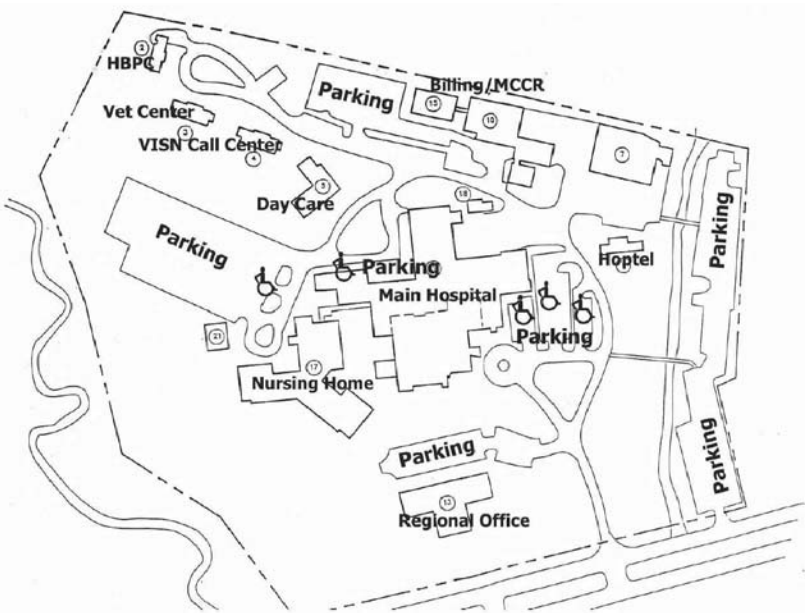


TASK ORDER - VA244-16-P-5704
WILMINGTON VAMC ARC FLASH STUDY

WILMINGTON VA MEDICAL CENTER
1601 KIRKWOOD HWY, WILMINGTON, DE 19805

SINGLE-LINE DIAGRAMS
DRAWINGS



DRAWING LIST:

GENERAL:

01	COVER SHEET
02	MV DISTRIBUTION
03	BLDG 13
04	BLDG 17
05	BLDG 5, 4, 3, & 2
06	BLDG 15
07	BLDG 1 SWBD A SECTION 2
08	BLDG 1 SWBD A SECTION 3
09	BLDG 1 SWBD B SECTION 5
10	BLDG 1 SWBD B SECTION 6
11	BLDG 1 & 18 EPSS
12	BLDG 1 & 18 NORMAL SUPPLY TO EES
13	BLDG 1 EES (1 OF 3)
14	BLDG 1 EES (2 OF 3)
15	BLDG 1 & 18 EES (3 OF 3)
16	BLDG 1 CEP
17	BLDG 1 EQUIPMENT & NEW KITCHEN
18	BLDG 10, 6 & 7
19	CLINICAL ADDITION NORMAL POWER
20	CLINICAL ADDITION EPSS, EES (1 OF 2)
21	CLINICAL ADDITION EES (2 OF 2)

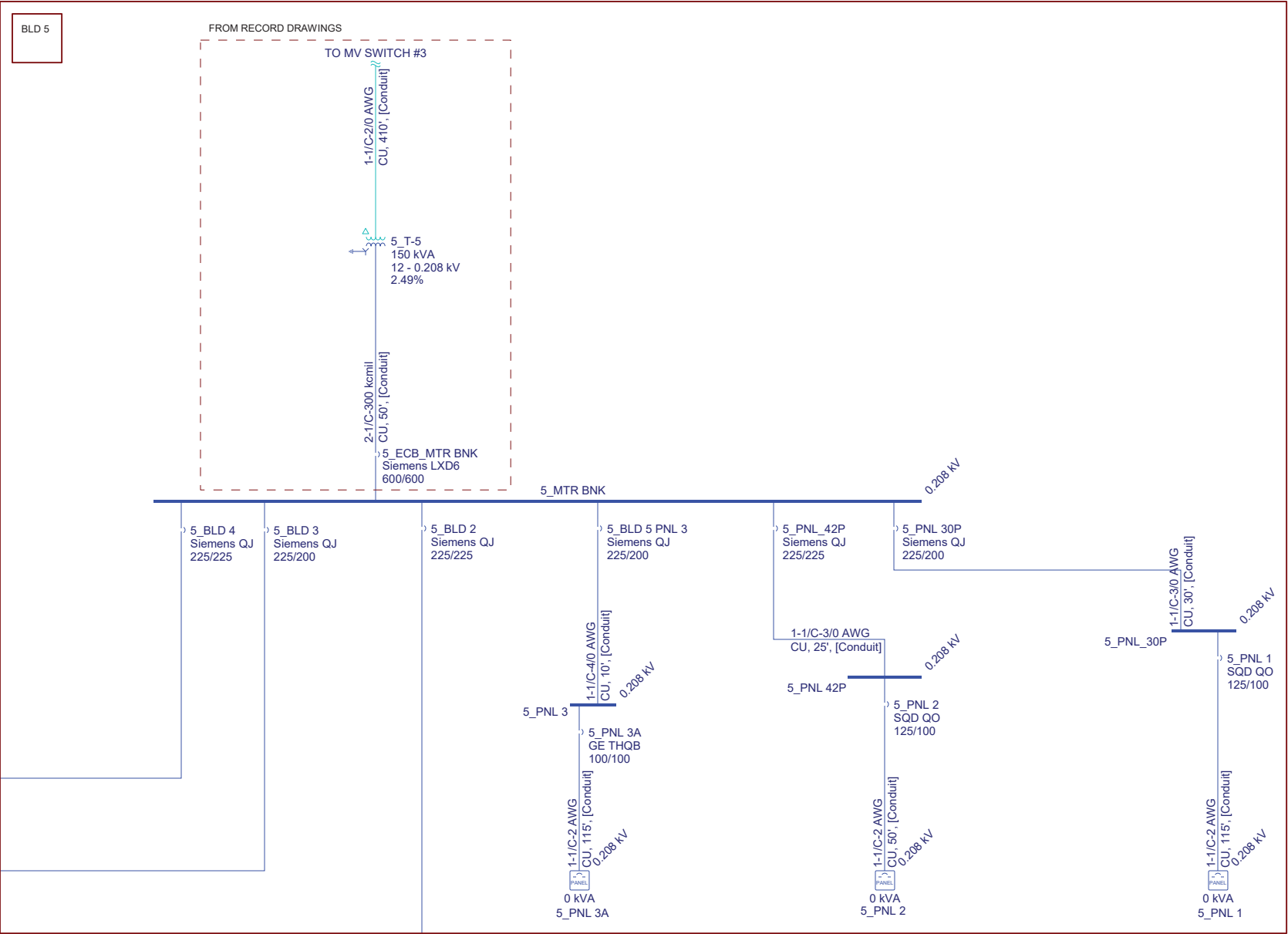
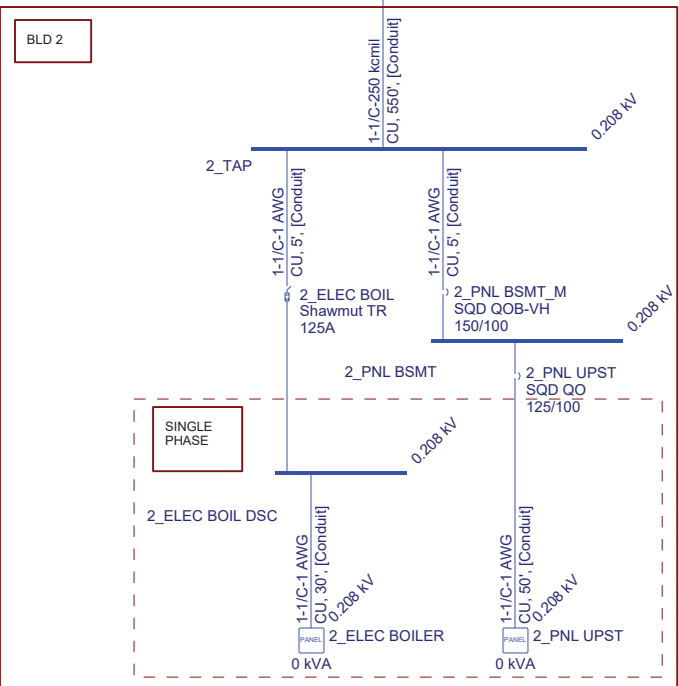
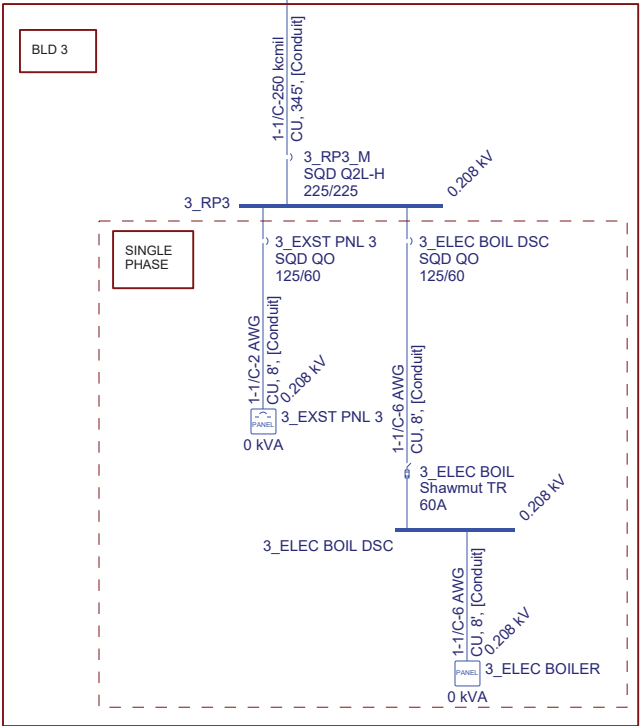
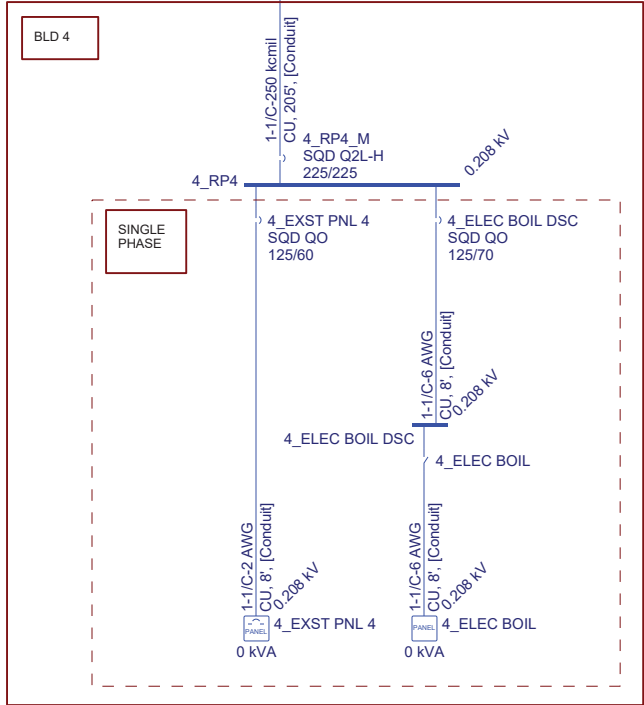
ABBREVIATIONS:

EES	ESSENTIAL ELECTRICAL SYSTEM
EPSS	EMERGENCY POWER SUPPLY SYSTEM
NP	NORMAL POWER

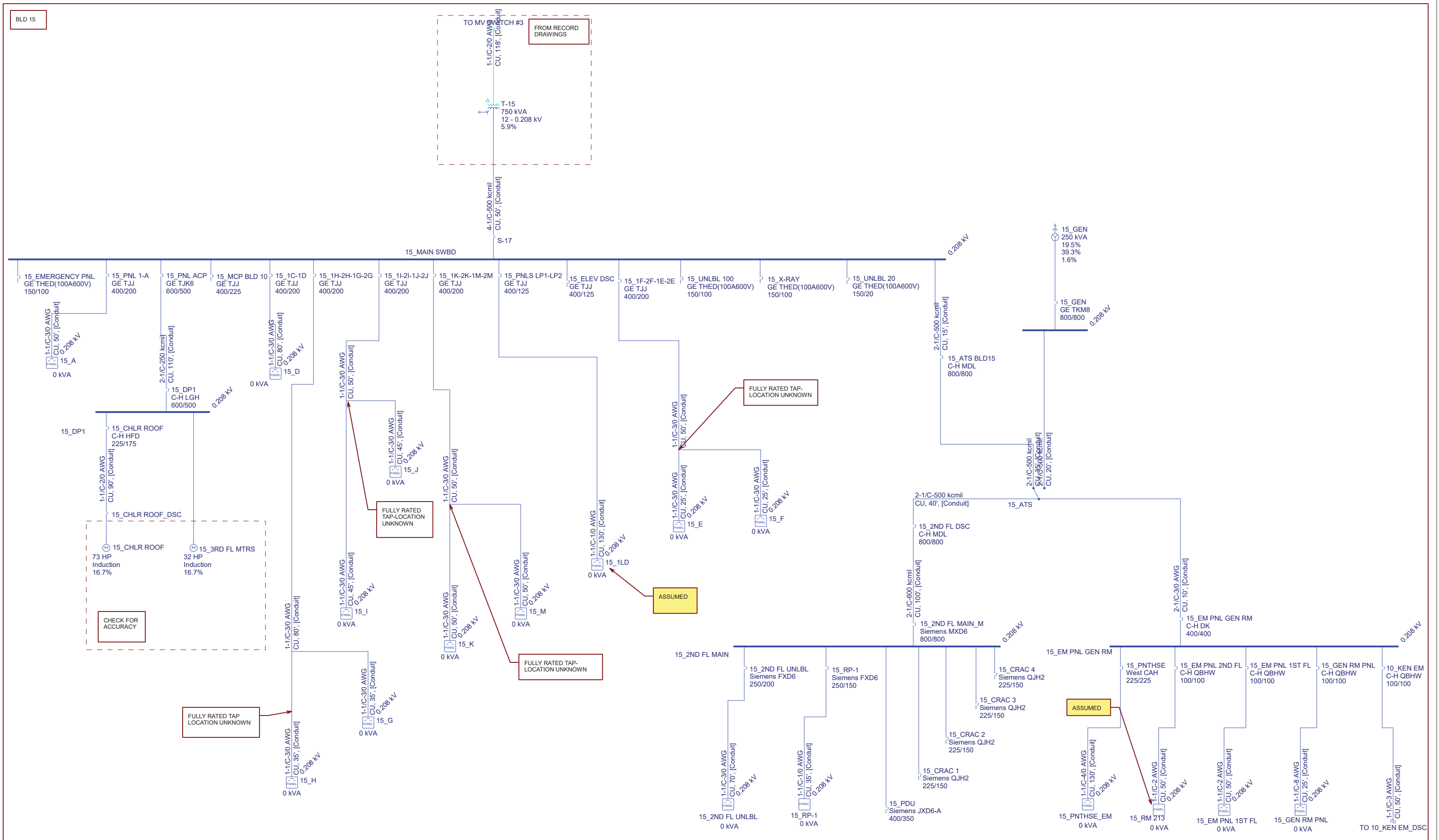
LEGEND

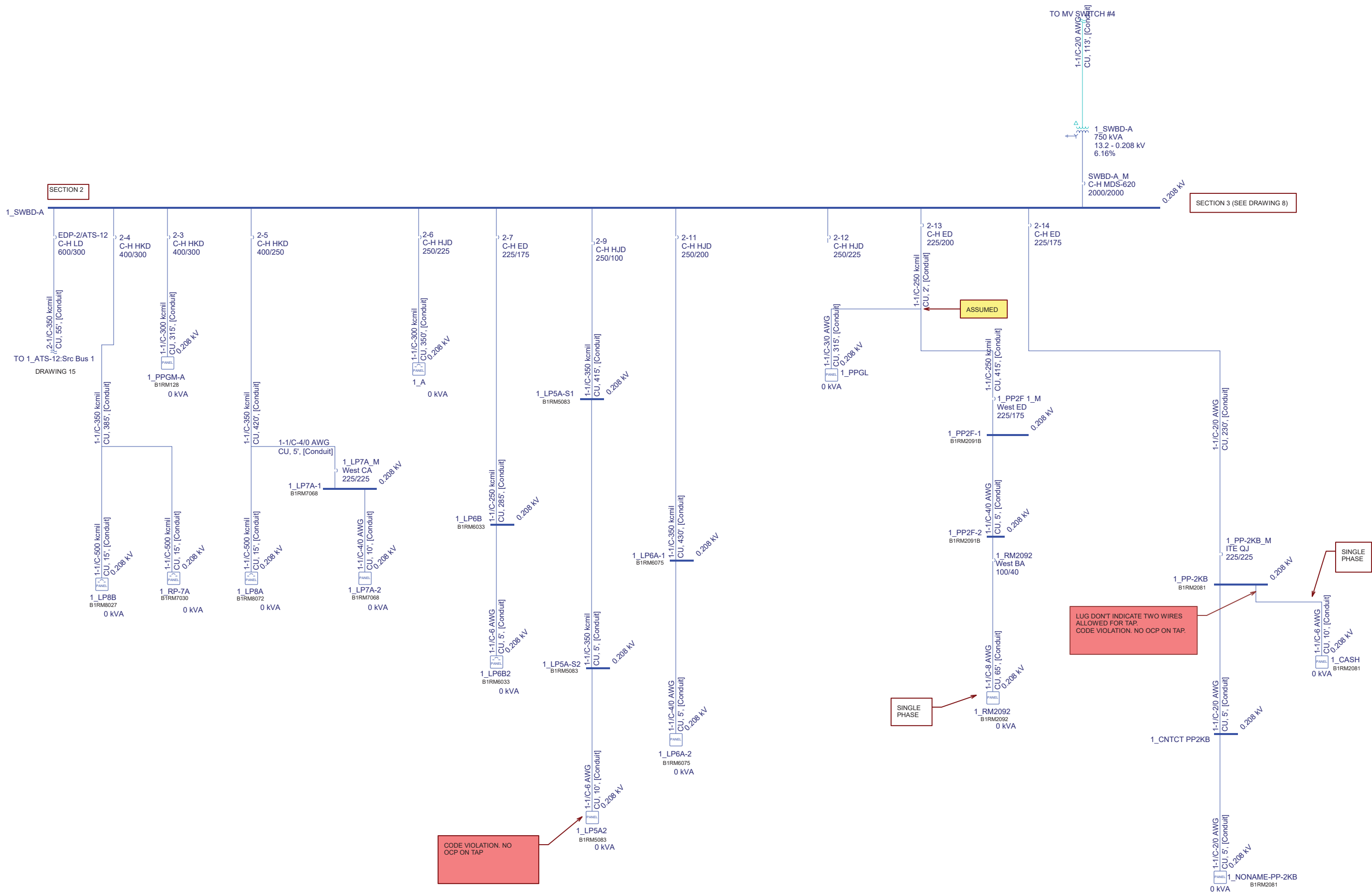
	Utility		Generator
	UPS (Uninterruptable power supply)		Bus
	Panel Schedule		Motor Control Center
	Motor		Capacitor
	Load		Shunt
	Filter		2 Winding Transformer
	3 Winding Transformer		Zig Zag Transformer
	High Voltage Breaker		Low Voltage Breaker
	Fused Breaker		Breaker Contactor
	Switch		Fused Switch
	Fuse Only		Fused Contactor
	ATS (Automatic Transfer Switch)		Current Limiting Reactor
	Relay with CT		Meter





