



4 October 2017

Commute Transportation
PO Box 128259
Remuera
Auckland1541

Attention: Tony Innes

**NZTA: Wellington Northern Corridor
Peka Peka SSBC – Options Pricing**

BondCM have been requested to prepare comparative costs for options to support the Business Case to expand the connectivity of the Wellington Northern Corridor, between Peka Peka and Te Horo.

We have received preliminary information from Roadlab that outlined a number of options to enable this and have undertaken a desktop costing exercise.

The comparative costs of the options are:

Option	Description	Base Estimate Cost
Peka Peka		
P1 - Southbound On	New ramp to existing Roundabout. Uses existing SH1 Expressway Underpass	\$3,500,000
P2A - Southbound On	New ramp Outside Designation. New Structure over stream.	\$7,300,000
P5 - Northbound Off	New ramp to existing Roundabout	\$3,500,000
P6 - Southbound On	New ramp through new underpass, and on to expressway.	\$8,800,000
P7 - Southbound On	New ramp within designation - variant of P2A	\$7,800,000
Te Horo		
T1 - Southbound Off	New ramp through PP20 Scope area at Te Horo local overbridge	\$5,500,000
T2 - Southbound On	New ramp through PP20 Scope area at Te Horo local overbridge	\$5,900,000
T5 - Northbound Off	New ramp through PP20 Scope area at Te Horo local overbridge	\$7,600,000
T6 - Northbound On	New ramp through PP20 Scope area at Te Horo local overbridge	\$6,300,000
School / Winiata	Works to adjust PP20 Scope to accommodate various "T" ramp options	\$2,200,000

Due to the preliminary nature of the information, the designs used to produce these costs are not fully developed and the comparative costs should only be used for the purposes of selecting preferred alignments for the Business Case.

Bond Construction Management Ltd

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These comparisons do not allow for:

1. Land – Purchase &/or Lease;
2. Consenting Costs;
3. NZTA Managed Costs, including NZTA commissioned design and professional costs;
4. Any contractual or commercial impacts to the cost of the current M2PP or PP2O contracts.

Scope & Quantification:

We have used the preliminary issue SSBC plans and the associated schedule of earthworks and pavement quantities provided by Roadlab as the basis of the comparisons.

Roadlab have provided descriptions of the options in the Initial Option Assessment notes of 25 September.

We have developed a comparative Schedule of Quantities that quantifies the aspects that we believe vary between the options.

BondCM Cost Assumptions:

We have priced items of scope that appear to be affected by the options, using indicative market rates.

We have assumed that each option would be delivered as a stand-alone Design & Construct contract, and have assessed contractor design costs and onsite overheads individually. We have not looked at the cost implications of combining options into project packages at this time.

We note that there could be possible savings to some of the options by including them into other current contracts such as Peka Peka to Otaki. This has not been allowed at this time.

We do not have sufficient information to undertake a construction methodology review. We have assumed that all options are able to be consented and that there are no particularly onerous conditions imposed on construction activities.

Risk:

Our desktop review indicates that there are likely to be different risk profiles for each of the options. Attached is a comparative qualitative risk matrix for the options, graphically comparing potential risks that may ultimately influence the cost of delivering each option.

We have not engaged with the wider team to assess these further and have applied a consistent risk factor, as a percentage of cost, to all options to develop a risk allowance in the option costs.

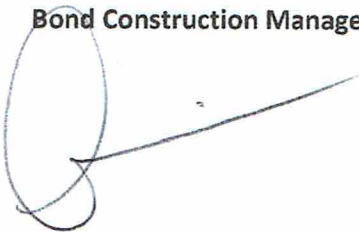
Conclusion:

The table and attached Option Summary indicate the comparative costs of the options.

If you require any additional inputs please contact Murray Mannion 021 971 228.

Yours faithfully

Bond Construction Management Ltd.

A handwritten signature in blue ink, consisting of a large, stylized 'M' followed by a long horizontal stroke.

Murray Mannion

Attached: Figure 1: Peka Peka Qualitative Risk Matrix

Figure 2: Peka Peka SSBC Option Summary

Option / Alignment	Description	Major Risks (Threat / Opportunity)								
		Land Procurement	Affects to Wetland	Affects to the Expressway	Affects to Local Roads	Ground Improvements	Affects to Utilities	Impacts on Rail Land	Affects to Neighbours	Construct New Structures
<i>Explanation: A qualitative desktop review of possible risks associated with each option. More ☑ indicate greater possible risk impact to the option.</i>										
Peka Peka										
P1 - Southbound On	New Ramp to existing Roundabout. Uses existing SH1 Expressway Underpass		☑	☑	☑	☑	☑			
P2A - Southbound On	New Ramp. Outside Designation. New Structure over stream.	☑☑	☑☑☑	☑☑	☑☑	☑☑	☑☑		☑	☑
P5 - Northbound Off	New Ramp to existing Roundabout		☑	☑☑		☑	☑			
P6 - Southbound On	New ramp through new underpass, and on to expressway.		☑☑	☑☑☑	☑☑☑	☑	☑			☑☑☑
P7 - Southbound On	New Ramp within designation - variant of P2A		☑☑☑	☑☑☑	☑☑	☑☑	☑☑		☑	☑
Te Horo										
T1 - Southbound Off	New ramp through PP20 Scope area at Te Horo local overbridge			☑☑					☑	
T2 - Southbound On	New ramp through PP20 Scope area at Te Horo local overbridge			☑☑					☑	
T5 - Northbound Off	New ramp through PP20 Scope area at Te Horo local overbridge	☑☑		☑				☑	☑	
T6 - Northbound On	New ramp through PP20 Scope area at Te Horo local overbridge	☑☑		☑	☑☑	☑		☑	☑	
School / Winiata	Works to adjust PP20 Scope to accommodate various 'T' ramp options			☑	☑☑☑					☑

