



SNC • LAVALIN

Winterstoke Road Bridge Replacement

Scope Volume 1: Stage 1 – Preliminary Design and
Ancillary Services

North Somerset Council

July 2020

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Client signoff

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| Project | Winterstoke Road Bridge Replacement |
| Job number | 5191106 |
| Client signature/date | |

Contents

| Chapter | Page |
|---|-----------|
| 1. Introduction | 5 |
| 1.1. Defined terms/ acronyms | 5 |
| 2. Purpose of the service and document interpretation | 5 |
| 2.1. Objective and benefits of the Scheme | 5 |
| 2.2. Background | 6 |
| 2.3. Document interpretation | 7 |
| 3. Description of the service | 7 |
| 3.1. <i>Consultant's</i> tasks and duties | 7 |
| 3.2. Early detailed design | 8 |
| 3.3. Stage 1 Deliverables | 8 |
| 3.4. Existing Surveys | 9 |
| 3.5. Project Initiation Document (PID) | 9 |
| 3.6. Managing Geotechnical Risk | 10 |
| 3.7. Environmental Assessment | 10 |
| 3.8. General | 10 |
| 3.9. Road Cross-Section | 11 |
| 3.10. Road Safety Audits (RSAs) | 11 |
| 3.11. Statutory Authorities' Works | 11 |
| 4. Existing Information | 11 |
| 4.1. Statutory Authorities Information | 11 |
| 4.2. Land Ownership | 12 |
| 4.3. Unexploded Ordnance Risk Assessment | 14 |
| 4.4. Geotechnical | 14 |
| 4.5. Reports | 15 |
| 4.6. NSC events | 15 |
| 4.7. Working Hours | 15 |
| 4.8. Bank Holidays | 16 |
| 5. Specifications and Standards | 16 |
| 5.1. Structure | 16 |
| 5.2. Departures and Relaxations from Standards | 17 |
| 6. Constraints on how the Consultant is to Provide the Service | 17 |
| 6.1. Project Team | 17 |
| 6.2. Communication System | 18 |
| 6.3. Management Procedures | 18 |
| 6.4. Submission procedures | 18 |
| 6.5. Quality Management System | 18 |
| 6.6. Quality Policy Statement and Quality Plan | 19 |
| 6.7. Construction (Design and Management) Regulations 2015 | 19 |
| 6.8. Disclosure | 19 |
| 6.9. Form of retained documents | 19 |
| 6.10. Building Information Modelling | 19 |
| 6.11. Road Works Co-ordination | 19 |
| 6.12. Street Lighting | 20 |
| 6.13. Data management | 21 |

| | | |
|-----------|---|-----------|
| 7. | Timing, programme and Completion | 21 |
| 7.1. | Programme requirements | 21 |
| 7.2. | Format of the programme | 22 |
| 7.3. | Sequence and Timing | 22 |
| 7.4. | Revised programme | 22 |
| 7.5. | Completion definition | 22 |

1. Introduction

1.1. Defined terms/ acronyms

Any words or phrases which appear in a capitalised and/or italics form in this Scope shall have the same meaning as that given in

1. the PSC Contract; and
2. the Preamble,

both of which are defined in the table below.

This Scope contains reference to a number of defined terms/acronyms which are listed below:

| | |
|-----------------------|--|
| PSC Contract | The <i>conditions of contract</i> are the core clauses and the clauses for main Option C and secondary Options X2, X4, X9, X11, X13, Y(UK)2, Y(UK)3 and Z of the NEC4 Professional Service Contract (June 2017) (including NEC4 January 2019 amendments), as supplemented and amended by the <i>additional conditions of contract</i> |
| ECC Contract | The <i>conditions of contract</i> are the core clauses and the clauses for main Option C and Secondary Options X2, X4, X5, X7, X9, X13, X15, X16, Y(UK)2, Y(UK)3 and Z of the NEC4 Engineering and Construction Contract (June 2017) (including NEC4 January 2019 amendments), as supplemented and amended by the <i>additional conditions of contract</i> |
| Preamble | Document entitled "Winterstoke Road Bridge Replacement Scope Preamble" document reference 5191106/scopeP |
| "Project" or "Scheme" | The delivery of a new road over rail bridge at Winterstoke Road, providing continuity of road, cycle and footway network within the emerging Winterstoke Village development, within cost, quality and programme targets as further described in the Preamble. |
| NSC | North Somerset Council |
| MoD | Ministry of Defence |
| PID | Project Initiation Document |
| DMRB | Design Manual for Roads and Bridges |
| RSAs | Road Safety Audits |

This Scope should be read in conjunction with the Preamble.

2. Purpose of the service and document interpretation

2.1. Objective and benefits of the Scheme

The overall objective of the Project is the delivery of a new road over rail bridge at Winterstoke Road, providing continuity of road, cycle and footway network within the emerging Winterstoke Village development, within cost, quality and programme targets.

The specific objectives of Stage 1 of the Project are the:

- production of a preliminary design,
- production of a final Scope for Stage 2 (i.e. the Scope for the nec4 engineering and construction contract for detailed design and construction),

- production of an agreed target cost for Stage 2 (the “Stage 2 Target Cost”, as further described in the Preamble); and
- the provision of ancillary services (technical, commercial etc.) to deliver the above.