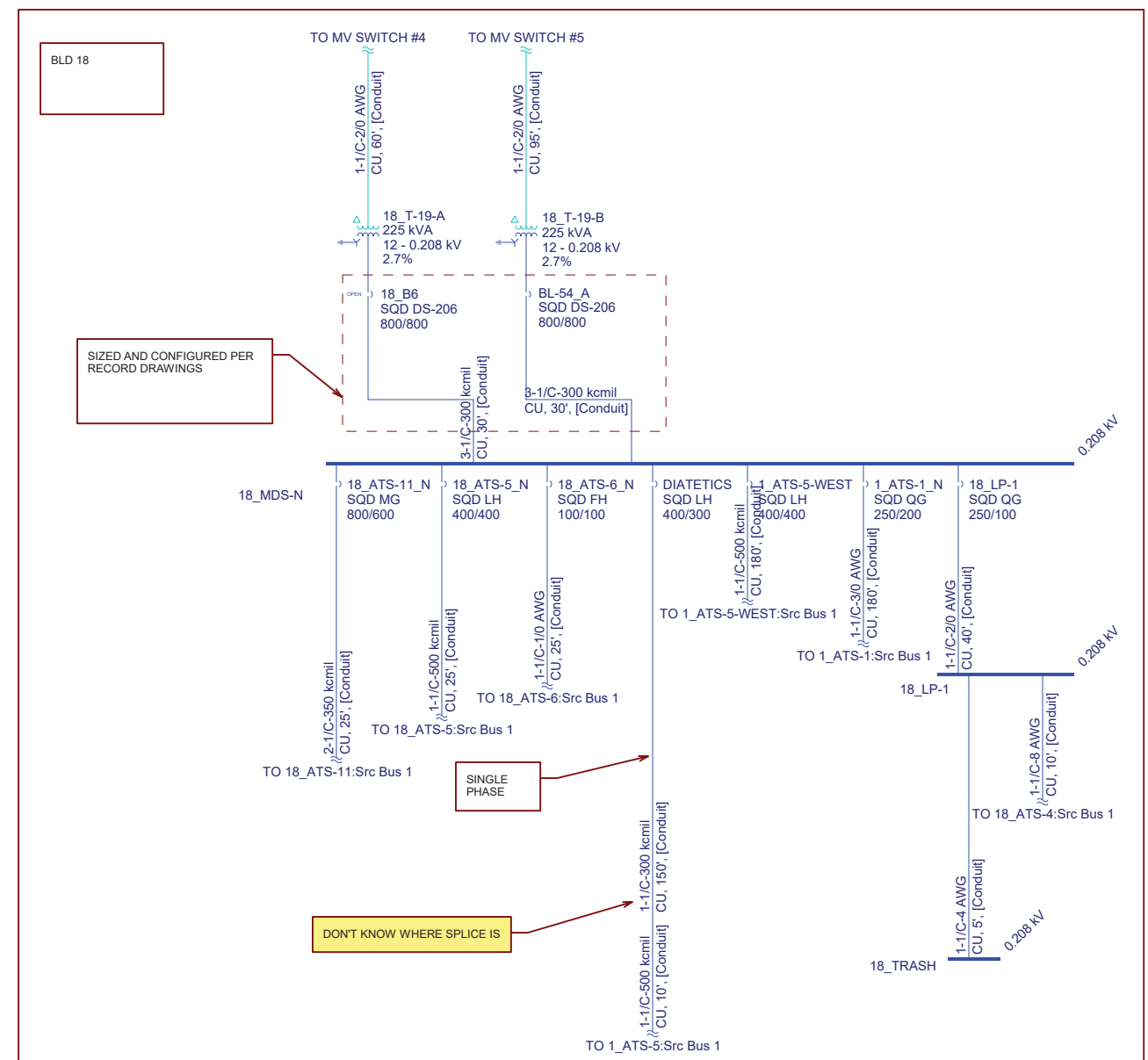
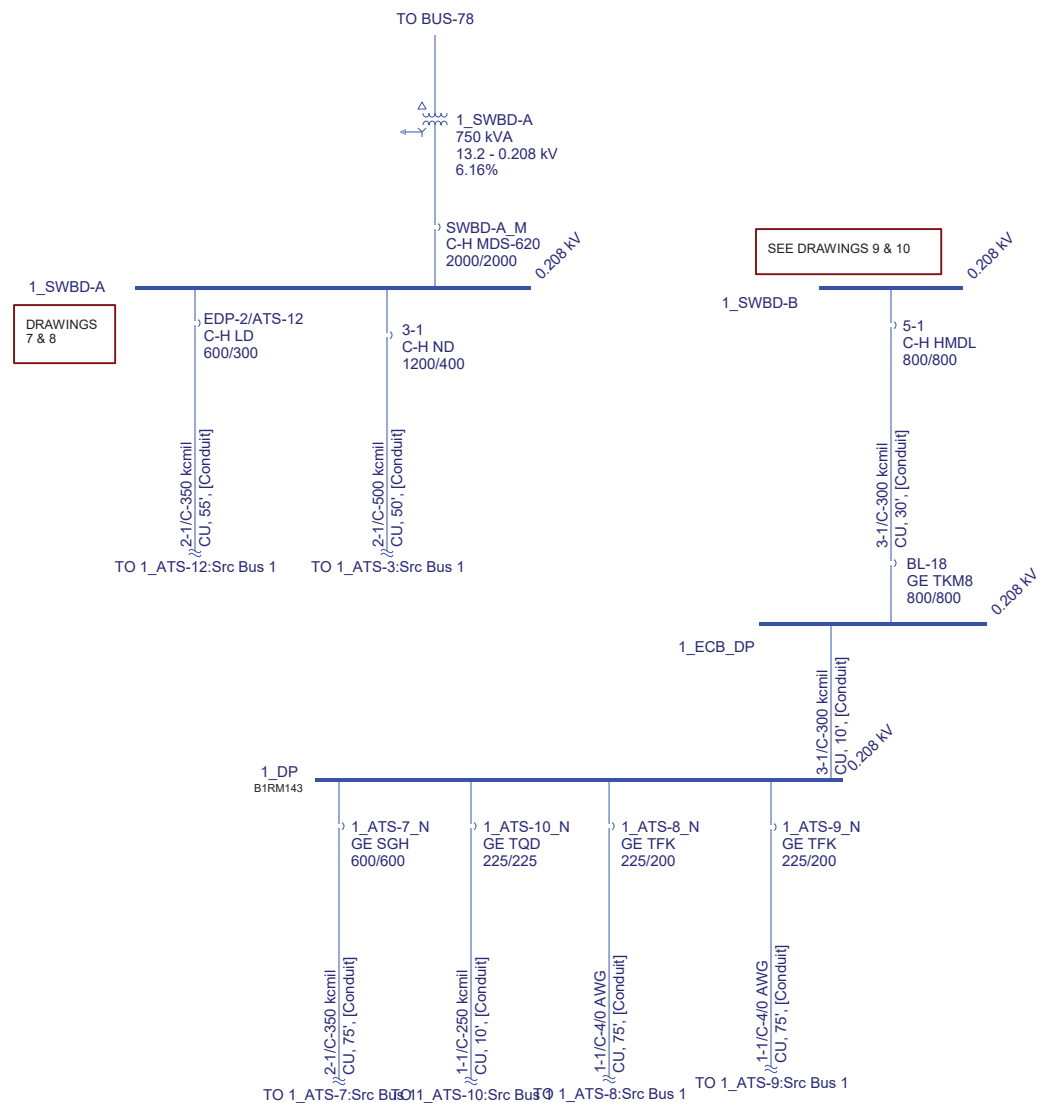
BLD 15

