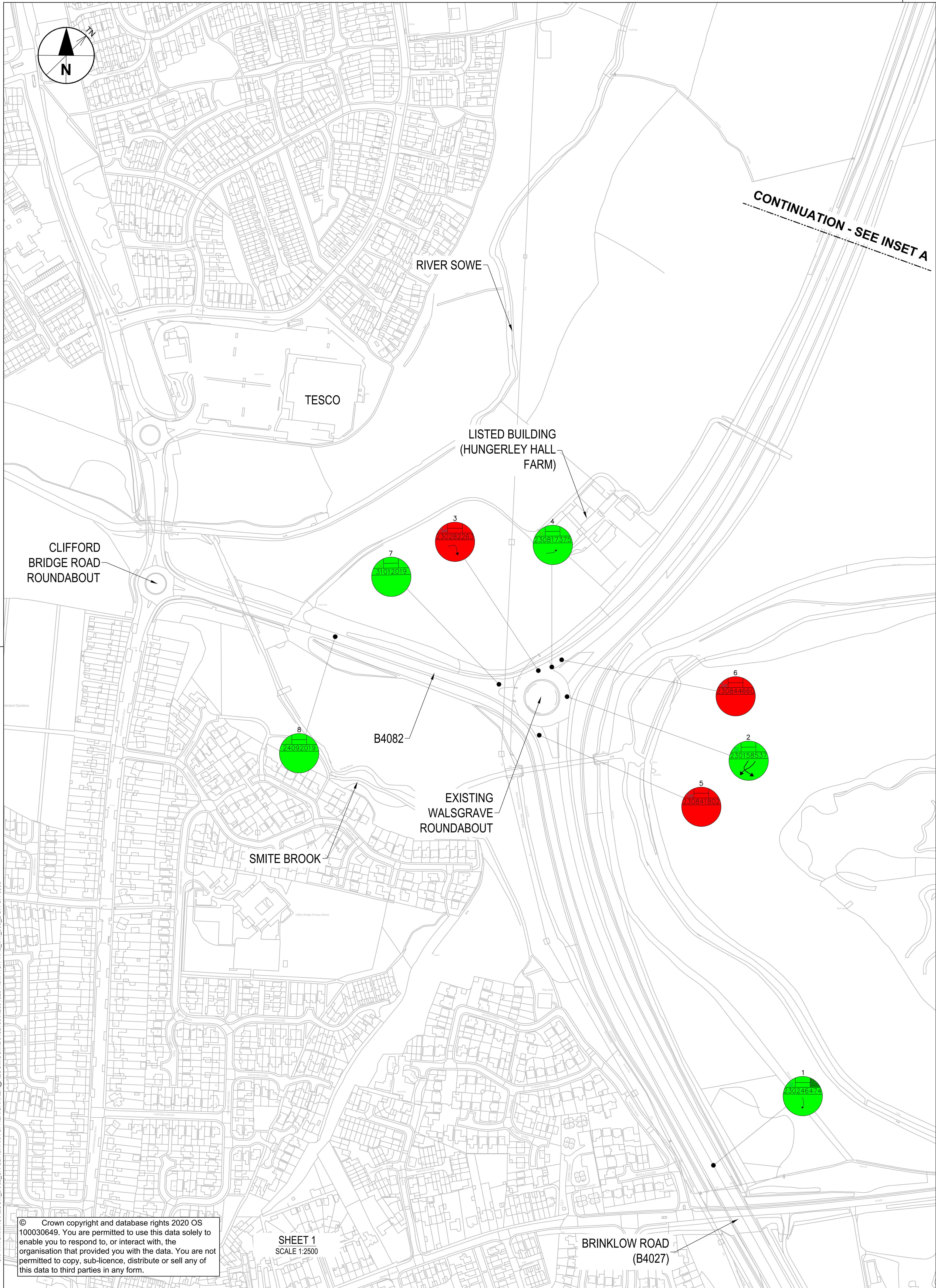
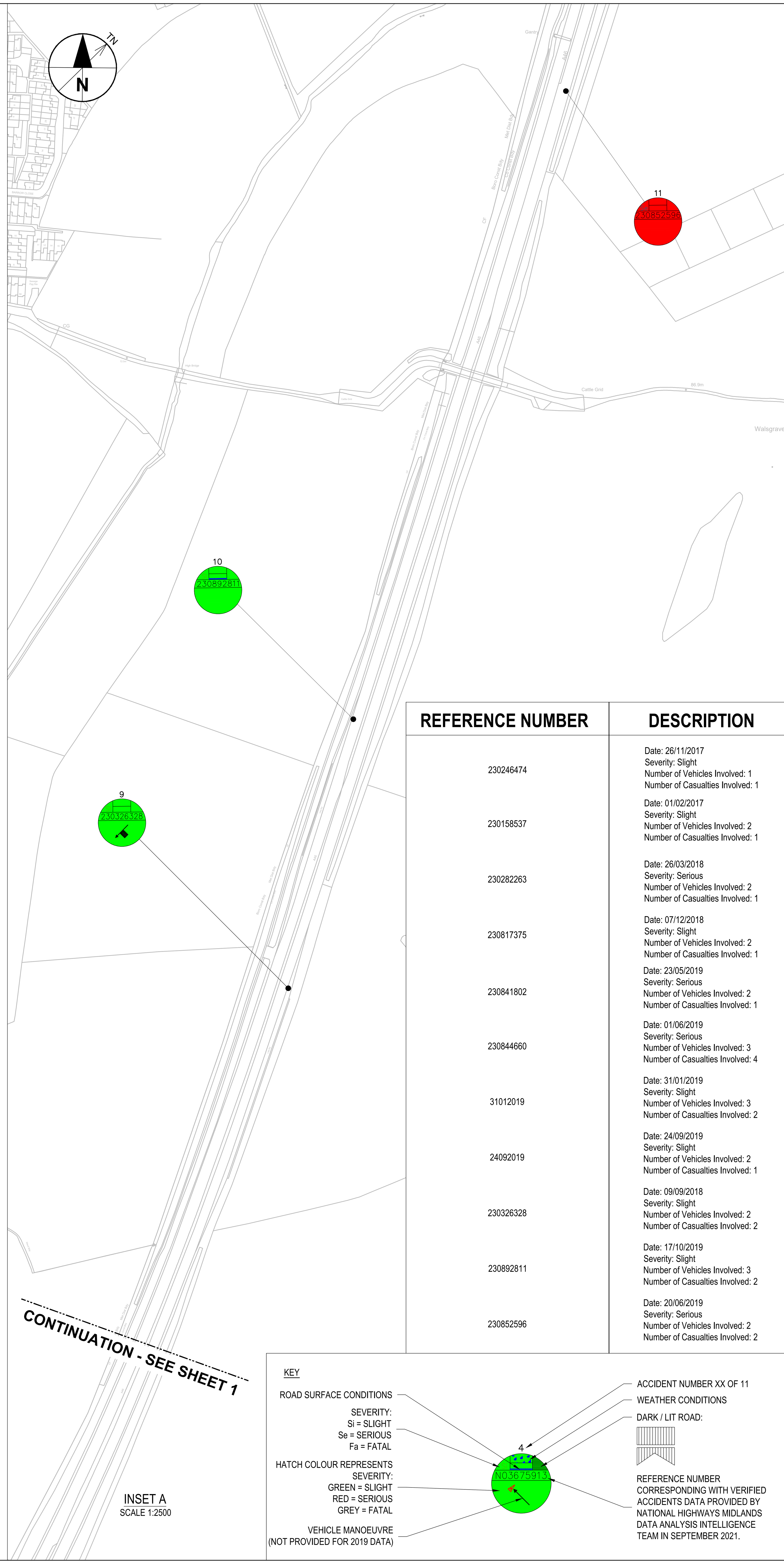
APPENDIX R
SCHEME SAFETY ASSESSMENT EXTENTS



SHEET 1
SCALE 1:2500



INSET A
SCALE 1:2500

REFERENCE NUMBER	DESCRIPTION
230246474	Date: 26/11/2017 Severity: Slight Number of Vehicles Involved: 1 Number of Casualties Involved: 1
230158537	Date: 01/02/2017 Severity: Slight Number of Vehicles Involved: 2 Number of Casualties Involved: 1
230282263	Date: 26/03/2018 Severity: Serious Number of Vehicles Involved: 2 Number of Casualties Involved: 1
230817375	Date: 07/12/2018 Severity: Slight Number of Vehicles Involved: 2 Number of Casualties Involved: 1
230841802	Date: 23/05/2019 Severity: Serious Number of Vehicles Involved: 2 Number of Casualties Involved: 1
230844660	Date: 01/06/2019 Severity: Serious Number of Vehicles Involved: 3 Number of Casualties Involved: 4
31012019	Date: 31/01/2019 Severity: Slight Number of Vehicles Involved: 3 Number of Casualties Involved: 2
24092019	Date: 24/09/2019 Severity: Slight Number of Vehicles Involved: 2 Number of Casualties Involved: 1
230326328	Date: 09/09/2018 Severity: Slight Number of Vehicles Involved: 2 Number of Casualties Involved: 2
230892811	Date: 17/10/2019 Severity: Slight Number of Vehicles Involved: 3 Number of Casualties Involved: 2
230852596	Date: 20/06/2019 Severity: Serious Number of Vehicles Involved: 2 Number of Casualties Involved: 2

KEY

ROAD SURFACE CONDITIONS

SEVERITY:
Si = SLIGHT
Se = SERIOUS
Fa = FATAL

HATCH COLOUR REPRESENTS
SEVERITY:
GREEN = SLIGHT
RED = SERIOUS
GREY = FATAL

VEHICLE MANOEUVRE
(NOT PROVIDED FOR 2019 DATA)

ACCIDENT NUMBER XX OF 11

WEATHER CONDITIONS

DARK / LIT ROAD:

REFERENCE NUMBER CORRESPONDING WITH VERIFIED ACCIDENTS DATA PROVIDED BY NATIONAL HIGHWAYS MIDLANDS DATA ANALYSIS INTELLIGENCE TEAM IN SEPTEMBER 2021.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX

IT IS ASSUMED THAT ALL WORKS ON THIS DRAWING WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROPRIATE METHOD STATEMENT.

THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT.

EXCEPTIONAL RISKS RELATING TO THE WORKS ASSOCIATED WITH THIS DRAWING ARE IDENTIFIED BELOW.

CONSTRUCTION

MAINTENANCE / OPERATION / DECOMMISSIONING / DEMOLITION

NOTES
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS, CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE PROJECT HEALTH & SAFETY FILE FOR ANY IDENTIFIED POTENTIAL RISKS.
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE A46 COVENTRY JUNCTIONS (WALSGRAVE STAGE 2) - SAFETY PLAN (HE604820-ACM-GEN-WAL_SW_000_Z-RP-OS-0001).
6. NO VEHICLE MANOEUVRE DATA HAS BEEN PROVIDED BY NATIONAL HIGHWAYS FOR COLLISIONS DURING 2019.

FIRST ISSUE	LB / CG	19/10/21	P01
REVISION DETAILS	By / Check	Date	Suffix

Purpose of issue
SUITABLE FOR INFORMATION

Client
Highways England
The Cube
199 Wharfside Street
Birmingham

B1 1RN

national highways

Project Title
A46 COVENTRY JUNCTIONS
WALSGRAVE
PCF STAGE 2

Drawing Title
WALSGRAVE PCF STAGE 2
SCHEME WIDE
CRASH COLLISION
2017 - 2019

Designed	Drawn	Checked	Approved	Date
LB	LB	TO	CG	19/10/21

Internal Project No. 60638418 | Suitability S2
Scale @ A1 1:2500 | Discipline Civil - Highways

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AECOM

AECOM Infrastructure & Environment UK Limited
Registered in England Registered number: 880328
Registered office: Midpoint, Alencon Link, Basingstoke, Hampshire RG21 7PP

Drawing Number
Work Package ID HE604820 - Originator ACM - Volume HGN -
Location WAL_SW_000_Z - Type DR - Role CH - Number 0006
Rev P01

Plot Date : 05 November 2021 12:26:37
File Name C:\PWWORKING\AECOM_DS02_UK_CL\CHRISTOPHER.GHAREH@AECOM.COM\D0152103\HE604820-ACM-HGN-WAL_SW_000_Z-DR-CH-0006

APPENDIX S
COST ESTIMATOR FORM 103

Roadworks Estimator - Form 103

Project Information Form
Version Control

Document Revision History

Version	Date	Author	Approved	Comments
1.5	26.11.2015	BW		Logo and text updated to reflect Highways England
1.6	04/12/2015	PMC		Email consistency updated
1.7	15/02/2017	MH		HoCP Telephone number updated. Version reference updated to match file name of v1.7

Highways England Contact

Name: Mark Rowley
Position: Head of Cost Planning
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highways england

Form Number: 103
Version Number: 1.7

Roadworks Estimator
Options Estimate
Project Information Form

This form is used to collect project information to be provided to the Commercial Division of Highways England. The information will be used by the Roadworks Estimator software to produce an Order of Magnitude / Options estimate for the project.

Data Entry Instructions

General Work Sheet

1 Contains the general information about the project.
2 Select the appropriate answer from the drop down boxes within each cell.
3 Enter the number of segments in the appropriate cell.

