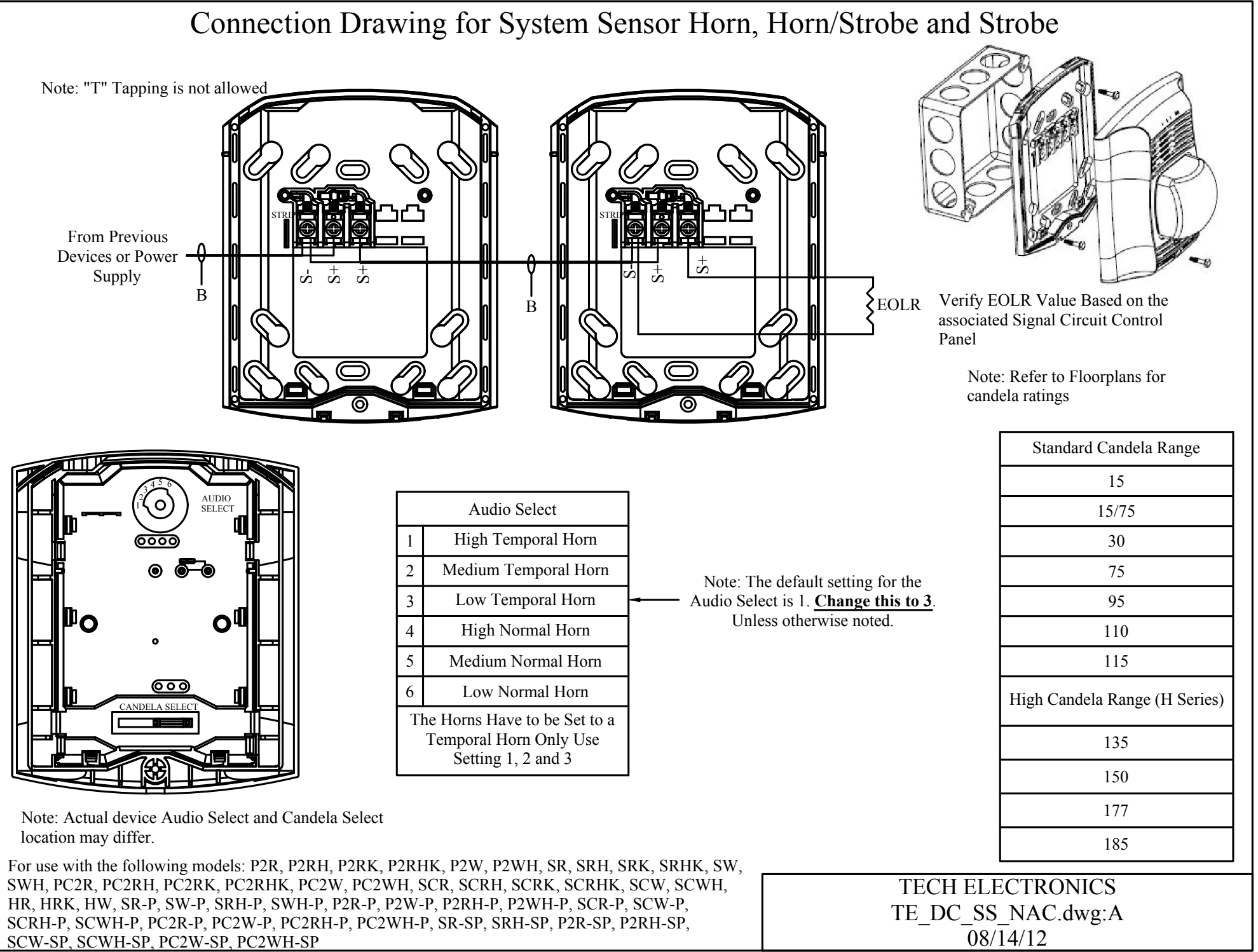
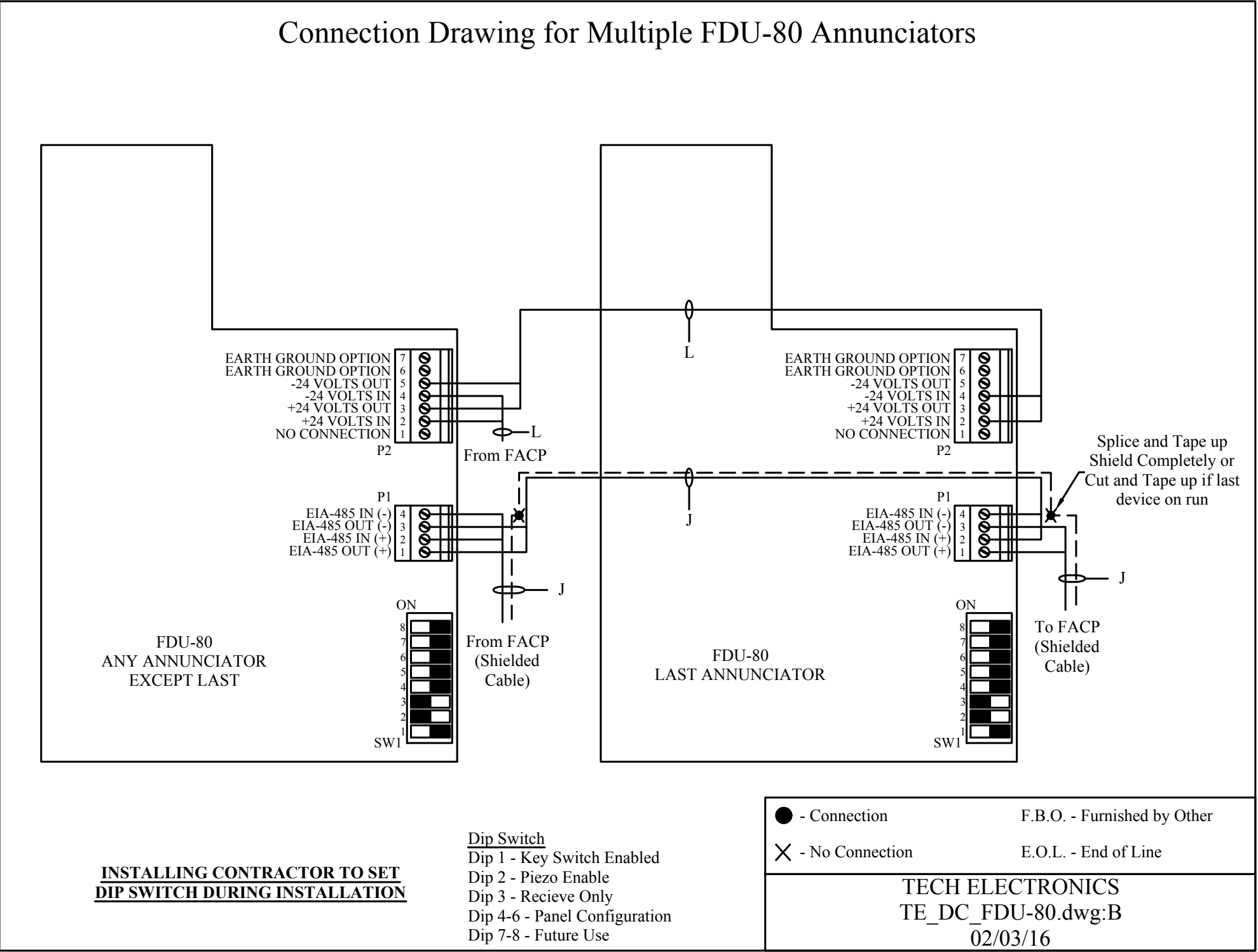
