Jacobs

Options Cost Estimate Report

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Medway Council

Medway Local Plan – M2 Jct 4 (Segregated Left Turn Slip) Northbound Exit Lanes on A278
10 November 2025

Options Cost Estimate Report

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Project name:	Medway Local Plan – M2 Jct 4 (Segregated Left Turn Slip) Northbound Exit Lanes on A278		
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Contents

1. Project Summary **1**
2. Methodology **2**
3. Scope **3**
3.1 Highway Works 3
3.2 Statutory Undertakers Works 4
3.3 Project / Design Team Fees 4
3.4 Other Development / Project Costs 4
3.5 Inflation 4
3.6 Risk 4
3.7 Value Added Tax (VAT) 4
3.8 Assumptions 4
3.9 Exclusions 5
4. Quantification **7**
4.1 Highway Works 7
4.2 Statutory Undertaker Works 7
4.3 Project / Design Team Fees 7
4.4 Other Development / Project Costs 8
4.5 Inflation 8
4.6 Risk 8
4.7 Value Added Tax (VAT) 8
5. Basis of Cost Estimate **9**
5.1 Base Date 9
5.2 Region 9
5.3 Pricing 9
5.4 Programme 10
5.5 Range of Accuracy 10

Appendices

Appendix A. **Register of Design Information**
Appendix B. **Cost Estimate**

1. Project Summary

This Options Estimate Report Rev 0 provides an estimate for the proposed infrastructure improvements, including the addition of a segregated left-turn slip lane from the northbound exit lanes of the A278 (Hoath Way) at Junction 4 of the M2 Motorway.

A summary of the costs are as follows; however this report should be read in full to understand the basis of the costs, assumptions and exclusions, with no excerpts to be representative of the findings:

Table 1-1. Cost Summary

Summary		Total £
Highway Works		
01	Preliminaries	659,000
02	Roadworks	824,000
03	Structures (Bridges, Viaducts, etc.)	N/A
04	Structures (Retaining walls, Culverts, Subways, etc.)	418,000
05	Miscellaneous Works	N/A
06	Accommodation Works	Excluded
07	Facilitating Works	Excluded
	Sub-Total (A)	1,901,000
Statutory Undertakers Works		
08	Statutory Undertakers Works	475,000
	Sub-Total (B)	2,376,000
Project / Design Team Fees		
09	Project / Design Team Fees	570,000
Other Development / Project Costs		
10	Other Development / Project Costs	190,000
	Sub-Total (C)	3,136,000
Inflation		
11	Inflation	Excluded
	Sub-Total (D)	3,136,000
Risk		
12	Risk	1,254,000
	Total (Excl. VAT)	4,390,000

Note: Costs rounded to the nearest thousand pounds. Base date of this estimate is 4Q 2025, and has an expected accuracy level of -20% to +30%. Details of the estimate have been included in Appendix B of this report.

2. Methodology

The methodology detailed below has been used to prepare this cost estimate.

Figure 2-1. Methodology

Scope: The scope of works to be included in this estimate has been agreed with the Medway Council via Jacobs PM & designers and is defined by the design information included in Appendix A of this report. Section 3 of this report details those elements of the works that are included within each section of the estimate, as well as any assumptions and exclusions that have been made.

Quantification: Section 4 of this report details the methods used to quantify the various elements of the scope of works and identifies any industry Standard Methods of Measurement or Work Breakdown Structures that have been used.

Basis of Cost Estimate: The base date of the estimate, location factors, pricing methods and expected accuracy ranges are included in Section 5 of this report.

Check, Review & Approve: A line by line check of the estimate is carried out by an experienced surveyor prior to final high level review by an estimating manager and prior to approval by the Project Manager. This process is undertaken in accordance with Jacobs UK Ltd Business Management System – Work Instruction WI-3100.

3. Scope

This cost estimate has been based upon the design information listed in Appendix A of this report.

