

GB-Shrewsbury: Pride Hill Public Realm Enhancements

Competitive Contract Notice

1. Title: GB-Shrewsbury: Pride Hill Public Realm Enhancements
2. Awarding Authority:
Shropshire Council
Shirehall, Abbey Foregate, Shrewsbury, SY2 6ND, United Kingdom
Tel. +44 1743252992, Fax. +44 1743253910, Email: procurement@shropshire.gov.uk, URL:
www.shropshire.gov.uk
Contact: Procurement, Attn: Procurement
3. Contract Type: Works
Sub Type: Realisation, by whatever means of work, corresponding to the requirements specified by the contracting authorities
4. Description: Works for complete or part construction and civil engineering work. Shropshire Council is looking to procure Principal Contractors for the next phase of the Shrewsbury Integrated Transport Package, which consists of a Public Realm Enhancement Scheme located at Pride Hill. Shropshire Council is inviting organisations to pre-qualify in order to be selected to be invited to tender for the provision of these Works. As part of the pre-qualification process Contractors must be able to demonstrate their competence/suitability in the following areas:
 - Health and Safety
 - oCDM2015 – willingness to accept the role of Principal Contractor
 - oCHAS Certification or equivalent approved scheme
 - oAccident Record (RIDDOR)
 - Financial
 - oProven financial standing
 - oAdequate Insurance Cover
 - Experience
 - oReference Projects/Contracts demonstrating ability to undertake public realm improvement schemes working in an urban and town centre environment with complex traffic/pedestrian management arrangements and associated road-space permit restrictionsOther Specialist Services that the Contractor is able to provide:
Equality
Compliance with Equality and Diversity legislation
5. CPV Codes:
45200000 - Works for complete or part construction and civil engineering work.
6. NUTS Codes :
UKG22 - Shropshire CC
7. Main Site or Location of Works, Main Place of Delivery or Main Place of Performance: Shropshire CC,
8. Reference Attributed by the Awarding Authority: DMNH 015
9. Estimated Value of Requirement: Category F: 1M to 5M
Currency: GBP
10. Deadline for Expression of Interest: 04/08/2017 12:00:00
11. Address to which they must be sent:
Shropshire Council
Shirehall, Abbey Foregate, Shrewsbury, SY2 6ND, United Kingdom
Tel. +44 1743252992, Fax. +44 1743253910, Email: procurement@shropshire.gov.uk, URL:
www.shropshire.gov.uk
Contact: Procurement, Attn: Procurement
12. Other Information:
Other Information: The contracting authority considers that this contract may be suitable for economic operators that are small or medium enterprises (SMEs). However, any selection of tenderers will be based solely on the criteria set out for the procurement.
For more information about this opportunity, please visit the Delta eSourcing portal at:
<https://www.delta-esourcing.com/tenders/UK-GB-Shrewsbury:-Pride-Hill-Public-Realm-Enhancements/275R7H4362>

To respond to this opportunity, please click here:

<https://www.delta-esourcing.com/respond/275R7H4362>

TKR-2017623-PRO-10492666

Suitable for VCO: Yes

Procedure Type: OPEN

Period of Work Start date: 13/10/2017

Period of Work End date: 29/10/2018

Is this a Framework Agreement?: no



9 November 2017

Tel: (01743) 252993

Fax: (01743) 255901

Please ask for: [REDACTED]

Email: procurement@shropshire.gov.uk

DMNH 015

Dear Bidder

DMNH 015 – SHREWSBURY INTEGRATED TRANSPORT PACKAGE: PRIDE HILL PUBLIC REALM ENHANCEMENTS

You have been invited to tender for the above requirement. With this letter please find copies of the following documents:

- Doc 0. Instructions for Tendering
- Doc 1. Conditions of Contract
- Doc2. Specification and Preamble to BoQ
 - o TFX MC1213 001 High St, Shrewsbury, Road Closure
 - o TFX MC1213 002 Rev A Castle Street, Shrewsbury
 - o 1070997-T-06-101 Pride Hill Location Plan
 - o 1070997-T-06-102 Pride Hill GA
 - o 1070997-T-06-105 Pride Hill Land Boundary
 - o 1070997-T-06-201 Pride Hill Site Clearance
 - o 1070997-T-06-202 Pride Hill Street Lighting Clearance
 - o 1070997-T-06-500 Drainage Plan
 - o 1070997-T-06-501 Chamber Details
 - o 1070997-T-06-502 RHS Channel Long Section
 - o 1070997-T-06-503 LHS Channel Long Section
 - o 1070997-T-06-504 CCTV and Ironwork
 - o 1070997-T-06-701 Proposed String Labels
 - o 1070997-T-06-702 Proposed Contours
 - o 1070997-T-06-703 Carriageway Cross Sections Sheet 1
 - o 1070997-T-06-704 Carriageway Cross Sections Sheet 2
 - o 1070997-T-06-705 Carriageway Cross Sections Sheet 3
 - o 1070997-T-06-706 Carriageway Cross Sections Sheet 4
 - o 1070997-T-06-1101 Kerbs, Footways & Paving
 - o 1070997-T-06-1102 Pavement Construction Details
 - o 1070997-T-06-1103 Concrete Foundation Plan & Detail
 - o 1070997-T-06-1104 Kerb, Edging & Tie-in Detail
 - o 1070997-T-06-1105 Typical Cross Sections
 - o 1070997-T-06-1106 Indicative Finish 1
 - o 1070997-T-06-1107 Indicative Finish 2
 - o 1070997-T-06-1108 Indicative Finish 3
 - o 1070997-T-06-1109 Indicative Finish 4

- 1070997-T-06-1110 Indicative Finish 5
- 1070997-T-06-1111 Landscaping & Street Furniture
- TEL-B657-10 - 002 Rev A Secondary Totem Foundation
- 1070997-T-06-1201 Proposed Sign Locations
- 1070997-T-06-1202 Proposed Sign Schedule
- 1070997-T-06-1301 Street Lighting
- 1070997-T-06-1401 Electrical Works
- Doc 3. Bill of Quantities
- Doc 4. Pre-Construction Information
 - Doc 4. Appendix B HEMS
 - Doc 4. Appendix D 1070997-T-06-103 Constraints Plan
 - Doc 4. Appendix D 1070997-T-06-104 Trial Pit Data
 - Doc 4. Appendix E Cores DTR5897
 - Doc 4. Appendix E Cores DTR5980

Tenders should be made on the enclosed Tender Response Document. Your Tender must be completed, signed and returned together with a signed copy of the 'Instructions for Tendering' through our Delta Tenderbox. You are recommended to keep a copy of all tender documents and supporting documents for your own records.

Please pay particular attention to the points below concerning the returning of tenders.

Returning of Tenders

- The deadline for returning tenders is **noon on, Friday 13th October 2017** any tenders received after this time will not be accepted
- Tenders are to be submitted through Delta, our electronic tender portal
 - Please ensure that you allow yourself at least two hours when responding prior to the closing date and time, especially if you have been asked to upload documents. If you are uploading multiple documents you will have to individually load one document at a time or you can opt to zip all documents in an application like WinZip. Failure to submit by the time and date or by the method requested will not be accepted.
 - Once you upload documentation ensure you follow through to stage three and click the 'response submit' button. Failure to do so, will mean the documents won't be viewable by the Council.

Tenders **cannot** be accepted if:

- Tenders are received by post, facsimile or email
- Tenders are received after **12 noon on the given deadline**

Freedom of Information

Under the provisions of the Freedom of Information Act 2000 from 1 January 2005, the public (included in this are private companies, journalists, etc.) have a general right of access to information held by public authorities. Information about your organisation, which Shropshire Council may receive from you may be subject to disclosure, in response to a request, unless one of the various statutory exemptions applies.

Therefore if you provide any information to Shropshire Council in the expectation that it will be held in confidence, you must make it clear in your documentation as to the information to which you consider a duty of confidentiality applies. The use of blanket protective markings such as

personal info

“commercial in confidence” will no longer be appropriate and a clear indication as to what material is to be considered confidential and why should be given.

Other Details

Please note that if supplementary questions are raised by any tenderer prior to the closing of tenders and Shropshire Council decides that the answers help to explain or clarify the information given in the Tender Documents, then both the questions and the answers will be circulated to all enterprises invited to submit a tender.

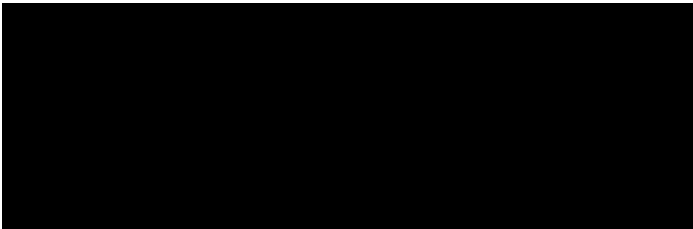
As part of its sustainability policy, Shropshire Council encourages tenderers to minimise packaging, particularly presentational or retail packaging.

Shropshire Council is purchasing on behalf of itself and any wholly owned local authority company or other entity that is deemed to be a contracting authority by virtue of the Council's involvement

Please also note that Shropshire Council is committed to achieving Social Value outcomes through maximising the social, economic and/or environmental impact of all its procurement activity. Specific requirements for this contract are set out within the Tender Response Document and in addition for your further information the council's Social Value Framework guidance can be found at www.shropshire.gov.uk/doing-business-with-shropshire-council.

If you have any queries relating to this invitation to tender, please contact me on telephone number 01743 252993.

Yours faithfully



Procurement Manager
Commissioning & Procurement
procurement@shropshire.gov.uk
Tel: 01743 252993
Enc



Shrewsbury Integrated Transport Package: Pride Hill

Document Ref. 0

Instructions for Tender

For Shropshire Council

ECC Works (Third Edition 2013)
Options B

Contract Number: DMNH 015

Date: September 2017

Document Ref: 1070997/06/Doc0

LIST OF DOCUMENTS

Document 0	Instructions for Tendering
Document 1	Conditions of Contract
Document 2	Specification & Preambles to the Bill of Quantities
Document 3	Bill of Quantities
Document 4	Pre-Construction Information

Shrewsbury Integrated Transport Package: Pride Hill

INSTRUCTIONS FOR TENDERING AND GUIDANCE NOTES FOR AN ECC OPTION B PRICED CONTRACT WITH BILL OF QUANTITIES

Contents

Part I: Instructions for Tendering

Preamble
ECC features
General Requirements
Alternative Designs
Tender evaluation and submission

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Project Manager and Supervisor roles
List of documents with Invitation to Tender
List of documents to be returned with Tender
Tax and National Insurance Contributions

ANNEXES

Annex A:	Tender Assessment Sheet (Financial)
Annex B:	Appointment of Adjudicator
Annex C:	Questionnaire on health and safety
Annex D:	Pre-Construction Information
Annex E:	Not Used
Annex F:	Not Used

Location and Brief Description of Works

Part I: Instructions for Tendering

PREAMBLE

TENDERS MUST BE SUBMITTED IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS. TENDERS NOT COMPLYING WITH THESE INSTRUCTIONS IN ANY PARTICULAR WAY MAY BE REJECTED BY THE EMPLOYER WHOSE DECISION IN THE MATTER SHALL BE FINAL.

1. These Instructions for Tendering relate to a contract for the construction, completion, testing, commissioning and maintenance of the following works: **Shrewsbury Integrated Transport Package: Pride Hill**. The Employer will be Shropshire Council and all administrative functions will be performed by them at Shirehall, Abbey Foregate, Shrewsbury, SY2 6ND and whose project manager for the contract is [REDACTED]
2. The works will be carried out under terms and conditions of the Engineering and Construction Contract (ECC), Third Edition, published in June 2005 and amended in June 2006 and April 2013 by Thomas Telford Ltd, using Option B priced contract with bill of quantities. Tenderers must familiarise themselves with these conditions and any modifications or additions made by the Employer.
3. A list of documents provided with this invitation and a list of documents to be returned with the Tender, is provided in the Guidance Notes at the end of these Instructions.

ECC FEATURES

4. Tenderers must be aware of the following:-
 - a. Programme: **tenderers are required to submit an outline programme**. The programme must include a broad outline as set out in clause 31.2 of ECC. It is required to enable the Employer to judge a tenderer's understanding and approach to the project and their ability to complete the works within the stated time using the methods and resources proposed. Any resultant award of contract will not imply acceptance of the programme;
 - b. Schedule of Cost Components: The shorter schedule will be used to value any compensation events arising during the contract. Tenderers must provide certain facts for this Schedule as required in Contract Data Part Two. That information will be used in evaluating the tender - see Annex A: Tender Assessment Sheet (Financial);
Tenders cannot be evaluated until all of the items are completed.
 - c. Contract award date: a period of about 14 weeks will be allowed between award of contract (starting date) and the Access Date specified in Contract Data Part One as a mobilisation period;
 - d. Completion date: this date has been specified in Contract Data Part One. Tenderers must enter their own completion date for the whole of the works (and any sections thereof) in Contract Data Part Two. This may be the same date provided or an earlier date (if an earlier date that date will then become the Completion date) but no premium will be applied in tender evaluation for earlier completion dates. Tenderers must also calculate and enter appropriate quantities for any time related items in the preliminaries section of the bill of quantities
 - e. Discrepancies: if any discrepancy arises between the priced bill of quantities and the tendered price, the tendered price will take priority;
 - f. Management functions: The Employer has retained WSP Ltd who will take on full responsibility for performing the management functions and duties of *Project Manager* and *Supervisor* as defined by ECC. The designated official for each job is as follows:-

Project Manager: [REDACTED]

Email address: [REDACTED]

Supervisor: [REDACTED]

Email address: [REDACTED]

- g. Queries: any queries arising from the tender documents which may have a bearing on the offer should be raised with the *Project Manager* as soon as possible, via Delta eSourcing, but in any case not later than 7 calendar days prior to the date of return of tenders. The *Employer* will be ready to consider properly reasoned requests for an extension of the tender period.
- h. Adjudication: See Contract Data Part One and Option Y(UK)2 regarding Adjudication Procedure. Tenderers should indicate with their tender whether any of the proposed terms of appointment (at Annex B) are acceptable.
- i. Adjudicator: in the event of a dispute, an appointment will be made jointly by the *Employer* and the *Contractor*. If tenderers disagree with any of these proposals they must include their alternative proposals with their tender. Please note that the *Employer* and the *Contractor* shall each bear 50% of the costs of the Adjudicator.
- j. Site Information: tenderers are provided with the following documents:-
 - (a) Pre-Construction Information including Statutory Undertakers Plans, core logs Drawings as listed in Appendix 0/4
- k. Works Information: tenderers are provided with the following documents:-
 - (a) The Preamble to the Specification
 - (b) The Specification
 - (c) The Drawings as listed in the Appendices to the Specification
- l. Site Surveys: Tenderers' attention is drawn to clause 60.2 of ECC. Tenderers may make their own arrangement to carry out additional surveys. Prior notice must be sought from the *Employer* for such surveys.
- m. Additional clauses: tenderers' attention is drawn to the additional "Z" clauses which have been added to ECC and are set out in Contract Data Part One.
- n. Unit rates: these must be quoted in pounds and pence, as appropriate, to two decimal places. The terms 'nil' and 'included' are not to be used but should be indicated as '£0'. Figures must be inserted against each item or activity - credit values in favour of the *Employer* must not be used.
If necessary, the *Employer* may contact a tenderer whose tender has required arithmetical adjustment.
- o. ~~Activity schedule: tenderers are to submit an activity schedule with their tenders showing proposed payment profile. This will be a document referenced in accordance with Contract Data Part Two and will comprise a list of activities with an amount entered against each activity. Each amount is the sum due to the Contractor on completion of each activity unless it is included in a group. If groups of activities are required to be identified on the schedule, payment for each group becomes due when all the activities in that group are completed. Activity descriptions must be clear and complete so that the work included in each can be identified.~~ **NOT USED**
- p. Mandatory activities: **NOT USED**

GENERAL REQUIREMENTS

- 5. Certification. Tenderers must satisfy themselves prior to submission of their tender that the following certificates are available as appropriate in relation to the work, goods and materials offered:-
 - (i) certificates of conformity with quality management schemes;
 - (ii) certificates of conformity with product certification schemes (where the product is not marked);

- (iii) British Board of Agrément Roads and Bridges Certificates;
 - (iv) manufacturers' and suppliers' test certificates.
6. Special Requirements: tenderers should note the special requirements of statutory/privatised bodies as set out in Appendix D to Contract Data Part One. It may be necessary when arranging insurance cover required by clause 84 of ECC to let insurers know of these special requirements.
7. Pollution: tenderers should note any special arrangements in the Specification for disposal of hazardous material. Tenderers should also note the need to comply at their own expense with the duty of care applicable to the carrying, importing, treating, keeping and disposing of waste (including toxic or hazardous waste) as required by the Environmental Protection Act 1990 and any other relevant environmental legislation. If a waste management license or authorisation is required from the Environment Agency responsibility for obtaining it falls to the *Contractor*.
8. Invitation to Tender
The fact that a Tenderer has been invited to submit a tender does not necessarily mean that it has satisfied the Council regarding any matters raised in the pre-tender questionnaire submitted. The Council makes no representations regarding the Tenderer's financial stability, technical competence or ability in any way to carry out the required services. The right to return to any matter raised in any pre-tender questionnaire submitted as part of the formal tender evaluation is hereby reserved by the Council.
The Invitation to Tender is issued on the basis that nothing contained in it shall constitute an inducement or incentive nor shall have in any other way persuaded a tenderer to submit a tender or enter into a Contract or any other contractual agreement.
9. Confidentiality
The Invitation to Tender documents must be treated as private and confidential. Tenderers should not disclose the fact that they have been invited to tender or release details of the Invitation to tender document other than on an "in confidence" basis to those who have a legitimate need to know or who they need to consult for the purpose of preparing the tender as further detailed in these Instructions for Tendering.
Tenderers shall not at any time release information concerning the invitation to tender and/or the tender documents for publication in the press or on radio, television, screen or any other medium without the prior consent of the Council.
All information supplied by the Council in connection with or in these Tender Documents shall be regarded as confidential to the Council unless the information is already within the public domain or subject to the provisions of the Freedom of Information Act 2000.
The Contract documents and publications are and shall remain the property of the Council and must be returned upon demand.
Tenderers shall ensure that each and every sub-contractor, consortium member and/or professional advisor to whom it discloses these papers complies with the terms and conditions of this ITT.

The contents of this Invitation to Tender are being made available by the Council on condition that:

- Tenderers shall at all times treat the contents of the Invitation to tender and any related documents as confidential, save in so far as they are already in the public domain and Tenderers shall not, subject to the provisions relating to professional advisors, sub-contractors or other persons detailed below, disclose, copy, reproduce, distribute or pass any of the contents of the Invitation to tender to any other person at any time or allow any of these things to happen;
- Tenderers shall not use any of the information contained in this Invitation to tender for any purpose other than for the purposes of submitting (or deciding whether to submit) the tender; and
- Tenderers shall not undertake any publicity activity within any section of the media.
- Tenderers may disclose, distribute or pass this Invitation to tender to their professional advisors, sub-contractors or to another person provided that:
 - this is done for the sole purpose of enabling an Invitation to tender to be submitted and the person receiving the Information undertakes in writing to keep the Invitation to Tender confidential on the same terms as if that person were the Tenderer; or

- the Tenderer obtains the prior written consent of the Council in relation to such disclosure, distribution or passing of the Invitation to Tender; or
- the disclosure is made for the sole purpose of obtaining legal advice from external lawyers in relation to the procurement or to any Contract(s) which may arise from it; or
- the Tenderer is legally required to make such a disclosure.

The Council may disclose detailed information relating to the Invitation to Tender to its officers, employees, agents, professional advisors or Governmental organisations and the Council may make any of the Contracts and procurement documents available for private inspection by its officers, employees, agents, professional advisors, contracting authorities or Governmental organisations.

10. Form of Tender: tenders must be made on the accompanying Form of Tender which must be signed by, or on behalf of, the tenderer and returned together with all the information requested in Part II of this document. The completed documentation must be submitted to the address and by the date and time stated below. No unauthorised alteration or addition should be made to any component of the tender documents. The Tenderer's attention is drawn to the date and time for receipt of tenders and that no submission received after closing time will be considered.

11. Tender Preparation and Costs

It shall be the responsibility of Tenderers to obtain for themselves at their own expense all information necessary for the preparation of their Tender. No claim arising out of want of knowledge will be accepted. Any information supplied by the Council (whether in the Tender Documentation or otherwise) is supplied only for general guidance in the preparation of tenders.

Any Tenderer considering making the decision to enter into a contractual relationship with the Council must make an independent assessment of the Tender opportunity after making such investigation and taking such professional advice as it deems necessary.

Tenderers will be deemed for all purposes connected with their Tender submission where appropriate to have visited and inspected the Council, its assets, all the locations in respect of the delivery of the services/supplies/works and to have satisfied themselves sufficiently as to the nature, extent and character of the services supplies/works sought, and the human resources, materials, software, equipment, machinery, and other liabilities and other matters which will be required to perform the contract.

The Council will not be liable for any costs incurred by Tenderers in the preparation or presentation of their tenders.

12. Accuracy and Ambiguities

It shall be the Tenderer's responsibility to ensure that all calculations and prices in the Tender documentation are correct at the time of submission.

The Tenderer is deemed to have made him/herself acquainted with the Council's requirements and tender accordingly. Should the Tenderer be in any doubt regarding the true meaning and intent of any element of the specification he is invited to have these fully resolved before submitting his Tender. No extras will be allowed for any loss or expense involved through any misunderstanding arising from his/her failure to comply with this requirement.

Any Tender error or discrepancy identified by the Council shall be drawn to the attention of the Tenderer who will be given the opportunity to correct, confirm or withdraw the Tender.

13. Warranty

The Tenderer warrants that all the information given in their Tender is true and accurate. The information provided will be deemed to form part of any contract formed under this contract.

The Tenderer warrants that none of their current Directors have been involved in liquidation or receivership or have any criminal convictions

14. Qualified tenders: tenders must not be qualified or accompanied by statements or a covering letter that might be construed as rendering the tender equivocal and/or placing it on a different footing from other tenders. Only tenders submitted without qualification and strictly in accordance with the tender document as issued (or subsequently amended by the *Employer*) will be accepted for consideration. The *Employer's* decision on whether or not a tender is acceptable will be final and

the tenderer will not be consulted. Qualified tenders will be excluded from further consideration and the tenderer notified.

15. Publication and Transparency: tenderers must note that the amount of the successful tender and the name of the tenderer will be published.
Further to its obligations regarding transparency of expenditure, the Council may be required to publish information regarding tenders, contracts and expenditure to the general public, which could include the text of any such documentation, except for any information which is exempt from disclosure in accordance with the provisions of the Freedom of Information Act to be determined at the absolute discretion of the Council.
16. E-Procurement
As part of its procurement strategy Shropshire Council is committed to the use of technology that can improve the efficiency of procurement. Successful Tenderers may be required to send or receive documents electronically. This may include purchase orders, acknowledgements, invoices, payment advices, or other procurement documentation. These will normally be in the Council's standard formats, but may be varied under some circumstances so as not to disadvantage small and medium suppliers.
17. Payment: tenderers must note that the principles governing public procurement require that as far as is reasonably possible payments for goods, works or services are made after delivery. Any indication of advance pricing within a tender will be examined to decide whether a tender in such form is acceptable. If the *Employer* considers that advance pricing has occurred it reserves the right to require the tenderer to spread such pricing over the duration of the *works*.
18. Tender acceptance: the *Employer* does not bind himself to accept the lowest or any tender.
19. Insurance: details of insurance policies held or proposed meeting requirements stated in the Insurance Table within clause 84 of ECC must be submitted with tenders for the *Project Manager's* approval.
20. Claims within excess: tenderers must include with their tenders a statement undertaking responsibility for dealing with claims, or parts of such claims, within the excess amount.
21. Insurance queries: should be raised in writing with the *Project Manager* at the earliest opportunity but in any event 14 days before return of the tender. Tenderers should note that failure to submit required insurance details will delay consideration of their tender by the *Employer*. A contract will not be awarded to a tenderer until their existing or proposed insurances have been verified.
22. Access to private land: arrangements for inspection of the Site which involve access to land not owned by the *Employer* must be made through the *Project Manager* to enable him to make initial contact with land owners. Responsibility for obtaining permission to enter such land and liability for any damage or disturbance caused whilst on such land rests with the tenderer. Such permission cannot be guaranteed in advance. Whilst on private land care must be taken by tenderers to minimise disturbance to occupiers.
23. Public information: tenderers should note requirements in the Works Information for the erection of information boards to advise the travelling public on the progress of the *works*.
24. CDM: Tenderers must be able to satisfy the *Employer* (*Referred to as The Client under the CDM Regulations*), that they have sufficient skill, experience and knowledge, and have made available adequate resources for health and safety as set out at Annex C.
25. Pre-Construction Information (PCI): an outline plan is in Annex D. If tenderers wish to make any revisions to it the agreement of the Principal Designer should be sought in writing, directed through the *Employer*, prior to the return of the tender. The successful tenderer, in his role as Principal Contractor, will be required to develop the Construction Phase Plan (CPP) in accordance with the requirements of the CDM Regulations and co-operate with the Principal Designer and *Employer* to enable them to fulfil their duties under the Regulations.

26. Principal Contractor: the attention of tenderers is drawn to the Construction (Design and Management) Regulations 2015. It is proposed to formally appoint the successful tenderer as Principal Contractor under the Regulations at the time of contract award tenderers shall include a written undertaking that if awarded the contract they will be willing to accept a) the appointment of Principal Contractor, b) the duties thereof in accordance with the CDM Regulations, c) confirm that the Construction Phase Plan will be submitted electronically strictly in accordance with the Construction (Design and Management) Regulations 2015 Guidance Document L153 Appendix 3.
27. Considerate Constructor's Scheme: the successful tenderer will be required to register the site under the Considerate Constructor's Scheme. Tenderers must allow all costs for registering the site, including the appropriate fee and for using best endeavours to comply with the Scheme's Code of Considerate Practice. The cost of this scheme is deemed to be included in the tender and no additional costs will be met by the Employer. For details apply to Construction Industry Board's Considerate Constructor's Scheme, PO Box 75, Great Amwell, Ware SG12 9JY. Tel/fax: 0800 783 1423 email - enquiries@ccscheme.org.uk

ALTERNATIVE DESIGNS

28. Alternative tender: where a tenderer wishes to submit a tender involving modifications to design or an alternative design not specifically provided for in the tender invitation, this should be submitted as an "Alternative Tender". No alternative tender shall be submitted unless a tender conforming to the tender invitation is also submitted. An alternative tender must be free of qualifications and be fully priced to show clearly how and where costs would differ from the conforming tender.
29. Submission Procedure: An alternative tender must be accompanied by all necessary supporting information including drawings and a priced addendum to the bill of quantities. Materials, workmanship and design of alternative proposals must comply with the most current Design Manual for Roads and Bridges and the Specification for Highway Works, which are all published by the Stationery Office. An alternative tender will be assessed on its merits. If accepted, the alternative design will become the design for the purpose of the contract and the *Employer* will take on full copyright responsibility.
30. Assessment: A decision to adopt an alternative design will be based on the likely cost savings of the proposals. In assessing the overall saving, account will be taken of the effect of any deferment in starting and completion dates of the project and the cost to the *Employer* of maintenance, additional engineering and administrative resources involved in assessing the alternative design and in implementing it through to completion of contract.

TENDER EVALUATION AND SUBMISSION

31. Financial submission: This must include the following:
 - (i) the completed Form of Tender, Contract Data Part Two and Tender Assessment Sheet (Financial);
 - (ii) the tendered bill of quantities;
 - (iii) all other information required to be submitted at the tender stage.

Tender Evaluation

32. The Tenderers may be called for interview to seek clarification of their tender or additional or supplemental information in relation to their tender. The presentations will not carry any weighting to the final score achieved by Tenderers, but will be used to clarify and moderate issues raised in the Tenderer's submissions. Any areas of discrepancy between submissions and information gained from the presentations will be reviewed and scores previously awarded will be amended if necessary.

If the Council suspects that there has been an error in the pricing of a Tender, the Council reserves the right to seek such clarification, as it considers necessary from the Tenderer in question.
33. Financial scoring: the initial financial ranking basis of compliant tenders will be based on the tendered price, adjusted in accordance with Annex A.

34. Returning Tenders:

Tenders should be made on the enclosed Tender Response Document. Your Tender must be completed, signed and returned along with a signed copy of the instructions for tendering through our Delta Tenderbox. You are recommended to keep a copy of all tender documents and supporting documents for your own records.

Please pay particular attention to the points below concerning the returning of tenders.
Returning of Tenders:

- The deadline for returning tenders is **12.00 noon** on **13th October 2017** any tenders received after this time will not be accepted
- Tenders are to be submitted through Delta, our electronic tender portal
- Please ensure that you allow yourself at least two hours when responding prior to the closing date and time, especially if you have been asked to upload documents. If you are uploading multiple documents you will have to individually load one document at a time or you can opt to zip all documents in an application like WinZip. Failure to submit by the time and date or by the method requested will not be accepted.
- Once you upload documentation ensure you follow through to stage three and click the 'response submit' button. Failure to do so, will mean the documents won't be viewable by the Council.

Tender For: **Shrewsbury Integrated Transport Package: Pride Hill**

Contract Number: DMNH 015

Part II: Guidance Notes to Tenderers

35. Project Manager and Supervisor roles: neither of these two officers acts impartially but are both appointed by, and represent the direct interests of, the Employer. The Supervisor is normally resident on Site with the main duty of examining and checking workmanship to ensure that requirements of the contract are being met. The Project Manager is responsible for managing the contract and for protecting the direct interests of the Employer. He is not normally resident on Site but will make regular and frequent visits. Both the Project Manager and Supervisor are empowered to carry out actions and make decisions required under ECC.
36. List of documents with Invitation to Tender: the following is a list of documents included with this invitation:
1. Instructions for Tendering and Guidance Notes;
 2. Form of Tender
 3. Contract Data Parts One and Two, together with Appendices
 4. Works Information, including information as listed in paragraph 4k of IFT
 5. Site Information, including information as listed in paragraph 4j of IFT
 6. Bill of Quantities
37. **Documents to be returned with tender**: the following is a summary of information that **must** be submitted with the tender:-
- i) Completed Form of Tender
 - ii) Tendered bill of quantities.
 - iii) Completed Contract Data Part Two with outline programme in accordance with Appendix 1/13.
 - iv) A completed Health and Safety questionnaire.
 - v) Written confirmation that proposed nominations for adjudicator and terms of appointment are acceptable. If they are not, set out alternative proposals.
 - vi) Written undertaking stating willingness if awarded the contract to accept the appointment and duties of Principal Contractor as stated in Paragraph 26.
 - vii) Details of the tenderer's insurance policies
 - viii) a statement undertaking responsibility for dealing with claims, or parts of such claims, within the excess amount
 - ix) If an Alternative Design (either partial or whole) is being submitted include the following additional information:
 - (a) Revised plans, drawings and documentation
 - (b) Schedule of changes from the original design.

- (d) Report on the Environmental Impact of the alternative design, including mitigation measures.
- (e) A fully priced extension to bill of quantities.
- (f) A statement setting out the cost savings
- (g) A statement on how the outline Pre-construction information would change resulting from the alternative design.
- (h) The following completed forms (obtainable from the *Project Manager*):
Approval in Principle forms for each alternative structure
Addendum Approval in Principle Forms
Stage 1 Safety Audit Certificate.
- ix) HM Revenue and Customs new Construction Industry Scheme contractor registration details for verification, namely –
 - Company Unique Tax Reference (UTR);
 - Company Name;
 - Company Trading Name;
 - Company Registration Number.

TAX AND NATIONAL INSURANCE CONTRIBUTIONS

38. Construction Industry Scheme Regulations: the specified work will be a construction operation as defined in the Inland Revenue's Construction Industry Scheme Regulations.

The Contractor must provide HM Revenue and Customs new Construction Industry Scheme contractor registration details for verification, namely –

- Company Unique Tax Reference (UTR);
- Company Name;
- Company Trading Name;

Company Registration Number.

Until you present the appropriate documentation the Employer is not permitted to make any payments for work done.

ANNEX A

Tender Assessment Sheet (Financial)

This sheet is only for the purpose of assisting the Employer to assess tenders and will not be part of the contract. The amounts stated may not be expended and may be exceeded. Other factors may be taken into account in assessing tenders. These may include cashflow effects, advance payments, design by the Contractor.

<u>Item</u>	<u>Amount £</u>
1. Not used	
Data for Shorter Schedule of Cost Components	
2. Equipment Depreciation and Maintenance	
% of £ N/A =	N/A
3. Working Areas Overheads	
% of £ N/A =	N/A
4. Manufacture and Fabrication	
Total number of hours to be divided equally between each of the tendered categories:	
hours at £	per hour:
hours at £	per hour:
hours at £	per hour:
hours at £	per hour:
Sub Total	=
Manufacture and fabrication overheads	
% of £ (above Sub-Total) =	
5. Design	
Total number of hours to be divided equally between each of the tendered categories:	
hours at £	per hour:
hours at £	per hour:
hours at £	per hour:
hours at £	per hour:
Sub Total	=
Design Overheads	
% of £ (above Sub-Total) =	

Direct Costs

6. People Overheads *1
% of £ *1 = _____
7. Adjustment for Equipment in published list *2
% of £ *2 = _____
8. Materials *3
- (a) Direct Costs Sub total = =====
- (b) Direct Fee Percentage = % of £ (Above (a) Direct Costs sub-total) =====

Subcontracted costs

9. Subcontractors
- (c) Subcontractor Cost *4

- (d) Subcontractor Fee Percentage = % of £ *4 (Above (c) Sub-contractor cost) =====
- Total for Tender Assessment Purposes Only = (a + b + c + d) =====

ADJUDICATOR'S APPOINTMENT (2)

THIS AGREEMENT is made on the day of -

BETWEEN:

(1)

of

(the referring Party);

(2)

of

(the other Party)

(together called the Parties) and

(3)

of

(the Adjudicator).

A dispute has arisen between the Parties under a Contract between them dated in connection with

This dispute has been referred to adjudication in accordance with the CIC Model Adjudication Procedure (the Procedure) and the Adjudicator has been requested to act.

IT IS AGREED that:

- 1 The rights and obligations of the Adjudicator and the Parties shall be set out in this Agreement.
- 2 The Adjudicator confirms that he is independent of the Parties, and undertakes to use reasonable endeavours to remain so, and that he shall exercise his task in an impartial manner. He shall promptly inform the Parties of any facts or circumstances which may cause him to cease to be so independent.
- 3 The Adjudicator agrees to adjudicate the dispute in accordance with the Procedure.
- 4 The Adjudicator shall comply, and shall take all reasonable steps to ensure that any persons advising or aiding him shall comply, with the Official Secrets Act 1989. Any information concerning the Contract obtained either by the Adjudicator or any person advising or aiding him is confidential, and shall not be used or disclosed by the Adjudicator or any such person except for the purposes of this Agreement.
- 5 The Parties agree jointly and severally to pay the Adjudicator's fees and expenses as set out in the attached schedule and in accordance with the Procedure.
- 6 The Adjudicator is not liable for anything done or omitted in the discharge or purported discharge of his functions as adjudicator, unless the act or omission is in bad faith. Any employee or agent of the Adjudicator is similarly protected from liability.
- 7 This Agreement shall be interpreted in accordance with the law of England and Wales.

Schedule

1. The Adjudicator shall be paid £ per hour in respect of all time spent on the adjudication.
2. The Adjudicator shall be reimbursed the cost of legal or technical advice obtained in accordance with the Procedure and other extraordinary expenses necessarily incurred.
3. The Adjudicator is/is not* currently registered for VAT. Where the Adjudicator is registered for VAT, it shall be charged additionally in accordance with the rates current at the date of the work done.

Signed on behalf of the referring Party

.....

Signed on behalf of the other Party

.....

Signed on behalf of the Adjudicator

.....

* Delete as necessary

QUESTIONNAIRE ON HEALTH AND SAFETY FOR THE PURPOSES OF CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015

APPOINTMENT OF PRINCIPAL CONTRACTOR

Please supply either a copy of your Contractors Health & Safety Assessment Scheme (CHAS) accreditation Certificate or a written statement is required on the following:-

What is your technical and managerial approach for dealing with the risks specified in the Pre-works Information issued with the tender documents?

Responses are required to the following questions in respect to your company's organisation and management and proposals for this contract:-

- (a) Provide information about your accident record in the format shown in Appendix A attached.
- (b) Provide evidence of the company's commitment to and policy on health and safety.
- (c) What arrangements are there for keeping that policy under regular review?
- (d) Which senior director is named as being responsible and has the company's policy statement been signed by him?
- (e) What are the management arrangements for delegating responsibility to named individuals?
- (f) What is the proposed management structure for this particular contract? Provide details of the qualifications, experience and health and safety training of the individuals nominated for this contract.
- (g) Provide evidence that you have clear and detailed working methods for achieving the company's policy objectives.
- (h) What is the system and responsibility for reporting health and safety matters within your company?
- (i) What co-operation and involvement is expected of employees, subcontractors and the self-employed?
- (j) What procedures are there for safety inspections and audits?
- (k) What is the employee training programme?
- (l) What trade union or employee safety structure is in operation?
- (m) What is the system for control of subcontractors?

Additionally confirm that appropriate provision has been made in your tender for the following and provide evidence of your company's procedures for same:

- (a) induction training for new starters, tool-box talks and other training for special risk situations, etc.
- (b) maintenance of safe systems of work, including whether there are written risk assessments and method statements.
- (c) work equipment.
- (d) personal protective equipment.
- (e) adequate and appropriate plant, including arrangements for inspection and testing.
- (f) control of substances hazardous to health, including correct identification, assessment, storage and handling in accordance with COSHH Regulations.

- (g) protection of the workforce and the public against vibration and noise.
- (h) visual display terminals - taking into consideration their siting, design, use of ergonomic layout.
- (i) manual handling, including assessing ergonomics of workplace layouts and work activities.
- (j) first-aid, including provision of trained first-aiders and the keeping of documented medical records.
- (k) reporting accidents and incidents in conformance with the requirements of the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) and the keeping of proper records related thereto.
- (l) suitable and sufficient accident investigation procedures.
- (m) arrangements for visitors to the site.

APPENDIX A

COMPANY ACCIDENT RECORD

Information Required	2011	2012	2013	2014	2015
Average workforce (including direct employees and subcontractors/self-employed)					
Total hours worked in period					
Number of Fatal Injury Incidents					
Number of Major Injury Incidents (RIDDOR)					
Number of 3-day Injury Incidents (RIDDOR)					
Incident Rate (see below)					
Frequency Rate (see below)					
Number of Dangerous Occurrence Incidents (RIDDOR)					
Number of Prosecutions by HSE or Environment Agency					
Number of Prohibition Notices by HSE or Environment Agency					
Number of Improvement Notices by HSE or Environment Agency					
Any restrictive clauses in relation to Company's Employer's Liability or Public Liability Insurance					

Calculation of Incident Rate and Frequency Rate (Method taken from HSG 65 "Successful Health and Safety Management" 2nd Edition (Reprint 2008))

$$\text{Incident Rate} = \frac{\text{Number of Reportable injuries in financial year}}{\text{Average number employed during year}} \times 100,000$$

$$\text{Frequency Rate} = \frac{\text{Number of Reportable injuries in period}}{\text{Total hours worked during the period}} \times 1,000,000$$

PRE-CONSTRUCTION HEALTH & SAFETY INFORMATION

**(The information is contained in document 4, forwarded with
these Instructions for Tendering)**

~~ILLUSTRATIVE ACTIVITY SCHEDULE~~ **NOT USED**

~~SITE RENTAL ASSESSMENT (EXAMPLE ONLY)~~ **NOT USED**

Location and Brief Description of Works

Shrewsbury Integrated Transport Package: Pride Hill

The site Ordnance Survey grid reference is: 349195, 312589

Pride Hill and its junctions with High Street/Shoplatch and Castle Street/St Mary's Street are to be reconstructed and re-paved in natural stone materials along with carriageway pavement resurfacing works. The existing block paving and its foundations on Pride Hill will be removed and the area will be reconstructed and repaved with Yorkstone and Granite. The existing drainage system is to be removed and replaced with a continuous linear slot drain system. New traffic signs, street lighting and street furniture are also to be erected along with landscaping works.



Shrewsbury Integrated Transport Package: Pride Hill

Document Ref. 1

Conditions of Contract

Form of Tender
Conditions of Contract

Contract Number: DMNH 015

Date: September 2017
Document Ref: 1070997/Doc1

LIST OF DOCUMENTS

Document 0	Instructions for Tendering
Document 1	Conditions of Contract:
Document 2	Specification & Preambles to the Bill of Quantities
Document 3	Bill of Quantities
Document 4	Pre-construction information

Shrewsbury Integrated Transport Package: Pride Hill

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Engineering and Construction Contract
(Third Edition 2013)

FORM OF TENDER

(ECC COLLUSIVE)

TENDER
FOR THE CONSTRUCTION, COMPLETION,
TESTING AND COMMISSIONING OF
Shrewsbury Integrated Transport Package: Pride Hill

To: Shropshire Council, Shirehall, Abbey Foregate, Shrewsbury, Shropshire SY2 6ND.

Having examined the Conditions of Contract, being Option **B** of the Engineering and Construction Contract (Third Edition 2013), together with Contract Data Parts One and Two, the Works Information and the Site Information for the construction of the above mentioned Scheme we offer to Provide the Works and maintain the same until the *defects date* in conformity with the said Conditions of Contract, the Contract Data Parts One and Two, the Works Information and the Site Information for a Price of £.....

We undertake to start the works on the date stated in Contract Data Part One and complete the works on the date stated in Contract Data Part Two of the Conditions of Contract.

We attach the following completed documents which form part of our offer:-

Contract Data Part Two
Bill of Quantities

We agree to enter, when required, into a formal Deed under seal for carrying out these works in the form which has been provided to us by you with the tender documentation. Unless and until such a Deed is prepared and executed this tender, together with your written acceptance thereof, shall constitute a binding contract between us. We understand that you are not bound to accept the lowest, or any tender you may receive.

We certify that this tender is made in good faith and that we have not fixed or adjusted the amount of the tender by or under or in accordance with any agreement or arrangement with any other person. We also certify that we have not, and we undertake that we will not:-

- (i) Before the award of any contract for the work:-
 - (a) communicate to any person other than a person who has been duly authorised by the Council the amount or approximate amount of the tender or proposed tender, except where the disclosure, in confidence, of the approximate amount of the tender was necessary to obtain insurance premium quotations required for the preparation of the tender;
 - (b) enter into any agreement or arrangement with any person that he shall refrain from tendering or as to the amount of any tender to be submitted;
- (ii) Pay, give or offer or agree to pay or give any sum of money or other valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any other tender or proposed tender for the work, any act or thing of the sort described at (i) (a) or (b)

We also certify that the principles described in paragraph (i) and (ii) above have been, or will be, brought to the attention of all subcontractors, suppliers and associated companies providing services or materials connected with the tender and any contract entered into with such subcontractors, suppliers or associated companies will be made on the basis of compliance with the above principles by all parties.

In this certificate, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions. The word "person" includes any persons and any body or association, corporate or unincorporate; "any agreement or arrangement" includes any transaction, formal or informal and whether legally binding or not; and "the works" means the work in relation to which this tender is made.

Dated this day of 20

Signature In capacity of

(e.g. Director, Secretary, etc)

Name
(in capitals)

Duly authorised to sign tenders for and on behalf of:

.....

Registered Address Tel No.

..... Fax No.

..... E-mail

Shrewsbury Integrated Transport Package: Pride Hill

CONTRACT DATA PART ONE

DATA PROVIDED BY THE EMPLOYER

In respect of the Institution of Civil Engineers'

Engineering and Construction Contract

(Third Edition 2013)

Shropshire Council
Development Services
Shirehall
Abbey Foregate
Shrewsbury
SY2 6ND

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Appendix D: Special Requirements

~~Appendix E: Form of Parent Company Guarantee~~ **Not Used**

~~Appendix F: Terms and Conditions of Novated Contracts~~ **Not Used**

Appendix G: Collateral Warranty

CONTRACT DATA PART ONE

1. General

1.1 The conditions of contract are the core clauses and the clauses for Options **B**, dispute resolution Option **W2, X2, X7, X15, X16, X18, Y (UK)2, Y (UK)3** and **Z** of the NEC3 Engineering and Construction Contract (April 2013).

1.2 The *works* are:

Pride Hill and its junctions with High Street/Shoplatch and Castle Street/St Mary's Street are to be reconstructed and re-paved in natural stone materials along with carriageway pavement resurfacing works. The existing block paving and its foundations on Pride Hill will be removed and the area will be reconstructed and repaved with Yorkstone and Granite. The existing drainage system is to be removed and replaced with a continuous linear slot drain system. .New traffic signs, street lighting and street furniture are also to be erected along with landscaping works.

1.3 The *Employer* is **Shropshire Council, Highways and Transport, Shirehall, Abbey Foregate, Shrewsbury SY2 6ND.**

1.4 The *Project Manager* is:

Name: [REDACTED]
Address: **WSP**
2nd Floor
Shirehall
Abbey Foregate
Shrewsbury SY2 6ND

1.5 The *Supervisor* is:

Name: [REDACTED]
Address: **WSP**
2nd Floor
Shirehall
Abbey Foregate
Shrewsbury SY2 6ND

1.6 The principal designer is:

Name: [REDACTED]
Address: **WSP**
2nd Floor
Shirehall
Abbey Foregate
Shrewsbury SY2 6ND

1.7 The CDM advisor is:

Name: [REDACTED]
Address: **WSP**
2nd Floor
Shirehall
Abbey Foregate
Shrewsbury SY2 6ND

The *Employer* has appointed the CDM Advisor to act as his agent in order to assist the client

in discharging his duties under CDM 2015 (see Z44).

- 1.8 **The *Adjudicator* is only appointed if deemed necessary by either the *Contractor* or the *Employer*.**
- 1.9 The Works Information is in: **The Preamble to the Specification,
The Specification and on the drawings as listed in the
Appendices to the Specification**
- 1.10 The Site Information is in: **The Appendices within the contract Documents and the
Pre-Construction information**
- 1.11 The *boundaries of the site* are: **As stated in Appendix 1/7**
- 1.12 The *language of this contract* is **English.**
- 1.13 The *law of the contract* is the law **of England and Wales, subject to the jurisdiction of the
Courts of England and Wales.**
- 1.14 The *period for reply* to a communication is **7 days.**
- 1.15 The Adjudicator Nominating Body is **The Institution of Civil Engineers.**
- 1.16 The *tribunal* is **arbitration.**
- 1.17 The *arbitration procedure* is **the latest version of the Institution of Civil Engineers
Arbitration Procedure or any amendments to it in force when the arbitrator is appointed.**
- 1.18 The place where arbitration is to be held is **London**
- 1.19 The person or organisation who will choose an arbitrator
- If the Parties cannot agree a choice or
 - If the *arbitration procedure* does not state who selects an arbitrator is
The Institution of Civil Engineers
- 1.20 The following matters will be included in the Risk Register
1. All residual risks identified in the Pre-Construction Information
 2. The Contractor will submit a programme for approval within one week following the *starting*
date. Failure to agree an accepted programme in accordance with the conditions of contract
may delay first access date. Risk owner is the *Contractor*.

2. The *Contractor's* Main Responsibilities

- 2.1 The *Contractor's* liability for the *Employer* for indirect or consequential loss is **Unlimited.**
- 2.2 For any one event, the *Contractor's* liability to the *Employer* for loss or damage to the Employer's
property is **Unlimited**

- 2.3 The *Contractor's* liability for Defects due to his design that are not listed on the Defects Certificate is **limited to 'reasonable skill and care'**.
- 2.4 The *Contractor's* total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is **Unlimited**
- 2.5 The *end of liability date* shall comply with **The Latent Damage Act 1986**
- 2.6 The *Contractor* ensures any subcontractor appointed to undertake design works enters into the *collateral warranty agreement* included with this tender (see Z49)

The *collateral warranty agreement* is:

Agreement reference	Parties
Collateral Warranty to be provided by a Subcontractor as set out in Appendix G	Shropshire Council

- 3.1 The *starting date* is: **1st December 2017**

- 3.2 The *access dates* are:

Part of the Site	Date
N/A	12 th March 2018

- 3.3 The *completion date* for the whole of the works is: 14th September 2018

- 3.4 The *completion date* for each *section* of the works is:

section	description	completion date
NOT USED		

- 3.5 The *Employer* is not willing to take over the *works* before the *Completion Date*.

- 3.6 The *Contractor* is to submit a first programme for acceptance within **1 week** following the *starting date*

- 3.7 The *Contractor* submits revised programmes at intervals no longer than: **2 weeks**.

- 3.8 The *key dates and conditions* to be met are

Condition to be met	Key date
NOT USED	

- 3.9 The *bonus for each sections of the works* is: (See Z20)

<i>section</i>	<i>description</i>	<i>amount per day</i>
[section]	[description]	[amount]

<i>Remainder of the works</i>	[amount]
Not Used	

- 3.10 Delay damages for the *sections* of the *works* are:

<i>section</i>	<i>description</i>	<i>amount per day</i>
Site 50	As 3.12	As 3.12

3.11 ~~The bonus for the whole of the works is: £...[Amount]..... per day. (See Z20)~~

Not Used

3.12 Delay damages for Completion of the whole of the works are: £ **(Final Award Price x 15%/365) + daily site supervision costs]** per day. **[The amount of site supervision costs for this contract per day is £750.]**

4. Testing and Defects

4.1 The *defects date* is **104** weeks after Completion of the whole of the works.

4.2 The *defect correction period* is **4** weeks

- ~~The defect correction period for Part of the works~~ **NOT USED**

5. Payment

5.1 The *currency of this contract* is the **pound sterling (£)**.

5.2 The *assessment interval* is **four** weeks (not more than five).

5.3 The period for payments is **28 Days** (See Clause Z19).

5.4 The *interest rate* is **2%** per annum (not less than 2) above the **average base rate in force from time to time at the following banks: Barclays, Lloyds TSB, National Westminster and HSBC unless the provisions of the Late Payment of Commercial Debts (Interest) Act 1998 otherwise require.**

5.5 The retention free amount is: **nil**.

5.6 The retention percentage is: **5%** (see Z32)

5.7 ~~The bonus for timely daily clearance of the carriageway is: **Final award price x 15% ÷ 365 + £ [450]** in £ per whole day. (See Z23) -~~ **Not Used**

5.8 ~~The lane rental charge for late Completion of the works is: **Final award price x 15% ÷ 365 + £ [375]** in £ per day or part thereof. (See Z21) -~~ **Not Used**

5.9 ~~The lane rental charge for late daily clearance of the carriageway is: **Final award price x 15% ÷ 365 + £ [450]** in £ per day or part thereof. (See Z24) -~~ **Not Used**

5.10 The lane rental charge for correcting Defects during the defects period is: **Final award price x 15% ÷ 365 + £450 in £ per day or part thereof.** (See Z22)

5.11 The method of measurement is **the Method of Measurement for Highway Works contained in Section 1 of Volume 4 of the Manual of Contract Documents for Highway Works published by The Stationery Office**
 amended as follows – **as detailed in the Preambles to the Bill of Quantities in Section 3 of this document.**

5.12 The proportions used to calculate the Price Adjustment Factor are:

~~[0.**]~~ Linked to the index for **[Description]**

~~[0.**]~~ Non adjustable

1.00

Not Used

5.13 The ~~base date~~ for indices is: ~~[Date]~~

Not Used

5.14 The indices are those prepared by ~~[the Department of Transport and the Regions and published by The Stationery Office in the "Price Adjustment Formulae for Construction Contracts - Monthly Bulletin of Indices"]:-~~

- ~~Index of the Cost of Labour in Civil Engineering Construction;~~
- ~~Index of the Cost of Providing and Maintaining Constructional Plant and Equipment;~~
- ~~Indices of Constructional Material Prices.]~~

Not Used

5.15 The Contractor's share percentages and the share ranges are:-

<u>share range</u>	<u>Contractor's share percentage</u>
less than [**]..% [**]..%
from.. [**]..% to [**]..% [**]..%
from.. [**]..% to [**]..% [**]..%
greater than [**]..% [**]..%

Not Used

5.16 ~~The Contractor prepares forecasts of Defined Cost for the works at intervals no longer than [4] weeks.~~

Not Used

5.17 ~~The exchange rates are those published in [Publication Name] On [Date].~~

Not Used

6. Compensation Events

6.1 ~~The place where weather is to be recorded is: [*]~~

6.2 ~~The weather measurements to be recorded for each calendar month are~~

- ~~• the cumulative rainfall (mm)~~
- ~~• the number of days with rainfall more than 5mm~~
- ~~• the number of days with minimum air temperature less than 0 degrees Celsius~~
- ~~• the number of days with snow lying at [Time **:**] hours GMT~~
- ~~• and these measurements: [Windspeed]~~

Not Used

6.3 ~~The weather measurements are supplied by
[The Met Office, Building Consultancy Group, Fitzroy Road, Exeter, Devon EX1 3PB.]~~

~~The weather data are the records of past weather measurements for each calendar month which were recorded at ...[Shawbury, Shropshire]...and which are available from [The Met Office].~~

WHERE NO RECORDED DATA IS AVAILABLE

Not Used

6.4 ~~Assumed values for the ten year return weather data for each weather measurement for each calendar month are
[Compiler to compile]~~

Not Used

6.5 There are additional and/or modifications to compensation events

- 1. Details are given in the list of additional Z clauses following paragraph 12 below**

7. Title

7.1 See Z40

8. Risks and Insurance

8.1 The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the *works*, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with this contract for any one event is **£5,000,000 (five million pounds) for any one event with no limit to the number of events.**

8.2 If an insurance policy contains any excess amount the following levels will be permitted:- (See Z42)

- (a) for insurance risks relating to loss of or damage to the *works*, Plant and Materials, as follows:
 - i. where the tendered price is below £1m an excess limit of £5,000
 - ii. where the tendered price is above £1m an excess limit of £10,000
- (b) For all other insurance risks included in the Insurance Table, i.e. relating to loss of or damage to equipment and property, bodily injury or death to the *Contractor's* employees and bodily injury or death to third parties, as follows:-
 - i. an excess limit of £2,500
 - ii. an excess limit over £2,500 will not be approved.