From a benefits perspective the Scheme is to deliver:

- A new bridge and highway that will be fit for purpose and safe for all road users.
- A cost effective, strategic solution to several existing maintenance and network resilience issues.
- Greater Strategic Road Network resilience
- Greater rail resilience and removal of ongoing maintenance and access booking issues
- Greater accessibility and economic activity for local communities and businesses.
- Demonstrable application of Whole Life Costing and Asset Management principles.
- Reduced journey times and vehicle operating costs (no need to undertake long diversion when routine maintenance occurs/if weight restrictions or closures are put in place) with air quality, carbon reduction and environmental benefits.
- Improved walking and cycling facilities linking with existing facilities on Winterstoke Road and Broadway.
- Improved safety due to less traffic in the centre of Weston-super-Mare, particularly when the diversion route for the M5 is implemented.
- Enhanced access for tourists helping to drive tourism economy and further increase attractiveness of Weston-super-Mare as a key tourist destination in the area.

2.2. Background

Winterstoke Road Bridge is an existing road bridge that carries the unclassified Winterstoke Road over two non-electrified tracks of the Taunton-Bristol railway line.

The existing structure was constructed in 1943. The bridge is comprised of two simply supported spans resting on a central trestle pier and end abutments. It has a total skewed length of approx. 27.40m between abutments and a skew angle of 48 degrees. The bridge deck has a total width of 12.39m catering for an 8.25m single carriageway and footways approximately 2.0m wide on either side.

Inspection reports state that structure is in a poor condition, with significant loss of section on the intermediate trestle pier and transverse crosshead. The structure was deemed sub-standard to BD21/01 following an assessment by Ramboll in 2011.

The bridge is considered to be life expired, with strengthening and retrofit works to meet current standards deemed unfeasible. It was thus considered that the only viable option would be for a new bridge to replace the existing structure. Once the need for a replacement bridge had been established NSC commissioned Skanska to develop a preliminary technical proposal for the bridge replacement scheme. The technical proposal prepared by Skanska in September 2017 forms the basis of the conceptual design of this tender.

Winterstoke Road Bridge is currently owned and maintained by the MoD. Following disposal of local estate assets, the MoD has proposed to transfer ownership of the structure to NSC, who are currently responsible for maintenance of the carriageway surfacing. Discussions between the parties reached an agreement in principle to transfer ownership. Prior to that, NSC requested an assessment of the full rebuild sum and a commuted sum for future maintenance. To facilitate this, the MoD commissioned WSP | Parsons Brinckerhoff in 2016 to provide estimates of the re-build and whole-life costs for a new bridge.

Subsequent agreement between NSC and MoD has led to the present tender being prepared for development of the detailed design and construction of the new replacement bridge at Winterstoke Road, together with delivery of the above-mentioned benefits set out in 1.1.

The *service* will be managed by NSC with funding from the MoD.

2.3. Document interpretation

As set out in the PSC Contract, in this Scope, except where the context shows otherwise:

- words in the singular also mean in the plural and the other way round,
- words in the masculine also mean in the feminine and neuter and the other way round,
- references to a document include any revision made to it in accordance with the PSC Contract,
- references to a statute or statutory instrument or other subordinate legislation is to such legislation as amended and in force from time to time, including any legislation which re-enacts or consolidates it, with or without modification, and includes corresponding legislation in any other relevant part of the United Kingdom and any code of practice made under it; and
- references to a standard include any current relevant standard that replaces it.

3. Description of the service

3.1. Consultant's tasks and duties

The *Consultant* shall be responsible for everything necessary to complete the Project, including the detailed design, and if necessary construction of all temporary works, and traffic management proposals and activities.

The following list is a guide to the main tasks and duties anticipated being carried out by the *Consultant* in Stage 1. The list is not to be taken as the limit of the tasks and duties, or as inferring their programming, sequencing or order of importance. Duties of the *Consultant* during Stage 1 of the Project shall include (order not significant):

- Project familiarisation and mobilisation of staff.
- Review previous studies and documents.
- Liaise with stakeholders as instructed by the *Client* and present their views for consideration.
- Liaise with any affected public utility authorities and agreement/ costing of any necessary diversions
- Liaise with any Statutory Environmental Bodies affected.
- Prepare a Pre-Construction Information document and update as required.
- Perform functions of principal contractor and principal designer for the purposes of the Construction (Design and Management) Regulations 2015.
- Review surveys carried out and/or planned to assess suitability /deficiency, and undertake additional or follow up surveys as required, including but not limited to topographical survey, ground investigation, and environmental surveys.
- Obtain Technical Approval (TA) to structural design from NSC as TAA.
- Design temporary works;
- Production of a preliminary design for the Project
- Prepare draft traffic management proposals for the *works* (as defined in the ECC Contract);
- Carry out Road Safety Audits;
- Prepare any environmental licences/consents required.
- Consult with departments within NSC and Network Rail as instructed by the *Client*.
- Comply with the environmental process in DMRB.
- Attendance at meetings as required
- Attendance (and lead as requested) Early Warning meetings; to include (if requested) occasional ownership and production of the Project's Early Warning Register

- Attend partnering workshops and key stakeholders,
- including involvement in other partnering events.
- Attend KPI workshops and agree, develop and measure KPIs.
- Prepare and agree change control processes for the production of the Stage 2 Target Cost, as well as such processes more generally. The reference to change control processes is to the arrangement of meetings and the like. It does not relate to the Target Adjustment Events which are set out in the Preamble which cannot be changed.
- Develop and agree the Stage 2 Target Cost
- Assist *Service Manager* in responding to objections and representations.
- Provide any and all information required by the *Client* in order to enable it to make a decision to issue a Confirmation Notice to Proceed to Stage 2 of the Project.

The *Consultant* shall also carry out the *service* in conformity with the *Client's* obligations under the 'Third Party Agreements' set out in the PSC Contract.

3.2. Early detailed design

If deemed appropriate by the *Client* it is possible that detailed design of the *works* (as defined in the ECC Contract) may commence in Stage 1, in which case it would be assessed as a Target Adjustment Event reducing the Stage 2 Initial Target Cost as set out in the Preamble.