Figure 1: Peka Peka SSBC Qualitative Risk Matrix



All Values include for Construction Design and Onsite overheads. Values are comparative Construction cost for option comparison only. Values include Contractor Margin for consistency
 All Values are rounded, and are Base estimate only. These P50 expected cost and/or P95 funding risk range for these for each option is expected to be similar.
 All Values exclude NZTA Costs, Land related Costs and project development prior to a Design & Construct type delivery procurement.

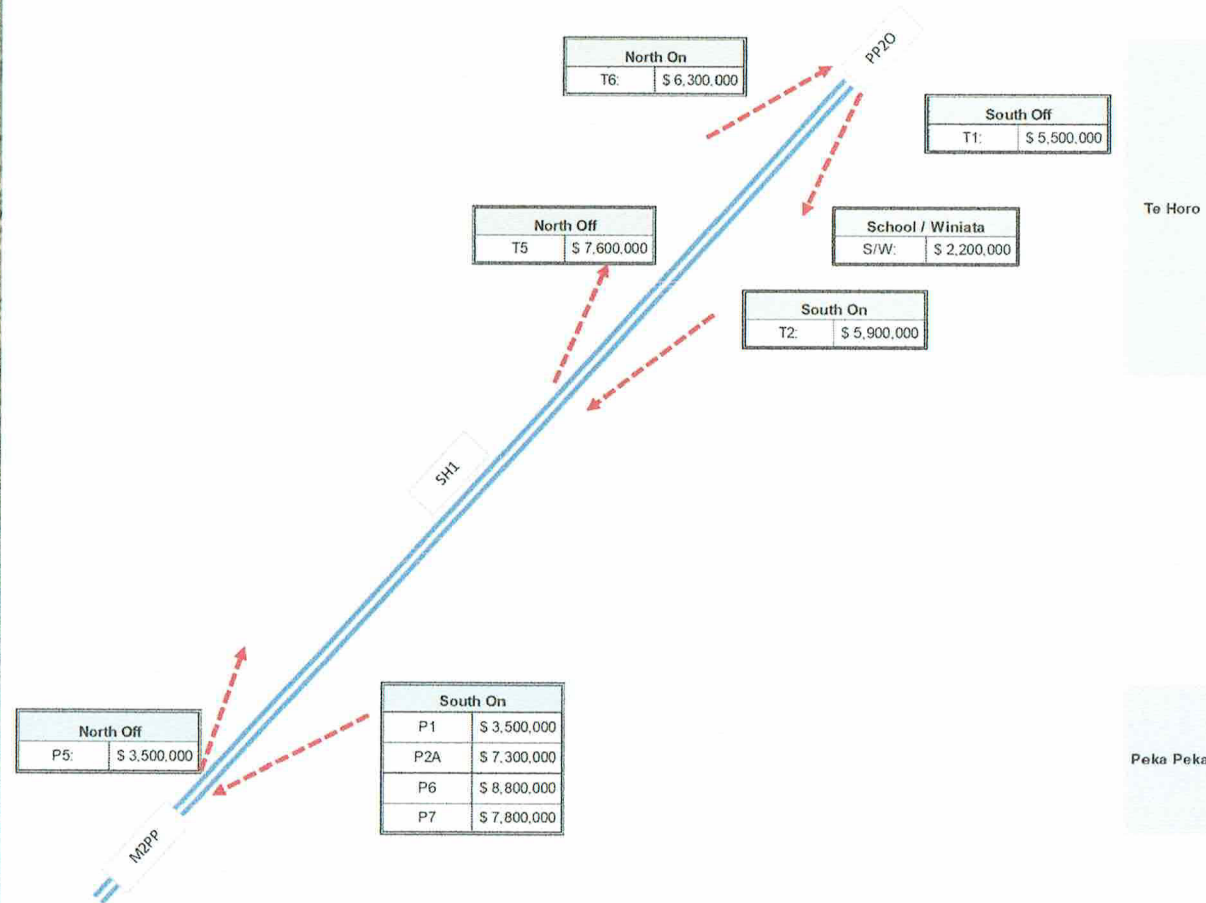


Figure 2: Peka Peka SSBC Option Summary (October 2017)



15 November 2017

Commute Transportation
PO Box 128259
Remuera
Auckland 1541

Attention: Tony Innes

**NZTA: Wellington Northern Corridor
Peka Peka SSBC – Options Shortlisting**

Further to our Options Pricing commentary of 4 October, BondCM have been requested to prepare comparative costs for two Options shortlisted to support the Business Case to expand the connectivity of the Wellington Northern Corridor at Peka Peka.

