



MCW Consultants Ltd.

Site Instruction

Date: November 11, 2016

Queen's Quay Terminal
207 Queen's Quay West, Suite 615
Toronto, Ontario M5J 1A7

Phone (416) 598-2920
Fax (416) 598-5394
www.mcw.com

Project Name: AQUAVISTA - Bayside
Client: TRIDEL Corporation
To: TRIDEL Corporation
Attention: Chadi Loza
Fax number: -

Project No.: 8489D
SI No.: E 005
Page No.: 1 of 1+ 2 Attached
Office: Toronto
From: Sunanda Perera

Distribution: Vince Mirarchi –TRIDEL
Chadi Loza - TRIDEL
Christina Lee -KIRKOR
Al Medeiros –MCW
Michael Hunter-MCW
Mark Furtado-MCW
Sarfraz H. Jaffrey-MCW

Provide itemized labour, equipment and material costs for Work listed below. Do not proceed with any of the listed Work prior to issuance of signed Change Order.

Title: Filtration Pumps.

Specification:

Spec	Issued	Items
P-6P1RCME	No	- Delete the elevator #12 feeder connection from panel 'P-6P1RCME'. - Leave the breaker as spare.

Electrical:

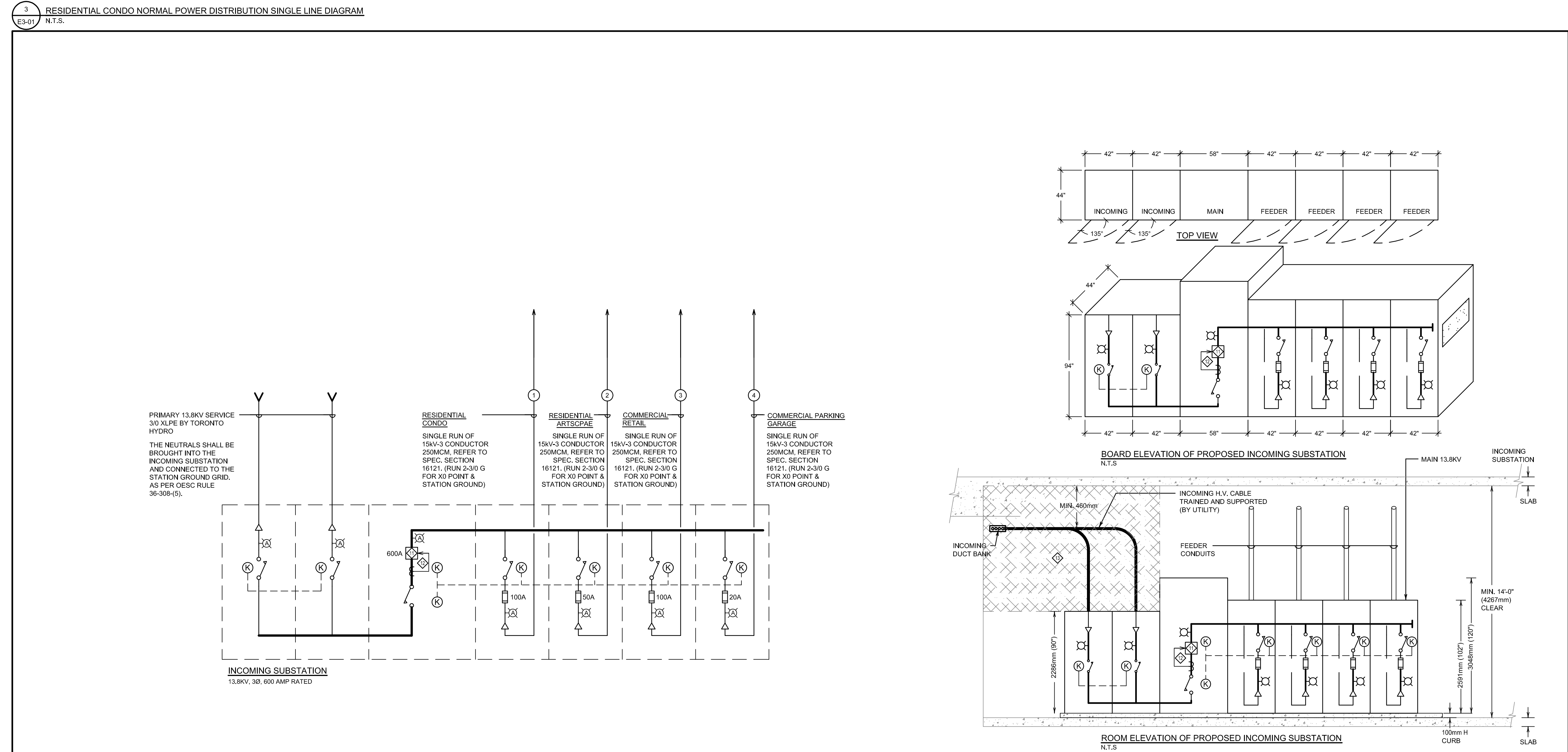
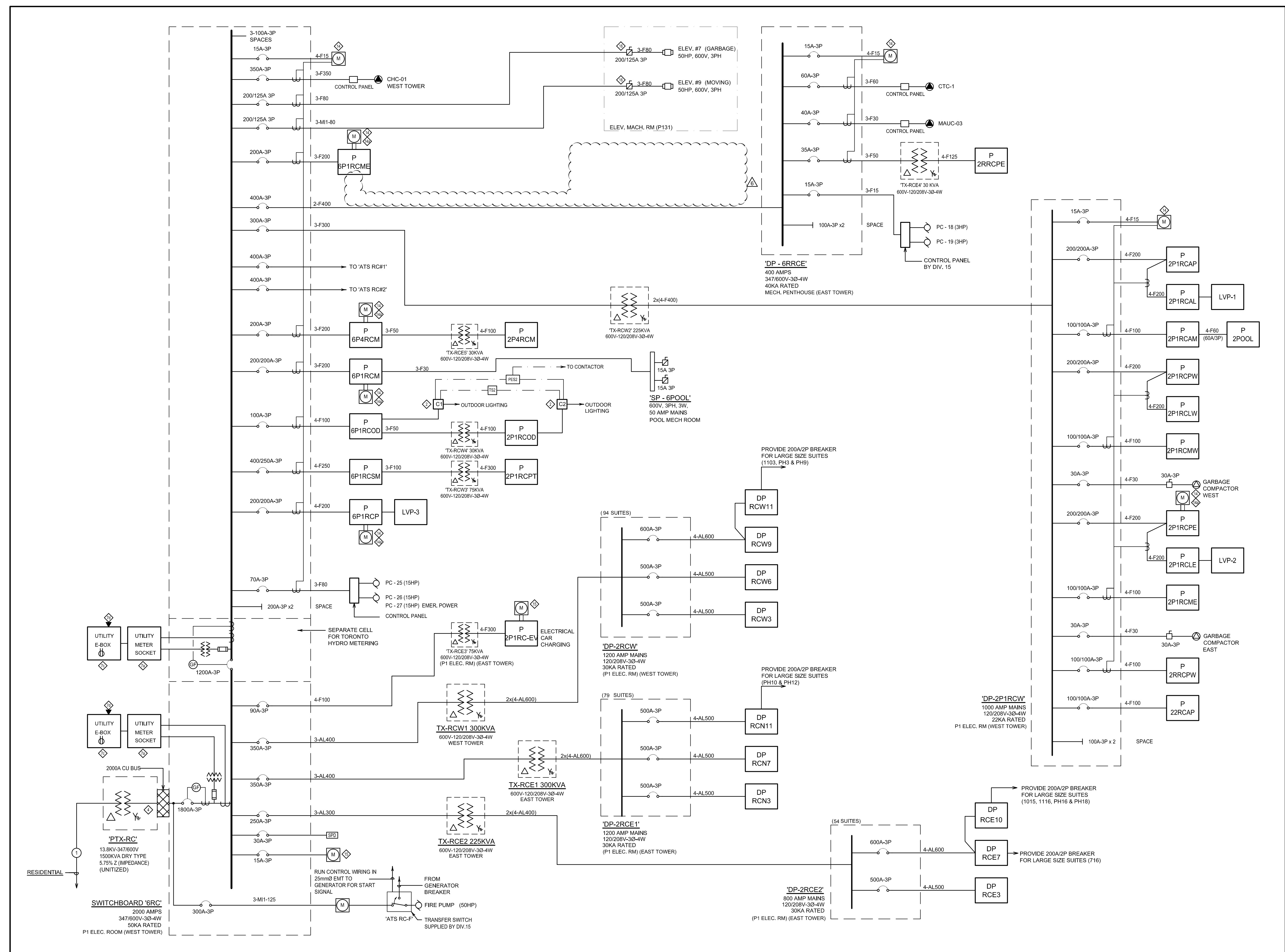
