Technical Services Registration Scheme

Rules of Participation

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# Scheme information

**Overview**

**Name of the Scheme:** Technical Services Registration Scheme

**Scheme number:** SCM8661

**Start date:** 1 October 2019

**End date:** Ongoing

**Open to:** Transport for NSW road infrastructure projects

**Use of the Scheme:** Recommended

**Scheme managed by:** Transport for NSW, Infrastructure & Place,

Commercial Services

**About the Scheme**

Infrastructure & Place, a division of Transport for NSW (TfNSW), has established this Technical Services Registration Scheme (Scheme). The Scheme complements the [Registration Scheme for Construction Industry Contractors](https://www.rms.nsw.gov.au/business-industry/partners-suppliers/tenders-contracts/registration-scheme.html) and makes it easier for Suppliers to work with the NSW Government through a streamlined and consistent approach.

The Scheme is a pool of technical service Suppliers across a range of Service Types who are registered to work on road infrastructure projects and is administered by the Commercial Services Team within Infrastructure & Place.

The purpose of the Scheme is to register Suppliers commensurate with their technical capacity, resources, management systems and recent past performance. The Scheme facilitates, but does not replace, quotation and tender assessment processes for individual procurement events.

Applicants to the Scheme are assessed on a range of criteria. If an Applicant is successful in its Application for a Service Type it will be registered under the Scheme for that Service Type. Registration **does not** extend to related or subsidiary corporations owned or controlled by the Applicant.

Registration in the Scheme will last for three years from the Registration Date for a Service Type. A supplier will be notified when their registration is due to expire. A list of suppliers who are registered in the Scheme can be found on the [Registered Suppliers List](https://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-services-scheme/technical-services-registration-scheme-webcopy.xlsx).

It is recommended that the Scheme is used for the procurement of services that fall under a Service Type - utilising TfNSW’s [Model Legal Documents](https://www.rms.nsw.gov.au/business-industry/partners-suppliers/document-types/specifications/model-legal-documents.html), standard corporate systems and processes as set out in the procurement policy and guidelines.

Purchasers using the Scheme must carry out their own due diligence with regard to value for money for each procurement event.

Additional information on the Scheme is available at [www.rms.nsw.gov.au/techsuppliers](http://www.rms.nsw.gov.au/techsuppliers)

# Definitions

## In these Scheme Rules, the following applies:

**Applicant** means the organisation who has submitted an Application for registration under the Scheme.

**Application** means an online application for registration to the Scheme in the form set out the online form ([Link](https://tenders.nsw.gov.au/rms/?event=public.scheme.show&RFTUUID=34F54E05-E117-D309-B4363E1DB80B2F98))

**Authorised Representative** means the authorised representative of the Applicant

**Model Legal Documents** means documents published as [model legal documents](https://www.rms.nsw.gov.au/business-industry/partners-suppliers/document-types/specifications/model-legal-documents.html) by TfNSW.

**Registration Date** means with respect to each Service Provider and Service Type, the date TfNSW notifies the Service Provider it is registered under the Scheme.

**Roads and Maritime** means Transport for NSW (ABN 18 804 239 602).

**Scheme** means this Technical Services Registration Scheme administered by TfNSW.

**Scheme Rules** means this document ‘Technical Services Registration Scheme Rules of Participation’ as may be updated and varied by TfNSW in its absolute discretion from time to time.

**Services** refers to the services provided to TfNSW by the Service Provider under an engagement.

**Service Groups** means the service groups set out in Attachment A to these Scheme Rules, as may be updated and varied by TfNSW in its absolute discretion from time to time.

**Service Provider** means an organisation that has been granted registration to the Scheme by TfNSW.

**Service Type** means a service type within a Service Group as set out in Attachment A to these Scheme Rules, as may be updated and varied by TfNSW in its absolute discretion from time to time.

**Specified Personnel** means the key personnel of the Supplier who are direct employees and who are required to undertake the Services (this excludes subcontractors or labour hire staff).

**Supplier** means an organisation.

**Term** means the term of each Service Provider's registration in a Service Type under this Scheme.

**TfNSW** means Transport for NSW (ABN 18 804 239 602)

# Confidentiality and exchange of information

## Information provided in an Application will be retained by TfNSW and not disclosed to any other party unless legally required to do so, or to obtain legal or financial advice or as required for appeal.

## In submitting an Application, Applicants agree to provide the necessary authority to enable searches and enquiries to be carried out.

## Confidential information submitted with an Application and identified as such will be treated as confidential unless otherwise required by law.

## Confidential information submitted with an Application may be subject to investigation, reference checking, searches, interview, and enquiries. Applicants are taken to have authorised any such action by making an Application.

## Once registered, a Service Provider’s details, including its performance on individual engagements, may be shared with other agencies and government agencies for the purpose of monitoring performance.

# Supplier Code of Conduct

## The NSW Government *Supplier Code of Conduct* (the ‘Code’) documents a minimum set of expectations and behaviours when doing business with the NSW Government. The submission of an Application will be evidence of the Supplier’s agreement to comply with the Code.

## The Service Provider must conduct itself in a manner that is compliant with the Code and all relevant TfNSW policies at all times. Service Providers must have a satisfactory record of compliance with the Code. This also includes ensuring that their sub-contractors and Suppliers comply with legal obligations regarding their business and employees.

## Any conduct by the Service Provider leading to a breach of the Code and/or TfNSW policies may result in removal from the Scheme and termination of an engagement.

## A copy of the NSW Government *Supplier Code of Conduct* is available at: https://beta.buy.nsw.gov.au/policy-library/policies/supplier-code-of-conduct

# Legal entity and business operations

## Applicants must have an Australian Business Number (ABN), an Australian Company Number (ACN) or be registered with the Australian Securities & Investment Commission (ASIC) to carry on business in Australia.

## Only Applicants that are recognised and acceptable legal entities to TfNSW will be registered in the Scheme. Sole traders, family partnership and unincorporated partnerships are not eligible to apply for registration.

## TfNSW will not register a business name or an entity that is under any form of external administration.

## Applicants trading under a Trustee company arrangement must demonstrate that they meet the Scheme Rules.

## Registration does not extend to related, associated or subsidiary business entities owned or controlled by the Applicant or joint ventures to which the Applicant is a party.

## TfNSW will not register in the Scheme:

Related, associated or subsidiary business entities for the same Service Type unless the business relationships between the Applicant entities and any already registered entity or entities satisfy the NSW Government Code of Practice for Procurement – Standards of Behaviour; or

A joint venture for the same Service Type as any of the parties to the joint venture.

# Applications for registration

## Applications may be made during the operation of the Scheme. Applications will be assessed periodically (usually quarterly) at the discretion of TfNSW.

## All Applications **must be submitted online**. Applications must be completed using the forms prescribed for the Scheme and in the same format.

## Applicants should carefully consider the Service Types which best reflects their current capabilities. Applicants should only apply for Service Types that are the key services offered by their organisation and that can be demonstrated as in-house or standalone services.