We understand that these Options are combinations of 3 previous ramp alignments considered in October:

Option 1:

Ramp	Description
P5 - Northbound Off	New ramp approximately 300m long, from Kapiti Expressway to existing Roundabout at Peka Peka Road.
P7 - Southbound On	New ramp approximately 600m long, from Hadfield Link Road / Old SH1 road bridge approach road, through to Kapiti Expressway. This includes a new bridge over the Paetawa Stream, and an elevated embankment through/above wetland constructed during the McKays to Peka Peka (M2PP) project

This is as indicated on Drawing PP-DRG-GA-00-005, Revision B

With 2 possible sub-Options for Option 1. These are:

Option 1 Sub-Option	Description
SO#1 – Noise Mitigation	Revise the roadside barriers from steel to concrete with an increased height, to mitigate expressway noise.
SO#2 – Wetland Impact Mitigation	Extend the P7 Paetawa Stream bridge to be a 220m long, single lane concrete bridge over the wetland. This replaces embankment and associated pavement over the same area.

SO#2 is as indicated on Drawing PP-DRG-GA-00-005, Revision B with mark-up

And

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Option 2:

Ramp	Description
P5 - Northbound Off	New ramp approximately 300m long, from Kapiti Expressway to existing Roundabout at Peka Peka Road.
P1 - Southbound On	New ramp approximately 400m long, from Hadfield Link Road to join the Kapiti Expressway north of the Hadfield Link Road.

This is as indicated on Drawing PP-DRG-GA-00-002, Revision C

The valuation of these Options has been undertaken as an extension of the previous desktop costing exercise.

The comparative estimates for these Options are:

Option	Base Estimate	Expected Estimate (P50)	95 th Percentile Estimate
Option 1: P5 + P7	\$13.57M	\$16.96M	\$19.51M
Option 1 with SO#1	\$13.68M	\$17.10M	\$19.67M
Option 1 with SO#2	\$18.44M	\$23.06M	\$26.51M
Option 1 with SO#1 and SO#2	\$18.56M	\$23.207M	\$26.67M
Option 2: P5 + P1	\$4.74M	\$5.92M	\$6.81M

A SM014 type Summary Schedule is attached for both main Options, and the three Option 1 Sub-Options.

These estimates do not allow for:

1. Land – Purchase &/or Lease; We note that Option 1 is showing as extending outside current designation in either one or two places. The second location, at Paetawa Stream, may not require designation change if the ground improvements for M2PP were sufficiently wide enough to support the new embankment and bridge at the adjacent designation corner;
2. Consenting Costs;
3. NZTA Managed Costs, including NZTA commissioned design and professional services costs;
4. Any costs associated with the development of wetland offset mitigation for ramp P7, either adjacent to the ramp or at a separate site;
5. Any contractual or commercial impacts to the current Peka Peka to Otaki contract if it is decided to include this work as a variation.

Scope & Quantification:

Roadlab provided descriptions of the Options in the Initial Option Assessment notes of 25 September.

We have used the SSBC drawings attached, and an associated schedule of earthworks and pavement quantities provided by Roadlab, as the basis of the comparisons.

We have assessed the high-level scope for each Option based on experience from other similar projects to develop a complete cost outcome for each Option.

We have developed a Schedule of Quantities for each Option that covers the aspects that vary between the Options.

We have assumed that none of the ramps structurally impacts the Peka Peka Road bridge over the expressway.

BondCM Cost Assumptions:

We have priced items of scope using indicative market rates. These are assumed at November 2017, and do not include for escalation or GST.

We have assumed that each Option would be delivered as a stand-alone Design & Construct contract, and have assessed contractor design costs and onsite overheads accordingly.

Construction Methodology / Safety in Design and Safety in Construction:

We do not have sufficient information to undertake a comprehensive construction methodology review. We have assumed that all Options are able to be consented and that there are no particularly onerous conditions imposed on construction activities.

Ramps P1, P5 and P7 all have sections that are parallel to, and would become a widening of, the new Kapiti Expressway. It is assumed that any ground improvements required for those sections will have been undertaken as part of the M2PP project. It is assumed that extensive ground improvements would be required under the embankment for P7.

We have not developed a construction programme for either of the Options. Design solution selection and construction methodology is likely to result in differing time impacts to the completion of the works for each Option.

A temporary traffic management strategy should be developed for the construction of each ramp, particularly P7. The proximity of the designation boundary associated with that, from Paetawa Stream westwards, is likely to push earthworks and bridge construction activities into the southbound lanes of the Kapiti Expressway for an extended period. Temporary construction occupation of land outside the designation could have benefits to both safety and production if ramp P7 were to be considered further.

We see no evidence of major overhead or underground utilities in this area, so assume that neither Option is impacted more than the other for this.

Risk:

Our desktop review indicates that there are likely to be different geotechnical risk profiles for constructing each of the Options, and we have allowed for this in the Base Estimates.

Reports from those involved with the M2PP project indicated that there are deep deposits of peat in this general area, particularly to the west of Hadfield Link Road. It is also likely that the southern wetland area was the location where unsuitable materials were deposited. This is a potential threat for Option 1.

Contingency risk is assessed as +25% (Base Estimate to P₅₀) and +15% (P₅₀ to P₉₅) in the Option estimates.

Conclusion:

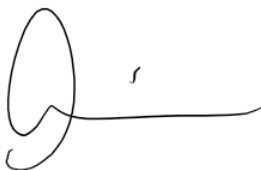
The attached DBE Estimate Summary sheets show the comparative estimates for the Options.

The design assumptions used to produce these costs are very preliminary and the comparative estimates should only be used for the purposes of selecting preferred alignments for further development.

If you require any additional inputs, please contact Murray Mannion 021 971 228.

Yours faithfully

Bond Construction Management Ltd.