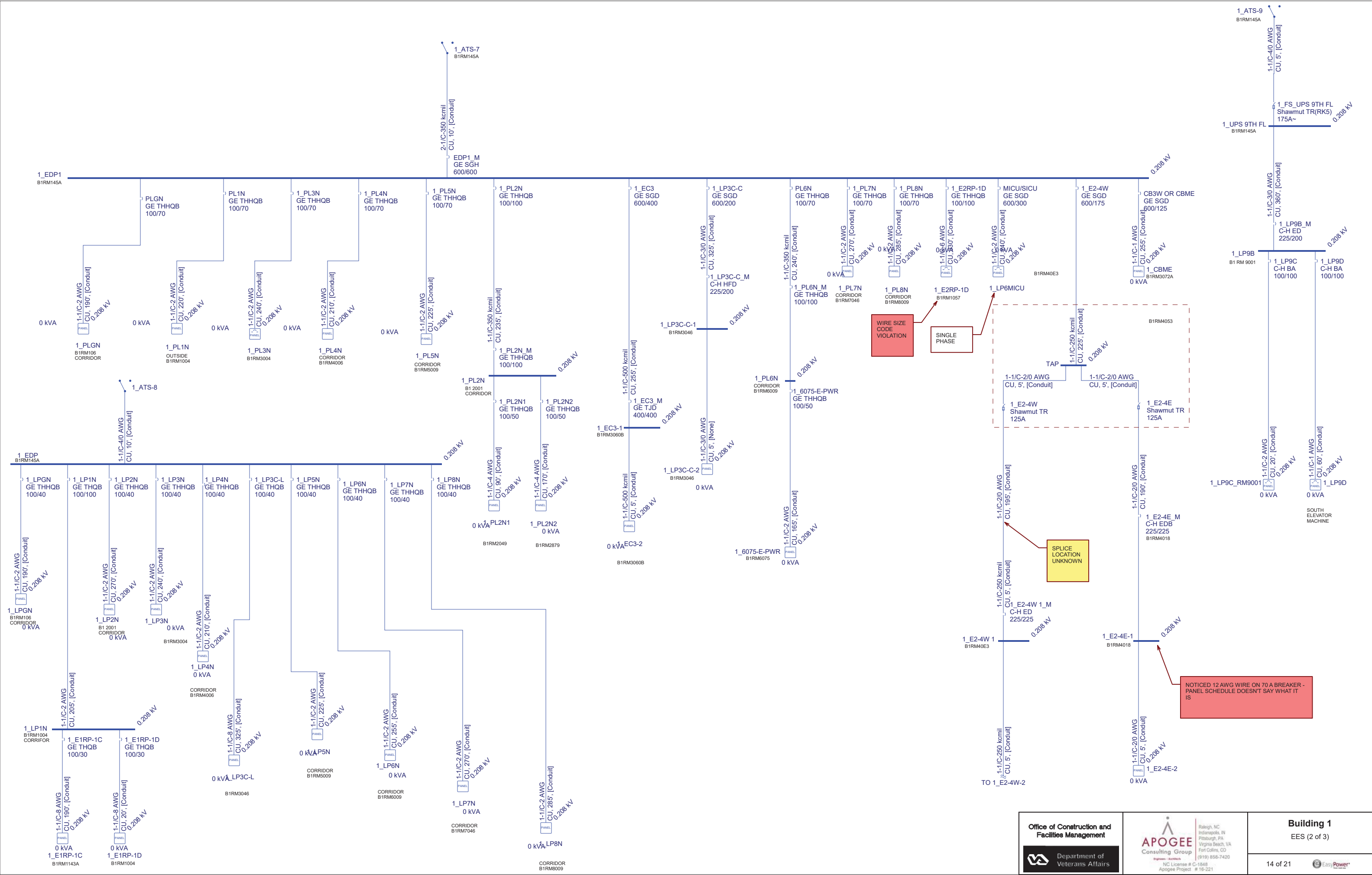




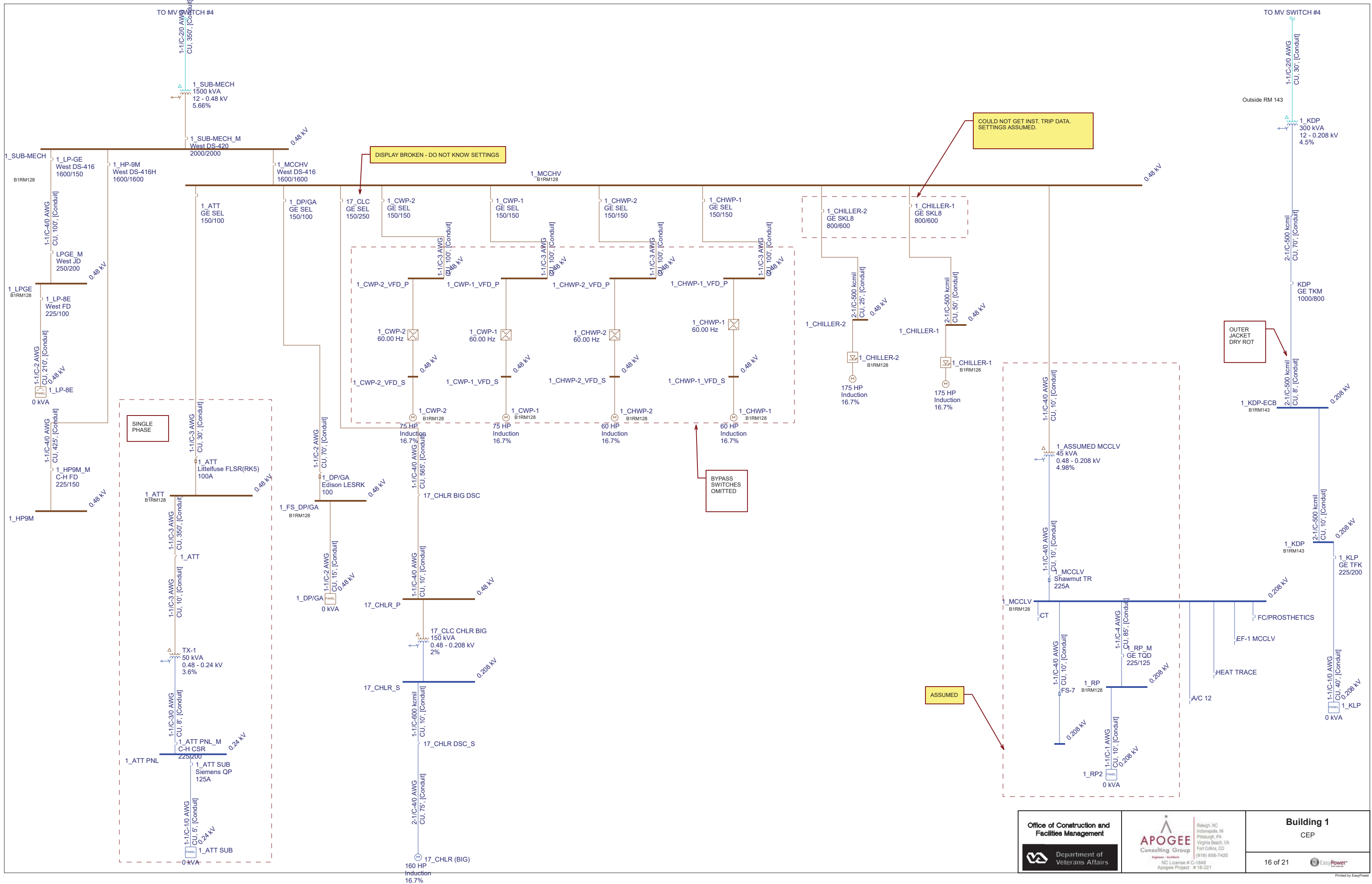




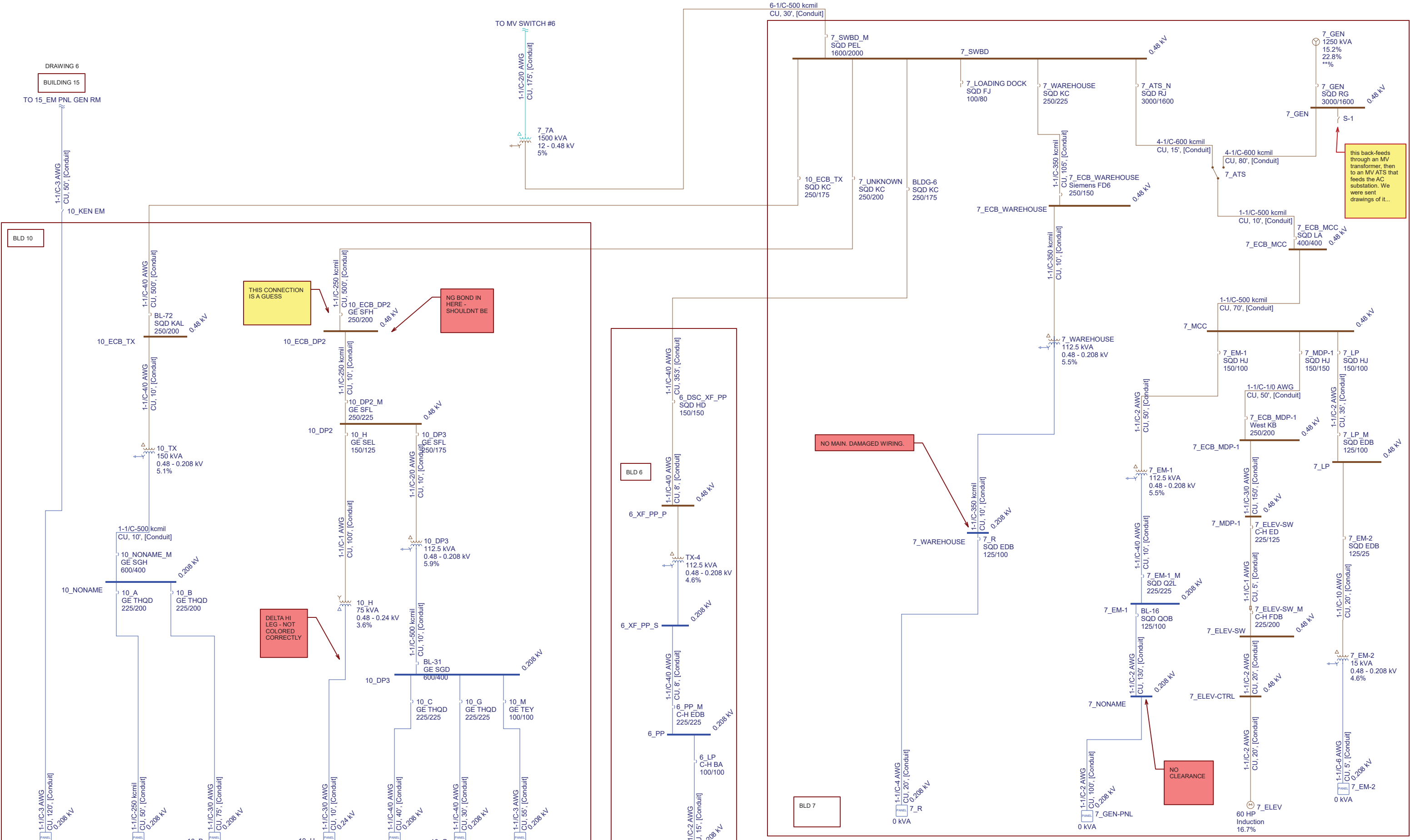


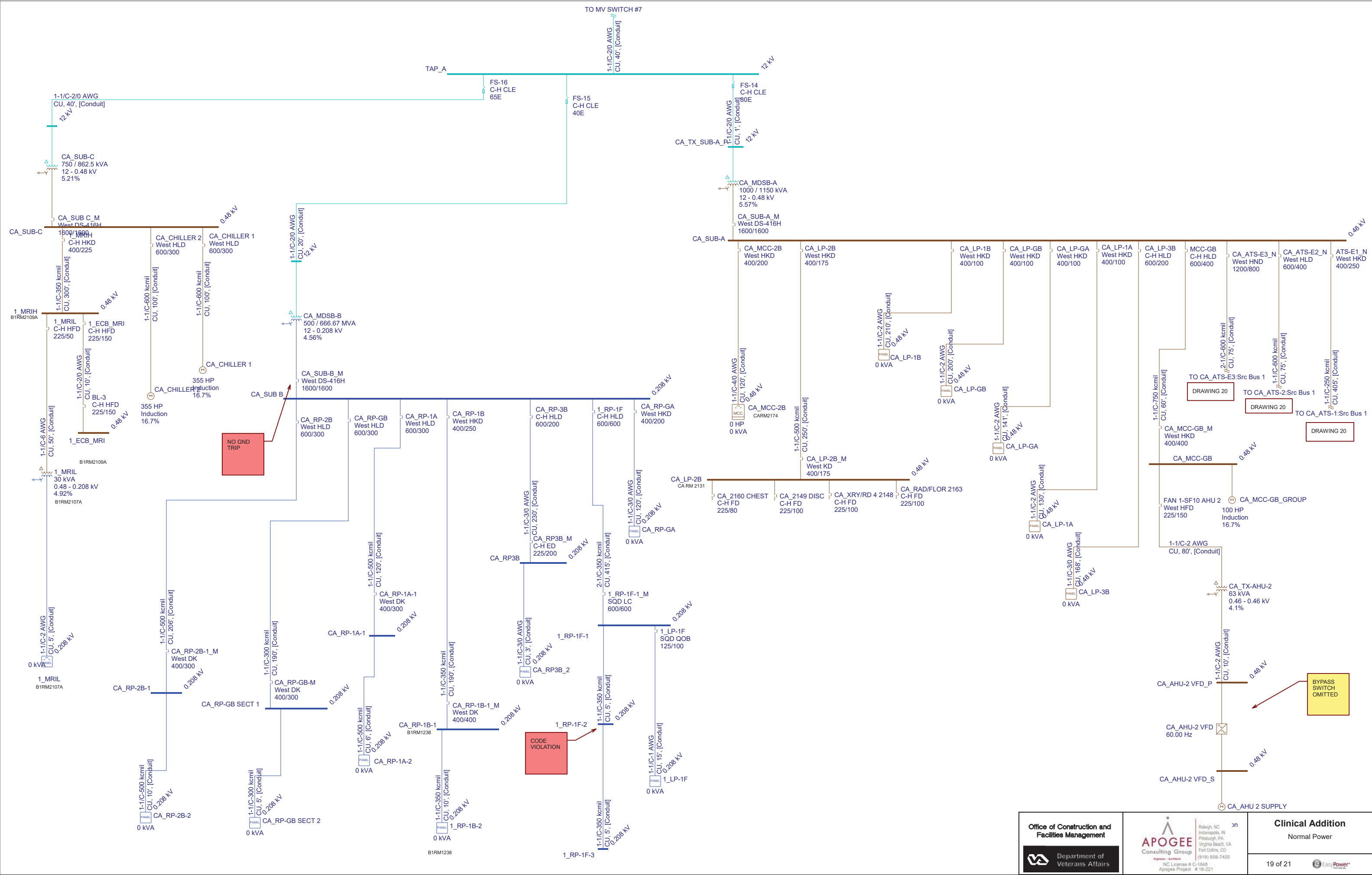












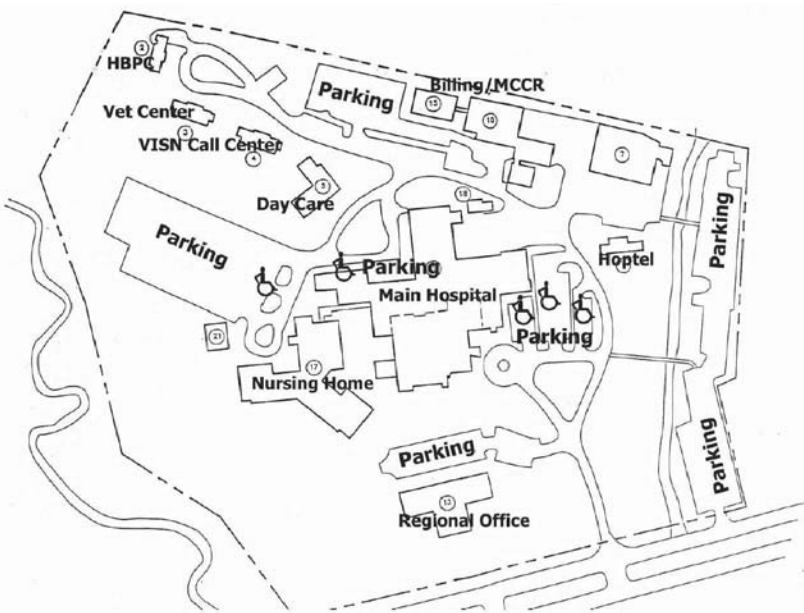




TASK ORDER - VA244-16-P-5704
WILMINGTON VAMC ARC FLASH STUDY

WILMINGTON VA MEDICAL CENTER
1601 KIRKWOOD HWY, WILMINGTON, DE 19805

SHORT CIRCUIT ANALYSIS
DRAWINGS



DRAWING LIST:

GENERAL:

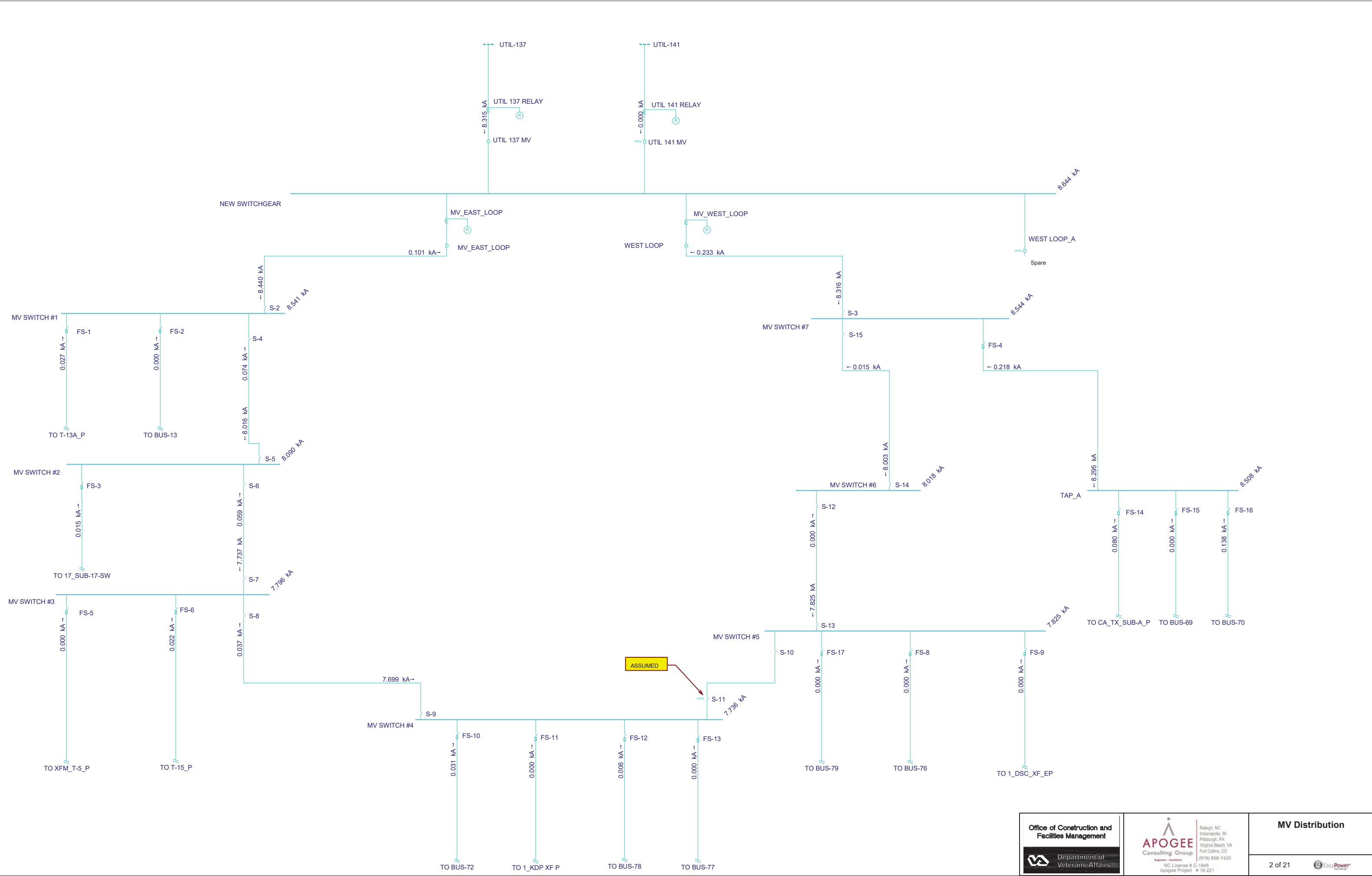
01	COVER SHEET
02	MV DISTRIBUTION
03	BLDG 13
04	BLDG 17
05	BLDG 5, 4, 3, & 2
06	BLDG 15
07	BLDG 1 SWBD A SECTION 2
08	BLDG 1 SWBD A SECTION 3
09	BLDG 1 SWBD B SECTION 5
10	BLDG 1 SWBD B SECTION 6
11	BLDG 1 & 18 EPSS
12	BLDG 1 & 18 NORMAL SUPPLY TO EES
13	BLDG 1 EES (1 OF 3)
14	BLDG 1 EES (2 OF 3)
15	BLDG 1 & 18 EES (3 OF 3)
16	BLDG 1 CEP
17	BLDG 1 EQUIPMENT & NEW KITCHEN
18	BLDG 10, 6 & 7
19	CLINICAL ADDITION NORMAL POWER
20	CLINICAL ADDITION EPSS, EES (1 OF 2)
21	CLINICAL ADDITION EES (2 OF 2)

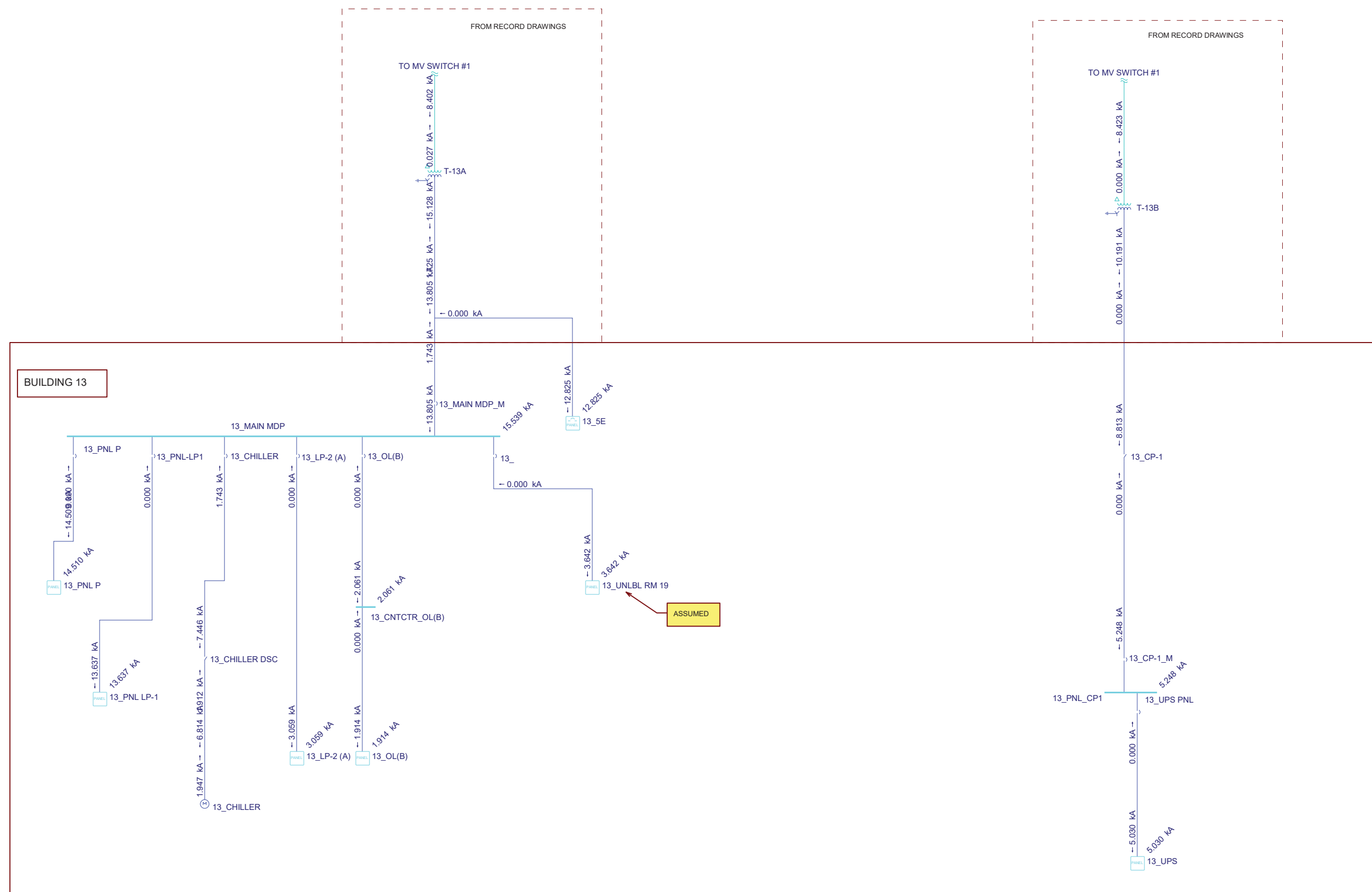
ABBREVIATIONS:

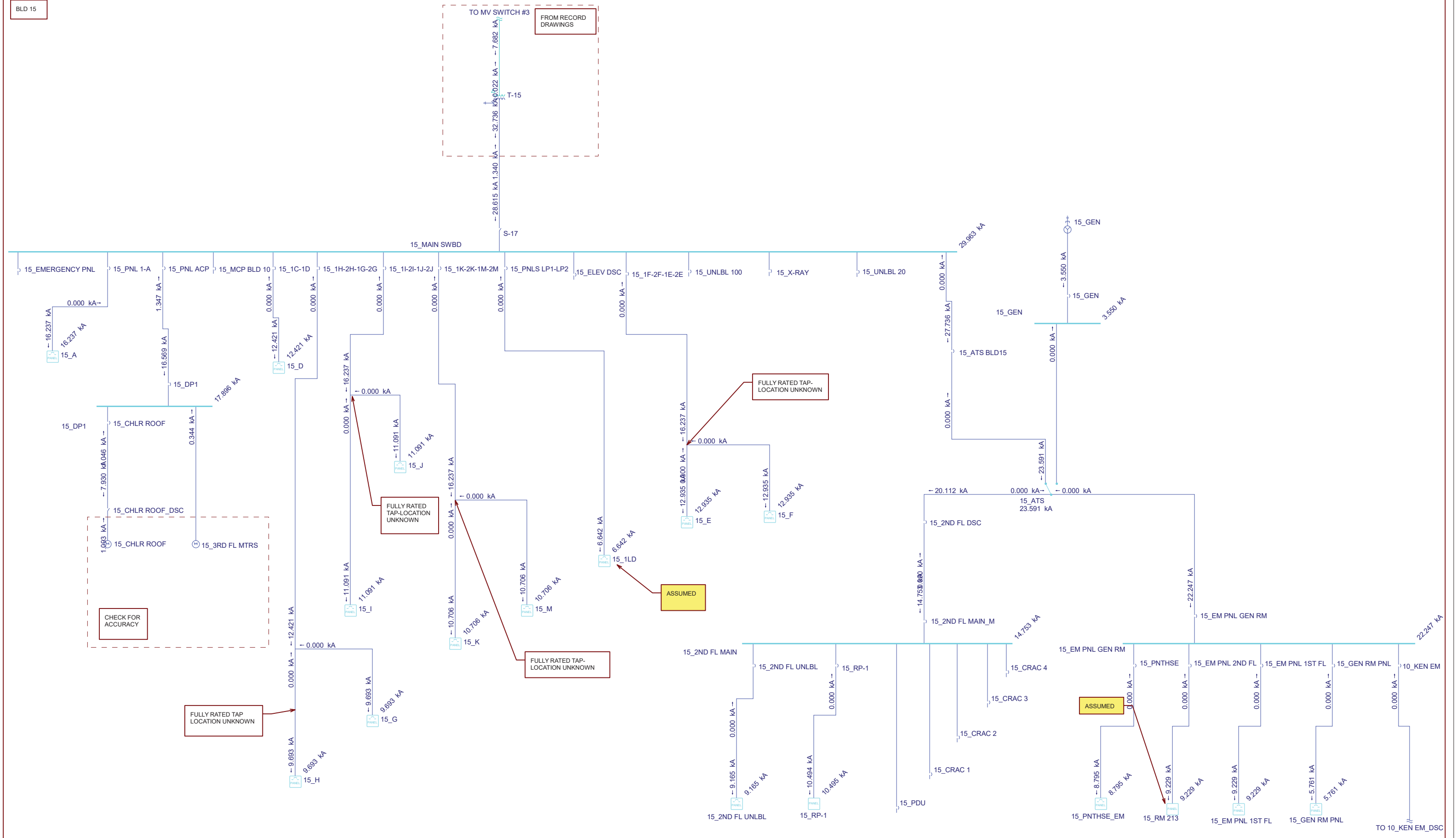
EES	ESSENTIAL ELECTRICAL SYSTEM
EPSS	EMERGENCY POWER SUPPLY SYSTEM
NP	NORMAL POWER