8.3 The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract **£5,000,000 (five million pounds) with no limit to the number of events.**

8.4 The *Employer* does not provide any of the insurances stated in the Insurance Table.

8.5 There are no additional *Employer's* risks.

8.6 The *Employer* does not provide any Plant or Materials.

8.7 The *Employer* provides no additional insurances.

8.8 The *Contractor* provides **these** additional insurances.

Insurance against faults in design (Professional Indemnity Insurance) Cover Indemnity is £10,000,000 (for subcontractor insurance requirements see Z42).

9. Termination

9.1 See Z48

10. Option Y(UK)2

10.1 The period for payment is **28 days** (See Z19)

11. Option Y(UK)3

11.1 Option Y(UK)3

The Contracts (Rights of Third Parties) Act 1999

- term person or organisation
[All excluded] [All excluded]

12. Additional Conditions of Contract

The additional conditions of contract are **set out in the pages immediately following Contract Data Part One.**

Additional Conditions of Contract (Option Z)

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Z3	Public Interest Disclosure (M)
Z4	Prevention of Bribery (M)
Z5	Equalities (M)
Z6	Human Rights (M)
Z7	Health & Safety at Work (M)
Z8	Freedom of Information Act 2000 and Environmental Information Regulations 2004 (M)
Z9	Audit and Monitoring (M)
Z10	Goods Vehicles Operator's Licence (M)
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Z20	Bonus for Early Completion - Not Used
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Z40	Employers Title to Equipment, Plant and Materials
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Z48	Public Contracts Regulations 2015
Z49	Collateral Warranty Agreements

DEFINITIONS

In these Additional Conditions of Contract the following words shall have the following meanings:

'Agreement'	means the Agreement between the Employer and the Contractor
'Bribery Act'	The Bribery Act 2010 and any subordinate legislation made under that Act from time to time together with any guidance or codes of practice issued by the relevant government department concerning the legislation.
"Commercially Sensitive Information"	comprises the information of a commercially sensitive nature relating to the Contractor, its Intellectual Property Rights or its business which the Contractor has indicated to the Employer in writing that, if disclosed by the Employer, would cause the Contractor significant commercial disadvantage or material financial loss;
"Confidential Information"	any information, which has been designated as confidential by either Party in writing or that ought reasonably to be considered as confidential however it is conveyed, including information that relates to the business, affairs, developments, trade secrets, know-how, personnel and suppliers of the Employer or the Contractor, including Intellectual Property Rights, together with all information derived from the above, and any other information clearly designated as being confidential (whether or not it is marked as "confidential") ;
"Contractor Personnel"	all employees, agents, consultants and contractors of the Contractor and/or of any Sub-contractor paid or unpaid;
"Data Controller"	shall have the same meaning as set out in the Data Protection Act 1998
"Data Protection Legislation"	the Data Protection Act 1998, the EU Data Protection Directive 95/46/EC, the Regulation of Investigatory Powers Act 2000, the Telecommunications (Lawful Business Practice) (Interception of Communications) Regulations 2000 (SI 2000/2699), the Electronic Communications Data Protection Directive 2002/58/EC, the Privacy and Electronic Communications (EC Directive) Regulations 2003 and all applicable laws and regulations relating to processing of personal data and privacy, including where applicable the guidance and codes of practice issued by the Information Commissioner;
"Data Subject"	shall have the same meaning as set out in the Data Protection Act 1998;
"Employer Representative"	the representative appointed by the Employer
"EIR"	means the Environmental Information Regulations 2004 (as may be amended from time to time.)
"Exempt Information"	means any information or class of information (including but not limited to any document, report, Agreement or other material containing information) relating to this Agreement or otherwise relating to the parties to this Agreement which potentially falls within an exemption to FOIA (as set out therein)
"FOIA"	means the Freedom of Information Act 2000 and all subsequent regulations made under this or any superseding or amending enactment and regulations; any words and expressions defined in the FOIA shall have the same meaning in this clause

"FOIA notice"	means a decision notice, enforcement notice and/or an information notice issued by the Information Commissioner
"Information"	has the meaning given under section 84 of the Freedom of Information Act 2000;
"Intellectual Property Rights"	means all patents, registered and unregistered designs, copyright, trade marks, know-how and all other forms of intellectual property wherever in the world enforceable
"Law"	any applicable law, statute, bye-law, regulation, order, regulatory policy, guidance or industry code, rule of court or directives or requirements of any Regulatory Body, delegated or subordinate legislation or notice of any Regulatory Body;
"Material"	means all materials prepared by or on behalf of the <i>Contractor</i> for the <i>works</i> and all updates, additions and revisions to them and any designs, or inventions incorporated in them.
"Permitted Uses"	means the design, construction, completion, reconstruction, modification, extension, refurbishment, maintenance, funding, disposal, letting, fitting-out, advertisement, demolition, reinstatement, building information modelling and repair of the <i>works</i> .
"Personal Data"	shall have the same meaning as set out in the Data Protection Act 1998;
"Prohibited Act"	The following constitute Prohibited Acts:
	<ul style="list-style-type: none"> (a) To directly or indirectly offer, promise or give any person working for or engaged by the Employer a financial or other advantage to: <ul style="list-style-type: none"> (i) Induce that person to perform improperly a relevant function or activity; or (ii) reward that person for improper performance of a relevant function or activity; (b) to directly or indirectly request, agree to receive or accept any financial or other advantage as an inducement or a reward for improper performance of a relevant function or activity in connection with this Agreement; (c) committing any offence: <ul style="list-style-type: none"> (i) under the Bribery Act; (ii) under legislation creating offences concerning fraudulent acts; (iii) at common law concerning fraudulent acts relating to this Agreement or any other contract with the Employer; (d) defrauding, attempting to defraud or conspiring to defraud the Employer.
"Public body"	as defined in the FOIA 2000
"Regulatory Bodies"	those government departments and regulatory, statutory and other entities, committees and bodies, including the <i>Employer</i> in its capacity as a local government authority, which, whether under statute, rules, regulations, codes of practice or otherwise, are entitled to regulate, investigate, or influence the matters dealt with in this Agreement or any other affairs of the Employer and "Regulatory Body" shall be construed accordingly;
"Request for Information"	means a written request for information pursuant to the FOIA as defined by Section 8 of the FOIA

“Services”	means any and all of the services to be provided by the Contractor under this Agreement including those set out in any schedules or service descriptions.
“Statutory Undertaker”	Statutory Undertaker means any person who has a statutory right or a right pursuant to a licence granted under any statute to place or maintain any apparatus (including any pipe conduit sewer drain or tunnel) on under or over the Site or to inspect adjust repair alter renew reposition or remove such apparatus.
“The Works”	Means the works to be undertaken in accordance with the terms of this Agreement which for the avoidance of doubt includes all documents annexed to, contained in or referred to within this Agreement.
“Working Day”	any day other than a Saturday, Sunday or public holiday in England and Wales.
‘Writing’	includes facsimile transmission and electronic mail, providing that the electronic mail is acknowledged and confirmed as being received.

1. General

Z2 Confidentiality (M)

- Z2.1 All plans, drawings, designs or specifications supplied by the *Employer* to the *Contractor* shall remain the exclusive property of, and shall be returned to the *Employer* on completion of the Works and shall not be copied, and no information relating to the Works shall be disclosed to any third party, except as required for the purpose of this Agreement .
- Z2.2 No photographs of any of the *Employer's* equipment, installations or property shall be taken without the *Employer's* prior consent in Writing except as necessary to Provide the Works. The *Contractor* shall keep secret and shall not divulge to any third party (except sub-contractors accepting a like obligation of secrecy, and then only to the extent necessary for the performance of the sub-agreement) all information given by the *Employer* in connection with the Agreement or which becomes known to the *Contractor* through his performance of the Agreement or use the same other than for the purpose of executing the Agreement.
- Z2.3 The *Contractor* shall not mention the *Employer's* name in connection with the Agreement or disclose the existence of the Agreement in any publicity material or other similar communication to third parties without the *Employer's* prior consent in Writing.
- Z2.4 The *Contractor* will keep confidential any information it becomes aware of by reason of the operation of this Agreement.
- Z2.5 Except to the extent set out in this clause or where disclosure is expressly permitted elsewhere in this Agreement, each party shall:
- Z2.5.1 treat the other party's Confidential Information as confidential; and
- Z2.5.2 not disclose the other party's Confidential Information to any other person without the owner's prior written consent
- Z2.6 Clause Z2.5 shall not apply to the extent that:
- Z2.6.1 such disclosure is a requirement of Law placed upon the party making the disclosure, including any requirements for disclosure under the Audit Commission Act 1998 or under the FOIA or the Environmental Information Regulations pursuant to the above clause regarding Freedom of Information;

- Z2.6.2 such information was in the possession of the party making the disclosure without obligation of confidentiality prior to its disclosure by the information owner;
- Z2.6.3 such information was obtained from a third party without obligation of confidentiality;
- Z2.6.4 such information was already in the public domain at the time of disclosure otherwise than by a breach of this Agreement; or
- Z2.6.5 it is independently developed without access to the other party's Confidential Information.
- Z2.7 The *Contractor* may only disclose the *Employer's* Confidential Information to the *Contractor* Personnel who are directly involved to Provide the Works who need to know the information, and shall ensure that such *Contractor* Personnel are aware of and shall comply with these obligations as to confidentiality.
- Z2.8 The *Contractor* shall not, and shall procure that the *Contractor* Personnel do not, use any of the *Employer's* Confidential Information received otherwise than to Provide the Works
- Z2.9 Nothing in this Agreement shall prevent the *Employer* from disclosing the *Contractor's* Confidential Information:
 - Z2.9.1 to any consultant, *contractor* or other person engaged by the *Employer*;
 - Z2.9.2 for the purpose of the examination and certification of the *Employer's* accounts or any other form of audit of the *Employer*;
- Z2.10 The *Employer* shall use all reasonable endeavours to ensure that any government department, employee, third party or Sub-contractor to whom the *Contractor's* Confidential Information is disclosed pursuant to this Agreement is made aware of the *Employer's* obligations of confidentiality.
- Z2.11 Nothing in this clause shall prevent either party from using any techniques, ideas or know-how gained during the performance of the Agreement in the course of its normal business to the extent that this use does not result in a disclosure of the other party's Confidential Information or an infringement of Intellectual Property Rights.
- Z2.12 The provisions of this Clause shall survive the expiration or termination of this Agreement.
- Z3 Public Interest Disclosure (Whistle Blowing) (M)**
 - Z3.1 The *Contractor* will ensure that his employees and agents are made aware of the *Employer's* policy "Speaking Up About Wrongdoing" and that the details of this policy are fully explained to them and shall provide the *Employer* with evidence of doing so upon request.

Z4 Prevention of Bribery (M)

Z4.1 The *Contractor*:

- a) shall not, and shall procure that all *Contractor* Personnel shall not, in connection with this Agreement commit a Prohibited Act;
- b) warrants, represents and undertakes that it is not aware of any financial or other advantage being given to any person working for or engaged by the *Employer*, or that an agreement has been reached to that effect, in connection with the execution of this Agreement, excluding any arrangement of which full details have been disclosed in writing to the *Employer* before execution of this Agreement.

Z4.2 The *Contractor* shall;

- a) if requested, provide the *Employer* with any reasonable assistance, at the *Employer's* reasonable cost, to enable the *Employer* to perform any activity required by any relevant government or agency in any relevant jurisdiction for the purpose of compliance with the Bribery Act;
- b) the *Contractor* shall, within 10 working days of a request from the *Employer*, certify to the *Employer* in writing (such certification to be signed by an officer of the *Contractor*) the *Contractor's* compliance with this Clause Z4 and provide such supporting evidence of compliance with this Clause Z4 by The *Contractor* as the *Employer* may reasonably request.

Z4.3 If any breach of Clause Z4.1 is suspected or known, the *Contractor* must notify the *Employer* immediately.

Z4.4 If the *Contractor* notifies the *Employer* that it suspects or knows that there may be a breach of Clause Z4.1, the *Contractor* must respond promptly to the *Employer's* enquiries, co-operate with any investigation, and allow the *Employer* to audit books, records and any other relevant documentation. This obligation shall continue for two years following the expiry of termination of the Agreement.

Z4.5 The *Employer* may terminate this Agreement by written notice with immediate effect, and recover from the *Contractor* the amount of any loss directly resulting from the cancellation, if the *Contractor* or *Contractor* Personnel (in all cases whether or not acting with the *Contractor's* knowledge) breaches Clause Z4.1. At the *Employer's* absolute discretion, in determining whether to exercise the right of termination under this Clause Z4.5, the *Employer* shall give consideration, where appropriate, to action other than termination of the Agreement unless the Prohibited Act is committed by the *Contractor* or a senior officer of the *Contractor* or by an employee, Sub-*Contractor* or supplier not acting independently of the *Contractor*. The expression "not acting independently of" (when used in relation to the *Contractor* or a Sub-*Contractor*) means and shall be construed as acting:

- a) with the authority; or,
- b) with the actual knowledge;
of any one or more of the directors of the *Contractor* or the Sub-*Contractor* (as the case may be); or
- c) in circumstances where any one or more of the directors of the *Contractor* ought reasonably to have had knowledge.

Z4.6 Any notice of termination under Clause Z4.5 must specify:

- a) the nature of the Prohibited Act;
- b) the identity of the party whom the *Employer* believes has committed the Prohibited Act; and
- c) the date on which this Agreement will terminate.

- Z4.7 Any dispute relating to:
- a) the interpretation of Clause Z4; or
 - b) the amount or value of any gift, consideration or commission, shall be determined by the *Employer* and its decision shall be final and conclusive.
- Z4.8 Any termination under Clause Z4.5 will be without prejudice to any right or remedy which has already accrued or subsequently accrues to the *Employer*.

Z5 Equalities (M)

- Z5.1 The *Contractor* and any Sub-*Contractor* employed by the *Contractor* shall not unlawfully discriminate either directly or indirectly on such grounds as race or ethnic origin, disability, gender, sexual orientation, religion or belief, or age
- a) in the supply and provision of the Works under this Agreement, and
 - b) in its employment practices.
- Z5.2 Without prejudice to the generality of the foregoing, the *Contractor* and any Sub-*Contractor* employed by the *Contractor* shall not unlawfully discriminate within the meaning and scope of the Equalities Act 2010 (or other relevant legislation, or any statutory modification or re-enactment thereof).
- Z5.3 In addition, the *Contractor* and any Sub-*Contractor* or person(s) employed by or under the control of the *Contractor* in providing services to the *Employer* will comply with the following general duties imposed on local authorities by Section 149 of the Equality Act 2010 to eliminate discrimination, harassment and victimisation and promote equality of opportunity between persons who share a protected characteristic and those who do not share it and to foster good relations between persons who share a protected characteristic and those who do not share it.
- Z5.4 The *Contractor* and any Sub-*Contractor* employed by the *Contractor* will take all reasonable steps to observe as far as possible the Codes of Practice produced by the Equality and Human Rights Commission, which give practical guidance to *Employers* on the elimination of discrimination.
- Z5.5 In the event of any finding of unlawful discrimination being made against the *Contractor* or any Sub-*Contractor* employed by the *Contractor* during the contract period, by any court or employment tribunal, or any adverse finding or formal investigation by the Equality and Human Rights Commission over the same period, the *Contractor* and any Sub-*Contractor* shall inform the *Employer* of this finding and shall take appropriate steps to prevent repetition of the unlawful discrimination.
- Z5.6 The *Contractor* and any Sub-*Contractor* employed by the *Contractor* will provide a copy of its policies to the *Employer* at any time upon request. In addition, the *Employer* may reasonably request other information from time to time for the purpose of assessing the *Contractor's* compliance with the above conditions.

Z6 Human Rights (M)

- Z6.1 The *Contractor* where appropriate takes account of the Human Rights Act 1998 and shall not do anything in breach of it.

Z7 Health & Safety at Work (M)

- Z7.1 The *Contractor* will at all times in providing services to the *Employer* comply with the provisions of the Health and Safety at Work Act 1974 and provide evidence of doing so the *Employer* at any time upon request.

Z8 Freedom of Information Act 2000 (FOIA) and Environmental Information Regulations 2004 (EIR) (M)

- Z8.1 The *Contractor* acknowledges that the *Employer* is subject to the requirements of the FOIA and the Environmental Information Regulations and shall assist and cooperate with the *Employer* to enable the *Employer* to comply with its Information disclosure obligations.
- Z8.2 The *Contractor* shall notify the *Employer* of any Commercially Sensitive Information provided to the *Employer* together with details of the reasons for its sensitivity and the *Contractor* acknowledges that any lists or schedules of Commercially Sensitive Information so provided are of indicative value only and that the *Employer* may be obliged to disclose such information.
- Z8.3 The *Contractor* shall and shall procure that its Sub-Contractors shall:
- Z8.3.1 transfer to the *Employer* all Requests for Information that it receives as soon as practicable and in any event within two Working Days of receiving a Request for Information;
 - Z8.3.2 provide the *Employer*, at the *Contractor's* expense, with a copy of all Information in its possession, or power in the form that the *Employer* requires within five Working Days (or such other period as the *Employer* may specify) of the *Employer's* request; and
 - Z8.3.3 provide, at the *Contractor's* expense, all necessary assistance as reasonably requested by the *Employer* to enable the *Employer* to respond to the Request for Information within the time for compliance set out in section 10 of the FOIA or regulation 5 of the Environmental Information Regulations.
- Z8.4 The *Contractor* shall be responsible for determining in its absolute discretion and notwithstanding any other provision in this Agreement or any other agreement whether the Commercially Sensitive Information and/or any other Information is exempt from disclosure in accordance with the provisions of the FOIA or the Environmental Information Regulations and in considering any response to a Request for Information the *Contractor* may consult with the *Contractor* prior to making any decision or considering any exemption
- Z8.5 In no event shall the *Contractor* respond directly to a Request for Information unless expressly authorised to do so by the *Contractor*.
- Z8.6 The *Contractor* acknowledges that (notwithstanding the provisions of this Freedom of Information clause) the *Contractor* may, acting in accordance with the Department of Constitutional Affairs' Code of Practice on the Discharge of the Functions of Public Authorities under Part 1 of the Freedom of Information Act 2000 ("the Code"), be obliged under the FOIA, or the Environmental Information Regulations to disclose information concerning the *Contractor* or the Services:
- Z8.6.1 in certain circumstances without consulting the *Contractor*; or
 - Z8.6.2 following consultation with the *Contractor* and having taken their views into account; provided always that where sub-clause Z8.6.1 above applies the *Employer* shall, in accordance with any recommendations of the Code, take reasonable steps, where appropriate, to give the *Contractor* advanced notice, or failing that, to draw the disclosure to the *Contractor's* attention after any such disclosure.

Z8.7 The *Contractor* shall ensure that all Information required to be produced or maintained under the terms of this Agreement, or by Law or professional practice or in relation to the Agreement is retained for disclosure for at least the duration of the Agreement plus one year together with such other time period as required by the Agreement, law or practice and shall permit the *Employer* to inspect such records as requested from time to time.

Z8.8 The *Employer* shall in no event be liable for any loss, damage, harm, or detriment, howsoever caused, arising from or in connection with the reasonable disclosure under FOIA, or any other Law, of any information (including Exempt Information) whether relating to this Agreement or otherwise relating to any other party .

Z9 Audit and Monitoring (M)

Z9.1 The *Contractor* will allow access for the *Employer's* officers to all relevant information for the purposes of audit and the monitoring of the contract.

Z9.2 The *Contractor* agrees that where requested in writing during the term of this contract it will ensure that an appropriately authorised representative of the *Contractor* with knowledge of the *works* shall attend a committee meeting of elected members of the *Employer* on the date of the committee meeting notified by the *Employer*.

Z10 Goods Vehicles Operator's Licence (M)

Z10.1. Each goods vehicle used by the *Contractor* or his Subcontractors in connection with the contract displays the vehicle licence disc relevant to the goods operator's licence under which the vehicle is operated or, in the absence of an operator's licence disc, the vehicle carries documentation giving the operator's licence number, name and address. The *Employer* will notify the Vehicle Inspectorate Agency (VI) of the commencement of works so that VI may carry out spot-checks on goods vehicles to ensure that they are operating legally.

Z11 Quality Submission

Z11.1 **Not Used**

Z12 Quality Management System

Z12.1 **Not Used**

Z13 Responsibility for Statutory Undertakers

Z13.1 The *Contractor* on behalf of the *Employer*

- identifies those measures which need to be taken as a consequence of or in order to facilitate the *works* with any Statutory Undertaker;
- settles a specification for the measures which need to be taken and determines by whom those measures are to be taken with the Statutory Undertaker;
- co-ordinates the taking of those measures and the execution of the *works* with the Statutory Undertaker;

and the *Employer* as the *Contractor's* principal shall, subject to Clause Z13.2, pay the Statutory Undertaker's allowable costs in respect of these measures.

Z13.2 The *Contractor*

- is responsible (at no cost to the *Employer*) for ensuring the Statutory Undertaker's compliance with any agreement or arrangement entered into under Clause Z13.1;
- indemnifies and keeps indemnified the *Employer* against all claims demands actions and proceedings, and all costs charges and expenses incurred in connection therewith, which may be brought or made by any Statutory Undertaker in respect of loss of or damage to any property of the Statutory Undertaker or the increased cost of working or business interruption of the Statutory Undertaker under or in connection with any agreement or arrangement entered into under Clause Z13.1 with the Statutory Undertaker howsoever arising including but not limited to the negligence or default of the *Contractor*.

Z13.3 The *Contractor* allows in the programme required under Clause 31 [The programme] any notice period required by a Statutory Undertaker in relation to any matter which is the subject of Clause Z13.1 and for all periods required in the taking of measures which are the subject of Clause Z13.1.

Z14 Named Key Personnel

Z14.1 Acceptance by the *Employer* of key persons stated in the Contract Data Part Two does not constitute acceptance that such individuals are suitable for the roles assigned to them or serve to relieve the *Contractor* of his duties or obligations under the contract.

Z14.2 The *Contractor's Site Agent* means the person named in the Contract Data Part Two being the most senior member of the *Contractor's* professional personnel normally present on Site.

Z14.3 The *Contractor's Site Safety Officer* named in the Contract Data Part Two is responsible for dealing with questions regarding the safety and protection against accidents of all staff and labour and all other persons entitled to be on the Site. This officer shall be qualified for this work and shall have the authority to issue instructions on behalf of the *Contractor* and shall implement protective measures to prevent accidents.

~~**Z14.4** The *Contractor's Quality Manager* named in the Contract Data Part Two manages the *Contractor's* obligations arising under Clause Z12 (Quality management system) and is the person to whom the *Project Manager* may take any enquiries in relation to the performance of such obligations.~~

NOT USED

Z14.5 The *Contractor's General Foreman* named in the Contract Data Part Two is responsible for carrying out control and co-ordination on Site as required by *Contractor's Site Agent*.

Z14.6 The *Contractor's Traffic Safety and Control Officer* named in the Contract Data Part Two is responsible for traffic safety and management.

Z14.7 The *Contractor's Designer* named in the Contract Data Part Two is responsible for undertaking design work to ensure compliance with the Construction (Design and Management) Regulations 2015 or any amendment or substitution thereof.

Z14.8 The *Contractor's Pedestrian Ambassadors'* named in the Contract Data Part Two are responsible for ensuring the smooth and safe movement of pedestrians around the site including access to premises and for providing a point of contact to those who require help

Z14.9 The *Contractor's Public Liaison Officer* named in the Contract Data Part Two is responsible for assisting with all queries, complaints and general public questions.

Z15 Named Subcontractors

- Z15.1 Where the *Contractor* has nominated a Subcontractor in the Contract Data Part Two for part of the *works*, acceptance of the Contract Data Part Two by the *Employer* without qualification of such nomination is deemed to be a consent on the same legal basis as consent by the *Project Manager* under Clause 26.2. Any such Subcontractor is not removed by the *Contractor* from the part of the *works* for which he has been nominated without the prior written consent of the *Project Manager*.
- Z15.2 Neither the objection to nor any failure to raise an objection to a proposed Subcontractor either by or through the *Project Manager* relieves the *Contractor* of any liability or obligation under the contract.

Z16 Payment (M)

- Z16.1 Delete the first sentence of core clause 51.1 and replace with:-
“The *Project Manager* certifies a payment on or before the date on which a payment becomes due.”
- Z16.2 Delete the first sentence of core clause 51.2 and replace with:-
“Each certified payment is made on or before the final date for payment.”

Z17 Recovery of Sums Due from Contractor (M)

- Z17.1 When under the contract any sum of money is recoverable from or payable by the *Contractor* such sum may be deducted from or reduced by the amount of any sum or sums then due or which at any time thereafter may become due to the *Contractor* under the contract or any other contract with any Department or Office of Shropshire Council.

Z18 Retention Bond - Not Used

- Z18.1 ~~On issue of the Completion Certificate for the whole of the *works* the *Employer* agrees to release all retained monies if the *Contractor* provides the *Employer* with a retention bond which is:~~
- ~~• provided by a bank or insurer which the *Employer* has accepted~~
 - ~~• in the form required by Contract Data part one and~~
 - ~~• for an amount equivalent to the amount of retention then held by the *Employer*~~
- Z18.2 ~~A reason for not accepting the bank or insurer is that its commercial position is not strong enough to carry the bond.~~
- Z18.3 ~~The *Employer* releases the retention bond to the *Contractor* on the last *defects* date.~~

Z19 Dates for Payment (M)

- Z19.1 For the purpose of the Housing Grants, Construction and Regeneration Act 1996 as amended by the Local Democracy, Economic Development and Construction Act 2009,
- the *Project Manager's* certificate is the notice of payment from the *Employer* to the *Contractor* specifying the amount (if any) of the payment made or proposed to be made, and the basis on which that amount was calculated,

- the date on which a payment becomes due is seven days after the assessment date and
- the final date for payment is 28 days after the date on which the payment becomes due.

Z19.2 If the *Employer* intends to withhold payment after the final date for payment of a sum due under the contract, he notifies the *Contractor* not later than one day (the prescribed period) before the final date for payment by specifying

- the amount proposed to be withheld and the ground for withholding payment or
- if there is more than one ground, each ground and the amount attributable to it.

Z20 Bonus for Early Completion

Z20.1 The *Contractor* is paid a bonus calculated at the rate stated in the Contract Data Part One for each whole day from the earlier of

- ~~Completion and~~
- ~~the date on which the *Employer* takes over the works~~

until the Completion Date provided that he has removed all traffic management installations and has reopened the carriageway in a safe condition to the satisfaction of the *Supervisor* so as not to cause traffic flows to be impeded or restricted.

Not Used

Z21 Lane Rental Charge for Late Completion

Z21.1 The *Contractor* pays a lane rental charge at the rate stated in the Contract Data Part One from Completion Date for each day or part thereof until the earlier of

- ~~Completion and~~
- ~~the date on which the *Employer* takes over the works~~

if he fails to remove all traffic management installations and re-open the carriageway in a safe condition to the satisfaction of the *Supervisor* so as not to cause traffic flows to be impeded or restricted. Lane rental charges shall as they fall due be debts due from the *Contractor* to the *Employer* and shall be recoverable as a debt.

Z21.2 If the Completion Date is changed to a later date after lane rental charges have been paid, the *Employer* repays the amount of such overpayment to the *Contractor*.

Not Used

Z22 Lane Rental Charge for Maintenance Work

- Z22.1 The *Contractor* pays a lane rental charge at the rate stated in the Contract Data Part One from the Completion Date for each day or part thereof until the *defects date* if he occupies any part of any carriageway footway or cycleway and causes traffic flows on any carriageway to be impeded or restricted for the purposes of correcting Defects.
- Z22.2 Lane rental charges shall as they fall due be debts due from the *Contractor* to the *Employer* and shall be recoverable as a debt.

Z23 Bonus for Timely Daily Clearance of Carriageway

- ~~Z23.1 The *Contractor* is paid a bonus calculated at the rate stated in the Contract Data Part One for each day that he occupies any part of any carriageway in order to Provide the Works from the access date until the earlier of~~
- ~~• the Completion Date and~~
 - ~~• the date on which the *Employer* takes over the works~~
- ~~provided he has removed all traffic management installations and has reopened the carriageway in a safe condition to the satisfaction of the *Supervisor* so as not to cause traffic flows to be impeded or restricted between the following hours:~~
- ~~• [*] hours and [*] hours of each day.~~

Not Used

Z24 Lane Rental Charge for Late Daily Clearance of Carriageway

- ~~Z24.1 The *Contractor* pays a lane rental charge at the rate stated in the Contract Data Part One for each day or part thereof if on any day he fails to remove all traffic management installations and re-open the carriageway in a safe condition to the satisfaction of the *Supervisor* so as not to cause traffic flows to be impeded or restricted between the following hours:~~
- ~~• [*] hours and [*] hours of each day~~
- ~~Z24.2 Lane rental charges shall as they fall due be debts due from the *Contractor* to the *Employer* and shall be recoverable as a debt.~~

Not Used

Z25 Deletion of Certain Compensation Events

- Z25.1 Delete the following core Clauses from Compensation events:-
- 60.1 (13) weather
 - 60.1 (15) early take over of works

Z26 Work Suspension (M)

Z26.1 Suspension of performance is a compensation event if the *Contractor* exercises his right to suspend performance under the Housing Grants, Construction and Regeneration Act 1996.

Z27 Parent Company Guarantee

~~Z27.1 The *Contractor* provides a Company Guarantee in the form set out in Appendix E within 14 days of the Contract Date.~~

Not Used

Z28 Special Requirements of Statutory Undertakers

Z28.1 The *Contractor*

- complies at his own cost with all Special Requirements of Statutory Bodies as set out in Appendix D
- is not excused from the performance of any of his obligations under the contract or is entitled to any allowance of time or to any additional remuneration or compensation in consequence of the requirement to comply with this Clause
- acknowledges and agrees that the *Employer* does not warrant and has not warranted the accuracy or completeness of any data or information which has been or will be provided to the *Contractor* by the *Employer* or the *Project Manager* relating to the location, size, nature or condition of services in, on, over or under the Site or in the vicinity of the Site
- further acknowledges and agrees that he neither has nor will have any claim of any kind whatsoever against the *Employer* founded upon the accuracy or completeness of any such data or information.

Z29 Tax and National Insurance Contributions (M)

Z29.1 The *Contractor* must provide his HM Revenue & Customs new Construction Industry Scheme contractor registration details for verification; namely:

- i) Company Unique Tax Reference (UTR);
- ii) Company Name;
- iii) Company Trading Name;
- iv) Company Registration Number.

Z30 Effects of Weather on Work

Z30.1. No work is done when in the opinion of the *Project Manager* the weather conditions are such as to make the start or continuance of work undesirable and/or impracticable. In such circumstances the *Project Manager* will issue a certificate to the *Contractor* provided

- the *Contractor* has taken all reasonable steps to mitigate the effects of such weather conditions and
- the timely execution of the work is crucial to the *Contractor's* Accepted Programme

Z30.2 For purposes of the contract

- only continuous periods of 4 hours or more for which a certificate has been issued by the *Project Manager* are taken into account for calculating changes to the Completion Date
- the prices are not changed due to any costs associated with this clause
- the *Contractor* does not pay lane rental charges (clauses Z21 and Z24) for periods covered by such a certificate.

Z31 Value Engineering

- Z31.1. The *Contractor* may at any time prior to or during the carrying out of the works submit to the *Project Manager* written proposals to change the Works Information which, in the *Contractor's* opinion, will significantly reduce the cost of the *works* or the cost of maintenance. Any proposal clearly states it is submitted for consideration under this clause and includes a detailed quotation, for consideration by the *Employer*, setting out the amount to which the *Contractor* may be entitled on the basis that he and the *Employer* shall share equally the relevant savings as determined in accordance with Clause 63 (Assessing Compensation Events).
- Z31.2. Quotations for proposed savings comprise proposed changes to the Prices and any delay to the Completion Date. The *Contractor* submits details of his assessment with each quotation. If the programme for remaining work is affected by the proposal the *Contractor* includes a revised programme in his quotation showing the effect.
- Z31.3. The *Employer* accepts such a proposal the *Project Manager* gives an instruction to the Contractor within the *[period for reply]* which changes the Works Information.

Z32 Retention Payment

- Z32.1 Delete the wording in X16.2 from Option X16 and replace with:-

"The retention percentage is retained at the amount stated in the Contract Data Part 1 until the Defects Certificate is issued. No amount is retained in the assessments made after the Defect Certificate has been issued".

Z33 Complaints Procedure (M)

- Z33.1 The *Contractor* shall operate a complaints procedure in respect of any goods, services or works provided under these terms and conditions, to the entire satisfaction of the *Employer*, and comply with the requirements of any regulatory body to which the *Contractor* is subject (including any change in such requirements) and ensure that its complaints procedure meets the following minimum standards:
- Z33.1.1 is easy to access and understand
- Z33.1.2 clearly sets out time limits for responding to complaints and keeping the complainant and the *Employer* informed of progress
- Z33.1.3 provides confidential record keeping to protect staff employed under this contract and the complainant

- Z33.1.4 provides information to management so that services can be improved
- Z33.1.5 provides effective and suitable remedies
- Z33.1.6 is regularly monitored and audited and which takes account of complainant and *Employer* feedback
- Z33.2 The *Contractor* shall ensure that:
 - Z33.2.1 under no circumstances is a complaint investigated by a member of its staff employed under this contract who may be part of the complaint.
 - Z33.2.2 Someone who is independent of the matter complained of carries out the investigation
 - Z33.2.3 The complainant is made aware that they are entitled to have the complaint investigated by the employer if they are not satisfied with either the process of investigation or finding of the *Contractor's* investigations
 - Z33.2.4 The *Contractor* will ensure that it responds to the complainant within a max of 10 days of receiving the complaint.
- Z33.3 The *Contractor* will make its complaints procedure available on request.
- Z33.4 The *Contractor* shall ensure that all its staff employed under this contract are made aware of its complaints procedure and shall designate one *Employee* (who shall be identified to the *Employer*) to whom a complaint may be referred should the complainant not be satisfied with the initial response to their complaint.
- Z33.5 The *Contractor* shall keep accurate and complete written records of all complaints received and the responses to them and shall make these records available to the *Employer* on request or at 12 monthly intervals in any event.
- Z33.6 Where the *Employer* is investigating a complaint the *Contractor* is required to participate fully in all investigations within the timescales requested by the *Employer*.
- Z33.7 The *Contractor* should note that if a complaint is made to the *Employer* by a third party relating to the goods, services or works provided, the Local Government Ombudsman has the power to investigate such a complaint and the *Employer* requires the *Contractor* to fully co-operate in such investigation. If the *Employer* is found guilty of mal-administration or injustice by the Local Government Ombudsman because of the act or default of the *Contractor* the *Contractor* shall indemnify the *Employer* in respect of the costs arising from such mal-administration or injustice.

Z34 Novation of Existing Contracts

- ~~Z34.1 The *Contractor* accepts the novation to him of all of the *Employer's* obligations in the following existing contracts apart from those which relate to services that have already been provided prior to the Starting Date:~~
~~Full Details of these contracts are contained in Appendix F.~~
- ~~Z34.2 The novation of the *Employer's* obligations to the *Contractor* pursuant to Clause Z34.1 shall occur on the Starting Date.~~
- ~~Z34.3 For the purpose of this contract, the Suppliers/Fabricators in the contracts listed in Clause Z34.1 shall be referred to as the *Novated Contractors*.~~

~~For the purpose of this contract, the formation of the contracts listed in Clause Z34.1 shall be referred to as the Appointment.~~

~~The Contractor shall assume all of the obligations of the Employer under the Appointment and the Novated Contractor shall perform his obligations under the Appointment in favour of the Contractor in lieu of the Employer.~~

~~The Employer releases and discharges the Novated Contractor from any and all obligations and liabilities owed to the Employer under the Appointment.~~

~~The Novated Contractor undertakes to perform the Appointment and to be bound by its terms in every way as if the Contractor was, and had been from the inception, a party to the Appointment in lieu of the Employer.~~

~~The Employer shall remain liable for all payments due to the Novated Contractor under the Appointment for services provided prior to the Starting Date.~~

~~Notwithstanding any other provision in this agreement, nothing in this agreement is intended to confer on any person any right to enforce any of the provisions of this agreement which such person would not have had, but for the Contracts (Rights of Third Parties) Act 1999.~~

Not Used

Z35 Safeguarding (M)

- Z35.1 Where the work being undertaken in this Agreement allows access to premises locations or activities where there is a likelihood of coming into contact with children or vulnerable adults the Contractor must ensure that it follows the guidance of the Disclosure and Barring Service to determine whether a Disclosure and Barring Service (DBS) check is required for Contractor Personnel. If in any doubt the Contractor should discuss the matter further with the officer of the Employer awarding the contract and raise any concerns arising from disclosures.
- Z35.2 Where the Works requirement or specification determines that a DBS check should be carried out, the Contractor shall ensure that DBS checks are obtained and verified prior to the relevant Contractor Personnel commencing work on the Works.

Z36 Agreement Status and Transparency (M)

- Z36.1 The parties acknowledge that, except for any information which is exempt from disclosure in accordance with the provisions of the FOIA, the content of this Agreement and any associated tender documentation provided by the Contractor (the Tender Submission) is not Confidential Information. The Council shall be responsible for determining in its absolute discretion whether any of the content of the Agreement or the Tender Submission is exempt from disclosure in accordance with the provisions of the FOIA.
- Z36.2 Notwithstanding any other term of this Agreement, the Contractor hereby gives his consent for the Council to publish this Agreement and the Tender Submission in its entirety, including from time to time agreed changes to the Agreement, to the general public.
- Z36.3 The Council may consult with the Contractor to inform its decision regarding any exemptions but the Council shall have the final decision in its absolute discretion.
- Z36.4 The Contractor shall assist and cooperate with the Council to enable the Council to publish this Agreement and the Tender Submission.

Z37 Protection of Personal Data

Z37.1 The Contactor shall;

- Z37.1.1 Process the Personal Data only in accordance with instructions from the *Employer* (which may be specific instructions or instructions of a general nature as set out in this Agreement or as otherwise notified by the *Employer* to the *Contractor* during the term of this Agreement);
- Z37.1.2 Process the Personal Data only to the extent, and in such manner, as is necessary for the provision of the Works or as is required by Law or any Regulatory Body;
- Z37.1.3 implement appropriate technical and organisational measures, including but not limited to ensuring that Personal Data is not stored on any portable equipment or storage device or media unless encrypted, to protect the Personal Data against unauthorised or unlawful processing and against accidental loss, destruction, damage, alteration or disclosure. These measures shall be appropriate to the harm which might result from any unauthorised or unlawful Processing, accidental loss, destruction or damage to the Personal Data and having regard to the nature of the Personal Data which is to be protected;
- Z37.1.4 take reasonable steps to ensure the reliability of any *Contractor* Personnel who have access to the Personal Data;
- Z37.1.5 obtain prior written consent from the *Employer* in order to transfer the Personal Data to any Sub-*Contractors* or Affiliates for the provision of the Works;
- Z37.1.6 ensure that all *Contractor* Personnel required to access the Personal Data are informed of the confidential nature of the Personal Data and comply with the obligations set out in this Protection of Personal Data clause;
- Z37.1.7 ensure that no *Contractor* Personnel publish, disclose or divulge any of the Personal Data to any third party unless directed in writing to do so by the *Employer*;
- Z37.1.8 notify the *Employer* (within five Working Days) if it receives:
 - a) a request from a Data Subject to have access to that person's Personal Data; or
 - b) a complaint or request relating to the *Employer's* obligations under the Data Protection Legislation;
- Z37.1.9 provide the *Employer* with full cooperation and assistance in relation to any complaint or request made, including by:
 - a) providing the *Employer* with full details of the complaint or request;
 - b) complying with a data access request within the relevant timescales set out in the Data Protection Legislation and in accordance with the *Employer's* instructions;
 - c) providing the *Employer* with any Personal Data it holds in relation to a Data Subject (within the timescales required by the *Employer*); and
 - d) providing the *Employer* with any information requested by the *Employer*;
- Z37.1.10 permit the *Employer* or the *Employer* Representative (subject to reasonable and appropriate confidentiality undertakings), to inspect and audit, in accordance with the Audit clause, the *Contractor's* data Processing activities (and/or those of its agents, subsidiaries and Sub-*Contractors*) and comply with all reasonable requests or directions by the *Employer* to enable the *Employer* to verify and/or procure that the *Contractor* is in full compliance with its obligations under this Agreement;

- Z37.1.11 provide a written description of the technical and organisational methods employed by the *Contractor* for processing Personal Data (within the timescales required by the *Employer*); and
- Z37.1.12 not process Personal Data outside the United Kingdom without the prior written consent of the *Employer* and, where the *Employer* consents to a transfer, to comply with:
- a) the obligations of a Data Controller under the Eighth Data Protection Principle set out in Schedule 1 of the Data Protection Act 1998 by providing an adequate level of protection to any Personal Data that is transferred; and
 - b) any reasonable instructions notified to it by the *Employer*
- Z37.1.13 The *Contractor* shall comply at all times with the Data Protection Legislation and shall not perform its obligations under this Agreement in such a way as to cause the *Employer* to breach any of its applicable obligations under the Data Protection Legislation.
- Z37.1.14 The *Contractor* shall ensure that its employees and agents are aware of and comply with this clause and shall indemnify the *Employer* against any loss or damage sustained or incurred as a result of any breach of this clause.

Z38 Interpretation Provisions

Z38.1 Delete existing clause 12.1 and replace with

"In this contract, 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 this contract,
- references to a statute or statutory instrument include any amendment or re-enactment of it from time to time and any subordinate legislation or code of practice made under it and references to a standard include any current relevant standard that replaces it."

Z39 Subcontracting (Additional Z clause to amend core clause 26)

Z39.1 Following clause 26.3 insert the following:

- 26.4 Notwithstanding the provision of clause 26.3 above the Contractor shall ensure that the conditions of contract for each subcontract include provisions as to the passing of title of Equipment, Plant and Materials that are no less onerous than those imposed on the Contractor under clauses 70 and 71.

Z40 Employer's Title to Plant and Materials

Z40.1 Delete clause 70 and replace with the following:

"70 Employer's title to Plant and Materials

- 70.1 The value of Plant and Materials outside the Working Areas is excluded from the Price for Work Done to Date unless
- the Equipment, Plant and Materials is within the United Kingdom
 - the *Contractor* demonstrates to the satisfaction of the *Project Manager* that the *Contractor* has unencumbered title to the Plant and Materials,
 - the Plant and Materials is stored separately and is clearly and visibly marked as for the *Employer* and this contract,
 - the Plant and Materials is adequately protected against water, theft, vandalism and other casualties,
 - the Plant and Materials is insured against loss or damage while stored or in transit to the Working Areas for its full reinstatement value under a policy of insurance protecting the interests of the Parties in respect of the usual insured risks for the period until it is brought within the Working Areas.
- 70.2 Where the value of Plant and Materials outside the Working Areas is included in the Price for Work Done to Date
- the *Contractor's* title in the Plant and Materials passes to the *Employer*,
 - the *Contractor* does not remove it from where it is stored except for use on the *works* and
 - the risk of loss or damage to the Plant and Materials remains with the *Contractor*.
- 70.3 The value of Plant and Materials within the Working Areas is excluded from the Price for Work Done to Date unless
- title in the Plant and Materials has already passed to the *Employer* under clause 70.2 or
 - the *Contractor* demonstrates to the satisfaction of the *Project Manager* that the *Contractor* has unencumbered title in the Plant and Materials.
- 70.4 The *Contractor's* title in Plant and Materials passes to the *Employer* when it is brought within the Working Areas, but (subject to clause 80.1) the risk of loss or damage to the Plant and Materials remains with the *Contractor*.
- 70.5 The *Contractor* does not remove Plant and Materials within the Working Areas from where it is stored except for use on the *works* or with the *Project Manager's* permission.
- 70.6 The title to Plant and Materials passes back to the *Contractor* if it is removed from the Working Areas with the *Project Manager's* permission."

Z40.2 Delete clause 71 and replace with the following:

"71 Marking Equipment, Plant and Materials Outside the Working Areas

- 71.1 The *Supervisor* marks Equipment, Plant and Materials which are outside the Working Areas if
- they are to be included in the Price for Work Done to Date and,
 - the *Contractor* has prepared them for marking as the Works Information and as clause 70.1 requires.

Z41 Assignment

- Z41.1 The *Contractor* does not assign his interest in or any rights arising under this contract without the consent of the *Employer*.
- Z41.2 The *Employer* may assign, charge or transfer his interest in this contract or any rights arising under it at any time without the consent of the *Contractor*. The *Employer* notifies the *Contractor* of any such assignment, charge or transfer.

Z42 Insurance

- Z42.1 Insurance policies are subject to an excess/ deductibles limitation as stated in *Contract Data Part One*.
- Z42.2 Where the contractor subcontracts design they shall procure that the subcontractor provides a collateral warranty as set out in the requirements of clause Z49 and shall also demonstrate that the subcontractor has the required level of professional indemnity insurance cover as set out in the requirements of clause Z42.3.
- Z42.3 Add the following to the insurance table in clause 84.2

Insurance against	Minimum level of cover or minimum level of indemnity	Period following Completion of the whole of works
Liability for failure to use the skill and care normally used by professionals providing design services similar to the <i>Contractors</i> design role in Providing the Works	£10 million in respect of each claim, without limit to the number of claims	12 years

Z43 Shropshire Council as Regulatory Body

- Z43.1 Shropshire Council's position as a Regulatory Body and as *Employer* under the Contract are separate and distinct. Actions taken in one capacity are deemed not to be taken in the other. Where the statutory consents must be obtained from Shropshire Council in its capacity as a Regulatory Body, the Contractor, is responsible for obtaining these and paying fees. Shropshire Council's acceptance of a tender and the *Project Manager's* instructing or varying the work does not constitute statutory approval or consent.

An action by Shropshire Council as a Regulatory Body is not in its capacity as the *Employer* and is not a compensation event.

Z44 CDM Advisor

- Z44.1 The Client has appointed a CDM Advisor to act as his agent, in order to assist the Client in discharging Client duties under the Construction (Design Management) Regulations 2015 (CDM 2015). The CDM Advisor, named in Contract Data Part One shall have the following duties -
- Ensure that the Principal Contractor produces a Construction Phase Plan that fully takes into account all relevant Pre Construction Information.
 - Ensure that the plan is suitable for managing health and safety for the project.

- Agree suitable arrangements with the contractor on behalf of the client and also visit site to ensure welfare facilities prescribed are installed as agreed.
- Ensure the Principal Contractor complies with their duties through on-going dialogue, site visits and auditing where necessary.
- Ensure that the Principal Contractor provides information for the Health and Safety file.

Z45 Compliance with legislation (M)

Z45.1 The *Contractor* Provides the Works:

- in a proper and workmanlike manner, and
- in compliance with
 - all statutes, statutory instruments, regulations, rules and orders made under any statute or directive having the force of law which affect the *works* or performance of any obligations under this contract, and
 - any regulation, bye-law, permission or approval of any local authority or statutory undertaker having jurisdiction in relation to the *works* or with whose systems the *works* are, or are to be, connected.

Z45.2 The project that comprises or includes the works will use more than one contractor for the purposes of the Construction (Design and Management) Regulations 2015 (the "CDM Regulations"). The Contractor is the principal contractor under the CDM Regulations in respect of the works and performs all the functions and obligations required to be performed by the principal contractor under the CDM Regulations.

Z46 Third Party Rights

Z46.1 Not Used

Z47 Copyright (M)

Z47.1 The *Contractor* grants to the *Employer*, with immediate effect, an irrevocable, non-exclusive, royalty-free licence to copy and make full use of the Material for any purpose relating to the *works*, including without limitation any of the Permitted Uses.

Z47.2 The *Employer's* licence carries the right to grant sub-licences and is transferable to third parties without the consent of the *Contractor* and survives termination (for any reason) of the *Contractor's* employment under this contract.

Z47.3 The *Contractor* is not liable for use of the Material for any purpose other than that for which it was prepared or provided.

Z48 The Public Contracts Regulations 2015 (M)

Z48.1 The *Employer* may terminate the *Contractor's* obligation to Provide the Works if any of the provisions of paragraph 73(1) of The Public Contracts Regulations 2015 apply.

- Z48.2 If the *Employer* terminates under the provisions of paragraph 73(1)(b) of the Public Contracts Regulations 2015 as a result of information not disclosed by the *Contractor* at the Contract Date, the procedures and amounts due on termination are the same as if the *Contractor* has substantially failed to comply with his obligations.
- Z48.3 If the *Employer* otherwise terminates under the provisions of paragraph 73(1) of the Public Contracts Regulations 2015, the procedures and amounts due on termination are the same as if the Parties had been released under the law from further performance of the whole of this contract.
- Z48.4 The *Contractor* does not appoint a Subcontractor or supplier if there are compulsory grounds for excluding the Subcontractor or supplier under regulation 57 of the Public Contracts Regulations 2015
- Z48.5 The *Contractor* includes in any subcontract awarded by him provisions requiring that
- payment due to the Subcontractor or supplier under the subcontract is made no later than 30 days after receipt of a valid and undisputed invoice, unless this contract requires the *Contractor* to make earlier payment to the Subcontractor or supplier,
 - invoices for payment submitted by the Subcontractor or supplier are considered and verified by the *Contractor* in a timely fashion,
 - undue delay in considering and verifying invoices is not sufficient justification for failing to regard an invoice as valid and undisputed and
 - any contract awarded by the Subcontractor or supplier for work included in this contract includes provisions to the same effect as these provisions.

Z49 Collateral Warranty Agreements

- Z49.1 Upon request by the *Employer* the contractor shall procure that the subcontractor provides a fully executed *collateral warranty agreement* in the form as set out in Appendix G

APPENDIX A : FORM OF AGREEMENT BY DEED

FORM OF AGREEMENT FOR AN NEC3 ENGINEERING AND CONSTRUCTION CONTRACT

for works comprising

Shrewsbury Integrated Transport Package: Pride Hill

Between

SHROPSHIRE COUNCIL

and

THIS DEED made the

day of

20

BETWEEN

1) **SHROPSHIRE COUNCIL**

of Shirehall, Abbey Foregate, Shrewsbury, Shropshire SY2 6ND

("the *Employer*") and

2) [FULL COMPANY NAME OF CONTRACTOR] incorporated and registered in England and Wales
with company number [NUMBER]

whose registered office is at [REGISTERED OFFICE ADDRESS]

("the *Contractor*")

BACKGROUND

(A) The *Employer* wishes to appoint the *Contractor* to Provide the Works at the Site.

(B) The *Contractor* has agreed to provide the Works in accordance with the *conditions of contract* specified in clause 4 of this Agreement.

NOW THIS DEED WITNESSES as follows:-

INTERPRETATION

1. In this Deed unless the context otherwise requires:

- (a) any term used with initial capital letters has the meaning given to it in the *conditions of contract*; and
- (b) any italicised term has the meaning given to it in the Contract Data.

CONTRACTOR'S RESPONSIBILITIES

2. The *Contractor* will Provide the Works in accordance with the *conditions of contract* specified in clause 4 below

EMPLOYER'S RESPONSIBILITIES

3. The Employer will pay the *Contractor* for the *works* and carry out his other duties in relation to them in accordance with the *conditions of contract*

CONTRACT FOR THE WORKS

4. The contract for the *works* comprises the *conditions of contract* in the form of the NEC3 Engineering and Construction Contract April 2013 incorporating the following options:

- (a) **Main Option B - Priced Contract with Bill of Quantities;**

- (b) Dispute resolution Option **W2**;
- (c) Secondary Option Clauses **X2, X7, X16, Y (UK)2, Y (UK)3**; and
- (d) Option Z Additional conditions of contract, comprising clauses **Z2 to Z48** inclusive (*the additional conditions of contract*) as annexed to this Agreement

together with this Agreement, **the Shorter Schedule of Cost Components, the Priced Bill of Quantities** Option B the completed Contract Data, the Works Information, this Agreement and the following documents:

- (e) Instructions for Tendering
- (f) the Specification (including Preamble)
- (g) the Bill of Quantities (including Preamble) Option B
- (g) the Drawings as listed in Appendix 0/4 to the Specification
- (h) The Contractor's Tender dated [] comprising:
 - i) Completed Form of Tender
 - ii) Tendered Bill of Quantities Option B
 - iii) Completed Contract Data Part 2
 - iv) Outline Programme of Works
 - v) CHAS certificate
 - vi) Adjudicators nominations
 - vii) Acceptance of Principal Contractor status
 - viii) Insurance Policies and Statement regarding excesses
 - ix) CIS details
 - x) Tender Amendments No. [] dated []

CONTRACT DATA

- 5. A copy of the completed Contract Data is annexed to this Agreement

PRIORITY OF DOCUMENTS

- 6. If there is any ambiguity or inconsistency in or between the documents comprising this contract, the priority of the documents is in accordance with the following sequence:
 - (a) this Agreement;
 - (b) the completed Contract Data,
 - (c) the *additional conditions of contract*;
 - (d) the *other conditions of contract*;
 - (e) the Works Information; and
 - (f) any other document forming part of the contract.
- 7. The Employer and the Contractor hereto acknowledge and agree that this Agreement shall govern all works and services carried out by the Contractor in connection with the *Works* prior to the date of this Agreement, all of which works and/or services shall be deemed to have been

carried out subject to the terms of this Agreement.

