

Decision Maker: ENVIRONMENT PORTFOLIO HOLDER

**FOR PRE-DECISION SCRUTINY BY ENVIRONMENT PDS
COMMITTEE ON:**

Date: Wednesday 12 July 2017

Decision Type: Non-Urgent Executive Key

Title: PROPOSALS FOR IMPROVEMENTS TO THE ORPINGTON
CYCLING AND WALKING NETWORK

Contact Officer: Alexander Baldwin-Smith, Transport Planner
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Tel: 020 8464 3333 ext 3566

Chief Officer: Nigel Davies, Executive Director of Environment & Community Services

Ward: Bromley Town, Bickley, Chelsfield & Pratts Bottom, Farnborough & Crofton,
Orpington and Petts Wood & Knoll

1. Reason for report

To inform members of the PDS Committee of the proposals to improve conditions for cycling and walking in and around Orpington. These proposals form a long term plan to develop a network of local cycle and walking routes to enable mode shift in order to reduce congestion. The proposals are currently at a high-level and are intended to be designed and implemented over a number of years.

This report also seeks approval for the public consultation and construction of the first phase of these works, the cycle route from Locksbottom to Orpington Station.

2. RECOMMENDATIONS

The PDS committee is asked to:

2.1 Consider the proposals and provide comment.

2.2 Support the medium/long-term proposals for improving conditions for walking and cycling in the Orpington area with a network of local routes.

2.3 Support the lobbying of officers to extend the Lower Sydenham to Bromley Quietway to the East of the Borough.

2.4 The Portfolio Holder is asked to:

Approve the outline proposals for a safe and segregated cycle facility on Crofton Road (A232) to enable Officers to undertake public consultation and subsequent construction of the scheme.

Impact on Vulnerable Adults and Children

1. Summary of Impact: This proposal is not thought to have an adverse impact on vulnerable adults and will be beneficial to children as it is likely to encourage walking and cycling to school and other more active travel behaviour.
-

Corporate Policy

1. Policy Status: Existing Policy: This proposal supports outcome 5 of the 2016-19 Environment Portfolio Plan
 2. BBB Priority: Quality Environment Safe Bromley Vibrant, Thriving Town Centres Healthy Bromley
-

Financial

1. Cost of proposal: The Locksbottom to Orpington Station route is expected to cost £160k over two years (2017/18 & 2018/19), with £80k allocated to the scheme each year.
 2. Ongoing costs: N/A
 3. Budget head/performance centre: TfL funding for scheme development & cycling/walking schemes
 4. Total current budget for this head: £80k for 2017/18
 5. Source of funding: TfL LIP funding and/or TfL Quietways funding
-

Personnel

1. Number of staff (current and additional): 3
 2. If from existing staff resources, number of staff hours:
-

Legal

1. Legal Requirement: Statutory Requirement Non-Statutory - Government Guidance None: Further Details
 2. Call-in: Applicable:
-

Procurement

1. Summary of Procurement Implications: Construction work will be undertaken by Bromley's term contractors for Highway projects, FM Conway or O'Rourke
-

Customer Impact

1. Estimated number of users/beneficiaries (current and projected): These interventions have the potential to directly benefit many local residents by providing high quality interventions to encourage increased walking and cycling. Even those residents who may not choose to cycle are likely to benefit as a result of the decongestion benefits derived from mode shift from car to cycling and walking.
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Ward Councillor Views

1. Have Ward Councillors been asked for comments? Yes
2. Summary of Ward Councillors comments: To be reported verbally at PDS committee meeting

3. COMMENTARY

- 3.1 The area between Orpington, Petts Wood and Bromley Common was previously identified as the Borough's first Cycle to School Partnership (C2SP) area although this was not taken forward at the time due to a lack of available funding for the programme. This would have involved a number of infrastructure and behaviour change measures to improve conditions for and encourage cycling to school.
- 3.2 At present there is a London Cycle Network (LCN) route from Orpington to Bromley via Petts Wood.
- 3.3 Additionally, a number of improvements have been made to the cycling facilities on the A224 in recent years with the introduction of a segregated off-road path. Further work is required to improve the facility south of Poverest Road/Kent Road and to improve the cycle path's integration with surrounding streets, which is at present poor. This work is however outside the scope of this proposal and should be considered as part of ongoing congestion relief schemes on the A224 corridor although it can be linked to the routes proposed here as part of a local cycle network.
- 3.4 These proposals are intended to improve the permeability of cycling within the area, opening up a range of new journey opportunities using part or all of the routes. Once completed there will be safe cycle routes linking Orpington to Locksbottom, Green Street Green, Petts Wood and St Mary Cray as well as onwards to Bomley and Beckenham via the Quietway network. The routes will also serve to provide a link to the Cray Valley and the employment opportunities along the A224 (Sevenoaks Way).

Developing a Local Network

- 3.5 The proposals for Orpington intend to provide safe and attractive cycle routes to encourage more short distance cycle trips, having a positive impact on congestion especially at peak times.
- 3.6 Local cycling trips could be termed 'Dutch style cycling' where distances are generally less than 5 miles. Data from the 2011 Census shows that 37% of journeys to work in Bromley are 6 miles or less of which 59% are made by car with just 16% by walking or cycling. Whilst there will of course be reasons such as age and mobility impairment as to why some of these trips are not being made by cycle, there is clearly potential for mode shift with the associated decongestion benefits.
- 3.7 The four wards which the proposals in this report apply to, Orpington, Farnborough & Crofton, Chelsfield & Pratts Bottom and Petts Wood & Knoll, have an average cycling mode share for travel to work journeys of 1% and a walking mode share of 4% (6% if those not in employment or working from home are excluded).
- 3.8 Applying the Borough average of 37% of journeys to work being less than 6 miles, there are 15k potential cycle to work trips which could be cycled in these four wards. Work undertaken by Aecom into the proposed Orpington to Green Street Green cycle and walking route has shown that similar schemes in the UK had increased cycling mode share to 2.4%. If this were to occur here then across the four wards there could be in the region of an additional 360 cycle to work trips created per day.
- 3.9 Trip rates would be even higher if the Borough's 3.3% cycling mode share target were realised. It is important to note that these estimated trip rates do not include off peak or leisure journeys, nor do they include children travelling to school (as these are not captured by the census data) which if cycled or walked could have a further positive impact on congestion.

Cycle to Rail

- 3.10 At present, the trip to the Railway station is mainly undertaken by car, causing pressure on local roads and car parks in peak hours. If cycled there are a number of significant benefits including reduced congestion.
- 3.11 As a commuter borough there is significant potential growth in so-called Cycle-to-Rail journeys where the trip stage to the station is made by bike before commuting the majority of the distance to work by train. The bike can either be left at the station using a secure cycle parking facility or, if using a folding bike, can be taken on board the train for onward travel.
- 3.12 The potential number of cycle to rail trips is difficult to quantify because the census data only captures the primary mode used for travel to work and not the modes by trip stage. However an indication of the potential for these trips is evident from modelling demand for cycle parking at stations which showed the potential for over 900 cycle to rail trips throughout the borough per day, helping to reduce congestion, which is one of the Borough's key transport objectives.
- 3.13 New links to stations such as those proposed for Orpington should be complimented by secure station cycle parking facilities. The centre piece of the cycle to rail enhancements in Orpington will be the 100 plus space cycle hub at Orpington Station, currently under development with Southeastern railways, as part of the forecourt scheme reported to PDS in November 2016.

