



**PERSIMMON HOMES
NORTH LITTLEHAMPTON PHASE 1
TODDINGTON LANE S278 WORKS**

AMENDED IDR ARRANGEMENTS

**ROAD SAFETY AUDIT RESPONSE
REPORT TO STAGE 1 RSA ADDENDUM**

MAY 2016

the journey is the reward

**PERSIMMON HOMES
NORTH LITTLEHAMPTON PHASE 1
TODDINGTON LANE S278 WORKS**

AMENDED IDR ARRANGEMENTS

**ROAD SAFETY AUDIT RESPONSE
REPORT TO STAGE 1 RSA ADDENDUM**

MAY 2016

Project Code:	PHLITTLE.2/IDR-DR
Prepared by:	AB
Approved by:	SW
Issue Date:	3 MAY 2016
Status:	1st ISSUE

**Persimmon Homes
North Littlehampton Phase 1
Toddington Lane S278 Works**

**Amended IDR Arrangements
Road Safety Audit Response Report to Stage 1 RSA Addendum**

List of Contents

Sections

1	Introduction	1
2	Response to Stage 1 Road Safety Audit Addendum	2
3	Conclusion	5

Appendices

APPENDIX A: Dwgs A/PHLITTLE.2/IDR-GA Rev D and A/PHLITTLE.2/IDR-TK Rev A

Authorisation Sheet

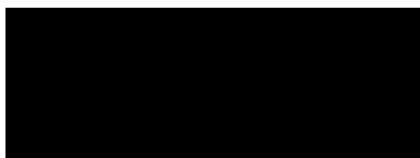
Project: North Littlehampton Development – Phase 2 Section 38/278
Works

Report Title: Stage 1 Road Safety Audit Addendum Response

Prepared By:

Name: Adrian Barnley

Signed:



Organisation: Mayer Brown Limited

Date: 03/05/2016

1 Introduction

- 1.1 Mayer Brown Limited has been appointed by Persimmon Homes to design the Phase 1 S278 Highway Improvement Scheme associated with the North Littlehampton Development.
- 1.2 This report results from a Stage 1 Road Safety Audit Addendum Report dated April 2016, undertaken by Mayer Brown's 'in-house' Road Safety Audit Team, associated with the amended IDR and B3/B5 arrangements.

2 Response to Stage 1 Road Safety Audit Addendum

AUDIT ISSUES – GENERAL

2.1 PROBLEM 2.1

Location: General along the IDR

Summary: On-street parking potentially blocking sightlines

From the indicative residential layout information provided, it appears there will be a considerable number of dwellings fronting onto the IDR. These are likely to attract on-street parking by residents and visitors directly in front of the properties, so parked vehicles could block sightlines and obstruct manoeuvring space to and from the side road junctions and private car park accesses. This would increase the risk of emerging vehicles being hit by passing traffic.

RECOMMENDATION

The highway authority should monitor the situation after occupation of the dwellings and introduce parking restrictions if and where necessary.

DESIGNER'S RESPONSE

Accepted. Highway Authority to monitor parking of vehicles on the IDR following occupation of the dwellings.

2.2 PROBLEM 2.2

Location: Toddington Lane / IDR junction

Summary: Excessive junction radius

The drawing shows a 20m kerb radius on the west side of the junction. This could encourage relatively high speeds by left-turning vehicles, particularly cars and light vans, and it increases the width of carriageway to be traversed by pedestrians crossing the junction; both of these factors increase the danger to pedestrians from turning vehicles. Whilst it appears from the traffic flow information supplied in the Audit Brief that a significant number of HGVs will use this junction, it is clear from the swept path plots that the radius could be reduced without causing them difficulty.

RECOMMENDATION

- i. Reduce the kerb radius as far as possible consistent with providing adequate turning space for the largest vehicles regularly using the junction.
- ii. Inset the pedestrian crossing point slightly further into the junction (c.1.5m) to reduce the crossing width for pedestrians, particularly those with a disability, and increase their visibility to/from southbound vehicles approaching on the IDR.

DESIGNER'S RESPONSE

- (i) Accepted. Kerb radius reduced, as recommended, by the provision of a compound kerb.
- (ii) Accepted. Crossing point inset 1.5m further as recommended.

2.3 PROBLEM 2.3

Location: All side road junctions with IDR

Summary: Trees obstructing visibility

A considerable number of trees is shown within the verges on both sides of the IDR, some of which are within designated junction visibility splays. Whilst we note that the trees are intended to be of relatively small girth and have clear stems, they will inevitably have some impact on sightlines; this effect will be greater the closer they are to the junction and will increase with time as the trees grow. This will increase the risks of vehicles emerging from the side roads being struck by passing traffic, and of cyclists approaching a junction along the shared path being concealed from drivers intending to turn into the side road.

RECOMMENDATION

Do not plant trees within the visibility splays.

DESIGNER'S RESPONSE

Accepted. 16 no. trees within visibility splays removed as recommended.

Or

Rejected. Exception required from WSCC to retain the proposed trees.

2.4 **PROBLEM 2.4**

Location: All side road junctions with IDR

Summary: Discontinuous shared paths increasing risk to cyclists

Whilst the shared path provision should increase cyclists' safety by removing them from the carriageway, this benefit is likely to be largely nullified by the frequent interruption of the route by side road junctions where cyclists are not given priority; in these circumstances, although children may cycle along the path, confident cyclists are more likely to remain in the carriageway to avoid the possible need to keep stopping. In addition, the side road junctions are drawn with 8m kerb radii, which will not significantly reduce turning vehicle speeds to maximise the safety of pedestrians and cyclists. In accordance with Manual for Streets advice it would be better in most cases to keep kerb radii to a minimum and accept that larger vehicles will occasionally need to cross into the opposing lane of the IDR to make the turn. The Auditors have not been provided with details of the individual development areas to be served off each side road, but in some cases (i.e. if only a small number of dwellings is proposed) it may be appropriate to provide access in the form of a dropped kerb and footway crossing rather than a kerbed bellmouth. Alternatively it may be appropriate to provide entry treatments such as entry ramps, raised tables and/or set back Give Way markings.

RECOMMENDATION

Reconfigure the side road junction treatment (providing cycle priority if possible) to improve continuity of the cycle route.

DESIGNER'S RESPONSE

Accepted. Junction radii were initially indicated to be 6m but WSCC requested via comments dated 11 Feb 2015 that we consider increasing them. Subsequently, the radii were increased to 8m. However, the radii have been reduced back to a minimum of 6m as recommended. As set out in the Auditor's summary, this will require larger vehicles such as the occasional refuse vehicle to cross into the opposing lane to make the turn, although this would have happened with the 8m radius as well.