3.3. Stage 1 Deliverables

Stage 1 deliverables shall include, but not be limited to:

- PID
- Programme Report.
- Presentation of initial outline design and options.
- Design Options Report.
- Verified and/ or updated Initial Target Cost and Stage 2 Target Cost, to include an updated Activity Schedule as instructed by the *Client*
- nec4 engineering and construction contract Scope for Stage 2 of the Project (i.e. the Stage 2 Scope)
- Non-Motorised User Context Report and Audit.
- Ground Investigation Report, Geotechnical Design Report etc. as per the process for managing technical risk set out in the DMRB CD 622
- Pavement Proposals.
- Road Signs and Road Markings proposals (preliminary design).
- Draft Environmental Masterplans
- Road Safety Audit.
- Departures from Standards Report as and when required
- Risk Register/ early Warning Register for the Project
- Presentation of Preliminary Design proposals to *Client* with Environmental Mitigation Measures
- Final 1:2500 Preliminary design proposals with Environmental Masterplans.
- Updated budget estimates as and when required
- Results of further environmental surveys including ecological surveys carried out by the *Consultant*
- Draft Construction Environmental Management Plan.

- Environmental Screening Report.
- EIA and AIES Scoping Report.
- Draft and Final Environmental Statement .
- Completed Design and Construction Certificates, as required by DMRB
- Environmental licences and consents as and when required

3.4. Existing Surveys

It should be noted that limited geotechnical, topographical and ecological survey information has been provided with the tender. The *client* does not warrant or give any representation to the accuracy or completeness of any data or information contained in these surveys. The *Consultant* must rely on its own enquiries and carry out such further investigations or targets as it considers appropriate in order to design the works and include the cost of undertaking this survey in the Total of the Prices for Stage 1 of the Project and in the Initial Target Cost for Stage 2.

3.5. Project Initiation Document (PID)

The *Consultant* shall prepare a PID that identifies the methodology/ design/ activities proposed in the delivery of Stage 1 of the Project.

The PID shall contain, but not be limited to:

- A review of existing reports and data provided by the *Service Manager*.
- A description of the *Consultant's* proposals for the preparation/design of:
 - Environmental Survey Programme;
 - Pre- Construction Environmental Management Plan (CEMP);
 - Ecological Mitigation Measures;
 - Highway, road and street design
 - Relevant Junction Strategy
 - Lighting, roads and markings
 - Structures, including the bridge itself
 - Utilities diversions including any temporary and permanent supports
 - Carriageway and Footway construction
 - Drainage and flood assessment
 - Earthworks
 - Accommodation works
 - Constructability
 - Traffic Management
 - Road Safety Audit, VRS audit
- The *Consultant's* programme showing all the activities which they will carry out, or is responsible for, in order to satisfy the obligations set out in the PSC Contract, and a statement explaining how this will be achieved allowing for any consultation, approvals tests or surveys which may be required.
- Proposals for data collection, survey and testing work.
- Proposals for consultations.
- Details of assumptions made in compiling the Stage 1 Programme.
- An integrated preliminary design and detailed design and construction programme with explanation of the assumptions made.
- Expenditure profile for Stage 1 with a breakdown showing resources used, by grade and hourly rates.
- Proposals for the use of staff, Subcontractor's not referred to within the tender submission.

- The *Consultant's* Early Warning Register for the Project

3.6. Managing Geotechnical Risk

The *Consultant* is responsible for the geotechnical works and risks and will manage the same in accordance with the process for managing geotechnical risk set out in DMRB CD 622.

3.7. Environmental Assessment

As set out in LA 101 of the DMRB, environmental assessment shall provide clear, concise information to support the competent authority in reaching a reasoned conclusion on the likely effects of a project on the environment. The *Consultant* shall carry out environmental assessment of the Project in accordance with LA 101 of the DMRB, and those parts of LA 102 to LA 104 of the DMRB that are relevant. Following screening, if required, the *Consultant* shall undertake scoping in accordance with current DMRB guidance to identify, from all potential impacts, those that are likely to be 'significant' and therefore those that should be properly focussed upon in any subsequent EIA. The scoping shall also identify survey requirements and methodologies, and how the potential impacts and their significance will be assessed. Scoping shall be reported in an Environmental Scoping Report as a record.

The Environmental Scoping Report shall reflect:

- The level of existing knowledge associated with the Project.
- The receptors/resources likely to be affected.
- The proposed approach to the environmental assessment.

The *Consultant* shall circulate the Environmental Scoping Report to statutory environmental bodies, so that an agreement can be reached on scope of the assessment.

3.8. General

The technical proposal prepared by Skanska in September 2017 forms the basis of the conceptual design for the Project. The *Client* does not warrant or give any representation on the accuracy or completeness of the technical proposal meeting current standards.

Where the replacement of the bridge deck impacts on the adjacent highway infrastructure (e.g. road lighting network, or utilities) then the infrastructure should be reinstated as per the existing layout across, or in proximity, to the bridge deck.

The *Consultant* shall liaise with Network Rail to determine permitted clearances and the working practices relating to working alongside live railways.

During the first 20 weeks the *Consultant* shall prepare an initial design and consider options to the conceptual design which it considers will add value to the *Client*. These options shall include, but not be limited to:

- Geotechnical Mitigation;
- Environmental Mitigation/ Enhancement;
- Commercial Options around purchasing/ supply chain
- Programming
- Structures Options.

The *Consultant* shall prepare a report on option development and present it with an initial design to the *Client* at week 20. This "Design Options Report" shall include an assessment of the benefits and impacts against the conceptual design.