This Agreement has been executed as a deed and is delivered and takes effect on the date stated at the beginning of it.

Executed as a deed by affixing the
COMMON SEAL of **SHROPSHIRE**
COUNCIL in the presence of:

.....
Authorised Signatory

Executed as a deed by [NAME OF
CONTRACTOR] acting by a director and a
director OR its company secretary

.....
Signature
Director

.....
(Print Name)

.....
Signature
Director OR Secretary [Delete as appropriate]

.....
(Print Name)

OR

Executed as a deed by [NAME OF
CONTRACTOR] acting by a director, in the
presence of:

.....
[SIGNATURE OF WITNESS]

.....
Signature
Director

.....
(Print Name)

.....
.....
.....

[PRINT NAME, ADDRESS AND OCCUPATION
OF WITNESS]

Completed Contract Data

[ATTACH CONTRACT DATA]

APPENDIX B: CERTIFICATES

NOT USED

APPENDIX C: FORM OF RETENTION BOND

Not Used

APPENDIX D: SPECIAL REQUIREMENTS

List here any appropriate Special Requirements in relation to statutory bodies, e.g.:-

Electricity Generating and Distribution Companies
BT OpenReach
Water and Sewerage Companies
National Grid plc

**SPECIAL REQUIREMENTS IN RELATION TO ELECTRICITY
GENERATING AND DISTRIBUTION COMPANIES**

1. For the purposes of this Special Requirement the following terms shall have the meanings assigned to them:-
 - (a) 'Company' means:-

Western Power Distribution
Toll End Road
Tipton
West Midlands
DY4 0HH

Tel: 0800 096 3080

or its successors and assigns.
 - (b) 'Company Representative' means the Chief Civil Engineer of the said 'Company' defined at 1(a) of this Special Requirement or other duly Authorised Engineer Representative and/or Agent appointed for the time being to act on behalf of the said 'Company'.
 - (c) 'Plant or Equipment' means any plant equipment gear machinery apparatus or appliance or any part thereof as defined in the Construction (General Provisions) Regulations 1961 and the Construction (Lifting Operations) Regulations 1961 owned leased or rented by the said 'Company' defined at 1(a) of this Special Requirement.
 - (d) 'Electricity Cable(s)' means any cabling including but not limited to 'Overhead Electricity Lines' or 'Buried Electricity Cables' owned leased or rented for the purposes of electricity transmission and supply by the said 'Company' as defined at 1(a) of this Special Requirement.
2. Before commencing any work or moving heavy plant or equipment over any portion of the Site the Contractor shall consult the Company Representative as early as possible and in any event not less than fourteen days before it is proposed to commence work to ascertain whether any Electricity Cable(s) or Plant or Equipment will be affected by the Works and to confirm details of any restrictions or requirements that the Company Representative may consider necessary for the safe carrying out of the works. The Company Representative, can be contacted at the following point:-

Address:-	General Network Enquiries	Power Loss and Emergencies
Telephone:-	0800 096 3080	0800 6783 105
Fax:-		
3. Where such details show that the Works or the movement of plant or equipment may endanger the equipment of the Company, the Contractor must ensure that the presence of any Electricity Cable(s) Plant or Equipment can be indicated by markers to be supplied by the Company and placed by the Contractor under the supervision of the Company Representative. The Contractor shall ensure that all Company Electricity Cable(s) Plant or Equipment is adequately protected from damage and such protective measures shall be approved by the Engineer.
4. The work shall be carried out in conformity with the Requirements of the Health and Safety Executive Guidance Notes:-
 - (i) No. GS6 'Avoidance of Danger from Overhead Electric Cables'
 - (ii) No. GS33 'Avoiding Danger from Buried Electricity Cables'

5. Except under such restrictions as the Company Representative may impose for the safety of persons and the protection of property WORKS SHALL NOT BE CARRIED OUT or cranes or other plant erected operated and/or dismantled or materials stored WITHIN THE 'PROHIBITED SPACE' WHICH IS THAT SPACE WITHIN A RADIUS OF:-
- (a) 15.0 M OF LIVE OVERHEAD ELECTRICITY LINES WHERE LINES ARE CARRIED ON STEEL TOWERS
 - (b) 9.0 M OF LIVE OVERHEAD ELECTRICITY LINES WHERE THE LINES ARE CARRIED ON WOOD POLES

TOGETHER WITH ANYWHERE VERTICALLY ABOVE THIS SPACE. These distances shall be maintained at all times between any Overhead Electricity Lines or anything connected to such Overhead Electricity Lines owned leased or rented by the Company.

6. The Contractor and any sub-contractor employed by him should particularly note and bring to the attention of their respective employees the danger of 'Flash-over' where as a result of the very high voltages being transmitted potentially lethal shocks can occur in close proximity to live Overhead Electricity Lines WITHOUT ANY CONTACT BEING MADE.
7. Debris produced when trimming or felling trees and/or from demolition MUST NOT fall or be projected into the 'Prohibited Space'. Similarly excavation spoil must not be dumped or accumulated so as to cause infringement of the 'Prohibited Space'.
8. Special care MUST be taken when using material, which shall include but not be limited to, rope wire and/or measuring tape and the like.
9. The Contractor shall exercise particular care when carrying out work which involves the use of water jets or piped slurry. Liquids when being carried or used for the purposes of the works MUST NOT be allowed to splash fall or otherwise be projected into the 'Prohibited Space'.
10. If a crane or other equipment is used crane stops, fencing and warning notices shall be provided by the Contractor to ensure that there can be no encroachment on the 'Prohibited Space' by crane load or other equipment even if the crane load or equipment slips fails or overturns.
11. Portable ladders used in the vicinity of the live Overhead Electricity Lines shall be of wood or other non-conducting material and shall not be reinforced by metal attachments running along stiles of the ladders. Even ladders without reinforcement can lead to serious electrical shocks if allowed to come close to live overhead equipment and therefore special precautions must be taken to ensure that the ladder cannot slip and encroach on the 'Prohibited Space'.
12. Any disturbance of or attachment to any Plant or Equipment or Electric Cable(s) of the Company shall ONLY be carried out by the staff of the Company or its authorised contractors and/or agents.
13. Long objects, which shall include but not be limited to pipes scaffold poles ladders and/or long handled tools or any object of such length that if carried vertically could infringe on the 'Prohibited Space' MUST BE CARRIED HORIZONTALLY.
14. Where for the purposes of completing the Works in accordance with the Contract the need arises to operate within the 'Prohibited Space' the Contractor shall give the Company Representative not less than fourteen days written notice of the dates upon which it is intended to operate plant or equipment or carry out any work. The permission of the Company Representative MUST be obtained in writing BEFORE any plant or equipment is operated or work of any kind is carried out WITHIN the above distances. Such operations or work shall only be carried out in the presence of the Company Representative unless notice shall have been obtained in writing from the Company Representative that such a presence on Site is not required.

15. In the event of the Company requiring emergency and/or maintenance work to be executed on the Electricity Cable(s) whether Overhead Electricity Lines or Buried Electricity Cables during the period of the Contract the Contractor shall afford all reasonable facilities and access to the staff of the Company or authorised contractors and/or agents.
16. Work should not be carried out in the immediate vicinity of the overhead lines during period of poor visibility. If this it not reasonably practicable additional precautions **MUST** be taken including but not limited to the erection of appropriate barriers to ensure maintenance of the appropriate safety clearances.
17. The above requirements do not relieve the Contractor of any of his obligations under the Contract or of the responsibility for taking every precaution to avoid risk to persons and/or damage to property.

IN CASE OF EMERGENCY Tel. 0800 6783 105

SPECIAL REQUIREMENTS IN RELATION TO BT OPENREACH

1. In this Special Requirement the following terms shall have the meanings assigned to them:-
 - (a) 'Company' means British Telecommunications plc.
 - (b) 'Company Representative' means the staff of British Telecommunications plc or its Authorised Representatives and Agents.
 - (c) 'Apparatus' means all surface or sub-surface equipment and plant including any associated cabling and/or ducting owned, leased or rented by British Telecommunications plc.
2. Before commencing any work or moving heavy plant or equipment over any portion of the Site the Contractor shall confirm details of the Apparatus, owned, leased or rented by the Company, within the Site with the Company Representative, who can be contacted at the following point:-

Address:-	Midlands Street Works Act Management Point (SWAMP) BT.PP404B Telecom House Trinity Street Hanley Stoke-on-Trent ST1 5ND (Plans only)	Dial Before You Dig (Plans, mark up on site, protection advice)
Telephone:-	0800 800 865	0800 917 3993
3. Where such details show that the works or the movement of plant or equipment may endanger the Apparatus of the Company, the Contractor must give the Company Representative at least 7 days written notice of the date on which it is intended to commence such works or the movement of plant and equipment in order that the presence of any sub-surface Apparatus can be indicated by markers to be supplied by the Company and placed by the Contractor under the supervision of a Company Representative. The Contractor shall ensure that all Company Apparatus, particularly surface running cabling, is adequately protected from damage and such protective measures shall be approved by the Engineer.
4. In the event of a Company marker being disturbed for any reason it shall not be replaced other than in the exact position and to its former depth unless the repositioning is carried out at the direction and under the supervision of a Company Representative.
8. The Contractor shall take particular care in relation to the protection of Company Apparatus, where such Apparatus includes the presence within the Site of optical fibre and/or co-axial cabling. The Contractor should particularly note that damage to such Apparatus is extremely disruptive to the Company network and costly to reinstate. The Contractor shall make every effort to avoid the disturbance of Company Apparatus more than is absolutely necessary for the completion of the Works in accordance with the Contract.
6. When excavating around, moving or backfilling around Company Apparatus, the Company Representative shall be given adequate notice, which shall not be less than 3 days, of the Contractor's intentions in order that he may supervise the works. The Contractor should note that the normal depth of cover for Company Apparatus and ducts is as follows:-
 - (a) In carriageways 600 mm, which is to be maintained.
 - (b) In footways 450 mm, which is to be maintained.

Where the 600/450 mm depth of cover cannot be maintained the Contractor shall carry out the

instructions of the Engineer for the protection of Company Apparatus and such actions that follow from the Engineer's instruction shall be supervised by a Company Representative. Where the required depth of cover cannot be maintained over cabling, such cables as are affected shall be enclosed and protected in UPVC duct to be supplied by the Company as directed by the Company Representative.

With regard to excavation in the vicinity of Company Apparatus and ducts the Contractor should have particular regard to the possibility of reduced cover and the encountering of such Company Apparatus and ducts at depths of cover less than that given at (a) and (b) above.

7. All excavation adjacent to Company Apparatus is to be carried out by hand until the exact extent and/or location of Company Apparatus is known. Mechanical borers and/or excavators shall not be used within 1.0 m of Company Apparatus without the supervisory presence of a Company Representative. To prevent any movement of Company Apparatus during excavation, complete shuttering shall be used as directed by the Engineer if:-

- (a) Excavation is deeper than the depth of cover of adjacent Company Apparatus.
- (b) Excavation is within 1.0 m of Company Apparatus in stable soil.
- (c) Excavation is within 5.0 m of Company Apparatus in unstable soil.

If for the completion of the Works the Contractor intends using any of the following:-

- (i) Pile driving equipment within 10.0 m of Company Apparatus
- (ii) Explosives within 20.0 m of Company Apparatus
- (iii) Laser equipment within 10.0 m of Company Apparatus
- (iv) the Contractor shall advise the Company Representative, giving at least 7 days written notice, in order that any special protective measures for the Company Apparatus affected may be arranged.

8. All Company manhole, joint box and/or other access points and chambers within the Site shall be kept clear and unobstructed. Access for vehicles, winches, cabledrums and/or any further equipment required by the Company for the maintenance of its Apparatus, must be maintained at all reasonable times. The Contractor should particularly note that footway type jointing chambers are not specified for carriageway loadings and will need to be adequately protected and/or demolished and rebuilt under the supervision of a Company Representative where such chambers are likely to be placed at risk, either temporarily or permanently, from the movement of plant and/or equipment on the Site.

9. The covers to Company chambers and/or Apparatus shall only be lifted by means of appropriate keys obtained from the Company Representative and under the direct supervision of the Company Representative. No employee of the Contractor or of any sub-contractor employed by the Contractor shall enter any chamber and/or Apparatus of the Company unless under the supervision of the Company Representative and in any case not before the mandatory gas check has been carried out in the presence of the Company Representative and such checks have shown it to be safe to enter the Chamber and/or Apparatus of the Company. The Company Representative shall be given reasonable access to all Company Apparatus and chambers when required.

10. In the event of any damage whatsoever to Company Apparatus the Contractor shall immediately inform the Engineer and report the occurrence immediately by contacting the Company as follows:-

Telephone:- Dial Before You Dig 0800 917 3993

11. The above requirements do not relieve the Contractor of any of his obligations under the

SPECIAL REQUIREMENTS IN RELATION TO WATER AND SEWERAGE COMPANIES

1. For the purposes of this Special Requirement the following terms shall have the meanings assigned to them:-
 - (a) 'Company' means:- Severn Trent Water Ltd (Water Supply Mains and Foul Drains) or its successors and assigns.
 - (b) 'Company Representative' means the Chief Civil Engineer of the said 'Company' defined at 1(a) of this Special Requirement or other duly Authorised Engineer Representative and/or Agent appointed for the time being to act on behalf of the said 'Company'.
 - (c) 'Mains and Sewers' means any surface or sub-surface pipeline or construction together with any associated apparatus appliance access covers manholes shafts and/or chambers thereto owned leased or rented by the said 'Company' defined at 1(a) of this Special Requirement.
2. Before commencing any work or moving heavy plant or equipment over any portion of the Site the Contractor shall confirm the details and location of any Mains and Sewers of the Company with the Company Representative, who can be contacted at the following point:-

Address:- Severn Trent Water Ltd
Asset Data Management
GIS Mapping Team
PO Box 5344
Coventry
CV3 9FT

Telephone: 02477 715862
3. Where such details show that the Works or the movement of plant or equipment may endanger the Mains and Sewers of the Company; the Contractor shall give the Company Representative at least 7 days written notice of the date on which it is intended to commence such works or the movement of plant and equipment in order that the presence of any Mains and Sewers can be indicated by markers to be supplied by the Company and placed by the Contractor under the supervision of the Company Representative. The Contractor shall ensure that all Company Mains and Sewers, are adequately protected from damage and such protective measures shall be approved by the Engineer.
4. In the event of a Company marker being disturbed for any reason it shall not be replaced other than in the exact position and to its former depth unless the repositioning is carried out at the direction and under the supervision of the Company Representative.
5. All excavation adjacent to Company Mains and Sewers, is to be carried out by hand until the exact extend and/or location of Company Mains and Sewers is known.

Mechanical borers and/or excavators shall not be used within 3.0 m of Company Mains and Sewers without the presence of the Company Representative. To prevent any movement of Company Mains and Sewers during excavation, complete shuttering shall be used as directed by the Engineer if:-

 - (a) Excavation is deeper than the depth of cover of adjacent Company Mains and Sewers.
 - (b) Excavation is within 3.0 m of Company Mains and Sewers in stable soil.
 - (c) Excavation is within 6.0 m of Company Mains and Sewers in unstable soil.

If for the completion of the Works the Contractor intends using any of the following:-

- (i) Pile driving equipment within 15.0 m of Company Mains and Sewers
- (ii) Explosives within 200.0 m of Company Mains and Sewers
- (iii) Any hot work such as welding and the like within 6.0 m of any Company Mains and Sewers.

the Contractor shall advise the Company Representative, giving at least 7 days written notice, in order that any special protective measures for the Company Mains and Sewers affected may be arranged.

6. Material of any kind whatsoever comprising part of the Company Mains and Sewers, manholes, shafts or any other construction shall not be cut away without the prior written approval of the Company Representative.
7. Any temporary roads or access routes within 5.0 m of Company Mains and Sewers, shall be provided with a load bearing surface to the satisfaction of the Company Representative.
8. The Contractor or any sub-contractor employed by him shall not stack pile and/or store materials of any kind or erect temporary structures and/or notice boards of any sort within 5.0 m of any Company Mains and Sewers.
9. All Company Mains and Sewers, especially manholes, shafts and access points and/or chambers within the Site shall be kept clear and unobstructed. A minimum 3.0 m access sufficient for heavy vehicles and/or any further plant and equipment required by the Company for the maintenance of its Mains and Sewers, must be maintained to and around the centre of any Company manholes shafts chambers and or other access points and the Company Representative shall be given access to all Company Mains and Sewers when required at all reasonable times.
10. The covers to Company Mains and Sewers, particularly manholes, shafts and access points and/or chambers shall only be lifted under the direct supervision of the Company Representative. Employee's of the Contractor or of any sub-contractor employed by the Contractor shall NOT enter any Company Mains and Sewers manholes shafts access points and/or chambers unless under the supervision of the Company Representative and in any case not before any safety checks required by the Company Representative have been carried out and such checks have shown it to be safe to enter the Company Mains and Sewers.
11. In the event of any damage whatsoever to Company Mains and Sewers the Contractor shall immediately inform the Engineer and report the occurrence immediately by contacting the Company Representative.
12. The Contractor and/or any sub-contractor employed by the Contractor shall take all necessary precautions to ensure that any Company Mains and Sewers are fully protected from any accidental falls or flows of liquids and/or materials, which by themselves or in combination with any existing materials and/or liquids could cause or aggravate pollution create poisonous substances and/or toxic fumes or react with sewer contents to cause toxic substances or fumes and/or could cause harm to persons or property and/or impede any operations of the Company.
13. The Contractor and/or any sub-contractor employed by the Contractor shall not discharge nor cause to be discharged any water or other liquid or tip any condemned or surplus material or waste of any kind whatsoever into Company Mains and Sewers or abstract extract and/or draw water from any Company Mains and Sewers without the written permission of the Company Representative.

14. The Contractor shall particularly note that the Sewer system can be liable to 'surcharge' in certain circumstances and under these conditions is liable to bursting. Stringent safety precautions as directed by the Company Representative shall be applied in such conditions.

EMERGENCY ACTION

15. The following actions shall be taken by the Contractor in the vent of a burst to any of the Company Mains and Sewers:-
- (a) Immediately inform the Emergency services (Fire and Police) The Agency and the Engineer in that order
For water services and emergencies (including 'Leakline')
Tel:- 0800 783 4444
 - (b) Secure the area from the approach of traffic and/or the general public.
 - (c) Render every assistance to the Emergency Services and/or The Agency as shall be requested for the purposes of mitigating damage arising from the leak and/or for the purposes of securing public safety.
 - (d) With regard to landslope and any apparent flow direction of any leaking sewerage or water, construct if possible and as necessary dams bunds with earth and/or board to prevent flows inundating any adjacent properties ditches streams drains manholes or other such water courses and ducts.
16. The above requirements do not relieve the Contractor of any of his obligations under the Contract.

SPECIAL REQUIREMENTS IN RELATION TO NATIONAL GRID (GAS)

1. In this Special Requirement the following terms shall have the meanings assigned to them:-
 - (a) 'Company' means National Grid.
 - (b) 'Company Representative' means the staff of National Grid or its Authorised Representatives and Agents.
 - (c) 'Apparatus' means all surface or sub-surface equipment and plant including any associated Gas pipeline(s) owned, leased or rented by National Grid.
2. Before commencing any work or moving heavy plant or equipment over any portion of the Site the Contractor shall confirm details of the Apparatus, within the Site with the Company Representative, who can be contacted at the following point:-

Address: Plant Protection
National Grid
Block 1
Area 1
Brick Kiln Street
Hinckley
Leicestershire
LE10 0NA

Telephone: 0800 688588
3. Where such details show that the work or the movement of plant or equipment on the Site may endanger any Apparatus, the Contractor shall give the Company Representative at least 7 days written notice of the date on which it is intended to commence such Works or the movement of plant and equipment in order that the presence of any sub-surface Apparatus can be indicated by markers to be supplied by the Company and placed by the Contractor under the supervision of the Company Representative. The Contractor shall ensure that all Apparatus, is adequately protected from damage and such protective measures shall be to the satisfaction of the Company Representative.
4. In the event of a Company marker being disturbed for any reason it shall not be replaced other than in the exact position and to its former depth unless the repositioning is carried out at the direction and under the supervision of a Company Representative.
5. The Contractor shall carry out all work in connection with the Contract with reference to the requirements of the following publications:-
 - (i) Institute of Gas Engineers : IGE/SR/18 Edition 2 - 'Safe Working for The integrity of Pipelines, and Installations'.
 - (ii) Health and Safety Executive (HSE) : HS (G) 47 - 'Avoiding danger from underground services'.
 - (iii) National Grid Engineering Standard : SSW2 - Safe Working in The Vicinity of National Grid Transmission Pipelines and Associated Installations Operating at Pressures in Excess of 7 Bar'.
 - (iv) National Grid Cathodic Protection Standard ECP1.
6. The Contractor shall avoid the disturbance of Apparatus more than is absolutely necessary for the completion of the Works in accordance with the Contract. In particular 'Thrust Blocks' and other such supports shall NOT be disturbed without the specific written approval of the Company Representative. The Contractor should particularly note that large diameter Gas

pipelines may either be:-

- (a) Transmission pipelines frequently operating at pressures exceeding 7 bar.
- (b) low pressure local distribution mains.

For differing reasons either type poses a considerable hazard to safety if damaged. The Contractor shall also note that smaller Gas distribution pipes may be of yellow plastic, cast iron, steel or other such material and that unless specifically known to the contrary any such services encountered during the course of the Works should be assumed to be Gas pipelines and treated as such in accordance with these Special Requirements until positively identified otherwise and the Engineer so notified in writing.

- 7. No vehicle plant or machinery shall cross stand operate or travel within 3.0 m of any Apparatus particularly Gas pipelines except as approved by the Company Representative. The Contractor shall agree his methods of working near any Apparatus with the Company Representative and ensure that any Apparatus is adequately protected from damage by the use of wooden sleeper tracks or reinforced concrete rafts at crossing points as appropriate. Temporary fencing of adequate strength shall be erected to regulate the movement of vehicles plant and machinery in the vicinity of Apparatus. All such protective measures shall be to the satisfaction of the Company Representative.
- 8. Where for the purposes of completing the Works in accordance with the Contract it is necessary to lay a new service across an existing Gas pipeline whether above or below a minimum clearance of 0.6 m shall be left between the outside of the Gas pipeline and the new service to be installed. Under no circumstances shall a new service be laid parallel above or below a Gas pipeline. Hydraulic or other form of pressure testing of any new services shall not be permitted within 6.0 m of any Gas pipeline unless precautions have been taken involving the use of pre-installation tested pipeline having a design factor of 0.3 for a distance of 6.0 m either side of the Gas pipeline and/or such additional precautions including but not limited to sleeving barriers and the like as the Company Representative may require in consultation with the Engineer.
- 9. The Contractor shall particularly note that Gas pipelines and other Apparatus of the Company is usually cathodically protected to Company standard GBE/ECP1. The Company will require to carry out interaction tests to determine whether its own system will be adversely affected by any new service and/or its protective measures. Any work requiring the removal modification and or movement of Apparatus shall only be carried out by the staff of the Company and/or its authorised contractors and Agents. In the event that any cathodic protection posts and/or associated Apparatus require to be removed replaced and/or moved for the purposes of the Works the Contractor shall give not less than seven days written notice of the requirement to the Company.
- 10. When excavating or backfilling around Apparatus, the Company Representative shall be given not less than 3 days written notice, of the Contractor's intentions in order that he may supervise the works.
- 11. Backfilling shall be in 150 mm layers, or as may otherwise be directed, consolidated layer by layer to the satisfaction of the Company Representative. Fill shall be free from flints stones and carbonaceous material. Where slabbing reduces such depth clean sand filling shall be used.
- 12. All excavation adjacent to Apparatus is to be carried out by hand until the exact extent and/or location of Apparatus is known. The Contractor shall note the following:-
 - (1) Mechanical borers shall not be used within 5.0 m of Apparatus.
 - (2) Hand held power assisted tools shall not be used within 1.5 m of Apparatus without the supervisory presence of a Company Representative.

To prevent any movement of Apparatus during excavation, complete shuttering shall be used as

directed by the Engineer if:-

- (a) Excavation is deeper than the depth of cover of adjacent Apparatus.
- (b) Excavation is within 3.0 m of Apparatus in stable soil.
- (c) Excavation is within 6.0 m of Apparatus in unstable soil.

Where excavation results in the exposing of Gas pipelines or other Apparatus protective timber cladding shall be applied to the Gas Pipelines or Apparatus to the satisfaction of the Company Representative and shall be maintained until such excavation is reinstated and backfilled.

13. If for the completion of the Works the Contractor intends using any of the following:-

- (i) Pile driving equipment within 15.0 m of Apparatus (or such greater distance as may be required to ensure that the MAXIMUM peak particle velocity as measured at the Apparatus does NOT exceed 25 mm per second).
- (ii) Explosives within:-
 - (a) 400.0 m of exposed Apparatus
 - (b) 100.0 m of buried Apparatus
- (iii) Hot Works welding and the like within 15.0 m of Apparatus
- (iv) Hydraulic testing within 6.0 m of Apparatus

the Contractor shall advise the Company Representative, giving at least 7 days written notice, in order that any special protective measures for the Apparatus affected may be arranged. The Contractor SHALL NOT proceed with the use of any of the above without the written consent of the Company Representative.

- 14. All Apparatus manholes and/or other access points and chambers within the Site shall be kept clear and unobstructed. Access for vehicles, winches and/or any further equipment required by the Company for the maintenance of its Apparatus, shall be maintained at all reasonable times and unless otherwise agreed in writing by the Company representative a clearance of 6.0 m shall be allowed for such access.
- 15. The covers to Apparatus manholes and/or other access points and chambers shall only be lifted under the direct supervision of the Company Representative. No employee of the Contractor or of any sub-contractor employed by the Contractor shall enter any chamber and/or Apparatus of the Company unless under the supervision of the Company Representative and in any case not before a gas check as specified by the Company Representative has been carried out in the presence of the Company Representative and such checks have shown it to be safe to enter the Chamber and/or Apparatus. The Company Representative shall be given reasonable access to all Apparatus and chambers when required.
- 16. In the event of any damage whatsoever even of a minor nature to Apparatus particularly to Gas pipeline coatings and/or test leads the Contractor shall immediately inform the Engineer and report the occurrence by contacting the Company Representative. The Company Representative will arrange for repairs to be carried out.

EMERGENCY ACTION

- 17. The following actions shall be taken by the Contractor in the event of a gas leak in any Apparatus:-
 - (a) Evacuate all personnel from the vicinity of the pipeline damage or leak.
 - (b) Remove and/or extinguish all sources of ignition for a distance of at least 200 m in all directions from the location of the leak. This precaution shall include a ban on the use

of any electrical equipment falling within this limit.

- (c) IMMEDIATELY inform The Company the Engineer and (if required) the Emergency services in that order.

THE EMERGENCY TELEPHONE NUMBER OF THE COMPANY IS:-

0800 111 999

- (d) Secure the area from the approach of all employees' traffic and/or the general public.
- (e) Render every assistance to the Emergency Services and/or the Company as shall be requested for the purposes of mitigating damage arising from the leak and/or for the purposes of securing public safety.
- (f) DO NOT ATTEMPT TO SEAL ANY LEAK OF GAS AT THE POINT OF DAMAGE.

- 18. Compliance with the above requirements do not relieve the Contractor of any of his obligations under the Contract.

APPENDIX E: FORM OF PARENT COMPANY GUARANTEE

Not Used

APPENDIX F: TERMS AND CONDITIONS OF NOVATED CONTRACTS

Not Used

APPENDIX G: COLLATERAL WARRANTY AGREEMENT

Is the Subcontractors collateral warranty

Shrewsbury Integrated Transport Package: Pride Hill

CONTRACT DATA PART TWO

*DATA PROVIDED BY THE CONTRACTOR
in respect of the Institution of Civil Engineers'
Engineering and Construction Contract
(Third Edition April 2013)*

Tenderer's name

PART TWO: DATA PROVIDED BY THE *CONTRACTOR*

1. The *Contractor* is Name:
Address:
.....
2. The *direct fee percentage* is %
The *subcontracted fee percentage* is %
3. The *working areas* are the Site and
4. The key people are (CV's to be attached to this document):-

	<u>Clause</u>	<u>Name</u>
Contractor's Site Agent	24.1/ Z14.2
Contractor's Site Safety Officer	24.1/ Z14.3
Contractor's Quality Manager	24.1/ Z14.4	NOT USED
Contractor's General Foreman	24.1/ Z14.5
Contractor's Traffic Safety and Control Officer	24.1/ Z14.6
Contractor's Designer	24.1/ Z14.7
Contractor's Pedestrian Ambassadors	24.1/Z14.8
Contractor's Public Liaison Office	24.1/Z14.9
5. The following matters will be included in the Risk Register
6. The Works Information for the *Contractor's* design is in
7. The programme identified in the Contract Data is [see para 4 (a) of the Instructions for Tendering]
8. The *completion date* for the whole of the *works* is
9. The *bill of quantities* reference No. is
10. The tendered total of the Prices is
11. **Data for Shorter Schedule of Cost Components**
 - 11.1 The percentage for people overheads is %

11.2 The published list of Equipment is the last edition of the list published by

11.3 The percentage for adjustment for listed Equipment is % (state plus or minus)

11.4 The rates of other Equipment are:

<u>Equipment</u>	<u>Size or capacity</u>	<u>Rate</u>
.....
.....
.....
.....

11.5 The hourly rates for Defined Cost of design outside the Working Areas are:

<u>Category of employee</u>	<u>Hourly rate</u>
.....
.....

11.6 The percentage for design overheads is %

11.7 The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are

12. Names of proposed subcontractors, their experience and qualifications, and areas of work envisaged are given in Appendix A. (See clause Z15)

**APPENDIX A
NAMED SUBCONTRACTORS**

Qualifications and experience of proposed Subcontractors (See Clause Z15):

Area of Work	Name of Sub-contractor	Experience and Qualifications



Shrewsbury Integrated Transport Package: Pride Hill

Document Ref. 2

Specification

Specification
Preambles to the Bill of Quantities

PREAMBLE TO THE SPECIFICATION

1. The Specification referred to in the Tender shall be the 'Specification for Highway Works' published by the Stationery Office (formerly HMSO) as Volume 1 of the Manual of Contract Documents for Highway Works, as modified and extended by the following:
 - (i) Appendix 0/1: Contract-specific Additional, Substitute and Cancelled Clauses, Tables and Figures;
 - (ii) Appendix 0/2: Contract-specific minor alterations to existing Clauses, Tables and Figures;
 - (iii) The Numbered Appendices listed in Appendix 0/3;
 - (iv) Appendix 0/5: Special national alterations of the Overseeing Department of Scotland, Wales or Northern Ireland.
 - (v) **For the purpose of this Contract the Appendices are amended by replacing the word “Engineer” wherever it occurs with *Project Manager* and by replacing the word “plant” where it occurs with “equipment”.**

Appendix 0/4 contains a list of the Drawings.
2. The relevant publication dates of each page of the Specification for Highway Works is given in the Schedule of Pages and Relevant Publication Dates.
3. An Additional Clause as indicated by a suffix 'A' in Appendix 0/5 is an alteration originating from the Overseeing Department of Scotland, Wales or Northern Ireland. An Additional Clause as indicated by a suffix 'AR' in Appendix 0/1 is a Contract-specific alteration.
4. A Substitute Clause, as indicated by the suffix 'S' in Appendix 0/5 is an alteration originating from the Overseeing Department of Scotland, Wales or Northern Ireland. A Substitute Clause as indicated by a suffix 'SR' in Appendix 0/1 is a Contract-specific alteration.
5. A Cancelled Clause as indicated by a suffix 'C' in Appendix 0/5 is an alteration originating from the Overseeing Department of Scotland, Wales or Northern Ireland. A Cancelled Clause indicated by a suffix 'CR' in Appendix 0/1 is a Contract-specific alteration.
6. Insofar as any of the Numbered Appendices may conflict or be inconsistent with any provision of the Specification for Highway Works the Numbered Appendices shall always prevail. Additionally, Numbered Appendices 0/1 and 0/2 shall take precedence over Numbered Appendix 0/5.
7. Any reference in the Contract to a Clause number or Appendix shall be deemed to refer to the corresponding Substitute Clause number or Appendix listed in Appendix 0/1, 0/2 or 0/5.
8. Where a Clause is altered any original Table/Figure referred to in the Clause shall apply unless the Table/Figure is also altered. Where a Table/Figure is altered any reference in a Clause to the original Table/Figure shall apply to the altered Table/Figure.
9. Where a Clause in the Specification relates to work goods or materials which are not required for the Works it shall be deemed not to apply.
10. Any Appendix referred to in the Specification which is not used shall be deemed not to apply.
11. Where a Clause in the Specification or Notes for guidance on the specification is prefixed by a # this indicates that this particular Clause has a substitute National Alteration for one or more of the *Project Managers* of Scotland, Wales or Northern Ireland. Substitute or additional National Clauses shall be used within countries to which they specifically apply and they are deemed to replace corresponding Clauses in the main text of the Specification as appropriate. The substitute National Clauses are located at the end of the relevant Series together with the additional National Clauses of the *Project Managers*.
12. Other than where references to the *Project Manager* are made in the context of the *Project Manager* granting statutory or type acceptances, the roles and functions of the *Project Manager* shall be undertaken by the *Project Manager*.

Where the Specification requires the provision of documentation to the *Project Manager* for statutory or type acceptance such documentation shall be provided to the *Project Manager*.

13. (11/06) If the Specification is used in conjunction with a Contract under which the *Contractor* is responsible for the design of any part of the Permanent Works, the delegation of the roles and functions of the *Project Manager* as stated in paragraph 12 above shall be amended as follows:
 - (i) (11/06) If any agreement, consent or acceptance required to be obtained from the *Project Manager* impacts on health and safety of the general public, the environment or any property or equipment not owned or operated by the *Contractor*, such agreement, consent, acceptance shall be obtained from the *Project Manager*.
 - (ii) Where the Specification provides for the *Project Manager* to require a test, waive the requirement for a test or alter testing frequency, the party to whom the *Project Manager's* roles and functions have been ascribed by paragraph 12 above shall exercise such decisions in accordance with the *Employer's* requirements stated in the contract.
14. Where Standards and other documents are incorporated into the Contract by reference the respective edition used shall be that which is current on the Contract Reference Document Date February 2016 unless otherwise stated in the Specification.

Table 0/1 Schedule of Pages And Relevant Publication Dates

Series/Appendix	Page Number	Publication Date
000	1 to 3	
000	4 to 7F	
100	1 to 2, 4 to 9, 12 to 9F, WF1, N2 to N11F	
100	3, 10 to 11, N1	
200	1 to 3F	
300	1	
300	4	
300	2 to 3, 5 to 6F	
400	1 to 6, 8, 10 to 13F	
400	7, 9	
500	23 to 24, 26	
500	28F	
500	3, 22, N1F	
500	2, 5, 27	
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500	1, 4, 7 to 21	
600	1 to 77F, S1 to S4F, W1 to W4F, N1 to N5F	
700	1 to 36F, N1 to N6F	
800	1 to 31F	
900	2 to 5, 9 to 22, 24 to 26, 28 to 67F	
900	1, 6 to 8, S1F	
900	23, 27	
1000	1 to 45F	
1100	1, 4F	
1100	2, N1F	
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1200	2 to 3, W1F	
1200	1, 14 to 16F	
1200	4, 9 to 11, 13	
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2300	2 to 3F	
2400	1, 4, 7F	

Series/Appendix	Page Number	Publication Date
2400	2	
2400	3, 5 to 6	
2500	1	
2500	2, 8, 11F	
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2500	3 to 4	
2600	1	
2600	2 to 4	
2600	5	
2600	6	
2600	7F	
3000	1, 4 to 7, 10, 12 to 17, 19, 22 to 27F	
3000	20	
3000	2 to 3	
3000	8 to 9, 11 to 18, 21	
5000	1, 4 to 19F, S1F	
5000	2 to 3	
Appendix A	1 to 4F	
Appendix B	1 to 3F	
Appendix C	1 to 2F	
#Appendix D	1F	
Appendix D (NI)	N1F	
Appendix E	1F	
Appendix F	1 to 52F	
Appendix G	Not Used	
Appendix H	1	
Appendix H	2	
Appendix H	3	
Appendix H	4 to 9F	

APPENDIX 0/1**CONTRACT SPECIFIC ADDITIONAL, SUBSTITUTE AND CANCELLED CLAUSES, TABLES AND FIGURES INCLUDED IN THE CONTRACT****PART A: VOLUME 1 SPECIFICATION****List of Additional Clauses, Tables and Figures**

Clause No. (etc.)	Title	Written on Page No. following
171 AR	Precautions against Dust, Mud, Dirt and other Debris	6
173 AR	Limit of Vibration	6
174 AR	Publicity	7
176 AR	Health and Safety/Risk Assessment	8
177 AR	Method Statements	10
178 AR	IT Business support system	10
570 AR	Raising or Lowering Covers and Gratings on Chambers and Gullies	10
571 AR	Rebuilding of British Telecommunications frames and covers	10
670 AR	Requirements for Disposal	10
971 AR	Materials	10
6270 AR	Sign cleansing	13

List of Substitute Clauses, Tables and Figures

Clause No. (etc.)	Title	Written on Page No. following
903.21 SR	Placing and Compaction of Bituminous Mixtures - Joints	15

List of Cancelled Clauses, Tables and Figures

Clause No. (etc.)	Title	Written on Page No. following
	None	-

Additional Clauses Tables and Figures

Clause No	Title and Written Text
171 AR	<p>Precautions against Dust, Mud, Dirt and other Debris</p> <ol style="list-style-type: none">1. The Contractor shall take all reasonable steps to minimise nuisance caused by dust, mud, dirt and other debris during construction of the Works. Such measures shall include:-<ol style="list-style-type: none">(i) Dampening of surfaces of the source of such nuisance to prevent dusting at all times.2. All existing highways used by vehicles of the Contractor or any of his Subcontractors or suppliers of materials or plant and similarly any new or diversion ways which are part of the Works or in the vicinity of the Works shall be kept clean of all dust, mud, dirt and other debris. Any such matter spreading onto these areas shall be immediately cleared by the <i>Contractor</i> by manual sweeping or shovelling or by the use of mechanical sweeping and clearing equipment. Additionally, if so directed by the <i>Project Manager</i> such areas shall be thoroughly cleaned by hosing or watering.3. Access within, and to and from the Site across any public highway, diversion road or any other way used by public traffic shall be strictly limited as accepted by the <i>Project Manager</i>. Vehicles and plant shall enter onto such public traffic ways only after thorough cleaning.4. Where described in the contract the Contractor shall provide vehicle washing plants as part of the temporary accommodation for himself. Such washing plants shall be utilised for thoroughly cleaning all vehicles and plant prior to its entrance onto any public highway, diversion road or any other way used by public traffic.5. Each washing plant shall include hard standings and adequate drainage facilities and an accepted mechanical wheel washer. The wheel washers shall be connected to a mains water supply and discharge into a new or existing drainage system and shall be through traps and filters accepted by the Project Manager to prevent the entry of silt, clay, or any other contaminating material into the drainage system.6. The vehicle washing plants shall be sufficient in number and capacity at all times. Unless otherwise accepted by the <i>Project Manager</i>, they shall be installed immediately on occupation of the Site by the <i>Contractor</i> and utilised at all times.7. The <i>Contractor</i> shall keep the site clean and tidy by removing all rubbish from the site as work proceeds or as necessary and when required to do so by the <i>Project Manager</i>.8. Compliance with the foregoing shall not relieve the <i>Contractor</i> of any responsibility for complying with the requirements of the Highway Authority in respect of keeping roads clean.
173 AR	<p>Limitation of Vibration</p> <ol style="list-style-type: none">1. The <i>Contractor</i> shall take all steps necessary to limit vibration caused by plant and machinery used on the Site.2. No machine will be permitted which uses a system of dropping a heavy weight, whether power-assisted or by gravity, for the purpose of breaking up paving or foundations.

Publicity

1. The *Contractor* shall not give any information concerning the Works for publication in the press or on radio, television or screen or elsewhere without the written acceptance of the *Project Manager*.
2. All advertisements and *Contractors* or Subcontractors name boards to be erected within the Site by the *Contractor* or by any Subcontractor shall first be accepted by the *Project Manager*
3. All advertisements and *Contractors* or Subcontractors name boards within the site shall be removed within 28 days of the road opening to traffic.
4. The *Contractor* shall not take or cause to have taken any photographs of the works without the permission of the *Project Manager*. If such permission is given the *Contractor* shall supply to the *Project Manager*, free of charge, duplicate copies of all photographs taken by him and shall print on the reverse side of such photographs the date of the exposure, the section of the Works shown, any reference number and the place and address where the negative is kept.
5. The *Contractor* shall not use any photograph, whether those specified herein or not, for advertisement nor approve any publication in connection with the Works without the written agreement of the *Project Manager*.
6. Copyright of all photographs shall be vested in the *Employer* and the negatives shall be delivered to the *Project Manager* within one month of the date of the Certificate of Completion.

Clause No**Title and Written Text****176 AR****Health and Safety/Risk Assessment****1. Health and Safety**

Safe systems of work and method statements.

- 1.1 The *Contractor* is to submit to the *Employer* a copy of his company's Health and Safety Plan.
- 1.2 The *Contractor* is to appoint to the site a suitably qualified, specifically trained person to act as a safety *Supervisor*. This person is to be present on site:-
- (i) when certain operations are being carried out that can be considered to involve more risk or difficulty than normal (these to be agreed), to ensure that the *Contractor* adheres to the prepared Method Statement (See 3),
 - (ii) at other times as reasonably practised in his capacity as *Supervisor* or
 - (iii) when specifically requested by the *Project Manager*. When the safety *Supervisor* is away from the site a telephone contact number is to be given to the *Project Manager*.
- (a) Section 2(2) of the HSW Act requires the provision of safe systems of work and the preparation of method statements by the *Contractor* is generally considered to be an important step in complying with that obligation.
- (b) Additionally under the contract it will be a requirement that Method Statements will be submitted to the *Project Manager* by the *Contractor* to demonstrate his intentions in ensuring health and safety for certain agreed operations.
- These operations will be those involving a greater than normal risk or difficulty and will be identified and agreed between the *Project Manager* and *Contractor* as soon as possible after the award of the contract. The *Project Manager* may also request method statements from the *Contractor* for other site operations at any time during the contract.
- (c) The *Project Manager* may inform the *Contractor* in writing within a reasonable period after receipt of the method statement where it fails to comply with the HSW Act; the *Contractor* shall not unreasonably refuse to amend the method statement accordingly.
- (d) The *Contractor* shall not subsequently change the method statement without the prior knowledge and consent in writing of the *Project Manager* which shall not be unreasonably withheld.
- 1.4 The *Contractor* is invited to note the requirements stated in the Construction Regulations, General Provisions - C(GP)24 (Prevention of Drowning) and in HSE Guidance Notes GS29/1-4 (Demolition).
- 1.5 At all times, the 'standard' i.e. the *Contractor's* system of work complying with the HSW Act shall be considered to be the minimum to work from, not the standard to come up to.
- 1.6 The *Contractor* should also note the requirements laid out in Appendix 1/17 relating to Traffic Safety and Management.

Clause No**Title and Written Text**

Nothing in this Clause shall relieve the *Contractor* from his general obligations under the contract nor is it intended to relieve the *Contractor* or *Employer* from their obligations under general law.

2. Risk Assessment

- 2.1 The *Contractor* shall, before commencement of any work forming part of the contract, ensure that all works comprising the contract are assessed for their risks in accordance with the general requirements of the MANAGEMENT OF HEALTH AND SAFETY AT WORK REGULATIONS 1999.

Furthermore the *contractor* shall also ensure the safety of his employees and others who may be affected by his work activity by conducting risk assessment, as required by the following Health and Safety Regulations:-

- a) The Control of Substances Hazardous to Health Regulations 2002.
 - b) Manual Handling Operations Regulations 1992.
 - c) Health and Safety (Display Screen Equipment) Regulations 1992.
 - d) The Provision and Use of Work Equipment Regulations 1998.
 - e) Personal Protective Equipment at Work Regulations 1992.
 - f) The Control of Noise at Work Regulations 2005
 - g) Personal Protective Equipment Regulations 2002
 - h) Health and Safety (Miscellaneous Amendment) Regulations 2002
- 2.2 The *Contractor* shall, before the commencement of any works associated with the contract, provide to the *Project Manager*, copies of all risk assessments prepared in accordance with the requirements of the preceding paragraph of this clause if requested to do so.
- 2.3 Where throughout the duration of the contract, any of the risk assessments prepared in accordance with the requirements of this clause, are in any way modified or amended, the *Contractor* shall provide a copy of any such amendment or modification to the *Project Manager*.
- 2.4 The *Contractor* shall ensure that, prior to the commencement of any work on the part of any Subcontractor in relation to the contract, the Subcontractor carries out risk assessments in accordance with requirements of the aforementioned paragraph and submits the risk assessment to the *Contractor*. The *Contractor* shall ensure that any risk assessment submitted by a Subcontractor is sufficient to meet the requirements of the Regulations under which they are made and are in accordance with any assessments made by the *Contractor*.
- The *Contractor* shall provide to the *Project Manager* copies of all assessments provided by any Subcontractor.
- 2.5 The *Contractor* shall ensure that, prior to the commencement of any works associated with the contract, all information contained in the risk assessment is relayed to all workers who may be affected.

Furthermore the *Contractor* shall ensure that all risk assessments carried out by any Subcontractor shall be brought to the attention of workers who may be affected by any such risk assessment.

Clause No	Title and Written Text
2.6	Where the <i>Project Manager</i> is dissatisfied with the suitability or sufficiency of any risk assessment submitted by the <i>Contractor</i> , the <i>Contractor</i> shall revise the risk assessment and in doing so shall comply with any direction given by the <i>Project Manager</i> .
177AR	<p>Method Statements</p> <p>Method Statements shall be provided in accordance with Appendix 1/4</p>
178 AR	<p>IT Business Support System</p> <p>The Contractor will provide a business management support system to help manage the contract change process defined in these documents. The Contract Change management – NEC (CCM) system provided by Management Process Systems Ltd, or similar approved, will be used to fulfil this requirement. The Contractor will arrange and provide a minimum of 5 software licenses for use by the Project Manager from 6 weeks before the first access date until the final account has been agreed. The Project manager will provide his own hardware.</p>
570 AR	<p>Raising or Lowering Covers and Gratings on Chambers and Gullies</p> <p>All existing street furniture comprising manhole covers, gully gratings, and Statutory Authority box covers of any description shall, if necessary, be carefully taken up and re-laid to the appropriate levels to suit the new carriageway or verge surface levels. The method and material for adjustment shall be stated in Appendix 5/1.</p>
571 AR	<p>Rebuilding of British Telecommunications Frames and Covers</p> <p>This specification describes the method that shall be employed whenever there is a change in the level of, or replacement of, British Telecom's carriageway frames and covers to conform with the road surface level. The method and materials for adjustments shall be stated in Appendix 5/1.</p>
670 AR	<p>Requirements for Disposal</p> <p>Surplus materials are to be disposed of at licensed sites. Such waste disposal sites provided by the <i>Contractor</i> will require both planning permission and/or a site licence.</p> <p>The Duty of Care:- The disposal of all surplus materials must comply with the provisions of Section 34 of the Environmental Protection Act 1990. A Code of Practice relating to the Duty of Care is Available from Her Majesty's Stationery Office (ISBN: 011752557X).</p>
971 AR	<p>Materials</p> <p>1. Aggregate</p> <p>The coarse aggregate shall be material substantially retained on a 2mm test sieve, conforming to all appropriate requirements of BS EN 13043:2002 and consisting of either crushed rock or crushed gravel of one or more of the following groups: basalt, gabbro, granite, gritstone, hornfels, porphyry or quartzite.</p> <p>Unless otherwise specified in Appendix 7/1, the coarse aggregate shall have the following properties:</p> <ul style="list-style-type: none"> (i) The flakiness index for the coarse aggregates shall be FI₂₀; (ii) Resistance to Fragmentation – Category LA₃₀; (iii) Aggregate abrasion Value – for carriageway material, not more than 12, after reference to HD36/06 Table 3.2;

- (iv) Durability (Water Absorption) – Category WA₂₄ 2;
- (v) Polished Stone Value – the minimum PSV to be specified in Appendix 7/1 for carriageway surface course after reference to Table NG 971AR/1. Minimum PSV for all footway surface course material shall be 45.
- (vi) The fines content category for the coarse aggregate shall be f4;
- (vii) The resistance to surface abrasion for the coarse aggregate shall be AAV12.

The fine aggregate shall substantially pass a 2 mm test sieve and be a crushed material from either crushed rock or crushed gravel of one or more of the following groups: basalt, gabbro, granite, gritstone, hornfels, porphyry or quartzite.

2. Filler

- (i) Added filler shall only be crushed limestone or other approved material in accordance with the requirements of BS EN 13043, 5.2.1.
 - (ii) Hydrated lime may be added up to a maximum of 2% by mass of the aggregate.

3. Binder Grades

- (i) The binder shall be 75/130-75 polymer modified binder conforming to BS EN14023:2010. Compliance and test data for the binder proposed shall be included as part of the Type Approval Installation Trial (TAIT), Stage 1 requirements. The *Project Manager's* approval to use alternative materials needs to be sought on a scheme by scheme basis and should not be assumed.

4. Mixture

- (i) The target grading for the mixture shall fall within the limits given in PD 6691 Table D1 for 0/6, 0/10 and 0/14mm nominal aggregate sizes, unless agreed otherwise by the *Project Manager*. The manufacturer shall carry out initial type testing in accordance with EN 13108 – 20 to demonstrate conformity with EN 13108 – 5 and PD 6691, as amended below.

- (ii) Minimum binder contents (by mass of the total mixture) for each nominal aggregate size shall be:

0/14mm	B _{min} 6.3
0/10mm	B _{min} 6.7
0/6mm	B _{min} 7.1

- (iii) The SMA mixtures shall include a minimum fibre content of 0.3% (by mass of the total mixture). The average binder drainage category of a set of specimens tested in accordance with BS EN 12697-18:2004 (Clause 5) Schellenberg method shall be less than 0.3%.

- (iv) Void content of laboratory compacted specimens of the mixture at target composition prepared and tested as detailed in BS EN 13108-20:2006 (Annex C, Table C.1) shall fall within 3 to 4%. When tested in accordance with PD 6691 Table 4 but with the amendment that BS EN 12697-6 procedure C, sealed specimen shall be used to determine specimen bulk density.

- (v) The resistance to permanent deformation of samples at target composition taken in accordance with BS 594987:2007, Annex G, shall be determined in accordance

with BS EN12697-22:2003 using the small device and Procedure B in air at a test temperature of 60 °C. The results shall be recorded in the Producer's quality management system and reported as part of the TAIT procedures.

5. Compaction

- (i) The degree of compaction shall be assessed in accordance with Clause 903
- (ii) The laid thickness shall be within the range permitted in Table 971AR/1.

Mixture description	Thickness range (mm)	Minimum thickness (mm)
SMA 10	25 – 40	20
SMA 14	35 – 50	30

Table 971AR/1 Permitted laid thickness

6. Surface texture

- (i) Texture depth measurement shall be carried out in accordance with Clause 921. It shall be as specified in Appendix 7/1 but shall comply with Table 921AR/1.
- (ii) Grit, to be coated with 40/60 grade bitumen, shall be coarse aggregate mixture conforming sub-Clauses 971AR.2 and 971AR. It shall be machine applied as specified in Appendix 7/1 and/or Table 971AR/2.

Test Sieve	Proportion passing test sieve (% by mass)	
	2/4 particle size	1/2.8 particle size
8	-	-
6.3	100	-
4	90 – 100	100
2.8	-	90 – 100
2	0 – 25	-
1	-	0 – 25
0.63	0 – 2	0 – 2
Target binder content (%)	0.7 (+/- 0.5%)	1 (+/- 0.5%)
Machine application rate (kg/m ²)	1 – 5 (for SMA 14)	1 – 1.25 (for SMA 6 and SMA 10)

Table 971AR/2 Composition of grit mixture

- (i) The grit shall be applied from hoppers attached to a roller after the asphalt has been laid and after the initial compaction by roller. The rolling pattern shall, as far as practicable, provide a single application of grit to the full width with no overlap. When the material has reached ambient temperature, any surplus grit shall be removed

Project Manager's approval and submit Health and Safety Data Sheets before commencing work.

6. The surface of the sign shall first be flushed with clean water to remove loose dirt, then washed using a soft brush with a suitable mild detergent or cleaning agent, as listed in Appendix 62/70AR. The sign shall be washed thoroughly from the top downwards and the abrading of the surface by unnecessary scrubbing shall be avoided. Once suds have been applied, a steady stream of clean water shall be kept flowing on the sign face or bollard to wash away dirt particles. The entire sign face shall be rinsed with clean water from the top down and allowed to dry.

