

Appendices

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Appendix A. Long list highway options specification

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A.1. Long list highways options – design specification description

Option	Design specification (new highway routes based on corridors using an indicative route alignment)
Option 7A	Option 7A is a concentric widening of the existing A350 single carriageway to dual carriageway between A350 Beanacre Road roundabout to the junction with A365 Bath road. This widening proposal has a length of 680m and has large impact on existing buildings / housing and requires land take. It also does not fulfil or meet the overall scheme requirements/project objectives, as this route does not provide a bypass, instead improving the existing A350 for a short section. The estimated construction cost is £5.28 million, there are no departures for this route, and it is fully compliant with the DMRB for the design speed of 60km/hr.
Option 7B	Option 7B is west bound widening of the existing A350 single carriageway to dual carriageway between Farmers roundabout and Semington roundabout and of length 1100m. As this west bound widening option, this does not impact on any existing buildings but does require land take. Within this proposal, the existing Challemead bridge would require widening. The estimated construction cost is £12.47million out of which structure cost is £4.28million which is 34% of the total construction cost. There is one departure related to horizontal curvature for the design speed of 100kph. This option does not fulfil or meet the overall project objectives as it is not providing a bypass for traffic.
Option 8A	Corridor Option 8A is a bypass of 6.51km long, single carriageway road proposed to the western side of Melksham between Lacock and re-joining the A350 north of Semington roundabout. This route traverses through green field, avoiding water bodies, residential buildings and HT Pylons. This alignment option requires one rail bridge, one Viaduct of 540m long (including a rail bridge) and bridge over restored canal. Numbers of vehicular and pedestrian underpasses have been proposed for maintaining permeability. This alignment option impacts the existing solar farm at Broughton Gifford and Whitley Golf course. There are a total of 4 junctions and are placed at north of A350, Westland lane, A365 (bath road) and south of A350. The total carbon footprint is approximately 16.22 hectares with 20423 cu-m and 251562cu-m of cut and fill quantities. The total estimated construction cost is £56.26 million and structures cost (£28.36million) is 50% of the total construction cost of this route. The alignment is fully compliant with the DMRB standard with no departures and relaxation for the design speed 100kph.
Option 8B	Corridor Option 8B is a bypass of 9.1km long to the western side of Melksham between A365 Bath road junction and re-joins the A350 south of the Hampton Park roundabout. This is the costliest option among all the long-listed alignment options, the estimated construction cost is £84.95 million and also has the 3rd largest carbon footprint (21.94 hectares with 46697cu-m and 324290cu-m of cut and fill quantities). The total cost of structures is £34.34 million which is 40% of total construction cost. This route impacts Whitley Golf Course and the Solar panels at Broughton Gifford. The route navigates through two HT lines, and includes one combined structure accommodating rail line and B3107 (Bradford road) of length 150m, Bridge over proposed canal, one Rail bridge and one Viaduct of 490m long over river Avon. There are a total of 5 junctions (roundabouts) and proposed at north of A350, Westland lane, A365 (bath road), Melksham lane and south of A350. This alignment option is fully compliant with the DMRB standard with no departures and relaxation for the design speed 100kph.
Option 9A	Corridor Option 9A is a 5.1km bypass on the western side of Melksham just North of Beanacre and re-joining south of Farmers roundabout. This route is the second most costly option despite of its shorter length and the estimated construction cost is £79.22million, with 43% of the costs due to structures (£34.34). There are two rail bridges required and one viaduct of length 450m long over the river Avon and its flood zone. This alignment option has the maximum earthwork fill requirement (348187cu-m). The route is also not fully compliant with DMRB standards with one departure and two relaxations on horizontal curvature considering design speed of 100kph.
Option 9B	Corridor Option 9B is a 3.7km bypass between the North side of Beanacre to A365 Bath Road, North of Farmers Roundabout. This route traverses through green filed avoiding any impact on built-up sections and passes between the substation and rail line. Further it continues traversing between the rail line and the south brook and meets the Bath road. It does not fully meet the project objectives as the road does not bypass all of Melksham. The estimated construction cost for this alignment is £61.14million with 48% of the total construction cost associated with structures (£29.25million), including one rail bridge and one viaduct of length 640m over the flood zone. This route is not fully complaint with DMRB standards as there are two departures and one relaxation on horizontal curvature front.
Option 9C	Corridor Option 9C is a 2.8km bypass between north of Beanacre and tying in at A365 Bath Road, North of Farmers roundabout. This option does not fulfil the project objectives as it does not provide a bypass around Melksham. Despite of the short length, the estimated construction cost is £61.96million and 52% of the total construction cost is due to structures (£32.18million), including a 877m long viaduct - rail bridge and flood zone. The route is not fully compliant with DMRB standards with one departure and five relaxations on horizontal curvature front.
Option 10A	Corridor Option 10A provides a bypass of 3km long to the eastern side of Melksham. The route is between the north of Beanacre and ties back in on the A3102 roundabout linking Sandridge common and Eastern Way. This option has the lowest construction cost from all the new/greenfield alignments (8A, 8B, 8C, 9A, 9B, 9C, 10B, 10C and 10D) - £33.80 million with £15.29million (45%) for structures cost including one viaduct of length 370m. This route is fully compliant with DMRB with one relaxation on the horizontal aspect for 100kph of design speed.
Option 10B	Corridor Option 10B is a 4.5km bypass on the Eastern side of Melksham. This is proposed between the north of Beanacre and linking back into Eastern Way. This option has a moderate cost of £44.64million and structure cost of £19.47million (i.e.44% of total construction cost) and is fully compliant with DMRB standard. This option has 420m long viaduct over rive Avon and there are total 4 junctions (roundabouts) proposed at north of A350, Lower Woodrow road, A3102 (Sandridge Common) and Eastern Way RA (Cranesbill road). This option is similar to option 10A, with higher construction cost, land take/carbon footprints and construction time.
Option 10C	Corridor Option 10C is 8.2km bypass on the Eastern side of Melksham. This is the third longest out of all long-listed options and fully bypasses Melksham and Bowerhill. The route is between north of Beanacre and ties into the A350 south of Hampton Park roundabout. The cost shows it is a financial moderate option and the estimated construction cost is £80.39million. The route includes one viaduct over the River Avon - 420m long, canal bridge, numbers of pedestrians and vehicular underpasses, drainage structures which results in a structure cost of 28% of the total construction cost (£22.83million). The whole alignment is fully compliant with the DMRB with no relaxations for the design speed of 100 kph. There are a total of 5 junctions (roundabout) located: north of A350, Lower Woodrow road, A3102 (Sandridge Common), A365 (Bath road) and A350 (south of Hampton park roundabout). This option also negotiates through HT lines and flood zones. This option has the 2nd largest carbon footprint (22.14 hectares with 69835cu-m and 298776cu-m of cut and fill quantities).
Option 10D	Corridor Option 10D is the longest bypass option of 9.4km length on the Eastern side of Melksham. The route is between north of Beanacre and ties into the A361 at the southern end, east of Littleton Roundabout. The estimated construction cost is £92.86million. This alignment crosses the river Avon twice with a viaduct arrangement (1x595m and 1x175m), two canal bridge - resulting in 33% of the total construction cost for structures (30.42million). This option includes reconstruction / maintenance work of A361(Trowbridge Road). This option has 6 proposed junctions located: north of A350, Lower Woodrow road, A3102 (Sandridge Common), A365 (Bath road), A361 (west of A361/main street junction) and at the existing A361/A350 (Littleton) roundabout. This option has the largest carbon footprint i.e. 22.99 hectares with 65461cu-m and 339308cu-m of cut and fill quantities. This option is compliant with the DMRB standard for 100kphh design speed except at the approach of the proposed roundabout at A361.

A.2. Long list highways options – design specification key features

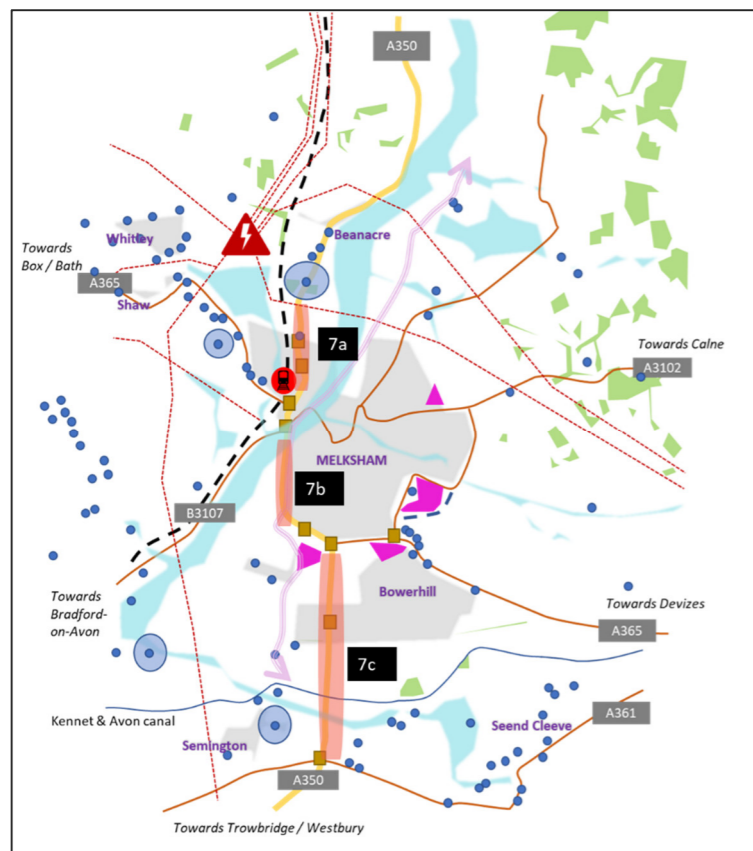
Description	Unit	Option 7A	Option 7B	Option 8A	Option 8B	Option 9A	Option 9B	Option 9C	Option 10A	Option 10B	Option 10C	Option 10D
Design Speed	km/hr	60	100	100	100	100	100	100	100	100	100	100
Proposed Length	m	680	1100	6510	9090	5090	3685	2845	2940	4440	8180	9398
Cross section	Type	Additional lane	Additional lane	Single carriageway	Single carriageway	Single carriageway	Single carriageway	Single carriageway	Single carriageway	Single carriageway	Single carriageway	Single carriageway
	m	Concentric Widening	West bound Widening	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
Total Cut	cu-m	5487	12388	20423	46697	13461	13662	6215	15851	23401	69835	65461
Total Fill	cu-m	367	8861	251562	324290	348187	169556	140897	37120	118103	298776	339308
Total Design Area / Carbon Footprint	Ha	1.77	2.36	16.22	21.94	15.38	9.27	7.47	5.83	10.42	22.14	22.99
Culverts (1200mm dia pipe)	No's	-	-	15	25	10	7	4	5	8	15	14
River Bridge	No's	-	1	1	1	-	-	-	-	1	-	2
Rail Bridge	No's	-	-	** 2 (1 consider under Viaduct)	1	2	1	-	-	-	1	-
Vehicular / Farm Underpass	No's	-	-	2	2	3	2	1			1	2
Pedestrian Underpass	No's	1	-	6	8	4	3	1	2	5	11	10
Flyover	No's	-	-	-	1	1	-	1	-	-	-	-
	m	-	-	-	110	150	-	877	-	-	-	-
Viaduct	No's	-	-	1	1	1	1	1	1	1	1	2
	m	-	-	540	490	450	640	877m	370	435	420	595
Roundabout	No's	1	2	4	5	4	2	1	3	4	5	5
Junction (Priority)	No's	2	2	-	-	3	3	-	2	-	-	-
Junction (Non priority)	No's	1	-	-	-	-	1	1	-	-	-	-
Lay-by	No's	-	-	2	2	2	2	2	2	2	2	2

Description	Unit	Option 7A	Option 7B	Option 8A	Option 8B	Option 9A	Option 9B	Option 9C	Option 10A	Option 10B	Option 10C	Option 10D
High level total construction cost - Strategic review stage	Million	£8.64	£16.10	£66.13	£102.43	£93.95	£71.62	£71.86	£39.87	£54.56	£80.39	£92.86
Structure Cost	Million	£0.56	£4.43	£27.78	£33.66	£33.66	£28.48	£31.00	£14.83	£18.92	£22.83	£30.42
Number of Departures	No's	NA	1	NA	NA	1	2	1	NA	NA	NA	NA
Number of Relaxations	No's	NA	NA	NA	NA	2	1	5	1	1	NA	NA

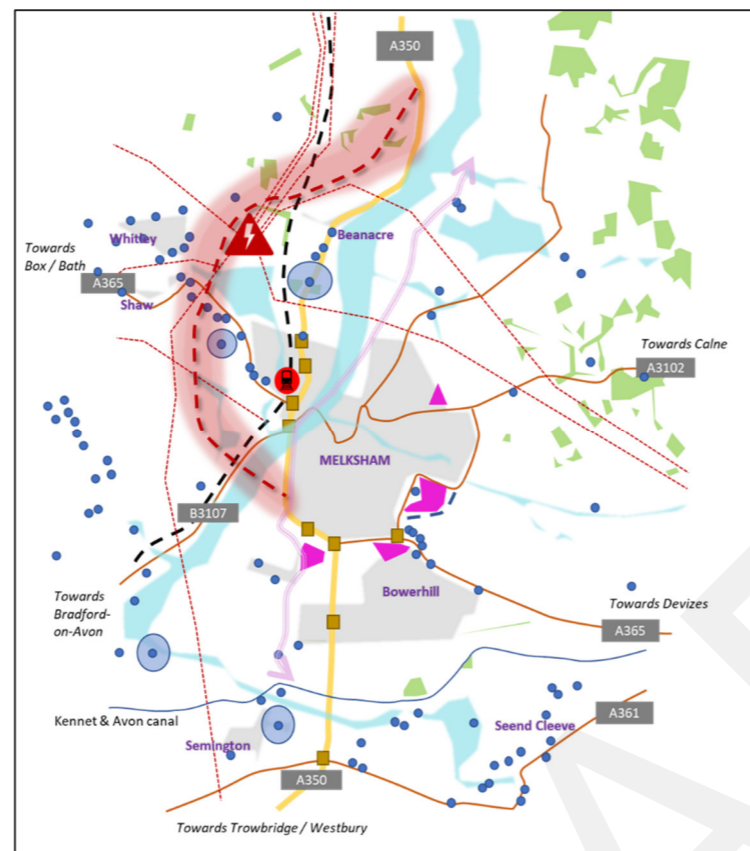
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A.3. Long-list highway options – indicative route corridors

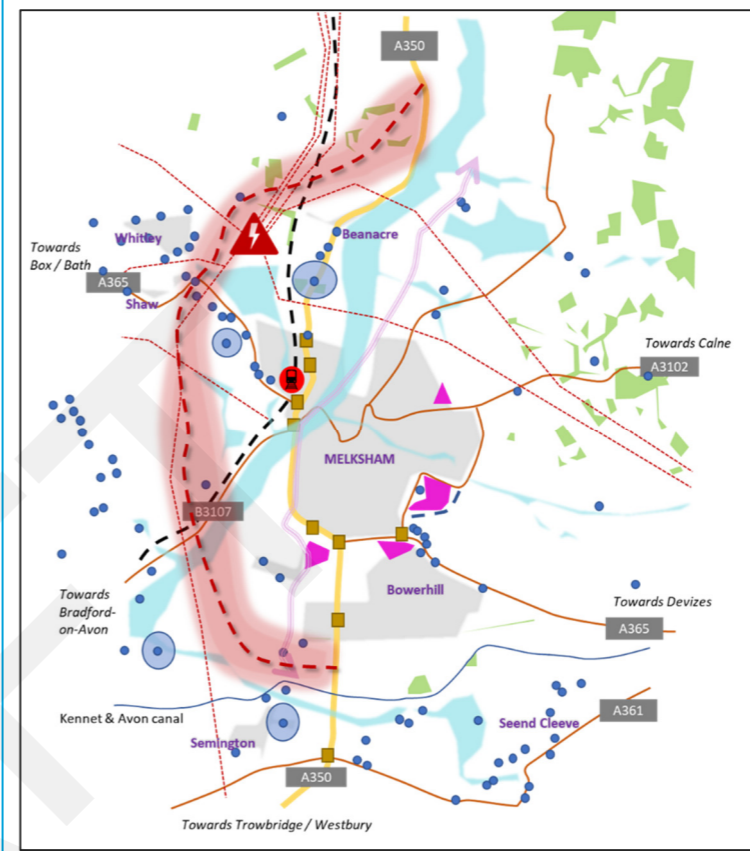
7a, 7b, 7c



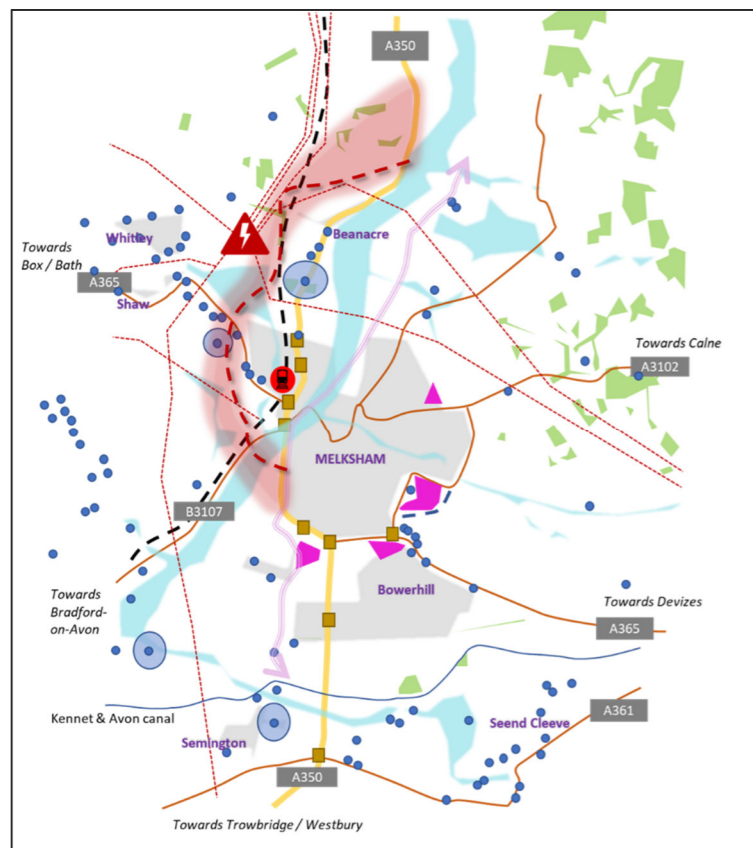
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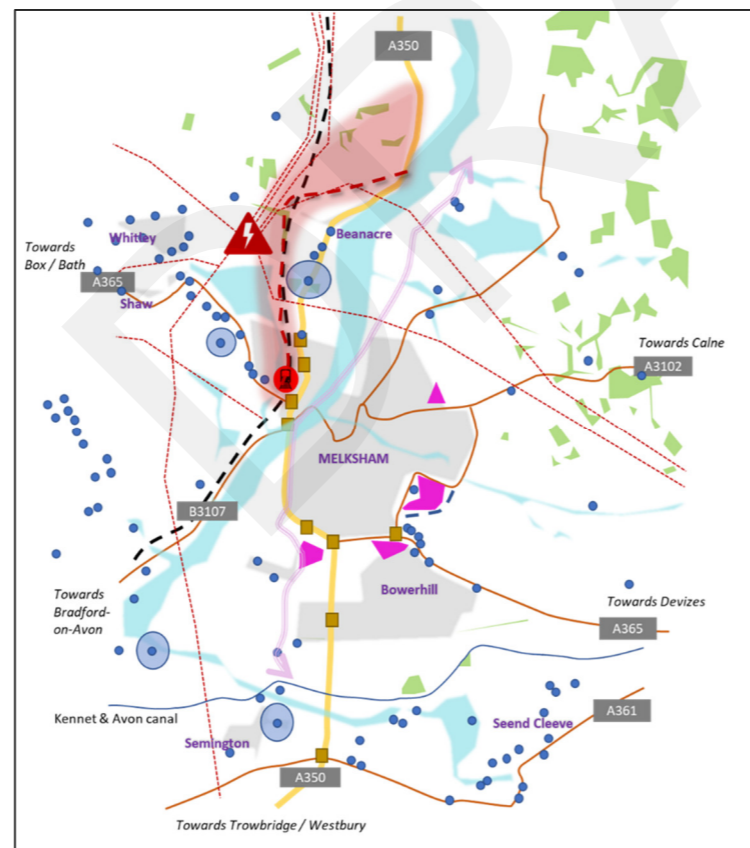
8b



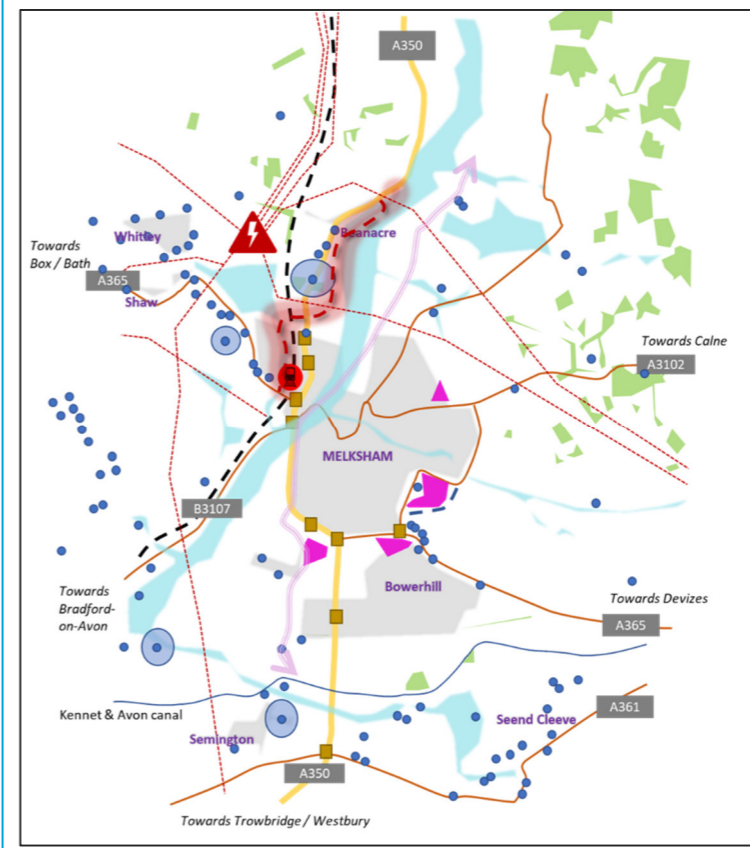
9a














9b



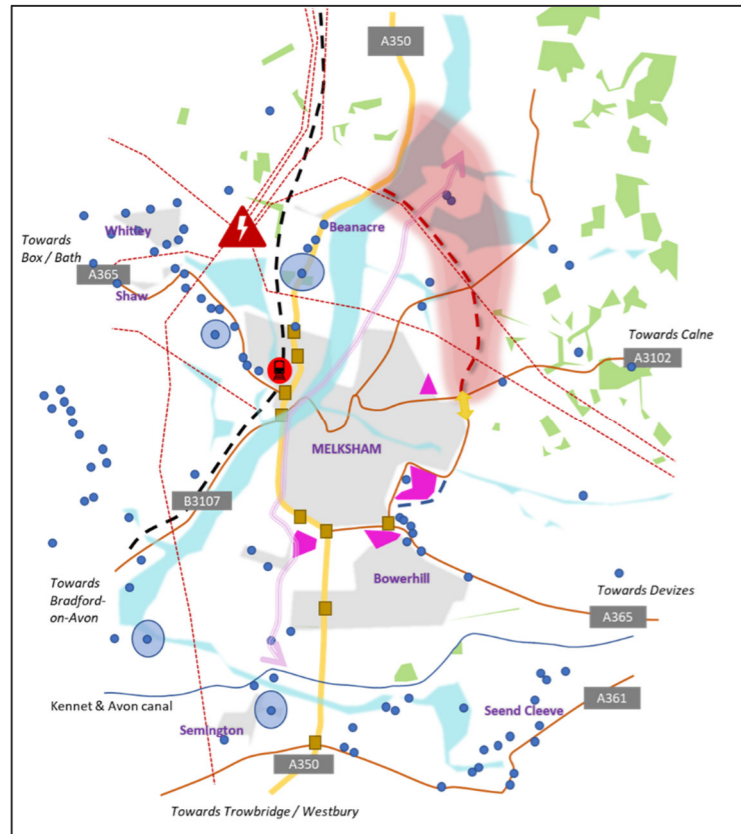
9c



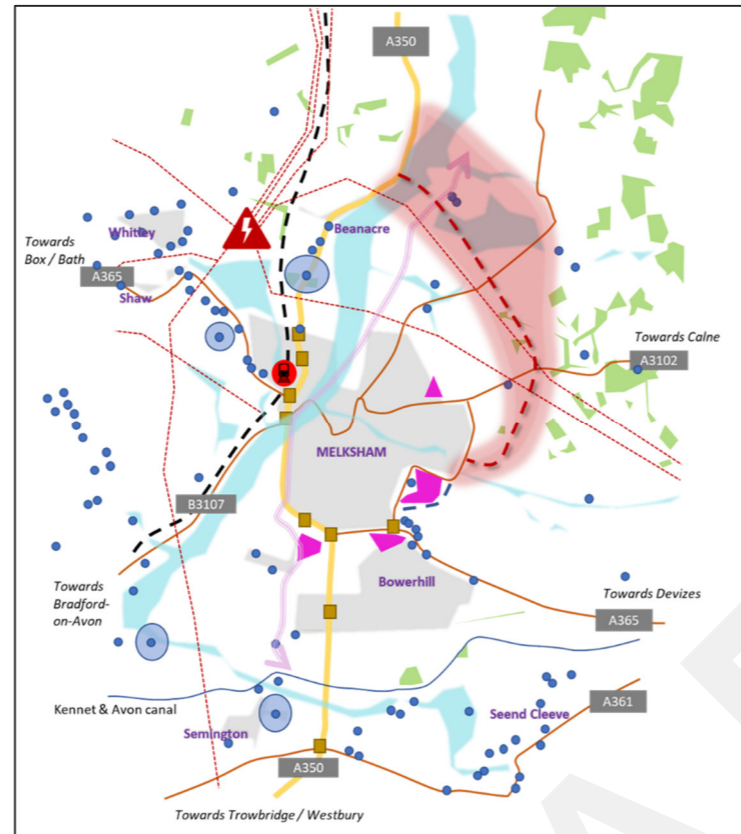
Key:

-  Indicative route corridor and representative alignment
-  Electricity sub-station
-  Power lines
-  Listed buildings
-  Key junctions
-  Railway line
-  Melksham rail station
-  Areas of woodland
-  Melksham Canal Link Project (CP16 Wiltshire Core Strategy)
-  Flood zone
-  Key housing developments

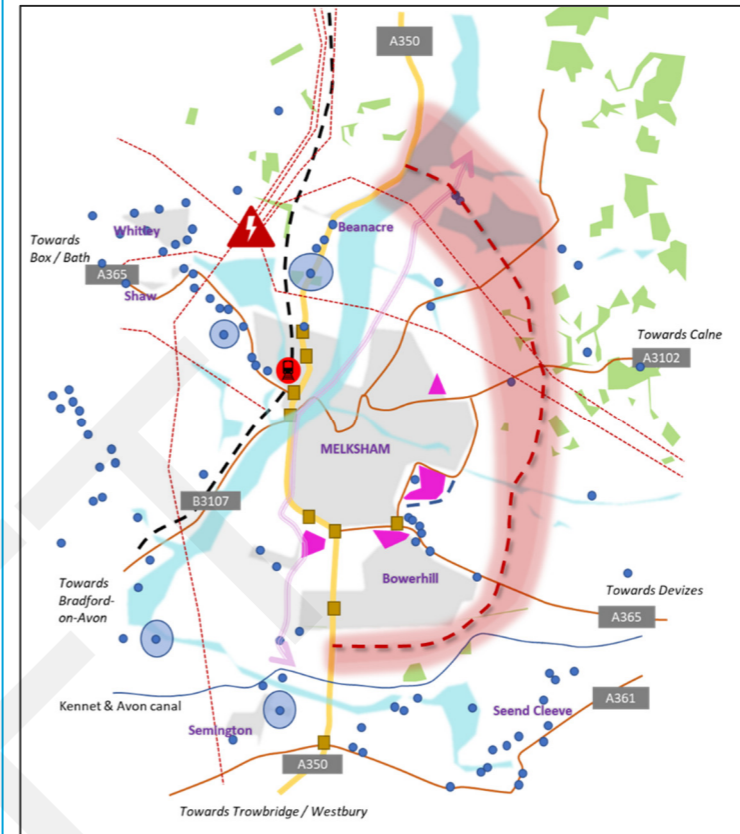
10a



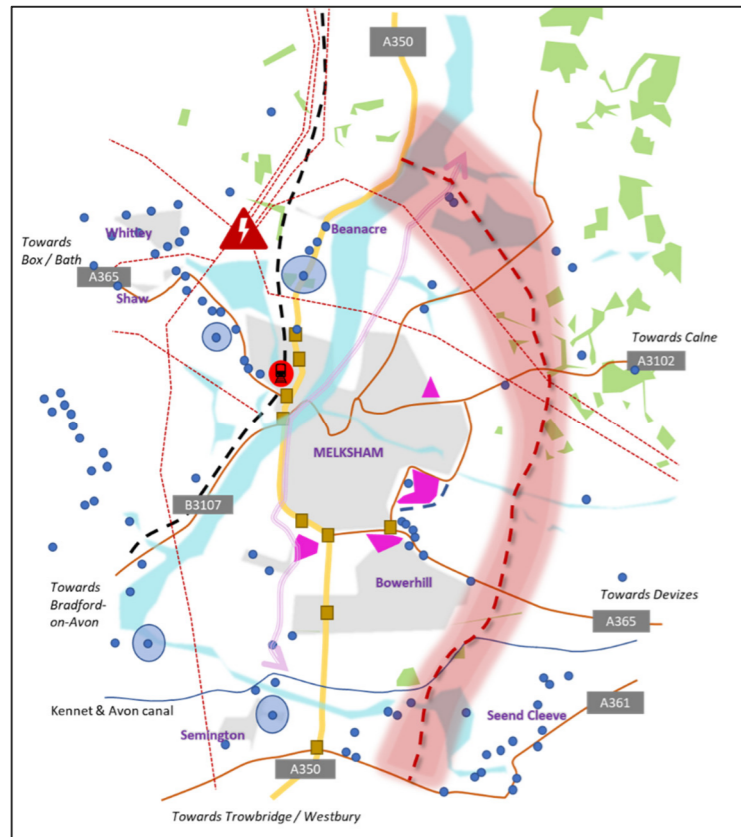
10b














10c



10d



Key:

-  Indicative route corridor and representative alignment
-  Electricity sub-station
-  Power lines
-  Listed buildings
-  Key junctions
-  Railway line
-  Melksham rail station
-  Areas of woodland
-  Melksham Canal Link Project (CP16 Wiltshire Core Strategy)
-  Flood zone
-  Key housing developments

Appendix B. Short list highway options specification

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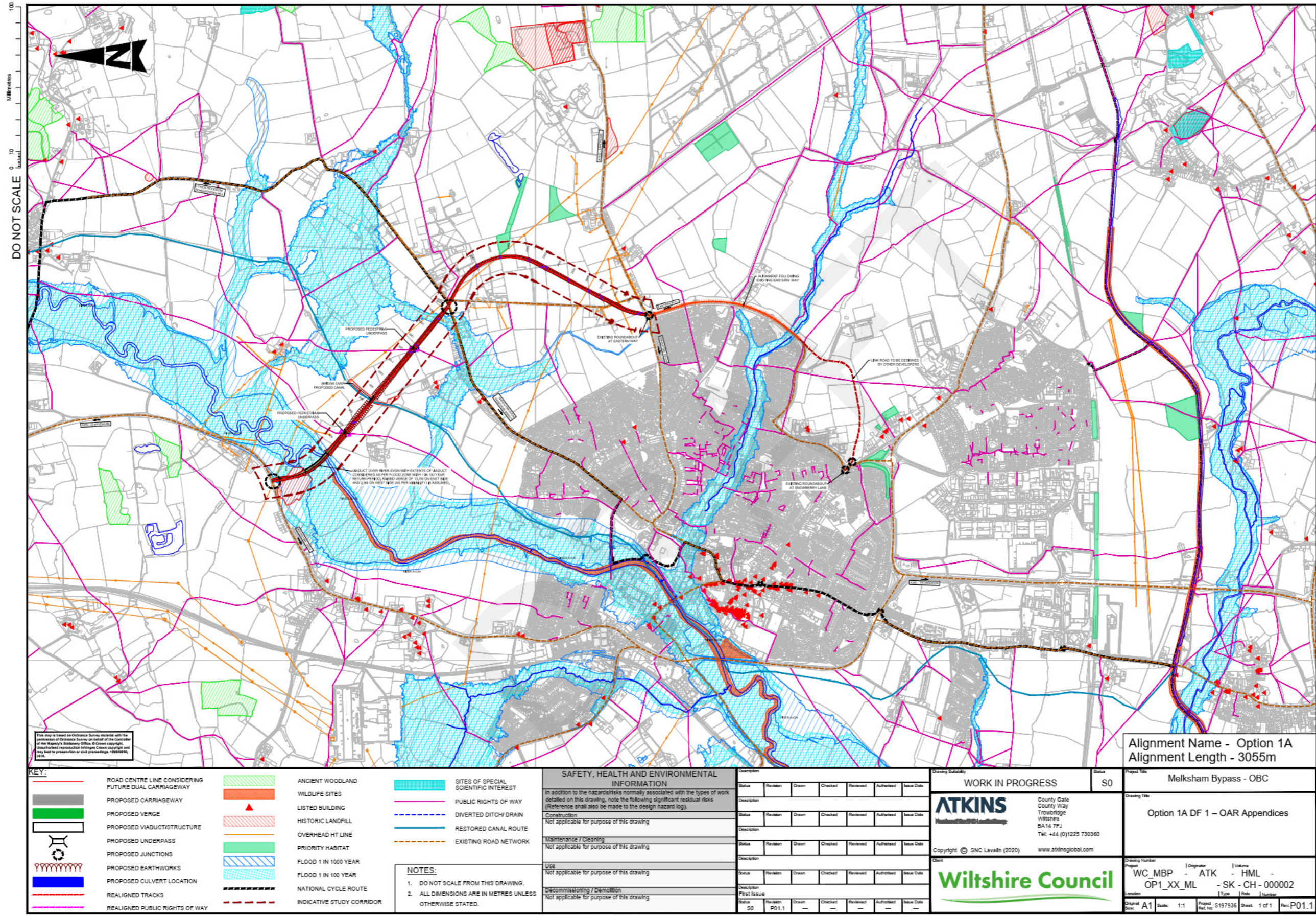
B.1. Short list highways options – design specification

Criteria	Unit	Option 1 - Intermediate bypass			Option 2 - Full bypass		
		Option 1A	Option 1B	Option 1C	Option 2A	Option 2B	Option 2C
Description		<p>Section 1 - A large viaduct and series of embankments are required to pass the route over the River Avon, over the Historical Land Fill area and number of PRow's in the countryside The route ties into the existing A350 north of Beanacre, but south of Halfway Farm with a signalised roundabout arrangement /junction.</p> <p>Section 2 - The route commences at the existing A3102 roundabout on Eastern Way. The alignment bends around established local businesses and a signalised roundabout with five arms (considering New Road as 5th arm) is located at Lower Woodrow Road</p>	<p>Section 1 - A large viaduct and series of embankments are required to pass the route over the River Avon and number of PRow's in the countryside. The route ties into the existing A350 north of Halfway Farm with a signalised roundabout arrangement/ junction.</p> <p>Section 2 - The route commences at the existing A3102 roundabout on Eastern Way. The alignment bends around established local businesses and a signalised roundabout with five arms (considering New Road as 5th arm) is located at Lower Woodrow Road</p>	<p>Section 1 - A large viaduct and series of embankments are required to pass the route over the River Avon and number of PRow's in the countryside. The route ties into the existing A350 north of Halfway Farm with a signalised roundabout arrangement/ junction.</p> <p>Section 2 - The route commences at the existing A3102 roundabout on Eastern Way. The alignment bends around established local businesses and a signalised roundabout with five arms (considering access to the slurry pits as 5th arm) is located at east of Lower Woodrow Road. A priority junction is provided just before the A3102 existing roundabout to provide access from the new road to the Melksham bypass.</p>	<p>Section 1 - A large viaduct and series of embankments are required to pass the route over the River Avon and number of PRow's in the countryside The route ties into the existing A350 north of Beanacre, but south of Halfway Farm with a signalised roundabout arrangement /junction.</p> <p>Section 2 - A signalised junction is located at the A3102. The alignment bends around established local businesses and a signalised roundabout with five arms (considering New Road as 5th arm) is located at Lower Woodrow Road.</p>	<p>Section 1 - A large viaduct and series of embankments are required to pass the route over the River Avon and number of PRow's in the countryside. The route ties into the existing A350 north of Halfway Farm with a signalised roundabout arrangement/ junction.</p> <p>Section 2 - A signalised roundabout is located at the A3102 where access to the Solar Farm at Snarlton is provided. The alignment bends around established local businesses and crosses Lower Woodrow road with a signalised roundabout with five arms (considering access to the slurry pits as 5th arm) is located at east of Lower Woodrow Road. Lower Woodrow road is a national cycle route and is diverted north away from residential properties where an overbridge maintains connectivity.</p>	
		<p>Section 3 - Traffic from A350 (south) will travel along Western Way, Spa Road, Snowberry Lane and Eastern way north of Bowerhill. Capacity of the current infrastructure to support the volume of traffic using the route is key in delivery of route option 1A. The proposed bypass alignment will connect with the existing A3102 roundabout.</p> <p>Section 4 - N/A</p>	<p>Section 3 - Traffic A350 (south) will travel along Western Way, Spa Road, Snowberry Lane and Eastern way north of Bowerhill. Capacity of the current infrastructure to support the volume of traffic using the route is key in delivery of route option 1B. The proposed bypass alignment will connect with the existing A3102 roundabout.</p> <p>Section 4 - N/A</p>	<p>Section 3 - Traffic from A350 (south) will travel along Western Way, Spa Road, Snowberry Lane, Eastern way north of Bowerhill and on existing A3102 till it meets the signalised roundabout of the Melksham bypass on A3102. Capacity of the current infrastructure to support the volume of traffic using the route is key in delivery of route option 1C. The proposed bypass alignment will connect with the existing A3102 roundabout (Eastern Way).</p> <p>Section 4 - N/A</p>	<p>Section 3 – Priority roundabout at junction with A365. The mainline passes through open countryside limiting impact to known waterbodies, ancient woodland and archaeological monuments. The alignment runs parallel to Eastern Way and seeks to limit impact to a potential housing site allocation as part of the emerging plan.</p> <p>Section 4 – Priority roundabout with signalised crossing to accommodate walking cycling communities that use MELW42. At grade alignment is positioned between Bowerhill and the Kennet and Avon Canal with overbridges to maintain connectivity of PRow's</p>	<p>Section 3 – Priority roundabout at junction with A365. The mainline passes through open countryside limiting impact to known waterbodies, ancient woodland and archaeological monuments. The alignment runs parallel to Eastern Way and seeks to limit impact to a potential housing site allocation as part of the emerging plan.</p> <p>Section 4 – Priority roundabout with signalised crossing to accommodate walking cycling communities that use MELW42. At grade alignment is positioned between Bowerhill and the Kennet and Avon Canal with overbridges to maintain connectivity of PRow's</p>	<p>Section 3 – Priority roundabout at junction with A365. The mainline passes through open countryside limiting impact to known waterbodies, ancient woodland and archaeological monuments. The alignment runs parallel to Eastern Way and seeks to limit impact to a potential housing site allocation as part of the emerging plan.</p> <p>Section 4 – Priority roundabout with signalised crossing to accommodate walking cycling communities that use MELW42. At grade alignment is positioned between Bowerhill and the Kennet and Avon Canal with overbridges to maintain connectivity of PRow's</p>

Criteria	Unit	Option 1 - Intermediate bypass			Option 2 - Full bypass		
		Option 1A	Option 1B	Option 1C	Option 2A	Option 2B	Option 2C
Design Speed	km/hr	120	120	120	100	100	100
Proposed Length	m	3055	3386	4083	7952	8283	8692
Cross section	Type	Single carriageway	Single carriageway	Single carriageway	Single carriageway	Single carriageway	Single carriageway
	m	varies between 17.3m to 20.3m	varies between 17.3m to 20.3m	varies between 17.3m to 20.3m	varies between 17.3m to 20.3m	varies between 17.3m to 20.3m	varies between 17.3m to 20.3m
Total Cut	cu-m	26337	30427	49673	78425	82515	86191
Total Fill	cu-m	169312	185360	157110	584342	600390	559194
Total Design / Footprint Area	Ha	17.23	18.37	21.62	46.94	48.08	49.44
Blacktop (Bituminous) area	m ²	28411.50	31489.80	37971.90	73953.60	77031.90	80835.60
Culverts	1200mm - No's	10	10	5	21	21	19
	900mm - No's	3	4	0	4	5	6
	600mm - No's	0	0	0	0	0	0
Viaduct	Length / No's	180m/1	315m	410m	180m	315m	410m
Proposed Canal bridge (Headroom = 3.8m)	Length / No's	40m/1	40m/1	50m	40m	40m	50m
Vehicular Underpass (Headroom = 5.5m)	No's	0	0	0	0	0	0
Farm Access Underpass (Headroom = 4.25m)	No's	0	0	0	2	2	2
Pedestrian Underpass (Headroom = 3.8m)	No's	2	1	2	8	7	8

Criteria	Unit	Option 1 - Intermediate bypass			Option 2 - Full bypass		
		Option 1A	Option 1B	Option 1C	Option 2A	Option 2B	Option 2C
Priority RA (with No ped crossings) - PRA (Road name)	No's	1 - Priority junctions at A3102 (Existing)	1 - Priority junctions at A3102 (Existing)	1 Priority junctions at A3102 (Existing)	2 Priority Junctions at A365 Bath road and A350 South	2 Priority Junctions at A365 Bath road and A350 South	2 Priority Junctions at A365 Bath road and A350 South
Signalised RA (with ped crossings) - SRA (Road name)	No's	2 Signalised Roundabout at A350 North and Lower Woodrow	2 Signalised Roundabout at A350 North and Lower Woodrow	2 Signalised Roundabout at A350 North and Lower Woodrow	2 Signalised Roundabout at A350 North and Lower Woodrow	2 Signalised Roundabout at A350 North and Lower Woodrow	3 Signalised Roundabout at A350 North, Lower Woodrow and A3102
Signalised Junction (with ped crossings) - SJ (Road name)	No's	0	0	0	1 Signalised junction at A3102	1 Signalised junction at A3102	0
Layby (For costing purpose)**	No's	1	1	2	2	2	2
High level total construction cost	Million	49.64	54.97	60.79	100.57	106.07	111.85
Structure Cost	Million	8.82	12.90	16.41	13.06	17.20	21.05
Number of Departures (Single Carriageway)	No's	0	0	1	0	0	0
Number of Relaxations (Single Carriageway)	No's	2	1	0	3	2	4
Number of Departures (Dual Carriageway)	No's	3	4	1	5	6	7
Number of Relaxations (Dual Carriageway)	No's	2	2	3	4	3	2

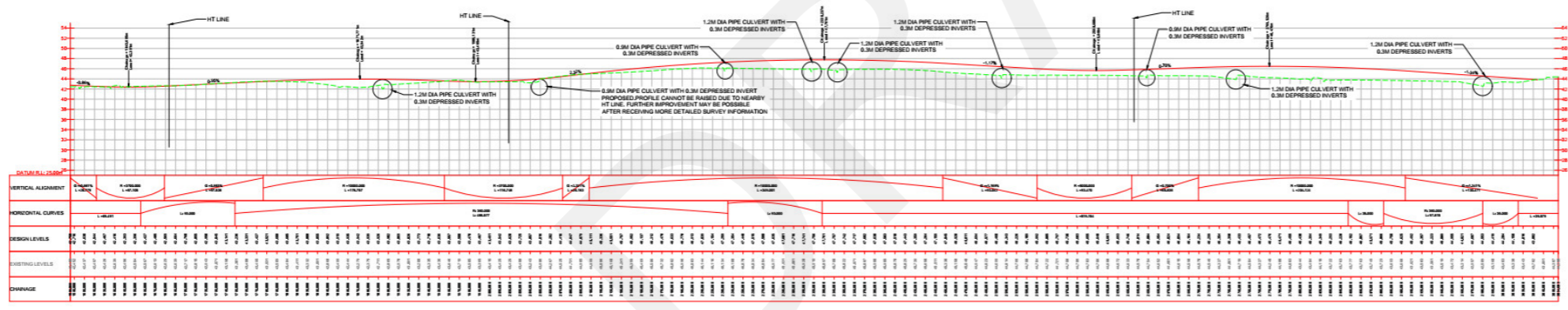
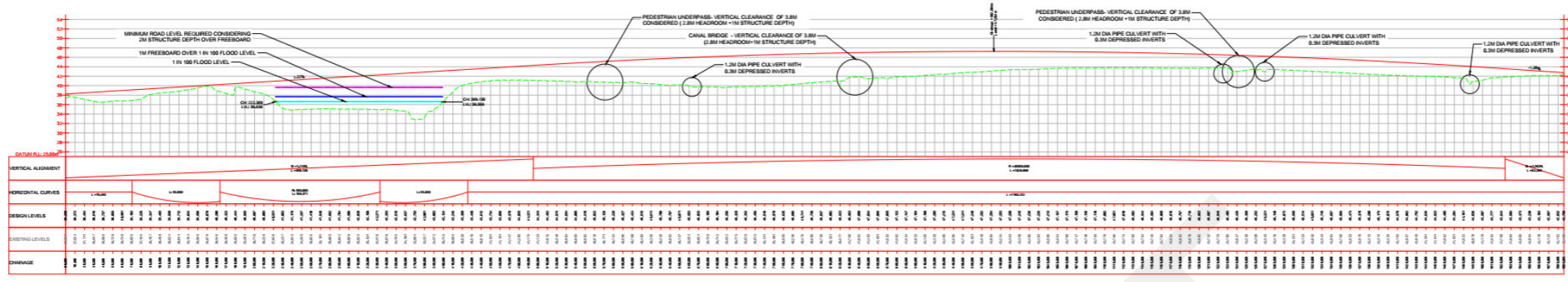
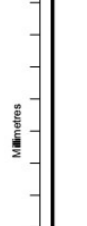
B.2. Option 1A – design drawings



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DO NOT SCALE

Meters



KEY

	PROPOSED ROAD LEVEL
	EXISTING LEVEL

NOTES:

- DO NOT SCALE FROM THIS DRAWING.
- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
- REFER DRAWING NUMBER WC_MBP-ATK-HML-OP1_XX_ML-DR-CH-000001 FOR PLAN.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction	Not applicable for purpose of this drawing
Maintenance / Cleaning	Not applicable for purpose of this drawing
Use	Not applicable for purpose of this drawing
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Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Drawing Suitability: **WORK IN PROGRESS** Status: **S0**

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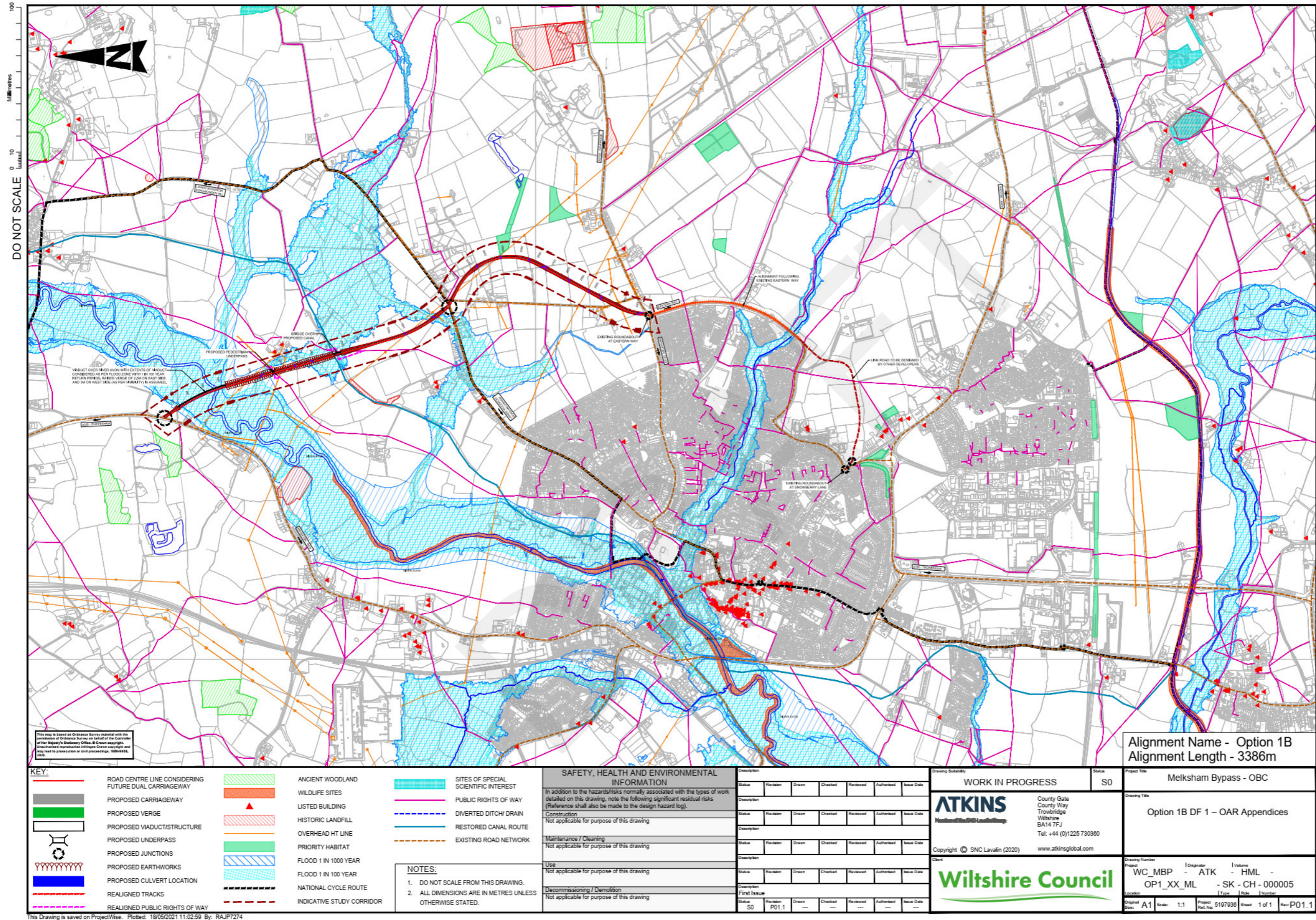
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Project Title	Melksham Bypass - OBC
Drawing Title	Shortlisted Option - 1A LongSection
Drawing Number	WC_MBP - ATK - HML - OP1_XX_ML - DR - CH - 000002
Project Ref. No.	5197936
Sheet	1 of 1
Rev	P01.1

This Drawing is saved on ProjectWise. Plotted: 30/10/2020 16:16:59 By: VELA2447

B.3. Option 1B – design drawings



Alignment Name - Option 1B
Alignment Length - 3386m

KEY:			
	ROAD CENTRE LINE CONSIDERING FUTURE DUAL CARRIAGEWAY		ANCIENT WOODLAND
	PROPOSED CARRIAGEWAY		WILDLIFE SITES
	PROPOSED VERGE		LISTED BUILDING
	PROPOSED VIADUCT/STRUCTURE		HISTORIC LANDFILL
	PROPOSED UNDERPASS		OVERHEAD HT LINE
	PROPOSED JUNCTIONS		PRIORITY HABITAT
	PROPOSED EARTHWORKS		FLOOD 1 IN 1000 YEAR
	PROPOSED CULVERT LOCATION		FLOOD 1 IN 100 YEAR
	REALIGNED TRACKS		NATIONAL CYCLE ROUTE
	REALIGNED PUBLIC RIGHTS OF WAY		INDICATIVE STUDY CORRIDOR

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION			
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).			
Construction Not applicable for purpose of this drawing			
Maintenance / Cleaning Not applicable for purpose of this drawing			
Use Not applicable for purpose of this drawing			
Decommissioning / Demolition Not applicable for purpose of this drawing			

NOTES:			
1. DO NOT SCALE FROM THIS DRAWING.			
2. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.			