## Applicants must complete the Application in full and provide the information required for assessment of the Application, including necessary explanatory or extra material to support the Application. Applicants are to provide relevant qualifications and/or licences, and the like, as applicable to the Service Type.

## The Applicant must address the relevant criteria and clearly and concisely provide the best information available at the time of submission to demonstrate the Applicant’s capabilities for the Service Types selected.

## Applicants must ensure that they provide all the required information requested in the Application*.* Only those Applications which appropriately satisfy the requirements set out in the Scheme Rules and the Application will be considered for assessment.

## Applications must be complete without cross references to information that may have been previously supplied. An Application that is incomplete; has omitted information or is unable to demonstrate the minimum requirements of the Service Type applied for may be refused.

## The information provided by the Applicant may be subject to assessment, reference checking, searches, interview, enquiries, and confirmation. Applicants are deemed to have authorised any such action.

## Applicants acknowledge that Services for each individual engagement will be subject to Model Legal Documents.

## The decision by TfNSW on accepting or rejecting an Application is final.

# Assessment of Applications

## Applications will be assessed against the following:

Organisation information;

Financial capacity;

Legal proceedings;

Insurances held;

Technical capacity and capability;

Specified Personnel;

Referee reports; and

Applicants’ statement.

## TfNSW may undertake such investigations, reference checking, searches, interview, and enquiries and so on as it considers appropriate. Applicants may be requested to provide further information. In this event the assessment process may be placed on hold until the requested information is received.

## Following assessment, TfNSW will determine the Applicant’s eligibility and notify the Authorised Representative in writing of the outcome.

## Assessment outcomes will be recorded by TfNSW.

# Disclaimer

## Any matter in relation to or concerning an Application or subsequent registration or otherwise, is at the Applicant’s sole risk. All costs, losses and expenses that may be incurred by the Applicant (or its employees, agents, contractors or advisors) in any way associated with an Application or subsequent registration or otherwise will be borne entirely by the Applicant.

## TfNSW reserves the absolute discretion to:

Accept an Application with or without limitations and/or conditions;

Reject an Application;

Suspend a Service Provider’s registration under the Scheme;

Revoke a Service Provider’s registration from the Scheme;

Assign membership to a Supplier in a Service Type in the Scheme;

Revoke membership of a Service Provider in a Service Type in the Scheme;

Add a Service Group and or Service Type to the Scheme; or

Remove a Service Group and or Service Type from the Scheme.

## TfNSW will not be liable for any costs or damages incurred by a Supplier (or its employees, agents, contractors or advisors) in the exercise of such discretion.

# Request review of assessment outcome

## Should an Applicant believe that there are substantive grounds to request TfNSW to review the assessment outcome, the Authorised Representative may request a review of the outcome within twenty (20) business days of the date of notice from TfNSW advising of the assessment outcome.

## The request for review of the assessment outcome must be made in writing by email to [tech.supplier@rms.nsw.gov.au](mailto:tech.supplier@rms.nsw.gov.au) with subject reference ‘Technical Services Registration Scheme – Request for Review’.

## The request for review must clearly state the grounds for the request, provide full details of the reason for the request and include all relevant information upon which the Supplier wishes to rely.

# Assignment or novation by the Service Provider

## A Service Provider must not assign, novate or encumber its rights or obligations under the Scheme without the prior written consent of TfNSW. Consent may or may not be granted, or granted subject to conditions, at the sole discretion of TfNSW.

# Assignment or novation by TfNSW

## TfNSW for its sole convenience and at its absolute discretion may assign or novate its rights and obligations under this Scheme to any government department, agency authority or state owned corporation or any other body created by or under legislation of the State of New South Wales for the purpose of administering the functions or discharging the role of TfNSW without the Supplier’s consent.

# Change in status

## Suppliers must update their supplier profile including any contact information or address changes via profile update on eTenders.

## Without limiting clause 10.1, a Service Provider must immediately inform TfNSW of any significant or substantial change in their status for example in technical capacity, specified personnel, capability, ownership or change of name.

## Where the Service Provider is a trustee, the Service Provide must immediately notify TfNSW of changes to the trust deed, changes or proposed changes in the identity of the trustee and of anything which might cause the trustee’s right to be indemnified from the trust assets to be lost or reduced.

## Notification of changes under clauses 12.2 and 12.3 and provision of associated information for TfNSW’s consideration must be submitted in writing by email to [tech.supplier@rms.nsw.gov.au](mailto:tech.supplier@rms.nsw.gov.au) with subject reference ‘Technical Services Registration Scheme – Change in Status’.

## A change in status may be subject to conditions that TfNSW may impose in its absolute discretion.

# Performance

## Suppliers seeking or achieving registration are to be aware that it may be subject to monitoring and review in matters related to the Scheme, including performance and project outcomes.

## TfNSW may in its absolute discretion from time to time undertake performance monitoring and prepare associated reports in relation to the Service Provider.

## The Service Provider must cooperate with TfNSW with respect to performance monitoring including promptly providing all necessary information, documentation and access to the Service Providers premises as required.

## Performance monitoring may include, but not be limited to:

Contractor Performance Reports (CPR’s);

Aboriginal Participation in Construction;

Training and development;

Quality and safety audits;

Ethical practices;

Project outcomes; and

Client satisfaction.

## A Service Provider may be required to meet with TfNSW to discuss their performance and other relevant matters periodically. Any costs incurred by a Service Provider associated with such meetings will be met by the Service Provider.

## Performance monitoring may not be exclusive to the Scheme and could include the exchange of information with other agencies.

## TfNSW may:

Apply sanctions, such as suspension from the Scheme, where performance is deemed unsatisfactory;

Revoke a Service Provider’s registration under the Scheme, where performance is determined to be unsatisfactory; and

Provide the opportunity for a Service Provider to request a review of the decision.

# Publicity

## TfNSW in its absolute discretion may:

Publish Scheme information including Service Providers’ registration and relevant supporting information, such as contact information; or

Advertise, promote or publicise the Scheme.

## Service Providers must not advertise, promote or publicise in any form their registration under the Scheme without the prior written consent of TfNSW.

## Suppliers must submit any such requests for consent to TfNSW in writing by email to [tech.supplier@rms.nsw.gov.au](mailto:tech.supplier@rms.nsw.gov.au) with subject reference ‘Technical Services Registration Scheme – Publicity’.

# Guarantee of work

## Applicants acknowledge registration under the Scheme does not guarantee the Service Provider:

Continuity of the Scheme;

Continuity of its registration for the duration of the Term; or

Receipt of opportunities or requests to quote or tender (as the case may be);or

Engagements or work of any kind or quantity will be offered.

# Review and development of the scheme

## The Scheme will be monitored by TfNSW to assess whether the objectives and intent of the Scheme are being met. Modifications may be made by TfNSW in its absolute discretion during the life of the Scheme.

