

Appendix I – RTS Section B – Option 5 - St Andrews Avenue - B355363A-RTS-HGN-SB-RP-005



RTS Section B - Option 5

St Andrews Avenue

July 2019

Contents

1	Introduction	4
2	Overview	4
2.1	Route description	4
2.2	Constraints	5
3	Conclusion.....	5
	Appendix A – Stage 1 Section B Options Drawing – B355363A-RTS-HGN-SB-SK-001	7
	Appendix B – Section B Option 5 St Andrews Avenue Cross Section Drawing – B355363A-RTS-HGN-SB-SK-006	9

1 Introduction

Jacobs have been commissioned by Essex County Council (ECC) to investigate the feasibility of providing a new Rapid Transit System (RTS) between the proposed Tendering Colchester Border Garden Community TCBGC (part of North Essex Garden Community), Colchester Town Centre, and the existing Colchester Park and Ride site north of the A12 Junction 27.

The RTS is part of a Housing Infrastructure Funding (HIF) bid that also included A120/ A133 Link Road. The bid was submitted by ECC in March 2019.

The RTS route comprises 4 Sections (Section A, B, C & D).

Section A runs between Colchester Park and Ride terminal north A12 Junction 27 and North Hill, whilst Section B runs between North Hill and University of Essex through Colchester Town Centre. Section C covers the area between Greenstead Roundabout and the proposed North Essex Garden Community.

This note considers the feasibility of Section B Option 5. It looks at the infrastructure along the route and the existing constraints. Based on the RTS requirements and objectives it assesses the practicality of this option.

An overview of all 5 options for Section B have been provided in Appendix A – Stage 1 Section B Options Drawing – B355363A-RTS-HGN-SB-SK-001

2 Overview

2.1 Route description

The route option is predominantly urban single carriageway, with street-lighting and a 30 or 40mph speed limit throughout.

The proposed route for Option 5 is 4.2km long and requires the construction of new carriageway/infrastructure to provide an uninterrupted route.

A typical cross section for this option has been provided in Appendix B – Section B Option 5 St Andrews Avenue Cross Section Drawing – B355363A-RTS-HGN-SB-SK-006.

The route runs from North Hill through Colchester Town Centre to Essex University via High Street, East Hill, Ipswich Road and the A133 St Andrews Avenue. The route requires specific additional infrastructure:

- Bus priority measures on the approaches to Greenstead Roundabout on the A133 St Andrews Avenue, and
- Bus lanes running “through” Greenstead Roundabout.

The North Hill and High Street elements of this route are already subject to dedicated bus facilities, these could be utilised for RTS if required.

The route follows the High Street, East Hill and East Street, then heading north to the A133/A1232 Ipswich Road junction. It is not envisaged that any additional RTS-dedicated infrastructure along these roads will be possible due site constraints, except for potential bus stops in strategic locations.

The route then heads east along A133 St Andrews Avenue towards the University. Additional infrastructure/signals will be required for eastbound RTS vehicles approaching Greenstead Roundabout to give priority to the approach. Similar infrastructure will be required on the A133 Clingoe Hill for westbound vehicles approaching Greenstead Roundabout from the east. This is the

point at where the Rapid Transit Route passes closest to the Hythe Rail Station, and consideration should be given to providing a signed pedestrian route to/from the Station.

Bus lanes will be installed running east-west through Greenstead Roundabout, turning it in to a “throughabout”. These lanes will be restricted to RTS and authorised vehicles only. Careful signing and use of approach signals will be required to prevent the hazards associated with 4 arm mini-roundabouts.

The route will then head along A133 Clingoe Hill by means of dedicated RTS lanes outside of the existing road. This is detailed in Section C.

2.2 Constraints

The following are constraints that need to be considered when assessing the feasibility of the option.