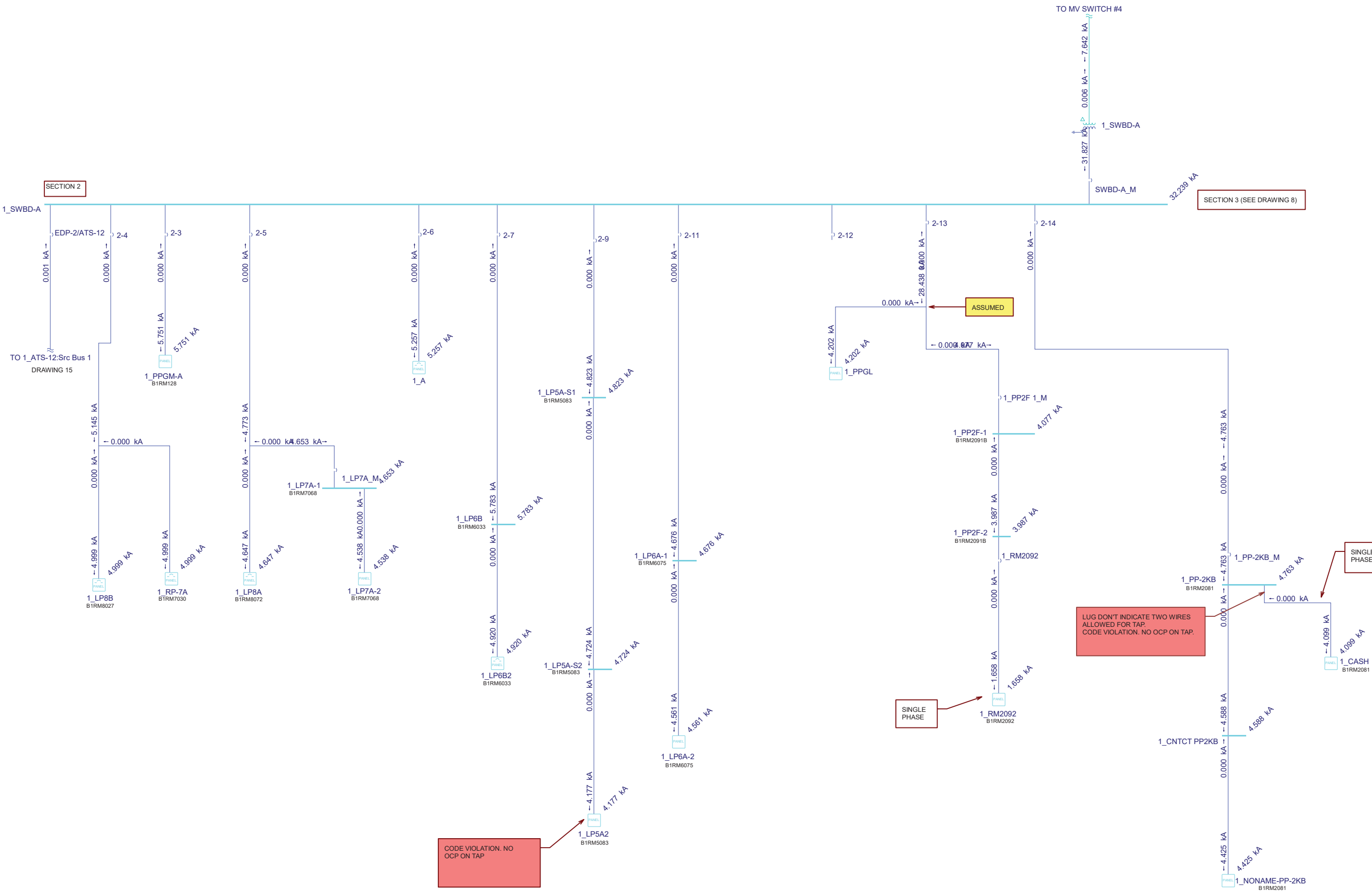
LEGEND

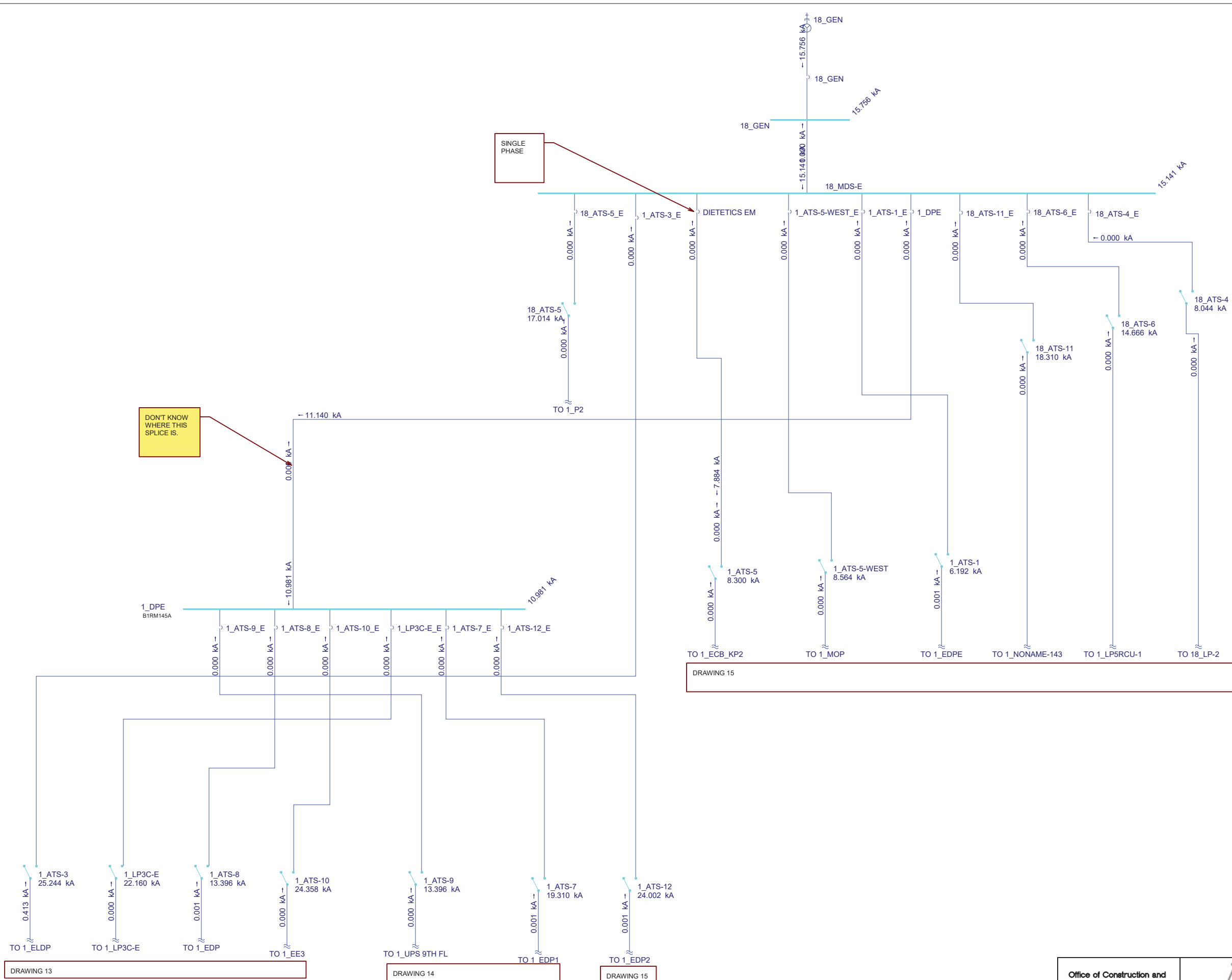
	Utility		Generator
	UPS (Uninterruptable power supply)		Bus
	Panel Schedule		Motor Control Center
	Motor		Capacitor
	Load		Shunt
	Filter		2 Winding Transformer
	3 Winding Transformer		Zig Zag Transformer
	High Voltage Breaker		Low Voltage Breaker
	Fused Breaker		Breaker Contactor
	Switch		Fused Switch
	Fuse Only		Fused Contactor
	ATS (Automatic Transfer Switch)		Current Limiting Reactor
	Relay with CT		Meter











DRAWING 13

DRAWING 14

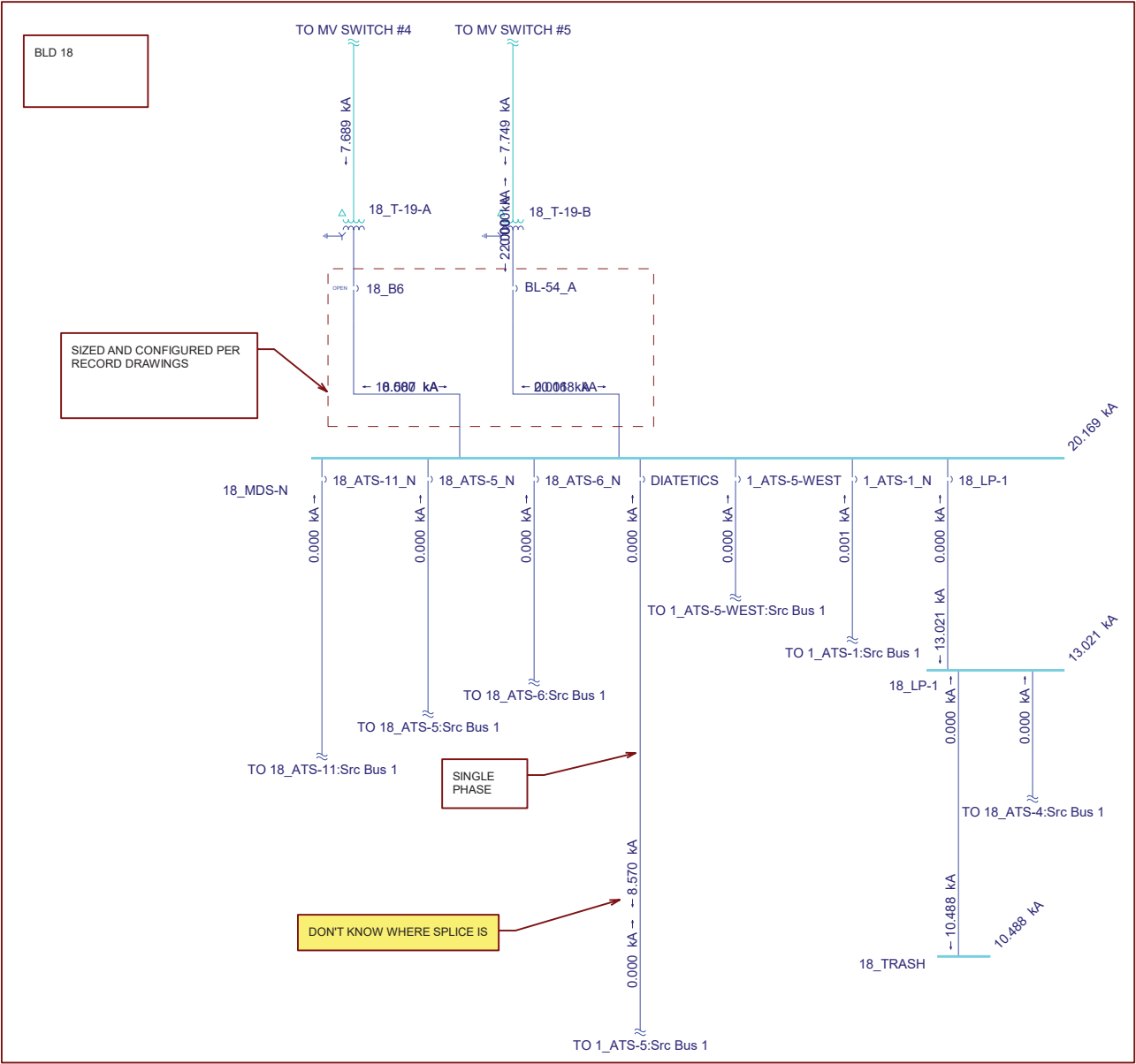
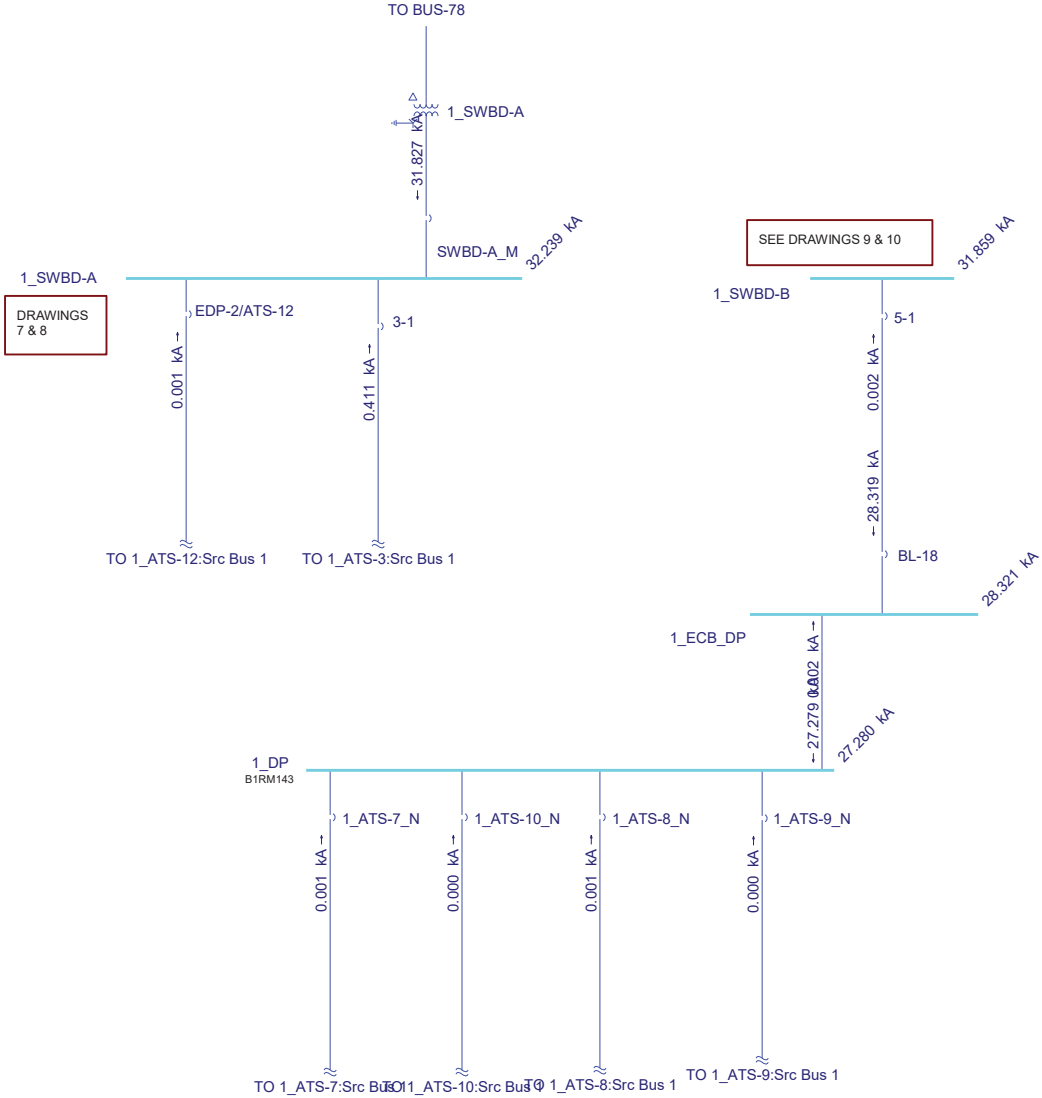
DRAWING 15

Office of Construction and
Facilities Management

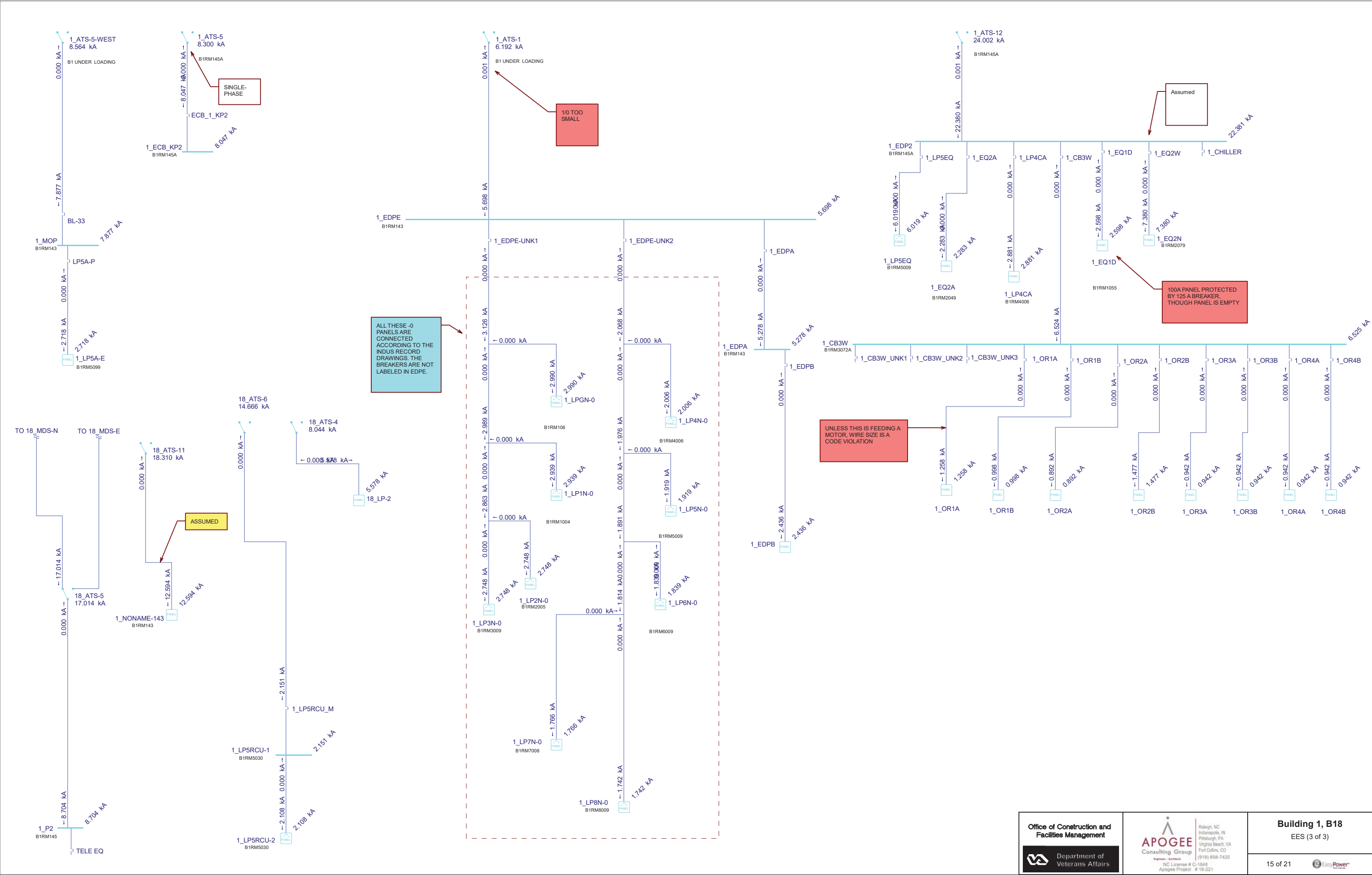


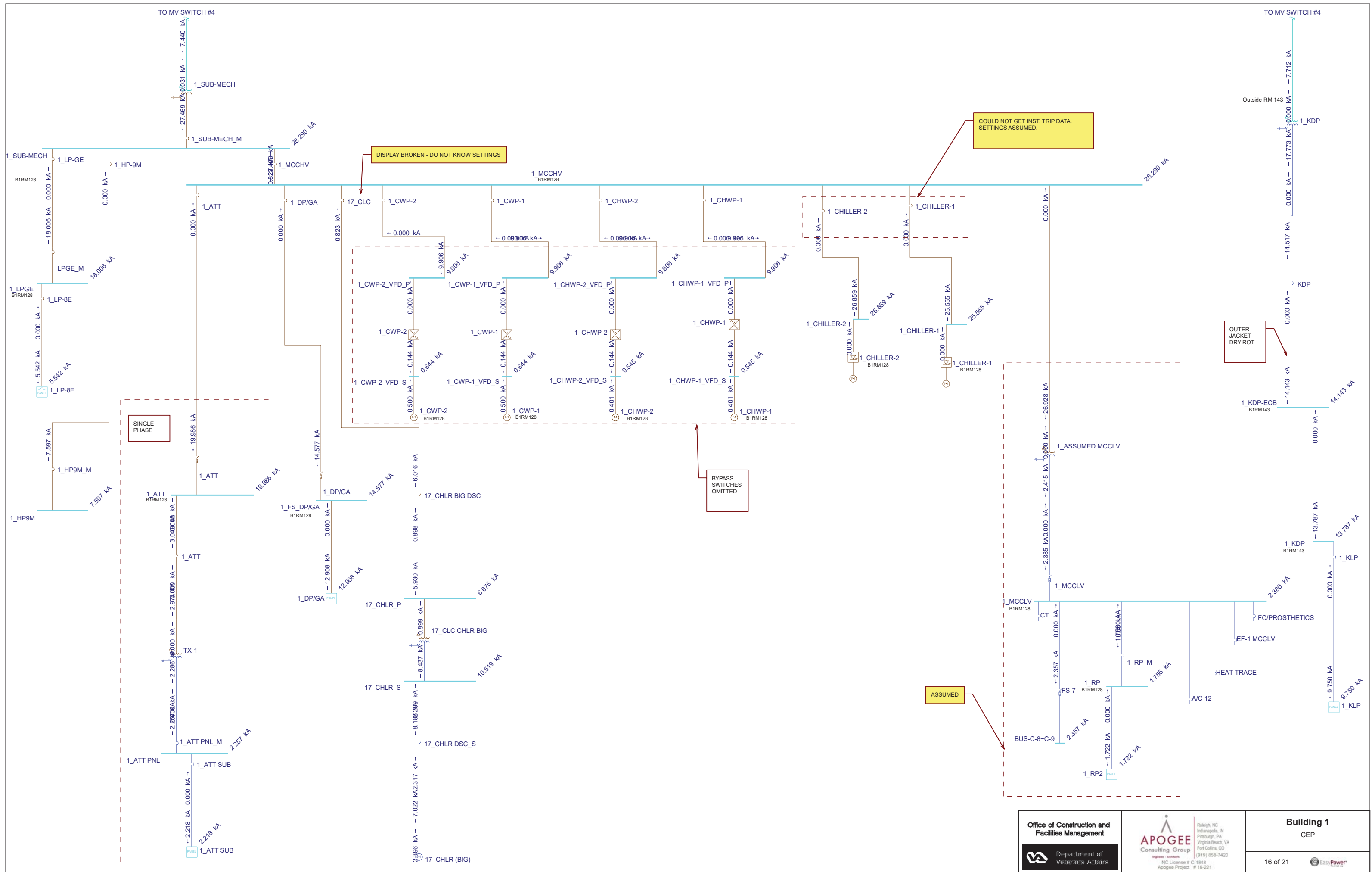
APOGEE
Consulting Group
Raleigh, NC
Indianapolis, IN
Pittsburgh, PA
Virginia Beach, VA
Fort Collins, CO
NC License # C-1848
Apogee Project # 16-221

