# **Transport for London**

# A503 Seven Sisters Road & Tollington Road Cycleway 50 Phase 1

Stage 2 Road Safety Audit

Ref: 3997/003/A503/TLRN/2022

Prepared for:

TfL Investment Delivery Planning (IDP)

By:

Road Safety Audit TfL Engineering – Roads, Streets and Places (RS&P)

Prepared by: Audit Team Leader

Checked by: Audit Team Member

Approved by:

Version	Status	Date
Α	Audit report issued to Client	22/07/22
В	Designer Responses	29/07/22



#### 1.0 INTRODUCTION

#### 1.1 Commission

- 1.1.1 This report results from a Stage 2 Road Safety Audit carried out on the A503 Seven Sisters Road and Tollington Road Cycleway 50 Phase 1 proposals.
- 1.1.2 The Audit was undertaken by TfL Road Safety Audit in accordance with the Audit Brief issued by the Client Organisation on 27 June 2022. It took place at the Palestra offices of TfL on 01 July 2022 and comprised an examination of the documents provided as listed in Appendix A, plus a visit to the site of the proposed scheme.
- 1.1.3 The visit to the site of the proposed scheme was made by the Audit Team together on 01 July 2022. During the site visit the weather was sunny and the existing road surface was dry.

#### 1.2 Terms of Reference

- 1.2.1 The Terms of Reference of this Audit are as described in TfL Procedure SQA-0170 dated May 2014. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and how it impacts on all road users and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit. An absence of comment relating to specific road users / modes in Section 3 of this report does not imply that they have not been considered; instead the Audit Team feels they are not adversely affected by the proposed changes.
- 1.2.2 This Safety Audit is not intended to identify pre-existing hazards which remain unchanged due to the proposals; hence they will not be raised in Section 3 of this report as they fall outside the remit of Road Safety Audit in general as specified in the procedure SQA-0170 dated May 2014. Safety issues identified during the Audit and site visit that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, are set out in Section 4 of this report.
- 1.2.3 Nothing in this Audit should be regarded as a direct instruction to include or remove a measure from within the scheme. Responsibility for designing the scheme lies with the Designer and as such the Audit Team accepts no design responsibility for any changes made to the scheme as a result of this Audit.
- 1.2.4 In accordance with TfL Procedure SQA-0170 dated May 2014, this Audit has a maximum shelf life of 2 years. If the scheme does not progress to the next stage in its development within this period, then the scheme should be re-audited.
- 1.2.5 Unless general to the scheme, all comments and recommendations are referenced to the detailed design drawings and the locations have been indicated on the plan located in Appendix B.
- 1.2.6 It is the responsibility of the Design Organisation to complete the Designer's response section of this Audit report. Where applicable and necessary it is the responsibility of the Client Organisation to complete the Client comment section of this Audit report. Signatures from both the Design Organisation and Client Organisation must be added within Section 5 of this Audit report. A copy of which must be returned to the Audit Team.

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#### 1.3 Main Parties to the Audit

1.3.1 Client Organisation

Client contact details: , TfL IDP

1.3.2 Design Organisation

Design contact details: , Eurovia

1.3.3 Audit Team

Audit Team Leader: - TfL Road Safety Audit

Audit Team Member: - TfL Road Safety Audit

Audit Team Observer: None

1.3.4 Other Specialist Advisors

Specialist Advisor Details: None

#### 1.4 Purpose of the Scheme

1.4.1 The purpose of the scheme is to deliver a segregated with-flow cycle track and other improvements including new or upgraded pedestrian crossings, lower speed limits and enhanced public realm and bus infrastructure\*.

#### 1.5 Special Considerations

1.5.1 The Audit Team has no special considerations to raise.

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<sup>\*</sup>Taken directly from the Audit Brief.

#### 2.0 ITEMS RAISED IN PREVIOUS ROAD SAFETY AUDITS

The proposals were subject to a Stage 1 Road Safety Audit carried out in November 2021 by TfL (ref: 3854/003/A503/TLRN/2021). Items raised in that report can be summarised as follows:

Problem 3.1.1 Eastbound approach to Fonthill Road junction - Risk of side-swipe collisions between cyclists and general traffic through the junction at the Seven Sisters Road Fonthill Road junction.

This problem has been given due consideration and is not revisited in this Stage 2 RSA report.

Problem 3.1.2 Tollington Road/Hornsey Road junction, right turn movement - Risk of collisions between turning HGVs and cyclists in the ASL/pedestrians on the west side of the crossing at the junction of Tollington Road and Hornsey Road.

This problem is considered to be resolved by the amended design.

Problem 3.1.3 Tollington Road/Holloway Road junction, westbound exit - Risk of scissor conflict between traffic heading to Caledonian Road and cyclists heading to Camden Road..

This problem has been given due consideration and is not revisited in this Stage 2 RSA report.

Problem 3.1.4 Warlters Road Toucan crossing - Risk of collisions between pedestrians and cyclists on the north side of Camden Road at Warlters Road Toucan Crossing.

This problem appears to remain and is revisited in this Stage 2 RSA report in problem 3.1.3.

Problem 3.1.5 Holloway Road and Hornsey Road junctions with Seven Sisters Road - Risk of left/right hook collisions between vehicles turning onto Seven Sisters Road from Hornsey Road and Holloway Road and cyclists moving to the offside cycle facility.

This problem has been partially resolved and the outstanding issue has been revisited in this Stage 2 RSA report in problem 3.1.1.

Problem 3.1.6 Western end of the scheme, start of the offside cycle track - Risk of collisions between cyclists attempting to join the start of the cycle track at the junction of Holloway Road and general traffic on Seven Sisters Road.

This problem has been given due consideration and is not revisited in this Stage 2 RSA report

#### 3.0 ITEMS RAISED AT THIS STAGE [1/2] ROAD SAFETY AUDIT

This section should be read in conjunction with Paragraphs 1.2.1, 1.2.2 and 1.2.3 of this report.

