

## Schedule 10: Completion Requirements

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### General

#### 1. Independent Reviewer Actions

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The following are descriptions of the Independent Reviewer Actions utilised in the following tables to describe the extent of the actions the Independent Review is required to take in relation to the testing of each element.

##### 1.1 Independent Review Action 1

Independent Reviewer receives (whether electronically or physically, at the option of the Contractor) all Contractor records (e.g., drawings (Final Design Documentation, plans, QA records, test results, Producer Statements, other certifications received by the Contractor from 3<sup>rd</sup> parties), then reviews a representative sample to confirm they are complete, appropriate and are in accordance with applicable Project Agreement requirements. The Independent Reviewer does not verify design.

That is, through representative sampling, audits and physical inspection (as required by the relevant Milestone test, Works Completion Test or Close-out Test), the Independent Reviewer is required to confirm the as-built works:

- are of appropriate quality, by reference to the Project Agreement requirements;
- are in accordance with the Final Design Documentation, or any changes to the Final Design Documentation are appropriately addressed (e.g., design changes due to encountered site conditions);
- (once the as-built documentation is received) are in accordance with the as-built documentation; and
- tests have been satisfactorily completed in line with the Finalised ITPs, such that any anomalies in test results or approach are satisfactorily addressed and closed-out, including via re-test or alternative testing, as appropriate and as in line with Action 2 below.

In undertaking the above, the Independent Reviewer is not required to confirm that the Finalised Design Documentation complies with the Works Requirements.

##### 1.2 Independent Review Action 2

Independent Reviewer receives evidence of transmittal of Contractor documentation to the Transport Agency.

##### 1.3 Independent Review Action 3

Independent Reviewer attends and witnesses a representative sample of tests undertaken by the Contractor. Testing will be in accordance with the Finalised ITPs. With the exception of any testing identified for completion by the Independent Reviewer within Schedule 10, the Independent Reviewer is not required to undertake its own testing, however it retains the right:

- (a) to require that the Contractor undertakes re-tests where:

- (i) the results of the initial testing are unsatisfactory and/or fail to meet the required criteria in accordance with the Finalised ITPs; or
  - (ii) where the Independent Reviewer, acting reasonably, has concerns with the conduct of the testing;
- (b) to witness/observe any test or re-test undertaken by the Contractor;
  - (c) to instruct an additional alternative test, where the initial testing (as per the Finalised ITPs) has not been satisfactorily complied with, and provided that any such test is consistent with the purpose and intent of the original test; and
  - (d) to undertake its own testing (itself or through a third party) where it considers this to be required in the circumstances, with prior notification to the Contractor and the Transport Agency, and provided that any such test is consistent with the purpose and intent of the original Works Completion Test (WCT) or Close-out Test (COT) and/or test(s) contained in the Finalised ITP.

#### 1.4 Independent Review Action 4

Independent Reviewer undertakes a visual inspection of completed TG Project works as required in the relevant tests set out below.

Note: The Independent Reviewer will have full access to the Contractor's electronic document management system (EDMS) (i.e., INCITE) throughout the construction and close-out phases. This will hold all records discussed in Action 1 above. The Contractor's Construction Sub-contractor will also provide the Independent Reviewer with appropriate training, as required to facilitate the Independent Reviewer's use of the EDMS.

## Part 1 – Works Completion

### 2. Works Completion Tests

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- (a) The Contractor will conduct the Works Completion Tests set out in Appendix A in accordance with clause 29.3 (Works Completion) of the Base Agreement.

- [REDACTED]

- [REDACTED]

- [REDACTED]

- [REDACTED]



## Appendix A: Annotated Works Completion Test schedule

### Comment Key

<i>Comment</i>	<i>Meaning</i>
All	Full status quo Works Completion Test required for Road Opening Completion
Stage One Works Provisioning	Part of status quo Works Completion Test required for Road Opening Completion, as per the definition of 'Stage One Works Provisioning'
Nil	No Works Completion Test required for Road Opening Completion

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
1	The TG Project has been constructed in accordance with the Final Design Documentation.	The Contractor has constructed the TG Project in compliance with the Final Design Documentation.	<p>The Independent Reviewer has received the Final Design Documentation and has confirmed to its reasonable satisfaction that it is complete and has been Finalised in accordance with Schedule 8 (Review Procedures).</p> <p>The Independent Reviewer has received and reviewed all quality documentation (including ITPs, test results and any warranties, etc.) and has confirmed to its reasonable satisfaction that it is complete and accurate, as assessed by visual inspection of a representative sample of the works, and the Contractor has provided to the Independent Reviewer acceptable certification by a suitable party that the TG Project is fully in accordance with the Final Design Documentation.</p>					Stage One Works Provisioning (As-built drawings not required)

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
2	The elements, structures and buildings delivered as part of the TG Project that are required to comply with the New Zealand Building Code (NZBC) are compliant.	The Contractor has constructed the relevant elements, structures and buildings forming part of the TG Project in compliance with the NZBC, and procured appropriate completed "Code Compliance Certificates" (or, where these cannot be obtained in a timely manner, completed "Certificates of Public Use" as a minimum).	<p>The Contractor has provided to the Independent Reviewer a copy of required current "Code Compliance Certificates" (or, where these cannot be obtained in a timely manner, completed "Certificates of Public Use" as a minimum) relating to the TG Project and the Independent Reviewer has reviewed the documentation and is satisfied that it is accurate and complete and that it has been signed by an authorised Local Authority representative.</p> <p>The Contractor has provided to the Independent Reviewer a copy of all required approved building consents including any amendments, earthworks consents and engineering approvals (including utilities connections or protection works) required outside of building consents and the Independent Reviewer has reviewed the documentation and is satisfied that it is accurate and complete and that it has been signed by an authorised Local Authority representative.</p>					<p>Stage One Works Provisioning (including Temporary O&amp;M Depot)</p> <p>Engineering protection within the TG Operating Site</p>
3	The elements of the TG Project that are required to comply with Local Authorities' requirements are compliant.	The Contractor has constructed the relevant elements of the TG Project in compliance with all Local Authorities' requirements.	The Contractor has provided to the Independent Reviewer a copy of all required written Local Authority sign-offs in relation to roads that are to be handed over to the relevant Local Authority and the Independent Reviewer has received evidence of suitable confirmation at the appropriate level of delegation within that relevant Local Authority that the local roads and connections have been designed and constructed to comply with the requirements of the relevant Local Authority and hand back to the relevant Local Authority will be accepted after the legalisation of the Local Roads.					

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
4	The TG Project complies with all applicable Consent Conditions and CSVUE is up to date.	The Contractor has complied with all Consent Conditions and CSVUE is fully updated, except only with respect to Consent Conditions relating solely to Close-out Deliverables.	<p>The Contractor has provided to the Independent Reviewer evidence from the consenting authorities that confirms compliance.</p> <p>The Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that CSVUE has been updated, and that update is complete and accurate.</p>					Nil
5	All Producer Statements with respect to the TG Project have been obtained.	The Contractor has obtained all required Producer Statements with respect to the TG Project.	<p>The Contractor has provided to the Independent Reviewer all required Producer Statements in an appropriate format and the Independent Reviewer is satisfied that they are complete and have been signed by a suitably qualified person with an appropriate level of independence.</p> <p>Note: Producer Statements will be provided as part of the QA records to provide certification that the TG Project works are constructed in accordance with the Final Design Documentation, including confirmation that confirms that the Bridge Manual has been appropriately applied to all Structures, Bridges and Culverts.</p>					