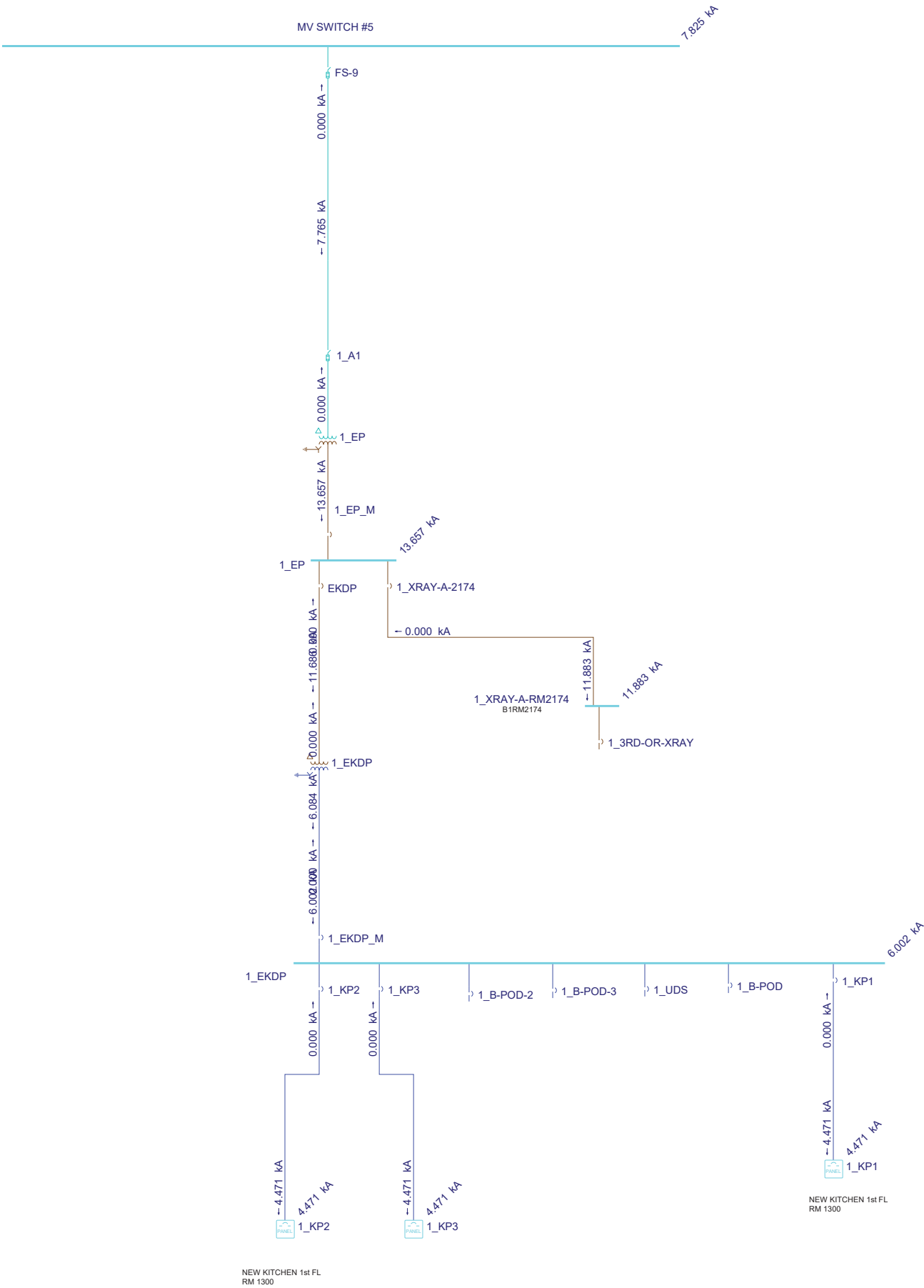
Building 1 & 18
EPSS











NEW KITCHEN 1st FL
RM 1300

Office of Construction and
Facilities Management



Department of
Veterans Affairs



Raleigh, NC
Indianapolis, IN
Pittsburgh, PA
Virginia Beach, VA
Fort Collins, CO
(919) 658-7420

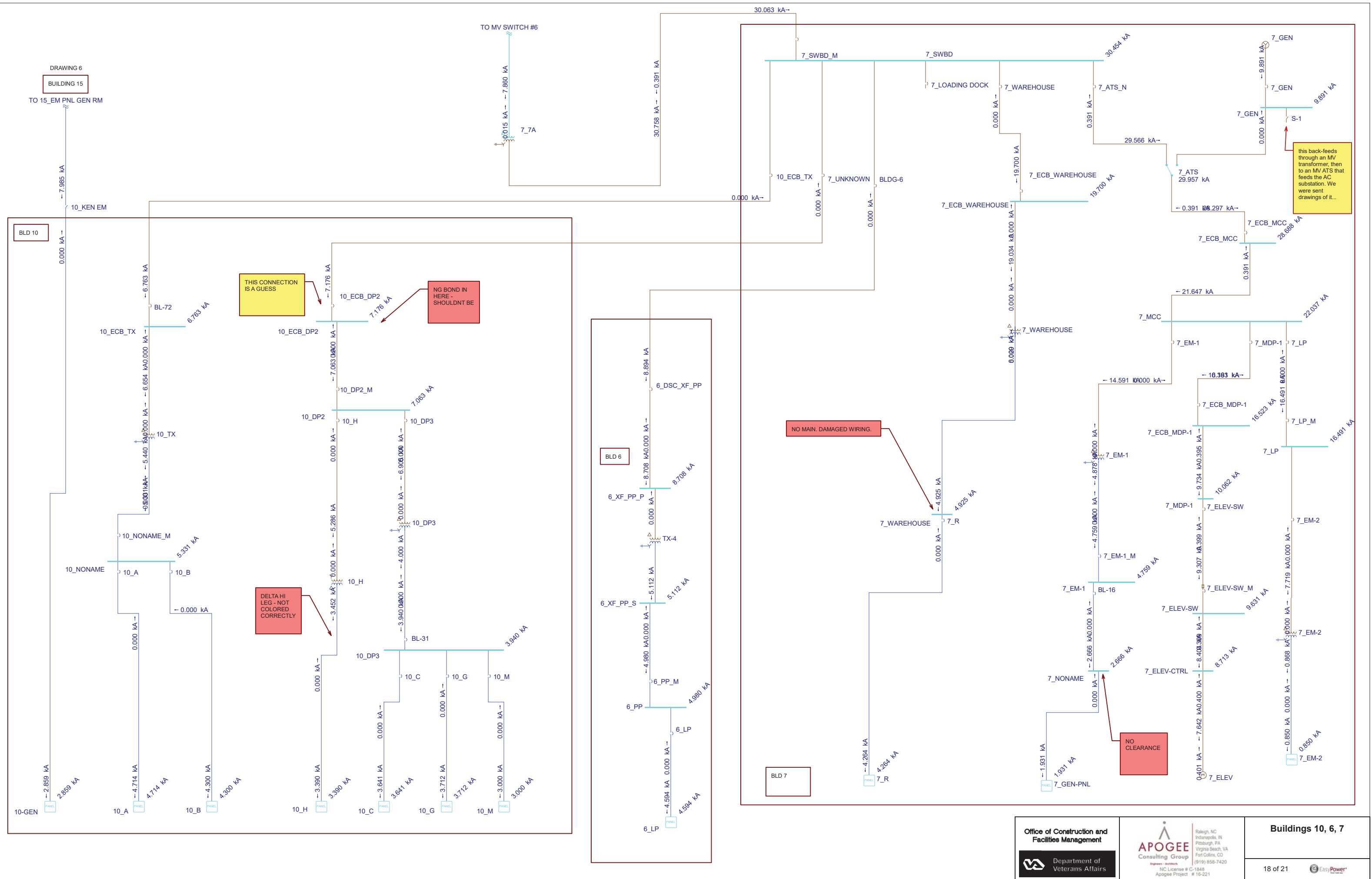
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Apogee Project # 16-221

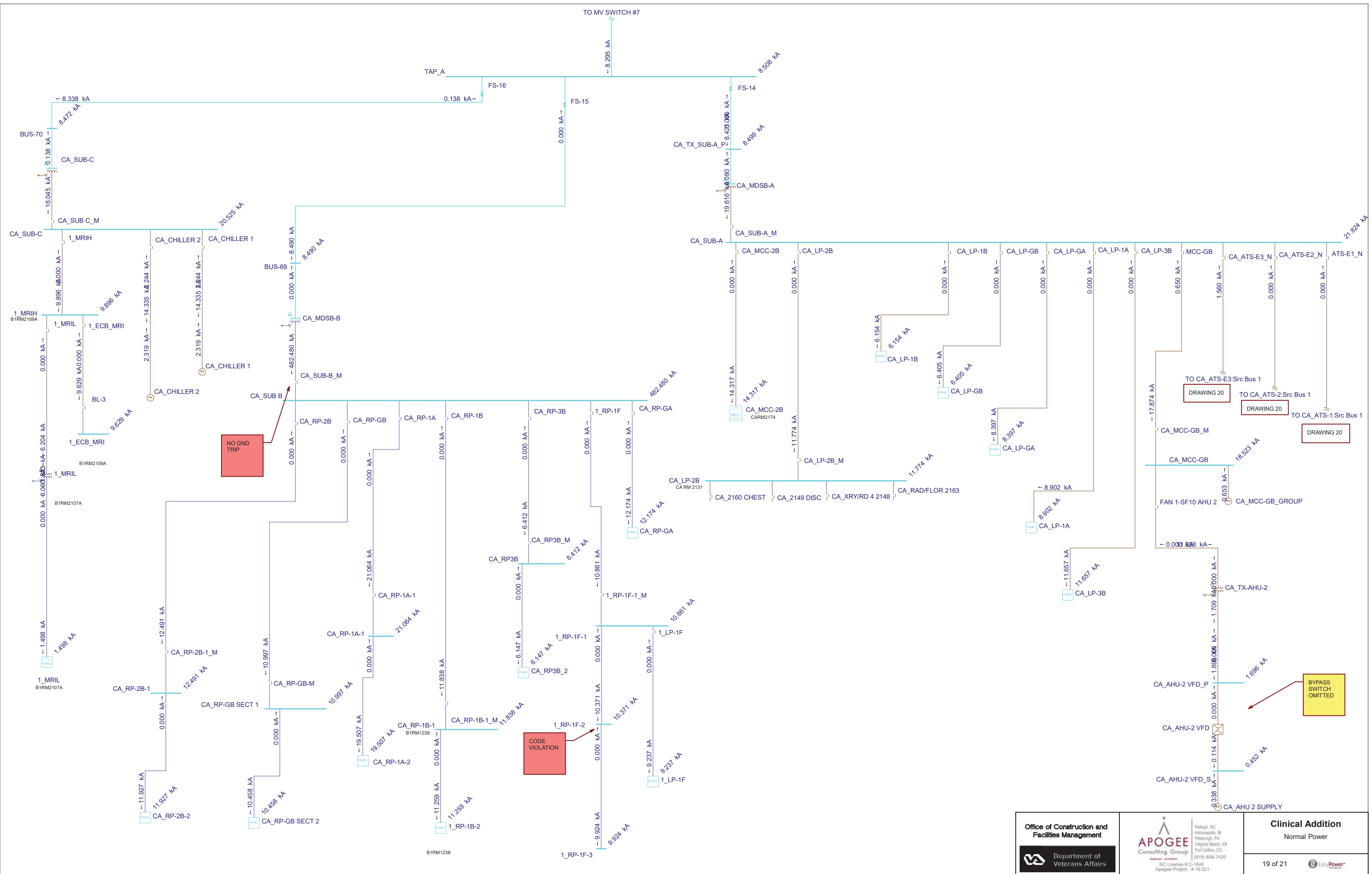
Building 1
Equipment & New Kitchen

17 of 21

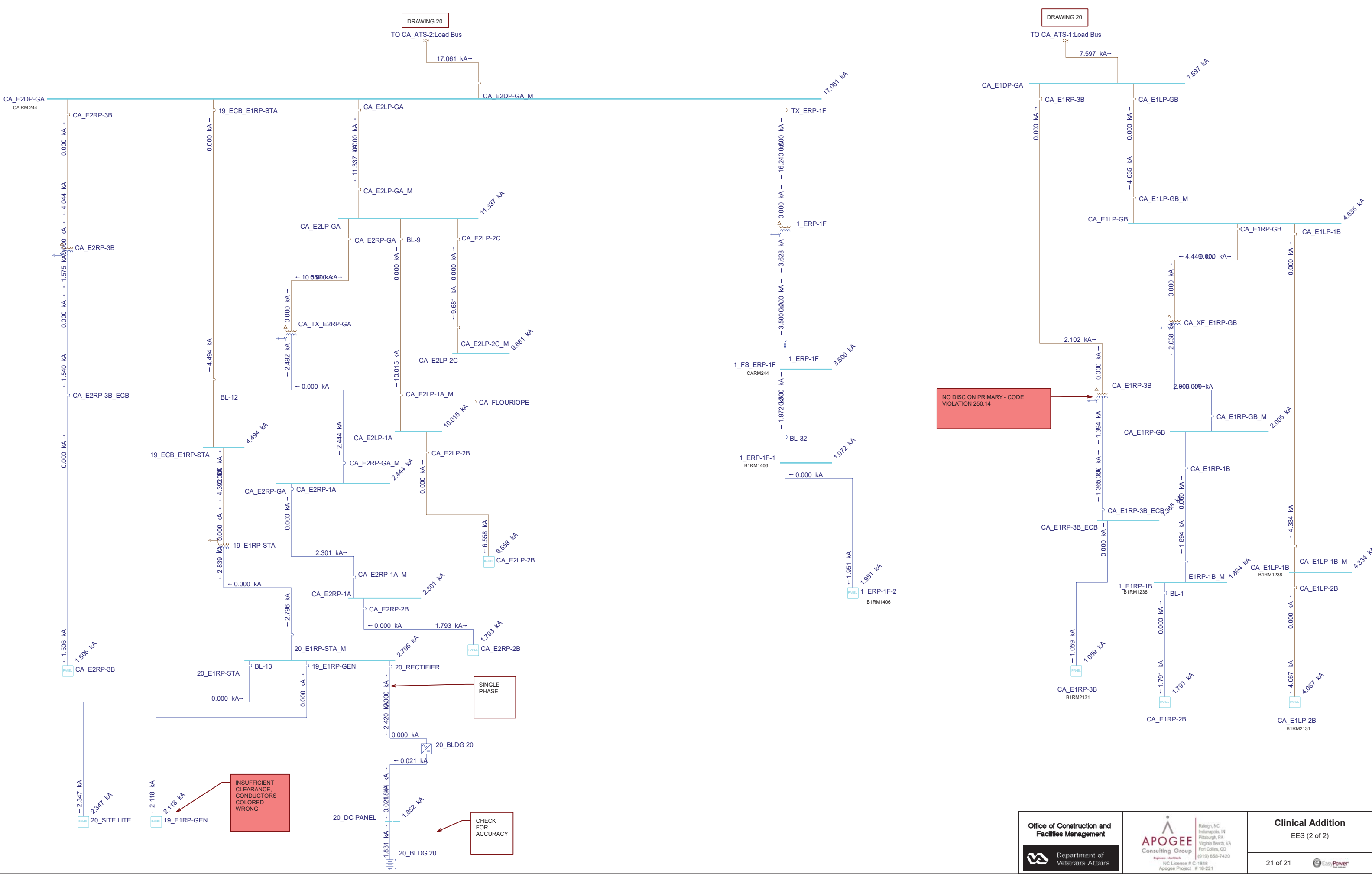


Printed by EasyPower





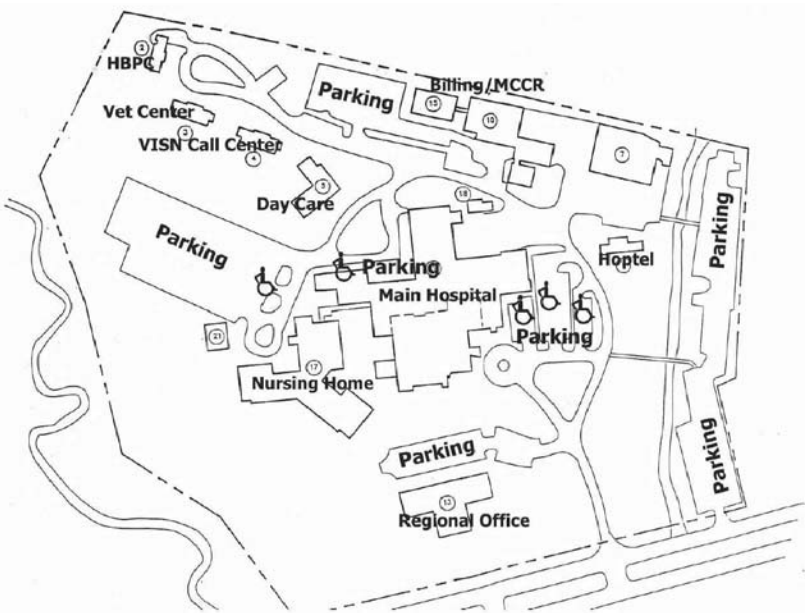




TASK ORDER - VA244-16-P-5704
WILMINGTON VAMC ARC FLASH STUDY

WILMINGTON VA MEDICAL CENTER
1601 KIRKWOOD HWY, WILMINGTON, DE 19805

ARC-FLASH HAZARD ANALYSIS
AS FOUND DRAWINGS



DRAWING LIST:

GENERAL:

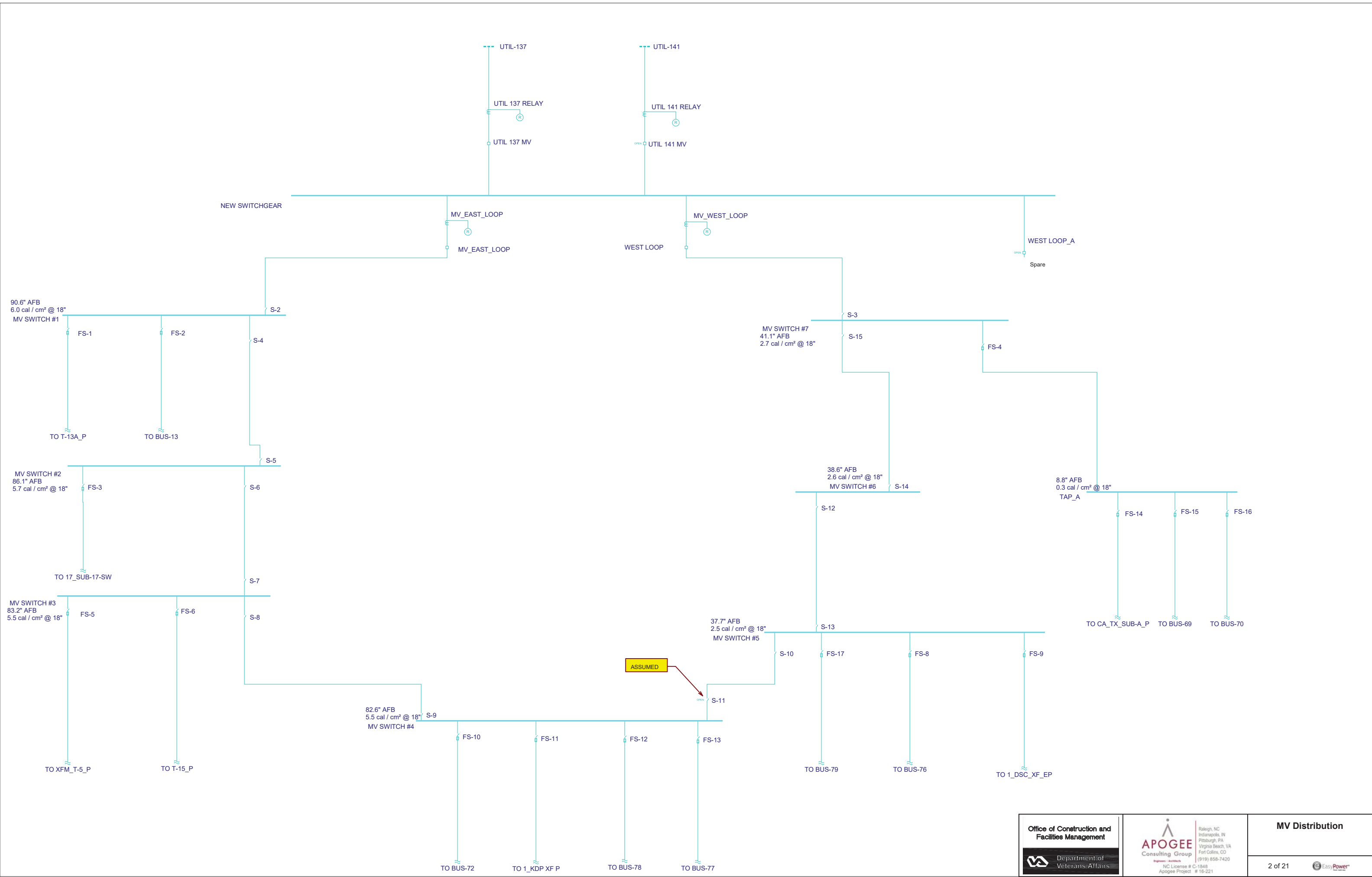
01	COVER SHEET
02	MV DISTRIBUTION
03	BLDG 13
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05	BLDG 5, 4, 3, & 2
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19	CLINICAL ADDITION NORMAL POWER
20	CLINICAL ADDITION EPSS, EES (1 OF 2)
21	CLINICAL ADDITION EES (2 OF 2)

