

WI 1300 – Title

13.1 Marking

- (a) All materials, plant and pre-fabricated components for inclusion in the works shall become the property of *TfL* when incorporated in the works AND accepted in writing by the *TfL Project Manager* as part of the completed works.
- (b) *TfL* do not envisage that any advance payments will be made towards the purchase of materials, labour, plant and pre-fabricated components for inclusion in the works. Payment shall only be made for completed activities.

13.2 Materials from Excavation and Demolition (ECC 73.2)

- (a) Redundant materials and equipment removed by the *Contractor* will be offered to the *Employer* for use as spares and transported to the specified storage facility. Where the *Employer* requests the return of assets, the *Contractor* shall make best endeavours to return the equipment to the *Employer* in a reusable format.
- (b) If the *Project Manager* decides that the redundant materials and equipment are unsuitable for re-use, then the *Contractor* arranges for the disposal of the assets through the appropriate recycling processes and facilities in keeping with the *Employer's* green policies.
- (c) Prior to removing redundant materials and equipment from Site, the *Contractor* submits details of the proposed disposal for Acceptance of the *Project Manager*. The proposal should include;
 - Location of existing materials and equipment for removal;
 - Programme and resources for disposal;
 - Marking, recording, evaluation of size, weight, quantities;
 - Methodology for removal and transportation;
 - Proposed facilities for re-cycling or disposal and traceability of process;
 - Likely financial benefit of disposal to *Employer*, and
 - *Contractor's* additional cost of disposal of redundant equipment, plant and materials.

WI 1400 – Acceptance or procurement procedure (Options C, D and E)

Not Applicable

WI 1500 – Accounts and records [Options C, D and E]

Not Applicable

WI 1600 – Parent Company Guarantee (Option X4)

Not Applicable

WI 1700 – Performance bond (Option X13)

Not Applicable

WI 1800 – Advanced payment bond (Option X14)

Not Applicable

WI 1900 – Low performance damages (Option X17)

Not Applicable

WI 2000 – Employer's work specifications and drawings

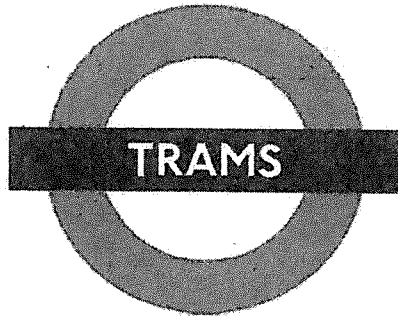
20.1 Specifications

- (a) Applicable *Employer's* Design Requirements are listed in WI 300 Appendix 02-01. Other design and construction specification and AIPs are outlined in the Volume 3 Works information AIPs
- (b) Where not included above, all other pan-TfL technical specifications and standards as appropriate (or as applicable to third parties) apply.
- (c) Where there are no applicable *Employer's* Design Requirements (referenced in WI 200 Appendix 02-01) then the *Contractor* is to submit to the *Project Manager* for Acceptance Detailed Design, proposed design requirements that are to be used to deliver the works. These design requirements are to align to London Tramlink Requirements or other relevant Standards, and also be in accordance with the Accepted Programme, the applicable law and any instructions from the *Employer*. They are to be based on industry best practice.

20.2 Drawings

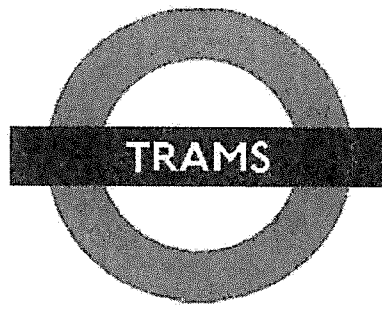
All drawings relating to this contract are listed in Volume 3: Appendix to the Works Information (North & South Bridges)

SECTION 8



SECTION 8

APPENDICES TO THE WORKS INFORMATION



APPENDICES TO THE WORKS INFORMATION

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WI 100A General

This Works Information – Contract Drawings contains a number of Appendices that comprise of schedules giving relevant reports, drawings and documents, all of which have been categorised based on the nature of the information they represent.

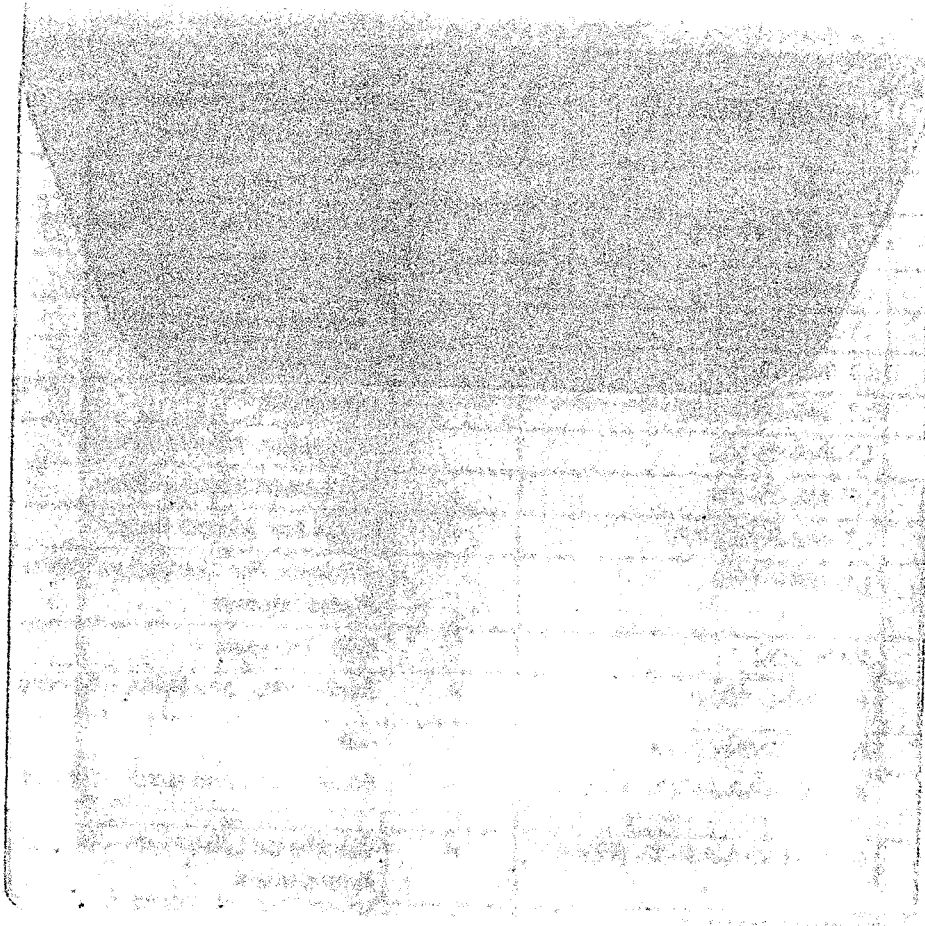
WI 200A Reports and Surveys

APPENDICIES TO THE WORKS INFORMATION ARE CONTAINED IN ZIP FILE: Section 8_Appendices_to_Works_Information_(North_&_South_Bridges)

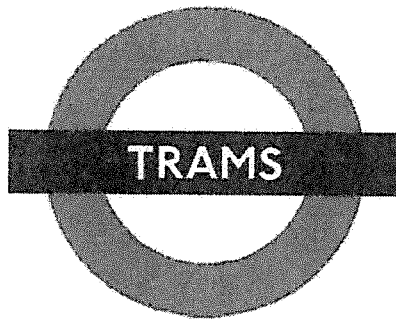
The following reports have been compiled and are annexed in Appendix.

	Drawing reference	Revision	Title
Appendix 1	RA13226/VBB/001-A	A	Blackhorse Lane North – Pell Frischmann – Approval In Principle
Appendix 2	AB2044		Road Closures & Diversions
Appendix 3	LT-IMS-ENG-105		Handover Handback Procedure
Appendix 4	LT-IMS-03-072		Method Statement Guidance
Appendix 5	LT-IMS-ENG-100		Managing Works General
Appendix 6	LT-IMS-03-101		Inspections
Appendix 7	LT-IMS-ENG-102		Occupation
Appendix 8	LT-IMS-03-103		Possession Without Isolation
Appendix 9	LT-IMS-03-104		Possession With Isolation
Appendix 10	LT-IMS-SHEQ-070		Drugs And Alcohol Policy
Appendix 11	LT-TCTR-ENG		Guidance For Contractors Working On London Trams Network
Appendix 12	WRF.DOC		WRF Template
Appendix 13	A13263-C-102-A	A	Blackhorse Lane North – Concept Design Layout
Appendix 14	RA13263VBB001- A	A	AIP
Appendix 15	A13263-VAA-AIP-04- REV A	A	Blackhorse Lane North – Proposed Substructure
Appendix 16	A13263-VAA-AIP-03- REV A	A	Blackhorse Lane North – Proposed General Arrangement
Appendix 17	A13263-C-103-C	C	Croydon Council Cycleway Land Requirements
Appendix 18	A13263-C-107		Croydon Council Cycleway Vertical Carriageway Alignment
Appendix 19	A13263-C-106-A	A	Croydon Council Cycleway Construction Details
Appendix 20	A13263-C-108		Croydon Council Cycleway Engineering Layout
Appendix 21	A13263-C-101-A	A	Croydon Council Surfacing Cycle Network
Appendix 22	A13263-C-110		Croydon Council Retaining Wall
Appendix 23	LT-IMS-ENG-106		Assurance of New and Altered LT Assets
Appendix 24	LT-IMS-ENG-107		Blackhorse Lane Master Document List

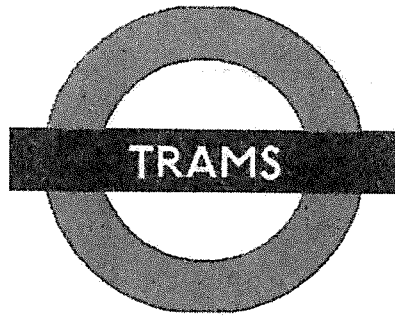
Appendix 25	LT-IMS-ENG-108		Management of Derogations of Engineering Standards
Appendix 26	LT-IMS-ENG-2000		Technical Source Documents
Appendix 27	LT-IMS-ENG-2045		Overhead Line (OLE) Requirement
Appendix 28	LT-IMS-ENG-2045		DKE_Structure_Gauge and Clearance Requirement



SECTION 9



SECTION 9 SITE INFORMATION



SITE INFORMATION

Version: (FINAL) Revision 1

Date: 26/01/2018

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SI 000 General

This Site Information contains a number of Appendices that comprise of schedules giving relevant reports, drawings and documents, all of which have been categorised based on the nature of the information they represent.