There are few constraints to North Hill, the High Street and Queen Street. North Hill (southbound) is a Bus Lane enforced with cameras. All RTS vehicles currently entering the High Street have at least one stop before Queen Street. The eastbound junction from the High Street to Queen Street is an existing Bus Lane, also enforced by cameras. Consideration shall be given to a part-time peak hour RTS gate at the western end of the High St to restrict eastbound High St traffic to RTS vehicles (and authorised vehicles) only. All town centre routes can be assumed to have heavy pedestrian use.

Access to the George Hotel (accessed solely from the High Street) would need to be maintained, possibly by means of a short (25-30m) 2-way section of High Street being created between St Nicholas Street and Maidenburgh Street. It is envisaged that the removal of redundant parking spaces from the High Street will create sufficient space for 2-way running in this location. There is the potential for this route to be used by vehicles not accessing the George Hotel that wish to access the High Street. Parking and loading bans would possibly be required.

The option then runs east down East Hill and straight over the signalised junction at Brook Street, along East Road before heading north to the A133/A1232 Ipswich Road roundabout. Traffic flows here are expected to reduce in the future. The creation of RTS-only facilities on the High Street and other traffic restrictions will limit the amount of through traffic.

Westbound RTS vehicles will travel up East Hill and then turn on to the Queen Street/Osbourne Street/Head Street loop, heading back towards North Hill (northbound) and onward to the Colchester Park and Ride facility.

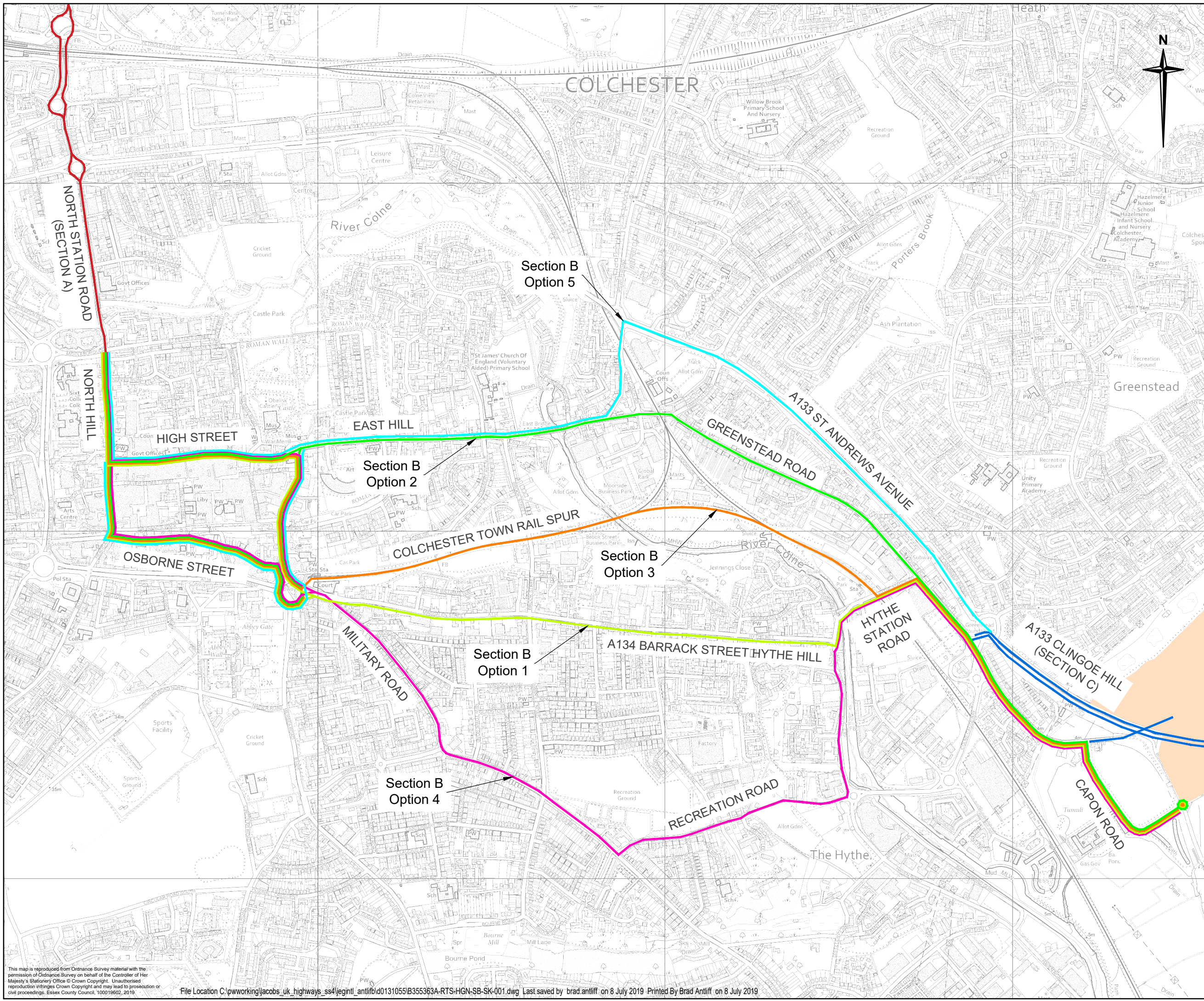
The route then runs east along A133 St Andrews Avenue, using existing carriageway between Ipswich Road roundabout and Greenstead Roundabout. On the eastbound approach to Greenstead Roundabout, a segregating lane and pre-signals will allow the RTS vehicles priority access to the roundabout. Similar pre-signals will be installed to the east of Greenstead Roundabout on the westbound A133. It is proposed to create two lanes that run directly through Greenstead Roundabout dedicated to RTS vehicles, running east-west and giving RTS vehicles easy access to the A133 in each direction. This section will have to be carefully designed/modelled in order to reduce any of the hazards associated with 4-arm mini-roundabouts, it is anticipated that the pre-signals will assist in this.