Assessing Demand

- 3.14 Market Segmentation analysis of the propensity to cycle shows that across the scheme area there are a range of propensities including those in the 'Well above average' group. An area wide approach should therefore provide benefit for a number of residents willing and keen to cycle but who are geographically dispersed.
- 3.15 Towards the east of the scheme area there is a concentration of postcodes in the 'Suburban Lifestyles' Mosaic group who are identified as one of the Mosaic groups in Bromley most likely to take up cycling. Indeed around Orpington Station there are some residents who fall into the 'Urban Living' Mosaic group, who have been identified as having the highest propensity to cycle of all the Mosaic groups in London.
- 3.16 Furthermore there could be a good level of demand from residents in Farnborough & Crofton and Petts Wood & Knoll where there seems to be a concentration of 'High Earning Professionals' who are understood to be the group with the third highest propensity to cycle.

Proposals

Locksbottom to Orpington Station (outline designs are shown in Appendix 2)

- 3.17 The proposed route from Locksbottom to Orpington Station would provide a key link from the residential streets surrounding it to Orpington railway station by offering a safe and segregated route along the A232. It would also act as an enabler of cycle to rail trips, offering commuters an attractive and stress-free cycling trip to the railway station which, in turn, would help reduce the number of car trips to Orpington station thereby helping reduce congestion.
- 3.18 The proposed route begins on Crofton Road before turning right onto Starts Hill Road then immediately left onto the path across Farnborough Recreation Ground/ Tugmutton Common. This path would be widened by approximately half a metre to make it suitable for pedestrians

and cyclists, before exiting onto Lovibonds Avenue. After continuing on Lovibonds for a short distance the route turns left onto Mada Road and right onto Pondfield Road.

- 3.19 The route continues to the end of Percival Road where it is proposed to convert the footpath to a shared use path to access Crofton Road. From the end of the footpath the route will then cross Crofton Road using a new parallel Zebra crossing and continue to Ormond Avenue on a shared path converted from the existing footway behind the trees.
- 3.20 From Ormonde Avenue to the roundabout at Crofton Lane, it is proposed to construct a new path for cycling behind the vegetation (which would be cut back to ensure safety and security). There is a clearly worn desire line on the proposed alignment of the path which is evidence of demand and highlights the poor quality pedestrian facilities extant on Crofton Road. As a shared path, this would benefit both cyclists and pedestrians, providing a wider path than the very narrow footway available at present.
- 3.21 At the Crofton Road/Crofton Lane roundabout, cyclists traveling east would be required to dismount due to the heavily trafficked nature of the roundabout and poor visibility. East of the roundabout, the large number of crossovers to access private properties makes the continuation of the shared path challenging and potentially expensive, so it is proposed to paint a cycle lane on each side of the carriageway. This should provide an adequate level of segregation without impacting on traffic given the width available.
- 3.22 For those travelling west (on the southern side of the carriageway) the route would bypass the roundabout using short stretch of shared path then cross onto the shared path described above, west of Crofton Road/ Crofton Lane roundabout.
- 3.23 The on-carriageway cycle lanes would continue until just to the east of Allington Road where the route would return to a shared path to Orpington Station. Cyclists travelling west would cross from this section of shared path to the on-carriageway cycle lane using the existing pedestrian refuge which would be modified to accommodate bikes.
- 3.24 This route is proposed to end at Orpington Station which will have high quality cycle parking provided in a new cycle hub currently being delivered jointly between LBB and Southeastern Railways. At the station the route could connect with the proposed route to Green Street Green which is a longer term ambition outlined below.



Orpington to Green Street Green (outline designs are shown in Appendix 3)

- 3.25 The local branch of the London Cycling Campaign, Bromley Cyclists, identified a route from Orpington to Green Street Green as one of their 'Ward Asks' in the 2014 local elections to improve conditions for cycling in Bromley. The route is seen as good investment delivering a BCR (Benefit Cost Ratio) of 2.98:1 which is considered to be high value for money by the DfT.
- 3.26 Starting on Orpington High Street, the route would upgrade the existing Zebra crossing on Spur Road to a parallel Zebra to allow cyclists to safely cross from the High Street to Sevenoaks Road.
- 3.27 The route then continues along Sevenoaks Road where the existing wide eastern footway would be converted to a shared path to allow cyclists to cycle off-road. This would deliver other improvements such as new grass verges and trees, improving conditions for pedestrians and residents. Between the western tunnel portal and Cardinham Road the route would take a new cycle path constructed to the south of the existing footway.
- 3.28 The route is to then cross Cardinham Road on a parallel Zebra crossing and continue on a shared use footway to the north end of Gleeson Drive. Given the residential nature of Gleeson Drive, the route would travel on carriageway along Gleeson Drive, providing convenient access to Warren Road Primary School.
- 3.29 From the end of Gleeson Drive, the route would cross the mouth of Warren Road, back onto a shared use footway to the existing zebra crossing adjacent to Brittenden Close. The Zebra crossing would be upgraded to allow cyclists to cross and continue their journey on a shared footway which, due to width constraints would from this point onwards run on the opposite side of Sevenoaks Road/High Street Green Street Green.



- 3.30 The route is proposed to join the shared cycle path alongside the A21 at the High Street Green/ Farnborough Way (A21) roundabout.
- 3.31 To add further benefit to the scheme, the route could be designed with a spur to serve Orpington railway station, thus supporting the Borough's cycle to rail ambitions. This route will also serve Orpington High Street and could be linked to an extended Quietway from lower Sydenham. Furthermore it could eventually be linked along Orpington High Street and through Priory Gardens to join up with the cycle path on the A224, providing an important link to the employment sites and industry on the Cray Valley corridor.

Gumping Common footpath

- 3.32 In order to provide safe and attractive links to schools it is proposed to allow cycling on a number of footpaths. Some of these will require up-grading as well as a change of status so it is proposed to begin with a relatively low cost conversion of the North/South path to Crofton School, through Gumping Common. This is already a paved path so will only require widening at pinch points to bring up to standard, thereby being of benefit to cyclists but also pedestrians. A conversion order will be required to allow cycling on the footpath.
- 3.33 This will provide an off-road link to the school which should give parents the confidence to allow their children to walk or cycle to school, either alone or accompanied, whilst also providing decongestion benefits at peak times.
- 3.34 Further footpath conversions, to allow further extensions of the cycling network could include those to Princess Plain and Bishop Justus Schools, although because these paths are unmade they would need significant investment to make them suitable.