Substitute Clauses, Tables and Figures

Clause No.	Title and Written Text
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903.21SR	Placing and Compaction of Bituminous Mixtures
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For new pavement construction, all longitudinal joints in all layers shall be situated outside wheel-track zones. Where an existing road pavement is resurfaced, joints in the surface course shall coincide with either the lane edge, the lane marking, or the middle of a traffic lane, whichever is appropriate. Joints shall not coincide with the wheel path. For the purposes of this Clause, the wheel-track zones shall be taken to be between 0.5 m and 1.1 m and between 2.55 m and 3.15 m from the centre of the nearside lane markings for each traffic lane (or, in the absence of lane markings, lane edges). All joints shall be offset at least 300 mm from parallel joints in the layer beneath.

PART B: VOLUME 2 NOTES FOR GUIDANCE ON THE SPECIFICATION FOR HIGHWAY WORKS

List of Additional Clauses, Tables and Figures

Clause No.	Title	Written on Page No. following
None	-	-

List of Substitute Clauses, Tables and Figures

Clause No.	Title	Written on Page No. following
None	-	

List of Cancelled Clauses, Tables and Figures

Clause No.	Title
None	-

Additional Clauses, Tables and Figures

Clause No.	Title
None	-

Substitute Clauses, Tables and Figures

Clause No.	Title
None	-

APPENDIX 0/2

Contract-specific minor alterations to existing clauses and tables and figures included in the contract

Part A: Volume 1 Specification

Clause No. (etc.)	Alterations to be made
507.16	<p>Add to paragraph 16–</p> <p>Frames for chamber covers and gully gratings in the carriageway PCC Risers and PCC cover slabs shall be set upon material that has the following properties:</p> <ul style="list-style-type: none">• The material should be a BBA/HAPAS approved polyester resin system.• The material should have a set time of 15 minutes• The compressive strength of the material should exceed 60N/mm² in 1 hour.• The tensile strength of the material should exceed 8N/mm² in 1 hour.• Notwithstanding the above requirements, the use of proprietary bedding components to different specifications may be accepted subject to appropriate certification and acceptance from the <i>Project Manager</i>.

901 Bituminous Base, Binder Course and Surfacing Materials

901.3	<p>Aggregates for Bituminous Mixtures</p> <p>After BS EN 13043, add</p> <p>The coarse aggregate shall be crushed rock or slag – flint gravel is not acceptable. If more than one type of stone or slag is used in any mixture, then acceptance must be obtained for each of the types proposed and the proportions to be used. In carriageway Surface Course materials, limestone will not be permitted as the coarse aggregate in any material nor the fine aggregate in any 6mm Dense Surface Course, Stone Mastic Asphalt or Thin Surface Course materials.</p>
901.15	<p>This sub-clause to be numbered (i)</p> <p>Add the following sub clauses:</p> <ul style="list-style-type: none">(ii) No fluxing or volatile oils shall be used in the manufacture of any permanent bituminous material unless specified by the <i>Project Manager</i> in writing,(iii) For all Surface Course materials except Hot Rolled Asphalt where the coarse aggregate is quartzite, basalt, or any other igneous rock, the binder shall include an adhesion agent, cement preferred.

903 Placing and Compacting of Bituminous Mixtures

903.27	<p>In sub clause (i) delete reference to PSV50 and replace with PSV55.</p> <p>Add the following sub-clauses after 903.28., 903.29</p> <ul style="list-style-type: none">(i) At the end of the carpet and across side roads, transverse joints shall be made by letting into the surface. The change in gradient in the finished transition length shall not exceed 1 in 50 unless by so doing a smoother transition can be achieved.
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- (ii) The *Contractor* shall make provision for making safe in suitable material, the run-on and run-off and any raised longitudinal joint or projecting ironwork at the end of each day's work and shall remove such material prior to continuing the surface operations unless otherwise agreed by the *Project Manager*. Signing shall be in accordance with the requirements of Appendix 1/17.

Where trafficking of the binder course is anticipated to extend beyond 3 weeks, a suitable HSC asphalt, as detailed in Appendix 7/1, shall be substituted. Any variation in thickness will be compensated by additional thickness of the base material. A temporary speed limit of 30 mph or less shall apply if necessary.

920 Bond Coats, Tack Coats and Other Bituminous Sprays

920.2 Delete paragraph 2 and insert –

Bond coats shall be applied to all surfaces to be overlaid with SMA surface course and between base and binder course layers. The bond coat shall be premium grade and have proven low tack properties, so as to not adhere to the tyres of the paver, delivery vehicles, etc.. Bond coats shall have a British Board of Agrément HAPAS Roads and Bridges Certificate. In the event that no such certificates have been issued, they shall not be used without the acceptance of the *Project Manager*.

1000 Road Pavements – Concrete and cement bound materials.

Where clauses 1000-1048 relates to 7/ 1, substitute for 11/1.

Part B: Volume 2 Notes for Guidance on the specification for highway works

Clause No. (etc.)	Alterations to be made
	None

APPENDIX 0/3

List of numbered appendices referred to in the Specification and included in the contract

Appendix 0/3 is comprised of two lists, A and B, of Numbered Appendices as follows:

List 'A' is a complete list of the Numbered Appendices referred to in the Specification for Highway Works with those not adopted marked 'Not Used'. Those identified by the letters T or C shall be completed by the Tenderer or *Contractor* respectively.

List 'B' gives the list of Contract-specific Numbered Appendices devised for the Contract.

List 'A': Contract Specific Numbered Appendices Referred to in the Specification for Highway Works and Included in the Contract

Guide to types of Numbered Appendices - who compiles/completes

Symbol

- (Co) Compiler compiles: Identified in the Notes for Guidance examples by the term 'Sample' included in their title
- (Co/C) Compiler partially compiles and *Contractor* completes and returns to *Project Manager*
- (Co/T) Compiler partially compiles and Tenderer completes and returns with Tender
- (C) *Contractor* completes and returns to *Project Manager*
- (P) This indicates the Appendix is a national proforma and format must not be altered

Completed by	Appendix No.	Title
(Co)	0/1	INTRODUCTION Contract-specific Additional, Substitute and Cancelled Clauses and Tables and Figures Included in the Contract
(Co)	0/2	Contract-specific Minor Alterations to Existing Clauses and Tables and Figures Included in the Contract
(Co)	0/3	List of Numbered Appendices Referred to in the Specification and Included in the Contract
(Co)	0/4	List of Drawings Included in the Contract
Not used	0/5	Special National Alterations of the Overseeing Department of Scotland, Wales or Northern Ireland
(Co)	1/1	PRELIMINARIES Temporary Accommodation and Equipment for the <i>Project Manager</i>
Not used	1/2	Vehicles for the <i>Project Manager</i>
Not used	1/3	Radio Communication System for the <i>Project Manager</i>
(Co)	1/4	Working and Fabrication Drawings
(Co)	1/5	Testing to be Carried out by the <i>Contractor</i>
Not used	1/6	Supply and Delivery of Samples to the <i>Project Manager</i>
(Co)	1/7	Site Extent and Limitations on Use
Not used	1/8	Operatives for the <i>Project Manager</i>
(Co)	1/9	Control of Noise and Vibration
(Co)	1/10	Permanent Works to be Designed by the <i>Contractor</i>
Not used	1/11	Temporary Works Design
(Co)	1/12	Setting Out and Existing Ground Levels

Completed by	Appendix No.	Title
(Co)	1/13	Programme of Works
(Co)	1/14	Payment Applications
(Co)	1/15	Accommodation Works
(Co)	1/16	Privately and Publicly Owned Services and Supplies
(Co)	1/17	Traffic Safety and Management
Not used	1/18	Temporary Highways for Traffic
(Co)	1/19	Routeing of Vehicles
Not used	1/20	Recovery Vehicles and Operation for Breakdowns
(Co)	1/21	Information Boards
(Co)	1/22	Progress Photographs
(Co)	1/23	Risks to Health and Safety
Not used	1/24	Quality Management System
Not used	1/25	Temporary Closed Circuit Television (CCTV) System for the Monitoring of Traffic
Not used	1/27	Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Road Works (TASCAR)
Not used	2/1	SITE CLEARANCE List of Buildings, etc. to be Demolished or Partially Demolished
(Co)	2/2	Filling of Trenches and Pipes
(Co)	2/3	Retention of Material Arising from Site Clearance
Not Used	2/4	Explosives and Blasting
(Co)	2/5	Hazardous Materials
Not used	2/6	Site clearance environmental requirements
Not used	3/1	FENCING Fencing, Gates and Stiles
Not used	4	ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)
(Co)	5/1	DRAINAGE AND SERVICE DUCTS Drainage Requirements
Not Used	5/2	Service Duct Requirements
Not used	5/3	Surface Water Channels and Drainage Channel Blocks
Not used	5/4	Fin Drains and Narrow Filter Drains
Not used	5/5	Combined Drainage and Kerb Systems
(Co)	5/6	Linear Drainage Channel Systems
(Co)	5/7	Thermoplastics Structural Wall Pipes and Fittings
(Co)	6/1	EARTHWORKS Requirements for Acceptability and Testing etc. of Earthworks Materials
(Co)	6/2	Requirements for Dealing with Class U1B and Class U2 Unacceptable Materials
Not used	6/3	Requirements for Excavation, Deposition, Compaction (Other than Dynamic Compaction)
Not used	6/4	Requirements for Class 3 Material
Not Used	6/5	Geotextiles Used to Separate Earthworks Materials
Not used	6/6	Fill to Structures and Fill Above Structural Foundations

Completed by	Appendix No.	Title
Not used	6/7	Sub-formation and Capping and Preparation and Surface Treatment of Formation
Not used	6/8	Top soiling
Not used	6/9	Earthwork Environmental Bunds, Landscape Areas, Strengthened Embankments
Not used	6/10	Ground Anchorages, Crib Walling and Gabions
Not used	6/11	Swallow Holes and Other Naturally Occurring Cavities and Disused Mine Workings
Not used	6/12	Instrumentation and Monitoring
Not used	6/13	Ground Improvement
Not used	6/14	Limiting Values for Pollution of Controlled Waters (11/06)
Not used	6/15	Limiting Values for Harm to Human Health and the Environment (11/04)
ROAD PAVEMENTS - GENERAL		
(Co)	7/1	Permitted Pavement Options
(Co)	7/2	Excavation, Trimming and Reinstatement of Existing Surfaces
Not used	7/3	Surface Dressing – Performance Specification (Sheets 1, 2 and 3)
(Co)	7/4	Bond Coats, Tack Coats and Other Bituminous Sprays (Sheets 1, 2 and Binder Data Sheet)
Not used	7/5	In Situ Recycling: The Remix and Repave Process
Not used	7/6	Breaking Up or Perforation of Existing Pavement
Not used	7/7	Slurry Surfacing Incorporating Micro surfacing (Sheets 1, 2 and 3)
Not used	7/8	Not Used
(Co)	7/9	Cold-Milling (Planing) of Bituminous Bound Flexible Pavement
Not used	7/10	Not Used
Not Used	7/11	Overband and Inlaid Crack Sealing Systems
Not used	7/12	Arrester Beds
Not used	7/13	Saw-Cut Crack and Seal Bituminous Overlays on Existing Jointed Concrete Pavements
Not used	7/14	Preparation of Jointed Concrete Pavements Prior to Overlaying and Saw-Cutting and Seal of Bituminous Overlay
Not used	7/15	Saw-Cut, Crack and Seal Existing Jointed Reinforced Concrete Pavements
Not used	7/16	Cracking and Sealing of Existing Jointed Unreinforced Concrete Pavements and CBM Bases
Not used	7/17	Cracking Plant and Equipment Progress Record
Not used	7/18	Site Specific Details and Requirements for Cold Recycled Bitumen Bound Material
Not used	7/19	Site Specific Details and Requirements for Recycled Cement Bound Material
Not used	7/20	Not Used
Not used	7/21	Surface Dressing – Recipe Specification (Sheets 1 & 2 and Binder Data Sheet)
Not used	7/22	Repairs to Potholes
ROAD PAVEMENTS – CONCRETE AND CEMENT BOUND MATERIALS		
(Co)	10/1	Plant and equipment for the construction of exposed aggregate concrete surface.
KERBS, FOOTWAYS AND PAVED AREAS		
(Co)	11/1	Kerbs, Footways and Paved Areas
Not used	11/2	Access Steps

Completed by	Appendix No.	Title
(Co) Not Used (Co) Not used Not used Not used	12/1 12/2 12/3 12/4 12/5 12/6	TRAFFIC SIGNS Traffic Signs: General Traffic Signs: Marker Posts Traffic Signs: Road Markings and Studs Traffic Signs: Cones, Cylinders, FTD's and Other Traffic Delineators Traffic Signs: Traffic Signals Traffic Signs: Special Sign Requirements on Gantries
(Co) (Co) (Co) Not used Not used Not used Not used Not used Not used	13/1 13/2 13/3 13/4 13/5 13/6 13/7 13/8 13/9	ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS Information to be Provided When Specifying Lighting Columns and Brackets (Specification for Highway Works) Typical Lighting Column and Bracket Data Sheets 1 and 2 Instructions for Completion of Lighting Column and Bracket Data Sheets Information to be Provided When Specifying CCTV Masts (Specification for Highway Works) Typical CCTV Mast Data Sheet Instructions for Completion of CCTV Mast Sheets Information to be Provided When Specifying Cantilever Masts (Specification for Highway Works) Typical Cantilever Masts Data Sheets 1 and 2 Instructions for Completion of Cantilever Masts Data Sheets
(Co) (Co) (Co) (Co) (Co)	14/1 14/2 14/3 14/4 14/5	ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS Site records Location of lighting units and feeder pillars Temporary lighting Electrical equipment for road lighting Electrical equipment for traffic signs
Not used	15	MOTORWAY COMMUNICATIONS
Not used	16	PILING AND EMBEDDED RETAINING WALLS
(Co) Not Used (Co) Not used Not Used Not Used Not Used	17/1 17/2 17/3 17/4 17/5 17/6 17/7	STRUCTURAL CONCRETE Schedule for the Specification of Designed Concrete Not Used Concrete – Surface Finishes Concrete – General Buried Concrete Grouting and Duct Systems for Post-tensioned Tendons Precast Concrete Elements
Not used	18	STRUCTURAL STEELWORK
(Co)	19/1	PROTECTION OF STEELWORK AGAINST CORROSION (Specification for highway works) Sheet 1 form HA/P1 (NEW WORKS) Paint system sheet

Completed by	Appendix No.	Title
Not Used	20/1	WATERPROOFING FOR STRUCTURES Waterproofing for concrete Structures
Not used	21	BRIDGE BEARINGS
Not Used Not Used	23/1 23/2	BRIDGE EXPANSION JOINTS AND SEALING OF GAPS Bridge Deck Expansion Joint Schedule Sealing of Gaps Schedule (Other than Bridge Deck Expansion Joints)
Not used	24/1	BRICKWORK, BLOCKWORK AND STONWORK Brickwork, Blockwork and Stonework
Not used	25	SPECIAL STRUCTURES
Not used	26	MISCELLANEOUS
Not used Not used Not used Not used Not used Not used	30/1 30/2 30/3 30/4 30/5 30/6	LANDSCAPE AND ECOLOGY General: Sheets 1, 2 and 3 Weed Control Control of Rabbits and Deer Ground Preparation Grass Seeding, Wildflower Seeding and Turfing Planting, sheets 1 and 2
Not used Not used Not used (Co) Not used Not used	30/7 30/8 30/9 30/10 30/11 30/12	Grass, bulbs and Wildflower Maintenance Watering Establishment Maintenance for Planting Maintenance of Established Trees and Shrubs Management of Waterbodies Special Ecological Measures
Not used	50	MAINTENANCE PAINTING OF STEELWORK

List 'B' : List of Numbered Appendices Devised for the Contract

Appendix No.	Title
62/70AR 11/3AR	Sign cleaning Street Furniture

APPENDIX 0/4 A

List of drawings included in the contract

1. Contract-specific Drawings Supplied to Each Tenderer

Drawing No.	Title
SD-100-01	Standard Detail Information Board (Ref ST1)
TFX MC1213 001	High Street, Shrewsbury – Road closure
TFX MC1213 002 (Rev A)	Castle Street, Shrewsbury- Road closure
1070997-T-06-101	Pride Hill Location Plan
1070997-T-06-102	Proposed General Arrangement
1070997-T-06-105	Land Boundary Plan
1070997-06-T-201	Site Clearance
1070997-06-T-202	Street Lighting Site Clearance
1070997-T-06-500	Drainage Plan
1070997-T-06-501	Chamber details
1070997-T-06-502	Long Section - RHS channel
1070997-T-06-503	Long Section - LHS channel
1070997-T-06-504	CCTV and ironwork
1070997-T-06-701	Proposed Contours
1070997-T-06-702	Proposed String Labels
1070997-T-06-703	Cross Sections (Sheet 1 of 4)
1070997-T-06-704	Cross Sections (Sheet 2 of 4)
1070997-T-06-705	Cross Sections (Sheet 3 of 4)
1070997-T-06-706	Cross Sections (Sheet 4 of 4)
1070997-T-06-1101	Kerbs, Footways and Paved Areas
1070997-T-06-1102	Pavement Construction Details
1070997-T-06-1103	Paving Concrete Foundation Layout
1070997-T-06-1104	Kerb, Edging and Tie-in Details
1070997-T-06-1105	Typical Paving Cross Sections
1070997-T-06-1106	Indicative Paving Finishes 1 of 5
1070997-T-06-1107	Indicative Paving Finishes 2 of 5
1070997-T-06-1108	Indicative Paving Finishes 3 of 5
1070997-T-06-1109	Indicative Paving Finishes 4 of 5
1070997-T-06-1110	Indicative Paving Finishes 5 of 5
1070997-T-06-1111	Street Furniture
TEL-B657-10-002	Wayfinding Totem Foundation
1070997-T-06-1201	Proposed Sign Locations
1070997-T-06-1202	Proposed Sign Schedule

1070997-T-06-1301

Proposed Street Lighting

1070997-T-06-1401

Proposed Electrical Work

Utility Drawings

All utility drawings are contained within the Pre Construction Information, refer to Appendix D containing drawing number 1070997-T-06-103 and 1070997-T-06-104.

APPENDIX 1/1

Temporary Accommodation and Equipment for the *Project Manager*

- 1 The *Contractor* shall make his own arrangements for the location of the site compound, stores and offices.
- 2 **All Sanitary facilities and storage compounds for the Principal Contractor and Supervisory staff shall be in place and ready for use by the Access Date for each site.**
- 3 The *Contractor* shall provide an office for the *Project Manager* from the Access Date and for the duration of the contract. This may be a separate building or a separate room within the *Contractor's* office. The following is required for the *Project Manager*:-
 - a Furnishings
 - 2No. Desk or table
 - 2No. Office chairs
 - 1No. First Aid Cabinet to Statutory requirements (Contents to be replaced as necessary by the *Contractor*)
 - 1No. Coat hooks for three persons
 - b Kitchen Area
 - 240V Electricity Supply
 - Adequate heating and lighting
 - Sink with hot and cold running water
 - Potable water supply
 - Microwave Oven
 - 240V Kettle
 - Washing up requirements i.e. tea towels and washing up liquid
 - Continuing supply of tea, coffee, milk, sugar and biscuits for contract meetings
 - 1No. Cutlery Canteen containing six full settings
 - 6No. Mugs, plates, cups and saucers
 - c Washroom Facilities

Both ladies and gents toilets are to be provided. All sanitary fittings are to be installed complete with services, taps, flushing cisterns, sparge pipes, wastes, overflows etc as required and the *Contractor* is to make all arrangements for and provide a hot and cold running water supply
 - d Communication
 - 1No. smart phone for the sole use of the *Project Manager*. It shall be Supplied from 1 week prior to the Access Date to one week following the Completion Date. Additional credit to be provided by the Principal Contractor as required. The phone shall have the capacity to take photographs with a storage capacity by SD or micro SD memory card of 4GB. The phone should have access to the internet via 3G/4G signal. **The provider should provide the best signal for the Pride Hill site.**
 - e IT Business Support System
 - In accordance with clause 178AR
 - 1No. A3 colour printer
- 5 The *Contractor* shall permit anyone employed by the *Employer* in connection with this contract to share his welfare facilities and accommodation.

APPENDIX 1/4

Working and Fabrication Drawings

1.4.1 The following drawings shall be supplied by the *Contractor* in accordance with sub-Clause 104.25

Series	Description of Work	Minimum Period for Submission of Drawings
100	Traffic and pedestrian management	2 weeks before access date

1.4.2 Any drawings, calculations or other information required elsewhere in the Contract documents shall also be supplied by the *Contractor* at their own expense.

1.4.3 The following method statements shall be supplied by the *Contractor*.

Description of Work	Minimum Period for Submission of Method Statement
Site establishment, site safety and site security	2 weeks prior to access date
Traffic management	2 weeks prior to access date
Access and routeing of vehicles	2 weeks prior to access date
Excavation and temporary works	2 weeks prior to proposed activity start
Night Working	2 weeks prior to proposed activity start

1.4.4 One copy of each method statement shall be provided to the *Project Manager* for their comment within the timescale stated. Provision of these method statements does not relieve the *contractor* of any of their obligations under the contract or the CDM Regulations.

1.4.5 The above lists are not necessarily exhaustive.

APPENDIX 1/5

Testing to be carried out by the *Contractor*

1. The *Contractor* is to carry out all testing as required under the Specification, as specified in the following table, unless included within Appendix 1/6.
2. All costs for samples, sampling, testing and supplying the test results to the *Project Manager* shall be included in the rates and prices entered in the Bill of Quantities.
3. Notes:
 - a. Tests comparable to those specified in this Appendix will be necessary for any equivalent work, goods or material proposed by the *Contractor*.
 - b. (N) indicates that a UKAS test report or certificate is required.
 - c. Unless otherwise shown in this Appendix tests for works, goods or materials as scheduled under any one Clause for all such work, goods or materials for the works.
 - d. Cube strength tests are not required for concrete complying with Clause 2602.
 - e. All test results shall be presented in accordance with the relevant testing standard and shall incorporate the following information:
 - i. Specimen reference;
 - ii. Material brief description;
 - iii. Manufacturer's supplier names or origin as appropriate;
 - iv. Batch reference number (proprietary material only);
 - v. Quality of material;
 - vi. Location of material in works;
 - vii. Date sampled, by whom and method used;
 - viii. Date(s) tested;
 - ix. Results of all tests
 - f. When appropriate, samples shall be taken in sufficient time to allow testing to be completed and the *Project Manager's* acceptance obtained before the material is used in the works.
 - g. The *Contractor* shall provide at his own cost all samples required for testing;
 - h. Test results where tests to be carried out by the *Contractor* or his suppliers shall be passed to the *Project Manager* with 24 hours of the completion of each test.
 - i. Nothing in this Appendix shall relieve the *Contractor* of his responsibilities for the works under the Contract.

Clause	Work, Goods or Material	Test	Frequency of Testing	Test Certificate	Comments
Series 500					
501	Pipes for drainage and service ducts				Product certification scheme applies
	Vitrified clay	[See note 1]			
	Concrete -PC/SRC	not exceeding 900 mm dia	[See note 1]	[See Note 2]	
	Concrete - Pre-stressed				
	Iron- cast				
	Iron-ductile			[See Note 2]	
	PVC-U				
	GRP				
	Plastics. See Table 5/1				
	Corrugated steel	(Manufacturer's tests)		Required (AASHTO)	
	Corrugated steel Bitumen protection	Not exceeding 900m m dia			
	Other materials			required	BBA certification (or equivalent) applies
503	Pipe bedding	Grading and fines content	1 per week (min of 3)	Required	
		Water-soluble sulphate (WS) content (N)	5 per source		
		Oxidisable sulphides (OS) content and total potentia 1 sulphate (TPS) content (N)	5 per source		
		Resistance to fragmentation (N)	1 per source		
508	Gullies and pipe junction				Product certification scheme applies
		Precast concrete			
		Clay			
		Cast iron and steel			
509	Watertightness of joints	Air test	All pipelines with watertight joints	Required	
Series 600					

Clause	Work, Goods or Material	Test	Frequency of Testing	Test Certificate	Comments
		Permeability			
		Pore Size			
612	Compaction of granular fill	Field intact dry density & moisture content		Required	Test in Accordance with BS 1377-9
612	CBR testing of existing sub-grade materials	Subgrade surface modulus	Refer to Appendix 6/1.	Required	Test in Accordance with BS 1377-9
Series 700					
702.5 to 702.9	Surface Regularity	Rolling Straight Edge		Required	
Series 900					
903	Compaction Control	Air Void Content	BS 594987 Cl 9.5.1.2	Required	Refer to 970 AR
906	Bituminous Mixtures	Grading (N) Binder Content	1 per 100 tonnes or part thereof Surface Course 1 per 150 tonnes or part thereof Base and Binder Course/Regulating	Required	<i>Contractor</i> to sample materials on site to ensure conformity with Specification
921	Surface Macrotexture	Volumetric Patch Technique (N)	BS EN 13036-1 BS 594987 Cl 8	Required	<i>Contractor</i> to measure texture depths within 24 hours of laying surface course, to ensure conformity with specification
Series 1200					
1202	Permanent traffic signs			Required <i>(Where considered appropriate)</i>	Quality management scheme applies. Certification that the traffic sign is capable of passing the tests in BS873: Part 1 is required.
1212	Road marking				National Quality management sector scheme applies. procedures are given in BSEN
Series 1300					

Clause	Work, Goods or Material	Test	Frequency of Testing	Test Certificate	Comments
1306	Anchorage in drilled holes to wall brackets, columns and most with flange plates	Loading test on site	Upon completion of installation	Required	
Series 1400					
1424	Lighting units, lit signs, bollard, feeder pillars and all associated interconnected wiring.	Tests specified in clause 1424	Each unit	Required	Product certification scheme applies. Certification that the installation complies with BS7671 is required.
Series 1700					
1702 1704	Cement types as stated in sub-Clause 1702.1			Required	Certificate to be provided monthly for each type of cement. Quality management and product certification schemes apply.
	Cement (all types)	Chloride content	Monthly		Tests to be carried out by the manufacturer and results included on the test certificates required above
	Pulverised-fuel ash	Sulphate content	Monthly		
	Ground granulated blast furnace slag	Acid-soluble alkali content	Daily (PC) Weekly (Pfa ggbs)		
	Aggregates	Grading and fines content	1 per week (per source)		Results of routine control tests from the factory production control system operated by the producer to be Provided – see Annex H of BS EN 12620. Product certification scheme applies
		Shell content (N)	Monthly		
		Flakiness index (N)	Monthly*		
		Resistance to fragmentation (N)	Every 6 months		
		Drying shrinkage (N)	1 per 5 years		
		Chloride content (N)	1 per week or as otherwise agreed		
		Sulphate content (N)	Yearly		
	Blast furnace slag	Bulk density (N)	Every 6 months		
		Stability (N)	Every 6 months		

Clause	Work, Goods or Material	Test	Frequency of Testing	Test Certificate	Comments	
		Sulphur content (N)	Every 6 months			
	Water	Tests specified in BS EN 1008 Chloride content Sulphate content Acid soluble alkali content	As required Monthly Monthly Weekly			
	Admixtures	Chloride content	1 per consignment	Required (BS 934-2)		
		Sulphate content	1 per consignment	Required		
		Acid soluble alkali content	1 per consignment			
	1707	Concrete	Cube strength (N)	Prestressed concrete - two cubes from 12 m³ or 2 batches whichever represents the lesser volume.	Required	Contractor to cast and test sufficient additional cubes to demonstrate cube strength before transfer.
Reinforced concrete - 4 cubes from 6 m³ or 2 batches whichever represents the lesser volume						
Mass concrete - two cubes from 50 m³ or 50 batches whichever represents the lesser volume.						
Additional cubes for special purposes.						
Cube strength-identity testing as described in Appendix 17/4 (N)			2 cubes from each of two samples of each batch.			
Density			As required			
Modules of elasticity						
Fresh concrete			Consistence (slump or compacting factor or Vebe) (N)	Each batch		Required
		Air content	Each batch			
		Cement content	As required			
		Water/cement ratio				
1709		Silane			Required for each delivery	Certification that the silane complies with Clause 1709 is required
			Refractive Index	Three samples		
			Trial panels, where required in the Contract			

Clause	Work, Goods or Material	Test	Frequency of Testing	Test Certificate	Comments
1710	Concrete packing Mortar packing Epoxy resin bonding agent				(appropriate tests/samples should be scheduled)
	Precast concrete manufactured off site	Cube strength (Manufacturer's tests)			<i>Contractor</i> to make available records of tests by the manufacturer
1711	Grouting and Duct Systems for Post-tensioned tendons				CARES scheme for Supply and Installation of Post-tensioned Systems in Concrete Structures or an equivalent scheme is required. Quality management and product certification schemes for cement apply.
		Full scale trials, where required in the Contract			See sub-Clause 1711.1 and Appendix 17/6
		Air pressure tests			See sub-Clause 1711.1 and Appendix 17/6
		Duct assembly verification tests			See sub-Clause 1711.3 and Appendix 17/6
		Wall thickness of ducts after tensioning			See sub-Clause 1711.3 and Appendix 17/6. <i>Contractor</i> should provide evidence of testing.
		Fluidity	See Table 17/14		See sub-Clause 1711.8 and sub-Clause 1711.9 and Table 17/15
		Bleeding			
		Volume change			
		Cube strength			
		Sieve			
		Sedimentation			

Clause	Work, Goods or Material		Test	Frequency of Testing	Test Certificate	Comments
		Admixtures			Required	Quality management and product certification schemes apply. Data on their suitability, including previous experience should be made available. See Sub-Clause 1711.10
1712	Reinforcement					Product certification scheme applies
	Steel Bars				Required (BS 4449)	
	Steel wire				Required (BS 4482)	
	Steel fabric				Required (BS 4483)	
	Stainless steel				Required (BS 6744)	
Series 1900						
1903	Abrasives		Grading	To be agreed with the <i>Project Manager</i>		
			Hardness			
1911	Paints					
	A and B Samples		Specific Gravity	Refer to clause 1911	Required	Samples will be selected in accordance with 1911 and 1911SE
			Colour Match			
			Composition			
			Application characteristics			

APPENDIX 1/7

Site Extent and Limitation on use

1. Extent of the Sites

- a) The locations of the Scheme site and indicative compound area are indicated on the works information drawing listed within Appendix 0/4.

The indicated compound area sited near Abbey Foregate, Shrewsbury has an approximate area of 750m² and has previously been used in other recent town centre projects.

The indicated compound area is situated outside Shrewsbury's flood plain extents which may influence other site locations.

The carpark is owned by Shropshire Council and has an indicative weekly cost of around £225.00.

It is recommended the successful *Contractor* should contact Shropshire Council at their earliest possibility if the above site is best suited for the purpose the scheme.

- b) The Site boundaries are identified on the drawings listed within Appendix 0/4. The site also includes those areas of highway necessary for all temporary signs and cones which may be outside the area of the permanent works.

2. Limitations on the Use of the Site

- 1) The *Contractor* will not be permitted to locate his compound and offices within the site boundary unless otherwise accepted by the *Project Manager*.
- 2) Security fencing shall be provided around any element of the works that could present a hazard to trespassers.
- 3) Access to be maintained to properties at all times in accordance with Appendix 1/17 and Appendix 1/19.
- 4) The *Contractor* will not be permitted to stand or store materials and plant/equipment outside the areas of the site which he is to possess as his working area.
- 5) No storage shall be permitted outside the *Contractors* working area, accept at the site compound or otherwise accepted by the *Project Manager*.
- 6) The *Contractor* shall be limited to a working area. The *Contractor* shall not possess any area of the site greater than 50m in length at any one time.
- 7) No plant shall work above any suspected underground structures within the site.
- 8) All cutting tools used on site shall incorporate the use of a water suppression unit.
- 9) The routing of all vehicles should be in accordance with Appendix 1/19.

3. Working Hours

- a) The *Contractor* shall work between hours that suit the Traffic Management restrictions shown in appendix 1/17

APPENDIX 1/9

Control of Noise and vibration

- 1) The *Contractor's* attention is drawn to the Control of Pollution Act 1974 and in particular to Sections 60 and 61 which relate to noise on building and construction sites. It will be the *Contractor's* responsibility to carry out the contract in such a way as to satisfy the Local Authority's interpretation of this Act, which may impose restrictions upon the type of plant, method of working and working hours adopted on the contract and the *Contractor* is to allow for any additional costs which may arise out of compliance with the Act.
- 2) In furtherance of the above the *Contractor* may wish to seek a Consent Notice under Section 61 of the Control of Pollution Act 1974 from the Environmental Health Officer of Shropshire Council.
- 3) Without prejudice to the generality of the *Contractor's* obligations the *Contractor* shall comply in particular with the following requirements:-
 - (i) all vehicles and mechanical plant used for the purpose of the Works shall be fitted with effective exhaust silencers and shall be maintained in good and efficient working order;
 - (ii) all compressors shall be "sound reduced" models fitted with properly lined and sealed acoustic covers which shall be kept closed whenever the machines are in use, and all ancillary pneumatic percussive tools shall be fitted with mufflers or silencers of the type recommended by the manufacturers;
 - (iii) machines in intermittent use shall be shut down in the intervening periods between work or throttled down to a minimum.
 - (iv) All static plant, e.g. mixers, compressors and vehicle compound/material stores etc., shall be positioned as far from residential property as is reasonably practical.
 - (v) Where it is unavoidable that plant shall be situated close to residential property the *Contractor* shall give consideration to the provision of temporary acoustic screening.
- 4) The *Contractor* shall furnish such information as may be required by the Environmental Health Officers of Shropshire Council in relation to noise levels emitted by plant or equipment used or installed on the site or which the *Contractor* intends to use or install on the site.
- 5) The *Contractor* shall afford all reasonable facilities to enable the authorised officers of the Environmental Health Officer of Shropshire Council to carry out such site noise monitoring as may be necessary.
- 6) The *Contractor* shall submit and agree a satisfactory Method Statement for the control of noise during all night-time works. The Method Statement shall be submitted and agreed by the Environmental Health Officers of Shropshire Council a minimum of 2 weeks in advance of the commencement of any night-time works.

Vibration

- 7) The use of explosives is not permitted.
- 8) Limits on vibration levels arising from the site activities is to be limited to avoid any damage to structures retaining walls, property and services adjacent or nearby
- 9) The *Contractor's* attention is drawn to the specific requirements of clause 173AR.

APPENDIX 1/10

Permanent Works to be designed by the *Contractor*

Work Item or Element	Location	Design Specification
Foundation design for planted lighting columns	All planted lighting columns shown on the contract drawings.	See Appendix 13/1

Designs should be submitted to the *Project Manager* 4 weeks before the installation date for approval. Approval will take 2 weeks.

APPENDIX 1/12

Setting Out and Existing Ground Levels

- (i) Prior to commencement of excavation the *Contractor* shall set out, mark and maintain (at 10m longitudinal intervals) until they are no longer required, all reference lines, templates, bench marks and markers, ground stations and the like (permanent or temporary), necessary for setting out and for checking of the Works (including the existing road). The *Contractor* shall keep up to date schedules and drawings of such information, which shall be supplied to the *Project Manager* as the setting out proceeds.

The levels of the proposed works must be related to the Bench Marks shown on the contract drawings or advised by the *Project Manager*.
- (ii) The *Contractor* shall ensure that the level control is checked regularly to ensure they have not been disturbed.
- (iii) The *Contractor* shall refrain from permanently marking chainages on kerbs.
- (iv) The level control should be used to record the laying depths of each layer including the final surface course.
- (v) Footways, shared surfaces and resurfaced carriageways and footways shall be laid to the lines and levels provided and shall comply with the relevant tolerances as set out in these Appendices and Series 700 of the Specification for Highway Works.
- (vi) The *Contractor* shall be fully responsible for the accurate setting out of the Works and shall establish all necessary control lines to ensure that the Works are constructed to the required line and level of the design. The *Contractor* shall ensure that they check all station coordinates as listed in the Setting out Information.
- (vii) The position of all plant, including underground ducts chambers etc., shall be marked by the *Contractor*, with agreement of the *Project Manager*, on the site in such a way that the markings will not be obliterated before work is started.

APPENDIX 1/13

Contractor's programme

1. The constraints to be accommodated within the proposed programme are:
 - (i) See Appendix 1/17 for Traffic Safety and Management, the requirements for which shall be accommodated for the site.
 - (ii) Refer to Appendix 1/7
 - (iii) See Appendix 1/12 regarding setting out requirements which shall be met in the programme. The *Contractor* must allow the *Supervisor* time to check the *Contractor's* setting out at each stage of the works.
 - (iv) The *Contractor* must liaise with Public Utilities as stated in Appendix 1/16 and all their works shall be accommodated within the programme.
 - (v) No planed areas shall be trafficked by public vehicles for more than 48 hours.

1. The *Contractor* shall provide the Programme of Works in the form of a Bar Chart produced as a result of a Critical Path Analysis and must abide by the constraints above. It shall show the full level of detail appropriate to the site. Details of resources for all activities should be provided together with earliest/latest start/end dates.

2. The *Contractors* float shall also be indicated

3. The *Contractor* shall comply with the approval and submission timescales as detailed in Appendix 1/4.

4. Allowance for progress meetings at fortnightly intervals.

5. Level of Detail
Level 1:
The following details are required, where appropriate
 - (i) Phasing of the works
 - (ii) Setting Out
 - (iii) Site Clearance
 - (iv) Excavation
 - (v) Formation testing
 - (vi) Drainage
 - (vii) Kerbing
 - (viii) Paving foundations
 - (ix) Paving works
 - (x) Planing
 - (xi) Carriageway Surfacing
 - (xii) Carriageway Marking
 - (xiii) Traffic Management
 - (xiv) Signing
 - (xv) Road Closure periods
 - (xvi) Works taking place outside Pride Hill and Darwin Shopping Centres

Programme of Works

- i) Examination of work or consent for which the *Contractor* shall be required to give adequate notice in writing to the *Project Manager*. Where no period is stated elsewhere in the Contract, such notice shall not be less than 24 hours of normal working time before the work is ready for final inspection. No further work shall commence until the *Project Manager's* written consent has been given. The *Project Manager* will require reasonable time during normal working hours to carry out his inspection.

Level 2 Programme

To be submitted to the *Project Manager* every 2 weeks for the duration of the Contract. It shall detail works broken down on a daily basis programmed for the following two weeks. The programme shall include the details as for Level 1, but with each distinct operation detailed.

APPENDIX 1/14

Monthly Statements

1. The payment applications submitted to the *Project Manager* in accordance with the Conditions of Contract by the *Contractor* shall, whenever dealing with matters covered by the Bills of Quantities, be set out under Part and Section headings similar to those in the Bills of Quantities and shall separately identify each item and specify quantity, unit, rate and value.
2. Items not described in Bills of Quantities but appropriate for inclusion, as measured work shall be shown at the end of the relevant section or under new section headings as appropriate indicating quantity, unit rate and value. In respect of all other matters the *Contractor* shall separately show in the statement quantities, units and rates of goods and/of materials and also details of any other matters to which he considers himself entitled. The *Contractor* shall allow the *Project Manager* to inspect invoices for goods or materials included in the statement as may be required.

APPENDIX 1/15

Accommodation Works

1. No work shall take place on any private land without the written instruction of the *Project Manager*.
2. The area of all necessary accommodation works is defined on drawing 1070997-T-06-105 (Land Boundary Plan) and is located under the entry canopy to the Darwin Shopping Centre.
3. Pedestrian access to the shopping centre entrance from Pride Hill compliant with the Equality Act 2010 must be maintained throughout the works. A minimum clear width of 2.0m shall be provided for the access.
4. The hours of operation for the Darwin Shopping Centre are 09:00 – 17:30 Monday – Saturday and 10:30 – 17:30 Sunday.

APPENDIX 1/16**Privately and Publicly Owned Services and Supplies**

1. This Appendix contains details of services and supplies affected by the Works, details of preliminary arrangements that have been made with Statutory Undertakers, utility companies and others for the alteration of services and supplies affected by the Works, and details of any orders already placed.
2. The *Contractor* shall make arrangements with the Statutory Undertakers, utility companies and others concerned, for the co-ordination of his work with all work which needs to be done by them or their *Contractors* concurrently with the Works. Compliance with the periods of notice given in this Appendix does not relieve the *Contractor* of his obligations.
3. Private services to individual properties have not generally been listed or shown on the Drawings. The *Contractor* shall make arrangements with the Statutory Undertakers and others concerned for the phasing of all necessary disconnections and diversion of private services affected by the Works.
4. Disconnected apparatus shall be removed by the *Contractor* only with the prior consent of the Authority concerned.
5. The names, addresses and contact details of the Statutory Undertakers, utility companies and authorities serving in the locality are listed below.

Name	Address Tel No.	Contact
BT Openreach	Repayments (Alterations) PP215S Shrewsbury ATE Town Walls Shrewsbury SY1 1TY	[REDACTED] [REDACTED]
Severn Trent Water (Water Mains)	Severn Trent Water Limited Accounts Receivable PO Box 5311 Coventry CV3 9FL	[REDACTED] [REDACTED]
Severn Trent Water (Sewers)	Severn Trent Water Limited Regis Road Tettenhall Wolverhampton WV6 8RU	[REDACTED] [REDACTED] [REDACTED]
Western Power Distribution	Western Power Distribution Epic Park Halesfield 6 Telford TF7 4BF	[REDACTED] [REDACTED]
National Grid Gas	Design Engineer Balfour Beatty Utility Solutions National Grid – GDSP West Midlands Stafford Road Wolverhampton WV10 6HZ	[REDACTED] [REDACTED] [REDACTED]
Shropshire Council Highways	Shropshire Council Environmental Maintenance Longden Road Shrewsbury SY3 9EL	[REDACTED] [REDACTED]

6. Services and Supplies Affected by the Works

Location	Description	Group	Drawing No.	Notice required to commence	Time for completion
Northern side of Pride Hill	Lowering of BT service ducts	A	1070997-T-06-103	C4 details issued to Statutory Undertaker	3 months
Southern side of Pride Hill	Lowering of BT service ducts	A	1070997-T-06-103	C4 details issued to Statutory Undertaker	3 months
Western 'street furniture zone', Pride Hill	Diversion of low pressure gas main from below the street furniture to the traffic lane	A	1070997-T-06-103	C4 details issued to Statutory Undertaker	16 weeks
DS1, DL18, DL17, DS2	Disconnection or transfer of service to new asset	C	1070997-T-06-1301	8 weeks	1 day
FP1, L9, L14	Connection or transfer of service from redundant asset	C	1070997-T-06-1301	8 weeks	1 day

Group	Action
A	Work expected to be completed before the commencement of the Works.
B	Work required after commencement of the Works which does not require prior work by the <i>Contractor</i> , but does require the <i>Contractor</i> to undertake liaison and coordination.
C	Work required after commencement of the Works which does require prior work by the <i>Contractor</i> .
D	Work expected to be in progress at the commencement of the Works.
E	Work to be wholly undertaken by the <i>Contractor</i> .

7. The *Contractor* shall undertake all necessary investigations prior to excavations to ensure that the services on site remain unaffected by the works including unexpected or uncharted services.

APPENDIX 1/17

Traffic Safety and Management

1 General

- 1.1 The *Contractors* traffic safety and management proposal shall comply with Chapters 1 to 14 of the Traffic Signs Manual published by the Stationary Office (or any amendments thereto or other conditions stated within this Contract), and with 'Guidance for Safer Temporary Traffic Management' and 'Safety at Street Works and Road Works a Code of Practice'.
- 1.2 Appropriate signing shall be provided by the *Contractor* to the current edition of Chapter 8 of The Traffic Signs Manual, Parts 1, 2 and 3. (or any amendments thereto or other conditions stated within this Contract)
- 1.3 The location of signs, cones and barriers shall not reduce footpath widths to less than 2.0m wide.
- 1.4 Where the circumstances of any particular case are not covered by the recommendations of Chapter 8, the *Contractor* shall submit his proposals for dealing with such situations in writing to the *Project Manager* for his acceptance.
- 1.5 On commencement of lane closures existing traffic signs (or parts of) shall be covered by the *Contractor* that conflict with the temporary traffic management signs.

2 Traffic Safety and Management Requirements

- 2.1 The *Contractor* shall be responsible for traffic safety and management and all associated work as described in Clause 117 and shall provide the following information:
 - (i) Phasing of Works.
 - (ii) Drawings showing traffic management layout including as appropriate: -
 - (a) Position of traffic signs and traffic signals.
 - (b) Pedestrian routes.
 - (b) Width of lanes.
 - (c) Working area.
 - (d) Safety zone.
 - (e) Cross over.
 - (f) Provision of access for emergency service vehicles
 - (g) The location of temporary vehicular access
 - (iii) Timing of operations.
 - (iv) Road Lighting requirements.
 - (v) A safety zone, delineated by traffic cones, must be maintained between any live traffic lane and all site staff/workmen.
 - (vi) 24 hour cover for traffic management.
- 2.2 In providing the details listed above the following constraints shall apply:
 - (i) Maintaining a minimum footpath/footway widths
 - (ii) The *Contractor* shall inspect the existing road lighting and shall if necessary shall provide additional lighting to protect and aid the workforce and pedestrians during working hours and outside of working hours if applicable.

- (iii) The *Contractor* shall provide a protected and well defined pedestrian route where required.
 - (iv) Emergency traffic shall be permitted through the site at all times.
 - (v) No work shall be permitted outside the traffic management areas.
 - (vi) When planning the traffic safety and management measures the *Contractor* shall include for covering existing permanent traffic signs, within or outside the area of the Works, which conflict with the traffic safety and management proposals. These measures shall be carried out in accordance with Clause 1209.
- 2.3 The *Contractor's* attention is drawn to the need to assess the risk and develop and operate safe working practices when vehicles and Equipment are reversing on site, whether or not they are on part of the highway. Rule 129 of The Highway Code 1993 is relevant but the *Contractor's* practices and procedures should take account of the different conditions, which will prevail on site.

3. Traffic Safety and Control Officer, Pedestrian Ambassadors

- 3.1 The *Contractor* is to provide the following to help protect, guide and inform members of the public during the works

3.1.1 Traffic Safety and Control Officer

Traffic Safety and Control Officer who shall be responsible for maintaining all traffic safety and management systems while work is in progress.

The responsibilities of the Traffic Safety and Control Officer and of his nominated deputy shall also include the following matters:

- (i) Monitoring, with the assistance of sufficient mobile personnel and of sufficient other suitable and appropriate aids, the flow of traffic, pedestrian and vehicular, within the area;
- (iii) 24 hour every day availability in emergencies (achieved through a nominated deputy if necessary). The Officer shall be equipped with a mobile cellular phone and the phone number shall be supplied to the *Project Manager*, the Traffic Manager and the Police.
- (iv) Ensuring that the traffic management control requirements as agreed in the approved permit are carried out.
- (v) Undertake daily patrols to ensure that all equipment is inspected and maintained (and keeping site records of inspections).
- (vi) Ensuring that there are adequate replacement signs or barriers in the event of loss, damage or equipment failure. Any defect in the temporary traffic management reported by the *Project Manager*, *Employer* or the Police shall be rectified within 1.5 hours
- (vii) Arranging and agreeing all lane and carriageway closures, dimensions, working areas and safety zones with the *Project Manager*
- (viii) Arranging duties for watchmen so that the site is patrolled and inspected and equipment attended to and maintained at all times.
- (ix) The provision of an experienced person responsible for maintaining the smooth running of traffic during critical periods.

- (x) Liaison with businesses and private individuals to ensure that the work does not prevent people entering / leaving their workplaces and residences.
- (xi) Liaison with bus operators, Police, Emergency services etc.

3.1.2 Pedestrian Ambassadors

- (i) The *Contractor* will supply 2 *Pedestrian Ambassadors* who shall be responsible for ensuring the smooth and safe movement of pedestrians around the site including access to premises and for providing a point of contact to those who require help.
- (ii) The identified *Pedestrian Ambassadors* shall wear reflective long sleeved vests with badges that shall identify them as pedestrian assistants.

4. Contact Details

1. Traffic Manager contact details –

[REDACTED]
Traffic Manager
Highways & Transport Team
Shropshire Council
107 Longden Road
Shrewsbury
Shropshire
SY3 9EL

Tel: 01743 258786

Email: [REDACTED]

2. Out of hours contact regarding emergency Traffic Management requirements

Central – 07990 085809

5. Public liaison officer

- (i) The *Contractor* will provide a *Public Liaison Officer* who will be present during all site working hours. The officer will assist with all queries, complaints and general public questions.
- (ii) Any queries arising which would be inappropriate for the *Public Liaison Officer* to answer, such as a formal complaint, should be re-directed to the appropriate persons.

6. Highway Maintenance Functions

- 3.1 Until the completion of all works the *Contractor* shall be responsible for ensuring that within the site boundary:
 - (i) The highway is swept clear of debris (including dirt and mud) from any source to the satisfaction of the *Project Manager*.
 - (ii) Drains will be cleaned of any material arising from the works.
 - (iii) The *Contractor* will be responsible for rectifying any damage to the road surface due to the siting of construction plant and materials within the highway and temporary diversions of traffic. This shall be undertaken at the *Contractors* own expense.

- 3.2 The limits of the works shall be the Site Boundary

If the accepted traffic management measures require a temporary traffic order or statutory acceptance the *Contractor* shall allow the following additional period of time to elapse between receiving acceptance and the commencement of works:

7. Specific limitations

The following list of anticipated events have been raised by the Traffic Manager as requiring special attention by the *Contractor* during the works:

- Sunday 18th March Shrewsbury 10k run, High Street closed and on the race route. No open excavations on High Street/Shoplatch, minimum 3.0m clear buffer required from any works to High Street junction. High pedestrian footfall.
- Saturday 7th April PM, Shrewsbury Goldwing Parade on High Street (High Street required to be open to traffic).
- Saturday 19th Sunday 20th May Kids Fest, The Quarry park. High pedestrian footfall in town centre
- Sunday 27th May Shrewsbury Cycle Grand Prix. High Street closed and on the race route. No open excavations on High Street/Shoplatch, minimum 3.0m clear buffer required from any works to High Street junction. High pedestrian footfall.
- Saturday 16th June Shrewsbury Carnival. High Street closed and on the parade route. No open excavations on High Street/Shoplatch, minimum 3.0m clear buffer required from any works to High Street junction. High pedestrian footfall.
- Sunday 17th June Shrewsbury half marathon. High Street closed and on the race route. No open excavations on High Street/Shoplatch, minimum 3.0m clear buffer required from any works to High Street junction. High pedestrian footfall.
- Sat 23rd and Sun 24th June Shrewsbury Food Festival. High pedestrian footfall, *Contractor* to maximise pedestrian space throughout site area.
- Fri 11th and Sat 12th August Shrewsbury Flower Show. High pedestrian footfall, *Contractor* to maximise pedestrian space. No road closures permitted on traffic routes.
- Friday 24th to Monday 27th August Shrewsbury Folk Festival and Shrewsbury Steam Rally. There is a parade along Pride Hill on Saturday 25th, de-mobilisation of site required and all excavations reinstated to finished pavement level for the parade to pass through as no suitable alternative routes available.

7 Notice Requirements

- The *Employer* operates a permit scheme which supersedes the noticing function detailed in the New Roads and Streetworks Act 1991. The permit scheme in operation by the *Employer* is the regional scheme called the West and Shires permit scheme and was introduced under the powers given to the authority in the Traffic Management Act 2004 and came into force via Statutory instrument on the 1st April 2014. The primary aim of the scheme is to reduce network disruption
- The application process for all permit schemes is by an electronic system and must be made by the *Project Manager* on behalf of the *Contractor* via the application types below –

Permit Type	Application Minimum Periods	Responsibility/ Action
Provisional Advance Authorisation (PAA)	Minimum 12 weeks prior to works starting	Responsibility: <i>Contractor</i> , Action by <i>Project Manager</i> *
Temporary Traffic regulation (Road Closure) Application (Legal notice)	Minimum 12 weeks before works starting	Responsibility: <i>Contractor</i> , Action by <i>Project Manager</i> *
Traffic Signal Licence Application (Legal notice)	Minimum 10 day prior to works starting	Responsibility: <i>Contractor</i> , Action by <i>Project Manager</i> *
Permit Application (PA)	Minimum 10 day prior to works starting and must	Responsibility: <i>Contractor</i> , Action by <i>Project Manager</i> * in line with the approved programme

	include a PAA application as detailed above	
Permit Variation (PV)	As soon as a change to the agreed permit is known	Responsibility: <i>Contractor</i> , Action by <i>Project Manager</i> *
Duration Variation Application (DVA)	2 days or 20% of duration (whichever is longest) before Estimated End Date	Responsibility: <i>Contractor</i> , Action by <i>Project Manager</i> *

*In all cases the *Contractor* must submit the required information for the respective permit applications to the *Project Manager* with a minimum of 5 working days' notice to comply with the timescales referred to in the above table.

8 Scheme Definition and associated additional Permit Requirements

Any traffic management requirements over and above those subject to the Permit Application outlined above will be subject to the WaSP permitting scheme and shall be arranged by the *Employer*, via the *Project Manager* on behalf of the *Contractor*.