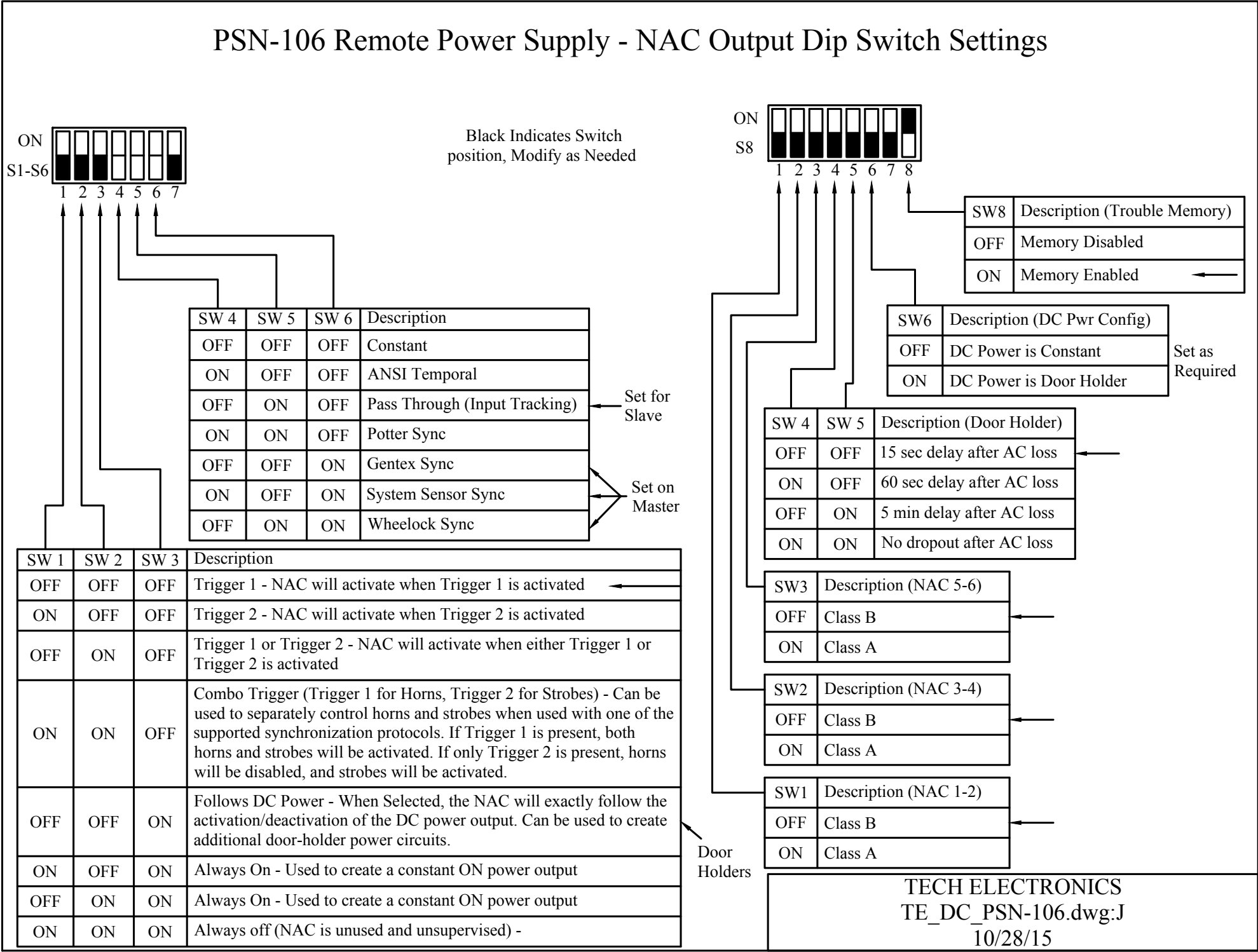
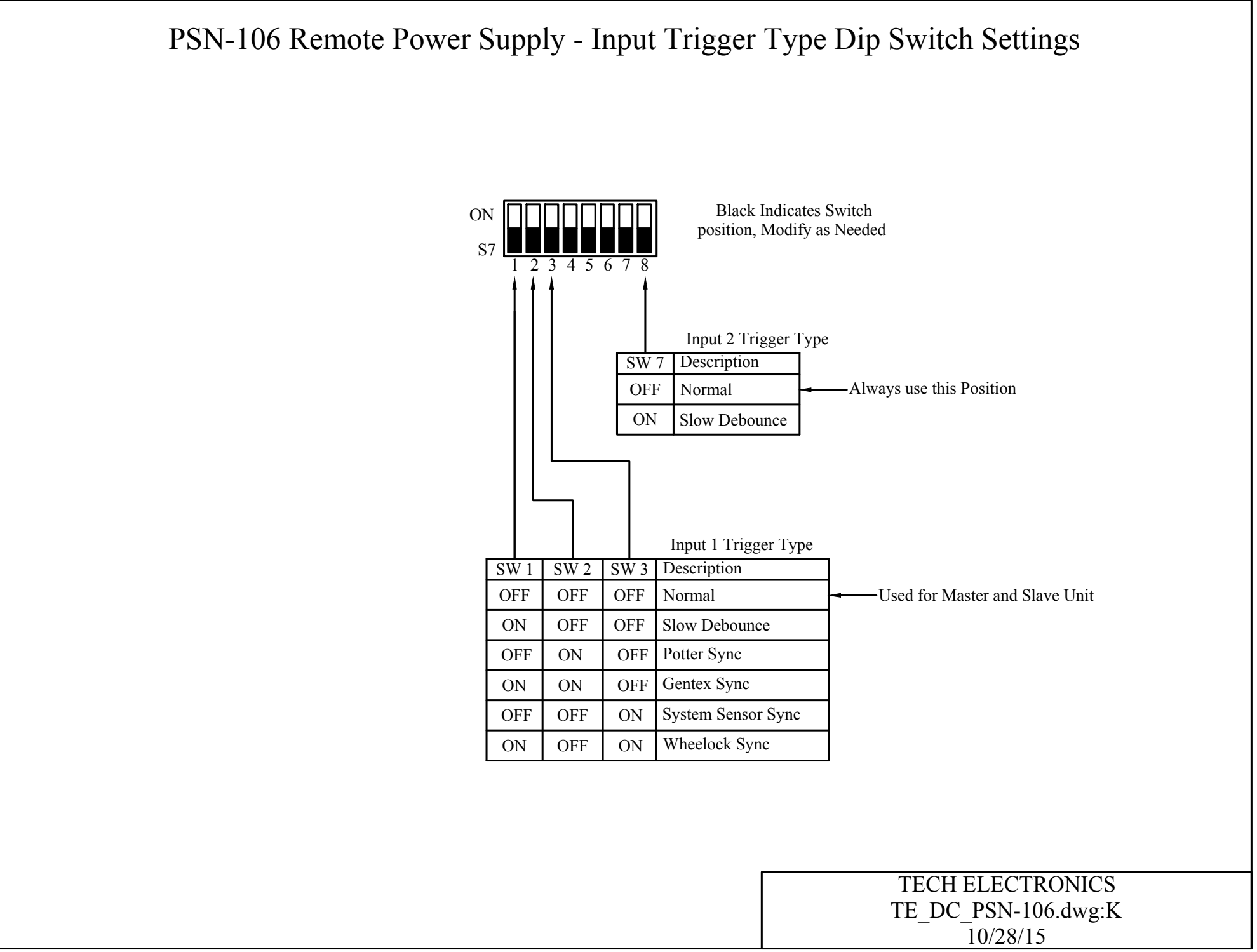
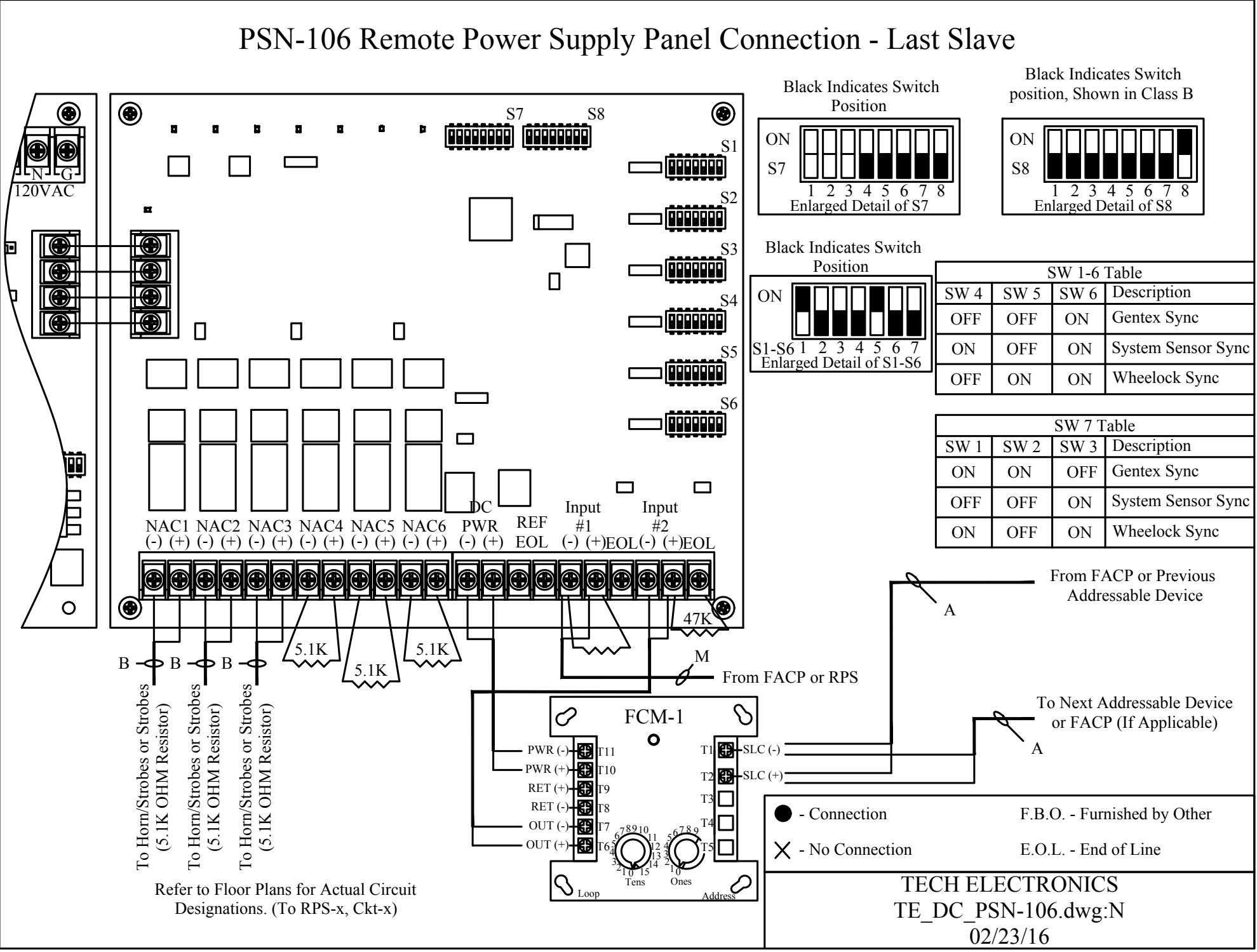
