

READING BOROUGH COUNCIL

REPORT BY DIRECTOR OF ENVIRONMENT & NEIGHBOURHOOD SERVICES

TO:	POLICY COMMITTEE		
DATE:	25 SEPTEMBER 2017	AGENDA ITEM:	12
TITLE:	NATIONAL CYCLE NETWORK 422 - PHASE 2		
LEAD COUNCILLOR:	TONY PAGE	PORTFOLIO:	STRATEGIC ENVIRONMENT, PLANNING & TRANSPORT
SERVICE:	TRANSPORTATION & STREETCARE	WARDS:	MINSTER & ABBEY
LEAD OFFICER:	EMMA BAKER	TEL:	0118 937 4881
JOB TITLE:	SENIOR TRANSPORT PLANNER	E-MAIL:	<a href="mailto:emma.baker@reading.gov.uk">emma.baker@reading.gov.uk</a>

1. PURPOSE OF REPORT AND EXECUTIVE SUMMARY

- 1.1 This report outlines progress in delivering Phase 1 of the new National Cycle Network route along the Bath Road between Greenwood Road and Berkeley Avenue. It also sets out improvements developed as part of the Phase 2 programme, from Berkeley Avenue to London Road, and our recommendation to seek scheme and spend approval from Policy Committee.
- 1.2 Appendix A - Detailed designs of the proposals in Phase 2.

2. RECOMMENDED ACTION

- 2.1 That the Committee note the progress in delivering the National Cycle Network (NCN) 422 scheme.
- 2.2 That the Committee gives scheme and spend approval for Phase 2 of the NCN 422 scheme.

3. POLICY CONTEXT

- 3.1 The Local Transport Plan (LTP) is a statutory document setting out the Council's transport strategy and policy. Reading Borough Council's third Local Transport Plan (LTP3) for the period 2011-26 was adopted by the Council on 29 March 2011.
- 3.2 The Cycle Strategy 2014: Bridging Gaps, Overcoming Barriers & Promoting Safer Cycling, was adopted by the Council on 19 March 2014 as a sub-strategy to the Local Transport Plan. The strategy includes detailed policies regarding the design principles for delivering infrastructure and route improvements for cyclists on the public highway, as well as policies to encourage and promote cycling.
- 3.3 The NCN 422 scheme is included within the Council's Corporate Plan 2016-19 and Thames Valley Berkshire LEP's Strategic Economic Plan 2016-21.

## 4. THE PROPOSAL

- 4.1 National Cycle Network (NCN) Route 422 was granted full funding approval from the Berkshire Local Transport Body in November 2015 to the value of £4.2 million. The cross-Berkshire cycle route between Newbury and Windsor will provide an enhanced £1.2 million east-west cycle facility through Reading, linking to existing cycle routes to the north and south of the borough and directly serving schools and other local facilities/services.
- 4.2 Phase 1 works commenced on-site along Bath Road in January following approval from Policy Committee. The initial phase sought to extend the existing off-carriageway cycle facilities to the west of the borough boundary to Berkeley Avenue, better connecting local people to key destinations, including schools, local shops and leisure facilities. The works consisted of widened and resurfaced footways, decluttering, the installation of signing and the construction of two raised tables. The remaining Phase 1 programme is expected to be delivered over the autumn, including traffic signal upgrades at Liebenrood Road and Southcote Road and kerb realignment works at New Lane Hill.
- 4.3 The Phase 2 delivery programme consists of a mixture of on and off-carriageway cycle facilities linking Bath Road to east Reading via the town centre. Existing cycle lanes on Berkeley Avenue will be widened and complemented by an off-carriageway shared-use path catering for less confident and inexperienced cyclists, including those travelling to nearby secondary schools. The route will continue along Berkeley Avenue to Temple Place where it will join local cycle route R1 and NCN 4 at Lower Brook Street before travelling along Fobury Street and Bridge Street. At this point, cyclists will have the option of continuing along the existing NCN4 route through the Oracle or riding along Mill Lane to London Street. From here the route travels along the River Kennet to Watlington Street and London Road where the Phase 2 route ends.
- 4.4 The scheme will be delivered by our in-house Highways team who will be supported by existing contractors where specialist services are required. The delivery programme will include:
- Widened cycle lanes on Berkeley Avenue between Bath Road and Coley Avenue that will be converted to mandatory cycle lanes.
  - Entry treatments at junctions including raised tables, imprinting or tighter geometry.
  - Improved crossing facilities at Yield Hall Place and London Street, including dedicated cycle facilities.
  - Localised footway resurfacing and widening, supported by the installation of shared-use tiles
  - Decluttering and the relocation of street furniture to maximise the effective width of the footway.
  - Directional and regulatory signs, including official NCN branding.
- 4.5 The Phase 2 detailed designs are shown in Appendix 1.
- 4.6 The detailed designs for the Phase 3 route between London Road and the borough boundary will be developed over the autumn and take into consideration wider transport improvements that are currently being investigated, including red routes and the East Reading Study. These designs will be shared with Ward Councillors and user groups before scheme and financial approval is sought at a future Committee meeting.

## **5. CONTRIBUTION TO STRATEGIC AIMS**

5.1 The delivery of the new National Cycle Network route – NCN 422 outlined in this report helps to deliver the following Corporate Plan Service Priorities:

- Keeping the town clean, safe, green and active;
- Providing infrastructure to support the economy

5.2 The new National Cycle Network route also supports the following strategic aims by providing infrastructure that encourages people living, working and visiting Reading to cycle for local journeys:

- To Develop Reading as a Green City with a sustainable environment and economy at the heart of the Thames Valley; and
- To promote equality, social inclusion and a safe and healthy environment for all.

## **6. COMMUNITY ENGAGEMENT AND INFORMATION**

6.1 Regular updates on the development of the NCN scheme have, and will continue, to be reported at Traffic Management Sub-Committee, the Cycle Forum and Older People's Working Group.

6.2 The Phase 2 detailed designs have been circulated to Ward Councillors, the Cycle Forum and Older People's Working Group for comment and are currently in the process of being finalised.

6.3 Statutory consultation will be carried out in accordance with the Local Authorities Traffic Orders (Procedure) (England and Wales) Regulations 1996 and any objections reported to Traffic Management Sub-Committee.

## **7. EQUALITY IMPACT ASSESSMENT**

7.1 In addition to the Human Rights Act 1998 the Council is required to comply with the Equalities Act 2010. Section 149 of the Equalities Act 2010 requires the Council to have due regard to the need to:-

- eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
- advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

7.2 An Equality Impact Assessment scoping report has been carried out for the Phase 2 detailed designs, which will be appended to the Policy Committee report seeking scheme and financial approval.

## **8. LEGAL IMPLICATIONS**

8.1 Traffic regulation orders will be made under the Road Traffic Regulation Act 1984 and any objections reported to Traffic Management Sub-Committee.

## **9. FINANCIAL IMPLICATIONS**

9.1 The Phase 2 work programme will be delivered in-house by our Highways team, who will be supported by existing contractors where specialist services are required.

9.2 Costs associated with the National Cycle Network Phase 2 delivery programme will be met by LEP Growth Deal funding up to the value of £500,000. There is no commitment on Reading Borough Council finances and if this sum is not used for this purpose then it would have to be returned to the LEP.

## 10. BACKGROUND PAPERS

10.1 Traffic Management Sub-Committee Report, Major Transport & Highways Projects - Update reports from November 2015 onwards.

10.2 Policy Committee Report, National Cycle Network Route NCN422, January 2017.

10.3 NCN 422 Phase 2 Detailed Designs: <http://www.reading.gov.uk/transport-schemes-and-projects>.

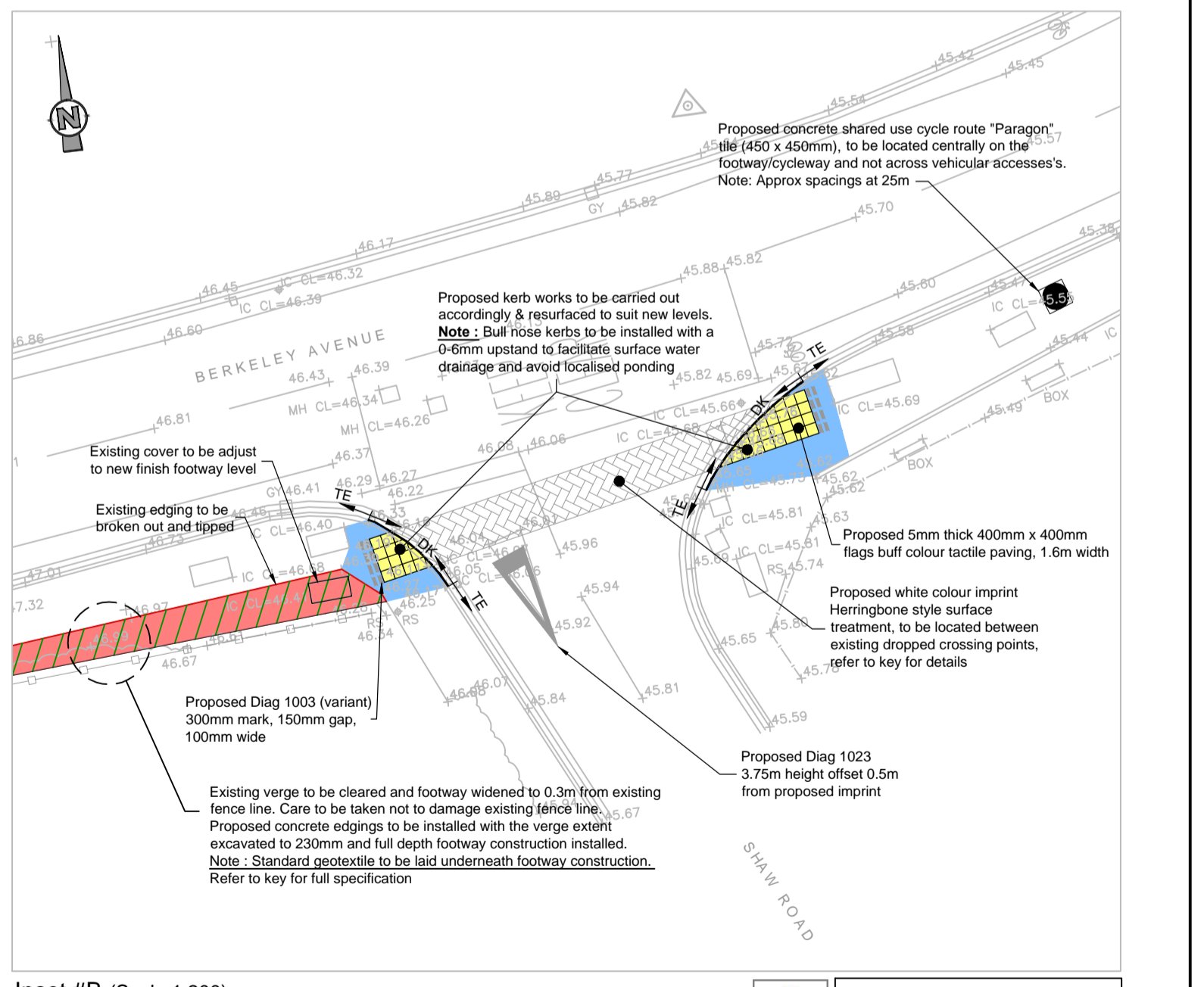
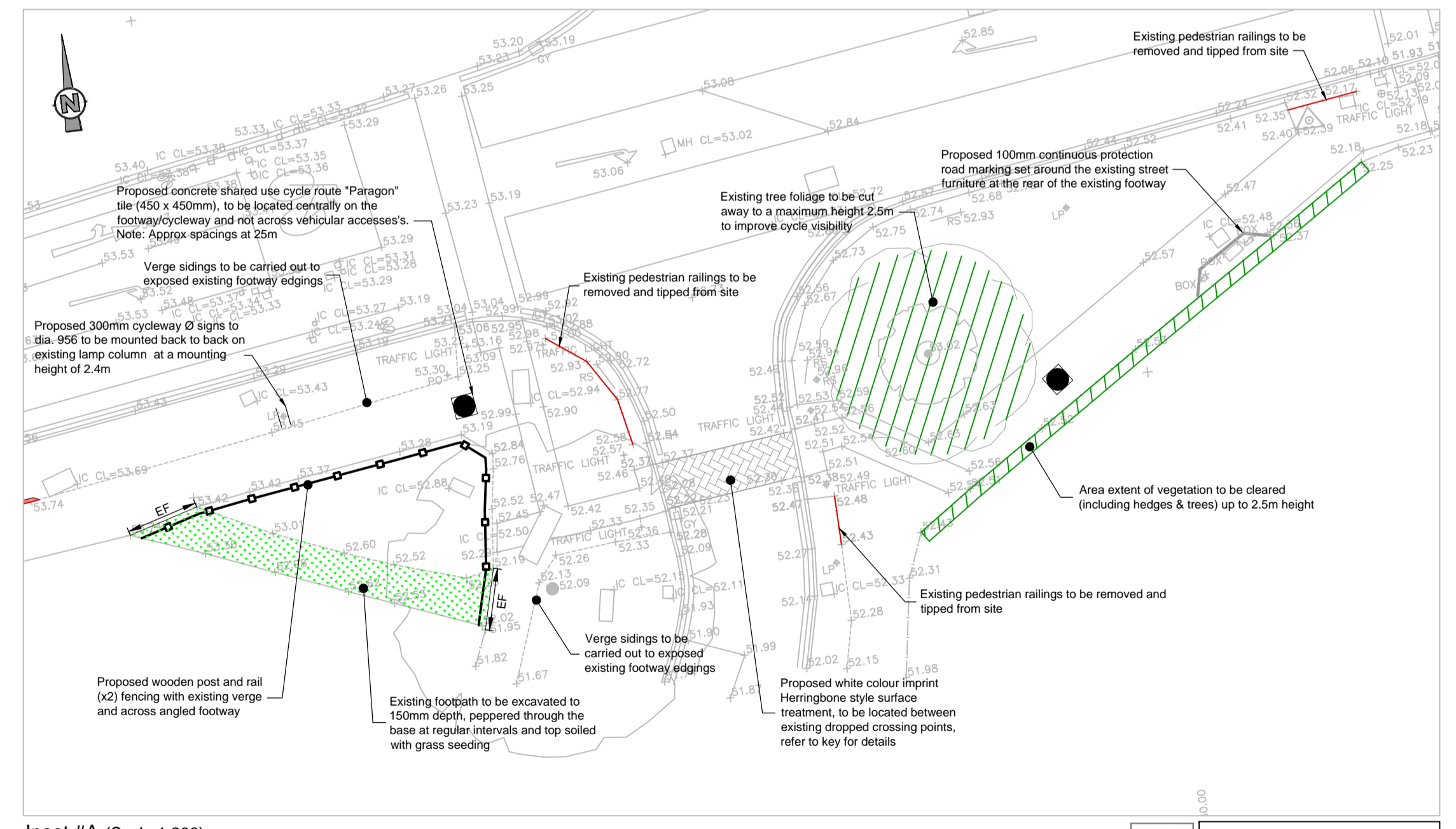
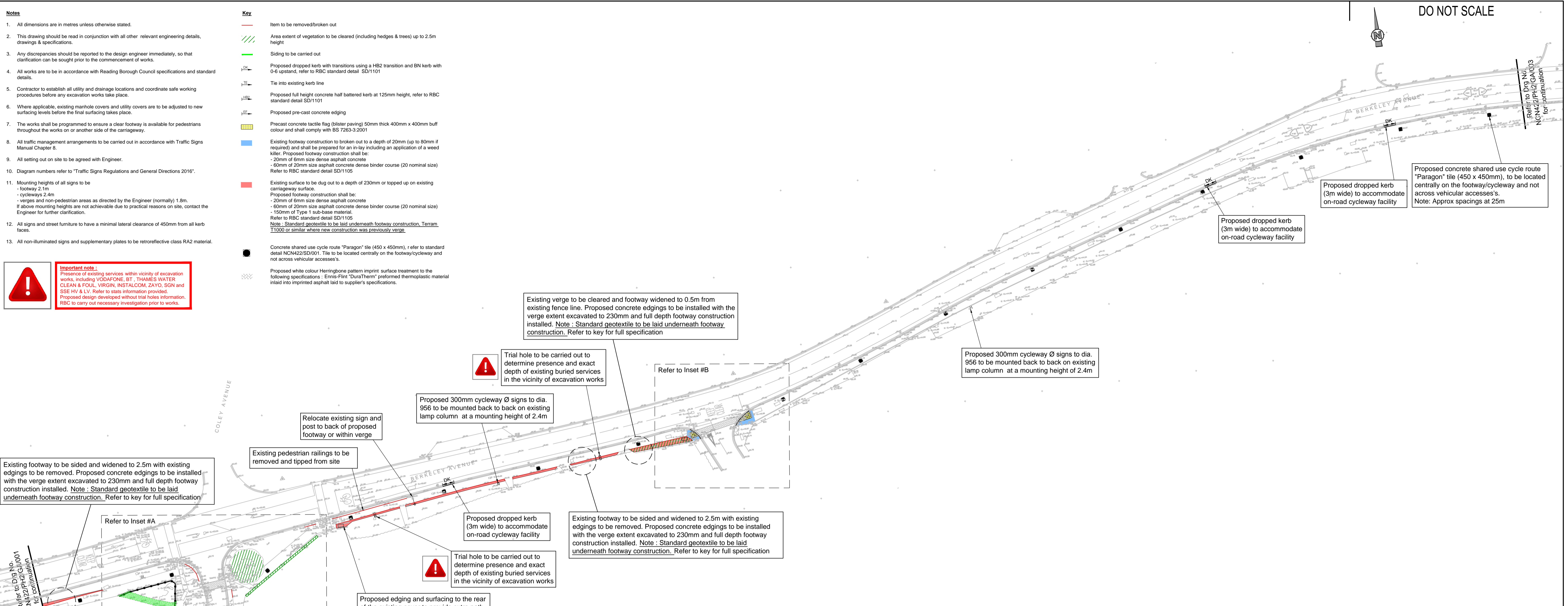


