

Principal's Requirements

[Insert project name]

Contract no: [Insert no]

[date]

<<This page is to be deleted prior to documents being finalised for tender.>>

Guidance notes

This template provides the basis for the Principal's Requirements that form part of the Design and Construction Contract. The purpose of the template is to provide consistency throughout NZTA's operations.

Format:

- **Black:** Black text is mandatory and may not be changed without approval prior to issue by the NZTA Project Manager, who will consult with the relevant NZTA staff on all changes made.
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1 Contract Works

1.1 Introduction

- 1.1.1 These Principal's Requirements describes the Principal's requirements for the Contractor's design, construction, completion and correction of defects of the Contract Works. It describes the relevant standards, design criteria, technical and other requirements of the Principal and provides information that applies to the Contract. Together with any alterations issued in writing or departures approved by the Principal prior to the award of the Contract, these Principal's Requirements form an integral part of the Contract.
- 1.1.2 The Contractor shall be responsible for the design, construction, completion and correction of defects of the Contract Works in line with, and so as to meet all requirements and provisions of these Principal's Requirements.
- 1.1.3 Unless otherwise described, all statements refer to the whole of the Contract Works.

1.2 Scope

- 1.2.1 The Scope of this contract is as described below:

<<Guidance Note: It is essential that an accurate and complete description of the Scope of the contract is provided. It must define all the features of the contract that are fundamental to the project and cannot be changed by the tenderer or Contractor.

Scope means the project's principal purpose(s) & services(s) to users as outlined in the Tender Documents.

This definition is also fundamental in the definition of both a Non-conforming Tender and an Alternative Tender. For this reason it is critical that the Scope be accurately defined.

Provide a succinct description of the principal purpose(s) and service(s) to users. Only include the highest level criteria fundamental to the contract, e.g.:

- A bridge(s) comprising 4 lanes across the ABC River
- A new highway pavement comprising 4 lanes <<need to be explicit with pavement design as can't vary scope>>
- Provides a water way of
- Pedestrian and cycle way protected from road traffic on north side of bridge

It is important NOT to include features that it may subsequently be agreed can be changed particularly during the tender period as this will create problems as to whether or not it constitutes a Non-conforming Tender and/or an Alternative Tender.>>

- a) [>>>>>>>];
- b) [>>>>>>>]; and
- c) [>>>>>>>].

- 1.2.2 The Contractor shall be responsible for the design for:

- a) The whole of the Contract Works;
- b) The following parts of the Contract Works:

<<Guidance Note: (a) or (b) to be deleted as applicable>>

<<Guidance Note: It is critical to provide an accurate description of the scope of the Contractor's responsibility regarding the Contractor's Design. If only part of the Contract Works are to be the

Contractor's Design, care needs to be taken to cover situations where the specifications may include a performance specification for a minor item, which in effect constitutes Contractor's Design. It is essential that they all be included, or alternatively use a 'catchall' provision to pick up such minor items.>>

1.3 Description of the Contract Works

1.3.1 The Contract Works shall comprise the works described within the Contract including without limitation:

- a) [>>>>>>]
- b) [>>>>>>]
- c) [>>>>>>]

<<Guidance Note: Provide a brief and general description of the works in, say, no more than one page providing, for example, such information as:

- [the lengths and numbers of lanes/carriageways, slip roads, shoulders and the like
- the limits of the works in terms of general description, e.g. from a named junction to the named river crossing but not stating definitive chainages, which would have the potential to conflict with the more definitive requirements elsewhere in the documentation
- Describe each of the structures
- Utility diversions, modifications or additions including easements
- Landscaping
- Ancillary works
- Any associated road closures, diversions, or associated temporary works
- Accommodation works
- Works associated with Statutory Approvals
- Environmental, social, culture, and heritage features and considerations
- Relationship considerations [eg Iwi, Hapu, HNZPT, councils, stakeholders, etc.]
- Maintenance Responsibilities]

1.3.2 The above list summarises work that is included in the Contract. It is provided for general information only, and is not necessarily a complete list of all the requirements.

1.3.3 The Contractor should note that descriptions of general and technical requirements above do not include numerous items of work, particularly minor items.

1.4 Practical Completion

1.4.1 The Certificate of Practical Completion will not be issued until: <<Guidance Note: List the **minimum** requirements for Practical Completion, which may include the following;>>

- [All lanes are open to traffic over the full project length at a posted speed limit of 100km/h;
- All activities requiring temporary traffic management are complete;
- Pavement post-construction verification testing is completed and fully compliant;
- Stage IV Safe System Audit is completed and closed out;
- All Producer Statements (PS1, PS2, PS3, PS4) are completed, delivered and accepted by the Contract Administrator

- All Consultation Certificates are completed, delivered and accepted by the Contract Administrator;
- All compliance certification required in respect of Statutory Approvals is delivered and CSVUE records for the project have been updated;
- Bridge Data System Input Forms are completed and delivered two months prior;
- Completed RAMM update tables and network change forms delivered to the Principal
- Draft as-built drawings are delivered;
- Draft operations and maintenance manuals are delivered.]

2 Preliminary and General

2.1 Definitions

2.1.1 All the definitions in the Contract shall apply, plus the following:

- **ARCHAEOLOGICAL SITE** is defined in section 6 of the *Heritage New Zealand Pouhere Taonga Act 2014*. In terms of this definition, a site could include an object or material within its found context. All archaeological sites, whether recorded or not, are protected by this legislation.
- **CHECKER** means the Person(s) of appropriate skill employed by the Contractor and acceptable to the Principal to undertake the independent design check of the Contractor's design. This person will sign-off the Producer Statement for Contractor's design Check.
- **CSVUE** means the Principal's database for managing compliance with Statutory Approvals.
- **CUSTOMER** means every person or community affected or influenced by the Contract Works.
- **DEPARTURE** means a change to a standard or requirement of these Principal's Requirements approved in writing by the Principal.
- **DEPARTURE REPORT** means a report from the tenderer to the Principal requesting a Departure.
- **ENVIRONMENTAL INCIDENT** means an occurrence or set of circumstances, as a consequence of which, pollution (air, water, or land) or an adverse environmental or social or cultural impact has occurred or is occurring. Adverse impact includes accidental discovery, contamination, harm to flora and fauna (either individual species or communities), damage to heritage or cultural values, harm to human health and adverse community impacts.
- **ENVIRONMENTAL REGULATORY AUTHORITY (ERA)** includes but is not limited to Regional Council, Territorial Local Authorities, Department of Conservation (DoC), Heritage New Zealand Pouhere Taonga (HNZPT), etc.
- **HEAD DESIGNER** means the designer who is responsible on behalf of the Contractor for the Conceptual Design and the Contractor's design. This person shall be a signatory on the Conceptual Design Certificates and Producer Statements for both Contractor's design and construction review.
- **KOIWI** means human skeletal remains of any race.
- **SCOPE** means the project's principal purpose(s) and services(s) to users as outlined in the Tender Documents.
- **STATUTORY APPROVALS** includes but is not limited to resource consents, permits, authorities and designations under the Building Act 1991, Resource Management Act 1991, Heritage New Zealand Pouhere Tanonga Act 2014, the Wildlife Act 1953, National Environmental standards for assessing and managing contaminants in soil to protect human health 2011 and other relevant legislation.
- **TAONGA TŪTURU** is subject to the *Protected Objects Act 1975* and means an object that:
 - a) relates to Māori culture, history, or society; and
 - b) was or appears to have been:
 - i) manufactured or modified in New Zealand by Māori; or
 - ii) brought into New Zealand by Māori; or
 - iii) used by Māori; and
 - c) is more than 50 years old.

- **TRMP** means Traffic Risk Management Plan which is one of the traffic management plans required under the Contract. The TRMP outlines the site and Contract Works specific identified risks and considerations, an assessment of the risks and considerations, all possible risk control options focussing on the reasonably practicable options, lowest total risk assessment, the selected risk control/s (likely multiple or stacks of risk controls) and a plan for the implementation of the selected risk control/s.

2.2 Contractor's Design

2.2.1 The Contractor shall be responsible for preparing the Contractor's design, including a design report that allows for the construction, completion, and correction of defects of the Contract Works.

2.2.2 The Contractor's design shall, subject to the provisions of the Contract:

- be developed from, and be consistent with, the Specimen Design; and
- meet and be carried out in accordance with the requirements and provisions of the Principal's Requirements.

Note that the Specimen Design is provided as an illustration of a design that is compliant with the requirements of the Principal's Requirements.

2.2.3 If the Contractor chooses to adopt any aspects of the Specimen Design, a Design Report should provide a rationale that is consistent with the PRs that support their decision.

2.2.4 Any departures from the requirements of the PRs, including the listed standards and guidelines and those required to replicate the Specimen Design, must be requested and approved in writing and by the Principal.

2.2.5 The Contractor shall ensure that all Persons referred to in the Design and certification procedures set out in section [8] of these Principal's Requirements:

- Are at all relevant times appointed to carry out the procedures contained in the Principal's Requirements; and
- At all times meet the requirements of the design and certification procedures.

2.2.6 Should any person referred to in the design and certification procedures fail to fulfil their requirements under those procedures this shall be deemed to be a breach of the Contractor's contractual obligations.

2.2.7 No affected part of the Contract Works shall begin until the appropriate design and certification procedures are complete. The procedures include the **Contract Administrator** providing written acknowledgement of having received the Contractor's design as required by the design and certification procedures, section [8] of these Principal's Requirements.

2.2.8 Each part of the Contractor's design submitted for the review of the **Contract Administrator** must be accompanied by a design report (for which updated Structure Design Statements in accordance with the *Highway structures design guide* shall be included) outlining:

- The standards to be achieved;
- The background reasoning leading to the choice of a standard, material, methodology etc;
- Any deviations from the Conceptual Design.

2.2.9 If the Contractor wishes to offer an alternative to any part of the Conceptual Design after the contract is awarded, they must provide to the **Contract Administrator** a proposal with appropriate Drawings and supporting information and certification as outlined in the design and certification procedures, section [8]. The Contractor shall provide the **Contract Administrator** any details necessary for the **Contract Administrator** and Principal to assess the acceptability of the alternative

proposal. The **Contract Administrator** shall seek the Principal's written decision on the acceptability of the alternative and shall issue this to the Contractor.

- 2.2.10 Until the Contractor receives written acceptance of their alternative proposal through the **Contract Administrator**, they shall not progress it. It is solely the Principal's decision as to whether it accepts such alternative proposals.
- 2.2.11 The Contractor shall submit details of any cost savings such alternative proposal will produce. If the alternative proposal requires a departure from the Principal's Requirements and the Principal accepts the alternative proposal, any capital Cost savings shall be shared on a **[50:50]** basis between the Principal and the Contractor, and the Contract Price shall be adjusted accordingly.
- 2.2.12 The Principal will have reason to reject the proposal if it believes the alternative Conceptual Design proposal is in any way not equal or equivalent in standard to the requirements of these Principal's Requirements. However, if the Contractor can demonstrate whole-of-life cost benefits, the Principal shall take such benefits into account in assessing the proposal.
- 2.2.13 The Contractor may submit parts of the Contractor's design progressively, as specified in section **[8.3]** of these Principal's Requirements, to match their phasing of the Contract Works.
- 2.2.14 If, for any reason, the Contractor's Conceptual Design the Principal used to determine the Tangible Cost Adjustment Values cannot be developed into a fully compliant Contractor's design, the Contractor shall develop an alternative Conceptual Design, at their own expense. This alternative shall be in line with the Principal's Requirements and shall match the Tangible Cost Adjustment values used in evaluating the Contractor's tender submission. The Contract Price and time for completion of the works shall not be altered as a result of the Principal accepting such an alternative Conceptual Design.
- 2.2.15 The Contractor shall keep all design calculation documentation for no less than **ten** years following Practical Completion.

2.3 Construction

- 2.3.1 The Contractor shall carry out and complete the Contract Works according to:

- a) The Contractor's approved design;
- b) The Principal's supplied pavement and surfacing design;
- c) These Principal's Requirements;
- d) The Contract.

2.4 Standards and Specifications

- 2.4.1 Subject to the other requirements of the Contract, the Contract Works including the Materials and workmanship and the Contractor's design shall comply with the applicable documents listed in the **Principal's Visual Identity Guidelines**, current on the date tenders closed. The Contract Works and Contractor's design shall also comply with any amendments or additions to the criteria set out in the documents listed in Appendix **[A]** of these Principal's Requirements, plus the standards published, adopted or endorsed by Standards New Zealand that apply to the type and nature of the work current at the date tenders closed.
- 2.4.2 Where the documents referenced in 1.6.1 require a decision by the Head Designer that affects the standard of the Contractor's design, the Head Designer must record the basis of each decision. This record shall be included with the appropriate Producer Statement and/or Design Report of the Contractor's submission.
- 2.4.3 The general advice or work practices contained in any of the above noted documents that are applicable to the Contractor's design shall be applied wherever practicable. The basis of the Head

Designer's decision regarding such advice or work practices must be recorded and shall be included with the appropriate Producer Statement and/or Design Report of the Contractor's submission.

2.5 Temporary Works

The Contractor shall be solely responsible for the sufficiency, stability and safety of all Temporary Works and their care, in accordance with the Contract.

2.6 Hours of work

<<Guidance Note: Hours of work must be contract specific, prescribe any requirements or restrictions e.g. requirements stipulated by any designation, resource consent conditions or other environmental approval (if any). >>

- 2.6.1 [Unless otherwise approved in writing by the **Contract Administrator**, the Contractor shall carry out work on site between the hours of 07.00 a.m. and 07.00 p.m. Monday to Saturday inclusive, unless affected by 1.10.2 of these Principal's Requirements.]
- 2.6.2 Unless otherwise approved in writing by the **Contract Administrator**, no work (except for emergency work authorised in writing by the Principal) shall be permitted between the following periods:
- (a) 7:00 p.m. to 7:00 a.m. Monday to Saturday inclusive
 - (b) 7:00 p.m. Saturday to 7:00 a.m. Monday
 - (c) The hours of darkness, as defined below
 - (d) Good Friday to Easter Monday inclusive
 - (e) [24] December to 5 January inclusive
 - (f) New Zealand Public Holidays
- 2.7.3 The hours of darkness shall be between 30 minutes before official sunset and 30 minutes after official sunrise, or where there is insufficient light for a person to be clearly visible at 100 metres.
- 2.7.4 Where major sporting or cultural events are expected to generate additional traffic volumes, the Contractor shall co-operate with the Principal, the **Contract Administrator** and New Zealand Police to ensure traffic flows through the Contract Works.]

2.7 Publicity and public relations

- 2.7.1 The Contractor shall not make any public communication or announcement at any time to any third party, including any section of the media, about the Contract or the project without gaining written approval from the Principal beforehand. Media management protocols and the hierarchy of nominated media spokespeople must be included and approved in advance by the Principal as part of the project's Customer and Stakeholder Communications Management Plan (CSCMP). If the Principal additionally requests that the Contractor provides information to the media or performs a media spokesperson role they will do so.
- 2.7.2 The Contractor will follow all of the Principal's associated brand, printing, online, website and social media guidelines as outlined in Z/17 Branding and Communications standard, and agree scope and roles actioning these channels with the Principal as part of the development of the CSCMP.
- 2.7.3 When requested, the Contractor shall also prepare for the Principal's approval and action appropriate draft media releases. A media release shall be available for proactive opportunities such as when key milestones are reached (e.g. prior to consultation periods/open days, and

starting physical works, where applicable) and at such other times as required by the Principal. The Contractor shall not use the release for the purpose of advertising the Contractor's company or services.

- 2.7.4 The Contractor will allow for a Principal representative to lead all significant events. This will generally be the Director Regional Relationships, General Manager, Transport Services or a National Manager, System Design or Infrastructure Delivery (or their delegate) for all large projects, and complex or sensitive small and medium sized projects.
- 2.7.5 The Contractor may not erect promotional or publicity signage on any part of the Site without gaining written approval of the Principal/Contract Administrator beforehand.
- 2.7.6 If the Contractor wishes to submit an award entry or paper to a conference or similar learned society, the Contractor shall ensure that the draft is provided in advance so the Principal may review and approve it prior to submission.

2.8 Contractor's Establishment

- 2.8.1 The Contractor shall arrange for electric power supply for their site offices with the controlling electrical supply authority. The Contractor shall pay all costs for erecting and removing the supply line and for power used directly to that authority.
- 2.8.2 The Contractor shall make its own arrangements and pay all costs for the supply of water.
- 2.8.3 The Contractor shall provide sanitary facilities, and other buildings for their use. The Contractor shall obtain permits for these facilities and/or buildings from the relevant authority. All costs shall be at the Contractor's own expense.
- 2.8.4 The Contractor shall provide a telephone and internet connection on site at their own expense.
- 2.8.5 The Contractor is to remove all temporary services for electric power, water, temporary buildings, fencing and barriers on completion of the work at their own cost.
- 2.8.6 Construction information signs shall be installed by the Contractor at its cost at each end of the various sites on the state highway and on entry to the site from side roads (other than no exit side roads). These signs will be placed in clear view of traffic in positions agreed by the Contract Administrator. The format, layout and size of the sign shall be as shown in the NZTA *Visual Identity Style Guidelines*.
- 2.8.7 The Contractor shall submit a proof of the exact wording and layout of the signs to the Contract Administrator before they are produced.
- 2.8.8 The Contractor shall provide at the Contractor's expense the facilities and services for the Contract Administrator outlined in Appendix [G] of these Principal's Requirements.