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Construction							
Maintenance / Cleaning							
Use							
Decommissioning / Demolition							

WORK IN PROGRESS

ATKINS
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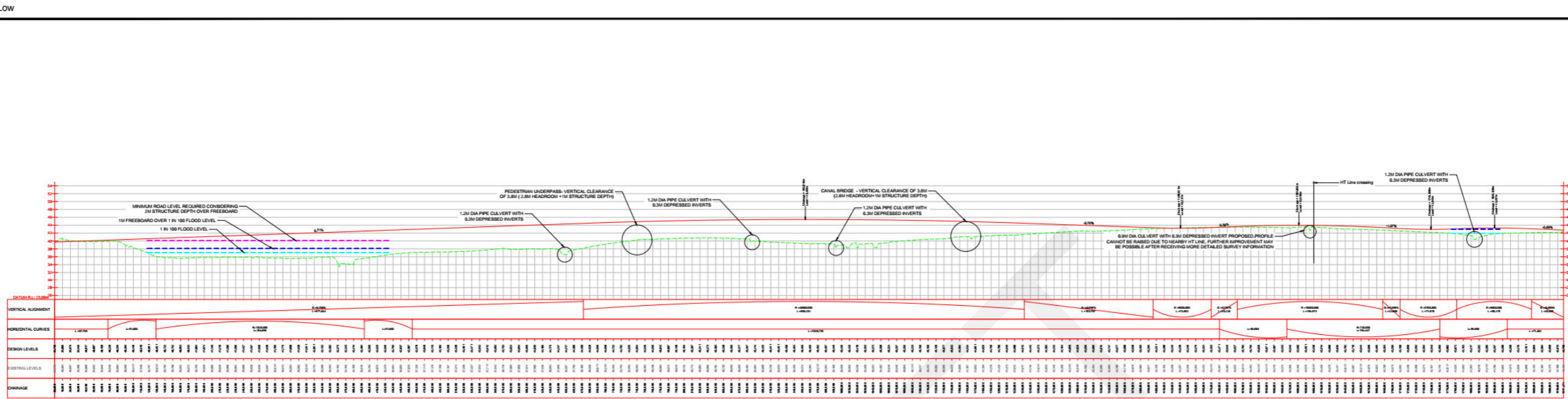
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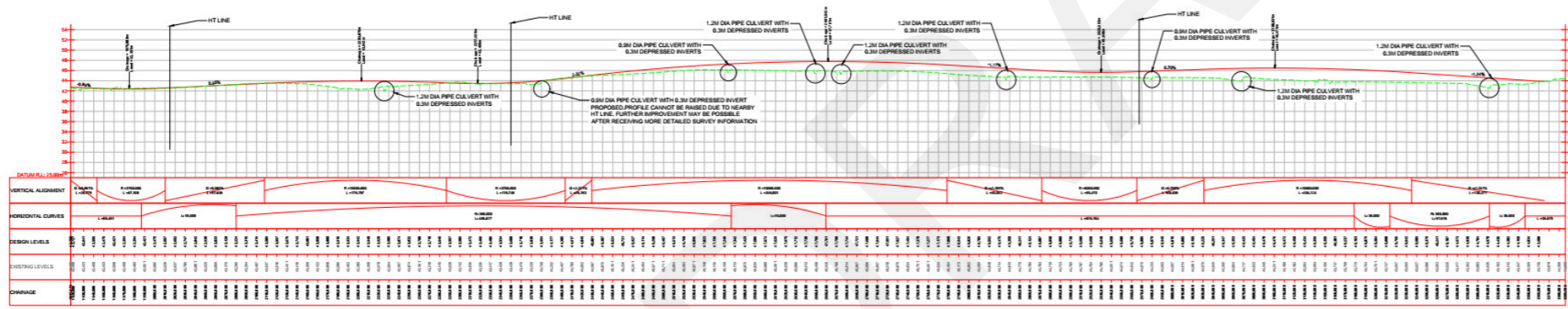
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Drawing Title	Option 1B DF 1 – OAR Appendices
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Project	OP1_XX_ML - SK - CH - 000005
Original Size	A1
Scale	1:1
Project Ref. No.	5197938
Sheet	1 of 1
Rev.	P01.1

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DO NOT SCALE
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 Meters



LONGITUDINAL SECTION VIEW001-M015-MBP-SL-S1-2
 SCALE = H: 1:1000
 V: 1:100



LONGITUDINAL SECTION VIEW002-M016-MBP-SL-S2-2
 SCALE = H: 1:1000
 V: 1:100

KEY

	PROPOSED ROAD LEVEL
	EXISTING LEVEL

NOTES:

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- REFER DRAWING NUMBER WC_MBP-ATK-HML-OP1_XX_ML-DR-CH-000003 FOR PLAN.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

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Construction
Not applicable for purpose of this drawing
Maintenance / Cleaning
Not applicable for purpose of this drawing
Use
Not applicable for purpose of this drawing
Decommissioning / Demolition
Not applicable for purpose of this drawing

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Construction							
Maintenance / Cleaning							
Use							
Decommissioning / Demolition							

WORK IN PROGRESS Status: S0

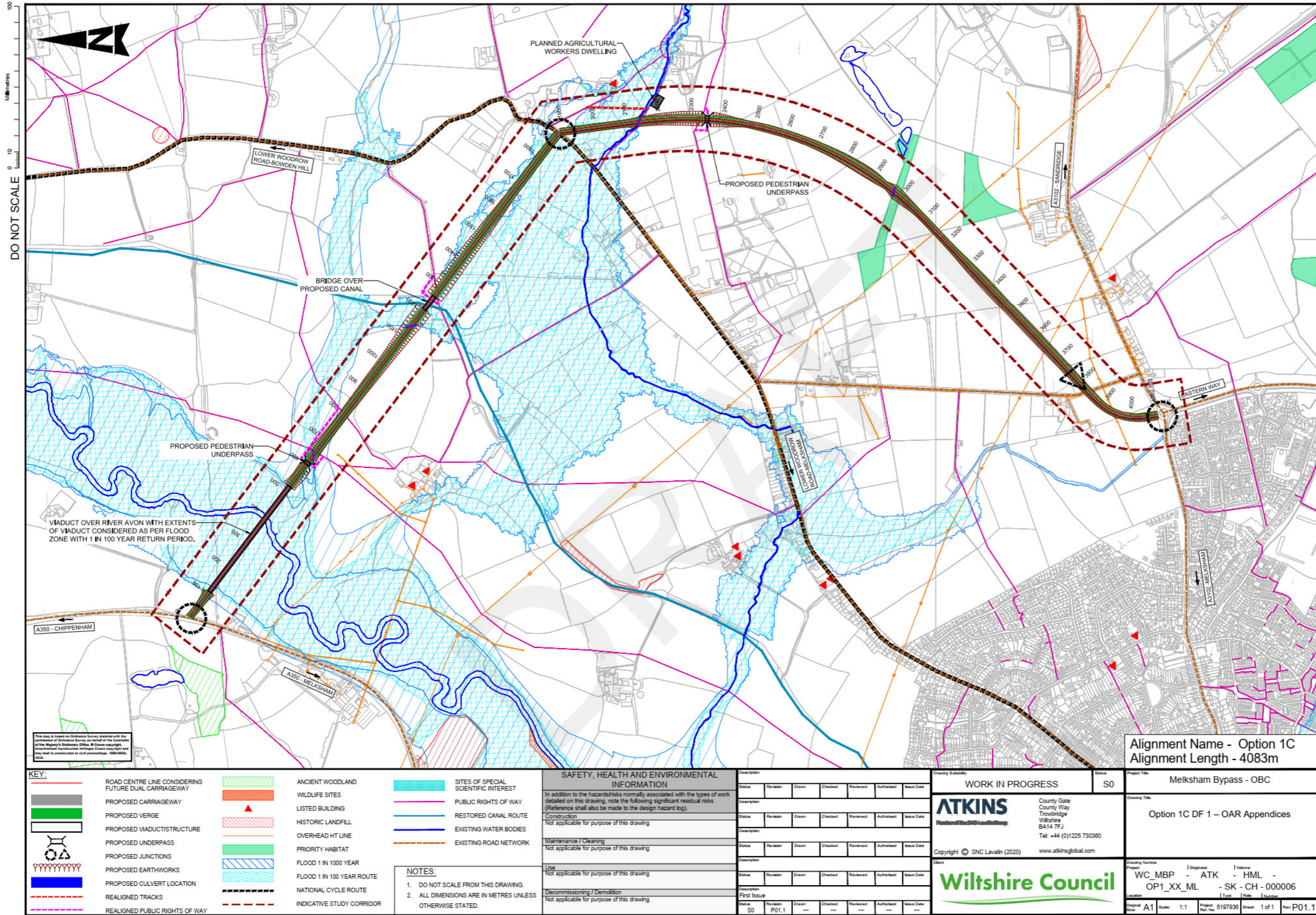
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Project Title: Melksham Bypass - OBC	
Drawing Title: Shortlisted Option - 1B LongSection	
Project: WC_MBP - ATK - HML - OP1_XX_ML	Volume: - DR - CH - 000004
Location: A1	Sheet: 1 of 1

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B.4. Option 1C – design drawings



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KEY:		SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
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	PROPOSED CARRIAGEWAY		WILDLIFE SITES
	PROPOSED VERGE		LISTED BUILDING
	PROPOSED VIADUCT/STRUCTURE		HISTORIC LANDFILL
	PROPOSED UNDERPASS		OVERHEAD HT LINE
	PROPOSED JUNCTIONS		PRIORITY HABITAT
	PROPOSED EARTHWORKS		FLOOD 1 IN 1000 YEAR
	PROPOSED CULVERT LOCATION		FLOOD 1 IN 100 YEAR ROUTE
	REALIGNED TRACKS		NATIONAL CYCLE ROUTE
	REALIGNED PUBLIC RIGHTS OF WAY		INDICATIVE STUDY CORRIDOR

NOTES:
 1. DO NOT SCALE FROM THIS DRAWING.
 2. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.

Description		Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Construction								
Maintenance / Cleaning								
Use								
Decommissioning / Demolition								

Alignment Name - Option 1C
Alignment Length - 4083m

Project Title: Melksham Bypass - OBC
 Drawing Title: Option 1C DF 1 – OAR Appendices

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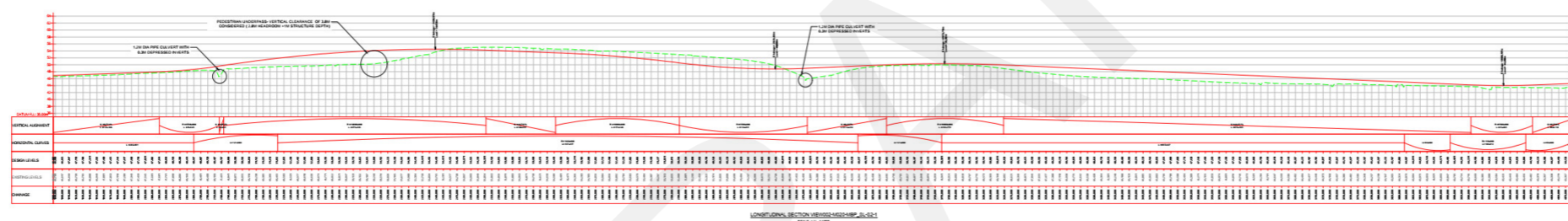
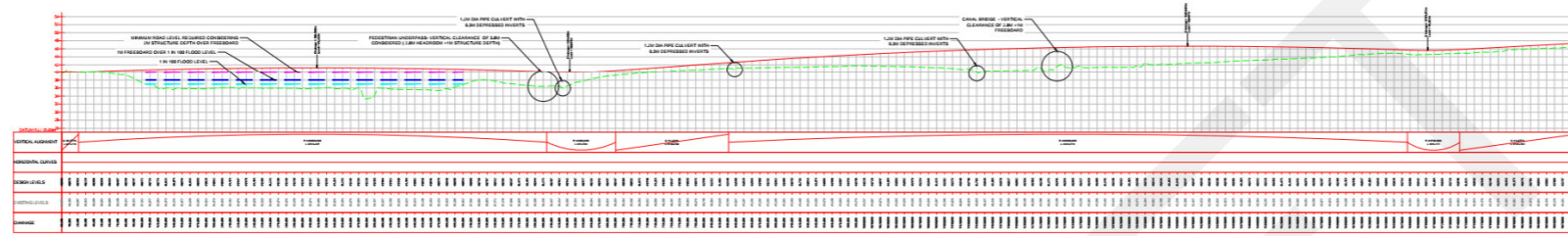
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 OP1_XX_ML - SK - CH - 000006

Original Size: A1 Scale: 1:1 Project Ref: 5197936 Sheet: 1 of 1 Rev: P01.1

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DO NOT SCALE

0 10 100
Millimetres



KEY

—	PROPOSED ROAD LEVEL
---	EXISTING LEVEL

NOTES:

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- REFER DRAWING NUMBER WC_MBP-ATK-HML-OP1_XX_ML-DR-CH-000005 FOR PLAN.

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Construction
Not applicable for purpose of this drawing

Maintenance / Cleaning
Not applicable for purpose of this drawing

Use
Not applicable for purpose of this drawing

Decommissioning / Demolition
Not applicable for purpose of this drawing

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

WORK IN PROGRESS Status: **S0**

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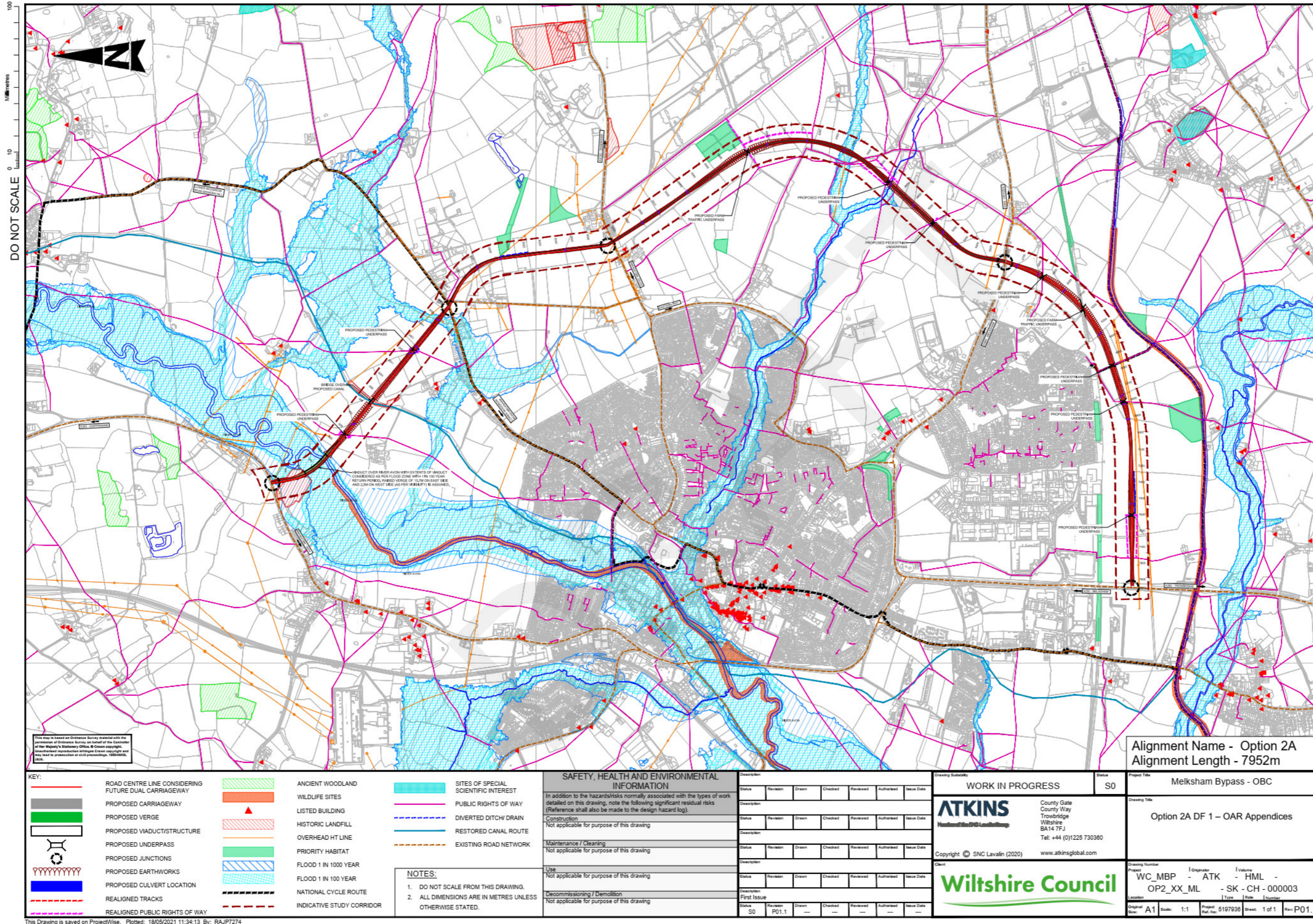
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Client:
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Project Title: Melksham Bypass - OBC	
Drawing Title: Option-1C Long Section	
Drawing Number: WC_MBP - ATK - HML - OP1_XX_ML - DR - CH - 000006	Originator: ATK Volume: HML
Location: Wiltshire	Type: DR - CH Number: 000006
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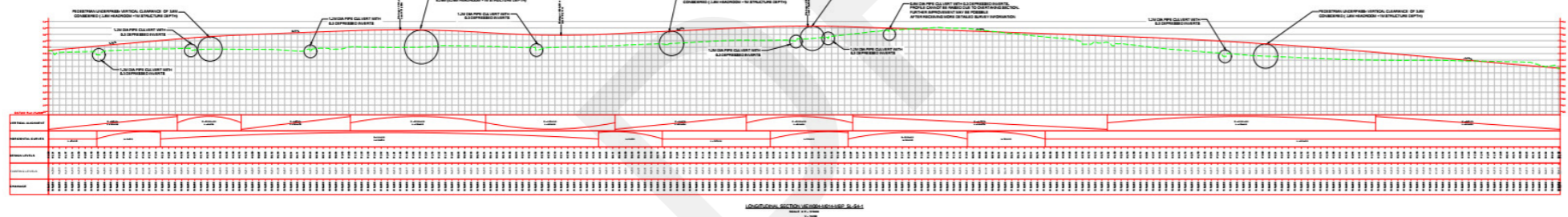
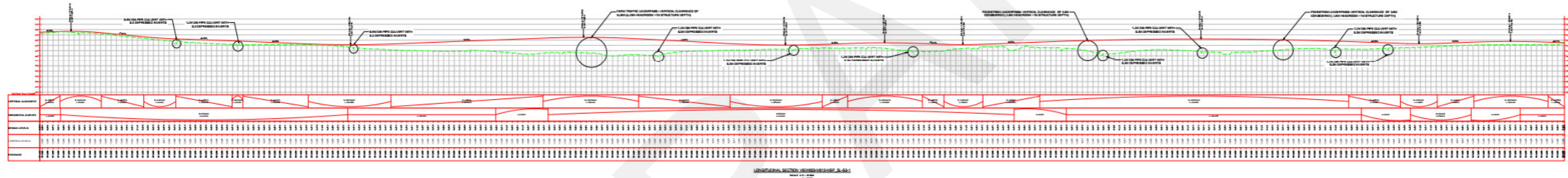
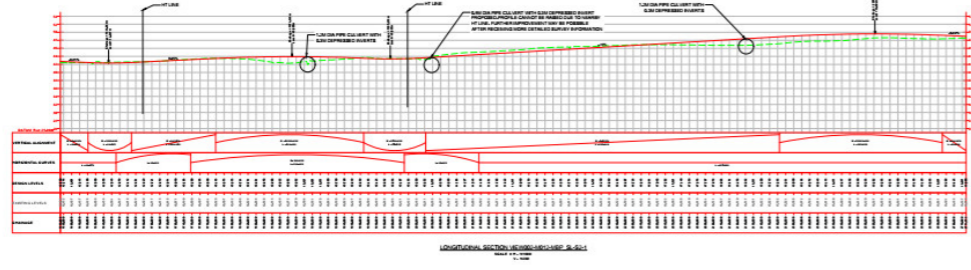
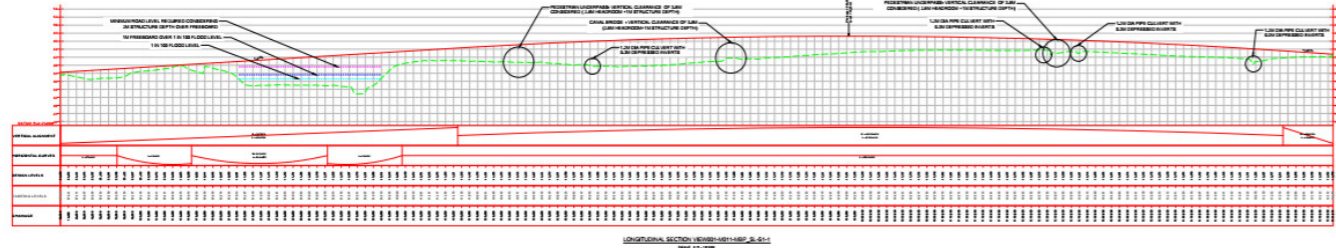
B.5. Option 2A – design drawings



DO NOT SCALE

LOW

100
0
10
Metres



KEY

—	PROPOSED ROAD LEVEL
- - - -	EXISTING LEVEL

NOTES:

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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction	Not applicable for purpose of this drawing
Maintenance / Cleaning	Not applicable for purpose of this drawing
Use	Not applicable for purpose of this drawing
Decommissioning / Demolition	Updated section 3 & 4 similar to option 2C

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date

Drawing Status: **WORK IN PROGRESS**

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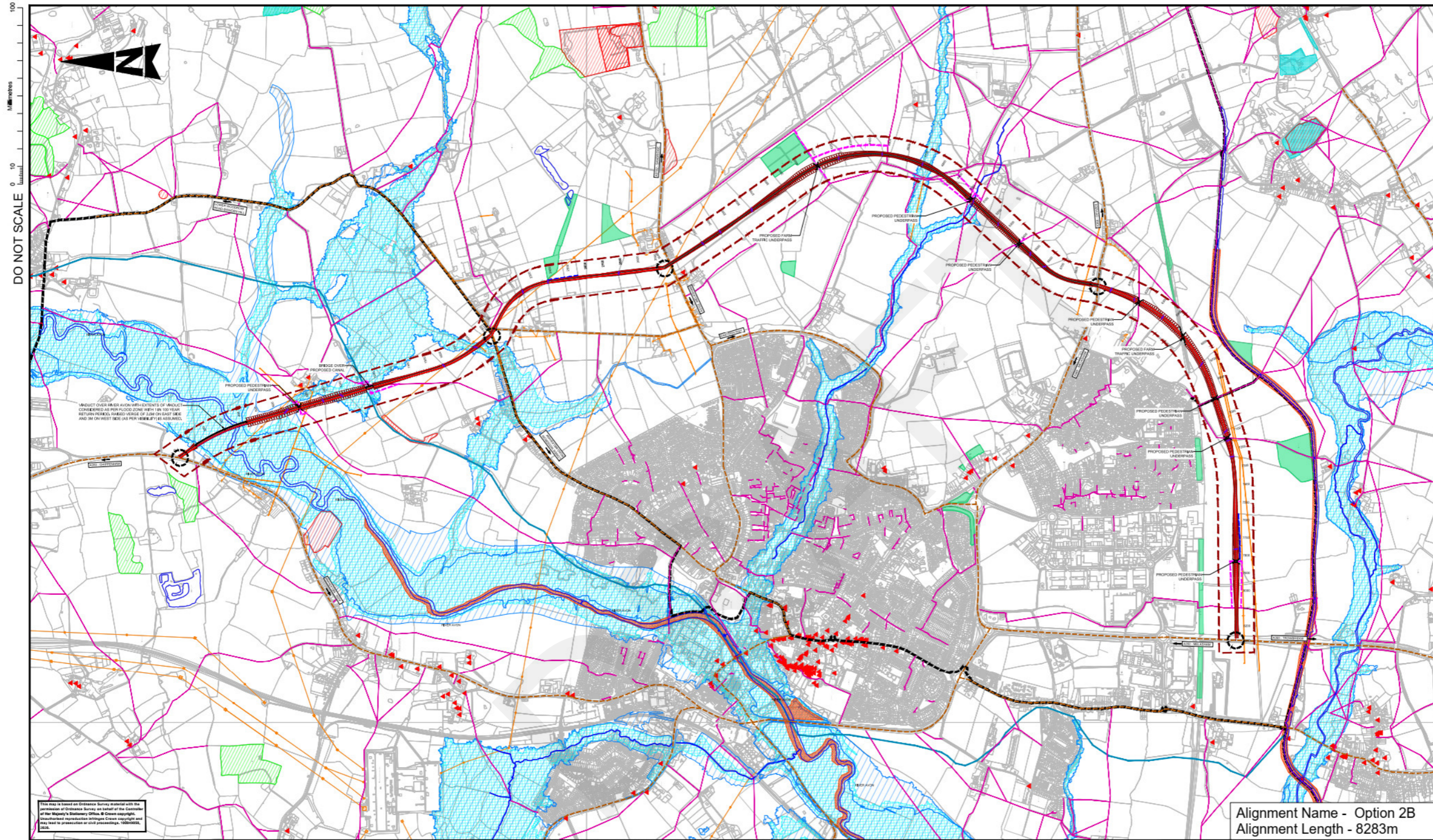
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Drawing Title	Melksham Bypass - OBC		
Drawing Type	Shortlisted Option - 2A LongSection		
Drawing Number	Project	Originator	Volume
WC_MBP - ATK - HML -	OP2_XX_ML	DR - CH - 000006	
Location	Type	Rate	Number
Original size: A1	Scale: AS SHOWN	Project Ref. No: 5197936	Sheet: 1 of 1 Rev: P01.2

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B.6. Option 2B – design drawings



Alignment Name - Option 2B
Alignment Length - 8283m

KEY:

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	PROPOSED CARRIAGEWAY		WILDLIFE SITES		PUBLIC RIGHTS OF WAY
	PROPOSED VERGE		LISTED BUILDING		DIVERTED DITCH/ DRAIN
	PROPOSED VIADUCT/STRUCTURE		HISTORIC LANDFILL		RESTORED CANAL ROUTE
	PROPOSED UNDERPASS		OVERHEAD HT LINE		EXISTING ROAD NETWORK
	PROPOSED JUNCTIONS		PRIORITY HABITAT		
	PROPOSED EARTHWORKS		FLOOD 1 IN 1000 YEAR		
	PROPOSED CULVERT LOCATION		FLOOD 1 IN 100 YEAR		
	REALIGNED TRACKS		NATIONAL CYCLE ROUTE		
	REALIGNED PUBLIC RIGHTS OF WAY		INDICATIVE STUDY CORRIDOR		

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction
 Not applicable for purpose of this drawing

Maintenance / Cleaning
 Not applicable for purpose of this drawing

Use
 Not applicable for purpose of this drawing

Decommissioning / Demolition
 Not applicable for purpose of this drawing

NOTES:

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Project Title: Melksham Bypass - OBC

Drawing Title: Option 2B DF 1 – OAR Appendices

Drawing Number: WC_MBP - ATK - HML - OP2_XX_ML - SK - CH - 000004

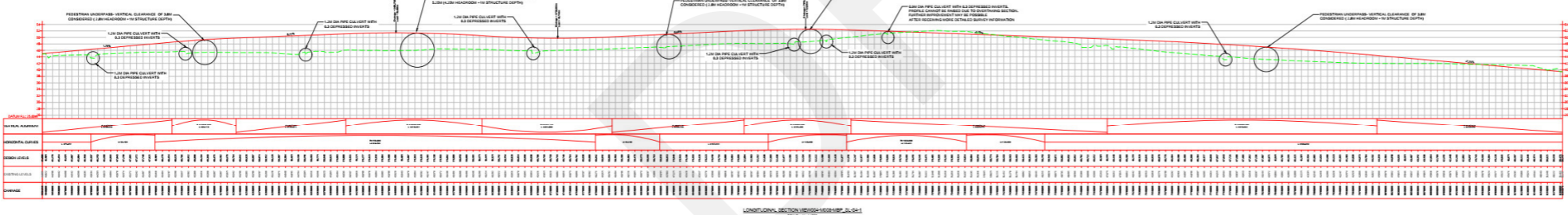
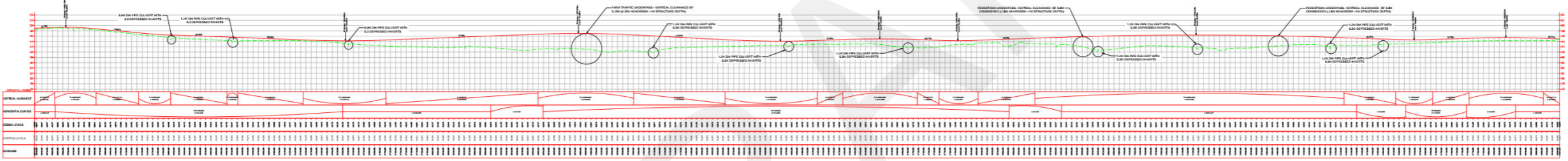
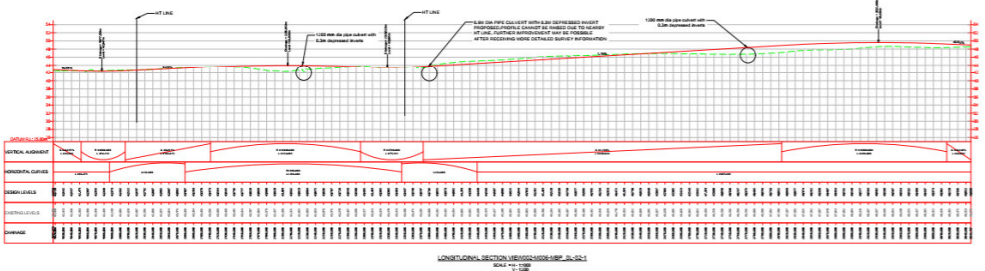
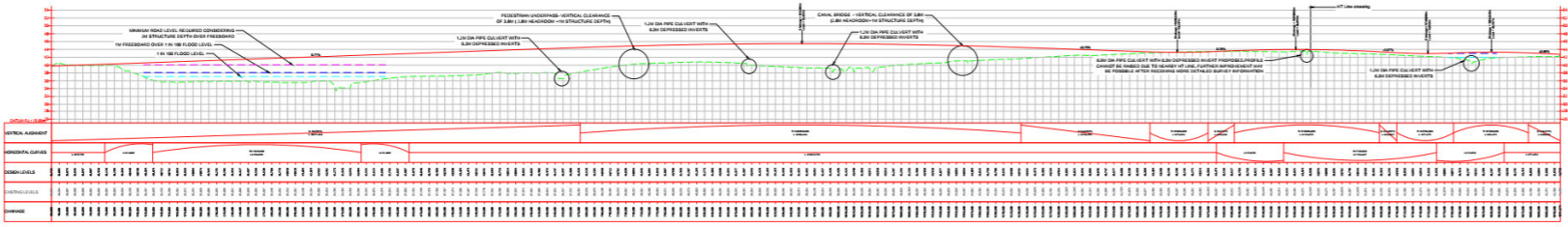
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Low

DO NOT SCALE

Millimetres
0 10 100



KEY

—	PROPOSED ROAD LEVEL
- - -	EXISTING LEVEL

NOTES:

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In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

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Maintenance / Cleaning	Not applicable for purpose of this drawing
Use	Not applicable for purpose of this drawing
Decommissioning / Demolition	Not applicable for purpose of this drawing

Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Updated section 3 & 4 similar to option 2C	S0	P01.2					

Drawing Substability: **WORK IN PROGRESS** Status: **S0**

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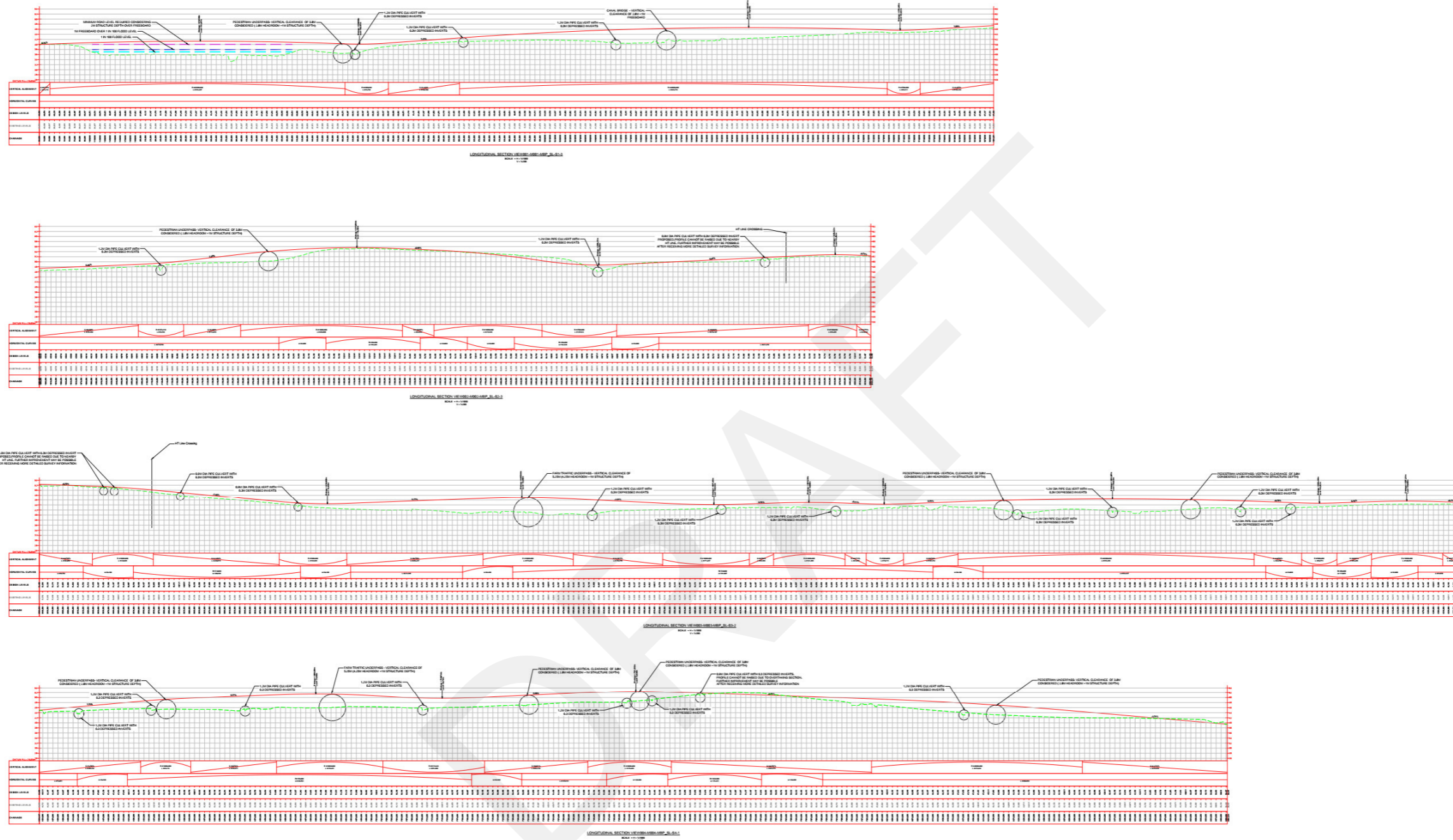
Client: **Wiltshire Council**

Project Title	Melksham Bypass - OBC
Drawing Title	Shortlisted Option - 2B Long Section Sheet
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Project	Originator: HML - DR - CH - 000004
Location	Type: DR - CH - 000004
Original Size: A1	Scale: AS SHOWN
Project Ref. No: 5197936	Sheet: 1 of 1
Rev: P01.2	

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DO NOT SCALE

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Millimetres



KEY	
	PROPOSED ROAD LEVEL
	EXISTING LEVEL

NOTES:

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- REFER DRAWING NUMBER WC_MBP-ATK-HML-OP2_XX_ML-DR-CH-000001 FOR PLAN.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).	
Construction	Not applicable for purpose of this drawing
Maintenance / Cleaning	Not applicable for purpose of this drawing
Use	Not applicable for purpose of this drawing
Decommissioning / Demolition	Not applicable for purpose of this drawing

Description		Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
WORK IN PROGRESS		S0						

Project Title		Melksham Bypass - OBC	
Drawing Title		Shortlisted Option-2C Long section	
Drawing Number	Project	Originator	Volume
WC_MBP - ATK - HML -	OP2_XX_ML - DR - CH - 000003		
Location	Type	Rate	Number
A1	Scale AS SHOWN	Project Ref. No. 5197936	Sheet: 1 of 1 Rev: P01.2

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Appendix C. Environmental Assessment (short list options)

C.1. Introduction

A qualitative high-level assessment of the six short list route options has been undertaken to assist the options assessment process. It covers the following environmental topics:

- Air quality;
- Noise and vibration;
- Biodiversity;
- Water environment;
- Landscape and visual;
- Soils and geology;
- Cultural heritage;
- Materials and waste;
- Population and health;
- Climate effects; and
- Climate vulnerability.

C.2. Methodology

Collation and review of all relevant and readily available baseline information relating to the environmental topics listed above has been undertaken. The assessment has identified key receptors and impacts for each route option and a seven-point qualitative scale has been used to assess and score the potential environmental impacts for each option as shown below. Where feasible, mitigation opportunities for each option have been identified.

7	large beneficial
6	moderate beneficial
5	slight beneficial
4	neutral
3	slight adverse
2	moderate adverse
1	large adverse

The methodology used to undertake the options assessment for each environmental topic is outlined below.

C.2.1. Air quality

A qualitative assessment has been undertaken to assess the impacts of the six short list route options on air quality.

The methodology consisted of the collation and review of existing air quality designations, i.e. Air Quality Management Areas (AQMA) and a desktop study, using GIS, to identify constraints for each of the considered options. Option specific traffic data were not available at the time of the assessment and as such this review consists of a qualitative review of constraints and potential impacts.

Key input data, including information on existing air quality designations and sensitive receptor locations within the study area were obtained from the following sources:

- AQMAs from DEFRA's Air Information Resource (UK – AIR);
- Information on road links in DEFRA's Pollution Climate Mapping (PCM) model used to assess compliance with EU Air Quality Directive;

- Statutory ecological sites and parcels of ancient woodland from the project WebGIS; and
- Residential properties from the ESRI Topographic Mapping base layer in the project WebGIS.

C.2.2. Noise and vibration

A qualitative assessment has been undertaken to assess the impacts of the six short list route options on noise and vibration.

Desk-based GIS review of Scheme alignments with regard to potential for noise impact according to methodology outlined in LA111.

Key input data included:

- Atkins WebGIS Viewer
- Extrim England Noise Map Viewer
- Google Maps
- Indicative traffic data

C.2.3. Biodiversity

A qualitative assessment has been undertaken to assess the impacts of the six short list route options on biodiversity.

Designated sites and Habitats

A review of the Multi-agency Geographic Information for the Countryside (MAGIC) website³⁷ has been undertaken to inform the likelihood and potential severity of impact.

The extent of the study areas used are listed below:

- 30 km from the options for identification of European Sites where bats are one of the qualifying features;
- 2 km from the options (extended to 10 km where there is a direct hydrological connection) for identification of all other statutory designated nature conservation sites, including European Sites, Site of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and Local Nature Reserves (LNRs);
- 1 km from the route options for identification of non-statutory designated nature conservation sites.
- A review of all granted European Protected Species (EPS) licences for great crested newts (GCN) and bats (within 1 km and 2 km respectively) available from the MAGIC website was also completed; and
- Identification of records of priority habitats and ancient woodland within the road alignment and up to 1 km from the road alignment³⁸.

Watercourses and ponds

Watercourses were identified where there were direct interactions with the route options e.g. a new or existing crossing. Available Scheme drawings were then reviewed to determine the potential severity of impacts to these watercourses.

Various open source data were reviewed, chiefly:

- Magic website for information on statutory sites and priority habitats;
- Natural England ancient woodland inventory;
- Woodland Trust ancient tree inventory;
- Environment Agency Cycle 2 Water Framework Directive (WFD)³⁹ river, canal and surface water transfer water bodies;
- Environment Agency Main River map; and
- Ordnance Survey (OS) Open Rivers layer and MasterMap watercourses layer.

Ponds within 150 m of each option were identified using OS MasterMap inland water layer. Available Scheme drawings were then reviewed to determine the potential severity of impacts to these standing water features.

³⁷ Defra. c2020. Magic Map Application. [Online]. [Accessed July 2020]. Available from: <https://magic.defra.gov.uk/MagicMap.aspx>

³⁸ The study area for these habitats will be extended for later stages of the project, once the working corridor is known.

³⁹ The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003.

Non-statutory designated sites

The Local Records Centre, Wiltshire and Swindon Biological Records Centre, was contacted to obtain data on non-statutory designated sites within 1 km of the route options, as well as protected and priority species within 1 km of the proposed route (or 2 km in the case of bat species).

Surveys

This assessment is also informed by the results of the extended Phase 1 habitat survey, which aimed to classify the habitats in the area, as well as determine protected species evidence / habitat suitability. The survey area of the extended Phase 1 habitat survey was the six route options plus a 250 m buffer area (where access permitted).

Further Phase 2 surveys have not been commissioned at the time of writing this report. The assessment is therefore limited to the Phase 1 habitat survey and desk study information. The assessment is also limited in part by the following survey access restrictions:

- During the Phase 1 habitat surveys, not all land parcels allowed access, which means the whole survey area was not covered; and
- The Phase 1 habitat surveys were conducted outside of the main plant growing season, which means that identification of all plants may not have been possible.

Further surveys have been recommended on these land parcels as part of the Phase 2 surveys in order to identify any plant species missed initially.

At the time of writing this assessment, the Phase 1 habitat survey data has not been fully analysed and any assessment in this report is therefore interim.

Assumptions

The impacts discussed in the impacts column are not exhaustive, and other impacts will be likely, this will become more apparent following Phase 2 surveys.

The options assessment for watercourses and pond habitats does not include the inclusion of any field data or data from the local biodiversity record centres, as this was not available at the time of producing this assessment. This is therefore considered to be a significant limitation as the analysis is based on incomplete data; it does however provide an overview of potential impacts and is considered to provide an appropriate high-level review for this stage of the project.

Only watercourses identified on the WFD, main river and OS Open Rivers and OS Master Map inland water watercourse and static water layers have been reviewed for the biodiversity assessment. Potential impacts to minor ordinary watercourses, such as agricultural drainage ditches have not been considered at this stage. Whilst this limits the assessment of potential effects on aquatic habitats, it is considered to be an appropriate level of detail for an initial screening of options.

The number of watercourses crossed by each option is based on each route alignment as of 3rd February 2021. This does not include any construction footprint at this stage, although consideration has been given to watercourses which run adjacent to options on a case by case basis using professional judgement.

The assessment assumes good practice pollution prevention measures would be in place during construction and any required new outfalls would be attenuated to greenfield runoff rates. As such, only watercourse interactions with the likely Scheme footprints are considered to result in impacts to aquatic habitats at this stage.

The existing Kennet and Avon Canal is not crossed by any of the routes and >150 m from the options. As such, potential impacts on aquatic species has been excluded.

C.2.4. Water environment

A desk-based qualitative impact assessment has been undertaken by collating and reviewing relevant and readily available baseline information relating to the water environment. The identification of impacts, including the likelihood and potential severity of the impact has taken into consideration the nature of the proposed route option.

DMRB LA113 guidance has been used as a guide in assigning the impact score.

Key input data included:

- Local environmental data;
- Environment Agency Open Data;
- OS mapping;

- Historical mapping (National Library of Scotland); and
- Satellite imagery (Bing maps).