- Notes**
- All dimensions are in metres unless otherwise stated.
  - This drawing should be read in conjunction with all other relevant engineering details, drawings & specifications.
  - Any discrepancies should be reported to the design engineer immediately, so that clarification can be sought prior to the commencement of works.
  - All works are to be in accordance with Reading Borough Council specifications and standard details.
  - Contractor to establish all utility and drainage locations and coordinate safe working procedures before any excavation works take place.
  - Where applicable, existing manhole covers and utility covers are to be adjusted to new surfacing levels before the final surfacing takes place.
  - The works shall be programmed to ensure a clear footway is available for pedestrians throughout the works on or another side of the carriageway.
  - All traffic management arrangements to be carried out in accordance with Traffic Signs Manual Chapter 8.
  - All setting out on site to be agreed with Engineer.
  - Diagram numbers refer to "Traffic Signs Regulations and General Directions 2016".
  - Mounting heights of all signs to be:
    - footway 2.1m
    - cycleways 2.4m
    - verges and non-pedestrian areas as directed by the Engineer (normally) 1.8m.
 If above mounting heights are not achievable due to practical reasons on site, contact the Engineer for further clarification.
  - All signs and street furniture to have a minimal lateral clearance of 450mm from all kerb faces.
  - All non-illuminated signs and supplementary plates to be retroreflective class RA2 material.

- Key**
- Item to be removed/broken out
  - Area extent of vegetation to be cleared (including hedges & trees) up to 2.5m height
  - Siding to be carried out
  - Proposed dropped kerb with transitions using a HB2 transition and BN kerb with 0-6 upstand, refer to RBC standard detail SD/1101
  - Tie into existing kerb line
  - Proposed full height concrete half battered kerb at 125mm height, refer to RBC standard detail SD/1101
  - Proposed pre-cast concrete edging
  - Precast concrete tactile flag (blister paving) 50mm thick 400mm x 400mm buff colour and shall comply with BS 7263-3:2001
  - Existing footway construction to be broken out to a depth of 20mm (up to 80mm if required) and shall be prepared for an in-lay including an application of a weed killer. Proposed footway construction shall be:
    - 20mm of 6mm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - 150mm of Type 1 sub-base material.
 Refer to RBC standard detail SD/1105  
 Note: Standard geotextile to be laid underneath footway construction. Terrain T1000 or similar where new construction was previously verge.
  - Existing surface to be dug out to a depth of 230mm or topped up on existing carriageway surface. Proposed footway construction shall be:
    - 20mm of 6mm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - 150mm of Type 1 sub-base material.
 Refer to RBC standard detail SD/1105  
 Note: Standard geotextile to be laid underneath footway construction. Terrain T1000 or similar where new construction was previously verge.
  - Concrete shared use cycle route "Paragon" tile (450 x 450mm), refer to standard detail NCN422/SD/001. Tile to be located centrally on the footway/cycleway and not across vehicular accesses.
  - Proposed white colour Herringbone pattern imprint surface treatment to the following specifications: Ennis-Fint "DuraTherm" preformed thermoplastic material inlaid into imprinted asphalt laid to supplier's specifications.

**Important note:**  
 Presence of existing services within vicinity of excavation works, including VODAFONE, BT, THAMES WATER CLEAN & FOUL, VIRGIN, INSTALCOM, ZAYO, SON and SSE HV & LV. Refer to stats information provided. Proposed design developed without trial holes information. RBC to carry out necessary investigation prior to works.

DO NOT SCALE



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REV	DATE	BY	DESCRIPTION	CHK	APD
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B	10/07/17	M	OS SURVEY REPLACED WITH TOPOGRAPHICAL SURVEY	TRA	EH
A	19/06/17	M	FIRST ISSUE	TRA	EH

DRAWING STATUS: ISSUED FOR CONSTRUCTION

CLIENT: READING BOROUGH COUNCIL

ARCHITECT: **Reading Borough Council**  
Working better with you

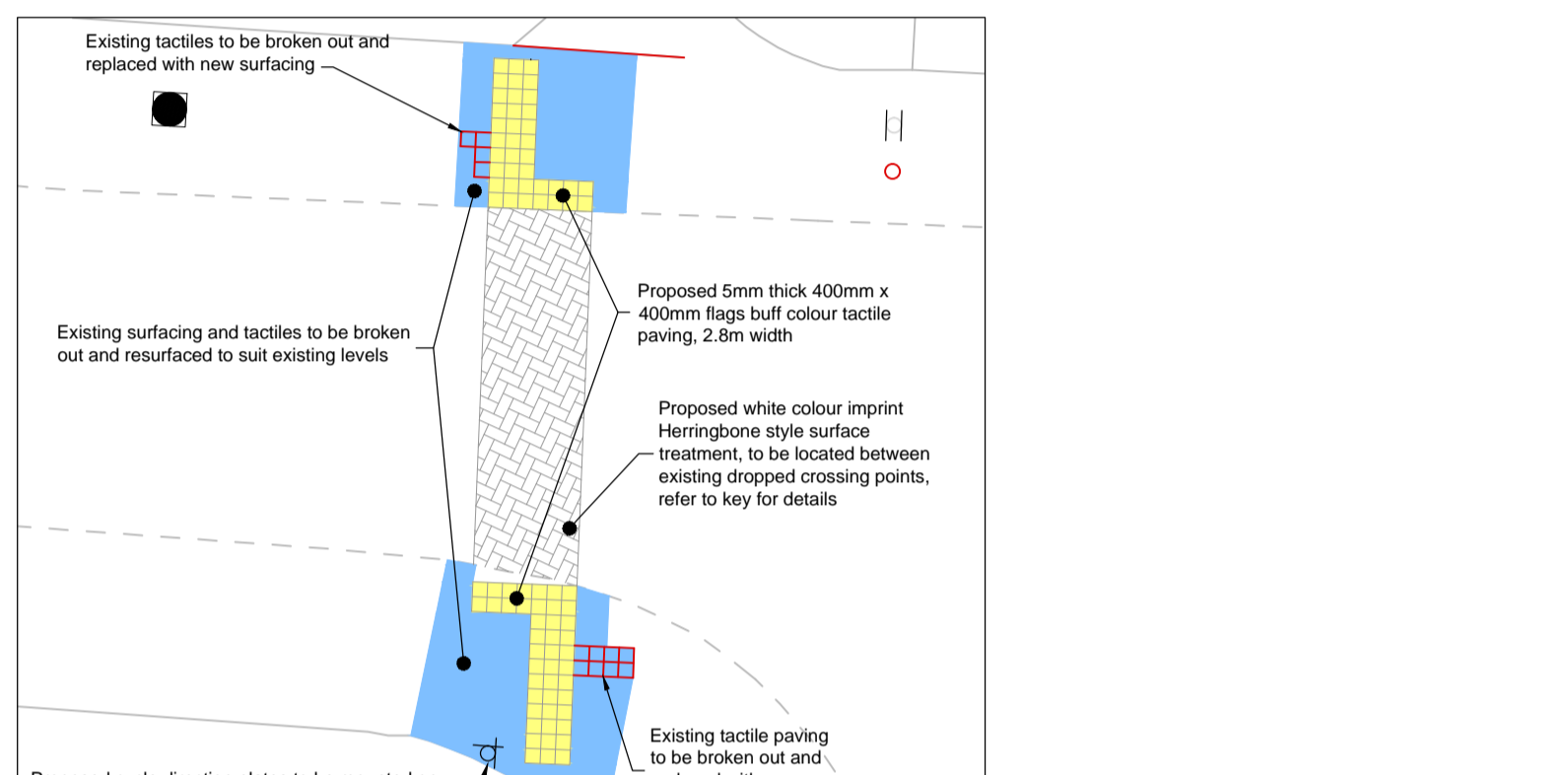
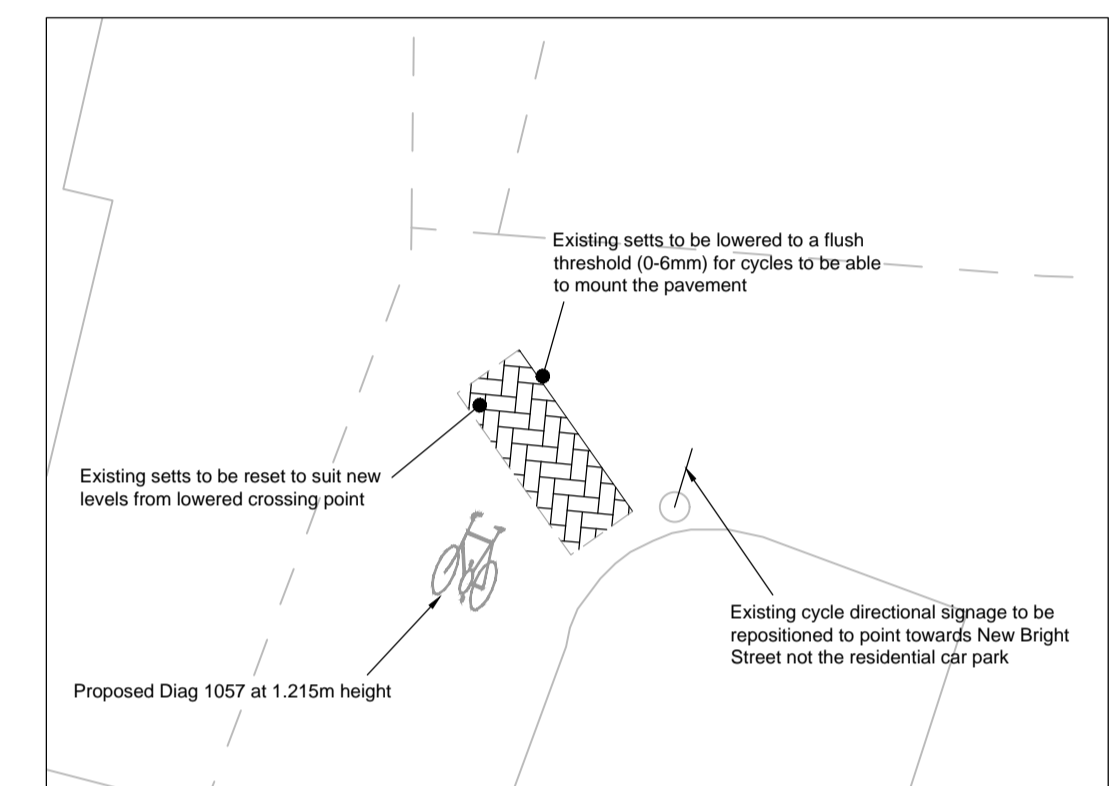
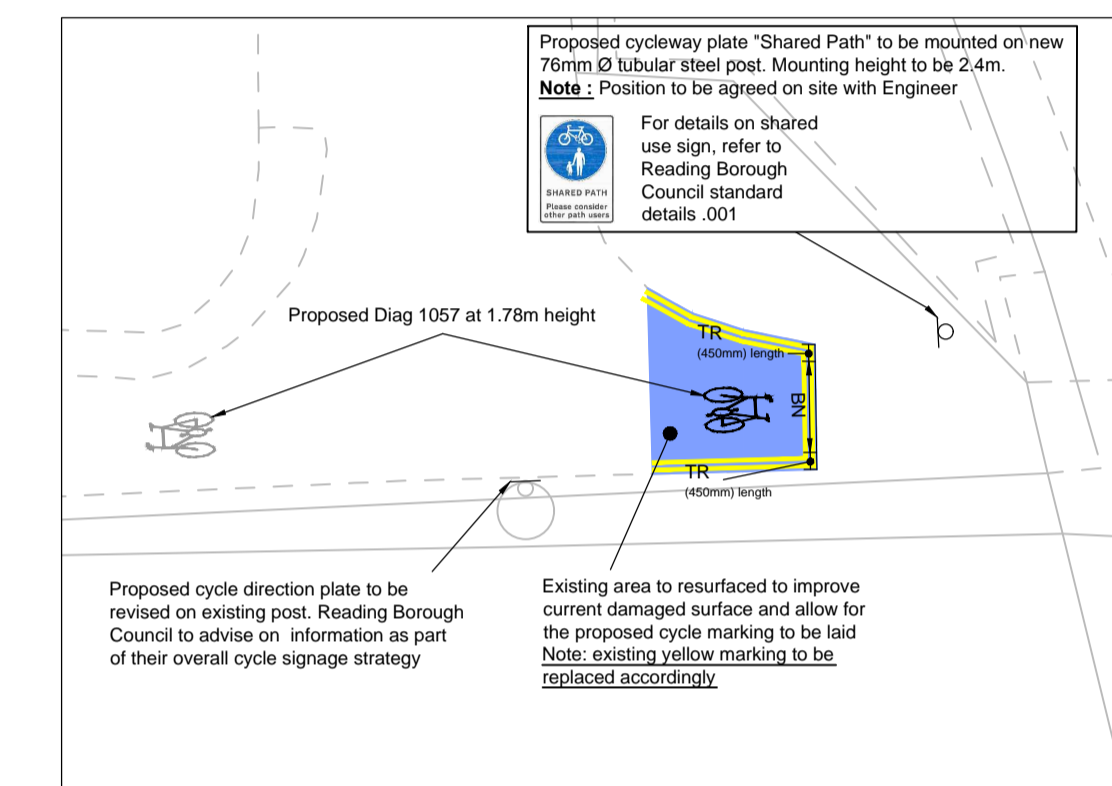
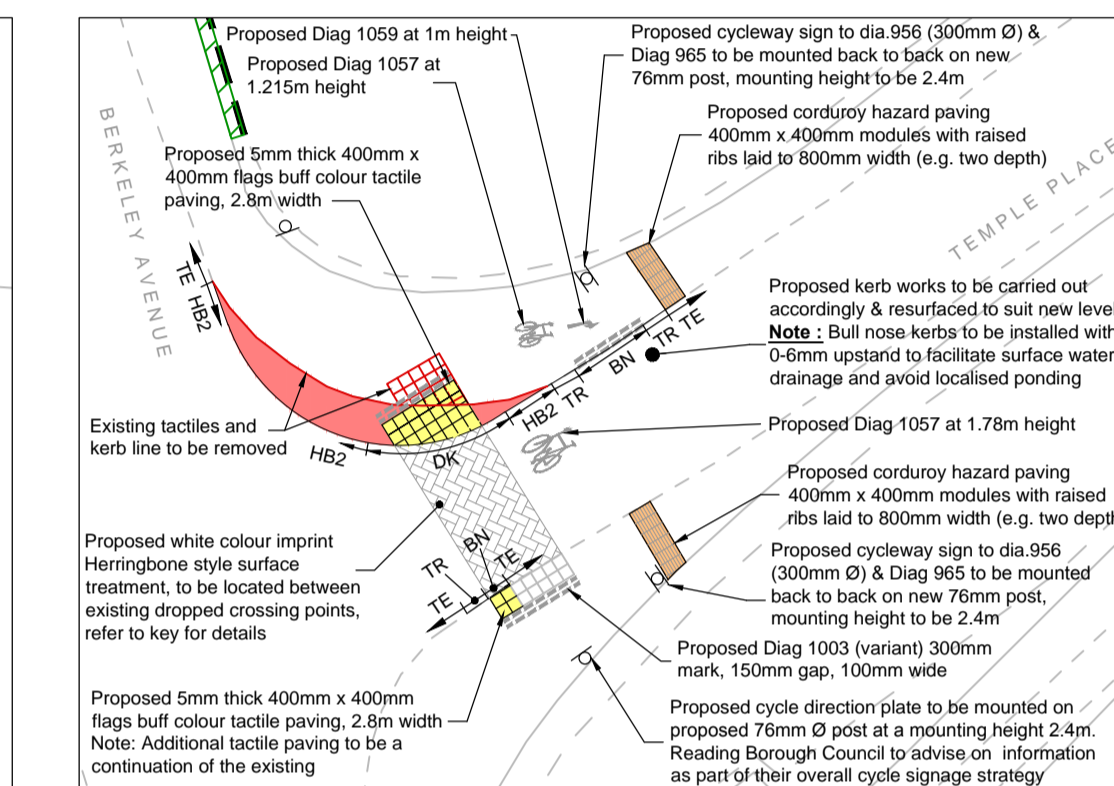
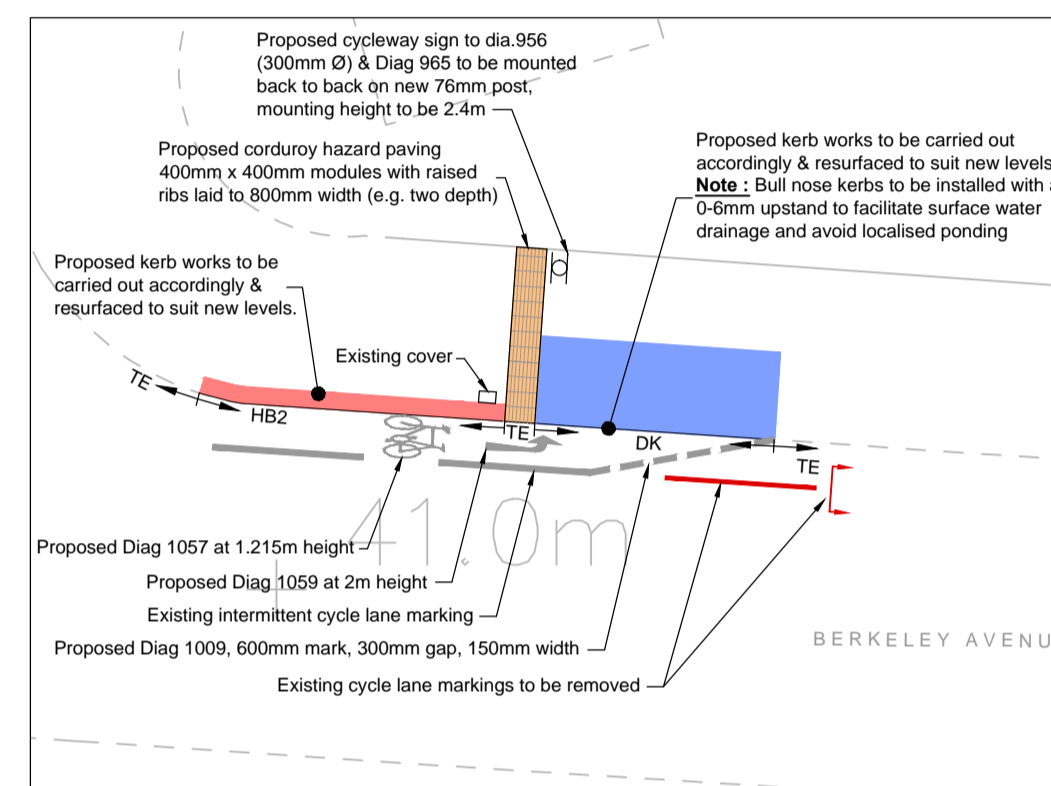
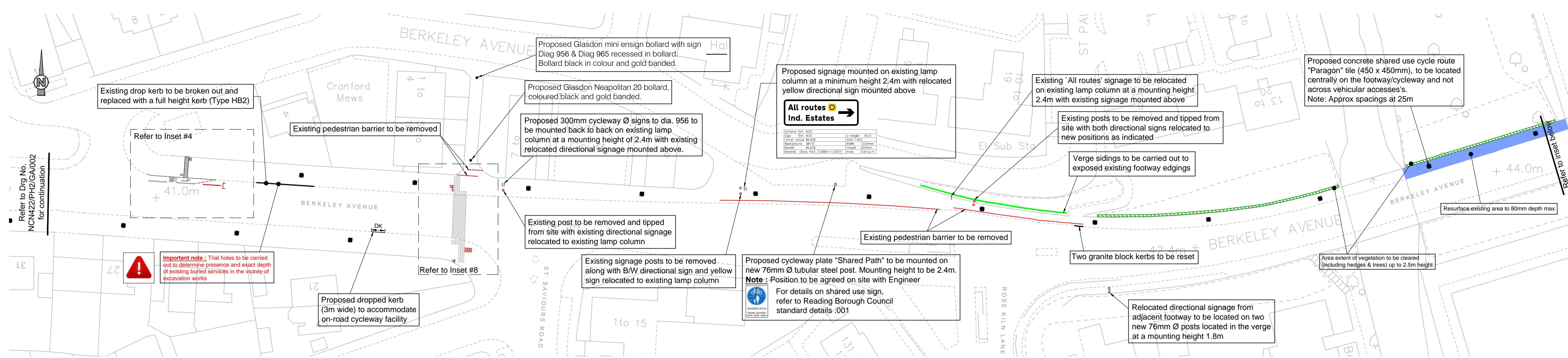
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READING