The design speed for the new road shall be in accordance with DMRB CD 109 "Highway link design". The Scheme will allow for a 30mph speed limit to be maintained from the Optima Stadium roundabout northwards to the intersection with Byron Road. The design speed shall therefore be 60kph. The *Consultant* shall consult with

the local highway authority to re-confirm these design standards and speeds. The design speeds to be used shall also be subject to agreement with the *Client*.

3.9. Road Cross-Section

The road shall be a single carriageway providing at a minimum a 2.00m wide footway on the west verge and a 3.00m wide shared footway and cycleway on the east verge.

3.10. Road Safety Audits (RSAs)

RSAs shall be carried out in accordance with GG 119 (Road safety audit). Stage 1 RSA to be carried out during Stage 1 of the Project. RSA 2 and 3 are to be carried out as part of Stage 2 of the Project, unless notified otherwise by the *Service Manager*.

The *Consultant* shall implement all recommendations of the RSA team unless an exception is granted by the *Client*.

3.11. Statutory Authorities' Works

The *Consultant* shall prepare a "Statutory Authorities Works Report" which is required to outline the negotiations the *Consultant* has carried out with any affected Statutory Authorities describing the works required and validating any estimate provided by the Statutory Authorities in terms of value for money and timing.

The *Consultant* shall consult with the Statutory Authorities to obtain updated details of plant likely to be affected by the Scheme and update the corresponding C3/budget estimates accordingly. It should be noted that certain C3's already form part of the *Client's* tender documentation (see 3.1 below) and it is expected that the *Consultant* will obtain any that remain outstanding.

The *Consultant* shall obtain details of all required diversions, lead in times and any outstanding C3/budget estimates for inclusion in the Scheme budget and Statutory Authorities budget estimate.

The *Consultant* shall also obtain details of any funding, betterment or cost share arrangements that may be proposed.

The *Consultant* shall continue to liaise with the Statutory Authorities through Stage 1 (and Stage 2) to obtain the C4/cost estimates.

The *Consultant* shall assess the risks associated with each diversion and report to the *Service Manager* on the potential benefits of advance diversions.

4. Existing Information

The conceptual structures design is included in the Preliminary Technical Proposal and its accompanying drawings dated September 2017. This report can be found in the information published at tender.

The drawings published show a conceptual design for the works and should not be taken as prescriptive. They represent the extent of design work carried out on the Project to date.

4.1. Statutory Authorities Information

The following utility companies are known to have equipment that will be affected by the *works* (as defined in the ECC Contract). They have been asked to provide C3/budget estimates and these are provided at tender. Please note that this information is not exhaustive and other Statutory Authorities' information may be available which is not included. It is the responsibility of the *Consultant* to ensure that they obtain all information required to produce the Statutory Authorities Works Report mentioned above:

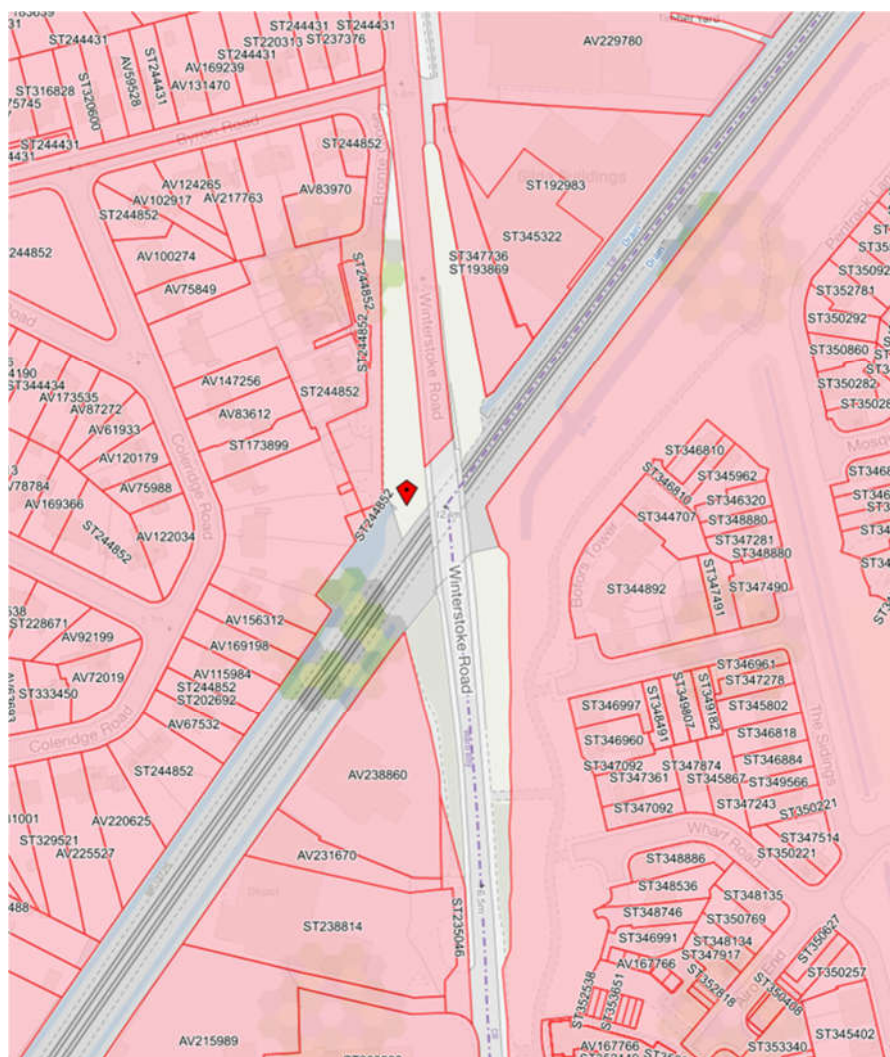
- British Telecom (BT);
- Wales and West Gas (WWG);
- Bristol Water (BW).