Segment Work Sheets

When preparing data: first decide on the number of segments. A worksheet is to be added to the spreadsheet for each segment. These are to be labeled Segment 1, Segment 2, Segment 3 etc.

Inserting Additional Segments

1 Contains specific information about segments of the project.
2 Enter the appropriate descriptions and values and/or select the appropriate values from the available drop down boxes.
3 Additional rows can be added to each segment. Right-click on the row number and select "Insert".
4 Additional Segments can be added using the following process:
   1. Select "Segment 1" from the list of sheets at the bottom of the screen.
   2. Right-click and select "Move or Copy".
   3. In "Before Sheet" Select "Move to End".
   4. Ensure the "Create a Copy" checkbox is selected.
   5. Select "Ok".
   6. Select the new segment, right-click and select "Rename".
   7. Enter "Segment" and the appropriate number.

Form Number: **103**
Estimate Identification Number: Option 11

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Project Information		
Project Title	**A46 Coventry Junctions Upgrade - Walsgrave**	text
Region	West Midlands	choice
Scheme Type	Junction Improvement	choice
Procurement Method	Early Contractor Involvement	choice
Is this a controlled Motorway	No	y/n
Estimate Phase	Options	choice
Property Acquisitions		
Are property acquisitions anticipated?	No	y/n
If Yes, Assess the level of property acquisition required		choice
Statuatory Undertakers		
Are there intensive Statutory Undertakings?	Yes	y/n
Construction		
How many segments have been created in this work book for import?	6	No.
Land Take		
Is land take required for the scheme?	Yes	y/n
If so do you have a lands cost estimate?	Yes	y/n
Please indicate the amount / nature of work to be constructed outside the highways boundary		

Accommodation Works		
Are accommodation works required?	Yes	y/n
Please provide some notes on this:		
Revised access to Hungerley Hall Farm and associated fields. No allowance made for developer access.		
Please make copies of the 'Segment 1' worksheet and complete one worksheet for each segment of the project		
Please make the names of the Excel Sheets 'Segment X' where X is a number from 1 to 6		

highways england

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 11

GENERAL		
Segment Number	1	no
Segment Name	A46 Mainline Realignment	
Chainage From	400	m
Chainage To	2050	m
Total length of Segment	1.65	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	Yes	
To be constructed adjacent to SSSI containing dense mature woodland in an ornithologically sensitive area		
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	2	No.
Number of lanes per carriageway	2	No.
EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m

DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	No	y/n
What are the spacings of the Balance Ponds?		km
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		
Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell	1	No.
NOISE WALLS		
Will noise walls be required in this Segment?	No	y/n
If Yes, click on the + at the left to enter available details for Noise Walls in the table.		

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)		
How many houses are anticipated to require noise treatment?		No.
BOX CULVERTS		
Click on the + at the left to enter available details for Box Culverts in the table.		

Chainage of Box Culvert	Length (m)	Number of Cells	Size

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?	250	m
What is the length of carriageway to be lit?	1650	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor	1	No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)
See segment 2			

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.

Transverse Bridges

How many Transverse Bridges are anticipated?	1	No.

OR Click on the + at the left to enter details for Transverse Bridges in the table.

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
Between dumbell roundabouts	1620	17	40

If your project has more Transverse Bridges, please copy the row above and insert it above this line.

How many Land Bridges are anticipated?		No.

OR Click on the + at the left to enter details for Land Bridges in the table.

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)

If your project has more Land Bridges, please copy the row above and insert it above this line.

How many Rail Bridges are anticipated?		No.

OR Click on the + at the left to enter details for Rail Bridges in the table.

Description or Location of Rail Bridge	Chainage of Rail Bridge	Width (m)	Length (m)

If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

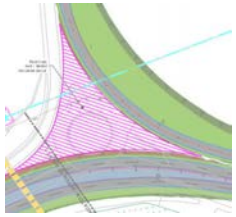
Description or Location of Pedestrian Overpass	Chainage of Pedestrian Overpass	Width (m)	Length (m)
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass	
Click on the + at the left to enter available details for Cattle Underpasses in the table.	
Chainage of Cattle Underpass	**Length (m)**
If your project has more Cattle Underpasses, please copy the row above and insert it above this line.	

Tunnels				
Click on the + to enter details for Tunnels in the table.				
Description of A Tunnel	**Section**	**Quantity**	**Unit**	**Rate (£)**
If you need more details for Tunnels, please copy the row above and insert it above this line.				

Major Longitudinal Bridges				
Enter details for Major Longitudinal Bridges in the table below.				
Description or Location of Major Longitudinal Bridge	**What does this bridge cross?**	**Number of Bridges**	**Length (m)**	**Width (m)**

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.				



Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out		
If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.		
Will there be any work required to refurbish the old route?	Yes	y/n
Restore to rural land	5300	m2
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
Hard Central Reserve Concrete Barrier (H2 / W3)	Mainline	1730	m	
Steel Barrier for all segments (N2 / W3)	Mainline	4025	m	
Additional Lighting Beyond North/South Extents	Mainline	1000	m	
Resurfacing Works /Central Reserve Barrier Upgrade Beyond North / South Extents Required	Mainline	1000	m	
ADS (Signage)	Mainline	6	#No	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 11

GENERAL		
Segment Number	2	no
Segment Name	B4082 Connector Road	
Chainage From	0	m
Chainage To	991	m
Total length of Segment	0.991	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	Yes	
To be constructed adjacent / within a floodplain.		
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	2	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	Yes	y/n
What type of retaining wall is envisaged?	Reinforced Soil	choice
What is the total length?	200	m
What is the average height?	5	m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	Yes	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)
Right	50	450	400	2.5

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size
100	70	1	Small

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?	350	m
What is the length of carriageway to be lit?	991	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
0			
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?			No.
OR Click on the + at the left to enter details for Rail Bridges in the table.			
Description or Location of Rail Bridge	**Chainage of Rail Bridge**	**Width (m)**	**Length (m)**
If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

Description or Location of Pedestrian Overpass	**Chainage of Pedestrian Overpass**	**Width (m)**	**Length (m)**
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?	No	y/n
Restore to rural land		m2
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
ADS (Signage)	Connector Road	3	#No	
Additional Vertical Concrete Barrier Between B4082 and A46 Carriageways	Connector Road	250	m	
Fencing For Headlight Glare Prevention	Connector Road	250	m	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 11

GENERAL		
Segment Number	3	no
Segment Name	Northbound Diverge	
Chainage From	0	m
Chainage To	265	m
Total length of Segment	0.265	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	No	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	265	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?			No.
OR Click on the + at the left to enter details for Rail Bridges in the table.			
Description or Location of Rail Bridge	**Chainage of Rail Bridge**	**Width (m)**	**Length (m)**
If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

Description or Location of Pedestrian Overpass	**Chainage of Pedestrian Overpass**	**Width (m)**	**Length (m)**
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?		y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
ADS (Signage)	NB Diverge	1	#No	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 11

GENERAL		
Segment Number	4	no
Segment Name	Northbound Merge	
Chainage From	0	m
Chainage To	279	m
Total length of Segment	0.279	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	No	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	279	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?			No.
OR Click on the + at the left to enter details for Rail Bridges in the table.			
Description or Location of Rail Bridge	**Chainage of Rail Bridge**	**Width (m)**	**Length (m)**
If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

Description or Location of Pedestrian Overpass	**Chainage of Pedestrian Overpass**	**Width (m)**	**Length (m)**
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?		y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 11

GENERAL		
Segment Number	5	no
Segment Name	Southbound Merge	
Chainage From	0	m
Chainage To	276	m
Total length of Segment	0.276	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	No	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	276	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Rail Bridges in the table.		

Description or Location of Rail Bridge	Chainage of Rail Bridge	Width (m)	Length (m)
If your project has more Rail Bridges, please copy the row above and insert it above this line.			

Bridge Strengthening		
What is the area of pier strengthening required?		m2
What is the length of parapet strengthening required?		m
Bridge Widening		
What is the total length of bridge(s) to be widened?		m
What is the average width of bridge widening?		m
Pedestrian Overpass		
How many pedestrian overpasses are anticpiated in this segment?		No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.		

Description or Location of Pedestrian Overpass	Chainage of Pedestrian Overpass	Width (m)	Length (m)
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?		y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 11

GENERAL		
Segment Number	6	no
Segment Name	Southbound Diverge	
Chainage From	0	m
Chainage To	293	m
Total length of Segment	0.293	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	No	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	293	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?			No.
OR Click on the + at the left to enter details for Rail Bridges in the table.			
Description or Location of Rail Bridge	**Chainage of Rail Bridge**	**Width (m)**	**Length (m)**
If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

Description or Location of Pedestrian Overpass	**Chainage of Pedestrian Overpass**	**Width (m)**	**Length (m)**
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?		y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
ADS (Signage)	SB Diverge	1	#No	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: 103
Estimate Identification Number: Option 6

GENERAL		
Segment Number	1	no
Segment Name	A46 Mainline Realignment	
Chainage From	250	m
Chainage To	2423	m
Total length of Segment	2.173	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	Yes	
To be constructed adjacent to SSSI containing dense mature woodland in an ornithologically sensitive area		
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	2	No.
Number of lanes per carriageway	2	No.
EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		

Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?	1	km
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		
Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell	1	No.
NOISE WALLS		
Will noise walls be required in this Segment?	No	y/n
If Yes, click on the + at the left to enter available details for Noise Walls in the table.		

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)		
How many houses are anticipated to require noise treatment?		No.
BOX CULVERTS		
Click on the + at the left to enter available details for Box Culverts in the table.		

Chainage of Box Culvert	Length (m)	Number of Cells	Size
1530	26	1	Medium

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS
Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts, please copy the row above and insert it above this line.							

TRAFFIC SIGNALS		
How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING		
Existing road only - What length of the road is currently lit?	250	m
What is the length of carriageway to be lit?	2123	m

CYCLEWAYS		
What is the total length of Cycleways for this Segment?		m
OR Click on the + at the left to enter details for Cycleways in the table.		

Start Chainage	End Chainage	Length (m)	Width (m)
If your project has more Cycleways, please copy the row above and insert it above this line.			

Demolition		
Nominate the number of structures to be demolished		
Bridges - Minor	1	No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS			
Enter details for the construction or upgrading of any Local Roads in the table below.			
Click on the + at the left to enter available details for Local Roads in the table.			
Name of Local Road	**Length (km)**	**Carriage-Way Width**	**Footway Length (m)**
See segment 2			

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.

Transverse Bridges

How many Transverse Bridges are anticipated?	1	No.

OR Click on the + at the left to enter details for Transverse Bridges in the table.

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
Between dumbell roundabouts	1830	17	44

If your project has more Transverse Bridges, please copy the row above and insert it above this line.

How many Land Bridges are anticipated?		No.

OR Click on the + at the left to enter details for Land Bridges in the table.

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)

If your project has more Land Bridges, please copy the row above and insert it above this line.

How many Rail Bridges are anticipated?		No.

OR Click on the + at the left to enter details for Rail Bridges in the table.

Description or Location of Rail Bridge	Chainage of Rail Bridge	Width (m)	Length (m)

If your project has more Rail Bridges, please copy the row above and insert it above this line.

Bridge Strengthening

What is the area of pier strengthening required?		m2
What is the length of parapet strengthening required?		m

Bridge Widening		
What is the total length of bridge(s) to be widened?		m
What is the average width of bridge widening?		m

Pedestrian Overpass		
How many pedestrian overpasses are anticpiated in this segment?		No.

OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.

Description or Location of Pedestrian Overpass	Chainage of Pedestrian Overpass	Width (m)	Length (m)

If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.				
Description or Location of Major Longitudinal Bridge	**What does this bridge cross?**	**Number of Bridges**	**Length (m)**	**Width (m)**

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.		
Will there be any work required to refurbish the old route?	Yes	y/n
Restore to rural land	14000	m2

Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
Hard Central Reserve Concrete Barrier (H2 / W3)	Mainline	2100	m	
Steel Barrier for all segments (N2 / W3)	Mainline	5100	m	
Additional Lighting Beyond North/South Extents	Mainline	600	m	
Resurfacing Works /Central Reserve Barrier Upgrade Beyond North / South Extents Required	Mainline	600	m	
ADS (Signage)	Mainline	5	#No	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator - Form 103

Project Information Form
Version Control

Document Revision History

Version	Date	Author	Approved	Comments
1.5	26.11.2015	BW		Logo and text updated to reflect Highways England
1.6	04/12/2015	PMC		Email consistency updated
1.7	15/02/2017	MH		HoCP Telephone number updated. Version reference updated to match file name of v1.7

Highways England Contact

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Form Number: 103
Version Number: 1.7

Roadworks Estimator
Options Estimate
Project Information Form

This form is used to collect project information to be provided to the Commercial Division of Highways England. The information will be used by the Roadworks Estimator software to produce an Order of Magnitude / Options estimate for the project.

Data Entry Instructions

General Work Sheet

1. Contains the general information about the project.
2. Select the appropriate answer from the drop down boxes within each cell.
3. Enter the number of segments in the appropriate cell.