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
6	<p>The Road Safety Audits:</p> <ul style="list-style-type: none"> <li>at the design development stage (pre-construction); and</li> <li>post-construction,</li> </ul> <p>have been completed and relevant concerns have been resolved.</p>	<p>The Contractor has conducted the required Road Safety Audits and has provided to the Transport Agency the Road Safety Audit report and has resolved all moderate and higher safety concerns raised during Road Safety Audits.</p>	<p>The Independent Reviewer has received, and has received evidence of transmittal to the Transport Agency of:</p> <ul style="list-style-type: none"> <li>the Road Safety Audit Report (the <b>Report</b>);</li> <li>a complete set of the information provided to the Road Safety Auditors; and</li> <li>the Contractor's comments and responses to the Report,</li> </ul> <p>and the Contractor has provided evidence to the Independent Reviewer that it has completed all actions required to resolve all moderate and higher safety concerns raised during the Road Safety Audits.</p>					Stage One Works Provisioning
7	<p>The TG Project is free from construction material and is substantially free from litter, refuse, debris and animal remains and is fenced in accordance with the Project Agreement requirements.</p>	<p>The TG Project is free from construction material, and is substantially free from litter, refuse, debris and animal remains and is fenced in accordance with the Project Agreement requirements.</p>	<p>The Independent Reviewer has confirmed to its reasonable satisfaction that the TG Project is free from construction related material and is substantially free from litter, refuse, debris and animal remains.</p> <p>The Independent Reviewer has confirmed to its reasonable satisfaction that the TG Project is fenced in accordance with the Project Agreement requirements.</p>					Stage One Works Provisioning

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
8	All warranties, guarantees and data sheets required for successful operation and maintenance of all TG Project assets have been obtained.	The Contractor has obtained all required warranties and guarantees and provided sufficient detailed information as is necessary for the successful operation and maintenance of all assets listed on the Asset Register.	The Independent Reviewer has received evidence of transmittal to the Transport Agency of all required warranties, detailed information and data sheets, and associated asset management plans, and confirmed to its reasonable satisfaction that they are complete and accurate.					Necessary for operation of Stage One Works Provisioning only
9	The construction defects report has been appropriately completed and defects (excluding only Snagging Defects) have been rectified.	The Contractor has provided to the Transport Agency a completed construction defects report that, as a minimum, details all construction defects (categorised as design, materials, specification or workmanship defects), including a description of the defect, the method of identification, GPS location, the cause, a description and results of the tests carried out, details of any remedial measures taken, including the results of additional testing undertaken, and including all associated dates.	The Independent Reviewer has received evidence of transmittal to the Transport Agency of the final construction defects report and the Independent Reviewer has confirmed to its reasonable satisfaction that the final construction defects report is complete and accurate, and all non-Snagging Defects have satisfactorily been addressed in accordance with the Project Agreement requirements.					



WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
10	All required Services Documentation has been Finalised in accordance with the Project Agreement requirements.	All required Services Documentation has been Finalised in accordance with the requirements of the Project Agreement, including Part 2 (Services Documentation) of Schedule 9 (Operative Documents).	<p>The Independent Reviewer has received evidence and confirmed to its reasonable satisfaction that all Services Documentation required to be Finalised before the Service Commencement Date has been Finalised.</p> <p>Note: Services Documentation includes:</p> <ul style="list-style-type: none"> <li>(a) the Contract Plan;</li> <li>(b) the Location Supplement;</li> <li>(c) the Handover Package; and</li> <li>(d) the Disengagement Plan (not required to be Finalised before Service Commencement Date).</li> </ul>					Stage One Works Provisioning
11	All RAMM update tables have been completed in accordance with the Project Agreement requirements and provided to the Transport Agency.	The Contractor has provided to the Transport Agency all completed RAMM update tables in accordance with the State Highways Database Operation Manual and the Location Reference Management System Manual (SM051, July 2004).	<p>The Independent Reviewer has received all completed RAMM update tables (in accordance with the State Highways Database Operation Manual and the Location Reference Management System Manual SM051, July 2004) and has confirmed to its reasonable satisfaction, including via visual inspection, that the tables are complete, accurate and in the correct format.</p> <p>The Independent Reviewer has received evidence of transmittal to the Transport Agency of all completed RAMM update tables, having satisfied this WCT 11.</p>					Stage One Works Provisioning

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
12	All information necessary to update the Bridge Data System in relation to all Bridges within the TG Project in accordance with the Project Agreement requirements has been provided to the Transport Agency.	The Contractor has provided to the Transport Agency all required information necessary to update the Bridge Data System in relation to all Bridges within the TG Project, in accordance with the Bridge Data System Structural Guide (October 2009).	The Independent Reviewer has received evidence of transmittal to the Transport Agency of all required information for the Bridge Data System, and has confirmed to its reasonable satisfaction that the information is accurate, complete and in the correct format.					Stage One Works Provisioning
<b>13</b>	<b>Operational readiness</b>							
13.1	The Contractor is operationally ready.	The Contractor has demonstrated it is operationally ready and that it has the appropriate personnel, processes and equipment in place to deliver the Operational Services.	The Independent Reviewer has received the Contractor's Finalised plan for commissioning and operational readiness (being part of the Works Completion Plan), and the results of any actions taken to rectify any deficiencies arising from the ITP or the Works Completion Plan, and the Contractor has provided evidence to the Independent Reviewer's reasonable satisfaction that the Contractor has implemented such Plan accordingly.					Stage One Works Provisioning
13.2	The Contractor's ITS equipment has been comprehensively tested in the manufacturer's production facility in accordance with documented and	The Contractor has demonstrated that all such factory acceptance tests have been carried out and that the test reports demonstrate that the equipment is fit for the designed purpose.	The Independent Reviewer has received production test reports for each item of equipment, and has confirmed to its reasonable satisfaction that factory acceptance testing has been successfully completed in accordance with the manufacturer test procedures.					Stage One Works Provisioning

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
	certified testing procedures.							
13.3	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
13.4	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
13.5	The weather station has been installed at Wainui Saddle in accordance with the Project Agreement requirements.	The Contractor has installed the weather station at the Wainui Saddle in accordance with the Project Agreement requirements.	The Independent Reviewer has received the Final Design Documentation and evidence provided by the Contractor to the Transport Agency, including confirmation from the NZ Meteorological Service, and has confirmed to its reasonable satisfaction that the Contractor has provided civil infrastructure and services to enable the operation of the weather monitoring station at the Wainui Saddle in accordance with the Final Design Documentation.					All
13.6	Traffic monitoring has been installed, commissioned and tested and meets the Project Agreement requirements.	The Contractor has in place an integrated traffic counting and travel time performance measurement system, and has performed full-scale real time commissioning tests to adequately test all aspects of the system.	The Independent Reviewer has confirmed to its reasonable satisfaction, including witnessing final testing, that the integrated traffic counting and travel time performance measurement system has been fully tested in accordance with the Finalised ITPs and Finalised commissioning plan (being part of the Works Completion Plan), and meets the Project Agreement requirements, including the required level of accuracy, key parameters, development of the model for the calculation of Fundamental Diagram and Flow Density Envelope, identification of Qualifying Vehicles (as defined in Schedule 13) and disaggregation of information, to report the required performance					Stage One Works Provisioning

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
			measurement, including with respect to travel time (KPI01A), travel time reliability (KPI01B), Ramp performance (KPI15), and wider network events (in accordance with Schedule 13).					
13.7	The Contractor is ready to manage incidents and provide operational response in accordance with the Project Agreement requirements.	The Contractor has provided and commissioned (in accordance with manufacturer's specifications) an integrated ITS system in accordance with the Project Agreement requirements, including the use of [REDACTED], VMS and CCTV, for real time incident detection, response and management of the entire TG Roads, and has performed sufficient full-scale real time simulated incidents to adequately test all aspects of the system.	The Independent Reviewer has received compliance and field testing documentation and has confirmed to its reasonable satisfaction, including witnessing final testing, that that the Contractor has a fully operational system for real time incident detection, response and management and has performed sufficient full-scale real time simulated incidents to adequately test all aspects of the system, including all associated network communications, hardware, software, incident workflow, algorithms and plans, personnel and other resources in accordance with the Project Agreement requirements.					Stage One Works Provisioning