| Chainage | Asset Holder | Capacity | Comments |
|------------|--------------|----------|--|
| Throughout | BT | N/A | U/G BT Copper Coaxial asset running north-south. |
| Throughout | WWG | 12" | U/G High pressure 305mm dia. gas line running north-south. |
| Throughout | BW | 6" | U/G BW potable water 152mm dia. main running north-south |

4.2. Land Ownership

A partial map of land ownership (as of January 2020) in the area likely to be affected by the construction *works* is shown below for reference. The *Consultant's* attention is drawn to the fact that the information provided is not an exhaustive list and should be regarded as indicative only. The *client* does not warrant or give any representation on the accuracy or completeness of the data or information provided.

The *Consultant* shall undertake the necessary due diligence to ascertain the ownership and boundaries of any properties affected by the *works*.



Land Registry title numbers by Winterstoke Road

| Land Reg Title No. | Estate Info | Ownership |
|--------------------|-------------|--|
| AV229780 | Freehold | Joan Ann Hart of Weston-Super-Mare, BS23 3YS and Andrew John Hart of Country View, Godding Lane, Banwell, BS29 6DW |
| AV83970 | Freehold | Dominic John Wall and Rachel Stower of 3 Byron Road, Weston-Super-Mare, North Somerset BS23 3XQ |
| AV167766 | Freehold | Persimmon Homes Limited (Co. Regn. No.4108747) of Persimmon Homes Severn Valley, Churchward House, Churchward Road, Yate, Bristol BS37 5NN |
| AV231670 | Freehold | Winterstoke Decorators Supply Limited of Winterstoke Road, Weston-Super-Mare, North Somerset, BS24 9AA |
| AV238860 | Freehold | David Roger Greenslade and Nicholas Raymond Painter of 23 Clevedon Road, Nailsea, North Somerset BS48 1EW |
| ST237376 | Freehold | Jonathan Paul Aucott and Linda Sims of 2 Byron Road, Weston-Super-Mare, North Somerset BS23 3XQ |

| Land Reg Title No. | Estate Info | Ownership |
|--------------------|-------------|--|
| ST192983 | Freehold | Gillian Myra Bute and Simon William Penny of M&D Buildings, Winterstoke Road, Weston-Super-Mare, North Somerset, BS23 3YS |
| ST193869 | Freehold | Gillian Myra Bute and Simon William Penny of M&D Buildings, Winterstoke Road, Weston-Super-Mare, North Somerset, BS23 3YS |
| ST235046 | Freehold | North Somerset District Council of Town Hall, Weston-Super-Mare, Somerset BS23 1EL |
| ST235435 | Freehold | North Somerset District Council of Town Hall, Weston-Super-Mare, Somerset BS23 1EL |
| ST238814 | Freehold | Winterstoke Decorators Supply Limited of Winterstoke Road, Weston-Super-Mare, North Somerset, BS24 9AA |
| ST244431 | Freehold | NSAH (Alliance Homes) Limited (Co. Regn. No. 29804R) of 40 Martingale Way, Portishead, Bristol BS20 7AW |
| ST244852 | Freehold | NSAH (Alliance Homes) Limited (Co. Regn. No. 29804R) of 40 Martingale Way, Portishead, Bristol BS20 7AW |
| ST303933 | Freehold | Karen Edwards of 3 Esgar Rise, Weston-Super-Mare BS22 9JG and Alan Robert Bevis of 3 Tehidy Terrace, Falmouth TR11 2SZ and Sherida Forman of 8 Brean Down Avenue, Weston-Super-Mare BS23 4JH and Beverley Deasington of 86 Spring Hill, Weston-Super-Mare BS22 9BD |
| ST345322 | Leasehold | Baixue Hao of Units 2-4, Gilda Buildings, Winterstoke Road, Weston-Super-Mare BS23 3YS |
| ST347736 | Freehold | Baixue Hao of Units 2-4, Gilda Buildings, Winterstoke Road, Weston-Super-Mare BS23 3YS |

4.3. Unexploded Ordnance Risk Assessment

| Document Number | Document Date | Document Title | Source |
|-----------------|-----------------|---|------------|
| N/A | 29 January 2020 | Pre-Desk Study Assessment, Winterstoke Road Bridge, Weston-super-Mare, Somerset | Zetica UXO |

4.4. Geotechnical

| Document Number | Document Date | Document Title | Source |
|-----------------|---------------|---------------------------|--------|
| ST35NW23/A-B | May 1985 | BGS Borehole ST35NW23/A-B | BGS |

4.5. Reports

| Document Number | Document Date | Document Title | Source |
|--|---------------|---|---------|
| 70022905/001 | Aug 2016 | Winterstoke Road Bridge Whole Life Cost Analysis | WSP |
| 2651513 | Jan 2017 | Winterstoke Road Bridge Network Rail Bridge Visual | Amey |
| 5100784-03 Rev C | Sep 2017 | Winterstoke Road Bridge Preliminary Technical Report | Skanska |
| 5100784/001-003, 005-011 | Sep 2017 | Winterstoke Road Bridge Re-Construction Drawings | Skanska |
| 5100784-02 Rev B | Sep 2017 | Winterstoke Road Bridge Bill of Quantities | Skanska |
| N/A | Nov 2017 | Winterstoke Road Bridge VfM Economic Benefits | Skanska |
| 674946CH-CH2M- SBR-WRB-RP-CB- 0001 Rev A | Dec 2018 | Winterstoke Road Bridge BD79 Management Report | CH2M |
| 674946CH-CH2M- SBR-WRB-TN-CB- 0001 Rev A | Dec 2018 | Winterstoke Road Bridge Technical Note on the Assessment Review | CH2M |

4.6. NSC events

Information regarding events in and around North Somerset that significantly increase the volume of traffic on the highway network during the year can be found here: <https://www.n-somerset.gov.uk/my-services/leisure/events/whats-on/whats-on/>.