TITLE: PHASE 2  
BERKELEY AVENUE  
SHEET 2 OF 8

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CAD FILE: NCN422_PH2_GA_002C	DESIGN/DRAWN: IM	DATE: December 2016
PROJECT No: NCN422	DRAWING No: NCN422/PH2/GA/002	REV: C

# DO NOT SCALE

- Key**
- Item to be removed/broken out
  - Siding to be carried out
  - Proposed dropped curb with transitions using a HB2 transition and BN kerb with 0-6 upstand, refer to RBC standard detail SD/1101
  - Tie into existing kerb line
  - Proposed full height concrete half battered kerb at 125mm height, refer to RBC standard detail SD/1101
  - Proposed concrete bull nosed kerb at 0-6mm height, refer to RBC standard detail SD/1101
  - Precast concrete tactile flag (blister paving) 50mm thick 400mm x 400mm buff colour and shall comply with BS 7263-3:2001
  - Existing footway construction to broken out to a depth of 20mm (up to a wheel if required) and shall be prepared for an in-lay including an application of a roomed killer. Proposed footway construction shall be:
    - 20mm of 6mm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - 150mm of Type 1 sub-base material.
 Refer to RBC standard detail SD/1105  
 Note: Standard geotextile to be laid underneath footway construction. Terrain T1000 or similar where new construction was previously verge.
  - Existing surface to be dug out to a depth of 230mm or topped up on existing carriageway surface. Proposed footway construction shall be:
    - 20mm of 6mm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - 150mm of Type 1 sub-base material.
 Refer to RBC standard detail SD/1105  
 Note: Standard geotextile to be laid underneath footway construction. Terrain T1000 or similar where new construction was previously verge.
  - Concrete shared use cycle route "Paragon" tile (450 x 450mm), refer to standard detail NCN422SD/001. Tile to be located centrally on the footway/cycleway and not across vehicular accesses's.
  - Proposed white colour Herringbone pattern imprint surface treatment to the following specifications: Ennis-Flint "DuraTherm" performed thermoplastic material inlaid into imprinted asphalt laid to supplier's specifications.



Inset #4 (Scale 1:200)

**Important note:** Trial holes to be carried out to determine presence and exact depth of existing buried services in the vicinity of excavation works

Inset #5 (Scale 1:250)

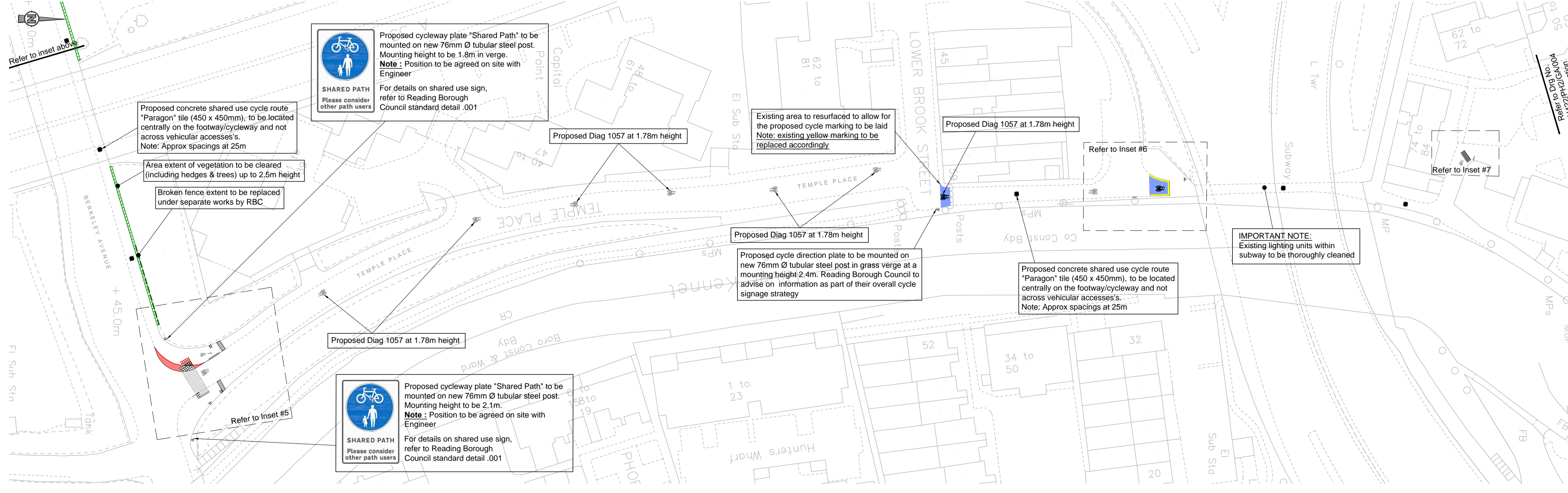
**Important note:** Trial holes to be carried out to determine presence and exact depth of existing buried services in the vicinity of excavation works

Inset #6 (Scale 1:200)

**Important note:** Trial holes to be carried out to determine presence and exact depth of existing buried services in the vicinity of excavation works

Inset #7 (Scale 1:100)

Inset #8 (Scale 1:200)



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  - All traffic management arrangements to be carried out in accordance with Traffic Signs Manual Chapter 8.
  - All setting out on site to be agreed with Engineer.
  - Diagram numbers refer to "Traffic Signs Regulations and General Directions 2016".
  - Mounting heights of all signs to be:
    - footway 2.1m
    - cycleways 2.4m
    - verges and non-pedestrian areas as directed by the Engineer (normally) 1.8m.
 If above mounting heights are not achievable due to practical reasons on site, contact the Engineer for further clarification.
  - All signs and street furniture to have a minimal lateral clearance of 450mm from all kerb faces.
  - All non-illuminated signs and supplementary plates to be retroreflective class RA2 material.

**Important note:** Presence of existing services within vicinity of excavation works, including VODAFONE, BT, THAMES WATER CLEAN & FOUL, VIRGIN, GTC, INSTALCOM, SGN, SSE HV & LV and TELENT. Refer to site information provided. Proposed design developed without trial holes information. RBC to carry out necessary investigation prior to works.

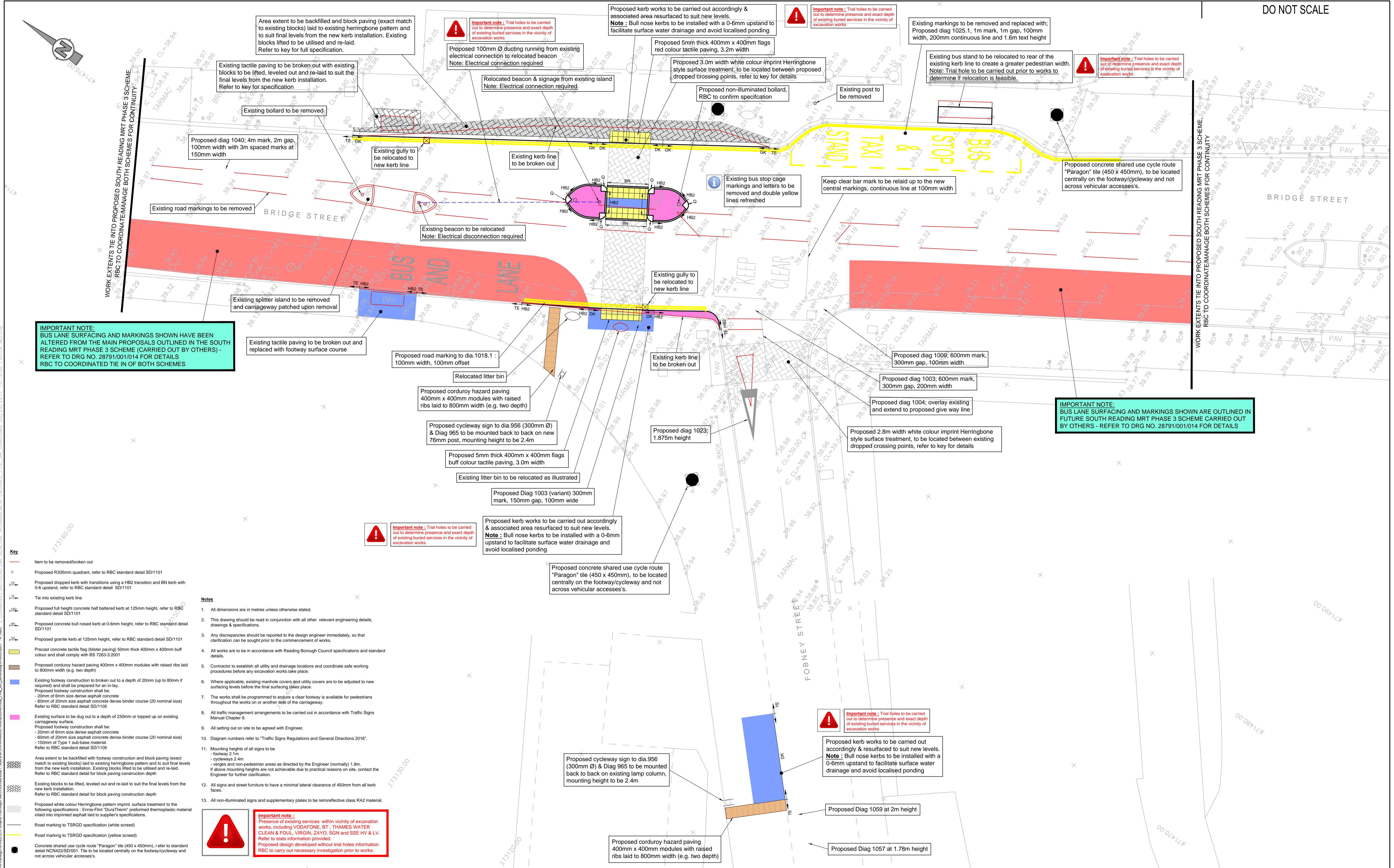
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REV	DATE	BY	DESCRIPTION	CHK	APP
C	01/08/17	IM	TACTILE PAVING TYPE REVISED, VEGETATION ANNOTATION ADDED AND ADDITIONAL 'SHARED PATH' SIGNS INSTALLED	TRA	EH
B	16/07/17	PM:CE	CYCLE SYMBOLS ADDED ALONG TEMPLE PLACE REQUESTED BY RBC	TRA	EH
A	28/12/16	TRA	FIRST ISSUE	TRA	EH

DRAWING STATUS: ISSUED FOR CONSTRUCTION



CLIENT: <b>READING BOROUGH COUNCIL</b>	PROJECT: <b>NCN CYCLE ROUTE IMPROVEMENTS READING</b>	SCALE @ A1: 1:500	CHECKED: TRA	APPROVED: EH
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		PROJECT No: NCN422	DRAWING No: NCN422/PH2/GA/003	REV: C