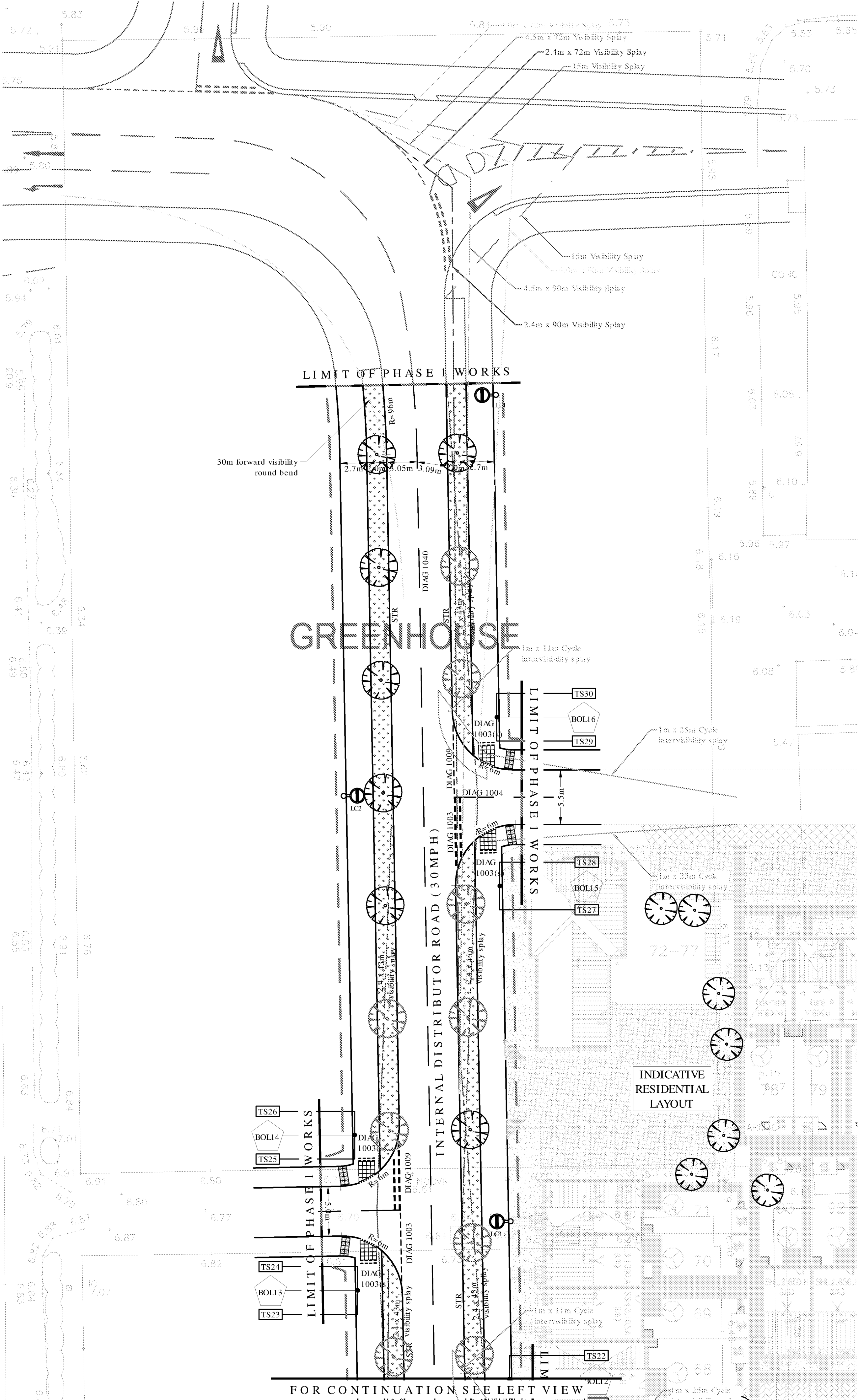
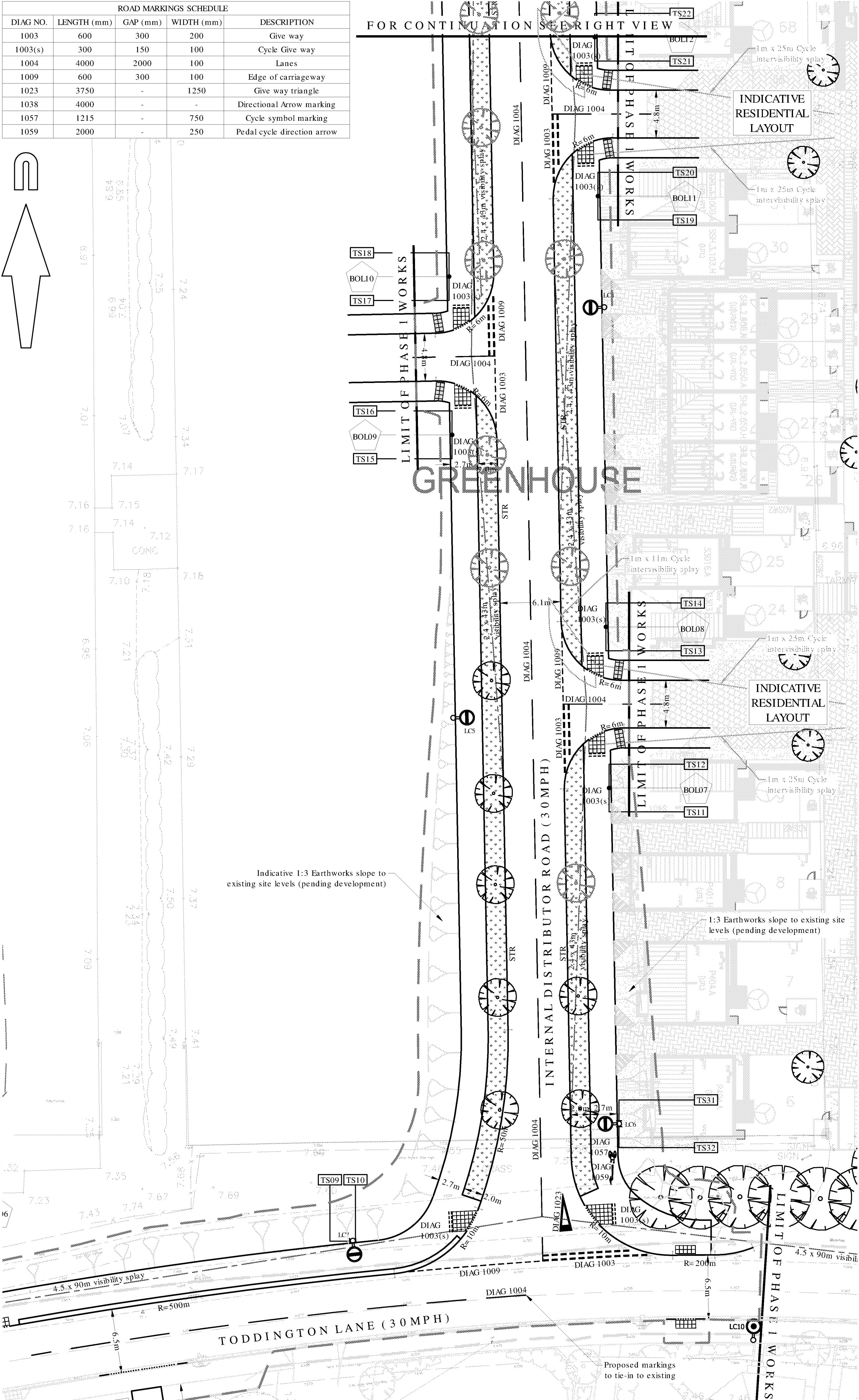
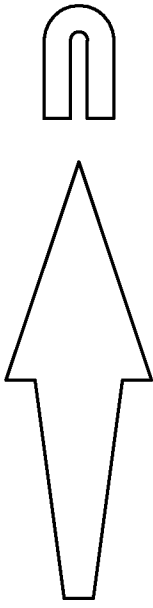
- 2.5 In consideration of the above, the amended general arrangement drawing numbered **A/PHLITTLE.2/IDR-GA Rev D** and tracking drawing numbered **A/PHLITTLE.2/IDR-TK Rev A** are included at **Appendix A**.

3 Conclusion

- 3.1 This report has considered the problems raised by the Road Safety Audit. The problems highlighted have been addressed as indicated in the Designer's Responses above. As a result, the Designer sees no reason why the proposed works should not progress to a full detail design submission following approval from the Highway Authority.

**APPENDIX A: Dwgs A/PHLITTLE.2/IDR-GA Rev D and A/PHLITTLE.2/IDR-TK
Rev A**

ROAD MARKINGS SCHEDULE				
DIAG NO.	LENGTH (mm)	GAP (mm)	WIDTH (mm)	DESCRIPTION
1003	600	300	200	Give way
1003(s)	300	150	100	Cycle Give way
1004	4000	2000	100	Lanes
1009	600	300	100	Edge of carriageway
1023	3750	-	1250	Give way triangle
1038	4000	-	-	Directional Arrow marking
1057	1215	-	750	Cycle symbol marking
1059	2000	-	250	Pedal cycle direction arrow



© Mayer Brown Limited Copyright. The drawings, information and data recorded in this document ("the information") is the property of Mayer Brown. This document and the information are solely for the use of the authorized recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than which it was supplied by Mayer Brown. Mayer Brown makes no representation, undertakes no duty and accepts no responsibilities to any third party who may use or rely upon this document or the information.

AI ORIGINAL

© Crown copyright, all rights reserved. 2012. Licence number 100002189.