The *Consultant* will liaise with the *Service Manager* and the *Client* as regards the potential impact of these events on the Project.

4.7. Working Hours

The normal working hours for the Site shall be 08:00 to 18:00 Monday to Friday and 08:00 to 13:00 Saturdays, with no work permitted on Sundays or Bank Holidays. Where work outside these hours is required to comply with Network Rail requirements, traffic management restrictions or agreements with affected businesses or properties, the *Consultant* shall submit the following information as part of the Construction Environmental Management Plan (CEMP) and prior to working outside the normal working hours:

- i. The proposed times of working outside the normal hours,
- ii. Method statements detailing how noise and vibration will be controlled,
- iii. Details of consultation undertaken by the *Consultant* with effected residents; and
- iv. Confirmation of agreement with the Local Planning Authority (LPA) officers that the proposed mitigation measures are satisfactory.

4.8. Bank Holidays

| Period | Days | TM removed by | TM embargo to |
|------------------------|---|---------------------------------|-------------------------------|
| Easter | Good Friday to Easter Monday | 06:00 Thursday | 00:01 Tuesday |
| Early May bank holiday | Friday to Monday | 06:00 Friday | 00:01 Tuesday |
| Spring bank holiday | Friday to Monday | 06:00 Friday | 00:01 Tuesday |
| Summer bank holiday | Friday to Monday | 06:00 Friday | 00:01 Tuesday |
| Christmas/New Year | Christmas Day, Boxing Day and New Years Day | 06:00 23 rd December | 00:01 2 nd January |

5. Specifications and Standards

The design of the structure and *works* (as defined in the ECC Contract) shall comply with:

- Standards and Advice Notes contained in the DMRB, published by The Stationery Office Ltd.
- Model Contract Documents for Highway Works published by The Stationery Office Ltd.
- Interim Advice Notes (IANs) issued by the Highways Agency/ Highways England.
- Road Circulars and other such documents (e.g. LTNs), published by The Stationery Office Ltd.
- Relevant Eurocodes, British Standards, guidance and advice notes, memoranda, codes of practice, CIRIA publications.
- Relevant EC and UK legislation.
- NSC specific standards, guidance, advice notes, memoranda, codes of practice and other such documents.
- NSC Levels Internal Drainage Board specific standards, guidance, advice notes, memoranda, codes of practice and other such documents.

The relevant issue of each of the above listed documents shall be the current issue at invitation to tender. Where a conflict arises between a DMRB Standard or Advice Note and the Eurocodes, the *Service Manager* shall confirm precedence.

5.1. Structure

The primary conceptual philosophy and strategic objective for the proposed structures is to ensure that the structures are safe and that the design of same is undertaken with reasonable skill and care.

The *Consultant* shall fully consider sustainability when developing its designs and shall ensure the proposed design, construction and future maintenance of the structure does not have an adverse effect on the environment. The design should aim to achieve the lowest whole life cost for the *Client* and minimise future disruption to road users.

The *Consultant's* design for the new structure should aim to minimise whole-life maintenance requirements of the structure and, insofar as practicable, access for future maintenance and inspection of the abutments and bearings (if existing) should be possible from carriageway level and / or be possible to be undertaken remotely.

Proposed designs shall conform to the requirements of DMRB CG300 (Technical approval of highway structures). In addition they'll consider:

- Evidence of stakeholder consultation in design development;
- Aesthetics;

- Buildability;
- Compliance with the Equality Act and ensuring consideration of use by Non-Motorised Users (NMUs);
- Structure robustness, resilience and durability;
- Maintenance and operational commitments;
- Maintenance access provision;
- Consideration of any 'future-proofing'.

The highway cross-section to be accommodated by the new bridge shall be in accordance with NSC highway requirements (as shown on the *Client's* Conceptual Design drawings included in the published tender documents) or CD 127 of the DMRB should they be silent on this.

The *Consultant* shall be responsible for all submissions required for compliance with Network Rail's technical approvals both during Stage 1 and Stage 2.

The minimum clearance height of the structure from the railway way should be a minimum 4780mm in accordance with NR/L3/TRK/2049 "Track Design Handbook". The *Consultant* shall confirm with Network Rail the minimum clearance height and width to meet present requirements and safeguard any future aspirations for the track.

5.2. Departures and Relaxations from Standards

Departures from Standards, which represent a net benefit to the *works*, may be incorporated, subject to the agreement of the *Client*, where the *Consultant* can show that the safety of the road user, operational effectiveness, maintenance liabilities, environmental issues and design life are not compromised and that the Scope would still be satisfied.

"Departure from Standards" means one of, or a combination of, the following:

- The use of a technical design directive or technical specification, whether in the DMRB or not, in a manner or circumstance which is not permitted or provided for in such directive or specification.
- The use of technical design directives other than those in the DMRB.
- The use of technical specifications for materials or workmanship other than those in the SHW and HCD.
- The use of a set of requirements (additional criteria) for any aspect of the works for which requirements are not given in the Highways England Standards currently in force.