Assumptions

The assessment has assumed the following:

- Direct discharge from surface water outfalls to receptors of very high to high importance.
- Bridge crossings of named larger watercourses and culvert crossings of smaller watercourses.
- Floodplain compensation is provided on a volume for volume basis, but due to the nature of the watercourse crossings (in particular the Avon viaduct) additional mitigation would probably be required over and above this minimum requirement.
- Culverts will be provided in location where surface water overland paths exist but where there is no watercourse.

C.2.5. Landscape and visual

A qualitative desktop-based appraisal has been undertaken to assess the likelihood and potential severity of landscape and visual impacts of the six short list route options.

Key input data included:

- Local Landscape Character Assessments;
- Natural England's Magic website;
- Google Earth;
- OS base plans; and
- Engineering plans for each option.

The appraisal consisted of:

- A review of the engineering description and design for each option;
- A review of previous assessment reports;
- Collation and review of all relevant and readily available baseline environmental conditions data;
- A desktop-based appraisal of the likelihood and potential severity of impact, given the nature of intervention option; using GIS and Google Earth to aid understanding of site; and
- The use of professional judgement to anticipate the likely outcome of a full Landscape and Visual Impact Assessment (LVIA) following current recognised guidance from the Landscape Institute and the Highways England design standard, the Design Manual for Roads and Bridges (DMRB). It should be recognised that a full LVIA should be undertaken to confirm these anticipated outcomes.

C.2.6. Geology and soils

A qualitative assessment has been undertaken to assess the impacts of the six short list route options on geology and soils.

A desk based qualitative impact assessment has been undertaken by collating and reviewing relevant and readily available baseline soils and geology data. The identification of impacts, including the likelihood and potential severity of the impact has taken into consideration the nature of the proposed route option.

DMRB LA109 guidance has been used as a guide in assigning the impact score.

Land contamination impacts are based on the potential presence of sources of contamination and of sensitive receptors and the likelihood of potential contamination linkages to exist.

Impacts to agricultural land are based on total agricultural land-take estimated and the sensitivity of receptor, which is based on published agricultural land classification (ALC) surveys. Land which is Best and Most Versatile (BMV) land (Grade 1, 2 and 3a) is noted where it is present in the route option. The proportions of more valuable ALC grade present in the option alignment has been considered in the impact score. Estimates of land-take are conservative, based on design and presence of existing roads.

Data gaps were filled using provisional ALC grades. A soil survey should be completed to bridge data gaps in the ALC grades for a detailed assessment.

Key input data included:

- Local environmental/ planning information and data;

- Landmark Envirocheck Report;
- DEFRA Magic webmap, www.magic.gov.uk;
- BGS Opengeoscience, www.bgs.ac.uk;
- Freely available mapping;
- Google Maps, www.google.co.uk;
- OpenStreetMap, www.openstreetmap.co.uk; and,
- Natural England Access to Evidence.

Assumptions

All options cross undeveloped farmland and it has been assumed that there will be disturbance of soils and loss of farmland.

C.2.7. Cultural heritage

A qualitative assessment has been undertaken to assess the likelihood and potential severity of cultural heritage impacts of the five short list route options on cultural heritage.

All relevant and readily available baseline environmental conditions data were collated and review, including:

- Local environmental/ planning information and data;
- Magic Know Your Place; and
- The National Heritage List for England Heritage Gateway Open data.
- Historic Environment Records (HER) data.

C.2.8. Materials and waste

A qualitative assessment has been undertaken to assess the impacts of the six short listed route options on materials and waste. This has been undertaken as a desk based qualitative impact assessment by collating and reviewing relevant and readily available baseline waste and materials information, as well as design information. The identification of impacts, including the likelihood and potential severity of the impact has taken into consideration the nature of the proposed route option.

DMRB LA110 guidance has been used as a guide in assigning the impact score.

Key input data included:

- Design information;
- Atkins WebGIS viewer
- DEFRA Magic webmap, www.magic.gov.uk.

The impact scoring has been based on a desk based assessment and design information, assuming a worst case scenario of material to be removed being disposed off to landfill and use of virgin aggregates for the fill material.

C.2.9. Population and human health

A qualitative assessment has been undertaken to assess the impacts of the six short list route options on population and human health.

The assessment methodology is based on DMRB guidance set out in LA 112 Population and human health. LA 112 sets out the requirements for assessing and reporting the environmental effects on population and human health from construction, operation and maintenance of highways projects.

Land-use and accessibility

This assessment reports the likely nature and scale of effects of the five short list route options on land-use and accessibility covering the following elements:

- Private property and housing;
- Community land and assets;
- Development land and businesses;
- Agricultural land holdings; and
- Walkers, cyclists and horse-riders.

Human Health

This assessment identifies potential changes to health determinants as a result of the five short list route options identified. It should be considered in conjunction with the information gathered for other environmental factors, including information gathered by the other technical disciplines e.g. Air Quality, Noise and Vibration, Water Environment, Geology and Soils etc.

The population and human health assessment is based on the construction footprint / option boundary plus a 500 m area surrounding the option boundary. Where likely effects, particularly on wider health determinants, have the potential to extend outside the 500 m area surrounding the Option boundary, the study area has been extended accordingly.

The process for developing the baseline comprises a high-level data collection and review, and spatial data mapping, to identify and assess the potential severity of potential impacts and effects of each option on land use, accessibility and human health, given the location, scale and nature of the specific options and the environmental sensitivity of the surrounding area.

Key input data included:

- DMRB LA 112 Population and Human Health;
- A350 Melksham WebGIS viewer;
- OS 1:25,000 map;
- Google mapping services;
- Wiltshire Core Strategy maps ArcGIS;
- Wiltshire Core Strategy 2015;
- Wiltshire Core Strategy policy maps: Melksham Community Area map;
- ONS NOMIS 2018;
- Wiltshire Intelligence – Bringing Evidence Together (Melksham Community Area); and
- Wiltshire Health and Wellbeing Strategy 2019-2022.

Assumptions

For the agricultural land holdings assessment, each option crosses undeveloped farmland and it has been assumed that there will be loss of farmland. Farms currently of high sensitivity are dairy farms (Forest Farm, Hacks Farm and Snarleton Farm) and a free-range egg producer (Oakley Farm), but post-Brexit changes to the economics of farming means some of these enterprises may have moved to less intensive farming systems by the time the bypass is built. Vernon Farm, on the A365, is an agricultural research station for Germinal and its trials grounds are potentially affected. A farm access will be provided for each dairy farm impacted by the option.

For Option 2c human health assessment, there is a small number of sensitive receptors near the alignment of the option and a relatively small resident population in the core study area. Sensitive groups present in the study area include children and adolescents, older people and people who are physically or mentally disadvantaged.

C.2.10. Climate effects

A qualitative assessment has been undertaken to assess the impacts of the six short list route options on greenhouse gases emissions.

Key input data included the available design information.

C.2.11. Climate vulnerability

A qualitative assessment has been undertaken to assess the impacts of the six short list route options on climate vulnerability.

Climate is defined as the typical weather conditions experienced in a place over a period of time, conventionally expressed as average weather over a 30-year period. Two types of baseline data for climate change vulnerability have been reviewed, these define:

- Current climatic conditions in the study area; and
- Projections of how the climate in the study area could change in the future.

Key input data therefore included:

- Data from nearby long running meteorological stations and the Meteorological Offices standard average data tables, which provide a 30-year average summary of observed conditions in the study area⁴⁰; and
 - United Kingdom Climate Projections 2018 (UKCP18) - These projections have been developed by the Met Office Hadley Centre Climate Programme which is supported by the Department of Business, Energy and Industrial Strategy (BEIS) and the Department for Environment, Food and Rural Affairs (Defra). They provide the most up-to-date assessment of how the climate of the UK may change over the 21st century⁴¹;
- This data has supported a desktop and GIS based identification of likelihood and potential severity of impacts.

Assumptions

Without a detailed assessment, that would require design information that is not currently available, it is not possible to assess the potential impacts in a way that enables differentiation of the climate vulnerability of each route option. Any variations in climate vulnerability between the different options that a detailed assessment would produce are expected to be small and after mitigation they would likely all be classified as not significant.

Each of the route options comprises of a similar set of new assets which would be built using similar construction methods. For each option the construction and operation of these assets would generate broadly similar types of environmental impact. With regard to climate vulnerability there are two key differences between the route options:

Location - Each route option is in a different location. This could affect climate vulnerability by altering the schemes climate exposure and the proximity of receptors to climate impacts. The relatively small distances between the options, compared to the larger scale at which climate varies, means that the location differences would be unlikely to generate different assessment outcomes. That isn't to say that the different locations would not generate significantly different exposures of the new assets to climate impacts. Of greater relevance is the varying proximity of receptors between the route options. In particular some options are closer than others to watercourses and areas at risk of flooding. The significance of these variations is picked up in detail by other topic assessments in this report but is relevant here as some related impacts could be enhanced by climate change. The wide range of potential design mitigation options available means that, after mitigation, the differences in the impacts between route options that varying proximities to receptors would cause is not expected to generate any significant climate vulnerability impacts.

Scale - There is also variation between the options with regard to their scale, specifically their length. From a climate vulnerability perspective this would be most relevant with regard to the different surface water runoff quantities that each option would generate and how impacts associated with these, e.g. effecting flood risk or the water environment, could vary in the future because of climate change. However, because the variations in length between the options are small in comparison to the total length of the scheme and there are a wide range of design mitigation options available for surface water related impacts, a detailed climate vulnerability assessment would be unlikely to differentiate between the options based on their scale. Therefore, after mitigation, the differences in vulnerability impacts between the route options that were generated by scale variations are not expected to generate significant climate vulnerability impacts.

C.3. Assessment

A qualitative high-level assessment of the six short list route options to assist the options shifting assessment process has been undertaken for the following environmental topics:

- Air quality
- Noise and vibration
- Biodiversity
- Water environment
- Landscape and visual
- Soils and geology
- Cultural heritage
- Materials and waste
- Population and health

⁴⁰ <https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages>

⁴¹ UKCP18 Climate Projections <https://www.metoffice.gov.uk/research/collaboration/ukcp>

- Climate effects
- Climate vulnerability

The full environmental assessment is presented below in Table C.1 below.

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Table C-1 - Environmental assessment of short list options

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
Air quality	1a	<p>The option is not within an AQMA.</p> <p>Number of human health receptors within 200m of the new road link: < 40</p> <p>There are no ecological receptors within 200m of the new road link.</p> <p>There may be other receptors in the wider network that could be affected by changes in traffic.</p>	<p>Potential for a change in air pollutant concentrations on receptors within 200m of the new road infrastructure.</p> <p>Qualitative expected changes in vehicle trips on the wider network as follows:</p> <ul style="list-style-type: none"> At northern bypass extent – potential for a reduction in vehicles on A350 between bypass connection and Melksham town centre; At southern bypass extent – potential for an increase in trips on A3102 (heading towards Melksham town centre) and Eastern way (leading towards A350 south); and Potential for an increase at links adjoining bypass junctions. <p>There are likely to be more properties on the A350 that would have a reduction in pollutant concentrations than there are near the new bypass route which would have an increase in pollutant concentrations. However, redistribution of traffic through Melksham may lead to increases in vehicles on other roads in the town with a corresponding change in air quality at nearby receptors.</p>	3 – Slight adverse	N/A
	1b	<p>The option is not within an AQMA.</p> <p>Number of human health receptors within 200m of the new road link: < 40</p> <p>Ecological receptors within 200m of the new road link – Ancient woodland c.100m from northern bypass connection with A350.</p> <p>There may be other receptors in the wider network that could be affected by changes in traffic.</p>	<p>Potential for a change in air pollutant concentrations on receptors within 200m of the new road infrastructure.</p> <p>Qualitative expected changes in vehicle trips on the wider network, and a corresponding change in air quality are likely to be as follows:</p> <ul style="list-style-type: none"> At northern bypass extent – potential for a reduction in vehicles on A350 between bypass connection and Melksham town centre; At southern bypass extent – potential for an increase in trips on A3102 (heading towards Melksham town centre) and Eastern way (leading towards A350 south); and Potential for an increase at links adjoining bypass junctions. <p>There are likely to be more properties on the A350 that would have a reduction in pollutant concentrations than there are near the new bypass route which would have an increase in pollutant concentrations. However, redistribution of traffic through Melksham may lead to increases in vehicles on other roads in the town with a corresponding change in air quality at nearby receptors.</p>	3 – Slight adverse	N/A
	1c	<p>The option is not within an AQMA.</p> <p>Number of human health receptors within 200m of the new road link: < 40</p> <p>Ecological receptors within 200m of the new road link – Ancient woodland c.100m from northern bypass connection with A350.</p>	<p>Potential for a change in air pollutant concentrations on receptors within 200m of the new road infrastructure.</p> <p>Qualitative expected changes in vehicle trips on the wider network, and a corresponding change in air quality are likely to be as follows:</p> <ul style="list-style-type: none"> At northern bypass extent – potential for a reduction in vehicles on A350 between bypass connection and Melksham town centre; 	3 – Slight adverse	N/A

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		There may be other receptors in the wider network that could be affected by changes in traffic.	<ul style="list-style-type: none"> At southern bypass extent – potential for an increase in trips on A3102 (heading towards Melksham town centre) and Eastern way (leading towards A350 south); and Potential for an increase at links adjoining bypass junctions. <p>There are likely to be more properties on the A350 that would have a reduction in pollutant concentrations than there are near the new bypass route which would have an increase in pollutant concentrations. However, redistribution of traffic through Melksham may lead to increases in vehicles on other roads in the town with a corresponding change in air quality at nearby receptors.</p>		
	2a	<p>The option is not within an AQMA.</p> <p>Number of human health receptors within 200m of the new road link: < 70</p> <p>There are no ecological receptors within 200m of the new road link.</p> <p>There may be other receptors in the wider network that could be affected by changes in traffic.</p>	<p>Potential for a change in air pollutant concentrations on receptors within 200m of the new road infrastructure.</p> <p>Expected changes in vehicle trips on the wider network as follows:</p> <ul style="list-style-type: none"> At northern bypass extent – potential for a reduction in vehicles on A350 between bypass connection and Melksham town centre; At southern bypass extent – potential for a reduction in vehicles on A350 between bypass connection and Melksham town centre; and Potential for an increase at links adjoining bypass junctions. <p>There are likely to be more properties on the A350 that would have a reduction in pollutant concentrations than there are near the new bypass route which would have an increase in pollutant concentrations. However, redistribution of traffic through Melksham may lead to increases in vehicles on other roads in the town with a corresponding change in air quality at nearby receptors.</p>	3 – Slight adverse	N/A
	2b	<p>The option is not within an AQMA.</p> <p>Number of human health receptors within 200m of the new road link: < 70</p> <p>Ecological receptors within 200m of the new road link – Ancient woodland c.100m from northern bypass connection.</p> <p>There may be other receptors in the wider network that could be affected by changes in traffic.</p>	<p>Potential for a change in air pollutant concentrations on receptors within 200m of the new road infrastructure.</p> <p>Qualitative expected changes in vehicle trips on the wider network as follows:</p> <ul style="list-style-type: none"> At northern bypass extent – potential for a reduction in vehicles on A350 between bypass connection and Melksham town centre; At southern bypass extent – potential for a reduction in vehicles on A350 between bypass connection and Melksham town centre; and Potential for an increase at links adjoining bypass junctions. <p>There are likely to be more properties on the A350 that would have a reduction in pollutant concentrations than there are near the new bypass route which would have an increase in pollutant concentrations. With the longer route option, there is less likelihood of traffic redistributing through Melksham and affecting the air quality at receptors.</p>	3 – Slight adverse	N/A

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
	2c	<p>The option is not within an AQMA.</p> <p>Number of human health receptors within 200m of the new road link: < 40</p> <p>Ecological receptors within 200m of the new road link – Ancient woodland c.100m from northern bypass connection.</p> <p>There may be other receptors in the wider network that could be affected by changes in traffic.</p>	<p>Potential for a change in air pollutant concentrations on receptors within 200m of the new road infrastructure.</p> <p>Qualitative expected changes in vehicle trips on the wider network as follows:</p> <ul style="list-style-type: none"> At northern bypass extent – potential for a reduction in vehicles on A350 between bypass connection and Melksham town centre; At southern bypass extent – potential for a reduction in vehicles on A350 between bypass connection and Melksham town centre; and Potential for an increase at links adjoining bypass junctions. <p>There are likely to be more properties on the A350 that would have a reduction in pollutant concentrations than there are near the new bypass route which would have an increase in pollutant concentrations. With the longer route option, there is less likelihood of traffic redistributing through Melksham and affecting the air quality at receptors.</p>	3 – Slight adverse	N/A
Noise and vibration	1a	<p>Beanacre; North West Melksham</p> <p>North East Melksham</p> <p>Bezzles Farm and Forest Farm</p>	<p>Potential for decreases in noise on A350 through Beanacre and Melksham north of A3102. Potential increases in noise on Woodrow Road between North-East Melksham and scheme. Potential for increases in noise at isolated properties in proximity to scheme.</p>	5 – Slight Beneficial	Mitigation opportunities including barriers and/or surfacing measures may be possible.
	1b	<p>Beanacre; North West Melksham.</p> <p>North East Melksham</p> <p>Queenfield</p>	<p>Potential for decreases in noise on A350 through Beanacre and Melksham north of A3102. Potential increases in noise on Woodrow Road between northeast Melksham and scheme. Potential for increases in noise at isolated properties in proximity to scheme.</p>	5 – Slight Beneficial	
	1c	<p>Beanacre; North West Melksham</p> <p>North East Melksham</p>	<p>Potential for decreases in noise on A350 through Beanacre and Melksham north of A3102. Potential increases in noise on Woodrow Road between North-East Melksham and scheme. Potential for increases in noise at isolated properties in proximity to scheme.</p>	5 – Slight Beneficial	
	2a	<p>Beanacre; West and North West Melksham;</p> <p>North and North West Bowerhill</p> <p>East Melksham; East and South East Bowerhill; Sandridge Hill and Lopes Close.</p>	<p>Potential for decreases in noise on A350 through Beanacre and west Melksham, and on A3102 east of scheme, and on Eastern Way. Potential increases in noise on Woodrow Road between northeast Melksham and scheme, and southeast Bowerhill.</p>	5 – Slight Beneficial	
	2b	<p>Beanacre; West and North West Melksham;</p> <p>North and North West Bowerhill</p> <p>East Melksham; East and South East Bowerhill; Sandridge Hill and Lopes Close.</p>	<p>Potential for decreases in noise on A350 through Beanacre and West Melksham, and on A3102 east of scheme, and on Eastern Way. Potential increases in noise on Woodrow Road between northeast Melksham and scheme, and southeast Bowerhill.</p>	5 – Slight Beneficial	
	2c	<p>Beanacre; West and North West Melksham;</p> <p>North and North West Bowerhill</p> <p>East Melksham; East and South East Bowerhill; Frogditch Farm House, Rhotteridge Farm, and Six Guinea Cottage.</p>	<p>Potential for decreases in noise on A350 through Beanacre and West Melksham, and on A3102 east of scheme, and on Eastern Way. Potential increases in noise on Woodrow Road between northeast Melksham and scheme, and southeast Bowerhill.</p>	3 – Slight Beneficial	

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
			Worse for Frogditch Farm House, Rhotteridge Farm, and Six Guinea Cottage.		
Biodiversity	1a	<p>Designated Sites</p> <p>Statutory Sites</p> <p>Bath and Bradford on Avon Special Area of Conservation (SAC) is located approximately 7 km to the northwest of the proposed route.</p> <p>Mells Valley SAC is located approximately 22 km southwest of the proposed route.</p> <p>Spye Park SSSI is located just over 2 km northeast of the proposed route.</p> <p>Non-Statutory Sites</p> <p>River Avon local wildlife site (LWS) (forms part of River Avon SAC) directly crosses the route, one of the main river systems in the area.</p> <p>Inwood, Lacock LWS is 500 m north of the proposed route.</p> <p>Habitats⁴²</p> <p><u>Information obtained from the desk study: Priority habitats within 1 km of the proposed route</u></p> <ul style="list-style-type: none"> Two areas of ancient woodland – closest area is 580 m north 29 areas of deciduous woodland – the closest is 20 m east Six areas of traditional orchard – the closest is 600 m north One area of wood pasture and parkland – 1 km east One area of open mosaic habitat – directly crosses the route⁴³ <p><u>Information obtained from the Phase 1 surveys: Habitats within 250 m survey area (and including the route itself)</u></p> <p>In total, there is 172 hectares of land within 250 m of the proposed route. Of this, due to access restrictions, 86 hectares have been surveyed, just over 50% of the area.</p> <p>This area is made up of:</p> <ul style="list-style-type: none"> 65% is improved grassland 22% is arable 7% is poor semi-improved grassland 1.8% is bare ground 1.7% is running water 	<p>Designated Sites</p> <p>Bat species associated with the two SACs are known to forage long distances. The proposed works may reduce foraging opportunities for bats associated with these SACs. The creation of the road may sever commuting and foraging lines for the bats, resulting in death or injury.</p> <p>The route is over 2 km from Spye Park SSSI, so the impacts are likely to be minimal. However, the works fall within the impact risk zone for this SSSI, meaning that the SSSI could face disturbance impacts from the proposed works.</p> <p>River Avon supports a wide variety of protected species and is especially designated for several Annex 2 species including Atlantic salmon and bullhead. The River also provides commuting opportunities for otter. Works to the area may result in run-off and localised pollution to the river, as well as noise, light and vibration disturbance. In addition, there could be loss of riparian habitat due to bridge creation.</p> <p>Due to Inwood, Lacock LWS being 500 m north of the proposed route, impacts are likely to be minimal.</p> <p>Habitats</p> <p>The route is within 20 m of a pocket of deciduous woodland. The woodland could therefore be subject to noise, light and vibration disturbance impacts during construction, and pollution impacts when the road is operational.</p> <p>The route is proposed to cross an open mosaic habitat. These are heterogeneous landscapes consisting of bare ground, pioneer plant communities, and rich grasslands, which often support a unique and diverse assemblage of plant and invertebrate species. This habitat will be lost or at least severed as a result of the works.</p> <p>Two areas of ancient woodland are within 1 km of the proposed route. However, as the closest pocket of ancient woodland is over 500 m from the proposed route, the impacts are likely to be minimal.</p> <p>Six areas of traditional orchard exist within 1 km of the route. However, as the closest pocket is 600 m from the route, the impacts are likely to be minimal.</p> <p>One area of wood pasture and parkland is found 1 km east of the route. However, due to the distance from the proposed route, impacts are likely to be minimal.</p> <p>The majority of the habitat within the survey area comprises arable farmland and improved / semi-improved grassland. These habitats tend to consist of a low diversity of plant</p>	3 – Slight adverse	<p>Designated Sites</p> <p>Bath and Bradford on Avon Bats SAC: Activity surveys including transect surveys will help to indicate which bats are present within the Scheme and if the works are likely to impact on this SAC. Mitigation could include bat ‘hop overs’ to discourage bat injury / mortality and even green bridges where there is significant activity of key species. Enhancing foraging opportunities off site could also mitigate for collision impacts with bats and the road.</p> <p>Mells Valley SAC: The same mitigation can be applied as with the SAC above, however the distance means the route is unlikely to require significant mitigation.</p> <p>Consultation with the local planning authority (LPA) should help to indicate whether the works will impact Spye Park SSSI. Due to the distance of this site from the works, this is considered unlikely to result in a significant impact on the designated site, however appropriate mitigation can be put in place, if necessary.</p> <p>Pollution prevention guidelines must be followed to minimise pollution to watercourses during the construction phase to minimise impacts to the River Avon LWS.</p> <p>Habitats</p> <p>As great a distance between the pocket of deciduous woodland and the works should be maintained as possible. If necessary, a barrier between the woodland habitat and the works should be maintained to minimise direct and indirect impacts.</p> <p>21 Hedgerows to be lost could be compensated with replanted hedgerows in an undisturbed area on site. Remaining hedgerows could be enhanced by planting native shrubs and increasing species diversity within the road embankments, or off-site. Hedgerows could be planted on either side of the road.</p> <p>If possible, road bridges should be constructed in a way that minimises the loss of riparian habitat associated with the water courses.</p> <p>Pollution prevention guidelines should be adhered to in order to minimise impacts to the water courses.</p> <p>All options provide opportunities for habitat creation along the proposed road corridor and within the wider landscape. Proposed red line boundaries for the options should take into account the likely requirement for habitat creation (e.g. pond creation) to mitigate for the losses associated with the Scheme. Further opportunities for new habitat could be provided within the drainage design (e.g. swale and SuDS pond features) and should be considered to maximise ecological benefits.</p> <p>Designs should seek to minimise potential impacts on watercourses and ponds through embedded mitigation, such as the adoption of clear span bridge structures with set-back abutments and no in-channel piers.</p> <p>Where feasible, the Scheme should seek to avoid new culverts on watercourses, particularly main rivers. The regulator will generally oppose</p>

⁴² Veteran and ancient trees were not included in this assessment due to lack of data.

⁴³ NB. The open mosaic habitat is a draft habitat. It is not available on the Melksham webmap however the information is contained within Magic.

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> 1.3% is dense scrub 1.1% is semi-natural broadleaved woodland 0.5% is amenity grassland 0.3% is tall ruderal herb and fern 0.2% is buildings 0.1% is standing water 0.08% is an earth bank <p><u>Information obtained from the Phase 1 surveys: Habitats within 10 m of the proposed route (taken to mean directly crossed by the footprint of the proposed works)⁴⁴</u></p> <p>In total, there is 6.1 ha within 10 m of the proposed route. Of this, 3.7 ha was surveyed, amounting to 61%.</p> <p>Of this area:</p> <ul style="list-style-type: none"> 68% is improved grassland 13.5% is arable 13.5% is poor semi-improved grassland 1.2% is dense scrub 0.85% is running water 0.25% is bare ground 0.00027% is buildings <p>The proposed route directly breaches 21 hedgerows.</p> <p>The proposed route crosses two main watercourses, the Avon River and Forest Brook. The Phase 1 survey additionally identified one watercourse with some water vole suitability, and an additional 10 wet ditches within hedgerows, one of which has some otter suitability.</p> <p>There are two ponds within 150 m of the option</p> <p>Trees exist within and close to the route alignment.</p> <p><u>Protected Species</u></p> <p><u>Bats</u></p> <ul style="list-style-type: none"> Five EPS licences for bats have been granted within 2 km of the route. The desk study provided 48 bat records within 2 km of the route alignment. Trees on the route provide suitable roosting habitat. 	<p>species, however the poor semi-improved grassland may have some wildflower diversity.</p> <p>Loss of hedgerow will result in the loss of habitats of Principal Importance, as well as some of these hedgerows may be defined as 'important' following criteria within the Hedgerow Regulations 1997 guidance⁴⁵.</p> <p>The proposed route directly crosses two main watercourses, one additional water course identified in the Phase 1 survey, and ten wet ditches. Watercourses are habitats of principle importance and must be protected.</p> <p>The option requires two new watercourse crossings (one on the River Avon and one on Forest Brook).</p> <p>The River Avon crossing is proposed to be a viaduct (approximately 200 m long). A bridge (approximately 10 m wide) is proposed for the Forest Brook.</p> <p>The option has the potential requirement for culvert extensions on Forest Brook under Woodrow Road and on an unnamed ordinary watercourse under New Road.</p> <p>These crossings could impact river habitats and their associated species through for example loss of riparian vegetation, increased shading and in the case of the new crossing on Forest Brook and culvert extensions, direct loss of in-channel habitat availability.</p> <p>There are two ponds located within 150 m of the option, however neither are directly within the option footprint. There is potential for construction effects such as pollution and disturbance to these ponds.</p> <p>The proposed route will directly result in loss of trees.</p> <p><u>Protected species</u></p> <p><u>Bats</u></p> <p>The information obtained indicates that bats exist within the area of the proposed works. The proposed route alignment will result in direct loss of hedgerows and trees, which bats use as features for commuting, foraging, and roosting. There will be a net loss of habitat as a result of the works. The creation of the road could sever flight lines, and as a result, bats could be killed during both the construction and operational phases.</p> <p><u>Badger</u></p> <p>The badger sett within the proposed route alignment will be lost as a result of the works. The badger setts close to the route alignment may be disturbed.</p> <p><u>Dormice</u></p> <p>Dormice may use the hedgerows to commute, and as a result their commuting lines may be severed. Dormice may be found in the woodland 20 m from the route alignment and therefore may be disturbed.</p>		<p>the adoption of new culverts unless alternatives are not feasible. Where culverts are unavoidable consideration should be given to appropriate placement of structure invert levels to ensure recruitment of natural bed substrates to minimise habitat severance and maintain some habitat connectivity.</p> <p>General construction related mitigation should be adopted to avoid undue adverse effects on watercourses and ponds e.g. the adoption of exclusion zones around retained aquatic features.</p> <p>Trees should be protected where possible, however any that are to be lost as a result of the Scheme should be compensated for through a tree planting Scheme in an undisturbed area close to site.</p> <p>The diversity of the surrounding habitat could be improved by planting native wildflowers and managing these areas effectively within landscaped areas of the Scheme.</p> <p>The open mosaic habitat to be lost can be compensated by creating an equivalent habitat in an undisturbed area, or by enhancing habitat nearby.</p> <p>In addition to habitat loss as a result of this Scheme, the creation of a road can cause severance of habitats at a landscape scale. Options 1a and 1b are shorter than options 2a, 2b and 2c, and therefore the impacts on the landscape for this route option are likely to be less both in terms of habitat loss and severance. This informs the impact score.</p> <p><u>Protected species</u></p> <p><u>Bats</u></p> <p>Surveys will indicate presence or absence of bats in tree roosts which are to be destroyed as a result of the works. If bats are present, these roosts, should ideally be retained and protected. Where this is not possible, they must be closed under licence from Natural England and compensated for with appropriate artificial habitat such as bat boxes in an undisturbed area.</p> <p><u>Badgers</u></p> <p>Any main badger setts to be lost must be replaced with a suitable artificial badger sett in an undisturbed area on site, and the original setts must be closed under licence.</p> <p>Where the new road is assumed to cross through badger territories, then further surveys are likely to be required and mitigation may include building new badger setts or creating suitable crossing points for badger to cross the road without the risk of collisions.</p> <p><u>Dormice</u></p> <p>Further surveys will help to indicate where dormice are present in the general area. Minimising impacts to woodland and hedgerow will protect dormouse populations. Where impacts are perceived then a licence from Natural England would be required and compensated could include off site enhancements for this species in an undisturbed area.</p> <p><u>Amphibians and reptiles</u></p> <p>Full pond surveys of waterbodies within 500 m of the route alignment will indicate where great crested newts are present.</p>

⁴⁴ These values are included within the values above for 250 m.

⁴⁵ Available at: <https://www.legislation.gov.uk/ukxi/1997/1160/contents/made>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> Hedgerows on the route have been identified as having suitability for commuting and foraging. <p><u>Badger</u></p> <ul style="list-style-type: none"> The desk study provided four recent badger records. Five probable badger setts exist within 250 m of the proposed route, as identified in the Phase 1 survey. One of these setts is directly within the route alignment. <p><u>Dormice</u></p> <ul style="list-style-type: none"> Two hazel dormouse licences have been granted within 2 km of the proposed route. No desk study information for dormice was provided. Low dormouse suitability in some of the hedgerows which directly cross the route. <p><u>Amphibians and reptiles</u></p> <ul style="list-style-type: none"> No GCN licences have been granted within 1 km of the proposed route. The desk study provided records of one common toad. Five areas were identified during the Phase 1 survey as having suitable terrestrial habitat for reptiles and amphibians. Some suitability for reptile habitat in the hedgerows which cross the route options. <ul style="list-style-type: none"> Various rubble piles, scrub areas and log piles close to the route which provide terrestrial habitat, with the closest being 20 m west of the site. The closest pond to the route alignment is 100 m east. <p><u>Priority invertebrates</u></p> <ul style="list-style-type: none"> No desk study information on invertebrates provided. The open mosaic habitat may support a diverse insect assemblage. <p><u>Otter</u></p> <ul style="list-style-type: none"> One otter record in the desk study. The River Avon and Forest Brook both have otter suitability. Some otter suitability in one hedgerow ditch which crosses the route alignment. <p><u>Water vole</u></p> <ul style="list-style-type: none"> Three water vole desk study records. 	<p><u>Amphibians and reptiles</u></p> <p>The information obtained suggests amphibians and reptiles exist within the local area. Nearby ponds, potentially used for breeding, could be disturbed. Terrestrial habitat for both amphibians and newts could be destroyed.</p> <p><u>Priority invertebrates</u></p> <p>The loss of the open mosaic habitat may result in loss of important insect assemblages.</p> <p><u>Otter</u></p> <p>Impacts to watercourses may impact populations of otter. In addition, there could be loss of riparian habitat due to the creation of the road bridge which would limit the possibility for holt creation.</p> <p><u>Water vole</u></p> <p>Impacts to watercourses may impact populations of water vole. In addition, there could be loss of riparian habitat due to the creation of the road bridge which would limit the possibility for burrowing.</p> <p><u>White clawed crayfish</u></p> <p>The information obtained suggests it is unlikely that white clawed crayfish exist within the survey area and within the route alignment, and as a result no impacts are expected.</p> <p><u>Birds</u></p> <p>Loss of trees and hedgerows as a result of the works will limit nesting opportunities for birds. In addition, the road could sever bird flight lines and as a result birds could be killed through vehicle collision.</p>		<p>Waterbodies should be avoided where possible, and where this is not possible then it will have to be assumed that GCN are present. If GCN are present, then three compensatory ponds will need to be created per lost waterbody. No ponds were identified during the Phase 1 survey or in the desk study for this route option, however survey coverage was not complete.</p> <p>Terrestrial habitats for amphibians and reptiles to be lost should be recreated in a nearby undisturbed area or areas should be enhanced.</p> <p>Slow method of works during construction with an ecologist present to move reptiles away from the works.</p> <p><u>Otter, crayfish and water vole</u></p> <p>Further surveys will indicate where otters and water voles are present. Pollution prevention guidelines must be followed to minimise impacts to watercourses.</p> <p>Construction of road bridges to minimise loss of riparian habitat.</p> <p><u>Birds</u></p> <p>Works should avoid the nesting bird season.</p> <p>Bird boxes could be installed in nearby areas and compensatory habitat is likely to be required due to the loss of habitats within the Scheme footprint.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> River Avon and forest brook both have suitability for water voles. One additional running water line identified in the Phase 1 has some suitability for water vole. <p><u>White clawed crayfish</u></p> <ul style="list-style-type: none"> No desk study records and no suitable habitat identified. <p><u>Birds</u></p> <ul style="list-style-type: none"> Six bird records identified in the desk study including a red kite. Suitable nesting bird habitat in hedgerows and trees throughout the route alignment. 			
	1b	<p>Designated Sites</p> <p><u>Statutory Sites</u></p> <p>Bath and Bradford on Avon Bats SAC is located approximately 7 km to the north west of the northern extreme of the proposed works.</p> <p>Mells Valley SAC is located approximately 22 km to the south west of the southern end of the proposed route.</p> <p>Spye Park SSSI is located just over 2 km north east of the proposed route.</p> <p><u>Non-statutory Sites</u></p> <p>Inwood, Lacock Local Wildlife Site (LWS) is a broadleaved woodland and neutral grassland which is located approximately 140 m west of the northern end of the proposed route.</p> <p>River Avon LWS (part of the River Avon SAC) directly crosses the proposed route.</p> <p>Habitats</p> <p><u>Information obtained from the desk study:</u></p> <p><u>Priority habitats within 1km</u></p> <ul style="list-style-type: none"> Two ancient woodlands – the closest is 140 m west 30 broadleaved deciduous woodlands – the closest is 20 m east Six traditional orchards – the closest is 540 m west Two areas of wood pasture and parkland – the closed is 930 m east One open mosaic habitat – located 550 m west <p><u>Information obtained from the Phase 1 survey:</u></p> <p><u>Habitats within 250 m survey area</u></p>	<p>Designated Sites</p> <p>Bat species associated with the two SACs are known to forage long distances. The proposed works may reduce foraging opportunities for bats associated with these SACs. The creation of the road may sever commuting and foraging lines for the bats, resulting in death or injury.</p> <p>The route is over 2 km from Spye Park SSSI, so the impacts are likely to be minimal. However, the works fall within the impact risk zone for this SSSI, meaning that the SSSI could face disturbance impacts from the proposed works.</p> <p>River Avon supports a wide variety of protected species and is especially designated for several Annex 2 species including Atlantic salmon and bullhead. The River also provides commuting opportunities for otter. Works to the area may result in run-off and localised pollution to the river, as well as noise, light and vibration disturbance. In addition, there could be loss of riparian habitat due to bridge creation.</p> <p>Due to Inwood, Lacock LWS being 140 m west of the proposed route, impacts are likely to be minimal.</p> <p>Habitats</p> <p>The route is within 20 m of a pocket of deciduous woodland. The woodland could therefore be subject to noise, light and vibration disturbance impacts during construction, and pollution impacts when the road is operational.</p> <p>Two areas of ancient woodland are within 1 km of the proposed route, the closest being 140 m west. Ancient woodlands support unique and complex ecosystems. Although the route is not proposed to directly cross the two pockets of ancient woodland, disturbance impacts from the works could impact the communities found within the ancient woodlands.</p> <p>Traditional orchards, wood pasture and parkland, and open mosaic habitat exist within 1 km of the proposed route. However, due to the distance from the route, impacts are likely to be negligible.</p> <p>The majority of the habitat within the survey area comprises arable farmland and improved / semi-improved grassland.</p>	3 – Slight adverse	<p>Designated Sites</p> <p>Bath and Bradford on Avon Bats SAC: Activity surveys including transect surveys will help to indicate where bats are on the Scheme. Enhancing foraging opportunities off site and building hedgerows as barriers to road so that there is less likely to be collision.</p> <p>Mells Valley SAC. The same mitigation can be applied as with the SAC above, however the distance means the route option is unlikely to require mitigation.</p> <p>Consultation with the local planning authority (LPA) should help to indicate whether the works will impact Spye Park SSSI, and appropriate mitigation can be put in place if so.</p> <p>Pollution prevention guidelines must be followed to minimise pollution to watercourses during the construction phase to minimise impacts to the River Avon LWS.</p> <p>Habitats</p> <p>As great a distance between the pocket of deciduous woodland and the works should be maintained as possible. If necessary, a barrier between the woodland habitat and the works should be maintained to minimise disturbance. This should also be applied to the pocket of ancient woodland found 140 m from the route alignment.</p> <p>27 hedgerows to be lost could be compensated with replanted hedgerows in an undisturbed area on site.</p> <p>Remaining hedgerows could be enhanced by planting native shrubs and increasing species diversity. Hedgerows could be planted on either side of the road.</p> <p>Pollution prevention guidelines must be followed to minimise pollution to watercourses.</p> <p>If possible, road bridges should be constructed to minimise loss of riparian habitat associated with the water courses.</p> <p>All options provide opportunities for habitat creation along the proposed road corridor and within the wider landscape. Proposed red line boundaries for the options should take into account the likely requirement for habitat creation (e.g. pond creation) to mitigate for the losses associated with the Scheme. Further opportunities for new habitat could be provided within the drainage</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>There is 188 hectares within 250 m of this route option. Of this, 130 hectares have been surveyed, 70% of the total area.</p> <p>Of this area:</p> <ul style="list-style-type: none"> • 55% is improved grassland • 46% is arable • 5.6% is poor semi-improved grassland • 1.8% is semi-natural broadleaved woodland • 1.6% is bare ground • 1% is running water • 0.7% is tall ruderal herb and fern • 0.5% is amenity grassland • 0.4% is dense scrub • 0.3% is standing water • 0.3% is buildings • 0.05% is marshy grassland <p><u>Information obtained from the Phase 1 survey: Habitats within 10m (taken to mean area where the road will directly cross)</u></p> <p>In total, there are 6.8 hectares of land within 10 m of the proposed route. Of this, 4.8 hectares have been surveyed.</p> <p>Of this area:</p> <ul style="list-style-type: none"> • 56% is improved grassland • 44% is arable • 12% is poor semi-improved grassland • 0.9% is running water • 0.7% is standing water • 0.2% is bare ground • 0.15% is dense scrub • 0.04% is buildings <p>The route directly breaches 27 hedgerows.</p> <p>The route directly crosses two main watercourses: The River Avon and Forest Brook.</p> <p>During the Phase 1 survey, an additional watercourse was identified with some water vole suitability, and an additional nine wet ditches were identified which cross the route alignment, one of which has some otter suitability. The route alignment also crosses one pond, and five additional ponds are within 150 m.</p>	<p>These habitats tend to consist of a low diversity of plant species, however the poor semi-improved grassland may have some wildflower diversity.</p> <p>Loss of hedgerow will result in the loss of habitats of Principal Importance, as well as some of these hedgerows may be defined as 'important' following criteria within the Hedgerow Regulations 1997 guidance⁴⁶.</p> <p>The proposed route will directly result in loss of trees.</p> <p>The proposed route directly crosses two main watercourses, one additional water course identified in the Phase 1 survey, and nine wet ditches. Watercourses are habitats of principle importance and must be protected.</p> <p>The option requires three new watercourse crossings (one on the River Avon, one on Forest Brook and one on an unnamed watercourse).</p> <p>The River Avon crossing is proposed to be a viaduct (approximately 300 m long). A bridge (approximately 10 m wide) is proposed for the Forest Brook . A culvert (approximately 25 m long) is also proposed for the new crossing of an unnamed ordinary watercourse.</p> <p>Additionally, the option has the potential requirement for culvert extensions on Forest Brook under Woodrow Road and on an unnamed ordinary watercourse under New Road.</p> <p>These crossings could impact river habitats and their associated species through for example loss of riparian vegetation, increased shading and direct loss of in-channel habitat availability, especially in the cases of new culverts and culvert extension.</p> <p>There are five ponds located within 150 m of the option. There is potential for construction effects such as pollution and disturbance to these ponds.</p> <p>In addition, the route alignment crosses one pond which will be lost as a result of the works. Ponds support a large variety of wildlife which would be lost. Ponds are a UK BAP priority habitat.</p> <p>Protected species</p> <p><u>Bats</u></p> <p>The information obtained indicates that bats exist within the area of the proposed works. The proposed route alignment will result in direct loss of hedgerows and trees, which bats use as features for commuting, foraging, and roosting. There will be a net loss of habitat as a result of the works. The creation of the road could sever flight lines, and as a result, bats could be killed during both the construction and operational phases.</p> <p><u>Badger</u></p> <p>While this route alignment does not at present cross any badger setts, badgers exist within the area and therefore could build a sett in the road alignment. The road may restrict</p>		<p>design (e.g. swale and SuDS pond features) and should be considered to maximise ecological benefits.</p> <p>Designs should seek to minimise potential impacts on watercourses and ponds through embedded mitigation, such as the adoption of clear span bridge structures with set-back abutments and no in-channel piers.</p> <p>Where feasible, the Scheme should seek to avoid new culverts on watercourses, particularly main rivers. The regulator will generally oppose the adoption of new culverts unless alternatives are not feasible. Where culverts are unavoidable consideration should be given to appropriate placement of structure invert levels to ensure recruitment of natural bed substrates to minimise habitat severance and maintain some habitat connectivity.</p> <p>General construction related mitigation should be adopted to avoid undue adverse effects on watercourses and ponds e.g. the adoption of exclusion zones around retained aquatic features.</p> <p>Trees lost as a result of the Scheme should be compensated for through a tree planting Scheme in an undisturbed area close to site.</p> <p>The diversity of the surrounding habitat could be improved by planting native wildflowers.</p> <p>The pond to be lost as a result of the works should be compensated for by either creating an equivalent pond nearby, or by enhancing the habitat of other ponds.</p> <p>In addition to habitat loss as a result of this Scheme, the creation of a road can cause severance of habitats at a landscape scale. Options 1a and 1b are shorter than options 2a, 2b and 2c, and therefore the impacts on the landscape for this route option are likely to be less both in terms of habitat loss and severance. This informs the impact score.</p> <p>Protected species</p> <p><u>Bats</u></p> <p>Surveys will indicate presence or absence of bats in tree roosts which are to be destroyed as a result of the works. If bats are present, these roosts must be at least compensated for with appropriate artificial habitat in an undisturbed area.</p> <p><u>Badgers</u></p> <p>Surveys must be carried out prior to works to ensure no new setts have been created within the route alignment. Any main badger setts found during surveys must be closed under licence.</p> <p>Constructing mammal-proof fencing along the road alignment could be an option to minimise vehicle collisions with wildlife.</p> <p><u>Dormice</u></p> <p>Further surveys will help to indicate where dormice are present in the general area. Minimising impacts to woodland will protect dormouse populations.</p> <p><u>Amphibians and reptiles</u></p> <p>Full pond surveys of waterbodies within 250 m of the route alignment will indicate where great crested newts are present.</p>