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
13.8	WTOC Protocols have been established in accordance with the Project Agreement requirements.	The Contractor has established operational and communication protocols with the WTOC as required under Schedule 12 (Service Requirements).	The Independent Reviewer has access to the protocols and has been provided evidence by the Contractor to the Independent Reviewer's reasonable satisfaction that the protocols are in compliance with the Project Agreement requirements.					Temporary protocols for Stage One Works Provisioning only
13.9	WTOC Service Level Agreement has been entered into by the Contractor.	The Contractor has entered into the Service Level Agreement in accordance with Schedule 24 (WTOC Arrangements).	The Contractor has provided access to the signed copy of the Service Level Agreement (described in Schedule 24) and the Independent Reviewer has confirmed to its reasonable satisfaction that agreement on the Service Level Agreement has been reached.					All
13.10	The Emergency Services median cross-over and turnaround facility is in accordance with the Project Agreement requirements.	The Contractor has consulted with the Emergency Services, and designed and constructed an Emergency Services median cross-over and turnaround facility and opening in accordance with the Project Agreement requirements, and tested the operation of it with a full-scale representative test vehicle.	The Independent Reviewer has attended and witnessed final operational testing by the Contractor, and confirmed to its reasonable satisfaction that the Contractor has operationally tested that the emergency median cross-over and turnaround facility and opening fully meet the Project Agreement requirements.					All
			<p>The Independent Reviewer has received from the Contractor evidence that:</p> <ul style="list-style-type: none"> <li>(a) the Contractor has consulted with Emergency Services regarding the turnaround;</li> <li>(b) the Emergency Services have reviewed the design and have confirmed acceptance or returned no comments; and</li> <li>(c) the Emergency Services have confirmed acceptance of, or returned no comments on, the turnaround as built.</li> </ul>	All				

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
13.11	All required pedestrian, cyclist and recreational user facilities have been constructed in accordance with the Project Agreement requirements.	The Contractor has constructed all pedestrian and cyclist footpaths and recreational tracks, surfaces, median refuges, signalised crossings, fences, handrails and Barriers, lighting, and facilities as appropriate to each facility in accordance with the Project Agreement requirements.	The Independent Reviewer has received QA records and operational testing results from the Contractor and confirmed to the Independent Reviewer's reasonable satisfaction that all pedestrian and cyclist facilities and safety and warning installations are in accordance with the Final Design Documentation and the Project Agreement requirements.					Only on-road works at Kenepuru Drive, SH58 and James Cook interchange.
13.12	Pedestrian, cyclist and recreational user facilities have been constructed to accommodate visually and mobility impaired users in accordance with the Project Agreement requirements.	The Contractor has constructed pedestrian, cyclist and recreational user facilities to accommodate visually and mobility impaired users in accordance with the Project Agreement requirements.	The Independent Reviewer has received QA records and operational testing results from the Contractor and confirmed to the Independent Reviewer's reasonable satisfaction that all pedestrian and cyclist facilities and safety and warning installations are in accordance with the Project Agreement requirements.					
<b>14</b>	<b>Compliance with overriding outcomes</b>							
14.1	The Safety Report required by section 79(1) of the Government Rooding Powers Act 1989 has been obtained.	The Contractor has received, from a Chartered Professional Engineer appointed by it, a report that complies with section 79(1) of the Government Rooding Powers Act 1989.	<p>The Independent Reviewer has sighted the report and has confirmed to its reasonable satisfaction that the report provides that:</p> <ul style="list-style-type: none"> <li>the engineer has inspected the TG Main Alignment; and</li> <li>the engineer has confirmed that the TG Main Alignment is in good and efficient repair and may safely and conveniently be used for public traffic.</li> </ul>					All

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
14.2	The TG Project achieves a KiwiRAP four star rating.	The Contractor has undertaken an assessment in accordance with the 2013 KiwiRAP guidelines and has met the requirements for a KiwiRAP four star rating.	The Independent Reviewer has received evidence of the Contractor's assessment and all necessary supporting documentation, and the Independent Reviewer has confirmed to its reasonable satisfaction that the assessment is accurate and complete and demonstrates that the TG Project meets the requirements of a KiwiRAP four star rating.					Nil
14.4	The TG Project complies with the Finalised Landscape and Urban Design Management Plan (LUDMP).	The Contractor has constructed the TG Project in accordance with the Finalised LUDMP.	The Independent Reviewer has received the Finalised LUDMP, and the Contractor has provided evidence to the Independent Reviewer's reasonable satisfaction that the TG Project has been constructed in accordance with the Final Design Documentation, and complies with the Finalised LUDMP.					
15	<b>Compliance with design working life requirements</b>							
15.1	The TG Project has been constructed to meet the design working life requirements set out in the Project Agreement.	The Contractor has constructed the TG Project in a manner to achieve the required design working life of elements in accordance with the Project Agreement.	<p>The Independent Reviewer has received warranties, guarantees and QA records from the Contractor, and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that the TG Project has been constructed in a manner that has allowed the required design working life to be achieved.</p> <p>Through representative visual inspections of the TG Project, the Independent Reviewer has confirmed that there is no material damage to the TG Project that adversely impacts the design working life expectancies.</p>					Stage One Works Provisioning



WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
15.2	Rock fall storage has been provided in accordance with the Project Agreement requirements.	The Contractor has provided the required rock fall storage capacity at the base of cut slopes in accordance with the Project Agreement requirements.	The Independent Reviewer has undertaken a visual inspection to confirm that rock fall storage capacity is provided at the base of cut slopes as per the Final Design Documentation.					All
15.3	The TG Project has MSE abutment retaining walls in accordance with Project Agreement requirements.	The Contractor has provided MSE abutment retaining walls in accordance with Project Agreement requirements.	The Independent Reviewer has undertaken a visual inspection of the TG Roads to confirm that MSE abutment walls have been provided in accordance with the Final Design Documentation.					Stage One Works Provisioning
15.4	All gantries or other structures (not including Bridges) with the potential to fall across the carriageway are able to be readily dismantled and removed to enable passage by emergency and other vehicles.	The Contractor has constructed the TG Project so that any gantries or other structures (not including Bridges) that potentially could fall across the carriageway during a seismic or storm event can be readily dismantled and removed to enable passage by emergency and other vehicles.	The Independent Reviewer has received from the Contractor the Final Design Documentation and incident response plan and has confirmed, including via visual inspection to its reasonable satisfaction, that any gantries or other structures that potentially could fall across the carriageway during a seismic or storm event can be readily dismantled and removed to enable passage by emergency and other vehicles in accordance with the Project Agreement requirements.					All

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
<b>16</b>	<b>Compliance with lighting and electrical requirements</b>							
16.1	The TG Project includes all lighting required to meet the Project Agreement requirements.	The Contractor has constructed the TG Project so that it includes all lighting required to meet the Project Agreement requirements and is installed in accordance with manufacturer's specifications.	<p>The Independent Reviewer has received from the Contractor all quality documentation (including compliance and field testing documentation), and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that all lighting is in accordance with the Project Agreement requirements and the manufacturer's specifications, including with respect to levels of illumination.</p> <p>The Independent Reviewer has undertaken a visual night inspection and confirmed to its reasonable satisfaction that all lights are operational and have achieved the desired level of illumination, in accordance with the Project Agreement requirements.</p>					Stage One Works Provisioning
16.2	All electrical works comply with all current legislation.	The Contractor has undertaken all electrical work in compliance with all current legislation.	The Independent Reviewer has received evidence from the Contractor that confirms to the Independent Reviewer's reasonable satisfaction that the electrical works have been certified by a suitably qualified person in accordance with the applicable statutes, Regulations and Codes of Practice, and in particular the Electricity Act and Health and Safety in Employment Act and all Regulations, Codes of Practice recognised under those statutes, including but not limited to the NZ Electricity Code of Practice, AS/NZS3000, Electrical (Safety) Regulations, and Registered Utility Operators Codes and the Code.					