2.9 Aerial Photography

<< Guidance Note: Prescribe the specific contract requirements, if any, e.g. video survey of existing roads likely to receive construction traffic, web cam, aerial photography. Following below is an example for aerial photography. >>

2.10 Video Recording

- 2.10.1 Before any work begins, the Contractor shall engage a professional video production company to record the condition of the following roads, particularly the pavement surfacing and condition. Two copies shall be submitted to the Contract Administrator.

Table 1.16: Required video survey

Road	Extent of video survey
[Describe or name road]	<<E.g. whole length of road, or between specific chainages, or as detailed on a drawing, provide reference number>>

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2.11 Site Surveillance Camera

- 2.11.1 The Contractor shall, supply all plant, equipment and materials necessary for a camera(s) at the site. This shall be at the Contractor's expense, and will include the ongoing charges for operation, maintenance and security of all camera(s).
- 2.11.2 The camera(s) shall be installed before any clearing work begins, and shall remain in operation until Practical Completion. The **Contract Administrator** must agree to the positioning of the camera(s) before it is installed. <<state no. of cameras and proposed locations>>
- 2.11.3 The purpose of the cameras is to enable the site office to monitor works from the office compound, **the Principal** to view the works from their offices, and to monitor traffic congestion on the live roads, specifically at the intersections. The Contractor shall maintain a **secure** website displaying real time images from each camera(s). Furthermore the contractor shall, upon request for the **Contract Administrator**, provide historical data received on any of the camera(s) up to [2] months prior to the date of the request.
- 2.11.4 The minimum installation requirements are:
- 240V AC at the top of the pole. This will require a mains isolation switch at the base of the pole, or in a utility shed.
 - The mains cable shall be run in 20 mm conduit and be terminated with a female ferrule at the top, ready to accept a 20mm betaflex. A 2m tail shall be left at the top of the pole.
 - A flat plate, with two protruding studs shall be attached to the top of the pole at 90 degrees to the direction of the camera. For example, the plate should be mounted to the side of the pole and not to the face pointing towards the site to be viewed.
 - The pole shall be rigid enough to prevent camera sway, with the camera mounted high enough above the ground to prevent vandalism or theft.
 - A PSTN phone line terminated in a standard RJ11 phone jack shall be provided at the top of the pole.
- 2.11.5 The minimum camera requirements are:
- Axis 200+ camera, internal toroidal transformer and fujinon lens or similar.
 - <<Describe mounting type and temperature controlled environmental housing>>.
 - Internal USB 56K modem and system configuration/programming
 - Varifocal lens, 5-82mm manually adjustable.
 - The camera(s) shall provide images at a minimum of 2 megapixels quality and 16 bits colour.
 - All images shall be refreshed every 2 minutes.
- 2.11.6 The Principal will consider other equivalent cameras. The above specification is the minimum standard acceptable for use on this Contract.

2.12 Archaeological Sites (Archaeological Discovery Procedures)

- 2.12.1 The Contractor is responsible for ensuring that Archaeological Sites as indicated in the Contract are avoided and an appropriate authority has been granted by Heritage NZ Pouhere Taonga before the Contract Works commence. Many of the earthworks on capital projects and for network maintenance have the potential to impact on insitu archaeological features that are invisible and below ground. Surveys of Archaeological Sites are incomplete throughout NZ and have limited predictive value. Following an assessment by an archaeologist, earthworks may require an archaeological authority granted by Heritage NZ Pouhere Taonga. This includes earthworks related to geotechnical, site enabling, construction, landscaping, culvert and vegetation clearance, trenching, signage and artworks.
- 2.12.2 If an archaeological authority has been granted then work shall comply with all conditions, including the discovery of Koiwi and Taonga Tūturu. These conditions identify how the site is to be set aside and secured, key parties to be notified and procedures to agree the recommencement of works. The Contractor shall also be responsible for observing the tikanga and cultural protocols agreed with local iwi/hapu in conjunction with the Principal's Project Manager.
- 2.12.3 If any material that could be archaeological in nature is discovered when the relevant Contract Works are not covered by an archaeological authority, then the Contractor shall follow the procedures described in the Principal's minimum standard **P45 Heritage Specification for Land Transport Infrastructure**. In addition the Contractor shall be responsible for observing the tikanga and cultural protocols agreed with iwi/hapu in conjunction with the Principal's Project Manager.

2.13 Emissions Trading Scheme deforestation reporting

<<Guidance Note: This section is to be used for projects involving at least one hectare of trees. Please consult with the Emissions Trading Scheme team to determine appropriate compliance requirements.>>

- 2.13.1 The Contractor is responsible for accurately recording the species of trees cleared within any area of forest land that has been identified within the Principal's Emissions Trading Scheme forestry assessment reports. The Contractor's accurate record of the tree species cleared shall be submitted to the Principal as part of its Emissions Trading Scheme reporting requirements.
- 2.13.2 The Contractor shall map the area of trees cleared within any area of forest land that has been identified within the Principal's Emissions Trading Scheme forestry assessment reports.

2.14 Precondition survey

- 2.14.1 A precondition survey of the Principal's and other public / private assets within the extent of the Site and immediately beyond the outside area of the construction activities shall be undertaken in conjunction with the Contract Administrator prior to the Contractor taking possession of the Site. This shall include an invitation for the relevant stakeholders to accompany the Contractor during this inspection. The Contractor shall allow for all costs, fees, levies and expenses that are associated with completing the condition survey including reporting, defect monitoring, the installation and monitoring of additional tell-tale strips and increasing the monitoring frequency if this is deemed necessary by the Contract Administrator. The Contractor will prepare and submit the precondition survey report to the Contract Administrator for approval prior to the Contractor being entitled to possession of the Site under 5.5 of the Contract.
- 2.14.2 A precondition survey and report is to include, but is not limited to **[structures, pavements and surfacings, services, paved area, fences, gates and farm paddocks]** condition generally within 10 metres of the extent of excavations, structural works or any laydown areas carried out by the Contractor on the Site and is specifically to include a survey of the State Highway [1] pavement and surfacings, culverts and other structures and assets. The survey shall include photographs /

sketches and notes on any defects identified at the time of the inspection, together with the following: <<include if structures are in the vicinity of the works>>

- (a) Full details and identification of all defects existing at the time of the inspection such as crack location and widths, spalling, exposed concrete, joint conditions, gaps, untrue walls, sagging rooflines etc;
- (b) Photographic and sketch drawing evidence of all structural defects existing at the time of the inspection
- (c) Causative interpretation of all structural defects existing at the time of the inspection. The report and interpretation shall include due consideration of the existing ground and the nature of adjacent construction.

Where appropriate, the Contractor shall install “tell-tale strips” across all significant cracks and defects during the initial inspection. All movement or breakage of the tell-tale strips shall be reported by the Contractor to the Contract Administrator within 24 hours of the observation being made.

2.15 Project Management Board (PMB)

<<Guidance Note: PMBs will be mandatory on contracts over \$20M or used for contracts considered high risk at the discretion of the Project Manager>>

- 2.15.1 The purpose of the Project Management Board (PMB) is to manage the successful delivery of the Contract Works by establishing good working relationships between the Principal, the Contractor and the Contract Administrator through a mutually agreed strategy of commitment, co-operation and communication with the objective to deliver a superior product that will exceed stakeholder expectations and enhance the reputations of all involved.
- 2.15.2 The PMB is required to give effective governance to the project and provide strategic direction within the requirements of the Contract through effective leadership. The intention is to monitor the “health” of the Contract and to take the necessary steps to ensure:
 - (a) That overall performance is in accordance with the Contract;
 - (b) The goals of the partnering charter (refer to 2.14.6 below) are followed;
 - (c) That risks are under appropriate management to ensure the obligations of the Contract are met.
- 2.15.3 The PMB may instruct an independent third party to review aspects of the project, where it is considered that this could resolve undesirable trends or further enhance performance.
- 2.15.4 The PMB shall comprise of [one] senior member of the Principal, [one] senior member from each of the Contractor and the Contract Administrator. An independent PMB member may be co-opted at the discretion of the founding PMB members where this is deemed to enhance the overall performance of the project.
- 2.15.5 Each participating organisation shall notify the other parties of the name of their PMB member within 14 days of contract award.
- 2.15.6 The PMB members will be required to attend the inception partnering meeting where a partnering charter and action plan will be developed. The PMB will be responsible for ensuring ongoing monitoring of the Charter and implementation of the action plan.
- 2.15.7 Meetings of the PMB shall initially be scheduled every other month, or at other agreed frequencies. Unscheduled meetings to address specific issues may be called by any PMB member with 7 days’ notice.

- 2.15.8 The role of PMB Chairperson shall be rotated through all members. Meetings are to be attended by all members of the PMB and a member of the site management team, rotated through all members.
- 2.15.9 The site management team will consist of the **Principal's** Project Manager, the Contractor's Representative and the **Contract Administrator**.
- 2.15.10 Progress reports shall be prepared by the site management team and represent the consensus view of the site management team. Progress reports shall be forwarded to the PMB 7 days ahead of any scheduled meeting. Presentation of the progress report to the PMB will be undertaken by rotation.
- 2.15.11 Progress reports shall be concise and cover details as requested by the PMB. Details may include issues such as:
- (a) Progress made on the completion of **Safe System** Audits
 - (b) Appropriate risk and risk treatment reporting
 - (c) Detailed design progress
 - (d) Construction progress
 - (e) Quality performance results
 - (f) Cost control and reporting procedures
 - (g) Health, safety and wellbeing performance monitoring and assurance
 - (h) Resource consent risks and other environmental, social, cultural, and heritage
 - (i) Traffic management
 - (j) Stakeholder management
 - (k) Opportunities
 - (l) Communication
 - (m) Maintenance operations under PSE/15
 - (n) Other activities relevant to the successful delivery of the project.
- 2.6.12 The PMB will be empowered to consider the reports submitted and call for the site management team to ensure that the project proceeds in accordance with industry best practice.

2.16 Risk management

- 2.16.1 The Contractor shall liaise with the **Principal** to conduct risk management in accordance with the Principal's Minimum Standard Z/44 – Risk Management.
- <<Guidance note: Develop project specific requirements>>**
- 2.16.2 A register of risks identified to date is included in Appendix **[VII]**. **<< Guidance Note: Develop project specific requirements. >>**

2.17 Performance evaluation

- 2.17.1 The Contractor shall participate in the [monthly] evaluation of the Contractor's performance on this Contract, in accordance with the Principal's Minimum Standard Z/12 – [Supplier performance evaluation framework](#).

2.18 Contract management reviews

- 2.18.1 The Principal engages an independent party to systematically and objectively examine its supplier's compliance with formal contracts requirements, the specified quality requirements and approved quality plans. This examination may also include records of reviews and audits required under the Contract.
- 2.18.2 The Contractor shall participate in any such reviews of the Contract and shall make available all facilities, documentation, records and personnel, including those of Subcontractors, that are reasonably required to undertake the review.

2.19 Post Construction Value Review

- 2.19.1 The Contractor shall work with the Contract Administrator to establish the project value-for-money criteria within one month of the Final Account being finalised. This shall include providing final project cost information (in the required format as per SM014 Cost Estimation Manual) and may include further analysis agreed between the Contract Administrator and the Contractor.

3 Contract Plan

3.1 General

- 3.1.1 The Contractor shall prepare an all-encompassing Contract Plan (CP) to meet all requirements of the Contract. The CP shall clearly demonstrate an organisation level based, accredited, integrated working system and strategic-level framework for the management, planning and execution of the Contract Works.
- 3.1.2 Such details shall include:
- a) Contract name, specified objectives and outcomes
 - b) Policy statements on health, safety and wellbeing, quality and risk management
 - c) Policy statements on customer and stakeholder communication, environmental and social management, and consent compliance management
 - d) Contract team organisation and Key Personnel
 - e) Contractor and sub-contractor work management systems, specifically for communication, information transfer and lessons learnt migration
 - f) Succession planning for the Key Personnel outlined in the information for Tenderer.
 - g) Project objectives, targets and performance measurement and monitoring.
- 3.1.3 The CP shall include the following management plans:
- a) Health, Safety and Wellbeing Management Plan (HSWMP) (which is the Site-specific safety plan referenced in the Contract)
 - b) Quality Management Plan (QMP)
 - c) Risk Management Plan (RMP)
 - d) Customer and Stakeholder Communication Management Plan (CSCMP)
 - e) Environmental Management Plan (EMP)
 - f) Traffic Risk Management Plan (TRMP) (which is the traffic management plan referenced in the Contract)
 - g) Close-out and Handover Management Plan
- 3.1.4 The Contractor's CP, and associated HSWMP, QMP and RMP shall be in place prior to physical works commencing on site. Ongoing review by both the Contractor and Contract Administrator shall not prevent the plans becoming operative.
- 3.1.5 The Quality File (including the agreed Inspection and Testing Schedule, refer to NZTA Z08: Standard for Inspection, Sampling and Testing) shall be in place prior to any Contract Works commencing on Site, in accordance with the QMP.
- 3.1.6 The EMP and CSCMP shall be in place within two weeks of physical works commencing on Site. Ongoing review by both the Contractor and Contract Administrator shall not prevent the plans becoming operative.
- 3.1.7 Should the Contractor fail to meet these management plan timing requirements, all work on site must stop, and only recommence with the Contract Administrator's approval.
- 3.1.8 The Contractor shall regularly review the appropriateness of all Management Plans and maintain an up to date copy on the Quality File at all times. Notification of all changes shall be continuously documented at the front of each management plan.

3.2 Contractor's Personnel

- 3.2.1 The Contractor's CP shall include the details of the following key personnel who are to be employed on the Contract Works:

Contract Director	Senior Representative from the Contractor's organisation. Responsible for the overall management of the Contract Works. Typically not based on Site.
Contractor's Representative	Refer 5.3 of the Contract. The Contractor's Representative is responsible for the day to day management of the contract, preparing and then ensuring the effective maintenance and operation of the Contract Plan (CP).
Design Manager	Responsibility for undertaking the design in accordance with the Principal's Requirements and the Contract. Preparing designer certification submission packages and signing produce statements for design.
Engagement and Communications Manager	Should ideally be able to work independently without commercial conflicts within the project. Has the delegated authority to lead the Contractor's delivery of the CSCMP and to authorise actions required to enable the Contractor to deliver the contract and manage the works effectively, for all parties. Is responsible for reporting to the Principal's nominated Engagement & Communications team representative on all community and stakeholder plans and issues, and must follow all best practise guidelines supplied by the Principal.
Quality Manager	Should ideally be able to work independently without commercial conflicts within the project. Has the delegated authority to lead the Contractor's delivery of the QMP and to authorise actions required to enable the Contractor to deliver quality across the contract. Works with managers in other areas to ensure all areas of quality. Has the ability to action a stop works in the event a potential quality issue arises.
Environmental Manager	Should ideally be able to work independently without commercial conflicts within the project. Responsible for ensuring compliance with the Contractor's Environmental Management Plan (EMP) and compliance with all relevant Resource Management Act obligations. This includes ensuring compliance with all conditions relating to Statutory Approvals and maintaining up to date records compliance in CSVUE. The Environmental Manager is also responsible for reporting to the Principal and liaising with Regional and District Councils in respect of social and environmental matters. This includes ensuring compliance with all conditions relating to environmental monitoring, and responsibly managing Environmental Incidents.
Health, Safety and Wellbeing Manager	Should be able to work independently without commercial conflicts within the project. Has the delegated authority to lead the Contractor's delivery of the HSWMP, and to authorise actions required to enable the Contractor to deliver the expected health, safety and wellbeing outcomes in the Contract.
Risk Manager	Should be able to work independently without commercial conflicts within the project. Has the delegated authority to lead the Contractor's delivery of the RMP and to authorise actions required to enable the Contractor to deliver the Contract and manage risk effectively, for all parties.
Fire Safety Officer	Responsible for control of all fire hazards.

Traffic Manager	Responsible for ensuring all personnel, plant, vehicle and traffic movements and controls comply with the contract requirements and the Contractor's Traffic Risk Management Plan.
STMS	Refer NZGTTM
IANZ Laboratory and Signatory	Contractor's appointed service provider responsible for undertaking the field and laboratory testing required by the Project Specification.
Emergency Works	Three people who will arrange for any emergency works to make the site safe.

3.3 Quality Management

- 3.3.1 The Contractor must have a project specific Quality Management Plan (QMP) that covers design, construction and construction assurance as defined in the Principal's relevant quality management specifications within the Z01 series.
- 3.3.2 Inspections, sampling and testing of the Contract Works including Materials used shall be in accordance with the Contract specific schedule based upon the Principal's Minimum Standard Z/8 *Inspection, sampling and testing*. The Principal shall be deemed the "customer" when the Contractor engages an inspection and testing laboratory.
- 3.3.3 The Contractor shall require that all its Subcontractors and suppliers, including design services shall prepare, maintain and operate for the term of the Contract a Quality Management System consistent with that of the Contractor.
- 3.3.4 The Contractor shall remain responsible for the performance of all its Subcontractors, suppliers and design consultants.