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**IMPORTANT NOTE:**  
 BUS LANE SURFACING AND MARKINGS SHOWN HAVE BEEN ALTERED FROM THE MAIN PROPOSALS OUTLINED IN THE SOUTH READING MRT PHASE 3 SCHEME (CARRIED OUT BY OTHERS) - REFER TO DRG NO. 28791/001/014 FOR DETAILS RBC TO COORDINATED TIE IN OF BOTH SCHEMES

**IMPORTANT NOTE:**  
 BUS LANE SURFACING AND MARKINGS SHOWN ARE OUTLINED IN FUTURE SOUTH READING MRT PHASE 3 SCHEME CARRIED OUT BY OTHERS - REFER TO DRG NO. 28791/001/014 FOR DETAILS

- Key**
- Item to be removed/broken out
  - Proposed R305mm quadrant, refer to RBC standard detail SD/1101
  - Proposed dropped kerb with transitions using a HB2 transition and BN kerb with 0-6 upstand, refer to RBC standard detail SD/1101
  - Tie into existing kerb line
  - Proposed full height concrete half battered kerb at 125mm height, refer to RBC standard detail SD/1101
  - Proposed concrete bull nosed kerb at 0-6mm height, refer to RBC standard detail SD/1101
  - Proposed granite kerb at 125mm height, refer to RBC standard detail SD/1101
  - Precast concrete tactile flag (blister paving) 50mm thick 400mm x 400mm buff colour and shall comply with BS 7263-3:2001
  - Proposed corduroy hazard paving 400mm x 400mm modules with raised ribs laid to 800mm width (e.g. two depth)
  - Existing footway construction to broken out to a depth of 20mm (up to 80mm if required) and shall be prepared for an in-lay. Proposed footway construction shall be:
    - 20mm of 6mm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - Refer to RBC standard detail SD/1105
  - Existing surface to be dug out to a depth of 230mm or topped up on existing carriageway surface. Proposed footway construction shall be:
    - 20mm of 6mm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - 150mm of Type 1 sub-base material.
    - Refer to RBC standard detail SD/1105
  - Area extent to be backfilled with footway construction and block paving (exact match to existing blocks) laid to existing herringbone pattern and to suit final levels from the new kerb installation. Existing blocks lifted to be utilised and re-laid. Refer to RBC standard detail for block paving construction depth
  - Existing blocks to be lifted, levelled out and re-laid to suit the final levels from the new kerb installation. Refer to RBC standard detail for block paving construction depth
  - Proposed white colour Herringbone pattern imprint surface treatment to the following specifications: Ennis-Flint "DuraTherm" preformed thermoplastic material inlaid into imprinted asphalt laid to supplier's specifications.
  - Road marking to TSRGD specification (white screed)
  - Road marking to TSRGD specification (yellow screed)
  - Concrete shared use cycle route "Paragon" tile (450 x 450mm), refer to standard detail NCN422SD/001. Tile to be located centrally on the footway/cycleway and not across vehicular access's.
- Notes**
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  10. Diagram numbers refer to "Traffic Signs Regulations and General Directions 2016".
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    - cycleways 2.4m
    - verges and non-pedestrian areas as directed by the Engineer (normally) 1.8m.
    - If above mounting heights are not achievable due to practical reasons on site, contact the Engineer for further clarification.
  12. All signs and street furniture to have a minimal lateral clearance of 450mm from all kerb faces.
  13. All non-illuminated signs and supplementary plates to be retroreflective class RA2 material.

**Important note:**  
 Presence of existing services within vicinity of excavation works, including VDA/FONE, BT, THAMES WATER CLEAN & FOUL, VIRGIN, ZAYO, SGN and SSE HV & LV. Refer to stats information provided.  
 Proposed design developed without trial holes information. RBC to carry out necessary investigation prior to works.

REV	DATE	BY	DESCRIPTION	CHK	APD
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A	03/01/17	OB	FIRST ISSUE	TEA	EH

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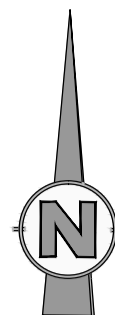
Reading Borough Council  
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CLIENT:	READING BOROUGH COUNCIL
ARCHITECT:	

PROJECT:	NCN CYCLE ROUTE IMPROVEMENTS READING
TITLE:	PHASE 2 BRIDGE STREET SHEET 4 OF 8

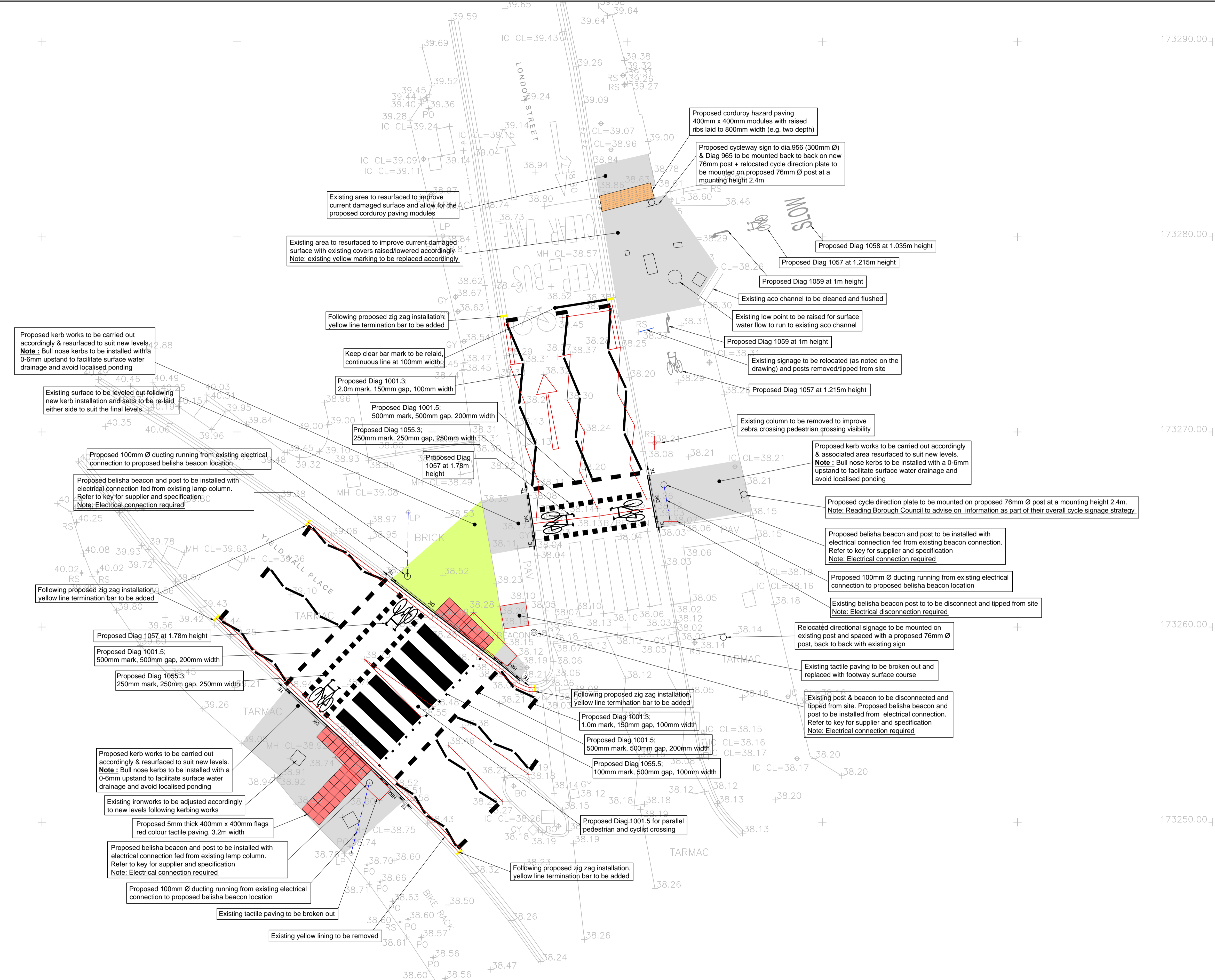
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CAD FILE:	NCN422_PH2_GA_004B	DESIGN-DRAWN:	OB	DATE:	December 2016
PROJECT No:	NCN422	DRAWING No:	NCN422/PH2/GA/004	REV:	B





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DO NOT SCALE



Key	
	Item to be removed, broken out and/or tipped
	Item to be relocated as specified
	Proposed dropped kerb with transitions using a HB2 transition and BN kerb with 0-6 upstand, refer to RBC standard detail SD1101
	Tie into existing kerb line
	Proposed full height concrete half battered kerb at 125mm height, refer to RBC standard detail SD1101
	Precast concrete tactile flag (blister paving) 50mm thick 400mm x 400mm red colour and shall comply with BS 7283-3:2001
	Proposed corduroy hazard paving 400mm x 400mm modules with raised ribs laid to 800mm width (e.g. two depth)
	Existing footway construction to broken out to a depth of 20mm (up to 80mm if required) and shall be prepared for an in-lay. Proposed footway construction shall be: - 20mm of 6mm size dense asphalt concrete - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size) Refer to RBC standard detail SD1105
	Existing surface to be levelled out following new kerb installation and setts to be re-laid either side to suit the final levels.
	Proposed 100mm Ø duct for electrical connection
	Road marking to TSRGD specification (white screed)
	Proposed Belisha Beacon
	Beacon: LED Zebrite beacon Supplier: Zebrite Ltd Address: Unit 5, Mill House Farm, Billingford Road, North Elmham, Norfolk, NR20 5HN Tel: 0845 003 7361
	Belisha beacon post: Supplier: CDM ZebraSAFE - ZEB4-CDM 4 Band - assembly post 3.7m OAL (600pd) Supplier Signature Address: Hainge Road, Tividale, Oldbury, West Midlands, B69 2NY Tel: 0121 9570234

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- cycleways 2.4m  
- verges and non-pedestrian areas as directed by the Engineer (normally) 1.8m.  
If above mounting heights are not achievable due to practical reasons on site, contact the Engineer for further clarification.
  - All signs and street furniture to have a minimal lateral clearance of 450mm from all kerb faces.
  - All non-illuminated signs and supplementary plates to be retroreflective class RA2 material.

**Important note:**  
Presence of existing services within vicinity of excavation works, including BT, THAMES WATER CLEAN & FOUL, SGN and SSE HV & LV. Refer to stats information provided.  
Proposed design developed without trial hole information.  
RBC to carry out necessary investigation prior to works.



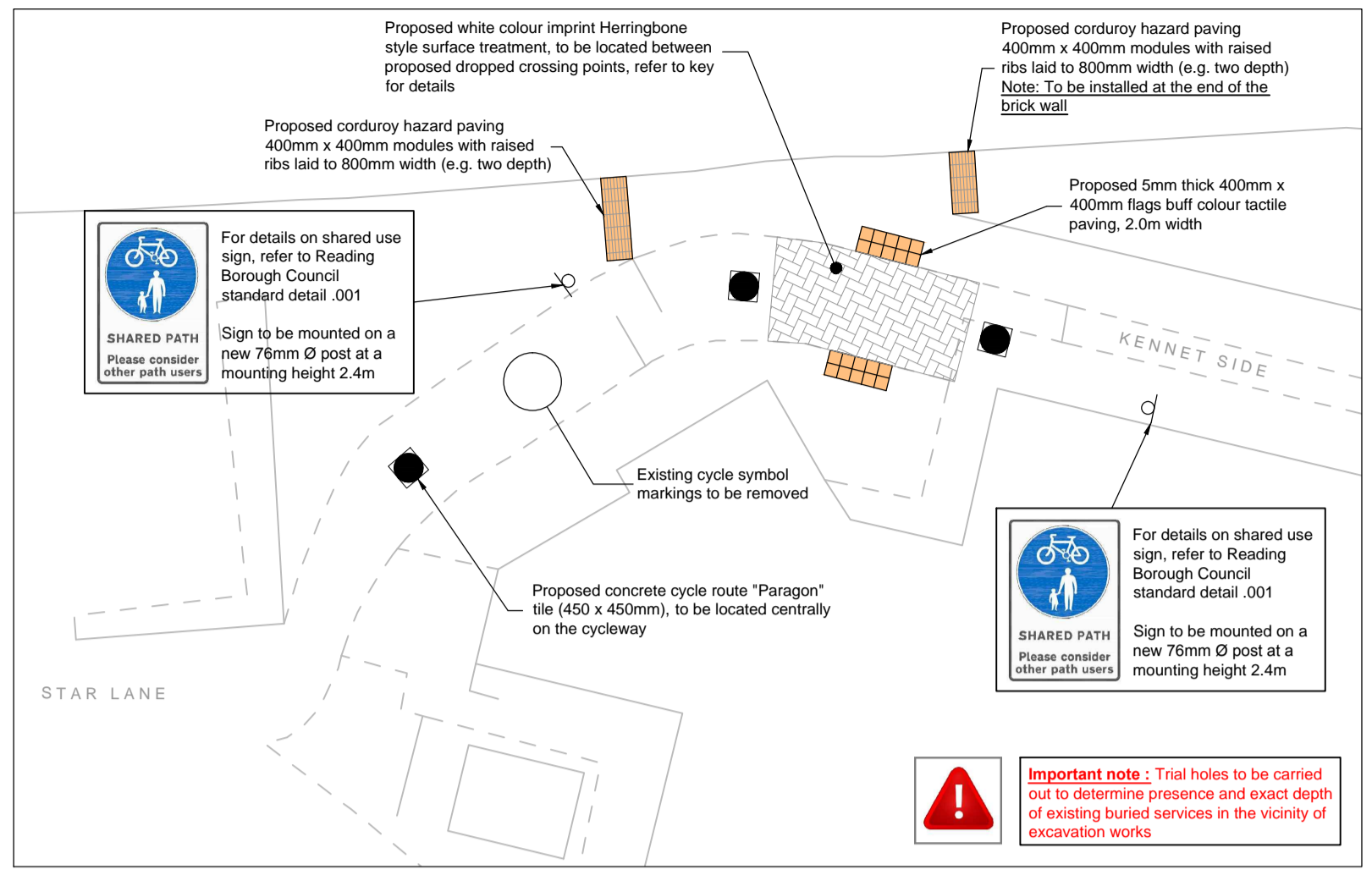
<p>Reading Borough Council Working better with you</p>				CLIENT: READING BOROUGH COUNCIL	PROJECT: NCN CYCLE ROUTE IMPROVEMENTS READING	SCALE @ A1: 1:100	CHECKED: TRA	APPROVED: EH																		
<p>ARCHITECT:</p>				TITLE: PHASE 2 LONDON STREET/YIELD HALL PLACE SHEET 5 OF 8	PROJECT No: NCN422	DESIGN-DRAWN: OB	DATE: December 2016	REV: B																		
<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> <th>CHK</th> <th>APD</th> </tr> </thead> <tbody> <tr> <td>B</td> <td>25/07/17</td> <td>MI</td> <td>PROPOSED SIGNAGE RELOCATED</td> <td>1EA</td> <td>EH</td> </tr> <tr> <td>A</td> <td>30/01/17</td> <td>OB</td> <td>FIRST ISSUE</td> <td>1EA</td> <td>EH</td> </tr> </tbody> </table>		REV	DATE	BY	DESCRIPTION	CHK	APD	B	25/07/17	MI	PROPOSED SIGNAGE RELOCATED	1EA	EH	A	30/01/17	OB	FIRST ISSUE	1EA	EH	<p>DRAWING STATUS: ISSUED FOR CONSTRUCTION</p>						
REV	DATE	BY	DESCRIPTION	CHK	APD																					
B	25/07/17	MI	PROPOSED SIGNAGE RELOCATED	1EA	EH																					
A	30/01/17	OB	FIRST ISSUE	1EA	EH																					

