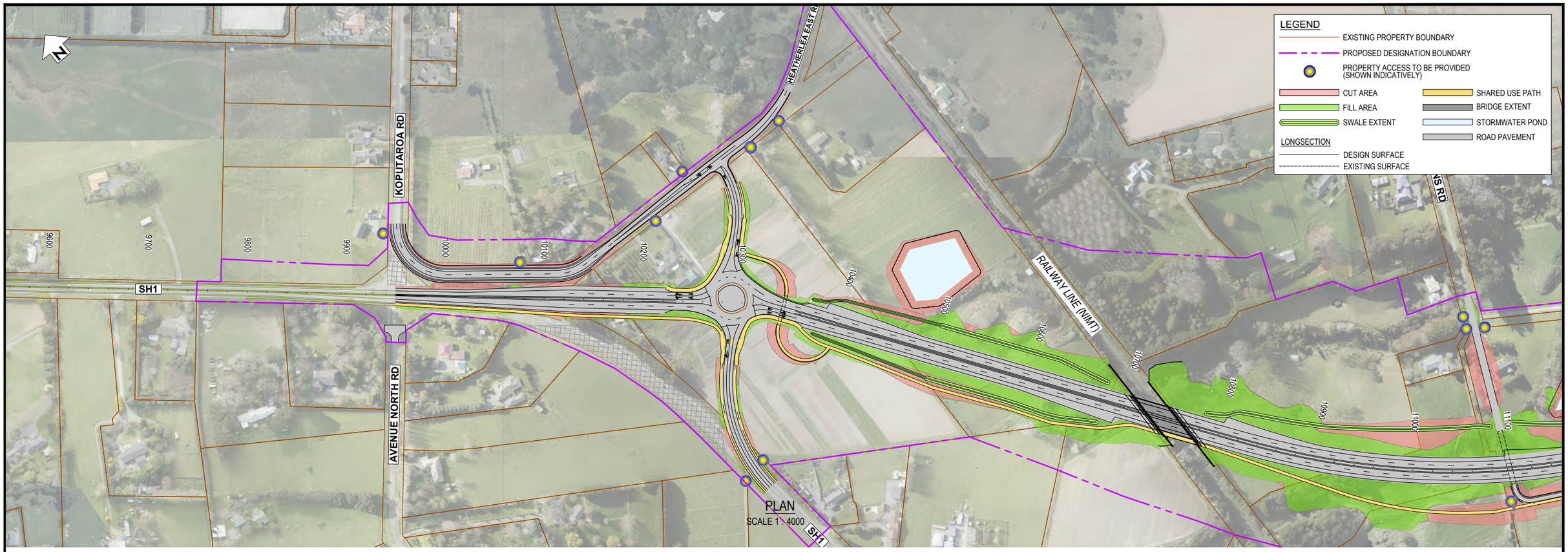
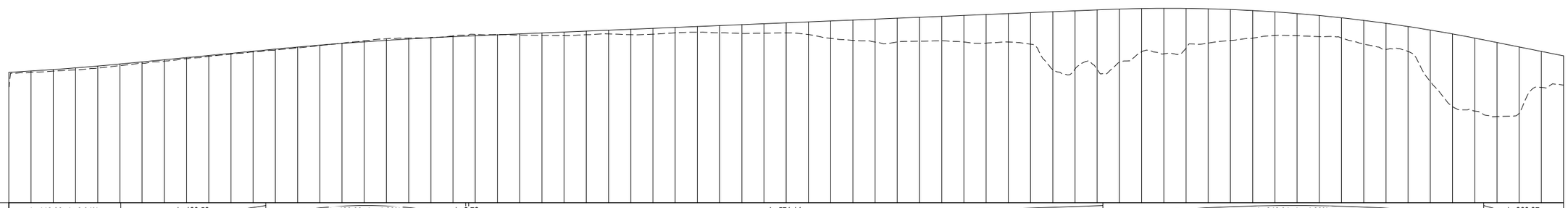




HAD = 19.00

VERTICAL GEOMETRY: L=110.00, Δ=0.94% K=116.48 | L=130.53 G=1.9% | L=180.00, Δ=-1.08% K=166.90 | L=2.72 G=0.8% | L=571.14 G=0.8% | L=342.91, Δ=-4.83% K=71.00 | L=368.87 G=-4.0%

HORIZONTAL GEOMETRY: 1075.15m 130°30'26" | R 50.00 A 12.91 | 464.62m 145°18'24" | S 75.00 | R 750.00 A 382.81

SUPERELEVATION: Le = 3.00% 10755.18 Re = 3.00% | Le = 6.00% 10867.68 Re = 6.00%

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
9700	+0.25	42.71	42.46
9740	+0.28	42.97	42.69
9760	+0.35	43.27	42.92
9780	+0.40	43.60	43.20
9800	+0.28	43.97	43.68
9820	+0.24	44.35	44.11
9840	+0.26	44.74	44.48
9860	+0.21	45.12	44.91
9880	+0.18	45.51	45.32
9900	+0.13	45.89	45.76
9920	+0.12	46.28	46.15
9940	+0.19	46.66	46.47
9960	+0.16	47.02	46.86
9980	+0.06	47.36	47.30
10000	-0.04	47.67	47.71
10020	-0.20	47.96	48.16
10040	-0.28	48.23	48.51
10060	-0.16	48.47	48.63
10080	-0.04	48.69	48.73
10100	-0.15	48.89	49.03
10120	-0.26	49.06	49.32
10140	-0.04	49.23	49.27
10160	+0.23	49.39	49.17
10180	+0.42	49.56	49.14
10200	+0.64	49.72	49.08
10220	+0.64	49.89	49.25
10240	+0.67	50.06	49.38
10260	+0.97	50.22	49.25
10280	+1.04	50.39	49.34
10300	+0.97	50.55	49.58
10320	+1.03	50.72	49.69
10340	+1.31	50.88	49.58
10360	+1.59	51.05	49.46
10380	+1.70	51.22	49.51
10400	+1.82	51.38	49.57
10420	+2.27	51.55	49.28
10440	+3.13	51.71	48.59
10460	+3.65	51.88	48.23
10480	+4.13	52.05	47.92
10500	+4.29	52.21	47.93
10520	+4.30	52.38	48.07
10540	+4.39	52.54	48.16
10560	+4.78	52.71	47.93
10580	+5.15	52.88	47.73
10600	+5.11	53.04	47.93
10620	+5.66	53.21	47.55
10640	+10.43	53.37	42.94
10660	+10.50	53.54	43.04
10680	+10.70	53.71	43.01
10700	+9.55	53.86	44.30
10720	+7.79	53.95	46.16
10740	+8.20	53.99	45.80
10760	+7.16	53.98	46.82
10780	+6.18	53.90	47.72
10800	+5.56	53.77	48.21
10820	+4.97	53.59	48.62
10840	+4.24	53.35	49.11
10860	+3.97	53.05	49.07
10880	+3.79	52.69	48.90
10900	+3.64	52.28	48.65
10920	+4.25	51.81	47.57
10940	+4.70	51.29	46.59
10960	+4.49	50.71	46.22
10980	+9.23	50.07	40.84
11000	+13.07	49.38	36.31
11020	+13.14	48.63	35.49
11040	+13.32	47.84	34.51
11060	+11.94	47.04	35.10
11080	+6.47	46.24	39.76
11100	+5.27	45.44	40.16

50 0 50 100m
SCALE 1:4000 (A3)

GENERAL NOTE
DESIGN SHOWN IS A CONCEPT FOR PURPOSES OF ASSESSING ACTUAL AND POTENTIAL EFFECTS ON THE ENVIRONMENT. ALL INFORMATION SHOWN IS SUBJECT TO FURTHER DESIGN AND THE DETAILS MAY CHANGE WITHIN THE PARAMETERS OF ANY RMA APPROVALS. AREAS AND MEASUREMENTS SUBJECT TO SURVEY.

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

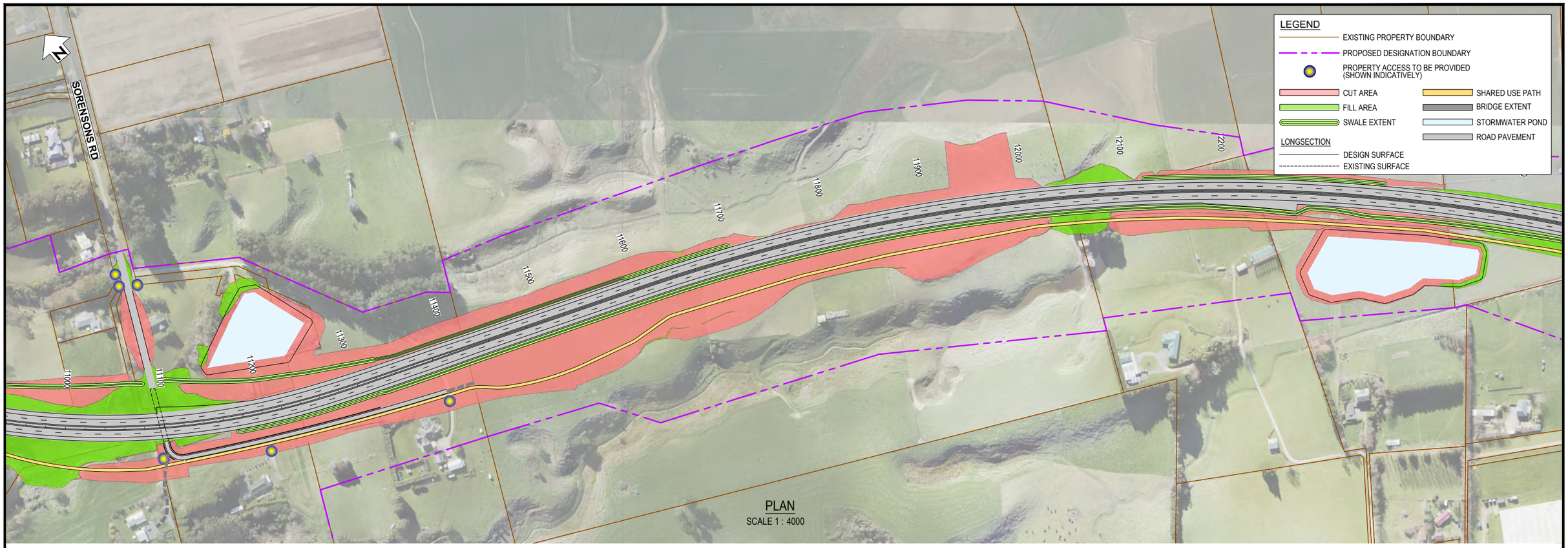
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

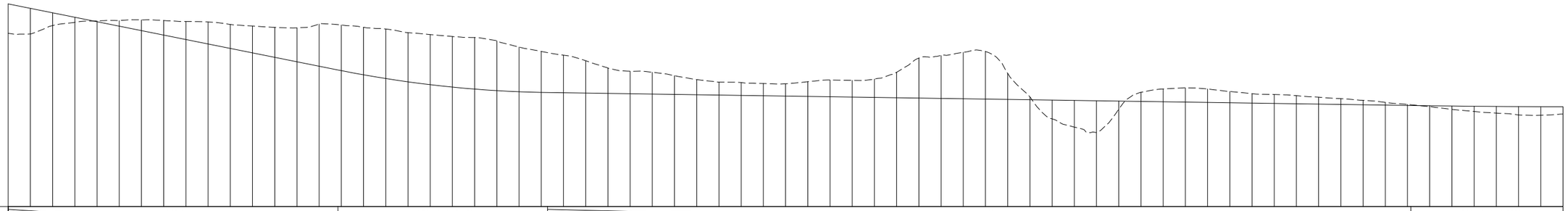
PLAN AND LONG SECTION
SHEET 1

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1501
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1501



PLAN
SCALE 1 : 4000



HAD = 9.00

VERTICAL GEOMETRY	L=368.87 G=-4.0%; L=188.70, Δ=3.70% K=51.00; L=777.40 G=-0.3%; L=292.50, Δ=0.60% K=487.49
HORIZONTAL GEOMETRY	R 750.00 A 382.81; S 75.00; 260.52m 110°19'58"; S 37.50; R 1800.00 A 1297.62
SUPERELEVATION	Le = -6.00% ~1250.49 Re = 6.00%; Le = 3.00% ~1352.99 Re = -3.00%; Le = 3.00% ~1546.51 Re = -3.00%; Le = 3.00% ~1623.51 Re = -3.00%

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
11100	+5.27	45.44	40.16
11120	+4.60	44.64	40.04
11140	-2.29	43.84	41.55
11160	+0.91	43.04	42.12
11180	-0.14	42.24	42.38
11200	-1.01	41.44	42.45
11220	-1.93	40.64	42.57
11240	-2.62	39.84	42.46
11260	-3.24	39.04	42.27
11280	-3.96	38.24	42.20
11300	-4.32	37.44	41.75
11320	-4.83	36.64	41.47
11340	-5.37	35.84	41.21
11360	-6.10	35.04	41.14
11380	-7.58	34.24	41.82
11400	-8.21	33.44	41.64
11420	-8.54	32.69	41.23
11440	-8.91	32.02	40.93
11460	-8.84	31.43	40.27
11480	-9.01	30.91	39.92
11500	-9.10	30.48	39.58
11520	-9.28	30.12	39.40
11540	-8.95	29.84	38.79
11560	-8.04	29.64	37.69
11580	-7.37	29.52	36.90
11600	-6.75	29.46	36.21
11620	-5.82	29.40	35.22
11640	-4.56	29.34	33.90
11660	-4.05	29.28	33.33
11680	-3.93	29.22	33.15
11700	-3.37	29.16	32.53
11720	-2.73	29.10	31.83
11740	-2.33	29.04	31.37
11760	-2.32	28.98	31.29
11780	-2.21	28.92	31.13
11800	-2.22	28.86	31.08
11820	-2.65	28.80	31.45
11840	-3.01	28.74	31.75
11860	-3.01	28.68	31.69
11880	-3.31	28.62	31.92
11900	-4.58	28.56	33.14
11920	-7.20	28.50	35.70
11940	-7.71	28.44	36.15
11960	-8.35	28.38	36.73
11980	-8.56	28.32	36.88
12000	-4.69	28.26	32.95
12020	-0.51	28.20	28.71
12040	+3.38	28.14	24.75
12060	+4.81	28.08	23.27
12080	+5.69	28.02	22.33
12100	+1.44	27.96	26.51
12120	-1.65	27.90	29.55
12140	-2.31	27.84	30.14
12160	-2.57	27.78	30.35
12180	-2.43	27.72	30.15
12200	-2.02	27.66	29.68
12220	-1.69	27.60	29.29
12240	-1.61	27.54	29.15
12260	-1.45	27.48	28.93
12280	-1.24	27.42	28.66
12300	-1.04	27.36	28.40
12320	-0.80	27.30	28.10
12340	-0.48	27.24	27.72
12360	-0.19	27.18	27.37
12380	+0.17	27.12	26.95
12400	+0.61	27.07	26.46
12420	+0.94	27.03	26.10
12440	+1.20	27.00	25.80
12460	+1.51	26.98	25.46
12480	+1.55	26.96	25.41
12500	+1.32	26.95	25.63

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

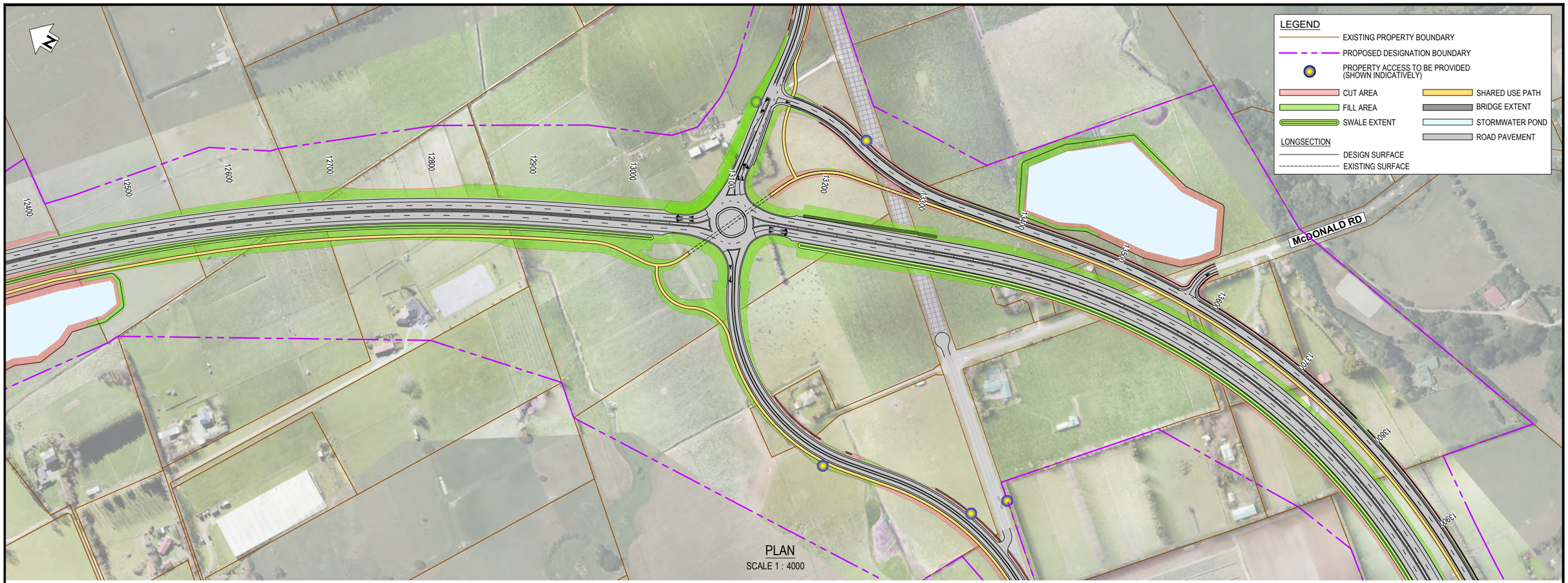
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

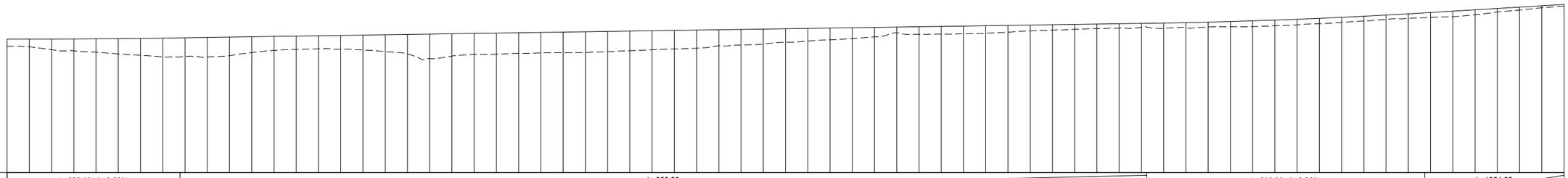
PLAN AND LONG SECTION
SHEET 2

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1502
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1502



PLAN
SCALE 1 : 4000



VERTICAL GEOMETRY: L=292.50, Δ=0.60% K=487.49 | L=869.22 G=0.3% | L=250.00, Δ=0.90% K=276.34 | L=1324.22 G=1.2%

HORIZONTAL GEOMETRY: R 1800.00 A 1297.62 | S 37.50 | 143.47m 152°49'51" | 10.73m 66°08'57" | 207.56m 158°26'50" | S 75.00 | R 667.00 A 670.58

SUPERELEVATION: Le = -3.00% 1292.12 Re = -3.00% | Le = -3.00% 1296.12 Re = -3.00% | Le = -3.00% 1328.89 Re = -3.00% | Le = 6.00% 1395.39 Re = -6.00%

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
12500	+1.32	26.95	25.63
12520	+1.38	26.95	25.57
12540	+1.92	26.96	25.04
12560	+2.13	26.98	24.84
12580	+2.41	27.00	24.59
12600	+2.73	27.03	24.30
12620	+3.04	27.08	24.04
12640	+3.35	27.13	23.77
12660	+3.34	27.18	23.84
12680	+3.52	27.24	23.73
12700	+3.34	27.30	23.96
12720	+2.84	27.36	24.52
12740	+2.50	27.42	24.92
12760	+2.38	27.48	25.10
12780	+2.34	27.54	25.21
12800	+2.47	27.60	25.13
12820	+2.68	27.66	24.98
12840	+3.03	27.72	24.69
12860	+3.50	27.78	24.28
12880	+4.42	27.84	23.43
12900	+4.00	27.90	23.90
12920	+3.78	27.96	24.19
12940	+3.79	28.02	24.24
12960	+3.69	28.08	24.39
12980	+3.67	28.14	24.47
13000	+3.69	28.20	24.51
13020	+3.73	28.26	24.53
13040	+3.64	28.32	24.68
13060	+3.51	28.38	24.88
13080	+3.41	28.44	25.03
13100	+3.33	28.50	25.17
13120	+3.25	28.56	25.31
13140	+2.88	28.62	25.74
13160	+2.79	28.68	25.89
13180	+2.68	28.74	26.06
13200	+2.43	28.80	26.37
13220	+2.27	28.86	26.59
13240	+2.12	28.92	26.81
13260	+1.93	28.98	27.05
13280	+1.69	29.04	27.35
13300	+1.04	29.10	28.06
13320	+1.36	29.16	27.80
13340	+1.37	29.22	27.86
13360	+1.37	29.28	27.92
13380	+1.36	29.34	27.99
13400	+1.21	29.40	28.20
13420	+1.04	29.46	28.42
13440	+0.96	29.52	28.56
13460	+0.88	29.58	28.70
13480	+0.81	29.64	28.84
13500	+0.78	29.70	28.92
13520	+0.68	29.76	29.09
13540	+0.94	29.83	28.89
13560	+0.90	29.91	29.01
13580	+0.88	30.00	29.12
13600	+0.94	30.11	29.16
13620	+1.04	30.23	29.19
13640	+1.02	30.36	29.35
13660	+1.00	30.51	29.51
13680	+0.96	30.68	29.72
13700	+0.92	30.86	29.94
13720	+0.87	31.05	30.18
13740	+0.76	31.26	30.50
13760	+0.81	31.48	30.67
13780	+0.87	31.72	30.85
13800	+0.99	31.96	30.97
13820	+0.89	32.20	31.32
13840	+0.61	32.44	31.83
13860	+0.53	32.68	32.16
13880	+0.35	32.93	32.57
13900	+0.31	33.17	32.86

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

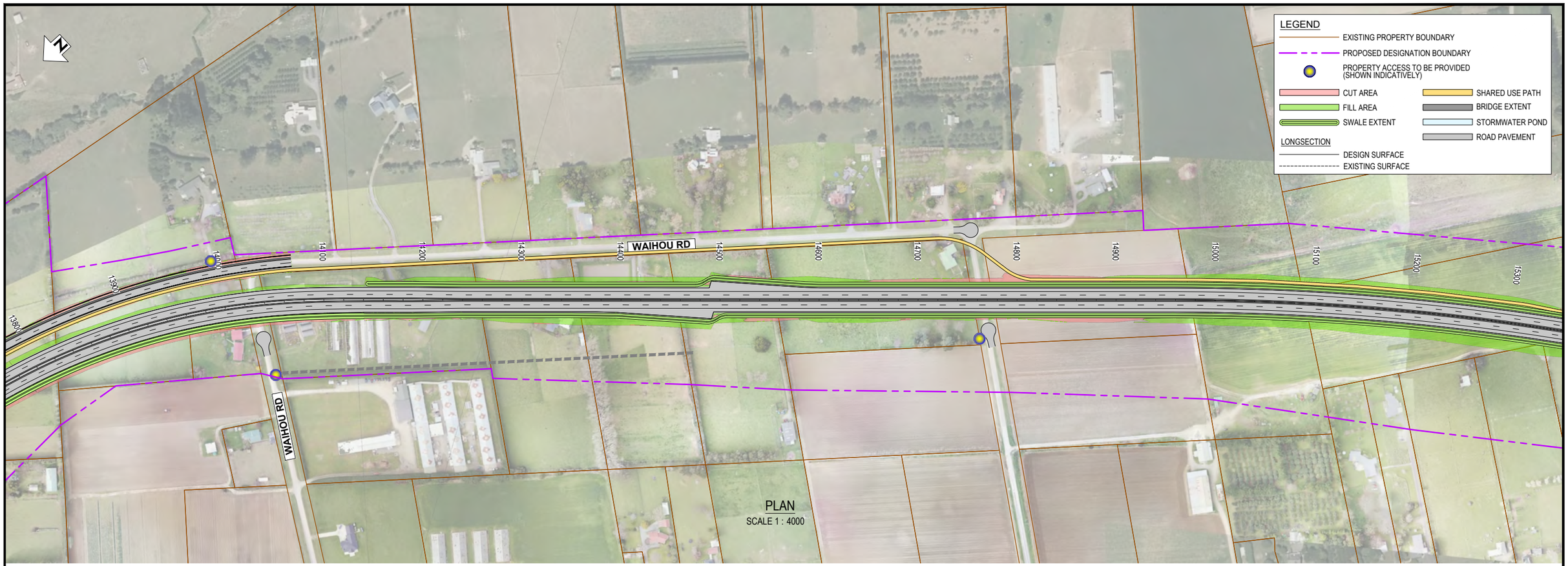
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

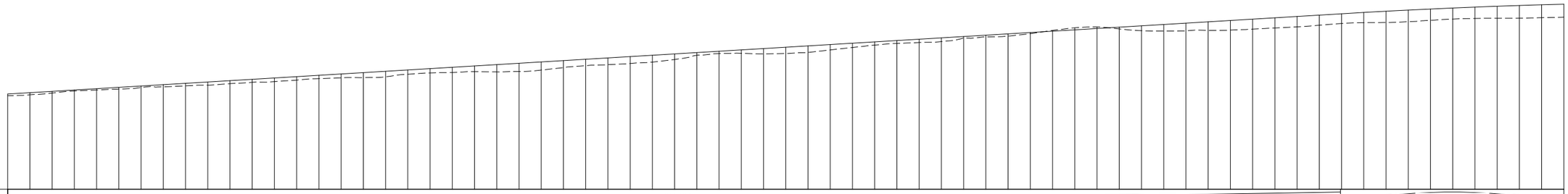
PLAN AND LONG SECTION
SHEET 3

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1503
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1503



PLAN
SCALE 1 : 4000



CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
13900	+0.31	33.17	32.86
13920	+0.38	33.41	33.03
13940	+0.32	33.65	33.33
13960	+0.18	33.89	33.71
13980	+0.25	34.13	33.88
14000	+0.32	34.37	34.06
14020	+0.29	34.61	34.33
14040	+0.40	34.85	34.45
14060	+0.47	35.09	34.62
14080	+0.58	35.33	34.76
14100	+0.54	35.58	35.04
14120	+0.54	35.82	35.28
14140	+0.66	36.06	35.40
14160	+0.63	36.30	35.67
14180	+0.61	36.54	35.93
14200	+0.70	36.78	36.08
14220	+0.90	37.02	36.12
14240	+1.00	37.26	36.26
14260	+0.79	37.50	36.72
14280	+0.78	37.74	36.96
14300	+0.94	37.99	37.04
14320	+1.04	38.23	37.18
14340	+1.31	38.47	37.16
14360	+1.49	38.71	37.22
14380	+1.47	38.95	37.48
14400	+1.26	39.19	37.93
14420	+1.16	39.43	38.27
14440	+1.22	39.67	38.45
14460	+1.25	39.91	38.66
14480	+1.24	40.15	38.92
14500	+1.01	40.39	39.38
14520	+0.49	40.64	40.14
14540	+0.42	40.88	40.45
14560	+0.62	41.12	40.50
14580	+0.96	41.36	40.40
14600	+1.14	41.60	40.46
14620	+1.19	41.84	40.65
14640	+0.99	42.08	41.10
14660	+0.78	42.32	41.54
14680	+0.59	42.56	41.97
14700	+0.53	42.80	42.27
14720	+0.60	43.04	42.44
14740	+0.68	43.29	42.61
14760	+0.29	43.53	43.23
14780	+0.31	43.77	43.45
14800	+0.41	44.01	43.60
14820	+0.21	44.25	44.04
14840	-0.14	44.49	44.63
14860	-0.36	44.73	45.09
14880	-0.28	44.97	45.25
14900	+0.32	45.21	44.90
14920	+0.88	45.45	44.57
14940	+1.20	45.70	44.50
14960	+1.39	45.94	44.54
14980	+1.55	46.18	44.63
15000	+1.74	46.42	44.68
15020	+1.80	46.66	44.86
15040	+1.84	46.90	45.06
15060	+1.87	47.14	45.27
15080	+1.83	47.38	45.55
15100	+1.75	47.62	45.87
15120	+1.84	47.86	46.02
15140	+2.03	48.08	46.05
15160	+2.09	48.28	46.20
15180	+2.04	48.48	46.44
15200	+2.00	48.66	46.66
15220	+2.04	48.82	46.78
15240	+2.16	48.98	46.81
15260	+2.30	49.12	46.82
15280	+2.33	49.24	46.91
15300	+2.34	49.36	47.01