3.1 Highway Works

3.1.1 Preliminaries

The cost of Preliminaries includes Main Contractor's cost items such as:

- Project specific management and staff.
- Visiting management and staff.
- Support costs; staff travel, accommodation and subsistence.
- Site accommodation, offices, canteens, drying rooms, toilets and washrooms, laboratories, stores, compounds and the like.
- Temporary works, bases & foundations, connections to services, temporary site roads and paths, temporary drainage, haul roads, barriers and scaffolding.
- Traffic safety and management, temporary diversions for traffic, recovery vehicles, temporary CCTV and temporary speed camera systems.
- Furniture and equipment, IT systems, radio & telecommunications systems, sundries and consumables.
- Temporary water, gas, and electric supplies.
- Cleaning site accommodation and waste management.
- Security staff and equipment, hoardings, fences, gates and information boards.
- Safety and environmental protection, PPE, fire points, first aiders and traffic marshals.
- Contractor's surveys, inspection and monitoring, setting out, protection of the works, samples and testing.
- Mechanical plant, cranes, hoists, access plant, concrete plant, generators and compressors, and small tools.
- Site records, testing and commissioning, handover, post completion services.
- Insurances, bonds, guarantees and warranties.

3.1.2 Roadworks

The cost of the following Roadworks are included in this estimate:

- Roadworks General
  - Site Clearance, Road Restraint Systems and Earthworks.
- Main carriageway, Interchanges and Side Roads
  - Drainage & Service Ducts, Pavements, and Kerbs, Footways & Paved Areas.
- Signs, Motorway Communications and Lighting
  - Traffic Signs & Road Markings, Road Lighting Columns, Brackets & CCTV Masts, Electrical Work for Road Lighting & Traffic Signs.
- Landscape and Ecology

3.1.3 Structures

The cost of the following Structures are included in this estimate:

- Retaining wall structure (average 1m high) to retain edges of reprofiled embankment where carriageway is widened along the existing embankment.

3.1.4 Miscellaneous Works

Miscellaneous Works are excluded from this estimate.

3.1.5 Accommodation Works

Accommodation Works (e.g. alterations to boundary fencing, accesses and driveways) are excluded from this estimate.

3.1.6 Facilitating Works

Facilitating Works are excluded from this estimate as detailed in Section 3.9 below.

3.2 Statutory Undertakers Works

The cost of the following Statutory Undertakers Works are included in this estimate:

- Temporary and permanent diversion works including diversion of statutory undertakers services (e.g. water, electricity, gas and communications).

3.3 Project / Design Team Fees

The cost of the following Project / Design Team Fees are included in this estimate:

- Client's project team and design consultant's fees.
- Client's construction supervision costs.

All other Project / Design Team Fees (e.g. Main Contractor's design costs) are excluded from this estimate as detailed in Section 3.9 below

3.4 Other Development / Project Costs

The cost of the following Other Development / Project Costs are included in this estimate:

- Client contract administration costs.

All other Development / Project Costs (e.g. land costs, finance costs, etc.) are excluded from this estimate as detailed in Section 3.9 below.

3.5 Inflation

Tender Inflation and Construction Inflation are excluded from this cost estimate as detailed in Section 3.9 below.

3.6 Risk

3.6.1 Risk (Design, Construction & Client Risk)

A percentage allowance has been included in this estimate for design development risks, construction risks, Client change risks and Client other risks as detailed in Section 4.6 below.

3.6.2 Optimism Bias

Optimism Bias is excluded from this estimate as detailed in Section 3.9 below.

3.7 Value Added Tax (VAT)

Value Added Tax (VAT) is excluded from this cost estimate as detailed in Section 3.9 below.

3.8 Assumptions

The following assumptions have been made in the preparation of this cost estimate:

- Construction Works will generally be undertaken during normal working hours unless specifically identified as being undertaken out of normal working hours (evenings and weekends).
- Main Contractor's access to the site is unrestricted.
- The works will be completed as one continuous project.