3.4 Risk Management Plan

- 3.4.1 The purpose of the Contractor's Risk Management Plan is to describe how risk management within the Contract will satisfy the requirements of the Principal's Minimum Standard Z/44 Risk Management; to describe the practices, procedures, controls and reporting processes for the management of risk; and to demonstrate that risk will be effectively managed.
- 3.4.2 The Contractor's Contract-specific Activity Risk File shall include:
- (a) Risk Management Plan
 - (b) Contractor's risk adjusted programme of works (with regular updates)
 - (c) Risk analysis data
 - (d) Contract close out risk report.
- 3.4.3 A current, digital copy of the Contractor's Activity Risk File shall be maintained on the quality file (refer [2.3])

4 Contractor's Programme

4.1 Contract Programme

- 4.1.1 The Contractor shall submit to the Contract Administrator an appropriately detailed **risk adjusted** programme for approval, in accordance with the **Z03 Physical Works Schedule Framework** and Principal's Minimum Standard **Z/44 – Risk Management**. The programme shall comply with the requirements of the Contract and show how the key aspects of the Contract Works will be programmed, resourced and co-ordinated to meet the Due Date(s) for Completion.
- 4.1.2 The programme shall be shown in logic-linked Gantt Chart form. It shall show all activities and dependencies, and clearly identify the critical path, including which activities impact this. The programme shall flag all programming constraints and milestones and shall be updated at least monthly, in accordance with the **Z03 Physical Works Schedule Framework** requirements. A digital copy of the current risk-adjusted programme shall be maintained on the Contractor's Quality File.
- 4.1.3 The programme will be on industry-accepted software such as MS Project or Primavera. If software other than MS Project is used, the Contractor shall: supply and install a licensed copy of the software on the **Contract Administrator's** computer; and provide training to a representative of the Principal and the Contract Administrator's from a certified facility, on the use of the software.
- 4.1.4 The Contractor shall liaise with the Principal to ensure alignment between Contractors programme and the Principal's Risk Adjusted Programme at all times.

4.2 Programming Constraints

- 4.2.1 Weather, seasonal and environmental factors will be familiar constraints for an experienced Contractor when programming, planning, organising its resources and executing the Contract Works. In addition to these usual constraints the Contractor is required to allow for the project specific programming constraints detailed below. The Contractor is required to meet these and still meet the Due Date for Completion of the Contract Works and any Separable Portions. Unusual constraints include but are not limited to:
- (a) Cultural Ceremonies: The Contractor's programme shall identify known cultural ceremonies anticipated to require observation and/or participation by the project before, during and following construction. The Contractor may be required to attend such ceremonies. Where the possibility of changes to time allowed for cultural ceremonies exists, this should be recorded in the project risk register and managed accordingly;
 - (b) Compliance with Statutory Conditions: The Contractor's programme shall provide for compliance with all relevant, statutory requirements and approvals granted to the Principal or Contractor, or transferred to the Contractor for the Contract Works. The Contractor shall be solely responsible for checking all conditions for the Contract Works and assessing the implications of such conditions on its construction programme and methodology. Where the possibility of changes to time allowed for compliance with statutory requirements exists, this should be recorded in the project risk register and managed accordingly;
 - (c) Archaeological Lead in times: The Contractor shall ensure an appropriate entry exists in the project risk register where there is evidence to suggest additional cost or programme delay relating to the approvals process (including for geotechnical investigations/testing) discovery, inspection and/or removal of archaeological artefacts is a risk.
 - (d) Property: The Contractor's programme shall allow for compliance with all conditions in Sale and Purchase Agreements and Land Entry Agreements, including all accommodation works. The Contractor shall be solely responsible for checking all conditions for the works and

assessing the implications of such conditions on its construction programme and methodology;

- (e) Winter Working: The Contractor's programme shall allow for all road surfacing and pavement construction be completed outside the Winter Period defined in the Contract.
- (f) Ecological Lead Times: The programme shall comply with relevant conditions and requirements of Statutory Approvals, and all District and Regional Council requirements. The Contractor shall be solely responsible for checking all relevant work activities and assessing the implications of such requirements and conditions on its construction programme and methodology. The Contractor must make allowances for potential delays caused by expected occurrences, such as inclement weather, that may delay ecological technical assessments. Where the possibility of changes to duration or timing of compliance with statutory requirements exists, this should be recorded in the project risk register and managed accordingly.

5 Contractor's Reports

5.1 Progress reporting

- 5.1.1 All reports shall be completed to a quality and standard appropriate for the project and to the satisfaction of the Contract Administrator.
- 5.1.2 Weekly progress reports shall be prepared by the Contractor and one copy submitted to the Contract Administrator. The weekly reports shall be submitted for each completed or partially completed week. Reporting shall continue until the Contractor has completed all work that is known to be outstanding at the date stated in the Practical Completion Certificate. Each report shall include:
- (a) Summary of locations and description of work activity carried out during the previous week, including an estimate of the progress achieved on major work items;
 - (b) Issues or exceptions to accepted practice requiring follow-up by the Contract Administrator or their representatives including any traffic, health, safety and wellbeing or environmental events, near misses, hazards/concerns or unplanned diversions and delays;
 - (c) Forward Weekly Programme, with reference to the Contractor's risk adjusted programme;
 - (d) Notification of Non-Conformance, response and remedial action(s), in accordance with the QMP
 - (e) Any other information agreed between the Contractor and Contract Administrator.
- 5.1.3 Monthly progress reports shall be prepared by the Contractor and an electronic copy submitted to the Contract Administrator. The monthly reports shall be submitted for each completed or partially completed month. Reporting shall continue until the Contractor has completed all work that is known to be outstanding at the date stated in the Practical Completion Certificate. Each report shall include:
- (a) Current Contractor's **risk adjusted** programme with agreed changes from baseline identified, together with detailed descriptions of progress, details of any events or circumstances that may jeopardise the contract's completion, and measures being (or to be) adopted to overcome delays;
 - (b) Financial management, including a monthly progress claim, and a schedule showing the status of all claims (extra contractual or variations) which the Contractor considers to be (or may be) a Variation. The format of the schedule is to be agreed between the Contractor and the Contract Administrator and shall include a forecast of the final Contract Price;
 - (c) Risk management activity in respect of Contractor-owned project risks, which as a minimum shall include:
 - A list of extreme level and HSW critical risks with treatment progress update;
 - A brief report detailing the past month's risk management activity, to include: risks identified, impacted, closed or where there has been a change in risk level (current or target);
 - Notification of the current risk management activity to the Principal and Contract Administrator.

- (d) Earned value progress compared with forecast, integrating programme and cost performance; <<Guidance Note: Earned Value Management should only be used on major projects. >>
- (e) Photographs showing the status of construction and progress on the Site;
- (f) Problems encountered during construction at the Site;
- (g) Reporting on quality metrics as defined and agreed in the QMP.
- (h) Monthly Consent, Social and Environmental Report (including details of any monitoring, any non-compliances, abatement notices or enforcement action, and measures taken);
- (i) Comment on activities relating to environmental aspects and public relations;
- (j) Health, safety and wellbeing contract-specific performance monitoring and assurance reporting of leading and lagging indicators.
At a minimum, this report will cover:
 - A summary of health, safety, and wellbeing statistics.
 - Details of any events, including worksite crashes, reported hazards, improvement actions, assurance and audit findings, and other significant events or points of interest, such as near misses.
 This is in addition to the monthly HSW data submitted in the centralised contractor reporting portal.
- (k) A rolling cashflow forecast versus base line cashflow (established at the outset of the contract) for the Contract;
- (l) A schedule of significant off-site manufactured Materials, including the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates manufacture will begin, shipment and arrival at Site;
- (m) Evidence of the Contractor's records for personnel and Plant on Site and available during the period;
- (n) Weather records, in particular, the amount of rainfall recorded at the Site for each day of the reporting period;
- (o) Updated correspondence register;
- (p) Updated design and design check producer statement register;
- (q) Updated drawing register;
- (r) Updated construction and construction review producer statement register;
- (s) Updated consultation certificate register;
- (t) Updated temporary works certificates register
- (u) Updated Safe System Audit reports register;
- (v) Pre and post construction as-built surveys carried out, Asset and Work Manager (AWM) updates, HSIMS updates, and other necessary asset data updates;

- (w) Copies of quality assurance documents, test results and certificates of Materials where required by the Contract Administrator;
- (x) Landowner issues;
- (y) Any maintenance works performed;
- (z) Any opportunities to enhance the longer-term operability and maintainability of the assets; and
- (aa) [Any additional information either required by the Contract and/or the Contract Administrator as part of the monthly report.]

5.1.4 Maintenance reports shall be prepared by the Contractor and two copies submitted to the **Contract Administrator**. The maintenance report shall be submitted within 20 working days of Practical Completion, updated and submitted 6 monthly until the end of the Defects Notification Period. The intent of the maintenance report is to compile background information for the project and intellect associated with the construction to ensure the smooth and efficient uptake of maintenance works and operation covering all facets of the project. Each report shall include:

- (a) Planning: covering environmental and social risk elements, consent compliance status, formal consent conditions that must be met for the life of the project, including the project's environmental objectives. The planning section should cover any areas where ongoing maintenance is subject to conditions of consent.
- (b) Design: covering the special design features included in the project and the associated maintenance assumptions and proposed strategy to maintain and operate. This will include coverage of the pavement design and structural features that will require special attention e.g.
 - How special fittings that retain the guardrail to the bridge deck function, and what is critical should the guardrail need replacement following an accident.
 - Why a particular "special product" was used in lieu of an "off the shelf" product and what maintenance requirements are needed for the off the shelf product.
 - Specific maintenance requirements for bridge bearings and joints.
 - Source of specialised equipment/products for replacement purposes.
 - Recommended periodic inspection/testing programme for tie-back walls.
 - Access and serviceability strategies for all assets
- (c) Construction: commentary on any construction outcomes that will impact on future maintenance, e.g.:
 - The challenging sections of subgrade that were encountered during construction, how these were dealt with and what impact this may have on maintenance.
 - Inspection and Testing results with associated QA evidence.
 - Type of sealing – first coat, second coat or asphalt and what are the maintenance expectations as a result of the type of seal used.
 - Pavement characteristics, design parameters and as built details
 - Commented on the location of services in relation to structures that may require excavation as part of maintenance.
 - Long term maintenance/replacement responsibilities for boundary fences.
 - Agreements with local authorities on maintenance/ownership of peripheral assets.
 - Access and Maintenance of Drainage and Stormwater Treatment assets.
 - Landscape maintenance expectations.
 - Challenging weather conditions that may have affected quality or durability
 - Residual safety risks

- (d) Contractual: where the demarcation lines that will apply during the Defects Notification Period, and what is the maintenance uptake programme.
- (e) Maintenance and inspection: specifically detailing any recommendations for the ongoing maintenance and inspection programme arising from any particular issues raised under the headings above.

5.1.5 A final report for the Contract Works shall be prepared by the Contractor and an electronic copy submitted to the Contract Administrator. A final report is required for each Separable Portion. The final report shall:

- a) Be in the same format as the monthly report;
- b) Advise the Contract Administrator of the estimated value of any claims which may be submitted with the Contractor's Final Payment Claim;
- c) Include confirmation of compliance of all Statutory Approval condition requirements, and appropriate documentation and sign off in CSVUE;
- d) Be submitted attached to a completed and certified Contract Construction Statement (PS3) or certificate.

5.2 Meetings

- 5.2.1 **Contract Weekly Meetings:** The Contractor's Representative shall meet with the Contract Administrator to review progress and discuss general matters relating to the Contract Works once in any seven day period, unless otherwise agreed by the Contract Administrator. The meeting shall be held at the Contractor's Site office and be chaired by the Contract Administrator. Other Contractor's staff, Subcontractors and Contract Administrator's staff shall attend as appropriate.
- 5.2.2 **Contract Monthly Meetings:** A separate monthly meeting shall take place between the Contractor's Representative and the Contract Administrator, at [Location, e.g.: the Contractors site office]. This meeting will have a formal agenda prepared by the Contract Administrator, and discuss contractual and other management issues, and if needed receive, discuss and respond to "exception" reports from the Contractor's Quality Manager and Environmental Manager following the separate Quality and Environmental Management meetings (refer [5.2.3 and 5.2.4]). Exception reporting to the Contract Monthly Meetings shall describe non-conformances, remedial actions, and/or exceptions to accepted practice, and clearly signal any action required by the Contract Administrator and Principal.
- 5.2.3 **Quality Management Meetings:** A separate monthly meeting shall take place in accordance with the QMP.
- 5.2.4 **Environmental Management Meetings:** Separate meetings when required by the Principal shall be held to discuss environmental and statutory compliance considerations (including compliance with the EMP, the project's resource consent conditions) between the Environmental Manager, Principal, Contract Administrator and the Environmental Regulating Authority (ERA) at [Location, e.g.: the Contractors site office]. The frequency of these meetings shall be in line with the Contractor's Social and Environmental Management Plan agreed with the ERA.
- 5.2.5 **Property Meetings:** The Contract shall make provision for a [two] hour monthly Land Use meeting at [Location, e.g.: the Contractor's site office]. Attendees are to include the Contractor, the Principal's Project Manager, the Principal's Property team or their appointed property consultant, and on occasion the Principal's Network Manager and the Principal's Consents and Approvals planner.

5.3 Reporting deliverables

- 5.3.1 The following schedule lists the contract documents' required reporting and the due date for submission.

Table 5.3: Reporting Schedule

REPORT	DUE DATE
Weekly Progress Reports	10.00 am Tuesday following previous week
Monthly Contract Reports	10.00 am 3rd Calendar day of following month
Monthly Social and Environmental Compliance Report	10.00 am 3rd Calendar day of following month
Monthly Site Safety Report	10.00 am 3rd Calendar day of following month
Monthly Health, Safety & Wellbeing Report	10:00 am 9th Calendar day of following month
Final Contract Report	Within 10 Working Days of date of issue of the Practical Completion Certificate
Half Yearly Maintenance Report	Within 20 Working Days of date of issue of the Practical Completion Certificate, and at six monthly intervals thereafter until the issue of the Final Completion Certificate
Principal's Asset Register Updating	By the 5th Calendar day (or next working day) of the following month
[Others]	

5.4 Road opening

5.4.1 Prior to opening the road for use by the general travelling public, a pre-opening safety review will be undertaken by the Contract Administrator and the Principal's Road Safety Audit team, to approve the removal of any temporary works, speed limits and traffic management.

5.4.2 Prior to the issue of the Practical Completion Certificate, a post construction safety audit must be completed by the Contract Administrator and the Principal's Road Safety Audit team. The Contractor must endeavour to complete work instructed as a consequence of a post construction safety audit as soon as possible. Any instructed work associated with an identified serious or significant audit classification is to be rectified within 10 Working Days of receipt of the instruction. Where any such work cannot be completed within the 10 Working Days, the Contractor must immediately seek agreement from the Contract Administrator for the timing of this work. Where work cannot be completed within 10 Working Days then consideration must be given to completing appropriate temporary mitigation works until the work is undertaken.

6 Health, Safety and Wellbeing

6.1 Health, Safety and Wellbeing

- 6.1.1 The Contractor must implement **systems and** processes that meet the requirements of the Health and Safety at Work Act 2015, its regulations, supporting codes of practice, **New Zealand Guide to Traffic Management (NZGTTM)** and any guidance material that represents industry good practice. Without limiting the foregoing, the Contractor must:
- (a) eliminate risks to health, safety **and wellbeing**, so far as is reasonably practicable, and if it is not reasonably practicable to eliminate risks to health, safety **and wellbeing**, the Contractor must minimise those risks so far as is reasonably practicable; and
 - (b) follow the hierarchy of control measures set out in Section 6 of the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 where it is not reasonably practicable to eliminate risks to health, safety **and wellbeing**.
- 6.1.2 The Contractor must comply with the provisions outlined in the Principal's **Health, Safety and Wellbeing - Contractor Expectations**, and the other contract specific requirements as set out below. The latest version of the Principal's **Contractor Health and Safety Expectations** document can be accessed from the Principal's Highways Information Portal at <https://www.nzta.govt.nz/resources/contractor-health-and-safety-expectations/>
- 6.1.3 The Contractor must work collaboratively with all relevant stakeholders, including the Principal, to manage overlapping HSW duties. This includes:
- (a) specifying the health, safety and wellbeing management system to be used;
 - (b) identifying who is responsible for taking an HSW action;
 - (c) identifying who must have input into the way an action is undertaken;
 - (d) identifying who must be informed of any action being taken;
 - (e) agreeing and documenting the outcome in the Health, Safety and Wellbeing Management Plan or as a separate supporting document referenced in the HSWMP; and
 - (f) ensuing ongoing review of these arrangements across the life of the Contract.
- 6.1.4 The Contractor must comply with all health, safety **and wellbeing** requirements of the Principal, and any other relevant asset owner or authority (e.g. Auckland Transport, Councils, KiwiRail, Watercare and other utility owners). Meeting these requirements will not relieve the Contractor of any of its responsibilities to comply with the Health and Safety at Work Act 2015.
- 6.1.5 The Contractor must include Health and Safety by Design as outlined in the **Principal's Safety by Design Minimum Standard**. The latest version of the Principal's Contractor Health and Safety Expectations document can be accessed from the Principal's Highways Information Portal at <https://www.nzta.govt.nz/resources/contractor-health-and-safety-expectations/>
- 6.1.6 As far as reasonably practical, the Contractor must ensure the risks to road users, workers and others are managed for all works. Priority must be given to higher-level controls (elimination, substitution, isolation, and engineering), over lower-level administrative and personal protective equipment (PPE) controls.
- The Contractor must have systems and processes to:
- (a) identify hazards

- (b) assess risks
- (c) implement appropriate control measures following the hierarchy of controls
- (d) monitor the effectiveness of controls
- (e) notify relevant regulators of work as required by HSWA.

