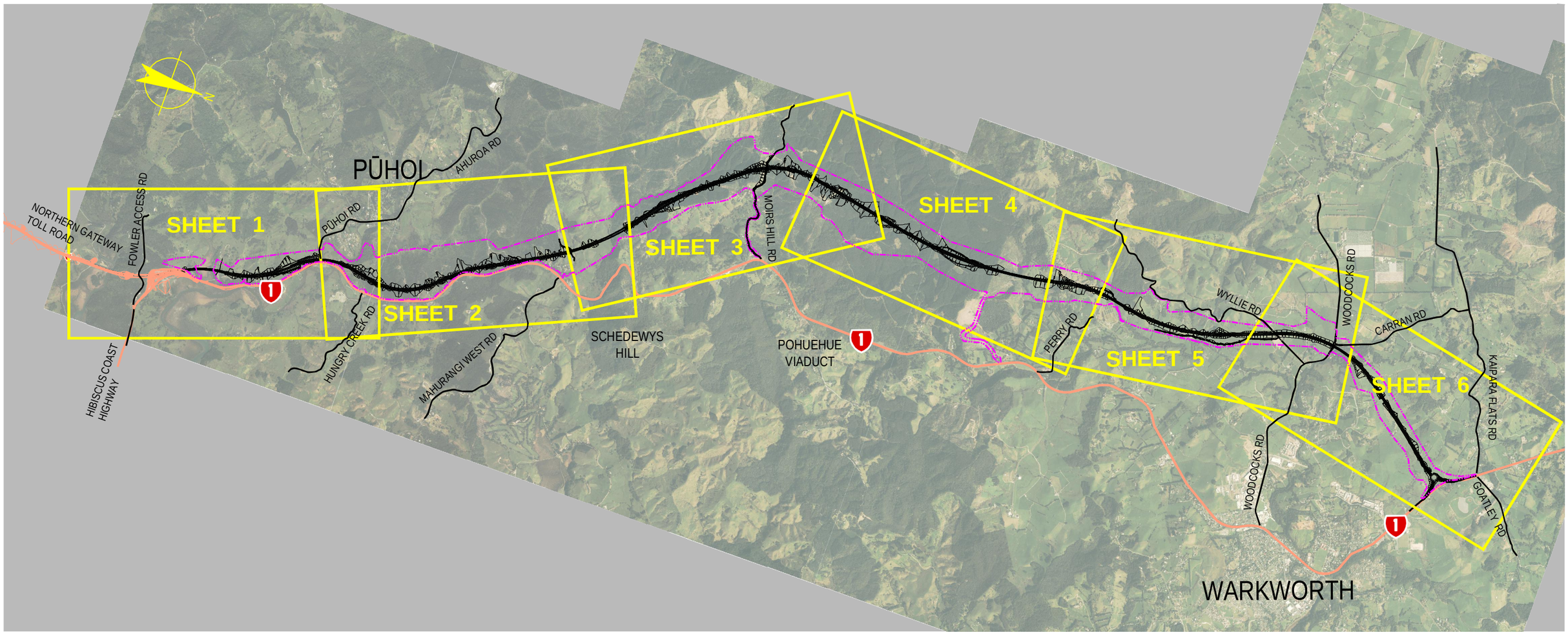

0 250 500 750 1000 1250m

SCALE 1:50,000 @ A3 SIZE

AMD	DATE	DESIGN REVIEW	REVD D. MGR	APP'D A. MGR	PURPOSE OF ISSUE / AMENDMENT
0	30/08/13	RET	MRH	TI	ISSUE FOR NOR / CONSENT

FURTHER NORTH

DISCLAIMER
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ARA TŪHONO - PŪHOI TO WELLSFORD

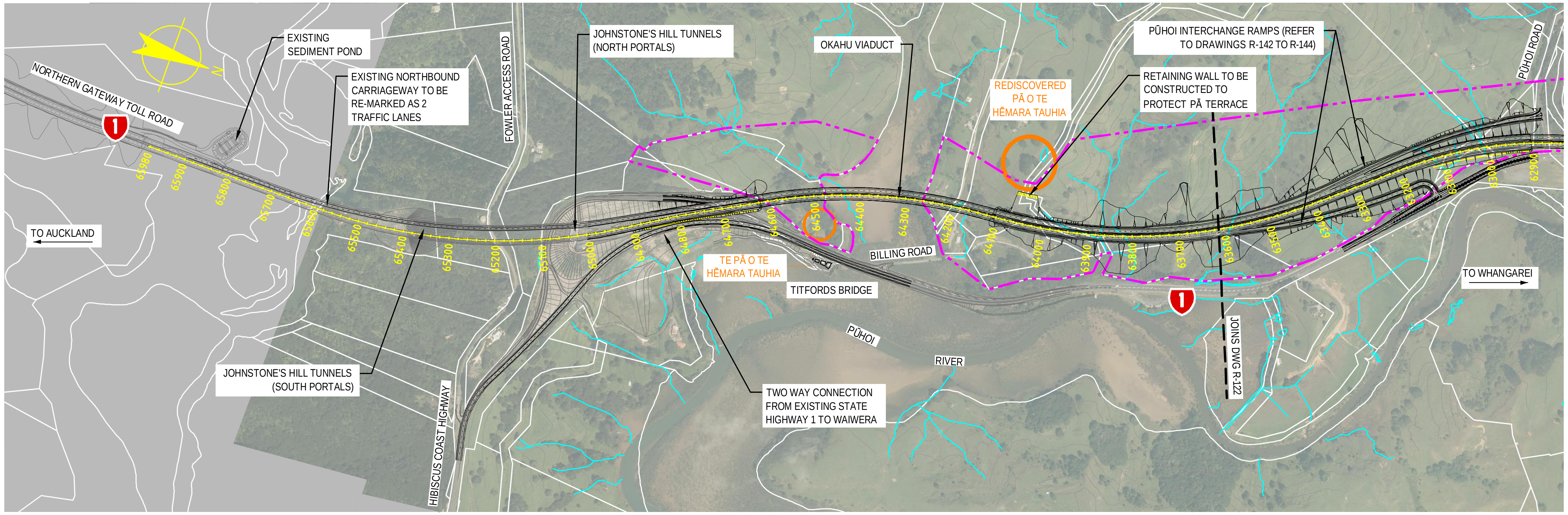
PŪHOI TO WARKWORTH - FOR RMA APPROVALS

DRAWN	DRAFTING CHECK	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER
SP / AN	IH	MRH	TI
DESIGNED	DESIGN REVIEW		
IH	RET		