Segment Work Sheets

When preparing data: first decide on the number of segments. A worksheet is to be added to the spreadsheet for each segment. These are to be labeled Segment 1, Segment 2, Segment 3 etc.

Inserting Additional Segments

1. Contains specific information about segments of the project.
2. Enter the appropriate descriptions and values and/or select the appropriate values from the available drop down boxes.
3. Additional rows can be added to each segment. Right-click on the row number and select "Insert".
4. Additional Segments can be added using the following process:
   1. Select "Segment 1" from the list of sheets at the bottom of the screen.
   2. Right-click and select "Move or Copy".
   3. In "Before Sheet" Select "Move to End".
   4. Ensure the "Create a Copy" checkbox is selected.
   5. Select "Ok".
   6. Select the new segment, right-click and select "Rename".
   7. Enter "Segment" and the appropriate number.

Form Number: **103**
Estimate Identification Number: Option 6

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Project Information		
Project Title	**A46 Coventry Junctions Upgrade - Walsgrave**	text
Region	West Midlands	choice
Scheme Type	Junction Improvement	choice
Procurement Method	Early Contractor Involvement	choice
Is this a controlled Motorway	No	y/n
Estimate Phase	Options	choice
Property Acquisitions		
Are property acquisitions anticipated?	No	y/n
If Yes, Assess the level of property acquisition required		choice
Statuatory Undertakers		
Are there intensive Statutory Undertakings?	Yes	y/n
Construction		
How many segments have been created in this work book for import?	6	No.
Land Take		
Is land take required for the scheme?	Yes	y/n
If so do you have a lands cost estimate?	Yes	y/n
Please indicate the amount / nature of work to be constructed outside the highways boundary		
Accommodation Works		
Are accommodation works required?	Yes	y/n
Please provide some notes on this:		
Revised access to Hungerley Hall Farm and associated fields. No allowance made for developer access.		
Please make copies of the 'Segment 1' worksheet and complete one worksheet for each segment of the project		
Please make the names of the Excel Sheets 'Segment X' where X is a number from 1 to 6		

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: 103
Estimate Identification Number: Option 6

GENERAL		
Segment Number	1	no
Segment Name	A46 Mainline Realignment	
Chainage From	250	m
Chainage To	2423	m
Total length of Segment	2.173	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	Yes	
To be constructed adjacent to SSSI containing dense mature woodland in an ornithologically sensitive area		
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	2	No.
Number of lanes per carriageway	2	No.
EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		

Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?	1	km
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		
Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell	1	No.
NOISE WALLS		
Will noise walls be required in this Segment?	No	y/n
If Yes, click on the + at the left to enter available details for Noise Walls in the table.		

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)		
How many houses are anticipated to require noise treatment?		No.
BOX CULVERTS		
Click on the + at the left to enter available details for Box Culverts in the table.		

Chainage of Box Culvert	Length (m)	Number of Cells	Size
1530	26	1	Medium

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of *Lanes on* Roundabout	Carriage-*way Width* (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.							

TRAFFIC SIGNALS		
How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING		
Existing road only - What length of the road is currently lit?	250	m
What is the length of carriageway to be lit?	2123	m

CYCLEWAYS		
What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition		
Nominate the number of structures to be demolished		
Bridges - Minor	1	No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)
See segment 2			

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							
Transverse Bridges							
How many Transverse Bridges are anticipated?					1		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.							
Description or Location of Transverse Bridge					Chainage of Transverse Bridge	Width (m)	Length (m)
Between dumbell roundabouts					1830	17	44
If your project has more Transverse Bridges, please copy the row above and insert it above this line.							
How many Land Bridges are anticipated?							No.
OR Click on the + at the left to enter details for Land Bridges in the table.							
Description or Location of Land Bridge					Chainage of Land Bridge	Width (m)	Length (m)
If your project has more Land Bridges, please copy the row above and insert it above this line.							
How many Rail Bridges are anticipated?							No.
OR Click on the + at the left to enter details for Rail Bridges in the table.							
Description or Location of Rail Bridge					Chainage of Rail Bridge	Width (m)	Length (m)
If your project has more Rail Bridges, please copy the row above and insert it above this line.							
Bridge Strengthening							
What is the area of pier strengthening required?							m2
What is the length of parapet strengthening required?							m
Bridge Widening							
What is the total length of bridge(s) to be widened?							m
What is the average width of bridge widening?							m
Pedestrian Overpass							

How many pedestrian overpasses are anticpiated in this segment?		No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.		

Description or Location of Pedestrian Overpass	Chainage of Pedestrian Overpass	Width (m)	Length (m)

If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?	Yes	y/n
Restore to rural land	14000	m2
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)

Hard Central Reserve Concrete Barrier (H2 / W3)	Mainline	2100	m	
Steel Barrier for all segments (N2 / W3)	Mainline	5100	m	
Additional Lighting Beyond North/South Extents	Mainline	600	m	
Resurfacing Works /Central Reserve Barrier Upgrade Beyond North / South Extents Required	Mainline	600	m	
ADS (Signage)	Mainline	5	#No	
If your project has more Additional Items, please copy the row above and insert it above this line.				

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: 103
Estimate Identification Number: Option 6

GENERAL		
Segment Number	2	no
Segment Name	B4082 Connector Road	
Chainage From	10	m
Chainage To	1240	m
Total length of Segment	1.23	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	Yes	
To be constructed adjacent / within a floodplain.		
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	2	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	Yes	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)
Right	200	800	600	2.5

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size
365	18	1	Medium

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?	350	m
What is the length of carriageway to be lit?	1230	m
What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)
		0	
		0	

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
0			
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?			No.
OR Click on the + at the left to enter details for Rail Bridges in the table.			
Description or Location of Rail Bridge	**Chainage of Rail Bridge**	**Width (m)**	**Length (m)**
If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

Description or Location of Pedestrian Overpass	**Chainage of Pedestrian Overpass**	**Width (m)**	**Length (m)**
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?	Yes	y/n
Restore to rural land	7000	m2
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
ADS (Signage)	Connector Road	3	#No	
Extension of Link Road Culvert	Connector Road	10	m	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 6

GENERAL		
Segment Number	3	no
Segment Name	Northbound Diverge	
Chainage From	0	m
Chainage To	404	m
Total length of Segment	0.404	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	No	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size
125	19	1	Medium

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	404	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)
		0	
		0	

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
0			
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?			No.
OR Click on the + at the left to enter details for Rail Bridges in the table.			
Description or Location of Rail Bridge	**Chainage of Rail Bridge**	**Width (m)**	**Length (m)**
If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

Description or Location of Pedestrian Overpass	**Chainage of Pedestrian Overpass**	**Width (m)**	**Length (m)**
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?		y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
ADS (Signage)	NB Diverge	1	#No	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 6

GENERAL		
Segment Number	4	no
Segment Name	Northbound Merge	
Chainage From	0	m
Chainage To	346	m
Total length of Segment	0.346	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	No	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	346	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?			No.
OR Click on the + at the left to enter details for Rail Bridges in the table.			
Description or Location of Rail Bridge	**Chainage of Rail Bridge**	**Width (m)**	**Length (m)**
If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

Description or Location of Pedestrian Overpass	**Chainage of Pedestrian Overpass**	**Width (m)**	**Length (m)**
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?		y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
ADS (Signage)	NB Merge	1	#No	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 6

GENERAL		
Segment Number	5	no
Segment Name	Southbound Merge	
Chainage From	0	m
Chainage To	532	m
Total length of Segment	0.532	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	No	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)
			0	
			0	

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size
325	11	1	Medium

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	532	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)
		0	
		0	

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
0			
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?			No.
OR Click on the + at the left to enter details for Rail Bridges in the table.			
Description or Location of Rail Bridge	**Chainage of Rail Bridge**	**Width (m)**	**Length (m)**
If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

Description or Location of Pedestrian Overpass	**Chainage of Pedestrian Overpass**	**Width (m)**	**Length (m)**
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?		y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
ADS (Signage)	SB Merge	1	#No	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 6

GENERAL		
Segment Number	6	no
Segment Name	Southbound Diverge	
Chainage From	0	m
Chainage To	346	m
Total length of Segment	0.346	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.

EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		

Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.

NOISE WALLS

Will noise walls be required in this Segment?	No	y/n

If Yes, click on the + at the left to enter available details for Noise Walls in the table.

Side of Road	Start Chainage	End Chainage	Length (m)	Height (m)
			0	
			0	

Note: If your project has more noisewalls, please copy the row above and insert it above this line.

PROPERTY ADJUSTMENTS (NOISE TREATMENTS)

How many houses are anticipated to require noise treatment?		No.

BOX CULVERTS

Click on the + at the left to enter available details for Box Culverts in the table.

Chainage of Box Culvert	Length (m)	Number of Cells	Size

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS

Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes

If your project has more Roundabouts, please copy the row above and insert it above this line.

TRAFFIC SIGNALS

How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	346	m

CYCLEWAYS

What is the total length of Cycleways for this Segment?		m

OR Click on the + at the left to enter details for Cycleways in the table.

Start Chainage	End Chainage	Length (m)	Width (m)
		0	
		0	

If your project has more Cycleways, please copy the row above and insert it above this line.

Demolition

Nominate the number of structures to be demolished

Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)

If your project has more Local Roads, please copy the row above and insert it above this line.

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Description or Location of Roundabout on Local Road	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts on Local Roads, please copy the row above and insert it above this line.							

Transverse Bridges

How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		

Description or Location of Transverse Bridge	Chainage of Transverse Bridge	Width (m)	Length (m)
If your project has more Transverse Bridges, please copy the row above and insert it above this line.			

How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		

Description or Location of Land Bridge	Chainage of Land Bridge	Width (m)	Length (m)
0			
If your project has more Land Bridges, please copy the row above and insert it above this line.			

How many Rail Bridges are anticipated?			No.
OR Click on the + at the left to enter details for Rail Bridges in the table.			
Description or Location of Rail Bridge	**Chainage of Rail Bridge**	**Width (m)**	**Length (m)**
If your project has more Rail Bridges, please copy the row above and insert it above this line.			
Bridge Strengthening			
What is the area of pier strengthening required?			m2
What is the length of parapet strengthening required?			m
Bridge Widening			
What is the total length of bridge(s) to be widened?			m
What is the average width of bridge widening?			m
Pedestrian Overpass			
How many pedestrian overpasses are anticpiated in this segment?			No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.			

Description or Location of Pedestrian Overpass	**Chainage of Pedestrian Overpass**	**Width (m)**	**Length (m)**
If your project has more Pedestrian Overpasses, please copy the row above and insert it above this line.			

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Chainage of Cattle Underpass	Length (m)

If your project has more Cattle Underpasses, please copy the row above and insert it above this line.

Tunnels

Click on the + to enter details for Tunnels in the table.

Description of A Tunnel	Section	Quantity	Unit	Rate (£)

If you need more details for Tunnels, please copy the row above and insert it above this line.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?		y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
ADS (Signage)	SB Diverge	1	#No	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator - Form 103

Project Information Form
Version Control

Document Revision History

Version	Date	Author	Approved	Comments
1.5	26.11.2015	BW		Logo and text updated to reflect Highways England
1.6	04/12/2015	PMC		Email consistency updated
1.7	15/02/2017	MH		HoCP Telephone number updated. Version reference updated to match file name of v1.7

Highways England Contact

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Form Number: 103
Version Number: 1.7

Roadworks Estimator
Options Estimate
Project Information Form

This form is used to collect project information to be provided to the Commercial Division of Highways England. The information will be used by the Roadworks Estimator software to produce an Order of Magnitude / Options estimate for the project.

Data Entry Instructions

General Work Sheet

1. Contains the general information about the project.
2. Select the appropriate answer from the drop down boxes within each cell.
3. Enter the number of segments in the appropriate cell.

Segment Work Sheets

When preparing data: first decide on the number of segments. A worksheet is to be added to the spreadsheet for each segment. These are to be labeled Segment 1, Segment 2, Segment 3 etc.

Inserting Additional Segments

1. Contains specific information about segments of the project.
2. Enter the appropriate descriptions and values and/or select the appropriate values from the available drop down boxes.
3. Additional rows can be added to each segment. Right-click on the row number and select "Insert".
4. Additional Segments can be added using the following process:
   1. Select "Segment 1" from the list of sheets at the bottom of the screen.
   2. Right-click and select "Move or Copy".
   3. In "Before Sheet" Select "Move to End".
   4. Ensure the "Create a Copy" checkbox is selected.
   5. Select "Ok".
   6. Select the new segment, right-click and select "Rename".
   7. Enter "Segment" and the appropriate number.