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
<b>17</b>	<b>Compliance with overweight and over dimension vehicle requirements</b>							
17.1	The TG Roads and SH1 immediately north of Linden are suitable for use by overweight and overdimension vehicles and as an Over-dimension Route in accordance with the Project Agreement requirements.	The Contractor has constructed the TG Project so that the TG Roads and SH1 immediately north of Linden are suitable for use by overweight and overdimension vehicles and as an Over-dimension Route in accordance with the Project Agreement requirements.	The Independent Reviewer has access to the Final Design Documentation and QA documentation detailing the location/extent of the Over-dimension Route, and demonstrating that a 6.0m high by 12.0m wide envelope (excluding Barriers) has been provided, and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction, including through visual inspection of a representative sample by the Independent Reviewer, that the Over-dimension Route has been provided in accordance with the Final Design Documentation and that the required clearance envelope has been achieved.					All
<b>18</b>	<b>Compliance with HPMV requirements</b>							
18.1	The TG Roads are suitable for use by HPMVs in accordance with the Project Agreement requirements.	The Contractor has constructed the TG Roads so that they are suitable for use by HPMVs in accordance with the Project Agreement requirements.	The Independent Reviewer has access to Final Design Documentation including tracking curves for critical turning movements demonstrating that the required vehicle travelling at 20kph can undertake the movement (which may track into a flush median or adjacent lane but may not enter the opposing lane and will have a minimum offset of 0.6m from the wheel overhang to kerbs and road furniture) and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction including through visual inspection of a representative sample by the Independent Reviewer that the required vehicle can safely undertake the movement in accordance with the Project Agreement requirements.					All

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
<b>19</b>	<b>Compliance with Barriers requirements</b>							
19.1	All Barriers have been constructed in accordance with Project Agreement requirements.	The Contractor has constructed all Barriers in accordance with the Project Agreement requirements.	<p>The Independent Reviewer has received from the Contractor quality records demonstrating that the Barriers on the TG Roads (including interchanges) comply with the TG RoNS Standards and NZTA Specification M23 <i>Specification for Safety Barriers</i>, as applicable.</p> <p>The Independent Reviewer has visually inspected a representative sample of Barriers to confirm to its reasonable satisfaction that the Barriers meet the Final Design Documentation.</p>					Stage One Works Provisioning
<b>20</b>	<b>Compliance with utilities requirements</b>							
20.1	The NUMP and the National Code of Practice for Utilities Access to the Transport Corridor have been complied with.	The Contractor has complied with the NUMP and the National Code of Practice for Utilities Access to the Transport Corridor, and any non-conformances have been rectified appropriately.	The Independent Reviewer has reviewed evidence submitted from the Contractor to the Transport Agency and confirmed to its reasonable satisfaction that the Contractor has complied with all of its obligations under the NUMP and the National Code of Practice for Utilities Access to the Transport Corridor (and that any previous non-conformances have been rectified appropriately).					Within the Reduced TG Operating Site.
20.2	All third party utilities on the TG Project Site have been protected in accordance with the Project Agreement requirements.	The Contractor has appropriately protected all utility assets on the TG Project Site in accordance with the Project Agreement requirements.	The Independent Reviewer has received evidence sent by the Contractor to the Transport Agency of suitable confirmation at the appropriate level of delegation within the relevant utility company/organisation that the protection provided to their asset is acceptable.					Within the Reduced TG Operating Site.

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
20.3	All utilities infrastructure on the TG Project Site meet the Project Agreement requirements.	The Contractor has constructed all utilities infrastructure on the TG Project Site in accordance with the Project Agreement requirements.	The Independent Reviewer has received the Final Design Documentation and associated quality records, and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that the utilities for the TG Project have been constructed in accordance with the Final Design Documentation and the Project Agreement requirements (or in accordance with the Network Utility Agreement with the relevant asset owner, where the design is done by the asset owner).					Stage One Works Provisioning
20.4	The Transport Agency ducts and chambers have been constructed in accordance with the Project Agreement requirements.	The Contractor has constructed the TG Project so that it includes the Transport Agency ducts and chambers that are required under the Project Agreement requirements.	The Independent Reviewer has received the quality records and has undertaken a representative sample of visual inspections of the ducts and chambers, and has confirmed to its reasonable satisfaction that the Transport Agency ducts and chambers comply with the Project Agreement requirements, including that ducts are to shape, are continuous, have suitable draw wires, and that covers to chambers are appropriately fastened and secure.					
21	<b>Compliance with shared use path requirements</b>							
21.1	The shared use path for the TG Project has been constructed in accordance with the Project Agreement requirements.	The Contractor has constructed the shared use path for the TG Project in accordance with the Project Agreement requirements	The Independent Reviewer has reviewed the Final Design Documentation and the Contractor's quality records, and undertaken sufficient representative visual inspections and has confirmed to the Independent Reviewer's reasonable satisfaction that the shared use path for the TG Project has been constructed in accordance with the Final Design Documentation.					Stage One Works Provisioning
21.2	All pedestrian signs and Barrier requirements set out in the Project	The Contractor has erected all pedestrian signs and Barriers in accordance with the Project	The Independent Reviewer has received and reviewed QA records demonstrating that the pedestrian Barrier fences (including where the shortest path or easiest path would cross the TG Main Alignment at grade) and					

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
	Agreement have been met.	Agreement requirements.	signs directing or prohibiting pedestrians have been installed, and the Independent Reviewer has undertaken sufficient visual inspections and QA audits, to confirm to its reasonable satisfaction that the pedestrian access(es) are in accordance with the Project Agreement requirements.					interchange.
<b>22</b>	<b>Compliance with signs, delineation and pavement marking requirements</b>							
22.1	All signs, delineation and pavement markings have been provided in accordance with the Project Agreement requirements.	The Contractor has erected and included in the TG Project all signs, delineation and pavement markings in accordance with the Project Agreement requirements.	The Independent Reviewer has received and reviewed QA records and has confirmed to its reasonable satisfaction, including a representative sample of visual inspections that the signs have been erected and markings have been undertaken in accordance with the manufacturer's specifications and Final Design Documentation.					Stage One Works Provisioning
<b>23</b>	<b>Compliance with maintenance and public access track requirements</b>							
23.1	The TG Project includes Maintenance Accessways and public access tracks that comply with the Project Agreement requirements.	The Contractor has constructed Maintenance Accessways and public access tracks in accordance with the Project Agreement requirements.	The Independent Reviewer has received the Final Design Documentation and associated quality records, and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction and the Independent Reviewer has undertaken sufficient visual inspections and QA audits to confirm that the public access tracks, including the Belmont Walkway, have been constructed in accordance with the Final Design Documentation.					Stage One Works Provisioning


WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
24	Compliance with location referencing requirements							
All	The TG Project complies with the location referencing requirements set out in the Project Agreement.	The Contractor has provided location referencing for the TG Project in accordance with the Project Agreement requirements.	The Independent Reviewer has received the Final Design Documentation and associated quality records, and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that the location referencing for the TG Project has been provided in accordance with the Project Agreement requirements.					
25	Not used							