⁴⁶ Available at: <https://www.legislation.gov.uk/ukxi/1997/1160/contents/made>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>Protected Species</p> <p><u>Bats</u> Four EPS licences have been granted for bats within 2 km of the proposed route. The desk study provided 49 bat records including lesser horseshoe. Trees and hedgerows throughout the route alignment provide suitable commuting and foraging habitat.</p> <p><u>Badgers</u> Five badger records were provided by the desk study. 11 potential badger setts, closest being 50 m east of the road alignment.</p> <p><u>Dormice</u> No desk study information for dormice was provided. 15 hedgerows which cross the route alignment have low to some dormouse suitability.</p> <p><u>Amphibians and reptiles</u> The desk study provided a common toad and a common frog record. The Phase 1 survey identified six areas identified as being suitable terrestrial habitat for amphibians and reptiles within 250 m of the road. One pond crosses the road alignment which may be breeding habitat for GCN.</p> <p><u>Otter and water vole</u> The local records centre provided one otter record, and three water vole records. The two main watercourses crossed by the alignment have potential to support both otters and water voles. The Phase 1 survey identified one hedgerow ditch with some otter potential, and one additional stream with water vole suitability.</p> <p><u>White clawed crayfish</u> No suitable habitat identified during the Phase 1 survey and no records were provided by the local records centre.</p> <p><u>Birds</u> 14 bird records including kingfisher and red kite were provided by the local records centre Six bird records including meadow pipit and fieldfare recorded during the Phase 1.</p>	<p>movement of badgers across the landscape and as a result badgers may collide with vehicles on the road.</p> <p><u>Dormice</u> Dormice may use the hedgerows to commute, and as a result their commuting lines may be severed. Dormice may be found in the woodland 20 m from the route alignment and therefore may be disturbed. 15 hedgerows which cross the route have potential for dormice to be present. As a result of this, dormice may be killed and their habitats severed.</p> <p><u>Amphibians and reptiles</u> The information obtained suggests amphibians and reptiles exist within the local area. Nearby ponds, potentially used for breeding, could be disturbed. Terrestrial habitat for both amphibians and newts could be destroyed. One pond which crosses the route alignment will be directly lost as a result of the works, if this is a great crested newts breeding pond, a GCN population could be lost.</p> <p><u>Otter and water vole</u> Impacts to watercourses may impact populations of otter and water vole. In addition, there could be loss of riparian habitat due to the creation of the road bridge which would limit the possibility for holt creation and burrowing.</p> <p><u>White clawed crayfish</u> The information obtained suggests it is unlikely that white clawed crayfish exist within the survey area and within the route alignment, and as a result no impacts are expected.</p> <p><u>Birds</u> Loss of trees and hedgerows as a result of the works will limit nesting opportunities for birds. In addition, the road could sever bird flight lines and as a result birds could be killed through vehicle collision.</p>		<p>Creation of suitable off-site habitat for GCN to be moved to should they be found in the road alignment.</p> <p>Terrestrial habitats to be lost should be recreated in a nearby undisturbed area.</p> <p>Slow method of works during construction with an ecologist present to move reptiles or amphibians away from the works.</p> <p>Waterbodies should be avoided where possible, and where this is not possible then it will have to be assumed that GCN are present. If GCN are present, then three compensatory ponds will need to be created per lost waterbody. This route crosses one pond, so three compensatory ponds may be necessary if further surveys indicate GCN presence.</p> <p><u>Otter and water vole</u> Pollution prevention guidelines must be followed to minimise impacts to watercourses. Construction of road bridges to minimise loss of riparian habitat. Further surveys will indicate where otters and water voles are present. Precautionary method of works with an ecologist present to note signs of otter and water vole in the works area.</p> <p><u>Birds</u> Works should avoid the nesting bird season. Bird boxes could be installed in nearby areas to move birds away from the road alignment, and provide compensatory habitat. Full Phase 2 species surveys will further highlight the protected species which may be impacted directly or disturbed by the proposed works, and further mitigation not detailed in this column may be required.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
	1c	<p>Designated sites</p> <p><u>Statutory Sites</u></p> <p>Bath and Bradford on Avon Bats Special Area of Conservation is located approximately 7 km to the north west of the northern end of the route.</p> <p>Mells Valley SAC is located approximately 22.5 km south west of the south of the proposed route.</p> <p>Spye Park SSSI is located approximately 1.2 km to the north east of the proposed route option</p> <p>Non-Statutory Designated Sites</p> <p>Inwood, Lacock LWS is located approximately 125 m north east of northern tip of the proposed route.</p> <p>The River Avon LWS (part of the River Avon SAC) crosses the route at the northern end.</p> <p>Hill Planting LWS is located approximately 600 m east of the proposed route option.</p> <p>Hack Farm Meadow LWS is located approximately 600 m east of the proposed route option.</p> <p>Hanging Wood LWS is located approximately 850 m east of the proposed route option.</p> <p>Habitats</p> <p>Information obtained from the desk study: Priority habitats within 1 km of the proposed route</p> <ul style="list-style-type: none"> • Three pockets of ancient woodland - the closest being 100 m NE • 45 deciduous woodlands – one is directly crossed by the route option • 6 traditional orchards – the closest being 530 m E • Two areas of wood pasture and parkland – the closest being 680 m SW • Information obtained from the Phase 1 survey: Habitats within the 250 m survey area <p>The total area of land within 250 m of the proposed route is 225 hectares. Of this, surveys have been completed on 141 hectares (63% of the total area).</p>	<p>Designated Sites</p> <p>Bat species associated with the two SACs are known to forage long distances. The proposed works may reduce foraging opportunities for bats associated with these SACs. The creation of the road may sever commuting and foraging lines for the bats, resulting in death or injury.</p> <p>The Spye Park SSSI is located approximately 1.2 km north east of the proposed route. Therefore, there will be no direct impacts to this SSSI. However, 2c is within the impact risk zones (IRZ) where new roads would be considered within the zone of impact. Therefore, our assessment will consider indirect impact on the SSSI, including air quality.</p> <p>The River Avon supports a wide variety of protected species and is especially designated for several Annex 2 species including Atlantic salmon and bullhead. The River also provides commuting opportunities for otter. Works to the area may result in run-off and localised pollution to the river, as well as noise, light and vibration disturbance. In addition, there could be loss of riparian habitat due to bridge creation.</p> <p>Impacts to LWSs are likely to be minimal considering the distance between the proposed works and the LWS.</p> <p>Habitats</p> <p>The route option would cross an area of deciduous woodland, which is likely to be lost or severed as a result of the works. Broad-leaved woodlands are a UK BAP priority habitat.</p> <p>Three areas of ancient woodland are within 1 km of the proposed route, the closest being 100 m northeast. Ancient woodlands support unique and complex ecosystems. Although the route is not proposed to directly cross the ancient woodland, disturbance impacts from the works could impact the communities found within the ancient woodlands.</p> <p>Traditional orchards and woodpasture and parkland habitat exist within 1 km of the proposed route. However, due to the distance from the route, impacts are likely to be negligible.</p> <p>The majority of the habitat within the survey area comprises arable farmland and improved grassland. These habitats tend to consist of a low diversity of plant species. However, areas of poor semi-improved grassland may have some botanical diversity.</p> <p>Loss of hedgerow will result in the loss of habitats of Principal Importance, as well as some of these hedgerows may be defined as 'important' following criteria within the Hedgerow Regulations 1997 guidance⁴⁷.</p> <p>The proposed route will directly result in loss of trees.</p> <p>The proposed route directly crosses two main watercourses, one additional watercourse identified in the Phase 1 survey, and nine wet ditches. Watercourses are habitats of principle importance and must be protected.</p>	3 – Slight adverse	<p>Designated Sites</p> <p>Bath and Bradford on Avon Bats SAC: Activity surveys including transect surveys will help to indicate which bats are present within the Scheme and if the works are likely to impact on this SAC. Mitigation could include bat 'hop overs' to discourage bat injury / mortality and even green bridges where there is significant activity of key species. Enhancing foraging opportunities off site could also mitigate for collision impacts with bats and the road.</p> <p>Mells Valley SAC: The same mitigation can be applied as with the SAC above, however the distance means the route is unlikely to require significant mitigation.</p> <p>Consultation with the local planning authority (LPA) should help to indicate whether the works will impact Spye Park SSSI. Due to the distance of this site from the works, this is considered unlikely to result in a significant impact on the designated site, however appropriate mitigation can be put in place, if necessary.</p> <p>Pollution prevention guidelines must be followed to minimise pollution to watercourses during the construction phase to minimise impacts to the River Avon LWS.</p> <p>Habitats</p> <p>The woodland habitat to be lost should be compensated for by planting a compensatory woodland off site.</p> <p>Hedgerows to be lost could be compensated with replanted hedgerows in an undisturbed area on site. Remaining hedgerows could be enhanced by planting native shrubs and increasing species diversity within the road embankments, or off-site. Hedgerows could be planted on either side of the road.</p> <p>If possible, road bridges should be constructed in a way that minimises the loss of riparian habitat associated with the water courses.</p> <p>Pollution prevention guidelines should be adhered to in order to minimise impacts to the water courses.</p> <p>All options provide opportunities for habitat creation along the proposed road corridor and within the wider landscape. Proposed red line boundaries for the options should take into account the likely requirement for habitat creation (e.g. pond creation) to mitigate for the losses associated with the Scheme. Further opportunities for new habitat could be provided within the drainage design (e.g. swale and SuDS pond features) and should be considered to maximise ecological benefits.</p> <p>Designs should seek to minimise potential impacts on watercourses and ponds through embedded mitigation, such as the adoption of clear span bridge structures with set back abutments and no in-channel piers.</p> <p>Where feasible, the Scheme should seek to avoid new culverts on watercourses, particularly main rivers. The regulator will generally oppose the adoption of new culverts unless alternatives are not feasible. Where culverts are unavoidable consideration should be given to appropriate placement of structure invert levels to ensure recruitment of natural bed substrates to minimise habitat severance and maintain some habitat connectivity.</p>

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Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>Of the area surveyed (rounded figures are used so these add up to more than 100%):</p> <ul style="list-style-type: none"> • 5% is semi-natural broadleaved woodland • 0.3% is semi-natural coniferous woodland • 1% is dense/continuous scrub • 70% is improved grassland • 3% is semi-improved grassland • 0.5% is tall ruderal • 0.6% is standing water • 0.8% is running water • 30% is arable • 0.3% is amenity grassland • 0.1% is buildings • 0.8% is bare ground <p>Information obtained from the Phase 1 survey: habitats within 10 m of the proposed route (taken to mean habitats directly crossed by the route)</p> <p>The total area of land within 10 m of the proposed route is 8 hectares. Of this, 5.8 hectares have been surveyed (72.5 of the total area). Of this area:</p> <ul style="list-style-type: none"> • 1.7% semi-natural broadleaved woodland • 1% is dense/continuous scrub • 81% is improved grassland • 0.2% is semi-improved grassland • 0.05% is standing water • 0.5% is running water • 28% is arable • 0.05% is bare ground <p>The proposed route directly crosses 31 hedgerows.</p> <p>The proposed route directly crosses the River Avon and Forest Brook. This route does not directly cross any ponds, however there are ten ponds within 250 m of this proposed route option, the closest being 7 m west of the route so may be directly lost or temporarily damaged as a result of the proposed works.</p> <p>The Phase 1 survey additionally identified one running water line.</p> <p>The Phase 1 survey additionally identified 13 wet ditches within ten metres of the works.</p>	<p>The option requires three new watercourse crossings (one on the River Avon, one on Forest Brook and one on an unnamed watercourse).</p> <p>The River Avon crossing is proposed to be a viaduct (approximately 300 m long). A bridge (approximately 10 m wide) is proposed for the Forest Brook. A culvert (approximately 25 m long) is also proposed for the new crossing of an unnamed ordinary watercourse.</p> <p>This option also has the potential requirement for culvert extensions on Forest Brook under Woodrow Road and on an unnamed ordinary watercourse under New Road.</p> <p>These crossings could impact river habitats and their associated species through for example loss of riparian vegetation, increased shading and direct loss of in-channel habitat availability, especially in the cases of new culverts and culvert extension.</p> <p>There are approximately five ponds located within 150 m of the option. There is potential for construction effects such as pollution and disturbance to these ponds.</p> <p>In addition, the route alignment crosses one pond which will be lost as a result of the works.</p> <p>Protected species</p> <p><u>Bats</u></p> <p>The information obtained indicates that bats will utilise habitat in the vicinity of the proposed works. The proposed route alignment will result in direct loss of hedgerows and trees, which bats are likely to use as features for commuting, foraging, and roosting. There will be a net loss of habitat as a result of the works. The creation of the road could sever flight lines, and as a result, bats could be killed during both the construction and operational phases.</p> <p><u>Badger</u></p> <p>One badger sett is directly crossed by this route alignment, which will be destroyed as a result of the works. The road may restrict movement of badgers across the landscape and as a result badgers may collide with vehicles on the road.</p> <p><u>Dormice</u></p> <p>Dormice may use the hedgerows to commute / nest, and as a result their commuting lines may be severed. Dormice may also be found in the woodland crossed by the route alignment and therefore may be impacted.</p> <p>22 hedgerows and a woodland which cross the route have potential for dormice to be present. As a result of this, dormice may be killed and their habitats severed.</p> <p><u>Amphibians and reptiles</u></p> <p>The information obtained suggests amphibians and reptiles exist within the local area. Nearby ponds, potentially used for breeding, could be disturbed. Terrestrial habitat for both amphibians and newts could be destroyed.</p>		<p>General construction related mitigation should be adopted to avoid undue adverse effects on watercourses and ponds e.g. the adoption of exclusion zones around retained aquatic features.</p> <p>Trees should be protected where possible, however any that are to be lost as a result of the scheme should be compensated for through a tree planting scheme in an undisturbed area close to site.</p> <p>The diversity of the surrounding habitat could be improved by planting native wildflowers and managing these areas effectively within landscaped areas of the Scheme.</p> <p>In addition to habitat loss as a result of this scheme, the creation of a road can cause severance of habitats at a landscape scale. Options 1a, 1b and 1c are shorter than options 2a, 2b and 2c, and therefore the impacts on the landscape for this route option are likely to be less both in terms of habitat loss and severance. This informs the impact score.</p> <p>Protected species</p> <p><u>Bats</u></p> <p>Surveys will indicate presence or absence of bats in tree roosts which are to be destroyed as a result of the works. If bats are present, these roosts, should ideally be retained and protected. Where this is not possible, they must be closed under licence from Natural England and compensated for with appropriate artificial habitat such as bat boxes in an undisturbed area.</p> <p><u>Badgers</u></p> <p>Any main badger setts to be lost must be replaced with a suitable artificial badger sett in an undisturbed area on site, and the original setts must be closed under licence.</p> <p>Where the new road is assumed to cross through badger territories, then further surveys are likely to be required and mitigation may include building new badger setts or creating suitable crossing points for badger to cross the road without the risk of collisions.</p> <p><u>Dormice</u></p> <p>Further surveys will help to indicate where dormice are present in the general area. Minimising impacts to woodland and hedgerow will protect dormouse populations. Where impacts are perceived then a licence from Natural England would be required and compensated could include off site enhancements for this species in an undisturbed area.</p> <p><u>Amphibians and reptiles</u></p> <p>Full pond surveys of waterbodies within 500 m of the route alignment will indicate where great crested newts are present.</p> <p>Waterbodies should be avoided where possible, and where this is not possible then it will have to be assumed that GCN are present. If GCN are present, then three compensatory ponds will need to be created per lost waterbody. No ponds were identified during the Phase 1 survey or in the desk study for this route option, however survey coverage was not complete.</p> <p>Terrestrial habitats for amphibians and reptiles to be lost should be recreated in a nearby undisturbed area or areas should be enhanced.</p> <p>Slow method of works during construction with an ecologist present to move reptiles away from the works.</p> <p><u>Otter, crayfish and water vole</u></p> <p>Further surveys will indicate where otters and water voles are present.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p><u>Protected Species</u></p> <p><u>Bats</u> Three EPS licences for bats are located within 2 km of the proposed route, with one being directly on the route. 44 records of bats, including lesser horseshoe, were obtained by the desk study. Trees and hedgerows in the route provide suitable roosting and foraging habitat for bats.</p> <p><u>Badgers</u> Four badger records were provided by the local records centre, the closest record being 130 m east. 17 potential badger setts were identified during the Phase 1 survey, including one which directly crosses the route alignment.</p> <p><u>Dormice</u> 22 hedgerows with at least low potential for dormice crossed directly by the route. The local records centre did not provide any records of dormice.</p> <p><u>Amphibians and Reptiles</u> No EPS licences for great crested newts are located within 1 km of the proposed route. The local records centre provided records of: Two great crested newts, one common toad, one common frog. Ten ponds are within 250 m of the proposed route which may provide breeding habitat for GCN.</p> <p><u>Otter and water vole</u> The local records centre provided one otter records and four water vole records. The Phase 1 survey additionally identified one running water line with some otter and water vole suitability. The Phase 1 survey additionally identified 13 wet ditches within ten metres of the works, two of which have water vole suitability, and four of which have otter suitability. The main watercourses also provide otter and water vole suitability.</p> <p><u>Invertebrates</u> The local records centre did not provide any records, and the Phase 1 survey did not identify any areas with particular suitability for priority invertebrates.</p> <p><u>White-clawed crayfish</u></p>	<p><u>Otter and water vole</u> Impacts to watercourses may impact populations of otter and water vole. In addition, there could be loss of riparian habitat due to the creation of the road bridge which would limit the possibility for holt creation and burrowing.</p> <p><u>White-clawed crayfish</u> The information obtained suggests it is unlikely that white-clawed crayfish exist within the survey area and within the route alignment, and as a result no impacts are expected.</p> <p><u>Birds</u> Loss of trees and hedgerows as a result of the works will limit nesting opportunities for birds. In addition, the road could sever bird flight lines and as a result birds could be killed through vehicle collision.</p>		<p>Pollution prevention guidelines must be followed to minimise impacts to watercourses. Construction of road bridges to minimise loss of riparian habitat.</p> <p><u>Birds</u> Works should avoid the nesting bird season. Bird boxes could be installed in nearby areas and compensatory habitat is likely to be required due to the loss of habitats within the Scheme footprint.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>The records centre did not provide any records, and the Phase 1 survey did not identify any suitability for white-clawed crayfish.</p> <p>Birds</p> <p>20 bird records, including barn owl and kingfisher, were provided by the desk study. Trees and hedgerows, and arable fields provide suitability for nesting birds.</p>			
	2a	<p>Designated Sites</p> <p>Statutory Sites</p> <p>Bath and Bradford on Avon Bats Special Area of Conservation is located approximately 7 km to the north west of the northern end of the route.</p> <p>Mells Valley SAC is located approximately 19 km south west of the south of the proposed route.</p> <p>Chilmark Quarries SAC is located approximately 29 km south of the proposed route.</p> <p>Spye Park SSSI is located just over 2 km from the proposed route.</p> <p>Non-Statutory Designated Sites</p> <p>The River Avon LWS (part of the River Avon SAC) crosses the route at the northern end of the proposed route.</p> <p>Inwood, Lacock LWS is located approximately 500 m north of the proposed Scheme.</p> <p>Eighteen Acre Plantation LWS is located approximately 650 m east of the proposed Scheme.</p> <p>Morass Wood LWS is located approximately 980 m east of the proposed Scheme</p> <p>Kennet and Avon canal LWS is located approximately 180 m south of the route.</p> <p>Habitats</p> <p><u>Information obtained from the desk study: Priority habitats within 1km</u></p> <ul style="list-style-type: none"> • Four areas of ancient woodland – closest pocket is 560 m north • 57 areas of deciduous broadleaved woodland – the closest is 20 m east • Nine areas of traditional orchard – the closest is 560 m north • One area of woodpasture and parkland habitat – located 700 m east • One area of draft open mosaic habitat – directly crossed by the route 	<p>Designated Sites</p> <p>Bat species associated with the three SACs are known to forage long distances. The proposed works may reduce foraging opportunities for bats associated with these SACs. The creation of the road may sever commuting and foraging lines for the bats, resulting in death or injury.</p> <p>The route is over 2 km from Spye Park SSSI, so the impacts are likely to be minimal. However, the works fall within the impact risk zone for this SSSI, meaning that the SSSI could face disturbance impacts from the proposed works.</p> <p>River Avon supports a wide variety of protected species and is especially designated for several Annex 2 species including Atlantic salmon and bullhead. The River also provides commuting opportunities for otter. Works to the area may result in run-off and localised pollution to the river, as well as noise, light and vibration disturbance. In addition, there could be loss of riparian habitat due to bridge creation.</p> <p>Inwood, Lacock, Eighteen Acre Plantation and Morass Wood are all LWSs located over 500 m from the route alignment, so any impacts are likely to be minimal.</p> <p>Kennet and Avon Canal is another LWS, linking Reading with the Bristol channel. However, as it is over 100 m away, impacts are likely to be minimal.</p> <p>Habitats</p> <p>Routes 2a, 2b, and 2c are longer than routes 1a and 1b. The direct result of this will mean that more habitats will be impacted in the latter three routes than in the former two routes.</p> <p>The route is within 20 m of a pocket of deciduous woodland. The woodland could therefore be subject to noise, light and vibration disturbance impacts during construction, and pollution impacts when the road is operational.</p> <p>The route is proposed to cross an open mosaic habitat. These are heterogeneous landscapes consisting of bare ground, pioneer plant communities, and rich grasslands, which often support a unique and diverse assemblage of plant and invertebrate species. This habitat will be lost or at least severed as a result of the works.</p> <p>Four areas of ancient woodland are within 1 km of the proposed route. However, as the closest pocket of ancient woodland is over 500 m from the proposed route, the impacts are likely to be minimal.</p>	2 – Moderate adverse	<p>Designated Sites</p> <p>Bath and Bradford on Avon Bats SAC: Activity surveys including transect surveys will help to indicate where bats are on the Scheme. Enhancing foraging opportunities off site and building hedgerows as barriers to road so that there is less likely to be collision</p> <p>Mells Valley SAC. The same mitigation can be applied as with the SAC above, however the distance means the route is unlikely to require mitigation.</p> <p>Chilmark Quarries SAC. The same mitigation can be applied as with the SAC above, however the distance means it are unlikely to require mitigation.</p> <p>Consultation with the local planning authority (LPA) should help to indicate whether the works will impact Spye Park SSSI, and appropriate mitigation can be put in place if so.</p> <p>Pollution prevention guidelines must be followed to minimise pollution to watercourses during the construction phase to minimise impacts to the River Avon LWS.</p> <p>Habitats</p> <p>As great a distance between the pocket of deciduous woodland and the works should be maintained as possible. If necessary, a barrier between the woodland habitat and the works should be maintained to minimise disturbance.</p> <p>57 Hedgerows to be lost could be compensated with replanted hedgerows in an undisturbed area on site. Routes 2a, 2b and 2c cross at least 20 more hedgerows than routes 1a and 1b.</p> <p>Remaining hedgerows could be enhanced by planting native shrubs and increasing species diversity. Hedgerows could be planted on either side of the road.</p> <p>Pollution prevention guidelines must be followed to minimise pollution to watercourses.</p> <p>If possible, road bridges should be constructed to minimise loss of riparian habitat associated with the water courses.</p> <p>All options provide opportunities for habitat creation along the proposed road corridor and within the wider landscape. Proposed red line boundaries for the options should take into account the likely requirement for habitat creation (e.g. pond creation) to mitigate for the losses associated with the Scheme. Further opportunities for new habitat could be provided within the drainage design (e.g. swale and SuDS pond features) and should be considered to maximise ecological benefits.</p> <p>Designs should seek to minimise potential impacts on watercourses and ponds through embedded mitigation, such as the adoption of clear span bridge structures with set-back abutments and no in-channel piers.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p><u>Information obtained from the Phase 1 survey: Habitats within the 250 m survey area</u></p> <p>In total, there is 418 hectares within 250 m of the proposed route, 65% of the total area. Of this area, 270 hectares have been surveyed. Of the area surveyed:</p> <ul style="list-style-type: none"> • 44% is improved grassland • 40% is arable • 13% is poor semi-improved grassland • 1.4% is dense scrub • 1% is bare ground • 0.9% is tall ruderal herb and fern • 0.8% is semi-natural broadleaved woodland • 0.6% is running water • 0.5% is amenity grassland • 0.3% is buildings • 0.2% is standing water • 0.02% is ephemeral/short perennial • 0.01% is plantation broadleaved woodland • 0.01% is plantation mixed woodland • 0.002% is scattered scrub <p><u>Information obtained from the Phase 1 survey: Habitats within 10 m of the proposed route (taken to mean habitats directly within the proposed route)</u></p> <p>There is a total of 16 hectares within 10 m of the proposed route. Of this area, 12 hectares have been surveyed. Of the area surveyed:</p> <ul style="list-style-type: none"> • 50% is improved grassland • 35% is arable • 11% is poor semi-improved grassland • 1.2% is dense scrub • 0.3% is running water • 0.17% is tall ruderal herb and fern • 0.16% is plantation broadleaved woodland • 0.15% is bare ground • 0.02% is buildings <p>The route directly crosses 57 hedgerows.</p> <p>The route directly crosses the River Avon, Forest Brook, Clackers Brook, and two ponds. In addition, an additional watercourse with some water vole suitability was identified during the Phase 1 survey, as well as 14 wet ditches, one of which has otter suitability.</p> <p>There are nine ponds located within 150 m of the proposed route.</p>	<p>Areas of traditional orchard, and woodpasture and parkland exist within 1 km from the route option, but due to these being over 500 m from the route option, impacts are likely to be minimal.</p> <p>The majority of the habitat within the survey area is comprised of arable farmland and improved / semi-improved grassland. These habitats tend to be comprised of a low diversity of plant species, however the poor semi-improved grassland may have some wildflower diversity.</p> <p>Loss of hedgerow will result in the loss of habitats of Principal Importance, as well as some of these hedgerows may be defined as 'important' following criteria within the Hedgerow Regulations 1997 guidance⁴⁸.</p> <p>The proposed route directly crosses three main water courses, two ponds, one additional stream identified during the Phase 1 survey, and 14 wet ditches. Watercourses are habitats of principle importance and must be protected.</p> <p>The option requires four new watercourse crossings (one on the River Avon, one on Forest Brook, one on Clackers Brook and one on an unnamed ordinary watercourse).</p> <p>The River Avon crossing is proposed to be a viaduct (approximately 300 m long). Bridges are proposed for the Forest Brook (approximately 10 m wide) and Clackers Brook (approximately 20 m wide). A bridge (approximately 20 m wide) is also proposed for the new crossing of an unnamed ordinary watercourse (tributary of the Clackers Brook).</p> <p>Additionally, the option has the potential requirement for culvert extensions on Forest Brook under Woodrow Road and on an unnamed ordinary watercourse under New Road.</p> <p>These crossings could impact river habitats and their associated species through for example loss of riparian vegetation, increased shading and direct loss of in-channel habitat availability, especially in the cases of new culverts and culvert extension.</p> <p>There are nine ponds located within 150 m of the option. Two of these are under the option footprint and thus would be lost. In addition to direct habitat loss, there is potential for construction effects such as pollution and disturbance to retained ponds.</p> <p>The proposed route will directly result in loss of trees.</p> <p>Protected species</p> <p><u>Bats</u></p> <p>The information obtained indicates that bats exist within the area of the proposed works. The proposed route alignment will result in direct loss of hedgerows and trees, which bats use as features for commuting, foraging, and roosting. There will be a net loss of habitat as a result of the works. The creation of the</p>		<p>Where feasible, the Scheme should seek to avoid new culverts on watercourses, particularly main rivers. The regulator will generally oppose the adoption of new culverts unless alternatives are not feasible. Where culverts are unavoidable consideration should be given to appropriate placement of structure invert levels to ensure recruitment of natural bed substrates to minimise habitat severance and maintain some habitat connectivity.</p> <p>General construction related mitigation should be adopted to avoid undue adverse effects on watercourses and ponds e.g. the adoption of exclusion zones around retained aquatic features.</p> <p>Trees lost as a result of the Scheme should be compensated for through a tree planting Scheme in an undisturbed area close to site.</p> <p>The diversity of the surrounding habitat could be improved by planting native wildflowers.</p> <p>The ponds to be lost as a result of the works should be compensated for by either creating an equivalent pond nearby, or by enhancing the habitat of other ponds.</p> <p>The open mosaic habitat to be lost can be compensated by creating an equivalent habitat in an undisturbed area, or by enhancing habitat nearby.</p> <p>In addition to habitat loss as a result of this Scheme, the creation of a road can cause severance of habitats at a landscape scale. Options 1a and 1b are shorter than options 2a, 2b and 2c, and therefore the impacts on the landscape for this route option are likely to be greater both in terms of habitat loss and severance. This informs the impact score.</p> <p>Protected species</p> <p>As the routes 2a, 2b and 2c are longer than 1a and 1b, more impacts to each of the following species are likely to be encountered.</p> <p><u>Bats</u></p> <p>Surveys will indicate presence or absence of bats in tree roosts which are to be destroyed as a result of the works. If bats are present, these roosts must be at least compensated for with appropriate artificial habitat in an undisturbed area.</p> <p><u>Badgers</u></p> <p>Surveys must be carried out prior to works to ensure no new setts have been created within the route alignment. Any main badger setts identified during surveys must be closed under licence and appropriate mitigation put in place.</p> <p>Constructing mammal-proof fencing along the road alignment could be an option to minimise vehicle collisions with wildlife.</p> <p><u>Dormice</u></p> <p>Further surveys will help to indicate where dormice are present in the general area. Minimising impacts to woodland will protect dormouse populations.</p> <p><u>Amphibians and reptiles</u></p> <p>Full pond surveys of waterbodies within 250 m of the route alignment will indicate where great crested newts are present.</p>

⁴⁸ Available at: <https://www.legislation.gov.uk/uksi/1997/1160/contents/made>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p><u>Protected Species</u></p> <p><u>Bats</u> Eight EPS licences have been granted for bats within 2 km. 224 bat records including lesser horseshoe and greater horseshoe were provided by the local records centre. Suitable roosting and commuting habitat identified in the trees and hedgerows.</p> <p><u>Badgers</u> Four badger records identified in the desk study. 13 potential badger setts identified in the Phase 1 survey. No badger setts directly within route alignment.</p> <p><u>Dormice</u> 19 hedgerows within 10 m of route alignment have at least low suitability for dormice. No desk study information for dormice.</p> <p><u>Amphibians and reptiles</u> Four EPS licences have been granted for great crested newts within 1 km of the proposed route. The desk study provided records of 30 GCN, two common toad, one common frog, 39 slow worms and eight grass snakes. Suitable habitat in the area for GCN and reptiles as identified in the Phase 1 survey, and two ponds directly in the route alignment which could be breeding ponds for GCN.</p> <p><u>Priority invertebrates</u> The open mosaic habitat can support a diverse insect assemblage. One record of a small heath butterfly was provided.</p> <p><u>Otter and water vole</u> The desk study provided four otter records and 10 water vole records. The main water courses have potential to support populations of otters and water voles. An additional stream identified in the Phase 1 survey has potential to support water vole. A wet ditch identified in the Phase 1 survey has the potential to support otter.</p> <p><u>White clawed crayfish</u></p>	<p>road could sever flight lines, and as a result, bats could be killed during both the construction and operational phases.</p> <p><u>Badger</u> While this route alignment does not at present cross any badger setts, badgers exist within the area and therefore could build a sett in the road alignment. The road may restrict movement of badgers across the landscape and as a result badgers may collide with vehicles on the road.</p> <p><u>Dormice</u> Dormice may use the hedgerows to commute, and as a result their commuting lines may be severed. Dormice may be found in the woodland 20 m from the route alignment and therefore may be disturbed. 19 hedgerows which cross the route have potential for dormice to be present. As a result of this, dormice may be killed and their habitats severed.</p> <p><u>Amphibians and reptiles</u> The information obtained suggests amphibians and reptiles exist within the local area. Nearby ponds, potentially used for breeding, could be disturbed. Terrestrial habitat for both amphibians and newts could be destroyed. Two ponds which crosses the route alignment will be directly lost as a result of the works, if this is a great crested newts breeding pond, a GCN population could be lost. Grass snakes could be impacts as a result of works close to watercourses.</p> <p><u>Priority invertebrates</u> The loss of the open mosaic habitat may result in loss of important insect assemblages</p> <p><u>Otter and water vole</u> Impacts to watercourses may impact populations of otter and water vole. In addition, there could be loss of riparian habitat due to the creation of the road bridge which would limit the possibility for holt creation and burrowing.</p> <p><u>White clawed crayfish</u> The information obtained suggests it is unlikely that white clawed crayfish exist within the survey area and within the route alignment, and as a result no impacts are expected.</p> <p><u>Birds</u> Loss of trees and hedgerows as a result of the works will limit nesting opportunities for birds. In addition, the road could sever bird flight lines and as a result birds could be killed through vehicle collision.</p>		<p>Creation of suitable off site habitat for GCN to be moved to should they be found in the road alignment.</p> <p>Terrestrial habitats to be lost should be recreated in a nearby undisturbed area. Slow method of works during construction with an ecologist present to move reptiles or amphibians away from the works. Waterbodies should be avoided where possible, and where this is not possible then it will have to be assumed that GCN are present. If GCN are present, then three compensatory ponds will need to be created per lost waterbody. Two ponds are directly crossed by the route, and if surveys indicate GCN may be present, six compensatory ponds may need to be created.</p> <p><u>Otter and water vole</u> Pollution prevention guidelines must be followed to minimise impacts to watercourses. Construction of road bridges to minimise loss of riparian habitat. Further surveys will indicate where otters and water voles are present. Precautionary method of works with an ecologist present to note signs of otter and water vole in the works area.</p> <p><u>Birds</u> Works should avoid the nesting bird season. Bird boxes could be installed in nearby areas to move birds away from the road alignment, and provide compensatory habitat. Full Phase 2 species surveys will further highlight the protected species which may be impacted directly or disturbed by the proposed works, and further mitigation not detailed in this column may be required.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>No suitability and no records provided by the desk study.</p> <p><u>Birds</u></p> <p>27 bird records including barn owl was provided by the desk study.</p> <p>Suitable nesting habitat in terms of trees and hedgerows.</p> <p>No trees identified with barn owl roosting suitability.</p>			
	2b	<p><u>Designated sites</u></p> <p><u>Statutory Sites</u></p> <p>Bath and Bradford on Avon Bats Special Area of Conservation is located approximately 7 km to the north west of the northern end of the route.</p> <p>Mells Valley SAC is located approximately 19 km south west of the south of the proposed route.</p> <p>Chilmark Quarries SAC is located approximately 29 km south of the proposed route.</p> <p>Spye Park SSSI is located just over 2 km from the proposed route.</p> <p><u>Non-Statutory Designated Sites</u></p> <p>The River Avon LWS (part of the River Avon SAC) crosses the route at the northern end of the proposed route.</p> <p>Inwood, Lacock LWS is located approximately 110 m northwest of the proposed Scheme.</p> <p>Eighteen Acre Plantation LWS is located approximately 650 m east of the proposed Scheme.</p> <p>Morass Wood LWS is located approximately 1.1 km east of the proposed Scheme</p> <p>Kennet and Avon Canal LWS is located approximately 180 m south of the proposed route.</p> <p><u>Habitats</u></p> <p><u>Information obtained from the desk study: Priority habitats within 1 km of the proposed route</u></p> <ul style="list-style-type: none"> • Four ancient woodlands – the closest is 560 m north • 58 deciduous woodlands – the closest is 20 m east • Nine traditional orchards – the closest is 520 m west 	<p><u>Designated Sites</u></p> <p>Bat species associated with the three SACs are known to forage long distances. The proposed works may reduce foraging opportunities for bats associated with these SACs. The creation of the road may sever commuting and foraging lines for the bats, resulting in death or injury.</p> <p>The route is over 2 km from Spye Park SSSI, so the impacts are likely to be minimal. However, the works fall within the impact risk zone for this SSSI, meaning that the SSSI could face disturbance impacts from the proposed works.</p> <p>River Avon supports a wide variety of protected species and is especially designated for several Annex 2 species including Atlantic salmon and bullhead. The River also provides commuting opportunities for otter. Works to the area may result in run-off and localised pollution to the river, as well as noise, light and vibration disturbance. In addition, there could be loss of riparian habitat due to bridge creation.</p> <p>Inwood, Lacock, Eighteen Acre Plantation and Morass Wood are all LWSs located over 500 m from the route alignment, so any impacts are likely to be minimal.</p> <p>Kennet and Avon Canal is another LWS, linking Reading with the Bristol channel. However, as it is over 100 m away, impacts are likely to be minimal.</p> <p><u>Habitats</u></p> <p>Routes 2a, 2b, and 2c are longer than routes 1a and 1b. The direct result of this will mean that more habitats will be impacted in the latter three routes than in the former two routes.</p> <p>The route is within 20 m of a pocket of deciduous woodland. The woodland could therefore be subject to noise, light and vibration disturbance impacts during construction, and pollution impacts when the road is operational.</p> <p>Four areas of ancient woodland are within 1 km of the proposed route. However, as the closest pocket of ancient woodland is over 500 m from the proposed route, the impacts are likely to be minimal.</p> <p>Areas of traditional orchard, open mosaic habitat, and woodpasture and parkland exist within 1 km from the route option, but due to these being over 500 m from the route option, impacts are likely to be minimal.</p>	2 – Moderate adverse	<p><u>Designated Sites</u></p> <p>Designated sites and habitats should be avoided where possible.</p> <p>Bath and Bradford on Avon Bats SAC: Activity surveys including transect surveys will help to indicate where bats are on the Scheme. Enhancing foraging opportunities off site and building hedgerows as barriers to road so that there is less likely to be collision</p> <p>Mells Valley SAC. The same mitigation can be applied as with the SAC above, however the distance means the route option is unlikely to require mitigation.</p> <p>Chilmark Quarries SAC. The same mitigation can be applied as with the SAC above, however the distance means the route option is unlikely to require mitigation.</p> <p>Consultation with the local planning authority (LPA) should help to indicate whether the works will impact Spye Park SSSI, and appropriate mitigation can be put in place if so.</p> <p>Pollution prevention guidelines must be followed to minimise pollution to watercourses during the construction phase to minimise impacts to the River Avon LWS.</p> <p><u>Habitats</u></p> <p>As great a distance between the pocket of deciduous woodland and the works should be maintained as possible. If necessary, a barrier between the woodland habitat and the works should be maintained to minimise disturbance.</p> <p>58 Hedgerows to be lost could be compensated with replanted hedgerows in an undisturbed area on site. Routes 2a, 2b and 2c cross at least 20 more hedgerows than routes 1a and 1b.</p> <p>Remaining hedgerows could be enhanced by planting native shrubs and increasing species diversity. Hedgerows could be planted on either side of the road.</p> <p>Pollution prevention guidelines must be followed to minimise pollution to watercourses.</p> <p>If possible, road bridges should be constructed to minimise loss of riparian habitat associated with the water courses.</p> <p>All options provide opportunities for habitat creation along the proposed road corridor and within the wider landscape. Proposed red line boundaries for the options should take into account the likely requirement for habitat creation (e.g. pond creation) to mitigate for the losses associated with the Scheme. Further opportunities for new habitat could be provided within the drainage design (e.g. swale and SuDS pond features) and should be considered to maximise ecological benefits.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> Two areas of woodpasture and parkland – the closest is 700 m east 1 open mosaic habitat – the closest is 570 m west <p><u>Information obtained from the Phase 1 survey: Habitats within the 250 m survey area</u></p> <p>The total area of land within 250 m of the proposed route is 433 hectares. Of this, surveys have been completed on 313 hectares, 72% of the total area. Of the area surveyed:</p> <ul style="list-style-type: none"> 47% is arable 43% is improved grassland 11.5% is poor semi-improved grassland 1% is semi natural broadleaved woodland 1% is dense scrub 1% is tall ruderal 1% is bare ground 0.5% is running water 0.4% is amenity grassland 0.3% is buildings 0.2% is standing water 0.02% is marshy grassland 0.02% is ephemeral/short perennial 0.01% is plantation mixed woodland 0.008% is plantation broadleaved woodland 0.001% is scattered scrub <p><u>Information obtained from the Phase 1 survey: habitats within 10 m of the proposed route (taken to mean habitats directly crossed by the route)</u></p> <p>The total area of land within 10 m of the proposed route is 16 hectares. Of this, 13 hectares have been surveyed. Of this area:</p> <ul style="list-style-type: none"> 48% is improved grassland 46% is arable 10% is poor semi-improved grassland 0.7% is dense scrub 0.4% is running water 0.25% is standing water 0.2% is tall ruderal 0.2% is bare ground 0.09% is plantation broadleaved woodland 0.01% is buildings 	<p>The majority of the habitat within the survey area is comprised of arable farmland and improved / semi-improved grassland. These habitats tend to be comprised of a low diversity of plant species, however the poor semi-improved grassland may have some wildflower diversity.</p> <p>Loss of hedgerow will result in the loss of habitats of Principal Importance, as well as some of these hedgerows may be defined as 'important' following criteria within the Hedgerow Regulations 1997 guidance⁴⁹.</p> <p>The proposed route directly crosses three main water courses, one ponds, one additional stream identified during the Phase 1 survey, and 16 wet ditches. Watercourses are habitats of principle importance and must be protected.</p> <p>The option requires five new watercourse crossings (one on the River Avon, one on Forest Brook, one on clackers brook and two on unnamed ordinary watercourses).</p> <p>The River Avon crossing is proposed to be a viaduct (approximately 300 m long). Bridges are proposed for the Forest Brook (approximately 10 long) and Clackers Brook (approximately 20 m long). A bridge (approximately 20 long) is also proposed for the ordinary watercourse (a tributary of the Clackers Brook).</p> <p>A culvert (approximately 25 m long) is also proposed for the new crossing on and unnamed ordinary watercourse (a tributary of the River Avon).</p> <p>Additionally, the option has the potential requirement for culvert extensions on Forest Brook under Woodrow Road and on an unnamed ordinary watercourse under New Road.</p> <p>These crossings could impact river habitats and their associated species through for example loss of riparian vegetation, increased shading and direct loss of in-channel habitat availability, especially in the cases of new culverts and culvert extension.</p> <p>There are 13 ponds located within 150 m of the option. Two of these are under the option footprint and thus would be lost. In addition to direct habitat loss, there is potential for construction effects such as pollution and disturbance to retained ponds.</p> <p>The proposed route will directly result in loss of trees.</p> <p>Protected Species</p> <p><u>Bats</u></p> <p>The information obtained indicates that bats exist within the area of the proposed works. The proposed route alignment will result in direct loss of hedgerows and trees, which bats use as features for commuting, foraging, and roosting. There will be a net loss of habitat as a result of the works. The creation of the road could sever flight lines, and as a result, bats could be killed during both the construction and operational phases.</p>		<p>Designs should seek to minimise potential impacts on watercourses and ponds through embedded mitigation, such as the adoption of clear span bridge structures with set-back abutments and no in-channel piers.</p> <p>Where feasible, the Scheme should seek to avoid new culverts on watercourses, particularly main rivers. The regulator will generally oppose the adoption of new culverts unless alternatives are not feasible. Where culverts are unavoidable consideration should be given to appropriate placement of structure invert levels to ensure recruitment of natural bed substrates to minimise habitat severance and maintain some habitat connectivity.</p> <p>General construction related mitigation should be adopted to avoid undue adverse effects on watercourses and ponds e.g. the adoption of exclusion zones around retained aquatic features.</p> <p>Trees lost as a result of the Scheme should be compensated for through a tree planting Scheme in an undisturbed area close to site.</p> <p>The diversity of the surrounding habitat could be improved by planting native wildflowers.</p> <p>The ponds to be lost as a result of the works should be compensated for by either creating an equivalent pond nearby, or by enhancing the habitat of other ponds.</p> <p>In addition to habitat loss as a result of this Scheme, the creation of a road can cause severance of habitats at a landscape scale. Options 1a and 1b are shorter than options 2a, 2b and 2c, and therefore the impacts on the landscape for this route option are likely to be greater both in terms of habitat loss and severance. This informs the impact score.</p> <p>Protected species</p> <p>As the routes 2a, 2b and 2c are longer than 1a and 1b, more impacts to each of the following species are likely to be encountered.</p> <p><u>Bats</u></p> <p>Surveys will indicate presence or absence of bats in tree roosts which are to be destroyed as a result of the works. If bats are present, these roosts must be at least compensated for with appropriate artificial habitat in an undisturbed area.</p> <p><u>Badgers</u></p> <p>Surveys must be carried out prior to works to ensure no new setts have been created within the route alignment.</p> <p>Main badger setts within the route alignment itself must be closed under licence.</p> <p>Constructing mammal-proof fencing along the road alignment could be an option to minimise vehicle collisions with wildlife.</p> <p><u>Dormice</u></p> <p>Further surveys will help to indicate where dormice are present in the general area. Minimising impacts to woodland will protect dormouse populations.</p> <p><u>Amphibians and reptiles</u></p>