- Existing site conditions, extent of works and level of specification are as set out in the information included in Appendix A.
- An allowance for take up or down items has been included in this estimate.
- An allowance for site clearance has been included in the estimate is based on the extent of the proposed works area.
- Allowance has been included in the estimate for replacement of any affected items by the proposed works, such as road gullies, safety barriers and street lighting units etc.
- Allowance of 5.00 metre long 150mm diameter drain connecting each new gully to existing drainage system is included in this estimate.
- Excavation allowance has been calculated based on excavation required for road construction, footway construction and topsoiling.
- All excavated material is assumed to be unacceptable Class U1a.
- All excavated material is to be disposed off-site.
- Allowance of 1% of the total excavated volume for excavation of soft spots has been included in the estimate.
- Allowance of 150mm thick imported topsoil is included in the estimate for new landscape areas.
- No allowance for capping is included in the estimate for new carriageway construction.
- Full depth carriageway construction – 40mm surface course, 60mm binder course, 225mm base course and 250mm sub-base.
- Resurfacing carriageway construction – 40mm surface course and 60mm binder course.
- Allowance for 25mm thick regulating course for resurfacing carriageway area.
- Proposed kerbs are precast concrete.
- Traffic island construction – 25mm surface course, 100mm binder course and 150mm sub-base.
- No allowance for street furniture has been included.
- An allowance has been included for traffic signs based on area of carriageway.
- An allowance has been included for road markings based on proposed road markings on the drawing.
- An allowance has been included for road studs based on linear length of existing road studs affected by alterations to the carriageway (1no every 18m).
- An allowance for permanent bollards has been included for the proposed traffic island.
- An allowance has been included in the estimate for replacing any road lighting columns affected by the proposed works with new.
- An allowance for electrical works for lighting columns based on the number of new lighting columns has been included in the estimate.
- Allowances have been included for grass seeding to areas of verge and minimal planting.
- Maintenance of landscaped areas including grassed areas and planting has been excluded.
- An allowance has been included in the estimate for a retaining wall structure (average 1m high) to retain edges of reprofiled embankment where carriageway is widened along the existing embankment.
- An allowance has been included for night/ restricted working for drainage, pavements and footway works.

3.9 Exclusions

The following items are excluded from this cost estimate:

- Accommodation Works
  - Accommodation Works (e.g. alterations to boundary fencing, accesses and driveways).
- Facilitating Works
  - Toxic / hazardous material removal including removal of toxic or hazardous parts of building fabric and hazardous materials or components from existing services installations.
  - Removal and/or treatment of contaminated ground material.
  - Unexploded ordnance removal / clearance.
  - Eradication of invasive plant growth.
  - Ground gas venting measures including gas proof membranes, perforated collection pipes, proprietary gas dispersal fin layers, radon sumps and vent pipes.
  - Soil stabilisation measures including cement or chemical grouting, electrochemical stabilisation, sand stowing, soil nailing, ground anchors, compacting, and freezing of groundwater and subsoil.
  - Site dewatering and pumping to lower the ground water level of the site, including forming well points, filling, drain tubes and ring mains, sumps, pumps and pumping, off-site disposal of water, running costs and attendance.

- Extraordinary site investigation works including archaeological investigation, reptile / wildlife mitigation measures and other site investigation works.

- Project / Design Team Fees
  - Main Contractor's design fees.
  - Main Contractor's pre-construction fees including associated management and staff, specialist support services fees, temporary accommodation, services and facilities, charges, overheads and profit.

- Other Development / Project Costs
  - Compensation for permanent land take; statutory loss payments; possible disturbance claims; potential Part 1 claims and professional fees incurred by the claimants.
  - Client finance costs, costs in connection with funding of project.
  - Fees, planning fees, building control fees, oversailing fees, fees in connection with party wall awards, fees in connection with rights of light agreements, fees in connection with other agreements between the Client and neighbours to facilitate the project, other fees in connection with licences, permits and agreements.
  - Charges, rates on temporary accommodation, licences in connection with hoardings, scaffolding, gantries and the like and licences in connection with crossovers, parking permits, parking bay suspension and the like.
  - Planning contributions, direct financial contributions in connection with planning consent, and environmental improvement works.
  - Insurances other than Main Contractor's works insurance.
  - Decanting and relocation costs, temporary relocation costs, temporary accommodation, rents and other running costs.
  - Fixtures, fittings and equipment other than that included in design.
  - Marketing costs, public relations events, site based advertising and public relations literature.

- Risk
  - Department for Transport or His Majesty's Treasury provision for Optimism Bias.