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
<b>26</b>	<b>Compliance with site geotechnical engineering requirements</b>							
26.1	Building consents and certificates have been obtained with respect to all retaining structures requiring such consents and certificates.	The Contractor has provided a copy of Certificates of Public Use or Code Compliance for retaining structures requiring building consent.	The Independent Reviewer has received copies of Certificates of Public Use or Code Compliance for all retaining structures requiring building consent.					Stage One Works Provisioning
26.2	Rock lined drainage has been provided at base of steep cuts in accordance with the Project Agreement requirements.	The Contractor has provided concrete rock lined combined drainage/rockfall containment trenches at the base of cuts in accordance with the Project Agreement requirements.	The Independent Reviewer has undertaken a visual inspection to confirm to its reasonable satisfaction that rock lined combined drainage/rockfall containment trenches have been provided at the base of cuts, in accordance with the Final Design Documentation.					Stage One Works Provisioning
26.3	Vegetated unreinforced embankment slopes (or other arrangements Finalised under the Review Procedures) have been provided over the Ohariu Fault zone in accordance with the	The Contractor has provided vegetated unreinforced embankment slopes (or other arrangements Finalised under the Review Procedures) over the Ohariu Fault zone in accordance with the Project Agreement requirements.	The Independent Reviewer has undertaken a visual inspection to confirm to its reasonable satisfaction that vegetated unreinforced embankment slopes (or other arrangements) over the Ohariu Fault zone have been provided in accordance with the Finalised Design Documentation.					Stage One Works Provisioning



WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
	Project Agreement requirements.							
26.4	Full formation width basal geotextile reinforcement has been installed where required by the Project Agreement. [REDACTED]	The Contractor has installed full formation width basal geotextile reinforcement where required by the Project Agreement and the Final Design Documentation.	The Independent Reviewer has been advised that full formation width basal geotextile reinforcement has been installed in accordance with the Final Design Documentation, and the Independent Reviewer has undertaken a visual inspection to confirm to its reasonable satisfaction that all full formation width basal geotextile reinforcement has been installed in accordance with the Final Design Documentation.					All
26.5	Embankment toes adjacent to streams contain appropriate scour protection works in accordance with the Project Agreement requirements.	The Contractor has provided embankment toes adjacent to streams that contain appropriate scour protection works in accordance with the Project Agreement requirements.	The Independent Reviewer has undertaken a visual inspection to confirm to its reasonable satisfaction that the Contractor has provided scour protection at the toe of embankments in accordance with the Final Design Documentation.					Stage One Works Provisioning
26.6	Debris catch and other debris deflection fences have been provided in accordance with the Project Agreement requirements.	The Contractor has provided debris catch and other debris deflection fences in accordance with the Project Agreement requirements.	The Independent Reviewer has reviewed the Contractor's quality assurance records and undertaken sufficient representative visual inspections to confirm to its reasonable satisfaction that the debris catch and other debris deflection fences are in accordance with the Final Design Documentation.					All

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
26.7	Crestal drains are provided at the top of cuts and lined berm drains, in accordance with the Project Agreement requirements.	The Contractor has provided crestal drains at the top of cuts and lined berm drains, in accordance with the Project Agreement requirements and the Final Design Documentation.	The Independent Reviewer has undertaken sample visual inspections to confirm to its reasonable satisfaction that the crestal drains have been installed in accordance with the Final Design Documentation, and can function as intended.					Stage One Works Provisioning
26.8	The TG Project includes accelerometers that have been factory calibrated prior to delivery and are installed in accordance with the Project Agreement requirements.	The Contractor has provided accelerometers that have been factory calibrated prior to delivery, and has installed them in accordance with the Project Agreement requirements.  The Contractor has undertaken sufficient tests certified by a suitably qualified geotechnical engineer to confirm that the Site Class for each accelerometer is consistent with the Site Class stated in the Accelerometer Table in Appendix 1 to Schedule 22.	The Independent Reviewer is satisfied that based on the documentation provided by the Contractor, all accelerometers have been factory calibrated, have been installed in accordance with the Accelerometer Locations Table and that the Site Class for each accelerometer has been assessed and is consistent with the Site Class stated in the Accelerometer Plan.					All  (Accelerometer will communicate with standalone TG TOC)
26.9	The TG Project includes all geotechnical monitoring instrumentation required to validate the performance of specific Geotechnical	The Contractor has installed and commissioned all geotechnical monitoring instrumentation required to validate the performance of specific Geotechnical Elements in accordance with the Project Agreement requirements.	The Independent Reviewer has received documentation relating to the installation and monitoring of geotechnical instrumentation to validate the performance of Geotechnical Elements, and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that the required monitoring has been installed and commissioned, and can be safely and adequately monitored in accordance with the Final Design Documentation.					All


WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
	Elements in accordance with the Project Agreement requirements.		The Independent Reviewer has undertaken visual inspections of a representative sample to confirm to its reasonable satisfaction that the geotechnical instrumentation has been installed in accordance with the Final Design Documentation, and can function as intended.					All
26.10	The TG Project includes a means of obtaining a digital record of critical slopes in accordance with the Project Agreement requirements.	The Contractor has provided a means of obtaining a digital record of critical slopes in accordance with the Project Agreement requirements and the Final Design Documentation.	The Independent Reviewer has received documentation from the Contractor to the Transport Agency and confirmed to the Independent Reviewer's reasonable satisfaction, including visual inspection by the Independent Reviewer of all relevant locations, that a means of obtaining a digital record of the slope condition during the Operating Term has been provided in accordance with the Final Design Documentation.					Nil
27	<b>Compliance with pavements and surfacing requirements</b>							
27.1	The subgrade provides, and will continue to provide, a CBR ≥ 10. 	The Contractor has provided subgrade that provides, and will continue to provide, a CBR ≥ 10.	The Independent Reviewer has received the Finalised Inspection Test Plan and QA records for Pavements and Surfacing, and through representative review of the quality records, and witnessed a representative sample of tests and has confirmed to its reasonable satisfaction that the Finalised test plans have been implemented and acceptance criteria achieved and that the subgrade has been constructed in accordance with the Final Design Documentation.					Stage One Works Provisioning
27.2	The TG Project uses suitable pavement materials and has suitable pavement construction quality	The Contractor has utilised suitable pavement materials and suitable pavement construction quality to meet the Project Agreement requirements.	The Contractor has provided a copy of the Finalised Inspection and Test Plan and Process Control Plan for Pavements and Surfacing with evidence to demonstrate that the plans have been implemented. The Independent Reviewer has checked all quality assurance records for all pavement material lots and					Stage One Works Provisioning

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
	to meet the Project Agreement requirements.  [REDACTED]		confirmed compliance to its reasonable satisfaction, prior to pavement construction.  The Independent Reviewer has witnessed a representative sample of construction quality tests on pavement lengths and layers, and confirmed compliance to its reasonable satisfaction.					
								Stage One Works Provisioning
27.3	The TG Project pavements have achieved compaction during construction that is sufficient to ensure achievement of the properties specified for each layer in the Final Design Documentation.  [REDACTED]	The Contractor has achieved compaction during construction that is sufficient to ensure achievement of the properties specified for each layer in the Final Design Documentation.	The Independent Reviewer has received the Finalised Inspection and Test Plan and QA records for Pavements and Surfacing and through:  (a) review of a representative sample of the quality assurance records relating to pavement lengths and layers; and  (b) witnessing a representative sample of tests on pavement lengths and layers,  has confirmed to its reasonable satisfaction that compaction requirements have been achieved in accordance with the Final Design Documentation and Project Agreement requirements prior to construction of the next layer.					Stage One Works Provisioning
27.4	The TG Project pavements moisture content has been managed, in each layer, during Works Provisioning, meets	The Contractor has monitored, recorded and managed the moisture content of the pavement layers throughout Works Provisioning in accordance with the Project Agreement requirements.	The Independent Reviewer has received the Finalised Inspection Test Plan and QA records and, through review of a representative sample of the quality records, has confirmed to its reasonable satisfaction that the moisture content for any areas of unbound granular pavement prior to chip sealing is in	Stage One Works Provisioning				