Form Number: **103**
Estimate Identification Number: Option 7

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Project Information		
Project Title	**A46 Coventry Junctions Upgrade - Walsgrave**	text
Region	West Midlands	choice
Scheme Type	Junction Improvement	choice
Procurement Method	Early Contractor Involvement	choice
Is this a controlled Motorway	No	y/n
Estimate Phase	Options	choice
Property Acquisitions		
Are property acquisitions anticipated?	Yes	y/n
If Yes, Assess the level of property acquisition required	Minimal	choice
Statuatory Undertakers		
Are there intensive Statutory Undertakings?	No	y/n
Construction		
How many segments have been created in this work book for import?	3	No.
Land Take		
Is land take required for the scheme?	Yes	y/n
If so do you have a lands cost estimate?	Yes	y/n

Please indicate the amount / nature of work to be constructed outside the highways boundary		
Accommodation Works		
Are accommodation works required?	No	y/n
Please provide some notes on this:		
Please make copies of the 'Segment 1' worksheet and complete one worksheet for each segment of the project		
Please make the names of the Excel Sheets 'Segment X' where X is a number from 1 to 3		

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 7

GENERAL		
Segment Number	1	no
Segment Name	A46 Mainline	
Chainage From	400	m
Chainage To	1390	m
Total length of Segment	0.99	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	Yes	
To be constructed adjacent to SSSI containing dense mature woodland in an ornithologically sensitive area		
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	2	No.
Number of lanes per carriageway	2	No.
EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m

DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	No	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	Yes	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Communications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		
Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.
NOISE WALLS		
Will noise walls be required in this Segment?	No	y/n
If Yes, click on the + at the left to enter available details for Noise Walls in the table.		
PROPERTY ADJUSTMENTS (NOISE TREATMENTS)		
How many houses are anticipated to require noise treatment?		No.
BOX CULVERTS		
Click on the + at the left to enter available details for Box Culverts in the table.		

Chainage of Box Culvert	Length (m)	Number of Cells	Size

If your project has more Box Culverts, please copy the row above and insert it above this line.

MAINLINE ROUNDABOUTS							
Click on the + at the left to enter available details for Roundabouts on the mainline in the table.							
Description or Location of Roundabout	**Chainage**	**Inside Diameter (m)**	**Number of Lanes on Roundabout**	**Carriage-way Width (m)**	**Mainline Approaching Lanes**	**Connecting Roads**	**Connecting Approaching Lanes**

If your project has more Roundabouts, please copy the row above and insert it above this line.							

TRAFFIC SIGNALS		
How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING		
Existing road only - What length of the road is currently lit?	250	m
What is the length of carriageway to be lit?	990	m

CYCLEWAYS		
What is the total length of Cycleways for this Segment?		m
OR Click on the + at the left to enter details for Cycleways in the table.		

Demolition		
Nominate the number of structures to be demolished		
Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS			
Enter details for the construction or upgrading of any Local Roads in the table below.			
Click on the + at the left to enter available details for Local Roads in the table.			
Name of Local Road	**Length (km)**	**Carriage-Way Width**	**Footway Length (m)**
If your project has more Local Roads, please copy the row above and insert it above this line.			

Roundabouts on Local Roads
Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Transverse Bridges		
How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		
How many Land Bridges are anticipated?		No.

OR Click on the + at the left to enter details for Land Bridges in the table.				
How many Rail Bridges are anticipated?			No.	
OR Click on the + at the left to enter details for Rail Bridges in the table.				
Bridge Strengthening				
What is the area of pier strengthening required?			m2	
What is the length of parapet strengthening required?			m	
Bridge Widening				
What is the total length of bridge(s) to be widened?			m	
What is the average width of bridge widening?			m	
Pedestrian Overpass				
How many pedestrian overpasses are anticpiated in this segment?			No.	
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.				
Cattle Underpass				
Click on the + at the left to enter available details for Cattle Underpasses in the table.				
Tunnels				
Click on the + to enter details for Tunnels in the table.				
Major Longitudinal Bridges				
Enter details for Major Longitudinal Bridges in the table below.				
Description or Location of Major Longitudinal Bridge	**What does this bridge cross?**	**Number of Bridges**	**Length (m)**	**Width (m)**
If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.				
Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out				
If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.				
Will there be any work required to refurbish the old route?	No		y/n	
Restore to rural land			sqm	
Handover to Council			km	
Upgrade and Incorporate in the project			km	
Additional Items				
If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.				
Description of Additional Item	**Section**	**Quantity**	**Unit**	**Rate (£)**
Hard Central Reserve Concrete Barrier (H2 / W3)	Mainline	990	m	

Steel Barrier (N2 / W3) for all segments	Mainline	885	m	
ADS (Signage)	Mainline	4	#No	
Additional lighting beyond south extents	Mainline	400	m	
Resurfacing Works /Central Reserve Barrier Upgrade Beyond South Extents Required	Mainline	400	m	
If your project has more Additional Items, please copy the row above and insert it above this line.				

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 7

GENERAL		
Segment Number	2	no
Segment Name	Left Out Lane (Diverge)	
Chainage From		m
Chainage To	392	m
Total length of Segment	0.392	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.
EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m

DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	No	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	Yes	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Comminications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		
Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.
NOISE WALLS		
Will noise walls be required in this Segment?	No	y/n
If Yes, click on the + at the left to enter available details for Noise Walls in the table.		
PROPERTY ADJUSTMENTS (NOISE TREATMENTS)		
How many houses are anticipated to require noise treatment?		No.
BOX CULVERTS		
Click on the + at the left to enter available details for Box Culverts in the table.		
MAINLINE ROUNDABOUTS		
Click on the + at the left to enter available details for Roundabouts on the mainline in the table.		
TRAFFIC SIGNALS		
How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.
ROAD LIGHTING		

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	392	m
CYCLEWAYS		
What is the total length of Cycleways for this Segment?		m
OR Click on the + at the left to enter details for Cycleways in the table.		
Demolition		
Nominate the number of structures to be demolished		
Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.
LOCAL ROADS		
Enter details for the construction or upgrading of any Local Roads in the table below.		
Click on the + at the left to enter available details for Local Roads in the table.		

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)
If your project has more Local Roads, please copy the row above and insert it above this line.			

Roundabouts on Local Roads		
Click on the + at the left to enter available details for Roundabouts on local roads in the table.		
Transverse Bridges		
How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		
How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		
How many Rail Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Rail Bridges in the table.		
Bridge Strengthening		
What is the area of pier strengthening required?		m2
What is the length of parapet strengthening required?		m
Bridge Widening		
What is the total length of bridge(s) to be widened?		m
What is the average width of bridge widening?		m

Pedestrian Overpass

How many pedestrian overpasses are anticpiated in this segment?		No.

OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Tunnels

Click on the + to enter details for Tunnels in the table.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?	No	y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
Culvert Headwall enlargement (increase in height by 1.2m)	Diverge	6	m	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: 103
Estimate Identification Number: Option 7

GENERAL		
Segment Number	3	no
Segment Name	Left In Lane (Merge)	
Chainage From		m
Chainage To	470	m
Total length of Segment	0.47	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.
EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m

What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	No	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	Yes	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Comminications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		
Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.
NOISE WALLS		
Will noise walls be required in this Segment?	No	y/n
If Yes, click on the + at the left to enter available details for Noise Walls in the table.		
PROPERTY ADJUSTMENTS (NOISE TREATMENTS)		
How many houses are anticipated to require noise treatment?		No.
BOX CULVERTS		
Click on the + at the left to enter available details for Box Culverts in the table.		
MAINLINE ROUNDABOUTS		
Click on the + at the left to enter available details for Roundabouts on the mainline in the table.		
TRAFFIC SIGNALS		
How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING		
Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	470	m
CYCLEWAYS		
What is the total length of Cycleways for this Segment?		m
OR Click on the + at the left to enter details for Cycleways in the table.		
Demolition		
Nominate the number of structures to be demolished		
Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.
LOCAL ROADS		
Enter details for the construction or upgrading of any Local Roads in the table below.		
Click on the + at the left to enter available details for Local Roads in the table.		

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)
If your project has more Local Roads, please copy the row above and insert it above this line.			

Roundabouts on Local Roads		
Click on the + at the left to enter available details for Roundabouts on local roads in the table.		
Transverse Bridges		
How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		
How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		
How many Rail Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Rail Bridges in the table.		
Bridge Strengthening		
What is the area of pier strengthening required?		m2
What is the length of parapet strengthening required?		m
Bridge Widening		

What is the total length of bridge(s) to be widened?			m	
What is the average width of bridge widening?			m	
Pedestrian Overpass				
How many pedestrian overpasses are anticpiated in this segment?			No.	
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.				
Cattle Underpass				
Click on the + at the left to enter available details for Cattle Underpasses in the table.				
Tunnels				
Click on the + to enter details for Tunnels in the table.				
Major Longitudinal Bridges				
Enter details for Major Longitudinal Bridges in the table below.				
Description or Location of Major Longitudinal Bridge	**What does this bridge cross?**	**Number of Bridges**	**Length (m)**	**Width (m)**
If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.				
Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out				
If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.				
Will there be any work required to refurbish the old route?	No		y/n	
Restore to rural land			km	
Handover to Council			km	
Upgrade and Incorporate in the project			km	
Additional Items				
If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.				
Description of Additional Item	**Section**	**Quantity**	**Unit**	**Rate (£)**
ADS (Signage)	Merge	1	#No	
If your project has more Additional Items, please copy the row above and insert it above this line.				

Roadworks Estimator - Form 103

Project Information Form
Version Control

Document Revision History

Version	Date	Author	Approved	Comments
1.5	26.11.2015	BW		Logo and text updated to reflect Highways England
1.6	04/12/2015	PMC		Email consistency updated
1.7	15/02/2017	MH		HoCP Telephone number updated. Version reference updated to match file name of v1.7

Highways England Contact

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Form Number: 103
Version Number: 1.7

Roadworks Estimator
Options Estimate
Project Information Form

This form is used to collect project information to be provided to the Commercial Division of Highways England. The information will be used by the Roadworks Estimator software to produce an Order of Magnitude / Options estimate for the project.

Data Entry Instructions

General Work Sheet

1. Contains the general information about the project.
2. Select the appropriate answer from the drop down boxes within each cell.
3. Enter the number of segments in the appropriate cell.

Segment Work Sheets

When preparing data: first decide on the number of segments. A worksheet is to be added to the spreadsheet for each segment. These are to be labeled Segment 1, Segment 2, Segment 3 etc.

Inserting Additional Segments

1. Contains specific information about segments of the project.
2. Enter the appropriate descriptions and values and/or select the appropriate values from the available drop down boxes.
3. Additional rows can be added to each segment. Right-click on the row number and select "Insert".
4. Additional Segments can be added using the following process:
   1. Select "Segment 1" from the list of sheets at the bottom of the screen.
   2. Right-click and select "Move or Copy".
   3. In "Before Sheet" Select "Move to End".
   4. Ensure the "Create a Copy" checkbox is selected.
   5. Select "Ok".
   6. Select the new segment, right-click and select "Rename".
   7. Enter "Segment" and the appropriate number.

Form Number: **103**
Estimate Identification Number: Option 8

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Project Information		
Project Title	**A46 Coventry Junctions Upgrade - Walsgrave**	text
Region	West Midlands	choice
Scheme Type	Junction Improvement	choice
Procurement Method	Early Contractor Involvement	choice
Is this a controlled Motorway	No	y/n
Estimate Phase	Options	choice
Property Acquisitions		
Are property acquisitions anticipated?	Yes	y/n
If Yes, Assess the level of property acquisition required	Significant	choice
Statuatory Undertakers		
Are there intensive Statutory Undertakings?	No	y/n
Construction		
How many segments have been created in this work book for import?	3	No.
Land Take		
Is land take required for the scheme?	Yes	y/n
If so do you have a lands cost estimate?	Yes	y/n
Please indicate the amount / nature of work to be constructed outside the highways boundary		

Accommodation Works		
Are accommodation works required?	Yes	y/n
Please provide some notes on this:		
Revised access to Hungerley Hall Farm and associated fields. No allowance made for developer access.		
Please make copies of the 'Segment 1' worksheet and complete one worksheet for each segment of the project		
Please make the names of the Excel Sheets 'Segment X' where X is a number from 1 to 3		

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: 103
Estimate Identification Number: Option 8

GENERAL		
Segment Number	1	no
Segment Name	A46 Mainline Realignment	
Chainage From	300	m
Chainage To	2040	m
Total length of Segment	1.74	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	Yes	
To be constructed adjacent to SSSI containing dense mature woodland in an ornithologically sensitive area		
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	2	No.
Number of lanes per carriageway	2	No.
EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m

What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Comminications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		
Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.
NOISE WALLS		
Will noise walls be required in this Segment?	No	y/n
If Yes, click on the + at the left to enter available details for Noise Walls in the table.		
PROPERTY ADJUSTMENTS (NOISE TREATMENTS)		
How many houses are anticipated to require noise treatment?		No.
BOX CULVERTS		
Click on the + at the left to enter available details for Box Culverts in the table.		

Chainage of Box Culvert	Length (m)	Number of Cells	Size
If your project has more Box Culverts, please copy the row above and insert it above this line.			

MAINLINE ROUNDABOUTS
Click on the + at the left to enter available details for Roundabouts on the mainline in the table.

Description or Location of Roundabout	Chainage	Inside Diameter (m)	Number of Lanes on Roundabout	Carriage-way Width (m)	Mainline Approaching Lanes	Connecting Roads	Connecting Approaching Lanes
If your project has more Roundabouts, please copy the row above and insert it above this line.							

TRAFFIC SIGNALS		
How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING		
Existing road only - What length of the road is currently lit?	250	m
What is the length of carriageway to be lit?	1740	m

CYCLEWAYS		
What is the total length of Cycleways for this Segment?		m
OR Click on the + at the left to enter details for Cycleways in the table.		