#### 3.1 CYCLISTS

#### 3.1.1 PROBLEM

**Location**: A – Holloway Road junction with Seven Sisters Road.

Summary: Risk of left hook collisions between vehicles turning onto Seven

Sisters Road and cyclists moving to offside cycle facility.

Cyclists travelling from Holloway Road southbound to the proposed eastbound offside cycle track in Seven Sisters Road may be at increased risk of left hook collisions due to drivers failing to anticipate their movements, resulting in scissor movements on the junction exit.

#### RECOMMENDATION

Measures should be introduced to reduce the risk of left hook collisions and increase road user awareness of the cycle track being on the offside on Seven Sisters Road. In the previous designer's response, mitigation proposed included the introduction of early release facilities and map type signage. However, neither of these appear to have been proposed in the current scheme.

#### **Design Organisation Response**

#### Accepted / Part Accepted / Rejected

Early stage release has not been incorporated into the traffic signal design and modelling. However, as noted in the RSA1, it was agreed to incorporate the maptype signs. These were designed and unfortunately the viewports were missed in the layouts. This will be amended in the detailed design version [P02] to include a maptype sign on the Northern and Southern approach of Hornsey Road

#### **Client Organisation Comments**

These will be included in the detailed design.

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#### 3.1.2 PROBLEM

**Location**: B – Seven Sisters Road, loading bay outside Tesco.

**Summary**: Refuse cages left on footway could increase risk of cyclist colliding

with pedestrians crossing to loading bay at dropped kerb.

The audit team observed that large, full refuse cages associated with the Tesco store had been left adjacent to the kerb immediately to the west of the proposed dropped kerb at the eastern end of the loading bay outside the store. These could reduce intervisibility between cyclists travelling eastbound in the proposed cycle track and pedestrians crossing to the cycle track to access the loading bay, causing a collision between the two.



#### RECOMMENDATION

The layout should be amended to ensure that suitable intervisibility between cyclists and pedestrians is maintained.

#### **Design Organisation Response**

#### Accepted / Part Accepted / Rejected

In order to provide a solution to mitigate this operational issue, which is outside of the scope of works., the design could be altered to provide the pedestrian ramp ahead of the anticipated obstruction This would in theory create visibility but cannot guarantee visibility as there is no control of the obstruction and its location or type.

If it is assumed that the obstructions would be retained outside property number 132, it may be ideal to alter the pedestrian dropped kerb to be installed in front of property 130.

There are no physical obstructions that restrict the relocation of the proposed dropped kerb and resulting ramp, however there are several utility chambers and several underground utility runs detected without ownership and with a very low accuracy.

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The risks associated with the current location are the same in nature and equivalent in scale if a location outside property number 130 is adopted.

It must be noted that the provision of the ramp would then be at the tail end of the parking cage and would required the pedestrian to continue along the 1.0m wide buffer area to access their vehicle. This is a negligible risk for collision when an able bodied person is making the movement, however a wheelchair user would possibly occupy the buffer for a few seconds longer increasing the risk of interaction/collision with a cyclist.

#### **Client Organisation Comments**

As the designer comments, this is a temporary operational problem and the cages should not be left outside on the pavement so as to cause an obstruction. If this situation was ongoing, enforcement officers would need to be deployed to deal with the obstruction rather than a permanent design amendment to deal with a potential temporary issue.

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#### 3.1.3 PROBLEM

Location: C – Warlters Road Toucan Crossing

Summary: Risk of collisions between pedestrians and cyclists on the north side of

Camden Road.

The layout of the Toucan crossing by Warlters Road is unusual in that cyclists appear to be intended to cross from the southern dropped kerb but then remain on the carriageway on the north side of Camden Road, despite the northern footway being designated as shared use immediately around the crossing point. While map-type signing is proposed for cyclists from the south, it is not immediately apparent from these that cyclists are required to remain on the carriageway and this may result in cyclists continuing onto the northern footway and then joining Warlters Road from the raised table at the junction, risking conflict with pedestrians.

#### RECOMMENDATION

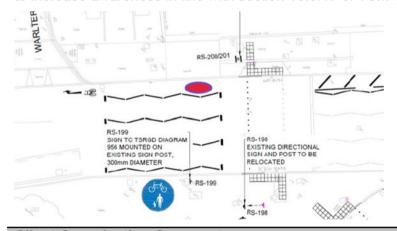
Measures to clarify the intended route for cyclists should be provided. This may include, but is not limited to, additional road markings immediately adjacent to the Toucan crossing to inform cyclists that they are required to remain on the carriageway once they have crossed Camden Road.

#### **Design Organisation Response**

#### Accepted / Part Accepted / Rejected

This has been addressed within the previous RSA1 problem D section 3.1.4 and was signed off with the intention of retaining the proposed layout without any variation.

An additional cycle logo 1057 could be placed at the entry to the kerb side cycle lane to increase awareness in line with section 15.8.17 of TSM Chapter 6.



#### **Client Organisation Comments**

Agree with the Designer's response. It is understood, however, that a sign in the location suggested would not comply with the requirement that zig-zag markings may not have any other road markings in parallel, therefore, should not be installed.

#### 3.1.4 PROBLEM

**Location**: D – Caledonian Road Toucan Crossing

Summary: Narrow Toucan crossing may result in collisions between pedestrians

and cyclists crossing Caledonian Road.

The width of the proposed Toucan crossing across Caledonian Road is below minimum standards and may result in pedestrians being struck by cyclists when demand is high.

#### RECOMMENDATION

Provide a facility of sufficient width to accommodate the expected flows of pedestrians and cyclists across Caledonian Road.

#### **Design Organisation Response**

#### Accepted / Part Accepted / Rejected

While the recommended width for a toucan is 4.0m and minimum of 3.6m, widths of 3.0m have been successful on some sites. The scheme is temporary in nature and widening of the crossing could be considered if the scheme is to be retained as a permanent scheme.

However, widening of crossing would impact the approach queue to the crossing backing into the Holloway junction. Physically the crossing could be widened if the proposed signal poles can be installed, however there is a risk of interaction with underground utilities in the eastern footway.