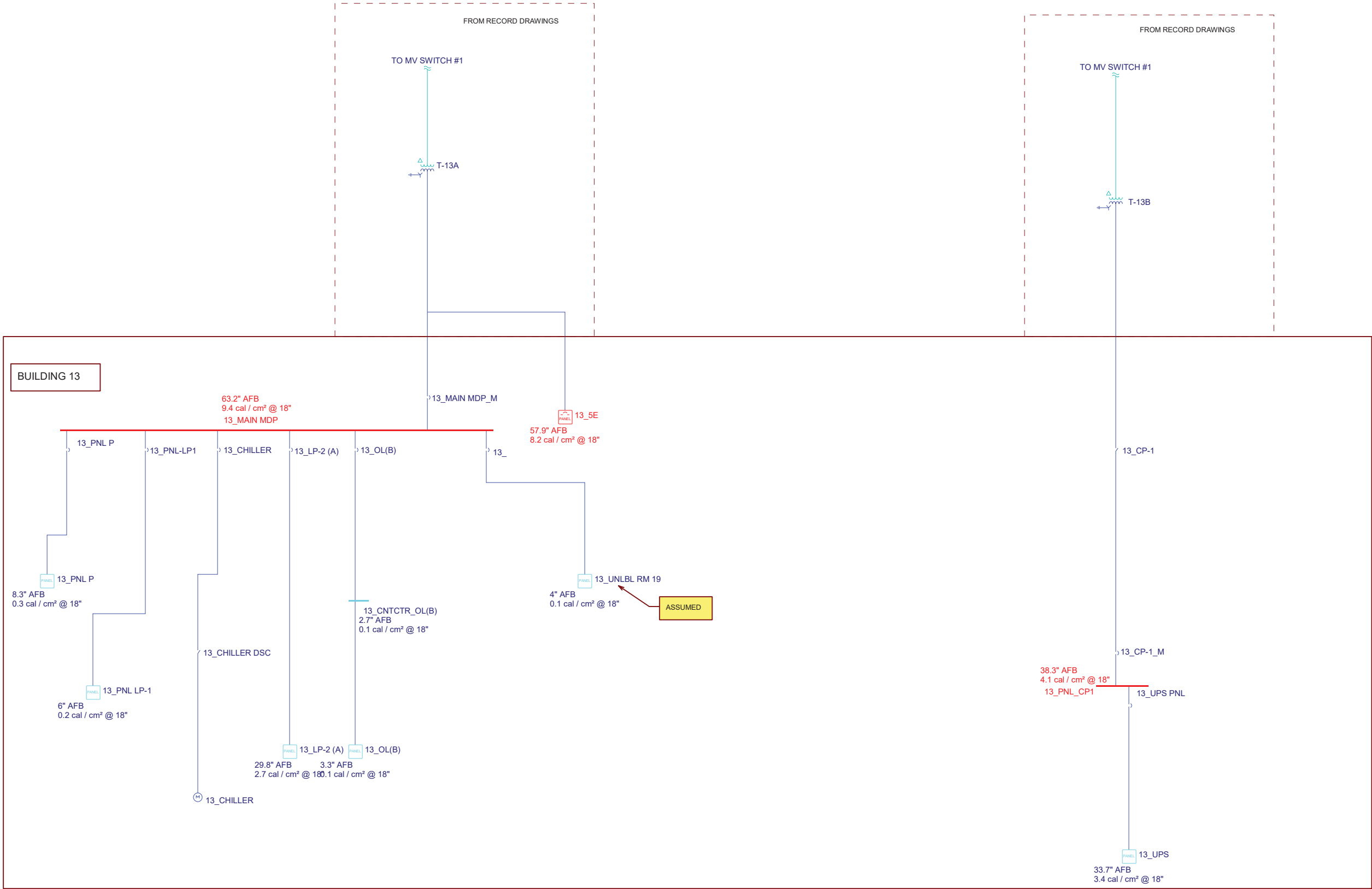
ABBREVIATIONS:

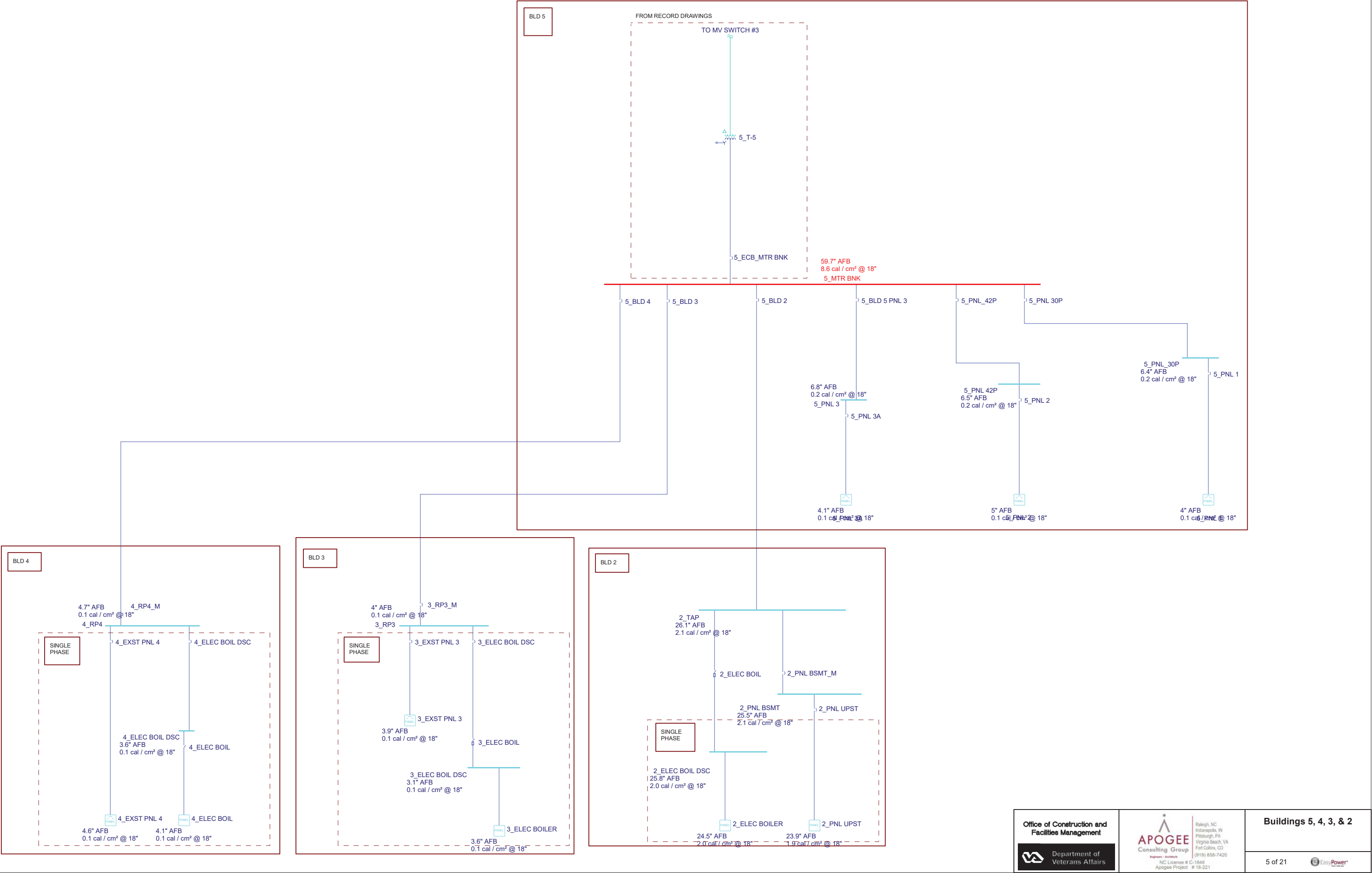
EES	ESSENTIAL ELECTRICAL SYSTEM
EPSS	EMERGENCY POWER SUPPLY SYSTEM
NP	NORMAL POWER

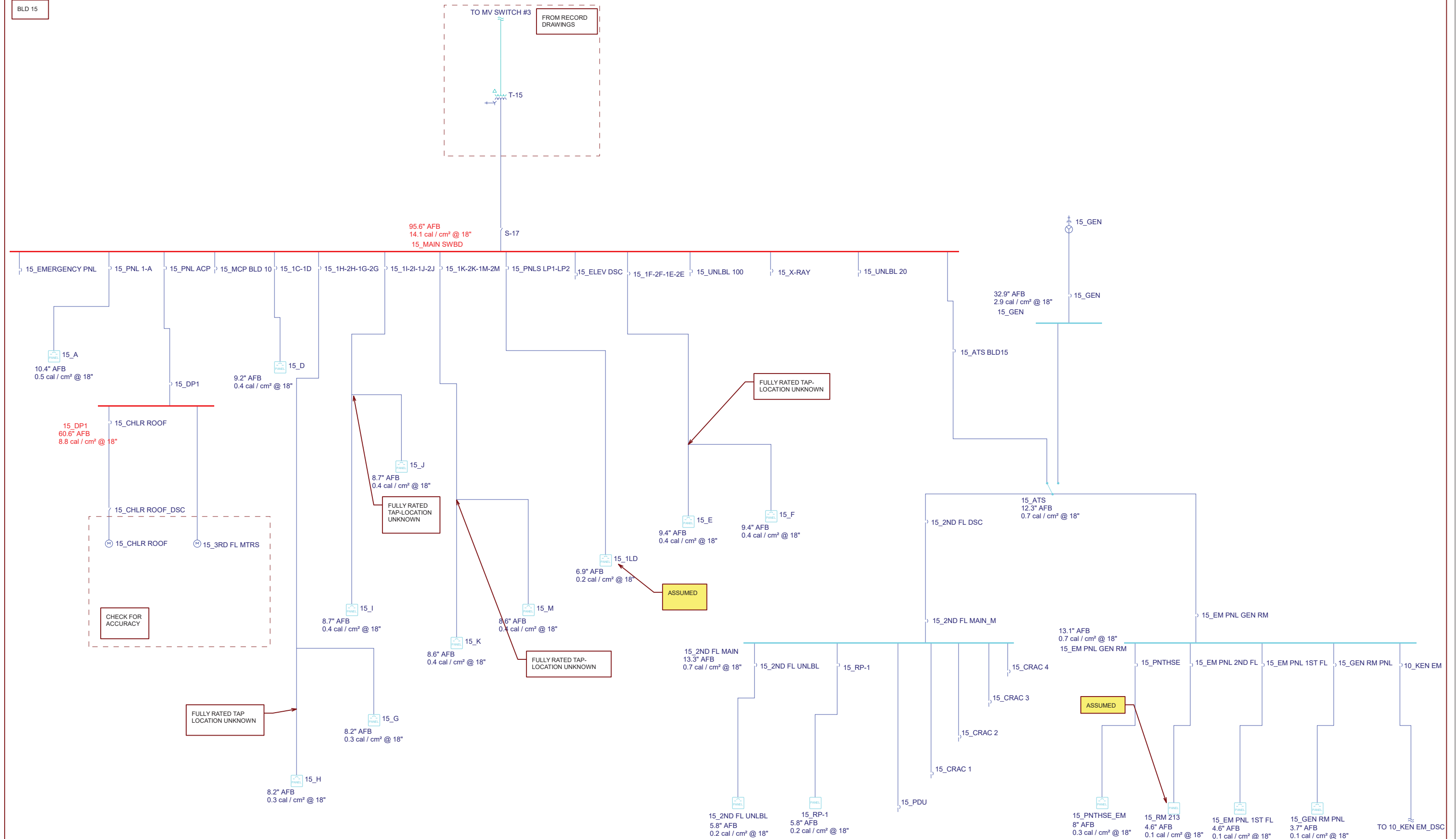
LEGEND

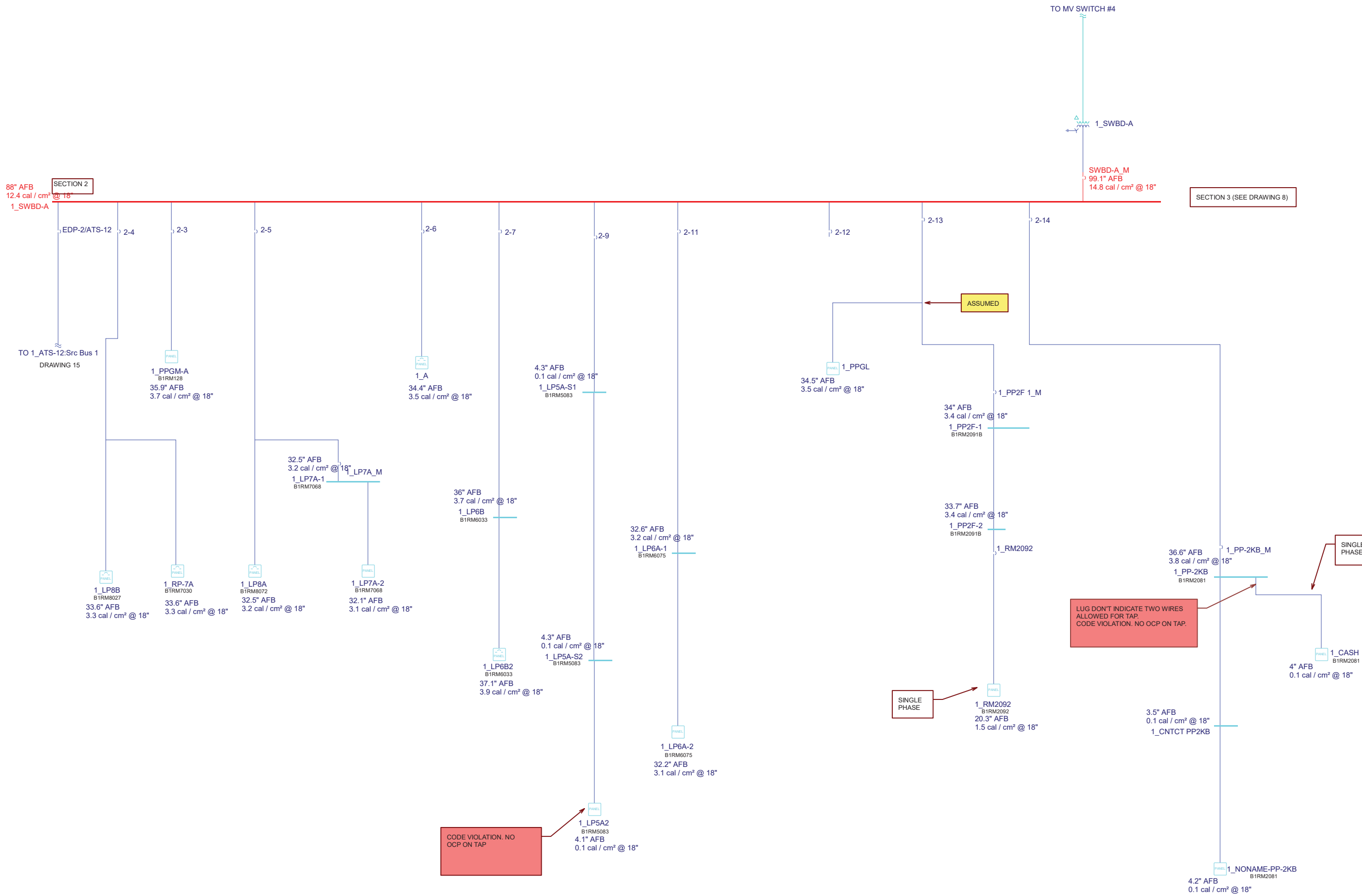
	Utility		Generator
	UPS (Uninterruptable power supply)		Bus
	Panel Schedule		Motor Control Center
	Motor		Capacitor
	Load		Shunt
	Filter		2 Winding Transformer
	3 Winding Transformer		Zig Zag Transformer
	High Voltage Breaker		Low Voltage Breaker
	Fused Breaker		Breaker Contactor
	Switch		Fused Switch
	Fuse Only		Fused Contactor
	ATS (Automatic Transfer Switch)		Current Limiting Reactor
	Relay with CT		Meter