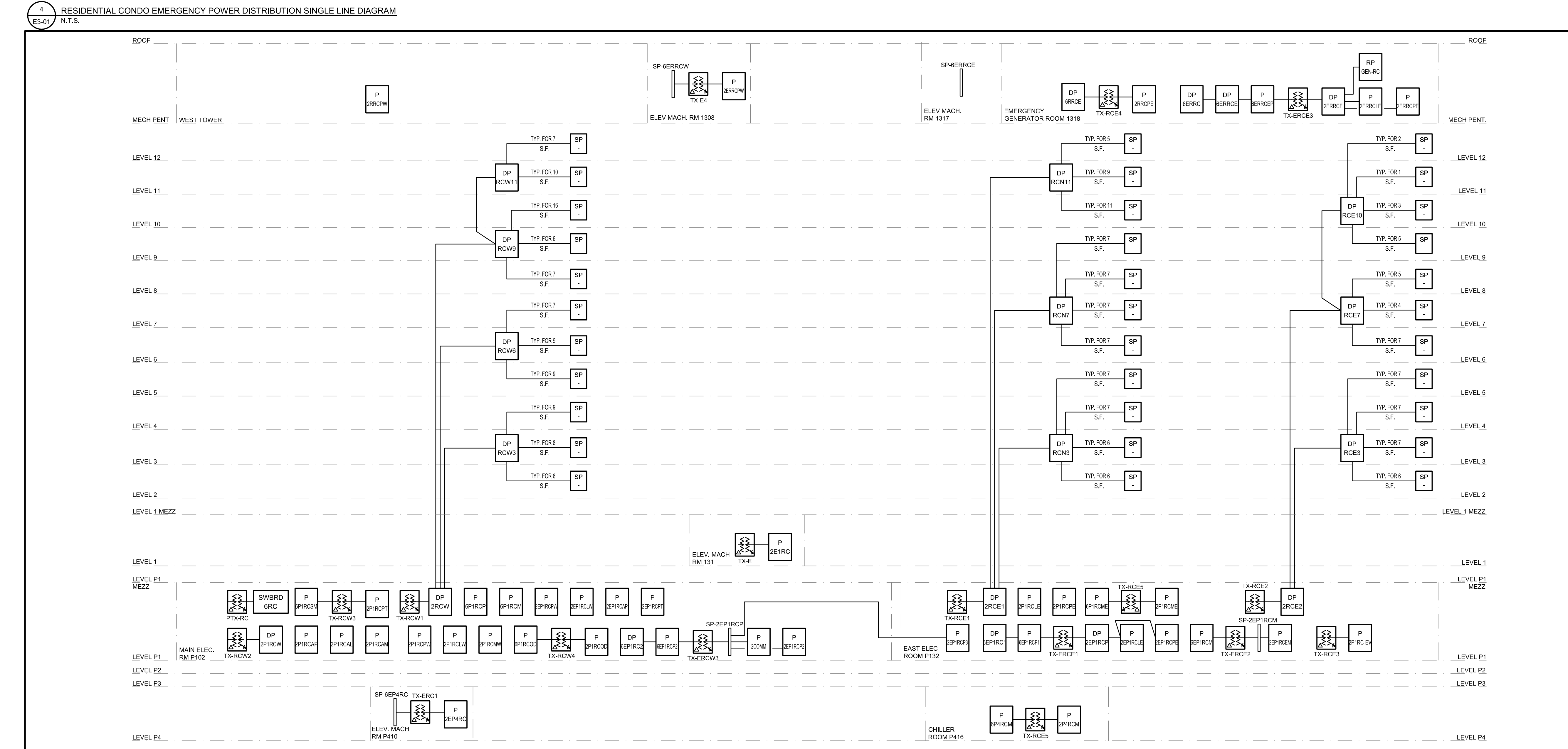
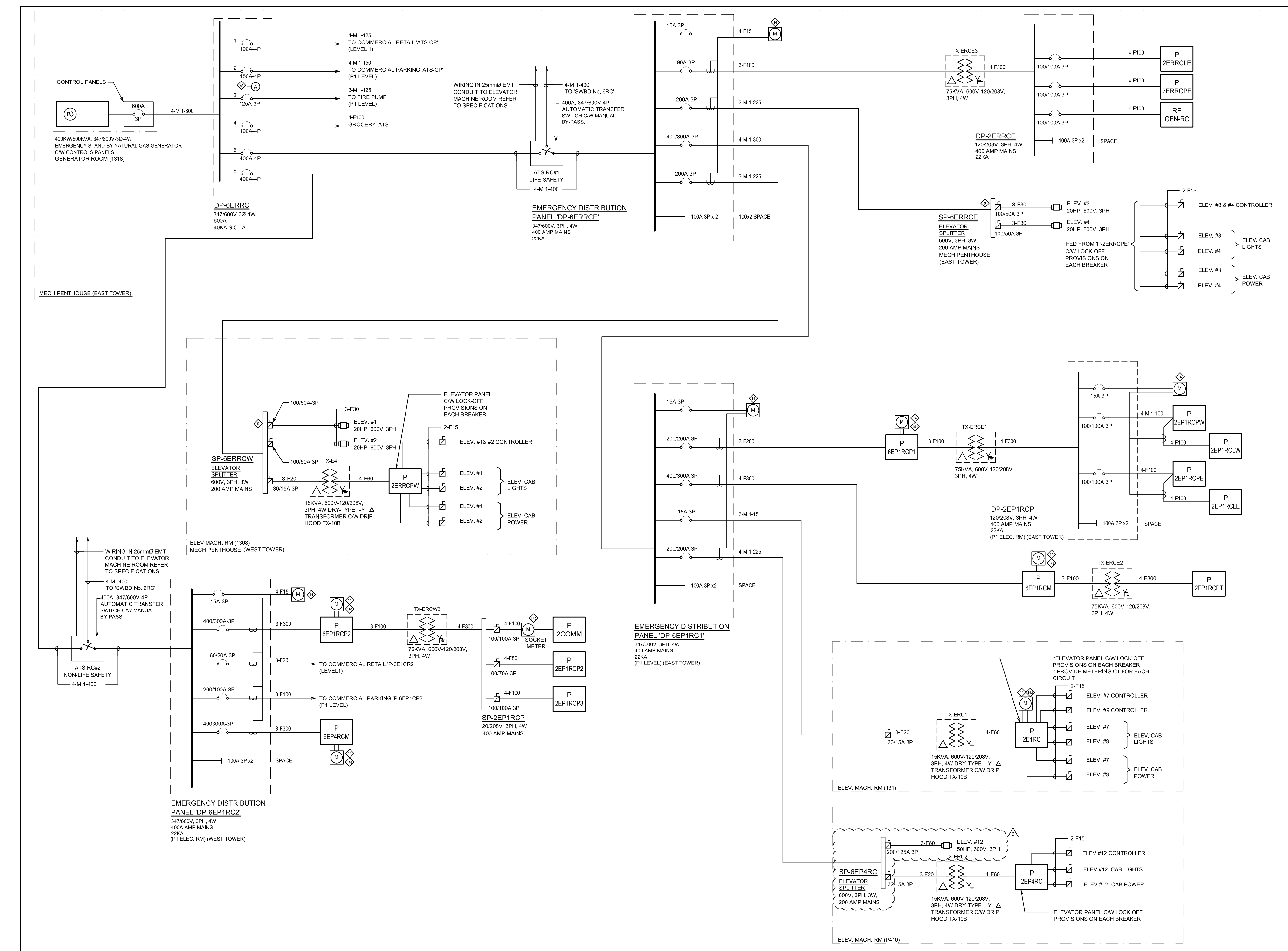
Drawing No.	Drawing Issued	Items
E3-01-RC	Yes	- Add a splitter in the elevator machine room 'P 410' and connect the feeder assigned to elevator auxiliary power to that splitter. - Feed the elevator and auxiliary power transformer from the added splitter as shown.