**DO NOT SCALE**

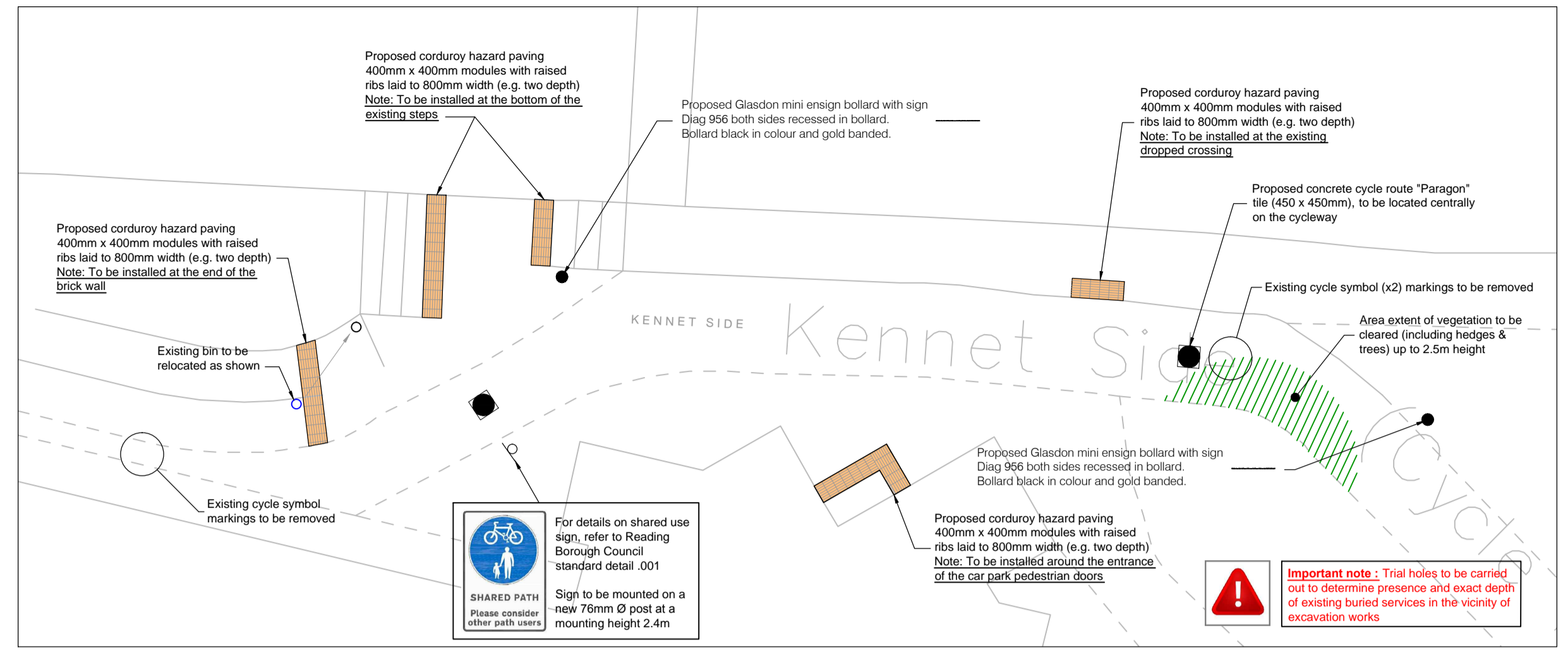
- Key**
- Item to be removed/broken out
  - Item to be relocated
  - Proposed corduroy hazard paving 400mm x 400mm modules with raised ribs laid to 800mm width (e.g. two depth)
  - Existing footway construction to be broken out to a depth of 20mm (up to 80mm if required) and shall be prepared for an in-lay including an application of a weed killer. Proposed footway construction shall be:
    - 20mm of firm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - Refer to RBC standard detail SD/1105
  - Concrete shared use cycle route "Paragon" tile (450 x 450mm), refer to standard detail NCN422/SD/001. Tile to be located centrally on the footway/cycleway and not across vehicular access's.
  - Concrete cycle route "Paragon" tile (450 x 450mm), refer to standard detail NCN422/SD/001. Tile to be located centrally on the footway/cycleway and not across vehicular access's.
  - Proposed white colour imprint Herringbone pattern surface treatment to be located between proposed dropped crossing points, refer to key for details.
  - Precast concrete tactile flag (blister paving) 50mm thick 400mm x 400mm buff colour and shall comply with BS 7263-3:2001

- Notes**
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  2. This drawing should be read in conjunction with all other relevant engineering details, drawings & specifications.
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  7. The works shall be programmed to ensure a clear footway is available for pedestrians throughout the works on or another side of the carriageway.
  8. All traffic management arrangements to be carried out in accordance with Traffic Signs Manual Chapter 8.
  9. All setting out on site to be agreed with Engineer.
  10. Diagram numbers refer to "Traffic Signs Regulations and General Directions 2016".
  11. Mounting heights of all signs to be:
    - footway 2.1m
    - cycleways 2.4m
    - verges and non-pedestrian areas as directed by the Engineer (normally) 1.8m.
    - If above mounting heights are not achievable due to practical reasons on site, contact the Engineer for further clarification.
  12. All signs and street furniture to have a minimal lateral clearance of 450mm from all kerb faces.
  13. All non-illuminated signs and supplementary plates to be retroreflective class RA2 material.

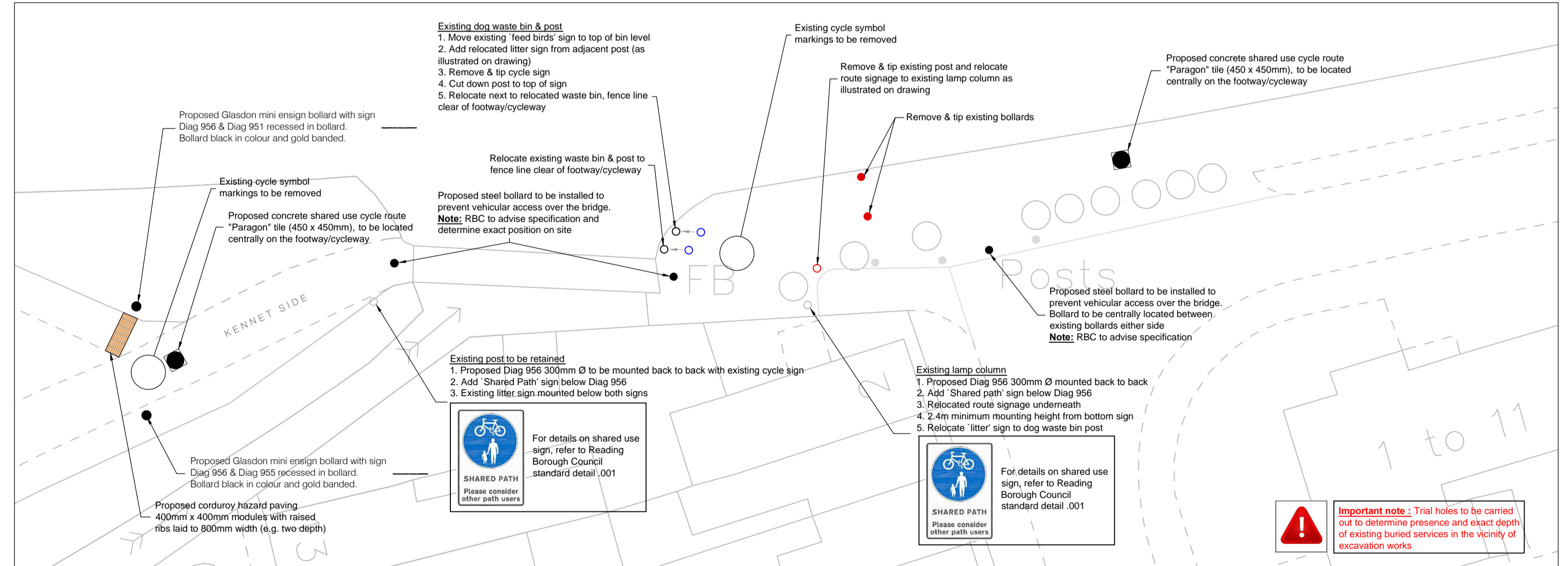
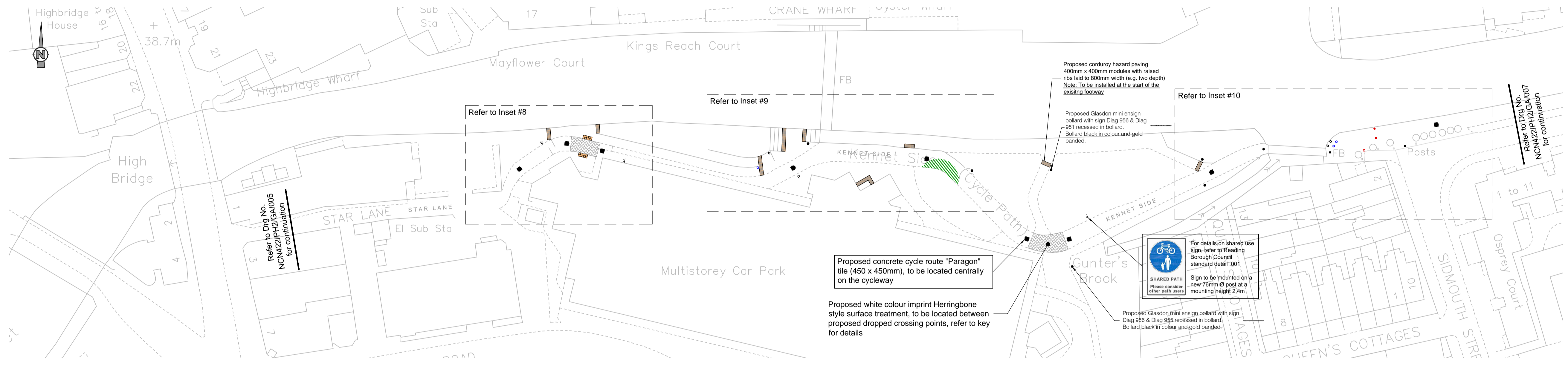
**Important note:** Presence of existing services within vicinity of excavation works, including VODAFONE, BT, THAMES WATER CLEAN & FOUL, ZAYO and TELNET. Refer to status information provided. Proposed design developed without trial holes information. RBC to carry out necessary investigation prior to works.



**Inset #8 (Scale 1:200)**



**Inset #9 (Scale 1:200)**



**Inset #10 (Scale 1:200)**

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REV	DATE	BY	DESCRIPTION	CHK	APP
C	25/07/17	IM	CONSTRUCTION ISSUE	TEA	EH
B	21/07/17	PM	CORUROY PAVING REVISED ALONG THE LENGTH OF KENNET SIDE FROM QUEENS ROAD CAR PARK TO EXISTING BRIDGE	TEA	EH
A	13/01/17	CB	FIRST ISSUE	TEA	EH

DRAWING STATUS: ISSUED FOR CONSTRUCTION

**Reading Borough Council**  
Working better with you

CLIENT: READING BOROUGH COUNCIL  
ARCHITECT: PHASE 2 KENNET SIDE SHEET 6 OF 8

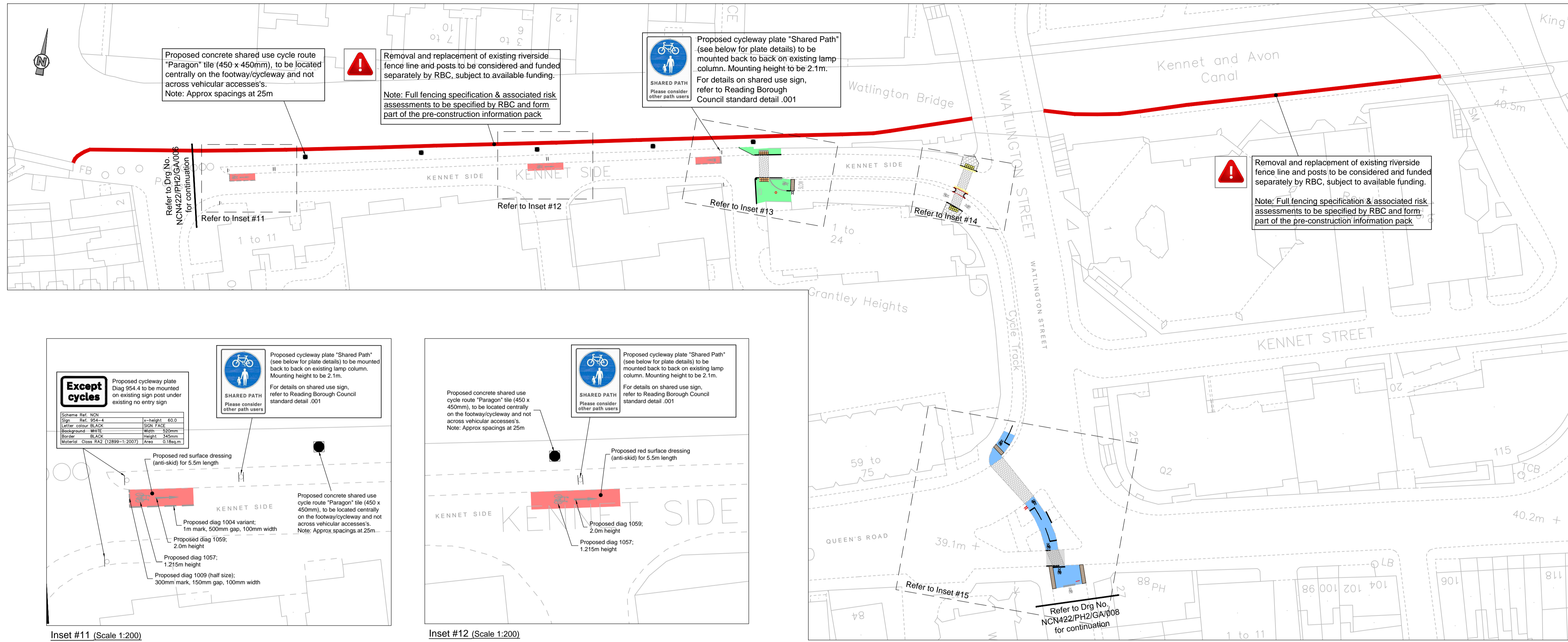
PROJECT: NCN CYCLE ROUTE IMPROVEMENTS READING  
TITLE: PHASE 2 KENNET SIDE SHEET 6 OF 8

SCALE @ A1: 1:500	CHECKED: TRA	APPROVED: EH
CAD FILE: NCN422_PH2_GA_006	DESIGN/DRAWN: OB	DATE: July 2017
PROJECT NO: NCN422	DRAWING NO: NCN422/PH2/GA/006	REV: C

- Key**
- Item to be removed/broken out
  - Proposed dropped kerb with transitions using a HB2 transition and BN kerb with 0-6 upstand, refer to RBC standard detail SD/1101
  - Tie into existing kerb line
  - Proposed full height concrete half battered kerb at 125mm height, refer to RBC standard detail SD/1101
  - Proposed concrete bull nosed kerb at 0-6mm height, refer to RBC standard detail SD/1101
  - Proposed pre-cast concrete edging
  - Proposed concrete channel block to match existing
  - Proposed R305mm quadrant, refer to RBC standard detail SD/1101
  - Proposed transition kerb, refer to RBC standard detail SD/1101
  - Precast concrete tactile flag (blister paving) 50mm thick 400mm x 400mm buff colour and shall comply with BS 7263-3:2001
  - Proposed 5mm thick 400mm x 400mm flags buff colour stick-on tactile paving from JA Tactile System or similar
  - Proposed corduroy hazard paving 400mm x 400mm modules with raised ribs laid to 800mm width (e.g. two depth)
  - Existing footway construction to broken out to a depth of 20mm (up to 80mm if required) and shall be prepared for in-lay including an application of a weed killer. Proposed footway construction shall be:
    - 20mm of 6mm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - 150mm of Type 1 sub-base material
 Refer to RBC standard detail SD/1105
  - Existing slabs to be removed and surface to be dug out to a depth of 230mm. Proposed footway construction shall be:
    - 20mm of 6mm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - 150mm of Type 1 sub-base material
 Refer to RBC standard detail SD/1105
  - Note:** Standard approach to be laid underneath footway construction, Terram 11000 or similar where new construction was previously used.
  - Cold mill by planing to 40mm depth and relay with:
    - 40mm thick thin surface course system to clause 942, site category Q/R, stress level 3, texture depth of 1.5mm maximum AAV 12 and minimum PSV 65.
    - Note:** Reading Borough Council to confirm surface treatment.
  - Proposed white colour Herringbone pattern imprint surface treatment to the following specifications: Ennis-Fin's 'DuraTherm' preformed thermoplastic material inlay into imported asphalt laid to supplier's specifications.
  - Road marking to TSRGD specification (white screed)
  - Road marking to TSRGD specification (yellow screed)
  - Concrete shared use cycle route 'Paragon' tile (450 x 450mm), refer to standard detail NCN422/SD/001. Tile to be located centrally on the footway/cycleway and not across vehicular access.
  - Proposed anti-skid surfacing, resin based treatment (High friction surface) in red. **Note:** Reading Borough Council to confirm surface treatment.