- Inflation
  - Tender & Construction Inflation from estimate base date.

- Taxation & Grants
  - Capital allowances.
  - Grants.
  - Value Added Tax (VAT).

4. Quantification

4.1 Highway Works

The Highways Works element of this estimate have wherever possible been quantified in accordance with the Manual of Contract Documents for Highway Works, Volume 4, Bills of Quantities for Highway Works published by the Highways Agency (now National Highways). The work breakdown structure adopted is based on Table 1 included in Section 1, Chapter III of the Method of Measurement for Highways Works (MMHW). Where items of work cannot be quantified either a percentage or sum allowance has been included.

The detailed estimate is included in Appendix B which has been prepared using the RIB iTwo CostX Estimating Software. Quantities are either directly entered into take off sheets or measured electronically.

4.1.1 Preliminaries

An allowance of 35% on the cost of Roadworks and Structures has been included for Main Contractor's Preliminaries.

In addition, an allowance of cost/month has been included for Traffic Management:

- £225,000 for an assumed construction duration of 6 months. [e.g. 4 months on full TM @ £45,000 plus 2 months on half TM @ £22,500]

4.1.2 Roadworks

Roadworks have been quantified and itemised in accordance with the relevant series of the MMHW and the cost estimated on a unit cost basis.

4.1.3 Structures

Structures have been quantified and itemised using an approximate estimating technique based on the length of structure to be constructed and the cost estimated on a unit cost basis.

4.1.4 Miscellaneous Works

Excluded from this estimate.

4.1.5 Accommodation Works

Excluded from this estimate.

4.1.6 Facilitating Works

Excluded from this estimate.

4.2 Statutory Undertaker Works

An allowance of 25% on the cost of Highway Works has been included for Statutory Undertaker Works.

4.3 Project / Design Team Fees

An allowance of 20% on the cost of Highway Works has been included for Client's project / design team fees.

In addition, an allowance of 10% on the cost of Highway Works has been included for Client's construction management and supervision costs.

4.4 Other Development / Project Costs

An allowance of 10% on the cost of Highway Works has been included for Other Development / Project Costs.

4.5 Inflation

Excluded from this estimate.

4.6 Risk

4.6.1 Risk (Design, Construction & Client Risk)

Section 3.1.1 of "The Department for Transport Guidance, TAG Unit A1.2, Scheme Costs, dated May 2025" states that a Quantified Risk Assessment (QRA) is required for all transport projects with a cost greater than £7m and is encouraged for smaller schemes.

In the absence of a QRA an allowance of 40% on the cost of Highway Works, Statutory Undertakers Works, Project / Design Team Fees and Other Development / Project Costs has been included in this estimate for design development risks, construction risks, Client change risks and Client other risks in accordance with the ranges recommended by Jacobs below for projects at different stages of development.

Table 4-1. Typical Risk Range

National Highways PCF Stage (or equivalent)	Estimate Type	Risk
0 & 1: Strategy & Option Identification	Order of Magnitude	40 - 60%
1 & 2: Option Identification & Selection	Options Estimate	25 - 40%
3: Preliminary Design	Preliminary / Initial Estimate	20 - 25%
4: Statutory Procedures and Powers	Developing Estimate	15 - 20%
5: Construction Preparation	Final Estimate	10 – 15%
6: Construction	Cost to Complete Estimate	5 - 10%

4.6.2 Optimism Bias

Section 3.2.24 of "The Department for Transport Guidance, TAG Unit A1.2, Scheme Costs, dated May 2025" states that Optimism Bias uplifts are only required for the economic case of a proposal, hence Optimism Bias has not been included within the cost estimate.

4.7 Value Added Tax (VAT)

Excluded from this estimate.

5. Basis of Cost Estimate

5.1 Base Date

The base date of the estimate is 4th Quarter 2025 (4Q 2025).

5.2 Region

The works are located in the South East region of the United Kingdom of Great Britain and Northern Ireland.

Figure 5-1. Regional Map

5.3 Pricing

5.3.1 General

The rates and prices used are:

- in pounds sterling.
- reflect construction projects of a similar size and nature.
- inclusive of profit margins and contributions to head office overheads.
- inclusive of all Plant, Labour and Materials.

