East West Connections – Business Case for Implementation

Detailed Business Case to Proceed from Initiation

VOLUME 2 OF 2

23 DECEMBER 2015

to Implementation - PART A

FINAL DRAFT

APPENDICES (Volume 2)

APPENDIX Q: ONEHUNGA-PENROSE CONNECTIONS – PREFERRED APPROACH TECHNICAL DRAWINGS

APPENDIX R: MĀNGERE, ŌTĀHUHU, SYLVIA PARK CONNECTIONS – PREFERRED APPROACH TECHNICAL DRAWINGS

APPENDIX Q

Onehunga-Penrose Connections -Preferred Approach Technical Drawings

NZ TRANSPORT AGENCY/ AUCKLAND TRANSPORT EAST WEST CONNECTION DETAILED BUSINESS CASE ONEHUNGA - PENROSE CONNECTION



LOCALITY PLAN

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A	ISSUED FOR COMMENT	RB			27/03/15	
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NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTION DETAILED BUSINESS CASE - RECOMMENDED OPTION COVER SHEET

Drawing No: 3818683-G001 Rev: B

ot Date: 5 August 2015 - 3:31 p.m. Plotted by: Ajeshni Ra

d File No: Y:\3818683\CAD\01 DETAILED BUSINESS CASE\DRAWINGS\3818683-G001.dwg

	DRAWING LIST		
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DRAWING	DRAWING TITLE		
NUMBER	CENTEN DANIES	REV	RE
3818683-G001	GENERAL DRAWING COVERSHEET	A	В
3818683-G002	DRAWING LIST	A	В
3818683-G003	GENERAL NOTES AND LEGEND	A	В
3818683-G005	KEY PLAN	A	В
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DETAILED BUSINESS CASE	- RECOMMENDED OPTION		
3818683-C101	RECOMMENDED OPTION - SHEET 1 OF 29	А	В
3818683-C102	RECOMMENDED OPTION - SHEET 2 OF 29	A	В
3818683-C103	RECOMMENDED OPTION - SHEET 3 OF 29	А	В
3818683-C104	RECOMMENDED OPTION - SHEET 4 OF 29	A	В
3818683-C105	RECOMMENDED OPTION - SHEET 5 OF 29	A	В
3818683-C106	RECOMMENDED OPTION - SHEET 6 OF 29	A	Е
3818683-C107	RECOMMENDED OPTION - SHEET 7 OF 29	А	Е
3818683-C108	RECOMMENDED OPTION - SHEET 8 OF 29	A	Е
3818683-C109	RECOMMENDED OPTION - SHEET 9 OF 29	A	Е
3818683-C110	RECOMMENDED OPTION - SHEET 10 OF 29	А	Е
3818683-C111	RECOMMENDED OPTION - SHEET 11 OF 29	А	Е
3818683-C112	RECOMMENDED OPTION - SHEET 12 OF 29	А	Е
3818683-C113	RECOMMENDED OPTION - SHEET 13 OF 29	А	Е
3818683-C114	RECOMMENDED OPTION - SHEET 14 OF 29	А	Е
3818683-C115	RECOMMENDED OPTION - SHEET 15 OF 29	А	Е
3818683-C116	RECOMMENDED OPTION - SHEET 16 OF 29	А	Е
3818683-C117	RECOMMENDED OPTION - SHEET 17 OF 29	A	Е
3818683-C118	RECOMMENDED OPTION - SHEET 18 OF 29	A	Е
3818683-C119	RECOMMENDED OPTION - SHEET 19 OF 29	A	Е
3818683-C120	RECOMMENDED OPTION - SHEET 20 OF 29	A	Е
3818683-C121	RECOMMENDED OPTION - SHEET 21 OF 29	A	E
3818683-C122	RECOMMENDED OPTION - SHEET 22 OF 29	A	E
3818683-C123	RECOMMENDED OPTION - SHEET 23 OF 29	A	E
3818683-C124	RECOMMENDED OPTION - SHEET 24 OF 29	A	E
3818683-C125	RECOMMENDED OPTION - SHEET 25 OF 29	A	E
3818683-C126	RECOMMENDED OPTION - SHEET 26 OF 29	A	E
3818683-C127	RECOMMENDED OPTION - SHEET 27 OF 29	A	E
3818683-C128	RECOMMENDED OPTION - SHEET 28 OF 29	A	E
3818683-C129	RECOMMENDED OPTION - SHEET 29 OF 29	A	Е
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WALKING AND CYCLING I	ROUTE		
3818683-C081	RECOMMENDED OPTION - WALKING AND CYCLING ROUTE - SHEET 1	A	E
3818683-C082	RECOMMENDED OPTION - WALKING AND CYCLING ROUTE - SHEET 2	A	Е
3818683-C083	RECOMMENDED OPTION - WALKING AND CYCLING ROUTE - SHEET 3	A	E
3818683-C084	RECOMMENDED OPTION - WALKING AND CYCLING ROUTE - SHEET 4	A	E
3818683-C085	RECOMMENDED OPTION - WALKING AND CYCLING ROUTE - SHEET 5	A	E
STAGED OPTION			\vdash
3818683-C200	STAGING PLAN	_	\vdash
3818683-C200 3818683-C201	STAGING PLAN STAGED OPTION - SHEET 1 OF 8		F
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3818683-C202 3818683-C203	STAGED OPTION - SHEET 2 OF 8 STAGED OPTION - SHEET 3 OF 8	A	E
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3818683-C205	STAGED OPTION - SHEET 5 OF 8	А	В
3818683-C206	STAGED OPTION - SHEET 6 OF 8	А	В
3818683-C207	STAGED OPTION - SHEET 7 OF 8	А	В
3818683-C208	STAGED OPTION - SHEET 8 OF 8	А	В
NEILSON STREET INTERCHA	NGE		
3818683-C400	NEILSON STREET INTERCHANGE - REF STRINGS	А	В
3818683-C401	NEILSON STREET INTERCHANGE - MCD0	А	В
3818683-C402	NEILSON STREET INTERCHANGE - MCEO	А	В
3818683-C403	NEILSON STREET INTERCHANGE - MCEO	А	В
3818683-C404	NEILSON STREET INTERCHANGE - MCF0	А	В
3818683-C405	NEILSON STREET INTERCHANGE - MCG0	А	В
3818683-C406	NEILSON STREET INTERCHANGE - MCJO	А	В
3818683-C407	NEILSON STREET INTERCHANGE - MCIO	A	В
3818683-C408	NEILSON STREET INTERCHANGE - MCNO	A	В
3818683-C409			B
	NEILSON STREET INTERCHANGE - MCN0	A	_
3818683-C410	NEILSON STREET INTERCHANGE - MCNO	А	В
DETAILED BUSINESS CASE -	RECOMMENDED OPTION - LONG SECTION		
3818683-C422	HUGO JOHNSTON DR WESTBOUND RAMP -MCXO		
3818683-C423	HUGO JOHNSTON DR WESTBOUND RAMP -MCYO		
3818683-C431	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	А	В
3818683-C432	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	А	В
3818683-C433	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	A	В
3818683-C434	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	A	В
3818683-C435	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	A	В
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3818683-C436	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	А	В
3818683-C437	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	A	В
3818683-C438	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	A	В
3818683-C439	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	A	В
3818683-C440	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	A	В
3818683-C441	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	A	В
3818683-C442	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	А	В
3818683-C443	NEILSON STREET INTER TO GREAT SOUTH RD - MC00	A	В
3818683-C444	GREAT SOUTH RD TO MT WELINGTON ON RAMP - MC20	А	В
3818683-C445	GREAT SOUTH RD TO MT WELINGTON ON RAMP - MC20	А	В
3818683-C446	GREAT SOUTH RD TO MT WELINGTON ON RAMP - MC20	А	В
3818683-C447	GREAT SOUTH RD TO MT WELINGTON ON RAMP - MC20	А	В
3818683-C448	GREAT SOUTH RD TO MT WELINGTON ON RAMP - MC20	А	В
3818683-C449	MT WELLINGTON TO GREAT SOUTH RD OFF RAMP - MC30	А	В
3818683-C450	MT WELLINGTON TO GREAT SOUTH RD OFF RAMP - MC30	A	В
3818683-C451	MT WELLINGTON TO GREAT SOUTH RD OFF RAMP - MC30	A	В
3818683-C452	MT WELLINGTON TO GREAT SOUTH RD OFF RAMP - MC30	А	В
3818683-C453	MT WELLINGTON TO GREAT SOUTH RD OFF RAMP - MC30	A	В
3818683-C455	CAPTAIN SPRINGS/ EWC STAGED OPTION - LONG SECTION - SHEET 1 OF 2 - MC10	A	В

3818683-C456	CAPTAIN SPRINGS/ EWC STAGED OPTION - LONG SECTION - SHEET 2 OF 2 - MC10	A	В
TYPICAL CROSS SECTION	s		
3818683-C501	TYPICAL CROSS SECTION - SHEET 1 OF 3	А	В
3818683-C502	TYPICAL CROSS SECTION - SHEET 2 OF 3	А	В
3818683-C503	TYPICAL CROSS SECTION - SHEET 3 OF 3	A	В
		1	
3818683-C511	SH20 TO GREAT SOUTH RD	A	В
3818683-C512	SH20 TO GREAT SOUTH RD	A	B
3818683-C513	SH20 TO GREAT SOUTH RD	A	B
		+	-
3818683-C514	SH20 TO GREAT SOUTH RD	A	В
3818683-C515	SH20 TO GREAT SOUTH RD	A	В
3818683-C516	SH20 TO GREAT SOUTH RD	А	В
3818683-C517	GREAT SOUTH RD TO PRINCES ST	А	В
3818683-C518	GREAT SOUTH RD TO PRINCES ST	A	В
3818683-C519	GREAT SOUTH RD TO PRINCES ST		
3818683-C520	GREAT SOUTH RD TO PRINCES ST	+-	
3010003 0320	GREAT SOUTH TO THIRDES ST	+	
3818683-C521	NEILSON STREET INTERCHANGE - CROSS SECTION - MCNO	A	B
3818683-C522		A	B
	NEILSON STREET INTERCHANGE - CROSS SECTION - MCNO		<u> </u>
3818683-C523	NEILSON STREET INTERCHANGE - CROSS SECTION - MCN0	A	В
3818683-C524	NEILSON STREET INTERCHANGE - CROSS SECTION - MCNO	A	В
3818683-C525	NEILSON STREET INTERCHANGE - CROSS SECTION - MCNO	A	В
3818683-C526	NEILSON STREET INTERCHANGE - CROSS SECTION - MCNO	A	В
3818683-C527	NEILSON STREET INTERCHANGE - CROSS SECTION - MCNO	А	В
DETAILED BUSINESS CAS	E - RECOMMENDED OPTION - PROPERTY PLANS		
GIS-3818683-041-1	PROPERTY PLANS	А	В
GIS-3818683-041-2	PROPERTY PLANS	А	В
GIS-3818683-041-3	PROPERTY PLANS	А	В
GIS-3818683-041-4	PROPERTY PLANS	A	В
GIS-3818683-041-5	PROPERTY PLANS	A	В
GIS-3818683-041-6	PROPERTY PLANS	A	В
GIS-3818683-041-7	PROPERTY PLANS	А	В
GIS-3818683-041-8	PROPERTY PLANS	A	В
GIS-3818683-041-9	PROPERTY PLANS	А	В
GIS-3818683-041-10	PROPERTY PLANS	А	В
GIS-3818683-041-11	PROPERTY PLANS	A	В
GIS-3818683-041-12	PROPERTY PLANS	A	В
GIS-3818683-041-13	PROPERTY PLANS	A	В
GIS-3818683-041-14	PROPERTY PLANS	A	В
GIS-3818683-041-15	PROPERTY PLANS	Α.	В
GIS-3818683-041-16	PROPERTY PLANS	Α.	В
GIS-3818683-041-17	PROPERTY PLANS	A	В

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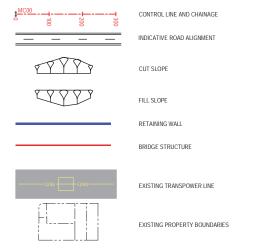
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Drawing No: 3818683-G002 Rev: B

GENERAL LEGEND



EXISTING WALKING AND CYCLING ROUTE PROPOSED WALKING AND CYCLING ROUTE FUTURE WALKING AND CYCLING ROUTE

NOTES

- ALL MEASUREMENTS ARE IN METRES UNLESS OTHERWISE STATED.
 EXISTING PROPERTY BOUNDARIES SOURCED FROM LINZ, 20 FEBRUARY 2015.
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- FOR OVERVIEW PLAN, REFER TO DRAWING NO. 381683-G005.

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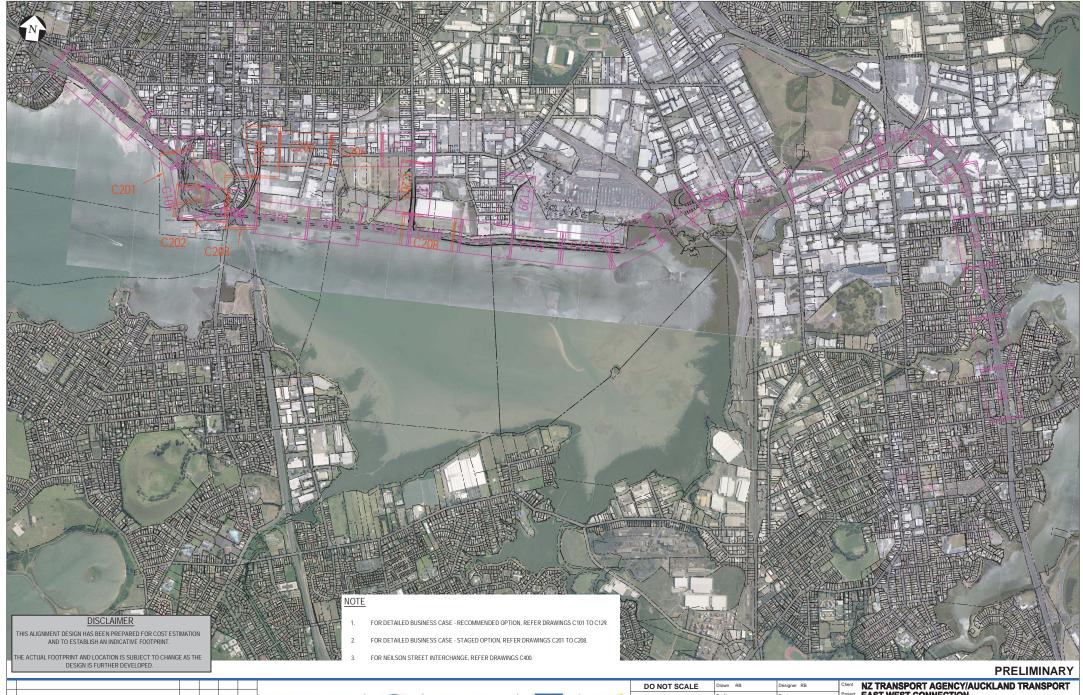
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Rev: B

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A1 Drawling No: 3818683-G003

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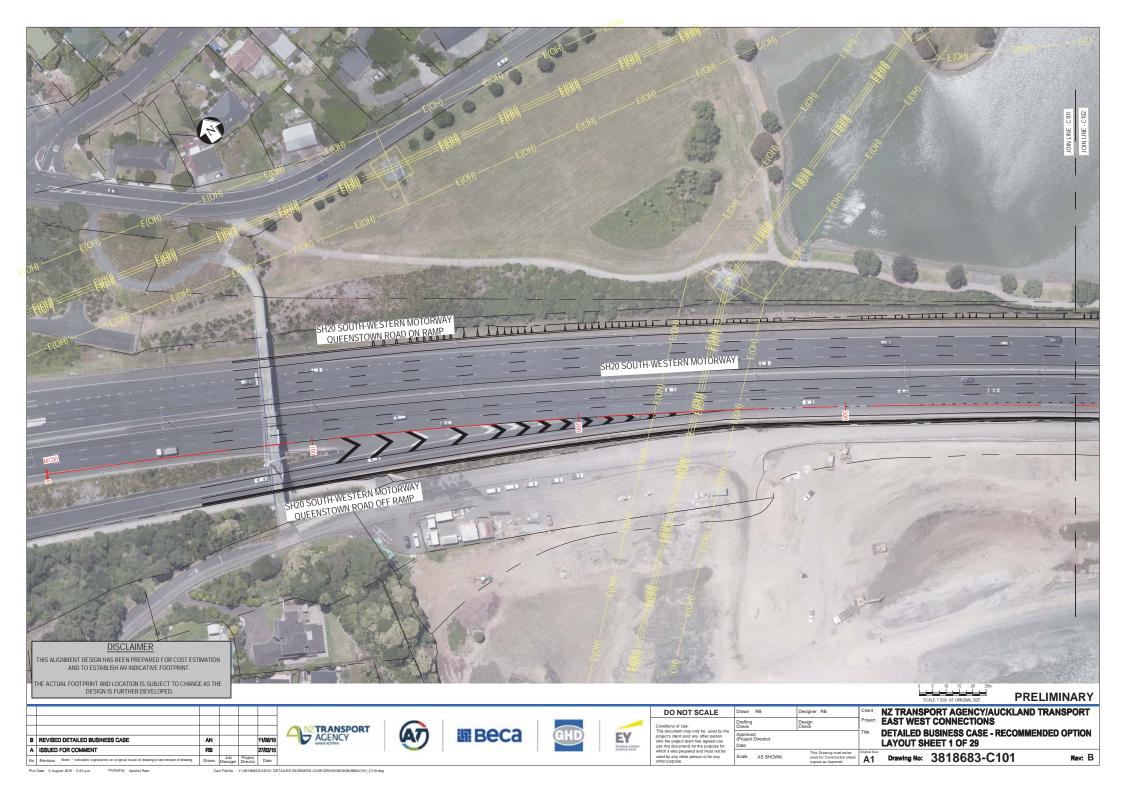




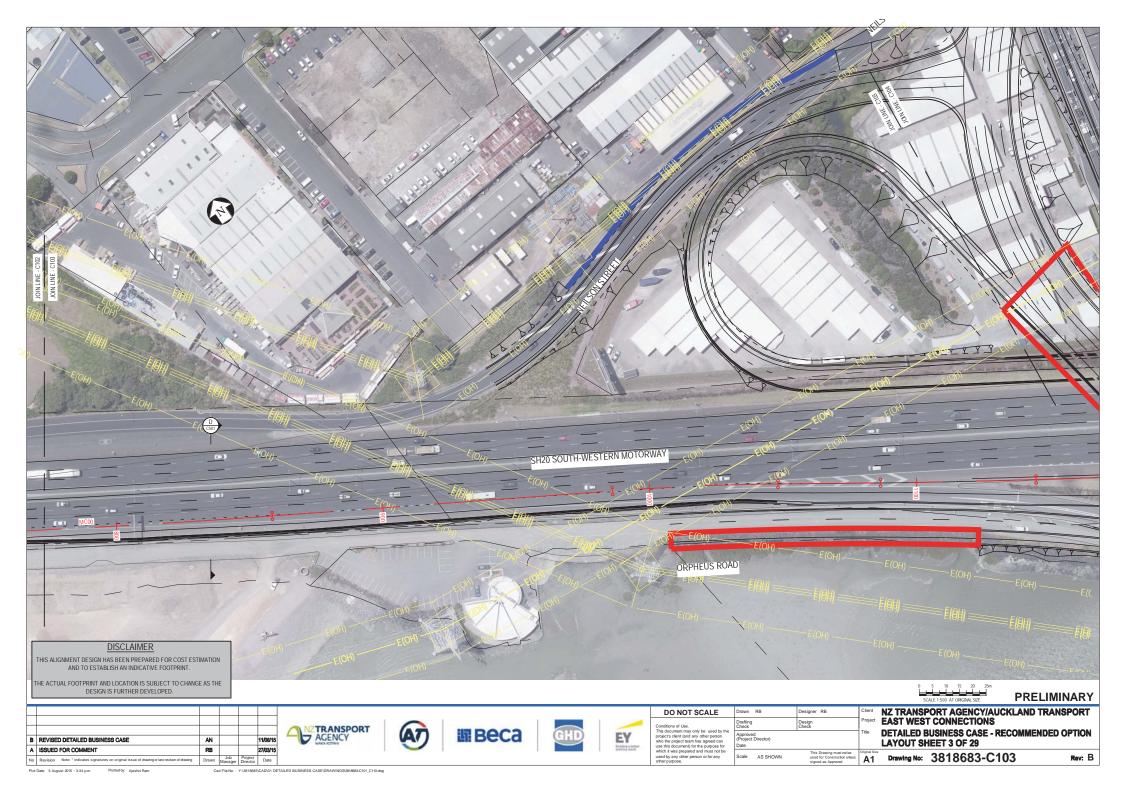


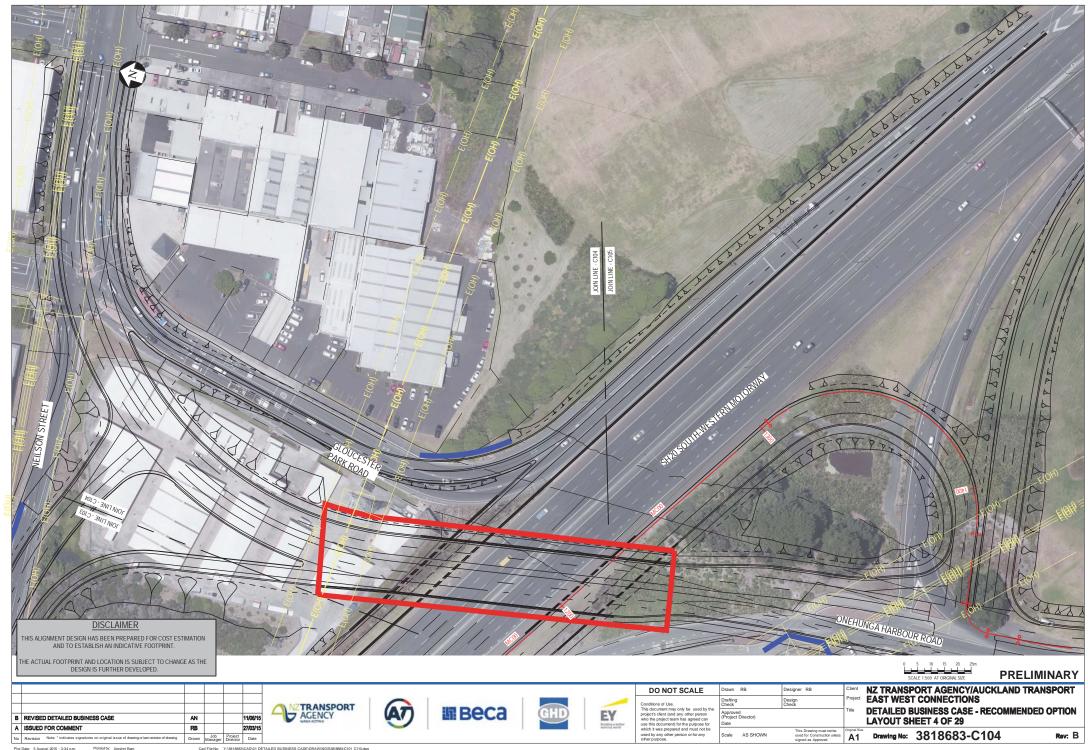
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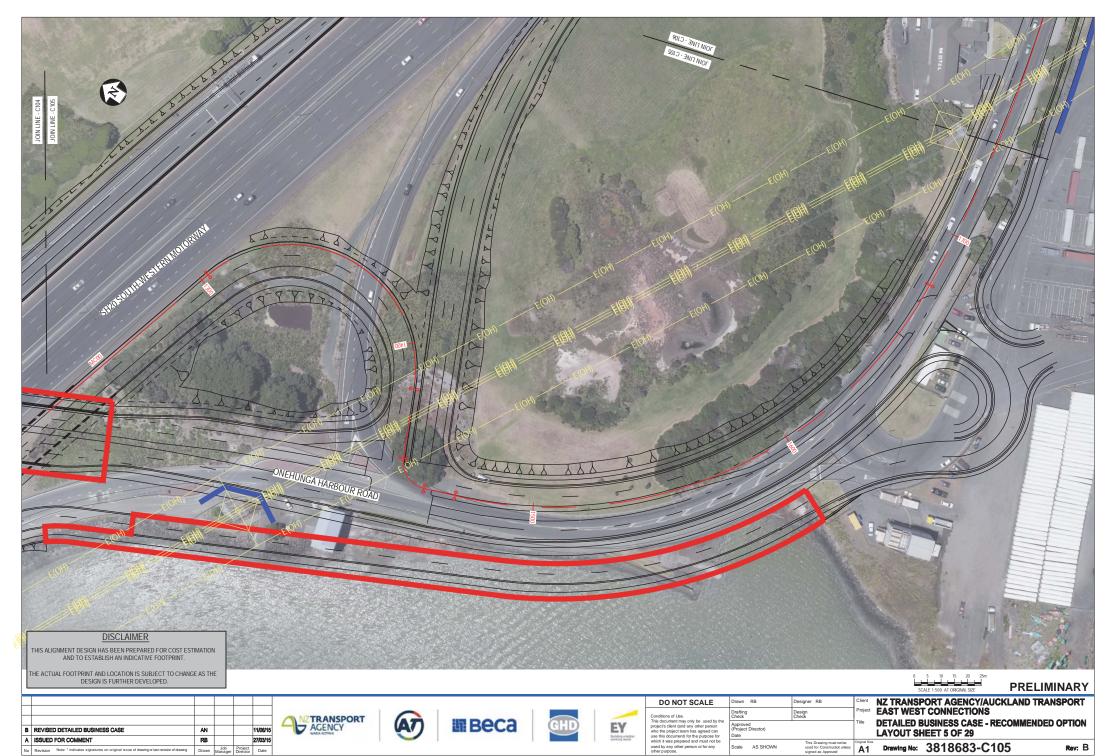
NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTION DETAILED BUSINESS CASE KEY PLAN