ROAD PLANS AND LONGITUDINAL SECTIONS SHEET LAYOUT

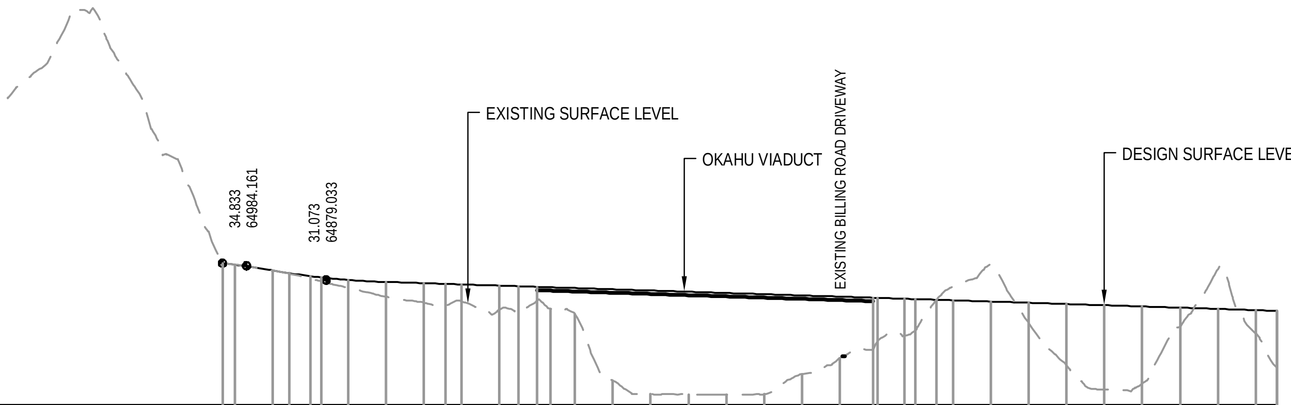
SCALE	CONTRACT No	DRAWING No	AMDT
AS SHOWN	PA3748	R-120	0

S:\Further North - PAA\300 Design\300.5 Technical\01-Drawing Production\CADD\Drawings\R-120.dwg Plot Date: 15 August , 2013 - 1:37 PM



PLAN

SCALE 1:10000 @ A3 SIZE



DATUM= -2.000

CHAINAGE	DESIGN SURFACE LEVEL	EXISTING SURFACE LEVEL
65250.000	999.000	87.987
65200.000	999.000	102.457
65150.000	999.000	87.823
65100.000	999.000	67.464
65050.000	999.000	50.916
65000.000	35.136	35.174
64950.000	33.611	33.614
64927.552		
64900.000	32.095	31.510
64885.552		
64850.000	31.079	29.018
64800.000	30.560	26.633
64750.000	30.236	25.102
64721.042		
64700.000	29.912	25.426
64650.000	29.588	23.191
64624.422		
64600.000	29.264	25.612
64582.422		
64550.000	28.939	22.038
64500.000	28.615	4.474
64450.000	28.291	0.899
64400.000	27.967	0.697
64350.000	27.643	0.772
64300.000	27.319	0.865
64250.000	26.995	6.169
64200.000	26.670	10.430
64155.975		
64150.000	26.346	14.778
64113.975		
64100.000	26.022	17.746
64071.975		
64050.000	25.698	29.289
64000.000	25.374	34.979
63950.000	25.050	19.626
63900.000	24.726	8.521
63850.000	24.402	2.115
63800.000	24.077	3.708
63750.000	23.753	18.737
63700.000	23.429	33.959
63650.000	23.105	16.916

HORIZONTAL DATA: R=1201.379 L=654.180 | CL | R=-2400.000 L=164.511 | D | CL | R=-1100.000 L=426.447 | CL | CL | R=1107.000 L=663.081

VERTICAL DATA: K | K=50.000 L=146.419 | P=0.648% L=1770.504

SUPERELEVATION: 3.00% | 3.00% | 3.00%

LONGITUDINAL SECTION - MCS0 (CH 63650.000 TO CH 65250.000)

HORIZONTAL SCALE 1:10000 @ A3
VERTICAL SCALE 1:2000 @ A3

NOTE: FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING R-001

0 50 100 150 200 250m
SCALE 1:10,000 @ A3 SIZE

AMD	DATE	DESIGN REVIEW	REV'D D. MGR	APP'D A. MGR	PURPOSE OF ISSUE / AMENDMENT
0	30/08/13	RET	MRH	TI	ISSUE FOR NOR / CONSENT