KEY

- EXISTING KERB LINE
- PROPOSED KERB/EDGING LINE
- PROPOSED DROPPED KERB
- DIAG 1234 PROPOSED ROAD MARKING
- PROPOSED BUFF COLOURED TACTILE PAVING
- PROPOSED CORDUROY HAZARD WARNING PAVING
- PROPOSED WSCC S278/38/17 - TYPE 2 BOLLARD
- PROPOSED BOLLARD REFERENCE
- LIGHTING COLUMN LOCATIONS INDICATIVE AND SUBJECT TO DETAILED DESIGN
- PROPOSED EARTHWORKS
- PROPOSED SIGN
- PROPOSED SIGN REFERENCE
- PROPOSED TREES TO BE CARPINUS BETULUS 'FRANS FONTAINE' EXTRA HEAVY STANDARD - 14-16CM GIRTH 425-600CM HEIGHT - 210CM MIN CLEAR STEM - ROOTBALLED
- TREES WITHIN VISION SPAYS TO BE OMITTED OR SUBJECT TO WSCC EXCEPTION
- PROPOSED VISIBILITY SPAY
- PROPOSED LIMIT OF WORKS
- ASSUMED LIMIT OF HIGHWAY TAKEN FROM WSCC RECORD PLANS
- 2m x 2m PEDESTRIAN INTERVISIBILITY SPAYS
- PROPOSED WILDFLOWER GRASSLAND TO BE SEEDED WITH BUTTERFLY AND HONEYBEE MIX (WFG18) FROM GERMAL SEEDS OR SIMILAR APPROVED

NOTES

1. RGP Layout taken from RGP drawing 2014/1994/180.
2. Where existing road markings do not comply with the proposed layout the method of removal of the existing road markings shall be agreed with WSCC by the Contractor.
3. Signs being installed on Street Lighting Columns should be placed on neoprene banding to protect columns from damage.
4. B3/BS site layout taken from Bovis drawing LITL-04 received 27/04/2016

FOR INFORMATION NOT FOR CONSTRUCTION

D	Trees amended & Toddington Lane junction and Development access junctions amended following Stage 1 Road Safety Audit Addendum Report. (OIN)	AB	03/05/2016
C	Cycle intervisibility spays shown. (OIN)	AB	29/04/2016
B	Indicative Residential layout and pedestrian intervisibility spays added. (OIN)	AB	27/04/2016
A	Trees and tree types added. (OIN)	AB	30/03/2016

rev.	amendment	checked	date
------	-----------	---------	------



mayer brown

Mayer Brown Limited
Leon House Oriental Road Woking Surrey GU22 8AR
Telephone 01483 750 508 Fax 01483 750 437
wokingoffice@mayerbrown.co.uk www.mayerbrown.co.uk