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

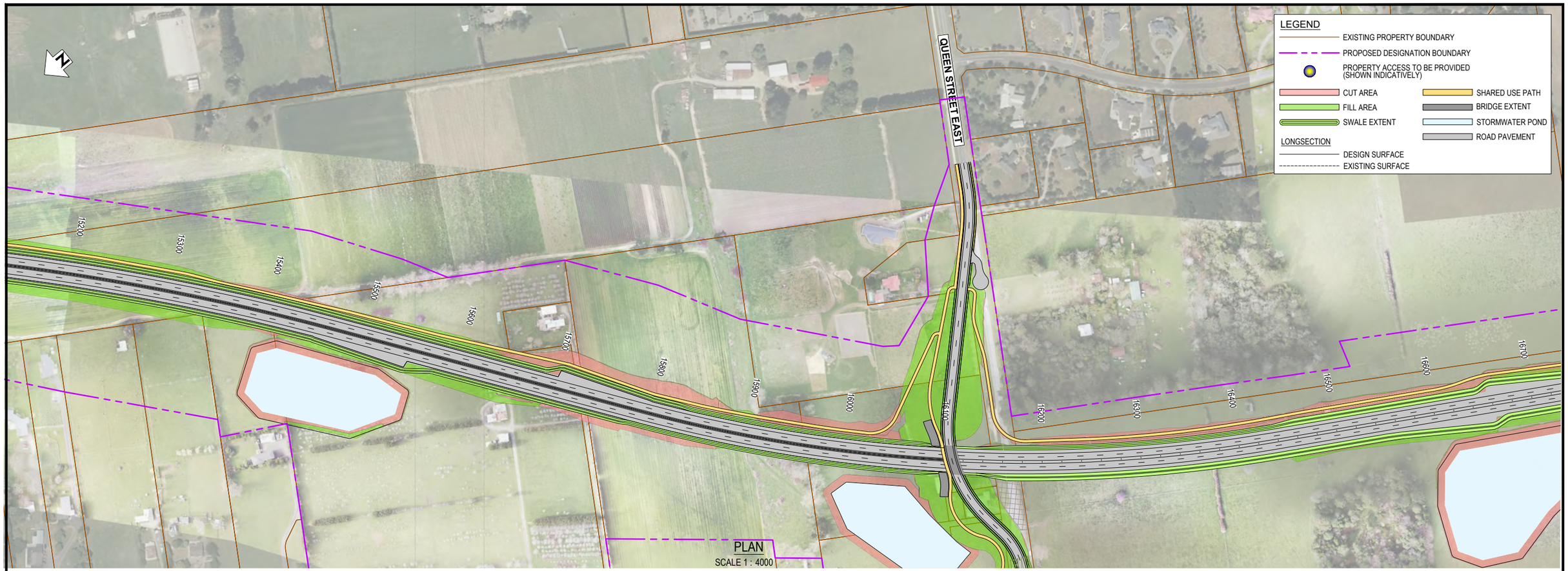
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

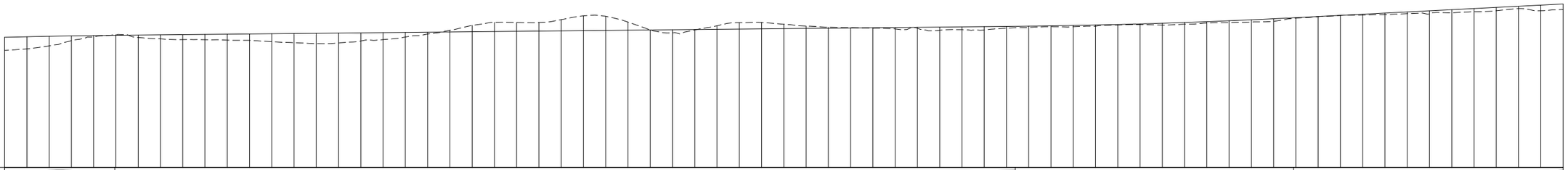
PLAN AND LONG SECTION
SHEET 4

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1504
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1504



PLAN
SCALE 1 : 4000



CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
15300	+2.34	49.36	47.01
15320	+2.17	49.46	47.28
15340	+1.72	49.54	47.82
15360	+0.86	49.61	48.75
15380	+0.24	49.67	49.43
15400	-0.11	49.72	49.83
15420	+0.45	49.76	49.31
15440	+0.73	49.80	49.07
15460	+0.89	49.84	48.95
15480	+0.95	49.88	48.93
15500	+1.08	49.92	48.84
15520	+1.16	49.96	48.80
15540	+1.43	50.00	48.57
15560	+1.64	50.04	48.40
15580	+1.85	50.08	48.22
15600	+1.77	50.12	48.35
15620	+1.46	50.16	48.70
15640	+1.25	50.20	48.95
15660	+0.83	50.24	49.41
15680	-0.34	50.28	49.94
15700	-0.30	50.32	50.62
15720	-1.14	50.36	51.50
15740	-1.64	50.40	52.04
15760	-1.57	50.44	52.01
15780	-1.53	50.48	52.01
15800	-2.01	50.52	52.53
15820	-2.66	50.56	53.22
15840	-2.53	50.60	53.13
15860	-1.45	50.64	52.09
15880	-0.01	50.68	50.69
15900	+0.54	50.72	50.18
15920	+0.07	50.76	50.69
15940	-0.63	50.80	51.43
15960	-1.15	50.84	51.99
15980	-1.14	50.88	52.01
16000	-0.78	50.92	51.70
16020	-0.42	50.96	51.38
16040	-0.16	51.00	51.16
16060	-0.06	51.04	51.10
16080	+0.09	51.08	50.99
16100	+0.26	51.12	50.86
16120	+0.16	51.16	51.00
16140	+0.59	51.20	50.61
16160	+0.50	51.24	50.73
16180	+0.62	51.28	50.66
16200	+0.32	51.32	51.00
16220	+0.24	51.36	51.12
16240	+0.15	51.42	51.27
16260	+0.22	51.48	51.26
16280	+0.21	51.57	51.35
16300	+0.08	51.66	51.58
16320	+0.12	51.77	51.65
16340	+0.33	51.89	51.56
16360	+0.30	52.02	51.72
16380	+0.24	52.17	51.92
16400	+0.32	52.33	52.01
16420	+0.40	52.50	52.10
16440	+0.46	52.69	52.22
16460	+0.08	52.88	52.81
16480	+0.01	53.09	53.08
16500	+0.01	53.29	53.29
16520	-0.13	53.50	53.37
16540	-0.28	53.70	53.43
16560	-0.30	53.91	53.61
16580	-0.53	54.11	53.58
16600	-0.56	54.32	53.75
16620	-0.57	54.52	53.95
16640	-0.60	54.72	54.13
16660	-0.41	54.93	54.52
16680	+1.00	55.13	54.13
16700	-0.98	55.34	54.36

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

PLAN AND LONG SECTION
SHEET 5

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1505
Rev.: D

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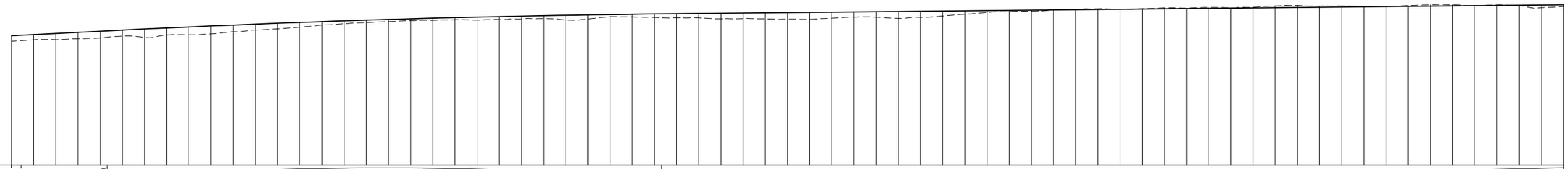
PLAN
SCALE 1 : 4000



HAD = 32.00

VERTICAL GEOMETRY: L=250.70 G=1.0%; L=77.84 G=1.0%; L=500.00, Δ=-0.82% K=608.34; L=955.34 G=0.2%

HORIZONTAL GEOMETRY: 398.45m 209°35'45"; R 2500.00 A 400.95; 1653.72m 218°47'06"

SUPERELEVATION

CHAINAGE	-CUT +FILL	GROUND LEVEL	FINISHED LEVEL
16700	+0.98	54.36	55.34
16720	+0.94	54.60	55.54
16740	+1.11	54.63	55.75
16760	+1.14	54.81	55.95
16780	+1.20	54.95	56.15
16800	+1.08	55.27	56.36
16820	+1.51	55.04	56.55
16840	+1.29	55.46	56.74
16860	+1.42	55.51	56.93
16880	+1.42	55.68	57.10
16900	+1.23	56.04	57.27
16920	+1.09	56.35	57.44
16940	+1.00	56.60	57.60
16960	+0.87	56.88	57.75
16980	+0.62	57.27	57.89
17000	+0.52	57.50	58.03
17020	+0.44	57.72	58.16
17040	+0.37	57.91	58.28
17060	+0.33	58.07	58.40
17080	-0.39	58.12	58.51
17100	+0.40	58.22	58.62
17120	+0.54	58.17	58.71
17140	+0.53	58.27	58.81
17160	+0.52	58.37	58.89
17180	+0.51	58.46	58.97
17200	+0.86	58.18	59.04
17220	+0.75	58.36	59.11
17240	+0.38	58.78	59.16
17260	+0.48	58.74	59.22
17280	+0.62	58.64	59.26
17300	+0.71	58.59	59.30
17320	+0.77	58.57	59.34
17340	+0.97	58.42	59.38
17360	+0.97	58.45	59.42
17380	+1.07	58.40	59.46
17400	+1.17	58.33	59.50
17420	+1.23	58.31	59.54
17440	+1.07	58.51	59.58
17460	+0.91	58.71	59.62
17480	+0.97	58.70	59.66
17500	+1.22	58.49	59.70
17520	+1.09	58.65	59.74
17540	+0.88	58.90	59.78
17560	+0.62	59.21	59.82
17580	+0.31	59.56	59.86
17600	+0.22	59.68	59.90
17620	+0.18	59.77	59.94
17640	+0.01	59.97	59.98
17660	-0.15	60.18	60.02
17680	-0.15	60.21	60.06
17700	-0.03	60.14	60.10
17720	-0.08	60.22	60.14
17740	-0.19	60.37	60.18
17760	-0.10	60.32	60.22
17780	-0.18	60.44	60.26
17800	-0.09	60.39	60.30
17820	-0.14	60.49	60.34
17840	-0.33	60.71	60.38
17860	-0.37	60.79	60.42
17880	-0.22	60.69	60.46
17900	-0.20	60.70	60.50
17920	-0.13	60.68	60.54
17940	-0.07	60.65	60.58
17960	-0.16	60.79	60.62
17980	-0.25	60.91	60.66
18000	-0.20	60.90	60.70
18020	+0.05	60.69	60.74
18040	-0.10	60.89	60.78
18060	+0.10	60.72	60.82
18080	+0.46	60.40	60.86
18100	+0.29	60.61	60.90

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
E	EAST-WEST ARTERIAL DESIGN REMOVED	MH	JP	JP	19/10/22
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	19.10.22
PROF REGISTRATION:		

Stantec

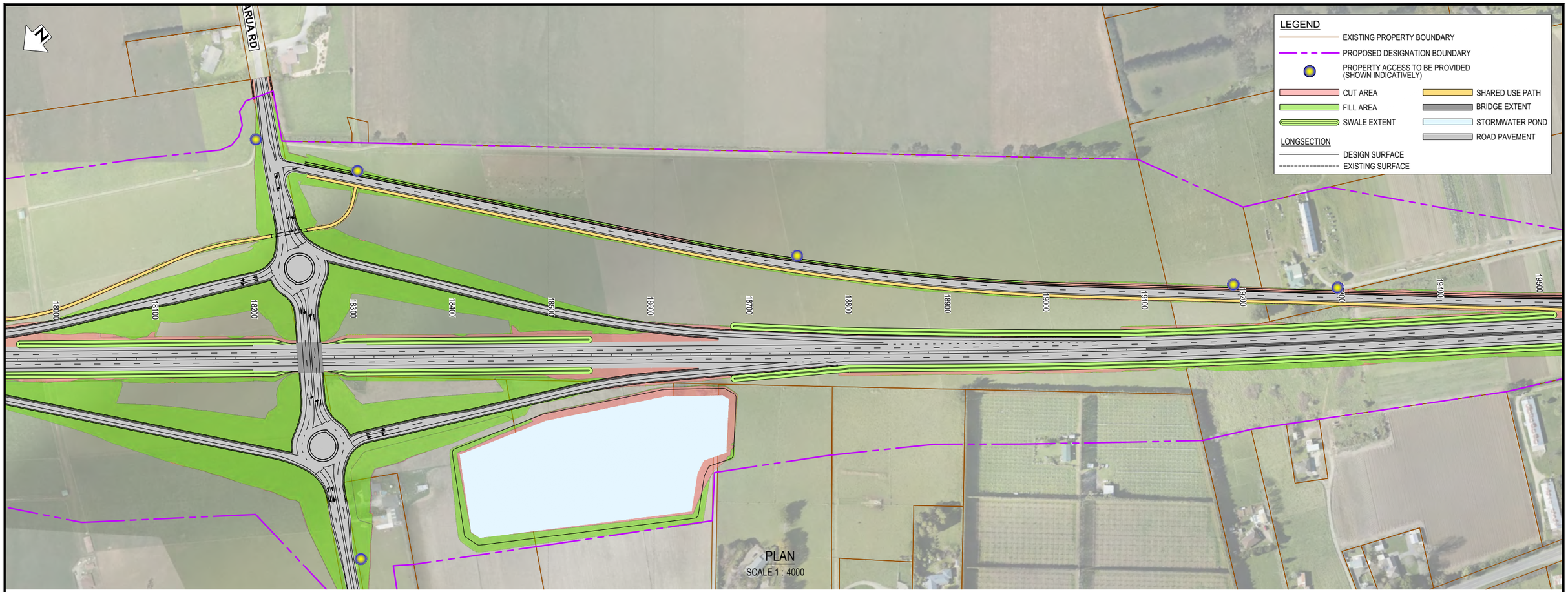
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

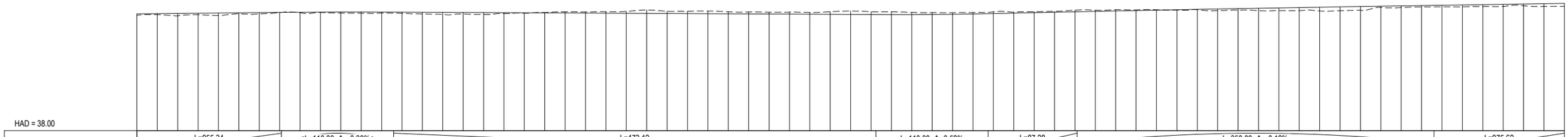
PLAN AND LONG SECTION
SHEET 6

Status Stamp: **FOR CONSENT**
Date Stamp: **19.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1506
Rev.: E

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1506



PLAN
SCALE 1 : 4000



CHAINAGE	GROUND LEVEL	FINISHED LEVEL	-CUT +FILL
18100	60.61	60.90	+0.29
18120	60.75	60.94	+0.19
18140	60.53	60.98	+0.46
18160	60.73	61.02	+0.29
18180	60.59	61.06	+0.47
18200	60.93	61.10	+0.17
18220	60.89	61.14	+0.26
18240	61.16	61.18	+0.02
18260	61.12	61.22	+0.10
18280	61.17	61.24	+0.07
18300	61.05	61.26	+0.21
18320	61.03	61.26	+0.22
18340	61.05	61.25	+0.20
18360	61.01	61.23	+0.22
18380	60.89	61.21	+0.32
18400	60.78	61.19	+0.41
18420	60.88	61.17	+0.29
18440	60.79	61.15	+0.36
18460	60.96	61.13	+0.17
18480	61.04	61.11	+0.07
18500	61.15	61.09	-0.06
18520	61.30	61.07	-0.23
18540	61.27	61.05	-0.22
18560	61.34	61.03	-0.31
18580	61.38	61.01	-0.37
18600	61.66	60.99	-0.67
18620	61.42	60.97	-0.44
18640	61.40	60.95	-0.45
18660	61.46	60.93	-0.52
18680	61.30	60.91	-0.39
18700	61.27	60.89	-0.37
18720	61.22	60.87	-0.35
18740	61.25	60.85	-0.40
18760	61.18	60.83	-0.35
18780	61.32	60.81	-0.50
18800	61.47	60.79	-0.68
18820	61.31	60.77	-0.53
18840	61.31	60.76	-0.55
18860	61.20	60.76	-0.44
18880	61.15	60.78	-0.37
18900	61.13	60.83	-0.31
18920	61.17	60.89	-0.29
18940	61.30	60.97	-0.34
18960	61.24	61.05	-0.19
18980	61.33	61.13	-0.19
19000	61.39	61.22	-0.17
19020	61.63	61.30	-0.33
19040	61.63	61.38	-0.24
19060	61.72	61.47	-0.26
19080	61.66	61.55	-0.11
19100	61.69	61.63	-0.07
19120	61.67	61.70	+0.03
19140	61.73	61.78	+0.05
19160	61.54	61.86	+0.31
19180	61.65	61.93	+0.28
19200	61.52	62.00	+0.48
19220	61.56	62.07	+0.52
19240	61.55	62.14	+0.60
19260	61.47	62.21	+0.74
19280	61.52	62.28	+0.76
19300	61.60	62.34	+0.75
19320	62.17	62.41	+0.24
19340	62.14	62.47	+0.33
19360	62.25	62.53	+0.29
19380	62.29	62.59	+0.31
19400	62.28	62.65	+0.38
19420	62.33	62.71	+0.38
19440	62.35	62.77	+0.42
19460	62.49	62.83	+0.34
19480	62.35	62.89	+0.54
19500	62.38	62.95	+0.57

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

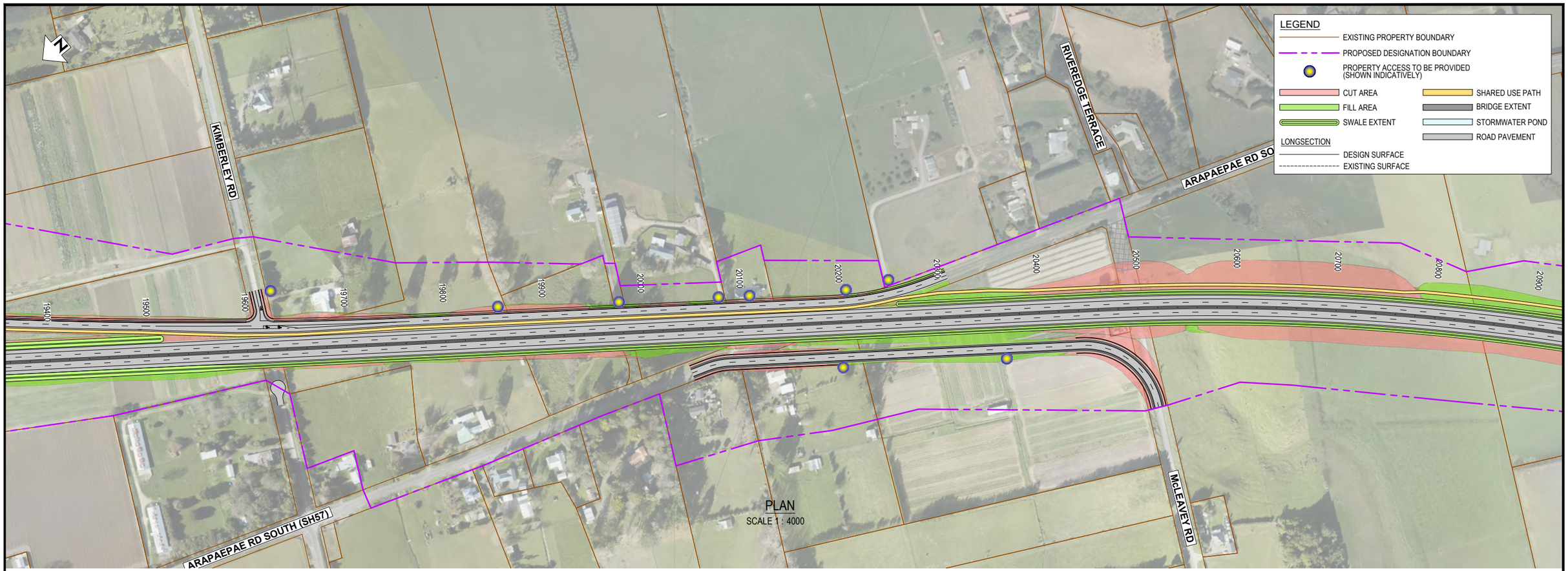
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

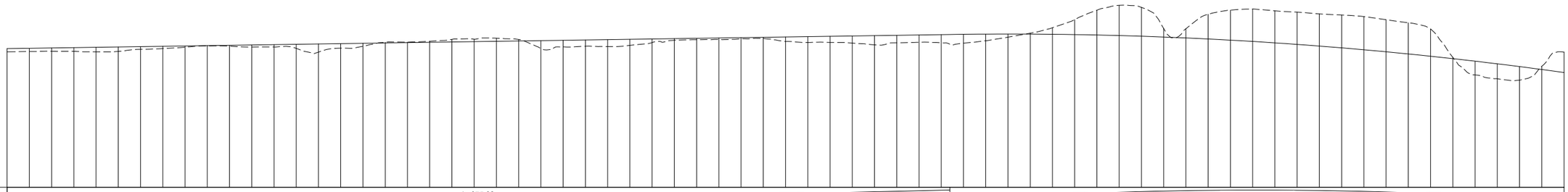
PLAN AND LONG SECTION
SHEET 7

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1507
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1507



PLAN
SCALE 1 : 4000



VERTICAL GEOMETRY	L=975.62 G=0.3%
	L=564.00, Δ=-3.14% K=179.38
HORIZONTAL GEOMETRY	1146.88m 216°28'38"
	R 2400.00 A 1275.65
SUPERELEVATION	

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
19500	+0.57	62.95	62.38
19520	+0.58	63.01	62.43
19540	+0.60	63.07	62.47
19560	+0.68	63.13	62.46
19580	+0.83	63.19	62.37
19600	+0.80	63.25	62.46
19620	+0.49	63.31	62.83
19640	+0.42	63.37	62.96
19660	+0.22	63.43	63.21
19680	+0.05	63.49	63.45
19700	+0.15	63.55	63.40
19720	+0.38	63.61	63.24
19740	+0.42	63.67	63.25
19760	+0.73	63.73	63.01
19780	+1.47	63.79	62.33
19800	+0.81	63.85	63.04
19820	+0.54	63.91	63.38
19840	-0.12	63.97	64.10
19860	-0.09	64.03	64.13
19880	-0.19	64.09	64.29
19900	-0.46	64.15	64.62
19920	-0.43	64.21	64.65
19940	-0.56	64.27	64.83
19960	-0.27	64.33	64.60
19980	+1.42	64.39	62.98
20000	+1.18	64.45	63.28
20020	+1.13	64.51	63.38
20040	+1.24	64.57	63.33
20060	+1.10	64.63	63.54
20080	+0.65	64.69	64.04
20100	+0.30	64.75	64.45
20120	+0.26	64.81	64.56
20140	+0.27	64.87	64.60
20160	+0.20	64.93	64.74
20180	+0.20	64.99	64.79
20200	+0.81	65.05	64.25
20220	+1.05	65.11	64.06
20240	+1.09	65.17	64.08
20260	+1.29	65.23	63.95
20280	+1.66	65.29	63.63
20300	+1.35	65.35	64.00
20320	+1.32	65.41	64.10
20340	+1.47	65.47	64.00
20360	+1.59	65.53	63.94
20380	+1.20	65.56	64.37
20400	+0.56	65.58	65.02
20420	-0.16	65.57	65.73
20440	-1.18	65.54	66.72
20460	-2.68	65.48	68.16
20480	-4.47	65.41	69.88
20500	-5.44	65.31	70.75
20520	-5.20	65.19	70.39
20540	-1.54	65.04	66.59
20560	-1.66	64.88	66.54
20580	-4.44	64.69	69.13
20600	-5.40	64.48	69.89
20620	-5.84	64.25	70.09
20640	-5.76	63.99	69.76
20660	-5.81	63.72	69.53
20680	-5.79	63.42	69.20
20700	-5.91	63.10	69.01
20720	-5.96	62.75	68.71
20740	-5.78	62.39	68.16
20760	-5.62	62.00	67.62
20780	-4.92	61.59	66.51
20800	-0.23	61.15	61.38
20820	+2.49	60.70	58.21
20840	+2.69	60.22	57.53
20860	+2.44	59.72	57.28
20880	-0.56	59.20	59.76
20900	-3.67	58.65	62.32

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

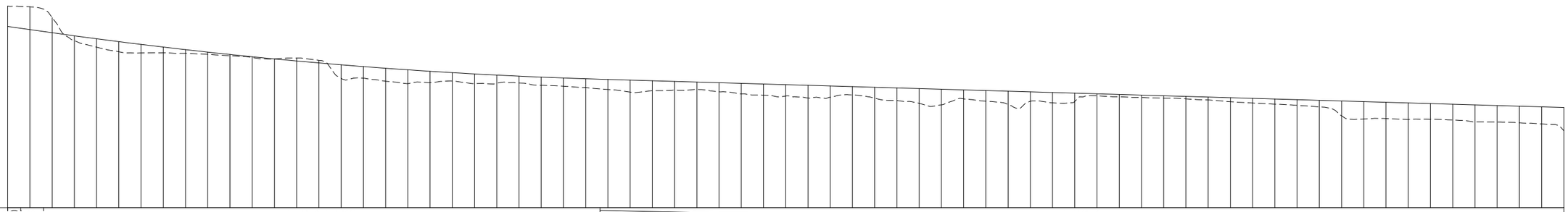
WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

PLAN AND LONG SECTION
SHEET 8

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1508
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1508

PLAN
SCALE 1 : 4000



VERTICAL GEOMETRY: L=564.00, K=17 G=-2.8% | L=20.58 | L=500.52, Δ=2.26% K=221.83 | L=1313.49 G=-0.6%

HORIZONTAL GEOMETRY: R 2400.00 A 1275.65 | 242.38m 246°55'52" | S 65.00 | R 1050.00 A 394.92

SUPERELEVATION: Le = -3.00% 20936.62 Re = -3.00% | Le = 5.00% 22040.62 Re = 5.00%

CHAINAGE	GROUND LEVEL	FINISHED LEVEL	-CUT +FILL
20800	62.32	58.65	-3.67
20920	62.20	58.09	-4.11
20940	60.25	57.52	-2.73
20960	56.09	56.97	+0.88
20980	54.91	56.43	+1.52
21000	54.10	55.92	+1.82
21020	53.87	55.42	+1.54
21040	53.91	54.94	+1.02
21060	53.82	54.47	+0.66
21080	53.63	54.03	+0.40
21100	53.38	53.60	+0.22
21120	53.04	53.19	+0.15
21140	52.80	52.80	+0.01
21160	52.97	52.43	-0.54
21180	52.54	52.08	-0.47
21200	49.31	51.74	+2.43
21220	49.32	51.42	+2.10
21240	48.78	51.12	+2.34
21260	48.33	50.84	+2.51
21280	48.53	50.57	+2.04
21300	48.81	50.33	+1.51
21320	48.36	50.10	+1.74
21340	48.42	49.89	+1.46
21360	48.46	49.70	+1.24
21380	48.04	49.52	+1.48
21400	47.88	49.37	+1.48
21420	47.64	49.23	+1.59
21440	47.29	49.11	+1.82
21460	46.82	48.99	+2.17
21480	47.09	48.87	+1.78
21500	47.17	48.75	+1.59
21520	47.29	48.64	+1.34
21540	46.88	48.52	+1.64
21560	46.50	48.40	+1.90
21580	46.27	48.28	+2.01
21600	46.12	48.17	+2.05
21620	45.76	48.05	+2.28
21640	45.89	47.93	+2.04
21660	46.31	47.81	+1.50
21680	45.72	47.70	+1.97
21700	45.30	47.58	+2.28
21720	44.80	47.46	+2.66
21740	44.52	47.34	+2.82
21760	45.60	47.23	+1.62
21780	45.18	47.11	+1.93
21800	44.59	46.99	+2.40
21820	45.17	46.87	+1.70
21840	44.88	46.76	+1.88
21860	45.15	46.64	+1.48
21880	46.16	46.52	+0.36
21900	45.96	46.40	+0.44
21920	45.85	46.28	+0.44
21940	45.72	46.17	+0.45
21960	45.60	46.05	+0.45
21980	45.40	45.93	+0.53
22000	45.09	45.81	+0.73
22020	44.85	45.70	+0.85
22040	44.64	45.58	+0.94
22060	44.43	45.46	+1.03
22080	44.15	45.34	+1.20
22100	42.56	45.23	+2.67
22120	41.97	45.11	+3.14
22140	42.05	44.99	+2.94
22160	41.88	44.87	+2.99
22180	41.92	44.76	+2.84
22200	41.79	44.64	+2.84
22220	41.45	44.52	+3.07
22240	41.43	44.40	+2.98
22260	41.28	44.29	+3.01
22280	41.08	44.17	+3.08
22300	39.87	44.05	+4.18