Murray Mannion

Attached:

*Drawing PP-DRG-GA-00-005, Revision B,
Drawing PP-DRG-GA-00-005, Revision B with SO#2, &
Drawing PP-DRG-GA-00-002, Revision C.*

*DBE Estimate Summary - Peka Peka SSBC – Option 1,
DBE Estimate Summary - Peka Peka SSBC – Option 1 plus SO#1,
DBE Estimate Summary - Peka Peka SSBC – Option 1 plus SO#2,
DBE Estimate Summary - Peka Peka SSBC – Option 1 plus SO#1 & SO#2, &
DBE Estimate Summary – Peka Peka SSBC – Option 2.*

Project Estimate - Form B

Project Name: Peka Peka SSBC - Option 1:
P5 Northbound Off-ramp and P7 Southbound On-ramp

DBE

Detailed Business Case Estimate

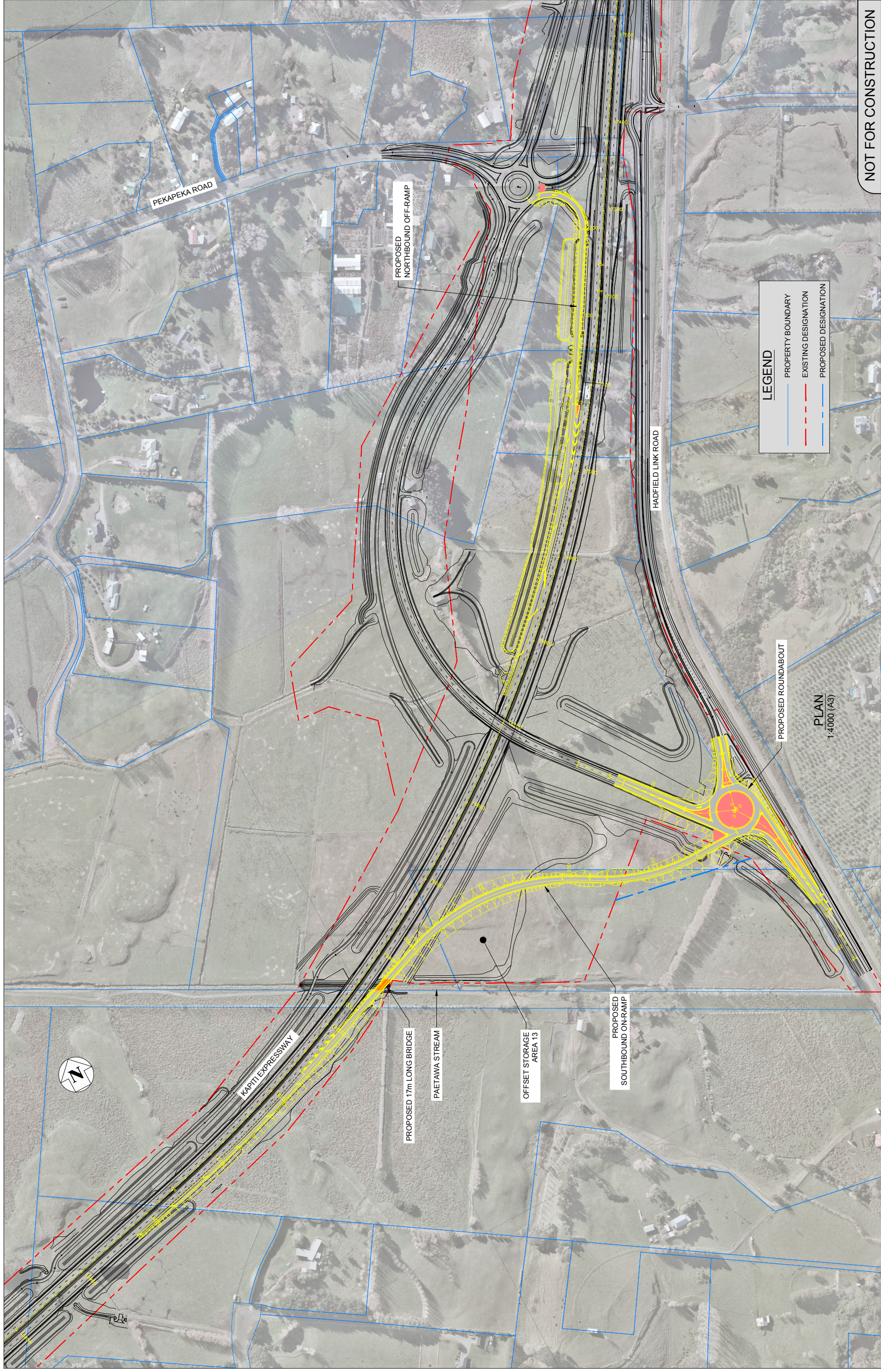
Item	Description:	Base Estimate	Contingency	Funding Risk Contingency
A	Nett Project Property Cost	Excluded		
B	Project Development Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
B	Total Project Development			
C	Pre-Implementation Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
C	Total Pre-implementation			
D	Implementation Phase			
	Implementation Fees			
	- Consultancy Fees	1,222,000		
	- NZTA Managed Costs	Excluded		
	- Consent Monitoring Fees	Excluded		
	Sub Total Base Implementation Fees			
	Physical Works			
	1 Environmental Compliance	406,000		
	2 Earthworks	2,400,000		
	3 Ground Improvements	1,387,000		
	4 Drainage	457,000		
	5 Pavement and Surfacing	1,885,000		
	6 Bridges	998,000		
	7 Retaining Walls	0		
	8 Traffic Services	1,287,000		
	9 Service Relocations	67,000		
	10 Landscaping	329,000		
11 Traffic Management and Temporary Works	1,247,000			
12 Preliminary and General	1,885,000			
13 Extraordinary Construction Costs				
Sub Total Base Physical Works	13,570,000			
D	Total for Implementation Phase			
E	Project Base Estimate (A+B+C+D)	13,570,000		
			25%	
F	Contingency (Assessed/Analysed)	(A+B+C+D)	3,393,000	
G	Project Expected Estimate	(E+F)	16,963,000	
	Nett Project Property Cost Expected Estimate			
	Project Development Phase Expected Estimate			
	Pre-implementation phase Expected Estimate			
	Implementation Phase Expected Estimate			15%
H	Funding Risk Contingency (Assessed/Analysed)	(A+B+C+D)		2,544,000
I	95th percentile Project Estimate	(G+H)		19,507,000
	Nett Project Property Cost 95th percentile Estimate			
	Project Development Phase 95th percentile Estimate			
	Pre-implementation Phase 95th percentile Estimate			
	Implementation Phase 95th percentile Estimate			
Date of Estimate		Q4 2017		
Estimate prepared by		Signed		
Estimate internal peer review by		Signed		
Estimate external peer review by		Signed		
Estimate accepted by NZTA		Signed		