SI 100 Site Location

South and North Bridges

Blackhorse Lane is a London Borough of Croydon road that acts as a connection between Lower Addiscombe Road and Woodside Green. Blackhorse Lane bridge is a local 'C' class road with a speed limit of 30mph over two tram lines operated by London Trams and is located between Blackhorse Lane tram stop and Addiscombe tram stop.

This site information contains data, surveys, drawings, etc related to two bridges;

South Bridge; owned by TFL carrying the road over the tram line and
North Bridge; owned by Croydon Council carrying the road over a cycle route and footpath

South Bridge

The South bridge was a single 7.78m span with 17.0° skew with simply supported cast iron trough beams, bolted together side by side, with low-grade concrete infill and masonry abutments and wingwalls. A Make Safe project was successfully completed in June 2017 removing the dead load (including the highway surfacing, fill material, and the masonry parapet) across the entire span of the bridge. This resulted in a reduction in the stresses due to dead and superimposed dead load in the beams in excess of 50% and therefore substantially reducing the risk of collapse.

The bridge is currently closed to all vehicular traffic, and a temporary pedestrian footbridge has been built to enable pedestrian access. There is a heavy pedestrian flow over the bridge due to the tram stop and Woodside primary school which are both located towards the north of the bridge. Dalmally road also to the north of the bridge is not suitable for construction traffic and is limited to small delivery vehicles.

There are a number of utilities running through the bridge, please refer to the C2 search and GPR survey in Appendix 7 & 8. The services have been exposed as part of the Make Safe works, and are protected by a waterproof membrane.

North Bridge

The North Bridge carries Blackhorse Lane, an unclassified local road over the track-bed of the former Addiscombe to Elmers End Railway which was closed in May 1997. The tracks have been removed and the track bed has been landscaped and is currently used as a footpath. The railway branch which the bridge crossed (Woodside to Addiscombe, Mid-Kent railway) was opened in 1864. The type of bridge construction is consistent with this date. The bridge pre-dates the adjacent Blackhorse Lane South Bridge by about 20 years.

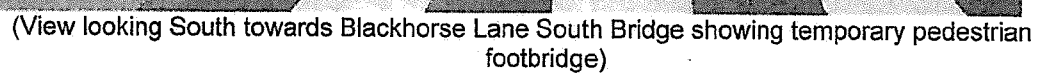
The single span bridge has a clean span of 7.61m. The deck is square to the abutments. The carriageway width is 5.66m, with footways typically 1.7m wide on the west side and 1.85m wide on the east side. The overall width between parapets is 9.2m. the structure comprises of eight longitudinally spanning cast iron girders at approximately 1.41m centres with a brick jack arch construction spanning between the girders. The six internal girders are hog-backed and the bottom flange thickness varies for each girder across the span. At mid-span, the girders are 610mm deep with a 150mm x 35mm top flange and 457mm x 35mm bottom flange. On the edge girders, the top flange is level but the bottom flange is hogged. At mid span, the depth of the edge girders is 560mm and the bottom flange is 225 x 48mm throughout. The jack arches are 220mm thick. There are four tie bars to each jack arch. Additional tie straps have been provided to the central girders. The substructure comprises brick abutments and pilasters and brick splayed wingwalls at each corner. Construction details of the substructure are not available. It is most probable that these are solid gravity type structures.

The parapets are constructed of masonry brickwork and are not designed to current standards for vehicle incursion.

There is no waterproofing system present across the deck to protect the structural members. Previous inspections have noted significant corroding of the cast iron I-beams supporting the jack arches.

The structure was last assessed in 2014 and the results showed the internal girders are capable of carrying 7.5 tonnes assessment live loading (ALL). The edge girders are rated at 3 tonnes accidental vehicle loading. Weight restriction plates of 7.5 tonnes have been placed over the bridge – however the bridge is currently closed to all vehicular traffic.

There are also a number of utilities running under road level that have not been exposed, please refer to the Utility drawings in Appendix 16.





View looking North facing Blackhorse Lane North bridge. Image courtesy of Google



View looking South facing Blackhorse Lane North bridge. Image courtesy of Google

SI 300

Blackhorse Lane Site Boundary Plan

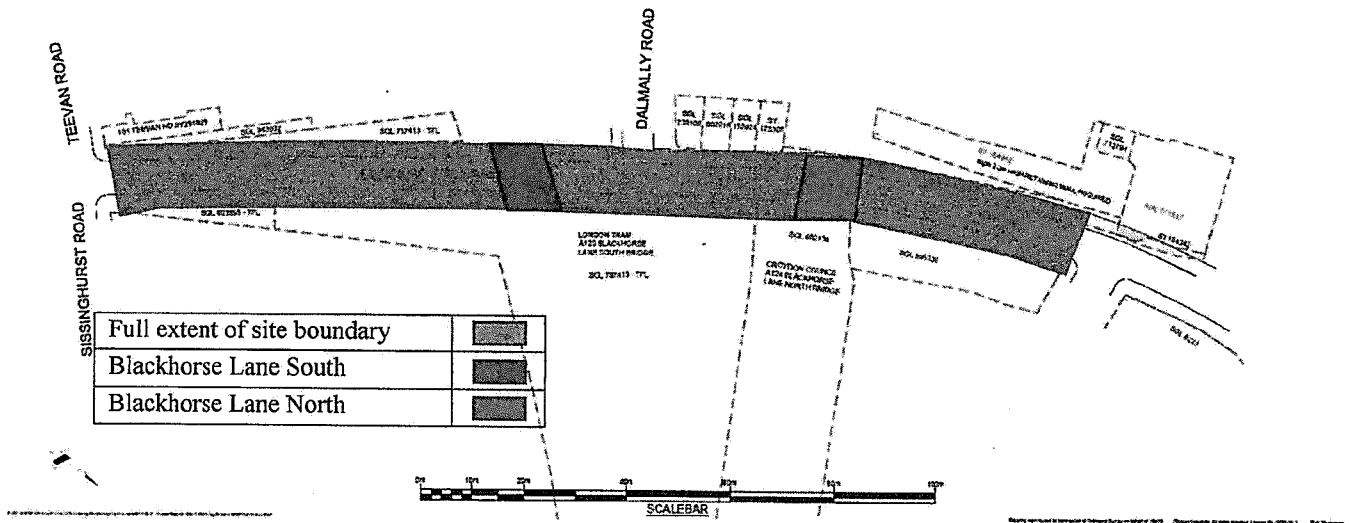


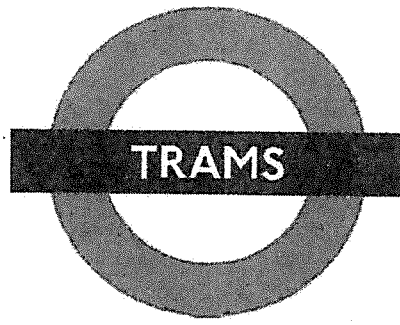
Image 200.1: Blackhorse lane site boundary plan

SI 400**Reports and Surveys**

The following reports have been compiled and are annexed in Appendix

<i>Appendix</i>	<i>Drawing/document reference</i>	<i>Revision</i>	<i>Site information</i>
APPENDIX 1	NPB/BC/SS0892		BLACKHORSE LANE SOUTH -SOUTHERN TESTING GROUND INVESTIGATION REPORT
APPENDIX 2	OG-900-DWG-002-V2.0		BLACKHORSE LANE SOUTH -TOPOGRAPHICAL SURVEY
APPENDIX 3			BLACKHORSE LANE SOUTH -MAKE SAFE – HEALTH AND SAFETY FILE AND AS BUILT INFORMATION
APPENDIX 4	A13226-PF-DR-SK-003	F	BLACKHORSE LANE SOUTH -PROPOSED FOOTBRIDGE AND RAMP LAYOUT 'AS-BUILT'
APPENDIX 5	A13226-PF-DR-SK-004	D	BLACKHORSE LANE SOUTH -PROPOSED DEMOLITION SEQUENCE STAGE 1-3 'AS-BUILT'
APPENDIX 6	A13226-PF-DR-SK-005	D	BLACKHORSE LANE SOUTH -PROPOSED DEMOLITION SEQUENCE STAGE 4-6 'AS-BUILT'
APPENDIX 7	A13226-PF-DR-SK-006	E	BLACKHORSE LANE SOUTH -PROPOSED DRAINAGE LAYOUT 'AS-BUILT'
APPENDIX 8	A13226-PF-DR-SK-001	D	BLACKHORSE LANE SOUTH -EXISTING GENERAL ARRANGEMENT 'AS-BUILT'
APPENDIX 9	A13226-PF-DR-SK-002	I	BLACKHORSE LANE SOUTH -PROPOSED GENERAL ARRANGEMENT AND DETAILS 'AS -BUILT'
APPENDIX 10			BLACKHORSE LANE SOUTH -C2 SEARCHES
APPENDIX 11	32741_U_REV0		BLACKHORSE LANE SOUTH -GPR SURVEY OF STATS
APPENDIX 12	LO/R7057/001/SH		BLACKHORSE LANE SOUTH -MATERIAL CLASSIFICATION TESTING AND WAC TESTING
APPENDIX 13	A13263-VAA-AIP-01-REV A		BLACKHORSE LANE NORTH - EXISTING GENERAL ARRANGEMENT SHEET 1 OF 2
APPENDIX 14	A13263-VAA-AIP 02- REV A	A	BLACKHORSE LANE NORTH - EXISTING GENERAL ARRANGEMENT SHEET 2 OF 2
APPENDIX 15	A13263-C-105-A	A	BLACKHORSE LANE, CYCLEWAY SIGNS AND LINES
APPENDIX 16	A13263-C-104-A	A	CROYDON COUNCIL CYCLEWAY EXISTING UTILITIES