⁴⁹ Available at: <https://www.legislation.gov.uk/ukxi/1997/1160/contents/made>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>The proposed route directly crosses 58 hedgerows.</p> <p>The proposed route directly crosses the River Avon, Forest Brook, and Clackers Brook. Two ponds are crossed directly by the route, and there are 13 ponds located within 150 m of the option.</p> <p>The Phase 1 survey additionally identified one running water line with some water vole suitability.</p> <p>The Phase 1 survey additionally identified 16 wet ditches, one of which has otter suitability.</p> <p><u>Protected Species</u></p> <p><u>Bats</u></p> <p>Six EPS licences for bats are located within 2 km of the proposed route, with one being directly on the route.</p> <p>218 bats including lesser and greater horseshoe bats were obtained by the desk study.</p> <p>Trees and hedgerows in the route provide suitable roosting and foraging habitat for bats.</p> <p>One bat mitigation building was identified during the Phase 1 survey, with specific features designed for roosting bats.</p> <p><u>Badgers</u></p> <p>Five badger records were provided by the local records centre.</p> <p>19 potential badger setts were identified during the Phase 1 survey, including two which directly cross the route alignment.</p> <p><u>Dormice</u></p> <p>21 hedgerows with at least low potential for dormice crossed directly by the route.</p> <p>No desk study information for dormice.</p> <p><u>Amphibians and Reptiles</u></p> <p>Four EPS licences for great crested newts are located within 1 km of the proposed route.</p> <p>The local records centre provided records of: 28 great crested newts, two common toads, two common frogs, 39 slow worms and eight grass snakes.</p> <p>The Phase 1 survey additionally identified eight areas with particular suitability for terrestrial habitat for reptiles and amphibians.</p> <p>One pond is crossed directly by the route which may provide breeding habitat for GCN.</p> <p><u>Otter and water vole</u></p>	<p><u>Badger</u></p> <p>Two badger setts are directly crossed by this route alignment, which will be destroyed as a result of the works. The road may restrict movement of badgers across the landscape and as a result badgers may collide with vehicles on the road.</p> <p><u>Dormice</u></p> <p>Dormice may use the hedgerows to commute, and as a result their commuting lines may be severed. Dormice may be found in the woodland 20 m from the route alignment and therefore may be disturbed.</p> <p>21 hedgerows which cross the route have potential for dormice to be present. As a result of this, dormice may be killed and their habitats severed.</p> <p><u>Amphibians and reptiles</u></p> <p>The information obtained suggests amphibians and reptiles exist within the local area. Nearby ponds, potentially used for breeding, could be disturbed. Terrestrial habitat for both amphibians and newts could be destroyed.</p> <p>One ponds which crosses the route alignment will be directly lost as a result of the works, if this is a great crested newts breeding pond, a GCN population could be lost.</p> <p>Grass snakes could be impacts as a result of works close to watercourses.</p> <p><u>Priority invertebrates</u></p> <p>The route could result in invertebrate habitat becoming destroyed. Insects which fly over the area of the road alignment could be killed as a result of the works.</p> <p><u>Otter and water vole</u></p> <p>Impacts to watercourses may impact populations of otter and water vole. In addition, there could be loss of riparian habitat due to the creation of the road bridge which would limit the possibility for holt creation and burrowing.</p> <p><u>White clawed crayfish</u></p> <p>The information obtained suggests it is unlikely that white clawed crayfish exist within the survey area and within the route alignment, and as a result no impacts are expected.</p> <p><u>Birds</u></p> <p>Loss of trees and hedgerows as a result of the works will limit nesting opportunities for birds. In addition, the road could sever bird flight lines and as a result birds could be killed through vehicle collision.</p>		<p>Full pond surveys of waterbodies within 250 m of the route alignment will indicate where great crested newts are present.</p> <p>Creation of suitable off site habitat for GCN to be moved to should they be found in the road alignment.</p> <p>Terrestrial habitats to be lost should be recreated in a nearby undisturbed area.</p> <p>Slow method of works during construction with an ecologist present to move reptiles or amphibians away from the works.</p> <p>Waterbodies should be avoided where possible, and where this is not possible then it will have to be assumed that GCN are present. If GCN are present, then three compensatory ponds will need to be created per lost waterbody. One pond is crossed directly by the route, meaning that if surveys indicate the presence of GCN, three compensatory ponds will need to be created.</p> <p><u>Otter and water vole</u></p> <p>Pollution prevention guidelines must be followed to minimise impacts to watercourses.</p> <p>Construction of road bridges to minimise loss of riparian habitat.</p> <p>Further surveys will indicate where otters and water voles are present.</p> <p>Precautionary method of works with an ecologist present to note signs of otter and water vole in the works area.</p> <p><u>Birds</u></p> <p>Works should avoid the nesting bird season.</p> <p>Bird boxes could be installed in nearby areas to move birds away from the road alignment, and provide compensatory habitat.</p> <p>Full Phase 2 species surveys will further highlight the protected species which may be impacted directly or disturbed by the proposed works, and further mitigation not detailed in this column may be required.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>The local records centre provided four otter records and eight water vole records</p> <p>The Phase 1 survey additionally identified a stream with water vole suitability, and a wet ditch with otter suitability.</p> <p>The main watercourses also provide otter and water vole suitability.</p> <p><u>Invertebrates</u></p> <p>The local records centre provided one record of a small heath butterfly.</p> <p><u>White clawed crayfish</u></p> <p>The records centre did not provide any records, and the Phase 1 survey did not identify any suitability for white clawed crayfish.</p> <p><u>Birds</u></p> <p>35 bird records including barn owl and kingfisher were provided by the desk study</p> <p>Trees and hedgerows with suitability for nesting birds.</p>			
	2c	<p>Designated Sites</p> <p><u>Statutory Sites</u></p> <p>Mells Valley SAC is located approximately 19 km south west of the proposed route.</p> <p>Bath and Bradford on Avon Bats SAC is located approximately 7km north west of the proposed route.</p> <p>Chilmark Quarries SAC is located approximately 29 km south of the proposed route.</p> <p>Spye Park SSSI is located 1.1 km north east of the route option.</p> <p><u>Non-Statutory Sites</u></p> <p>The River Avon LWS (part of the River Avon SAC) crossed the proposed route.</p> <p>Kennet and Avon Canal LWS is located 180 m south of the proposed route.</p> <p>Eighteen Acre Plantation LWS is located approximately 670 m east of the proposed route.</p> <p>Morass Wood LWS is located 900 m east of the proposed route.</p> <p>Inwood, Lacock LWS is located approximately 110 m northwest of the proposed route.</p> <p>Hanging Wood LWS is located approximately 830m east of the proposed route.</p> <p>Hack Farm Meadow LWS is located approximately 600m east of the proposed route.</p>	<p>Designated Sites</p> <p>The three SACs within 30 km of the route are designated specifically for the Annex 2 bat species that they support. Bat species associated with the three SACs can forage long distances from the SACs. Works to this area may reduce foraging opportunities for bats associated with these SACs. The impacts are likely to be the greatest for the bat populations associated with the Bath and Bradford on Avon Bats SAC.</p> <p>River Avon supports a wide variety of protected species and is especially designated for several Annex 2 species including Atlantic salmon and bullhead. The River also provides commuting opportunities for otter. Works to the area may result in run-off and localised pollution to the river, as well as noise, light and vibration disturbance. In addition, there could be loss of riparian habitat due to the road creating a bridge which would cross the river which may reduce the opportunities for otter holt creation, or loss of connectivity between areas of bank habitat.</p> <p>Inwood, Lacock, Eighteen Acre Plantation, Hanging Wood, Hill Planting, Hack Farm Meadow and Morass Wood are all local wildlife sites which are unlikely to be disturbed by the works due to the distance/</p> <p>Kennet and Avon canal is another local wildlife site, linking Reading with the Bristol channel. Like with the River Avon, it is a linear feature which can provide commuting opportunities for wildlife. It is located over 100 m from the road alignment so it is unlikely to be impacted.</p> <p>Habitats</p>	2 – Moderate adverse	<p>Designated Sites</p> <p>Bath and Bradford on Avon Bats SAC: Activity surveys including transect surveys will help to indicate where bats are on the Scheme. Enhancing foraging opportunities off site and building hedgerows as barriers to road so that there is less likely to be collision.</p> <p>Mells Valley SAC. The same mitigation can be applied as with the SAC above, however the distance means the route option is unlikely to require mitigation.</p> <p>Consultation with the local planning authority (LPA) should help to indicate whether the works will impact Spye Park SSSI, and appropriate mitigation can be put in place if so.</p> <p>The Spye Park SSSI is located approximately 1.1 km north east of the proposed route. Therefore, there will be no direct impacts to this SSSI. However, 2c is within the impact risk zones (IRZ) where new roads would be considered within the zone of impact. Therefore, our assessment will consider indirect impact on the SSSI, including air quality.</p> <p>Pollution prevention guidelines must be followed to minimise pollution to watercourses during the construction phase to minimise impacts to the River Avon LWS.</p> <p>Habitats</p> <p>The four pockets of deciduous woodland to be lost or severed as a result of this route alignment are likely to be labelled as habitats of principal importance, and should be compensated for, by planting a woodland in an undisturbed area close to site.</p> <p>58 Hedgerows to be lost could be compensated with replanted hedgerows in an undisturbed area on site. Routes 2a, 2b and 2c cross at least 20 more hedgerows than routes 1a and 1b.</p> <p>Remaining hedgerows could be enhanced by planting native shrubs and increasing species diversity. Hedgerows could be planted on either side of the road.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>Hill Planting LWS is located approximately 500 m east of the proposed route.</p> <p>Habitats</p> <p><u>Information obtained from the desk study: Priority habitats within 1 km of the proposed route</u></p> <ul style="list-style-type: none"> • Four ancient woodland – the closest is 130 m west • 58 deciduous woodland – the route alignment directly crosses through four of these woodlands • 3 traditional orchards – the closest is 540 m west • 1 area of wood pasture/parkland – the closest is 380 m west • 1 mosaic habitat – the closest is 800 m east <p><u>Results of the Phase 1 survey: Area surveyed within 250m</u></p> <p>There is 454 hectares within 250 m of the proposed route. Of this, 313 hectares have been surveyed. Of this area:</p> <ul style="list-style-type: none"> • 2.6% is semi-natural broadleaved woodland • 0.3% is plantation broadleaved woodland • 0.008% is mixed plantation woodland • 1.3% is dense scrub • 0.001% is scattered scrub • 48% is improved grassland • 10% is poor semi-improved grassland • 0.8% is tall ruderal • 0.4% is standing water • 0.4% is running water • 43% is arable • 0.4% is amenity grassland • 0.1% is buildings • 0.5% is bare ground <p><u>Results of the Phase 1 survey: Habitats within 10 m of the proposed route (taken to me habitats which the route directly crosses)</u></p>	<p>The route is anticipated to cross four pockets of deciduous woodland. These will be lost or severed as a result of the works. Broadleaved woodlands are a UK BAP priority habitat.</p> <p>Routes 2a, 2b, and 2c are longer than routes 1a and 1b. The direct result of this will mean that more habitats will be impacted in the latter three routes than in the former two routes.</p> <p>Four areas of ancient woodland are within 1 km of the proposed route. Impacts are likely to be minimal as the nearest ancient woodland is over 100 m from the works.</p> <p>Areas of traditional orchard, open mosaic habitat, and woodpasture and parkland exist within 1 km from the route option, but due to these being over 500 m from the route option, impacts are likely to be minimal.</p> <p>The majority of the habitat within the survey area is comprised of arable farmland and improved / semi-improved grassland. These habitats tend to be comprised of a low diversity of plant species, however the poor semi-improved grassland may have some wildflower diversity.</p> <p>Loss of hedgerow will result in the loss of habitats of Principal Importance, as well as some of these hedgerows may be defined as 'important' following criteria within the Hedgerow Regulations 1997 guidance⁵⁰.</p> <p>The proposed route directly crosses three main water courses, one additional stream identified during the Phase 1 survey, and 19 wet ditches. Watercourses are habitats of principle importance and must be protected.</p> <p>The option requires five new watercourse crossings (one on the River Avon, one on Forest Brook, one on clackers brook, one on an unnamed main river and one on an unnamed ordinary watercourse).</p> <p>The River Avon crossing is proposed to be a viaduct (approximately 300 m long). Bridges are proposed for the Forest Brook (approximately 10 m long), Clackers Brook (approximately 20 m long) and an unnamed ordinary watercourse (approximately 20 m long) (tributary of the Clackers Brook).</p> <p>A culvert (approximately 17.5 m long) is also proposed for the new crossing on an unnamed main river, a tributary of the River Avon.</p> <p>These crossings could impact river habitats and their associated species through for example loss of riparian vegetation, increased shading and direct loss of in-channel habitat availability, especially in the cases of new culverts and culvert extension.</p> <p>There are 13 ponds located within 150 m of the option. Two of these are under the option footprint and thus would be lost. In addition to direct habitat loss, there is potential for construction effects such as pollution and disturbance to retained ponds.</p>		<p>If possible, road bridges should be constructed to minimise loss of riparian habitat associated with the water courses. Pollution prevention guidelines should be followed to minimise impacts to watercourses.</p> <p>All options provide opportunities for habitat creation along the proposed road corridor and within the wider landscape. Proposed red line boundaries for the options should take into account the likely requirement for habitat creation (e.g. pond creation) to mitigate for the losses associated with the Scheme. Further opportunities for new habitat could be provided within the drainage design (e.g. swale and SuDS pond features) and should be considered to maximise ecological benefits.</p> <p>Designs should seek to minimise potential impacts on watercourses and ponds through embedded mitigation, such as the adoption of clear span bridge structures with set-back abutments and no in-channel piers.</p> <p>Where feasible, the Scheme should seek to avoid new culverts on watercourses, particularly main rivers. The regulator will generally oppose the adoption of new culverts unless alternatives are not feasible. Where culverts are unavoidable consideration should be given to appropriate placement of structure invert levels to ensure recruitment of natural bed substrates to minimise habitat severance and maintain some habitat connectivity.</p> <p>General construction related mitigation should be adopted to avoid undue adverse effects on watercourses and ponds e.g. the adoption of exclusion zones around retained aquatic features.</p> <p>Trees lost as a result of the Scheme should be compensated for through a tree planting Scheme in an undisturbed area close to site.</p> <p>The diversity of the surrounding habitat could be improved by planting native wildflowers</p> <p>The ponds to be lost could be compensated for either by creating new ponds or by enhancing nearby ponds.</p> <p>In addition to habitat loss as a result of this Scheme, the creation of a road can cause severance of habitats at a landscape scale. Options 1a and 1b are shorter than options 2a, 2b and 2c, and therefore the impacts on the landscape for this route option are likely to be greater both in terms of habitat loss and severance. This informs the impact score. The impact score for this route option is higher than route options 2a and 2b due to the woodland habitats that this route option breaches.</p> <p>Protected species</p> <p>As the routes 2a, 2b and 2c are longer than 1a and 1b, more impacts to each of the following species are likely to be encountered.</p> <p>Bats</p> <p>Surveys will indicate presence or absence of bats in tree roosts which are to be destroyed as a result of the works. If bats are present, these roosts must be at least compensated for with appropriate artificial habitat in an undisturbed area.</p> <p>Badgers</p> <p>Badger setts to be lost must be replaced with a suitable artificial badger sett in an undisturbed area on site. Main badger setts must be closed under licence.</p>

⁵⁰ Available at: <https://www.legislation.gov.uk/uksi/1997/1160/contents/made>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>The total area of land within 10 m of the proposed route is 17 hectares. Of this, 14 hectares have been surveyed. Of this area:</p> <ul style="list-style-type: none"> 1.2% is semi-natural broadleaved woodland 0.08% is plantation broadleaved woodland 0.9% is dense scrub 55% is improved grassland 5.6% is poor semi-improved grassland 0.1% is tall ruderal 0.03% is standing water 0.3% is running water 41% is arable 0.3% is bare ground <p>The proposed route directly crosses 58 hedgerows.</p> <p>The proposed route directly crosses the River Avon, Clackers Brook and Forest Brook. In addition, the Phase 1 survey identified a stream with otter and water vole suitability.</p> <p>In addition, the Phase 1 survey identified 19 wet ditches, three of which have otter potential, and two of which have water vole potential.</p> <p>The route directly crosses three ponds.</p> <p>Protected Species</p> <p><u>Bats</u></p> <p>Six EPS licences for bats have been granted within 2 km of the proposed route.</p> <p>217 bat species including eight records of greater horseshoe bats were provided by the local record centre.</p> <p>Trees and hedgerows provide suitable habitat for bats.</p> <p><u>Badger</u></p> <p>Five badger records were provided in the desk study.</p> <p>19 potential badger setts identified in the Phase 1, including two which directly cross the route.</p> <p><u>Dormice</u></p> <p>19 hedgerows within 10 m of the route have low to some suitability for dormice.</p> <p><u>Amphibians and reptiles</u></p> <p>Four GCN licences have been granted within 1 km of the proposed route.</p> <p>The local records centre provided evidence of 28 great crested newts, two common frogs, two</p>	<p>The proposed route will directly result in loss of trees.</p> <p>Protected Species</p> <p><u>Bats</u></p> <p>The information obtained indicates that bats exist within the area of the proposed works. The proposed route alignment will result in direct loss of hedgerows and trees, which bats use as features for commuting, foraging, and roosting. There will be a net loss of habitat as a result of the works. The creation of the road could sever flight lines, and as a result, bats could be killed during both the construction and operational phases.</p> <p>Loss of the four deciduous woodland likely will impact populations of roosting and foraging bats</p> <p><u>Badger</u></p> <p>Two badger setts are directly crossed by this route alignment, which will be destroyed as a result of the works. The road may restrict movement of badgers across the landscape and as a result badgers may collide with vehicles on the road.</p> <p><u>Dormice</u></p> <p>Dormice may use the hedgerows to commute, and as a result their commuting lines may be severed. Dormice may be found in the woodland 20 m from the route alignment and therefore may be disturbed.</p> <p>21 hedgerows which cross the route have potential for dormice to be present. As a result of this, dormice may be killed and their habitats severed.</p> <p><u>Amphibians and reptiles</u></p> <p>The information obtained suggests amphibians and reptiles exist within the local area. Nearby ponds, potentially used for breeding, could be disturbed. Terrestrial habitat for both amphibians and newts could be destroyed.</p> <p>Three ponds which crosses the route alignment will be directly lost as a result of the works, if this is a great crested newts breeding pond, a GCN population could be lost.</p> <p>Grass snakes could be impacts as a result of works close to watercourses.</p> <p><u>Priority invertebrates</u></p> <p>The route could result in invertebrate habitat becoming destroyed. Insects which fly over the area of the road alignment could be killed as a result of the works.</p> <p><u>Otter and water vole</u></p> <p>Impacts to watercourses may impact populations of otter and water vole. In addition, there could be loss of riparian habitat due to the creation of the road bridge which would limit the possibility for holt creation and burrowing.</p> <p><u>White clawed crayfish</u></p> <p>The information obtained suggests it is unlikely that white clawed crayfish exist within the survey area and within the route alignment, and as a result no impacts are expected.</p>		<p><u>Dormice</u></p> <p>Further surveys will help to indicate where dormice are present in the general area. Minimising impacts to woodland will protect dormouse populations</p> <p><u>Amphibians and reptiles</u></p> <p>Full pond surveys of waterbodies within 250 m of the route alignment will indicate where great crested newts are present.</p> <p>Terrestrial habitats to be lost should be recreated in a nearby undisturbed area.</p> <p>Slow method of works during construction with an ecologist present to move reptiles or amphibians away from the works.</p> <p>Waterbodies should be avoided where possible, and where this is not possible then it will have to be assumed that GCN are present. If GCN are present, then three compensatory ponds will need to be created per lost waterbody. Three ponds are directly crossed by the route alignment meaning that if surveys indicate the presence of GCN, nine compensatory ponds will need to be created.</p> <p><u>Otter and water vole</u></p> <p>Pollution prevention guidelines must be followed to minimise impacts to watercourses.</p> <p>Construction of road bridges to minimise loss of riparian habitat.</p> <p>Further surveys will indicate where otters and water voles are present.</p> <p>Precautionary method of works with an ecologist present to note signs of otter and water vole in the works area.</p> <p><u>Birds</u></p> <p>Works should avoid the nesting bird season.</p> <p>Bird boxes could be installed in nearby areas to move birds away from the road alignment, and provide compensatory habitat.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>common toads, 40 records of slow worm, and 40 grass snake records.</p> <p>During the Phase 1 survey, five areas of terrestrial habitat were noted for their ability to support populations of reptiles and amphibians.</p> <p>Three ponds are directly crossed by the route alignment, resulting potentially in breeding ponds for GCN being lost.</p> <p><u>Priority invertebrates</u></p> <p>One record of a small heath butterfly was provided by the local records centre.</p> <p><u>Otter and water vole</u></p> <p>Four records of otter and ten water vole records provided by the local records centre.</p> <p>During the Phase 1 survey, a burrow was identified which may be an otter holt.</p> <p>One additional stream with otter and water vole suitability crosses the route, and three wet ditches with otter and water vole suitability.</p> <p><u>White clawed crayfish</u></p> <p>No records of white clawed crayfish were provided, and no evidence of habitat suitability was found during the field surveys.</p> <p><u>Birds</u></p> <p>36 bird records including red kite were provided by the local records centre. Suitable habitat in the form of trees and hedgerows.</p>	<p><u>Birds</u></p> <p>Loss of trees and hedgerows as a result of the works will limit nesting opportunities for birds. In addition, the road could sever bird flight lines and as a result birds could be killed through vehicle collision.</p>		
Water environment	1a	<ul style="list-style-type: none"> • River Avon • Forest Brook • WC13 (two locations) • Proposed canal • Secondary A and undifferentiated Superficial Aquifers 	<p>Potential for direct and indirect water quality impacts to the River Avon and Forest Brook should road runoff from the option be directed to surface water. This option is the smallest out of all the options in terms of total design length and features which could increase spillage risk (i.e. roundabouts).</p> <p>Assumes discharge to ground is unsuitable in this area owing to the underlying geology. Therefore, assumes negligible magnitude of impact to groundwater.</p> <p>Fixing of channel position and loss of riparian vegetation at the bridge crossing locations of the River Avon and Forest Brook. Loss of bed and bank form and material and change in sediment transport and channel process at the locations of the two WC 13 culverts. Loss of floodplain and flow conveyance at watercourse crossings of the River Avon and Forest Brook leading to increase in flood levels.</p> <p>Interruption or diversion of surface water flood flows paths leading to increase in flood levels.</p>	2 – Moderate adverse	<p>Ponds or swales to attenuate the flows can provide mitigation in the form of water quality benefits/ treatment.</p> <p>Set bridge abutments back from the channel banks so that hard bank protection is not required. Design structures to allow the movement of the channel across its floodplain and to ensure flows are not restricted.</p> <p>Replace any riparian vegetation removed during construction.</p> <p>Ensure culverts are sized to pass a range of low and high flows, and that they are depressed and sized to allow a build up of natural bed material within the culvert.</p> <p>Compensatory floodplain storage areas to offset loss of floodplain.</p>
	1b	<ul style="list-style-type: none"> • River Avon • Forest Brook • WC13 • WC02 • Proposed canal 	<p>Potential for direct and indirect water quality impacts to the River Avon and Forest Brook should road runoff from the option be directed to surface water. This option is the second smallest out of all the options in terms of total design length and features which could increase spillage risk (i.e. roundabouts).</p>	2 – Moderate adverse	<p>Ponds or swales to attenuate the flows can provide mitigation in the form of water quality benefits/ treatment.</p> <p>Set bridge abutments back from the channel banks so that hard bank protection is not required.</p> <p>Design structures to allow the movement of the channel across its floodplain and to ensure flows are not restricted.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> Secondary A and undifferentiated Superficial Aquifers 	<p>Assumes discharge to ground is unsuitable in this area owing to the underlying geology. Therefore, assumes negligible magnitude of impact to groundwater.</p> <p>Fixing of channel position and loss of riparian vegetation at the bridge crossing locations of the River Avon and Forest Brook. Loss of bed and bank form and material and change in sediment transport and channel process at culverts (two in total).</p> <p>Loss of floodplain and flow conveyance at watercourse crossings of the River Avon and Forest Brook leading to increase in flood levels.</p> <p>Interruption or diversion of surface water flood flows paths leading to increase in flood levels.</p>		<p>Replace any riparian vegetation removed during construction.</p> <p>Ensure culverts are sized to pass a range of low and high flows, and that they are depressed and sized to allow a build up of natural bed material within the culvert.</p> <p>Compensatory floodplain storage areas to offset loss of floodplain.</p>
	1c	<ul style="list-style-type: none"> River Avon Forest Brook Proposed canal MR08 WC13 One other unnumbered watercourses Secondary A and undifferentiated Superficial Aquifers 	<p>Potential for direct and indirect water quality impacts to the River Avon and Forest Brook should road runoff from the option be directed to surface water. This option is the 4th largest out of all the options in terms of total design length and features which could increase spillage risk (i.e. roundabouts).</p> <p>Assumes discharge to ground is unsuitable in this area owing to the underlying geology. Therefore, assumes negligible magnitude of impact to groundwater.</p> <p>Fixing of channel position and loss of riparian vegetation at the bridge crossing locations of the River Avon and Forest Brook. Loss of bed and bank form and material and change in sediment transport and channel process at culverts (three in total).</p> <p>Loss of floodplain and flow conveyance at watercourse crossings of the River Avon and Forest Brook leading to increase in flood levels. Interruption or diversion of surface water flood flows paths leading to increase in flood levels.</p>	2 – Moderate adverse	<p>Ponds or swales to attenuate the flows can provide mitigation in the form of water quality benefits/ treatment.</p> <p>Set bridge abutments back from the channel banks so that hard bank protection is not required.</p> <p>Design structures to allow the movement of the channel across its floodplain and to ensure flows are not restricted.</p> <p>Replace any riparian vegetation removed during construction.</p> <p>Ensure culverts are sized to pass a range of low and high flows, and that they are depressed and sized to allow a build up of natural bed material within the culvert.</p> <p>Compensatory floodplain storage areas to offset loss of floodplain.</p>
	2a	<ul style="list-style-type: none"> River Avon Forest Brook Proposed canal Clackers Brook WC13 WC07 Three other unnumbered watercourses Kennet & Avon Canal (indirect) Secondary A and undifferentiated Superficial Aquifers 	<p>Potential for direct and indirect water quality impacts to the River Avon and Forest Brook should road runoff from the option be directed to surface water.</p> <p>This option is the second largest out of all the options in terms of total design length and features which could increase spillage risk (i.e. roundabouts).</p> <p>Assumes discharge to ground is unsuitable in this area owing to the underlying geology. Therefore, assumes negligible magnitude of impact to groundwater.</p> <p>Fixing of channel position and loss of riparian vegetation at the bridge crossing locations of the River Avon, Forest Brook and Clackers Brook. Loss of bed and bank form and material and change in sediment transport and channel process at culverts (six in total).</p> <p>Loss of floodplain and flow conveyance at watercourse crossings of the River Avon, Forest Brook and Clackers Brook leading to increase in flood levels. Interruption or diversion of surface water flood flows paths leading to increase in flood levels.</p>	2 – Moderate adverse	<p>Ponds or swales to attenuate the flows can provide mitigation in the form of water quality benefits/ treatment.</p> <p>Set bridge abutments back from the channel banks so that hard bank protection is not required. Design structures to allow the movement of the channel across its floodplain and to ensure flows are not restricted.</p> <p>Replace any riparian vegetation removed during construction.</p> <p>Ensure culverts are sized to pass a range of low and high flows, and that they are depressed and sized to allow a build up of natural bed material within the culvert.</p> <p>Compensatory floodplain storage areas to offset loss of floodplain.</p>
	2b	<ul style="list-style-type: none"> River Avon Forest Brook 	<p>Potential for direct and indirect water quality impacts to the River Avon and Forest Brook should road runoff from the option be directed to surface water. This option is the third</p>	2 – Moderate adverse	<p>Ponds or swales to attenuate the flows can provide mitigation in the form of water quality benefits/ treatment.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> Proposed canal Clackers Brook WC13 WC07 Three other unnumbered watercourses Kennet & Avon Canal (indirect) Secondary A and undifferentiated Superficial Aquifers 	<p>largest out of all the options in terms of total design length and features which could increase spillage risk (i. e. roundabouts).</p> <p>Assumes discharge to ground is unsuitable in this area owing to the underlying geology. Therefore, assumes negligible magnitude of impact to groundwater.</p> <p>Fixing of channel position and loss of riparian vegetation at the bridge crossing locations of the River Avon, Forest Brook and Clackers Brook. Loss of bed and bank form and material and change in sediment transport and channel process at culverts (six in total).</p> <p>Loss of floodplain and flow conveyance at watercourse crossings of the River Avon, Forest Brook and Clackers Brook leading to increase in flood levels. Interruption or diversion of surface water flood flows paths leading to increase in flood levels.</p>		<p>Set bridge abutments back from the channel banks so that hard bank protection is not required.</p> <p>Design structures to allow the movement of the channel across its floodplain and to ensure flows are not restricted.</p> <p>Replace any riparian vegetation removed during construction.</p> <p>Ensure culverts are sized to pass a range of low and high flows, and that they are depressed and sized to allow a build up of natural bed material within the culvert.</p> <p>Compensatory floodplain storage areas to offset loss of floodplain.</p>
	2c	<ul style="list-style-type: none"> River Avon Forest Brook Proposed canal Clackers Brook WC13 WC07 Three other unnumbered watercourses Kennet & Avon Canal (indirect) Secondary A and undifferentiated Superficial Aquifers 	<p>Potential for direct and indirect water quality impacts to the River Avon and Forest Brook should road runoff from the option be directed to surface water. This option is the largest out of all the options in terms of total design length and features which could increase spillage risk (i., e roundabouts).</p> <p>Assumes discharge to ground is unsuitable in this area owing to the underlying geology. Therefore, assumes negligible magnitude of impact to groundwater.</p> <p>Fixing of channel position and loss of riparian vegetation at the bridge crossing locations of the River Avon, Forest Brook and Clackers Brook. Loss of bed and bank form and material and change in sediment transport and channel process at culverts (seven in total).</p> <p>Loss of floodplain and flow conveyance at watercourse crossings of the River Avon, Forest Brook and Clackers Brook leading to increase in flood levels. Interruption or diversion of surface water flood flows paths leading to increase in flood levels.</p>	2 – Moderate adverse	<p>Ponds or swales to attenuate the flows can provide mitigation in the form of water quality benefits/ treatment.</p> <p>Set bridge abutments back from the channel banks so that hard bank protection is not required.</p> <p>Design structures to allow the movement of the channel across its floodplain and to ensure flows are not restricted.</p> <p>Replace any riparian vegetation removed during construction.</p> <p>Ensure culverts are sized to pass a range of low and high flows, and that they are depressed and sized to allow a build up of natural bed material within the culvert.</p> <p>Compensatory floodplain storage areas to offset loss of floodplain.</p>
Landscape and visual	1a	<ul style="list-style-type: none"> Local landscape features: trees hedges, field pattern Special Landscape Area (SLA) at Spye Park Properties at Beanacre Properties at Halfway Farm PRoWs crossing route Receptor views from higher ground at Bowden Hill/Spye/Sandridge Common Queensfield Farm Bezzle Farm Forest Farm Properties on Woodrow Road Little Copse Farm Willowbank Cottage New Road Farm 	<ul style="list-style-type: none"> Loss of distinctive/valuable vegetation and changes to field pattern affecting character. Connecting views from SLA affecting perception of SLA. Visual receptors will have varying changes to views with new road and viaducts/earthworks and loss of vegetation. More properties potentially affected by this option due to Beanacre and views of viaduct over River Avon. More impact for Bezzle Farm, Forest Farm and properties on Woodrow Road due to proximity and less intervening vegetation. More impact for New Road Farm due to proximity. More impact for properties off A3102 in NE Melksham due to proximity. 	1 – Large adverse	<ul style="list-style-type: none"> Tweaks to alignment following tree survey to avoid distinctive/particularly valued vegetation. Carefully located screen planting both on and off site to protect views. Viaduct and other bridges to be sympathetic to local vernacular and use colour/form to avoid stark visibility – unless being proposed as iconic. Move further east from Beanacre. Move east towards option 1B alignment beyond hedge at Woodrow Rd/Forest Farm.

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> Manor Farm and adjacent properties of A3102 Blackmoor Farm Properties on NE edge of Melksham off A3102 			
	1b	<ul style="list-style-type: none"> Local Landscape features: trees hedges, field pattern Line of Roman Road SLA at Spye Park Riverside Farm Properties at Halfway Farm PRoWs crossing route Receptor views from higher ground at Bowden Hill/Spye/Sandridge Common Properties at Bowden Hill Queensfield Farm Bezzle Farm Forest Farm Properties on Woodrow Road Little Copse Farm Willowbank Cottage New Road Farm Manor Farm and adjacent properties of A3102 Blackmoor Farm Properties on NE edge of Melksham off A3102 	<ul style="list-style-type: none"> Loss of distinctive/valuable vegetation and changes to field pattern affecting character. Connecting views from SLA affecting perception of SLA. Visual receptors will have varying changes to views with new road and viaducts/earthworks and loss of vegetation. More impact for Riverside and Queensfield than option 1A due to proximity. Slightly less impact on Roman Rd as avoid trees. Woodrow Rd properties less impacted than Option 1A as road is east of intervening hedge. More impact for New Road Farm due to proximity. More impact for properties off A3102 in NE Melksham due to proximity. 	1 – Large adverse	<ul style="list-style-type: none"> Tweaks to alignment following tree survey to avoid distinctive/particularly valued vegetation. Carefully located screen planting both on and off site to protect views. Viaduct and other bridges to be sympathetic to local vernacular and use colour/form to avoid stark visibility – unless being proposed as iconic.
	1c	<ul style="list-style-type: none"> Local Landscape features: trees hedges, field pattern SLA at Spye Park Line of Roman Road Riverside Farm PRoWs crossing route PRoWs from higher ground at Bowden Hill/Spye/Sandridge Common Properties at Bowden Hill Queensfield Farm Properties at Lower Woodrow Sustrans cycle route 1 area of ancient woodland north of Manor Farm Manor Farm and adjacent properties of A3102 New Road Farm Blackmoor Farm 	<ul style="list-style-type: none"> Loss of distinctive/valuable vegetation and changes to field pattern affecting character; Connecting views from SLA affecting perception of SLA; Visual receptors will have varying changes to views with new road and viaducts/earthworks and loss of vegetation. Less impact for Riverside & Queensfield More impact for New Road Farm due to proximity More impact for properties off A3102 in NE Melksham due to proximity 	2 – Moderate adverse	<p>Tweaks to alignment following tree survey to avoid distinctive/particularly valued vegetation;</p> <p>Carefully located screen planting both on and off site to protect views;</p> <p>Viaduct and other bridges to be sympathetic to local vernacular and use colour/form to avoid stark visibility – unless being proposed as iconic.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> Properties on NE edge of Melksham off A3102 			
	2a	<ul style="list-style-type: none"> Local Landscape features: trees hedges, field pattern SLA at Spye Park Properties at Beanacre Properties at Halfway Farm PRoWs crossing route Receptor views from higher ground at Bowden Hill/Spye/Sandridge Common Queensfield Farm Bezzle Farm Forest Farm Properties on Woodrow Road Little Copse Farm Willowbank Cottage New Road Farm Manor Farm and adjacent properties of A3102 Blackmoor Farm Tanhouse Farm and Redstock Properties at Vernon Farm and Little Bower Farm Properties on edge of south Melksham at Bowerhill Newton Farm Canal tow path Properties on higher ground south of canal 	<ul style="list-style-type: none"> Loss of distinctive/valuable vegetation and changes to field pattern affecting character. Connecting views from SLA affecting perception of SLA. Visual receptors will have varying changes to views with new road and viaducts/earthworks and loss of vegetation. More properties potentially affected by this option due to Beanacre and views of viaduct over River Avon. More impact for Bezzle Farm, Forest Farm and properties on Woodrow Road due to proximity and less intervening vegetation. More impact for properties on A3102 due to proximity of junction. 	1 – Large adverse	<ul style="list-style-type: none"> Tweaks to alignment following tree survey to avoid distinctive/particularly valued vegetation. Carefully located screen planting both on and off site to protect views. Viaduct and other bridges to be sympathetic to local vernacular and use colour/form to avoid stark visibility – unless being proposed as iconic. Move further east from Beanacre. Move east towards option 2B alignment beyond hedge at Woodrow Rd/Forest Farm. Realign route further east to avoid impacts on views for Tan Farm and woodland block nearby.
	2b	<ul style="list-style-type: none"> Local Landscape features: trees hedges, field pattern Line of Roman Road SLA at Spye Park Riverside Farm Properties at Halfway Farm PRoWs crossing route Receptor views from higher ground at Bowden Hill/Spye/Sandridge Common Properties at Bowden Hill Queensfield Farm Bezzle Farm Forest Farm Properties on Woodrow Road Little Copse Farm Willowbank Cottage 	<ul style="list-style-type: none"> Loss of distinctive/valuable vegetation and changes to field pattern affecting character. Connecting views from SLA affecting perception of SLA. Visual receptors will have varying changes to views with new road and viaducts/earthworks and loss of vegetation. More impact for Riverside & Queensfield than option 2C due to proximity. Slightly less impact on Roman Rd as avoid trees. Woodrow Rd properties less impacted than Option 2A as road is east of intervening hedge. More impact for properties on A3102 due to proximity of junction. 	1 – Large adverse	<ul style="list-style-type: none"> Tweaks to alignment following tree survey to avoid distinctive/particularly valued vegetation. Carefully located screen planting both on and off site to protect views. Viaduct and other bridges to be sympathetic to local vernacular and use colour/form to avoid stark visibility – unless being proposed as iconic. Realign route further east to avoid impacts on views for Tan Farm and woodland block nearby.

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • New Road Farm • Manor Farm and adjacent properties of A3102 • Blackmoor Farm • Tanhouse Farm and Redstock • Properties at Vernon Farm and Little Bower Farm • Properties on edge of south Melksham at Bowerhill • Newton Farm • Canal tow path • Properties on higher ground south of canal 			
	2c	<ul style="list-style-type: none"> • Local Landscape features: trees hedges, field pattern • SLA at Spye Park • Line of Roman Road • Riverside Farm • PRowS crossing route • PRowS from higher ground at Bowden Hill/Spye/Sandridge Common • Properties at Bowden Hill • Queensfield Farm • Properties at Lower Woodrow • Sustrans cycle route • 2 areas of ancient woodland north of Manor Farm • Manor Farm and adjacent properties of A3102 • Tanhouse Farm and Redstock • Properties at Vernon Farm and Little Bower Farm • Properties on edge of south Melksham at Bowerhill • Newton Farm • Canal tow path • Properties on higher ground south of canal 	<ul style="list-style-type: none"> • Loss of distinctive/valuable vegetation and changes to field pattern affecting character. • Connecting views from SLA affecting perception of SLA. • Visual receptors will have varying changes to views with new road and viaducts/earthworks and loss of vegetation. • Less impact for Riverside & Queensfield than option 2B. • Some Lower Woodrow properties are very close to road and roundabout. 	2 – Moderate adverse	<ul style="list-style-type: none"> • Tweaks to alignment following tree survey to avoid distinctive/particularly valued vegetation. • Carefully located screen planting both on and off site to protect views. • Viaduct and other bridges to be sympathetic to local vernacular and use colour/form to avoid stark visibility – unless being proposed as iconic. • Realign option to meet with option B earlier to avoid loss of 1 rather than 2 areas of ancient woodland at Manor Farm. • Realign route further east to avoid impacts on views for Tan Farm and woodland block nearby.
Geology and soils	1a	<p>The option predominantly crosses farmland. The option crosses two historical landfills, Beanacre Landfill at the northern extent and an infilled canal approximately 750 m south of the start of the route.</p>	<p>Significant effects are anticipated related to loss of best and most versatile (BMV) classified agricultural farmland as a result of development. The option crosses Grade 3b and some un-surveyed land (provisionally Grade 3).</p> <p>Potential contamination sources have been identified associated with on-site and adjacent historical land uses.</p> <p>Farming activities may give rise to localised buried waste and localised spills of fuels /oils/chemicals and widespread use of pesticides and fertiliser.</p>	1 – Large adverse	<p>A ground investigation would be undertaken in consultation with the local authority, to investigate the general contaminative status of the site along the route and target identified potential contamination sources. Completion of a quantitative risk assessment to assess risk to human health, controlled waters and property receptors.</p> <p>Appropriate mitigation measures would be included within the design, construction and operation of the Scheme in accordance with statutory guidance and best practice, e.g.:</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
			<p>The historical landfill at Beanacre received household refuse and commercial waste.</p> <p>Construction activities could potentially introduce new sources of contamination and disturb and mobilise existing sources of contamination. The operation of the Scheme may potentially introduce new sources of contamination and below ground services could create additional pathways for the migration of contamination.</p>		<ul style="list-style-type: none"> Implementation of appropriate soil, water and air pollution incident controls; Stockpile management to reduce soil erosion; and Re-use soil and source local materials. <p>Minimising the area and duration of soil exposure and timely reinstatement of vegetation or hardstanding.</p>
	1b	<p>The option crosses farmland in the north and central areas of the site.</p> <p>The option crosses the course of a former canal which may have been infilled.</p>	<p>Significant effects are anticipated related to loss of BMV classified agricultural farmland as a result of development. The option crosses Grade 3b and some un-surveyed land (provisionally Grade 3).</p> <p>Potential contamination sources have been identified associated with adjacent historical land uses.</p> <p>Farming activities may give rise to localised buried waste and localised spills of fuels/oils/chemicals and widespread use of pesticides and fertiliser. The former canal may have been infilled by material of unknown provenance.</p> <p>Construction activities could potentially introduce new sources of contamination and disturb and mobilise existing sources of contamination. The operation of the Scheme may potentially introduce new sources of contamination and below ground services could create additional pathways for the migration of contamination.</p>	2 – Moderate adverse	<p>A ground investigation would be undertaken in consultation with the local authority, to investigate the general contaminative status of the site along the route and target identified potential contamination sources. Completion of a quantitative risk assessment to assess risk to human health, controlled waters and property receptors.</p> <p>Appropriate mitigation measures would be included within the design, construction and operation of the Scheme in accordance with statutory guidance and best practice, e.g.</p> <ul style="list-style-type: none"> Implementation of appropriate soil, water and air pollution incident controls; Stockpile management to reduce soil erosion; and Re-use soil and source local materials. <p>Minimising the area and duration of soil exposure and timely reinstatement of vegetation or hardstanding.</p>
	1c	<p>The option crosses farmland in the north and central areas of the site.</p> <p>The option crosses the course of a former canal which may have been infilled.</p>	<p>Significant effects are anticipated related to loss of BMV classified agricultural farmland as a result of development. The option crosses Grade 3b and some un-surveyed land (provisionally Grade 3).</p> <p>Potential contamination sources have been identified associated with adjacent historical land uses.</p> <p>Farming activities may give rise to localised buried waste and localised spills of fuels /oils/chemicals and widespread use of pesticides and fertiliser.</p> <p>Construction activities could potentially introduce new sources of contamination and disturb and mobilise existing sources of contamination. The operation of the Scheme may potentially introduce new sources of contamination and below ground services could create additional pathways for the migration of contamination</p>	2 – Moderate adverse	<p>A ground investigation would be undertaken in consultation with the local authority, to investigate the general contaminative status of the site along the route and target identified potential contamination sources. Completion of a quantitative risk assessment to assess risk to human health, controlled waters and property receptors.</p> <p>Appropriate mitigation measures would be included within the design, construction and operation of the Scheme in accordance with statutory guidance and best practice, e.g.</p> <ul style="list-style-type: none"> Implementation of appropriate soil, water and air pollution incident controls; Stockpile management to reduce soil erosion; and Re-use soil and source local materials. <p>Minimising the area and duration of soil exposure and timely reinstatement of vegetation or hardstanding.</p>
	2a	<p>The option predominantly crosses farmland</p> <p>The option crosses two historical landfills, Beanacre Landfill at the northern extent and an infilled canal approximately 750 m south.</p> <p>A further historical landfill (Brickyard Plantation) is situated off-site, approximately 200 m east of the option at the proposed junction with the A3102 Sandbridge Hill.</p>	<p>Significant effects are anticipated related to loss of BMV classified agricultural farmland as a result of development. The option crosses Grade 3b and some un-surveyed land (provisionally Grade 3).</p> <p>Potential contamination sources have been identified associated with on-site and adjacent historical land uses.</p> <p>Farming activities may give rise to localised buried waste and localised spills of fuels /oils/chemicals and widespread use of pesticides and fertiliser.</p> <p>The historical landfill at Beanacre received household refuse and commercial waste. The off-site landfill at Brickyard Plantation received inert, commercial and industrial wastes</p>	1 – Large adverse	<p>A ground investigation would be undertaken in consultation with the local authority, to investigate the general contaminative status of the site along the route and target identified potential contamination sources. Completion of a quantitative risk assessment to assess risk to human health, controlled waters and property receptors.</p> <p>Appropriate mitigation measures would be included within the design, construction and operation of the Scheme in accordance with statutory guidance and best practice, e.g.:</p> <ul style="list-style-type: none"> Implementation of appropriate soil, water and air pollution incident controls; Stockpile management to reduce soil erosion; and Re-use soil and source local materials.

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
			<p>and may comprise ground gas and landfill leachate which may migrate to affect the site.</p> <p>Construction activities could potentially introduce new sources of contamination and disturb and mobilise existing sources of contamination. The operation of the Scheme may potentially introduce new sources of contamination and below ground services could create additional pathways for the migration of contamination</p>		Minimising the area and duration of soil exposure and timely reinstatement of vegetation or hardstanding.
	2b	<p>The option crosses farmland in the north and central areas of the site.</p> <p>Industrial land use 200 m north of the southern extent of the option at Bowerhill Industrial Estate</p>	<p>Significant effects are anticipated related to loss of BMV classified agricultural farmland as a result of development. The option crosses Grade 3a (BMV), 3b land and un-surveyed land (provisionally Grade 3).</p> <p>Potential contamination sources have been identified associated with adjacent historical land uses.</p> <p>Industrial activities at Bowerhill Industrial Estate may have given rise to a range of organic and inorganic contaminants in the ground and from atmospheric fallout from chimney stacks. These contaminants may have migrated to site in soil derived dust and / or groundwater.</p> <p>Construction activities could potentially introduce new sources of contamination and disturb and mobilise existing sources of contamination. The operation of the Scheme may potentially introduce new sources of contamination and below ground services could create additional pathways for the migration of contamination</p>	2 – Moderate adverse	<p>A ground investigation would be undertaken in consultation with the local authority, to investigate the general contaminative status of the site along the route and target identified potential contamination sources. Completion of a quantitative risk assessment to assess risk to human health, controlled waters and property receptors.</p> <p>Appropriate mitigation measures would be included within the design, construction and operation of the Scheme in accordance with statutory guidance and best practice, e.g.:</p> <ul style="list-style-type: none"> • Implementation of appropriate soil, water and air pollution incident controls; • Stockpile management to reduce soil erosion; and • re-use soil and source local materials. <p>Minimising the area and duration of soil exposure and timely reinstatement of vegetation or hardstanding.</p>
	2c	<p>The option crosses farmland in the north and central areas of the site.</p> <p>The option crosses the course of a former canal which may have been infilled.</p> <p>A historical landfill (Brickyard Plantation) is situated off-site, approximately 200 m east of the option at the proposed junction with the A3102 Sandbridge Hill.</p> <p>Industrial land use 200 m north of the southern extent of the option at Bowerhill Industrial Estate</p>	<p>Significant effects are anticipated related to loss of BMV classified agricultural farmland as a result of development. The option crosses Grade 3b and some un-surveyed land (provisionally Grade 3).</p> <p>Potential contamination sources have been identified associated with adjacent historical land uses.</p> <p>Farming activities may give rise to localised buried waste and localised spills of fuels /oils/chemicals and widespread use of pesticides and fertiliser.</p> <p>The off-site landfill at Brickyard Plantation received inert, commercial and industrial wastes and may comprise ground gas and landfill leachate which may migrate to affect the site.</p> <p>Industrial activities at Bowerhill Industrial Estate may have given rise to a range of organic and inorganic contaminants in the ground and from atmospheric fallout from chimney stacks. These contaminants may have migrated to site in soil derived dust and / or groundwater.</p> <p>Construction activities could potentially introduce new sources of contamination and disturb and mobilise existing sources of contamination. The operation of the Scheme may potentially introduce new sources of contamination and below ground services could create additional pathways for the migration of contamination</p>	2 – Moderate adverse	<p>A ground investigation would be undertaken in consultation with the local authority, to investigate the general contaminative status of the site along the route and target identified potential contamination sources. Completion of a quantitative risk assessment to assess risk to human health, controlled waters and property receptors.</p> <p>Appropriate mitigation measures would be included within the design, construction and operation of the Scheme in accordance with statutory guidance and best practice, e.g.</p> <ul style="list-style-type: none"> • Implementation of appropriate soil, water and air pollution incident controls; • Stockpile management to reduce soil erosion; and • Re-use soil and source local materials. <p>Minimising the area and duration of soil exposure and timely reinstatement of vegetation or hardstanding.</p>
Cultural heritage	1a	<p>Designated Heritage Assets</p> <p>There are no world heritage sites, scheduled monuments, conservation areas, registered</p>	<p>There will be direct impacts to the following assets:</p> <ul style="list-style-type: none"> • MWI73993 – Ridge and Furrow, South of Bezzle's Farm • MWI73867 – Ridge and Furrow, Bezzle's Farm 	2 – Moderate adverse	<p>Further assessment would be needed to evaluate how the change of settings may affect these assets.</p> <p>A suitable and appropriate programme of survey and fieldwork will be required as agreed with the local authority archaeologist.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>park and garden and/or registered battlefields within the Site or Study Area.</p> <p>There are seven listed buildings within the Site. They consist of:</p> <ul style="list-style-type: none"> • 1194731 – Grade II Queenfield Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364123 – Grade II Granary to the front of Forest Farmhouse • 1021776 – Grade II Forest Farmhouse • 1364122 – Grade II Woodrow House Farmhouse • 1194766 – Grade II Gate Piers and Garden Walls to Front of Woodrow House Farmhouse • 1364118 – Grade II Blackmore House <p>Non-Designated Assets</p> <p><u>Agricultural Features</u></p> <ul style="list-style-type: none"> • Field boundaries – MWI73870 • Field Boundaries, South of Beanacre – MWI73988 • Ridge and Furrow, Bezzle's Farm – MWI73867 • Ridge and Furrow – Halfway Farm MWI7387 • Ridge and Furrow, North of Beanacre – MWI74000 • Ridge and Furrow, North of Forest Farm – MWI73986 • Ridge and Furrow, East of Melksham – MWI73983 • Ridge and Furrow, South of Sandridge Common – MWI73970 • Ridge and Furrow, South of Beanacre – MWI73989 • MWI73868 Ridge and Furrow, North of Queenfield • MWI73866 Ridge and Furrow, Queenfield • MWI4819 – Ridge and Furrow, South West of Arnolds Mill • Water Meadow, North of Rhotteridge Farm – MWI73540 <p><u>Structures</u></p> <ul style="list-style-type: none"> • Privy at Rhotteridge Farm – MWI46066 • Queenfield Farmhouse or 2 Queenfield – MWI44471 	<ul style="list-style-type: none"> • MWI9472 – Wiltshire and Berkshire Canal • MWI74000 – Ridge and Furrow, North of Beanacre • MWI73870 – Field Boundaries, East of Beanacre • MWI4825 – Enclosure, South of Queenfield Farm • MWI73983 – Ridge and Furrow, East of Melksham • MWI73986 – Ridge and Furrow, North of Forest Farm • MWI73867 – Ridge and Furrow, Bezzle's Farm • MWI73871 – Ridge and Furrow, Halfway Farm • MWI48631 – Greystones • MWI73984 – Boundary Bank, Sandridge Common • MWI72764 – Woodrow Farm (also known as 207 and 210 Woodrow Road) <p>The following designated assets will experience changes to their setting:</p> <ul style="list-style-type: none"> • 1194731 – Grade II Queenfield Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364123 – Grade II Granary to the front of Forest Farmhouse • 1021776 – Grade II Forest Farmhouse • 1364122 – Grade II Woodrow House Farmhouse • 1194766 – Grade II Gate Piers and Garden Walls to Front of Woodrow House Farmhouse • 1364118 – Grade II Blackmore House 		

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • Manor Farm – MWI62966 • Wiltshire and Berkshire Canal – MWI9472 • Buried Archaeological Features • Woodrow Medieval Settlement – MWI4783 • Medieval Settlement, North of Melksham – MWI7399 • Medieval Settlement, Beanacre – MWI4784 • Roman Settlement Enclosures, Wick Farm – MWI77177 • Roman Road - MWI1687 • Enclosure, North of Queenfield – MWI73869 • Blackmore Farm – MWI3630 <p>Historic Landscape Classification (HCL) Post medieval Amalgamated fields – 8837</p>			
	1b	<p>Designated Heritage Assets</p> <p>There are no world heritage sites, scheduled monuments, conservation areas, registered park and garden and/or registered battlefields within the Site or Study Area.</p> <p>There are seven listed buildings within the Site. They consist of:</p> <ul style="list-style-type: none"> • 1194731 – Grade II Queenfield Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364123 – Grade II Granary to the Front of Forest Farmhouse • 1021776 – Grade II Forest Farmhouse • 1364122 – Grade II Woodrow House Farmhouse • 1194766 – Grade II Gate Piers and Garden Walls to Front of Woodrow House Farmhouse • 1364118 – Grade II Blackmore House <p>Non-Designated Assets</p> <p><u>Agricultural Features</u></p> <ul style="list-style-type: none"> • MWI73868 – Ridge and Furrow, North of Queenfield • MWI73866 – Ridge and Furrow, Queenfield • MWI73863 – Ridge and Furrow, West of Frogditch • MWI73983 – Ridge and Furrow, East of Melksham 	<p>There will be physical impacts to the following assets:</p> <ul style="list-style-type: none"> • MWI68771 – Queenfield Farm • MWI68772 – Queenfield Farm • MWI68854 – Farmstead Southwest of New Road Farm • MWI76994 – Former 'Lady's Spring', Lacock • MWI73866 – Ridge and Furrow, Queenfield • MWI73868 – Ridge and Furrow, North of Queenfield • MWI9472 – Wiltshire and Berkshire Canal • MWI73970 – Ridge and Furrow, South of Sandridge Common • MWI4824 – Ditch, South of Queenfield Farm + Old Canal • MWI73983 – Ridge and Furrow, East of Melksham • MWI73864 – Ridge and Furrow, West of Green Shed Farm • MWI72764 – Woodrow Farm (also known as 207 and 210 Woodrow Road) • MWI73869 – Enclosure, North of Queenfield <p>The following designated assets will experience changes to their setting:</p> <ul style="list-style-type: none"> • 1194731 – Grade II Queenfield Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364123 – Grade II Granary to the Front of Forest Farmhouse • 1021776 – Grade II Forest Farmhouse • 1364122 – Grade II Woodrow House Farmhouse 	2 – Moderate adverse	<p>Further assessment would be needed to evaluate how the change of settings may affect these assets.</p> <p>A suitable and appropriate programme of survey and fieldwork will be required as agreed with the local authority archaeologist.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> MWI73970 – Ridge and Furrow, South of Sandridge Common MWI7387 – Ridge and Furrow – Halfway Farm MWI4819 – Ridge and Furrow, South West of Arnolds Mill MWI73993 – Ridge and Furrow, South of Bezzle's Farm <p><u>Buried Archaeological Remains</u></p> <ul style="list-style-type: none"> MWI68774 – Site of Outfarm in Inwood MWI76994 – Former 'Lady's Spring', Lacock MWI68793 – Site of Outfarm Northeast of Queenfield Farm MWI68877 – Site of Outfarm Southwest of Hack Farm MWI4783 – Woodrow Medieval Settlement MWI7399 – Medieval Settlement, North of Melksham MWI73869 – Enclosure, North of Queenfield MWI73729 – Possible Roman Quarry, West of River Avo <p><u>Structures</u></p> <ul style="list-style-type: none"> MWI68771 – Queenfield Farm MWI68773 – Halfway House Farm MWI68794 – Farmstead Southeast of Forest Farm MWI68854 – Farmstead Southwest of New Road Farm Wiltshire and Berkshire Canal – MWI9472 MWI31745 – Type 24 Pillbox, Lady's Spring, River Avon MWI44471 – Queenfield Farmhouse or 2 Queenfield MWI44472 – Queenfield Farmhouse or 1 Queenfield <p><u>Other</u></p> <ul style="list-style-type: none"> MWI4969 – Sandridge Park <p><u>HLC</u></p> <ul style="list-style-type: none"> Post medieval Amalgamated fields – 8837 	<ul style="list-style-type: none"> 1194766 – Grade II Gate Piers and Garden Walls to Front of Woodrow House Farmhouse 1364118 – Grade II Blackmore House <p>Non-designated assets which will experience change in setting:</p> <ul style="list-style-type: none"> MWI31745 – Type 24 Pillbox, Lady's Spring, River Avon MWI44471 – Queenfield Farmhouse or 2 Queenfield MWI44472 – Queenfield Farmhouse or 1 Queenfield MWI48631 – Greystones MWI73984 – Boundary Bank, Sandridge Common ST86NE304 – Roman Road 		
	1c	<p><u>Designated Heritage Assets</u></p> <p>There are no world heritage sites, scheduled monuments, conservation areas, registered park and garden and/or registered battlefields within the Site or Study Area.</p>	<p>There will be physical impacts to the following assets:</p> <ul style="list-style-type: none"> MWI68771 – Queenfield Farm MWI68772 – Queenfield Farm 	2 – Moderate adverse	