Additionally, the Contractor must:

- (f) include details of hazards, risks, and controls in contract-specific HSW management plans (HSWMP)
- (g) maintain an up-to-date contract-specific hazard and risk register to inform safe work practices
- (h) document additional details in HSWMPs for critical risks and the controls implemented to manage them.

6.1.7 The Contractor shall provide event notification, reporting and investigation as outlined in the Principal's Health, Safety and Wellbeing Contractor Expectations document.

The Contractor must have systems and processes to:

- (a) effectively manage HSW events and minimise risks
- (b) proactively monitor leading indicators to identify and address potential risks early
- (c) regularly report on HSW performance using both leading and lagging indicators
- (d) comply with the Principal's centralised monitoring and reporting requirements.

6.1.8 The Principal will monitor and obtain oversight to the Contract Works.

- (a) The Contractor will allow the Principal, Contract Administrator or independent third party/auditor to conduct a site inspection and/or Audit as required.
- (b) During this time the contractor will provide unrestricted access to the site, documentation and people upon request.

This shall extend to all Subcontractors and their employees under supervision of the Contractor in the performances of the Contract Works.

6.1.9 The Contractor must provide health, safety and wellbeing performance monitoring and assurance reporting throughout the Contract as outlined in the Principal's Health, Safety and Wellbeing – Contractor Expectations document.

6.1.10 The Contractor must ensure workers receive appropriate information, instruction, and supervision based on their experience, skill, maturity, the nature of the work, critical risks, and control measures prior to commencing the Contract Works. This ensures all workers, including subcontractors and temporary workers, are trained and competent to work safely and effectively in accordance with the Principal's Health, Safety and Wellbeing - Contractor Expectations.

6.1.11 The Contractor's senior management is required to engage in ongoing professional development to enhance their competency in health, safety, and wellbeing project leadership.

6.1.12 The Contractor shall nominate and submit the CV of a suitably qualified and experienced Health, Safety and Wellbeing professional to oversee the design and implementation of the Contractor's HSWMP.

- 6.1.13 The Contractor will implement and carry out an audit and inspection regime as required by the Principal and/or any relevant health, safety and wellbeing requirements, including those set out in the Specifications.
- 6.1.14 A designers risk assessment for the specimen design can be found in the Specimen Design Philosophy Statement, contained within IFT section [1.13]. The Contractor must develop this assessment into its own Safety in Design procedures. A designer's risk assessment is to be made available as part of the design, construction and as-built stages as detailed in section [4.4].
- 6.1.15 The Contractor will engage with the Principal and Network Operator stakeholders to ensure all future maintenance activities have been identified and taken into account as part of the safety in design process.
- 6.1.16 Safety in Design workshops must be clearly identified on the Contractors programme for each design package and allow for sufficient time for the items to be raised and addressed to the satisfaction of the Principal. These workshops are to cover all elements of the Contractor's design and must involve all appropriate parties (as agreed with the Principal). Safety in Design Workshops and Deliverables shall include:
- (a) conducting a Safety in Design Workshop, including maintenance aspects, at the concept design stage and provide a safety file to the Principal.
 - (b) conducting another Safety in Design workshop, including aspects of maintenance, at the 50% detailed design stage and provide an updated safety file to the Principal.
- 6.1.17 The Contractor's design must be adjusted as necessary to close out the issues raised to the satisfaction of the Principal.
- 6.1.18 On completion of the Contract Works the final designer's risk assessment will be issued to the Principal as part of the Operations and Maintenance Manual.

7 Traffic Management

7.1 General

- 7.1.1 The Contractor shall ensure that disruptions to road users and third parties during construction are minimised without compromising the requirements of the Health and Safety at Work Act 2015, its regulations and supporting codes of practice. The Contractor shall ensure that they provide an appropriate alternative for all vehicular and pedestrian traffic for any existing roads, footpaths, all accesses and premises adjacent to and affected by the Contract Works.
- 7.1.2 Traffic management (including cyclist and pedestrian traffic) shall be designed and implemented by the Contractor in accordance with the New Zealand Guide to Temporary Traffic Management (NZGTTM).

7.2 Traffic Risk Management Plan

- 7.2.1 The Contractor shall provide the Traffic Risk Management Plan (TRMP) to the Contract Administrator (being the traffic management plan required under the Contract).
- 7.2.2 The Contractor shall nominate, and provide the CV of, appropriately competent and experienced temporary traffic management professional to oversee the design and implementation of the Contractor's TRMP.

7.3 Construction zone

- 7.3.1 The Contractor should apply to the Principal through the Contract Administrator for declaration of a Construction Zone. Any declaration of a Construction Zone will be at the sole discretion of the Principal.

7.4 Specific Site Requirements

- 7.4.1 The Contractor shall follow the NZGTTM to develop the Site and Contract Works specific requirements. The site specific requirements shall cover:
- (a) safety for all types of road workers
 - (b) safety for all types of road users
 - (c) transport system disruption minimisation
 - (d) installation, maintenance, and uplift of all temporary and permanent risk management controls both on the affected route and any detours established.
- 7.4.2 The Contractor is to make themselves sufficiently familiar with the site and local roading network. The Schedule of Specific Job Requirements for Traffic Management and Safety is included in Appendix [III].

<<Guidance Note Specific Job Requirements for Traffic Management and Safety (risks and considerations) may include:

- (a) Nature and scale of the Contract Works
 - (i) construction site
 - (ii) duration
 - (iii) on/off site traffic

(b) Outcomes and constraints

- (i) consent conditions
- (ii) maximum traffic delay expectations
- (iii) maximum impacts to public transport, walking and cycling routes
- (iv) project specific safety outcomes
- (v) unacceptable controls (e.g. no alternative routes for detour available)
- (vi) parties with access affected
- (vii) parties to notify of TTM activities
- (viii) any requirement to remove TTM when workers are not present

(c) Road/roadside conditions and topography (e.g. road/ berm width undulations, flats, ditches, water hazards, vegetation, structures, housing, businesses)**(d) Road users:**

- (i) nature and volumes of traffic including factors effecting traffic volumes (e.g. peak times)
- (ii) pedestrians, cyclists, animals etc.>>

7.4.3 The Contractor will implement a systematic regime of assurance including monitoring, inspections, audits, assessments and testing to evaluate, benchmark and report on the effectiveness of risk-based solutions related to planning, implementation, maintenance and de-establishment of temporary traffic management.

7.4.4 Where the duration of any work is extends beyond that originally envisaged, the Contractor will be responsible for reassessing risk as appropriate and obtaining extensions to Temporary Speed limits.

7.4.5

8 Statutory approvals and compliance management

8.1 Designations and consents

8.1.1 The Principal [has/has not] obtained designations for the project works. The Instructions For Tendering [includes/does not include] copies of documents that set out the designation conditions the Contractor shall meet.

8.1.2 <<Either:>> The Principal is in the process of gaining Statutory Approvals outlined in Table 1.22 below [insert details of designations/designation alterations, Outline Plans, Resource Consents, Archaeological Approvals to Modify, Wildlife Permits, and any other relevant approvals or permits.]. Upon request, the Principal will advise the Contractor on the current status of all Statutory Approvals for which it has applied. <<Or:>> The Principal has obtained the following Statutory Approvals [outlined in Table 1.22 below] <<Guidance note: Include one, but not both of these statements here>> The Contractor shall be responsible for complying with the requirements of the Statutory Approvals associated with this project from the start of the Contract until the end of the Defects Notification Period.

Table 1.22: Statutory approvals		
Approval	Date applied	Date expected to be granted

- 8.1.3 The Contractor will be required to develop a consenting strategy to outline the process and methodology for obtaining any necessary Statutory Approvals.
- 8.1.4 The Contractor will be required to implement a process for ongoing liaison with the **Principal's** planning specialists to discuss and confirm the consenting strategy, obtain approvals and manage compliance. Formal delegation for lodging statutory approvals sits with the Principal's planning specialists.
- 8.1.5 The Contractor may be required to obtain additional Statutory Approvals or variations to the existing requirements as necessary to proceed with the project.
- 8.1.6 The design and construction of the project will be required to comply with all statutory requirement conditions, including but not limited to those outlined in the conditions contained in all designations, licenses and consents. These conditions may impose environmental obligations and constraints on the contractor to be met during design, pre construction, construction, operations and maintenance.
- 8.1.7 The Contractor shall be responsible for ensuring compliance with all district and regional plans and observing all conditions and requirements of all Consents, from the start of the Contract until the end of the Defects Notification Period.**
- 8.1.8 The Contractor will have responsibility to maintain up to date records of compliance with all Consents, including maintaining compliance records in CSVUE, the **Principal's** compliance management system.
- 8.1.9 The Principal will remain responsible for annual administration charges. Except for administration charges, the Contractor shall pay all monitoring fees and charges for the resource consents and Statutory Approvals.
- 8.1.10 The Contractor shall obtain all other Statutory Approvals made necessary by its design and construction activities after receiving sign off from the **Principal's** Consents and Approvals Group.
- 8.1.11 Under the RMA the Contractor is required to obtain authorisation to carry out the following activities unless covered by the Consents: **<<Guidance Note: Add any further project specific details>>**
- dam a river or stream;
 - divert natural water;
 - take natural water;
 - discharge natural water;
 - discharge waste to natural water;
 - use natural water;
 - dumping of waste;
 - take soil or river aggregates for earthworks or pavement/surfacing construction.

9 Environmental management

9.1 Contractor's Environment Management Plan

- 9.1.1 The Contractor shall prepare, maintain and implement an **Environment Management Plan** in accordance with *P47 Environmental Social and Cultural Management during Construction*, the guidance referenced therein, and relevant requirements of Statutory Approvals, bylaws, Acts and regulations.
- 9.1.2 The various sites contained in this Contract are regarded as environmentally sensitive and the Contractor shall ensure all works are programmed, constructed and maintained so as to minimise the impacts on the surrounding environment.
- 9.1.3 The EMP shall as a minimum address:
- (a) Dust control;
 - (b) Sediment and stormwater control;
 - (c) Construction noise control;
 - (d) Vibration control;
 - (e) Ecological management
 - (f) Pest management (plant and/or animal pests)
 - (g) Heritage management including built and archaeological
 - (h) Archaeological discovery procedure in accordance with *P45 Heritage Specification for Land Transport Infrastructure* (only for areas where no archaeological authority is required);
 - (i) Any other measures necessary to meet all conditions laid down within the project Specification and all conditions associated with any Statutory Approvals, including designation and resource consent conditions.

<< Guidance Note: Consider all relevant construction effects that are not included above - refer Z/19 - SM030.>>

- 9.1.4 As a part of the EMP the Contractor shall put in place induction, education, and monitoring and reporting systems to ensure their staff and Subcontractors understand and comply with all Consent conditions, the EMP and all requirements of the Contract. The Contractor shall regularly re-evaluate the EMP and provide for regular retraining and re-education to meet differing site demands.
- 9.1.5 Before beginning the Contract Works on the Site, the Contractor must ensure that the appropriate environmental safety measures are constructed and operational. Further, the Contractor must have in place all contingency and emergency plans and procedures before starting the Contract Works.
- 9.1.6 The Contractor shall report immediately to the **Contract Administrator** all incidents with possible significant effects or outcomes and what corrective and preventative steps to be taken. All other incidents shall be reported on the daily report and summarised on the weekly report.

9.2 Environmental audit

- 9.2.1 The Contractor shall establish and maintain a documented system of checks and audits to ensure that the work is being performed in accordance with the environmental requirements applicable to

the work and shall provide the **Contract Administrator** with access to the documentation upon reasonable request.

9.3 Dust suppression plan

The Contractor shall prepare a Dust Suppression Plan (DSP) in accordance with [Erosion and sediment control guidelines](#) for state highway infrastructure.

9.4 Erosion and sediment control

9.4.1 A **Sediment Control and Site Management Plan** shall be prepared as an input to the EMP. This plan shall feed into the Contractor's drainage construction programme and Earthworks Management Plan and be prepared before the Contractor starts any of the activities authorised by the Consents. The inputs shall as a minimum include the following:

- (a) Detailed site erosion and sedimentation control methods to be used;
- (b) Proposed locations of cut-off drains, silt traps, silt fences, hay bale filters, sediment control ponds and other mechanisms or techniques;
- (c) Expected efficiency of sediment control facilities and design criteria to be used;
- (d) A plan that shows the areas where material is to be cut and filled and their quantities;
- (e) Sediment control methods at each fill placement site;
- (f) Locations of waterways;
- (g) Site stormwater control and disposal;
- (h) Contingency provisions for extreme weather events;
- (i) Methods of vegetation removal, storage and disposal;
- (j) Progressive rehabilitation of site throughout the contract and at completion of works, including maintenance of the site until vegetation is sufficiently established to minimise erosion;
- (k) Monitoring to be carried out during the construction works and rehabilitation of the Site;
- (l) Procedures and timing of the reviews of the management plan;
- (m) Reporting procedures;
- (n) Site rehabilitation including soil conditioning and re-sowing techniques, and tree and shrub planting.

9.4.2 The required outcomes are as per the Consent conditions, and shall include but not be limited to:

- (a) **All controls in place, inspected and approved by the Contractor's soil conservator before the start of works in any area and at any changes of conditions in any area;**
- (b) **All site staff understanding and complying with all applicable Consent conditions;**
- (c) Diversion of all clean water run-off via a stabilised system;

- (d) All stormwater run-off contaminated by construction activities being treated in appropriate stormwater settling facilities prior to being discharged into any waterway;
- (e) Progressive rehabilitation wherever possible;
- (f) All stream, watercourse, or open drain diversions being completed as far as practicable before water is diverted into the new channel;
- (g) Minimising disturbances of sediments and vegetation in all waterways;
- (h) Machinery not entering the existing waterways or discharging contaminants into them;
- (i) Entrapped fish being captured and relocated to permanent flowing water;
- (j) Ensuring the required notices of proposed work, diversions and inspections are undertaken.

9.4.3 The Consent conditions contain specific requirements, with which the designs and plans submitted by the Contractor shall fully comply. The designs and plans shall be sufficient to enable sediments to be contained for the contract period until the end of the Defects Notification Period.

9.4.4 The Contractor shall maintain all these works to achieve the required outcomes until the end of the Defects Notification Period. Within one month of the end of the Defects Notification Period, all silt ponds and silt build-ups shall be desludged or cleared and inspected before final approval and handover to the Principal for ongoing management.

9.4.5 All machinery and plant shall be operated in a manner that ensures spillage of fuel, oil and similar contaminants are prevented during refuelling, machinery servicing and maintenance. Refuelling and lubrication activities shall be carried out so that any spillage can be contained and not enter any stream, tributary or wetland.

9.4.6 In addition to proactive measures to prevent spills and reduce the consequences of any spills, the Contractor shall prepare a Contingency Plan for Hazardous Substances Spills.

9.4.7 The Contractor shall take all steps necessary to prevent construction vehicles from depositing mud and other debris on the surface of adjacent roads or footways when entering and leaving the site. The Contractor shall quickly remove any materials so deposited. Construction vehicles should be washed before entering onto the state highway in order to satisfy this requirement.

9.5 Construction Noise Management Plan

9.5.1 The Contractor shall prepare and implement a Construction Noise Management Plan (NMP) **as an input to the EMP**. The NMP shall aim to minimise any adverse effects from noise during construction, and shall include:

- (a) The implementation of the principles contained in NZS 6803 and the Consents during the construction of the realigned highway and local roads;
- (b) Means to ensure that the Outline Plan, designation and resource consent requirements are achieved.

9.6 Earthworks Management Plan

9.6.1 The Contractor shall provide an Earthworks Management Plan as part of their **EMP** that explains the staging of earthworks and the use of materials. The Contractor shall submit the **Earthworks Management Plan** to the **Contract Administrator** before any significant earthworks begins.

9.6.2 The **Earthworks Management Plan** shall include an erosion and sediment control plan (ESCP) in accordance with P47: [*Environmental, Social and Cultural Management during Construction*](#). The

ESCP shall show: methods of controlling stormwater run-off and sedimentation at all stages of earthworks in both cut and filling; the timing of the construction of temporary and permanent drainage works, and construction staging.

- 9.6.3 The Contractor shall update the **Earthworks Management Plan** throughout the contract to take account of actual material quantities they encounter and any further data that becomes available.
- 9.6.4 The Contractor's **Earthworks Management Plan** shall show the sequence of cut, fill, stockpiling and drainage operations proposed in order to prevent any instability.