SECTION 10



SECTION 10

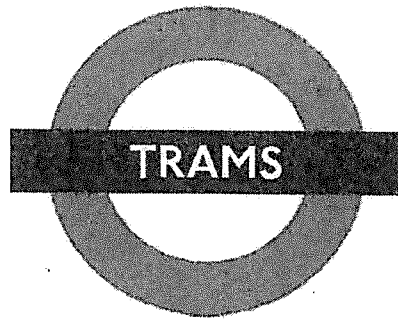
APPENDICES TO THE SITE INFORMATION

APPENDICES TO THE SITE INFORMATION ARE CONTAINED IN ZIP FILE:

Volume 4_Appendices_to_Site_Information_(North_&_South_Bridges)

APPENDIX 1	BLACKHORSE LANE SOUTH -SOUTHERN TESTING GROUND INVESTIGATION REPORT
APPENDIX 2	BLACKHORSE LANE SOUTH -TOPOGRAPHICAL SURVEY
APPENDIX 3	BLACKHORSE LANE SOUTH -MAKE SAFE – HEALTH AND SAFETY FILE AND AS BUILT INFORMATION
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APPENDIX 14	BLACKHORSE LANE NORTH - EXISTING GENERAL ARRANGEMENT SHEET 2 OF 2
APPENDIX 15	BLACKHORSE LANE, CYCLEWAY SIGNS AND LINES
APPENDIX 16	CROYDON COUNCIL CYCLEWAY EXISTING UTILITIES

SECTION 11



SECTION 11 PRICE LIST

1.1.1.1

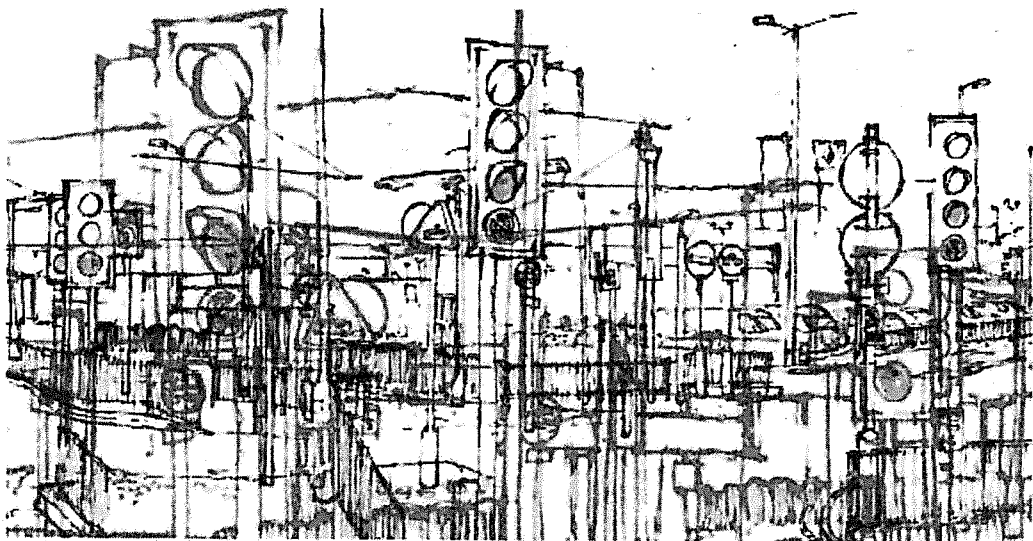
Blackhorse Lane; North and South Bridge and Associated Works

Price List

Revision 0.2

27th October 2017

Completed by Morgan Sindall





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Bills of Quantities (Rev 0.0), 3rd October 2017

2 TENDER SUMMARY

The Tendering Organisation (TO) enters all necessary rates and prices sums into this Pricing Document which includes the Bills of Quantities. The TO prices the following and summarises in Table 1.1:

PRICING DETAILS	PRICE (£)
Bills of Quantities [Refer to Section 2]	£1,901,406.91
Lump Sums: Sundry Work Items [Refer to Section 3]	£520,197.56
TOTAL TO TRANSFER TO FORM OF TENDER (value of price evaluation)	£2,421,604.47

* TO to enter figures

Table 1.1 – Tender Value Summary

Prices are based upon the instruction and information in this Price List.

All prices are to be exclusive of VAT.

3 BILLS OF QUANTITIES

3.1 General

The Bills of Quantities has been prepared based on:

- The current status of the design AIP drawings accompanying the tender documentation; and

The TO is only required to enter rates in to the Bills of Quantities of this. All other quantities, prices, sub-totals, totals and the like are linked by formulae and must not be amended.

The TO is not permitted to add additional or alternative items to the Bills of Quantities. Any amendment to the BQ's will result in rejection of the tender. Any queries must be requested through the Tender Query process.

The TO is to ensure that the rates entered at Tender are a genuine and correct rate for undertaking each standalone item of work. There will be no additional amounts awarded or allowed due to rates submitted at Tender not allowing for all necessary aspects of the Preambles and item coverage in accordance with the Method of Measurement.

Quantities have been provided for each section of the works. Refer BQ. Mark-up drawing.

Provisional Sums are included where there is not currently sufficient information upon which to price the works. Such works will be subject to instruction by the *Project Manager*.

3.2 Method of Measurement

All items in the Bills of Quantities (and any new items which may be required) are to be priced in accordance with the Manual of Contract Documents for Highway Works – Volume 4 Method of Measurement. There are no 'local amendments' made to the Method of Measurement for the purpose of this contract.

The TO is strictly not permitted to submit any rates based on proposed variations, conditions, exclusions and the like. Should the Contractor consider any aspect of the pricing to be unclear, this is to be submitted as a Tender Query in order for any clarification to be provided to all Bidders.

3.3 Items not included in the Bills of Quantities (not included in total for price evaluation)

It is acknowledged that, following potential design amendments or specific compensation events, new items may be required which are not included in the Bills of Quantities included in the tender documents.

Where this is the case, there shall be a clear sequence of authority in which new items are assessed:

- a) Similar items within the Bills of Quantities will be checked to see if an add/omit of material cost only can be employed to value the item. The calculation to be as follows (rates provided as examples only):
- | | |
|-------------------------------------|-----------|
| Item within the Bills of Quantities | £100.00 |
| Add new material cost | £15.00 |
| Omit original material cost | -(£10.00) |
| New item rate | £105.00 |
- b) Where it is not possible to assess a rate for an item by analysis of an existing rate in the Bills of Quantities, a new item will be calculated and priced in accordance with the Method of Measurement using the principles of Civil Engineering Contractors Association (CECA) – Schedule of Dayworks Carried out Incidental to Contract Work [the edition which is current at the time of Tender].
- c) The TO will be required to obtain and present, as necessary, comprehensive and authentic validation of material costs for all Bills of Quantities items.



4 **LUMP SUMS: SUNDRY WORK ITEMS**

Lump sums: sundry work items are to be priced by the TO for works described therein in Table 3.1.

ACTIVITY DESCRIPTION	EXTENT OF WORK	PRICE (£)
Design:	Contractor to provide an estimate for all costs;	
• Stage 1 Design Development	In respect of all necessary design works in accordance with the Works Information including obtaining full and final approval for all works	
• Stage 2 Construction	In respect of any design work necessary during the Construction phase	
• As Built drawings	Contractor to enter a lump sum price for all costs in connection with the provision of all necessary as-built drawings, specifications, manuals, test certificates, approval documentation, etc	INC
Compliance with the London Permit Scheme for Road Works and Street Works	Contractor to enter a lump sum price for all costs in connection with compliance with the Scheme including all fees, charges, administration costs and any requirements imposed by compliance and implementation	INC
Coordination and Liaison with utilities and statutory undertakers	Contractor to enter a lump sum price for all costs in connection with compliance with the requirements of the Works Information in respect of effecting all necessary utility diversions, amendments, upgrades, betterment, permanent re-positioning, containment, commissioning and the like	INC
Preparation and approvals for Traffic Management, Phasing and Diversions	Contractor to enter a lump sum price for all costs in connection with preparation and approval in accordance with the Works Information and all relevant legislation	INC
Preparation of Quality Plan	Contractor to enter a lump sum price for all costs in connection with preparation and approval in accordance with the Works Information	INC
Compliance with Construction (Design and Management) Regulations 2015	Contractor to enter a lump sum price for all costs in connection with preparation and approval in accordance with the Works Information and all relevant legislation	INC
TOTAL FOR LUMP SUMS: SUNDRY WORK ITEMS [ENTER IN TABLE 1.1]		£520,197.56

* TO to enter figures

Table 3.1 – Lump Sums: Sundry Work Items

All other costs are deemed to be included within the rates in to the Bills of Quantities in accordance with the Method of Measurement.