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  - All works are to be in accordance with Reading Borough Council specifications and standard details.
  - Contractor to establish all utility and drainage locations and coordinate safe working procedures before any excavation works take place.
  - Where applicable, existing manhole covers and utility covers are to be adjusted to new surfacing levels before the final surfacing takes place.
  - The works shall be programmed to ensure a clear footway is available for pedestrians throughout the works on or another side of the carriageway.
  - All traffic management arrangements to be carried out in accordance with Traffic Signs Manual Chapter 6.
  - All setting out on site to be agreed with Engineer.
  - Diagram numbers refer to 'Traffic Signs Regulations and General Directions 2016'.
  - Mounting heights of all signs to be:
    - footway 2.1m
    - cycleways 2.4m
    - verges and non-pedestrian areas as directed by the Engineer (normally) 1.8m.
 If above mounting heights are not achievable due to practical reasons on site, contact the Engineer and further clarification.
  - All signs and street furniture to have a minimal lateral clearance of 450mm from all kerb faces.
  - All non-illuminated signs and supplementary plates to be retroreflective class RA2 material.

**Important note:** Presence of existing services within vicinity of excavation works, including VOID/FORONE, BT, THAMES WATER CLEAN & FOUL, INSTAL.COM, ZAYO, SGN, SSE HV & LV, VERIZON and TELENT. Refer to stats information provided. Proposed design developed without trial holes information. RBC to carry out necessary investigation prior to works.



**Except cycles**

Proposed cycleway plate 'Paragon' tile (450 x 450mm) to be mounted on existing sign post under existing no entry sign.

Scheme Ref.	NCN
Sign Ref.	954-4
Letter colour	BLACK
Background	WHITE
Border	BLACK
Material Class	RA2 (12899-1:2007)
Area	0.18sqm

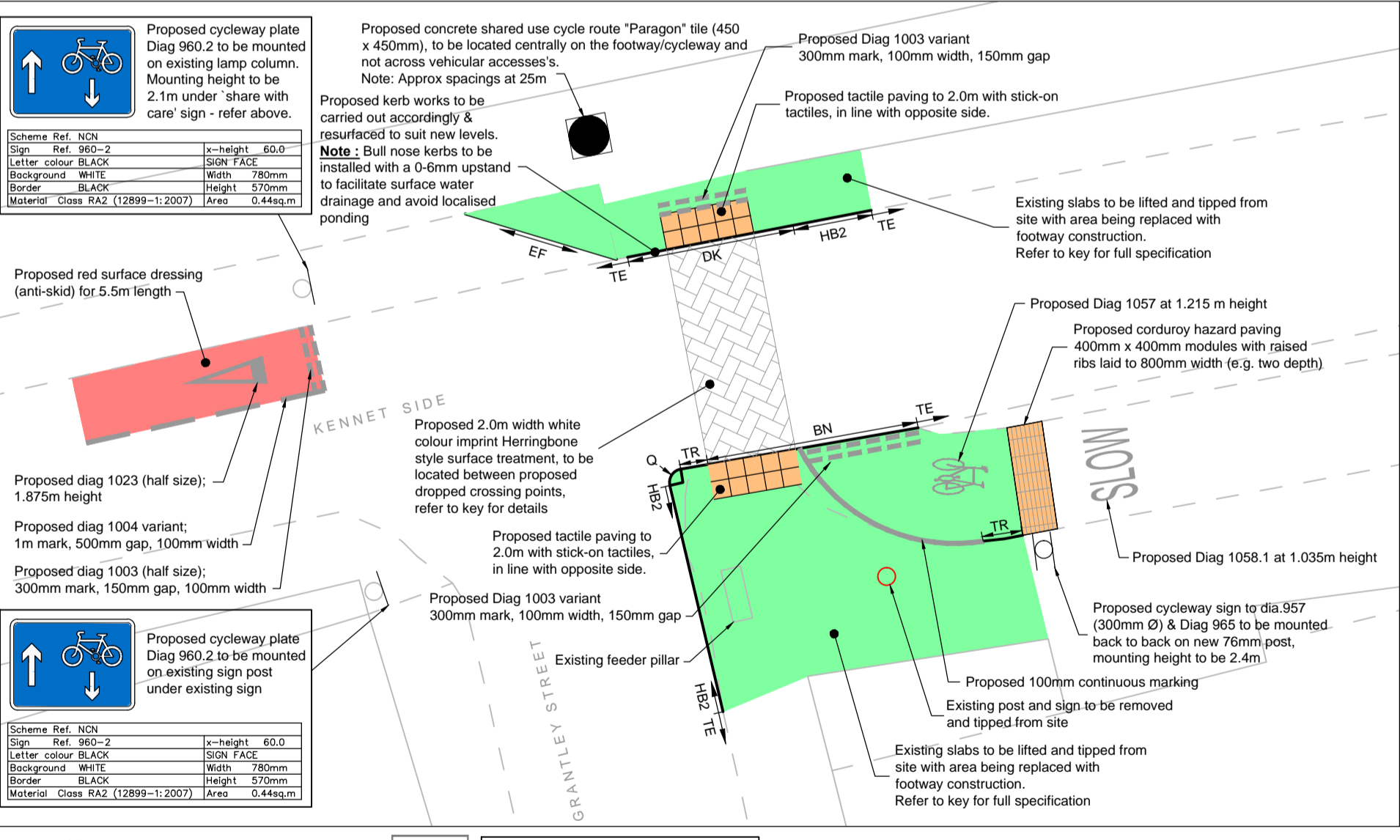
Proposed cycleway plate 'Shared Path' (see below for plate details) to be mounted back to back on existing lamp column. Mounting height to be 2.1m. For details on shared use sign, refer to Reading Borough Council standard detail .001

Proposed concrete shared use cycle route 'Paragon' tile (450 x 450mm), to be located centrally on the footway/cycleway and not across vehicular access.

Proposed red surface dressing (anti-skid) for 5.5m length

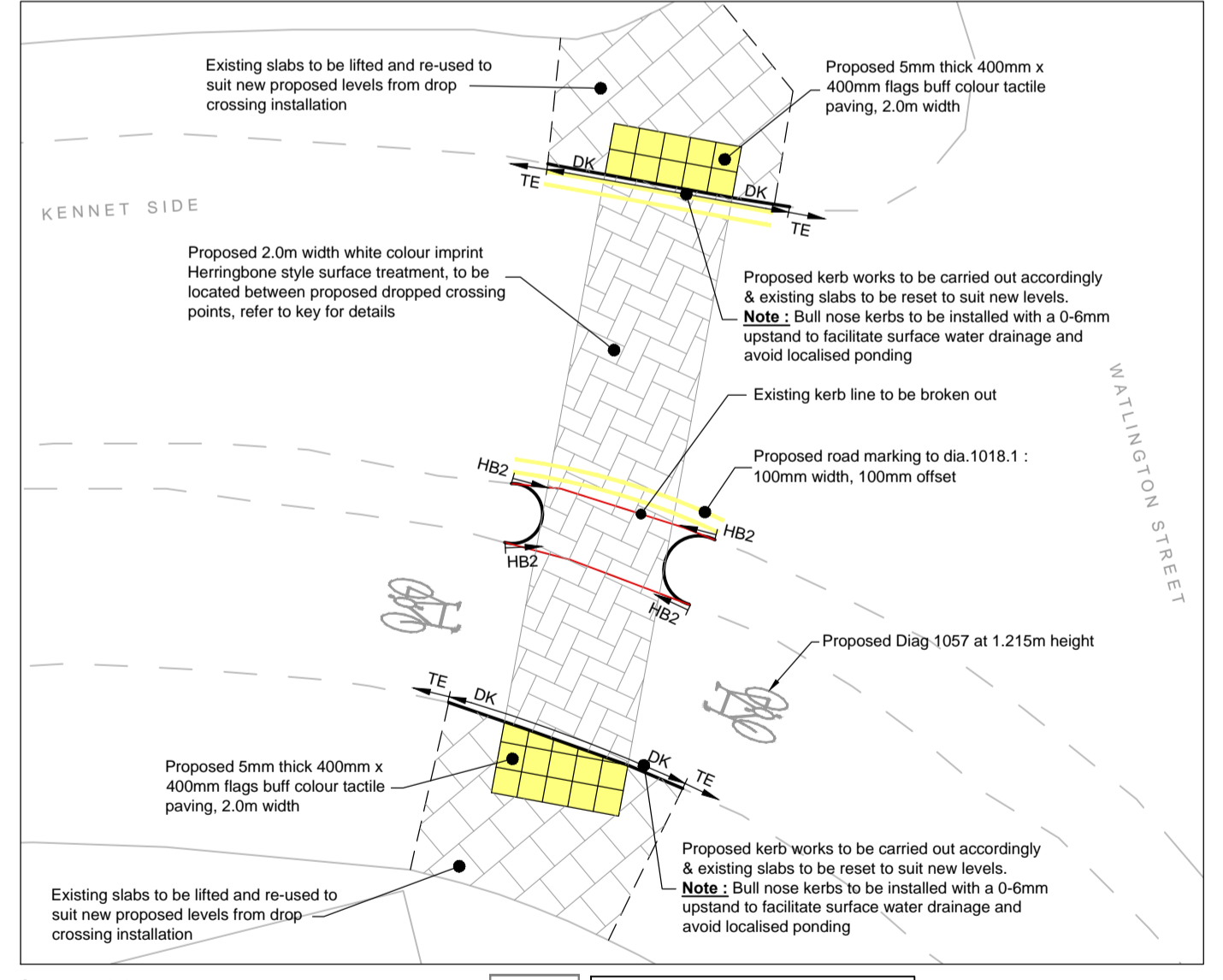
Inset #11 (Scale 1:200)

Inset #12 (Scale 1:200)



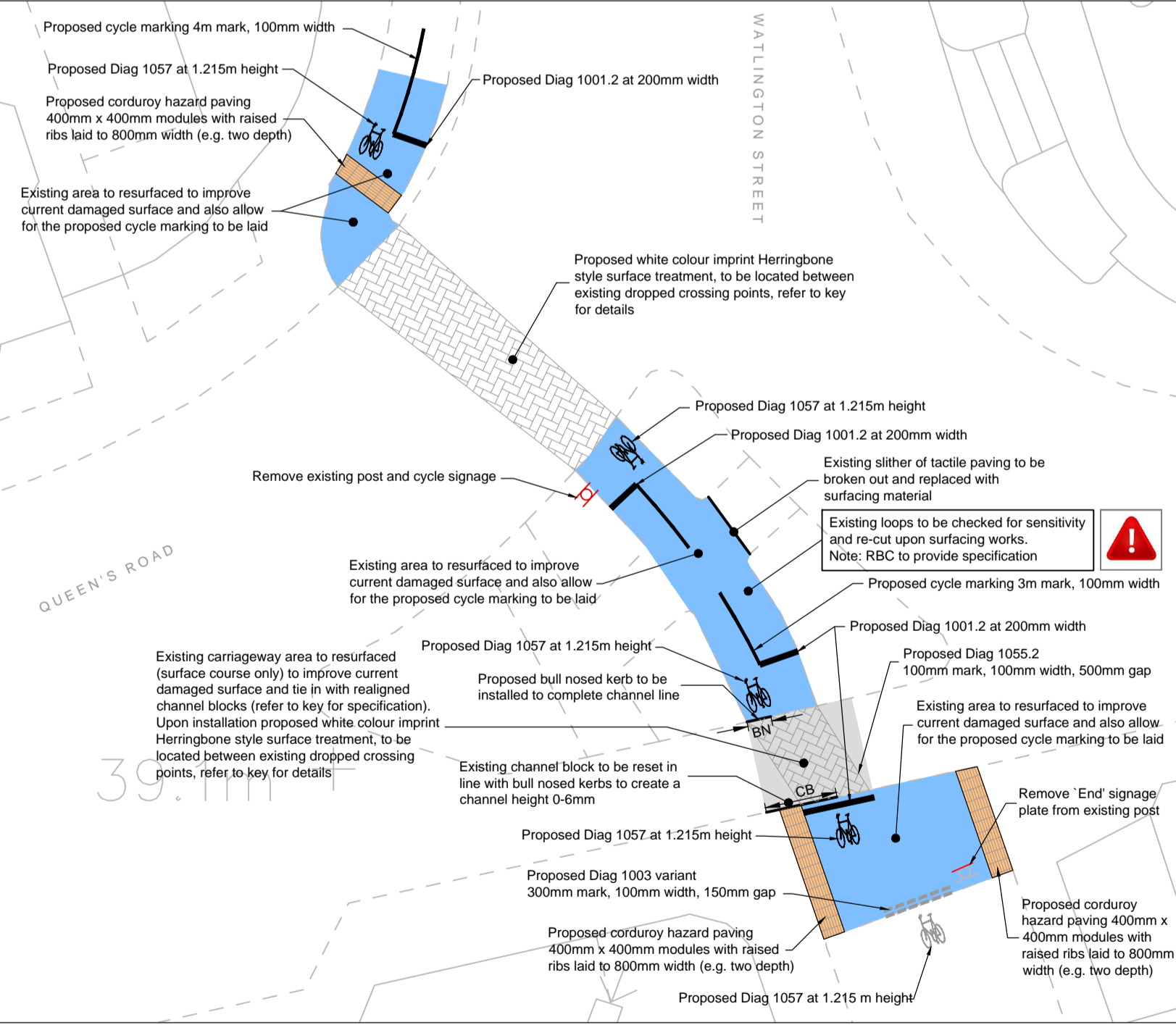
Inset #13 (Scale 1:25)

**Important note:** Trial holes to be carried out to determine presence and exact depth of existing buried services in the vicinity of excavation works



Inset #14 (Scale 1:100)

**Important note:** Trial holes to be carried out to determine presence and exact depth of existing buried services in the vicinity of excavation works



Inset #15 (Scale 1:200)

**Important note:** Trial holes to be carried out to determine presence and exact depth of existing buried services in the vicinity of excavation works

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REV	DATE	BY	DESCRIPTION	CHK	APP
D	25/07/17	IM	CONSTRUCTION ISSUE	PEA	EH
C	17/07/17	PM	RIVERSIDE FENCE NOTE REVISED	PEA	EH
B	14/02/17	CB	CONTRA FLOW & IMPRINT ADDED	PEA	EH
A	17/01/17	CB	FIRST ISSUE	PEA	EH

DRAWING STATUS: ISSUED FOR CONSTRUCTION

CLIENT: READING BOROUGH COUNCIL

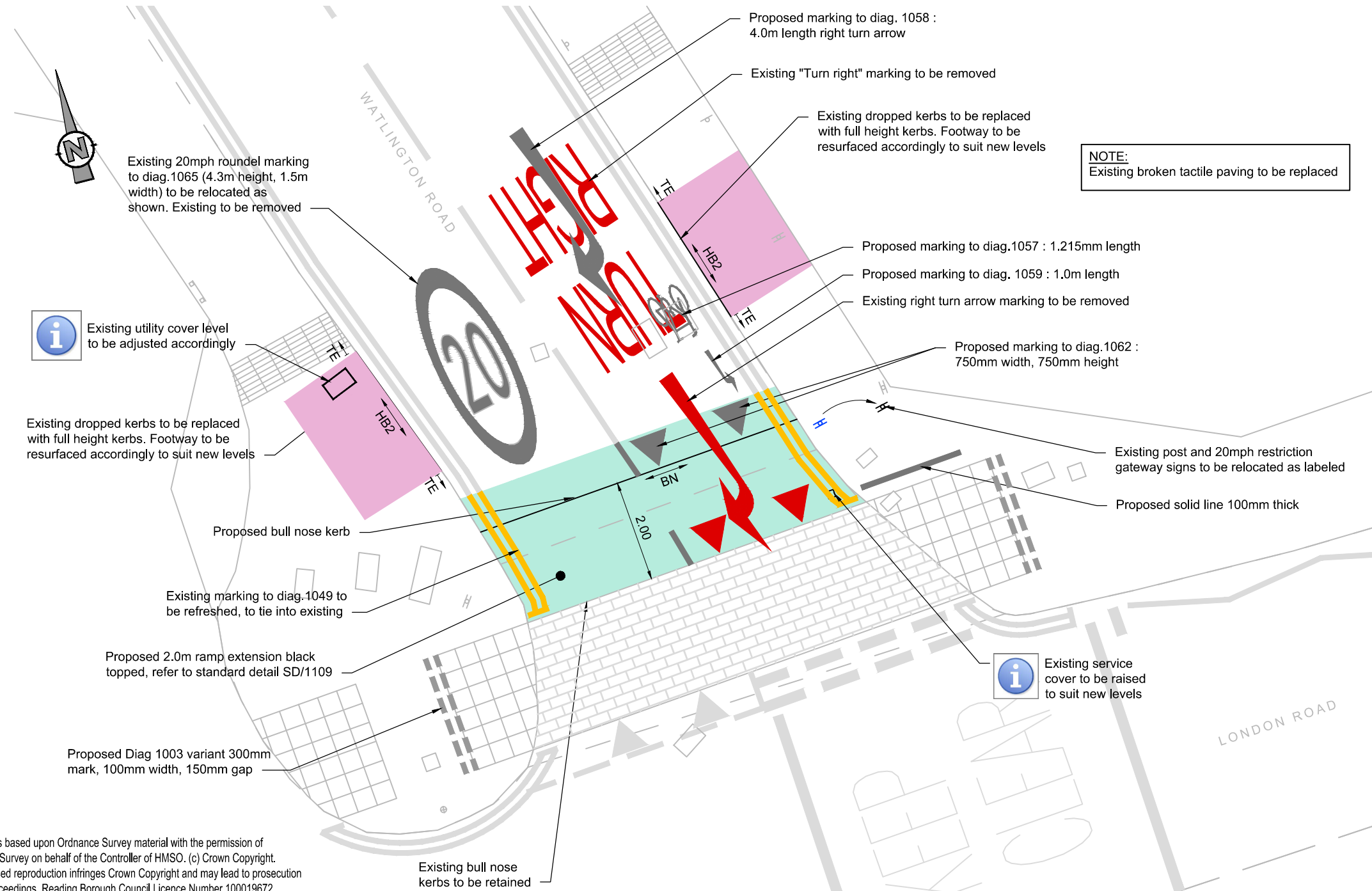
PROJECT: NCN CYCLE ROUTE IMPROVEMENT  
READING