#### **Client Organisation Comments**

Agree with the designers comments. However, as this scheme is operating on a trial basis, this is a location where a wider crossing presents additional challenges to implement. Therefore, a wider crossing can be considered if the trial identifies that it is an issue.

#### 3.1.5 PROBLEM

**Location**: E – Bus Stop Bypass on Isledon Road immediately west of Parkside

Crescent

Summary: Raised highway gully in cycle track may impede cyclists, increasing

the risk of them falling from their cycle

The proposals to introduce an at-grade cycle bypass at the bus stop immediately west of Parkside Crescent requires an existing highway gully cover to be raised to the level of the cycle track. This is not shown to be a cycle friendly cover and the audit team is concerned that retention of the existing gully cover may result in cyclists wheels being impeded, causing cyclists to fall.

#### RECOMMENDATION

Provide appropriate cycle friendly gully covers where they are located within the cycle track.

#### **Design Organisation Response**

#### Accepted / Part Accepted / Rejected

All proposed covers are specified to BS EN 124 which has the requirement of skid resistance. Gully covers in cycle ways are also proposed as cycle friendly in the

specification and standard details. This is all covered within the 500 detailed design series and project specification.

#### **Client Organisation Comments**

Agree with the designers comments. Cycle friendly covers are to be provided.

#### 3.2 PEDESTRIANS

#### 3.2.1 PROBLEM

**Location**: F – Footway buildout on Seven Sisters Road opposite Salterton Road.

Summary: Lack of footway channel may increase the risk of ponding and cause

pedestrians to slip during winter months.

The proposals widen the southern footway opposite Salterton Road. It would appear that, while the proposals raise the existing carriageway gullies covers to footway level, there are no proposals to introduce a footway channel at the interface between the existing footway and the proposed. This could lead to an increased risk of ponding at this location as the audit team observed that the new footway is likely to drain away from the carriageway towards the existing footway. During the winter months this surface water could freeze, increasing the risk that pedestrians may slip and fall.

#### RECOMMENDATION

Provide appropriate means of draining the footway along the length of the proposed widening.

#### **Design Organisation Response**

#### Accepted / Part Accepted / Rejected

Drainage design is indicated in detailed design series 500 and the setting out and contours series 011 indicates the resulting contours for this. The existing kerbline is to remain and serve as a channel where the existing carriageway gullies will be adjusted to the new footway level to capture the existing footway surface runoff and the buildout runoff, which is negligible in catchment.

#### **Client Organisation Comments**

Agree with the Designer's comments. Appropriate drainage is included in the design.

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#### 3.3 ROAD GEOMETRY

#### 3.3.1 PROBLEM

**Location**: G – Bus Stop Bypass on Isledon Road immediately west of Parkside

Crescent.

**Summary:** Lack of end of bus lane signs may increase risk of side-swipe

collisions.

No signs are proposed to indicate to drivers that the westbound bus lane on Isledon Road terminates immediately after the bus stop bypass adjacent to Parkside Crescent. Consequently, drivers travelling in the offside general traffic lane may not expect buses to merge in with general traffic, increasing the risk of side-swipe collisions.

#### RECOMMENDATION

Provide appropriate signs to inform drivers that buses will be rejoining the general traffic lane west of the bus stop bypass.

#### **Design Organisation Response**

#### Accepted / Part Accepted / Rejected

As the bus will be required to merge into the through lane, it is the bus driver who needs to merge only when it is safe to do so. The vehicles within the through lane will have right of way however, based on Highway Code rule 223, general traffic is to give way to busses when they can so do safely, especially when they signal to pull away from stops.

#### **Client Organisation Comments**

Agree with Designers response.

End of list of problems identified and recommendations offered in this Stage 2 Road Safety Audit

# 4.0 ISSUES IDENTIFIED DURING THE STAGE 2 ROAD SAFETY AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

Safety issues identified during the audit and site inspection that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, are set out in this section. It is to be understood that, in raising these issues, the Audit Team in no way warrants that a full review of the highway environment has been undertaken beyond that necessary to undertake the Audit as commissioned.

#### 4.1 ISSUE

**Location**: 1 – Various

Reason considered to be outside the Terms of Reference: For consideration, not safety related.

The proposals show new signs to be erected on existing lighting columns. The Audit Team observed on site that, in several locations, the lighting columns were missing. The designers should confirm with TfL that these lighting columns are expected to be replaced and, if not, propose alternative posts.

#### **Design Organisation Response**

Accepted / Part Accepted / Rejected

As agreed in TAA discussion meeting, a note will be added to the sign schedule to reflect lamp columns that are subject to maintenance and/or verification at the onset of the construction works.

#### **Client Organisation Comments**

Agree with Designers response.

#### 4.2 ISSUE

Location: 2 – Various

Reason considered to be outside the Terms of Reference: Drawing anomaly

At a number of locations, proposals shown on the General Arrangement Drawings to remove or relocate existing road markings did not align with the proposals shown on the site clearance drawings. These should be reviewed to ensure the drawing series are consistent

#### **Design Organisation Response**

Accepted / Part Accepted / Rejected

Noted and to be corrected in detailed design version [P02]

#### **Client Organisation Comments**

Agree with Designers response.

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#### 4.3 ISSUE

Location: 3 – Various

Reason considered to be outside the Terms of Reference: Item for consideration rather than safety related.

At a number of locations the proposals introduce a new traffic island on the approach to pedestrians crossings, presumably to accommodate new traffic signal infrastructure. The drawing series do not show the location of the traffic signals and it is not clear whether the new traffic islands will be long enough to accommodate the signal infrastructure appropriately set back from the stopline in the cycle track. This should be confirmed and the islands extended where required.

#### Design Organisation Response Accepted / Part Accepted / Rejected

X ref frozen, will be corrected in detailed design [P02]

#### **Client Organisation Comments**

Agree with Designers response.

#### 4.4 ISSUE

**Location**: 4 – Caledonian Road adjacent to Toucan crossing

Reason considered to be outside the Terms of Reference: Item for consideration rather than safety related.