Quietways

- 3.35 Part of the existing LCN route from Orpington to Crystal Palace was planned to form the Orpington to Canary Wharf Quietway and would have linked to the Lower Sydenham to Bickley Quietway (also utilising much of the LCN alignment) at Hawthorne Road junction with Barfield Road.
- 3.36 Neither of these Quietways was funded by TfL in the current phase of Quietway funding, however Officers have made good progress lobbying TfL to extend the route to Petts Wood which could relatively easily be extended to Orpington. This would provide a high-quality and attractive cycle link between the Borough's two largest town centres, Orpington and Bromley. Initial indications from TfL are that a good case could be made for the extension as far as Petts Wood, which would enable the Council to make-up and adopt Clarence Road.
- 3.37 The proposed Quietway extension would be funded by TfL as part of the Quietways programme and Officers, on the instruction of the Portfolio Holder, are currently lobbying TfL to consider funding this extension. Initial indications from TfL are that a case could be made for this route but funding is not currently available.

Other possible interventions

- 3.38 It is anticipated that some low cost interventions such as signage and markings will be sufficient for feeder roads, further contributing to the local network of cycle routes by raising awareness of the routes away from their primary alignment.

3.39 In the longer term it may be beneficial to invest in some of the following interventions:

- Conversion of Public Right of Way 132 (through Richmal Crompton Recreation Ground)
- Public Right of Way 136 (through Roundabout Wood)
- Upgrading the zebra crossing on Southborough Lane at the junction with Oxhathw Crescent to a parallel cycle and pedestrian crossing
- Upgrade the existing pelican crossing on Crofton Lane at the junction with Broadcroft Road
- Improvement works to walking and cycling facilities along Tubbenden Lane and the local recreation ground (N.B. a 100m section opposite Tubbenden Drive was widened in 2016/17 and can be converted to a shared path)
- Further works to Lovibonds Avenue (Darrick Wood Junior School have been agreed to allow cyclists to use the school's rear entrance which is accessed via Broadwater Garden)
- Development of a gateway from the south of the A21 on Farnborough Way would open up the area further

4. POLICY IMPLICATIONS

4.1 This proposal supports outcome 5 of the 2016-19 Environment Portfolio Plan to Improving Travel, Transport & Parking by working:

- To improve the road network and journey-time reliability for all users
- To improve 'connectivity' (getting to places you couldn't previously reach easily) and 'integration' (linking different modes of transport)
- To reduce congestion and greenhouse gas emissions by promoting cycling, walking and public transport journeys
- To promote safer travel, and reduce the number and severity of road accidents
- To provide accessible, affordable, fair and effective parking services.

5. FINANCIAL IMPLICATIONS

5.1 It is recognised that the area-wide approach proposed here involving several routes requires a substantial investment over several years to deliver to its fullest extent. As a result, delivery of the interventions is proposed to be phased over a number of years with the first stage of works planned to take three years.

5.2 The Locksbottom to Orpington Station scheme is anticipated to cost £160k with the delivery spread across 2017/18 and 2018/19. This scheme will be funded from the Local Implementation Plan budget provided by TfL for transport projects, with £80k anticipated to be allocated to the scheme each year. For 2017/18 the £80k funding will come from budgets for scheme development and cycle/walking schemes.

5.3 Support for each individual scheme will be sought from PDS or via delegated authority as appropriate, when designs are ready and funding is available.

5.4 The proposed initial phase of work over these first three years is anticipated to cost £710k and will be met from TfL funding although it is not yet clear which TfL funding streams are most suitable as more details about new funding streams are made available Officers will be able to bid for funding from appropriate TfL streams. Proposed phasing of the schemes is set out in Appendix 1.

6. PERSONNEL IMPLICATIONS

- 6.1 Transport and Highways already employs staff who are able to project manage the design and delivery of these cycle routes. The members of staff undertaking these functions are funded via TfL's annual Local Implementation Plan budget at no cost to the Authority. It is not anticipated that there will be any impact of FTE as a result of these proposals.

7. LEGAL IMPLICATIONS

- 7.1 The Council can, through a conversion order, change a Public Right of Way to a cycle track that would then be available to both pedestrians and cyclists. The Cycle Track Regulations 1984 specify the procedure to be followed when conversion orders are made. DoT Circular Roads 1/1986 describes the provisions of the Act and Regulations in detail and advises local authorities on the use of those powers
- 7.2 Bye-laws may also need to be repealed to allow for cycling along this footpath but due to the time-consuming nature of the investigative work required these will be investigated subsequent to approvals being given for the route by the Environment Portfolio Holder.

8. PROCUREMENT IMPLICATIONS

- 8.1 It is anticipated that the construction work will be undertaken by the Council's term contractors, so no procurement implications are expected, the scale of works being within the threshold.

Non-Applicable Sections:	IMPACT ON VULNERABLE ADULTS AND CHILDREN
Background Documents: (Access via Contact Officer)	[Title of document and date]

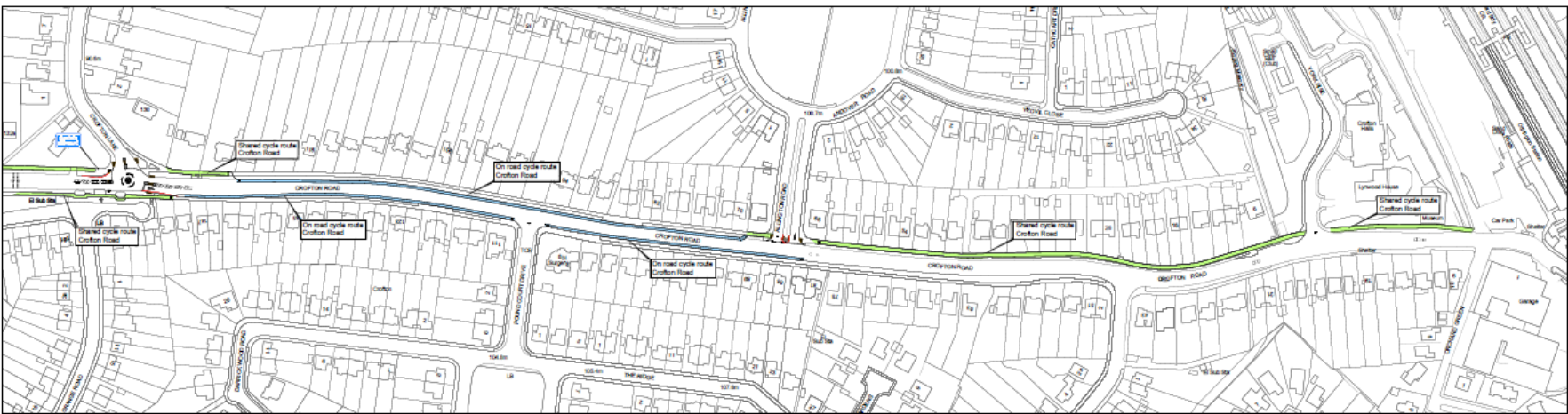
Appendix 1 Proposed phasing of scheme funding