3 Conclusion

At this stage, this option presents the most opportunities and has the least constraints for infrastructure improvements to achieve the RTS objectives in Colchester. The route is direct and uses some of the more substantial, resilient roads within the various options. Whilst some residential roads are proposed to be used, they are in the minority and the additional RTS vehicles introduced are expected to be offset by the reduction in through traffic from the High Street.

This route avoids the already heavily-congested A134 and associated problems with on-street parking, deliveries etc., and makes use of the newly-refurbished, higher capacity Ipswich Road roundabout. This option also presents the most opportunities for implementing additional infrastructure and therefore should be taken forward to stage two of the design process and consultation.

Appendix A – Stage 1 Section B Options Drawing – B355363A-RTS-HGN-SB-SK-001



Notes

1. Do not scale.
2. Indicative layouts based on Ordnance Survey data only. Topographical surveys to be undertaken at a later design stage.
3. Routes and options shown are an overview only, with no certainty as to feasibility of implementation. Therefore this plan is not for public distribution.

Key


- Section A
- Section B Option 1
- Section B Option 2
- Section B Option 3
- Section B Option 4
- Section B Option 5
- Section C



Rev	Date	Description of revision	Drawn	Checked	Reviewed	Approved

DRAWING STATUS

FOR INFORMATION



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Tel: 0345 8037631 © Essex County Council

NORTH ESSEX RAPID TRANSIT SYSTEM

STAGE 1 SECTION B OPTIONS

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
PFW	PFW	PJN	PJN	MM
DATE	DATE	DATE	DATE	DATE
JUL 19	JUL 19	JUL 19	JUL 19	JUL 19