9.7 Vibration Management Plan

- 9.7.1 The Vibration Management Plan (VMP) shall be prepared as an input to the EMP. The VMP shall aim to minimise any adverse effects from vibration during construction and shall satisfy all Consent conditions. The VMP shall be prepared before the Contractor starts any of the activities authorised by the Consents. The inputs shall as a minimum include the following:
- (a) Maximum permitted ground vibration levels;
 - (b) The times at which particular construction activities may take place;
 - (c) Communication requirements with owners and occupiers of adjacent buildings;
 - (d) Details of pre-construction trials;
 - (e) Details and frequency of condition surveys;
 - (f) Location, type and monitoring frequency of vibration monitoring equipment;
 - (g) Construction methodologies for minimising the impact of vibration;
 - (h) Procedures for maximum permitted ground vibration levels being exceeded or justifiable complaints being received.

9.8 Sustainability Rating Scheme requirements

<<Guidance Note - confirm whether the project is required to complete a Sustainability Rating certification in accordance with P49 Sustainability rating scheme application during tender and delivery of capital works projects. An Infrastructure Sustainability rating is generally required for projects over \$500m (excluding emergency works). Departures from the policy must be approved. If not relevant, delete Section 11.3 >>

- 9.8.1 The Contractor shall prepare a Sustainability Rating Scheme implementation plan following the requirements set out in the *P49 Sustainability rating scheme application during tender and delivery of capital works projects*.
- 9.8.2 The Contractor shall achieve, as a minimum, a bronze award level certification under the Infrastructure Sustainability Council (ISC) Rating Scheme following the responsibilities and minimum requirements specified in the *P49 Sustainability rating scheme application during tender and delivery of capital works projects*.

9.9 Resource efficiency and waste management

- 9.9.1 The Contractor shall prepare and implement a Resource Efficiency and Waste Management Plan in accordance with NZ Transport Agency *P48: Specification for resource efficiency for infrastructure delivery* and in general accordance with the NZ Transport Agency Resource efficiency guideline for infrastructure delivery and maintenance.

9.9.2 The Contractor shall report on a monthly-basis movements of materials in accordance with *Appendix G of NZ Transport Agency Resource efficiency guideline for infrastructure delivery and maintenance*. Reporting shall include any materials and movements and information required for Principal's reporting under the Waste Minimisation (Information Requirements) Regulations 2021 and Waste Minimisation (Calculation and Payment of Waste Disposal Levy) Regulations 2009.

10 Customer and stakeholder management

10.1 General

10.1.1 The Principal has a customer first philosophy and seeks to apply this across all levels of its business. More specifically, as it relates to its customers use and interaction with the state highway network, the Principal recognises key customer first values which are grouped as:

- (a) **Safer Systems Approach**
- (b) Efficient and reliable journeys
- (c) Social and environmental responsibility.

10.1.2 The Contractor is expected to embrace these values in consideration of all road and multi-modal user groups, key stakeholders of the Principal, and adjacent neighbours, communities and environments. More particularly, the Contractor shall recognise that their staff and actions, together with those of their Subcontractors, can directly influence the public perception of the Principal, and the effective realisation of its customer values.

10.2 Contractor's Customer and Stakeholder Communication Management Plan

10.2.1 The Contractor's CSCMP shall outline how the Contractor will fulfil the Principal's expectations in regard to community engagement and communication, stakeholder engagement and communication, Māori engagement and communication, and liaison with the Principal's Property Team and their Agents. The CSCMP shall include as a minimum:

(a) Customer and worker safety

Where Contractor H&S and TTM risk management processes identify and require communication activities (risk controls) for this project, the Contractor shall describe the communication activities (risk controls) to be applied to ensure customer and worker safety is not compromised.

[This may include:

- Use of barriers/sight screens;
- Use of advance Variable Message Signs;
- Worksite planning and methods to reduce exposure to roadside hazards either pre-existing or created as part of the temporary works.]
- Other practises.]

<<Guidance Note: Insert any matters required to be specifically identified to tenderers, or specifically required to be addressed by the Contractor in the course of undertaking the Contract Works>>

(b) Minimising travel delay and disruption (Journey Management)

Where additional to requirements set out under section [1.7] of this Principal's Requirements, the Contractor shall identify potential causes for traffic delay and disruption, and demonstrate how the sequencing of works has maximised opportunities and minimised disruption for the travelling public across all modes, whilst maintaining safety and applying the NZGTTM. Where ongoing or significant disruption cannot be avoided, the Contractor shall describe those measures to inform or otherwise customer expectations. **This may include describing to customers how work has been planned to minimise disruption, including the temporary traffic management approach**

<<Guidance Note: Insert any matters required to be specifically identified to tenderers, or specifically required to be addressed by the Contractor in the course of undertaking the Contract Works>>

(c) Ride discomfort and nuisance

The Contractor shall consider potential causes for ride discomfort and nuisance for all road and multi-modal users and neighbours, and describe methods to avoid or minimise those situations.

[This may include:

- Temporary or failed surfacing that could lead to vehicle damage or increased vehicle wear and tear;
- Situations of general nuisance (e.g. bitumen splashes on vehicles, detritus on walkways).]

<<Guidance Note: Insert any matters required to be specifically identified to tenderers, or specifically required to be addressed by the Contractor in the course of undertaking the Contract Works>>

(d) Communication, engagement and customer relations

In addition to the requirements of section [1.13] of this Principal's Requirements, the Contractor shall identify communications and interactions necessary to ensure road and multi-modal user, neighbour and community consultation needs are met. Reference shall be made to the standards in the Z/17 Branding and Communications Standard and the six principles set out within the State Highway Public Engagement Guidelines (2016) Such consultation needs will generally be of an informative/advisory nature, to inform the wider community of the Contract Works, to inform road and multi-modal users of potential traffic flow delays and advise of alternate travel choices, and to inform project neighbours where activities associated with the Contract Works will have a more direct affect on the use and enjoyment of adjacent property. In some instances however, the consent conditions or related EMP plans may dictate a higher level of consultation/involvement in decision-making by the public and these must be adhered to.

The Contractor shall provide reasonable notice to adjacent residents or commercial premises at least 5 Working Days in advance, with follow up in the immediate 24 hours in advance, of any activity that affects access to their property, or may cause disturbance to the normal enjoyment or use of their property; this notice will be by formal mailbox drop notification or via subscription email distribution list.

All customer and stakeholder engagement plans and activities relating to the project must be reported by the Contractor through to the Principal's nominated Engagement & Communications team representative. The draft CSCMP must be reviewed and approved by this representative and the [Principal/Contract Administrator] as part of its development and the Contractor must also provide the administration resource required to regularly update customer and stakeholder interactions into the Principal's instance of the Consultation Manager database. This reporting is obligatory throughout the project process.

[This may include:

- The Contractor shall prepare a quarterly newsletter advising the intended progress of the Contract Works. The Contractor shall submit the initial draft newsletter to the [Principal/Contract Administrator] and the Principal's Engagement & Communications team representative within 20 Working Days of Acceptance of Tender, and every three months thereafter. Once the [Principal/Contract Administrator] has accepted the newsletter, copies shall be distributed by the Contractor to residents and commercial premises adjoining the Site, territorial local authorities and other stakeholders, the Principal and the Contract Administrator; with decisions about the types of publication

format eg digital or printed to be confirmed during the development and approval of the CSCMP;

- The Contractor shall provide input to the Principal's quarterly newsletter, as and when required;
- The Contractor shall observe any cultural protocols, particularly when engaging with Maori, when undertaking work of a culturally sensitive nature;
- Public notification of upcoming detours;
- Public advice of traffic conditions;
- Providing the Principal's Engagement & Communications team with positive stories and content for wider official communications channels of the Principal such as social media, website, video or other publications, with decisions about the types of publication formats to be confirmed during the development and approval of the CSCMP;
- Providing/supporting associated Principal official events such as sod turnings, Ministerial events or openings, as required and on request of the Principal;
- Providing/supporting reporting for the Principal's Traffic Road Event Information System.]

<<Guidance Note: Insert any matters required to be specifically identified to tenderers, or specifically required to be addressed by the Contractor in the course of undertaking the Contract Works>>

(e) Māori Engagement

Māori are recognized as the Treaty Partner by the Principal and must be involved in any decisions affecting Māori interests. Reference shall be made to the Principal's Māori Strategy Te Ara Kotahi and the CSCMP must be developed in accordance with this strategy. Contractor shall identify provisions for Māori engagement, including provisions for cultural mitigation and specific actions to be taken to ensure Māori engagement both before and during the project.

[This may include:

- Utilisation of iwi advisory services
- Notification mechanisms
- Regular engagement and event-specific consultations
- Incorporation of Te Reo Māori into both internal and external channels and publications
- Implementation of a bilingual signage policy
- Development of clear communication protocols and points of contact
- Utilisation of Māori businesses and workforce].

<<Guidance Note: Insert any matters required to be specifically identified to tenderers, or specifically required to be addressed by the Contractor in the course of undertaking the Contract Works>>

(f) Compliance with Social and Environmental Management Plans

Except where otherwise required under these Principal's Requirements, the Contractor shall consider potential adverse social or environmental effects created as a consequence of the Contractor's temporary works, and describe those methods to be applied to ensure the adjacent social interests or environment is not compromised. This plan must be developed in accordance with/consideration to the EMP. The Contractor shall note that the Principal has MoUs with several stakeholders including DoC and HNZPT – regular updates are provided in conjunction with the Principal's project consenting and environmental specialists.

[This may include specifying how the Contractor will engage and communicate on EMP issues such as:

- Control of dust spread onto sensitive environments (natural or agricultural);
- Quality and control of stormwater flow off-site and onto adjacent property;
- Noise control and effect on occupiers of adjacent property;
- Vibration control and effect on occupiers and buildings on adjacent property;
- Heritage management plans for land and/or buildings, including effects on adjacent property;
- Protocols for discovery of matters of a historic or cultural nature;
- Containment and removal of toxic materials, debris and waste;
- Process for demonstration, and ownership, of damage to adjacent property.]

<<Guidance Note: Insert any matters required to be specifically identified to tenderers, or specifically required to be addressed by the Contractor in the course of undertaking the Contract Works>>

11 Site Information

11.1 Site Limits

- 11.1.1 The land available for the Contract Works is shown on the Specimen Design drawings in Appendix [K] of these Principal's Requirements. The land is either owned by the Crown, which is referred to as the **Principal's** Land, or is land for which the **Principal** has gained the temporary use of for the Contract Works from the owner or occupier. Copies of any agreement(s) or licence(s) for the land use shall be included in Appendix [K]

11.2 Property

- 11.2.1 Available property information, property project close out and legal survey is provided in Appendix [K]. The Contractor shall be responsible that all actions with regard to property, including land made available by the Principal, Fencing, and Utilities, are undertaken in accordance with the **Principal's** property specifications.

11.3 Access to the Site

- 11.3.1 Public road access to the Site shall be as defined in Appendix [M] of these Principal's Requirements.
- 11.3.2 The Contractor shall meet the requirements of the relevant road controlling authority for the use of any public road access whether or not defined in clause [3.2.1] above.
- 11.3.3 The Contractor shall erect appropriate signs to show accesses and restricted routes. Before the signs are erected, the Contractor shall submit the signage details in writing to the **Contract Administrator** and the relevant road controlling authority for approval.
- 11.3.4 At the cessation of work on any day and before darkness, the Contractor shall completely barricade all entrances to the Site to prevent traffic access.
- 11.3.5 Unless otherwise approved in writing by the Contract Administrator, the Contractor shall not gain entry to the Site via private land. It is unlikely that the Contract Administrator's approval will be given unless the Contractor has obtained written consent to enter the property from the landowner and occupier. Access to the private land from the public road shall be to the satisfaction of the relevant road controlling authority. The Contractor shall be fully responsible for negotiating, paying for, and bearing all costs for these accesses and for any matters arising with parties who consider themselves to be affected. The Contractor shall assess the potential environmental impacts of this access and obtain all necessary permissions, licences and consents for the required use. The Contractor shall obtain written confirmation from the landowner that all matters relating to the Contractor's use of private land have been satisfactorily resolved upon completion of the Contractor's use of the private land.

11.4 Accommodation Works

- 11.4.1 The Contractor shall provide the accommodation works that have been agreed with various landowners and occupiers as described in Appendix [I] of the Principal's Requirements.

11.5 Public and Private Roads and Accesses

- 11.5.1 The Contractor shall retain all public and private roads and accesses affected by the Contract Works until suitable alternative access is provided.

11.6 Survey Information

- 11.6.1 Survey information developed by the **Principal** for this contract is provided in Appendix **[D]**.
- 11.6.2 The Contractor shall be responsible for ensuring all existing survey marks within the scope of the **Contract** Works are located and provision made for ensuring they remain undisturbed prior to work commencing and during the **Contract** Works. The Contractor shall advise the **Contract Administrator** of any marks not already relocated that will be affected by the work. Following the approval of the **Contract Administrator**, the Contractor shall contact Land Information New Zealand to obtain approval for relocation or replacement of those marks. The Contractor should make due allowance for any costs associated with the maintenance, protection or relocation of the existing survey marks and/or delays that may occur as a result.

11.7 Geotechnical Information

- 13.7.1 Available geotechnical information is provided in Appendix **[IV]**. The Contractor shall be responsible for making their own interpretation of this information and any supplementary site investigation information provided by the Principal and shall be deemed to have satisfied themselves as to the nature of the ground and subsoil prior to submitting their tender.

12 Public and Privately Owned Utilities

12.1 General

- 12.1.1 A preliminary utilities plan search has been undertaken for and on behalf of the Principal to identify the public and privately owned utilities within the Site, which may affect the Contract Works. Such utilities are shown in Appendix [J] of these Principal's Requirements. However, such information shall not be considered complete or accurate. The plan positions of services and any information provided in respect of depth or details of the services are indicative only.
- 12.1.2 Other services may exist that are not shown on the plans. The Contractor is responsible for the identification of utilities affecting the Contract Works, including the Contractor's design.
- 12.1.3 Where existing utilities are in good serviceable condition and will not be compromised by the proposed works, the Contractor shall not be expected to upgrade or replace these utilities.
- 12.1.4 Existing utilities which need to be replaced or relocated as a result of the project shall be replaced or relocated on a 'like-for-like' basis.
- 12.1.5 'Betterment' of existing utilities may be requested by the Service Providers. However, this shall only be incorporated if agreed in advance with the Service Providers (including any additional costs). It is expected that the cost of betterment shall be met by the Service Providers.
- 12.1.6 All services and water supply (including a supply suitable for stock) available to the Crown owned land prior to purchase and use by project shall be retained and if required, reinstated before transfer to the Principal for management and/or disposal. This includes reinstatement of services/utilities where the project severs land parcels (either Crown or privately owned land).

12.2 Utility Controlling Authorities

- 12.2.1 Contact details for utility controlling authorities are listed in Appendix [J] of these Principal's Requirements.
- 12.2.2 The Principal has a cost sharing agreement or cost sharing is covered under the relevant act outlined below with the following utility controlling authorities:

Table 5.2: Cost sharing agreements	
Utility	Details of cost share arrangement
[Telecom]	[Telecommunications Act 2003 – Network Operator provides all materials etc.]
[Others]	<<Provide details of arrangement, e.g. the Principal is responsible for a half share in the net cost to relocate the services>>

- 12.2.3 If the Principal has a cost sharing arrangement with a utility controlling authority, and the utility controlling authority elects to undertake any part of the utility diversion/relocation work themselves, the Principal will pay the utility controlling authority for the amount owing under the cost share agreement directly, and deduct this amount from the Contractor's next payment in accordance with the Basis of Payment.

12.3 Co-ordination and Liaison

- 12.3.1 The Contractor shall determine and comply with the requirements of the utility controlling authorities as they affect the Contractor's design or the carrying out of the Contract Works.
- 12.3.2 The Contractor shall give adequate notice to the utility controlling authorities in co-ordinating the relocation of any utility.
- 12.3.3 Before any work begins on or around a utility service, the Contractor shall submit to the **Contract Administrator** two copies of a Consultation Certificate with original signatures, demonstrating the consultation undertaken with the relevant utility controlling authority for that diversion, along with one copy of all relevant drawings, schedules, numbered appendices. The **Contract Administrator** will countersign and return one copy of the Consultation Certificate to the Contractor within five Working Days of receiving the certificates.
- 12.3.4 The Contractor shall keep disruption in reconnecting utilities to individual landowners/occupiers to the minimum practicable. The Contractor shall consult with all affected landowners/occupiers to arrange for a mutually acceptable time for such works, at least 10 Working Days before the event. The Contractor shall consult with affected landowners/occupiers to identify special requirements for continuity of supply and shall take all reasonable measures necessary to satisfy these requirements.

12.4 Design of Utility Diversions/Relocations

- 12.4.1 The Contractor shall be responsible for designing all utility diversions/relocations included in the Contractor's design and co-ordinating design inputs from utility controlling authorities.
- 12.4.2 Utility diversions and/or relocations included in the Contractor's design shall be consistent with the utility diversion strategy submitted with the Contractor's tender, unless otherwise approved in writing by the **Contract Administrator**. The actual cost of relocation in part depends on the Contractor's design and Programme, which affects the opportunity to reuse poles, etc., or the need to carry out temporary diversions. The Contractor shall consider this when developing the Contractor's design.
- 12.4.3 The Contractor shall ensure that the relocation of utilities, particularly through bridges, shall be designed so that future maintenance of the relocated services shall not disrupt the operating conditions of the carriageway. Features such as valves, pits, manholes and the like shall, wherever practicable, be located outside the carriageway so that future maintenance can be performed from outside of the carriageway.

