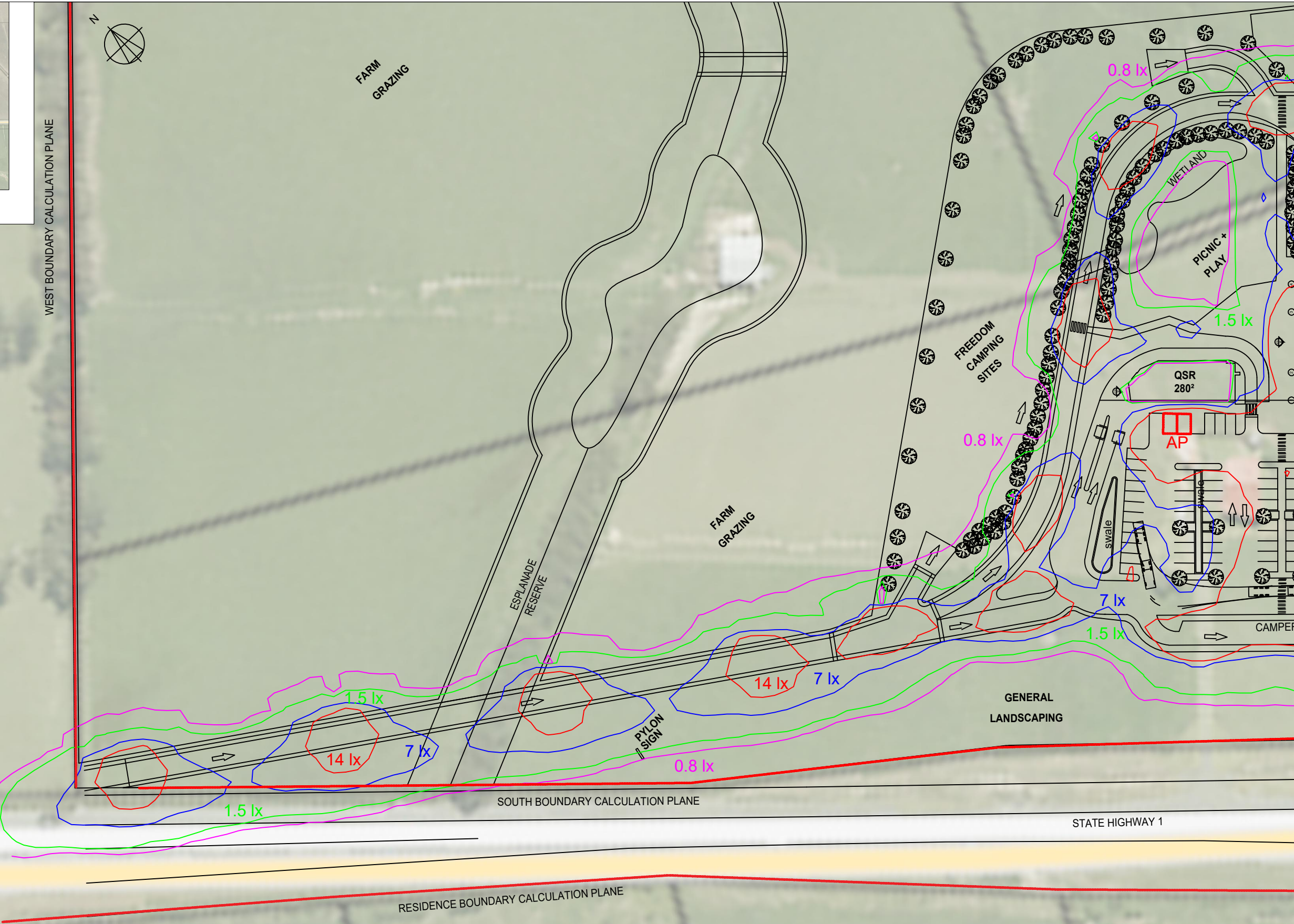
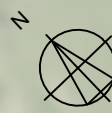