DRAWING UNITS U.N.O. SCALE AT A3 (420x297mm)
DIMENSIONS IN MILLIMETRES 1:10,000
LEVELS IN METRES

DRAWING No. **B355363A-RTS-HGN-SB-SK-001** REV. -

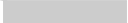







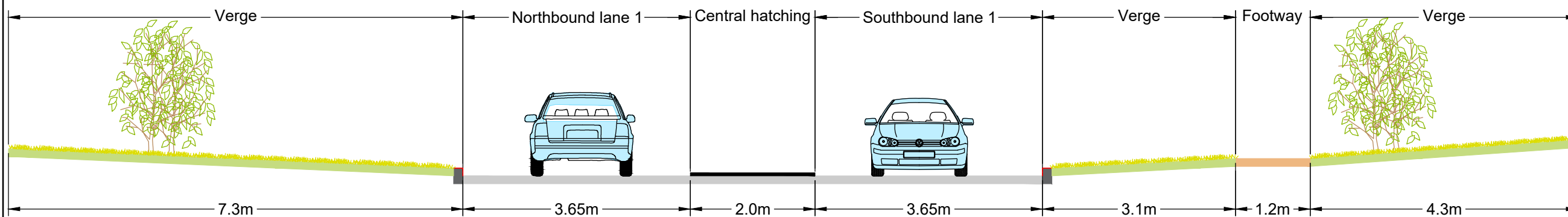

**Appendix B – Section B Option 5 St Andrews Avenue
Cross Section Drawing – B355363A-RTS-HGN-SB-SK-
006**

Notes

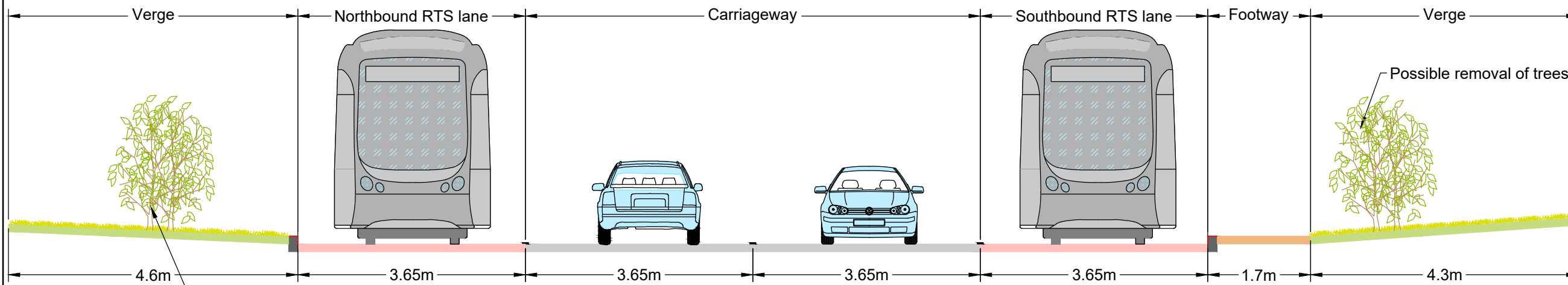
1. Do not scale.
2. Indicative trees

Key

-  Carriageway
-  Verge
-  Footway
-  RTS Lane
-  Road Markings
-  Kerb



Existing



Proposed

Rev.	Date	Description of revision	Drawn	Checked	Reviewed	Approved

DRAWING STATUS
FOR INFORMATION



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SCHEME TITLE
NORTH ESSEX RAPID TRANSIT SYSTEM

DRAWING TITLE
**SECTION B OPTION 5
ST ANDREW'S AVENUE
CROSS SECTIONS**

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
MC	MC	BA	PN	PK
DATE	DATE	DATE	DATE	DATE
JUL 19	JUL 19	JUL 19	JUL 19	JUL 19

DRAWING UNITS U.N.O. SCALE AT A3 (420x297mm)
DIMENSIONS IN MILLIMETRES N.T.S.
LEVELS IN METRES

DRAWING No. **B355363A-RTS-HGN-SB-SK-006** REV. -



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