5.3.2 Percentage Allowances

Percentage allowances have been included for:

- Main Contractor's Preliminaries.
- Night time / restricted working allowances.
- Statutory Undertakers Works.
- Client Project & Design Team Fees.
- Client Construction Management & Supervision Costs.
- Client Contract Administration Costs.

- Risk.

5.3.3 Approximate Estimating Rates

The following elements have been priced using approximate estimating rates:

- Traffic Management.
- Site Clearance.
- Traffic Signs and Road Marking.
- Electrical Work associated with Road Lighting and Traffic Signs.
- Structure - retaining walls based on length of structure.

5.3.4 Unit Rates

The following elements have been priced using unit rates:

- Road Restraint Systems.
- Drainage & Service Ducts.
- Earthworks.
- Pavements.
- Kerbs, Footways & Paved Areas.
- Road Lighting Columns, Brackets & CCTV Masts.
- Landscaping and Ecology.

5.3.5 Resource Costs

No items have been priced using resource costs.

5.4 Programme

No programme has been provided.

5.5 Range of Accuracy

A cost estimate produced at this stage, based on the available information, will have an expected accuracy level of -20% to +30%.

Table 5-1. Range of Accuracy

Estimate Class	Level of Project Definition	End Usage	Methodology	Expected Accuracy Range
Order of Magnitude	0% to 2%	Concept	Percentage Allowances / Approximate Estimating Rates	-30% to +50%
Options	1% to 15%	Study or Feasibility	Percentage Allowances / Approximate Estimating Rates	-20% to +30%
Preliminary / Initial	10% to 40%	Design Development, Budget Authorisation or Feasibility	Percentage Allowances / Approximate Estimating Rates / Unit Rates	-15% to +20%
Developing	30% to 75%	Control or Bid / Tender	Unit Rates / Resource Costs	-10% to +15%
Final	65% to 100%	Check Estimate or Bid / Tender	Unit Rates / Resource Costs	-5% to +10%

Appendix A. Register of Design Information

Document No.(s)	Rev	Document Title(s)	Status	Format
-	P01	M2J4 Proposed Design (see attached drawing)	DRAFT	Pdf

Notes

1. All dimensions in meters unless stated otherwise.
2. Road markings have been shown indicatively only to present the developing scheme.
3. The drawing has been based on a Topographical survey. Full details on TOPO survey provided separately.
4. Based on OS Base Maps © Crown copyright and database rights 2023 OS PSGA
5. Drawing to be printed in colour.
6. Do not scale from this drawing.
7. The feasibility of this design solution is subject to further work to be conducted at the detailed design stage.
8. All road markings and signs are as per the Traffic Signs Regulations and General Directions 2016 (TSRGD) and Traffic Signs Manual.

Key

- Proposed Marking
- Proposed Kerbline
- Proposed Footway/ Verge

DRAFT
FOR DISCUSSION ONLY

Rev	Rev. Date	Purpose of revision	Orig	Check'd	Rev'd	Apprv'd
P01	SEPT-2025	FIRST-ISSUE	OD	BS		

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Client

Project: Medway Local Plan

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Drawing status: DRAFT

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Scale: DO NOT SCALE

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Appendix B. Cost Estimate

Summary		Total £
Highway Works		
01	Preliminaries	659,405
02	Roadworks	823,657
03	Structures (Bridges, Viaducts, etc.)	N/A
04	Structures (Retaining walls, Culverts, Subways, etc.)	417,500
05	Miscellaneous Works	N/A
06	Accommodation Works	Excluded
07	Facilitating Works	Excluded
	Sub-Total (A)	1,900,562
Statutory Undertakers Works		
08	Statutory Undertakers Works	475,141
	Sub-Total (B)	2,375,703
Project / Design Team Fees		
09	Project / Design Team Fees	570,169
Other Development / Project Costs		
10	Other Development / Project Costs	190,056
	Sub-Total (C)	3,135,928
Inflation		
11	Inflation	Excluded
	Sub-Total (D)	3,135,928
Risk		
12	Risk	1,254,371
	Total (Excl. VAT)	4,390,299

Note: Base date of this estimate is 4Q 2025, and has an expected accuracy level of -20% to +30%.