Note: (1) These estimates are exclusive of escalation and GST.

Options Estimate

Option 1 P5P7

Printed Date: 11/15/2017



NOT FOR CONSTRUCTION

NUMBER PP-DRG-GA-00-005
 STATUS PRELIMINARY
 SCALE AS SHOWN
 REVISION **B**

REV	DESCRIPTION	DRAWN	DESIGNED	CHECKED	APPROVED	DATE	PROJECT
B	OPTION SHORTLISTING REFINEMENTS	N.TUNNICLIFFE	N.TUNNICLIFFE				PEKA PEKA CONNECTIVITY SSBC
A	PRELIMINARY ISSUE	N.TUNNICLIFFE	N.TUNNICLIFFE				PEKA PEKA OPTION 1 SOUTHBOUND ON-RAMP AND NORTHBOUND OFF-RAMP



P:\17XXX\17016 Peke Peke SSBC\7 CAD\01_Drawings\GA-00-005.dwg Printed by: Noel 2-Nov-17

Project Estimate - Form B

Project Name: Peka Peka SSBC - Option 2:
P1 Northbound Off-ramp and P7 Southbound On-ramp

DBE

Detailed Business Case Estimate

Item	Description:	Base Estimate	Contingency	Funding Risk Contingency
A	Nett Project Property Cost	Excluded		
B	Project Development Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
B	Total Project Development			
C	Pre-Implementation Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
C	Total Pre-implementation			
D	Implementation Phase			
	Implementation Fees			
	- Consultancy Fees	471,000		
	- NZTA Managed Costs	Excluded		
	- Consent Monitoring Fees	Excluded		
	Sub Total Base Implementation Fees			
	Physical Works			
	1 Environmental Compliance	117,000		
	2 Earthworks	846,000		
	3 Ground Improvements	0		
	4 Drainage	255,000		
	5 Pavement and Surfacing	955,000		
	6 Bridges	0		
	7 Retaining Walls	0		
8 Traffic Services	671,000			
9 Service Relocations	33,000			
10 Landscaping	111,000			
11 Traffic Management and Temporary Works	626,000			
12 Preliminary and General	651,000			
13 Extraordinary Construction Costs				
Sub Total Base Physical Works	4,736,000			
D	Total for Implementation Phase			
E	Project Base Estimate (A+B+C+D)	4,736,000		
			25%	
F	Contingency (Assessed/Analysed)	(A+B+C+D)	1,184,000	
G	Project Expected Estimate	(E+F)	5,920,000	
	Nett Project Property Cost Expected Estimate			
	Project Development Phase Expected Estimate			
	Pre-implementation phase Expected Estimate			
	Implementation Phase Expected Estimate			15%
H	Funding Risk Contingency (Assessed/Analysed)		(A+B+C+D)	888,000
I	95th percentile Project Estimate		(G+H)	6,808,000
	Nett Project Property Cost 95th percentile Estimate			
	Project Development Phase 95th percentile Estimate			
	Pre-implementation Phase 95th percentile Estimate			
	Implementation Phase 95th percentile Estimate			