LOCALITY PLAN

WEST BOUNDARY CALCULATION PLANE



SOUTH BOUNDARY CALCULATION PLANE

STATE HIGHWAY 1

RESIDENCE BOUNDARY CALCULATION PLANE

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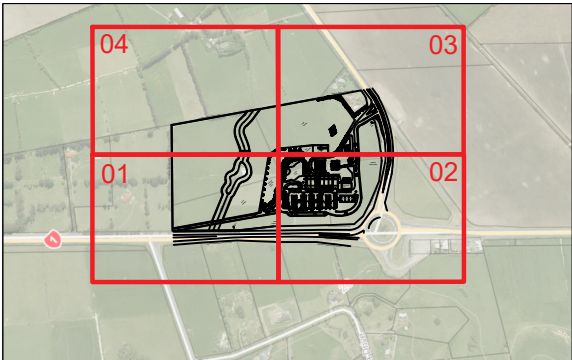
CLIENT

REV	NOTES	DATE
A	AEI	29.03.20
B	UPDATES FOR RC	15.02.21

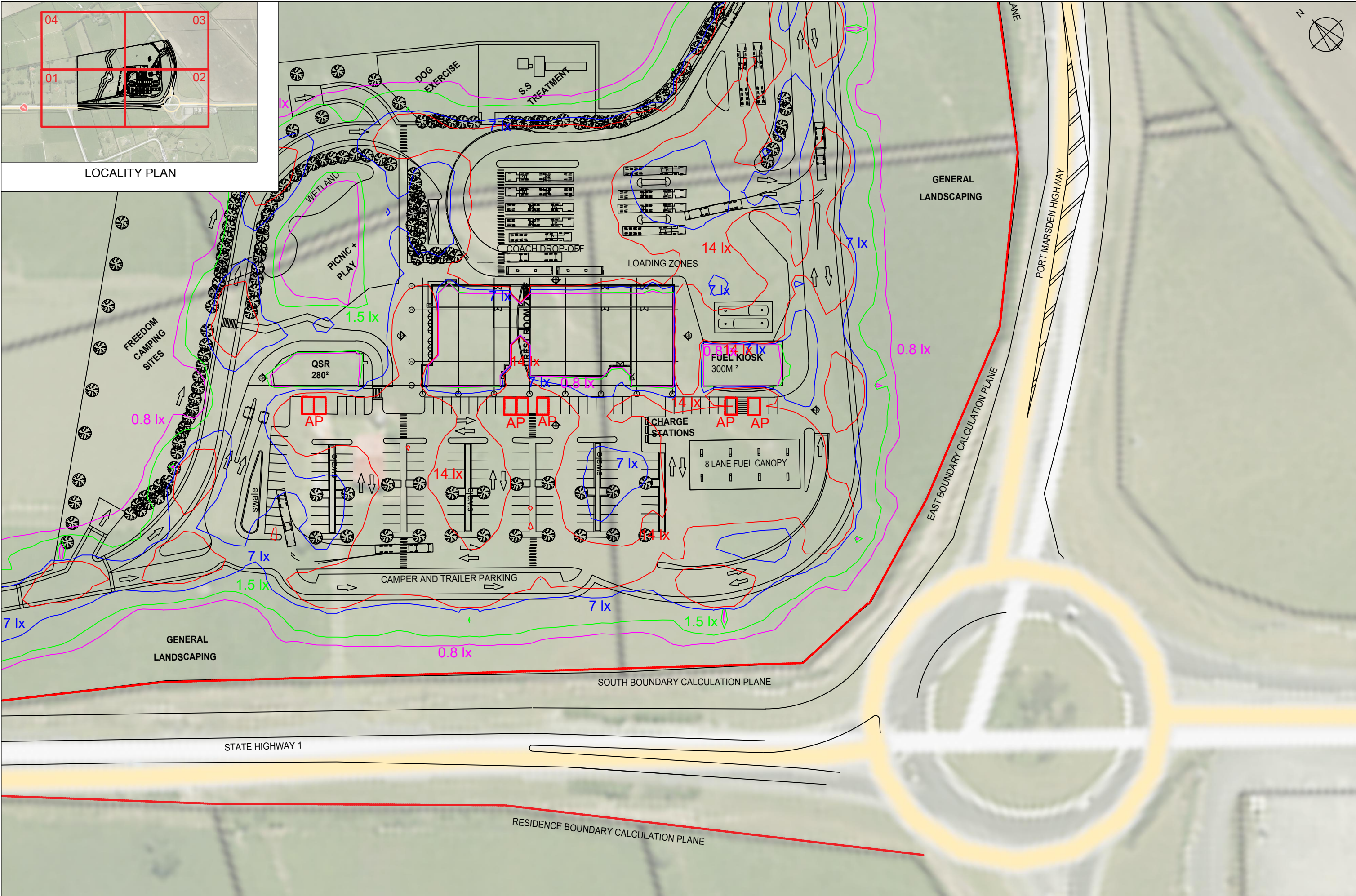
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PROJECT RUAKAKA SERVICE CENTRE - CONCEPT LIGHTING DESIGN			
DRAWING LAYOUT 01 - INITIAL LIGHTING PERFORMANCE			
SCALE @ A3 1:1000 @ A3	DESIGNED BY LW	DRAWN BY LW	CHECKED BY JM
PROJECT NUMBER 20-0123-001A	DRAWING NUMBER E101		APPROVED BY JM
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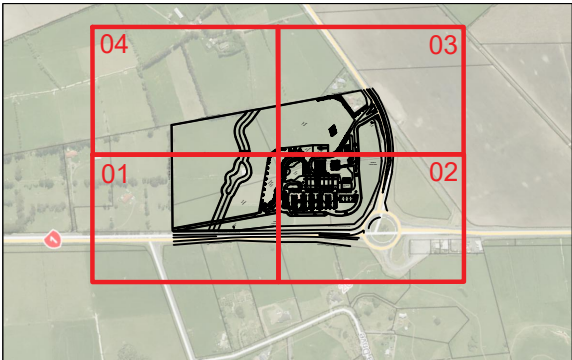
CLIENT