Ref	Description	Quantity	Unit	Rate (£)	Total (£)
01 Preliminaries					
01.01	**Main Contractor Preliminaries**				
01	Preliminaries	35	%	1,241,157.00	434,405
	Traffic Management				
02	Allowance for full Traffic Management	4	month	45,000.00	180,000
03	Allowance for half Traffic Management	2	month	22,500.00	45,000
	01 Preliminaries Subtotal				**659,405**
02 Roadworks					
02.01	**Roadworks General**				
02.01.200	200 Site Clearance				
	Site Clearance				
01	General Site Clearance	0.670	ha	15,000.00	10,050
02	Removal of vegetation	3,510	m2	20.00	70,200
	Take Up or Down and Set Aside for Re-use or Remove to Store or Tip off Site				
03	Allowance for take up or down and remove to tip off site items	1	item	30,000.00	30,000
	Site Clearance Subtotal				**110,250**
02.01.300	300 Fencing				
01	None				
	Fencing Subtotal				**-**
02.01.400	400 Road Restraint Systems (Vehicle and Pedestrian)				
	Safety Barrier				
01	Allowance for new safety barrier to align with the new kerb line	173	m	50.00	8,650
	Road Restraint Systems (Vehicle and Pedestrian) Subtotal				**8,650**
02.01.600	600 Earthworks				
	Excavation				
01	Excavation of unacceptable material Class U1a in cutting and other excavation	1,029	m3	34.00	34,986
	Excavation in Hard Material				
02	Extra over excavation for excavation in hard material	N/A	m3	65.00	-
	Disposal of Material				
03	Disposal of unacceptable material Class U1A	1,029	m3	45.00	46,305
	Imported Fill				
04	Imported acceptable material Class 5B	492	m3	75.00	36,900
05	Imported acceptable material	288	m3	40.00	11,520
	Compaction of Fill				
06	Compaction of acceptable material embankments and other areas of fill	288	m3	10.00	2,880

Ref	Description	Quantity	Unit	Rate (£)	Total (£)
02 Roadworks					*(Continued)*
	Soft Spots and Other Voids				
07	Excavation of soft spots and other voids	10	m3	90.00	900
08	Filling of soft spots and other voids	10	m3	90.00	900
	Disused Sewers, Drains, Cables, Ducts, Pipelines and the Like Occurring at Formation or Sub-formation Level; Disused Basements, Cellars and the Like and Gullies				
09	Removal of disused gully 450mm internal diameter	7	no	650.00	4,550
	Topsoiling and Storage of Topsoil				
10	Topsoiling 150mm thick	3,278	m2	4.00	13,112
	Completion of Formation and Sub-formation				
11	Completion of formation on material other than Class 1C, 6B or rock in cuttings	824	m2	2.00	1,648
	Earthworks Subtotal				**153,701**
02.02 to 02.04	**Main Carriageway, Interchanges and Side Roads**				
02.02to04.500	500 Drainage and Service Ducts				
	Drains and Service Ducts				
01	Gully pipes (size 150mm dia) (5m per gully)	35	m	150.00	5,250
	Connections				
02	Connection of 150mm internal diameter pipe to existing drain or existing piped culvert depth to invert not exceeding 2 metres (gully pipes)	7	no	460.00	3,220
	Chambers and Gullies				
03	Precast concrete trapped gully with existing D400 grating and frame	7	no	950.00	6,650
	Renewal, Raising or Lowering of Covers and Gratings on Existing Chambers and Gullies				
04	Allowance for raising or lowering the level of covers and frames on existing chambers	1	Item	5,000.00	5,000
	Excavation in Hard Material				
05	Extra over excavation for excavation in hard material in drainage	9	m3	65.00	585
	Cleaning Existing Drainage Systems				
06	Allowance for cleaning existing piped drainage system	1	item	5,000.00	5,000
	Restricted / Night Working				
07	Allowance for restricted / night working	20	%	25,705.00	5,100
	Drainage and Service Ducts Subtotal				**30,805**
02.02to04.700	700 Pavements				
	Sub-base				
01	Type 1 unbound mixture sub-base in carriageway, hardshoulder and hardstrip (250mm thick)	188	m3	85.00	15,980
	Pavement - Full Depth				
02	AC 32 HDM 40/60 design base 225mm thick in carriageway, hardshoulder and hardstrip	750	m2	60.00	45,000