ME Schedule:

Drawing No.	Drawing Issued	Items
-	-	N/A.

Reason for Issue - Owner Request.

End of SI-E005



600V 2 HOUR FIRE RATED M/CABLE SCHEDULE									
ALL CONDUCTORS SHALL BE 600V									
	REF	SINGLE CONDUCTOR		BGE	THREE CONDUCTORS	REF	SINGLE CONDUCTOR		BGE
		MAX PERMITTED SIZE	AMP				MAX PERMITTED SIZE	AMP	
ONE CONDUCTOR	15	MIL-15	16	10	15	MIL-15	16	10	10
	20	MIL-20	20	12	20	MIL-20	20	120	120
	30	MIL-30	30	16	30	MIL-30	30	160	160
	40	MIL-40	40	20	40	MIL-40	40	200	200
	50	MIL-50	50	25	50	MIL-50	50	250	250
	60	MIL-60	60	30	60	MIL-60	60	300	300
	75	MIL-75	75	40	75	MIL-75	75	400	400
	125	MIL-125	125	4	85	MIL-85	85	475	475
	150	MIL-150	150	5	100	MIL-100	100	500	500
	175	MIL-175	175	10					
TWO CONDUCTORS	15	MIL-15	16	10					
	20	MIL-20	20	12					
	30	MIL-30	30	16					
	40	MIL-40	40	20					
	50	MIL-50	50	25					
	60	MIL-60	60	30					
	75	MIL-75	75	40					
	125	MIL-125	125	4					
	150	MIL-150	150	5					
	175	MIL-175	175	10					
THREE CONDUCTORS	15	MIL-15	16	10					
	20	MIL-20	20	12					
	30	MIL-30	30	16					
	40	MIL-40	40	20					
	50	MIL-50	50	25					
	60	MIL-60	60	30					
	75	MIL-75	75	40					
	125	MIL-125	125	4					
	150	MIL-150	150	5					
	175	MIL-175	175	10					
FOUR CONDUCTORS	15	MIL-15	16	10					
	20	MIL-20	20	12					
	30	MIL-30	30	16					
	40	MIL-40	40	20					
	50	MIL-50	50	25					
	60	MIL-60	60	30					
	75	MIL-75	75	40					
	125	MIL-125	125	4					
	150	MIL-150	150	5					
	175	MIL-175	175	10					

NOTE

1. THIS TABLE IS BASED ON CONDUCTORS SUPPLYING INITIAL CURRENT TO THE LOAD OR OTHER CONDUCTORS USED AS NEUTRAL OR FOR CONTROL SIGNALS. EXCEPTING FACTORS SHALL APPLY TO ALL 4/0 CONDUCTORS IS USED AS CURRENT CARRYING CONDUCTORS.

UPDATED JAN. 2015.