ARCHITECT: PHASE 2  
KENNET SIDE/WATLINGTON STREET  
SHEET 7 OF 8

Working better with you

SCALE @ A1: 1:500	CHECKED: TRA	APPROVED: EH
CAD FILE: NCN422_PH2_GA_007D	DESIGN/DRAWN: OB	DATE: August 2017
PROJECT No: NCN422	DRAWING No: NCN422/GA/007	REV: D

DO NOT SCALE



- Key**
- Items to be removed / broken out and tipped
  - Items to be relocated as specified
  - Proposed full height kerb, refer to RBC standard detail SD/1101
  - Proposed bull nose kerb, refer to RBC standard detail SD/1101
  - Tie into existing kerb line
  - Existing footway construction to be broken out to a depth of 20mm (up to 80mm if required) and shall be prepared for an in-lay. Proposed footway construction shall be:
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    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
 Refer to RBC standard detail SD/1105
  - Proposed road resurfacing to build road hump, refer to standard detail SD/1109 for regulating course and surface course material.
 

**Note:** Reading Borough Council to confirm surface treatment.
  - Road marking to TSRGD specification (white screed)
  - Road marking to TSRGD specification (yellow screed)

**NOTE:**  
Existing broken tactile paving to be replaced



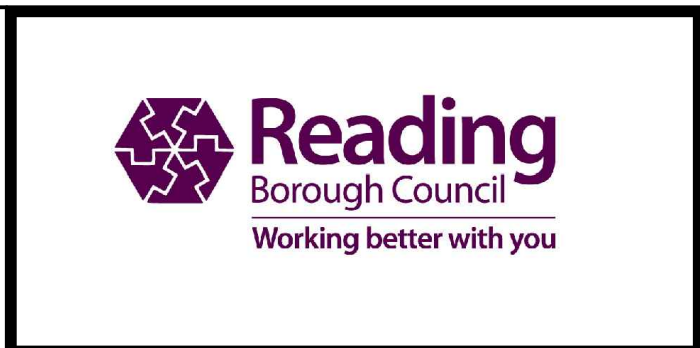
**Important note :**  
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  - cycleways 2.4m
  - verges and non-pedestrian areas as directed by the Engineer (normally) 1.8m.
 If above mounting heights are not achievable due to practical reasons on site, contact the Engineer for further clarification.
12. All signs and street furniture to have a minimal lateral clearance of 450mm from all kerb faces.
13. All non-illuminated signs and supplementary plates to be retroreflective class RA2 material.

B	25.07.17	IM	CONSTRUCTION ISSUE	TRA	EH
A	24.01.2017	OB	FIRST ISSUE	TRA	EH
REV	DATE	BY	DESCRIPTION	CHK	APD
DRAWING STATUS: ISSUED FOR CONSTRUCTION					



CLIENT:  
**READING BOROUGH COUNCIL**

ARCHITECT:  
**F12**

PROJECT:  
**NCN CYCLE ROUTE IMPROVEMENT  
READING**

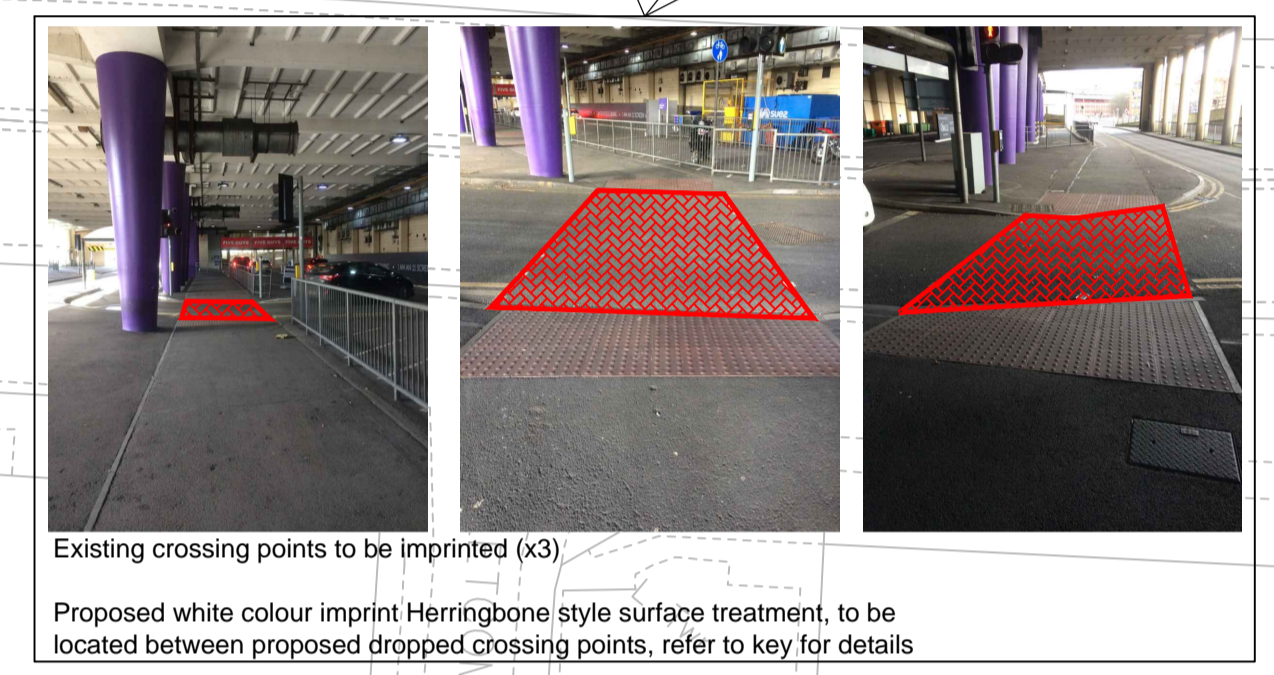
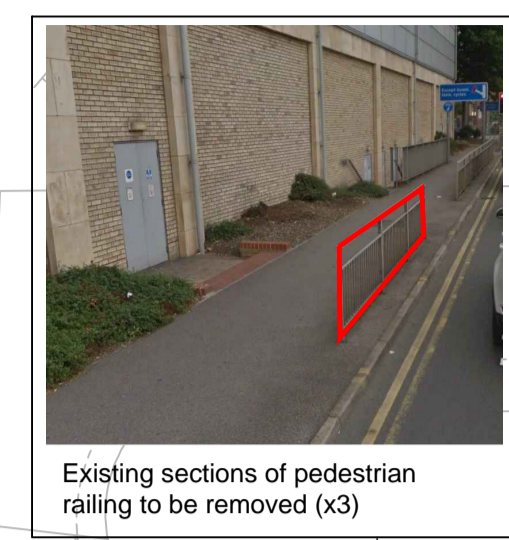
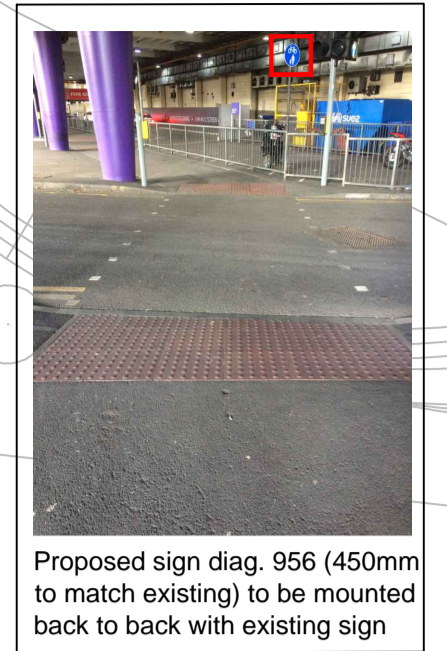
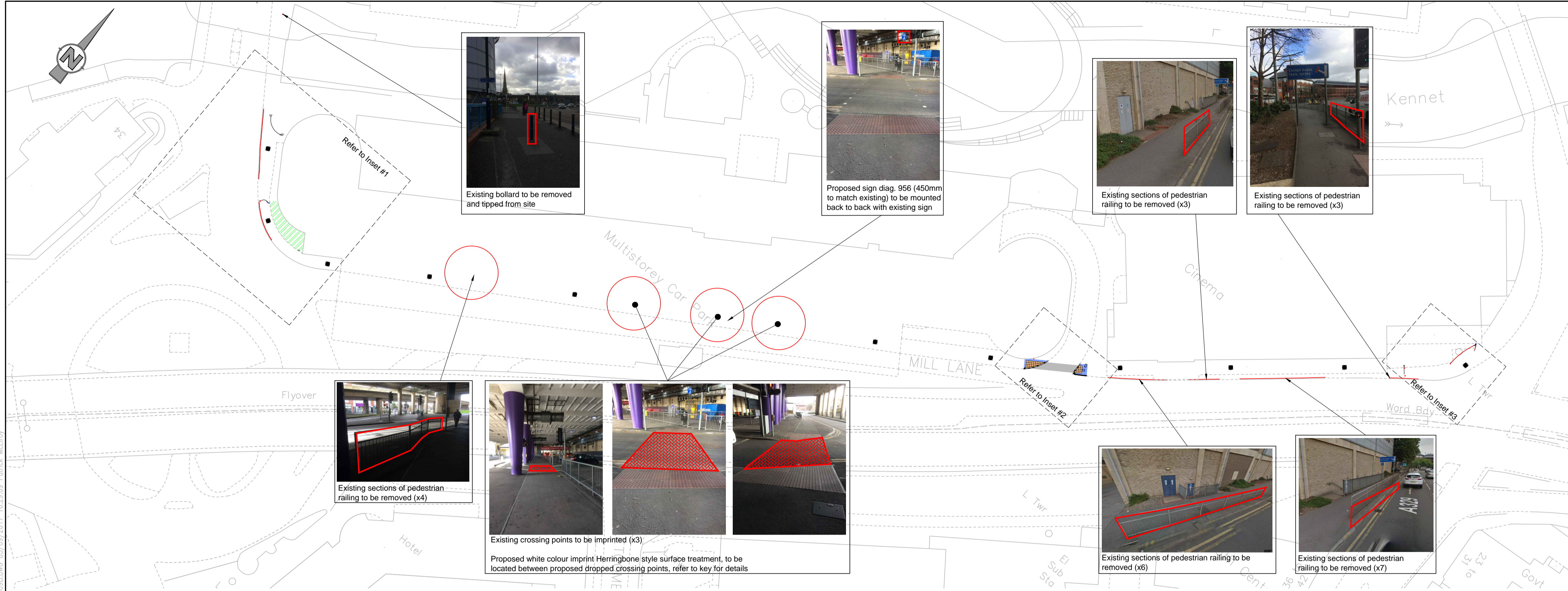
TITLE:  
**PHASE 2  
WATLINGTON ROAD J/W LONDON ROAD  
SHEET 8 OF 8**

SCALE @ A3: 1:100	CHECKED: TRA	APPROVED: EH
CAD FILE: NCN422_PH2_GA_008B	DESIGN-DRAWN: OB	DATE: January 2017
PROJECT No: NCN422	DRAWING No: NCN422/PH2/GA/008	REV: B
<b>© WSP Group plc</b>		

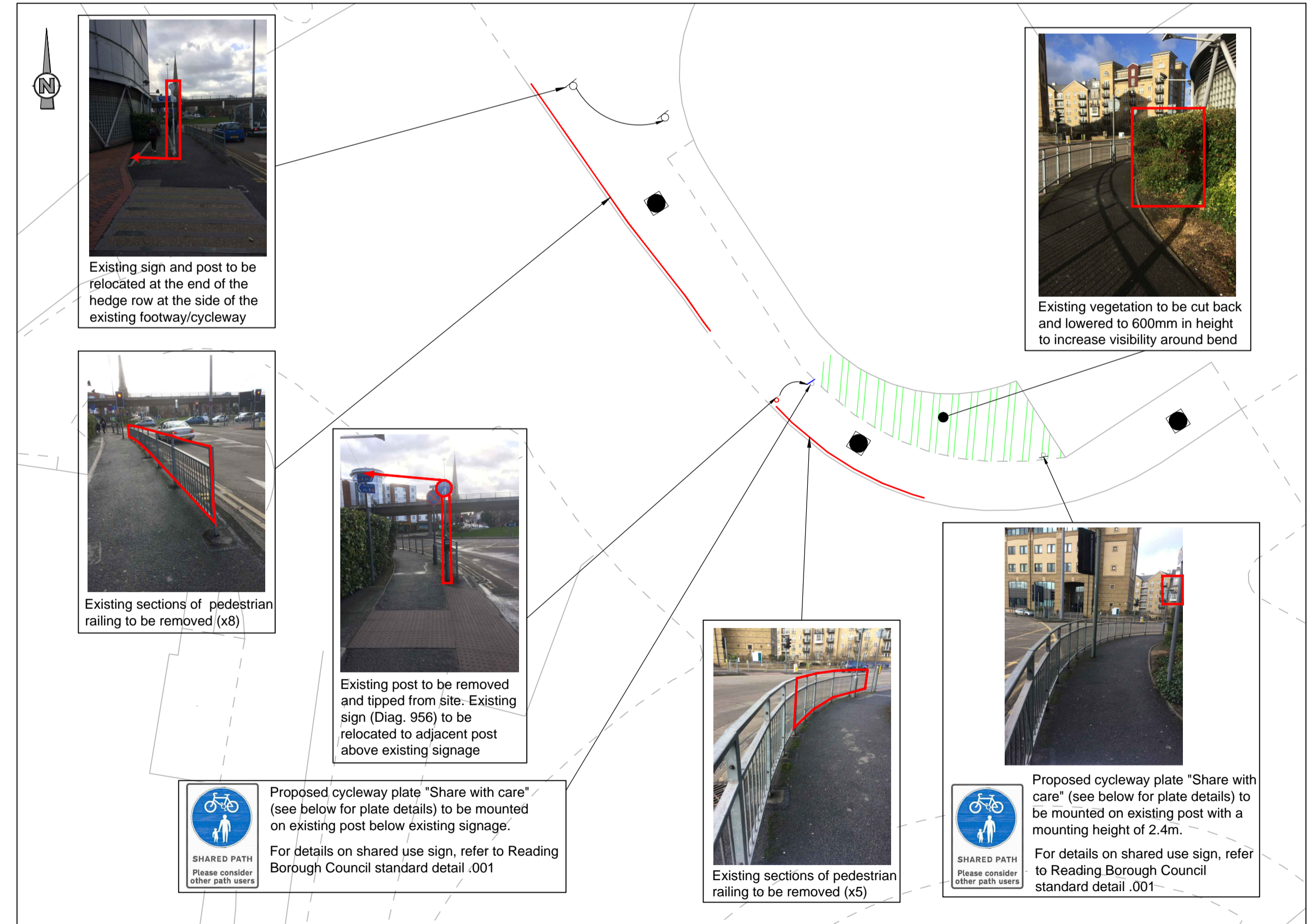
DO NOT SCALE

- Key**
- Item to be removed/broken out
  - Proposed dropped kerb with transitions using a HB2 transition and BN kerb with 0-6m upstand, refer to RBC standard detail SD/1101
  - Proposed concrete bull nosed kerb at 0-6m height, refer to RBC standard detail SD/1101
  - Proposed pre-cast concrete edging
  - Proposed R305mm quadrant, refer to RBC standard detail SD/1101
  - Proposed 5mm thick 400mm x 400mm flags buff colour stick-on tactile paving from JA Tactile System or similar
  - Existing footway construction to be broken out to a depth of 20mm (up to 80mm if required) and shall be prepared for an in-lay including an application of a weed killer. Proposed footway construction shall be:
    - 20mm of 6mm size dense asphalt concrete
    - 60mm of 20mm size asphalt concrete dense binder course (20 nominal size)
    - Refer to RBC standard detail SD/1105
  - Proposed white colour Herringbone pattern imprint surface treatment to the following specifications: Ennis-Fira 'DuraTherm' preformed thermoplastic material inlay into imprinted asphalt to supplier's specifications.
  - Concrete shared use cycle route 'Paragon' tile (450 x 450mm), refer to standard detail NCN422/SD/001. Tile to be located centrally on the footway/cycleway and not across vehicular accesses's.
  - Proposed steel bollard to match existing, RBC to advise specification