Ref	Description	Quantity	Unit	Rate (£)	Total (£)
02 Roadworks					*(Continued)*
03	AC 20 HDM 40/60 binder course 60mm thick in carriageway, hardshoulder and hardstrip	750	m2	27.50	20,625
04	TSCS 0/10 surface course 40mm thick in carriageway, hardshoulder and hardstrip	750	m2	26.00	19,500
	Pavement - Resurfacing				
05	AC 20 HDM 40/60 binder course 60mm thick in carriageway, hardshoulder and hardstrip	1,705	m2	27.50	46,888
06	TSCS 0/10 surface course 40mm thick in carriageway, hardshoulder and hardstrip	1,705	m2	26.00	44,330
	Pavement - Tie In				
07	AC 32 HDM 40/60 design base 225mm thick in carriageway, hardshoulder and hardstrip	142	m2	60.00	8,520
	Regulating Course				
08	AC 32 HDM 40/60 design base regulating course (average 25mm thick)	106.563	t	182.00	19,394
	Tack Coat				
09	Tack Coat	1,847	m2	1.50	2,771
	Cold Milling (Planing)				
10	Milling pavement 100mm thick (Tie In / Resurfacing)	1,705	m2	17.00	28,985
11	Milling pavement 325mm thick (Tie In)	142	m2	55.00	7,810
	Reinstatement of Paved Areas				
12	Reinstate paved areas with full depth pavement construction (excluding surface and binder courses)	26	m2	85.00	2,210
	Restricted / Night Working				
13	Allowance for restricted / night working	20	%	262,012.47	52,400
	Pavements Subtotal				**314,412**
02.02to04.1100	1100 Kerbs, Footways and Paved Areas				
	Kerbs, Channels, Edgings, Combined Drainage and Kerb Blocks and Linear Drainage Channel Systems				
	Kerbs				
01	Precast concrete kerb laid straight or curved	283	m	35.00	9,905
	Footways and Paved Areas				
02	Footways comprising Type 1 unbound mixture sub-base 150mm thick, AC20 binder course 100mm thick, HRA surface course 25mm thick on geotextile separation layer (traffic island)	74	m2	60.00	4,440
	Restricted / Night Working				
03	Allowance for restricted / night working	20	%	14,345.00	2,900
	Kerbs, Footways and Paved Areas Subtotal				**17,245**
02.05	**Signs, Motorway Communications and Lighting**				
02.05.1200	1200 Traffic Signs and Road Markings				
	Traffic Signs				
01	Allowance for traffic signs (based on area of pavement)	2,455	m2	2.50	6,138

Ref	Description	Quantity	Unit	Rate (£)	Total (£)
02 Roadworks					*(Continued)*
	Road Markings				
02	Allowance for road markings	1	Item	3,000.00	3,000
	Road Studs				
03	Allowance for road studs	17	no	25.00	425
	Permanent Bollards				
04	Permanent bollards Flecta type	1	no	950.00	950
	CCTV Unit and Post				
05	Allowance for relocation of CCTV unit and post	1	no	10,000.00	10,000
	Traffic Signs and Road Markings Subtotal				**20,513**
02.05.1300	1300 Road Lighting Columns				
	Road Lighting Columns and Brackets, Wall Mountings, CCTV Masts and Cantilever Masts				
01	Allowance for new road lighting column of 10 m nominal height with planted base and with single bracket arm with lantern	7	no	3,000.00	21,000
	Road Lighting Columns, Brackets and CCTV Masts Subtotal				**21,000**
02.05.1400	1400 Electrical Works for Road Lighting and Traffic Signs				
	Electrical works for Road Lighting				
01	Allowance electrical works for road lighting	7	no	2,500.00	17,500
	Electrical Works for Traffic Signs				
02	Allowance for Electrical Works for Traffic Signs				Included Elsewhere
	Sundry Electrical Works				
03	Allowance for Sundry Electrical Works (E.g electrical cabinets, feeder pillars etc.)	1	Item	6,000.00	6,000
	Electrical Work for Road Lighting and Traffic Signs Subtotal				**23,500**
02.05.1500	1500 Motorway Communications				
01	None				
	Motorway Communications Subtotal				**-**
02.06	**Landscape and Ecology**				
	Ground Preparation and Cultivation				
01	Vegetation clearance to surface sloping at 10o or less to the horizontal	3,278	m2	0.20	656
02	Subsoil treatment to surface sloping at 10o or less to the horizontal	3,278	m2	0.60	1,967
03	Final preparation of soils to surface sloping at 10o or less to the horizontal	3,278	m2	0.50	1,639
04	Final cultivation to surface sloping at 10o or less to the horizontal	3,278	m2	0.60	1,967