CABLE & CONDUIT SCHEDULE - NIAL							
MAX BREAKER SIZE	REF	WIRE SIZE (MCM)	WIRE SIZE (FT/C)	CORRECTED AMP (BY 90°C)	CONDUIT SIZE	CONDUIT TYPE	CONDUIT CONNECTION
150	AL50	#2	500	75	41 (1110)	40	40
120	AL30	#4	300	60	32 (812)	30	30
100	AL10	#6	200	50	25 (635)	25	25
75	AL75	#8	150	40	20 (508)	20	20
50	AL50	#10	100	32	16 (406)	16	16
30	AL30	#12	75	25	12 (305)	12	12
15	AL15	#14	50	20	10 (254)	10	10
10	AL10	#16	35	16	8 (203)	8	8
7.5	AL7.5	#18	25	12.5	6 (152)	6	6
5	AL5	#20	18	9	4 (102)	4	4
3	AL3	#22	12	6	3 (76)	3	3
2.5	AL2.5	#24	8	4	2 (51)	2	2
2	AL2	#26	6	3	1.75 (44)	1.75	1.75
1.5	AL1.5	#28	4	2	1.5 (38)	1.5	1.5
1	AL1	#30	3	1.5	1.25 (31)	1.25	1.25
0.75	AL0.75	#32	2	1	1 (25)	1	1
0.5	AL0.5	#34	1.5	0.75	0.75 (19)	0.75	0.75
0.25	AL0.25	#36	1	0.5	0.5 (13)	0.5	0.5
0.15	AL0.15	#38	0.75	0.375	0.375 (9.5)	0.375	0.375
0.1	AL0.1	#40	0.5	0.25	0.25 (6.4)	0.25	0.25
0.075	AL0.075	#42	0.375	0.1875	0.1875 (4.8)	0.1875	0.1875
0.05	AL0.05	#44	0.25	0.125	0.125 (3.2)	0.125	0.125
0.0375	AL0.0375	#46	0.1875	0.09375	0.09375 (2.4)	0.09375	0.09375
0.025	AL0.025	#48	0.125	0.0625	0.0625 (1.6)	0.0625	0.0625
0.015	AL0.015	#50	0.09375	0.046875	0.046875 (1.2)	0.046875	0.046875
0.01	AL0.01	#52	0.075	0.0375	0.0375 (0.95)	0.0375	0.0375
0.0075	AL0.0075	#54	0.05625	0.028125	0.028125 (0.71)	0.028125	0.028125
0.005	AL0.005	#56	0.041666	0.020833	0.020833 (0.53)	0.020833	0.020833
0.00375	AL0.00375	#58	0.03125	0.015625	0.015625 (0.4)	0.015625	0.015625
0.0025	AL0.0025	#60	0.020833	0.0104166	0.0104166 (0.26)	0.0104166	0.0104166
0.0015	AL0.0015	#62	0.015625	0.0078125	0.0078125 (0.2)	0.0078125	0.0078125
0.001	AL0.001	#64	0.011944	0.0055555	0.0055555 (0.14)	0.0055555	0.0055555
0.00075	AL0.00075	#66	0.008958	0.0041666	0.0041666 (0.11)	0.0041666	0.0041666
0.0005	AL0.0005	#68	0.006944	0.003125	0.003125 (0.08)	0.003125	0.003125
0.000375	AL0.000375	#70	0.005192	0.0023809	0.0023809 (0.06)	0.0023809	0.0023809
0.00025	AL0.00025	#72	0.003968	0.0017857	0.0017857 (0.045)	0.0017857	0.0017857
0.00015	AL0.00015	#74	0.002976	0.0013333	0.0013333 (0.034)	0.0013333	0.0013333
0.0001	AL0.0001	#76	0.002222	0.0010192	0.0010192 (0.026)	0.0010192	0.0010192
0.000075	AL0.000075	#78	0.001666	0.0007692	0.0007692 (0.019)	0.0007692	0.0007692
0.00005	AL0.00005	#80	0.00125	0.0005769	0.0005769 (0.014)	0.0005769	0.0005769
0.0000375	AL0.0000375	#82	0.0009375	0.0004303	0.0004303 (0.011)	0.0004303	0.0004303

NOTE:

- ALL CABLE SHALL BE NIAL 90°C TYPE WITH 5% DUCTILITY TO SATISFY DISPERSED TENSION CHARACTERISTIC.
- ALL FEEDER SHALL BE PROVIDED WITH BONDING CONDUCTOR AS SHOWN & PERMITTED.
- FOR MAINLINE, RAIN, CONDOR, CONDUIT SHALL BE RIGID POLYETHYLENE, RAIN.
- RUN MANHOLE PROVIDED FOR NATURAL VENTS.
- 5/8" CABLE TYPE FOR MAINLINE, RUN.
- DON NOT USE THIS SCHEDULE FOR UNDERGROUND CABLE, SIZE UNDERGROUND CABLE PER DESIG OR IEEE 835.
- USE THIS SCHEDULE FOR ALL ALUMINUM CABLE, ONLY USE IN RESIDENTIAL, DRY.
- USE THIS SCHEDULE FOR CIRCUT WITH UNDERGROUND CABLE, ONLY USE IN CORRECTION FACTOR FROM TABLE 30 FOR THE 90°C APPLY.
- 90% TYPE AND THE CORRECTED 90% (APPLY) CABLE AMPACITY MUST BE GREATER THAN THE BREAKER SIZE.
- UPSIDE CABLE AS REQUIRED.
- NO GROUNDING MAIN CONDUCTOR.

UPDATED: JUNE 2015.