client

PERSIMMON HOMES

project

NORTH LITTLEHAMPTON PHASE 1
TODDINGTON LANE S278 WORKS

scale

1:250

drawn by

OJN

checked by

AB

date

MARCH 2016

cad file

IDR-GA-D.DWG

title

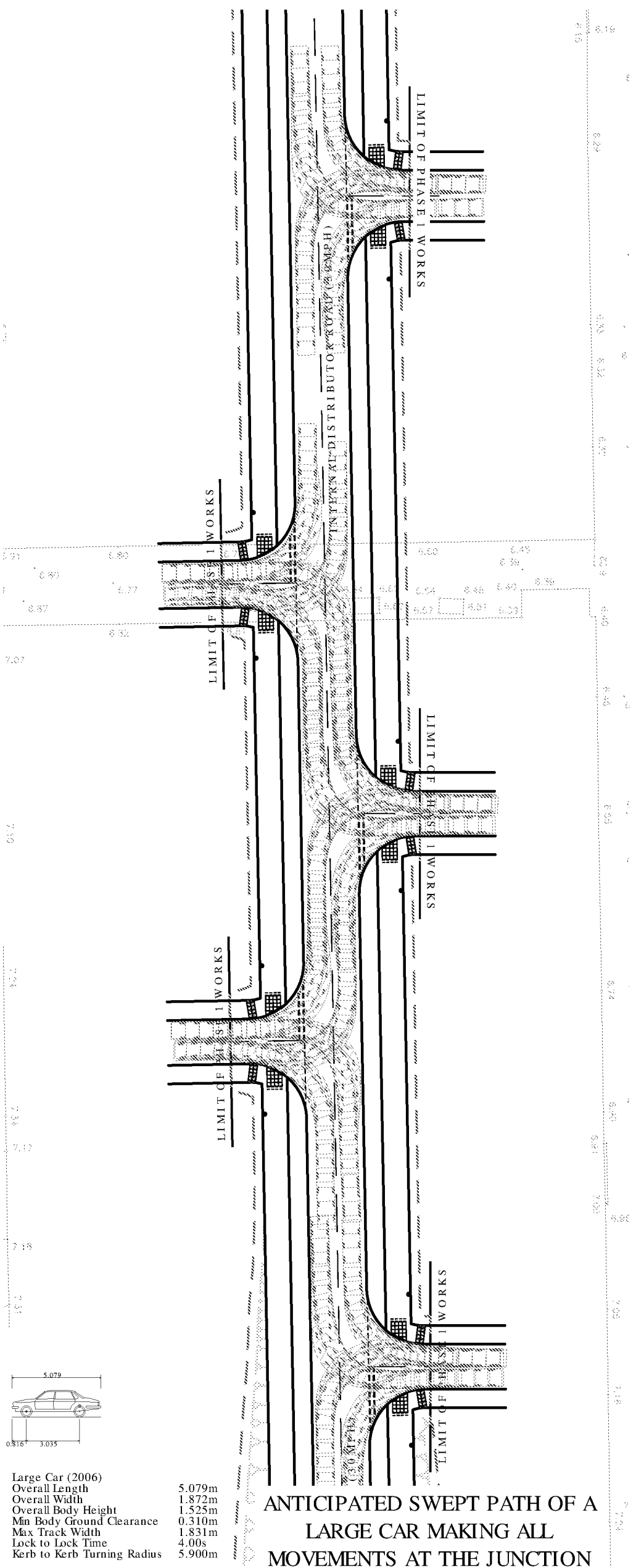