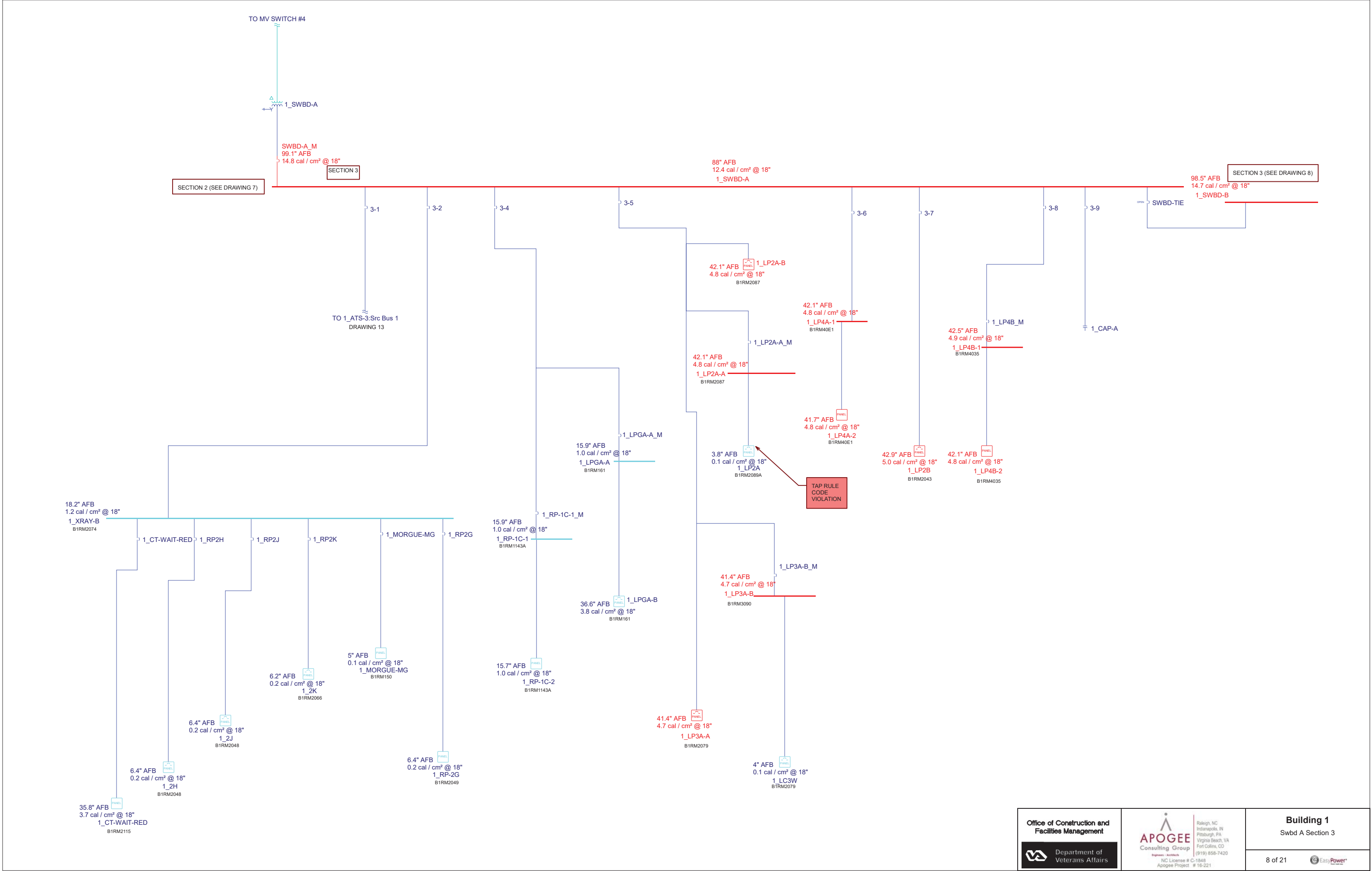


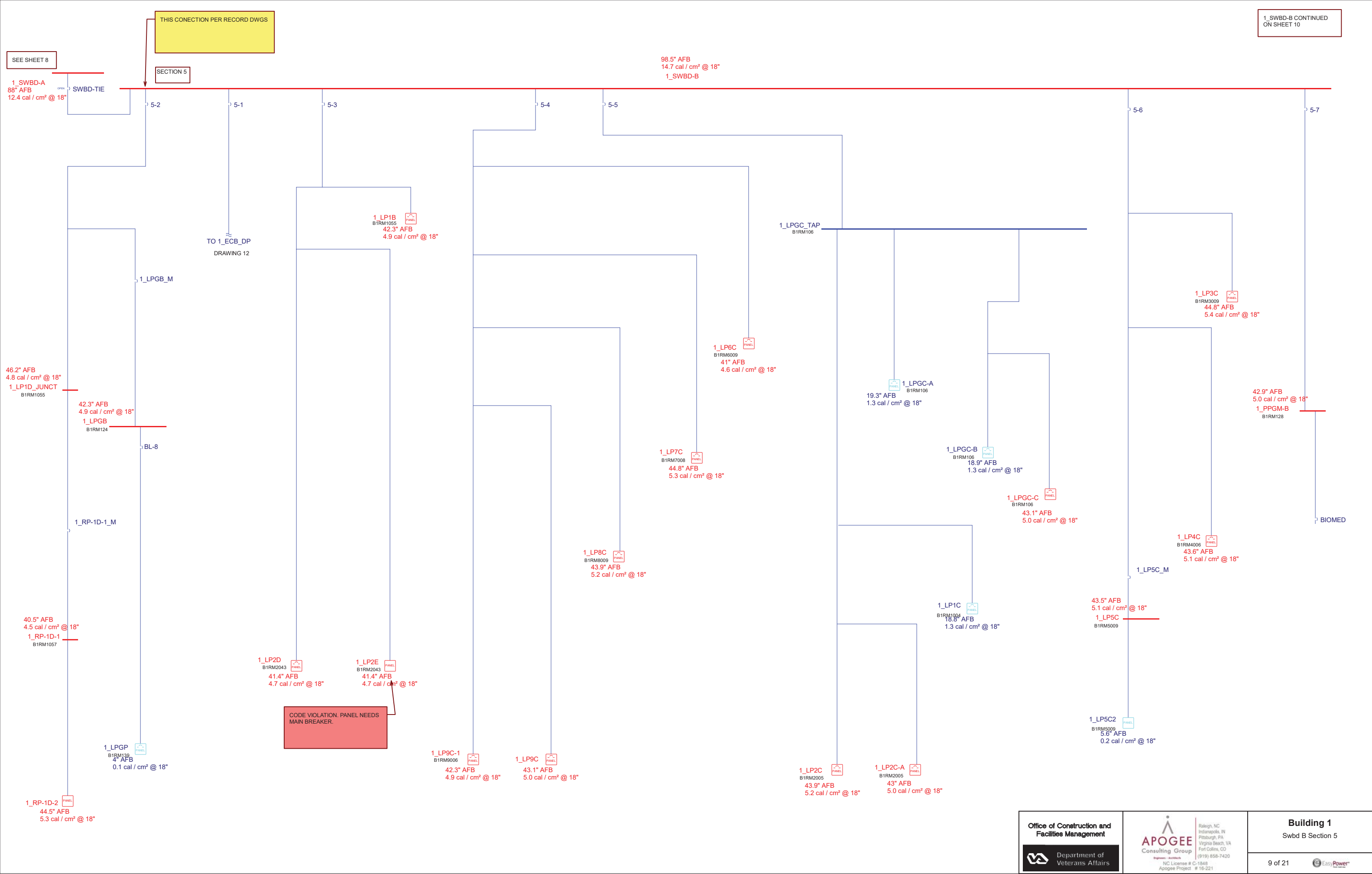




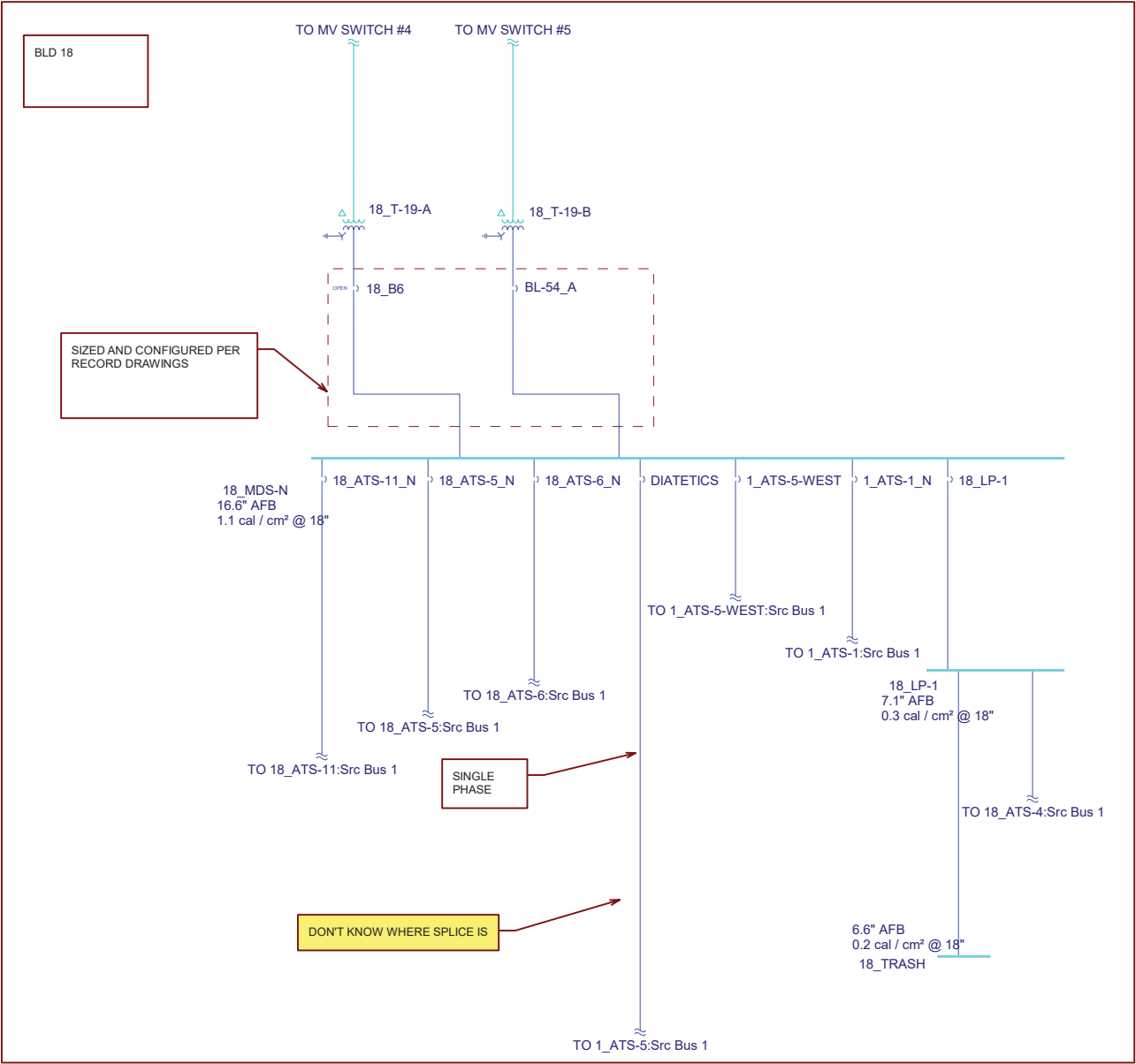
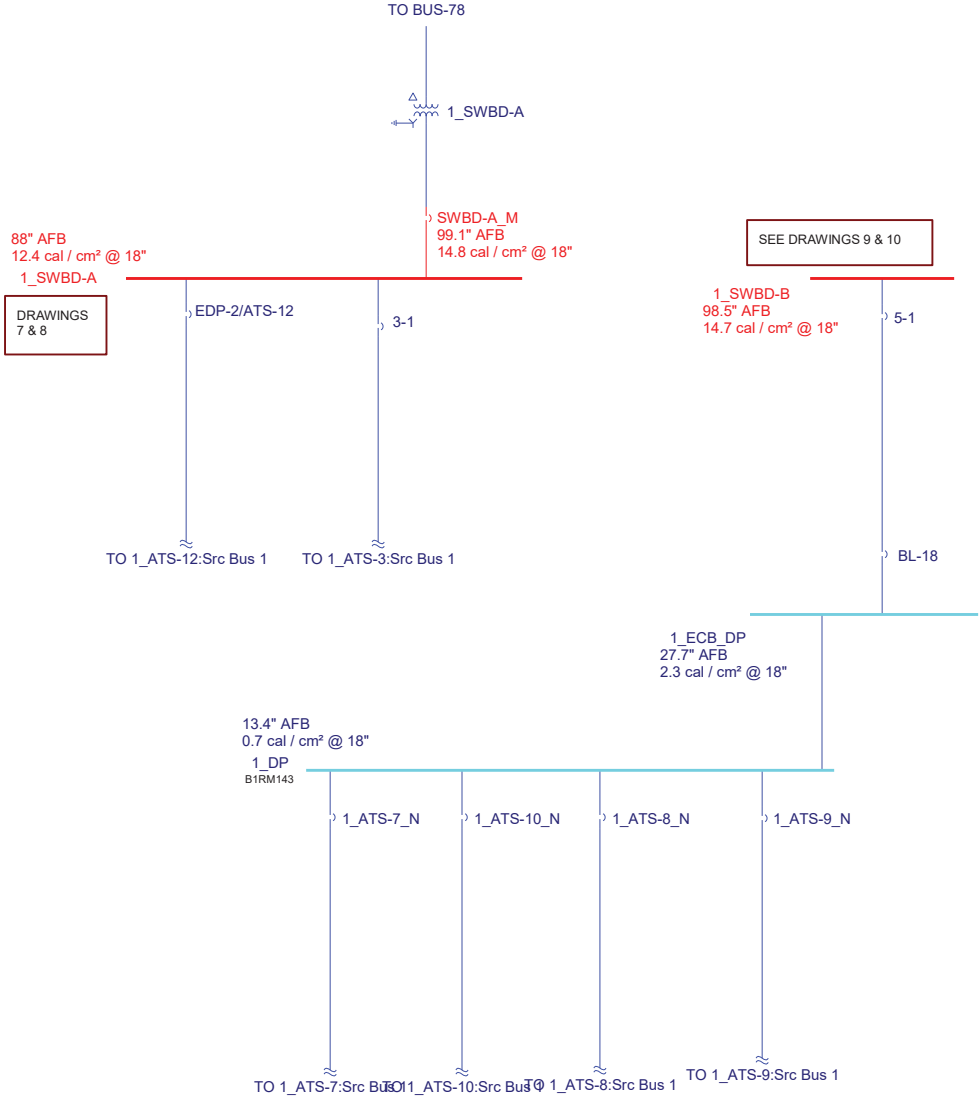