CABLE & CONDUIT SCHEDULE - COPPER									
MAX BREAKER		REF	WIRE SIZE	AMP	CORRECTED AMP @ 90°C	CONDUIT SIZE		CONDUIT TYPE	CONDUIT CONNECTOR
15	15		WIRE SIZE	AMP	WIRE SIZE	INCH	36	36	
15	15		10	21	21(14)	1/2	21(14)	21(14)	#10
15	15		12	25	25(17)	3/4	25(17)	25(17)	#12
15	15		14	30	30(21)	1	30(21)	30(21)	#14
15	15		16	35	35(24)	1 1/4	35(24)	35(24)	#16
15	15		18	40	40(27)	1 1/2	40(27)	40(27)	#18
15	15		20	45	45(30)	2	45(30)	45(30)	#20
15	15		22	50	50(33)	2 1/2	50(33)	50(33)	#22
15	15		24	55	55(36)	3	55(36)	55(36)	#24
15	15		26	60	60(39)	3 1/2	60(39)	60(39)	#26
15	15		28	65	65(42)	4	65(42)	65(42)	#28
15	15		30	70	70(45)	4 1/2	70(45)	70(45)	#30
15	15		32	75	75(48)	5	75(48)	75(48)	#32
15	15		34	80	80(51)	5 1/2	80(51)	80(51)	#34
15	15		36	85	85(54)	6	85(54)	85(54)	#36
15	15		38	90	90(57)	6 1/2	90(57)	90(57)	#38
15	15		40	95	95(60)	7	95(60)	95(60)	#40
15	15		42	100	100(63)	7 1/2	100(63)	100(63)	#42
15	15		44	105	105(66)	8	105(66)	105(66)	#44
15	15		46	110	110(69)	8 1/2	110(69)	110(69)	#46
15	15		48	115	115(72)	9	115(72)	115(72)	#48
15	15		50	120	120(75)	9 1/2	120(75)	120(75)	#50
15	15		52	125	125(78)	10	125(78)	125(78)	#52
15	15		54	130	130(81)	10 1/2	130(81)	130(81)	#54
15	15		56	135	135(84)	11	135(84)	135(84)	#56
15	15		58	140	140(87)	11 1/2	140(87)	140(87)	#58
15	15		60	145	145(90)	12	145(90)	145(90)	#60
15	15		62	150	150(93)	12 1/2	150(93)	150(93)	#62
15	15		64	155	155(96)	13	155(96)	155(96)	#64
15	15		66	160	160(99)	13 1/2	160(99)	160(99)	#66
15	15		68	165	165(102)	14	165(102)	165(102)	#68
15	15		70	170	170(105)	14 1/2	170(105)	170(105)	#70
15	15		72	175	175(108)	15	175(108)	175(108)	#72
15	15		74	180	180(111)	15 1/2	180(111)	180(111)	#74
15	15		76	185	185(114)	16	185(114)	185(114)	#76
15	15		78	190	190(117)	16 1/2	190(117)	190(117)	#78
15	15		80	195	195(120)	17	195(120)	195(120)	#80
15	15		82	200	200(123)	17 1/2	200(123)	200(123)	#82
15	15		84	205	205(126)	18	205(126)	205(126)	#84
15	15		86	210	210(129)	18 1/2	210(129)	210(129)	#86
15	15		88	215	215(132)	19	215(132)	215(132)	#88
15	15		90	220	220(135)	19 1/2	220(135)	220(135)	#90
15	15		92	225	225(138)	20	225(138)	225(138)	#92
15	15		94	230	230(141)	20 1/2	230(141)	230(141)	#94
15	15		96	235	235(144)	21	235(144)	235(144)	#96
15	15		98	240	240(147)	21 1/2	240(147)	240(147)	#98
15	15		100	245	245(150)	22	245(150)	245(150)	#100