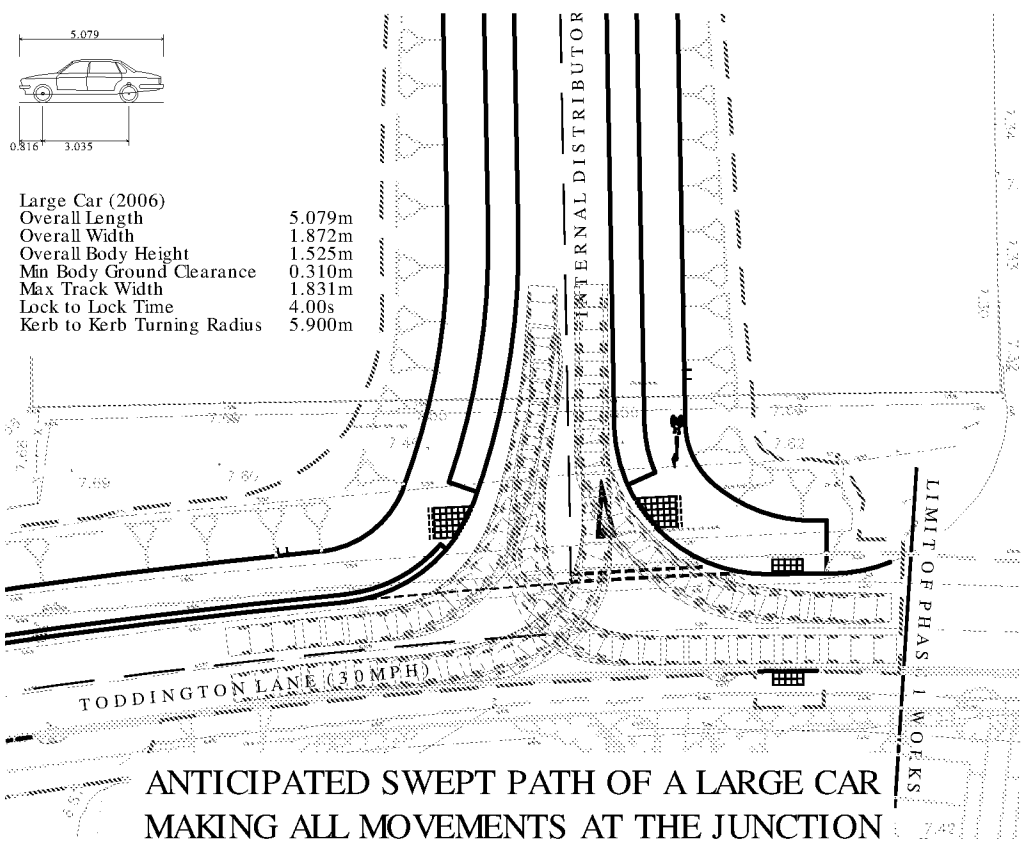
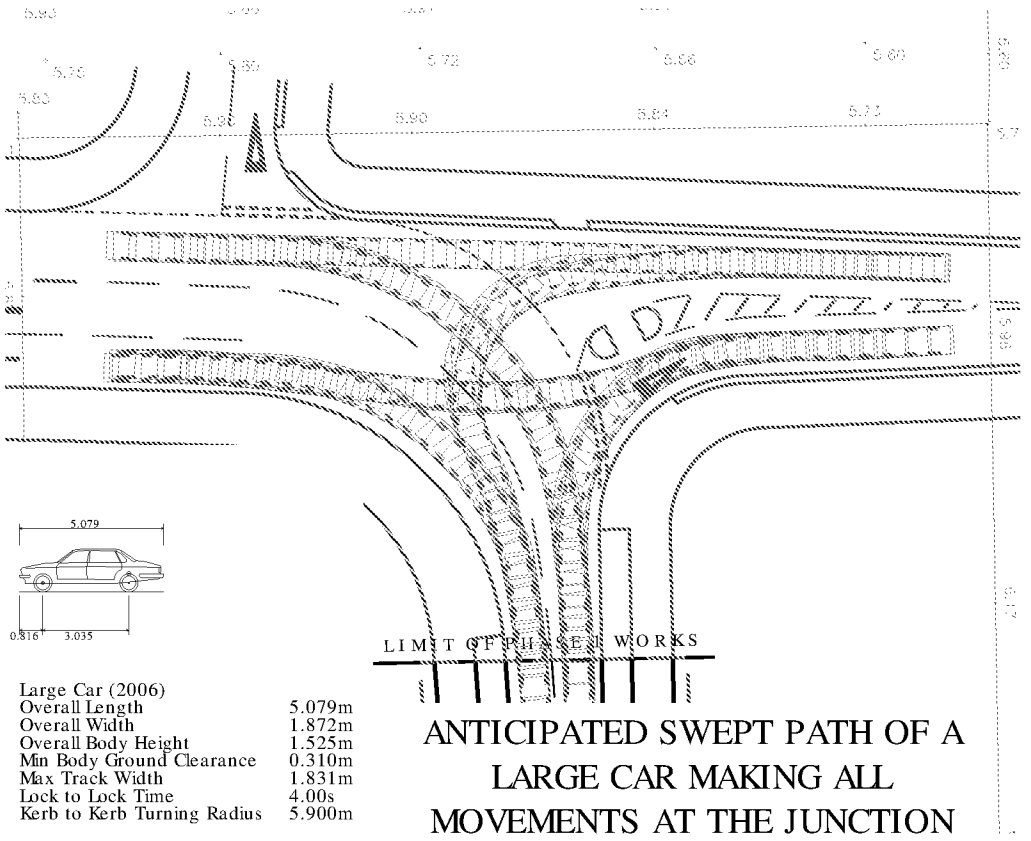
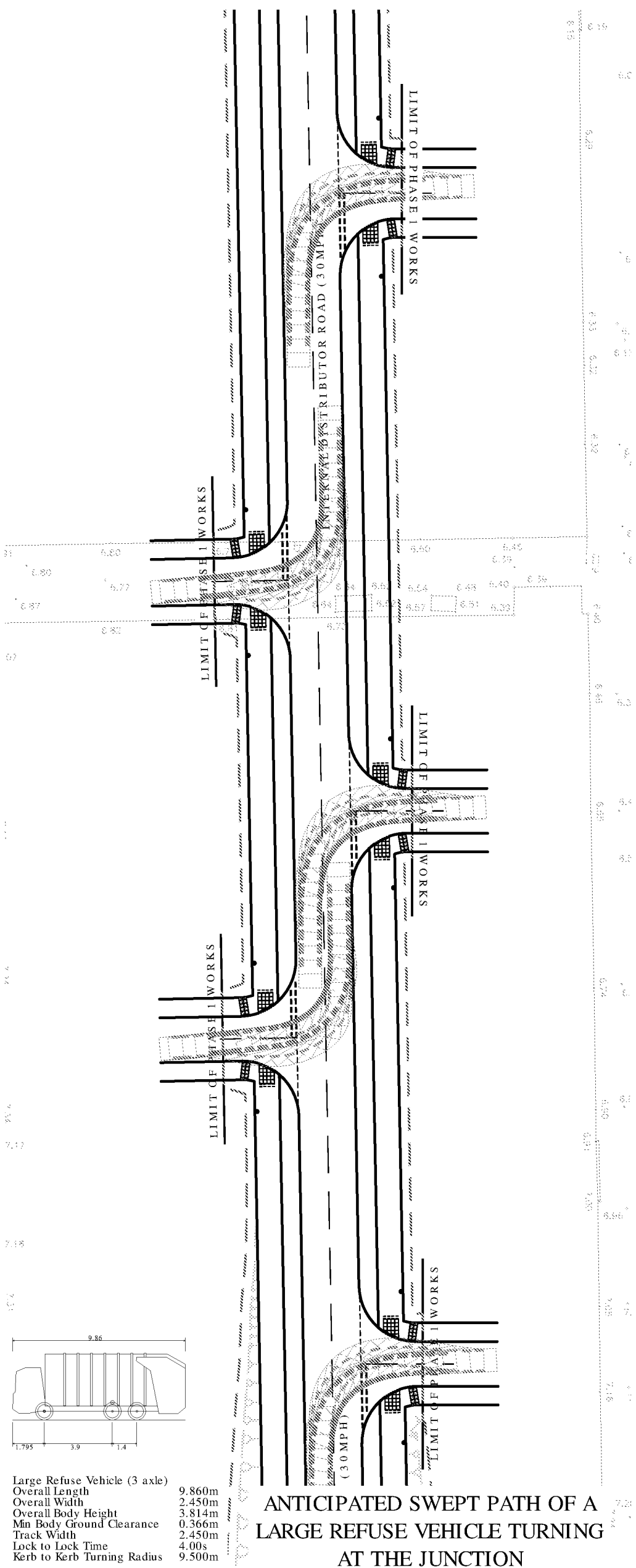
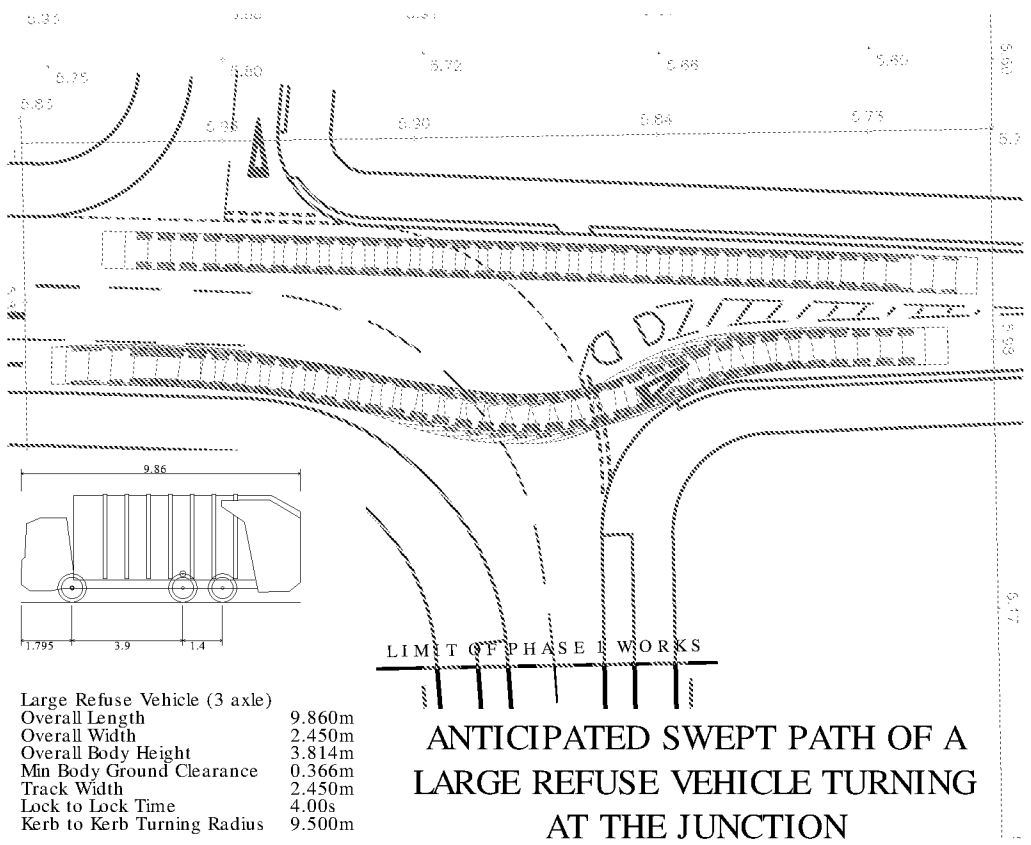
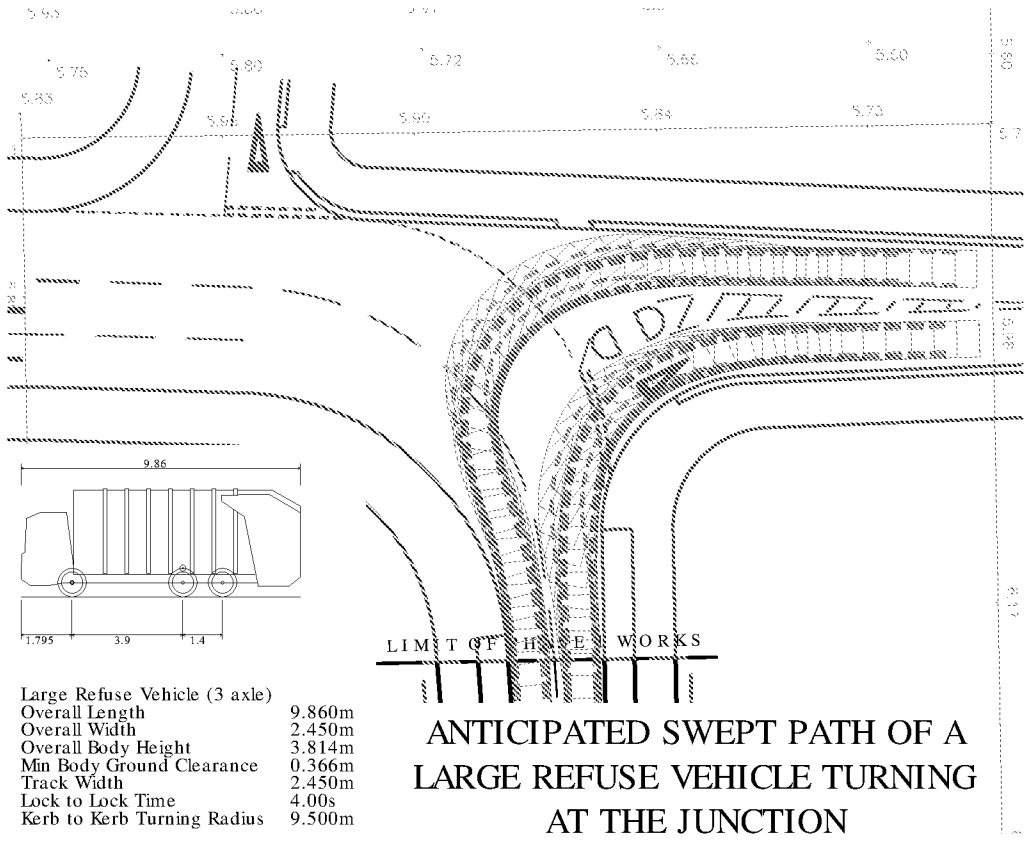