Additional traffic management requirements shall be limited to – None

These shall be subject to the following application times –

Major Works

- Works that have been identified in an undertakers' annual operating programme or, are normally planned or known about at least six months in advance of the proposed start date;
- Works requiring a temporary traffic order (not a temporary traffic notice) under the Road Traffic Regulation Act 1984 for any works other than immediate works;
- Works over 10 day duration.

Standard Works

- Works other than major works with a planned duration of 4 to 10 days inclusive.

Minor Works

- Works other than Major works with a planned duration of three days or less.

These shall be subject to the following application times –

Activity	Minimum Period for processing by the <i>Project Manager</i>	Response time from receipt of application
Major Activity – PAA	2 days	1 month
Major Activity – PA	2 days	5 days
Standard Activity – PA	2 days	5 days
Minor Activity - PA	2 days	2 days

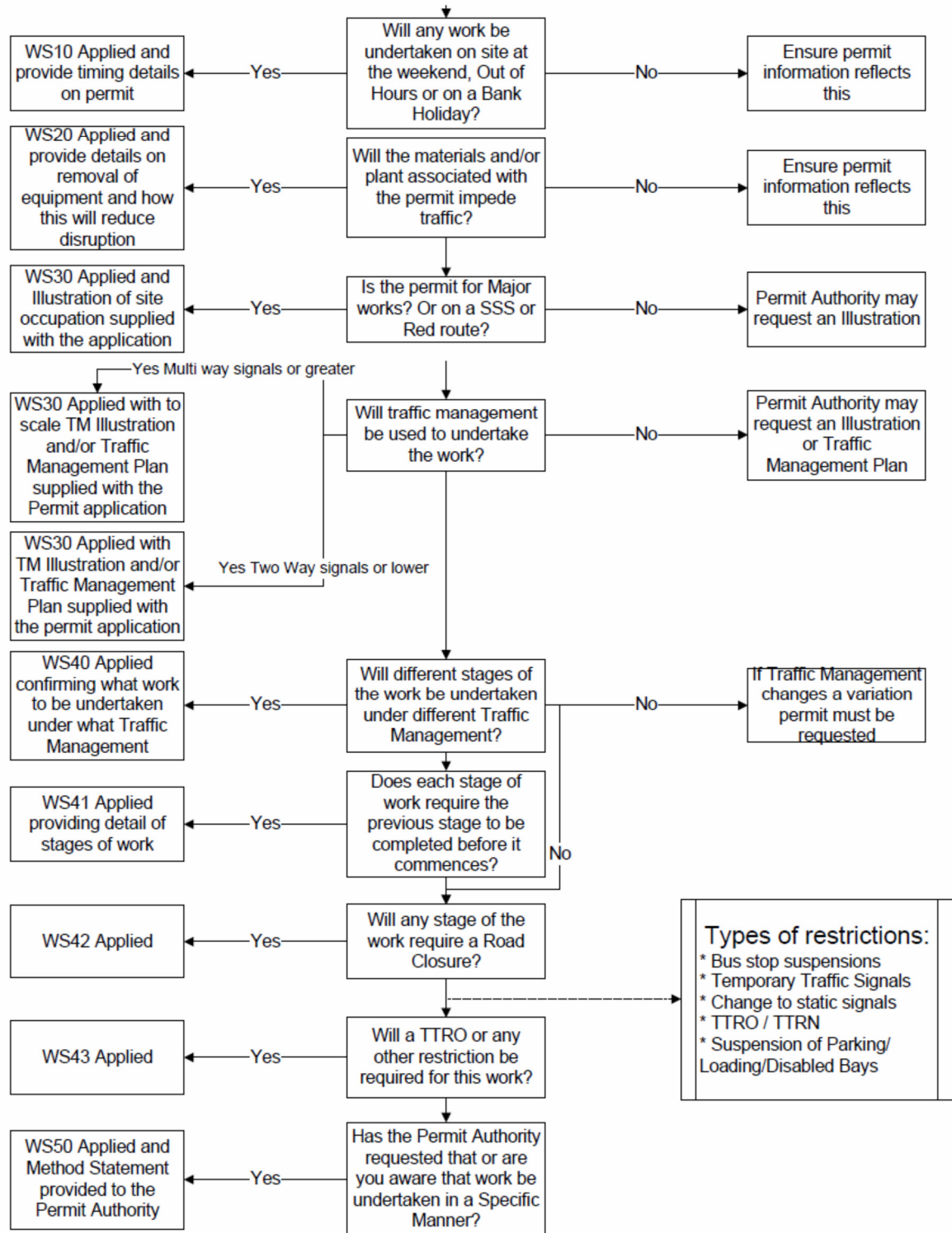
The WaSP permitting scheme is subject to conditions that must be adhered to. The conditions are imposed following the Flow Chart and Standard conditions shown on the pages following.

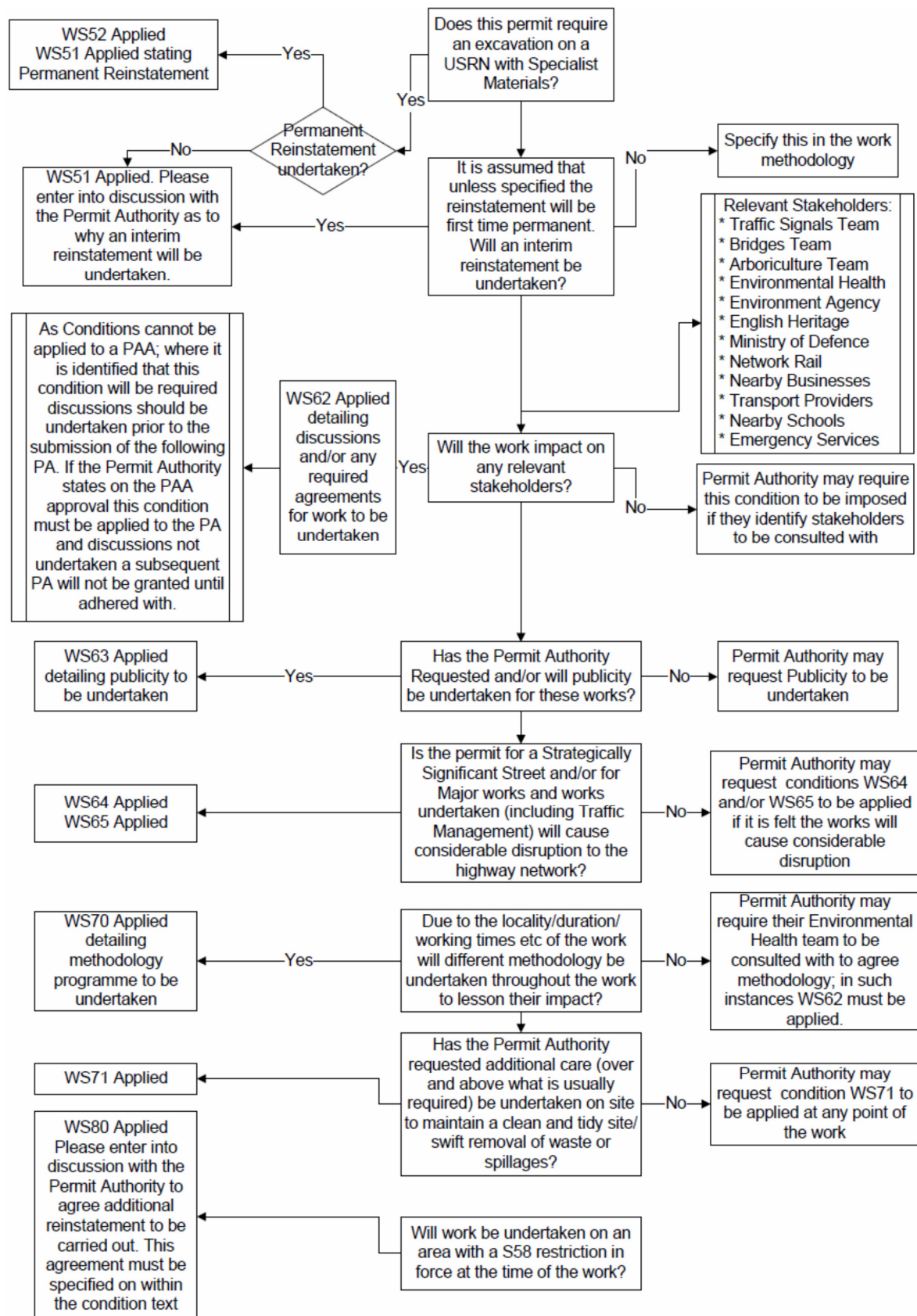
Any variation to the agreed permit requires the submission of a Permit Variation (PV) for any of the following –

- Early start
- Late completion
- Changes to permit conditions.

The following conditions Flow Chart is taken from the West and Shire Permitting scheme and is used to decide which conditions are imposed on a permit.

WaSP Utility Conditions Flow Chart





The following conditions are taken from the West and Shire Permitting scheme and show the wording and variables that may be applied to a permit, the variables that will be used for this scheme are indicated in Appendix 1/17 3) iv)

West and Shires Permit Scheme

v.1.2

17.6 APPENDIX F – Model Conditions

17.6.1.1 Refer also the WaSP scheme Operational Guidance for more details on how and when these should be applied.

Model condition number	Type of condition	Scheme reference	Condition text
EToN 1 : Date constraints			
WS1	Duration (Strategically Significant Streets)	5.4.5 (standard)	The activities hereby permitted shall not commence before the Proposed Start Date or in the case of Immediate Works the Actual Start Date contained in the application for immediate works and must end by the Estimated End Date provided on this permit. The Proposed Start Date, Actual Start Date and Estimated End Date are as defined in the current EToN specification.
WS2	Duration (Category 3 and 4 Street)	5.4.5 (standard)	The activities hereby permitted shall not commence before the Proposed Start Date and must commence within the valid starting window period or in the case of Immediate Works by the Actual Start Date contained in the application for immediate works and once the activities have commenced the activities must take no more than [x number of] days in total to be completed. The Proposed Start Date, Actual Start Date and Estimated End Date are as defined in the current EToN specification.
EToN 2 : Time constraints / EToN 3 : Out of hours works			
WS10	Specifying the days and times of day that works may take place	6.3.3	The activities hereby permitted shall only take place between [start time] and [end time] on weekdays and [start time] and [end time] on Saturdays and [start time] and [end time] on Sundays or Bank Holidays.
EToN 4 : Materials and Plant Storage			
WS20	Removal of equipment, traffic management and materials	6.3.4	It is a condition of this permit that [traffic management provisions, equipment/plant, surplus material excavated as a consequence of the activities etc.] must be removed from the public highway (within [x hours] of being excavated/by [time]each working day)
EToN 5 : Road occupation dimensions			
WS30	Area of highway occupation permitted	6.3.4 and 6.3.5	The activities hereby permitted shall occur only within the area [insert description of area or provide traffic management plan reference] including the relevant and required signing, lighting and guarding.
EToN 9 : Traffic Management Changes			

WS40	Traffic Management Arrangements	6.3.5	The works comprised in [specified part A/B] of the activities hereby permitted shall be subject to and shall occur only when the following traffic management measures are in place [or as attached in schedule..]
WS41	Works stages agreement	6.3.5	The works comprised in [specified part B] of the activities hereby permitted shall not be commenced before the works comprised in [specified part A] are completed.
WS42	Maintaining diversion signage	6.3.5 and 13.8	When the diversion route as specified and agreed as part of the illustration for this permitted activity is in operation the diversion route signage must be visible at all times and during periods when the diversion is not required, the sign faces should be covered, or removed as soon as the diversion ceases to be operational.
WS43	Temporary Traffic Restrictions and other approvals	6.3.5	The activities hereby permitted shall not commence until approval for [temporary traffic restrictions etc] has been given for the duration of the works or relevant works phase
EToN 10 : Work methodology			
WS50	Methodology for carrying out activities	6.3.6	For the activities hereby permitted on this site, as agreed, the works methodology employed will be [specified] throughout the duration of the works activity.
WS51	Interim or permanent reinstatement Work	6.3.6	For the activity hereby permitted, a [permanent /interim] reinstatement should be completed within the permit duration as discussed and agreed with the permit authority.
WS52	Specialist Materials	6.3.6 and 13.10	The activities hereby permitted may only commence once specialist materials and suitably qualified operatives [as agreed with the local authority] are available for a permanent reinstatement within the duration of this permit.
EToN 11 : Consultation and publicity			
WS60	Site board display	6.2.1 (standard)	It is a condition of this permit that the activities hereby permitted shall not be carried out unless a site information board(s) is displayed on the site at all times for the duration of the works. This must be displayed in a prominent place at all times so that it may be read easily by the public, clearly displaying the correct Permit/Linked permit or remedial permit reference number. For Immediate Works the display of the correct Permit reference number is required by 10.00am on the next working day after the works have started on site.
WS61	Emergency Traffic Management	6.2.1 and 13.9 (standard)	It is a condition of this permit for Immediate activities, that where it is identified that temporary traffic signals or a temporary traffic restriction order or notice is required, the local authority must be contacted immediately and the promoter should act upon directions provided from the authority.
WS62	Consult with specific bodies	6.3.7	The activities hereby permitted shall not commence without prior consultation and agreement with [organisation(s)] and confirmation of the agreement for works to go ahead has been supplied to the Permit Authority.

WS63	Publicity for proposed works	6.3.7	The activities hereby permitted shall not commence unless the works promoter has undertaken the following consultation or publicity [as described] .] With [as provided] as agreed with the permit authority.
WS64	Delay in starting works	6.3.7 and 5.4.5	On strategically significant streets, or a Major activity, where there is a delay in starting the activity hereby permitted the works promoter must inform the authority by 10:00am on the morning the activity is due to begin, and by 10:00am on subsequent mornings should the delay continue.
WS65	End of highway occupation	6.3.3	On a strategically significant street following completion of the permitted activities and once the highway occupation has ended, as discussed and agreed with the Permit Authority, the works promoter should inform the authority that the site is clear within 2 hours or by 10.00am the next working day in the case of an activity ending outside the normal working day.
EToN 12 : Environmental conditions			
WS70	Methodology at different times	6.3.8	For the activities hereby permitted, the following working methodology [insert method of working] shall only take place between [start time] and [end time] on weekdays and/or [start time] and [end time] on Saturdays and/or [start time] and [end time] on Sundays or Bank Holidays and must not continue beyond these times.
WS71	Site environmental requirements	6.3.8	It is a condition of this permit that the activity hereby permitted must be maintained in a clean and tidy condition and that [any spillage, material, temporary markings, waste etc] must not be left on site and must be removed from the public highway as required by the permit authority within [x hours]/ by [time] each working day.
EToN 13 : Local Conditions			
WS80	Extended reinstatement on a street subject to Section 58	Shropshire 18.2.8	The activities hereby permitted will be undertaken on a road section subject to S58 restrictions and as these works are not exempt as described in the Code of Practice for Permits, the reinstatement of these works will be permanent and require an additional reinstatement area as agreed with the Permit Authority.

8 Legal procedures

In addition the use of temporary traffic signals or a further road closure is subject to the following legal procedures -

- **Licence to use temporary traffic signals on the public highway**

The *Contractor* shall provide all of the information required to allow the *Project Manager* to submit the licence application on their behalf. Failure to do so within the timescales outlined below may result in a failure to obtain a licence. An example application form is available at - <http://shropshire.gov.uk/street-works/street-works-application-forms/apply-for-temporary-traffic-signals-on-the-highway/>

Activity	Minimum Period for processing by the <i>Project Manager</i>	Minimum period for application	Response time from receipt of application
Traffic Signal Licence Application	2 working days	10 working days	None

- **Temporary Traffic Regulation Application**

The *Contractor* shall provide notification to the *Project Manager* to allow them to undertake the Temporary Traffic Regulation application on the *Contractor's* behalf. Failure to do so within the timescales outlined below may result in a failure to obtain a road closure. An example application form is available at - <http://shropshire.gov.uk/street-works/street-works-application-forms/apply-for-a-road-closure-to-carry-out-roadworks/>

Activity	Minimum Period for processing by the <i>Project Manager</i>	Minimum period for application	Response time from receipt of application
Temporary Traffic Regulation Application	2 working days	12 weeks	None

Reference	Condition			Contractor Requirements
WS10 Time Constraints (traffic sensitive times)	Weekdays	Start Time End Time	07.30am 20.00pm	
	Sat/SUN/BH	Start Time End Time	N/A	No work is permitted on weekends or Bank holidays unless agreed with the <i>Project Manager</i> .
WS20 Materials and Plant Storage				.
WS30 Road occupation dimensions	Traffic management activities restricted to areas identified in Appendix 1/7.			<i>Contractor</i> to provide a traffic management plan including signing, lighting, guarding, pedestrian routes, extent of highway occupied, extent and position of excavation in accordance with Appendix 1/4.
WS40 Traffic Management Arrangements	Traffic and pedestrian management details to be provided for all activities			<i>Contractor</i> to provide details for managing the traffic management for the duration of the works, including arrangements and contact details for out of hours issues
WS60 Site board display	fixed and VMS signage to be erected as detailed in Appendix 1/21			<i>Contractor</i> to display required site information board for the duration of the works
WS64 Delay in starting works	Road is strategically important, any delays to be informed to permit authority. The <i>Contractor</i> is advised that due to the strategic importance of the road there is no automatic extension of the end date in the event of a late start.			<i>Contractor</i> to advise delays to permit authority by 10am on the morning the traffic management is due to commence.
WS65 End of highway occupation	Road is strategically important, completion of traffic management operations to be informed to permit authority. Delays to completion of traffic management operations to be subject to a permit variation			<i>Contractor</i> to advise completion of traffic management operations to the <i>Project Manager</i> by 10am on the morning following removal of the traffic management.
WS71 Site environmental requirements	Spillages to be removed as soon as possible after the <i>Contractor</i> becomes aware. Temporary markings to be removed before the road is opened to the public. Generators used to power temporary traffic signals will only be accepted if they are at least 200m away from a residential property or unless otherwise agreed by the <i>Project Manager</i> .			

APPENDIX 1/19

ROUTING OF VEHICLES

1 Permitted Access Routes To and From the Site

- (i) Deliveries and plant movements will need to be arranged with full regard to the local residents and businesses.
- (ii) Fish Street and Butcher Row will **NOT** be used by any construction traffic.
- (iii) Access to the works shall be directly off the public highway into the area within the site boundary. No other means of access will be permitted.
- (iv) The movement of plant and machinery must be achieved in a manner that will not adversely interfere with the flow of traffic.
- (v) Incomplete works shall not be traversed by construction traffic.

2 The Use of the Permanent Works by Construction Traffic

- (i) The structures and finished pavement forming part of the Permanent Works shall only be used to carry construction traffic when measures approved by the *Project Manager* have been taken to protect them from damage.
- (ii) The *Contractor* shall submit information and supporting calculations at least 2 weeks before it is proposed to use any of the structures or finished pavement forming part of the Permanent Works to carry construction traffic outside the current Motor Vehicle (Construction and Use) Regulations. The proposals shall not be implemented by the *Contractor* without the written approval of the *Project Manager*.
- (iii) The approval of the *Project Manager* to use the Permanent Works for construction traffic shall not relieve the *Contractor* of his responsibilities under the Contract.

3 Movement of Machinery and Plant Across Public Roads

- (i) The movement of plant and machinery must be achieved in a manner that will not adversely interfere with the flow of traffic. All damage to the public highway from construction plant is to be reinstated at the *Contractor's* own expense.

4 Temporary Structures for Construction Traffic Spanning Areas Used by the Public

- (i) None

5 Opening of Permanent Works to Traffic

- (i) The concrete foundations shall have reached a minimum strength of 25N/mm² compressive strength before the completed permanent works can be used by public traffic.

APPENDIX 1/21

INFORMATION BOARDS

STATIC INFORMATION SIGNS – FOR ROAD CLOSURES

1. Static Information signs shall be erected **2 weeks** before the access date.
2. Static Information signs shall be provided as shown on Standard detail SD-100-01 reference sign ST1. 'x' height to suit 30mph single carriageway.
3. The signs shall be removed immediately on completion of all works.
4. Each sign shall be positioned in locations which will be confirmed by the *Project Manager*

VARIABLE MESSAGE SIGNS (VMS) – FOR ROAD CLOSURES

1. VMS signs shall be used to provide information and will be in place and working at least **2 weeks** before any road closure.
2. VMS shall be sited at the locations to be agreed with the *Project Manager*
3. All signs should be fully compliant with BS EN 12966-1:2005+A1:2009 and comply with DfT Traffic Advisory Leaflet 01/15, January 2015
4. The following wording (or similar) will be displayed 2 weeks before the works commence:

Road closed at
(Location)
from
(Date) to (Date)
(Time) to (Time)

Requests for additional messaging must be submitted to the *Project Manager* 2 days before its intended day of use

All messages must be displayed on a single sign aspect. It is unlawful to display messages that require the use of multiple displays (“paging”) or scrolling text.

PUBLIC INFORMATION SIGNS – FOR PRIDE HILL WORKS

1. Public information notice board style signs shall be used to provide information and will be in place through the duration of the works. The signs shall convey useful information and informative about the scheme including scheme drawings, architectural images, details of programme and works phasing, and contact details for the Public Liaison Officer and the Employer's customer service centre.
2. Public information signs shall be sited at the locations to be agreed with the *Project Manager*
3. The signs shall be removed immediately on completion of all works.

APPENDIX 1/22

PROGRESS PHOTOGRAPHS

1. The photographer is to be accompanied by the Site *Supervisor* whilst taking the following progress photographs.

Location	Type	no	Aerial/ Ground	Frequency	Remarks
Before and After photographs	Colour digital on CD	As required	Aerial	Before works access date and upon completion.	Delivered to <i>Project Manager</i> within 1 week.
Pre Start Dilapidation Survey <ul style="list-style-type: none">• Land outside the site boundary• Land within the site boundary• Land within the highway boundary• Land that the <i>Contractor</i> has made arrangements to use as a site compound• Land used for the storage of materials, including those set aside for re-use• Permitted haul roads on the public highway including highway features and highway boundary features such as hedgerows and fences	Colour digital on CD	As required	ground	On the Access Date	Delivered to <i>Project Manager</i> within 1 week
Progress Photographs The <i>Contractor</i> shall take regular photographic evidence throughout the week of all construction activities and in response to any complaints from the public, landowners, local authority and the police	Colour digital on CD	As required	ground	Weekly	Delivered to <i>Project Manager</i> within 1 week
As Built Photographs <ul style="list-style-type: none">• Land outside the site boundary• Land within the site boundary• Land within the highway boundary• Land that the <i>Contractor</i> has made arrangements to use as a site compound• Land used for the storage of materials, including those set aside for re-use	Colour digital on CD	As required	ground	Completion	Delivered to <i>Project Manager</i> within 1 week

APPENDIX 1/23

RISKS TO HEALTH AND SAFETY

General Risks

1. The *Contractor* shall comply with the requirements of the following Pollution Prevention Guidelines (PPG) published by the Environment Agency:
 - PPG No. 2 'Above Ground Oil Storage Tanks'
 - PPG No. 5 'Works and maintenance in or near water'
 - PPG No. 6 'Working at Construction and Demolition Sites'
2. The *Contractor* must check whether any substance used is hazardous and if it is he must comply with all the recommended safety procedures for dealing with that substance.
3. The *Contractor* shall undertake noise and vibration monitoring in accordance with Appendix 1/9.

APPENDIX 2/2

Filling in of trenches and pipes

- (i) Disused soil and surface water drains, sewers, cables and ducts together with any bed or haunch or surround within 0.5m of formation level shall be removed and over 0.5m below formation shall be left unless otherwise described. The ends of existing drains and sewers no longer required because of alterations to the drainage layout shall be sealed in accordance with Clause 506.
- (ii) The *Contractor*, subject to any instructions or contrary directions in accordance with the contract, shall take all measures required by any Statutory Undertaker, the management of other publicly owned services, or owners of privately owned services or supplies, for disconnection and proper sealing off of all redundant drains, services and supplies.
- (iii) All materials arising from site clearance which are not required, or unacceptable for use in the permanent works and not included in contract specific Appendix 2/3, shall become the property of the *Contractor* and shall be disposed of by him. Materials included in contract specific Appendix 2/3 shall be carefully dismantled, taken up or taken down, cleaned and retained for re-use, stacked, labelled and protected or loaded, and transported to store as described in contract specific Appendix 2/3 and items damaged in this operation shall be replaced. All replacements shall be of equivalent quality to the original materials. When required in contract specific Appendix 2/3, voids left by items that have been removed shall be backfilled immediately in accordance with the appropriate Clauses in Series 600.

APPENDIX 2/3

Retention of Material Arising from Site Clearance

- (i) Shropshire Council's "Environmental Charter" stresses the importance of re-cycling materials wherever possible. Therefore, they encourage disposal / reuse to be undertaken in an environmentally sensitive manner. The *Project Manager* will require written confirmation that the recipients of all road planings have the appropriate certificates to receive the material.

Take up or down and remove to tip off site

- (i) All material shall be taken to an appropriately Permitted Waste Facility off site (Clause 670 AR)
- (ii) The *Contractor* will be required to instigate a transfer note system to monitor the disposal off site of all classes of surplus material to the approval of the *Project Manager*. The transfer note system shall comply with the Environmental Protection (Duty of Care) Regulations 1991 and the Waste Management Licensing Regulations 1994 as amended. For the avoidance of doubt, the transfer note system shall include a ticket for each individual load of material removed from the site. The *Contractor* must maintain this system throughout the duration of the Works. The *Contractor* shall allow 14 days for the *Project Manager* to approve the system proposed. Full supporting documentation should also be provided to demonstrate that the *Contractor* has the necessary approval and consent to dispose of surplus material which will include planning permission and licenses from the relevant local authority and Waste Regulation Authority. The *Project Manager* may request further information to satisfy himself that such approval has been granted. 14 days shall be allowed for the *Project Manager* to review this documentation and no disposal from the site shall take place until written confirmation is provided by the *Project Manager*.

Take up and remove to store off site.

The *Employer's* store is:-
Shropshire Council Depot
Nobold Lane
Shrewsbury
SY5 8NP

Take to store and re-use.

The offsite site compound.

The store is approximately 3 miles from the site.

Table 2/3/1: Retention of Materials Arising From Site Clearance

Item	Description	Location	Dispose, Store or Re-Use	Requirements
Gully grating and frame	D400	Carriageway, High Street	Re-Use	Clean off old mortar/bonding material and set aside for reuse
Linear drains	F900 Birco drains	Pride Hill	Dispose	
Chamber cover and frame	Not exceeding 0.5m ²	Pride Hill, High Street, Castle Street	Dispose	
Chamber cover and frame	Exceeding 0.5m ²	Pride Hill, High Street, Castle	Dispose	

		Street		
Steel pole retention socket	Christmas tree socket	Outside No. 22 Pride Hill	Re-Use	
Earth rod cover and frame		Various locations on Pride Hill	Re-Use	Clean off redundant bonding material
Kerbs and Channels	Granite and Yorkstone	In Carriageway	Re-use	Clean off redundant bonding material
Yorkstone paving flags	600mm wide paving units	In footway	Store	Take up, clean off redundant bonding/laying course material, palletise and wrap stacked paving in a suitable plastic protective material
Yorkstone sett paving	160mm wide setts	In carriageway	Store	Take up, clean off redundant bonding/laying course material, palletise and wrap stacked paving in a suitable plastic protective material
Granite sett	100mm cubes	In carriageway	Store	Take up, clean off redundant bonding/laying course material, palletise and wrap stacked paving in a suitable plastic protective material
Precast concrete block paving	200mm x 100mm blocks	Pride Hill full width	Store	Take up, clean off redundant bonding/laying course material, palletise and wrap stacked paving in a suitable plastic protective material
Tactile paving, stone and clay	Various sizes	Junctions with High Street and Castle Street	Dispose	
Steel bollard	1m high cannon style bollard	Outside No. 12 and Waitrose on Pride Hill	Store	Clean off redundant foundation material, palletise and wrap in a suitable plastic protective material
Timber bollard	300mm2 bare oak bollard	At junction with High Street	Store	Remove existing sign plate to tip, clean off redundant foundation material and palletise
Cycle parking stand	Cast iron and steel stand	Outside Waitrose	Re-Use	Clean off redundant foundation material and store in compound until refurbishment is required
Bin	Litter and/or cigarette bin,	Various locations on	Re-Use	Remove redundant fasteners/fixings and store in site compound until required.

	various types	Pride Hill		Note the open-topped cast iron bins are to be refurbished
Bench	Hexagonal steel and timber bench	Various locations on Pride Hill	Dispose	
Charity collection box	Small collection boxes attached to sign posts	Near junctions with Castle Street and High Street	Re-Use	Liaise with charity to arrange for the boxes to be emptied prior to setting them aside for reuse at the site compound
Tourist finger post sign	Cast iron sign	Outside No. 12 and No. 24 Pride Hill	Store	Clean off redundant foundation material, palletise and wrap in a suitable plastic protective material
Traffic sign and post	Various sizes	Various locations on Pride Hill	Dispose	Take up or down and remove for disposal at licenced tip. Illuminated signs to be disconnected and made safe prior to removal.
Traffic sign face	Various sizes	Various locations on Pride Hill	Re-Use	Taken down and store in site compound until required, to be cleaned prior to re-erection at new location

Street Lighting

1. Redundant Lighting Columns

- (i) Where carriageways or footpaths remain open as public highways, no lighting may be disconnected without provision of an equivalent system of lighting. This may be achieved by the commissioning of the new lighting scheme or provision of a temporary lighting scheme, see Appendix 14/3.
- (ii) Care must be taken in disposing of old lighting equipment as hazardous wastes may be present, refer to Appendix 2/5 for details. Lamps used in street lighting do contain small amounts of potentially hazardous substances such as metallic sodium and mercury. Danger can be avoided effectively by careful handling to prevent breakage and by following well established safety procedures for the disposal of used lamps. Where significant quantities may be involved, the local Waste Disposal Officer should be consulted.
- (iii) Lighting columns to be taken down are as detailed on the contract drawings and scheduled in this Appendix. The *Contractor* shall liaise with the Distribution Network Operator and the Project Manager regarding programming the disconnection of feeder pillars or columns which are to be removed. Orders for disconnection shall be the responsibility of the *Contractor*. The *Contractor* shall be aware of overhead power lines and comply with working clearances in G39/1 during the removal of lighting columns.

2. Redundant Cables

- (i) Existing underground cables for the circuits to existing columns listed below shall be safely disconnected, cut out and removed from Site and disposed of. Existing ground shall be reinstated after removal of cables.

3. Removal Or Alterations To Existing Signs

- (i) Where applicable and as detailed on drawing number 1070997-T-06-201 together with any associated redundant cabling. Existing ground shall be reinstated after removal of signs and cables.

Table 2/3/2: List of Apparatus to be Removed

Description	Location	Requirements
Wall-mounted lanterns, DL1 – DL13	Throughout Pride Hill, refer to drawing 1070997-T-06-202	Take up or down and remove for disposal at licenced tip
Existing flange plate cast iron lighting column, DL14, DL15, DL17, DL18	Various locations at Pride Hill, refer to drawing 1070997-T-06-202	Take up or down and remove to client's store
Existing street lighting column with embellishment DL16	Various locations at Pride Hill, refer to drawing 1070997-T-06-202	Take up or down and remove for disposal at licenced tip
Wide-based sign post DS1, DS2	Near junctions with High Street and Castle Street	Take up or down and remove for disposal at licenced tip

4. General Requirements

- (i) Where any existing equipment is to be removed, the equipment shall be carefully dismantled and the site permanently re-instated.
- (ii) Equipment shall not be re-used unless specifically authorised, in writing, by the *Project Manager*.
- (iii) If the equipment is to be re-used immediately then it shall be either re-erected as indicated on the drawings. If the equipment is not to be re-used immediately then it is to be retained in a secure environment until required or, if not to be re-used or removed to store, it shall be removed from site and safely disposed of to a licensed tip.
- (iv) No existing lighting shall be switched off, dismantled or removed without the prior approval of the *Project Manager* and any necessary arrangements made with the DNO.

APPENDIX 2/5

HAZARDOUS MATERIALS

1. Tar bound material has been located in road cores, indicated on drawing number 1070997-T-06-103.
2. Tar bound materials will need to be excavated to complete the works.
3. Tar bound material should be disposed of as hazardous waste. The *Contractor* should carry out his own checks, and dispose of planings to suitably licenced facilities.
4. The *Contractor* must refer to COSHH statements regarding any hazardous substances that he proposes to use. The use of chemicals should be limited to the need for a base seal to the feeder pillars.
5. Health risk from dust generated in slot cutting works and burns from hot substances used
The *Contractor* is to ensure that:
 - (i) Risk Assessments, Method Statements, training and PPE are in place
 - (ii) The Manufacturer's instructions and the COSHH regulations are followed
 - (iii) Suitably competent personnel, CSCS certified, are employed to carry out works.
6. It is unclear from currently available information of any risks associated with (chambers and ducts) material containing Asbestos. When encountered, it is generally in the form of Asbestos-Cement. The risk of inhaling fibres is low unless the material is damaged or disturbed.

If the *Contractor* suspects Asbestos containing material, competent advice must be sought immediately and dealt with accordingly.
7. Care must be taken in disposing of old lighting equipment, older lanterns could contain a small amount of asbestos. Lamps used in street lighting do contain small amounts of potentially hazardous substances such as metallic sodium and mercury. Danger can be avoided effectively by careful handling to prevent breakage and by following well established safety procedures for the disposal of used lamps. Where significant quantities may be involved, the local Waste Disposal Officer should be consulted.

APPENDIX 5/1

Drainage requirements

1. General

- (i) The existing drainage at Pride Hill currently consists of block drainage channels which outfall via a series of 150mm diameter pipes. The surface water system then outfalls to the existing STW combined sewer.
- (ii) In order to simplify the drainage system at Pride Hill, the proposals are for a linear drainage system which uses some of the existing surface water outfalls to the STW sewer. Please refer to drawing specified on Appendix 0/4 for details regarding the full construction of the proposed drainage system at Pride Hill.

2. Bedding Combinations: Permitted Alternatives

- (i) The pipes for drainage are to be selected from the alternatives in Table 5/1 of MCHW1.
- (ii) Sampling and testing is to be carried out in accordance with the frequencies and requirements of Appendix 1/5.
- (iii) All carrier pipes to have Type Z concrete bed and surround as detailed in HCD-F1.

3. Backfill Combinations: Permitted Alternatives

- (i) All trenches to be backfilled using foam concrete to formation level or proposed surfacing/paving reinstatement.

4. Pipe Characteristics for Solid Wall Thermoplastic Pipes

- (i) Plastic pipes shall have a minimum ring stiffness of 6 kN/m^2 when tested in accordance with BS EN 9969.
- (ii) Creep Ratio shall be less than 4 for Polypropylene or Polyethylene and less than 2.5 for UPVC when tested in accordance with BSEN 9967.
- (iii) Impact Resistance
- (iv) Plastic pipes shall have a resistance to impact complying with tests to EN1411.

5. Structured Wall Thermoplastic Pipes

- (i) To comply with MCHW1 CI 518.
- (ii) *Contractor* shall complete App 5/7 for the range of pipes and fittings prior to commencement of the Works.

6. Jointing of Pipes

- (i) Joints in surface water drains shall be watertight.
- (ii) Watertight joints shall comply with the appropriate British Standards, the manufacturer's instructions and the following:

- (iii) Rigid joints shall be used only where permitted in Appendix 5/1. Spigots and sockets of rigid joints may be caulked with tarred rope yarn or equivalent and the socket completely filled with mortar designation
- (iv) Complying with Clause 2404, excluding lime; a fillet of mortar being worked around the socket extending for a length of not less than 50 mm from the face of the socket. Iron pipes with open sockets shall have rigid joints caulked with lead wool or equivalent.
- (v) Joints in PVC-U pipes shall not be made with plastic solvent.
- (vi) Flexible mechanical joints may be used with surface water pipes complying with BS 65.
- (vii) Joints for cast iron pipes to BS 437 shall comply with BS EN 877.
- (viii) Joints in thermoplastics structured wall pipe shall comply with Clause 518.
- (ix) Sections of pipework required to have watertight joints shall be tested for satisfactory performance.

7. Connecting to existing drains, chambers and channels

- (i) Where described in Appendix 5/1, existing drains shall be extended, connected and jointed to new drains, chambers or channels. All such connections shall be made during the construction of the new drain or other work and their positions recorded by the *Contractor* who shall hand to the *Project Manager*, a copy of the record of the connections made the previous day. Where pipe connections are made to existing brick concrete or stone drains, chambers or channels, the pipes shall be well and tightly built into the concrete, brick or masonry work and be so placed as to discharge at an angle not greater than 60° to the direction of flow of the drain or channel and with the end of the pipe carefully cut to the necessary angle. Where the connections are between pipe drains, special connecting pipes shall be laid and jointed as described in Appendix 5/1.
- (ii) Before entering or breaking into an existing sewer or drain, the *Contractor* shall give notice of his intention to do so to the authority responsible for the pipeline to which the connection is to be made.
- (iii) Existing drains no longer required shall be sealed with ST2 concrete, in compliance to Clause 2602, or removed and replaced with general fill material complying with Clause 601 and Table 6/1 and compacted in compliance with Clause 612, or grouted with a 1:10, cement: pfa mix.

8. Pipe Junctions

- (i) Saddles may only be used to form junctions for gully connections to existing drains, and shall be fitted to mechanically sawn circular holes in the existing pipe.
- (ii) Pipes onto which pipes are to be saddled should be cut by a method to provide a clean profile without splitting or fracturing the pipe wall. Saddle connections are to be headed in quick setting mortar designation (i) to Clause 2404 and a mortar fillet to give a cover of at least 50mm to the base of the saddle. The complete saddle and connection to be surrounded in ST1 concrete.
- (iii) Connections to Severn Trent Sewers and chambers to comply with STW requirements.
- (iv) All saddled junctions onto existing pipe runs to be inspected internally with CCTV.

9. Sealing of existing drains

- (i) Existing gully connections which are to be removed as far as reasonably practicable. Where it is not possible to remove, they are to be decommissioned and plugged with concrete and left in place. Records of the location of the pipe and plug to be recorded on the as-built drawings.

10. Chambers

- (i) Proposed chambers shall be as detailed on drawings 1070997-T-06-501 (Chamber details).
- (ii) All frames located in the carriageway to have minimum depth of 150mm. All frames are to be suitable to allow full depth of adjacent paving to continue to the main opening (grating).
- (iii) Brickwork shall comply with Series 2400 and be built with mortar designation (i) in English bond. The joints of brickwork where exposed shall be finished as specified for unpointed joints in Clause 2412. The ends of all pipes shall be neatly built into the brickwork and finished flush with mortar designation (i).

11. Cleansing of drainage features and CCTV

- (i) On completion of the works each and every gully, inspection chamber and manhole within the site is to be cleansed and emptied with a lorry mounted mechanical gully emptier, as specified in Clause 520.
- (ii) The connecting pipework from each gully to the carrier drain is to be jetted and fully cleaned. Water must be able to flow freely from the gully pot and into the carrier drain.
- (iii) Having emptied the gully and cleaned the connection, the gully pot itself should be cleaned and emptied.
- (iv) The entire slot drain system length is to be jetted and fully cleaned. Water must be able to flow freely from the first inspection chamber to the specified outfall.

12. Covers and Gratings on Chambers and Gullies

- (i) All new gully gratings and frames shall be D400 BS EN 124 (Parts 1 to 6: 2015 inc as appropriate), BSI Kitemarked, HA 104/09 compliant and kerb hinged. Gratings and frames shall be minimum 450mm X 450mm, 150mm deep or 600mm X 600mm, 150mm deep on all chambers as referred to in the contract drawings listed in Appendix 0/4 Covers shall be rigid within the frame so as not to rattle and produce excessive noise pollution under the influence of live traffic.
- (ii) All new chamber covers and frames shall be D400 BS EN 124 (Parts 1 to 6: 2015 inc as appropriate) BSI Kitemarked, HA104/09 compliant double triangular minimum 600mm X 600mm, 150mm deep unless otherwise specified in the drawings contained in Appendix 0/4 or in the Schedule of Existing Ironwork below. Covers shall have a three point suspension non rock stability and shall be rigid within the frame so as not to rattle and produce excessive noise pollution, under the influence of live traffic
- (iii) All gully covers shall be offset from the kerb line by 50mm. The reinstatement between the cover and the kerbline shall be sloped to the gully to aid drainage.

13. Raising or Lowering Covers and Gratings on Chambers and Gullies

- (i) Bedding materials will comply with clause 507.16 (Ref Appendix 0/2)
- (ii) Bedding materials should be laid strictly in accordance with manufacturers' recommendations. Materials manufactured for use in different temperature conditions must be selected as appropriate to suit site conditions at the time of mixing and application. Thickness of materials must be within the range stipulated by the manufacturer
- (iii) A period of at least two hours must lapse between completion of resin bedding and the commencement of reinstatement or final surfacing works.
- (iv) All ironworks within the carriageway, shall be adjusted to their final level after laying the regulating or binder course, but before laying the Surface Course. The Principal Contractor shall ensure adequate time is allowed in their programme for this operation.
- (v) Packing materials may be incorporated within the bedding material provided that this is in accordance with recommendations of the mortar manufacturer and the requirements of MCDHW 1 and 2.
- (vi) The use of materials such as quarry tiles and slates as packing materials is strictly prohibited

14. Rising units

- (i) All new gulley's and existing gulley's that require adjusting shall incorporate precast concrete adjusting units conforming to BS EN 1917 and BS 5911:2010+A1 2014. Bricks shall not be used.

15. Schedule of Existing Ironwork

Table 5.1 below gives further details for the existing ironwork locations which require adjustment and/or replacement covers and frames and shall be read in conjunction with drawing number 1070997-T-06-504.

Table 5.1 – Schedule of Existing Ironwork.

No.	Dimensions	Service	Notes	Load Rating
1	2000 x 800	Cellar vent	Not affected by scheme	N/A
2	400 x 200	Gully	Existing cover and frame to be reinstalled	D400
3	150 x 150	ST stop tap	New cover and frame, level and orientation to match new paving	D400
4a	320 x 320	CCTV	New chamber, cover and frame, level and orientation to match new paving	C250
4b	320 x 320	CCTV	Replaced by chamber 4a	C250
5a	150 x 150	ST stop tap	Not affected by scheme	N/A
5b	400 x 250	ST hydrant	Not affected by scheme	N/A
6a	150 x 150	ST stop tap	New cover and frame, level and orientation to match new paving	D400
6b	150 x 150	NG supply	New cover and frame, level and orientation to match new paving	D400
7a	600 X 600	drain	New cover and frame, level and orientation to match new paving	D400
7b	320 x 320	CCTV	New chamber required	C250
8a	600 x 600	drain	New cover and frame, level and orientation to match new paving	D400

No.	Dimensions	Service	Notes	Load Rating
8b	1000 x 500	BT	New cover and frame, level and orientation to match new paving	D400
9	600 x 600	drain	Replaced by new drainage system	N/A
10	150 x 150	ST stop tap	New chamber, cover and frame, level and orientation to match new paving	D400
11	300 X 300	Earth rod	Remove from store and resintall, orientated to new paving	N/A
12	150 X 150	ST stop tap	New chamber, cover and frame, level and orientation to match new paving	D400
13	2000 X 250	drain	Replaced by new drainage system	N/A
14	2000 X 250	drain	Replaced by new drainage system	N/A
15	250 x 250	Earth rod	Remove from store and resintall, orientated to new paving	N/A
16	1000 X 500	BT	New cover and frame, level and orientation to match new paving	D400
17	150 X 150	ST stop tap	New cover and frame, level and orientation to match new paving	D400
18a	400 x 400	WP	New cover and frame, level and orientation to match new paving	D400
18b	150 x 150	NG supply	New cover and frame, level and orientation to match new paving	D400
19	2000 X 250	drain	Replaced by new drainage system	N/A
20	600 x 600	Storm drain	New cover and frame, level and orientation to match new paving	D400
21	150 x 150	ST stop tap	New chamber, cover and frame, level and orientation to match new paving	D400
22	150 x 150	ST stop tap	New cover and frame, level and orientation to match new paving	D400
23	320 X 320	Earth rod	Remove from store and resintall, orientated to new paving	N/A
24	2000 X 250	drain	Replaced by new drainage system	N/A
25	400 x 250	ST fire hydrant	New cover and frame, level and orientation to match new paving	D400
26	520 x 520	WP Link Box	New cover and frame, level and orientation to match new paving	D400
27	180dia	ST stop tap	New cover and frame, level and orientation to match new paving	D400
28	150 x 150	ST stop tap	New cover and frame, level and orientation to match new paving	D400
29	1000 x 500	BT	New cover and frame, level and orientation to match new paving	D400
30	1000 X 500	BT	New cover and frame, level and orientation to match new paving	D400
31	2000 X 250	drain	Replaced by new drainage system	N/A
32	2000 X 250	drain	Replaced by new drainage system	N/A
33	1000 x 500	BT	New cover and frame, level and orientation to match new paving	D400
34	150 x 150	ST stop tap	New cover and frame, level and orientation to match new paving	D400
35	150 x 150	ST stop tap	New cover and frame, level and orientation to match new paving	D400
36a	150 x 150	ST stop tap	New cover and frame, level and orientation to match new paving	D400
36b	150 x 150	NG connection	New cover and frame, level and orientation on match new paving	D400

No.	Dimensions	Service	Notes	Load Rating
37a	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
37b	1000 x 500	BT	New cover and frame, level and orientation on match new paving	D400
38a	150 x 150	NG connection	New cover and frame, level and orientation on match new paving	D400
38b	440 x 300	ST meter box	New cover and frame, level and orientation on match new paving	D400
38c	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
39	520 x 520	CCTV	New cover and frame, level and orientation on match new paving	D400
40	150 X 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
41	2000 x 200	drain	Replaced by new drainage system	N/A
42	2000 X 250	drain	Replaced by new drainage system	N/A
43	600 X 600	drain	Replaced by new drainage system	N/A
44	150 x 150	NG connection	New cover and frame, level and orientation on match new paving	D400
45	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
46	150 X 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
47	600 X 600	ST Sewer or drain	New cover and frame, level and orientation on match new paving	D400
48	150 X 150	ST stop tap	New chamber, cover and frame, level and orientation to match new paving	D400
49	400 X 250	ST fire hydrant	New cover and frame, level and orientation on match new paving	D400
50	150 X 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
51	150 x 150	NG connection	New cover and frame, level and orientation on match new paving	D400
52a	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
52b	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
53	600 X 450	CCTV	New chamber, cover and frame, level and orientation to match new paving	C250
54	700 X 700	BT	New cover and frame, level and orientation on match new paving	D400
55	600 X 600	drain	Replaced by new drainage system	N/A
56	2000 X 250	drain	Replaced by new drainage system	N/A
57	2000 X 250	drain	Replaced by new drainage system	N/A
58	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
59a	450 x 280	ST meter box	New cover and frame, level and orientation on match new paving	D400
59b	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
60	600 X 600	sewer or drain	Replaced by new drainage system	N/A
61	150 X 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
62	150 X 150	NG connection	New cover and frame, level and orientation on match new paving	D400

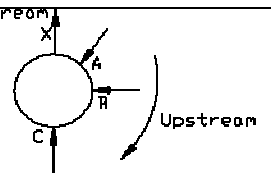
No.	Dimensions	Service	Notes	Load Rating
63	150 x 150	NG connection	New cover and frame, level and orientation on match new paving	D400
64a	350 x 250	ST hydrant	New cover and frame, level and orientation on match new paving	D400
64b	150 X 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
65	2000 X 250	drain	Replaced by new drainage system	N/A
66	2000 X 250	drain	Replaced by new drainage system	N/A
67	1000 x 500	Cellar vent	New paving to be laid up to existing cover	N/A
68	600 x 450	Private cover	Not affected by scheme	N/A
69	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
70	150 x 150	NG connection	New cover and frame, level and orientation on match new paving	D400
71	150 x 150	Gas connection	New cover and frame, level and orientation on match new paving	D400
72	1000 x 850	Capped cellar	New paving to be laid up to existing cover	N/A
73	1000 x 500	BT	New cover and frame, level and orientation on match new paving	D400
74	1000 x 850	Capped cellar	New paving to be laid up to existing cover	N/A
75	600 x 600	Cellar opening	New paving to be laid up to existing cover	N/A
76	1000 x 500	BT	New cover and frame, level and orientation on match new paving	D400
77a	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
77b	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
78a	600 x 600	Cellar opening	New paving to be laid up to existing cover	N/A
78b	150 x 150	NG supply	New cover and frame, level and orientation on match new paving	D400
79	150 X 150	Earth rod	Remove from store and resintall, orientated to new paving	N/A
80	2000 X 250	drain	Replaced by new drainage system	N/A
81	2000 X 250	drain	Replaced by new drainage system	N/A
82	1000 x 500	BT	New cover and frame, level and orientation on match new paving	D400
83	150 x 150	NG supply	New cover and frame, level and orientation on match new paving	D400
84	150 X 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
85	150 x 150	NG supply	New cover and frame, level and orientation on match new paving	D400
86	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
87	150 x 150	NG supply	New cover and frame, level and orientation on match new paving	D400
88	200 dia	Furniture socket	Remove from store and resintall, orientated to new paving	N/A
89a	1250 x 850	BT	New cover and frame, level and orientation on match new paving	D400
89b	400 x 400	WP	New cover and frame, level and orientation on match new paving	D400
90	150 x 150	NG supply	New cover and frame, level and orientation on match new paving	D400

No.	Dimensions	Service	Notes	Load Rating
91	1390 X 850	BT	New cover and frame, level and orientation on match new paving	D400
92	2000 X 150	drain	Replaced by new drainage system	N/A
93	2000 X 250	drain	Replaced by new drainage system	N/A
94	600 X 600	ST Sewer	New cover and frame, level and orientation on match new paving	D400
95a	400 X 200	ST hydrant	New cover and frame, level and orientation on match new paving	D400
95b	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
96	600 x 600	BT	New cover and frame, level and orientation on match new paving	D400
97	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
98	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
99	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
100	150 x 150	NG supply	New chamber, cover and frame, level and orientation to match new paving	D400
101	1400 X 700	BT	New cover and frame, level and orientation on match new paving	D400
102	150 X 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
103	380 x 225	ST hydrant	New cover and frame, level and orientation on match new paving	D400
104	150 X 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
105	225 X 120	BT Connection	New cover and frame, level and orientation on match new paving	C250
106	700 X 700	BT	New cover and frame, level and orientation on match new paving	D400
107	600 x 600	BT	New cover and frame	D400
108	600 x 600	Drain	New cover and frame	D400
109	400 X 250	ST hydrant	New cover and frame, level and orientation on match new paving	D400
110	150 x 150	ST stop tap	New cover and frame	D400
111	150 x 150	ST stop tap	New cover and frame	D400
112	600 X 600	BT	New cover and frame, level and orientation on match new paving	D400
113	150 x 150	NG connection	New cover and frame, level and orientation on match new paving	D400
114	150 x 150	NG connection	New cover and frame, level and orientation on match new paving	D400
115a	150 x 150	ST stop tap	New cover and frame, level and orientation on match new paving	D400
115b	450 X 450	Traffic signals	New cover and frame, level and orientation on match new paving	D400
116	150 x 150	downspout drain	New paving to be laid up to existing cover	N/A
117	150 x 150	ST stop tap	Not affected by scheme	N/A
118	1000 X 500	BT	Not affected by scheme	N/A
119	300 X 300	CCTV	Not affected by scheme	N/A
120	400 X 250	ST main	New cover and frame	D400

No.	Dimensions	Service	Notes	Load Rating
121	450 X 450	Traffic signals	Not affected by scheme	N/A
122	600 X 450	CCTV	Not affected by scheme	N/A
123	600 X 600	sewer or drain	New cover and frame	D400
124	600 X 600	drain	Not affected by scheme	N/A
125	600 X 600	Surface Water	Not affected by scheme	N/A
126	1000 X 500	WP	Not affected by scheme	N/A
127	300 X 300	Abandoned CCTV	Not affected by scheme	N/A
128	1000 X 500	BT	Not affected by scheme	N/A
129	400 X 200	Gully	Existing cover and frame to be reinstalled	N/A
130	600 X 600	BT	New cover and frame, level and orientation on match new paving	D400
131	600 X 600	ST Sewer	New cover and frame, level and orientation on match new paving	D400
132	1400 X 700	BT	Not affected by scheme	N/A
133	1400 X 700	BT	Not affected by scheme	N/A
134	450 x 600	CCTV	New chamber required	C250

APPENDIX 5/2 Schedule of surface water carrier drains

Table 5.2 – Schedule of surface water carrier drains

Drainage Schedule - Pride Hill SITP														<div> <div></div>  </div>
Chamber Ref	Cover Type /Rating / Size	Chamber Diameter (mm)	Proposed Cover Level (m)	Invert Level (m)	Depth (m) to lowest IL	Pipe Connections							Co-ordinates eastings and northings	Comments
						Ref	Upstream MH Ref	Down-stream MH Ref	Pip e Dia . mm	IL	Gradient	Trench Type		
IC01	Solid / D400 / 450mm x 450mm	500	69.870	69.520	0.600	X	N/A	IC03	-	69.370	-	Z	347,254-312,633	Proposed access chamber conveying linear slot drain. See drawing 1070997-T-06-501 (Chamber details) for further details.
IC02	Solid / D400 / 450mm x 450mm	500	70.390	70.790	0.600	X	N/A	IC04	-	70.040	-	Z	349,263-312,620	Proposed access chamber. See drawing 1070997-T-06-501 (Chamber details) for further details.
IC03	Solid / D400 / 450mm x 450mm	500	68.805	68.205	0.600	C	IC01	IC03	-	68.480	1:28	Z	349,226-312,609	Proposed access chamber conveying linear slot drain. See drawing 1070997-T-06-501 (Chamber details) for further details.
						X	IC03	IC05	-	68.440	1:51			
IC04	Solid / D400 / 450mm x 450mm	500	68.985	68.385	0.600	C	IC02	IC04	-	68.635	1:46	Z	349,565-312,604	Proposed access chamber conveying linear slot drain. See drawing 1070997-T-06-501 (Chamber details) for further details.
						X	IC04	IC06	-	68.600	1:49			
IC05	Solid / D400 / 450mm x 450mm	500	66.420	65.820	0.600	C	IC03	IC05	-	66.070	1:51	Z	349,186-312,583	Proposed access chamber conveying linear slot drain. See drawing 1070997-T-06-501 (Chamber details) for further details.
						X	IC05	C04	-	66.065	1:65			

IC06	Solid / D400 / 450mm x 450mm	500	66.650	65.950	0.600	C	IC04	IC06	-	66.300	1:67	Z	349,191- 312,580	Proposed access chamber conveying linear slot drain. See drawing 1070997-T-06-501 (Chamber details) for further details.
						X	IC06	C03	-	66.280	1:65			
C04	Solid / D400 / 450mm x 450mm	450	64.586	63.339	1.247	C	IC05	C04	-	64.235	1:65	Z	349,138- 312,558	Proposed chamber to outfall to existing STW (Co) sewer. See drawings 1070997-T-06-500 (drainage plan) and 1070997-T-06-501 (Chamber details) for further details.
						X	C04	C01	-	64.224	1:69			
						A	C04	STW (Co) Sewer	150	63.874	Unknown			
C03	Solid / D400 / 450mm x 450mm	450	64.611	63.361	1.250	C	IC06	C03	-	64.250	1:56	Z	349,141- 312,553	Proposed chamber to outfall to existing STW (Co) sewer. See drawings 1070997-T-06-500 (drainage plan) and 1070997-T-06-501 (Chamber details) for further details.
						X	C03	C02	-	64.241	1:75			
						A	C03	STW (Co) Sewer	150	63.883	Unknown			
C02	Solid / D400 / 450mm x 450mm	450	62.567	61.317	1.250	C	C03	C02	-	62.201	1:85	Z	349,167- 312,567	Proposed chamber to outfall to existing STW (Co) sewer. See drawings 1070997-T-06-500 (drainage plan) and 1070997-T-06-501 (Chamber details) for further details.
						X	C02	STW (Co) Sewer	-	61.851	Unknown	Z		
C01	Solid/ D400 /450mm x 450mm	450	65.502	64.252	1.250	C	C04	C01	-	62.134	1:69	Z	349,164- 312,572	Proposed chamber to outfall to existing STW (Co) sewer via chamber 02 (C02). See drawings 1070997-T-06-500 (drainage plan) and 1070997-T-06-501 (Chamber details) for further details.
						X	C01	STW (Co) Sewer	150	61.784	Unknown	Z		

APPENDIX 5/6 Linear Drainage Channel Requirements

- (i) The location of the linear drainage channel is shown on Drawing No 1070997-T-06-500 (Drainage Plan).
- (ii) The details of the proposed form of linear drainage system is shown on Drawing No 1070997-T-06-501 (Chamber details).
- (iii) The linear drainage system is located within a pedestrianised area with some heavy loading from delivery vehicles throughout the day. The surfacing proposals have, on the whole, the same loading requirements however differing paving surfaces exist within the proposed design. Any proposal for a different propriety system to the system shown on the drawings must be shown to be equivalent in every aspect. The system indicated on the drawings is Gatic 'Cast Slot with Treadsafe' as supplied by Gatic (www.gatic.com).
- (iv) The proposed linear drainage system will be in accordance with BS EN 1433: 2002 and have a load class of D400 to EN1433
- (v) Gratings shall have a minimum water inlet aperture area of 25,731 mm²/m.
- (vi) System to be laid as per the setting out information supplied to the *Contractor* and have a minimum flow capacity of 28.83l/s.
- (vii) The drainage units shall be set on a concrete bed and backfilled as specified by the manufacturer to achieve a loading category of D400.
- (viii) Special fittings required to provide access for cleaning purposes at each end of every run of linear drain and at intermediate locations not exceeding 50m from the next access point. See drawing 1070997-T-06-500 (Drainage plan) for proposed inspection chamber locations. The locations indicated may be adjusted to suit paving layout and/or length of channel units as required.