FURTHER NORTH

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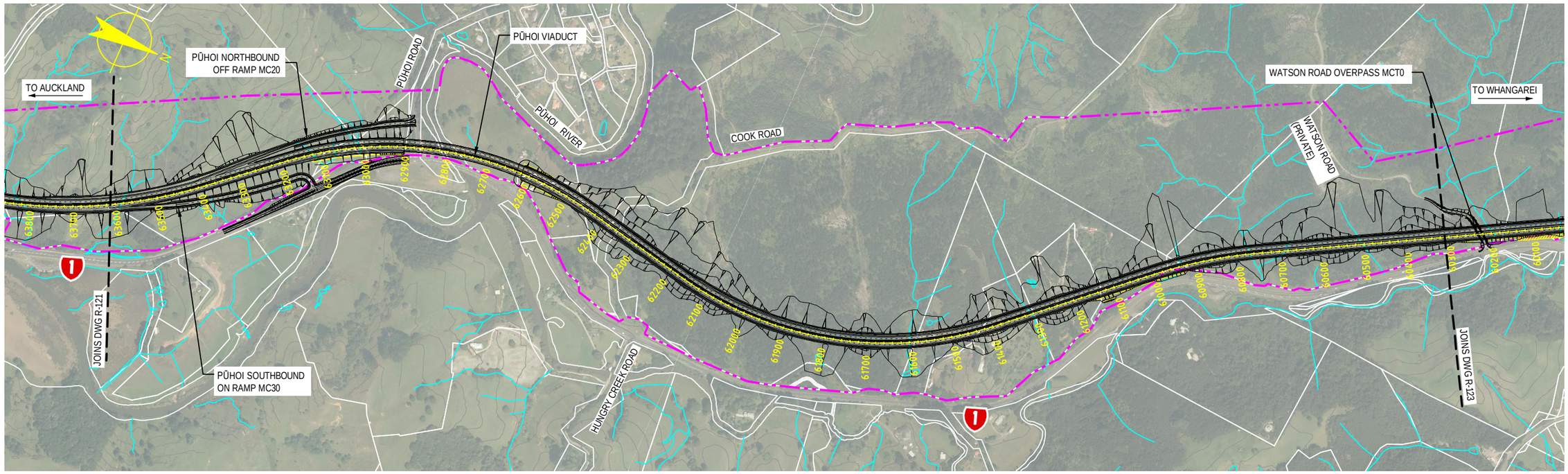
ARA TŪHONO - PŪHOI TO WELLSFORD
PŪHOI TO WARKWORTH - FOR RMA APPROVALS

DRAWN: SP / AN | DRAFTING CHECK: IH | REVIEWED DISCIPLINE MANAGER: MRH | APPROVED ALLIANCE MANAGER: TI
DESIGNED: IH | DESIGN REVIEW: RET

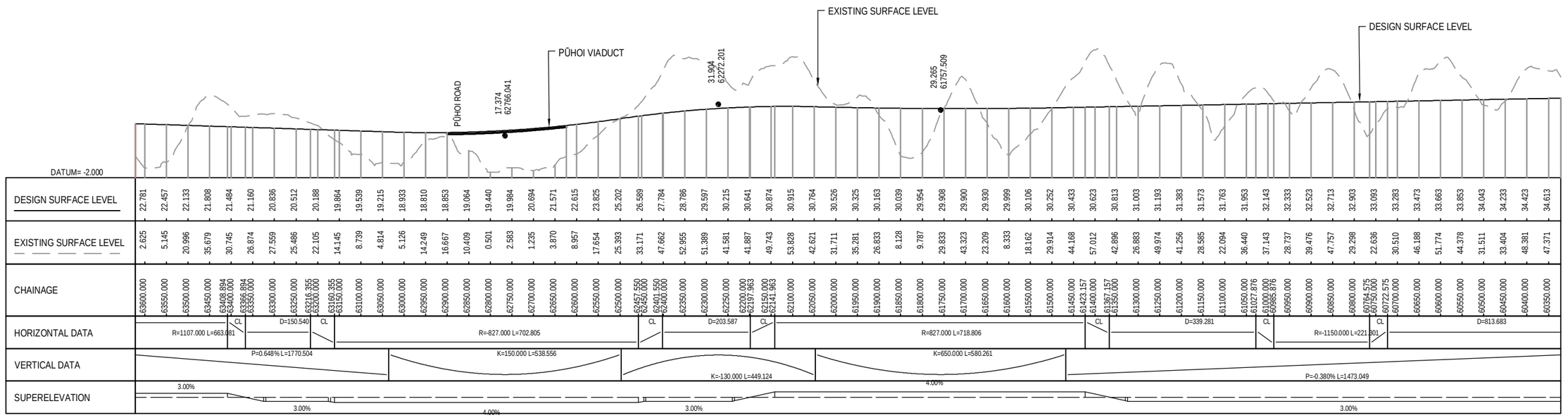
SOUTHBOUND ALIGNMENT MCS0
PLAN AND LONGITUDINAL SECTION
CH 63650.00 TO CH 65250.00 - SHEET 1 OF 6

SCALE: AS SHOWN | CONTRACT No: PA3748 | DRAWING No: R-121 | AMDT: 0

S:\Further North - PAA\300 Design\300.5 Technical\01-Drawing Production\CADD\Drawings\R-121_R-123.dwg   Plot Date: 18 August , 2013 - 2:02 PM



PLAN
SCALE 1:10000 @ A3 SIZE



LONGITUDINAL SECTION - MCS0 (CH 60350.000 TO CH 63600.000)
HORIZONTAL SCALE 1:10000 @ A3
VERTICAL SCALE 1:2000 @ A3

NOTE: FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING R-001

0 50 100 150 200 250m
SCALE 1:10,000 @ A3 SIZE

AMD	DATE	DESIGN REVIEW	REVD D. MGR	APP'D A. MGR	PURPOSE OF ISSUE / AMENDMENT
0	30/08/13	RET	MRH	TI	ISSUE FOR NOR / CONSENT

FURTHER NORTH

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ARA TŪHONO - PŪHOI TO WELLSFORD
PŪHOI TO WARKWORTH - FOR RMA APPROVALS

DRAWN	DRAFTING CHECK	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER
SP / AN	IH	MRH	TI
DESIGNED	DESIGN REVIEW		
IH	RET		