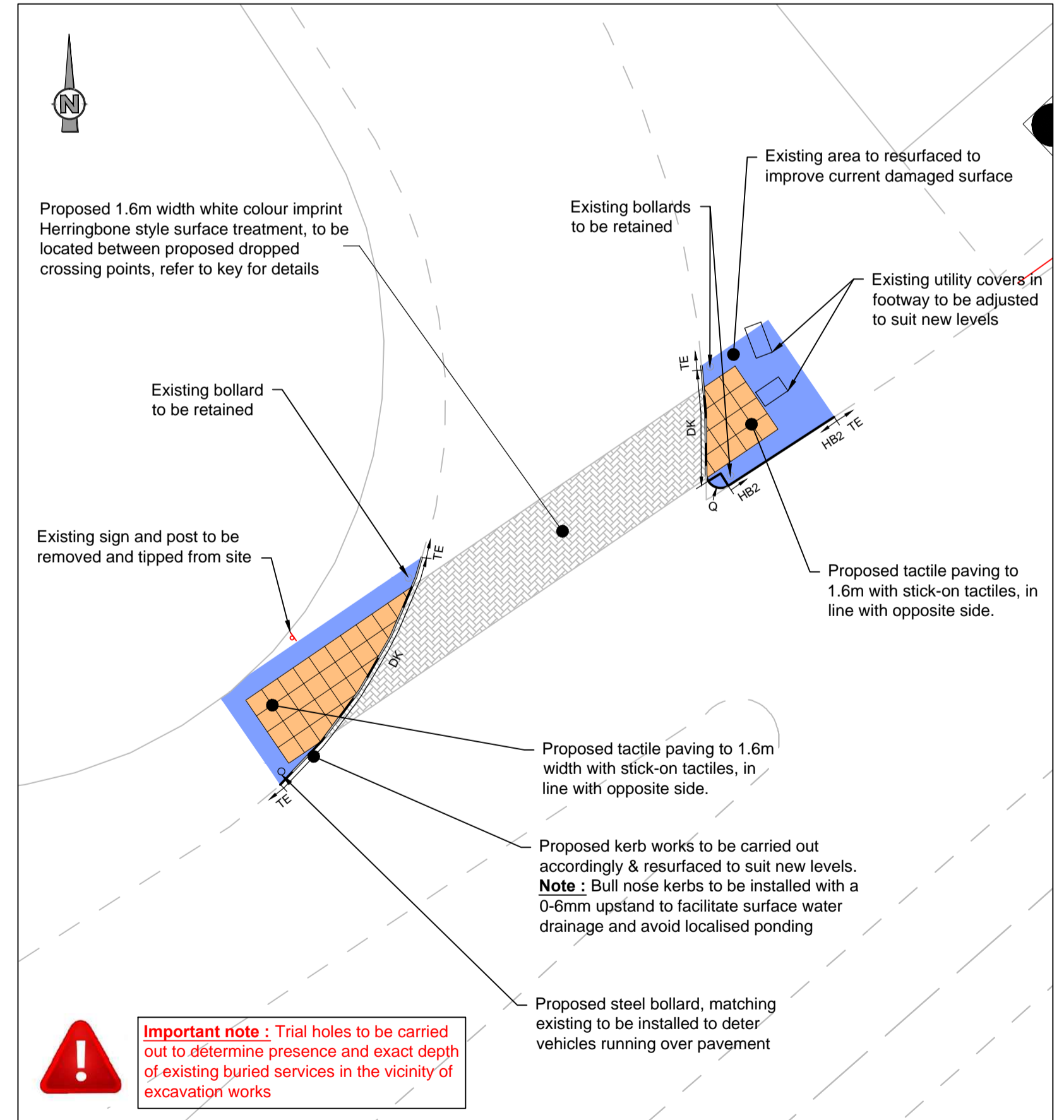
- Notes**
1. All dimensions are in metres unless otherwise stated.
  2. This drawing should be read in conjunction with all other relevant engineering details, drawings & specifications.
  3. Any discrepancies should be reported to the design engineer immediately, so that clarification can be sought prior to the commencement of works.
  4. All works are to be in accordance with Reading Borough Council specifications and standard details.
  5. Contractor to establish all utility and drainage locations and coordinate safe working procedures before any excavation works take place.
  6. Where applicable, existing manhole covers and utility covers are to be adjusted to new surfacing levels before the final surfacing takes place.
  7. The works shall be programmed to ensure a clear footway is available for pedestrians throughout the works on or another side of the carriageway.
  8. All traffic management arrangements to be carried out in accordance with Traffic Signs Manual Chapter 8.
  9. All setting out on site to be agreed with Engineer.
  10. Diagram numbers refer to 'Traffic Signs Regulations and General Directions 2016'.
  11. Mounting heights of all signs to be
    - footway 2.1m
    - cycleway 2.4m
    - verges and non-pedestrian areas as directed by the Engineer (normally 1.8m).
 If above mounting heights are not achievable due to practical reasons on site, contact the Engineer for further clarification.
  12. All signs and street furniture to have a minimal lateral clearance of 450mm from all kerb faces.
  13. All non-illuminated signs and supplementary plates to be retroreflective class RA2 material.



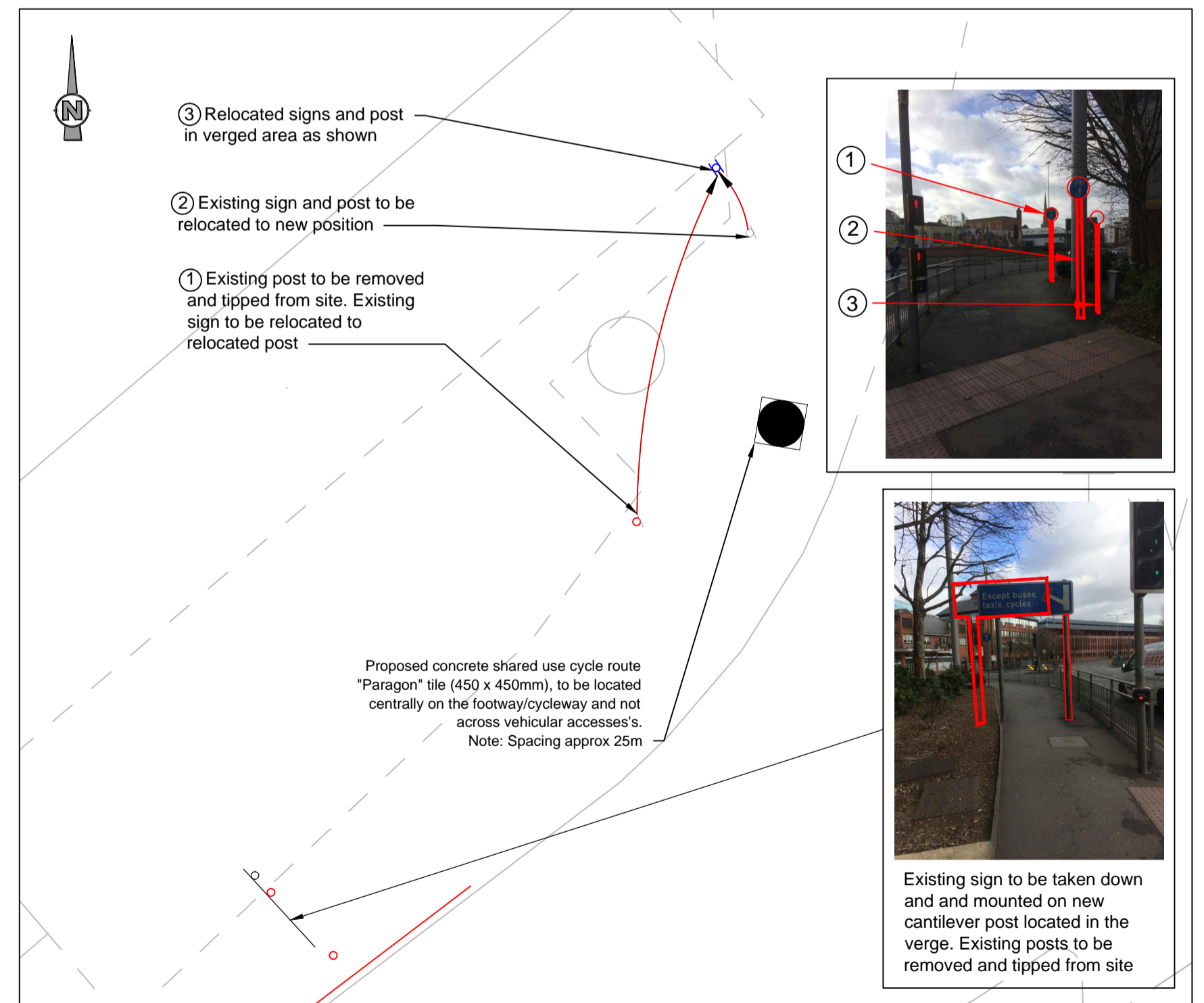
**Important note:**  
Presence of existing services within vicinity of excavation works, including: SGN, SSE HV & LV, BT AND THAMESWATER. Refer to stats information provided.  
Proposed design developed without trial holes information. RBC to carry out necessary investigation prior to works.



Inset #1 (Scale 1:200)



Inset #2 (Scale 1:100)



Inset #3 (Scale 1:100)

REV	DATE	BY	DESCRIPTION	CHK	APP
B	25/07/17	PMc	QUARD RAILING BETWEEN CAR PARK PILLARS RETAINED FOLLOWING RBC INSTRUCTION	TEA	ESH
A	30/05/2017	PMc	FIRST ISSUE	TEA	ESH

DRAWING STATUS: ISSUED FOR CONSTRUCTION

CLIENT: READING BOROUGH COUNCIL

ARCHITECT: READING BOROUGH COUNCIL  
Working better with you

PROJECT: NCN CYCLE ROUTE IMPROVEMENTS READING

TITLE: PHASE 2 MILL LANE / A329 GENERAL ARRANGEMENT

SCALE @ A1: 1:500

CHECKED: TRA

DESIGN/DRAWN: PMc

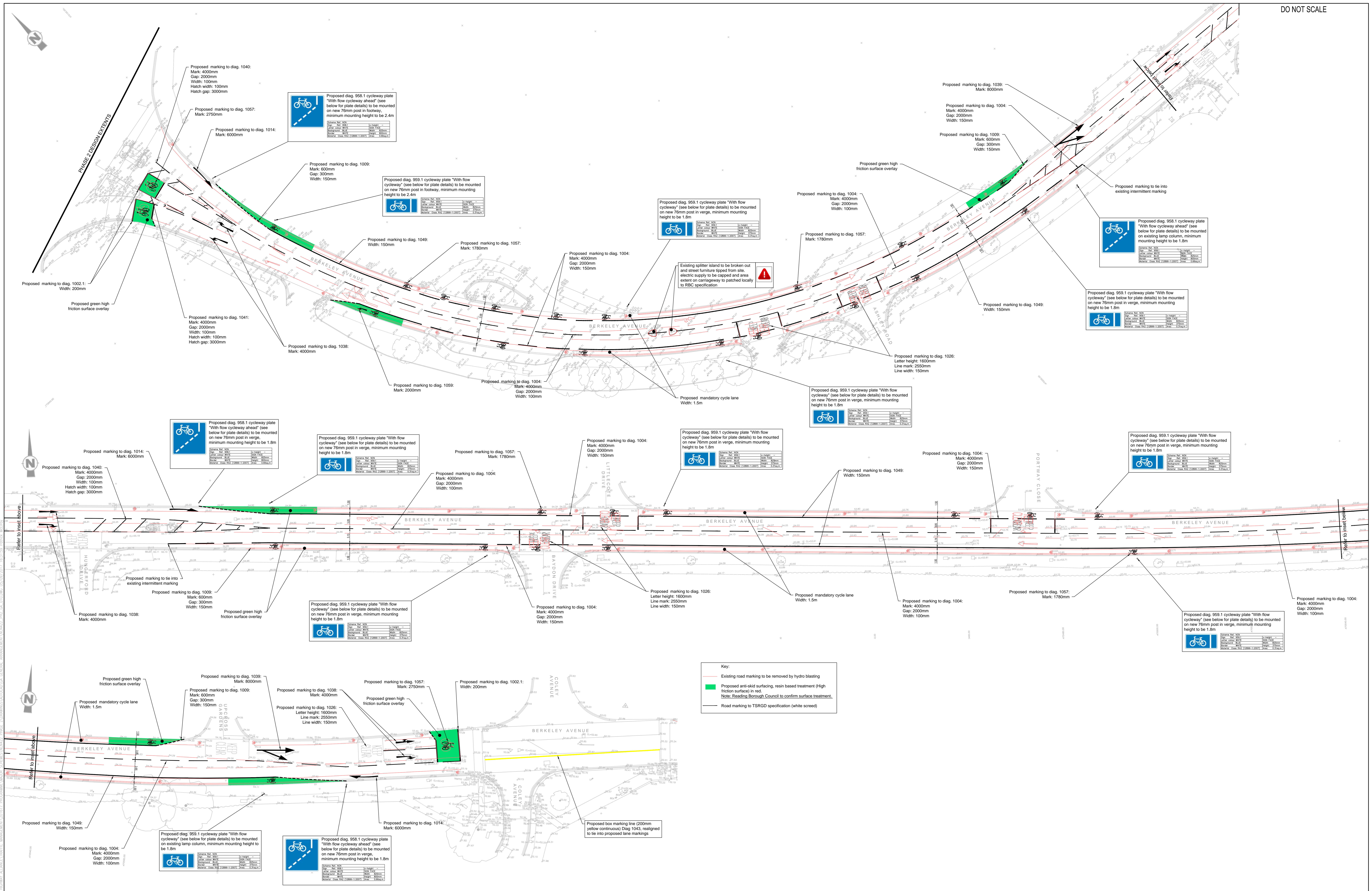
PROJECT No: NCN422

DRIVING No: NCN422/PH2/GA/009

APPROVED: EH

DATE: March 2017

REV: B



REV	DATE	BY	DESCRIPTION	CHK	APP
1	14.09.17	M	REV MARKING REALISED & CONSTRUCTION ISSUE	TRA	BT
2	13.07.17	M	FINAL ISSUE	TRA	BT

AS CONSTRUCTED DRAWING

Reading Borough Council  
Working better with you

READING BOROUGH COUNCIL  
NON CYCLE ROUTE IMPROVEMENT  
READING  
PHASE 2  
BERKELEY AVENUE ON-ROAD FACILITY  
SHEET 1 OF 2

SCALE (A3)	1:250	CHECKED	TRA	APPROVED	BT
CAD FILE	NCN422_P2_GA_010	DESIGNED BY	TRA	DATE	July 2017
PROJECT NO.	NCN422	DRAWING NO.	NCN422/GA/010	REV.	B