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

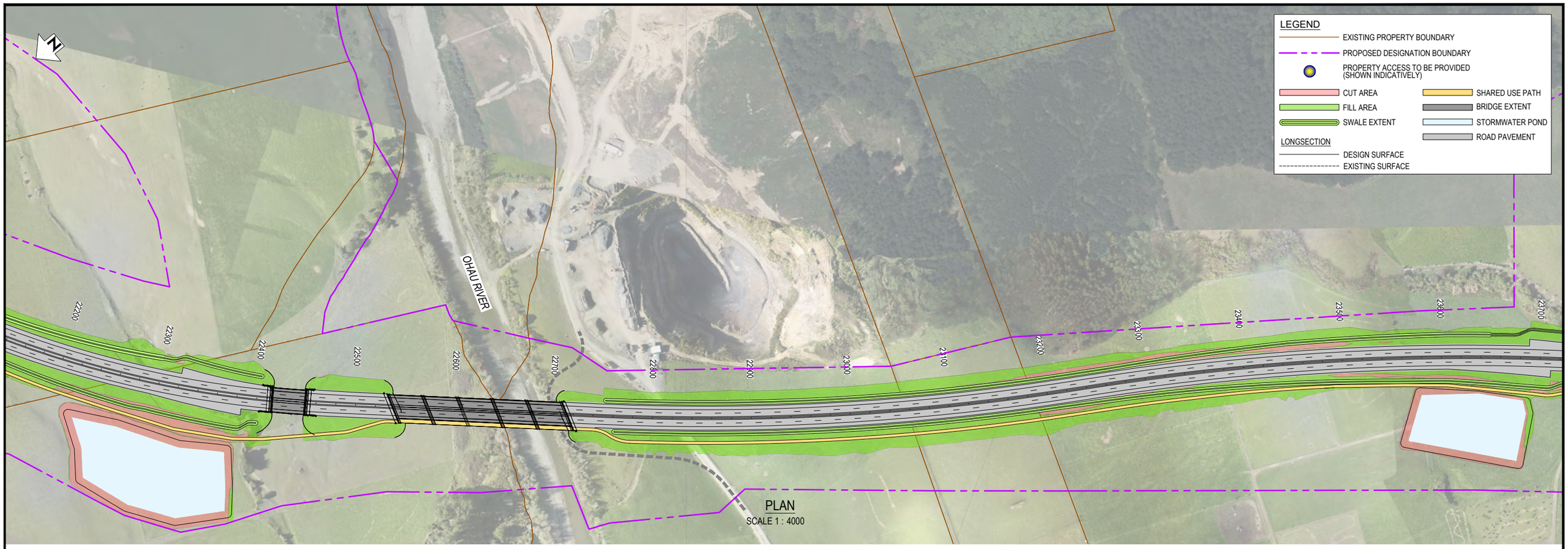
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

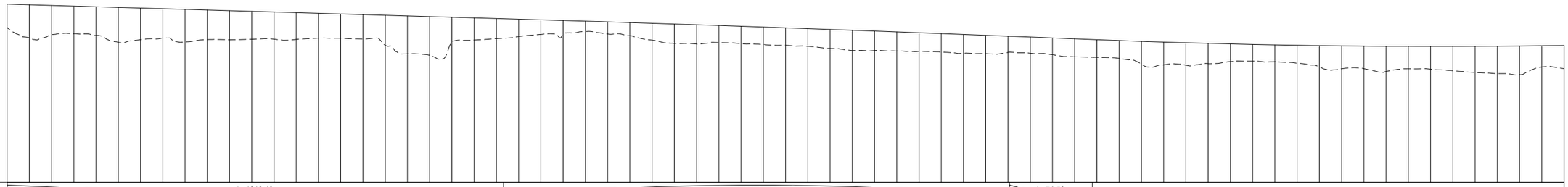
PLAN AND LONG SECTION
SHEET 9

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1509
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1509



PLAN
SCALE 1 : 4000



HAD = 12.00

VERTICAL GEOMETRY: L=1313.49 G=-0.6% | L=455.00, Δ=-0.21% K=2172.23 | L=74.58 G=-0.8% | L=505.00, Δ=1.30% K=389.27

HORIZONTAL GEOMETRY: R 1050.00 A 394.92 | S 65.00 | 245.78m 221°50'04" | R 2400.00 A 455.09 | S 37.50 | S 37.50 | R 2400.00 A 505.04

SUPERELEVATION: Le = -5.00% 22435.54 Re = 5.00% | Le = -3.00% 22539.54 Re = -3.00%

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
22300	+4.18	44.05	39.87
22320	+5.97	43.93	37.96
22340	+5.25	43.82	38.56
22360	+4.96	43.70	38.74
22380	+5.16	43.58	38.42
22400	+6.28	43.46	37.18
22420	+5.69	43.35	37.65
22440	+5.26	43.23	37.97
22460	+5.87	43.11	37.24
22480	+5.33	42.99	37.66
22500	+5.23	42.88	37.64
22520	+5.03	42.76	37.73
22540	+4.89	42.64	37.75
22560	+4.82	42.52	37.71
22580	+4.46	42.41	37.94
22600	+4.37	42.29	37.92
22620	+4.39	42.17	37.78
22640	+5.39	42.05	36.66
22660	+6.83	41.94	35.11
22680	+6.98	41.82	34.84
22700	+4.53	41.70	37.17
22720	+4.00	41.58	37.58
22740	+3.61	41.46	37.85
22760	+3.12	41.35	38.23
22780	+2.62	41.23	38.61
22800	+2.51	41.11	38.60
22820	+1.85	40.98	39.13
22840	+2.18	40.86	38.68
22860	+2.37	40.73	38.36
22880	+3.03	40.60	37.57
22900	+3.48	40.47	36.99
22920	+3.47	40.34	36.87
22940	+3.07	40.20	37.13
22960	+3.14	40.07	36.93
22980	+3.16	39.93	36.77
23000	+3.15	39.79	36.64
23020	+3.19	39.65	36.45
23040	+3.43	39.50	36.07
23060	+3.65	39.36	35.71
23080	+3.51	39.21	35.70
23100	+3.45	39.06	35.61
23120	+3.34	38.91	35.57
23140	+3.34	38.76	35.42
23160	+3.38	38.60	35.22
23180	+3.31	38.45	35.14
23200	+2.91	38.29	35.38
23220	+2.91	38.13	35.22
23240	+2.99	37.97	34.97
23260	+3.22	37.81	34.59
23280	+3.17	37.65	34.48
23300	+3.21	37.50	34.28
23320	+4.09	37.36	33.26
23340	+4.10	37.22	33.12
23360	+4.04	37.10	33.06
23380	+3.64	36.99	33.35
23400	+3.19	36.89	33.70
23420	+3.01	36.80	33.79
23440	+3.04	36.72	33.68
23460	+3.24	36.65	33.41
23480	+3.81	36.59	32.78
23500	+4.11	36.54	32.43
23520	+4.06	36.50	32.44
23540	+4.55	36.47	31.92
23560	+4.04	36.45	32.42
23580	+4.10	36.44	32.35
23600	+4.38	36.45	32.07
23620	+4.70	36.46	31.76
23640	+4.94	36.48	31.54
23660	+5.17	36.51	31.35
23680	+3.82	36.56	32.74
23700	+4.16	36.61	32.45

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

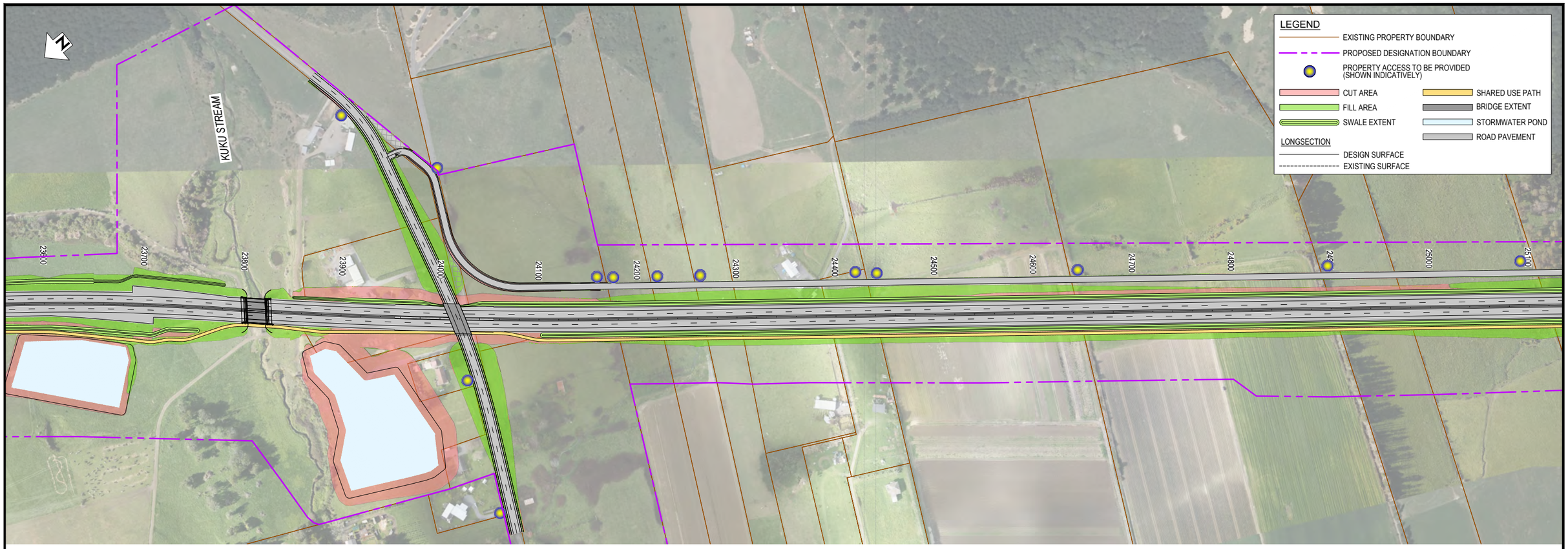
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

PLAN AND LONG SECTION
SHEET 10

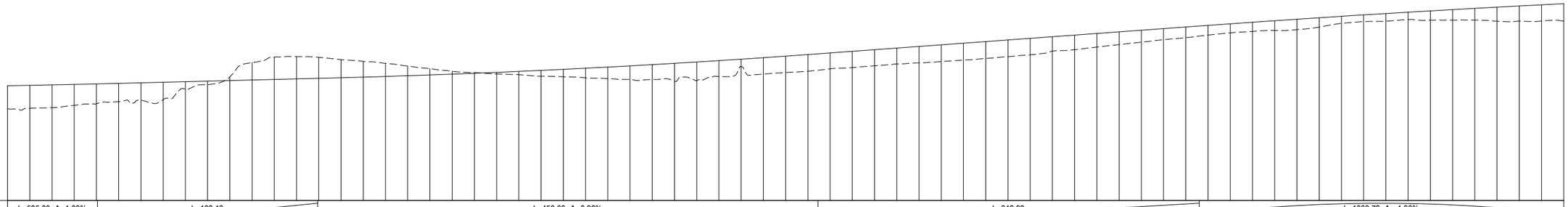
Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1510
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1510



PLAN

SCALE 1 : 4000



HAD = 16.00

VERTICAL GEOMETRY	L=505.00, Δ=1.30% K=389.27
	L=198.13 G=0.5%
	L=450.00, Δ=0.96% K=470.34
	L=342.98 G=1.5%
	L=1369.72, Δ=-1.96% K=700.00
HORIZONTAL GEOMETRY	R 2400.00 A 505.04
	R 5000.00 A 402.27
	2410.76m 218°25'03"
SUPERELEVATION	

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
23700	+4.16	36.61	32.45
23720	+4.14	36.67	32.53
23740	+4.09	36.75	32.66
23760	+3.76	36.83	33.07
23780	+3.57	36.93	33.36
23800	+3.28	37.03	33.74
23820	+3.11	37.13	34.02
23840	+3.14	37.23	34.09
23860	+1.31	37.33	36.02
23880	+0.64	37.43	36.78
23900	-0.68	37.53	38.20
23920	-3.12	37.63	40.75
23940	-4.02	37.73	41.74
23960	-4.00	37.83	41.83
23980	-3.78	37.93	41.70
24000	-3.26	38.03	41.29
24020	-2.83	38.14	40.98
24040	-2.35	38.27	40.62
24060	-1.74	38.40	40.13
24080	-1.14	38.53	39.68
24100	-0.52	38.68	39.20
24120	-0.11	38.84	38.95
24140	+0.29	39.00	38.71
24160	+0.58	39.17	38.59
24180	+1.04	39.36	38.32
24200	+1.33	39.55	38.22
24220	+1.73	39.74	38.01
24240	+2.07	39.95	37.88
24260	+2.44	40.17	37.73
24280	+2.68	40.39	37.71
24300	+3.18	40.62	37.44
24320	+3.36	40.86	37.50
24340	+2.85	41.11	38.26
24360	+1.29	41.37	40.08
24380	+2.96	41.63	38.67
24400	+2.94	41.91	38.97
24420	+2.99	42.19	39.20
24440	+2.85	42.48	39.63
24460	+2.91	42.77	39.86
24480	+2.88	43.07	40.18
24500	+2.85	43.36	40.51
24520	+2.95	43.65	40.70
24540	+3.00	43.94	40.94
24560	+3.03	44.23	41.21
24580	+3.03	44.52	41.49
24600	+3.00	44.81	41.82
24620	+2.96	45.11	42.14
24640	+2.56	45.40	42.83
24660	+2.62	45.69	43.06
24680	+2.45	45.98	43.53
24700	+2.29	46.27	43.98
24720	+2.15	46.56	44.42
24740	+2.01	46.85	44.85
24760	+1.92	47.15	45.22
24780	+1.74	47.44	45.70
24800	+1.62	47.72	46.10
24820	+1.64	48.00	46.36
24840	+1.76	48.28	46.52
24860	+1.87	48.55	46.68
24880	+1.69	48.81	47.12
24900	+1.27	49.07	47.80
24920	+1.19	49.32	48.13
24940	+1.38	49.57	48.19
24960	+1.33	49.81	48.48
24980	+1.66	50.04	48.38
25000	+1.89	50.27	48.38
25020	+2.10	50.49	48.39
25040	+2.53	50.71	48.18
25060	+2.72	50.92	48.21
25080	+2.91	51.13	48.22
25100	+3.13	51.33	48.20

50 0 50 100m

SCALE 1:4000 (A3)

LONGSECTION

SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

PLAN AND LONG SECTION
SHEET 11

Status Stamp: **FOR CONSENT**

Date Stamp: **10.10.22**

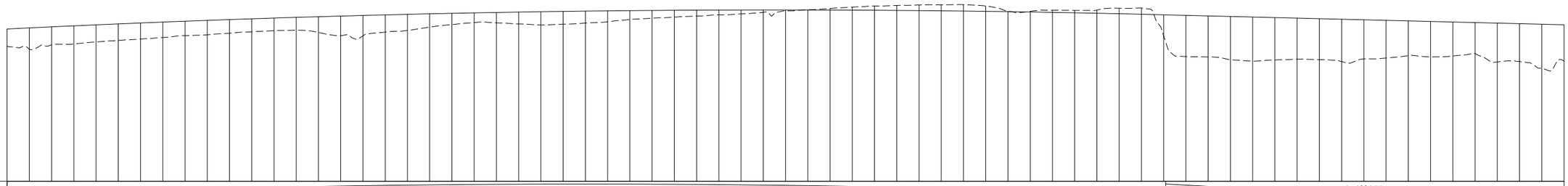
Scales: AS SHOWN

Drawing No.: 310203848-01-100-C1511

Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1511

PLAN
SCALE 1 : 4000



HAD = 24.00

VERTICAL GEOMETRY: L=1369.72, Δ=-1.96%, K=700.00 | L=1931.75, G=-0.5%

HORIZONTAL GEOMETRY: 2410.76m, 218°25'03"

SUPERELEVATION

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
25100	+3.13	51.33	48.20
25120	+3.83	51.52	47.69
25140	+3.22	51.71	48.49
25160	+3.26	51.90	48.64
25180	+3.07	52.07	49.00
25200	+2.97	52.25	49.27
25220	+2.89	52.41	49.53
25240	+2.77	52.57	49.80
25260	+2.59	52.73	50.13
25280	+2.59	52.88	50.29
25300	+2.45	53.02	50.57
25320	+2.33	53.16	50.83
25340	+2.26	53.29	51.03
25360	+2.31	53.42	51.11
25380	+2.84	53.54	50.70
25400	+3.54	53.65	50.12
25420	+3.68	53.76	50.09
25440	+3.10	53.86	50.77
25460	+2.89	53.96	51.07
25480	+2.39	54.05	51.67
25500	+2.02	54.14	52.12
25520	+1.75	54.22	52.48
25540	+1.86	54.30	52.43
25560	+2.14	54.36	52.23
25580	+2.37	54.43	52.05
25600	+2.29	54.49	52.19
25620	+2.15	54.54	52.39
25640	+1.96	54.58	52.62
25660	+1.60	54.62	53.03
25680	+1.39	54.66	53.27
25700	+1.23	54.69	53.46
25720	+1.06	54.71	53.65
25740	+0.87	54.73	53.86
25760	+0.71	54.74	54.03
25780	+0.42	54.75	54.32
25800	+0.17	54.75	54.57
25820	-0.02	54.74	54.77
25840	-0.29	54.73	55.02
25860	-0.53	54.71	55.25
25880	-0.77	54.69	55.46
25900	-0.89	54.66	55.56
25920	-1.01	54.63	55.64
25940	-1.07	54.59	55.66
25960	-1.16	54.55	55.70
25980	-0.97	54.49	55.46
26000	-0.06	54.44	54.50
26020	-0.11	54.38	54.49
26040	-0.38	54.31	54.69
26060	-0.43	54.23	54.66
26080	-0.58	54.15	54.74
26100	-0.99	54.07	55.06
26120	-1.11	53.98	55.09
26140	+3.76	53.88	50.12
26160	+7.39	53.78	46.39
26180	+7.37	53.68	46.31
26200	+7.76	53.58	45.83
26220	+7.92	53.48	45.56
26240	+7.61	53.38	45.78
26260	+7.37	53.28	45.91
26280	+7.35	53.18	45.84
26300	+7.58	53.08	45.50
26320	+7.03	52.98	45.95
26340	+6.77	52.88	46.12
26360	+6.24	52.78	46.54
26380	+6.38	52.68	46.31
26400	+6.09	52.58	46.49
26420	+5.56	52.48	46.92
26440	+6.98	52.38	45.40
26460	+6.79	52.28	45.49
26480	+7.94	52.18	44.24
26500	+6.54	52.08	45.55

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

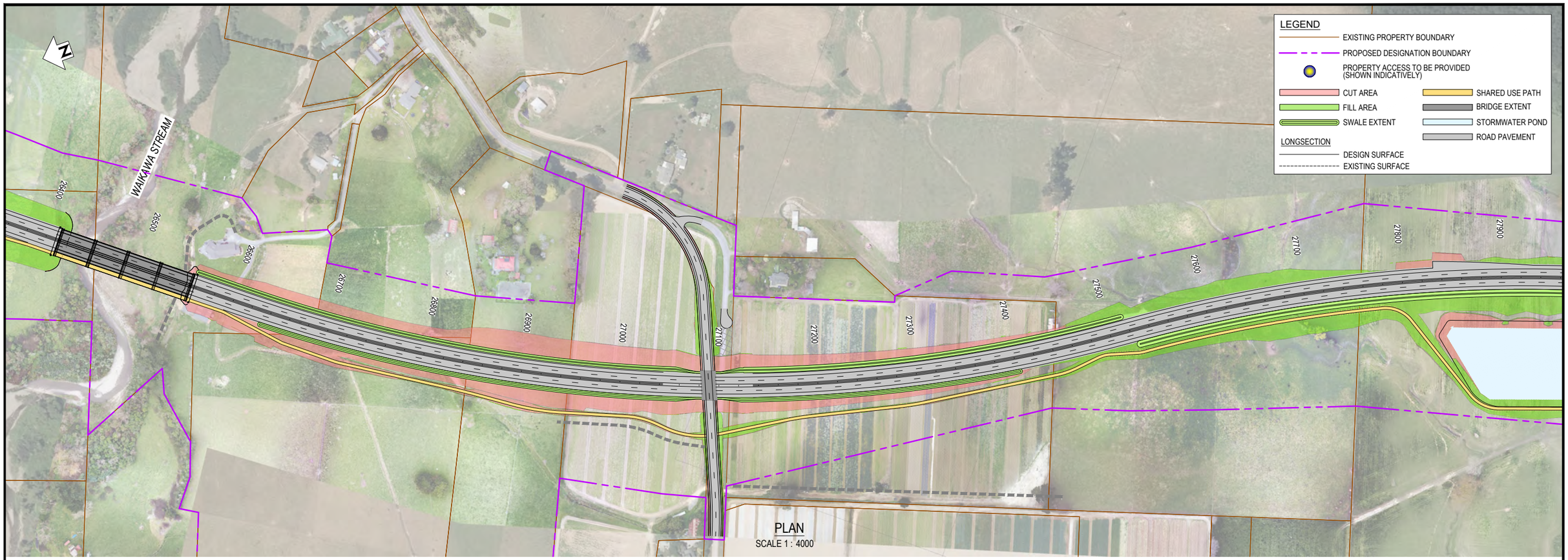
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

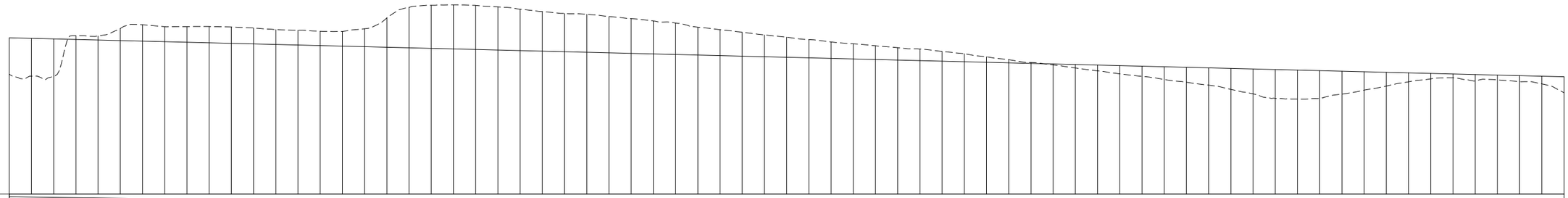
PLAN AND LONG SECTION
SHEET 12

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1512
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1512



PLAN
SCALE 1 : 4000



HAD = 24.00

VERTICAL GEOMETRY: L=1931.75, G=-0.5%

HORIZONTAL GEOMETRY: 2410.76m 218°25'03" | S 37.50 | R 1500.00 A 847.82 | S 37.50 | S 37.50 | R 1500.00 A 543.47

SUPERELEVATION: Le = -3.00% 26556.99 Re = 3.00% | Le = -3.00% 26631.99 Re = 3.00% | Le = -3.00% 27479.81 Re = 3.00% | Le = -3.00% 27554.81 Re = 3.00%

CHAINAGE	GROUND LEVEL	FINISHED LEVEL	-CUT +FILL
26500	45.55	52.08	+6.54
26520	45.19	51.98	+6.79
26540	45.11	51.88	+6.77
26560	52.45	51.78	-0.67
26580	52.41	51.68	-0.73
26600	53.76	51.58	-2.18
26620	54.43	51.48	-2.95
26640	54.08	51.38	-2.70
26660	54.10	51.28	-2.82
26680	54.12	51.18	-2.93
26700	54.02	51.08	-2.94
26720	53.85	50.98	-2.86
26740	53.56	50.88	-2.67
26760	53.46	50.78	-2.68
26780	53.26	50.68	-2.58
26800	53.23	50.58	-2.64
26820	53.71	50.48	-3.23
26840	55.65	50.38	-5.27
26860	57.57	50.28	-7.29
26880	57.93	50.18	-7.75
26900	58.01	50.08	-7.93
26920	57.91	49.98	-7.93
26940	57.65	49.88	-7.76
26960	57.23	49.78	-7.45
26980	56.79	49.68	-7.11
27000	56.46	49.58	-6.88
27020	56.31	49.48	-6.83
27040	55.91	49.38	-6.53
27060	55.53	49.28	-6.25
27080	55.12	49.18	-5.94
27100	54.74	49.08	-5.66
27120	54.00	48.98	-5.02
27140	53.54	48.88	-4.66
27160	53.08	48.78	-4.30
27180	52.60	48.68	-3.92
27200	52.20	48.58	-3.62
27220	51.76	48.48	-3.28
27240	51.34	48.38	-2.96
27260	51.00	48.28	-2.72
27280	50.64	48.18	-2.46
27300	50.31	48.08	-2.23
27320	50.07	47.98	-2.09
27340	49.63	47.88	-1.75
27360	49.23	47.78	-1.45
27380	48.67	47.68	-0.99
27400	48.15	47.58	-0.57
27420	47.64	47.48	-0.16
27440	47.20	47.38	+0.18
27460	46.65	47.28	+0.63
27480	46.14	47.18	+1.05
27500	45.60	47.08	+1.48
27520	45.15	46.98	+1.83
27540	44.57	46.88	+2.32
27560	44.10	46.78	+2.68
27580	43.58	46.68	+3.10
27600	42.80	46.58	+3.78
27620	42.00	46.48	+4.48
27640	41.18	46.38	+5.20
27660	41.06	46.28	+5.23
27680	41.23	46.18	+4.95
27700	41.96	46.08	+4.13
27720	42.67	45.98	+3.31
27740	43.41	45.88	+2.47
27760	44.17	45.78	+1.61
27780	44.70	45.68	+0.98
27800	44.90	45.58	+0.68
27820	44.34	45.48	+1.14
27840	44.52	45.38	+0.87
27860	44.20	45.28	+1.08
27880	43.80	45.18	+1.38
27900	42.19	45.08	+2.89

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

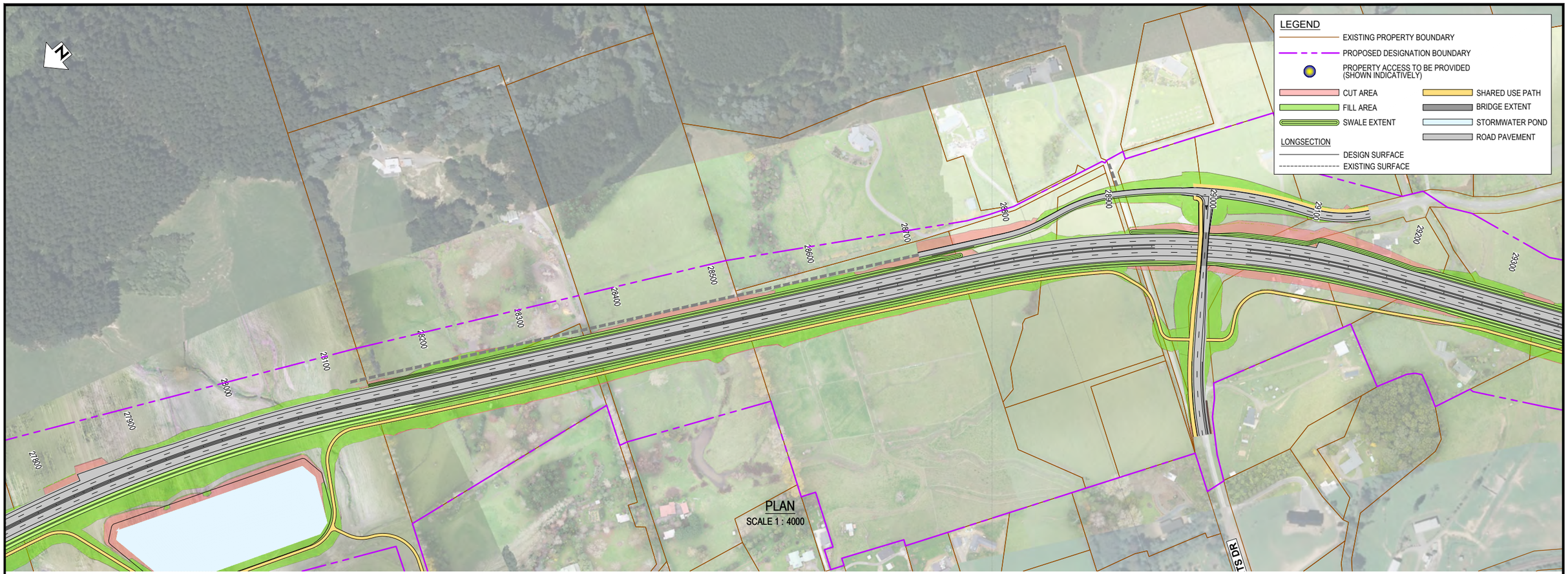
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