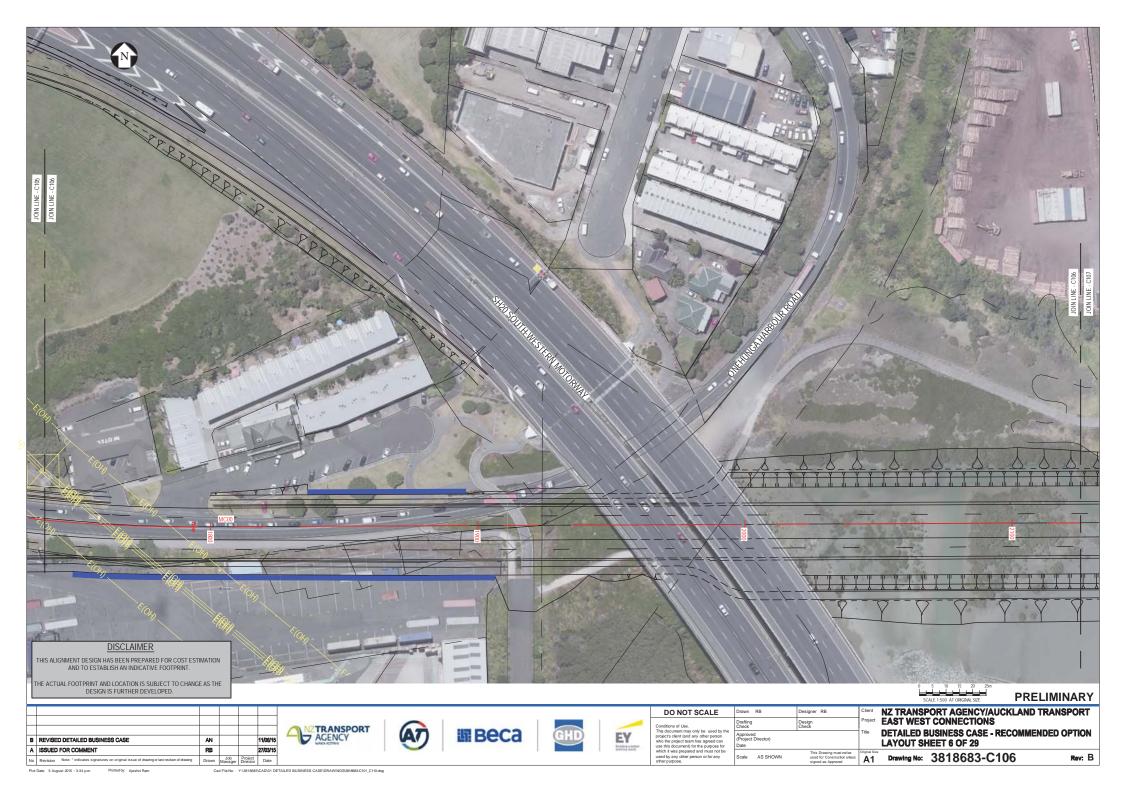








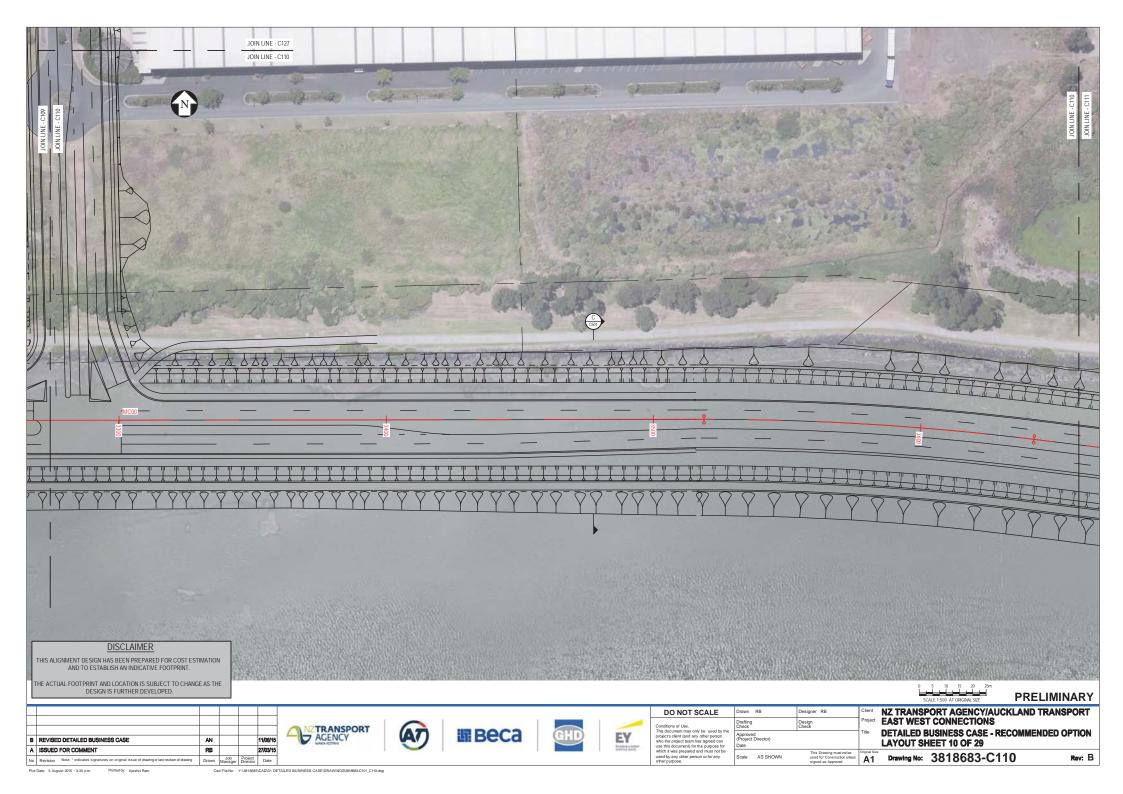






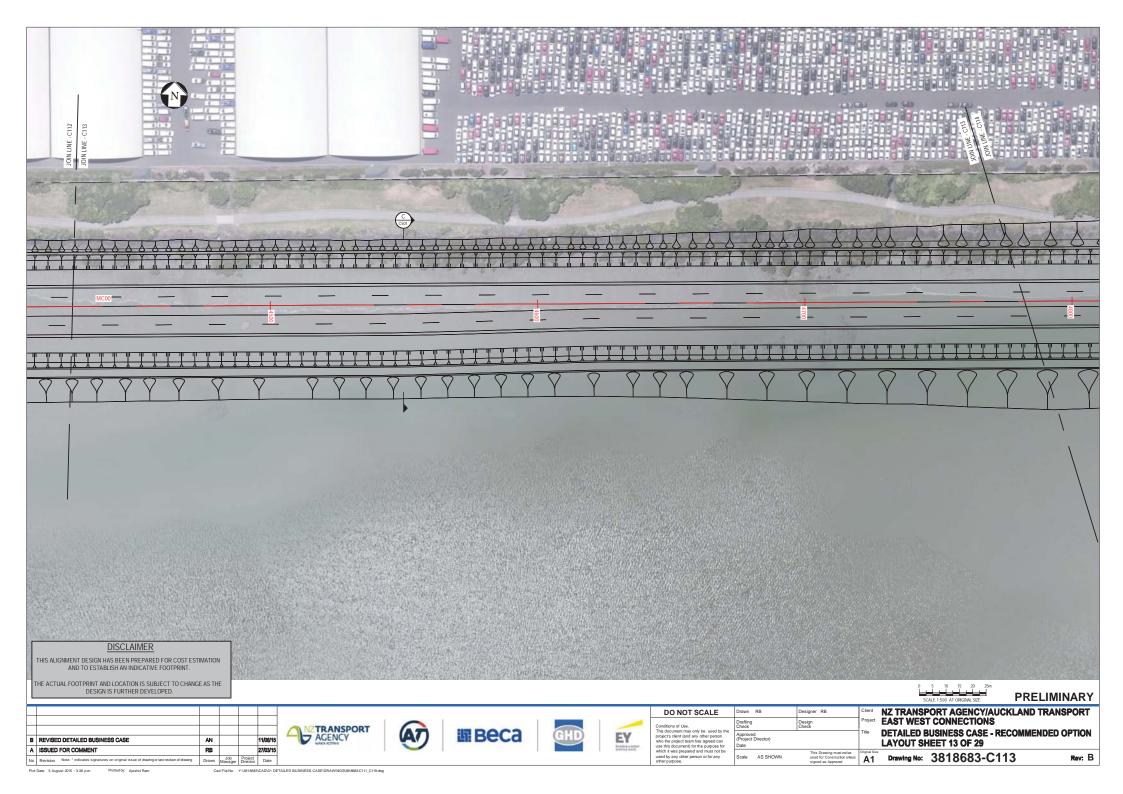










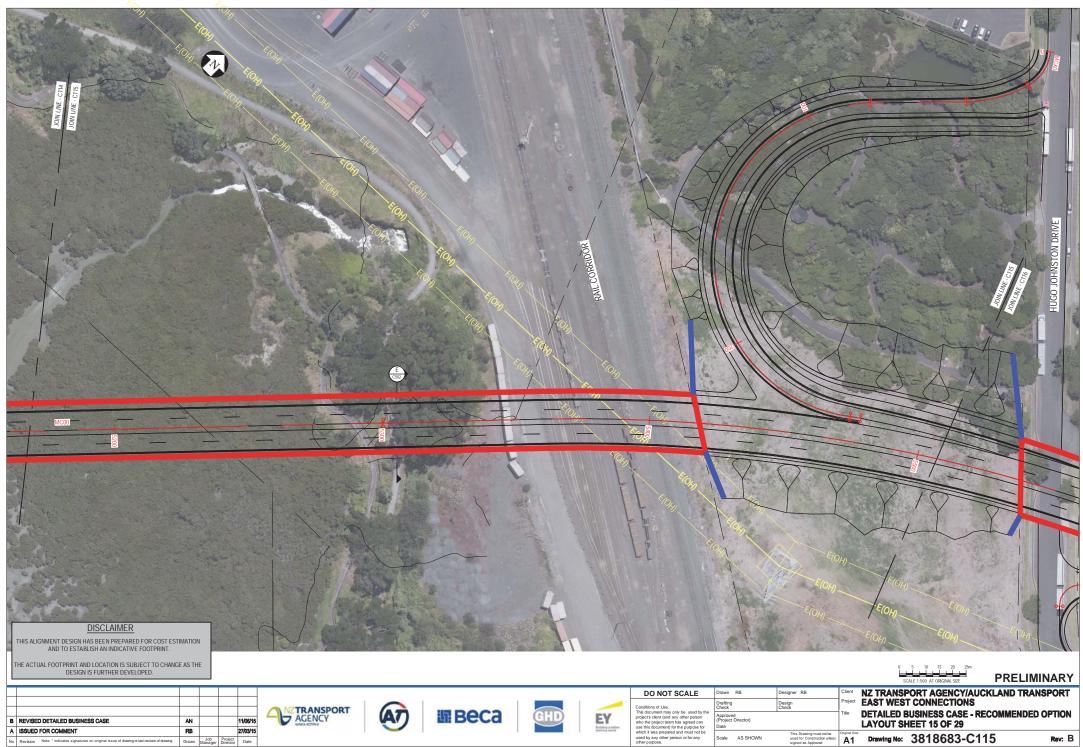


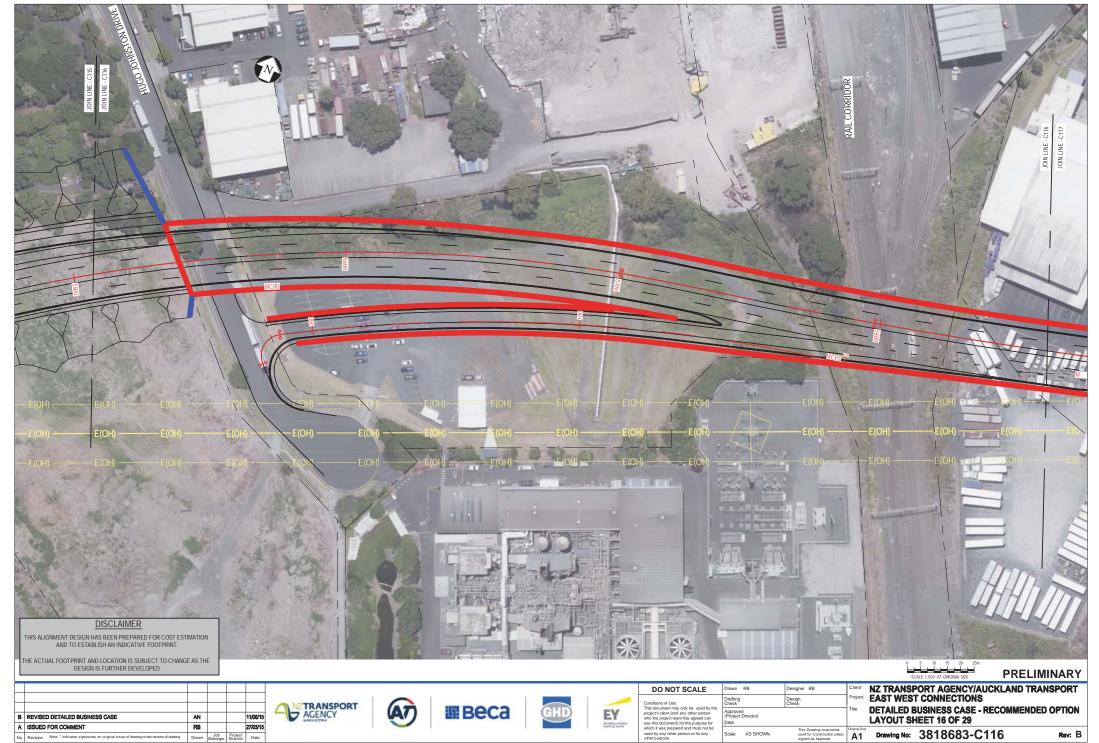


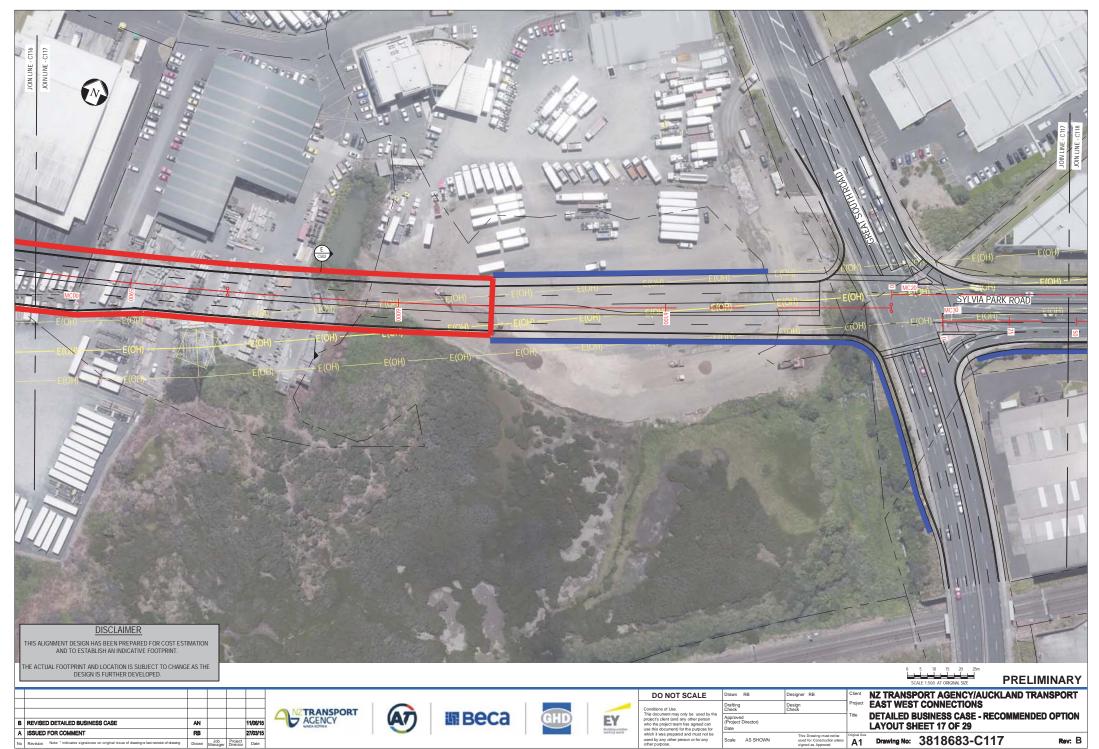
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A1 Drawing No: 3818683-C114

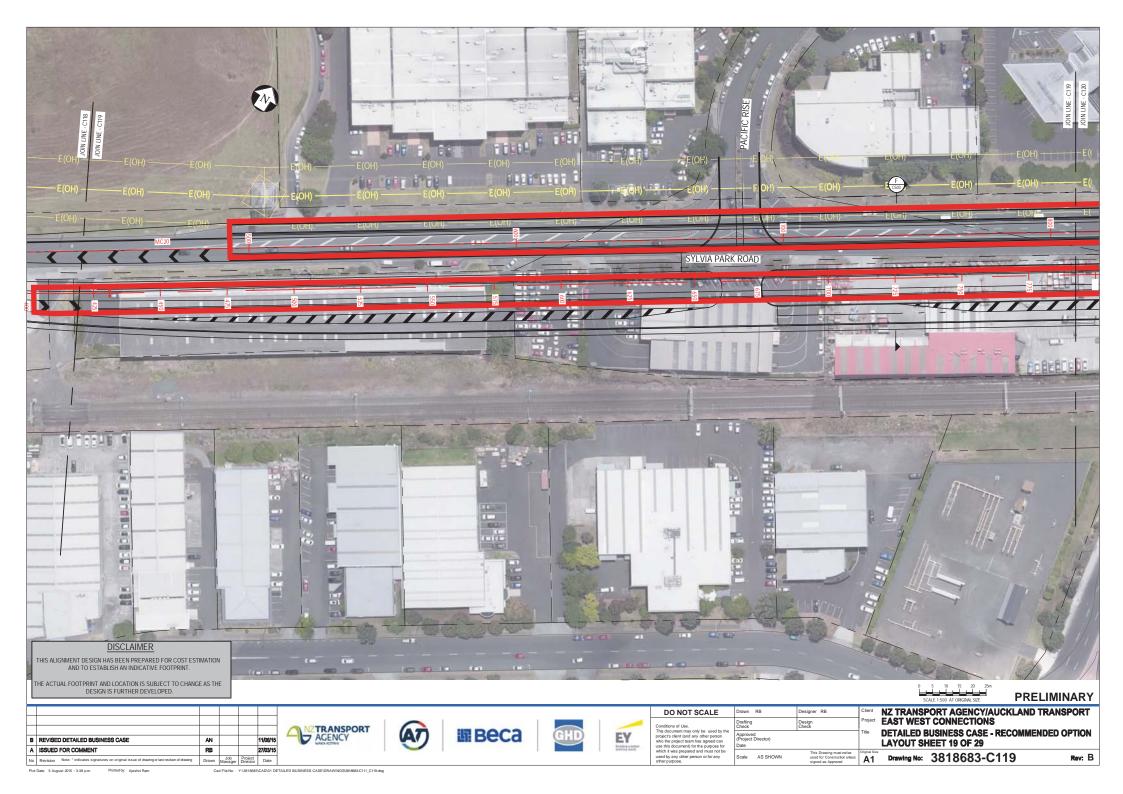
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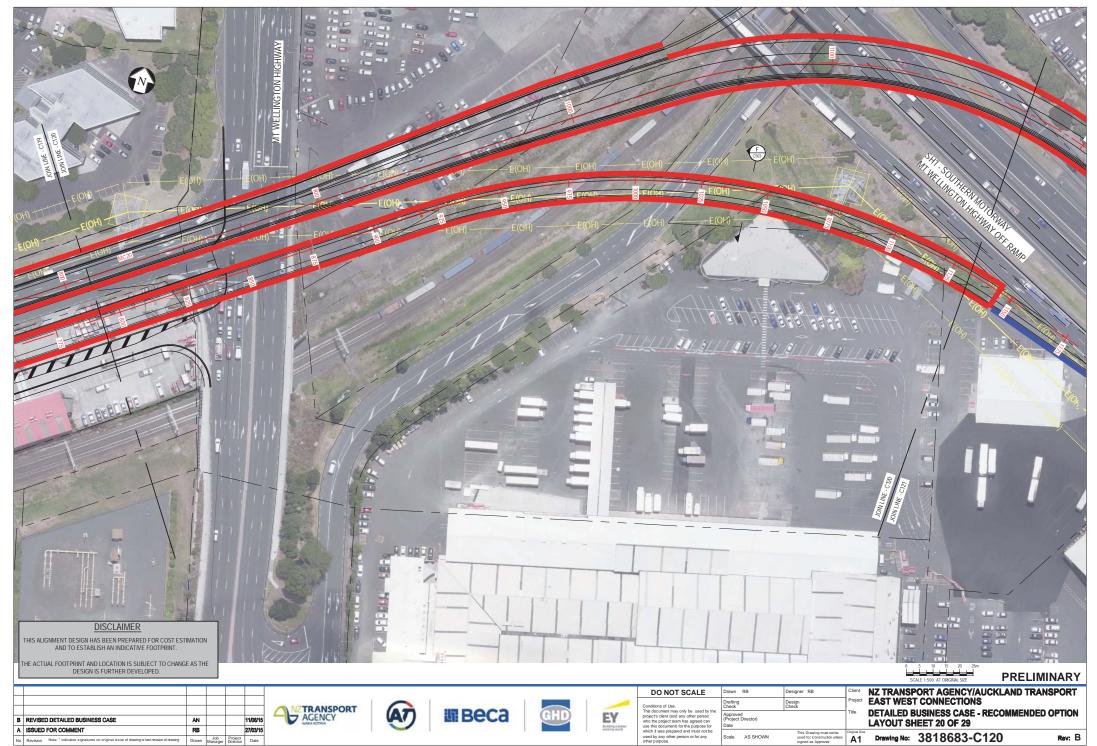


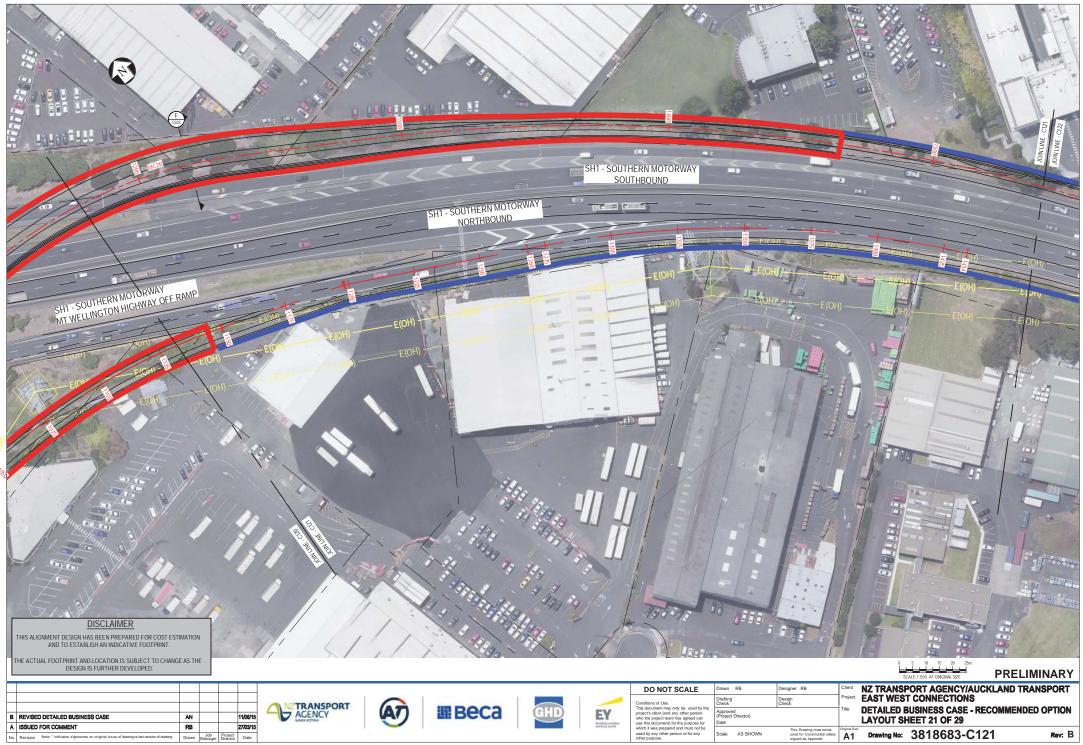




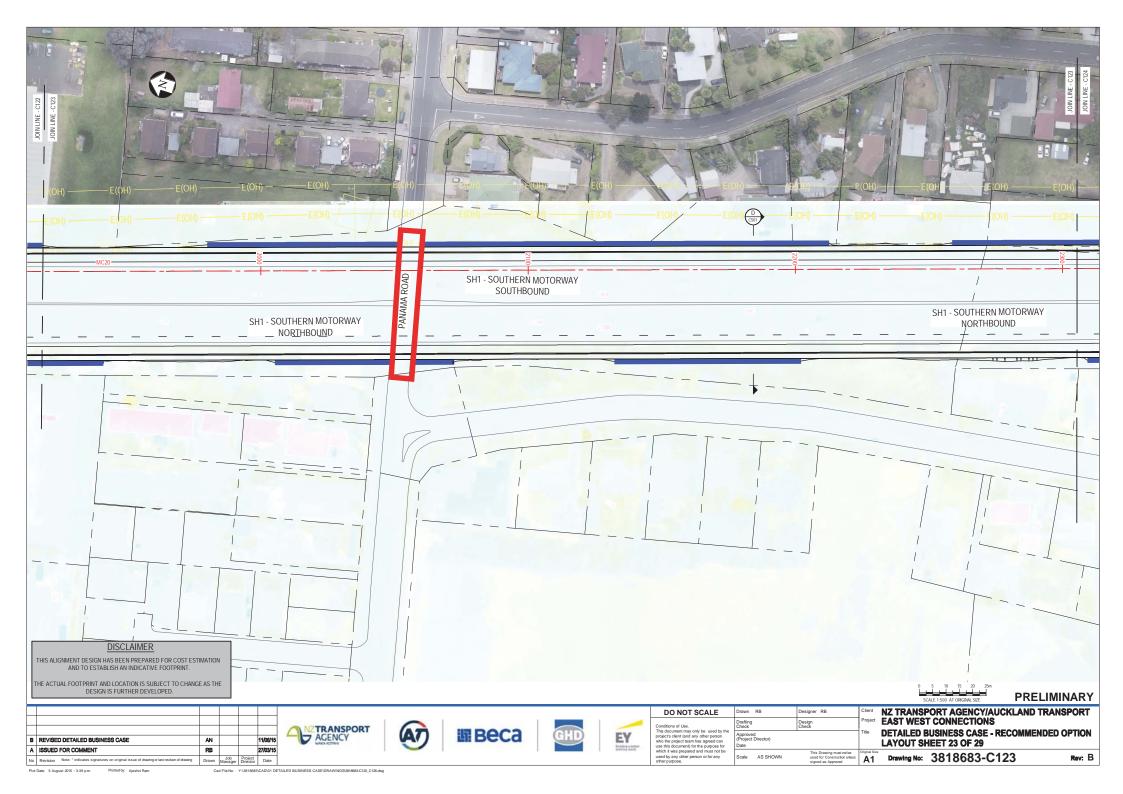




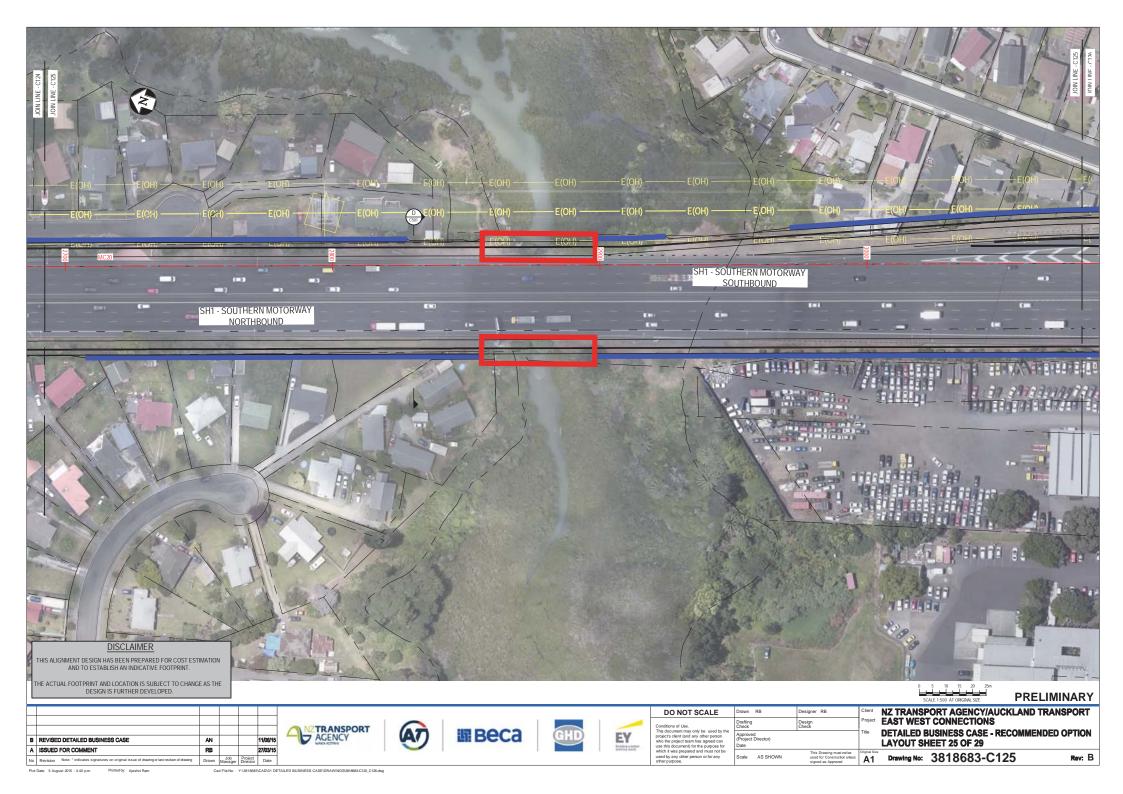




















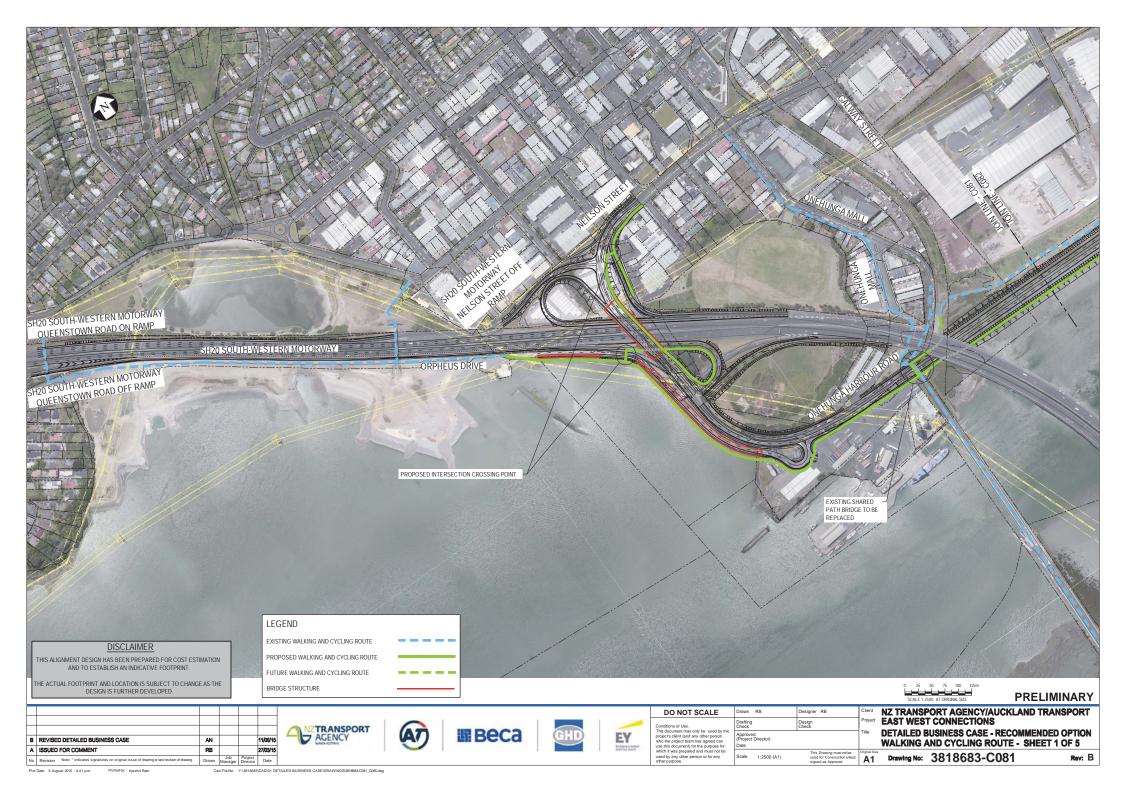
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A1 Drawing No: 3818683-C129