The proposals show the introduction of a short section of contraflow mandatory cycle lane to facilitate access to the Toucan crossings across Caledonian Road and Camden Road. It is not clear from the proposals who this facility will cater for as Caledonian Road is one-way southbound and all vehicles (including cyclists) exiting Biddlestone Road are required to turn left. The purpose of this facility should be clarified and removed if it is not required.



#### **Design Organisation Response**

Accepted / Part Accepted / Rejected

The proposed short section of contraflow mandatory cycle lane and adjoined dropped kerb in this location were proposed to facilitate connection of future contraflow mandatory cycle lane along Caledonian Road as part of Section 2 of the scheme. However, since implementation of Section 2 is now unlikely to follow implementation of Section 1 immediately, the proposal of this section of contraflow mandatory lane will be omitted from the design, as well as proposed way finding sign

RS-197. The dropped kerb will be retained in the design as proposed to avoid additional future works.

#### **Client Organisation Comments**

Agree with designers' proposal to omit this from the design.

#### 4.5 ISSUE

**Location**: 5 – Tollington Road west of supermarket servicing access/egress

Reason considered to be outside the Terms of Reference: Item for consideration rather than safety related.

The proposals show the introduction of a bus stop bypass immediately west of the servicing gate for the supermarket. The introduction of the bus stop bypass will require the removal of several trees that appear to have been planted since the topographical survey was undertaken. This would appear to not be in accordance and current Mayoral policy on the removal of green estate and should be reviewed to ensure the removal of these trees is permitted. It may require the alignment of the cycle track to be amended.



#### **Design Organisation Response**

Accepted / Part Accepted / Rejected

These were planted between Jan to May 2021 and omitted from the topo. TfL will liaise with Arboricultural team and determine requirements for the removal and relocation of these trees. Alternative locations will be explored to limit net impact on planting.

#### **Client Organisation Comments**

Agree with Designers response.

#### 5.0 SIGNATURES AND SIGN-OFF

#### 5.1 AUDIT TEAM STATEMENT

We certify that we have examined the drawings and documents listed in Appendix A of this Safety Audit report. The Road Safety Audit has been carried out in accordance with TfL Procedure SQA-0170 dated May 2014, with the sole purpose of identifying any feature that could be removed or modified in order to improve the safety of the measures. The problems identified have been noted in this report together with associated suggestions for safety improvements that we recommend should be studied for implementation.

No one on the Audit Team has been involved with the design of the measures.

#### **AUDIT TEAM LEADER:**

Name: Signed: BEng (Hons), CEng, MCIHT, MSoRSA

Date: 22/07/2022

Name:

Organisation: Transport for London, Road Safety Audit

Engineering – Roads, Streets and Places

Address: 3<sup>rd</sup> Floor Palestra, 197 Blackfriars Road, London, SE1 8NJ

Contact:

#### **AUDIT TEAM MEMBER:**

Name: PGCert, BA (Hons), MCIHT, MSoRSA

Sig

Date: 22/07/2022

Organisation: Transport for London, Road Safety Audit

Engineering – Roads, Streets and Places

Address: 3<sup>rd</sup> Floor Palestra, 197 Blackfriars Road, London, SE1 8NJ

Contact:

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#### 5.2 DESIGN TEAM STATEMENT

In accordance with SQA-0170 dated May 2014, I certify that I have reviewed the items raised in this Stage 2 Safety Audit report. I have given due consideration to each issue raised and have stated my proposed course of action for each in this report. I seek the Client Organisation's endorsement of my proposals.

Name:

Position: Design Manager

Organisation: Eurovia

**Signed: Dated:** 27-09-22

#### 5.3 CLIENT ORGANISATION STATEMENT

I accept these proposals by the Design Organisation.

Name:

Position: Lead Sponsor

Organisation: Transport for London

Signed: Dated: 11 October 2022

Date: 22/07/2022 fL R E S T R I C T E D 16 Version: A

### **APPENDIX A**

## **Documents Forming the Audit Brief**

#### **DRAWING NUMBER**

#### STPJ271-EURIL-010-03\_01-DRG-CE-001-011 STPJ271-EURIL-020-03\_01-DRG-CE-001-011 STPJ271-EURIL-050-03\_01-DRG-CE-001-011 STPJ271-EURIL-060-03\_01-DRG-CE-001-011 STPJ271-EURIL-110-03\_01-DRG-CE-001-011 STPJ271-EURIL-120-03\_01-DRG-CE-001-011 STPJ271-EURIL-120-03\_01-DRG-CE-001-011 STPJ271-EURIL-400-03\_01-DRG-CE-001-002

#### **DRAWING TITLE**

General Arrangement Site Clearance Drainage Earthworks Pavements Kerbs, footways Signs, markings Street Furniture

#### **DOCUMENTS**

# **DETAILS** (where appropriate)

Safety Audit Brief
Site Location Plan
☐ Traffic signal details
TfL signal safety checklist
☐ Departures from standard
☐ Previous Road Safety Audits
Previous Designer Responses
Collision data
☐ Collision plot
☐ Traffic flow / modelling data
Pedestrian flow / modelling
data
☐ Speed survey data
Other documents