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>There are seven listed buildings within the Site. They consist of:</p> <ul style="list-style-type: none"> • 1194731 – Grade II Queenfield Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364123 – Grade II Granary to the Front of Forest Farmhouse • 1021776 – Grade II Forest Farmhouse • 1364122 – Grade II Woodrow House Farmhouse • 1194766 – Grade II Gate Piers and Garden Walls to Front of Woodrow House Farmhouse • 1364118 – Grade II Blackmore House <p><u>Non-Designated Assets</u></p> <p><u>Agricultural Features</u></p> <ul style="list-style-type: none"> • MWI73868 – Ridge and Furrow, North of Queenfield • MWI73866 – Ridge and Furrow, Queenfield • MWI73863 – Ridge and Furrow, West of Frogditch • MWI73983 – Ridge and Furrow, East of Melksham • MWI73970 – Ridge and Furrow, South of Sandridge Common • MWI7387 – Ridge and Furrow – Halfway Farm • MWI4819 – Ridge and Furrow, South West of Arnolds Mill • MWI73993 – Ridge and Furrow, South of Bezzle's Farm <p><u>Buried Archaeological Remains</u></p> <ul style="list-style-type: none"> • MWI68774 – Site of Outfarm in Inwood • MWI76994 – Former 'Lady's Spring', Lacock • MWI68793 – Site of Outfarm Northeast of Queenfield Farm • MWI68877 – Site of Outfarm Southwest of Hack Farm • MWI4783 – Woodrow Medieval Settlement • MWI7399 – Medieval Settlement, North of Melksham • MWI73869 – Enclosure, North of Queenfield 	<ul style="list-style-type: none"> • MWI68854 – Farmstead Southwest of New Road Farm • MWI76994 – Former 'Lady's Spring', Lacock • MWI73866 – Ridge and Furrow, Queenfield • MWI73868 – Ridge and Furrow, North of Queenfield • MWI9472 – Wiltshire and Berkshire Canal • MWI73970 – Ridge and Furrow, South of Sandridge Common • MWI4824 – Ditch, South of Queenfield Farm + Old Canal • MWI73983 – Ridge and Furrow, East of Melksham • MWI73864 – Ridge and Furrow, West of Green Shed Farm • MWI72764 – Woodrow Farm (also known as 207 and 210 Woodrow Road) • MWI73869 – Enclosure, North of Queenfield <p>The following designated assets will experience changes to their setting:</p> <ul style="list-style-type: none"> • 1194731 – Grade II Queenfield Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364123 – Grade II Granary to the Front of Forest Farmhouse • 1021776 – Grade II Forest Farmhouse • 1364122 – Grade II Woodrow House Farmhouse • 1194766 – Grade II Gate Piers and Garden Walls to Front of Woodrow House Farmhouse • 1364118 – Grade II Blackmore House <p>Non-designated assets which will experience change in setting:</p> <ul style="list-style-type: none"> • MWI31745 – Type 24 Pillbox, Lady's Spring, River Avon • MWI44471 – Queenfield Farmhouse or 2 Queenfield • MWI44472 – Queenfield Farmhouse or 1 Queenfield • MWI48631 – Greystones • MWI73984 – Boundary Bank, Sandridge Common • ST86NE304 – Roman Road 		

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> MWI73729 – Possible Roman Quarry, West of River Avo <p><u>Structures</u></p> <ul style="list-style-type: none"> MWI68771 – Queenfield Farm MWI68773 – Halfway House Farm MWI68794 – Farmstead Southeast of Forest Farm MWI68854 – Farmstead Southwest of New Road Farm Wiltshire and Berkshire Canal – MWI9472 MWI31745 – Type 24 Pillbox, Lady's Spring, River Avon MWI44471 – Queenfield Farmhouse or 2 Queenfield MWI44472 – Queenfield Farmhouse or 1 Queenfield <p><u>Other</u></p> <ul style="list-style-type: none"> MWI4969 – Sandridge Park <p><u>HLC</u></p> <p>Post medieval Amalgamated fields – 8837</p>			
	2a	<p><u>Designated Heritage Assets</u></p> <p>There are no world heritage sites, scheduled monuments, conservation areas, registered park and garden and/or registered battlefields within the Site or Study Area.</p> <p>There are 28 listed buildings within the Site. They consist of:</p> <ul style="list-style-type: none"> 1194731 – Grade II Queenfield Farmhouse 1364117 – Grade II Queenfield Farmhouse 1364123 – Grade II Granary to Front of Forest Farmhouse 1021776 – Grade II Forest Farmhouse 1364122 – Grade II Woodrow House Farmhouse 1194766 – Grade II Gate Piers and Garden Walls to Front of Woodrow House Farmhouse 1364118 – Grade II Blackmore House 1194746 – Grade II Tanhouse Farmhouse 1194682 – Grade II Old Loves Farmhouse 1194743 – Grade II Old Railway Farmhouse 	<p>There will be physical impacts to the following assets:</p> <ul style="list-style-type: none"> MWI3622 – Settlement, East of Loves Farm MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm MWI73968 – Post Medieval Field Boundary, Little Bowerhill Farm MWI73993 – Ridge and Furrow, South of Bezzle's Farm MWI73867 – Ridge and Furrow, Bezzle's Farm MWI4974 – SW of Tanhouse Farm MWI9472 – Wiltshire and Berkshire Canal MWI74000 – Ridge and Furrow, North of Beanacre MWI73970 – Ridge and Furrow, South of Sandridge Common MWI3625 – Medieval Settlement, West of Redstocks MWI73870 – Field Boundaries, East of Beanacre MWI3622 – Settlement, East of Loves Farm MWI73958 – Ridge and Furrow, Bowerhill MWI4825 – Enclosure, South of Queenfield Farm MWI4824 – Ditch, South of Queenfield Farm + Old Canal MWI73866 – Ridge and Furrow, Queenfield MWI73983 – Ridge and Furrow, East of Melksham MWI73986 – Ridge and Furrow, North of Forest Farm MWI73867 – Ridge and Furrow, Bezzle's Farm 	1 – Large adverse	<p>Further assessment would be needed to evaluate how the change of settings may affect these assets.</p> <p>A suitable and appropriate programme of survey and fieldwork will be required as agreed with the local authority archaeologist.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • 1021769 – Grade II Outmarsh Farmhouse • 1021763 – Grade II Wharf Cottage • 1251928 – Grade II Manor Farmhouse • 1251929 – Grade II Church Farmhouse • 31252127 – Grade II Granary at Manor Farm • 1252235 – Grade II Seven Monuments in the Churchyard • 1252236 – Grade II Three Monuments in the Churchyard • 1252237 – Grade II Beaven Monument in the Churchyard • 1252240 – Grade II Stable and Carriage Block at Brook Cottage • 1252242 – Grade II Walls and Gate Piers to front of Manor House • 1252322 – Grade II Brook Cottage • 1252382 – Grade II The Manor House • 1262320 – Grade II Brook House • 1262375 – Grade II Six Monuments in the Churchyard • 1262378 – Grade II Railings and Gate Piers • 1262379 – Grade II The Somerset Arms • 1262412 – Grade II Church of St George • 11458408 – Grade II Semington War Memorial <p><u>Non-Designated Assets</u></p> <p><u>Agricultural Features</u></p> <ul style="list-style-type: none"> • Field boundaries – MWI73870 • Field Boundaries, South of Beanacre – MWI73988 • Ridge and Furrow, Bezzle's Farm – MWI73867 • Ridge and Furrow – Halfway Farm MWI7387 • Ridge and Furrow, North of Beanacre – MWI74000 • Ridge and Furrow, North of Forest Farm – MWI73986 • Ridge and Furrow, East of Melksham – MWI73983 	<ul style="list-style-type: none"> • MWI3621 – Medieval Settlement, Southeast of Snarlton Farm • MWI74485 – Field Boundaries, Sandridge Solar Farm • MWI3621 – Medieval Settlement, Southeast of Snarlton Farm • MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm • MWI73938 – Settlement, South of Brabazon Way • MWI73866 – Ridge and Furrow, Queenfield • MWI73871 – Ridge and Furrow, Halfway Farm • MWI73983 – Ridge and Furrow, East of Melksham • MWI73946 – Ridge and Furrow, West of Seend Cleeve • MWI73941 – Ridge and Furrow, Melksham Park Farm • MWI73871 – Ridge and Furrow, Halfway Farm • MWI73864 – Ridge and Furrow, West of Green Shed Farm • MWI3625 – Medieval Settlement, West of Redstocks • MWI73866 – Ridge and Furrow, Queenfield • MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm • MWI73993 – Ridge and Furrow, South of Bezzle's Farm • MWI3625 – Medieval Settlement, West of Redstocks • MWI73870 – Field Boundaries, East of Beanacre • MWI73867 – Ridge and Furrow, Bezzle's Farm • MWI73968 – Post Medieval Field Boundary, Little Bowerhill Farm <p>The following designated heritage assets will experience a change in their setting:</p> <ul style="list-style-type: none"> • 1194731 – Grade II Queenfield Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364123 – Grade II Granary to Front of Forest Farmhouse • 1021776 – Grade II Forest Farmhouse • 1364122 – Grade II Woodrow House Farmhouse • 1194766 – Grade II Gate Piers and Garden Walls to Front of Woodrow House Farmhouse • 1364118 – Grade II Blackmore House • 1194746 – Grade II Tanhouse Farmhouse • 1194682 – Grade II Old Loves Farmhouse • 1194743 – Grade II Old Railway Farmhouse • 1021769 – Grade II Outmarsh Farmhouse • 1021763 – Grade II Wharf Cottage 		

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • Ridge and Furrow, South of Sandridge Common – MWI73970 • Ridge and Furrow, South of Beanacre – MWI73989 • Ridge and Furrow, North of Queenfield – MWI73868 • Ridge and Furrow, Queenfield – MWI73866 • Ridge and Furrow, South West of Arnolds Mill – MWI4819 • Water Meadow, North of Rhotteridge Farm – MWI73540 	<ul style="list-style-type: none"> • 1251928 – Grade II Manor Farmhouse • 1251929 – Grade II Church Farmhouse • 31252127 – Grade II Granary at Manor Farm • 1252235 – Grade II Seven Monuments in the Churchyard • 1252236 – Grade II Three Monuments in the Churchyard • 125223 – Grade II Beaven Monument in the Churchyard • 1252240 – Grade II Stable and Carriage Block at Brook Cottage • 1252242 – Grade II Walls and Gate Piers to front of Manor House • 1252322 – Grade II Brook Cottage • 1252382 – Grade II The Manor House • 1262320 – Grade II Brook House • 1262379 – Grade II The Somerset Arms <p>Non-designated assets which will experience change in setting:</p> <ul style="list-style-type: none"> • MWI4766 – Lower Woodrow • MWI51158 – Mission Chapel of St Andrews or Mission Hall • MWI68770 – Site of Outfarm Southwest of Halfway House Farm • MWI68795 – Manor Farm • MWI68802 – Loves Farm • MWI68804 – Site of Outfarm Southwest of Old Loves Farm • MWI68806 – Site of Outfarm, South East of Loves Farm • MWI68808 – Site of Outfarm West of Soho Farm • MWI68875 – Site of Outfarm on Brown Lane • MWI73057 – Barn at Loves Farm • MWI4954 – Bowerhill RAF Camp • MWI3630 – Blackmore Farm • MWI44454 – Old Loves Farmhouse • MWI48631 – Greystones • MWI49040 – 416a Devizes Road or 416a Bath Road • MWI58165 – Soho Farm • MWI58262 – Oakview • MWI58365 – 32 Locking Close • MWI61829 – 1 Hawkinge Close • MWI63075 – 416 Devizes Road or 416 Bath Road 		

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
			<ul style="list-style-type: none"> MWI72764 – Woodrow Farm (also known as 207 and 210 Woodrow Road) 		
	2b	<p>Designated Heritage Assets</p> <p>There are no world heritage sites, scheduled monuments, conservation areas, registered park and garden and/or registered battlefields within the Site or Study Area.</p> <p>There are 28 listed buildings within the Site. They consist of:</p> <ul style="list-style-type: none"> 1021762 – Grade II* Woolmore Farmhouse 1021763 – Grade II Wharf Cottage 1021769 – Grade II Outmarsh Farmhouse 1194682 – Grade II Old Loves Farmhouse 1194730 – Grade II Rhotteridge Farmhouse 1022167 – Grade II The Folly 1021776 – Grade II Forest Farmhouse 1194731 – Grade II Queenfield Farmhouse 1194743 – Grade II Old Railway Farmhouse 1194746 – Grade II Tanhouse Farmhouse 1194747 – Grade II The Old Coach House 11243913 – Grade II Footbridge on Parish Boundary 1243955 – Grade II The Brewer Inn 1272424 – Grade II Bower Hill House 1251928 – Grade II Manor Farmhouse 31252127 – Grade II Granary at Manor Farm 1252240 – Grade II Stable and Carriage Block at Brook Cottage 1252242 – Grade II Walls and Gate Piers to front of Manor House 1252300 – Grade II Little Green Farmhouse 1252322 – Grade II Brook Cottage 1252382 – Grade II The Manor House 1252390 – Grade II Littleton Mill II 1252413 – Grade II Littleton Mill House 1252439 – Grade II Retaining Walls to Weir and Sluice at Littleton Mill 1262295 – Grade II Mill Farmhouse 1262320 – Grade II Brook House 	<p>There will be physical impacts to the following assets:</p> <ul style="list-style-type: none"> MWI3625 – Medieval Settlement, West of Redstocks MWI4817 – Enclosure, South of Roman Road MWI73866 – Ridge and Furrow, Queenfield MWI73868 – Ridge and Furrow, North of Queenfield MWI1687 – Roman Road MWI73983 – Ridge and Furrow, East of Melksham MWI73869 – Enclosure, North of Queenfield MWI73993 – Ridge and Furrow, South of Bezzle's Farm MWI73781 – Field Boundary, West of Queenfield Bridge MWI73867 – Ridge and Furrow, Bezzle's Farm MWI3622 – Settlement, East of Loves Farm MWI73938 – Settlement, South of Brabazon Way MWI3622 – Settlement, East of Loves Farm MWI73729 – Possible Roman Quarry, West of River Avon MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm MWI73966 – Post Medieval Ridge and Furrow, New House Farm MWI73993 – Ridge and Furrow, South of Bezzle's Farm MWI73970 – Ridge and Furrow, South of Sandridge Common MWI4982 – Newtown Farm MWI3622 – Settlement, East of Loves Farm MWI4825 – Enclosure, South of Queenfield Farm MWI4824 – Ditch, South of Queenfield Farm + Old Canal MWI73865 – Water Meadow, West of Green Shed Farm MWI73983 – Ridge and Furrow, East of Melksham MWI73986 – Ridge and Furrow, North of Forest Farm MWI73994 – Ridge and Furrow, Northeast of Snarlton Farm MWI74485 – Field Boundaries, Sandridge Solar Farm MWI73868 – Ridge and Furrow, North of Queenfield MWI3621 – Medieval Settlement, Southeast of Snarlton Farm MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm MWI73866 – Ridge and Furrow, Queenfield 	1 – Large adverse	<p>Further assessment would be needed to evaluate how the change of settings may affect these assets.</p> <p>A suitable and appropriate programme of survey and fieldwork will be required as agreed with the local authority archaeologist.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • 1262378 – Grade II Railings and Gate Piers to Front of Brook Cottage • 1262379 – Grade II The Somerset Arms • 1272629 Grade II Barn at Park Farm • 1272827 Grade II Seend Park Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364118 – Grade II Blackmore House <p><u>Non-designated heritage assets</u></p> <p><u>Agricultural Features</u></p> <ul style="list-style-type: none"> • MWI73866 – Ridge and Furrow, Queenfield • MWI73868 – Ridge and Furrow, North of Queenfield • MWI73956 – Post Medieval Field Boundary, North West of Seend Cleeve • MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm • MWI73968 – Post Medieval Field Boundary, Little Bowerhill Farm • MWI73981 – Ridge and Furrow, South of Clackers Brook • MWI73966 – Post Medieval Ridge and Furrow, New House Farm • MWI73993 – Ridge and Furrow, South of Bezzle's Farm • MWI73867 – Ridge and Furrow, Bezzle's Farm • MWI73970 – Ridge and Furrow, South of Sandridge Common • MWI64721 – Field Boundaries at Melksham Town Football Club • MWI73958 – Ridge and Furrow, Bowerhill • MWI64723 – Ridge and Furrow at Melksham Town Football Club • MWI73865 – Water Meadow, West of Green Shed Farm • MWI73983 – Ridge and Furrow, East of Melksham • MWI73986 – Ridge and Furrow, North of Forest Farm • MWI73994 – Ridge and Furrow, Northeast of Snariton Farm • MWI73867 – Ridge and Furrow, Bezzle's Farm 	<ul style="list-style-type: none"> • MWI73942 – Medieval Settlement, Melksham Park Farm • MWI73983 – Ridge and Furrow, East of Melksham • MWI73946 – Ridge and Furrow, West of Seend Cleeve • MWI73941 – Ridge and Furrow, Melksham Park Farm • MWI73864 – Ridge and Furrow, West of Green Shed Farm • MWI73942 – Medieval Settlement, Melksham Park Farm <p>The following designated assets which will experience change in setting:</p> <ul style="list-style-type: none"> • 1021762 – Grade II* Woolmore Farmhouse • 1021763 – Grade II Wharf Cottage • 1021769 – Grade II Outmarsh Farmhouse • 1194682 – Grade II Old Loves Farmhouse • 1194730 – Grade II Rhotteridge Farmhouse • 1022167 – Grade II The Folly • 1021776 – Grade II Forest Farmhouse • 1194731 – Grade II Queenfield Farmhouse • 1194743 – Grade II Old Railway Farmhouse • 1194746 – Grade II Tanhouse Farmhouse • 1194747 – Grade II The Old Coach House • 11243913 – Grade II Footbridge on Parish Boundary 13 • 1243955 – Grade II The Brewer Inn • 1272424 – Grade II Bower Hill House • 1251928 – Grade II Manor Farmhouse • 31252127 – Grade II Granary at Manor Farm • 1252240 – Grade II Stable and Carriage Block at Brook Cottage • 1252242 – Grade II Walls and Gate Piers to front of Manor House • 1252300 – Grade II Little Green Farmhouse • 1252322 – Grade II Brook Cottage • 1252382 – Grade II The Manor House • 1252390 – Grade II Littleton Mill II • 1252413 – Grade II Littleton Mill House • 1252439 – Grade II Retaining Walls to Weir and Sluice at Littleton Mill • 1262295 – Grade II Mill Farmhouse • 1262320 – Grade II Brook House 		

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • MWI73962 – Medieval Ridge and Furrow, East of Melksham • MWI73944 – Ridge and Furrow, Southeast of Berryfield • MWI73993 – Ridge and Furrow, South of Bezzle's Farm • MWI74485 – Field Boundaries, Sandridge Solar Farm • MWI73871 – Ridge and Furrow, Halfway Farm • MWI73872 – Trackway, West of Daisybrook • MWI73955 – Probable Medieval Ridge and Furrow, North of Seend Cleeve • MWI73983 – Ridge and Furrow, East of Melksham • MWI73981 – Ridge and Furrow, South of Clackers Brook • MWI73946 – Ridge and Furrow, West of Seend Cleeve • MWI73941 – Ridge and Furrow, Melksham Park Farm • MWI73871 – Ridge and Furrow, Halfway Farm • MWI73864 – Ridge and Furrow, West of Green Shed Farm • MWI73863 – Ridge and Furrow, West of Frogditch • MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm • MWI73864 – Ridge and Furrow, West of Green Shed Farm <p><u>Structures</u></p> <ul style="list-style-type: none"> • MWI4987 – Littleton Wood Mill • MWI51158 – Mission Chapel of St Andrews or Mission Hall • MWI61747 – Farm buildings at Craymarsh Farm • MWI68771 – Queenfield Farm • MWI68773 – Halfway House Farm • MWI68706 – Newtown Farm • MWI68746 – Littleton Mill Farm • MWI68747 – Melksham Park Farm • MWI68748 – Seend Park Farm • MWI68795 – Manor Farm • MWI68796 – Blackmore House (Blackmore Farm) 	<ul style="list-style-type: none"> • 1262378 – Grade II Railings and Gate Piers to Front to Front of Brook Cottage • 1262379 – Grade II The Somerset Arms • 1272629 – Grade II Barn at Park Farm • 1272827 – Grade II Seend Park Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364118 – Grade II Blackmore House <p>Non-designated assets which will experience change in setting:</p> <ul style="list-style-type: none"> • MWI31745 – Type 24 Pillbox, Lady's Spring, River Avon • MWI4983 – North of Soho Farm • MWI48631 – Greystones • MWI55669 – Turnpike Cottage or 441 Bath Road • MWI58165 – Soho Farm • MWI58262 – Oakview • MWI58365 – 32 Locking Close • MWI61513 – Skye View, 416b Devizes Road/Bath Road (A365) • MWI62966 – Manor Farm • MWI68898 – Tanhouse Farm • MWI3630 – Blackmore Farm • MWI44471 – Queenfield Farmhouse or 2 Queenfield • MWI44472 – Queenfield Farmhouse or 1 Queenfield • MWI44475 – Tanhouse Farmhouse • MWI72764 – Woodrow Farm (also known as 207 and 210 Woodrow Road) • MWI4954 – Bowerhill RAF Camp • MWI4969 – Sandridge Park • MWI9472 – Wiltshire and Berkshire Canal • MWI3626 – Newtown Farm 		

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • MWI68794 – Farmstead Southeast of Forest Farm • MWI4934 – NE of Snarlton Farm • MWI4979 – North of Manor Farm • MWI4983 – North of Soho Farm • MWI68802 – Loves Farm • MWI68805 – Farmstead on Bath Road • MWI68872 – Pak Farm • MWI68884 – Outfarm on Lower Woodrow • MWI68895 – Home Farm • MWI68900 – Craysmarsh Farm • MWI73057 – Barn at Loves Farm • MWI4979 – North of Manor Farm • MWI4983 – North of Soho Farm • MWI68803 – Old Loves Farm • MWI68807 – Soho Farm • MWI3626 – Newtown Farm • MWI3627 – Bowerhill • MWI4794 – Rhotteridge Farm • MWI9472 – Wiltshire and Berkshire Canal <p><u>HLC</u></p> <ul style="list-style-type: none"> • Post medieval Amalgamated fields – 8837 <p><u>Archaeological Remains</u></p> <ul style="list-style-type: none"> • MWI4935 – Ditch, South West of Eight Acre Plantation • MWI68749 – Site of Outfarm Northeast of Newtown Farm • MWI68793 – Site of Outfarm Northeast of Queenfield Farm • MWI68797 – Site of Outfarm Northeast of Little Snarlton Farm • MWI68806 – Site of Outfarm, South East of Loves Farm • MWI68808 – Site of Outfarm West of Soho Farm • MWI68809 – Site of Lower Park Farm • MWI68810 – Site of Outfarm, South South East of Lower Park Farm • MWI68848 – Site of Shed Northwest of Littleton Mill Farm 			

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • MWI3622 – Settlement, East of Loves Farm • MWI73953 – Medieval Hollow Way, Seend Park • MWI3621 – Medieval Settlement, Southeast of Snarlton Farm • MWI3625 – Medieval Settlement, West of Redstocks • MWI4945 – Medieval Settlement, North East of Seend Park Farm • MWI4975 – Probable Medieval Enclosure, West of Park Farm • MWI3621 – Medieval Settlement, Southeast of Snarlton Farm • MWI73942 – Medieval Settlement, Melksham Park Farm • MWI3621 – Medieval Settlement, Southeast of Snarlton Farm • MWI3622 – Settlement, East of Loves Farm • MWI68804 – Site of Outfarm Southwest of Old Loves Farm • MWI4827 – Enclosure, North East of Queenfield • MWI73869 – Enclosure, North of Queenfield • MWI73729 – Possible Roman Quarry, West of River Avon • MWI4825 – Enclosure, South of Queenfield Farm • MWI74439 – Pits, Melksham Town FC • MWI64722 – Roman-British Farmstead, Melksham Town Football Club • MWI4824 – Ditch, South of Queenfield Farm + Old Canal • MWI74487 – Ditches, Sandridge Solar Farm • MWI73938 – Settlement, South of Brabazon Way • MWI73938 – Settlement, South of Brabazon Way • MWI73942 – Medieval Settlement, Melksham Park Farm • MWI3625 – Medieval Settlement, West of Redstocks • MWI74440 – Ditches, Melksham Town FC 			

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • MWI74486 – Pits, Sandridge Solar Farm • MWI3621 – Medieval Settlement, Southeast of Snarlton Farm • MWI73938 – Settlement, South of Brabazon Way • MWI76045 – Romano-British Shrine, Outmarsh Farm • MWI4754 – Possible Romano-British Bridge Site, River Avon • MWI73942 – Medieval Settlement, Melksham Park Farm <p><u>Military Remains</u></p> <ul style="list-style-type: none"> • MWI31471 – Pillbox, Kennet and Avon Canal • MWI31753 – Pillbox East of Outmarsh • MWI31870 – Bombing Decoy, Southeast of Lacock • MWI44979 – Anti Tank Cylinders, Southwest of Newtown Farm • MWI44975 – Anti Tank Ditch, East of Semington • MWI4954 – Bowerhill RAF Camp <p><u>Other</u></p> <ul style="list-style-type: none"> • MWI31465 – Sockets for Rails on Bridge Over the Kennet and Avon Canal • MWI4943 – Melksham Forest • MWI4944 – Seend Park • MWI68896 – Outfarm on edge of Eighteen Acre Plantation • MWI68897 – Outfarm South of Eighteen Acre Plantation • MWI3628 – Farmstead, Loves Farm • MWI4766 – Lower Woodrow • MWI76994 – Former 'Lady's Spring', Lacock • MWI4969 – Sandridge Park • MWI73950 – Park Pale, South of Vernon Farm • MWI4974 – SW of Tanhouse Farm • MWI73957 – Post Medieval Stack Stands, Old Station Farm 			
	2c	<p><u>Designated Heritage Assets</u></p> <p>There are no world heritage sites, scheduled monuments, conservation areas, registered</p>	<p>There will be physical impacts to the following assets:</p> <ul style="list-style-type: none"> • MWI4754 – Possible Romano-British Bridge Site, River Avon 	1 – Large adverse	<p>Further assessment would be needed to evaluate how the change of settings may affect these assets.</p> <p>A suitable and appropriate programme of survey and fieldwork will be required as agreed with the local authority archaeologist.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>park and garden and/or registered battlefields within the Site or Study Area.</p> <p>There are 31 listed buildings within the Site. They consist of:</p> <ul style="list-style-type: none"> • 1021749 – Grade II Semington Aqueduct • 1021762 – Grade II* Woolmore Farmhouse • 1021763 – Grade II Wharf Cottage • 1021769 – Grade II Outmarsh Farmhouse • 1194682 – Grade II Old Loves Farmhouse • 1194730 – Grade II Rhotteridge Farmhouse • 1194731 – Grade II Queenfield Farmhouse • 1194743 – Grade II Old Railway Farmhouse • 1194746 – Grade II Tanhouse Farmhouse • 1194747 – Grade II The Old Coach House • 11243913 – Grade II Footbridge on Parish Boundary 13 • 1243955 – Grade II The Brewer Inn • 1251928 – Grade II Manor Farmhouse • 31252127 – Grade II Granary at Manor Farm • 1252240 – Grade II Stable and Carriage Block at Brook Cottage • 1252241 Grade II Semington Aqueduct • 1252242 – Grade II Walls and Gate Piers to front of Manor House • 1252300 – Grade II Little Green Farmhouse • 1252322 – Grade II Brook Cottage • 1252382 – Grade II The Manor House • 1252390 – Grade II Littleton Mill II • 1252413 – Grade II Littleton Mill House • 1252439 – Grade II Retaining Walls to Weir and Sluice at Littleton Mill • 1262295 – Grade II Mill Farmhouse • 1262320 – Grade II Brook House • 1262378 – Grade II Railings and Gate Piers to Front to Front of Brook Cottage 	<ul style="list-style-type: none"> • MWI4935 – Ditch, South West of Eight Acre Plantation • MWI68749 – Site of Outfarm Northeast of Newtown Farm • MWI68793 – Site of Outfarm Northeast of Queenfield Farm • MWI68795 – Manor Farm • MWI68796 – Blackmore House (Blackmore Farm) • MWI68806 – Site of Outfarm, South East of Loves Farm • MWI68808 – Site of Outfarm West of Soho Farm • MWI68875 – Site of Outfarm on Brown Lane • MWI68876 – Site of Outfarm East of Snarltan Farm • MWI68877 – Site of Outfarm Southwest of Hack Farm • MWI68880 – Site of Outfarm Southeast of Rhotteridge Farm • MWI68881 – Site of Outfarm Northwest of Rhotteridge Farm • MWI68883 – Site of Outfarm North-northeast of Rhotteridge Farm • MWI76994 – Former 'Lady's Spring', Lacock • MWI3622 – Settlement, East of Loves Farm • MWI4827 – Enclosure, North East of Queenfield • MWI73540 – Water Meadow, North of Rhotteridge Farm • MWI73729 – Possible Roman Quarry, West of River Avon • MWI73868 – Ridge and Furrow, North of Queenfield • MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm • MWI73968 – Post Medieval Field Boundary, Little Bowerhill Farm • MWI73869 – Enclosure, North of Queenfield • MWI4974 – SW of Tanhouse Farm • MWI9472 – Wiltshire and Berkshire Canal • MWI73970 – Ridge and Furrow, South of Sandridge Common • MWI3625 – Medieval Settlement, West of Redstocks • MWI3622 – Settlement, East of Loves Farm • MWI73958 – Ridge and Furrow, Bowerhill • MWI73568 – Ridge and Furrow, West of Lower Selves Wood • MWI73866 – Ridge and Furrow, Queenfield • MWI3625 – Medieval Settlement, West of Redstocks • MWI73983 – Ridge and Furrow, East of Melksham • MWI73994 – Ridge and Furrow, Northeast of Snarltan Farm 		

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • 1262379 – Grade II The Somerset Arms • 1272629 Grade II Barn at Park Farm • 1272827 Grade II Seend Park Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364118 – Grade II Blackmore House <p><u>Non designated heritage assets</u></p> <p><u>Agricultural Features</u></p> <ul style="list-style-type: none"> • MWI4827 – Enclosure, North East of Queenfield • MWI73540 – Water Meadow, North of Rhotteridge Farm • MWI73868 – Ridge and Furrow, North of Queenfield • MMWI73869 – Enclosure, North of Queenfield • MWI9472 – Wiltshire and Berkshire Canal • MWI73568 – Ridge and Furrow, West of Lower Selves Wood • MWI73866 – Ridge and Furrow, Queenfield • MWI73865 – Water Meadow, West of Green Shed Farm • MWI73868 – Ridge and Furrow, North of Queenfield • MWI73568 – Ridge and Furrow, West of Lower Selves Wood • MWI73864 – Ridge and Furrow, West of Green Shed Farm • MWI73863 – Ridge and Furrow, West of Frogditch • MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm • MWI73981 – Ridge and Furrow, South of Clackers Brook • MWI73962 – Medieval Ridge and Furrow, East of Melksham <p><u>Buried Archaeological Remains</u></p> <ul style="list-style-type: none"> • MWI4754 – Romano-British Bridge Site, River Avon • MWI68793 – Site of Outfarm Northeast of Queenfield Farm • MWI68880 – Site of Outfarm Southeast of Rhotteridge Farm 	<ul style="list-style-type: none"> • MWI3621 – Medieval Settlement, Southeast of Snarlton Farm • MWI74485 – Field Boundaries, Sandridge Solar Farm • MWI73868 – Ridge and Furrow, North of Queenfield • MWI3621 – Medieval Settlement, Southeast of Snarlton Farm • MWI73540 – Water Meadow, North of Rhotteridge Farm • MWI73967 – Medieval Ridge and Furrow, Little Bowerhill Farm • MWI73938 – Settlement, South of Brabazon Way • MWI73942 – Medieval Settlement, Melksham Park Farm • MWI73983 – Ridge and Furrow, East of Melksham • MWI73946 – Ridge and Furrow, West of Seend Cleeve • MWI73941 – Ridge and Furrow, Melksham Park Farm • MWI73863 – Ridge and Furrow, West of Frogditch <p>The following designated assets will experience change in setting:</p> <ul style="list-style-type: none"> • 1021763 – Grade II Wharf Cottage • 1021769 – Grade II Outmarsh Farmhouse • 1194682 – Grade II Old Loves Farmhouse • 1194730 – Grade II Rhotteridge Farmhouse • 1194731 – Grade II Queenfield Farmhouse • 1272827 – Grade II Seend Park Farmhouse • 1364117 – Grade II Queenfield Farmhouse • 1364118 – Grade II Blackmore House <p>Non-designated assets which will experience change in setting:</p> <ul style="list-style-type: none"> • MWI51158 Mission Chapel of St Andrews or Mission Hall • MWI3627 Bowerhill • MWI4794 Rhotteridge Farm • MWI68882 Frogditch Farm • MWI68878 Hack Farm • MWI68879 Rhotteridge Farm • MWI68884 Outfarm on Lower Woodrow • MWI44470 Rhotteridge Farmhouse • MWI44475 – Tanhouse Farmhouse • MWI46063 – Brewhouse at Rhotteridge Farm • MWI46064 – Pigsty at Rhotteridge Farm • MWI46065 – Barn and Stable at Rhotteridge Farm 		

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> • MWI68883 – Site of Outfarm North-northeast of Rhotteridge Farm • MWI4794 – Rhotteridge Farm • MWI4827 – Enclosure, North East of Queenfield • MMWI73869 – Enclosure, North of Queenfield • MWI1687 – Roman Road • MWI73869 – Enclosure, North of Queenfield • MWI73781 – Field Boundary, West of Queenfield Bridge • MWI76096 – Culvert, Queenfield • MWI3621 – Medieval Settlement, Southeast of Snarlton Farm • MWI3625 – Medieval Settlement, West of Redstocks • MWI73963 – Possible Late Prehistoric/Roman Enclosure, East of Melksham • MWI76809 – Romano-British Ovens, Melksham Town Football Club • MWI3622 – Settlement, East of Loves Farm • MWI4954 – Bowerhill RAF Camp • MWI73938 – Settlement, South of Brabazon Way • MWI73968 – Post Medieval Field Boundary, Little Bowerhill Farm <p><u>Structures</u></p> <ul style="list-style-type: none"> • MWI68771 – Queenfield Farm • MWI68772 – Queenfield Farm • MWI68878 – Hack Farm • MWI68879 – Rhotteridge Farm • MWI68881 – Site of Outfarm Northwest of Rhotteridge Farm • MWI68882 – Frogditch Farm • MWI68884 – Outfarm on Lower Woodrow • MWI9472 – Wiltshire and Berkshire Canal • WI44470 – Rhotteridge Farmhouse • MWI44471 – Queenfield Farmhouse or 2 Queenfield • MWI44472 – Queenfield Farmhouse or 1 Queenfield 	<ul style="list-style-type: none"> • MWI46066 – Privy at Rhotteridge Farm • MWI46067 – Cowshed at Rhotteridge Farm • MWI55669 – Turnpike Cottage or 441 Bath Road • MWI58165 – Soho Farm • MWI4969 – Sandridge Park • MWI4983 – North of Soho Farm • MWI58262 – Oakview • MWI58365 – 32 Locking Close • MWI61513 – Skye View, 416b Devizes Road/Bath Road (A365) • MWI61841 – Knorr-Bremse Rail Systems(UK) Limited • MWI62966 – Manor Farm • MWI68898 – Tanhouse Farm • MWI31468 – Pillbox, Kennet and Avon Canal • MWI31745 – Type 24 Pillbox, Lady's Spring, River Avon 		

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> MWI46063 – Brewhouse at Rhotteridge Farm MWI46064 – Pigsty at Rhotteridge Farm MWI46065 – Barn and Stable at Rhotteridge Farm MWI46066 – Privy at Rhotteridge Farm MWI46067 – Cowshed at Rhotteridge Farm MWI4817 – Enclosure, South of Roman Road MWI44453 – Woolmore Farmhouse or Woolmore Manor or Woolmore House MWI44454 – Old Loves Farmhouse MWI44475 – Tanhouse Farmhouse MWI46601 – Cowshed at Woolmore Farm MWI49040 – 416a Devizes Road or 416a Bath Road MWI55669 – Turnpike Cottage or 441 Bath Road MWI58165 – Soho Farm MWI58262 – Oakview MWI58365 – 32 Locking Close MWI58931 – The Cottage or 462 Bowerhill Road or Rotherfield Physiotherapy Practice MWI59440 – 8 Harvard Close MWI59774 – Bowerhill Village Hall MWI60166 – The Limes MWI60248 – Hampton Farm MWI60249 – 12 Herons Court MWI60250 – 5 Herons Court MWI61513 – Skye View, 416b Devizes Road/Bath Road (A365) MWI61829 – 1 Hawkinge Close MWI61841 – Knorr-Bremse Rail Systems(UK) Limited MWI63075 – 416 Devizes Road or 416 Bath Road MWI68898 – Tanhouse Farm MWI73243 – 3 Herons Court MWI73268 – Woolmore Cottage or 412 Bath Road 			
Materials and waste	1a	This option crosses two historical landfills.	This option is likely to have the smallest impact on materials and waste due to it being the shortest option. It has the smallest quantity of cut, fill, topsoil to be removed off-site.	2 – Moderate adverse	Mitigation measures should be considered within the design, construction and operation of the Scheme to minimise the quantities of materials excavated, and maximise re-use within the Scheme. Where materials cannot

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		This option has the shortest length and least number of structures (bridges, river crossings and underpasses) and junctions.	<p>The option crosses two historical landfills, which could potentially generate controlled wastes that may require further treatment/disposal.</p> <p>The option has the least number of structures and the shortest structures by metres length, and therefore is likely to use the least amount of structural materials (e.g. concrete).</p> <p>This option has two new roundabouts.</p>		<p>be re-used on site, mitigation measures should seek maximising off-site re-use, recycling or recovery in line with the waste hierarchy.</p> <p>Design, construction and operation should also consider options that minimise use of materials (e.g concrete) and virgin aggregates, and maximise use of recycled aggregates where off-site materials are required.</p> <p>A ground investigation would be undertaken to undertake a preliminary waste classification and inform the design and construction phases of the Scheme.</p>
	1b	<p>This option is second shortest by overall length.</p> <p>The option has two river crossings, one underpass and three bridges.</p>	<p>This option is likely to have the third smallest impact. It is the second shortest option, it has the second smallest quantity of cut material, third smallest quantity of fill and third smallest quantity of topsoil to be removed off-site.</p> <p>The option is ranked fourth based on the total metre length of the structures. and therefore is likely to use the third most amount of structural materials (e.g. concrete).</p> <p>The option crosses a historical landfill, which could potentially generate controlled wastes that may require further treatment/disposal.</p> <p>This option has two new roundabouts.</p>	2 – Moderate adverse	
	1c	<p>This option is third shortest by overall length.</p> <p>The option crosses a historic landfill.</p> <p>The option has two river crossings and 3 bridges.</p>	<p>This option is likely to be second smallest impact.</p> <p>It is ranked third by overall length, third by the quantity of cut fill, it has second smallest amount of fill and second smallest quantity of topsoil to be removed off-site.</p> <p>This option has two new roundabouts.</p> <p>The option crosses a historical landfill, which could potentially generate controlled wastes that may require further treatment/disposal.</p>	2 – Moderate adverse	
	2a	<p>This option is ranked fourth by overall length.</p> <p>The option crosses two historic landfills. It has three river crossings, ten underpasses and four bridges.</p>	<p>This option is likely to be ranked fifth smallest impact.</p> <p>It is ranked fourth by the quantity of cut, fifth by quantity of fill and quantity of topsoil to be removed off-site, and fifth by the total length of structures.</p> <p>The option has five new roundabouts.</p> <p>The option crosses two historical landfills, which could potentially generate controlled wastes that may require further treatment/disposal.</p>	1 – Large adverse	
	2b	<p>This option is ranked fifth by overall length.</p> <p>The option has three river crossings, nine underpasses and four bridges. The option has five new roundabouts.</p>	<p>Although this option is second longest, it is likely to have the largest adverse impact due to the quantity of earthworks and overall length of structures - therefore is likely to use the most amount of structural materials (e.g. concrete).</p> <p>The option is ranked fifth by the quantity of cut material, it has the largest quantity of fill and the largest quantity of topsoil to be removed off-site. It is also ranked highest by overall length of structures.</p>	1 – Large adverse	
	2c	<p>This option is the longest by overall length.</p> <p>This option has three river crossings, ten underpasses, and four bridges.</p> <p>The option has five new roundabouts.</p>	<p>This option is likely to be ranked fourth smallest impact.</p> <p>It is ranked fifth by the quantity of cut, fourth by quantity of fill and quantity of topsoil to be removed off-site, and second by the total length of structures.</p> <p>The option has five new roundabouts.</p>	1 – Large adverse	

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
Population and human health	1a	<p><u>Private property and housing</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> • Halfway Farmhouse • Houses along Beanacre • Bezzle’s Farmhouse • Forest Farmhouse • No’s. 1 & 2 Forest Farm • Houses along Woodrow Road and Lower Woodrow <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> • Houses along Woodrow Road and Lower Woodrow • Houses along New Road • New Road Farmhouse • Houses at Linnet Lane • Houses at Sandridge Common 	<p><u>Private property and housing</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> • No properties at risk of demolition • No land take expected from private property and housing • Potential temporary disruptions to access to No’s 67, 68 and 69 Beanacre during Roundabout tie-in works • Potential temporary disruptions to access to properties along Beanacre, Woodrow Road and Lower Woodrow <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> • No properties at risk of demolition • Potential minor land take from private property and housing at Woodrow and off New Road during Roundabout tie-in works (subject to more detailed assessment) • Potential temporary disruptions to access to properties along Woodrow, New Road, Lower Woodrow and Sandridge Common 	3 – Slight adverse	<p><u>Private property and housing</u></p> <p>Land take should be minimised as far as practicable.</p> <p>Disruptions to access to private property and housing should be minimised, with accessibility maintained as much as practical.</p> <p>The use of best practice construction methods should be used to reduce disruption effects and minimise amenity impacts.</p>
		<p><u>Community land and assets</u></p> <p>There is no community land and assets located near the Option. The main community land and assets lie in the wider study area south and west of the A3102/Eastern Way Roundabout</p>	<p><u>Community land and assets</u></p> <p>No land will be required from community land or assets. No access will be directly affected.</p> <p>Potential minor accessibility restrictions/severance to community land and assets within the wider study area to the south and west of the Option.</p> <p>During operation, this option will improve accessibility/ decrease severance for residents that use the A350 and other local connector roads to access community services in/around the centre of Melksham. However, increased traffic on the Eastern Way and A3102 westwards towards Melksham is likely to have adverse impacts for residents that access services in Melksham and Bowerhill, such as Melksham Oak Community School.</p>	4 – Neutral	<p><u>Community land and assets</u></p> <p>Wider accessibility to community land and assets in the wider study area should be maintained as much as practical.</p> <p>The use of best practice construction methods should be used reduce disruptions to people travelling to/from community land and assets and minimise amenity impacts.</p> <p>Traffic and transportation to consider potential impacts on the Eastern Way and A3102.</p>
		<p><u>Development land and businesses</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> • No businesses of an industrial/commercial nature present in this section • No land identified in plans, policies or strategies for development or subject to planning permission <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> • Commercial businesses at New Road (e.g. Equine Stud and Stables, Livery Yard) and Lower Woodrow (e.g. H Hutchings, Lower Copse Farm) • No other relevant recent planning permissions • No land identified in plans, policies or strategies for development 	<p><u>Development land and businesses</u></p> <p>No land has been identified in plans, policies or strategies for development or which is subject to planning permission near the route. However, during operation increased traffic on the Eastern Way and A3102 has the potential to result in reduced accessibility/severance for the land identified in Wiltshire Council’s Strategic Housing and Economic Land Availability Assessment (SHELAA) to the east of the Eastern Way as having potential for residential development, to form an eastern extension to Melksham.</p> <p>Land take effects at paddocks adjacent New Road/Lower Woodrow.</p> <p>Minor land take effects at Little Copse Farm (with recent planning permission for a secure training and exercise area for dogs) and potential negligible land take effects at Equine Stud and Stables.</p> <p>No businesses (and associated jobs) at risk.</p>	3 – Slight adverse	<p><u>Development land and businesses</u></p> <p>Consideration should be given to potential impacts on the proposed eastern extension to Melksham (identified in the SHELAA) coming forward for development.</p> <p>Meaningful negotiation should take place to minimise land take effects on local businesses. Good communication with any affected business owners should take place to understand their needs and the needs of their customers in terms of commercial activity, maintaining access etc.</p> <p>Specific mitigation should be decided on a case-by-case basis to minimise effects on trading conditions, viability and changes in access.</p> <p>Accessibility to local businesses and development land in the core and wider study area should be maintained as much as practical.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
			No land affected which is allocated for development by Wiltshire Council or subject to recent planning applications supporting future jobs (with the exception of Little Copse Farm dog training). Minor accessibility restrictions/severance to businesses and development land in the core and wider study areas.		
		<u>Agricultural land holdings</u> Bezzles Farm, Forest Farm, New Road Farm, Manor Farm	<u>Agricultural land holdings</u> Loss of agricultural land and severance to agricultural holdings Temporary disruptions to access to New Road Farm (access off New Road)	2 – Moderate adverse	<u>Agricultural land holdings</u> No environmental mitigation for land loss (only financial compensation). Severance partially mitigated by accommodation works
		<u>Walkers, cyclists and horse-riders</u> Section 1 – A350 to Woodrow Road: <ul style="list-style-type: none"> • PRow footpath MELW 66 • PRow footpath MELW 61 • Footpaths along Woodrow Rod/Lower Woodrow Section 2 – Woodrow Road to A3102: <ul style="list-style-type: none"> • PRow footpath MELW 47 • Footpaths along New Road 	<u>Walkers, cyclists and horse-riders (WCH)</u> Potential temporary localised disruption effects for WCH (e.g., from temporary diversions, changes to journey distance/time) at a small number of PRow and footpaths during construction. Minor disruptions to accessibility/severance overall for pedestrians, cyclists and horse-riders as a result of the option.	3 – Slight adverse	<u>Walkers, cyclists and horse-riders</u> Consideration should be given to reducing impacts on footpaths and the PRow footpaths, with either temporary or permanent diversions provided where required to minimise disruption and reduce potential severance or loss of connectivity. All existing WCH routes should be maintained and enhanced, where possible, during operation.
		<u>Human health</u> There is a very small number of sensitive receptors near the alignment of the Option that could be directly affected by the Option and a relatively small resident population in the core study area. Sensitive groups present in the study area are likely to include children and adolescents, older people and people who are physically or mentally disadvantaged.	<u>Human health</u> Minor adverse impacts are predicted for the physical and human receptors from changes to the wider health determinants e.g. air pollution, noise pollution and vibration, soil and water pollution, access to community facilities and other social infrastructure, access to work and training	3 – Slight adverse	<u>Human health</u> The human health assessment, being mostly based upon potential effects identified by other technical disciplines (e.g. Air Quality, Noise and Vibration, Soils and Geology, Water Environment), would include the appropriate mitigation measures identified in those technical chapters into the overall mitigation strategy. Please refer to the mitigation measures outlined by the respective disciplines. The use of best practice construction methods would reduce disruption effects to nearby sensitive receptors and minimise potential impacts or effects on the community, particularly those susceptible or vulnerable to health issues.
	1b	<u>Private property and housing</u> Section 1 – A350 to Woodrow Road: <ul style="list-style-type: none"> • Riverside Farmhouse/Riverside House • Halfway Farm Cottages • Halfway Farmhouse • Queensfield Farmhouse • Houses along Woodrow Road and Lower Woodrow Section 2 – Woodrow Road to A3102: <ul style="list-style-type: none"> • Houses along Woodrow Road and Lower Woodrow • Houses along New Road • New Road Farmhouse • Houses at Linnet Lane 	<u>Private property and housing</u> Section 1 – A350 to Woodrow Road: <ul style="list-style-type: none"> • No properties at risk of demolition • No land take expected from private property and housing • Potential temporary disruptions to Riverside Farmhouse/Riverside House, Halfway Farm Cottages and Halfway Farmhouse • Potential temporary disruptions to access to properties along Beanacre and Woodrow Road and Lower Woodrow Section 2 – Woodrow Road to A3102: <ul style="list-style-type: none"> • No properties at risk of demolition • Potential minor land take from private property and housing at Woodrow and off New Road, Woodrow 	3 – Slight adverse	<u>Private property and housing</u> Land take should be minimised as far as practicable. Disruptions to access to private property and housing should be minimised, with accessibility maintained as much as practical. The use of best practice construction methods should be used to reduce disruption effects and minimise amenity impacts.