Rev: B

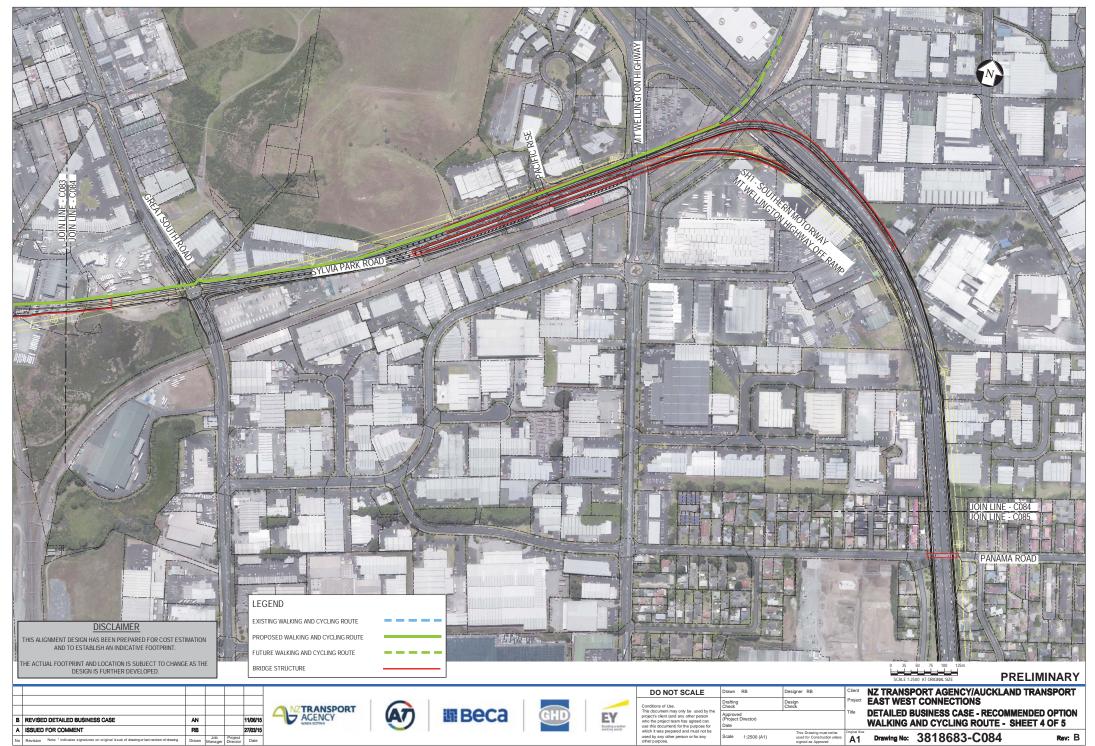
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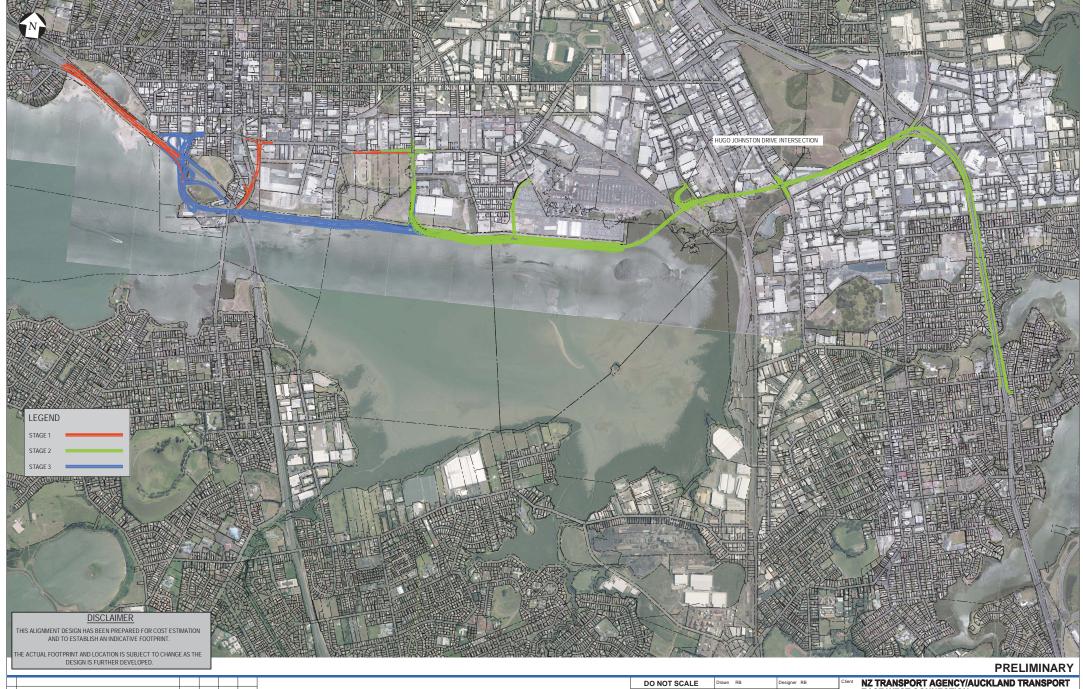












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NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTION DETAILED BUSINESS CASE STAGING PLAN (DRAFT)

A1 Drawing No: 3818683-C200

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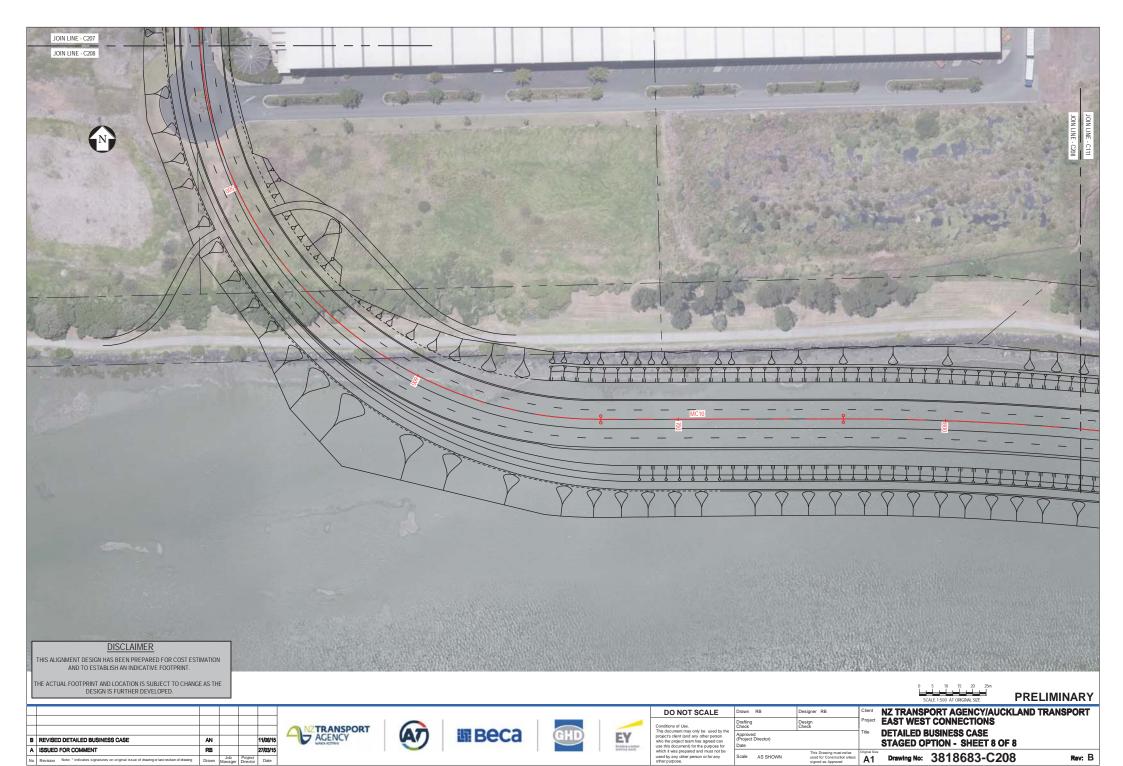


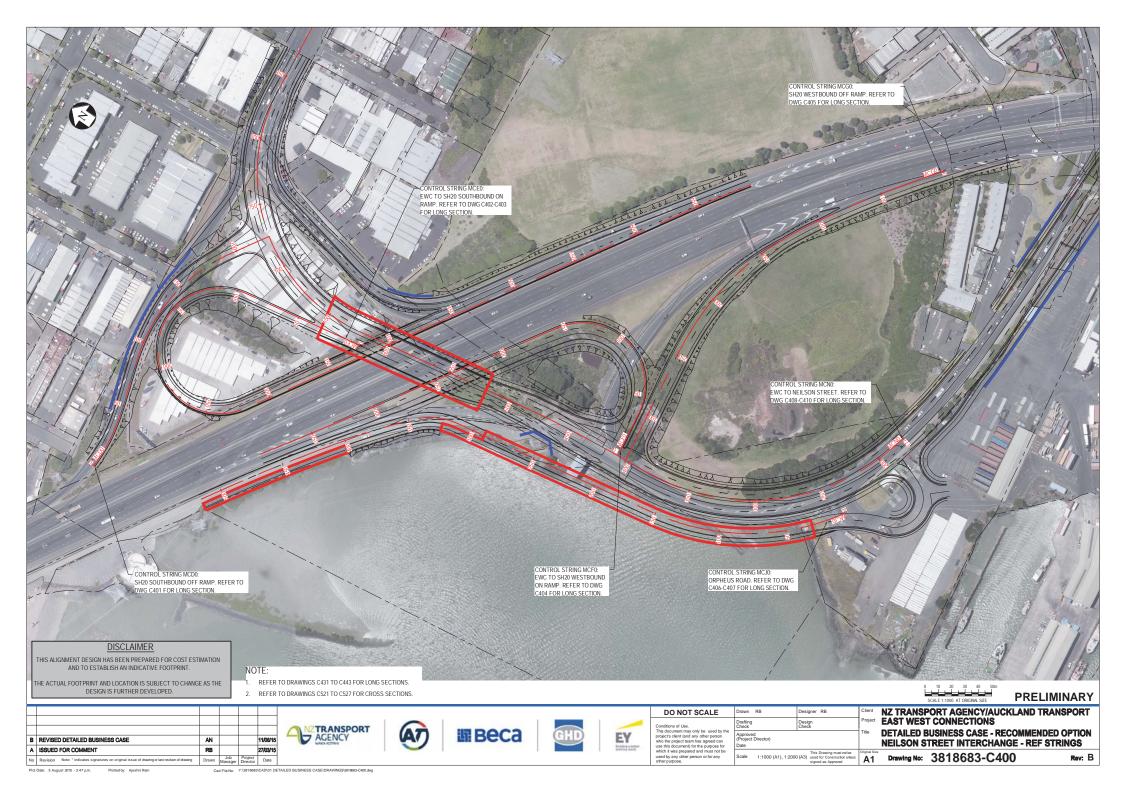


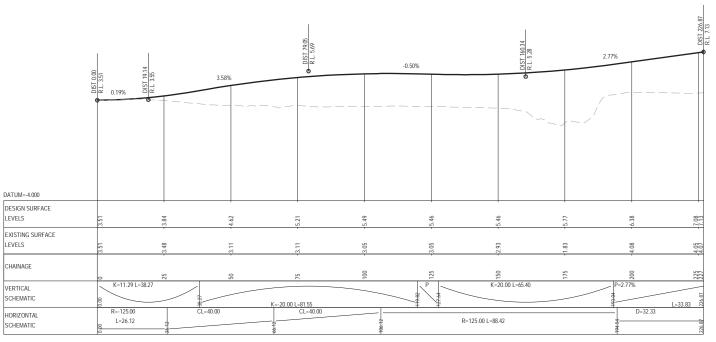




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LONGITUDINAL SECTION ON CONTROL STRING MCD0

SCALE HORIZ=1:500 VERT=1:100

SH20 SOUTH BOUND OFF RAMP

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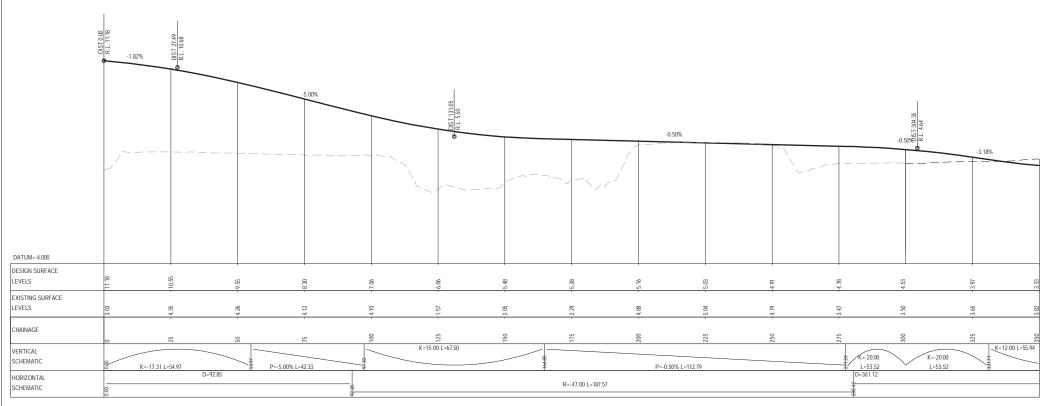
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DETAILED BUSINESS CASE - RECOMMENDED OPTION NEILSON STREET INTERCHANGE - MCD0

A1 Drawing No: 3818683-C401

AT ORIGINAL SIZE

Plot Date: 5 August 2015 - 3-47 p.m. Plotted by: Ajestni Ram Cad File No: Y-3818683/CAD/i/1 DETAILED BUSINESS CASE/DRAWINGS/3818683-CA01_C411.dwg



LONGITUDINAL SECTION ON CONTROL STRING MCE0 - SHEET 1 OF 2

SCALE HORIZ=1:500 VERT=1:100

SOUTH BOUND LOOP ON RAMP

B REVISED DETAILED BUSINESS CASE

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PROJECT EAST WEST CONNECTIONS

DETAILED BUSINESS CASE - RECOMMENDED OPTION NEILSON STREET INTERCHANGE - MCEO

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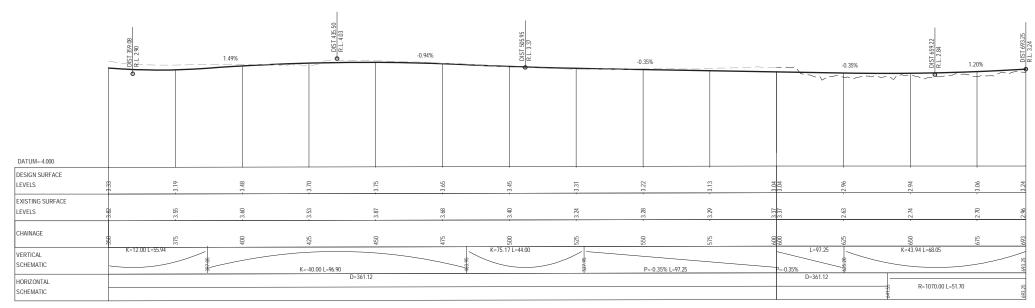
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A1 Drawling No: 3818683-C402 Rev: B

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LONGITUDINAL SECTION ON CONTROL STRING MCEO - SHEET 2 OF 2

SCALE HORIZ=1:500 VERT=1:100 SOUTH BOUND LOOP ON RAMP

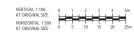
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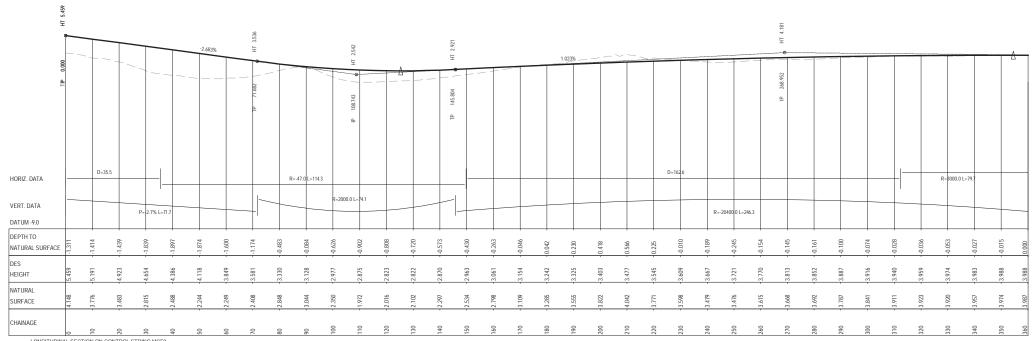
Plot Date: 5 August 2015 - 3:47 p.m.



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LONGITUDINAL SECTION ON CONTROL STRING MCF0

SCALE HORIZ=1:500 VERT=1:100

WEST BOUND ON RAMP

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VERTICAL 1:100	0	1	2	3	4	5m
AT ORIGINAL SIZE HORIZONTAL 1:500	H	+	+	+	+	Ħ
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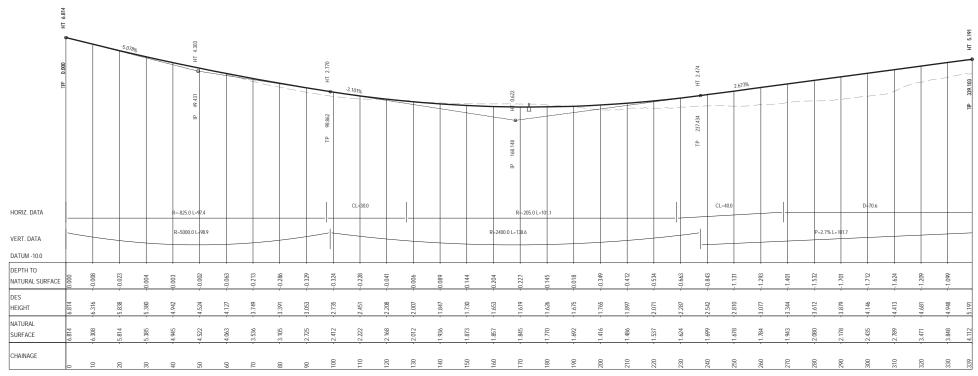




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Clert NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTIONS DETAILED BUSINESS CASE - RECOMMENDED OPTION NEILSON STREET INTERCHANGE - MCF0

Rev: B



LONGITUDINAL SECTION ON CONTROL STRING MCG0 SCALE HORIZ=1:500 VERT=1:100 WEST BOUND OFF RAMP

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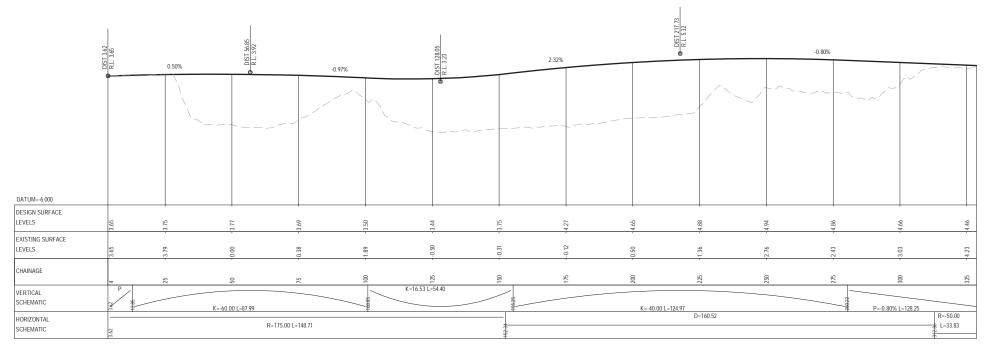




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Э	DETAILED BUSINESS CASE - RECOMMENDED OPTION
	NEILSON STREET INTERCHANGE - MCG0



LONGITUDINAL SECTION ON CONTROL STRING MCJ0 - SHEET 1 OF 2 SCALE HORIZ=1:500 VERT=1:100 ORPHEUS DRIVE

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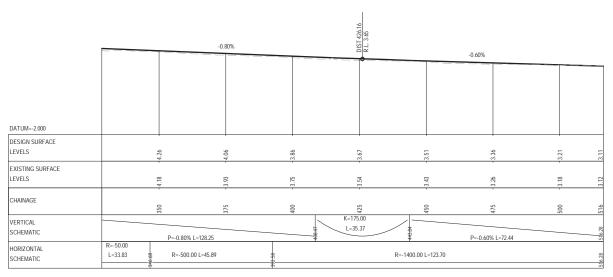
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Rev: B

DETAILED BUSINESS CASE - RECOMMENDED OPTION NEILSON STREET INTERCHANGE - MCJ0

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LONGITUDINAL SECTION ON CONTROL STRING MCJ0 - SHEET 2 OF 2 SCALE HORIZ=1:500 VERT=1:100 ORPHEUS DRIVE

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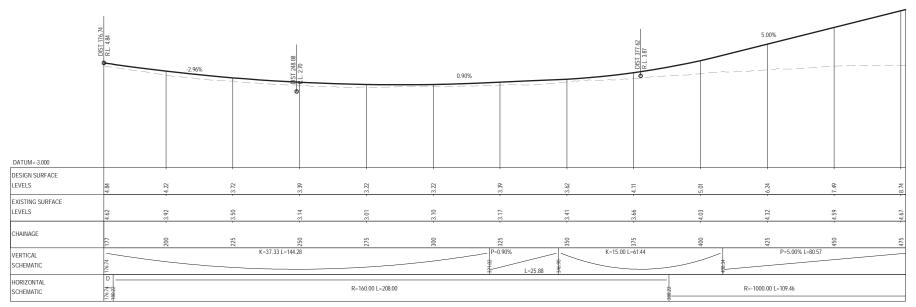


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NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTIONS **DETAILED BUSINESS CASE - RECOMMENDED OPTION NEILSON STREET INTERCHANGE - MCJ0**

Plot Date: 5 August 2015 - 3:47 p.m. Plotted by: Ajeshni Ram Cad File No: Y:\3818683\CAD\01 DETAILED BUSINESS CASE\DRAWINGS\3818683-C401_C411.dwg



LONGITUDINAL SECTION ON CONTROL STRING MCN0 - SHEET 1 OF 3

SCALE HORIZ=1:500 VERT=1:100

ONEHUNGA HARBOUR ROAD TO NEILSON STREET

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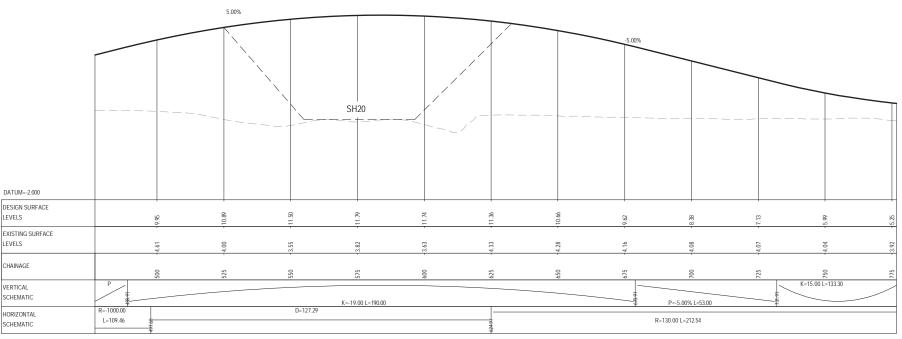




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NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTIONS DETAILED BUSINESS CASE - RECOMMENDED OPTION NEILSON STREET INTERCHANGE - MCN0

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LONGITUDINAL SECTION ON CONTROL STRING MCN0 - SHEET 2 OF 3

SCALE HORIZ=1:500 VERT=1:100

ONEHUNGA HARBOUR ROAD TO NEILSON STREET

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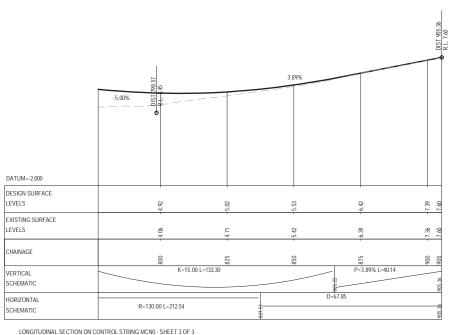
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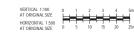
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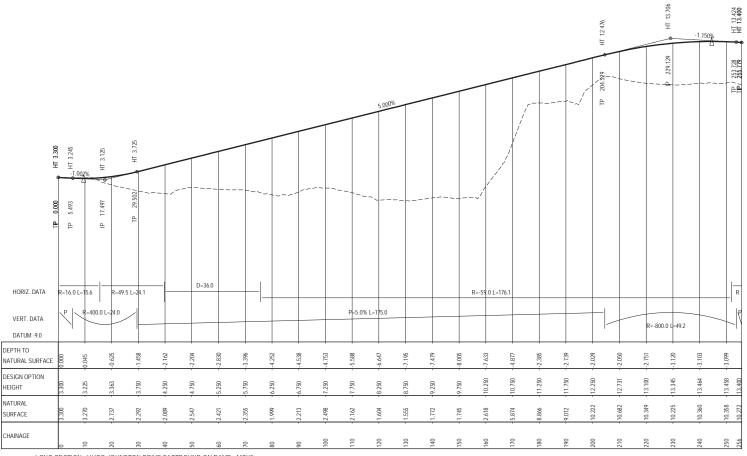
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LONG SECTION - HUGO JOHNSTON DRIVE EASTBOUND ON RAMP - MCX0

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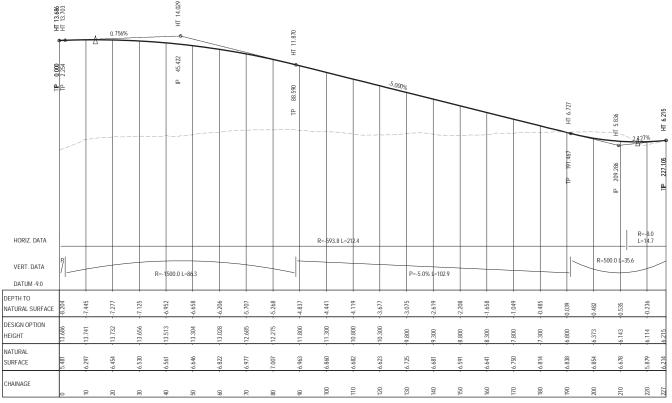


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LONG SECTION - HUGO JOHNSTON DRIVE WESTBOUND OFF RAMP - MCYO

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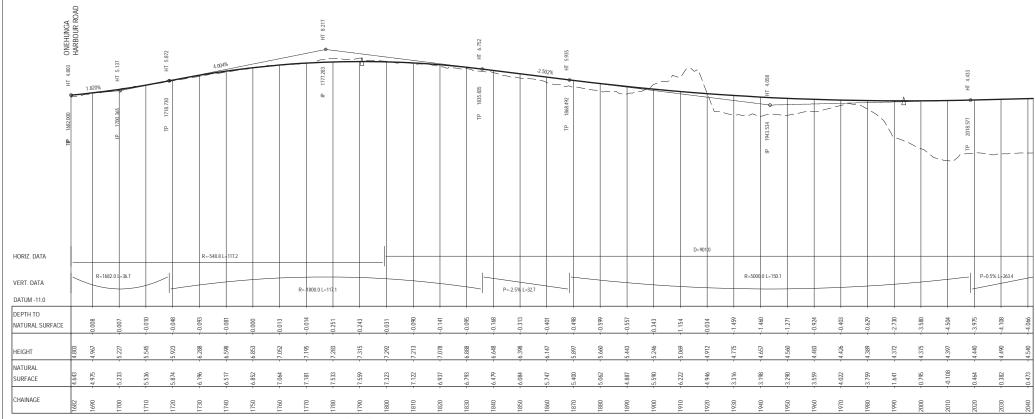
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HUGO JOHNSTON DR WESTBOUND RAMP - LS