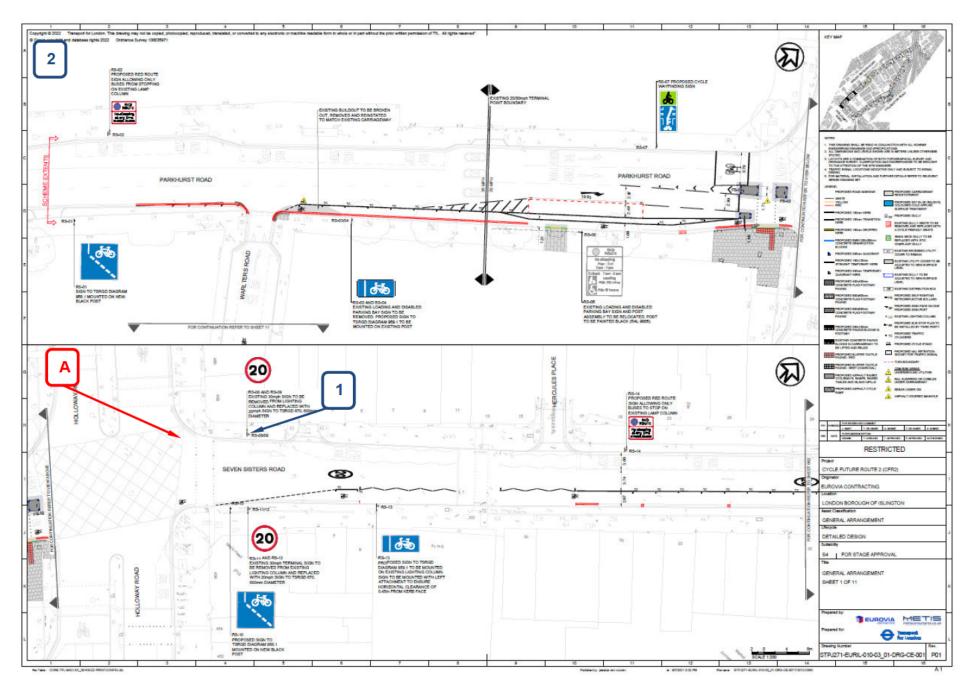
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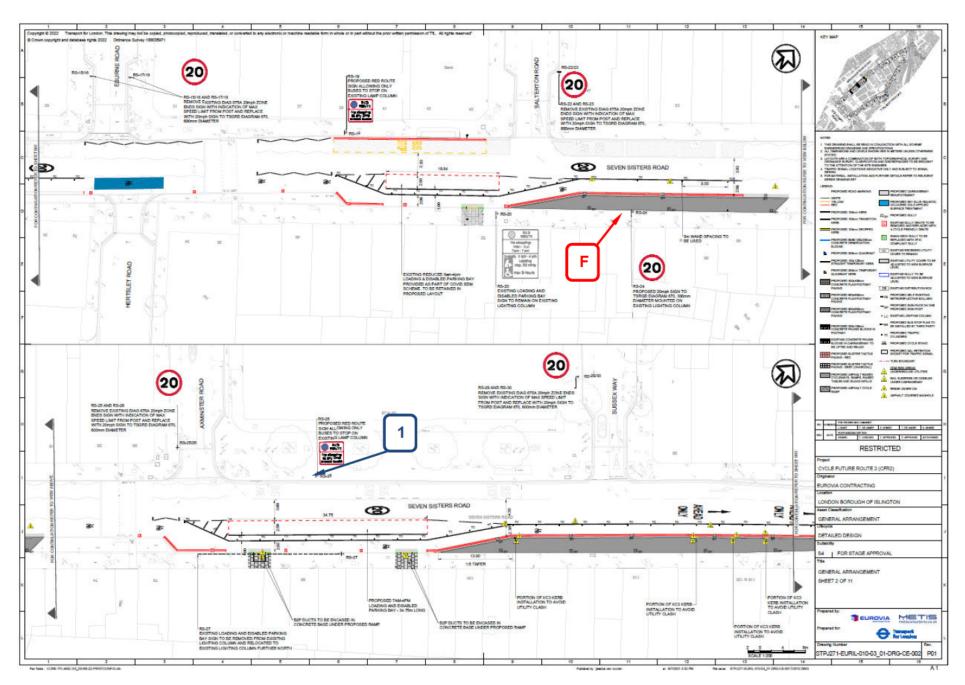
# **APPENDIX B**