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> Houses at Sandridge Common No other relevant recent planning permissions No land identified in plans, policies or strategies for development 	<p>during Roundabout tie-in works (subject to more detailed assessment)</p> <ul style="list-style-type: none"> Potential temporary disruptions to access to properties along New Road and A3102 Sandridge Common 		
		<p><u>Community land and assets</u></p> <p>There is no community land and assets located near the Option. The main community land and assets lie in the wider study area south and west of the A3102/Eastern Way Roundabout</p>	<p><u>Community land and assets</u></p> <p>No land will be required from community land or community assets. No access will be directly affected.</p> <p>Potential minor accessibility restrictions/severance to community land and assets within the wider study area to the south and west of the Option.</p> <p>During operation, this option will improve accessibility/decrease severance for residents that use the A350 and other local connector roads to access community services in/around the centre of Melksham. However, increased traffic on the Eastern Way and A3102 westwards towards Melksham is likely to have adverse impacts for residents that access services in Melksham and Bowerhill, such as Melksham Oak Community School.</p>	4 -Neutral	<p><u>Community land and assets</u></p> <p>Wider accessibility to community land and assets in the wider study area should be maintained as much as practical.</p> <p>The use of best practice construction methods should be used reduce disruptions to people travelling to/from community land and assets and minimise amenity impacts.</p> <p>Traffic and transportation to consider potential impacts on the Eastern Way and A3102.</p>
		<p><u>Development land and businesses</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> No businesses of an industrial/commercial nature present in this section No land identified in plans, policies or strategies for development or subject to planning permission <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> Commercial businesses at New Road (e.g. Equine Stud and Stables, Livery Yard) and Lower Woodrow (e.g. H Hutchings, Lower Copse Farm) No other relevant recent planning permissions No land identified in plans, policies or strategies for development 	<p><u>Development land and businesses</u></p> <p>Land take effects at paddocks adjacent New Road/Lower Woodrow.</p> <p>Minor land take effects at Little Copse Farm (with recent planning permission for a secure training and exercise area for dogs) and potential negligible land take effects at Equine Stud and Stables.</p> <p>No businesses (and associated jobs) at risk.</p> <p>No land affected which is allocated for development by Wiltshire Council or subject to recent planning applications supporting future jobs (with the exception of Little Copse Farm dog training).</p> <p>Minor accessibility restrictions/severance to businesses and development land in the core and wider study areas.</p> <p>No land has been identified in plans, policies or strategies for development or which is subject to planning permission near the route. However, during operation, increased traffic on the Eastern Way and A3102 has the potential to result in reduced accessibility/severance for the land identified in Wiltshire Council's SHELAA to the east of the Eastern Way as having potential for residential development, to form an eastern extension to Melksham.</p>	3 – Slight adverse	<p><u>Development land and businesses</u></p> <p>Meaningful negotiation should take place to minimise land take effects on local businesses. Good communication with any affected business owners should take place to understand their needs and the needs of their customers in terms of commercial activity, maintaining access etc.</p> <p>Specific mitigation should be decided on a case-by-case basis to minimise effects on trading conditions, viability and changes in access.</p> <p>Accessibility to local businesses and development land in the core and wider study area should be maintained as much as practical.</p> <p>Consideration should be given to potential impacts on the proposed eastern extension to Melksham (identified in the SHELAA) coming forward for development.</p>
		<p><u>Agricultural land holdings</u></p> <p>Riverside Farm, Queenfield Farm, Bezzle's Farm, Forest Farm, New Road Farm, Manor Farm</p>	<p><u>Agricultural land holdings</u></p> <p>Loss of agricultural land and severance to agricultural holdings</p>	2 – Moderate adverse	<p><u>Agricultural land holdings</u></p> <p>No environmental mitigation for land loss (only financial compensation). Severance partially mitigated by accommodation works</p>
		<p><u>Walkers, cyclists and horse-riders</u></p> <p>Section 1 – A350 to Woodrow Road:</p>	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Potential temporary localised disruption effects for WCH (e.g., from temporary diversions, changes to journey distance/time)</p>	3 – Slight adverse	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Consideration should be given to reducing impacts on footpaths, footways and PRoW, with either temporary or permanent diversions provided where</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> PRoW footpath MELW 66 PRoW footpath MELW 61 Footpaths along Woodrow Rod/Lower Woodrow Section 2 – Woodrow Road to A3102: <ul style="list-style-type: none"> PRoW footpath MELW 47 Footpaths along New Road 	at a small number of PRoW and footpaths during construction. Minor disruptions to accessibility/severance overall for pedestrians, cyclists and horse-riders as a result of the option.		required to minimise disruption and reduce potential severance or loss of connectivity. All existing WCH routes should be maintained and enhanced, where possible, during operation.
		<u>Human health</u> There is a small number of sensitive receptors near the alignment of the Option and a relatively small resident population in the core study area. Sensitive groups present in the study area include children and adolescents, older people and people who are physically or mentally disadvantaged.	<u>Human health</u> Minor adverse impacts are predicted for the physical and human receptors from changes to the wider health determinants (e.g. air pollution, noise pollution and vibration, soil and water pollution, access to community facilities and other social infrastructure, access to work and training, and social cohesion)	3 – Slight adverse	<u>Human health</u> The human health assessment, being mostly based upon potential effects identified by other technical disciplines (e.g. Air Quality, Noise and Vibration, Soils and Geology, Water Environment), would include the appropriate mitigation measures identified in those technical chapters into the overall mitigation strategy. Please refer to the mitigation measures outlined by the respective disciplines. The use of best practice construction methods would reduce disruption effects to nearby sensitive receptors and minimise potential impacts or effects on the community, particularly those susceptible or vulnerable to health issues.
	1c	<u>Private property and housing</u> Section 1 – A350 to Lower Woodrow: <ul style="list-style-type: none"> Riverside Farmhouse Halfway Cottages, Halfway Farmhouse Queensfield Farmhouse Section 2 – Lower Woodrow to A3102: <ul style="list-style-type: none"> Frogditch Farmhouse (225 Lower Woodrow) 226 Lower Woodrow 227 Lower Woodrow Rotheridge Farmhouse Green Shed Farmhouse Hack Farmhouse Planning permission for agricultural workers dwelling at Hack Farm Mobile Home, Oakley Farm Oakley Farmhouse Manor Farmhouse New Road Farmhouse Houses along Sandridge Common Blackmore Farmhouse Houses at Linnet Lane 	<u>Private property and housing</u> Section 1 – A350 to Woodrow Road: <ul style="list-style-type: none"> No properties at risk of demolition No land take expected from private property and housing Potential temporary disruptions to Riverside Farmhouse/Riverside House, Halfway Farm Cottages, Halfway Farmhouse and Queensfield Farmhouse Section 2 – Woodrow Road to A3102: <ul style="list-style-type: none"> No properties at risk of demolition; No land take expected from private property and housing; Potential temporary disruptions to wider access to Frogditch Farmhouse (225 Lower Woodrow), 226 Lower Woodrow, 227 Lower Woodrow, Rotheridge Farmhouse, Green Shed Farmhouse, Oakley Farmhouse, properties along Lower Woodrow, Lower Home Farmhouse, Manor Farm Cottages, Manor Farmhouse, New Road Farmhouse and properties along Sandridge Hill and Sandridge Common 	3 – Slight adverse	<u>Private property and housing</u> Land take should be minimised as far as practicable. Disruptions to access to private property and housing should be minimised, with accessibility maintained as much as practical. The use of best practice construction methods should be used to reduce disruption effects and minimise amenity impacts.
		<u>Community land and assets</u> There is no community land and assets located near the Option. The main community land and assets lie in the wider study area, in Melksham,	<u>Community land and assets</u> No land will be required from community land or community assets. No access will be directly affected.	4 – Neutral	<u>Community land and assets</u> Wider accessibility to community land and assets in the wider study area should be maintained as much as practical.

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		south and west of the A3102/Eastern Way Roundabout	<p>Potential minor accessibility restrictions/severance to community land and assets within the wider study area to the south and west of the Option.</p> <p>During operation, this option will improve accessibility/decrease severance for residents that use the A350 and other local connector roads to access community services in/around the centre of Melksham. However, increased traffic on the Eastern Way and A3102 westwards towards Melksham is likely to have adverse impacts for residents that access services in Melksham and Bowerhill, such as Melksham Oak Community School.</p>		<p>The use of best practice construction methods should be used reduce disruptions to people travelling to/from community land and assets and minimise amenity impacts.</p> <p>Traffic and transportation to consider potential impacts on the Eastern Way and A3102.</p>
		<p><u>Development land and businesses</u></p> <p>Section 1 – A350 to Lower Woodrow:</p> <ul style="list-style-type: none"> No businesses of an industrial/commercial nature present in this section No land identified in plans, policies or strategies for development or subject to planning permission <p>Section 2 – Lower Woodrow to A3102:</p> <ul style="list-style-type: none"> Commercial businesses at Oakley Farm (Livery), Manor Farm Estate No other relevant recent planning permissions <p>No land identified in plans, policies or strategies for development</p>	<p><u>Development land and businesses</u></p> <p>No significant land take effects predicted.</p> <p>No businesses (and associated jobs) at risk.</p> <p>No land affected which is allocated for development by Wiltshire Council or subject to recent planning applications supporting future jobs.</p> <p>Minor accessibility restrictions/severance to businesses and development land in the core and wider study areas.</p> <p>No land has been identified in plans, policies or strategies for development or which is subject to planning permission near the route. However, during operation, increased traffic on the Eastern Way and A3102 has the potential to result in reduced accessibility/severance for the land identified in Wiltshire Council's SHELAA to the east of the Eastern Way as having potential for residential development, to form an eastern extension to Melksham.</p>	3 – Slight adverse	<p><u>Development land and businesses</u></p> <p>Meaningful negotiation should take place to minimise land take effects on local businesses. Good communication with any affected business owners should take place to understand their needs and the needs of their customers in terms of commercial activity, maintaining access etc.</p> <p>Specific mitigation should be decided on a case-by-case basis to minimise effects on trading conditions, viability and changes in access.</p> <p>Accessibility to local businesses and development land in the core and wider study area should be maintained as much as practical.</p> <p>Consideration should be given to potential impacts on the proposed eastern extension to Melksham (identified in the SHELAA) coming forward for development.</p>
		<p><u>Agricultural land holdings</u></p> <p>Riverside Farm, Halfway Farm, Queenfield Farm, Rotheridge Farm, Hack Farm, Oakley Farm, Lower Home Farm, Manor Farm, New Road Farm, possibly Blackmore Farm</p>	<p><u>Agricultural land holdings</u></p> <p>Loss of agricultural land and severance to agricultural holdings.</p> <p>Temporary disruptions to access to Riverside Farm, Rotheridge Farm, Hack Farm, Manor Farm, New Road Far, possibly Blackmore Farm</p>	2 – Moderate adverse	<p><u>Agricultural land holdings</u></p> <p>No environmental mitigation for land loss (only financial compensation). Severance partially mitigated by accommodation works</p>
		<p><u>Walkers, cyclists and horse-riders</u></p> <p>Section 1 – A350 to Lower Woodrow:</p> <ul style="list-style-type: none"> PRoW footpath MELW 61 PRoW footpath MELW 62A PRoW footpath MELW 63 Footpaths along Lower Woodrow <p>Section 2 – Lower Woodrow to A3102:</p> <ul style="list-style-type: none"> PRoW footpath MELW 49 PRoW footpath MELW 48 PRoW footpath MELW 47 Footpaths along Sandridge Hill/Sandridge Common 	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Potential temporary localised disruption effects for WCH (e.g., from temporary diversions, changes to journey distance/time) at a small number of PRoW and footpaths during construction. Minor disruptions to accessibility/severance overall for pedestrians, cyclists and horse-riders as a result of the option.</p>	3 – Slight adverse	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Consideration should be given to reducing impacts on footways and PRoW, with either temporary or permanent diversions provided where required to minimise disruption and reduce potential severance or loss of connectivity. All existing WCH routes should be maintained and enhanced, where possible, during operation.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p><u>Human health</u></p> <p>There is a small number of sensitive receptors near the alignment of the Option and a relatively small resident population in the core study area. Sensitive groups present in the study area include children and adolescents, older people and people who are physically or mentally disadvantaged.</p>	<p><u>Human health</u></p> <p>Minor adverse impacts are predicted for the physical and human receptors from changes to the wider health determinants (e.g. air pollution, noise pollution and vibration, soil and water pollution, access to community facilities and other social infrastructure, access to work and training, and social cohesion)</p>	3 – Slight adverse	<p><u>Human health</u></p> <p>The human health assessment, being mostly based upon potential effects identified by other technical disciplines (e.g. Air Quality, Noise and Vibration, Soils and Geology, Water Environment), would include the appropriate mitigation measures identified in those technical chapters into the overall mitigation strategy. Please refer to the mitigation measures outlined by the respective disciplines.</p> <p>The use of best practice construction methods would reduce disruption effects to nearby sensitive receptors and minimise potential impacts or effects on the community, particularly those susceptible or vulnerable to health issues.</p>
	2a	<p><u>Private property and housing</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> • Halfway Farmhouse • Houses along Beanacre • Bezzle’s Farmhouse • Forest Farmhouse • No’s. 1 & 2 Forest Farm • Houses along Woodrow Road and Lower Woodrow <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> • Houses along Woodrow Road and Lower Woodrow • Houses along New Road • Houses at Sandridge Common <p>Section 3 – A3102 Sandridge Common to A350:</p> <ul style="list-style-type: none"> • Houses at Sandridge Common and Lopes Close • Blackmore House • Blackmore Farmhouse • Old Loves Farmhouse 	<p><u>Private property and housing</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> • No properties at risk of demolition • No land take expected from private property and housing • Potential temporary disruptions to access to No’s 67, 68 and 69 Beanacre during Roundabout tie-in works • Potential temporary disruptions to access to properties along Beanacre and Woodrow Road and Lower Woodrow <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> • No properties at risk of demolition • Potential minor land take from private property and housing at Woodrow and off New Road, Woodrow during Roundabout tie-in works (subject to more detailed assessment) • Potential temporary disruptions to access to properties along Woodrow, New Road, Lower Woodrow and Sandridge Common <p>Section 3 – A3102 Sandridge Common to A350</p> <ul style="list-style-type: none"> • No properties at risk of demolition • Potential minor land take from private property and housing at Blackmore House on Sandridge Common and No’s 255 and 286 Sandridge Common during tie-in works (subject to more detailed assessment) • Potential temporary disruptions to access to properties along Woodrow, New Road, Lower Woodrow, Sandridge Common, Bath Road 	3 – Slight adverse	<p><u>Private property and housing</u></p> <p>Land take should be minimised as far as practicable.</p> <p>Disruptions to access to private property and housing should be minimised, with accessibility maintained as much as practical.</p> <p>The use of best practice construction methods should be used to reduce disruption effects and minimise amenity impacts.</p>
		<p><u>Community land and assets</u></p> <p>There is no community land and assets located near the Option. The main community land and assets lie in the wider study area, in Melksham and Bowerhill</p>	<p><u>Community land and assets</u></p> <p>No land will be required from community land or community assets. No access will be directly affected.</p> <p>Potential minor accessibility restrictions/severance to community land and assets within the wider study area to the south and west of the Option.</p>	4 - Neutral	<p><u>Community land and assets</u></p> <p>Wider accessibility to community land and assets in the wider study area should be maintained as much as practical.</p> <p>The use of best practice construction methods should be used reduce disruptions to people travelling to/from community land and assets and minimise amenity impacts.</p>
		<p><u>Development land and businesses</u></p> <p>Section 1 – A350 to Woodrow Road:</p>	<p><u>Development land and businesses</u></p> <p>Land take effects at paddocks adjacent New Road/Lower Woodrow.</p>	3 – Slight adverse	<p><u>Development land and businesses</u></p> <p>Meaningful negotiation should take place to minimise land take effects on local businesses. Good communication with any affected business owners</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> No businesses of an industrial/commercial nature present in this section No land identified in plans, policies or strategies for development or subject to planning permission <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> Commercial businesses at New Road (e.g. Equine Stud and Stables, Livery Yard) and Lower Woodrow (e.g. H Hutchings, Lower Copse Farm) No other relevant recent planning permissions No land identified in plans, policies or strategies for development <p>Section 3 – A3102 Sandridge Common to A350:</p> <ul style="list-style-type: none"> Commercial units at Manor Farm Estate; M Vincent Windows and Glazing (421 Redstocks) Turnpike Garage and Chilli Kitchens, Bowerhill Bowerhill Industrial Estate No other relevant recent planning permissions No land identified in plans, policies or strategies for development 	<p>Minor land take effects at Little Copse Farm (with recent planning permission for a secure training and exercise area for dogs) and potential negligible land take effects at Equine Stud and Stables.</p> <p>No businesses (and associated jobs) at risk.</p> <p>No land affected which is allocated for development by Wiltshire Council or subject to recent planning applications supporting future jobs (with the exception of Little Copse Farm dog training).</p> <p>Minor accessibility restrictions/severance to businesses and development land at New Road, Woodrow and Lower Woodrow, Sandridge Common (e.g. Manor Farm Estate) and Bath Road.</p> <p>Minor accessibility restrictions/severance in the core and wider study areas.</p>		<p>should take place to understand their needs and the needs of their customers in terms of commercial activity, maintaining access etc.</p> <p>Specific mitigation should be decided on a case-by-case basis to minimise effects on trading conditions, viability and changes in access.</p> <p>Accessibility to local businesses and development land in the core and wider study area should be maintained as much as practical.</p>
		<p><u>Agricultural land holdings</u></p> <p>Bezzles Farm, Forest Farm, New Road Farm, Manor Farm, Blackmore Farm, Snarilton Farm, Tanhouse Farm, Redstocks, Little Bowerhill Farm, Vernon Farm,</p>	<p><u>Agricultural land holdings</u></p> <p>Loss of agricultural land and severance to agricultural holdings</p> <p>Temporary disruptions to access to New Road Farm (access off New Road) and Manor Farm</p>	1 – Large adverse	<p><u>Agricultural land holdings</u></p> <p>No environmental mitigation for land loss (only financial compensation). Severance partially mitigated by accommodation works</p>
		<p><u>Walkers, cyclists and horse-riders</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> PRoW footpath MELW 66 PRoW footpath MELW 61 Footpaths along Woodrow Rod/Lower Woodrow <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> PRoW footpath MELW 47 Footpaths along New Road <p>Section 3 – A3102 Sandridge Common to A350:</p> <ul style="list-style-type: none"> PRoW footpath MELW 30 PRoW footpath MELW 26 PRoW footpath MELW 23 	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Potential temporary localised disruption effects for WCH (e.g., from temporary diversions, changes to journey distance/time) at a larger number of PRoW and footpaths during construction. No permanent loss. On balance, minor disruptions to accessibility/severance predicted overall for pedestrians, cyclists and horse-riders as a result of the option.</p>	3 – Slight adverse	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Consideration should be given to reducing impacts on footpaths and the PRoW footpaths, with either temporary or permanent diversions provided where required to minimise disruption and reduce potential severance or loss of connectivity. All existing WCH routes should be maintained and enhanced, where possible, during operation.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> PRoW footpath MELW 24 Footpaths along Bath Road PRoW footpath MELW 35 Kennet and Avon Canal towpaths PRoW Bridleway SEEN 13 PRoW Bridleway SEEN 17 			
		<p><u>Human health</u></p> <p>There is a very small number of sensitive receptors near the alignment of the Option that could be directly affected by the Option and a relatively small resident population in the core study area. Sensitive groups present in the study area are likely to include children and adolescents, older people and people who are physically or mentally disadvantaged.</p>	<p><u>Human health</u></p> <p>Minor adverse impacts are predicted for the physical and human receptors from changes to the wider health determinants e.g. air pollution, noise pollution and vibration, soil and water pollution, access to community facilities and other social infrastructure, access to work and training</p>	3 – Slight adverse	<p><u>Human health</u></p> <p>The human health assessment, being mostly based upon potential effects identified by other technical disciplines (e.g. Air Quality, Noise and Vibration, Soils and Geology, Water Environment), would include the appropriate mitigation measures identified in those technical chapters into the overall mitigation strategy. Please refer to the mitigation measures outlined by the respective disciplines.</p> <p>The use of best practice construction methods would reduce disruption effects to nearby sensitive receptors and minimise potential impacts or effects on the community, particularly those susceptible or vulnerable to health issues.</p>
	2b	<p><u>Private property and housing</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> Riverside Farmhouse/Riverside House Halfway Farm Cottages Halfway Farmhouse Queensfield Farmhouse Houses along Woodrow Road and Lower Woodrow <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> Houses along Woodrow Road and Lower Woodrow Houses along New Road Houses at Sandridge Common <p>Section 3 – A3102 Sandridge Common to A350:</p> <ul style="list-style-type: none"> Houses at Sandridge Common and Lopes Close Blackmore House Blackmore Farmhouse Old Loves Farmhouse 	<p><u>Private property and housing</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> No properties at risk of demolition No land take expected from private property and housing Potential temporary disruptions to Riverside Farmhouse/Riverside House, Halfway Farm Cottages and Halfway Farmhouse Potential temporary disruptions to access to properties along Beanacre and Woodrow Road and Lower Woodrow <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> No properties at risk of demolition Potential minor land take from private property and housing at Woodrow and off New Road, Woodrow during Roundabout tie-in works (subject to more detailed assessment) Potential temporary disruptions to access to properties along New Road and Sandridge Common <p>Section 3 – A3102 Sandridge Common to A350:</p> <ul style="list-style-type: none"> No properties at risk of demolition Potential minor land take from private property and housing at Blackmore House on Sandridge Common and No's 255 and 286 Sandridge Common during tie-in works (subject to more detailed assessment) Potential temporary disruptions to access to properties along Woodrow, New Road, Lower Woodrow, Sandridge Common, Bath Road 	3 – Slight adverse	<p><u>Private property and housing</u></p> <p>Land take should be minimised as far as practicable.</p> <p>Disruptions to access to private property and housing should be minimised, with accessibility maintained as much as practical.</p> <p>The use of best practice construction methods should be used to reduce disruption effects and minimise amenity impacts.</p>
		<p><u>Community land and assets</u></p> <p>There is no community land and assets located near the Option. The main community land and</p>	<p><u>Community land and assets</u></p> <p>No land will be required from community land or community assets. No access will be directly affected.</p>	4 – Neutral	<p><u>Community land and assets</u></p> <p>Wider accessibility to community land and assets in the wider study area should be maintained as much as practical.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		assets lie in the wider study area, in Melksham and Bowerhill.	Potential minor accessibility restrictions/severance to community land and assets within the wider study area to the south and west of the Option.		The use of best practice construction methods should be used reduce disruptions to people travelling to/from community land and assets and minimise amenity impacts.
		<p><u>Development land and businesses</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> No businesses of an industrial/commercial nature present in this section No land identified in plans, policies or strategies for development or subject to planning permission <p>Section 2 – Woodrow Road to A3102:</p> <ul style="list-style-type: none"> Commercial businesses at New Road (e.g. Equine Stud and Stables, Livery Yard) and Lower Woodrow (e.g. H Hutchings, Lower Copse Farm) No other relevant recent planning permissions No land identified in plans, policies or strategies for development <p>Section 3 – A3102 Sandridge Common to A350:</p> <ul style="list-style-type: none"> Commercial units at Manor Farm Estate; M Vincent Windows and Glazing (421 Redstocks) Turnpike Garage and Chilli Kitchens, Bowerhill Bowerhill Industrial Estate No other relevant recent planning permissions No land identified in plans, policies or strategies for development 	<p><u>Development land and businesses</u></p> <p>Land take effects at paddocks adjacent New Road/Lower Woodrow.</p> <p>Minor land take effects at Little Copse Farm (with recent planning permission for a secure training and exercise area for dogs) and potential negligible land take effects at Equine Stud and Stables.</p> <p>No businesses (and associated jobs) at risk.</p> <p>No land affected which is allocated for development by Wiltshire Council or subject to recent planning applications supporting future jobs (with the exception of Little Copse Farm dog training).</p> <p>Minor accessibility restrictions/severance to businesses and development land in the core and wider study areas.</p>	3 – Slight adverse	<p><u>Development land and businesses</u></p> <p>Meaningful negotiation should take place to minimise land take effects on local businesses. Good communication with any affected business owners should take place to understand their needs and the needs of their customers in terms of commercial activity, maintaining access etc.</p> <p>Specific mitigation should be decided on a case-by-case basis to minimise effects on trading conditions, viability and changes in access.</p> <p>Accessibility to local businesses and development land in the core and wider study area should be maintained as much as practical.</p>
		<p><u>Agricultural land holdings</u></p> <p>Riverside Farm, Queenfield Farm, Bezzle's Farm, Forest Farm, New Road Farm, Manor Farm, Blackmore Farm, Snarlton Farm, Tanhouse Farm, Redstocks, Little Bowerhill Farm, Vernon Farm, Melksham Park Farm, Newtown Farm</p>	<p><u>Agricultural land holdings</u></p> <p>Loss of agricultural land and severance to agricultural holdings</p> <p>Temporary disruptions to access to New Road Farm (access off New Road) and Manor Farm</p>	1 – Large adverse	<p><u>Agricultural land holdings</u></p> <p>No environmental mitigation for land loss (only financial compensation). Severance partially mitigated by accommodation works</p>
		<p><u>Walkers, cyclists and horse-riders</u></p> <p>Section 1 – A350 to Woodrow Road:</p> <ul style="list-style-type: none"> PRoW footpath MELW 66 PRoW footpath MELW 61 Footpaths along Woodrow Rod/Lower Woodrow <p>Section 2 – Woodrow Road to A3102:</p>	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Potential temporary localised disruption effects <u>for WCH</u> (e.g., from temporary diversions, changes to journey distance/time) at a larger number of PRoW and footpaths during construction. No permanent loss. On balance, minor disruptions to accessibility/severance predicted overall for pedestrians, cyclists and horse-riders as a result of the option.</p>	3 – Slight adverse	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Consideration should be given to reducing impacts on footpaths, footways and PRoW, with either temporary or permanent diversions provided where required to minimise disruption and reduce potential severance or loss of connectivity. <u>All existing WCH routes should be maintained and enhanced, where possible, during operation.</u></p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<ul style="list-style-type: none"> PRoW footpath MELW 47 Footpaths along New Road Section 3 – A3102 Sandridge Common to A350: <ul style="list-style-type: none"> PRoW footpath MELW 30 PRoW footpath MELW 26 PRoW footpath MELW 23 PRoW footpath MELW 24 Footpaths along Bath Road PRoW footpath MELW 35 Kennet and Avon Canal towpaths PRoW Bridleway SEEN 13 PRoW Bridleway SEEN 17 			
		<u>Human health</u> There is a small number of sensitive receptors near the alignment of the Option and a relatively small resident population in the core study area. Sensitive groups present in the study area include children and adolescents, older people and people who are physically or mentally disadvantaged.	<u>Human health</u> Minor adverse impacts are predicted for the physical and human receptors from changes to the wider health determinants (e.g. air pollution, noise pollution and vibration, soil and water pollution, access to community facilities and other social infrastructure, access to work and training, and social cohesion)	3 – Slight adverse	<u>Human health</u> The human health assessment, being mostly based upon potential effects identified by other technical disciplines (e.g. Air Quality, Noise and Vibration, Soils and Geology, Water Environment), would include the appropriate mitigation measures identified in those technical chapters into the overall mitigation strategy. Please refer to the mitigation measures outlined by the respective disciplines. The use of best practice construction methods would reduce disruption effects to nearby sensitive receptors and minimise potential impacts or effects on the community, particularly those susceptible or vulnerable to health issues.
	2c	<u>Private property and housing</u> Section 1 – A350 to Lower Woodrow: <ul style="list-style-type: none"> Riverside Farmhouse Halfway Cottages, Halfway Farmhouse Queensfield Farmhouse Section 2 – Lower Woodrow to A3102: <ul style="list-style-type: none"> Frogditch Farmhouse (225 Lower Woodrow) 226 Lower Woodrow 227 Lower Woodrow Rotheridge Farmhouse Green Shed Farmhouse Hack Farmhouse Planning permission for agricultural workers dwelling at Hack Farm Mobile Home, Oakley Farm Oakley Farmhouse Lower Home Farmhouse Manor Farmhouse Houses at Lopes Close 	<u>Private property and housing</u> Section 1 – A350 to Woodrow Road: <ul style="list-style-type: none"> No properties at risk of demolition No land take expected from private property and housing Potential temporary disruptions to Riverside Farmhouse/Riverside House, Halfway Farm Cottages, Halfway Farmhouse and Queensfield Farmhouse Section 2 – Woodrow Road to A3102: <ul style="list-style-type: none"> No properties at risk of demolition; No land take expected from private property and housing; Potential temporary disruptions to wider access to Frogditch Farmhouse (225 Lower Woodrow), 226 Lower Woodrow, 227 Lower Woodrow, Rotheridge Farmhouse, Green Shed Farmhouse, Oakley Farmhouse, properties along Lower Woodrow, Lower Home Farmhouse, Manor Farm Cottages, Manor Farmhouse, Lopes Close and properties along Sandridge Hill and Sandridge Common Section 3 – A3102 Sandridge Common to A350: <ul style="list-style-type: none"> No properties at risk of demolition; 	3 – Slight adverse	<u>Private property and housing</u> Land take should be minimised as far as practicable. Disruptions to access to private property and housing should be minimised, with accessibility maintained as much as practical. The use of best practice construction methods should be used to reduce disruption effects and minimise amenity impacts.

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		<p>Section 3 – A3102 Sandridge Common to A350:</p> <ul style="list-style-type: none"> Houses at Sandridge Common and Lopes Close; Blackmore House; Blackmore Farmhouse; Old Loves Farmhouse 	<ul style="list-style-type: none"> No land take expected from private property and housing; Potential temporary disruptions to access to properties along Bath Road 		
		<p><u>Community land and assets</u></p> <p>There is no community land and assets located near the Option. The main community land and assets lie in the wider study area, in Melksham and Bowerhill</p>	<p><u>Community land and assets</u></p> <p>No land will be required from community land or community assets. No access will be directly affected.</p> <p>Potential minor accessibility restrictions/severance to community land and assets within the wider study area to the south and west of the Option.</p>	4 – Neutral	<p><u>Community land and assets</u></p> <p>Wider accessibility to community land and assets in the wider study area should be maintained as much as practical.</p> <p>The use of best practice construction methods should be used reduce disruptions to people travelling to/from community land and assets and minimise amenity impacts.</p>
		<p><u>Development land and businesses</u></p> <p>Section 1 – A350 to Lower Woodrow:</p> <ul style="list-style-type: none"> No businesses of an industrial/commercial nature present in this section No land identified in plans, policies or strategies for development or subject to planning permission <p>Section 2 – Lower Woodrow to A3102:</p> <ul style="list-style-type: none"> Commercial businesses at Oakley Farm (Livery), Manor Farm Estate No other relevant recent planning permissions No land identified in plans, policies or strategies for development <p>Section 3 – A3102 Sandridge Common to A350:</p> <ul style="list-style-type: none"> Solar photovoltaic farm (Snarlton Farm); M Vincent Windows and Glazing (421 Redstocks) Turnpike Garage and Chilli Kitchens, Bowerhill Bowerhill Industrial Estate No other relevant recent planning permissions No land identified in plans, policies or strategies for development 	<p><u>Development land and businesses</u></p> <p>No land take effects predicted, with the exception of potential minor land take effects/disruptions to access to the Solar photovoltaic farm at Snarlton Farm.</p> <p>No businesses (and associated jobs) at risk.</p> <p>No land affected which is allocated for development by Wiltshire Council or subject to recent planning applications supporting future jobs.</p> <p>Minor accessibility restrictions/severance to businesses and development land in the core and wider study areas.</p>	3 – Slight adverse	<p><u>Development land and businesses</u></p> <p>Meaningful negotiation should take place to minimise land take effects on local businesses. Good communication with any affected business owners should take place to understand their needs and the needs of their customers in terms of commercial activity, maintaining access etc.</p> <p>Specific mitigation should be decided on a case-by-case basis to minimise effects on trading conditions, viability and changes in access.</p> <p>Accessibility to local businesses and development land in the core and wider study area should be maintained as much as practical.</p>
		<p><u>Agricultural land holdings</u></p> <p>Riverside Farm, Halfway Farm, Queenfield Farm, Frogditch Farm, Green Shed Farm, Rotheridge Farm, Hack Farm, Oakley Farm, Lower Home Farm, Manor Farm, Snarlton</p>	<p><u>Agricultural land holdings</u></p> <p>Loss of agricultural land and severance to agricultural holdings.</p> <p>Temporary disruptions to access to Riverside Farm, Rotheridge Farm, Hack Farm, Manor Farm, Snarlton Farm and Tanhouse Farm.</p>	1 – Large adverse	<p><u>Agricultural land holdings</u></p> <p>No environmental mitigation for land loss (only financial compensation). Severance partially mitigated by accommodation works.</p>

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		Farm, Tanhouse Farm, Redstocks, Little Bowerhill Farm, Vernon Farm.			
		<p><u>Walkers, cyclists and horse-riders</u></p> <p>Section 1 – A350 to Lower Woodrow:</p> <ul style="list-style-type: none"> • PRoW footpath MELW 61 • PRoW footpath MELW 62A • PRoW footpath MELW 63 • Footpaths along Lower Woodrow <p>Section 2 – Lower Woodrow to A3102:</p> <ul style="list-style-type: none"> • PRoW footpath MELW 49 • PRoW footpath MELW 48 • PRoW footpath MELW 47 • Footpaths along Sandridge Hill/Sandridge Common <p>Section 3 – A3102 Sandridge Common to A350:</p> <ul style="list-style-type: none"> • PRoW bridleway MELW 40 • PRoW footpath MELW 30 • PRoW bridleway MELW 41 • PRoW footpath MELW 26 • PRoW footpath MELW 23 • PRoW footpath MELW 24 • Footpaths along Bath Road • PRoW footpath MELW 35 • Kennet and Avon Canal towpaths • PRoW Bridleway SEEN 13 • PRoW Bridleway SEEN 17 	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Potential temporary localised disruption effects <u>for WCH</u> (e.g., from temporary diversions, changes to journey distance/time) at a larger number of PRoW and footpaths during construction. No permanent loss. On balance, minor disruptions to accessibility/severance predicted overall for pedestrians, cyclists and horse-riders as a result of the option.</p>	3 – Slight adverse	<p><u>Walkers, cyclists and horse-riders</u></p> <p>Consideration should be given to reducing impacts on footpaths, footways and PRoW, with either temporary or permanent diversions provided where required to minimise disruption and reduce potential severance or loss of connectivity. <u>All existing WCH routes should be maintained and enhanced, where possible, during operation.</u></p>
		<p><u>Human health</u></p> <p>There is a small number of sensitive receptors near the alignment of the Option and a relatively small resident population in the core study area. Sensitive groups present in the study area include children and adolescents, older people and people who are physically or mentally disadvantaged.</p>	<p><u>Human health</u></p> <p>Minor adverse impacts are predicted for the physical and human receptors from changes to the wider health determinants (e.g. air pollution, noise pollution and vibration, soil and water pollution, access to community facilities and other social infrastructure, access to work and training, and social cohesion)</p>	3 – Slight adverse	<p><u>Human health</u></p> <p>The human health assessment, being mostly based upon potential effects identified by other technical disciplines (e.g. Air Quality, Noise and Vibration, Soils and Geology, Water Environment), would include the appropriate mitigation measures identified in those technical chapters into the overall mitigation strategy. Please refer to the mitigation measures outlined by the respective disciplines.</p> <p>The use of best practice construction methods would reduce disruption effects to nearby sensitive receptors and minimise potential impacts or effects on the community, particularly those susceptible or vulnerable to health issues.</p>
Climate effects	1a	The atmosphere	Emission of greenhouse gases from the construction, operation and maintenance of the route option, which contribute to climate change. The scale of these emissions is likely to be small in the context of overall UK carbon budgets. As a relatively short route option with a smaller cut/fill material balance than some other options, this is likely to be one of the lower-carbon options.	3 – Slight adverse	Designing out materials and wastes, local sourcing of materials, use of low-carbon alternative materials, low-carbon construction plant and energy efficient construction methods, design to enable efficient operation of vehicles using the route.
	1b	The atmosphere		3 – Slight adverse	
	1c	The atmosphere		3 – Slight adverse	
	2a	The atmosphere		3 – Slight adverse	

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
	2b	The atmosphere		3 – Slight adverse	
	2c	The atmosphere		3 – Slight adverse	
Climate vulnerability	1a	<ul style="list-style-type: none"> Construction process (including workforce, plant, machinery etc.). The assets and their operation, maintenance and refurbishment (including pavements, structures, earthworks, drainage and technology assets such as signals and signs). End-users (members of the public, commercial operators, nearby residential properties, road user safety and experience). 	<ul style="list-style-type: none"> Hotter summers could damage materials (melting, rutting, shrinkage and over expansion) Heavier rain and wetter winters could increase pothole formation Both drier summers and wetter winters could, by separate mechanisms, cause soil instability affecting structures Climate change could affect flood risk Extreme weather could affect assets (e.g. by wind damage, scour damage or damage following submersion) Extreme weather could more regularly create dangerous driving conditions. 	<p>3 – Slight adverse overall</p> <p>Unmitigated scores for the full range of potential impacts range from 3 (slight beneficial relating, for example, to warmer winters reducing freeze thaw erosion which can damage underground assets) to 7 (large adverse where climate impacts could affect the safety of the Scheme in operation).</p>	The scheme will implement a wide range of climate vulnerability mitigation measures. These will be explored further once further design information is available. They will primarily include design modifications (embedded mitigation), such as the inclusion of a climate change allowance in the selection of the design storm size that the drainage infrastructure will be built to withstand.
	1b				
	1c				
	2a				
	2b				
	2c				

C.4. Extra assessment on the dualling for A350

Table C-2 below outlines the extra high-level assessment of option 1X and 2X which incorporates dualling between Western Way and Littleton Roundabout (option 1X) and dualling between the new roundabout at the end of route 2A / 2B / 2C where it joins the A350 to the A361 Littleton Roundabout (option 2X).

The assessment considers whether there would be any change to the impact score assessed for each of the six options for each environmental topic if dualling of the A350 was also to be included as part of the option.

For Options 1A / 1B / 1C the A350 will be dualled from the Western Way roundabout to the A361 roundabout (Littleton roundabout).

For Options 2A / 2B / 2C the A350 will be dualled from the new roundabout at the end of the route where it joins the A350 to the A361 roundabout (Littleton roundabout).

The A350 in this section was built for future dualling.

Ecology surveys have not been conducted for these areas, so this updated assessment is based on desk study information only.

It is assumed that all works will be within the existing highway boundary and there will be no permanent additional land take.

Details of any temporary land take, such as for the siting of construction compounds, is unknown.

C.4.1. Summary of key findings

A summary of the assessment is provided below and presented in table format in Table C-2.

For most topics there is no change in the assessment of impacts for each of the six options presented above in except for the following:

- Noise and vibration – dualling the A350 for all six options will result in an increase in impacts from Slight beneficial to Slight Adverse for options 1A / 1B / 1C and Moderate beneficial to Slight Adverse for options 2A / 2B / 2C due to a possible increase in road flow speed from congestion relief which could result in an increase in noise level from A350 and impact further local receptors.
- Water environment – dualling the A350 for all six options will result in an increase in impacts from Moderate to Large adverse due to unmitigated increase in water quality risk from an increase in impermeable area and traffic densities associated with the dualling.
- Cultural heritage – dualling of the A350 for Options 1A / 1B / 1C will result in an increase in impacts from Moderate to Large adverse due to more assets being located within the extent of the site than were identified in the full options assessment.

Table C-2 - Environmental assessment of incremental A350 dualling

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
Air quality	1a, 1b and 1c dualling	No change to the receptors in the six options assessment.	The same impacts will be expected as detailed in the six options assessment.	No change (Slight adverse)	NA
	2a, 2b and 2c dualling	No change to the receptors in the six options assessment.	The same impacts will be expected as detailed in the six options assessment.	No change (Slight adverse)	
Noise and vibration	1a, 1b and 1c dualling	Noise Sensitive Receptors (NSRs) on Semington Road, and in Semington itself, and possibly Bowerhill (although industrial area is nearest).	Possible increase in road flow speed due to congestion relief could result in increase in noise level from A350 (any potential increase in traffic volume due to congestion relief would also have the potential to increase noise level from the A350).	Change from Slight beneficial to Slight Adverse	Mitigation opportunities including barriers and/or surfacing (effectiveness dependant on existing pre-scheme surfacing) may be possible.
	2a, 2b and 2c dualling	NSRs in Semington.	Possible increase in road flow speed due to congestion relief could result in increase in noise level from A350 (any potential increase in traffic volume due to congestion relief would also have the potential to increase noise level from the A350).	Change from Moderate beneficial to Slight Adverse	
Biodiversity	1a, 1b and 1c dualling	<p>Designated Sites</p> <p>The proposed dualling works cross the Kennet and Avon Canal Local Wildlife Site (LWS). This is a waterway which supports populations of aquatic plants, breeding and wintering birds, and water voles. Based on satellite imagery, it appears that the road crosses underneath the canal, so no works are anticipated at this stage.</p> <p>Priority Habitats</p> <p>The proposed dualling works directly cross two additional watercourses MR43 and WC06, and eight additional waterbodies are found within 50 m of the dualling works.</p> <p>The dualling works is also within 20 m of two pockets of deciduous woodland.</p> <p>Protected Species</p> <p>The desk study identified 28 recent records of great crested newt within 1 km of the dualling works. The closest record is 50 m east.</p> <p>In addition, the desk study identified 10 recent records of grass snake, the closest record being 150 m to the west of the works, and 40 slow worm records, the closest being 20 m west.</p>	<p>The same impacts will be expected as detailed in the six options assessment. There will be more of an impact to receptors as the footprint of the works is larger (route plus dualling works).</p> <p>The two pockets of deciduous woodland which fall within 20 m of the proposed dualling works, will likely lead to some impacts on deciduous woodland (temporarily or permanently).</p>	No change (Slight adverse)	The same mitigation should be followed as detailed in the main document, although as more will be impacted, more mitigation may be required.
	2a, 2b and 2c dualling	<p>Designated Sites</p> <p>The proposed dualling works cross the Kennet and Avon Canal Local Wildlife Site (LWS). This is a waterway which supports populations of aquatic plants, breeding and wintering birds, and water voles. Based on satellite imagery, it appears that the road crosses underneath the canal, so no works are anticipated at this stage.</p> <p>Priority habitats</p> <p>The dualling works cross two additional water courses: MR43 and WC06.</p>	The same impacts will be expected as detailed in the six options assessment. There will be more of an impact to receptors as the footprint of the works is larger (route plus dualling works)	No change (Moderate adverse)	
Water environment	1a, 1b and 1c dualling	MR03 CN02 MR43	No impacts on hydromorphology nor flood risk as no change to channel crossings or embankment width.	Change from Moderate adverse to Large adverse	No change to mitigation as outlined in the options assessment.