# Applicants acknowledgement

## In applying for registration, the Applicant agrees that it accepts the Scheme Rules.

# Attachment A

| **Service group** | **Service type** |
| --- | --- |
| Design | Drainage Investigation and Design |
| Standard Road Design |
| Complex Road Design |
| Standard Bridge Design |
| Complex Bridge Design |
| Bridge Rehabilitation Design |
| Materials and Durability Services - Concrete Durability Investigations |
| Materials and Durability Services - Corrosion of Steel in Concrete |
| Materials and Durability Services - Concrete Testing |
| Survey | Cadastral Surveying |
| Surveys for Civil Works |
| Geospatial Surveys |
| Utility Location and Subsurface Mapping |
| Geotechnical and Pavement | Pavement Investigation |
| Pavement Interpretation of Test Results and Advice |
| Geotechnical Assessment and Interpretation |
| Geotechnical Investigation and Monitoring |
| Geotechnical Construction Supervision and Advice |
| Slope Risk Management |
| Environment | Environmental Impact Assessment Preliminary Environment Investigations |
| Environmental Impact Assessment Minor Works REF |
| Environmental Impact Assessment Project REF |
| Aboriginal Cultural Heritage |
| Non-Aboriginal Cultural Heritage |
| Engineered Heritage |
| Aboriginal Cultural Values |
| Socio-economic |
| Noise and Vibration |
| Estimating | Estimating Services - General |
| Estimating Services - Specialist (Electrical & Mechanical) |
| Estimating Services - Specialist  (Tunnel Estimation) |
| Construction Services | Constructability services |
| Program services |
| Workshop facilitation |
| Health and Safety in Design  (HSiD) | HSiD – Workshop facilitation |
| HSiD - Independent verification |
| HSiD - Document review |

# Technical acceptability criteria

Design

| **Service type** | **Service descriptor** | **Minimum criteria** | |
| --- | --- | --- | --- |
| Drainage Investigation and Design | Waterway investigation for bridges and roads, for example flood studies, road drainage design reviews and recommendations for flood mitigation measures. | Capability | Demonstrated experience in flood studies on road infrastructure projects. Experienced in requirements outlined in the Floodplain Management Manual 2005 and knowledge of the current Australian Rainfall and Runoff Manual.  Demonstrated capacity to undertake hydraulic modelling using tools such as XP-RAFTS or equivalent software, as well as derivation of design flows using Flood Frequency Analysis.  Demonstrated skills in the application of 1D and 2D models and particularly in the application of coupled 1D/2D models using MIKE11, HEC-RAS, TUFLOW, MIKE21 , DRAINS, SOBEK and the MUSIC model. |
| System | Quality Management Plan. |
| Personnel | Qualifications admitting to IE Aust and National Professional Engineers Register.  Specialist qualification in hydrology and hydraulics. |
| Standard Road Design | Road design services where adequate information is provided, with minor investigation and consultation required by the contractor to deliver concept and detailed road designs, such as minor intersection design layouts, minor improvement works (for example overlays and overtaking lanes) and realignments. | Capability | Demonstrated experience in the design of arterial roads (urban and/or rural) including, intersections, traffic signals and minor drainage works and in engaging supplementary services, when required.  Demonstrated experience in the application of agency and Austroads guidelines and standards. |
|  | Demonstrated capability to produce drawings, data and models in accordance with the TfNSW CADD Policy and CADD manual. |
| System | Quality Management System based on AS/NZS ISO 9001. |
| Personnel | Associate degree in Civil Engineering or equivalent prior learning.  Demonstrated experience in arterial road design using CADD software. |
| Complex Road Design | Road design services to deliver the concept and detailed road designs of greenfield and brownfield sites and complex traffic control signal sites. The contractor would be required to procure and coordinate a number of design inputs, for example geotechnical, road safety, traffic management, drainage (surface and sub-surface), structural, property adjustments, environment, community consultation, public utility and constructability and staging. | Capability | Demonstrated experience in the design of arterial roads (urban and/or rural) on major and complex infrastructure road projects.  Demonstrated experience in managing multidisciplinary liaison, project management and coordination, together with engaging supplementary services, when required.  Demonstrated experience in the application of Austroads and agency guidelines, standards, model and project specific design specifications.  Demonstrated capability to ingest data and to produce drawings, data and models in accordance with the TfNSW CADD Policy and CADD manual.  Demonstrated capability in the production of rendered model simulations, fly-drive through visualisation’s and the like. |
| System | Quality Management System 3rd party certified to AS/NZS ISO 9001. |
| Personnel | Associate degree in Civil Engineering or equivalent prior learning.  Demonstrated experience in arterial road design for major and/or complex projects using CADD software. |
| Standard Bridge Design | Design, documentation and preparation of tender documents for construction of Standard bridges and structures which are not within the parameters of Complex bridges and structures. This includes box culverts, drainage structures noise walls and safety screens. | Capability | Demonstrated experience in the structural analysis and design of Standard bridges and structures.  Demonstrated capability in scientific investigation and testing and specialist knowledge of materials and products.  Proven capability of successful delivery of design and structural analysis including preparation of tender documents for construction to design brief contractual requirements including to time, cost and quality.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific design specifications.  Range of suitable structural analysis, bridge design and CADD software.  Demonstrated capability to ingest data and to produce drawings, data and models in accordance with the TfNSW CADD Policy and CADD manual.. |
| System | Quality Management System based on AS/NZS ISO 9001. |
| Personnel | Qualifications admitting to IEAust and National Professional Engineers Register.  Demonstrated experience in structural analysis and design of standard bridges and structures. |
| Complex Bridge Design | Design, documentation and preparation of tender documents for construction of Complex bridges and structures, which require sophisticated analysis or structures which have any of the following features:   * Any span exceeding 35 m. * Retaining walls with an effective retained height greater than 6 m. * Cable stayed or suspension bridges. * Steel orthotropic decks. * Arch bridges * Bascule span bridges. * Post-tensioned concrete structures. * Skew exceeding 350 * Bridges with a superstructure comprising of standard precast prestressed concrete planks or girders and cast -insitu deck slab, where the girders are made continuous for live load * Where the superstructure is made fully integral with the substructure. * Non-standard precast prestressed concrete girders and planks * Integral bridges and integral bridge widening * Bridges and structures within rail corridor. * Other structures deemed by TfNSW to be complex. | Capability | Demonstrated experience in complex structural analysis, design and documentation of complex bridges and structures.  Demonstrated capability in scientific investigation and testing and specialist knowledge of materials and products.  Proven capability of successful delivery of complex bridge design and documentation including preparation of tender documents for construction to design brief and contractual requirements including time, cost and quality.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific design specifications.  Range of suitable structural analysis, bridge design and CADD software.  Demonstrated capability to ingest data and to produce drawings and models in accordance with the TfNSW CADD Policy and CADD manual. |
| System | Quality Management System 3rd party certified to AS/NZS ISO 9001. |
| Personnel | Qualifications admitting to IEAust and National Professional Engineers Register.  Demonstrated experience in structural analysis and design of complex bridges and structures. |
| Bridge Rehabilitation Design | Rehabilitation design of all types of existing bridges, structures, traffic barriers, box culverts, retaining walls, noise walls and safety screens. | Capability | Demonstrated experience in the delivery of end-to-end solutions for rehabilitation design of bridges and related structures to time, cost and quality and successfully meeting contractual requirements.  Demonstrated experience in developing design solutions with due consideration for methods that appropriately mitigate the risks of construction under traffic.  Demonstrated experience in development and delivery of safe construction methods, temporary supports, heavy lifts and shifts and foundations for bridge rehabilitation projects  Demonstrated experience in field investigation, monitoring, instrumentation, interpretation of results, for bridge rehabilitation projects  Demonstrated capability in advanced structural analysis including fatigue analysis, structural dynamics, finite element analysis.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific design specifications.  Demonstrated experience in the use and application of a range of suitable and current structural analysis, bridge design and CADD software.  Demonstrated capability to ingest data and to produce drawings, data and models in accordance with the TfNSW CADD Policy and CADD manual. |
| System | Quality Management System based on AS/NZS ISO 9001. |
| Personnel | Qualifications admitting to IEAust and National Professional Engineers Register.  Demonstrated experience in complex structural analysis and design of complex bridges and structures. |
| Materials and Durability Services - Concrete Durability Investigations | Investigation, assessment and analysis of concrete, reinforced concrete and prestressed concrete materials for bridges and related structures. | Capability | Demonstrated capability in scientific investigation and testing and application of specialist knowledge of concrete materials and products used in construction of bridges and related structures.  Demonstrated capability in the identification of deterioration of concrete from alkaline silica reaction (ASR), delayed ettringite formation (DEF), sulfate attack, acid attack, and freeze-thaw, together with non destructive testing methods such as ultrasonic pulse velocity (UPV), Impact-Echo, radiography and Schmidt Hammer.  Demonstrated capability in the successful delivery of investigation and testing of concrete elements in bridges to contractual requirements including to time, cost and quality. |
| System | Quality Management System based on AS/NZS ISO 9001. |
| Personnel | Demonstrated specialist experience in the identification of deterioration of concrete, non-structural causes of cracking in concrete and testing methods. |
| Materials and Durability Services - Corrosion of Steel in Concrete | Investigation, assessment and analysis of corrosion of materials (steel and other metals) in concrete bridges and related structures. | Capability | Demonstrated capability in different field test methods for corrosion of steel in concrete and specialist knowledge of materials and products used in construction of bridges and related structures.  Demonstrated expertise in investigation of corrosion mechanism of steel and other metals in concrete structures and in the investigation and design of corrosion protection systems for metals in concrete.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific design specifications.  Demonstrated capability in the successful delivery of investigation and testing of concrete elements in bridges to contractual requirements including to time, cost and quality.  Membership of the Australasian Corrosion Association (either corporately or for the current technical personnel). |
| System | Quality Management System based on AS/NZS ISO 9001. |
| Personnel | Bachelor Degree in Science or Engineering, recognised under the Australian Qualifications Framework.  Demonstrated experience in road infrastructure materials and corrosion.  Qualifications admitting Membership of the Australasian Corrosion Association. |
| Materials and Durability Services - Concrete Testing | Field or laboratory sampling and testing, assessment and reporting. | Capability | Demonstrated capability in sampling or performance of different test methods for concrete, reinforced concrete and prestressed concrete.  Demonstrated expertise in concrete testing and field sampling to industry and agency guidelines, standards, model and project specific design specifications.  Demonstrated capability in the successful delivery of services to contractual requirements including to time, cost and quality. |
| System | Quality Management System based on AS/NZS ISO 9001. |
| Personnel | Bachelor Degree in Science or Engineering, recognised under the Australian Qualifications Framework.  Demonstrated experience in undertaking concrete sampling and concrete testing. |