SOUTHBOUND ALIGNMENT MCS0
PLAN AND LONGITUDINAL SECTION
CH 60350.00 TO CH 63600.00 - SHEET 2 OF 6

SCALE	CONTRACT No	DRAWING No	AMDT
AS SHOWN	PA3748	R-122	0

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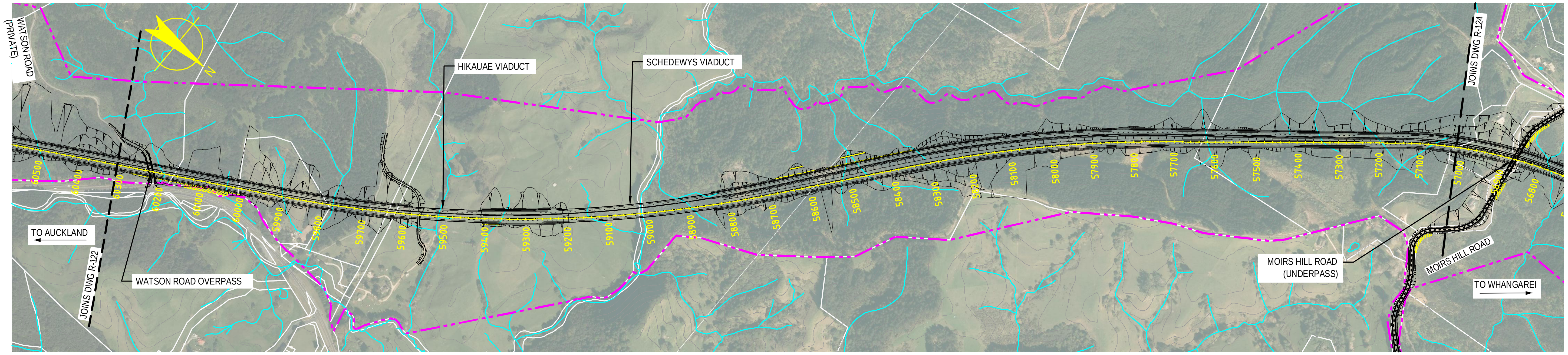
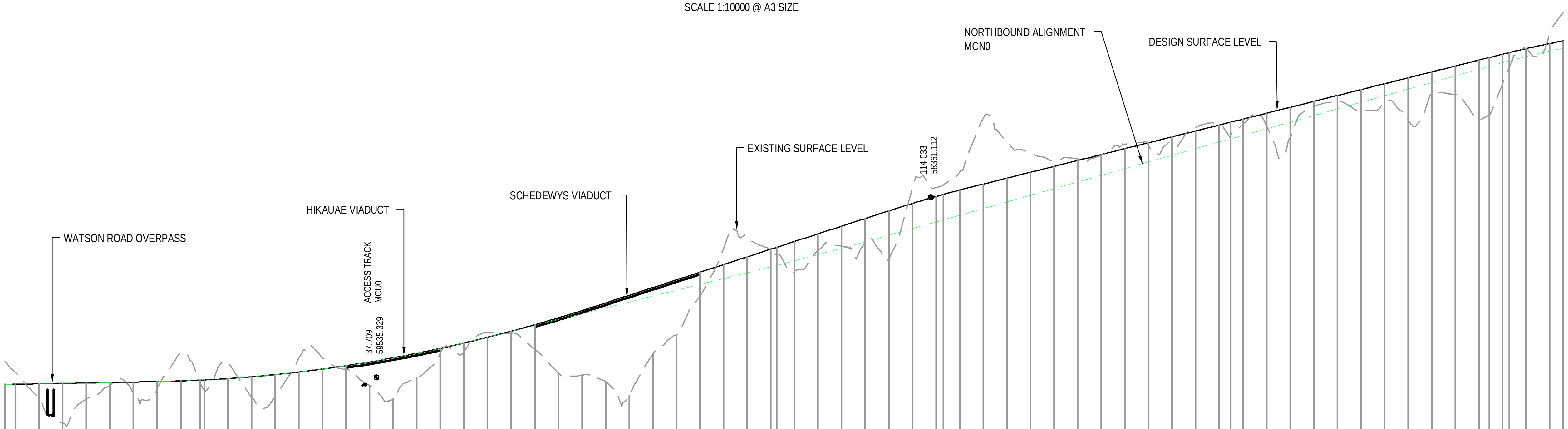


PLAN

SCALE 1:10000 @ A3 SIZE



CHAINAGE	DESIGN SURFACE LEVEL	EXISTING SURFACE LEVEL
60300.000	34.803	39.784
60250.000	34.993	28.586
60200.000	35.183	18.386
60150.000	35.373	28.463
60100.000	35.563	34.173
60050.000	35.753	31.369
60000.000	35.943	32.809
59950.000	36.199	48.174
59908.892 / 59900.000	36.620	32.369
59850.000	37.208	43.668
59800.000	37.962	29.220
59750.000	38.883	29.484
59700.000	39.971	46.035
59650.000	41.225	45.959
59600.000	42.647	41.201
59550.000	44.234	34.281
59500.000	45.989	28.631
59450.000	47.910	37.808
59400.000	49.998	47.829
59350.000	52.252	48.541
59300.000	54.673	56.772
59250.000	57.261	56.446
59200.000	60.015	49.508
59150.000	62.936	39.428
59100.000	66.024	38.709
59050.000	69.256	35.823
59000.000	72.506	29.887
58950.000	75.756	47.489
58900.000	79.006	55.644
58850.000	82.256	72.101
58800.000	85.506	92.311
58750.000	88.756	96.328
58700.000 / 58687.293	92.006	92.056
58650.000	95.256	82.538
58600.000	98.506	91.407
58550.000	101.756	93.253
58500.000	105.006	94.538
58450.000	108.255	87.818
58400.000	111.397	117.997
58350.000 / 58334.175	114.330	118.099
58300.000	117.054	124.755
58250.000	119.589	147.517
58200.000	122.089	137.559
58150.000	124.589	132.687
58100.000	127.089	129.419
58050.000	129.589	130.213
58000.000	132.089	131.811
57950.000	134.589	136.491
57900.000	137.089	135.928
57850.000	139.589	136.758
57800.000	142.089	143.500
57750.000 / 57725.517	144.589	144.779
57700.000	147.089	144.934
57650.000	149.589	144.196
57600.000	152.089	139.352
57550.000	154.589	152.514
57500.000	157.089	154.720
57450.000	159.589	150.516
57400.000	162.089	154.854
57350.000	164.589	146.880
57300.000	167.089	157.867
57250.000	169.589	157.528
57200.000 / 57177.948	172.089	147.193
57150.000 / 57135.948	174.589	162.016
57100.000	176.965	177.009
57050.000	179.111	183.491