APPENDIX 5/7 Thermoplastics structural wall pipes and fittings

1. Information to be provided by the *Contractor*

- (i) The *Contractor* shall provide the following information, in accordance with sub-Clause 518.2, for the range of pipes and fittings (to be verified by the Certification body - see sub-Clause 518.15):
- (ii) Technical drawings showing dimensions and tolerances including sealing rings and weight per metre, together with properties, as specified in sub-Clauses 518.3 and 518.5.
- (iii) Material specification, as required in sub-clause 518.2:

Table 5/7.1: Unplasticised polyvinyl-chloride (PVC-U)

Property	Test Method Reference	Specification
Tensile Properties	BS EN ISO 6259 BS EN ISO 527-1	
Vicat	BS EN 727	
Longitudinal Reversion	BS EN 743	
K-value	BS EN 922	
PVC content	EN 1905	
Density	BS EN ISO 1183-3 ISO 4451	
Melt Flow Rate	ISO 4440	
Heat Reversion	ISO 12091	
Effects of heating (injection moulded fittings only)	BS EN 763	

Table 5/7.2: Polyethylene (PE)

Property	Test Method Reference	Specification
Tensile Properties	BS EN ISO 6259 BS EN ISO 527-1	
Oxygen induction time	BS EN 728	
Melt flow rate	BS EN ISO 1133	
Density	BS EN ISO 1183-3 ISO 4451	
Heat Reversion	ISO 12091	
Effects of heating (injection moulded fittings only)	BS EN 763	

Table 5/7.3: Polypropylene (PP)

Property	Test Method Reference	Specification
Tensile Properties	BS EN ISO 6259 BS EN ISO 527-1	
Oxygen induction time	BS EN 728	
Melt flow rate	BS EN ISO 1133	
Density	BS EN ISO 1183-3 ISO 4451	
Heat Reversion	ISO 12091	
Effects of heating (injection moulded fittings only)	BS EN 763	

APPENDIX 6/1

REQUIREMENTS FOR ACCEPTABILITY AND TESTING ETC. OF EARTHWORKS MATERIALS

1. Acceptable limits for the fills in Table 6/1 appropriate to the Contract in accordance with clauses 602.1 and 608.1 and including
2. The *Contractor* shall allow for 8 No. CBR tests of the formation level, the exact locations for all CBR tests are to be agreed on in advance with the *Project Manager*.

The results of CBR tests shall be supplied to the *Project Manager* and *Supervisor* within 24 hours of the completion of the test. Test samples recording a CBR value lower than 15% shall be considered to have failed and may require stabilisation works to the subgrade for that area of the site, the exact details for this shall be agreed with the *Project Manager* prior to construction works continuing over the affected site area.

The *Contractor* will undertake additional tests for proving a minimum value of 15% CBR following stabilisation works of any previously failed areas of the site.

APPENDIX 6/2

REQUIREMENTS FOR DEALING WITH CLASS U1B AND CLASS U2 UNACCEPTABLE MATERIALS

1. Pre-agreed requirements of the environmental authority for disposal including specific sites. [602.18]:
 - (i) The *Contractor* is to identify a suitable facility for disposal of road-tar planings and provide documentation of such to the Overseeing Organisation.
2. List of known hazardous materials likely to be encountered. [602.5 and 602.18]:
Road Tar contaminating the existing pavements.
3. Methods of excavation, precautions and requirements for handling. [602.5 and 602.18]:
 - (i) Cold Milling (Planing) operations are to be planned and executed in a manner that separates road-tar contaminated planings from 'clean' planings.
 - (ii) Contaminated planings are to be disposed of to a tip licensed for the purpose.
 - (iii) Copies of Hazardous Waste Consignment Notes for the disposal of road-tar contaminated planings are to be provided to the *Project Manager*.
 - (iv) Tar contaminated material can be used on site, if the *Contractor* complies with the requirements of the Environment Agency's Regulatory position statement 075, 'The movement and use of treated waste containing coal tar'
 - (v) If doubt exists PAK marker shall be used to identify if tar may be present. If further analysis is required, laboratory testing should be carried out in line with the County Surveyors' Society Guidance note titled "Road Materials Containing Tar", 17 December 2008.

APPENDIX 7/1

Schedule 1: Permitted Pavement Options			
Drawing Ref.	Area	General Requirements	Permitted Pavement Option
1070997-T-06-1101	CWay A	Schedule 2	A1
1070997-T-06-1101	CWay B	Schedule 2	A2
1070997-T-06-1101	PCD B, PCD C	Schedule 2	A3
1070997-T-06-1101	PCD D	Schedule 2	A4

Schedule 2: General Requirements		
Grid for checking surface levels of pavement courses [702.4]:	Longitudinal dimension:	5 m
	Transverse dimension:	2 m
All asphalt materials conforming to BS EN 13108 shall be transported, laid, compacted and tested in accordance with BS 594987: 2015.		
The materials selected in Schedule 3 shall comply with the material Depths & Specifications in Schedules 5.		

Schedule 3: Permitted Construction Materials								
	Pavement Option (A1)		Pavement Option (A2)		Pavement Option (A3)		Pavement Option (A4)	
Pavement Layer	Material Ref.	Thickness	Material Ref.	Thickness	Material Ref.	Thickness	Material Ref.	Thickness
Surface Course	SURF 1	40mm	SURF1	40mm	-	-	-	-
Binder Course	BIN 1	60mm	-	-	BIN 1	200mm	BIN 1	90mm
Total Thickness		100mm		40mm		200mm		90mm

Schedule 4: General Requirements for Construction Materials	
Clause	Requirement
801.7	All sub-base material shall comply with sub-Clause 801.7
802.4	Material of compacted thickness greater than 100mm shall be laid in two or more layers.
903.27	A minimum PSV ₅₀ is required for a temporary running surface.

Schedule 5: Specifications for Construction Materials			
Material Ref.	CI No.	Description	Requirement
SURF 1	971AR	SMA Surface Course 10mm	See details below
BIN 1	906	Dense asphalt concrete binder course. (Recipe Mixture)	Mixture Designation: AC 20 dense bin 40/60 rec Nominal Layer Thickness: 60mm or 90mm or 200mm as stated in Schedule 3 BS EN 13108-1 and PD 6691:2015 Void content at refusal shall be monitored in the permanent works, see Clause 971AR Resistance to permanent deformation classification: 1 Coarse aggregate: Types (a), (c) or (d) to Annex B.2.4.1.1 of PD 6691:2015 Fine aggregate: Crushed coarse aggregate material as permitted above or type (b) or a mixture of both to Annex B.2.4.2.1 of PD 6691:2015 Limestone aggregate shall not be used.

SURF 1. Clause 971AR Stone Mastic Asphalt Surface Course 10mm

Coarse Aggregate:	Nominal size: 0/10mm
	Minimum PSV 60
	Maximum AAV: See CI 971AR.
Surface texture required (921):	No requirements
Wheel-tracking test temperature:	See CI 971AR
Wheel-tracking test temperature, rate and rut depth (to BS EN 12697)	

Wheel-tracking levels (see Note 2)

Level	Test Temperature C	Wheel tracking requirements	
		Rate (mm/hr)	Rut depth (mm)
		Mean/[max]	Mean / [max]
3	60	5.0/[7.5]	7.0 / [10.5]

'Mean' is the mean result of 6 consecutive results and 'max' is the maximum value measured on a single core.

Surfacing:	Surface Course
Clause:	971AR
Material:	Stone Mastic Asphalt Surface Course 10 mm
Binder:	PMB
Thickness:	40mm
Special Requirements:	
Minimum target binder content:	See CI 971AR
Binder volume:	See CI 971AR
Binder drainage composition:	See CI 971AR
Laboratory air voids content:	See CI 971AR
Noise Level:	No requirement
Surface texture	No requirement

Notes:

1. CE Type Test Data shall be forwarded to the *Project Manager* for approval, at least 10 days before laying is due to commence, clearly stating the proposed source of supply. This should be taken into account when programming works.

APPENDIX 7/2

Excavation, trimming and reinstatement of existing surfaces.

General Requirements

1. All joints in the surface, binder and base layers shall be prepared and treated as directed in paragraph 6.8 of BS 594987:2015.
2. The vertical faces of access chamber covers, gully tops, kerbs, channels and similar projections shall be prepared and treated as directed in paragraph 6.9 of BS 594987:2015.
3. All ironwork within the carriageway and paved areas shall be adjusted to their final level before laying the surface course. (See Appendix 5/1)
4. Tolerance in levels not in accordance with Clause 702 are to be adjusted by the *Contractor* at his own expense in a manner accepted by the *Project Manager*.

TABLE 7/1: Tolerances in Surface Levels of Pavement Courses

<ul style="list-style-type: none">• Road surfaces<ul style="list-style-type: none">○ General○ adjacent to a surface water channel○ Binder course○ Base○ Sub-base under concrete pavement surface slabs laid full thickness in one operation by machines with surface compaction○ Sub-bases other than above	<ul style="list-style-type: none">± 6 mm+10 - 0 mm± 6 mm± 15 mm± 10 mm+10-30 mm
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APPENDIX 7/4

Bond coats, tack coats and other bituminous sprays

SHEET 1: Information to be provided by the compiler:

1. In accordance with SHW Clause 903.4, and BS 594987:2015 all surfaces shall be treated with a bond coat prior to overlay. Refer to drawing 1070997-T-06-1101 for surfacing information.
2. Bond coats shall have a British Board of Agrément HAPAS Roads and Bridges Certificate. In the event that no such certificates have been issued, they shall have the acceptance of the *Project Manager*.
3. All surfaces should be mechanically suction swept before application of bond coats.
4. The *Contractor* shall submit evidence of the suitability of the bond coat intended.
5. Existing ironwork, kerbs and street furniture shall be masked (SHW CI 920.6).
6. Before spraying is commenced, the surface shall be free of all loose material and standing water. Surface preparation shall be carried out in accordance with BS 594987:2015 or for certified products, in accordance with the BBS/HAPAS Certificate. The commencement of the bond coat application shall not proceed prior to the *Project Manager's* agreement on the suitability of the preparation.
7. Rate of spread: in accordance with BS 594987:2015 Chapter 5.5 and Clause 920.8
8. Accuracy of application in accordance with SHW Clause 920.9.

SHEET 2: Information to be provided by the Contractor:

1. The *Contractor* shall provide the following information prior to commencement of the work as required by the table on the following page.
2. The product or products he proposes to use, together with their data sheets, product identification data, cohesivity data as specified.
3. For each product, a copy of the BS EN ISO 9001 certificate showing the name of the manufacturer, the name of the certification body and the reference number and date of the certificate.
4. The spraying equipment proposed, and a test certificate.
5. The source or sources of blinding material proposed.
6. Contingency plans in the event of any breakdown.
7. The results of any other tests or other data the *Contractor* considers would assist the *Project Manager* in assessing the technical merit of the treatment such as:
 - i) Tackiness test and/or trafficability time and methods of test.
 - ii) Breaking time test results for different weather conditions and substrates.
 - iii) Test results for bond to newly laid concrete. The data supplied should not be more than six months old.

Binder Data Sheet – Appendix 7/4		Bond Coats, Tack Coats and Other Bituminous Sprays				
Manufacturer of Binder :			Product name:			
Binder type:			Batch no (if known):			
Binder Grade (highlight as required)		Conventional	Intermediate	Premium	Non-tack	Other
Binder	Source	→		Recovered Binder	Recovered Binder after Ageing Test	
Test ↓				Recovered in accordance with Clause 955	Ageing BBA/HAPAS HiPAT or extended Recovery Test (Clause 955)	
Penetration at 25°C dmm (100g and 5 secs)						
Penetration at 5°C dmm (200g and 60 secs)						
Vialit pendulum cohesion see Clause 957 maximum peak value J/cm ²		The Contractor shall attach a Report and graphical output to this schedule as specified in Clause 957		The Contractor shall attach a Report and graphical output to this schedule as specified in Clause 957		
Product identification test. The provision of data for identification and ageing is optional for unmodified bituminous emulsions to BS 434 and for bitumen and cut back bitumen to BS 3690. Complex shear (stiffness) modulus (G*) and phase angle (δ) data. See Clause 956.		The Contractor shall attach a Report and graphical output to this schedule as specified in Clause 956		The Contractor shall attach a Report and graphical output to this schedule as specified in Clause 956		
Other properties the Contractor considers useful: Minimum Binder Content Binder temperature range for spray application Emulsion Properties and Viscosity Break time Breaking Agent type Weather limits – information from binder manufacturer: road or air temperatures; humidity; wind chill adjustment; tolerance of surface dampness; etc, Temperature max: Temperature min: Other:						

APPENDIX 7/9

Cold Milling (Planing) of Bituminous Bound Flexible Pavement

1. Locations and depth of cold milling is detailed on the drawings listed in Appendix 0/4
2. Prior to any cold milling works, the *Contractor* shall sweep the area to locate any buried metalwork. The *Contractor* shall also located and suitable mark any other obstructions, including overhead cables. These works shall be undertaken 48hours prior to any cold milling works commencing.
3. **The *Employer* is committed through their Environmental Charter to utilise and recycle material wherever possible.**

The Principal *Contractor* is encouraged to forward arising's from the planing operations to a Quarry for re-mixing if not used on the sites. In the event of this not being possible the material should be disposed of in an environmentally sensitive manner off site.
4. **All recipients shall hold a licence or have an Exemption Certificate off the Environment Agency.** (See Appendix 2/3 for Retention of Material).
5. No planed areas shall be trafficked by public vehicles for more than 48 hours

APPENDIX 10/1

Plant and equipment for the construction of exposed aggregate concrete surface.

1. With reference to clause 1007, the proposed separation membrane locations are as identified on drawing 1070997-T-06-1102 (Pavement Construction details). The separation membrane shall be used between jointed reinforced concrete slabs or unreinforced concrete surface slabs and the sub-base.
2. Separation membranes shall be impermeable plastic sheeting 125 microns thick laid flat without creases. Where an overlap of the plastic sheets is necessary, this shall be at least 300mm. There shall be no standing water on or under the membrane when the concrete is placed upon it.

APPENDIX 11/1

Kerbs, Footways and Paved Areas

Kerbs

1. Natural Stone Kerb

Refer to Drawing No. 1070997-06-T-1101 to 1070997-06-T-1110 for material specification and carrying dimensions.

The *Contractor* must allow for mitring the kerbs on site in rates in the bill of quantities.

Footways and Paved Areas

Footway pavers and setts

1. Footway and paved area locations and details are shown on the drawings as listed Appendix 0 /4.

Construction Detail A			
Pavement layer	Clause	Nominal layer thickness (mm)	Requirement
Flags and setts	1101	75	Yorkstone and granite flags and setts design as per BS 7533-12:2006. Various sizes x 75mm thick. (design joint width 8 - 12mm) Jointing material minimum compressive strength – 40N/mm² Colour and exact sizes refer to drawing 1070997-T-06-1102. Slip Resistance (dry)- 84 dry test on Flame Textured finish to EN 13755 and BSEN 1341 Slip Resistance (wet)- 60 wet test on Flame Textured finish to EN 13755 and BSEN 1341 Abrasion Resistance- 16mm Mean (Expected Highest 17mm) to EN 14157 and BSEN1341
Laying course (Bedding mortar)		30	Type B – Plastic mix. Minimum compressive strength as per BS 7533-7, table C.4 -35 N/mm ²
Roadbase (Cat 2 non-trafficked during construction)	1000	150	Refer to Appendix 17/1 and 17/3 Longitudinal joints – Cl.1010. Dowel Bars - Cl.1011,1012 & 1019 Expansion joints - Cl.1009 Joint filler board – Cl. 1015
Separation membrane	1007	-	To meet the requirements of clause 1007.
Type 1	803	150	Type 1 Unbound Mixture (“Sub Base”)
Total construction depth			405mm

Construction Detail B			
Pavement layer	Clause	Nominal layer thickness (mm)	Requirement
Setts	1101	100	Granite sett size- 100mm x 200mm x 100mm. Proposed Size 3 (design joint width 8 - 12mm) Minimum compressive strength of jointing mortar as per BS 7533-7, table C.5 - 40 N/mm ² Colour-refer to drawing 1070997-T-06-1102. Slip Resistance (dry)- 84 dry test on Flame Textured finish to EN 13755 and BSEN 1341 Slip Resistance (wet)- 60 wet test on Flame Textured finish to EN 13755 and BSEN 1341 Abrasion Resistance- 16mm Mean (Expected Highest 17mm) to EN 14157 and BSEN1341
Laying course (Bedding mortar)		30	Type B – Plastic mix. Minimum compressive strength as per BS 7533-7, table C.4 -35 N/mm ²
BIN1	-	-	Refer to Appendix 7/1
Type 1	803	150	Type 1 Unbound Mixture (“Sub Base”)
Total construction depth			480mm

Construction Detail C			
Pavement layer	Clause	Nominal layer thickness (mm)	Requirement
Setts	1101	180	Yorkstone sett size- 180mm x 150mm x 300mm. Proposed Size 4 (design joint width 10 - 15mm) Minimum compressive strength of jointing mortar as per BS 7533-7, table C.5 - 40 N/mm ² Colour-refer to drawing 1070997-T-06-1102. Slip Resistance (dry)- 84 dry test on Flame Textured finish to EN 13755 and BSEN 1341 Slip Resistance (wet)- 60 wet test on Flame Textured finish to EN 13755 and BSEN 1341 Abrasion Resistance- 16mm Mean (Expected Highest 17mm) to EN 14157 and BSEN1341
Laying course (Bedding mortar)		30	Type B – Plastic mix. Minimum compressive strength as per BS 7533-7, table C.4 -35 N/mm ²
BIN1			Refer to Appendix 7/1
Type 1	803	150	Type 1 Unbound Mixture (“Sub Base”)
Total construction depth			560mm

Construction Detail D			
Pavement layer	Clause	Nominal layer thickness (mm)	Requirement
Flags and setts	1101	75	Yorkstone and granite flags and setts design as per BS 7533-12:2006. Various sizes x 75mm thick. (design joint width 8 - 12mm) Jointing material minimum compressive strength – 40N/mm² Colour and exact sizes refer to drawing 1070997-T-06-1102. Slip Resistance (dry)- 84 dry test on Flame Textured finish to EN 13755 and BSEN 1341 Slip Resistance (wet)- 60 wet test on Flame Textured finish to EN 13755 and BSEN 1341 Abrasion Resistance- 16mm Mean (Expected Highest 17mm) to EN 14157 and BSEN1341
Laying course (Bedding mortar)		30	Type B – Plastic mix. Minimum compressive strength as per BS 7533-7, table C.4 -35 N/mm ²
BIN1	-	-	Refer to Appendix 7/1
Type 1	803	150	Type 1 Unbound Mixture ("Sub Base") as per Clause 803
Total construction depth			405mm

Tree Surround Detail	
Pavement layer	Requirement
Tree surround, outer detail	Yorkstone - Indigenous, blue grey to brown to match existing pavement at high street. (design joint width 8 - 12mm) Refer to drawing 1070997-T-06-1102 for pavement requirements. Construction as AREA D
Tree surround, inner detail	30mm thick flexible polyurethane resin-bound gravel with 3mm-6mm size aggregate with 50% aggregate to 50% recycled rubber content, aggregate colour to be agreed with the Project Manager in advance of works commencing. Surface course to be laid on a porous pea-gravel blinding layer above the existing tree growing medium.

3. Tactile Blister Paving

As detailed on drawing 1070997-T-06-1100 and manufactured in accordance with BS EN 1339: 2003 (see scope) and guidelines from the Department for Transport.

Controlled crossing places shall be Blister Pink Granite Tactile Paving 400mm x 400mm x 75mm constructed as AREA D.

Uncontrolled crossings shall Blister Yorkstone Tactile Paving 400mm x 400mm x 75mm constructed as AREA D.

4. Cutting Around Obstacles

A 5 to 10 mm joint must be achieved at all obstacles. Undercutting of paving may be required to achieve this, with a minimum unit size of one third of the surface area for the stated size for the unit type. Localised changes to the paving laying pattern may be removed to achieve the minimum unit sizes. Areas must be agreed with the *Project Manager* prior to a change in the stated laying pattern.

5. Infill Mortar around Ironwork

Infill mortar will only be allowed where cutting of pavers is totally impractical. Areas must be agreed with the *Project Manager* prior to infill mortar being used. Mortar must be Designation 3, pigmented to match the surrounding paving.

6. Bedding Mortar / Laying Course

Type B – Plastic mix. Minimum compressive strength as per BS 7533-7 and Table C.4 -35 N/mm².

7. Primer Slurry

A polymer modified cementitious primer shall be required in compliance with BS 7533 to provide a bond between all stone types used on site and the chosen bedding mortar. The primer should promote an adhesion factor of 2N/ mm² or greater.

8. Grout

Pre –mixed grout to fill joints ranging 5mm – 50mm wide with a target depth of 20mm, up to 200mm in one application, applied using a slurry mix into joints using a squeegee. Required final compressive strength of 40N/ mm². Must be compliant with BS 7533.

9. Paved areas

1. All paving and natural stone kerbs shall comply with the requirements of the Code of Practice documents BS 7533-4:2006, BS 7533-6:1999 and BS 7533-7:2010.

APPENDIX 12/1

TRAFFIC SIGNS GENERAL

1. The approximate location of permanent traffic signs, details of sign faces, mounting heights, sign posts and foundations etc. are shown on drawings listed in Appendix 0/4. All sign faces to be offset a minimum of 500mm from the carriageway edge.
2. The *Contractor* shall agree with the *Project Manager* the exact location of all traffic signs prior to erection and road markings prior to laying.
3. All posts shall be fitted with base plates. Open-ended posts shall be fitted with matching plastic caps.
4. Traffic signs shall conform to BS EN 12899-1 and will require CE marking and a Declaration of Performance (DoP) from the manufacturer. Class SP1 corrosion resistance to posts. Posts to be hot dipped galvanised, with a black coloured powder coat or similar finish.
6. The backs of traffic signs shall not have identifying marks. Temporary traffic signs require a remove by date to be placed on the back of the sign.
7. Any additional excavation carried out beyond that specified shall be filled with concrete Class ST2.
8. The *Contractor* shall ensure that posts and foundations do not interfere with existing drains or services and that the concrete backfill does not encase or adhere to drains and services. Where drains or services have been exposed in the post hole excavation, a separation membrane, as accepted by the *Project Manager*, shall be used to ensure compliance with this requirement.
9. All excavations in the vicinity of trees shall be by hand excavation, ensuring that the tree roots remain undamaged and undisturbed. Excavation in the proximity of trees shall comply with NJUG 10 regulations.

APPENDIX 12/3

TRAFFIC SIGNS: ROAD MARKING

1.0 General

- 1.1 The permanent road marking requirements are shown on drawings listed in Appendix 0/4. They shall comply with the specifications in paragraphs 2 & 3 below.

2.0 Permanent Road Markings

- 2.1 The material of permanent road markings shall be thermoplastic screed to Clause 1212.2(i).
- 2.2 Performance of the road markings shall have the following minimum standards for a period of 2 years from the date of application.

3.0 Performance Standards of Road Markings

3.1 White Road Markings – REFLECTORISED

Property	BSEN 1436 Reference	Requirement	Value
Colour	Table 6	White	As shown on drawings listed in Appendix 0/4
Luminance Factor β	Table 2	Class B2	$\beta \geq 0.3$
Skid Resistance SRT	Table 7	Class S3	55
Retro-reflectivity R_L	Table 3 Classes of R_L for dry road markings	Class R2	$R_L \geq 100$
Retro-reflectivity (wet night) R_L	Table 4 Classes of R_L for road markings during wetness	No requirement	

- 3.2 Yellow road markings reflectorised or non-reflectorised, where shown on the above drawing(s), shall comply with the requirements below:

Property	BSEN 1436 Reference	Requirement	Value
Colour	Table 6	Yellow Class Y1	As shown on drawings listed in Appendix 0/4
Luminance Factor	Table 2	Class B1	0.2
Skid Resistance	Table 7	Class S1	45
Retro-reflectivity	Table 3 Classes of R_L for dry road markings	Class RO	No requirement
Retro-reflectivity (wet night)	Table 4 Classes of R_L for road markings during wetness	No requirement	

4.0 Road Studs

4.1 Rectangular aluminium square crossing studs.

4.2 Inset studs to be removed shall be lifted by cutting around the perimeter of the stud. Levering out of position will not be permitted. If the road stud is removed to ensure they do not conflict with Principal *Contractor's* proposed traffic management arrangements, or if removed in advance of milling the pavement but the carriageway will be reopened, the carriageway cavity shall be immediately made good with 6mm medium graded Surface course or 10mm close graded bitumen macadam, fully compacted and finished level with the adjoining surface prior to the carriageway being reopened to traffic

APPENDIX 13\1

Lighting columns and brackets CCTV masts and cantilever masts

1. Clause 1301 - General

- (i) The *Contractor* shall design foundations for the planted lighting columns detailed on the Contract drawings. The design calculations and supporting information shall be submitted to the *Project Manager* not less than 2 weeks before he intends to install any lighting columns. [1301.2]
- (ii) The *Contractor* shall provide permanently fixed warning notices to all lighting columns in the vicinity of overhead lines. [1301.6]
- (iii) Columns shall incorporate doors that are flush fitting, vandal resistant, weatherproof, and have stainless steel locking screws tri-headed, anti-vandal or other design subject to approval.
- (iv) Each column shaft shall have a base compartment large enough to offer easy access to the equipment housed therein. A baseboard of non-hygroscopic material, minimum thickness 15 mm, shall be securely fixed in each compartment and shall be of sufficient size to accommodate the cable terminations and isolator.
- (v) The doors shall be provided with 2 N⁰ keys for between 1 and 10 N⁰ columns and a further 1 N⁰ key for every multiple of 10 N⁰ columns thereafter.
- (vi) An 8 mm diameter brass earth terminal complete with two brass washers and a brass nut and locknut shall be provided in the base compartment, and therefore the requirements of BS EN 40 Part 5 shall apply. The terminal shall be positioned so as to be readily accessible through the door opening.
- (vii) The cable entry slot shall be positioned directly below the door opening and have minimum dimensions of 50 mm x 150 mm and the lower edge of the slot shall be 500 mm below ground level. The slot shall be free from sharp edges and burrs.
- (viii) Street lighting columns shall be free from irregularities and burrs.
- (ix) All columns shall be placed centrally in the hole in a vertical position on a pad of concrete and the hole filled with Class ST1 concrete in 150 mm layers up to a depth of 150 mm below ground level. The excavation shall be backfilled and evenly rammed. An orange polyethylene 5 mm wall thickness smooth bore duct of 50 mm internal diameter shall be installed through the concrete surround into the column via the cable entry hole to provide a clear route for the supply cable.
- (x) The door locking device shall be lubricated. The column door shall be positioned as per the table below:

COLUMN POSITION	DOOR POSITION
Back of footpath	Facing away from oncoming traffic
Near kerb edge	Facing away from oncoming traffic
Centre of central reserve	Facing oncoming traffic in a consistent direction
Near edge of central reserve	Facing away from oncoming traffic or facing distant side of reserve.

- 2. Clause 1302 – Design of Lighting Columns, Brackets, CCTV Masts, Cantilever Masts, Foundations, Anchorages and Attachment Systems**
- (i) The *Contractor* shall establish the soil types on site and submit the information to the *Project Manager* with the lighting column design calculations.[1302.3]
- 3. Clause 1303 - Data Sheets**
- (i) Within eight weeks of the commencement of the works and prior to placement of any orders for materials the *Contractor* shall supply triplicate copies of completed Appendix 13\2 Data sheets for each type lighting column to the *Project Manager*. [1303.1]
- 4. Clause 1304 - Identification and Location Markings**
- (i) Location and inspection markings shall be applied to each lighting column as detailed in the contract drawings. [1304.5]
- (ii) Each number shall consist of a white patch 90mm x 180mm high and with black lettering 75mm high located at 2,0m from ground level and sited so that it can be clearly seen by a passing vehicle. . [1304.5]
- 5. Clause 1305 - Installation of Foundations, Anchorages and Attachment Systems**
- (i) Where anchorage's in drilled holes are to be used, the *Contractor*, shall comply fully with the requirements of Clause 1305.6 to 1305.15. As appropriate, the same requirements apply to wall mounted equipment. [1305.10]
- 6. Clause 1308 - Handling, Transport and Erection**
- (i) Where practical all lighting columns shall be installed such that the location of the door is facing away from oncoming traffic. [1308.4]
- (ii) Wall mounted brackets and fixtures shall be fixed as detailed on the Contract drawings. [1308.5]
- 7. Clause 1309 - Amendments and Additions to BS5649: 1978 (AMD 3136, 1979)**
- (i) All lighting columns shall have a cable entry slot width 'X' of 50mm. [1309]

Lighting columns and brackets, CCTV masts and cantilever masts

TABLE A13/1/1: LIGHTING COLUMN AND BRACKET INFORMATION

Nr	Nominal Column/mounting Height	Bracket Details		Lantern Details				Location of Column				Column Details			Contractor to Complete Manufacturer Catalogue nos.
		Type	Proj.	Arm Angle	Lantern Angle	Weight (kg)	Projected Surface by Side (msq)	Terrain Category	Exposure Coeff.	Topo Factor (f)	Reference Wind Velocity Speed	Column Material / finish	Base Type	Doors to be Fixed	
12	7m	Twin scroll	0.5m	0o	0o	11.5kg	0.23m2	N/A – wall bracket	2.35	1	22.58 m/sec	Aluminium / G2a	N/A	N/A	
3	4.5m	N/A	N/A	N/A	0o	11.5kg	0.23m2	II	2.35	1	22.58 m/sec	Steel / G2a / Embellished	Planted	No	

Notes:

1. Assumed Terrain Category II in accordance with BSEN40-3-1 3.2.6.
2. The *Contractor* shall confirm the topography specific to each road lighting column and calculate the (f) factor in accordance with BSEN40-3-1 Annex B.
3. The *Contractor* shall confirm Reference Wind Velocity Speed ($V_{ref}, 0$) for road lighting columns in accordance with BSEN40-3-1 3.2.2.
4. All column types shall be approved by the Project Manager prior to placing orders with manufacturers.

APPENDIX 13\2

Column and bracket data sheet – Sheet 1

Name of Manufacture:

Column Reference No.	<input type="text"/>
Revision No.	<input type="text"/>
Date	<input type="text"/>

NAME OF CONTRACT

Part A General

Column nominal height (m)

Column Material (m)

Material design strength (m)

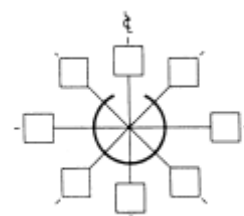
No. of door openings

Door opening size - Height (mm)

- Width (mm)

Cross-section of	Height (mm)	Width (mm)	Depth (mm)
Base compartment	<input type="text"/>	<input type="text"/>	<input type="text"/>

Acceptable positions of bracket arms relative to door position
Door Opening



Any	<input type="text"/>
-----	----------------------

Manufacturers's Drawing ref. no.

Corrosion protection (steel columns only) - basic system type (NG 1901)

Reference Wind Velocity $V_{ref,0}$ as defined in BS EN 40-3-1 m/s

Details of signs and attachments allowed for in the design
Area (mm²), Eccentricity (mm), Height

- additional sacrificial steel thickness, above that needed in the design, from the bottom of the column at least 250 mm above the anticipated ground level (mm)

Part B Foundation

Planting Depth (mm)

Diameter of concrete surround (if any)

Standard Soil Type Factor G		
630	390	230

Flange plate

Bolt Hole centres	Bolt hole diameter	Design load/bolt
(mm)	(mm)	(N)

Relevant forces and moments at ground level

Line of action of max. moment relating to door opening

Note: For flange plates with slotted holes a diagram shall be included with the Data Sheet

Column and bracket data sheet – Sheet 2

PART C Acceptable Lanterns

Luminaire: Maximum Characteristics

Post Top Column	Luminaire Connection		Terrain Categories as defined in BS EN 40-3-1			
			I	II	III	IV
	Lantern Max. Wt (kg)		Maximum Windage Area (m ²) for Terrain Categories as defined in BS EN 40-3-1			
	Diameter	Length				

Single Arm Bracket Column:

Luminaire Lever Arm (mm)	
Due to Wt. of Luminaire	Due to Windage of lantern

Bracket proj. (m)	Ref No.	Dwg No.	Material		Lantern Fixing Angle	Lantern Connection		Lantern Max. Wt (kg)	Maximum Windage Area (m ²) for Terrain Categories as defined in BS EN 40-3-1				
			Grade	Design Strength (N/mm ²)		Dia. (mm)	Length (mm)						

Single Arm Bracket Column:

Luminaire Lever Arm (mm)	
Due to Wt. of Luminaire	Due to Windage of lantern

Bracket proj. (m)	Ref No.	Dwg No.	Material		Lantern Fixing Angle	Lantern Connection		Lantern Max. Wt (kg)	Maximum Windage Area (m ²) for Terrain Categories as defined in BS EN 40-3-1				
			Grade	Design Strength (N/mm ²)		Dia. (mm)	Length (mm)						

PART D Certification

It is certified that the information given in the data sheet has been obtained in accordance with the requirements of BS EN 40: Part 1 and BS5649 as implemented by Departmental Standard BD 26 (DMRB 2.2.1) and the Specifications.

Signed on Behalf of the
*Contractor.*_____

Date_____

APPENDIX 13/3

Instructions for completion of column and bracket data sheets

General

- 1 When information is not required a dash shall be inserted in the appropriate boxes.
- 2 Where a Data Sheet is amended it shall be given a new revision number with a date.
- 3 The revision number shall be consecutive letters of the alphabet, commencing with A'.
- 4 The date of the revision shall agree with the date of the *Contractor's* signature.
- 5 The column or bracket material shall be steel, aluminium, reinforced or pre-stressed concrete, glass fibre, reinforced plastic or any other approved material.
- 6 The material design strength shall be the minimum specified in the design. Where more than one material is used values for all materials shall be given.
- 7 All relevant entries shall be made on the Data Sheet before the document is certified by the *Contractor*.

Column data

- 1 The column nominal height shall be selected from EN40.
- 2 The number of door openings shall agree with the manufacturer's drawing.
- 3 The cross-section of the base compartment shall be indicated by a dimensioned diagram / sketch.
- 4 The acceptable positions of bracket arms relative to the door position shall be indicated on the diagram. Where all positions are acceptable the box noted 'ANY' shall be ticked.
- 5 Where concrete is necessary around the planted base in accordance with Clause 1305.3 and 1305.4 the minimum diameter shall be entered.
- 6 For flange bases all forces and moments used in the design of the foundations anchorage's and attachment systems shall be given.
- 7 The corrosion protection system used on the column when new shall be recorded where additional steel is provided for sacrificial purposes the amount shall be recorded.
- 8 The signs and attachments surface area, eccentricity from the centre line of the column to the centre of the area of the sign and height above ground level to the centre of the area of the sign shall be stated.

Bracket Data

- 1 The lantern lever arms, weight and maximum windage area quoted shall be based on the most adverse loading on the bracket arm when it is attached to any of the columns quoted in the compatible column sections.

(Note: The lantern lever arms are the horizontal distances from the centre of gravity of the lantern and, if applicable, the centroid of the windage surface area to the end of the bracket joint.)

APPENDIX 14/1: SITE RECORDS

1. General

- (i) Information required to be addressed in the Health and Safety File will include the following detail relating to street lighting equipment:

(a)	Description of the works	Brief description of the work carried out
(b)	Residual hazards	Any residual hazards which remain and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc.)
(c)	Hazardous materials used	Hazardous materials used (for example lead paint; pesticides; special coatings which should not be burnt off etc.)
(d)	Information regarding the removal or dismantling of installed plant and equipment	Information regarding the removal or dismantling of installed plant and equipment (for example any special arrangements for lifting, order or other special instructions for dismantling etc.
(e)	Equipment for cleaning or maintaining the structure	Health and safety information about equipment provided for cleaning or maintaining the structure
(f)	Location of significant services	The nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc.
(g)	Information and as-built drawings	Information and as-built drawings of the structure, its plant and equipment

- (ii) The Health and Safety File is a stand-alone document and any drawings or relevant documentation such as those referred to below should be included.

- (iii) The *Contractor* will include the following documentation on completion of works:-

- A plan of the works and details of the types of relevant Apparatus;
- The lighting classes which have been applied to each item of Apparatus and/or each road, footpath or cycle track within the development or works;
- Details of any special requirements by the Authority works must comply;
- A copy of the design of the Apparatus, including:
 - a) Details of all Apparatus types including manufactures catalogue numbers.
 - b) Location of the Apparatus;
 - c) Manufacturers guarantee;
 - d) Completion of *Contractor's* Visual Checklist detailed in table 14/1-1 5; and
 - e) Written confirmation by the *Contractor* that the design complies with the adoption required standards.
- Details of any cable distribution networks forming part of the Apparatus and proposed to be taken over by the Authority;
- The electrical test certificates for the Apparatus;
- Details of the connected/disconnected loads together with the relevant MPAN details;
- Written confirmation from the *Contractor* that the Apparatus complies with the design and specification; and

- Sufficient relevant information to allow the Service Provider to satisfy any Legislation.

(iv) As Built Drawings shall be provided and will include details such as:-

- Earthworks – Extent of batter slopes cross sections and levels should be included where relevant. Topsoil thickness where relevant. Ground conditions where relevant, Contaminated Land;
- Surfacing – Details including materials specifications, sizes, thicknesses patches inlays etc.;
- Drainage – Details of new drains (size, material, level, direction of flow etc.) chambers depth diameter standard detail;
- Utilities – Location of known services which were installed as part of the works, also services and protection with details and dimensions of known service locations, when available taken from trial pits etc. including photos;
- Fencing, and hedging Trees – Details including specification and standard detail;
- Street Lighting – Locations including details of new lights, cables, ducts, electrical connections etc.; and
- Traffic Signs – Locations including details of new signs, electrical connections etc.

2. *Contractor's* Visual Inspection Checklist

- (i) The following checklist shall, together with an electrical test certificate, be completed for all new sites and forwarded to the *Project Manager*. This is the same checklist which will be employed by the Councils Inspector before the works are certified as complete.
- (ii) should any aspects not be part of the *Contractor's* responsibility he shall complete each relevant section with N/A.

Table 14/1-1; *Contractor's Checklist*

	Item	Description of Inspection	Comments
1	General	Have the appropriate Risk Assessments been made regarding the installation and removal of street lighting apparatus?	
		Check NRSWA Notices have been issued and closed and that there are no outstanding defaults	
		Have all redundant items of equipment been removed from site	
		Check that operatives carrying out installation works are suitably trained, qualified and experienced for the works they are required to undertake.	
		Check that any site clearance works have been carried out correctly and that the site has been left clean and tidy	
		Check that any reinstatement works which have been carried out are to the required standard	

	Item	Description of Inspection	Tolerances	Example Asset Numbers									
				1	2	3	4	5	6	7	8	9	Etc.
2 cont.	Design	Is the column height as designed											
		Is the lamp, gear and luminaire as per the design											
		Check the design category is correct for the road/footpath											
		Check the design for compliance with British Standard											
		Check that the minimum and maximum spacings (where applicable) have been complied with.											
		Check that any objects having an adverse influence on the design have been catered for											
		Check lamp lumen output and maintenance factors have been employed in lighting calculations											
		Is the column located in Local Authority owned land or has a Wayleave has been obtained											

3		If the lighting is in a conservation area, are the columns, brackets and luminaires suitable for that conservation area												
		Have the lighting columns been designed to accommodate banners, hanging baskets and / or festive illuminations												
		Has the Statutory Undertakers provided details of their plant on-site and has this been made available during construction etc.												
	Columns and Brackets	Has the column been planted to the correct depth	Manufacturers specification $\pm 25\text{mm}$											
		Check for compliance with design	$\pm 500\text{mm}$ longitudinally $\pm 50\text{mm}$ laterally											
		Check that the correct root protection is evident												
		If access is limited, has a raise / lower column been installed												
		Is the pole upright and plumb?	Spirit level bulb touching line											
		Is the bracket installed as designed?												

		Is the bracket outreach as designed?												
		Is the colour / finish correct and undamaged?	Minor scratches are not through to galvanised layer.											
		Is unit numbered correctly and in the correct manner?	Height \pm 25mm											
		If this is a replacement column, have any existing attachments been transferred to the new column												
4	Column Doors and Base Compartments	Is the column door in the correct orientation												
		Is the column door flush mounted												
		Does the door fit securely and does the lock operate correctly												
		Check that the correct cabling has been used, that wiring is neat and insulation is maintained up to termination blocks.												
		Check that earth bonding is correctly sized and is securely terminated												

		Check that all components are securely fixed to backboard												
		Check if double pole isolating devices have been fitted												
		Check that correctly rated electrical protection has been installed												
		Check that private supply cables are correctly sized, glanded and identified												
5	Luminaires	Is luminaire aligned correctly												
		Is luminaire bowl clean and free from blemishes												
		Is the optic setting as per design												
		Is the correct switching device fitted and set												
		Check that the lamp strikes												
		Does the installation respond to CMS commands												
6	Signs Supported By or Powered From a	Check that statutory signs have been installed where they need to be												
		Check that any holes made in the lighting column fabric has been												

	Lighting Column	adequately sealed to prevent water ingress.												
		Check that any wiring to an illuminated sign is independently fused from street lighting circuits												
		Check correct cables, sleeving and wiring has been used, is neat and tidy.												
		Check insulation extends to terminals and that terminals are tight												
7	Illuminated Signs and Bollards	Check the signs face type, post locations, orientation and door position are correct.												
		Check the shell type, base is installed to correct depth and that it opens in correct direction.												
8	Feeder Pillars	Check that location agrees with design												
		Check that private supply cables are correctly sized, glanded and identified												

		Check that the correct cabling has been used, that wiring is neat and insulation is maintained up to termination blocks.												
		Check that earth bonding is correctly sized and is securely terminated												
		Check that all components are securely fixed to backboard												
		Check if double pole isolating devices have been fitted												
		Check that correctly rated electrical protection has been installed												
9	Electrical Testing	Check that instruments used to undertake the electrical tests are calibrated.												
		Check that a test certificate is provided, valid and complete												

APPENDIX 14/2

Location of lighting units and feeder pillars

1. Clause 1401 - General

- (i) All information relating to the existing installations possessed by the Project Manager regarding the position of existing underground cabling, feeder pillars and lighting unit positions will be made available to the *Contractor* without any guarantee as to its accuracy. [1401.5]

2. Clause 1403 - Location of Lighting Units and Feeder Pillars

- (i) The location of all lighting units is detailed on the drawings listed in Appendix 0/4
- (ii) The minimum lighting requirements for this scheme are detailed in table A14/2/1 on the following page.
- (iii) To demonstrate conformance with the requirements of table A14/2/1 the following information shall be returned with the completed tender, based on the equipment proposed therein:
 - a) 2 no. Copies of Illuminance plot / explanatory notes demonstrating compliance with the above criteria.
 - b) The printouts shall include luminaire type / catalogue no., lamp type / design lumen output, and show the calculated lighting levels.
- (iv) The location of all feeder pillars are detailed on the drawings listed in Appendix 0/4

Table A14/2/1: Lighting Level Requirements

Location	Compliance With	Maintenance Factor	Road Surface Category	Nominal Road Width	Lantern Overhang	<i>Contractor's</i> Proposed Lantern
Pride Hill	BSEN 5489:2013 Class C2	0.80	N/A	See Drawings	See Drawings	

APPENDIX 14/3

TEMPORARY LIGHTING

1. Clause 1405 - Temporary Lighting

- (i) Existing road lighting units, lit sign units and associated power supplies shall be maintained until the new installation has been commissioned. [1405.1]
- (ii) The *Contractor* shall ensure that the requirement for temporary lighting and associated power supplies is identified and appraised fully during preparation of the programme of works defined in Appendix 1/13.
- (iii) The *Contractor* shall design and install temporary LV power supply networks for all locations where the existing cable network is removed before/during installation of the permanent road lighting works.
- (iv) All temporary LV power supply networks designed by the *Contractor* shall comply fully with the requirements of BS 7671. The *Contractor's* proposals shall be submitted to the Overseeing Organisation, for appraisal, 7 days before installation.
- (v) All temporary lighting shall comply fully with the requirements of BS 5489:2013. The *Contractor's* proposals shall be submitted to the Overseeing Organisation, for appraisal, 7 days before installation.
- (vi) Temporary lighting shall not be removed or switched off until:
 - a) the permanent installation is in full operation;
 - b) an inspection has been carried out on the operation of the permanent installation not less than 24 hours or more than 7 days after commissioning;
 - c) any adjustments, remedial or replacement works found necessary have been carried out;
 - d) The system re-inspected as b. above.

APPENDIX 14/4

ELECTRICAL EQUIPMENT FOR ROAD LIGHTING

1. Clause 1407 - Luminaires

- (ii) All luminaires shall be as detailed on the Contract Drawings. [1407.2(i)]
- (iii) All luminaires for road lighting shall have degree of protection rating of at least IP66 to BS EN 60529. [1407.2(iii)]
- (iv) Luminaires shall be fitted with LucyZodion Vision CMS system as detailed on the Contract Drawings but able to be connected to standard 5 pin electronic photocell controls . [1407.2(iv)]
- (v) The *Contractor* shall insert in table A/14/4/1, details of all the luminaires he proposes to use. [1407.2(i)]

2. Clause 1409 - Photo-Electric Control Units (PECU's)

- (i) Not applicable.

3. Clause 1416 - Cut-outs, Fuse Holders, Fuses and Miniature Circuit Breakers (MCB's)

- (i) All fuses shall be HRC type, complying with the requirements of BS88 Pt II, Fuse ratings shall be in accordance with the Contract Drawings and/or the manufacturers recommendations. [1416.5]
- (ii) Lockable double pole isolators must be used which must act upon phase and neutral poles.
- (iii) The *Contractor* shall insert in table A/14/4/2, details of all the double pole isolators he proposes to use. [1416.3] Circuit protective conductors must achieve continuity at all times.
- (iv) All isolators must be of modular construction and accept din-rail mounted accessories. All isolators must comply with BS 7654 and BS EN 60947-1, the Low Voltage Directive (LVD/73/223/EEC and the Electro-magnetic compatibility Directive (EMC/336/EEC).
- (v) Isolators shall be suitable for 2, 3 & 4 Din rail mounting modules.
- (vi) Isolators shall be constructed to achieve a rated insulation voltage of 440V ac. Terminal blocks shall be made of brass with tin plating.
- (vii) Isolator enclosures shall be constructed to achieve IP4L4 ingress rating when the fuse cover is in place and IP2X when the fuse cover is removed. All live terminals must be shrouded to avoid the danger of shock.
- (viii) The *Contractor* shall insert in table A/14/4/2, details of all the double pole isolators he proposes to use. [1416.3]

4. Clause 1417 - Base Compartment Fixing Arrangements

- (i) All electrical equipment installed within the base compartment of lighting columns shall be arranged as detailed on the Contract Drawings. [1417.1]

5. Clause 1419 - Wiring

- (i) All wiring and installation of components within lighting columns and lit sign units shall be in accordance with the Contract Drawings. [1419.1]
- (ii) Columns shall be wired in 300/500V grade PVC sheathed and PVC insulated cable. Dependant on wiring configurations, these cables will have either two or three PVC Insulated copper cores

and a bare Circuit Protective Conductor (Earth Wire) conforming to BS 6004. For columns of 6 m and below, cores will have a cross-sectional area (csa) of 1.5sq.mm, for columns of with a height greater than 6.0m the cable will have cores with a minimum csa of 2.5sq.mm

- (iii) All MICC cables shall be securely fixed with PVC covers and saddles except where an alternative fixing method is specified. Fixings shall be spaced in accordance with BS 7671 and the manufacturer's instructions.
- (iv) Bending radius of any MICC cable shall not be less than six times the diameter of the MICC cable and all bends shall be made with the correct tool. Offsets to accessories and equipment shall have a minimum of 80 mm between the gland and the first bend of the offset.
- (v) For MICC cable seals shall be screw-on type brass pot seals with earth tails. Standard brass ring type compression glands shall be used at all terminations and PVC shrouds shall be fitted to all glands unless stated otherwise.
- (vi) A separate insulated earth wire shall be provided in all conduit systems.
- (vii) All bare earth conductors shall be sleeved with green and yellow PVC sleeving.