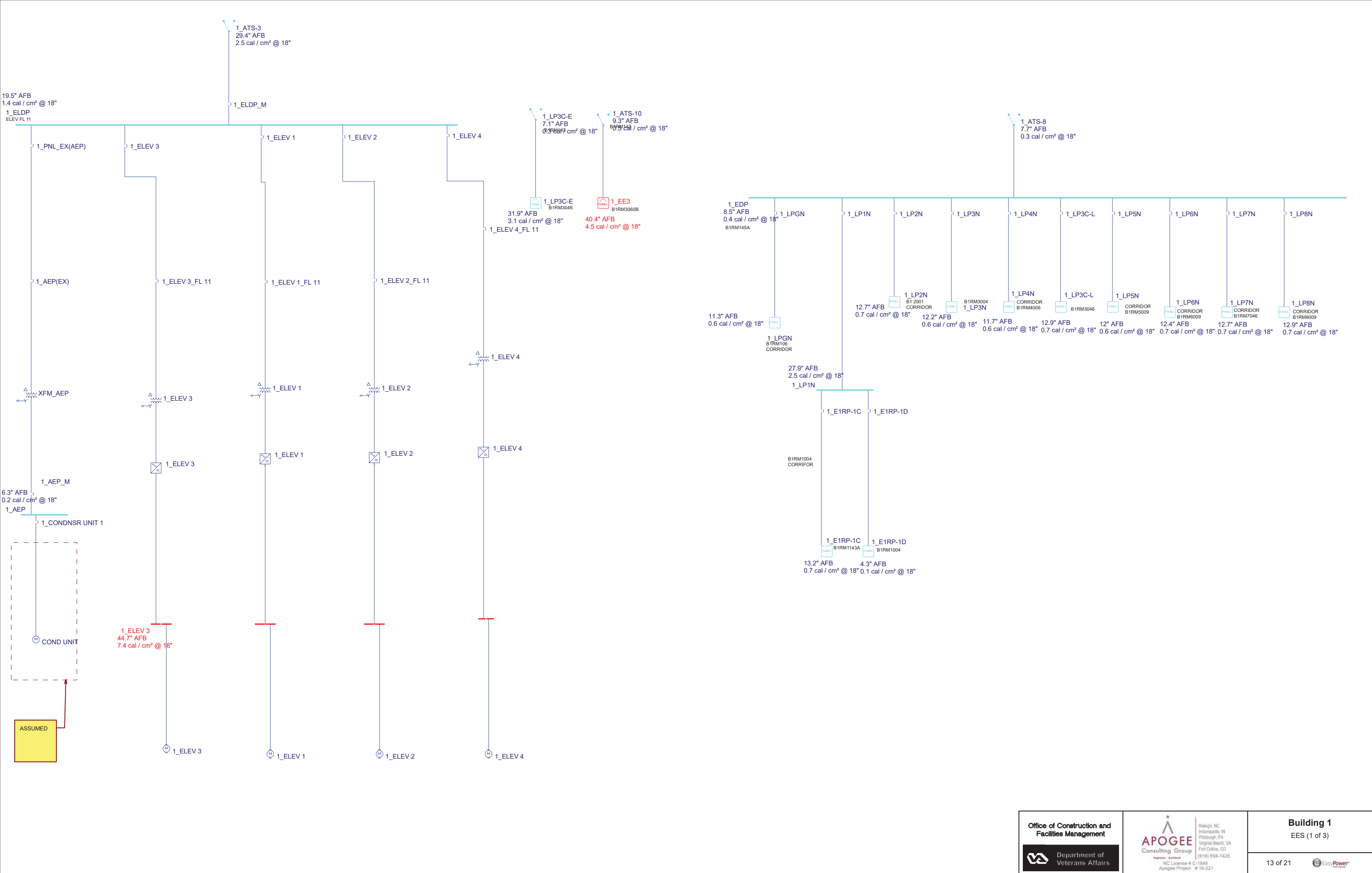


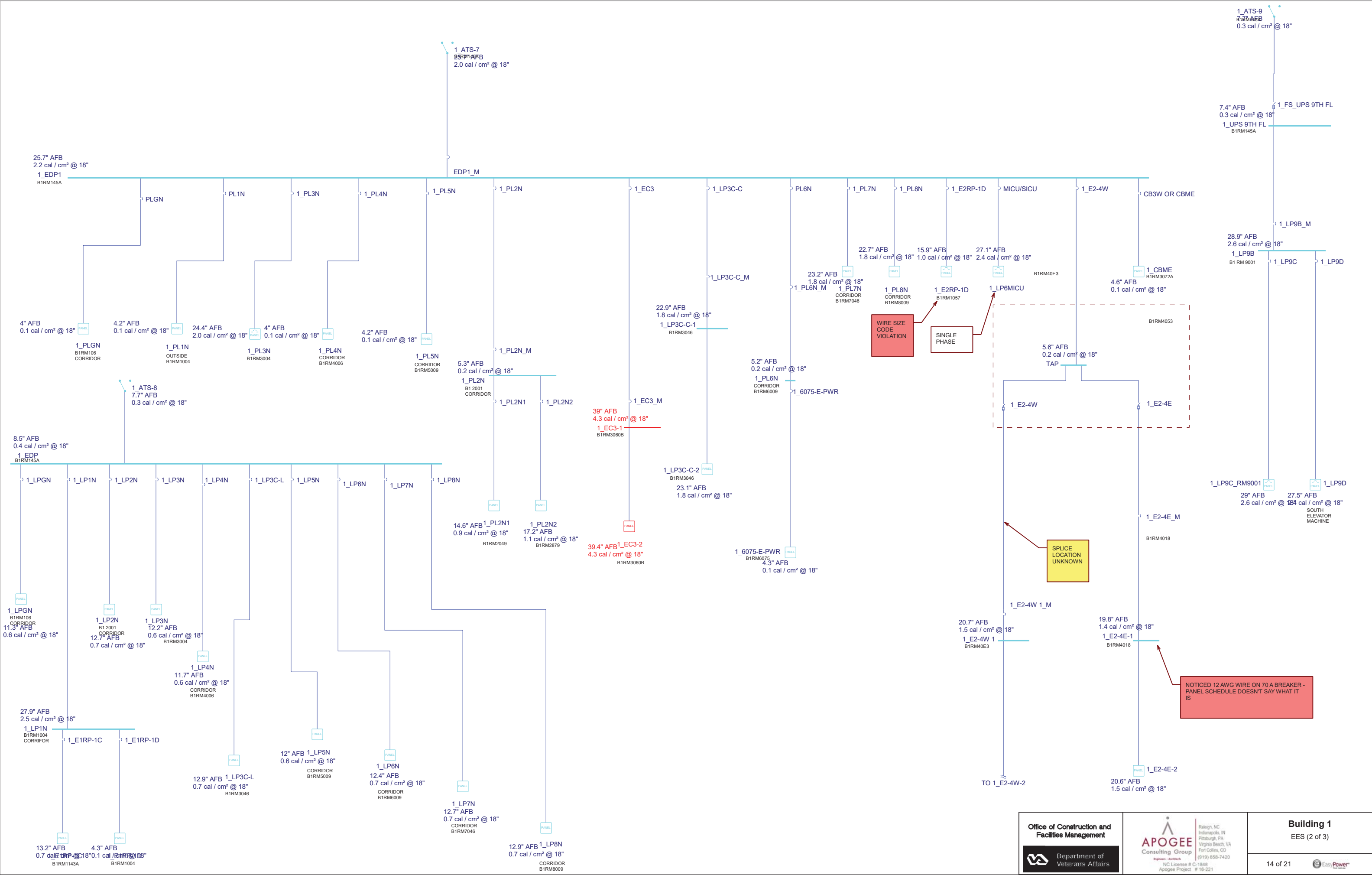


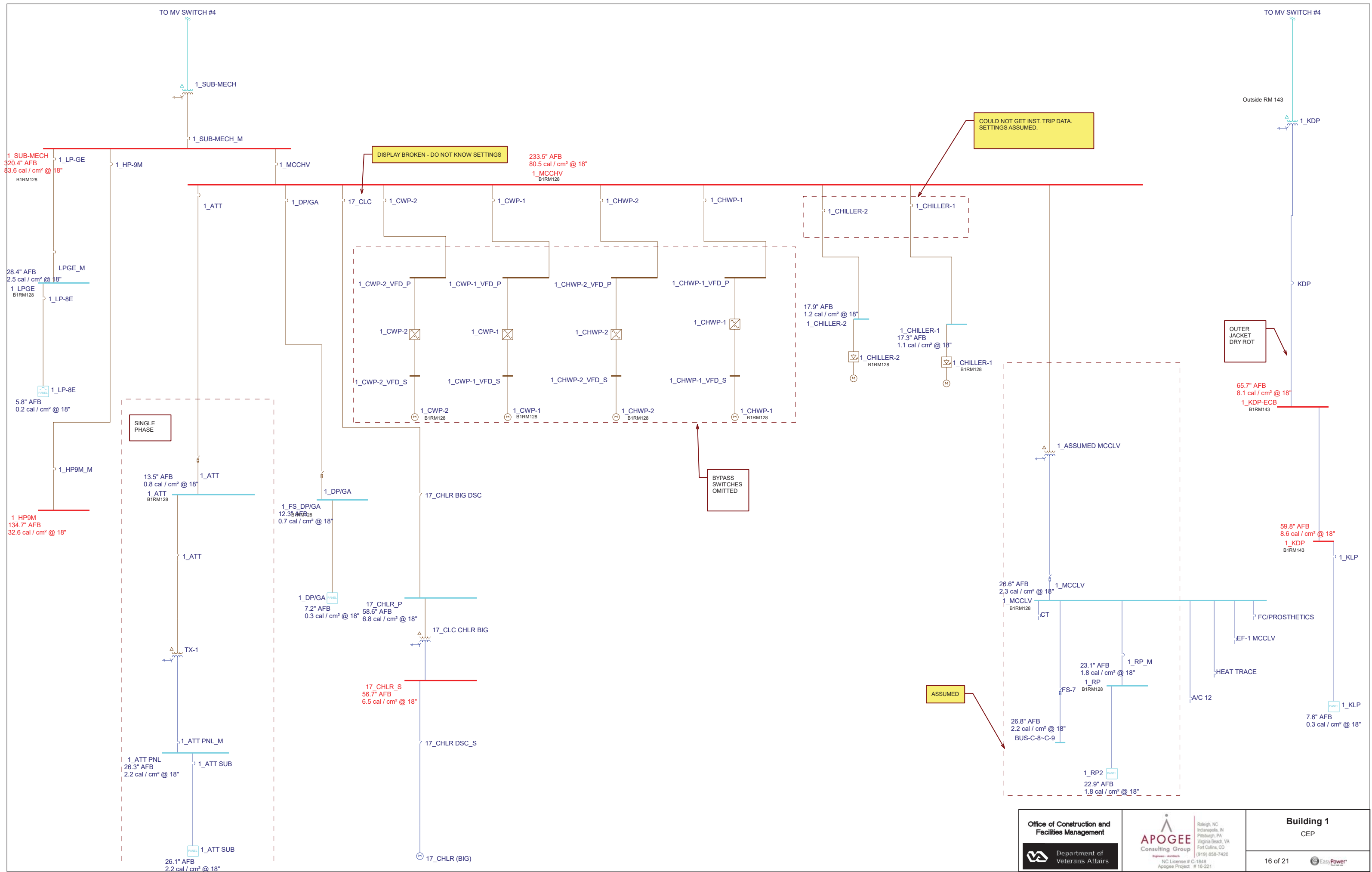


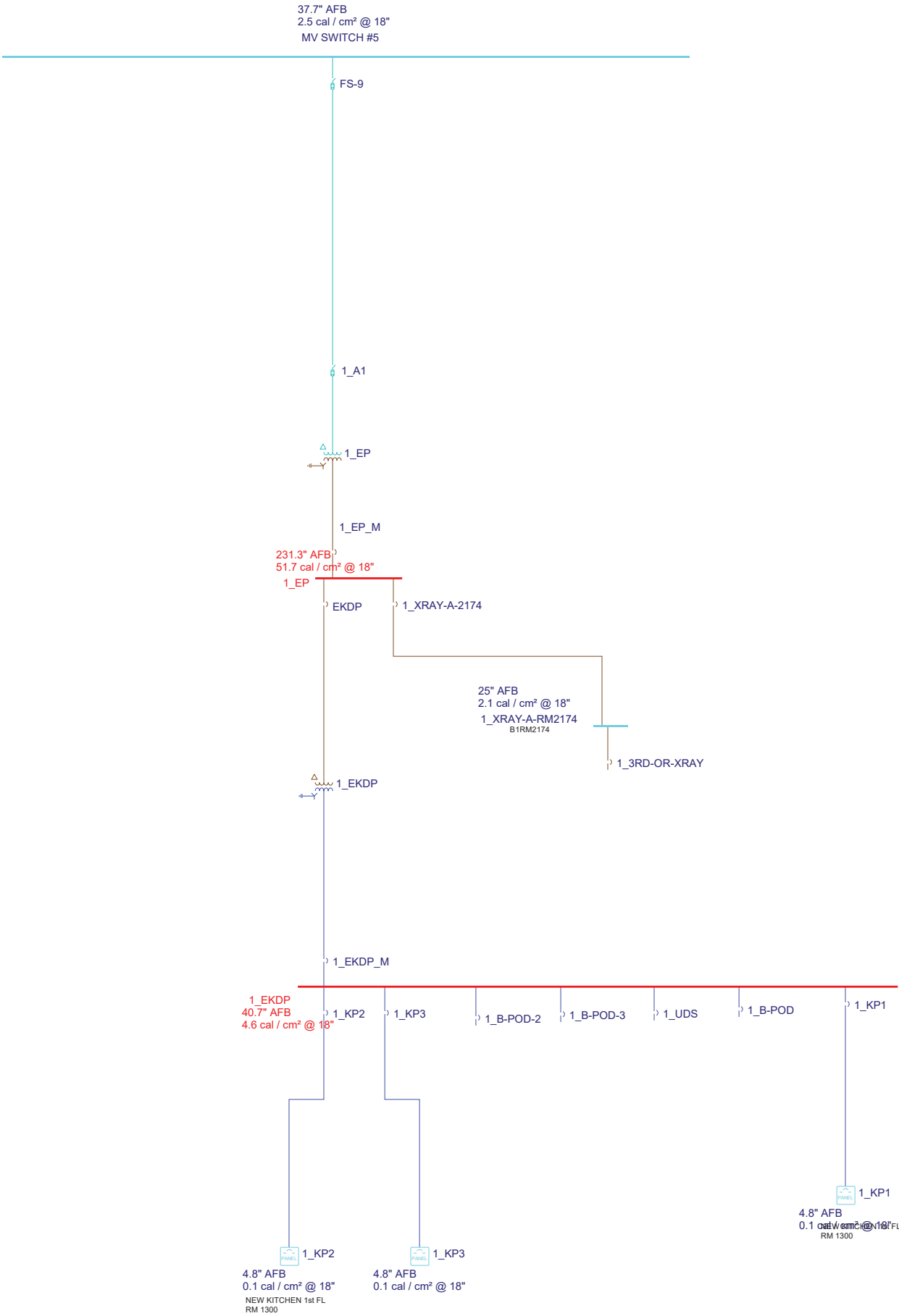


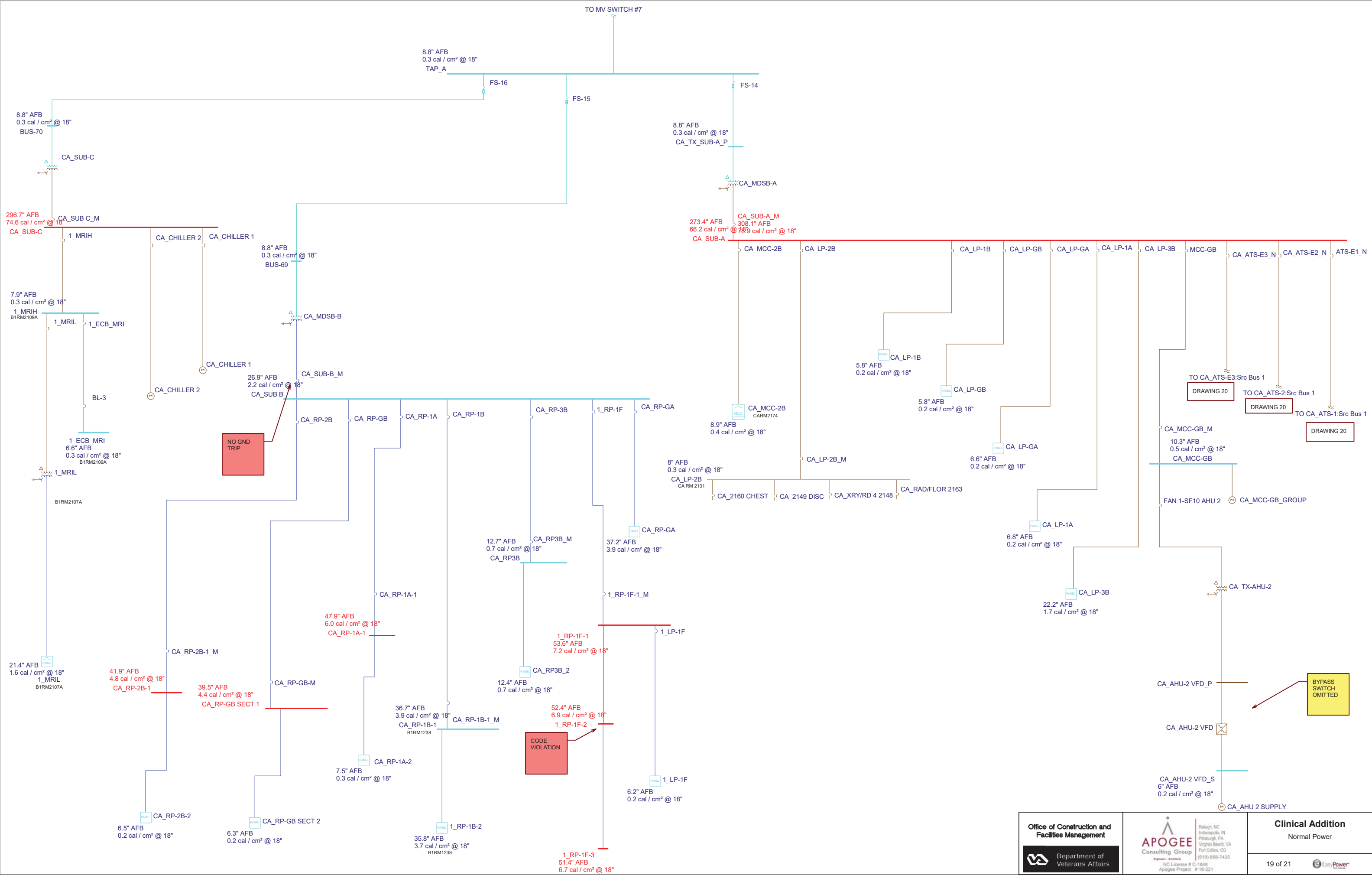


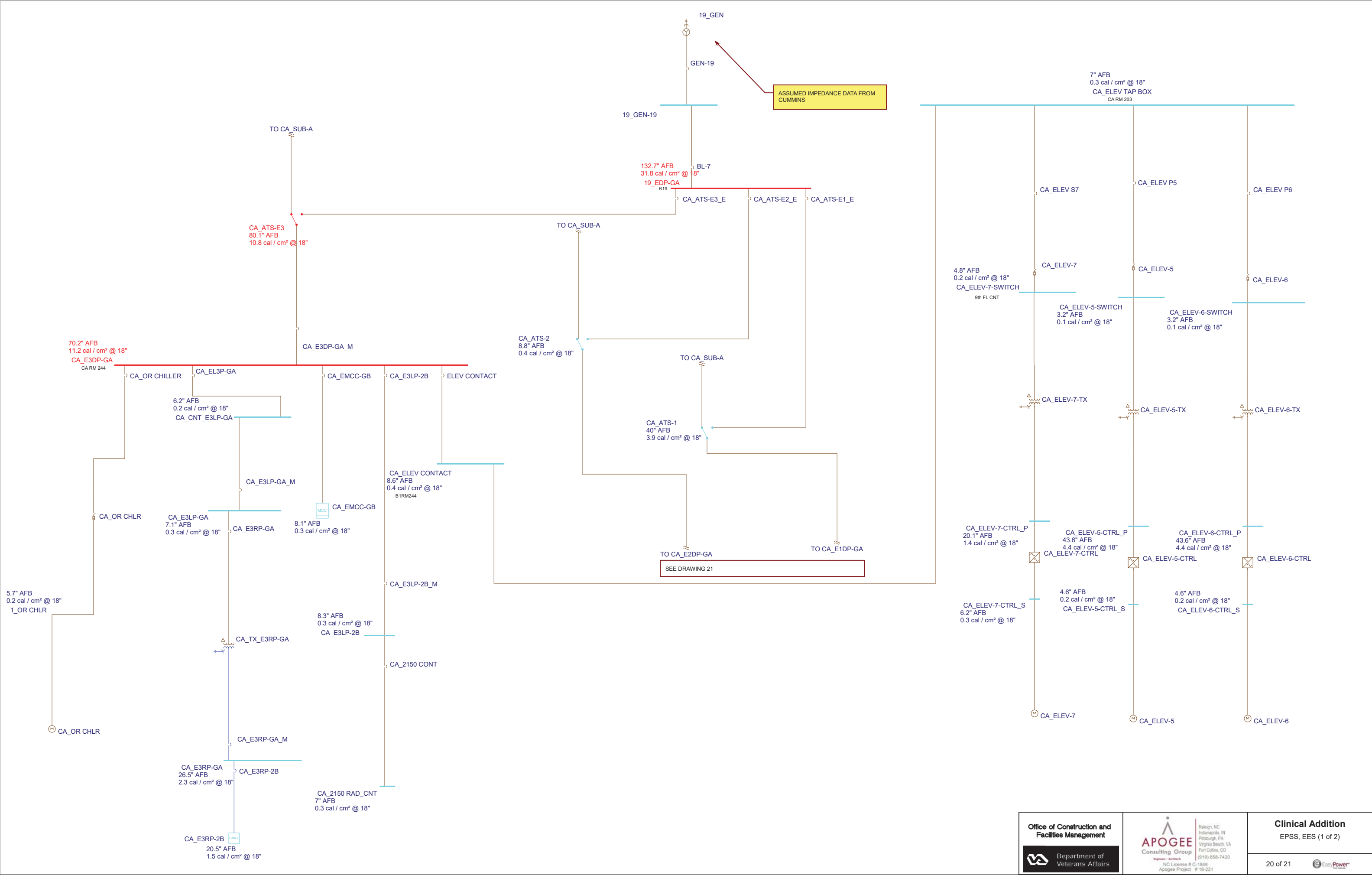


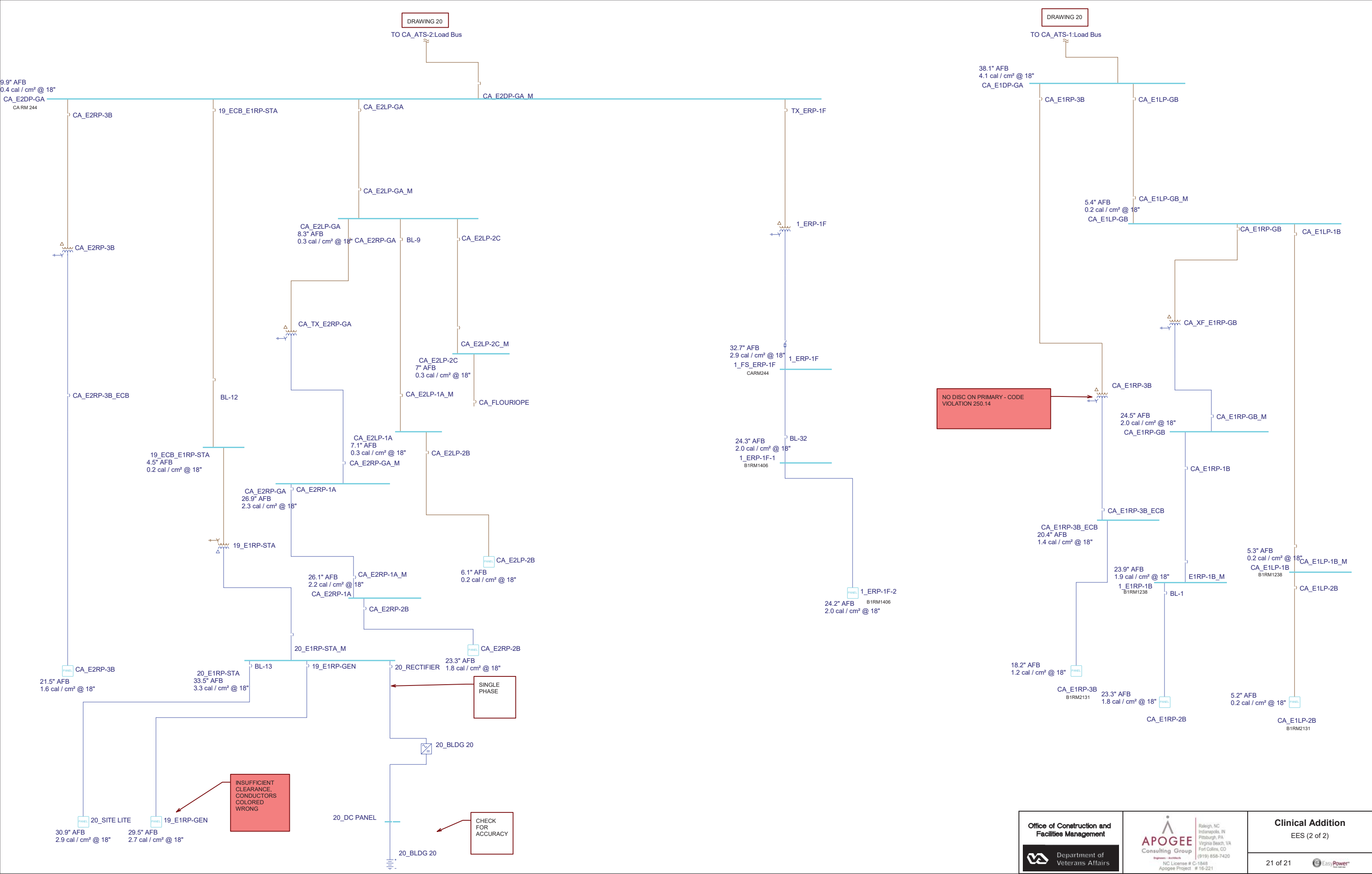








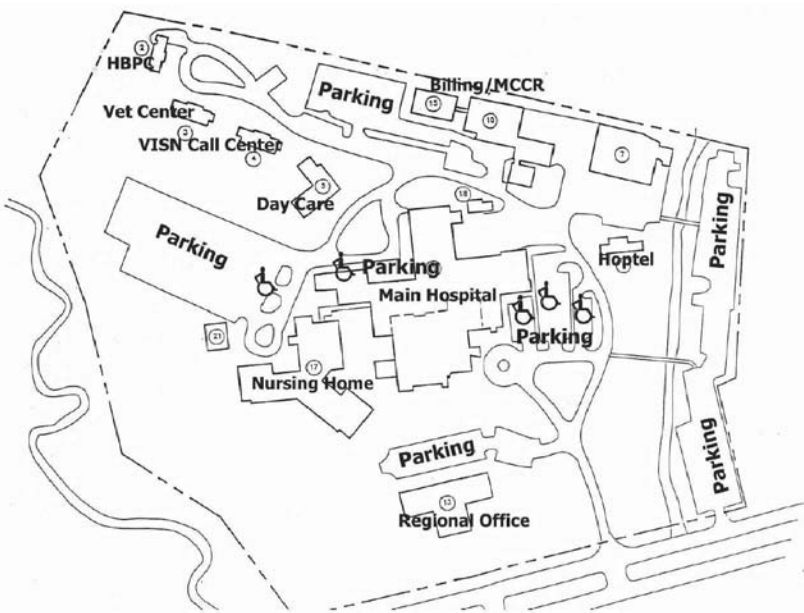




TASK ORDER - VA244-16-P-5704
WILMINGTON VAMC ARC FLASH STUDY

WILMINGTON VA MEDICAL CENTER
1601 KIRKWOOD HWY, WILMINGTON, DE 19805

ARC-FLASH HAZARD ANALYSIS
AS RECOMMENDED DRAWINGS



DRAWING LIST:

GENERAL:

01	COVER SHEET
02	MV DISTRIBUTION
03	BLDG 13
04	BLDG 17
05	BLDG 5, 4, 3, & 2
06	BLDG 15
07	BLDG 1 SWBD A SECTION 2
08	BLDG 1 SWBD A SECTION 3
09	BLDG 1 SWBD B SECTION 5
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19	CLINICAL ADDITION NORMAL POWER
20	CLINICAL ADDITION EPSS, EES (1 OF 2)
21	CLINICAL ADDITION EES (2 OF 2)

ABBREVIATIONS:

EES	ESSENTIAL ELECTRICAL SYSTEM
EPSS	EMERGENCY POWER SUPPLY SYSTEM
NP	NORMAL POWER

LEGEND

	Utility		Generator
	UPS (Uninterruptable power supply)		Bus
	Panel Schedule		Motor Control Center
	Motor		Capacitor
	Load		Shunt
	Filter		2 Winding Transformer
	3 Winding Transformer		Zig Zag Transformer
	High Voltage Breaker		Low Voltage Breaker
	Fused Breaker		Breaker Contactor
	Switch		Fused Switch
	Fuse Only		Fused Contactor
	ATS (Automatic Transfer Switch)		Current Limiting Reactor
	Relay with CT		Meter