The requirements for the proposed Departure and the consequences of its incorporation in the works shall be fully assessed and detailed by the *Consultant* in preparing any application for Departures from Standards.

No Departures from Standards have been formally agreed by the *Client*. The *Consultant* shall include any departures currently used in the conceptual design that he wishes to adopt in the final design in a departures submission to the *Client*.

A period of 6 weeks from submission by the *Consultant* shall be allowed for the assessment of a Departure from Standards.

The *Consultant* shall advise the *Client* at the earliest practical opportunity of any intention to include Relaxations in the design.

Should any Departures from Standard be required then the *Consultant* shall adhere to the procedures in NSC's "Structures Technical Approval Guidance Note".

6. Constraints on how the *Consultant* is to Provide the Service

6.1. Project Team

The Project Team is defined in the Project Delivery Manual Section 2 Governance.

6.2. Communication System

The Communication System should be set up to align with the requirements of the Project Delivery Manual Section 3 Communications.

6.3. Management Procedures

The Management Procedures for the Project are defined in the Project Delivery Manual.

6.4. Submission procedures

A programme for submission shall be agreed with the *Service Manager* by the *Consultant*. All reports shall be submitted in draft and final format. The *Consultant* shall allow the following periods for review by the *Client* / *Service Manager* in its programme unless stated otherwise in the Scope or Contract Data of the PSC Contract:

| | Draft | Final |
|-----------------------------|---------|---------|
| Reports/deliverables | 3 weeks | 1 weeks |
| Geotechnical deliverables | 3 weeks | 1 weeks |
| Environmental deliverables* | 6 weeks | 3 weeks |
| Departures from Standards | 6 weeks | 2 weeks |
| Design Options Report | 6 weeks | 2 weeks |

* Environmental deliverables are defined as draft documents that have been submitted to the statutory environmental bodies for comment and have taken their proposed changes/comments into account.

6.4.1. Submission of Technical Approval Forms

The *Consultant* shall be responsible for obtaining Technical Approval for proposed works and activities where required under the DMRB.

The TA submission shall be separately signed on behalf of the Designer and the *Consultant*. The review time that shall apply for a TA submission is 6 weeks. Review times for re-submission applies also to addenda to TA submissions.

Any variation which the *Consultant* wishes to make to a Technical Approval submission which has been subject to the Submission Procedure during design or construction shall be submitted as an addendum to the Technical Approval submission.

The *Consultant* shall include an Appendix with each Technical Approval submission listing all relevant standards that have been introduced/amended since the invitation to tender, inclusive of cost and programme impacts, and whether their implementation has been instructed under the PSC Contract.

6.4.2. Submission Formats

All reports shall be submitted in a format to be agreed with the *Service Manager*. The front cover of all reports and any separate appendices shall contain the *Client's* name, the Project Name, Report Title, Reference Number and Revision and the Date of Issue.

Copies of submissions, drawings and reports shall be provided in an agreed digital format to suit the *Client*. Reports and drawings are to be prepared using software to be agreed with the *Service Manager*.

6.5. Quality Management System

The *Consultant*, and any Subcontractor's engaged throughout the Project, shall operate a quality management system in compliance with BS EN ISO 9001. Further, the *Consultant* and Subcontractor's engaged as part of

the commission should be able to demonstrate that they can undertake the required work in a safe and responsible manner, adhering to relevant legislation and best practice protocols. Quality plans and audits shall be produced to meet the requirements of the *works*.

6.6. Quality Policy Statement and Quality Plan

Quality plans, statement and audits shall be produced to meet the requirements of the Project, the PSC Contract and as agreed between the *Client*, *Consultant* and the *Service Manager*.

6.7. Construction (Design and Management) Regulations 2015

The Construction (Design and Management) Regulations, 2015, (generally referred to as the “CDM Regulations”) shall apply to this Project.

The *Client*, as Client under the CDM Regulations, has determined that the works are a “notifiable project” as defined by the CDM Regulations. The *Consultant* shall perform the role of Principal Designer / *Consultant* for the PSC Contract.

Pre-Construction Information, as referred to in the CDM Regulations 2015 and HSE document L153 “Guidance on the Regulations”, is included in this Scope.

A Construction Phase Plan shall be developed by the *Consultant* in accordance with Regulation 12 and Appendix 3 of the CDM Regulations 2015 during Stage 1.

6.8. Disclosure

Except with the prior written consent of the *Client*, the *Consultant* shall not make any press announcement or publicise anything in connection with this Project, and shall also ensure the observance of the provisions of this clause by all relevant Subcontractors’ agents and employees.

6.9. Form of retained documents

The form of retained documents shall be in a format as notified by the *Service Manager*.

6.10. Building Information Modelling

The *Consultant* shall utilise Building Information Modelling (BIM) technologies and processes to meet Level 2 BIM standards. The *Consultant* shall adhere to the concepts, principles, processes and philosophy of BS EN ISO 19650, as well as DMRB GG 184.

6.11. Road Works Co-ordination

The *Client* is the Street Works Authority for the highway network in North Somerset.

The following are notifiable works:

- Any works in a traffic sensitive street at traffic sensitive times; or
- Any works in a carriageway which involve excavation; or
- Any works that require traffic signals, stop and go boards, convoys or more stringent traffic management.

As part of the *service* the *Consultant* is responsible for issuing, updating and closing all street works notices relating to notifiable works and appoints a Street Works Co- Ordinator or similar to perform this function.

The *Consultant* utilises an electronic street works notice management system to issue, update and close notices. The system is compatible and conversant with the *Client's* systems.

The timing of notices is in accordance with the Department for Transport's publication 'New Roads and Street Works Act 1991 Code of Practice for the Co-ordination of Street Works and Works for Road Purposes and Related Matters (as amended and any other associated documentation)'.