2017/18			
Intervention	Cost	Funding	Stage
Locksbottom to Orpington station phase 1	£80k	LIP Crofton Road walking and cycling scheme	Public Consultation and Detailed design of whole route and construction as far as Ormonde Avenue
Quietway extension from Bromley TC to Bickley and Orpington	N/A	N/A	Lobbying
Total LIP implementation	£80k		
2018/19			
Locksbottom to Orpington station 2 nd year of delivery	£80k	LIP 2018/19	Construct route from Ormonde Avenue to Orpington Station
Upgrade footpath from Ormonde Avenue to Shepperton Road through Gumping Common to allow cycling	£60k	LIP routes through Green Spaces	Concept to completion
Quietway extension from Bromley TC to Bickley and Orpington	Salaries only	Quietways	Detailed design
Total LIP implementation	£140k		
2019/20			
Orpington-Green Street Green	£490k	Funding options from TfL are currently under consideration by officers	Detailed design, public consultation and construction
Quietway extension from Bromley TC to Bickley and Orpington	TBA (non-LIP)	Quietways	Construction
Total LIP implementation	£490k		
Total LIP implementation for 2017/18-2019/20	£710k		

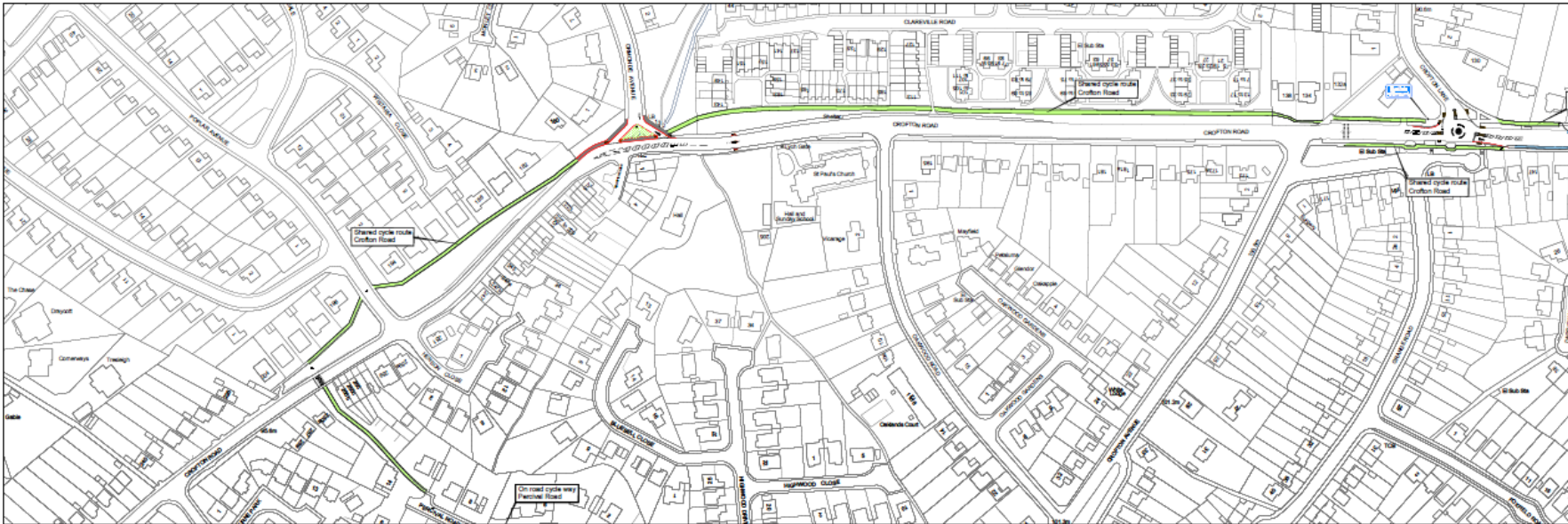
The table above is a high-level delivery plan showing indicative costings and funding sources, Quietways (shown in purple) are not included in the costings as these would be funded separately by TfL.

Where schemes are planned to be delivered over two years these will be taken to PDS and the Ward Members and public consulted in the first year with construction taking place over two financial years to enable seamless delivery but with two year's budget allocation.

Appendix 2 Outline designs of proposed Locksbottom to Orpington cycle route



ORPINGTON STATION TO CROFTON LANE
1:1250



CROFTON LANE TO PERCIVAL ROAD
1:1250

DRAFT
FOR COMMENTS ONLY

12562-01
CROFTON ROAD CYCLE ROUTE
ORPINGTON STATION TO FARNBOROUGH RECREATION GROUND
ORPINGTON

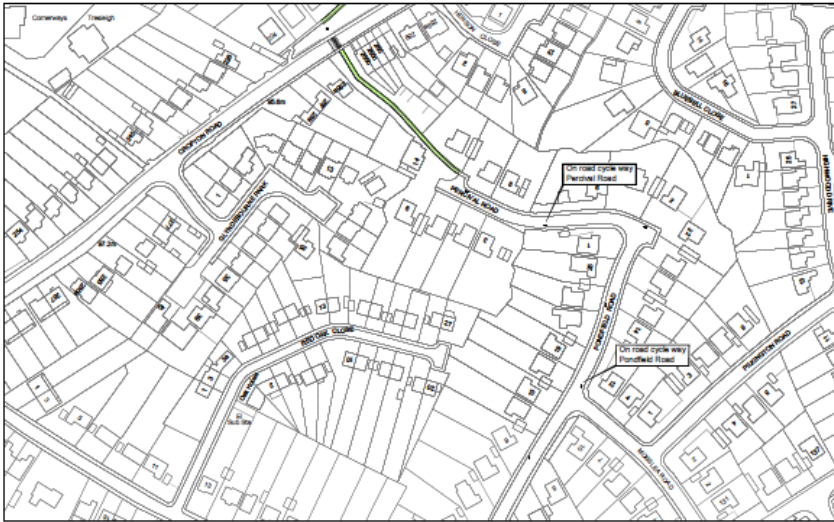
ORPINGTON STATION TO PERCIVAL ROAD
SHEET 1 OF 2