BREAK & NO. OF CONDUCTORS									
15	15		10	21	21(14)	1/2	21(14)	21(14)	#10
15	15		12	25	25(17)	3/4	25(17)	25(17)	#12
15	15		14	30	30(21)	1	30(21)	30(21)	#14
15	15		16	35	35(24)	1 1/4	35(24)	35(24)	#16
15	15		18	40	40(27)	1 1/2	40(27)	40(27)	#18
15	15		20	45	45(30)	2	45(30)	45(30)	#20
15	15		22	50	50(33)	2 1/2	50(33)	50(33)	#22
15	15		24	55	55(36)	3	55(36)	55(36)	#24
15	15		26	60	60(39)	3 1/2	60(39)	60(39)	#26
15	15		28	65	65(42)	4	65(42)	65(42)	#28
15	15		30	70	70(45)	4 1/2	70(45)	70(45)	#30
15	15		32	75	75(48)	5	75(48)	75(48)	#32
15	15		34	80	80(51)	5 1/2	80(51)	80(51)	#34
15	15		36	85	85(54)	6	85(54)	85(54)	#36
15	15		38	90	90(57)	6 1/2	90(57)	90(57)	#38
15	15		40	95	95(60)	7	95(60)	95(60)	#40
15	15		42	100	100(63)	7 1/2	100(63)	100(63)	#42
15	15		44	105	105(66)	8	105(66)	105(66)	#44
15	15		46	110	110(69)	8 1/2	110(69)	110(69)	#46
15	15		48	115	115(72)	9	115(72)	115(72)	#48
15	15		50	120	120(75)	9 1/2	120(75)	120(75)	#50
15	15		52	125	125(78)	10	125(78)	125(78)	#52
15	15		54	130	130(81)	10 1/2	130(81)	130(81)	#54
15	15		56	135	135(84)	11	135(84)	135(84)	#56
15	15		58	140	140(87)	11 1/2	140(87)	140(87)	#58
15	15		60	145	145(90)	12	145(90)	145(90)	#60
15	15		62	150	150(93)	12 1/2	150(93)	150(93)	#62
15	15		64	155	155(96)	13	155(96)	155(96)	#64
15	15		66	160	160(99)	13 1/2	160(99)	160(99)	#66
15	15		68	165	165(102)	14	165(102)	165(102)	#68
15	15		70	170	170(105)	14 1/2	170(105)	170(105)	#70
15	15		72	175	175(108)	15	175(108)	175(108)	#72
15	15		74	180	180(111)	15 1/2	180(111)	180(111)	#74
15	15		76	185	185(114)	16	185(114)	185(114)	#76
15	15		78	190	190(117)	16 1/2	190(117)	190(117)	#78
15	15		80	195	195(120)	17	195(120)	195(120)	#80
15	15		82	200	200(123)	17 1/2	200(123)	200(123)	#82
15	15		84	205	205(126)	18	205(126)	205(126)	#84
15	15		86	210	210(129)	18 1/2	210(129)	210(129)	#86
15	15		88	215	215(132)	19	215(132)	215(132)	#88
15	15		90	220	220(135)	19 1/2	220(135)	220(135)	#90
15	15		92	225	225(138)	20	225(138)	225(138)	#92
15	15		94	230	230(141)	20 1/2	230(141)	230(141)	#94
15	15		96	235	235(144)	21	235(144)	235(144)	#96
15	15		98	240	240(147)	21 1/2	240(147)	240(147)	#98
15	15		100	245	245(150)	22	245(150)	245(150)	#100

NOTE:

- ALL CABLE SHALL BE 90°C TYPE WITH 75°C AMPLITUDE TO SUFFICIENT TERMINATION CHARACTERISTIC.
- ALL FEEDER SHALL BE PROVIDED WITH BONDING CONDUCTOR AS SHOWN & FOR CODE.
- FOR PARALLEL, RANK, KONDUCTOR CONDUCTOR CARRIES IN FEEDER PARALLEL, RANK
- RUN PARALLEL PROVIDED FOR RATING OVER CABLE
- USE THESE TYPE SCHEDULE FOR UNDERGROUND CABLE SIZE UNDERGROUND CABLE PER CODE OR IEEE CODE.
- USE THESE TYPE SCHEDULE FOR FEEDER CABLE SIZE IN FEEDER PARALLEL, RANK
- USE THIS COLUMN FOR CIRCUL WITH CURRENT CAPACITY, METALS, AMP'S CORRECTION FACTOR FROM TABLE 300 OF THE 800°C AMPLITUDE.
- BOTH TYPE 1 AND THE CORRECTED 80°C (APPLY) CABLE CAPACITY MUST BE GREATER THAN THE BREAKER SIZE. APPLICABLE CABLE AS REQUIRED

[illegible]