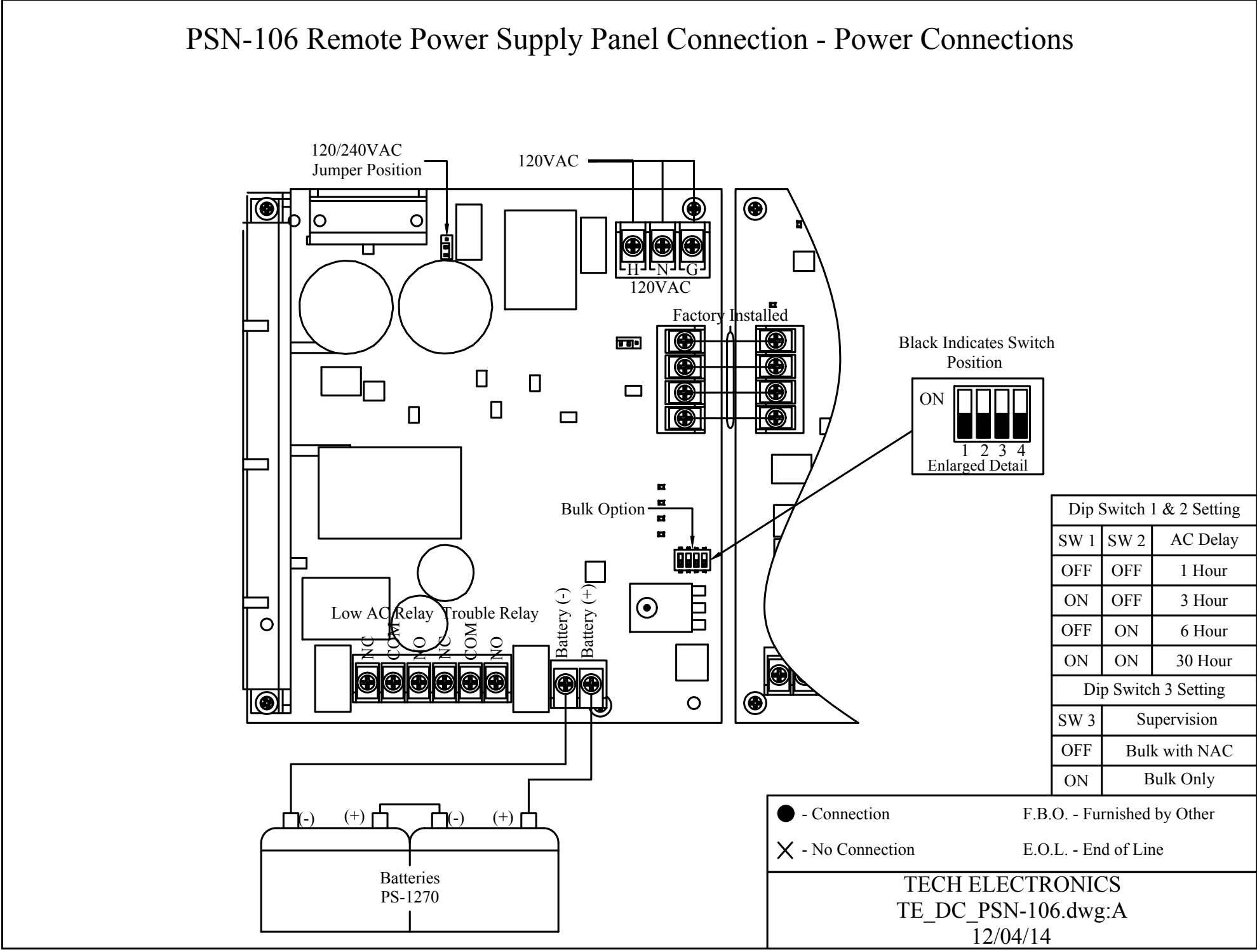
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R:\STRUCT\A\Projects\WWebster_University\Interdisciplinary_Science_Bldg\New_Fire_Alarm_PJ1608310005\Ops_Eng\Engineering_Design\TE_FA-DC-RCK.dwg, DCA, 11/11/2016 10:44:07 AM, DWG to PDF.pc3, ARCHT (ul lined) E1 (30.00 x 42.00 inches), 1:0.960075, Tech Electronics