Survey

| **Service type** | **Service descriptor** | **Minimum criteria** | |
| --- | --- | --- | --- |
| Cadastral Surveying | Identification surveys, digital cadastral models, marking existing property boundaries, surveys to define boundaries of land and stratum to facilitate land acquisition, disposal, access control, definition of easements and restrictions, and other statutory requirements. | Capability | Demonstrated capability in the successful delivery of services to contractual requirements including to safety, time, cost and quality.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific specifications – including Environmental and Work Health and Safety.  Demonstrated capability to ingest data and to produce drawings, data and models in accordance with the TfNSW Policy and CADD manual.  Demonstrated capability of the electronic lodgement of information to NSW Land Registry Services in accordance with the Registrar Generals’ rules. |
| System | Quality Management Plan |
| Personnel | Registration as a Land Surveyor in NSW |
| Surveys for Civil Works | Construction set out, conformance verification, contract surveillance, measure-up for quantities (volume determination), set up for machine guidance, and minor redesign. | Capability | Demonstrated capability in the delivery of construction and contract surveillance surveying services for road infrastructure projects, including the management pf project survey control.  Demonstrated capability in a range of suitable surveying equipment and software, CADD software and Government portals.  Demonstrated skills in least squares and network adjustment.  Demonstrated capability in the successful delivery of services to contractual requirements including to safety, time, cost and quality.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific specifications – including Environmental and Work Health and Safety.  Demonstrated capability to ingest data and to produce drawings, data and models in accordance with the TfNSW CADD Policy and CADD manual. |
| System | Quality Management Plan. |
| Personnel | Diploma in Surveying or recognised equivalent under the Australian Qualifications Framework.  Two years practical experience in surveying on infrastructure projects. |
| Geospatial Surveys | Digital terrain models for road design and bridge design, production of separate ground, utility, drainage and environmental models, data capture through various techniques. | Capability | Demonstrated capability in the delivery of surveying services for the capture and processing of data and production of digital terrain models for road infrastructure projects.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific design specifications – including Environmental and Work Health and Safety.  Demonstrated capability to ingest data and to produce drawings, data and models in accordance with the TfNSW CADD Policy and CADD manual  Demonstrated skills in least squares and network adjustment.  Demonstrated capability in a range of suitable surveying equipment and software, CADD software and Government portals.  Demonstrated capability in the successful delivery of services to contractual requirements including to safety, time, cost and quality. |
| System | Quality Management Plan. |
| Personnel | Diploma in Surveying or recognised equivalent under the Australian Qualifications Framework.  Two years practical experience in surveying on infrastructure projects. |
| Utility Location and Subsurface Mapping | Three dimensional utility services location, including “dial before you dig” (DBYD) enquiry and surveying of underground services. | Capability | Demonstrated understanding of the Australian Standard for the classification of subsurface utility information (AS 5488-2013).  Demonstrated experience in the collection of subsurface infrastructure information for different types of asset identification and classification.  Demonstrated capability in the delivery of surveying services for the capture and processing of data and production of digital terrain models for road infrastructure projects.  Demonstrated capability in a range of suitable surveying equipment and software, for example pipe and cable locator and ground penetrating radar.  Demonstrated capability in a range of suitable surveying software, CADD software and Government portals.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific specifications – including Environmental and Work Health and Safety.  Demonstrated capability to ingest data and to produce drawings, data and models in accordance with the TfNSW CADD Policy and CADD manual. |
| System | Quality Management Plan. |
| Personnel | Diploma in Surveying or recognised equivalent under the Australian Qualifications Framework.  Two years practical experience in surveying on infrastructure projects.  Five years practical experience in surveying in subsurface infrastructure information.  Confined Spaces accreditation.  Completed recognised training in Telstra copper cabling locating, cable and pipe locator and use of ground penetrating radar. |