12.5 Construction of Utility Diversions/Relocations

- 12.5.1 The Contractor shall at its expense construct all utility diversions/relocations included in the Contractor's design and co-ordinate the inputs of utility controlling authorities, statutory bodies and other companies identified in Appendix **[J]** of these Principal's Requirements.
- 12.5.2 The Contractor shall engage utility controlling authorities, statutory bodies and other companies to supply nominated goods and/or services in connection with utility diversions and relocations required by the Contractor's design, as specified in Appendix **[J]** of these Principal's Requirements.
- 12.5.3 The Contractor shall raise or lower the covers of existing manholes, chambers, catchpits, gullies and the like where necessary.

12.6 Modification of Utility Diversions/Relocations

- 12.6.1 If the Contractor requires a modification to the route of any utility diversion, or requires additional utility diversions from that set out in the utility diversion strategy submitted with the Contractor's Tender, the Contractor shall be responsible for any additional time and costs.
- 12.6.2 If a modification to the route of any utility diversion is required to meet the requirements of the utility controlling authority stated in the Consultation Certificate, the Contractor shall be responsible for any additional time and costs. If the utility controlling authority modifies its requirements after the date of the Consultation Certificate, the modifications shall be treated as if they were a Variation.
- 12.6.3 For purposes of this section [5.6], the costs of modification include design, construction, wayleaves, material procurement and any other associated work required by the utility controlling authorities, statutory bodies and any other companies identified in Appendix [J] of these Principal's Requirements.

13 Design criteria

13.1 General

- 13.1.1 The Contractor's design shall meet the standards and requirements of section [1.4] of these Principal's Requirements. The criteria adopted by the Contractor for the Contractor's design shall be consistent with the Contractor's Conceptual Design submission in the Contractor's tender. To use other criteria the Contractor must seek the **Contract Administrator's** approval in writing.
- 13.1.2 Where a particular aspect or element of the Contractor's design is based on a number of design or performance criteria, the **Contractor** shall avoid selecting minimum or near minimum standards for two or more of these criteria, where the combination would result in a reduced overall outcome or performance. If the **Contractor** considers this is unavoidable, they shall notify the **Contract Administrator** in writing as soon as possible, but at least before the design is developed incorporating such criteria. The **Contractor** must include sufficient detail for the **Contract Administrator** to evaluate the situation.
- 13.1.3 The Contractor's design shall allow for safe vehicular access to areas requiring maintenance.
- 13.1.4 The Contractor's design philosophy shall ensure consistent choice of materials throughout the Contract Works.
- 13.1.5 The Contractor's design shall include the pavement and surfacing design provided by the Principal.

13.2 Design Reports

- 13.2.1 The Contractor shall provide the **Contract Administrator** with a design report. The design report shall summarise for the particular part of the works concerned, the Contractor's interpretation of the Principal's Requirements for the physical deliverables methodology and standards.
- 13.2.2 The Contractor shall prepare and submit design reports to the **Contract Administrator** for their review before detailed construction drawings are finalised and the physical works begin. The reports shall deal with, as a minimum, the following subjects:

<<Guidance note: The following are examples only, amend as appropriate>>>

- a) **[Earthworks including stability of cut/fill batters, including seismic displacements, ongoing settlement of embankments, associated ground improvements, geotechnical structures and suitability for the client specified pavement and surfacing design for its design working life.**
- b) **Stormwater, including any consents required**
- c) **Services relocation and/or protection**
- d) **Specified pavement including surfacing, describing how this will be incorporated into the Contractor's Design. Note that the pavement and surfacing design will be specified by the client**
- e) **Structures, including bridges, geotechnical structures and other significant highway structures (for which Structure Design Statements in accordance with Appendix A of the Highway structures design guide shall be included)**
- f) **Geometrics, including vertical and horizontal alignment of carriageways, ramps, etc**
- g) **Signing and pavement marking**
- h) **Urban design**
- i) **Walking and cycling**

- j) Public transport
- k) Street lighting
- l) Landscape treatments
- m) Noise mitigation
- n) Median barrier and other edge protection barriers
- o) Information on the design parameters adopted for the Contractor's Design, detailing and construction of the stormwater treatment devices.]
- p) Drainage.]

13.3 Design Drawings

- 13.3.1 Design drawings shall be produced to industry draughting standards covering all features and elements listed above and any other matters necessary for the complete design and construction of the works. Appropriate scales for the drawings are:

Table 4.3: Drawing scales	
Plan type	Scale
Design, plan, generally	1:500
Design plan, intersections, interchanges	1:250
Longitudinal sections	Horizontal 1:500, Vertical 1:100
Cross sections, at 20m intervals max	1:1000
Typical cross sections	1:50
Structures	Various

13.4 Roughness

- 13.4.1 Further to the Principal's B2 requirements, the longitudinal smoothness shall comply with the requirements of this Section 13.4.
- 13.4.2 On completion of surfacing and placement of pavement markings and raised pavement markers, the Contractor shall carry out surface roughness measurements in accordance with the Principal's Technical Memorandum TM7003 (TM7003).
- 13.4.3 The roughness shall be measured in the wheelpaths of all lanes surfaced under the Contract in both directions. Readings relating to pavement lengths less than [xxm] at the end of the lane shall be disregarded. For acceptance testing the roughness will be measured after completion of the surfacing but it is strongly recommended that the Contractor also carry out roughness testing before application of the final surfacing as a guide. <<Guidance Note: Pavement lengths to be determined in consultation with the Principal's Pavement & Surfacing team>>
- 13.4.4 The criteria for acceptance shall be in accordance with Section 2. Roughness Requirements of the Principal's TM7003 and in addition no [xxm] reading in any lane shall exceed [100] NAASRA counts/km.
- 13.4.5 If the acceptance criteria are not achieved, the Contractor shall at its expense remedy to the satisfaction of the Contract Administrator

13.5 Texture

- 13.5.1 The surfacing shall meet the requirements specified in the Principal's T10 Specification for state highway skid resistance management.

13.6 Quality Management Plan (QMP)

- 13.6.1 The QMP must be prepared in accordance with the Waka Kotahi *Minimum Standard Z/1 - Quality Management Plan*, and at all times operate under the Contractor's accredited QMS.
- 13.6.2 The Contractor shall employ a Quality Manager for the duration of this Contract subject to the **Contract Administrator's** approval. The Quality Manager must not have any line management responsibilities for carrying out any construction works associated with the Contract Works and must have the delegated authority to lead the Contractor's delivery of the QMP and to authorise actions required to enable the Contractor to deliver quality across the Contract and has the ability to action a stop works in the event a potential quality issue arises.
- 13.6.3 The Principal may appoint an independent quality auditor to audit the Contractor's QMS (including without limitation the QMP and any quality manuals and procedures). The independent auditor may also carry out periodic monitoring, spot checks and auditing of the QMS including the QMP. Results of any findings will be formally communicated to the Contractor. In the event that the Contractor is not providing the quality required, the Principal may increase the level of surveillance for varying periods of time to ensure compliance. The cost of this will be borne by the Contractor. Principal's Site Representatives will conduct surveillance of the works and analysis of the ITP and RVT.
- 13.6.4 If the **Contract Administrator** believes the Contractor has failed to satisfactorily undertake all or any of the obligations described in 6.3 of these Principal's Requirements the **Contract Administrator** shall notify the Contractor in writing. If, in the **Contract Administrator's** opinion, the Contractor does not take reasonable steps within a reasonable period to put right the failure, the **Contract Administrator** may arrange for the failure to be corrected at costs the **Contract Administrator** considers reasonable. In this event, the Principal may also increase the level of surveillance for varying periods of time to ensure compliance. The cost of this will be borne by the Contractor.
- 13.6.5 The Contractor will be liable for all such actions taken by the **Contract Administrator** and any costs involved. The **Contract Administrator** will detail all costs and expenses incurred by the Principal or any of his agents for such work, providing copies to the Principal and Contractor. The Principal shall be entitled to recover all such costs from the Contractor, provided that they are fair and reasonable. The **Contract Administrator** shall notify the Principal and Contractor in writing before taking any such action
- 13.6.6 Nothing contained in 6.3 of these Principal's Requirements shall relieve the Contractor of any of his responsibilities under the Contract.

13.7 Testing and Inspection

- 13.7.1 The QMP shall document the procedures by which the Contractor undertakes to purchase, transport, and store and use materials for the Contract Works.
- 13.7.2 Inspections, sampling and testing of materials and components in the Contract Works shall be completed in accordance with project inspection, sampling and testing plan based upon *Waka Kotahi NZ Transport Agency Z/8 - minimum requirements for inspection, sampling and testing*.
- 13.7.3 All materials and workmanship shall be that described in the Contract and these Principal's Requirements or the **Contract Administrator's** instructions. They shall be subjected to the samples and tests required or reasonably implied by the terms of the contract, or that may be ordered by the **Contract Administrator**.
- 13.7.4 Acceptance of any pavement aggregate specified shall only be on the basis of individual stockpiles. Test results for stockpiles of pavement aggregates are to be accompanied by

dated photographs of the stockpile. After sampling of the stockpile for acceptance testing, no additional material shall be added to the stockpile without the prior approval of the **Contract Administrator**.

- 13.7.5 Where required by the **Contract Administrator**, the Contractor shall provide a complete written statement of the origin, composition and manufacture of the material to be supplied including whether the material is virgin **[premium or marginal]** material, recycled material, or reused material. The Contractor shall not change the source of supply of the materials without the written authorisation of the **Contract Administrator**.
- 13.7.6 The Contractor shall provide to the **Contract Administrator** and the Principal any other information they request to demonstrate the Contractor meets the testing requirements in the Inspection and Testing Schedule.
- 13.7.7 If the **Contract Administrator** considers it necessary to undertake any tests independently of the Contractor, the Contractor shall provide such assistance, instruments, machines, labour and materials as are normally required for examining measuring and testing any work and the quality, weight or quantity of any materials used. The Contractor shall supply samples of materials **the Contract Administrator** requires for RVT testing before including them in the Contract Works.
- 13.7.8 The Contractor shall supply all samples at their own cost.
- 13.7.9 The Contractor shall meet the cost of testing if it is clearly called for to prove the Material or workmanship meets the requirements of the Contract. Tests may include tests under load or tests to ascertain whether the design of any finished or partially finished work is appropriate for its purpose. The Contractor must meet the costs of any tests ordered by the **Contract Administrator** under this section if the test shows the workmanship or Materials do not meet the contract requirements or **Contract Administrator's** instructions. The Principal will meet the testing costs where the Materials and workmanship prove to be in line with requirements.
- 13.7.10 Where the Contractor uses work, goods or Materials not provided for in the testing schedule in Appendix **[A]** of these Principal's Requirements, the Contractor shall use a test and frequency of test on the work, goods or Materials as recommended in writing by the manufacturer and/or agreed in writing by the Designer. The Contractor, manufacturer, Head Designer and Checker shall sign a Consultation Certificate to this effect. The Contractor shall submit to the **Contract Administrator** two copies of the certificate, with original signatures. **The Contract Administrator** will sign the certificates and return one copy to the Contractor within **five** Working Days of receiving the certificates. The Contractor shall not begin testing until this procedure is completed.
- 13.7.11 The Contractor shall collate, organise, interpret and summarise all test results to demonstrate that the Principal's Requirements and the Designer's requirements are being met.
- 13.7.12 Nothing contained in 6.3 of these Principal's Requirements shall relieve the Contractor of any of his responsibilities under the contract. The Contractor shall record all information and test results in the agreed format in the Contractor's Quality File (refer Section **[6.3.6]**).
- 13.7.13 At the end of the Contract, the Contractor shall supply the Quality File, in an agreed format, to the Principal for permanent record.

13.8 Non Compliance

- 13.8.1 Should any inspection by the Quality Manager or the **Contract Administrator** (or their agents) find evidence of non-conforming materials or workmanship, results, or management plans at variance with any standard or requirement, the Quality Manager shall supply the **Contract**

Administrator within one working day a written explanation for the variance and details of what remedial action is to be taken.

14 Information and as-built submission, handover and Completion Records

14.1 Introduction

- 14.1.1 In addition to any other requirement of this Contract, the Contractor shall supply to the Principal the as-built Drawings, Construction Report and other data outlined in this section.
- 14.1.2 The information required shall cover all the Contract Works except the Temporary Works.
- 14.1.3 The draft as-built drawings and operation and maintenance manuals must be submitted to the Contract Administrator throughout the duration of the Contract Works. The Contractor shall submit the draft Construction Report at Practical Completion. The Contractor shall submit the final Construction Report and final as-built drawings at the end of the Defects Notification Period. When accepted by the Contract Administrator, the Contractor shall also provide digital copies of the original construction Drawings and the accepted as-built drawings.
- 14.1.4 All information handed over that relates to a specific geolocation must be packaged for handover in accordance with the WBS geolocation that they relate to, to ensure future discoverability and linkage to the Principal's Geospatial systems.
- 14.1.5 The Contractor must ensure drawings, 100 percent designs, Issued for Construction (IFC) and final as-built PDFs are packaged for upload to the Principals ECM (Electronic content management) system.
- 14.1.6 The Contractor must ensure that any CAD and spatial files are packaged for upload to the Principals ArcGIS (Geospatial system).
- 14.1.7 The Contractor must ensure all their document control processes facilitate handover of information in a well-designed handover folder structure/s for each phase, with documentation/files separated out from the handover of GIS files and databases.
- 14.1.8 The Contractor must ensure documentation and records being handed over to the Principal are
- (a) simple and easy to upload to the Principal ECM digital system (lift and shift) as a complete structure for each stage of handover, with the ability to search by topic, section, asset, and location.
 - (b) not handed over via unstructured transmittals
 - (c) do not result in loss of contextual information when moved to Principal systems.
- 14.1.9 The Contractor must not submit final submission documentation/files folder structure for upload to Principal ECM on memory sticks.
- 14.1.10 It is not acceptable for the Contractor to expect the Principal to manually drag and drop unstructured transmittals and content from Contractor systems over to Principal systems.
- 14.1.11 The Contractor must upload documentation/files directly to the Principal ECM or discuss migration /handover methods with the Principal Information Management team.
- 14.1.12 The Contractor must ensure the handover documentation/file folder structure for upload to Principal ECM does not contain any of the following.
- (a) duplicate files,

- (b) design models and geospatial files such as aerial survey imagery, point cloud files, lidar or mobile scanning files (this must go directly to Client/Principal GIS system)
- (c) files with extensions such as: .sid, .aux, .cpg, .dxf, .ovr, .pri, .sbn, .shp, .shx, .shz, .dbf, (files with these extensions must be uploaded to the Client/Principals GIS system)
- (d) CCTV and safety camera footage (these must be provided separately)
- (e) drone and site survey footage (these must be uploaded to the Principal's ArcGIS, unless it is part of quality files related to a WBS geolocation.)
- (f) video files, such as training videos, comms and marketing, internal briefings, meeting and event recordings, fault, and issue recordings.
- (g) Large files over 250 GB. The Contractor must ensure these are provided separately.
- (h) zip files - as these can cause technical and error issues, and are not resource effective for unzipping by the Principal, and zips limit searchability of information by users. Zips must be unzipped prior to hand over and the information must be converted into open formats at handover by the Contractor so that it can be opened and be readable by the Principal.
- (i) Executable files. Discuss with the Principal the intent for submitting these the Principal.
- (j) chrome extensions in place of actual file formats.
- (k) databases such as access databases, or files with extensions for databases. Submission of these must be in a separate structure or discussed with the Principal Information Management and Data teams.

14.1.13 The Contractor must ensure the final submission documentation/file folder structure for upload to Principal ECM is in line with the following requirements

- (a) The overall path, once extracted, including the nested folders, and file name - must be no more than 256 characters in length. This should be calculated from the very first folder, through to the last folder, inclusive of the (receiving) site name. All sub folder names, the file name, any spaces and the \ separator (which is visible in the URL) are included in this count.
- (b) Folders must not be nested more than 4 to 5 layers deep.
- (c) Special characters are not allowed in file names such as ~, # " * : < > ? / \ |

14.1.14 The Contractor must ensure appropriate registers and naming convention guidance accompany handover documentation to the Principal. Naming conventions must include the WBS and geolocation where applicable.

14.1.15 Unless stated otherwise by the Principal, the Contractor must ensure that hyperlinks are not used in registers, indexes or document lists being handed over to the Principal.