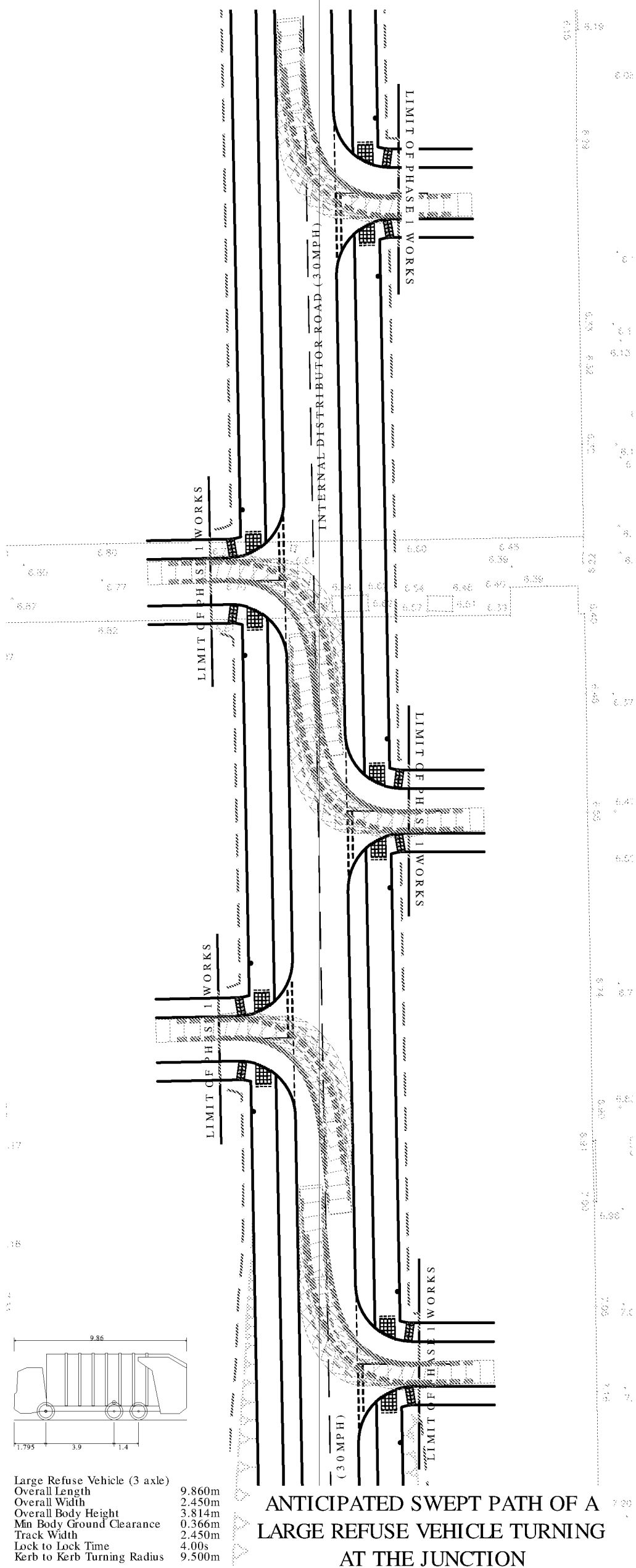
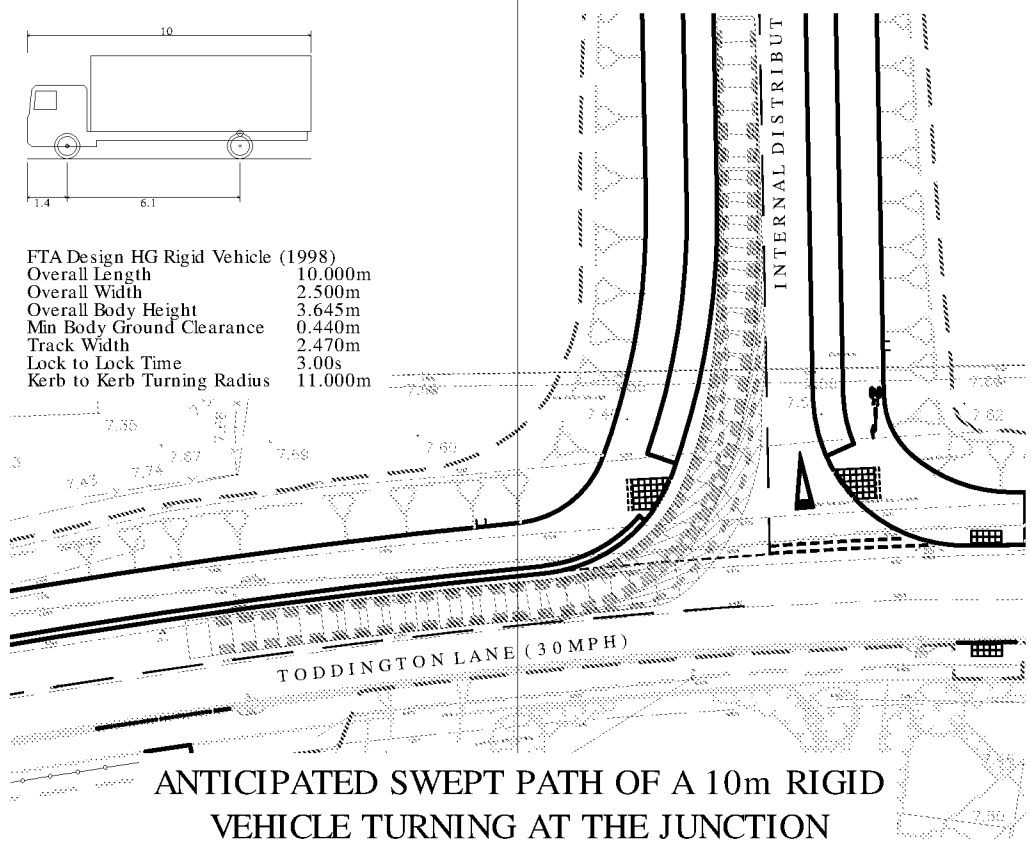
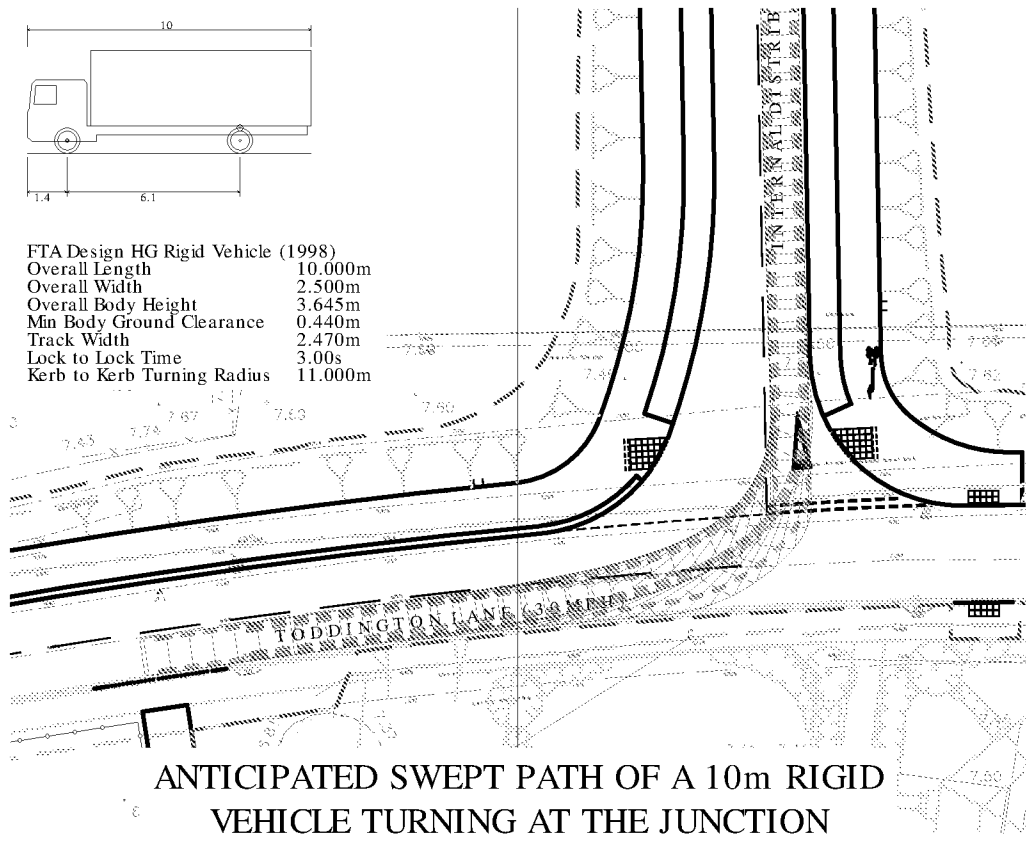
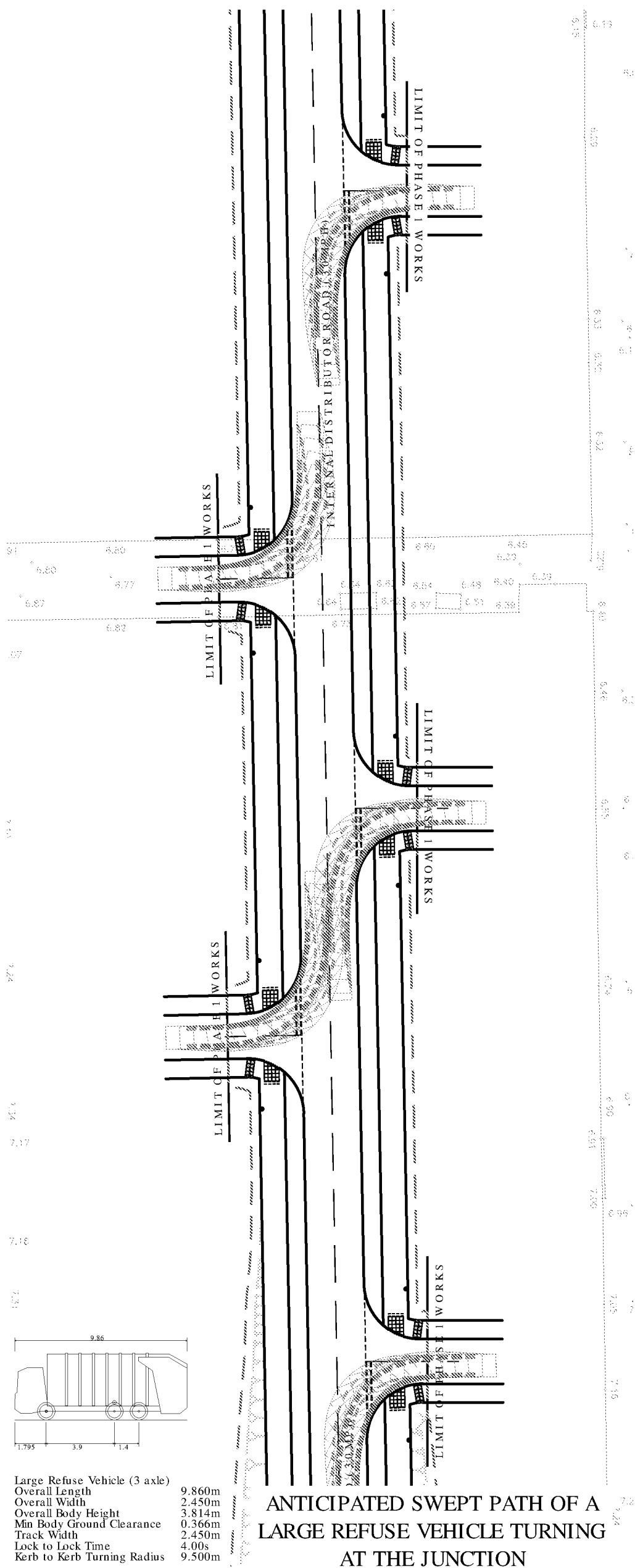
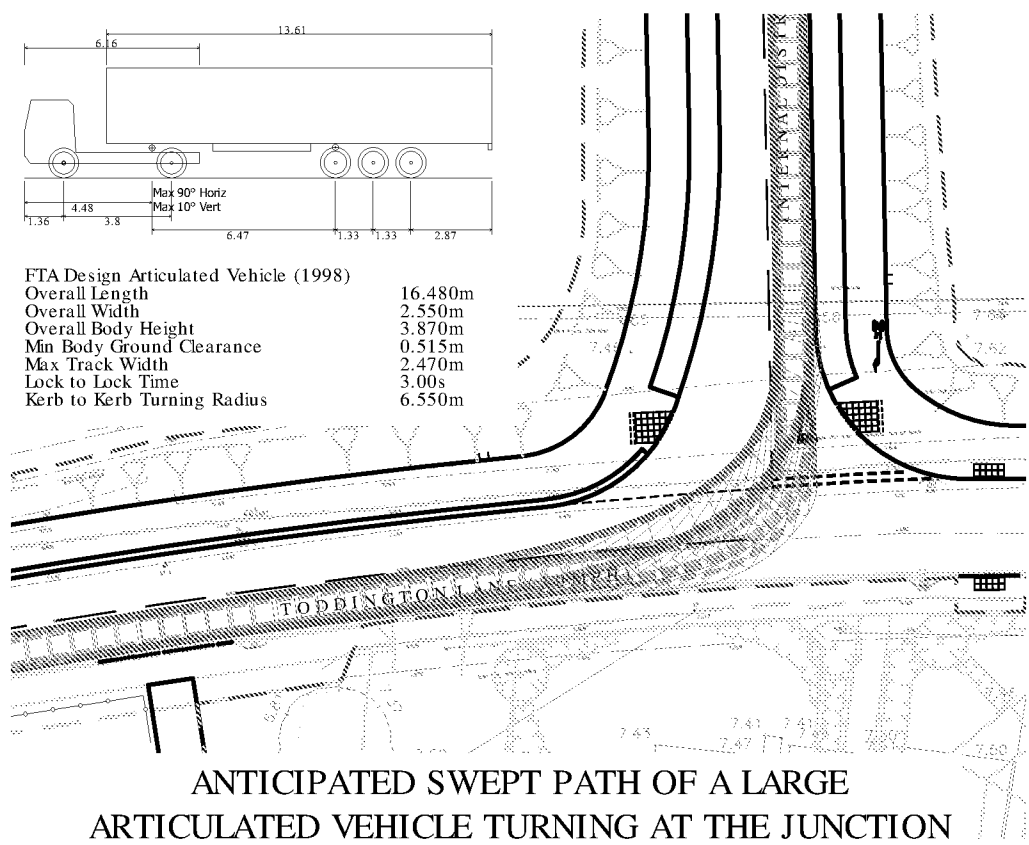