REV	NOTES	DATE
A	AEI	29.03.20
B	UPDATES FOR RC	15.02.21

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PROJECT RUAKAKA SERVICE CENTRE - CONCEPT LIGHTING DESIGN			
DRAWING LAYOUT 02 - INITIAL LIGHTING PERFORMANCE			
SCALE @ A3 1:1000 @ A3	DESIGNED BY LW	DRAWN BY LW	CHECKED BY JM
PROJECT NUMBER 20-0123-001A	DRAWING NUMBER E102		APPROVED BY JM
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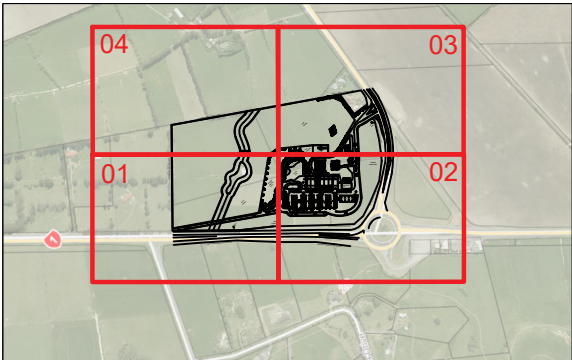
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REV	NOTES	DATE
A	AEI	29.03.20
B	UPDATES FOR RC	15.02.21

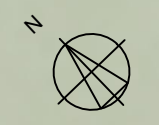
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PROJECT RUAKAKA SERVICE CENTRE - CONCEPT LIGHTING DESIGN			
DRAWING LAYOUT 03 - INITIAL LIGHTING PERFORMANCE			
SCALE @ A3 1:1000 @ A3	DESIGNED BY LW	DRAWN BY LW	CHECKED BY JM
PROJECT NUMBER 20-0123-001A	DRAWING NUMBER E103		APPROVED BY JM
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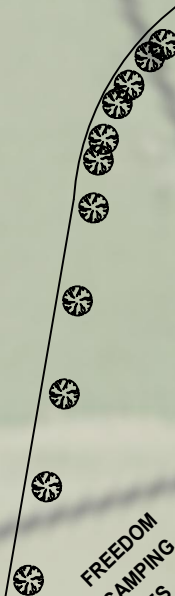
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REV	NOTES	DATE
A	AEI	29.03.20
B	UPDATES FOR RC	15.02.21