Demolition		
Nominate the number of structures to be demolished		
Bridges - Minor	1	No.
Bridges - Major		No.
Residential		No.
Commercial		No.

LOCAL ROADS

Enter details for the construction or upgrading of any Local Roads in the table below.

Click on the + at the left to enter available details for Local Roads in the table.

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)
If your project has more Local Roads, please copy the row above and insert it above this line.			

Roundabouts on Local Roads

Click on the + at the left to enter available details for Roundabouts on local roads in the table.

Transverse Bridges		
How many Transverse Bridges are anticipated?	1	No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		
How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		
How many Rail Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Rail Bridges in the table.		
Bridge Strengthening		
What is the area of pier strengthening required?		m2
What is the length of parapet strengthening required?		m
Bridge Widening		
What is the total length of bridge(s) to be widened?		m
What is the average width of bridge widening?		m
Pedestrian Overpass		
How many pedestrian overpasses are anticpiated in this segment?		No.
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.		
Cattle Underpass		
Click on the + at the left to enter available details for Cattle Underpasses in the table.		
Tunnels		
Click on the + to enter details for Tunnels in the table.		
Major Longitudinal Bridges		
Enter details for Major Longitudinal Bridges in the table below.		

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)
If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.				

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out		
If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.		
Will there be any work required to refurbish the old route?	Yes	y/n
Restore to rural land	14000	sqm
Handover to Council		km

Upgrade and Incorporate in the project			km	

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
Hard Central Reserve Concrete Barrier (H2 / W3)	Mainline	1740	m	
Steel Barrier for all segments (N2 / W3)	Mainline	1357	m	
ADS (Signage)	Mainline	4	#No	
Additional lighting beyond north and south extents	Mainline	1000	m	
Resurfacing Works /Central Reserve Barrier Upgrade Beyond North / South Extents Required	Mainline	1000	m	
Culvert Extension	Mainline	4.5	m	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: **103**
Estimate Identification Number: Option 8

GENERAL		
Segment Number	2	no
Segment Name	Left Out Lane (Diverge)	
Chainage From		m
Chainage To	461	m
Total length of Segment	0.461	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.
EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m
What is the average height?		m

DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Comminications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		
Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.
NOISE WALLS		
Will noise walls be required in this Segment?	No	y/n
If Yes, click on the + at the left to enter available details for Noise Walls in the table.		
PROPERTY ADJUSTMENTS (NOISE TREATMENTS)		
How many houses are anticipated to require noise treatment?		No.
BOX CULVERTS		
Click on the + at the left to enter available details for Box Culverts in the table.		
MAINLINE ROUNDABOUTS		
Click on the + at the left to enter available details for Roundabouts on the mainline in the table.		
TRAFFIC SIGNALS		
How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.
ROAD LIGHTING		

Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	461	m
CYCLEWAYS		
What is the total length of Cycleways for this Segment?		m
OR Click on the + at the left to enter details for Cycleways in the table.		
Demolition		
Nominate the number of structures to be demolished		
Bridges - Minor		No.
Bridges - Major		No.
Residential		No.
Commercial		No.
LOCAL ROADS		
Enter details for the construction or upgrading of any Local Roads in the table below.		
Click on the + at the left to enter available details for Local Roads in the table.		

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)
If your project has more Local Roads, please copy the row above and insert it above this line.			

Roundabouts on Local Roads		
Click on the + at the left to enter available details for Roundabouts on local roads in the table.		
Transverse Bridges		
How many Transverse Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		
How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		
How many Rail Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Rail Bridges in the table.		
Bridge Strengthening		
What is the area of pier strengthening required?		m2
What is the length of parapet strengthening required?		m
Bridge Widening		
What is the total length of bridge(s) to be widened?		m
What is the average width of bridge widening?		m

Pedestrian Overpass

How many pedestrian overpasses are anticpiated in this segment?		No.

OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.

Cattle Underpass

Click on the + at the left to enter available details for Cattle Underpasses in the table.

Tunnels

Click on the + to enter details for Tunnels in the table.

Major Longitudinal Bridges

Enter details for Major Longitudinal Bridges in the table below.

Description or Location of Major Longitudinal Bridge	What does this bridge cross?	Number of Bridges	Length (m)	Width (m)

If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.

Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out

If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.

Will there be any work required to refurbish the old route?	No	y/n
Restore to rural land		km
Handover to Council		km
Upgrade and Incorporate in the project		km

Additional Items

If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.

Description of Additional Item	Section	Quantity	Unit	Rate (£)
Culvert Extension	Diverge	3	m	

If your project has more Additional Items, please copy the row above and insert it above this line.

Roadworks Estimator
Order of Magnitude / Options Estimate
Project Information Form
Information for a segment

Form Number: 103
Estimate Identification Number: Option 8

GENERAL		
Segment Number	3	no
Segment Name	Left In Lane (Merge)	
Chainage From		m
Chainage To	582	m
Total length of Segment	0.582	km
Assess the terrain for this segment	Cut and Fill <7m	choice
Is a long section available? (If yes, please copy and complete a 'Roadwork Estimator Longsection Imput Form' worksheet)	Yes	y/n
Enter any additional notes about this segment below	No	
NEW CARRIAGEWAYS		
Pavement construction	Flexible	choice
Number of carriageways	1	No.
Number of lanes per carriageway	1	No.
EARTHWORKS		
Excavation		
Anticipated foundation conditions	Poor	Condition
Is material to be imported?	Yes	y/n
Rock		
Assess the likelihood of excavation in rock	Not Likely	Liklihood
Batter Protection		
What is the extent of batter protection anticipated?	None	Extent
Retaining Walls		
Are retaining walls required for areas other than bridges?	No	y/n
What type of retaining wall is envisaged?		choice
What is the total length?		m

What is the average height?		m
DRAINAGE		
Drainage - Balance Ponds or Attenuation		
Is all the surface water runoff to be collected in pipes to discharge to Balance Ponds?	Yes	y/n
What are the spacings of the Balance Ponds?		kms
OR is attenuation provided by the pipe system?	No	y/n
If so, what is the longitudinal pipe system to be upgraded to?		choice
Comminications		
Will there be a requirement to install Communications Ducting?	No	y/n
Include for installation of Communications?	No	y/n
INTERCHANGES		
Diamond interchange		No.
Half Diamond interchange		No.
T interchange (directional)		No.
Bridged roundabout		No.
Cloverleaf		No.
Half Cloverleaf		No.
Dumbell		No.
NOISE WALLS		
Will noise walls be required in this Segment?	No	y/n
If Yes, click on the + at the left to enter available details for Noise Walls in the table.		
PROPERTY ADJUSTMENTS (NOISE TREATMENTS)		
How many houses are anticipated to require noise treatment?		No.
BOX CULVERTS		
Click on the + at the left to enter available details for Box Culverts in the table.		
MAINLINE ROUNDABOUTS		
Click on the + at the left to enter available details for Roundabouts on the mainline in the table.		
TRAFFIC SIGNALS		
How many sets of traffic signals are anticipated to be installed at:		
T-intersections		No.
Crossroads		No.
Roundabouts		No.
Pedestrian Crossings		No.

ROAD LIGHTING		
Existing road only - What length of the road is currently lit?		m
What is the length of carriageway to be lit?	582	m
CYCLEWAYS		
What is the total length of Cycleways for this Segment?		m
OR Click on the + at the left to enter details for Cycleways in the table.		
Demolition		
Nominate the number of structures to be demolished		
Bridges - Minor		No.
Bridges - Major		No.
Residential	1	No.
Commercial		No.
LOCAL ROADS		
Enter details for the construction or upgrading of any Local Roads in the table below.		
Click on the + at the left to enter available details for Local Roads in the table.		

Name of Local Road	Length (km)	Carriage-Way Width	Footway Length (m)
If your project has more Local Roads, please copy the row above and insert it above this line.			

Roundabouts on Local Roads		
Click on the + at the left to enter available details for Roundabouts on local roads in the table.		
Transverse Bridges		
How many Transverse Bridges are anticipated?	1	No.
OR Click on the + at the left to enter details for Transverse Bridges in the table.		
How many Land Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Land Bridges in the table.		
How many Rail Bridges are anticipated?		No.
OR Click on the + at the left to enter details for Rail Bridges in the table.		
Bridge Strengthening		
What is the area of pier strengthening required?		m2
What is the length of parapet strengthening required?		m
Bridge Widening		

What is the total length of bridge(s) to be widened?			m	
What is the average width of bridge widening?			m	
Pedestrian Overpass				
How many pedestrian overpasses are anticpiated in this segment?			No.	
OR Click on the + at the left to enter details for Pedestrian Overpasses in the table.				
Cattle Underpass				
Click on the + at the left to enter available details for Cattle Underpasses in the table.				
Tunnels				
Click on the + to enter details for Tunnels in the table.				
Major Longitudinal Bridges				
Enter details for Major Longitudinal Bridges in the table below.				
Description or Location of Major Longitudinal Bridge	**What does this bridge cross?**	**Number of Bridges**	**Length (m)**	**Width (m)**
If your project has more Major Longitudinal Bridges, please copy the row above and insert it above this line.				
Refurbish Old Route for this Segment - Please provide details/notes on works to be carried out				
If work is required to refurbish the old route, enter the number of kilometres next to the type of work below.				
Will there be any work required to refurbish the old route?	No		y/n	
Restore to rural land			km	
Handover to Council			km	
Upgrade and Incorporate in the project			km	
Additional Items				
If there are any Additional Items that may affect the Cost Estimate, enter them in the table below.				
Description of Additional Item	**Section**	**Quantity**	**Unit**	**Rate (£)**
If your project has more Additional Items, please copy the row above and insert it above this line.				

APPENDIX T
STATUTORY UNDERTAKER REPORT

National Highways

Statutory Undertakers Diversions

A46 Coventry Junctions Upgrade - Walsgrave Junction
PCF Stage 2

Document control

Document information

Document Title	A46 Coventry Junctions Upgrade - Walsgrave Junction Stage 2 Statutory Undertakers Diversions Report
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Version	Date	Description	Author
P01	27/01/2021	FIRST ISSUE	Mandour ElMahadi
P02	15/03/2021	CONSULTEE COMMENTS ADDRESSED / UTILITIES ADDED	Mandour ElMahadi
P03	28/09/2021	OPTION 11 UPDATE	Thomas O'Hara

Subject Matter Advisors

Name	Role	Date of issue	Version
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Document sign-off

Name	Signature	Role	Date of issue	Version
Anita Prashar		Programme Delivery Director		P03

Table of contents

1. Introduction

1.1 Purpose

The purpose of this Statutory Undertakers Report is to ascertain the extent to which proposed route options are likely to affect or be affected by existing Utilities apparatus, including Statutory Undertakers for water, sewage, gas, electricity and telecommunications, as well as other utility providers including, but not limited to, pipeline operators. The report shows how Statutory Undertakers have influenced the initial optioneering and how they could affect cost, value and efficiency for the currently considered project.

Furthermore, an Overseeing Organisations Agent (OO Agent) will be appointed in line with SA 10/05 New Roads and Street Works Act 1991 (NRSWA) – Diversionary Works**.** Appendix 2 (NRSWA/C1.1) includes the standard pro forma letter detailing the notification of appointment. National Highways have appointed AECOM as the OO Agent for Project Control Framework (PCF) Stage 2 of the A46 Coventry Junctions Upgrade (Walsgrave) and a copy of the project specific letter can be found in Appendix 1 of this document.

The Statutory Undertakers Estimate will form part of the overall scheme cost estimate at each stage of the project's lifecycle and is a statutory duty.

1.2 Executive Summary

This report summarises the overall NRSWA C2/C3 Statutory Undertakers correspondence process for the A46 Coventry Junctions Upgrade - Walsgrave Junction PCF Stage 2 (Option Selection). A C2 enquiry refresh from Stage 1 was made by AECOM in PCF Stage 2 throughout October and November 2020.

The project has considered four options: Options 6, 7, 8 and 11. Option 6 and 11 are fully grade separated solutions with a 70mph mainline proposed in Option 6 and a 50mph mainline in Option 11. Options 7 and 8 are 50mph and 70mph left-in / left-out solutions respectively. These options are illustrated on the drawings contained within Appendix 2.

Following the C2 enquiries/searches process, 26 Statutory Undertakers (SUs) were identified as potentially having apparatus located within the vicinity of the project. This search area can be found in Appendix 1 with the C2 responses in Appendix 3. Of the 26 SUs identified, 5 have been identified as having assets that would be affected by the current proposals to upgrade Walsgrave Junction (varying by option). These SUs are:

- Severn Trent Water (STW) - both clean and wastewater assets
- Western Power Distribution (WPD) - high and low voltage power assets
- BT Openreach, Vodafone - underground Telecoms cables
- Coventry City Council (CCC) Street Lighting and Drainage assets.

Consultations with WPD to avoid diversion of the 132kV overhead transmission cables and associated pylons structures (works valued at circa £17m in PCF Stage 1) commenced during the start of PCF Stage 2. These discussions successfully informed the design development process, avoiding diversionary works through exclusion zones being defined. Further details are provided within Section 2 of this report.