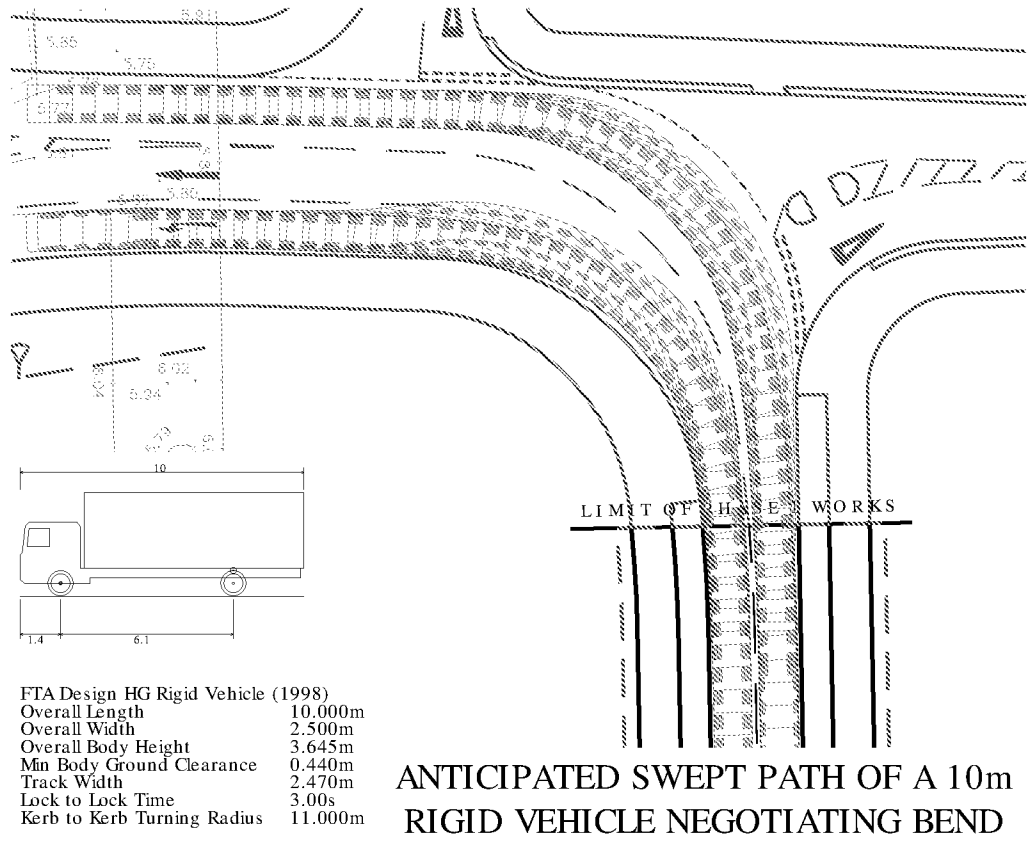
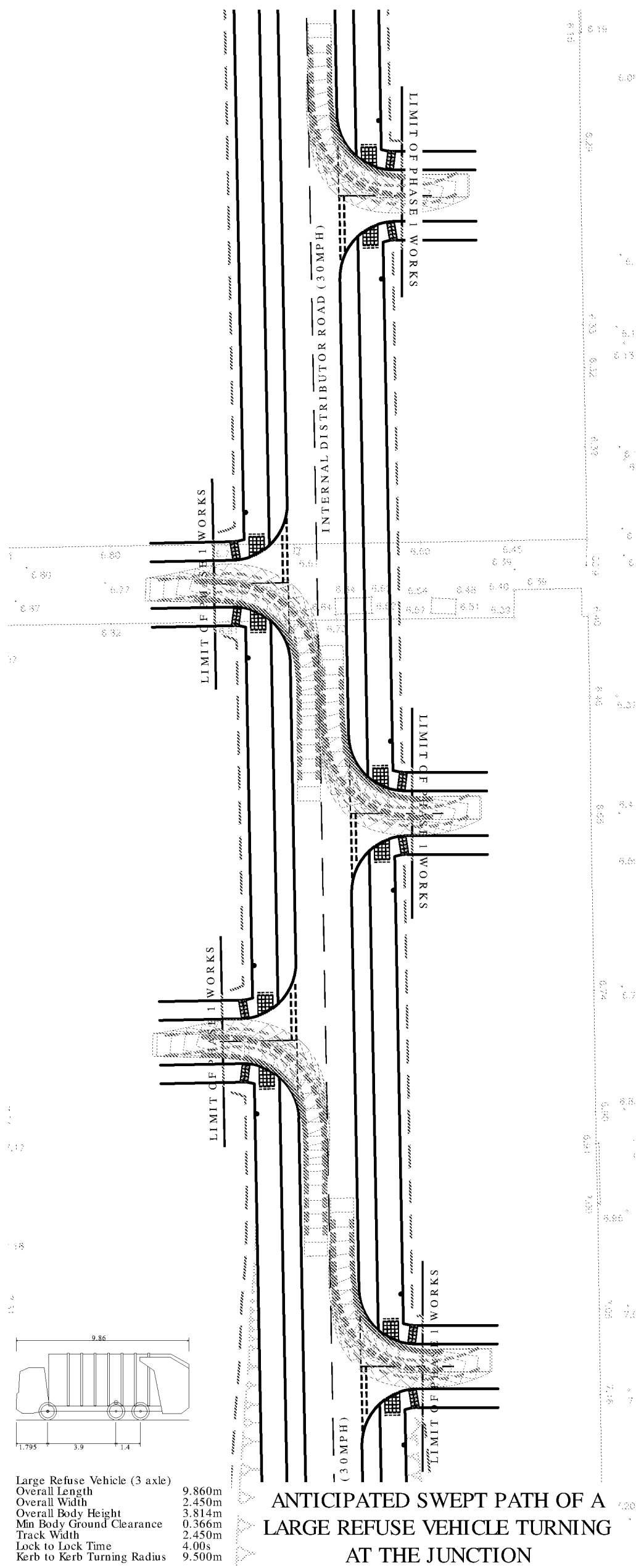
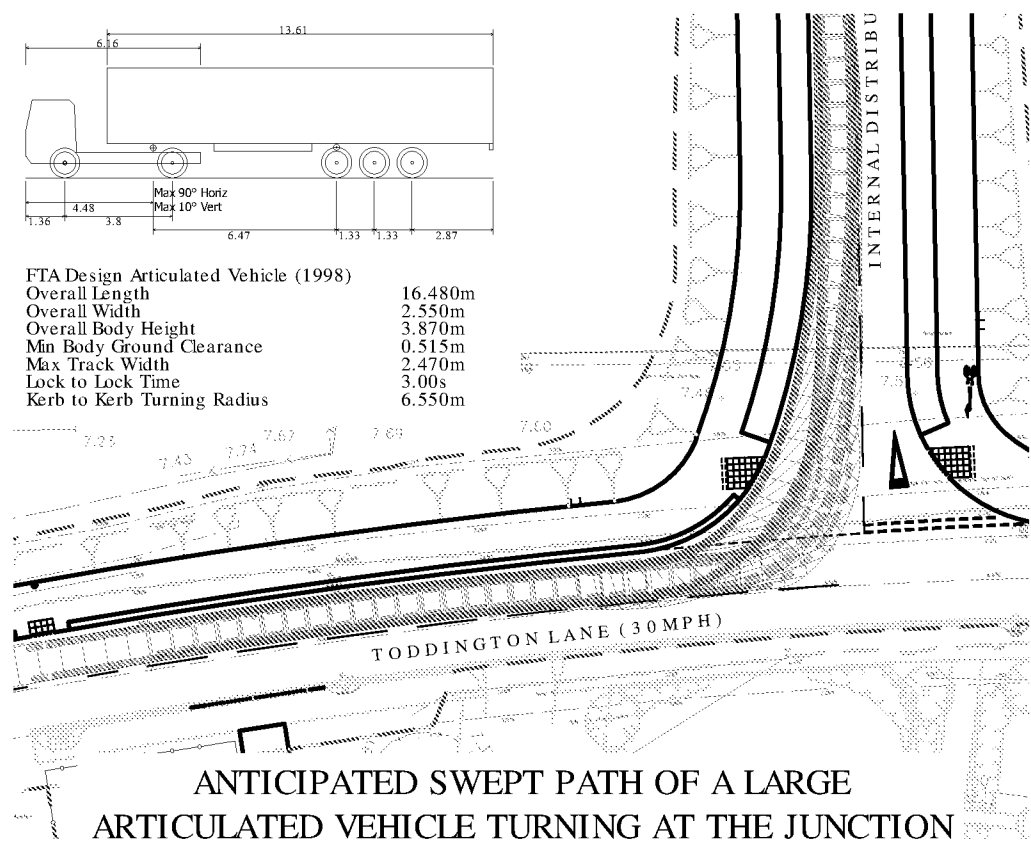
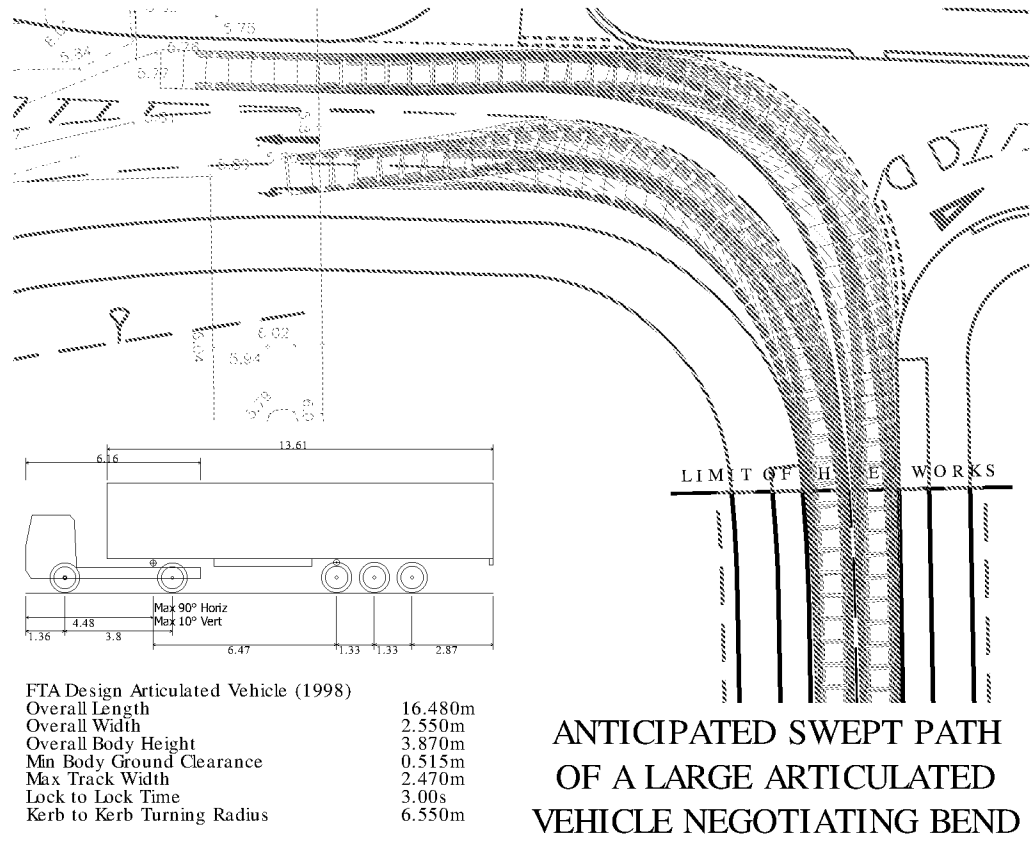
PROPOSED S278 HIGHWAY WORKS
AMENDED IDR GENERAL ARRANGEMENT DRAWING