The *Consultant* ensures that all notices are issued, updated and closed in accordance with the prescribed Code of Practice and any other processes and procedures agreed with the *Client* during the mobilisation phase of the contract.

The Street Works Co-ordinator attends the coordination meetings of the *Client*. In preparation for these meetings the *Consultant* sends advanced works schedules to the *Client*.

In discharging its duties as Street Works Authority, the *Client* treats works carried out by the *Consultant* on the same basis as works undertaken by Statutory Authorities. This shall include inspecting a sample of the works in progress should the Street Works Authority wish to do so.

The *Client* issues a Fixed Penalty Notice to the *Consultant* if the *Consultant* fails to meet the *Client* street works noticing requirements in Providing the Service:

- The *Consultant* fails to issue advance notice of works where required;
- The *Consultant* starts work on site without issuing a notice of starting date;
- The *Consultant* fails to give notice that a notice of starting date has been cancelled;
- The *Consultant* fails to give notice of undertaking Emergency Works;
- The *Consultant* fails to give notice that the Works are complete;
- The *Consultant* fails to give notice that the original duration of the Works is to be extended; or
- The *Consultant* fails to give notice of the actual start date of works or daily whereabouts for minor works.

The costs associated with any Fixed Penalty Notices or Section 74 penalties issued are borne wholly and exclusively by the *Consultant* and are not part of Providing the Service.

The *Client* may in due course implement a permitting scheme in accordance with the Traffic Management Act 2004 during the service period. The *Consultant* co- operates with the *Client* in implementing such a scheme.

The *Consultant* will be required to liaise with the *Client's* Highways Network Manager (and others, as directed by the *Service Manager* and/ or the *Client*) and may be required to attend The Highway Authorities and Utilities Committee (HAUC(UK)) meetings that are held every quarter (at present) to co-ordinate works on the highway.

6.12. Street Lighting

The *Client* will require the *Consultant* to provide a street lighting system for roads, verges, paths, cycle tracks, parking areas and all areas to be adopted as highway maintained at the public expense.

Every installation of highway lighting and traffic management equipment must be installed in every instance to the *Client's* approval.

All proposals must be submitted to the *Client's* Lighting Engineer for design and specification approval before works start on Site. It is important that the equipment used is compatible with the equipment installed throughout the District to

enable easy and economical maintenance, details of which will be provided by the Lighting Engineer. Refer to the Councils Street Lighting Design Guide for further details, which is attached as Appendix B.

6.13. Data management

The following terms used in this section of the Scope have the definitions given to them in the General Data Protection Regulation (EU) 2016/679 (GDPR).

- (1) The *Data* is personal data.
- (2) The *Client* is the controller.
- (3) The *Consultant* is the processor.

The *Consultant* processes the *Data* only in accordance with the Scope and in compliance with the requirements of the GDPR.

The *Consultant* obtains written commitments to confidentiality from persons authorised to process the *Data* and requires them not to process the *Data* except in accordance with the Scope.

The *Consultant* implements technical and organisational measures to maintain a level of security of the *Data* appropriate to the risk presented by processing.

The *Consultant* includes in any subcontract which involves the processing of *Data* the same requirements for *Data* processing to those in this contract. Further sub subcontracting which involves the processing of *Data* is not made without the agreement of the *Service Manager*.

The *Consultant* assists the *Client* by appropriate technical and organisational measures for the fulfilment of the *Client's* obligation under the GDPR.

In accordance with the instruction of the *Service Manager*, the *Consultant* deletes or returns the *Data* to the *Client* before the *defects date*.

The *Consultant* makes available to the *Service Manager* information necessary to demonstrate compliance with the requirements for processing the *Data*.

The *Consultant* assists in audits, including inspections, conducted by or on behalf of the *Client*.

The *Consultant* immediately informs the *Service Manager* if it believes that an instruction infringes the GDPR or data protection provisions of a Member of the European Union.

If instructed by the *Service Manager*, the *Consultant* assists the *Client* to ensure compliance with its obligations under the GDPR.

7. Timing, programme and Completion

7.1. Programme requirements

The table below identifies the key dates in the Project Initiation Document programme requirements for Stage 1.

| Event | Time in Weeks after PSC Contract Award |
|--|--|
| PSC Contract Award | 0 |
| Project Initiation Document (PID) | 4 |
| Presentation of Options Report and Initial Outline Design | 12 |
| <i>Client's</i> Response on Options | 16 |
| Final Submission of Initial Outline Design and Options | 20 |
| <i>Client's</i> Response on Options | 25 |
| Final submission of Preliminary Design | 30 |
| <i>Client's</i> Approval of Preliminary Design – design freeze | 32 |

The *Consultant's* programme shall clearly identify these key dates. It shall also include the *Consultant's* proposed dates for delivery of the Stage 1 deliverables listed in this Scope and contain adequate allowance for comment by the *Client*. Minimum periods are detailed in Section 5.4.

7.2. Format of the programme

The programme shall be prepared using Microsoft Project (or equivalent) as agreed with the *Service Manager*.

7.3. Sequence and Timing

Sequence and timing in weeks after contract award are set out in Clause 6.1 above

7.4. Revised programme

Specific requirements for the submission of revised programmes shall be as stated by the *Service Manager*/the PSC Contract.

7.5. Completion definition

The *completion date* shall be as defined in the PSC Contract.

APPENDIX A

North Somerset Levels Internal Drainage Board Policy Statement and Standing Advice to Local Planning Authorities and Developers

See separate PDF document.

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APPENDIX B

Highways Electrical Design Guide

See separate PDF document.

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