C3 budget estimates and proposed diversionary drawings were requested from each SU via e-mail during November 2020 to February 2021. These C3 budget estimates were

only in relation to Options 6, 7 and 8. The C3 responses can be found in Appendix 4. AECOM received C3 returns from 4 out of the 5 affected SUs; the only remaining one being CCC Street lighting and Drainage Services.

CCC have stated that they are not legally defined as a Statutory Undertaker, thus are not required to comply with C3 requests. Any such design reviews of their existing assets would require payment beforehand and therefore re-engagement should be carried out in PCF Stage 3, following the Stage 2 Preferred Route Announcement. It should be noted that the cost for installation of street lighting and drainage on the proposed merges and diverges in Options 7 and 8, and the proposed B4082 connector road in Option 6 has been included in the cost estimation exercise for the project.

Option 11 was added in PCF Stage 2 following the Solution Review and Validation Event held in May 2021. For this option, the C3 budget estimates and proposed diversionary drawings were requested from each SU via e-mail in July 2021.

In summary, based on the current information available and documented within this report, Option 6 is the costliest solution in terms of diversionary works and lead-in/works durations (£2.32m). Options 7 and 8 are considerably less in cost and complexity of diversionary works, valued at approximately £57k and £123k respectively. Note that the Option 7 costs exclude potential protection works associated with Vodafone telecoms assets which have not been provided at this stage, however this is not expected to be significant.

Option 11 is the least expensive solution, requiring no diversions (excluding aforementioned Local Authority assets) and only protection works estimated at £30,000. As mentioned above, no total cost for the protection measures required (for the Vodafone and WPD Telecoms assets) were received. However, during this submission a nominal fee of £1,500 per day for protection supervision was received from Vodafone. Working with the buildability advisor having recently undertaken similar works at Binley junction, 10 working days has been assumed for both assets as a worst case. Therefore 2 assets at £1,500 per day for 10 days provided the figure of £30,000 (2 x 10 x £1,500). Both Vodafone and WPD Telecoms have stated they will refine the fee estimate as the design progresses.

1.3 Project/Programme Background

Through contract award PC1 0092 (on the 1st of September 2020), AECOM has been commissioned by National Highways to deliver Project Control Framework (PCF) Stage 2 (Option Selection) for Walsgrave Junction, as part of the A46 Coventry Junctions Upgrade scheme. AECOM is providing design and assessment services to progress four options 6, 7 and 8 identified at PCF Stage 1, and Option 11 which was added following the Solution Review and Validation Event held in May 2021.

These options are as follows:

- Option 6 - Grade Separated Junction (with a 70mph mainline speed)
- Option 7 - Left-in / Left-out Junction (with a 50mph mainline speed)
- Option 8 - Left-in / Left-out Junction (with a 70mph mainline speed)
- Option 11 - Grade Separated Junction (with a 50mph mainline speed)

The project is one of several set out under the Department for Transport (DfT) Road Investment Strategy (RIS) to be developed and delivered by National Highways during the RIS1 and RIS2 periods. Following the upgrade of Binley Junction, an upgrade to Walsgrave junction is being proposed to reduce congestion, improve safety and support development in the region.

Refer to the Stage 2 Commissioning Report (HE604820-ACM-GEN-WAL_SW_000_Z-RP-ZM-0001) for further project details.

1.4 Appointment of Overseeing Organisation Agent (OOA)

The National Highways Project Manager is responsible for appointing the OOA as per SA10/05, which contains a standard letter (NRSWA/C1.1) for appointment.

Refer to Appendix 1 for the National Highways letter confirming AECOM as OOA and thereby giving authorisation to request C2/C3 information from Statutory Undertakers on NH's behalf. A map of the search area is also shown in Appendix 1.

2. C2 Enquiries

2.1 C2 Overview

C2 enquiries have been re-issued to all utility companies in PCF Stage 2 to establish the location of existing apparatus in the vicinity of Walsgrave Junction and as a refresh of the C2 enquires undertaken in PCF Stage 1. This has been undertaken via several sources, including LineSearch, online SU databases, and formal e-mail requests to identified SUs predominantly throughout October to November 2020.

26 utility companies were identified as potentially having assets within the vicinity of Walsgrave Junction. Refer to Section 2.2 for complete information on C2 correspondence. In summary, 5 out of the 26 utility companies have existing apparatus that was likely be affected by the proposals to upgrade Walsgrave Junction (varying by option). Subsequently, C3 Budget estimates for proposed protection and diversions of affected apparatus have been requested by AECOM. Refer to Section 3 for further C3 information.

2.2 C2 Correspondence

Refer to the embedded C2 Enquiries Tracker for a complete list of C2 correspondence with all the SUs identified within the vicinity of Walsgrave Junction. The 5 affected SUs are highlighted in green.

C2 Inquiries Tracker.xlsx

2.3 C2 Commentary

This section should be read in conjunction with Appendix 2, which includes Options 6, 7, 8 and 11 Statutory Undertakers drawings. Copies of relevant C2 responses can be found in Appendix 3. With reference to the enclosed C2 enquiries tracker, the key SUs apparatus to be highlighted are as follows:

Western Power Distribution (WPD) - 132kv Overhead cables / associated pylons

Description: WPD 132kV overhead power cables and associated Tower Pylon Structures located within the immediate vicinity of Walsgrave Junction.

Affected Options: Options 6, 7, 8 and 11

From the previous PCF Stage 1 C2 enquiry, it has been identified that WPD 132kv overhead transmission lines run along the A46 corridor supported by pylons. The Stage 1 C3 estimate dated 03 August 2018 was valued at approximately £17m to divert the overhead power cables underground.

Towards the beginning of PCF Stage 2, AECOM began consultations with WPD to seek advice on their requirements that could be incorporated during the Stage 2 design development process to avoid diversions of the 132kV cables/associated pylons. These consultations occurred during the period October to December 2020 and have been considered by the appointed buildability advisor at this stage in planning construction.

On 09 October 2020, WPD supplied AECOM with a list of design-related requirements to be considered during the design refinement process. These requirements principally required the following design criteria to be met:

- Minimum Horizontal offset required from edge of earthworks/or carriageway to affected tower(s) exclusion zone(s) is 5m. A 20x20m 'Tower Exclusion zone' was achieved for options 6, 7 and 8 and shown on the General Arrangement (GA) Drawings provided to WPD on 18 November 2020. Following the addition of option 11, this exclusion zone was also adhered to, and the GA supplied to Western Power in July 2021.

- Minimum 7.3m vertical clearance requirement measured from the top of proposed pavement to the overhead power cable maximum sag point required, in accordance with WPD supplied Clear Graphs. This was also achieved for options 6, 7 and 8, and reflected in the vertical plans and profile drawings which were provided to WPD on 18 November 2020. Additionally, this clearance was complied with in option 11.

WPD on the 14th of December 2020 stated that the current optioneering has included appropriate considerations to construct the new road layout with the Overhead Lines (OHL) tower assets in situ. However, although no diversion is required, there may be costs to consider with regards to power protection including subsidence and soil integrity arising from nearby compaction, which will be explored in subsequent PCF Stages. No costs have been provided for this at this stage. As mentioned above, AECOM supplied WPD with option 11 details in July 2021. WPD's confirmation that this option also has no direct impact was received in September 2021.

Refer to Appendix 3 for the e-mail chain and evidence outlining correspondence with WPD and confirmation that the design changes incorporated have fulfilled WPD requirements. Additional information on WPD correspondence (related to Construction works requirements) is also provided in Section 3.3.

Severn Trent Water - Water Main

Affected Options: Option 6

Description: An underground watermain is located to the northwest of Walsgrave junction, between Hungerley Hall Farm and the River Sowe, continuing north. This was identified in Stage 1; however, the water main did not conflict with the Stage 1 Option 6 alignment. In Stage 2, the Option 6 B4082 connector road was realigned to avoid impact to the Grade 2 listed buildings located at Hungerley Hall Farm. This design change resulted in the realigned B4082 extending further north-west adjacent to the River Sowe and conflicting with the water main. See Section 2.4 for next steps.

Severn Trent Water - Sewer Main

Affected Options: Option 6

Description: An underground pressurised sewer main is located to the north of Walsgrave junction, heading from east to west across the site. It passes directly under the proposed grade separated junction footprint and then continues alongside the existing northbound carriageway. This asset was also known from Stage 1 and conflicted with the Stage 1 alignment. See Section 2.4 for next steps.

2.4 Next Steps

Following the C2 search results, AECOM requested and received C3 budget estimates and proposed diversions of utility assets from those 5 SUs that were identified. Refer to Section 3 for further information.

2.5 Risks

Key risks include:

- Exact location of SU apparatus can vary from supplied C2 drawings.
- There is a risk of unexpected or additional costs associated with protection of the 132kV pylon in regard to subsidence or soil integrity during nearby compaction throughout the construction phase.

3. C3 Budget Estimates

3.1 C3 Overview

As mentioned previously, 5 SUs have been identified as having assets potentially affected by the proposals to upgrade Walsgrave Junction. These SUs are: Severn Trent Water (STW), Western Power Distribution (WPD), BT Openreach, Vodaphone, and Coventry City Council (CCC).

C3 requests for Options 6, 7 and 8 were issued to each SU that responded to the initial C2 enquiry, stating that their assets may be affected by the works via e-mail on 13 November 2020. The purpose was to obtain the latest C3 budget estimates detailing the cost of diverting affected apparatus, as a refresh of the C3 estimates previously obtained in PCF Stage 1. Additional C3 requests for the newly introduced Option 11 were also issued via email to each SU on 28 July 2021.

As of 08 September 2021, C3 estimates have been received from all affected Statutory Undertakers apart from CCC Street lighting and drainage service providers. It is worth noting that delayed C2 responses from CCC Street Lighting and Drainage teams were received on 14 January 2021 and 04 March 2021, respectively. Further to review of the documentation supplied, AECOM determined that these assets would likely be affected by our proposals. A C3 request was issued to CCC Street Lighting on 19 January 2020 and a response was received on 20 January 2020 stating that CCC are not required to respond to our C3 request as they are not legally defined as a Statutory Undertaker, and that any such design reviews of their existing assets would require payment beforehand. A similar response was received from CCC Drainage. It is therefore recommended at this stage that this should be further explored with CCC and National Highways in PCF Stage 3 with regards to the preferred option.

It is worth noting that a significant proportion of the existing lighting and drainage assets located on the B4082 / near the existing Walsgrave junction would likely need to be replaced for all options. This has been recorded on the Diversionary Drawings found in Appendix 2 of this report.

As mentioned, Option 11 requires no diversions (excluding the Local Authority works mentioned above) and only protection works estimated at £30,000. No total cost for the protection measures required (for the Vodafone and WPD Telecoms assets) were received. However, during this submission a nominal fee of £1,500 per day for protection supervision was received from Vodafone. Working with the buildability advisor, 10 working days has been assumed for both assets as a worst case. Therefore 2 assets at £1,500 per day for 10 days provided the figure of £30,000 (2 x 10 x £1,500). Both Vodafone and WPD Telecoms have stated they will undergo fee refinement as the design progresses.

Refer to Section 3.2 for full information on C3 correspondence with Statutory Undertakers. Refer to Appendix 4 for copies of relevant C3 responses.

3.2 C3 Correspondence

Refer to the enclosed C3 summary table for full details on correspondence to date with affected Statutory Undertakers, including C3 budget estimates, details on diversions and corresponding lead-in and diversionary works times:

C3 Summary Table.xlsx

3.3 C3 Commentary

With reference the enclosed C3 summary table provided in Section 3.2, the three diversions with significant costs (>£100k) are summarised below:

Western Power Distribution (WPD) - (Low voltage cable servicing Hungerley Hall Farm (HHF))

Affected Options: Options 6 and 8 (only deemed "significant" for option 6)

Option 6:
C3 Budget Estimate: £114,021.34 (11/12/2020)
Lead up and diversionary works duration: 8 weeks and 8 weeks, respectively.

Description of diversionary works required:
Diversion of existing low voltage overhead cable servicing Hungerley Hall Farm. Description of works required: Approx. 470m of LV mains cable to be installed. Approx. 400m of Overhead Conductor, and associated poles, will be dismantled. Approx. 25m of LV underground cable will be disconnected and left in situ.

See Appendix 4 for further details including supplied diversion drawing.

Severn Trent Water - Water Main Diversion

Affected Options: Option 6
C3 Budget Estimate: £1,588,707.39 (22/12/2020)
Led up and diversionary works duration: 12-14 weeks and 12-14 weeks, respectively.

Description of diversionary works required:
Diversion of underground water main conflicting with realigned B4082 connector road. Open Cut: 100m of 125mm PE, 85m of 180mm PE, 85m of 250mm PE, 650m of 500mm PE, 12 x Integral Bypasses, 26 x SV, 10 x AV, 21 x WO, 21 x Spade Valves, 18 x Tees, 9 x UPT, 12 x 500mm Bends, 26 x Cap Off, 9 x Line stops, Trial Holes, Traffic Management, Street Lamp Support, Night Work, Site Investigation.

See Appendix 4 for further details including supplied diversion drawing.

Severn Trent Water - HDPE pressurized Sewer Main Diversion

Affected Options: Option 6
C3 Budget Estimate: £472,000 (08/01/2021)
Led up and diversionary works duration: 19 weeks and 25 weeks, respectively.