HORIZONTAL DATA: D=813.683 | R=3150.000 L=1221.598 | D=353.118 | R=-3000.000 L=608.658 | D=547.569 | CL | R=-1100.000 L=926.331

VERTICAL DATA: P=-0.380% L=1473.049 | K=150.000 L=918.001 | P=-6.500% L=625.217 | K=-120.000 L=180.000 | P=-5.000% L=1119.079 | K=-109.000 L=1090.000

SUPERELEVATION: 3.00% | 3.00% | 3.00%

LONGITUDINAL SECTION - MCS0 (CH 57050.000 TO CH 60300.000)

HORIZONTAL SCALE 1:10000 @ A3
VERTICAL SCALE 1:2000 @ A3

NOTE: FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING R-001

0 50 100 150 200 250m
SCALE 1:10,000 @ A3 SIZE

AMD	DATE	DESIGN REVIEW	REV'D D. MGR	APP'D A. MGR	PURPOSE OF ISSUE / AMENDMENT
0	30/08/13	RET	MRH	TI	ISSUE FOR NOR / CONSENT

FURTHER NORTH

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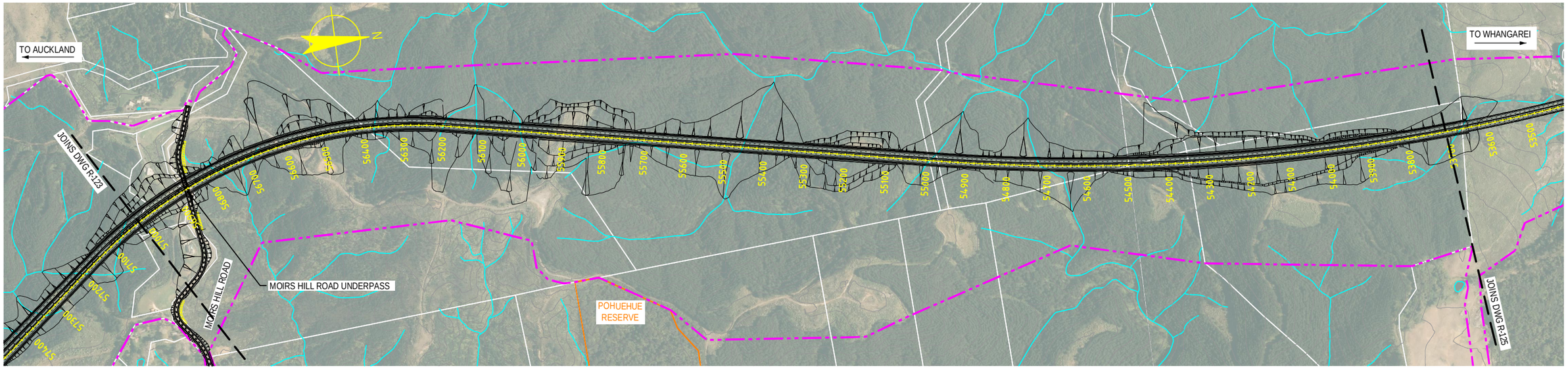
ARA TŪHONO - PŪHOI TO WELLSFORD
PŪHOI TO WARKWORTH - FOR RMA APPROVALS

DRAWN: SP / AN | DRAFTING CHECK: IH | REVIEWED DISCIPLINE MANAGER: MRH | APPROVED ALLIANCE MANAGER: TI
DESIGNED: IH | DESIGN REVIEW: RET

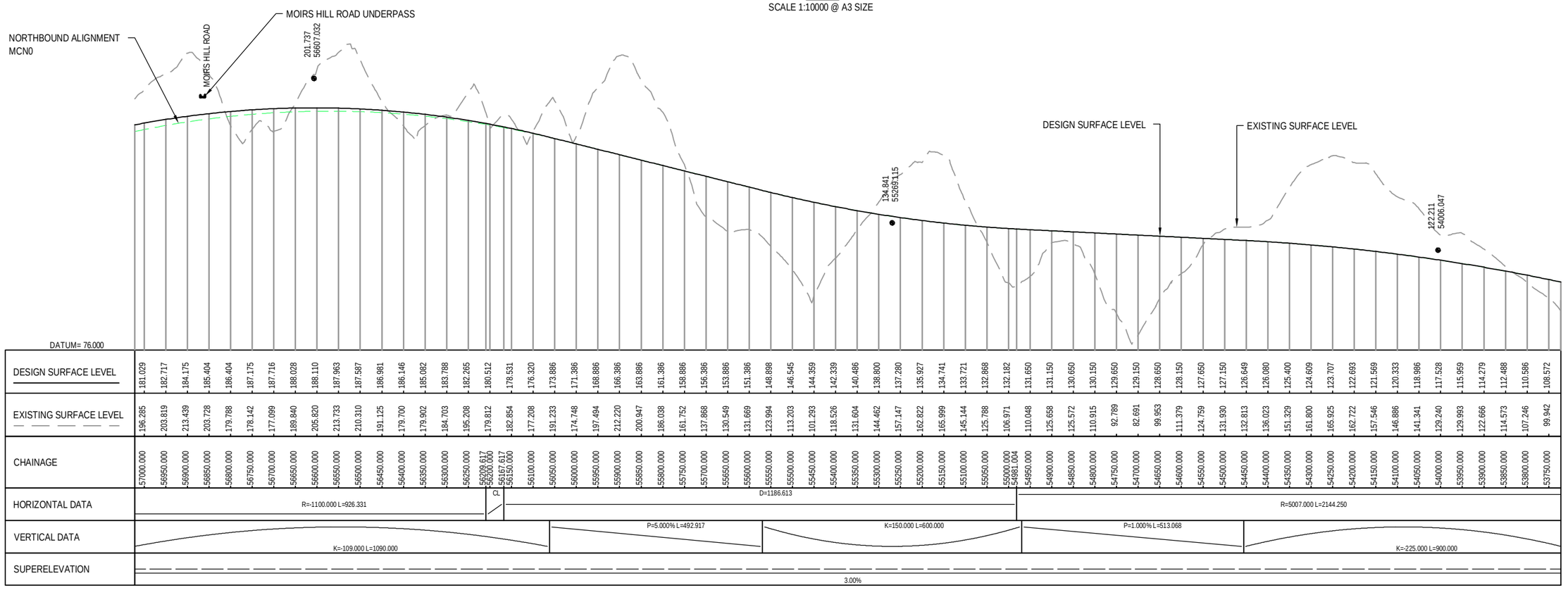
SOUTHBOUND ALIGNMENT MCS0
PLAN AND LONGITUDINAL SECTION
CH 57050.00 TO CH 60300.00 - SHEET 3 OF 6