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PROJECT RUAKAKA SERVICE CENTRE - CONCEPT LIGHTING DESIGN			
DRAWING LAYOUT 04 - INITIAL LIGHTING PERFORMANCE			
SCALE @ A3 1:1000 @ A3	DESIGNED BY LW	DRAWN BY LW	CHECKED BY JM
PROJECT NUMBER 20-0123-001A	DRAWING NUMBER E104		APPROVED BY JM
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Calculation Summary							
Scene: All							
Label	CalcType	Units	Avg	Max	Min	Min/Avg	Min/Max
Accessible Parks 1	Illuminance	Lux	26.56	34.4	20.9	0.79	0.61
Accessible Parks 2	Illuminance	Lux	27.06	32.8	24.3	0.90	0.74
Accessible Parks 3	Illuminance	Lux	22.65	24.7	20.2	0.89	0.82
Accessible Parks 4	Illuminance	Lux	18.85	24.9	16.0	0.85	0.64
Accessible Parks 5	Illuminance	Lux	18.55	28.9	13.6	0.73	0.47
Back Access Road	Illuminance	Lux	14.72	43.8	0.7	0.05	0.02
Carpark	Illuminance	Lux	16.34	67.4	3.0	0.18	0.04
Crossing 1	Illuminance	Lux	32.48	42.1	23.4	0.72	0.56
Crossing 2	Illuminance	Lux	13.23	15.9	10.9	0.82	0.69
Crossing 3	Illuminance	Lux	30.08	36.7	26.0	0.86	0.71
Crossing 4	Illuminance	Lux	29.67	36.8	24.8	0.84	0.67
Crossing 5	Illuminance	Lux	50.84	65.6	44.0	0.87	0.67
Crossing 6	Illuminance	Lux	36.86	43.2	34.3	0.93	0.79
Crossing 7	Illuminance	Lux	28.51	44.3	16.2	0.57	0.37
ObtrusiveLight Boundary (East) C	Obtrusive - Cd	N.A.	49.69	142	2	0.04	0.01
ObtrusiveLight Boundary (East) C	Obtrusive - Cd	N.A.	22.70	77	1	0.04	0.01
ObtrusiveLight Boundary (East) C	Obtrusive - Cd	N.A.	19.55	53	1	0.05	0.02
ObtrusiveLight Boundary (East) C	Obtrusive - Cd	N.A.	18.25	43	1	0.05	0.02
ObtrusiveLight Boundary (East) C	Obtrusive - Cd	N.A.	48.33	345	1	0.02	0.00
ObtrusiveLight Boundary (East) C	Obtrusive - Cd	N.A.	560.00	4127	2	0.00	0.00
ObtrusiveLight Boundary (East) C	Obtrusive - Cd	N.A.	55.33	128	1	0.02	0.01
ObtrusiveLight Boundary (East) C	Obtrusive - Cd	N.A.	37.00	80	1	0.03	0.01
ObtrusiveLight Boundary (East) C	Obtrusive - Cd	N.A.	26.50	55	1	0.04	0.02
ObtrusiveLight Boundary (East) I	Obtrusive - Ill	Lux	1.30	1.67	0.87	0.67	0.52
ObtrusiveLight Boundary (East) I	Obtrusive - Ill	Lux	0.60	1.21	0.26	0.43	0.21
ObtrusiveLight Boundary (East) I	Obtrusive - Ill	Lux	0.28	0.44	0.17	0.61	0.39
ObtrusiveLight Boundary (East) I	Obtrusive - Ill	Lux	0.18	0.24	0.13	0.72	0.54
ObtrusiveLight Boundary (East) I	Obtrusive - Ill	Lux	0.28	1.20	0.13	0.46	0.11
ObtrusiveLight Boundary (East) I	Obtrusive - Ill	Lux	2.20	13.76	0.24	0.11	0.02
ObtrusiveLight Boundary (East) I	Obtrusive - Ill	Lux	0.08	0.12	0.05	0.63	0.42
ObtrusiveLight Boundary (East) I	Obtrusive - Ill	Lux	0.06	0.07	0.05	0.83	0.71
ObtrusiveLight Boundary (East) I	Obtrusive - Ill	Lux	0.07	0.09	0.05	0.71	0.56
ObtrusiveLight Boundary (North)	Obtrusive - Cd	N.A.	0.00	0	0	N.A.	N.A.