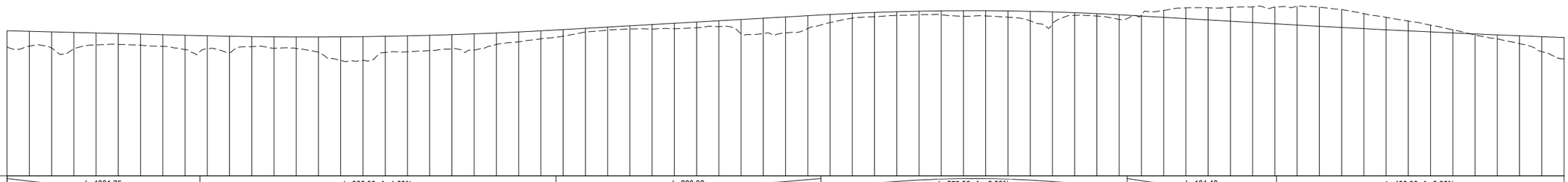
PLAN AND LONG SECTION
SHEET 13

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1513
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1513



PLAN
SCALE 1 : 4000



HAD = 19.00

VERTICAL GEOMETRY	L=1931.75 G=-0.5%	L=320.00, Δ=1.63% K=195.99	L=238.32 G=1.1%	L=275.30, Δ=-2.29% K=120.00	L=134.40 G=-1.2%	L=400.00, Δ=0.66% K=604.75
HORIZONTAL GEOMETRY	R 1500.00 A 543.47	S 37.50	598.17m 206°47'31"	S 65.00	R 850.00 A 355.14	S 65.00	291.13m 235°06'43"
SUPERELEVATION	Le = -3.00% 28098.29 Re = -3.00%	Le = -3.00% 28173.29 Re = -3.00%	Le = -3.00% 28634.95 Re = -3.00%	Le = 5.00% 28798.95 Re = -5.00%	Le = 5.00% 29154.09 Re = -5.00%	Le = -3.00% 29258.09 Re = -3.00%

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
27900	+2.89	45.08	42.19
27920	+2.66	44.98	42.32
27940	+2.90	44.88	41.98
27960	+2.95	44.78	41.83
27980	+2.13	44.68	42.55
28000	+1.95	44.58	42.64
28020	+1.99	44.48	42.49
28040	+2.11	44.38	42.28
28060	+2.56	44.28	41.72
28080	+2.33	44.18	41.85
28100	+2.99	44.10	41.11
28120	+1.81	44.04	42.22
28140	+2.07	43.99	41.92
28160	+2.07	43.97	41.91
28180	+2.73	43.97	41.24
28200	+4.25	43.99	39.74
28220	+4.27	44.03	39.76
28240	+2.89	44.09	41.19
28260	+2.86	44.17	41.30
28280	+2.74	44.27	41.53
28300	+2.56	44.39	41.83
28320	+2.90	44.53	41.64
28340	+2.07	44.69	42.62
28360	+1.79	44.88	43.08
28380	+1.44	45.08	43.64
28400	+1.18	45.30	44.12
28420	+0.67	45.53	44.86
28440	+0.55	45.75	45.20
28460	+0.58	45.98	45.40
28480	+0.82	46.21	45.39
28500	+0.99	46.43	45.44
28520	+1.03	46.66	45.63
28540	+1.05	46.89	45.84
28560	+2.60	47.11	44.51
28580	+2.74	47.34	44.60
28600	+2.86	47.57	44.71
28620	+2.30	47.79	45.49
28640	+1.46	48.02	46.56
28660	+0.85	48.21	47.36
28680	+0.75	48.37	47.63
28700	+0.66	48.50	47.85
28720	+0.62	48.60	47.98
28740	+0.69	48.66	47.97
28760	+1.00	48.69	47.69
28780	+0.94	48.69	47.75
28800	+1.12	48.65	47.53
28820	+1.72	48.58	46.86
28840	+2.12	48.48	46.36
28860	+0.50	48.34	47.84
28880	+0.43	48.17	47.74
28900	+0.85	47.97	47.12
28920	-0.19	47.74	47.93
28940	-1.26	47.50	48.76
28960	-1.95	47.27	49.22
28980	-2.19	47.04	49.24
29000	-2.49	46.81	49.30
29020	-2.82	46.58	49.40
29040	-3.01	46.34	49.36
29060	-3.36	46.11	49.48
29080	-3.44	45.89	49.33
29100	-3.22	45.67	48.90
29120	-2.71	45.47	48.18
29140	-2.24	45.26	47.50
29160	-1.77	45.07	46.83
29180	-1.23	44.88	46.10
29200	-0.58	44.69	45.27
29220	+0.20	44.52	44.32
29240	+0.70	44.35	43.64
29260	+1.41	44.18	42.77
29280	+2.68	44.03	41.34
29300	+3.78	43.88	40.10

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

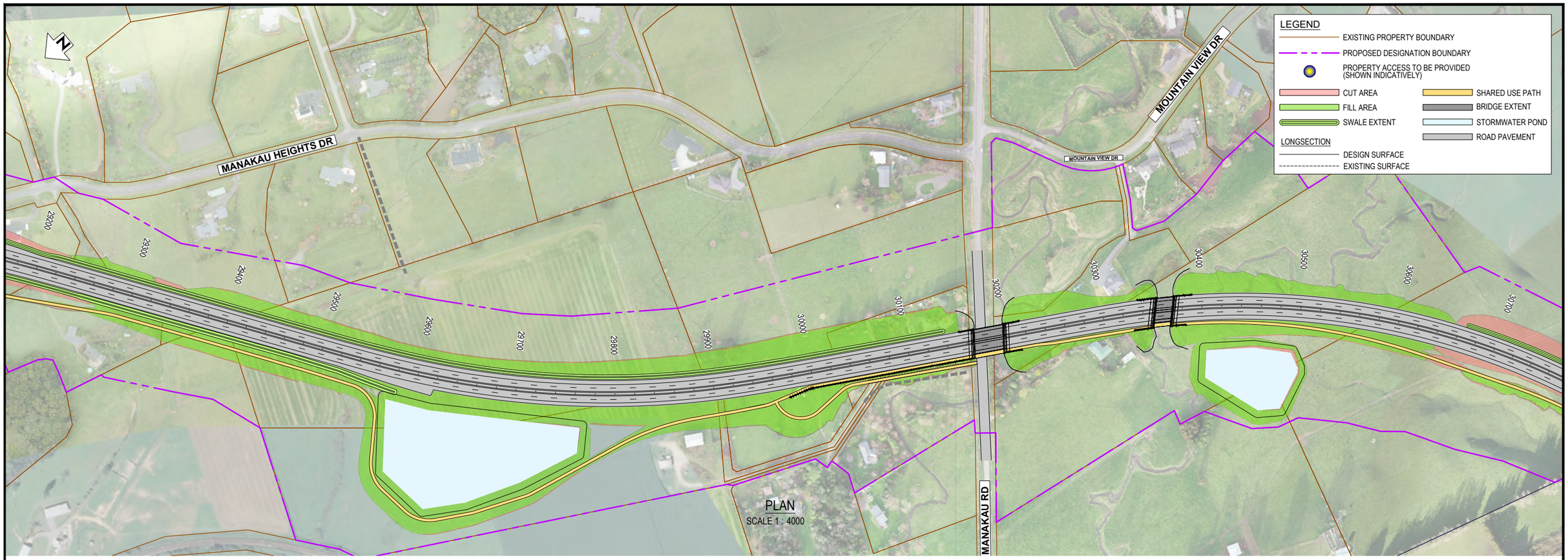
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

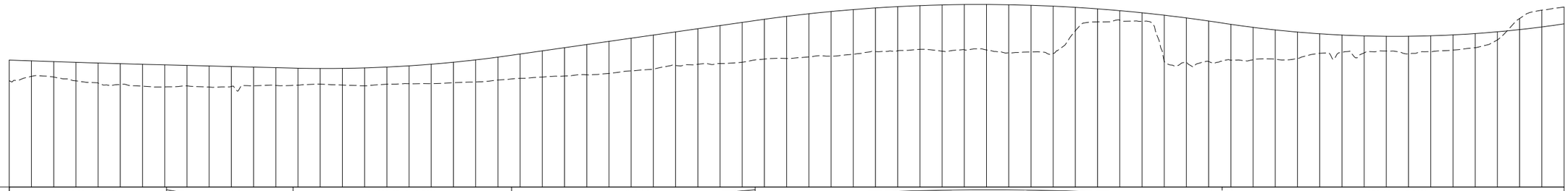
PLAN AND LONG SECTION
SHEET 14

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1514
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1514



PLAN
SCALE 1 : 4000



HAD = 21.00

VERTICAL GEOMETRY	L=400.00, Δ=0.66% K=604.75 / L=113.97 G=-0.5% / L=196.82, Δ=3.35% K=58.69 / L=219.34 G=2.9% / L=420.46, Δ=-5.92% K=71.00 / L=0.00 G=-3.1% / L=389.42, Δ=7.64% K=51.00
HORIZONTAL GEOMETRY	291.13m 235°06'43" / S 65.00 / R 900.00 A 346.54 / S 65.00 / 153.25m 208°54'46" / 127.06m 208°53'06" / S 75.00 / R 750.00 A 769.81
SUPERELEVATION	Le = -3.00% 29471.22 Re = 3.00% / Le = -5.00% 29575.22 Re = 5.00% / Le = -5.00% 29921.75 Re = 5.00% / Le = -3.00% 30035.75 Re = -3.00% / Le = -3.00% 30229.56 Re = 3.00% / Le = 6.00% 30342.06 Re = -6.00%

CHAINAGE	GROUND LEVEL	FINISHED LEVEL	-CUT +FILL
29300	40.10	43.88	+3.78
29320	40.94	43.73	+2.80
29340	40.82	43.60	+2.78
29360	40.13	43.47	+3.33
29380	39.74	43.34	+3.60
29400	39.51	43.22	+3.72
29420	39.17	43.11	+3.94
29440	39.04	43.01	+3.97
29460	39.23	42.91	+3.68
29480	39.01	42.81	+3.80
29500	39.11	42.71	+3.60
29520	39.25	42.61	+3.36
29540	39.31	42.51	+3.20
29560	39.35	42.41	+3.06
29580	39.55	42.36	+2.82
29600	39.38	42.38	+3.00
29620	39.24	42.46	+3.23
29640	39.53	42.62	+3.09
29660	39.62	42.84	+3.22
29680	39.63	43.13	+3.50
29700	39.80	43.49	+3.68
29720	39.93	43.92	+3.99
29740	40.28	44.41	+4.13
29760	40.57	44.97	+4.40
29780	40.82	45.54	+4.72
29800	40.99	46.11	+5.12
29820	41.22	46.68	+5.46
29840	41.47	47.25	+5.78
29860	41.94	47.82	+5.89
29880	42.25	48.39	+6.14
29900	42.88	48.96	+6.08
29920	43.12	49.53	+6.42
29940	43.27	50.11	+6.84
29960	43.48	50.68	+7.19
29980	44.06	51.24	+7.18
30000	44.16	51.76	+7.60
30020	44.44	52.22	+7.78
30040	44.58	52.63	+8.05
30060	44.94	52.98	+8.04
30080	45.42	53.27	+7.86
30100	45.55	53.51	+7.96
30120	45.81	53.69	+7.88
30140	45.48	53.82	+8.34
30160	45.73	53.89	+8.16
30180	45.71	53.90	+8.19
30200	45.20	53.85	+8.66
30220	45.34	53.75	+8.41
30240	45.05	53.60	+8.55
30260	49.15	53.38	+4.23
30280	50.78	53.11	+2.34
30300	51.08	52.79	+1.71
30320	50.87	52.41	+1.54
30340	43.64	51.97	+8.33
30360	43.51	51.47	+7.96
30380	43.62	50.92	+7.30
30400	43.85	50.32	+6.48
30420	43.93	49.78	+5.85
30440	44.02	49.31	+5.29
30460	44.17	48.93	+4.76
30480	45.10	48.62	+3.52
30500	45.27	48.39	+3.12
30520	45.17	48.24	+3.07
30540	45.52	48.17	+2.65
30560	44.97	48.17	+3.20
30580	45.39	48.25	+2.86
30600	45.68	48.42	+2.74
30620	46.11	48.66	+2.55
30640	47.50	48.98	+1.47
30660	51.37	49.37	-1.99
30680	52.88	49.85	-3.02
30700	53.44	50.41	-3.03

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

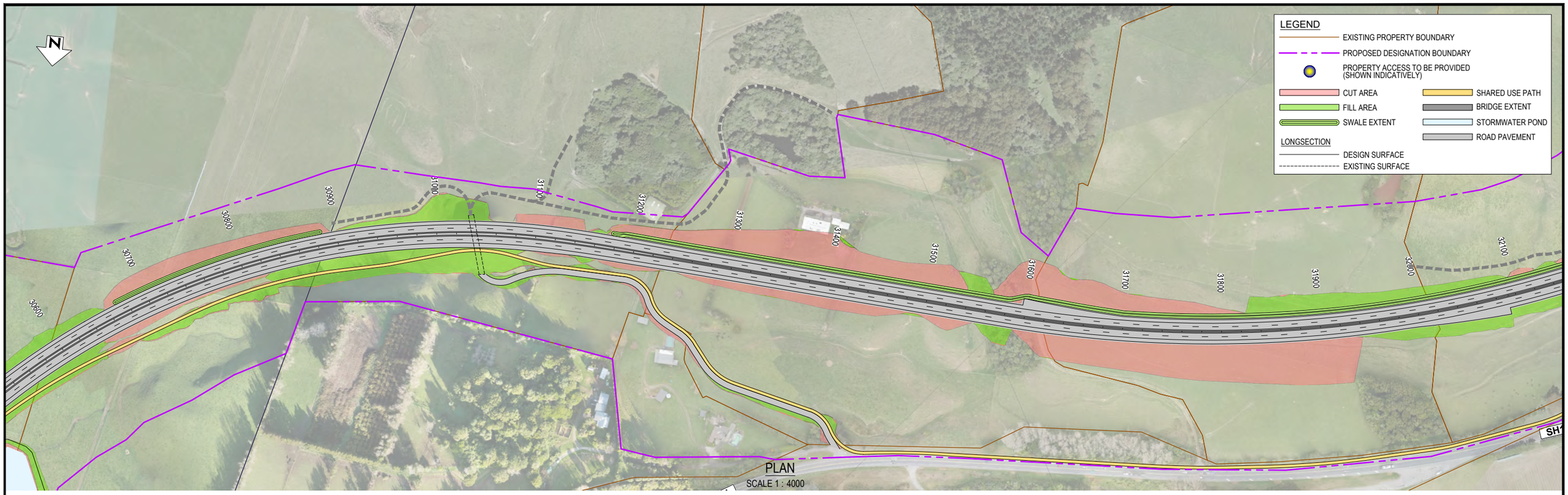
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

PLAN AND LONG SECTION
SHEET 15

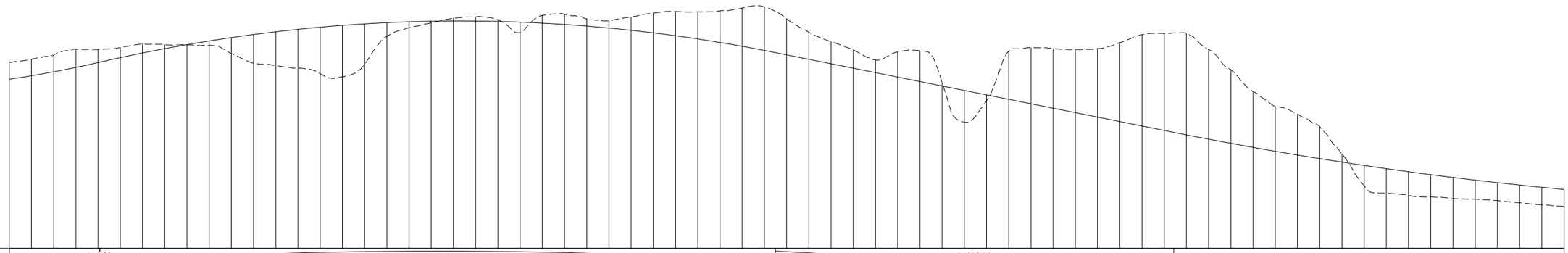
Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1515
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1515



PLAN

SCALE 1 : 4000



HAD = 20.00

VERTICAL GEOMETRY: L=389.42, Δ=7.64% K=51.00 | L=0.00 G=4.6% | L=608.29, Δ=-8.57% K=71.00 | L=358.74 G=-4.0% | L=693.00, Δ=4.25% K=163.06

HORIZONTAL GEOMETRY: R 750.00 A 769.81 | S 75.00 | 369.24m 273°25'25" | S 50.00 | R 1250.00 A 965.04

SUPERELEVATION: Le = 6.00% 31111.87 Re = -6.00% | Le = 3.00% 31224.37 Re = -3.00% | Le = 3.00% 31516.62 Re = -3.00% | Le = -4.00% 31616.12 Re = 4.00%

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
30700	-3.03	50.41	53.44
30720	-2.98	51.04	54.02
30740	-3.00	51.75	54.75
30760	-3.29	52.54	55.83
30780	-2.35	53.41	55.76
30800	-1.81	54.30	56.11
30820	-1.63	55.13	56.76
30840	-0.72	55.91	56.63
30860	+0.02	56.63	56.60
30880	+0.77	57.29	56.52
30900	+2.88	57.90	55.02
30920	+5.17	58.45	53.28
30940	+6.09	58.95	52.85
30960	+6.97	59.39	52.41
30980	+8.37	59.77	51.40
31000	+9.23	60.10	50.86
31020	+7.23	60.37	53.14
31040	+2.44	60.58	58.14
31060	+1.06	60.74	59.68
31080	+0.30	60.84	60.54
31100	-0.50	60.88	61.38
31120	-0.78	60.87	61.65
31140	-0.30	60.80	61.10
31160	+1.87	60.68	58.81
31180	-1.38	60.50	61.87
31200	-1.82	60.26	62.08
31220	-1.29	59.97	61.26
31240	-1.32	59.62	60.93
31260	-2.40	59.21	61.61
31280	-3.56	58.75	62.30
31300	-4.36	58.23	62.59
31320	-4.86	57.65	62.51
31340	-5.69	57.02	62.71
31360	-6.89	56.34	63.22
31380	-7.85	55.59	63.44
31400	-6.48	54.80	61.28
31420	-4.88	54.00	58.88
31440	-3.98	53.20	57.18
31460	-3.28	52.40	55.68
31480	-2.28	51.60	53.88
31500	-4.52	50.80	55.31
31520	-5.54	50.00	55.54
31540	-0.60	49.20	49.80
31560	+5.68	48.40	42.71
31580	+1.08	47.60	46.52
31600	-8.68	46.80	55.48
31620	-10.08	46.00	56.08
31640	-10.73	45.20	55.93
31660	-11.34	44.40	55.74
31680	-12.31	43.60	55.90
31700	-14.18	42.80	56.98
31720	-16.43	42.00	58.42
31740	-17.43	41.20	58.63
31760	-18.28	40.40	58.68
31780	-16.13	39.63	55.76
31800	-13.26	38.88	52.13
31820	-10.00	38.15	48.16
31840	-8.09	37.45	45.55
31860	-7.32	36.78	44.10
31880	-5.76	36.13	41.89
31900	-1.48	35.50	36.98
31920	+3.62	34.90	31.28
31940	+4.43	34.32	29.90
31960	+4.23	33.77	29.54
31980	+4.00	33.24	29.24
32000	+3.81	32.74	28.92
32020	+3.42	32.26	28.83
32040	+3.23	31.80	28.58
32060	+3.19	31.37	28.19
32080	+3.16	30.97	27.81
32100	+3.04	30.58	27.55

50 0 50 100m

SCALE 1:4000 (A3)

LONGSECTION

SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

PLAN AND LONG SECTION
SHEET 16

Status Stamp: **FOR CONSENT**

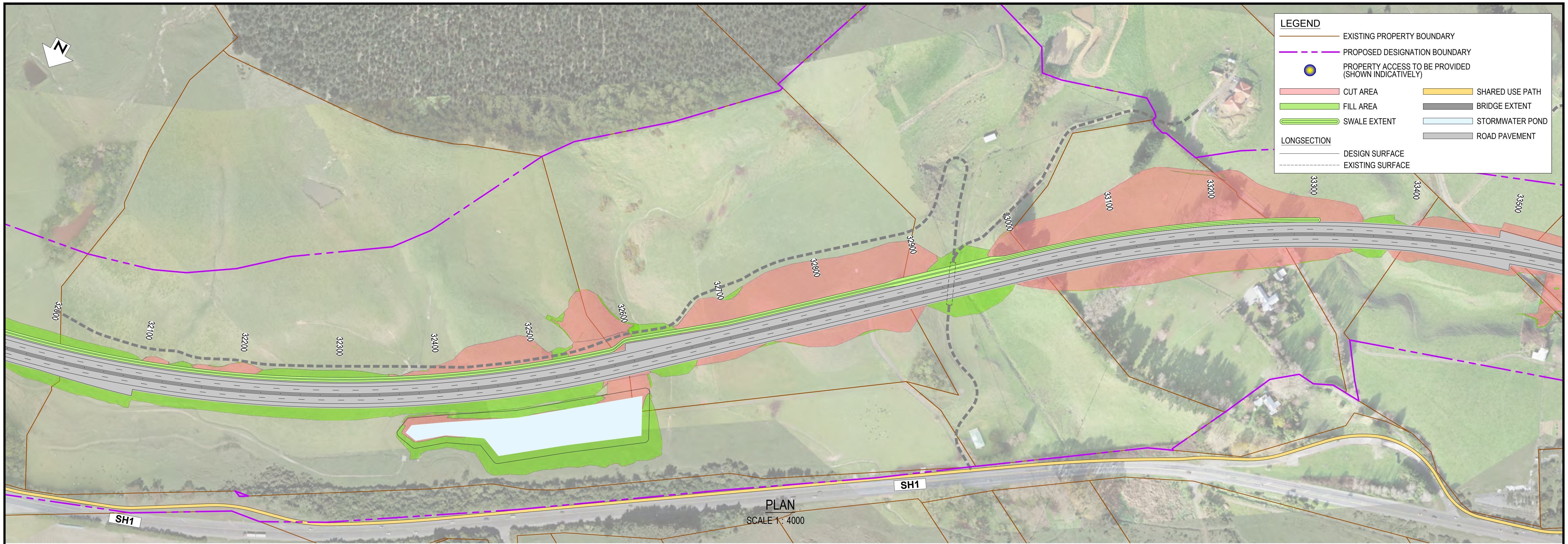
Date Stamp: **10.10.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C1516

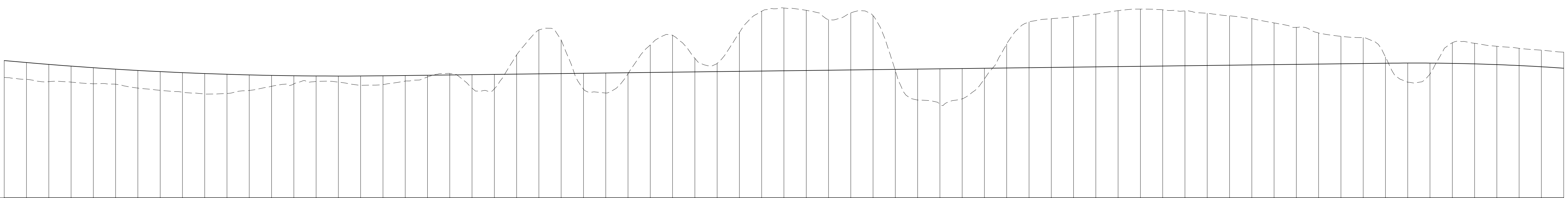
Rev.: D

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C1516



PLAN

SCALE 1 : 4000



HAD = 6.00

VERTICAL GEOMETRY: L=693.00, Δ=4.25% K=163.06 | L=899.96 G=0.2% | L=306.97, Δ=-3.15% K=97.30

HORIZONTAL GEOMETRY: R 1250.00 A 965.04 | S 50.00 | 366.90m 226°53'51" | S 50.00 | R 1200.00 A 565.01

SUPERELEVATION: Le = -4.00% 32571.16 Re = 4.00% | Le = -3.00% 32658.66 Re = -3.00% | Le = -3.00% 32950.56 Re = -3.00% | Le = 4.00% 33038.06 Re = -4.00%

CHAINAGE	GROUND LEVEL	FINISHED LEVEL	-CUT +FILL
32100	27.55	30.58	+3.04
32120	27.22	30.23	+3.01
32140	26.81	29.90	+3.09
32160	26.72	29.59	+2.87
32180	26.42	29.30	+2.89
32200	26.35	29.05	+2.70
32220	25.64	28.81	+3.17
32240	25.25	28.60	+3.35
32260	24.91	28.42	+3.51
32280	24.59	28.26	+3.67
32300	24.69	28.12	+3.43
32320	25.23	28.01	+2.78
32340	25.97	27.92	+1.95
32360	26.41	27.86	+1.45
32380	26.82	27.82	+1.01
32400	26.72	27.81	+1.09
32420	26.13	27.82	+1.69
32440	26.28	27.86	+1.58
32460	26.91	27.91	+1.00
32480	27.65	27.96	+0.31
32500	28.27	28.01	-0.27
32520	25.64	28.06	+2.42
32540	25.53	28.11	+2.58
32560	31.60	28.16	-3.45
32580	36.09	28.21	-7.89
32600	34.25	28.26	-5.99
32620	25.46	28.31	+2.84
32640	24.77	28.36	+3.59
32660	28.24	28.41	+0.17
32680	33.38	28.46	-4.92
32700	35.13	28.51	-6.63
32720	31.00	28.56	-2.44
32740	30.07	28.61	-1.46
32760	35.60	28.66	-6.95
32780	39.43	28.71	-10.73
32800	40.00	28.76	-11.25
32820	39.59	28.81	-10.78
32840	37.93	28.86	-9.07
32860	39.13	28.91	-10.22
32880	38.62	28.96	-9.66
32900	28.74	29.01	+0.27
32920	23.52	29.06	+5.54
32940	22.77	29.11	+6.34
32960	23.72	29.16	+5.44
32980	27.30	29.21	+1.90
33000	33.56	29.26	-4.30
33020	37.50	29.31	-8.20
33040	38.08	29.36	-8.72
33060	38.45	29.41	-9.04
33080	38.93	29.46	-9.48
33100	39.53	29.51	-10.02
33120	39.81	29.56	-10.26
33140	39.68	29.61	-10.07
33160	39.50	29.66	-9.84
33180	39.06	29.71	-9.35
33200	38.61	29.76	-8.85
33220	38.10	29.81	-8.30
33240	37.33	29.86	-7.48
33260	36.54	29.91	-6.63
33280	35.52	29.96	-5.56
33300	34.93	30.01	-4.93
33320	34.70	30.06	-4.64
33340	31.23	30.11	-1.13
33360	26.72	30.14	+3.42
33380	28.19	30.13	+1.94
33400	33.77	30.08	-3.69
33420	33.69	29.99	-3.70
33440	33.14	29.86	-3.28
33460	32.77	29.69	-3.09
33480	32.45	29.47	-2.98
33500	32.10	29.22	-2.88

50 0 50 100m

SCALE 1:4000 (A3)