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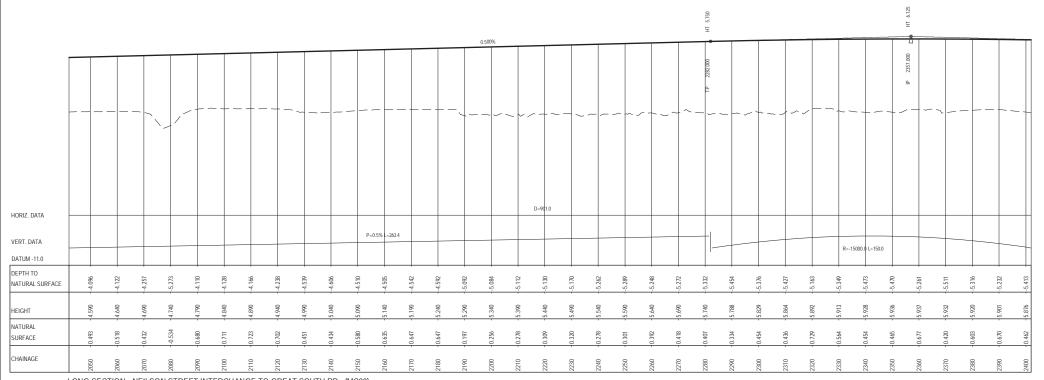
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VERTICAL 1:100 AT ORIGINAL SIZE

HORIZONTAL 1:500 AT ORIGINAL SIZE

Drawing No: 3818683-C431 Rev: B



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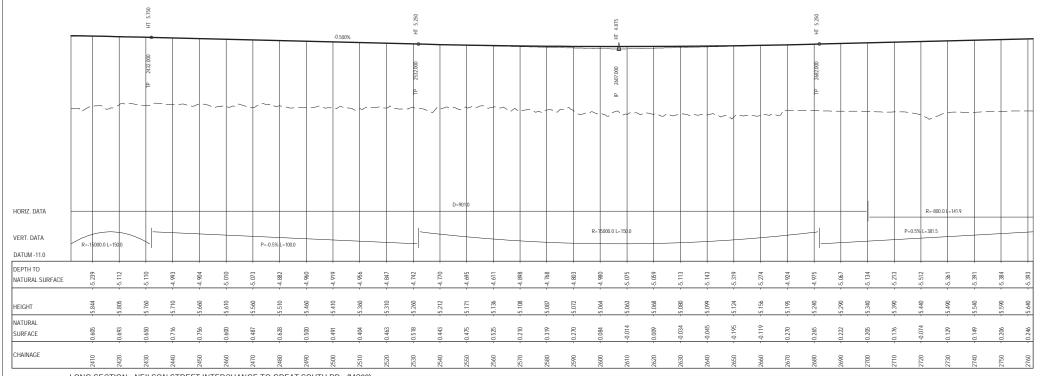




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Client						JCKLAND TRANSPORT
Title						RECOMMENDED OPT - LS GREAT SOUTH RD

VERTICAL 1:100 AT ORIGINAL SIZE



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LONG SECTION - NEILSON STREET INTERCHANGE TO GREAT SOUTH RD - (MC00)

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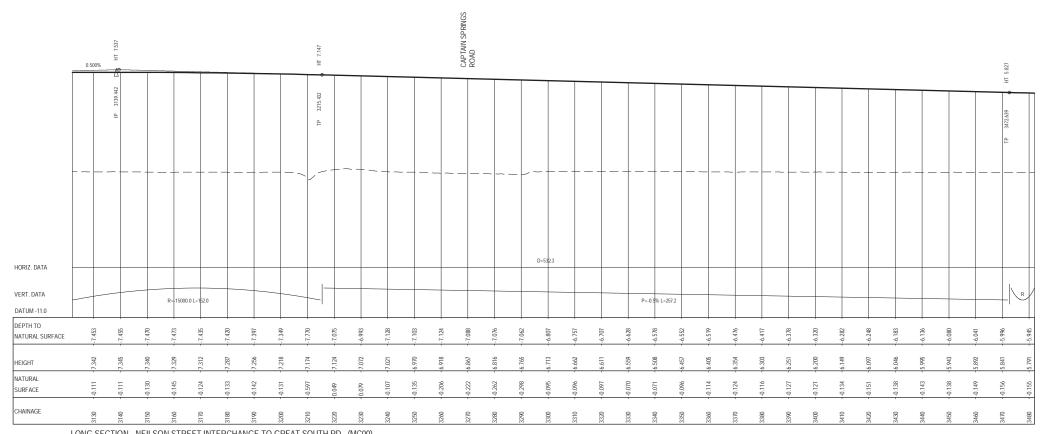


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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
Α	ISSUED FOR COMMENT	RB			27/03/15	
No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	









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which it was prepared and must not be used by any other person or for any	Scale 1:500 (A1), 1:1000	This Drawing must not be (A3) used for Construction unless	Or				

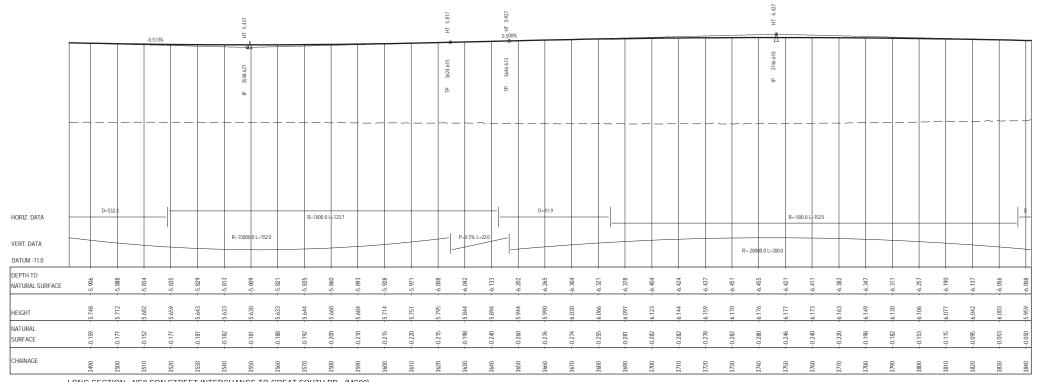
PRELIMINARY NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTIONS DETAILED BUSINESS CASE - RECOMMENDED OPT - LS NEILSON STREET INTER TO GREAT SOUTH RD

Rev: B

A1 Drawing No: 3818683-C435

VERTICAL 1:100 AT ORIGINAL SIZE

Cad File No: Y:\3818683\CAD\01 DETAILED BUSINESS CASE\DRAWINGS\3818683-C431_C448.dwg



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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15
Α	ISSUED FOR COMMENT	RB			27/03/15
No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date









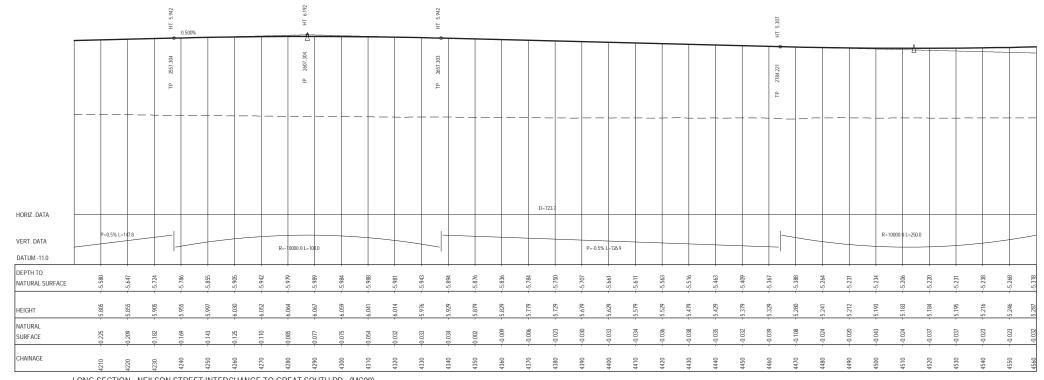
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use this document) for the purpose for	Date		П		
which it was prepared and must not be used by any other person or for any	Scale 1:500 (A1), 1:1000	This Drawing must not be (A3) used for Construction unless	Or		

CHART HOSE OF STREET INTER TO GREAT SOUTH RD

VERTICAL 1:100 AT ORIGINAL SIZE

A1 Drawing No: 3818683-C436 Rev: B

ot Date: 5 August 2015 - 3:48 p.m. Plotted by: Ajeshni Ram Cad File No: Y:38186831CAD/01 DETAILED BUSINESS CASE/DRAWINGS/3818683-C431_C48.dug



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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
Α	ISSUED FOR COMMENT	RB			27/03/15	
No	Revision Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	









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which it was prepared and must not be used by any other person or for any	Scale 1:500 (A1), 1:1000	This Drawing must not be (A3) used for Construction unless

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Client	NZ TRA	NS	POI	RT /	AGE	ENC	Y/AL	ICKLAND TRANSPOR	lT.
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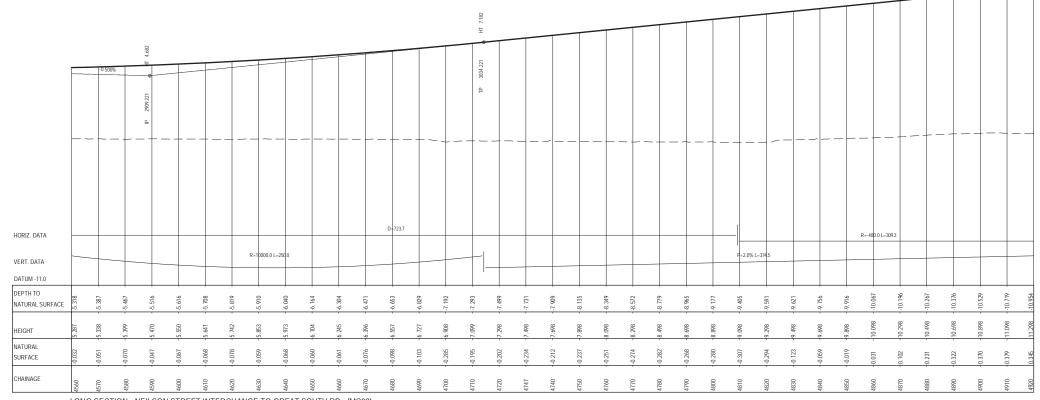
VERTICAL 1:100 AT ORIGINAL SIZE

HORIZONTAL 1:500

DETAILED BUSINESS CASE - RECOMMENDED OPT - LS NEILSON STREET INTER TO GREAT SOUTH RD

A1 Drawing No: 3818683-C438 Rev: B

Plot Date: 5 August 2015 - 3-48 p.m. Plotted by: Ajeshni Ram Cad File No: Y-3818683/CAD/01 DETAILED BUSINESS CASE/DRAWINGS/818683-C431_C448.dug



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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	1
Α	ISSUED FOR COMMENT	RB			27/03/15	
No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	
Plot Date: 5 August 2015 - 3:48 p.m. Plotted by: Ajeshni Ram Cad File No: Y:\3818683\CAD\01 DETAILS						







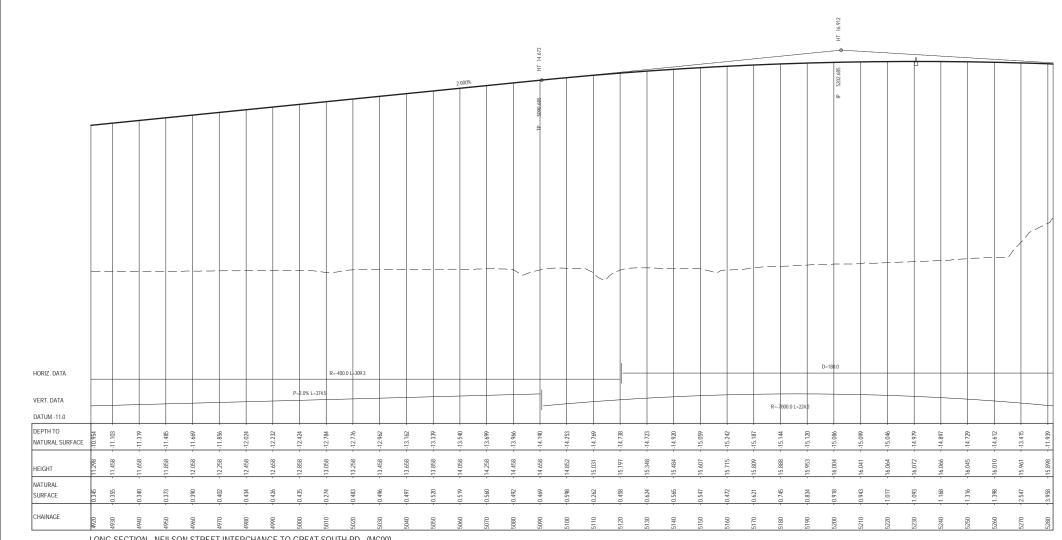


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which it was prepared and must not be used by any other person or for any other purpose.	Scale 1:500 (A1), 1:1000		Original Size	Drawing	No:	38	186	683	3-C4	39

	A'	ERTICAL 1:100 T ORIGINAL SIZE ORIZONTAL 1:500 T ORIGINAL SIZE	0 1	2 3	4 5m 20 25m	PRELIMINARY
٦	Client	N7 TPA	NSDA	PT AG	ENCY/ALI	CKLAND TRANSPORT
-	Proiect				CTIONS	ONDAID HOUSE ON
	Title	DETAILE	ED BUS	SINESS	CASE - R	ECOMMENDED OPT - LS
						GREAT SOUTH RD

Rev: B

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LONG SECTION - NEILSON STREET INTERCHANGE TO GREAT SOUTH RD - (MC00)

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	1
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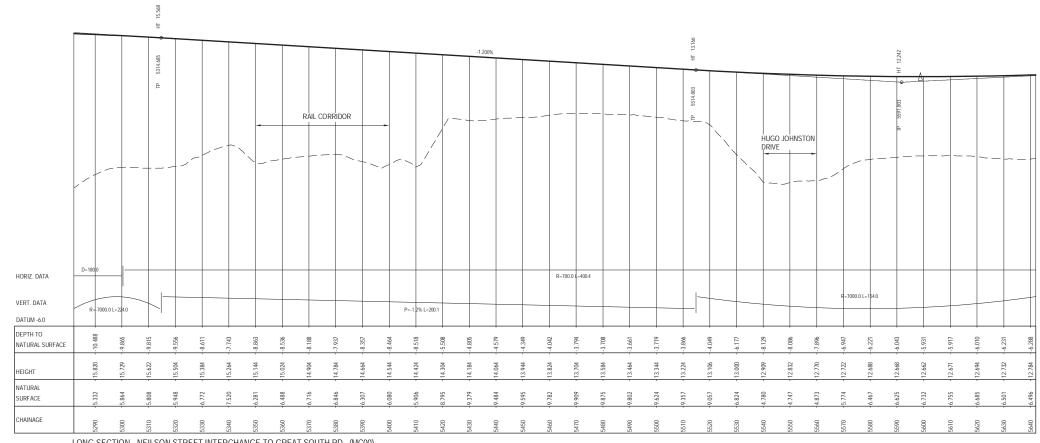


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PRELIMINARY NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTIONS DETAILED BUSINESS CASE - RECOMMENDED OPT - LS NEILSON STREET INTER TO GREAT SOUTH RD

A1 Drawing No: 3818683-C440

VERTICAL 1:100 AT ORIGINAL SIZE



LONG SECTION - NEILSON STREET INTERCHANGE TO GREAT SOUTH RD - (MC00)

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
Α	ISSUED FOR COMMENT	RB			27/03/15	
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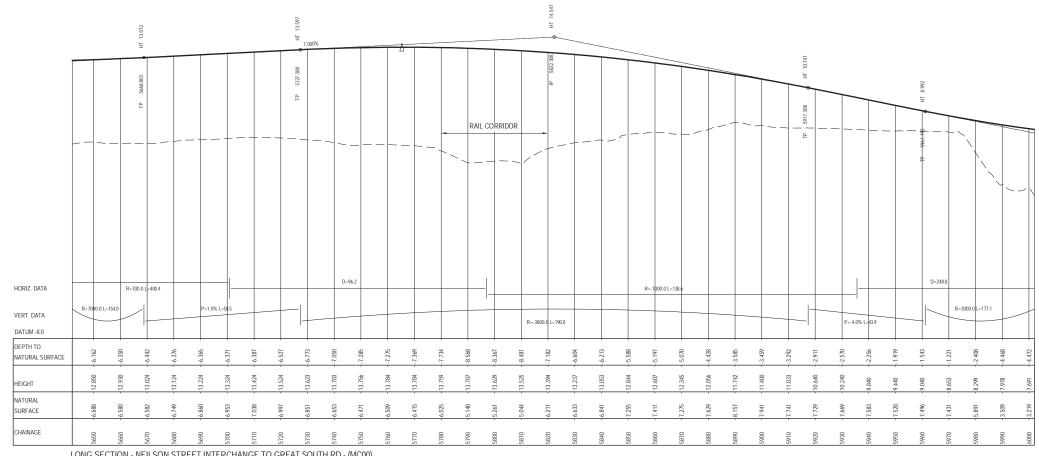




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Client	NZ TRA	NSP	ORT	AGEN	ICY/AI	UCKLAND TRANSPORT					
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Title	DETAILE	D BI	USINI	ESS C	ASE -	RECOMMENDED OPT - LS					
	NEIL SON STREET INTER TO GREAT SOUTH RD										

Rev: B



LONG SECTION - NEILSON STREET INTERCHANGE TO GREAT SOUTH RD - (MC00)

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
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which it was prepared and must not be used by any other person or for any other purpose.	Scale 1:500 (A1), 1:1000		Original Size	Drawing	No:	38	186	83	3-C4	42

A1	RTICAL 1:100 ORIGINAL SIZE ORIZONTAL 1:500 ORIGINAL SIZE	H	1 2 5 10	3 4 15 20	5m 25m	PRELIMINARY
Client	NZ TRA	NSP	ORT	AGEN	CY/A	UCKLAND TRANSPORT
Project	EAST W	ES1	COL	NNECT	IONS	
Title						RECOMMENDED OPT - LS
	NEILSO	N ST	rree	T INTE	R TO	GREAT SOUTH RD

Rev: B

D=248.8 HORIZ. DATA R=3000.0 L=177.1 P=1.9% L=46.2 VERT. DATA DATUM -8.0 DEPTH TO NATURAL SURFACE HEIGHT NATURAL SURFACE CHAINAGE

LONG SECTION - NEILSON STREET INTERCHANGE TO GREAT SOUTH RD - (MC00)

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
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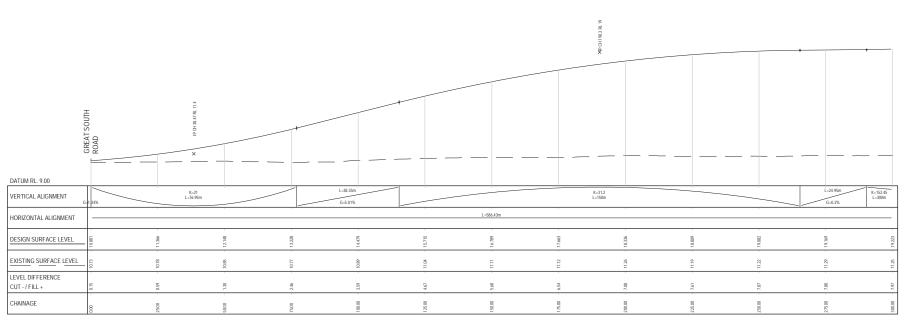


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	1106					ECOMMENDED OPT - LS
_	Title	DETAILE	D DUG	MEGO O	OF D	ECOMMENDED ORT 10
	Proje	EAST W	EST CC	NNECT	IONS	
	Client					CKLAND TRANSPORT
		HORIZONTAL 1:500 AT ORIGINAL SIZE	0 5	10 15 20	25m	PRELIMINARY
		AT ORIGINAL SIZE	0 1	2 3 4	5m	

VERTICAL 1:100 AT ORIGINAL SIZE

NEILSON STREET INTER TO GREAT SOUTH RD A1 Drawing No: 3818683-C443 Rev: B



HORZ 1:500 VERT 1:100

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
Α	ISSUED FOR COMMENT	RB			27/03/15	
No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	







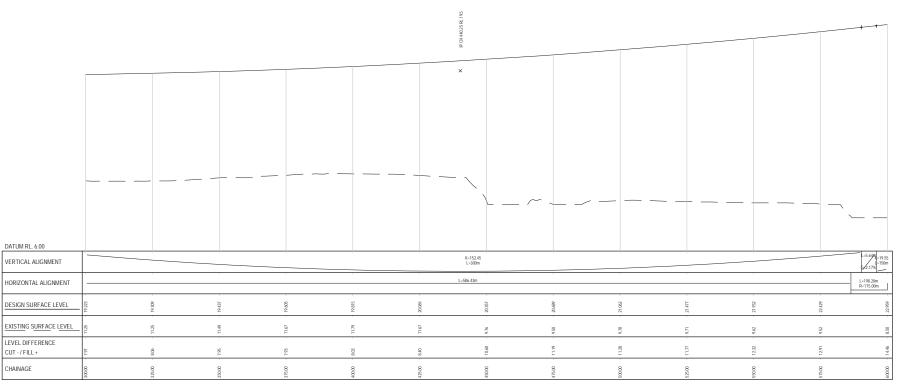


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	who the project team has agreed can	Approved (Project Director)			Title	DETA GREA									
	which it was prepared and must not be used by any other person or for any other purpose.	Scale	1:500 (A1),	1:1000 (A	used f	rawing must not be or Construction unless as Approved	Original Size	Drawi	ing No	o: 3	881	186	83	3-C4	44

Title										RECOMMENDED OPT - LS VELINGTON ON RAMP
Client		Z TRA AST V								UCKLAND TRANSPORT
	AT ORIO	SINAL SIZE NTAL 1:500 SINAL SIZE	ŀ	+	5	10	15	20	25m	PRELIMINARY

Rev: B

VERTICAL 1:100 AT ORIGINAL SIZE



HORZ 1:500 VERT 1:100

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
Α	ISSUED FOR COMMENT	RB			27/03/15	
No	Revision Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	









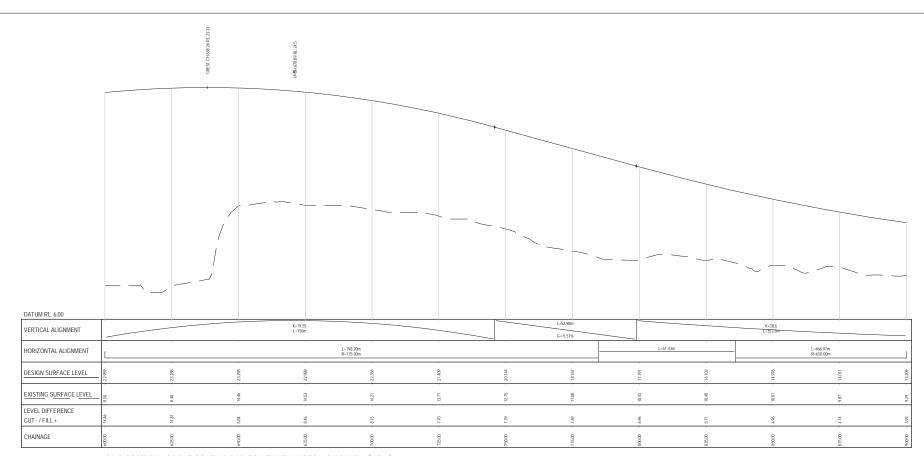
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Conditions of Use.	Drafting Check	Design Check	Proj			
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which it was prepared and must not be used by any other person or for any	Scale 1:500 (A1), 1:1000	(A3) This Drawing must not be used for Construction unless	Origina			

	AT ORIGINAL SIZE HORIZONTAL 1:500 AT ORIGINAL SIZE	0 5	10 15	5 20 25m	PRELIMINARY
Client Project				SENCY/A ECTIONS	UCKLAND TRANSPORT
Title					RECOMMENDED OPT - LS ELINGTON ON RAMP

Rev: B

Drawing No: 3818683-C445

VERTICAL 1:100 AT ORIGINAL SIZE



IORZ 1:500 VERT 1:1

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
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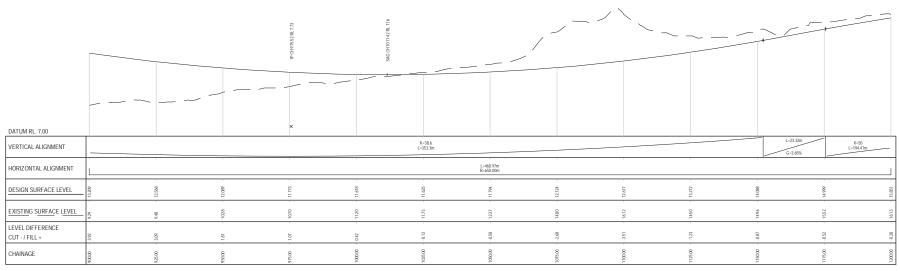
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Conditions of Use.	Drafting Check	Design Check			
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A1 Drawing No: 3818683-C446

VERTICAL 1:100 AT ORIGINAL SIZE

Rev: B



LONG SECTION - GREAT SOUTH ROAD TO MT WELLINGTON ON RAMP - (MC20) HORZ 1:500 $\,$ VERT 1:100

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	l
Α	ISSUED FOR COMMENT	RB			27/03/15	l
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which it was prepared and must not be used by any other person or for any	Scale 1:500 (A1), 1:1000	(A3) This Drawing must not be used for Construction unless	Origi		

Client	NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT
Project	EAST WEST CONNECTIONS
Title	DETAILED BUSINESS CASE - RECOMMENDED OPT - LS
	CREAT COUTU DO TO MT WEI INCTON ON DAMP

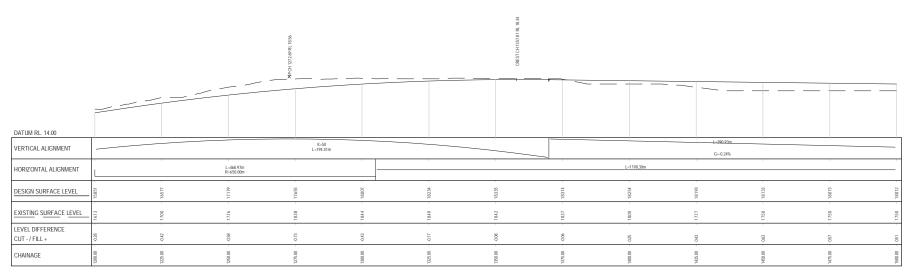
PRELIMINARY

VERTICAL 1:100 AT ORIGINAL SIZE

HORIZONTAL 1:500 AT ORIGINAL SIZE

GREAT SOUTH RD TO MT WELINGTON ON RAMP
A1 Drawling No: 3818683-C447 Rev: B

tot Date: 5 August 2015 - 3-49 p.m. Plotted by: Ajestni Ram Cad File No: Y:3818683/CAD/01 DETAILED BUSINESS CASE/DRAWINGS/3818683-C43_C48.dug



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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
Α	ISSUED FOR COMMENT	RB			27/03/15	
No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	







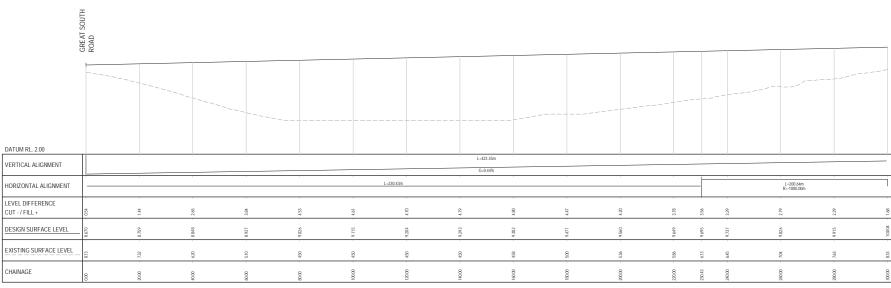


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which it was prepared and must not be used by any other person or for any other purpose.	Scale 1:500 (A1), 1:1000		Original Size	Drawing	No:	381	186	83	3-C4	48

	HORIZONTAL 1:500 AT ORIGINAL SIZE	5	10	15	20	25m	PRELIMINARY
Client							JCKLAND TRANSPORT
Projec	LAGIN	 					RECOMMENDED OPT - LS
							ELINGTON ON RAMP

Rev: B

Plot Date: 5 August 2015 - 3:49 p.m. Cad File No: Y:\3818683\CAD\01 DETAILED BUSINESS CASE\DRAWINGS\3818683-C431_C448.dwg



MT WELLINGTON TO GREAT SOUTH ROAD OFF RAMP - (MC30)

HORZ 1:500 VERT 1:100

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Plot Date: 5 August 2015 - 3:49 p.m. Plotted by: Ajeshni Ram