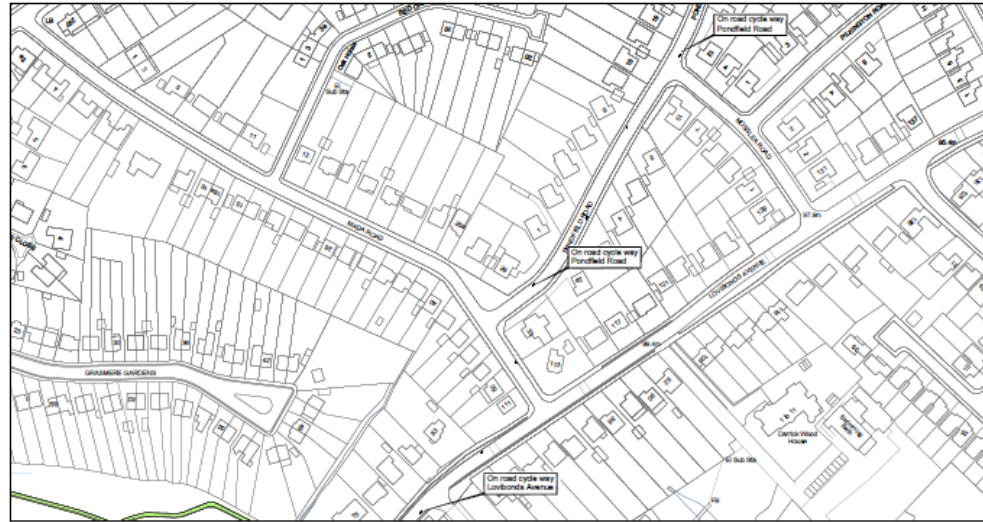
Environmental Services
Council Offices
100 High Street
Orpington, Kent
ME8 2JG

Scale 1:1250
Date 16/06/17
Author J.J.
Checked A.B.S.

No.	Date	Description
1		12562-01



PERCIVAL ROAD TO PONDFIELD ROAD
1:1250



PONDFIELD ROAD TO LOVIBONDS AVENUE
1:1250



LOVIBONDS AVENUE TO FARNBOROUGH RECREATION GROUND
1:1250

DRAFT
FOR COMMENTS ONLY

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1250 1250
CROFTON ROAD CYCLE ROUTE
ORPINGTON STATION TO FARNBOROUGH RECREATION GROUND
ORPINGTON

Drawing title
ORPINGTON STATION TO PERCIVAL ROAD
SHEET 2 OF 2



Environmental Services
Council of Environmental & Community Services
Building 981 5200
Tel: 020 8461 1222
Fax: 020 8411 4000
www.farnborough.gov.uk

Drawn by	J.J.	Scale	1:1250
Checked by	J.J.	Date	16/05/17
Drawn by	J.J.	Drawn by	J.J.
Checked by	A.B.S.	Drawn by	J.J.
Project No.	12562-01	Drawn by	J.J.

Appendix 3 Outline designs of proposed cycle route between Orpington and Green Street Green



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www.aecom.com

PROJECT

BROMLEY CYCLE ROUTE FEASIBILITY

CLIENT

London Borough of Bromley
Civic Centre,
Stockwell Close, Bromley,
BR1 3UH

KEY

- Existing Waiting Restrictions
- Existing Bus Stops to Remain
- Proposed 'Shared Use' Footway
- Proposed Street Furniture/Feature Amendment
- Proposed Grass Verge/Tree/Vegetation Works
- Proposed Re-profiling of Existing Footway
- Proposed Road Markings

- NOTES**
- 1) Individual crossings will require further analysis and design at Preliminary Design stage.
 - 2) Actual proposed route is subject to Topographical, Ecological and Utility surveys to be undertaken at Preliminary Design stage.
 - 3) Street Lighting requirements will be assessed during Preliminary Design.
 - 4) Do not scale from this drawing.
 - 5) Dimensions given are indicative only and should only be used for illustrative purposes. Actual dimensions of proposal to be specified at Preliminary Design.
 - 6) Actual locations of proposed items will be specified at Preliminary Design.
 - 7) Existing Road Markings to be assessed and new markings to be proposed as part of Preliminary Design.

ISSUE/REVISION

IR	DATE	DESIGN	DRAWN	CHKD	APPD
C	17/03/17	BA	BA	MF	AGB
B	07/03/17	BA	BA	MF	AGB
A	17/02/17	BA	BA	MF	AGB
D	20/12/16	BA	BA	MF	AGB

PROJECT NUMBER

60508978 - M300.800

SHEET TITLE

CYCLE FEASIBILITY STUDY
SEVENOAKS ROAD
OPTION 1 - SHEET 1 OF 5

SHEET NUMBER

60508978-SRD-DWG-001

PROJECT

BROMLEY CYCLE ROUTE FEASIBILITY

CLIENT

London Borough of Bromley
Civic Centre,
Stockwell Close, Bromley,
BR1 3UH

KEY

- Existing Waiting Restrictions
- Existing Bus Stops To Remain
- Proposed 'Shared Use' Footway
- Proposed Two-Way Segregated 'Off Road' Cycle Track
- Proposed Street Furniture/Feature Amendment
- Proposed Grass Verges/Tree/Vegetation Works
- Proposed Kerb Realignment
- Proposed Dropped Kerb
- Proposed Road Markings

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CR	DATE	DESIGN	DRAWN	CHKD	APPD
C	17/03/17	BA	BA	MF	ACB
B	07/03/17	BA	BA	MF	ACB
A	17/02/17	BA	BA	MF	ACB
0	20/12/16	BA	BA	MF	ACB
UR					