Geotechnical and Pavement

| **Service type** | **Service descriptor** | **Minimum criteria** | | |
| --- | --- | --- | --- | --- |
| Pavement Investigation | Pavement and subgrade investigation; including managing all aspects of physical and legal access, managing equipment and laboratory testing to Transport for NSW's requirements and provide comprehensive reporting.  Specifically **excludes construction materials testing**. For construction materials testing refer to the [Registration Scheme for Construction Industry Contractors](https://www.rms.nsw.gov.au/business-industry/partners-suppliers/tenders-contracts/registration-scheme.html) – Categories L1 /L2/ L3 as appropriate. | Capability | | Demonstrated understanding and experience in delivering services in accordance with the Australian Standard for geotechnical site investigations (AS 1726-2017).  Demonstrated technical capability to undertake pavement investigation testing for Road Industry, including on site pavement and subgrade testing such as Dynamic Cone, Penetrometer (DCP), insitu CBR, and Benkelman Beam. NATA Accreditation for specific on site tests, as applicable.  Demonstrated experience in coordinating and delivering Road Industry services including test pitting, large diameter auger holes and coring of pavement, sub layers and subgrade, including supervision, logging and sampling, and backfilling of investigation holes.  Demonstrated experience in the application of Road Industry and agency guidelines, standards, model and project specific design specifications – including testing techniques, Environmental and Work Health and Safety.  Demonstrated capability to produce records, data and reports in accordance with specifications, standards and TfNSW Policy. |
| System | | Quality Management Plan. |
| Personnel | | Certificate IV in Laboratory Techniques (Road Industry).  Laboratory experience in pavements and materials testing. |
| Pavement Interpretation of Test Results and Advice | Preparation of reports outlining the interpretation of laboratory and insitu test results and provide specialist advice to possible pavement maintenance and rehabilitation solutions. | Capability | Demonstrated capability in the preparation of reports outlining the interpretation of laboratory and insitu test results and possible pavement maintenance and rehabilitation solutions.  Demonstrated capability to produce records, data and reports in accordance with specifications, standards and TfNSW Policy. | |
| System | Quality Management Plan. | |
| Personnel | A civil engineering degree or recognised equivalent under the Australian Qualifications Framework.  Ten years practical experience in pavement design. | |
| Geotechnical Assessment and Interpretation | Geotechnical assessment for all aspects of road infrastructure, for example factual and interpretive reporting, desktop studies, design review, constructability and risk management, contracts, specifications and tender advice and assessment.  Interpretation, analysis and design for earthworks, soft ground engineering, soil structure interaction and complex engineering analysis, foundations for bridges, retaining walls and other structures, structural treatments and ground stabilisation and improvements, management of all aspects of site access. | Capability | Demonstrated experience in providing a range of geotechnical services on aspects of road infrastructure, including feasibility route selection, concept design, detailed design, contract documentation and tendering.  Demonstrated capability in factual and or interpretive geotechnical reporting, including geological and geotechnical mapping the characterisation of materials and sources.  Demonstrated capability to develop conceptual, 2D and 3D geological and geotechnical models.  Demonstrated experience in developing earthworks plans for road.  Infrastructure; including cut batters, embankments, retaining, structures, ground reinforcements and drainage.  Capability in soft ground engineering, soil structure interaction and complex engineering analysis.  Capability to provide geotechnical services associated with foundations for bridges, retaining walls, other structures and structural treatments such as reinforced soil walls, soil nails, rock anchors and bolts, shotcrete.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific design specifications – including Environmental and Work Health and Safety.  Demonstrated capability to provide electronic data representing geotechnical information and design drawings, in a form consistent with TfNSW standards and systems.  Demonstrated capability to produce drawings, data and models in accordance with standards, TfNSW Policy and CADD manual. | |
|  |  | System | Quality Management Plan. | |
| Personnel | Qualifications admitting to IE Aust and National Professional Engineers Register.  Degree in civil engineering, geology or recognised related discipline.  Breadth of experience in geotechnical services for road infrastructure. | |
| Geotechnical Investigation and Monitoring | Design and execute geotechnical investigations, for example drilling, test pitting, insitu testing, supervision, logging and sampling, laboratory testing of samples and reporting, install and monitor geotechnical instrumentation, factual and interpretive reporting, and management of all aspects of site access. | Capability | Demonstrated experience in the design and completion of geotechnical investigations for road infrastructure, for example feasibility route selection, concept design, detailed design, contract documentation and tendering.  Demonstrated experience in project management and coordination of services such as drilling, test pitting, geophysics, insitu testing, supervision, logging and sampling and the engagement of supplementary services as required.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific design specifications.  Demonstrated capability to produce drawings, provide data (RMS AGS data format) and models in accordance with TfNSW Policy and CADD manual. | |
| System | Quality Management Plan. | |
| Personnel | Qualifications admitting to IE Aust and National Professional Engineers Register.  Degree in civil engineering, geology or recognised related discipline.  Significant experience carrying out geotechnical site investigations in for road infrastructure projects. | |
| Geotechnical Construction Supervision and Advice | Geotechnical construction supervision and advice associated with; general earthworks, structure foundations, cut batter treatments, site and laboratory testing compliance, contracts advice, assessments against design requirements, reporting to include progress and final, management of all aspects of site access. | Capability | Demonstrated experience in providing geotechnical construction supervision and advice for road infrastructure, including general earthworks, structure foundations, cut batter treatments, site and laboratory testing compliance.  Demonstrated capability with specifications, quality systems, assessment against design requirements and reporting.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific design specifications.  Proven experience in advising on geotechnical construction specifications and contracts. | |
| System | Quality Management Plan. | |
| Personnel | Qualifications admitting to IE Aust and National Professional Engineers Register.  Degree in civil engineering, geology or recognised related discipline.  Breadth of experience in geotechnical construction and supervision. | |
| Slope Risk Management | Slope risk assessment on individual slopes or packages including existing and new construction, for example services for ad hoc, callout and emergency situations and sites including coordination with site and traffic management personnel. Provide Slope Risk Management Plans for one or more sites, ongoing inspections, monitoring and reports, management of all aspects of site access. | Capability | Demonstrated capability in providing geotechnical services in slope risk management. Planning and conducting field investigation and slope risk assessments. Mapping of cut faces and invasive geotechnical sampling and testing – instrumentation and monitoring of geotechnical conditions. Developing slope remediation treatments and management options.  Demonstrated experience in project management and coordination of services and of supplementary services as required.  Demonstrated experience in the application of industry and agency guidelines, standards, model and project specific design specifications.  Demonstrated capability to provide electronic data representing geotechnical information including design drawings, in a form consistent with TfNSW Policy, standards and systems. | |
| System | Quality Management Plan. | |
| Personnel | Qualifications admitting to IE Aust and National Professional Engineers Register.  Degree in civil engineering, geology or recognised related discipline.  At least one fully accredited person in Roads and Maritime Services ‘Guide to Slope Risk Analysis’.  Minimum five years relevant geotechnical professional experience with demonstrated substantial and recent experience in slope stability assessment and remediation. | |