14.1.16 The Contractor must ensure that any references to documentation and records from indexes, registers, lists handed over, are by reference to:

- (a) the actual document/record name,
- (b) or via a unique identifier (GUID (Globally Unique Identifier)) associated to the documents,

14.1.17 Where accompanying metadata is used to add context to files, this must be provided in reference spreadsheets.

14.2 Completion Records

14.2.1 For all structures, relevant Consents and certifications shall be provided at Practical Completion, including:

- Building consents and code compliance certificates (where applicable)
- Design, design review, construction and construction review certificates where required

14.2.2 For all assets agreed with the Principal, the asset owner information required by the Principal's minimum standard z/15 - *Asset owner's manual* and professional services guideline PSG/15 - *Asset owner's manual* shall be provided at Practical Completion. This includes:

- As-built construction drawings must be sorted into the WBS geolocation that they relate to (drawings related to the areas between Reference stations must be grouped accordingly) at handover.
- Design details of any proprietary structure or systems provided (Design Report)
- Material warranties
- Maintenance requirements
- Comment on any construction outcomes that will impact on future maintenance, e.g.
 - The challenging sections of subgrade that were encountered during construction, how these were dealt with and what impact this may have on maintenance.
 - Type of sealing – first coat, second coat or asphalt and what are the maintenance expectations as a result of the type of seal used.
 - The location of services in relation to structures that may require excavation as part of maintenance.
 - Long term maintenance/replacement responsibilities for boundary fences.
 - Agreements with local authorities on maintenance/ownership of peripheral assets.
 - Landscape, urban design, and artwork maintenance expectations.
 - Appropriate care and maintenance of heritage buildings/structures, Archaeological Sites and sites of significance to Maori
 - Presence of materials hazardous to health or local ecology including lead, asbestos, other hazardous chemicals.
 - Any mitigations employed and residual risks remaining from the Safety-in-Design process.
- Resource consents and conditions, including completed compliance documentation and close out of all CSVUE requirements for the works.
- Construction Report

14.2.3 Safety in Design information including records of residual risks for 'bridges', 'geotechnical structures' and 'other significant highway structures' as defined in the Principal's S6, the following information shall be provided at Practical Completion (note this incorporates the requirements of Z/15 and PSG/15):

- Bridge structural input forms (applies to 'bridges' only)

- Descriptive input forms
- Significant structure asset management information
- Design statements (where required by section 2 and appendix A)
- Significant structure supplementary as-built records must be sorted into the WBS geolocation group that they relate to (drawings related to the areas between Reference stations must be grouped accordingly) at handover.
- Schedule of location and type of installed geotechnical instrumentation with summary of readings from installation to decommission or end of contract
- Schedule of geotechnical assets constructed with their geolocation and form in PDF and shape file format with associated maintenance requirements for their design working life as well as a schedule of location and type of installed geotechnical instrumentation with summary of readings from installation to decommission or end of contract

14.2.4 Electrical Network Connections. Electrical Network Connections including Streetlights must be identified on as-built drawings with general specifications included (as a side note if appropriate). Submission of documentation must be supported at that time by a producer statement completed by the manufacturer and installer. The following is required:

- For Street Lighting an approved design and a certified pdf as-built plan showing street light position
- Sign off from the Design Engineer that the installation has been built in accordance with an approved design.
- The Electrical Safety Certificate, Record of Inspection and Certificates of Compliance for individual Street Lights and or assets with electrical network connections. This will include information relating to Installation Control Point (ICP) and the name of any nominated electricity retailer.
- The AWM data.
- Certificate of Completion and record of Inspection for the electrical work from the Electrical Network Contractor.

14.2.5 Delivery of handover documentation (ie timing) shall comply with project-specific requirements but in all cases must occur prior to practical completion.

14.3 As-built drawings

14.3.1 As-built drawings shall consist of the construction drawings, updated to reflect all significant as-built variations, including defects and their rectification.

14.3.2 The draft as-builts and all associated files shall be provided throughout the duration of the Contract, and also prior to Practical Completion, for verification by the Contract Administrator. Final as-Built drawings, as accepted and certified by the Contract Administrator, shall be delivered, at the time prescribed in the Contract in the following formats and in accordance with the WBS geolocation that they relate to (drawings related to the areas between Reference stations must be grouped accordingly):

- One complete set of AutoCAD (or equivalent vector drawing software as agreed by the Principal) files including all associated files.
- One complete set of un-editable Adobe PDF files exported from the CAD as-built Drawings. This shall serve as a read-only set for viewing, downloading and printing by users of the Principal's system. The first drawing/s shall be a full drawing list and shall be denoted as such.

- 14.3.3 The as-built drawings shall be prepared in accordance with the **Principal's** professional services guideline PSG/9 - *Delivery of as-built documentation*, and certified as being a correct record by the Contractor and construction reviewer.

14.4 Legal Survey

<< Guidance Note: The NZTA Transport Property team will engage and manage the survey sub-contractors in every case. The purpose of this section is to clearly define the necessary interaction between the NZTA Transport Property team and Contractor in relation to the Land Use process and subsequent cadastral survey and legislation. >>

- 14.4.1 The Contractor shall provide the **Principal's** Transport Property team (throughout the contract and on a minimum monthly basis) all information required to complete the Land Use process (as outlined under the Land Use Guidance Note).
- 14.4.2 The Contractor shall be responsible for a full site induction of the **Principal's** Transport Property team's appointed survey sub-contractor. This must be done a minimum of three months prior to practical completion.
- 14.4.3 The Contractor must ensure access is provided to the site so that the cadastral survey work is completed prior to practical completion (this is to be completed on a staged basis).

14.5 Highway Structures Information Management System (HSIMS) Input Forms

- 14.5.1 The Contractor shall use the **Principal's** certified Highway Structures Information Management System (HSIMS) Input Forms for bridges, geotechnical and other significant structures to provide project update data to the **Contract Administrator** a minimum of two months prior to Practical Completion and/or opening of the asset to traffic loading. This information will include Bridge Structural Data (BSD) forms which are used to provide vehicle permitting information in OPermit. Samples of these forms are provided in Appendix **[E]** of these **Principal's** Requirements.

14.6 Principal's Asset Register Updating

- 14.6.1 The Contractor shall use the **Principal's** certified AWM forms for works completed by the Contractor in that month, to provide project update data to the **Contract Administrator** for updating the **Principal's** asset register by the 5th calendar day (or next working day) of the following month.
- 14.6.2 The Contractor shall be diligent in obtaining asset register information about activities being undertaken for that month and pursuing the supply of the necessary information to update **Principal's** asset registers monthly.

14.7 Construction Report

- 14.7.1 The Contractor shall provide a Construction Report identifying the actual types of Materials and methods of construction used throughout the Contract Works. **The intent of the Construction Report is to compile background information for the project and intellectual property associated with the construction to ensure the smooth and efficient uptake of maintenance works and operation covering all facets of the project.** The Construction Report shall:-
- (a) **Explain the problems and defects encountered during the design and construction of the Contract Works, and how these were overcome or put right;**

(b) Comment on the remedial and corrective actions taken;

(c) Summary of Health, safety and wellbeing lessons learnt including any innovative ideas or technologies trialled and/or adopted during the contract

- a) Include a complete record of all laboratory (and other relevant testing) information for all Materials used in the Contract Works;
- b) Include mill certificates for all reinforcing steel, pre-stressing strand and structural steel used in the Contract Works
- c) Include copies of all pile installation records, including as a minimum the following:-
 - i) Contract and structure name.
 - ii) Pile number, location, pile type, and pile dimensions.
 - iii) Where drilled, the driller's record, showing date and time of drilling, the type of materials encountered, and the depths at which the materials were encountered.
 - iv) Where driven, the pile driving records information throughout the driving compared against the investigation data and plotted for each pile in a group.
 - v) Where piles have been lengthened or shortened, all relevant information including off-cut length or extension length, the reason for the change and on what authority the change was made, shall all be included.
 - vi) The expected and actual constructed founding levels.
 - vii) Casing finished levels (top and bottom) and total length.
 - viii) Water levels inside the pile, (noting level of casing at time of reading).
 - ix) Confirmation of cleaning of pile base, including the recorded depth of the shaft at the end of drilling and immediately prior to placing concrete.
 - x) Daily weather conditions.
 - xi) Reinforcement checklist.
 - xii) The level of the top of the reinforcement cage before and after pouring.
 - xiii) Concreting records, including the total volume of concrete placed, the volume supplied with each truck, slump measurements and number of cube or cylinder samples taken, time of batching, and concrete placing start and completion times.
 - xiv) Depth to top of concrete for each truck placed, and depth of tremie tube (if appropriate).
 - xv) The Contractor's Design and actual constructed elevation of the top of the pile.
 - xvi) Cross-reference proving bores (if appropriate).
 - xvii) The Contractor's signature verifying that all work has been completed satisfactorily.
- d) Post-tensioning or pre-stressing records (if appropriate), including the following as a minimum:-
 - i) Type of equipment and tensioning system.
 - ii) Unit identification.
 - iii) Tendon number and identification.
 - iv) Observed tendon extension, pull-in and slip at transfer for each tendon.
 - v) Observed jack force immediately prior to transfer.

- vi) Measured duct friction values.
- vii) Copy of stressing calculations.
- viii) Records of concrete strength at transfer.
- ix) Jack calibration certification.
- e) As-built survey along the bridge deck centreline, providing co-ordinates and levels of the deck surface, at maximum 10 metre intervals, certified by a Registered Surveyor;

<<Consider addition / deletion of requirements in this section, in order to tailor it to a specific project>>

14.8 Data Sheets

- 14.8.1 The Contractor shall provide to the **Contract Administrator** data sheets for each item of mechanical or electrical equipment and for all process units, instruments, valves and other like items for which detailed information may be necessary for their successful operation and maintenance.

14.9 Bridge Maintenance Inspection Manual

- 14.9.1 The Contractor shall prepare and provide to the **Contract Administrator** at Practical Completion, a Bridge Maintenance Inspection Manual, including as a minimum the following items:
- a) Proposed maintenance and inspection schedule for each element in the Contract Works;
 - b) Procedures for replacement of bridge bearings, including jacking locations, seismic linkages, expansion deck joints and other like bridge hardware;
 - c) Health and safety information including any residual risk items identified during design and/or construction that asset owners should be aware of whilst undertaking future maintenance or decommissioning of the structure(s).
 - d) Procedures for the maintenance of the stormwater treatment devices, including recommended:-
 - i) Maintenance cleaning frequencies.
 - ii) Maintenance procedures, including disposal of trapped material.
 - iii) Emergency spill procedures.

14.10 **Asset and Work Manager (AWM)** Inspections and Database

- 14.10.1 The Contractor shall provide all **AWM** asset information to the **Principal** in accordance with the *Waka Kotahi State Highways Database and Operations (SHDOM) manual*.
- 14.10.2 The Contractor will ensure:
- The asset information is validated by a Level 1 **AWM** accredited person;
 - The asset information is audited/validated against existing business rules; and
 - Evidence of validation will be provided to the **Principal's** Maintenance Contract Manager upon request.
- 14.10.3 The validation will be in accordance with the **Principal's** current Asset Breakdown Structure and consistent with the **Principal's** Asset Management data standards.

- 14.10.4 The Contractor will provide the asset information to the Principal prior to the commencement of the Defects Notification Period.
- 14.10.5 The Contractor will provide to the Principal the digital as-builts (current state) a minimum of one month prior to road opening as an input for updating the Location Reference Management System (LRMS) network model.

15 Design and Certification Procedure

15.1 Introduction

- 15.1.1 The Contractor shall provide to the **Contract Administrator** certification to cover the Contractor's design, construction and correction of defects of the Contract Works. Meeting this requirement shall not relieve the Contractor of its responsibilities under the Contract.
- 15.1.2 Where the Contractor engages more than one designer, with each undertaking parts of the Contractor's design, the Head Designer shall have overall design responsibility and shall sign off the Producer Statements for the Contractor's design and construction review.
- 15.1.3 Where the Contractor engages more than one Checker, separate Producer Statements and Certificates shall be provided, signed by the applicable Checker. The selection and approval of the Checker(s) will occur between notification of preferred tender status and the award of the Contract. The Checker(s) shall be approved by the Principal prior to engagement. The Principal reserves the right to reject the Contractor's choice of Checker(s).
- 15.1.4 Models of Producer Statements and Certificates are given in Appendix **[B]** of these Principal's Requirements, except for structures where Certificates are given in the *Highway structures design guide*. The Principal shall not accept modifications or qualifications to these Producer Statements and Certificates unless the Contractor seeks and gains the Principal's written agreement beforehand. Throughout these Principal's Requirements where Producer Statements are referred to for structures covered by the technical approval, review and certification procedures of Appendix A of the Highway structures design guide
- 15.1.5 The Certification Procedure for a particular part of the Contractor's design shall be deemed to cover all aspects of that part as set out below.
- 15.1.6 The Head Designer shall monitor all construction works to ensure compliance with the design. The minimum level of this monitoring shall be CM4 as described in ACENZ/IPENZ publication "Fee Guidelines for Consulting Services" dated January 2004. For this project, CM4 monitoring shall, as an absolute minimum, consist of **[3]** full time construction monitoring personnel with appropriate qualifications, skills and practical experience in the disciplines they are responsible for monitoring. Construction monitoring personnel shall be located on-site from commencement of construction until Practical Completion, and shall, among other things, undertake a rigorous programme of random verification testing independent of the Contractor's own quality assurance testing.
- 15.1.7 As part of the role of the **Contract Administrator** in confirming compliance of the Contractor's design with the Principal's Requirements, the **Contract Administrator** requires assurance that the Checker's role has been adequately undertaken and that all issues have been satisfactorily resolved. To this end, the Checker shall provide a Checker Report(s) in accordance with section **[4.4]** above. The **Contract Administrator** may communicate directly with the Checker in the presence of the Contractor and Head Designer, in accordance with sections **[8.2]** and **[8.3]** below.
- 15.1.8 The **Contract Administrator** or the Principal may review the Contractor's certification documentation and information. If either considers the Contractor's Design does not comply with any aspect of these Principal's Requirements or the Contract Documents, they shall issue a Non-conformance Report to the Contractor. The Contractor shall undertake the required action(s) in line with the Contractor's Quality Management System.
- 15.1.9 The Contractor shall make all correspondence between its Head Designer and Checker available to the **Contract Administrator**, on request.

15.2 Design Producer Statements and Design Check Producer Statements

- 15.2.1 Checking of the Contractor's Design shall be undertaken according to one of the following Design Check Categories:

Table 8.2.1: Contractor's design check	
Design check category	Definition
1	To be undertaken by a Checker who is independent of (has no professional or financial interest in) the Head Designer and the Contractor and their associated companies.
2	To be undertaken by a Checker who is professionally independent of the individuals (working either for the Head Designer or the Contractor) responsible for the Contractor's design.
3	To be undertaken by someone competent in the area being reviewed, working in the same company and in the same office, but not involved in the design

- 15.2.2 A Design Check Category 1 may NOT be carried out by a subsidiary company or different office of the same company. Where one designer designs part of the works (e.g. geometrics) and a second designer designs a separate element of the works (e.g. pavement) it is NOT acceptable for them to carry out a Category 1 design check on each other's work.
- 15.2.3 A Design Check Category 2 may be undertaken by subsidiary company, or different office of the same company. Where one designer designs part of the works (e.g. signs and markings) and a second designer designs a separate element of the works (e.g. drainage) it is acceptable for them to carry out a Category 2 design check on each other's work.
- 15.2.4 Separate Contractor's Design Producer Statements and Design Check Producer Statements shall be required for all relevant parts of the Contractor's design listed in the table below:-

Table 8.2.4: Producer statements	
Design part	Design check category
Road Layout and Geometrics	1
Earthworks (Including Geotechnical Interpretative Report)	1
Drainage and Stormwater	1
Structures	As per Appendix [C] of these Principal's Requirements
Kerb, Footways and Paved Areas	3
Signs and Road Markings	2
Lighting and Electrical Works	2
Utilities	1
Noise Mitigation	1

Environmental Barriers	1
Safety Fencing	2
Urban Design and Landscaping	2
Traffic Control and Site Safety	2
Accommodation Works	2
Archaeological and built heritage management	2
[specify other specific contract requirements]	[XXX]

<<Guidance Note: Design items in the Schedule of Prices must replicate this table>>

- 15.2.5 Any other Design Part not specifically mentioned above shall be subject to a Category 1 design check.
- 15.2.6 The Checker shall decide on the form and detail of the Contractor's design check. The check shall include a comprehensive review and confirmation of the validity of the Head Designer's design assumptions, parameters, criteria and all the compliance standards applying to the Contractor's design. The Checker shall also review and be satisfied as to the Designer's selection of computer programs.
- 15.2.7 The Checker's team shall work independently of the Head Designer's team. Although the Checker need not use the same methods of analysis, they shall consult the Head Designer to ensure that the results they obtain can be directly compared.
- 15.2.8 Separate Producer Statements for Contractor's design and Contractor's design Check are required for each Structure (noting the requirements of [8.1.4] and the *Highway structures design guide*. The Design Check Category required for each Structure is detailed in Appendix [C] of these Principal's Requirements.
- 15.2.9 A geotechnical interpretative report shall be prepared by the Head Designer for the Contractor's earthworks design. A Category 1 Design Check shall be required for both the Contractor's earthworks design and the geotechnical interpretative report. Both checks shall confirm the designs suitability with the Pavement and Surfacing design.
- 15.2.10 Each month the Contractor shall maintain and submit to the **Contract Administrator** a register recording the current status of all Design Producer Statements, Design Check Producer Statements and building consents required by the Building Act 2004. Each Design Producer Statement submitted by the Contractor shall be signed by the Head Designer and Contractor. Each Design Check Producer Statement submitted by the Contractor shall be signed by the Checker and Contractor.
- 15.2.11 The Contractor shall submit to the **Contract Administrator** two copies of each Producer Statement with original signatures, along with four copies of all relevant Drawings, schedules, numbered appendices and the like. The **Contract Administrator** will sign and return to the Contractor one copy of each Producer Statement within 10 Working Days of receiving the statements conditional on adequate levels of documentation being provided. Where there is a disagreement on the adequacy of the documentation the **Contract Administrator** reserves the right to require the Checker to attend any resolution meeting.
- 15.2.12 The Contractor may further divide the stages of the Contractor's Design to:-
- Accommodate the Contractor's phasing of the Contract Works;
 - Enable construction of the further divided part of the Contractor's Design to go ahead.