6. Clause 1420 - Earthing

- (i) All earthing for lighting columns shall be carried out in accordance with the Contract Drawings. [1420]
- (ii) The installation must be earthed and labelled in accordance with BS 7430 and BS 7671 and labelled accordingly.
- (iii) Armoured cables shall not rely upon the steel wire armour alone for the return path to earth. The steel armour shall be bonded to the earth termination in the base of each column by means of a 6.0mm² insulated copper earth wire.
- (iv) Separate dedicated earth terminal block shall be fixed to the baseboard of each column and the earth terminals of all equipment shall be bonded separately to this terminal block. Crimped connections are to be used wherever possible.
- (v) This dedicated earth terminal shall be supplied irrespective of any other earth terminal, e.g. within the cut-out or on the column.
- (vi) The terminal block shall be connected to the DNO earth terminal and the main earth conductor shall be the equivalent cross-sectional area of the incoming phase conductor.
- (vii) Minimum cross-sectional area of protective conductors in relation to the area of associated phase conductors shall be as the following table:

Minimum csa of the CPC (mm ²)	
csa of Phase Conductor	Minimum csa of corresponding Main Earth Conductor
6sq.mm	6sq.mm
10sq.mm	10sq.mm
16sq.mm	16sq.mm
25sq.mm	16sq.mm
Larger sizes	Consult Street Lighting Section

- (viii) All bare earth conductors shall be sleeved with green and yellow PVC sheathing. All screwed earth connections shall be made between two brass washers.
- (ix) Where service cables are of the Protective Multiple Earth type, the *Contractor* shall ensure that the DNO fit the correct Protective Multiple Earthing label.
- (x) Earth warning labels shall be fitted at every main or supplementary earth bonding point. Labels shall be of the Traffolyte type and be in accordance with Regulation 514.13.1 of BS 7671.

7. Clause 1421 - Underground and Ducted Cable

- (i) The route for underground cable trenches shall be as described on the Contract Drawings. [1421.4]
- (ii) Cables shall be laid in accordance with the requirements of the Contract Drawings. Additional protection shall be provided to cables where described on the Contract Drawings. [1421.5]
- (iii) Unless where specified as MICC, cables which are to be laid underground shall be of armoured construction with a minimum conductor size of 6.0sq.mm. Cables shall be constructed of copper/XLPE/PVC/SWA/PVC conforming to BS 5467, with the outer sheathing coloured black.
- (iv) Cables which are to be surface mounted, such as when servicing a luminaire mounted on a wall bracket, shall be of a Mineral Insulated Copper Clad (MICC) construction complying with BS 6387. Where the cable run, between the DNO cut-out and the luminaire, is less than 6.0m long the minimum acceptable cable size will be 1.5sq.mm. where the cable runs exceeds 6.0m then a minimum conductor size of 2.3sq.mm. will be used.
- (v) In all cases, where wall brackets are to be used, the routes of any surface cables must be agreed with the Council prior to their installation.
- (vi) The *Contractor* shall insert in table A/14/4/4, details of all the cables he proposes to use. [1421]
- (vii) When cable termination does not proceed immediately following installation of the cable and the cable ends are buried, their positions shall be marked with a permanent marker block as described in Clause 1421.11. The block shall be marked as instructed by the Overseeing Organisation. [1421.11]
- (viii) Where a private network cable is to be provided and ducting is not specified, a trench shall be excavated so as to provide a minimum cover to the cable of 450 mm to invert, except in carriageways where cable shall be laid at 750 mm to invert. The cable shall be laid on a 75 mm bed of imported sand, free from impurities likely to cause damage to the cable and covered with a layer of the same material to a depth of 75 mm. All unsuitable material shall be removed and be disposed of to a licensed tip. The trench shall be re-instated with suitable material only.
- (ix) No cable joints will be permitted below ground level.
- (x) The *Contractor* will provide 5 working days' notice, to the *Project Manager*, of any excavation works for street lighting cables and the laying of any ducts and/or cables. The *Contractor* will confirm with the *Project Manager* when ducts and/or cables have been laid and that the trench will remain open for a period of 24 hours, from such notification, before any backfill will commence. If the *Project Manager* wishes to, it will carry out such inspections as required within that 24 hour window.
- (xi) The trench shall be backfilled and reinstated in compliance with the HAUC specification contained within the New Roads and Street Works Act 1991 and Chapter 8 of the Traffic Signs Manual. All open trenches must be fenced and guarded in accordance with Chapter 8 of the Traffic Signs Manual and the Department for Transport's Safety at Street Works and Road Works a Code of Practice

- (xii) Failure to notify the *Project Manager* that a trench is open for inspection will result in the trench being re-opened at the *Contractor's* expense. Any damage or rectification works required will also be carried out at the *Contractor's* expense.

8. Clause 1422 - Cable Joints

- (i) Cable joints shall not be permitted unless stated otherwise on the Contract Drawings. [1422.3]
- (ii) Where cable joints are detailed on the Contract Drawings Cable joint marker blocks shall be placed over each cable joint. [1422.6]

9. Clause 1423 - Armoured Cable Termination's

- (i) Armoured cable terminations shall be carried out in accordance with the Contract Drawings. [1423.1]
- (ii) Armoured cables shall be terminated by means of a 3-part compression gland comprising armour locking ring, locknut, earth terminal and shroud.
- (iii) The cable armour shall be bonded to the earth terminal block in each column and continuity achieved throughout the earth loop including the column.
- (iv) Where dissimilar metals are in contact, the whole area of each contact surface shall be cleaned, dried and coated with jointing paste to avoid electrolytic action.

10. Feeder Pillars

- (i) Feeder pillars shall be constructed and installed in accordance with the Contract Drawings.
- (ii) A concrete foundation, in accordance with manufacturer's instructions, shall be provided to which the free-standing pillar shall be firmly fixed.
- (iii) Engraved labels of the dimensions and legend indicated on the Standard Detail Drawing SD1400-10 shall be provided and fixed to the pillar with self-tapping screws.

11. Fastenings

- (i) All screws, washers and bolts shall be manufactured from stainless steel or brass.

TABLE A/14/4/1: ELECTRICAL EQUIPMENT FOR ROAD LIGHTING

Lanterns and Lamps											
Lantern		Light Source			Integral Or Remote Cell	Supplier To Complete					
Quantity / Type	Control Gear	Type	Number	Wattage		Lantern Manu:	Cat No:	Lamp Manu:	Ip Rating	Lantern Weight	Lantern Wind Area
12	Integral	LED	48/700mA	106	N/A	Urbis	Abbey Large	N/A	IP 66	11.5kg	0.23m ²
3	Integral	LED	32/500mA	51	N/A	Urbis	Abbey Large	N/A	IP 66	11.5kg	0.23m ²

TABLE A/14/4/2: ELECTRICAL EQUIPMENT FOR ROAD LIGHTING

Lighting Unit Cut Out Termination's		
Termination Type	Contractor To Complete	
	Manufacturer	Cat No.
T11		
T12		
T2		
NOTES;		
1. Completed Data Sheets shall be provided as soon as the Contract has been awarded.		

TABLE A/14/4/3: ELECTRICAL EQUIPMENT FOR ROAD LIGHTING

Cable		
Cable Type	Contractor To Complete	
	Manufacturer	Cat No.
1.5mm sq 3 core Mineral Insulated		
NOTES;		
1. Completed Data Sheets shall be provided as soon as the Contract has been awarded.		
2. All cables shall be B.A.S.E.C. approved.		

APPENDIX 14/5

ELECTRICAL EQUIPMENT FOR TRAFFIC SIGNS

1. Clause 1417 - Base Compartment Fixing Arrangements

- (i) All electrical equipment installed within the base compartment of traffic signs shall be generally arranged as detailed on the Contract Drawings. [1417.1]

2. Clause 1419 - Wiring

- (i) All wiring and installation of components within lighting columns and lit sign units shall be in accordance with the Contract Drawings. [1419.1]
- (ii) Luminaires for traffic signs shall be of aluminium construction with LED light source.

APPENDIX 17/1: Schedule for the Specification of Designed Concrete

General

1. All concrete shall comply with the relevant requirements of BS 8500 Part 2 and BS EN 206-1.

Designed Concrete:

Requirements	Schedule
	C32/40
* Intended Working Life of Structure	120 years
* Nominal Cover To Reinforcement	55mm plus allowable deviation
* Applicable Exposures Classes (Excluding DC- Class)	XD3
Δ DC – Class (where appropriate)	DC-1
Δ Compressive Strength Class of Concrete	C32/40
Δ Minimum Cement Content (kg/m3)	360
Δ Maximum Free Water/ Cement Ratio	0.45
Δ Required Group or Type and Class of Cement or Combination (Where a DC - Class has not been specified)	IIB-V, IIIA
Δ Maximum Aggregate Size, mm	20
Δ Chloride Content Class	Cl 0,10
Δ For Lightweight Concrete, the Density Class of Target Density	-
Δ For Heavyweight Concrete, the Target Density	-
Δ +Consistence Class	
Special Type or Class of Cement or Combination	-
Required Source/Special Type Of Aggregate	All constituent materials are to be obtained from a single consistent source.
Maximum Cement Content (kg/m3)	550
Required Admixture	-
Air Entrainment Required	No
Sampling And Testing	See Appendix 1/5
Other Requirements	-

APPENDIX 17/3: Concrete - Surface Finishes

Unformed Finishes

1. Unformed finishes are to be provided as follows:

Class of finish	Locations required
U1	The top surface of all buried concrete.

APPENDIX 19/1**(SPECIFICATION FOR HIGHWAY WORKS) SHEET 1 FORM HA/P1 (NEW WORKS) PAINT SYSTEM SHEET**

1.CONTRACT TITLE: STRUCTURE NO.: GRID REF:				
2.DATE OF ISSUE OF DOCUMENTS TO TENDERERS:				
3.ENVIRONMENT AND ACCESSIBILITY: Inland and Ready				
4.REQUIRED DURABILITY OF SYSTEM: N/A			5.COLOUR OF FINISH: Black – G2a	
6. PAINT SYSTEM TO BE APPLIED OVER: AREA REF: AREA DESCRIPTION: PROTECTIVE SYSTEM TYPE: (i.e. I, II etc): G2a				
7. DETAILS	1 st Coat	2 nd Coat	3 rd Coat	4 th Coat
Registered Description Item No. and Colour Date Registered Brand Name and Manufacturer's Ref. No. Data Sheet No. Where applied How applied Min dry film thickness (mdft) Max local dft (See C1. 1914.7) Estimated total volume of paint likely to be used (litres) 'A' type testing required? (YES/NO) (See C1 1912.3) 'B' type testing required? (YES/NO) (See C1 1912.9)				
8. STRIPE COAT DESCRIPTION (Including Item No. and Colour) Shop: Site:		9. PAINT MANUFACTURER'S OFFICIAL STAMP:		
10. Mdft(um) NOTE: The minimum total dry film thickness of the paint system, neglecting primers and sealers under 30 microns, shall be 15% greater (to the nearest 25 microns) than the sum of the mdfts of the individual paint coats.		11. APPROVED BY DATE:		

APPENDIX 30/10

MAINTENANCE OF ESTABLISHED TREES AND SHRUBS

1. 2 Existing Trees within the site area shall be maintained for a 24 months maintenance period. Refer to Appendix 0/4 for tree work plan.

Arising's from Pruning, Cutting or Felling of Woody Plants.

1. Shorten branches growing towards the shops to give approximately 3m clearance. Cut diameter not to exceed 75mm & reduction must be to a recognised growth point. Crown shape to be maintained.
2. Arising's shall be dealt with by Chipping. All arising's shall be processed immediately using a wood chipper. All remaining arising's from thinning/coppicing that cannot be chipped shall be removed off Site. All arising's from chipping shall be removed off site

Tree Felling

1. 1 existing tree within the site area is to be felled. The whole tree shall be felled to below ground level, where necessary with the assistance of a powered or hand winch.
2. The complete root, including buttress and surface roots arising from or near to its base, shall be removed by stump grinding or similar, to a minimum depth of 500 mm.
3. Following removal of stumps and roots the voids shall be filled with ST1 concrete to formation level.

APPENDIX 11/3AR

Remove from store and re-erect street furniture

1. Street furniture shall be removed from store and reinstalled as stated on drawing number 1070997-T-06-1111
2. The positions for all street furniture shall be agreed on site with the *Project Manager* prior to any installation works taking place on these items. The installation of surface-mounted street furniture shall only take place when the paving works as described in Appendix 11/1 has been completed to the satisfaction of the *Project Manager*.
3. All surface-mounted street furniture shall be installed in accordance with the manufactures instructions, using drilled in expanding anchor bolt fixings or similar, unless stated otherwise on the drawings.
4. Street furniture specified to be installed with concrete footings shall be installed during the construction of paving works as described in Appendix 11/1, with the paving cut in around the items of street furniture.

Refurbishment of existing street furniture

1. All items of furniture identified for refurbishment shall be cleaned of any bedding, foundation or bonding materials and fully disassembled. Existing finishing coatings shall then be removed and the items prepared for refinishing in accordance with BS EN ISO 11124-4:1997.
2. Cycle stands are to be refinished in a Jet Black (RAL 9005) powder coat finish in accordance with BS EN ISO 1461.
3. Open-topped cast iron bins are to be primed and then painted using a paint suitable for refinishing commercial landscape features. The *Contractor* shall present their intended system and colours for refinishing the bins to the *Project Manager* for approval at least 14 days prior to the intended commencement date for this work.

Appendix 62/70AR: SIGN CLEANING

1. Permitted detergents and cleaning agents

Mild Detergent	Such as Dreft or Surf
Tri-Sodium Phosphate	Mixed 0.025 kg to 1 litre of water - strength of solution should vary with condition of sign
Sodium Hypochlorite	3% to 5% solution
Mid-Klenz RSC*	Diluted with up to 16 parts water
Oakite 202**	Diluted with 10 parts water
<p>Suppliers (Cleaners and Solvents)</p> <p>* Dimex Ltd, Dimex House, 116 High Street, Solihull, West Midlands B91 3SB, Telephone No: 0121 704 3551/2/3/4</p> <p>** Oakite Ltd, West Carr Road Industrial Estate, Retford, Nottinghamshire DN22 7SN, Telephone No: 01777 704191</p>	

PREAMBLES TO BILL OF QUANTITIES

General Directions

1. The Bill of Quantities has been prepared in accordance with the Method of Measurement for Highway Works published by The Stationery Office as Section 1 of Volume 4 of the Manual of Contract Documents for Highway Works. The relevant publication date of each page of the Method of Measurement for Highway Works is given in the Schedule of Pages and Relevant Publication Dates.
2. In the Bill of Quantities the sub-headings and item descriptions identify the work covered by the respective items, read in conjunction with the matters listed against the relevant marginal headings "Item coverage" in Chapter IV of the Method of Measurement for Highway Works, these Preambles and the amendments to the Method of Measurement immediately following these Preambles. The nature and extent of the work is to be ascertained by reference to the Drawings, Specification and Conditions of Contract. The rates and prices entered in the Bill of Quantities shall be deemed to be the full inclusive value of the work covered by the several items including the following, unless expressly stated otherwise.
 - (i) Labour and costs in connection therewith.
 - (ii) The supply of materials, goods, storage and costs in connection therewith including delivery to Site. Taking delivery of materials and goods supplied by others, unloading, storage, and costs in connection therewith.
 - (iii) Plant and costs in connection therewith.
 - (iv) Fixing, erecting and installing or placing of materials and goods in position.
 - (v) Temporary Works.
 - (vi) The effect on the phasing of the Works or any element of the Works to the extent set forth or reasonably implied in the documents on which the tender is based.
 - (vii) General obligations, liabilities and risks involved in the execution of the Works set forth or reasonably implied in the documents on which the tender is based.
 - (viii) Establishment charges, overheads and profit.
 - (ix) Waste.
 - (x) Testing carried out by the *Contractor* in accordance with the particular requirements of Appendix 1/5 including supplying results of tests, reports and certificates.
 - (xi) Supply and delivery of samples to the *Project Manager* in accordance with the particular requirements of Appendix 1/6.
 - (xii) Checking, inspecting, examining, measuring and verifying goods, materials and workmanship including supplying results, reports and certificates.
 - (xiii) Attendance and transport for sampling and testing carried out by the *Project Manager*.
 - (xiv) Complying with Quality Assurance requirements of the Contract and providing certificates of conformity.
 - (xv) Preparation and supply of detailed working drawings.
 - (xvi) Awaiting approvals and or consents.
 - (xvii) Where stipulated complying with the particular requirements of Appendix 1/24.

Measurement

3. (i) The measurement of work shall be computed net from the dimensions stated in the Contract unless otherwise stated in the Method of Measurement.
- (ii) Where the tender documents specify the Type of Pavement to be constructed then the measurement of work shall be based upon the thinnest pavement construction and surfacing over structures permitted by the Contract for that Type of Pavement. Where the tender documents provide for the *Contractor* to select the type of safety barrier, pavement or buried structure (where the structure is not within Designated Outlines) to be constructed then the measurement of all work in each area so affected shall be based upon the thinnest pavement construction and surfacing over structures permitted by the Contract in that area for the particular type of safety fence, pavement or buried structure the *Contractor* has elected to construct.

Pricing of Items

4. Each individual item shall have a rate or price entered against it. Rates and prices shall be expressed to two decimal places.

Alternative Specified Materials, Designs and Options within Types of Pavement

5. Where in the Contract a choice of alternatives is permitted:
 - (i) the description billed and the rates and prices inserted shall be deemed to cover any of the permitted alternative materials or designs the *Contractor* may elect to use;
 - (ii) and where separate Bills of Quantities are provided within Series 600: Earthworks for each Type of Pavement permitted by the Contract the rates and prices inserted in respect of the earthworks for the particular Type of Pavement shall be deemed to cover the earthworks for any inherent permitted option within the Type of Pavement elected to be constructed by the *Contractor*;
 - (iii) and where separate Bills of Quantities are provided within Series 700: Pavements for each Type of Pavement permitted by the Contract the rates and prices inserted in respect of the particular Type of Pavement shall also be deemed to cover any inherent permitted option within the Type of Pavement elected to be constructed by the *Contractor*.

In all cases the rates and prices inserted in all Series of the Bill of Quantities shall be deemed to include for any adjustments of work content, rates, costs and the like occasioned by the choice of alternatives elected to be used or constructed by the *Contractor*.

Privately and Publicly Owned Services or Supplies

6. The information in the Contract as to the whereabouts of existing services and mains is believed to be correct but the *Contractor* shall not be relieved thereby of his obligations under the Contract. The *Contractor* shall include in his rates and prices for locating and taking measures for the support and full protection of pipes, cables and other apparatus during the progress of the Works, obtaining the written consent of the appropriate authority to interrupt the service or supply and for keeping the *Project Manager* informed of all arrangements he makes with the owners of privately owned services or supplies, Statutory Undertakers and Public Authorities as appropriate.

Labours

7. **Labours in connection with Nominated Subcontractors shall include:**
 - (i) in the case of work or services executed - for affording the use of existing working space, access, temporary roads, erected scaffolding, working shelters, staging, ladders, hoists, storage, latrines, messing, welfare and other facilities existing on Site and the provision of protection, water, electricity for lighting and clearing away rubbish and debris arising from the work;
 - (ii) in the case of goods, materials or services supplied - for taking delivery, unloading, storing, protecting and returning crates, cartons and packing materials.

Roadworks Overall Requirements

8. The *Contractor* shall allow in his rates and prices for complying with requirements in respect of pavement construction, horizontal alignments, surface levels and surface regularity of pavement courses, dealing with changes in weather conditions, use of surfaces by traffic and construction plant, and general requirements for sub-bases and road bases.

Work Within and Below Non-tidal Open Water or Tidal Water

9. The *Contractor* shall allow in his rates and prices for taking measures required to execute the work within and below non-tidal open water or tidal water. The *Contractor* shall include in his rates and prices for any investigations to ascertain actual boundaries, surface levels and ranges affected by non-tidal open water or tidal water.

Dealing with Flow

10. The *Contractor* shall allow in his rates and prices for taking measures to deal with the existing flow of water, sewage and the like.

Reimbursement of Fees, Rates Taxes and *Project Managers* Telephone Calls

11. The *Contractor* will be reimbursed the actual price paid by the *Contractor* in respect of:
- (i) fees, rates and taxes - the sums certified as properly repayable to the *Contractor* in accordance with the Contract;
 - (ii) *Project Manager's* telephone calls - telephone calls charged to the number or numbers allocated to the *Project Manager*.

Any other cost, charge or expense in respect of these items shall be allowed for in the rates and prices for temporary accommodation.

Site Limitations and Constraints

12. The *Contractor* shall allow in his rates and prices for complying with any limitations and constraints on the use of the Site.

Hard Material

13. For the purposes of the Contract the following are designated as Hard Material in accordance with Chapter 1 Definitions, paragraph 1(h)(i):
- (a) rock below designated stratum;
 - (b) those deposits designated by limits shown on the Drawings;
 - (c) existing pavements, footways, paved areas (but excluding unbound materials) and foundations in masses in excess of 0.20 cubic metres.

Equivalent Products and Materials

14. Where the *Contractor* offers an equivalent product or material in place of the one identified or specified, then the rates and prices in the Bill of Quantities shall be deemed to include for all the obligations and costs associated with the incorporation of the equivalent into the Works, including design, provision of data and drawings, certificates, awaiting acceptance, resubmissions and modifications and amendments to the Works.

Unless specifically stated to the contrary in the Contract the measurement of the Works affected by the incorporation of the equivalent products and materials shall be based on the Tender documents and not on the Works as amended and completed to incorporate the equivalent products and materials.

Permanent Works Designed by the *Contractor*

15. Where the Contract requires part(s) of the Permanent Works to be designed by the *Contractor*, the rates and prices in the Bill of Quantities shall include for all the obligations and costs associated with the incorporation of the *Contractor's* design into the Works, including design, provision of data and drawings, certificates, awaiting approvals, resubmissions and modifications and amendments to the Works.

Additionally the rates and prices in the Bill of Quantities shall include for the costs of all testing and sampling to be carried out by the *Contractor* in respect of workmanship, goods and materials incorporated into the Works or to prove the *Contractor's* design.

Structures Designed by the *Contractor*

16. In respect of each priced Bill of Quantities comprising a single item for a structure designed by the *Contractor*, the *Contractor* shall prepare a priced schedule of quantities. This priced schedule shall be prepared in accordance with the relevant Chapters and Series of the Method of Measurement and submitted to the *Project Manager*.

The quantities, rates and prices in the priced schedule of quantities shall in each case, when extended and totalled, give the amount entered in the priced Bill of Quantities against the item for the relevant structure designed by the *Contractor*.

The priced schedule of quantities shall only be used for Payment Applications and for the valuation of variations ordered under the Contract in connection with structures designed by the *Contractor*.

Unless specifically stated to the contrary in the Contract the measurement of the Works affected by the incorporation of the *Contractor's* design shall be based on the Tender documents and not on the Works as amended and completed to incorporate the *Contractor's* design.

The parts of the Works included by the *Contractor* in the priced schedule of quantities shall include all the parts of the Works within the Designated Outline except those designed and scheduled by the *Project Manager* as not to be included.

National Alterations for The *Project Managers* of Scotland, Wales and Northern Ireland

17. Where a paragraph in Chapter IV of the Method of Measurement for Highway Works (Units and Methods of Measurement) or in the Notes for Guidance on the Method of Measurement for Highway Works or in the Library of Standard Item Descriptions for Highway Works is prefixed by # this indicates that this particular paragraph has a National Alteration for one or more of the *Project Managers* of Scotland, Wales or Northern Ireland. The use of national paragraphs is permitted only within the countries to which they specifically apply and they are deemed to replace corresponding paragraphs in the main body of Chapter IV of the Method of Measurement for Highway Works (Units and Methods of Measurement) or in the Notes for Guidance on the Method of Measurement for Highway Works or in the Library of Standard Item Descriptions for Highway Works as appropriate. The National paragraphs correspond to the particular requirements of the National Alterations for the *Project Managers* of Scotland, Wales or Northern Ireland contained in Volume 1 of the Manual of Contract Documents for Highway Works. The substitute or additional paragraphs are located at the end of the relevant Series.

Testing

18. Testing as paragraph 2(x) above, is in respect of tests to be carried out by the *Contractor* to verify workmanship, goods and materials incorporated into the permanent works and testing of the permanent works in order to prove the *Project Manager's* design as set out in Appendix 1/5.

Checking, inspecting, examining, measuring and verifying goods, materials and workmanship incorporated in the permanent works, as paragraph 2(xii) above, is in respect of other operations set forth or reasonably implied in the Contract to be carried out by the *Contractor* to demonstrate compliance with the particular requirements of the Contract, or to prove the *Project Manager's* design where not separately listed in Appendix 1/5, but excluding trial erection of structural steelwork which shall be measured separately in accordance with Series 1800.

Procedural trials, trial panels and trial areas required to be carried out or constructed as separate operations in advance of the permanent works in order to verify goods, materials and workmanship shall not be measured separately but are included within the item coverage for the relevant Series.

Testing of existing structures and other investigative works shall be individually measured within the relevant Series.

Landscape and Ecology

19. The rates and prices inserted in the Bill of Quantities for new Planting, Seeding and Turfing measured in accordance with Volume 4 – Series 3000 include for all post-planting maintenance work required to be carried out in accordance with the Specification and the relevant Appendices.

In order to properly reflect the scope and duration of the planting and post-planting requirements a series of staged payments for the various items of planting, seeding and turfing will be made in accordance with the Staged Payments Schedule.

The Staged Payments Schedule is to be inserted in the Bill of Quantities immediately preceding the collection page for Landscape and Ecology and shall be used for assessing payments due to the *Contractor* in accordance with the Contract.

Amendments to the Method of Measurement

20. For the purposes of the Contract the Method of Measurement for Highway Works is amended in accordance with the pages immediately following.

AMENDMENTS TO THE METHOD OF MEASUREMENT FOR HIGHWAY WORKS

Series 100: Preliminaries

Progress Photographs

- Units **40** *Add the following:*
- (iii) set of before and after photographs, set of pre-start dilapidation survey photographs, set of as-built photographs.....number.

- Itemisation **42** *Add the following:*

Group	Feature
I	5 Set of before and after photographs.
	6 Set of pre-dilapidation survey photographs.
	7 Set of as-built photographs.

- Item coverage **43** *Add the following:*
- (d) survey of condition of areas before commencement and upon completion of the Works, including measurement, and photographic record.

Series 500: Drainage and Service Ducts

Connections

- Units **29** *Add the following:*
- (ii) connection of existing downspout connection to proposed slot drain via proposed outlet box incorporating recessed cover in accordance with drawing 1070997-T-06-501.....number.

Replace existing paragraph 30 with the following:

- Measurement **30** Connections shall be separately measured for connection to existing drains, existing piped culverts or existing chambers, permanently severed land or mole drains, and to proposed slot drain.

AMENDMENTS TO THE METHOD OF MEASUREMENT FOR HIGHWAY WORKS **(continued)**

Series 500: Drainage and Service Ducts **(continued)**

Connections (continued)

Itemisation

31 *Add the following:*

Group	Feature	
I	4	Connection of existing downspout connection to proposed slot drain.
II	2	Via proposed outlet box incorporating recessed cover in accordance with drawing 1070997-T-06-501.

Item coverage

32 *Add the following:*

- (m) making entry/connection into proposed slot drain;
- (n) connection of inlet from downspout;
- (o) outlet (silt) box;
- (p) 375mm x 375mm x 100mm D400 recessed cover.

Series 1400: Electrical Work for Road Lighting and Traffic Signs

Trench for Cable or Duct

Item coverage

8 *Add the following:*

- (r) lowering existing duct(s) to provide a minimum of 450mm cover from proposed finished pavement level.

Cable and Duct

Itemisation

12 *Add the following:*

Group	Feature	
VI	3	Clipped to wall.

AMENDMENTS TO THE METHOD OF MEASUREMENT FOR HIGHWAY WORKS
(continued)

Series 1400: Electrical Work for Road Lighting and Traffic Signs
(continued)

Cable and Duct (continued)

Item coverage	13	<i>Add the following:</i>
	(n)	PVC covers and saddles or alternative fixing method;
	(o)	brass ring type compression glands;
	(p)	PVC shrouds.

Series 3000: Landscape and Ecology

Maintenance of Established Trees and Shrubs

Itemisation	23	<i>Add the following:</i>
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Group	Feature	
VIII	1	For a 24 month maintenance period in accordance with Appendix 0/4.

METHOD OF MEASUREMENT FOR HIGHWAY WORKS

SCHEDULE OF PAGES AND RELEVANT PUBLICATION DATES

Chapter/Series	Page Number	Publication Date
Contents	1	November 2004
	2	May 2005
	3	November 2004
	4 to 7 inclusive	May 2005
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Chapter II	1	March 1998
	2	May 2001
Chapter III	1	March 1998
	2	May 2001
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2200	<i>Not taken up</i>	May 2004
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2400	1 to 3 inclusive	May 2001
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2500	1 to 2 inclusive	May 2001
2600	<i>Not taken up</i>	
2700	1	May 2001
3000	1 to 15 inclusive	May 2001
5000	1 to 2 inclusive	May 2003

Pride Hill, Shrewsbury

Document 3

Bill of Quantities

Contents

Bill Part No. 1: Preliminaries

Bill Part No. 2: Pride Hill, Shrewsbury

Grand Summary

Bill Part No. 1

Preliminaries

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 100: PRELIMINARIES</u>				
	<u>Temporary Accommodation</u>				
100-01	Erection of principal offices for the Overseeing Organisation		item		
100-02	Erection of offices and messes for the Contractor		item		
100-03	Erection of stores and workshops for the Contractor		item		
100-04	Servicing of principal offices for the Overseeing Organisation until completion of the works		item		
100-05	Servicing of offices and messes for the Contractor		item		
100-06	Servicing of stores and workshops for the Contractor		item		
100-07	Dismantling of principal offices for the Overseeing Organisation		item		
100-08	Dismantling of offices and messes for the Contractor		item		
100-09	Dismantling of stores and workshops for the Contractor		item		
	<u>Information Board</u>				
100-10	Static information sign in accordance with Appendix 1/21	6	no		
100-11	Variable message sign (VMS) in accordance with Appendix 1/21 <i>for 2 week duration only</i>	1	no		
100-12	Variable message sign (VMS) in accordance with Appendix 1/21 <i>for 1 week duration only</i>	2	no		
100-13	Public information sign in accordance with Appendix 1/21	1	no		
	<u>Traffic Safety and Management</u>				
100-14	Traffic safety and management		item		
	<u>Progress Photographs</u>				
100-15	Set of before and after photographs in accordance with Appendix 1/22	1	no		
Page 1/1 To Part Summary					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 100: PRELIMINARIES (continued)</u>				
	<u>Progress Photographs (continued)</u>				
100-16	Set of pre-start dilapidation survey photographs in accordance with Appendix 1/22	1	no		
100-17	Set of progress photographs in accordance with Appendix 1/22	26	no		
100-18	Set of as-built photographs in accordance with Appendix 1/22	1	no		
Page 1/2 To Part Summary					

Series No.	Part Summary	Amount
100	PRELIMINARIES - PAGE 1/1	
100	PRELIMINARIES - PAGE 1/2	
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 200: SITE CLEARANCE</u>				
	<u>Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site</u>				
200-01	Take up or down and set aside for re-use Yorkstone kerb (tie-in detail 10)	22	m		
200-02	Take up or down and set aside for re-use Yorkstone channel (tie-in detail 10)	22	m		
200-03	Take up or down and set aside for re-use unlit traffic sign face	14	no		
200-04	Take up or down and set aside for re-use litter bin	11	no		
200-05	Take up or down and set aside for re-use cycle stand	10	no		
200-06	Take up or down and set aside for re-use earthing point cover	4	no		
200-07	Take up or down and set aside for re-use cigarette ash tray	5	no		
200-08	Take up or down and set aside for re-use collection box	1	no		
200-09	Take up or down and set aside for re-use socket and cover for Christmas tree	1	no		
200-10	Take up or down and remove to employer's store timber bollard	1	no		
200-11	Take up or down and remove to employer's store Yorkstone paving slab	90	m ²		
200-12	Take up or down and remove to employer's store Yorkstone paving block	120	m ²		
200-13	Take up or down and remove to employer's store concrete paving block	1,700	m ²		
200-14	Take up or down and remove to employer's store granite sett	250	m ²		
200-15	Take up or down and remove to employer's store flange plate cast iron road lighting column	6	no		
200-16	Take up or down and remove to employer's store tourist direction sign and post	2	no		
Page 2/1 To Part Summary					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 200: SITE CLEARANCE (continued)</u>				
	<u>Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site (continued)</u>				
200-17	Take up or down and remove to employer's store steel bollard	3	no		
200-18	Take up or down and remove to employer's store timber bollard	1	no		
200-19	Take up or down and remove to tip off site concrete slab	2	m ²		
200-20	Take up or down and remove to tip off site tactile paving	15	m ²		
200-21	Take up or down and remove to tip off site road lighting power cable laid underground	25	m		
200-22	Take up or down and remove to tip off site road lighting power cable laid overground	50	m		
200-23	Take up or down and remove to tip off site wall mounted road lighting luminaire	13	no		
200-24	Take up or down and remove to tip off site unlit traffic sign face	4	no		
200-25	Take up or down and remove to tip off site unlit traffic sign face on one post	1	no		
200-26	Take up or down and remove to tip off site two unlit traffic sign faces on one post	1	no		
200-27	Take up or down and remove to tip off site lit traffic sign face on one post	1	no		
200-28	Take up or down and remove to tip off site two lit traffic sign faces and supplementary plates on one post	1	no		
200-29	Take up or down and remove to tip off site drainage feature (to include backfilling with ST1 concrete to underside of proposed paving layer)	165	m		
200-30	Take up or down and remove to tip off site channel block (to include backfilling with ST1 concrete to underside of proposed paving layer)	16	m		
Page 2/2 To Part Summary					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 200: SITE CLEARANCE (continued)</u>				
	<u>Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site (continued)</u>				
200-31	Take up or down and remove to tip off site small CCTV chamber frame and cover	2	no		
200-32	Take up or down and remove to tip off site large CCTV chamber frame and cover	2	no		
200-33	Take up or down and remove to tip off site bench	4	no		
200-34	Take up or down and remove to tip off site stop tap cover and frame	41	no		
200-35	Take up or down and remove to tip off site fire hydrant cover and frame	6	no		
200-36	Take up or down and remove to tip off site gas valve cover and frame	18	no		
200-37	Take up or down and remove to tip off site manhole cover and frame	15	no		
200-38	Take up or down and remove to tip off site telecommunications cover and frame	22	no		
200-39	Take up or down and remove to tip off site gully grating and frame	3	no		
<div>Page 2/3</div> <div>To Part Summary</div>					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 500: DRAINAGE AND SERVICE DUCTS</u>				
	<u>Drains and Service Ducts (Excluding Filter Drains, Narrow Filter Drains and Fin Drains)</u>				
500-01	100mm internal diameter drain with bed and surround Type Z in trench, depth to invert not exceeding 2 metres, average depth to invert 1.5m	5	m		
500-02	Adjustment on last item for variation greater than 150mm above or below the average depth of 1.5m per 25mm variation in excess of 150mm	-	m		Rate only
500-03	150mm internal diameter drain with bed and surround Type Z in trench, depth to invert not exceeding 2 metres, average depth to invert 1.5m	18	m		
500-04	Adjustment on last item for variation greater than 150mm above or below the average depth of 1.5m per 25mm variation in excess of 150mm	-	m		Rate only
	<u>Connections</u>				
500-05	Connection of 150mm internal diameter pipe to existing 375mm diameter drain or existing piped culvert depth to invert not exceeding 2m	4	no		
500-06	Connection of existing downspout connection to proposed slot drain via proposed outlet box incorporating recessed cover in accordance with drawing 1070997-T-06-501	2	no		
	<u>Chambers and Gullies</u>				
500-07	Precast concrete chamber reference C01 and C02 including trap unit in accordance with drawing 1070997-T-06-501 with 450mm x 450mm D400 cover and frame, depth to invert exceeding 1m but not exceeding 2m	2	no		
500-08	Precast concrete chamber reference C03 and C04 including trap unit in accordance with drawing 1070997-T-06-501 with 450mm x 450mm D400 cover and frame, depth to invert exceeding 1m but	2	no		
500-09	Precast concrete chamber reference IC01 to IC06 in accordance with drawing 1070997-T-06-501 with 450mm x 450mm D400 cast iron cover and frame, depth to invert not exceeding 1m	6	no		
Page 2/4 To Part Summary					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 500: DRAINAGE AND SERVICE DUCTS (continued)</u>				
	<u>Chambers and Gullies (continued)</u>				
500-10	600mm x 600mm CCTV access chamber in accordance with drawing 1070997-T-06-504 with D400 cover and frame, depth to invert not exceeding 1m	1	no		
500-11	600mm x 600mm CCTV access chamber in accordance with drawing 1070997-T-06-504 with C250 cover and frame, depth to invert not exceeding 1m	2	no		
500-12	150mm x 150mm stop valve chamber with D400 cover and frame, depth to invert not exceeding 1m	2	no		
	<u>Soft Spots and Other Voids</u>				
500-13	Excavation of soft spots in bottom of trenches, chambers and gullies	5	m ³		
500-14	Filling of soft spots and other voids in bottom of trenches, chambers and gullies with pipe bedding material	5	m ³		
	<u>Renewal, Raising or Lowering of Covers and Gratings on Existing Chambers and Gullies</u>				
500-15	Renewal of D400 600mm x 600mm chamber cover and frame on existing chamber	8	no		
500-16	Renewal of D400 600mm x 600mm BT chamber cover and frame on existing chamber	4	no		
500-17	Renewal of D400 1000mm x 500mm BT chamber cover and frame on existing chamber	9	no		
500-18	Renewal of D400 700mm x 700mm BT chamber cover and frame on existing chamber	2	no		
500-19	Renewal of D400 1250mm x 850mm BT chamber cover and frame on existing chamber	1	no		
500-20	Renewal of D400 1400mm x 700mm BT chamber cover and frame on existing chamber	1	no		
500-21	Renewal of D400 1390mm x 850mm BT chamber cover and frame on existing chamber	1	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 500: DRAINAGE AND SERVICE DUCTS</u> <u>(continued)</u>				
	<u>Renewal, Raising or Lowering of Covers and Gratings on Existing Chambers and Gullies</u> <u>(continued)</u>				
500-22	Renewal of C250 225mm x 120mm BT chamber cover and frame on existing chamber	1	no		
500-23	Renewal of D400 400mm x 400mm WP chamber cover and frame on existing chamber	2	no		
500-24	Renewal of D400 520mm x 520mm WP chamber cover and frame on existing chamber	1	no		
500-25	Renewal of D400 520mm x 520mm CTTV chamber cover and frame on existing chamber	1	no		
500-26	Renewal of D400 150mm x 150mm stop tap valve chamber cover and frame on existing chamber	37	no		
500-27	Renewal of D400 400mm x 250mm stop tap main chamber cover and frame on existing chamber	1	no		
500-28	Renewal of D400 450mm x 280mm stop tap meter chamber cover and frame on existing chamber	1	no		
500-29	Renewal of D400 150mm x 150mm gas valve chamber cover and frame on existing chamber	18	no		
500-30	Renewal of D400 400mm x 250mm hydrant chamber cover and frame on existing chamber	3	no		
500-31	Renewal of D400 350mm x 250mm hydrant chamber cover and frame on existing chamber	1	no		
500-32	Renewal of D400 400mm x 200mm hydrant chamber cover and frame on existing chamber	1	no		
500-33	Renewal of D400 380mm x 225mm hydrant chamber cover and frame on existing chamber	1	no		
500-34	Renewal of D400 400mm x 200mm gully grating and frame on existing gully	2	no		
	<u>Remove from Store and Reinstall Chamber Covers and Frames, and Gully Gratings and Frames</u>				
500-35	Remove from store and reinstall D400 300mm x 300mm earthing point cover on existing chamber	4	no		
Page 2/6 To Part Summary					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 500: DRAINAGE AND SERVICE DUCTS (continued)</u>				
	<u>Remove from Store and Reinstall Chamber Covers and Frames, and Gully Gratings and Frames (continued)</u>				
500-36	Remove from store and reinstall 200mm diameter socket and cover for Christmas tree	1	no		
	<u>Excavation in Hard Material</u>				
500-37	Extra over excavation for excavation in Hard Material in drainage	10	m ³		
<div> <div>Page 2/7</div> <div>To Part Summary</div> </div>					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 600: EARTHWORKS</u>				
	<u>Excavation</u>				
600-01	Excavation of unacceptable material Class U1A in cutting and other excavation	540	m ³		
600-02	Excavation of unacceptable material Class U2 in cutting and other excavation	115	m ³		
	<u>Excavation in Hard Material</u>				
600-03	Extra over excavation for excavation in Hard Material in cutting and other excavation	250	m ³		
	<u>Disposal of Material</u>				
600-04	Disposal of unacceptable material Class U1A	540	m ³		
600-05	Disposal of unacceptable material Class U2	115	m ³		
	<u>Disused Sewers, Drains, Cables, Ducts, Pipelines and the Like Occurring at Formation or Sub-formation Level; Disused Basements, Cellars and the Like and Gullies</u>				
600-06	Backfilling disused chamber with concrete Class ST1	4	no		
	<u>Completion of Formation and Sub-formation</u>				
600-07	Completion of formation on material other than Class 1C, 6B or rock in cuttings	2,036	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 700: PAVEMENTS</u>				
	<u>Pavement</u>				
700-01	Dense Asphalt Concrete (AC 20 dense bin 40/60 rec) binder course, 60mm thick in carriageway, hardshoulder and hardstrip	70	m ²		
700-02	Stone Mastic Asphalt (10mm 60 PSV minimum) surface course, 40mm thick in carriageway, hardshoulder and hardstrip	270	m ²		
	<u>Tack Coat</u>				
700-03	Bond coat in accordance with Appendix 7/4	340	m ²		
	<u>Cold Milling (Planing)</u>				
700-04	Milling pavement up to 40mm deep	200	m ²		
700-05	Milling pavement up to 100mm deep	70	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS</u>				
	<u>Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
1100-01	Granite kerb, grey, to match existing on St. Mary's Street, 150mm x varying length x 200mm laid straight or curved exceeding 12 metres radius (tie-in detail 1, 2, 3, 11 and 12 reference 12a)	125	m		
1100-02	Granite kerb, black to match existing channels on High Street, 200mm x varying length x 300mm laid straight or curved exceeding 12 metres radius (tie-in detail 8 reference 12b)	9	m		
1100-03	Granite kerb, grey, to match existing on St. Mary's Street, 150mm x length as determined by supplier x 200mm laid to curves not exceeding 12 metres radius (reference 12d)	7	m		
1100-04	Edging kerb, olivine basalt, black, 50mm x varying length x 250mm laid straight or curved exceeding 12 metres radius (tie-in detail 9 reference 12c)	25	m		
1100-05	Linear slot drain system laid straight or curved exceeding 12 metres radius (tie-in detail 4, 5, 6 and 7)	275	m		
	<u>Footways and Paved Areas</u>				
1100-06	Paved area comprising 450mm x 300/600mm x 75mm Yorkstone slab paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 150mm thick C32/40 concrete base foundation in accordance with drawing 1070997-T-06-1103, separation membrane and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail A reference 1)	470	m ²		
1100-07	Paved area comprising 100/150mm x 100mm x 75mm granite setts, green, laid on 30mm thick Type B - plastic mix bedding mortar, 150mm thick C32/40 concrete base foundation in accordance with drawing 1070997-T-06-1103, separation membrane and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail A reference 2a and 2b)	120	m ²		
Page 2/10				To Part Summary	

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u>				
	<u>Footways and Paved Areas (continued)</u>				
1100-08	Paved area comprising 300mm x 300/450mm x 75mm granite paving, green, laid on 30mm thick Type B - plastic mix bedding mortar, 150mm thick C32/40 concrete base foundation in accordance with drawing 1070997-T-06-1103, separation membrane and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail A reference 5a, 5b and 5c)	350	m ²		
1100-09	Paved area comprising 100mm x 200mm x 100mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 200mm thick AC20 dense bin 40/60 rec. asphalt base and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail B reference 3)	250	m ²		
1100-10	Paved area comprising 100mm x 200mm x 100mm granite, basalt, olivine basalt setts, 9 colour mix, laid on 30mm thick Type B - plastic mix bedding mortar, 200mm thick AC20 dense bin 40/60 rec. asphalt base and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail B reference 6)	400	m ²		
1100-11	Paved area comprising 100mm x 200mm x 100mm granite, olivine basalt setts, 2 colour mix, laid on 30mm thick Type B - plastic mix bedding mortar, 200mm thick AC20 dense bin 40/60 rec. asphalt base and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail B reference 7)	30	m ²		
1100-12	Paved area comprising 150mm x 300mm x 180mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 200mm thick AC20 dense bin 40/60 rec. asphalt base and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail C reference 4)	80	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u>				
	<u>Footways and Paved Areas (continued)</u>				
1100-13	Paved area comprising 450mm x 300/600mm x 75mm Yorkstone slab paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 1)	280	m ²		
1100-14	Paved area comprising 100mm x 200mm x 75mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 2c)	25	m ²		
1100-15	Paved area comprising 400mm x 400mm x 75mm Yorkstone tactile paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 8a)	8	m ²		
1100-16	Paved area comprising 400mm x 400mm x 75mm granite tactile paving, pink/red, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 8b)	6	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u>				
	<u>Footways and Paved Areas (continued)</u>				
1100-17	Paved area comprising 95/305mm x 95/305mm x 75mm Yorkstone paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 9a and 9b)	8	m ²		
1100-18	Paved area comprising 95/500mm x 95/500mm x 75mm and in accordance with paving unit details Yorkstone paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 10a, 10b, 10c and 10d)	10	m ²		
1100-19	Paved area comprising 100mm x 200mm x 100mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on concrete surround to one side of granite kerb (reference 12a), to surfaces sloping at 10 degrees or less to the horizontal (tie-in detail 2 reference 11a)	1	m ²		
1100-20	Paved area comprising 100mm x 200mm x 100mm granite setts, green, laid on concrete surround to one side of granite kerb (reference 12a), to surfaces sloping at 10 degrees or less to the horizontal (tie-in detail 2 reference 11b)	1	m ²		
1100-21	Paved area comprising 100mm x 200mm x 100mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar and concrete surround either side of slot drain and granite kerb (reference 12c), to surfaces sloping at 10 degrees or less to the horizontal (tie-in detail 5, 6 and 7 reference 11a)	65	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u>				
	<u>Footways and Paved Areas (continued)</u>				
1100-22	Paved area comprising 100mm x 200mm x 100mm granite setts, green, laid on 30mm thick Type B - plastic mix bedding mortar and concrete surround either side of slot drain and granite kerb (reference 12c), to surfaces sloping at 10 degrees or less to the horizontal (tie-in detail 5, 6 and 7 reference 11b)	65	m ²		
1100-23	Paved area in tree surround detail comprising 30mm thick flexible resin bound gravel with 3-6mm aggregate laid on pea gravel blinding layer of varying depth	8	m ²		
	<u>Remove from Store and Relay Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
1100-24	Remove from store and relay Yorkstone kerb laid straight or curved exceeding 12 metres radius (tie-in detail 10)	22	m		
1100-25	Remove from store and relay Yorkstone channel laid straight or curved exceeding 12 metres radius (tie-in detail 10)	22	m		
	<u>Remove from Store and Re-erect Street Furniture</u>				
1100-26	Remove from store and re-erect open top cast iron litter bin refurbished in black with gold-coloured detailing (as existing)	6	no		
1100-27	Remove from store and re-erect round cast iron litter bin	4	no		
1100-28	Remove from store and re-erect plastic curved top litter bin	1	no		
1100-29	Remove from store and re-erect cigarette ash tray	5	no		
1100-30	Remove from store and re-erect refurbished and finished in jet black (RAL 9005) powdercoat (to BS EN ISO 1461) cycle stand	10	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<p><u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u></p> <p><u>Remove from Store and Re-erect Street Furniture (continued)</u></p> <p><u>Note:</u> <i>The following items are free-issue as they are being supplied to the employer under separate contracts</i></p>				
1100-31	Remove from store and re-erect B1 - Bench 2000mm x 600mm x 450mm (approx.)	8	no		
1100-32	Remove from store and re-erect B2 - Bench as B1 with backrest	4	no		
1100-33	Remove from store and re-erect B3 - Bench as B1 with gradient-correcting support legs	4	no		
1100-34	Remove from store and re-erect B4 - Cube bench 600mm sq. x 450mm (approx.)	10	no		
1100-35	Remove from store and re-erect planter 1500mm sq. x 1000mm (approx.) with base lifting points (for front-loading), fixing not required	7	no		
1100-36	Remove from store and re-erect Wayfinding unit reference P1	1	no		
1100-37	Remove from store and re-erect Wayfinding unit reference S5	1	no		
1100-38	Remove from store and re-erect Wayfinding unit reference S6	1	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS</u>				
	<u>Traffic Signs</u>				
1200-01	Permanent retroreflective traffic sign as non-lit sign unit, sign face not exceeding 0.25 square metres in area (sign reference TS01) on one tubular steel post	1	no		
1200-02	Permanent retroreflective traffic sign as non-lit sign unit, sign face exceeding 1 square metre but not exceeding 2 square metres in area (sign reference TS02A) on one tubular steel post	1	no		
1200-03	Permanent retroreflective traffic sign as non-lit sign unit, sign face not exceeding 0.25 square metres in area (sign reference TS02B) on same post as sign reference TS02A	1	no		
1200-04	Permanent retroreflective traffic sign as non-lit sign unit, sign face not exceeding 0.25 square metres in area (sign reference TS03, TS04, TS05, TS06, TS07, TS09, TS10, TS11 and TS12) on one tubular steel post	9	no		
1200-05	Permanent retroreflective traffic sign as non-lit sign unit, sign face exceeding 1 square metre but not exceeding 2 square metres in area (sign reference TS08) on offset bracket on one tubular steel post	1	no		
1200-06	Permanent retroreflective traffic sign as non-lit sign unit, sign face exceeding 0.25 square metres but not exceeding 0.50 square metres in area (sign reference TS13) on one tubular steel post	1	no		
1200-07	Permanent retroreflective traffic sign as non-lit sign unit, sign face not exceeding 0.25 square metres in area (sign reference TS14A and TS14B) back to back on lighting column L9	2	no		
	<u>Remove from Store and Re-erect Traffic Signs</u>				
1200-08	Remove from store and re-erect permanent retroreflective "no cycling" traffic sign as non-lit sign unit (sign reference EX02B, EX03A, EX05A (on offset bracket), EX06A and EX07) on same post as sign reference TS01, TS02A, TS08, lighting column L14 and sign reference TS13 respectively	5	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS (continued)</u>				
	<u>Remove from Store and Re-erect Traffic Signs (continued)</u>				
1200-09	Remove from store and re-erect permanent retroreflective "homeless donation" traffic sign as non-lit sign unit (sign reference EX02) on same post as sign reference TS02A	1	no		
1200-10	Remove from store and re-erect permanent retroreflective "alcohol control area" sign as non-lit sign unit (sign reference EX03B and EX06C) on same post as sign reference TS02A and lighting column L14 respectively	2	no		
1200-11	Remove from store and re-erect permanent retroreflective "CCTV zone" sign as non-lit sign unit (sign reference EX03C and EX06B) on same post as sign reference TS02A and lighting column L14 respectively	2	no		
1200-12	Remove from store and re-erect permanent retroreflective "hydrant" sign as non-lit sign unit (sign reference EX04A and EX09A) on same post as sign reference TS06 and lighting column L14 respectively	2	no		
1200-13	Remove from store and re-erect permanent retroreflective "dog fouling" sign as non-lit sign unit (sign reference EX05B and EX10A) on same post as sign reference TS08 and lighting column L14 respectively	2	no		
	<u>Road Markings</u>				
1200-14	Continuous line in white thermoplastic screed with applied solid glass beads 200mm wide to diagram 1001	6	m		
1200-15	Ancillary line in white thermoplastic screed with applied solid glass beads 100mm wide with line 2000mm long and gap 150mm long with terminal lines at each end 600mm long and 200mm wide to diagram 1001.3	34	m		
1200-16	Ancillary line in white thermoplastic screed with applied solid glass beads 50mm wide with line 600mm long and gap 600mm long to diagram 1028	2	m		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS (continued)</u>				
	<u>Road Studs</u>				
1200-17	Aluminium fish tail shanked 100mm2 road stud to diagram 1055.1.	24	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<p><u>SERIES 1300 - ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS</u></p> <p><u>Road Lighting Columns and Brackets, Wall Mountings, CCTV Masts and Cantilever Masts</u></p>				
1300-01	Aluminium wall mounted bracket of 7 metre nominal mounting height and 0.5 metre projection with large luminaire (3000K/5098/48/700MA), internal shield and specified CMS	12	no		
1300-02	Steel road lighting column of 4.5 metre nominal height with specified embellishment kit, with large luminaire (3000k/5098/32/500MA) and specified CMS	3	no		
<p>Page 2/19</p> <p>To Part Summary</p>					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1400 - ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS</u>				
	<u>Locating Buried Road Lighting and Traffic Signs Cable</u>				
1400-01	Locating buried road lighting and traffic signs cable in carriageways, footways, bridge decks and paved areas	200	m		
	<u>Trench for Cable or Duct</u>				
1400-02	Trench for duct exceeding 300mm but not exceeding 450mm wide, trench depth not exceeding 1.5 metres in carriageways, footways and paved areas	175	m		
	<u>Cable and Duct</u>				
1400-03	1.5mm sq. cu. 3 core Mineral Insulated Copper Clad (MICC) cable, clipped to wall	15	m		
	<u>Cable Joints and Terminations</u>				
1400-04	Type 2 termination up to 25mm ² 3 core XLPE/PVC/SWA/PVC cable in road lighting column or traffic sign	1	no		
1400-05	Type 11 termination up to 25mm ² 3 core XLPE/PVC/SWA/PVC cable in road lighting column or traffic sign	2	no		
1400-06	Type 12 termination up to 25mm ² 3 core XLPE/PVC/SWA/PVC cable in road lighting column or traffic sign	1	no		
	<u>Feeder Pillars</u>				
1400-07	Mini pillar	1	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<p><u>SERIES 2700: ACCOMMODATION WORKS, WORKS FOR STATUTORY UNDERTAKERS, PROVISIONAL SUMS AND PRIME COST ITEMS</u></p> <p><u>Provisional Sums</u></p>				
2700-01	Allow the Provisional Sum of £20,000 for all works associated with Distribution Network Operator requirements		sum		£20,000.00
2700-02	Add Fee percentage as per Contract Data Part 2 to item 2700-01		%		
<p>Page 2/21</p> <p>To Part Summary</p>					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 3000: LANDSCAPE AND ECOLOGY</u>				
	<u>Maintenance of Established Trees and Shrubs</u>				
3000-01	Maintenance of trees in urban streets for a 24 month maintenance period, in accordance with Appendix 0/4	2	no		
3000-02	Tree surgery in accordance with Appendix 30/10	2	no		
3000-03	Tree felling in accordance with Appendix 30/10	1	no		
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Series No.	Part Summary	Amount
200	SITE CLEARANCE - PAGE 2/1	
200	SITE CLEARANCE - PAGE 2/2	
200	SITE CLEARANCE - PAGE 2/3	
500	DRAINAGE AND SERVICE DUCTS - PAGE 2/4	
500	DRAINAGE AND SERVICE DUCTS - PAGE 2/5	
500	DRAINAGE AND SERVICE DUCTS - PAGE 2/6	
500	DRAINAGE AND SERVICE DUCTS - PAGE 2/7	
600	EARTHWORKS - PAGE 2/8	
700	PAVEMENTS - PAGE 2/9	
1100	KERBS, FOOTWAYS AND PAVED AREAS - PAGE 2/10	
1100	KERBS, FOOTWAYS AND PAVED AREAS - PAGE 2/11	
1100	KERBS, FOOTWAYS AND PAVED AREAS - PAGE 2/12	
1100	KERBS, FOOTWAYS AND PAVED AREAS - PAGE 2/13	
1100	KERBS, FOOTWAYS AND PAVED AREAS - PAGE 2/14	
1100	KERBS, FOOTWAYS AND PAVED AREAS - PAGE 2/15	
1200	TRAFFIC SIGNS AND ROAD MARKINGS - PAGE 2/16	
1200	TRAFFIC SIGNS AND ROAD MARKINGS - PAGE 2/17	
1200	TRAFFIC SIGNS AND ROAD MARKINGS - PAGE 2/18	
1300	ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS - PAGE 2/19	
1400	ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS - PAGE 2/20	
2700	ACCOMMODATION WORKS, WORKS FOR STATUTORY UNDERTAKERS, PROVISIONAL SUMS AND PRIME COST ITEMS - PAGE 2/21	
3000	LANDSCAPE AND ECOLOGY - PAGE 2/22	
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Part No.	Grand Summary	Amount
1	PRELIMINARIES	
2	PRIDE HILL, SHREWSBURY	
Page 3/1		GRAND TOTAL