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
	the Project Agreement requirements, and has been checked by the Independent Reviewer prior to surfacing.		accordance with the Final Design Documentation and Project Agreement requirements.					
27.5	Surface shape of all traffic lanes and all shoulders meets the Project Agreement requirements.	The Contractor has provided a surface shape of all traffic lanes and all shoulders that meets the Project Agreement requirements.	<p>The Independent Reviewer has received of the Finalised Inspection Test Plan and QA records and through representative review of the quality records, and witnessed a representative sample of tests and has confirmed to its reasonable satisfaction that the pavement surface and rut depth have been achieved in accordance with the Project Agreement requirements.</p> <p>The Independent Reviewer will undertake visual inspections of surface shape for representative samples of the road surface prior to Works Completion to confirm to its reasonable satisfaction that the Project Agreement requirements for surface shape and rut depth have been met. In particular the surface shape must be such that:</p> <ul style="list-style-type: none"> <li>a) There must be no obvious defects related to poorly constructed longitudinal or transverse joints.</li> <li>b) No area of the completed surface has any depressions that will allow water to pond where the specified levels are such that the slope is greater than 1 in 50.</li> <li>c) No visible cracking.</li> </ul>					

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
27.6	Roughness of the carriageways complies with the Project Agreement requirements.	The Contractor has provided confirmation that the roughness of the carriageways complies with the Project Agreement requirements.	The Independent Reviewer has reviewed the Finalised Inspection and Test Plan and test data and witnessed a sample of NAASRA tests recorded after completion of the wearing course prior to Works Completion, and confirmed to its reasonable satisfaction that the roughness of the carriageways is in accordance with the Project Agreement requirements.					Stage One Works Provisioning
27.7	There are no potholes in the pavement surfacing or formed shoulders, and no edge break or seal loss encroaching into the surfacing by more than 100mm.	The Contractor has provided pavement surfacing throughout the TG Project that has no potholes in the pavement surfacing or formed shoulders, and no edge break or seal loss encroaching into the surfacing by more than 100mm.	The Independent Reviewer has undertaken a representative sample of visual inspections of the road surface prior to Works Completion to confirm to its reasonable satisfaction that this WCT has been met.					
28	<b>Compliance with Bridges and Major Culverts requirements</b>							
28.1	The Bridges and Major Culverts for the TG Project have been constructed in accordance with the Project Agreement requirements.	The Contractor has constructed the Bridges and Major Culverts for the TG Project in accordance with the Project Agreement requirements and the Final Design Documentation.	The Independent Reviewer has received Final Design Documentation, including Overweight Vehicle conditions of Operation, associated quality records (including materials storage, handling and maintaining), and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that the TG Project has been constructed in accordance with the Final Design Documentation, including design provisions for the construction loadings.					Stage One Works Provisioning
			The Independent Reviewer has observed a representative sample of construction traffic traversing bridges and has received evidence from the Contractor					

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
			<p>that estimated resultant loadings reconcile with design provisions made for construction traffic.</p> <p>The Independent Reviewer has undertaken a visual inspection of all completed bridges to check for any signs of early fatigue or defective workmanship, and that any corrective actions have been satisfactorily completed.</p> <p>The Independent Reviewer has access to all surface preparation, proposed protective coatings, application, transportation and testing records in accordance with AS/NZS 2312 and confirmed by representative sampling that to its reasonable satisfaction the records are complete and accurate.</p>					
								All
28.2	Piles have been constructed in accordance with the Project Agreement requirements.	<p>The Contractor has constructed all piles in accordance with the Final Design Documentation.</p> <p>The Contractor has a complete and accurate construction record for every pile and anchor installed, including details of materials, practices and testing that comply with the requirements of current AS/NZS standards for pile installation, including test piles.</p>	<p>The Independent Reviewer has access to completed construction records for each pile installed, and confirmed by representative sampling to its reasonable satisfaction that the records are complete and accurate.</p> <p>The Independent Reviewer has access to all pile compliance requirements, including test piles, and confirmed by representative sampling that to its reasonable satisfaction the records are complete and accurate.</p> <p>The Independent Reviewer has witnessed at least one pile being installed for each Bridge, and can reconcile the pile records provided with that of the pile observed.</p>					All

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion				
				1	2	3	4					
28.3	Ground anchors have been constructed in accordance with the Final Design Documentation.	The Contractor has constructed all anchors in accordance with the Final Design Documentation.	The Independent Reviewer has access to completed construction records for each anchor installed, and confirmed by representative sampling to its reasonable satisfaction that the records are complete and accurate.					All				
		The Contractor has a complete and accurate construction record for every ground anchor installed, including details of materials, practices and testing that comply with the requirements of current NZTA and applicable standards for ground anchor installation.	The Independent Reviewer has access to all anchor compliance requirements and confirmed by representative sampling that to its reasonable satisfaction the records are complete and accurate.					All				
28.4	The surface is appropriately prepared in advance of protective coating being applied. 	The Contractor has prepared the surface appropriately in readiness for the application of protective coating.	The Independent Reviewer has received advice that the surfaces are ready for inspection and has inspected the prepared surface of a representative sample of on-site applied protective coatings, in advance of the protection coating being applied and confirmed by representative sampling that to its reasonable satisfaction that it is in accordance with the Final Design Documentation and Project Agreement requirements.									Stage One Works Provisioning
28.5	Protective coating systems have been provided in accordance with the Project Agreement requirements.	The Contractor has applied protective coating systems in accordance with the Final Design Documentation.	The Independent Reviewer has access to all surface preparation, proposed protective coatings, application, transportation and testing records in accordance with AS/NZS 2312 and confirmed by representative sampling that to its reasonable satisfaction the records are complete and accurate.									Stage One Works Provisioning



WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
28.6	All weathering steel Bridges comply with the requirements in Hera Reports R4-97 and R4-133, and are in accordance with the Project Agreement requirements.	Where weathering steel Bridges have been used, the Contractor has complied with the Final Design Documentation and the requirements in Hera Reports R4-97 and R4-133.	<p>The Independent Reviewer has access to all details of atmospheric corrosivity testing, materials, construction details, inspection and maintenance requirements, and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that they are in accordance with the Final Design Documentation and Project Agreement requirements and Hera Reports R4-97 and R4-133.</p> <p>The Independent Reviewer has undertaken a visual inspection to confirm to its reasonable satisfaction that the structure has been constructed in accordance with the construction methodology and details.</p>					Nil
<b>29</b>	<b>Compliance with Environmental Management Works Requirements</b>							
29.1	The TG Project works have been constructed in accordance with the Outline Plans and the Construction Environmental Management Plan.	The Contractor has constructed the TG Project works in accordance with the Outline Plans and the Construction Environmental Management Plan, and the Local Authority has certified accordingly.	The Independent Reviewer has received evidence provided by the Contractor to the Transport Agency that the relevant Local Authority has certified that construction has been completed in accordance with the Outline Plans and Construction Environmental Management Plan.					Nil
<b>30</b>	<b>Compliance with sustainability requirements</b>							
30.1	TG Project is capable of achieving a Silver certification in terms of Greenroads™ assessment by the	The Contractor has constructed the TG Project so that it will obtain a Silver certification from the Greenroads™ Foundation.	The Contractor has provided evidence to the Independent Reviewer from the Greenroads™ Foundation that the TG Project will achieve Silver certification.					Nil