# **Problem Locations**

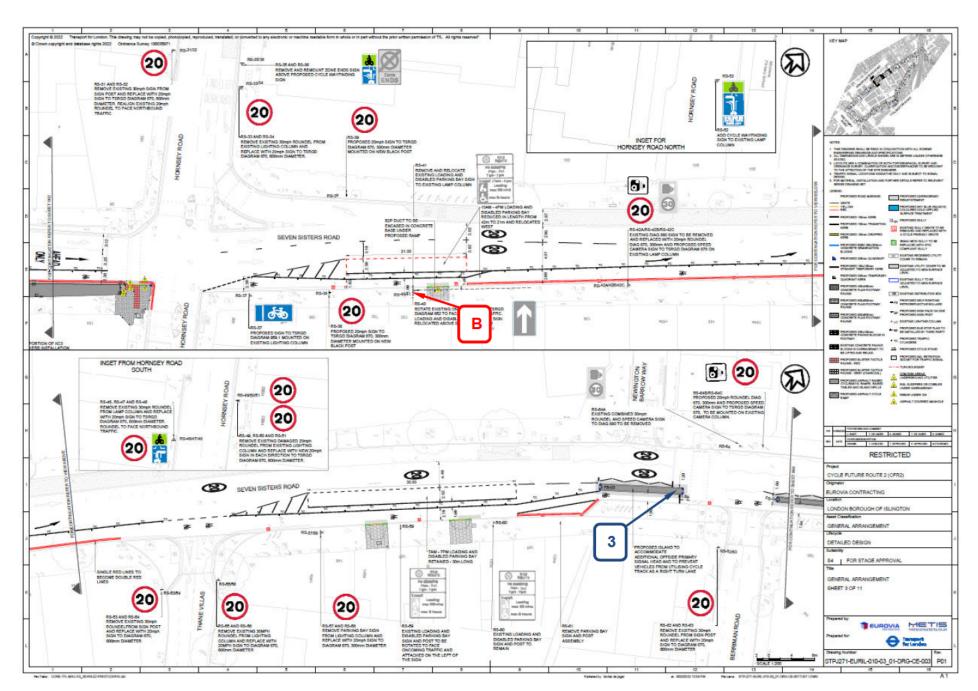
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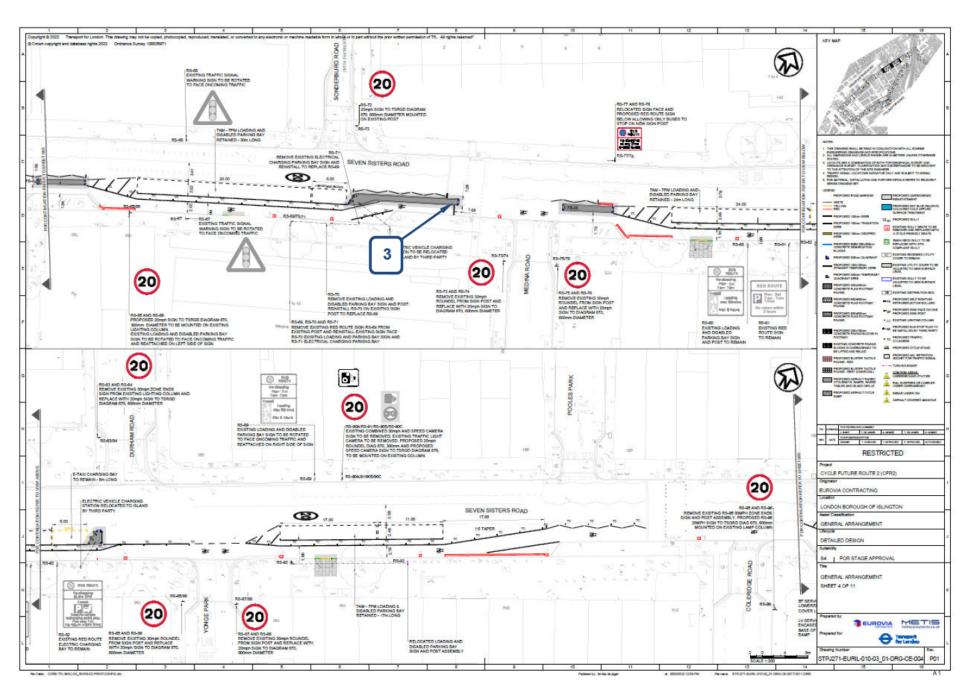
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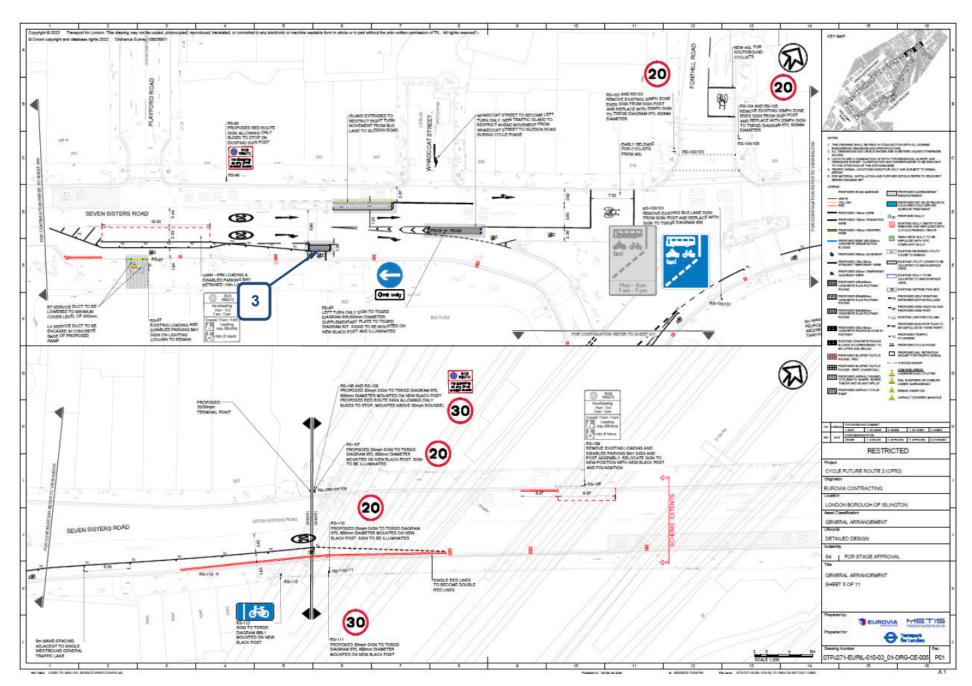
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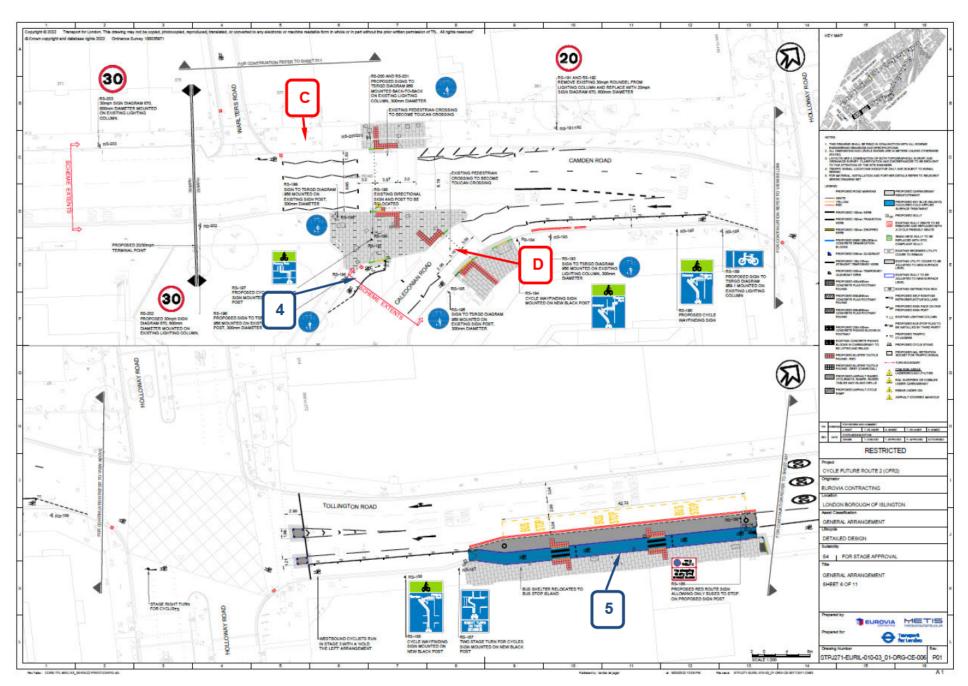
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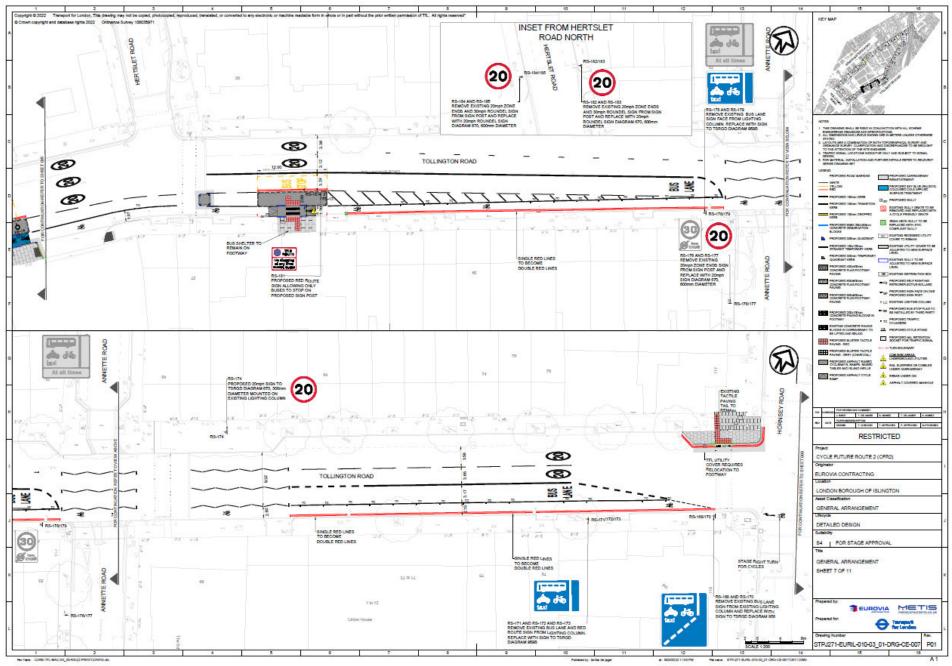
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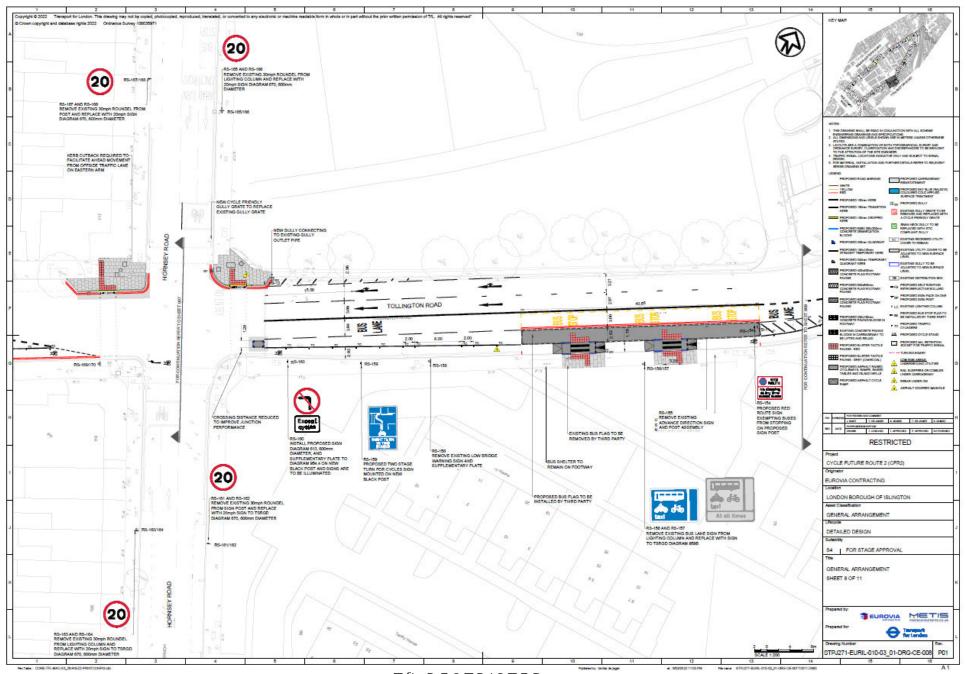