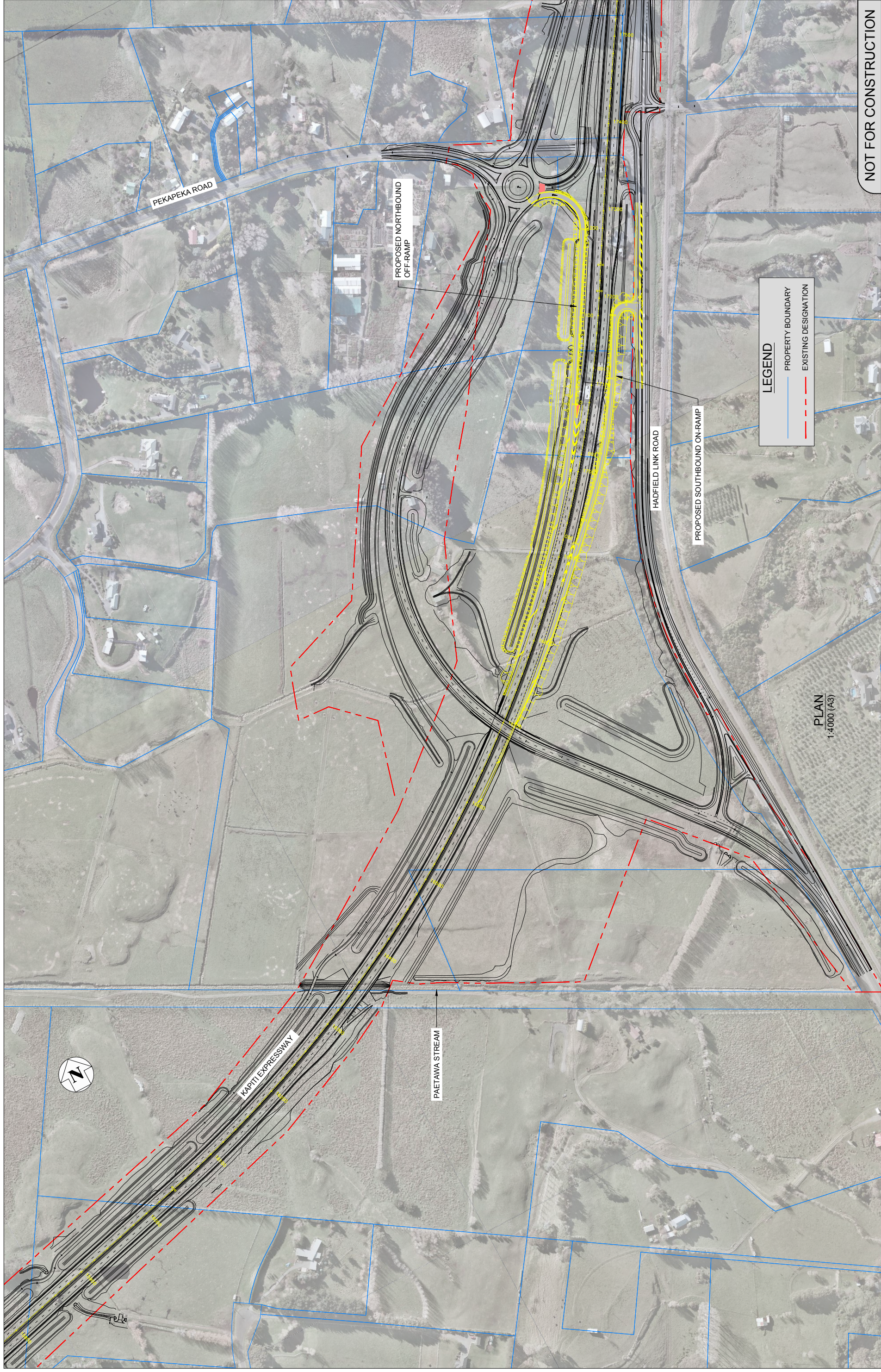
Date of Estimate	Q4 2017
Estimate prepared by	Signed
Estimate internal peer review by	Signed
Estimate external peer review by	Signed
Estimate accepted by NZTA	Signed

Note: (1) These estimates are exclusive of escalation and GST.

Options Estimate

Option 2 P1P7

Printed Date: 11/15/2017



PLAN
1:4000 (A3)

LEGEND

- PROPERTY BOUNDARY
- EXISTING DESIGNATION

NOT FOR CONSTRUCTION

NUMBER	PP-DRG-GA-00-002
STATUS	PRELIMINARY
SCALE	AS SHOWN
REVISION	C

REV	DESCRIPTION	DRAWN	DESIGNED	CHECKED	APPROVED	DATE	PROJECT
							PEKA PEKA CONNECTIVITY SSBC
C	OPTION SHORTLISTING REFINEMENTS	N.TUNNICLIFFE	N.TUNNICLIFFE				TITLE PEKA PEKA OPTION 2 SOUTHBOUND ON-RAMP AND NORTHBOUND OFF-RAMP
B	REVISED FOR PRELIMINARY ISSUE	N.TUNNICLIFFE	N.TUNNICLIFFE				
A	PRELIMINARY ISSUE	N.TUNNICLIFFE	N.TUNNICLIFFE				

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Project Estimate - Form B

Project Name: Peka Peka SSBC - Option 1:
P5 Northbound Off-ramp and P7 Southbound On-ramp with
SO#1 Noise Mitigation

DBE

Detailed Business Case Estimate

Item	Description:	Base Estimate	Contingency	Funding Risk Contingency
A	Nett Project Property Cost	Excluded		
B	Project Development Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
B	Total Project Development			
C	Pre-Implementation Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
C	Total Pre-implementation			
D	Implementation Phase			
	Implementation Fees			
	- Consultancy Fees	1,222,000		
	- NZTA Managed Costs	Excluded		
	- Consent Monitoring Fees	Excluded		
	Sub Total Base Implementation Fees			
	Physical Works	0		
	1 Environmental Compliance	406,000		
	2 Earthworks	2,400,000		
	3 Ground Improvements	1,387,000		
	4 Drainage	457,000		
	5 Pavement and Surfacing	1,885,000		
	6 Bridges	998,000		
	7 Retaining Walls	0		
8 Traffic Services	1,399,230			
9 Service Relocations	67,000			
10 Landscaping	329,000			
11 Traffic Management and Temporary Works	1,247,000			
12 Preliminary and General	1,885,000			
13 Extraordinary Construction Costs	0			
Sub Total Base Physical Works	13,682,230			
D	Total for Implementation Phase			
E	Project Base Estimate (A+B+C+D)	13,682,230		
			25%	
F	Contingency (Assessed/Analysed)	(A+B+C+D)	3,421,000	
G	Project Expected Estimate	(E+F)	17,103,000	
	Nett Project Property Cost Expected Estimate			
	Project Development Phase Expected Estimate			
	Pre-implementation phase Expected Estimate			
	Implementation Phase Expected Estimate			15%
H	Funding Risk Contingency (Assessed/Analysed)	(A+B+C+D)	2,565,000	
I	95th percentile Project Estimate	(G+H)	19,668,000	
	Nett Project Property Cost 95th percentile Estimate			
	Project Development Phase 95th percentile Estimate			
	Pre-implementation Phase 95th percentile Estimate			
	Implementation Phase 95th percentile Estimate			
Date of Estimate		Q4 2017		
Estimate prepared by		Signed		
Estimate internal peer review by		Signed		
Estimate external peer review by		Signed		
Estimate accepted by NZTA		Signed		