Ref	Description	Quantity	Unit	Rate (£)	Total (£)
02 Roadworks					*(Continued)*
	Seeding and Turfing				
05	Grass seeding by conventional sowing to surfaces sloping at 10 degrees or less to the horizontal	3,278	m2	0.80	2,622
	Planting				
06	Allowance for planting and trees	3,278	m2	35.00	114,730
	Maintenance of Landscaped Areas				
07	Allowance for landscape maintenance / aftercare		item		Excluded
	Landscape and Ecology Subtotal				**123,581**
	02 Roadworks Subtotal				**823,657**
03 Structures (Bridges, Viaducts, etc.)					
	None				
	03 Structures (Bridges, Viaducts, etc.) Subtotal				**N/A**
04 Structures (Retaining Walls, Culverts, Subways, Gantries, Large Headwalls, etc.)					
04.01	**Retaining Walls**				
01	Allowance for retaining structure (average 1m high) to retain edges of reprofiled embankment where carriageway is widened along the existing embankment	167	m	2,500.00	417,500
	04 Structures (Retaining Walls, Culverts, Subways, Gantries, Large Headwalls, etc.) Subtotal				**417,500**
05 Miscellaneous					
	None				
	05 Miscellaneous Subtotal				**N/A**
06 Accommodation Works					
	None				
	06 Accommodation Works Subtotal				**Excluded**
07 Facilitating Works					
	None				
	07 Facilitating Works Subtotal				**Excluded**
08 Statutory Undertakers Works					
08.01	**Statutory Undertakers Works**				
01	Allowance for statutory undertakers works (% of Highway Works Total)	25	%	1,900,562.00	475,141
	08 Statutory Undertakers Works Subtotal				**475,141**
09 Project / Design Team Fees					
09.01	**Client Project & Design Team Fees**				
01	Allowance for Client project & design team fees (% of Highway Works Total)	20	%	1,900,562.00	380,112
09.02	**Client Construction Management & Supervision Costs**				
01	Allowance for Client construction management & site supervision costs (% of Highway Works Total)	10	%	1,900,562.00	190,056
	09 Project / Design Team Fees Subtotal				**570,169**

Ref	Description	Quantity	Unit	Rate (£)	Total (£)
10 Other Development / Project Costs					
10.01	**Other Development / Project Costs**				
01	Client contract administration costs (% of Highway Works Total)	10	%	1,900,562.00	190,056
02	Land acquisition costs		item		Excluded
	10 Other Development / Project Costs Subtotal				**190,056**
11 Inflation					
11.01	**VAT**				
01	Allowance for Inflation		%		Excluded
	11 Inflation Subtotal				**Excluded**
12 Risk					
12.01	**Risk (Design, Construction & Employer Risk)**				
01	Allowance for Risk	40	%	3,135,927.50	1,254,371
12.02	**Optimism Bias**				
01	Optimism Bias for Roadworks plus % add-on items		%		Excluded
02	Optimism Bias for Structures plus % add-on items		%		Excluded
	12 Risk Subtotal				**1,254,371**
13 VAT					
13.01	**VAT**				
01	Allowance for VAT		%		Excluded
	13 VAT Subtotal				**Excluded**
	Options Cost Estimate Total				**4,390,299**