SCALE: AS SHOWN | CONTRACT No: PA3748 | DRAWING No: R-123 | AMDT: 0

S:\Further North - PAA\300 Design\300.5 Technical\01-Drawing Production\CADD\Drawings\R-121_R-123.dwg Plot Date: 18 August , 2013 - 2:05 PM



PLAN
SCALE 1:10000 @ A3 SIZE



LONGITUDINAL SECTION - MCS0 (CH 53750.000 TO CH 57000.000)
HORIZONTAL SCALE 1:10000 @ A3
VERTICAL SCALE 1:2000 @ A3

NOTE: FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING R-001

0 50 100 150 200 250m
SCALE 1:10,000 @ A3 SIZE

AMD	DATE	DESIGN REVIEW	REVD D. MGR	APPD A. MGR	PURPOSE OF ISSUE / AMENDMENT
0	30/08/13	RET	MRH	TI	ISSUE FOR NOR / CONSENT

FURTHER NORTH

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ARA TŪHONO - PŪHOI TO WELLSFORD
PŪHOI TO WARKWORTH - FOR RMA APPROVALS

DRAWN	DRAFTING CHECK	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER
SP / AN	IH	MRH	TI
DESIGNED	DESIGN REVIEW		
IH	RET		

SOUTHBOUND ALIGNMENT MCS0
PLAN AND LONGITUDINAL SECTION
CH 53750.00 TO CH 57000.00 - SHEET 4 OF 6

SCALE	CONTRACT No	DRAWING No	AMDT
AS SHOWN	PA3748	R-124	0

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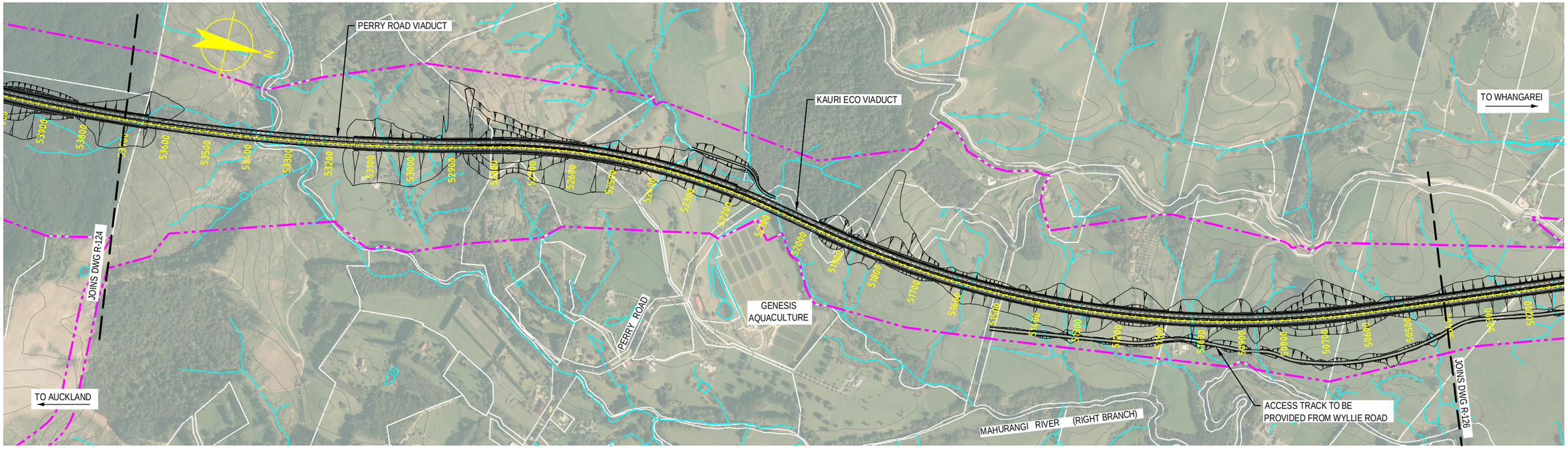
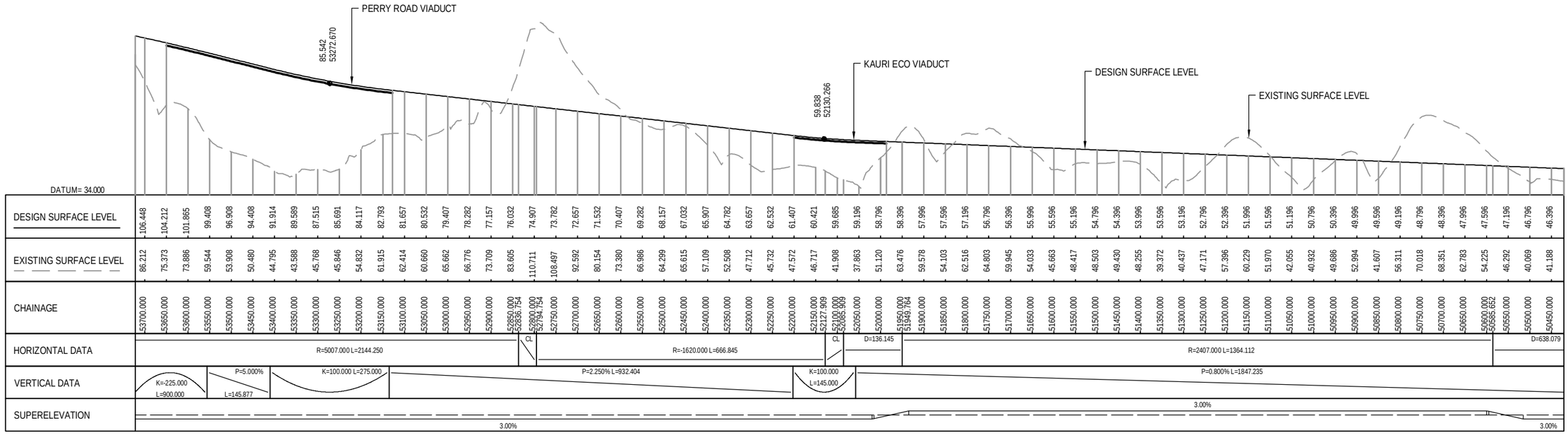