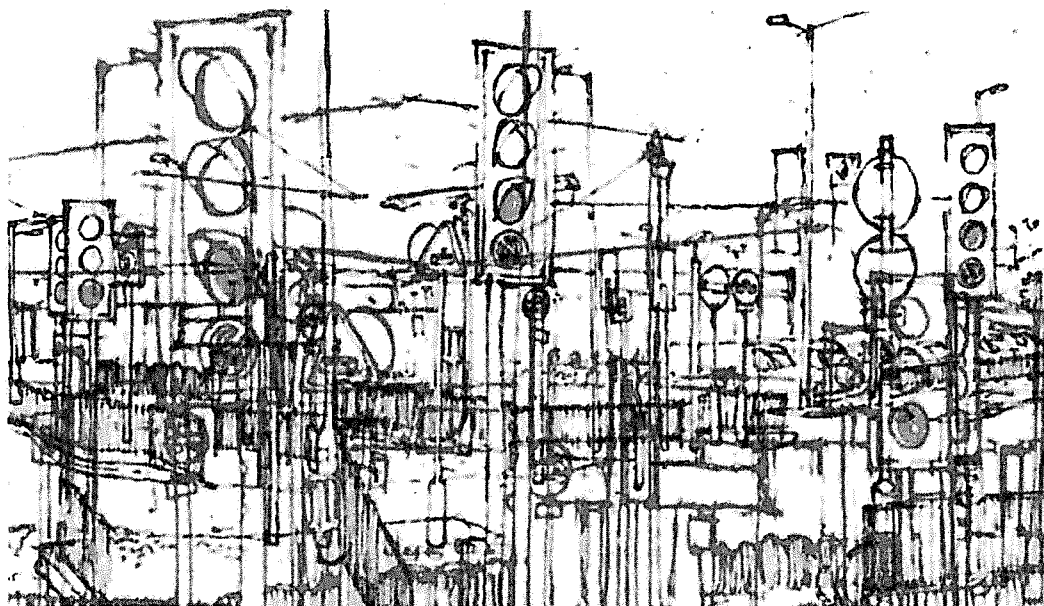
Blackhorse Lane; North & South Bridge and Associated Works

Bills of Quantities

Revision 0.2

30th October 2017

Completed by Morgan Sindall



Blackhorse Lane
North & South Bridge and Associated Works
Bill of Quantities



TRANSPORT
FOR LONDON

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SUMMARY OF BILLS OF QUANTITIES								
LEVEL 1		LEVEL 2	LEVEL 3		LEVEL 3 PRICE	LEVEL 2 PRICE	LEVEL 1 PRICE	
DIVISION	SUB-DIVISION	CONSTRUCTION HEADING	MMHW SERIES HEADINGS					
(0) Preliminaries	(8) Roadworks	Preliminaries	(100)	Preliminaries	£			
		(a) Roadworks General	(200)	Site Clearance	£			
			(300)	Fencing	£			
			(400)	Road Restraint Systems	£			
			(600)	Earthworks	£			
		(b) Main Carriageway, Interchanges and Side Roads	(500)	Drainage and Service Ducts	£			
			(700)	Pavements	£			
			(1100)	Kerbs, Footways and Paved Areas	£			
		(c) Signs, Motorway Communications and Lighting	(1200)	Traffic Signs and Road Markings	£			
			(1300)	Road Lighting Columns, Brackets and CCTV Masts	£			
			(1400)	Electrical Works for Road Lighting and Traffic Signs	£			
(8) Structures	(1) North Bridge	(a) Special Preliminaries	(100)	Steel Gantry for the Suspension of Existing Services	£			
			(100)	Temporary Footbridge	£			
			(100)	Crash Deck	£			
		(b) Piling	(1600)	Piling and Embedded Retaining Wall	£			
			(500)	Drainage and Service Ducts	£			
		(c) Substructure	(600)	Earthworks	£			
			(1700)	Structural Concrete	£			
			(1800)	Structural Steelwork	£			
		(d) Superstructure	(500)	Drainage and Service Ducts	£			
			(1700)	Structural Concrete	£			
			(2100)	Bridge Bearings	£			
			(2300)	Bridge Expansion Joints and Sealing of Gaps	£			
		(e) Finishings	(700)	Pavements	£			
			(1100)	Kerbs, Footways and Paved Areas	£			
			(2000)	Waterproofing for Structures	£			
			(2400)	Brickwork, Blockwork and Stonework	£			
	(2) South Bridge	(a) Special Preliminaries	(100)	Steel Gantry for the Suspension of Existing Services	£			
			(100)	Temporary Footbridge	£			
			(100)	Crash Deck	£			
		(b) Substructure	(500)	Drainage and Service Ducts	£			
			(600)	Earthworks	£			
			(1700)	Structural Concrete	£			
		(c) Superstructure	(500)	Drainage and Service Ducts	£			
			(1700)	Structural Concrete	£			
			(2100)	Bridge Bearings	£			
			(2300)	Bridge Expansion Joints and Sealing of Gaps	£			
		(d) Finishings	(700)	Pavements	£			
			(1100)	Kerbs, Footways and Paved Areas	£			
			(2000)	Waterproofing for Structures	£			
			(2400)	Brickwork, Blockwork and Stonework	£			
		(3) Retaining Wall	(a) Main Construction	(600)	Earthworks	£		
				(1600)	Piling and Embedded Retaining Wall	£		
	(1700)			Structural Concrete	£			
	(1900)			Protection of Steelwork Against Corrosion	£			
	(2300)			Bridge Expansion Joints and Sealing of Gaps	£			
	(b) Finishings		(400)	Road Restraint Systems	£			
			(1100)	Kerbs, Footways and Paved Areas	£			
			(2400)	Brickwork, Blockwork and Stonework	£			
TOTAL PRICE					£ 1,901,406.90			

Blackhorse Lane
North & South Bridge and Associated Works
Bill of Materials



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(i) PRELIMINARIES

ITEM no (i)	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
	SERIES 100 - PRELIMINARIES				
	<u>Temporary Accommodation</u>				
i100.001	Erection of offices and messes for the Contractor	item		£	
i100.002	Servicing of offices and messes for the Contractor	item		£	
i100.003	Dismantling of offices and messes for the Contractor	item			
i100.004	Erection of stores and workshops for the Contractor	item			
	<u>Vehicles for the Overseeing Organisation</u>				
i100.005	Not required				
	<u>Communication System for the Overseeing Organisation</u>				
i100.006	Not required				
	<u>Operatives for the Overseeing Organisation</u>				
i100.007	General operative (for 1 day per week)	day		£	
	<u>Information Board</u>				
i100.008	Information Board	no		£	
	<u>Traffic Safety and Management</u>				
i100.009	Traffic safety and management	item			
i100.010	Traffic safety and management for landscape and ecology	item			
i100.011	Construction of contraflow arrangements				
i100.012	Maintenance of contraflow arrangements				
i100.013	Removal of contraflow arrangements				
	<u>Temporary Diversion for Traffic</u>				
i100.014	Taking measures for or construction of temporary diversion for traffic	item			
i100.015	Maintenance of temporary diversion for traffic	item			
i100.016	Removal of temporary diversion for traffic	item			
	<u>Recovery Vehicles</u>				
i100.017	Not required				
	<u>Progress Photographs</u>				
i100.018	Set of photographs in colour	no			
	<u>Temporary Closed Circuit (CCTV) System for the Monitoring of Traffic</u>				
i100.019	Not required				
	<u>Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Roadworks</u>				
i100.020	Not required				
Total Price					£ 296,855.94



(ii) ROADWORKS

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
Ita	ROADWORKS GENERAL				
	Series 200: Site Clearance				
	Site Clearance				
a200.001	General site clearance	ha		£	£
	<u>Take up or down and set aside for re-use or remove to store or tip-off site</u>				
a200.002	Take up or down and remove to tip off site 1.2m high bollard	no		£	£
a200.003	Take up or down and remove to tip off site 1.8m high chain link fence	m		£	£
a200.004	Take up or down and remove to tip off site belisha beacon	no		£	£
a200.005	Take up or down and remove to tip off site 1.0m high guardrail	m		£	£
a200.006	Take up or down and remove to tip off site lighting column stub	no		£	£
a200.007	Take up or down and set aside for re-use granite kerb	m		£	£
a200.008	Take up or down and set aside for re-use carriageway gully grating and frame	no		£	£
a200.009	Take up or down and set aside for re-use lighting column including bracket arm and lantern	no		£	£
	North Bridge Removal (Extents As Shown on the Marked-Up Drawing)				
a200.010	Take up or down and remove to tip off site concrete capping 200mm thick at parapets	m		£	£
a200.011	Take up or down and remove to tip off site concrete brick capping at parapets	m		£	£
a200.012	Take up or down and remove to tip off site vertical brickwork (parapets)	m3		£	£
a200.013	Take up or down and set aside for reuse kerbs any type and size	m		£	£
a200.014	Take up or down and remove to tip off site Asphalt 100mm thick in footway	m2		£	£
a200.015	Take up or down and remove to tip off site HRA 200mm thick in carriageway	m2		£	£
a200.016	Take up or down and remove to tip off site granular sub-base	m3		£	£
a200.017	Take up or down and remove to tip off site 200mm Diameter cast iron gas main	m		£	£
a200.018	Take up or down and remove to tip off site 160mm Diameter cast iron water main	m		£	£
a200.019	Take up or down and remove to tip off site Brick Jack Arches	m3		£	£
a200.020	Take up or down and remove to tip off site Cast Iron Girders ~8.6 metres long including pad stones	no		£	£
a200.021	Take up or down and remove to tip off site metal fencing	m		£	£
a200.022	Take up or down and remove to tip off site vertical brickwork at the North West wing wall	m3		£	£
a200.023	Take up or down and remove to tip off site vertical brickwork at the South West wing wall	m3		£	£
a200.024	Take up or down and remove to tip off site vertical brickwork at the South East wing wall	m3		£	£
a200.025	Take up or down and remove to tip off site vertical brickwork at the North East wing wall	m3		£	£
	iii.3 South Bridge Removal (Extents As Shown on the Marked-Up Drawing)				
a200.026	Take up or down and remove to tip off site metal fencing any type	m		£	£
a200.027	Take up or down and remove to tip off site precast concrete capping at parapets	m		£	£
a200.028	Take up or down and remove to tip off site vertical brickwork at parapets	m3		£	£
a200.029	Take up or down and set aside for reuse kerbs any type and size	m		£	£
a200.030	Take up or down and remove to tip off site Asphalt 100mm thick in footway	m2		£	£
a200.031	Take up or down and remove to tip off site Asphalt 200mm thick in carriageway	m2		£	£
a200.032	Take up or down and remove to tip off site granular fill sub-base	m3		£	£