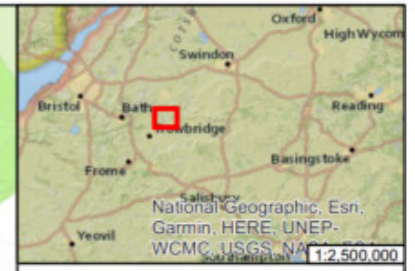
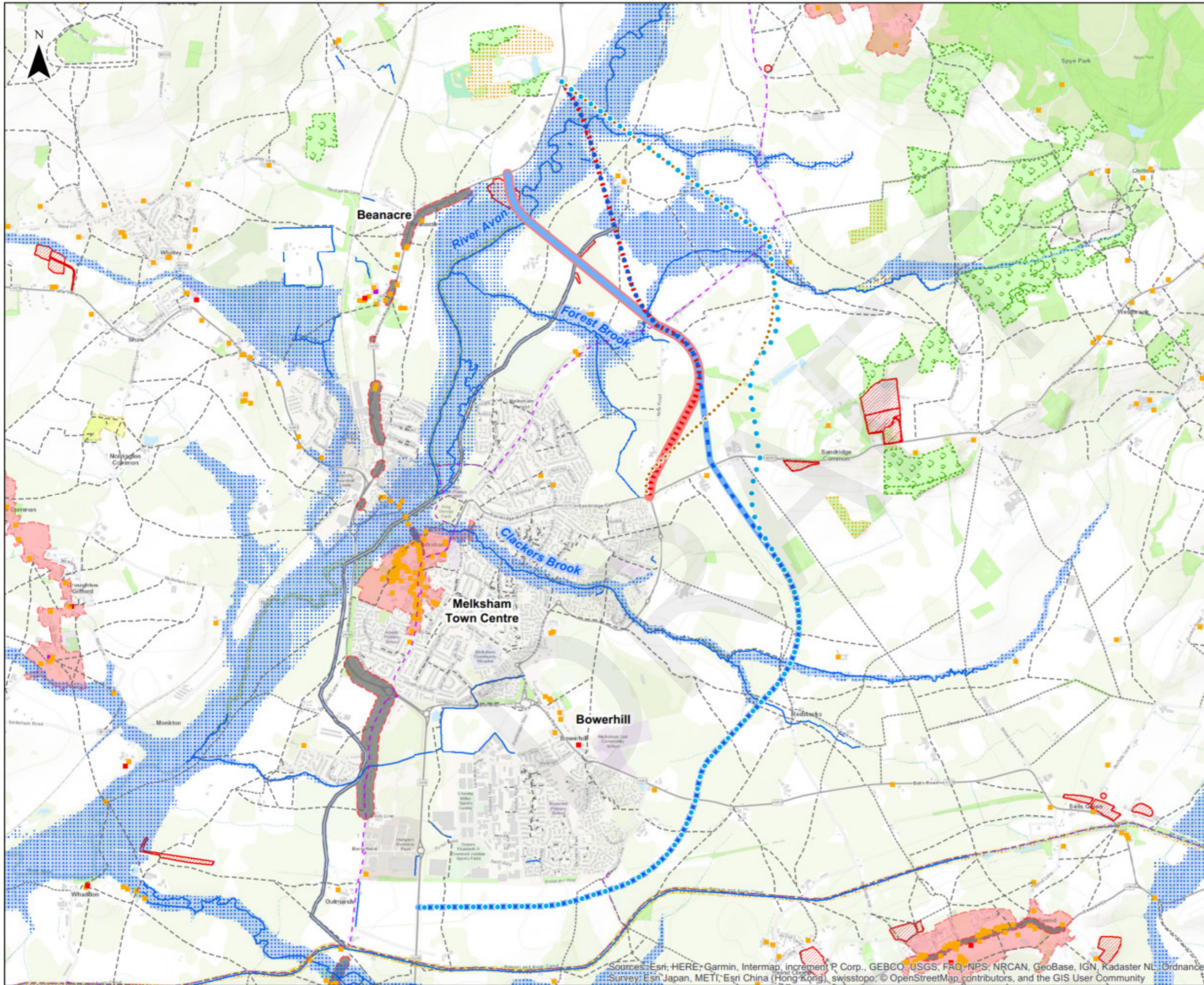
Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
		WC06	Potential impacts to water quality and spillage risk due to increase in impermeable area and traffic densities associated with the dualling.	(Increase in impact due to unmitigated increase in WQ risk)	
	2a, 2b and 2c dualling	CN02 MR43 WC06	No impacts on hydromorphology nor flood risk as no change to channel crossings or embankment width Potential impacts to water quality and spillage risk due to increase in impermeable area and traffic densities associated with the dualling.	Change from Moderate adverse to Large adverse (Increase in impact due to unmitigated increase in WQ risk)	No change to mitigation as outlined in the options assessment.
Landscape and visual	1a, 1b and 1c dualling	Users of canal	Very minor impact on view from A350 overbridge. Assume no or very minimal removal of existing vegetation.	No change (Large adverse for Option 1a and 1b, Moderate adverse for Option 1c)	None required but could potentially enhance existing screening vegetation.
	2a, 2b and 2c dualling	No new receptors	No new receptors. Assume no or very minimal removal of existing vegetation.	No change (Large adverse for Option 2a and 2b, Moderate adverse for Option 2c)	
Geology and soils	1a, 1b and 1c dualling	The route comprises an existing carriageway and adjacent grassed verge. Industrial units are located 50 m to the east and west of the northern extent of the route.	Potential contamination sources have been identified associated with reworked soils of unknown provenance associated with the construction and operation/maintenance of the existing road and verge. Potential contaminants, associated with adjacent industrial units in the north of the site, may have migrated to the site in windblown dusts or groundwater. Potential contamination sources have been identified	No change (Large adverse for 1a, Moderate adverse for 1b and 1c)	No additional mitigation identified / required
	2a, 2b and 2c dualling	The route comprises an existing carriageway and adjacent grassed verge.	A potential contamination source has been identified associated with reworked soils of unknown provenance associated with the construction and operation/maintenance of the existing road and verge.	No change (Large adverse for 2a, Moderate adverse for 2b and 2c)	No additional mitigation identified / required
Cultural heritage	1a, 1b and 1c dualling	<ul style="list-style-type: none"> WI7326 The Milk Churn Pub and Restaurant MWI64453 Ridge and Furrow at Littleton Stables 	Setting impacts to: <ul style="list-style-type: none"> WI7326 The Milk Churn Pub and Restaurant Direct impacts to ridge furrow. There are more assets within the within the extent of the site than were identified in the full options assessment.	Change from Moderate adverse to Large adverse	There are ridge and furrow and medieval settlements which extends to the area of the dualling. An appropriate and proportionate staged programme of archaeological investigation should be implemented, including a geophysical survey, and archaeological evaluation. Further setting assessment would need to be carried out to evaluate how the scheme will alter settings of significant heritage assets.
		<ul style="list-style-type: none"> Grade II Listed Building 1252300 Little Green Farmhouse 	Setting impacts to:	No change	

Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
	2a, 2b and 2c dualling	<ul style="list-style-type: none"> MWI3624 Littleton Green Farm (settlement) MWI44979 Anti Tank Cylinders, Southwest of Newtown Farm MWI64453 Ridge and Furrow at Littleton Stables 	<ul style="list-style-type: none"> Little Green Farmhouse <p>Direct impacts to ridge furrow and medieval settlement.</p> <p>There are more assets within the within the extent of the site than were identified in the full options assessment.</p>	(Large adverse)	<p>There are ridge and furrow and medieval settlements which extends to the area of the dualling. An appropriate and proportionate staged programme of archaeological investigation should be implemented, including a geophysical survey, and archaeological evaluation.</p> <p>Further setting assessment would need to be carried out to evaluate how the scheme will alter settings of significant heritage assets.</p>
Materials and waste	1a, 1b and 1c dualling	No change to the receptors in the six options assessment.	The same impacts will be expected as detailed in the six options assessment.	No change (Moderate adverse)	No additional mitigation identified / required
	2a, 2b and 2c dualling	No change to the receptors in the six options assessment.	The same impacts will be expected as detailed in the six options assessment.	No change (Large adverse)	
Population and human health	1a, 1b and 1c dualling	<ul style="list-style-type: none"> Lonsdale Farm Melksham Mobile Home Park New residential dwellings (up to 150 dwellings) and play area proposed to be built on land to the east of Semington Road (Planning reference 17/12514/REM) Bowerhill Sewage Works Recreation land east of Bowerhill Sewage Works Sports Centre, Lancaster Road Bowerhill Industrial Estate Residential properties along Semington Road Hampton Park West Hampton Park West Business Park/Commerce Way Industrial/commercial units on Portal Road and Hampton Park East Wiltshire Air Ambulance Charitable Trust Wiltshire Police Divisional HQ Newtown Farm and cottage Users of several PRowS, footpaths and canal towpaths Residential properties at Canal Bridge, High Street and Church Street Manor Farm, Church Farm, Littleton Green Farm, Littleton Stables West Wiltshire Crematorium Commercial units at Lansdowne, Littleton Brickfield Farm Strangers Corner Farm 	Temporary disruption effects, amenity, potential severance.	No change to overall assessment (Slight adverse)	Standard mitigation should be applied as previously stated for the six short-list options in relation to private property and housing, community land and assets, development land and businesses, agricultural land, WCH, and human health.

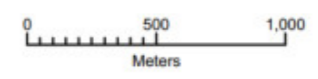
Topic	Option	Key receptors	Key impacts	Qualitative impact score (without mitigation)	Mitigation opportunities
	2a, 2b and 2c dualling	<ul style="list-style-type: none"> • Hampton Park West • Hampton Park West Business Park/ Commerce Way • Industrial/commercial units on Portal Road and Hampton Park East • Wiltshire Air Ambulance Charitable Trust • Wiltshire Police Divisional HQ • Newtown Farm and cottage • Users of several PRowS, footpaths and canal towpaths • Residential properties at Canal Bridge, High Street and Church Street • Manor Farm, Church Farm, Littleton Green Farm, Littleton Stables • West Wiltshire Crematorium • Commercial units at Lansdowne, Littleton • Brickfield Farm • Strangers Corner Farm 	Temporary disruption effects, amenity, potential severance.	No change to overall assessment (Slight adverse)	
Climate effects	1a, 1b and 1c dualling	No change to the receptors in the six options assessment.	The same impacts will be expected as detailed in the six options assessment.	No change (Slight adverse)	
	2a, 2b and 2c dualling	No change to the receptors in the six options assessment	The same impacts will be expected as detailed in the six options assessment.	No change (Slight adverse)	
Climate vulnerability	1a, 1b and 1c dualling	No change to the receptors in the six options assessment.	The same impacts will be expected as detailed in the six options assessment.	No change (Slight adverse)	
	2a, 2b and 2c dualling	No change to the receptors in the six options assessment	The same impacts will be expected as detailed in the six options assessment.	No change (Slight adverse)	

Appendix D. Environmental constraints plan

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- Route 1a
- - - Route 1b
- . . . Route 1c
- Route 2a
- - - Route 2b
- . . . Route 2c
- - - - Footpath
- Bridleway
- - - - National Cycle Route
- Listed Buildings - Grade I
- Listed Buildings - Grade II
- Listed Buildings - Grade II*
- Water Course
- Kennet and Avon Canal
- ▨ Flood Zone - 2
- ▨ Flood Zone - 3
- ▨ Noise Important Area
- ▨ Historic Landfill Site
- ▨ Priority Habitats
- ▨ Ancient Woodland
- ▨ Local Wildlife Site
- ▨ Conservation Area
- ▨ Wildlife Site



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Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
FINAL FOR GAR	S2	W01	PD	AK	LS	AM	2023/02/01

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Wiltshire Council

Project Title: A350 MELKSHAM BY-PASS

Drawing Title: FIGURE 1 ENVIRONMENTAL CONSTRAINTS

Drawing Subtitle: SHARED FOR INFORMATION	Status: S2
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Drawing Number: WC_MBP - ATK - EGN - XX - GS - LM - 000001
Project: [Designer] Volume: [Location] Type: [Note] Number
Original Size: A3 Scale: 1:25,000 Project Ref: 5197936 Sheet: 1 of 1 Rev: P01

Sources: Esri; HERE; Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

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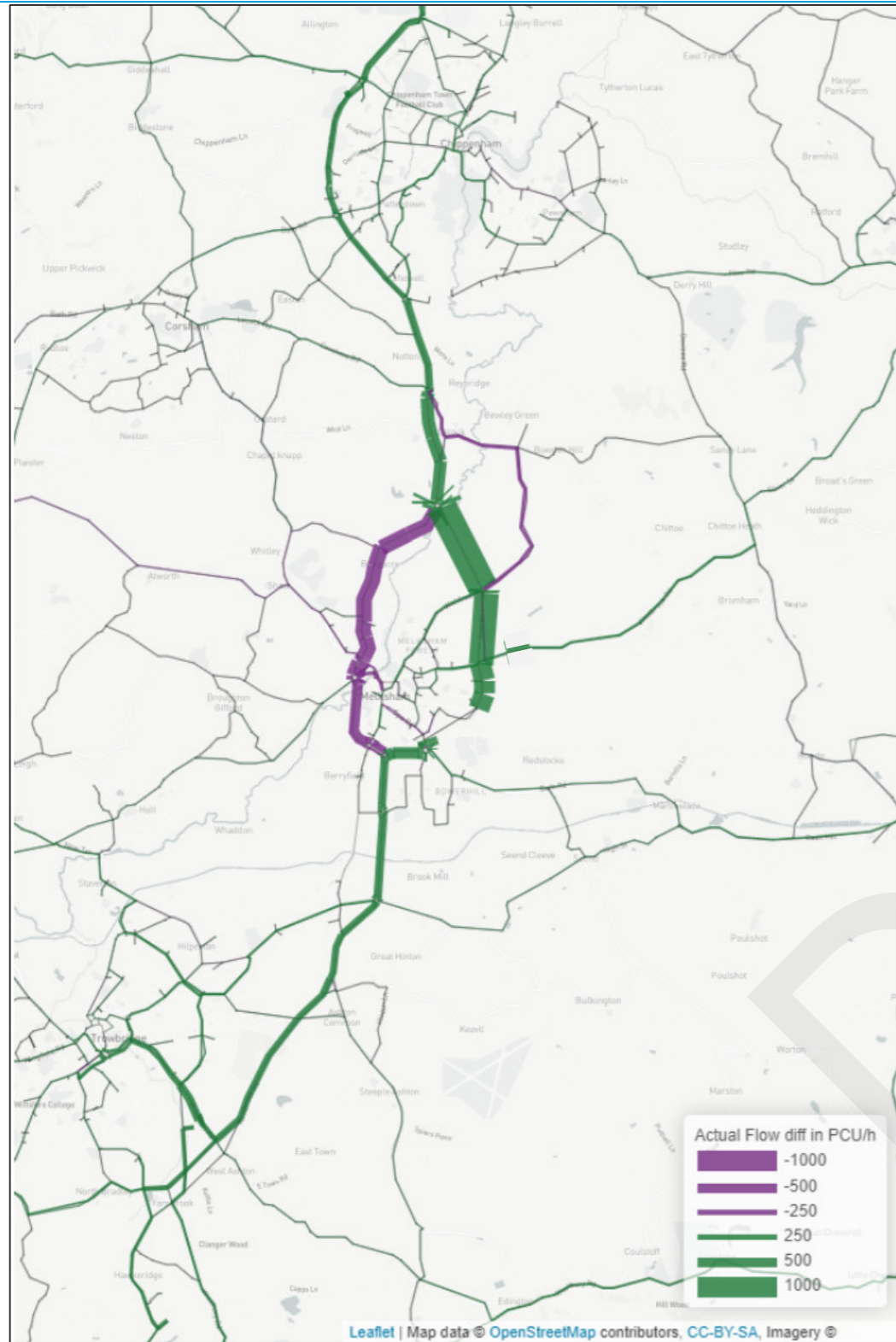
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Appendix E. Initial traffic modelling – short list options

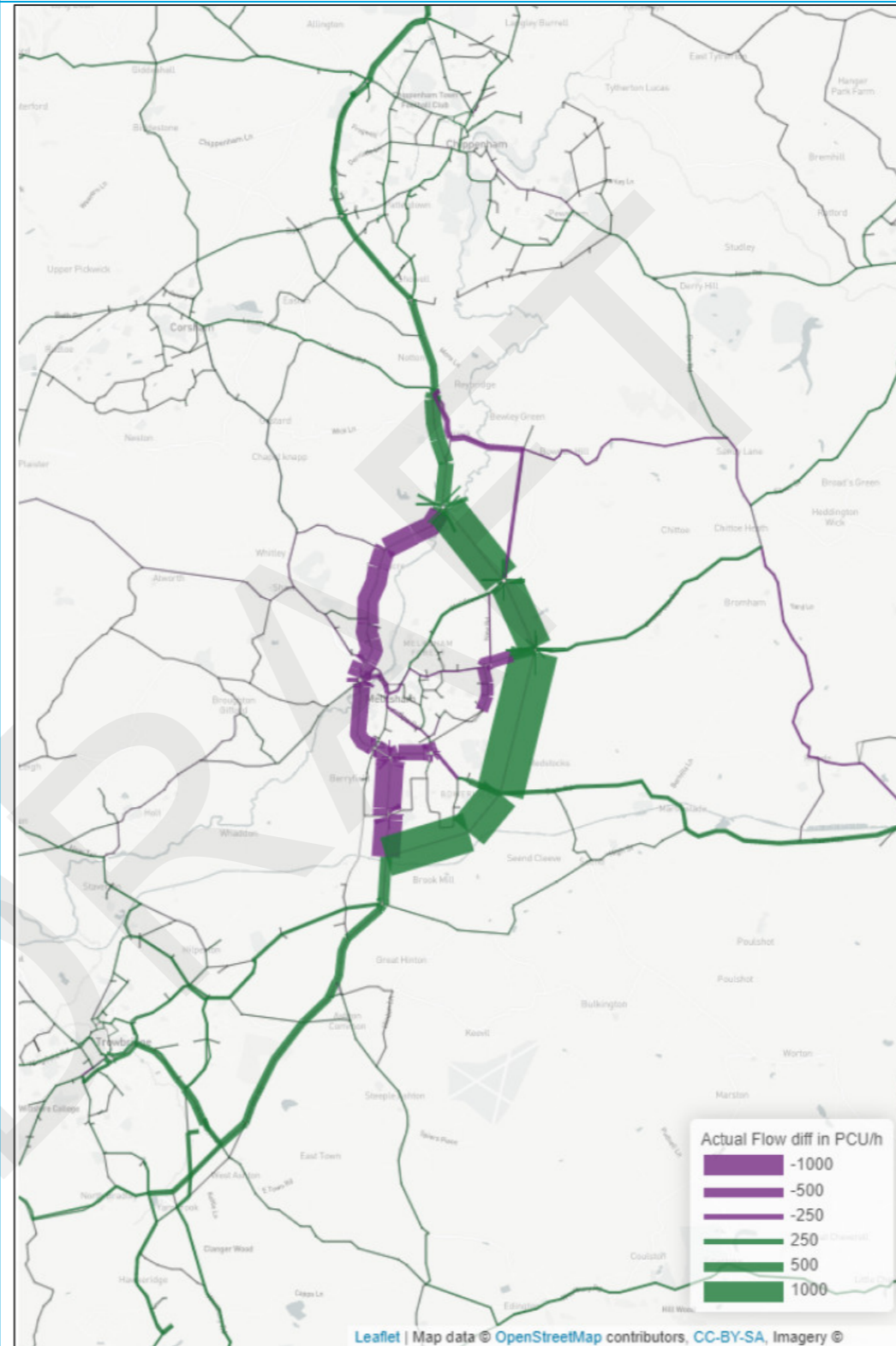
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E.1. Forecast change in traffic flows (Wiltshire Transport Model: 2036, AM peak average hour)

Option 1 (1A / 1B / 1C) – Intermediate bypass



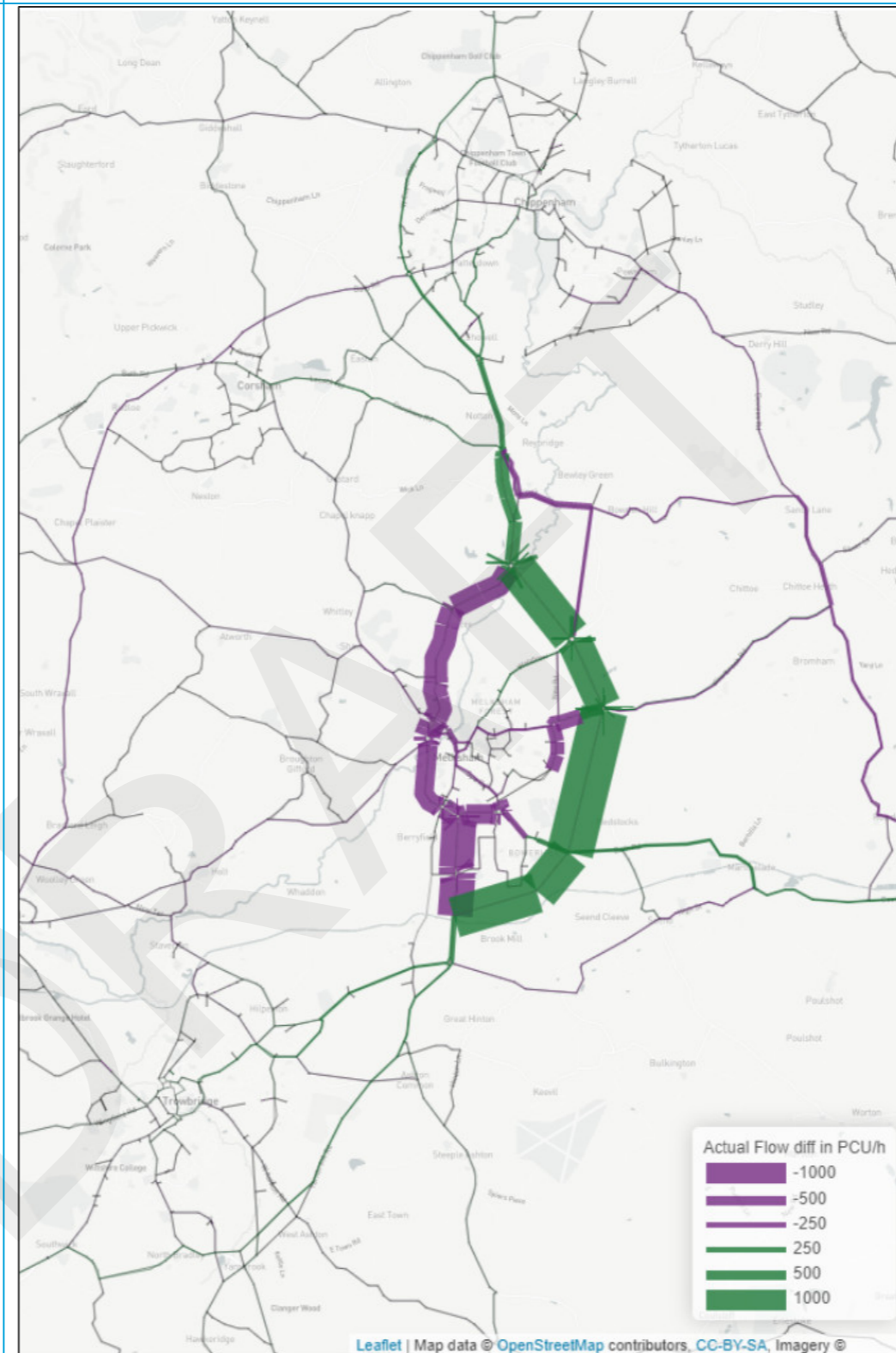
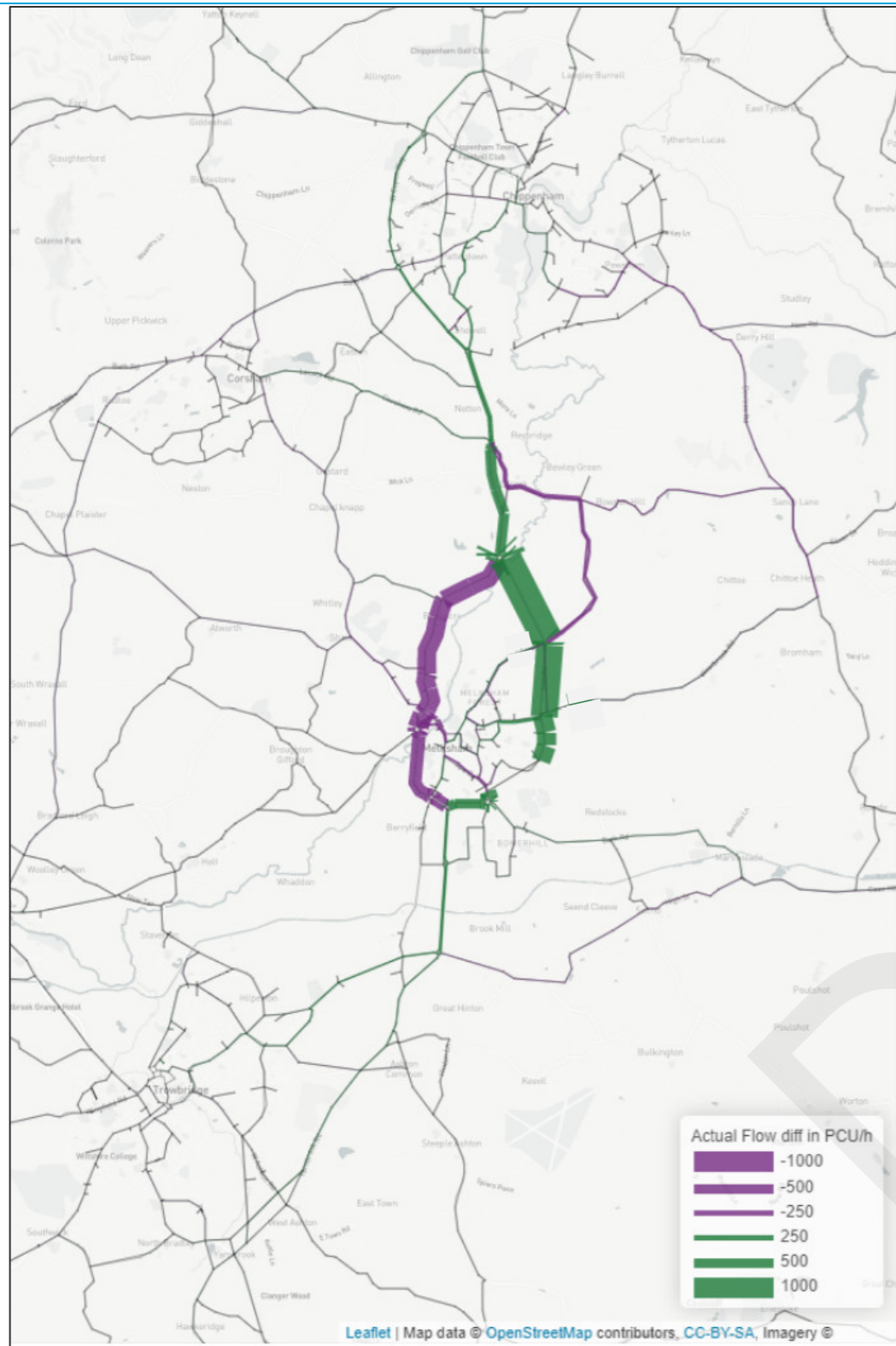
Option 2 (2A / 2B / 2C) – Full bypass



E.2. Forecast change in traffic flows (Wiltshire Transport Model: 2036, AM peak average hour)

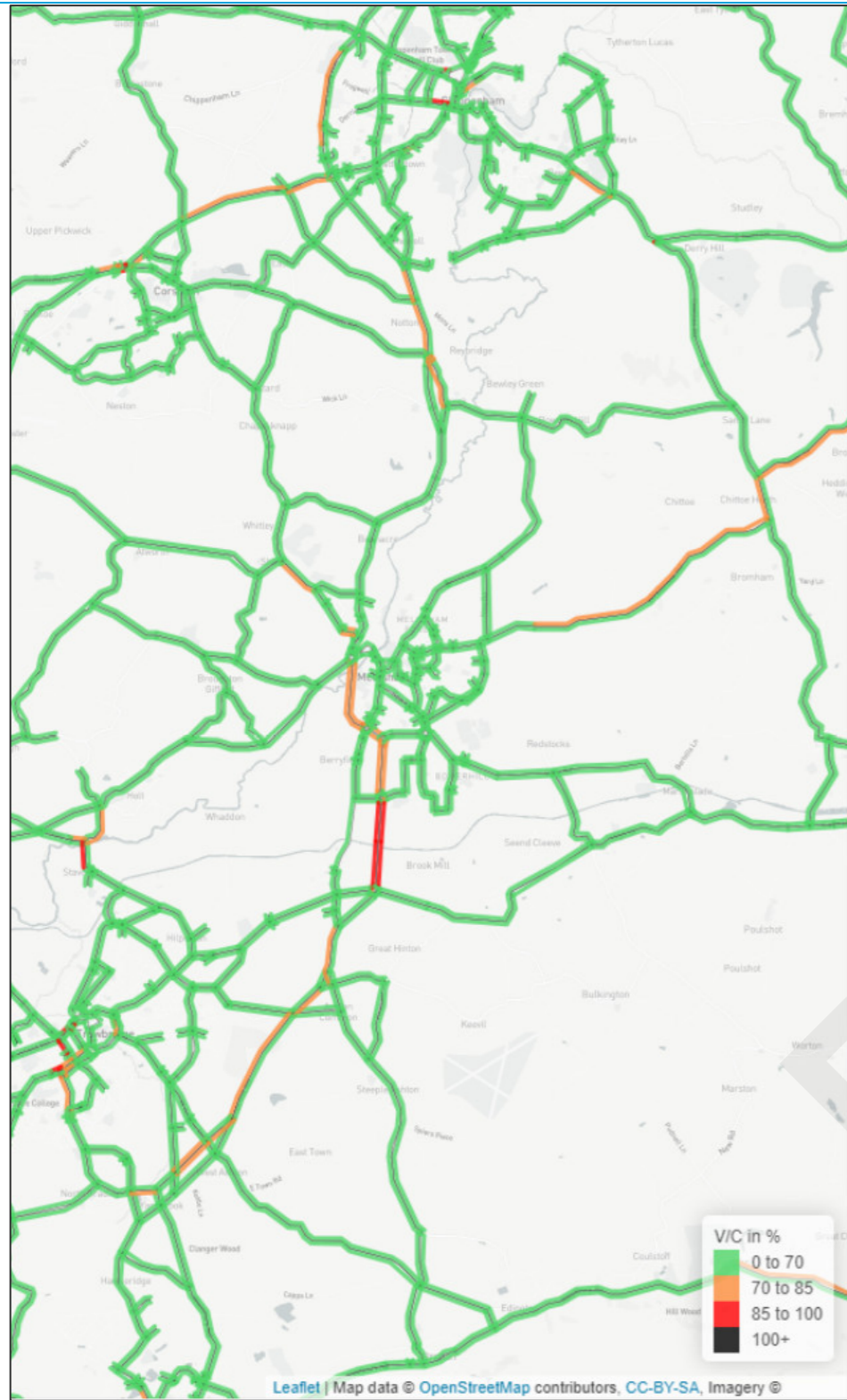
Option 1 (1A / 1B / 1C) – Intermediate bypass

Option 2 (2A / 2B / 2C) – Full bypass

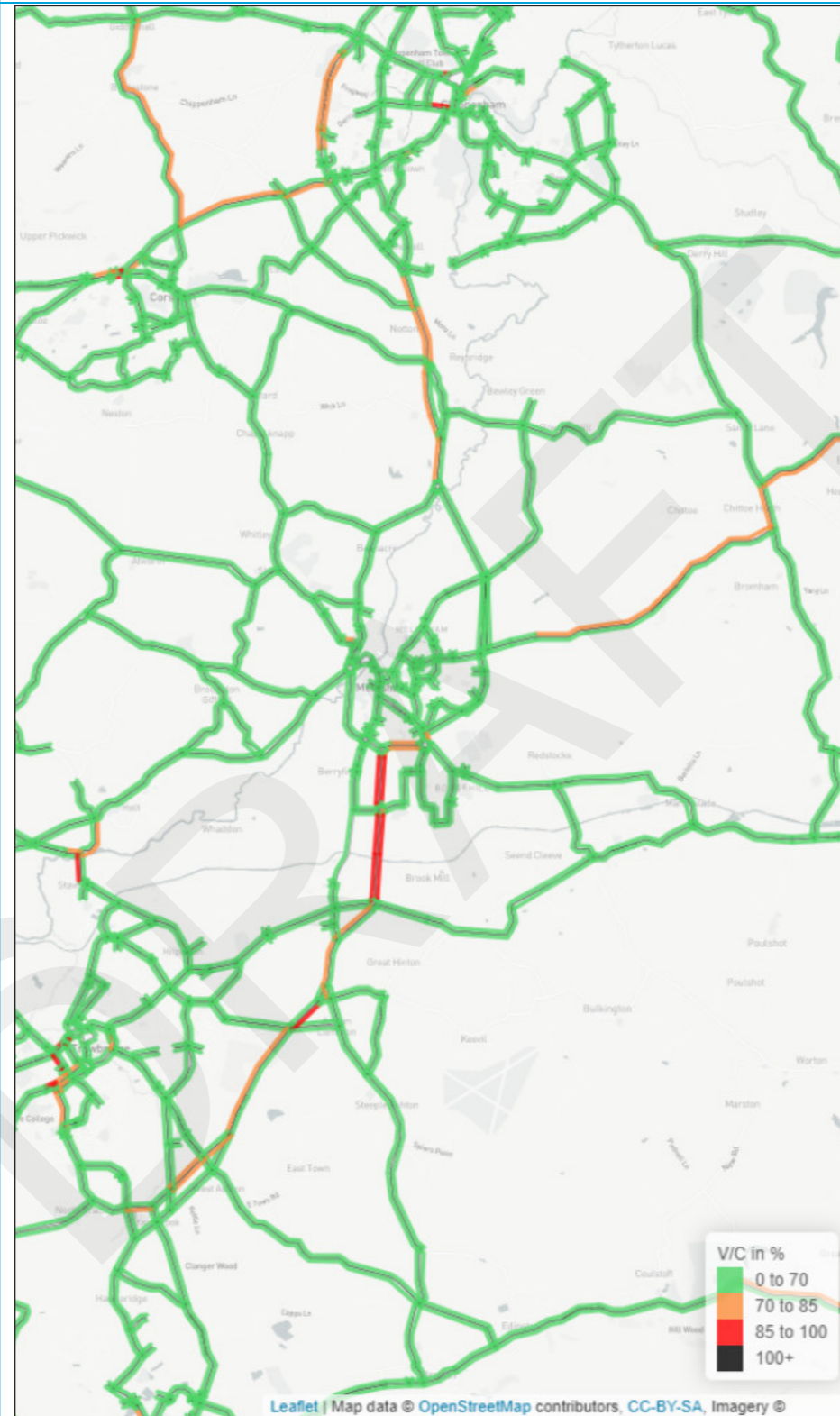


E.3. Forecast traffic volume to capacity ratio (Wiltshire Transport Model: 2036, AM peak average hour)

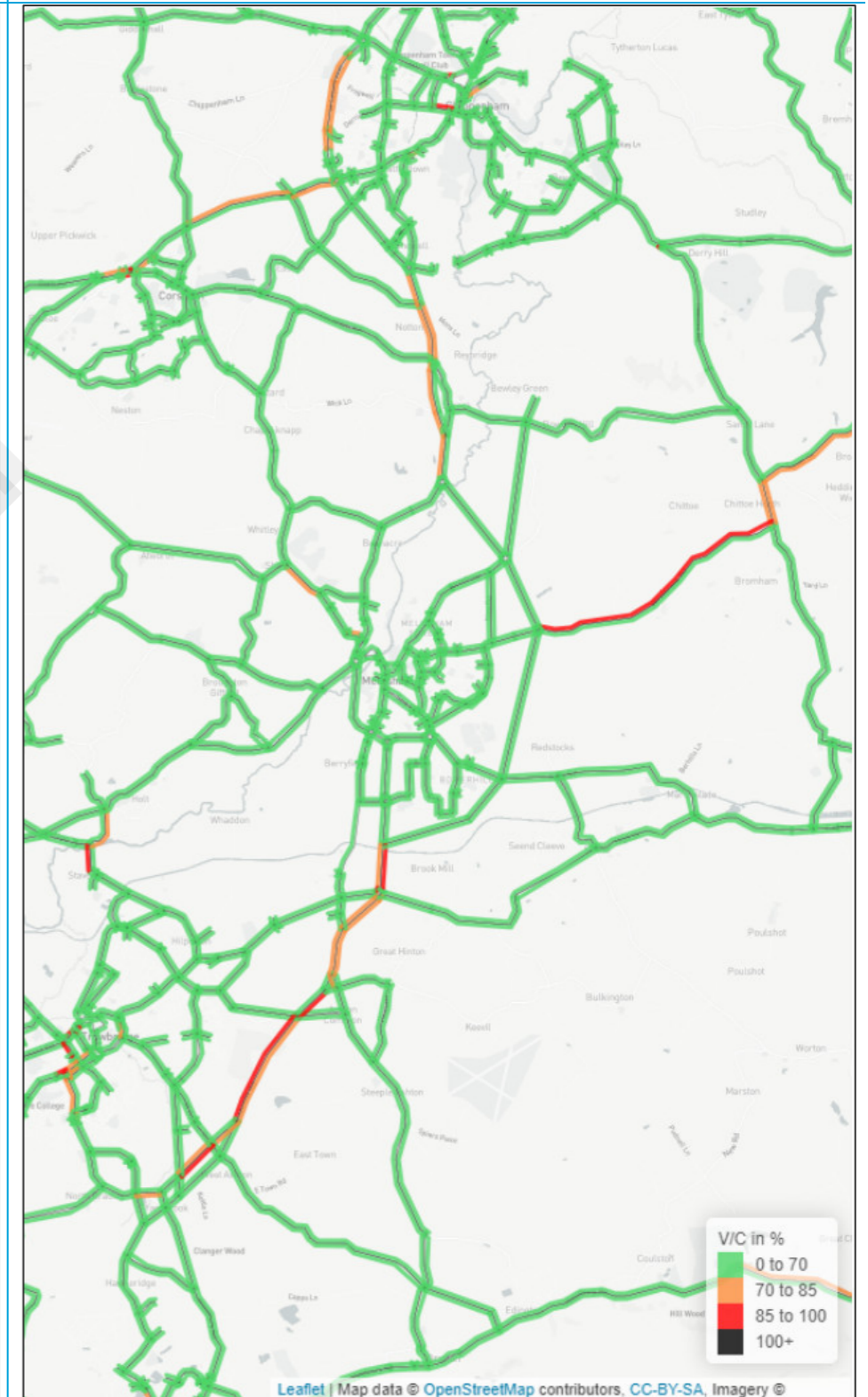
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Option 1 (1A / 1B / 1C) – Intermediate bypass

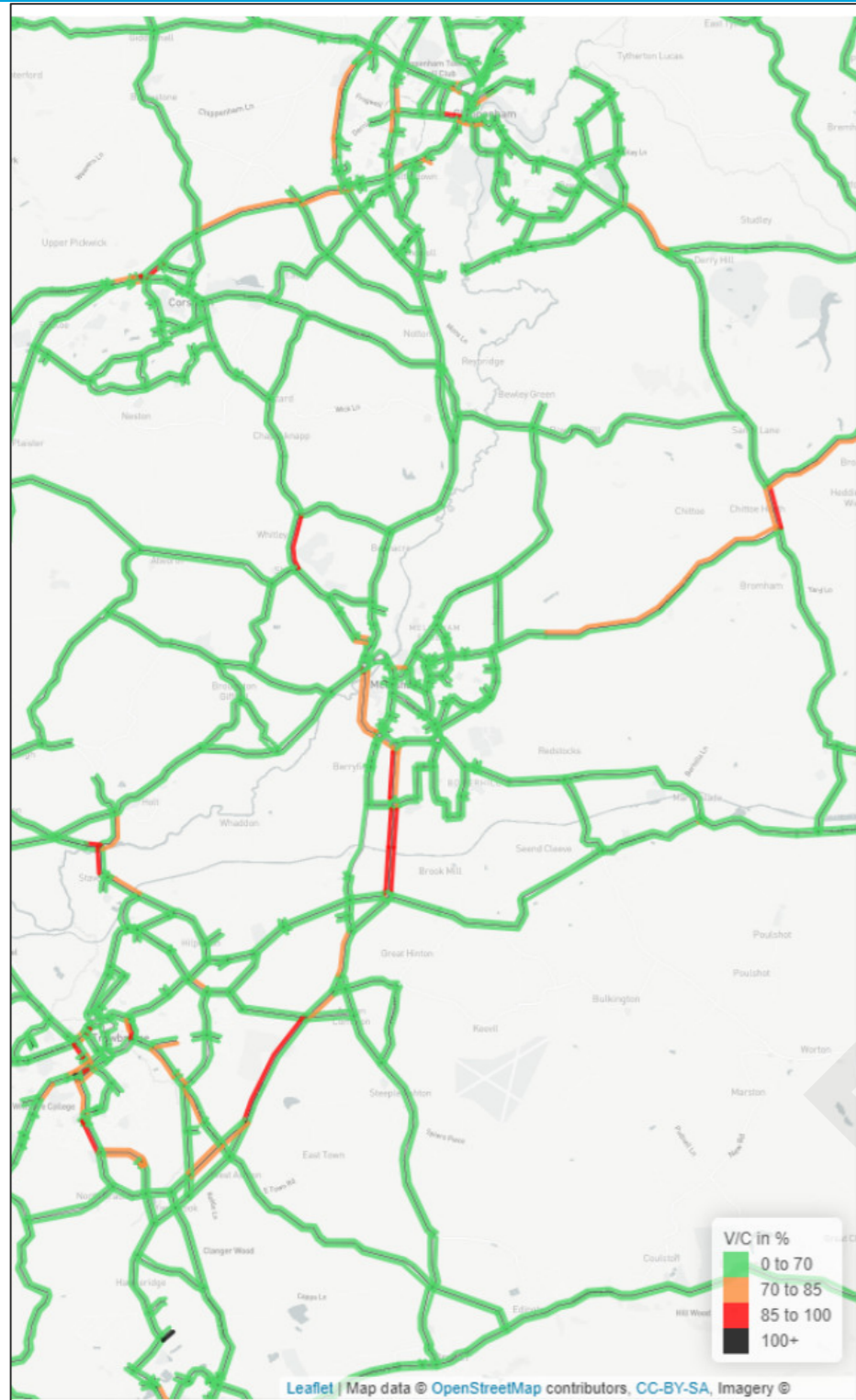


Option 2 (2A / 2B / 2C) – Full bypass

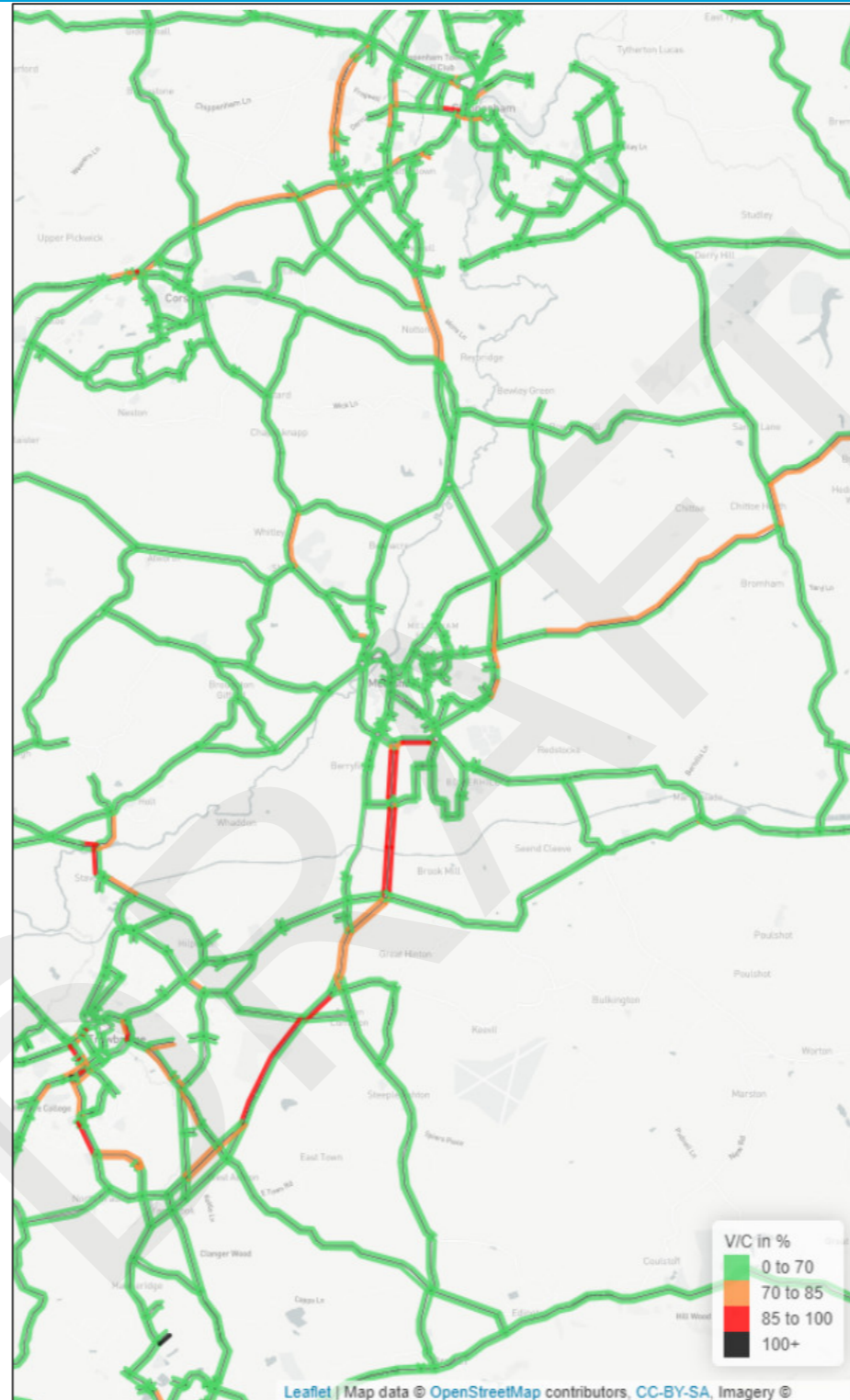


E.4. Forecast traffic volume to capacity ratio (Wiltshire Transport Model: 2036, PM peak average hour)

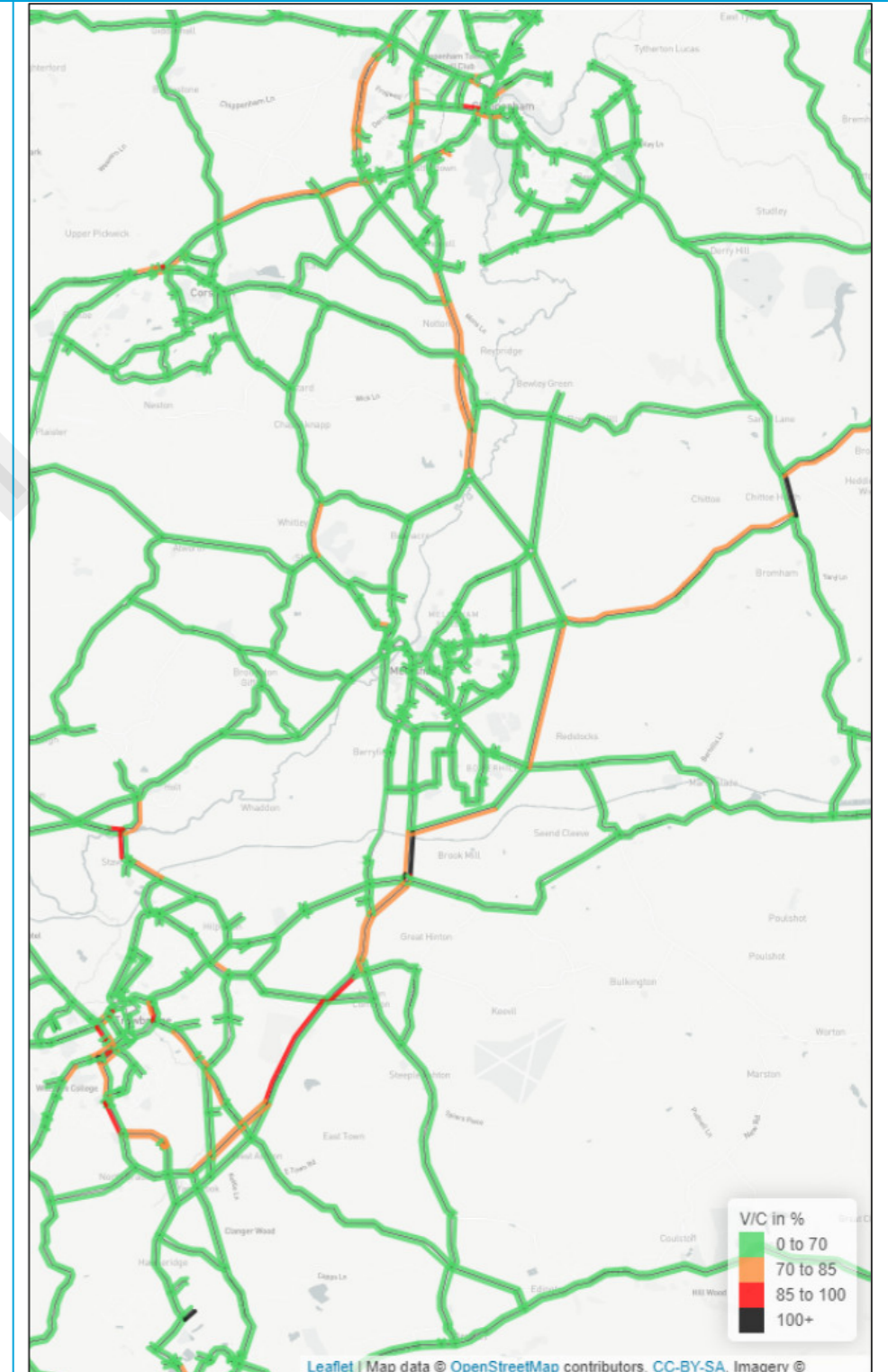
Do Minimum (without scheme)



Option 1 (1A / 1B / 1C) – Intermediate bypass



Option 2 (2A / 2B / 2C) – Full bypass



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