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h it was prepared and must not be i by any other person or for any	Scale 1:500 (A1), 1:1000	(A3) Used for Construction unless	Original Size	Drawing

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RANSPORT AGENCY/AUCK WEST CONNECTIONS	LAND TRANSPORT

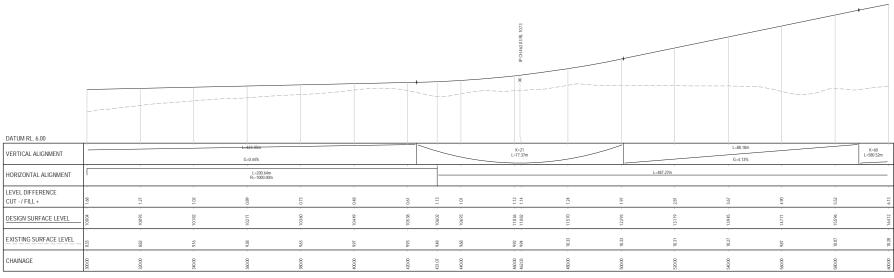
VERTICAL 1:100 AT ORIGINAL SIZE

HORIZONTAL 1:500 AT ORIGINAL SIZE

DETAILED BUSINESS CASE - LONG SECTION MT WELLINGTON TO GREAT SOUTH RD OFF RAMP

A1 Drawing No: 3818683-C449

Rev: B



MT WELLINGTON TO GREAT SOUTH ROAD OFF RAMP - (MC30)

HORZ 1:500 VERT 1:100

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NZTRANSPORT









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this document) for the purpose for ich it was prepared and must not be ad by any other person or for any er purpose.	Scale 1:500 (A1), 1:1000	(A3) This Drawing must not be used for Construction unless singled as Approved	Original S A1		

PRELIMINARY NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTIONS

DETAILED BUSINESS CASE - LONG SECTION MT WELLINGTON TO GREAT SOUTH RD OFF RAMP

VERTICAL 1:100 AT ORIGINAL SIZE

Drawing No: 3818683-C450

Rev: B

В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	4	J AC	ENCY	
Α	ISSUED FOR COMMENT	RB			27/03/15				
No	Revision Note: * Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date				

DATUM RL. 7.00 VERTICAL ALIGNMENT L=487.27m HORIZONTAL ALIGNMENT LEVEL DIFFERENCE CUT - / FILL + DESIGN SURFACE LEVEL EXISTING SURFACE LEVEL CHAINAGE

MT WELLINGTON TO GREAT SOUTH ROAD OFF RAMP - (MC30)

HORZ 1:500 VERT 1:100

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VERTICAL 1-100 0 1 2 3 4 5m AT ORIGINAL SIZE 0 5 10 15 20 25m

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15	
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No	Revision Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date	









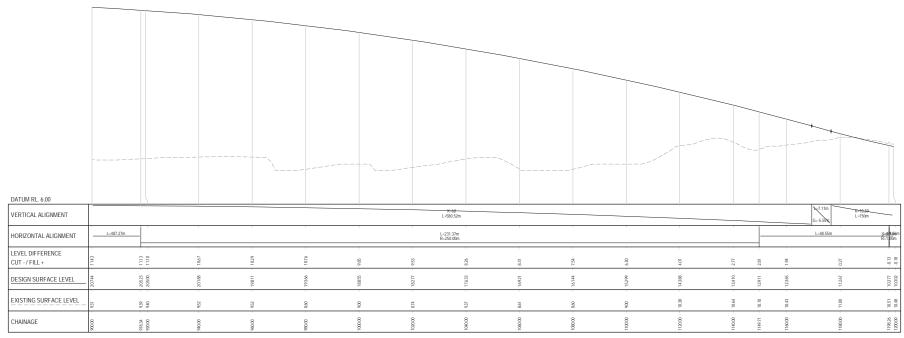
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	PRELIMINARY
nt ect	NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTIONS
	DETAILED BUSINESS CASE - LONG SECTION MT WELLINGTON TO GREAT SOUTH RD OFF RAMP

Drawing No: 3818683-C451

Rev: B

Plot Date: 5 August 2015 - 3-49 p.m. Plotted by: Ajestni Ram Cad File No: Y-1381 8683/CAD/01 DETAILED BUSINESS CASE/DRAWINGS3818883-C492,C453.dug



MT WELLINGTON TO GREAT SOUTH ROAD OFF RAMP - (MC30)

HORZ 1:500 VERT 1:100

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VERTICAL 1:100 AT ORIGINAL SIZE HORIZONTAL 1:500 AT ORIGINAL SIZE 0 5 10 15 20 25m

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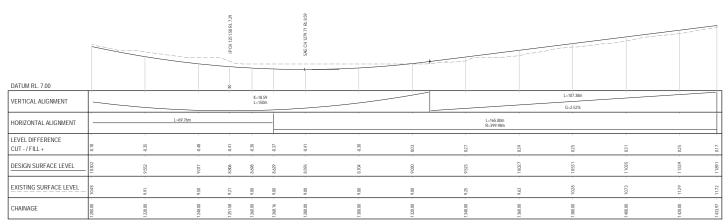


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I NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT
EAST WEST CONNECTIONS

DETAIL FOR RUSINESS CASE . LONG SECTION



MT WELLINGTON TO GREAT SOUTH ROAD OFF RAMP - (MC30)

HORZ 1:500 VERT 1:100

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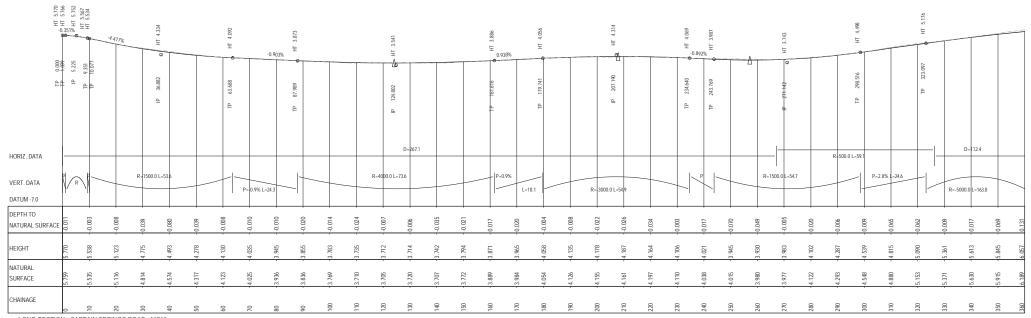
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Rev: B

VERTICAL 1:100 AT ORIGINAL SIZE

Olient NZ TRA DETAILED BUSINESS CASE - LONG SECTION MT WELLINGTON TO GREAT SOUTH RD OFF RAMP

A1 Drawing No: 3818683-C453



LONG SECTION - CAPTAIN SPRINGS ROAD - MC10

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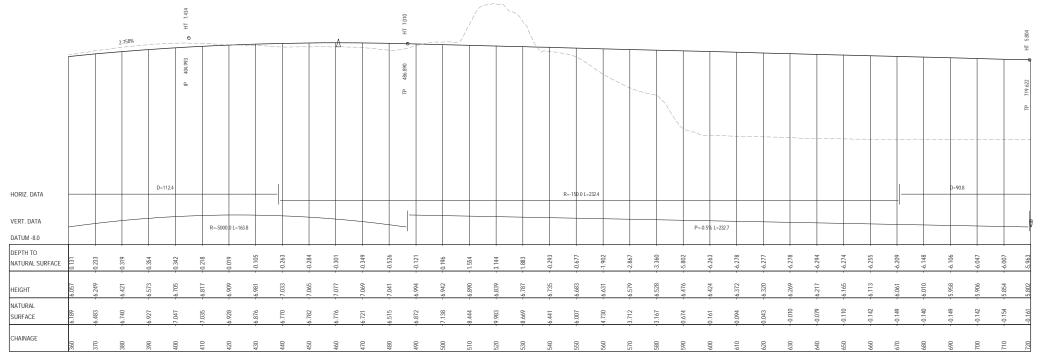
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HORIZONTAL 1:500 AT ORIGINAL SIZE NZ TRANSP EAST WEST	ENCY/AUC	PRELIMINARY (LAND TRANSPORT
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Rev: B

Drawing No: 3818683-C455

Plot Date: 5 August 2015 - 3:50 p.m. Cad File No: Y:\3818683\CAD\01 DETAILED BUSINESS CASE\DRAWINGS\3818683-C455_C456.dwg



LONG SECTION - CAPTAIN SPRINGS ROAD - MC10

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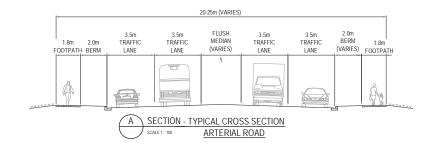


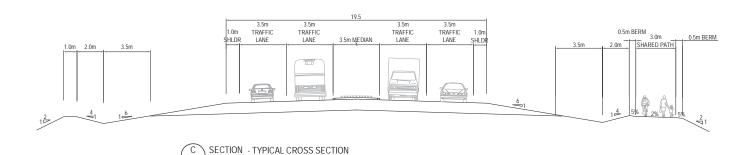
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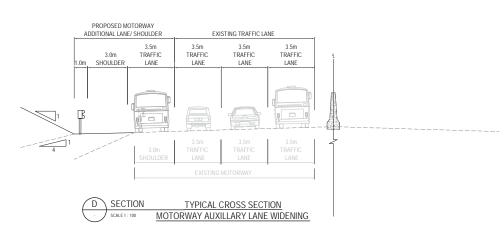
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EAST WEST CONNECTIONS
DETAILED BUSINESS CASE - STAGED OPTION
CAPTAIN SPRINGS/ EWC-LONG SECTION - SH 2

A1 Drawing No: 3818683-C456

Rev: B







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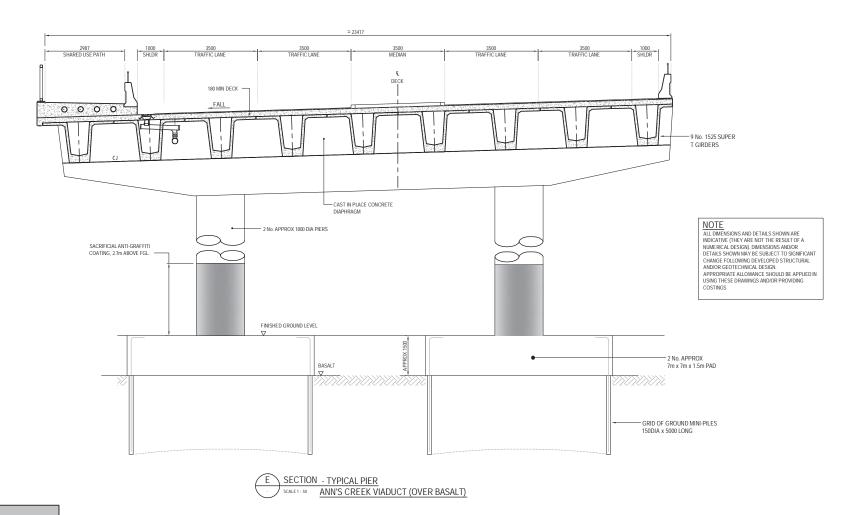
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NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT Ject EAST WEST CONNECTION **DETAILED BUSINESS CASE - RECOMMENDED OPTION** TYPICAL SECTION

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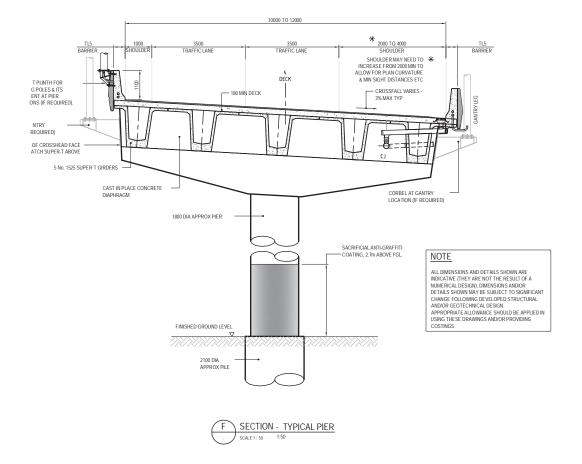




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NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT
EAST WEST CONNECTION
DETAILED BUSINESS CASE - VIADUCT PIER DETAILS
TYPE 1 - NO PILECAP SUPER T GIRDER

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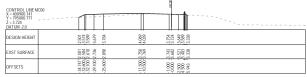




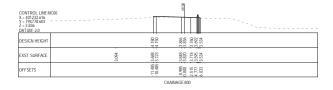
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PRINCE TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTION DETAILED BUSINESS CASE-RAMP PIER DETAILS TYPE 1 - INTEGRAL MONO PIER / PILE

Plot Date: 5 August 2015 - 3:50 p.m. Cad File No: Y:\3818683\CAD/01 DETAILED BUSINESS CASE\DRAWINGS\3818683-C503.dwg



CHAINAGE 400



DESIGN HEIGHT 20 E 20 E 20 E EXST SURFACE

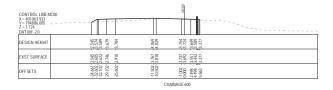
CONTROL LINE MCC X = 400817.257 Y = 795056.706 - Z = 3.724 DATUM -1.0					MOM	
DESIGN HEIGHT	3.150	3.679		. 6034	3.724	3 412
EXST SURFACE	3.150		8	3.783	3788	3.472
OFFSETS	33.450	-29.102	THE CO.	.10.502	0.002	55.498

CHAINAGE 300

CONTROL LINE MC00 X = 401147.507 794831.099 Z = 3.724 DATUM -2.0			OCCAY	
DESIGN HEIGHT	3 486	88	77 98 K	
EXST SURFACE	3050	3,178	3.750 3.706 3.862 3.862	
OFFSETS	35.546	-11.498 -10.498	0.000 0.000 0.000 0.831	
			CHAINAGE 700	

*** 8 F 8# 8 DESIGN HEIGHT \$25 £ £ \$558 6 66 8 88 E 88 8 828

CONTROL LINE MC00 X = 400732.106 Y = 795109.126 Z = 3.724 DATUM 0.0			GCW	
DESIGN HEIGHT	2828 3547 3637 3742	4039	3 3 5 7 7 4 7 2 2 2 3 5 6 7 4 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	
EXST SURFACE	2828 2886 2976 3.178	4.027	72 E 22 E 23 E 23 E 25 E 25 E 25 E 25 E 2	
OFFSETS	35.426- 33.519* -27.019*	.10.503	3.571	
		CUI	AUNIACE 200	



CONTROL LINE MCC X = 401405.715 Y = 794678.424 Z = 4.099 DATUM -1.0	0		МОМ	_	*****************
DESIGN HEIGHT	98:0	4.406	88	3.986	
EXST SURFACE	3450	£	23	3,952	
OFFSETS	.65.333	.10.223	***	3.777 6.277 7.643	
			CHAINAGE 1000		

CONTROL LINE MC00 X = 400644.837 Y = 795157.938 Z = 3.724 DATUM 1.0	· · · <u> </u>		0007		<u></u>	
DESIGN HEIGHT	2665 3472 3562 3667	4039	372	3.424		
EXST SURFACE	2665 2637 3247	8.	275 000 000	3813	24.12	
OFFSETS	38090 36005 33005 29505	-10503-		13.90	20.855	
		CHA	NAGE 100			

CONTROL LINE MC00 X = 400981.863 Y = 794943.137 Z = 3.724 DATUM -2.0				
DESIGN HEIGHT	3.559 3.559 3.784 3.784	4069	3 724	
EXST SURFACE	2615 2615 2814		3.760 3.774 3.468 3.468	
OFFSETS	25 25 25 25 25 25 25 25 25 25 25 25 25 2	11500-3765	27 0000 8 27 0000 8 27 0000	
		CH	IAINAGE 500	

CONTROL LINE MC0 X = 401319.067 Y = 794728.345 Z = 4.057 DATUM -1.0	0		T	(ICW)		
DESIGN HEIGHT		3,962	4.372	4.067	33877	
EXST SURFACE		3.449	3.975	4.063		
OFFSETS		85 52	-10.499			
			CHAINAC	E 900	900	

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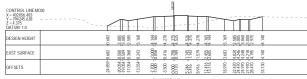
DETAILED BUSINESS CASE - RECOMMENDED OPT SH20 TO GREAT SOUTH RD - CROSS SECTION

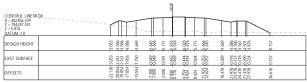
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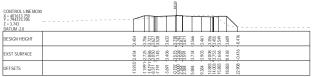


CHAINAGE 1600

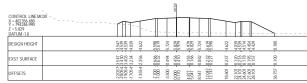




CHAINAGE 2400



CONTROL LINE MC X = 401956.484 Y = 794245.188 Z = 5.248	20
DATUM 2.0	
DESIGN HEIGHT	3 52 52 52 52 52 52 52 52 52 52 52 52 52
EXST SURFACE	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
OFFSETS	1.14.67-7-11.14.67-7-11.14.67-7-11.14.67-7-11.19.00-0.00-0.00-0.00-0.00-0.00-0.00-





2 2222 DESIGN HEIGHT 2 2 2 2 2 \$55 N N 155 Y 2 288 8 888 OFFSETS

2.000 3.843 7.665 12.1065 13.967 16.818 CHAINAGE 1300

CONTROL LINE MC00 X = 401856.485 Y = 794.244.737 Z = 7.319 DATUM 2.0	
DESIGN HEIGHT	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
EXST SURFACE	28 25
OFFSETS	25 25 25 25 25 25 25 25 25 25 25 25 25 2
	CHAINAGE 1800

CONTROL LINE MC00 X = 401756 902 Y = 794252 245 Z = 5.392 DESIGN HEIGHT EXST SURFACE OFFSETS CHAINAGE 1700

CONTROL LINE MC00 X = 402256.481 Y = 794246.540 Z = 5.340 DATUM -1.0	
DESIGN HEIGHT	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
EXST SURFACE	8 85325 8 38 5 35 6 38 6 38 6 3
OFFSETS	25.74 25.74

CHAINAGE 2200

CONTROL LINEMCOO	E C
X = 402156.482 Y = 794246.089	
DESIGN HEIGHT	8
EXST SURFACE	88 55 55 58 58 58 58 58 58 58 58 58 58 5
OFFSETS	25 35 35 35 35 35 35 35 35 35 35 35 35 35

CHAINAGE 2100

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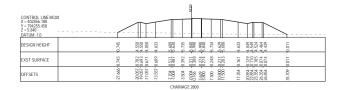
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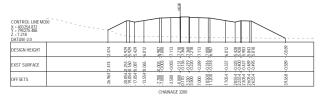
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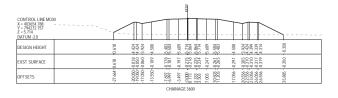
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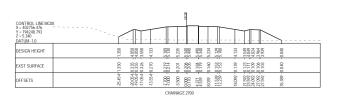
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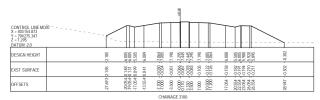
A1 Drawing No: 3818683-C512

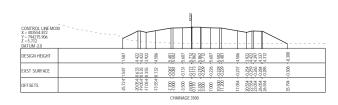


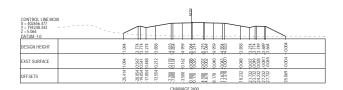


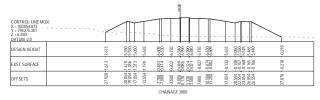












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CONTROL LINE MC00 X = 403454.872 Y = 794275.766 Z = 6.200 DATUM -2.0	
DESIGN HEIGHT	8 88 4 88 8 88 88 8 8 8 8 8 8 8 8 8 8 8
EXST SURFACE	7 070 070 070 070 070 070 070 070 070 0
OFFSETS	2
	CHAINAGE 3400

CONTROL LINE MC00 _ X = 402556.478 Y = 794247.892 Z = 5.410 DATUM -1.0	
DESIGN HEIGHT	0 1989
EXST SURFACE	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
OFFSETS	22 22 22 22 22 22 22 22 22 22 22 22 22
	CHAINAGE 2500

CONTROL LINE MC00 X = 402955.048 Y = 794270.389 Z = 6.340 DATUM -2.0	
DESIGN HEIGHT	133 142 153 153 153 153 153 153 153 153
EXST SURFACE	8 88 2 5 88 8 5 88 8 5 88 8 5 8 8 8 8 8
OFFSETS	27.471 1.1500
	CHAINAGE 2900

CONTROL LINE MC00 — — — — — — — — — — — — — — — — — —	
DESIGN HEIGHT	6.00 (1.00 (
EXST SURFACE	88 25 25 25 25 25 25 25 25 25 25 25 25 25
OFFSETS	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	CHAINAGE 3300

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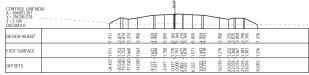


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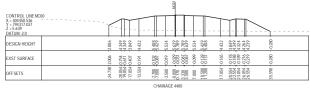
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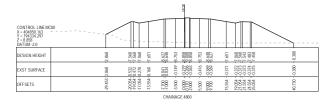
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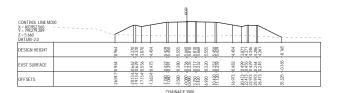
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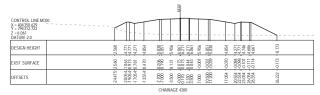


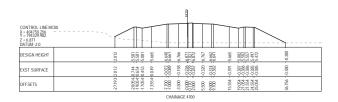


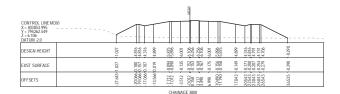


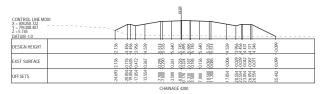




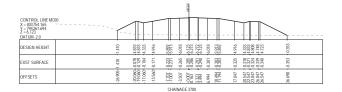








CONTROL LINE MC00				8					
X = 404650.350 Y = 794325.667 Z = 5.534 DATUM -2.0				- -					
DESIGN HEIGHT	1.945	4244 4244 3.744	122 4.32	8 2223	5.428 5.328 5.338		4 2 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	.0322	
EXST SURFACE	. 346	0.766	0.169	¥ \$5000	24.0	0340	\$85555 55555 55555 55555 5555 5555 5555	.0.322	
OFFSETS	-24.651	20054 19.054 17.054	13.554	3525	6.934 10.135		21491 21491 21991 24991	34393 -	
			CHA	INAGE 4600					



CONTROL LINE MC X = 404150.815 Y = 794304.091 Z = 5.245 DATUM -1.0				OTOWN			
DESIGN HEIGHT	1.918	\$2 32 3 32 3 32 3 32 3 32 3 32 3 32 3 32	4 200 8 198 188	256 355 5	5.140 25.05 24.00 25.00	8 488888	0.116
EXST SURFACE	8161	1,543	98 58	9 88 88	387 45	255 255 25	0.116
OFFSETS	.24129	19054	13554	380	9 32	17.063 22.5633 23.0633 26.063 26.063	34.013
			CHA	INIACE 4100			

CONTROL LINE MC00 X = 404550.443 Y = 794321.352 Z = 5.196 DATUM -2.0				WOO	-			
DESIGN HEIGHT	. 6991	3.006	8 38	E 25 25	E 888	3.98	38 886	. 222:0
EXST SURFACE	. 691	0,605	0219	6 55 55	5 55 5		268 888 88 888	. 225.0
OFFSETS	24.548	17.054	13.554	96 96 96	200 1200 1200 1200 1200 1200 1200 1200	17.054	28 222 28 223 28 28 28 28 28 28 28 28 28 28 28 28 28 2	24.78
			CHA	INAGE 4500				

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В	REVISED DETAILED BUSINESS CASE	AN			11/06/15
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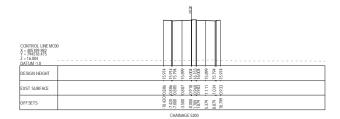


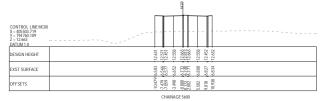


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SCALE 1:500 AT ORIGINAL SIZE	PRELIMINARY
NZ TRANSPORT AGENCY/AUGEAST WEST CONNECTIONS	CKLAND TRANSPORT
DETAILED BUSINESS CASE - R SH20 TO GREAT SOUTH RD -	

Rev: B



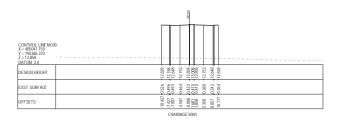


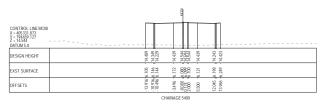
CONTROL LINE MC00 X = 405884 245	
DESIGN HEIGHT	3 3 4 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
EXST SURFACE	2 252 3 333 3 3 3 3 3 3 3 3 3 3 3 3 3 3
OFFSETS	4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
-	CHAINAGE 6000

CONTROL LINE MC00 X = 405121.126 Y = 794445.967 Z = 14.851 DATUM -2.0	
DESIGN HEIGHT	14821 114746 114746 114821 114821 114821
EXST SURFACE	0.554 0.557 0.557 0.557 0.557 0.557 0.557 0.557
OFFSETS	10.427 7.427
	CHAINAGE 5100

			MOJO			
CONTROL LINE MC00 X = 405414.183 Y = 794715.766 Z = 13.344 DATUM 2.0			-		2 2 2 2	
DESIGN HEIGHT	10281	13041	222 222	13038	13218	8
EXST SURFACE	10.281	9,966 9,966 9,710	90000	9.382	9.371	
OFFSETS	.22.338	3.4%	858	12.190	14.110	525.265
		CHAINAG				

CONTROL LINE MC X = 405791.257 Y = 794844.733 Z = 11.400 DATUM 5.0	00 B
DESIGN HEIGHT	11330 1128 1128 11128 11136
EXST SURFACE	7.8398 7.8986 7.8986 7.9989 7.996 7.997 7.996
OFFSETS	10.423 1.500
	CHAINAGE 5900





		(CON		
CONTROL LINE MC00 X = 405695.684 Y = 794815.452 Z = 13.628 DATUM 3.0				
DESIGN HEIGHT	13.5%	3523	13.598	
EXST SURFACE	25 83 S	¥ \$63 9	245	
OFFSETS	10.423	3500	8.999	
	CHAI	NACE EROO		

	PP
CONTROL LINE MO X = 404948.916 Y = 794348.411 Z = 10.858 DATUM -2.0	0
DESIGN HEIGHT	0.0828 0.00733 0.00733 0.0068 0.00828
EXST SURFACE	1.733 · 0.0053 · 0.0053 · 0.0053 · 0.0053 · 0.0053 · 0.0053 · 0.0053 · 0.0053 · 0.0053 · 0.0054 · 0.00
OFFSETS	7.10.427 7.000 8.928 10.848
	CHAINAGE 4900

	OUW.
CONTROL LINE MC00 X = 405258.464 Y = 794591.346 Z = 15.728 DATUM 4.0	
DESIGN HEIGHT	15.668 15.583 15.523 15.723 15.723 15.723 15.723 15.668
EXST SURFACE	2888 29 20 20 20 20 20 20 20 20 20 20 20 20 20
OFFSETS	10.420 1.420
	CHAINAGE 5300

	COAT
CONTROL LINE MO X = 405598.656 Y = 794791.253 Z = 13.324 DATUM 3.0	00
DESIGN HEIGHT	13.294 13.274 13.274 13.274 13.274
EXST SURFACE	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
OFFSETS	10.048
	CHAINAGE 5700

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ent oject	NZ TRANSPORT AGENCY/AU EAST WEST CONNECTIONS	CKLAND TRANSPORT
e	DETAILED BUSINESS CASE - R SH20 TO GREAT SOUTH RD -	

Rev: B

Drawing No: 3818683-C515

tot Date: 5 August 2015 - 3-50 p.m. Plotted by: Ajestni Ram Cad File No: Y:3818683/CAD/01 DETAILED BUSINESS CASE/DRAWINGS/3818683/C51_C520.dug



CHAINAGE 6184



CHAINAGE 6100

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ALL TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTIONS

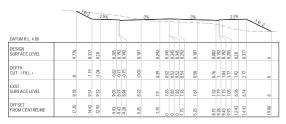
DETAILED BUSINESS CASE - RECOMMENDED OPT SH20 TO GREAT SOUTH RD - CROSS SECTION

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Plot Date: 5 August 2015 - 3:50 p.m. Plotted by: Ajeshni Ram Cad File No: Y:3818683/CAD/01 DETAILED BUSINESS CASE/DRAWINGS/818683-C511_C520.dug



MC20 - CH 400



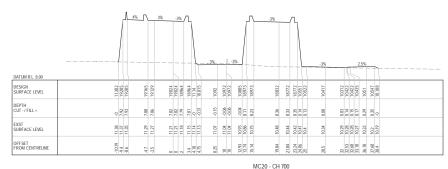
MC20 - CH 300

-		6	-3%	-3%	2.5%	162
DATUM R.L. 3.00		12-				
DESIGN SURFACE LEVEL	5.692 5.814 5.777	2025	5 789	5 842 5 842 5 842 5 842 5 842	5.702 5.702 5.717	2002
DEPTH CUT - / FILL +	0014	0.45	88 67	28 28 28 28 28 28 28 28 28 28 28 28 28 2	888788	9
EXST SURFACE LEVEL	569 567 557	525 519 517	in in	0 0000	200000	909
FROM CENTRELINE	14.43	9.43	5.25	2 2 20	9,43	1594