(ii) ROADWORKS

ITEM no.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
a200.033	Take up or down and remove to tip off site 200mm Diameter cast iron gass main	m		£	£
a200.034	Take up or down and remove to tip off site 160mm Diameter cast iron water main	m		£	£
a200.035	Take up or down and remove to tip off cast iron trough 320mm thick with low grade concrete infill	m2		£	£
	Series 300: Fencing Fencing, Gates and Slides				
a300.001	Galvanized chain link fencing 1.8m high	m		£	£
	Series 400: Road Restraint Systems Safety Barriers				
a400.001	Safety barrier containment performance class N2 working width class W3 (TBC) designed to be impacted on one side only	m		£	£
a400.002	Safety barrier containment performance class H4a working width class W3 (TBC) designed to be impacted on one side only	m		£	£
a400.003	Transition from containment performance class N2 working width class W3 (TBC) to concrete bridge parapet containment class N2 working width class W3 (TBC) designed to be impacted on one side only	no		£	£
a400.004	Transition from containment performance class H4a working width class W3 (TBC) to concrete bridge parapet containment class H4a working width class W3 (TBC) designed to be impacted on one side only	no		£	£
	Series 600: Excavation Excavation				
a600.001	Excavation of acceptable material excluding Class 5A in cutting and other excavation	m3		£	£
	Excavation in Hard Material				
a600.002	Extra over excavation for excavation in hard material	m3		£	£
	Disposal of Material				
a600.003	Disposal of acceptable material excluding Class 5A	m3		£	£
	Imported Fill				
a600.004	Imported acceptable material Class 1A or 1B	m3		£	£
	Soft Spots and Voids				
a600.005	Excavation of soft spots and other voids	m3		£	£
a600.006	Filling of soft spots and other voids with granular Type 1 unbound mixture	m3		£	£
	Completion of Formation and Sub-Formation				
a600.007	Completion of formation	m2		£	£
	Trial Pits				
a600.008	Trial pit 0 to 3 metres in depth	m3		£	£
a600.009	Trial pit 3 to 6 metres in depth	m3		£	£
ii.b	MAIN CARRIAGEWAY, INTERCHANGES AND SIDE ROADS				
	Series 500: Drainage and Service Ducts Drains and Service Ducts (Excluding Filter Drains, Narrow Filter Drains and Fin Drains) <i>Refer to LBC Standard Detail drawings LHAC 500.01 to LHAC 500.17</i>				
b500.001	150mm internal diameter UPVC drain on bed type S in trench with depth to invert not exceeding 2 metres, average depth to invert 1.2 metres	m		£	£
b500.002	225mm internal diameter UPVC drain on bed type S in trench with depth to invert not exceeding 2 metres, average depth to invert 1.2 metres	m		£	£
	Connections				
b500.003	Connection of 150mm internal diameter pipe to existing 150mm internal diameter pipe depth to invert not exceeding 1 metres	no		£	£

(ii) ROADWORKS

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
b500.004	Connection of 225mm internal diameter pipe to existing 225mm internal diameter pipe depth to invert not exceeding 1 metres	no		£	£
	<u>Chambers and Gullies</u>				
b500.005	Precast concrete trapped gully with 450 x 450mm ductile iron grate and frame	no		£	£
	<u>Remove from Store and Reinstall Chamber Covers and Frames and Gully Gratings and Frames</u>				
b500.006	Remove from store and reinstall 450 x 450mm ductile iron gully grating and frame on precast concrete gully	no		£	£
	<u>Series 700: Pavements</u>				
	<u>Sub-base</u>				
b700.001	Type 1 unbound mixture sub-base in carriageway, hardshoulder and hardstrip	m3		£	£
	<u>Pavement</u>				
b700.002	Dense asphalt concrete AC with 32mm aggregate base course 120mm thick in carriageway, hardshoulder and hardstrip	m2		£	£
b700.003	Dense asphalt concrete AC with 20mm aggregate binder course 60mm thick in carriageway, hardshoulder and hardstrip	m2		£	£
b700.004	Thin Surface Course System TSCS with 14mm aggregate surface course 35mm thick in any construction	m2		£	£
	<u>Tack Coat</u>				
b700.005	K1-40 Bitumen emulsion to BS 434: Part 1 with rate of spread 0.4 to 0.6 l/sq m	m2		£	£
	<u>Cold Milling (Planing)</u>				
b700.006	Milling pavement depth 25mm [carriageway resurfacing]	m2		£	£
b700.007	Milling pavement depth 80mm [footway resurfacing]	m2		£	£
	<u>Series 1100: Kerbs Footways and Paved Areas</u>				
	<u>Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
b1100.001	Granite kerb 250mm deep 200mm wide laid straight or curved exceeding 12 metres radius	m		£	£
b1100.002	Granite kerb 250mm deep 200mm wide laid to curves not exceeding 12 metres radius	m		£	£
	<u>Remove from Store and Relay Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
b1100.003	Remove from store and relay 250mm deep 200mm wide granite kerb laid straight or curved exceeding 12 metres radius	m		£	£
b1100.004	Remove from store and relay 250mm deep 200mm wide granite kerb laid to curves not exceeding 12m radius	m		£	£
	<u>Additional Concrete for Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
b1100.005	Additional in situ concrete ST1 for granite kerb	m3		£	£
	<u>Footways and Paved Areas</u>				
b1100.006	Footway comprising Type 1 unbound mixture sub-base 150mm thick, dense asphalt concrete AC binder course with 20mm aggregate 60mm thick, dense asphalt concrete AC surfacing course with 6mm aggregate 20mm thick	m2		£	£
b1100.007	Footway comprising dense asphalt concrete AC binder course with 20mm aggregate 60mm thick, dense asphalt concrete AC surfacing course with 6mm aggregate 20mm thick	m2		£	£
b1100.008	Footway comprising dense asphalt concrete AC binder course with 20mm aggregate 100mm thick, dense asphalt concrete AC surfacing course with 6mm aggregate 20mm thick	m2		£	£



(ii) ROADWORKS

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
II.C	SIGNS, MOTORWAY COMMUNICATIONS AND LIGHTING				
	Series 1200: Traffic Signs and Road Markings				
	<u>Traffic Signs</u>				
c1200.001	Permanent, retroreflective traffic sign to 957, non-lit sign, sign face not exceeding 0.25 square metre in area on one 76mm tubular steel post	no		£	£
c1200.002	Permanent, retroreflective traffic sign to 602, non-lit sign, sign face exceeding 0.25 square metre but not exceeding 0.5 square metre in area on one 76mm tubular steel post	no		£	£
c1200.003	Permanent, retroreflective traffic sign to 545, non-lit sign, sign face exceeding 0.25 square metre but not exceeding 0.5 square metre in area on one 76mm tubular steel post	no		£	£
c1200.004	Permanent, retroreflective traffic sign to 504.1, non-lit sign, sign face exceeding 0.25 square metre but not exceeding 0.5 square metre in area on one 76mm tubular steel post	no		£	£
c1200.005	Permanent, retroreflective traffic sign to 557.1, non-lit sign, sign face exceeding 0.25 square metre but not exceeding 0.5 square metre in area on one 76mm tubular steel post	no		£	£
c1200.006	Permanent, retroreflective traffic sign to 557.2, non-lit sign, sign face not exceeding 0.25 square metre in area on one 76mm tubular steel post	no		£	£
	<u>Road Markings</u>				
c1200.007	Intermittent line in white road marking paint 100mm wide to Diag 1004.1	m		£	£
c1200.008	Intermittent line in white road marking paint 200mm wide	m		£	£
c1200.009	Continuous line in yellow road marking paint 100mm wide	m		£	£
c1200.010	Intermittent line in white road marking paint 100mm wide	m		£	£
c1200.011	Continuous line in white road marking paint 100mm wide	m		£	£
c1200.012	Cycle lane arrow in white road marking paint 2000mm long straight to Diag. 1059-S	no		£	£
c1200.013	Symbol in white road marking paint xmm in height Diag 1057	no		£	£
c1200.014	Symbol in white road marking paint xmm in height Diag 1062	no		£	£
c1200.015	Cycle lane arrow in white road marking paint 2000mm long turning to Diag. 1059-T	no		£	£
c1200.016	Symbol in white road marking paint 3750mm in height Diag 1023	no		£	£
c1200.017	"Zebra" and "Pelican" crossing markings, stripes - black	m2		£	£
c1200.018	"Zebra" and "Pelican" crossing markings, stripes - white	m2		£	£
c1200.019	"Zebra" and "Pelican" crossing markings, zig zag lines, 100mm wide	m		£	£
c1200.020	"Zebra" and "Pelican" crossing markings, size 100 x 100mm	no		£	£
c1200.021	Numerals in white road marking paint 700mm high [END]	no		£	£
c1200.022	Numerals in white road marking paint 1600mm high [SLOW]	no		£	£
c1200.023	Lettering in yellow 350mm in length	no			£
c1200.024	Lettering in yellow 1600mm in length	no			£
	<u>Traffic Signs</u>				
c1200.025	Belisha Beacon Charles Endirect Avg-3, CELstar 2 LED Lamp, Globe (any colour), ES Lampholder or similar	no		£	£
	Series 1300: Road Lighting Columns, Brackets and CCTV Masts				
	<u>Remove from Store and Re-erect Road Lighting Columns and Brackets, Wall Mountings, CCTV Masts and Cantilever Masts</u>				
c1300.001	CCTV camera on CCTV camera pole including base and footing	no		£	£
c1300.002	Re-erection of steel road lighting column of 8m nominal height with planted base and single bracket arm	no		£	£
	Series 1400: Electrical Work for Road Lighting and Traffic Signs				
	<u>Trench for Cable and Duct</u>				
c1400.001	Trench for duct exceeding 300mm but not exceeding 450mm wide in depth not exceeding 1.5 metres in carriageways, footways and paved areas	m		£	£