Description of diversionary works required:
Diversion of underground pressurized HDPE Sewer main located at proposed GSJ area. Lay approx. 500m of 315mm diameter foul rising main.

See Appendix 4 for further details including supplied diversion drawing.

3.4 Next Steps

- Should Option 6 be revisited, undertake optioneering exercise for Option 6 to see whether the realigned B4082 connector road can be re-aligned to avoid or reduce the conflict with underground watermain.
- Follow up with CCC on C3 request for Street Lighting and Drainage Team for the C2 request following the Preferred Route Announcement of Option 11.
- Buildability Contractor to investigate whether there are any opportunities to carry out Advance Diversionary works once the Preferred Route Announcement of Option 11 is made towards the end of PCF Stage 2.

3.5 Risks

- Exact location of SU apparatus can vary from supplied C2 drawings.
- There is a risk C3 Budget estimates provided do not accurately reflect the degree of diversionary works required, thereby further consultations with affected SU's to be undertaken in PCF Stage 3 and beyond.
- Further design development following Public Consultation results in impacting utility assets currently not affected, thereby leading to increased costs or re-design development.

Sections 4 - 8 below will be completed by National Highways DIP once the project progresses in subsequent PCF Stages.

4. C4 Detailed Estimates

4.1 C4 Overview

Guidance
Summarise the C4 design estimates, detailing when it was completed and the purpose.

4.2 C4 Correspondence

Below to be completed by National Highways DIP in subsequent PCF Stages.

Guidance
Complete the attached C4 summary table.

Include C4 correspondence as an appendix. (Letters, emails, drawings, programmes etc.)

C4 Advanced Design Table.xlsx

4.3 C4 Commentary

Guidance
Provide commentary on significant elements of apparatus which is likely to affect the proposed scheme, an explanation describing how the information gathered at this stage has affected the optioneering process and a calculation of the monetary benefit or cost associated for each option. This should include a summary of SU diversionary costs for each option and consideration of which option is preferred from a Stats perspective.

In addition, please provide commentary detailing:

- Identified outages and/or constraints
- Payment schedule with SU(s)
- Works Agreement deadline
- Advance Diversionary Works opportunities

Include as an appendix, an updated programme of works which includes identified SU diversionary works.

4.4 Next Steps

Guidance
Describe any further steps to be taken following the C4 information.

4.5 Risks

Below to be completed by National Highways DIP in subsequent PCF Stages.

Guidance
Describe any identified risks following the C4 information.

5. C5 Commencement of Works / C6 Placement of Orders

5.1 Appointment of Overseeing Organisation Agent (OOA)

Below to be completed by National Highways DIP in subsequent PCF Stages.

Guidance
During Early Contractor Involvement (ECI) or once the Principal Contractor has been appointed the National Highways Project Manager must appoint the Principal Contractor as OO Agent and remove the responsibility from the Principal Designer, this should also be included within the main contract works information. Before commencement of works, the OO Agent shall arrange for a formal coordination meeting at the earliest opportunity. This meeting should be used to establish detailed programming, methods of working and general coordination of the works. National Highways Project Manager responsible for appointing the OO Agent as per SA10/05, which contains a standard letter (NRSWA/C1.1) for appointment.

5.2 Notification to SU's of scheme commencement

Guidance
The Overseeing Organisation (OO) Agent will notify all Undertakers of commencement of the OO scheme using **standard letter NRSWA/C5.1**. Each Undertaker should acknowledge receipt of the notification and provide a detailed specification, itemised estimate and programme where these have not been previously submitted.

5.3 Identify Orders to be placed

Guidance
Summarise the identified order(s) and required deadlines.

5.4 Payment Method

Guidance
Summarise the payment method and schedule.

5.5 Programme of Work and Coordination

Guidance
Summarise the programme of works and coordination between National Highways and effected Statutory Undertakers.

5.6 Risks

Guidance
Describe any identified risks.

6. C7 Construction

6.1 Programme

Guidance
Provide an updated programme which includes diversionary works, if required due to changes in a previous stage.

6.2 Commentary

Guidance
Summarise on-going and completed diversionary works.

6.3 Schedule of stage payments

Guidance
Provide a schedule of payments to Statutory Undertakers.

6.4 Risks

Guidance
Describe any identified risks.

7. C8 Claims

7.1 Schedule

Guidance
Provide a schedule of submitted claims.

7.2 Risks

Guidance
Describe any identified risks.

8. C9 Completion and Final Accounts

8.1 Commentary

Guidance
Summarise the completion of works and final accounts.

8.2 Lessons Learnt

Guidance
List any lessons learnt relating to the Statutory Undertaker process.

8.3 Schedule of Final Accounts

Guidance
Provide a schedule or summary of final accounts for Statutory Undertakers.

9. Appendices

(Contained within Zip Folder HE604820-ACM-VUT-WAL_SW_000_Z-RP-CU-0002)

Appendix 1 – National Highways Authorisation letter & Search Area Map
Appendix 2 – Options 6, 7 and 8 Existing and Diversion Stats Drawings
Appendix 3 – C2 Responses
Appendix 4 – C3 Responses

APPENDIX U
EQUALITY IMPACT ASSESSMENT

A46 Coventry Junctions Upgrade (Walsgrave Junction)

Equality Impact Assessment, Screening, Analysis and Monitoring

PCF Stage 2 Deliverable for National Highways

Status: P01 S4

Document Ref: HE604820-ACM-GEN-WAL_SW_000_Z-RP-ZH-3337

March 2022

A46 Coventry Junctions Upgrade (Walsgrave)

Equality Impact Assessment Screening, Analysis & Monitoring PCF Stage 2

Report No: HE604820-ACM-GEN-WAL_SW_000_Z-RP-ZH-3337

March 2022

Revision	Current Status	Date	Prepared By	Reviewed By	Approved By
P01	S4	11/03/2022	David Ilugbo	Thomas O'Hara	John Waterman

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Glossary of Terms and Abbreviations

Abbreviation	Definition
EDI	**Equality, Diversion & Inclusion**
EDIT	**Equality, Diversion & Inclusion Tool**
SRN	**Strategic Road Network**
MP	**Major Projects**
PCF	**Project Control Framework**
WCHAR	**Walking, Cycling and Horse-Riding**
ONS	**Office of National Statistics**
DMRB	**Design Manual for Roads & Bridges**
SRO	**Senior Responsibility Owner**
PDD	**Project Delivery Director**
EqIA	**Equality Impact Assessment**

EQUALITY IMPACT SCREENING AND ASSESSMENT			
Name of Practice/Policy	A46 Coventry Junctions Upgrade – Stage 2 Walsgrave Junction	**Proposed or Current**	Proposed
Person Completing the Assessment	David Ilugbo (AECOM)		
Directorate	Major Projects		
Date	March 2022	**Eql Register Ref No: (Obtained from the EDI Advocate)**	**MPS96**

1. Introduction

1.1 Scheme Background

National Highways are investigating and developing proposals to improve Walsgrave junction as part of the A46 Coventry Junctions Upgrade scheme. The scheme was announced in the Autumn Statement 2014 (AS14) and listed in the Government's Roads Investment Strategy (RIS) as a commitment in the 2015/16 - 2019/20 period, subject to further contributions from National Highways.

The route section, as shown in ***Figure 1***, is 8.2km in length and consists of an all-purpose two-lane dual carriageway (D2AP) with two at grade junctions (Binley junction and Walsgrave junction) located between A45 / A46 Tollbar End junction to the south and M6 Junction 2 to the north.

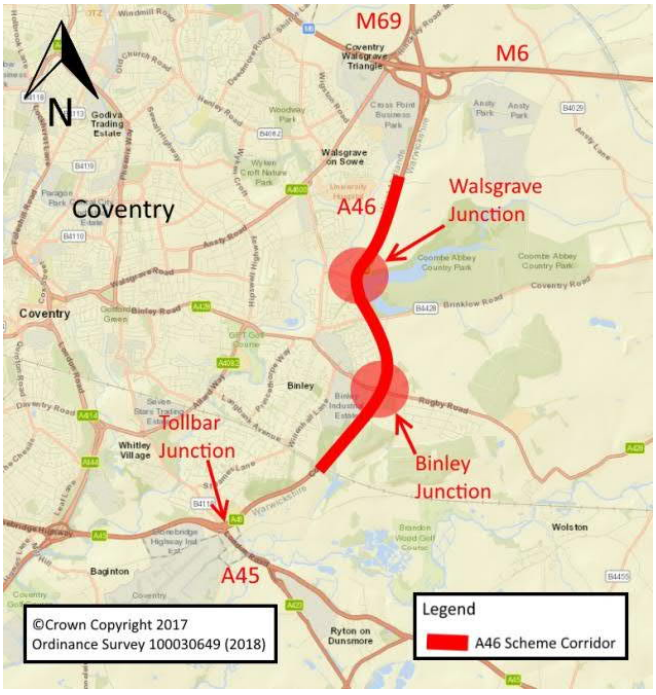

Figure 1 - A46 Coventry Junctions Upgrade scheme and surrounding area

The A46 Walsgrave junction is an at-grade non-signalised roundabout, which connects the A46 to the local network through the B4082. It consists of a three-arm roundabout with the A46 running north/south and the B4082 on the western arm. The junction upgrade is currently at Stage 2 of the PCF process, which involves the selection of options.

1.2 Summary of Proposed Options

As reported in the Staged Overview of Assessment Report (HE604820-ACM-GEN-WAL_SW_000_Z-RP-CH-0001), the study identified numerous layouts which were been narrowed down to the four improvement options summarised below:

- Option 6 – a 70mph fully grade-separated dumbbell junction north of Hungerly Hall Farm, with a link road connecting to the Clifford Bridge Rd / B4082 roundabout. The alignment would provide expressway standard speeds on the A46. The option is flexible to accommodate potential local plan developments and links to the hospital precinct.
- Option 7 –the A46 would remain at grade with slip roads on and off the northbound carriageway connected to the B4082. Connection between the A46 southbound carriageway and B4082 would be removed. This Left-in / Left-out arrangement would provide for a 50mph mainline speed.
- Option 8 – the A46 would remain at grade with slip roads on and off the northbound carriageway connected to the B4082. The connection between the A46 southbound carriageway and the B4082 would be removed. This Left-in / Left-out arrangement would provide for a 70mph mainline speed.
- Option 11 – a 50mph full grade-separated dumbbell junction north of Hungerly Hall Farm, with a link road connecting to the Clifford Bridge Rd / B4082 roundabout. The option is flexible to accommodate potential local plan developments and links to the hospital precinct.

A: In this section, outline the aims, purpose, desired benefits and expected outcomes of the practice/policy, identifying the customers, staff or stakeholders involved or affected.

The A46 corridor provides significant opportunities for economic growth and improved accessibility within the city of Coventry and Warwickshire, enabling the unlocking of sites for residential development and improving access to existing commerce. The proposed scheme will facilitate economic growth and assist in alleviating congestion along the route from M6 J2 to A45/46 Tollbar End which includes the Binley and Walsgrave junctions.

The key scheme objectives are to:

- Contribute to economic growth.
- Improve the operation and efficiency of the existing transport network.
- Support employment and residential development opportunities.
- Deliver capacity enhancements to the SRN whilst supporting the use of sustainable modes of transport and reducing/minimising the impact of the wider environment.
- Improve connectivity and community cohesion.
- Improve road safety.

The proposed scheme is expected to:

- Raise capacity of the junctions to accommodate access to the SRN and key development sites.
- Reduce peak hour queuing and increase the quality, reliability, and safety of the journey, especially for commuters, allowing the route to function as a strategic corridor/through route.
- Improve connectivity and community cohesion through reducing severance issues.

At this stage within the PCF, of the four proposed options – Option 6,7,8 and 11 – Option 11 is the preferred and the only viable option following the Solution Review and Validation event of September 2021, and subsequently confirmed at the Major Projects IDC in November 2021.

The EqIA requires significant information throughout the project cycle. This report is based on the screening assessment of PCF Stage 2 of the A46 Coventry Junctions Upgrade – Walsgrave junction project, focused on Option 11 being carried out. However, mention of previously identified options may be made.