Note: (1) These estimates are exclusive of escalation and GST.

Options Estimate

Option 1 SO#1

Printed Date: 11/15/2017

Project Estimate - Form B

Project Name: Peka Peka SSBC - Option 1:
P5 Northbound Off-ramp and P7 Southbound On-ramp with
SO#2 Extended Bridge

DBE

Detailed Business Case Estimate

Item	Description:	Base Estimate	Contingency	Funding Risk Contingency
A	Nett Project Property Cost	Excluded		
B	Project Development Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
B	Total Project Development			
C	Pre-Implementation Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
C	Total Pre-implementation			
D	Implementation Phase			
	Implementation Fees			
	- Consultancy Fees	1,222,000		
	- NZTA Managed Costs	Excluded		
	- Consent Monitoring Fees	Excluded		
	Sub Total Base Implementation Fees			
	Physical Works	0		
	1 Environmental Compliance	307,750		
	2 Earthworks	1,010,090		
	3 Ground Improvements	1,387,000		
	4 Drainage	457,000		
	5 Pavement and Surfacing	1,702,517		
	6 Bridges	6,527,335		
	7 Retaining Walls	0		
8 Traffic Services	1,224,120			
9 Service Relocations	67,000			
10 Landscaping	329,000			
11 Traffic Management and Temporary Works	2,325,130			
12 Preliminary and General	1,885,000			
13 Extraordinary Construction Costs	0			
Sub Total Base Physical Works	18,443,942			
D	Total for Implementation Phase			
E	Project Base Estimate (A+B+C+D)	18,443,942		
F	Contingency (Assessed/Analysed)	(A+B+C+D)	25%	4,611,000
G	Project Expected Estimate	(E+F)		23,055,000
	Nett Project Property Cost Expected Estimate			
	Project Development Phase Expected Estimate			
	Pre-implementation phase Expected Estimate			
	Implementation Phase Expected Estimate			15%
H	Funding Risk Contingency (Assessed/Analysed)	(A+B+C+D)		3,458,000
I	95th percentile Project Estimate	(G+H)		26,513,000
	Nett Project Property Cost 95th percentile Estimate			
	Project Development Phase 95th percentile Estimate			
	Pre-implementation Phase 95th percentile Estimate			
	Implementation Phase 95th percentile Estimate			
Date of Estimate		Q4 2017		
Estimate prepared by		Signed		
Estimate internal peer review by		Signed		
Estimate external peer review by		Signed		
Estimate accepted by NZTA		Signed		

Note: (1) These estimates are exclusive of escalation and GST.

Options Estimate

Option 1 SO#2

Printed Date: 11/15/2017

Project Estimate - Form B

Project Name: Peka Peka SSBC - Option 1:
P5 Northbound Off-ramp and P7 Southbound On-ramp with
SO#1 and SO#2