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(ii) ROADWORKS

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
c1400.002	Cable and Duct 16mm ² 3 core XLPE/SWA/PVC cable with copper conductors	m		£	£
c1400.003	One 100mm internal diameter duct UPVC in trench depth not exceeding 1.5 metres	m		£	£
Total Price					£ 441,461.64

Z. UPLIFT FOR IMPOSED RESTRICTIONS AND WORKING OUTSIDE OF NORMAL WORKING HOURS WHERE INSTRUCTED BY THE PROJECT MANAGER

	The Contractor is to enter the percentage to be applied to the Bills of Quantities (ii) Roadworks (for the relevant measured works) for any works subject to the following restrictions where instructed by the Project Manager				
(ii).Z.001	Percentage uplift for works instructed at night (at any time Monday to Friday between 1700hrs and 0800hrs the following day)			See Form B	
(ii).Z.002	Percentage uplift for works instructed outside of normal working hours on Saturdays after 1300hrs			See Form B	
(ii).Z.003	Percentage uplift for each hour of restricted work during normal working hours			See Form B	
Total Price					£

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(iii) STRUCTURES: (1) NORTH BRIDGE

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
iii.1.a	Special Preliminaries				
a100.001	Supply, install and remove on completion ~18 metres long temporary footbridge	item		Not required	
a100.002	Maintenance of ~18 metres long temporary footbridge	wk		Not required	
a100.003	Supply, install, suspend existing electricity and telecommunications cables and remove on completion ~12 metres long temporary steel gantry	item		£	
a100.004	Maintenance of ~12 metres long temporary steel gantry	wk			
a100.005	Supply, install and remove on completion Crash Deck for bridge removal	item		£	
iii.1.b	Piling				
	SERIES 1600 - PILING AND EMBEDDED RETAINING WALLS				
	<u>Piling Plant</u>				
b1600.001	Establishment of piling plant for steel sheet piles	item		£	£
b1600.002	Establishment of piling plant for concrete piles	item		£	£
b1600.003	Moving piling plant for steel sheet piles at North East abutment	no			
b1600.004	Moving piling plant for steel sheet piles at South West abutment	no			
b1600.005	Moving piling plant for steel sheet piles at South East abutment	no			
b1600.006	Moving piling plant for steel sheet piles at North East abutment	no			
b1600.007	Moving piling plant for concrete piles at North East abutment	no		£	£
b1600.008	Moving piling plant for concrete piles at South West abutment	no		£	£
b1600.009	Moving piling plant for concrete piles at South East abutment	no		£	£
	<u>Steel Sheet Piles</u>				
b1600.010	Steel sheet piles in North West abutment	m2		£	£
b1600.011	Steel sheet piles in South West abutment	m2		£	£
b1600.012	Steel sheet piles in South East abutment	m2		£	£
b1600.013	Steel sheet piles in North East abutment	m2		£	£
	<u>Driving Steel Sheet Piles</u>				
b1600.014	Driving steel sheet piles in North West abutment	m2		£	£
b1600.015	Driving steel sheet piles in South West abutment	m2		£	£
b1600.016	Driving steel sheet piles in South East abutment	m2		£	£
b1600.017	Driving steel sheet piles in North East abutment	m2		£	£
	<u>Cast in Place Piles</u>				
b1600.018	450mm diameter piles In Situ concrete exceeding 15 metres but not exceeding 20 metres	m		£	£
	<u>Reinforcement for Cast-in-place Piles</u>				
b1600.019	Steel reinforcement bar 16mm and under not exceeding 12 metres for cast in place piles	t			
b1600.020	Steel reinforcement bar 20mm and over not exceeding 12 metres for cast in place piles	t			£
iii.1.c	Substructure				
	SERIES 500 - Drains and Service Ducts				
	<u>Filter Drains</u>				
c500.001	150mm thick plastic perforated pipe in granular surround at the back of the end screen wall depth to invert exceeding 1 metre but not exceeding 2 metres, average depth to invert	m		£	£
	<u>Excavation in Hard Materials in Drainage</u>				
c500.002	Extra over excavation for excavation in hard materials in drainage	m3		£	£
	SERIES 600 - EARTHWORKS				
	<u>Excavation</u>				
c600.001	Excavation of acceptable material excluding Class 5A in cutting and other excavation	m3		£	£
	<u>Excavation in Hard Material</u>				
c600.002	Extra over excavation for excavation in hard material	m3		£	£

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(III) STRUCTURES: (1) NORTH BRIDGE

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
c600.003	<u>Disposal of Material</u> Disposal of unacceptable material excluding Class 5A	m3		£	£
c600.004	<u>Imported Fill</u> Imported acceptable material Class 1A or 1B in the embankments and areas of fill	m3		£	£
c600.005	<u>Compaction of fill</u> Compaction of acceptable material in embankments and other areas of fill	m3		£	£
c600.006	<u>Ground Anchorages - Ground Anchorage Plant</u> Establishment of ground anchorage plant	item		£	£
c600.007	<u>Ground Anchorages</u> Ground anchorages as specified exceeding 10 metres but not exceeding 15 metres in main anchorages	item		£	£
c600.008	<u>Trial Pits</u> Trial pit 0 to 3 metres in depth	m3		£	£
c600.009	Trial pit 3 to 6 metres in depth	m3		£	£
c600.010	Ground improvement / slope stabilisation at South West abutment boundary wall	Item			
SERIES 1700 - STRUCTURAL CONCRETE					
<u>In Situ Concrete</u>					
<u>North West Abutment Extension</u>					
c1700.001	In situ concrete class C40/50 for the abutment wall	m3		£	£
c1700.002	In situ concrete class C40/50 for the abutment wall foundation	m3		£	£
c1700.003	In situ concrete class C40/50 for new wing wall	m3		£	£
c1700.004	In situ concrete class C40/50 for new wing wall foundation	m3		£	£
<u>South West Abutment Extension</u>					
c1700.005	In situ concrete class C40/50 for the abutment wall	m3		£	£
c1700.006	In situ concrete class C40/50 for the abutment wall foundation	m3		£	£
c1700.007	In situ concrete class C40/50 for the wing wall	m3		£	£
c1700.008	In situ concrete class C40/50 for the wing wall foundation	m3		£	£
<u>South East Abutment Extension</u>					
c1700.009	In situ concrete class C40/50 for the abutment wall	m3		£	£
c1700.010	In situ concrete class C40/50 for the abutment wall foundation	m3		£	£
c1700.011	In situ concrete class C40/50 for the wing wall	m3		£	£
c1700.012	In situ concrete class C40/50 for the wing wall foundation	m3		£	£
<u>North East Abutment Extension</u>					
c1700.013	In situ concrete class C40/50 for the abutment wall	m3		£	£
c1700.014	In situ concrete class C40/50 for the abutment wall foundation	m3		£	£
c1700.015	In situ concrete class C40/50 for the wing wall	m3		£	£
c1700.016	In situ concrete class C40/50 for the wing wall foundation	m3		£	£
<u>Other</u>					
c1700.017	In situ concrete class C40/50 for the bearing shelf	m3		£	£
c1700.018	In situ concrete class C40/50 for the end screen wall	m3		£	£
<u>Surface Finish of Concrete - Formwork</u>					
<u>North West Abutment Extension</u>					
c1700.019	Temporary formwork Class F1 vertical more than 300mm wide for the abutment wall	m2		£	£
c1700.020	Temporary formwork Class F1 vertical more than 300mm wide for the abutment wall foundation	m2		£	£
c1700.021	Temporary formwork Class F1 vertical more than 300mm wide for the wing wall	m2		£	£
c1700.022	Temporary formwork Class F1 vertical more than 300mm wide for the wing wall foundation	m2		£	£
<u>South West Abutment Extension</u>					

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(iii) STRUCTURES: (1) NORTH BRIDGE