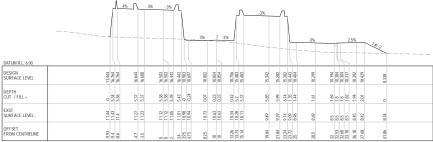
MC20 - CH 200

		W-3		.5%	п	_		3%	_			_	-3%	_		_	2	.5%	_	16.2	
DATUM R.L. 2.00					1					-		5			Ų	1					
DESIGN SURFACE LEVEL	4.725	5551	5513	5.438	5.426	5.426	5.421	5526	5578	5578	5578	5526	5.421	5316	5.426	5.426	5.438	5513	5551	197	
DEPTH CUT - / FILL +	0	%80	980	880	0.83	0.83	680	10	107	107	107	1.02	260	0.82	0.63	0.93	9670	101	103	0	
EXST SURFACE LEVEL	4.73	69.4	4.66	197	4.6	4.6	453	52	154	127	451	4.51	45	10	5	4.5	4.5	4.5	4.52	191	
OFFSET FROM CENTRELINE	-1608	-1443	-1293	56	-943	-928	-525	Ē				1.75	100	100	6.28	9.43	9.93	12.93	14.43	16.31	

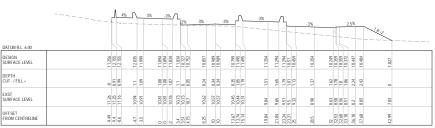
MC20 - CH 100



WC20 - C11700



MC20 - CH 600



MC20 - CH 500

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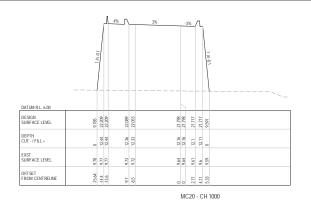


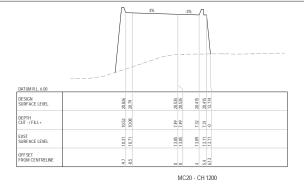
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Z TRANSPORT AGENCY/A	

EAST WEST CONNECTIONS
DETAILED BUSINESS CASE - RECOMMENDED OPT
GREAT SOUTH RD TO PRINCES ST- CROSS SECTION

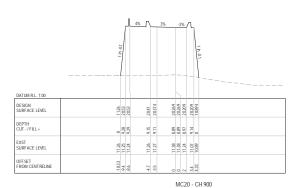
Drawing No: 3818683-C517 Rev: B

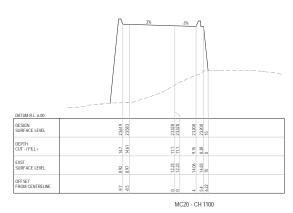


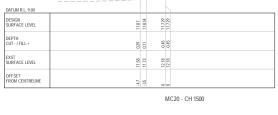


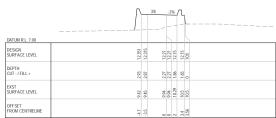


MC20 - CH 1600

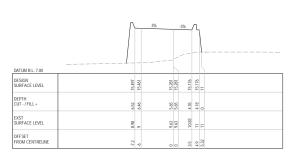








MC20 - CH 1400



MC20 - CH 1300

		4%	3% -3%		3%	ă,	3% 1/n0.1		-3%		10.01	-3%		2.5		_
DATUM R.L. 8.00																
DESIGN SURFACE LEVEL	11.5 19.667 19.667	19.537	19.396	19336	11.192	11.245	11.162	11802	20.67	1900	10.795	10.69	385 01 2695 299 01	10.707	10.782	10.41
DEPTH CUT - / FILL +	0 8.16 8.16	80%	55	5 5 5 E	8	000	9004	9.75	975	77.6	830	013	9019	021	0.33	0 0 0
EXST SURFACE LEVEL	11.5	11.46	88	3 1 3 2 2	2 12	11.18	11.12	1106	10.92	10.84	10.78 10.74 10.71	10.56	201 201 201	10.5	10.45	10.42
OFFSET FROM CENTRELINE	-10.22 -9.4 -8.6	35		34	2 10	22	12.77	15.14	19.84	2184	23.24	28.5	3253	33.18	36.18	33.68

MC20 - CH 800

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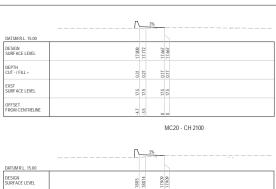
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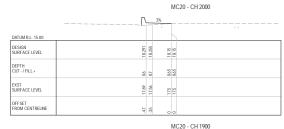
NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT
EAST WEST CONNECTIONS
DETAILED BUSINESS CASE - RECOMMENDED OPT

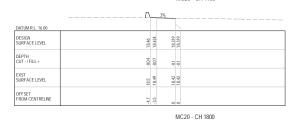
GREAT SOUTH RD TO PRINCES ST- CROSS SECTION

1 Drawing No: 3818683-C518 Rev: B







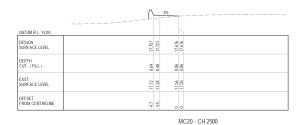




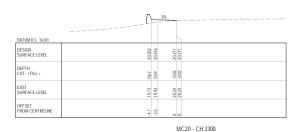
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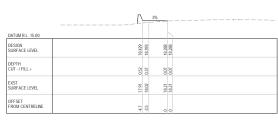
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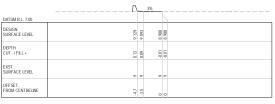
		_	3%	
DATUM R.L. 18.00)
DESIGN SURFACE LEVEL	20.209	20.173	20068	
DEPTH CUT - / FILL +	å	100	90.0	4
EXST SURFACE LEVEL	2015	20.18	2027	
OFFSET FROM CENTRELINE	7.7	-3.5	00	,



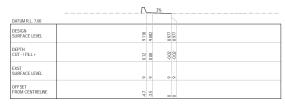


MC20 - CH 2200

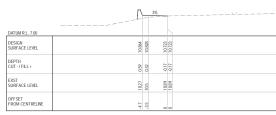
MC20 - CH 2400



MC20 - CH 2900



MC20 - CH 2800



MC20 - CH 2700

		_	3%	
DATUM R.L. 12.00				
DESIGN SURFACE LEVEL	14.31	14.274	14.169	
DEPTH CUT - / FILL +	0	900	22.22	
EXST SURFACE LEVEL	1431	1434	1442	
OFFSET FROM CENTRELINE	4.7	.35		

MC20 - CH 2600

0 25 5 7.5 10 12.5m SCALE 1:250 AT ORIGINAL SIZE

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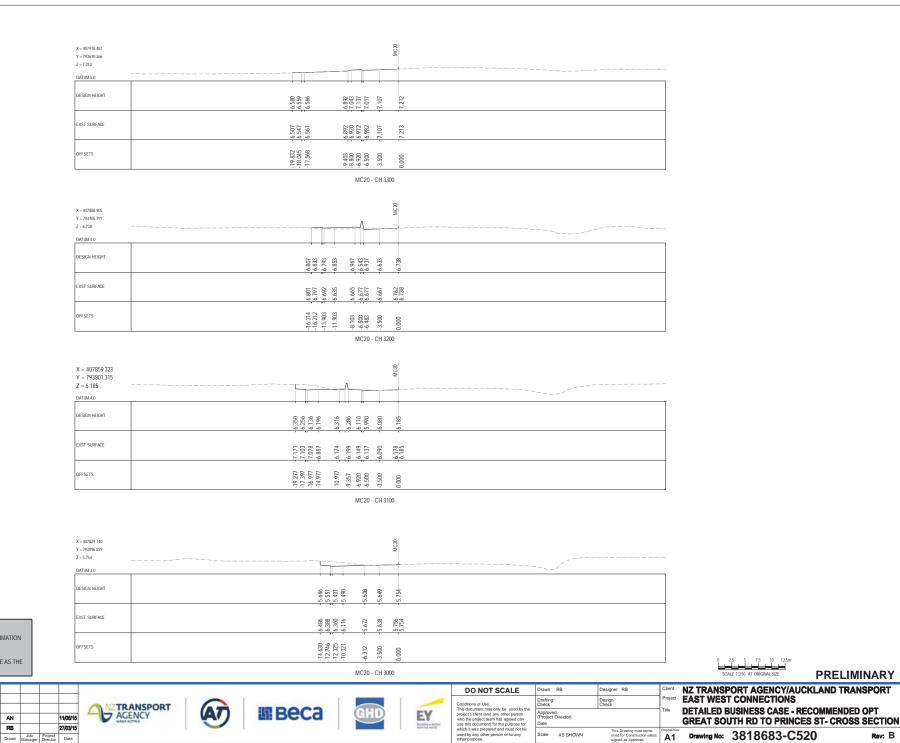






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EAST WEST CONNECTIONS
DETAILED BUSINESS CASE - RECOMMENDED OPT
GREAT SOUTH RD TO PRINCES ST- CROSS SECTION



PRELIMINARY

Rev: B

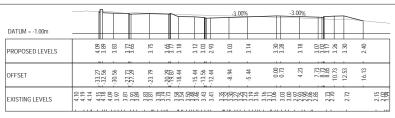
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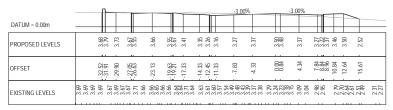
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B REVISED DETAILED BUSINESS CASE

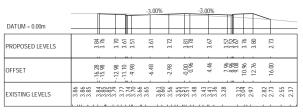
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MCN0 - CHAINAGE 260.00



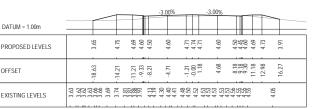
MCN0 - CHAINAGE 240.00



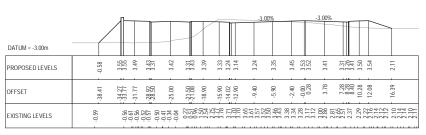
MCN0 - CHAINAGE 220.00

			-3.00%		-3.00%			_		
DATUM = 0.00m										
PROPOSED LEVELS	4.03	3.96	4.06	4.22	4.09	3.98	4.17	4.21	3.08	
OFFSET	-14.81	-9.93	5.31	8:-0.0	4.57	9.00		12.87	- 16.30	
EXISTING LEVELS	\$200 850 8	700 000 000 000 000 000	3,5220 8,9220 8,9220 8,9220	u uuu 0 000 7 000	33.33.33	3.63	3.43	3.24	3.04	2.84
								_		

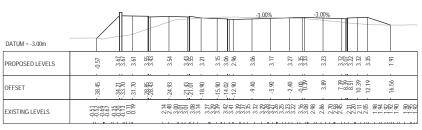
MCN0 - CHAINAGE 200.00



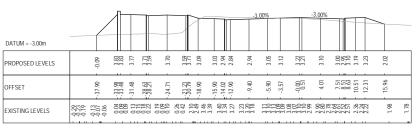
MCN0 - CHAINAGE 180.00



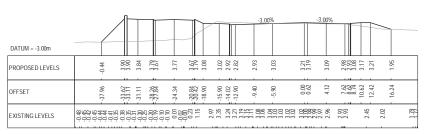
MCN0 - CHAINAGE 340.00



MCN0 - CHAINAGE 320.00



MCN0 - CHAINAGE 300.00



MCN0 - CHAINAGE 280.00

SCALE 1:250 AT ORIGINAL SIZE

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Rev: B

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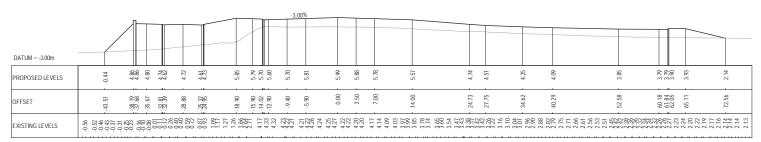


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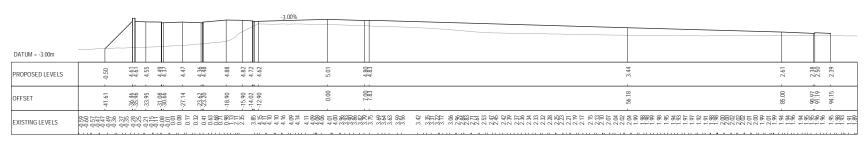
NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT **EAST WEST CONNECTIONS DETAILED BUSINESS CASE - RECOMMENDED OPTION**

GLOUCESTER PARK INTERCHANGE - CRS SEC - SH1 Drawing No: 3818683-C521

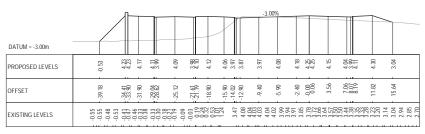
Plot Date: 5 August 2015 - 4:45 p.m. Cad File No: Y:\3818683\CAD\01 DETAILED BUSINESS CASE\DRAWINGS\3818683-C521_C527.dwg



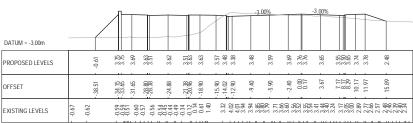
MCN0 - CHAINAGE 420.00



MCN0 - CHAINAGE 400.00



MCN0 - CHAINAGE 380.00



MCN0 - CHAINAGE 360.00

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Rev: B

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Α	ISSUED FOR COMMENT	RB			27/03/15
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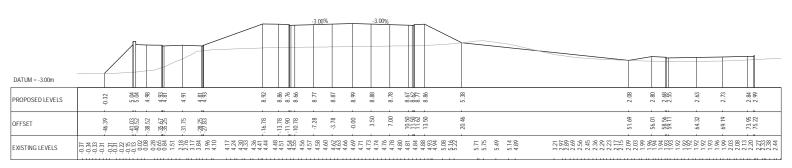
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ich it was prepared and must not be ed by any other person or for any ner purpose.	Scale AS SHOWN	This Drawing must not be used for Construction unless signed as Approved	Original Size	Drawing No: 3818683-C522

NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT **EAST WEST CONNECTIONS DETAILED BUSINESS CASE - RECOMMENDED OPTION GLOUCESTER PARK INTERCHANGE - CRS SEC - SH2**

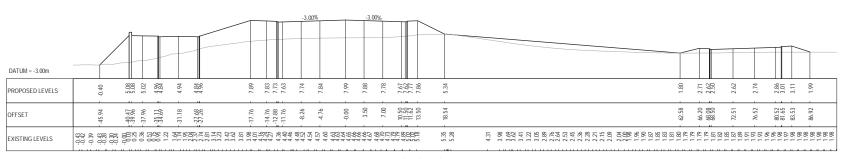
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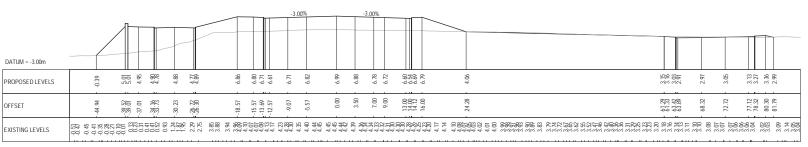
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MCN0 - CHAINAGE 460.00



MCN0 - CHAINAGE 440.00

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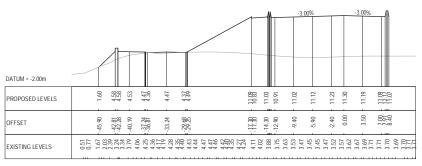




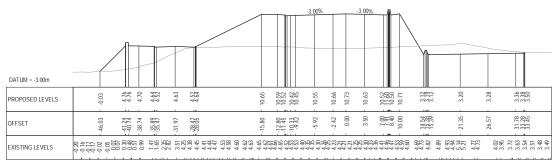
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NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT
EAST WEST CONNECTIONS
DETAILED BUSINESS CASE - RECOMMENDED OPTION
GLOUCESTER PARK INTERCHANGE - CRS SEC - SH3

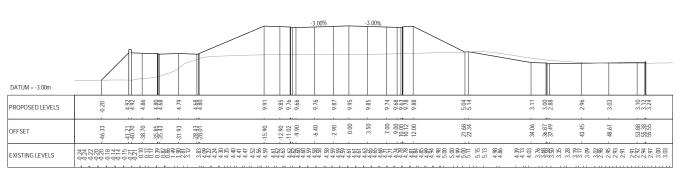
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MCN0 - CHAINAGE 520.00



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MCN0 - CHAINAGE 500.00



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DATUM = 1.00m

OFFSET

PROPOSED LEVELS

EXISTING LEVELS

DATUM = 1.00m

OFFSET

PROPOSED LEVELS

EXISTING LEVELS

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t	NZ TRANSPOI	RT AGENCY/AUCKLAND TRANSPORT
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MCN0 - CHAINAGE 560.00

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DETAILED BUSINESS CASE - RECOMMENDED OPTION GLOUCESTER PARK INTERCHANGE - CRS SEC - SH4

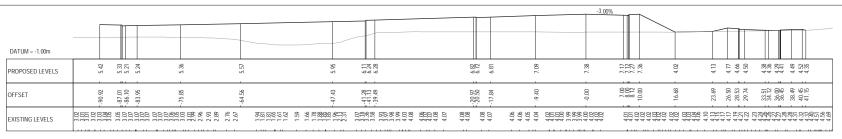
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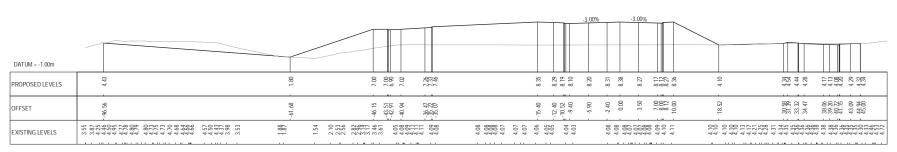
MCN0 - CHAINAGE 580.00

5.90

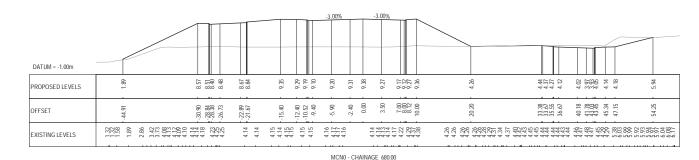
Plot Date: 5 August 2015 - 4-48 p.m. Plotted by: Ajeshni Ram Cad File No: Y-33818683/CAD/01 DETAILED BUSINESS CASE\DRAWINGS3818683/CZ21_C527.dwg



MCN0 - CHAINAGE 720.00



MCN0 - CHAINAGE 700.00



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MCN0 - CHAINAGE 660.00

SCALE 1:250 AT ORIGINAL SIZE

PRELIMINARY

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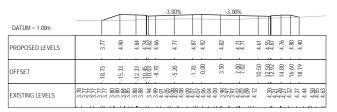


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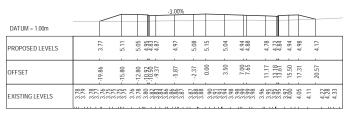
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	Scale AS SHOWN	This Drawing must not be used for Construction unless	Original S		

NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT **EAST WEST CONNECTIONS DETAILED BUSINESS CASE - RECOMMENDED OPTION**

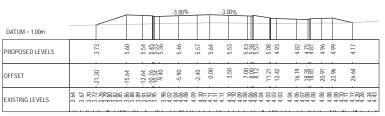
GLOUCESTER PARK INTERCHANGE - CRS SEC - SH6 Drawing No: 3818683-C526 Rev: B



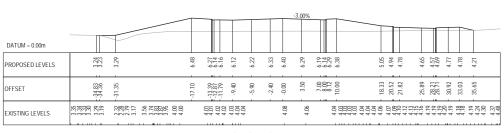
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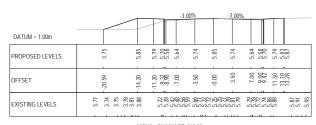
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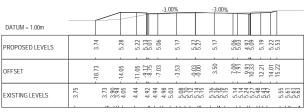
MCN0 - CHAINAGE 760.00



MCN0 - CHAINAGE 740.00



MCN0 - CHAINAGE 860.00



MCN0 - CHAINAGE 840.00

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DATUM = 1.00m					
PROPOSED LEVELS	3.75	4.89	4.96	4.75	4.84
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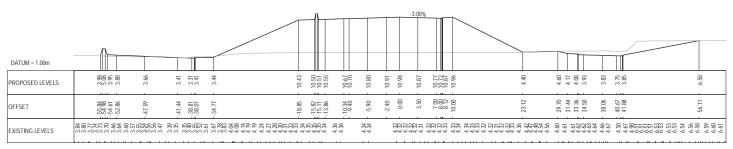




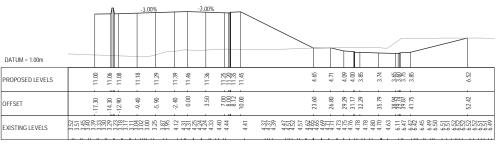
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Tile DETAILED BUSINESS CASE - RECOMMENDED OPTION GLOUCESTER PARK INTERCHANGE - CRS SEC - SH7

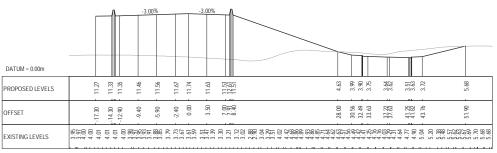
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MCN0 - CHAINAGE 620.00



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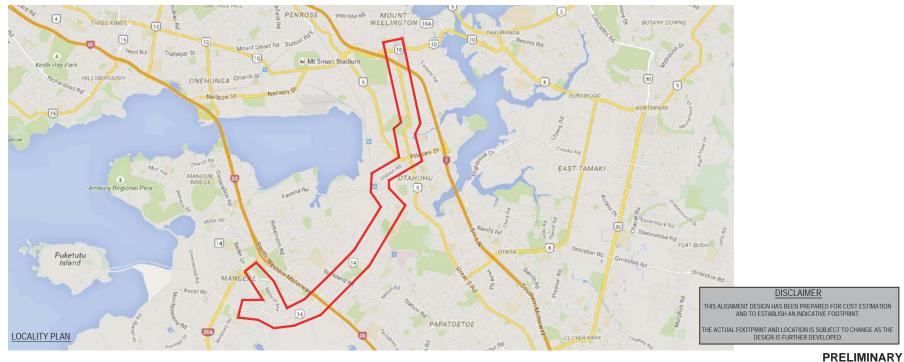
NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT EAST WEST CONNECTIONS
DETAILED BUSINESS CASE - RECOMMENDED OPTION GLOUCESTER PARK INTERCHANGE - CRS SEC - SH5

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APPENDIX R

Māngere, Ōtāhuhu, Sylvia Park Connections - Preferred Approach Technical Drawings

NZ TRANSPORT AGENCY / AUCKLAND TRANSPORT EAST WEST CONNECTION DETAILED BUSINESS CASE BUS PRIORITY MANGERE - OTAHUHU - SYLVIA PARK



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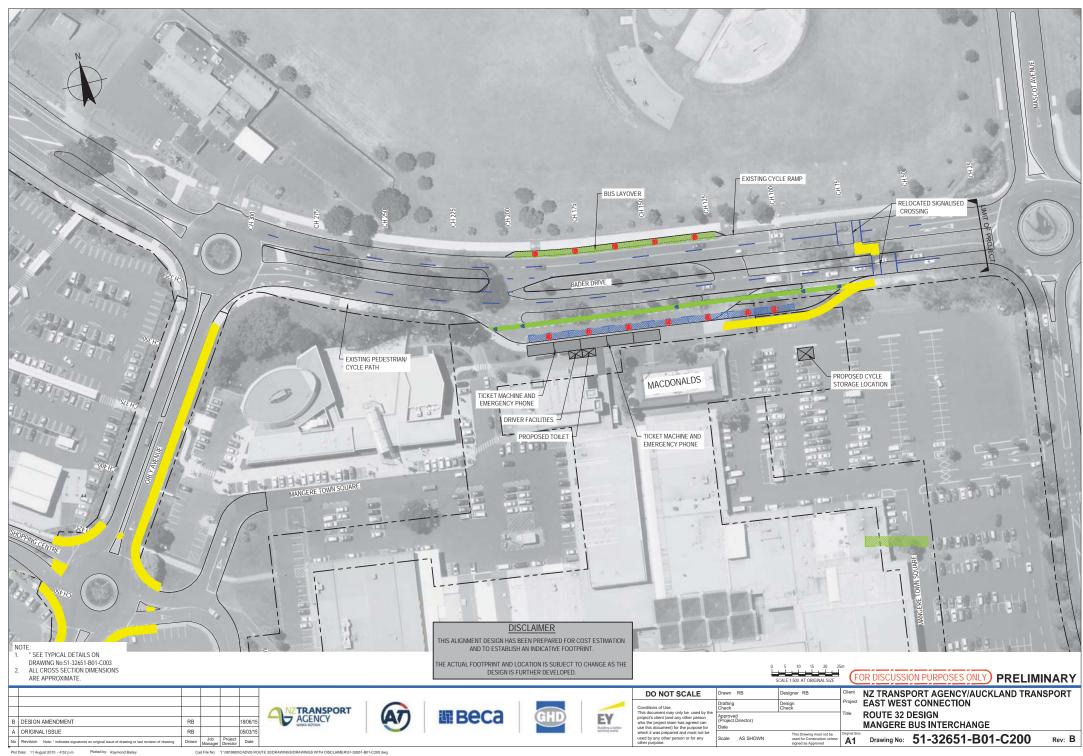


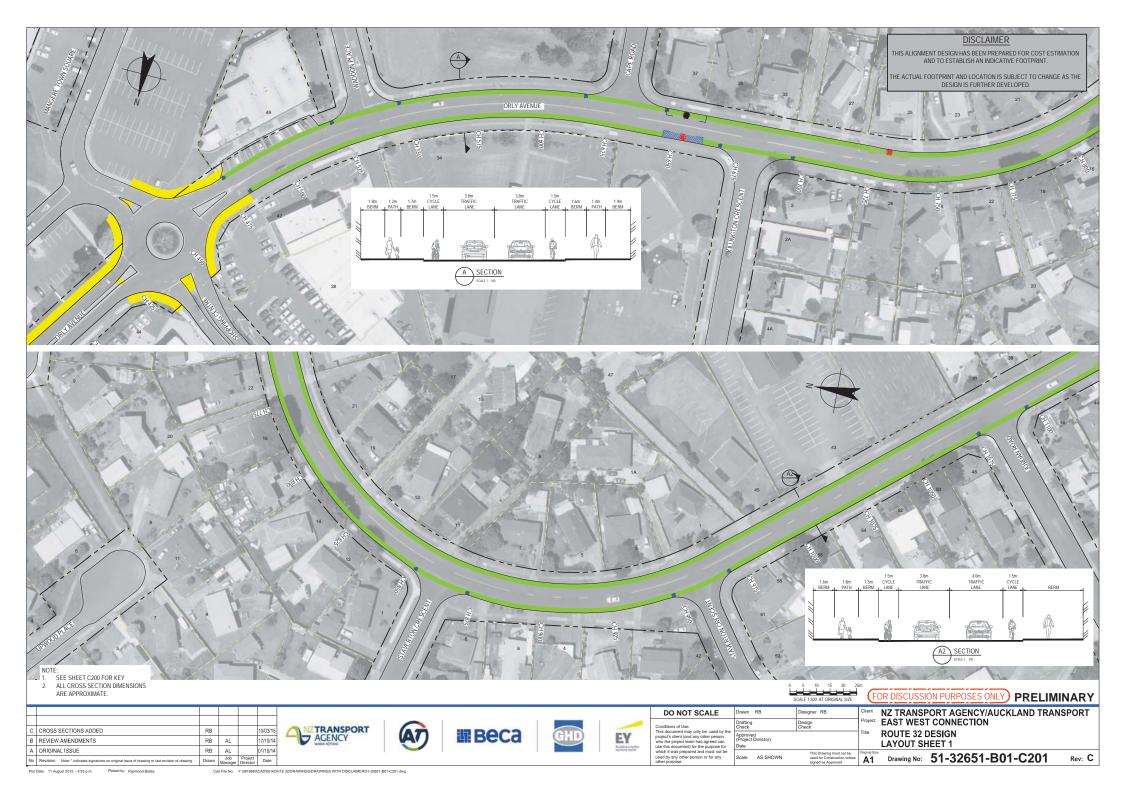
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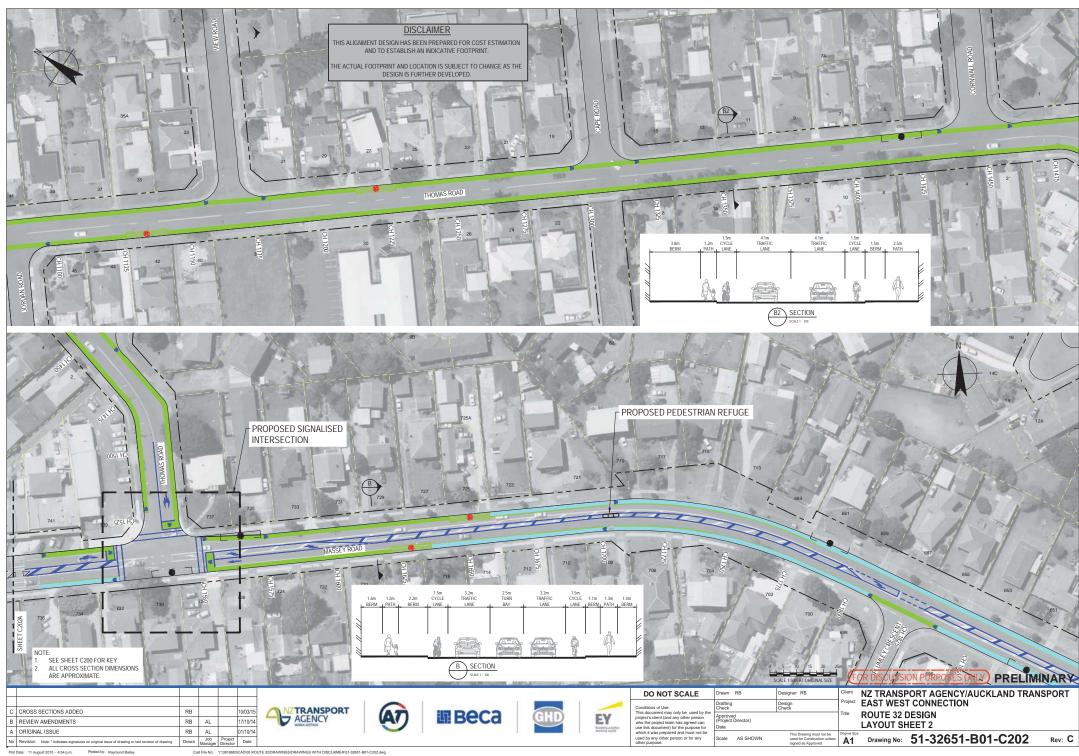
NZ TRANSPORT AGENCY/AUCKLAND TRANSPORT