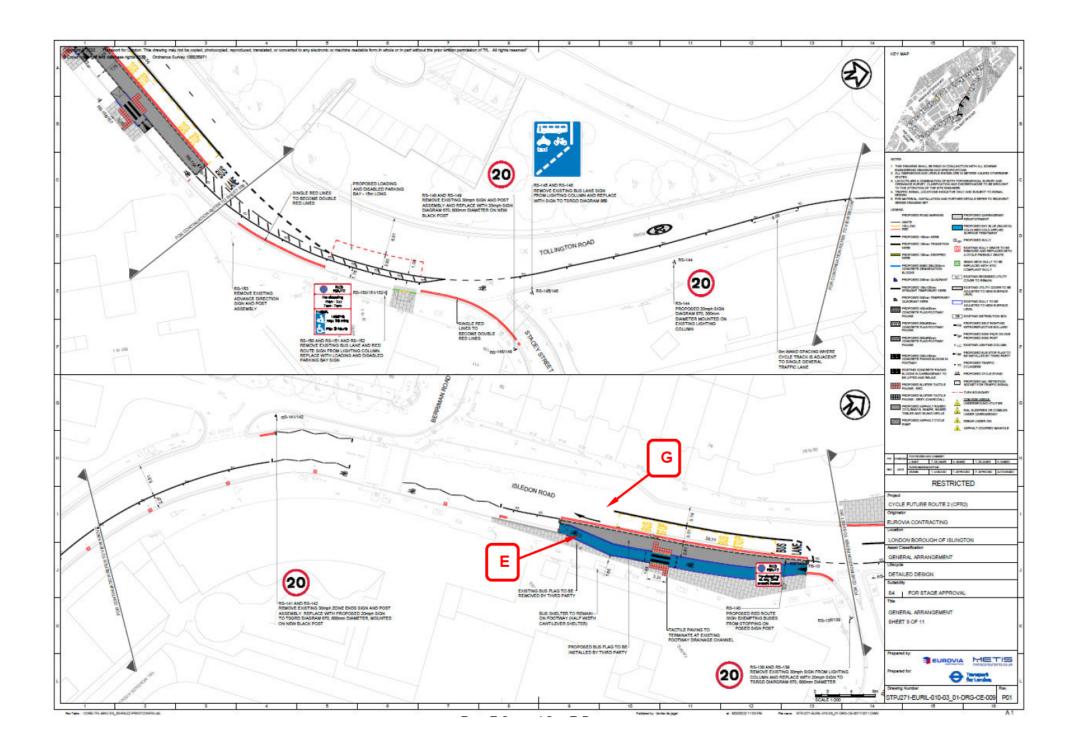
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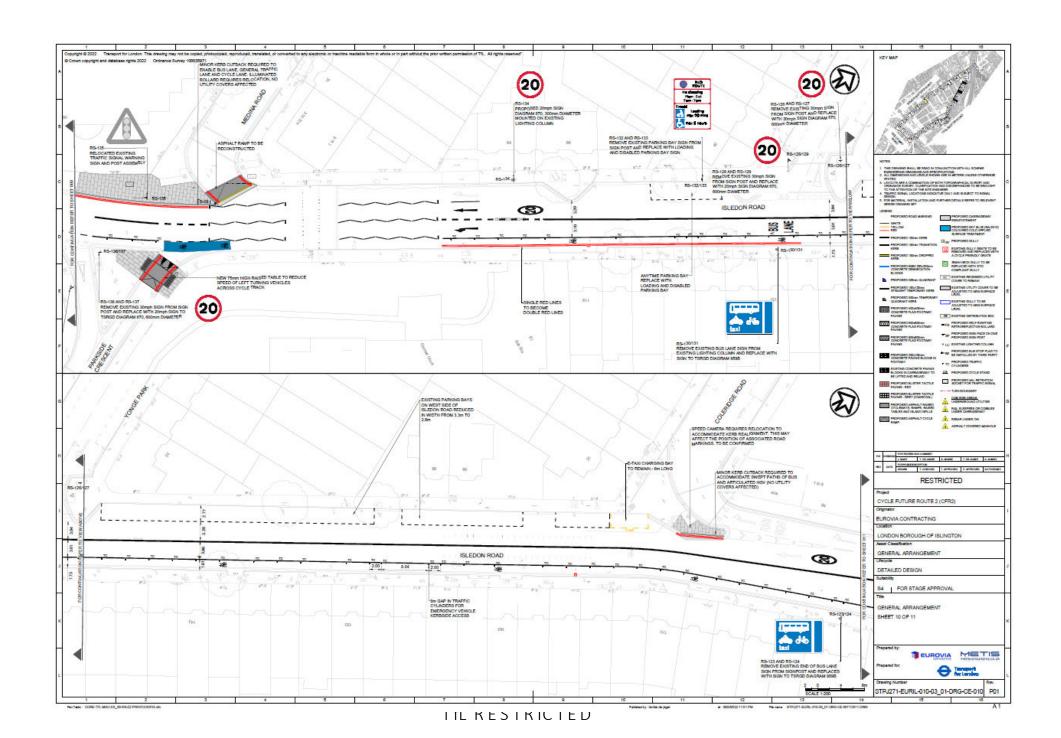