LONGSECTION

SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

PLAN AND LONG SECTION
SHEET 17

Status Stamp: **FOR CONSENT**

Date Stamp: **10.10.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C1517

Rev.: D

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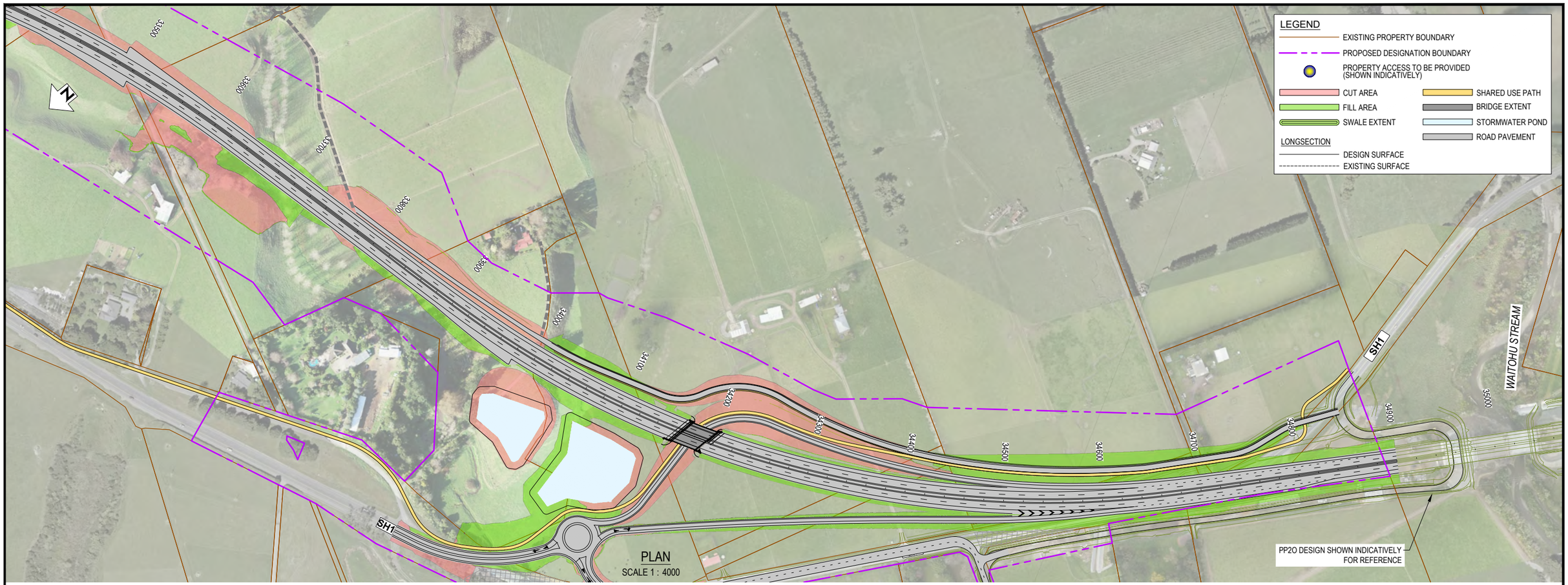
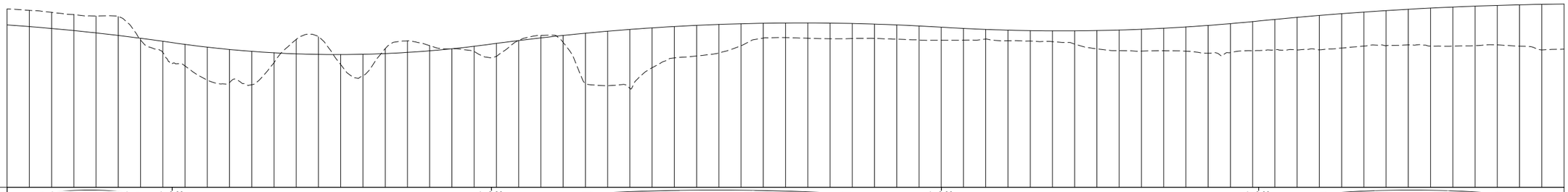


PLAN
SCALE 1 : 4000



HAD = 0.00

VERTICAL GEOMETRY	L=306.97, Δ=-3.15% K=97.30 / L=0.00 G=-2.9% / L=287.07, Δ=5.63% K=51.00 / L=0.00 G=2.7% / L=404.64, Δ=-3.95% K=102.49 / L=0.00 G=-1.2% / L=285.18, Δ=3.23% K=88.23 / L=0.00 G=2.0% / L=575.87, Δ=-3.75% K=153.50
HORIZONTAL GEOMETRY	R 1200.00 A 565.01 / S 50.00 / 212.48m 256°15'43" / S 65.00 / R 1000.00 A 727.24 / S 65.00 / 594.33m 210°52'12"
SUPERELEVATION	Le = 4.00% 33603.01 Re = -4.00% / Le = -3.00% 33669.57 Re = -3.00% / Le = -3.00% 33816.55 Re = -3.00% / Le = -3.00% 33930.55 Re = 5.00% / Le = -5.00% 34657.79 Re = 5.00% / Le = -3.00% 34761.79 Re = -3.00%

CHAINAGE	-CUT +FILL	FINISHED LEVEL	GROUND LEVEL
33500	-2.88	29.22	32.10
33520	-2.92	28.92	31.84
33540	-2.91	28.58	31.49
33560	-2.89	28.20	31.09
33580	-3.04	27.78	30.83
33600	-3.41	27.32	30.74
33620	+0.34	26.82	26.48
33640	+2.01	26.28	24.27
33660	+3.88	25.72	21.83
33680	+5.92	25.22	19.30
33700	+5.96	24.80	18.84
33720	+6.02	24.46	18.44
33740	+1.80	24.20	22.40
33760	-2.61	24.02	26.62
33780	-3.18	23.91	27.09
33800	+1.80	23.89	22.08
33820	+3.84	23.94	20.09
33840	-0.87	24.07	24.94
33860	-2.08	24.28	26.35
33880	-0.93	24.56	25.49
33900	+0.01	24.93	24.92
33920	+0.93	25.38	24.44
33940	+2.34	25.90	23.56
33960	0.00	26.41	26.41
33980	-0.44	26.89	27.33
34000	+1.25	27.33	26.08
34020	+9.04	27.73	18.69
34040	+9.82	28.09	18.27
34060	+10.60	28.41	17.81
34080	+7.16	28.69	21.53
34100	+5.66	28.94	23.28
34120	+5.51	29.14	23.63
34140	+5.13	29.31	24.17
34160	+3.96	29.43	25.48
34180	+2.66	29.52	26.86
34200	+2.62	29.57	26.94
34220	+2.75	29.58	26.83
34240	+2.82	29.55	26.73
34260	+2.70	29.48	26.78
34280	+2.57	29.37	26.80
34300	+2.56	29.22	26.66
34320	+2.53	29.04	26.51
34340	+2.35	28.81	26.46
34360	+2.11	28.59	26.48
34380	+1.73	28.41	26.68
34400	+1.90	28.28	26.38
34420	+1.88	28.19	26.32
34440	+1.94	28.15	26.21
34460	+2.39	28.16	25.77
34480	+3.30	28.21	24.91
34500	+3.70	28.30	24.60
34520	+3.93	28.44	24.51
34540	+4.05	28.63	24.57
34560	+4.37	28.86	24.49
34580	+5.01	29.13	24.12
34600	+5.21	29.45	24.24
34620	+5.23	29.82	24.59
34640	+5.47	30.21	24.74
34660	+5.87	30.58	24.71
34680	+6.19	30.93	24.74
34700	+6.19	31.24	25.05
34720	+6.12	31.54	25.41
34740	+6.32	31.80	25.48
34760	+6.42	32.04	25.62
34780	+6.85	32.25	25.41
34800	+7.04	32.44	25.40
34820	+7.12	32.60	25.48
34840	+7.10	32.74	25.63
34860	+7.45	32.84	25.40
34880	+8.21	32.93	24.72
34900	+8.12	32.98	24.86

50 0 50 100m
SCALE 1:4000 (A3)

LONGSECTION
SCALE 1 : 4000H 1 : 800V

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
D	VARIOUS UPDATES - ISSUED FOR RMA CONSENT	MH	JP	JP	10.10.22
C	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
B	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21

SURVEYED		
DESIGNED	Steve Muller	30.11.21
DRAWN	Steve Muller	30.11.21
CAD REVIEW	Steve Sutton	08.12.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	10.10.222
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

PLAN AND LONG SECTION
SHEET 18

Status Stamp: **FOR CONSENT**
Date Stamp: **10.10.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C1518
Rev.: D

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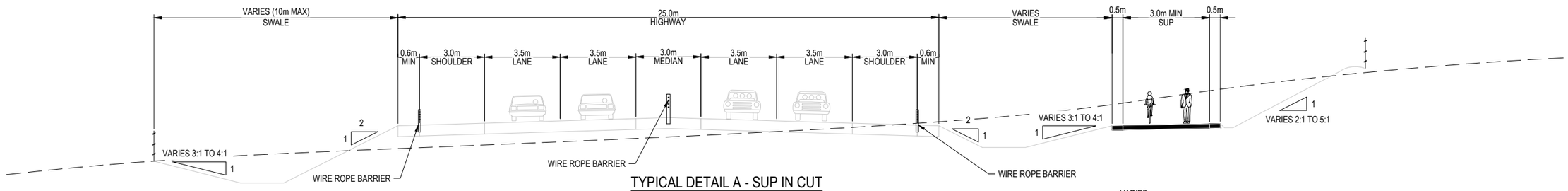
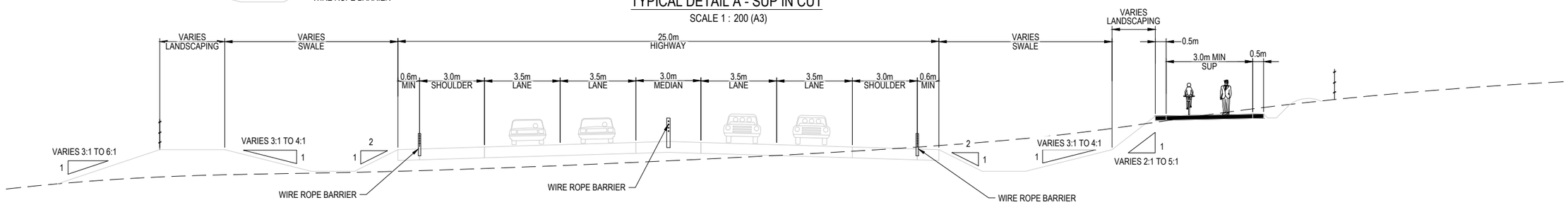


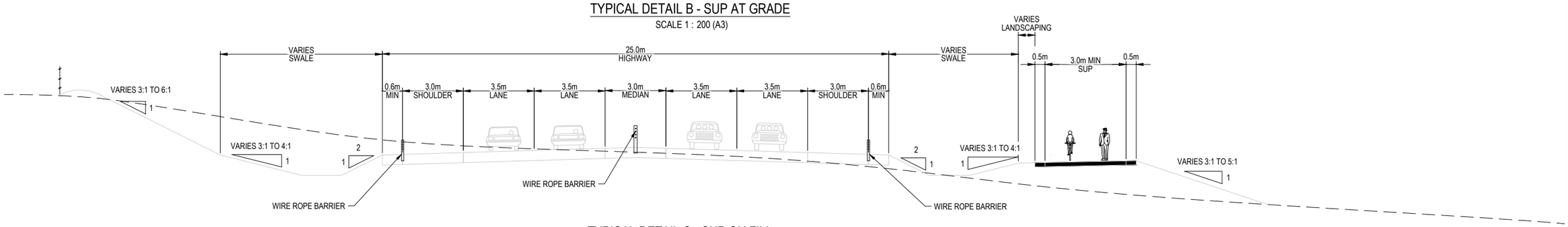
TYPICAL DETAIL A - SUP IN CUT

SCALE 1 : 200 (A3)



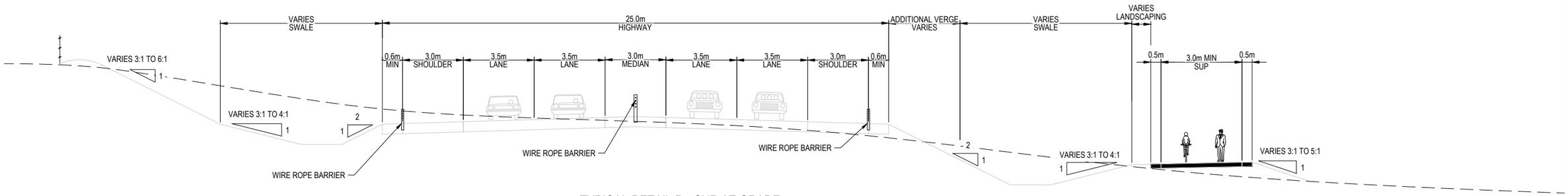
TYPICAL DETAIL B - SUP AT GRADE

SCALE 1 : 200 (A3)



TYPICAL DETAIL C - SUP ON FILL

SCALE 1 : 200 (A3)



TYPICAL DETAIL D - SUP AT GRADE

SCALE 1 : 200 (A3)

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
E	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
D	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
C	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21
B	ISSUED FOR CONSENTING - DRAFT REVIEW	SS	KW	JP	30.08.21
A	ISSUED FOR DBC	SS	KW	JP	18.06.21

SURVEYED		
DESIGNED	Steve Muller	18.06.21
DRAWN	Reid Hermansen	18.06.21
CAD REVIEW	Steve Sutton	18.06.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	19.08.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

TYPICAL SECTIONS
SHEET 1

Status Stamp: **FOR CONSENT**

Date Stamp: **19.08.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2000

Rev.: E

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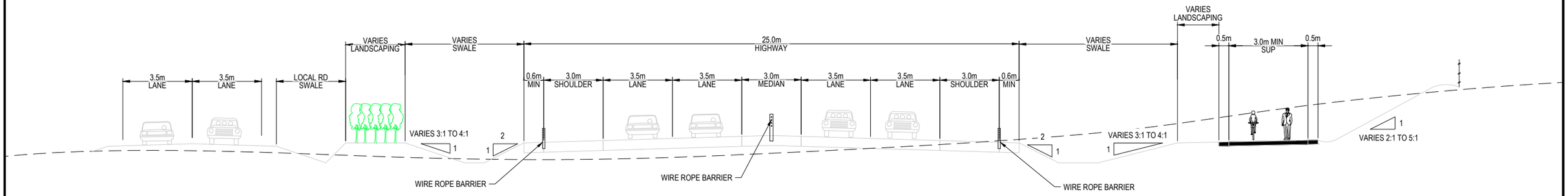
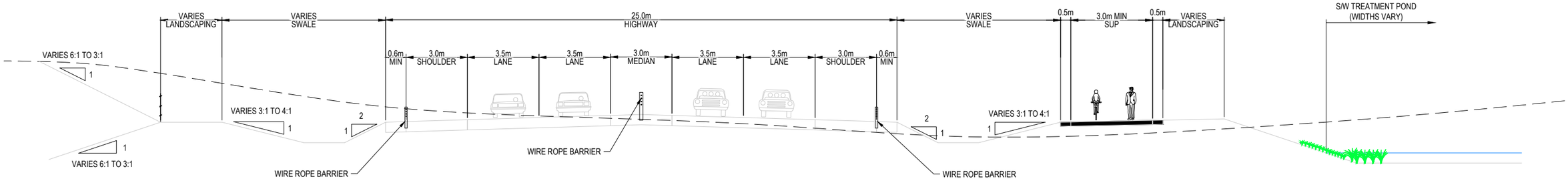


TYPICAL DETAIL I - HIGHWAY WITH LOCAL ROAD AND LANDSCAPING

SCALE 1 : 200 (A3)



TYPICAL DETAIL K - HIGHWAY WITH NEAR S/W TREATMENT FACILITY

SCALE 1 : 200 (A3)

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
E	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
D	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
C	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21
B	ISSUED FOR CONSENTING - DRAFT REVIEW	SS	KW	JP	30.08.21
A	ISSUED FOR DBC	SS	KW	JP	18.06.21

SURVEYED		
DESIGNED	Steve Muller	18.06.21
DRAWN	Reid Hermansen	18.06.21
CAD REVIEW	Steve Sutton	18.06.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	19.08.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

TYPICAL SECTIONS
SHEET 2

Status Stamp: **FOR CONSENT**

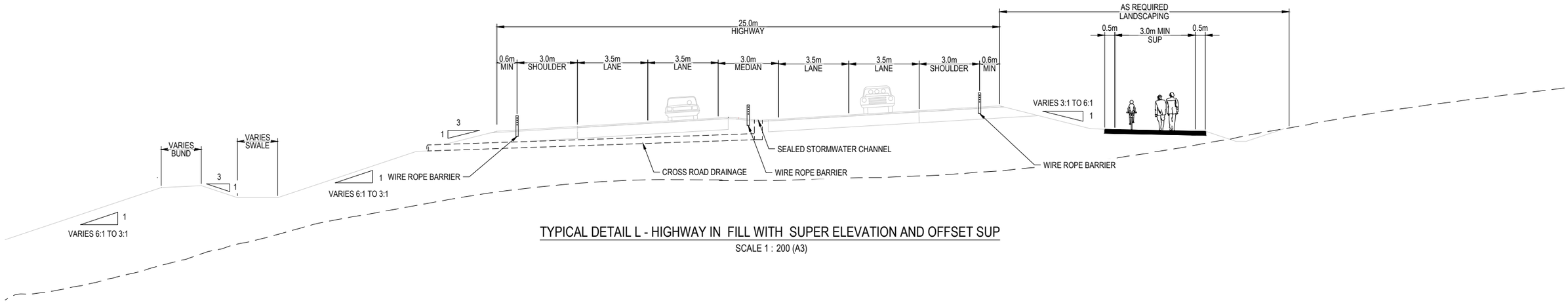
Date Stamp: **19.08.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2001

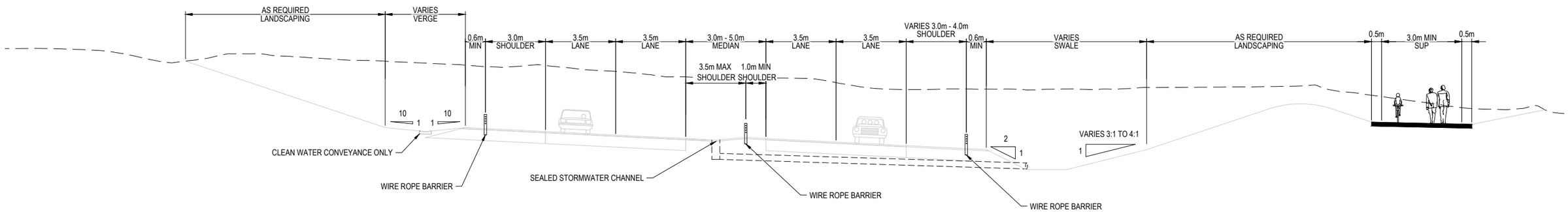
Rev.: E

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2001



TYPICAL DETAIL L - HIGHWAY IN FILL WITH SUPER ELEVATION AND OFFSET SUP

SCALE 1 : 200 (A3)



TYPICAL DETAIL M - HIGHWAY IN CUT WITH SUPER ELEVATION AND OFFSET SUP AND MEDIAN WIDENING (BARRIER OFFSET)

SCALE 1 : 200 (A3)

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
E	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
D	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
C	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21
B	ISSUED FOR CONSENTING - DRAFT REVIEW	SS	KW	JP	30.08.21
A	ISSUED FOR DBC	SS	KW	JP	18.06.21

SURVEYED		
DESIGNED	Steve Muller	18.06.21
DRAWN	Reid Hermansen	18.06.21
CAD REVIEW	Steve Sutton	18.06.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	19.08.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

TYPICAL SECTIONS
SHEET 3

Status Stamp: **FOR CONSENT**

Date Stamp: **19.08.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2002

Rev.: E

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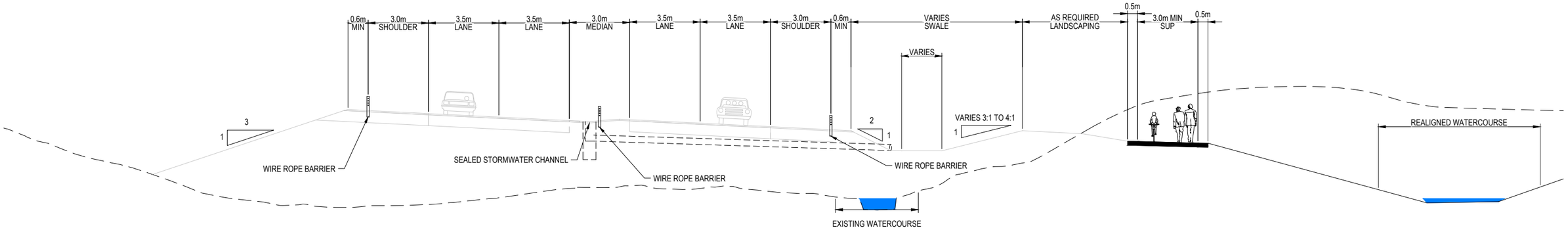
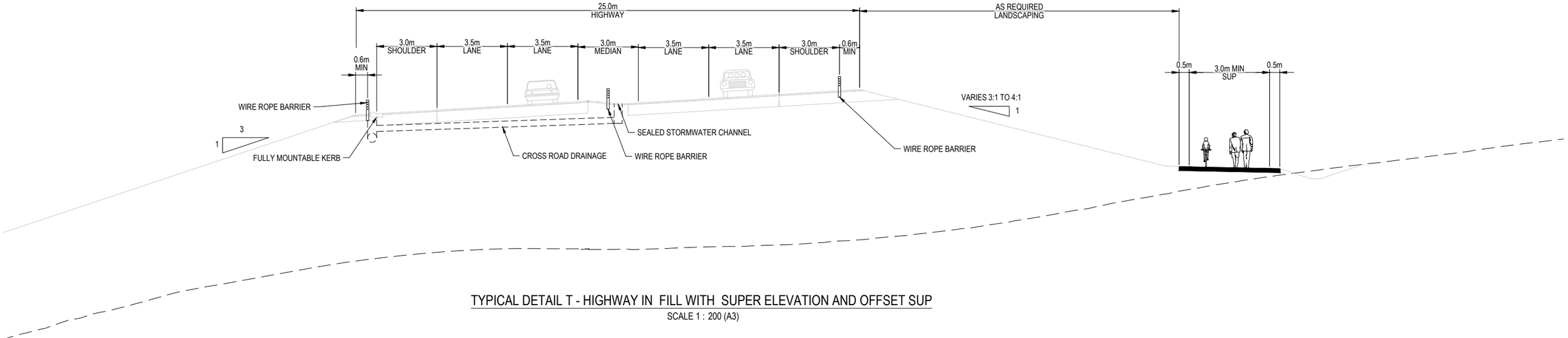


TYPICAL DETAIL S - HIGHWAY IN FILL WITH SUPER ELEVATION, OFFSET SUP AND REALIGNED WATERCOURSE

SCALE 1 : 200 (A3)



TYPICAL DETAIL T - HIGHWAY IN FILL WITH SUPER ELEVATION AND OFFSET SUP

SCALE 1 : 200 (A3)

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
E	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
D	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22
C	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	09.12.21
B	ISSUED FOR CONSENTING - DRAFT REVIEW	SS	KW	JP	30.08.21
A	ISSUED FOR DBC	SS	KW	JP	18.06.21

SURVEYED		
DESIGNED	Steve Muller	18.06.21
DRAWN	Reid Hermansen	18.06.21
CAD REVIEW	Steve Sutton	18.06.21
DESIGN CHECK	Jamie Povall	07.12.21
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	19.08.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
OTAKI TO NORTH OF LEVIN PROJECT

TYPICAL SECTIONS
SHEET 4

Status Stamp: **FOR CONSENT**

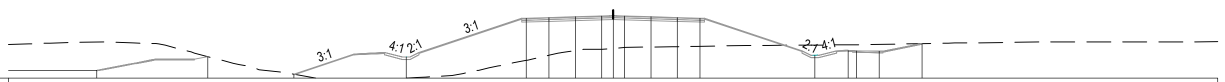
Date Stamp: **19.08.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2003

Rev.: E

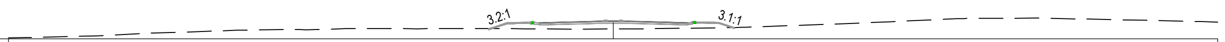
pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2003



DATUM 44.000

CUT/FILL	-3.773	0.009	0.000	2.773	5.569	4.991	4.478	4.403	4.287	4.168	4.003	3.846	3.705	-1.363	-0.748	-0.799	-0.907	0.018
DESIGN LEVELS	45.000	46.846	44.520	46.771	51.913	52.003	52.108	52.213	52.213	52.213	52.108	52.003	51.913	47.002	47.648	47.610	47.552	48.576
EXISTING LEVELS	48.773	46.837	44.520	43.998	46.343	47.011	47.629	47.810	47.926	48.045	48.104	48.157	48.208	48.365	48.396	48.408	48.459	48.558
OFFSET	-68.312	-53.625	-42.226	-27.373	-11.500	-8.500	-5.000	-1.500	-0.000	1.500	5.000	8.500	11.500	26.678	31.105	32.185	35.199	40.877

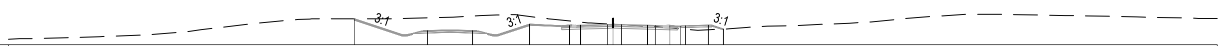
CHAINAGE 10500



DATUM 48.000

CUT/FILL	0.817
DESIGN LEVELS	50.138
EXISTING LEVELS	49.321
OFFSET	-0.000

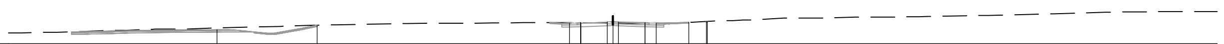
CHAINAGE 10250



DATUM 45.000

CUT/FILL	0.000	-1.693	-1.921	-1.043	-0.623	-0.416	-0.416	-0.080	-0.038	0.029	0.128	0.158	0.258	0.368	0.451	0.575	-0.000
DESIGN LEVELS	48.420	46.860	46.859	47.708	47.524	47.569	47.569	47.674	47.674	47.674	47.569	47.539	47.481	47.473	47.506	47.568	47.076
EXISTING LEVELS	48.420	48.553	48.780	48.751	48.147	47.986	47.986	47.754	47.710	47.646	47.442	47.381	47.223	47.105	47.055	46.992	47.076
OFFSET	-34.230	-24.557	-18.560	-11.028	-5.750	-4.250	-4.250	-0.750	[illegible]	1.107	4.607	5.607	7.535	8.974	9.611	12.613	14.623

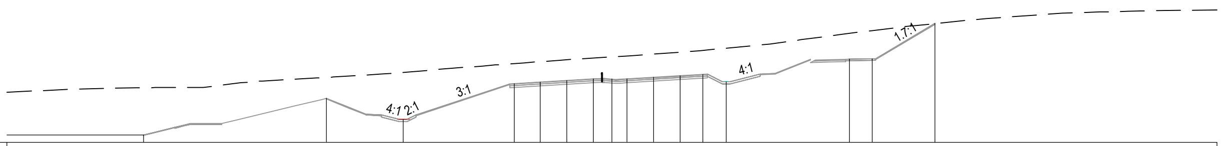
CHAINAGE 10000



DATUM 44.000

CUT/FILL	-0.246	-0.007	-0.047	0.006	0.006	0.149	[illegible]	0.169	0.076	0.076	0.010	0.001	0.000	-0.000
DESIGN LEVELS	45.820	46.400	46.693	46.738	46.738	46.843	[illegible]	46.843	46.738	46.738	46.693	46.791	46.906	46.911
EXISTING LEVELS	46.065	46.407	46.740	46.732	46.732	46.694	[illegible]	46.674	46.662	46.662	46.683	46.791	46.906	46.912
OFFSET	-52.380	-39.123	-5.750	-4.250	-4.250	-0.750	[illegible]	0.750	4.250	4.250	5.750	10.065	12.385	12.507

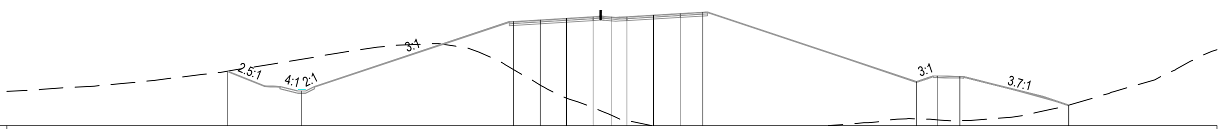
CHAINAGE 9950



DATUM 31.000

CUT/FILL	-6.273	-2.769	-6.254	-2.661	-2.710	-2.754	-2.764	-2.911	-3.029	-3.073	-3.123	-3.168	-4.436	-3.427	-3.730	0.018
DESIGN LEVELS	32.000	36.855	34.049	38.812	39.018	39.228	39.438	39.438	39.438	39.648	39.858	40.038	39.074	42.050	42.109	46.792
EXISTING LEVELS	38.273	39.624	40.302	41.472	41.728	41.982	42.202	42.348	42.466	42.721	42.981	43.206	43.509	45.477	45.839	46.774
OFFSET	-61.938	-37.762	-27.595	-12.913	-9.479	-5.979	-2.479	-0.000	2.000	5.500	9.000	12.000	15.100	31.394	34.396	42.691

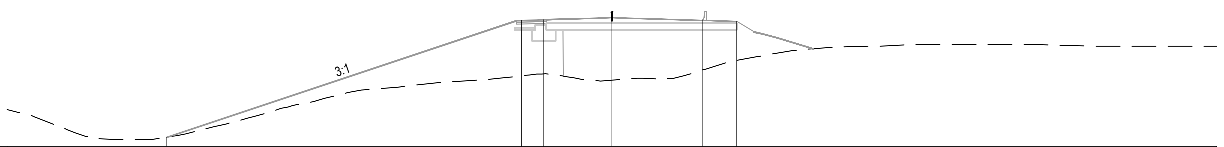
CHAINAGE 11250



DATUM 35.000

CUT/FILL	-0.000	-4.216	6.361	8.634	10.552	12.034	13.077	13.745	14.649	15.154	15.406	4.927	5.804	5.824	0.012
DESIGN LEVELS	42.192	39.544	48.752	48.962	49.172	49.382	49.382	49.382	49.592	49.802	49.982	40.798	41.532	41.474	37.698
EXISTING LEVELS	42.192	43.760	42.391	40.328	38.620	37.348	36.305	35.637	34.943	34.648	34.576	35.871	35.728	35.650	37.686
OFFSET	-50.788	-41.018	-13.000	-9.500	-6.000	-2.500	0.000	2.000	5.500	9.000	12.000	40.263	43.002	46.011	60.400