PROJECT NUMBER

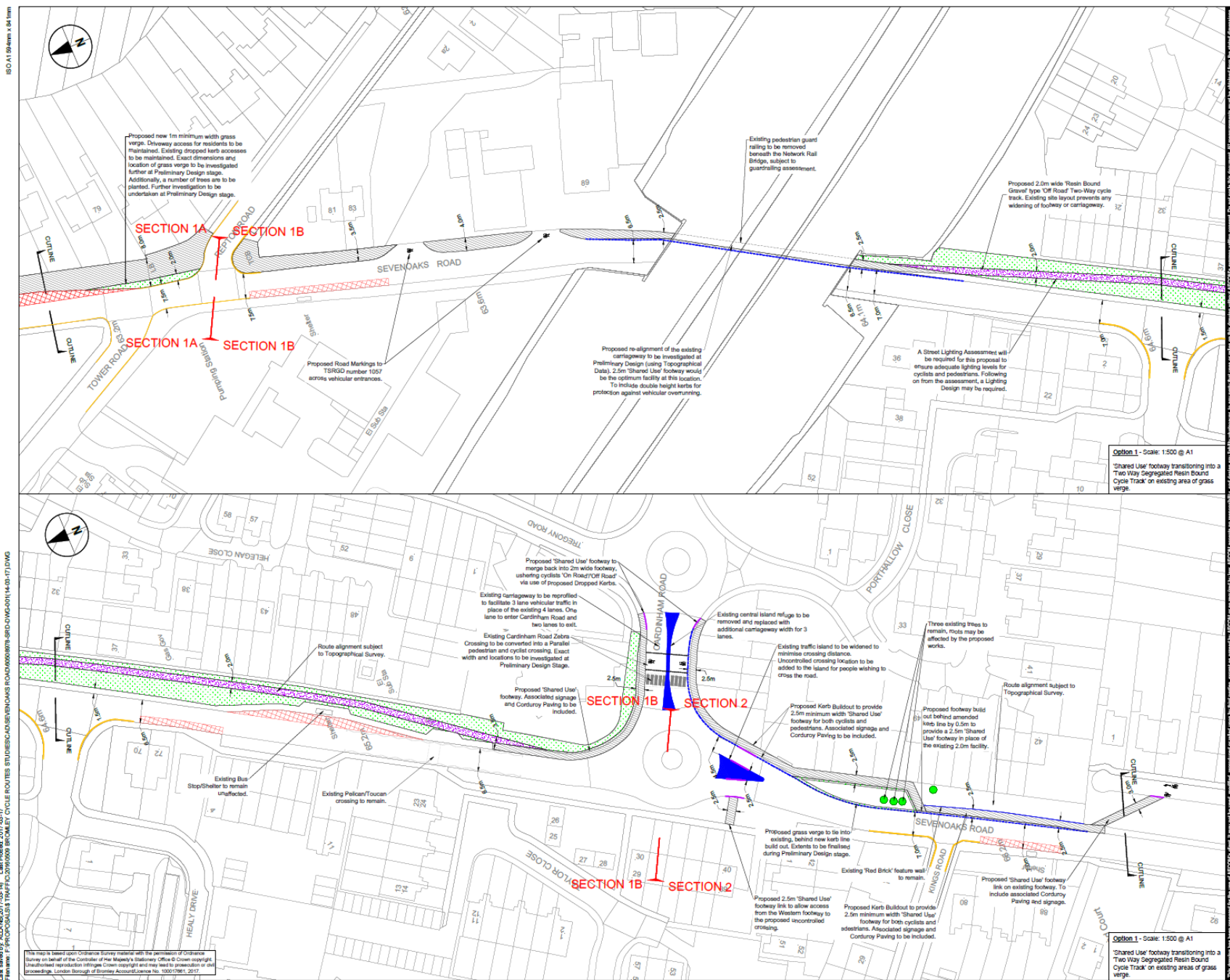
60508978 - M300.800

SHEET TITLE

CYCLE FEASIBILITY STUDY
SEVENOAKS ROAD
OPTION 1 - SHEET 2 OF 5

SHEET NUMBER

60508978-SRD-DWG-002



SO A1 194mm x 64mm
 Scale: 1:500 @ A1
 Date: 17/03/17
 Drawn: MF
 Checked: ACB
 Approved: ACB
 Project: Bromley Cycle Routes
 Drawing: SEVENOAKS ROAD STUDY OPTION 1 - SHEET 2 OF 5
 File Name: P:\PROPOSALS\17\BROMLEY\SRD-DWG-002\17-03-17-DWG



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PROJECT

BROMLEY CYCLE ROUTE FEASIBILITY

CLIENT

London Borough of Bromley
Civic Centre,
Stockwell Close, Bromley,
BR1 3UH

KEY

- Existing Waiting Restrictions
- Existing Bus Stops To Remain
- Proposed 'Shared User' Footway
- Proposed Two-Way Segregated 'Off Road' Cycle Track
- Proposed Street Furniture/Feature Amendment
- Proposed Grass Verges/Trees/Vegetation Works
- Proposed Kerb Realignment
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- Proposed Road Markings

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B	07/03/17	BA	BA	MF	AGB
A	17/02/17	BA	BA	MF	AGB
D	20/12/16	BA	BA	MF	AGB
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PROJECT NUMBER

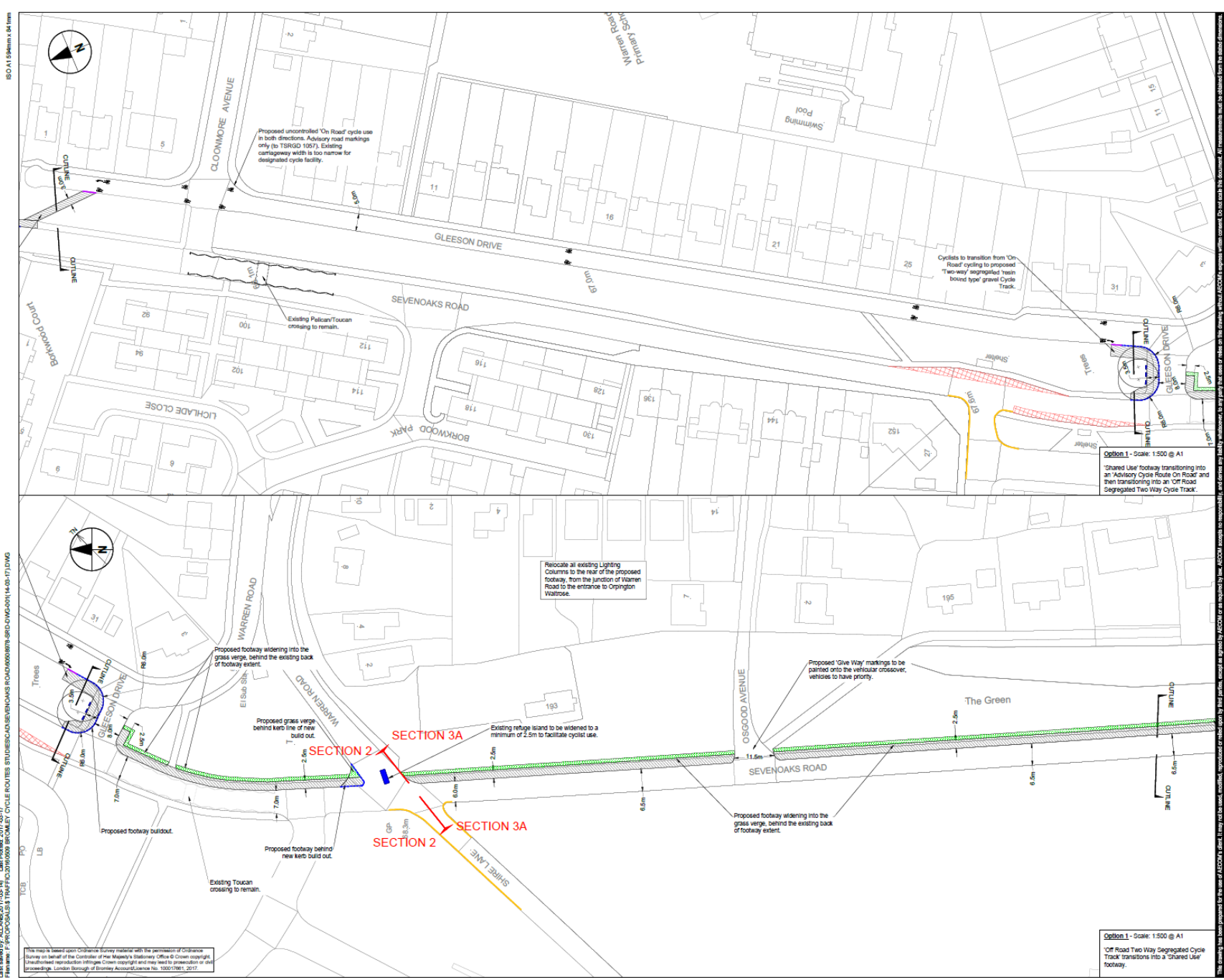
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SHEET TITLE