Environment

| **Service type** | **Service descriptor** | **Minimum criteria** | |
| --- | --- | --- | --- |
| Environmental Impact Assessment Preliminary Environment Investigations | Preparation and delivery of preliminary environmental investigation reports, environmental constraints mapping and analysis. | Capability | Proven capability in the preparation and delivery of preliminary environmental investigation reports, environmental constraints mapping and analysis to the NSW and Federal environmental regulatory framework and TfNSW environmental impact assessment procedures.  Demonstrated capability to produce records and reports in accordance with specifications, standards, guidelines, TfNSW Policy and contractual requirements – including to time, cost and quality.  Demonstrated capability in plain English writing. |
| System | Quality Management Plan. |
| Personnel | Relevant degree qualifications (or equivalent under the Australian Qualifications Framework) in environmental science, environmental planning, environmental management or a recognised related discipline.  Experience in undertaking field-based investigations and capture of data.  Experience in the use of GIS mapping tools and programs to visually represent data in the production of good quality constraints maps, figures and graphics to support the various reporting outputs required. |
| Environmental Impact Assessment Minor Works REF | Preparation and delivery of minor works Review of Environmental Factors. | Capability | Proven capability in the preparation and delivery of minor works review of environmental factors (REF) in accordance with the NSW and Federal environmental regulatory framework and TfNSW environmental assessment procedures.  Demonstrated capability to produce records and reports in accordance with specifications, standards, guidelines, TfNSW Policy and contractual requirements – including to time, cost and quality.  Demonstrated capability in plain English writing. |
| System | Quality Management Plan. |
| Personnel | Relevant degree qualifications (or equivalent under the Australian Qualifications Framework) in environmental science, environmental planning, environmental management or a recognised related discipline.  Experience in completing minor works REF.  Experience in providing high quality graphics and figures to support the REF. |
| Environmental Impact Assessment Project REF | Preparation and delivery of project Review of Environmental Factors and response to submissions reports. | Capability | Proven experience in the preparation and delivery of project review of environmental factors (REF) and response to submissions reports in accordance with the NSW and Federal environmental regulatory framework and TfNSW environmental assessment procedures.  Demonstrated capability to produce records and reports in accordance with specifications, standards, TfNSW Policy and contractual requirements – including to time, cost and quality.  Demonstrated capability in plain English writing. |
| System | Quality Management Plan. |
| Personnel | Relevant degree qualifications (or equivalent under the Australian Qualifications Framework) in environmental science, environmental planning, environmental management or a recognised related discipline.  Substantial experience in completing Project REF or large environmental impact assessments including response to submissions reports.  Experience in providing high quality graphics and figures (including use of GIS mapping tools) to support the REF. |
| Aboriginal Cultural Heritage | Comprehensive services for Aboriginal cultural heritage, for example specialist investigations, archaeological excavations, stakeholder liaison and consultation, preparation of significance assessments and conservation and management recommendations, production of high quality reports including archaeological analysis. | Capability | Demonstrated capability in surveying project areas for road infrastructure including small to large scale, urban and regional for pre- and post-contact evidence of Aboriginal occupation of NSW relating to sites, places and objects.  Experience in locating, recording and assessment of known and unknown heritage items to applicable industry and regulatory standards.  Demonstrated capability to undertake specialist investigations, to test, document or recover heritage information and to consult with stakeholders to establish intangible heritage values.  Demonstrated capability in the preparation of Aboriginal Cultural Heritage Assessment Reports in accordance with statutory and TfNSW requirements.  Proven experience in managing and documenting consultation with Aboriginal knowledge holders, native title holders and registered Aboriginal parties.  Experience in undertaking test excavations under OEH Code of Practice for Archaeological Investigations on potential archaeological deposits / Aboriginal objects and places.  Capability to undertake salvage excavations consistent with conditions of approval or AHIPs on small to large archaeological sites.  Demonstrated capability to work with the Aboriginal community to promote and improve understanding of Aboriginal cultural heritage and consult with Aboriginal communities regarding the OEH 2010 Aboriginal cultural heritage consultation requirements.  Experience in preparation of significance assessments and capability to develop conservation and management recommendations to avoid, reduce or mitigate heritage impacts.  Demonstrated capability to produce high quality reports and other products to communicate findings with TfNSW and stakeholders, including for public exhibition.  Capability to communicate the results of cultural heritage investigations to the Aboriginal community and broader audiences through various media including heritage interpretation. |
| System | Quality Management Plan. |
| Personnel | Honours degree or equivalent in archaeology or heritage / archaeology combination.  Minimum five years practical professional experience in Australia,  Eligible for full Membership, Australian Association of Consulting Archaeologists  Eligible for full International Membership, Australia ICOMOS |
| Non-Aboriginal Cultural Heritage | Comprehensive services for non-Aboriginal cultural heritage, for example specialist investigations, archaeological excavations, stakeholder liaison, preparation of significance assessments and conservation and management recommendations, production of high quality reports including archaeological analysis. | Capability | Demonstrated capability in the surveying project areas for road infrastructure including small to large scale, urban and regional for post-1788 evidence of occupation of NSW relating to sites, places and objects.  Experience in locating, recording and assessment of known and unknown heritage items to applicable industry and regulatory standards.  Demonstrated capability to undertake specialist investigations, to test, document or recover heritage information and to consult with stakeholders to establish intangible heritage values.  Proven experience in preparing Heritage Assessment and Statement of Heritage Impact reports in accordance with the Heritage NSW and TfNSW requirements, including Heritage Guidelines and consent conditions.  Demonstrated capability to undertake archaeological excavations in accordance with Heritage Act or EPA Act approvals on a range of 19th – 20th century site types.  Demonstrated capability in preparing site recordings and archival recordings consistent with the Heritage NSW and TfNSW recording standards on archaeological sites, landscapes, buildings and works.  Experience in preparing significance assessments and capability to develop conservation and management recommendations to avoid, reduce or mitigate heritage impacts.  Demonstrated capability to produce high quality reports and other products to communicate findings with TfNSW and stakeholders, including for public exhibition.  Capability to communicate the results of cultural heritage investigations to the community through various media including heritage interpretation. |