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
c1700.023	Temporary formwork Class F1 vertical more than 300mm wide for the abutment wall	m2		£	£
c1700.024	Temporary formwork Class F1 vertical more than 300mm wide for the abutment wall foundation	m2		£	£
c1700.025	Temporary formwork Class F1 vertical more than 300mm wide for the wing wall	m2		£	£
c1700.026	Temporary formwork Class F1 vertical more than 300mm wide for the wing wall foundation	m2		£	£
<i>South East Abutment Extension</i>					
c1700.027	Temporary formwork Class F1 vertical more than 300mm wide for the abutment wall	m2		£	£
c1700.028	Temporary formwork Class F1 vertical more than 300mm wide for the abutment wall foundation	m2		£	£
c1700.029	Temporary formwork Class F1 vertical more than 300mm wide for the wing wall	m2		£	£
c1700.030	Temporary formwork Class F1 vertical more than 300mm wide for the wing wall foundation	m2		£	£
<i>North East Abutment Extension</i>					
c1700.031	Temporary formwork Class F1 vertical more than 300mm wide for the abutment wall	m2		£	£
c1700.032	Temporary formwork Class F1 vertical more than 300mm wide for the abutment wall foundation	m2		£	£
c1700.033	Temporary formwork Class F1 vertical more than 300mm wide for the wing wall	m2		£	£
c1700.034	Temporary formwork Class F1 vertical more than 300mm wide for the wing wall foundation	m2		£	£
<i>Other</i>					
c1700.035	Temporary formwork Class F1 vertical more than 300mm wide for the bearing shelf	m2		£	£
c1700.036	Temporary formwork Class F1 vertical more than 300mm wide for the End Screen Wall	m2		£	£
<u>Steel Reinforcement for Structures</u>					
<i>North West Abutment Extension</i>					
c1700.038	Steel reinforcement bar 16mm and under not exceeding 12 metres for abutment wall	t		£	£
c1700.039	Steel reinforcement bar 20mm and over not exceeding 12 metres for abutment foundation	t		£	£
c1700.040	Steel reinforcement bar 16mm and under not exceeding 12 metres for wing wall	t		£	£
c1700.041	Steel reinforcement bar 20mm and over not exceeding 12 metres for wing wall foundation	t		£	£
<i>South West Abutment Extension</i>					
c1700.042	Steel reinforcement bar 16mm and under not exceeding 12 metres for abutment wall	t		£	£
c1700.043	Steel reinforcement bar 20mm and over not exceeding 12 metres for abutment foundation	t		£	£
c1700.044	Steel reinforcement bar 16mm and under not exceeding 12 metres for wing wall	t		£	£
c1700.045	Steel reinforcement bar 20mm and over not exceeding 12 metres for wing wall foundation	t		£	£
<i>South East Abutment Extension</i>					
c1700.046	Steel reinforcement bar 16mm and under not exceeding 12 metres for abutment wall	t		£	£
c1700.047	Steel reinforcement bar 20mm and over not exceeding 12 metres for abutment foundation	t		£	£
c1700.048	Steel reinforcement bar 16mm and under not exceeding 12 metres for wing wall	t		£	£
c1700.049	Steel reinforcement bar 20mm and over not exceeding 12 metres for wing wall foundation	t		£	£
<i>North East Abutment Extension</i>					
c1700.050	Steel reinforcement bar 16mm and under not exceeding 12 metres for abutment wall	t		£	£
c1700.051	Steel reinforcement bar 20mm and over not exceeding 12 metres for abutment foundation	t		£	£
c1700.052	Steel reinforcement bar 16mm and under not exceeding 12 metres for wing wall	t		£	£



(iii) STRUCTURES: (1) NORTH BRIDGE

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
c1700.053	Steel reinforcement bar 20mm and over not exceeding 12 metres for wing wall foundation	t		£	£
	<u>Other</u>				
c1700.054	Steel reinforcement bar 16mm and under not exceeding 12 metres for abutment wall	t		£	£
c1700.055	Steel reinforcement bar 16mm and under not exceeding 12 metres for the end screen wall	t		£	£
	Series 1800 - Steelwork for Structures				
	<u>Other</u>				
c1800.001	Fabrication and installation of 400 x 400 x 12mm thick Ductile Iron Pattress Plate	no		£	£
iii.1.d Superstructure					
	SERIES 500 - DRAINAGE AND SERVICE DUCTS				
	<u>Service Ducts (Bed and Surround Type 7)</u>				
d500.001	200mm internal diameter gas main, installed within a steel sleeve	m		£	£
d500.002	160mm internal diameter water main	m		£	£
	<u>Re-install in similar duct type and location services that had be suspended from a Steel Gantry across the bridge span during construction</u>				
d500.003	120mm diameter Telecoms and Electricity ducts (~10nr) on Bridge Deck	m		£	£
	<u>Connections</u>				
d500.005	Connection of 200mm internal Diameter gas main to 200mm internal Diameter gas main	no			
d500.006	Connection of 160mm internal diameter water main to 160mm internal Diameter Water main	no			
	Series 1700: Structural Concrete				
	<u>Bridge deck</u>				
d1700.017	In situ concrete class C40/50 for the bridge deck	m3		£	£
	<u>Precast Concrete</u>				
d1700.018	Precast concrete class C50/60 bearing shelf beam as specified ~14780mm in length	no		£	£
d1700.02	Precast concrete class C50/60 parapet beam as specified ~8400mm in length	no		£	£
d1700.021	Precast concrete class C50/60 prestressed bridge beam as specified ~8400mm in length	no		£	£
	<u>Steel Reinforcement</u>				
d1700.022	Steel reinforcement bar 20mm and over not exceeding 12 metres for tying together the prestressed bridge beams	t		£	£
	Series 2100: Bridge Bearings				
	<u>Bearings</u>				
d2100.001	Bearing plinth precast concrete class C50/60 450x450x200mm and elastomeric bearing pad	no		£	£
	<u>Installation of Bearings</u>				
d2100.002	Installation of precast concrete class C50/60 450x450x200mm bearing plinth and elastomeric bearing pad	no		£	£
	Series 2300: Bridge Expansion Joints and Sealing of Gaps				
	<u>Sealing of Gaps</u>				
d2300.001	Compressible joint filler board not exceeding 30mm thick	m2		£	£
d2300.002	Polysulphide joint sealant not exceeding 30mm wide	m		£	£
d2300.003	Sikasil - 728 SL/NS or similar approved elastomeric joint sealant not exceeding 30mm wide	m		£	£
iii.1.e Finishings					
	Series 700: Pavements				
	<u>Sub-base</u>				
e700.001	Type 1 unbound mixture sub-base in carriageway, hardshoulder and hardstrip	m3		£	£
	<u>Pavement</u>				

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(iii) STRUCTURES: (1) NORTH BRIDGE

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
e700.002	Dense asphalt concrete AC with 32mm aggregate base course 120mm thick in carriageway, hardshoulder and hardstrip	m2		£	£
e700.003	Dense asphalt concrete AC with 20mm aggregate binder course 60mm thick in carriageway, hardshoulder and hardstrip	m2		£	£
e700.004	Thin Surface Course System TSCS with 14mm aggregate surface course 35mm thick in any construction	m2		£	£
	<u>Tack Coat</u>				
e700.064	K1-40 Bitumen emulsion to BS 434: Part 1 with rate of spread 0.4 to 0.6 l/sq m	m2		£	£
	<u>Series 11000</u>				
	<u>Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
e1100.001	Granite kerb 250mm deep 200mm wide laid straight or curved exceeding 12 metres radius	m		£	£
	<u>Additional Concrete for Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
e1100.005	Additional in situ concrete ST1 for granite kerb	m3		£	£
	<u>Footways and Paved Areas</u>				
e1100.006	Footway comprising Type 1 unbound mixture sub-base 150mm thick, dense asphalt concrete AC binder course with 20mm aggregate 60mm thick, dense asphalt concrete AC surfacing course with 6mm aggregate 20mm thick	m2		£	£
	<u>Steel Plates</u>				
e1100.007	10mm thick mild steel plate including 20mm thick sand bed, varying length and widths, service duct protection plates in carriageway or footway	m2		£	£
	<u>Series 2000: Waterproofing For Structures</u>				
	<u>Waterproofing</u>				
e2000.001	Waterproofing with Bituthene 1200 or equivalent waterproofing system more than 300mm wide to any inclination	m2		£	£
e2000.002	Waterproofing with 2 coats of bitumen paint	m2		£	£
	<u>Series 2400: Brickwork, Blockwork and Stonework</u>				
	<u>Brickwork</u>				
e2400.001	Brickwork in bricks in cement mortar one brick thick in facework to concrete	m2		£	£
	<u>Blockwork and Stonework</u>				
e2400.002	Blockwork coping 550mm wide in cement mortar	item		£	£
	<u>Other</u>				
e2400.003	Connection detail of new abutment to the existing abutment	Items		£	£
Total Price				£	560,232.20

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(iii) STRUCTURES: (2) SOUTH BRIDGE

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
iii.2.a	Special Preliminaries				
a100.001	Supply, install and remove on completion ~18 metres long temporary footbridge: New Methodology: The Existing 18m Footbridge is to be removed under the clients existing agreement and a alternative Footbridge put in place to side of the bridge.	item		£	£
a100.002	Maintenance of ~18 metres long temporary footbridge	wk			
a100.003	Supply, install, suspend existing electricity and telecommunications cables and remove on completion ~12 metres long temporary steel gantry	item		£	£
a100.004	Maintenance of ~12 metres long temporary steel gantry	wk			
a100.005	Supply, install and remove on completion Crash Deck for bridge removal	item		£	£
iii.2.b	Substructure				
	SERIES 500 - Drains and Service Ducts				
	<u>Filter Drains</u>				
b500.001	150mm thick plastic perforated pipe at the back of the end screen wall depth to invert exceeding 1 metre but not exceeding 2 metres, average depth to invert 1.7 metres	m		£	£
	<u>Excavation in Hard Materials in Drainage</u>				
b500.002	Extra over excavation for excavation in hard materials in drainage	m3		£	£
	SERIES 600 - EARTHWORKS				
	<u>Excavation</u>				
b600.001	Excavation of acceptable material excluding Class 5A in cutting and other excavation	m3		£	£
	<u>Excavation in Hard Material</u>				
b600.002	Extra over excavation for excavation in hard material	m3		£	£
	<u>Disposal of Material</u>				
b600.003	Disposal of unacceptable material excluding Class 5A	m3		£	£
	<u>Imported Fill</u>				
b600.003	Imported acceptable material Class ## in the embankments	m3		£	£
	<u>Compaction of fill</u>				
b600.004	Compaction of acceptable material in embankments and other fill areas	m3		£	£
	<u>Trial Pits</u>				
b600.007	Trial pit 0 to 3 metres in depth	m3		£	£
b600.008	Trial pit 3 to 6 metres in depth	m3		£	£
	SERIES 1700 - STRUCTURAL CONCRETE				
	<u>In Situ Concrete</u>				
b1700.001	In situ concrete class C40/50 for the bearing shelf	m3		£	£
b1700.002	In situ concrete class C40/50 for concrete end screen wall	m3		£	£
	<u>Surface Finish of Concrete - Formwork</u>				
b1700.003	Temporary formwork Class F3 vertical more than 300mm wide for the bearing shelf	m2		£	£
b1700.004	Temporary formwork Class F1 vertical more than 300mm wide for the end screen wall	m2		£	£
	<u>Steel Reinforcement for Structures</u>				
b1700.005	Steel reinforcement bar 16mm and under not exceeding 12 metres	t		£	£
b1700.006	Steel reinforcement bar 20mm and over not exceeding 12 metres	t		£	£
iii.2.c	Superstructure				
	SERIES 500 - DRAINAGE AND SERVICE DUCTS				
	<u>Service Ducts (Bed and Surround Type Z)</u>				
c500.001	200mm internal Diameter gas main in Bridge Deck (Installed in a steel sleeve across the bridge span)	m		£	£
c500.002	160mm internal diameter water main on Bridge Deck	m		£	£