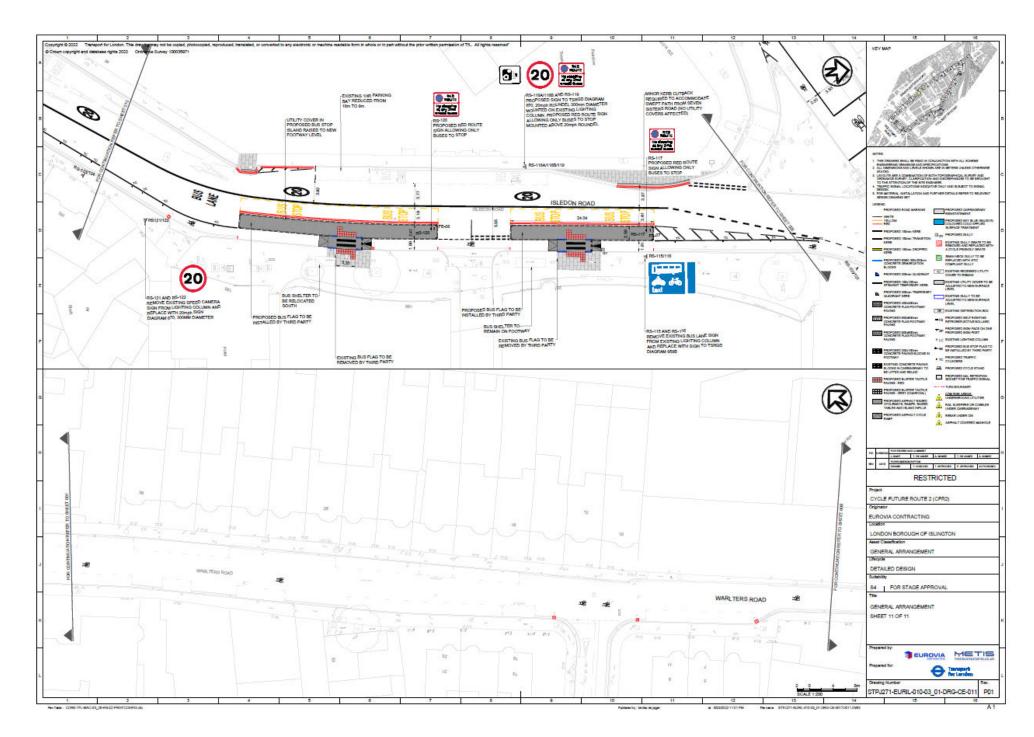
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