15.2.13 Where this method of certification is adopted the Contractor shall:

- a) Submit to the **Contract Administrator** two copies of a schedule for each further divided part of the Contractor's design that the Contractor proposes to certify. The **Contract Administrator** shall sign and return to the Contractor one copy of the schedule within **five** Working Days of receiving the schedule. This process must be completed before the staging is implemented and the schedule included in the register referred to in clause **[8.2.9]** above;
- b) The Contractor shall submit to the **Contract Administrator** two copies of each Design Producer Statement and Design Check Producer Statement for each further divided part of the Contractor's design. These shall include the original signatures, along with four copies of all relevant Drawings, schedules, numbered appendices and the like. The submission shall provide clarity on how interdependent subsequent divided parts have been considered in undertaking the proceeding divided part. The **Contract Administrator** shall sign and return to the Contractor one copy of each within **ten** Working Days of receiving the statements conditional on adequate levels of documentation being provided. Where there is a disagreement on the adequacy of the documentation the **Contract Administrator** reserves the right to require the Checker to attend any resolution meeting.
- c) If a building consent is required under the Building Act 2004 for the part of the Contractor's Design covered by a Producer Statement, a copy of the building consent issued by the territorial authority shall be submitted to the **Contract Administrator** as part of the Producer Statement. Each building consent shall be cross-referenced to its corresponding Producer Statement;
- d) Construction for any part of the work for each of the further divided parts of the Contractor's design requiring certification shall not begin until this procedure is complete;

15.2.14 If a building consent is required under the Building Act 2004 for the part of the Contractor's design covered by a Producer Statement, the Contractor shall submit to the Contract Administrator a copy of the building consent issued by the territorial authority. Each building consent shall be cross-referenced to the Producer Statement it refers to.

15.2.15 Subject to the requirements of 8.2.11 and 8.2.12 of these Principal's Requirements, construction of any part of the Contract Works requiring certification shall not begin until this procedure is complete.

15.3 Design Producer Statements and Design Check Producer Statements: Staged Procedure

15.3.1 The Contractor may further divide the stages of the Contractor's design to:

- a) Accommodate the Contractor's phasing of the Contract Works;
- b) Enable construction of the further divided part of the Contractor's design to go ahead.

15.3.2 Where this method of certification is adopted the Contractor shall:

- a) Submit to the **Contract Administrator** two copies of a schedule for each further divided part of the Contractor's design that the Contractor proposes to certify. The **Contract Administrator** shall sign and return to the Contractor one copy of the schedule within **5** Working Days of receiving the schedule. This process must be completed before the staging is implemented and the schedule included in the register referred to in Principal's Requirements, Clause 8.2.9 above;
- b) The Contractor shall submit to the **Contract Administrator** two copies of each Design Producer Statement and Design Check Producer Statement for each further divided part of the Contractor's design. These shall include the original signatures, along with four copies of all relevant Drawings, schedules, numbered appendices, Design Report(s), Geotechnical

Interpretative Report, Checker Report(s) and the like. The submission shall provide clarity on how interdependent subsequent divided parts have been considered in undertaking the proceeding divided part. The **Contract Administrator** shall sign and return to the Contractor one copy of each within **10 Working Days** of receiving the statements conditional on adequate levels of documentation being provided. Where there is a disagreement on the adequacy of the documentation the **Contract Administrator** reserves the right to require the Checker to attend any resolution meeting.

- c) If a Building Consent is required under the Building Act 2004 for the part of the Contractor's Design covered by a Producer Statement, a copy of the Building Consent issued by the territorial authority shall be submitted to the **Contract Administrator** as part of the Producer Statement. Each Building Consent shall be cross-referenced to its corresponding Producer Statement. Obtaining Building Consents is solely the Contractor's responsibility and these Principal's Requirement do not cover the requirements for peer review for the purposes of obtaining Building Consents;
- d) Construction for any part of the work for each of the further divided parts of the Contractor's design requiring certification shall not begin until this procedure is complete.

15.4 Information to be provided with Producer Statements

15.4.1 Subject to section [8.2] above, the Contractor shall provide as appropriate with each Producer Statement, the Drawings, schedules and Specifications listed below:

- a) Plans to a scale of not less than [1:500] of the road layout including side roads, junctions, intersections, bridges and interchanges;
- b) Drawings of the road construction giving typical cross-sections;
- c) Drawings to a scale of not less than [1:XXX] showing all culverts, drains, underground pipes, boundary fences, safety fences, environmental barriers, kerbs, footways cables, associated electrical equipment, signs, road markings, environmental and landscaping and the like;
- d) Drawings to a scale not less than [1:XXX] showing all relevant aspects of the Structures;
- e) Specifications for the work to which the Producer Statement relates;
- f) Details of any departures from standard including status of the departure.
- g) Any other schedules or supporting information listed in the Appendices within the Specification;
- h) Any applicable **Safe System** Audit Certificates as outlined in section [8.12] below;
- i) Any other schedules or supporting information detailed in Appendix A of the Highway structures design guide that are required for structures; and
- j) **[Include others as necessary].**

15.4.2 The Contractor shall provide a Design Report for the Contractor's design, which shall include detail of the design parameters, criteria and approach and an outline of the design methodology adopted. It shall also include, where applicable, a summary of the risk analysis and special features of the Contractor's Design that are critical to its success and/or that need special attention during construction. An outline of how the construction is to be checked for compliance shall also be included, highlighting Head Designer monitoring and quality control inspection and checking requirements.

15.5 Drawing Register

- 15.5.1 Each month the Contractor shall submit to the Contract Administrator a Drawing Register recording the current status of all Drawings that have been issued for construction. Changes to the Register since the previous issue shall be highlighted.

15.6 Revisions to Contractor's Design and Drawings

- 15.6.1 Revisions relating to the detail of the Contractor's design issued by the Head Designer or Contractor after completing of the procedures outlined in sections [8.2] and [8.3] above, shall be incorporated into the Drawings. The Contractor shall reissue the Drawings and submit them to the **Contract Administrator** with the applicable Producer Statements, no later than the end of the month following the month the revision was issued. The revisions must follow the certification procedures outlined in sections [8.2] and [8.3] above except that construction may proceed without completion of the procedure.
- 15.6.2 Where the **Contract Administrator** determines that the revisions are minor in nature, new Producer Statements and recertification will not be required.
- 15.6.3 Revisions not concerning detail shall be submitted to the **Contract Administrator** as per the provisions of sections [8.2] and [8.3]. The Contractor may not proceed with construction until the certification of these revisions is complete.

15.7 Construction and Construction Review Producer Statements

- 15.7.1 The Contractor shall provide a Construction Producer Statement on completion of the construction of each part of the Contractor's design as identified in section [8.2] above. The Contractor shall submit to the **Contract Administrator** two copies of each Producer Statement with original signatures. The **Contract Administrator** shall sign and return one copy to the Contractor within **five** Working Days of receiving the statement.
- 15.7.2 On completing construction of each part of the Contractor's design, The Contractor shall provide a Construction Review Producer Statement signed by the Head Designer and the Contractor, along with the Construction Producer Statements provided in section [8.7.1]. The Contractor shall submit to the **Contract Administrator** two copies of each Producer Statement, with original signatures. The **Contract Administrator** shall sign and return one copy of each to the Contractor within **five** Working Days of receiving the statements.
- 15.7.3 Each month, the Contractor shall submit to the **Contract Administrator** a register recording the current status of all Construction and Construction Review Producer Statements and code compliance certificates issued by the consenting authority.
- 15.7.4 The Contractor shall obtain a code compliance certificate from the territorial authority for each part of the Contractor's design for which a Building Consent has been issued. Each code compliance certificate shall be cross-referenced to its corresponding Building Consent and Construction Review Producer Statements.
- 15.7.5 Separate Producer Statements for Construction and Construction Review are required for each structure (noting the requirements of [8.1.4] and the *Highway structures design guide*).

15.8 Defects Notification Producer Statements

- 15.8.1 At the end of the Defects Notification Period for each part of the Contractors design, as per section [8.2] above, the Contractor shall provide a Defects Notification Producer Statement signed by the Head Designer and the Contractor. The Contractor shall submit to **the Contract Administrator** two copies of each Producer Statement, with original signatures, together with four copies of the record

of all work carried out by the Contractor. The Contract Administrator shall sign and return one copy of each to the Contractor within 20 Working Days of receiving them.

15.9 Consultation Certificates

- 15.9.1 Where the Contract requires the Contractor to consult with a third party, the Contractor shall provide a completed Consultation Certificate to the **Contract Administrator**. The Contractor shall consult, meeting the special requirements of the statutory bodies, utility companies and any other companies or affected parties listed in Appendix [L] of these Principal's Requirements. Following consultation, the Contractor shall provide Consultation Certificates signed by the Contractor and, where required, the third parties concerned. The Contractor shall submit to the **Contract Administrator** two copies of each Certificate, with original signatures, along with two copies of all relevant documentation including Drawings and correspondence between the Contractor and the third party. The **Contract Administrator** shall sign and return one copy of each Certificate to the Contractor within five Working Days of receiving them. The Contractor shall not begin any Contract Works that affect the interests of any third party until this procedure is completed.
- 15.9.2 Each month, the Contractor shall submit to the **Contract Administrator** a register recording the current status of all Consultation Certificates.

15.10 Alternative Conceptual Design Certificate and Check Certificate in Respect of an Alternative Design Offered by the Contractor after Award of the Contract

- 15.10.1 The provisions of section [1.4] of these Principal's Requirements apply.
- 15.10.2 The Contractor shall provide appropriate Drawings for each alternative Conceptual Design the Contractor offers after award of contract. The Drawings must be supported by information showing the alternative Conceptual Design and details of changes required to the Principal's Requirements necessitated by the alternative Conceptual Design, together with an Alternative Conceptual Design Certificate signed by the Contractor and the Head Designer. If the alternative is for work classified as Design Check Category 1 as specified in section [8.2.4] the certificate must also be signed by the Checker. The Contractor shall submit to the **Contract Administrator** two copies of the certificates, with original signatures. The **Contract Administrator** will sign and return one copy of the Certificate to the Contractor within **five** Working Days of receiving it. If the Contractor fails to meet the above conditions, the alternative proposal shall be invalidated.
- 15.10.3 The Principal has sole discretion as to whether it accepts an alternative Conceptual Design from the Contractor after the contract is awarded.

15.11 Temporary Works Certificates

- 15.11.1 Temporary Works Certificates shall be required for the design of Temporary Works of a non-routine nature including, but not limited to, these parts of the Contract Works:

<<Guidance Note: Examples:

>>> Bridge A

>>>> Superstructure falsework

>>> Bridge B

>>>> Superstructure falsework and Pier slipforms>>

- 15.11.2 These Temporary Works shall be checked by a Temporary Works Checker. This Checker shall be a Person independent of the Contractor who has relevant skill and experience and who is acceptable to the Principal.

- 15.11.3 Each Temporary Works Certificate shall be signed by the Contractor and the Temporary Works Checker. The Contractor shall submit two copies of the Temporary Works Certificate to the **Contract Administrator**, with original signatures, along with two copies of all relevant drawings and documents. The **Contract Administrator** shall sign and return one copy of each Certificate to the Contractor within **five** Working Days of receiving the material.
- 15.11.4 The Contractor shall not begin construction of any Temporary Works until this procedure is complete.
- 15.11.5 Each month, the Contractor shall submit to the **Contract Administrator** a register recording the current status of all Temporary Works Certificates.

15.12 Safe System Audits

- 15.12.1 A **Safe System** Audit (SSA) shall be conducted on the Contractor's Detailed Design and on the completed Contract Works, **or any separable portion of the Contract Works**.
- 15.12.2 SSA's shall be conducted in accordance with the provisions of **the Principal's Safe System audit guidelines for transport projects (October 2022)**.
- 15.12.3 The SSA Team will be:

Table 8.12: Post contract award Safe System Audit team

[Name]	Audit Team Leader
[Name]	Waka Kotahi representative
[Name]	Independent representative
[Name]	Expert Member

<<Guidance Note: The SSA Team must consist of at least **three** people. It is recommended that the same team members from the tender audit team be nominated, particularly the Team Leader. However it may be desirable to include different team members and this decision will be at the discretion of Waka Kotahi. The Audit Team Leader and the Independent Representative shall be independent of both Waka Kotahi and the Contractor >>

- 15.12.4 If either party to the contract believes there is a conflict of interest with a member of the **SSA** Team, they shall write to the other party, outlining their concerns so that appropriate action can be taken. Any action taken shall be at the discretion of the Principal.
- 15.12.5 The **Principal** shall meet the costs of the Principal's representative on the **SSA** Team. The costs of the Audit team leader, the Independent representative, **any Expert Advisors** and providing a venue for the audits shall be split 50:50 between the Principal and the Contractor.
- 15.12.6 Within **[four]** weeks of the award of Contract, the Contractor may arrange a post award SSA meeting with the **SSA** Team and the Principal. The purpose of this meeting is to discuss each **SSA** recommendation from the tender phase and clarify the Principal's Requirements related to **SSA** recommendations.
- 15.12.7 At this meeting the Contractor shall supply the **SSA** Team with a copy of all previous audits, including the tender audit report and addendums (if applicable), the tenderer's correspondence, and any Principal clarifications.
- 15.12.8 The Contractor may brief the **SSA** Team prior to each audit as to what it sees as the key safety issues and how they are addressed in the Contractor's design.

- 15.12.9 The Contractor is entitled to an exit meeting with the SSA Team following completion of each audit.
- 15.12.10 The Contractor shall be responsible for making any changes required to any part of the Contract Works, including the Contractor's design, as a result of any SSA.
- 15.12.11 Where the recommendations of the SSA report are considered beyond the scope of the contract, or where the Contractor disagrees with the recommendations of the SSA report, the Contractor may request a decision from the Principal. Such decision shall be provided within [20] working days of the request being received.
- 15.12.12 Each month the Contractor shall submit to the Contract Administrator a register recording the current status of all SSA reports.
- 15.12.13 SSA Certificates shall be submitted to the Contract Administrator for each SSA using the certificate example provided in Appendix [B] of these Principal's Requirements.
- 15.12.14 If the Contractor uses a staged procedure separate SSA Certificates shall be submitted with each relevant interim Producer Statement. The Contractor shall provide enough information to the SSA Team to allow them to consider the safety issues for the other parts of the Contract Works, i.e. those parts not covered by the Interim Producer Statement.

16 Maintenance Requirements

16.1 Maintenance Responsibilities

16.1.1 The Contractor shall be responsible for the following highway maintenance activities:

- a) *From Possession of Site until Practical Completion:* All maintenance activities for the new and existing highway within the zone of the works as specified in the following the **Principal's** routine maintenance standard specifications:

<<Ensure correct and most current specifications are referenced. Refer to the web-link below for latest index on NZTA's specifications>>

<http://www.nzta.govt.nz/resources/spec-index-list/index.html>

- [TNZ C1, TNZ HM11 to TNZ HM15, TNZ HM19
- TNZ HM10, TNZ16, TNZ HM17, TNZ HM20, TNZ HM21, TNZ HM23, , TNZ C23, TSer09, TSer10, TSer12, VC 09
- TNZ C25]

- b) *From Practical Completion until end of the Defects Notification Period:* All maintenance activities for new, upgraded, or altered state highways within the zone of the works as specified in the following the **Principal's** routine maintenance standard specifications:

- [TNZ C1, TNZ HM11 to TNZ HM15, TNZ HM19
- TNZ C25]

16.1.2 If the Contractor fails to complete the maintenance works within an appropriate response time, the Principal shall be entitled, after giving the Contractor reasonable notice, to employ others to carry out such maintenance works. The Principal shall be entitled to recover the cost of such works from the Contractor.

16.1.3 [Add additional requirements here where necessary]

16.1.4 Nothing in this section shall relieve the Contractor of its obligations in respect of:

- a) Design and construction activities after Practical Completion, including any second coat surfacing; and
- b) Defects liability.

c) Appendices to the Principal's Requirements

Appendix reference	Subject
A	Principals Design Criteria
B	Producer Statements and Certificates
C	Location, Description and Design Check Category of Principal Structures
D	Survey Information
E	Bridge Inspection and Maintenance Manual Bridge Input Forms
F	Principal Supplied Drawings
G	Facilities for the Contract Administrator
H	Social and Environmental Requirements
I	Sustainability Rating Tool Minimum Requirements
J	Accommodation Works
K	Utility Diversions and Requirements
L	Land Made Available by the Principal
M	Schedule of Parties to be Consulted
N	Access to the Site
O	PPE Minimum Requirements
P	Land Use Guidance Note

Appendices

Appendix I: Statutory requirements

Appendix II: Accommodation works

Appendix III: Schedule of specific job requirements for traffic management and safety

Appendix IV: Geotechnical information

Appendix V: Known hazards and risks identified to date

Appendix VI: Heritage specification for land transport infrastructure [Specification P45]

Appendix VII: Testing schedule

Appendix VIII: Insurance certificates

Appendix IX: Property information, property project close out and legal survey