| System | Quality Management Plan. |
| Personnel | Honours degree or equivalent in archaeology or heritage / archaeology combination; and or honours degree or equivalent in architecture, history or related discipline with a major in heritage conservation.  Minimum five years practical professional experience in Australia  Eligible for full membership, Australian Association of Consulting Archaeologists.  Eligible for full membership, full International Membership, Australia ICOMOS. |
| Engineered Heritage | Comprehensive services for engineered heritage for example specialist investigations, stakeholder liaison, preparation of significance assessments and conservation and management recommendations, production of high quality reports. | Capability | Demonstrated capability in engineered heritage assessment for road and maritime infrastructure including roads, bridges, tunnels, wharves and other large infrastructure items in the road and maritime portfolio.  Proven experience in the preparation of Heritage Assessment and Statement of Heritage Impact reports in accordance with the Heritage NSW, TfNSW requirements, including Heritage Guidelines and consent conditions.  Demonstrated capability to develop conservation requirements arising from detailed engineering assessment in accordance with relevant codes, standards, best practice guidance and client needs.  Proven experience in preparing site recordings and archival recordings consistent with the Heritage NSW recording standards on engineered structures.  Capability to communicate the results of cultural heritage investigations to the community through various media including heritage interpretation. |
| System | Quality Management Plan. |
| Personnel | Engineering degree, with postgraduate heritage qualification masters in heritage conservation; or honours degree in archaeology, Australian history or heritage studies with masters or higher qualification in industrial heritage or engineering; or minimum of ten years demonstrated long-term professional experience with one or more classes of engineered heritage structure relevant to road infrastructure.  Minimum five years practical professional experience in Australia  Eligible for membership, Engineers Australia - NPER Heritage and Conservation Engineering  Eligible for full membership, full International Membership, Australia ICOMOS. |
| Aboriginal Cultural Values | Comprehensive services in relation to consulting with Aboriginal knowledge holders to  investigate and document the knowledge, traditions, family and community lore, for example specialist investigations, community and stakeholder consultation, preparation of significance assessments, oral histories, genealogies and conservation and management recommendations, and production of high quality reports. | Capability | Demonstrated knowledge of traditions, family and community lore held by Aboriginal people.  Proven capability in consulting with local communities, organisations such as LALCs, Elder groups and knowledge holders and traditional owners.  Demonstrated capability to undertake oral history interviews, anthropology or other data collection, ensure all permissions, ethics clearances, review of manuscripts, public access and copyright are documented and filed, media including maps, videos, tapes and transcripts – and are managed using relevant best practice for oral history recording.  Capability to communicate the results of cultural heritage investigations to the Aboriginal community and broader audiences through various media including heritage interpretation.  Demonstrated capability in preparing specialist reports outlining project aims and outcomes using, where appropriate, stakeholder information to inform and illustrate relevant cultural values and their significance. |
| System | Quality Management Plan. |
| Personnel | Non-Aboriginal roles.  Honours degree or equivalent in anthropology, archaeology.  Minimum five years practical professional experience in Australia.  Eligible for membership, Australian Anthropological Society.  Aboriginal recorders  Certificate of Aboriginality or similar.  Minimum of five years demonstrated competence and familiarity with managing a project to best practice standards for example an oral history, interview, family history or Stolen Generations project.  Training with or membership of a relevant professional group such as Oral History Association of Australia or other evidence. |
| Socio-economic | Preparation and delivery of socio-economic assessments. | Capability | Capability and demonstrated experience in delivering and preparing basic, moderate and comprehensive socio-economic impact assessment reports, including associated fieldwork (such as field observations, targeted surveys and consultation).  Demonstrated capability to deliver socioeconomic assessments, produce records and reports in accordance with specifications, standards, guidelines, TfNSW Policy and contractual requirements – including to time, cost and quality.  Demonstrated capability in plain English writing. |
| System | Quality Management Plan. |
| Personnel | Degree qualifications (or equivalent) in planning, human geography, sociology, economics or a recognised related discipline.  Demonstrated professional experience in undertaking field work for socioeconomic assessments and preparing through to delivery socio-economic assessments and associated reports for complex projects. |
| Noise and Vibration | Preparation and delivery of noise and vibration assessments, including for construction and operational phases of projects. | Capability | Capability and demonstrated experience in road traffic noise assessments based on the NSW Road Noise Policy (DECCW2011), the Environmental Criteria for Road Traffic Noise (EPA1999) the NSW Noise Policy for Industry (EPA, 2017), and relevant Transport for NSW guidelines and procedures including but not limited to the Noise Criteria Guideline (RMS, 2015), the Noise Mitigation Guideline (RMS, 2015), the Noise Model Validation Guideline (RMS, 2018), the Draft At-Receiver Noise Treatment Guideline (RMS, 2017) and where relevant, the Environmental Noise Management Manual (RMS, 2001).  Capability and demonstrated experience in construction noise and vibration (including blasting) assessment based on the Interim Construction Noise Guideline (DECCW, 2009), Assessing Vibration: A Technical Guideline (DEC, 2006), the Construction Noise and Vibration Guideline (RMS, 2016) and relevant standards and procedures including German Standard DIN 4150, British Standard 7385 and a Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (ANZECC, 1990), as a minimum.  Capability and demonstrated experience in undertaking and reporting construction and operational noise modelling using SoundPLAN, CADNA, and/or TNM using CoRTN as a minimum and other algorithms.  Demonstrated ability and experience in the successful delivery of noise and vibration assessments to contractual requirements including, time, cost and quality requirements.  Demonstrated capability to deliver noise and vibration assessments, produce records and reports in accordance with specifications, standards and TfNSW Policy and contractual requirements – including to time, cost and quality. |
| System | Quality Management Plan. |
| Personnel | Degree qualifications (or equivalent) in engineering or science with an acoustic or recognised related discipline. Qualifications and experience should be sufficient to qualify for membership of the Australian Acoustical Society.  Demonstrated professional experience in managing or preparing operational and construction noise and vibration assessments. |