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
	Greenroads Foundation.							
<b>31</b>	<b>Compliance with drainage requirements</b>							
31.1	The drainage for the TG Project has been constructed in accordance with the Project Agreement requirements.	The Contractor has constructed the drainage for the TG Project in accordance with the Project Agreement requirements and the Final Design Documentation.	<p>The Independent Reviewer has received Final Design Documentation and associated quality records, and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that the drainage for the TG Project has been constructed in accordance with the Final Design Documentation.</p> <p>The Independent Reviewer has undertaken a visual inspection of a representative sample of the drainage system and confirmed to its reasonable satisfaction that storm water runoff is collected from the road surface and surrounding topography and transferred to transverse drainage systems without impacting adjacent slopes.</p> <p>The Independent Reviewer has undertaken a visual inspection of a representative sample of the key drainage elements, in particular those on cut slopes, and confirmed to its reasonable satisfaction that they are free of debris is operating as intended without affecting adjacent slopes and that observed if there are any signs of slope erosion or slips that could impinge on the intended operation of the Drainage System and where any are observed, that appropriate mitigation measures are in place in each case and that there are no defects, anomalies or early signs of fatigue.</p>					Stage One Works Provisioning

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
31.2	The stream diversion(s) have been executed in accordance with the Project Agreement requirements.	The Contractor has constructed a stream diversion solution that will achieve the design working life in accordance with the Project Agreement requirements.	The Independent Reviewer has received the Final Design Documentation, and has confirmed by way of visual inspection of a representative sample to the Independent Reviewer's reasonable satisfaction that the stream diversions are in compliance with the Final Design Documentation.					Stage One Works Provisioning
31.3	All Culverts and drainage structures comply with the Project Agreement requirements.	The Contractor has constructed all Culverts and drainage structures in compliance with the Project Agreement requirements.	The Independent Reviewer has access to all material inspection and drainage installation data which confirms that all materials/pre cast structures conform to the relevant NZ standard in relation to bedding, backfill, pipes, joint and leakage, manholes, headwalls, sumps and all other drainage materials/structures.					Stage One Works Provisioning
31.4	All proprietary drainage products have been installed in accordance with the manufacturer's specifications.	The Contractor has installed all proprietary products in accordance with the manufacturer's specifications.	The Independent Reviewer has access to data and has confirmed to its reasonable satisfaction by visual inspection that all proprietary products have been installed in accordance with the manufacturer's specifications.					Stage One Works Provisioning
31.5	All rock rip-rap and scour protection measures are in accordance with the Project Agreement requirements.	The Contractor has provided all rock rip-rap, and other scour protection works, meeting the required quality and durability and performance requirements in accordance with the Project Agreement requirements.	The Independent Reviewer has access to all QA documentation, and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction (including by the Independent Reviewer undertaking visual inspection) that all works are complete and are in accordance with the Final Design Documentation and the Project Agreement requirements.					Stage One Works Provisioning
<b>32</b>	<b>Compliance with Third Party Property Agreements</b>							
32.1	All works required under the Third Party Property	The Contractor has completed all works required under the Third Party	The Independent Reviewer has received the Third Party Property Agreement Register and confirmation from the Contractor to the Independent Reviewer's					Stage One Works Provisioning

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion				
				1	2	3	4					
	Agreements are complete.	<p>Property Agreements.</p> <p>The Contractor has prepared a Third Party Property Agreement Register that provides details of all works required under each Third Party Property Agreement, together with details and records demonstrating that the works have been completed.</p> <p>The Contractor has, where requested by the land owner or Local Authority, physically tested with a full-scale representative test vehicle that all local and landowners' accesses are capable of being used by a single unit 11 m long truck.</p> <p>[Note: this part of the test is only required if requested by the Third Party].</p>	<p>reasonable satisfaction that all works within each of the Third Party Property Agreements have been completed.</p> <p>The Independent Reviewer has inspected a representative sample of works under the Third Party Property Agreements and the Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that these works have been completed in accordance with the Third Party Property Agreements or the Works Requirements, as applicable.</p> <p>The Independent Reviewer has witnessed and confirmed to its reasonable satisfaction that where requested by the land owner or Local Authority, the Contractor has physically tested that all vehicular clearances and access requirements have been met.</p>					<p>All third party properties must have access</p> <p>Road boundary fenced (for stock protection)</p> <p>Stage One Works Provisioning</p>				
32.2	The Ranui Forest is cleared from all trees, tree fall and foliage to the extent required to meet the Project Agreement requirements.	The Contractor has cleared the Ranui Forest of all trees, tree fall and foliage to the extent required to meet the Project Agreement requirements.	The Independent Reviewer has confirmed to the Independent Reviewer's reasonable satisfaction by visual inspection that the work has been satisfactorily completed in accordance with the Final Design Documentation and the Project Agreement requirements.									Stage One Works Provisioning

WCT	Description of Works Completion Test	Acceptance Criteria	Independent Reviewer requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)				Required for Road Opening Completion
				1	2	3	4	
32.3	The required access to [REDACTED] has been provided in accordance with the Project Agreement requirements.	The Contractor has constructed the required access to [REDACTED] within the Initial Site and in accordance with the Project Agreement requirements and the Final Design Documentation.	The Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that the access has been constructed in accordance with the Final Design Documentation.	[REDACTED]				All
<b>33</b>	<b>Compliance with Construction requirements</b>							
33.1	The SafeStat website has been updated in accordance with the Project Agreement requirements.	The Contractor has updated the SafeStat website with health and safety data from Contractor's operations from July 2014 until two months prior to Service Commencement.	The Contractor confirms to the Independent Reviewer's reasonable satisfaction that the SafeStat website has health and safety data from Contractor's operations from July 2014 until two months prior to Service Commencement.	[REDACTED]				Nil
<b>34</b>	<b>Continued compliance</b>							
34.1	Where staged Works Completion has been achieved with respect to any element or section prior to the overall Works Completion, such elements and sections continue to meet the requirements of the Works Completion Tests at the date the Works Completion Certificate is issued.	The Independent Reviewer has confirmed to its reasonable satisfaction that all such elements and sections continue to meet the requirements of the Works Completion Tests. This may include through re-test, inspection, review of maintenance documentation and any other method the Independent Reviewer considers appropriate.		[REDACTED]				Stage One Works Provisioning (does not apply to Stage One Works Provisioning at Final Completion)

## Appendix B: Close-out Tests

COT	Description of Close-out Test	Acceptance Criteria	Independent Reviewer/Transport Agency requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)			
				1	2	3	4
1	All Code Compliance Certificates required with respect to the TG Project are in place.	The Contractor has obtained all Code Compliance Certificates required with respect to the TG Project.	The Contractor has provided to the Independent Reviewer a copy of all required and current “Code Compliance Certificates” relating to the TG Project and the Independent Reviewer has reviewed the documentation and is satisfied that it is accurate and complete and that it has been signed by an authorised Local Authority representative.				
2	A legal survey is completed using a registered surveyor to finalise the boundaries of the TG Operating Site in accordance with the Project Agreement requirements.	<p>The Contractor has undertaken the legal survey as required by Part 4 (TG Operating Site and Return of Surplus Land) of Schedule 5 (Property).</p> <p>The legal survey must be completed by an appropriately qualified surveyor and cadastral plans produced in a format suitable for legalisation, including formalisation of all easements and rights of way pertaining to each individual parcel, or amalgamated parcels of land.</p>	The Independent Reviewer is presented with documentary evidence to his reasonable satisfaction that all legal surveys have been completed by the Contractor and the legal boundaries have been finalised by the Transport Agency.				
3	Surplus Land has been Returned to the Transport Agency in accordance with the Project Agreement requirements.	The Contractor has ensured all land to be Returned has met the requirements set out in Part 4 (TG Operating Site and Return of Surplus Land) of Schedule 5 (Property).	The Contractor has provided evidence and the Independent Reviewer has confirmed to its reasonable satisfaction, including by way of visual inspections, that each parcel of Surplus Land has been returned in accordance with the Project Agreement requirements by the Planned Close-out Date and in accordance with				