Company:

Address:

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Signature:

Name:

Position in Company:

Date:

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 200: SITE CLEARANCE</u>				
	<u>Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site</u>				
200-01	Take up or down and set aside for re-use Yorkstone kerb (tie-in detail 10)	22	m		
200-02	Take up or down and set aside for re-use Yorkstone channel (tie-in detail 10)	22	m		
200-03	Take up or down and set aside for re-use unlit traffic sign face	14	no		
200-04	Take up or down and set aside for re-use litter bin	11	no		
200-05	Take up or down and set aside for re-use cycle stand	10	no		
200-06	Take up or down and set aside for re-use earthing point cover	4	no		
200-07	Take up or down and set aside for re-use cigarette ash tray	5	no		
200-08	Take up or down and set aside for re-use collection box	1	no		
200-09	Take up or down and set aside for re-use socket and cover for Christmas tree	1	no		
200-10	Take up or down and remove to employer's store timber bollard	1	no		
200-11	Take up or down and remove to employer's store Yorkstone paving slab	90	m ²		
200-12	Take up or down and remove to employer's store Yorkstone paving block	120	m ²		
200-13	Take up or down and remove to employer's store concrete paving block	1,700	m ²		
200-14	Take up or down and remove to employer's store granite sett	250	m ²		
200-15	Take up or down and remove to employer's store flange plate cast iron road lighting column	6	no		
200-16	Take up or down and remove to employer's store tourist direction sign and post	2	no		
<div> <div>Page 2/1</div> <div>To Part Summary</div> </div>					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 200: SITE CLEARANCE (continued)</u>				
	<u>Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site (continued)</u>				
200-17	Take up or down and remove to employer's store steel bollard	3	no		
200-18	Take up or down and remove to employer's store timber bollard	1	no		
200-19	Take up or down and remove to tip off site concrete slab	2	m ²		
200-20	Take up or down and remove to tip off site tactile paving	15	m ²		
200-21	Take up or down and remove to tip off site road lighting power cable laid underground	25	m		
200-22	Take up or down and remove to tip off site road lighting power cable laid overground	50	m		
200-23	Take up or down and remove to tip off site wall mounted road lighting luminaire	13	no		
200-24	Take up or down and remove to tip off site unlit traffic sign face	4	no		
200-25	Take up or down and remove to tip off site unlit traffic sign face on one post	1	no		
200-26	Take up or down and remove to tip off site two unlit traffic sign faces on one post	1	no		
200-27	Take up or down and remove to tip off site lit traffic sign face on one post	1	no		
200-28	Take up or down and remove to tip off site two lit traffic sign faces and supplementary plates on one post	1	no		
200-29	Take up or down and remove to tip off site drainage feature (to include backfilling with ST1 concrete to underside of proposed paving layer)	165	m		
200-30	Take up or down and remove to tip off site channel block (to include backfilling with ST1 concrete to underside of proposed paving layer)	16	m		
Page 2/2 To Part Summary					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 200: SITE CLEARANCE (continued)</u>				
	<u>Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site (continued)</u>				
200-31	Take up or down and remove to tip off site small CCTV chamber frame and cover	2	no		
200-32	Take up or down and remove to tip off site large CCTV chamber frame and cover	2	no		
200-33	Take up or down and remove to tip off site bench	4	no		
200-34	Take up or down and remove to tip off site stop tap cover and frame	41	no		
200-35	Take up or down and remove to tip off site fire hydrant cover and frame	6	no		
200-36	Take up or down and remove to tip off site gas valve cover and frame	18	no		
200-37	Take up or down and remove to tip off site manhole cover and frame	15	no		
200-38	Take up or down and remove to tip off site telecommunications cover and frame	22	no		
200-39	Take up or down and remove to tip off site gully grating and frame	3	no		
<div> <div>Page 2/3</div> <div>To Part Summary</div> </div>					

Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 500: DRAINAGE AND SERVICE DUCTS</u>				
	<u>Drains and Service Ducts (Excluding Filter Drains, Narrow Filter Drains and Fin Drains)</u>				
500-01	100mm internal diameter drain with bed and surround Type Z in trench, depth to invert not exceeding 2 metres, average depth to invert 1.5m	5	m		
500-02	Adjustment on last item for variation greater than 150mm above or below the average depth of 1.5m per 25mm variation in excess of 150mm	-	m		Rate only
500-03	150mm internal diameter drain with bed and surround Type Z in trench, depth to invert not exceeding 2 metres, average depth to invert 1.5m	18	m		
500-04	Adjustment on last item for variation greater than 150mm above or below the average depth of 1.5m per 25mm variation in excess of 150mm	-	m		Rate only
	<u>Connections</u>				
500-05	Connection of 150mm internal diameter pipe to existing 375mm diameter drain or existing piped culvert depth to invert not exceeding 2m	4	no		
500-06	Connection of existing downspout connection to proposed slot drain via proposed outlet box incorporating recessed cover in accordance with drawing 1070997-T-06-501	2	no		
	<u>Chambers and Gullies</u>				
500-07	Precast concrete chamber reference C01 and C02 including trap unit in accordance with drawing 1070997-T-06-501 with 450mm x 450mm D400 cover and frame, depth to invert exceeding 1m but not exceeding 2m	2	no		
500-08	Precast concrete chamber reference C03 and C04 including trap unit in accordance with drawing 1070997-T-06-501 with 450mm x 450mm D400 cover and frame, depth to invert exceeding 1m but	2	no		
500-09	Precast concrete chamber reference IC01 to IC06 in accordance with drawing 1070997-T-06-501 with 450mm x 450mm D400 cast iron cover and frame, depth to invert not exceeding 1m	6	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 500: DRAINAGE AND SERVICE DUCTS (continued)</u>				
	<u>Chambers and Gullies (continued)</u>				
500-10	600mm x 600mm CCTV access chamber in accordance with drawing 1070997-T-06-504 with D400 cover and frame, depth to invert not exceeding 1m	1	no		
500-11	600mm x 600mm CCTV access chamber in accordance with drawing 1070997-T-06-504 with C250 cover and frame, depth to invert not exceeding 1m	2	no		
500-12	150mm x 150mm stop valve chamber with D400 cover and frame, depth to invert not exceeding 1m	2	no		
	<u>Soft Spots and Other Voids</u>				
500-13	Excavation of soft spots in bottom of trenches, chambers and gullies	5	m ³		
500-14	Filling of soft spots and other voids in bottom of trenches, chambers and gullies with pipe bedding material	5	m ³		
	<u>Renewal, Raising or Lowering of Covers and Gratings on Existing Chambers and Gullies</u>				
500-15	Renewal of D400 600mm x 600mm chamber cover and frame on existing chamber	8	no		
500-16	Renewal of D400 600mm x 600mm BT chamber cover and frame on existing chamber	4	no		
500-17	Renewal of D400 1000mm x 500mm BT chamber cover and frame on existing chamber	9	no		
500-18	Renewal of D400 700mm x 700mm BT chamber cover and frame on existing chamber	2	no		
500-19	Renewal of D400 1250mm x 850mm BT chamber cover and frame on existing chamber	1	no		
500-20	Renewal of D400 1400mm x 700mm BT chamber cover and frame on existing chamber	1	no		
500-21	Renewal of D400 1390mm x 850mm BT chamber cover and frame on existing chamber	1	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 500: DRAINAGE AND SERVICE DUCTS (continued)</u>				
	<u>Renewal, Raising or Lowering of Covers and Gratings on Existing Chambers and Gullies (continued)</u>				
500-22	Renewal of C250 225mm x 120mm BT chamber cover and frame on existing chamber	1	no		
500-23	Renewal of D400 400mm x 400mm WP chamber cover and frame on existing chamber	2	no		
500-24	Renewal of D400 520mm x 520mm WP chamber cover and frame on existing chamber	1	no		
500-25	Renewal of D400 520mm x 520mm CTTV chamber cover and frame on existing chamber	1	no		
500-26	Renewal of D400 150mm x 150mm stop tap valve chamber cover and frame on existing chamber	37	no		
500-27	Renewal of D400 400mm x 250mm stop tap main chamber cover and frame on existing chamber	1	no		
500-28	Renewal of D400 450mm x 280mm stop tap meter chamber cover and frame on existing chamber	1	no		
500-29	Renewal of D400 150mm x 150mm gas valve chamber cover and frame on existing chamber	18	no		
500-30	Renewal of D400 400mm x 250mm hydrant chamber cover and frame on existing chamber	3	no		
500-31	Renewal of D400 350mm x 250mm hydrant chamber cover and frame on existing chamber	1	no		
500-32	Renewal of D400 400mm x 200mm hydrant chamber cover and frame on existing chamber	1	no		
500-33	Renewal of D400 380mm x 225mm hydrant chamber cover and frame on existing chamber	1	no		
500-34	Renewal of D400 400mm x 200mm gully grating and frame on existing gully	2	no		
	<u>Remove from Store and Reinstall Chamber Covers and Frames, and Gully Gratings and Frames</u>				
500-35	Remove from store and reinstall D400 300mm x 300mm earthing point cover on existing chamber	4	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 500: DRAINAGE AND SERVICE DUCTS (continued)</u>				
	<u>Remove from Store and Reinstall Chamber Covers and Frames, and Gully Gratings and Frames (continued)</u>				
500-36	Remove from store and reinstall 200mm diameter socket and cover for Christmas tree	1	no		
	<u>Excavation in Hard Material</u>				
500-37	Extra over excavation for excavation in Hard Material in drainage	10	m ³		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 600: EARTHWORKS</u>				
	<u>Excavation</u>				
600-01	Excavation of unacceptable material Class U1A in cutting and other excavation	540	m ³		
600-02	Excavation of unacceptable material Class U2 in cutting and other excavation	115	m ³		
	<u>Excavation in Hard Material</u>				
600-03	Extra over excavation for excavation in Hard Material in cutting and other excavation	250	m ³		
	<u>Disposal of Material</u>				
600-04	Disposal of unacceptable material Class U1A	540	m ³		
600-05	Disposal of unacceptable material Class U2	115	m ³		
	<u>Disused Sewers, Drains, Cables, Ducts, Pipelines and the Like Occurring at Formation or Sub-formation Level; Disused Basements, Cellars and the Like and Gullies</u>				
600-06	Backfilling disused chamber with concrete Class ST1	4	no		
	<u>Completion of Formation and Sub-formation</u>				
600-07	Completion of formation on material other than Class 1C, 6B or rock in cuttings	2,036	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 700: PAVEMENTS</u>				
	<u>Pavement</u>				
700-01	Dense Asphalt Concrete (AC 20 dense bin 40/60 rec) binder course, 60mm thick in carriageway, hardshoulder and hardstrip	70	m ²		
700-02	Stone Mastic Asphalt (10mm 60 PSV minimum) surface course, 40mm thick in carriageway, hardshoulder and hardstrip	270	m ²		
	<u>Tack Coat</u>				
700-03	Bond coat in accordance with Appendix 7/4	340	m ²		
	<u>Cold Milling (Planing)</u>				
700-04	Milling pavement up to 40mm deep	200	m ²		
700-05	Milling pavement up to 100mm deep	70	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS</u>				
	<u>Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
1100-01	Granite kerb, grey, to match existing on St. Mary's Street, 150mm x varying length x 200mm laid straight or curved exceeding 12 metres radius (tie-in detail 1, 2, 3, 11 and 12 reference 12a)	125	m		
1100-02	Granite kerb, black to match existing channels on High Street, 200mm x varying length x 300mm laid straight or curved exceeding 12 metres radius (tie-in detail 8 reference 12b)	9	m		
1100-03	Granite kerb, grey, to match existing on St. Mary's Street, 150mm x length as determined by supplier x 200mm laid to curves not exceeding 12 metres radius (reference 12d)	7	m		
1100-04	Edging kerb, olivine basalt, black, 50mm x varying length x 250mm laid straight or curved exceeding 12 metres radius (tie-in detail 9 reference 12c)	25	m		
1100-05	Linear slot drain system laid straight or curved exceeding 12 metres radius (tie-in detail 4, 5, 6 and 7)	275	m		
	<u>Footways and Paved Areas</u>				
1100-06	Paved area comprising 450mm x 300/600mm x 75mm Yorkstone slab paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 150mm thick C32/40 concrete base foundation in accordance with drawing 1070997-T-06-1103, separation membrane and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail A reference 1)	470	m ²		
1100-07	Paved area comprising 100/150mm x 100mm x 75mm granite setts, green, laid on 30mm thick Type B - plastic mix bedding mortar, 150mm thick C32/40 concrete base foundation in accordance with drawing 1070997-T-06-1103, separation membrane and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail A reference 2a and 2b)	120	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u>				
	<u>Footways and Paved Areas (continued)</u>				
1100-08	Paved area comprising 300mm x 300/450mm x 75mm granite paving, green, laid on 30mm thick Type B - plastic mix bedding mortar, 150mm thick C32/40 concrete base foundation in accordance with drawing 1070997-T-06-1103, separation membrane and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail A reference 5a, 5b and 5c)	350	m ²		
1100-09	Paved area comprising 100mm x 200mm x 100mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 200mm thick AC20 dense bin 40/60 rec. asphalt base and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail B reference 3)	250	m ²		
1100-10	Paved area comprising 100mm x 200mm x 100mm granite, basalt, olivine basalt setts, 9 colour mix, laid on 30mm thick Type B - plastic mix bedding mortar, 200mm thick AC20 dense bin 40/60 rec. asphalt base and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail B reference 6)	400	m ²		
1100-11	Paved area comprising 100mm x 200mm x 100mm granite, olivine basalt setts, 2 colour mix, laid on 30mm thick Type B - plastic mix bedding mortar, 200mm thick AC20 dense bin 40/60 rec. asphalt base and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail B reference 7)	30	m ²		
1100-12	Paved area comprising 150mm x 300mm x 180mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 200mm thick AC20 dense bin 40/60 rec. asphalt base and 150mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail C reference 4)	80	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u>				
	<u>Footways and Paved Areas (continued)</u>				
1100-13	Paved area comprising 450mm x 300/600mm x 75mm Yorkstone slab paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 1)	280	m ²		
1100-14	Paved area comprising 100mm x 200mm x 75mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 2c)	25	m ²		
1100-15	Paved area comprising 400mm x 400mm x 75mm Yorkstone tactile paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 8a)	8	m ²		
1100-16	Paved area comprising 400mm x 400mm x 75mm granite tactile paving, pink/red, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bin 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 8b)	6	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u>				
	<u>Footways and Paved Areas (continued)</u>				
1100-17	Paved area comprising 95/305mm x 95/305mm x 75mm Yorkstone paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bit 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 9a and 9b)	8	m ²		
1100-18	Paved area comprising 95/500mm x 95/500mm x 75mm and in accordance with paving unit details Yorkstone paving, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar, 90mm thick AC20 dense bit 40/60 rec. asphalt base and 165mm thick Type 1 un-bound sub-base to surfaces sloping at 10 degrees or less to the horizontal (pavement construction detail D reference 10a, 10b, 10c and 10d)	10	m ²		
1100-19	Paved area comprising 100mm x 200mm x 100mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on concrete surround to one side of granite kerb (reference 12a), to surfaces sloping at 10 degrees or less to the horizontal (tie-in detail 2 reference 11a)	1	m ²		
1100-20	Paved area comprising 100mm x 200mm x 100mm granite setts, green, laid on concrete surround to one side of granite kerb (reference 12a), to surfaces sloping at 10 degrees or less to the horizontal (tie-in detail 2 reference 11b)	1	m ²		
1100-21	Paved area comprising 100mm x 200mm x 100mm Yorkstone setts, indigenous, blue grey to brown to match existing paving at High Street, laid on 30mm thick Type B - plastic mix bedding mortar and concrete surround either side of slot drain and granite kerb (reference 12c), to surfaces sloping at 10 degrees or less to the horizontal (tie-in detail 5, 6 and 7 reference 11a)	65	m ²		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u>				
	<u>Footways and Paved Areas (continued)</u>				
1100-22	Paved area comprising 100mm x 200mm x 100mm granite setts, green, laid on 30mm thick Type B - plastic mix bedding mortar and concrete surround either side of slot drain and granite kerb (reference 12c), to surfaces sloping at 10 degrees or less to the horizontal (tie-in detail 5, 6 and 7 reference 11b)	65	m ²		
1100-23	Paved area in tree surround detail comprising 30mm thick flexible resin bound gravel with 3-6mm aggregate laid on pea gravel blinding layer of varying depth	8	m ²		
	<u>Remove from Store and Relay Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
1100-24	Remove from store and relay Yorkstone kerb laid straight or curved exceeding 12 metres radius (tie-in detail 10)	22	m		
1100-25	Remove from store and relay Yorkstone channel laid straight or curved exceeding 12 metres radius (tie-in detail 10)	22	m		
	<u>Remove from Store and Re-erect Street Furniture</u>				
1100-26	Remove from store and re-erect open top cast iron litter bin refurbished in black with gold-coloured detailing (as existing)	6	no		
1100-27	Remove from store and re-erect round cast iron litter bin	4	no		
1100-28	Remove from store and re-erect plastic curved top litter bin	1	no		
1100-29	Remove from store and re-erect cigarette ash tray	5	no		
1100-30	Remove from store and re-erect refurbished and finished in jet black (RAL 9005) powdercoat (to BS EN ISO 1461) cycle stand	10	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<p><u>SERIES 1100: KERBS, FOOTWAYS AND PAVED AREAS (continued)</u></p> <p><u>Remove from Store and Re-erect Street Furniture (continued)</u></p> <p><u>Note:</u> <i>The following items are free-issue as they are being supplied to the employer under separate contracts</i></p>				
1100-31	Remove from store and re-erect B1 - Bench 2000mm x 600mm x 450mm (approx.)	8	no		
1100-32	Remove from store and re-erect B2 - Bench as B1 with backrest	4	no		
1100-33	Remove from store and re-erect B3 - Bench as B1 with gradient-correcting support legs	4	no		
1100-34	Remove from store and re-erect B4 - Cube bench 600mm sq. x 450mm (approx.)	10	no		
1100-35	Remove from store and re-erect planter 1500mm sq. x 1000mm (approx.) with base lifting points (for front-loading), fixing not required	7	no		
1100-36	Remove from store and re-erect Wayfinding unit reference P1	1	no		
1100-37	Remove from store and re-erect Wayfinding unit reference S5	1	no		
1100-38	Remove from store and re-erect Wayfinding unit reference S6	1	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS</u>				
	<u>Traffic Signs</u>				
1200-01	Permanent retroreflective traffic sign as non-lit sign unit, sign face not exceeding 0.25 square metres in area (sign reference TS01) on one tubular steel post	1	no		
1200-02	Permanent retroreflective traffic sign as non-lit sign unit, sign face exceeding 1 square metre but not exceeding 2 square metres in area (sign reference TS02A) on one tubular steel post	1	no		
1200-03	Permanent retroreflective traffic sign as non-lit sign unit, sign face not exceeding 0.25 square metres in area (sign reference TS02B) on same post as sign reference TS02A	1	no		
1200-04	Permanent retroreflective traffic sign as non-lit sign unit, sign face not exceeding 0.25 square metres in area (sign reference TS03, TS04, TS05, TS06, TS07, TS09, TS10, TS11 and TS12) on one tubular steel post	9	no		
1200-05	Permanent retroreflective traffic sign as non-lit sign unit, sign face exceeding 1 square metre but not exceeding 2 square metres in area (sign reference TS08) on offset bracket on one tubular steel post	1	no		
1200-06	Permanent retroreflective traffic sign as non-lit sign unit, sign face exceeding 0.25 square metres but not exceeding 0.50 square metres in area (sign reference TS13) on one tubular steel post	1	no		
1200-07	Permanent retroreflective traffic sign as non-lit sign unit, sign face not exceeding 0.25 square metres in area (sign reference TS14A and TS14B) back to back on lighting column L9	2	no		
	<u>Remove from Store and Re-erect Traffic Signs</u>				
1200-08	Remove from store and re-erect permanent retroreflective "no cycling" traffic sign as non-lit sign unit (sign reference EX02B, EX03A, EX05A (on offset bracket), EX06A and EX07) on same post as sign reference TS01, TS02A, TS08, lighting column L14 and sign reference TS13 respectively	5	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS (continued)</u>				
	<u>Remove from Store and Re-erect Traffic Signs (continued)</u>				
1200-09	Remove from store and re-erect permanent retroreflective "homeless donation" traffic sign as non-lit sign unit (sign reference EX02) on same post as sign reference TS02A	1	no		
1200-10	Remove from store and re-erect permanent retroreflective "alcohol control area" sign as non-lit sign unit (sign reference EX03B and EX06C) on same post as sign reference TS02A and lighting column L14 respectively	2	no		
1200-11	Remove from store and re-erect permanent retroreflective "CCTV zone" sign as non-lit sign unit (sign reference EX03C and EX06B) on same post as sign reference TS02A and lighting column L14 respectively	2	no		
1200-12	Remove from store and re-erect permanent retroreflective "hydrant" sign as non-lit sign unit (sign reference EX04A and EX09A) on same post as sign reference TS06 and lighting column L14 respectively	2	no		
1200-13	Remove from store and re-erect permanent retroreflective "dog fouling" sign as non-lit sign unit (sign reference EX05B and EX10A) on same post as sign reference TS08 and lighting column L14 respectively	2	no		
	<u>Road Markings</u>				
1200-14	Continuous line in white thermoplastic screed with applied solid glass beads 200mm wide to diagram 1001	6	m		
1200-15	Ancillary line in white thermoplastic screed with applied solid glass beads 100mm wide with line 2000mm long and gap 150mm long with terminal lines at each end 600mm long and 200mm wide to diagram 1001.3	34	m		
1200-16	Ancillary line in white thermoplastic screed with applied solid glass beads 50mm wide with line 600mm long and gap 600mm long to diagram 1028	2	m		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1200: TRAFFIC SIGNS AND ROAD MARKINGS (continued)</u>				
	<u>Road Studs</u>				
1200-17	Aluminium fish tail shanked 100mm2 road stud to diagram 1055.1.	24	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<p><u>SERIES 1300 - ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS</u></p> <p><u>Road Lighting Columns and Brackets, Wall Mountings, CCTV Masts and Cantilever Masts</u></p>				
1300-01	Aluminium wall mounted bracket of 7 metre nominal mounting height and 0.5 metre projection with large luminaire (3000K/5098/48/700MA), internal shield and specified CMS	12	no		
1300-02	Steel road lighting column of 4.5 metre nominal height with specified embellishment kit, with large luminaire (3000k/5098/32/500MA) and specified CMS	3	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 1400 - ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS</u>				
	<u>Locating Buried Road Lighting and Traffic Signs Cable</u>				
1400-01	Locating buried road lighting and traffic signs cable in carriageways, footways, bridge decks and paved areas	200	m		
	<u>Trench for Cable or Duct</u>				
1400-02	Trench for duct exceeding 300mm but not exceeding 450mm wide, trench depth not exceeding 1.5 metres in carriageways, footways and paved areas	175	m		
	<u>Cable and Duct</u>				
1400-03	1.5mm sq. cu. 3 core Mineral Insulated Copper Clad (MICC) cable, clipped to wall	15	m		
	<u>Cable Joints and Terminations</u>				
1400-04	Type 2 termination up to 25mm ² 3 core XLPE/PVC/SWA/PVC cable in road lighting column or traffic sign	1	no		
1400-05	Type 11 termination up to 25mm ² 3 core XLPE/PVC/SWA/PVC cable in road lighting column or traffic sign	2	no		
1400-06	Type 12 termination up to 25mm ² 3 core XLPE/PVC/SWA/PVC cable in road lighting column or traffic sign	1	no		
	<u>Feeder Pillars</u>				
1400-07	Mini pillar	1	no		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<p><u>SERIES 2700: ACCOMMODATION WORKS, WORKS FOR STATUTORY UNDERTAKERS, PROVISIONAL SUMS AND PRIME COST ITEMS</u></p> <p><u>Provisional Sums</u></p>				
2700-01	Allow the Provisional Sum of £20,000 for all works associated with Distribution Network Operator requirements		sum		£20,000.00
2700-02	Add Fee percentage as per Contract Data Part 2 to item 2700-01		%		
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Item No.	Description	Quantity	Unit	Rate	Amount
	<u>SERIES 3000: LANDSCAPE AND ECOLOGY</u>				
	<u>Maintenance of Established Trees and Shrubs</u>				
3000-01	Maintenance of trees in urban streets for a 24 month maintenance period, in accordance with Appendix 0/4	2	no		
3000-02	Tree surgery in accordance with Appendix 30/10	2	no		
3000-03	Tree felling in accordance with Appendix 30/10	1	no		
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1100	KERBS, FOOTWAYS AND PAVED AREAS - PAGE 2/12	
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Pre-Construction Information

Shrewsbury Integrated Transport Package

Pride Hill

September 2017

Produced for
Shropshire Council

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Pre Construction Information

Pride Hill

Shrewsbury Integrated Transport Package: Public Realm

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Pride Hill

Shrewsbury Integrated Transport Package: Public Realm

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Pride Hill

Shrewsbury Integrated Transport Package: Public Realm

INTRODUCTION

Pre-Construction Information

This document provides the Pre Construction Information for a project under the Construction (Design and Management) Regulations 2015. WSP will assist the Client to provide and maintain management arrangements for Health and Safety throughout the project. The provision of this Pre Construction Information document is part of that process. A Health and Safety File will be produced at the end of the construction process by the Contractor for acceptance by the Client (see section 5).

Where the detail within a table heading is not relevant, it has been marked as “NOT RELEVANT/NOT KNOWN/NONE KNOWN”.

Pre-Construction Information provides information as part of the early procurement process or tendering. Pre-Construction Information needs to be identified, assembled and sent out in good time, so that those who need it when preparing to bid or when preparing for the work can decide what resources (including time) will be needed to enable design, planning and construction work to be organised and carried out properly. Where design work continues during the construction phase, the Pre Construction Information will need to be provided to designers before work starts on each new element of the design. Similarly, where contractors are appointed during the construction phase, each contractor (or those who are bidding for the work) must be provided with the Pre Construction Information in time for them to take this into account when preparing their bid, or preparing for work on the site.

Clients must provide Designers and Contractors who may be bidding for the work (or who they intend to engage), with project-specific health and safety information needed to identify hazards and risks associated with the design and construction work (Pre Construction Information).

Pride Hill

Shrewsbury Integrated Transport Package: Public Realm

1 DESCRIPTION OF PROJECT

1.1 Project description and programme details:

PROJECT DESCRIPTION		
<p>The Works involve upgrading the existing pedestrianised area on Pride Hill including repaving the area with high quality natural stone. The street lighting, street furniture and traffic signs will also be upgraded.</p>		
<p>Pride Hill</p> <p>Pride Hill is the main shopping area within Shrewsbury town centre. It is pedestrianised and links High Street with Castle Street/St Mary's Street. Traffic is restricted from entering Pride Hill from Castle Street and a 'no vehicles' Traffic Regulation Order (TRO) is in force at the entry points from High Street and Butcher Row, however relaxations are provided for access and loading between 4pm through to 10am the following day. Blue badge holders are currently exempt from the order and may park on Pride Hill for up to 3 hours during certain periods. However a new TRO for a 'pedestrian zone' has been consulted on as part of the proposed works which will remove all parking rights for blue badge holders on Pride Hill. It is anticipated that this TRO will be implemented to coincide with the start of the works on site. The existing block paving will be removed and the area will be resurfaced with Yorkstone and Granite. The existing drainage system is to be removed and replaced with a continuous linier slot drain system. .</p> <p>The site is located as shown in Appendix A below.</p>		
KEY DATES DURING CONSTRUCTION PHASE		
PLANNED START		PLANNED FINISH
March 2018		Sept 2018
OTHER KEY DATES	DATE	DESCRIPTION
	See Contract Documents including Contract Data and Appendix 1/17.	
	<p>The following events are planned to take place in Shrewsbury town centre throughout the duration of the works and require special attention by the contractor as defined in Document 2:</p> <ul style="list-style-type: none"> • Sunday 18th March Shrewsbury 10k, town centre closed • Saturday 7th April PM, Shrewsbury Goldwing Parade on High Street • Saturday 19th Sunday 20th May Kids Fest (The Quarry) • Sunday 27th May Shrewsbury Cycle Grand Prix, passes along High Street • Saturday 16th June Shrewsbury Carnival, passes along High Street • Sunday 17th June Shrewsbury half marathon, passes along High Street • Sat 23rd and Sun 24th June Shrewsbury Food Festival, high footfall • Fri 11th and Sat 12th August Shrewsbury Flower Festival, high footfall • Friday 24th to Monday 27th August Shrewsbury Folk Festival and Shrewsbury Steam Rally including a parade along Pride Hill on Saturday 25th. 	

Pride Hill

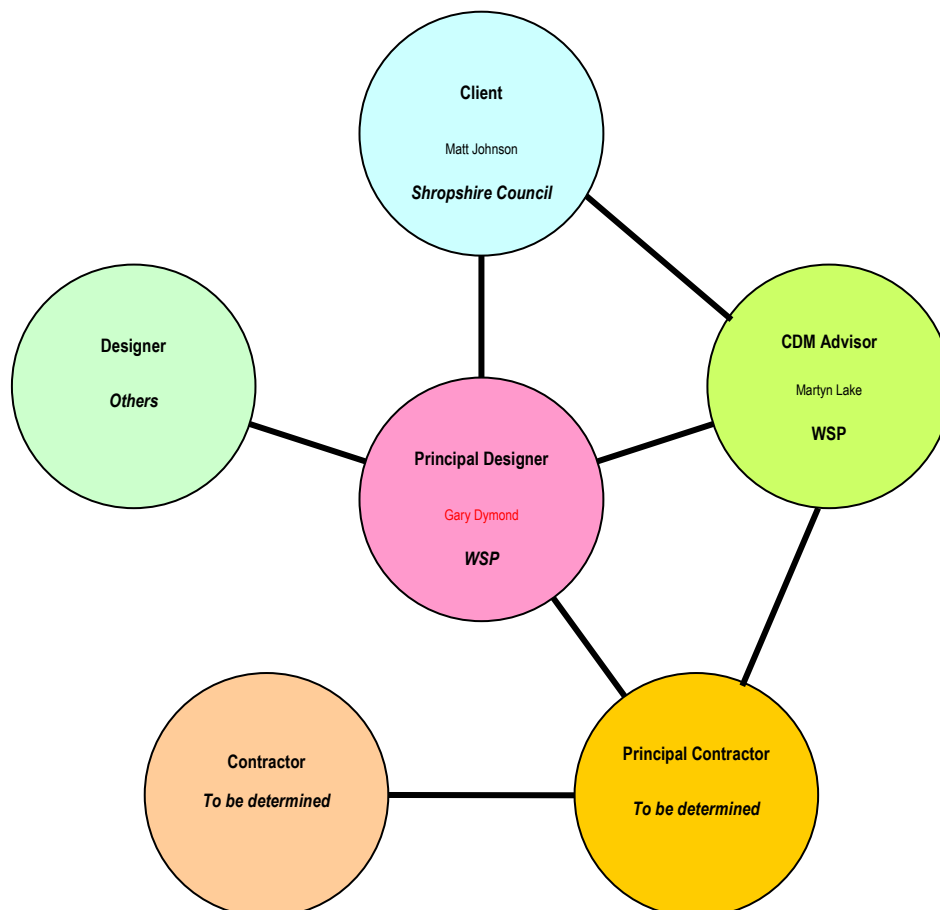
Shrewsbury Integrated Transport Package: Public Realm

MINIMUM TIME ALLOWED BETWEEN APPOINTMENT OF CONTRACTOR AND INSTRUCTION TO COMMENCE SITE WORK
4 Weeks

Details of Client, Principal Designers, and Contractors:

1.2.2 Organogram:

The Client has appointed a CDM Advisor to act as his agent in order to assist the Client in discharging Client duties under CDM 2015



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Contacts:

DUTY HOLDER	NAME	ORGANISATION	ADDRESS	OTHER CONTACT DETAILS		
Client		Shropshire Council	Shirehall Abbey Foregate Shrewsbury SY26ND	Telephone		
				Mobile	07990 087879	
				E-mail		
Principal Designer		WSPLtd		Telephone	01743 501 090	
				Mobile		
				E-mail		
CDM Advisor				Telephone	01743 501 114	
				Mobile		
				E-mail		
Principal Contractor	Not known			Telephone		
				Mobile		
				E-mail		
Contractor	Not known			Telephone		
				Mobile		
				E-mail		

1.2 Structure(s) used as a workplace

For structures used as a workplace, the finished design must take account of the relevant requirements of the Workplace (Health, Safety and Welfare) Regulations 1992.

STRUCTURE	DESCRIPTION
Not applicable	

Pride Hill

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1.3 Extent and location of existing records and plans

TYPE OF RECORD	REFERENCE	DESCRIPTION	LOCATION
New Roads and Street Works Act 1991		NRSWA	Within Contract Documents
As built records		Pride Hill was pedestrianised in 1983.	Available for inspection upon request
Topographic survey			Available upon request
Core results		Core log reports	Appendix E

Pride Hill**Shrewsbury Integrated Transport Package: Public Realm****2 CLIENT'S CONSIDERATIONS AND MANAGEMENT REQUIREMENTS****2.1 Arrangements (planning and management/Health and Safety goals/ communication/security/welfare):**

ITEM	ARRANGEMENTS
PLANNING FOR AND MANAGING THE CONSTRUCTION WORK	<p>The following arrangements relate to the planning and management of the design work and construction work:</p> <p>There will be regular liaison between the Client representatives, CDM Advisor, Principal Designer/Designers and Principal Contractor/Contractors.</p> <p>This Pre Construction Information document will be issued to all those designing and those constructing the work.</p> <p>The Construction Phase Plan produced by the Principal Contractor will be vetted against the check list shown in Appendix C below</p>
HEALTH AND SAFETY GOALS	To undertake the work safely and without risk to health for those constructing the work and the public.
COMMUNICATION AND LIAISON BETWEEN CLIENT AND OTHERS	Regular liaison has been and will continue to be held between Client and Designer representatives where Health and Safety is an integral part of the discussions. This co-operation and co-ordination will continue through the construction phase to include the Principal Contractor and Contractors.
SECURITY OF THE SITE	Because of the busy town centre location, security fencing is expected to be required around the working area, particularly outside of the working hours.
WELFARE PROVISION	The Principal Contractor is to provide welfare facilities for the works.

2.2 Information relating to works on client premises

- 1.2.2 Requirements relating to the Health and Safety of the Client's employees or customers or those involved in the project (site hoarding/site transport or vehicle restrictions/Client permit-to-work systems/fire precautions/emergency procedures/'no-go' areas or authorisation requirements/confined spaces/smoking and parking restrictions.

ITEM	REQUIREMENTS
SITE HOARDING REQUIREMENTS	Not Applicable
SITE TRANSPORT ARRANGEMENTS OR VEHICLE MOVEMENT RESTRICTIONS	
CLIENT PERMIT-TO-WORK SYSTEMS	
FIRE PRECAUTIONS	
EMERGENCY PROCEDURES AND MEANS OF ESCAPE	
'NO-GO' AREAS OR OTHER AUTHORISATION REQUIREMENTS FOR THOSE INVOLVED IN THE PROJECT	
ANY AREAS THE CLIENT HAS DESIGNATED AS CONFINED SPACES,	
SMOKING AND PARKING RESTRICTIONS.	

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3 ENVIRONMENTAL RESTRICTIONS AND EXISTING ON-SITE RISKS

3.1 Safety hazards:

SAFETY HAZARDS	DESCRIPTION
BOUNDARIES AND ACCESS, INCLUDING TEMPORARY ACCESS (narrow streets, lack of parking, turning or storage space)	<p>The extent of the site is clearly identified on drawing No 1070997-T-06-101, located within the tender drawings.</p> <p>Road closures are anticipated for works on Pride Hill, High Street/Shoplatch and Castle Street/St Mary's Street, access to Butcher Row and other adjoining streets will also be affected. Most of these streets are subject to one-way traffic orders and are narrow in width. Indicative traffic management/diversion route plans are provided in the Contract Documents site Information. The Principal Contractor is responsible for agreeing and obtaining road space permits for all works via the Shropshire Council West and Shires Permit Scheme. Final traffic management and working restrictions are to be agreed with the Project Manager.</p> <p>There are commercial properties including two shopping centres adjacent to the site, provisions for access including servicing and deliveries to all adjacent properties will need to be made by the Principal Contractor throughout the works. There is a lack of storage and working space on Pride Hill and the contract includes a limit over the total working area as defined in Document 2.</p>
RESTRICTIONS ON DELIVERIES OR WASTE COLLECTION OR STORAGE	Contractor's deliveries and collections should be carried out with traffic management in place.
ADJACENT LAND USES (schools, railway lines or busy roads)	Pride Hill is bounded by commercial properties on both sides of the road and as such is a busy pedestrian area. This includes the main entrances to the Pride Hill and Charles Darwin shopping centres. Butcher Row is also accessed from Pride Hill by pedestrians and by some delivery vehicles. Access for deliveries and servicing premises on Pride Hill and Butcher Row will be required. The openings hours for most businesses adjacent to the site are believed to be 09:00 – 17:30 Mon-Sat and 10:30 – 16:30 Sun, however some businesses including Tesco, Waitrose and Cotswold have later opening hours and will require special planning and coordination with the shop managers for adjacent works.
EXISTING STORAGE OF HAZARDOUS MATERIALS	None known.
LOCATION OF EXISTING SERVICES PARTICULARLY THOSE THAT ARE CONCEALED (water, electricity, gas, etc)	<p>Refer to the existing utility plans in the Contract Documents for approximate locations of existing utilities. There may be other not recorded and private or domestic services not shown on these plans. Refer to Appendix D.</p> <p>Street lighting cable routing unknown.</p>
GROUND CONDITIONS, UNDERGROUND STRUCTURES OR WATER COURSES WHERE THIS MIGHT AFFECT THE SAFE USE OF PLANT (cranes, or the safety of ground works)	<p>Refer to drawing 1070997-T-06-103 for trial hole data and core locations. Cellars and underground projections/openings from adjacent properties are known to extend below the public highway; known and suspected areas of concern are noted on the above drawing.</p> <p>The working site adjoins a number of banks, at least one of which is believed to have vibration sensors for an underground vault. Contractor will need to</p>

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SAFETY HAZARDS	DESCRIPTION
	liaise with the bank asset managers to plan any nearby work causing ground-borne vibrations.
INFORMATION ABOUT EXISTING STRUCTURES - STABILITY, STRUCTURAL FORM, FRAGILE OR HAZARDOUS MATERIALS, ANCHORAGE POINTS FOR FALL ARREST SYSTEMS (PARTICULARLY WHERE DEMOLITION IS INVOLVED)	Cellars and underground projections/openings from adjacent properties are known to extend below the public highway; Refer to drawing 1070997-T-06-103. Cover details and stability of cellars and projections is currently unknown.
PREVIOUS STRUCTURAL MODIFICATIONS, INCLUDING WEAKENING OR STRENGTHENING OF THE STRUCTURE (PARTICULARLY WHERE DEMOLITION IS INVOLVED),	Not known
FIRE DAMAGE, GROUND SHRINKAGE, MOVEMENT OR POOR MAINTENANCE WHICH MAY HAVE ADVERSELY AFFECTED THE STRUCTURE	None known
DIFFICULTIES RELATING TO PLANT AND EQUIPMENT IN THE PREMISES (overhead gantries whose height restricts access)	Existing overhead street lighting cable crossing Pride Hill. Available headroom/clearance unknown. Existing canopy structures at Pride Hill and Darwin shopping centre entrances causing restricted headroom over works area; headroom/clearance unknown.
HEALTH AND SAFETY INFORMATION CONTAINED IN EARLIER DESIGN, CONSTRUCTION OR 'AS-BUILT' DRAWINGS (details of pre-stressed or post-tensioned structures)	As built drawing and site notes from original 1983 paving scheme available on request.

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3.2 Health hazards:

SAFETY HAZARDS	DESCRIPTION
ASBESTOS, INCLUDING RESULTS OF SURVEYS (particularly where demolition involved),	<p>None known.</p> <p>Potential for asbestos, metallic sodium, mercury and other hazardous materials in old street lighting equipment. Care must be taken to inspect street lighting equipment for the presence of hazardous materials prior to site clearance of these items. Where hazardous materials are indicated, an appropriate method of dealing with them should be prepared.</p>
EXISTING STORAGE OF HAZARDOUS MATERIALS	None known.
CONTAMINATED LAND, INCLUDING RESULTS OF SURVEYS	Tar identified in existing road construction at the area of the site to the north-east of Butcher Row. Refer to Appendix D and E for further details and locations. Risk of tar within the existing road construction at High Street and Shoplatch, core samples not available here.
EXISTING STRUCTURES CONTAINING HAZARDOUS MATERIALS	None known
HEALTH RISKS ARISING FROM CLIENT'S ACTIVITIES	None known.

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4 SIGNIFICANT DESIGN AND CONSTRUCTION HAZARDS

4.1 Significant design assumptions and suggested work methods, sequences or other control measures

ITEM	DESCRIPTION
SIGNIFICANT DESIGN ASSUMPTIONS	None.
SUGGESTED WORK METHODS/SEQUENCES	Work from bottom of Pride Hill, proceed in general north-easterly direction. Maximum length of site possession within the site area is limited to 50M at any one time. A completed or sound, made up surface must be maintained at all time in areas outside the working area with access for pedestrians and vehicles servicing adjacent premises.

4.2 Arrangements for co-ordination of continuing design work and handling design changes during the construction period

ITEM	DESCRIPTION
CO-ORDINATION OF CONTINUING DESIGN WORK	The Principal Contractor and the Designers should notify the Principal Designer and CDM Advisor of any continuing significant design work during the construction period.
HANDLING DESIGN CHANGES	The Principal Contractor should notify the Principal Designer and CDM Advisor of any significant design changes made during the construction period.

4.3 Information on significant risks identified during design

SIGNIFICANT RISKS	INFORMATION
See designer checklist and hazard elimination management schedule.	See hazard elimination management schedule.

The Principal Contractor is to provide in the Construction Phase Plan, specific risk assessments and method statements relating to the **significant** risks detailed above, if not already addressed in the standard listing shown in appendix C.

4.4 Materials requiring particular precautions.

MATERIAL	PRECAUTIONS
Cement based construction materials.	The Principal Contractor shall comply with the requirements of Control of Substances Hazardous to Health Regulations 2002.

Pride Hill

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5 THE HEALTH AND SAFETY FILE

5.1 Format and conditions relating to content of the Health and Safety File

The Health and Safety File will contain the following information:

- (a) a brief description of the work carried out
- (b) any residual hazards which remain and how they have been dealt with (for example, surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services, etc.)
- (c) key structural principles (for example, bracing, sources of substantial stored energy - including pre- or post-tensioned members) and safe working load for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery
- (d) hazardous materials used (for example, lead paint; pesticides; special coatings which should not be burnt off, etc.)
- (e) information regarding the removal or dismantling of installed plant and equipment (for example any special arrangements for lifting, order or other special instructions for dismantling, etc.)
- (f) health and safety information about equipment provided for cleaning or maintaining the structure
- (g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services, etc.
- (h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentalisation, etc.).

Further discussion on the detailed contents of the Health and Safety File will be undertaken during the construction phase of the project.

The Health and Safety File will be prepared, wherever possible, in Adobe Acrobat format, to allow for the collation of the Health and Safety File into an indexed and searchable document allowing for its use both in digital and hard copy format.

Wherever possible, Adobe Acrobat documents will be converted from WORD/EXCEL as opposed to being scanned to allow for searching for words/descriptions within the body of the document.

Data for the Health and Safety File is to be supplied by the Contractor and submitted to the Client Advisor for acceptance and addition to the Health and Safety File following the completion of the main works.

A detailed requirement for the contents of the Health and Safety File follows.

Pre Construction Information

Pride Hill

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APPENDIX A - LOCATION PLAN

Refer to location plan 1070997-T06-101 (Location Plan)

Pre Construction Information

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APPENDIX B - DESIGNER / HAZARD ELIMINATION/MANAGEMENT SCHEDULE

Pre Construction Information

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APPENDIX C – CONSTRUCTION PHASE PLAN CHECK LIST

personal info

Pre Construction Information

Pride Hill

Shrewsbury Integrated Transport Package: Public Realm

Construction Phase Plan Checklist

Project	Shrewsbury Integrated Transport Package
	Pride Hill

Version	-
Prepared by	██████
Reviewed by	██████
Date	

Pre Construction Information

Pride Hill

Shrewsbury Integrated Transport Package: Public Realm

CDM APPROVED CODE OF PRACTICE CONTENTS		DETAILED CONTENTS	ADDRESSED?	REFERENCE IN ASSESSED CONSTRUCTION PHASE PLAN	REMARKS	ACTION BY
1. Description of Project	(a)	Project Description and programme details				
	(b)	Details of Client, CDM Co-ordinator, Designers, Principal Contractor and other consultants				
	(c)	Extent and location of existing records and plans				
2. Management of the work (continued on next sheet)	(a)	Management structure and responsibilities				
	(b)	Health and Safety goals for the project and				
		arrangements for monitoring and review of health and safety performance				

Pride Hill**Shrewsbury Integrated Transport Package: Public Realm**

CDM APPROVED CODE OF PRACTICE CONTENTS		DETAILED CONTENTS	ADDRESSED?	REFERENCE IN ASSESSED CONSTRUCTION PHASE PLAN	REMARKS	ACTION BY
2. Management of the work (continued from above)	(c) Arrangements for:	(i) Regular liaison between parties on site				
		(ii) Consultation with the workforce				
		(iii) The exchange of design information between the Client, Designers, CDM Co-ordinator and Contractors on site				
		(iv) Handling design changes during the project				
		(v) The selection and control of contractors				
		(vi) The exchange of health and safety information between contractors				
		(vii) Site security				
		(viii) Site induction				
		(ix) On site training				
		(x) Welfare facilities and first aid				
		(xi) Reporting and investigation of accidents and incidents including near misses				
		(xii) Production and approval of risk				

Pre Construction Information

Pride Hill

Shrewsbury Integrated Transport Package: Public Realm

CDM APPROVED CODE OF PRACTICE CONTENTS			DETAILED CONTENTS	ADDRESSED?	REFERENCE IN ASSESSED CONSTRUCTION PHASE PLAN	REMARKS	ACTION BY
			assessments and method statements				
	(d)		Site rules (including drug and alcohol policy)				
	(e)		Fire and emergency procedures				

Pride Hill**Shrewsbury Integrated Transport Package: Public Realm**

CDM APPROVED CODE OF PRACTICE CONTENTS		DETAILED CONTENTS	ADDRESSED?	REFERENCE IN ASSESSED CONSTRUCTION PHASE PLAN	REMARKS	ACTION BY
3. Arrangements for controlling significant site risks (continued on next sheet)	(a) Safety risks including	(i) delivery and removal of materials (including waste*) and work equipment taking account of any risks to the public, for example during access to or egress from the site				
		(ii) dealing with services - water, electricity and gas, including overhead power lines and temporary electrical installations				
		(iii) accommodating adjacent land use,				
		(iv) stability of structures whilst carrying out construction work, including temporary structures and existing unstable structures				
		(v) preventing falls				
		(vi) work with or near fragile materials				
		(vii) control of lifting operations				
		(viii) the maintenance of plant and equipment				
		(ix) work on excavations and work where there are poor ground conditions				
		(x) work on wells, underground earthworks and tunnels				
		(xi) work on or near water where there is a risk of drowning				
		(xii) work involving diving				

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CDM APPROVED CODE OF PRACTICE CONTENTS			DETAILED CONTENTS	ADDRESSED?	REFERENCE IN ASSESSED CONSTRUCTION PHASE PLAN	REMARKS	ACTION BY
		(xiii)	work in a caisson or compressed air working				
		(xiv)	work involving explosives				
		(xv)	traffic routes and segregation of vehicles and pedestrians				
		(xviii)	storage of materials (particularly hazardous materials) and work equipment				
		(xvii)	any other significant safety risks				
3. Arrangements for controlling significant site risks (continued from above)	(b) Health risks including	(i)	Removal of asbestos				
		(ii)	Dealing with contaminated land				
		(iii)	Manual handling				
		(iv)	Use of hazardous substances, particularly where there is a need for health monitoring				
		(v)	Reducing noise and vibration				
		(vi)	work with ionising radiation				
		(vii)	exposure to UV radiation (from the sun)				
		(viii)	Other significant health risks				

Pre Construction Information

Pride Hill

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CDM APPROVED CODE OF PRACTICE CONTENTS		DETAILED CONTENTS	ADDRESSED?	REFERENCE IN ASSESSED CONSTRUCTION PHASE PLAN	REMARKS	ACTION BY
4. The Health and Safety File	(a)	layout and format				
	(b)	Arrangements for the collection and gathering of information				
	(c)	Storage of information				

Pre Construction Information

Site 06. Pride Hill

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APPENDIX D – SITE CONSTRAINTS PLAN

Drawing numbers 1070997-06-T-103 and 1070997-06-T-104

Pre Construction Information

Site 06. Pride Hill

Shrewsbury Integrated Transport Package – Public Realm

APPENDIX E – CORE LOG REPORTS

Core Log Reports Ref: DTR5897, DTR5980

personal and commercial info

For the attention of [REDACTED]
P.Casey (Land Reclamation) Ltd.
Rydings Road
Rochdale
OU2 9PS

Shropshire Council
Shirehall
Abbey Foregate
Shrewsbury
Shropshire SY2 6ND

Date: 27.10.2017
My Ref: 2017.10.27L_DMNH015
Your Ref: Pride Hill

Dear Sirs

SITP Pride Hill (CONTRACT REF. DMNH 015)

SUBJECT TO CONTRACT

We refer to your tender of 13th October 2017 for the above and write to inform you that it is accepted, subject to contract and to a voluntary standstill period.

Although this contract award is below the EU procurement thresholds, The Employer will now be observing a voluntary 10 day standstill period before entering into any contract to ensure there are no challenges to the contract award, prior to the contract being entered into. This voluntary standstill period will conclude at midnight on 8th November 2017.

Thank you for tendering. The formal contract will be forwarded to you in due course for execution.

[REDACTED]

The *Starting Date* is 1st December 2017 (subject to agreement between both parties). The *Access Date* and *Completion Date* will remain as per the original tender documents i.e. 12th March 2018 to 14th September 2018.

You are appointed as the Principal Contractor as defined by the Construction (Design and Management) Regulations 2015.

[REDACTED]

[REDACTED]

Yours faithfully

[REDACTED]

Strategic Transport and Contracts Manager