CHAINAGE 11000



DATUM 37.000

CUT/FILL	-0.000	7.355	7.170	8.213	6.571	5.164
DESIGN LEVELS	38.248	53.691	53.781	53.991	53.691	53.556
EXISTING LEVELS	38.248	46.337	46.611	45.778	47.120	48.391
OFFSET	-58.879	-12.000	-9.000	-0.000	12.000	16.515

CHAINAGE 10750

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 1

Status Stamp: **FOR CONSENT**

Date Stamp: **19.08.22**

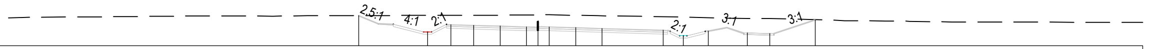
Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2501

Rev.: B

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2501

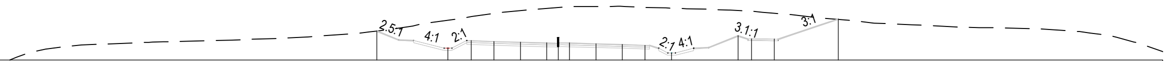
DATUM 25.000



CUT/FILL	0.000	-2.198	-1.217	-1.307	-1.429	-1.566	-1.579	-1.584	-1.617	-1.655	-1.775	-2.452	-0.471	-1.944	-1.966	-0.013
DESIGN LEVELS	28.972	26.827	27.809	27.719	27.614	27.509	27.509	27.509	27.404	27.299	27.057	26.322	28.230	26.673	26.612	28.438
EXISTING LEVELS	28.972	29.025	29.026	29.026	29.043	29.074	29.088	29.093	29.021	28.954	28.832	28.774	28.701	28.616	28.578	28.450
OFFSET	-23.713	-14.600	-11.500	-8.500	-5.000	-1.500	0.000	1.500	5.000	8.500	16.565	19.218	22.537	27.681	30.682	36.690

CHAINAGE 12250

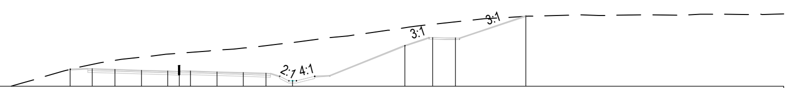
DATUM 26.000



CUT/FILL	0.000	-3.667	-3.157	-3.698	-4.163	-4.567	-4.690	-4.776	-4.915	-5.032	-4.986	-5.921	-3.331	-3.642	-3.449	0.067
DESIGN LEVELS	29.824	27.577	28.559	28.469	28.364	28.259	28.259	28.259	28.154	28.049	27.959	26.941	29.202	28.785	28.740	31.421
EXISTING LEVELS	29.824	31.243	31.716	32.167	32.527	32.826	32.949	33.035	33.069	33.081	32.945	32.862	32.533	32.427	32.189	31.355
OFFSET	-23.969	-14.600	-11.500	-8.500	-5.000	-1.500	0.000	1.500	5.000	8.500	11.500	15.000	23.809	25.562	28.572	37.048

CHAINAGE 12000

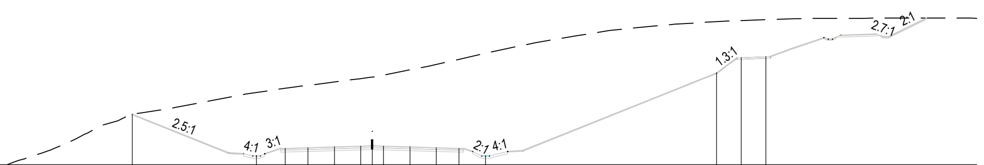
DATUM 27.000



CUT/FILL	0.000	-0.558	-1.212	-1.725	-2.224	-2.339	-2.455	-2.833	-3.237	-3.657	-5.070	-2.343	-1.748	-2.136	0.072
DESIGN LEVELS	29.212	29.309	29.219	29.114	29.009	29.009	29.009	28.904	28.799	28.709	27.691	32.370	33.421	33.363	36.294
EXISTING LEVELS	29.212	29.867	30.431	30.838	31.233	31.348	31.463	31.736	32.035	32.365	32.760	34.713	35.169	35.500	36.222
OFFSET	-14.402	-11.500	-8.500	-5.000	-1.500	-0.000	1.500	5.000	8.500	11.500	15.000	29.859	33.537	36.540	45.851

CHAINAGE 11750

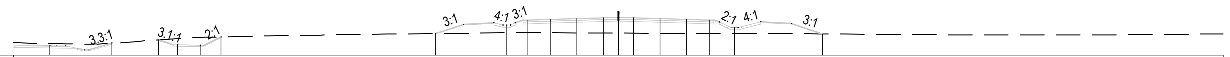
DATUM 28.000



CUT/FILL	0.000	-8.392	-7.924	-8.224	-8.567	-8.911	-9.105	-9.377	-10.161	-10.980	-11.760	-13.583	-6.791	-4.919	-4.900
DESIGN LEVELS	34.655	29.160	30.178	30.268	30.373	30.478	30.478	30.478	30.373	30.268	30.178	29.160	40.132	42.145	42.275
EXISTING LEVELS	34.655	37.552	38.103	38.492	38.941	39.389	39.583	39.856	40.534	41.248	41.938	42.744	46.922	47.064	47.176
OFFSET	-31.738	-15.300	-11.500	-8.500	-5.000	-1.500	-0.000	1.500	5.000	8.500	11.500	15.000	45.577	48.807	52.101

CHAINAGE 11500

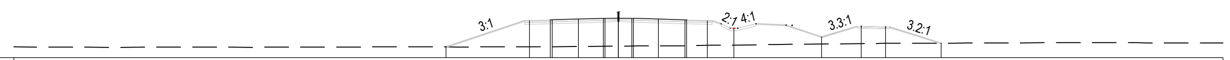
DATUM 24.000



CUT/FILL	-0.253	0.035	-0.002	-0.810	-1.018	-0.004	-0.000	1.005	1.643	1.765	1.914	2.032	2.041	2.050	1.961	1.871	1.789	0.778	-0.000
DESIGN LEVELS	25.250	25.601	26.017	25.363	25.307	26.396	26.833	27.977	28.653	28.743	28.848	28.953	28.953	28.953	28.848	28.743	28.653	27.635	26.799
EXISTING LEVELS	25.503	25.566	26.019	26.173	26.326	26.400	26.833	26.972	27.010	26.978	26.934	26.921	26.912	26.903	26.887	26.872	26.864	26.856	26.799
OFFSET	-75.208	-67.026	-60.826	-58.352	-55.312	-52.587	-24.205	-14.775	-12.000	-9.000	-5.500	-2.000	0.000	2.000	5.500	9.000	12.000	15.350	27.009

CHAINAGE 13250

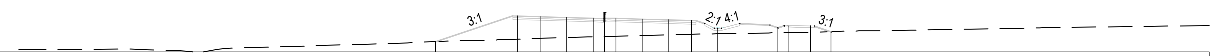
DATUM 23.000



CUT/FILL	-0.000	3.488	[illegible]	3.638	[illegible]	3.695	[illegible]	3.679	3.555	[illegible]	3.300	2.232	0.935	2.289	2.167	-0.000
DESIGN LEVELS	24.408	27.903	[illegible]	28.098	[illegible]	28.203	28.203	28.204	28.098	[illegible]	27.903	26.885	25.715	27.124	27.049	24.902
EXISTING LEVELS	24.408	24.415	[illegible]	24.460	[illegible]	24.508	[illegible]	24.524	24.543	[illegible]	24.603	24.653	24.780	24.835	24.882	24.902
OFFSET	-22.817	-11.786	[illegible]	-5.286	[illegible]	0.000	[illegible]	2.000	5.286	[illegible]	11.786	15.286	26.896	32.119	35.363	42.713

CHAINAGE 13000

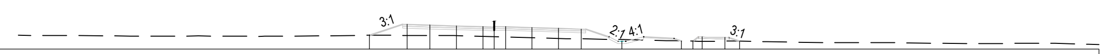
DATUM 23.000



CUT/FILL	0.000	3.081	2.879	2.656	2.459	2.423	2.387	2.195	2.000	1.840	0.745	0.681	0.940	0.811	-0.000
DESIGN LEVELS	24.352	27.753	27.663	27.558	27.453	27.453	27.453	27.348	27.243	27.153	26.135	26.191	26.464	26.404	25.666
EXISTING LEVELS	24.352	24.672	24.784	24.902	24.993	25.030	25.066	25.153	25.243	25.313	25.390	25.510	25.524	25.593	25.667
OFFSET	-22.356	-11.500	-8.500	-5.000	-1.500	-0.000	1.500	5.000	8.500	11.500	15.000	22.931	24.279	27.279	29.963

CHAINAGE 12750

DATUM 24.000



CUT/FILL	0.000	1.455	1.379	1.291	1.273	1.319	1.365	1.359	1.339	1.306	-0.246	-0.000	-0.000	0.561	0.491	-0.000
DESIGN LEVELS	25.805	27.251	27.161	27.056	26.951	26.951	26.951	26.846	26.741	26.651	25.005	25.084	25.051	25.597	25.537	25.043
EXISTING LEVELS	25.805	25.796	25.782	25.765	25.678	25.632	25.586	25.487	25.402	25.345	25.251	25.084	25.051	25.036	25.046	25.044
OFFSET	-16.491	-11.500	-8.500	-5.000	-1.500	-0.000	1.500	5.000	8.500	11.500	16.885	24.747	26.275	27.518	30.518	32.468

CHAINAGE 12500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 2

Status Stamp: **FOR CONSENT**

Date Stamp: **19.08.22**

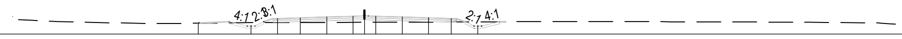
Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2502

Rev.: B

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2502

DATUM 35.000



CUT/FILL	-0.000	-0.438	0.552	0.643	0.756	0.839	0.822	0.823	0.718	0.592	0.476	-0.558
DESIGN LEVELS	36.431	36.065	37.083	37.173	37.278	37.383	37.383	37.383	37.278	37.173	37.083	36.065
EXISTING LEVELS	36.431	36.503	36.531	36.530	36.522	36.544	36.561	36.560	36.560	36.581	36.606	36.623
OFFSET	-22.002	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001

CHAINAGE 14250

DATUM 32.000

CUT/FILL	-0.005	-0.192	-0.265	-0.343	-0.418	-0.441	-0.000	-0.000	0.858	0.702	0.508	0.309	0.316	0.324	0.125	-0.072	-0.269	-1.293	-0.000
DESIGN LEVELS	33.939	33.870	33.868	33.802	33.741	33.720	34.167	34.139	34.971	34.791	34.581	34.371	34.371	34.371	34.161	33.951	33.741	32.705	33.979
EXISTING LEVELS	33.944	34.062	34.133	34.145	34.159	34.161	34.167	34.139	34.113	34.089	34.073	34.062	34.055	34.047	34.036	34.024	34.011	33.999	33.979
OFFSET	-46.798	-40.273	-33.271	-30.921	-27.920	-27.389	-26.035	-15.206	-12.000	-9.000	-5.500	-2.000	-0.000	2.500	6.000	9.500	13.000	16.350	22.910

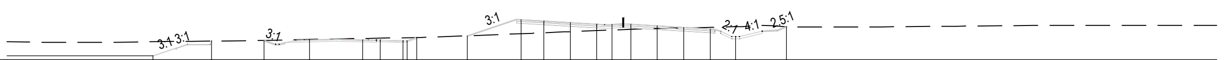
CHAINAGE 14000

DATUM 29.000

CUT/FILL	0.008	0.120	0.061	-0.016	-0.096	-0.123	0.005	-0.000	1.504	1.310	1.059	0.793	0.774	0.767	0.548	0.296	0.018	-1.099	0.000
DESIGN LEVELS	30.146	30.409	30.409	30.344	30.284	30.260	30.392	30.436	31.971	31.791	31.581	31.371	31.371	31.371	31.161	30.951	30.741	29.705	30.991
EXISTING LEVELS	30.138	30.289	30.348	30.360	30.379	30.383	30.386	30.436	30.467	30.481	30.521	30.578	30.596	30.603	30.613	30.655	30.722	30.803	30.991
OFFSET	-42.410	-36.885	-29.886	-27.555	-24.555	-24.015	-23.616	-17.312	-12.000	-9.000	-5.500	-2.000	0.000	2.500	6.000	9.500	13.000	16.350	22.940

CHAINAGE 13750

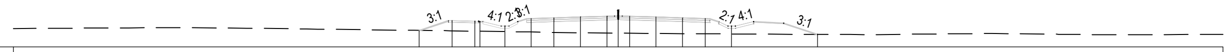
DATUM 25.000



CUT/FILL	-1.839	0.000	0.004	-0.030	-0.160	-0.264	-0.373	-0.403	0.001	-0.000	1.864	1.561	1.215	0.856	0.780	0.686	0.362	0.085	-0.203	-1.328	0.000
DESIGN LEVELS	25.533	27.448	27.552	27.646	27.648	27.583	27.523	27.502	27.928	28.159	30.303	30.123	29.913	29.703	29.703	29.703	29.493	29.283	29.073	28.037	29.386
EXISTING LEVELS	27.372	27.448	27.548	27.676	27.807	27.846	27.897	27.905	27.927	28.159	28.439	28.562	28.698	28.847	28.923	29.017	29.131	29.198	29.276	29.365	29.386
OFFSET	-60.673	-52.959	-46.019	-39.978	-32.976	-30.631	-27.631	-27.097	-25.807	-19.140	-12.000	-9.000	-5.500	-2.000	-0.000	2.500	6.000	9.500	13.000	16.350	23.098

CHAINAGE 13500

DATUM 45.000



CUT/FILL	0.001	1.327	1.314	1.256	0.727	1.800	1.940	2.083	2.227	2.243	2.260	2.187	2.104	2.032	1.036	0.000
DESIGN LEVELS	47.159	48.438	48.379	48.310	47.730	48.748	48.838	48.943	49.048	49.048	49.048	48.943	48.838	48.748	47.730	46.636
EXISTING LEVELS	47.158	47.111	47.065	47.054	47.003	46.948	46.898	46.860	46.821	46.805	46.788	46.755	46.734	46.716	46.694	46.636
OFFSET	-26.336	-21.968	-18.968	-18.293	-15.001	-11.501	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	11.501	15.001	26.384

CHAINAGE 15250

DATUM 43.000

CUT/FILL	0.000	1.119	1.063	1.027	0.457	1.469	1.549	1.640	1.742	1.742	1.742	1.637	1.524	1.421	0.388	-0.000
DESIGN LEVELS	44.652	45.771	45.711	45.674	45.100	46.118	46.208	46.313	46.418	46.418	46.418	46.313	46.208	46.118	45.100	44.730
EXISTING LEVELS	44.652	44.652	44.648	44.647	44.643	44.649	44.659	44.673	44.676	44.676	44.676	44.676	44.684	44.697	44.712	44.730
OFFSET	-25.875	-21.990	-18.990	-18.410	-15.001	-11.501	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	11.501	15.001	24.211

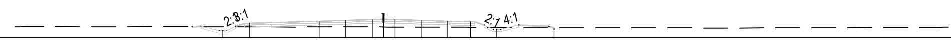
CHAINAGE 15000

DATUM 41.000

CUT/FILL	44.189	44.227	0.174	0.000	0.000	-1.026	0.100	0.239	0.386	0.567	0.609	0.646	0.585	0.525	0.473	-0.513
DESIGN LEVELS	44.189	44.227	44.272	44.031	43.234	42.088	43.106	43.196	43.301	43.406	43.406	43.406	43.301	43.196	43.106	42.088
EXISTING LEVELS	0.000	0.000	44.099	44.031	43.234	43.114	43.006	42.957	42.915	42.839	42.798	42.760	42.716	42.671	42.633	42.601
OFFSET	-61.466	-60.757	-57.067	-55.496	-21.016	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001

CHAINAGE 14750

DATUM 38.000



CUT/FILL	-0.517	0.516	0.790	0.877	1.003	1.014	1.020	0.924	0.828	0.750	-0.228	-0.167
DESIGN LEVELS	38.886	39.908	40.185	40.290	40.395	40.395	40.395	40.290	40.185	40.095	39.077	39.094
EXISTING LEVELS	39.403	39.392	39.395	39.413	39.391	39.380	39.375	39.366	39.356	39.344	39.304	39.261
OFFSET	-21.246	-17.738	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	22.549

CHAINAGE 14500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 3

Status Stamp: **FOR CONSENT**

Date Stamp: **19.08.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2503

Rev.: B

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2503

DATUM 49.000

CUT/FILL	0.051 -0.582 -0.497 -0.477 -1.312 -0.253 -0.123 0.031 0.184 0.245 0.226 0.378 0.531 0.674 -0.000
DESIGN LEVELS	51.640 50.972 51.031 51.054 50.131 51.149 51.239 51.344 51.449 51.449 51.449 51.554 51.659 51.749 51.023
EXISTING LEVELS	51.589 51.554 51.519 51.501 51.443 51.402 51.362 51.313 51.264 51.244 51.223 51.175 51.128 51.075 51.023
OFFSET	-27.171 -23.281 -20.281 -18.626 -14.601 -11.501 -8.501 -5.001 -1.501 0.000 1.501 5.001 8.501 11.501 14.333

CHAINAGE 16250

DATUM 47.000

CUT/FILL	0.022 -1.944 -1.839 -1.818 -2.449 -1.368 -1.224 -1.023 -0.813 -0.762 -0.750 -0.554 -0.358 -0.190 -1.067 -0.000 -2.542 -2.002 0.000
DESIGN LEVELS	52.261 50.225 50.285 50.299 49.602 50.620 50.710 50.815 50.920 50.920 50.920 51.025 51.130 51.220 50.238 50.837 47.600 47.600 49.953
EXISTING LEVELS	52.240 52.169 52.121 52.110 52.050 51.988 51.934 51.838 51.733 51.702 51.669 51.578 51.487 51.409 51.305 50.837 50.142 49.602 49.953
OFFSET	-28.792 -22.152 -19.152 -18.626 -15.001 -11.501 -8.501 -5.001 -1.501 -0.000 1.501 5.001 8.501 11.501 14.601 24.028 40.298 52.651 71.168

CHAINAGE 16000

DATUM 48.000

CUT/FILL	0.002 -2.408 -2.471 -2.590 -3.183 -2.152 -1.916 -1.790 -1.657 -1.635 -1.612 -1.628 -1.658 -1.675 -2.632 0.000
DESIGN LEVELS	52.177 49.776 49.716 49.595 48.992 50.011 50.210 50.315 50.420 50.420 50.420 50.353 50.287 50.230 49.218 51.664
EXISTING LEVELS	52.175 52.184 52.188 52.185 52.175 52.163 52.126 52.105 52.077 52.054 52.032 51.981 51.944 51.904 51.850 51.664
OFFSET	-33.142 -25.442 -22.434 -21.596 -18.626 -15.118 -8.501 -5.001 -1.501 -0.000 1.501 5.001 8.501 11.501 15.001 24.265

CHAINAGE 15750

DATUM 45.000

CUT/FILL	0.002 0.221 0.198 0.130 -0.379 0.678 0.800 0.944 1.070 1.077 1.085 0.997 0.911 0.737 -0.228 0.360 -2.100
DESIGN LEVELS	49.087 49.282 49.232 49.155 48.602 49.620 49.710 49.815 49.920 49.920 49.920 49.815 49.710 49.507 48.489 48.999 46.400
EXISTING LEVELS	49.085 49.071 49.034 49.025 48.981 48.942 48.909 48.871 48.853 48.843 48.835 48.817 48.798 48.771 48.718 48.639 48.500
OFFSET	-23.697 -22.553 -19.552 -18.852 -15.001 -11.501 -8.501 -5.001 -1.501 -0.000 1.501 5.001 8.501 15.244 18.752 23.472 34.269

CHAINAGE 15500

DATUM 57.000

CUT/FILL	-0.000 0.083 0.010 0.041 -0.890 0.093 0.150 0.275 0.414 0.423 0.442 0.375 0.312 0.252 -0.734 -0.000
DESIGN LEVELS	58.760 58.843 58.783 58.812 57.873 58.891 58.981 59.086 59.191 59.191 59.191 59.086 58.981 58.891 57.873 58.504
EXISTING LEVELS	58.760 58.761 58.773 58.771 58.764 58.799 58.832 58.812 58.777 58.763 58.749 58.712 58.670 58.639 58.607 58.504
OFFSET	-24.722 -23.942 -20.942 -20.325 -14.601 -11.501 -8.501 -5.001 -1.501 -0.000 1.501 5.001 8.501 11.501 14.601 23.610

CHAINAGE 17250

DATUM 56.000

CUT/FILL	0.000 -0.067 -0.067 0.000 -0.894 0.120 0.223 0.361 0.508 0.524 0.537 0.470 0.404 0.345 -0.632 0.000
DESIGN LEVELS	57.711 57.645 57.644 57.661 56.710 57.728 57.818 57.923 58.028 58.028 58.028 57.923 57.818 57.728 56.710 57.236
EXISTING LEVELS	57.711 57.712 57.727 57.661 57.604 57.608 57.595 57.562 57.520 57.494 57.491 57.453 57.414 57.383 57.342 57.236
OFFSET	-25.801 -25.133 -22.133 -21.370 -14.601 -11.501 -8.501 -5.001 -1.501 -0.000 1.501 5.001 8.501 11.501 14.601 23.924

CHAINAGE 17000

DATUM 50.000

CUT/FILL	0.001 0.189 0.179 0.018 -0.422 0.653 0.826 1.000 1.140 1.147 1.147 1.052 0.965 0.895 -0.101 0.000 -0.000 -3.297 -3.155
DESIGN LEVELS	55.189 55.367 55.308 55.124 54.508 55.529 55.638 55.743 55.848 55.848 55.848 55.743 55.638 55.548 54.530 54.489 54.470 50.900 50.900
EXISTING LEVELS	55.188 55.178 55.129 55.106 54.930 54.876 54.813 54.743 54.709 54.705 54.701 54.692 54.673 54.653 54.631 54.489 54.470 54.197 54.055
OFFSET	-29.400 -28.336 -25.335 -24.311 -15.259 -12.152 -8.501 -5.001 -1.501 -0.000 1.501 5.001 8.501 11.501 14.601 25.625 26.692 40.404 76.884

CHAINAGE 16750

DATUM 51.000

CUT/FILL	0.000 -0.494 -0.504 -0.294 -1.315 -0.278 -0.192 -0.118 -0.026 -0.005 -0.005 -0.044 0.019 -0.043 -0.116 -1.103
DESIGN LEVELS	53.402 52.921 52.862 53.051 51.975 52.993 53.083 53.188 53.293 53.293 53.293 53.188 53.083 52.993 51.975
EXISTING LEVELS	53.402 53.415 53.365 53.346 53.290 53.272 53.275 53.306 53.320 53.298 53.293 53.169 53.126 53.110 53.078
OFFSET	-26.635 -24.719 -21.717 -20.619 -14.601 -11.501 -8.501 -5.001 -1.501 -0.000 1.501 5.001 8.501 11.501 14.601

CHAINAGE 16500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 4

Status Stamp: **FOR CONSENT**

Date Stamp: **19.08.22**

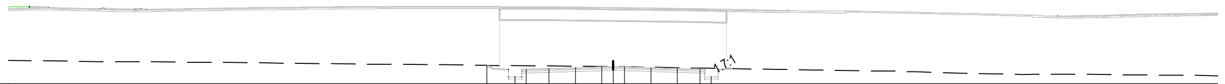
Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2504

Rev.: B

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2504

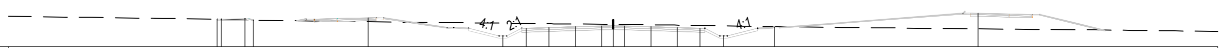
DATUM 59.000



CUT/FILL	-0.000	-1.485	-0.453	-0.335	-0.215	-0.080	-0.064	-0.040	-0.068	-0.097	-0.143	-1.140
DESIGN LEVELS	61.402	59.883	60.901	60.991	61.096	61.201	61.201	61.201	61.096	60.991	60.901	59.883
EXISTING LEVELS	61.402	61.368	61.355	61.327	61.311	61.281	61.265	61.241	61.165	61.089	61.044	61.023
OFFSET	-16.687	-12.975	-11.501	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	11.501	12.975

CHAINAGE 18250

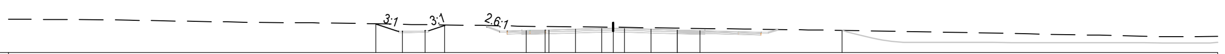
DATUM 58.000



CUT/FILL	0.000	0.032	0.158	0.000	0.519	-1.672	-0.615	-0.487	-0.351	-0.214	-0.201	-0.187	-0.258	-0.317	-0.360	-1.329	-0.046	2.046
DESIGN LEVELS	61.558	61.580	61.636	61.452	61.764	59.384	60.402	60.492	60.597	60.702	60.702	60.702	60.597	60.492	60.402	59.384	60.568	62.352
EXISTING LEVELS	61.558	61.548	61.477	61.452	61.246	61.057	61.018	60.980	60.948	60.917	60.903	60.889	60.856	60.809	60.762	60.713	60.614	60.306
OFFSET	-52.398	-51.837	-48.711	-47.590	-32.419	-14.601	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	14.601	21.361	48.290

CHAINAGE 18000

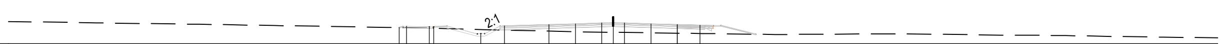
DATUM 57.000



CUT/FILL	-0.001	-0.924	-0.813	-0.076	-0.582	-0.454	-0.449	-0.310	-0.171	-0.157	-0.137	-0.193	-0.248	-0.248	-0.285	0.000
DESIGN LEVELS	60.807	59.823	59.882	60.587	59.902	59.992	59.992	60.097	60.202	60.202	60.202	60.097	59.992	59.992	59.902	59.929
EXISTING LEVELS	60.808	60.746	60.695	60.664	60.484	60.446	60.441	60.407	60.374	60.359	60.339	60.290	60.240	60.240	60.187	59.929
OFFSET	-31.382	-27.897	-24.896	-22.307	-11.501	-9.003	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	8.501	11.501	30.283

CHAINAGE 17750

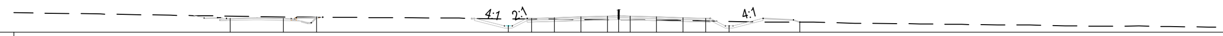
DATUM 57.000



CUT/FILL	-0.000	0.170	0.173	0.203	-0.550	0.541	0.848	1.031	1.193	1.215	1.238	1.185	1.131	1.131	1.075
DESIGN LEVELS	59.102	59.252	59.192	59.208	58.297	59.316	59.492	59.597	59.702	59.702	59.702	59.597	59.492	59.492	59.402
EXISTING LEVELS	59.103	59.082	59.020	59.005	58.847	58.775	58.644	58.567	58.509	58.487	58.465	58.413	58.361	58.361	58.328
OFFSET	-28.310	-27.330	-24.325	-23.748	-17.493	-14.386	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	8.501	11.501

CHAINAGE 17500

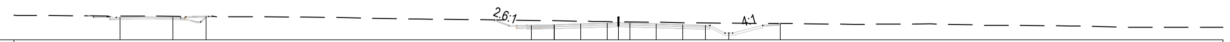
DATUM 60.000



CUT/FILL	-0.290	-0.179	0.013	-0.919	0.100	0.217	0.391	0.510	0.516	0.528	0.456	0.391	0.361	-0.595	0.000
DESIGN LEVELS	61.861	61.861	62.027	60.860	61.878	61.968	62.073	62.178	62.178	62.178	62.073	61.968	61.878	60.860	61.373
EXISTING LEVELS	62.151	62.041	62.014	61.779	61.779	61.752	61.683	61.668	61.662	61.650	61.618	61.577	61.517	61.455	61.373
OFFSET	-51.390	-44.373	-39.957	-14.601	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	14.601	23.963