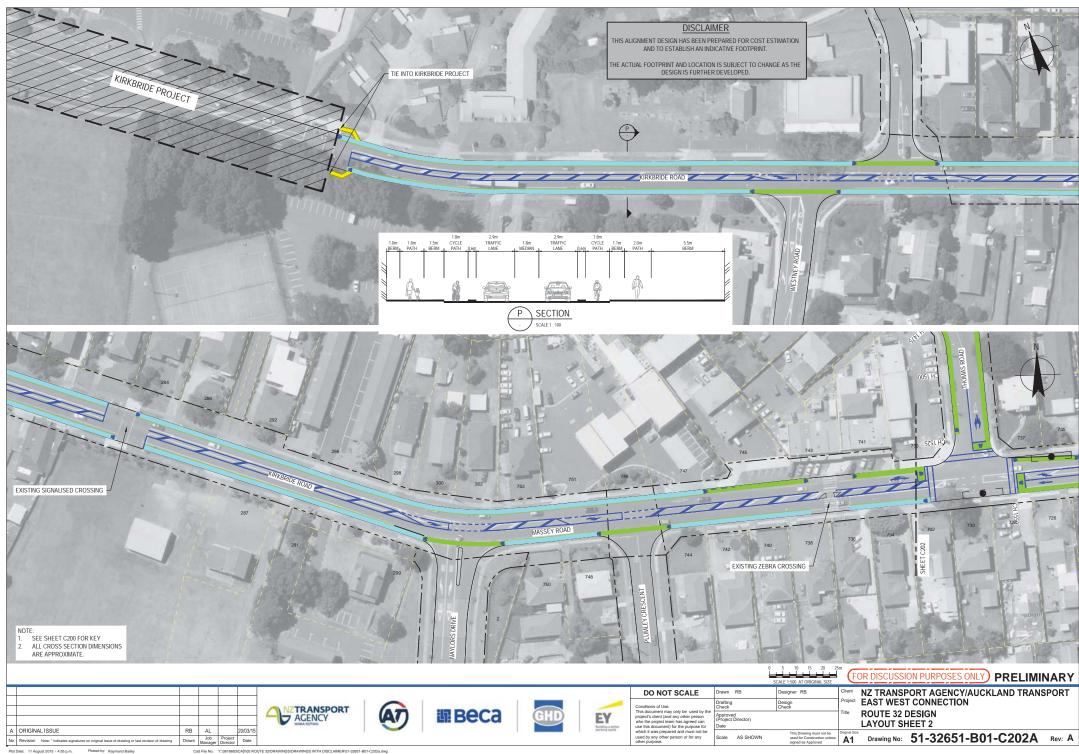
EAST WEST CONNECTION
DETAILED BUSINESS CASE - RECOMMENDED OPTION
COVER SHEET

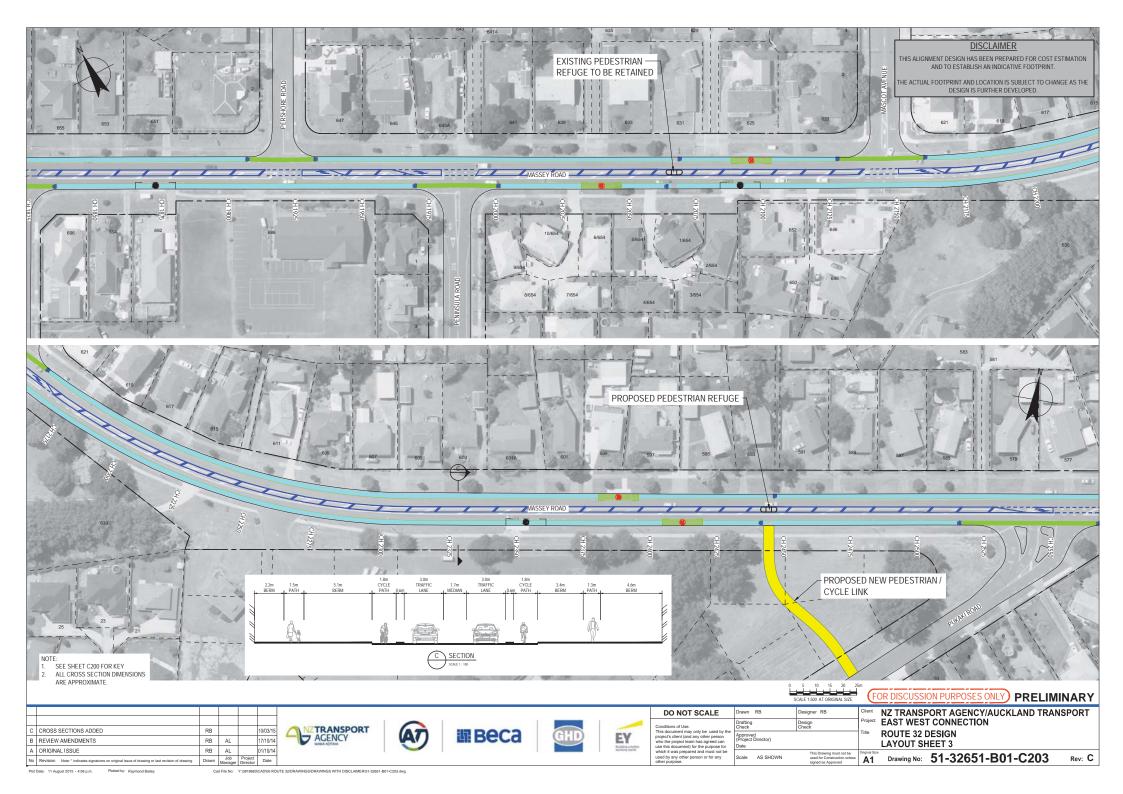
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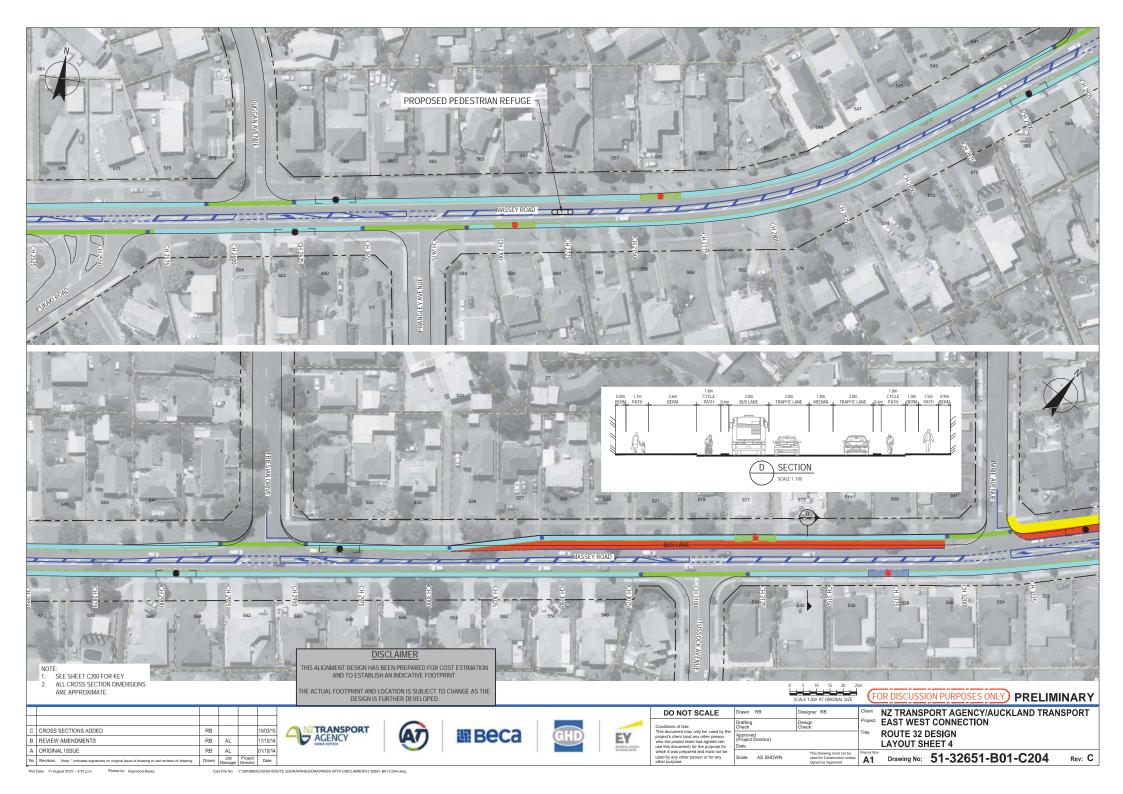