(iii) STRUCTURES: (2) SOUTH BRIDGE

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
c500.003	<u>Re-install in similar duct and location services that had be suspended from a Steel Gantry across the bridge span during construction</u> 120mm diameter Telecoms and Electricity ducts (~10nr) on Bridge Deck	m		£	£
c500.005	<u>Connections</u> Connection of 200mm internal Diameter gas main to 200mm internal Diameter gas main	no			
c1700.001	<u>Series 1700: Structural Concrete</u> <u>Bridge deck</u> In situ concrete class C40/50 for the bridge deck	m3		£	£
c1700.002	<u>Precast Concrete</u> Precast concrete class C50/60 bearing shelf beam as specified ~14000mm in length	no		£	£
c1700.003	Precast concrete class C50/60 parapet as specified ~10000mm in length	no		£	£
c1700.004	Precast concrete class C50/60 prestressed bridge beam as specified ~10000mm in length	no		£	£
c1700.005	<u>Steel Reinforcement</u> Rebars for bridge deck	t		£	£
c2100.001	<u>Series 2100: Bridge Bearings</u> <u>Bearings</u> Bearing plinth precast concrete class C50/60 450x450x200mm and elastomeric bearing pad	no		£	£
c2100.002	<u>Installation of Bearings</u> Installation of precast concrete class C50/60 450x450x200mm bearing plinth and elastomeric bearing pad	no		£	£
c2300.001	<u>Series 2300: Bridge Expansion Joints and Sealing of Gaps</u> <u>Sealing of Gaps</u> Compressible joint filler board not exceeding 30mm thick	m2		£	£
c2300.002	Polysulphide joint sealant not exceeding 30mm wide	m		£	£
c2300.003	Sikasil - 728 SL/NS or similar approved elastomeric joint sealant not exceeding 30mm wide	m		£	£
iii.1.d	Finishings				
d700.001	<u>Series 700: Pavements</u> <u>Sub-base</u> Type 1 unbound mixture sub-base in carriageway, hardshoulder and hardstrip	m3		£	£
d700.002	<u>Pavement</u> Dense asphalt concrete AC with 32mm aggregate base course 120mm thick in carriageway, hardshoulder and hardstrip	m2		£	£
d700.003	Dense asphalt concrete AC with 20mm aggregate binder course 60mm thick in carriageway, hardshoulder and hardstrip	m2		£	£
d700.004	Thin Surface Course System TSCS with 14mm aggregate surface course 35mm thick in any construction	m2		£	£
d700.005	<u>Tack Coat</u> K1-40 Bitumen emulsion to BS 434: Part 1 with rate of spread 0.4 to 0.6 l/sq m	m2		£	£
d1100.001	<u>Series 1100: Kerbs, Footways and Paved Areas</u> <u>Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u> Granite kerb 250mm deep 200mm wide laid straight or curved exceeding 12 metres radius	m		£	£
d1100.002	<u>Additional Concrete for Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u> Additional in situ concrete ST1 for granite kerb	m3		£	£

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(iii) STRUCTURES: (2) SOUTH BRIDGE

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
	<u>Footways and Paved Areas</u>				
d1100.003	Footway comprising Type 1 unbound mixture sub-base 150mm thick, dense asphalt concrete AC binder course with 20mm aggregate 60mm thick, dense asphalt concrete AC surfacing course with 6mm aggregate 20mm thick	m2		£	£
d1100.004	Footway comprising dense asphalt concrete AC binder course with 20mm aggregate 60mm thick, dense asphalt concrete AC surfacing course with 6mm aggregate 20mm thick	m2		£	£
	<u>Steel Plates</u>				
d1100.005	10mm thick mild steel plate including 20mm thick sand bed, varying length and widths, service duct protection plates in carriageway or footway	m2		£	£
	<u>Series 2000: Waterproofing For Structures</u>				
	<u>Waterproofing</u>				
d2000.001	Waterproofing with Bituthene 1200 or equivalent waterproofing system more than 300mm wide to any inclination	m2		£	£
d2000.002	Waterproofing with 2 coats of bitumen paint	m2		£	£
	<u>Series 2400 - Brickwork, Blockwork and Stonework</u>				
	<u>Brickwork</u>				
d2400.001	Brickwork in bricks in cement mortar one brick thick in facework to concrete	m2		£	£
Total Price					£ 354,906.42

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(iii) STRUCTURES: (3) Retaining Wall

ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
iii.3.a	Main Construction				
	SERIES 600 - EARTHWORKS				
	<u>Excavation</u>				
a600.001	Excavation of acceptable material excluding Class 5A in cutting and other excavation	m3		£	£
	<u>Excavation in Hard Material</u>				
a600.002	Extra over excavation for excavation in hard material	m3		£	£
	<u>Disposal of Material</u>				
a600.003	Disposal of unacceptable material excluding Class 5A	m3		£	£
	<u>Imported Fill</u>				
a600.003	Imported acceptable material class 1A or 1B in embankments and other areas of fill	m3		£	£
	<u>Compaction of fill</u>				
a600.004	Compaction of acceptable material in embankments and other fill areas	m3		£	£
	<u>Trial Pits</u>				
a600.007	Trial pit 0 to 3 metres in depth	m3		£	£
a600.008	Trial pit 3 to 6 metres in depth	m3		£	£
	SERIES 1600 - PILING AND EMBEDDED RETAINING WALLS				
	<u>Piling Plant</u>				
a1600.001	Establishment of piling plant for steel sheet piles	item		£	£
a1600.003	Moving piling plant for steel sheet piles	no			
	<u>Steel Sheet Piles</u>				
a1600.01	Steel sheet piles, retaining height up to 3 metres	m2		£	£
	<u>Driving Steel Sheet Piles</u>				
a1600.014	Driving steel sheet piles	m2		£	£
	SERIES 1700 - STRUCTURAL CONCRETE				
	<u>In Situ Concrete</u>				
a1700.016	In situ concrete class C32/40 capping beam to the retaining wall	m3		£	£
	<u>Surface Finish of Concrete - Formwork</u>				
a1700.022	North West Abutment Extension Temporary formwork Class F4 vertical more than 300mm wide for the capping beam to the retaining wall	m2		£	£
	<u>Steel Reinforcement for Structures</u>				
a1700.038	North West Abutment Extension Steel reinforcement bar 16mm and under not exceeding 12 metres for abutment wall	t		£	£
	Series 2300: Bridge Expansion Joints and Sealing of Gaps				
	asdfg				
	sag				
iii.3.b	Finishings				
	Series 400 - Road Restraint Systems (Vehicle and Pedestrian)				
	<u>Pedestrian Parapets and Pedestrian Guardrails</u>				
b400.001	1.8 metres high steel fencing on top of the retaining wall	m		£	£
	Series 1100: Kerbs, Footways and Paved Areas				
	<u>Remove from Store and Relay Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				
b1100.001	Granite kerb 250mm deep 200mm wide laid straight or curved exceeding 12 metres radius	m		£	£
	<u>Additional Concrete for Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems</u>				

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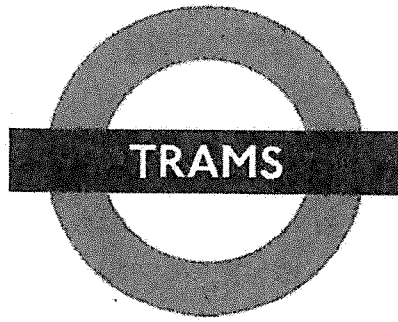
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(iii) STRUCTURES: (3) Retaining Wall

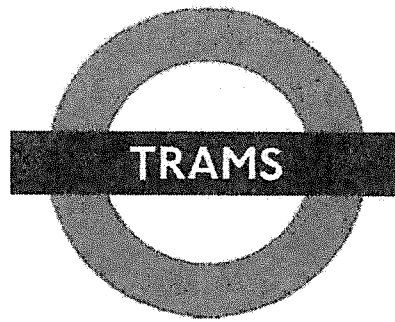
ITEM no	ITEM DESCRIPTION	UNIT	QUANTITY	RATE	COST
b1100.002	Additional in situ concrete ST1 for granite kerb	m3		£	£
	<u>Footways and Paved Areas</u>				
b1100.003	Footway comprising Type 1 unbound mixture sub-base 150mm thick; dense asphalt concrete AC binder course with 20mm aggregate 60mm thick, dense asphalt concrete AC surfacing course with 6mm aggregate 20mm thick	m2		£	£
	<u>Series 2400: Brickwork, Blockwork and Stonework</u>				
	<u>Brickwork</u>				
b2400.001	Brickwork in bricks in cement mortar one brick thick in facework to sheet piling	m2		£	£
Total Price					£ 247,950.70

SECTION 12



SECTION 12

CONTRACTOR'S QUALITY STATEMENT



**REFER TO
MORGAN SINDALL CONSTRUCTION &
INFRASTRUCTURE LTD**

**TENDER SUBMISSION
DATED 7TH NOVEMBER 2017**