PLAN
SCALE 1:10000 @ A3 SIZE



LONGITUDINAL SECTION - MCS0 (CH 50450.000 TO CH 53700.000)
HORIZONTAL SCALE 1:10000 @ A3
VERTICAL SCALE 1:2000 @ A3

NOTE: FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING R-001

0 50 100 150 200 250m
SCALE 1:10,000 @ A3 SIZE

AMD	DATE	DESIGN REVIEW	REVD. D. MGR	APPD. A. MGR	PURPOSE OF ISSUE / AMENDMENT
0	30/08/13	RET	MRH	TI	ISSUE FOR NOR / CONSENT

FURTHER NORTH

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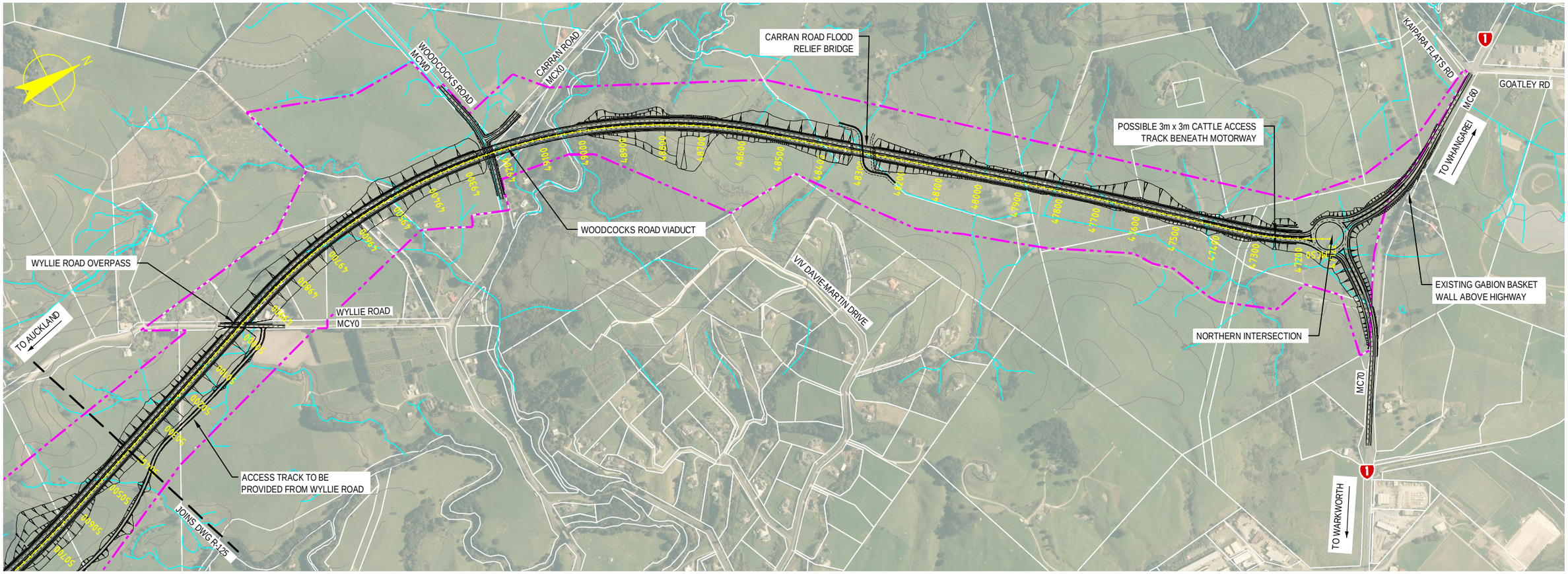
ARA TŪHONO - PŪHOI TO WELLSFORD
PŪHOI TO WARKWORTH - FOR RMA APPROVALS

DRAWN	DRAFTING CHECK	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER
SP / AN	IH	MRH	TI
DESIGNED	DESIGN REVIEW		
IH	RET		