PROJECT NAME/CUSTOMER LOCATION:

WEBSTER UNIVERSITY
INTERDISCIPLINARY SCIENCE BLDG.
GARDEN AVE.
WEBSTER GROVES, MO 63119

SYSTEM DESCRIPTION:

FIRE ALARM SYSTEM
P.M.: KH ENG: VK CAD: VK
DRAWING #: FA-DC4
PROJECT JOB#: PJ14608310005
DATE: 11/11/16
ISSUED FOR: INSTALLATION

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Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: January 5, 2017

Attention: stl-cac@cannondesign.com

Contact Person / WTA Field Inspector:
Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Joe Krussel

Project No. WT 14127.01

☐

UPS

☐

Courier

☒

Email

Copies	No.	Description
1 PDF	267100E01	(Submittal No.'s:) (R&B CxSRC)
		(Cannon #267100-003) - (Paric #15051-0399) - (WES #607)
		➤ Fire Alarm Drawings

***Submittal Review Comments**

Provide battery and voltage drop calculations for initiating circuits.

Provide a strobe in room 332 (Off. Adj.) as shown on drawing E0103.B

c: Kelvin Patel
Kpatel@cannondesign.com

☐ Furnish as Submitted

☒ ***Furnish as Noted**

☐ Rejected

☐ Revise & Resubmit

☐ Reviewed

☐

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

14127.01 - 267100 E01
JTK TO REVIEW
12/27/16

WTASHOP - Webster ISB - 26 7100-003 and 004

From: STL-CAC <STL-CAC@CANNONDESIGN.COM>
To: 'Patrick Garner' <pgarner@wmtao.com>, "WTASHOP (WTASHOP@wmtao.com)" <WTA...>
Date: 12/27/2016 11:31 AM
Subject: Webster ISB - 26 7100-003 and 004
Cc: "Patel, Kelvin" <kpatel@CANNONDESIGN.COM>
Attachments: 267100-003 Fire Alarm Shop Drawings.pdf; 267100-004 Fire Alarm Product Data.pdf

Attached for review.

Melissa Pirtle

CANNONDESIGN

1100 Clark Ave
St. Louis, Missouri 63102
T [314.425.8797](tel:314.425.8797)
cannondesign.com

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

PROJECT NAME	
ADDRESS	
NUMBER	
OWNER	
ARCHITECT / ENGINEER	
SUBMITTED BY	
CONTRACTOR / CM SUBMITTAL NO.	CANNON DESIGN SUBMITTAL NO.
DRAWING / DETAIL REFERENCE	SPECIFICATION SECTION / PARAGRAPH
MANUFACTURER / SUPPLIER	ITEM / PRODUCT ID
REQUIRED DATE	PRIORITY
CRITICALITY	

To be completed by Reviewer

CANNON DESIGN SUBMITTAL NUMBER
RECEIVED DATE

- ☐ **A. No Exceptions Taken**
No further review of submittal is required.
- ☐ **B. Make Corrections Noted**
Incorporate corrections in work;
resubmission is not required.
- ☐ **C. Revise and Resubmit**
Revise as noted, and resubmit for review.
- ☐ **D. Rejected**
Submittal is not in compliance with Contract Documents;
provide new submittal.
- ☐ **E. For Record / Information Only**
Submittal was reviewed for Record / Information
purposes only.
- ☐ **F. Not Required for Review**
Submittal is not required by Contract Documents
and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

ITEM BEING SUBMITTED (check only one)

- ☐ Shop Drawings ☐ Certification / Qualifications ☐ Coordination Drawing
☐ Samples ☐ Record Documents ☐ Calculations
 (_____ copies) ☐ Product Data ☐ Schedules
☐ LEED Submittal ☐ O&M Manuals
☐ Other _____

ITEM BEING SUBMITTED FOR (check only one)

- ☐ Action ☐ Information Only ☐ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)



PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

Ry:

Devin D. Gates

REVIEWED BY	DATE

A/E COMMENTS

- ☐
- See attached sheet(s) for additional comments

REVIEWED BY	DATE



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0399

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 12/20/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

Fax;
314-241-2203

RE: Fire Alarm Shop Drawings

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☒ Shop Drawings	☒ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	SENT VIA:	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☐ Other:	☐ Separate Cover Via:	☐ Due Date:

Item	Package	Code	Rev.	Copies	Date	Description	Status
Submittal		267100-003	1		12/20/2016	Fire Alarm Shop Drawings	Submitted

NOTES:

CC:

Signed: _____
Devin Gates