CYCLE FEASIBILITY STUDY
SEVENOAKS ROAD
OPTION 1 - SHEET 3 OF 5

SHEET NUMBER

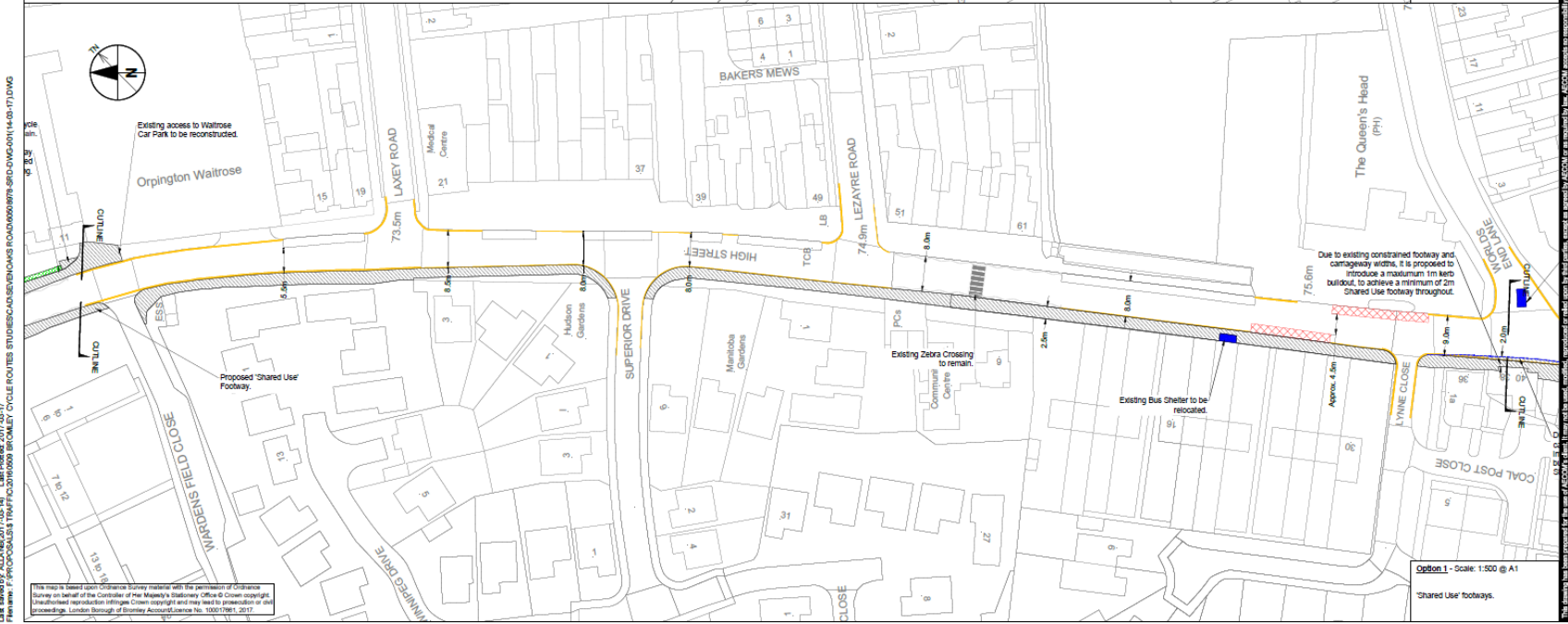
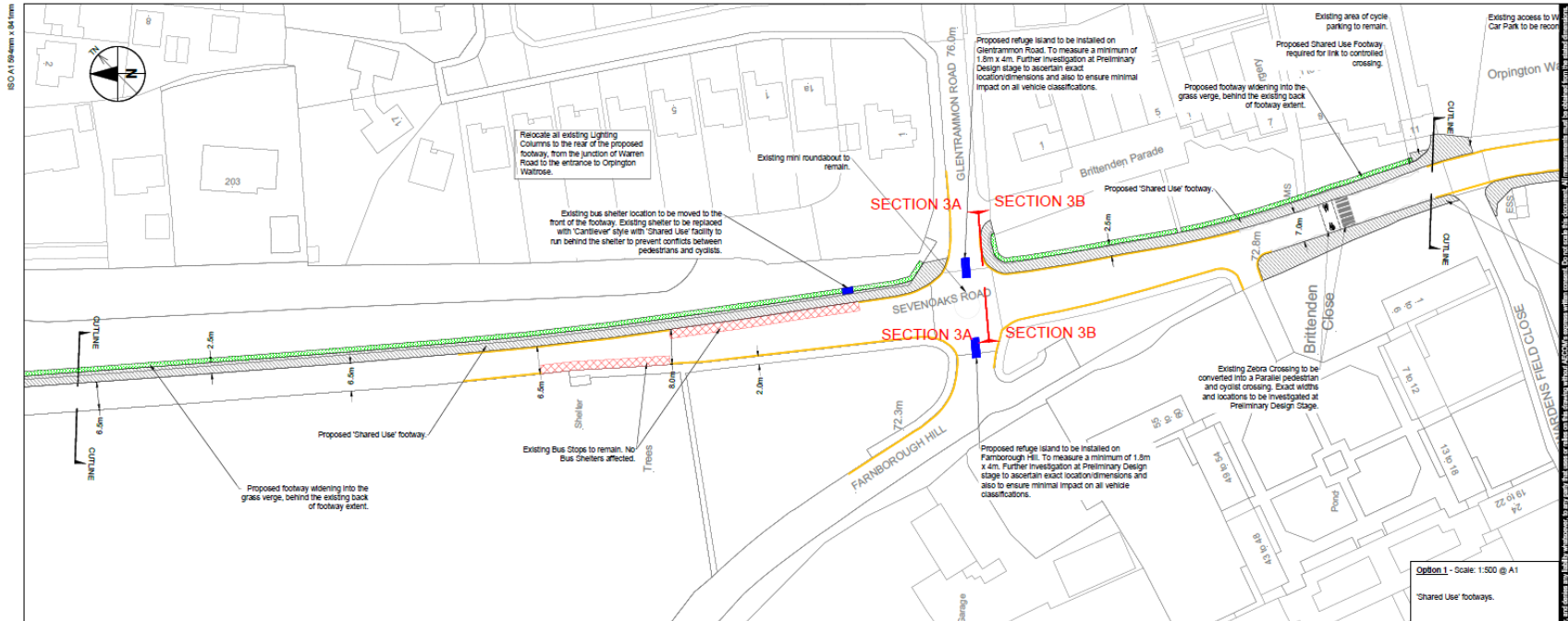
60508978-SRD-DWG-003



Option 1 - Scale: 1:500 @ A1
'Shared User' footway transitioning into an 'Advisory Cycle Route On Road' and then transitioning into an 'Off Road Segregated Two-Way Cycle Track'.