Estimating

| **Service type** | **Service descriptor** | **Minimum criteria** | |
| --- | --- | --- | --- |
| Estimating Services - General | Preparation schedule of quantities, estimates, provide probabilistic analysis of data where input data is provided by Transport for NSW, analysis data related to cost estimating data, independent review of project estimates. | Capability | Demonstrated experience in providing a range cost estimation services for road infrastructure projects.  Demonstrated capability in a range of project estimation methods and techniques, including global (order of magnitude), composite, unit rates, first principles and hybrid estimation.  Demonstrated capability in pricing of strategic estimates using minimal information including providing assumptions for the work.  Demonstrated capability in reading and interpreting complex contract specifications and developing schedule of rates and prices.  Demonstrated experience in preparing estimates based on standard pay items developed by agencies such as TfNSW (QA specifications).  Proven risk management processes and probabilistic modelling techniques to identify, assess and quantify the risk model inputs for probabilistic project estimates.  Capabilities to include taking off quantities from drawings (managing the traceability of the quantity take off from source design documents) and preparation or verification of schedules of quantities for use in Assurance Gate submissions, funding requests, and tender documentation. |
| System | Quality Management Plan. |
| Personnel | Demonstrated professional experience in cost estimation including quantity taking and probabilistic modelling for road infrastructure projects.  Demonstrated knowledge of TfNSW Project Estimating Manual, Standard Pay Items (for roads and bridge works) and other relevant technical guides.  Tertiary qualifications in a relevant discipline from a recognised tertiary institution. |
| Estimating Services - Specialist (Electrical & Mechanical) | Providing specialist services related to electrical mechanical works. | Capability | Inclusive of capability for Estimating Services – General  Demonstrated experience in the provision of specialist estimation services for road infrastructure projects with electrical and mechanical works.  Demonstrated experience in developing pay items for electrical and mechanical work and quantity taking off and pricing.  Capability to develop strategic estimates for electrical and mechanical works using minimal information with provision of assumption for the work.  Demonstrated experience in taking off quantities for electrical and mechanical works from complex drawings as specified in the contract pay items. |
| System | Quality Management Plan. |
| Personnel | Demonstrated professional experience in cost estimation for electrical and mechanical works.  Tertiary qualifications in a relevant discipline from a recognised tertiary institution. |
| Estimating Services - Specialist (Tunnel Estimation) | Providing specialist services related to estimation for tunnel projects. | Capability | Inclusive of capability for Estimating Services – General  Demonstrated experience in developing pay items for tunnel works including quantity derivation and pricing.  Demonstrated capability in pricing of strategic estimates for projects with tunnel works using minimal information including developing reasonable assumption for the work.  Demonstrated experience in taking off quantities form complex tunnel project drawings as specified in the contract pay items. |
| System | Quality Management Plan. |
| Personnel | Demonstrated professional experience in cost estimation for tunnel projects.  Tertiary qualifications in a relevant discipline from a recognised tertiary institution. |

Construction services

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| --- | --- | --- | --- |
| **Service type** | **Service descriptor** | **Minimum criteria** | |
| Constructability services | Constructability advice for road infrastructure projects including; roadworks, earthworks, pavements, bridges, structures, demolition, utilities and / or asset maintenance works. | Capability | Detailed knowledge and demonstrated capability in operational constructability experience for road infrastructure projects including in the areas of roadworks, earthworks, pavements, bridges, structures, demolition, utilities and / or asset maintenance for construction projects.  Demonstrated capability in providing specialist constructability advice for road infrastructure construction projects.  Detailed understanding of Government constructability processes and Transport for NSW construction contracts and specifications. |
| System | Quality Management Plan. |
| Personnel | Membership or demonstrable eligibility for membership with Engineers Australia.  Minimum ten years of relevant industry experience. |
| Program services | Construction program development, review and advice for road infrastructure projects. | Capability | Membership or demonstrable eligibility for membership with Engineers Australia.  Demonstrated experience in developing, reviewing and updating programs for Transport construction projects.  Demonstrated understanding and capability in Transport for NSW programming procedures. |
| System | Quality Management Plan. |
| Personnel | Membership or demonstrable eligibility for membership with Engineers Australia.  Minimum five years of relevant industry experience as programmer/scheduler on related infrastructure projects using Primavera P6. |
| Workshop facilitation | Workshop coordination and facilitation for road infrastructure projects for :   * Constructability * GC21 Start-up * Value Management | Capability | Demonstrated experience and capability in infrastructure workshop coordination and facilitation services including documenting outcomes and reporting.  Demonstrated understanding of Transport for NSW procedures in Constructability, GC21 Start-up and/or Value Management. |
| System | Quality Management Plan. |
| Personnel | Membership or demonstrable eligibility for membership with Engineers Australia.  Minimum ten years of relevant industry experience. |

Health and Safety in Design

| **Service type** | **Service descriptor** | **Minimum criteria** | |
| --- | --- | --- | --- |
| HSiD – Workshop facilitation | Workshop facilitation including provision of required support personnel for HSiD workshops for road infrastructure projects. | Capability | Demonstrated experience and capability in infrastructure workshop coordination and facilitation services including documenting outcomes and reporting.  Demonstrated comprehensive knowledge of:   * Work Health and Safety Act 2011 (Cwlth) * Work Health and Safety Regulation 2017 * Code of practice Safe Design of Structures 2019 * Safety Case Guideline Ed3 – Engineers Australia * Transport for NSW Health and Safety specifications and procedures |
| System | Quality Management Plan. |
| Personnel | Degree qualifications in Work Health and Safety or degree qualifications in civil engineering (or related discipline) accompanied by relevant competencies in work health and safety. |
| HSiD - Independent verification | Independent review and verification of HSiD processes, documentation and outcomes on road infrastructure projects. | Capability | Demonstrated experience and capability in assessing the HSiD process including auditing samples of the design process and documenting outcomes.  Demonstrated experience and capability in assessing that safety hazards have been identified and controls have been proposed that reduce the risks by those hazards so far as is reasonably practicable.  Demonstrated comprehensive knowledge of :   * Work Health and Safety Act 2011 (Cwlth) * Work Health and Safety Regulation 2017 * Code of practice Safe Design of Structures 2019 * Safety Case Guideline Ed3 – Engineers Australia * Transport for NSW Health and Safety specifications and procedures |
| System | Quality Management Plan. |
| Personnel | Degree qualifications in Work Health and Safety or degree qualifications in civil engineering (or related discipline) accompanied by relevant competencies in work health and safety.  Minimum of five years professional post-qualification experience in work health and safety management in the construction industry or the infrastructure asset management industry.  Minimum of two years professional post-qualification experience with construction industry HSiD systems including demonstrated capability in application of the Safe Design of Structures Code of Practice (Safe Work Australia).  Minimum of two years of professional risk assessment experience in the construction industry or the infrastructure asset management industry.  Minimum of two years of experience in auditing construction projects and/or completing work health and safety audits.  Demonstrated capability in the provision of expert HSiD advice. |
| HSiD - Document review | Document review of HSiD documentation for road infrastructure projects in accordance with legislative and policy requirements. | Capability | Demonstrated experience and capability in reviewing HSiD documentation including design reports, drawings, specifications and contracts.  Demonstrated comprehensive knowledge of :   * Work Health and Safety Act 2011 (Cwlth) * Work Health and Safety Regulation 2017 * Code of practice Safe Design of Structures 2019 * Safety Case Guideline Ed3 – Engineers Australia * Transport for NSW Health and Safety specifications and procedures |
| System | Quality Management Plan. |
| Personnel | Degree qualifications in Work Health and Safety or degree qualifications in civil engineering (or related discipline) accompanied by relevant competencies in work health and safety, site and design integration. |