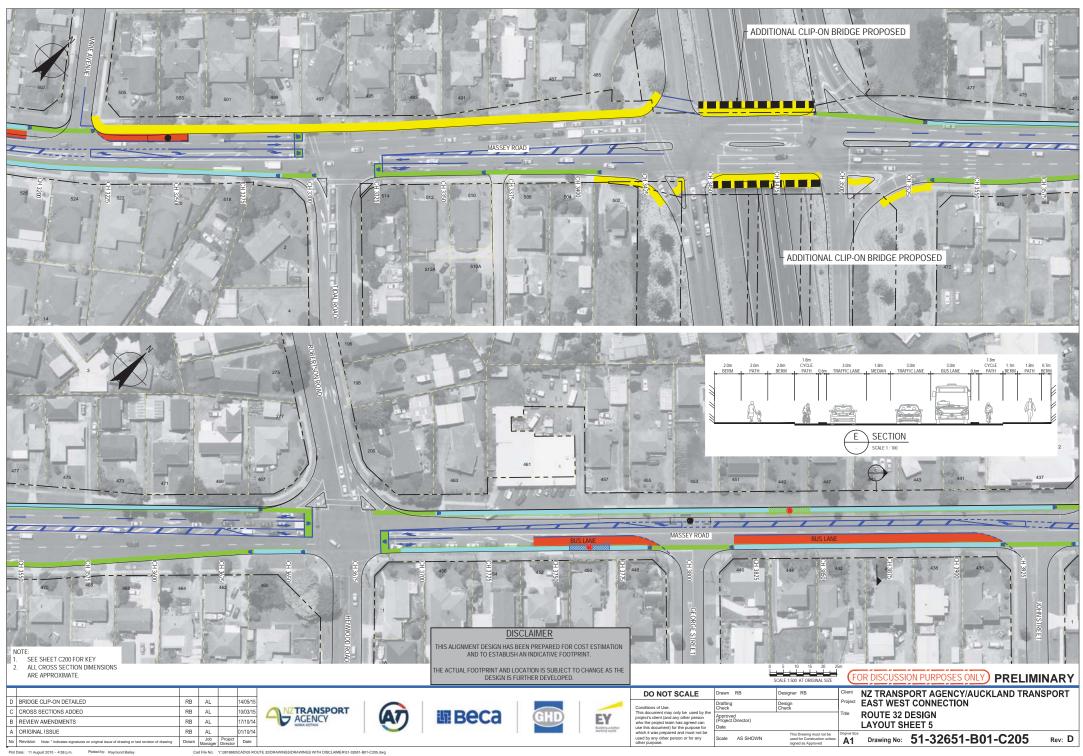


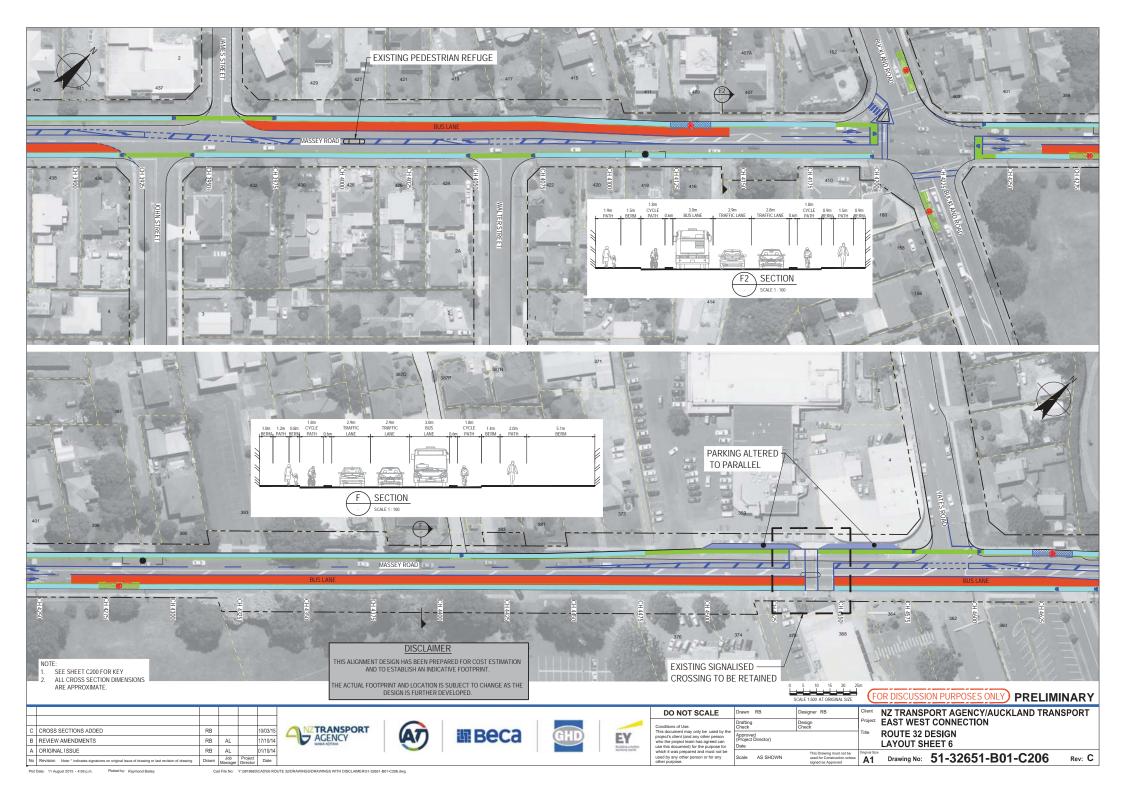


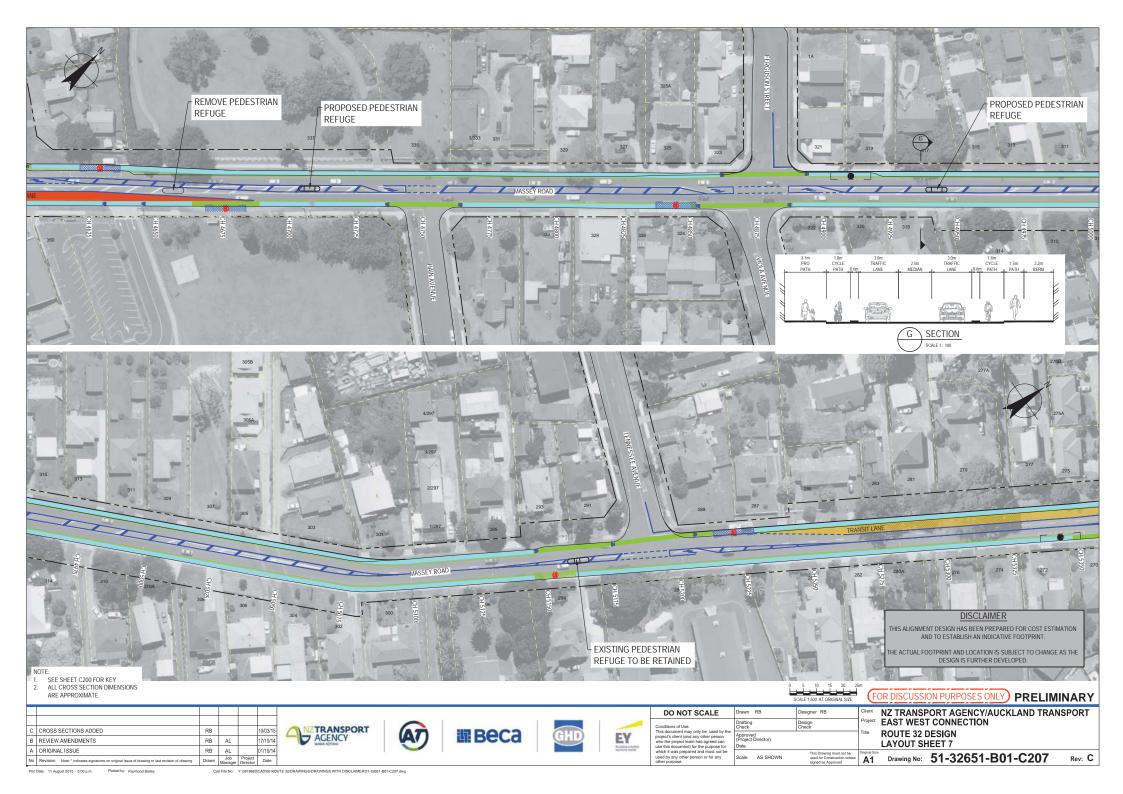


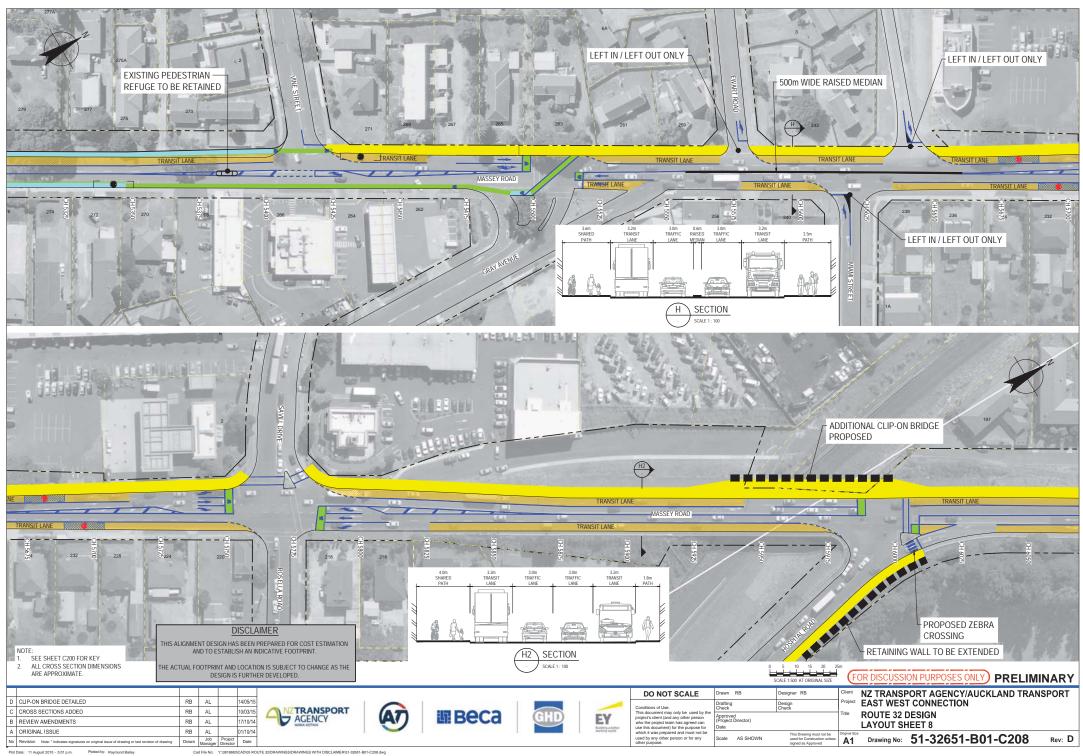


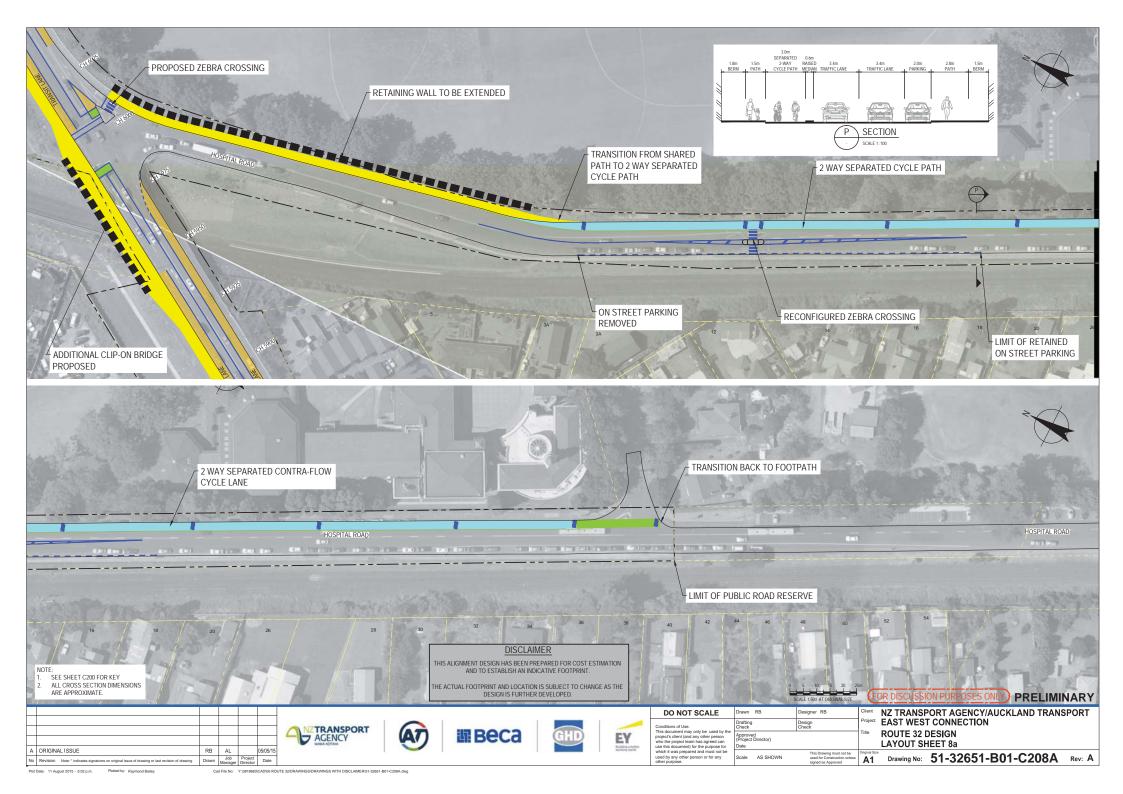


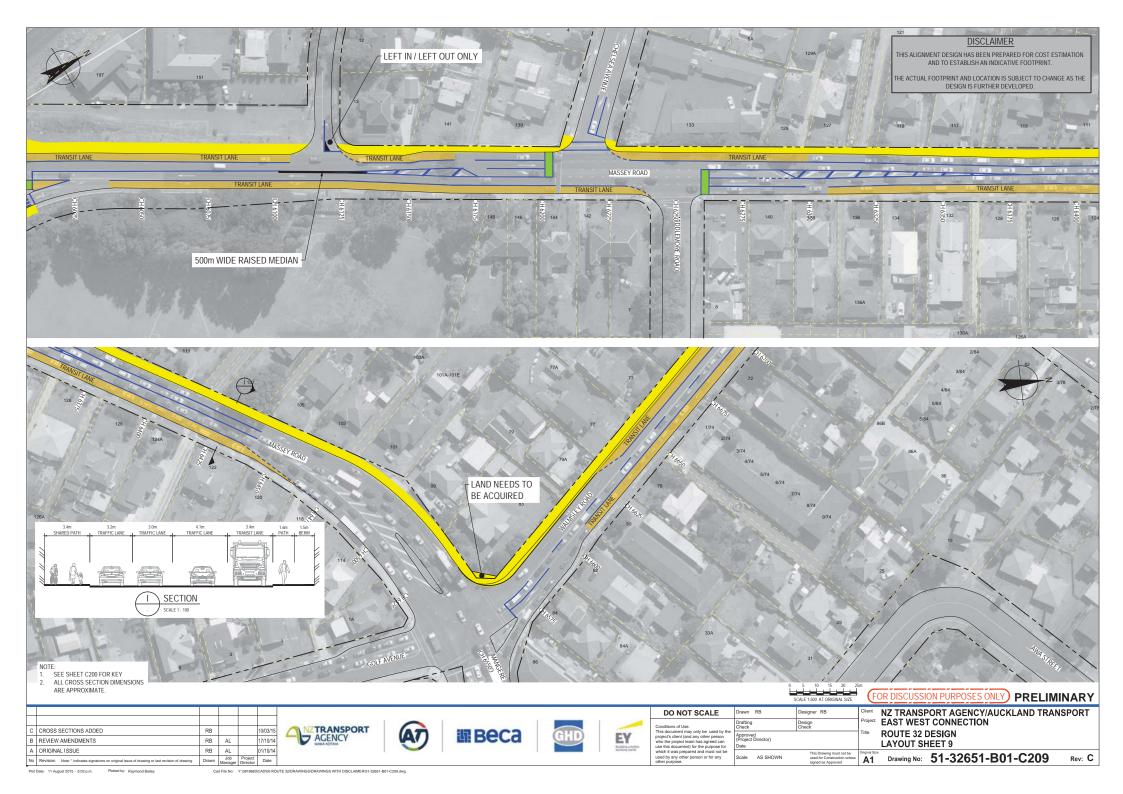


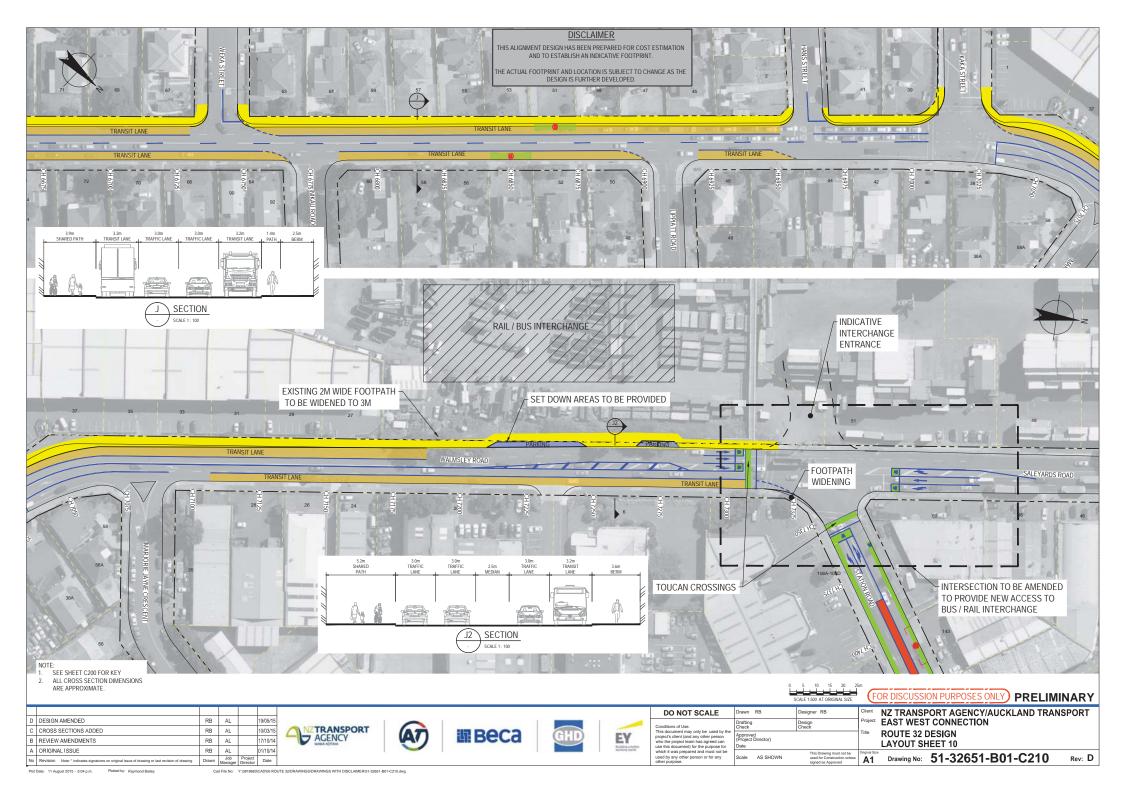


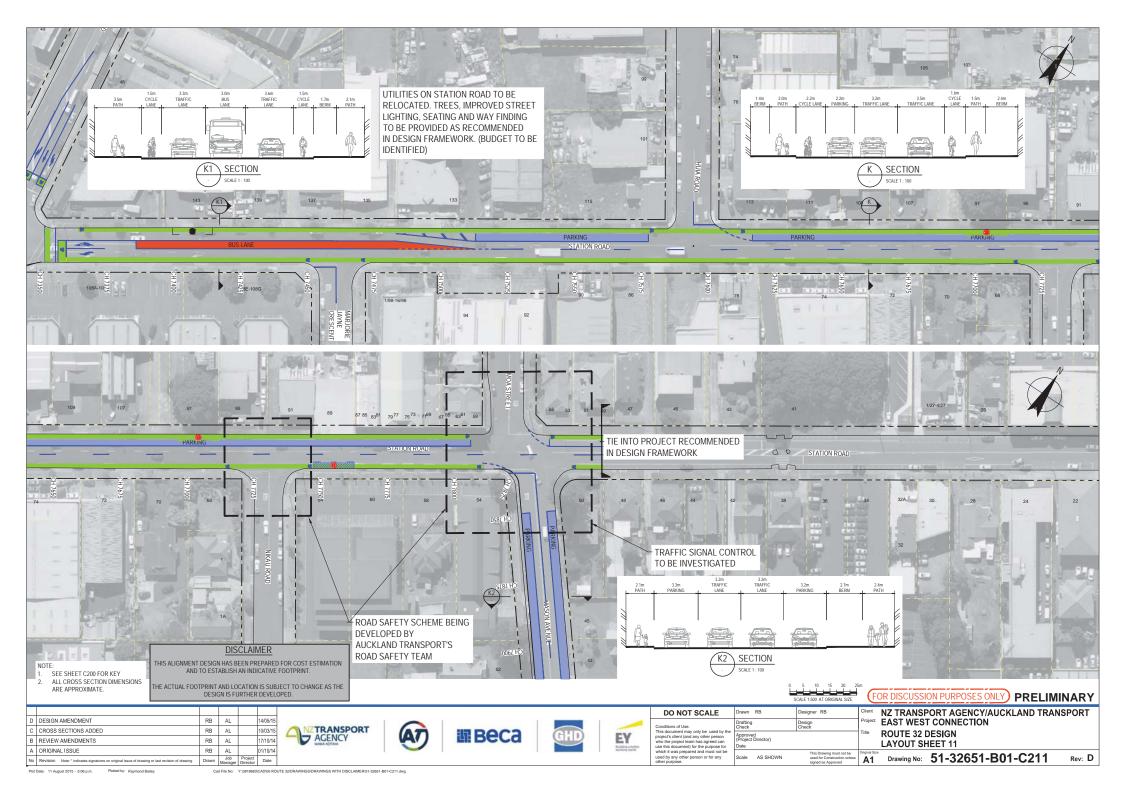


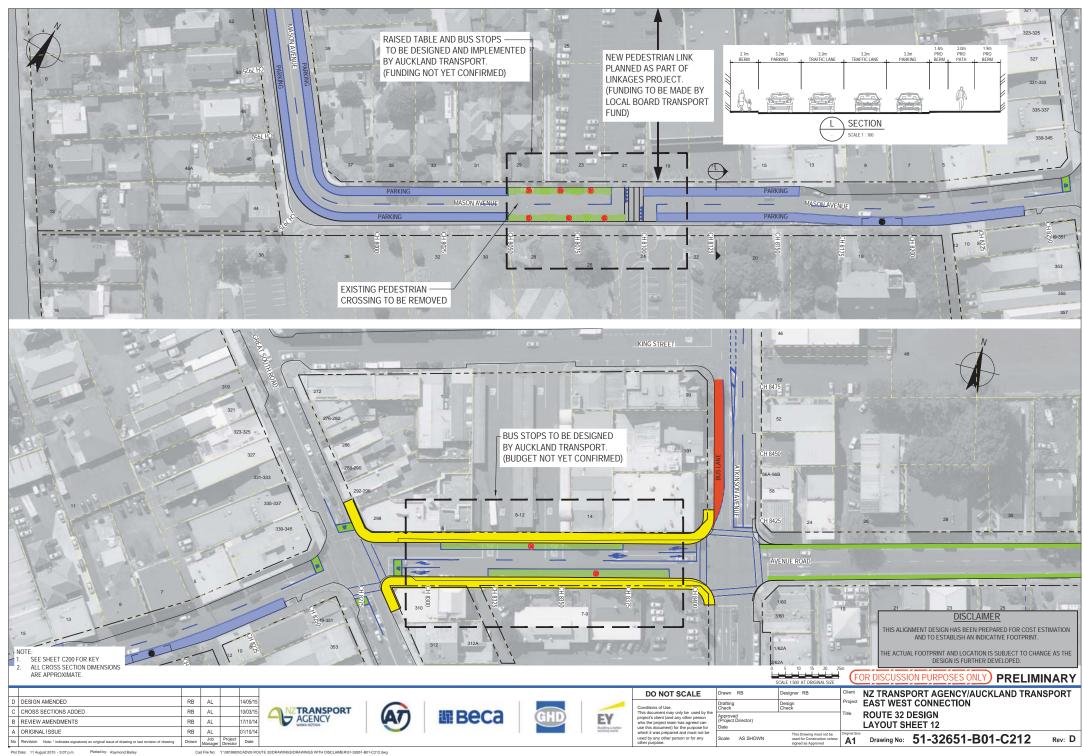


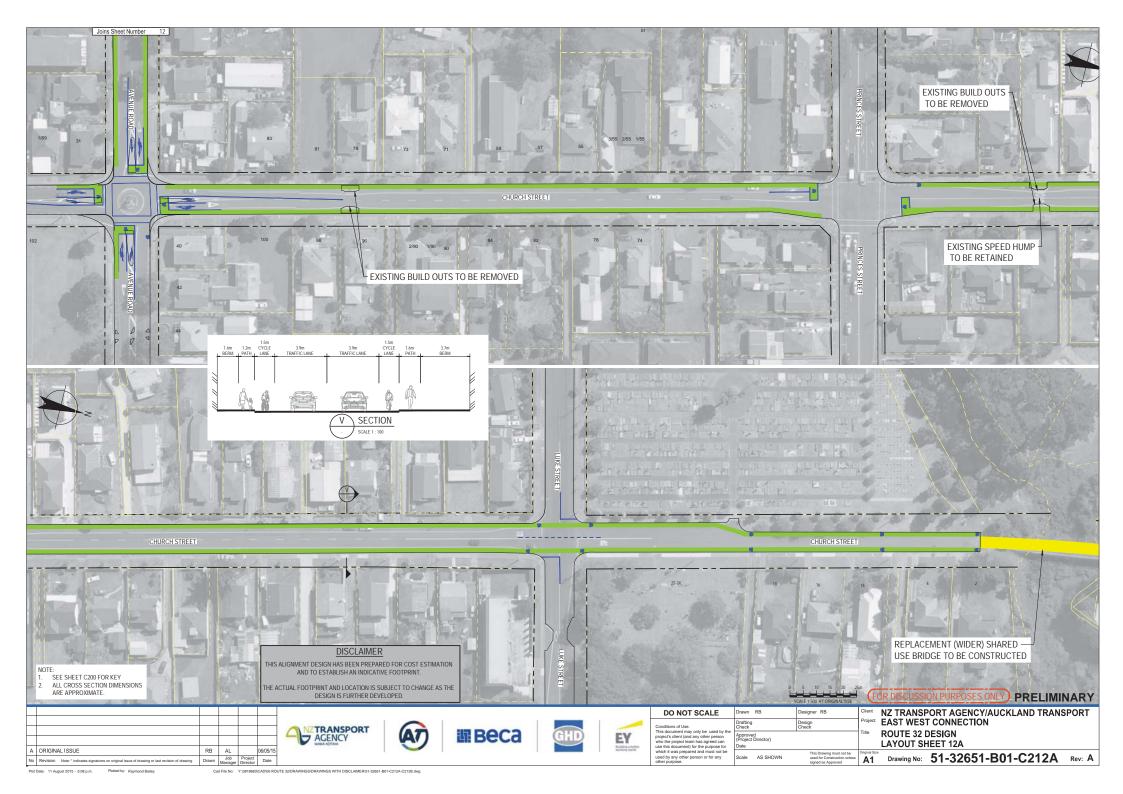


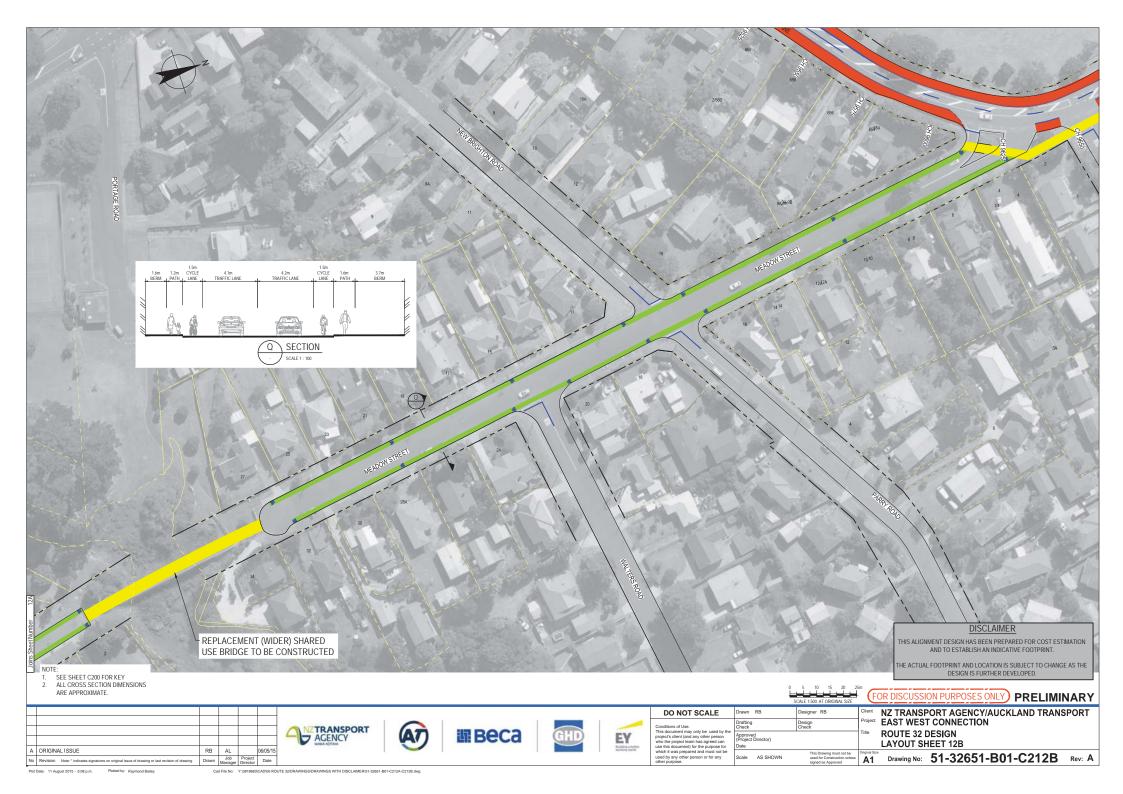


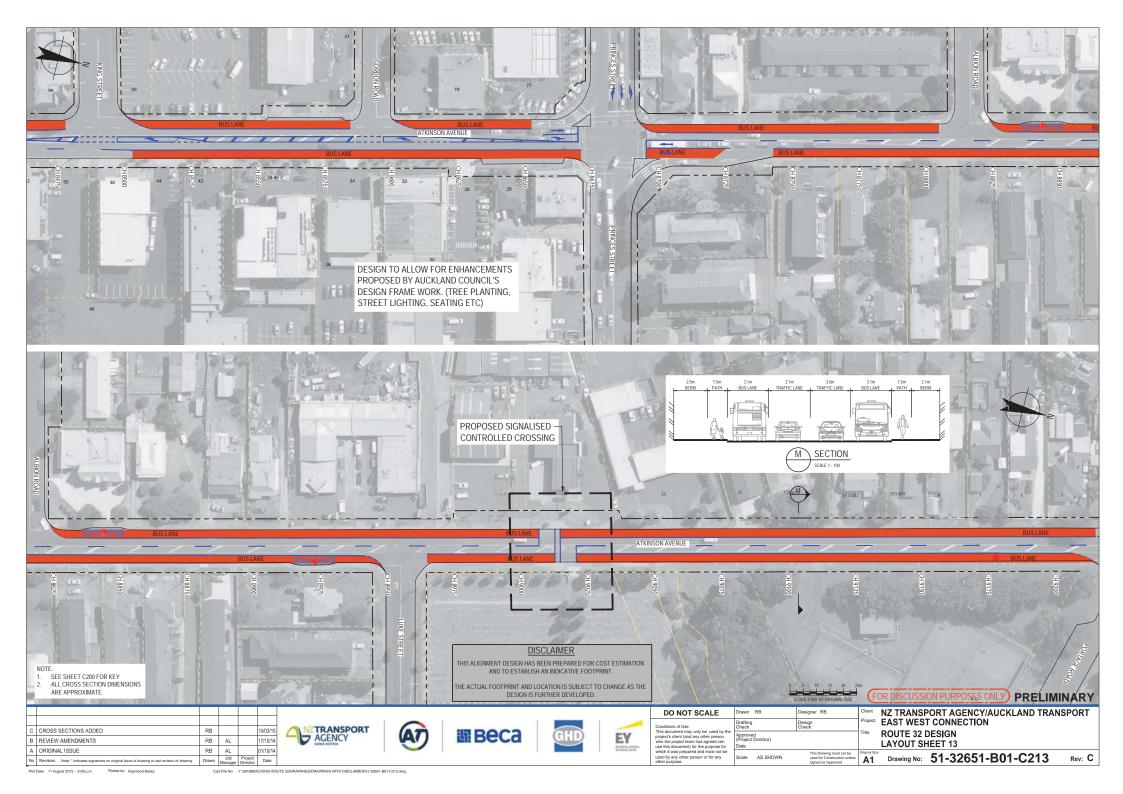


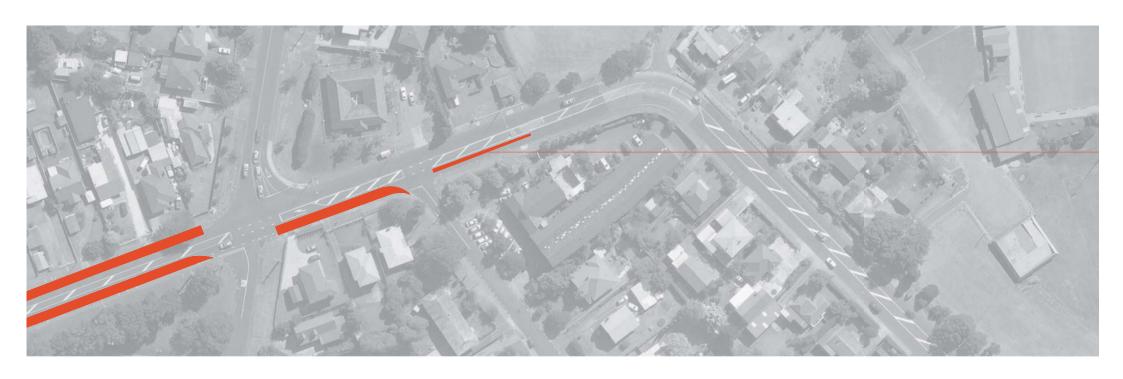


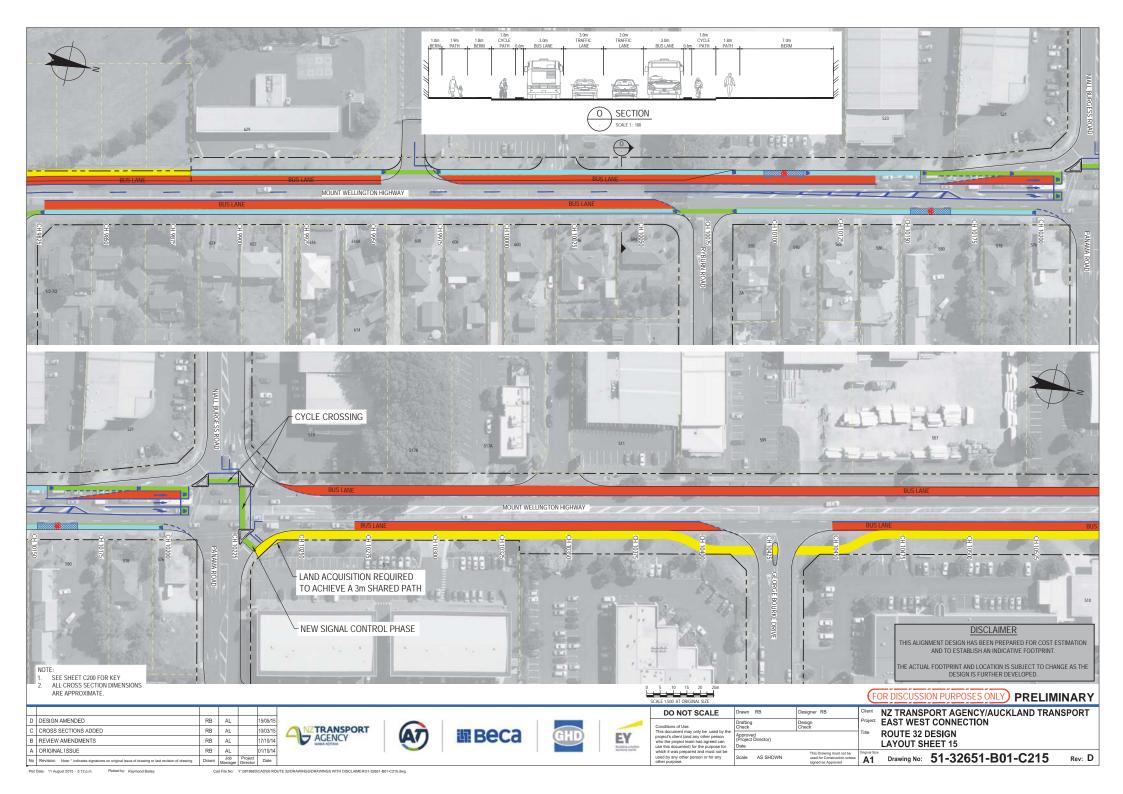


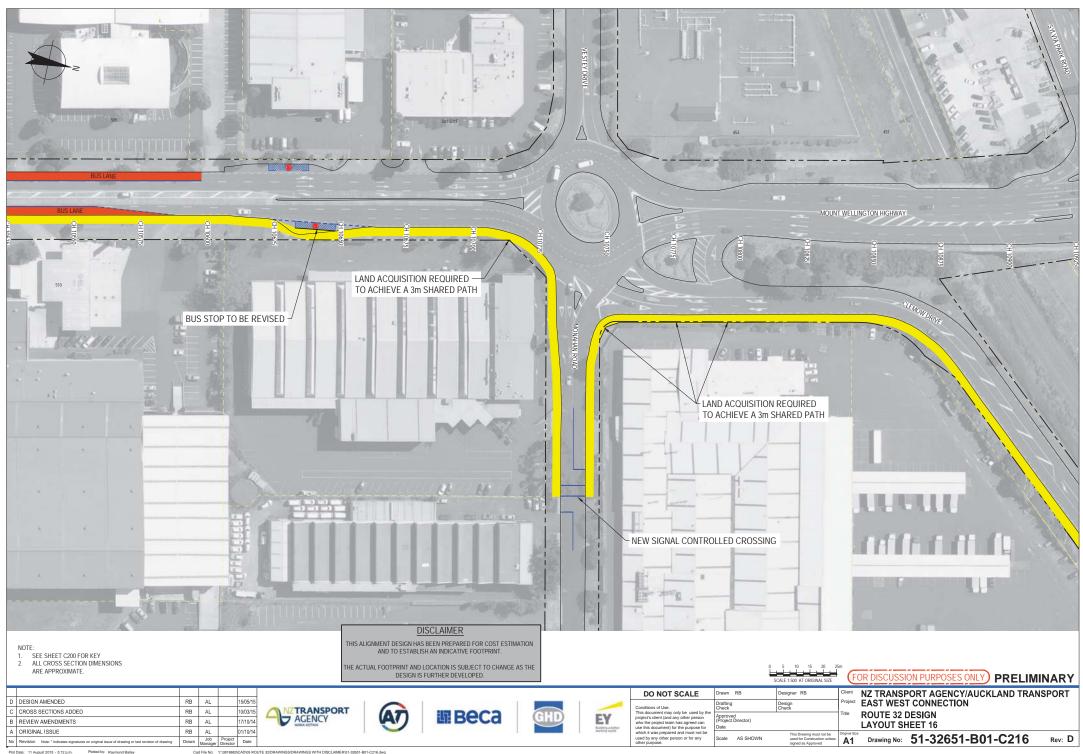


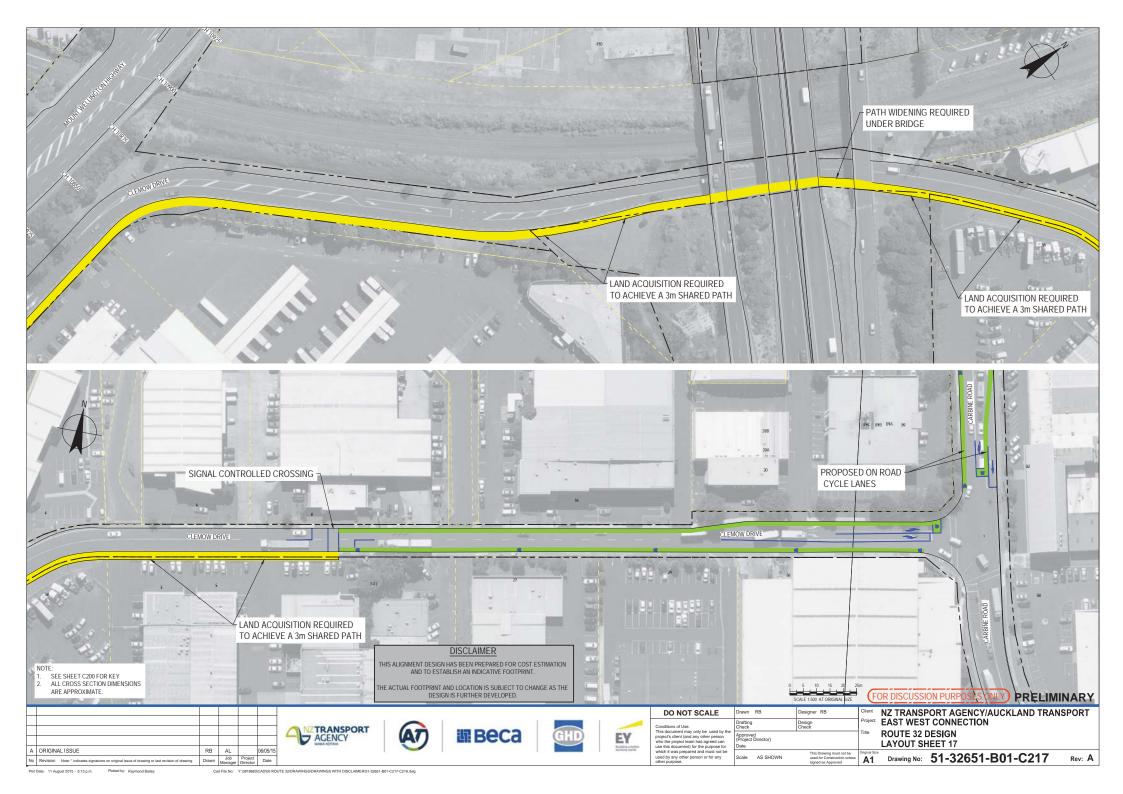


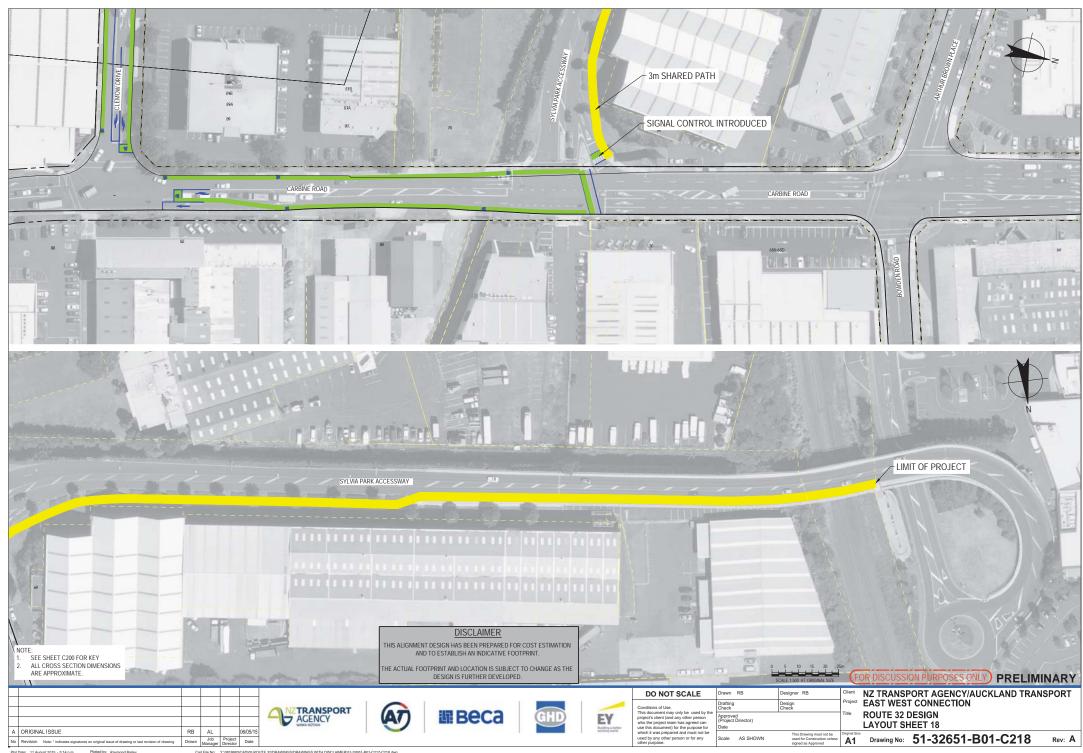


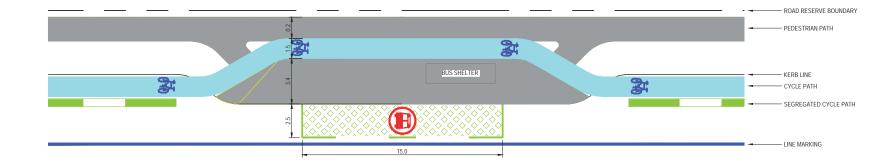




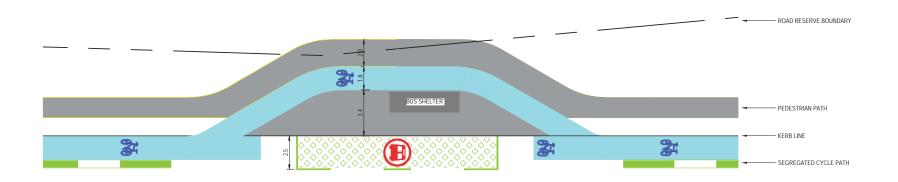








OPTION 1: LAYOUT 9.5-12.5m ROAD CENTRELINE TO BOUNDARY



OPTION 2: LAYOUT GREATER THAN 12.5m ROAD CENTRELINE TO BOUNDARY

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Project EAST WEST CONNECTION
Tide ROUTE 32 DESIGN
BUS STOP OPTIONS
Traving No: 51-32651-B01-C003

Rev: A