B: SCREENING (Stage 1) **Questions considered to establish impacts from the outset for new or changing policies/practices**	**Sex**	**Religion or Belief**	**Age**	**Disability**	**Race**	**Sexual Orientation**	**Gender Re-assignment (include transsexual and transgender)**	**Pregnancy & Maternity**	**Marriage & Civil Partnership**
1: Is there any indication or evidence that different groups have different needs, experiences, issues, or priorities in relation to the practice/policy?	No	No	Yes	Yes	No	Unknown	Unknown	Yes	Unknown
2: Is there evidence or an indication of higher or lower uptake by different groups?	No	Yes	No	No	Yes	Unknown	Unknown	Yes	Unknown
3: Do people have different levels of access? Are there social or physical barriers to participation (e.g., language, format, physical access)?	No	No	Yes	Yes	No	Unknown	Unknown	Yes	Unknown
4: Is there an opportunity to advance equality or foster good relations by altering the policy/practice?	Unknown	Unknown	Yes	Yes	Unknown	Unknown	Unknown	Unknown	Unknown

Questions considered to establish impacts from the outset for new or changing policies/practices	**Sex**	**Religion or Belief**	**Age**	**Disability**	**Race**	**Sexual Orientation**	**Gender Re-assignment (include transsexual and transgender)**	**Pregnancy & Maternity**	**Marriage & Civil Partnership**
5: Is there an opportunity to advance equality or foster good relations by working or engaging with other organisations or the wider community?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6: Is there stakeholder (staff, Trade Unions or public) concern about the policy/practice in terms of actual, perceived, or potential discrimination against a particular group?	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
7: Is there potential for, or evidence that any part of this policy/practice may adversely affect equality of opportunity for all or may harm good relations between different groups?	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
8: Is there any potential for, or evidence that any part of the policy/practice could discriminate indirectly or directly? (Consider those who implement it on a daily basis).	No	No	Yes	Yes	No	Unknown	Unknown	Yes	Unknown

C: The rationale behind the rating (at Section B) and details of the evidence utilised to inform the screening decision.

1) Disabled and older people are likely to have different needs, experiences, issues, or priorities in relation to the practice/policy. The scheme will not implement red routes or other measures that will prohibit disabled parking. The proposed Option 11 may improve WCHAR infrastructure by providing tactile paving and bringing the Clifford Bridge Road junction layout up to current standards. Options 7 and 8 would restrict access to the University Hospital Coventry & Warwickshire as right turn movements from the A46 would be unavailable and this would likely impact the elderly and disabled, along with pregnancy and maternity groups. However, the proposed Option 11 allows all turning movements to occur. The Project Team has been in contact with Equality, Diversity and Inclusion leads at each of the host local authorities and consultation information was provided to local EDI groups. These Equality, Diversity and Inclusion contacts are noted in the HE Action Focussed Communication Tracker, linked in Section F below with all contact logged in MP Connect.

2) The (Office for National Statistics) ONS link provided on the (Equality Diversity and Inclusion Tool) EDIT exercise (census 2011 data) provides population data which shows that 79% of the population is categorised as White Persons (All ages) in terms of their ethnicity. Purely based on these figures, a higher uptake can be expected from this group. A higher uptake can also be expected from Religion or Belief, Race and Pregnancy & Maternity groups based on the Consumer Data Research Centre (CDRC) interactive map. The geo-demographic derived from the United Kingdom (UK) 2011 Census shows a higher uptake area by the following three groups: multicultural metropolitans (Asian Traits and Achieving Minorities), suburbanites (Suburban Achievers and Indian Tech Achievers) and urbanites (Urban Professionals and Families and Multi-Ethnic Professionals with Families). Refer to the CDRC Maps for Coventry- West Midlands here.

3) It is likely that disabled persons may have different levels of access whilst the scheme is under construction. However, the scheme will not implement red routes or measures which prohibit disabled parking. It is also likely that this may apply to the elderly and pregnant, as they may have limitations to social and physical barriers.

4) Ongoing stakeholder engagement and the Public Consultation in January 2022 suggests advancing equality and fostering good relations could be achieved for disability and age. Other groups are unknown.

5) There may be an opportunity to advance equality on the scheme by engaging with the local community. Public consultation events took place within Stage 2 and these provided more opportunities for stakeholder and public engagement. Initial information gathered following stakeholder analysis and engagement events did not identify any issues with respect to specific hard to reach groups within the local area. However, further research was carried out in advance of the consultation to ensure that specific groups could easily raise any concerns throughout consultation.

6) Efforts were made to find out this information through the public consultation process, but no feedback from any particular hard to reach groups has been identified. Further information may be gathered at future stages.

7) Efforts were made to find out this information through the public consultation process, but no feedback from any particular hard to reach groups has been identified. Further information may be gathered at future stages.

8) There is a potential for pregnancy & maternity groups, as well as disabled and older people to have concerns around increased journey times when travelling to the hospital. This was raised during public consultation,

although not specifically in relation to any protected or hard to reach groups. Further updates / detailed to be included (if required) following detailed design which is carried out in future stages.

EqIA EDIT - Equality, Diversity, and Inclusion Tool: EDIT V.4.2.1.xlsm

The Equality impact screening assessment will be reviewed again when more details of the scheme are refined and known at PCF Stage 3, after further stakeholder and public engagement and when the preliminary design has investigated further. The stakeholder and public engagement exercises will be developed to obtain more information on groups with protected characteristics that might be affected by the scheme.

Confirmation – State whether a full equality impact assessment is required
(Tick box as appropriate)

Yes	✓	• Adjustment required to prevent potential discriminatory practice and to remove barriers to equality of opportunity. • Further evidence/consultation required to enable a sound equality decision. **Proceed to Sections D – H**
No		• The policy/practice is robust in terms of equality. • The impact on different groups is considered to be 'neutral' with no risk of discrimination and any minor impacts can be justified. **Proceed to Section E1 and Sign-off at H**

D: ASSESSMENT (Stage 2)

The level of impact on protected characteristics gauged from available information, research, consultation

Equality Group (Protected Characteristics)	Positive Impact	Negative Impact	Neutral Impact	Summary of reasons and evidence sources (data research and consultation) supporting this analysis
Sex			✓	There is no direct evidence at this early stage of the PCF process that Option 11 would discriminate against different members of this group. Future stages may acquire more specific data through consultation.
Religion or Belief			✓	It is not considered that the scheme will have a positive or negative impact on this group. There is evidence that religion and belief groups may be impacted due to the higher uptake in the area of the following three groups: multicultural metropolitans (Asian Traits and Achieving Minorities), suburbanites (Suburban Achievers and Indian Tech Achievers) and urbanites (Urban Professionals and Families and Multi-Ethnic Professionals with Families). Refer to CDRC Maps for West Midlands here.

Equality Group (Protected Characteristics)	Positive Impact	Negative Impact	Neutral Impact	Summary of reasons and evidence sources (data research and consultation) supporting this analysis
Age			✓	There is no direct evidence at this early stage of the PCF process that Option 11 would discriminate against different members of this group. Future stages may acquire more specific data in regard to Option 11.
Disability			✓	Based on the information that has currently been acquired, Option 11 does not positively or negatively impact hospital access. There is a potential for work to be done in conjunction with the hospital to improve access in future, although, it is expected that Option 11 should improve journey times for those travelling via the A46, but no specific analysis has been carried out. The scheme will consider the needs of disabled persons and ensure that access to disabled facilities such as parking is maintained where appropriate. The parking bays on Clifford Bridge Road are to be investigated at future stages to identify any potential impact on disabled users.
Race			✓	There is no direct evidence at this early stage of the PCF process that Option 11 would discriminate against different members of this group. Future stages may acquire more specific data through consultation.
Sexual Orientation			✓	There is no direct evidence at this early stage of the PCF process that Option 11 would discriminate against different members of this group. Future stages may acquire more specific data through consultation.
Gender Reassignment (Incl. Transsexual and Transgender)			✓	There is no direct evidence at this early stage of the PCF process that Option 11 would discriminate against different members of this group. Future stages may acquire more specific data through consultation.
Pregnancy & Maternity			✓	Based on the information that has currently been acquired, Option 11 does not positively or negatively impact hospital access. There is a potential for work to be done in conjunction with the hospital to improve access in future, although, it is expected that Option 11 should improve journey times for those travelling via the A46, but no specific analysis has been carried out.
Marriage & Civil Partnership			✓	There is no direct evidence at this early stage of the PCF process that Option 11 would discriminate against different members of this group. Future stages may acquire more specific data through consultation.

Potential Risks Identified – Including insufficient information to make robust decisions (Yes/No ticked as appropriate)

No	✓	No changes are required as identified at this stage; however, the project is currently at an early stage and thus more informed Equality Impact Assessments will be made as this is a live document, and more consultation & evidence will be gathered throughout future stages of the project (Stages 3-7). There are some items that are still unknown. Due to this, the evidence and answers given for the EDIT product and this screening assessment may be subject to change. The project team has made contact with Equality, Diversion and Inclusion leads through local authorities to aid in identifying ay impacts to specific hard to reach groups and channels within the local community, in order to make sure their voice is heard and respected. The project team will continue to work with National Highways and the Equality, Diversity and Inclusion leads to ensure their impact is heard throughout consultation delivery. Extra information or materials will be made available upon request.
Yes **(Mitigating action shown in Section F)**		**Identified Risks:** • …….. • …….. • …….. • …….. • ……..

E: Options: The rationale behind the decision reached.

E1: Proceed with the policy/practice because: o the decision can be justified (At screening or in Section D) o there is no reasonable alternative o the Senior Reporting Officer/Programme Delivery Director is content to defend any potential challenge and is willing to sign-off in Section H **(There are no unjustified negative impacts, and the policy/practice is compliant in terms of the equality duty)**	✓
E2: Make adjustments o to demonstrate how activities will lead to a fair outcome (Ensure further evidence is gathered to ensure any barriers are removed and referenced in Sections F and G) **(Opportunities were identified to advance equality, foster good relations, and prevent discrimination)**	
E3: Withdraw it because there is obvious detriment **(Sign Off in Section H)** **(A negative impact has been identified that cannot be justified)**	

F: Description of additional evidence, research and consultation undertaken, required, ongoing or captured. This is to ascertain how the policy or practice will advance equality, foster good relations and/or eliminate discrimination. Reference the evidence sources
(Include how internal scoping tools such as EDIT have been utilised and how this work has influenced other assessments such as the social aspects of environmental assessments)

Activities to address any potential negative impacts or risks to deliver positive impacts	Provide activity completion dates
A public consultation was held in January 2022 to inform the public of the proposed Option 11 design and gather any feedback or concerns on the proposed design. 120 responses were received from stakeholders and the public, which have all been analysed and reviewed. A report on public consultation has been prepared and outlines the key themes from the consultation.	Completed
A qualitative assessment of construction dust and operational traffic emissions – following DMRB LA 105 - has been carried out in stage 2, although Site surveys are yet to be conducted. Additional monitoring in Stages 3, 4, 5 and 6 will also be undertaken to further inform the environmental impact.	Stages 3, 4, 5 and Stage 6
WCHAR impact assessment. This will include an assessment of changes to journey length, amenity, and severance.	Stage 3 and 5.
Although exact details of construction are not presently known, it is expected that Option 11 will involve potential construction and operational vehicle noise effects to the surrounding neighbourhood. Following the methodology set out in DMRB LA 111, there will be implementation of defined working hours, as well as selection of low vibration equipment.	Stages 4, 5 and 6

Summary of the findings, including details of consultation with communities/customers/groups/stakeholders/staff/professional organisations. Explain how this has shaped the development of the practice or policy:

Following Public Consultation by the project team it was found that there was a concern over the enforcement of a 50mph speed limit throughout the A46. Alongside this, there was also mention of a need for improved provision for pedestrians, cyclists, and horse riders, which is to be integrated with local authority plans. There was also mention of a need for improved hospital access for emergency vehicles. The findings of the public consultation and stakeholder engagement events will be incorporated and explored further during the – Stage 3 – preliminary design phase, as these are all elements that can be explored further in collaboration with the local authority, the hospital and the housing developers - adjacent to the University Hospital.

Where available and appropriate – photographic evidence or link.
E.g., successful installation of footbridges, shared footpaths, letters of appreciation, commendation received etc.

(For National Highways internal records):

Where appropriate - Link to evidence of communication/inclusion action plans, environmental assessments or EDIT exercises.

(For National Highways internal records):
Action Focused Comms Tracker - https://hebim.withbc.com/bc/bc.cgi/0/18291050?op=lp
Q&A Document - https://hebim.withbc.com/bc/bc.cgi/0/18216852?op=lp
Key Points Brief - https://hebim.withbc.com/bc/bc.cgi/0/18216831?op=lp

G: Monitoring (Stage 3)
Detail how you will monitor the actual outcomes of the policy/practice throughout the project lifecycle and explain how/when you will review them.

Agreed actions to implement the findings of this assessment.
(For relevant schemes, this includes planned Post Opening Project Evaluations/Implementation/Investment Reviews and compliance with other internal monitoring systems such as the Project Control Framework).

Monitoring Action	By Whom	By When
This EqIA will be updated and reviewed through the remaining stages of the project.	Delivery Integration Partner	Towards the end of PCF Stage 3, following the statutory Public Consultation. Current programme shows this as November 2023.

H: Sign-off by National Highways Senior Responsible Owner (SRO), or for Major Project schemes, the Programme Delivery Director (PDD), (or the Programme Internal Sponsor or Project Sponsor if the PDD has delegated sign-off).

(This does not have to be a physical signature, but approval is required)

Name		**Date**	
Job Title			

In submitting this EqIA the SRO/PDD has:

- **Approved all activity including monitoring actions**
- **Submitted documentation to the Directorate's Equality, Diversity and Inclusion Advocate** http://share/Share/llisapi.dll?func=ll&objaction=overview&objid=33434433**for quality assurance and registration.**
- **For all MP schemes please contact MP Representative for the National Highways Diversity Group**
- **Considered the documentation as robust and suitable for publication**
- **Checked that the documentation is saved in the EqIA area of the internal filing system and is retained as a record as part of good governance.**

Revision date: 11th March 2022