SOUTHBOUND ALIGNMENT MCS0
PLAN AND LONGITUDINAL SECTION
CH 50450.00 TO CH 53700.00 - SHEET 5 OF 6

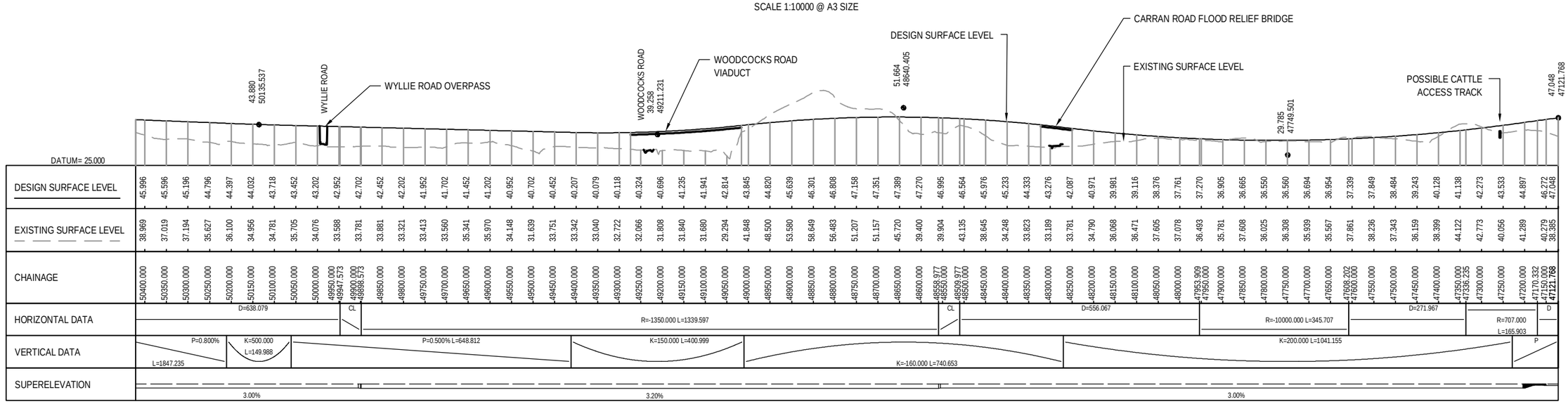
SCALE	CONTRACT No.	DRAWING No.	AMDT
AS SHOWN	PA3748	R-125	0

S:\Further North - PAA\300 Design\300.5 Technical\01-Drawing Production\CADD\Drawings\R-124_R-126.dwg Plot Date: 18 August 2013 - 2:58 PM



PLAN

SCALE 1:10000 @ A3 SIZE



	45.996	45.596	45.196	44.796	44.397	44.032	43.718	43.452	43.202	42.952	42.702	42.452	42.202	41.952	41.702	41.452	41.202	40.952	40.702	40.452	40.207	40.079	40.118	40.324	40.696	41.235	41.941	42.814	43.845	44.820	45.639	46.301	46.808	47.158	47.351	47.389	47.270	46.995	46.564	45.976	45.233	44.333	43.276	42.087	40.971	39.981	39.116	38.376	37.761	37.270	36.905	36.665	36.550	36.560	36.694	36.954	37.339	37.849	38.484	39.243	40.128	41.138	42.273	43.533	44.897	46.272	47.048
EXISTING SURFACE LEVEL	38.969	37.019	37.194	35.627	36.100	34.956	34.781	35.705	34.076	33.588	33.781	33.881	33.321	33.413	33.560	35.341	35.970	34.148	31.639	33.751	33.342	33.040	32.722	32.066	31.808	31.840	31.680	29.294	41.848	48.500	53.580	58.649	56.483	51.207	51.157	45.720	39.400	39.904	43.135	38.645	34.248	33.823	33.189	33.781	34.790	36.068	36.471	37.605	37.078	36.493	35.781	37.608	36.025	36.308	35.939	35.567	37.861	38.236	37.343	36.159	38.399	44.122	42.773	40.056	41.289	40.279	38.385
CHAINAGE	50400.000	50350.000	50300.000	50250.000	50200.000	50150.000	50100.000	50050.000	50000.000	49950.000	49900.000	49850.000	49800.000	49750.000	49700.000	49650.000	49600.000	49550.000	49500.000	49450.000	49400.000	49350.000	49300.000	49250.000	49200.000	49150.000	49100.000	49050.000	49000.000	48950.000	48900.000	48850.000	48800.000	48750.000	48700.000	48650.000	48600.000	48558.977	48550.000	48509.977	48500.000	48450.000	48400.000	48350.000	48300.000	48250.000	48200.000	48150.000	48100.000	48050.000	48000.000	47963.909	47950.000	47900.000	47850.000	47800.000	47750.000	47700.000	47650.000	47608.202	47600.000	47550.000	47500.000	47450.000	47400.000	47350.000	47336.235	47300.000	47250.000	47200.000	47170.332	47150.000	47121.768

LONGITUDINAL SECTION - MCS0 (CH47121.768 TO CH 50400.000)

HORIZONTAL SCALE 1:10000 @ A3
VERTICAL SCALE 1:2000 @ A3

NOTE: FOR GENERAL NOTES AND LEGEND, REFER TO DRAWING R-001

0 50 100 150 200 250m
SCALE 1:10,000 @ A3 SIZE

AMD	DATE	DESIGN REVIEW	REVD. D. MGR	APP'D. A. MGR	PURPOSE OF ISSUE / AMENDMENT
0	30/08/13	RET	MRH	TI	ISSUE FOR NOR / CONSENT

FURTHER NORTH

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ARA TŪHONO - PŪHOI TO WELLSFORD

PŪHOI TO WARKWORTH - FOR RMA APPROVALS

DRAWN	DRAFTING CHECK	REVIEWED DISCIPLINE MANAGER	APPROVED ALLIANCE MANAGER
SP / AN	IH	MRH	TI
DESIGNED	DESIGN REVIEW		
IH	RET		

SOUTHBOUND ALIGNMENT MCS0
PLAN AND LONGITUDINAL SECTION
CH 47121.768 TO CH 50400.00 - SHEET 6 OF 6

SCALE	CONTRACT No	DRAWING No	AMDT
AS SHOWN	PA3748	R-126	0

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