CHAINAGE 19250

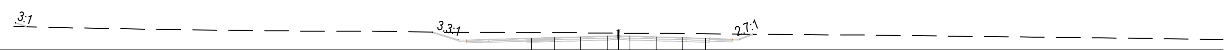
DATUM 59.000



CUT/FILL	-0.186	-0.143	0.012	-0.651	-0.514	-0.514	-0.349	-0.186	-0.169	-0.152	-0.217	-0.264	-0.312	-1.294	-0.000
DESIGN LEVELS	61.964	61.964	62.095	60.917	61.007	61.007	61.112	61.217	61.217	61.217	61.112	61.007	60.917	59.899	61.153
EXISTING LEVELS	62.151	62.107	62.082	61.569	61.521	61.521	61.461	61.403	61.386	61.369	61.329	61.272	61.229	61.193	61.153
OFFSET	-65.976	-58.961	-54.581	-11.501	-8.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	14.601	21.408

CHAINAGE 19000

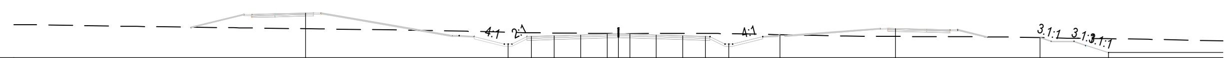
DATUM 59.000



CUT/FILL	-0.761	-0.666	-0.666	-0.537	-0.394	-0.381	-0.375	-0.467	-0.545	-0.540	-0.602
DESIGN LEVELS	60.543	60.633	60.633	60.738	60.843	60.843	60.843	60.738	60.633	60.633	60.543
EXISTING LEVELS	61.304	61.298	61.298	61.275	61.237	61.224	61.218	61.204	61.178	61.173	61.144
OFFSET	-11.501	-8.501	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	8.997	11.501

CHAINAGE 18750

DATUM 58.000



CUT/FILL	2.058	-1.555	-0.474	-0.351	-0.214	-0.076	-0.061	-0.061	-0.178	-0.295	-0.393	-1.364	0.000	1.044	-0.000	-1.821
DESIGN LEVELS	63.850	59.775	60.793	60.883	60.988	61.093	61.093	61.093	60.988	60.883	60.793	59.775	61.022	61.835	60.633	58.673
EXISTING LEVELS	61.792	61.329	61.266	61.234	61.201	61.168	61.153	61.153	61.165	61.178	61.185	61.139	61.022	60.791	60.633	60.494
OFFSET	-41.398	-14.601	-11.501	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	11.501	14.601	21.396	36.676	55.807	64.853

CHAINAGE 18500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 5

Status Stamp **FOR CONSENT**

Date Stamp **19.08.22**

Scales AS SHOWN

Drawing No. 310203848-01-100-C2505

Rev. B

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2505

DATUM 63.000

CUT/FILL	-0.233	-0.287	-0.313	0.850	0.934	1.040	1.146	1.147	1.153	1.069	0.981	0.901	-0.111	-0.000	-0.077	0.540	0.521	-0.131
DESIGN LEVELS	64.376	64.372	63.886	64.904	64.994	65.099	65.204	65.204	65.204	65.099	64.994	64.904	63.886	64.003	63.934	64.565	64.565	63.912
EXISTING LEVELS	64.609	64.660	64.199	64.054	64.059	64.058	64.057	64.057	64.051	64.030	64.013	64.003	63.996	64.003	64.011	64.025	64.044	64.043
OFFSET	-29.572	-22.452	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	22.748	27.348	31.500	38.500	42.740

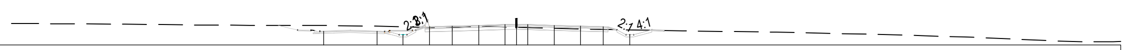
CHAINAGE 20250

DATUM 61.000

CUT/FILL	-0.224	-0.062	-0.459	0.673	0.859	1.009	1.133	1.177	1.245	1.514	1.873	1.814	0.726	-0.000
DESIGN LEVELS	63.607	63.607	63.136	64.154	64.244	64.349	64.454	64.454	64.454	64.349	64.244	64.154	63.136	62.355
EXISTING LEVELS	63.831	63.669	63.595	63.480	63.385	63.339	63.321	63.277	63.209	62.835	62.371	62.339	62.410	62.355
OFFSET	-24.597	-17.597	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	25.444

CHAINAGE 20000

DATUM 61.000



CUT/FILL	-0.741	-0.665	-1.040	0.100	0.134	0.137	0.301	0.344	0.387	0.382	0.376	0.348	-0.604
DESIGN LEVELS	62.840	62.839	62.386	63.404	63.494	63.599	63.704	63.704	63.704	63.599	63.494	63.404	62.386
EXISTING LEVELS	63.581	63.504	63.426	63.304	63.360	63.461	63.402	63.360	63.317	63.217	63.118	63.056	62.990
OFFSET	-25.519	-18.461	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001

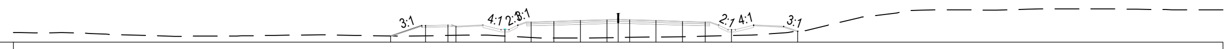
CHAINAGE 19750

DATUM 61.000

CUT/FILL	-0.684	-0.615	-0.000	-0.971	0.096	0.234	0.391	0.547	0.569	0.591	0.538	0.472	0.410	-0.580	-0.000
DESIGN LEVELS	62.160	62.153	62.713	61.636	62.654	62.744	62.849	62.954	62.954	62.954	62.849	62.744	62.654	61.636	62.114
EXISTING LEVELS	62.845	62.768	62.713	62.607	62.558	62.510	62.458	62.407	62.385	62.362	62.311	62.271	62.244	62.216	62.114
OFFSET	-33.517	-26.229	-21.413	-14.601	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	14.601	24.067

CHAINAGE 19500

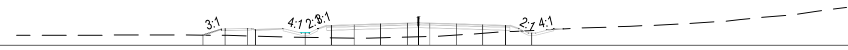
DATUM 48.000



CUT/FILL	0.000	1.358	1.360	1.171	0.865	2.070	2.226	2.317	2.387	2.373	2.354	2.200	2.047	1.894	0.779	-0.000
DESIGN LEVELS	48.814	50.189	50.249	50.081	49.659	50.677	50.767	50.872	50.977	50.977	50.977	50.872	50.767	50.677	49.659	49.440
EXISTING LEVELS	48.814	48.831	48.890	48.910	48.794	48.607	48.541	48.555	48.590	48.605	48.623	48.672	48.721	48.783	48.880	49.440
OFFSET	-30.099	-25.504	-22.504	-21.468	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	23.760

CHAINAGE 21250

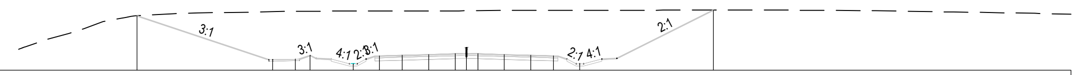
DATUM 53.000



CUT/FILL	0.000	0.828	0.971	0.830	0.577	1.650	1.777	1.851	1.853	1.822	1.790	1.494	1.147	0.858	-0.332
DESIGN LEVELS	54.319	55.129	55.189	55.017	54.599	55.617	55.707	55.812	55.917	55.917	55.917	55.812	55.707	55.617	54.599
EXISTING LEVELS	54.319	54.300	54.218	54.187	54.022	53.966	53.929	53.960	54.064	54.095	54.126	54.317	54.559	54.759	54.930
OFFSET	-28.480	-25.580	-22.580	-21.535	-15.001	-11.501	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	11.501	15.001

CHAINAGE 21000

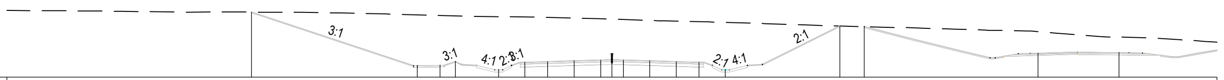
DATUM 60.000



CUT/FILL	-0.000	-6.350	-6.334	-5.841	-6.954	-5.945	-5.855	-5.755	-5.664	-5.676	-5.690	-5.827	-5.936	-6.029	-7.046	-0.000
DESIGN LEVELS	67.215	61.406	61.466	61.967	60.876	61.894	61.984	62.089	62.194	62.194	62.194	62.089	61.984	61.894	60.876	67.973
EXISTING LEVELS	67.215	67.757	67.801	67.808	67.831	67.839	67.839	67.844	67.858	67.870	67.884	67.916	67.920	67.924	67.922	67.973
OFFSET	-43.613	-25.656	-22.656	-20.683	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	32.695

CHAINAGE 20750

DATUM 63.000



CUT/FILL	-0.000	-6.788	-6.650	-6.079	-7.075	-6.008	-5.856	-5.670	-5.484	-5.445	-5.392	-5.360	-5.367	-5.394	-6.296	-0.000	-0.000	-2.863	-2.061
DESIGN LEVELS	71.661	64.520	64.580	65.096	63.990	65.008	65.098	65.203	65.308	65.308	65.308	65.203	65.098	65.008	63.990	69.809	69.728	66.199	66.267
EXISTING LEVELS	71.661	71.308	71.230	71.175	71.065	71.016	70.954	70.873	70.792	70.753	70.700	70.563	70.465	70.402	70.286	69.809	69.728	69.061	68.328
OFFSET	-47.688	-25.733	-22.733	-20.714	-15.001	-11.501	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	11.501	15.001	30.139	33.354	56.329	67.058

CHAINAGE 20500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 6

Status Stamp: **FOR CONSENT**

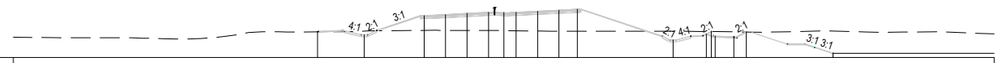
Date Stamp: **19.08.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2506

Rev.: B

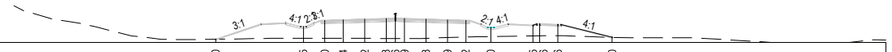
pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2506



DATUM 37.000

CUT/FILL	0.000	-0.624	2.425	2.592	2.778	2.958	2.976	2.998	3.212	3.418	3.568	-1.417	-0.404	-0.007	-0.723	-0.764	-0.000	-3.601
DESIGN LEVELS	41.162	40.660	43.820	43.995	44.170	44.345	44.345	44.345	44.520	44.695	44.845	39.844	40.812	41.207	40.475	40.398	41.138	37.679
EXISTING LEVELS	41.162	41.284	41.396	41.403	41.392	41.388	41.370	41.347	41.308	41.277	41.277	41.261	41.216	41.207	41.199	41.162	41.138	41.280
OFFSET	-30.385	-22.741	-13.000	-9.500	-6.000	-2.500	0.000	2.000	5.500	9.000	12.000	27.595	33.031	33.932	34.492	37.503	39.533	53.686

CHAINAGE 22250



DATUM 34.000

CUT/FILL	0.000	1.915	2.930	3.014	3.132	3.258	3.269	3.269	3.269	3.118	2.899	2.712	1.450	1.725	1.906	1.826	0.000
DESIGN LEVELS	34.501	36.570	37.588	37.678	37.783	37.888	37.888	37.888	37.888	37.783	37.678	37.588	36.382	36.784	36.971	36.911	34.817
EXISTING LEVELS	34.501	34.655	34.659	34.664	34.651	34.630	34.675	34.675	34.675	34.666	34.779	34.877	34.931	35.059	35.066	35.086	34.817
OFFSET	-29.313	-15.003	-11.503	-8.503	-5.003	-1.503	-0.000	1.499	4.999	8.499	11.499	15.566	22.423	23.516	26.516	35.352	

CHAINAGE 23250

DATUM 43.000

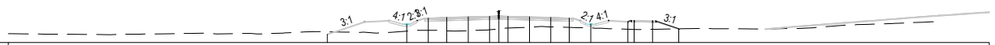
CUT/FILL	-0.000	-0.912	0.387	0.471	0.562	0.701	0.726	0.742	0.776	0.817	0.851	-1.030	-0.000	-0.000	-0.442	-0.494	-0.002
DESIGN LEVELS	45.063	44.195	45.508	45.605	45.710	45.815	45.815	45.815	45.880	45.946	46.002	44.032	45.068	45.068	44.620	44.559	45.045
EXISTING LEVELS	45.063	45.106	45.122	45.134	45.148	45.114	45.089	45.072	45.104	45.129	45.151	45.062	45.068	45.068	45.062	45.053	45.046
OFFSET	-22.169	-16.633	-12.396	-9.188	-5.688	-2.188	0.000	2.000	5.500	9.000	12.000	18.445	24.017	24.068	25.848	28.850	30.840

CHAINAGE 22000

DATUM 35.000

CUT/FILL	-0.000	1.591	2.636	2.769	2.941	3.112	3.175	3.185	3.168	3.153	3.145	2.217	2.616	2.846	2.793	-0.000
DESIGN LEVELS	36.957	38.470	39.488	39.578	39.683	39.788	39.788	39.788	39.683	39.578	39.488	38.470	38.787	39.060	39.000	35.926
EXISTING LEVELS	36.957	36.879	36.853	36.809	36.742	36.676	36.642	36.644	36.515	36.426	36.343	36.253	36.171	36.214	36.207	35.926
OFFSET	-27.643	-15.001	-11.501	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	11.501	15.001	22.151	23.500	26.500	39.258

CHAINAGE 23000



DATUM 43.000

CUT/FILL	-0.403	1.109	2.008	2.173	2.255	2.221	2.081	1.935	1.678	1.542	1.522	0.611	1.257	1.449	1.358	0.003
DESIGN LEVELS	44.338	45.966	46.984	47.074	47.179	47.284	47.284	47.284	47.179	47.074	46.984	45.966	46.408	46.564	46.502	45.235
EXISTING LEVELS	44.741	44.857	44.976	44.902	44.924	45.064	45.204	45.349	45.501	45.532	45.462	45.355	45.151	45.115	45.144	45.232
OFFSET	-27.986	-15.001	-11.501	-8.501	-5.001	-1.501	0.000	1.501	5.001	8.501	11.501	15.001	21.065	22.067	25.076	29.352

CHAINAGE 21750

DATUM 37.000

CUT/FILL	0.000	2.886	3.051	3.241	3.426	3.490	3.490	3.490	3.440	3.389	3.344	3.072	3.331	3.306	2.462	-0.000
DESIGN LEVELS	38.488	41.106	41.196	41.301	41.406	41.406	41.406	41.406	41.301	41.196	41.196	41.052	41.052	40.987	40.134	37.652
EXISTING LEVELS	38.488	38.220	38.145	38.060	37.880	37.746	37.746	37.746	37.861	37.807	37.762	37.749	37.721	37.681	37.652	37.652
OFFSET	-19.901	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	1.501	5.001	8.501	11.501	12.927	14.240	17.414	20.637	22.469

CHAINAGE 22750

DATUM 45.000

CUT/FILL	0.006	0.014	0.241	0.379	0.287	0.423	0.001	0.024	-0.000	0.171	1.134	1.258	1.423	1.586	1.587	1.579	1.490	1.432	1.398	0.475	-0.000
DESIGN LEVELS	47.531	47.527	47.752	47.880	47.815	47.938	47.501	47.406	47.283	47.436	48.454	48.544	48.649	48.754	48.754	48.754	48.649	48.544	48.454	47.436	46.346
EXISTING LEVELS	47.526	47.513	47.511	47.501	47.528	47.515	47.500	47.382	47.283	47.265	47.320	47.286	47.226	47.169	47.167	47.175	47.159	47.112	47.056	46.961	46.346
OFFSET	-35.624	-34.445	-33.792	-32.515	-30.647	-29.512	-28.502	-27.397	-23.561	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	26.372

CHAINAGE 21500

DATUM 37.000

CUT/FILL	0.000	4.857	4.953	5.078	5.217	5.232	5.252	5.301	5.334	5.362	2.011	2.053	1.858	-0.007
DESIGN LEVELS	37.706	42.573	42.666	42.771	42.876	42.876	42.876	42.877	42.878	42.880	39.512	39.562	39.399	37.583
EXISTING LEVELS	37.706	37.716	37.713	37.692	37.658	37.643	37.624	37.576	37.545	37.518	37.501	37.509	37.541	37.589
OFFSET	-27.289	-12.142	-9.043	-5.543	-2.043	0.000	2.000	5.500	9.000	12.000	22.705	23.508	26.675	32.382

CHAINAGE 22500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 7

Status Stamp: **FOR CONSENT**

Date Stamp: **19.08.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2507

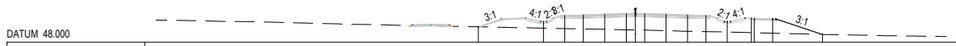
Rev.: B

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2507

DATUM 37.000

CUT/FILL	0.000	0.898	1.946	2.055	2.176	2.208	2.305	2.297	2.169	2.038	1.921	0.973	1.520	1.509	1.441	0.000
DESIGN LEVELS	37.943	38.739	39.757	39.847	39.952	40.057	40.057	40.057	39.952	39.847	39.757	38.835	39.385	39.375	39.315	37.877
EXISTING LEVELS	37.943	37.841	37.811	37.792	37.775	37.759	37.752	37.760	37.782	37.811	37.835	37.862	37.864	37.866	37.874	37.877
OFFSET	-25.488	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	14.713	18.613	19.113	22.113	26.896

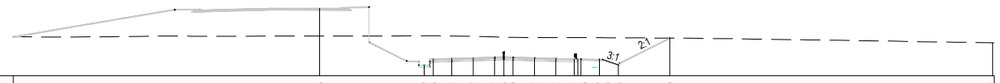
CHAINAGE 24250



DATUM 48.000

CUT/FILL	0.000	1.050	2.148	2.293	2.454	2.630	2.655	2.700	2.687	2.674	2.636	1.679	2.345	2.350	2.362	0.000
DESIGN LEVELS	50.502	51.333	52.351	52.441	52.546	52.651	52.651	52.651	52.546	52.441	52.351	51.333	51.883	51.873	51.813	49.264
EXISTING LEVELS	50.502	50.284	50.203	50.148	50.092	50.022	49.952	49.952	49.860	49.768	49.716	49.655	49.539	49.524	49.451	49.264
OFFSET	-25.595	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	18.901	19.401	22.401	30.520

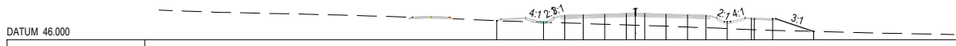
CHAINAGE 25250



DATUM 35.000

CUT/FILL	4.515	-4.805	-3.788	-3.642	-3.472	-3.292	-3.256	-3.220	-3.292	-3.387	-3.474	-3.490	-3.493	-3.545	-4.386	-0.000	-0.002
DESIGN LEVELS	45.985	36.713	37.731	37.821	37.926	38.031	38.031	38.031	37.926	37.821	37.731	37.714	37.711	37.651	36.764	41.132	40.381
EXISTING LEVELS	41.470	41.518	41.519	41.463	41.398	41.323	41.285	41.250	41.218	41.208	41.205	41.204	41.203	41.196	41.119	41.132	40.383
OFFSET	-30.021	-12.075	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	12.076	12.597	15.597	18.668	27.059	79.740

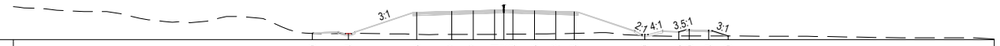
CHAINAGE 24000



DATUM 46.000

CUT/FILL	-0.000	0.105	1.229	1.415	1.627	1.842	1.943	1.943	1.955	1.971	2.006	1.128	1.836	1.946	1.953	-0.000
DESIGN LEVELS	49.115	48.952	49.970	50.060	50.165	50.270	50.270	50.270	50.165	50.060	49.970	48.952	49.502	49.432	49.432	47.357
EXISTING LEVELS	49.115	48.847	48.741	48.646	48.538	48.428	48.379	48.327	48.210	48.089	47.964	47.824	47.666	47.646	47.529	47.357
OFFSET	-22.612	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	18.901	19.401	22.401	29.098

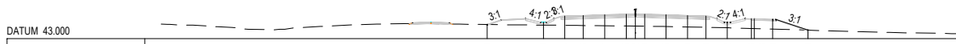
CHAINAGE 25000



DATUM 32.000

CUT/FILL	0.000	-0.033	3.555	3.767	3.867	3.961	3.941	3.928	3.785	3.632	3.478	0.179	0.715	1.020	0.893	0.000
DESIGN LEVELS	32.992	32.953	36.407	36.578	36.683	36.788	36.788	36.788	36.683	36.578	36.488	32.799	33.267	33.514	33.453	32.562
EXISTING LEVELS	32.992	32.986	32.851	32.811	32.817	32.828	32.844	32.860	32.899	32.947	33.010	32.620	32.552	32.555	32.560	32.562
OFFSET	-31.236	-25.349	-14.229	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	23.015	28.566	30.248	33.430	36.591

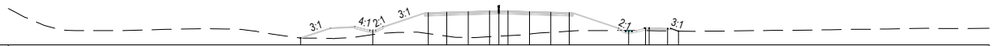
CHAINAGE 23750



DATUM 43.000

CUT/FILL	-0.000	0.459	1.514	1.636	1.781	1.925	1.945	1.945	1.905	1.870	1.840	0.892	1.553	1.598	1.589	0.000
DESIGN LEVELS	45.323	45.681	46.699	46.789	46.894	46.999	46.999	46.999	46.894	46.789	46.699	45.681	46.231	46.221	46.161	44.397
EXISTING LEVELS	45.323	45.222	45.185	45.153	45.114	45.074	45.058	45.041	44.989	44.919	44.860	44.790	44.678	44.663	44.572	44.397
OFFSET	-24.176	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	18.901	19.401	22.401	28.166

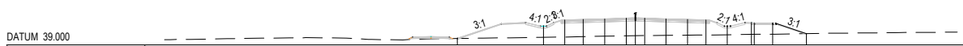
CHAINAGE 24750



DATUM 31.000

CUT/FILL	-0.000	0.684	3.387	3.891	4.239	4.209	4.114	4.029	3.677	3.286	3.012	-0.196	0.407	0.498	0.412	-0.000
DESIGN LEVELS	32.146	33.363	36.240	36.330	36.435	36.540	36.540	36.540	36.435	36.330	36.240	33.165	33.733	33.775	33.693	33.259
EXISTING LEVELS	32.146	32.678	32.853	32.439	32.196	32.331	32.426	32.511	32.758	33.044	33.228	33.360	33.326	33.319	33.281	33.259
OFFSET	-32.329	-20.580	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	21.173	23.948	24.543	27.545	29.318

CHAINAGE 23500



DATUM 39.000

CUT/FILL	-0.000	1.796	2.764	2.799	2.826	2.865	2.858	2.836	2.699	2.562	2.440	1.380	1.881	1.865	1.770	0.000
DESIGN LEVELS	40.057	42.040	43.058	43.148	43.253	43.358	43.358	43.358	43.253	43.148	43.058	42.040	42.590	42.580	42.520	40.843
EXISTING LEVELS	40.057	40.244	40.294	40.348	40.426	40.493	40.508	40.521	40.553	40.586	40.617	40.660	40.708	40.714	40.750	40.843
OFFSET	-29.051	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	18.901	19.401	22.401	27.901

CHAINAGE 24500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 8

Status Stamp: **FOR CONSENT**

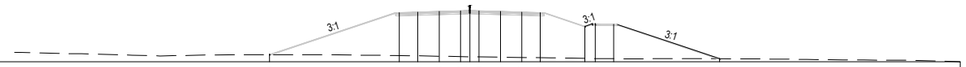
Date Stamp: **19.08.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2508

Rev.: B

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2508



DATUM 45.000

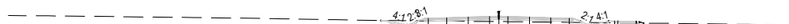
CUT/FILL	0.000	7.007	7.146	7.308	7.477	7.491	7.520	7.468	7.352	5.222	5.636	5.611	-0.000
DESIGN LEVELS	46.163	53.032	53.122	53.227	53.332	53.332	53.332	53.227	53.122	53.032	50.793	51.182	51.120	45.519
EXISTING LEVELS	46.163	46.025	45.976	45.919	45.860	45.835	45.812	45.759	45.715	45.680	45.570	45.545	45.509	45.519
OFFSET	-32.655	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	18.766	20.469	23.475	40.755

CHAINAGE 26250

DATUM 52.000

CUT/FILL	-0.000	-2.107	-0.864	-0.636	-0.376	-0.133	-0.033	0.017	0.086	0.015	-0.047	-1.031	-0.315	-0.317	-0.274	0.000
DESIGN LEVELS	55.435	53.063	54.138	54.228	54.333	54.438	54.438	54.438	54.333	54.228	54.138	53.120	53.770	53.760	53.700	53.947
EXISTING LEVELS	55.435	55.170	55.002	54.864	54.709	54.571	54.496	54.422	54.247	54.214	54.185	54.152	54.085	54.077	53.974	53.947
OFFSET	-23.417	-15.173	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	18.901	19.401	22.401	23.670

CHAINAGE 26000



DATUM 52.000

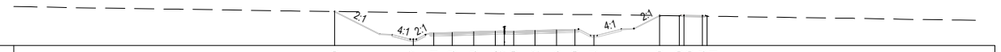
CUT/FILL	-0.612	0.450	0.562	0.692	0.821	0.862	0.845	0.782	0.719	0.666	-0.312	0.277	0.272	0.242	-0.000
DESIGN LEVELS	53.418	54.436	54.526	54.631	54.736	54.736	54.736	54.631	54.526	54.436	53.418	53.968	53.968	53.888	53.643
EXISTING LEVELS	54.030	53.995	53.963	53.939	53.914	53.904	53.891	53.849	53.806	53.770	53.729	53.690	53.685	53.655	53.643
OFFSET	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	18.901	19.401	22.401	23.636

CHAINAGE 25750

DATUM 51.000

CUT/FILL	0.000	0.492	1.558	1.688	1.837	1.996	2.019	2.043	1.994	1.955	1.916	0.958	1.557	1.552	1.525	0.000
DESIGN LEVELS	52.421	52.822	53.840	53.930	54.035	54.140	54.140	54.140	54.035	53.930	53.840	52.822	53.372	53.362	53.302	51.714
EXISTING LEVELS	52.421	52.330	52.282	52.242	52.198	52.144	52.121	52.097	52.041	51.975	51.924	51.864	51.815	51.810	51.777	51.714
OFFSET	-24.305	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	18.901	19.401	22.401	27.635

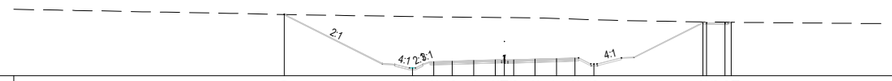
CHAINAGE 25500



DATUM 46.000

CUT/FILL	0.000	-4.357	-3.281	-3.143	-2.983	-2.835	-2.817	-2.799	-2.652	-2.516	-2.399	-3.354	0.000	0.000	0.100	0.083	0.001
DESIGN LEVELS	51.530	47.014	48.032	48.122	48.227	48.332	48.332	48.332	48.437	48.542	48.632	47.650	50.863	50.818	50.908	50.849	50.757
EXISTING LEVELS	51.530	51.371	51.313	51.265	51.210	51.167	51.149	51.131	51.089	51.057	51.031	51.003	50.863	50.818	50.807	50.766	50.755
OFFSET	-27.683	-14.851	-11.501	-8.501	-5.001	-1.501	-1.000	1.501	5.001	8.501	11.501	14.601	25.327	28.514	29.311	32.311	33.058

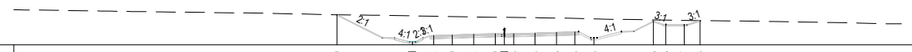
CHAINAGE 27250



DATUM 47.000

CUT/FILL	-0.000	-8.384	-7.292	-7.166	-7.024	-6.892	-6.881	-6.869	-6.702	-6.507	-6.322	-7.205	-0.122	-0.158	-0.171	0.001
DESIGN LEVELS	56.972	48.264	49.282	49.372	49.477	49.582	49.592	49.602	49.687	49.792	49.882	48.900	55.644	55.600	55.749	55.700
EXISTING LEVELS	56.972	56.628	56.574	56.537	56.501	56.474	56.443	56.448	56.389	56.299	56.203	56.105	55.766	55.757	55.714	55.699
OFFSET	-35.917	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	14.601	32.387	32.991	35.991	37.000

CHAINAGE 27000



DATUM 49.000

CUT/FILL	0.000	-4.211	-3.134	-2.990	-2.824	-2.670	-2.653	-2.635	-2.503	-2.345	-2.166	-3.096	-0.215	-0.695	-0.707	0.006
DESIGN LEVELS	53.925	49.514	50.532	50.622	50.727	50.832	50.832	50.832	50.937	51.042	51.132	50.150	52.852	52.336	52.276	52.959
EXISTING LEVELS	53.925	53.725	53.666	53.611	53.551	53.502	53.483	53.470	53.440	53.387	53.318	53.246	53.067	53.031	52.982	52.954
OFFSET	-27.323	-15.001	-11.501	-8.501	-5.001	-1.501	-1.000	1.501	5.001	8.501	11.501	14.601	24.302	26.320	29.320	31.902