drawing number

A/PHLITTLE.2/IDR-GA

rev.

D



© Mayer Brown Limited Copyright. The drawings, information and data recorded in this document ("the information") is the property of Mayer Brown. This document and the information are solely for the use of the authorized recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than which it was supplied by Mayer Brown. Mayer Brown makes no representation, undertakes no duty and accepts no responsibilities to any third party who may use or rely upon this document or the information.

AI ORIGINAL

© Crown copyright, all rights reserved. 2012. Licence number 100002189.

FOR INFORMATION
NOT FOR CONSTRUCTION

A		Toddington Lane Junction and Development access junctions amended. (OIN)	AB	03/05/2016
---	--	--	----	------------

rev.	amendment	checked	date
------	-----------	---------	------

mb
mayer brown

Mayer Brown Limited
Leon House Oriental Road Woking Surrey GU22 8AR
Telephone 01483 750 508 Fax 01483 750 437
wokingoffice@mayerbrown.co.uk www.mayerbrown.co.uk

client	PERSIMMON HOMES		
project	NORTH LITTLEHAMPTON PHASE 1 TODDINGTON LANE S278 WORKS		
scale	1:500	drawn by	OJN
		checked by	AB
date	MARCH 2016	cad file	IDR-TK-A.DWG
title	PROPOSED S278 HIGHWAY WORKS AMENDED IDR SWEEP PATH DRAWING		
drawing number	A/PHLITTLE.2/IDR-TK		rev.
			A