Option 1 - Scale: 1:500 @ A1
'Off Road Two-Way Segregated Cycle Track' transitions into a 'Shared User' footway.

Issue by: JLM/MS/17/02/16, Issue Date: 2017/02/17, File Name: F:\PROJECTS\TRAFFIC\BROMLEY CYCLE ROUTES STUDIES\SEVENOAKS ROAD\M300\SRD-DWG-003(1) (14-07-17).DWG
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PROJECT
 BROMLEY CYCLE ROUTE FEASIBILITY

CLIENT
 London Borough of Bromley
 Civic Centre,
 Stockwell Close, Bromley,
 BR1 3UH

KEY

- Existing Waiting Restrictions
- Existing Bus Stops To Remain
- Proposed 'Shared User' Footway
- Proposed Street Furniture/Feature/Asset
- Proposed Grass Verge/Tree/Vegetation Works
- Proposed Kerb Realignment
- Proposed Dropped Kerb
- Existing Parking Bays To Remain
- Proposed Road Markings

NOTES

- Individual crossings will require further analysis and design at Preliminary Design stage.
- Actual proposed route is subject to Topographical, Ecological and Utility surveys to be undertaken at Preliminary Design stage.
- Street Lighting requirements will be assessed during Preliminary Design.
- Do not scale from this drawing.
- Dimensions given are indicative only and should only be used for illustrative purposes. Actual dimensions of proposed to be specified at Preliminary Design.
- Actual locations of proposed items will be specified at Preliminary Design.
- Existing Road Markings to be assessed and new markings to be proposed as part of Preliminary Design.

ISSUE/REVISION

IR	DATE	DESIGN	DRAWN	CHK'D	APP'D
C	17/03/17	BA	BA	MF	AGB
B	07/03/17	BA	BA	MF	AGB
A	17/02/17	BA	BA	MF	AGB
D	20/12/16	BA	BA	MF	AGB

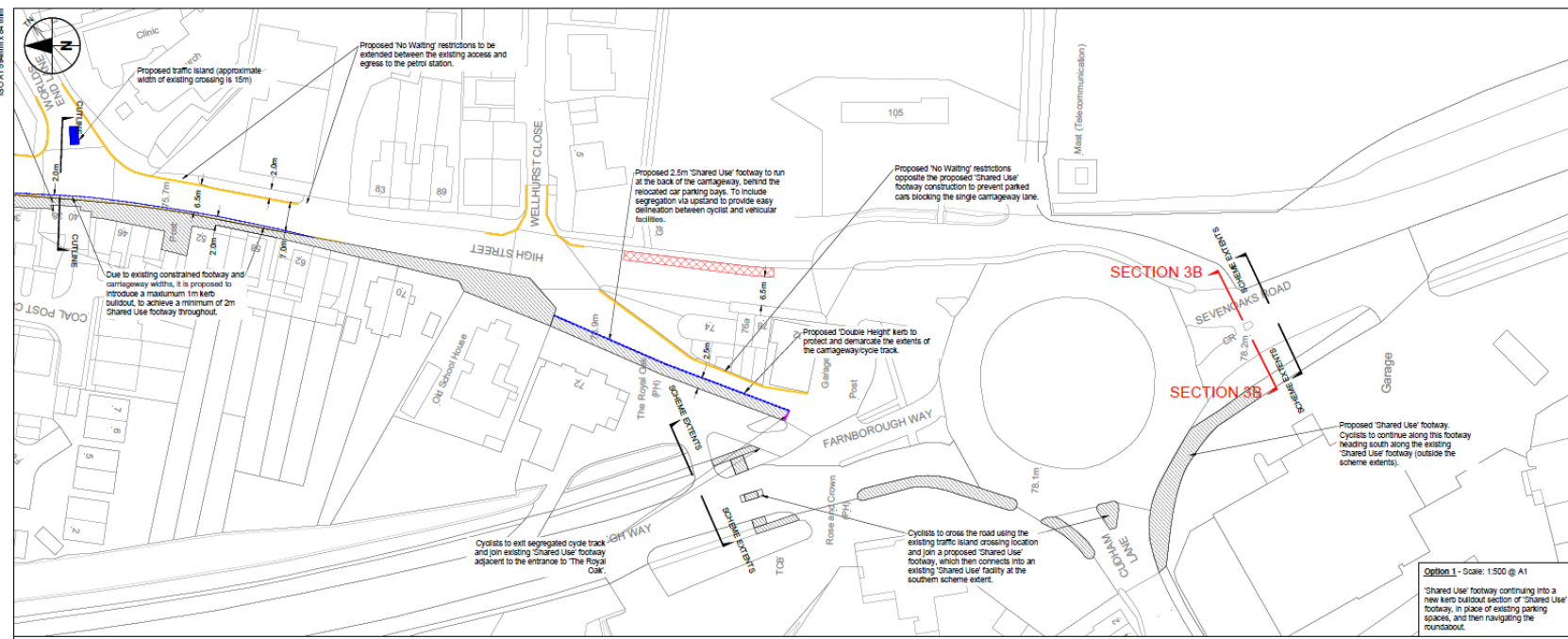
PROJECT NUMBER
60508978 - M300.800

SHEET TITLE
CYCLE FEASIBILITY STUDY SEVENOAKS ROAD OPTION 1 - SHEET 4 OF 5

SHEET NUMBER
60508978-SRD-DWG-004

Option 1 - Scale: 1:500 @ A1
'Shared User' footways.

Issue number: 14/AMB/17/03/16 Issue Review: 2017/03/17
 Filename: F:\PROJECTS\TRAFFIC\SEVENOAKS\ROAD\0608978\SRC-DWG-011-14-03-17.DWG
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PROJECT
BROMLEY CYCLE ROUTE FEASIBILITY

CLIENT
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 Stockwell Close, Bromley,
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KEY

	Existing Waiting Restrictions
	Existing Bus Stops To Remain
	Proposed Segregated Cycle Track
	Proposed Shared User Footway
	Proposed Dropped Kerb
	Proposed Kerb Installation
	Proposed Parking Bay Road Markings

- NOTES**
- Individual crossings will require further analysis and design at Preliminary Design stage.
 - Actual proposed route is subject to Topographical, Ecological and Utility surveys to be undertaken at Preliminary Design stage.
 - Street Lighting requirements will be assessed during Preliminary Design.
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 - Existing Road Markings to be assessed and new markings to be proposed as part of Preliminary Design.

ISSUE/REVISION

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D	20/12/16	BA	BA	MF	AGB

PROJECT NUMBER
 60508978 - M300.800

SHEET TITLE
 CYCLE FEASIBILITY STUDY
 SEVENOAKS ROAD
 OPTION 1 - SHEET 5 OF 5

SHEET NUMBER
 60508978-SRD-DWG-005

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