COT	Description of Close-out Test	Acceptance Criteria	Independent Reviewer/Transport Agency requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)			
				1	2	3	4
			the specific Close-out Tests, including: <ul style="list-style-type: none"> <li>(a) compliance with Consent Conditions;</li> <li>(b) compliance with all Disclosed Title Matters applicable to the land;</li> <li>(c) the physical condition of the land;</li> <li>(d) remediation of any former depots or cute and/or fill sites;</li> <li>(e) removal and suitable disposal of contamination, demolition materials, temporary fences, areas of temporary or redundant seal, surplus building materials, slash, litter and rubbish;</li> <li>(f) fencing standard and requirements (if any);</li> <li>(g) removal of temporary structures;</li> <li>(h) removal of temporary access ways; and</li> <li>(i) reinstatement of all access ways, tracks, farming related infrastructure (water supplies, troughs, cattle stops, etc) and drainage paths.</li> </ul>				
4	The realigned Belmont Walkway has been surveyed and re-opened in accordance with the Project	The Contractor has surveyed the realigned Belmont Walkway to the standard required under the Walkways Act 1990 and has provided GWRC and	The Independent Reviewer is presented with documentary evidence to his reasonable satisfaction that the walkway has been reopened to the satisfaction of the Conservation Board and the WRC.				

COT	Description of Close-out Test	Acceptance Criteria	Independent Reviewer/Transport Agency requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)			
				1	2	3	4
	Agreement requirements.	the relevant Conservation Board with assistance in reopening the walkway.					
5	The TG Project complies with all applicable Consent Conditions and CSVUE has been updated in accordance with the Project Agreement requirements.	The Contractor has complied with all Consent Conditions and CSVUE is fully updated, including any Conditions in relation to which the Transport Agency has agreed in writing that compliance was not required to have been achieved prior to Service Commencement.	<p>The Contractor has provided to the Independent Reviewer evidence that confirms compliance from the applicable consenting authority.</p> <p>The Contractor has confirmed to the Independent Reviewer's reasonable satisfaction that CSVUE has been updated, and that the update is complete and accurate.</p>				
6	All as-built drawings have been provided to the Transport Agency in accordance with the Project Agreement requirements.	The Transport Agency has been provided with a complete set of as-built drawings.	The Independent Reviewer has received evidence of transmittal to the Transport Agency of a complete set of certified as-built drawings, and confirmed to its reasonable satisfaction, including via visual inspection, that they are complete, accurate and in accordance with paragraph 1 below (As Built Drawings) of this Appendix B.				
7	The Operational Noise Mitigation Plan has been complied with in accordance with the Project Agreement requirements.	The Contractor has complied with Consent Conditions 71 to 81 inclusive within the required timeframes and CSVUE is fully updated.	The Contractor has provided to the Independent Reviewer a copy of the Finalised Noise Mitigation Plan that complies with the applicable Consent Conditions and evidence that confirms to the Independent Reviewer's reasonable satisfaction that all required actions, including the implementation of required low-noise road surfaces within 12 months of Service Commencement have been completed, and that evidence of compliance from the relevant Local				



COT	Description of Close-out Test	Acceptance Criteria	Independent Reviewer/Transport Agency requirements to ascertain whether Acceptance Criteria met	Independent Reviewer Action (as described in General section above)			
				1	2	3	4
			Authority has been received.				
8	All required planting has been established in accordance with the Project Agreement requirements.	The Contractor has established, maintained, reviewed and undertaken remedial action as required for all required planting in accordance with the requirements of the Consent Conditions and the Close-out Plan.	The Contractor has provided evidence and confirmed to the Transport Agency's reasonable satisfaction that evidence of compliance from Greater Wellington Regional Council has been received.				
9	All post-construction ecological baseline monitoring for the period until the date that is 12 months after Service Commencement has been completed in accordance with the Project Agreement requirements.	The Contractor has completed post-construction Ecological Baseline monitoring and any necessary actions arising out of review processes in accordance with the requirements of the Consent Conditions.	The Contractor has provided evidence and confirmed to the Independent Reviewer's reasonable satisfaction that, for the 12 month period following Service Commencement, evidence of compliance from Greater Wellington Regional Council has been received.				
10	All post-construction ecological baseline monitoring for the period from the date that is 12 months after Service Commencement until the Expiry Date has been completed in accordance with the Project Agreement requirements.	The Contractor has completed post-construction Ecological Baseline monitoring and any necessary actions arising out of review processes in accordance with the requirements of the Consent Conditions.	The Contractor has provided evidence to the Transport Agency and confirmed to its reasonable satisfaction that, from the 12 month period following Service Commencement until the Expiry Date, evidence of compliance from Greater Wellington Regional Council has been received.				

## 1. As-built drawings

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The Contractor must provide to the Transport Agency all as-built drawings and inventory information, including:

- (a) one complete set of AutoCAD (or equivalent vector drawing software as agreed by the Transport Agency) files including all associated files; and
- (b) one complete set of un-editable, interactive Adobe PDF files exported from the CAD As-Built Drawings, to serve as a read-only set for viewing, downloading and printing by users of the Transport Agency As-Built System, with the first drawing/s on the disk to be a full drawing list and denoted as such,

and all as-built drawings must:

- (c) be provided in a format compatible with the relevant Transport Agency databases;
- (d) comply with the relevant AS/NZS series 1100 standard on technical drawing;
- (e) be labelled with a unique file name, including both the Transport Agency project name and a unique drawing number or code used to reference the drawing, with all components of the filename to be upper case and separated by underscores;
- (f) show the sizes, dimensions, locations and materials of all parts of the TG Project (including all utilities);
- (g) be prepared using the same co-ordinate system and datum as the consented scheme design;
- (h) include a correctly positioned and labelled grid on all plan drawings, with the units of measure clearly labelled in metres or millimetres;
- (i) where possible, be layered to allow a smooth transition from CAD to GIS;
- (j) group all similar features accordingly, for example lighting, drainage, signage, road markings, utility services, bridge details;
- (k) show all finished ground surfaces beyond the completed permanent works for all TG Project Land, including all landscape fills, waste disposal areas, borrow areas, and reinstated temporary facility areas; and
- (l) include the following document attributes in a tabular format:

Name	Description	Example
Project Name	The name of the project for which this document was generated	TGPPP
State Highway	The state highway on which the asset is located	01N, 002, 099 etc
Reference Station (RS)	Location Reference that is associated with the drawing	427

Name	Description	Example
Route Position (RP)	Location Reference that is associated with the drawing. Distance from the preceding RS	3.68
Asset Type	Type of Asset	Bridge
Asset ID	For structures this will be the Bridge Structure Identifier, as recorded in the Transport Agency's Bridge Descriptive System	12345
Asset No.	For structures, this will be the Bridge Structure Number, as posted on the road and recorded in the Bridge Data System	4287
Asset Name	The name of the asset (mandatory for structures)	Khyber Pass Viaduct
Filename	Filename of the document as on the supplied disc provided, using the same format	TGPPP_485C101.jpg
Location Name	Description of the location e.g., river name	Khyber Pass
Document Type	The nature of the As-Built document, e.g., Drawing, Technical Report	As-Built Drawing
Document Title	The name of the document	Barriers Layout Plan
Document Number	The number or code given to this document e.g., drawing number	485C101/1/3
Document Date	The date on which a document was released (not necessarily the same date on which it was loaded into the repository)	12/11/2013
Sheet Number	Where a drawing has more than one sheet this is the sheet number	01
Document Revision	For drawings this should state "AB" for As-Built	AB
Application Type and Version	The application and version that was used to create the document	AutoCAD 2004
Consultant	The name of the consulting organisation that generated the document	Freeflow Alliance
Consultant Town	The office from which the document originated	Auckland
IP Owner	The owner of the copyright for the document	Transport Agency