CHAINAGE 26750

DATUM 44.000

CUT/FILL	6.031	6.537	6.215	6.335
DESIGN LEVELS	51.812	52.082	51.812	51.676
EXISTING LEVELS	45.780	45.545	45.596	45.341
OFFSET	-11.001	-0.000	11.001	15.516

CHAINAGE 26500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

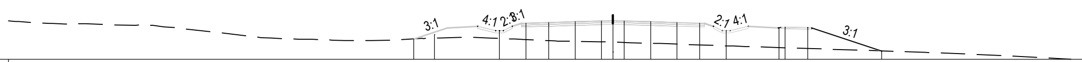
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 9

Status Stamp: **FOR CONSENT**
Date Stamp: **19.08.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C2509
Rev.: B

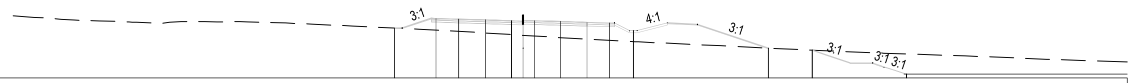
pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2509



DATUM 39.000

CUT/FILL	0.000	0.494	1.033	2.194	2.425	2.623	2.786	2.821	2.881	2.886	2.895	2.910	2.015	2.618	2.740	2.781	0.000
DESIGN LEVELS	41.716	42.301	42.808	43.826	43.916	44.021	44.126	44.126	44.126	44.021	43.916	43.826	42.808	43.186	43.281	43.221	40.111
EXISTING LEVELS	41.716	41.807	41.775	41.633	41.492	41.398	41.341	41.305	41.245	41.136	41.021	40.916	40.794	40.568	40.541	40.439	40.111
OFFSET	-26.380	-23.609	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	21.968	22.782	25.782	35.583

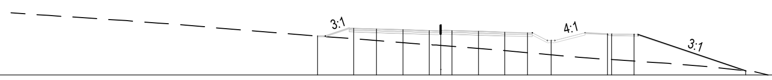
CHAINAGE 28250



DATUM 37.000

CUT/FILL	-0.000	1.564	1.635	1.731	1.849	1.944	2.039	2.153	2.238	2.311	1.461	0.000	0.002	0.002	-2.670	-2.670
DESIGN LEVELS	43.603	44.882	44.792	44.687	44.582	44.582	44.582	44.477	44.372	44.282	43.264	40.942	40.667	40.667	37.500	37.500
EXISTING LEVELS	43.603	43.318	43.157	42.955	42.733	42.638	42.543	42.324	42.134	41.971	41.803	40.942	40.665	40.665	40.170	40.170
OFFSET	-16.993	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	14.601	32.467	38.265	38.265	50.776	50.776

CHAINAGE 28000



DATUM 40.000

CUT/FILL	-0.000	1.394	1.536	1.701	1.866	1.979	2.098	2.273	2.449	2.615	1.871	3.333	3.368	3.505	-0.000
DESIGN LEVELS	45.094	46.132	46.042	45.937	45.832	45.832	45.832	45.727	45.622	45.532	44.514	45.365	45.365	45.305	40.537
EXISTING LEVELS	45.094	44.738	44.506	44.236	43.966	43.853	43.734	43.453	43.173	42.917	42.643	42.032	41.996	41.800	40.537
OFFSET	-16.270	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	14.601	22.073	22.602	25.602	40.376

CHAINAGE 27750

DATUM 44.000

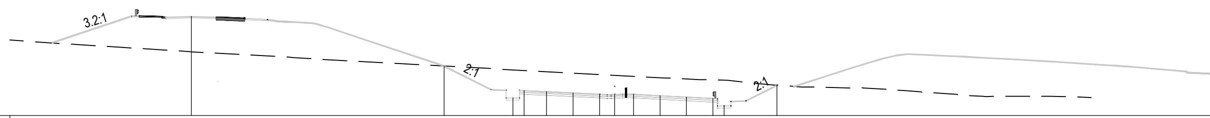
CUT/FILL	-0.000	0.655	1.574	1.534	1.493	1.499	1.480	1.461	1.464	1.515	1.557	0.623	1.336	1.294	-0.000
DESIGN LEVELS	44.787	45.935	46.943	46.985	47.033	47.082	47.082	47.082	47.130	47.179	47.220	46.283	46.973	46.905	45.559
EXISTING LEVELS	44.787	45.280	45.369	45.451	45.541	45.583	45.602	45.621	45.667	45.663	45.663	45.660	45.638	45.612	45.559
OFFSET	-27.445	-14.850	-11.500	-8.500	-5.000	-1.500	-0.000	1.502	5.002	8.502	11.502	14.939	17.613	20.671	25.233

CHAINAGE 27500

DATUM 42.000

CUT/FILL	0.000	-0.019	0.968	1.017	1.082	1.107	1.070	1.004	0.714	0.447	0.240	-0.891	0.000	0.000	-0.088	-0.294	-0.011
DESIGN LEVELS	42.853	43.012	44.026	44.097	44.181	44.264	44.264	44.264	44.159	44.054	43.964	42.946	44.061	44.320	44.264	44.211	44.578
EXISTING LEVELS	42.853	43.031	43.058	43.080	43.099	43.157	43.194	43.260	43.445	43.607	43.723	43.837	44.061	44.320	44.353	44.504	44.589
OFFSET	-24.076	-15.500	-12.000	-9.000	-5.500	-2.000	-0.000	2.000	5.500	9.000	12.004	15.354	21.386	26.531	27.176	30.193	31.825

CHAINAGE 29250



DATUM 44.000

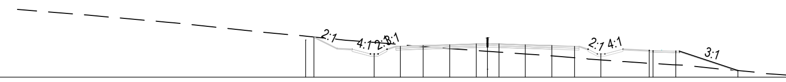
CUT/FILL	4.707	0.000	-3.688	-2.637	-2.623	-2.606	-2.595	-2.492	-2.365	-2.362	-2.368	-2.421	-3.421	-0.000
DESIGN LEVELS	57.131	50.538	46.338	47.308	47.158	46.983	46.808	46.808	46.808	46.633	46.458	46.283	45.253	48.004
EXISTING LEVELS	52.424	50.538	50.026	49.945	49.781	49.589	49.403	49.300	49.173	48.995	48.826	48.704	48.674	48.004
OFFSET	-56.002	-22.549	-13.475	-12.000	-9.000	-5.500	-2.000	0.000	2.500	6.000	9.500	13.000	14.475	21.452

CHAINAGE 29000

DATUM 45.000

CUT/FILL	-0.442	-1.260	0.004	0.247	0.526	0.749	0.901	1.057	1.203	1.335	1.455	0.680	1.461	1.479	1.575	0.000
DESIGN LEVELS	49.411	47.814	48.806	48.769	48.726	48.683	48.683	48.683	48.578	48.473	48.378	47.360	47.818	47.808	47.748	45.892
EXISTING LEVELS	49.853	49.074	48.803	48.523	48.200	47.934	47.781	47.626	47.375	47.138	46.923	46.680	46.357	46.329	46.173	45.892
OFFSET	-24.493	-15.100	-12.000	-9.000	-5.500	-2.000	-0.000	2.123	5.623	9.123	12.283	15.783	21.528	22.028	25.028	31.067

CHAINAGE 28750



DATUM 42.000

CUT/FILL	-0.477	-0.000	-1.508	-0.198	0.143	0.515	0.878	0.989	1.100	1.244	1.379	1.544	0.808	1.683	1.703	1.816	-0.000
DESIGN LEVELS	46.975	47.347	45.115	46.133	46.223	46.328	46.433	46.433	46.433	46.328	46.223	46.133	45.115	45.541	45.531	45.471	42.887
EXISTING LEVELS	47.452	47.347	46.623	46.330	46.080	45.813	45.554	45.444	45.333	45.084	44.844	44.589	44.306	43.858	43.828	43.655	42.887
OFFSET	-24.045	-22.965	-15.001	-11.501	-8.501	-5.001	-1.501	-0.000	1.501	5.001	8.501	11.501	15.001	21.373	21.873	24.873	33.096

CHAINAGE 28500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

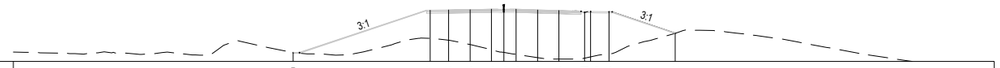
Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 10

Status Stamp: **FOR CONSENT**
Date Stamp: **19.08.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C2510
Rev.: B

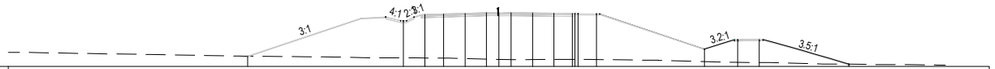
pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2510



DATUM 45.000

CUT/FILL	-0.000	4.607	4.946	5.676	6.613	7.013	7.348	7.756	7.916	7.441	7.385	6.856	0.052
DESIGN LEVELS	46.437	53.360	53.401	53.449	53.497	53.497	53.497	53.392	53.287	52.888	53.144	53.083	49.638
EXISTING LEVELS	46.437	48.753	48.455	47.773	46.883	46.483	46.148	45.636	45.370	45.547	45.759	46.227	49.586
OFFSET	-34.345	-12.000	-9.000	-5.500	-2.000	0.000	2.000	5.500	9.000	13.171	14.170	17.171	27.972

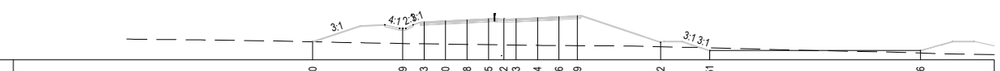
CHAINAGE 30250



DATUM 43.000

CUT/FILL	0.000	6.056	7.079	7.175	7.355	7.555	7.604	7.627	7.597	7.549	7.507	7.501	7.452	7.407	2.049	3.684	3.770	-0.000
DESIGN LEVELS	44.665	50.442	51.460	51.551	51.656	51.761	51.761	51.761	51.725	51.690	51.659	51.654	51.607	51.547	45.835	47.366	47.408	43.380
EXISTING LEVELS	44.665	44.385	44.381	44.376	44.301	44.206	44.157	44.134	44.128	44.141	44.152	44.153	44.155	44.140	43.786	43.682	43.638	43.380
OFFSET	-40.978	-15.546	-12.046	-9.006	-5.506	-2.006	0.000	2.000	5.500	9.000	12.000	12.424	12.925	15.925	33.531	38.954	42.455	57.071

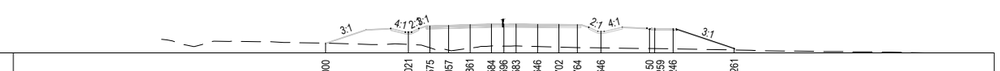
CHAINAGE 30000



DATUM 38.000

CUT/FILL	0.000	2.479	3.563	3.790	3.998	4.215	4.252	4.283	4.514	4.716	4.879	0.762	-0.451	0.406
DESIGN LEVELS	40.939	43.128	44.158	44.333	44.508	44.683	44.683	44.683	44.858	45.033	45.183	40.881	39.500	39.500
EXISTING LEVELS	40.939	40.650	40.596	40.544	40.511	40.469	40.431	40.401	40.344	40.317	40.304	40.119	39.951	39.094
OFFSET	-31.170	-16.500	-13.000	-9.500	-6.000	-2.500	0.000	2.000	5.500	9.000	12.000	25.596	33.589	67.970

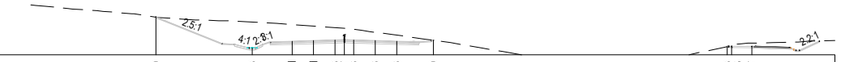
CHAINAGE 29750



DATUM 38.000

CUT/FILL	0.000	2.021	3.575	4.057	3.861	3.584	3.596	3.583	3.646	3.702	3.764	2.646	3.150	3.259	3.246	0.261
DESIGN LEVELS	39.586	41.391	42.409	42.500	42.605	42.710	42.710	42.710	42.683	42.655	42.632	41.461	41.867	41.964	41.904	38.736
EXISTING LEVELS	39.586	39.370	38.834	38.444	38.744	39.127	39.114	39.128	39.037	38.953	38.868	38.815	38.718	38.705	38.658	38.475
OFFSET	-29.075	-15.560	-12.060	-9.010	-5.510	-2.010	-0.000	2.000	5.500	9.000	12.000	15.850	23.760	24.601	27.602	37.577

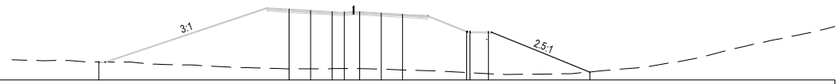
CHAINAGE 29500



DATUM 57.000

CUT/FILL	-0.000	-4.238	-2.731	-2.361	-1.998	-1.797	-1.426	-1.346	-1.006	-0.000	0.038	-0.125	-0.547
DESIGN LEVELS	63.123	58.103	59.211	59.316	59.421	59.421	59.421	59.316	59.211	59.365	58.376	58.400	58.353
EXISTING LEVELS	63.123	62.340	61.942	61.676	61.419	61.248	61.146	60.662	60.216	59.365	58.337	58.525	58.900
OFFSET	-30.729	-15.028	-8.527	-5.027	-1.527	-0.000	1.527	5.027	8.527	14.533	62.455	63.161	66.466

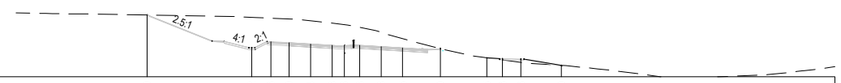
CHAINAGE 31250



DATUM 49.000

CUT/FILL	0.000	9.725	9.512	9.271	9.234	9.278	9.139	9.050	6.714	6.736	6.795	-0.023
DESIGN LEVELS	51.917	60.515	60.305	60.095	60.095	60.095	59.885	59.675	56.899	56.892	56.796	50.257
EXISTING LEVELS	51.917	50.790	50.793	50.824	50.861	50.817	50.746	50.625	50.185	50.156	50.001	50.279
OFFSET	-40.045	-9.000	-5.500	-2.000	0.000	2.500	6.000	9.500	19.935	20.468	23.504	40.038

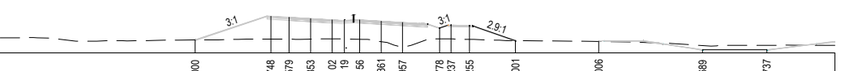
CHAINAGE 31000



DATUM 47.000

CUT/FILL	0.000	-4.942	-3.833	-3.669	-3.794	-3.628	-3.376	-2.928	-2.338	-1.515	-0.000	-0.015	0.203	0.533	-0.020
DESIGN LEVELS	57.103	51.770	52.734	52.554	52.344	52.134	52.134	52.134	51.924	51.714	51.591	50.107	49.987	49.918	48.871
EXISTING LEVELS	57.103	56.712	56.568	56.424	56.138	55.763	55.510	55.063	54.262	53.230	51.591	50.122	49.784	49.385	48.890
OFFSET	-32.182	-15.100	-12.000	-9.000	-5.500	-2.000	-0.000	2.500	6.000	9.500	15.655	23.235	25.784	28.786	35.387

CHAINAGE 30750



DATUM 43.000

CUT/FILL	0.000	3.748	3.579	3.353	3.102	3.119	3.156	3.361	3.957	1.778	2.237	2.255	-0.001	-0.006	-0.689	-0.737
DESIGN LEVELS	45.112	48.990	48.810	48.600	48.390	48.390	48.390	48.180	47.970	47.078	47.516	47.455	44.993	44.868	43.500	43.500
EXISTING LEVELS	45.112	45.242	45.230	45.246	45.288	45.271	45.234	44.818	44.013	45.299	45.280	45.200	44.994	44.874	44.189	44.237
OFFSET	-24.342	-12.000	-9.000	-5.500	-2.000	-0.000	2.500	6.000	9.500	15.539	17.389	20.392	27.894	41.498	58.406	68.897

CHAINAGE 30500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 11

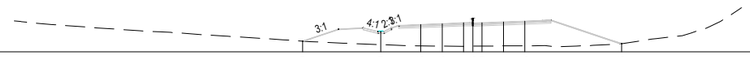
Status Stamp: **FOR CONSENT**
Date Stamp: **19.08.22**
Scales: AS SHOWN
Drawing No.: 310203848-01-100-C2511
Rev.: B

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2511

DATUM 24.000

CUT/FILL	-0.000	1.867	3.195	3.374	3.456 3.431 3.406	3.560	3.749	-0.000
DESIGN LEVELS	26.217	27.083	28.227	28.367	28.507 28.507 28.507	28.647	28.787	24.917
EXISTING LEVELS	26.217	25.216	25.032	24.994	25.051 25.076 25.101	25.087	25.038	24.917
OFFSET	-25.698	-15.000	-8.500	-5.000	-1.500 -0.000 1.500	5.000	8.500	24.143

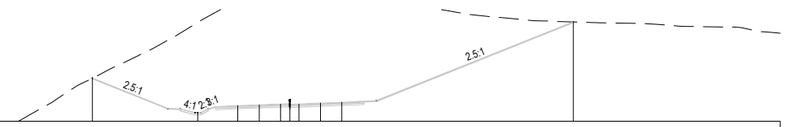
CHAINAGE 32250



DATUM 28.000

CUT/FILL	0.000	2.129	3.465	3.646	3.821 3.811 3.799	3.904	4.013	0.006
DESIGN LEVELS	29.760	31.312	32.456	32.596	32.736 32.736 32.736	32.876	33.016	29.349
EXISTING LEVELS	29.760	29.183	28.992	28.950	28.915 28.923 28.938	28.972	29.003	29.344
OFFSET	-27.756	-15.000	-8.500	-5.000	-1.500 -0.000 1.500	5.000	8.500	24.254

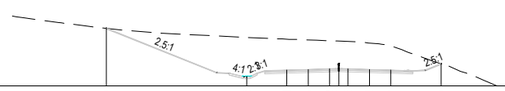
CHAINAGE 32000



DATUM 38.000

CUT/FILL	-0.000	-14.760	-16.605	-17.326	-17.864 -17.953 -18.006	-17.918	-17.645	0.000
DESIGN LEVELS	45.002	39.374	40.518	40.658	40.798 40.798 40.798	40.938	41.078	54.181
EXISTING LEVELS	45.002	54.134	57.123	57.984	58.662 58.751 58.804	58.856	58.723	54.181
OFFSET	-32.220	-15.000	-8.500	-5.000	-1.500 -0.000 1.500	5.000	8.500	46.248

CHAINAGE 31750



DATUM 48.000

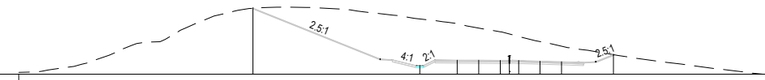
CUT/FILL	0.000	-6.426	-5.031	-4.815	-4.563 -4.511 -4.456	-4.284	-3.907	0.000
DESIGN LEVELS	57.394	49.480	50.588	50.693	50.798 50.798 50.798	50.693	50.588	51.615
EXISTING LEVELS	57.394	55.906	55.619	55.508	55.361 55.315 55.254	54.977	54.495	51.615
OFFSET	-37.936	-15.000	-8.500	-5.000	-1.500 -0.000 1.500	5.000	8.500	16.687

CHAINAGE 31500

DATUM 28.000

CUT/FILL	-0.000	-8.487	-7.212	-7.176	-7.148 -7.094 -7.049	-7.076	-7.127	0.000
DESIGN LEVELS	41.688	29.306	30.162	30.022	29.882 29.882 29.882	29.742	29.602	37.278
EXISTING LEVELS	41.688	37.793	37.374	37.198	37.029 36.976 36.910	36.818	36.729	37.278
OFFSET	-49.307	-14.600	-8.500	-5.000	-1.500 -0.000 1.500	5.000	8.500	33.400

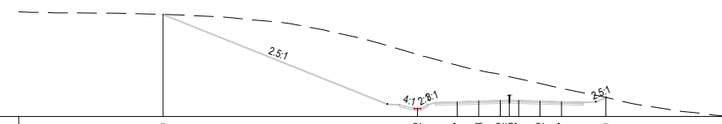
CHAINAGE 33250



DATUM 27.000

CUT/FILL	-0.000	-7.666	-5.931	-5.255	-4.687 -4.376 -4.316	-3.163	-2.536	0.000
DESIGN LEVELS	37.755	28.358	29.324	29.290	29.257 29.257 29.257	29.152	29.047	30.186
EXISTING LEVELS	37.755	36.024	35.255	34.545	33.943 33.670 33.717	32.314	31.583	30.186
OFFSET	-41.844	-14.600	-8.500	-5.000	-1.500 -0.000 1.500	5.000	8.500	16.970

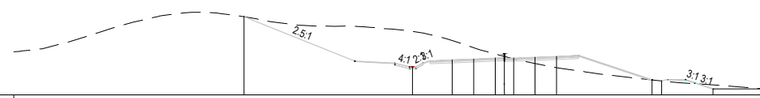
CHAINAGE 33000



DATUM 26.000

CUT/FILL	0.000	-8.802	-5.927	-4.988	-4.202 -3.895 -3.527	-2.842	-2.137	0.000
DESIGN LEVELS	42.639	27.314	28.422	28.527	28.632 28.632 28.632	28.527	28.422	29.078
EXISTING LEVELS	42.639	36.116	34.349	33.515	32.834 32.466 32.159	31.369	30.558	29.078
OFFSET	-56.465	-15.000	-8.500	-5.000	-1.500 -0.000 1.500	5.000	8.500	15.760

CHAINAGE 32750



DATUM 22.000

CUT/FILL	-0.000	-5.774	-3.157	-1.817	-0.666 -0.263 -0.125	1.025	1.852	0.000 0.000	-0.628	1.889
DESIGN LEVELS	34.728	26.583	27.727	27.867	28.007 28.007 28.007	28.147	28.287	24.442 24.277	23.000	23.000
EXISTING LEVELS	34.728	32.357	30.884	29.684	28.672 28.610 27.882	27.122	26.435	24.442 24.277	23.628	21.111
OFFSET	-42.452	-15.000	-8.500	-5.000	-1.500 -0.000 1.500	5.000	8.500	24.068 25.656	34.049	69.433

CHAINAGE 32500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 12

Status Stamp: **FOR CONSENT**

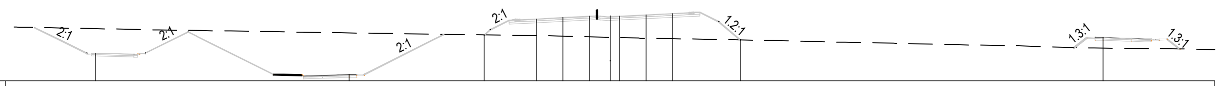
Date Stamp: **19.08.22**

Scales: AS SHOWN

Drawing No.: 310203848-01-100-C2512

Rev.: B

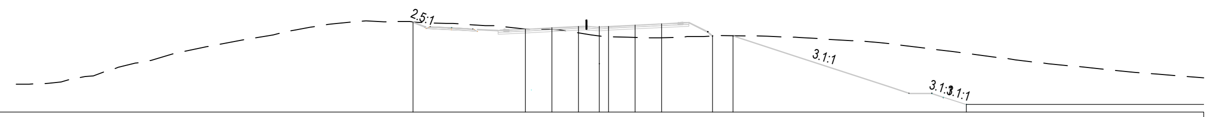
pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2512



DATUM 21.000

CUT/FILL	-3.220	-5.466	-0.000	2.217	2.450	2.717	2.790	2.823	3.081	3.317	-0.000	1.418
DESIGN LEVELS	24.654	21.855	27.049	29.167	29.342	29.517	29.517	29.517	29.692	29.867	26.385	26.728
EXISTING LEVELS	27.874	27.320	27.049	26.951	26.892	26.800	26.728	26.694	26.611	26.550	26.385	25.310
OFFSET	-68.107	-34.539	-16.676	-9.750	-6.250	-2.750	-0.000	1.261	4.761	8.261	17.256	65.201

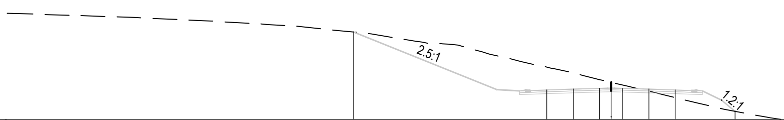
CHAINAGE 34250



DATUM 16.000

CUT/FILL	-0.000	0.005	0.238	0.863	1.250	1.367	1.649	1.850	-0.000	-0.008	-6.771
DESIGN LEVELS	27.905	26.978	27.153	27.328	27.328	27.328	27.503	27.678	26.059	26.087	17.000
EXISTING LEVELS	27.905	26.973	26.916	26.465	26.078	25.961	25.854	25.828	26.059	26.095	23.771
OFFSET	-24.604	-9.750	-6.250	-2.750	-0.000	1.254	4.754	8.254	15.014	17.692	48.588

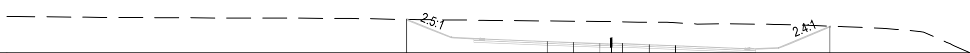
CHAINAGE 34000



DATUM 20.000

CUT/FILL	0.000	-2.981	-2.095	-1.120	-0.770	-0.420	0.292	1.051	0.000
DESIGN LEVELS	31.504	23.887	23.992	24.097	24.097	24.097	23.992	23.887	21.049
EXISTING LEVELS	31.504	26.869	26.087	25.218	24.867	24.517	23.701	22.836	21.049
OFFSET	-34.037	-8.500	-5.000	-1.500	0.000	1.500	5.000	8.500	16.377

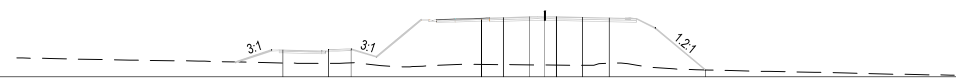
CHAINAGE 33750



DATUM 28.000

CUT/FILL	-0.000	-2.702	-2.801	-2.899	-2.880	-2.858	-2.951	-3.004	-0.020
DESIGN LEVELS	32.392	29.496	29.356	29.216	29.216	29.216	29.076	28.936	31.492
EXISTING LEVELS	32.392	32.198	32.158	32.115	32.097	32.075	32.028	31.941	31.513
OFFSET	-27.091	-8.500	-5.000	-1.500	-0.000	1.500	5.000	8.500	28.937

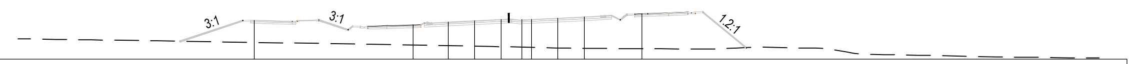
CHAINAGE 33500



DATUM 24.000

CUT/FILL	1.744	1.826	1.847	5.897	6.220	6.357	6.375	6.395	6.345	6.020	0.000
DESIGN LEVELS	27.548	27.589	27.656	31.515	31.818	31.923	31.923	31.923	31.850	31.777	24.884
EXISTING LEVELS	25.804	25.762	25.809	25.618	25.598	25.566	25.548	25.528	25.505	25.757	24.884
OFFSET	-34.668	-28.677	-25.650	-8.380	-5.486	-1.986	-0.000	1.500	5.000	8.500	21.280

CHAINAGE 34750



DATUM 23.000

CUT/FILL	2.957	2.693	3.145	3.388	3.637	3.696	3.724	3.973	4.187	4.680
DESIGN LEVELS	28.191	27.583	27.950	28.125	28.300	28.300	28.300	28.475	28.650	29.069
EXISTING LEVELS	25.234	24.890	24.805	24.738	24.663	24.604	24.577	24.502	24.463	24.389
OFFSET	-35.399	-14.382	-9.750	-6.250	-2.750	-0.000	1.258	4.758	8.258	15.892

CHAINAGE 34500

NOT FOR CONSTRUCTION

REV	REVISIONS	DRN	CHK	APP	DATE
B	ISSUED FOR RMA CONSENT	SS	KW	JP	19.08.22
A	ISSUED FOR CONSENT - DRAFT	SS	KW	JP	20.04.22

SURVEYED		
DESIGNED	Steve Muller	13.04.22
DRAWN	Steve Muller	13.04.22
CAD REVIEW	Steve Sutton	14.04.22
DESIGN CHECK	Jamie Povall	14.04.22
DESIGN REVIEW	Keith Weale	14.04.22
APPROVED	Jamie Povall	21.07.22
PROF REGISTRATION:		

Stantec

Client: WAKA KOTAHI NZ TRANSPORT AGENCY

WAKA KOTAHI
ŌTAKI TO NORTH OF LEVIN HIGHWAY PROJECT

CROSS SECTIONS
SHEET 13

Status Stamp **FOR CONSENT**

Date Stamp **19.08.22**

Scales AS SHOWN

Drawing No. 310203848-01-100-C2513

Rev. B

pw:\\stantec-ap-pw.bentley.com:stantec-ap-pw-01\Documents\New Zealand Clients\NZTA (New Zealand Transport Agency)\310203848 - Otaki to North of Levin DBC\01 - O2NL\100 - Geometric Design\310203848-01-100-C2513