ObtrusiveLight Boundary (North)	Obtrusive - Ill	Lux	0.00	0.00	0.00	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Cd	Obtrusive - Cd	N.A.	N.A.	289	32	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Cd	Obtrusive - Cd	N.A.	N.A.	205	23	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Cd	Obtrusive - Cd	N.A.	N.A.	166	13	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Cd	Obtrusive - Cd	N.A.	N.A.	119	5	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Cd	Obtrusive - Cd	N.A.	N.A.	81	2	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Cd	Obtrusive - Cd	N.A.	N.A.	58	1	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Il	Obtrusive - Ill	Lux	N.A.	0.20	0.07	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Il	Obtrusive - Ill	Lux	N.A.	0.15	0.06	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Il	Obtrusive - Ill	Lux	N.A.	0.12	0.07	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Il	Obtrusive - Ill	Lux	N.A.	0.15	0.09	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Il	Obtrusive - Ill	Lux	N.A.	0.28	0.10	N.A.	N.A.
ObtrusiveLight Boundary (SH1) Il	Obtrusive - Ill	Lux	N.A.	0.30	0.12	N.A.	N.A.
ObtrusiveLight Boundary (South)	Obtrusive - Cd	N.A.	1619	9473	99	0.06	0.01
ObtrusiveLight Boundary (South)	Obtrusive - Cd	N.A.	173.72	320	46	0.26	0.14
ObtrusiveLight Boundary (South)	Obtrusive - Cd	N.A.	60.76	182	3	0.05	0.02
ObtrusiveLight Boundary (South)	Obtrusive - Cd	N.A.	60.10	188	2	0.03	0.01
ObtrusiveLight Boundary (South)	Obtrusive - Cd	N.A.	39.80	87	2	0.05	0.02
ObtrusiveLight Boundary (South)	Obtrusive - Ill	Lux	3.09	33.25	0.19	0.06	0.01
ObtrusiveLight Boundary (South)	Obtrusive - Ill	Lux	0.26	0.38	0.19	0.73	0.50
ObtrusiveLight Boundary (South)	Obtrusive - Ill	Lux	0.53	0.87	0.23	0.43	0.26
ObtrusiveLight Boundary (South)	Obtrusive - Ill	Lux	0.86	1.02	0.65	0.76	0.64
ObtrusiveLight Boundary (South)	Obtrusive - Ill	Lux	0.93	1.27	0.62	0.67	0.49
ObtrusiveLight Boundary (West)	Obtrusive - Cd	N.A.	49.47	1208	0	0.00	0.00
ObtrusiveLight Boundary (West)	Obtrusive - Ill	Lux	0.13	3.56	0.00	0.00	0.00
ObtrusiveLight TI East SH1	Obtrusive - TI	%	N.A.	10	0	N.A.	N.A.
ObtrusiveLight TI North SH15	Obtrusive - TI	%	N.A.	1	0	N.A.	N.A.
ObtrusiveLight TI South SH15	Obtrusive - TI	%	N.A.	0	0	N.A.	N.A.
ObtrusiveLight TI West SH1	Obtrusive - TI	%	N.A.	1	0	N.A.	N.A.
Overall	Illuminance	Lux	N.A.	549.0	0.0	N.A.	N.A.
Service Station	Illuminance	Lux	343.69	551.3	0.4	0.00	0.00
Service Station Vertical	Illuminance	Lux	164.78	184.3	143.0	0.87	0.78
Service Station Vertical 1	Illuminance	Lux	80.00	117.2	54.4	0.68	0.46
Truck Ped Crossing	Illuminance	Lux	28.99	57.5	16.3	0.56	0.28

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REV	NOTES	DATE
A	ADD	29.03.20
B	UPDATE FOR RC	15.02.21

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PROJECT RUAKAKA SERVICE CENTRE - CONCEPT LIGHTING DESIGN			
DRAWING CALCULATIONS RESULTS - INITIAL LIGHTING PERFORMANCE			
SCALE @ A3 1:1000 @ A3	DESIGNED BY LW	DRAWN BY LW	CHECKED BY JM
PROJECT NUMBER 20-0123-001A	DRAWING NUMBER E105	APPROVED BY JM	REVISION No. B
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