DBE

Detailed Business Case Estimate

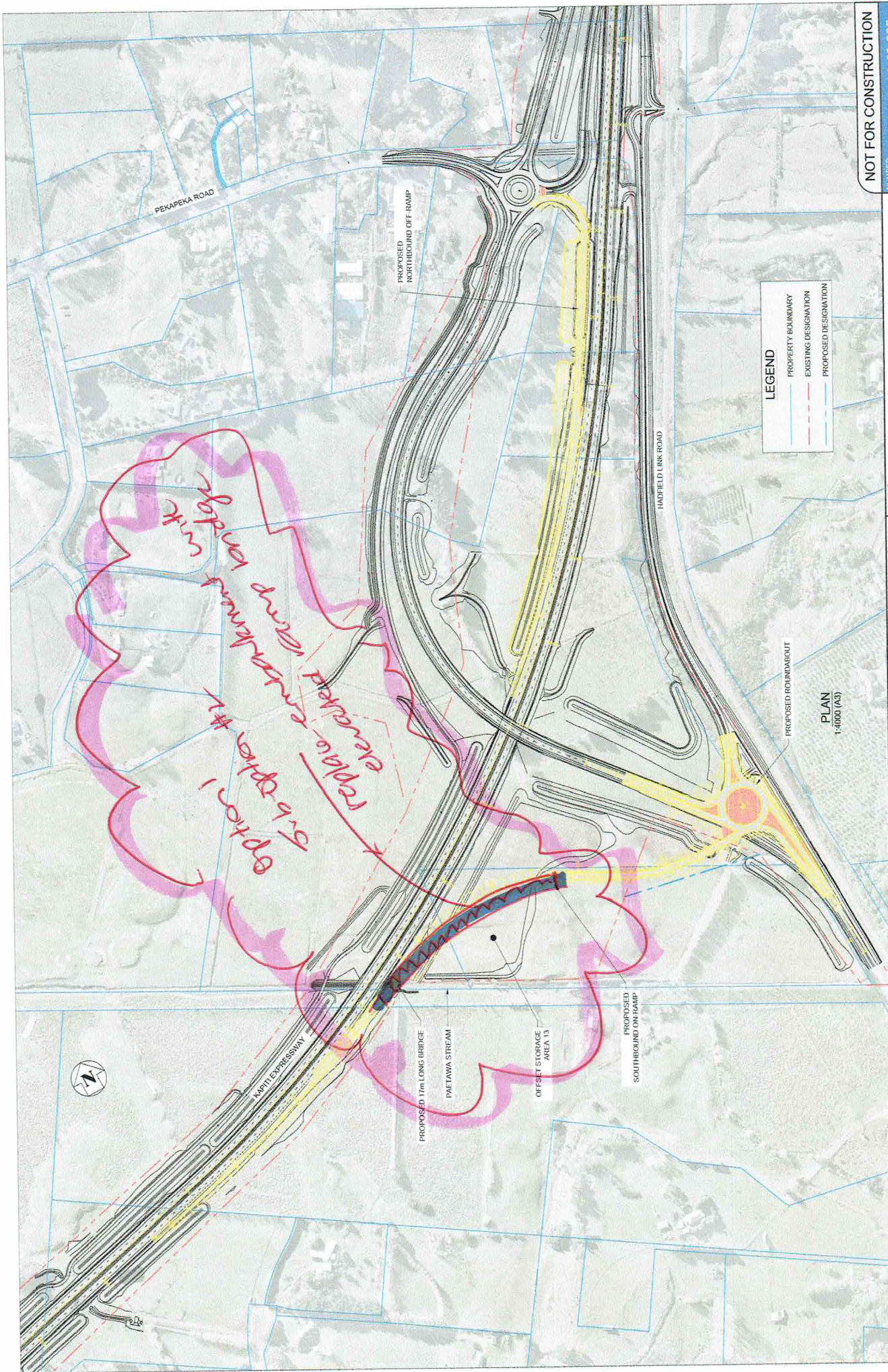
Item	Description:	Base Estimate	Contingency	Funding Risk Contingency
A	Nett Project Property Cost	Excluded		
B	Project Development Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
B	Total Project Development			
C	Pre-Implementation Phase			
	- Consultancy Fees	Excluded		
	- NZTA Managed Costs	Excluded		
C	Total Pre-implementation			
D	Implementation Phase			
	Implementation Fees			
	- Consultancy Fees	1,222,000		
	- NZTA Managed Costs	Excluded		
	- Consent Monitoring Fees	Excluded		
	Sub Total Base Implementation Fees			
	Physical Works	0		
	1 Environmental Compliance	307,750		
	2 Earthworks	1,010,090		
	3 Ground Improvements	1,387,000		
	4 Drainage	457,000		
	5 Pavement and Surfacing	1,702,517		
	6 Bridges	6,527,335		
	7 Retaining Walls	0		
8 Traffic Services	1,336,350			
9 Service Relocations	67,000			
10 Landscaping	329,000			
11 Traffic Management and Temporary Works	2,325,130			
12 Preliminary and General	1,885,000			
13 Extraordinary Construction Costs	0			
Sub Total Base Physical Works	18,556,172			
D	Total for Implementation Phase			
E	Project Base Estimate (A+B+C+D)	18,556,172		
F	Contingency (Assessed/Analysed)	(A+B+C+D)	25%	4,639,000
G	Project Expected Estimate	(E+F)		23,195,000
	Nett Project Property Cost Expected Estimate			
	Project Development Phase Expected Estimate			
	Pre-implementation phase Expected Estimate			
	Implementation Phase Expected Estimate			15%
H	Funding Risk Contingency (Assessed/Analysed)	(A+B+C+D)		3,479,000
I	95th percentile Project Estimate	(G+H)		26,674,000
	Nett Project Property Cost 95th percentile Estimate			
	Project Development Phase 95th percentile Estimate			
	Pre-implementation Phase 95th percentile Estimate			
	Implementation Phase 95th percentile Estimate			
Date of Estimate		Q4 2017		
Estimate prepared by		Signed		
Estimate internal peer review by		Signed		
Estimate external peer review by		Signed		
Estimate accepted by NZTA		Signed		

Note: (1) These estimates are exclusive of escalation and GST.

Options Estimate

Option 1 SO#1 and #2

Printed Date: 11/15/2017



NOT FOR CONSTRUCTION
 NUMBER: PP-DRG-GA-00-005
 STATUS: PRELIMINARY
 SCALE: AS SHOWN
 REGION: B

PROJECT: PEKA PEKA CONNECTIVITY SSBC
 TITLE: PEKA PEKA OPTION 1 SOUTHBOUND ON-RAMP AND NORTHBOUND OFF-RAMP

REV	DESCRIPTION	DRAWN	DESIGNED	CHECKED	APPROVED	DATE
B	OPTION SUBMITTING REFERENCES	N. TUNNICLIFFE	N. TUNNICLIFFE			
A	PRELIMINARY ISSUE	N. TUNNICLIFFE	N. TUNNICLIFFE			

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Option 1 + set #2
 New 2 Nov 17